

**WAMBO COAL
POLLUTION MONITORING DATA
1 NOVEMBER 2022 – 30 NOVEMBER 2022
NOVEMBER MONTHLY REPORT**

Published 22 December 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	28/11/2022	7.26	633	13	
Point 25	SW02	28/11/2022	7.36	584	12	
Point 26	SW03	28/11/2022	7.39	597	14	
Point 27	SW04	28/11/2022	7.32	391	<5	
Point 28	SW05	28/11/2022	-	-	-	No Flow
Point 29	SW06	28/11/2022	6.93	297	<5	
Point 30	SW07	28/11/2022	7.35	451	<5	
Point 31	SW08	28/11/2022	8.06	1490	<5	
Point 33	SW15	28/11/2022	8.71	5250	35	
Point 34	SW27a	28/11/2022	-	-	-	No Flow
Point 36	SW32a	28/11/2022	-	-	-	Dry
Point 39	SW39	28/11/2022	-	-	-	No Flow
Point 40	SW40	28/11/2022	7.36	606	10	
Point 41	SW41	28/11/2022	7.07	171	61	

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	14/11/2022	8.2	4500	45	60	4.1	
	15/11/2022	8.6	4500	54	95	56.3	
	16/11/2022	8.6	4500			9.4	
Point 19	No Discharges in November						

Sewerage Treatment Monitoring

Monitoring Frequency: Quarterly during discharge

Sampling Method: Grab sample

Limits: Nil

Date sampled: No Samples in November

Date obtained: No Samples in November

Table 3- WCPL Discharge Monitoring

EPL ID	Site ID	Date	pH	Faecal Coliforms (CFU/100mL)	Comments
Point 42	STPD2				No discharge
Point 52	STP2				No Sample
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 ³)	Annual Average	PM10 24 Hour Result (ug/m ³)	Annual Average	PM10 24 Hour Result (ug/m ³)	Annual Average	PM10 24 Hour Result (ug/m ³)	Annual Average
1/10/2022	7	10.05	2.5	7.45	5.8	11.82	16.0	13.39
2/10/2022	6.5	10.02	2.4	7.41	4.9	11.74	15.8	13.36
3/10/2022	12	10.02	4.3	7.39	11.7	11.72	10.7	13.35
4/10/2022	11	10.00	8.6	7.37	16.0	11.69	8.7	13.32
5/10/2022	11.5	9.99	9.5	7.36	15.5	11.66	11.8	13.30
6/10/2022	14.3	10.01	10.2	7.38	16.4	11.69	18.0	13.32
7/10/2022	13.4	10.02	9.1	7.38	15.7	11.69	14.1	13.31
8/10/2022	13	10.02	7.8	7.38	14.3	11.69	11.4	13.29
9/10/2022	14	10.02	8.2	7.38	15.6	11.69	14.1	13.29
10/10/2022	12.9	10.02	9.6	7.37	16.8	11.68	14.3	13.31
11/10/2022	15.1	10.03	4.0	7.36	11.2	11.67	16.6	13.32
12/10/2022	15	10.05	7.8	7.36	12.6	11.68	15.1	13.32
13/10/2022	12	10.03	10.6	7.35	NaN	11.66	16.4	13.30
14/10/2022	9.6	10.04	7.3	7.36	NaN	11.68	18.0	13.29
15/10/2022	8.6	10.04	3.9	7.36	6.1	11.68	17.1	13.29
16/10/2022	8	10.03	2.7	7.35	5.7	11.67	10.8	13.22
17/10/2022	12.9	10.04	5.9	7.35	11.0	11.67	14.8	13.23
18/10/2022	12.7	10.04	8.0	7.35	16.7	11.66	15.9	13.24
19/10/2022	14.2	10.04	9.7	7.35	16.3	11.67	13.9	13.22
20/10/2022	16.5	10.02	8.2	7.34	11.5	11.65	44.8	13.23
21/10/2022	17.9	10.03	6.5	7.32	10.3	11.63	37.0	13.26
22/10/2022	10.3	10.04	3.0	7.31	7.9	11.64	20.4	13.30
23/10/2022	11.5	10.05	4.3	7.31	8.9	11.64	27.6	13.35
24/10/2022	19.6	10.08	7.3	7.32	12.7	11.65	20.1	13.38
25/10/2022	20.4	10.09	9.7	7.33	13.9	11.64	16.2	13.41
26/10/2022	18.3	10.11	13.3	7.35	19.3	11.67	11.3	13.41
27/10/2022	25.6	10.18	9.7	7.36	17.6	11.71	33.2	13.49
28/10/2022	19.8	10.21	11.6	7.39	16.5	11.74	20.9	13.53
29/10/2022	18.4	10.23	15.9	7.42	19.4	11.76	20.6	13.54
30/10/2022	22.5	10.23	15.7	7.43	27.1	11.78	27.0	13.56

*NaN >75% of data collected during period

Meteorological Monitoring

Monitoring Frequency: Continuous

Sampling Method: Site Meteorological Station EPA17

Limits: Nil

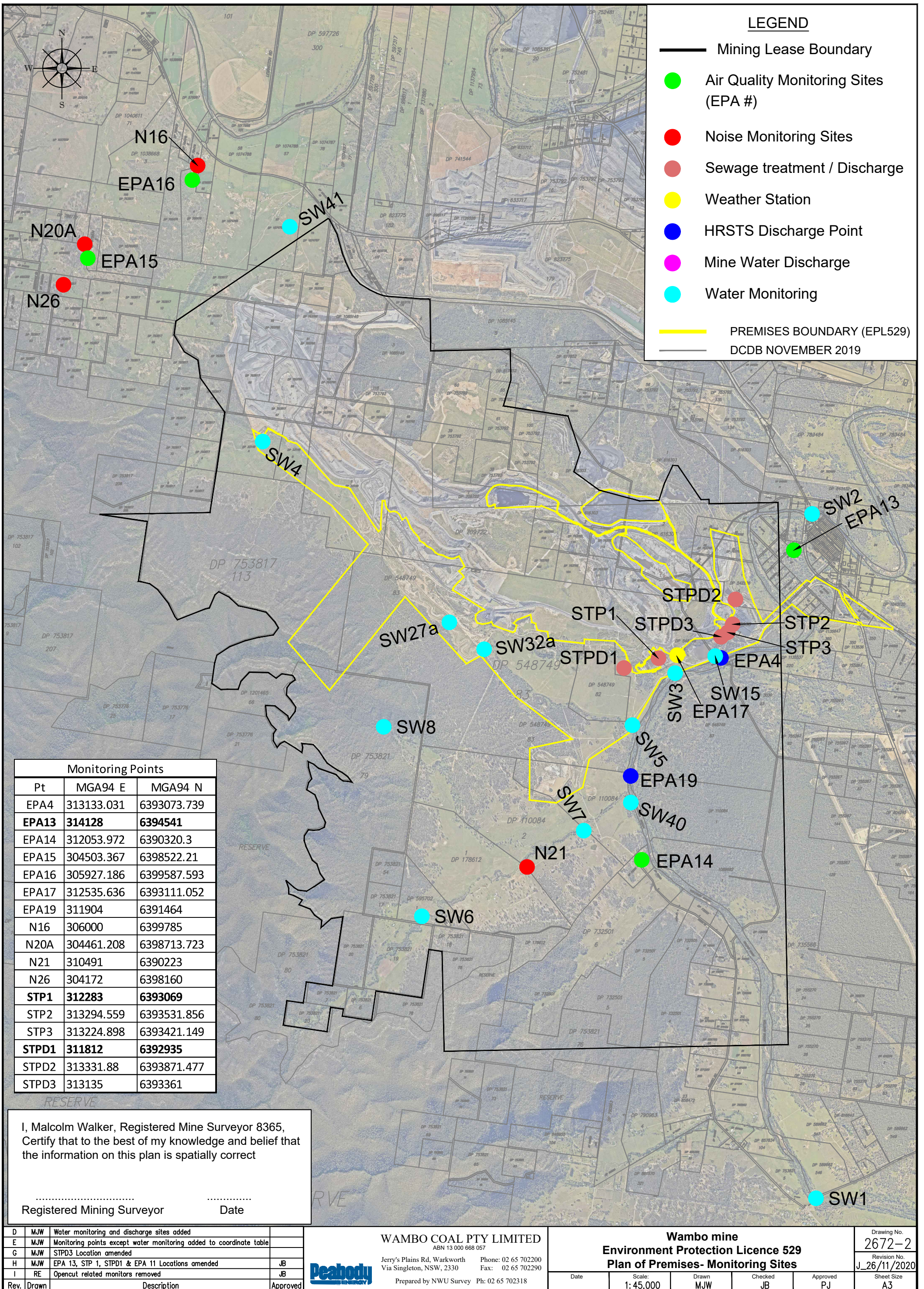
Date sampled: continuous

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
1/11/2022	18.6	12.2	22.9	18.2	12.1	22.1	60.0	41.0	78.3	485.6	1203.2	0.0	5.8	2.6	7.6	289.5	18.8	28.1	13.8
2/11/2022	14.3	10.4	19.7	14.0	10.4	18.5	58.5	35.9	80.8	342.2	1181.5	0.0	4.8	1.3	9.3	276.6	18.4	29.3	11.6
3/11/2022	15.5	6.4	23.6	15.3	7.1	22.7	68.3	42.3	100.0	299.1	1226.2	0.0	2.6	0.5	6.1	231.2	23.7	64.7	7.0
4/11/2022	16.6	12.4	21.1	16.3	12.5	20.3	81.3	59.1	100.0	252.5	1212.6	2.4	2.1	0.2	4.2	135.4	19.6	64.0	7.1
5/11/2022	17.5	10.2	24.2	17.3	10.5	23.6	76.9	47.8	100.0	340.0	1188.6	0.0	2.0	0.1	5.2	133.2	23.7	94.7	9.3
6/11/2022	18.2	10.2	25.6	18.1	10.9	24.9	78.2	43.5	100.0	372.1	1212.6	0.0	1.7	0.1	5.8	136.7	27.0	90.7	5.5
7/11/2022	18.9	13.2	25.5	18.8	13.9	24.9	80.4	48.9	100.0	300.6	1241.4	0.0	2.1	0.3	5.8	113.2	21.8	59.8	8.4
8/11/2022	18.7	12.0	25.4	18.6	12.7	24.4	78.9	51.7	100.0	251.1	1257.6	0.0	1.9	0.3	5.2	125.6	20.5	56.3	5.2
9/11/2022	18.3	10.5	24.9	18.3	11.1	24.1	77.0	49.3	100.0	347.4	1214.3	0.0	2.4	0.2	6.0	130.0	22.5	72.2	6.6
10/11/2022	18.7	10.5	25.4	18.6	11.3	24.5	74.7	46.4	100.0	379.3	1217.4	0.0	2.0	0.2	4.9	125.6	21.5	52.7	8.1
11/11/2022	17.8	10.2	26.4	17.7	10.5	25.5	87.1	51.4	100.0	232.5	1318.1	1.4	1.1	0.0	4.4	190.0	29.8	96.6	7.1
12/11/2022	19.9	11.9	31.5	19.7	11.8	30.5	82.7	43.5	100.0	301.3	1206.0	11.2	1.3	0.1	7.0	176.7	32.8	94.7	9.5
13/11/2022	19.4	14.8	24.0	19.4	14.9	23.7	97.7	78.2	100.0	109.1	873.0	17.4	1.2	0.1	3.2	196.2	29.5	86.9	10.5
14/11/2022	22.9	15.5	27.8	22.8	15.9	27.2	68.6	38.8	100.0	381.1	1221.7	16.4	3.6	0.3	8.0	274.0	21.7	57.4	10.2
15/11/2022	20.1	12.1	26.3	20.0	12.6	25.5	65.6	40.9	100.0	351.5	1214.8	0.0	2.4	0.1	5.0	249.1	28.5	90.7	8.9
16/11/2022	15.8	9.6	20.9	15.7	10.6	19.8	59.9	36.6	89.6	273.5	1203.8	0.0	2.4	0.3	5.5	223.3	22.7	74.5	6.7
17/11/2022	14.7	6.5	22.6	14.7	7.1	22.1	71.8	40.4	100.0	319.4	1267.3	0.0	1.5	0.1	5.3	150.8	34.9	97.1	6.8
18/11/2022	16.5	9.5	24.0	16.4	9.7	23.2	74.1	42.0	100.0	384.1	1280.9	0.0	1.5	0.0	5.1	140.2	31.8	88.9	7.0
19/11/2022	19.7	10.1	29.2	19.5	10.3	28.4	73.3	39.6	100.0	395.7	1199.0	0.0	1.3	0.0	4.2	208.2	30.2	85.9	8.8
20/11/2022	23.4	15.1	28.2	23.4	15.6	27.2	55.5	32.2	100.0	417.9	1221.9	0.0	4.0	0.1	10.1	274.6	23.3	87.6	11.3
21/11/2022	20.4	14.8	26.1	20.1	15.0	25.0	51.4	37.2	74.9	400.9	1264.9	0.0	4.8	2.1	8.4	286.7	19.5	26.4	13.4
22/11/2022	18.3	13.1	24.3	17.9	13.0	23.1	54.3	36.4	84.1	422.3	1230.8	0.0	3.2	0.5	5.4	271.2	23.0	58.4	12.3
23/11/2022	19.9	10.1	28.4	19.6	10.3	27.4	65.9	42.9	100.0	400.3	1200.9	0.0	2.7	0.2	5.1	275.2	22.2	77.8	9.2
24/11/2022	20.7	11.3	30.0	20.6	11.8	29.0	72.2	37.8	100.0	380.8	1273.0	0.0	1.7	0.1	6.4	197.1	33.2	96.8	4.6
25/11/2022	22.2	15.7	31.0	21.8	16.1	29.9	73.9	29.4	100.0	358.1	1283.9	0.0	1.4	0.0	3.7	224.8	28.4	98.0	7.3
26/11/2022	20.1	14.2	26.5	19.9	14.3	25.5	80.4	53.3	100.0	304.0	1340.3	0.0	1.7	0.2	3.9	129.9	24.4	78.0	4.5
27/11/2022	23.3	13.5	34.2	23.0	13.4	33.3	69.5	32.0	100.0	264.3	1165.8	3.0	1.9	0.0	6.8	246.9	28.0	94.1	8.8
28/11/2022	21.8	17.2	29.2	21.3	17.2	28.6	83.7	53.0	100.0	310.2	1283.6	0.4	1.8	0.2	5.5	135.3	28.6	92.6	8.5
29/11/2022	20.5	13.9	28.4	20.2	14.0	27.3	74.2	38.5	100.0	380.1	1293.8	0.0	2.3	0.1	7.5	145.1	32.0	88.7	8.7
30/11/2022	18.8	12.4	24.2	18.4	12.8	22.9	76.7	57.4	100.0	266.2	1217.8	0.0	2.7	0.3	5.9	127.3	20.6	56.6	10.6
	19.1	6.4	34.2	18.9	7.1	33.3	72.5	29.4	100.0	332.6	1340.3	52.2	2.4	0.0	10.1	193.0	25.5	98.0	4.5

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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
EPA13	314128	6394541
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
STP1	312283	6393069
STP2	313294.559	6393531.856
STP3	313224.898	6393421.149
STPD1	311812	6392935
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

Drawing No.
2672-2

Revision No.
J_26/11/2020

Sheet Size
A3

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