

**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:** January 2020

**Obtained Date:** 12/2/20

**Publication Date:** 17/2/20

**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	27/01/2020	7/02/2020	8.8	44.2	45.6	71.3
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/01/2020	5/02/2020	2.0	2.0	2.0	2.0
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	27/01/2020	7/02/2020	30.7	44.3	45.1	56.3
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/01/2020	5/02/2020	3.0	3.0	3.0	3.0
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	31/01/2020	1/02/2020	10.4	44.7	35.6	329.7
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/01/2020	5/02/2020	1.5	1.5	1.5	1.5
10	Conductivity	µS/cm	Special Frequency 1	1	25/01/2020	5/02/2020	215	215	215	215
	Nitrate	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	2.24	2.24	2.24	2.24
	Nitrogen (Total)	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	3.5	3.5	3.5	3.5
	Phosphorus (Total)	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	0.29	0.29	0.29	0.29
	Reactive Phosphorus	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	0.02	0.02	0.02	0.02
12	Conductivity	µS/cm	Special Frequency 1	1	25/01/2020	5/02/2020	266	266	266	266
	Nitrate	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	14.4	14.4	14.4	14.4
	Nitrogen (Total)	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	18.7	18.7	18.7	18.7
	Phosphorus (Total)	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	1	1	1	1
	Reactive Phosphorus	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	0.8	0.8	0.8	0.8
14	Conductivity	µS/cm	Special Frequency 1	1	25/01/2020	5/02/2020	120	120	120	120
	Nitrate	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	1.94	1.94	1.94	1.94

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	Nitrogen (Total)	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	3.5	3.5	3.5	3.5
	Phosphorus (Total)	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	0.53	0.53	0.53	0.53
	Reactive Phosphorus	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	0.28	0.28	0.28	0.28
32	Conductivity	µS/cm	Special Frequency 1	1	25/01/2020	5/02/2020	178	178	178	178
	Nitrate	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	4.11	4.11	4.11	4.11
	Nitrogen (Total)	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	5.9	5.9	5.9	5.9
	Oil and Grease	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 1	1	25/01/2020	5/02/2020	7.42	7.42	7.42	7.42
	Phosphorus (Total)	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	0.44	0.44	0.44	0.44
	Reactive Phosphorus	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	0.05	0.05	0.05	0.05
23	Total Suspended Solids	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	3580	3580	3580	3580
	Conductivity	µS/cm	Special Frequency 2	1	25/01/2020	5/02/2020	198	198	198	198
	Nitrate	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	4.27	4.27	4.27	4.27
	Nitrogen (Total)	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	6.7	6.7	6.7	6.7
	Oil and Grease	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 2	1	25/01/2020	5/02/2020	7.61	7.61	7.61	7.61
	Phosphorus (Total)	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	0.71	0.71	0.71	0.71
24	Reactive Phosphorus	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	0.33	0.33	0.33	0.33
	Total Suspended Solids	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	1360	1360	1360	1360
	Conductivity	µS/cm	Special Frequency 2	1	25/01/2020	5/02/2020	340	340	340	340
	Nitrate	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	2.92	2.92	2.92	2.92
	Nitrogen (Total)	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	4.5	4.5	4.5	4.5
	Oil and Grease	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 2	1	25/01/2020	5/02/2020	7.57	7.57	7.57	7.57
Phosphorus (Total)	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	0.48	0.48	0.48	0.48	
Reactive Phosphorus	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	0.34	0.34	0.34	0.34	

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	Total Suspended Solids	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	1380	1380	1380	1380
25	Conductivity	µS/cm	Special Frequency 2	1	25/01/2020	5/02/2020	71	71	71	71
	Nitrate	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	1.93	1.93	1.93	1.93
	Nitrogen (Total)	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	4.4	4.4	4.4	4.4
	Oil and Grease	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 2	1	25/01/2020	5/02/2020	7.58	7.58	7.58	7.58
	Phosphorus (Total)	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	0.71	0.71	0.71	0.71
	Reactive Phosphorus	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	0.38	0.38	0.38	0.38
	Total Suspended Solids	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	1430	1430	1430	1430
26	Conductivity	µS/cm	Special Frequency 2	1	25/01/2020	5/02/2020	156	156	156	156
	Nitrate	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	2.37	2.37	2.37	2.37
	Nitrogen (Total)	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	4.2	4.2	4.2	4.2
	Oil and Grease	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 2	1	25/01/2020	5/02/2020	7.4	7.4	7.4	7.4
	Phosphorus (Total)	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	0.61	0.61	0.61	0.61
	Reactive Phosphorus	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	0.31	0.31	0.31	0.31
	Total Suspended Solids	mg/L	Special Frequency 2	1	25/01/2020	5/02/2020	4610	4610	4610	4610
33*	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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	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	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-	
34	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	-	-	-	-	-	-	

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	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	-	-	-	-	-	-
	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	-	-	-	-	-	-

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	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	-	-	-	-	-	-

**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	1	25/01/2020	5/02/2020	18300	18300	50*	No
	Oil and Grease	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	25/01/2020	5/02/2020	7.69	7.69	6.5-8.5	No
12	Total Suspended Solids	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	83	83	50*	No
	Oil and Grease	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	25/01/2020	5/02/2020	6.89	6.89	6.5-8.5	No
14	Total Suspended Solids	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	900	900	50*	No
	Oil and Grease	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	25/01/2020	5/02/2020	7.72	7.72	6.5-8.5	No
32	Total Suspended Solids	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	3580	3580	50*	No
	Oil and Grease	mg/L	Special Frequency 1	1	25/01/2020	5/02/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	25/01/2020	5/02/2020	7.42	7.42	6.5-8.5	No
33^	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
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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	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0	-	-	-	-	9	No

\*Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ 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	0	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0	-	-	-	-	-	-
	pH	pH	Every 3 Months	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Every 3 Months	0	-	-	-	-	-	-
27	Conductivity	µS/cm	Every 3 Months	0	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0	-	-	-	-	-	-
	pH	pH	Every 3 Months	0	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Every 3 Months	0	-	-	-	-	-	-

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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
17	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	-	-	-	-	-	-
18	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	-	-	-	-	-	-
19	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	-	-	-	-	-	-
20	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	-	-	-	-	-	-



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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 January 2020	60 minutes	11:20am	N/A	45	Day 37	3.9m/s, 339 degrees	Traffic (44), birds (39), <b>WCC (&lt;20)</b>	No	12/02/2020
<b>R12</b>	21 and 22 January 2020	60 minutes	12:24pm	N/A	43	Day 38	3.9m/s, 289 degrees	Traffic (43), <b>WCC (&lt;20)</b>	No	12/02/2020
<b>R96</b>	21 and 22 January 2020	60 minutes	1:33pm	N/A	32	Day 38	3.0m/s, 289 degrees	Insects (30), wind (26), <b>WCC (&lt;20)</b>	No	12/02/2020
<b>R98</b>	21 and 22 January 2020	60 minutes	2:39pm	N/A	32	Day 36	3.7m/s, 276 degrees	Birds (29), dogs (29), <b>WCC (20)</b>	No	12/02/2020
<b>R57</b>	21 and 22 January 2020	60 minutes	4:24pm	N/A	50	Day 35	4.9m/s, 276 degrees	Traffic (50), <b>WCC (&lt;20)</b>	No	12/02/2020
<b>R24</b>	21 and 22 January 2020	60 minutes	7:10pm	<20	41	Night 37	-3.5°/100m, 3.3m/s, 285 degrees	Birds (32), traffic (41), <b>WCC (&lt;20)</b>	No	12/02/2020
<b>R12</b>	21 and 22 January 2020	60 minutes	8:14pm	<20	59	Night 38	-3.5°/100m, 3.5m/s, 300 degrees	Trains (59), traffic (48), <b>WCC (&lt;20)</b>	No	12/02/2020
<b>R96</b>	21 and 22 January 2020	60 minutes	9:21pm	29	37	Night 38	-3.5°/100, 3.1m/s, 267 degrees	Insects (37), <b>WCC (26)</b>	No	12/02/2020
<b>R98</b>	21 and 22 January 2020	60 minutes	10:29pm	25	36	Night 38	+0.9°/100m, 1.2m/s, 209 degrees	Insects (33), residential (31), <b>WCC (22)</b>	No	12/02/2020
<b>R57</b>	21 and 22 January 2020	60 minutes	12:13am	<20	35	Night 35	+2.5°/100m, 2.2m/s, 350 degrees	Residential (27), dogs (35), <b>WCC (&lt;20)</b>	No	12/02/2020

**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	8	97.5	100.9	120.0	No	1/2/2020
	Blast Vibration	mm/s	Every Blast	8	0.10	0.20	10.0	No	1/2/2020
R98	Blast Noise	dB (Lin Peak)	Every Blast	8	101.5	110.5	120.0	No	1/2/2020
	Blast Vibration	mm/s	Every Blast	8	0.59	1.19	10.0	No	1/2/2020
R62	Blast Noise	dB (Lin Peak)	Every Blast	8	98.6	105.7	120.0	No	1/2/2020
	Blast Vibration	mm/s	Every Blast	8	0.42	1.13	10.0	No	1/2/2020
R92	Blast Noise	dB (Lin Peak)	Every Blast	8	97.9	105.0	120.0	No	1/2/2020
	Blast Vibration	mm/s	Every Blast	8	0.23	0.53	10.0	No	1/2/2020

## WERRIS CREEK COAL EPL – MONTHLY SUMMARY





**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:** February 2020

**Obtained Date:** 11/3/2020

**Publication Date:** 25/3/2020

**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	26/02/2020	3/03/2020	2.3	14.2	9.0	32.7
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	19/02/2020	10/03/2020	3.8	3.8	3.8	3.8
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	26/02/2020	3/03/2020	2.7	13.4	15.9	19.2
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	19/02/2020	10/03/2020	2.8	2.8	2.8	2.8
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	29/02/2020	1/03/2020	10.5	22.4	20.7	66
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	19/02/2020	10/03/2020	2.1	2.1	2.1	2.1
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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	<b>Nitrogen (Total)</b>	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	<b>Phosphorus (Total)</b>	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	<b>Reactive Phosphorus</b>	mg/L	Special Frequency 1	0	-	-	-	-	-	-
<b>32</b>	<b>Conductivity</b>	µS/cm	Special Frequency 1	0	-	-	-	-	-	-
	<b>Nitrate</b>	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	<b>Nitrogen (Total)</b>	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	<b>Oil and Grease</b>	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	<b>pH</b>	pH	Special Frequency 1	0	-	-	-	-	-	-
	<b>Phosphorus (Total)</b>	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	<b>Reactive Phosphorus</b>	mg/L	Special Frequency 1	0	-	-	-	-	-	-
<b>23</b>	<b>Total Suspended Solids</b>	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	<b>Conductivity</b>	µS/cm	Special Frequency 2	0	-	-	-	-	-	-
	<b>Nitrate</b>	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	<b>Nitrogen (Total)</b>	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	<b>Oil and Grease</b>	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	<b>pH</b>	pH	Special Frequency 2	0	-	-	-	-	-	-
	<b>Phosphorus (Total)</b>	mg/L	Special Frequency 2	0	-	-	-	-	-	-
<b>24</b>	<b>Reactive Phosphorus</b>	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	<b>Total Suspended Solids</b>	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	<b>Conductivity</b>	µS/cm	Special Frequency 2	0	-	-	-	-	-	-
	<b>Nitrate</b>	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	<b>Nitrogen (Total)</b>	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	<b>Oil and Grease</b>	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	<b>pH</b>	pH	Special Frequency 2	0	-	-	-	-	-	-
<b>Phosphorus (Total)</b>	mg/L	Special Frequency 2	0	-	-	-	-	-	-	
<b>Reactive Phosphorus</b>	mg/L	Special Frequency 2	0	-	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-
26	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-
33*	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	-	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-	
34	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	-	-	-	-	-	-	



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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	-	-	-	-	-	-
	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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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 dissolved solids	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	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 Value	100%ile Limit	Exceedance (Yes/No)
10	Total Suspended Solids	mg/L	Special Frequency 1	1	09/02/2020	21/02/2020	117	117	50*	No
	Oil and Grease	mg/L	Special Frequency 1	1	09/02/2020	21/02/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	09/02/2020	21/02/2020	8.00	8.00	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	1	03/02/2020	13/02/2020	47	47	50	No
	Oil and Grease	mg/L	Special Frequency 1	1	03/02/2020	13/02/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	03/02/2020	13/02/2020	7.7	7.7	6.5-8.5	No
14	Total Suspended Solids	mg/L	Special Frequency 1	1	09/02/2020	21/02/2020	117	117	50*	No
	Oil and Grease	mg/L	Special Frequency 1	1	09/02/2020	21/02/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	09/02/2020	21/02/2020	7.2	7.2	6.5-8.5	No
14	Total Suspended Solids	mg/L	Special Frequency 1	1	18/02/2020	02/03/2020	32	32	50	No
	Oil and Grease	mg/L	Special Frequency 1	1	18/02/2020	02/03/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	18/02/2020	02/03/2020	5.5	5.5	6.5-8.5	Yes
23	Total Suspended Solids	mg/L	Special Frequency 1	1	03/02/2020	13/02/2020	370	370	50	No
	Oil and Grease	mg/L	Special Frequency 1	1	03/02/2020	13/02/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	03/02/2020	13/02/2020	8.7	8.7	6.5-8.5	No
23	Total Suspended Solids	mg/L	Special Frequency 1	1	09/02/2020	21/02/2020	200	200	50	No

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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 1	1	09/02/2020	21/02/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	09/02/2020	21/02/2020	8.0	8.0	6.5-8.5	No
23	Total Suspended Solids	mg/L	Special Frequency 1	1	18/02/2020	02/03/2020	240	240	50	No
	Oil and Grease	mg/L	Special Frequency 1	1	18/02/2020	02/03/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	18/02/2020	02/03/2020	8.3	8.3	6.5-8.5	No
24	Total Suspended Solids	mg/L	Special Frequency 1	1	03/02/2020	13/02/2020	930	930	50	No
	Oil and Grease	mg/L	Special Frequency 1	1	03/02/2020	13/02/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	03/02/2020	13/02/2020	8	8	6.5-8.5	No
24	Total Suspended Solids	mg/L	Special Frequency 1	1	09/02/2020	21/02/2020	210	210	50	No
	Oil and Grease	mg/L	Special Frequency 1	1	09/02/2020	21/02/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	09/02/2020	21/02/2020	8.2	8.2	6.5-8.5	No
24	Total Suspended Solids	mg/L	Special Frequency 1	1	18/02/2020	02/03/2020	250	250	50	No
	Oil and Grease	mg/L	Special Frequency 1	1	18/02/2020	02/03/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	18/02/2020	02/03/2020	8.1	8.1	6.5-8.5	No
25	Total Suspended Solids	mg/L	Special Frequency 1	1	09/02/2020	21/02/2020	100	100	50	No
	Oil and Grease	mg/L	Special Frequency 1	1	09/02/2020	21/02/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	09/02/2020	21/02/2020	7.5	7.5	6.5-8.5	No
26	Total Suspended Solids	mg/L	Special Frequency 1	1	09/02/2020	21/02/2020	190	190	50	No
	Oil and Grease	mg/L	Special Frequency 1	1	09/02/2020	21/02/2020	8	8	10	No
	pH	pH	Special Frequency 1	1	09/02/2020	21/02/2020	7.9	7.9	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	0	-	-	-	-	2000	No
	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0	-	-	-	-	9	No
34	Electrical Conductivity	mg/L	Special Frequency 4	0	-	-	-	-	2000	No

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
35	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

\*Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ 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	0	20/02/2020	03/03/2020	1060	1060	1060	1060
	Nitrate	mg/L	Every 3 Months	0	20/02/2020	03/03/2020	0.56	0.56	0.56	0.56
	Nitrogen (Total)	mg/L	Every 3 Months	0	20/02/2020	03/03/2020	1.2	1.2	1.2	1.2
	Oil and Grease	mg/L	Every 3 Months	0	20/02/2020	03/03/2020	<5	<5	<5	<5
	pH	pH	Every 3 Months	0	20/02/2020	03/03/2020	8.58	8.58	8.58	8.58
	Phosphorus (Total)	mg/L	Every 3 Months	0	20/02/2020	03/03/2020	.21	.21	.21	.21
	Reactive Phosphorus	mg/L	Every 3 Months	0	20/02/2020	03/03/2020	<0.01	<0.01	<0.01	<0.01
27	Total Suspended Solids	mg/L	Every 3 Months	0	20/02/2020	03/03/2020	23	23	23	23
	Conductivity	µS/cm	Every 3 Months	0	20/02/2020	03/03/2020	696	696	696	696
	Nitrate	mg/L	Every 3 Months	0	20/02/2020	03/03/2020	0.83	0.83	0.83	0.83
	Nitrogen (Total)	mg/L	Every 3 Months	0	20/02/2020	03/03/2020	1.2	1.2	1.2	1.2
	Oil and Grease	mg/L	Every 3 Months	0	20/02/2020	03/03/2020	<5	<5	<5	<5
pH	pH	Every 3 Months	0	20/02/2020	03/03/2020	7.98	7.98	7.98	7.98	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Phosphorus (Total)	mg/L	Every 3 Months	0	20/02/2020	03/03/2020	.15	.15	.15	.15
	Reactive Phosphorus	mg/L	Every 3 Months	0	20/02/2020	03/03/2020	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	0	20/02/2020	03/03/2020	43	43	43	43
17	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	-	-	-	-	-	-
18	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	-	-	-	-	-	-
19	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	-	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0	-	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	-	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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	-	-	-	-	-	-
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 °C/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	L <sub>Aeq</sub> , 15 Minute					
<b>R24</b>	21 February 2020	60 minutes	10:01am	N/A	50	Day 37	3.1m/s, 19 degrees	Traffic (48), birds (44), <b>WCC (&lt;20)</b>	No	11/03/2020
<b>R12</b>	21 February 2020	60 minutes	11:15am	N/A	40	Day 38	0.4m/s, 56 degrees	Birds (37), traffic (36), <b>WCC (&lt;20)</b>	No	11/03/2020
<b>R96</b>	21 February 2020	60 minutes	12:22pm	N/A	35	Day 38	1.7m/s, 105 degrees	Cars (32), birds (32), <b>WCC (&lt;20)</b>	No	11/03/2020
<b>R98</b>	21 February 2020	60 minutes	1:33pm	N/A	37	Day 36	1.2m/s, 195 degrees	Birds (37), <b>WCC (&lt;20)</b>	No	11/03/2020
<b>R57</b>	21 February 2020	60 minutes	4:08pm	N/A	49	Day 35	2.8m/s, 152 degrees	Traffic (47), residential (44), birds (39), <b>WCC (&lt;20)</b>	No	11/03/2020
<b>R24</b>	20 and 21 February 2020	60 minutes	8:42pm	<20	46	Night 37	Lapse, 1.1m/s, 200 degrees	Traffic (43), frogs (41), <b>WCC (&lt;20)</b>	No	11/03/2020
<b>R12</b>	20 and 21 February 2020	60 minutes	9:46pm	24	40	Night 38	Lapse, 1m/s, 129 degrees	Traffic (38), frogs (35), <b>WCC (22)</b>	No	11/03/2020
<b>R96</b>	20 and 21 February 2020	60 minutes	11:01pm	27	39	Night 38	Lapse, 1m/s, 195 degrees	Trains (36), insects (35), <b>WCC (25)</b>	No	11/03/2020
<b>R98</b>	20 and 21 February 2020	60 minutes	9:27pm	<20	40	Night 38	Lapse, 5.7m/s, 114 degrees	Insects (37), frogs (36), <b>WCC (&lt;20)</b>	No	11/03/2020
<b>R57</b>	20 and 21 February 2020	60 minutes	7:41pm	<20	46	Night 35	Lapse, 5m/s, 138 degrees	Birds (43), traffic (43), industrial 36, <b>WCC (&lt;20)</b>	No	11/03/2020

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



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

**IA = Inaudible.**





**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

**Table 5 – Monitoring (Blasts – Limits Apply)**

<b>Location</b>	<b>Parameter</b>	<b>Units of Measure</b>	<b>Frequency</b>	<b>No. of Blasts for the Month</b>	<b>Average Value</b>	<b>Max Value</b>	<b>100%ile Limit</b>	<b>(Potential) Non-compliance /breach</b>	<b>Date Obtained</b>
<b>R11</b>	<b>Blast Noise</b>	<b>dB (Lin Peak)</b>	<b>Every Blast</b>	9	99.3	102.8	120.0	No	2/3/2020
	<b>Blast Vibration</b>	<b>mm/s</b>	<b>Every Blast</b>	9	0.13	0.24	10.0	No	2/3/2020
<b>R98</b>	<b>Blast Noise</b>	<b>dB (Lin Peak)</b>	<b>Every Blast</b>	9	99.9	106.1	120.0	No	2/3/2020
	<b>Blast Vibration</b>	<b>mm/s</b>	<b>Every Blast</b>	9	0.70	1.39	10.0	No	2/3/2020
<b>R62</b>	<b>Blast Noise</b>	<b>dB (Lin Peak)</b>	<b>Every Blast</b>	9	100.2	106.8	120.0	No	2/3/2020
	<b>Blast Vibration</b>	<b>mm/s</b>	<b>Every Blast</b>	9	0.36	0.65	10.0	No	2/3/2020
<b>R92</b>	<b>Blast Noise</b>	<b>dB (Lin Peak)</b>	<b>Every Blast</b>	9	99.5	104.7	120.0	No	2/3/2020
	<b>Blast Vibration</b>	<b>mm/s</b>	<b>Every Blast</b>	9	0.31	0.57	10.0	No	2/3/2020

## WERRIS CREEK COAL EPL – MONTHLY SUMMARY



**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:** March 2020

**Obtained Date:** 21<sup>st</sup> April 2020

**Publication Date:** 4<sup>th</sup> May 2020

**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	26/02/2020	3/03/2020	3.3	7.9	4.2	17.5
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/03/2020	06/04/2020	1.0	1.0	1.0	1.0
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	26/02/2020	3/03/2020	6.7	15.4	7.7	41.5
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/03/2020	06/04/2020	1.1	1.1	1.1	1.1
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	29/02/2020	1/03/2020	4.8	12.2	10.3	26.7
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/03/2020	06/04/2020	0.7	0.7	0.7	0.7
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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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	-	-	-	-	-	-
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	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	-	-	-	-	-	-
24	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	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Special Frequency 2	0	-	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Reactive Phosphorus	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	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	-	-	-	-	-	-
33*	Reactive Phosphorus	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-	
34	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	-	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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	-	-	-	-	-	-
	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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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 dissolved solids	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	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 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	0	-	-	-	-	2000	No
	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0	-	-	-	-	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





**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

\*Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ 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	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0	0	-	-	-	-	-
	pH	pH	Every 3 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0	0	-	-	-	-	-
27	Total Suspended Solids	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Conductivity	µS/cm	Every 3 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0	0	-	-	-	-	-
	pH	pH	Every 3 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 3 Months	0	0	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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>Total Suspended Solids</b>	mg/L	Every 3 Months	0	0	-	-	-	-	-
17	<b>Conductivity</b>	µS/cm	Every 6 Months	0	09/03/2020	17/03/2020	Dry	Dry	Dry	Dry
	<b>Nitrate</b>	mg/L	Every 6 Months	0	09/03/2020	13/03/2020	Dry	Dry	Dry	Dry
	<b>Nitrogen (Total)</b>	mg/L	Every 6 Months	0	09/03/2020	13/03/2020	Dry	Dry	Dry	Dry
	<b>pH</b>	pH	Every 6 Months	0	09/03/2020	13/03/2020	Dry	Dry	Dry	Dry
	<b>Phosphorus (Total)</b>	mg/L	Every 6 Months	0	09/03/2020	13/03/2020	Dry	Dry	Dry	Dry
	<b>Reactive Phosphorus</b>	mg/L	Every 6 Months	0	09/03/2020	13/03/2020	Dry	Dry	Dry	Dry
	<b>Standing Water Level</b>	Metres	Every 6 Months	0	09/03/2020	13/03/2020	Dry	Dry	Dry	Dry
18	<b>Conductivity</b>	µS/cm	Every 6 Months	1	09/03/2020	13/03/2020	397	397	397	397
	<b>Nitrate</b>	mg/L	Every 6 Months	1	09/03/2020	13/03/2020	0.04	0.04	0.04	0.04
	<b>Nitrogen (Total)</b>	mg/L	Every 6 Months	1	09/03/2020	13/03/2020	<0.1	<0.1	<0.1	<0.1
	<b>pH</b>	pH	Every 6 Months	1	09/03/2020	13/03/2020	7.18	7.18	7.18	7.18
	<b>Phosphorus (Total)</b>	mg/L	Every 6 Months	1	09/03/2020	13/03/2020	<0.01	<0.01	<0.01	<0.01
	<b>Reactive Phosphorus</b>	mg/L	Every 6 Months	1	09/03/2020	13/03/2020	<0.01	<0.01	<0.01	<0.01
	<b>Standing Water Level</b>	Metres	Every 6 Months	1	09/03/2020	13/03/2020	57.69	57.69	57.69	57.69
19	<b>Conductivity</b>	µS/cm	Every 6 Months	1	05/03/2020	13/03/2020	2620	2620	2620	2620
	<b>Nitrate</b>	mg/L	Every 6 Months	1	05/03/2020	13/03/2020	17.7	17.7	17.7	17.7
	<b>Nitrogen (Total)</b>	mg/L	Every 6 Months	1	05/03/2020	13/03/2020	20.8	20.8	20.8	20.8
	<b>pH</b>	pH	Every 6 Months	1	05/03/2020	13/03/2020	7.89	7.89	7.89	7.89
	<b>Phosphorus (Total)</b>	mg/L	Every 6 Months	1	05/03/2020	13/03/2020	0.35	0.35	0.35	0.35
	<b>Reactive Phosphorus</b>	mg/L	Every 6 Months	1	05/03/2020	13/03/2020	0.28	0.28	0.28	0.28
	<b>Standing Water Level</b>	Metres	Every 6 Months	1	05/03/2020	13/03/2020	21.05	21.05	21.05	21.05
20	<b>Conductivity</b>	µS/cm	Every 6 Months	1	10/03/2020	18/03/2020	1040	1040	1040	1040
	<b>Nitrate</b>	mg/L	Every 6 Months	1	10/03/2020	18/03/2020	4.27	4.27	4.27	4.27
	<b>Nitrogen (Total)</b>	mg/L	Every 6 Months	1	10/03/2020	18/03/2020	5.1	5.1	5.1	5.1
	<b>pH</b>	pH	Every 6 Months	1	10/03/2020	18/03/2020	7.86	7.86	7.86	7.86

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Phosphorus (Total)	mg/L	Every 6 Months	1	10/03/2020	18/03/2020	0.06	0.06	0.06	0.06
	Reactive Phosphorus	mg/L	Every 6 Months	1	10/03/2020	18/03/2020	0.05	0.05	0.05	0.05
	Standing Water Level	Metres	Every 6 Months	1	10/03/2020	18/03/2020	19.97	19.97	19.97	19.97
21	Conductivity	µS/cm	Every 6 Months	1	05/03/2020	13/03/2020	1970	1970	1970	1970
	Nitrate	mg/L	Every 6 Months	1	05/03/2020	13/03/2020	0.8	0.8	0.8	0.8
	Nitrogen (Total)	mg/L	Every 6 Months	1	05/03/2020	13/03/2020	2.7	2.7	2.7	2.7
	pH	pH	Every 6 Months	1	05/03/2020	13/03/2020	7.64	7.64	7.64	7.64
	Phosphorus (Total)	mg/L	Every 6 Months	1	05/03/2020	13/03/2020	0.04	0.04	0.04	0.04
	Reactive Phosphorus	mg/L	Every 6 Months	1	05/03/2020	13/03/2020	0.03	0.03	0.03	0.03
	Standing Water Level	Metres	Every 6 Months	1	05/03/2020	13/03/2020	13.93	13.93	13.93	13.93
22	Conductivity	µS/cm	Every 6 Months	0	10/03/2020	18/03/2020	TLTS	TLTS	TLTS	TLTS
	Nitrate	mg/L	Every 6 Months	0	10/03/2020	18/03/2020	TLTS	TLTS	TLTS	TLTS
	Nitrogen (Total)	mg/L	Every 6 Months	0	10/03/2020	18/03/2020	TLTS	TLTS	TLTS	TLTS
	pH	pH	Every 6 Months	0	10/03/2020	18/03/2020	TLTS	TLTS	TLTS	TLTS
	Phosphorus (Total)	mg/L	Every 6 Months	0	10/03/2020	18/03/2020	TLTS	TLTS	TLTS	TLTS
	Reactive Phosphorus	mg/L	Every 6 Months	0	10/03/2020	18/03/2020	TLTS	TLTS	TLTS	TLTS
	Standing Water Level	Metres	Every 6 Months	1	10/03/2020	18/03/2020	16.27	16.27	16.27	16.27

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>	19 March 2020	60 minutes	2:16pm	N/A	38	Day 37	0.8m/s, 329 degrees	Birds (36), traffic (33), <b>WCC (&lt;20)</b>	No	21/04/2020
<b>R12</b>	19 March 2020	60 minutes	2:10pm	N/A	40	Day 38	0.8m/s, 329 degrees	Insects (39), traffic (33), <b>WCC (&lt;20)</b>	No	21/04/2020
<b>R96</b>	19 March 2020	60 minutes	3:18pm	N/A	37	Day 38	0.8m/s, 204 degrees	Traffic (34), birds (32), insects (30), <b>WCC (24)</b>	No	21/04/2020
<b>R98</b>	19 March 2020	60 minutes	3:25pm	N/A	34	Day 36	0.8m/s, 163 degrees	Insects (31), birds (30), <b>WCC (&lt;20)</b>	No	21/04/2020
<b>R57</b>	19 March 2020	60 minutes	4:40pm	N/A	49	Day 35	0.6m/s, 126 degrees	Traffic (49), birds (41), <b>WCC (&lt;20)</b>	No	21/04/2020
<b>R24</b>	19 March 2020	60 minutes	7:33pm	24	46	Night 37	+0.3°C/100m, 2.6m/s, 15 degrees	Traffic (45), insects (39), <b>WCC (22)</b>	No	21/04/2020
<b>R12</b>	19 March 2020	60 minutes	7:59pm	<20	52	Night 38	+2.1°C/100m, 3.0m/s, 356 degrees	Train (49), insects (47), traffic (46), <b>WCC (&lt;20)</b>	No	21/04/2020
<b>R96</b>	19 March 2020	60 minutes	9:11pm	24	42	Night 38	+3.9°C/100m, 0.7m/s, 186 degrees	Traffic 41, insects (38), <b>WCC (22)</b>	No	21/04/2020
<b>R98</b>	19 March 2020	60 minutes	8:51pm	30	48	Night 38	+3.9°C/100m, 0.3m/s, 303 degrees	Residential (48), insects (40), <b>WCC (28)</b>	No	21/04/2020
<b>R57</b>	19 March 2020	60 minutes	10:35pm	<20	40	Night 35	+5.6°C/100m, 0.7m/s, 280 degrees	Traffic (39), train (34), insects (28), <b>WCC (&lt;20)</b>	No	21/04/2020

**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	8	100.2	106.4	120.0	No	01/04/2020
	Blast Vibration	mm/s	Every Blast	8	0.08	0.17	10.0	No	01/04/2020
R98	Blast Noise	dB (Lin Peak)	Every Blast	8	97.4	103.3	120.0	No	01/04/2020
	Blast Vibration	mm/s	Every Blast	8	0.56	1.25	10.0	No	01/04/2020
R62	Blast Noise	dB (Lin Peak)	Every Blast	8	98.4	106.0	120.0	No	01/04/2020
	Blast Vibration	mm/s	Every Blast	8	0.32	0.63	10.0	No	01/04/2020
R92	Blast Noise	dB (Lin Peak)	Every Blast	8	98.9	106.3	120.0	No	01/04/2020
	Blast Vibration	mm/s	Every Blast	8	0.25	0.52	10.0	No	01/04/2020



WERRIS CREEK COAL EPL – MONTHLY SUMMARY



**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:** April 2020

**Obtained Date:** 11/5/20

**Publication Date:** 252514/5/20

**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	26/04/2020	11/05/2020	4.6	10.2	9.0	17.8
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/4/2020	05/05/2020	0.8	0.8	0.8	0.8
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	26/04/2020	11/05/2020	10.7	17.4	14.2	26.3
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/03/2020	06/04/2020	0.5	0.5	0.5	0.5
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	30/4/2020	1/05/2020	10.5	13.4	13.9	15.2
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/03/2020	06/04/2020	0.6	0.6	0.6	0.6
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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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	-	-	-	-	-	-
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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Reactive Phosphorus	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	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	-	-	-	-	-	-
33*	Reactive Phosphorus	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-	
34	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	-	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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	-	-	-	-	-	-
	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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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 dissolved solids	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	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 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	0	-	-	-	-	2000	No
	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0	-	-	-	-	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



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

\*Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ 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	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0	0	-	-	-	-	-
	pH	pH	Every 3 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0	0	-	-	-	-	-
27	Total Suspended Solids	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Conductivity	µS/cm	Every 3 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0	0	-	-	-	-	-
	pH	pH	Every 3 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 3 Months	0	0	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Total Suspended Solids	mg/L	Every 3 Months	0	0	-	-	-	-	-
17	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
22	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	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					
R24	8 April 2020	60 minutes	10:01am	N/A	52	Day 37	2.7m/s, 139 degrees	Traffic (51), birds (45), <b>WCC (&lt;20)</b>	No	11/05/2020
R12	8 April 2020	60 minutes	11:16am	N/A	47	Day 38	2.1m/s, 138 degrees	Traffic (45), birds (41), aircraft (36), <b>WCC (&lt;20)</b>	No	11/05/2020
R96	8 April 2020	60 minutes	12:26pm	N/A	49	Day 38	3.5m/s, 93 degrees	Traffic (48), birds (43), insects (36), <b>WCC (&lt;20)</b>	No	11/05/2020
R98	8 April 2020	60 minutes	1:37pm	N/A	39	Day 36	3.1m/s, 82 degrees	Birds (37), insects (35), <b>WCC (&lt;20)</b>	No	11/05/2020
R57	8 April 2020	60 minutes	3:35pm	N/A	55	Day 35	2.7m/s, 96 degrees	Birds (52), traffic (51), residential (45), <b>WCC (&lt;20)</b>	No	11/05/2020
R24	8 April 2020	60 minutes	7:01pm	<20	51	Night 37	Lapse, 2.0m/s, 158 degrees	Train (48), traffic (47), insects (26), <b>WCC (&lt;20)</b>	No	11/05/2020
R12	8 April 2020	60 minutes	8:07pm	<20	40	Night 38	Lapse, 3.1m/s, 172 degrees	Traffic (39), insects (33), <b>WCC (&lt;20)</b>	No	11/05/2020
R96	8 April 2020	60 minutes	9:17pm	<20	38	Night 38	Lapse, 2.2m/s, 195 degrees	Insects (38), traffic (27), <b>WCC (&lt;20)</b>	No	11/05/2020
R98	8 April 2020	60 minutes	10:28pm	<20	31	Night 38	Lapse, 1.6m/s, 176 degrees	Insects (31), traffic (22), <b>WCC (&lt;20)</b>	No	11/05/2020
R57	9 April 2020	60 minutes	12:21am	<20	40	Night 35	Lapse, 2.4m/s, 170 degrees	Traffic (38), industrial (34), insects (31), <b>WCC (&lt;20)</b>	No	11/05/2020

**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	6	98.8	104.0	120.0	No	01/05/2020
	Blast Vibration	mm/s	Every Blast	6	0.12	0.21	10.0	No	01/05/2020
R98	Blast Noise	dB (Lin Peak)	Every Blast	6	101.8	108.3	120.0	No	01/05/2020
	Blast Vibration	mm/s	Every Blast	6	0.65	1.14	10.0	No	01/05/2020
R62	Blast Noise	dB (Lin Peak)	Every Blast	6	98.8	104.4	120.0	No	01/05/2020
	Blast Vibration	mm/s	Every Blast	6	0.37	0.63	10.0	No	01/05/2020
R92	Blast Noise	dB (Lin Peak)	Every Blast	6	98.4	106.8	120.0	No	01/05/2020
	Blast Vibration	mm/s	Every Blast	6	0.26	0.38	10.0	No	01/05/2020

## WERRIS CREEK COAL EPL – MONTHLY SUMMARY



**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 2020

**Obtained Date:** 15<sup>th</sup> June 2020

**Publication Date:** 23<sup>rd</sup> June 2020

**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	26/05/2020	11/06/2020	2.0	4.0	3.6	6.5
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	21/05/2020	03/06/2020	0.4	0.4	0.4	0.4
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	26/05/2020	11/06/2020	1.8	8.3	7.6	17.1
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	21/05/2020	03/06/2020	0.8	0.8	0.8	0.8
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	31/05/2020	1/06/2020	8.3	12.5	12.0	25.6
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	21/05/2020	03/06/2020	0.4	0.4	0.4	0.4
10	Conductivity	µS/cm	Special Frequency 1	1	18/05/2020	26/05/2020	420	420	420	420
	Nitrate	mg/L	Special Frequency 1	1	18/05/2020	26/05/2020	<0.1	<0.1	<0.1	<0.1
	Nitrogen (Total)	mg/L	Special Frequency 1	1	18/05/2020	26/05/2020	0.2	0.2	0.2	0.2
	Phosphorus (Total)	mg/L	Special Frequency 1	1	18/05/2020	26/05/2020	0.02	0.02	0.02	0.02
	Reactive Phosphorus	mg/L	Special Frequency 1	1	18/05/2020	26/05/2020	0.02	0.02	0.02	0.02
12	Conductivity	µS/cm	Special Frequency 1	1	15/05/2020	26/05/2020	590	590	590	590
	Nitrate	mg/L	Special Frequency 1	1	15/05/2020	26/05/2020	4.7	4.7	4.7	4.7
	Nitrogen (Total)	mg/L	Special Frequency 1	1	15/05/2020	26/05/2020	5	5	5	5
	Phosphorus (Total)	mg/L	Special Frequency 1	1	15/05/2020	26/05/2020	0.02	0.02	0.02	0.02
	Reactive Phosphorus	mg/L	Special Frequency 1	1	15/05/2020	26/05/2020	0.02	0.02	0.02	0.02
14	Conductivity	µS/cm	Special Frequency 1	0	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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	-	-	-	-	-	-
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	-	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Reactive Phosphorus	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	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	-	-	-	-	-	-
33*	Reactive Phosphorus	mg/L	Special Frequency 2	0	-	-	-	-	-	-
	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	-	-	-	-	-	-





**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-	
34	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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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	-	-	-	-	-	-
	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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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 dissolved solids	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	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 Value	100%ile Limit	Exceedance (Yes/No)
10	Total Suspended Solids	mg/L	Special Frequency 1	1	18/05/2020	26/05/2020	5	5	50*	No
	Oil and Grease	mg/L	Special Frequency 1	1	18/05/2020	26/05/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	18/05/2020	26/05/2020	8.1	8.1	6.5-8.5	No
12	Total Suspended Solids	mg/L	Special Frequency 1	1	15/05/2020	26/05/2020	2	2	50	No
	Oil and Grease	mg/L	Special Frequency 1	1	15/05/2020	26/05/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	15/05/2020	26/05/2020	8.4	8.4	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	0	-	-	-	-	2000	No
	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0	-	-	-	-	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

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

\*Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ 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	25/05/2020	02/06/2020-	1180	1180	1180	1180
	Nitrate	mg/L	Every 3 Months	1	25/05/2020	02/06/2020-	1.62	1.62	1.62	1.62
	Nitrogen (Total)	mg/L	Every 3 Months	1	25/05/2020	02/06/2020-	2	2	2	2
	Oil and Grease	mg/L	Every 3 Months	1	25/05/2020	02/06/2020-	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	25/05/2020	02/06/2020-	8.04	8.04	8.04	8.04
	Phosphorus (Total)	mg/L	Every 3 Months	1	25/05/2020	02/06/2020-	<0.01	<0.01	<0.01	<0.01
	Reactive Phosphorus	mg/L	Every 3 Months	1	25/05/2020	02/06/2020-	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	1	25/05/2020	02/06/2020-	<5	<5	<5	<5
27	Conductivity	µS/cm	Every 3 Months	1	25/05/2020	02/06/2020-	1340	1340	1340	1340
	Nitrate	mg/L	Every 3 Months	1	25/05/2020	02/06/2020-	1.54	1.54	1.54	1.54
	Nitrogen (Total)	mg/L	Every 3 Months	1	25/05/2020	02/06/2020-	1.8	1.8	1.8	1.8
	Oil and Grease	mg/L	Every 3 Months	1	25/05/2020	02/06/2020-	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	25/05/2020	02/06/2020-	7.99	7.99	7.99	7.99
	Phosphorus (Total)	mg/L	Every 3 Months	1	25/05/2020	02/06/2020-	<0.01	<0.01	<0.01	<0.01
	Reactive Phosphorus	mg/L	Every 3 Months	1	25/05/2020	02/06/2020-	<0.01	<0.01	<0.01	<0.01

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Total Suspended Solids	mg/L	Every 3 Months	1	25/05/2020	02/06/2020-	<5	<5	<5	<5
17	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
20	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
21	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
22	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	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					
R24	11 May 2020	60 minutes	10:16am	N/A	41	Day 37	3.5m/s, 167 degrees	Traffic (38), birds (37), dog (32), <b>WCC (&lt;20)</b>	No	15/06/2020
R12	11 May 2020	60 minutes	11:24am	N/A	40	Day 38	3.7m/s, 145 degrees	Birds (38), traffic (34), <b>WCC (&lt;20)</b>	No	15/06/2020
R96	11 May 2020	60 minutes	12:50pm	N/A	34	Day 38	2.9m/s, 162 degrees	Insects (31), traffic (29), <b>WCC (&lt;20)</b>	No	15/06/2020
R98	11 May 2020	60 minutes	1:38pm	N/A	43	Day 36	2.9m/s, 183 degrees	Birds (42), residential (37), <b>WCC (21)</b>	No	15/06/2020
R57	11 May 2020	60 minutes	3:30pm	N/A	54	Day 35	4.3m/s, 178 degrees	Traffic (53), residential (46), birds (44), <b>WCC (&lt;20)</b>	No	15/06/2020
R24	11 May 2020	60 minutes	7:11pm	<20	48	Night 37	Lapse, 2.6m/s, 170 degrees	Traffic (47), trains (40), birds (33), <b>WCC (&lt;20)</b>	No	15/06/2020
R12	11 May 2020	60 minutes	8:17pm	<20	26	Night 38	+1.5, 2.2m/s, 143 degrees	Cow (24), trains (20), <b>WCC (&lt;20)</b>	No	15/06/2020
R96	11 May 2020	60 minutes	9:26pm	<20	41	Night 38	+2.5, 1.1m/s, 100 degrees	Birds (39), traffic (35), trains (28), <b>WCC (&lt;20)</b>	No	15/06/2020
R98	11 May 2020	60 minutes	10:31pm	<20	28	Night 38	+2.0, 2.1m/s, 127 degrees	Birds (25), insects (22), residential (21), <b>WCC (&lt;20)</b>	No	15/06/2020
R57	12 May 2020	60 minutes	12:28am	<20	46	Night 35	+3.8, 1.9m/s, 137 degrees	Traffic (45), industrial (39), <b>WCC (&lt;20)</b>	No	15/06/2020

**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	7	100.0	104.8	120.0	No	01/06/2020
	Blast Vibration	mm/s	Every Blast	7	0.15	0.33	10.0	No	01/05/2020
R98	Blast Noise	dB (Lin Peak)	Every Blast	7	100.0	102.5	120.0	No	01/05/2020
	Blast Vibration	mm/s	Every Blast	7	0.91	1.90	10.0	No	01/05/2020
R62	Blast Noise	dB (Lin Peak)	Every Blast	7	102.3	109.6	120.0	No	01/05/2020
	Blast Vibration	mm/s	Every Blast	7	0.42	0.62	10.0	No	01/05/2020
R92	Blast Noise	dB (Lin Peak)	Every Blast	7	100.6	103.3	120.0	No	01/05/2020
	Blast Vibration	mm/s	Every Blast	7	0.29	0.52	10.0	No	01/05/2020

## WERRIS CREEK COAL EPL – MONTHLY SUMMARY



**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:** June 2020

**Obtained Date:** 8<sup>th</sup> July 2020

**Publication Date:** 13<sup>th</sup> July 2020

**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	25/06/2020	08/07/2020	0.7	4.2	1.7	9.7
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	19/06/2020	6/07/2020	0.4	0.4	0.4	0.4
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	25/06/2020	08/07/2020	3.2	12.6	7.6	37.4
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	19/06/2020	6/07/2020	0.8	0.8	0.8	0.8
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	30/06/2020	1/07/2020	4.9	10.3	10.4	14.7
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	19/06/2020	6/07/2020	0.7	0.7	0.7	0.7
10	Conductivity	µS/cm	Special Frequency 1	1	09/06/2020	25/06/2020	730	730	730	730
	Nitrate	mg/L	Special Frequency 1	1	09/06/2020	25/06/2020	0.4	0.4	0.4	0.4
	Nitrogen (Total)	mg/L	Special Frequency 1	1	09/06/2020	25/06/2020	0.6	0.6	0.6	0.6
	Phosphorus (Total)	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	1	09/06/2020	25/06/2020	<0.02	<0.02	<0.02	<0.02
10	Conductivity	µS/cm	Special Frequency 1	1	17/06/2020	25/06/2020	470	470	470	470
	Nitrate	mg/L	Special Frequency 1	0	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Special Frequency 1	1	17/06/2020	25/06/2020	0.5	0.5	0.5	0.5
	Phosphorus (Total)	mg/L	Special Frequency 1	1	17/06/2020	25/06/2020	0.05	0.05	0.05	0.05
	Reactive Phosphorus	mg/L	Special Frequency 1	1	17/06/2020	25/06/2020	<0.02	<0.02	<0.02	<0.02
12	Conductivity	µS/cm	Special Frequency 1	0	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 1	0	-	-	-	-	-	-
23	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-
24	Conductivity	µS/cm	Special Frequency 2	0	-	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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	-	-	-	-	-	-
	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	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*	Aluminium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-





**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-	
34	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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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	-	-	-	-	-	-
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	-	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	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 Value	100%ile Limit	Exceedance (Yes/No)
10	Total Suspended Solids	mg/L	Special Frequency 1	1	09/06/2020	25/06/2020	7	7	50*	No
	Oil and Grease	mg/L	Special Frequency 1	1	09/06/2020	25/06/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	09/06/2020	25/06/2020	8.2	8.2	6.5-8.5	No
10	Total Suspended Solids	mg/L	Special Frequency 1	1	17/06/2020	25/06/2020	7	7	50*	No
	Oil and Grease	mg/L	Special Frequency 1	1	17/06/2020	25/06/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	17/06/2020	25/06/2020	8.4	8.4	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

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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 1	0	-	-			10	No
	pH	pH	Special Frequency 1	0	-	-			6.5-8.5	No
33^	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
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
	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0	-	-	-	-	9	No

\*Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ 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	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0	0	-	-	-	-	-
	pH	pH	Every 3 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0	0	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Total Suspended Solids	mg/L	Every 3 Months	0	0	-	-	-	-	-
27	Conductivity	µS/cm	Every 3 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0	0	-	-	-	-	-
	pH	pH	Every 3 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Total Suspended Solids	mg/L	Every 3 Months	0	0	-	-	-	-	-
17	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**
**TLTS - Too low to sample**
**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>	17 June 2020	60 minutes	10:01am	N/A	46	Day 37	3.2m/s, 164 degrees	Birds (44), traffic (41), <b>WCC (&lt;20)</b>	No	23/06/2020
<b>R12</b>	17 June 2020	60 minutes	11:07am	N/A	46	Day 38	3.7m/s, 168 degrees	Traffic (46), birds (39), <b>WCC (&lt;20)</b>	No	23/06/2020
<b>R96</b>	17 June 2020	60 minutes	12:14pm	N/A	39	Day 38	4.7m/s, 168 degrees	Birds (39), traffic (30), dogs (24), <b>WCC (&lt;20)</b>	No	23/06/2020
<b>R98</b>	17 June 2020	60 minutes	1:22pm	N/A	47	Day 36	3.8m/s, 153 degrees	Birds (47), dogs (34), aeroplane (27), <b>WCC (&lt;20)</b>	No	23/06/2020
<b>R57</b>	17 June 2020	60 minutes	3:17pm	N/A	49	Day 35	3.4m/s, 118 degrees	Traffic (45), dogs (43), birds (42), train (41), <b>WCC (&lt;20)</b>	No	23/06/2020
<b>R24</b>	17 June 2020	60 minutes	7:03pm	<20	54	Night 37	+3.4°C/100, 2.6m/s, 142 degrees	Traffic (51), trains (49), insects (46), <b>WCC (&lt;20)</b>	No	23/06/2020
<b>R12</b>	17 June 2020	60 minutes	8:11pm	<20	41	Night 38	+1.4°C/100, 1.8m/s, 155 degrees	Traffic (40), dogs (31), <b>WCC (&lt;20)</b>	No	23/06/2020
<b>R96</b>	17 June 2020	60 minutes	9:25pm	<20	31	Night 38	Lapse, 1.1m/s, 185 degrees	Insects (29), traffic (27), <b>WCC (&lt;20)</b>	No	23/06/2020
<b>R98</b>	17 June 2020	60 minutes	10:36pm	<20	28	Night 38	Lapse, 1.0m/s, 141 degrees	Traffic (28), insects (21), <b>WCC (&lt;20)</b>	No	23/06/2020
<b>R57</b>	18 June 2020	60 minutes	12:35am	<20	44	Night 35	Lapse, 2.3m/s, 165 degrees	Traffic (41), birds (41), <b>WCC (&lt;20)</b>	No	23/06/2020

**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	5	94.1	103.7	120.0	No	01/07/2020
	Blast Vibration	mm/s	Every Blast	5	0.12	0.24	10.0	No	01/07/2020
R98	Blast Noise	dB (Lin Peak)	Every Blast	5	96.6	102.6	120.0	No	01/07/2020
	Blast Vibration	mm/s	Every Blast	5	0.53	1.20	10.0	No	01/07/2020
R62	Blast Noise	dB (Lin Peak)	Every Blast	5	94.7	105.3	120.0	No	01/07/2020
	Blast Vibration	mm/s	Every Blast	5	0.29	0.53	10.0	No	01/07/2020
R92	Blast Noise	dB (Lin Peak)	Every Blast	5	94.5	106.0	120.0	No	01/07/2020
	Blast Vibration	mm/s	Every Blast	5	0.22	0.40	10.0	No	01/07/2020



## WERRIS CREEK COAL EPL – MONTHLY SUMMARY



**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:** July 2020

**Obtained Date:** 18/8/20

**Publication Date:** 25/8/20

**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	6	31/07/2020	18/08/2020	0.0	2.5	3.0	4.2
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/07/2020	07/08/2020	0.2	0.2	0.2	0.2
29	PM10	µg/m <sup>3</sup>	Every 6 days	6	31/07/2020	18/08/2020	1.2	5.3	5.2	10.6
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/07/2020	07/08/2020	0.4	0.4	0.4	0.4
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	31/07/2020	01/08/2020	0.0	7.4	7.6	18.2
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/07/2020	07/08/2020	0.5	0.5	0.5	0.5
10	Conductivity	µS/cm	Special Frequency 1	1	09/07/2020	22/07/2020	810	810	810	810
	Nitrate	mg/L	Special Frequency 1	1	09/07/2020	22/07/2020	6.19	6.19	6.19	6.19
	Nitrogen (Total)	mg/L	Special Frequency 1	1	09/07/2020	22/07/2020	8.1	8.1	8.1	8.1
	Phosphorus (Total)	mg/L	Special Frequency 1	1	09/07/2020	22/07/2020	0.03	0.03	0.03	0.03
	Reactive Phosphorus	mg/L	Special Frequency 1	1	09/07/2020	22/07/2020	<0.01	<0.01	<0.01	<0.01
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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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	-	-	-	-	-	-
	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 1	0	-	-	-	-	-	-
23	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	-	-	-	-	-	-
	Total Suspended Solids	mg/L	Special Frequency 2	0	-	-	-	-	-	-
24	Conductivity	µS/cm	Special Frequency 2	0	-	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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	-	-	-	-	-	-
	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	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*	Aluminium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0	-	-	-	-	-	-	
34	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	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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	-	-	-	-	-	-
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	-	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	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 Value	100%ile Limit	Exceedance (Yes/No)
10	Total Suspended Solids	mg/L	Special Frequency 1	1	09/07/2020	22/07/2020	14	14	50*	No
	Oil and Grease	mg/L	Special Frequency 1	1	09/07/2020	22/07/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	09/07/2020	22/07/2020	8.2	8.2	6.5-8.5	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



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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 1	0	-	-			10	No
	pH	pH	Special Frequency 1	0	-	-			6.5-8.5	No
33^	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
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
	Oil and Grease	mg/L	Special Frequency 3	0	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0	-	-	-	-	9	No

\*Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ 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	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0	0	-	-	-	-	-
	pH	pH	Every 3 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0	0	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Total Suspended Solids	mg/L	Every 3 Months	0	0	-	-	-	-	-
27	Conductivity	µS/cm	Every 3 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0	0	-	-	-	-	-
	pH	pH	Every 3 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0	0	-	-	-	-	-
	Total Suspended Solids	mg/L	Every 3 Months	0	0	-	-	-	-	-
17	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	pH	pH	Every 6 Months	0	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0	0	-	-	-	-	-
19	Conductivity	µS/cm	Every 6 Months	0	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0	0	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

TLTS - Too low to sample

**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					
R24	6 July 2020	60 minutes	10:02am	N/A	44	Day 37	0.4m/s, 184 degrees	Birds (40), traffic (39), train (38), aeroplane (28), <b>WCC (&lt;20)</b>	No	21/07/2020
R12	6 July 2020	60 minutes	11:08am	N/A	58	Day 38	0.9m/s, 186 degrees	Railworks (54), traffic (54), birds (51), <b>WCC (&lt;20)</b>	No	21/07/2020
R96	6 July 2020	60 minutes	12:22pm	N/A	46	Day 38	1.2m/s, 166 degrees	Traffic (42), birds (42), dogs (40), <b>WCC (&lt;20)</b>	No	21/07/2020
R98	6 July 2020	60 minutes	1:30pm	N/A	56	Day 36	0.9m/s, 196 degrees	Residential (54), birds (52), aeroplane (37), <b>WCC (&lt;20)</b>	No	21/07/2020
R57	6 July 2020	60 minutes	3:18pm	N/A	46	Day 35	2.4m/s, 188 degrees	Traffic (44), birds (40), roadworks (38), <b>WCC (&lt;20)</b>	No	21/07/2020
R24	6 July 2020	60 minutes	7:02pm	<20	52	Night 37	+2.6°C/100, 1.8m/s, 159 degrees	Traffic (50), train (48), <b>WCC (&lt;20)</b>	No	21/07/2020
R12	6 July 2020	60 minutes	8:07pm	<20	43	Night 38	+3.6°C/100, 1.1m/s, 113 degrees	Traffic (42), dogs (37), <b>WCC (&lt;20)</b>	No	21/07/2020
R96	6 July 2020	60 minutes	9:17pm	<20	31	Night 38	+4.6°C/100, 0.9m/s, 159 degrees	Train (29), traffic (27), <b>WCC (&lt;20)</b>	No	21/07/2020
R98	6 July 2020	60 minutes	10:23pm	<20	31	Night 38	+3.0°C/100, 0.9m/s, 106 degrees	Dogs (31), traffic (23), <b>WCC (&lt;20)</b>	No	21/07/2020
R57	7 July 2020	60 minutes	12:18am	<20	40	Night 35	+3.3°C/100, 0.6m/s, 111 degrees	Train (37), traffic (36), insects (30), <b>WCC (&lt;20)</b>	No	21/07/2020

**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	6	96.2	100.8	120.0	No	01/08/2020
	Blast Vibration	mm/s	Every Blast	6	0.16	0.26	10.0	No	01/08/2020
R98	Blast Noise	dB (Lin Peak)	Every Blast	6	98.9	105.8	120.0	No	01/08/2020
	Blast Vibration	mm/s	Every Blast	6	1.07	1.74	10.0	No	01/08/2020
R62	Blast Noise	dB (Lin Peak)	Every Blast	6	99.1	102.6	120.0	No	01/08/2020
	Blast Vibration	mm/s	Every Blast	6	0.56	0.99	10.0	No	01/08/2020
R92	Blast Noise	dB (Lin Peak)	Every Blast	6	98.7	100.7	120.0	No	01/08/2020
	Blast Vibration	mm/s	Every Blast	6	0.34	0.67	10.0	No	01/08/2020



## WERRIS CREEK COAL EPL – MONTHLY SUMMARY





**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:** AUGUST 2020

**Obtained Date:** 15-09-20

**Publication Date:** 15-10-20

**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	30/08/2020	15/09/2020	1.1	4.9	2.6	15
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/08/2020	10/08/2020	0.4	0.4	0.4	0.4
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	30/08/2020	15/09/2020	3.2	8.2	4.8	16.2
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/08/2020	10/08/2020	0.7	0.7	0.7	0.7
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	31/08/2020	03/09/2020	2.8	12.7	7.8	123.1
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/08/2020	07/08/2020	0.7	0.7	0.7	0.7
10	Conductivity	µS/cm	Special Frequency 1	1*	07/08/2020	19/08/2020	640	640	640	640
	Nitrate	mg/L	Special Frequency 1	1*	07/08/2020	19/08/2020	8.6	8.6	8.6	8.6
	Nitrogen (Total)	mg/L	Special Frequency 1	1*	07/08/2020	19/08/2020	9.1	9.1	9.1	9.1
	Phosphorus (Total)	mg/L	Special Frequency 1	1*	07/08/2020	19/08/2020	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	1*	07/08/2020	19/08/2020	<0.02	<0.02	<0.02	<0.02
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*	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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*	-	-	-	-	-	-
	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*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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*	-	-	-	-	-	-
	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	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*	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	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*	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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*	-	-	-	-	-	-
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*	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	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 Value	100%ile Limit	Exceedance (Yes/No)
10	Total Suspended Solids	mg/L	Special Frequency 1	1*	07/08/2020	19/08/2020	6	6	50~	No
	Oil and Grease	mg/L	Special Frequency 1	1*	07/08/2020	19/08/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1*	07/08/2020	19/08/2020	7.9	7.9	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	0*	-	-	-	-	2000	No



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
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
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ EPL ID Point 33 is the point of discharge for discharge sampling

\*No Special Frequency Events occurred during Sampling Period, therefor no data has been collected.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

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

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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*	12/08/2020	20/08/2020	1130	1130	1130	1130
	Nitrate	mg/L	Every 3 Months	1*	12/08/2020	20/08/2020	0.61	0.61	0.61	0.61
	Nitrogen (Total)	mg/L	Every 3 Months	1*	12/08/2020	20/08/2020	0.7	0.7	0.7	0.7
	Oil and Grease	mg/L	Every 3 Months	1*	12/08/2020	20/08/2020	<5	<5	<5	<5
	pH	pH	Every 3 Months	1*	12/08/2020	20/08/2020	8.07	8.07	8.07	8.07
	Phosphorus (Total)	mg/L	Every 3 Months	1*	12/08/2020	20/08/2020	<0.01	<0.01	<0.01	<0.01
	Reactive Phosphorus	mg/L	Every 3 Months	1*	12/08/2020	20/08/2020	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	1*	12/08/2020	20/08/2020	<5	<5	<5	<5
27	Conductivity	µS/cm	Every 3 Months	1*	12/08/2020	20/08/2020	1080	1080	1080	1080
	Nitrate	mg/L	Every 3 Months	1*	12/08/2020	20/08/2020	0.28	0.28	0.28	0.28
	Nitrogen (Total)	mg/L	Every 3 Months	1*	12/08/2020	20/08/2020	0.3	0.3	0.3	0.3
	Oil and Grease	mg/L	Every 3 Months	1*	12/08/2020	20/08/2020	<5	<5	<5	<5
	pH	pH	Every 3 Months	1*	12/08/2020	20/08/2020	8.05	8.05	8.05	8.05
	Phosphorus (Total)	mg/L	Every 3 Months	1*	12/08/2020	20/08/2020	<0.01	<0.01	<0.01	<0.01
	Reactive Phosphorus	mg/L	Every 3 Months	1*	12/08/2020	20/08/2020	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	1*	12/08/2020	20/08/2020	9	9	9	9
17	Conductivity	µS/cm	Every 6 Months	0*	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	pH	pH	Every 6 Months	0*	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	0	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0*	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	0	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Nitrate	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	pH	pH	Every 6 Months	0*	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	0	-	-	-	-	-

\*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

**Table 4 – Monitoring (Noise – Limits Apply)**

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

Location	Date	Measurement Period	Start Time	Measured levels – dB(A)		Limit(s)	Weather (inversion °C/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	27 August 2020	60 minutes	10:02am	N/A	51	Day 37	3.6m/s, 284 degrees	Traffic (51), birds (40), <b>WCC (&lt;20)</b>	No	09/09/2020
R12	27 August 2020	60 minutes	11:10am	N/A	63	Day 38	1.2m/s, 274 degrees	Traffic (63), birds (51), <b>WCC (&lt;20)</b>	No	09/09/2020
R96	27 August 2020	60 minutes	12:31pm	N/A	39	Day 38	1.4m/s, 294 degrees	Traffic (36), birds (35), <b>WCC (29)</b>	No	09/09/2020
R98	27 August 2020	60 minutes	1:45pm	N/A	40	Day 36	1.5m/s, 299 degrees	Water pump (37), birds (36), dog (30), <b>WCC (&lt;20)</b>	No	09/09/2020
R57	27 August 2020	60 minutes	3:43pm	N/A	46	Day 35	2.5m/s, 145 degrees	Traffic (44), birds (40), residential (34), <b>WCC (&lt;20)</b>	No	09/09/2020
R24	27 August 2020	60 minutes	7:07pm	29	50	Night 37	+5.3°C/100, 3.0m/s, 010 degrees	Traffic (50), insects (36), <b>WCC (27)</b>	No	09/09/2020
R12	27 August 2020	60 minutes	8:13pm	25	49	Night 38	+3.4°C/100, 2.3m/s, 309 degrees	Traffic (49), insects (32), <b>WCC (23)</b>	No	09/09/2020
R96	27 August 2020	60 minutes	9:26pm	32	34	Night 38	+4.4°C/100, 3.9m/s, 350 degrees	Traffic (32), <b>WCC (29)</b>	No	09/09/2020
R98	27 August 2020	60 minutes	10:35pm	25	35	Night 38	+6.3°C/100, 3.7m/s, 348 degrees	Dogs (35), <b>WCC (23)</b>	No	09/09/2020
R57	27 August 2020	60 minutes	7:02pm	<20	56	Night 35	+2.4°C/100, 2.8m/s, 160 degrees	Traffic (56), residential (41), birds (40), industrial (38), <b>WCC (&lt;20)</b>	No	09/09/2020

**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	6	97.1	101.1	120.0	No	01/09/2020
	Blast Vibration	mm/s	Every Blast	6	0.14	0.31	10.0	No	01/09/2020
R98	Blast Noise	dB (Lin Peak)	Every Blast	6	102.7	111.0	120.0	No	01/09/2020
	Blast Vibration	mm/s	Every Blast	6	0.66	1.05	10.0	No	01/09/2020
R62	Blast Noise	dB (Lin Peak)	Every Blast	6	103.9	109.7	120.0	No	01/09/2020
	Blast Vibration	mm/s	Every Blast	6	0.37	0.56	10.0	No	01/09/2020
R92	Blast Noise	dB (Lin Peak)	Every Blast	6	100.6	105.9	120.0	No	01/09/2020
	Blast Vibration	mm/s	Every Blast	6	0.22	0.37	10.0	No	01/09/2020



WERRIS CREEK COAL EPL – MONTHLY SUMMARY





**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: SEPTEMBER 2020

Obtained Date: 20/10/2020

Publication Date: 02/11/20

**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	29/09/2020	14/10/2020	3.9	8.9	8.6	12.2
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	21/09/2020	05/10/2020	0.4	0.4	0.4	0.4
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	29/09/2020	14/10/2020	3.8	10.6	11.7	15.7
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	21/09/2020	05/10/2020	0.7	0.7	0.7	0.7
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	30/9/2020	01/10/2020	0.6	10.4	10.2	19.8
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	21/09/2020	05/10/2020	0.5	0.5	0.5	0.5
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*	-	-	-	-	-	-
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*	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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*	-	-	-	-	-	-
	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*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
24	Total Suspended Solids	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
Conductivity	µS/cm	Special Frequency 2	0*	-	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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*	-	-	-	-	-	-
	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	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*	Aluminium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	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*	-	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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*	-	-	-	-	-	-
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*	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	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 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	0*	-	-	-	-	2000	No

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
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
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ EPL ID Point 33 is the point of discharge for discharge sampling

\*No Special Frequency Events occurred during Sampling Period, therefor no data has been collected.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**
**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	0*	0	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	pH	pH	Every 3 Months	0*	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Total Suspended Solids	mg/L	Every 3 Months	0*	0	-	-	-	-	-
27	Conductivity	µS/cm	Every 3 Months	0*	0	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	pH	pH	Every 3 Months	0*	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Total Suspended Solids	mg/L	Every 3 Months	0*	0	-	-	-	-	-
17	Conductivity	µS/cm	Every 6 Months	0*	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	pH	pH	Every 6 Months	0*	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	Standing Water Level	Metres	Every 6 Months	0*	0	-	-	-	-	-
18	Conductivity	µS/cm	Every 6 Months	0*	0	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

\*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

**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 °C/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	L <sub>Aeq</sub> , 15 Minute					
R24	28 September 2020	60 minutes	10:12am	N/A	42	Day 37	2.9m/s, 034 degrees	Traffic (42), birds (28), insects (24), <b>WCC (&lt;20)</b>	No	20/10/2020
R12	28 September 2020	60 minutes	11:21am	N/A	42	Day 38	1.0m/s, 255 degrees	Traffic (42), insects (30), aeroplane (27), <b>WCC (&lt;20)</b>	No	20/10/2020
R96	28 September 2020	60 minutes	12:35pm	N/A	36	Day 38	1.6m/s, 344 degrees	Birds (34), traffic (31), <b>WCC (&lt;20)</b>	No	20/10/2020
R98	28 September 2020	60 minutes	1:48pm	N/A	43	Day 36	1.8m/s, 150 degrees	Birds (42), residential (36), <b>WCC (&lt;20)</b>	No	20/10/2020
R57	28 September 2020	60 minutes	3:48pm	N/A	51	Day 35	3.0m/s, 272 degrees	Traffic (50), birds (42), insects (36), trains (34), <b>WCC (&lt;20)</b>	No	20/10/2020
R24	28 September 2020	60 minutes	7:07pm	<20	45	Night 37	+4.8°C/100, 2.5m/s, 152 degrees	Traffic (45), insects (35), <b>WCC (&lt;20)</b>	No	20/10/2020
R12	28 September 2020	60 minutes	8:11pm	<20	42	Night 38	+1.9°C/100, 2.6m/s, 135 degrees	Traffic (41), insects (35), <b>WCC (&lt;20)</b>	No	20/10/2020
R96	28 September 2020	60 minutes	9:22pm	<20	28	Night 38	+4.8°C/100, 2.2m/s, 149 degrees	Birds (28), <b>WCC (&lt;20)</b>	No	20/10/2020
R98	28 September 2020	60 minutes	10:30pm	<20	31	Night 38	+4.4°C/100, 1.9m/s, 138 degrees	Insects (31), residential (22), <b>WCC (&lt;20)</b>	No	20/10/2020
R57	29 September 2020	60 minutes	12:20am	24	31	Night 35	+3.3°C/100, 1.1m/s, 150 degrees	Traffic (31), insects (22), <b>WCC (21)</b>	No	20/10/2020

**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)**

<b>Location</b>	<b>Parameter</b>	<b>Units of Measure</b>	<b>Frequency</b>	<b>No. of Blasts for the Month</b>	<b>Average Value</b>	<b>Max Value</b>	<b>100%ile Limit</b>	<b>(Potential) Non-compliance /breach</b>	<b>Date Obtained</b>
<b>R11</b>	<b>Blast Noise</b>	<b>dB (Lin Peak)</b>	<b>Every Blast</b>	6	95.8	102.6	120.0	No	01/10/2020
	<b>Blast Vibration</b>	<b>mm/s</b>	<b>Every Blast</b>	6	0.10	0.20	10.0	No	01/10/2020
<b>R98</b>	<b>Blast Noise</b>	<b>dB (Lin Peak)</b>	<b>Every Blast</b>	6	96.1	101.5	120.0	No	01/10/2020
	<b>Blast Vibration</b>	<b>mm/s</b>	<b>Every Blast</b>	6	0.50	1.35	10.0	No	01/10/2020
<b>R62</b>	<b>Blast Noise</b>	<b>dB (Lin Peak)</b>	<b>Every Blast</b>	6	95.9	101.7	120.0	No	01/10/2020
	<b>Blast Vibration</b>	<b>mm/s</b>	<b>Every Blast</b>	6	0.33	0.48	10.0	No	01/10/2020
<b>R92</b>	<b>Blast Noise</b>	<b>dB (Lin Peak)</b>	<b>Every Blast</b>	6	97.1	107.2	120.0	No	01/10/2020
	<b>Blast Vibration</b>	<b>mm/s</b>	<b>Every Blast</b>	6	0.26	0.36	10.0	No	01/10/2020

WERRIS CREEK COAL EPL – MONTHLY SUMMARY





**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:** OCTOBER 2020

**Obtained Date:** 16/11/2020

**Publication Date:** 20/11/2020

**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	29/10/2020	12/11/2020	3.3	8.9	6.9	17.3
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/10/2020	06/11/2020	1.7	1.7	1.7	1.7
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	29/10/2020	12/11/2020	11.6	17.0	14.6	22.5
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/10/2020	06/11/2020	1.4	1.4	1.4	1.4
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	31/10/2020	01/11/2020	-4.7	9.3	9.7	21.7
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/10/2020	06/11/2020	0.4	0.4	0.4	0.4
10	Conductivity	µS/cm	Special Frequency 1	1	26/10/2020	05/11/2020	330	330	330	330
	Nitrate	mg/L	Special Frequency 1	1	26/10/2020	05/11/2020	0.5	0.5	0.5	0.5
	Nitrogen (Total)	mg/L	Special Frequency 1	1	26/10/2020	05/11/2020	1.6	1.6	1.6	1.6
	Phosphorus (Total)	mg/L	Special Frequency 1	1	26/10/2020	05/11/2020	0.49	0.49	0.49	0.49
	Reactive Phosphorus	mg/L	Special Frequency 1	1	26/10/2020	05/11/2020	0.07	0.07	0.07	0.07
10	Conductivity	µS/cm	Special Frequency 1	1	30/10/2020	16/11/2020	340	340	340	340
	Nitrate	mg/L	Special Frequency 1	1	30/10/2020	16/11/2020	0.15	0.15	0.15	0.15
	Nitrogen (Total)	mg/L	Special Frequency 1	1	30/10/2020	16/11/2020	0.8	0.8	0.8	0.8
	Phosphorus (Total)	mg/L	Special Frequency 1	1	30/10/2020	16/11/2020	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	1	30/10/2020	16/11/2020	0.04	0.04	0.04	0.04
12	Conductivity	µS/cm	Special Frequency 1	1	30/10/2020	16/11/2020	460	460	460	460

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Nitrate	mg/L	Special Frequency 1	1	30/10/2020	16/11/2020	2.5	2.5	2.5	2.5
	Nitrogen (Total)	mg/L	Special Frequency 1	1	30/10/2020	16/11/2020	3.6	3.6	3.6	3.6
	Phosphorus (Total)	mg/L	Special Frequency 1	1	30/10/2020	16/11/2020	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	1	30/10/2020	16/11/2020	0.03	0.03	0.03	0.03
14	Conductivity	µS/cm	Special Frequency 1	1	26/10/2020	05/11/2020	170	170	170	170
	Nitrate	mg/L	Special Frequency 1	1	26/10/2020	05/11/2020	0.21	0.21	0.21	0.21
	Nitrogen (Total)	mg/L	Special Frequency 1	1	26/10/2020	05/11/2020	2.5	2.5	2.5	2.5
	Phosphorus (Total)	mg/L	Special Frequency 1	1	26/10/2020	05/11/2020	0.49	0.49	0.49	0.49
	Reactive Phosphorus	mg/L	Special Frequency 1	1	26/10/2020	05/11/2020	0.27	0.27	0.27	0.27
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	1	26/10/2020	05/11/2020	230	230	230	230
	Nitrate	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	0.37	0.37	0.37	0.37
	Nitrogen (Total)	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	1.6	1.6	1.6	1.6
	Oil and Grease	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 2	1	26/10/2020	05/11/2020	8.0	8.0	8.0	8.0
	Phosphorus (Total)	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	0.36	0.36	0.36	0.36
	Reactive Phosphorus	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	0.17	0.17	0.17	0.17
24	Total Suspended Solids	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	119	119	119	119
Conductivity	µS/cm	Special Frequency 2	1	26/10/2020	05/11/2020	230	230	230	230	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Nitrate	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	0.8	0.8	0.8	0.8
	Nitrogen (Total)	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	2.6	2.6	2.6	2.6
	Oil and Grease	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 2	1	26/10/2020	05/11/2020	8.0	8.0	8.0	8.0
	Phosphorus (Total)	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	0.64	0.64	0.64	0.64
	Reactive Phosphorus	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	0.36	0.36	0.36	0.36
	Total Suspended Solids	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	717	717	717	717
25	Conductivity	µS/cm	Special Frequency 2	1	26/10/2020	05/11/2020	320	320	320	320
	Nitrate	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	0.19	0.19	0.19	0.19
	Nitrogen (Total)	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	1.7	1.7	1.7	1.7
	Oil and Grease	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 2	1	26/10/2020	05/11/2020	8.1	8.1	8.1	8.1
	Phosphorus (Total)	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	0.32	0.32	0.32	0.32
	Reactive Phosphorus	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	0.26	0.26	0.26	0.26
25	Conductivity	µS/cm	Special Frequency 2	1	30/10/2020	16/11/2020	330	330	330	330
	Nitrate	mg/L	Special Frequency 2	1	30/10/2020	16/11/2020	0.23	0.23	0.23	0.23
	Nitrogen (Total)	mg/L	Special Frequency 2	1	30/10/2020	16/11/2020	1.2	1.2	1.2	1.2
	Oil and Grease	mg/L	Special Frequency 2	1	30/10/2020	16/11/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 2	1	30/10/2020	16/11/2020	8.4	8.4	8.4	8.4
	Phosphorus (Total)	mg/L	Special Frequency 2	1	30/10/2020	16/11/2020	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	1	30/10/2020	16/11/2020	0.16	0.16	0.16	0.16
26	Conductivity	µS/cm	Special Frequency 2	1	26/10/2020	05/11/2020	300	300	300	300
	Nitrate	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	0.23	0.23	0.23	0.23

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Nitrogen (Total)	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	2	2	2	2
	Oil and Grease	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 2	1	26/10/2020	05/11/2020	7.9	7.9	7.9	7.9
	Phosphorus (Total)	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	0.46	0.46	0.46	0.46
	Reactive Phosphorus	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	0.33	0.33	0.33	0.33
	Total Suspended Solids	mg/L	Special Frequency 2	1	26/10/2020	05/11/2020	63	63	63	63
26	Conductivity	µS/cm	Special Frequency 2	1	30/10/2020	16/11/2020	340	340	340	340
	Nitrate	mg/L	Special Frequency 2	1	30/10/2020	16/11/2020	0.2	0.2	0.2	0.2
	Nitrogen (Total)	mg/L	Special Frequency 2	1	30/10/2020	16/11/2020	1.3	1.3	1.3	1.3
	Oil and Grease	mg/L	Special Frequency 2	1	30/10/2020	16/11/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 2	1	30/10/2020	16/11/2020	7.9	7.9	7.9	7.9
	Phosphorus (Total)	mg/L	Special Frequency 2	1	30/10/2020	16/11/2020	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	1	30/10/2020	16/11/2020	0.17	0.17	0.17	0.17
Total Suspended Solids	mg/L	Special Frequency 2	1	30/10/2020	16/11/2020	15	15	15	15	
33*	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*	-	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	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*	-	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

**Table 2 - Pollutant Limits Apply**





**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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	1	26/10/2020	05/11/2020	2710	2710	50~	No
	Oil and Grease	mg/L	Special Frequency 1	1	26/10/2020	05/11/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	26/10/2020	05/11/2020	7.9	7.9	6.5-8.5	No
10	Total Suspended Solids	mg/L	Special Frequency 1	1	30/10/2020	16/11/2020	38	38	50	No
	Oil and Grease	mg/L	Special Frequency 1	1	30/10/2020	16/11/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	30/10/2020	16/11/2020	7.3	7.3	6.5-8.5	No
12	Total Suspended Solids	mg/L	Special Frequency 1	1	30/10/2020	16/11/2020	14	14	50	No
	Oil and Grease	mg/L	Special Frequency 1	1	30/10/2020	16/11/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	30/10/2020	16/11/2020	7.4	7.4	6.5-8.5	No
14	Total Suspended Solids	mg/L	Special Frequency 1	1	26/10/2020	05/11/2020	290	290	50~	No
	Oil and Grease	mg/L	Special Frequency 1	1	26/10/2020	05/11/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	26/10/2020	05/11/2020	7.6	7.6	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	0*	-	-	-	-	2000	No
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0*	-	-	-	-	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
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ EPL ID Point 33 is the point of discharge for discharge sampling

\*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.



### **WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**
**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	0*	0	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	pH	pH	Every 3 Months	0*	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	0	-	-	-	-	-
27	Total Suspended Solids	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Conductivity	µS/cm	Every 3 Months	0*	0	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	pH	pH	Every 3 Months	0*	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	0	-	-	-	-	-
17	Reactive Phosphorus	mg/L	Every 3 Months	0*	0	-	-	-	-	-
	Conductivity	µS/cm	Every 6 Months	0*	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	pH	pH	Every 6 Months	0*	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	0	-	-	-	-	-
Reactive Phosphorus	mg/L	Every 6 Months	0*	0	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

\*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

**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	L <sub>Aeq</sub> , 15 Minute					
R24	29 October 2020	60 minutes	10:07am	N/A	50	Day 37	1.8m/s, 332 degrees	Traffic (50), birds (39), insects (33), <b>WCC (&lt;20)</b>	No	10/11/2020
R12	29 October 2020	60 minutes	11:11am	N/A	57	Day 38	3.4m/s, 24 degrees	Traffic (57), train (46), birds (38), <b>WCC (&lt;20)</b>	No	10/11/2020
R96	29 October 2020	60 minutes	12:06pm	N/A	36	Day 38	3.9m/s, 49 degrees	Birds (34), insects (31), <b>WCC (&lt;20)</b>	No	10/11/2020
R98	29 October 2020	60 minutes	1:14pm	N/A	57	Day 36	3.4m/s, 359 degrees	Birds (55), dogs (53), insects (42), <b>WCC (&lt;20)</b>	No	10/11/2020
R57	29 October 2020	60 minutes	2:46pm	N/A	51	Day 35	3.3m/s, 68 degrees	Traffic (50), birds (43), residential (38), <b>WCC (&lt;20)</b>	No	10/11/2020
R24	29 October 2020	60 minutes	7:59pm	<20	47	Night 37	Lapse, 4.1m/s, 52 degrees	Traffic (45), frogs (40), insects (38), <b>WCC (&lt;20)</b>	No	10/11/2020
R12	29 October 2020	60 minutes	9:04pm	<20	40	Night 38	Lapse, 1.4m/s, 81 degrees	Traffic (39), frogs (32), insects (30), <b>WCC (&lt;20)</b>	No	10/11/2020
R96	29 October 2020	60 minutes	10:12pm	<20	36	Night 38	Lapse, 1.8m/s, 68 degrees	Frogs (35), insects (31), birds (26), train (25), <b>WCC (&lt;20)</b>	No	10/11/2020
R98	29 October 2020	60 minutes	11:26pm	<20	32	Night 38	+1.9°C/100, 1.2m/s, 357 degrees	Frogs (30), insects (28), <b>WCC (&lt;20)</b>	No	10/11/2020
R57	30 October 2020	60 minutes	1:02am	<20	46	Night 35	+1.6°C/100, 0.2m/s, 335 degrees	Frogs (44), insects (42), traffic (27), <b>WCC (&lt;20)</b>	No	10/11/2020

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

**IA = Inaudible.**

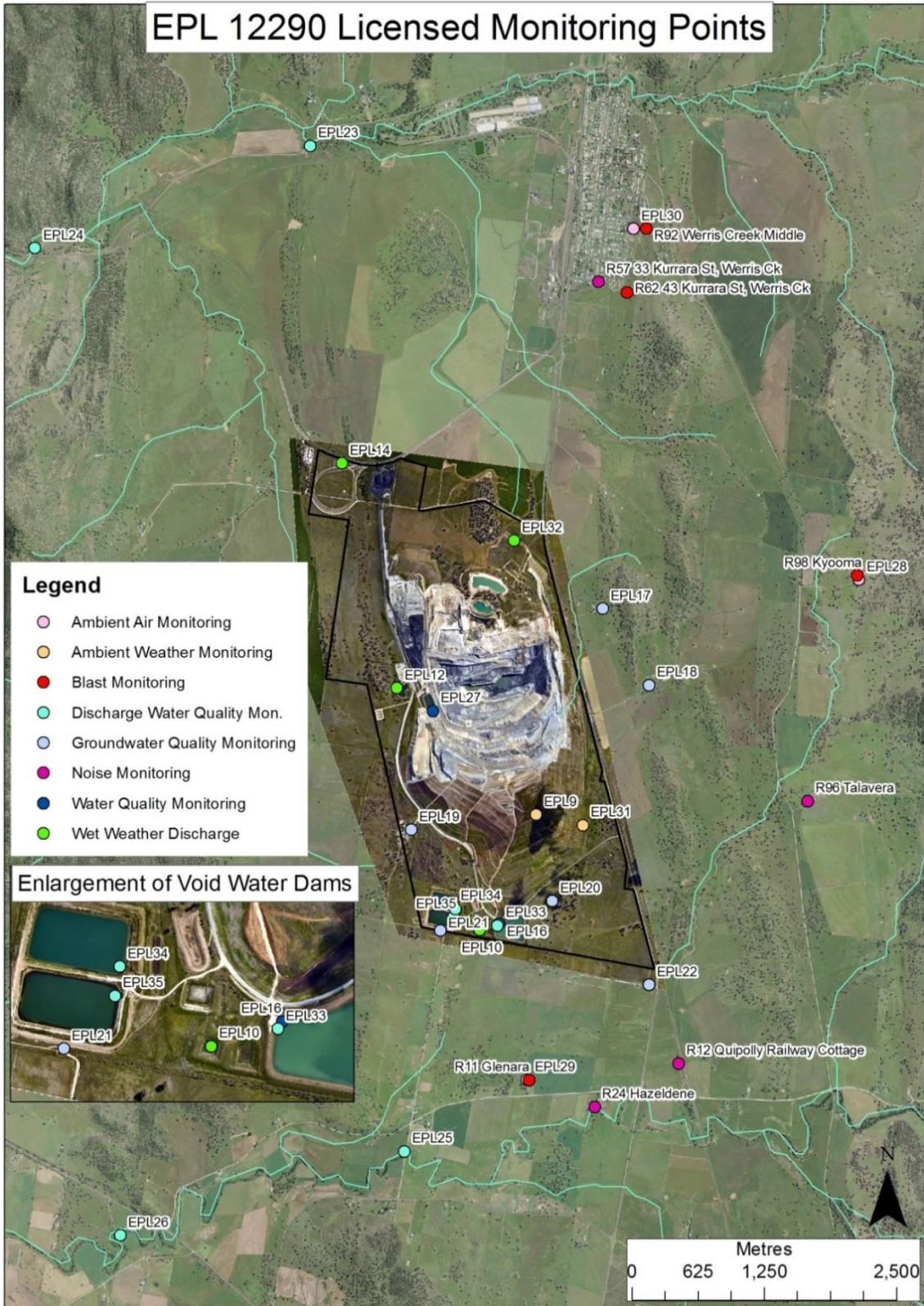


**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

**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	6	98.3	105.4	120.0	No	30/10/2020
	Blast Vibration	mm/s	Every Blast	6	0.13	0.17	10.0	No	30/10/2020
R98	Blast Noise	dB (Lin Peak)	Every Blast	6	98.9	101.7	120.0	No	30/10/2020
	Blast Vibration	mm/s	Every Blast	6	0.86	1.09	10.0	No	30/10/2020
R62	Blast Noise	dB (Lin Peak)	Every Blast	6	98.6	105.8	120.0	No	30/10/2020
	Blast Vibration	mm/s	Every Blast	6	0.48	0.95	10.0	No	30/10/2020
R92	Blast Noise	dB (Lin Peak)	Every Blast	6	100.3	106.3	120.0	No	30/10/2020
	Blast Vibration	mm/s	Every Blast	6	0.29	0.50	10.0	No	30/10/2020

## WERRIS CREEK COAL EPL – MONTHLY SUMMARY



**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:** NOVEMBER 2020

**Obtained Date:** 18/12/2020

**Publication Date:** 21/12/2020

**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	28/11/2020	11/12/2020	5.3	8.4	6.6	15.7
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/11/2020	13/12/2020	1.0	1.0	1.0	1.0
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	28/11/2020	11/12/2020	10.5	16.8	14.4	26.2
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/11/2020	13/12/2020	2.6	2.6	2.6	2.6
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	30/11/2020	01/12/2020	2.4	12.3	12.2	23.1
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	20/11/2020	13/12/2020	1.1	1.1	1.1	1.1
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	1	14/11/2020	16/11/2020	210	210	210	210

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Nitrate	mg/L	Special Frequency 1	1	14/11/2020	16/11/2020	<0.01	<0.01	<0.01	<0.01
	Nitrogen (Total)	mg/L	Special Frequency 1	1	14/11/2020	16/11/2020	1	1	1	1
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	1	14/11/2020	16/11/2020	0.29	0.29	0.29	0.29
32	Conductivity	µS/cm	Special Frequency 1	1	14/11/2020	16/11/2020	230	230	230	230
	Nitrate	mg/L	Special Frequency 1	1	14/11/2020	16/11/2020	<0.01	<0.01	<0.01	<0.01
	Nitrogen (Total)	mg/L	Special Frequency 1	1	14/11/2020	16/11/2020	0.8	0.8	0.8	0.8
	Oil and Grease	mg/L	Special Frequency 1	1	14/11/2020	16/11/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 1	1	14/11/2020	16/11/2020	7.5	7.5	7.5	7.5
	Phosphorus (Total)	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 1	1	14/11/2020	16/11/2020	0.48	0.48	0.48	0.48
	Total Suspended Solids	mg/L	Special Frequency 1	1	14/11/2020	16/11/2020	5	5	5	5
23	Conductivity	µS/cm	Special Frequency 2	1	14/11/2020	16/11/2020	680	680	680	680
	Nitrate	mg/L	Special Frequency 2	1	14/11/2020	16/11/2020	0.42	0.42	0.42	0.42
	Nitrogen (Total)	mg/L	Special Frequency 2	1	14/11/2020	16/11/2020	0.7	0.7	0.7	0.7
	Oil and Grease	mg/L	Special Frequency 2	1	14/11/2020	16/11/2020	<5	<5	<5	<5
	pH	pH	Special Frequency 2	1	14/11/2020	16/11/2020	8.4	8.4	8.4	8.4
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Special Frequency 2	1	14/11/2020	16/11/2020	0.09	0.09	0.09	0.09
	Total Suspended Solids	mg/L	Special Frequency 2	1	14/11/2020	16/11/2020	10	10	10	10
24	Conductivity	µS/cm	Special Frequency 2	1	14/11/2020	16/11/2020	680	680	680	680
	Nitrate	mg/L	Special Frequency 2	1	14/11/2020	16/11/2020	0.43	0.43	0.43	0.43
	Nitrogen (Total)	mg/L	Special Frequency 2	1	14/11/2020	16/11/2020	0.7	0.7	0.7	0.7
	Oil and Grease	mg/L	Special Frequency 2	1	14/11/2020	16/11/2020	8	8	8	8
	pH	pH	Special Frequency 2	1	14/11/2020	16/11/2020	8.5	8.5	8.5	8.5
	Phosphorus (Total)	mg/L	Special Frequency 2	0*	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Reactive Phosphorus	mg/L	Special Frequency 2	1	14/11/2020	16/11/2020	0.09	0.09	0.09	0.09
	Total Suspended Solids	mg/L	Special Frequency 2	1	14/11/2020	16/11/2020	8	8	8	8
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	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*	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*	-	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	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*	-	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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*	-	-	-	-	-	-
	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*	-	-	-	-	-	-





**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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 dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	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 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	1	14/11/2020	16/11/2020	19	19	50~	No
	Oil and Grease	mg/L	Special Frequency 1	1	14/11/2020	16/11/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	14/11/2020	16/11/2020	7.7	7.7	6.5-8.5	No
32	Total Suspended Solids	mg/L	Special Frequency 1	1	14/11/2020	16/11/2020	5	5	50~	No
	Oil and Grease	mg/L	Special Frequency 1	1	14/11/2020	16/11/2020	<5	<5	10	No
	pH	pH	Special Frequency 1	1	14/11/2020	16/11/2020	7.5	7.5	6.5-8.5	No
33^	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
34	Electrical Conductivity	mg/L	Special Frequency 4	0*	-	-	-	-	2000	No

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
35	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

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ EPL ID Point 33 is the point of discharge for discharge sampling

\*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**
**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	0*	11/11/2020	20/11/2020	1420	1420	1420	1420
	Nitrate	mg/L	Every 3 Months	0*	11/11/2020	20/11/2020	0.69	0.69	0.69	0.69
	Nitrogen (Total)	mg/L	Every 3 Months	0*	11/11/2020	20/11/2020	1	1	1	1
	Oil and Grease	mg/L	Every 3 Months	0*	11/11/2020	20/11/2020	<5	<5	<5	<5
	pH	pH	Every 3 Months	0*	11/11/2020	20/11/2020	7.31	7.31	7.31	7.31
	Phosphorus (Total)	mg/L	Every 3 Months	0*	11/11/2020	20/11/2020	<0.01	<0.01	<0.01	<0.01
	Reactive Phosphorus	mg/L	Every 3 Months	0*	11/11/2020	20/11/2020	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	0*	11/11/2020	20/11/2020	9	9	9	9
27	Conductivity	µS/cm	Every 3 Months	0*	11/11/2020	20/11/2020	1560	1560	1560	1560
	Nitrate	mg/L	Every 3 Months	0*	11/11/2020	20/11/2020	0.52	0.52	0.52	0.52
	Nitrogen (Total)	mg/L	Every 3 Months	0*	11/11/2020	20/11/2020	0.8	0.8	0.8	0.8
	Oil and Grease	mg/L	Every 3 Months	0*	11/11/2020	20/11/2020	<5	<5	<5	<5
	pH	pH	Every 3 Months	0*	11/11/2020	20/11/2020	7.42	7.42	7.42	7.42
	Phosphorus (Total)	mg/L	Every 3 Months	0*	11/11/2020	20/11/2020	<0.01	<0.01	<0.01	<0.01
	Reactive Phosphorus	mg/L	Every 3 Months	0*	11/11/2020	20/11/2020	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	0*	11/11/2020	20/11/2020	11	11	11	11
17	Conductivity	µS/cm	Every 6 Months	0*	0	-	-	-	-	-
	Nitrate	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	pH	pH	Every 6 Months	0*	0	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 6 Months	0*	0	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 6 Months	0*	0	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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

\*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

**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 °C/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	L <sub>Aeq</sub> , 15 Minute					
R24	24 November 2020	60 minutes	10:17am	N/A	50	Day 37	3.7m/s, 172 degrees	Traffic (49), birds (42), insects (37), <b>WCC (&lt;20)</b>	No	17/12/2020
R12	24 November 2020	60 minutes	11:21am	N/A	39	Day 38	2.9m/s, 159 degrees	Traffic (38), birds (32), <b>WCC (&lt;20)</b>	No	10/11/2020
R96	24 November 2020	60 minutes	12:30pm	N/A	38	Day 38	3.9m/s, 177 degrees	Insects (36), birds (33), traffic (25), <b>WCC (&lt;20)</b>	No	10/11/2020
R98	24 November 2020	60 minutes	1:39pm	N/A	43	Day 36	3.2m/s, 175 degrees	Birds (41), residential (39), traffic (26), <b>WCC (&lt;20)</b>	No	10/11/2020
R57	24 November 2020	60 minutes	3:10pm	N/A	54	Day 35	4.7m/s, 162 degrees	Birds (51), traffic (49), residential (47), Crawfords* (30), <b>WCC (&lt;20)</b>	No	10/11/2020
R24	24 November 2020	60 minutes	8:04pm	<20	47	Night 37	+0.8°C/100, 2.4m/s, 165 degrees	Traffic (46), birds (39), insects (37), <b>WCC (&lt;20)</b>	No	10/11/2020
R12	24 November 2020	60 minutes	9:09pm	<20	42	Night 38	+0.9°C/100, 2.7m/s, 154 degrees	Birds (39), traffic (38), insects (31), <b>WCC (&lt;20)</b>	No	10/11/2020
R96	24 November 2020	60 minutes	10:16pm	<20	39	Night 38	+0.1°C/100, 2.5m/s, 156 degrees	Insects (38), traffic (32), <b>WCC (&lt;20)</b>	No	10/11/2020
R98	24 November 2020	60 minutes	11:26pm	<20	50	Night 38	+0.6°C/100, 2.2m/s, 139 degrees	Insects (50), traffic (34), <b>WCC (&lt;20)</b>	No	10/11/2020
R57	25 November 2020	60 minutes	1:08am	<20	40	Night 35	+0.9°C/100, 1.0m/s, 158 degrees	Insects (37), traffic (36), trains (30), <b>WCC (&lt;20)</b>	No	10/11/2020

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

**IA = Inaudible.**

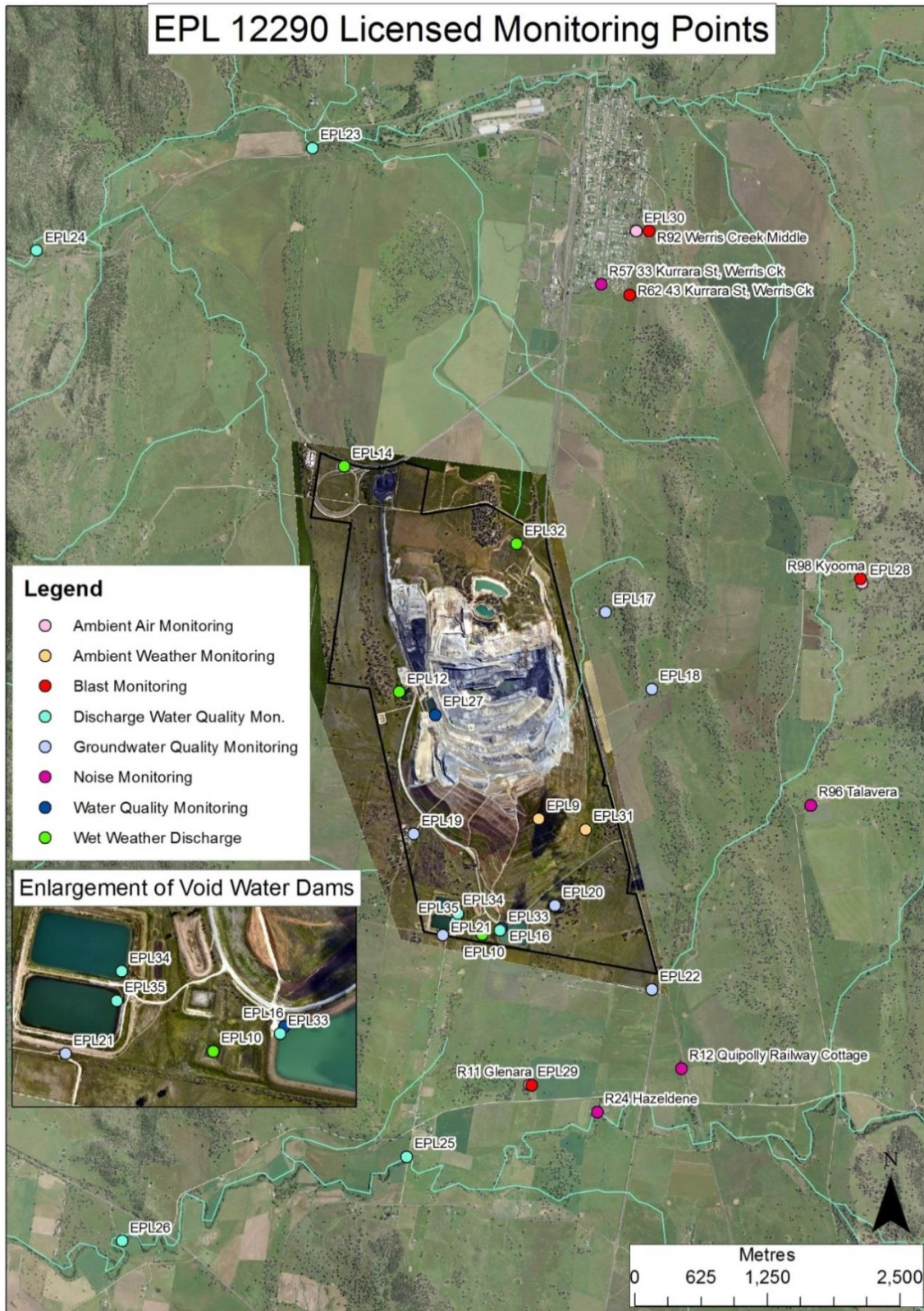


**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

**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	3	99.6	97.7	120.0	No	30/11/2020
	Blast Vibration	mm/s	Every Blast	3	0.20	0.12	10.0	No	30/11/2020
R98	Blast Noise	dB (Lin Peak)	Every Blast	3	101.0	99.2	120.0	No	30/11/2020
	Blast Vibration	mm/s	Every Blast	3	1.13	0.71	10.0	No	30/11/2020
R62	Blast Noise	dB (Lin Peak)	Every Blast	3	104.6	99.2	120.0	No	30/11/2020
	Blast Vibration	mm/s	Every Blast	3	0.45	0.39	10.0	No	30/11/2020
R92	Blast Noise	dB (Lin Peak)	Every Blast	3	101.3	98.7	120.0	No	30/11/2020
	Blast Vibration	mm/s	Every Blast	3	0.33	0.26	10.0	No	30/11/2020

## WERRIS CREEK COAL EPL – MONTHLY SUMMARY



**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: DECEMBER 2020

Obtained Date: 01/02/2021

Publication Date: 01/02/2021

**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	28/12/2020	12/01/2021	3.2	9.2	5.8	17.3
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	18/12/2020	25/01/2021	2.3	2.3	2.3	2.3
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	28/12/2020	12/01/2021	2.1	7.2	7.0	14.9
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	18/12/2020	25/01/2021	1.4	1.4	1.4	1.4
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	31/12/2020	01/01/2021	0.3	6.7	5.5	23.8
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	18/12/2020	25/01/2021	1.5	1.5	1.5	1.5
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*	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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*	-	-	-	-	-	-
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*	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	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*	-	-	-	-	-	-
33*	Reactive Phosphorus	mg/L	Special Frequency 2	0*	-	-	-	-	-	-
	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*	-	-	-	-	-	-



**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

<b>EPL ID</b>	<b>Pollutant</b>	<b>Units of Measure</b>	<b>Monitoring Frequency</b>	<b>No. of Measurements for the Month</b>	<b>Date Sampled</b>	<b>Date Obtained</b>	<b>Min Value</b>	<b>Mean Value</b>	<b>Median Value</b>	<b>Max Value</b>
	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*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
Zinc (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-	
34	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*	-	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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*	-	-	-	-	-	-
	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*	-	-	-	-	-	-	





**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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 dissolved solids	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Vanadium (dissolved)	mg/L	Special Frequency 3	0*	-	-	-	-	-	-
	Zinc (dissolved)	mg/L	Special Frequency 3	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 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	0*	-	-	-	-	2000	No
	Oil and Grease	mg/L	Special Frequency 3	0*	-	-	-	-	10	No
	pH	pH	Special Frequency 4	0*	-	-	-	-	9	No
34	Electrical Conductivity	mg/L	Special Frequency 4	0*	-	-	-	-	2000	No

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
35	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

~ Total Suspended Solids permitted to exceed 50mg/L if 5 day rainfall is greater than 39.2mm prior to discharge

^ EPL ID Point 33 is the point of discharge for discharge sampling

\*No Special Frequency Events occurred during Sampling Period, therefore no data has been collected.

- For the purposes of this condition, Special Frequency 1 means as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing.
- For the purposes of this condition, Special Frequency 2 means within 12 hours after any overflow from a storage dam(s) on the premises occurring.
- For the purposes of this condition, Special Frequency 3 means every three months. If no mine void water is planned to be provided for agricultural purposes within the three months following scheduled sampling, then sampling is not required.
- For the purposes of this condition, Special Frequency 4 means prior to, but not more than 24 hours prior to providing mine void water for agricultural purposes and then weekly thereafter, until the provision of water ceases. Samples are only required to be taken from the void water dam that is supplying water for agricultural purposes.

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**
**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	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
27	Total Suspended Solids	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Conductivity	µS/cm	Every 3 Months	0*	-	-	-	-	-	-
	Nitrate	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Nitrogen (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	Oil and Grease	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	pH	pH	Every 3 Months	0*	-	-	-	-	-	-
	Phosphorus (Total)	mg/L	Every 3 Months	0*	-	-	-	-	-	-
17	Reactive Phosphorus	mg/L	Every 3 Months	0*	-	-	-	-	-	-
	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*	-	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	Standing Water Level	Metres	Every 6 Months	0*	-	-	-	-	-	-
18	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*	-	-	-	-	-	-
19	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*	-	-	-	-	-	-
20	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*	-	-	-	-	-	-
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*	-	-	-	-	-	-

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

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
	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*	-	-	-	-	-	-

\*This reporting period does not include measurements for the 6 monthly or 3 monthly monitoring as they did not occur in this period. These will be reported in their relevant periods.

**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 °C/100m, wind m/s & °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	L <sub>Aeq</sub> , 15 Minute					
R24	28 December 2020	60 minutes	9:59am	N/A	49	Day 37	3.3m/s, 171 degrees	Traffic (48), birds (35), <b>WCC (&lt;20)</b>	No	21/01/2021
R12	28 December 2020	60 minutes	11:05am	N/A	36	Day 38	1.6m/s, 170 degrees	Traffic (34), insects (32), birds (30), <b>WCC (&lt;20)</b>	No	21/01/2021
R96	28 December 2020	60 minutes	12:21pm	N/A	36	Day 38	3.0m/s, 200 degrees	Insects (50), birds (39), traffic (26), train (24), <b>WCC (&lt;20)</b>	No	21/01/2021
R98	28 December 2020	60 minutes	1:29pm	N/A	39	Day 36	2.2m/s, 150 degrees	Insects (53), frogs (22), <b>WCC (&lt;20)</b>	No	21/01/2021
R57	28 December 2020	60 minutes	3:22pm	N/A	50	Day 35	4.1m/s, 205 degrees	Traffic (42), birds (40), insects (36), residential (30), <b>WCC (&lt;20)</b>	No	21/01/2021
R24	28 December 2020	60 minutes	7:59pm	<20	48	Night 37	+3.0°C/100, 2.4m/s, 033 degrees	Traffic (48), birds (35), <b>WCC (&lt;20)</b>	No	21/01/2021
R12	28 December 2020	60 minutes	9:05pm	<20	37	Night 38	+3.0°C/100, 1.1m/s, 279 degrees	Traffic (34), insects (32), birds (30), <b>WCC (&lt;20)</b>	No	21/01/2021
R96	28 December 2020	60 minutes	10:12pm	<20	50	Night 38	+5.8°C/100, 6.2m/s, 164 degrees	Insects (50), birds (39), traffic (26), train (24), <b>WCC (&lt;20)</b>	No	21/01/2021
R98	28 December 2020	60 minutes	11:19pm	<20	43	Night 38	+7.0°C/100, 5.7m/s, 133 degrees	Insects (53), frogs (22), <b>WCC (&lt;20)</b>	No	21/01/2021
R57	28 December 2020	60 minutes	7:46pm	<20	54	Night 35	Lapse, 1.5m/s, 029 degrees	Traffic (42), birds (40), insects (36), residential (30), <b>WCC (&lt;20)</b>	No	21/01/2021

**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	8	99.6	105.5	120.0	No	31/12/2020
	Blast Vibration	mm/s	Every Blast	8	0.10	0.14	10.0	No	31/12/2020
R98	Blast Noise	dB (Lin Peak)	Every Blast	8	101.0	105.7	120.0	No	31/12/2020
	Blast Vibration	mm/s	Every Blast	8	0.62	1.03	10.0	No	31/12/2020
R62	Blast Noise	dB (Lin Peak)	Every Blast	8	100.0	105.7	120.0	No	31/12/2020
	Blast Vibration	mm/s	Every Blast	8	0.42	1.01	10.0	No	31/12/2020
R92	Blast Noise	dB (Lin Peak)	Every Blast	8	100.4	105.9	120.0	No	31/12/2020
	Blast Vibration	mm/s	Every Blast	8	0.25	0.48	10.0	No	31/12/2020

## WERRIS CREEK COAL EPL – MONTHLY SUMMARY

