

**WAMBO COAL
POLLUTION MONITORING DATA
1 JULY 2021 – 31 JULY 2021**

JULY MONTHLY REPORT

Published 09 September 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	30/7/2021	7.17	589	7	-
Point 25	SW02	30/7/2021	7.38	622	<5	-
Point 26	SW03	30/7/2021	7.29	614	6	-
Point 27	SW04	30/7/2021	-	-	-	Dry
Point 28	SW05	30/7/2021	-	-	-	Dry
Point 29	SW06	30/7/2021	7.24	404	<5	
Point 30	SW07	30/7/2021	7.29	589	<5	
Point 31	SW08	30/7/2021	7.44	4990	7	
Point 33	SW15	21/7/2021	8.68	6060	13	
Point 34	SW27a	30/7/2021	-	-	-	Dry
Point 36	SW32a	30/7/2021	-	-	-	No Flow
Point 39	SW39	30/7/2021	-	-	-	Dry
Point 40	SW40	30/7/2021	7.42	615	8	
Point 41	SW41	30/7/2021	-	-	-	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 July
 Date obtained:

Table 3- WCPL Discharge Monitoring

EPL ID	Site ID	Date	pH	Faecal Coliforms	Comments
Point 42	STPD2	21/07/21	8.84	~18 CFU/100mL	
Point 52	STP2	21/07/21	6.82	<9 CFU/100mL	
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 of Run	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
1/07/2021	12.2	14.00	9.9	9.14	14.7	14.69	13.9	12.47
2/07/2021	6.1	13.96	3.7	9.12	4.8	14.69	10.1	12.46
3/07/2021	4.7	13.90	1.7	9.10	4.2	14.66	9.5	12.45
4/07/2021	5.6	13.88	2.6	9.09	5.1	14.66	10.3	12.44
5/07/2021	6.3	13.87	2.7	9.09	6	14.66	11.6	12.43
6/07/2021	8.6	13.86	3.1	9.09	5	14.66	7.4	12.41
7/07/2021	10.4	13.85	6.2	9.10	9.2	14.66	10.9	12.41
8/07/2021	13.4	13.85	5.3	9.09	9.4	14.64	15.7	12.42
9/07/2021	10.6	13.84	6.3	9.08	8.9	14.60	14.4	12.43
10/07/2021	6.4	13.79	2.4	9.06	5.8	14.57	3.8	12.39
11/07/2021	6.9	13.78	6.1	9.06	9.4	14.56	7.9	12.38
12/07/2021	9	13.78	3.4	9.06	7.6	14.56	10.0	12.37
13/07/2021	6	13.78	4.0	9.06	7.4	14.57	12.2	12.37
14/07/2021	9.5	13.79	6.3	9.07	7	14.58	13.6	12.37
15/07/2021	6.2	13.78	NaN	9.09	5.9	14.58	9.0	12.36
16/07/2021	8.5	13.79	NaN	9.11	8.2	14.59	16.6	12.38
17/07/2021	15	13.81	9.2	9.13	12.7	14.61	19.0	12.40
18/07/2021	7.3	13.81	3.7	9.13	6.8	14.59	12.2	12.40
19/07/2021	5.1	13.80	2.6	9.11	4.7	14.55	11.4	12.40
20/07/2021	5.6	13.78	1.3	9.09	4.4	14.54	11.6	12.39
21/07/2021	5.5	13.76	1.8	9.08	6.6	14.54	7.1	12.37
22/07/2021	9.9	13.75	3.9	9.07	10.6	14.52	11.9	12.37
23/07/2021	12.6	13.73	6.6	9.05	9.4	14.50	17.8	12.39
24/07/2021	7.1	13.70	4.6	9.03	5.2	14.45	15.6	12.40
25/07/2021	7.2	13.67	3.7	9.00	6.9	14.42	11.8	12.40
26/07/2021	9.5	13.66	4.1	9.00	7.6	14.39	14.9	12.41
27/07/2021	10.9	13.69	5.1	9.01	8.9	14.38	19.3	12.44
28/07/2021	16	13.72	6.4	9.02	8.8	14.36	30.6	12.50
29/07/2021	7.2	13.73	NaN	9.05	7	14.37	11.9	12.50
30/07/2021	9.5	13.73	NaN	9.06	6.3	14.35	12.3	12.50
31/07/2021	12	13.75	6.9	9.06	8.6	14.34	20.9	12.53

*NaN >75% of data collected during period

Meteorological Monitoring

Monitoring Frequency: Continuous

Sampling Method: Site Meteorological Station EPA17

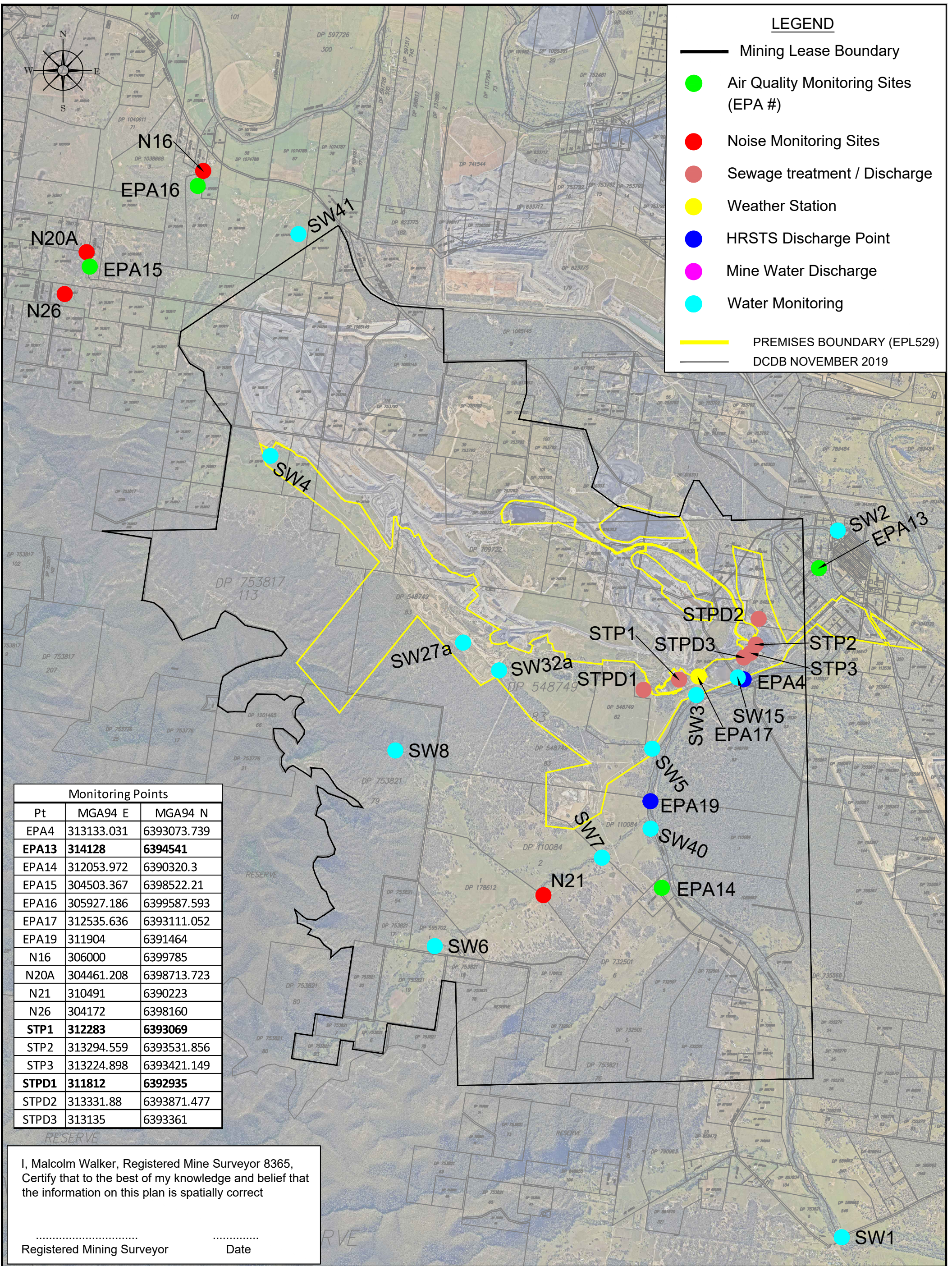
Limits: Nil

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
1/07/2021	13.39	10.9	15.4	13.41	11.0	15.3	92.97	78.6	100.0	66.06	273.10	4.20	0.79	0.1	2.0	167.98	30.90	87.6	8.3
2/07/2021	13.17	5.5	20.3	13.53	6.8	19.7	88.75	55.6	100.0	144.84	679.00	1.40	1.24	0.1	3.5	187.85	27.35	93.3	9.0
3/07/2021	9.18	2.3	19.5	9.69	3.0	18.9	84.53	37.1	100.0	152.45	628.50	0.20	1.15	0.0	3.5	218.85	25.94	96.8	0.0
4/07/2021	6.79	-0.5	15.6	7.76	0.4	14.9	81.86	37.7	100.0	159.79	620.10	0.00	1.35	0.1	3.6	230.28	31.07	98.2	5.2
5/07/2021	7.25	-0.8	16.1	8.02	0.4	15.4	77.26	40.9	100.0	155.70	608.10	0.20	1.50	0.0	3.6	236.65	31.99	95.7	8.6
6/07/2021	5.71	-1.5	15.9	6.59	-0.9	14.8	82.73	43.6	100.0	136.94	648.90	0.00	0.91	0.1	2.5	225.42	27.20	84.2	5.7
7/07/2021	6.23	-1.8	16.7	6.92	-0.9	16.1	85.60	52.2	100.0	144.38	599.50	0.00	0.84	0.1	2.8	169.68	29.65	96.0	7.3
8/07/2021	7.39	-0.6	15.9	8.02	0.1	15.8	88.43	56.4	100.0	108.07	540.50	0.20	0.67	0.1	1.6	174.15	24.52	74.1	4.8
9/07/2021	9.67	6.1	11.7	10.03	7.3	11.7	99.84	97.7	100.0	21.59	157.90	11.40	0.88	0.1	2.1	221.21	31.66	102.5	8.1
10/07/2021	12.76	8.9	17.3	12.90	9.5	16.9	72.18	52.1	99.8	117.94	712.70	0.00	2.90	0.3	4.9	228.89	19.65	73.4	10.7
11/07/2021	12.02	4.6	17.4	12.48	5.9	16.9	77.88	55.5	100.0	132.63	713.20	0.00	1.60	0.1	3.7	168.08	22.14	79.5	7.3
12/07/2021	8.77	2.0	17.7	9.18	2.3	17.5	87.20	51.2	100.0	150.38	692.90	0.20	0.78	0.1	2.3	150.22	32.95	91.5	4.8
13/07/2021	10.53	3.4	19.6	11.15	4.2	19.0	84.24	41.4	100.0	141.78	661.00	0.20	1.21	0.1	4.0	218.03	31.58	97.7	4.8
14/07/2021	10.87	3.5	17.9	11.42	4.2	17.8	83.28	52.6	100.0	59.95	696.80	0.20	1.18	0.1	4.0	221.83	29.02	95.4	7.7
15/07/2021	16.18	9.7	21.4	16.56	11.1	21.0	77.27	53.6	100.0	63.57	520.20	0.80	1.86	0.1	4.6	264.85	23.95	96.2	8.6
16/07/2021	14.35	8.4	17.6	14.66	9.9	17.6	65.47	37.8	100.0	131.81	682.80	2.20	4.44	0.4	8.3	287.22	20.68	64.9	13.4
17/07/2021	11.99	9.1	13.7	12.18	9.4	14.1	59.18	48.3	85.5	115.12	729.50	2.80	5.21	1.9	7.9	284.38	18.88	43.9	13.3
18/07/2021	11.98	5.8	17.2	12.25	7.1	17.0	64.24	46.3	91.9	154.16	670.70	0.00	2.99	0.2	5.2	285.30	23.67	91.6	12.7
19/07/2021	8.42	0.4	14.6	8.88	0.9	13.7	73.16	45.6	100.0	139.83	802.60	0.00	2.25	0.0	5.1	254.75	29.00	91.2	12.1
20/07/2021	11.29	8.0	14.9	11.33	8.3	14.2	64.77	45.4	82.3	110.42	669.30	0.00	3.74	1.9	6.8	298.24	20.68	34.3	14.0
21/07/2021	9.67	0.4	15.8	10.04	1.3	15.3	64.42	30.2	100.0	168.26	675.50	0.00	2.15	0.2	5.1	228.72	22.04	65.9	6.9
22/07/2021	6.54	-1.8	17.0	7.22	-0.3	16.3	77.12	33.6	100.0	176.00	680.90	0.00	0.98	0.1	2.4	188.25	30.28	92.3	7.0
23/07/2021	11.78	4.5	19.9	11.93	5.1	18.8	72.29	40.8	100.0	139.53	907.50	0.60	1.86	0.1	4.8	224.41	28.43	89.1	8.1
24/07/2021	13.59	9.9	17.2	13.67	10.5	16.5	64.98	41.7	87.2	113.90	716.20	0.00	3.49	0.9	5.6	297.94	20.52	43.0	12.8
25/07/2021	11.67	7.8	14.7	11.83	8.7	14.2	56.16	39.5	91.7	136.39	696.90	1.40	4.09	1.0	8.0	291.85	19.82	29.5	13.9
26/07/2021	12.69	7.9	18.8	12.81	8.4	18.3	60.55	45.1	73.1	181.85	759.40	0.00	3.26	1.7	5.6	304.63	18.78	33.3	11.3
27/07/2021	12.85	5.5	20.6	13.66	8.2	20.3	68.39	40.9	100.0	167.36	674.00	0.00	1.94	0.3	4.3	271.64	20.82	82.0	7.0
28/07/2021	15.47	3.6	24.0	15.78	4.7	23.6	57.90	30.6	100.0	168.97	681.10	1.80	3.43	0.2	6.8	284.51	21.02	81.5	10.3
29/07/2021	11.41	1.3	18.8	12.01	3.2	18.2	66.38	21.7	100.0	191.94	721.30	0.00	1.75	0.1	4.6	236.84	28.99	91.8	4.8
30/07/2021	6.85	-2.7	19.7	7.44	-2.2	19.1	72.79	23.6	100.0	196.80	741.50	0.00	1.30	0.1	4.0	238.87	26.53	87.6	6.6
31/07/2021	10.73	-1.1	24.0	11.55	-0.4	23.6	69.77	30.4	100.0	154.69	756.90	0.00	1.47	0.1	4.6	228.13	26.38	75.4	6.5
	10.66	-2.7	24.0	11.10	-2.2	23.6	74.72	21.7	100.0	136.24	907.50	27.80	2.05	0.0	8.3	235.79	25.63	102.5	0.0



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
 ABN 13 000 668 057
 Jerry's Plains Rd, Warkworth Phone: 02 65 702200
 Via Singleton, NSW, 2330 Fax: 02 65 702290
 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