

Bengalla Mine Community Consultative Committee

Environmental Data Summary: December 2007 - January 2008

Meteorological

Throughout December the rain continued with a monthly total of 115.6mm. While this was less than the November total of 173.6, it is still well above the December long term averages of 66mm. This brings the 2007 total rainfall 805mm, which is above the long-term annual average of 619mm and more than double the total rainfall received in 2006. January's totals were 59mm which is under the long term averages.



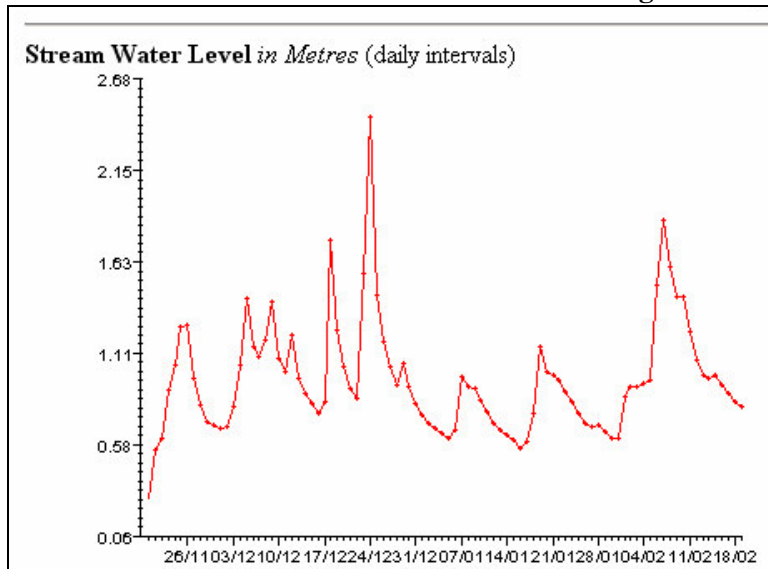
Above: Bengalla Rainfall Data 2007/2008

Water Monitoring – Hunter River

During December Bengalla undertook one licensed discharge to the Hunter River. The discharge was licensed through the Hunter River Salinity Trading Scheme (HRSTS) and occurred from the Stage Discharge Dam under the HRSTS. It took place during the 23rd – 24th December with a total of 128.66ML released. The discharge occurred during declared Hunter River high flow events, with water quality monitored both upstream and downstream of the discharge point over the course of the events to ensure there were no adverse environmental impacts on the river as a result of the discharges. The discharge was required to ensure there was adequate capacity in the Stage Discharge Dam to allow for the dewatering of the pit, and as a precaution in case of further rainfall events.

On 29th January an unauthorized water discharge/environmental incident occurred when 7ML of mine water leaked from a pipeline. The source of the leak was a de-aeration valve that had blown off a pipeline running from the Washery dam to the End Wall dam. The pipe line transports water between two site water dams. The water initially pool in a in a natural drainage area, then ran through a culvert, under the railway line and into the adjacent mine owned dairy paddock but did not make it into the Hunter River or any other water courses. Immediate action was taken to isolate the pipe and stop the leak. The incident was reported to the government and investigated by Bengalla.

Hunter River Water Level at Muswellbrook Bridge in Metres (daily intervals)



— Red line on plot indicates recorded data
 - - - Blue dotted line indicates missing data

Water levels at the Muswellbrook Bridge (refer adjacent plot) remained relatively high throughout early December and then peaked on the 24th at 2.46m after considerable rain over the 22nd and 23rd.

The start of January saw the water level remained moderately low with a base of 0.62m. Two small rises were recorded on the 07th and 19th of December respectively. (<http://hits.nsw.gov.au/>). Each rainfall event is producing considerable spikes in the level of the river due to upstream catchment storages being at capacity.

Air Quality – Dust Monitoring

Table: High Volume Air Sampling Results (TSP and PM₁₀) for May to July 2007.

| Run Date | EPA Assessment Criteria (ug/m ³) | HV1 (PM ₅₀) Wybong Rd | HV2 (PM ₅₀) Racecourse | HV3 (PM ₅₀) Logues Lane | HV4 (PM ₅₀) St James | PM1 (PM ₁₀) Racecourse | PM2 (PM ₁₀) St James |
|-----------------------------------|---|--------------------------------------|---------------------------------------|--|-------------------------------------|---------------------------------------|-------------------------------------|
| 1/12/2007 | - | 37.3 | 33.2 | 27.5 | 26.2 | 14.7 | 17.1 |
| 7/12/2007 | - | 56.8 | 47.8 | 32.7 | 41.4 | 20.4 | 24.2 |
| 13/12/2007 | - | 49.5 | 45.5 | 40.2 | 54.3 | 31.3 | 27.1 |
| 19/12/2007 | - | 52.7 | 53.3 | 40.4 | 50.8 | 4.5 | 26.1 |
| 25/12/2007 | - | 45.2 | 37.0 | 30.1 | 31.6 | 26.2 | 16.8 |
| 31/12/2007 | - | 73.6 | 80.4 | 54.8 | 59.5 | 11.5 | 23.9 |
| 6/01/2008 | - | 44.8 | 43.5 | 45.0 | 27.1 | 22.4 | 12.0 |
| 12/01/2008 | - | 72.5 | 97.8 | 43.6 | 110.0 | 57.0 | 36.2 |
| 18/01/2008 | - | 63.7 | 21.8 | 15.9 | 17.4 | 14.0 | 9.8 |
| 24/01/2008 | - | 81.1 | 70.1 | 44.3 | 53.3 | 35.7 | 22.2 |
| 30/01/2008 | - | 76.9 | 76.4 | 53.6 | 56.2 | 47.8 | 27.1 |
| | | | | | | | |
| 24Hr Max May 07-Jul 07 | 50 PM₁₀ | | | | | 57.0 | 36.2 |
| Annual Rolling Average | 90 PM₅₀, 30 PM₁₀ | 48.2 | 63.2 | 41.6 | 48.6 | 26.4 | 23.0 |

*Run failed, re-run 14/6/07

**Run failed, re-run 19/6/07

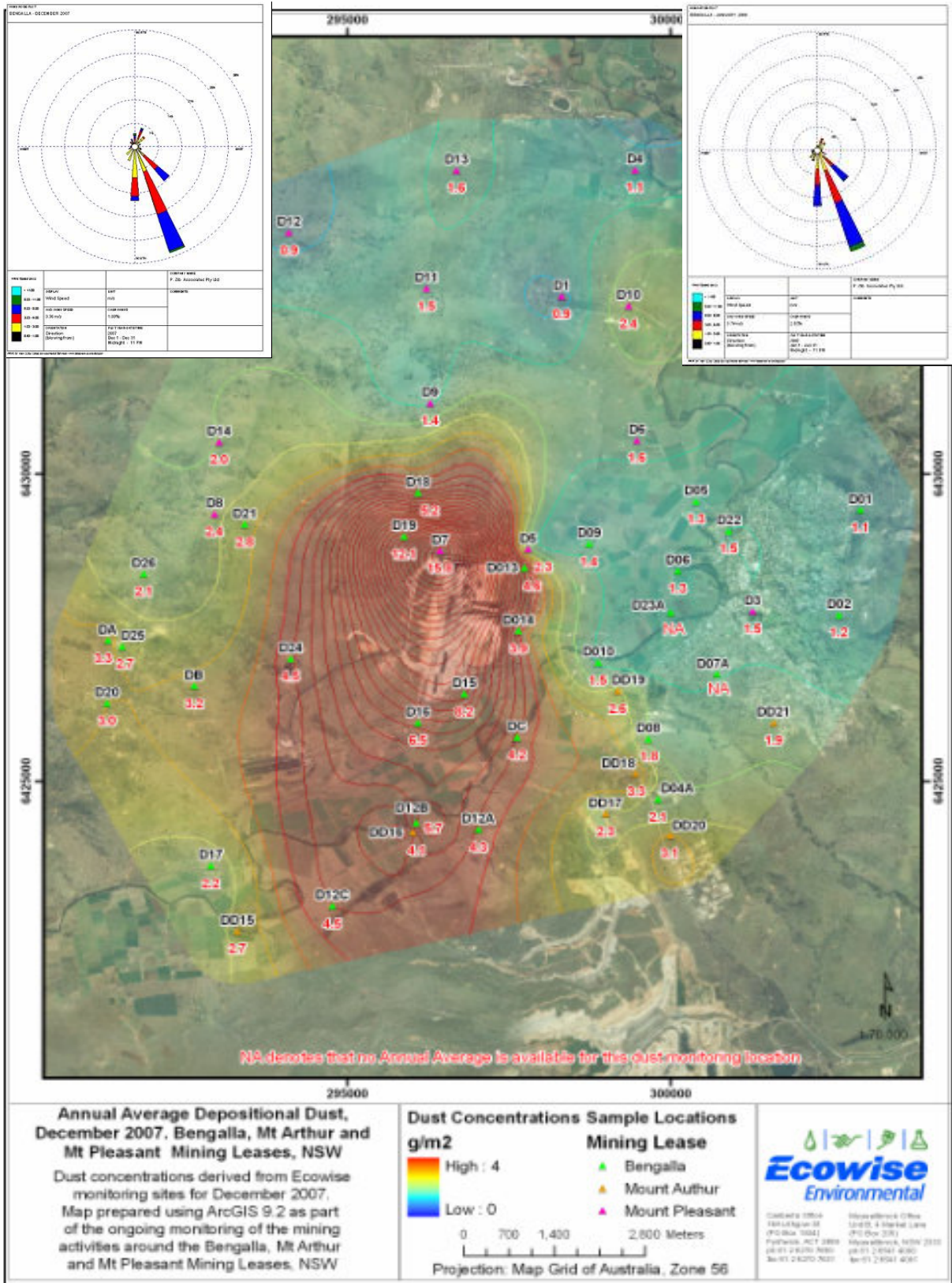
High Volume Air Sampling Results (TSP and PM₁₀) for December 2007 and January 2008 show the TSP and PM₁₀ annual rolling averages were below the EPA Criteria for all sampling locations. During December no exceedences were recorded at any locations.

In January the EPA short-term impact assessment criteria of 50ug/m³ over 24 hours for PM₁₀ was exceeded at the Racecourse Road PM₁₀ monitor on the 12th. On the same day elevated TSP levels were recorded at Racecourse Rd and St James locations.

On the 12th of January the conditions were generally winds from a south south easterly direction up to 8.0m/s. Considering the prevailing weather conditions for January (refer windroses) it is unlikely that the elevated readings at Racecourse Road and St James are the result of Bengalla's mining activities.

December 2007 Windrose

January 2008 Windrose



Above: Depositional dust isopleth for the 12 month rolling average for the period December 2006 to January 2008. Red indicates values above EPA criteria of 4g/m²/mth (applicable only at residential locations) and orange is approaching 4g/m²/mth.

Blasting: Ground Vibration & Overpressure Results: September 2007 – 26th November 2007

One blast complaint¹ was received in January in relation to the Strip 17, Block 21 inter-burden Broonie shot on the 17th January. The complaint was from north of Muswellbrook. The investigation noted that Mt Arthur Mine conducted two consecutive blasts 9 minutes after Bengalla's blast. The highest recorded measurements on non mine owned land for Bengalla the blast was at the Scriven monitor, recording 105.9 dB and 0.49 mm/s overpressure and vibration respectively. These results are well within the EPA limits of 115 dB and 5 mm/s for 95% of blasts.

| Date | Time | Name | Type | No. of Holes | Depth (m) | Total Tonnes | Ground Vibration (mm/s) | | | | | | | | Overpressure (dB) | | | | | | | |
|-----------|-------|-------------------------------|------------------|--------------|-----------|--------------|-------------------------|------|------|------|------|------|------|------|-------------------|--------|--------|--------|--------|--------|--------|--------|
| | | | | | | | SCH | BLK | COL | BOY | EGL | BTS* | WEB | SCR | SCH | BLK | COL | BOY | EGL | BTS* | WEB | SCR |
| 4/Dec/07 | 13:09 | S18-20-OB-WW4 | Overburden/Exc | 111 | 25 | 81 | 0.05 | 0.06 | 0.21 | 0.20 | 0.18 | - | 0.06 | 0.13 | 91.3 | 85.5 | 87.6 | 96.6 | 98.9 | - | 97.5 | 88.9 |
| 5/Dec/07 | 15:48 | S18-18-OB-WW4 | Overburden/Exc | 117 | 29 | 89 | 0.10 | 0.10 | 0.33 | 0.40 | 0.33 | 0.48 | 0.13 | 0.37 | 92.2 | 105.6 | 114.7 | 92.6 | 95.1 | 116.5 | 110.1 | 107.3 |
| 7/Dec/07 | 16:16 | S18-19-OB-WW4 | Overburden/Exc | 131 | 25 | 88 | 0.08 | 0.11 | 0.20 | 0.31 | 0.22 | 0.32 | 0.08 | 0.33 | 81.3 | 82.8 | 93.0 | 98.5 | 99.5 | 98.8 | 95.2 | 94.3 |
| 8/Dec/07 | 14:05 | S17-14-PS-VA | Interburden/DG1 | 65 | 38 | 4 | 0.02 | 0.02 | 0.05 | 0.38 | 0.04 | 0.09 | 0.02 | 0.06 | 88.3 | 94.7 | 94.4 | 90.6 | 89.8 | 107.2 | 97.6 | 97.8 |
| 10/Dec/07 | 16:12 | S17-12-PS-VA | Interburden/DG1 | 53 | 39 | 5 | 0.02 | 0.03 | 0.06 | 0.12 | 0.08 | 0.12 | 0.03 | 0.11 | 100.6 | 99.3 | 112.4 | 94.5 | 107.6 | 121.9 | 111.8 | 108.9 |
| 11/Dec/07 | 13:14 | S17-14-BLISTER-VA | Interburden/DG1 | 130 | 6 | 5 | 0.02 | 0.03 | 0.05 | 0.09 | 0.05 | 0.10 | 0.02 | 0.08 | 85.0 | 101.8 | 100.7 | 94.6 | 86.0 | 112.0 | 101.0 | 92.1 |
| 13/Dec/07 | 14:10 | S17-01-CI-MA2 | Coal/Interburden | 131 | 9 | 9 | 0.02 | 0.02 | 0.04 | 0.07 | 0.02 | 0.51 | 0.01 | 0.10 | 90.7 | 100.2 | 107.3 | 81.7 | 94.9 | 123.1 | 113.4 | 107.0 |
| 14/Dec/07 | 9:10 | S18-10-OB-179 | Overburden/Exc | 111 | 27 | 88 | 0.04 | 0.09 | 0.16 | 0.19 | 0.12 | 0.54 | 0.04 | 0.26 | 84.6 | 97.3 | 101.6 | 101.3 | 105.0 | 113.4 | 102.7 | 99.3 |
| 18/Dec/07 | 15:32 | S17-14-IB-VA | Interburden/DG1 | 159 | 37 | 159 | 0.11 | 0.34 | 0.55 | 0.59 | 0.34 | 1.06 | 0.09 | 0.74 | 94.8 | 94.0 | 103.6 | 99.5 | 103.5 | 109.1 | 112.3 | 94.1 |
| 19/Dec/07 | 12:08 | S17-09-PS-VA | Interburden/DG1 | 76 | 26 | 6 | 0.03 | 0.05 | 0.07 | 0.10 | 0.20 | 0.14 | 0.02 | 0.11 | 77.9 | 78.1 | 92.1 | 90.6 | 86.0 | 111.9 | 92.8 | 91.3 |
| 21/Dec/07 | 13:05 | S17-12-IB-VA | Interburden/DG1 | 180 | 32 | 133 | 0.09 | 0.23 | 0.35 | 0.42 | 0.29 | 0.73 | 0.08 | 0.55 | 98.8 | 88.5 | 91.0 | 101.1 | 102.2 | 104.2 | 98.2 | 95.9 |
| 24/Dec/07 | 14:00 | S17-02-IB-PF1 | Interburden/Exc | 214 | 9 | 34 | 0.04 | 0.06 | 0.09 | 0.15 | 0.05 | 0.66 | 0.02 | 0.21 | 83.7 | 96.0 | 86.4 | 93.8 | 94.7 | 105.6 | 93.9 | 103.3 |
| 28/Dec/07 | 13:09 | S17-11-IB-VA | Interburden/DG1 | 207 | 32 | 176 | 0.10 | 0.02 | 0.31 | 0.36 | 0.47 | 0.90 | 0.09 | 0.51 | 83.3 | 86.3 | 95.7 | 98.8 | 102.4 | 103.8 | 100.2 | 98.5 |
| 31/Dec/07 | 14:04 | S17-01-IB-PF1 | Interburden/Exc | 182 | 10 | 35 | 0.04 | 0.01 | 0.13 | 0.20 | 0.07 | 1.04 | 0.03 | 0.28 | 87.9 | 95.3 | 111.5 | 97.8 | 100.6 | 119.2 | 113.7 | 99.6 |
| 3/Jan/08 | 14:32 | S17-09-IB-VA | Interburden/DG1 | 207 | 30.86 | 183.45 | 0.01 | 0.02 | 0.31 | 0.43 | 0.44 | 0.84 | 0.09 | 0.67 | 107.10 | 107.80 | 113.20 | 97.00 | 105.50 | 118.10 | 113.80 | 106.50 |
| 4/Jan/08 | 13:23 | S17-25-PS-BR & S17-22-PS-BR | Interburden/DG1 | 19 | 25.01 | 1.53 | 0.01 | 0.02 | 0.25 | 0.25 | 0.68 | 0.19 | 0.10 | 0.26 | 91.90 | 102.10 | 114.90 | 89.00 | 97.00 | 120.10 | 113.60 | 99.30 |
| 7/Jan/08 | 14:28 | S17-24-PS-BR & S17-20-PS-BR | Interburden/DG1 | 55 | 10.88 | 1.773 | 0.01 | 0.01 | 0.03 | 0.10 | 0.08 | 0.07 | 0.02 | 0.06 | 90.60 | 104.10 | 105.10 | 90.20 | 98.70 | 120.10 | 114.30 | 98.50 |
| 8/Jan/08 | 12:54 | S17-24-IB-BR | Interburden/DG1 | 192 | 11.80 | 54.854 | 0.00 | 0.00 | 0.26 | 0.45 | 1.11 | 0.69 | 0.08 | 0.33 | 89.20 | 82.80 | 102.90 | 94.10 | 100.70 | 106.70 | 90.90 | 96.60 |
| 9/Jan/08 | 13:05 | S17-23-IB-BR | Interburden/DG1 | 200 | 13.65 | 71.451 | 0.00 | 0.01 | 0.24 | 0.56 | 0.70 | 0.63 | 0.10 | 0.39 | 90.40 | 96.50 | 104.90 | 89.50 | 91.70 | 112.40 | 106.90 | 99.90 |
| 11/Jan/08 | 13:42 | S17-04-IB-PF2 & S17-01-PS-PF2 | Interburden/Exc | 234 | 19.97 | 124.22 | 0.00 | 0.01 | 0.28 | 0.35 | 0.18 | 1.80 | 0.05 | 0.42 | 76.70 | 82.50 | 87.90 | 90.80 | 90.80 | 109.10 | 88.30 | 97.40 |
| 15/Jan/08 | 9:15 | S17-02-IB-PF2 | Interburden/Exc | 191 | 20.61 | 104.02 | 0.07 | 0.12 | 0.36 | 0.27 | 0.10 | 2.08 | 0.05 | 0.46 | 94.40 | 95.20 | 105.90 | 97.50 | 103.10 | 110.70 | 111.70 | 102.10 |
| 17/Jan/08 | 10:12 | S17-21-IB-BR | Interburden/DG1 | 243 | 12.49 | 107.74 | 0.12 | 0.23 | 0.24 | 0.47 | 0.56 | 0.50 | 0.13 | 0.49 | 90.30 | 97.30 | 95.50 | 100.30 | 98.00 | 110.10 | 96.70 | 105.80 |
| 22/Jan/08 | 9:40 | S18-11-OB-179 | Overburden/Exc | 107 | 24.42 | 65.513 | 0.03 | 0.07 | 0.13 | 0.17 | 0.19 | 0.66 | 0.04 | 0.19 | 94.20 | 93.10 | 97.80 | 96.00 | 97.00 | 108.70 | 97.40 | 93.00 |
| 23/Jan/08 | 12:18 | S17-19-IB-BR | Interburden/DG1 | 240 | 19.09 | 100.12 | 0.21 | 0.35 | 0.29 | 0.90 | 0.62 | 0.64 | 0.18 | 0.78 | 87.30 | 90.90 | 96.20 | 91.00 | 98.60 | 112.00 | 95.90 | 91.90 |
| 25/Jan/08 | 11:56 | S17-18-IB-BR | Interburden/DG1 | 303 | 15.73 | 145.129 | 0.18 | 0.55 | 0.37 | 1.01 | 0.63 | 0.83 | 0.20 | 0.95 | 87.30 | 90.50 | 97.80 | 96.30 | 97.10 | 109.00 | 94.90 | 94.70 |
| 30/Jan/08 | 12:16 | S17-06-IB-VA | Interburden/DG1 | 132 | 34.49 | 142.099 | 0.16 | 0.34 | 0.49 | 0.66 | 0.31 | 2.51 | 0.09 | 0.88 | 87.20 | 87.60 | 87.10 | 94.50 | 96.60 | 100.50 | 90.30 | 96.70 |

¹ A blast complaint is considered to be a complaint regarding vibration or overpressure resulting from a blast.

Quarterly 72 Hour Noise Survey

Attended environmental noise monitoring described in this report was undertaken during the day on 14 November 2007 and on the night of 18/19 December 2007. There were 7 monitoring locations, with two being internal Bengalla Reference Points, and hence these are not reported against our Environmental Protection License. The reason for the prolonged time period between monitoring days was due to poor weather conditions during this period.

Attended monitoring was conducted in accordance with the EPA's 'Industrial Noise Policy' (INP) guidelines and Australian Standard AS 1055 'Acoustics, Description and Measurement of Environmental Noise'. The duration of each night measurement was 15 minutes.

BENGALLA NOISE LEVELS, 14th NOVEMBER AND 18th/19th DECEMBER, 2007

| Location | Date And Time | Descriptor | Measured Levels dB | | BMC Consent Criterion dB | Exceedance dB |
|--|------------------|------------|-------------------------|----------------------|-----------------------------|---------------|
| | | | Prevailing ¹ | Neutral ² | | |
| NO1 Racecourse Road | 17/11/2007 12:42 | LA10,15min | 35 | 20 | 43 ³ | Nil |
| | 17/11/2007 12:42 | LAeq,15min | 32 | 17 | 35 ⁴ | Nil |
| | 19/12/2007 3:28 | LA1,15min | IA | IA | 40 ³ | Nil |
| | 19/12/2007 3:28 | LAeq,15min | IA | IA | 38 ⁴ | Nil |
| | 19/12/2007 3:28 | LA1,1min | IA | N/A | 46 ⁴ | Nil |
| NO3 Edinglassie (Denman Road) | 14/11/2007 13:09 | LA10,15min | IA | IA | 43 ³ | Nil |
| | 14/11/2007 13:09 | LAeq,15min | IA | IA | N/A | Nil |
| | 19/12/2007 3:03 | LA1,15min | IA | IA | 40 ³ | Nil |
| | 19/12/2007 3:03 | LAeq,15min | IA | IA | N/A | Nil |
| | 19/12/2007 3:03 | LA1,1min | IA | N/A | N/A | Nil |
| NO4 Chudyk (Old Bengalla Road) | 14/11/2007 13:38 | LA10,15min | IA | IA | 43 ³ | Nil |
| | 14/11/2007 13:38 | LAeq,15min | IA | IA | N/A | Nil |
| | 19/12/2007 2:35 | LA1,15min | IA | IA | 40 ³ | Nil |
| | 19/12/2007 2:35 | LAeq,15min | IA | IA | N/A | Nil |
| | 19/12/2007 2:35 | LA1,1min | IA | N/A | N/A | Nil |
| NO7 Hamilton (Roxburgh Road) | 14/11/2007 11:09 | LA10,15min | IA | IA | 43 ³ | Nil |
| | 14/11/2007 11:09 | LAeq,15min | IA | IA | 38 ⁴ | Nil |
| | 19/12/2007 1:48 | LA1,15min | NM | NM | 40 ³ | Nil |
| | 19/12/2007 1:48 | LAeq,15min | NM | NM | 37 ⁴ | Nil |
| | 19/12/2007 1:48 | LA1,1min | 33 | N/A | 45 ⁴ | Nil |
| NO8 Moore (Wybong/ Roxburgh Road) | 14/11/2007 11:32 | LA10,15min | IA | IA | 43 ³ | Nil |
| | 14/11/2007 11:32 | LAeq,15min | IA | IA | 36 ⁴ | Nil |
| | 19/12/2007 0:55 | LA1,15min | NM | NM | 40 ³ | Nil |
| | 19/12/2007 0:55 | LAeq,15min | NM | NM | 36 ⁴ | Nil |
| | 19/12/2007 0:55 | LA1,1min | 33 | N/A | 45 ⁴ | Nil |
| REF1 Overton Rd | 14/11/2007 11:32 | LA10,15min | 46 | IA | N/A | N/A |
| | 14/11/2007 11:32 | LAeq,15min | 42 | IA | N/A | N/A |
| | 19/12/2007 0:55 | LA1,15min | 41 | NM | N/A | N/A |
| | 19/12/2007 0:55 | LAeq,15min | 35 | NM | N/A | N/A |
| | 19/12/2007 0:55 | LA1,1min | 41 | N/A | N/A | N/A |

- Notes:
1. These are levels from Bengalla Mine only, as measured in prevailing atmospheric conditions;
 2. These are levels from Bengalla Mine only, as calculated for neutral atmospheric conditions;
 3. Only relevant in neutral atmospheric conditions;
 4. Only relevant during wind speeds up to 3 m/s at 10 metres or in temperature inversions up to 3 degrees C/100m and wind speeds up to 2 m/s at 10 metres;
 5. Neutral levels equal to prevailing on this occasion as calculated neutral conditions cannot be higher than prevailing;
 6. NM denotes Bengalla Mine audible but not measurable; IA denotes inaudible; N/A denotes not applicable at this location.

Bengalla completed noise assessment (sound power testing) of mobile equipment during December.