

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

Published 23 November 2021

**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	13/10/2021	7.29	784	<5	
Point 25	SW02	13/10/2021	7.43	700	<5	Trickle Flow
Point 26	SW03	13/10/2021	7.38	706	<5	
Point 27	SW04	13/10/2021				No Flow
Point 28	SW05	13/10/2021				No Flow
Point 29	SW06	13/10/2021	7.32	420	<5	
Point 30	SW07	13/10/2021	7.34	528	10	Trickle Flow
Point 31	SW08	13/10/2021	7.60	5320	<5	Trickle Flow
Point 33	SW15	13/10/2021	8.71	6520	31	
Point 34	SW27a	13/10/2021	7.91	797	46	
Point 36	SW32a	13/10/2021	7.94	723	45	
Point 39	SW39	13/10/2021				No Flow
Point 40	SW40	13/10/2021	7.28	348	8	
Point 41	SW41	13/10/2021				No Flow

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 October
 Date obtained:

Table 3- WCPL Discharge Monitoring

EPL ID	Site ID	Date	pH	Faecal Coliforms	Comments
Point 42	STPD2				
Point 52	STP2				
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
1/10/2021	7.3	13.03	5.7	9.18	8.0	14.04	10.9	13.65
2/10/2021	4.6	13.02	2.2	9.17	4.4	14.02	8.5	13.63
3/10/2021	7.1	12.99	3.3	9.14	5.2	13.97	16.0	13.64
4/10/2021	13.6	12.96	7.6	9.11	9.4	13.93	34.1	13.70
5/10/2021	10.5	12.93	6.0	9.09	9.5	13.91	26.7	13.74
6/10/2021	11.1	12.90	8.5	9.06	11.0	13.89	30.6	13.79
7/10/2021	19.6	12.91	13.1	9.03	20.1	13.87	59.8	13.92
8/10/2021	32.1	12.94	28.8	9.06	34.5	13.88	24.0	13.95
9/10/2021	13.3	12.93	12.0	9.04	16.2	13.87	21.6	13.98
10/10/2021	23.3	12.94	12.7	9.07	23.9	13.92	42.7	14.06
11/10/2021	4.2	12.91	2.7	9.06	4.7	13.91	5.3	14.03
12/10/2021	5.8	12.87	3.1	9.03	6.9	13.88	8.4	14.02
13/10/2021	5.5	12.82	3.3	8.98	6.1	13.80	6.2	14.00
14/10/2021	9.7	12.78	5.6	8.97	12.2	13.75	11.6	13.99
15/10/2021	13.5	12.75	10.9	8.93	18.3	13.71	19.7	14.00
16/10/2021	8.1	12.70	2.1	8.90	6.1	13.68	15.1	14.01
17/10/2021	11.3	12.66	6.1	8.84	9.3	13.61	11.2	14.00
18/10/2021	12.2	12.60	7.5	8.78	13.6	13.58	17.6	14.01
19/10/2021	13.2	12.61	8.1	8.79	13.8	13.60	17.8	14.02
20/10/2021	9.8	12.60	8.0	8.79	14.3	13.59	9.5	14.01
21/10/2021	11.3	12.59	11.7	8.78	19.0	13.59	15.2	14.01
22/10/2021	15.7	12.58	10.4	8.77	18.5	13.54	18.0	14.02
23/10/2021	16.5	12.56	13.0	8.76	15.6	13.50	17.9	14.03
24/10/2021	13.3	12.53	11.5	8.75	13.7	13.46	14.8	14.04
25/10/2021	13.0	12.54	10.3	8.75	15.8	13.48	19.9	14.05
26/10/2021	21.3	12.59	12.2	8.79	20.6	13.53	17.4	14.06
27/10/2021	20.6	12.63	10.0	8.81	15.1	13.56	19.6	14.08
28/10/2021	26.1	12.69	11.2	8.83	15.9	13.58	29.6	14.12
29/10/2021	33.0	12.76	24.6	8.89	22.1	13.61	64.0	14.26
30/10/2021	22.1	12.80	19.4	8.93	24.9	13.66	21.4	14.28
31/10/2021	14.7	12.82	12.1	8.94	24.2	13.68	17.0	14.28

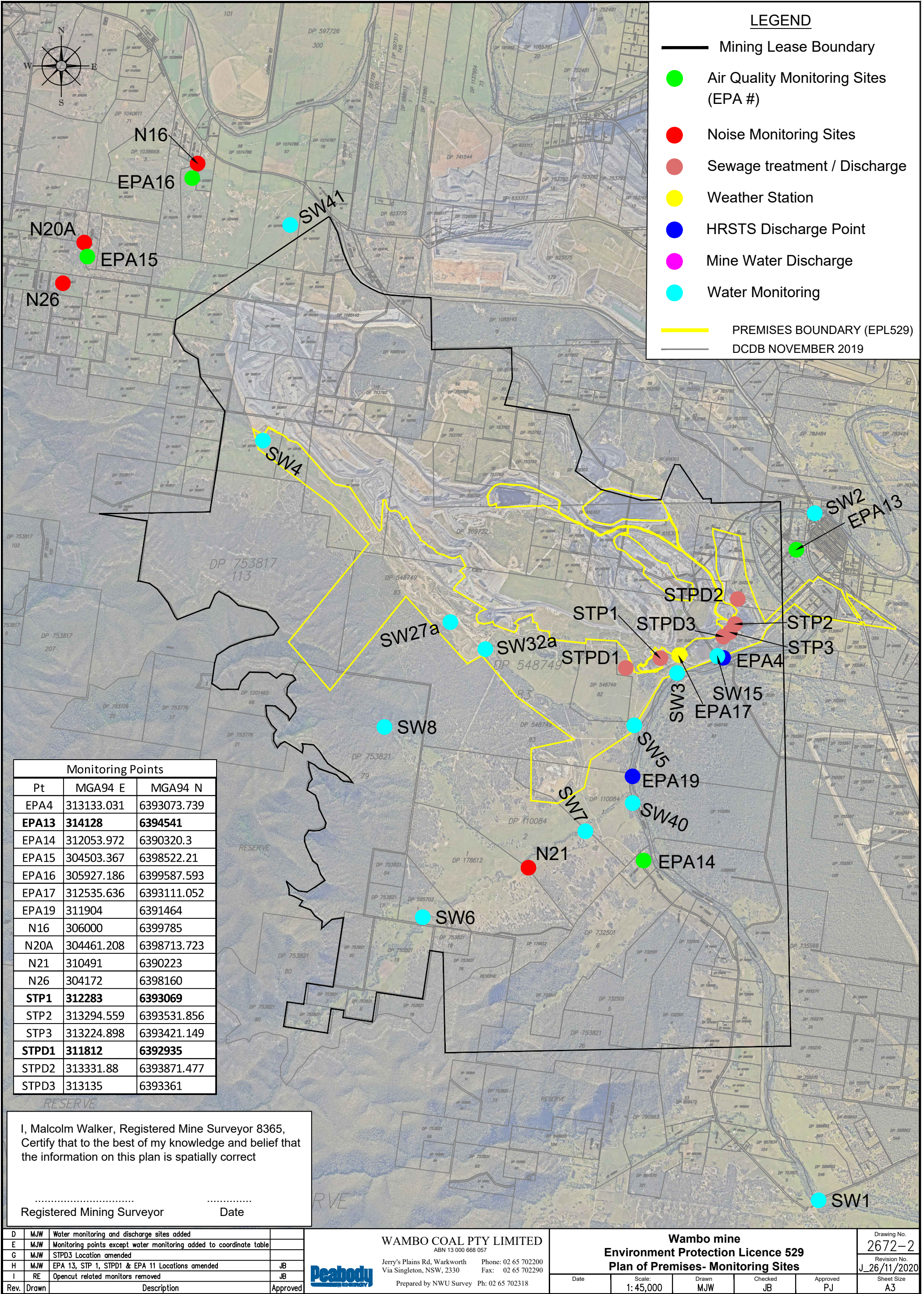
*NaN >75% of data collected during period

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
1/10/2021	18.0	13.3	26.0	17.6	13.4	25.0	80.9	47.8	100.0	254.5	1057.0	12.6	1.5	0.2	4.6	238.8	32.9	98.9	9.8
2/10/2021	17.3	9.0	23.7	17.0	9.2	22.3	74.3	44.1	100.0	264.1	1207.4	0.4	2.3	0.1	5.2	275.8	26.2	84.6	11.5
3/10/2021	20.3	14.8	26.2	19.9	14.6	25.0	60.5	37.1	87.9	301.6	1079.5	0.0	3.0	0.2	5.3	282.7	21.4	56.0	8.4
4/10/2021	19.3	10.2	26.7	19.2	10.4	25.6	60.1	22.6	100.0	325.6	1061.1	0.0	3.4	0.1	8.6	269.3	22.1	85.9	7.4
5/10/2021	16.9	8.6	22.6	16.8	9.4	21.5	47.1	23.1	78.5	318.0	1202.2	0.0	3.3	0.2	6.4	274.7	22.5	79.0	12.3
6/10/2021	16.6	7.6	26.0	16.7	8.6	25.1	46.8	17.6	78.6	346.7	1098.7	0.0	2.2	0.1	4.9	274.0	26.1	95.5	10.7
7/10/2021	18.8	7.2	29.4	18.9	7.5	28.3	51.2	21.7	90.7	258.0	962.5	0.0	2.2	0.1	7.2	225.7	29.0	80.0	11.8
8/10/2021	19.1	14.2	25.2	18.6	14.2	24.4	63.4	40.4	87.9	281.5	1207.0	0.0	1.8	0.2	4.5	112.0	24.9	100.9	6.4
9/10/2021	20.2	8.2	31.9	20.2	8.3	30.8	63.9	24.5	100.0	319.4	1046.2	0.0	1.5	0.0	5.5	234.4	25.8	90.1	6.9
10/10/2021	21.6	11.0	34.0	21.4	11.5	33.0	70.2	31.0	100.0	260.4	1179.9	7.2	2.3	0.1	7.5	214.3	25.5	99.9	6.1
11/10/2021	14.6	12.5	18.2	14.1	12.0	18.0	95.2	79.1	100.0	55.0	344.8	10.6	1.9	0.2	3.9	160.4	19.4	78.7	9.5
12/10/2021	13.0	11.8	15.7	12.6	11.2	15.0	97.5	79.8	100.0	53.9	408.4	28.0	1.8	0.7	3.3	153.4	16.0	28.7	8.7
13/10/2021	16.1	13.0	20.6	15.7	12.7	19.8	89.9	66.7	100.0	107.4	785.0	7.4	1.9	0.7	4.2	142.2	17.9	40.6	8.4
14/10/2021	20.1	10.9	29.4	20.0	11.5	28.6	72.1	34.0	100.0	319.6	1104.9	0.0	1.5	0.1	6.2	215.2	28.9	90.4	8.9
15/10/2021	15.6	9.6	22.8	15.4	9.9	21.7	69.5	34.0	100.0	277.1	1143.8	0.4	3.5	0.2	7.8	275.0	22.2	99.2	7.0
16/10/2021	16.0	11.1	21.2	15.5	11.0	20.0	60.4	41.1	82.2	324.8	1184.3	0.0	4.6	2.6	7.7	301.5	18.7	26.6	13.7
17/10/2021	17.9	7.9	26.0	17.5	8.4	25.0	54.3	23.5	97.5	366.4	1126.8	0.0	2.4	0.3	4.5	268.3	23.9	90.0	6.5
18/10/2021	18.0	9.0	27.6	17.8	9.2	26.7	62.8	24.6	100.0	340.8	1160.8	0.0	1.4	0.1	4.6	238.3	27.4	83.3	5.8
19/10/2021	18.7	8.9	30.4	18.5	9.7	29.3	64.7	19.2	100.0	304.7	1200.1	0.6	1.8	0.1	6.4	179.4	31.3	86.2	10.9
20/10/2021	16.1	9.4	21.9	15.8	9.7	20.6	71.9	47.8	100.0	262.2	1239.4	0.4	2.0	0.1	4.8	131.8	20.9	90.5	6.1
21/10/2021	17.1	8.6	24.0	16.8	9.2	22.9	78.1	51.0	100.0	237.1	1074.3	0.0	2.0	0.1	5.7	123.7	24.2	85.4	8.0
22/10/2021	20.1	15.1	27.0	19.7	15.0	26.1	75.2	44.6	99.8	295.8	1221.7	0.0	1.7	0.2	4.8	123.5	23.7	72.2	7.0
23/10/2021	21.8	11.9	33.9	21.5	12.1	33.3	77.1	28.3	100.0	303.0	1134.8	6.2	1.5	0.1	4.7	207.5	29.1	88.2	6.9
24/10/2021	20.3	14.4	27.9	20.0	14.3	26.9	70.3	23.3	100.0	324.0	1252.2	0.2	2.0	0.0	5.8	210.0	28.7	89.8	6.7
25/10/2021	18.2	9.9	26.3	17.7	10.6	25.2	63.0	20.6	100.0	374.6	1174.7	0.0	2.1	0.1	4.8	233.2	21.1	82.9	6.7
26/10/2021	18.6	12.7	25.8	18.2	12.9	24.9	62.7	31.2	92.5	357.5	1192.3	0.0	1.7	0.1	7.4	133.3	27.6	98.4	8.2
27/10/2021	20.8	11.8	30.9	20.6	12.0	29.9	62.3	24.7	100.0	379.0	1160.7	0.0	1.6	0.1	4.2	247.1	24.3	74.3	4.9
28/10/2021	21.9	11.6	32.0	22.1	12.2	30.9	57.5	20.8	100.0	257.7	1122.8	0.0	1.3	0.1	4.0	234.8	26.7	97.4	5.2
29/10/2021	23.4	12.9	32.2	23.5	13.2	31.5	55.0	27.9	92.2	276.9	1131.2	0.0	3.4	0.2	7.8	245.8	27.1	94.2	7.0
30/10/2021	17.6	10.0	24.4	17.6	11.1	23.5	61.0	33.7	94.3	305.3	1297.4	0.0	2.5	0.2	7.5	132.3	25.2	92.4	9.6
31/10/2021	16.8	10.6	22.9	16.3	10.5	21.9	65.0	37.0	99.3	314.6	1363.5	0.0	2.1	0.2	5.3	127.5	23.3	94.3	5.0
	18.4	7.2	34.0	18.2	7.5	33.3	67.1	17.6	100.0	283.0	1363.5	74.0	2.2	0.0	8.6	208.7	24.6	100.9	4.9



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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Prepared by NWU Survey Ph: 02 65 702318

Wambo mine Environment Protection Licence 529 Plan of Premises- Monitoring Sites				
Date	Scale: 1: 45,000	Drawn MJW	Checked JB	Approved PJ

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