

**WAMBO COAL
ENVIRONMENTAL REPORTING
1 JANUARY 2019 – 31 JANUARY 2019**

March 2019

**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 ($\mu\text{S/cm}$)	TSS (mg/L)	Comments
SW01	21 Jan 2019				No flow, pool
SW02	21 Jan 2019				No flow, pool
SW03	21 Jan 2019				No flow, pool
SW04	21 Jan 2019				Dry
SW05	21 Jan 2019				Dry
SW06	21 Jan 2019				No flow, pool
SW07	21 Jan 2019				No flow, pool
SW08	21 Jan 2019				No flow, pool
SW14	21 Jan 2019	8.9	414	26	
SW15	2 Jan 2019	9.21	6360	36	
	21 Jan 2019	9.16	5430	287	
SW20					
SW27	2 Jan 2019				No flow, pool
	21 Jan 2019				No flow, pool
SW31	21 Jan 2019	9.36	3210	54	
SW32a	2 Jan 2019				No flow, pool
	21 Jan 2019	7.53	289	1890	
SW38	21 Jan 2019	9.19	8310	36	
SW39	2 Jan 2019				Dry
	21 Jan 2019				Dry
SW40	2 Jan 2019				No flow, pool
	2 Jan 2019				No flow, pool
SW41	21 Jan 2019				Dry
SW51	21 Jan 2019	9.03	1780	546	
SW52	21 Jan 2019	9.64	2020	154	
Montrose East 2	2 Jan 2019	8.93	688	31	
	21 Jan 2019	8.80	773	22	
Montrose East 1	2 Jan 2019	9.48	740	271	
	21 Jan 2019	9.26	888	109	
Wombat Dam	2 Jan 2019				Dry
	21 Jan 2019				Dry
Milk Can Dam	2 Jan 2019	9.51	6520	87	
	21 Jan 2019	9.63	2500	634	
Rug Dump Dam	2 Jan 2019	8.92	1250	126	
	21 Jan 2019	9.13	1490	181	

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

Date sampled: 15 January 2019
Date obtained: 22 January 2019
Date published: 29 March 2019

Table 2 - WCPL Depositional Dust Gauges

Site	Date	Ash (g/m ²)	Total Insoluble Matter (g/m ²)	AR/IS Ratio	Comment
D11	15 Jan 2019	2.7	3.4	79.41	
D19	15 Jan 2019	4.7	6.9	68.12	
D21	15 Jan 2019	2.0	2.3	86.96	
D22	15 Jan 2019	4.3	5.4	79.63	

Monitoring Frequency: Continuous
 Sampling Method: AM22
 Limits: Nil

Date sampled: Continuous
 Date obtained: Continuous
 Date published: 29 March 2019

Table 3 - 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
1/01/2019	28.4	28.40	23.2	23.20	20.8	20.80	22.5	22.50
2/01/2019	53.8	41.10	38.3	30.75	37.7	29.25	56.3	39.40
3/01/2019	58	46.73	36.9	32.80	41	33.17	41	39.93
4/01/2019	50.3	47.63	34.4	33.20	34.7	33.55	39.9	39.93
5/01/2019	38.9	45.88	25	31.56	30.4	32.92	27.7	37.48
6/01/2019	5.6	39.17	6.6	27.40	4	28.10	10.3	32.95
7/01/2019	19.1	36.30	14.3	25.53	12.5	25.87	21.4	31.30
8/01/2019	26.4	35.06	22.3	25.13	18.3	24.93	26.1	30.65
9/01/2019	18.8	33.26	20.4	24.60	16.2	23.96	21.3	29.61
10/01/2019	24.5	32.38	18.4	23.98	21.3	23.69	23.2	28.97
11/01/2019	25	31.71	18.5	23.48	21	23.45	21.8	28.32
12/01/2019	23.9	31.06	24.6	23.58	21.9	23.32	24.3	27.98
13/01/2019	34.2	31.30	25.6	23.73	32.9	24.05	37.6	28.72
14/01/2019	26.8	30.98	29.1	24.11	25.1	24.13	31.6	28.93
15/01/2019	31.6	31.02	29.1	24.45	25.4	24.21	43.7	29.91
16/01/2019	50.8	32.26	39	25.36	44.4	25.48	55.1	31.49
17/01/2019	45	33.01	50	26.81	49.8	26.91	60.8	33.21
18/01/2019	36.3	33.19	31.2	27.05	28.5	26.99	34.2	33.27
19/01/2019	52.9	34.23	34	27.42	32.3	27.27	34.5	33.33
20/01/2019	29	33.97	19.9	27.04	19.3	26.88	25.4	32.94
21/01/2019	16.8	33.15	12.4	26.34	12.9	26.21	16.3	32.14
22/01/2019	30.8	33.04	25.3	26.30	20.9	25.97	30.8	32.08
23/01/2019	25.7	32.72	23.1	26.16	17.7	25.61	22.3	31.66
24/01/2019	37.3	32.91	25.3	26.12	28.6	25.73	29.7	31.58
25/01/2019	42.8	33.31	27.3	26.17	28.4	25.84	36.1	31.76
26/01/2019	36.7	33.44	33.7	26.46	27.8	25.92	43.1	32.19
27/01/2019	52	34.13	33.5	26.72	30.9	26.10	46.2	32.71
28/01/2019	33.3	34.10	24	26.62	28.4	26.18	27	32.51
29/01/2019	25.7	33.81	23.6	26.52	32.7	26.41	41.4	32.81

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
30/01/2019	41.5	34.06	33.2	26.74	26.6	26.41	44.7	33.21
31/01/2019	33.4	34.04	32.6	26.93	25.6	26.39	34.9	33.26

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

Date sampled: Continuous
 Date obtained: Continuous
 Date published: 29 March 2019

Table 4 - WCPL Blast Monitoring Results

Date & Time	ID	BM02 - Kelly		BM05 - Muller		BM07 - Thelander	
		dBL	mm/sec	dBL	mm/sec	dBL	mm/sec
2019-01-04 12:04:03	M_27WRA_431	88.9	0.06	107.6	0.52	98.7	0.58
2019-01-09 11:07:36	HD_WWA_340	103.8	0.15	105.9	0.45	98.4	0.30
2019-01-18 11:55:35	WMB0V1	103.0	0.63	92.6	0.04	92.5	0.04
2019-01-18 12:07:57	WMB0V2	90.5	0.03	105.0	0.50	99.2	0.59
2019-01-23 13:54:31	WMB0VB	100.1	0.27	108.3	1.88	99.8	1.16
2019-01-30 14:15:11	WMB0VH	96.3	0.09	110.7	0.40	99.0	0.28
2019-01-30 14:20:36	WMB0VI	90.3	0.06	107.6	0.66	99.8	0.48

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

Date sampled: Continuous
 Date obtained: Continuous
 Date published: 29 March 2019

Table 5 - WCPL Meteorology

Date	Temperature (2m)			Temperature (10m)			Humidity			Solar Radiation		RAIN mm	Wind Speed		
	Min	Average	Max	Min	Average	Max	Min	Average	Max	Average	Max		Min	Average	Max
1/01/2019	21.3	28.1	36.6	21.2	28.1	36	28.5	62.7	96.3	329.2	1180.7	0.6	0.1	1	68.1
2/01/2019	19.8	29.1	37.1	20.2	29.1	36.4	27.4	55	94.8	346.4	1125.1	0	0.1	1.1	4.9
3/01/2019	21.9	27.6	34.3	22.1	27.5	33.4	33.9	56.2	79.7	337.8	1157.9	0	0.2	2.1	5.9
4/01/2019	17.9	29.2	39.4	18.4	29.2	38.8	22.3	57.6	94.2	382	1118.8	0	0.1	0.7	4.8
5/01/2019	21.5	31.6	40.4	21.2	31.5	39.8	23.6	49.9	91.8	377.6	1143.5	1.4	0	2.2	8.1
6/01/2019	19.6	21.5	22.6	19.4	21.2	22.2	70.4	80.9	94.2	89.9	375.6	0.2	0.6	2.2	3.9
7/01/2019	18.9	22.3	26.1	18.7	22.1	25.8	65	80	92.9	117.5	816.9	0	0.9	2.3	4.4
8/01/2019	20.4	27.6	35.9	20.7	27.3	35.4	28.6	61.7	94	350.6	1155.2	0.2	0.2	0.7	5
9/01/2019	20.1	26.6	37	20.9	26.4	35.8	28.9	64.6	95.8	292.5	1251.9	3.4	0.2	0.1	5.8
10/01/2019	21.5	25	30.6	21.4	24.6	29.6	55.2	78.7	97.1	292.8	1209.8	5.6	0.1	2.1	5.8
11/01/2019	21.4	26	33.1	21	25.6	32.2	46.6	76.9	97.6	308.4	1212.8	10	0.2	1.7	7.4
12/01/2019	19.6	27.9	37.1	19.6	27.7	36.7	33	67.7	98.7	355.1	1124.7	0.2	0.2	0.5	4.5
13/01/2019	19.8	26	32.6	20.4	25.8	31.5	45.7	69.1	94.9	357.2	1204	0	0.1	2.5	6.7
14/01/2019	22.1	27.7	35	22.1	27.3	34.2	35	62.2	85.9	338.9	1163.5	0	0.4	1.6	3.9
15/01/2019	20.7	29.8	42.5	21.1	29.8	41.5	20.1	59.7	92	343.7	1101.8	10.2	0	0.6	12.4
16/01/2019	21.5	30.9	41.4	21.7	31	40.8	24.9	62.1	97.9	350.1	1115	0.2	0	1.1	4.8
17/01/2019	24.1	31.9	42	24.6	31.9	41.7	19	52.6	82.6	381.5	1123.2	0	0.1	1.3	4.4
18/01/2019	22.6	32.1	42.7	23.6	32.2	42.2	17.4	46.6	80.1	385.8	1135.7	0	0.2	0.7	5
19/01/2019	22.9	30.5	41.4	22.7	30.6	40.6	18.8	52.8	79.9	264.6	1201	0	0.2	1.3	6.5
20/01/2019	22	24.9	29.3	21.8	24.6	28.5	61.4	75.6	88.8	142.8	932.9	0	0.9	2.3	4.4
21/01/2019	21.3	24.7	28.4	21.4	24.6	28.2	63.5	82.2	99.3	131.6	691.1	40.2	0.2	0.8	3.4
22/01/2019	20.8	27.7	35.9	20.9	27.7	35.4	40.3	69.7	97.1	284.3	1192.6	0	0.1	0.3	4.3
23/01/2019	22.2	28.1	37.7	22.5	28.1	37.2	29.7	64.3	92.3	252	1303.5	5.8	0.1	0.8	5.9
24/01/2019	22.8	26.7	32.8	22.7	26.5	32.1	48.8	69.1	84.3	274	1206.1	0	0.8	2	4.7
25/01/2019	23.9	29.5	38.6	23.9	29.4	38.4	28.8	62.3	85.5	312	1093.2	0	0.1	0.7	2.9
26/01/2019	21.8	32.7	42.4	22.3	32.9	42.2	18.9	50.1	92.3	367.4	1099.2	0	0.1	0.6	5.9
27/01/2019	25.4	31.9	42.7	25.4	31.8	42.3	20.9	54.6	80.6	336.2	1271	0.2	0.2	0.4	7.2
28/01/2019	23.5	27.9	33.1	23.6	27.6	32.2	51.1	69.5	88.3	329.6	1247.9	0	0.3	2.1	5.8
29/01/2019	22.1	30.2	38.6	22.3	30	38	30	57.3	91.3	357.9	1084.8	0	0.1	0.9	6.1
30/01/2019	24.7	31.1	37.2	24.9	31	36.9	29.6	51	76.6	226.3	997.2	0	0.2	0.2	4
31/01/2019	22.9	30.2	36.5	23.3	30.4	35.9	29.4	51.8	86.8	223.4	875.4	0	0.1	1.2	7.5
MONTH	17.9	28.29	42.7	18.4	28.18	42.3	17.4	63.05	99.3	298.04	1303.5	78.2	0	1.23	68.1

