



TARRAWONGA COAL PTY LTD

ABN: 73 100 742 185

***Air Quality Monitoring
Program***

for the

Tarrawonga Coal Mine

incorporating an

Air Monitoring Protocol



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Document Control*					
Edition	Revision	Comment	Author	Date	Authorised by:
1	0	Initial Document	R.W. Corkery & Co. Pty. Limited	Dec 2005	K. Ross
	1	Document Review	J. Scealy	June 2009	D. Young

*To be revised at least every 2 years or following relevant significant changes

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ACRONYMS USED THROUGHOUT THIS PROGRAM

AEMR	-	Annual Environmental Management Report
AMP	-	Air Monitoring Protocol
AQMP	-	Air Quality Monitoring Program
CCC	-	Community Consultative Committee
CHPP	-	Coal Handling and Preparation Plant
DEC	-	Department of Environment and Conservation (now DECC)
DECC (EPA)	-	Department of Environment and Climate Change (Environment Protection Authority)
DoP	-	Department of Planning
DPI-MR	-	Department of Primary Industries - Mineral Resources
EIS	-	Environmental Impact Statement
EMS	-	Environmental Management Strategy
EPL	-	Environment Protection Licence
GSC	-	Gunnedah Shire Council
GTA	-	General Terms of Approval
IBC	-	Idemitsu Boggabri Coal Pty
NSC	-	Narrabri Shire Council
TCPL	-	Tarrawonga Coal Pty Ltd
WCMP	-	Whitehaven Coal Mining Pty Ltd

1 INTRODUCTION

The Tarrawonga Coal Mine (“the mine”), previously known as the East Boggabri Coal Mine, is located within a 661 ha site approximately 15km northeast of Boggabri, 10km north of Canyon Coal Mine (formally Whitehaven Coal Mine) and south of, and adjacent to, the Boggabri Coal Project (Figure 1). The mine is owned by Tarrawonga Coal Pty Ltd (TCPL), a joint venture between Whitehaven Coal Mining Pty Ltd (WC MPL) (70%) and Idemitsu Boggabri Coal Ltd (IBC) (30%). The mine is operated by Whitehaven Coal Mining Pty Ltd.

Development Consent DA 88-4-2005 (“the Consent”) was granted for the mine by the Minister for Planning on the 9th November 2005. The mine includes the following activities and features:

- Open cut coal mining over an area of approximately 160 ha;
- Programmed placement of overburden and interburden materials from the open cut to two out-of-pit overburden emplacements and the open cut void itself;
- On-site crushing and temporary stockpiling of the mined coal;
- A transport route between the mine and the Whitehaven CHPP and rail loading facility;
- Transportation of product coal from the mine site to the Whitehaven CHPP for washing and/or dispatch to export markets via rail to the Port of Newcastle;
- Backloading of reject material from the Whitehaven CHPP for placement in the mined-out areas of the mine;
- Services and buildings including a workshop, refuelling area and transportable buildings for administration offices, crib room and bathroom facilities; and
- Progressive shaping and rehabilitation of the mine area and other areas of disturbance.

It is recognised that the operation of the mine has the potential to impact on the air quality within and beyond the boundaries of the mine site. This Air Quality Monitoring Program (AQMP) was initially prepared to ensure compliance with *Condition 4(5)* of the Consent, and has subsequently undergone review.

The AQMP presents the relevant conditions of the Consent and includes an Air Monitoring Protocol (AMP) to evaluate compliance with the air quality criteria identified by the Consent. Section 5 presents the specific features of the AQMP including monitoring locations, parameters measured and frequency of monitoring.

The AQMP 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 Impact Statement – specifically Section 4.10; and
- Air Quality Assessment – included as Volume 2 (Part 8) of the Specialist Consultant Studies Compendium.

This AQMP applies to all operational activities at the mine.

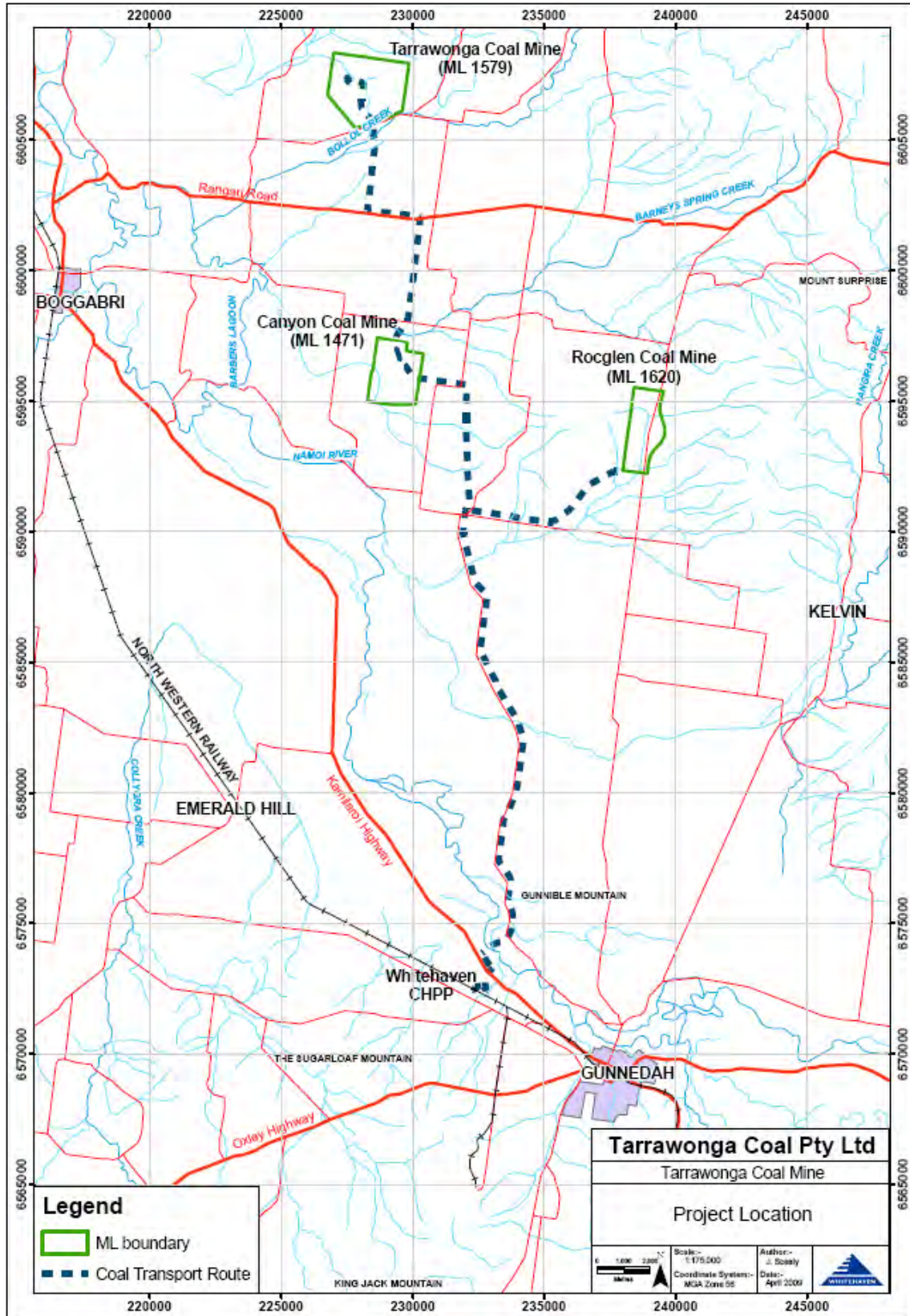


Figure 1 - Project Location

2 CONSENT REQUIREMENTS

The Consent incorporates five conditions relating to air quality, air quality management and air quality monitoring. These conditions are presented in full in Box 1.

The current Department of Environment and Climate Change (DECC) existed as the Department of Environment and Conservation (DEC) at the time of development consent. References to both the DECC and DEC are interchangeable throughout this document. The Environmental Protection Licence (EPL) for the mine, issued by the DEC, contains criteria consistent with the Consent.

SCHEDULE 4

Impact Assessment Criteria

1. The Applicant shall ensure that dust emissions generated by the development do not cause exceedences of the air quality criteria listed in Tables 1, 2 and 3 at any residence on, or on more than 25 percent of, any privately-owned land.

Pollutant	Averaging period	Criterion
Total suspended particulate (TSP) matter	Annual	90 µg/m ³
Particulate matter < 10 µm (PM10)	Annual	30 µg/m ³

Table 1: Long-term Impact Assessment Criteria for Particulate Matter

Pollutant	Averaging period	Criterion
Particulate matter < 10 µm (PM10)	24 hour	50 µg/m ³

Table 2: Short-term Impact Assessment Criteria for Particulate Matter

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month

Table 3: Long-term Impact Assessment Criteria for Deposited Dust

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 2003, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

Land Acquisition Criteria

2. If the dust emissions generated by the development exceed the criteria in Tables 4, 5 and 6 at any residence on, or on more than 25 percent of, any privately-owned land, the Applicant shall, upon receiving a written request for acquisition from the landowner to acquire the land in accordance with the procedures in conditions 10-12 of schedule 5.

Pollutant	Averaging period	Criterion
Total suspended particulate (TSP) matter	Annual	90 µg/m ³
Particulate matter < 10 µm (PM10)	Annual	30 µg/m ³

Table 4: Long-term Land Acquisition Criteria for Particulate Matter

**Box 1 - Air Quality
- Related Consent Conditions**

Pollutant	Averaging period	Criterion	Percentile ¹	Basis
Particulate matter < 10 µm (PM10)	24 hour	150 µg/m ³	992	Total ³
Particulate matter < 10 µm (PM10)	24 hour	50 µg/m ³	98.6	Increment ⁴

Table 5: Short-term Land Acquisition Criteria for Particulate Matter

¹Based on the number of block 24 hour averages in an annual period.

²Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with the DEC.

³Background PM₁₀ concentrations due to all other sources plus the incremental increase in PM10 concentrations due to the mine alone.

⁴Incremental increase in PM₁₀ concentrations due to the mine alone.

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month

Table 6: Long-term Land Acquisition Criteria for Deposited Dust

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 2003, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

^aOperating Conditions

3. The applicant shall carry out the development in a way that prevents and/or minimises the air pollution generated by the development.
4. The Applicant shall:
 - (a) Ensure that trucks entering and leaving the mine site carrying loads with the potential to generate dust are covered at all times, except during load and unloading; and
 - (b) Implement all practicable measures to minimise the off-site odour and fume emissions generated by any spontaneous combustion or blasting at the mine site, to the satisfaction of the Director-General.

^aMonitoring

5. Prior to carrying out any development on the mine site, the Applicant shall prepare (and following approval implement) an Air Quality Monitoring Program for the development, in consultation with the DEC, and to the satisfaction of the Director-General. This Program must include an air quality monitoring protocol for evaluating compliance with the air quality impact assessment and land acquisition criteria in this consent.

^a Incorporates DEC GTA

**Box 1 (cont') –
Air Quality - Related Consent Conditions**

3 AIR MONITORING PROTOCOL

The AMP has been prepared with reference to relevant legislation and guidelines to address the following matters relevant to the management of air pollutants produced by activities on the mine site:

- Air quality compliance criteria (see Section 3.1);
- Air quality controls and management measures (see Section 3.2);
- Community consultation (see Section 3.3);
- Management of complaints (see Section 3.4);
- Monitoring methods and programs (see Section 3.5); and
- Response to air quality compliance criteria exceedance (see Section 3.6).

3.1 Air Quality Compliance Criteria

Air quality compliance criteria for the operation of the mine, as incorporated in *Condition 4(1)*, have been established using relevant DECC guidelines with reference to the GTA provided by the then DEC to DoP prior to the granting of development consent. TCPL will ensure that dust and other particulate matter generated on the mine site does not result in exceedances of the criteria listed in Table 1 at any residence on, or on more than 25 percent of, any privately-owned land.

Table 1 - Air Quality Impact Assessment Criteria

Pollutant	Criterion		Averaging Period
Total suspended particulate matter (TSP)	90µg/m ³		Annual mean
Particulate matter <10µm (PM ₁₀)	50µg/m ³		24-hour maximum
	30µg/m ³		Annual mean
Deposited dust	Maximum increase in deposited dust level	Maximum total deposited dust level	
	2.0g/m ² /month	4.0g/m ² /month	Annual mean
Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 2003, AS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.			
Source: Modified after DA 88-4-2005 – Tables 1 to 3.			

3.2 Air Quality Controls and Management Procedures

TCPL adopts a range of design and operational safeguards and operational procedures for the mine to ensure that the effectiveness of the air quality controls are optimised throughout all stages of the mine’s development and operation.

The controls have been selected largely based on their proven effectiveness at both Tarrawonga and other similar mines.

Vegetation Clearing and Soil Stripping

- Cleared trees and branches are retained for the use in stabilising slopes identified for rehabilitation with native woodland communities.
- Where practicable, soil stripping is undertaken at a time when there is sufficient soil moisture to prevent significant dust lift-off.
- Stripping soil is avoided in periods of high winds.
- Dust suppression by water application is used to increase soil moisture if stripping occurs during periods of high wind or low soil moisture.

Drilling and Blasting Activities

- The drill rig utilises water injection or alternatively, is fitted with dust collectors.
- Blast hole stemming is used to prevent venting of explosion gases.
- Blasting is conducted both before the establishment, and after the break-up of low-level atmospheric temperature inversions.

Overburden Ripping and Placement

- Ripping of softer overburden material is avoided during periods of high wind.

Coal Mining

- Low moisture coal is sprayed with water prior to excavation to raise moisture content to > 5.5%.

Internal Road and Hardstand Area Construction

- Clearing ahead of construction activities is minimised.
- Cleared areas are watered regularly during any construction activities, where appropriate.

Coal Processing Area

- Water is applied to the coal at the feed hopper, crusher and at all conveyor transfer and discharge points.
- All conveyors are fitted with appropriate cleaning and collection devices to minimise the amount of material falling from the return of conveyor belts.
- Some flexibility exists to temporarily cease operation in the event of protracted dry periods, high winds, or significant dust generation and dispersal towards the surrounding residences.

Wind Erosion Management

- The extent of clearing/site preparation in advance of mining is minimised.
- Progressive rehabilitation of areas of disturbance, including topsoil and subsoil stockpiles is undertaken.
- Bund walls and windbreaks are constructed as required.

Internal Transport

- The road for the transportation of coal product between the mine facilities area and mine entrance is sealed.
- Internal roads are regularly watered.
- Earthmoving equipment and on-site vehicles:
 - are fitted with exhaust controls which satisfy NSW DECC emission requirements;
 - are properly maintained and any mobile equipment which does not comply with NSW DECC guidelines is removed; and
 - have the exhausts directed upwards or to the side (where applicable) so as not to cause dust lift-off.

Blasting

- The following factors contributing to non-ideal detonation behaviour and higher emission (principally NO₂) concentrations are avoided whenever possible.
 - Weak overburden which reduces the necessary explosive confinement is ripped in preference to blasting.
 - Water infiltration.
 - Long explosive columns.
 - Explosive pre-compression, caused by hole-to-hole shock propagation due to wet overburden and clay veins.

The controls and management procedures will be reviewed in response to the results of air quality monitoring, complaints or comments identified through TCPL's consultation effort. Any changes made will be noted as part of annual environmental reporting (in the Annual Environmental Management Report (AEMR)).

3.3 Community Consultation

TCPL is committed to maintaining a positive dialogue with all members of the local community to avoid any adverse impacts and/or misunderstandings arising from its activities. Consultation is undertaken in several ways:

1. Formal and informal meetings with landowners/residents of land surrounding the site and other members of the local community with the greatest potential to be impacted by mine operations.
2. The establishment of, and involvement in, a Community Consultative Committee (CCC) as required by *Condition 4(5)* of DA 88-4-2005. The CCC is comprised of:
 - two TCPL (formerly East Boggabri Coal (EBC)) representatives, including the person responsible for environmental management of the mine;
 - one representative from each of Narrabri Shire Council and Gunnedah Shire Council; and
 - at least four representatives from the local community.

The appointment of the nominated representatives must be approved by the Director-General.

The CCC is chaired by an independent chairperson, whose appointment has also been endorsed by the Director-General, meets at least four times per year, and reviews the environmental performance of the development.

TCPL provides the CCC with the most up-to-date information on the environmental performance of the mine and responds to any comments made by representatives of the CCC.

3. Inviting representatives of the local Aboriginal community to monitor surface disturbing activities and potential sites of significance (as and if identified).

3.4 Management of Complaints (Complaints Management Protocol)

Whilst all endeavours are made by TCPL to avoid adverse air quality impacts on local landowners / residents, it is acknowledged that from time to time such impacts may occur. To ensure an appropriate and consistent level of reporting, response and follow-up to any complaints, the following complaints management protocol is adopted and followed.

- A publicly advertised telephone complaints line is in place to receive complaints during operating hours and record complaints at other times.
- Each complaint received is recorded on a Complaints Register which includes the following details for air quality complaints:
 - The date and time of complaint.
 - Any personal details the complainant wishes to provide or if no such details are provided a note to that effect.
 - The nature of the incident that led to the complaint, including the time of the dispersal and its duration.
 - The action taken by TCPL in relation to the complaint, including any follow-up contact with the complainant.
 - If no action was taken by TCPL, the reason why no action was taken.

- The Mine Manager is responsible for ensuring that an initial response is provided within 24 hours of receipt of a complaint (except in the event of complaints recorded when the mine is not operational).
- Data from the site weather station is obtained for the time applicable to the complaint for use in determination of cause and identification of future remedial actions.
- Additional measures are undertaken as required to address the complaint. This may include visiting the complainant, or inviting the complainant to the mine site.
- Once the identified measures are undertaken, the Mine Manager will sign off on the relevant complaint within the Complaints Register.
- If necessary, follow-up monitoring will take place to confirm the source of the complaint is adequately mitigated.
- A copy of the Complaints Register is kept by TCPL and made available to the CCC and the complainant (on request). A summary of complaints received every 12 months (if any) is provided to DoP, NSC, GSC, DECC, DPI (MR) and the CCC through the AEMR.

Based on the nature of individual complaints, specific contingency measures may be implemented to the (reasonable) satisfaction of the complainant. The Mine Manager retains ultimate responsibility to ensure that complaints received are properly recorded and addressed appropriately.

If any complainant does not consider the response from TCPL to adequately address their concerns, the Independent Review procedure detailed in the Consent *Conditions 5(4) to 5(9)* will be adopted.

3.5 Monitoring Methods and Programs

Section 5 presents the air quality monitoring methods and procedures including details on monitoring locations, methods, frequency, parameters and reporting.

3.6 Response to Air Quality Compliance Criteria Exceedance

On identification of an exceedance of the air quality compliance criteria presented in Section 3.1, the following response protocol is to be followed. It is noted that the response to an exceedance will vary depending on whether it is an exceedance of dust deposition or PM₁₀ criteria.

1. Confirmation of Exceedance

The analysing laboratory will be contacted to ensure no error has been made in storing, analysing or recording the sample or result. Should this investigation conclude the treatment, analysis and result recording for the sample are satisfactory, TCPL will proceed to response point 2.

2. Notification (of exceedance)

Monthly dust deposition exceedance (4.0g/m²/month): The Mine Manager and Area Manager will be notified.

It should be noted that the criteria for dust deposition is an annual average value and therefore a dust deposition value of >4.0g/m² for any given month is not strictly an exceedance, rather an indication that should there be no change to dust generating or suppression activities the probability of an exceedance once the annual average is calculated is high.

Exceedance of 24 Hour PM₁₀ criteria (50µg/m³): In the event that the PM₁₀ level recorded for a single 24 hour period exceeds 50µg/m³, the Mine Manager will notify the DECC and DoP as to the nature of the exceedance(s). A single exceedance may be considered anomalous, however, repeated exceedances will require the preparation of a corrective action plan.

Annual Average exceedance of dust deposition (4.0g/m²/month) or PM₁₀ (30µg/m³) or TSP (90µg/m³): In the event that the annual average dust deposition recorded at any off-site monitoring location exceeds 4.0g/m²/month, or PM₁₀ exceeds 30µg/m³, the Mine Manager will notify the DoP and DECC as to the nature of the exceedance(s). Exceedance of the annual average levels will require the preparation of a corrective action plan.

3. Corrective Action Plan

TCPL will prepare a corrective action plan to reduce dust generation and thereby reduce dust deposition and/or PM₁₀ concentrations around the mine site and return the operation to compliance. Preparation of the plan may require the assistance of a specialist air quality consultant and/or the involvement of environmental personnel from the Boggabri Coal Project. Details on the preparation of the corrective action plan will be included in the relevant AEMR and Environment Protection Licence Annual Return and to the DECC prior to implementation.

4. Re-assessment

Dust Deposition: In the event the annual average dust deposition level is exceeded in any calendar year, particular attention will be paid during the following 12 months to achieve compliance. The corrective action plan discussed above will be main control designed to lower the annual average dust deposition level.

In the event that the annual average does not comply in a second year, a revised corrective action plan (of Step 3) will be required, this time requiring the input of a specialist air quality consultant.

PM₁₀: Compliance with PM₁₀ concentration compliance criteria will be reassessed following the completion of the corrective action plan. In the event that a repeated non-

compliant result is recorded, a revised corrective action plan (Step 3) will be implemented, this time requiring the input of a specialist air quality consultant.

5. Notification (of compliance)

TCPL will notify the DoP and DECC and other relevant government agency(ies) and local stakeholder(s) of the return to compliance following the successful completion of Step 4.

6. Independent Review and Land Acquisition

If TCPL fails to establish compliance with the air quality criteria at surrounding residences, or on 25% of privately-owned land, or following a legitimate complaint from a resident / land owner of criteria exceedance, TCPL will, following instruction from the Director-General, commission a suitably qualified person to conduct an independent review as specified in *Conditions 5(4 to 9)*. If the independent review does not lead to resolution between the complainant and TCPL, land acquisition procedures will follow as specified in *Conditions 5(10 to 12)*.

7. Reporting

The recorded exceedance, corrective actions and reassessment will be reported to the CCC and included in each relevant AEMR.

4 ROLES AND RESPONSIBILITIES

Throughout the mine's operational life, the Mine Manager has overall responsibility for ensuring contractors, employees and service providers comply with all laws, regulations, licences, and approvals.

All persons undertaking any form of work on the site are required to attend a site-specific induction at which they are instructed in the environmental rules, procedures and processes applicable to their activities whilst they are on the site.

5 MONITORING AND REPORTING

5.1 Introduction

TCPL undertakes monitoring to establish that air pollutants generated by its activities are not of concern to the surrounding landowners and that the measured air quality pollutant levels are compliant with the air quality compliance criteria established and provided in Section 3.1.

Table 2 includes all relevant information for the Air Quality Monitoring Program.

Table 2 - Air Quality Monitoring Program and Criteria

Purpose	Location*	Parameter to be Analysed	Criteria (Annual Average)	Frequency / Timing of Monitoring
Air Quality Compliance Monitoring	EBA-1 (D7) [#] , EBA-2 (D2) [#] , EBA-4, EBA-5, D3 [#] , D4 [#] , EB-10 and EB-11	Dust Deposition (g/m ² /month)	4.0g/m ² /month	Monthly
	EBA-1 (D7) [#]	Particulate Matter <10µg/m ³	Annual Average – 30µg/m ³ 24 hour Maximum – 50µg/m ³	Once every 6 days (DECC Schedule)

* See Figure 2 for air quality monitoring locations.
[#] Refers to an air quality monitoring location to be used by IBC to be included in TCPL's air quality monitoring
EBA – East Boggabri Air
EB – East Boggabri
D – IBC Air Quality Monitoring Location

5.2 Parameters Measured

Various activities on the mine site emit dust in various forms, namely total suspended particulate matter (TSP), particulate matter with aerodynamic diameters less than 10µm (PM₁₀) and deposited dust, which is assessed as insoluble solids as defined by Standards Australia, 2003, AS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

Table 2 presented the limits to the concentrations or deposition rates (in the case of deposited dust) that must not be exceeded at any residence on, or on more than 25 percent of, any privately-owned land. Monitoring implemented to ensure compliance with these criteria, presented in Table 2, includes monitoring of dust deposition rates and PM₁₀ concentrations at residences surrounding the mine site.

A record of site activities undertaken and meteorological records during the period of recording are also be retained.

No monitoring of TSP is undertaken due to the relationship between TSP and PM₁₀ and DECC's preference to record PM₁₀ concentrations given its synergies with health-related issues.

5.3 Monitoring Locations

Figure 2 presents the locations of the eight dust deposition gauges and two high volume air samplers (HVAS) for measuring PM₁₀ concentrations. The locations have been selected taking into account local meteorological conditions, the proximity of surrounding residences and the locations of likely dust emission sources from the mine site. Four of these deposited dust monitoring locations (EBA-1 (D7), EBA-2 (D2), D3 and D4) are shared between the mine and the Boggabri Coal Project. D7 represents a shared PM₁₀ monitor.

Table 3 presents a summary of the air quality monitoring sites included in the TCPL monitoring program. The prefix *EBA* refers to 'East Boggabri Air' whereas the prefix *D* is a pre-existing prefix for 'Dust' by IBC to identify its air quality monitoring locations. *EB* stands for 'East Boggabri'.

Table 3 - Air Quality Monitoring Locations

Reference*	EPL ID #	Location			Parameters	
		Easting (MGA 56)	Northing (MGA 56)	Residence / Property	Deposited Dust	PM ₁₀
EBA-1 (D7)	15	224440	6607790	"Merriown"	✓	✓
EBA-2 (D2)	16	226050	6607860	"Nagero"	✓	
EB-10	17	226393	6605459	"Tarrawonga Mine"	✓	
EBA-4	18	230920	6605850	"Templemore"		✓
EBA-5	19	221150	6606220	"Bollol Creek Station"	✓	
D3	20	230920	6606990	"Forest View"	✓	
D4	21	232610	6609110	"Greenhills"	✓	
EBA-6	22	Not checked	Not checked	"Ambardo"	✓	
EB-11	23	227082	6606400	SW of boundary of ML 1579	✓	

5.4 Monitoring Frequency

Monitoring of deposited dust is undertaken monthly.

Monitoring of PM₁₀ is undertaken once every 6 days in accordance with the DECC State schedule for PM₁₀ monitoring.

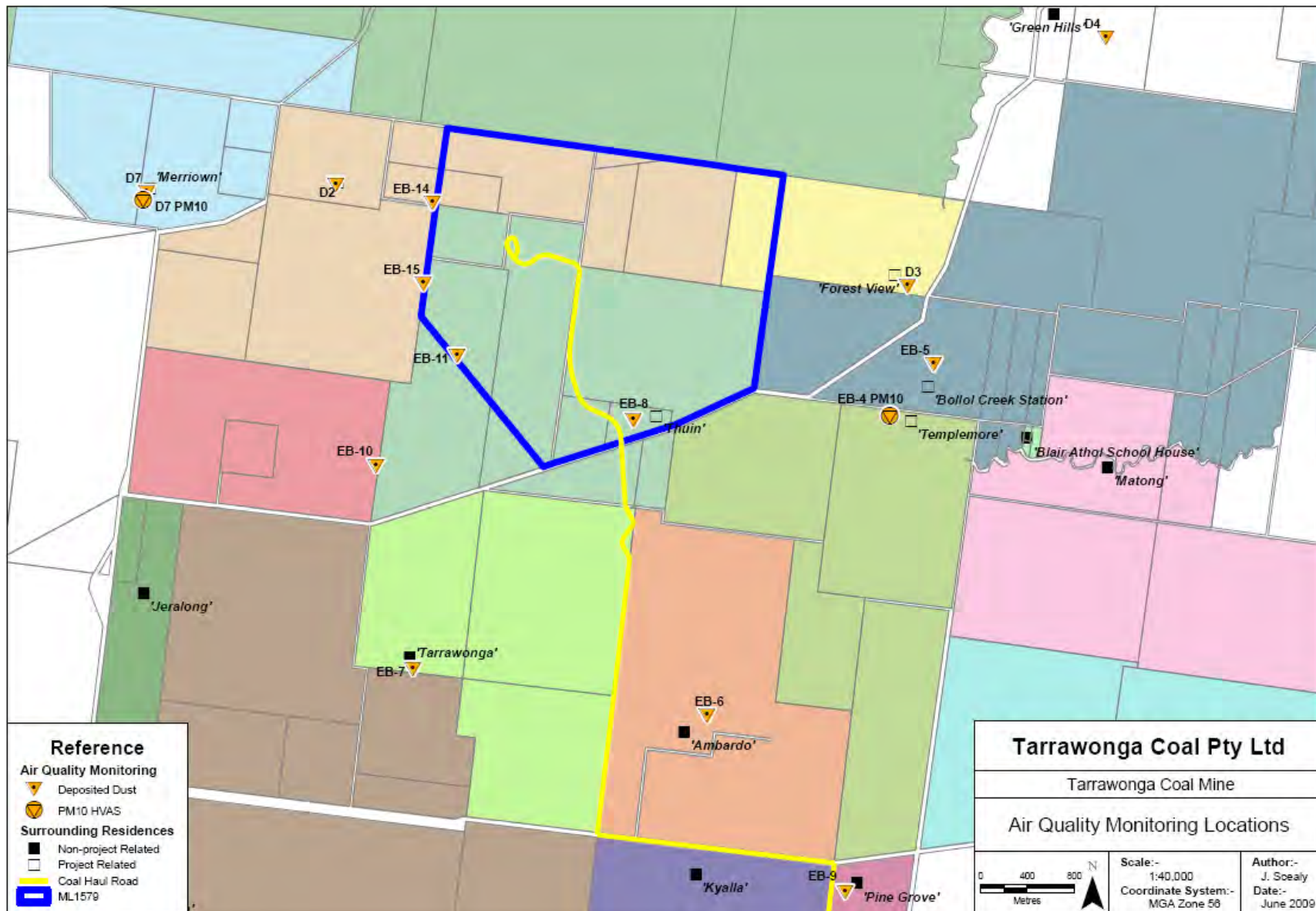


Figure 2 - Air Quality Monitoring Locations

6 DATA RECORDING AND REPORTING

6.1 Data Recording

For each deposited dust monitoring location, once each month the glass container used to capture the deposited dust is removed, replaced and sent to a NATA accredited laboratory for analysis. For each PM₁₀ HVAS, the pre-weighed filter is removed, replaced and sent to a NATA accredited laboratory for analysis generally in monthly batches to coincide with the despatch of the deposited dust samples.

The following information is recorded at each deposited dust monitoring location:

- Date and time of removal and replacement.
- Condition of the dust gauge.
- Notable ground disturbances or activities ongoing in the general activity (not associated with the activities on the mine site).
- Any other notable activities or conditions at or around the monitoring location.

The following information is recorded at each PM₁₀ HVAS monitoring location:

- Date of operation
- PM₁₀ HVAS location and ID
- Filter paper number
- The flow (m³/hr) and run-time reading for the start and end of a monitoring event, along with total run time.
- Any notable activities or conditions at or around the monitoring location.

6.2 Data Reporting

The results of all air quality monitoring is made publicly available at the offices of GSC and NSC and at the Whitehaven CHPP near Gunnedah. These results are updated at least every three months. Each year, the results of the air quality monitoring program are summarised and presented in the AEMR. This includes an analysis of monitoring results against the criteria listed in Table 2, previous monitoring results and predictions made in the EIS. Based on these results, trends in the air quality levels are identified and any non-compliances noted.

The recording of an exceedance of air quality criteria identified in Table 2 will trigger the implementation of contingency measures described in Section 3.6.

7 RELATED DOCUMENTS

Monitoring of dust deposition and data recording will be undertaken in accordance with:

- AS 3580.1.1:2007 “Ambient Air - Guide for the Siting of Sampling Units” (NSW DEC Method AM-1); and
- AS 3580.10.1-2003 “Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method” (NSW DEC Method AM-19).

Monitoring of PM₁₀ and data recording will be undertaken in accordance with:

- “Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales”, DEC 2005;
- AS 3580.1.1:2007 “Methods for sampling and analysis of ambient air – Guide to siting air monitoring equipment” (NSW DEC Method AM-1);
- AS/NZS 3580.9.6 - 2003 “Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM₁₀ high volume sampler with size-selective inlet – Gravimetric Method” (NSW DEC Method AM-18); and
- AS/NZS 3580.9.3 – 2003 “Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – Total Suspended Particulate Matter (TSP) – High volume sampler gravimetric method”.