

**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 2022

**Obtained Date:** 20/12/2022

**Publication Date:** 20/12/2022

**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	30/11/2022	16/12/2022	1.6	4.7	4.1	7.1
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	18/11/2022	14/12/2022	0.8	0.8	0.8	0.8
29	PM10	µg/m <sup>3</sup>	Every 6 days	5	3/11/2022	16/12/2022	2.0	11.1	13.2	16.6
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	18/11/2022	14/12/2022	0.7	0.7	0.7	0.7
30	PM10	µg/m <sup>3</sup>	Continuous	Continuous	30/11/2022	01/12/2022	4.5	10.6	10.3	18.1
	Solid Particles	g/m <sup>2</sup> /month	Continuous	1	18/11/2022	14/12/2022	0.6	0.6	0.6	0.6
10	Conductivity	µS/cm	Special Frequency 1	4	1, 2 & 14/11/2022	17/11/2022	100	233	230	370
	Nitrate	mg/L	Special Frequency 1	4	1, 2 & 14/11/2022	17/11/2022	0.040	0.092	0.065	0.170
	Nitrogen (Total)	mg/L	Special Frequency 1	4	1, 2 & 14/11/2022	17/11/2022	0.50	0.60	0.60	0.70
	Phosphorus (Total)	mg/L	Special Frequency 1	4	1, 2 & 14/11/2022	17/11/2022	0.20	0.53	0.50	0.90
	Reactive Phosphorus	mg/L	Special Frequency 1	4	1, 2 & 14/11/2022	17/11/2022	0.17	0.47	0.47	0.78

**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
12	Conductivity	µS/cm	Special Frequency 1	8	3 & 18/11/2022	23/11/2022	220	288	285	350
	Nitrate	mg/L	Special Frequency 1	8	3 & 18/11/2022	23/11/2022	0.05	1.05	0.68	2.80
	Nitrogen (Total)	mg/L	Special Frequency 1	8	3 & 18/11/2022	23/11/2022	0.3	1.5	1.0	3.9
	Phosphorus (Total)	mg/L	Special Frequency 1	8	3 & 18/11/2022	23/11/2022	0.05	0.18	0.20	0.30
	Reactive Phosphorus	mg/L	Special Frequency 1	8	3 & 18/11/2022	23/11/2022	0.01	0.13	0.12	0.27
14	Conductivity	µS/cm	Special Frequency 1	3	1 & 14/11/2022	17/11/2022	80	103	80	150
	Nitrate	mg/L	Special Frequency 1	3	1 & 14/11/2022	17/11/2022	<0.005	0.09	0.09	0.12
	Nitrogen (Total)	mg/L	Special Frequency 1	3	1 & 14/11/2022	17/11/2022	0.5	0.8	0.6	1.2
	Phosphorus (Total)	mg/L	Special Frequency 1	3	1 & 14/11/2022	17/11/2022	0.50	0.57	0.60	0.60
	Reactive Phosphorus	mg/L	Special Frequency 1	3	1 & 14/11/2022	17/11/2022	0.41	0.51	0.52	0.60
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*	-	-	-	-	-	-

**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
	<b>Total Suspended Solids</b>	mg/L	Special Frequency 1	0*	-	-	-	-	-	-
<b>23</b>	<b>Conductivity</b>	µS/cm	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	120	150	150	180
	<b>Nitrate</b>	mg/L	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	0.22	0.26	0.26	0.30
	<b>Nitrogen (Total)</b>	mg/L	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	0.70	0.85	0.85	0.99
	<b>Oil and Grease</b>	mg/L	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	<5	<5	<5	<5
	<b>pH</b>	pH	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	7.81	7.91	7.91	8.00
	<b>Phosphorus (Total)</b>	mg/L	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	0.50	0.65	0.65	0.80
	<b>Reactive Phosphorus</b>	mg/L	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	0.47	0.68	0.68	0.89
	<b>Total Suspended Solids</b>	mg/L	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	295	498	498	701
<b>24</b>	<b>Conductivity</b>	µS/cm	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	130	155	155	180
	<b>Nitrate</b>	mg/L	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	0.44	0.49	0.49	0.53
	<b>Nitrogen (Total)</b>	mg/L	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	0.90	1.00	1.00	1.10
	<b>Oil and Grease</b>	mg/L	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	<5	7	7	7

**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
	pH	pH	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	8.01	8.05	8.05	8.09
	Phosphorus (Total)	mg/L	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	1.20	1.60	1.60	2.00
	Reactive Phosphorus	mg/L	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	0.83	1.12	1.12	1.40
	Total Suspended Solids	mg/L	Special Frequency 2	2	1 & 14/11/2022	17/11/2022	1106	1248	1248	1390
25	Conductivity	µS/cm	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	90	190	210	280
	Nitrate	mg/L	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	0.01	0.13	0.19	0.22
	Nitrogen (Total)	mg/L	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	0.70	1.14	0.80	2.10
	Oil and Grease	mg/L	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	<5	<5	<5	<5
	pH	pH	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	6.82	7.43	7.62	7.77
	Phosphorus (Total)	mg/L	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	0.20	0.54	0.30	1.00
	Reactive Phosphorus	mg/L	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	0.18	0.47	0.23	0.94
	Total Suspended Solids	mg/L	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	13	50	36	100
26	Conductivity	µS/cm	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	160	212	210	340

**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	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	0.10	0.16	0.16	0.27
	Nitrogen (Total)	mg/L	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	0.70	0.97	0.80	2.10
	Oil and Grease	mg/L	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	<5	<5	<5	<5
	pH	pH	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	7.16	7.49	7.62	7.77
	Phosphorus (Total)	mg/L	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	0.20	0.45	0.30	1.00
	Reactive Phosphorus	mg/L	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	0.17	0.35	0.24	0.87
	Total Suspended Solids	mg/L	Special Frequency 2	5	1, 2, 3, 14 & 18/11/2022	23/11/2022	21	69	50	148
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*	-	-	-	-	-	-
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*	-	-	-	-	-	-	
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*	-	-	-	-	-	-	

**WERRIS CREEK COAL EPL – MONTHLY SUMMARY**

**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)	Comments
10	Total Suspended Solids	mg/L	Special Frequency 1	4	1, 2 & 14/11/2022	17/11/2022	32	526	50~	No	Samples from the 1 <sup>st</sup> and 2 <sup>nd</sup> taken after approx. 67.2mm of rain, therefore limit for TSS does not apply. The 14 <sup>th</sup> was an uncontrolled release.
	Oil and Grease	mg/L	Special Frequency 1	4	1, 2 & 14/11/2022	17/11/2022	<5	<5	10	No	
	pH	pH	Special Frequency 1	4	1, 2 & 14/11/2022	17/11/2022	7.28	7.73	6.5-8.5	No	
12	Total Suspended Solids	mg/L	Special Frequency 1	8	3 & 18/11/2022	23/11/2022	45	410	50~	No	Samples from the 3 <sup>rd</sup> and 18 <sup>th</sup> taken after approx. 67.2mm and 57.6mm, respectively, of rain, therefore limit for TSS does not apply.
	Oil and Grease	mg/L	Special Frequency 1	8	3 & 18/11/2022	23/11/2022	<5	<5	10	No	
	pH	pH	Special Frequency 1	8	3 & 18/11/2022	23/11/2022	7.26	7.57	6.5-8.5	No	
14	Total Suspended Solids	mg/L	Special Frequency 1	3	1 & 14/11/2022	17/11/2022	28	190	50~	No	Samples from the 1 <sup>st</sup> and 14 <sup>h</sup> taken after approx. 67.2mm
	Oil and Grease	mg/L	Special Frequency 1	3	1 & 14/11/2022	17/11/2022	<5	<5	10	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)	Comments
	pH	pH	Special Frequency 1	3	1 & 14/11/2022	17/11/2022	7.07	7.44	6.5-8.5	No	and 57.6mm, respectively, of rain, therefore limit for TSS does not apply.
32	Total Suspended Solids	mg/L	Special Frequency 1	0*	-	-	-	-	2000	No	
	Oil and Grease	mg/L	Special Frequency 1	0*	-	-	-	-	10	No	
	pH	pH	Special Frequency 1	0*	-	-	-	-	9	No	
33 <sup>^</sup>	Electrical Conductivity	µS/cm	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	µS/cm	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	µS/cm	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

<sup>^</sup> 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.

#The discharge sample was inconsistent with pre-discharge sampling of the dam and has been discussed with the EPA. This will be documented in the Annual Return.

- 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.



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

- 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	1	23/11/2022	01/12/2022	1710	1710	1710	1710
	Nitrate	mg/L	Every 3 Months	1	23/11/2022	01/12/2022	0.24	0.24	0.24	0.24
	Nitrogen (Total)	mg/L	Every 3 Months	1	23/11/2022	01/12/2022	0.4	0.4	0.4	0.4
	Oil and Grease	mg/L	Every 3 Months	1	23/11/2022	01/12/2022	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	23/11/2022	01/12/2022	8.01	8.01	8.01	8.01
	Phosphorus (Total)	mg/L	Every 3 Months	1	23/11/2022	01/12/2022	0.02	0.02	0.02	0.02
	Reactive Phosphorus	mg/L	Every 3 Months	1	23/11/2022	01/12/2022	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	1	23/11/2022	01/12/2022	7	7	7	7
27	Conductivity	µS/cm	Every 3 Months	1	24/11/2022	02/12/2022	1140	1140	1140	1140
	Nitrate	mg/L	Every 3 Months	1	24/11/2022	02/12/2022	0.49	0.49	0.49	0.49
	Nitrogen (Total)	mg/L	Every 3 Months	1	24/11/2022	02/12/2022	0.7	0.7	0.7	0.7
	Oil and Grease	mg/L	Every 3 Months	1	24/11/2022	02/12/2022	<5	<5	<5	<5
	pH	pH	Every 3 Months	1	24/11/2022	02/12/2022	7.97	7.97	7.97	7.97
	Phosphorus (Total)	mg/L	Every 3 Months	1	24/11/2022	02/12/2022	0.02	0.02	0.02	0.02
	Reactive Phosphorus	mg/L	Every 3 Months	1	24/11/2022	02/12/2022	<0.01	<0.01	<0.01	<0.01
	Total Suspended Solids	mg/L	Every 3 Months	1	24/11/2022	02/12/2022	14	14	14	14
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*	-	-	-	-	-	-

**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*	-	-	-	-	-	-

TLTS – too low to sample

\*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 / Wind Direction °)	Observations	(Potential) Non-compliance /breach	Date Obtained
				LA1, 1 Minute	LAeq, 15 Minute					
R24	10 November 2022	60 minutes	12:45pm	N/A	46	Day 37	2.1 / 292	Traffic (45), birds (35), aeroplanes (31), insects (25), <b>WCC (&lt;20)</b>	No	12/12/2022
R12	10 November 2022	60 minutes	1:51pm	N/A	44	Day 38	2.2 / 357	Traffic (44), insects (27), birds (25), <b>WCC (&lt;20)</b>	No	12/12/2022
R96	10 November 2022	60 minutes	2:58pm	N/A	33	Day 38	4.1 / 297	Birds (32), insects (23), traffic (23), <b>WCC (22)</b>	No	12/12/2022
R98	10 November 2022	60 minutes	4:06pm	N/A	45	Day 35	2.2 / 315	Dog (44), birds (35), insects (27), <b>WCC (&lt;20)</b>	No	12/12/2022
R57	10 November 2022	60 minutes	2:42pm	N/A	47	Day 35	1.0 / 226	Traffic (47), birds (37), residential (27), <b>WCC (&lt;20)</b>	No	12/12/2022
R24	10 November 2022	60 minutes	7:00pm	25	50	Night 37	Lapse / 0.9 / 358	Traffic (50), frogs (31), insects (28), <b>WCC (22)</b>	No	12/12/2022
R12	10 November 2022	60 minutes	11:53pm	<20	39	Night 38	+1.3 / 1.2 / 140	Traffic (38), insects (29), frogs (27), <b>WCC (&lt;20)</b>	No	12/12/2022
R96	10 November 2022	60 minutes	10:41pm	<20	41	Night 37	Lapse / 0.3 / 157	Frogs (40), dogs (35), insects (25), <b>WCC (&lt;20)</b>	No	12/12/2022
R98	10 November 2022	60 minutes	9:36pm	<20	40	Night 35	Lapse / 2.8 / 138	Birds (38), insects (33), dog (31), frogs (28), <b>WCC (&lt;20)</b>	No	12/12/2022
R57	10 November 2022	60 minutes	7:43pm	<20	46	Night 35	+0.0 / 2.1 / 135	Traffic (43), Crawfords <sup>3</sup> (40), insects (37), frogs (35), <b>WCC (&lt;20)</b>	No	12/12/2022

**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	97.8	101.4	120.0	No	01/12/2022
	Blast Vibration	mm/s	Every Blast	7	0.12	0.18	10.0	No	01/12/2022
R98	Blast Noise	dB (Lin Peak)	Every Blast	7	100.3	105.4	120.0	No	01/12/2022
	Blast Vibration	mm/s	Every Blast	7	0.85	1.14	10.0	No	01/12/2022
R62	Blast Noise	dB (Lin Peak)	Every Blast	7	102.6	107.6	120.0	No	01/12/2022
	Blast Vibration	mm/s	Every Blast	7	0.59	0.91	10.0	No	01/12/2022
R92	Blast Noise	dB (Lin Peak)	Every Blast	7	100.2	106.4	120.0	No	01/12/2022
	Blast Vibration	mm/s	Every Blast	7	0.37	0.55	10.0	No	01/12/2022



## WERRIS CREEK COAL EPL – MONTHLY SUMMARY

