Permit

Environmental Protection Act 1994

Environmental authority EPPR00658313

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

Environmental authority number: EPPR00658313

Environmental authority takes effect 5 December 2023

The anniversary date of the environmental authority is 30 July.

Environmental authority holder(s)

Name	Registered address
Queensland Energy Resources Pty Ltd	Level 8, 193 North Quay Brisbane QLD 4001

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
Schedule 3 09 - A mining activity involving drilling, costeaning, pitting or carrying out geological surveys causing significant disturbance Schedule 3 10 - Investigating the potential development of a mineral resource by large bulk sampling or constructing an exploratory shaft, adit or open pit	MDL177 MDL225

Additional information for applicants

Environmentally 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).

Mobile and temporary activities

If you operate a mobile and temporary environmentally relevant activity (ERA), other than regulated waste transport, you are required to maintain a work diary. You must:

- use the approved form for a work diary (ESR/2015/1696);
- keep the work diary records for 2 years after the last entry;
- inform the administering authority within 7 days of the work diary being lost or stolen;
- record the information required in the work diary for each location within 1 day of leaving the location.

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

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.

The anniversary day of this environmental authority is the same day each year as the effective date. The payment of the annual fee will be due each year on this day. An annual return will be due each year on 01 April.

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.

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

Date issued: **20 December 2023**

Enquiries:
Business Centre (Coal)
Department of Environment and Science
PO Box 3028
EMERALD QLD 4720
Phone: (07) 4987 9320
Email: CRMining@des.qld.gov.au

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); and
- Offence to place contaminant where environmental harm or nuisance may be caused (section 443).

Other permits required

This permit only provides an approval under the *Environmental Protection Act 1994*. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department and other State Government agencies prior to commencing any activity at the site. For example, this may include permits / approvals with your local Council (for planning approval), the Department of Transport and Main Roads (to access State controlled roads), the Department of Resources (to clear vegetation), and the Department of Agriculture and Fisheries (to clear marine plants or to obtain a quarry material allocation).

Conditions of environmental authority

The environmentally relevant activities conducted at the location as described above must be conducted in accordance with the following site specific conditions of approval.

Schedule A: General	
Condition number	**Condition**
A1	**Maintenance of measures, plant and equipment** The environmental authority holder must ensure: a) That all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority are installed; b) That such measures, plant and equipment are maintained in a proper condition; c) That such measures, plant and equipment are operated in a proper manner.
A2	**Monitoring and records** Record, compile and keep for a minimum of five 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.
A3	Where monitoring is a requirement of this environmental authority, ensure that a competent person(s) conducts all monitoring.
A4	**Notification of emergencies, incidents and exceptions** The authority holder must notify the administering authority in writing within 24 hours of becoming aware of any emergency, incident, or action that results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority.
A5	The notification of emergencies or incidents are required by **Condition A4** must include but not be limited to the following: a) The holder of the environmental authority; b) The location of the emergency or incident; c) The number of the environmental authority; d) The name and telephone number of the designated contact person; e) The time of the release; f) The time the holder of the environmental authority became aware of the release; g) The suspected cause of the release; h) The environmental harm caused, threatened, or suspected to be caused by the release; and i) The actions taken to prevent any further release and mitigate any environmental harm caused by the release.

A6	Not more than fourteen days following the initial notification of an emergency or incident, written advice must be provided of the information supplied in accordance with **Condition A4** in relation to: a) Proposed actions to prevent a recurrence of the emergency or incident; and b) Outcomes of actions taken at the time to prevent or minimise environmental harm.
A7	As soon as practicable, but not more than six weeks following the conduct of any environmental monitoring performed in relation to the emergency or incident, which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority, written advice must be provided of the results of any such monitoring performed to the administering authority.
A8	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.
A9	**Activity** 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, 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.
A10	Contaminants must not be released to the receiving environment unless they are in accordance with the contaminant limits authorised by this environmental authority.
A11	This environmental authority requires compliance with each Standard Environmental Condition contained in the *Code of Environmental Compliance for Exploration and Mineral Development License projects* and the additional conditions within this environmental authority.
A12	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.
A13	**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.

Schedule B: Air	
Condition number	**Condition**
B1	**Dust Nuisance** Subject to **Conditions B2 and B3** 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.
B2	When requested by the administering authority, dust and particulate monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within 14 days to the administering authority following completion of monitoring.
B3	**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.
B4	When requested by the administering authority odour monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place and the results must be notified within 14 days to the administering authority following completion of monitoring.
B5	If the administering authority determines a dust or odour release to constitute an environmental nuisance the environmental authority holder must: a) Address the complaint including the use of appropriate dispute resolution if required, and b) Immediately implement odour abatement measures so that emissions of odour from the activity do not result in further environmental nuisance.

Schedule C: Water	
Condition number	**Condition**
C1	**Contaminant Release** Contaminants that will, or have the potential to, cause environmental harm must not be released directly or indirectly to any waters except as permitted under the conditions of this environmental authority.
C2	The release of contaminants to waters must only occur from the release point specified in **Table C1: Contaminant Release Point, Source and Receiving Waters** and depicted in **Figure 1: Mining Tenements MDL177 and MDL225** attached to this environmental authority.

Table C1: Contaminant Release Point, Source and Receiving Waters

Release Point (RP)	Easting (MGA94)	Northing (MGA94)	Contaminant Source and Location	Monitoring Point	Receiving Waters Description
RP	308,040	7,374,300	Stuart North Box Cut.	End-of-pipe	Natural drainage line to tidal zone

C3	The release of contaminants to waters must not exceed the release limits stated in **Table C2: Contaminant Release Limits** when measured at the release point specified in **Table C1: Contaminant Release Point, Source and Receiving Waters** for each quality characteristic.
C4	The release of contaminants to waters from the release point must be monitored at the location specified in **Table C1: Contaminant Release Point, Source and Receiving Waters** for each quality characteristic and at the frequency specified in **Table C2: Contaminant Release Limits**.

Table C2: Contaminant Release Limits

Quality Characteristic	Release Limits (limits to apply from the date of issue)	Monitoring Frequency	Comments
pH (pH Unit)	6.0 (minimum) 9.0 (maximum)	Daily during release	
Turbidity (NTU)	560	Daily during release	Turbidity is required to assess ecosystems impacts and can provide instantaneous results.
DO	4.0 (minimum)	Daily during release	

Table C3: Release Contaminant Trigger Investigation Levels

Quality Characteristic	Trigger Levels (µg/L)	Comment on Trigger Level	Monitoring Frequency
Aluminium	150	*For aquatic ecosystem protection, based on local sampling.*	Commencement of release and thereafter weekly during the release.
Arsenic	2.3	*For aquatic ecosystem protection, based on low reliability guideline.*	
Cadmium	0.7	*For aquatic ecosystem protection, based on SMD guideline.*	
Chromium	4.4	*For aquatic ecosystem protection, based on SMD guideline.*	
Copper	2.0	*For aquatic ecosystem protection, based on local sampling.*	
Lead	4.4	*For aquatic ecosystem protection, based on SMD guideline.*	
Mercury (inorganic)	0.1	*For aquatic ecosystem protection, based on SMD guideline.*	
Nickel	7	*For aquatic ecosystem protection, based on SMD guideline.*	
Zinc	15	*For aquatic ecosystem protection, based on SMD guideline.*	
Boron	5100	*For aquatic ecosystem protection, based on low reliability guideline.*	
Cobalt	1	*For aquatic ecosystem protection, based on low reliability guideline.*	
Manganese	80	*For aquatic ecosystem protection, based on low reliability guideline.*	
Molybdenum	23	*For aquatic ecosystem protection, based on low reliability guideline.*	
Selenium	3	*For aquatic ecosystem protection, based on low reliability guideline.*	
Silver	1.4	*For aquatic ecosystem protection, based on SMD guideline.*	
Vanadium	100	*For aquatic ecosystem protection, based on SMD guideline.*	
Ammonia	910	*For aquatic ecosystem protection, based on SMD guideline.*	
Nitrate	1100	*For aquatic ecosystem protection, based on ambient Qld WQ Guidelines (2006) for* *TN.*	

NOTES:

[1] All metals and metalloids must be measured as total (unfiltered) and dissolved (filtered). Trigger levels for metal/metalloids apply if dissolved results exceed trigger.

*[2] The list of quality characteristics required to be monitored as per **Table C3**: Release Contaminant Trigger Investigation Levels will be reviewed once the results of the monitoring data is gathered for three discharge events or an earlier date if the data is, or becomes, available and if its determined that there is no need to monitor for certain individual quality characteristics these can be removed from **Table C3**: Release Contaminant Trigger Investigation Levels.*

[3] SMD – slightly moderately disturbed level of protection; guideline refers ANZECC & ARMCANZ (2000).

[4] LOR – typical reporting for method stated. ICPMS/CV FIMS – analytical method required to achieve LOR.

C5	The quantity of contaminants released must be measured and recorded at the monitoring point in **Table C1: Contaminant Release Points, Sources and Receiving Waters** and reported daily in the required format to the administering authority via email (CRWaTERS@des.qld.gov.au).
C6	Releases to waters must be undertaken so as not to cause erosion of the bed and banks of the receiving waters, or cause a material build-up of sediment in such waters.
C7	**Notification of Release Event** The authority holder must notify the administering authority as soon as practicable (within no later than 6 hours of having commenced deliberately releasing mine affected water to the receiving environment from an authorised discharge point, and no later than 12 hours after any uncontrolled release from an authorised discharge point). Notification must include the submission of written advice to the administering authority via email (CRWaTERS@des.qld.gov.au) of the following information: a) Release commencement date/time; b) Expected release cessation date/time; c) Release point; d) Estimated release volume; e) Receiving water/s including the natural flow rate (tidal times); and f) Any details (including available data) regarding likely impacts on the receiving water(s).
C8	The authority holder must notify the administering authority (as identified in **Condition C7**) as soon as practicable within 24 hours after cessation of a release notified under **Condition C7** and within 28 days provide written advice regarding the following: a) Release cessation date/time; b) Natural flow volume in receiving water; c) Volume of water released; d) Details regarding the compliance of the release with the conditions of **Schedule C: Water** of this environmental authority (i.e. contamination limits, natural flow, discharge volume); e) All in-situ water quality monitoring results; and f) Any other matters pertinent to the water release event.
C9	**Notification of Release Event Exceedance** If the trigger levels defined in **Table C3: Release Contaminant Trigger Investigation Levels** are exceeded, the holder of the environmental authority must notify the administering authority within 24 hours of receiving the results.

C10	The environmental authority holder must, within twenty-eight (28) days of a release that exceeds the levels defined in **Table C3: Release Contaminant Trigger Investigation Levels**, provide an assessment to the administering authority detailing: a) All water quality monitoring results; b) Any general observations; and c) Any other matters pertinent to the water release event.
C11	**Water General** All determinations of water quality must follow the administering authority *Water Quality Manual* and where it is not followed because of exceptional circumstances this should be explained and reported with the results: a) Performed by a person or body possessing appropriate experience and qualifications to perform the required measurements; b) Made in accordance with methods prescribed in the latest edition of the administering authority's *Water Quality Sampling Manual*; and c) Laboratory testing must be undertaken using a laboratory accredited (e.g. NATA) for the method of analysis being used.
C12	The release of contaminants directly or indirectly to waters: a) Must not produce any visible discolouration of receiving waters: nor b) Must not produce any slick or other visible or odorous evidence of oil, grease or petrochemicals nor contain visible floating oil, grease, scum, litter or other objectionable matter.
C13	**Annual Water Monitoring Reporting** The following information must be recorded in relation to all water monitoring required under the conditions of this environmental authority and submitted to the administering authority in the specified format with each annual return: a) The date on which the sample was taken; b) The time at which the sample was taken; c) The monitoring point at which the sample was taken; d) The measured or estimated daily quantity of the contaminants released from all release points; e) The release flow rate at the time of sampling for each release point; f) The results of all monitoring and details of any exceedances with the conditions of this environmental authority; and g) Water quality monitoring data must be provided to the administering authority in the specified electronic format upon request.

C14	**Stormwater and water sediment controls** All reasonable and practicable erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment.
C15	The maintenance and cleaning of any vehicles, plant or equipment must not be carried out in areas from which contaminants can be released into any receiving waters.
C16	Any spillage of wastes, contaminants or other materials must be cleaned up as quickly as practicable to minimise the release of wastes, contaminants or materials to any stormwater drainage system or receiving waters.
C17	**All Dams** The holder of this environmental authority must ensure that dams are designed, constructed, operated and maintained in accordance with accepted engineering standards.
C18	The holder of this environmental authority must no abandon any dam, but must decommission each dam to a situation where ongoing environmental harm is prevented.
C19	The holder of this environmental authority must ensure that activities conducted in accordance with this environmental authority do not compromise the integrity of a dam.

Schedule D: Waste	
Condition number	**Condition**
D1	A record of all wastes must be kept detailing the following information: a) Date of pickup of waste; b) Description of waste; c) Quantity of waste; d) Origin of waste; and e) Destination of the waste. *NOTE: Trackable wastes as listed in Schedule 1 of the* Environmental Protection (Waste Management) Regulation 2000 *are not covered by this condition. Trackable wastes have similar recording requirements to this condition in accordance with a waste tracking system established under the above Regulation.*
D2	**Burning of Waste** Where possible and practical, vegetation waste from clearing shall be spread on rehabilitated areas. Vegetation waste only may be burnt as a last resort and only if there is minimal risk of causing nuisance to the neighbouring sensitive receptors. General waste must not be burnt or allowed to burn on the site.

Schedule E: Land	
Condition number	**Condition**
E1	The environmental authority holder must ensure that area and duration of disturbance to land and vegetation are minimised. Disturbance is limited to twelve (12) hectares at any one location.
E2	**Preventing contaminant release to land** Contaminants must not be released to land in a manner which constitutes nuisance, material or serious environmental harm.
E3	The environmental authority holder must take all practicable actions necessary to secure loads prior to transporting materials off site to minimise emissions or spillage of any material from vehicles or other transport infrastructure.
E4	**Chemicals and flammable or combustible liquids** No flammable and combustible liquids or chemicals are to be maintained on site.
E5	All explosives, corrosive substances, toxic substances, gases and dangerous goods must be handled in accordance with the relevant Australian Standard.
E6	**Rehabilitation landform criteria** All areas significantly disturbed by exploration and bulk sampling activities must be rehabilitated to a safe, stable landform with a self-sustaining vegetation cover.
E7	Progressive rehabilitation must commence within **three (3) months** of completion of activities within an environmentally sensitive area, **six (6) months** when exploration areas become available, and **twelve (12) months** of completion of bulk sampling activities within the operational land.
E8	Areas which are to be rehabilitated to native ecosystem must achieve a self-sustaining native ecosystem with species composition and distribution similar to an analogue site or another suitable alternative approved by the administering authority.
E9	Where reasonable and practicable, areas of the site where grazing is nominated as the post-mine land use must include native grass species endemic to the area.
E10	All outstanding rehabilitation previously approved under Environmental Authority EPPR00658313, including disturbance within any Category B Environmentally Sensitive Area or within 500m of any Category B Environmentally Sensitive Area must be rehabilitated in accordance with this Environmental Authority.

E11	**Rehabilitation Monitoring Program** Once rehabilitation has commenced, the holder of the environmental authority must conduct a Rehabilitation Monitoring Program on a yearly basis, to enable valid conclusions as established under the rehabilitation program.
E12	The Rehabilitation Monitoring Program must be developed and implemented by a person possessing appropriate qualifications and experience in the field of rehabilitation management, nominated by the environmental authority holder.
E13	The Rehabilitation Monitoring Program must be included in the Annual Return and updated with each subsequent Annual Return, describing: a) How the rehabilitation objectives will be achieved; and b) Verification of rehabilitation success.
E14	**Exploration** This environmental authority does not authorise mining activities on MDL177 and MDL225, within a Category A Environmentally Sensitive Area, except for the purposes of undertaking environmental/scientific research or monitoring.
E15	This environmental authority authorises mining activities on MDL177 and MDL225 in or within 500m of any Category B Environmentally Sensitive Area in accordance with the *QER Environmental Management Plan Stuart North Bulk Sampling, Drilling, Mine Planning, and Seismic Project August 2010*.
E16	Prior to drilling and other low impact activities such as seismic test work, maintenance, monitoring and rehabilitation activities within Category B environmentally sensitive areas and Category C environmentally sensitive areas, consult with the administering authority. Activities undertaken in Category B environmentally sensitive areas must be undertaken in accordance with the requirements specified in **Conditions E21-E27**.
E17	The environmental authority holder must take all reasonable measures to prevent the transport of declared and soil borne diseases. To further manage the transportation of declared plants and soil borne diseases, plant and wash-down should occur prior to relocating drilling activities to a different landholder property.
E18	The environmental authority holder must contact the relevant local government authority, prior to commencing exploration, to confirm presence or absence of declared plants in the proposed exploration area.
E19	All vehicles, machinery, and equipment must be in good working order and operated correctly to minimise accidental leakage or oils, fuels, drilling fluids, etc.

E20	**Drilling or Seismic Grid** Drilling or 2D seismic grid access tracks (applies to operations in Category B areas and buffer zones): a) Spacing of gridlines and access tracks is not less than 500m; b) Spacing may be reduced at a limited number of locations; c) Gridlines and access tracks should avoid large trees and rocky outcrops. If line of sight clearing is required, pruning and crushing low growth is preferred; d) Existing tracks and fence line tracks are to be used where possible and any new tracks are constructed by linking natural clearing where possible; e) Construction of new crossing of major natural drainage lines must be prevented or minimised; f) Clearing of vegetation for access must be prevented or minimised; g) Vehicle and heavy machinery movement must be minimised to reduce compaction of tracks; h) Vehicle and heavy machinery movement must be avoided if possible during wet conditions to prevent damage, soil compaction, and wheel ruts; and i) The width of any new track is to be kept as small as practicable.

E21	Drill sites operational area within Category B Environmentally Sensitive Areas or buffer zones: a) The operational area within the drill site must not exceed 1000m^2 and should be confined to the smallest area in which it is reasonably practicable to undertake operations; b) Clearing on hillsides, slopes or watercourse channels and other erosion prone areas should only be carried out if absolutely necessary and then conducted in a manner to minimise impact; c) Vegetation clearing and soil disturbance must be minimised as to enhance rehabilitation outcomes and promote the natural vegetation process. Where ever possible: i. Use of clearings or pre-existing clearings; and ii. Roll and crush existing vegetation in preference to grading and bulldozing to preserve vegetation cover and seed stock to reduce erosion, minimise weed infestations, and promote rapid regeneration of native species; and iii. Where clearing is necessary, set equipment blades (where practicable) above ground level to preserve active subsurface root and tuber stock. d) Top soil stripping is limited to sump areas only; e) Prevent clearing of mature trees; f) All drilling fluids and hole additives should be biodegradable; g) All fuel drums and other containers must be in sound condition and are to be stored in a bunded area away from any watercourses. Oil absorbent material is to be kept on hand to clean up any small spills; and h) All work sites are to be properly maintained and waste properly managed and disposed of. All hydrocarbon contaminated soil must be removed and disposed of off-site at a facility approved by the administering authority to accept such waste.
E22	Sump locations within Category B Environmentally Sensitive Areas or buffer zones: a) Sumps must be of an appropriate size to accommodate the volume of water and sediment intercepted to ensure containment. All material intercepted (except drill samples) while drilling must be directed to the sump; b) Multiple sump systems may be utilised provided that clearing in addition to the authorised operating area is not required; c) Sumps should be located on the downhill side with any drains directing accidental spills to the sumps; d) All uncontaminated water should be directed away from the sumps; and e) When sumps are open, at least one end is to be ramped to allow egress for fauna.

E23	Three dimensional (3D) seismic gridlines/access tracks (applied to single pass activities as required): a) Spacing of gridlines cannot be less than 30m; b) Gridlines and access tracks are limited to slashing and removal of low vegetation only; c) Gridlines and access tracks should avoid large trees and rocky outcrops. Vegetation removal is limited to low vegetation and slashing. Slashing should be undertaken to minimise disturbance to topsoil and rootstock, and minimise soil erosion; d) No clearing of vegetation or drainage crossings will be undertaken; e) Existing tracks and fence lines are to be used where possible and any new tracks are constructed by linking natural clearing where possible; f) Rubber wheeled vehicles will be used on all gridlines; g) Heavy machinery movement is limited to access tracks and must be minimised to reduce compaction of tracks; h) Vehicle and heavy machinery movement must be avoided if possible during wet conditions to prevent damage to roads, soil compaction, and the development of wheel ruts; and i) The width of all seismic gridlines and access tracks is to be minimised.
E24	Other land disturbance activities within Category B Environmentally Sensitive Areas and buffer zones: a) Exploration does not involve costeaning or bulk sampling in Environmentally Sensitive Areas; b) Establishing exploration camps will not involve clearing of Environmentally Sensitive Areas.
E25	Rubber wheeled vehicles and machinery are to be used when possible.
E26	**Acid Sulphate Soils** Potential acid generating material must be stockpiled separately from non-acid generating overburden to ensure containment of runoff.

END OF CONDITIONS

Definitions

Words and phrases used throughout this licence are defined below except where identified in the *Environmental Protection Act 1994 (EP Act 1994)* or subordinate legislation. Where a word or term is not defined, the ordinary English meaning applied, 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 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 collembolan, 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;

h) Vegetation water use and effects on ground water levels and catchment yields.

"acid rock drainage" means any contaminated discharge emanating from a mining activity formed through a series of chemical and biological reactions, when geological strata is disturbed and exposed to oxygen and moisture as a result of mining activity.

"administering authority" means the Department of Environment and Resource Management or its successor.

"AEP" means the Annual Exceedance Probability, which is the probability that at least one event in excess of a particular magnitude will occur in any given year.

"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 (dBL).

"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*.

"appropriately qualified person" means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods or literature.

"authority" means environmental authority (mining activities) under the *Environmental Protection Act 1994*.

"biosolids" means the treated and stabilised solids from sewage.

"blasting" means the use of explosive materials to fracture:

a) Rock, coal and other minerals for later recovery or;

b) Structural components or other items to facilitate removal from a site or for reuse.

"borehole" means either an artesian bore or a subartesian bore.

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

"campsite" means the area encompassing any dwelling, amenities (e.g. toilet block, power generator), sewage or general waste disposal facility and includes the office area and vehicle parking areas associated with a temporary or permanent mining camp.

"Category A and B Environmentally Sensitive Area" - means as defined in the Environmental Protection Act 1994

"chemical" means:

a) An agricultural chemical product or veterinary chemical product within the meaning of the *Agricultural and Veterinary Chemicals Code Act 1994* (Commonwealth);

b) A dangerous good under the dangerous goods code;

c) A lead hazardous substance within the meaning of the *Workplace Health and Safety Regulation 1997*;

d) A drug or poison in the Standard for the Uniform Scheduling of Drugs and Poisons prepared by the Australian Health Minister's Advisory Council and published by the Commonwealth;

e) Any substance used as, or intended for use as:

   i. A pesticide, insecticide, fungicide, herbicide, rodenticide, nematocide, miticide, fumigant or related product;

   ii. A surface active agent, including, for example, soap or related detergent;

   iii. A paint solvent, pigment, dye, printing ink, industrial polish, adhesive, sealant, food additive, bleach, sanitiser, disinfectant or biocide;

   iv. A fertiliser for agricultural, horticultural or garden use.

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;

   ii. Manufacture of plastic or synthetic rubber.

"commercial place" means a work placed 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.

"costeaning" means the digging of a trench or pit across the seam or ore body for exposing, sampling and mapping of the ore body.

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

"dam" means a land-based structure or a void that is designed to contain, divert or control flowable substances and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works. A dam does not mean a fabricated or manufactured tank or container, designed and constructed to an Australian Standard that deals with strength and structural integrity of that tank or container.

"disturbed" means any area that has had its natural state altered by the action or interference of carrying out an activity associated with the exploration project.

"domestic waste" means waste, other than domestic waste, green waste, recyclable waste, interceptor waste or waste discharged to a sewer, produced as a result of the ordinary use of occupation of domestic premises.

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

a) A house, unit motel, nursing home or other building or part of a building;

b) A caravan, mobile home or other vehicle or structure on land; and

c) A water craft in a marina.

"end of pipe" means the location at which water is released to waters or land.

"environmental authority" or "authority" means an environmental authority granted in relation to an environmentally relevant activity under the *Environmental Protection Act 1994*.

'Environmental authority holder' or 'Holder' - means the holder of this environmental authority.

"ERE" means an endangered regional ecosystem identified in the database maintained by the department called 'Regional Ecosystem Description Database' containing regional ecosystem numbers and descriptions.

"general waste" as per the definition in the Environmental Protection Regulation 2019.

"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.

"$L_{A\ 10,\ adj,\ 10mins}$" 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.

"$L_{A\ 1,\ adj,\ 10mins}$" 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.

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

"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 *Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland (DME 1995)*.

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

"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.

"levee" (dyke or bund) means a long embankment 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 releases from other works, during the progress of those stormwater or flood flows or those releases; and does not store any significant volume of water or flowable substances at any other times.

"mandatory reporting level" or **"MRL"** means a warning and reporting level determined in accordance with the criteria in the *Site Water Management Technical Guideline for Environmental Management of Exploration and Mining in Queensland (DME 1995)*.

"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:

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 mine 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; and

k) Rock mined in block or slab form for building or monumental purposes

But does not include:

a) Living matter;

b) Petroleum within the meaning of the *Petroleum Act 1923*;

c) 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; and

d) Water.

"mine water" means process water and contaminated stormwater.

"NAF" means non-acid forming.

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

"native vegetation" means vegetation that occurs naturally in a certain area.

"nature" includes:

a) Ecosystems and their constituent parts;

b) All natural and physical resources; and

c) Natural dynamic processes.

"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.

"PAF" means potentially acid forming.

"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}).

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

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

"receiving environment" means all groundwater, surface water, land, and sediments that are not disturbed areas authorised by this environmental authority.

"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.

"receiving waters" means all groundwater, surface water, land and sediments that are not disturbed areas authorised by this environmental authority.

"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" as per the definition in the Environmental Protection Regulation 2019.

"rehabilitation" the process of reshaping the 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.

"saline drainage" the movement of waters, contaminated with salt(s), as a result of the mining activity.

"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 premises;

b) A motel, hotel or hostel;

c) An educational institution;

d) A medical centre or hospital;

e) A protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; and

f) A public park or gardens.

"spillway" means a weir, channel, conduit, tunnel, gate or other structure designed to permit discharges from the dam, normally under flood conditions or in anticipation of flood conditions.

"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 contamination generation.

"stormwater" means all surface water runoff from rainfall.

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

"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 springs;

b) Underground water;

c) Overland flow water; and

d) Water that has been collected in a dam.

"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.

b) Lake, lagoon, pond, swamp, wetland, dam;

c) Unconfined surface water;

d) Storm water channel, storm water drain, roadside gutter;

e) Bed and banks and any other element of a river, creek, steam, lake, lagoon, pond, swamp, wetland, storm water channel, storm water drain, roadside gutter or dam confining or containing water;

f) Groundwater;

g) Non-tidal or tidal waters (include the sea); and

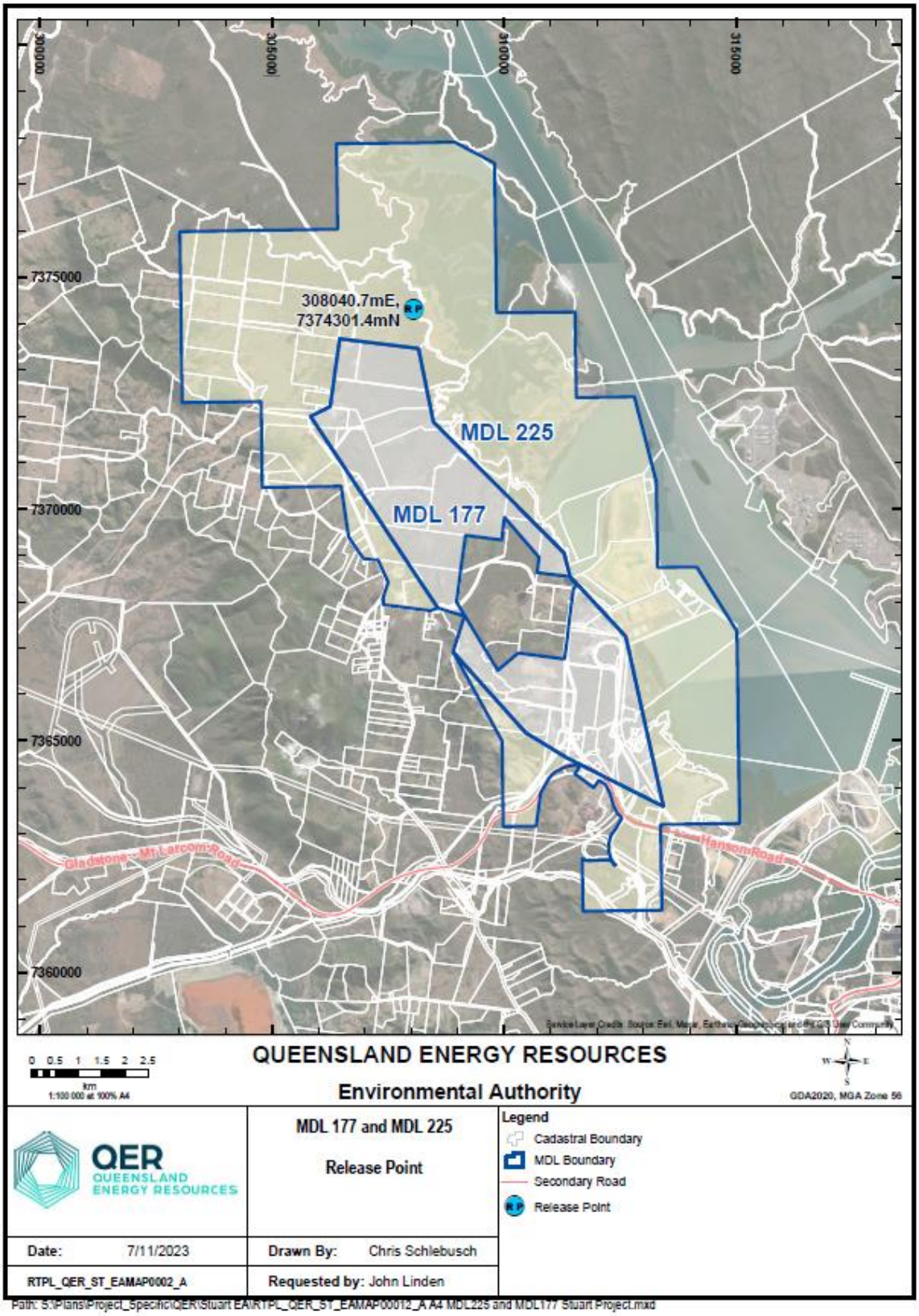
h) Any part-thereof.

"µg/L" means micrograms per litre.

"µS/cm" means microsiemens per centimetre.

END OF DEFINITIONS

Figure 1: Mining Tenements MDL177 and MDL225



END OF ENVIRONMENTAL AUTHORITY