

**WAMBO COAL  
POLLUTION MONITORING DATA  
1 DECEMBER 2021 – 31 DECEMBER 2021  
DECEMBER MONTHLY REPORT**

Published 02 February 2022

**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	9/12/2021	7.05	187	25	
Point 25	SW02	9/12/2021	7.18	284	19	
Point 26	SW03	9/12/2021	7.08	231	28	
Point 27	SW04	9/12/2021	7.46	216	9	
Point 28	SW05	9/12/2021	7.36	193	118	
Point 29	SW06	9/12/2021	6.97	132	15	
Point 30	SW07	9/12/2021				No Access
Point 31	SW08	9/12/2021	7.27	237	12	
Point 33	SW15	9/12/2021	8.68	4520	30	
Point 34	SW27a	9/12/2021	7.48	216	61	
Point 36	SW32a	9/12/2021	7.57	220	70	
Point 39	SW39	9/12/2021	7.36	203	20	
Point 40	SW40	9/12/2021	7.08	206	24	
Point 41	SW41	9/12/2021				No Access

**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	TSS (mg/L)	Turbidity (NTU)	Volume (ML/day)	Comments
Point 4						No Discharges
Point 19						No Discharges

**Sewerage Treatment Monitoring**

Monitoring Frequency: Quarterly during discharge  
 Sampling Method: Grab sample  
 Limits: Nil  
 Date sampled: No sample in December  
 Date obtained:

Table 3- WCPL Discharge Monitoring

EPL ID	Site ID	Date	pH	Faecal Coliforms	Comments
Point 42	STPD2	15/12/21	8.91	730	
Point 52	STP2	6/12/21	7.6	~9	
Point 55	STPD1	-	-	-	No discharge

**PM10 Monitoring**

Monitoring Frequency: Continuous

Sampling Method: AM22

Limits: Nil

Date sampled: Continuous

Date obtained: Continuous

Table 4 - WCPL PM10 Results

Date	PM02 - Wambo Road (Caban) (EPA14)		PM03 - Thelander (EPA15)		PM04 - Muller (EPA16)		PM05 - 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
1/12/2021	7.5	12.12	3.5	8.23	4.8	12.94	11.0	14.31
2/12/2021	3.3	12.00	5.4	8.18	8.0	12.87	11.5	14.27
3/12/2021	9.2	11.97	6.0	8.17	15.8	12.86	16.8	14.25
4/12/2021	16.8	11.97	17.1	8.20	21.3	12.87	21.6	14.26
5/12/2021	13.2	11.96	12.1	8.21	19.1	12.88	18.1	14.26
6/12/2021	15.4	11.95	9.4	8.16	21.0	12.87	20.2	14.25
7/12/2021	9.6	11.93	8.7	8.14	10.2	12.86	13.8	14.23
8/12/2021	9.0	11.92	3.9	8.11	11.7	12.85	15.0	14.22
9/12/2021	8.1	11.91	6.4	8.10	9.1	12.85	7.2	14.22
10/12/2021	10.9	11.88	4.9	8.07	9.1	12.82	21.1	14.24
11/12/2021	5.6	11.84	2.9	8.02	8.7	12.77	5.4	14.19
12/12/2021	12.1	11.84	5.3	8.00	15.0	12.77	11.1	14.17
13/12/2021	18.6	11.87	12.0	7.99	25.7	12.78	18.6	14.17
14/12/2021	18.9	11.89	12.7	7.99	24.8	12.80	17.0	14.18
15/12/2021	28.4	11.94	16.7	8.00	25.3	12.83	30.5	14.24
16/12/2021	18.1	11.97	9.2	8.02	20.9	12.87	20.0	14.28
17/12/2021	21.9	12.00	NaN	8.02	22.3	12.91	20.8	14.31
18/12/2021	17.6	12.04	19.3	8.06	17.3	12.94	29.9	14.36
19/12/2021	18.3	12.06	13.2	8.07	19.8	12.96	39.9	14.44
20/12/2021	18.9	12.09	8.7	8.06	15.9	12.97	22.5	14.46
21/12/2021	28.0	12.14	25.3	8.11	27.4	13.01	32.9	14.53
22/12/2021	22.3	12.18	NaN	8.12	21.7	13.04	19.8	14.55
23/12/2021	20.6	12.23	NaN	8.14	21.0	13.09	19.1	14.59
24/12/2021	15.4	12.24	9.2	8.14	14.7	13.09	16.0	14.59
25/12/2021	10.0	12.23	NaN	8.14	11.5	13.08	13.3	14.59
26/12/2021	9.7	12.22	NaN	8.15	12.1	13.07	11.0	14.61
27/12/2021	9.6	12.22	NaN	8.15	11.0	13.07	7.7	14.60
28/12/2021	6.8	12.20	NaN	8.15	8.3	13.06	7.0	14.58
29/12/2021	11.4	12.20	NaN	8.15	12.6	13.06	7.4	14.57
30/12/2021	10.9	12.21	NaN	8.16	12.3	13.07	4.6	14.57
31/12/2021	12.4	12.23	NaN	8.17	17.5	13.10	9.7	14.58

\*NaN >75% of data collected during period

**Meteorological Monitoring**

Monitoring Frequency: Continuous

Sampling Method: Site Meteorological Station EPA17

Limits: Nil

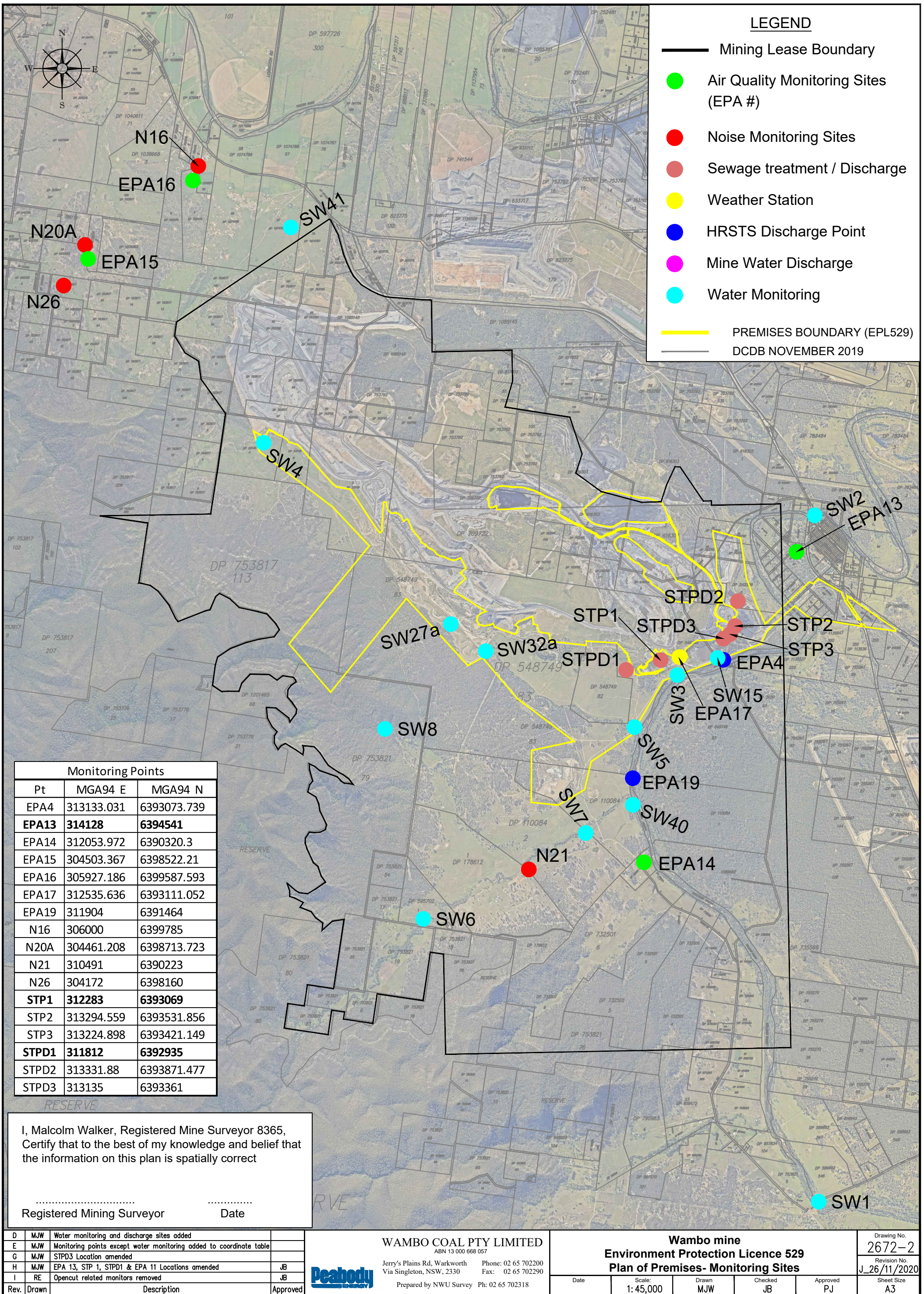
Date sampled: continuous

Date obtained: continuous

Table 5 - WCPL Meteorology

Date	Temperature (2m)			Temperature (10m)			Humidity			Solar Radiation		RAIN	Wind Speed			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
1/12/2021	22.3	19.0	25.1	22.2	19.1	24.7	78.1	65.7	100.0	260.6	835.4	0	2.9	1.0	5.4	115.6	19.8	84.3	10.7
2/12/2021	22.5	18.4	28.4	22.4	18.7	27.9	76.1	50.1	100.0	300.4	1288.7	0	1.8	0.1	5.2	130.6	23.3	60.8	10.7
3/12/2021	22.2	15.2	34.2	22.1	15.7	33.7	82.8	31.6	100.0	309.0	1220.5	9.6	1.5	0.0	7.0	200.3	29.5	84.7	9.3
4/12/2021	21.5	18.6	28.5	21.4	18.6	27.9	84.1	54.9	100.0	222.6	1304	3.6	1.8	0.2	7.8	136.1	24.2	90.0	7.5
5/12/2021	18.5	16.5	22.9	18.5	16.6	22.1	68.7	52.6	81.1	204.7	1386.9	0.2	3.3	0.9	6.6	130.3	17.5	28.2	11.3
6/12/2021	19.3	15.6	22.6	19.2	15.8	22.2	68.4	59.4	83.8	181.5	900.4	0	2.2	0.7	4.5	134.3	18.9	32.0	8.2
7/12/2021	20.7	16.6	28.5	20.5	16.6	27.7	85.3	53.6	100.0	239.7	1390.2	11.2	1.4	0.1	4.4	242.3	30.9	92.9	10.6
8/12/2021	20.5	16.6	27.2	20.3	16.3	26.6	82.9	54.6	100.0	252.8	1341.7	35.4	2.0	0.3	5.4	184.6	25.7	85.3	8.3
9/12/2021	20.5	16.1	25.6	20.4	16.4	25.1	81.0	56.7	100.0	274.1	1293.9	1	1.8	0.2	25.2	137.6	28.7	89.1	8.9
10/12/2021	19.6	14.2	24.7	19.4	14.4	24.0	52.5	30.2	94.7	406.6	1279.7	0	3.5	0.0	7.4	258.0	24.9	98.0	8.9
11/12/2021	18.4	14.2	21.7	18.5	14.9	21.0	62.7	49.3	91.5	249.7	1412	0	2.2	0.1	4.9	149.2	19.6	73.6	6.5
12/12/2021	19.4	14.7	25.4	19.3	15.1	24.6	62.1	42.4	79.6	303.8	1410.6	0	2.3	0.2	5.2	130.4	23.5	57.1	10.5
13/12/2021	21.0	14.2	27.7	20.8	15.4	27.1	63.9	42.1	93.9	381.3	1226	0	1.7	0.2	4.5	118.3	27.9	78.1	6.3
14/12/2021	20.7	13.3	29.2	20.6	13.6	28.5	72.5	27.2	100.0	385.1	1327.2	0	1.6	0.1	5.5	148.1	28.7	93.8	6.4
15/12/2021	23.9	13.2	33.9	23.9	13.7	33.6	60.7	24.3	100.0	405.7	1206.1	0	1.3	0.1	3.1	200.4	27.8	85.1	8.6
16/12/2021	22.5	19.8	28.3	22.5	20.1	27.7	78.5	53.0	99.7	213.1	1349.6	3.4	2.0	0.1	5.2	125.8	25.9	92.0	7.2
17/12/2021	22.5	19.1	28.0	22.3	19.1	27.4	68.2	53.5	86.0	314.4	1717.3	0	2.0	0.6	5.6	127.1	20.9	78.7	7.8
18/12/2021	26.0	16.1	35.5	26.2	16.5	35.1	68.2	37.3	100.0	369.8	1291.7	0	1.7	0.0	4.3	233.9	27.5	99.6	7.6
19/12/2021	26.6	20.7	35.0	26.8	21.1	34.5	65.8	34.1	94.6	255.4	1252.5	1.2	2.6	0.2	6.6	266.3	25.6	95.4	8.8
20/12/2021	26.4	18.4	36.1	26.4	18.6	35.6	69.6	35.0	100.0	376.0	1176	0	1.5	0.1	4.6	192.1	30.1	90.2	8.0
21/12/2021	27.7	19.8	38.2	27.6	20.3	37.5	73.7	32.8	100.0	391.5	1189.3	0.6	1.8	0.0	6.0	227.4	27.5	90.8	8.7
22/12/2021	25.8	22.9	32.8	25.9	22.9	32.1	73.3	44.3	100.0	239.8	1221.3	5	2.0	0.1	20.3	194.1	27.8	91.1	8.7
23/12/2021	24.1	19.9	29.3	24.0	21.0	28.4	77.2	55.9	95.7	212.7	1287.5	0	1.8	0.4	5.7	150.2	22.5	90.6	7.8
24/12/2021	24.0	17.1	30.1	24.0	17.7	29.4	73.5	47.5	100.0	362.4	1307.9	0	2.1	0.2	4.9	121.6	28.0	79.8	11.2
25/12/2021	25.4	18.7	32.5	25.4	19.2	32.0	70.3	32.7	100.0	365.9	1196.5	0	1.7	0.1	4.8	122.6	28.6	88.0	10.7
26/12/2021	24.1	17.5	31.5	24.1	17.9	30.9	74.4	36.4	100.0	325.4	1271.5	9.6	2.1	0.1	6.1	124.9	26.9	86.3	5.3
27/12/2021	19.5	16.8	22.9	19.3	16.8	22.1	82.8	62.9	100.0	215.4	1165.7	4.4	2.9	0.2	5.0	151.0	18.1	74.7	8.7
28/12/2021	18.1	15.8	23.3	17.9	15.8	22.6	82.2	52.4	100.0	205.2	1225.6	5	2.3	0.7	4.1	148.8	18.4	30.8	10.5
29/12/2021	19.5	15.3	24.8	19.5	15.5	24.1	69.1	47.5	92.3	276.4	1381	0	2.2	0.2	6.0	137.5	19.4	80.4	5.2
30/12/2021	20.6	12.3	28.0	20.6	12.8	27.7	70.0	40.5	100.0	330.7	1382.1	0	1.9	0.1	4.7	135.4	23.8	78.8	8.0
31/12/2021	22.6	13.5	30.4	22.6	13.9	29.9	66.7	33.4	100.0	397.6	1243	0	1.9	0.1	5.4	134.8	24.3	92.0	7.4
	<b>22.1</b>	<b>12.3</b>	<b>38.2</b>	<b>22.1</b>	<b>12.8</b>	<b>37.5</b>	<b>72.4</b>	<b>24.3</b>	<b>100.0</b>	<b>298.1</b>	<b>1717.3</b>	<b>90.2</b>	<b>2.0</b>	<b>0.0</b>	<b>25.2</b>	<b>162.0</b>	<b>24.8</b>	<b>99.6</b>	<b>5.2</b>





**LEGEND**

- Mining Lease Boundary
- Air Quality Monitoring Sites (EPA #)
- Noise Monitoring Sites
- Sewage treatment / Discharge
- Weather Station
- HRSTS Discharge Point
- Mine Water Discharge
- Water Monitoring
- PREMISES BOUNDARY (EPL529)
- DCDB NOVEMBER 2019

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

Rev.	Drawn	Description	Approved
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

**WAMBO COAL PTY LIMITED**  
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**Wambo mine**  
**Environment Protection Licence 529**  
**Plan of Premises- Monitoring Sites**

Date	Scale:	Drawn	Checked	Approved
	1: 45,000	MJW	JB	PJ

Drawing No.	2672-2
Revision No.	J_26/11/2020
Sheet Size	A3