

## DONALDSON COAL

**PTY LTD** 

ABN: 87 073 088 945

## Annual Environmental Management Report

for the

**Abel Underground Coal Mine** 

7 June 2007 to 1 June 2008

Compiled by:



## DONALDSON COAL

#### **PTY LTD**

ABN: 87 073 088 945

# Annual Environmental Management Report for the Abel Underground Coal Mine 7 June 2007 to 1 June 2008

Name of mine Abel Underground Coal Mine

Mining Titles/Leases ML 1618

MOP Commencement Date\*TBCMOP Completion date31/12/09AEMR Commencement Date07/06/07AEMR Completion date01/06/08

Name of leaseholder Donaldson Coal Company Pty Ltd

NA

Name of mine operator (if different)

**Reporting Officer** 

Title Signature

\* MOP not approved at time of report compilation

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#### **FOREWORD**

This Annual Environmental Management Report ("AEMR") for the Abel Underground Coal Mine has been compiled by R.W. Corkery & Co. Pty. Limited on behalf of Donaldson Coal Pty Ltd (the "Company"). The Abel Underground Coal Mine (the "Abel mine") is located approximately 23km northwest of Newcastle, New South Wales (see **Figure 1.1**).

This is the first AEMR submitted for the Abel mine and is applicable for the period 7 June 2007 to 1 June 2008 ("the reporting period"). The information presented within this AEMR has been compiled solely based on information and advice provided by the Company.

This AEMR has been prepared in accordance with *Schedule 5 Condition 4* of Project Approval 05\_0136 which requires that an AEMR be submitted with 12 months of the granting of the approval and annually thereafter. An AEMR is also required by *Condition 5* of the recently issued Mining Lease (ML) 1618 for the Abel mine, however, as the initial Mining Operations Plan for ML 1618 has only recently been submitted (May 2008), annual reporting to the Department of Primary Industries – Mineral Resources (DPI-MR) is not yet required.

When reviewing this document the reader should note the following.

- 1. All work undertaken in relation to the Abel mine was completed in accordance with Project Approval 05 0136.
- 2. The construction of the box cut, within which the Abel surface infrastructure area is located, was undertaken under the approved MOP for the Donaldson Open Cut Coal Mine (period ending May 2011).
- 3. Following completion of the box cut in February 2008, the effective control of the Abel surface infrastructure area was passed from Donaldson mine management to Abel mine management.
- 4. For construction of the remainder of the facilities within the Abel surface infrastructure area, this area was classified as a designated construction zone, under Clause 87 of the *Coal Mine Health and Safety Regulation 2006*.

All activities undertaken in accordance with the approved MOP for the Donaldson Open Cut Coal Mine will be reported in full as part of the 2007 / 2008 AEMR for that mine. Emphasis has therefore been placed within this AEMR upon reporting activities associated with the Abel Underground Coal Mine which will not be reported in full through the AEMR for the Donaldson Open Cut Coal Mine.

It is the intention of the Company that future AEMRs submitted to the Department of Planning in accordance with *Schedule 5 Condition 4* of Project Approval 05\_0136 also satisfy the annual reporting requirements to DPI-MR and that the required reporting periods be rationalised for both processes. In light of this, this report generally follows the format and content requirements identified in the Guidelines to the Mining, Rehabilitation and Environmental Management Process (version 3) (2006) (DPI-MR).

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#### 1 INTRODUCTION

#### 1.1 Consents, Lease and Licences

The Company has operated the approved activities at the Abel Underground Coal Mine (the "Abel mine") under the following consent, lease and licences (**Table 1.1**).

Table 1.1
Abel Underground Coal Mine – Approvals, Leases and Licences

Approval / Lease / Licence	Issue Date	Expiry Date	Details / Comments
Project Approval 05_0136	7 June 2007	31 December 2028	Granted by the Minister for Planning.
Mining Lease ML 1618*	15 May 2008	15 May 2029	Granted by the Department of Primary Industries - Mineral Resources. Incorporates 2755ha of surface area.
*See Figure 1.1	•	•	·

The Company also holds Exploration Licence 5497 which remains valid until October 2009.

No modifications or variations have been sought within the AEMR term for any of the consents, leases, approvals or licences outlined within **Table 1.1**.

It is noted that, at the time this report was compiled, the issue of Environment Protection Licence No. 12483 remained pending.

Conditions within the existing approval and lease which specify specific environmental criteria are as follows.

#### Noise

Schedule 4 Condition 23 of Project Approval 05\_0136 - noise emissions (day, evening and night).

#### • Air Quality

 Schedule 4 Condition 25 of Project Approval 05\_0136 - dust emissions (suspended particulates and deposited dust).

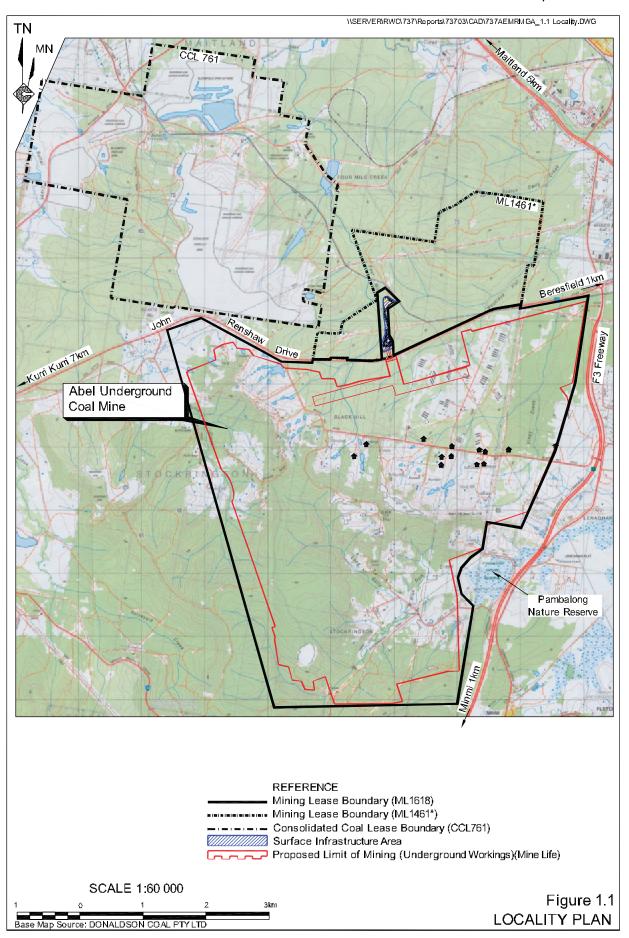
The approved management and monitoring plans and programs prepared for the Abel mine provide further detailed information relating to applicable environmental criteria.

During the reporting period an independent environmental audit of the Abel mine was undertaken by Trevor Brown & Associates in accordance with *Schedule 5 Condition 5* of Project Approval 05\_0136. It was advised that there were no non-compliances identified during the audit. A copy of the audit report will be provided to the Department of Planning in accordance with *Schedule 5 Condition 6* of Project Approval 05\_0136.

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#### 1.2 Mine Contacts

The Manager of Mining Engineering, Mr Matthew Blackham is the primary mine contact (Tel: 0438 682 984). Mr Blackham is responsible for the environmental management of the Abel mine and ensuring compliance with all relevant legislative obligations. Mr Phillip Brown (Tel: 0439 909 952) is the nominated Environmental Manager and is also responsible for the environmental management of the Abel mine. The contact details for the Abel mine are as follows.

Postal Address: Donaldson Coal Pty Ltd PH: 02 4015 1100

PO Box 2275 Fax: 02 4015 1199

GREENHILLS NSW 2323 Email: donaldson@doncoal.com.au

Physical Address: Donaldson Open Cut Coal Mine

1132 John Renshaw Drive BLACKHILL NSW 2322

24 hour Environmental Hotline 1800 111 271

#### 1.3 Action Required at Previous AEMR Review

As this is the first AEMR for the Abel mine, no previous actions have been identified.

#### 2 OPERATIONS DURING THE REPORTING PERIOD

#### 2.1 Exploration

During the reporting period 23 geological holes were drilled to further define coal quality, resources and proposed structure of the underground mine (see **Plan 2**). No piezometers were installed into these holes with all drill holes sealed in accordance with the *Borehole Sealing Requirements on Land: Coal Exploration* guidelines (DPI Ref: EDG01) and standard industry practice.

Six monthly exploration reports for EL 5497 have been forwarded to the Coal Advice and Resource Assessment section of DPI-MR.

#### 2.2 Land Preparation

During the reporting period, all land preparation activities within the surface infrastructure area were undertaken as part of the Donaldson Open Cut Coal Mine (the "Donaldson mine") operations and were completed in accordance with the MOP prepared for the Donaldson mine. Reporting of these activities will be reported as part of the 2007 / 2008 AEMR to be prepared for the Donaldson mine.

No land preparation activities were undertaken on land located above the underground mine workings nor are any expected to be required during the mine life.



#### 2.3 Construction

During the reporting period the primary construction activity involved commencement of the mine portals and initial underground roadways in early March 2008 (see **Plate 1.1**). As at the end of this reporting period the roadway extending from the personnel and equipment access portal had progressed approximately 20m south of the box cut whilst the roadway from the conveyor portal had extended approximately 80m. The roadway for the ventilation portal had not yet commenced.

Other activities undertaken during the reporting period included the installation of the following.

- Temporary 1 250kVA diesel generators and 55 000L self-bunded fuel tank.
- An auxiliary fan to provide ventilation during construction of the mine portals.
- Temporary offices and ablution facilities for use by employees during the construction and setup of the surface infrastructure area.
- Two 225 000L water tanks for potable water.
- A temporary 2 000L self-bunded fuel tank for use by mobile equipment during construction.

The access road and coal load out circuit were also constructed during the reporting period as part of activities undertaken for the Donaldson mine.

The location of these activities is shown on **Plan 1** whilst **Table 2.1** provides a summary of equipment used throughout the reporting period along with its primary function.

Table 2.1
Equipment Used within the Reporting Period

Item	No.	Primary Function				
Road Header	1	Cutting through hard rock during drivage of initial roadways.				
Rotary hydraulic drill rig	1	Installing supports for the mine portals				
LHD Vehicle (Load Haul Dump)	1	Transport of waste rock from drivage of initial roadways to surface.				
Articulated Dump Trucks	1	Transport of material from mine portals				
Elevated Work Platforms	2	Meshing face above mine entries				
Auxiliary Fan	1	Ventilating roadways during initial development				
Hydraulic Excavators (30t)	2	Bulk earthworks				
Grader	1	Profiling and grading, road preparation				
Sheepsfoot Roller	1	Compaction				
Flat Roller	1	Road Preparation				
Backhoe	1	General trench digging, profiling and small				
		earthworks				
All terrain forklift 1 Unloading, loading etc						
Cranes (various sizes)  1 Unloading and positioning equipment						



Plate 1
Mine Portals (Ref: DSC01191)

#### 2.4 Mining

No mining was undertaken during the reporting period. It is also noted that no coal of acceptable quality was recovered during construction of the mine portals and initial roadways during this reporting period. **Table 2.2** provides a production summary for this reporting period and estimated production at the end of the next reporting period.

Table 2.2 Production and Waste Summary - 07 June 2007 to 01 June 2008

Cumulative Production (m <sup>3</sup> )						
Start of Reporting Period	End of Reporting Period	End of Next Reporting Period (Estimated)				
0	0	0				
0	0	0				
0	0	0				
0	0	290 000				
0	0	0				
0	0	290 000				
	Start of Reporting	Start of Reporting   End of Reporting				

Note 1: As no coal processing will be undertaken onsite, ROM coal equates to 'product coal' Source: Donaldson Coal Pty Ltd

No blasting relating to operations undertaken as part of the Abel mine occurred during the reporting period.

#### 2.5 Mineral Processing

No processing activities were undertaken during the reporting period.

#### 2.6 Waste Management

Waste generated during the reporting period included approximately 4000t of waste rock and coaly material removed during construction of the mine portals and initial roadways. This material was removed using dump trucks and placed within the Donaldson mine waste rock emplacement and backfill areas for the in accordance with the approved final landform for the Donaldson mine (Development Consent 114-116).

Approximately 100m<sup>3</sup> of general waste was also generated by employees during construction of the mine portals and installation of the generators and auxiliary fan. All general waste and scrap materials were stored in skip bins and removed by Veolia. A temporary pump out septic system for the ablution facilities was also utilised during the reporting period. The system was pumped out as required by Veolia with approximately 3600L of waste removed during the reporting period.

#### 2.7 Coal Stockpiles

As no coal was removed during the reporting period no ROM or product stockpiles were created. However, the ROM Coal Stockpile Area was used to temporarily store waste rock and coaly material removed from the mine portals prior to disposal within the Donaldson mine.

#### 2.8 Water Management

The water management procedures are presented in the approved Water Management Plan prepared for the Abel mine and are not presented here in detail. Essentially, all surface water was managed through the use of the existing water management structures for the Donaldson mine with clean water flows directed away from the surface facilities area. Water runoff from within the box cut area incorporating the surface facilities was directed to an approximately 1.5ML water storage sump located towards the southeast corner of the box cut. When required, water from the sump was pumped to the Big Kahuna dam (located within ML 1461 for the Donaldson mine) with the sump being emptied five times during the reporting period resulting in the transfer of a maximum of 7.5ML.

**Table 2.3** provides a summary of the volumes of water stored at the start of the reporting period, at the end of the reporting period and the total storage capacity.



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Table 2.3 Stored Water

	Volumes Held (m³) <sup>#</sup>						
	Start of Reporting Period	At end of Reporting Period	Storage Capacity				
Clean Water	0	0.45	0.45				
Dirty Water	0	0	1500				
Controlled Discharge Water	0	0	0				
Contaminated Water	0	0	0				
Source: Donaldson Coal Pty Ltd	* Within Abel Surface	Infrastructure Area.					

#### 2.9 Hazardous Material Management

During the reporting period, all diesel requirements for mobile equipment were sourced from the 2 000L self-bunded fuel tank whilst diesel for the temporary generators was sourced from the 55 000L self-bunded fuel tank both of which were refilled as required using mini tankers. Smaller volumes of oils and grease were stored within 20L and 205L drums stored on bunded pallets as required. A dedicated diesel tank and hydrocarbon store for the Abel mine will be constructed during the next reporting period.

All handling, storage and transport of dangerous goods were undertaken in accordance with relevant Australian Standards including AS1940, AS1596 and the Dangerous Goods Code. An up-to-date Material Safety Data Sheet (MSDS) register was also maintained for all hazardous materials used in conjunction with operations for the Abel mine using the Chemwatch system, a computer based data system. Access to this system was made available within the temporary administration office for the Abel mine.

Additionally, as part of the Environmental Management System for the Abel mine, a series of Emergency Response and Preparedness Plans have been prepared by the Company to address any significant environmental emergency, including those involving hazardous materials.

No significant hazardous materials-related environmental incidents were reported during the reporting period.

#### 2.10 Other Infrastructure Management

No additional management measures were required for other infrastructure during the reporting period.

#### 3 ENVIRONMENTAL MANAGEMENT AND PERFORMANCE

#### 3.1 Meteorological Monitoring

An automated weather station has previously been installed for the Donaldson mine and provides the required meteorological data of the Abel mine. The weather station records wind speed and direction, temperature, rainfall and solar radiation. A summary of the rainfall data for the past 5 years is presented in **Table 3.1** and monthly wind roses are presented in **Figure 3.1** 

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Table 3.1 Monthly Rainfall Records

Period	Average Monthly Rainfall (mm)												
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2004	86.0	176.6	80.0	33.6	17.4	9.4	15.4	43.1	61.2	136.0	77.4	69.8	805.9
2005	64.4	95.8	127.8	57.4	61.8	56.8	7.2	0.8	37.0	84.0	22.8	9.6	625.4
2006	29.8	47.4	63.6	4.6	7.8	43.8	42.6	49.2	162.4	25.4	34.4	34.5	545.5
2007	13.4	96.4	101.4	84.6	59.7	315.2	16.5	79.6	28.3	35.0	163.8	49.5	1043.4
2008	153.4	154.3	46.0	237.6	2.2								
Note: Results relevant to this reporting period are in hold													

Total rainfall during the reporting period was 1281.4mm.

#### 3.2 Air Pollution

#### **Environmental Management**

Management of air quality during the reporting period was largely undertaken as part of the Donaldson mine activities which included watering of unsealed access roads (on an as needs basis) and use of exhaust controls on mobile equipment.

#### **Environmental Performance**

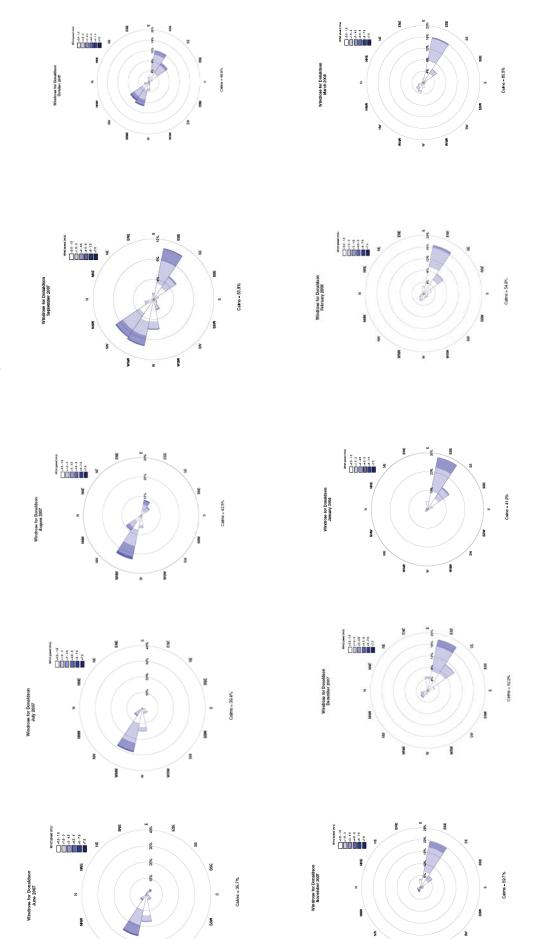
During the reporting period, monthly deposited dust monitoring was undertaken by Metford Laboratories at a total of four locations surrounding the Abel mine (consisting of four existing locations for the Donaldson mine). TSP and PM<sub>10</sub> monitoring was also undertaken at the existing High Volume Air Sampling station for the Donaldson mine located approximately 1500m southeast of the surface infrastructure area at Blackhill. Analysis of deposited dust samples were undertaken by Metford Laboratories. Locations of deposited dust and suspended particulate (high volume air sampling) monitoring are shown on **Figure 3.2** and results summarised within **Table 3.2** and **Figure 3.3**.

Table 3.2
Deposited Dust Monitoring Results

Sample Site	No. of Samples Required	No. of Samples Collected and analysed	Maximum Insoluble Solids (g/m²/month)	Minimum Insoluble Solids (g/m²/month)	Mean Insoluble Solids (g/m²/month)			
D1	11	11	4.5	0.4	1.65			
D2	11	11	0.9	0.1	0.56			
D3	11	92	3.7	0.6	1.51			
D5	11	11	2.9	0.1	0.81			
D1A <sup>1</sup>	-	-	-	-	-			
D3A <sup>1</sup>	-	-	-		-			
Notes: 1. Gauges not yet installed. 2. Two samples excessively contaminated with bird droppings								

Results show that deposited dust has remained well below the accepted criteria whilst suspended particulates ( $PM_{10}$  and total suspended particulates) were also both well below the annual average criteria ( $50\mu g/m^3$  and  $90\mu g/m^3$  respectively) (see **Figure 3.3**).

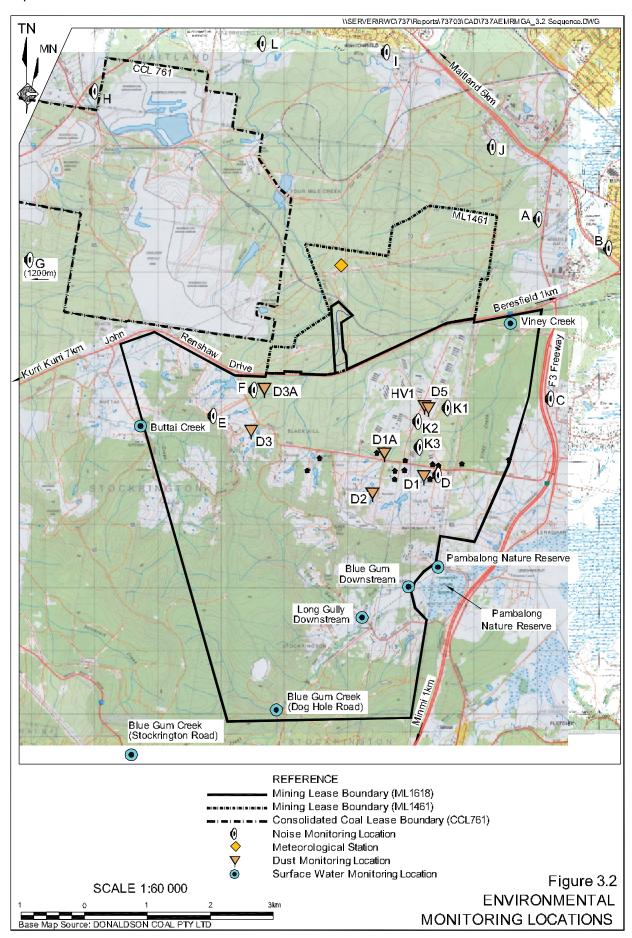




Monthly Wind Roses 2007/2008

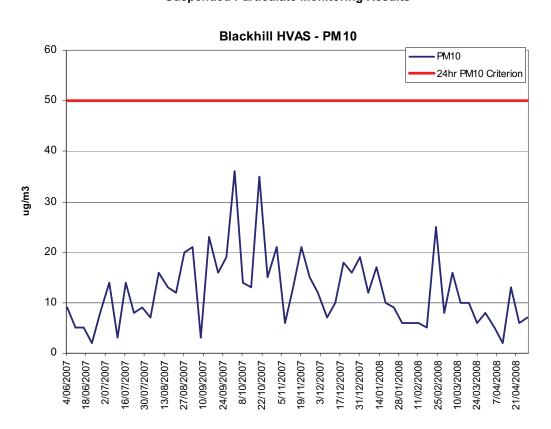


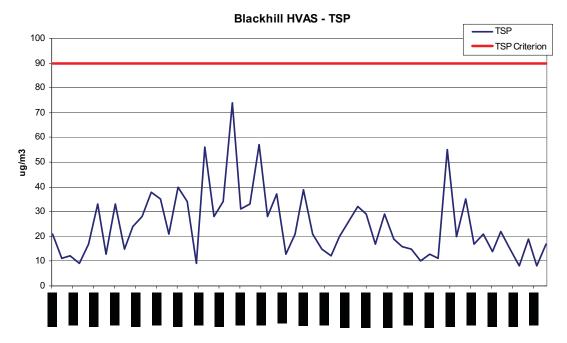
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Figure 3.3
Suspended Particulate Monitoring Results







#### **Reportable Incidents**

No reportable incidents relating to air pollution occurred within the reporting period.

#### **Further Improvements**

No further improvements relating to air pollution are planned or considered necessary although an additional two deposited dust monitoring sites will be established in accordance with the approved Air Quality Management Plan for the Abel mine. Air quality management measures during future operations will be consistent with those outlined within the MOP prepared for the Abel mine and the Air Quality Management Plan.

#### 3.3 Erosion and Sediment Control

#### **Environmental Management**

Sediment and erosion management procedures implemented throughout the reporting period included the following.

- (i) Diversion of 'dirty' surface water flows within the box cut area to the water storage sump.
- (ii) Diversion of 'clean' water from areas surrounding the box cut to existing drainage lines.
- (iii) Installation of jute mesh within drains located within the box cut area.
- (iv) Stabilisation of batters using straw mulch and a grass seed mix.

Due to the containment of all surface activities within the box cut no further erosion and sediment controls were deemed necessary.

#### **Environmental Performance**

No major erosion or sedimentation was observed during the reporting period. The erosion and sediment control measures implemented were largely considered successful without the need for further control measures.

#### **Reportable Incidents**

No reportable incidents occurred during the reporting period.

#### **Further Improvements**

No further erosion and sediment control measures are planned or considered necessary. Erosion and sediment control measures during future operations will be consistent with those outlined within the Water Management Plan and MOP prepared for the Abel mine. Regular inspections will continue to be undertaken to ensure that these measures remain effective.

#### 3.4 Surface Water Pollution

As the Abel mine is a zero discharge site, surface water monitoring sites specified for the Abel mine are aimed at detecting indirect impacts such as from underground mining activities. As no underground mining was undertaken during the reporting period, monitoring at these sites has not yet commenced. It is noted that monitoring at sites identified within the Integrated Monitoring Program for the Donaldson mine and Bloomfield Colliery were undertaken and will be reported within their respective AEMRs.

Monitoring of sites identified for the Abel mine (see **Figure 3.2**) will commence during the next reporting period and will provide baseline data for assessment of future operations.

#### 3.5 Groundwater Pollution

As activities associated with the Abel mine did not intersect groundwater or otherwise interact with groundwater (such as through changes caused by subsidence) during the reporting period, no specific environmental management measures were considered necessary and no monitoring was undertaken. As for surface water monitoring, monitoring at sites identified within the Integrated Monitoring Program for the Donaldson mine and Bloomfield Colliery will be reported within their respective AEMRs. Monitoring at sites specified for the Abel mine will commence during the next reporting period.

#### 3.6 Contaminated Polluted Land

No contaminated or polluted land was identified within the box cut and as such no specific management controls or monitoring procedures were required. No significant hydrocarbon spills or other incidents requiring disposal of contaminated material occurred during the reporting period.

#### 3.7 Threatened Flora and Fauna

#### **Environmental Management**

As all activities during the reporting period were undertaken within areas previously disturbed by the Donaldson mine, no specific management procedures relating to Threatened flora and fauna were required.

#### **Environmental Performance**

No activities which were likely to result in impacts upon Threatened Flora and Fauna occurred during the reporting period.

#### **Reportable Incidents**

No reportable incidents were recorded during the reporting period.



#### **Further Improvements**

Ongoing baseline monitoring within the Subtropical Rainforest areas and farm dams within the underground mine area and within the Pambalong Nature Reserve will commence during the next reporting period. This baseline monitoring will provide information to assist in formulating the subsidence management plan once underground mining reaches these areas. No further improvements are currently planned or deemed necessary.

#### 3.8 Weeds

#### **Environmental Management**

Regular inspections of the areas surrounding the box cut were undertaken as part of weed management associated with the Donaldson mine.

#### **Environmental Performance**

No noxious weeds were identified as part of regular inspections.

#### **Reportable Incidents**

No reportable incidents were recorded within the reporting period.

#### **Further Improvements**

No further improvements are deemed necessary. Ongoing regular weed inspections within the area of responsibility for the Abel mine will continue.

#### 3.9 Blasting

No blasting was undertaken during the reporting period.

#### 3.10 Operational Noise

#### **Environmental Management**

Management controls relating to noise included the following.

- Use of low modulated frequency reversing alarms on mobile equipment.
- Measurement of sound power levels of equipment to ensure that the sound power levels do not exceed those used to predict noise generation from the Project.

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#### **Environmental Performance**

Attended noise monitoring was conducted by Heggies Pty Ltd during March and May 2008 to measure the sound power level of the drill and ventilation fan used during the construction of the mine portals, and the received noise levels at surrounding residences.

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The sound power levels from the drill and ventilation fan were recorded to be 105dB(A) and 116dB(A) respectively. Both these levels are below relevant sound power levels used within the noise modelling undertaken for the proposal. Neither the drill rig or ventilation fan was audible at surrounding residences. Copies of the monitoring reports are presented within **Appendix 1**.

#### **Reportable Incidents**

No reportable incidents were recorded within the reporting period.

#### **Further Improvements**

Other than ongoing plant maintenance and noise monitoring (both attended and unattended), no other improvements are planned during the next reporting period.

#### 3.11 Visual, Stray Light

#### **Environmental Management**

During the reporting period all lighting was positioned and directed so as to minimise light emissions. As all activities occurred within the box cut created for the surface infrastructure area, no further controls were deemed necessary.

#### **Environmental Performance**

The visual controls implemented have been considered effective and will be maintained throughout the next reporting period.

#### Reportable Incidents

No reportable incidents were recorded during the reporting period.

#### **Further Improvements**

No further improvements are planned or are deemed necessary.

#### 3.12 Aboriginal Heritage

No known items of Aboriginal heritage were disturbed as part of the operations undertaken during the reporting period. Throughout ensuing reporting periods, planned construction activities and ongoing use of existing facilities will be assessed against the location of known Aboriginal heritage evidence.

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Additionally, within the underground mine area, staged systematic archaeological survey of each section to be undermined will occur with the participation of the relevant Aboriginal stakeholders prior to any underground mining in that section. Results of these assessments will be summarised in the relevant AEMR.

#### 3.13 Natural Heritage

No items or areas of natural heritage significance are considered to occur within the surface infrastructure area.

#### 3.14 Spontaneous Combustion

No incidents of spontaneous combustion were recorded during the reporting period. During creation of the box cut care was taken to bury any accumulations of coaly material and cover exposed seams where possible. Additionally, remaining coal spalling was removed from the highwall. Considering that the Upper and Lower Donaldson seams are considered to have a very low propensity for spontaneous combustion and with no history of spontaneous combustion, the management measures implemented have been considered adequate.

#### 3.15 Bushfire

#### **Environmental Management**

The emergency response procedures for the Donaldson mine have been revised to include the Abel mine.

#### **Environmental Performance**

No bushfire incidents occurred during the reporting period nor were any requests received to assist in containing bushfires in the local area.

#### **Reportable Incidents**

No bushfires or other related reportable incidents occurred during the reporting period.

#### **Further Improvements**

Other than maintenance of fire fighting equipment at all site buildings (once constructed) and provision of clear access and signposting, no further improvements are planned or deemed necessary.

#### 3.16 Mine Subsidence

As the only mining activities during the reporting period consisted of construction of the mine portals and initial underground roadways (extending between approximately 20m and 80m), no subsidence related management measures or monitoring was undertaken. A Subsidence Management Plan will begin to be prepared during the next reporting period for future mining activities that may result in subsidence, such as secondary extraction.

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A summary of subsidence related management measures and monitoring will be provided within the appropriate AEMR once mining activities that may potentially lead to subsidence commence.

#### 3.17 Hydrocarbon Contamination

#### **Environmental Management**

All hydrocarbons were stored either within a self-bunded tank or a bunded area with a capacity to contain a minimum 110% of the largest storage tank.

#### **Environmental Performance, Reportable Incidents and Further Improvements**

No significant hydrocarbon spills or other incidents occurred within the reporting period that lead to hydrocarbon contamination. The existing hydrocarbon management practices have been considered adequate with no further improvements planned during the next reporting period.

#### 3.18 Methane Drainage / Ventilation

An auxiliary fan was used to vent the roadways during construction of the mine portals. Methane testing previously undertaken during exploration programs indicate that the generation of methane will be low. Other than the use of the ventilation fan, no other specific ventilation or methane drainage management measures were considered necessary during the reporting period.

#### 3.19 Public Safety

The perimeter of the Donaldson mine, incorporating the box cut for the Abel Underground Coal Mine, has been secured by standard rural fencing and lockable gates to prevent unauthorised entry and various warning and information signs positioned to alert both employees and visitors.

No public safety issues relating to the Abel mine were reported during the reporting period.

#### 3.20 Other Issues and Risks

No other issues arose during reporting period or unaccounted risks which needed to be addressed.

#### 4 COMMUNITY RELATIONS

#### 4.1 Environmental Complaints

Between 07 June 2007 and 1 June 2008, no complaints relating to the Abel mine or mine-related activities were received.



#### 4.2 Community Liaison

In accordance with *Schedule 5 Condition 8* of Project Approval 05\_0136, the Company has established a community consultative committee for the Abel mine. The committee consists of:

- four representatives from the Company (Messer's Alick Osborne, Phillip Brown, Mark McPherson and Adam Heeney);
- a representative from Maitland City Council (Clr Peter Blackmore); and
- five representatives of the local community (Messer's Alan Brown, Allan Jennings, Terry Lewin, Andrew Pace and Brad Ure).

The committee is chaired by the Hon Mr Milton Morris, an independent chairperson appointed by the NSW State government.

The committee held a total of two meetings during the reporting period (5 December 2007 and 11 March 2008). The meetings have provided an opportunity for the Company to keep the community up-to-date with activities undertaken and programmed at the Abel mine and for community members to table issues relating to the Abel mine for the Company's consideration.

Issues raised by the community in relation to the Abel mine and the Company's response during meetings within the reporting period included the following.

- Missing information on the Department of Planning's website relating to the Abel mine.
  - The Company agreed to follow up with the Department the missing documentation and provided members of the committee with CD copies of the Environmental Assessment and Project Approval.
- How monies associated with the Company's contribution initiatives identified within Project Approval 05 0136 would be spent.

The Company committed to being guided as to what initiatives the money would be spent on and that a Community Trust would be formed with the appointed Trustees including representative members from the community.

#### 5 REHABILITATION

#### 5.1 Buildings

No buildings were renovated or removed during the reporting period.

#### 5.2 Rehabilitation of Disturbed Land

As the Abel mine is an underground operation, the only significant rehabilitation will be during mine decommissioning. However, limited rehabilitation of areas disturbed during and following the construction period will be undertaken. As discussed in Section 3.3 drains within the box cut area were stabilised using jute mesh whilst completed batters were stabilised using straw mulch and a grass seed mix (see **Plan 3**).

**Table 5.1** provides a summary of the areas disturbed and rehabilitated during the reporting period and estimated areas during the next reporting period whilst **Table 5.2** provides a further breakdown of the rehabilitation activities.

Table 5.1 Rehabilitation Summary

			Area Affected (I	na)
A:	MINE LEASE AREA	Total Area, start of Reporting Period	Total Area, end of Reporting Period	Area Estimated end of next Reporting Period
A1	Mine lease(s) Area	NA <sup>1</sup>	2755	2755
B:	DISTURBED AREAS			
B1	Infrastructure area (other disturbed areas to be rehabilitated at closure including facilities, roads)	5.6 <sup>2</sup>	4.9	4.9
B2:	Active Mining Area (excluding items B3 - B5 below)	0	0	42.6 (underground)
В3	Waste emplacements, (active/unshaped/in or out-of-pit )	0	0	0 /
B4	Tailings emplacements, (active/unshaped/uncapped)	0	0	0
B5	Shaped waste emplacement (awaits final vegetation)	0	0	0
	Previous Mining Activities	0	0	0
TOT	AL ALL DISTURBED AREAS	5.6	4.9	47.5
С	REHABILITATION			
C1	Total Rehabilitated area (except for maintenance)	0	0.7	0.7
D:	REHABILITATION ON SLOPES			
D1	10 to 18 degrees	0	0.7	0.7
D2	Greater than 18 degrees	0	0	0
D3	Less than 10 degrees	0	0	0
E:	SURFACE OF REHABILITATED LAND			
E1	Pasture and grasses	0	0.7	0.7
E2	Native forest/ecosystems	0	0	0
E3	Plantations and crops	0	0	0
E4	Other (include non-vegetative outcomes)	0	0	0

Notes: 1 - Mining Lease 1618 was not issued until 15 May 2008.

2 – All areas associated with the surface infrastructure area have previously been disturbed through activities associated with the Donaldson mine.

Table 5.2
Maintenance Activities On Rehabilitated Land

Nature of Treatment	Area Trea	ated (ha)	
	During Reporting Period <sup>#</sup>	During Next Reporting Period*	Comments/control strategies/treatment detail <sup>#</sup>
Additional Erosion Control Works	512m	250	Jute mesh was installed within two open drains carrying runoff from within the box cut area to the water storage sump.
Re-covering	0	0	Nil
Soil Treatment	0.7	0	Mulch was applied to finalised batters. Mulching included spreading of straw mulch.  No soil treatment (eg. lime, gypsum or fertilisers) was required during the reporting period or is likely to be required in subsequent reporting periods.
Treatment / Management	0	0	No other specific treatments or management measures where required during the reporting period or are expected to be required in ensuing reporting periods.
Re-seeding / Replanting	0.7	0	In addition to the application of mulch, a number of areas were hand seeded with an exotic grass seed mix (as outlined within the Mining Operations Plan for the Abel mine).
Adversely Affected by Weeds	0	0	No areas were identified as being adversely affected by weeds. Continued inspections and, where necessary, weed control will be undertaken.
Feral Animal Control	0	0	No feral animal control was deemed necessary during the reporting period. Feral animal control will be undertaken in ensuing reporting periods if required.
*See <b>Plan 3</b> * Indicati	ve only		

Abel Underground Coal Mine Report No. 737/03

Relevant details of rehabilitation undertaken during the next reporting period will be reported in full in the next AEMR and the ongoing establishment and progression of retabulated areas reported within subsequent AEMR's.

#### 5.3 Other Infrastructure

As discussed in Section 2.1, all exploration holes that were no longer required were sealed in accordance with the *Borehole Sealing Requirements on Land: Coal Exploration* guidelines and standard industry practice. Any disturbance resulting from the drilling of the hole and equipment used was rehabilitated in accordance with landholder requirements.

No other specific rehabilitation or maintenance activities were undertaken during the reporting period.

#### 5.4 Rehabilitation Trials and Research

No rehabilitation trials or research was undertaken during the reporting period.

#### 5.5 Further Development of the Final Rehabilitation Plan

No further development of the final rehabilitation plan was undertaken during the reporting period. The Landscape Management Plan which incorporates a Rehabilitation Management Plan was approved by the Department of Planning on 11 February 2008 and remains the most up-to-date rehabilitation plan. No concerns have been raised by any stakeholders relating to final rehabilitation.

#### 6 ACTIVITIES PROPOSED IN THE NEXT AEMR PERIOD

The activities proposed for 2008/2009 will include continued construction of the surface infrastructure area and commencement of mining together with a range of exploration and monitoring activities. The following provides a summary of the proposed activities.

#### **Exploration**

A further six geological holes are planned to be drilled to continue to define coal quality and structure of the proposed underground workings. Exploration reports will continue to be submitted to the Coal Advice and Resource Assessment section of DPI-MR in accordance with ML 1618.

#### Mining

During the next reporting period, mining will focus upon creation of the life of mine roadways and access roadways within four mining panels. Commencement of mining of two production panels may also occur later in the second half of the reporting period. It is expected that all mining undertaken will only involve first workings, however, information collected during mining within the reporting period will be used to assist in the development of a Subsidence Management Plan to allow commencement of second workings following the next reporting period.

#### Rehabilitation

Additional stabilisation and rehabilitation of access road batters, drains and banks and ongoing maintenance (in accordance with the Mining Operations Plan prepared for the Abel mine) will be undertaken as required, however, no major rehabilitation work will be able to be undertaken until the decommissioning of the site.

#### **Monitoring**

The following monitoring will be undertaken during the next reporting period.

- Air Quality ongoing deposited dust, TSP and PM<sub>10</sub> monitoring will be undertaken by Metford Laboratories.
- Surface water ongoing surface water quality and flow monitoring at a range of routine monitoring sites located within Blue Gum Creek, Viney Creek, Buttai Creek, Scotch Dairy Creek, Four Mile Creek and a number of local water storages. This monitoring will be undertaken by Ecowise Environmental as part of the integrated monitoring with the Bloomfield, Donaldson and Tasman mines
- Groundwater ongoing groundwater quality and level monitoring will be undertaken as part of the integrated network of monitoring bores for the Bloomfield, Donaldson and Tasman mines. Measurement of the quality and volume of inflow water to the underground workings will also be undertaken.
- Noise Heggies Pty Ltd will undertaken quarterly noise monitoring and review the frequency for ongoing monitoring.
- Flora & Fauna Ecobiological will undertake flora and fauna surveys and reporting in accordance with approved Flora and Fauna Management Plan.
- Meteorological the on-site meteorological station will be maintained and data collated.

#### **Community Consultation and Liaison**

The community consultative committee will continue to be convened during the next reporting period. It is expected that a further two or three meetings will be held during this time. The 24hr environmental hotline will be maintained and a register retained of any complaints received.

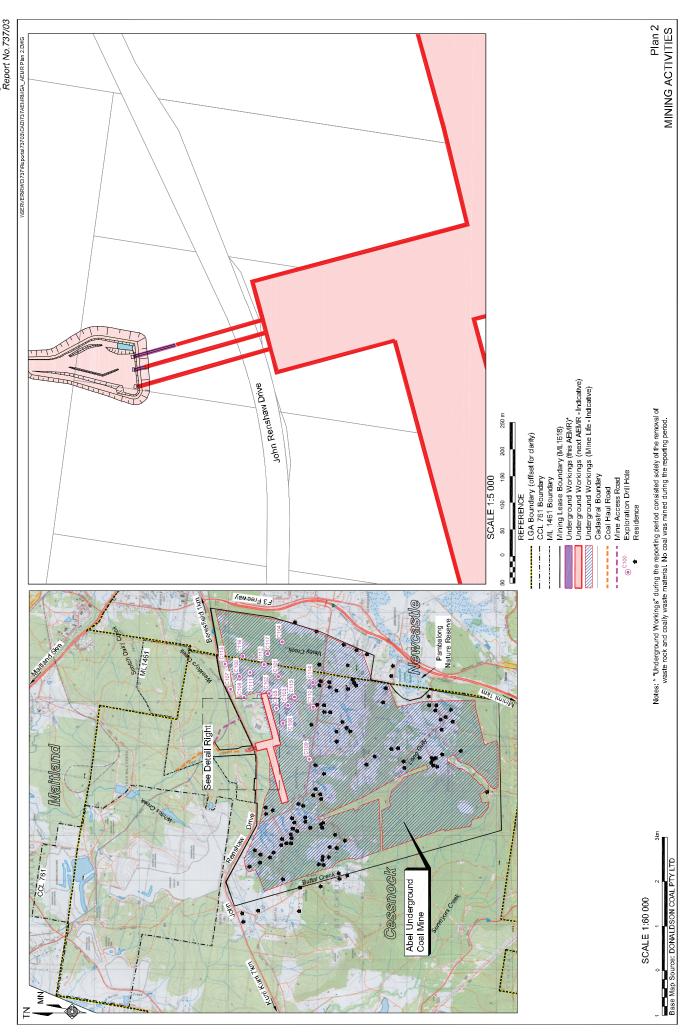
#### 7 **REFERENCES**

Heggies Pty Ltd (2008a), Donaldson Coal Project Abel Mine Portal Drill Measurements.

Heggies Pty Ltd (2008b), Donaldson Coal Project Abel Mine Portal Fan Measurements.

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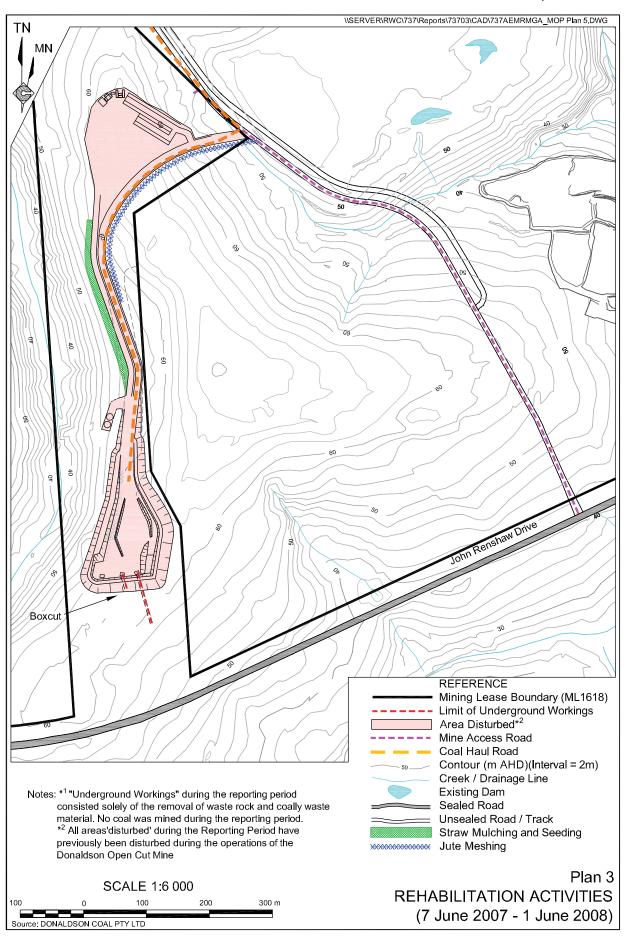






Abel Underground Coal Mine

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## **APPENDICES**

Appendix 1: Noise Monitoring Reports

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## **Appendix 1**

### **Noise Monitoring Reports**

(No. of pages excluding this page: 5)



22 May 2008

30-1409 Abel Coal Mine Fan Measurements 20080522.doc

Donaldson Coal Pty Ltd PO Box 675 Green Hills NSW 2320

Attention: Phil Brown

Dear Phil

#### Donaldson Coal Project Abel Mine Portal Fan Measurements

#### 1 Introduction

Heggies Pty Ltd (Heggies) was requested by Donaldson Coal Pty Ltd (Donaldson) to undertake noise measurements of the underground mine ventilation fan at the Abel Coal Mine site.

The purpose of the measurements was to gain an understanding of noise levels associated with the fan operation and to quantify any potential impact at nearest effected residential receivers during fan operation.

This report provides a summary of noise measurements conducted by Heggies on Tuesday 13 May 2008.

#### 2 Methodology & Results

Noise measurements were conducted at the Project Abel Mine site approximately 10 m from the mine fan location to quantify associated noise levels during operation. The Sound Power Level (SWL) derived from the measurements was as follows.

· Sound Power Level (SWL) of 116 dBA

An operator attended noise measurement was then taken at one nearest residential receiver location during mine fan operation (as shown in **Appendix A**) to determine whether the operation was audible. Details of this measurement are presented in **Table 1**.



ABN 29 001 584 612
Level 1, 14 Watt Street Newcastle NSW 2300 Australia
PO Box 1768 Newcastle NSW 2300 Australia
Telephone 61 2 4908 4500
Email newcastle@heggies.com Website www.heggies.com
Incorporating New Environment Graeme E. Harding & Associates Eric Taylor Acoustics









Table 1 Operator Attended Noise Measurement

Location/ Date/ Start Time/	Measurement Description	Primary Noise Descriptor (dBA re 20 µPa)					Description of Noise Emission and Typical Maximum Levels
Weather		LAmax	LA1	LA10	LA90	LAeq	LAmax – dBA
Location F							Traffic (John Renshaw Dr) ~ 46-50, Insects/crickets/ (dominant) 42-44. Car pass-by 65
13/04/2008							Donaldson Mine:
19:03 Evening Wind = calm Temp = 15°C	Ambient	65	53	50	45	48	Excavator and Haul trucks Estimated LA10 contribution 35-37 dBA
•							Able Coal Mine fan operation inaudible

The attended noise survey at Location F observed a La10 contribution from Donaldson Mine of approximately 35-37 dBA which is within the consent limit for this location. Mine related noise sources observed during the measurement included the excavator and haul trucks. The mine fan operating at the Project Abel site was inaudible.

\*\*\*

I trust that the above information is sufficient for your requirements. If there are any further comments or queries please do not hesitate to contact me on 02 4908 4500 or email <a href="mailto:daniel.weston@heggies.com">daniel.weston@heggies.com</a>

Regards

DANIEL WESTON

In Danty

Project Consultant - Acoustics and Vibration

Submission Details
Place: As addressed
Time and Date: 26/05/2008
Reviewed by: Rod Linnett



30 April 2008

30-1053 Abel Coal Mine Drill Measurements 20080430.doc

Donaldson Coal Pty Ltd PO Box 675 Green Hills NSW 2320

Attention: Phil Brown

Dear Phil

#### Donaldson Coal Project Abel Mine Portal Drill Measurements

#### 1 Introduction

Heggies Pty Ltd (Heggies) was requested by Donaldson Coal Pty Ltd (Donaldson) to undertake noise measurements during commencement of drilling operations at the Abel Coal Mine site.

The purpose of the measurements was to gain an understanding of noise levels associated with the drilling activity and to quantify any potential impact at nearest effected residential receivers during the early stages of drilling operation.

This report provides a summary of noise measurements conducted by Heggies on Tuesday 29 March 2008.

#### 2 Methodology & Results

Noise measurements were conducted at the Project Abel Mine site approximately 35 m from the drilling location to quantify associated noise levels during operation. The Sound Power Level (SWL) derived from the measurements was as follows.

· Sound Power Level (SWL) of 105 dBA

Operator attended noise measurements were then taken at two nearest residential receiver locations during drill operation (as shown in **Appendix A**) to determine whether the operation was audible. Details of these measurements are presented in **Table 1**.



ABN 29 001 584 612
Level 1, 14 Watt Street Newcastle NSW 2300 Australia
PO Box 1768 Newcastle NSW 2300 Australia
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Incorporating New Environment Graeme E. Harding & Associates Eric Taylor Acoustics









Table 1 Operator Attended Noise Measurements at Residential Receiver Locations

Location/	Measurement Description	Primary Noise Descriptor					Description of Noise Emission and
Date/ Start Time/		(dBA re 20 μPa)					Typical Maximum Levels
Weather	•	LAmax	LA1	LA10	LA90	LAeq	LAmax – dBA
Location F 29/04/2008							Traffic (John Renshaw Dr) ~ 48-53, Insects/crickets/frogs (constant) 42-44. Car pass-by 74
19:10 Evening Wind = calm Temp = 13oC	Ambient	74	64	53	45	54	Donaldson Mine: Excavator and Haul trucks ~ 36-38. Estimated LA10 contribution 38 dBA
·							Able Coal Mine drill operations inaudible
Location D 29/04/2008 19:29 Evening	Ambient	75	58	47	39	50	Distant truck noise ~ 40-42, Insects/crickets/frogs (constant) ~ 40 Traffic noise (F3) ~ 40 Dog barking ~ 43 Car pass-by 75
Wind - calm	Ambient	. •					Donaldson Mine inaudible
Temp = 13oC							Able Coal Mine drill operations inaudible

The attended noise survey at Location F observed a LA10 contribution from Donaldson Mine of 38 dBA which is within the consent limit for this location. The noise sources observed during the measurement were generally the excavator and haul trucks and not from drilling activities that were occurring at the Abel Mine site.

No mine contribution was audible at Location D including noise from drilling activities at the Abel Mine site.

\*\*\*

I trust that the above information is sufficient for your requirements. If there are any further comments or queries please do not hesitate to contact me on 02 4908 4500 or email <a href="mailto:daniel.weston@heggies.com">daniel.weston@heggies.com</a>

Regards

DANIEL WESTON

In Warty

Project Consultant - Acoustics and Vibration

Submission Details Place: As addressed Time and Date: 5/5/2008 Reviewed by: John Cotterill

Appendix A – Page 1 Noise Monitoring Locations Report 30-1053