

WAMBO COAL PTY LIMITED

MONTHLY ENVIRONMENTAL MONITORING REPORT

APRIL 2016

Table 1 - Monthly Surface Water Results

Sample Location	pH	EC (µS/cm)	TSS (mg/L)	TDS (mg/L)	Oil & Grease (mg/L)	Temp (°C)	Comments
WOLLOMBI BROOK							
SW01	7.4	887	<5	463		21.5	
SW03	6.7	853	<5	412	<5	20.0	
SW02	7.6	906	<5	437	<5	20.7	
SW40	7.4	854	<5	422		21.0	
NORTH WAMBO CREEK							
SW04							Dry
SW27a							Dry
SW32a							Pool No Flow
SW05							Dry
SOUTH WAMBO/STONY CREEK							
SW06	7.2	479	<5	249		21.1	
SW07							Pool No Flow
SW08							Dry
WATERFALL CREEK							
SW39							Dry
MINE WATER DAMS							
SW12	9.0	2250				20.8	
SW14							No access
SW15	8.8	3340				22.8	
SW20							Dry
SW29							No access
SW30	9.1	4780				22.5	
SW31	8.9	4400				21.2	
SW38	8.8	5720				21.3	

Note: Figures in bold fall outside trigger levels.

Table 2 - Ground Water Results

Sample Location	pH	EC (µS/cm)	Depth to Water (m)	Temp (°C)	Comments
GW02	7.00	494	5.59	19.9	
GW11	6.90	470	4.02	19.4	
P106	6.70	667	8.02	20.4	
P109	6.70	926	4.53	20.7	
P110	6.40	701	4.54	21.1	
P111	6.80	537	5.57	19.6	
P114	6.40	10,360	9.70	19.9	
P116	7.10	766	5.52	20.5	
P202	7.30	4,650	7.96	20.8	
P206	7.60	2,100	16.19	21.8	
P301	6.70	5,860	13.59	19.9	
P315	6.20	385	6.29	21.4	
GW12	6.80	21,900	10.42	22.0	
GW13	6.90	3,020	5.38	22.7	
GW14					Dry
GW15	6.80	646	10.04	20.9	
GW16	7.20	347	5.64	20.4	
GW17	7.10	5,080	8.06	20.8	
GW18					Dry
GW19					Dry
GW21					Dry
GW22	8.30	7,010	35.58	23.0	
P1*	7.05	7980	24.70		
P12*	6.78	576	3.92		
P13*	7.89	1103	3.32		
P15*	7.60	6850	5.28		
P16*	7.43	7990	6.31		
P17*	7.51	8580	5.42		
P18*	7.35	7070	6.24		
P20*	7.34	9740	5.95		

Note: All depths measured to top of casing, except United bores which are to ground. Figures in bold are outside trigger levels listed in Table 5 of the Ground Water Monitoring Programme (GWMP), which is part of the Site Water Management Plan.

* Represents data that is provided on a quarterly basis. The results are to be updated once available.

Table 3 - Dust Deposition Results

Site	Insoluble Solids (IS) (g/m ² .month)	Ash Residue (AR) (g/m ² .month)	IS:AR Ratio	IS YTD Average (g/m ² .month)	AR YTD Average (g/m ² .month)
D01*	14.2	2.7	19	3.7	2.3
D03*	11.6	3.4	29	3.0	2.4
D07	Broken			4.5	2.7
D09	2.9	1.9	66	2.6	1.6
#D11*	6.3	2.9	46	4.3	3.7
#D12*	9.3	2.7	29	3.6	2.4
#D17	1.7	0.7	41	1.8	1.0
D19	4.2	2.7	64	3.4	2.3
D20	3.2	1.5	47	1.8	1.1
#D21	1.9	1.5	79	2.3	1.8
#D22	3.0	2.3	77	2.7	2.0
D23	1.3	0.9	69	1.1	0.6
#D24	0.5	0.2	40	1.4	0.9
#D25	5.1	3.9	76	4	3.1
D26	3.2	1.9	59	2.5	1.6

Note:

Results in **bold** are YTD average above 4g/m²/month

Results # are dust gauges not on WCPL owned land. DD gauges on Wambo Coal land and above criteria level are not considered non-compliance.

* Contaminated sample

Table 4 - HVAS Results

Date of Run	HV01 - Coralie TSP ($\mu\text{g}/\text{m}^3$)	HV02 - Caban TSP ($\mu\text{g}/\text{m}^3$)	HV03 - Thelander TSP ($\mu\text{g}/\text{m}^3$)	HV04 - Muller TSP ($\mu\text{g}/\text{m}^3$)
5/04/2016	63.5	81.1	65.8	213
11/04/2016	68.6	73.7	77.8	107
17/04/2016	45.7	49.6	80.1	109
23/04/2016	17.4	15.5	19.1	55.8
29/04/2016	52.8	78.5	31.5	70.8
Monthly Mean	49.6	59.7	54.9	111.1
Yearly Mean	56.7	53.3	56.4	98.9

Table 5 - Blast Results

Peabody Wambo Blasting Results 2016													
Blast Number	Date	Time	Blast ID	Homestead (BM01)		Kelly (BM02)		Muller (BM05)		Harris (BM03)		Thelander (BM07)	
				Overpressure dB(L)	Vibration (mm/sec)	Overpressure dB(L)	Vibration (mm/sec)	Overpressure dB(L)	Vibration (mm/sec)	Overpressure dB(L)	Vibration (mm/sec)	Overpressure dB(L)	Vibration (mm/sec)
16	1/04/2016	15:05:57	M22RCA9	108.1	0.04	98.9	0.04	112.6	0.13	105.9	0.05	104.6	0.14
17	9/04/2016	9:14:33	RCA10 & M19V	89.9	0.09	92.9	0.08	101.4	0.39	103.3	0.06	97.5	0.37
18	15/04/2016	9:07:12	M18WTA2	98.9	0.05	98.2	0.13	107	0.28	103	0.06	103.6	0.27
19	15/04/2016	9:13:41	M21WRC3	99.9	0.07	95.7	0.11	102.6	0.28	102.3	0.08	105.8	0.36
20	21/04/2016	11:35:44	M21WMA1	108.7	0.13	100.2	0.11	114.6	1.01	106.4	0.08	107.8	0.83
21	21/04/2016	11:42:50	M24WVA10	102.1	0.12	92.9	0.07	110.6	0.78	103	0.06	110.8	1.1
22	22/04/2016	11:07:00	M2WVA6_RL1	105.8	0.04	91.4	0.24	106.6	0.28	103.9	0.05	102.4	0.13
23	28/04/2016	15:15:19	M19WMA4_2	94.3	0.08	90.9	0.16	100.6	0.39	95.9	0.08	98.2	0.36
24	29/04/2016	15:11:20	M19WMA5	96.6	0.05	91.4	0.25	101	0.18	97.3	0.05	97.5	0.16

- * Trigger unit SMS unable to be received by monitoring unit. Blast below monitoring unit vibration trigger threshold
- ** Hardware failure
- *** Software failure

Table 6 - PM₁₀ Results

Date	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
1/04/2016	21.60	19.09	20.30	19.07	16.90	17.88	21.50	21.32
2/04/2016	16.50	19.06	18.30	19.06	19.90	17.90	26.30	21.37
3/04/2016	19.80	19.07	23.90	19.11	19.60	17.92	26.10	21.42
4/04/2016	32.35	19.21	31.28	19.24	30.81	18.06	37.39	21.59
5/04/2016	23.30	19.26	21.80	19.27	21.80	18.10	26.30	21.64
6/04/2016	23.60	19.30	31.00	19.39	21.70	18.14	43.10	21.86
7/04/2016	17.60	19.28	36.20	19.56	25.10	18.21	23.50	21.88
8/04/2016	37.00	19.47	38.10	19.75	37.70	18.41	35.80	22.02
9/04/2016	22.30	19.50	25.90	19.81	23.40	18.46	28.30	22.08
10/04/2016	23.70	19.54	18.40	19.79	21.50	18.49	27.40	22.13
11/04/2016	17.70	19.52	24.10	19.84	23.18	18.53	23.74	22.15
12/04/2016	25.60	19.58	31.80	19.95	26.30	18.61	28.10	22.21
13/04/2016	27.40	19.66	25.20	20.00	26.20	18.68	29.50	22.28
14/04/2016	15.80	19.62	15.40	19.96	13.60	18.63	18.50	22.24
15/04/2016	14.60	19.57	18.70	19.95	14.00	18.59	20.00	22.22
16/04/2016	15.41	19.53	27.36	20.02	13.00	18.54	24.69	22.24
17/04/2016	21.70	19.55	35.40	20.16	19.80	18.55	32.30	22.34
18/04/2016	33.00	19.68	28.00	20.23	24.60	18.61	38.30	22.48
19/04/2016	17.60	19.66	13.40	20.17	14.70	18.57	17.10	22.43
20/04/2016	18.79	19.65	12.00	20.09	14.03	18.53	16.77	22.38
21/04/2016	15.40	19.61	14.66	20.05	14.10	18.49	18.00	22.34
22/04/2016	16.02	19.58	24.87	20.09	17.36	18.48	20.44	22.33
23/04/2016	20.50	19.59	23.20	20.12	23.30	18.52	23.60	22.34
24/04/2016	9.40	19.50	10.00	20.03	9.70	18.44	13.10	22.26
25/04/2016	19.40	19.50	15.00	19.99	20.30	18.46	26.70	22.29
26/04/2016	17.00	19.48	11.70	19.91	14.80	18.43	24.90	22.32
27/04/2016	18.90	19.47	11.10	19.84	14.60	18.40	24.80	22.34
28/04/2016	13.30	19.42	11.00	19.77	10.10	18.33	22.10	22.34
29/04/2016	9.33	19.33	20.30	19.77	14.20	18.29	18.52	22.30
30/04/2016	13.70	19.28	29.20	19.85	18.50	18.29	23.30	22.31

Table 7 - Meteorological Data

Date	Temperature (2m)			Temperature (10m)			Temperature Inversion			Humidity			Solar Radiation			Rain	Wind Speed		
	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	mm	Min	Avg	Max
01/04/16	11.0	19.6	30.7	12.5	20.6	30.9	-10.0	11.7	33.7	21.0	65.7	97.3	-1.7	228.5	802.7	0.0			3.3
02/04/16	11.2	21.7	34.1	12.2	22.7	34.2	-5.3	13.2	35.0	12.0	51.6	94.6	-1.7	230.1	884.3	0.0			3.1
03/04/16	13.1	21.4	28.7	15.2	22.4	28.6	-3.9	11.6	47.8	42.5	70.6	91.9	-1.7	162.5	849.2	0.0			3.4
04/04/16	18.7	22.4	28.3	20.1	23.0	28.1	-5.9	7.1	17.6	44.7	75.9	94.9	-1.6	155.2	824.8	0.0			2.9
05/04/16	14.3	21.9	31.7	15.5	22.8	31.6	-6.4	10.9	27.1	31.9	71.9	97.2	-1.7	195.6	744.3	0.0			2.4
06/04/16	14.0	25.8	35.1	15.2	26.8	35.1	-5.0	12.0	45.1	24.8	52.4	96.6	-1.7	208.1	741.6	0.0			3.1
07/04/16	16.7	20.6	24.7	18.3	21.4	26.7	-5.1	9.5	42.3	45.0	68.7	85.5	-1.7	84.1	630.7	0.0			3.2
08/04/16	14.7	19.2	23.3	15.9	19.8	23.2	-1.6	7.3	27.4	67.7	81.1	96.8	-1.7	50.5	367.9	0.0			2.2
09/04/16	14.2	19.7	26.6	15.3	20.3	26.5	-8.3	6.6	22.2	49.9	78.8	97.5	-1.7	153.2	724.9	0.0			3.0
10/04/16	12.4	20.5	32.2	14.5	21.4	32.3	-2.8	11.7	31.0	20.6	68.7	97.4	-1.7	169.0	699.5	0.0			3.3
11/04/16	8.7	19.0	29.9	9.8	19.8	29.7	-9.0	10.0	33.2	21.0	61.6	95.9	-2.2	206.4	728.8	0.0			3.6
12/04/16	15.0	19.4	25.1	16.2	20.0	24.8	-4.8	7.1	26.1	48.7	72.1	89.9	-1.7	116.2	777.3	0.0			3.2
13/04/16	15.3	19.1	24.1	16.8	19.7	23.6	-7.5	7.2	23.9	52.5	74.9	89.2	-1.7	129.0	787.7	0.0			3.6
14/04/16	13.5	19.5	26.2	14.6	20.1	26.0	-5.2	8.0	23.2	48.1	77.6	96.0	-1.7	144.1	766.6	0.0			3.1
15/04/16	11.6	18.5	27.3	12.7	19.5	27.5	-8.5	12.0	28.5	37.0	74.2	97.8	-1.7	171.9	684.9	0.0			2.3
16/04/16	10.2	18.7	29.0	11.4	19.7	29.1	-8.9	12.1	31.7	31.4	68.5	97.2	-1.8	153.7	687.7	0.0			2.6
17/04/16	13.6	18.3	24.3	15.6	19.0	24.3	-7.6	9.0	36.0	55.9	83.8	97.1	-1.7	72.1	741.0	29.5			4.0
18/04/16	14.3	18.7	24.5	15.5	19.4	24.5	-5.2	8.9	20.1	53.7	78.9	97.4	-1.7	117.0	834.6	0.2			2.8
19/04/16	13.9	19.2	25.6	15.1	20.0	25.6	-3.4	10.1	24.6	46.9	79.3	97.0	-1.7	159.3	778.6	0.0			2.7
20/04/16	14.4	19.9	26.5	15.5	20.6	26.6	-5.0	9.3	24.5	45.9	80.3	97.4	-1.7	181.9	804.2	0.0			3.1
21/04/16	12.9	18.5	25.3	14.6	19.5	25.5	-4.8	12.1	29.3	60.1	85.7	97.3	-1.7	98.5	631.8	0.0			1.9
22/04/16	10.5	17.4	29.2	11.2	18.1	29.2	-11.1	9.1	26.6	36.4	85.1	98.3	-1.7	136.7	713.3	6.4			3.3
23/04/16	15.5	17.4	20.7	16.5	18.0	20.6	-1.6	7.1	15.8	59.0	76.8	95.4	-1.7	71.7	752.7	0.2			3.2
24/04/16	10.9	17.4	23.0	12.6	18.1	23.1	-2.6	9.4	24.1	43.7	71.3	93.7	-1.8	157.5	791.5	0.2			3.6
25/04/16	10.5	16.5	23.2	12.1	17.5	23.3	-2.5	12.3	32.9	52.0	76.9	94.7	-2.1	114.6	699.0	0.0			3.1
26/04/16	11.8	17.7	24.4	12.8	18.5	24.3	-4.8	10.4	27.4	53.0	80.0	97.4	-1.7	137.8	824.9	0.0			3.1
27/04/16	8.5	16.6	24.2	9.5	17.6	24.2	-5.6	12.3	32.1	56.6	82.8	97.9	-2.3	170.6	800.7	0.0			2.9
28/04/16	10.3	16.9	27.6	11.2	17.9	27.8	-4.7	12.4	36.7	33.5	79.6	98.3	-1.7	136.5	637.7	0.0			2.1
29/04/16	9.1	18.4	27.9	10.3	19.5	28.0	-6.2	13.6	32.6	37.6	74.0	97.5	-2.1	124.9	718.4	0.0			2.3
30/04/16	14.1	17.5	21.2	15.2	18.3	21.5	-0.9	10.2	24.7	80.6	92.6	97.4	-1.7	38.9	375.5	2.8			2.5
MONTH	8.5	19.3	35.1	9.5	20.1	35.1	-11.1	10.1	47.8	12.0	74.7	98.3	-2.3	142.5	884.3	44.4			4.0

