



WERRIS CREEK COAL PTY LTD

ENVIRONMENTAL MONITORING

QUARTERLY REPORT

January, February, March 2009

This report covering the period 1st January 2009 to 31st March 2009 is the quarterly Environmental Monitoring Report written for the Community Consultative Committee.

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**.

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1.0 WEATHER STATION

WEATHER

Werris Creek Coals (WCC) on site weather station experienced significant data loss over the month of January and this was directly due to faulty hardware. WCC have since rectified this fault by upgrading the weather station with new hardware and software in mid January 2009 and have since had no data loss from the new station.

Weather data was available for 53% of January.

Weather data was available for 100% of February.

Weather data was available for 100% of March.

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 listed below.

WCHV1 – “Old Colliery”

WCHV2 – Patterson’s

WCHV3 – “Railway View”

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 meter of air sampled or ug/m³.

2.1.1 Monitoring Data Results

Please see PM10 High Volume Air Sampler monitoring data under Appendix 1

2.1.2 Discussion - Compliance / Non Compliance

On the 30th January 2009, the PM10 monitor on the Eurunderee property reported a reading of 52ug/m³. This was not recorded as an exceedance of the 24hour impact criteria of 50ug/m³ as it relates to the Development Consent due to the property being recognised as a project related property.

Individual PM10 24 hour average results, at all other 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, however, in accordance with commitments within the approved Air Quality Monitoring Programme, monthly routine air quality monitoring for Werris Creek Coal continues to be undertaken for deposited dust.

2.2.1 Monitoring Data Results

TABLE 1

Sample Num	Sample Location	Sample Date	Sampler	Ash g/m ² /mth	NO SAMPLE: (d)	Time: (d)	Total Insoluble Matter g/m ² /mth	Volume Collected mLs
32514.01	WC1 - Escott	05-Jan-09	Client	0.4		1230	0.5	1790
32514.02	WC2 - Cintra	05-Jan-09	Client	1.0		1315	2.4	1765
32514.03	WC3 - The Colliery	05-Jan-09	Client	1.0		1200	1.7	1965
32514.04	WC4 - Hillview	05-Jan-09	Client	0.7		1305	0.9	1875
32514.05	WC5 - Railway View	05-Jan-09	Client	0.7		1135	1.0	2035
32514.06	WC6 - Sth Boundary	05-Jan-09	Client	3.1		1100	5.0	2055
32514.07	WC7 - Patterson	05-Jan-09	Client	0.6		1250	0.9	1475
32514.08	WC8 - Quirindi Rd	05-Jan-09	Client	1.6		1120	2.0	2290
32242.01	WC1 - Escott	02-Feb-09	Client	0.4		1216	0.7	245
32242.02	WC2 - Cintra	02-Feb-09	Client	0.5		1205	1.2	315
32242.03	WC3 - The Colliery	02-Feb-09	Client	1.5		1150	3.1	335
32242.04	WC4 - Hillview	02-Feb-09	Client	0.4		1233	0.9	240
32242.05	WC5 - Railway View	02-Feb-09	Client	0.3		1130	0.7	255
32242.06	WC6 - Sth Boundary	02-Feb-09	Client	1.2		1047	2.5	250
32242.07	WC7 - Patterson	02-Feb-09	Client	0.4		1300	1.0	270
32242.08	WC8 - Quirindi Rd	02-Feb-09	Client	0.6		1106	1.1	80
32859.01	WC1 - Escott	03-Mar-09	Client	0.3		Not recorded	0.3	2350
32859.02	WC2 - Cintra	03-Mar-09	Client	0.5		Not recorded	0.7	2460
32859.03	WC3 - The Colliery	03-Mar-09	Client	1.1		1502	2.7	2600
32859.04	WC4 - Hillview	03-Mar-09	Client	0.3		1515	0.6	2330
32859.05	WC5 - Railway View	03-Mar-09	Client	0.3		1450	0.4	2300
32859.06	WC6 - Sth Boundary	03-Mar-09	Client	2.3		1440	8.7	2240
32859.07	WC7 - Patterson	03-Mar-09	Client	0.7		1530	1.1	2310
32859.08	WC8 - Quirindi Rd	03-Mar-09	Client	2.3		1515	3.4	2260

2.3 AIR QUALITY COMPLAINTS

No complaints received regarding excessive dust for the period.

3.0 NOISE

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

R2: **Zeolite**, R3: **Cinta**, R4: **Old Colliery** (mine owned residence), R5: **Mountain View**, R6: **Hillview** (mine owned residence) R7: **Railway View** (mine owned residence), 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).

The noise emission criterion for WCC is 35dB(A) unless otherwise subject to a current, legally binding agreement between WCC and the occupant of the affected residential property.

Hillview, Railway View and Old Colliery are mine owned residences and as such monitoring results above 35dB(A) are not recorded as non-compliances.

WCC environmental licence conditions indicate that compliance with noise emission criteria is not applicable under atmospheric conditions where wind speeds are higher than 3m/s and/or there is temperature inversion of greater that +3 degreesC/100m.

3.1 OPERATIONAL NOISE

3.1.1 Monitoring Data Results

Please see noise monitoring data under Appendix 2

3.1.2 Discussion - Compliance / Non Compliance

There were no noise exceedances recorded for the period.

Any elevated levels represented in the results are not recorded exceedances and this is directly due to one or a combination of the factors listed below.

- Temperature inversion of greater that +3 degreesC/100m.
- Wind speeds greater than 3m/s.
- Old Colliery, Railway View and Hillview are mine owned properties.
- A private agreement with the landholder.

3.1.3 Action Taken

No actions necessary regarding routine noise monitoring.

3.2 NOISE COMPLAINTS

No Complaints received for the period.

4.0 BLAST

During this reporting period a total of 17 blasts numbered ORICA 146 to ORICA 162 were fired.

4.1 BLAST MONITORING

4.1.1 Monitoring Data Results

TABLE 2

Shot number	Date fired	Time Fired	Environmental Monitor Results			
			Glenala	Railway View	Old Colliery	Escott Road

			Vib (mm/s)	OP (dB)	Vib (mm/s)	OP (dB)	Vib (mm/s)	OP (dB)	Vib (mm/s)	OP (dB)
146	9/01/2009	4.19	-	-	3.01	113.9	0.43	102.7	-	-
147	14/01/2009	1.40	-	-	1.07	104.1	1.38	102.2	-	-
148	22/01/2009	4.19	-	-	0.95	112.8	0.73	103.7	0.33	97.6
149	22/01/2009	4.19	-	-	0.95	112.8	0.73	103.7	0.33	97.6
150	27/01/2009	8.38	-	-	1.02	109.8	0.95	104.1	-	-
151	29/01/2009	2.09	-	-	0.65	110.7	-	-	-	-
152	09/02/2009	9.21	-	-	3.14	111.7	1.86	107.5	0.48	98.5
153	11/02/2009	2.09	-	-	0.1	110.3	0.08	111.4	-	-
154	18/02/2009	13.30	-	-	1.74	114.5	1.11	110.2	-	-
155	26/02/2009	13.12	-	-	2.56	114.6	0.68	108.7	0.36	106.6
156	5/03/2009	15.24	-	-	2.41	114.8	0.53	107.5	-	-
157	12/03/2009	13.48	-	-	1.87	113.1	0.88	107.8	-	-
158	11/03/2009	13.22	-	-	3.41	118.4	0.75	109.8	0.33	105.9
159	19/03/2009	14.08	-	-	0.7	105.8	0.65	105.2	0.41	102.2

160	24/03/2009	13.10	-	-	2.56	115.3	1.09	112.9	-	-
161	25/03/2009	13.09	-	-	0.77	113.1	0.25	92.5	-	-
162	27/03/2009	13.07	-	-	1.88	114.8	0.48	113.9	-	-

4.1.2 Discussion - Compliance / Non Compliance

All blasts complied with licence limits. Columns with no value represent monitors which did not trigger a reading at that site for the given blast.

4.1.3 Action Taken

No Actions necessary.

4.2 BLAST COMPLAINTS

No complaints received regarding blasting.

5.0 WATER

Surface and groundwater monitoring was undertaken in January by Ecowise Environmental.

4.1 GROUND WATER

4.1.1 Monitoring Data Results

See Appendix 3 - Groundwater Monitoring results.

4.1.2 Discussion - Compliance / Non Compliance

No recorded exceedances.

4.2 SURFACE WATER

4.2.1 Monitoring Data Results

See Appendix 3 – Surface water monitoring results.

4.2.2 Discussion - Compliance / Non Compliance

Ground water and routine surface water monitoring undertaken by Ecowise Environmental returned typical water quality results for the period.

6.0 COMPLAINTS SUMMARY

There were no complaints received during the three month reporting period.

7.0 GENERAL

In general WCC environmental performance over this quarter was very good, with no major concerns noted during monitoring and reporting.

Please feel free to ask any questions in relation to the information contained within this document during item 7 of the meeting agenda.

Regards

Lynden Cini
Environmental Officer
Whitehaven Coal

Appendices

Appendix 1 – PM10 Dust monitoring Data

Appendix 2 – Noise monitoring Results

January

Table 1 WCC Noise Monitoring Results – 7 January 2009 (day)					
Location	Time	dB(A),Leq	Inversion °C/ 100m	Wind speed/ direction	Identified Noise Sources
Zeolite Australia	4:07 pm	44	n/a	<0.5 m/s, S	Birds (41), cows (40), WCC (34)
Cintra	4:28 pm	45	n/a	<0.5 m/s, S	Birds (41), Traffic (40), WCC (39)
Old Colliery	3:27 pm	38	n/a	<0.5 m/s, S	Birds (35), traffic (33), WCC (33)
Mountain View	5:54pm	47	n/a	<0.5 m/s, S	Birds (44), traffic (41), rooster (40), WCC barely audible
Hillview	4:49 pm	52	n/a	<0.5 m/s, S	Birds/insects (49), traffic (49), WCC (39)
Railway View	5:10 pm	45	n/a	<0.5 m/s, S	WCC(42), traffic (41), birds (36)
Hazeldene	5:33 pm	35	n/a	<0.5 m/s, S	Birds (33), tractor (29), horses (28), WCC inaudible
Escott	3:50 pm	31	n/a	<0.5 m/s, S	Birds/insects (31), WCC inaudible

Table 2 WCC Noise Monitoring Results – 7 January 2009 (evening)					
Location	Time	dB(A),Leq	Inversion °C/ 100m	Wind speed/ direction	Identified Noise Sources
Zeolite Australia	7:47 pm	35		1 m/s NW	Insects (33), cows (31), wind (28), WCC inaudible
Cintra	8:05 pm	45		0.8 m/s NW	Frogs & insects (44), dogs (32), WCC barely audible
Old Colliery	7:08 pm	37		0.5 m/s NW	Birds & insects (35), traffic (31), WCC (30)
Mountain View	9:25 pm	37		1.2 m/s NW	Birds/insects (34), Domestic noise (31), WCC (30)
Hillview	8:24 pm	49		1 m/s N	Frogs & insects (45), WCC (45), traffic (41)
Railway View	8:43 pm	44		1 m/s N	WCC (41), insects (40), traffic (35)
Hazeldene	9:02 pm	36		1.2 m/s NW	Insects (33), dogs (31), WCC (30)
Escott	7:30 pm	32		0.8 m/s NW	Birds & Insects (29), wind (28), WCC inaudible

Table 3 WCC Noise Monitoring Results – 7/8 January 2009 (night)					
Location	Time	dB(A),Leq	Inversion °C/ 100m	Wind speed/ direction	Identified Noise Sources
Zeolite Australia	10:43 pm	36		Calm	Insects (35), cows (28), WCC barely audible
Cintra	11:00 pm	47		Calm	Frogs & insects (46), dogs (37), WCC barely audible
Old Colliery	10:02 pm	47		Calm	Insects (45), train (38), traffic (38), WCC (35)
Mountain View	12:48 am	39		Calm	Insects (35), domestic noise (33) WCC (33)
Hillview	11:17 pm	53		Calm	Train (50), insects (49), WCC (39)
Railway View	12:09 am	42		Calm	WCC (39), insects (38)
Hazeldene	12:30 am	37		Calm	Insects (33), WCC (33), horses (29)
Escott	10:25pm	40		Calm	Frogs & insects (39), domestic noise (30), WCC barely audible

January - Special Frequency Monitoring – Park Hill

Table 1 WCC Noise Monitoring Results – 15/16 December 2008 Park Hill					
		dB(A),Leq	Inversion	Wind	

Period	Time		°C/ 100m	speed/ direction	Identified Noise Sources
Day	5:21 pm	48		<0.5 m/s, S	Insects (46), dogs (41), traffic (40), WCC inaudible
Evening	9:17 pm	44		1 m/s, NW	Insects (42), dogs (37), WCC inaudible
Night	12:59 pm	38		<0.5 m/s, NW	Insects (34), WCC (33) , wind chimes (31)

February

Table 1 WCC Noise Monitoring Results – 23 February 2009 (day)					
Location	Time	dB(A),Leq	Inversion °C/ 100m	Wind speed/ direction	Identified Noise Sources
Zeolite Australia	3:53 pm	38	n/a	1.3 m/s ENE	WCC (37) , birds (30)
Cintra	4:10 pm	39	n/a	1.1 m/s E	WCC (39) , birds (27)
Old Colliery	3:15 pm	37	n/a	1.3 m/s NW	WCC (36) , insects/birds (30)
Mountain View	5:25 pm	34	n/a	1.8 m/s SW	Birds (33), domestic noise (30) WCC inaudible
Hillview	4:29 pm	43	n/a	1.3 m/s SE	Traffic (43), WCC (31)
Railway View	4:47 pm	35	n/a	1.8 m/s WNW	WCC(35) , insects (20)
Hazeldene	5:07 pm	45	n/a	1.5 m/s SW	Birds (45), traffic (36), WCC (<30)
Escott	3:35 pm	31	n/a	1.8 m/s WNW	WCC (30) , birds/insects (24)

Table 2 WCC Noise Monitoring Results – 23 February 2009 (evening)					
Location	Time	dB(A),Leq	Inversion °C/ 100m	Wind speed/ direction	Identified Noise Sources
Zeolite Australia	8:15 pm	41	>+3	Calm	Insects (41), WCC inaudible
Cintra	8:32 pm	39	>+3	0.4 m/s N	Insects (39), traffic (30), WCC inaudible
Old Colliery	7:45 pm	40	>+3	0.4 m/s N	Traffic(38), insects (35), WCC barely audible
Mountain View	9:45 pm	41	>+3	0.9 m/s WSW	Insects (41), WCC barely audible
Hillview	8:50 pm	49	>+3	0.4 m/s N	Traffic (47), insects (44), WCC (<30)
Railway View	9:07 pm	42	>+3	Calm	WCC (40) , insects (38)
Hazeldene	9:29 pm	45	>+3	0.4 m/s N	Traffic (43), insects (41), WCC barely audible
Escott	7:58 pm	38	>+3	Calm	Insects (38), WCC inaudible

Table 3 WCC Noise Monitoring Results – 23/24 February 2009 (night)					
Location	Time	dB(A),Leq	Inversion °C/ 100m	Wind speed/ direction	Identified Noise Sources
Zeolite Australia	10:40 pm	35	>+3	1.3 m/s NW	Insects (35), WCC (<25)
Cintra	11:06 pm	35	>+3	2.6 m/s NW	Insects (35), WCC (<25)
Old Colliery	10:05 pm	44	>+3	Calm	Plane (42), insects (40), WCC (32)
Mountain View	12:35 am	41	+2	4.0 m/s NNE	Insects (41), WCC (<30)
Hillview	12:55 pm	43	>+3	1.8 m/s N	Insects (42), traffic (35), WCC barely audible
Railway View	1:12 am	39	>+3	0.9 m/s NNW	Train (36), WCC (34) , insects (33)
Hazeldene	12:17 am	42	+1	3.6 m/s NNE	Insects (42), WCC (30)
Escott	10:23 pm	35	>+3	Calm	Insects (35), WCC (<25)

March

Table 1 WCC Noise Monitoring Results – 11/12 March 2009 (day)					
Location	Time	dB(A),Leq	Inversion °C/ 100m	Wind speed/ direction	Identified Noise Sources
Zeolite Australia	4:05 pm	41	n/a	4.7 m/s E	Wind (39), WCC (36) , insects (32)
Cintra	4:23 pm	38	n/a	4.9 m/s E	Train (35), traffic (33), birds (30), WCC inaudible
Old Colliery	3:20 pm	47	n/a	5.8 m/s E	Wind (45), insects/birds (42), WCC inaudible
Mountain View	3:35 pm	36	n/a	5.4 m/s E	Insects (35), traffic (30), WCC inaudible
Hillview	4:38 pm	46	n/a	5.4 m/s E	Traffic (44), WCC (39) , birds (36)
Railway View	4:20 pm	38	n/a	4.9 m/s E	WCC(35) , traffic (33), birds (30)
Hazeldene	3:53 pm	44	n/a	5.2 m/s E	Traffic (42), insects (40), WCC inaudible
Escott (12/3)	7:05 am	43	n/a	0.4 m/s WSW	Birds (43), WCC (33) ,

Table 2 WCC Noise Monitoring Results – 11 March 2009 (evening)					
Location	Time	dB(A),Leq	Inversion °C/ 100m	Wind speed/ direction	Identified Noise Sources
Zeolite Australia	8:17 pm	43	n/a	5.4 m/s E	Insects (40), WCC (39) , wind (30)
Cintra	8:35 pm	35	n/a	4.9 m/s E	Insects (34), traffic (30), WCC inaudible
Old Colliery	7:41 pm	50	n/a	5.8 m/s E	Insects (50), traffic (40), WCC (35)
Mountain View	9:45 pm	36	n/a	2.7 m/s E	Insects (34), wind (32), WCC inaudible
Hillview	8:52 pm	56	n/a	4.7 m/s E	Train (56), insects (43), WCC (36) , wind (30)
Railway View	9:10 pm	44	n/a	4.7 m/s ESE	Insects (42), train (37), WCC (35)
Hazeldene	9:29 pm	40	n/a	3.6 m/s E	Insects (39), traffic (35), WCC inaudible
Escott	8:00 pm	42	n/a	5.6 m/s E	Insects (41), WCC (34)

Table 3 WCC Noise Monitoring Results – 11/12 March 2009 (night)					
Location	Time	dB(A),Leq	Inversion °C/ 100m	Wind speed/ direction	Identified Noise Sources
Zeolite Australia	10:37 pm	45	>+3	2.2 m/s E	Insects (42), WCC (42)
Cintra	10:55 pm	33	>+3	1.3 m/s E	WCC (31) , insects (28),
Old Colliery	10:02 pm	39	>+3	2.2 m/s E	Insects (38), WCC (35)
Mountain View	1:38 am	31	>+3	Calm	Insects (31), WCC inaudible
Hillview	11:12 pm	48	>+3	Calm	Traffic (48), WCC (33) , insects (31)
Railway View	1:01 am	44	>+3	0.9 m/s SW	WCC (41) , traffic (39), insects (37)
Hazeldene	1:20 am	33	>+3	0.7 m/s SW	Insects (32), traffic (25), WCC inaudible
Escott	10:21 pm	37	>+3	2.2 m/s E	Insects (35), WCC (32)

Appendix 3 – Groundwater and Surface water monitoring data.