



NAMOI MINING PTY. LTD.

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Namoi Mining Pty Ltd

***Environmental Monitoring
Program***

for the

Sunnyside Coal Mine



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Environmental Monitoring
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for the
Sunnyside Coal Mine

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ACRONYMS USED THROUGHOUT THIS PROGRAM

AEMR	-	Annual Environmental Management Report
CHPP	-	Coal Handling and Preparation Plant
OEH	-	Office of Environment and Heritage
DoPI	-	Department of Planning and Infrastructure
EC	-	Electrical Conductivity
EMonP	-	Environmental Monitoring Program
PA	-	Project Approval
TOC	-	Total Organic Carbon
TSS	-	Total Suspended Solids
WC MPL	-	Whitehaven Coal Mining Pty Ltd

1 INTRODUCTION

The Sunnyside Coal Mine (“the mine”) is located approximately 15km west of Gunnedah and 2km north of Oxley Highway. The mine site is 233.9 ha and is located entirely within the property known as “Sunnyside”. The mine is owned by Namoi Mining Pty Ltd (NMPL) and operated by Whitehaven Coal Mining Pty Ltd as an open cut mining operation. NMPL is a 100% subsidiary company of Whitehaven Coal Ltd. ‘Namoi Mining Pty Ltd’, ‘NMPL’ and ‘Whitehaven’ are interchangeable throughout this document.

The mine operates under Mining Lease (ML) 1624, Project Approval (PA) 06_0308 and Environment Protection Licence (EPL) 12957.

Project Approval (PA) 06_0308 was granted for the mine by the Minister for Planning on 24 September 2008. The approved mine involves the following activities and features:

Activities

- Coal mining by open cut and auger mining methods over an area of approximately 35.9ha.
- Crushing, screening and stockpiling of coal.
- Transportation of coal from the mine via a purpose built road to the Whitehaven Coal Handling and Preparation Plant (CHPP) and Rail Loading Facility at the Whitehaven Siding.
- The backloading of reject from the Whitehaven CHPP to the mine site for disposal (via the same transport route).
- Final rehabilitation of the areas of disturbance within the mine site following completion of the operation.

Features

- Mine site infrastructure and services, eg power supply, water management structures and internal access roads.
- Upgraded previously closed roads and constructed purpose built roads on Proponent-owned properties as part of a coal transport route.

It is recognised that the operation of the mine has the potential to impact on various aspects of the local environment on and beyond the boundaries of the mine site. In order to manage these potential impacts, and in compliance with *Condition 5(2)* of PA 06_0308, the following Environmental Monitoring Program (EMonP) has been prepared. This EMonP represents a consolidated summary of all monitoring activity to be undertaken for the life of the mine.

Section 2 of the EMonP presents the relevant conditions of PA 06_0308 and **Section 3**, which is presented in tabular form, describes the timing, location and responsibility for all monitoring to be undertaken over the life of the mine.

The monitoring requirements of the mine may change as the mine proceeds and as such, this document will be reviewed and updated each year in conjunction with the preparation of an Annual Environmental Management Report (AEMR).

The EMonP has been prepared with reference to relevant legislation and guidelines and is consistent with the commitments in the following documentation which was prepared prior to the granting of development consent.

- Environmental Assessment – Specifically Section 4.
- Specialist Consultant Studies Compendium – Volumes 1 and 2.

2 REQUIREMENTS OF PA 06_0308

PA 06_0308 incorporates one condition relating to the EMonP. This condition is presented in **Box 1**. It is noted that a number of conditions arose from the recommendations from the former Department of Environment and Climate Change (now Office of Environment and Heritage – OEH) to the then Department of Planning (now Department of Planning and Infrastructure – DoPI) and as such are consistent with conditions of an Environment Protection Licence for the mine.

<p style="text-align: center;">SCHEDULE 5</p> <p style="text-align: center;">ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING</p> <p><i>Note: This schedule should be read in conjunction with 18 of the Statement of Commitments</i></p> <p>ENVIRONMENTAL MONITORING PROGRAM</p> <p>2. The Proponent shall prepare and implement an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must be submitted to the Director-General within 6 months of this approval and consolidate the various monitoring requirements in schedule 3 of this approval into a single document.</p> <p style="text-align: right;">Box 1 EMonP - Related Consent Conditions</p>

Consultation with relevant government agencies was undertaken as part of the preparation of the monitoring programs from which the EMonP provides a consolidated summary. These monitoring programs have been approved by the Director-General of the former Department of Planning.

3 ENVIRONMENTAL MONITORING PROGRAM

Presented in tabular form, the program consolidates monitoring commitments made in the following documents:

- Aboriginal and Cultural Heritage Management Plan
- Air Quality Monitoring Program
- Blasting Monitoring Program
- Energy Savings Action Plan
- Landscape and Rehabilitation Management Plan
- Noise Monitoring Program
- Site Water Management Plan

For each environmental aspect information is provided on relevant Consent conditions, monitoring locations, responsibility to complete and timing. Some management plans for the site have not yet been approved. Upon approval of these plans, the monitoring program will be updated to reflect the monitoring requirements associated with those plans.

Figure 1 presents the various monitoring locations on and surrounding the Sunnyside Coal Mine.

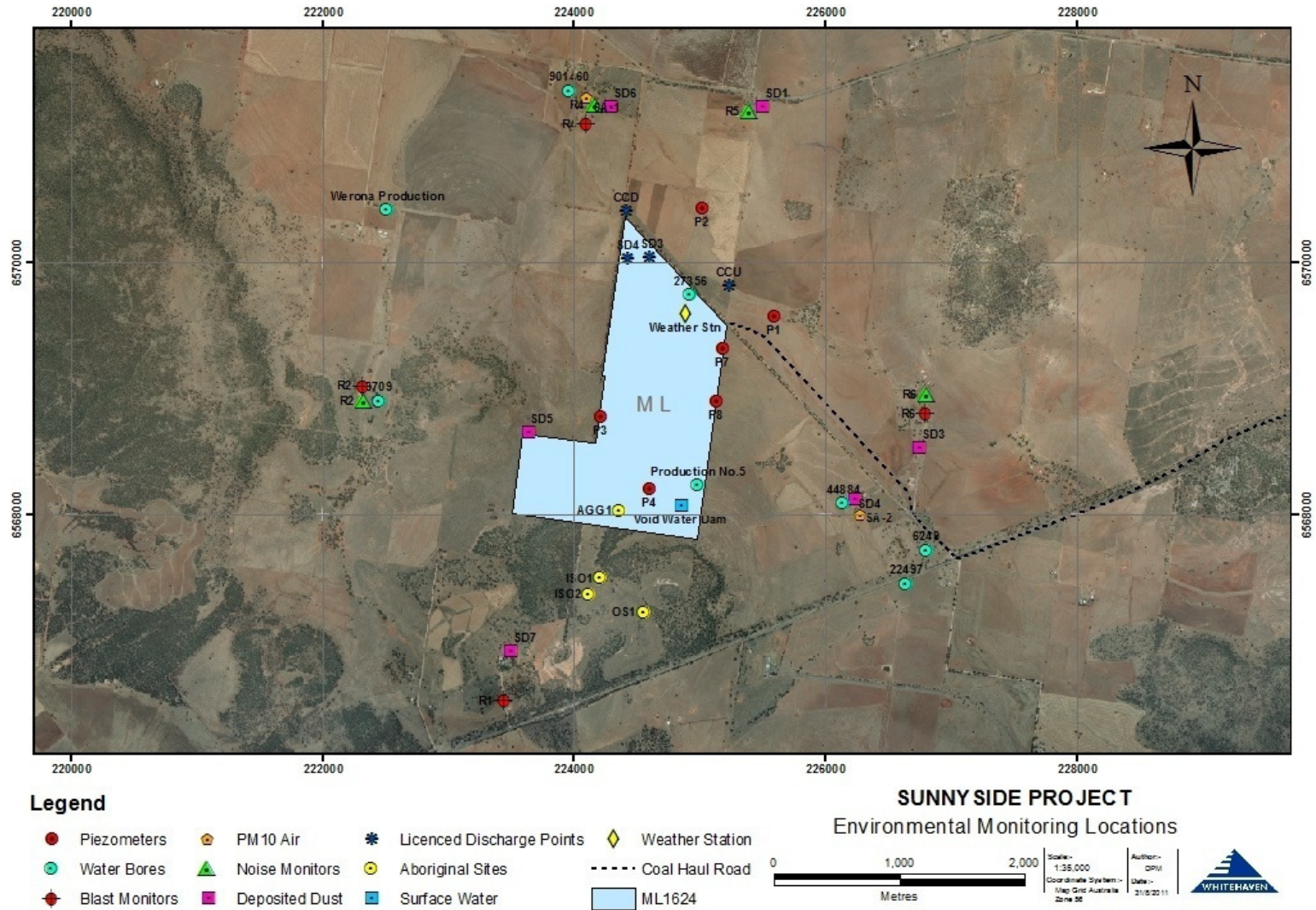


Figure 1 - Monitoring Locations
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Table 1 - Environmental Monitoring Program^a

Parameter		Conditional Requirement ^b	Monitoring Locations ^c	By	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
NOISE	Operational Noise Attended	3(9)	R2 & R4-6	Spectrum Acoustics			*			*			*			*
	Equipment Noise	-		Spectrum Acoustics	Sound Power Level of mobile equipment monitored on an as needed basis											
	Miscellaneous	-		Spectrum Acoustics	Following legitimate complaint											
BLASTING	Ground Vibration	3(17)	R1-2, R4 & R6	Orica	Blast monitoring will be undertaken at sites R1-2, R4 & R6 for all blasts.											
	Air Overpressure	3(17)														
AIR QUALITY	Deposited Dust	3(19)	SD-1 and SD3-8	WC MPL	*	*	*	*	*	*	*	*	*	*	*	*
	PM ₁₀	3(19)	SA-1 & SA-2	WC MPL	Once every 6 days in accordance with OEH's stated schedule for PM ₁₀ monitoring											

^a Note 1: This program is to be updated annually and included in the relevant AEMR.

^b Project Approval PA 06_0308 issued by the Minister for Planning, 24 September 2008.

^c See Figure 1.

Parameter		Conditional Requirement ^b	Monitoring Locations ^c	By	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
EROSION AND SEDIMENT CONTROL		3(22)	All water management and erosion and sediment control structures ^d	WC MPL		*			*			*			*	
	Water Quality metals and ions	3(22)	P1, P2, P3, P4, P7, P8, 3709, 22497, 44884, 6249, Prod. No. 5, 27356, 901460, Werona Prod, 44677	WC MPL					*							
SWL, field pH and EC	3(22)				*		*		*				*			*
SURFACE WATER	Wet Weather Discharge (TSS, TOC, Grease & Oil, pH, EC)	3(22)	SD3, SD4	WC MPL	As soon as practicable after discharge commences and not more than 12 hours after the commencement of discharge											
	Water Quality (TSS, Grease & Oil, pH, EC, TOC) On Site	3(22)	All site storage dams and mining void sump(s)	WC MPL			*			*			*			*
	Water Quality (Representative metals and ions) On Site	3(22)	All site storage dams and mining void sump(s)	WC MPL						*						

^d Quarterly inspection or following rainfall of >25mm/24 hours

Parameter		Conditional Requirement ^b	Monitoring Locations ^c	By	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Water Quality (TSS, TOC, Grease & Oil, pH, EC, metals and ions) Off Site	3(22)	CCU, CCD	WC MPL	Following significant rain to obtain baseline and then each discharge event.											
FLORA AND FAUNA	Flora and Fauna	3(30)	TBA	Specialist consultants	Yearly - when conditions allow sufficient monitoring or flora and fauna											
CULTURAL HERITAGE	Ground disturbance activities	3(33)	Mine site soil strip areas	Red Chief LALC, Bigundi Biame	Representatives invited to monitor all ground disturbing activities											
GREENHOUSE GAS EMISSIONS and ENERGY EFFICIENCY	Energy Savings Action	3(42)	Mine site	WC MPL	Monthly reports on fuel and energy consumption, and actions initiated to reduce emissions and increase energy efficiency to be reported in AEMR											
WASTE MANAGEMENT	Waste Minimisation	3(43)	Mine site and Pit Top Area	WC MPL	Quarterly internal reports on volumes of each waste stream and actions initiated to reduce waste volume and improve recycling practice to be reported in AEMR.											
REHABILITATION AND LANDSCAPE MANAGEMENT	Rehabilitation Performance	3(30)	TBA	WC MPL	Monthly inspections of progressive rehabilitation and monitoring transects to assess its performance and to address any opportunity to improve rehabilitation. Inspections also include the monitoring of weeds and feral animals, erosion, bushfire control measures, and koala protection.											