

**WAMBO COAL  
POLLUTION MONITORING DATA  
1 DECEMBER 2023 – 31 DECEMBER 2023  
DECEMBER MONTHLY REPORT**

Published 3 January 2023

**Environment Protection Licence Number: 529  
Licensee: Wambo Coal Pty Limited, PMB 1, Singleton NSW 2330  
Premises: Wambo Coal Pty Limited, Jerrys Plains Road, Warkworth NSW 2330**

The following pollution monitoring data is published as a requirement of the Wambo Environmental Protection Licence (EPL) 529. A link to EPL529 can be found on the Environmental Protection Authority (EPA) Public Register. A link to the EPA's public register can be found at: <https://www.epa.nsw.gov.au/licensing-and-regulation/public-registers/about-prpoeo>

Monthly interim reports will be provided on a fortnightly basis until a final monthly report is produced when all monthly data is available.

The location of each sampling point is provided in 'Plan 2672-2' at the end of this document.

## Monitoring Data

### **Surface and Mine Water Dam Monitoring**

**Monitoring Frequency: Once per month**

**Sampling Method: Grab sample**

**Limits: Nil**

**Table 1 - WCPL Surface and Mine Water Dam Results**

EPL ID	Site ID	Date	pH	EC (µS/cm)	TSS (mg/L)	Comments
Point 24	SW01	21/12/2023	7.57	962	<5	-
Point 25	SW02	21/12/2023	7.59	908	<5	-
Point 26	SW03	21/12/2023	-	-	-	No Flow
Point 27	SW04	21/12/2023	-	-	-	DRY
Point 28	SW05	21/12/2023	-	-	-	DRY
Point 29	SW06	21/12/2023	-	-	-	N/A
Point 30	SW07	21/12/2023	-	-	-	No Flow
Point 31	SW08	21/12/2023	-	-	-	DRY
Point 33	SW15	11/12/2023	8.96	6470	15	-
Point 34	SW27a	21/12/2023	-	-	-	DRY
Point 36	SW32a	21/12/2023	-	-	-	DRY
Point 39	SW39	21/12/2023	-	-	-	DRY
Point 40	SW40	21/12/2023	-	-	-	No Flow
Point 41	SW41	21/12/2023	-	-	-	DRY

**Water Discharge Monitoring**

Monitoring Frequency: Continuous during discharge (EC, pH, Turbidity)  
 Daily during discharge (TSS, Volume)  
 Sampling Method: In line instrumentation (EC, pH Turbidity)  
 Grab sample (TSS)  
 Limits: pH- 6.5 to 9.5  
 TSS – 120  
 Volume – 250ML/day  
 Date sampled: Continuous  
 Date obtained: Continuous

Table 2 - WCPL Discharge Monitoring

Site	Date	pH (Avg)	Conductivity (µS/cm) Avg	TSS (mg/L)	Turbidity (NTU)	Volume (ML/day)	Comments
Point 4	No Discharges in December						
Point 19	No Discharges in December						

**Sewerage Treatment Monitoring**

Monitoring Frequency: Quarterly during discharge  
 Sampling Method: Grab sample  
 Limits: Nil  
 Date sampled: Not sampled  
 Date obtained:

Table 3- WCPL Discharge Monitoring

EPL ID	Site ID	Date	pH	Faecal Coliforms (CFU/100mL)	Comments
Point 43	STPD3	-	-	-	No discharge
Point 52	STPD2	-	-	-	Sampled Quarterly
Point 56	STP1	-	-	-	Sampled Quarterly

**PM10 Monitoring**

**Monitoring Frequency: Continuous**

**Sampling Method: AM22**

**Limits: Nil**

**Date sampled: Continuous**

**Date obtained: Continuous**

**Table 4 - WCPL PM10 Results**

Date	PM02 (D2)- Wambo Road (Caban) (EPA14)		PM03 (D4) - Thelander (EPA15)		PM04 (D1) - Muller (EPA16)		PM05 (D5) - Kelly (EPA 53)	
	PM10 24 Hour Result (ug/m <sup>3</sup> )	Annual Average	PM10 24 Hour Result (ug/m <sup>3</sup> )	Annual Average	PM10 24 Hour Result (ug/m <sup>3</sup> )	Annual Average	PM10 24 Hour Result (ug/m <sup>3</sup> )	Annual Average
1/12/2023	12.6	15.65	7.0	12.13	12.8	18.72	24.2	22.26
2/12/2023	9.4	15.62	8.9	12.12	14.3	18.70	18.1	22.25
3/12/2023	14.6	15.62	11.3	12.13	16.4	18.69	11.3	22.25
4/12/2023	16.8	15.62	17.2	12.15	25.3	18.71	24.1	22.28
5/12/2023	15.5	15.63	9.7	12.15	17.7	18.72	34.5	22.32
6/12/2023	37.5	15.68	33.9	12.22	46.3	18.80	39.5	22.32
7/12/2023	43	15.74	31.7	12.27	46.2	18.85	26.3	22.32
8/12/2023	24.6	15.76	20.9	12.31	31.3	18.90	34.7	22.33
9/12/2023	25.4	15.79	21.8	12.35	31.1	18.95	27.1	22.34
10/12/2023	18.9	15.78	15.6	12.34	25.9	18.94	23.6	22.37
11/12/2023	36.4	15.83	31.0	12.39	40.6	18.98	35.9	22.42
12/12/2023	20.3	15.83	23.5	12.43	28	19.00	26.7	22.41
13/12/2023	30.7	15.87	23.6	12.46	38.5	19.05	36.6	22.44
14/12/2023	25.3	15.90	14.4	12.48	22.3	19.08	53.9	22.52
15/12/2023	37.7	15.97	34.1	12.56	48.6	19.19	40.3	22.57
16/12/2023	21.3	15.98	16.0	12.57	26.2	19.23	48.0	22.64
17/12/2023	27.3	16.01	22.5	12.58	36.1	19.27	31.4	22.67
18/12/2023	37.6	16.07	29.3	12.62	43.2	19.34	31.6	22.71
19/12/2023	49	16.19	25.4	12.66	39.5	19.41	41.2	22.80
20/12/2023	12.5	16.17	11.6	12.65	12.7	19.37	23.6	22.81
21/12/2023	7.2	16.14	8.4	12.62	9.8	19.33	12.9	22.79
22/12/2023	18.9	16.15	17.9	12.62	22.6	19.33	19.4	22.80
23/12/2023	16.9	16.13	14.0	12.60	25.1	19.32	17.4	22.80
24/12/2023	10.5	16.12	9.5	12.58	8.6	19.29	3.7	22.76
25/12/2023	13.4	16.12	8.9	12.57	14	19.28	16.8	22.76
26/12/2023	14.3	16.12	15.1	12.57	14.9	19.27	16.7	22.76
27/12/2023	11.1	16.13	8.2	12.56	17.6	19.26	26.0	22.81
28/12/2023	11.4	16.12	8.7	12.53	13.8	19.25	21.4	22.81
29/12/2023	9.3	16.08	6.9	12.49	12.7	19.23	28.5	22.85
30/12/2023	15.7	16.07	7.5	12.46	18.3	19.22	29.3	22.88
31/12/2023	14.4	16.06	13.3	12.42	24.2	19.22	18.5	22.86

\*NaN >75% of data collected during period

**Meteorological Monitoring**

Monitoring Frequency: Continuous

Sampling Method: Site Meteorological Station EPA17

Limits: Nil

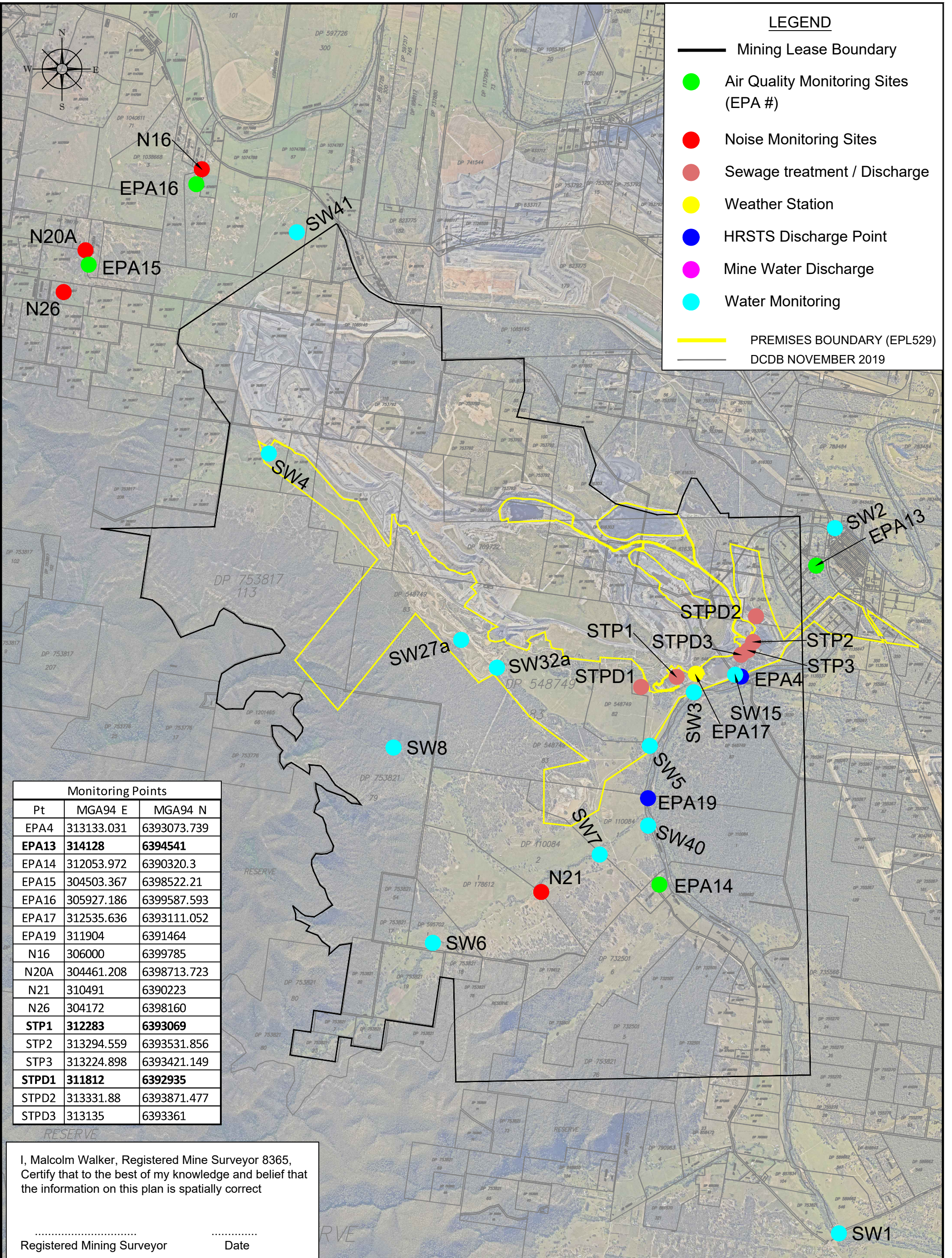
Date sampled: continuous

Date obtained: continuous

Table 5 - WCPL Meteorology

Date	Temperature (2m)			Temperature (10m)			Humidity			Solar Radiation		RAIN	Wind Speed at 10m			Wind Direction at 10m	Sigma Theta		
	Average	Min	Max	Average	Min	Max	Average	Min	Max	Average	Max	Sum (mm)	Average	Min	Max	Average	Average	Max	Min
1/12/2023	26.1	18.8	33.2	25.9	19.9	32.3	46.9	20	74.9	369.8	1268.3	0	1.9	0.2	5.4	304	21.5	55.6	12.3
2/12/2023	22.2	17.6	29	22.3	18.6	28.2	77.9	39.1	100	195.8	1314.4	1	0.3	0	3.7	277	25.6	90.9	2.7
3/12/2023	23.3	15.1	33.5	23.4	16	32.8	62.9	15.7	100	317.8	1397.8	0.2	1.3	0.1	6.6	109	31.6	93.0	6.0
4/12/2023	22.2	18.2	27.9	22	18.4	27	61	40.5	77.7	317.4	1330.9	0	2	0.9	5	112	21.3	63.2	8.1
5/12/2023	26.2	12.5	38.4	26.3	13.5	37.6	52.8	17.5	100	406.9	1186.8	0	1.2	0	3.8	314	27.7	103.1	7.0
6/12/2023	26.1	19.4	35	26.4	20.3	34.1	51.1	25.7	80.2	372.6	1136.6	0	2.6	0.1	6.9	93	26.4	91.5	10.1
7/12/2023	26.3	18.7	39.1	26	18.9	38	60.4	19.3	85.5	353.9	1148.6	0	1.4	0.1	7	101	26.8	95.8	6.9
8/12/2023	29.1	18.7	41.2	29.2	19.5	40.5	56.7	19.1	100	309.5	1122.2	0.4	1.4	0.1	8.6	332	32.3	93.5	7.3
9/12/2023	32.3	19.6	42.9	32.4	20.2	41.9	46.5	17	99.1	360.3	1116.3	0	1.6	0.1	5.5	303	26.9	88.7	9.8
10/12/2023	26.6	22.9	33.9	26.4	22.9	33.1	64	35.9	77.9	265.7	1231.4	0	2.7	0.9	6.5	137	19.3	47.4	7.0
11/12/2023	27.1	19.4	36.9	27	20.1	36	64.2	32	99.9	363.4	1138.8	0	1.9	0.1	7.2	106	24.8	81.1	9.8
12/12/2023	26	21.9	32.8	25.7	22	31.9	58.8	33.7	74.5	344.8	1173.7	0	3.1	1.4	6.6	114	20.3	59.5	12.2
13/12/2023	28.6	20.2	38.5	28.3	20.5	37.9	55.6	23.4	83.7	374.7	1147	0	0.6	0.1	6.1	81	28.2	85.3	9.9
14/12/2023	32.6	25.4	40.3	32.5	26.1	39.5	34.6	13.4	64.2	348.6	1279	0	2.5	0.5	6.7	282	20.8	52.7	8.6
15/12/2023	26.3	20.3	32.2	26	21.1	31.1	57	30.3	78.7	376	1263.5	0	2.5	0.7	6.7	104	21.8	64.8	10.2
16/12/2023	27.4	15.2	38.1	27.3	16.2	37	49.2	8.4	100	423.7	1225.8	0	1.6	0.1	6.1	280	29.9	92.8	8.2
17/12/2023	24.9	19.9	30.5	24.7	21.2	29.2	61.3	43.6	81.1	302.6	1243.5	0	2.7	0.5	6.2	106	18.8	34.6	6.3
18/12/2023	28.1	22.6	38.8	27.9	22.6	37.9	60.2	22.8	77.8	314.4	1237.1	0	1.2	0	6.3	125	26.0	96.3	7.6
19/12/2023	27.9	21.7	37.9	27.8	22	36.7	62.2	30.4	97.6	208.8	1033.2	1.2	0.9	0.1	6.6	307	25.2	101.0	6.5
20/12/2023	19.8	17.8	22.9	19.9	17.4	23.3	94.1	73.5	100	49.1	196.4	31.4	1.2	0	5.5	163	19.4	90.3	8.1
21/12/2023	20.2	17.6	23.5	20.1	17.6	23	71.4	57.8	89.5	164.8	835	0	2.7	0.1	5.5	161	17.7	54.0	9.7
22/12/2023	21.6	17.6	27.3	21.4	18.2	26.5	54.7	35.8	72.9	333.8	1441.8	0	2.1	0.4	5.6	119	22.4	81.5	9.4
23/12/2023	21	13.5	29.6	21	14.1	28.6	70.3	34.9	100	327.7	1260.4	19.8	0.8	0	5.6	94	29.8	94.0	8.3
24/12/2023	20.3	16.3	27.1	20.4	16.4	26.7	83.3	47.9	100	233.7	1401.8	11	0.3	0.1	3.1	118	29.0	89.2	5.2
25/12/2023	22.6	18.7	29.8	22.5	18.8	28.9	76.1	49.1	100	285.6	1264.2	21.4	2	0.3	27.9	127	24.6	98.0	7.3
26/12/2023	24.6	17.1	34.6	24.7	17.5	33.8	71.9	26.6	100	352.6	1247.1	0	0.1	0	5.1	128	28.3	89.1	7.9
27/12/2023	23.6	13.9	31.9	23.7	14.5	31	60.1	24.5	100	367.7	1323.5	0	1.4	0.1	5.8	283	23.2	88.6	6.2
28/12/2023	25.3	14.5	34.3	25.2	15.1	33.8	59.1	24.3	100	335.1	1213.5	0	0.9	0.1	4.9	293	25.9	83.1	9.8
29/12/2023	24.4	16.9	32.8	24.5	17.5	32.1	65.3	32.6	100	220	1119.8	0	0.8	0.1	6.5	286	29.9	98.5	7.1
30/12/2023	25.1	18.5	32.9	25.1	19.4	32.1	56.6	33.5	88	365.7	1237.5	0	1.9	0.1	6.9	102	28.7	97.7	9.2
31/12/2023	20.2	18.9	21.7	20.2	18.9	21.7	72.1	63.3	79.7	62.5	270.4	0	3.2	1.4	5.7	121	16.8	25.2	10.7
<b>Total</b>	25.1	12.5	42.9	25.0	13.5	41.9	61.9	8.4	100	304.0	1441.8	86.4	1.6	0	27.9	180	24.9	103.1	2.7

This page is intentionally left blank.



Monitoring Points		
Pt	MGA94 E	MGA94 N
EPA4	313133.031	6393073.739
<b>EPA13</b>	<b>314128</b>	<b>6394541</b>
EPA14	312053.972	6390320.3
EPA15	304503.367	6398522.21
EPA16	305927.186	6399587.593
EPA17	312535.636	6393111.052
EPA19	311904	6391464
N16	306000	6399785
N20A	304461.208	6398713.723
N21	310491	6390223
N26	304172	6398160
<b>STP1</b>	<b>312283</b>	<b>6393069</b>
STP2	313294.559	6393531.856
STP3	313224.898	6393421.149
<b>STPD1</b>	<b>311812</b>	<b>6392935</b>
STPD2	313331.88	6393871.477
STPD3	313135	6393361

I, Malcolm Walker, Registered Mine Surveyor 8365, Certify that to the best of my knowledge and belief that the information on this plan is spatially correct

.....  
Registered Mining Surveyor Date

D	MJW	Water monitoring and discharge sites added			
E	MJW	Monitoring points except water monitoring added to coordinate table			
G	MJW	STPD3 Location amended			
H	MJW	EPA 13, STP 1, STPD1 & EPA 11 Locations amended	JB		
I	RE	Opencut related monitors removed	JB		
Rev.	Drawn	Description	Approved		

<b>WAMBO COAL PTY LIMITED</b> ABN 13 000 668 057		<b>Wambo mine</b> <b>Environment Protection Licence 529</b>		Drawing No.
Jerry's Plains Rd, Warkworth Phone: 02 65 702200 Via Singleton, NSW, 2330 Fax: 02 65 702290		<b>Plan of Premises- Monitoring Sites</b>		2672-2
Date	Scale:	Drawn	Checked	Approved
	1: 45,000	MJW	JB	PJ
				Revision No. J_26/11/2020
				Sheet Size A3