



WERRIS CREEK COAL PTY LTD

ENVIRONMENTAL MONITORING

2nd QUARTERLY REPORT

July, August, September 2007

This report covering the period 1st July 2007 to 30th September 2007 is the second quarterly Environmental Monitoring Report for the 2007/8 Annual Environmental Management Report (AEMR) reporting period (1 April 2007 to 31 March 2008).

The report includes environmental monitoring results for the on-site Weather Station, Air Quality, Noise (operational and blasting), Surface and Ground Water together with complaints received and general detail covering site environmental matters.

Note: Monitoring results with any non compliance of monitoring criteria are highlighted in **yellow**.

22 November 2007

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1.0 WEATHER STATION

WEATHER

Weather data was available for 18% of July due to a fault with the weather station.
Weather data was available for 84% of August due to a fault with the weather station which has been rectified. Weather data was available for 100% of September.

2.0 AIR QUALITY

2.1 HVAS (PM10) Monitoring

High Volume Air Sample (HVAS) monitoring for particulate matter less than 10 micron in size (PM10) is conducted at four sites as shown on the attached plan, **Figure 2** and labeled as listed below.

- WCHV1 – “Old Colliery” or Marquettes
- WCHV2 – Pattersons
- WCHV3 – “Railway View” or Ryans
- WCHV4 – “Eurunderee”

In addition a fifth site WCHV5 at “Railway View” continues to sample total suspended particulate (TSP) matter to monitor the PM10/TSP relationship on a voluntary basis to assist with government departmental air quality data collection and correlation.

Sample data is scheduled for 24 hours every 6 days in accordance with DECC – EPA protocols and results are reported as micro grams per cubic metre of air sampled or ug/m³.

2.1.1 Monitoring Data Results

Data recovery from each site during the period was 100%.

Werris Creek HVAS results

Date	WCHV-1 Marquett (PM10)	WCHV-2 Patterson (PM10)	WCHV-3 Ryan 6	WCHV-4 Eurunderee (PM10)	WCHV-5 Ryan TSP	24hr criteria PM10	annual criteria PM10	TSP	PM10/TSP Ratio	PM10/TSP Ratio moving ave
4/07/2007	13	8	5	6	12	50	30	90	42%	44%
10/07/2007	15	12	10	11	15	50	30	90	67%	44%
16/07/2007	14	8	7	7	18	50	30	90	39%	42%
22/07/2007	6	9	0	4	9	50	30	90	0%	43%
28/07/2007	11	8	5	7	12	50	30	90	42%	46%
3/08/2007	17	5	7	7	18	50	30	90	39%	47%
9/08/2007	8	7	5	6	13	50	30	90	38%	48%
15/08/2007	37	14	11	18	24	50	30	90	46%	49%
21/08/2007	4	0	5	9	14	50	30	90	36%	49%
27/08/2007	12	9	8	7	20	50	30	90	40%	52%
2/09/2007	10	18	10	8	18	50	30	90	56%	54%
8/09/2007	11	8	6	47	9	50	30	90	67%	54%
14/09/2007	29	21	23	27	57	50	30	90	40%	49%
20/09/2007	23	22	28	30	65	50	30	90	43%	54%
26/09/2007	31	25	29	42	45	50	30	90	64%	64%

2.1.2 Discussion - Compliance / Non Compliance

All individual PM10 24 hour average results, at all sites, were equal to or below the short term 24 hour impact criteria of 50ug/m³.

All PM10 sites are below the long term impact and land acquisition annual impact criteria of 30ug/m³.

The TSP site is below the long term impact and land acquisition annual impact criteria of 90ug/m³.

2.2 DEPOSITED DUST

Limits were removed from Environment Protection Licence 12290 pertaining to mean annual dust deposition in January 2007, however, in accordance with Schedule 3, of DA-172-7-2004 routine air quality monitoring for Werris Creek Coal continues to be undertaken for deposited dust.

2.2.1 Monitoring Data Results

See Appendix 1.

2.3 AIR QUALITY COMPLAINTS

No Complaints Received – Refer Table 1.

3.0 NOISE

Noise Monitoring is conducted by Spectrum Acoustics at the following locations:

R2: Zeolite, R3: Cinta, R4: Old Colliery, R5: Mountain View, R6: Hillview (mine owned residence) R7: Railway View, R8: Hazeldene, and R10: Escott. Three sets of measurements are made over the “circuit”, one during the day time period, (before 6pm), one during the evening period (from 6pm – 10pm) and one at night (after 10pm).

3.1 OPERATIONAL NOISE

3.1.1 Monitoring Data Results

See Appendix 2.

3.1.2 Discussion - Compliance / Non Compliance

11th July 2007 noise monitoring results indicated exceedances at most noise monitoring locations, however it is believed that a temperature inversion and high relative humidity contributed to these results.

30th August 2007 noise monitoring results showed exceedances of operational noise criterion of 35dB(A) at Railway View and at Cintra during the day survey only.

18th September 2007 noise monitoring results showed exceedances at Cintra during day and evening time surveys and at Zeolite, Hillview and Railway View during the evening

3.1.3 Action Taken

The monitoring results for this quarter show a reduction in the number of noise non – compliances to previous months however the ongoing issue of non-compliance with noise limits continues to be discussed with DECC and landowners in an attempt to be resolved as soon as possible.

3.2 NOISE COMPLAINTS

2 Complaints were received regarding Noise. Refer Table 1.

4.0 BLAST

During this reporting period a total of 26 blasts numbered ORICA 7 to ORICA 33 were fired.

4.1 BLAST MONITORING

4.1.1 Monitoring Data Results

See Appendix 3.

4.1.2 Discussion - Compliance / Non Compliance

On the 3rd July 2007, the maximum allowable airblast overpressure criterion of 120dB(L) was exceeded at “Railway View” when a reading of 121.9dB(L) was recorded.

4.1.3 Action Taken

Verbal notification was sent to the EPA with a report from Marshalls Mining and Earthmoving sent at a later date. Following detailed investigations by EPA an infringement notice was issued to Werris Creek Coal Pty Ltd.

4.2 BLAST COMPLAINTS

One Complaint was received regarding Blast on 3rd July 2007. Refer Table 1.

5.0 WATER

Groundwater monitoring was postponed on the 3rd July due to unsafe access conditions following wet weather.

Sampling was undertaken on the 16th July for groundwater monitoring and also for all surface water storage dams 1 –12, and MV1.

Additional testing of water was required 16th July due to Pit Dam Overflow event.

Additional testing was also required due to a Wet weather Discharge event on 20th and 21st August 2007.

4.1 GROUND WATER

4.1.1 Monitoring Data Results

See Appendix 4.

4.1.2 Discussion - Compliance / Non Compliance

Groundwater monitoring results indicate compliance with limits.

4.2 SURFACE WATER

4.2.1 Monitoring Data Results

See Appendix 5.

4.2.2 Discussion - Compliance / Non Compliance

WET WEATHER DISCHARGE

Notification of a wet weather sediment dam discharge was verbally given to Department of Environment and Climate Change (DECC) following water discharges occurring following rainfall over a 5 day period from the 16th to 20th August 2007 where 89mm of rain was recorded at the WCC weather station.

The site water management system was inspected on Monday 20th August and Tuesday 21st August with samples taken at EPA monitoring points where discharges were observed. Samples were sent to Tamworth Environmental Laboratory for analysis of pH, Conductivity and Suspended Solids, Total Phosphorus, Reactive Phosphorus, Total Nitrogen, Nitrate and Oil and Grease.

4.2.3 Action Taken

Following the August wet weather discharge event and the July mine water discharge event (refer to Section 4.3) the Site Water Management Plan under went review. Department of Lands – Soil Services Armidale were engaged to review the existing SWMP and report accordingly. DECC have been consulted and improvements are currently underway.

4.3 WATER COMPLAINTS

MINE WATER DISCHARGE EVENT

This event is currently still under investigation by DECC –EPA.

Details of this event area as follows:

Mine water was discharged from the Werris Creek Coal Mine (from Saturday 14th July 2007) following a breach of the mine dam. The released water traveled approximately 1 km southward along a grassed water way immediately east of the sealed mine access road, then under this road via culverts to sediment basin SB 3, then overflowed into sediment dam SD 7 (a wet weather licenced discharge point) prior to exiting the premises at a point directly south of SD7.

Water continued to flow (but at a reduced rate) from saturated areas below the mine dam via SB3 and SD7 while these structures were full or over flowing. This was evident when water samples were taken during the afternoons of Monday 16th July and again on Tuesday 17th July when the flow was reduced to a trickle.

Due to the saturated ground conditions it was considered that any attempt to immediately stop the water discharge from the premises would result in increased sediment loading.

Quality of Mine Water Discharge

The mine water discharged was a combination of ground water and surface runoff collected within the mine void and pumped to the mine water or mine process water dewatering dam. The quality of this water has generally been considered suitable for stock drinking purposes as supported by historic water quality monitoring data.

Following the discharge event water sampling was undertaken to verify the stock drinking quality of the discharged water and to check compliance with the EP licence concentration limits.

Samples taken on the 16th and 17th July 2007 were immediately sent to Tamworth Environmental Laboratory for immediate analysis of pH, Conductivity and Suspended Solids. Additional samples taken on the 17th July 2007 were forwarded to Ecowise Environmental in Mudgee for complete analysis.

Laboratory results were then forwarded to an independent testing laboratory (East West EnviroAg) for comment. The East West EnviroAg report is attached and considered that the water sampled was suitable for stock, irrigation and general agricultural use and that the likelihood of contamination building up in the soil where water had discharged is very low.

6.0 COMPLAINTS SUMMARY

Table 1

DATE	NO	COMPLAINT	FOLLOW UP ACTION
03/07/2007	19	House Shook from blast	WCC and MME personnel visited complainant and viewed blast results for that day. Offered to notify future blasts – not required Kelley Covey engaged to complete house inspection and report. Report forwarded to complainant.
16/07/2007	20	Robert O'Hern from EPA passing on complaint received by DECC Water leaving WCC site	LPSC took samples, WCC took samples and pictures of overflow at discharge point. EPA inspected site. Water samples tested at Tamworth laboratory and Ecowise – Mudgee. Independent report on water quality received from East West Enviro Ag. DECC –EPA investigation continuing
17/07/2007	21	Noise	MME notified of complaint and request discussion with OCE. WCC followed with phone call to complainant
18/07/2007	22	Robert O'Hern from EPA passed on complaint - Concern re water quality from water discharged from site on 16/07/2007 onto neighbouring property	Peter Easey spoke to complainant, tour of mine site given to neighbours, Complainants happy and no further problems. Water analysis results forwarded to complainants.
24/07/2007	23	Noise (same complainant as 21)	Ongoing issue, contacted MME's Project manager and advised of another complaint.

7.0 GENERAL

Annual Environmental Monitoring Report site Inspection was held on 28th August 2007.

5th Community Consultative Committee meeting was held 28th August 2007.