



CSR Building Products Limited

Annual Environmental Management Report

Housing Commission Clay Mine

Reporting Period: 1 October 2012 to 30 September 2013



Prepared by:

VGT Pty Ltd

in Conjunction with:

CSR Building Products Limited

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Name of mine	Housing Commission Clay Mine
Titles/Mining Leases	ML925 (1973), PMA 2
MOP Commencement Date: Dec 2010	Completion Date: Dec 2015
AEMR Commencement Date: 1/10/2012	Completion Date: 30/09/2013
Name of leaseholder	CSR Building Products Limited
Name of mine operator (if different)	CSR Bricks and Roofing
Reporting Officer	Tara O'Brien
Title	Project Manager
Signature	
.....	
Date	

1. Executive Summary

This Annual Environmental Management Report for the Housing Commission Clay Mine has been prepared to assess CSR Building Products Limited performance against specific environmental objectives set down in the Mine Lease ML925, the Mine Operation Plan (MOP) and Council Conditions of Consent for the period 1st of October 2012 to the 30th of September 2013.

These objectives include issues such as Occupational Health and Safety criteria, Operational Management, Community Consultation and Complaints, Site Security and Access, Flora and Fauna Management, Noise, Air Pollution, Soil and Water Management and Rehabilitation.

Initiatives undertaken by CSR during the reporting period to improve their environmental performance are also discussed as well as any variation to the objectives in the original MOP or consent modifications.

During the reporting period some new rehabilitation activities and maintenance works were undertaken. No Land clearing activities were undertaken. Water management has been also been a significant undertaking during this period.

Further works for the next reporting period include a review of areas that may require the planting of tube stock to establish further vegetation.

2. Introduction

2.1. Scope

This report was prepared by VGT Pty Limited for CSR Bricks and Roofing Pty Ltd (CSR) in accordance with:

- Conditions of authority 3 of ML 925;
- Mine Operations Plan 2010;
- Maitland City Council conditions of consent;
- The Guidelines to the Mining, Rehabilitation and Environmental Management Process, issued by the Department of Primary Industries - Mineral Resources in January 2006.

This document will describe activities undertaken in the reporting period (1/10/2012 to 30/9/13) towards attaining the landform outlined in the Mining Operations Plan, and the proposed activities to be carried in the next 12 months.

2.2. Project Site

This mine is located about 9 km ESE of Maitland in the County of Northumberland, Parish of Alnwick, within the Maitland City Council area (see *Figure One*). The entrance to the mine is off Haussman Drive at Thornton.

2.3. Mine Contacts

	Quarries Site Manager:	Environmental Officer
	Dominic Carnovale	Greg Thomson
	CSR Building Products	VGT Pty Ltd
Address	PO Box 5119	PO Box 2335
	Brendale QLD 4500	East Maitland NSW 2323
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Fax	(07) 3889 9937	(02) 4028 6413
Email	dcarnovale@csr.com.au	greg@vgt.com.au

2.4. Actions Required at Previous AEMR Review

No specific actions were required from the previous AEMR.

3. Consents, Leases and Licences

3.1. Local Council

Development consent was granted by Maitland City Council (MCC) for DA 94067 on the 10th of June 1998, with no expiry date designated.

This document will serve to comply with condition 2 of Maitland City Council Development Application Number 94067, which requires an Environmental Management Plan to be updated annually.

The conditions of consent are reproduced in *Appendix A*. Some pertinent conditions are summarised below:

- Discharged water is to meet the limits of pH 6.5 to 8.5 and less than 50 mg/L total suspended solids.
- Construction and operational noise limits apply.
- Clearing operations are to be staged during the months of April to May and September to October to protect native bat fauna.
- Hours of operation are to be confined to 7:00am to 5:00pm weekdays.
- An Environmental Management Plan is to be submitted to the Department of Land and Water Conservation, NSW EPA and Maitland City Council annually.

3.2. Department of Trade and Investment Resources and Energy Division (DRE)

The NSW Department of Trade and Investment Resources and Energy Division (DRE) holds Mining Lease 925 (ML925) with the conditions detailed in *Appendix C* and a private Mining Agreement Number 2 between CSR and itself as the operator and mineral owner. The boundaries of these titles are shown on *Figure One*.

Although this document is required by the DRE only to report activities undertaken on ML925, due to the complexity of dividing the site into two overlapping areas, the site will be treated as one.

Table 1. Mining Titles/Leases:

No.	Act	Expires	Area (Ha)	Minerals	Notes
ML 925	1973	31/3/2002	10.24	Brick Clay, Bloating Clay, Kaolin, Fire Clay, Pottery Clay, Clay Shale, Pipe Clay	Renewal pending, name change pending.

DRE is phasing out Private Mining Agreements to allow all mining operations to be administered under the Mining Act. Consequently CSR is proceeding with a Mine Lease application over the site M(MO)LA 5.

3.3. Office of Environment and Heritage (OEH)

The development consent allows for exemption under the Native Vegetation Act. The rainfall collected in the excavation is required to be stored for sediment control purposes. The catchment on the property not directly over the pit is diverted around the extraction into the natural drainage line. For these reasons the excavation is exempt from licensing under the Water Management Act.

3.4. Other Government Agencies

There is currently no licence agreement with the NSW EPA and the mine operates in accordance with the Protection of the Environmental Operations Act (POEOA).

Old workings from the Glenvale Colliery were uncovered a number of years ago, but proclaimed by the Mine Subsidence Board as not within a Mine Subsidence District. No other agencies have expressed an interest in the mine.

4. Operations during the Report Period

The existing landform and all operations during the current reporting period 1st October 2012 to 30th September 2013 are illustrated on *Figure Two*.

4.1. Exploration

An exploration drilling program was undertaken in an attempt to identify the underground coal workings and reported in the previous AEMR. The purpose of the assessment was to determine the depth and extent of the coal workings so that the final land use for the can be appropriately determined.

Six holes were sunk to various depths as presented in *Table 2*.

Table 2 – Drill Hole Data

Hole Number	Hole Depth (metres)	Comments
U1	8	Coal intersected at 7.4 metres, hole stopped due to collapse
U2	11	No Coal, no void, hole stopped due to rig breakdown
U3	20	No Coal, no void,
U4	18	No Coal, no void, stopped due blade refusal
U5	20	Void at 17 metres, 2.4 metre cavity
U6	14.25	Coal seam 10.25 to 12.4 metres
Total	91.25	

The full report is available on request.

All holes were capped with cement and pegged.

4.2. Land Preparation and Rehabilitation Works

Land clearing activities were undertaken during October 2011 for the purpose of undertaking extraction of clay materials. The area identified in *Figure Two* has been cleared of vegetation which has been mulched and spread over the cleared areas. Topsoil remains in situ. This will prevent erosion and provide organic material to the topsoil thereby enhancing its fertility and microbial activity. As topsoil is scarce on the site, it is hoped that the volumes of soil suitable for use in future rehabilitation activities will be increased through natural composting processes and weed populations in the topsoil will be reduced.

Ecobiological Pty Ltd attended the site during tree felling activities to ensure arboreal fauna was captured if displaced. Some fauna was relocated as discussed in the Ecobiological Pty Ltd report which has been reproduced in previous reports.

The southern highwall was reduced in height and re-shaped. In addition the main pit floor was also re-countoured to allow free drainage of the area. The main drainage canal that was dammed to separate the main sediment pond and the main pit sump in order to improve water management was removed. A clean water tap was installed for the North Catchment.

Old mine workings were uncovered during the land clearing activities. Work ceased and the area was fenced to prevent access. DRE was consulted and works were undertaken to repair the workings to the satisfaction of DRE.

Overall temporary vegetation over areas where topsoil has been placed is progressing reasonably well. The placement of logs over sloped areas, in recent years, to assist revegetation to establish has been particularly successful and has resulted in an increase in plant diversity compared with other previously used techniques. This is primarily due to the ability of the logs to trap topsoil, seeds and moisture.

Areas on the pit floor where revegetation has been poor are now progressing moderately well due to the higher than expected rainfall in the last twelve months. Rill erosion is occurring on the Southern Bund Wall and the application of mulch and new larger logs may assist in controlling this.

Further planting of tube stock will be investigated to improve plant diversity and coverage.

4.3. Construction

There are no buildings or facilities on the Housing Commission site, and none are proposed. Energy Australia has constructed an electrical substation on their land adjacent to the mine and access to this facility is gained via the Housing Commission Mine entrance. A Licence Agreement exists between CSR and Energy Australia to allow access across Energy Australia's land to the mine.

4.4. Mining and Mineral Processing

No mining activities were undertaken during this period. No on-site processing is undertaken and no product was hauled to the brick plant during this period.

4.5. Ore, Product and Waste Management

No resources have been removed from the site and no waste has been generated.

Table 2. Production and Waste Summary –no updates?

	Cumulative Production (cubic metres)		
	Start of Reporting Period	At end of Reporting Period	End of next reporting (estimated)
Topsoil stripped	822	822	822
Topsoil used/spread	3,868	3,868	3,868
Waste Rock	7,500	7,500	7,500
Ore	56,813	56,813	56,813

5. Environmental Management and Performance

A risk matrix was prepared in the Care and Maintenance MOP, identifying the following as requiring management.

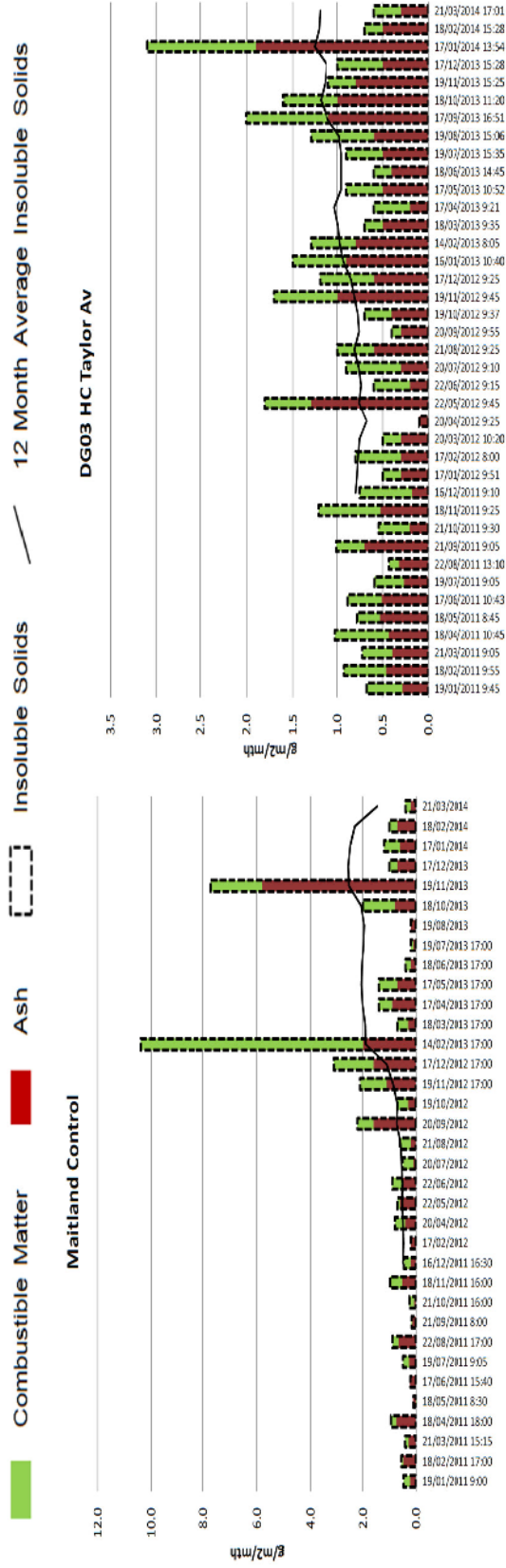
5.1. Air Pollution

There were no activities on the site, such as earthmoving, during the reporting period that has contributed to dust generation except for land clearing.

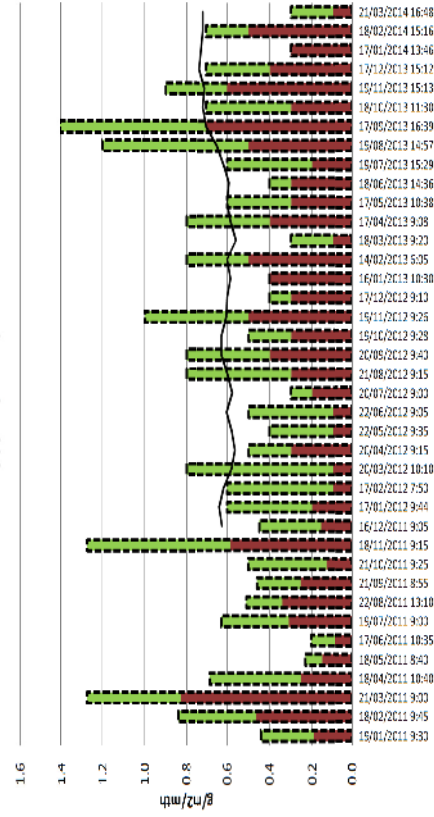
Maitland City Council has imposed no limits on the level of dust emissions, however the NSW EPA recommends a limit of 4 grams per metres squared for the annual average for Insoluble Solid deposition. Static dust gauges set up around the mine (see *Figure Two* for locations) are analysed each month and CSR investigates Insoluble Solids results over 4 g/m².month.

As can be seen from the monthly results presented below, the annual average for each site is within the recommended limits. The Maitland Control sample for February 2013 is high but this site is located more than 10km from the Housing Commission site and is not related to site activities.

Insoluble Solids (NSW EPA Recommends Annual Average <4g/m2.month)



DG09 HC RT Rd



5.2. Erosion and Sediment

Erosion over the disturbed area is mitigated as much as possible through the establishment of vegetation, which binds the soil and traps silt. The majority of the pit floor is adequately vegetated and does not contribute to soil erosion. Windrowed trees have been effectively used to minimise erosion on batters and on the mine floor. Some steep batters that had previously eroded have not degraded further and have revegetated successfully.

As mentioned previously, the land cleared areas have been mulched to prevent erosion and sediment entrainment.

5.3. Surface Water Pollution

All surface water discharges at the site are monitored for Total Suspended Solids (TSS), pH, and Conductivity to ensure discharged water meets conditions set by POEOA and Council. Conditions set by MCC on discharged water are such that:

The pH is between 6.5 and 8.5.

Total Suspended Solids shall not exceed 50 mg/L.

Table 3. Water Results

Sample ID	Date Sampled	Temp (°C)	pH	Total Suspended Solids (mg/L)	Comments
Discharge Pond	4/10/2012	24.1	7.1	20	Not Discharging
Main Pond	4/10/2012	24.4	7	24	
Main Dam	5/11/2012	30.8	7.6	13	
Discharge Pond	5/11/2012	29.8	7.3	3	
Main Dam	11/11/2012	21.6	6.7	46	Syphoning discharge
Main Dam	12/11/2012	19.7	7.2	18	Syphoning discharge
Discharge	13/11/2012	23.1	7.1	43	Discharging
Discharge Pond	14/11/2012	22.5	7	57	Not Discharging
Main Dam	14/11/2012	23.2	7	21	Syphoning to Discharge Pond
Discharge Pond	16/11/2012	23.9	7.2	29	Not Discharging
Main Dam	16/11/2012	24.3	7.2	30	Syphoning to Discharge Pond
Discharge Pond	16/11/2012			49	Not Discharging
Discharge Pond	28/11/2012			36	Discharging
Discharge Pond	3/12/2012	25.4	7	26	Not Discharging
Discharge Pond	6/12/2012			30	Not Discharging
HC Discharge	12/12/2012	26.1	7.4	39	Discharging
Discharge Pond	17/12/2012			38	Discharging
Main Dam	23/01/2013	23.5	8.1	89	Not discharging
Discharge Pond	23/01/2013	24.3	7.7	48	Not discharging
Discharge Pond	5/02/2013	21.3	5.9	99	Not Discharging
Main Dam	6/02/2013	23.3	6.9	48	
Discharge	8/02/2013	24	6.8	47	Discharging
Discharge	10/02/2013	23.9	7	45	Discharging
Discharge	13/02/2013	24.3	7.2	49	Discharging
Main Dam	25/02/2013	26.4	5.5	357	
Discharge Pond	25/02/2013	26.9	5.6	311	Not Discharging
Discharge Dam	1/03/2013	21.5	5.5	430	Discharging, heavy rainfall
Discharge Pond	6/03/2013	22.4	6	93	
Discharge Pond	8/03/2013	25	6.3	270	Not discharging

Sample ID	Date Sampled	Temp (°C)	pH	Total Suspended Solids (mg/L)	Comments
Discharge Pond	9/03/2013	18.1	6.8	196	Not discharging
Discharge Pond	11/03/2013	22.3	7.3	49	Pre-discharge, 2 more bags lime added 9/3/13
Discharge	12/03/2013	22.4	7.3	42	Discharging
Sediment Basin	24/04/2013	20.7	6.1	167	Not Discharging
Sediment Basin	26/04/2013	20.8	7.1	121	Not Discharging
Sediment Basin	29/04/2013	20.1	6.6	105	Not Discharging
Sediment Basin	30/04/2013	26.6	6.7	97	Not Discharging
Sediment Basin	5/06/2013	17.4	4.9		Not Discharging
Sediment Basin	12/06/2013	14.1	7.5	275	Not Discharging
Channel	12/06/2013	14.2	5.3	392	
Sediment Pond	17/06/2013	15.3	5.7	283	Not discharging
Sediment Basin	21/06/2013	17.3	6.4	240	Not Discharging
Main Pit	2/07/2013	18.4	5.1	2010	Not Discharging
North Pit	2/07/2013	21.1	5.3	62	Not Discharging

Discharge from the site only occurred when the water met the discharge criteria.

5.4. Operational Noise

No noise monitoring was undertaken during the reporting period due to the absence of mining activities.

5.5. Threatened Flora and Fauna

Land clearing has been undertaken during the reporting period and the risk to Threatened Fauna was minimised as works were undertaken during the months of April to May and September to October to protect native bat fauna. An ecologist was present during the land clearing and a number of fauna were relocated. Of approximately 20-30 Gould's Wattled Bat identified and relocated only 3 individuals died due to a tree limb crushing the hollow they were located in (see **Error! Reference source not found.**).

Temporary revegetation and rehabilitation activities are initially aimed at increasing the stability of the landform and minimising erosion. Future works will aim to increase the indigenous plant population and diversity.

5.6. Weed and Bushfire Management

Weeds are controlled using a licensed weed contractor who sprays and treats all weeds regularly at times most effective for control. The southern boundary adjoining the residences has been slashed to ensure a fire break is maintained.

5.7. Hydrocarbon and Hazardous Substances Contamination

There are no hazardous materials on the site.

5.8. Public Safety and Infrastructure Management

The only infrastructure on the site is the fencing which inspected on a regular basis for breaks and damage. Fence breaks are mended as quickly as possible to deter further trespassing and additional signage is placed at these sites.

6. Community Relations

6.1. Environmental Complaints

No complaints were received during the reporting period due to absence of activity on site.

6.2. Community Liaison

During the reporting period no letter drops or other community liaison was undertaken due to the absence of activity on the site.

7. Rehabilitation

7.1. Rehabilitation of Disturbed Land

7.1.1. Agreed Post Mining Land Use, Or Land Use Options

Mine operations may continue beyond this reporting period hence the full post rehabilitation land use has not yet been achieved. The final landform however will be consistent with the current surrounding land use of native forest areas.

The soils of the Housing Commission area are considered by the Department of Natural Resources as being of land capability Class 4- Suitable for Grazing and Occasional Cultivation ^{Ref. 7}. That is;

‘Soil conservation practices such as pasture improvement, stock control, application of fertilizer and minimal cultivation for the establishment or re-establishment of permanent pasture.

Land not suitable for cultivation on regular basis owing to limits of slope gradient, soil erosion, shallowness or rockiness, climate or a combination of these factors. Comprises the better classes of grazing land of the State and can be cultivated for the occasional crop, particularly a fodder crop, or for pasture renewal.’

Rehabilitation of the site is consistent with the current landuse of native forest areas rather than the above rural land capability of grazing and cropping.

7.1.2. Landform

The landscape generally consists of low lying undulating hills and low rises on Permian sediments with slope gradients of between 3% and 15% and elevations ranging from 20 to 40 m AHD. A first order creek drains to the south east and enters Woodberry Swamp approximately 2km from the mine site.

As recommended by the DRE, original slopes (of maximum 3:1 or 18 degrees) will be maintained as far as possible and no open pits will remain.

Topsoil is placed to an approximate depth of 10 to 15cm over a previously ripped surface which provides a key for topsoil retention and to assist in the infiltration of rainfall.

The duplex soils on the site are prone to severe water erosion once disturbed. On removal of the vegetation and shallow loamy topsoil, the clay subsoils will erode rapidly unless runoff is controlled. The clay subsoils on their own are not suitable for rehabilitation purposes due to their high erodibility and low nutrient value. Topsoil has an average depth of 15 to 20cm. Stripping techniques give rise to the possibility of subsoil and clay inclusion in the topsoil fraction and the application of gypsum in this instance is recommended.

The gypsum will break up the heavy subsoil, which will assist in reducing erosion and enhance vegetation growth. Given that past practices were to mix topsoil with waste material and vegetation and bury in-pit, there is a shortfall of topsoil for rehabilitation purposes. Soil may be required to complete final rehabilitation and will be sourced from other CSR quarries in the region, local Council, and other external supplies.

Dirty water captured over the rehabilitated area is directed to the mine sump and released with treatment if required.

7.1.3. Re –vegetation

7.1.3.1. Techniques and Goals

The vast majority of remnant vegetation remaining on the site conforms to either Lower Hunter Spotted Gum-Iron bark Forest or Seaham Spotted Gum- Ironbark Forest which is classified as endangered ecological communities under State and Federal threat status criteria. Rehabilitation will attempt to reproduce these communities with similar vegetation species and percentage cover as discussed in the EIS ^{Ref. 8} and reproduced in the table below.

Table 4. Typical Vegetation Species and Coverage

SPOTTED GUM- IRONBARK OPEN- FOREST COMMUNITY STRUCTURE			
Strata	Height (m)	Cover (%)	Common Species
TREES	15 to 20	50 to 60	Eucalyptus maculate E. crebra E. fibrosa E. punctata E. eugenoides E. umbra
TALL SHRUBS	2 to 4	<10	Juvenile Eucalyptus spp Acacia parvinpinnula
LOW SHRUBS	1 to 2.5	10 to 40	Bursaria spinosa Daviesia ulicifolia Pultenaea cunninghamii Acacia falcate A. elongate var. elongate
GROUND COVER	<0.5	70	Themeda australis Cynodon dactylon Hardenbergia violacea Imperata cylindrica Pratia purpurascens Chrysocephalum apiculatum

Final re-vegetation will commence on selected areas once their final contours have been attained and topsoil is in place.

One of the most important techniques used in the revegetation is the utilisation of the uppermost 10 cm section of topsoil known as the “seed bank store”. Wherever possible this is collected stored and spread over the topsoil; a stockpile of this has been kept and will be used in the near future. Previously felled trees have been relocated onto the topsoiled areas using an excavator and haul trucks. This technique has the following benefits:

- Vegetation will drop seeds and naturally sow original species for that area;
- The trees are generally aligned perpendicular to the slope to minimise erosion;
- The rough felled vegetation areas discourage trespassers from riding motor bikes and cars over the regrowth;
- The rotting vegetation matter provides essential nutrients and mulch for the soil; and
- The decaying trees provide habitat holes for fauna.

7.1.3.2. Re-vegetation Progress

The north western high wall has been battered back and revegetated in previous years (1997). It is dominated by acacia species and very few Eucalypts and other ground covers. Although the acacias are abundant, their benefits include:

- Nitrogen fixation in the soil.
- Provision of leaf mulch to assist in the establishment of improved soil.
- Provision of habitat for native wildlife.

CSR will investigate the planting of more naturally occurring species to encourage plant diversity and assist in the achievement of long term rehabilitation goals. However, it has been noted that plant diversity in this area has naturally increased with the establishment of some eucalypts over the last few years. Re-seeding has been undertaken previously on the western portion of the wall and trees planted along the top of the bund wall are progressing well.

During the reporting period significant rehabilitation works have been undertaken on the site. The southern high wall was re-contoured and reduced in height. Available topsoil and mulch was applied to the former highwall prior to reseeded. Sufficient mulch was not available to completely cover the high wall. The development of mulch berms and gypsum application trials specifically on the Southern Bund Wall was undertaken. The addition of these mulch berms have assisted in establishing rows of new vegetation lengthways across the wall, assisting with the decrease in erosion on this slope. A gypsum seed application was conducted as part of this trial in the middle of Southern Bund Wall but has so far been unsuccessful in aiding the production of vegetation, mainly due to down slope migration from incident surface water. The Western side of this wall has developed nearly full coverage of “grassy” vegetation most successfully as shown in *Figure Three*. Directly adjacent to this, rill erosion is present and further works will be conducted to repair this.

The central pit floor has also been re-contoured to obtain a free draining surface and topsoiled and seeded where possible (see *Figure Three page 2*). This area requires further works to improve the vegetation cover.

7.1.3.3. Re-vegetation Monitoring and Management

The growth rates of Eucalypt species vary with conditions but generally are in the order of 20 to 25 years for full maturity to be attained. Conversely shrub species and groundcovers may only take up to 5 years to establish. Consequently the full rehabilitation and monitoring of the site will be ongoing for a number of years after mining has ceased. Threats to the establishment of these ecological communities include:

- Further clearing for development, and the subsequent impacts from fragmentation.
- Rubbish dumping
- Off-road vehicle use; particularly motorbikes
- Arson
- Weed invasion (especially *Lantana camara* and *Solanum mauritianum*)
- Frequent fires (<3 years)

CSR will monitor the progress of the rehabilitation and ensure that these risks are minimised through:

- ensuring the fire sensitivity of the community is considered when planning hazard reduction and asset management burning,
- protecting habitat by minimising further clearing of the community where possible,
- fencing of rehabilitated areas to protect from off-road vehicles and rubbish dumping, and
- Regular weed control.

The pre-existing area has low to moderate habitat value for native fauna due to disturbances from tracks, logging, fire and quarrying activity resulting in a low number of mature trees with suitable hollows for shelter area for arboreal mammals and forest birds. In addition the proximity to Thornton residential areas and associated predatory cats and dogs decreases the value of the area. Isolation from extensive areas of bushland and

fragmented nature of wildlife corridors means the area is unlikely to support any locally or regionally significant species.

Weed invasion is not extensive and is concentrated on the edges of the quarry, road and the borders with Thornton residential development.

7.1.4. Erosion

Upslope clean water diversion systems reduce the amount of water entering the rehabilitated area thus reducing moderate to high velocity run-off and erosion problems. The maximum slope is around 3:1 and the use of logs and re-vegetation will assist in reducing major erosion problems.

The newly land cleared area has been mulched to prevent erosion of the exposed topsoil.

There are some areas of internal erosion on the Southern highwall and the pit drain where vegetation has not established effectively. CSR will endeavour to improve the re-vegetation where possible.

7.1.5. Water Management

Water collected over the pit floor and rehabilitated area is collected in the main pit sump. The drain linking the pit sump to the existing sediment dam had been dammed due to the large volume of water held on the site (see *Figure Three page 5*). This facilitated the separate management of the water structures until the volume of water held was sufficiently reduced. The dam has now been removed and the area is allowed to drain freely to the Main Sediment Pond. Until the mine has been sufficiently revegetated, water will continue to be treated prior to discharge in order to moderate the risk to the downstream environment.

Reeds are growing in the drain around the sediment filter devices which will assist in flocculating the pit waters.

A new sediment dam was constructed during the previous reporting period in the South East portion of the site where land clearing has been undertaken. It has been designed and constructed to hold a 75th percentile 5 day rainfall event as per the Managing Urban Stormwater Manual or 'Blue Book' as it is better known.

During this reporting period a new clean water dam was established in the Northern Catchment (see *Figure Two*). At present it is not permitted to discharge freely.

7.1.6. Safety

The risk to personnel and stock has been minimised over the rehabilitated areas via the removal of high walls and decreasing slopes. The site is partially fenced by barbed wire and entry is gained through a locked gate to prevent unauthorised access. Perimeter fencing is categorised as follows:

- The southern boundary does not have any fencing. Some residents have access to the quarry. Previous management undertook a risk assessment regarding this access and resolved to install more prominent signage to prevent mine entry by residents.

- The eastern fence line is fairly good.

- The northern perimeter fence is in good condition.

- The western perimeter fence is fairly good. CSR will liaise with Energy Australia as to the possibility of removing the shared front gate.

7.1.7. Completion Criteria

Completion criteria have not been formally identified prior to this report. The DRE is consulted with current rehabilitation activities as they progress and this consultation will continue throughout the rehabilitation activities.

The performance of completed rehabilitation will be assessed broadly under the following criteria ^{Ref. 9}

- Slopes are generally within the limits specified in lease conditions and MOP
- Roads, access tracks, temporary silt traps etc are removed and the sites revegetated or otherwise treated in accordance with approved rehabilitation plans.
- Topsoil or other topdressing material is applied in accordance with lease conditions and the MOP.
- All reshaped watercourses are to be completely revegetated or permanently stabilised by some other means.
- Noxious weeds and vermin are under control.
- Boundary fences are in good order.
- Forest communities are monitored and maintained for 5 years, with no decline in the quality or density compared with the existing natural forest environment.

The completion criteria have not been completely met. The areas that have been rehabilitated are considered to be consistently working towards meeting these completion criteria and new areas will be added over the life of the mine.

7.2. Other Infrastructure

No other infrastructure has been rehabilitated during the reporting period

7.3. Rehabilitation Trials and Research

Rehabilitation during this reporting period has been aimed at monitoring the revegetation progress. More trials may be considered during the next reporting period.

Soil testing may be undertaken during the next reporting period to determine the cation exchange capacity and organic components to identify additives that may assist with the soils ability to sustain growth.

7.4. Further Development of the Final Rehabilitation Plan

CSR Maitland Brickworks has been permanently closed due to a downturn in the building industry. As a result the Housing Commission Mine is operating under a Care and Maintenance Mine Operation Plan during the next reporting period and rehabilitation plans adjusted accordingly.

As the mine site and adjacent lots are within the Maitland City Council's Clay Conservation Zone, post-extraction land use must not increase community or environmental pressure on continued extraction from adjacent land. Changes to the final rehabilitation outcomes will be discussed with the DRE and MCC as they become apparent and will take the Clay Conservation Zone into consideration.

On completion of mining closure objectives will include:

1. Enable all stakeholders to have their interests considered during the mine closure process
2. Ensure the process of closure occurs in an orderly, cost-effective and timely manner
3. Ensure the cost of closure is adequately represented in company accounts and that the community is not left with a liability
4. Ensure there is clear accountability and adequate resources for the implementation of the closure plan
5. Establish a set of indicators which will demonstrate the successful completion of the closure process.

7.5. Rehabilitation Summary

Cumulative Area Affected (hectares)				
		To date	Last report	Next Report (estimated)
A: MINE LEASE AREA				
A1	Mine Lease(s) Area	10.24*		
B: DISTURBED AREAS				
B1	Infrastructure area (other disturbed areas to be rehabilitated at closure including facilities, roads, stockpile, dams, bundwalls)	0**	5.89	5.89
B2:	Active Mining Area (excluding items B3 - B5 below)	0	0	0
B3	Waste emplacements, (active/unshaped/in or out-of-pit)	0.4	0	0
B4	Tailings emplacements, (active/unshaped/uncapped)	0	0	0
B5	Shaped waste emplacement (awaits final vegetation)	1.1	0.34	0.34
ALL DISTURBED AREAS		1.5	6.23	6.23
C: REHABILITATION PROGRESS				
C1	Total Final Rehabilitated area (except for maintenance)	9.7	1.13	1.13
ALL REHABILITATED AREAS		9.7	4.62	4.62
D: REHABILITATION ON SLOPES				
D1	10 to 18 degrees	0	1.58	1.58
D2	Greater than 18 degrees	0	0	0
E: SURFACE OF REHABILITATED LAND				
E1	Pasture and grasses	0	0	0
E2	Native forest/ecosystems	9.7	4.62	4.62
E3	Plantations and crops	0	0	0
E4	Other (include nonvegetative outcomes)	0	0	0

F1

F2

*The PMA area (19.81Ha) is larger than the Mine Lease area. That is, the total area disturbed during the life of the mine to date has been 11.2 Ha.

**There is no infrastructure that will not remain at mine closure at present therefore roads, and sediment dams are not included in this calculation.

Table 5. Maintenance Activities On Rehabilitated Land

NATURE OF TREATMENT	Area Treated (ha)		Comment/control strategies/ treatment detail
	Report period	Next period	
Additional erosion control works (drains re-contouring, rock protection)	0	0	
Re-covering (detail - further topsoil, subsoil sealing etc)	0	0.8	Areas will be mulched ready for seeding.
Soil treatment (detail - fertiliser, lime, gypsum etc)	0	1.1	Mulched areas will be ameliorated as required
Treatment/Management (detail - grazing, cropping, slashing etc)	0	0	
Re-seeding/Replanting (detail - species density, season etc)	0	1.1	Mulched areas will be seeded.
Adversely Affected by Weeds (detail - type and treatment)	0	0	Spot controls as required.
Feral animal control (detail - additional fencing, trapping, baiting etc)	0	0	

8. Site Security Review

The security was reviewed in 2008 using the DRE 'worksheet' and methodology and the cost of the Security Deposit estimated at \$84,625. The security has been reviewed during this period due to DTE updates to the cost schedule of the Rehabilitation Cost Calculation due to CPI increases. Since 2008 extensive rehabilitation works have been undertaken which has reduced the overall rehabilitation cost estimate. The following describes some of the changes in detail.

Domain 1: Infrastructure

The only infrastructure remaining on the site are access roads and sediment dams for water management. The features will remain on site on mine closure and no further works are required to complete the structures therefore the cost has been set to zero.

Domain 2: Tailings and rejects Emplacement

This Domain is not applicable to the site.

Domain 3: Waste Rock Dumps

Unshaped Waste Rock Dumps

A bundwall exists on the site running from the southeast corner of the southern boundary and continues along much of the eastern boundary. It will require shaping and/or relocation at mine closure. It has been estimated to contain 5,400 cubic metres of material.

Shaped Waste Rock Dumps

There remain areas of shaped waste rock in the quarry that will require additional works to complete rehabilitation as shown in *Figure Two*. An area of 0.4 Ha in the central pit floor has very little vegetation cover and will be remediated with mulch material to stabilise the soil and provide an organic base for plant growth. The mulch will be directly seeded as soil ameliorates applied as required.

An area of 0.2 Ha on the Southern Highwall has some evidence of erosion and will require minor repairs prior to mulching and seeding.

In the Southern Cleanwater Catchment there are two areas that require attention. A small area of erosion (approximately 490m²) due to sheet washing requires mulch and re-seeding. A further area of approximately 3,600m² that has been well mulched is virtually devoid of vegetation. It is suspected that the nitrogen drawdown from the mulch application has inhibited growth and will require amelioration and reseeded.

The total rehabilitation cost estimate for this Domain is estimated to be \$26,539.32

Domain 4: Active Quarry and Voids

There is no active quarry or voids on the mine site.

Domain 5: Other

No other areas are applicable to this site.

Third Party Project Management and Contingencies

These costs have not been accounted for in previous cost estimates. The cost estimate for third party project management is \$10,367.54 and contingencies is estimated to be \$3,690.69

Therefore the total Rehabilitation Cost Calculation is estimated to be \$40,597.56.

9. Activities Proposed in the Next AEMR Period

As mentioned previously, the mine has been placed into a care and maintenance mode due to the closure of the Maitland Brickworks.

- . Continue to monitor and discharge pit water as appropriate.
- . Investigate importation of more topsoil/mulch to improve rehabilitation and drainage.
- . Revegetation and erosion control measures will be monitored and remediated as required.
- . Review areas for tree planting to increase vegetation cover.
- . Fencing, signage and general site security will be maintained.
- . Perimeter fencing to the south and east maybe reconsidered due to the constant incursion of bike riders into the mine resulting in damaged to clean water diversions and revegetated areas.

10. References

- Ref. 1.** New South Wales Department of Primary Industries – Mineral Resources (January 2006) *Guidelines to the Mining, Rehabilitation and Environmental Management Process*
- Ref. 2.** VGT (December 2001) *Mining Operations Plan for Housing Commission Clay Mine*
- Ref. 3.** VGT (December 2011) *Annual Environmental Management Review*
- Ref. 4.** VGT (2007) *Care and Maintenance Plan for Housing Commission Clay Mine*
- Ref. 5.** VGT (2011) *Mine Operation Plan Housing Commission Clay Mine*
- Ref. 6.** New South Wales Government *The Protection of Environment Operations Act (1997)*
- Ref. 7.** Soil Conservation Service (1989) *Metadata*
- Ref. 8.** Resource Planning Pty Ltd (1994) *Environmental Impact Statement for Proposed Clay/Shale Extraction Operations Lot 1742, DP 634868 Parish of Alnwick, Taylor Ave, Thornton.*
- Ref. 9.** New South Wales Coal Association (February 1995) – *Mine Rehabilitation*

Appendix A: Figures

											
Plan of:	Housing Commission Clay Mine Existing and Proposed Site	Location :	Housing Commission Quarry Housing Commission	Projection:		N/A	Date:	4/06/2014	Version	A	
				Contour Interval:		1m	Sheet:	1 of 1	Survey:	N/A	
							Plan By:	TO	Source:	AAMHatch 2008, VGT 2010	
Figure:	TWO	Council:	Maitland				Project Manager:	GVT			
Client:	CSR Building Products Ltd	Scale:					Office:	Thornton	Our Ref:	V:\Jobs_HC Housing Commission\2014\AEMR 2013.cdr	



LEGEND

Property boundaries

Areas disturbed by mining, (prior to this MOP)

Domain 1: Infrastructure Areas

Ore Stockpiles, Crushing

Admin Buildings

Access & Haul Rds

Hardstand Area

Domain 2: Tailings Dams

Domain 3: Waste Rock Dumps

Successful Rehabilitation

Shaped Waste Rock

Unshaped Waste Rock

Domain 4: Active Quarry & Voids

Domain 5: Other

Land Clearing

Environmental Monitoring

Water

Air

Noise

Water Management

Clean Water

Dirty Water

Controlled Discharge

River & Creek Diversions

Plan of:	Housing Commission Photography	Location:	Housing Commission Quarry Housing Commission	Projection:	N/A	Date:	4/06/2014	Version:	A	
				Contour Interval:	N/A	Sheet:	Page 1 of 7	Survey:	N/A	
				Plan By:		TO		Source:	VGT Pty Ltd	
Project Manager:		GVT								
Figure:	THREE	Council:	Maitland			Office:	Thornton	Our Ref:	V:\Jobs_HC Housing Commission\2014\AEMR 2013.cdr	
Client:	CSR Building Products Ltd	Scale:								



Photographic Plate One: Southern highwall 22/02/2006



Photographic Plate Two: Southern Highwall battered back 17/1/07



Photographic Plate Three: Southern Highwall commencing rehabilitation 11/04/2013



Photographic Plate Four: Southern Highwall 8/5/2013



Photographic Plate Five: Southern Highwall November 2013



Photographic Plate Six: Southern Highwall rehabilitation progress 3/3/2014

Plan of:	Housing Commission Photography	Location:	Housing Commission Quarry Housing Commission	Projection:	N/A	Date:	4/06/2014	Version:	A
				Contour Interval:	N/A	Sheet:	Page 2 of 7	Survey:	N/A
					Plan By:		TO	Source:	VGT Pty Ltd
Figure:	THREE	Council:	Maitland	Project Manager:		GVT			
Client:	CSR Building Products Ltd	Scale:			Office:	Thornton	Our Ref:	V:\Jobs_HC Housing Commission\2014\AEMR2013.cdr	



vgt
Environmental
Compliance
Solutions



Photographic Plate Seven: Central pit floor November 2012



Photographic Plate Eight: Central pit floor 14/02/2013



Photographic Plate Nine: Central pit floor 22/04/2013



Photographic Plate Ten: Central pit floor 1/05/2013



Photographic Plate Eleven: Central pit floor 14/03/2014

Plan of:	Housing Commission Photography	Location:	Housing Commission Quarry Housing Commission	Projection:	N/A	Date:	4/06/2014	Version:	A
				Contour Interval:	N/A	Sheet:	Page 3 of 7	Survey:	N/A
						Plan By:	TO	Source:	VGT Pty Ltd
Figure:	THREE	Council:	Maitland			Project Manager:	GVT		
Client:	CSR Building Products Ltd	Scale:				Office:	Thornton	Our Ref:	V:\Jobs_HC Housing Commission\2014\AEMR2013.cdr



Photographic Plate Twelve: Central pit from southeast 14/02/2013



Photographic Plate Thirteen: Central pit from southeast 19/04/2013



Photographic Plate Fourteen: Central pit from southeast 19/04/2013



Photographic Plate Fifteen: Central pit from southeast 2/5/2013



Photographic Plate Sixteen: Central pit from southeast 23/5/2014



Photographic Plate Seventeen: Central pit from southeast 24/5/2013

Plan of:	Housing Commission Photography	Location: Housing Commission Quarry Housing Commission	Projection:	N/A	Date:	4/06/2014	Version:	A
			Contour Interval:	N/A	Sheet:	Page 4 of 7	Survey:	N/A
					Plan By:	TO	Source:	VGT Pty Ltd
Figure:	THREE	Council:			Project Manager:	GVT		
Client:	CSR Building Products Ltd	Scale:			Office:	Thornton	Our Ref:	V:\Jobs_HC Housing Commission\2014\AEMR2013.cdr



Photographic Plate Eighteen: Commencement of Southern High wall rehabilitation 2/5/2013



Photographic Plate Nineteen: lowering of Southern High wall bund 8/5/2013



Photographic Plate Twenty: Southern High wall rehabilitation 8/05/2013



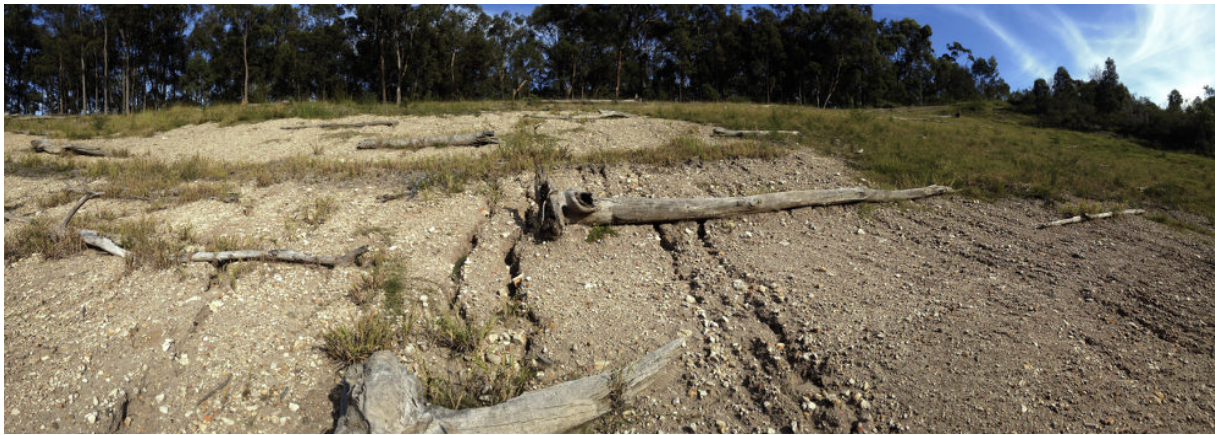
Photographic Plate Twenty One: Southern High wall rehabilitation 17/06/2013



Photographic Plate Twenty Two: Mulch berms on Southern High wall 17/11/2013



Photographic Plate Twenty Three: Southern High wall rehabilitation trials 17/11/2013



Photographic Plate Twenty Four: Rilling on Southern Highwall slope to be repaired 23/05/2014



Photographic Plate Twenty Five: Southern High wall rehabilitation 14/03/2014

Plan of:	Housing Commission Photography	Location:	Housing Commission Quarry Housing Commission	Projection:	N/A	Date:	4/06/2014	Version:	A	
				Contour Interval:	N/A	Sheet:	Page 5 of 7	Survey:	N/A	
					Plan By:		TO	Source:	VGT Pty Ltd	
Figure:	THREE	Council:	Maitland		Project Manager:	GVT				
Client:	CSR Building Products Ltd	Scale:			Office:	Thornton	Our Ref:	V:\Jobs_HC Housing Commission\2014\AEMR2013.cdr		



Photographic Plate Twenty Six: Central Pit and drain rehabilitation 7/12/2011



Photographic Plate Twenty Seven: Central Pit and drain rehabilitation 14/02/2013



Photographic Plate Twenty Eight: Central Pit and drain rehabilitation 14/03/2014



Photographic Plate Twenty Nine: Central Pit and drain rehabilitation 18/04/2013

Plan of:	Housing Commission Photography	Location:	Housing Commission Quarry Housing Commission	Projection:	N/A	Date:	4/06/2014	Version:	A	
				Contour Interval:	N/A	Sheet:	Page 6 of 7	Survey:	N/A	
						Plan By:	TO	Source:	VGT Pty Ltd	
Figure:	THREE	Council:	Maitland			Project Manager:	GVT			
Client:	CSR Building Products Ltd	Scale:				Office:	Thornton	Our Ref:	V:\Jobs_HC Housing Commission\2014\AEMR2013.cdr	



Photographic Plate Thirty: Clean water catchment dam construction 12/12/2011



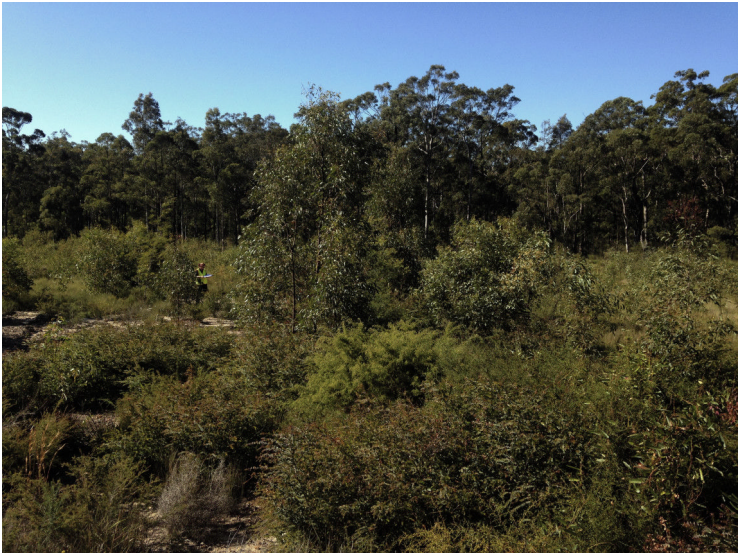
Photographic Plate Thirty One: Clean water catchment dam 14/12/2011



Photographic Plate Thirty Two: Clean water catchment dam and land clearing 14/12/2011



Photographic Plate Thirty Three: Southeastern rehabilitation 1/5/2013



Photographic Plate Thirty Four: South eastern rehabilitation progress 29/5/2014



Photographic Plate Thirty Five: South eastern rehabilitation progress showing lack of regrowth on mulch 29/5/2014



Photographic Plate Thirty Six: South eastern rehabilitation erosion area 29/5/2014

Plan of:	Housing Commission Photography	Location:	Housing Commission Quarry Housing Commission	Projection:	N/A	Date:	4/6/2014	Version:	A
				Contour Interval:	N/A	Sheet:	Page 7 of 7	Survey:	N/A
						Plan By:	TO	Source:	VGT Pty Ltd
Project Manager:	GVT								
Figure:	THREE	Council:	Maitland						
Client:	CSR Building Products Ltd	Scale:			Office:		Thornton	Our Ref:	V:\Jobs_HC Housing Commission\2014\AEMR2013.cdr



Photographic Plate Thirty Seven: Northern Land clearing 19/10/2011



Photographic Plate Thirty Eight: Northern rehabilitation progress 21/11/2012



Photographic Plate Thirty Seven: Northern Land clearing rehabilitation progress 27/02/2013

Appendix B: Council Conditions

ENVIRONMENTAL PLANNING AND
ASSESSMENT ACT, 1979

NOTICE OF DETERMINATION
DEVELOPMENT APPLICATION
DESIGNATED DEVELOPMENT



To the Applicant: Monier PGH Ltd
4th Floor, 9 Help Street
CHATSWOOD NSW 2067

Pursuant to Section 92 of the Act notice is hereby given of the determination by the Council of the City of Maitland of Development Application No. 94067 relating to the land and development described as follows:

Land: Lot 2, DP 867766
107 Haussman Drive
THORNTON NSW 2322

Development: Expansion of Clay Extraction Operation

Determination: Granting of consent subject to the conditions specified in this notice.

The conditions of consent are listed in the schedule annexed to this notice.

Endorsement Date: 10 June 1998

For GENERAL MANAGER

Rights of Appeal:

If you are dissatisfied with this decision, Section 97 of the Environmental Planning and Assessment Act, 1979 gives you the right to appeal to the Land and Environment Court within 12 months after the date endorsed on this notice.

Section 98 of the Environmental Planning and Assessment Act, 1979 provides objectors to the development application with the right of appeal to the Land and Environment Court within 28 days of the date of this notice, should they be dissatisfied with Council's determination.

Note: Pursuant to Section 93(1) (b) of the Environmental Planning and Assessment Act, 1979, this consent shall become effective and operate after the expiration of 28 days from the date of consent endorsed on this notice.

NOTICE OF DETERMINATION • DA 94 - 67**SCHEDULE OF CONDITIONS****COMPLIANCE**

Reason: The following condition(s) have been applied to confirm and clarify the terms of Councils Approval.

1. The development shall be carried out strictly in accordance with the details contained within the Environmental Impact Statement dated 15th February, 1994 - prepared by Resource Planning, and the supplementary reports prepared by ERM Mitchell McCotter except as modified by conditions outlined under this development.
2. Compliance with the requirements and recommendations of the Water Management, Erosion and Sediment Control Plan prepared and lodged with Council in January, 1996. This plan shall be incorporated into a comprehensive management plan ("Management Plan") which shall be reviewed annually by the applicant/operator and copies forwarded to The Department of Land and Water Conservation, The Environment Protection Authority and Maitland City Council for comment and consideration. A draft Management Plan is to be forwarded to Council prior to commencement of the activity.
3. Compliance with the EPA's requirements, viz:
 - i. An application for Pollution Control Approval must be lodged with the EPA for the construction of works associated with treatment and disposal of pollutants within the meaning of Section 5.1 of the Clean Waters Act, 1970.
 - ii. The concentration of non-filterable residue leaving the site must not exceed a maximum concentration of 50mg/L for a 24 hour, 1 in 10 year storm event.
 - iii. The pH of the discharge must be within the range of 6.5 to 8.5.
 - iv. The proponent must apply to the Environment Protection Authority for approval under Section 17 of the Pollution Control Act, 1970 with respect to measures to control the emission of noise from the site.
 - v. Activities on the premises shall not result in the background noise level exceeding an L10 of 45dB(A) when measured at the boundary of the adjoining premises.
 - vi. Noise arising from the winning, stockpiling and transportation of material on the site must not exceed the background noise level by more than LT15min of 5dB(A) when measured at the boundary of any residential premise.
 - vii. Plant and equipment must not be operated outside the hours of operation proposed in the EIS.
 - viii. During the construction of pollution control works and other site establishment activities the premises may be classified as a "construction site". Noise arising from construction sites must comply with the following limits. However, this concession should not be construed to include the winning of material:
 - * Construction period of less than four (4) weeks. Background plus LT15min of 20dB(A) within the hours of 7.00am to 6.00pm weekdays.
 - * Construction period ranging from four to twenty six weeks LT15min of 10dB(A) within the hours 7.00am to 6.00pm weekdays

NOTICE OF DETERMINATION DA 84 - 67**SCHEDULE OF CONDITIONS****TRAFFIC/ROADS/FOOTPATH**

Reason: The following condition(s) have been applied to ensure that the surrounding road system, footpaths, access/egress and internal parking and manoeuvring areas are designed and constructed to a standard adequate to service the proposed development.

4. The intersection of the proposed access road and Taylor Avenue is to be constructed in accordance with the detail shown on Paul Clarke and Associates plans - Drawing Ref No 6265 PINT. DWG.
5. Advance warning signs "CAUTION TRUCKS TURNING" - (W5205, TYPE "B") are to be installed on both approaches to the intersection.
6. In order to keep dust emissions from the site to a minimum, the haul road is to be sealed from Taylor Avenue to the point of loading. A water cart or fixed sprinkler watering is to be used on unsealed trafficked areas during periods of operation.
7. In the event that the Licence Agreement with Energy Australia for access over Lot 1741 DP 634868 lapses, then all transport of material from the site must cease. Details of any alternative access must be submitted to Council and approved prior to the recommencement of haulage.
8. A designated heavy vehicle and plant parking area is to be provided. It should be located as far away as possible from residences in Evelyn Crescent and Geddes Close.

LANDSCAPING

Reason: The following condition(s) have been applied to ensure that adequate provision is made for the landscaping of the site in association with the proposed development, to enhance the external appearance of the development, and to ensure that existing and proposed landscaped areas are appropriately maintained.

9.
 - i. The landscaped area of the development is to be constructed and maintained at all times in accordance with the approved landscape plans. The landscape plan and a progressive Rehabilitation Management Plan are to be incorporated into the "Management Plan" which shall be reviewed annually by the applicant/operator and copies forwarded to The Department of Land and Water Conservation, The Environment Protection Authority and Maitland City Council for comment and consideration. A draft Management Plan is to be forwarded to Council prior to commencement of the activity.
 - ii. The applicant is to strictly comply with the amelioration measures identified in the EIS and within the supplementary documents entitled "Response to National Parks and Wildlife Service" and "Bat Fauna" of the Monier - PGH Clay/Shale Quarries" to the satisfaction of Council and the National Parks and Wildlife Service.
In Order to protect native bat fauna, no clearing of vegetation shall be permitted during maternity and hibernation periods.

NOTICE OF DETERMINATION DA 94 - 67**SCHEDULE OF CONDITIONS**

Clearing operations may only occur in a staged manner and as the need arises during the months of April to May and September to October.

AMENITY

Reason: The following condition(s) have been applied to ensure that the proposed development is designed, constructed and managed in a manner to minimise its impact on the amenity of the area.

10. There is to be minimal interference with the residential amenity of the area by reason of the emission of any noise, smell, smoke, vapour, fume or otherwise
11. Hours of operation are to be confined to 7.00 am to 5.00 pm weekdays.
12. To control dust and other air emissions from the premises:
 - i. Disturbed areas and vegetation removal should be kept to a minimum. Disturbed areas of the site not intended for operational purposes are to be revegetated on a progressive basis and maintained in accordance with the approved landscape plan;
 - ii. Bund walls and other exposed surfaces are to be revegetated (and maintained) as soon as practicable after construction;
 - iii. No vegetation or other refuse must be disposed of by open burning within the site; and
 - iv. All loaded trucks leaving the site must be covered or, alternatively, the material on the trucks is to be watered so that dust problems are minimised.

DRAINAGE & SEDIMENT/EROSION CONTROL

Reason: The following condition(s) have been applied to ensure that: (I) Adequate sediment/erosion control structures are provided to prevent siltation of existing drainage systems and waterways; (II) Stormwater internal and external to the proposed development site is controlled to minimise the risk of flooding to upstream and downstream properties; and (III) Due regard is given to the development of flood liable land or land in the vicinity of flood liable land.

13. Permission is to be obtained from the adjoining landowner for the concentration of surface water run-off onto their property from the graded diversion banks numbers 1,4,5, & 6.

CONTRIBUTIONS/FEES

Reason: The following condition(s) have been applied to ensure that: (I) Where the proposed development results in an increased demand for community facilities/services payment towards the cost of providing these facilities/services is made in accordance with either an adopted policy of Council or Council's adopted contributions plan prepared via the provisions of section 94 of the environmental planning and assessment act, 1979. (II) Council's administration expenses are met with respect to the processing of the application.

14. Where the purpose of the development is "Extractive Industry" the developer is required to contribute to the road maintenance costs of

NOTICE OF DETERMINATION DA 94 - 67**SCHEDULE OF CONDITIONS**

affected roads. Contributions are to be paid annually in an amount to be determined by Council in accordance with the method of calculation current at the time the contribution is calculated.

GENERAL PROVISIONS

Reason: The objectives of the following conditions is to draw to the attention of the applicant and owner their responsibilities to comply with various provisions of the Local Government Act 1993; Regulations; Building Code of Australia and Local Policies relating to building construction and maintenance.

15. Where the proposed development involves the disturbance or destruction of any existing survey monuments, those monuments affected will need to be relocated by a Surveyor registered under the Surveyors Act. A plan showing the relocated marks will then be required to be lodged as a matter of public record at the Land Titles Office.
-



Maitland City Council

Housing
Commission

Environmental Planning and Assessment Act, 1979.

NOTICE OF DETERMINATION OF A DEVELOPMENT APPLICATION

To : F.R.H. Ceramics Bricks M.S.W. of : East Maitland

being the applicant in respect of Development Application No. 103/5/86/80

Pursuant to Section 92 of the Act notice is hereby given of the determination by the Council of the City of Maitland of Development Application No. 96/80 relating to the land and development described as follows : -

Land :

Lot 174 D.P. 569000

Parish of Alwinton

near Thornton, N.S.W.

Development :

Clay Quarry

The development application has been determined by : -

- * (a) ~~Granting of consent unconditionally~~
- * (b) Granting of consent subject to the conditions specified in this notice ;
- * (c) ~~Refusing of consent for the reasons specified in this notice~~

The * conditions of consent/~~reasons for refusal~~ are listed in the schedule annexed to this notice.

Endorsement of date of consent

22nd October, 1980.

N.B. PLEASE READ THE NOTES ON
THE BACK OF THIS NOTICE
REGARDING LAPSING OF CONSENT,
APPEALS ETC.

CHIEF TOWN PLANNER
MAITLAND CITY COUNCIL.

DATE

* Delete whichever is not applicable.

NOTICE OF DETERMINATION OF

DEVELOPMENT APPLICATION NO. 103/5/96/80

SCHEDULE OF CONDITIONS

1. All works and safeguards being implemented in accordance with their description in the Environmental Impact Statement submitted with the application, except where required otherwise in this Notice or where Prior approval by the Council has been obtained to deviate from the submitted plans;
2. There being no working on Saturdays;
3. The site being fenced to the Standards of the Department of Mineral Resources and the gates being closed at all times except when work is being carried out on the site;
4. Timber which has to be cleared not being burned on site;
5. All fill areas planned for post-mining residential uses being compacted to the appropriate engineering standard;
6. The Company preventing dust, dirt, clay or overfills occurring on public roads at all times. For this purpose a washing bay being constructed and all trucks being washed before leaving the site. This bay being located close to the exit point being sealed;
7. Compliance with the following requirements of the Department of Main Roads :-
 - (i) A passing lane to be constructed on the northern side of the Main Road to the satisfaction of the City Engineer.
 - (ii) Double rows of reflectors to reinforce the double yellow lines being installed to the satisfaction of the City Engineer.
 - (iii) Widening of Taylor Avenue adjacent to the Main Road to be carried out such that both truck turning manoeuvres can be carried out without crossing the double yellow lines;
8. A bond of \$4000 - being paid to the Council in cash or in the form of a bank guarantee, to cover any damage the Council may incur by the company not complying with these conditions. This bond will be returned to the company after all conditions have been satisfactorily complied with including rehabilitation of the quarry either after twenty years or at an earlier date, but in any case after an inspection by an authorised Council officer.
9. This consent being valid for the duration of a maximum of 20 years after the date of endorsement of consent.
10. Access to the site is to be located from Taylor Avenue, not less than 200 metres from Raymond Terrace Road;
11. Separate entry and exit driveways are to be provided;

NOTICE OF DETERMINATION OF

DEVELOPMENT APPLICATION NO. 103/5/96/80

SCHEDULE OF CONDITIONS (CONTINUED)

12. The minimum width of each driveway is to be 7 metres, separated by at least 6 metres;
13. The road shoulder of Taylor Avenue immediately in front of the proposed access is to be gravelled and sealed to the satisfaction of the City Engineer;
14. The access driveways are to be sealed from Taylor Avenue to at least 5 metres beyond the property boundary;
15. Driveways are to be clearly marked 'entry' and 'exit';
16. Stormwater run-off from the site is to be collected and disposed of in accordance with the Environmental Impact Statement; and
17. The proposed subdivision to be developed upon completion of the mining, will not be permitted access to Raymond Terrace Road.
18. Conditions 2,3,7,8,10,11,12,13,14,15,17 and 18 being complied with before clay extraction and hauling from the site commences. Condition 6 to be implemented immediately as the need arises in the opinion of the Chief Town Planner.
19. The finished land form being not more than 12 metres below current natural levels at any point on the site but generally less.

8.10/10

MASSING COMMISSION

POTENTIAL PROBLEMS
2.1/10/1980

PR8:JR.103/5/96/80

Mr. P. Reynders

22nd October, 1980.

P. G. H. Ceramics Bricks N. S. W.
Metford Road,
EAST MAITLAND. 2323

ATTENTION MR M CLACK

Dear Sir,

Re: Proposed Quarry. D.A. no 103/5/96/80, clay extraction from lot 174
D.P. 569000, Parish Of Alnwick, near Thornton.

I refer to your application of 8th July, 1980, and wish to advise that this application has been determined in the manner specified in the enclosed notice.

It should be noted that where a consent, if granted, relates to the erection of new buildings or the extension, renovation or rebuilding of existing buildings, work on the proposed development shall not commence until such time as the appropriate Building Permit has been obtained from the Council. All enquiries in this regard should be directed to the Council's Health and Building Department.

Encl.

Yours faithfully,
(D. I. MACINDOE)
TOWN CLERK.

per:

Appendix C: Mine Lease and PMA

INSTRUMENT OF RENEWAL

T00/0480

MINING LEASE NO.	925 (ACT 1973)
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HOLDER:	Monier PGH Holdings Limited (ACN 008 631 356)
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DATE OF LEASE:	18 March 1981
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EXPIRY DATE OF LEASE:	17 March 2002
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PERIOD OF RENEWAL UNTIL:	17 March 2023
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AREA:	About 10.24 hectares
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DEPTH RESTRICTION:	Embraces the surface and soil below thereof to a depth of 30 metres.
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MINERALS:	Clay/shale, kaolin and structural clay.
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ROYALTY PAYABLE:	At the rate which, from time to time, may be prescribed.
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AMENDMENTS TO THE CONDITIONS OF THE LEASE:

- (a) All the Conditions contained in the lease prior to the renewal have been deleted.
 - (b) The lease is now subject to the attached Conditions of Authority (ML) (2000) numbered:

1 to 19 (inclusive) and 21 to 25 (inclusive)
-

We, Monier PGH Holdings Limited (ACN 008 631 356), hereby accept the renewal of this Lease and agree to be bound by the conditions specified.

.....
MONIER PGH HOLDINGS LIMITED

.....
WITNESS

Renewed this

day of

2003

.....
Director General
by delegation from the Minister.

CONDITIONS OF AUTHORITY (ML) (2000)

Notice to Landholders

1. Within a period of three months from the date of grant/renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. The notice must be accompanied by an adequate plan and description of the lease area.

If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.

Mining, Rehabilitation, Environmental Management Process (MREMP)

Mining Operations Plan (MOP)

2.
 - (1) Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:-
 - (a) ongoing mining operations and environmental management; and
 - (b) ongoing monitoring of the project.
 - (2) The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.
 - (3) A Plan must be lodged with the Director-General:-
 - (a) prior to the commencement of mining operations (including mining purposes);
 - (b) subsequently as appropriate prior to the expiry of any current Plan; and
 - (c) in accordance with any direction issued by the Director-General.
 - (4) The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:-
 - (a) area(s) proposed to be disturbed under the Plan;
 - (b) mining and rehabilitation method(s) to be used and their sequence;
 - (c) areas to be used for disposal of tailings/waste;
 - (d) existing and proposed surface infrastructure;
 - (e) existing flora and fauna on the site;
 - (f) progressive rehabilitation schedules;
 - (g) areas of particular environmental, ecological and cultural sensitivity and measures to protect these areas;

- (h) water management systems (including erosion and sediment controls);
 - (i) proposed resource recovery; and
 - (j) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation.
- (5) The Plan when lodged will be reviewed by the Department of Mineral Resources.
 - (6) The Director-General may within two (2) months of the lodgement of a Plan, require modification and re-lodgement.
 - (7) If a requirement in accordance with clause (6) is not issued within two (2) months of the lodgement of a Plan, the lease holder may proceed with implementation of the Plan.
 - (8) During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.

Annual Environmental Management Report (AEMR)

- 3. (1) Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.
- (2) The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:
 - (a) the accepted Mining Operations Plan;
 - (b) development consent requirements and conditions;
 - (c) Environment Protection Authority and Department of Land and Water Conservation licences and approvals;
 - (d) any other statutory environmental requirements;
 - (e) details of any variations to environmental approvals applicable to the lease area; and
 - (f) where relevant, progress towards final rehabilitation objectives.
- (3) After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.
- (4) The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies and the local council.

Working Requirement

4. The lease holder must:-

- (a) ensure that at least 2 competent people are efficiently employed on the lease area on each week day except Saturday or any week day that is a public holiday,

OR

- (b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$35,000.00 during each year of the term of this lease.

The Minister may at any time or times after a period of 2 years from the date of grant/renewal of this lease, by instrument in writing served on the lease holder, increase or decrease the expenditure required or the number of people to be employed.

Control of Operations

- 5. (a) If an Environmental Officer of the Department of Mineral Resources believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:-
 - (i) cease working the lease; or
 - (ii) cease that part of the operation not complying with the Act or conditions;until in the opinion of the Environmental Officer the situation is rectified.
- (b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.
- (c) A direction referred to in this condition may be served on the Mine Manager.

Reports

- 6. The lease holder shall provide, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year, a progress report(s) to the satisfaction of the Director-General containing the following:-
 - (a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;
 - (b) Details of expenditure incurred in conducting that exploration;
 - (c) A summary of all geological findings acquired through mining or development evaluation activities;
 - (d) Particulars of exploration proposed to be conducted in the next twelve months period;
 - (e) All plans, maps, sections and other data necessary to satisfactorily interpret the report(s).

Licence to Use Reports

7. (a) The lease holder grants to the Minister, by way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright.
- (b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.

Confidentiality

8. (a) All exploration reports submitted in accordance with the conditions of this lease will be kept confidential while the lease is in force, except in cases where:
 - (i) the lease holder has agreed that specified reports may be made non-confidential.
 - (ii) reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.
- (b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated.
- (c) The Director-General may extend the period of confidentiality.

Terms of the non-exclusive licence

9. The terms of the non-exclusive copyright licence granted under condition 7(a) are:
 - (a) the Minister may sub-licence others to publish; print, adapt and reproduce but not on-licence reports.
 - (b) the Minister and any sub-licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.
 - (c) the lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.
 - (d) there is no royalty payable by the Minister for the licence.
 - (e) if the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder, that licence is revocable on the giving of a period of not less than three months notice.

Blasting

10. (a) Ground Vibration

The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Environment Protection Authority.

(b) Blast Overpressure

The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Environment Protection Authority.

Safety

11. Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes, shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.

Rehabilitation

12. (a) Land disturbed must be rehabilitated to a stable and permanent form suitable for a subsequent land use acceptable to the Director-General and in accordance with the Mining Operations Plan so that:-

- there is no adverse environmental effect outside the disturbed area and that the land is properly drained and protected from soil erosion.
- the state of the land is compatible with the surrounding land and land use requirements.
- the landforms, soils, hydrology and flora require no greater maintenance than that in the surrounding land.
- in cases where revegetation is required and native vegetation has been removed or damaged, the original species must be re-established with close reference to the flora survey included in the Mining Operations Plan. If the original vegetation was not native, any re-established vegetation must be appropriate to the area and at an acceptable density.
- the land does not pose a threat to public safety.

- (b) Any topsoil that is removed must be stored and maintained in a manner acceptable to the Director-General.

13. The lease holder must comply with any direction given by the Director-General regarding the stabilisation and revegetation of any mine residues, tailings or overburden dumps situated on the lease area.

Prevention of Soil Erosion and Pollution

14. Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.

Transmission lines, Communication lines and Pipelines

15. Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the area without the prior written approval of the Director-General and subject to any conditions he may stipulate.

Fences, Gates

16.
 - (a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate.
 - (b) Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.

Roads

17.
 - (a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate.
 - (b) The lease holder must pay to the local council, the Department of Land and Water Conservation or the Roads and Traffic Authority the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.
18. Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they are no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Land and Water Conservation.

Trees and Timber

19.
 - (a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or if such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden.
 - (b) The lease holder must not cut, destroy, ringbark or remove any timber or other vegetative cover on the lease area except such as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provisions of the Native Vegetation Conservation Act 1997.
 - (c) The lease holder must have any necessary licence from the Forestry Commission of New South Wales before using timber from any Crown land within the lease area.

Resource Recovery

21. (a) Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to recover such minerals.
- (b) The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.
- (c) The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.
- (d) No such notice shall be issued by the Director-General unless the matter has firstly been thoroughly discussed with and a report to the Director-General has incorporated the views of the lease holder.
- (e) The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992.
- (f) After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.

Indemnity

22. The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.

Security

23. (a) A security in the sum of \$50,000.00 must be lodged with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of his obligations under this lease. If the lease holder fails to fulfil any one or more of such obligations the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of this lease if he fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder.

- (b) The lease holder must provide the security required by sub-clause (a) hereof in one of the following forms:-
 - (i) cash,
 - (ii) a security certificate in such form and given by such surety as may from time to time be approved by the Minister.

Additional Watercourse Conditions

- 24. (a) Where the proposed operations involve the excavation of material from protected river land:-
 - (i) the material must be stored above the known flood level and must not be returned to the watercourse.
 - (ii) the maximum depth of excavation below the level of the toe of the nearer bank must not at any point exceed a depth greater than one third of the distance from the toe of the said bank. The nearer bank shall be the natural bank or as specified by the Department of Land and Water Conservation.
 - (iii) the bed of the watercourse must be left reasonably smooth and free from holes or ridges and other obstructions or irregularities which could adversely affect the flow. The longitudinal grade should be even and the channel should have a uniform cross section.
- (b) Where excavations on, in or under protected river land are made, progressive rehabilitation of the area must be carried out during mining operations. Rehabilitation of all river banks must be made to an alignment and profile selected by the Department of Land and Water Conservation and the rehabilitated bank or area of operations stabilised by a dense growth of vegetation. Before any excavation commences the lease holder must supply to the Department of Land and Water Conservation a plan of the area of operations to a scale of not less than 1:2500 or an aerial photograph to a similar scale on which is to be shown details of the area in which excavations are proposed. A copy of such a plan must also be forwarded to the Environment Unit of the Department of Mineral Resources.
- (c) In this condition the expression "protected river land" relates to "protected land" as defined in Section 22A of the Rivers and Foreshores Improvement Act 1948.

All scrub, undergrowth and timber necessarily removed during the course of operations in or adjacent to any watercourse must be burned or otherwise disposed of to overcome the likelihood of this debris being swept into the watercourse during a flood.

All operations, including the removal and disposal of materials, must be carried out in a manner that does not cause sedimentation or erosion of any watercourse or its floodplain or waterbody.

The lease holder must as far as may be practical prevent the spread of any oil or other pollutant. Waste oil drained from machines is to be removed from the site.

- 25. The lease holder must form a landscaped buffer area to the satisfaction of the Minister between any mining operation and the residentially zoned land located south of the lease area.

L97/0297

Company Secretary
[Leaseholder's
Name & Address]

22 MAY 1998

NEW LEASE CONDITION

The Minister for Mineral Resources has approved of the introduction of a new Mining, Rehabilitation and Environmental Management Process (MREMP). The process aims to provide a uniform approach to one of the key activities through which the Department of Mineral Resources oversees the satisfactory environmental/rehabilitation performance and resource utilisation of mines. The new process adapts and refines the system currently used in open cut coal mines.

The process looks forward with a detailed operations plan, the Mining Operations Plan (MOP), which may range from one to two years to a maximum of 7 years anticipated operations. Annual reporting of environmental performance is collated in the Annual Environmental Management Report (AEMR). The aim of the MOP is to clearly delineate the specific sequence of mining operations proposed, associated infrastructure and progressive rehabilitation schedules. The AEMR provides an opportunity to consolidate into one document all annual Government reporting requirements which relate to environmental management. Appendices can facilitate separate reporting to specific Government authorities. The AEMR provides the means of measuring progress towards and attainment of environmental objectives integrated with mining development.

To ensure comprehensive implementation of the new process, the Minister has amended on 7 May 1998 all existing mining leases pursuant to Section 239(2) of the Mining Act 1992.

I am writing to advise you formally that in relation to the lease(s) held by you and listed on the attached schedule, the Minister has included the condition set out in the attached Annexure A. This condition replaces any existing conditions in the lease referring to

- Mining Operations Plan
- Mining Rehabilitation and Environmental Management Plan

- Environmental Management Report or Plan
- Plan of Management
- the requirement for Ministerial approval to mine by surface methods.
- the requirement for Ministerial approval before any mining operations may commence

To assist in implementing the process, Guidelines have been prepared which describe the role of the lease holder in the preparation and lodgement of MOPs and AEMRs.

The onus is on the lease holder to comply with the guidelines. The Department of Mineral Resources will not be issuing "approvals" for the Plans and Reports. However, the Department will if necessary after review, require the submitted documentation to be amended. The Guidelines are available from the Department's Head Office and Regional Offices and will shortly be sent out to all mines currently operating with mining leases under the Mining Act 1992.

In relation to underground coal mines, it should be noted that the new process does not replace in any way second workings approvals (Section 138) and emplacement approvals (Section 126) under the Coal Mines Regulation Act (1982). It is also not intended that information be duplicated between the above approvals and the new MOP that is required. Where applicable, reference only need be made to the Section 138 and 126 approval documentation in the MOP documentation.

Implementation of the new process is requested to take place as follows. After 30 September 1998 all mining, except as listed below, is to be undertaken under the new process.

Metalliferous Mines

Existing system MREMP documentation stands until requiring amendment or replacement.

Open Cut Coal Mines

Existing open cut approvals stand until requiring amendment or replacement.

Underground Coal Mines

After 30 September 1998 it is requested that MOP documentation be prepared and lodged at the time programmed for the existing annual review, before 30 June 1999. Note above that Section 126 and 138 approvals stand and should not be duplicated in MOPs.

If you have any enquiries in relation to the new lease condition or implementation generally, could you please contact Mr Jon Hawke, Manager, Industry Development, on (02) 9901 8508. Similarly, if you have any queries on technical issues, would you

please contact Mr Greg Summerhayes, Principal Environmental Officer, on (02)
6572 1899.

Yours faithfully

A handwritten signature in black ink, appearing to read 'A. Galligan'. The signature is fluid and cursive, with a large initial 'A' and a long, sweeping tail.

A Galligan
Director, Resource Planning & Development

Annexure A

Mining, Rehabilitation, Environmental Management Process (MREMP)

3A Mining Operations Plan (MOP)

- (1) Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:-
 - (a) ongoing mining operations and environmental management; and
 - (b) ongoing monitoring of the project.
- (2) The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.
- (3) A Plan must be lodged with the Director-General:-
 - (a) prior to the commencement of mining operations;
 - (b) subsequently as appropriate prior to the expiry of any current Plan; and
 - (c) in accordance with any direction issued by the Director-General.
- (4) The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:-
 - (a) area(s) proposed to be disturbed under the Plan;
 - (b) mining and rehabilitation method(s) to be used and their sequence;
 - (c) areas to be used for disposal of tailings / waste;
 - (d) existing and proposed surface infrastructure;
 - (e) progressive rehabilitation schedules;
 - (f) areas of particular environmental sensitivity;
 - (g) water management systems (including erosion and sediment controls);
 - (h) proposed resource recovery; and
 - (i) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives / methods and post mining landuse / vegetation.

- 
- (5) The Plan when lodged will be reviewed by the Department of Mineral Resources.
 - (6) The Director-General may within two (2) months of the lodgement of a Plan, require modification and relodgement.
 - (7) If a requirement in accordance with clause (6) is not issued within two (2) months of the lodgement of a Plan, the lease holder may proceed with implementation of the Plan submitted subject to the lodgement of the required security deposit within the specified time.
 - (8) During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in (5) - (7) above.

3B Annual Environmental Management Report (AEMR)

- (1) Within 12 months of the commencement of mining operations and thereafter annually or, at such times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.
- (2) The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:-
 - (a) the accepted Mining Operations Plan;
 - (b) development consent requirements and conditions;
 - (c) Environment Protection Authority and Department of Land and Water Conservation licences and approvals;
 - (d) any other statutory environmental requirements;
 - (e) details of any variations to environmental approvals applicable to the lease area; and
 - (f) where relevant, progress towards final rehabilitation objectives.
- (3) After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.
- (4) The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies.

In accordance with the provisions of Section 122(3) of the Mining Act, 1992, on 17th June, 1996 the Director-General registered Monier PGH Holdings Limited as the holder of Mineral Lease No. 6031 (Act 1906) and Mining Leases Nos. 259, 274, 790 and 925 (Act 1973).



John Cole
Senior Titles Administrator
Central Region
TITLES BRANCH

MINING LEASE
MINING ACT, 1973

No. 925 (Act 1973)

DATED 18th March A.D. 1981

HIS EXCELLENCY THE GOVERNOR
OF THE STATE OF
NEW SOUTH WALES
TO

ACHIL INDUSTRIES
PTY. LIMITED

RECORDED in the Department of Mineral

Resources at Sydney, this

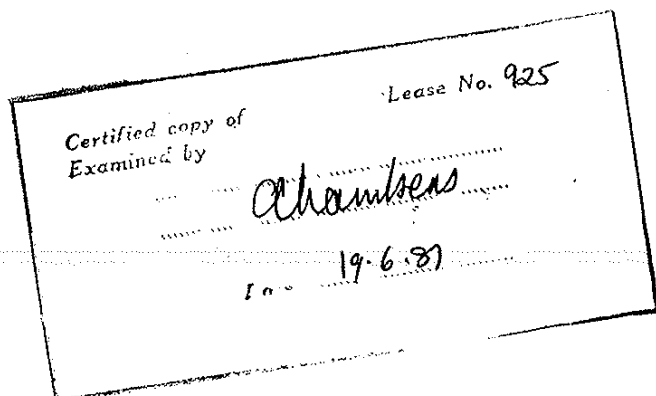
8th day of May

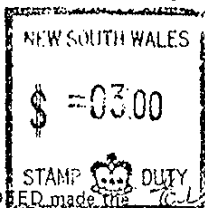
A.D. 1981, at the hour of 2

o'clock in the afternoon, and numbered

in the Register.

Deputy Registrar (minerals)





MINING ACT, 1973

MINING LEASE

THIS DEED made the *Eighteenth* day of *March* One thousand nine hundred and *eighty one* in pursuance of the provisions of the Mining Act, 1973 between His Excellency *Air* Marshal Sir James Anthony Rowland Governor of the State of New South Wales (hereinafter called "the Lessor" which expression shall where the context admits or requires include the Governor for the time being of the said State) of the one part and *Acnil Industries Pty. Limited*, Metford Road, East Maitland, in the State of New South Wales

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(which with its successors and transferees is hereinafter called "the registered holder") of the other part WHEREAS in conformity with the Mining Act, 1973 application was made for a mining lease of the lands hereinafter described AND WHEREAS all conditions and things required to be done and performed before granting a mining lease thereunder have been done and performed NOW THIS DEED WITNESSETH that in consideration of the rent reserved and royalty payable by virtue of the Mining Act, 1973 and of the covenants hereinafter contained and on the part of the registered holder to be paid performed and observed the Lessor in pursuance of the provisions of the Mining Act, 1973 DOTH HEREBY demise and lease unto the registered holder ALL THAT piece or parcel of land containing by admeasurement about 10.24 hectares and more particularly described and delineated in the plan annexed hereto for the purpose of prospecting and mining for brick clay, bloating clay, clay shale, fire clay, kaolin, pipeclay and pottery clay.

TO HOLD the said land with the appurtenances thereto subject to such rights and interests as may be lawfully subsisting therein or which may be reserved by the said Act at the date of these presents and subject also to such conditions provisos and stipulations as are herein contained UNTO the registered holder from and including the date hereof for the term of twenty-one years for the purpose aforesaid AND the registered holder DOTH HEREBY covenant with the Lessor as follows:

1. THAT in this lease except insofar as the context otherwise indicates or requires -
any reference to an Act includes that Act and any Act amending or in substitution for the same;
"Minister" means the Minister for Mineral Resources of the State of New South Wales and his successors in office and includes the person acting as such Minister for the time being; "Under Secretary" means the person for the time being holding office or acting as Under Secretary, Department of Mineral Resources, Sydney: the words "Crown lands", "mine" when used as a noun or when used as a verb, "owner" and "private lands" have the meanings respectively assigned to them by the Mining Act, 1973; words importing the singular number shall include the plural the masculine gender the feminine or neuter gender and vice versa; any covenant on the part of two or more persons shall be deemed to bind them jointly and severally.
2. THAT the registered holder shall pay to the owner of any private land the surface whereof is hereby demised and to the Minister in respect to any Crown land the surface whereof is hereby demised rent at the rate prescribed by the Mining Act 1973 and the Regulation thereunder at the time the rent is required to be paid or at the rate fixed by the Lessor from time to time during the term of this demise in exercise of the power in that behalf conferred upon him by the Mining Act, 1973 such rent or rents to be paid clear of all deductions yearly in advance respectively to the owner for the time being of the private land and to the Minister in Sydney in respect of the Crown lands hereby demised the first of such payments to be made on or before the *Eighteenth* day of *April*, 19 *81* and thereafter such payments to be made to the owner and the Minister respectively on or before the *Eighteenth* day of *March* in each year of the said term and the registered holder shall when called upon to produce to the Minister or some officer appointed by him in respect to the said private lands a receipt for such rent or otherwise satisfy the Minister that such rent has been paid.
3. THAT the registered holder shall during the said term pay to the Minister in Sydney in respect of all such minerals as aforesaid won from the land hereby demised royalty at the rate or rates prescribed by the Mining Act, 1973 and the Regulations thereunder at the time the minerals are won, or at the rate or rates fixed by the Lessor from time to time during the term of this demise in exercise of the power in that behalf conferred upon him by the Mining Act, 1973.

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4. THAT the registered holder shall not plead acceptance of rent by or on behalf of the owner as a waiver of the right of the Lessor to enforce observance of the covenants herein contained or of the covenants and conditions to be observed under the Mining Laws or of the right of the Lessor to cancel this lease for breach of any such covenant.
5. THAT the conditions and provisions set forth in the Schedule of Conditions of Authority annexed hereto and numbered 11, 14(a), 16, 17, 18, 19, 20(a)(d)(e), 23, 35, 52, 56(d), 62, 100, 108, 109, 130 and 135 to 148 (inclusive)

are embodied and incorporated with these presents as conditions and provisions of the lease hereby granted AND that the registered holder shall observe fulfil and perform the same.

PROVIDED always and it is hereby declared as follows:

- (a) THAT this lease is granted subject to amendment as provided under Section 57 of the Mining Act, 1973.
- (b) THAT if the registered holder at any time during the term of this demise -
- (i) fails to fulfil or contravenes the covenants and conditions herein contained; or
 - (ii) fails to comply with any provision of the Mining Act, 1973 with which the registered holder is required to comply; or
 - (iii) fails to use the land hereby demised bona fide for the purpose for which this lease was granted; or
 - (iv) uses the land hereby demised for any purpose other than that for which it has been demised,
- this lease may be cancelled by the Lessor by instrument in writing and the cancellation shall have effect from and including the date on which notification of the cancellation is published in the Government Gazette and the production of a copy of the Government Gazette containing a notification purporting to be signed by the Lessor declaring this lease to be cancelled shall be conclusive evidence of the facts stated therein.
- (c) THAT no implied covenant for title or for quiet enjoyment shall be contained herein.
- (d) THAT all the conditions and provisions contained in the Mining Act, 1973 and the Regulations thereunder and the Mines Inspection Act, 1901 and the Regulations thereunder or any other law now or hereafter to be passed or prescribed so far as the same may be applicable are embodied and incorporated with these presents as conditions and provisions of the lease hereby granted and the registered holder hereby covenants to observe fulfil and perform the same.
- (e) THAT such of the provisions and conditions herein declared and contained as require or prescribe anything to be done or not to be done by the registered holder shall in addition to being read and construed as conditions of the lease hereby expressed to be granted be also read and construed as covenants by the registered holder with the Lessor to observe and perform the said provisions and conditions.

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CONDITIONS OF AUTHORITY 1974

Methods of Operation

1. Operations shall not be conducted by open cut methods unless with the consent of the Minister ~~for Mines~~ first had and obtained and subject to such conditions as he may stipulate.

Protection for Shafts and Excavations

2. Operations shall be conducted in such a manner as not to cause any danger to persons and stock and the registered holder shall provide and maintain adequate protection to the satisfaction of the Minister ~~for Mines~~ around each shaft opened up or used by the registered holder.
3. Operations shall be conducted in such a manner as not to cause any danger to persons and stock and the registered holder shall provide and maintain adequate protection to the satisfaction of the Minister ~~for Mines~~ around each shaft and excavation opened up or used by the registered holder.
4. The registered holder shall provide and erect for the protection of persons and stock and to the satisfaction of the Minister ~~for Mines~~ a secure fence around all shafts opened up or used by the registered holder and the registered holder shall maintain such fencing to the satisfaction of the Minister, ~~for Mines~~.
5. The registered holder shall provide and erect for the protection of persons and stock and to the satisfaction of the Minister ~~for Mines~~ a secure fence around all shafts and excavations opened up or used by the registered holder and the registered holder shall maintain such fencing to the satisfaction of the Minister, ~~for Mines~~.
6. If so directed by the Minister ~~for Mines~~ the registered holder shall provide and maintain a secure fence to the satisfaction of the Minister ~~for Mines~~ around each shaft opened up or used by the registered holder.
7. If so directed by the Minister ~~for Mines~~ the registered holder shall provide and maintain a secure fence to the satisfaction of the Minister ~~for Mines~~ around each shaft and excavation opened up or used by the registered holder.
8. The registered holder shall, if so directed by the Minister ~~for Mines~~, securely fence all excavations to prevent access by stock.
9. (a) Upon abandonment of operations the registered holder shall either fill in or securely protect all shafts or workings opened up or used by the registered holder and if required so to do by the Minister ~~for Mines~~ the registered holder shall cover all such shafts in such a manner as may be satisfactory to the Minister, ~~for Mines~~.
- (b) Whenever the registered holder has been required to cover shafts the registered holder shall establish such identification marks as may be required and in a manner satisfactory to the Minister, ~~for Mines~~.

Open-cut Operations

10. The registered holder as work progresses shall return residues to excavations already made reasonably level off the material so deposited batter the sides of excavations to a safe low angle and effectually drain any depression and such filling levelling battering and draining shall be done to the satisfaction of the Minister, ~~for Mines~~.
11. (a) Any topsoil which may be disturbed shall be removed separately for replacement as far as may be practicable and as work progresses all other residues shall be returned to the excavations made and all worked ground shall be levelled off and the topsoil previously removed shall be replaced and levelled and sides of the cut shall be battered to a safe low angle and all depressions shall be effectually drained and such filling levelling battering and draining shall be done to the satisfaction of the Minister, ~~for Mines~~.
- (b) If so directed by the Minister ~~for Mines~~ the registered holder shall plant or sow such grasses shrubs or trees in the replaced topsoil as may be considered necessary by the Minister ~~for Mines~~ to control erosion.
12. The registered holder as work progresses shall return residues to excavations already made batter the sides of excavations to a safe low angle and effectually drain any depression and such filling battering and draining shall be done to the satisfaction of the Minister, ~~for Mines~~.
13. Upon abandonment of operations the registered holder shall batter the sides of each excavation opened up or used by the registered holder to a safe low angle and all such excavations shall be effectually drained to the satisfaction of the Minister, ~~for Mines~~.
14. (a) If so directed by the Minister ~~for Mines~~, the registered holder, upon the abandonment of operations in an excavation, shall cause such excavation to be graded so that the walls thereof form an angle of not more than forty-five degrees from the horizontal, by partial back-filling, further excavation, or such other method or combination of methods as the Minister ~~for Mines~~ may direct.
- (b) Upon the conclusion of operations as aforesaid, the registered holder shall cause drainage channels running into the excavation to be constructed so as to provide the maximum practicable intake of run-off water from the available catchment area. Such channels shall be so constructed as to reduce soil erosion as far as practicable, and shall be of such width and length as may be determined by the Minister, ~~for Mines~~.
- (c) Spoil dumps shall, upon conclusion of operations, be graded by the registered holder to form undulating or flat sloping areas, and shall be planted with grass, shrubs or indigenous trees, as directed by the Minister, ~~for Mines~~.
15. If so directed by the Minister ~~for Mines~~ at the cessation of operations the registered holder shall place overburden around open cut excavations to increase the water storage capacity of such excavations.
16. Upon the expiry or sooner determination of this authority or any renewal thereof the registered holder shall remove all machinery and buildings and the subject area shall be left in a clean and tidy condition to the satisfaction of the Minister, ~~for Mines~~.
17. The registered holder shall ensure that run off from any worked area including the overflow from any depression or ponded area is discharged in such a manner that it will not cause erosion.
18. All trees, shrubs and undergrowth which the registered holder cuts down, removes or damages for the purpose of the operations shall be disposed of by the registered holder as directed by and to the satisfaction of the Minister, ~~for Mines~~.
19. Upon completion of the operations hereby authorised the registered holder shall rehabilitate the areas disturbed to the satisfaction of the Minister, ~~for Mines~~.

Roads, Tracks, Fences, Transmission and Telephone Lines

20. (a) The registered holder shall not excavate within 15.24 metres of the boundaries of any road shown on the said plan unless with the consent of the Minister ~~for Mines~~ first had and obtained and subject to such conditions as he may stipulate.

(b) The registered holder shall not conduct any operations under any road shown on the said plan at a depth less than 15.24 metres from the surface thereof unless with the consent in writing of the Minister ~~for Mines~~ first had and obtained and subject to such conditions for the prevention of damage to the surface of any road as may be considered necessary by the Minister, ~~for Mines~~.

(c) The registered holder shall pay to Council, Department of Lands, the Commissioner for Western Lands or the Commissioner for Main Roads the cost incurred by such Council or Department or Commissioners of making good any damage caused by operations carried on by or under the authority of the registered holder or any person claiming through or under the registered holder to any road shown on the said plan.

(d) Notwithstanding that the registered holder shall have complied with this condition the registered holder shall pay to ~~the Council~~ Warrilow City Council, Department of Lands the Commissioner for Western Lands or the Commissioner for Main Roads the cost incurred by such Council or Department or Commissioners of making good any damage to any road caused by operations carried on by or under the authority of the registered holder or any person claiming through or under the registered holder.

(e) AND THE REGISTERED HOLDER HEREBY COVENANTS with the said Council that the registered holder will pay to the said Council the cost incurred by the Council of making good any such damage caused as aforesaid and the registered holder hereby covenants with the said Commissioners that the registered holder will pay to the said Commissioners the cost incurred by the said Commissioners of making good any such damage caused as aforesaid.

AND IT IS HEREBY AGREED AND DECLARED that the amount to be paid by the registered holder under the provisions of this clause shall include in addition to the cost of all necessary labour and materials all costs and expenses reasonably incurred in and about the making of surveys the preparation of plans and specifications and estimates the supervision and inspection of the works and all administrative and overhead costs and expenses of the Council or the Department of Lands the Commissioner for Western Lands or the Commissioner for Main Roads as the case may be related or attributable to the works undertaken to make good any damage caused to any road. A certificate under the hand of the Town or Shire Clerk of the local Council or the Under Secretary for Lands the Commissioner for Western Lands or the Commissioner for Main Roads or the person for the time being acting as such Clerk, Under Secretary or Commissioners as to the amount of the cost of making good any damage to any road shall in all respects and for all purposes be conclusive evidence of the amount of such cost and of the due determination thereof.

21. The registered holder shall not interfere with or impede the use of any track on the subject area or carry out any operations at a less depth than 15.24 metres below the surface of any track unless with the consent of the Minister ~~for Mines~~ first had and obtained.

22. The registered holder shall not interfere with or impede the use of any track on the subject area or endanger its stability in any way by reason of the operations carried out.

23. The registered holder shall not interfere in any way with any fences on or adjacent to the subject area unless with the consent in writing of the owner thereof or the Minister ~~for Mines~~ first had and obtained and subject to such conditions as the Minister may stipulate.

24. The registered holder shall at all times allow free and uninterrupted access along any road embraced by this authority and shall restore the surface of any road to its original condition on completion of the operations hereby authorised or the sooner determination of this authority.

25. The registered holder shall so conduct the operations hereby authorised as not to interfere with or impair the stability or efficiency of any telephone or power transmission line traversing the subject area.

26. The registered holder shall observe and comply with Specification for Overhead Line Construction No. C(b) 1-1962 issued by the Electricity Supply Association of Australia with such additions and amendments as may subsequently be made.

27. The registered holder shall restrict the use of any road or track situated within the subject area during wet weather to prevent any damage to such road or track.

28. In the event of operations being conducted on the surface of any track traversing the subject area or causing any damage to or interference with such track the registered holder shall provide suitable alternate access at its own expense and shall allow full and free access along such track or any alternate access at all times and if so required by the Minister ~~for Mines~~ the registered holder shall restore the track to its original position and condition following the completion of operations.

Forest Areas

29. (a) This authority does not confer the power to cut or remove any timber within

except such as directly obstructs or prevents the carrying on of the operations hereby authorised and the registered holder shall obtain authority under the provisions of the Forestry Act, 1916, as amended, or any Act amending the same and the Regulations thereunder before making use of the timber so cut for other than in connection with the operations hereby authorised. The sanction of the District Forester or his deputy shall be obtained before proceeding to cut any other timber within the said

(b) The registered holder shall take all precautions against causing outbreak of fire on the said and shall not burn off any grass dry herbage or surface litter except with the consent of the District Forester first had and obtained and shall under the direction and control of the local Forest Officer stack and burn the heads of any trees destroyed during the course of the operations hereby authorised and the registered holder shall not permit any fireplace to be constructed unless protected by stone wallings and fires lit therein shall not be left unattended.

(c) This authority is issued subject to any conditions and/or restrictions which may be prescribed in accordance with the provisions of the Forestry Act, 1916, as amended, or any Act amending the same and the Regulations thereunder and the Regulations under the Bush Fires Act, 1949.

30. In the event of operations encroaching on or within 3.048 metres of any constructed road or fire-break the registered holder shall provide a suitable deviation to the same standard as the previous road or fire-break and upon the completion of operations or the sooner determination of this authority the registered holder shall restore the road or fire-break to its original position and condition to the satisfaction of the Minister, ~~for Mines~~.

31. The registered holder shall not interfere with any Crown Improvements unless with the consent in writing of the Minister ~~for Mines~~ first had and obtained and subject to such conditions as he may stipulate.

32. The registered holder shall not cut destroy ringbark or remove any timber or other vegetative cover except such as directly obstructs or prevents the carrying on of the operations hereby authorised.

33. The registered holder shall not ringbark cut-down fell or destroy or cause or allow to be ringbarked cut-down felled or destroyed any tree situated within or within 20.12 metres of the bed or bank of unless with the consent in writing of the Catchment Areas Protection Board first had and obtained.
34. The registered holder shall not ringbark cut-down fell or destroy or cause or allow to be ringbarked cut-down felled or destroyed any tree situated within or within 20.12 metres of the bed or bank of unless with the consent in writing of the Catchment Areas Protection Board first had and obtained and on the remainder of the subject area shall not cut destroy ringbark or remove any timber or other vegetative cover except such as directly obstructs or prevents the carrying on of the operations hereby authorised.
35. The registered holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the registered holder shall observe and perform any instructions given or which may be given by the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ with a view to minimising or preventing soil erosion.
36. (a) The registered holder shall not cut damage or interfere in any way with any trees or shrubs except such as may directly obstruct or prevent the carrying out of the operations hereby authorised.
- (b) The operations hereby authorised shall be carried out in such a manner as to interfere as little as possible with natural flora or fauna.
37. Any necessary clearing shall be done only with the prior permission of the District Forester or his deputy and compensation shall be paid for any mature trees or semi-mature trees damaged or destroyed at the rate fixed by the Forestry Commission and such compensation shall be payable on demand at the end of each calendar month.
38. The registered holder shall not operate a crawler tractor on the subject area.
39. The registered holder shall not cause damage to forest roads or tracks by operating vehicles on the subject area during wet weather.
40. The Minister ~~for Mines~~ reserves the right to suspend operations immediately if weather conditions and/or the operations are causing unnecessary damage to any assets of the Forestry Commission.
41. Upon completion of the operations hereby authorised the registered holder shall restore consolidate and make trafficable to the satisfaction of the Minister ~~for Mines~~ all roads and fire-breaks at present existing and which may be affected by the operations.
42. The registered holder shall not cut destroy ringbark or remove any timber or vegetative cover except such as directly obstructs or prevents the carrying on of the operations hereby authorised and subject to payment to the owner of compensation assessed as prescribed by the Mining Act.

Prevention of Pollution

43. The holder shall provide and maintain to the satisfaction of the Minister ~~for Mines~~ an efficient settling dam or dams to prevent pollution of the waters of and shall not permit water containing more than milligrams of suspended matter per litre to seep or flow into the said from the subject area and shall observe any instructions given or which may be given by the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ with a view of preventing or minimizing the pollution of any stream or watercourse.
44. The registered holder shall not permit effluent from any treatment plant or plants containing chemicals or acids or more than milligrams of suspended matter per litre to seep or flow from the subject area and the registered holder shall observe any instructions given or which may be given by the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ with a view of preventing or minimising pollution of any stream or watercourse.

Cyanide Plants

45. (a) The registered holder shall securely fence any cyanide plant by erecting substantial posts not more than 4.572 metres apart to which shall be attached at least four (4) strands of barbed wire the top strand of which shall be at least 1.219 metres above the surface of the adjoining ground. Entrance to the said plant shall be provided by a substantial gate which shall be kept securely closed at all times when the gateway is not in use.
- (b) The registered holder shall also cause to be posted and to be maintained in a conspicuous place in the vicinity of such plant a notice bearing the word "Poison" such word to be in letters covering not less than 152.4 millimetres in length.
- (c) The registered holder shall not permit the escape of any cyanide or cyanide solution from the subject area into any reservoir dam waterhole stream water channel race or drain and shall comply with any further direction which may be given by the Minister ~~for Mines~~.

Dredging Operations

46. (a) The registered holder shall conduct operations by a dredge of such a type and so constructed as to permit resoling operations being efficiently carried out to the satisfaction of the Minister ~~for Mines~~.
- (b) Where the soil and other earthy overburden are 609.6 millimetres deep or less the registered holder as work progresses shall distribute and spread with a flat grade on the surface of the tailings dump by means of silt distributors and brush or other dams the greatest possible quantity of fine material from the excavations and unless otherwise directed by the Minister ~~for Mines~~ shall sow the newly formed surface with approved seeds until they take root.
- (c) Where the soil and other earthy overburden exceed 609.6 millimetres deep the registered holder as work progresses shall advance strip such soil and overburden to any depth to which they occur up to 2.134 metres below the surface and from the face convey the same either in a dry or moist state but not in solution or suspension in water and distribute evenly with a flat grade on top of the coarse and fine materials dumped from the boxes and unless otherwise directed by the Minister ~~for Mines~~ shall sow the newly formed surface with approved seeds and trees until they take root and shall carry out such further work as the Minister ~~for Mines~~ may consider necessary for the resoling of the subject area.

Underground Operations

47. (a) When operations are conducted underground the registered holder shall leave unworked pillars of metres by metres of metres and such pillars shall not be removed unless with the consent of the Minister ~~for Mines~~ first had and obtained and subject to such conditions as he may stipulate.
- (b) Underground operations shall not be conducted within metres below the surface of the subject area.

Operations in Bed or Banks of a Watercourse

48. The registered holder shall not conduct sluicing operations within 10.06 metres of or at such other places where material sluiced down will pass or be carried by storm or flood waters into any watercourse. All debris and tailings shall be returned to any excavations made and the sites of the excavations reasonably levelled off.
49. In the event of dredging operations being carried out in any watercourse any material removed shall not be returned to the watercourse.
50. In the event of dredging operations being carried out in the banks of any watercourse surplus materials and tailings shall be replaced so as to restore the banks of the watercourse to the condition existing before the operations commenced, or disposed of as and where directed. When restored, the banks of the watercourse shall have a regular alignment and batters with the coarse material placed adjacent to the channel of the watercourse and the channel thereof shall have a width not less than that existing before the operations commenced.
51. The registered holder shall conduct the operations hereby authorised in such a manner that the amount of solid matter in suspension in any watercourse 402.3 metres below the lower end of the area of operations shall not be more than 100 milligrams per litre in excess of the amount of solid matter in suspension in the watercourse above the said area.

Prohibition of Firearms

52. The registered holder shall not allow any firearms to be brought onto the subject area.

Catchment Areas

53. (a) Operations shall be carried out in such a way as not to cause any pollution of the Catchment Area.
- (b) If the registered holder is using or about to use any process which in the opinion of the Minister ~~for Mines~~ is likely to cause contamination of the waters of the said Catchment Area the registered holder shall refrain from using or cease using as the case may require such process within twenty-four (24) hours of the receipt by the registered holder of a notice in writing under the hand of the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ requiring the registered holder so to do.
- (c) The registered holder shall comply with any regulations now in force or hereafter to be in force for the protection from pollution of the said Catchment Area.
- (d) The registered holder shall not erect nor permit to be erected any dwellings unless with the consent of the Minister ~~for Mines~~ or the Broken Hill Water Board first had and obtained and subject to such conditions as may be stipulated.
- (e) The registered holder shall make such provisions for sanitation as may be approved by the Broken Hill Water Board and shall at all times observe and perform any requirements of the said Water Board respecting sanitation.
54. (a) The registered holder shall remove all wash dirt from the tunnels or shafts and shall puddle or sluice such wash dirt in a place where the residues from such puddling or sluicing shall not enter any watercourse leading to the Puddledock Storage Reservoir.
- (b) The registered holder shall efficiently stack all waste rock from the tunnels or shafts against stone or log walls so as to prevent any material rolling or being washed down the hillside into Puddledock Creek and shall maintain such walls in good order and condition to the satisfaction of the Minister ~~for Mines~~.
- (c) The registered holder shall provide and maintain to the satisfaction of the Minister ~~for Mines~~ sanitary conveniences and shall place same in a position to be approved by the said Minister ~~for Mines~~ and shall dispose of all excreta in such a manner as to prevent any contamination or pollution of the watercourse of the Catchment Area or of the Storage Reservoir.
- (d) The registered holder shall not employ more than five men at any one time unless with the consent in writing of the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ first had and obtained and subject to such conditions as he may stipulate.
- (e) The registered holder as far as may be practicable shall filter all water emerging from the tunnels through the sand residues and shall not allow such water to be run or to fall directly into Puddledock Creek.
- (f) The registered holder shall report immediately to the proper local authority any case of infectious disease arising among the persons employed on the subject area.
- (g) The registered holder shall not permit the family of any employee to reside on the subject area.
- (h) The registered holder shall not cut any timber except such as directly obstructs or prevents the carrying out of the operations hereby authorised.
55. Operations shall be conducted in such a manner as not to interfere with or cause damage to the assets of the Broken Hill ~~Water~~ Board situated on or around the subject area.
56. (a) The registered holder shall carry out all operations in such a way as to conform strictly to all provisions of the Metropolitan Water, Sewerage and Drainage Act, 1924, as amended, and the by-laws thereunder applying to the prevention of pollution of the Catchment Area for the preservation of the purity of the water supply provided thereby or derived therefrom or for the protection of the property of the Board on the Catchment Area and also to all requirements of the said Board from time to time under the said Act or any of the by-laws for the time being in force.
- (b) If the registered holder shall at any time be using or about to use any process which in the opinion of the Metropolitan Water, Sewerage and Drainage Board is likely to pollute the Catchment Area or the water supply or to endanger any property of the said Board on the Catchment Area the registered holder upon service of a notice in writing under the hand of the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ so to do shall (i) discontinue the use of such process within twenty-four (24) hours or (ii) thereafter refrain from adopting such process at any time as the case may require.
- (c) The registered holder shall make such provisions for sanitation as may be directed by the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ and shall at all times observe and perform any requirements of the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ respecting sanitation.
- (d) The registered holder shall provide and maintain to the satisfaction of the Minister ~~for Mines~~ efficient means to prevent the contamination pollution or siltation of any stream or watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ with a view to preventing or minimising the contamination pollution or siltation of any stream watercourse or catchment area or any undue interference to fish or their environment.

(e) The registered holder shall not establish any camps or habitations within any areas under the control of the Metropolitan Water, Sewerage and Drainage Board unless with the consent of the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ first had and obtained and subject to such conditions as he may stipulate.

(f) The registered holder hereby covenants with Us Our Heirs and Successors and as a separate covenant the registered holder hereby covenants with the Metropolitan Water, Sewerage and Drainage Board and its Successors that the registered holder shall at all times hereafter save harmless and keep Us and the said Board and Our Heirs and Successors and the Successors of the said Board indemnified from payment of compensation and from and against all actions proceedings claims and demands in respect of any injury loss or damage arising out of or in any way connected with any interference with or deprivation or loss of access to the land and premises of this authority which may occur by reason of any works or operations undertaken or carried out by the said Board or arising out of or in any way connected with any discontinuance or alteration of any process consequent upon the service of a notice in pursuance of the provisions of sub-clause (b) of this clause or arising out of or in any way connected with the operation of any by-laws relating to a Catchment Area in force at the date hereof or made by the said Board at any time hereafter and the registered holder hereby agrees that for the purpose of this sub-clause the said Board shall be deemed to be a party to this authority.

Bombing and Artillery Ranges

57. (a) The registered holder shall vacate any part of the subject area which is within the danger areas of the Air Force live bombing range and/or air to ground gunnery and rocket firing range upon notification by the Air Force authorities of any exercises effecting such area and the registered holder shall not return until the conclusion of any such exercises.
- (b) The registered holder shall not interfere in any way with entry upon the subject area by any persons duly authorised by the Air Force authorities for any purpose whatsoever in connection with the live bombing range and/or air to ground gunnery and rocket firing range.
- (c) The registered holder shall accept all and any risks to which the registered holder or the registered holder's property may be exposed by reason of the existence of the live bombing range and/or air to ground gunnery and rocket firing range on the subject area and the registered holder shall save harmless the Australian Government or persons lawfully using the said ranges from any claims or injuries to the registered holder or the registered holder's servants or workmen which may arise by reason of the use of the said ranges by the Air Force.
58. (a) The registered holder shall not interfere in any way with rifle practice by members of duly constituted rifle clubs or the Australian Military Forces.
- (b) The registered holder shall not be entitled to charge rent for the use of the rifle range on the subject area or any part thereof.
- (c) The registered holder shall save harmless and indemnify the Crown, the Minister and the Australian Government from and against any and all loss, damage and injury whatsoever whether negligently or otherwise occasioned to the registered holder or to his agents or employees by reason of the discharge of fire-arms on the said range from and against any and all loss, damage and injury whatsoever occasioned to the registered holder or to his agents or employees by the discharge of fire-arms on the said range except such loss, damage or injury as is occasioned by wilful recklessness or negligence in the discharge of such fire-arms.
- (d) Members of rifle clubs or the Australian Military Forces shall retain the privileges of taking riding horses and vehicles on to the rifle range.

Trigonometrical Stations

59. (a) The marks in connection with any trigonometrical station erected on or near the subject area shall not be interfered with and the unrestricted right of access to such station by authorised persons and also the right to clear sight lines to surrounding stations is reserved at all times.
- (b) The registered holder shall take all necessary precautions to preserve the trigonometrical station and the cairn mast and vanes which might be erected upon the subject area.
- (c) No buildings or other structures shall be erected which would make observations to and from surrounding stations difficult to effect.

Reserve

60. The registered holder shall permit the free and uninterrupted passage of stock through the subject area and shall conduct operations in such a manner as not to cause any danger to travelling stock.
61. The registered holder shall permit the free and uninterrupted passage of stock through that part of the subject area covered by Travelling Stock Reserve and shall conduct operations in such a manner as not to cause any danger to travelling stock.
62. The registered holder shall not keep nor permit to be kept on the subject area any dog unless chained up or kept under proper control.
63. The registered holder shall as far as may be practicable so conduct operations as not to interfere in any way with the public use and enjoyment of

Rutile, Zircon etc. Operations

64. (a) The registered holder shall within twelve months of the date of this Authority or any renewal thereof erect a separation plant upon the subject area or other land to the satisfaction of the Minister ~~for Mines~~ or furnish to the Minister ~~for Mines~~ satisfactory evidence that the registered holder has made suitable arrangements for the treatment of concentrates.
- (b) The registered holder shall not permit excessive quantities of silica sand tailings to accumulate around or adjacent to the separation plant and all such tailings shall be returned continuously as far as may be practicable to the excavations made on the subject area or on such other land as may be directed by the Minister ~~for Mines~~.
65. (a) If in the opinion of the Minister ~~for Mines~~ the quantity of silica being removed from the subject area as a consequence of mining operations is likely to impair the restoration of the subject area or cause damage to or interference with adjoining authorities or other lands the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ may direct by writing under his hand from time to time as the circumstances so require the registered holder to reduce the quantity of silica being so removed. The registered holder shall comply forthwith with any direction so given and in the event of non-compliance this authority may be cancelled.
- (b) The Minister ~~for Mines~~ may vary or revoke any direction given or which may be given in accordance with the foregoing clause.

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66. (a) The registered holder shall treat by means of spiral concentrators or other approved method of concentration on or adjacent to the subject area all material mined so as to produce a concentrate containing not less than sixty-five per centum of heavy minerals and all tailings from such operations shall be returned continuously as far as may be practicable in the excavations made provided that where the circumstances so warrant the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ on application in writing by the registered holder may authorise:
- (i) the removal of material without prior concentration,
 - or,
 - (ii) the production of a concentrate containing less than sixty-five per centum of heavy minerals.
- (b) Where authority is given in accordance with either of the provisos to the foregoing clause (a) the registered holder shall observe and perform the conditions and stipulations laid down in such authority and such authority may be varied or revoked at any time by notice in writing under the hand of the Minister, ~~for Mines~~.
- (c) Any notice given in accordance with the foregoing clause (b) shall take effect within the period of time stated in such notice and in the event of any failure to observe and comply with such notice this authority or any renewal thereof may be cancelled.
67. (a) Where mining is conducted on the beach the tailings shall be returned continuously to the excavations made and the surface shall be levelled off to restore as near as possible the original contours of the beach.
- (b) Where mining is conducted on the beach the tailings shall be returned continuously to the excavations made and the surface shall be graded to an angle approved by the Minister, ~~for Mines~~.
68. In the event of operations by the registered holder on the subject area causing damage to any lands which have been restored after mining the registered holder shall repair such damage at the registered holder's own expense to the satisfaction of the Minister, ~~for Mines~~.
69. The registered holder shall not conduct any operations on or under the main frontal sand dune nor within metres of the seaward side of the base thereof unless with the consent of the Minister ~~for Mines~~ in writing first had and obtained and subject to such conditions as he may stipulate.
70. (a) In the event of it being necessary to drive roads of access through the main frontal sand dune the registered holder shall protect the base and sides of such cut-throughs with corduroys of poles to prevent the formation of moving sand dunes and the registered holder shall construct and maintain such corduroys to the satisfaction of the Minister, ~~for Mines~~.
- (b) Upon ceasing to use such cut-throughs or if sooner directed so to do by the Minister ~~for Mines~~ the registered holder shall restore the main dune to its original contours unless the Minister ~~for Mines~~ shall otherwise direct and shall plant the same with grasses plants shrubs and/or trees and erect brush fences and/or lay a matting of brush thereon to the satisfaction of the Minister, ~~for Mines~~.
71. (a) Unless otherwise directed by the Minister ~~for Mines~~ the registered holder shall remove the surface material to a depth of millimetres on such part of the subject area as may be disturbed by the operations hereby authorised and shall stack such surface material separately on the subject area or on such other land as the Minister may authorise in writing and subject to such conditions as he may stipulate.
- (b) The registered holder shall return all residues and tailings to the excavations made level off all worked ground or if so directed by the Minister ~~for Mines~~ contour such ground to a shape satisfactory to the Minister ~~for Mines~~ replace any surface material previously removed and plant the same with such grasses plants shrubs and/or trees as may be required by the Minister, ~~for Mines~~.
- (c) The registered holder shall during the term of this authority and to the satisfaction of the Minister ~~for Mines~~ maintain and care for the grasses plants shrubs and/or trees planted on those parts of the subject area which have been levelled and/or contoured.
- (d) The registered holder shall restore all worked areas concurrently with mining operations unless otherwise permitted or directed by the Minister, ~~for Mines~~.
- (e) The registered holder shall as far as may be practicable so conduct operations as not to cause any damage to shrubs and trees or other native flora and shall stock and burn all shrubs and trees or other native flora which may be disturbed or destroyed as a result of the operations hereby authorised provided that before doing so the registered holder shall obtain from the responsible authority permission to light fires.
- (f) If so directed by the Minister ~~for Mines~~ the registered holder shall provide and erect brush fences and/or lay a matting of brush to prevent as far as may be practicable the scouring action of the wind and to provide protection for the grasses plants shrubs and/or trees planted on those parts of the subject area which have been levelled and/or contoured and restored and the registered holder shall maintain such brush fences or matting to the satisfaction of the Minister, ~~for Mines~~.
- (g) Unless with the consent of the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ first had and obtained the registered holder shall restrict any clearing of or disturbance to the surface to a distance not greater than 100 metres from the site of mining operations.
72. Where operations are conducted on the main frontal sand dune the registered holder shall restore the worked dune as far as may be practicable to the same slope and contour as the original dune unless the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ shall otherwise direct.
73. (a) In the event of operations being conducted other than by means of dredging the registered holder shall mine the area in sections of such dimensions as the Minister ~~for Mines~~ may stipulate from time to time.
- (b) Upon completion of mining operations in each section all residues and tailings shall be returned to the excavations made and all worked ground shall be levelled off and any surface material previously removed shall be placed and planted with such grasses plants shrubs and/or trees as may be required by the Minister ~~for Mines~~ provided that the mining of the next section may be carried out conjointly with the restoration of the last worked section but no further section shall be mined until such restoration is completed.
74. The registered holder shall confine the deposition of overburden removed during operations within the boundaries of the subject area or on such other land as may be approved in writing by the Minister ~~for Mines~~ and subject to such conditions as he may think necessary to impose.
75. Operations between the floor of an excavation and shall cease when a straight line
drawn from
to the nearest edge of the floor of the excavation exceeds an angle of forty-five degrees measured from the horizontal unless otherwise determined by the Minister, ~~for Mines~~.

76. Upon the expiry or sooner determination of this authority or any renewal thereof the registered holder shall remove all machinery and buildings and the subject area shall be left in a clean and tidy condition to the satisfaction of the Minister, ~~for Mines~~.
77. If so directed by the Minister ~~for Mines~~ the registered holder shall fill in any dredge pool or other excavation and shall observe any instruction which may be given from time to time in this regard by the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~.
78. If so directed by the Minister ~~for Mines~~ the registered holder shall provide and maintain a secure fence to the satisfaction of the Minister ~~for Mines~~ around each dredge pool or other excavation opened up or used by the registered holder and shall observe any instructions which may be given from time to time in this regard by the Minister ~~for Mines~~ or the Under Secretary, ~~for Mines~~.
79. If so directed by the Minister ~~for Mines~~ the registered holder shall spread fertilizer of such type and in such quantity as may be directed over the restored area to assist the growth of such grasses plants shrubs and/or trees as may have been planted in accordance with any of the foregoing special conditions.
80. If so directed by the Minister ~~for Mines~~ the registered holder shall enclose the subject area with a secure stockproof fence and such fencing shall be erected and maintained in a manner satisfactory to the Minister, ~~for Mines~~.
81. The registered holder shall at all times permit the registered holder of adjoining or adjacent authorities to have reasonable access across the subject area at such points and in such a manner as may be agreed upon or in the absence of agreement as may be determined by the Werden under the provisions of Section 174, Mining Act, 1973, as amended.
82. The registered holder shall observe any instructions which may be given by the Minister ~~for Mines~~ with a view of minimising or preventing public inconvenience or damage to public or private property.
83. In the event of any improvements being damaged or disturbed by operations by the registered holder such improvements shall be restored to the satisfaction of the owner of such improvements or the Minister, ~~for Mines~~.
84. The registered holder shall conduct operations in such a manner as not to cause any danger to stock and the registered holder shall not keep nor permit to be kept on the subject area any dog unless chained up or kept under proper control.
85. (a) The registered holder shall not interfere in any way with any fences on or adjacent to the subject area unless with the consent in writing of the owner thereof or the Minister ~~for Mines~~ first had and obtained and subject to such conditions as the Minister may stipulate.
(b) The registered holder shall during restoration of the subject area or any part thereof remove all domestic animals from such area as may trespass thereon and shall take all such action as is necessary to prevent them from depasturing thereon and shall observe and perform any instructions given or which may be given by the Minister ~~for Mines~~ with a view to minimising or preventing damage to such area or the restoration thereof by the depasturing of any animal thereon.
86. The registered holder shall conduct operations in such a manner as not to create any danger from floods or storms and shall observe and perform any instructions given or which may be given by the Minister ~~for Mines~~ with a view of minimising or preventing any flood or storm damage.
87. The registered holder shall at all times so conduct operations as to cause as little interference as possible with the public use and enjoyment of the beach for fishing and recreation and shall permit free and uninterrupted access by the public to the beach at all times.
88. The registered holder shall not interfere unless with the consent of the Minister ~~for Mines~~ first had and obtained with any life-saver's sheds and apparatus now or at any time erected or installed and shall so conduct operations within the vicinity of the part or parts of the beach or beaches used by bathers that the same shall not cause any danger or obstruction to such bathers.
89. If it is found that the operations hereby authorised are causing any undue damage to or erosion of the subject area or other land in the vicinity thereof the Governor with the advice of the Executive Council may cancel this authority or any renewal thereof without compensation to the registered holder upon giving one month's notice of his intention so to do.
90. The registered holder is so required by the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ shall surrender such part or parts of the subject area as have been worked and restored in the manner prescribed in this authority.
91. (a) Within a period of three months of the commencement of operations the registered holder shall establish a nursery for the propagation of a sufficient number and variety of plants, shrubs and trees which in the opinion of the Minister ~~for Mines~~ is adequate for the purposes of satisfactory rehabilitation in the secondary and tertiary stages.
(b) Provided that in the event of:
(i) an adequate nursery having been established by the registered holder in the vicinity of the subject area; or
(ii) satisfactory evidence being furnished that the registered holder has made suitable arrangements for adequate quantities of plants, shrubs and trees to be provided and maintained:
the Minister ~~for Mines~~ may dispense with the requirements of the foregoing clause (a).
92. Upon cessation of operations or if so directed by the Minister ~~for Mines~~ during the course of such operations, the registered holder shall restore all worked areas as far as may be practicable to their original slopes and contours to the satisfaction of the Minister, ~~for Mines~~.
93. The registered holder shall plant all worked areas and other areas within the external boundaries of the subject area used in connection with or disturbed by the operations conducted with grasses, plants shrubs and/or trees only of the same species as were growing prior to the commencement of the operations and the registered holder shall maintain and care for the same during the currency of this authority and any renewal thereof to the satisfaction of the Minister ~~for Mines~~, provided that exotic species of grasses, plants, shrubs and/or trees may be planted to help to establish the primary stages of regeneration but such species shall be restricted to those approved by and shall not be planted without the approval of the Minister, ~~for Mines~~.
94. The registered holder shall not conduct any operations within a distance of _____ metres of the bank of _____ unless with the consent of the Minister ~~for Mines~~ first had and obtained and subject to such conditions as he may stipulate.
95. The registered holder shall take all reasonable precautions to prevent the occurrence of unauthorised fires and the spread of authorised fires and shall observe any direction given by the responsible authority in connection with the prevention of fires.

96. Not less than four months before the commencement of operations the registered holder shall furnish to the Minister ~~for Mines~~ in triplicate a contour plan, a vegetation plan and an operations plan in such detail as may be required by the Minister. The registered holder may commence operations in accordance with the operations plan unless within three months of the date of lodgement of such plan the Minister has notified the registered holder that he does not concur with the plans submitted and the registered holder shall not undertake any operations or works on the area delineated in the operations plan until such time as it has been varied, modified or amended by the Minister or by the registered holder at the request of the Minister and then only subject to such restrictions and/or conditions as he may deem necessary.
97. The registered holder shall take all reasonable precautions to ensure that any fertilizer, insecticide or other chemical substance used does not cause pollution or contamination of any stream, watercourse, lake, lagoon or estuary on or adjacent to the subject area.
98. The registered holder shall as far as may be practicable prevent the spread of any oil or other pollutant.
- Miscellaneous**
99. Unless with the consent of the Minister ~~for Mines~~ first had and obtained the registered holder shall not open up or use any further shaft or excavation unless the previous shaft or excavation has been restored in accordance with the conditions of the authority.
100. The registered holder shall take all precautions against causing an outbreak of fire and shall comply with the provisions of and regulations under the Bush Fires Act, 1949, as amended and shall not burn off any grass, foliage or forage unless with the consent of the owner or occupier and the local fire authority.
101. The registered holder shall not interfere with the flow of water in any stream or watercourse except for the purpose of obtaining water for the operation of a treatment plant and any water so obtained shall be returned to the stream or watercourse. All water when returned shall not contain more than 250 milligrams of suspended matter per litre.
102. The registered holder shall not interfere with or prevent the access of stock to any watering places or approaches thereto without the consent of the owner and occupier or of the Minister ~~for Mines~~ first had and obtained and subject to such conditions as the Minister may stipulate.
103. The registered holder shall not interfere with any well, water pump, dam or pipeline without the consent of the owner and occupier or the Minister ~~for Mines~~ first had and obtained and subject to such conditions as the Minister may stipulate.
104. This authority authorises the registered holder to carry out prospecting operations only and does not confer any right to mine.
105. Prospecting operations shall be restricted to boring and shaft sinking. No further borehole or shaft shall be opened up unless the previous hole or shaft has been restored in accordance with the conditions of the authority.
106. The minimum number of tracks shall be used for access from one site of operations to another and such tracks shall be positioned as far as may be practicable so that they do not cause any unnecessary damage to pasture land.
107. The registered holder shall not interfere with the flow of water in any stream or watercourse and shall conduct operations so that they cause no pollution of any stream or watercourse.
108. The registered holder shall not deposit any refuse except in properly constructed containers which shall be regularly removed by the registered holder from the subject area. The registered holder shall maintain the area in a clean and tidy condition at all times.
109. Any gates within the subject area or any other gates used by the registered holder shall be closed or left open in accordance with the requirements of the owner or occupier.
- Prospecting**
110. Prospecting operations shall be restricted to
111. The registered holder shall lodge with the Minister within 14 days after the expiration of each six (6) months of the term of this authority a written report to the satisfaction of the Minister containing particulars of:
- (a) all surveys and other operations including expenditure thereon carried out by the registered holder during each six months of the term of the authority.
 - (b) the proposed exploration to be conducted during the remainder of the term of the authority.
112. The registered holder shall forward to the Minister with every application for renewal of this authority and upon the expiry or sooner determination of the authority a comprehensive written report to the satisfaction of the Minister containing full particulars of:
- (a) all surveys and other operations including expenditure thereon carried out by the registered holder during the period of the authority or the last renewal thereof as the case may be;
 - (b) results of such surveys and other operations and conclusions reached by the registered holder on the basis thereof as to the economic mineral potential of the subject area; and
 - (c) the proposed scheme for further exploration of the area the subject of any application for renewal.
113. The registered holder shall forward to the Minister such further reports on surveys and other operations as the Minister may from time to time require.
114. The registered holder shall forward with every report all such maps, plans and data as are necessary to satisfactorily interpret and evaluate the report.
115. The registered holder shall furnish such notifications and particulars and preserve such cores and samples as required by Section 428 of the Mines Inspection Act, 1901, as amended.
116. Where the registered holder proposes to drill a drillhole or borehole he shall ensure:
- (a) all core holes are accurately surveyed and permanently marked so that their location can be readily ascertained;
 - (b) all holes whether cores or otherwise are sealed so as to prevent collapse of the surrounding surface;
 - (c) all flowing drillholes or boreholes are permanently sealed with cement plugs to prevent surface discharge of groundwater;
 - (d) that where any drillhole or borehole encounters natural or noxious gases it is plugged or sealed so as to prevent their escape.

(e) that where any drillhole or borehole encounters an artesian or sub-artesian flow that it is sealed discretely to prevent contamination of aquifers

117. The registered holder shall expend an amount of _____ on operations conducted on the area during the term of the authority of which not less than _____ shall be expended during the first twelve months of such term.

118. Where the registered holder intends to conduct any operations authorised by the authority in or adjacent to any river, stream, creek, tributary, lake, dam or reservoir the subject of a proclamation under the Fisheries and Oyster Farms Act, 1935, relating to or prohibiting the taking of species of fish, the registered holder shall, not less than seven (7) days before commencement of such operations give notice in writing to the District Inspector of Fisheries setting out details of such operations and the river, stream, creek, tributary, lake, dam or reservoir that shall or may be affected thereby.

119. Upon abandonment or completion of any borehole within any site the registered holder shall leave the site in a clean and tidy condition to the satisfaction of the Minister ~~for Mines~~ and the registered holder shall comply with any instruction given or which may be given by the Minister ~~for Mines~~ or the Under Secretary ~~for Mines~~ regarding the rehabilitation of the land.

120. The registered holder shall not drill/bore, nor permit to be drilled/bored any hole in excess of 200 millimetres in diameter unless with the consent of the Minister ~~for Mines~~ first had and obtained and subject to such conditions as he may stipulate.

121. The registered holder shall furnish to the Minister ~~for Mines~~ at the end of each six months of the term of this authority or of any extension thereof and upon the expiry or sooner termination of such authority full particulars as to the results of prospecting operations together with details of expenditure incurred in such operations location plans showing the type and extent of actual operations conducted including dimensions of all drillholes, boreholes, tunnels, shafts, costans, trenches, pits and other excavations the values obtained and advice as to the method of calculation used in estimating such values.

122. The registered holder shall allow full rights of ingress egress and regress into out of and over the subject area to the registered holders of and/or applicants for adjoining or adjacent authorities.

123. This authority shall be exclusive of all claims and authorities under the Mining Act, 1973, as amended and all applications for authorities validly applied for on or before _____ and still so held or applied for.

124. Upon abandonment of the operations hereby authorised the registered holder shall fill in or suitably plug all boreholes.

125. The surface of _____ within the area embraced by this authority and the land below such surface to a depth of _____ metres shall be excepted from this authority.

Radio-active Minerals

126. When required by the Minister ~~for Mines~~ the registered holder shall supply or cause to be supplied full particulars of the development work carried out together with details of the development work proposed to be undertaken in the next ensuing period of three months.

127. The registered holder shall advise the Australian Atomic Energy Commission of the nature and location of any radio-active mineral which may be discovered as a result of the operations hereby authorised.

Control of noxious weeds

128. The registered holder shall observe any instructions given or which may be given by any responsible authority with a view to the eradication of noxious weeds.

Adjunct

129. This authority shall be held as an adjunct to _____ issued under the provisions of the Mining Act, and in the event of any transfer of the said _____ or an interest therein to any other person the registered holder shall also transfer to such person this authority or interest therein and in the event of the said _____ being cancelled or otherwise determined the Governor may cancel this authority.

Indemnity

130. The registered holder shall indemnify and keep indemnified the Crown from and against all action suits claims and demands of whatsoever nature and all costs charges and expenses which may be brought against the registered holder or which the registered holder may incur in respect of any accident or injury to any person or property which may arise out of the construction maintenance or working of any workings now existing or to be made by the registered holder within the boundaries of the subject area or in connection with any of the operations hereby authorised notwithstanding that all other conditions of this authority shall in all respects have been observed by the registered holder or that any such accident or injury shall arise from any act or thing which the registered holder may be licensed or compelled to do hereunder.

Quarantee Deposits

131. (a) The registered holder shall lodge with the Minister ~~for Mines~~ a bond in a form approved by the Minister with a surety approved by him, or other security in cash or otherwise as the Minister thinks proper to accept in a sum of _____ dollars (\$ _____) conditioned upon compliance with the terms and conditions of this authority. In the event of such terms and conditions not being fulfilled in their entirety the security lodged may be forfeited.
- (b) (i) Subject to subparagraph (ii) of this paragraph the Minister may at any time or times after the expiration of seven years from the commencement of this authority review the amount of security required in accordance with paragraph (a) of this condition and increase or decrease the amount to be lodged.
- (ii) Not more than one variation in the amount of security required shall be made under subparagraph (i) of this paragraph during any period of seven years.
- (c) The registered holder shall, where the amount of the security has been increased pursuant to paragraph (b) of this condition, lodge a further security in cash or otherwise as the Minister thinks proper to accept for the additional sum within twenty-eight days of being required in writing by the Minister so to do.
- (d) Where the amount of the security has been decreased pursuant to paragraph (b) of this condition:
- (i) the registered holder shall, if the security was by way of bond, lodge if required by the Minister, a further bond for the amount of security now required, in which case the Minister shall release to the registered holder the bond previously lodged;
- (ii) the Minister shall, if the security was by way of cash refund to the registered holder the difference between the amount of cash previously lodged as security and the amount of security now required;
- (iii) the Minister shall, if the security was by way of interest bearing deposit, release that deposit to the registered holder to the extent of the difference between the amount of that deposit and the amount of security now required.

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132. (a) If the Registered holder shall sell, charge, mortgage, dispose of or alienate the land over which this authority is granted or any part thereof, the Minister ~~for Mines~~ may give notice in writing to the Registered holder requiring the Registered holder to lodge with the Minister a bond in a form approved by the Minister with a surety approved by him, or other security in cash or otherwise as the Minister thinks proper to accept in a sum of dollars (\$) conditioned upon compliance with the terms and conditions of this authority and the Registered holder shall upon receipt of such notice forthwith lodge such security. In the event of such terms and conditions not being fulfilled in their entirety the security lodged may be forfeited.
- (b) If this authority shall be transferred or assigned (including an assignment by operation of law) the Minister ~~for Mines~~ may give notice in writing to the assignee requiring the assignee to lodge with the Minister a bond in a form approved by the Minister with a surety approved by him, or other security in cash or otherwise as the Minister thinks proper to accept in a sum of dollars (\$) conditioned upon compliance with the terms and conditions of this authority and the assignee shall upon receipt of such notice forthwith lodge such security. In the event of such terms and conditions not being fulfilled in their entirety the security lodged may be forfeited.
- (c) (i) Subject to subparagraph (ii) of this paragraph the Minister ~~for Mines~~ may at any time or times after the expiration of seven years from the commencement of this authority review the amount of security required in accordance with paragraph (a) and (b) of this condition and increase or decrease the amount to be lodged.
- (ii) Not more than one variation in the amount of security required shall be made under subparagraph (c) (i) of this condition during any period of seven years.
- (d) The Registered holder or the said assignee, as the case may be, shall, where the amount of the security has been increased pursuant to paragraph (c) of this condition lodge a further security in cash or otherwise as the Minister thinks proper to accept for the additional sum within twenty-eight days of being required in writing by the Minister so to do.
- (e) Where the amount of the security has been decreased pursuant to paragraph (c) of this condition:
- (i) the Registered holder or the said assignee shall, if the security was by way of bond, lodge if required by the Minister, a further bond for the amount of security now required, in which case the Minister shall release to the Registered holder or the said assignee, the bond previously lodged;
- (ii) the Minister shall, if the security was by way of cash, refund to the Registered holder or the said assignee the difference between the amount of cash previously lodged as security and the amount of security now required;
- (iii) This Minister shall, if the security was by way of interest bearing deposit, release that deposit to the Registered holder or the said assignee to the extent of the difference between the amount of that deposit and the amount of security now required.
133. Within one month prior to the commencement of operations the Registered holder shall lodge with the Minister ~~for Mines~~ a bond in a form approved by the Minister with a surety approved by him, or other security in cash or otherwise as the Minister thinks proper to accept in a sum of dollars (\$) conditioned upon compliance with the terms and conditions of this authority. In the event of such terms and conditions not being fulfilled in their entirety the security lodged may be forfeited.
134. The Registered holder shall lodge with the Minister ~~for Mines~~ a bond in a form approved by the Minister with a surety approved by him, or other security in cash or otherwise as the Minister thinks proper to accept in a sum of dollars (\$) conditioned upon compliance with the terms and conditions of this authority. In the event of such terms and conditions not being fulfilled in their entirety the security lodged may be forfeited.

135. Within a period of three months from the date of this authority, or within such further time as the Under Secretary may allow, the registered holder shall serve on each owner or occupier of the private land, and on each occupier of the Crown land held under Crown lease for pastoral purposes, a special lease for pastoral purposes or a Western Lands lease for pastoral purposes, and on each mineral owner (other than the Crown) within the subject area, a notice in writing indicating that this authority has been granted, and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area.

If there are ten or more owners or occupiers affected, the registered holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted, state whether the authority includes the surface, and shall contain an adequate plan and description of the subject area.

136. The registered holder shall restrict mining operations on the subject area to open cutting, and shall not adopt any other method of mining, unless with the approval of the Minister first had and obtained and subject to such conditions as he may stipulate.
137. The registered holder shall not open cut more than one hectare of the surface of the subject area at any one time, unless with the approval of the Minister first had and obtained and subject to such conditions as he may stipulate.
138. Operations shall be conducted in such a manner as not to cause any danger to persons and stock and the registered holder shall provide and maintain adequate protection, to the satisfaction of the Minister, around each excavation opened up or used by the registered holder.
139. The registered holder shall carry out all operations in such a manner as to conform strictly to the provisions of the Clean Waters Act and Regulations thereunder.
140. The registered holder shall not fell trees, strip bark or cut timber on any private land, or Crown land held under a Crown lease for pastoral purposes, a special lease for pastoral purposes or a Western Lands lease for pastoral purposes, within the subject area, except with the approval of the Warden and subject to payment to the owner of the trees, bark or timber of compensation assessed by the Warden under the Mining Act, 1973, and on any other land subject of this authority shall not cut, destroy, ringbark or remove any timber or other vegetative cover except such as directly obstructs or prevents the carrying on of the operations hereby authorised.
141. The registered holder shall not interfere with the flow of water in any stream or watercourse, except for the purpose of obtaining water for the operation of a treatment plant.
142. The registered holder shall not interfere with any well, water pump, dam or pipeline, without the consent of the owner and occupier first had and obtained.
143. The registered holder shall:-
- (a) ensure that at least two (2) competent workmen are efficiently employed on the subject area on each week day, except Saturday or any week day that is a public holiday,
 - or
 - (b) expend on operations, carried out in the course of prospecting or mining the subject area, an amount of not less than twenty thousand dollars (\$20,000.00) during each year of the term of the authority.
- DN. E.

Costs or expenses incurred which are not, in the opinion of the Under Secretary, directly associated with the prospecting or mining operations, shall not be accounted expenditure for the purposes of this condition. The Minister may, at any time or times after a period of two years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, as the case may be, by instrument in writing served on the holder of the authority, increase or decrease the amount of expenditure required under this condition, provided that not more than one variation in the amount of expenditure shall be made in any period of two years.

144. (a) Where an Inspector of Mines is of the opinion that any condition of this authority relating to the working of the subject area, or any provision of the Mining Act, 1973 relating to the working of the subject area is not being complied with by the registered holder, he may in writing direct the registered holder:-
- (i) to cease working the subject area in contravention of that condition or Act; and
 - (ii) to carry out within a specified time works at the expense of the registered holder necessary to rectify or remedy the situation.
- (b) Where an Inspector issues any direction to the registered holder pursuant to paragraph (a) of this condition the registered holder shall comply with the direction.
145. (a) Where the registered holder desires to commence prospecting operations in the subject area he shall notify the Under Secretary in writing and shall comply with such additional conditions as the Minister may impose, including any condition requiring the lodgement of an additional security for rehabilitation of the area affected by such operations.
- (b) Where the registered holder notifies the Under Secretary pursuant to paragraph (a) of this condition he shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.
146. (a) The registered holder shall lodge with the Minister a security in a form approved by the Minister for an amount of two thousand dollars (\$2,000.00), conditioned upon compliance with the terms and conditions of this authority. In the event of such terms and conditions not being fulfilled in their entirety the security lodged may be forfeited.
- (b) (i) Subject to subparagraph (ii) of this paragraph the Minister may at any time or times after the expiration of two years from the commencement of this authority review the amount of security required in accordance with paragraph (a) of this condition and increase or decrease the amount to be lodged.
- (ii) Not more than one variation in the amount of security required shall be made under subparagraph (i) of this paragraph during any period of two years.
- (c) The registered holder shall, where the amount of security has been increased pursuant to paragraph (b) of this condition, lodge a further security in such form as the Minister thinks proper to accept for the additional amount within twenty-eight days of being required in writing by the Minister so to do.

211.3.

(c) Where the amount of the security has been decreased pursuant to paragraph (b) of this condition -

- (i) the registered holder shall, if the security was by way of banker's certificate or bond, lodge if required by the Minister, a further certificate or bond for the amount of security now required, in which case the Minister shall release to the registered holder the security previously lodged;
- (ii) the Minister shall, if the security was by way of cash, refund to the registered holder the difference between the amount of cash previously lodged as security and the amount of security now required;
- (iii) the Minister shall, if the security was by way of interest bearing deposit, release that deposit to the registered holder to the extent of the difference between the amount of that deposit and the amount of security now required.

147. The registered holder shall ensure that the maximum particle velocity (being the vector sum of three mutually perpendicular velocity components at the measuring point) generated by any blasting within the subject area does not exceed a maximum particle velocity of 10 millimetres per second at any boundary of the subject area.

148. ¹ The registered holder shall form a landscaped buffer area to the satisfaction of the Minister between any mining operation and the residentially zoned land located south of the subject area.

PA. J.

THIS page and the preceding twelve pages is the Schedule of Conditions of Authority referred to in Mining Lease No. 925 under the Mining Act, 1973 granted to Acnil Industries Pty. Limited on the 18th day of March 1981.

Kucers
Official Secretary

Tommy
Quinn
Registered Holder

W. Headman

IN WITNESS WHEREOF the parties hereto have executed this Deed the day and year first abovewritten.

SIGNED SEALED AND DELIVERED)
BY HIS EXCELLENCY)

J. Howland

Sir James Anthony Howland GOVERNOR

as such Governor as aforesaid in the)
presence of:)

James

Official Secretary, Government House,
Sydney.

SIGNED SEALED AND DELIVERED)
by the said)

The COMMON SEAL of

Acmil Industries Pty.
Limited was hereunto
duly affixed in the
presence of:



James *Howland*
Secretary Director

~~in the presence of:~~

Diagram Catalogue No D4037

MARKED OUT IN ACCORDANCE WITH SECTION 44
MINING ACT, 1973
DATE OF MARKOUT REPORT, 21.6.79
MARKOUT OFFICER L.T. Killen

DIAGRAM PREPARED
AND CHARTED BY *J. B. Brown*

EXAMINED BY *16.7.79*

DEPTH RESTRICTION Embraces the surface & soil
below thereof to a depth of 30 metres

SURFACE EXCEPTION NIL

Department of Mineral Resources
and Development

ML APPN No. 52

DIVISION NEWCASTLE

APPLICANT Acmi Industries Pty Limited

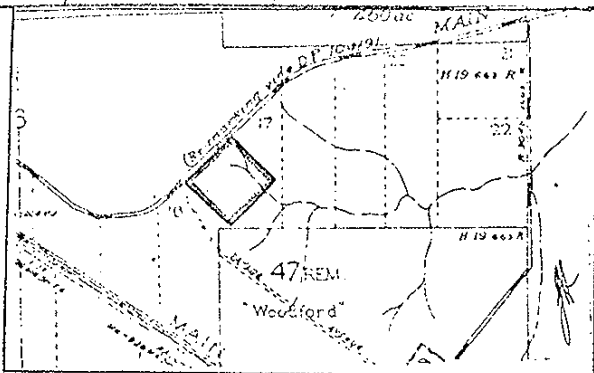
APPV DATE 10.5.79

PARISH Alnwick

COUNTY Northumberland

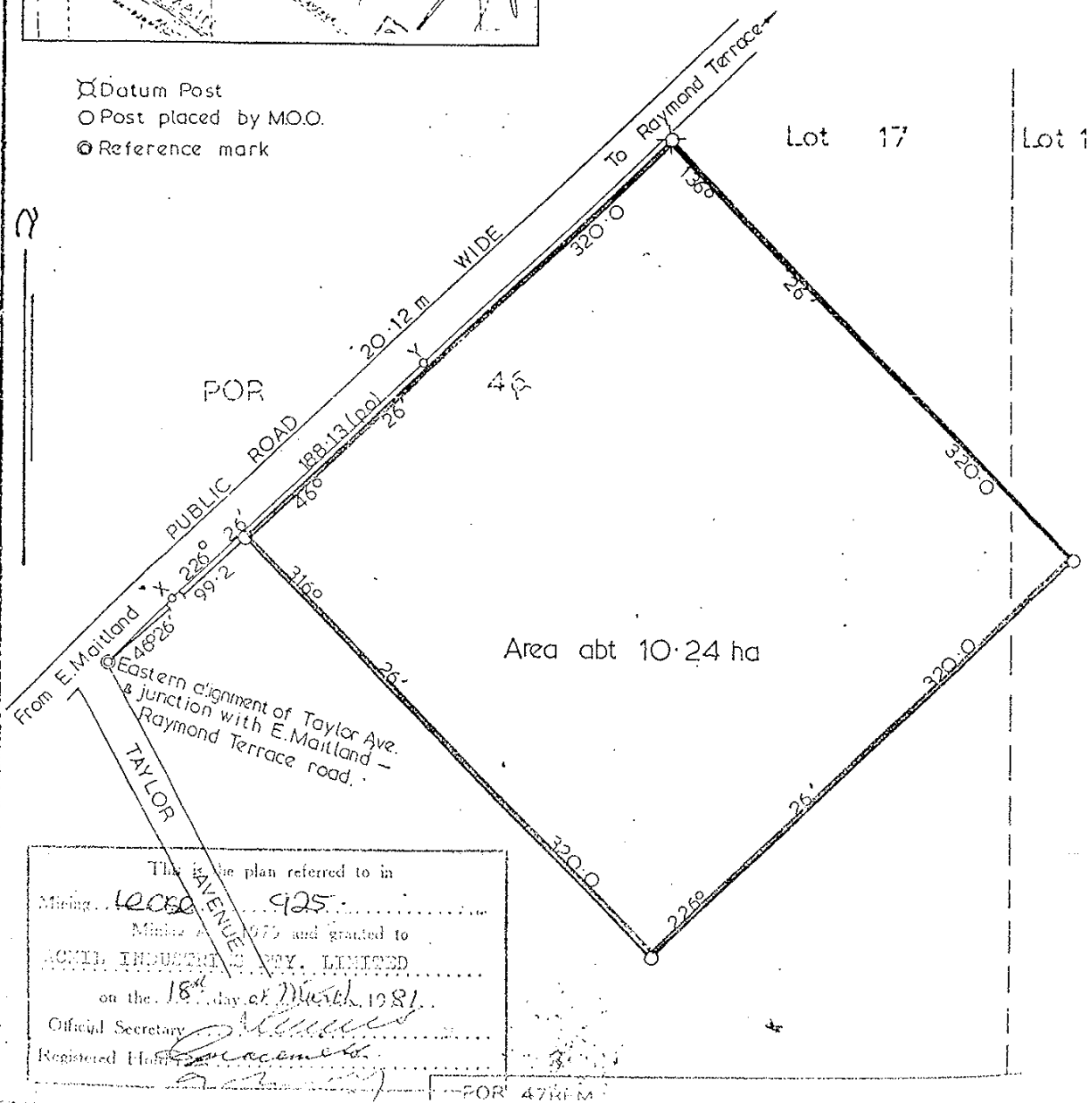
SCALE 1:3000 Length are in metres

ML No. 925 ACT 1973



Azimuth X-Y (D.P.10419)
Bearings adjusted to Azimuth.
Survey information adopted from MOO's
diagram and D.P.10419.

- Datum Post
- Post placed by MOO.
- ⊙ Reference mark



This is the plan referred to in
Mining 12060 925
Mineral Act 1973 and granted to
ACMI INDUSTRIES PTY. LIMITED
on the 18th day of March 1981.
Official Secretary *[Signature]*
Registered Holder *[Signature]*

Details of PRIVATE MINING AGREEMENT 2 SINGLETON (Act 1992)

File Number : T91-0461 Agreement Status : REGISTERED

Main Miner : MONTER PGM HOLDINGS LIMITED

Postal Address : LOT 7, CECIL ROAD
CECIL PARK NSW 2171

Other Miners : NONE

Mineral Owner : MONTER PGM HOLDINGS LTD

Application Date : 07-AUG-1997

Current Division : SINGLETON

Region : NORTHERN

Total Area : 19.31 HECTARES Plan Catalogue No : PMA2SI-1

Location : About 9km ESE of MAITLAND

Map Sheets : 9233-3-N BERESFIELD 1:25,000

2 Minerals : BRICK CLAY CLAY SHALE

Security Required : \$10 000 Last Security Review Date : 08-JUN-1999

Security Held : \$30 000

Details of Securities

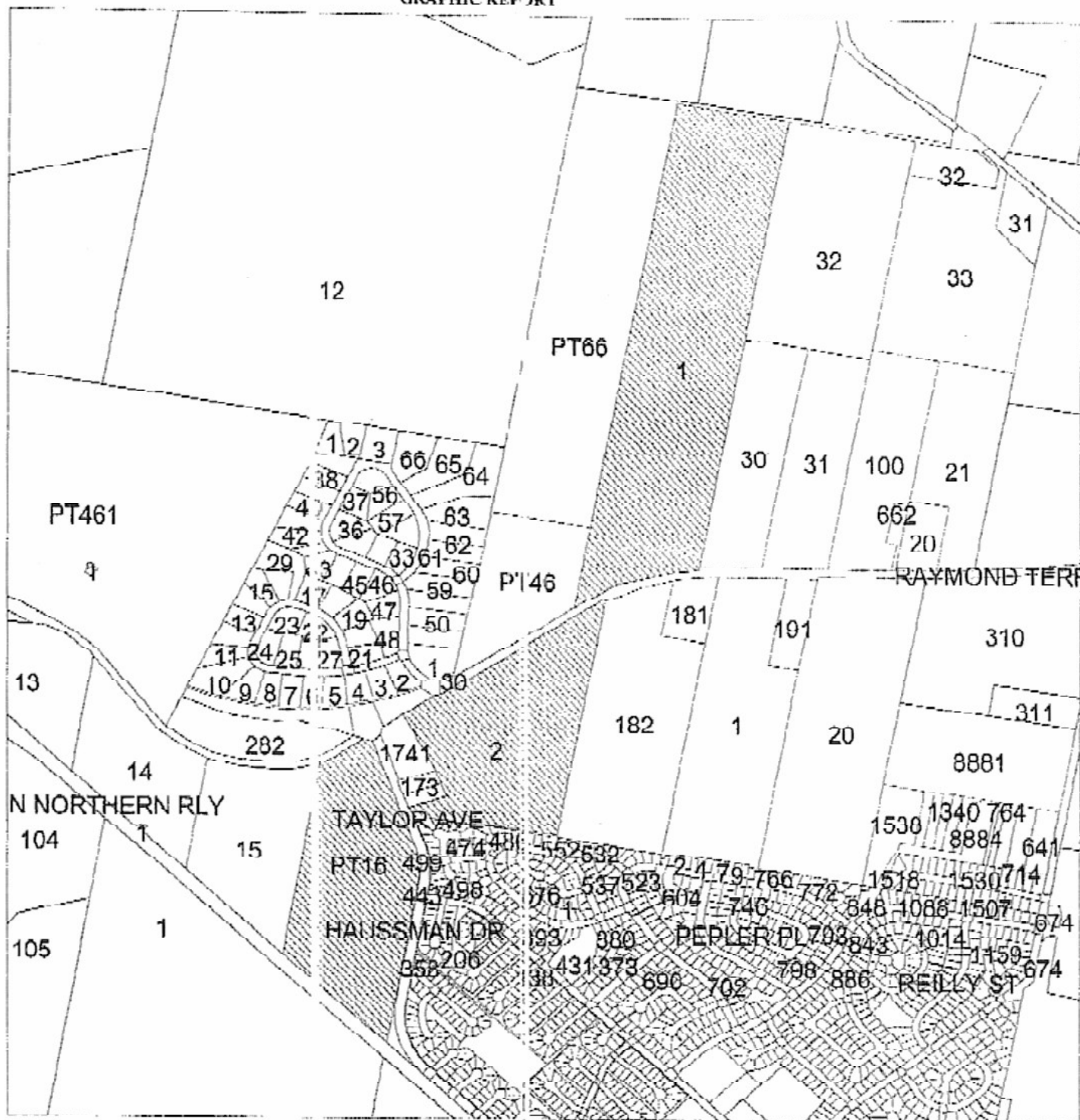
Term Until : (De)Termination Date : 08-JUN-1999

Dealing Types affecting this Title :
NONE



DEPARTMENT OF MINERAL RESOURCES NEW SOUTH WALES

GRAPHIC REPORT



Parcels DCDB
Current PMA



Warning: Information in this diagram may not be current. It is a "snapshot" technique to create a digital cadastral database. The information has not been reproduced with survey accuracy. No responsibility is accepted for any loss or damage of any kind (including loss or damage to data) arising from the use of this diagram for any purpose other than as a map.