

WAMBO COAL PTY LIMITED

MONTHLY ENVIRONMENTAL MONITORING REPORT

JUNE 2015

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	7.50	656.00	4.00	300.00		11.80	
SW03	7.40	623.00	6.00	269.00	<2	10.70	
SW02	7.60	724.00	4.00	314.00	<2	10.80	
SW40	7.60	707.00	4.00	282.00		11.40	
NORTH WAMBO CREEK							
SW04							Dry
SW27a							Dry
SW32a	8.50	770.00	23.00	420.00		9.40	
SW05	7.50	2190.00	14.00	1280.00		9.50	
SOUTH WAMBO/STONY CREEK							
SW06	7.20	513.00	3.00	243.00		11.10	
SW07	7.20	795.00	3.00	389.00		10.90	
SW08	6.70	422.00	2.00	166.00		12.10	
WATERFALL CREEK							
SW39	7.90	898.00	68.00	439.00		10.10	
MINE WATER DAMS							
SW12	9.00	5700.00				13.60	
SW14	8.10	598.00				13.80	
SW15	8.70	7440.00	14.00	4470.00		14.90	
SW20	8.70	5190.00				11.00	
SW29	8.10	1370.00				12.80	
SW30	9.20	5340.00				14.50	
SW31	9.30	4950.00				13.60	
SW38	9.00	6350.00				13.70	

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	7.10	533	6.01	17.8	
GW11	7.00	455	4.11	17.3	
P106	6.80	670	6.82	19.1	
P109	6.80	753	4.63	17.8	
P110	6.70	777	4.64	17.4	
P111	6.80	595	5.77	18.8	
P114	6.60	6,470	6.17	18.7	
P116	6.80	533	4.83	18.9	
P202	7.20	4,820	7.76	17.6	
P206	7.50	1,834	14.63	18.7	
P301	6.70	5,490	14.54	20.1	
P315	7.00	317	4.63	19.7	
GW12					Dry
GW13	7.10	2,820	5.24	19.4	
GW14					Dry
GW15	7.00	603	9.95	19.8	
GW16	6.60	302	4.90	18.4	
GW17	6.90	5,120	8.97	18.9	
GW18					Dry
GW19					Dry
GW21	-	-	36.57	-	No sample
GW22	8.40	6,720	35.85	20.6	
P1*	7.15	8140	25.12	7.15	
P11*	-	-	31.22	-	
P12*	6.77	551	5.86	-	
P13*	6.46	1018	6.10	-	
P15*	7.59	7030	5.77	-	
P16*	7.43	8110	6.74	-	
P17*	7.59	8640	5.49	-	
P18*	7.45	7160	6.78	-	
P20*	7.49	7570	7000.00	-	

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*	6.8	2.6	38	-	-
D03	3.6	2.0	56	2.7	1.7
D07*	2.1	1.0	48	5.8	3.8
D09*	5.1	2.8	55	5.4	2.6
#D11	1.6	0.9	56	2.6	1.6
#D12*	18.8	17.2	91	3.7	2.3
#D17	2.1	1.6	76	2.2	1.2
D19	1.8	1.1	61	3.3	1.9
D20	1.6	1.0	63	1.5	0.9
#D21	1.3	0.8	62	2.1	1.2
#D22	1.0	0.7	70	1.6	1.2
D23	2.5	1.0	40	2	1.1
#D24	1.1	0.6	55	1	0.6
#D25	1.5	1.0	67	2.6	1.8
D26	1.0	0.6	60	2	1.2

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 ($\mu\text{g}/\text{m}^3$)
4/06/2015	14.9	48.1	9.1	10.9
10/06/2015	21	14.0	16.1	35.2
16/06/2015	26	12.9	22.7	47.6
22/06/2015	21.3	23.2	5.1	13.1
28/06/2015	23.8	30.8	14.9	30.4
Monthly Mean	21.4	25.8	13.6	27.4
Yearly Mean	49.3	44.0	38.4	61.3

Table 5 - Blast Results

 Peabody Wambo Blasting Results 2015													
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)
1	4/06/2015	11:00:00	M23WWA4	NRR**	0	NRR**	0	NRR**	0	NRR**	0	NRR**	0
2	5/06/2015	10:20:36	M20WRA2	98.7	0.07	NRR**	0	103.3	0.24	102.6	0.05	108.4	0.35
3	12/06/2015	9:07:07	M20WRA2a	NRR*	<0.16	NRR**	0	112.6	0.24	99.4	0.05	112.1	0.31
4	18/06/2015	14:34:16	BS3WTA2	115.5	0.64	109.8	0.35	102.2	0.12	NRR***	0	98.2	0.14
5	24/06/2015	15:09:09	M20WRA3	107.7	0.08	110.3	0.12	109.6	0.41	109	0.05	103.2	0.39
6	30/06/2015	14:32:05	BS3WTA3	114.9	0.57	107.1	0.38	102.6	0.11	113.3	0.18	NRR*	<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
1/06/2015	6.8	17.1	6.9	14.7	4.6	13.3	4.4	18.2
2/06/2015	8.6	17.0	8.2	14.6	5.5	13.2	5.8	18.1
3/06/2015	10.5	17.0	9.9	14.6	5.5	13.2	6.1	18.1
4/06/2015	8.8	16.9	11.2	14.6	6.2	13.1	6.5	18.0
5/06/2015	7.5	15.7	7.2	14.5	5.9	13.1	8.3	17.9
6/06/2015	8.7	15.7	11.8	14.5	8.5	13.1	13.9	17.9
7/06/2015	9.0	15.6	13.7	14.5	6.7	13.0	7.4	17.8
8/06/2015	7.5	15.6	13.5	14.5	5.9	13.0	12.9	17.8
9/06/2015	10.3	15.6	21.3	14.6	8.2	12.9	6.8	17.7
10/06/2015	11.8	16.7	8.9	14.5	8.0	12.9	10.5	17.7
11/06/2015	8.6	16.6	8.8	14.5	11.0	12.9	17.5	17.7
12/06/2015	13.3	16.6	9.5	14.5	14.5	12.9	20.3	17.7
13/06/2015	7.3	16.5	11.1	14.4	8.6	12.9	15.7	17.7
14/06/2015	11.8	16.5	20.8	14.5	10.3	12.9	13.7	17.7
15/06/2015	17.3	16.5	19.7	14.5	13.9	12.9	16.9	17.7
16/06/2015	7.8	16.4	4.4	14.4	7.0	12.8	11.6	17.6
17/06/2015	5.0	16.4	4.6	14.4	4.1	12.8	4.1	17.6
18/06/2015	4.3	16.3	7.5	14.3	4.0	12.7	3.8	17.5
19/06/2015	7.7	16.3	5.0	14.3	4.6	12.7	6.7	17.4
20/06/2015	7.3	16.2	4.5	14.2	4.0	12.6	5.0	17.3
21/06/2015	8.5	16.2	9.6	14.2	5.3	12.6	7.1	17.3
22/06/2015	7.1	16.1	7.3	14.2	NRR	12.6	5.8	17.2
23/06/2015	9.7	16.1	11.0	14.1	6.1	12.6	8.0	17.2
24/06/2015	16.8	16.1	12.2	14.1	7.0	12.5	8.4	17.1
25/06/2015	7.0	16.0	11.2	14.1	8.0	12.5	9.3	17.1
26/06/2015	10.1	16.0	9.1	14.1	10.8	12.5	18.4	17.1
27/06/2015	8.5	15.9	10.7	14.1	6.5	12.5	10.3	17.0
28/06/2015	9.7	15.9	11.0	14.1	7.5	12.4	16.3	17.0
29/06/2015	13.4	15.9	16.4	14.1	9.5	12.4	12.2	17.0
30/06/2015	11.4	15.9	18.4	14.1	7.7	12.4	9.5	17.0

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
01/06/15	6.5	11.3	16.7	8.3	12.1	16.9	-0.7	9.5	26.9	22.3	60.5	86.7	-1.9	258.7	599.8	0.0	0.0	2.9	5.5
02/06/15	1.9	7.5	15.2	3.0	8.7	15.4	-2.8	15.5	42.6	41.9	70.9	95.6	64.0	363.3	510.2	0.0	0.0	1.1	3.5
03/06/15	-0.5	6.6	16.4	0.9	7.8	16.1	-5.6	14.6	34.2	48.0	83.2	97.6	58.9	357.3	481.2	0.0	0.0	0.6	2.2
04/06/15	-0.9	6.6	16.1	-0.1	7.7	16.2	-6.4	13.7	53.5	43.5	81.4	97.9	59.3	364.5	491.9	0.0	0.0	1.3	4.8
05/06/15	5.2	9.8	14.4	6.7	10.7	14.5	-8.1	10.8	31.6	56.3	78.0	96.2	70.9	360.3	495.9	0.0	0.0	1.7	5.7
06/06/15	2.4	9.6	18.9	4.3	10.8	19.0	-6.8	15.3	40.2	51.5	83.3	97.6	82.5	370.4	509.6	0.2	0.0	0.7	2.4
07/06/15	2.8	9.6	20.5	3.3	10.6	20.8	-5.2	13.2	45.3	51.6	85.7	97.9	54.9	373.1	495.2	0.0	0.0	1.1	5.3
08/06/15	10.4	15.3	21.8	11.5	16.1	22.1	-1.8	9.8	27.1	40.9	65.9	91.6	50.2	343.9	451.7	0.0	0.3	2.7	5.9
09/06/15	6.5	15.7	22.5	8.0	16.7	22.8	0.1	12.9	47.1	34.8	59.8	89.8	7.3	326.3	462.0	0.0	0.0	3.3	7.4
10/06/15	4.9	10.9	16.6	6.6	11.7	16.6	-1.7	10.7	38.1	66.2	89.0	95.5	28.5	345.9	469.3	0.7	0.0	1.3	3.4
11/06/15	10.7	13.0	16.2	12.1	13.7	16.2	0.0	7.9	18.6	68.7	86.7	95.8	51.3	330.7	452.3	0.4	0.0	1.2	3.8
12/06/15	11.5	13.8	17.4	12.2	14.5	17.6	-1.8	8.0	16.5	62.3	84.4	96.8	52.0	333.1	444.4	0.0	0.0	0.9	3.2
13/06/15	6.2	12.8	19.5	7.8	13.7	19.4	-5.9	12.2	33.2	48.3	81.3	96.7	82.0	347.7	476.1	0.2	0.0	0.7	2.9
14/06/15	4.0	10.7	19.5	5.1	11.7	19.7	-4.8	12.5	35.6	51.8	84.3	97.8	65.1	370.3	482.4	0.0	0.0	0.6	2.6
15/06/15	6.5	12.9	18.2	7.7	13.8	18.4	-3.1	10.2	35.4	67.2	87.4	97.3	34.8	346.3	477.8	0.0	0.0	1.0	3.6
16/06/15	11.6	13.9	14.9	12.9	14.7	15.5	6.2	9.8	22.6	92.2	96.0	97.6	35.3	401.6	445.6	7.2	0.0	0.4	1.2
17/06/15	12.8	14.4	18.4	13.5	15.1	18.4	-0.7	8.8	18.2	79.5	92.6	98.0	-1.3	246.7	426.2	11.6	0.0	1.9	7.1
18/06/15	10.1	13.5	16.8	11.7	14.2	17.2	0.2	8.0	22.0	61.7	76.4	89.3	-9.9	304.9	431.1	0.0	0.0	3.1	5.6
19/06/15	8.5	10.7	14.6	9.4	11.5	14.8	-0.3	10.4	23.4	69.3	89.2	96.0	44.7	325.5	432.6	0.9	0.0	0.6	2.6
20/06/15	3.3	8.6	14.8	4.5	9.6	15.0	-2.4	12.7	33.2	51.2	83.3	97.7	71.9	350.9	459.8	0.2	0.0	1.0	3.4
21/06/15	2.1	7.8	16.7	3.2	8.8	16.8	-3.1	11.7	35.9	56.8	87.3	97.7	50.3	348.5	464.9	0.0	0.0	0.6	2.4
22/06/15	1.5	7.5	17.4	2.2	8.4	17.3	-9.8	10.7	37.0	43.9	85.8	98.2	-0.6	337.4	455.9	0.2	0.0	0.7	3.5
23/06/15	0.8	9.0	19.9	1.8	10.0	19.7	-6.0	12.2	30.6	51.0	85.1	98.0	-3.2	294.0	448.3	0.0	0.0	0.7	2.8
24/06/15	5.4	11.4	17.9	6.8	12.3	17.8	-6.0	11.4	24.7	58.3	87.6	97.8	38.9	315.2	448.8	0.0	0.0	0.8	3.5
25/06/15	6.7	12.9	19.8	8.1	13.8	20.1	-4.9	10.3	31.2	54.4	85.9	97.8	3.4	323.3	457.0	2.1	0.0	1.3	4.0
26/06/15	4.6	12.8	18.1	6.4	13.7	17.9	-3.1	11.8	34.2	51.4	80.8	96.4	-0.9	283.0	413.5	0.5	0.0	1.4	3.7
27/06/15	1.7	8.2	18.4	2.6	9.2	18.2	-7.5	12.7	40.0	48.4	85.7	98.0	48.6	333.9	469.7	0.0	0.0	0.9	3.7
28/06/15	0.4	7.6	18.2	1.4	8.8	19.0	-6.4	14.1	40.9	47.6	85.3	98.1	48.1	365.6	481.8	0.0	0.0	0.6	1.5
29/06/15	1.9	8.4	17.8	3.2	9.6	17.9	-7.1	15.0	43.5	61.8	88.8	98.0	43.1	349.8	480.6	0.2	0.0	0.7	2.4
30/06/15	3.3	8.8	14.8	3.9	9.5	15.1	-4.4	9.6	38.4	67.5	91.0	98.0	18.0	314.6	450.5	0.0	0.0	0.8	2.9
MONTH	-0.9	10.7	22.5	-0.1	11.6	22.8	-9.8	11.5	53.5	22.3	82.7	98.2	-9.9	336.2	599.8	24.4	0.0	1.2	7.4

