

**WAMBO COAL
ENVIRONMENTAL REPORTING
1 FEBRUARY – 29 FEBRUARY 2020**

April 2020

**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**

Monitoring Frequency: Once per month
 Sampling Method: Grab sample
 Limits: Nil

Table 1 - WCPL Surface and Mine Water Dam Results

Site	Date	pH	EC (µS/cm)	TSS (mg/L)	Comments
SW01	7/02/2020				No Flow
SW02	7/02/2020				No Flow
	10/02/2020	7.4	619	98	
SW03	7/02/2020				Dry
	10/02/2020	6.4	261	34	
SW04	7/02/2020				No Flow
	10/02/2020	7.1	295	18	
SW05	7/02/2020				No Flow
	10/02/2020	6.8	286	66	
SW06	7/02/2020				Unsafe Access
	10/02/2020	6.7	278	34	
SW07	7/02/2020				
	10/02/2020	6.6	260	32	
SW08	7/02/2020				Unsafe Access
	10/02/2020	6.8	287	12	
SW12	10/02/2020	9.2	4170	33	
SW14	10/02/2020	8.2	494	9	
SW15	7/02/2020	8.9	11060	56	
SW27	7/02/2020	7.7	491	1140	
	10/02/2020	7.2	275	80	
SW31	10/02/2020	9.4	2700	96	
SW32a	7/02/2020	7.6	499	900	
	10/02/2020	7.3	288	82	
SW38	10/02/2020	9.3	3140	242	
SW39	7/02/2020				Unsafe Access
	10/02/2020				No Flow
SW40	10/02/2020				No Flow
SW51	10/02/2020	8.2	302	468	
SW52	10/02/2020	8.7	507	182	
Wombat Dam	10/02/2020				Dry
Milk Can Dam	10/02/2020				Dry
Rug Dump Dam	10/02/2020	8.6	439	842	
Montrose East 1	10/02/2020	8.8	750	79	
Montrose East 2	10/02/2020				Unsafe Access

Monitoring Frequency: Every 2 months
 Sampling Method: Grab sample
 Limits: Nil

Date sampled: 4, 5, and 14 February 2020
 Date obtained: 18 February 2020
 Date published: 16 April 2020

Table 2 - WCPL Groundwater Results

Site	Date	pH	EC ($\mu\text{S/cm}$)	Depth	Comments
P106	4/02/2020				Dry
P109	4/02/2020	6.6	628	6.9	
P114	4/02/2020				Dry
P116	4/02/2020	7.2	3200	6.9	
P202	4/02/2020	7.3	3990	10.0	
P206	4/02/2020	8.0	2090	23.3	
P301	4/02/2020				Insufficient Water
P315	4/02/2020				Dry
GW02	4/02/2020				Dry
GW08	4/02/2020				Dry
GW09	4/02/2020				Dry
GW11	4/02/2020	6.9	616	8.1	
GW12	4/02/2020				Dry
GW13	5/02/2020	6.9	3180	7.6	
GW15	5/02/2020	6.9	664	12.3	
GW16	5/02/2020	7.6	1480	12.6	
GW17	5/02/2020	7.1	5260	13.5	
GW21	5/02/2020				Dry
GW22	5/02/2020	8.4	7170	36.1	
GW23 (Site 4A)	5/02/2020				Dry
GW24 (Site 4B)	5/02/2020	6.2	1760	10.1	
GW25 (Site 9A)	5/02/2020				Dry
GW26 (Site 9B)	5/02/2020	7.2	1238	8.9	
GW27 (Instream 1)	5/02/2020				Dry
GW28 (Instream 3)	5/02/2020				Dry
GW30 (Site 11)	5/02/2020				Dry
P1	14/02/2020				Unsafe Access
P11	14/02/2020				Dry
P16	14/02/2020	7.4	7310	9.9	
P20	14/02/2020	7.1	5310	9.1	

Monitoring Frequency: Once per month
Sampling Method: AM19
Limits: 4g / m² / month EPA Guideline

Date sampled: 17 December 2019
Date obtained: 21 February 2020
Date published: 16 April 2020

Table 3 - WCPL Depositional Dust Gauges

Site	Date	Ash (g/m ²)	Total Insoluble Matter (g/m ²)	AR/IS Ratio	Comment
D11	14 /02/2020	3	3.5	85.7	
D19	14 /02/2020	5.3	7	75.7	
D21	14 /02/2020	3	3.6	83.3	
D22	14 /02/2020	4.9	5.9	83.1	

Monitoring Frequency: Continuous
 Sampling Method: AM22
 Limits: Nil

Date sampled: Continuous
 Date obtained: Continuous
 Date published: 16 April 2020

Table 4 - WCPL PM10 Results

Date of Run	PM01 - Coralie (Sentinex 19)		PM02 - Wambo Road (Caban) (Sentinex 20)		PM03 - Thelander (Sentinex 21)		PM04 - Muller (Sentinex 22)	
	PM10 24 Hour Result (ug/m ³)	YTD Average	PM10 24 Hour Result (ug/m ³)	YTD Average	PM10 24 Hour Result (ug/m ³)	YTD Average	PM10 24 Hour Result (ug/m ³)	YTD Average
1/02/2020	37.4	46.08	44.4	46.96	35.9	45.74	44.5	48.52
2/02/2020	40.4	45.91	56.9	47.26	44.9	45.71	51.0	48.60
3/02/2020	30.3	45.45	23.2	46.55	23.9	45.07	20.3	47.77
4/02/2020	69.1	46.13	47.2	46.57	59.6	45.49	48.1	47.78
5/02/2020	46.2	46.13	22.1	45.89	25.0	44.92	38.8	47.53
6/02/2020	21.7	45.47	11.4	44.96	11.3	44.01	16.6	46.69
7/02/2020	5.5	44.42	3.4	43.87	3.7	42.95	4.8	45.59
8/02/2020	12.1	43.59	8.4	42.96	7.4	42.04	7.6	44.61
9/02/2020	8.1	42.70	5.3	42.01	5.4	41.12	4.9	43.62
10/02/2020	16.2	42.06	12.5	41.29	11.0	40.39	12.8	42.87
11/02/2020	18.1	41.49	20.1	40.79	15.7	39.80	16.1	42.23
12/02/2020	18.2	40.94	14.9	40.19	18.2	39.30	15.3	41.61
13/02/2020	24.1	40.56	13.9	39.59	14.2	38.73	16.6	41.04
14/02/2020	17.5	40.05	18.6	39.12	21.5	38.34	20.1	40.57
15/02/2020	23.5	39.69	21.8	38.75	18.1	37.90	21.4	40.16
16/02/2020	22.5	39.32	15.1	38.24	18.9	37.50	17.2	39.67
17/02/2020	13.1	38.78	10.7	37.67	11.0	36.95	13.2	39.12
18/02/2020	21.3	38.42	22.8	37.37	17.5	36.55	15.8	38.64
19/02/2020	35.0	38.35	36.8	37.36	NaN*	36.55	30.8	38.48
20/02/2020	28.3	38.15	25.1	37.12	23.1	36.28	24.0	38.20
21/02/2020	32.1	38.04	22.5	36.83	25.9	36.08	28.0	38.00
22/02/2020	24.7	37.79	16.3	36.45	22.8	35.82	24.3	37.74
23/02/2020	22.5	37.50	15.3	36.06	16.6	35.46	26.1	37.53
24/02/2020	16.4	37.12	9.9	35.58	14.1	35.06	21.5	37.24
25/02/2020	18.8	36.79	14.8	35.21	12.3	34.65	15.4	36.85
26/02/2020	12.8	36.37	14.7	34.85	10.7	34.22	11.4	36.40
27/02/2020	26.3	36.20	27.9	34.73	19.6	33.97	28.9	36.27
28/02/2020	26.5	36.03	27.2	34.60	26.6	33.84	27.7	36.13
29/02/2020	22.6	35.81	18.4	34.33	20.1	33.61	29.8	36.02

*Nan due to power outage >75% of data collection period

Monitoring Frequency: Every blast
 Airblast Overpressure Limit: 120 dBL
 Ground Vibration Limit: 10mm/s

Date sampled: Continuous
 Date obtained: Continuous
 Date published: 16 April 2020

Table 5 - WCPL Blast Monitoring Results

Date & Time	ID	BM02 - Kelly		BM05 - Muller		BM07 - Thelander	
		dBL	mm/sec	dBL	mm/sec	dBL	mm/sec
3/02/2020 15:35	M_27WMA_479	98.3	0.06	102.0	0.60	90.5	0.35
14/02/2020 13:05	HS_WRB_483	101.3	0.52	87.2	0.02	78.2	0.03
15/02/2020 10:33	M_27WMA_476b	90.3	0.04	99.8	0.19	101.3	0.12
18/02/2020 15:32	M_27WMA_477	83.6	0.16	101.2	0.40	97.6	0.32
26/02/2020 14:34	MW_WWA_484	107.8	0.14	104.6	0.57	101.7	1.06
26/02/2020 14:41	M_27WRC_481	96.0	0.11	94.4	0.16	95.5	0.11

Monitoring Frequency: Continuous
 Sampling Method: Site Meteorological Station
 Limits: Nil

Date sampled: continuous
 Date obtained: continuous
 Date published: 16 April 2020

Table 6 - WCPL Meteorology

Date	Temperature (2m)			Temperature (10m)			Humidity			Solar Radiation		RAIN	Wind Speed		
	Average	Min	Max	Average	min	Max	Average	Min	Max	Average	Max	Sum (mm)	Average	Min	Max
1/02/2020	35.0	24.3	44.3	35.2	24.7	43.5	43.2	19.0	80.7	368.3	1102.9	0.0	2.1	0.0	7.1
2/02/2020	35.7	23.7	43.9	35.5	23.7	43.0	39.9	19.1	98.7	326.2	1213.0	9.4	2.6	0.5	7.0
3/02/2020	28.7	21.6	38.3	28.5	21.5	37.9	65.0	10.3	96.1	303.4	1183.1	0.2	0.3	0.3	7.2
4/02/2020	21.2	19.0	24.2	21.0	19.1	23.6	54.3	43.4	69.3	195.3	813.2	0.0	4.0	2.3	7.1
5/02/2020	22.2	15.4	28.1	22.2	16.4	27.5	61.3	44.0	83.0	249.5	1065.1	0.0	2.2	0.3	5.4
6/02/2020	20.6	19.4	22.0	20.6	19.4	22.1	85.1	62.8	98.0	64.0	297.3	21.4	2.2	0.8	4.8
7/02/2020	20.7	19.2	23.7	20.6	19.1	23.4	92.2	71.9	99.0	132.2	606.6	16.2	2.2	1.1	4.5
8/02/2020	21.0	19.6	24.7	21.1	19.7	24.7	90.4	66.8	98.8	114.0	1015.3	33.0	3.3	0.9	7.3
9/02/2020	21.4	19.5	22.8	21.5	19.6	22.9	93.6	87.1	100.0	70.2	370.9	57.6	2.9	1.0	6.6
10/02/2020	23.2	21.2	28.6	23.2	21.3	28.5	84.7	57.6	97.9	199.2	1157.1	2.0	0.9	0.1	4.3
11/02/2020	25.1	18.4	32.4	25.1	18.7	32.1	70.5	39.0	99.5	350.8	1104.7	0.0	1.0	0.2	5.8
12/02/2020	25.3	21.4	29.9	25.2	21.7	29.6	75.0	54.8	94.3	225.0	1317.4	0.0	2.1	0.1	6.3
13/02/2020	24.3	22.0	27.2	24.3	22.2	27.0	80.1	63.5	93.0	146.2	1238.1	4.4	2.7	0.8	6.3
14/02/2020	23.9	19.5	29.7	23.9	20.2	29.2	68.5	37.7	94.5	275.0	1283.9	0.0	1.5	0.1	5.7
15/02/2020	22.6	16.1	30.9	22.7	16.6	30.9	78.8	46.5	99.2	190.6	946.3	13.0	0.1	0.1	4.0
16/02/2020	22.9	18.8	27.0	22.9	19.2	26.8	79.3	58.8	99.0	197.2	1037.1	0.2	2.1	0.1	5.0
17/02/2020	21.7	20.0	24.5	21.8	19.9	24.3	90.3	75.8	99.7	51.9	375.9	7.8	0.4	0.1	2.3
18/02/2020	25.9	18.1	33.7	25.9	18.3	33.6	74.3	46.2	100.0	340.8	1078.5	0.0	1.6	0.1	5.2
19/02/2020	25.3	21.5	30.5	25.4	21.7	30.1	54.2	26.6	95.2	367.3	1145.7	5.6	3.0	0.2	14.7
20/02/2020	21.5	14.2	28.0	21.7	14.5	27.6	61.1	35.4	94.8	343.3	1240.5	0.0	1.1	0.1	5.9
21/02/2020	22.6	19.3	27.1	22.5	19.5	26.6	64.8	49.2	77.8	266.9	1162.2	0.0	2.3	0.6	5.5
22/02/2020	21.4	18.3	24.9	21.4	18.6	24.5	74.8	54.7	96.5	155.3	861.5	0.6	2.5	0.7	5.8
23/02/2020	22.2	19.9	25.2	22.3	19.9	25.0	69.8	51.1	91.0	170.9	890.3	0.0	2.0	0.8	3.8
24/02/2020	21.4	18.5	25.4	21.4	18.6	25.1	81.6	60.8	98.6	159.2	789.3	6.4	0.8	0.2	3.5
25/02/2020	24.2	18.2	31.2	24.3	18.5	30.9	74.1	40.5	98.8	342.8	1079.5	0.2	0.4	0.1	3.5
26/02/2020	24.2	19.7	32.4	24.3	20.0	31.8	76.0	46.1	97.1	214.5	1162.4	1.4	2.0	0.1	35.9
27/02/2020	21.8	19.1	26.4	21.7	19.1	25.7	76.1	59.1	94.8	183.2	1026.8	0.0	1.3	0.1	4.0
28/02/2020	21.5	13.7	28.7	21.6	14.1	28.5	66.8	28.4	99.9	349.4	1108.5	0.0	1.4	0.1	6.4
29/02/2020	22.1	15.7	28.9	22.1	16.3	28.3	70.5	45.6	93.0	320.1	1213.2	0.0	1.7	0.1	5.2
	23.8	13.7	44.3	23.8	14.1	43.5	72.3	10.3	69.3	230.1	1317.4	179.4	1.8	0.0	35.9

