ROK5846

ecoaccess
environmental licences & permits

Environmental Authority (Mining Activities) Non Code Compliant Level 1 Mining Project

Permit[1] Number: MIN100750708

Environmental Protection Act 1994

Takes Effect From: 4 September 2009

Details

Permit Holder(s)	Name	Address
Principal Holder	ARC Marlborough Pty Ltd	PO Box 4, Newport Beach, NSW 2106

Activity(s)	Location(s)
Mining Lease	ML 80098

The anniversary date of the environmental authority is *2 September.*

The environmental authority is subject to the attached conditions of approval.

Don Arnold
Delegate
Department of Environment and Resource Management
4 September 2009

[1] Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Department of Environment and Resource Management.

CONDITIONS OF APPROVAL

Environmental Authority – Agency Interest

Schedule A	General
Schedule B	Air
Schedule C	Noise and Vibration
Schedule D	Waste
Schedule E	Land
Schedule F	Community

Schedule A - General

A1 Financial assurance

The holder of a new environmental authority must submit the required amount of *Financial Assurance** (ie. a security deposit) to the administering authority prior to carrying out any activities on the mining lease. If the holder of the environmental authority submits an application to amend the plan of operations or submits a new plan of operations, they must also submit an application to amend their financial assurance to the administering authority. If an application is lodged to transfer the environmental authority to another person or company, the proposed transferee must submit the required financial assurance prior to the transfer taking effect.

NOTE: *The calculation of financial assurance for condition A1 must be in accordance with DERM Guideline – Financial Assurance for Mining Activities, 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).*

A2 The financial assurance is to remain in force until the Administering Authority is satisfied that no claim on the assurance is likely.

A3 Prevent and /or minimise likelihood of environmental harm

4/8/09

In carrying out the exploration activity, you must take all reasonable and practicable measures to prevent and / or to minimise the likelihood of environmental harm being caused. This environmental authority does not authorise environmental harm unless a condition contained within the authority explicitly authorises that harm. Where there is no condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

A4 Plan of Operations

The holder of the *Environmental Authority* must submit to the administering authority a *Plan of Operations* consistent with Sections 233 and 234 of the *Environmental Protection Act 1994* for the mining lease, at least 28 days prior to carrying out any activities on site, unless a shorter period is approved by the administering authority.

A5 Environmental Management Plan

The exploration activity must be conducted in accordance with commitments and undertakings made in the Environmental Management Plan (EM Plan) authored by Mining Tenement Services and titled *ARC Marlborough PTY Limited, Draft Environmental Management Plan (Mining)(Revised), ML80098 revision 7.* Should any conflict arise between the above mentioned document and conditions contained within this authority, the conditions of this authority prevail to the extent of the inconsistency.

A6 Staff induction

Prior to initially entering the mining lease, all staff and or contractors intending to be engaged on the mining lease will be made familiar with the terms and conditions of this authority, the commitments and undertakings in the EM Plan and the Atlas of Significant Species outlined in the EM Plan.

A7 Maintenance of measures, plant and equipment

The environmental authority holder must ensure:

a) prior to entering the mining lease all vehicles, plant and equipment are cleaned at an appropriate facility in order to remove any soil or vegetation material to prevent the introduction of soil borne diseases, plants or animals to the lease;
b) that all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority are installed;
c) that such measures, plant and equipment are maintained in a proper condition; and
d) that such measures, plant and equipment are operated in a proper manner.

Department of Environment and Resource Management
www.derm.qld.gov.au ABN 46 640 294 485

4/9/09

A8 **Monitoring and records**

Record, compile and keep for a minimum of five (5) years all monitoring results required by this environmental authority and make available for inspection all or any of these records upon request by the administering authority.

A9 Where monitoring is a requirement of this environmental authority or EM Plan, ensure that a competent person(s) conducts all monitoring.

A10 **Notification of emergencies, incidents and exceptions**

All reasonable actions are to be taken to minimise environmental harm, or potential environmental harm, resulting from any emergency, incident or circumstances not in accordance with the conditions of this environmental authority.

A11 As soon as practicable, but within 24 hours, after becoming aware of any emergency, incident or information about circumstances which results or may result in environmental harm not in accordance with the conditions of this environmental authority, the administering authority must be notified in writing.

A12 Not more than ten (10) business days following the initial notification of an emergency, incident or information about circumstances which result or may result in environmental harm, written advice must be provided to the administering authority in relation to:

a) proposed actions to prevent a recurrence of the emergency or incident;
b) the outcomes of actions taken at the time to prevent or minimise environmental harm; and
c) proposed actions to respond to the information about circumstances which result or may result in environmental harm.

A13 As soon as practicable, but not more than **six (6) weeks** following the initial notification of an emergency, incident or information about circumstances which result or may result in environmental harm, environmental monitoring must be performed and written advice must be provided of the results of any such monitoring performed to the administering authority

A14 The holder of the environmental authority must not carry out activities within 100m of an identified *Historical*, *Archaeological* or *Ethnographic* site.

4/8/09

A15 The holder of the environmental authority must not carry out the following *Environmentally Relevan41Activities* (ERA) on the mining lease:

ERA (8) Chemical Storage
ERA (52) Battery Recycling
ERA (55) Regulated waste recycling or reprocessing
ERA (61) Incinerating Waste and thermal treatment

A16 Definitions

Words and phrases used throughout this environmental authority are defined in the Definitions section of this authority. 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 *Environmental Protection Act 1994,* its regulations and policies must be used or relevant Codes of Environmental Compliance.

Department of Environment and Resource Management
www.derm.qld.gov.au ABN 46 640 294 485

4/9/2009

Schedule B - Air

B1 Dust nuisance

The release of dust or particulate matter or both resulting from the exploration activity must not cause an environmental nuisance, at any nuisance sensitive or commercial place.

B2 When requested by the administering authority or as a result of a complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer), dust and particulate monitoring must be undertaken, and the results thereof notified to the administering authority within **fourteen (14) days** following completion of monitoring. Monitoring must be carried out at a place(s) relevant to the potentially affected dust sensitive place. Dust and particulate matter must not exceed the following levels when measured at any nuisance sensitive or commercial place:

a) Dust deposition of 120 milligrams per square metre per day, when monitored in accordance with *Australian Standard AS 3580.10.1 of 2003* (or more recent editions); and

b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24 hour averaging time, at a nuisance sensitive or commercial place downwind of the site, when monitored in accordance with:

   i. Australian Standard AS 3580.9.6 of 2003 (or more recent editions) Ambient air - Particulate matter - Determination of suspended particulate PM10 high-volume sampler with size-selective inlet - Gravimetric method; or

   ii. 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.

B3 If monitoring indicates exceedence of the relevant limits in Condition B2, then the environmental authority holder must:

a) address the complaint including the use of appropriate dispute resolution if required; and

b) immediately implement dust abatement measures so that emissions of dust from the activity do not result in further environmental nuisance.

B4 Odour nuisance

The release of noxious or offensive odour(s) or any other noxious or offensive airborne contaminant(s) resulting from the mining activity must not cause an environmental nuisance at any nuisance sensitive or commercial place.

4/9/09

Schedule C - Noise and Vibration

C1 **Noise nuisance**

The holder of the environmental authority must not cause environmental nuisance at any sensitive place.

C2 **Vibration nuisance**

Vibration from the authorised activities must not cause an environmental nuisance, at any sensitive place.

Schedule D - Waste

D1 The holder of the environmental authority must not directly or indirectly release waste from the project area to any watercourse, waterway, groundwater, wetland or lake.

D2 The holder of an environmental authority must not dispose of any general waste on the mining lease all waste is to removed and disposed of at a facility lawfully allowed to accept such waste under the provisions of the *Environmental Protection Act 1994*.

D3 **Preventing contaminant release**

The holder of the environmental authority must plan and conduct activities on site to prevent any potential or actual release of a contaminant.

D4 The holder of the environmental authority must ensure that spills of contaminants are cleaned up as quickly as practical. Do not clean up such spillage by hosing, sweeping or otherwise releasing such contaminants to any watercourse, waterway, groundwater, wetland or lake. Contaminants must not be released to land in manner which constitutes nuisance, material or serious environmental harm.

4/9/09

Schedule E - Land

E1 **Land and vegetation disturbance**
The holder of the environmental authority must ensure that the area and duration of disturbance to land and vegetation is minimised.

E2 A Botanist with a minimum of five (5) years relevant experience is engaged on site to check all proposed exploration routes in advance of the exploration team. The Botanist should have authority to realign proposed exploration route, drill pads and bulk sampling sites so as to avoid impact on species of ecological significance and terrain susceptible to land degradation.

E3 Immediately following exploration activities sites will be monitored by the Botanist engaged on site. Where sites of ecological significance are disturbed by the exploration activity it will be reported to the administering authority consistent with conditions A10-A13 with a site-specific rehabilitation plan developed and implemented to meet the acceptance criteria.

E4 The holder of the environmental authority must consult with the landowner prior to establishing any new roads and tracks.

E5 When constructing new roads and tracks, the holder of the environmental authority must ensure that the area and duration of disturbance to land, vegetation and watercourses is minimised.

E6 Tracks and other infrastructure required by the landholder will be identified in a map provided to the administering authority at an appropriate scale to clearly identify location of tracks. The map must be accompanied by a letter signed by the land holder identifying ongoing responsibility for maintenance and/or rehabilitation of the roads and tracks. The letter and map(s) must be provided to the administering authority prior to the completion of exploration activities.

E7 The holder of the environmental authority must design, install and maintain adequate erosion and sediment control structures wherever necessary to prevent or minimise erosion of disturbed areas and the sedimentation of any watercourse, waterway, wetland or lake.

4/9/09

E8 The holder of the environmental authority must ensure that topsoil is removed and stockpiled prior to carrying out any mining activity. Prevent or minimise the mixing and erosion of topsoil and overburden stockpiles.

E9 **Drilling excavating and sampling**

The holder of the environmental authority must ensure:

a) all marker pegs are marked with contrasting colour so as to be clearly visible;
b) all marker pegs are removed from the tenement at the completion of exploration activities; and
c) all permanent markers (example, concrete plugs or steel plates) are installed at ground level and made safe

E10 When drilling, excavating or sampling, the holder of the environmental authority must ensure that the area and duration of disturbance to land and vegetation is minimised.

E11 The holder of the environmental authority must not drill, excavate or clear vegetation:

a) in standing waters, wetlands or lakes; or
b) on the sloped banks or within 3m of the top of the bank or 5m of the toe of the bank; or
c) within, or on the levee banks of the normal flow channel.

E12 **Exploration Drill Holes**

The holder of the environmental authority must decommission all non-artesian drill holes, apart from those still required for monitoring purposes as soon as practical, but no later than 6 months after the hole was drilled by undertaking the following actions:

a) where practical dispose of all unused drill chips to the hole or to a sump pit and;
b) cap the hole at a depth that is appropriate for the previous land use of the area (unless the land owner stipulates a future use which requires the cap to be placed deeper); and
c) backfill the hole above the cap with soil or material similar to the surrounding soil or material.

E13 The holder of the environmental authority must isolate non-artesian aquifers where a drill hole intersects more than one water bearing strata by casing or plugging the hole as soon as practical after the hole is no longer required, but no later than 2 months after the hole was drilled, apart from those holes that are still required for monitoring purposes if:

a) the flow difference between aquifers exceeds 500 L/hour; and
b) the difference in electrical conductivity of water is greater than 10% of the lower value.

E14 Conditions E12 and E13 do not apply to a non-artesian exploration drill hole if:

a) the land owner and the explorer have agreed that it should be left for conversion to a water bore; and
b) the landowner gives a written undertaking to accept responsibility for the hole; and
c) the details of the agreement and the drill hole (such as its GPS location and the drill logs showing the water bearing strata and flow rates) are provided to the Department of Environment and Natural Resources within 30 days of the land owner giving the undertaking; and
d) the hole is temporarily capped so as to prevent possible ingress of surface waters and associated sediments and contaminants.

Department of Environment and Resource Management
www.derm.qld.gov.au ABN 46 640 294 485

4/9/09

E15 The holder of the environmental authority must ensure that exploration drill holes that strike artesian flows of water that exceeds 500 L/hour for seven days must be either:

(1) decommissioned as soon as practical, but no later than 1 month after the hole was drilled, apart from holes that are still required for monitoring or evaluation purposes. Refer to Report No. SW4 – "Minimum Construction Requirements for Water Bores in Australia", (ARMCANZ 1997); or

(2) capped to allow for future conversion into a controlled artesian bore by a licensed water bore driller; or

(3) converted into a controlled artesian bore by a licensed water bore driller, provided that:

(a) the land owner has undertaken in writing to accept responsibility for the drill hole; and

(b) the explorer provides details of the agreement and the drill hole to the Department of Environment and Natural Resources within 30 days of obtaining the landowner's agreement.

E16 The holder of the environmental authority must ensure that exploration drill holes that are to be retained for future mineral resource evaluation purposes are cased and capped. Holes to be retained for more than three years must be capped with steel casing and appropriately identified.

E17 The holder of the environmental authority must backfill all excavations, drill holes or sampling sites as soon as practical following the completion of exploration activities.

E18 Condition E17 does not apply to any excavations, drill holes or sampling sites that are to remain after the completion of exploration activities, by agreement with the land owner.

E19 Rehabilitation

The holder of the environmental authority must complete the rehabilitation processes on areas disturbed by exploration activities, as soon as practical and prior to the onset of the following wet season to meet the acceptance criteria.

E20 The holder of the environmental authority must backfill excavations with overburden as soon as practical following the completion of mining activities.

E21 For excavations that are to remain at the completion of mining activities, by agreement with the land holder, and will be used as livestock water drinking supplies, the holder of the environmental authority must:

(1) ensure that water quality in any remaining excavation complies with the acceptable water quality *Guidelines for Livestock Drinking Water* as detailed in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality; and

(2) provide safe access for livestock and native animals to the excavation.

E22 The holder of the environmental authority must rehabilitate areas disturbed by mining activities to a stable landform, similar to that of the surrounding undisturbed areas.

E23 The holder of the environmental authority must complete the rehabilitation of areas disturbed by exploration activities to the satisfaction of the administrating authority.

E24 Rehabilitation Monitoring Program

4/9/09

On commencement of exploration activities the holder of the environmental authority must conduct a Rehabilitation Monitoring Program as outlined in the EM Plan

E25 The Rehabilitation Monitoring Program must be included in the Plan of Operations and updated with each and any subsequent Plan of Operations, describing:

a) how the rehabilitation objectives as per the EM Plan will be achieved; and
b) verification of rehabilitation success.

E26 **Storage and handling of flammable and combustible liquids**

All flammable and combustible liquids must be contained within an on-site containment system and controlled in a manner that prevents environmental harm and maintained in accordance with the current version of *AS 1940 – Storage and Handling of Flammable and Combustible Liquids*.

E27 Spillage of all flammable and combustible liquids must be controlled in a manner that prevents environmental harm.

E28 **Storage and handling of chemicals**

All chemicals must be contained within an on-site containment system and controlled in a manner that prevents environmental harm and maintained in accordance with the current version of the relevant Australian Standard.

E29 Spillage of all chemicals must be controlled in a manner that prevents environmental harm.

Schedule F - Community

F1 **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.

F2 The holder of this environmental authority must record the following details for all complaints received and provide this information to the administering authority on request:

a) time, date, name and contact details of the complainant;
b) reasons for the complaint;
c) conclusions formed; and
d) any actions taken.

END OF CONDITIONS

4/9/09

Definitions

Words and phrases used throughout this licence are defined below except where identified in the EP Act, subordinate legislation or Codes of Environmental Compliance. Where a word or term is not defined, the ordinary English meaning applies, and regard should be given to the Macquarie Dictionary.

"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:

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 recolonisation of specific fauna groups such as collembola, mites and termites which are involved in these processes;
e) microbiological studies including recolonisation 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 ground water levels and catchment yields.

"administering authority" means the Department of Environment and Resource Management 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 Leq for an appropriate time interval.

"ANZECC" means the Australian and New Zealand Guidelines for Fresh Marine Water Quality 2000 "authority" means environmental authority (mining activities) under the *Environmental Protection Act 1994*.

"bed and banks" for a waters, river, creek, stream, lake, lagoon, pond, swamp, wetland or dam means land over which the water of the waters, lake, lagoon, pond, swamp, wetland or dam normally flows or that is normally covered by the water, whether permanently or intermittently; but does not include land adjoining or adjacent to the bed and banks that is from time to time covered by floodwater.

"bunded" means within bunding consistent with Australian Standard 1940.

4/9/09

"certification" or "certified" by a suitably qualified and experienced person in relation to a design plan or an annual report regarding dams, means that a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit at any time:

a) exactly what is being certified and the precise nature of that certification.
b) the relevant legislative, regulatory and technical criteria on which the certification has been based;
c) the relevant data and facts on which the certification has been based, the source of that material, and the efforts made to obtain all relevant data and facts; and
d) the reasoning on which the certification has been based using the relevant data and facts, and the relevant criteria.

"chemical" means –

a) an agricultural chemical product or veterinary chemical product within the meaning of the Agricultural and Veterinary Chemicals Code Act 1994 (Commonwealth); or
b) a dangerous good under the dangerous goods code; or
c) a lead hazardous substance within the meaning of the Workplace Health and Safety Regulation 1997; or
d) a drug or poison in the Standard for the Uniform Scheduling of Drugs and Poisons prepared by the Australian Health Ministers' Advisory Council and published by the Commonwealth; or
e) any substance used as, or intended for use as –
    i. a pesticide, insecticide, fungicide, herbicide, rodenticide, nematocide, miticide, fumigant or related product; or
    ii. a surface active agent, including, for example, soap or related detergent; or
    iii. a paint solvent, pigment, dye, printing ink, industrial polish, adhesive, sealant, food additive, bleach, sanitiser, disinfectant, or biocide; or
    iv. a fertiliser for agricultural, horticultural or garden use; or
f) a substance used for, or intended for use for –
    i. mineral processing or treatment of metal, pulp and paper, textile, timber, water or wastewater; or
    ii. manufacture of plastic or synthetic rubber.

"commercial place" means a work place used as 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.

"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.

"contaminate" means to render impure by contact or mixture.

4/9/09

"contaminated" means the substance has come into contact with a contaminant.

"contaminant" A contaminant can be –

a) a gas, liquid or solid; or
b) an odour; or
c) an organism (whether alive or dead), including a virus; or
d) energy, including noise, heat, radioactivity and electromagnetic radiation; or
e) a combination of contaminants.

"control measure" means any action or activity that can be used to prevent or eliminate a hazard or reduce it to an acceptable level.

"cover material" means any soil or rock suitable as a germination medium or landform armouring.
"dam" means a land-based structure or a void that is designed to contain, divert or control flowable substances - including any substances that are thereby contained, diverted or controlled by that land-based structure or void; but does not mean a fabricated or manufactured tank or container designed to a recognised standard. In case there is any doubt, a levee dyke or bund is a dam.

"development approval" means a development approval under the Integrated Planning Act 1997 in relation to a matter that involves an environmentally relevant activity under the Environmental Protection Act 1994.

'ecologically significant' means a threatened wildlife both plants and animals under the *Queensland Nature Conservation Act 1992* or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

"environmental authority" means an environmental authority under Chapter 5 of the *Environmental Protection Act 1994.*

"environmental authority holder" means the holder of this environmental authority.

"environmentally relevant activity" means an environmentally relevant activity as defined under Section 18 of the *Environmental Protection Act 1994* and listed under Schedule 2 of the *Environmental Protection Regulation 2008.*

"financial assurance" means a security required under the *Environmental Protection Act 1994* by the Administering Authority to cover the cost of rehabilitation or remediation of disturbed land or to secure compliance with the environmental authority.

4/9/09

"floodwater" means water overflowing, or that has overflowed, from waters, river, creek, stream, lake, pond, wetland or dam onto or over riparian land that is not submerged when the watercourse or lake flows between or is contained within its bed and banks.

"flowable substance" means matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.

"general waste" means waste other than regulated waste.

"hazardous waste" means a substance, whether liquid, solid or gaseous that, if improperly treated, stored, disposed of or otherwise managed, is likely to cause environmental harm.

"infrastructure" means water storage dams, roads and tracks, buildings and other structures built for the purpose of mining activities but does not include other facilities required for the long term management of mining impacts or the protection of potential resources. Such other facilities include dams, waste rock dumps, voids, or ore stockpiles and buildings as well as other structures whose ownership can be transferred and which have a residual beneficial use for the next owner of the operational land or the background land owner.

"lake" includes –

a) lagoon, swamp or other natural collection of water, whether permanent or intermittent; and
b) the bed and banks and any other element confining or containing the water.

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

"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.

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

"landfill" means land used as a waste disposal site for lawfully putting solid waste on the land.

4/9/09

"levee" means a dam, dyke or bund that is designed only to provide for the containment and diversion of stormwater or flood flows from a contributing catchment, or containment and diversion of flowable materials resulting from unplanned releases from other works of infrastructure, during the progress of those stormwater or flood flows or those unplanned releases; and does not store any significant volume of water or flowable substances at any other times.

"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;
c) 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;
d) limestone if mined for use for its chemical properties;
e) marble;
f) mineral oil or gas extracted or produced from shale or coal by in situ processes;
g) peat;
h) salt including brine;
i) shale from which mineral oil may be extracted or produced;
j) silica, including silica sand, if mined for use for its chemical properties;
k) rock mined in block or slab form for building or monumental purposes;

But does not include—

l) living matter;
m) petroleum within the meaning of the *Petroleum Act 1923*;
n) 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) water.

"natural flow" means the flow of water through waters caused by nature.

"nature" includes:

a) ecosystems and their constituent parts; and
b) all natural and physical resources; and
c) natural dynamic processes.

4/9/09

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

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

"operational land" means the land associated with the project for which this environmental authority has been issued.

"palletised" means stored on a movable platform on which batteries are placed for storage or transportation.

"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) a protected area under the Nature Conservation Act 1992; or
b) a marine park under the Marine Parks Act 1992; or
c) a World Heritage Area.

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

"process water" means water used or produced during the mineral development activities.

"recycled water" means appropriately treated effluent and urban stormwater suitable for further use.

"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.

"regulated waste" means non-domestic waste mentioned in schedule 7 of the *Environmental Protection Regulation 2008* (whether or not it has been treated or immobilised), and includes –

a) for an element – any chemical compound containing the element; and
b) anything that has contained the waste.

4/9/09

"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) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premise
or
b) a motel, hotel or hostel; or
c) an educational institution; or
d) a medical center or hospital; or
e) a protected area under the Nature Conservation Act 1992, the Marine Parks Act 1992 or a World Heritage Area; or
f) a public park or gardens.

"stable" in relation to land, means land form dimensions are or will be stable within tolerable limits now and in the foreseeable future. Stability includes consideration of geotechnical stability, settlement and consolidation allowances, bearing capacity (trafficability), erosion resistance and geochemical stability with respect to seepage, leachate and related contaminant generation.

"storm water" means all surface water runoff from rainfall.

"suitably qualified and experienced person" in relation to dams means one who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the Professional Engineers Act 1988, OR registered as a National Professional Engineer (NPER) with the Institution of Engineers Australia, OR holds equivalent professional qualifications to the satisfaction of the administering authority for the Act; AND the administering authority for the Act is satisfied that person has knowledge, suitable experience and demonstrated expertise in relevant fields, as set out below:

a) knowledge of engineering principles related to the structures, geomechanics, hydrology, hydraulics, chemistry and environmental impact of dams; and
b) a total of five years of suitable experience and demonstrated expertise in at least four of the following categories, with the 'geomechanics of dams' category being compulsory:

4/9/09

i. geomechanics of dams with particular emphasis on stability, geology and geochemistry.
ii. investigation, design or construction of dams.
iii. operation and maintenance of dams.
iv. hydrology with particular reference to flooding, estimation of extreme storms, water management or meteorology.
v. hydraulics with particular reference to sediment transport and deposition, erosion control, beach processes.
vi. hydrogeology with particular reference to seepage, groundwater.
vii. solute transport processes and monitoring thereof.
viii. dam safety.

"trackable waste" means a waste or combination of waste stated in Schedule 1 of the *Environmental Protection (Waste Management) Regulation 2000.*

"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.

"tolerable limits" means a range of parameters regarded as being sufficient to meet the objective of protecting relevant environmental values. For example, a range of settlement for a tailings capping, rather than a single value, could still meet the objective of draining the cap quickly, preventing pondage and limiting infiltration and percolation.

"void" means any man-made, open excavation in the ground.

"waste" as defined in section 13 of the Environmental Protection Act 1994.

"waste management hierarchy" has the meaning given by the Environmental Protection (Waste Management) Policy 2000.

"waste management principles" has the meaning given by the Environmental Protection (Waste Management) Policy 2000.

"water" means –
a) water in waters or spring;
b) underground water;
c) overland flow water; or
d) water that has been collected in a dam.

4/9/09

"waste water" means used water from the activity, process water or contaminated storm water.

"water quality" means the chemical, physical and biological condition of water.

"waters" includes –

a) river, creek, stream in which water flows permanently or intermittently either:
   i. in a natural channel, whether artificially improved or not; or
   ii. in an artificial channel that has changed the course of the river, creek or stream; or
b) lake, lagoon, pond, swamp, wetland, dam; or
c) unconfined surface water; or
d) storm water channel, storm water drain, roadside gutter; or
e) bed and banks and any other element of a river, creek, stream, lake, lagoon, pond, swamp, wetland, storm water channel, storm water drain, roadside gutter or dam confining or containing water; or
f) groundwater; or
g) non-tidal or tidal waters (including the sea); or
h) any part-thereof.

END OF ENVIRONMENTAL AUTHORITY

4/9/09