

**WAMBO COAL PTY LIMITED**  
**MONTHLY ENVIRONMENTAL MONITORING REPORT**

**August 2014**

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## 1.0 Introduction

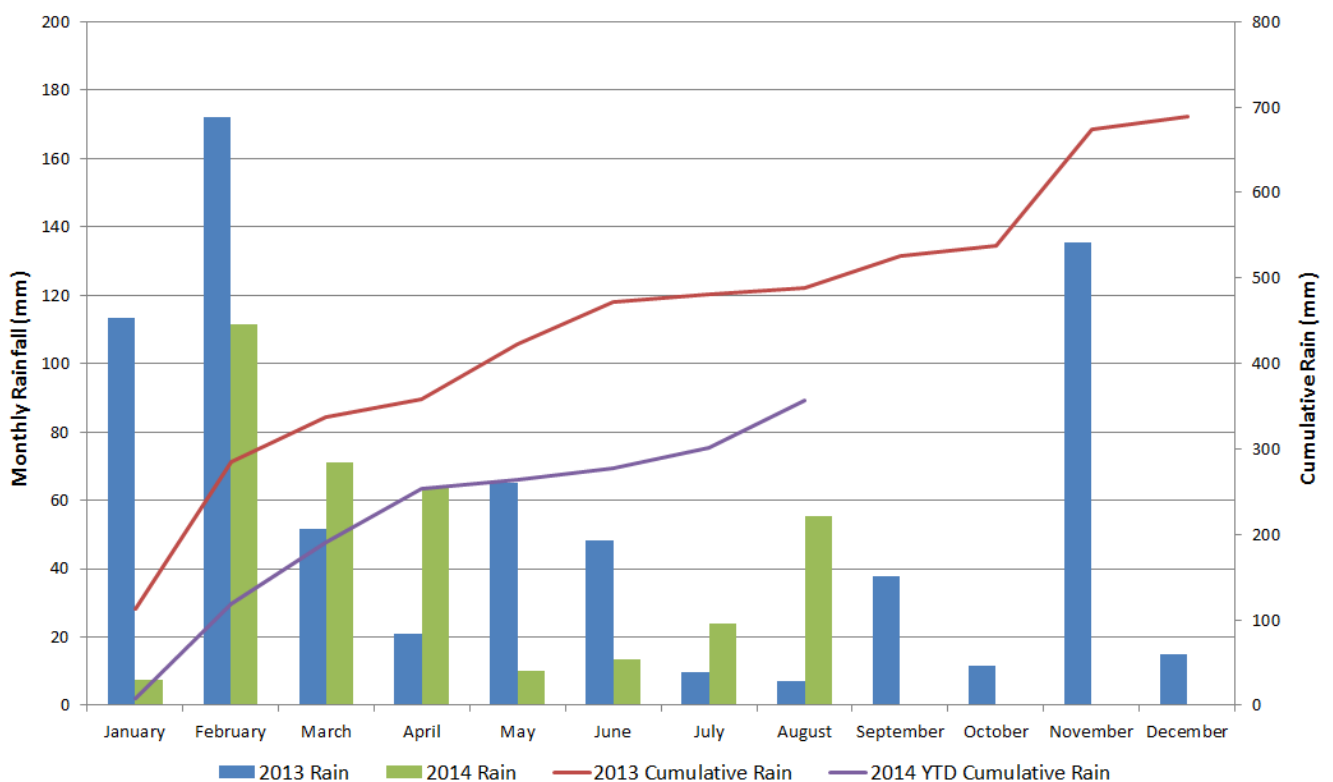
This report presents environmental monitoring results for the reporting period **Friday 1<sup>st</sup> August to Sunday 31<sup>st</sup> August 2014**. Monitoring during this period includes meteorological measurement, surface and ground water sampling, depositional dust sampling, High Volume Air Sampling, blasting events and PM<sub>10</sub> real time air monitoring results.

## 2.0 Meteorological Data

### 2.1. Rainfall

Approximately **55mm** of rain was received during August. Year to date rainfall in comparison to 2013 results are shown in **Figure 1**.

**Figure 1 - Monthly and Cumulative Rainfall**



### 2.2. Wind

Results for reporting period are available in **Appendix A**.

### 3.0 Surface Water Sampling

Surface water samples are collected in accordance with **AS/NZS 5667.4:1998 – Guidance on sampling from lakes, natural and man-made** and **AS/NZS 5667.6:1998 – Guidance on sampling of rivers and streams**. All samples collected were analysed in the field for **pH**, electrical conductivity (**EC**) and temperature. Selected sites were analysed in a **NATA\*** accredited laboratory for total suspended solids (**TSS**) and total dissolved solids (**TDS**).

\*National Association of Testing Authorities - **NATA** is the authority that provides independent assurance of technical competence.

Historical trend charts for SW15 (Eagles Nest Dam – Discharge Point) and SW01, SW40 and SW02 (Wollombi Brook Upstream and Downstream locations) are available in **Appendix B**.

Surface water reporting for August recorded TSS results outside trigger levels for sites SW27a, SW32a and SW39. August results are detailed below in **Table 1**.

**Table 1 - Monthly Surface Water Results – August 2014**

Sample Location	pH	EC (µS/cm)	TSS (mg/L)	TDS (mg/L)	Oil & Grease (mg/L)	Temp (°C)	Comments
<b>WOLLOMBI BROOK</b>							
SW01 - Wollombi Brook Up	7.50	822	6	390	-	16.3	-
SW03 - Wollombi Brook Pump Out	7.40	734	11	378	<2	16	-
SW02 - Wollombi Brook Down	7.30	1,095	1	547	<2	14.2	-
SW40 - Confluence with SWC	7.10	584	23	296	-	16.5	-
<b>NORTH WAMBO CREEK</b>							
SW04 - North Wambo Creek Up	-	-	-	-	-	-	Dry
SW27a - North Wambo Creek Middle Lower	8.00	553	<b>520</b>	710	-	18.7	-
SW32a - North Wambo Creek Pump	7.90	353	<b>585</b>	515	-	18.1	-
SW05 - North Wambo Creek Down	7.50	298	11	378	-	16.8	-
<b>SOUTH WAMBO/STONY CREEK</b>							
SW06 - South Wambo Creek	7.30	414	5	236	-	17.1	-
SW07 - South Wambo/Stony Creek	-	-	-	-	-	-	Dry
SW08 - Stony Creek	-	-	-	-	-	-	Dry
<b>LONGFORD/DOCTOR'S CREEKS</b>							
SW43 - Longford Creek Up	7.00	125	32	125	<2	15.8	-
SW44 – Longford Creek Down	7.30	262	1,080	1,100	<2	15.5	-
SW46 - Doctors Creek Up	8.00	542	142	351	<2	15.9	-
SW45 – Doctors Creek Down	8.00	684	106	426	<2	15.8	-
<b>WATERFALL CREEK</b>							
SW39 – Waterfall Creek Midstream	6.60	127	<b>370</b>	480	-	15.2	-
<b>MINE WATER DAMS</b>							
SW11 - West Cut Dam Pipe	Not Pumping						-
SW12 - West Cut Dam	8.70	6,090	-	-	-	14.2	-
SW14 - Box Cut Dam (Admin)	8.50	768	-	-	-	13.5	-

Sample Location	pH	EC (µS/cm)	TSS (mg/L)	TDS (mg/L)	Oil & Grease (mg/L)	Temp (°C)	Comments
SW15 - Eagles Nest Dam	9.00	7,030	31.00	4,160	<2	14.0	-
SW20 - Dam Adjacent to West Cut Dam	8.60	2,310	-	-	-	12.6	-
SW29 - SCB Dam	8.90	1,506	-	-	-	12.9	-
SW30 - Turkeys Nest	9.20	7,370	-	-	-	13.6	-
SW31 - Gordon Below Franklin	9.10	6,880	-	-	-	13.6	-
SW37 - Wollemi Sump	-	-	-	-	-	-	No longer exists
SW38 - Homestead Open Cut	8.70	7,280	-	-	-	13.7	-
SW47 - NWU Pumpout Water	-	-	-	-	-	-	No longer exists
SW48 - Inpit sample	-	-	-	-	-	-	No longer exists
SW49 - Bates Pit Pumpout	8.00	3,470	-	-	-	14.0	-
SW51 – South Dam	8.6	8310	-	-	-	14.9	-
SW50 - Hunter River Water	Not Pumping						-

**Note:** Figures in bold fall outside trigger levels.

### 3.1. Hunter River Salinity Trading Scheme (HRSTS)

During the reporting period no water was discharge under the HRSTS.

## 4.0 Groundwater Sampling

Groundwater results are collected on a bi-monthly basis. Results are presented below in **Table 2**.

**Table 2 - Ground Water Results – August 2014**

Sample Location	pH	EC (µS/cm)	Depth to Water (m)	Temp (°C)	Comments
GW02	7.3	444	6.82	18.0	
GW11	7.3	483	5.18	17.1	
P106	-	-	9.47	-	Insufficient water to sample
P109	6.8	729	5.62	17.4	
P110	6.5	749	5.31	17.6	
P111	6.8	733	6.84	18.8	
P114	6.6	7180	5.84	18.3	
P116	7.4	1113	6.17	18.5	
P202	7.3	8900	8.31	18.7	
P206	7.3	2180	16.49	19.0	
P301	6.8	6090	14.93	19.1	
P315	6.7	344	7.0	19.2	
GW12	-	-	12.78	-	Insufficient water to sample
GW13	7	3380	5.36	18.8	
GW14					Dry
GW15	6.7	609	10.92	20.1	
GW16	7.3	719	8.78	18.8	
GW17	7.2	5250	11.39	19.2	

Sample Location	pH	EC (µS/cm)	Depth to Water (m)	Temp (°C)	Comments
GW18	-	-	-	-	Dry
GW19	-	-	-	-	Dry
GW20	GW20 is a vibration wire multi-piezometer installation				
GW21			36.57		Insufficient water to sample
GW22	8.4	6880	35.81	21.2	
P1*					
P3*					
P5*					
P6*					
P11*					
P12*					
P13*					
P15*					
P16*					
P17*					
P18*					
P20*					

**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.

## 5.0 Depositional Dust Sampling

Fifteen depositional dust gauges were collected for the reporting period. Sampling and analysis is conducted in accordance with **AS 3580.10.1 – 1991 – Determination of particulates – Deposited matter – Gravimetric method**. All gauges were analysed for insoluble solids (IS) and ash residue (AS). Field observations include water quantity and quality, and any visible contaminants in the sample.

Insoluble solid results are reported on the **annual average** of **4g/m<sup>2</sup>/month** of all **uncontaminated results** which are not located on Wambo Coal owned land. No depositional dust gauge locations were outside the prescribed criteria level for the reporting period.

August results are presented in **Table 3** and **Figure 2** below.

**Table 3 - Dust Deposition Results – August 2014**

Site	Insoluble Solids (IS) (g/m <sup>2</sup> .month)	Ash Residue (AR) (g/m <sup>2</sup> .month)	IS:AR Ratio	IS YTD Average (g/m <sup>2</sup> .month)	AR YTD Average (g/m <sup>2</sup> .month)
D01*	16.1	5.0	31	2.9	2.0
D03*	6.5	2.0	31	3.0	2.1
D07*	10.3	3.6	35	<b>6.0</b>	3.4
D09*	10.4	3.1	30	2.0	1.6
# D11	2.4	1.4	58	2.5	1.5
# D12	2.7	2.0	74	3.1	2.1

Site	Insoluble Solids (IS) (g/m <sup>2</sup> .month)	Ash Residue (AR) (g/m <sup>2</sup> .month)	IS:AR Ratio	IS YTD Average (g/m <sup>2</sup> .month)	AR YTD Average (g/m <sup>2</sup> .month)
# D17	0.8	0.7	88	1.9	1.1
D19	1.9	1.4	74	2.8	1.8
D20	1.6	1.2	75	1.7	1.2
# D21	1.50	1.00	67	1.6	1.3
# D22	2.3	1.3	57	2.0	1.4
D23	1.5	0.9	60	2.2	1.4
# D24	0.7	0.4	57	1.0	0.7
# D25	3.10	1.70	55	2.9	2.1
D26	1.6	0.9	56	1.9	1.4

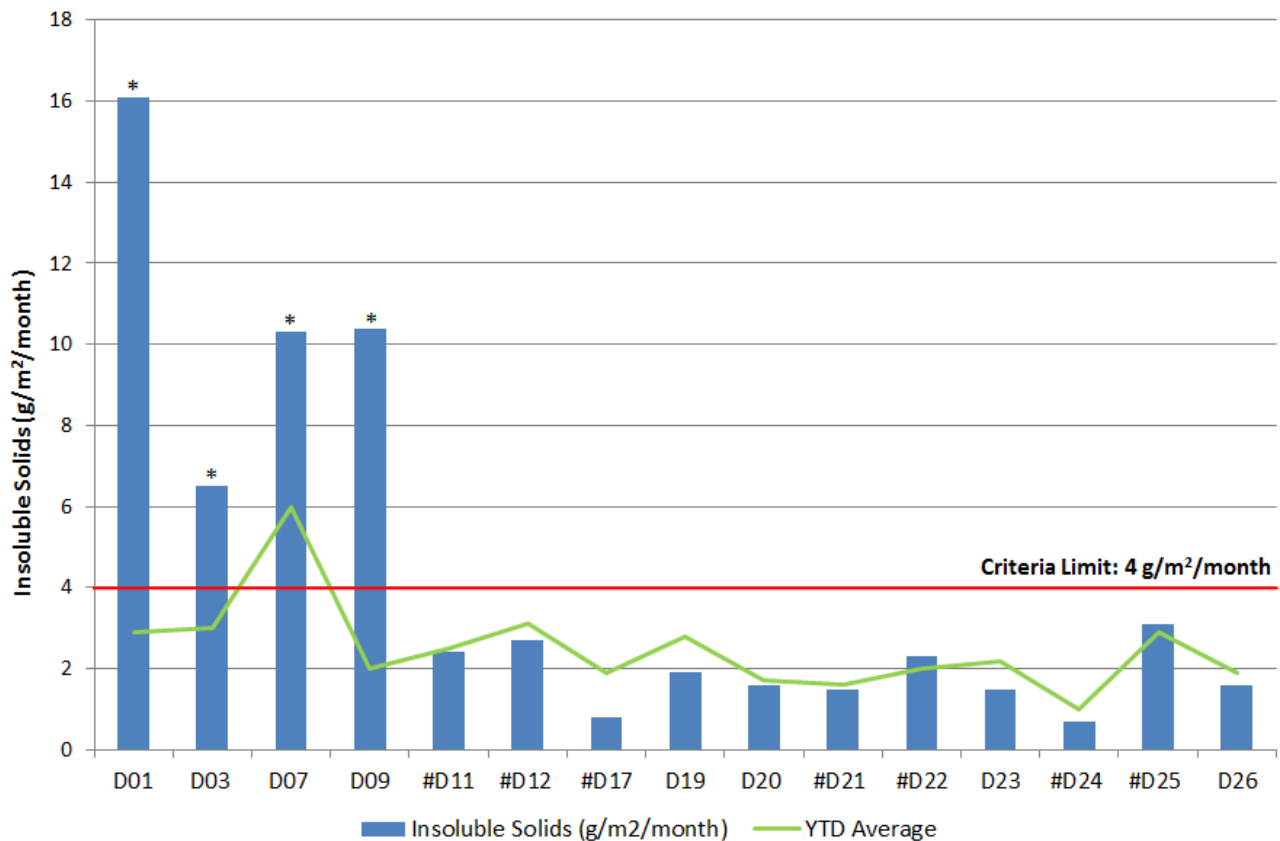
**Note:**

Results in **bold** are YTD average above 4g/m<sup>2</sup>/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

**Figure 2 - Deposition Dust Gauge Results – August 2014**



**Note:**

\* Monthly sample contaminated by bird droppings, vegetation, insects.

# Depositional dust gauges not located on WCPL owned land. Results above criteria at these locations not considered non-compliances.



## 6.0 High Volume Air Sampling

Four High Volume Air Samplers (HVAS) operate at locations surrounding Wambo. All units sampled Total Suspended Particulates (TSP) over a 24-hour period on a six day cycle, in accordance with **AS 2724.3 – 1984 – Determination of total suspended particulates (TSP) – High volume sampler gravimetric method.**

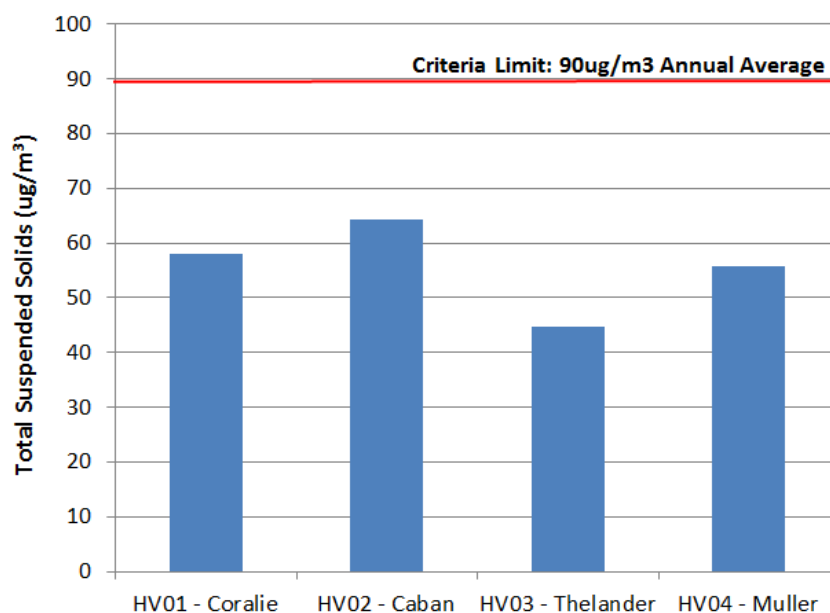
Reported yearly means for locations are within the reporting criteria of **90 $\mu\text{g}/\text{m}^3$** .

August results are presented in **Table 4** and **Figure 3** below.

**Table 4 - HVAS Results – August 2014**

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 ( $\mu\text{g}/\text{m}^3$ )
2/08/2014	40.2	63	24.7	35.5
8/08/2014	31.8	76.6	47.7	53.6
14/08/2014	57.7	48.8	78	62.7
20/08/2014	26	19.7	21.4	57.3
28/08/2014	15.7	11.1	16	36.8
<b>Monthly Mean</b>	34.28	43.84	37.56	52.3
<b>Yearly Mean</b>	58.0	64.2	44.7	55.9

**Figure 3 - HVAS YTD Annual Average – August 2014**



## 7.0 Blast Events

Four monitoring sites measure ground vibration and air blast overpressure for blasts conducted at Wambo. Three blasts were conducted during the reporting period. Monitoring at all four sites is conducted under the blast monitoring requirements set out in the **Wambo EPA licence (EPL 529) and DA 305-7-2003**. The blasting criteria are summarised in **Table 5** below.

**Table 5 - Blasting Criteria Limits**

<b>Airblast Overpressure (dB(L))</b>	<b>Allowable exceedance</b>
115	5% of the total number of blasts over a period of 12 months
120	0%
<b>Ground Vibration (mm/s)</b>	<b>Allowable exceedance</b>
5	5% of the total number of blasts over a period of 12 months
10	0%

All measured blast events for August 2014 were within the prescribed criteria limits. Blast results are presented in **Table 6** below.

**Table 6 - Blast Results – August 2014**

Date	Time	Location	Kelly Residence – A0728			Wambo Homestead – A0722			Harris Site – A6006			Muller Residence – A6005		
			Over Pressure (dB(L))	Vibration (mm/s)	Wave-form	Over Pressure (dB(L))	Vibration (mm/s)	Wave-form	Over Pressure (dB(L))	Vibration (mm/s)	Wave-form	Over Pressure (dB(L))	Vibration (mm/s)	Wave-form
11/08/2014	14:40:19	BS5WRA3	101.0	0.65	YES	103.4	1.72	YES	100.8	0.60	YES	100.8	0.25	YES
18/08/2014	15:02:27	M17RCA3	102.7	0.14	YES	106.6	0.10	YES	106.5	0.12	YES	106.8	0.30	YES
25/08/2014	9:36:37	M14RDA3a	94.0	0.05	YES	91.0	0.06	YES	98.0	0.06	YES	102.7	0.25	YES

Date	Time	Location	Thelander Residence – A8047		
			Over Pressure (dB(L))	Vibration (mm/s)	Wave-form
11/08/2014	14:40:19	BS5WRA3	101.9	0.23	YES
18/08/2014	15:02:27	M17RCA3	108.4	0.44	YES
25/08/2014	9:36:37	M14RDA3a	108.0	0.45	YES

## 8.0 Noise Monitoring

### 8.1. Attended Monitoring

No attended noise monitoring was undertaken during August. The next quarterly attended monitoring is expected to be carried out during September/October.

### 8.2. Real Time Monitoring

Real time noise monitoring results are reported in a quarterly format and can be found on the Peabody Wambo website at [www.peabodyenergy.com/content/404/Australia-Mining-New/New-South-Wales/Wambo-Mine](http://www.peabodyenergy.com/content/404/Australia-Mining-New/New-South-Wales/Wambo-Mine).

## 9.0 Real-Time Air Quality Monitoring

Four real time Tapered Element Oscillating Microbalance (TEOM) units were in operation during the reporting period. The sites are located at Coralie (PM01), the Caban residence (PM02), Thelander residence (PM03) and the Muller residence (PM04). These units measure particulate matter less than 10 microns in diameter (PM<sub>10</sub>) on a continuous basis and provide a 24 hour average result. These units operated and sampled in accordance with **AS 3580.9.8 - 2002, Method for Sampling and Analysis of Ambient Air - Determination of Suspended Particulate Matter - PM<sub>10</sub> Continuous Direct Mass Method using a Tapered Element Oscillating Microbalance Analyser.**

August results are presented in **Table 7** and **Figure 4** below.

All PM<sub>10</sub> sites were within the yearly average criteria limits of **30ug/m<sup>3</sup>**, no sites were outside of 24hr average criteria of **50ug/m<sup>3</sup>** for a single day during this reporting period.

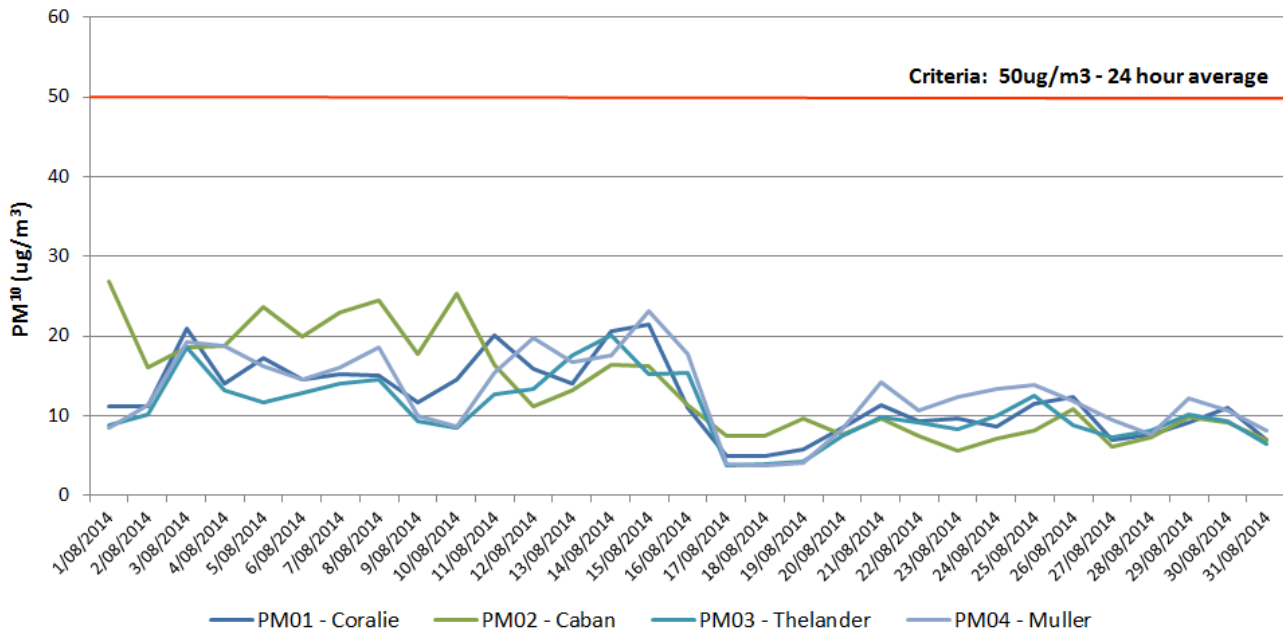
**Table 7 - PM<sub>10</sub> Results – August 2014**

Date of Run	PM01 (Coralie)		PM02 (Wambo Road)		PM03 (Thelander)		PM04 (Muller)	
	PM10 24 Hour Result (ug/m <sup>3</sup> )	YTD Average	PM10 24 Hour Result (ug/m <sup>3</sup> )	YTD Average	PM10 24 Hour Result (ug/m <sup>3</sup> )	YTD Average	PM10 24 Hour Result (ug/m <sup>3</sup> )	YTD Average
1/08/2014	11.2	16.1	26.9	18.3	8.8	14.4	8.4	16.4
2/08/2014	11.1	16.1	16.0	18.3	10.2	14.4	11.4	16.4
3/08/2014	20.9	16.1	18.5	18.3	18.6	14.4	19.3	16.4
4/08/2014	14.1	16.1	18.7	18.3	13.2	14.4	18.8	16.4
5/08/2014	17.3	16.1	23.7	18.3	11.6	14.4	16.2	16.4

Date of Run	PM01 (Coralie)		PM02 (Wambo Road)		PM03 (Thelander)		PM04 (Muller)	
	PM10 24 Hour Result (ug/m <sup>3</sup> )	YTD Average	PM10 24 Hour Result (ug/m <sup>3</sup> )	YTD Average	PM10 24 Hour Result (ug/m <sup>3</sup> )	YTD Average	PM10 24 Hour Result (ug/m <sup>3</sup> )	YTD Average
6/08/2014	14.5	16.1	19.9	18.3	12.8	14.4	14.5	16.4
7/08/2014	15.2	16.1	23.0	18.3	14.1	14.4	16.1	16.4
8/08/2014	15.1	16.1	24.5	18.4	14.5	14.4	18.5	16.4
9/08/2014	11.7	16.1	17.7	18.4	9.3	14.3	10.0	16.4
10/08/2014	14.6	16.1	25.4	18.4	8.5	14.3	8.6	16.3
11/08/2014	20.1	16.1	16.4	18.4	12.7	14.3	15.3	16.3
12/08/2014	15.8	16.1	11.1	18.4	13.4	14.3	19.7	16.3
13/08/2014	14.0	16.1	13.1	18.3	17.5	14.3	16.8	16.3
14/08/2014	20.6	16.1	16.4	18.3	20.1	14.3	17.6	16.3
15/08/2014	21.4	16.1	16.2	18.3	15.2	14.3	23.1	16.4
16/08/2014	11.0	16.1	11.3	18.3	15.3	14.4	17.8	16.4
17/08/2014	4.9	16.0	7.5	18.2	3.8	14.3	3.9	16.3
18/08/2014	4.9	16.0	7.5	18.2	3.9	14.3	3.8	16.3
19/08/2014	5.7	15.9	9.7	18.2	4.3	14.2	4.1	16.2
20/08/2014	8.5	15.9	7.6	18.1	7.4	14.2	8.3	16.2
21/08/2014	11.4	15.9	9.7	18.1	9.8	14.2	14.2	16.2
22/08/2014	9.3	15.9	7.5	18.0	9.2	14.1	10.7	16.1
23/08/2014	9.7	15.8	5.6	18.0	8.3	14.1	12.3	16.1
24/08/2014	8.6	15.8	7.1	17.9	10.0	14.1	13.3	16.1
25/08/2014	11.5	15.8	8.1	17.9	12.5	14.1	13.9	16.1
26/08/2014	12.4	15.8	10.8	17.9	8.8	14.1	11.9	16.1
27/08/2014	7.0	15.7	6.1	17.8	7.3	14.0	9.5	16.1
28/08/2014	7.6	15.7	7.2	17.8	8.1	14.0	7.6	16.0
29/08/2014	9.1	15.7	9.8	17.7	10.1	14.0	12.1	16.0
30/08/2014	11.0	15.7	9.2	17.7	9.3	14.0	10.6	16.0
31/08/2014	6.9	15.6	7.0	17.6	6.4	14.0	8.1	16.0

**Note:**  
 Results in **red** are greater than the 24hr period guidelines of 50ug/m<sup>3</sup>  
 Results in **bold** are between 30ug/m<sup>3</sup> and 50ug/m<sup>3</sup>

Figure 4 - 24 Hour Average PM<sub>10</sub> Results – August 2014



## 10.0 Community Complaints

During the reporting period **four** complaints were received. Twenty three complaints have been received year to date, compared to twenty during the same reporting period in 2013.

Details of the community complaints are available on the Peabody Wambo website at [www.peabodyenergy.com/content/422/Australia-Mining/New-South-Wales/Wambo-Mine/Approvals-Plans-and-Reports-Wambo-Mine](http://www.peabodyenergy.com/content/422/Australia-Mining/New-South-Wales/Wambo-Mine/Approvals-Plans-and-Reports-Wambo-Mine).

**Appendix A**  
**Wambo Weather Station**  
**Meteorological Data**

### Meteorological Data August 2014

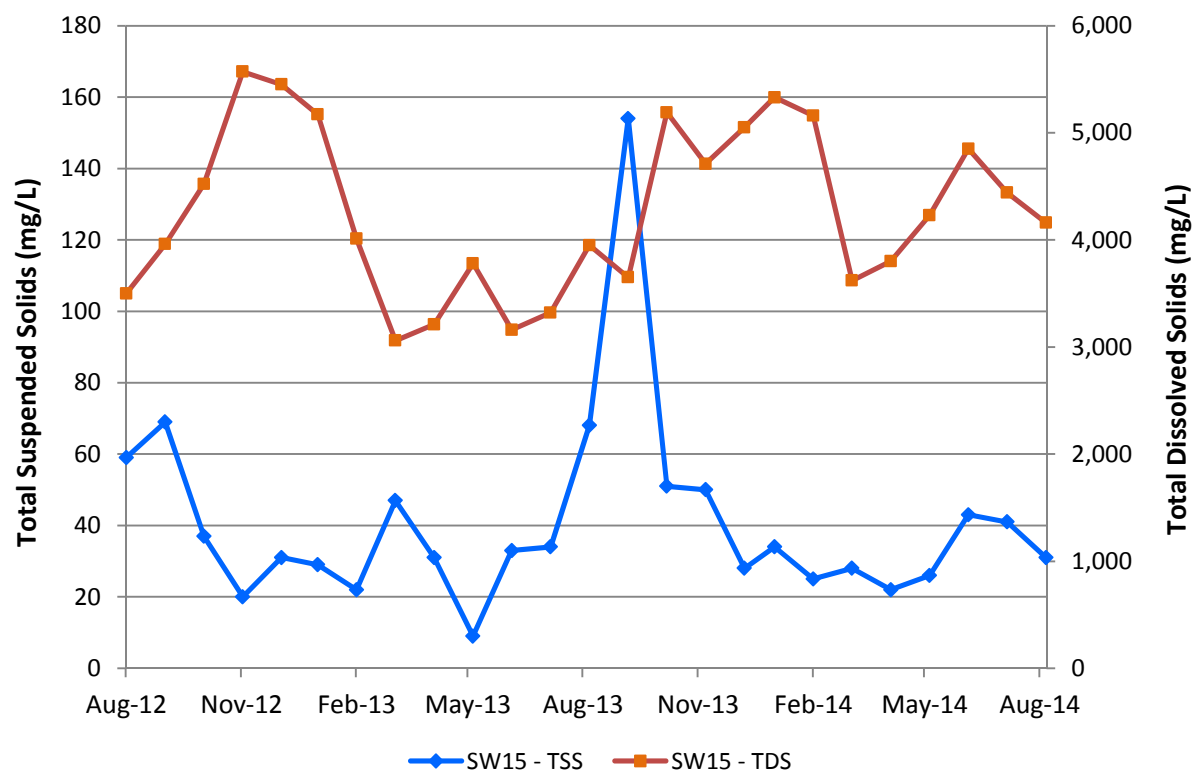
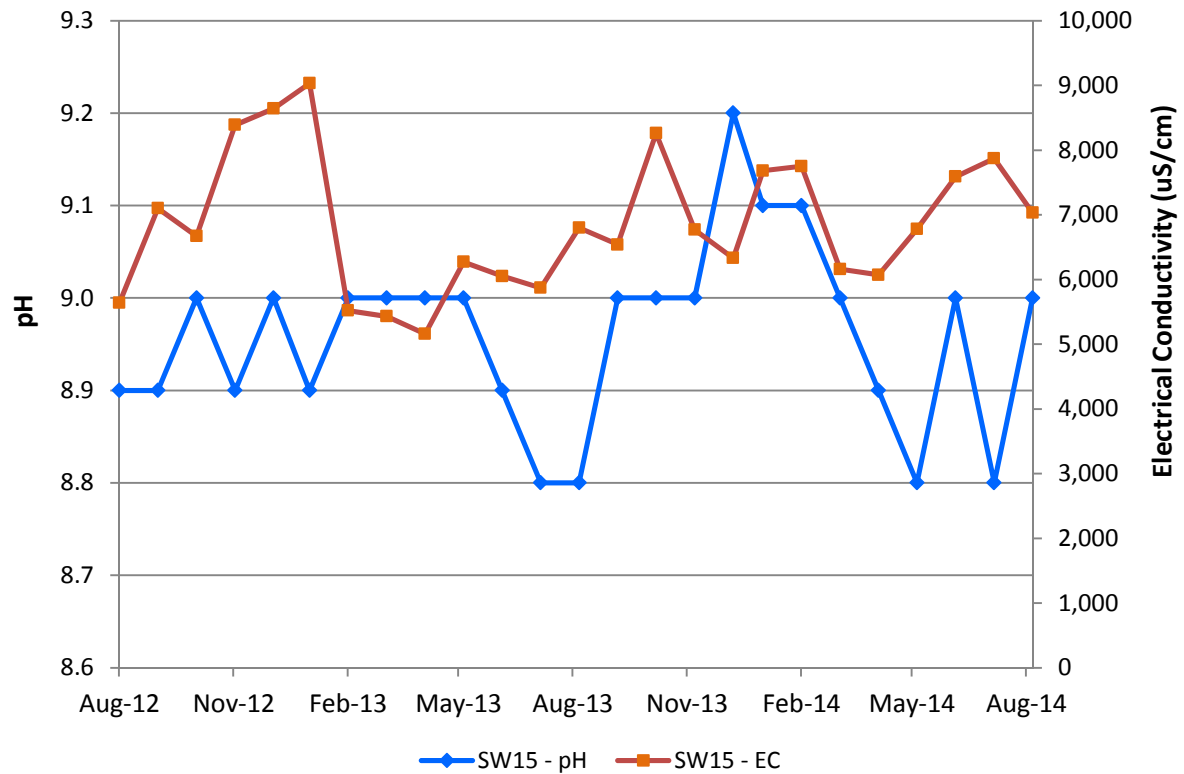
Date	Temperature (2m)			Temperature (10m)			Temperature Inversion			Humidity			Solar Radiation			Rain	Wind Speed		
	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	mm	Min	Avg	Max
1/08/2014	9.3	14.7	19.3	10.5	15.4	19.3	-1.5	9.6	30.3	27.5	37	50.8	-2.1	148.4	650	0	1.5	2.7	3.9
2/08/2014	1.1	7.6	16.1	3	9.7	15.8	-9.5	9.8	39.1	33.3	57.9	92.3	-2.7	164.5	619.4	0	0	1.8	3
3/08/2014	-0.1	8.1	16.8	1.4	9.1	16.5	-3.3	12.3	38	46.7	76	95.8	-2.7	124.3	660.7	0	0.1	1.4	2.7
4/08/2014	0.5	9.1	19.3	2.1	10.2	18.9	-5.5	14.4	35.8	40.6	78.2	97.3	-2.2	145.4	603.9	0	0	1.2	1.9
5/08/2014	3.5	11.1	21.7	5	12.2	21.6	-7.5	13.3	39.2	28.1	72.7	96.9	-2.1	152.9	646.1	0	0.2	1.4	3
6/08/2014	0.3	10.4	20	2	11.5	20.1	-9.4	13.8	43.7	31.1	67.1	97.3	-2.3	164.1	613.3	0	0	1.9	3.2
7/08/2014	-0.4	9.5	18.6	1.1	10.5	18.4	-5.5	12.9	45.5	37.9	67.1	94.4	-2.2	163.4	620.9	0	0.5	1.5	3.1
8/08/2014	-0.2	9.1	19.1	1.4	10.3	19	-7	15.3	40	46	78.8	97.1	-2.4	162.4	623.3	0	0.1	1.3	2.3
9/08/2014	2.2	9.7	21.1	3.1	10.9	21.3	-9.4	15.9	47	32.7	76.7	97.6	-2.3	154.1	614.7	0	0.2	1.7	3
10/08/2014	2.7	12.6	20.2	4.8	10.7	20.1	-5	12.9	51.8	29.2	52.9	94.1	-2.2	119.9	746.1	0	0.3	2.2	3.4
11/08/2014	2.5	8.5	15.7	4.6	9.9	15.6	-5	18.2	50.6	33.6	67.3	93.1	-2.2	160.1	657.8	0	0.2	1.5	2.9
12/08/2014	2.4	9.4	16	5.1	10.5	15.8	-4.4	13.7	45	48.4	73.8	94.2	-2.2	141.2	602.5	0	0.8	1.8	2.9
13/08/2014	3.7	11.5	15.3	6.2	12.4	15.4	-5.1	11.1	37.6	56.7	71.9	94.8	-2.3	77.9	727.8	0	0.3	1.7	3
14/08/2014	-0.9	8.9	18.5	0.8	10.1	18.4	-7.6	14.7	43.8	35.9	73.7	97.2	-2.7	157.5	611.2	0	0.2	1.6	2.8
15/08/2014	3.1	11.2	19.3	4.5	12.1	19.3	-6.9	10.9	38.2	43.2	76.7	96.1	-2.2	154.7	704.9	0	0.2	1.7	3.3
16/08/2014	5.3	11.7	17.5	6.8	12.4	17.7	-4.6	9.7	32.1	61.8	88.5	96.8	-2.2	55.1	699.8	7.9	0.2	1.5	2.8
17/08/2014	10.5	14.6	19.3	11	15	19.1	-3.5	4.8	10.7	38.3	71	97.2	-2.1	179.5	747.6	10.6	0.2	2.3	3.6
18/08/2014	9.6	13	16.4	10	13.5	16.9	1.4	6.7	18.6	56.5	75.4	93.2	-2.1	50.3	240	2.8	0.7	2.5	3.6
19/08/2014	12.4	14.5	19.4	13.2	15	19.4	-4.1	5.5	11.9	45.2	69.8	87	-1.7	110.6	772.7	0	0.1	2.5	3.7
20/08/2014	10.6	13.7	18	11.7	14.1	17.8	-4.3	6.1	18.7	44.6	61.7	80.4	-2.1	158.2	808.7	0	0.7	2.1	3.4
21/08/2014	9.5	12.5	17.2	11	13	16.9	-4.6	6.9	19.8	61.5	82	97.6	-2.1	88.9	796.7	1.2	0.3	1.7	3.4
22/08/2014	10.1	13.9	19.5	11.2	14.5	19.4	-5.5	7.8	20.2	53.5	80.2	95.5	-1.8	139.6	858.4	0	0.2	1.5	2.9
23/08/2014	9.5	13.2	17.9	10.6	13.8	17.7	-5.2	7.2	17.1	63.6	87.2	96.4	-2	87	865.1	1.8	0.1	1.5	2.7
24/08/2014	8.9	13.6	19.9	10.1	14.4	19.9	-2.9	10.9	29.8	54.5	84.1	97.5	-2.1	136	903.2	0.2	0.1	1.4	2.9
25/08/2014	4.7	12.6	20.4	5.7	13.4	20.5	-7.5	9.5	39.6	46.1	80.6	98	-2.2	170	750.2	0	0.3	1.4	2.3
26/08/2014	9.9	13.4	16.3	11.4	14.1	16.4	-1	8.6	20.5	72.3	87.1	95.3	-2.1	54.7	367.9	4.8	0.7	1.8	2.7
27/08/2014	12.5	14.3	18	12.9	14.7	18	-1.5	5.3	9.3	65	83.2	95.6	-1	114	766.3	25.6	1.3	2.4	3.3
28/08/2014	10.6	14.1	18.3	12.3	14.7	18.3	-3	7.9	23.6	58.3	73.2	88.9	-2.1	139.4	864.8	0.4	0.2	2.3	3.4
29/08/2014	5.8	12.7	18	6.7	13.5	17.9	-5.3	9.9	29.3	51.9	72.3	96.4	-2.1	149.8	840.1	0	0.4	1.9	3.2
30/08/2014	12.3	15	18.3	13.4	15.4	18.1	-2.6	6.1	13.8	58.5	67	76.9	-1.7	96.1	634.6	0	0.6	2.3	3.3
31/08/2014	9	15.4	21.8	11	16.1	21.1	-10.7	8.4	29.1	48.8	72.3	95	-2.2	159.5	851.5	0	0.2	1.5	2.8
<b>MONTH</b>	<b>5.8</b>	<b>11.9</b>	<b>21.8</b>	<b>0.8</b>	<b>12.7</b>	<b>21.6</b>	<b>-10.7</b>	<b>10.3</b>	<b>51.8</b>	<b>27.5</b>	<b>73</b>	<b>98</b>	<b>-2.7</b>	<b>131.6</b>	<b>903.2</b>	<b>55.2</b>	<b>0</b>	<b>1.8</b>	<b>3.9</b>



## Appendix B

### Surface Water Graphs

SW 15 – Eagles Nest Dam (EPL Discharge Point)



**SW 01** – Wollombi Brook Upstream (U/S) near Bulga Township  
**SW 40** – Wollombi Brook Upstream (U/S) of South Wambo Creek  
**SW 02** – Wollombi Brook Downstream (D/S) near Warkworth Village

