

Permit

Environmental Protection Act 1994

Environmental authority EPML00912113

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Environmental authority number: EPML00912113

Environmental authority takes effect on 16 February 2022

Environmental authority holder(s)

Name(s)	Registered address
THE AUSTRAL BRICK CO PTY LTD	105 Gardner Road ROCHEDALE QLD 4123

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Schedule 3 20 : Clay pit mining, dimension stone mining or mining gemstones (including the material from which gemstones are extracted) (b) of more than 100,000t but not more than 1,000,000t in a year.	ML1151, ML1152, ML1156, ML50035
ERA 16 - Extraction and Screening 2: Extracting, other than by dredging, in a year, the following quantity of material (b) more than 100,000t but not more than 1,000,000t ERA 16 - Extraction and Screening 3: Screening, in a year, the following quantity of material (b) more than 100,000t but not more than 1,000,000t	Lot 1 on Plan RP854704
ERA 42 - Clay or ceramic products manufacturing: Manufacturing the following quantity of clay or ceramic products in a year (b) more than 5000t ERA 60 - Waste disposal 2: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(b) (f) more than 50,000t but not more than 100,000t	Lot 8 on Plan SP283241

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Environmentally relevant activity/activities	Location(s)
ERA 54 – 2(a) operating a facility for receiving and mechanically reprocessing, in a year, the following quantity of general waste— 5000 tonnes or less.	

Additional information for applicantsEnvironmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority (EA) is issued is a restatement of the ERA as defined by legislation at the time the EA is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an EA as to the scale, intensity or manner of carrying out an ERA, the conditions prevail to the extent of the inconsistency.

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days);

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

- a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority-on the nominated day; or

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- b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or
- c) otherwise-on the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Planning Act 2016* or an SDA Approval under the *State Development and Public Works Organisation Act 1971*), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

**Dean Sharpe**

Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

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Date issued: 16 February 2022

Environmental authority EPML00912113**Obligations under the *Environmental Protection Act 1994***

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

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Legislative Requirements and Conditions of Environmental Authority

Conditions of environmental authority applying to activities undertaken on ML1151, ML1152, ML1156 and ML50035

Relevant activity: Mining - ML Claypit, dimension stone or gemstones - 20(b)

Schedule A – General	
Condition number	Condition
Prevent and/or minimise the likelihood of environmental harm	
(A1-1)	In carrying out the environmentally relevant activities you must take all reasonable and practicable measures to prevent and/or minimise the likelihood of environmental harm being caused. Any environmentally relevant activity, that, if carried out incompetently, or negligently, may cause environmental harm, in a manner that could have been prevented, shall be carried out in a proper manner in accordance with the conditions of this environmental authority ¹ .
Financial Assurance	
(A2-1)	Provide a financial assurance ² in the amount and form required by the administering authority prior to the commencement of activities proposed under this environmental authority.
(A2-2)	The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely ³ .
Maintenance of Measures, Plant and Equipment	
(A3-1)	The holder must: a) take all control measures and install plant and equipment necessary to ensure compliance with the conditions of this environmental authority; and b) maintain such control measures, plant and equipment in a proper condition; and c) operate such control measures, plant and equipment in a proper manner.
Records	

¹ NOTE: This approval authorises the environmentally relevant activity. It does not authorise environmental harm unless a condition contained within this approval explicitly authorises that harm. Where there is no condition or the approval is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

² NOTE: The calculation of financial assurance for condition (A2-1) must be in accordance with the document "Guideline - Financial assurance under the *Environmental Protection Act 1994*" and may include a performance discount. The amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: (Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required).

³ NOTE: Where progressive rehabilitation is completed and acceptable to the administering authority, progressive reductions to the amount of financial assurance will be applicable where rehabilitation has been completed in accordance with the acceptance criteria defined within this environmental authority

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(A4-1)	Record, compile and keep all monitoring results required by this environmental authority and present this information to the administering authority when requested, in a specified format.
Storage and Handling of Flammable and Combustible Liquids	
(A5-1)	Storage of all flammable and combustible liquids must be within an on-site containment system and controlled in a manner that prevents environmental harm (other than trivial harm) and maintained in accordance with Section 5.9 of AS 1940 – Storage and Handling of Flammable and Combustible Liquids of 1993.
Definitions	
(A6-1)	Words and phrases used throughout this environmental authority are defined in Schedule H – Definitions. Where a definition for a term used in this environmental authority is sought and the term is not defined within this environmental authority, the definitions in the <i>Environmental Protection Act 1994</i> , its Regulations and Environmental Protection Policies, as amended from time to time must be used.
Risk Management	
(A7-1)	The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the Standard for Risk Management (ISO31000:2009), or the latest edition of an Australian standard for risk management, to the extent relevant to environmental management, by 3 November 2017 .
Activity	
(A8-1)	In carrying out the mining activities, the holder of the environmental authority must comply with Appendix 3 (Authorised Mining Activities).
END OF CONDITIONS FOR SCHEDULE A	

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Schedule B – Air	
Condition number	Condition
Dust Nuisance	
(B1-1)	Subject to conditions (B1-2) and (B1-3) the release of dust or particulate matter or both resulting from the mining activity must not cause an environmental nuisance at any sensitive or commercial place.
(B1-2)	When requested by the administering authority, dust and particulate monitoring must be undertaken to investigate complaint of environmental nuisance caused by dust and/or particulate matter, and the results must be notified within 14 days to the administering authority following completion of monitoring. Monitoring must be carried out at a place(s) relevant to the potentially affected dust sensitive place and at upwind control sites and must include: a) for a complaint alleging dust nuisance, dust deposition; and b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic meter of particulate matter with an aerodynamic diameter of less than 10 micrometers (μm) (PM_{10}) suspended in the atmosphere over a 24hr averaging time.
(B1-3)	If the environmental authority holder can provide evidence through monitoring that the following limits are not being exceeded then the holder is not in breach of (B1-1): a) Dust deposition of 120 milligrams per square metre per day, averaged over one month, when monitored in accordance with AS 3580.10.1 <i>Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method</i> of 1991; and b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometers (μm) (PM_{10}) suspended in the atmosphere of 150 micrograms per cubic metre over a 24 hour averaging time, at a sensitive place downwind of the operational land, when monitored in accordance with: i. Particulate matter – <i>Determination of suspended particulate PM_{10} high-volume sampler with size-selective inlet – Gravimetric method</i>, when monitored in accordance with AS 3580.9.6 <i>Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM (sub) 10 high volume sampler with size-selective inlet – Gravimetric method</i> of 1990; or ii. Any alternative method of sampling PM_{10}, which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority⁴.
Dust Control	

⁴ NOTE: You must propose which monitoring method is appropriate in accordance with condition (B1-3) (a) or (b) or both.

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(B2-1)	Stockpiles must be maintained using all reasonable and practicable measures to minimise the release of windblown dust or particulate matter into the atmosphere. Reasonable and practicable measures may include but are not limited to anemometer switching systems which trigger operation of effective water spray systems during winds likely to generate such releases, use of dust suppressants, shielding and storage in bunkers.
(B2-2)	Trafficable areas must be maintained using all reasonable and practicable measures to minimise the release of windblown dust or traffic generated dust to the atmosphere. Reasonable and practicable measures may include but are not limited to sealing with bitumen or other suitable material, keeping surfaces clean, use of water sprays, adoption and adherence to speed limits, use of dust suppressants and wind breaks.
(B2-3)	Raw material preparation plants and external conveyors must be operated and maintained using all reasonable and practicable measures to minimise the release of windblown dust or particulate matter to the atmosphere. Reasonable and practicable measures may include but are not limited to transfer of materials in a moist state, enclosure of conveyors and buildings, use of water sprays at transfer points, shielding and wind breaks.
END OF CONDITIONS FOR SCHEDULE B	

Schedule C – Water

Condition number	Condition
Release to Waters	
(C1-1)	Process water, storm water and/or receiving waters must be monitored at the locations and frequencies defined in Appendix 2 - Table 1 and comply with the release limits defined in Appendix 2 - Table 1.

Schedule D – Noise and Vibration

Condition number	Condition
Noise Nuisance	
(D1-1)	Noise from activities must not cause an environmental nuisance at any noise affected premises.
(D1-2)	All noise from activities must not exceed the levels specified in Schedule D – Table 2 at any noise affected premises.

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(D1-3)	No mining activities may be undertaken outside of the hours for the sites listed in Schedule D – Table 1, unless the activities are solely for pollution control.
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Schedule D – Table 1: Operating hours

Tenure(s) mining leases	Location	Hours
1151, 1156	Rochedale	Mon-Fri 6am-6pm; Sat 6am-5pm
1152	Burbank	Mon-Fri 7am-5pm
50035	Redland Bay	Mon-Fri 7am-6pm; Sat 7am-4pm

Schedule D – Table 2: Noise Limits

Noise level dB(A) measured as	Monday to Saturday	
	6am-7am	7am-6pm
	Noise measured at a Noise sensitive place	
LA10, adj, 10 mins	b/g+3	b/g+5
LA1, adj, 10 mins	b/g+5	b/g+10
	Noise measured at a Commercial place	
LA10, adj, 10 mins	b/g+8	b/g+10
LA1, adj, 10 mins	b/g+10	b/g+15

Noise Monitoring

(D2-1)	When requested by the administering authority, noise monitoring must be undertaken to investigate any complaint, which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer, and the results must be notified within 14 days to the administering authority. The monitoring must include: (a) LA1, adj, 10 mins; (b) LA10, adj, 10 mins; (c) the level and frequency of occurrence of impulsive or tonal noise; (d) atmospheric conditions including wind speed and direction; (e) effects due to extraneous factors such as traffic noise; and (f) location, date and time of recording.
(D2-2)	The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's <i>Noise Measurement Manual</i> .

END OF CONDITIONS FOR SCHEDULE D

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Schedule E – Waste	
Condition number	Condition
Waste Handling	
(E1-1)	The holder of this environmental authority must not: a) burn waste at or on the licenced place; nor b) allow waste to burn or be burnt at or on the licenced place; nor c) remove waste from the licenced place and burn such waste elsewhere.
Offsite Movement	
(E2-1)	Where regulated waste is removed from the licenced place (other than by a release as permitted under another schedule of this environmental authority), the holder of this environmental authority must monitor and record the following ⁵ . a) the date, quantity and type of waste removed; and b) name of the waste transporter and/or disposal operator that removed the waste; and c) the intended treatment/disposal destination of the waste.
Records	
(E3-1)	Records must be maintained for a period of five (5) years for all wastes mentioned in this schedule.
Notification of Improper Disposal of Regulated Waste	
(E4-1)	If the holder of this environmental authority becomes aware that a person has removed regulated waste from the licenced place and disposed of the regulated waste in a manner which is not authorised by this environmental authority or which is improper or unlawful, then the holder of this environmental authority as soon as practicable, notify the administering authority of all relevant facts, matters and circumstances known concerning the disposal.
END OF CONDITIONS FOR SCHEDULE E	

⁵ NOTE: Records of documents maintained in compliance with a waste tracking system established under the *Environmental Protection Act 1994* or any other law for regulated waste will be deemed to satisfy this condition.

Schedule F – Land	
Condition number	Condition
Rehabilitation Landform Criteria	
(F1-1)	Land disturbed by mining must be rehabilitated in accordance with Schedule F - Table 1: Rehabilitation requirements.
(F1-2)	Rehabilitation must commence progressively in accordance with the plan of operations.

Schedule F – Table 1: Rehabilitation requirements					
Mine Domain	Rehabilitation Goal	Rehabilitation Objectives	Mine Feature Name	Indicators	Completion Criteria
ML1151 ML1156	1. Safe 2. Non-polluting 3. Stable 4. Self-sustaining	1. The site is safe for humans and animals. 2. No environmental harm is caused to local environmental values. 3. Erosion is minimised. 4. Post mine land use of industrial implemented.	Infrastructure (brick manufacturing and ancillary facilities including roads); Mine voids; Sediment traps / water basins; Amenity bank/buffers;	The post mine land use will be considered rehabilitated when the land is stabilised and does not, or will not have potential to cause environmental harm to local environmental values.	- Application (or applicable local government and environmental approvals (or lawful use) relevant at the time) has been approved for the proposed activity. - In the event of an unsuccessful development application (or other requirement at the time) for the industrial activities, an application must be made by the holder of this environmental authority to the administering authority to nominate an alternative rehabilitation outcome.
ML1152	1. Safe 2. Non-polluting 3. Stable 4. Self-sustaining	1. The site is safe for humans and animals. 2. No environmental harm is caused to local environmental values. 3. Erosion is minimised. 4. Post mine land use identified under 'indicators' has been implemented.	Mine voids; Buffer	Achievement of a self-sustaining native ecosystem .	- Species composition and distribution similar to the pre-mining species composition and distribution. - Fauna corridors not impeded.
			Sediment traps / water basins	Achievement of a self-sustaining wetland ecosystem .	- Basins revegetated with species appropriate to filter contaminants from the water. - Water discharges from the basins do not exceed turbidity values of the inflow to the pond.
			Roads	No rehabilitation required – retain.	Landowner statement provided verifying retention of the roads within the final landform.

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ML50035	1. Safe 2. Non-polluting 3. Stable 4. Selfsustaining	1. The site is safe for humans and animals. 2. No environmental harm is caused to local environmental values. 3. Erosion is minimised. 4. Post mine land use identified under 'indicators' has been implemented.	Mine voids (portion of the site within the Conservation Zone in accordance with the Redlands Planning Scheme V7.1 - 2016).	Achievement of a selfsustaining native ecosystem .	Species composition and distribution similar to the pre-mining species composition and distribution.
			Mine voids (portion of the site zoned Rural Non - Urban in accordance with the Redlands Planning Scheme V7.1 – 2016).	Achievement of a selfsustaining native ecosystem where final slopes exceed 20°. Where slopes are less than 20° the land will be grassed, or used for rural residential.	- Species composition and distribution similar to the pre-mining species composition and distribution. - Grass species composition suitable for long term stabilisation of the landform. - Grass coverage achieves 70%.
			Mine voids extending below the free draining level	Achievement of a selfsustaining wetland ecosystem .	- Revegetated with species appropriate to filter contaminants from the water. - Water discharges do not exceed turbidity values of the inflow to the pond.
			Sediment traps / water basins	Achievement of a selfsustaining wetland ecosystem .	- Basins revegetated with species appropriate to filter contaminants from the water. - Water discharges from the basins do not exceed turbidity values of the inflow to the pond.
			Roads	No rehabilitation required – retain.	Landowner statement provided verifying retention of the roads within the final landform.
			Buffer	Achievement of a selfsustaining native ecosystem . The landform is suitable to support the native ecosystem.	- Species composition and distribution similar to the pre-mining species composition and distribution. - Fauna corridors not impeded.

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Buffer Zones								
(F6-1)	There must be no mining activities conducted in the buffer zones or wildlife corridor areas identified in Appendix 1, Figures 1, 2 and 3, other than for the construction or removal of amenity banks, environmental control works, and activities involved with access or provision of services to the lease areas.							
Open Area and Progressive Rehabilitation								
(F7-1)	The open area for the relevant mining lease must not exceed the area described in Schedule F – Table 2.							
Schedule F – Table 2: Open area limits								
	<table><tr><th>Tenure</th><th>Location</th><th>Open area limit (ha)</th></tr><tr><td>ML1152</td><td>Ford Road, Burbank</td><td>4</td></tr></table>	Tenure	Location	Open area limit (ha)	ML1152	Ford Road, Burbank	4	
Tenure	Location	Open area limit (ha)						
ML1152	Ford Road, Burbank	4						
(F7-2)	Subject to condition (F7-1), progressive rehabilitation must commence within three years of areas becoming available within the operational land.							

Infrastructure	
(F8-1)	All infrastructure, constructed by or for the environmental authority holder during the mining activities including water storage structures, must be removed from the site prior to mining lease surrender, except where agreed in writing by the post mining land owner/holder.
END OF CONDITIONS FOR SCHEDULE F	

Schedule G – Community	
Condition number	Condition
Complaint response	
(G1-1)	All complaints received must be recorded including details of complainant, reasons for the complaint, investigations undertaken, conclusions formed and actions taken. This information must be made available for inspection by the administering authority on request.
END OF CONDITIONS FOR SCHEDULE G	

Schedule H – Definitions

“acceptance criteria” means the measures by which the actions implemented to rehabilitate the land are deemed to be complete. The acceptance criteria indicate the success of the rehabilitation outcome or remediation of areas which have been significantly disturbed by the mining activities. Acceptance criteria may include information regarding:

- (a) vegetation establishment, survival and succession;
- (b) vegetation productivity, sustained growth and structure development;
- (c) fauna colonisation and habitat development;
- (d) ecosystem processes such as soil development and nutrient cycling, and the re-colonisation of specific fauna groups such as collembolan, mites and termites which are involved in these processes;
- (e) microbiological studies including re-colonisation by mycorrhizal fungi, microbial biomass and respiration;
- (f) effects of various establishment treatments such as deep ripping, topsoil handling, seeding and fertiliser application on vegetation growth and development;
- (g) resilience of vegetation to disease, insect attack, drought and fire; and
- (h) vegetation water use and effects on groundwater levels and catchment yields.

“administering authority” means the Department of Environment and Heritage Protection or its successor.

“ambient (or total) noise” at a place, means the level of noise at the place from all sources (near and far), measured as the L_{eq} for an appropriate time interval.

“amenity banks / buffers” land not utilised for the operational mining activities that protects the amenity of local environmental values.

“commercial place” means a place used as an office or for business or commercial purposes, other than a place within the boundaries of the operational land.

“competent person” means a person with the demonstrated skill and knowledge required to carry out the task to a standard necessary for the reliance upon collected data or protection of the environment.

“dam” means a containment or proposed containment whether permanent or temporary, which is designed to contain, divert or control flowable substances. However this does not include a fabricated or manufactured tank or container designed to a recognisable standard.

“environmental authority holder” means the holder of this environmental authority.

“event release” means when water is released and which must occur at least four times per year.

“flowable substance” means matter or mixture of materials which can be forced to or otherwise flow under any conditions possible in a situation. It includes water, other liquids or a mixture that includes water or any other liquid or suspended solids.

“hazardous waste” means any substance, whether liquid, solid or gaseous, derived by or resulting from, the processing of minerals that tends to destroy life or impair or endanger health.

“infrastructure (brick manufacturing and ancillary facilities)” areas of mining lease utilised by the Brick Plant and ancillary facilities.

“ $L_{A,10,adj,10\ mins}$ ” means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 10% of any 10 minute measurement period, using Fast response.

“ $L_{A,10,adj,10\ mins}$ ” means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 10% of any 10 minute measurement period, using Fast response.

“ $L_{A1, adj, 10\ mins}$ ” means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 1% of any 10-minute measurement period, using Fast response.

“land” in the “land schedule” of this document means land excluding waters and the atmosphere. **“land capacity”** as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland.

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“land suitability” as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland.

“land use” term to describe the selected post mining use of the land, which is planned to occur after the cessation of mining operations.

“mandatory reporting level” means the volume below the spillway crest, equivalent to the lower of the AEP, 72 hour storm or the AEP wave allowance (AEP is the annual exceedance probability).

“mineral” means a substance which normally occurs naturally as part of the earth’s crust, or is dissolved or suspended in water within or upon the earth’s crust and includes a substance which may be extracted from such a substance, and includes:

- (a) clay if mined for use for its ceramic properties, kaolin and bentonite; b) foundry sand;
- (b) hydrocarbons and other substances or matter occurring in association with shale or coal and necessarily mined, extracted, produced or released by or in connection with mining for shale or coal or for the purpose of enhancing the safety of current or future mining operations for coal or the extraction or production of mineral oil there from;
- (c) limestone if mined for use for its chemical properties;
- (d) marble;
- (e) mineral oil or gas extracted from shale or coal by insitu processes; g) peat;
- (f) salt including brine;
- (g) shale from which mineral oil may be extracted or produced
- (h) silica, including silica sand, if mined for use for its chemical properties;
- (i) rock mined in block or slab form for building or monumental purposes; but does not include – l) living matter;
- (j) petroleum within the meaning of the *Petroleum Act 1923*;
- (k) soil, sand, gravel or rock (other than rock mined in block or slab form for building or monumental purposes) to be used or to be supplied for use as such, whether intact or in broken form;
- (l) water.

“mine void” areas of the mining leases utilised for mining activities not limited to winning mineral from a place where it occurs; extracting mineral from its natural state; disposing of mineral in connection with, or waste substances resulting from, the winning or extraction; stockpiling and/or processing of materials; storage of water within mine sumps and ancillary uses associated with the mining activities.

“noxious” means harmful or injurious to health or physical well being, other than trivial harm.

“offensive” means causing reasonable offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive, other than trivial harm.

“open area” means, for the purposes of this environmental authority, areas that have been cleared in preparation for mining, are being mined and have not had any topsoil or seed spread on the re-profiled area to commence the rehabilitation process.

“peak particle velocity (ppv)” means a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mms⁻¹).

“progressive rehabilitation” means rehabilitation (defined below) undertaken progressively or a staged approach to rehabilitation as mining questions are ongoing.

“roads” includes all internal roads (both sealed and unsealed) that are utilised for the mining activities.

“reference site” (or analogue site) may reflect the original location, adjacent area or another area where rehabilitation success has been completed for a similar biodiversity. Details of the reference site may be as photographs, computer generated images and vegetation models etc.

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“rehabilitation” the process of reshaping and revegetating land to restore it to a stable landform and in accordance with the acceptance criteria set out in this environmental authority and, where relevant, includes remediation of contaminated land.

“representative” means a sample set which covers the variance in monitoring or other data either due to natural changes or operational phases of the mining activities.

“residual void” means an open pit resulting from the removal of ore and/or waste rock which will remain following the cessation of all mining activities and completion of rehabilitation processes.

“sediment traps / water basins” stormwater management features which have been designed and/or constructed to capture and treat stormwater associated with the mining activities.

“self-sustaining” means an area of land which has been rehabilitated and has maintained the required acceptance criteria without human intervention for a period nominated by the administering authority.

“significant disturbance” – includes land: a)

if it is contaminated land; or

b) it has been disturbed and human intervention is needed to rehabilitate it:

1. to a state required under the relevant environmental authority; or
2. if the environmental authority does not require the land to be rehabilitated to a particular state – to its state immediately before the disturbance.

Some examples of disturbed land include:

- (a) areas where soil has been compacted, removed, covered, exposed or stockpiled;
- (b) areas where vegetation has been removed or destroyed to an extent where the land has been made susceptible to erosion; (vegetation and topsoil);
- (c) areas where land use suitability or capability has been diminished;
- (d) areas within a watercourse, waterway, wetland or lake where mining activities occur;
- (e) areas submerged by tailings or hazardous contaminant storage and dam walls in all cases;
- (f) areas under temporary infrastructure. Temporary infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be removed after mining activities have ceased; or
- (g) areas where land has been contaminated and a suitability statement has not been issued.

However, the following areas are not included:

- (a) areas off lease (e.g. roads or tracks which provide access to the mining lease);
- (b) areas previously significantly disturbed which have achieved the rehabilitation outcomes;
- (c) by agreement with the administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climactic conditions);
- (d) areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be left by agreement with the landowner. The agreement to leave permanent infrastructure must be recorded in the Landowner Agreement and lodged with the administering authority;
- (e) disturbances that pre-existed the grant of the tenure unless those areas are disturbed during the term of the tenure.

“sensitive place” means;

- (a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- (b) a motel, hotel or hostel; or
- (c) an educational institution; or

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- (d) a medical centre or hospital; or
- (e) a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage
- (f) Area; or
- (g) a public park or gardens; or
- (h) a place used as a workplace, an office or for business or commercial purposes which is not part of the mining activity and does not include employees accommodation or public roads.

“spillway” means passage or outlet from the dam through which surplus water flows.

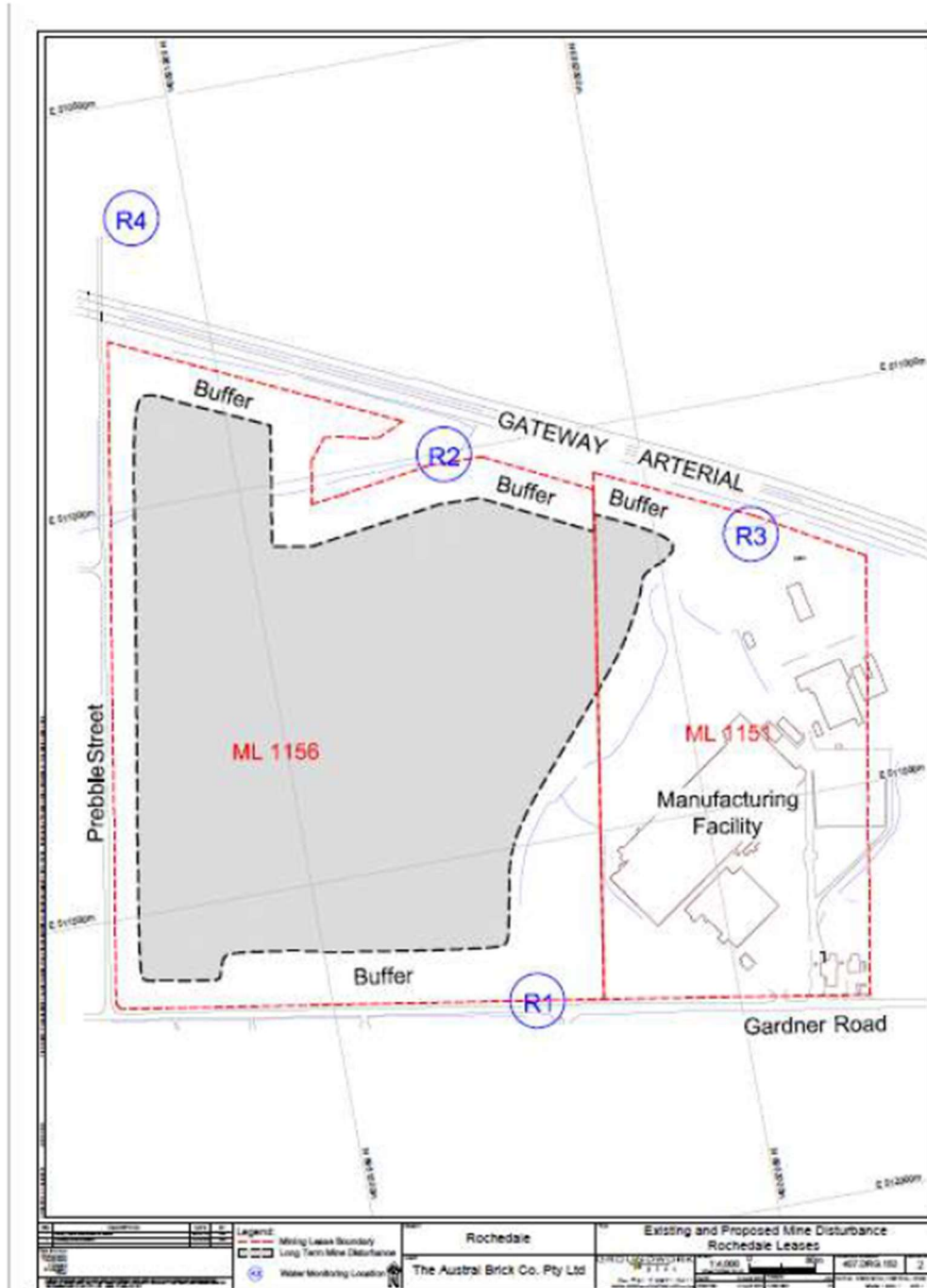
“stable” means geotechnical stability of the rehabilitated landform where instability related to the excessive settlement and subsidence caused by consolidation/settlement of the wastes deposited, and sliding/slumping instability has ceased.

“trivial harm” means environmental harm which is not material or serious environmental harm and will not cause actual or potential loss or damage to property of an amount of, or amounts totalling more than \$5000.

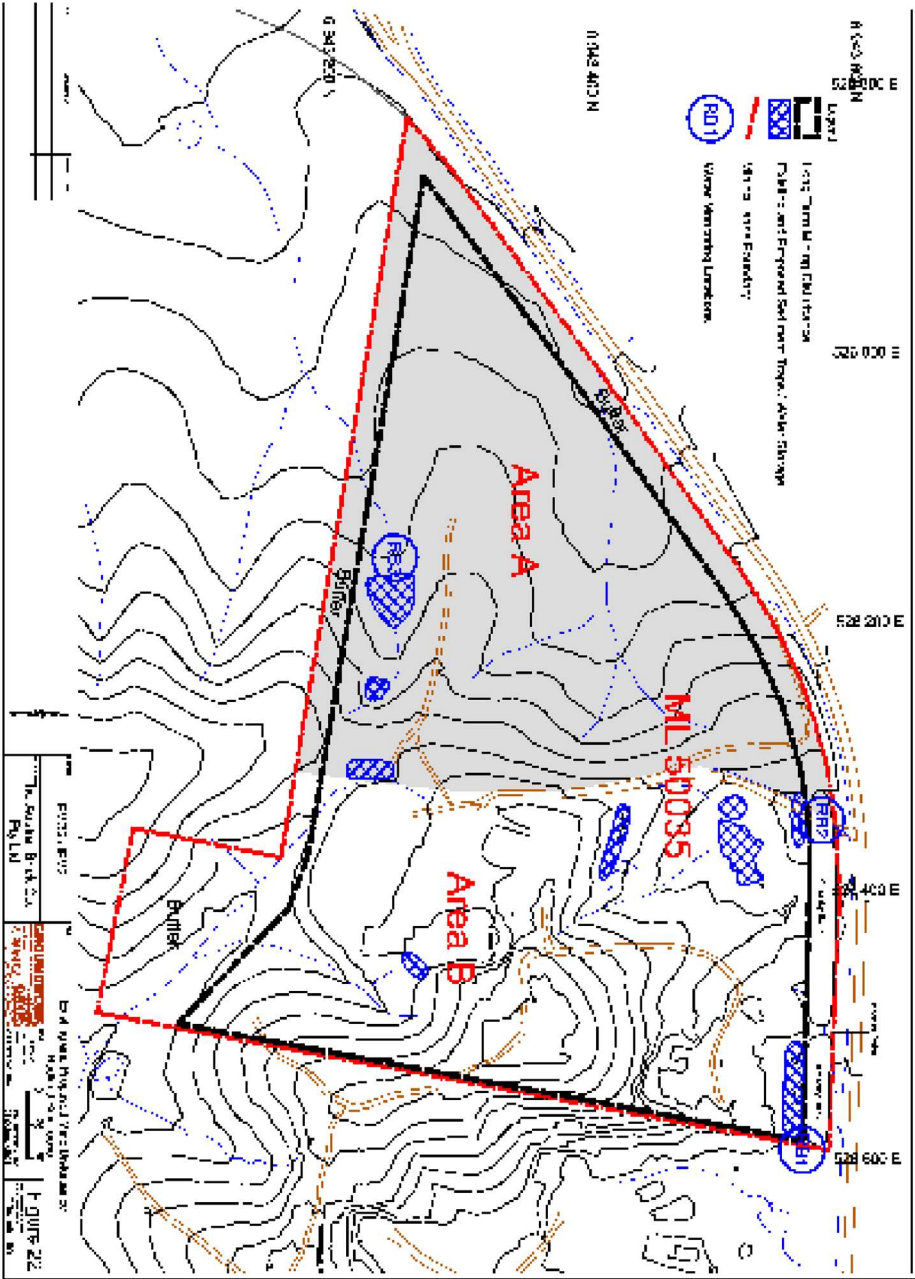
“waters” includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), groundwater or any part thereof.

END OF CONDITIONS FOR SCHEDULE H

APPENDIX 1 - FIGURE 1
Rochedale Plant and Mining Leases – Waste Disposal Area, Water Monitoring Locations and Buffer Zones



APPENDIX 1 - FIGURE 2
ML 50035 German Church Road Redland Bay – Monitoring Locations and Buffer Zones



APPENDIX 2 – WATER

Table 1 (Release limits)

Monitoring point	Location		Monitoring type	Monitoring frequency	Quality characteristics	Release limits	
	Easting (GDA2020 Zone 56)	Northing (GDA2020 Zone 56)				Minimum	Maximum
Rochedale Leases (MLs1156 and 1151)							
R3	511161	6952152	Discharge	Event Release	pH	6.5	9
					Turbidity	-	95 NTU
R1	511689	6951748	Background for point R3	When point R3 is sampled	pH	N/A	N/A
					Turbidity	N/A	N/A
R2	510982	6951778	Discharge	Each pump release	pH	6.5	9
					Turbidity	-	95 NTU
R4	510427	6951431	Background for point R2	When point R2 is sampled	pH	N/A	N/A
					Turbidity	N/A	N/A
Burbank Lease (ML1152)							
B1	513987	6949266	Discharge	Event Release	pH	6.5	9
					Turbidity	-	92 NTU
Redland Bay Lease (ML50035)							
RB1	526682	6943777	Discharge	Event Release	pH	6.5	9
					Turbidity	-	85 NTU
					Dissolved oxygen (mg/L)	6.0mg/L	-
RB2	526440	6943781	Discharge	Event Release	pH	6.5	9
					Turbidity	-	85 NTU
					Dissolved oxygen (mg/L)	6.0mg/L	-
RB3	526268	6943428	Discharge	Event Release	pH	6.5	9
					Turbidity	-	85 NTU
					Dissolved oxygen	6.0mg/L	-

APPENDIX 3 – Authorised Mining Activities

Tenure ID	Disturbance Type	Disturbance surface area (ha)
Rochedale Leases		
ML1151	Infrastructure (brick manufacturing and ancillary facilities)	17.3
	Mine void	0.59
	Sediment traps/water basins	0
	Amenity banks / buffers	0.2
ML1156	Mine void	31.5
	Sediment traps/water basins	2.0
	Amenity banks / buffers	-
Burbank Lease		
ML1152	Mine void	24
	Sediment traps/ water basins	0.6
	Roads	1.0
	Buffer	8.8
Redland Bay Lease		
ML50035	Mine void	17.2
	Sediment traps/ water basins	1.0
	Roads	0.8
	Buffer	4.0

END OF CONDITIONS FOR ACTIVITIES UNDERTAKEN ON ML1151, ML1152, ML1156 & ML50035

**Conditions of environmental authority applying to activities undertaken on German Church Road
REDLAND BAY - Lot 1 on RP854704**

Relevant activities:

16-(2b) Extracting in a year more than 100 000t but not more than 1000 000t of material;

16-(3b) Screening in a year more than 100 000t but not more than 1000 000t of material;

Agency interest: General	
Condition number	Condition
G1-1	Prevent and /or minimise likelihood of environmental harm In carrying out the environmentally relevant activities, you must take all reasonable and practicable measures to prevent and / or to minimise the likelihood of environmental harm being caused. Any environmentally relevant activity, that, if carried out incompetently, or negligently, may cause environmental harm, in a manner that could have been prevented, shall be carried out in a proper manner in accordance with the conditions of this environmental authority. NOTE: This environmental authority authorises the environmentally relevant activity. It does not authorise environmental harm unless a condition contained within this environmental authority explicitly authorises that harm. Where there is no condition or the environmental authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.
G1-2	Maintenance of measures, plant and equipment The holder must: - install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; and - maintain such measures, plant and equipment in a proper and efficient condition; and - operate such measures, plant and equipment in a proper and efficient manner.

G1-3	Site based management plan From commencement of the activity, a Site Based Management Plan (SBMP) must be implemented. The SBMP must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact of these sources and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of all environmentally relevant activities that are carried out. The site based management plan must address the following matters: - Environmental commitments - a commitment by senior management to achieve environmental goals. - Identification of environmental issues and potential impacts. - Control measures for routine operations to minimise likelihood of environmental harm. - Contingency plans and emergency procedures for non-routine situations. - Organisational structure and responsibility. - Effective communication. - Monitoring of the contaminant releases. - Conducting environmental impact assessments. - Staff training. - Record keeping. - Periodic review of environmental performance and continual improvement.
G1-4	Records Record, compile and keep all monitoring results required by this document and present this information to the administering authority when requested, in a specified format.
G1-5	Acid sulphate soil (ASS) You must comply with the latest edition of the administering authority's '<i>Instructions for the Treatment and Management of Acid Sulphate Soils, 2001</i>', produced by the Queensland administering authority in consultation with the Department of Natural Resources and Mines and the Department of Primary Industries.
G1-6	Acid sulphate soils must be managed such that contaminants are not directly or indirectly released, as a result of the activity, to any waters or the bed and banks of any waters.
G1-7	Financial assurance Provide a financial assurance in the amount and form and at a time required by the administering authority.

Agency interest: Air	
Condition number	Condition
A1-1	Dust nuisance The release of dust and/or particulate matter resulting from the activity must not cause an environmental nuisance at any dust sensitive place .
A1-2	Exceedance of any of the following levels when measured at any dust sensitive place is an environmental nuisance for the purposes of condition A1-1. - Dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard AS 3580.10 of 1991; or - A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere of 150 micrograms per cubic metre over a 24 hour averaging time, at a dust sensitive place downwind of the site, when monitored in accordance with: - Australian Standard AS 3580.9.6 'Ambient air - Particulate matter - Determination of suspended particulate PM10 high-volume sampler with size-selective inlet – Gravimetric method'; or - any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
A1-3	When requested by the administering authority , dust and particulate monitoring must be undertaken to investigate any complaint of environmental nuisance caused by dust and/or particulate matter, and the results notified within 14 days to the administering authority following completion of monitoring. Monitoring must be carried out at a place(s) relevant to the potentially affected dust sensitive place and at upwind control sites and must include: - for a complaint alleging dust nuisance, dust deposition; and - for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere over a 24hr averaging time.

Agency interest: Water	
Condition number	Condition
WA1-1	Monitoring Monitoring must be undertaken and records kept of contaminant releases to waters from the discharge location for the parameters and not less frequently than specified in Appendix 2 - Table 1 (Release limits). All determinations of the quality of contaminants released must be: - made in accordance with methods prescribed in the latest edition of the administering authority 'Water Quality Sampling Manual'; and - carried out on samples that are representative of the discharge.

WA1-2	Erosion protection measures and sediment controls Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment. The stormwater runoff from disturbed areas, generated by a 24-hour storm event with an average recurrence interval of 1 in 5 years must be retained on site or treated prior to release to remove contaminants. Sediment released to the bed of the receiving waters, effected by process water and stormwater contaminated by activities, can only be released when in compliance with the limits in Appendix 2 - Table 1 (Release limits).
WA1-3	Prevent the release of sediment to waters or a build-up of sediment in any stormwater drain.
Agency interest: Noise & vibration	
Condition number	Condition
N1-1	Noise nuisance Noise from activities must not cause an environmental nuisance at any noise affected premises .
N1-2	All noise from the activities must not exceed the levels specified in Appendix 3 - Table 1 (Noise limits) when measured in accordance with the associated monitoring requirements. Any noise from the activities that exceed the levels specified in Appendix 3 - Table 1 (Noise limits) is considered an environmental nuisance.
N1-3	Noise monitoring When requested by the administering authority , noise monitoring must be undertaken in accordance with the associated monitoring requirements of Appendix 3 – Table 1 (Noise limits), and the results notified within 14 days to the administering authority . Monitoring must include: - LAeq,adj,T - Background noise (Background) as LA90,adj,T - MaxL_{pA,T} - the level and frequency of occurrence of impulsive or tonal noise; - atmospheric conditions including wind speed and direction; - effects due to extraneous factors such as traffic noise; and - location, date and time of recording.
N1-4	The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's 'Noise Measurement Manual'.
N1-5	Blasting activities must not exceed the limits for air blast overpressure in Appendix 3 - Table 2 (Blasting noise limits) when measured at any sensitive place or commercial place in accordance with the associated monitoring requirements.
N1-6	Blasting must be carried out in accordance with the current edition of the administering authority's 'Noise and vibration from blasting guideline' and with Australian Standard 2187.
N1-7	Unless prior approval is obtained from the administering authority : 1. blasting is only permitted during the hours of 9am to 3pm Monday to Friday, 2. blasting is not permitted at any time on Saturdays, Sundays and public holidays.

N1-8	When required by the administering authority , a blast monitoring program must be developed and implemented to monitor compliance with Appendix 3 - Table 2 (Blasting noise limits) at any sensitive place or commercial place .
N1-9	Vibration nuisance Vibration emitted from activities must not cause a nuisance at any vibration sensitive place .
N1-10	Vibration emitted from activities must not exceed the levels specified in Appendix 3 -Table 2 (Blasting noise limits) at any vibration sensitive place . Any vibration emitted from the activities that exceed the levels specified in Appendix 3 - Table 2 (Blasting noise limits) is considered an environmental nuisance.
N1-11	Vibration monitoring When requested by the administering authority , vibration monitoring and recording must be undertaken in accordance with the most recent edition of the administering authority's ' <i>Noise and Vibration from Blasting</i> ' guideline and Australian Standard 2187 to investigate any complaint of nuisance, and the results notified within 14 days to the administering authority . Monitoring must include: - peak particle velocity (mm/s); and - location of the blast/s within the site (including which bench level); and - atmospheric conditions including temperature, relative humidity and wind speed and direction; and - the level and frequency of occurrence of impulsive or tonal noise; - atmospheric conditions including wind speed and direction; - effects due to extraneous factors; and - location, date and time of recording.

Agency interest: Land

Condition number	Condition
L1-1	Rehabilitation landform criteria All areas significantly disturbed by activities must be rehabilitated in accordance with Appendix 4 - Table 1 (Final land use and rehabilitation outcome schedule).
L1-2	Rehabilitation Outcome – Industrial Disturbed land nominated for industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not have potential to cause environmental harm to the environmental values.
L1-3	To remove any doubt, the nomination of the final land use of industrial, industrial (landfill) or residential in Appendix 4 - Table 1 (Final land use and rehabilitation outcome schedule), does not negate any local or state government planning or approval requirements for the development of that land .

L1-4	Rehabilitation Outcome – Native Ecosystem Areas that are to be rehabilitated to native ecosystem must comply with the following outcomes: (a) achievement of a self-sustaining native ecosystem with a species composition and distribution similar to the pre-mining species composition and distribution; and (b) the landform must be suitable to support the ecosystem in L1-4 a), not impede pre-mining fauna corridors and be stable and non-polluting.
L1-5	Complete an investigation into rehabilitation of disturbed areas and submit a report to the administering authority proposing acceptance criteria to meet the outcomes in L1-4. A report on the investigation, which will propose acceptance criteria , must be submitted to the administering authority by 30 June 2005.
L1-6	Rehabilitation Outcome – Wetland Type 1 (water filled voids) Areas that are to be rehabilitated to Wetland Type 1 outcome will be considered rehabilitated when the dams are revegetated with species appropriate to filter contaminants from the water, and water discharges from the dams do not exceed the turbidity value of the inflow to the pond.

Agency interest: Waste

Condition number	Condition
W1-1	General The holder of this environmental authority must not: - burn waste at or on the authorised place; or - allow waste to burn at or on the authorised place; or - remove waste from the authorised place and burn such waste elsewhere.

Agency interest: Community

Condition number	Condition
C1-1	Complaint response All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

End of conditions for activities undertaken on German Church Road REDLAND BAY- Lot 1 on RP854704

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Conditions of environmental authority applying to activities undertaken on 105 Gardner Rd
ROCHEDALE QLD 4123 - Lot 8 Plan SP283241

Relevant activities: 42-(b) Manufacturing more than 5000t of clay or ceramic products in a year;

60-2(f) Operating a facility for disposing of more than 50 000t but not more than 100,000t of waste a year;

54-2(a) operating a facility for receiving and mechanically reprocessing, in a year, the following quantity of general waste— 5000 tonnes or less.

Agency interest: General	
Condition number	Condition
G2-1	Prevent and /or minimise likelihood of environmental harm In carrying out the environmentally relevant activities, you must take all reasonable and practicable measures to prevent and / or to minimise the likelihood of environmental harm being caused. Any environmentally relevant activity, that, if carried out incompetently, or negligently, may cause environmental harm, in a manner that could have been prevented, shall be carried out in a proper manner in accordance with the conditions of this authority. NOTE: This authority authorises the environmentally relevant activity. It does not authorise environmental harm unless a condition contained within this authority explicitly authorises that harm. Where there is no condition or this authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.
G2-2	Maintenance of measures, plant and equipment The holder must: - install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; and - maintain such measures, plant and equipment in a proper condition; and - operate such measures, plant and equipment in a proper manner.
G2-3	Records Record, compile and keep all monitoring results required by this environmental authority and present this information to the administering authority when requested, in a specified format.
G2-4	Storage and Handling of Flammable and Combustible Liquids Spillage of all flammable and combustible liquids must be contained within an on-site containment system and controlled in a manner that prevents environmental harm (other than trivial harm) and maintained in accordance with Section 5.9 of AS 1940 - <i>Storage and Handling of Flammable and Combustible Liquids of 1993</i>.
G2-5	Definitions Words and phrases used throughout this environmental authority are defined in Appendix 5 – Definitions. Where a definition for a term used in this environmental authority is sought and the term is not defined within this environmental authority, the definitions in the <i>Environmental Protection Act 1994</i>, its Regulations and Environmental Protection Policies must be used.

G2-6	Integrated Environmental Management System (IEMS) Prior to the commencement of any environmentally relevant activity ('the activities') under this environmental authority, the holder of this environmental authority must: - develop an Integrated Environmental Management System (IEMS) which provides for the - effective management by the holder of the actual and potential environmental - impacts resulting from the carrying out of the activities; and - implement and maintain the IEMS from the commencement of carrying out the activities.
G2-7	The IEMS must provide for at least the following functions: - Training staff in the awareness of environmental issues related to carrying out the activities, which must include at least: - The environmental policy of the holder, so that all persons that carry out the activities are aware of all relevant commitments to environmental management; and - Any relevant environmental objectives and targets, so that all staff are aware of the relevant performance objectives and can work towards these; and - Control procedures to be implemented for routine operations for day to day activities to minimise likelihood of environmental harm, however occasioned or caused; and - Contingency plans and emergency procedures to be implemented for non-routine situations to deal with foreseeable risks and hazards including corrective responses to prevent and mitigate environmental harm (including any necessary site rehabilitation); and - Organisational structure and responsibility to ensure that roles, responsibilities and authorities are appropriately defined to manage environmental issues effectively; and - Effective communication to ensure two-way communication on environmental matters between operational staff and higher management; - Their obligations in respect of monitoring, notification and record keeping obligations under the IEMS and relevant environmental authorities; and - Monitoring of the release of contaminants into the environment including procedures, methods, record keeping and notification of results; - Conducting assessment of the environmental impact of any release of contaminants into the environment; - Periodic conduct of energy audits and review of environmental performance and procedures adopted, not less frequently than annually; and - Waste prevention, treatment and disposal; and - A program for continuous improvement.
G2-8	The holder of this environmental authority must not implement or amend an IEMS (including any environmental management plan) that contravenes any condition of this environmental authority or any development condition applicable to carrying out the activities.

Agency interest: Air	
Condition number	Condition
A2-1	Nuisance The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity must not cause a nuisance at any odour sensitive place.

A2-2	The Release of Contaminants to the Atmosphere The release of contaminants to the atmosphere from a point source must only occur from those release points identified in Appendix 1 - Table 2 (Release of contaminants) and must be directed vertically upwards without any impedence or hindrance.
A2-3	Contaminants must be released to the atmosphere from a release point at a height and a flow rate not less than the corresponding height and velocity stated for that release point in Appendix 1 Table 2 (Release of contaminants) and not more than the efflux temperature stated for that release point in Appendix 1 - Table 2 (Release of contaminants).
A2-4	Contaminants must not be released to the atmosphere from a release point at a mass emission Rate/concentration, as measured at a monitoring point, in excess of that stated in Appendix 1 - Table 2 (Release of contaminants) and monitored not less frequently than Appendix 1 - Table 2 (Release of contaminants).
A2-5	Monitoring provisions and monitoring points must be provided for all the release points listed in Appendix 1 - Table 2 (Release of contaminants). The monitoring provisions and monitoring points must comply with the Australian Standard AS 4323.1 - 1995 "Stationary source emissions Method 1: Selection of sampling provisions".
A2-6	The holder of this environmental authority must conduct a monitoring program of contaminant releases to the atmosphere at the release points, frequency, and for the parameters specified in Appendix 1 - Table 2 (Release of contaminants) and which complies with the following: (a) All determinations of the quality of contaminants released must be performed by a person or body possessing appropriate experience and qualifications to perform the required measurements. (b) All determinations of the quality and quantity of contaminants released to the atmosphere must be made in accordance with methods prescribed in the latest edition of administering authority's 'Air Quality Sampling Manual'. (c) The following tests must be performed for each required determination specified in Appendix 1 Table 2 (Release of contaminants): (i) gas velocity and volume flow rate; (ii) temperature; and (iii) water vapour concentration. (d) Where practicable, samples taken must be representative of the contaminants discharged when emissions are expected to be maximum, (e) During the sampling period the following additional information must be gathered: (i) production rate; (ii) equipment operating; (iii) product made; (iv) date of sampling; (v) start and end time of sampling; (vi) fuel rate; (vii) fluoride concentration in the mixture of clay used before and after fired; and (viii) proportion of each raw clay used. (f) Oxides of nitrogen must be calculated as NO₂ at a seven percent (7%) oxygen level and total particulates must be determined where gas volume is calculated to twelve percent (12%) CO₂.

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A2-7	The only fuel to be used in the Swindell Dressler Tunnel Kiln and the Ceric Tunnel Kiln is natural gas, plus up to 500kg per hour of coal and untreated, unpainted, uncoated timber sawdust to a maximum of 2% of unfired brick weight and at a rate of less than 5000 tonnes per year.
A2-8	There must be no visible emission from release point numbers A1 or A2.
A2-9	The holder of this environmental authority must conduct a vegetation survey to detect chemical fumigation when there is non-compliance with any limit in Appendix 1 - Table 2 (Release of contaminants) and/or with the fluoride mass emission rate in Appendix 1 - Table 2 (Release of contaminants), or within three (3) years of the last vegetation survey submitted to the administering authority .
A2-10	The vegetation survey required by condition A3-9 must be conducted at Gardner Road and Prebble Street.
A2-11	A person or body possessing appropriate experience and qualifications must perform the vegetation survey required by condition A3-9 of this environmental authority .
A2-12	The holder of this environmental authority must ensure the data collected by conditions A3-11 and A3-9 of this environmental authority is analysed and interpreted to assess the nature and extent of any environmental impact of the environmentally relevant activity . The data, analysis and assessment must be submitted to the administering authority within three (3) months of the completion of any vegetation survey required by condition A3-9.
A2-13	Dust nuisance Subject to conditions A3-14 and A3-15 the release of dust or particulate matter or both resulting from the mining activity must not cause an environmental nuisance, at any sensitive or commercial place .
A2-14	When requested by the administering authority , dust and particulate monitoring must be undertaken to investigate any complaint of environmental nuisance caused by dust and/or particulate matter, and the results notified within fourteen (14) days to the administering authority following completion of monitoring. Monitoring must be carried out at a place(s) relevant to the potentially affected dust sensitive place and at upwind control sites and must include: - for a complaint alleging dust nuisance, dust deposition; and - for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere over a twenty-four (24) hour averaging time.

A2-15	If the environmental authority holder can provide evidence through monitoring that the following limits are not being exceeded then the holder is not in breach of A3-13: a) Dust deposition of 120 milligrams per square metre per day, averaged over one month, when monitored in accordance with AS 3580.10.1 <i>Methods for sampling and analysis of ambient air</i> - <i>Determination of particulates - Deposited matter - Gravimetric method of 1991;</i> and b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere of 150 micrograms per cubic metre over a twenty-four (24) hour averaging time, at a sensitive or commercial place downwind of the operational land, when monitored in accordance with: - Particulate matter - Determination of suspended particulate PM10 high-volume sampler with size-selective inlet - Gravimetric method, when monitored in accordance with AS 3580.9.6 <i>Methods for sampling and analysis of ambient air - Determination of suspended particulate matter - PM (sub) 10 high volume sampler with size-selective inlet – Gravimetric method of 1990;</i> or - Any alternative method of sampling PM10, which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority. NOTE: You must propose which monitoring method is appropriate in accordance with condition A3-15 (a) or (b) or both.
A2-16	Dust Control Stockpiles must be maintained using all reasonable and practicable measures to minimise the release of wind-blown dust or particulate matter to the atmosphere. Reasonable and practicable measures may include but are not limited to anemometer switching systems which trigger operation of effective water spray systems during winds likely to generate such releases, use of dust suppressants, shielding and storage in bunkers.
A2-17	Trafficable areas must be maintained using all reasonable and practicable measures to minimise the release of wind-blown dust or traffic generated dust to the atmosphere. Reasonable and practicable measures may include but are not limited to sealing with bitumen or other suitable material, keeping surfaces clean, use of water sprays, adoption and adherence to speed limits, use of dusts suppressants and wind breaks.
A2-18	Raw material preparation plants and external transfer conveyors must be operated and maintained using all reasonable and practicable measures to minimise the release of wind-blown dust or particulate matter to the atmosphere. Reasonable and practicable measures may include but are not limited to transfer of materials in a moist state, enclosure of conveyors and buildings, use of water sprays at transfer points, shielding and wind breaks.

Agency interest: Water	
Condition number	Condition
WA2-1	Release to waters Process water, storm water and/or receiving waters must be monitored at the locations and frequencies defined in Appendix 2 - Table 1 (Release limits) and comply with the release limits defined in Appendix 2 - Table 1 (Release limits).

WA2-2	Stormwater Management Plan The holder of this environmental authority must have developed and implemented an effective and appropriate Stormwater Management Plan which details how the holder of this environmental authority will manage the actual and potential environmental impacts resulting from the contamination of stormwater at the approved place.
WA2-3	The Stormwater Management Plan must address at least the following matters: a) prevention of incident stormwater and stormwater runoff from contacting wastes or contaminants; and b) diversion of upstream runoff away from areas containing wastes or contaminants; and c) minimisation of the size of contaminated areas; and d) cleaning of contaminated areas without water; and e) installation and maintenance of pollution control equipment such as oil separators, silt and rubbish traps, and stormwater diversion systems; and f) installation and maintenance of sediment control measures for stormwater such as by means of coagulation, sedimentation, dissolved air flotation, settling basins or other suitable means; and g) paving and roofing of contaminated areas; and h) revegetation of exposed or disturbed areas; and i) diversion of upstream runoff from exposed or disturbed areas and stockpiles; and j) sampling and monitoring of stormwater discharges from the approved place to waters for k) parameters including the following: i. turbidity, and ii. pH.

Agency interest: Noise	
Condition number	Condition
N2-1	Noise from activities must not cause an environmental nuisance at any noise affected premises .
N2-2	All noise from activities must not exceed the levels specified in Appendix 3 - Table 4 (Noise limits) at any noise affected premises .

N2-3	When requested by the administering authority , noise monitoring must be undertaken to investigate any complaint of noise nuisance, which is neither frivolous or vexatious or based on mistaken belief on the opinion of the authorised officer, and the results notified within fourteen (14) days to the administering authority . Monitoring must include: - LA 10, adj, 10 mins - LA 1, adj, 10 mins - the level and frequency of occurrence of impulsive or tonal noise; - atmospheric conditions including wind speed and direction; - effects due to extraneous factors such as traffic noise; and - location, date and time of recording.
N2-4	The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's <i>'Noise Measurement Manual'</i> .

Agency interest: Land

Condition number	Condition
L2-1	Release of Contaminants to Land There must be no release nor likelihood of release of any contaminants to land that may cause environmental harm or contribute to contamination of such land .

Agency interest: Waste

Condition number	Condition
W1-1	The only waste authorised to be received and mechanically reprocessed onsite is up to 5,000 tonnes per year of untreated, unpainted, uncoated timber sawdust, that is then used in the brick manufacturing process.
W2-1	Waste Management Plan (WMP) The holder of this environmental authority must develop and implement an effective and appropriate Waste Management Plan which details how the holder of this environmental authority will manage the actual and potential environmental impacts resulting from all wastes produced at the approved place.

W2-2	The Waste Management Plan must address at least the following matters: (a) the quantity and nature of each waste produced; (b) the current method of disposal; (c) proposed methods of pre-treatment or disposal; (d) expected reduction in quantity of waste produced through waste minimisation and cleaner production; (e) investigation and evaluation of alternative treatment options; (f) areas to be set aside for the segregation and storage of recyclable solid wastes; (g) where a no-cost recycling service is available, reasonable and practicable steps must be taken to ensure recyclable waste is not deposited in the general waste stream. Such steps may include, but are not limited to provision of receptacles; suitable signage; and promotion of awareness among staff of the recycling service. (h) provisions for carrying out and submitting to the administering authority a waste audit within twelve (12) months from the date of issue of this environmental authority and thereafter every five (5) years.
W2-3	A copy of the Waste Management Plan and subsequent amendments must be kept at the approved place and must be made available to any authorised person or the administering authority on request.
W2-4	The holder of this environmental authority must not implement a Waste Management Plan or amend a Waste Management Plan where such implementation or amendment would result in a contravention of any condition of this environmental authority .
W2-5	On Site Waste Disposal The defined on site waste disposal area is described as “Waste Disposal Area” delineated in Appendix 5 - Definitions.
W2-6	Only the following general waste, which is generated by the brickworks operation, is to be disposed of at the Waste Disposal Area: (i) broken and reject bricks, pavers and other ceramic products; (ii) timber; (iii) plastic, paper and cardboard; and (iv) concrete and concrete products with or without reinforcing steel.
W2-7	Where general waste associated with the manufacture of bricks or pavers on the approved place is disposed of on the premises (other than as permitted by another schedule of this environmental authority), the holder of this environmental authority must monitor and record: (a) the date, quantity and type of waste disposed; and (b) the location of disposal of the waste; and (c) the method of disposal of the waste.
W2-8	Appropriate signs must be prominently displayed at the waste disposal area or appropriate written instructions must be given to all persons responsible for depositing waste. The signs or written instructions must at least indicate: i. the types of waste that may be disposed; ii. the types of waste which must not be disposed; iii. the location where the wastes must be deposited within the general waste disposal area, and iv. that open burning of waste is prohibited.

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W2-9	Wastes must not be deposited beyond the boundaries of the waste disposal area.
W2-10	Regulated waste must not be stored or disposed of or deposited in the waste disposal area.
W2-11	Security The holder of this environmental authority must prevent any unauthorised disposal of waste on or in the approved place.
W2-12	The holder of this environmental authority must ensure that all access gates are locked when the approved place is unattended.
W2-13	General The holder of this environmental authority must not: (i) burn waste at or on the approved place; nor (ii) allow waste to burn or be burnt at or on the approved place; nor (iii) remove waste from the approved place and burn such waste elsewhere.
W2-14	Off Site Movement Where regulated waste is removed from the approved place (other than by a release as permitted under another schedule of this environmental authority), the holder of this environmental authority must monitor and record the following: (a) the date, quantity and type of waste removed; and (b) name of the waste transporter and/or disposal operator that removed the waste; and (c) the intended treatment/disposal destination of the waste. (NOTE: Records of documents maintained in compliance with a waste tracking system established under the <i>Environmental Protection Act 1994</i> or any other law for regulated waste will be deemed to satisfy this condition).
W2-15	Regulated waste must not be sent for disposal at any facility without the written approval of the person operating that facility.
	Records Records must be maintained for a period of five (5) years for all wastes mentioned in this schedule.
W2-17	Notification of Improper Disposal of Regulated Waste If the holder of this environmental authority becomes aware that a person has removed regulated waste from the approved place and disposed of the regulated waste in a manner which is not authorised by this environmental authority or which is improper or unlawful, then the holder of this environmental authority must, as soon as practicable, notify the administering authority of all relevant facts, matters and circumstances known concerning the disposal.

Agency interest: Community	
Condition number	Condition
C2-1	Complaint response All complaints received must be recorded including details of complainant, reasons for the complaint, investigations undertaken, conclusions formed and actions taken. This information must be made available for inspection by the administering authority on request.

End of conditions for activities undertaken on 105 Gardner Rd ROCHEDALE QLD 4123 - Lot 8 Plan SP283241

Appendix 1 – Air

105 Gardner Rd ROCHEDALE QLD 4123 - Lot 8 Plan SP283241

Table 2 (Release of contaminants)

Release point number	Minimum release height (metres)	Minimum velocity (m/sec)	Minimum efflux temp (°C)	Contaminant	Release Limit	Sampling frequency
Rochedale Plant A1 - Swindell Dressler Tunnel Kiln	30	8.7	126	Total particulates	0.25 g/m3	Not less frequently than annually
				Mass emission total particulates	n/a	Not less frequently than annually
				Nitrogen oxides	0.35 g/m3	Not less frequently than annually
				Mass emission nitrogen oxides	n/a	Not less frequently than annually
				Total fluoride (mass emission rate) g/sec	1.35	Not less frequently than annually
				Concentration total fluoride	n/a	Not less frequently than annually
Rochedale Plant A2 – Ceric Tunnel Kiln	15	9.5	124	Total particulates	0.25 g/m3	Not less frequently than annually
				Mass emission total particulates	n/a	Not less frequently than annually
				Nitrogen oxides	0.35 g/m3	Not less frequently than annually
				Mass emission nitrogen oxides	n/a	Not less frequently than annually
				Total fluoride (mass emission rate) g/sec	1.88	Not less frequently than annually
				Concentration total fluoride	n/a	Not less frequently than annually

Appendix 2 – Water

Table 1 (Release limits)

Monitoring point	Location		Monitoring type	Monitoring frequency	Quality characteristics	Release limits	
	Easting (GDA2020 Zone 56)	Northing (GDA2020 Zone 56)				Minimum	Maximum
Rochedale Leases (MLs1156 and 1151)							
R3	511161	6952152	Discharge	Event Release	pH	6.5	9
					Turbidity	-	95 NTU
R1	511689	6951748	Background for point R3	When point R3 is sampled	pH	N/A	N/A
					Turbidity	N/A	N/A
R2	510982	6951778	Discharge	Each pump release	pH	6.5	9
					Turbidity	-	95 NTU
R4	510427	6951431	Background for point R2	When point R2 is sampled	pH	N/A	N/A
					Turbidity	N/A	N/A
Burbank Lease (ML1152)							
B1	513987	6949266	Discharge	Event Release	pH	6.5	9
					Turbidity	-	92 NTU
Redland Bay Lease (ML50035)							
RB1	526682	6943777	Discharge	Event Release	pH	6.5	9
					Turbidity	-	85 NTU
					Dissolved oxygen (mg/L)	6.0mg/L	-
RB2	526440	6943781	Discharge	Event Release	pH	6.5	9
					Turbidity	-	85 NTU
					Dissolved oxygen (mg/L)	6.0mg/L	-
RB3	526268	6943428	Discharge	Event Release	pH	6.5	9
					Turbidity	-	85 NTU
					Dissolved oxygen	6.0mg/L	-

Appendix 3 – Noise

German Church Road REDLAND BAY - ML50035

Table 1 (Noise limits)

Noise level measured in dB(A)	Monday to Friday			Saturday	
	6am – 7am	7am – 6pm	6pm – 6am	7am – 4pm	4pm – 7am
	Noise measured at a nuisance sensitive place				
L_{Aeq, adj, T}	Background +3	Background +5	Background +0	Background +5	Background +0
MaxL_{pA, T}	Background +8	Background +10	Background +5	Background +10	Background +5
Noise measured at a commercial place					
L_{Aeq, adj, T}	Background +8	Background +10	Background +5	Background +10	Background +5
MaxL_{pA, T}	Background +13	Background +15	Background +10	Background +15	Background +10

Associated monitoring requirements

1. All monitoring devices must be correctly calibrated and maintained.
2. Any monitoring of noise emission from the **activity** must be undertaken when the **activity** is in operation.
3. Sundays / Public Holidays - no Audible Noise.
4. The minimum value for T must be:
 - 15 minutes for continuous steady noises,
 - 1 hour for intermittent noises.

Table 2 (Blasting noise limits)

Blasting criteria	Blasting limits
Airblast overpressure	115 dB (Linear) Peak for 9 out of 10 consecutive blasts initiated and not greater than 120 dB (Linear) Peak at any time.
Ground vibration peak particle velocity	5mm/second peak particle velocity for 9 out of 10 consecutive blasts and not greater than 10mm/second peak particle velocity at any time.

Associated monitoring requirements

1. All monitoring devices must be correctly calibrated and maintained.

105 Gardner Rd ROCHEDALE QLD 4123 - Lot 8 Plan SP283241

Table 4 (Noise limits)

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
	Noise measured at a 'Noise sensitive place'					
L _{A10} , adj, 10 mins	b/g+5	b/g+5	b/g+3	b/g+5	b/g+5	b/g+0
L _{A1} , adj, 10 mins	b/g+10	b/g+10	b/g+5	b/g+10	b/g+10	b/g+5
	Noise measured at a 'Commercial place'					
L _{A10} , adj, 10 mins	b/g+10	b/g+10	b/g+8	b/g+10	b/g+10	b/g+5
L _{A1} , adj, 10 mins	b/g+15	b/g+15	b/g+10	b/g+15	b/g+15	b/g+10

Appendix 4 – Land

German Church Road REDLAND BAY - ML50035

Table 1 (Final land use and rehabilitation outcome schedule)

Disturbance Type	Projective Surface Area (ha)	Rehabilitation Outcome
Mine void	17.2	Industrial Native ecosystem
Sediment traps / water basins	1	Wetland Type 1
Roads	0.8	No rehabilitation required - retain
Buffer	4	Native Ecosystem

Appendix 5 - Definitions

Key terms and/or phrases used in this document are defined in this section and **bolded** throughout this document. Applicants should note that where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

acceptance criteria means the measures by which the actions implemented to rehabilitate the **land** are deemed to be complete. The **acceptance criteria** indicate the success of the **rehabilitation** outcome or remediation of areas which have been **significantly** been disturbed by the mining activities. **Acceptance criteria** may include information regarding:

- vegetation establishment, survival and succession;
- vegetation productivity, sustained growth and structure development;
- fauna colonisation and habitat development;
- ecosystem processes such as soil development and nutrient cycling, and the recolonisation of specific
- fauna groups such as collembola, mites and termites which are involved in these processes;
- microbiological studies including recolonisation by mycorrhizal fungi, microbial biomass and - respiration;
- effects of various establishment treatments such as deep ripping, topsoil handling, seeding and
- fertiliser application on vegetation growth and development;
- resilience of vegetation to disease, insect attack, drought and fire;
- vegetation water use and effects on ground water levels and catchment yields.

activity means the environmentally relevant activities, whether resource activities or prescribed activities, to which the **environmental authority** relates.

administering authority means the Department of Environment and Heritage Protection or its successor or predecessors. **annual return** means the return required by the annual notice under the *Environment Protection Act, 1994*.

authorised place means the place authorised under **this environmental authority** for the carrying out of the specified environmentally relevant activities. **blasting** is the use of explosives to fracture:

- rock, coal and other minerals for later recovery; or
- structural components or other items to facilitate removal from a site or for reuse.

commercial place means a place used as a workplace, an office or for business or commercial purposes and includes a place within the curtilage of such a place reasonably used by persons at that place.

competent person means a person with the demonstrated skill and knowledge required to carry out the task to a standard necessary for the reliance upon collected data or protection of the environment.

dam means a containment or proposed containment whether permanent or temporary, which is designed to contain, divert or control flowable substances. However this does not include a fabricated or manufactured tank or container designed to a recognised standard.

dust sensitive place means:

- a **dwelling**, mobile home or caravan park, residential marina or other residential place;
- a motel, hotel or hostel;
- a kindergarten, school, university or other educational institution;
- a medical centre or hospital;
- a **protected area**;
- a park or gardens; or

- a place used as an office or for business or commercial purposes. and includes the curtilage of any such place.

dwelling means any of the following structures or vehicles that is principally used as a residence:

- a house, unit, motel, nursing home or other building or part of a building; - a caravan, mobile home or other vehicle or structure on land; - a water craft in a marina. **event release** means when water is released and which must occur at least four times per year. **holder** means the person who made an application for the **environmental authority**; or the person to whom the transferred **environmental authority** has been issued.

intrusive noise means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration :

- is clearly audible to, or can be felt by, an individual; and - annoys the individual.
In determining whether a noise annoys an individual and is unreasonably intrusive, regard must be given to Australian Standard 1055.2 - 1997 *Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations*.

land in the land schedule of this document means land excluding waters and the atmosphere.

land use term to describe the selected post mining use of the land, which is planned to occur after the cessation of mining operations. **mg/L** means milligrams per litre.

mineral means a substance which normally occurs naturally as part of the earth's crust or is dissolved or suspended in water within or upon the earth's crust and includes a substance which may be extracted from such a substance, and includes:

- clay if mined for use for its ceramic properties, kaolin and bentonite;
- foundry sand;
- hydrocarbons and other substances or matter occurring in association with shale or coal and necessarily mined, extracted, produced or released by or in connection with mining for shale or coal or for the purpose of enhancing the safety of current or future mining operations for coal or the extraction or production of mineral oil therefrom;
- limestone if mined for use for its chemical properties;
- marble;
- mineral oil or gas extracted or produced from shale or coal by in situ processes; (g) peat;
- salt including brine;
- shale from which mineral oil may be extracted or produced;
- silica, including silica sand, if mined for use for its chemical properties;
- rock mined in block or slab form for building or monumental purposes; but does not include— (l) living matter;
- petroleum within the meaning of the *Petroleum Act 1923*;
- soil, sand, gravel or rock (other than rock mined in block or slab form for building or monumental purposes) to be used or to be supplied for use as such, whether intact or in broken form; (o) (o) water.

noxious means harmful or injurious to health or physical well-being.

nuisance sensitive place includes:

- a **dwelling**, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- a motel, hotel or hostel; or
- a kindergarten, school, university or other educational institution; or
- a medical centre or hospital; or

- a **protected area** under the *Nature Conservation Act 1992*, the *Marine Parks Act 1992* or a World Heritage Area; or
- a public thoroughfare, park or gardens; or
- a place used as a workplace, an office or for business or commercial purposes and includes a place within the curtilage of such a place reasonably used by persons at that place.

noise affected premises means a ‘**noise sensitive place**’ or a ‘**commercial place**’.

offensive means causing offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive.

peak particle velocity (ppv) means a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mms-1).

protected area means:

- a **protected area** under the *Nature Conservation Act 1992*; or - a marine park under the *Marine Parks Act 1992*; or - a World Heritage Area.

rehabilitation the process of reshaping and revegetating land to restore it to a stable landform and in accordance with the **acceptance criteria** set out in this **environmental authority** and, where relevant, includes remediation of contaminated land.

representative means a sample set which covers the variance in monitoring or other data either due to natural changes or operational phases of the mining activities.

self-sustaining means an area of land which has been rehabilitated and has maintained the required acceptance criteria without human intervention for a period nominated by the **administering authority**.

sensitive place means:

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- a motel, hotel or hostel; or
- an educational institution; or
- a medical centre or hospital; or
- a **protected area** under the *Nature Conservation Act 1992*, the *Marine Parks Act 1992* or a World Heritage Area; or
- a public park or gardens; or
- a place used as a workplace, an office or for business or commercial purposes which is not part of the mining activity and does not include employees accommodation or public roads.

significant disturbance – includes land:

- if it is contaminated land; or
- it has been disturbed and human intervention is needed to rehabilitate it.
 - to a state required under the relevant **environmental authority**; or
 - if the **environmental authority** does not require the land to be rehabilitated to a particular state – to its state immediately before the disturbance.

Some examples of disturbed land include:

- areas where soil has been compacted, removed, covered, exposed or stockpiled;
- areas where vegetation has been removed or destroyed to an extent where the land has been made - susceptible to erosion; (vegetation & topsoil)
- areas where land use suitability or capability has been diminished;

- areas within a watercourse, waterway, wetland or lake where mining activities occur;
- areas submerged by tailings or hazardous contaminant storage and dam walls in all cases;
- areas under temporary infrastructure. Temporary infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be removed after mining activities have ceased; or
- areas where land has been contaminated and a suitability statement has not been issued.

However, the following areas are not included:

- areas off lease (e.g. roads or tracks which provide access to the mining lease);
- areas previously significantly disturbed which have achieved the rehabilitation outcomes;
- by agreement with the **administering authority**, areas previously significantly disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climatic conditions);
- areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be left by agreement with the landowner. The agreement to leave permanent infrastructure must be recorded in the Landowner Agreement and lodged with the **administering authority**;
- disturbances that pre-existed the grant of the tenure unless those areas are disturbed during the term of the tenure.

site means the place to which **this environmental authority** relates or the premises to which this **environmental authority** relates.

stable means geotechnical stability of the rehabilitated landform where instability related to the excessive settlement and subsidence caused by consolidation / settlement of the wastes deposited, and sliding / slumping instability has ceased. **this authority** means **this environmental authority**.

waters includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part thereof.

you means the holder of **this environmental authority** or owner / occupier of the land which is the subject of this **environmental authority**.

German Church Road REDLAND BAY - Lot 1 on RP854704 – specific definitions

airblast overpressure is the energy transmitted from the blast site within the atmosphere in the form of pressure waves. As these waves pass a given position, the pressure of the air rises very rapidly then falls more slowly then returns to the ambient value after a number of oscillations. The pressure wave consists of both audible (noise) and inaudible (concussion) energy. The maximum excess pressure in this wave is known as the peak air overpressure, generally measured in decibels using the linear frequency-weighting.

background means noise, measured in the absence of the noise under investigation, as L A90,T being the Aweighted sound pressure level exceeded for 90 per cent of the time period of not less than 15 minutes, using Fast response.

LAeq adj,T means the adjusted A weighted equivalent continuous sound pressure level measures on fast response, adjusted for tonality and impulsiveness, during the time period T, where T is measured for a period no less than 15 minutes when the activity is causing a steady state noise, and no shorter than one hour when the approved activity is causing an intermittent noise.

MaxLpA,T means the maximum A-weighted sound pressure level measured over a time period T of not less than 15 minutes, using Fast response.

substantial low frequency noise means a noise emission that has an unbalanced frequency spectrum shown in a one-third octave band measurement, with a predominant component within the frequency range 10 to 200Hz. It includes any noise emission likely to cause an overall sound pressure level at a sensitive place exceeding 55dB(Z).

vibration is the oscillating or periodic motion of a particle, group of particles, or solid object about its equilibrium position.

vibration sensitive place means a noise sensitive place or a commercial place.

105 Gardner Rd ROCHEDALE QLD 4123 - Lot 8 Plan SP283241– specific definitions

airblast overpressure means energy transmitted from the blast site within the atmosphere in the form of pressure waves. The maximum excess pressure in this wave, above ambient pressure is the peak airblast overpressure measured in decibels linear (dB).

ambient (or total) noise at a place, means the level of noise at the place from all sources (near and far), measured as the Leq for an appropriate time interval.

flowable substance means matter or mixture of materials which can be forced to or otherwise flow under any conditions possible in a situation. It includes water, other liquids or a mixture that includes water or any other liquid or suspended solids.

hazardous waste means any substance, whether liquid, solid or gaseous, derived by or resulting from, the processing of minerals that tends to destroy life or impair or endanger health.

IEMS / Project EMOS document titled '*Environmental Management Overview Strategy (consolidating mining project numbers PJ50036, 50134, 50128 and 50150) incorporating Integrated Environmental Management System (mining, manufacturing and extractive industries). Prepared for The Austral Brick Company Pty Ltd. Prepared by Groundwork Environmental Management Services Pty Ltd. October 2002*'.

LA 10, adj, 10 mins means the A-weighted sound pressure level, (*adjusted for tonal character and impulsiveness of the sound*) exceeded for ten percent (10%) of any 10-minute measurement period, using Fast response.

LA 1, adj, 10 mins means the A-weighted sound pressure level, (*adjusted for tonal character and impulsiveness of the sound*) exceeded for one percent (1%) of any 10-minute measurement period, using Fast response.

LA, max adj, T means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over any 10 minute period, using Fast response.

land capability as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland.

land suitability as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland.

mandatory reporting level means the volume below the spillway crest, equivalent to the lower of the AEP, seventy-two (72) hour storm or the AEP wave allowance (AEP is the annual exceedence probability).

non-standard means a mining operation that if in the opinion of the **administering authority** does not have a low risk of serious environmental harm and the activities can not comply with the criteria for standard

mining activities prescribed in schedule 1A of the *Environmental Protection Regulation 1998*. The standard mining activity trigger criteria are as follows;

- the mining activities do not or will not cause more than 10 ha of land to be significantly disturbed at any one time;
- the mining activities do not or will not cause more than 5 ha of land to be significantly disturbed at any one time;
 - o in a riverine area;
 - o because of mine workings;
- the mining activities are not or will not be carried out in, or within 2 km of a category A *Environmentally Sensitive Area*;
- the mining activities are not or will not be carried out in, or within 1 km of a category B environmentally sensitive area;
- the mining activities do not include a level 1 environmentally relevant activity
- no more than twenty (20) persons are carrying out or will, at any one time, carry out the mining activities;

open area means those parts of the mining lease that are cleared in preparation for, or to conduct mining, but have not had rehabilitation commence. Open area excludes permanent roads, fixed plant and water quality control devices.

progressive rehabilitation means rehabilitation (defined below) undertaken progressively or a staged approach to rehabilitation as mining operations are ongoing.

reference site (or analogue site) may reflect the original location, adjacent area or another area where rehabilitation success has been completed for a similar biodiversity. Details of the reference site may be as photographs, computer generated images and vegetation models etc.

residual void means an open pit resulting from the removal of ore and/or waste rock which will remain following the cessation of all mining activities and completion of rehabilitation processes.

spillway means passage or outlet from the dam through which surplus water flows.

trivial harm means environmental harm which is not material or serious environmental harm and will not cause actual or potential loss or damage to property of an amount of, or amounts totalling more than \$5,000.

END OF PERMIT