Permit[1]

Environmental Protection Act 1994

Environmental authority

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

Permit[1] number: EPVX00961113

Environmental authority takes effect 11th June 2014

Anniversary date will remain 2 July.

The first annual fee is payable within 20 business days of the effective date.

The anniversary date of this environmental authority is the same day each year as the effective date. An annual return and the payment of the annual fee which is currently $570.00 will be due each year on this day.

Environmental authority holder(s)

Name	Registered address
Vale Coal Exploration Pty Ltd	Level 11, 100 Creek Street BRISBANE CITY QLD 4000

Environmentally relevant activity and location details

Environmentally relevant activity	Location
ERA 9, Schedule 2A, *Environmental Protection Regulation 2008.* *"A mining activity involving drilling, costeaning, pitting or carrying out geological surveys causing significant disturbance."*	EPC952

Additional information for applicants

Environmentally relevant activities

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

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

[1] Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation

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 if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within 22 business days after becoming so aware, give written notice to the chief executive.

Signature	Date
	10/6/14

Christopher Loveday
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
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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)

Conditions of environmental authority

With the exception of any variations, the conditions of approval for this environmental authority include standard conditions contained within the attached document(s) entitled:

- Code of Environmental Compliance for Exploration & Mineral Development Projects

Additional advice about the approval

1. This approval pursuant to the *Environmental Protection Act 1994* does not remove the need to obtain any additional approval for this activity that might be required by other state and/or Commonwealth legislation. Other legislation administered by the administrating authority for which a permit may be required includes but is not limited to the:

- *Strategic Cropping Land Act 2011;*
- *Wild Rivers Act 2005;*
- *Aboriginal Cultural Heritage Act 2003*;
- *Land Protection (Pest and Stock Route Management) Act 2002;*
- *Nature Conservation Act 1992*;
- *Vegetation Management Act 1999*;
- *Mineral Resources Act 1989*;
- *Water Act 2000*;
- *Forestry Act 1959;* and
- *Environmental Protection and Biodiversity Conservation Act 1999.*

2. This approval pursuant to the *Environmental Protection Act 1994* does not absolve the need for the environmental authority holder to adhere to any provision of the *Environmental Protection Act 1994* or of any relevant State and/or Commonwealth legislation. Such provisions include but are not limited to are:

- Financial assurance Part 7 and section 367 *Environmental Protection Act 1994;*
- General environmental duty section 319 *Environmental Protection Act 1994; and*
- Duty to notify of environmental harm section 320 *Environmental Protection Act 1994.*

3. If there is any inconsistency between a standard environmental condition referred to in the *Code of Environmental Compliance for Exploration and Mineral Development Projects* and an additional condition in this environmental authority, the additional condition prevails to the extent of any inconsistency.

4. This environmental authority consists of the following Schedules and Appendices:

Schedule A General Conditions
Schedule B Air
Schedule C Water
Schedule D Waste
Schedule E Land
Schedule F Rehabilitation
Schedule G Definitions
Appendix 1 Location map – Drill Sites & Access Tracks

CONDITIONS OF ENVIRONMENTAL AUTHORITY

Schedule A: General

A1 This environmental authority does not authorise environmental harm unless a condition 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.

A2 The environmental authority holder must provide financial assurance in the amount and form required by the administering authority prior to the commencement of activities proposed under this environmental authority.

A3 The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.
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.

A4 The environmental authority holder must develop and implement during the continuation of this authority, a program to ensure that all employees and contractors on site are aware of and comply with the relevant requirements of this environmental authority.

Activity

A5 The holder of this environmental authority is not authorised to undertake costeaning or bulk sampling.

A6 The environmental authority holder must comply with each of the Standard Environmental Conditions contained in the *Code of Environmental Compliance for Exploration and Mineral Development Projects*, except Condition 13 and 21, which is replaced by the conditions in this environmental authority.

A7 Contaminants must not be released to the receiving environment unless authorised by this environmental authority.

Maintenance of Measures, Plant and Equipment

A8 The environmental authority holder must:

a) Install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority;

b) Maintain such measures, plant and equipment in a proper condition; and

c) Operate such measures, plant and equipment in a proper manner.

Monitoring, Reporting and Emergency Response Procedures

A9 The environmental authority holder must notify the administering authority by written notification as soon as practicable but within 24 hours after becoming aware of any 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.

A10 The notification in condition A9 must include, but not be limited to, the following:

a) the environmental authority number and name of the holder

b) the name and telephone number of the designated contact person

c) the location of the emergency or incident

d) the date and time of the emergency or incident

e) the time the holder of the environmental authority became aware of the emergency or incident

f) where known:

i. the estimated quantity and type of substances involved in the emergency or incident

ii. the actual or potential cause of the emergency or incident

iii. a description of the nature and effects of the emergency or incident including environmental risks, and any risks to public health or livestock

g) any sampling conducted or proposed, relevant to the emergency or incident

h) immediate actions taken to prevent or mitigate any further environmental harm caused by the emergency or incident; and

i) what notification of stakeholders who may be affected by the emergency or incident has occurred or is being undertaken.

A11 Within ten (10) business days following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following:

a) results and interpretation of any samples taken and analysed

b) outcomes of actions taken at the time to prevent or minimise unlawful environmental harm; and

c) proposed actions to prevent a recurrence of the emergency or incident.

A12 The environmental authority holder must notify, in writing, the occupiers or registered owners of affected land and any other potentially impacted stakeholder as soon as reasonable practicable after becoming aware of any emergency or incident that has the potential to impact on environmental values or breaches any condition of this environmental authority concerning releases of contaminants to the environment.

A13 The notification in condition A12 must include the following:

a) the location of the emergency or incident

b) the date and time of the emergency or incident

c) the estimated quantity and type of any substances involved in the emergency or incident

d) the potential impacts to environmental values caused by the emergency or incident; and

e) where there is potential impact on livestock or human health, precautionary measures that should be taken.

A14 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.

A15 Where monitoring is a requirement of this environmental authority, ensure that a competent person(s) conduct all monitoring.

Schedule B: Air

Air Quality

B1 The release of dust or particulate matter or both resulting from exploration activities must not cause an environmental nuisance at any sensitive receptor 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. Dust and particulate matter must not exceed the following levels when measured at any sensitive receptor or commercial place:

(a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard AS 3590.19.1 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 period, at a sensitive receptor or commercial place downwind of the site, when monitored in accordance with:

   (i) Australian Standard AS 3580.9.6 of 2003 (or more 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 current edition of 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.

Schedule C: Water

Erosion and Sediment Control

C1 Contaminants must not be released to any waters or the bed and banks of any waters.

C2 Sediment control barriers must be made of non-organic material to prevent the spread of weeds.

C3 Diversion drains and sediment control barriers must be in place immediately after any clearing.

Schedule D: Waste

Waste Management

D1 General Waste must not be disposed of within EPC952.

D2 Regulated Waste must not be disposed of within EPC952.

D3 Waste must not be burned or allowed to be burned on EPC952 unless by the approval of the administering authority.

D4 All waste generated in carrying out activities must be stored, handled and transferred in a proper and efficient manner. Waste must not be released to the environment, stored, transferred or disposed contrary to the *Environmental Protection (Waste Management) Regulation 2000.*

Schedule E: Land

E1 The environmental authority holder is not authorised to carry out mining activities on EPC952 within any Category B Environmentally Sensitive Area.

E2 The environmental authority holder is authorised to undertake no more than one (1) exploration drill site and 112 meters of access tracks within the 500 meter buffer of any Category B Environmentally Sensitive Area (Attachment 1).

E3 The environmental authority holder is authorised to carry out mining activities on EPC952 within 500m of any Category B Environmentally Sensitive Area subject to conditions of this authority.

E4 The total area of disturbance authorised by this environmental authority on EPC952 within 500m of any Category B Environmentally Sensitive Areas must not exceed 0.30 hectares.

Nature Conservation

E5 In carrying out activities on EPC952 all reasonable and practicable measures must be taken to prevent or minimise the likelihood of environmental harm being caused within the 500m buffer of any Category B Environmentally Sensitive Area.

E6 The edge of a drill site should not be within 20 meters of any raptor nest, whether active or not.

E7 No dead trees are to be removed unless they are a safety risk.

E8 Clearing of habitat trees is not authorised except with the approval of the administering authority.

E9 Clearing of mature trees is not authorised except with the approval of the administering authority.

E10 Burning of vegetation is not permitted without approval by the administering authority.

Hazardous Contaminants

E11 All explosives, hazardous chemicals, corrosive substances, toxic substances, gases and dangerous goods must be stored and handled in accordance with the current Australian Standard where such is applicable.

E12 Flammable and combustible liquids, including petroleum products, must be stored and handled in accordance with the latest edition of *AS1940 – The storage and handling of flammable combustible liquids.*

E13 The environmental authority holder must minimise the potential for contamination of land and waters by diverting stormwater around contaminated areas and facilities used for the storage of chemicals and flammable or combustible liquids.

E14 All chemicals and flammable or combustible liquids stored on site that have the potential to cause environmental harm must be stored in or serviced by an effective containment system that is impervious to the materials stored and managed to prevent the release of liquids to waters or land. Where no relevant Australian Standard is available, the following must be applied:

a) storage tanks must be bunded so that the capacity and construction of the bund is sufficient to contain at least 110% of a single storage tank or 100% of the largest storage tank plus 10% of the second largest storage tank in multiple storage areas, and

b) drum storages must be bunded so that the capacity and construction of the bund is sufficient to contain at least 25% of the maximum design storage volume within the bund.

Spill Kit

E15 An appropriate spill kit, personal protective equipment and relevant operator instructions/emergency procedure guides for the management of wastes, chemicals and flammable and combustible liquids associated with the activity must be kept at the site.

E16 Anyone with wastes, chemicals or flammable and combustible liquids under this approval must be trained in the use of the spill kit.

Drilling, Excavating and Sampling

E17 The environmental authority holder is authorised to undertake no more than one (1) exploration drill site within the 500 meter buffer of any Category B Environmentally Sensitive Area (Attachment 1).

E18 The holder of the environmental authority must implement the following measures to limit disturbance with tenure EPC952:

(a) drill site areas must not exceed $1000m^2$

(b) drill holes must not exceed 300mm in diameter

Weed Management

E19 All equipment such as earthmoving and drilling equipment must be used in a manner which prevents the spread of weeds and minimise unnecessary disturbance of topsoil and ground cover vegetation.

Topsoil and Overburden Management

E20 Topsoil stripping within the 500m buffer of any Category B Environmentally Sensitive Area must not exceed the sump area of $20m^2$ (e.g. 4m x 5m).

E21 Where topsoil is removed, it must be stockpiled for re-spreading at the completion of use.

Road and Tracks

E22 Any existing access and fence line tracks must be used, where practical.

E23 Any new tracks are to be constructed by linking naturally cleared or previously disturbed areas, where practical.

E24 The construction of any be tracks must be recorded with a Global Positioning System (GPS) in GDA94 coordinate system and records kept of their location and made available to the administering authority upon request.

E25 Tracks are not to be constructed greater than 5m in width.

Campsites

E26 Campsites must not be established within the Environmentally Sensitive Areas or within 500m of any Category B Environmentally Sensitive Area.

Non-artesian Drill Holes

E27 The holder of the environmental authority must isolate sub-artesian water aquifers where drill hole intersects more than one water bearing strata in accordance with the 'Minimum Construction Requirements for Water Bores in Australia' (Australian Government, February 2012) or latest edition.

E28 Non-artesian exploration drill holes to be changed to water bores must be converted within 3 months of the exploration drill hole being drilled.

NOTE: Water Bores are licensed under the Water Act 2000.

E29 The holder of the environmental authority must convert all non-artesian exploration drill holes required for ongoing monitoring and evaluation purposes to monitoring bores:

a) within 3 months of the exploration drill hole being drilled; and

b) in accordance with the 'Minimum Construction Requirements for Water Bores in Australia' (Australian Government, February 2012) or latest edition.

E30 The location and monitoring results of each non-artesian exploration drill hole converted to a monitoring bore must be included within the annual report (see condition G7).

Monitoring Bores

E31 The holder of this environmental authority must construct all monitoring bores in accordance with the '*Minimum Construction Requirements for Water Bores in Australia*' (Australian Government, February 2012) or latest edition.

E32 The holder of this environmental authority must decommission and rehabilitate all monitoring bores in accordance with the '*Minimum Construction Requirements for Water Bores in Australia*' (Australian Government, February 2012) or latest edition.

Schedule F: Rehabilitation

Previous disturbance

F1 All outstanding rehabilitation on mining tenure EPC952 must be rehabilitated in accordance with this environmental authority.

F2 All outstanding rehabilitation on mining tenure EPC952 under Environmental Authority EPVX00961113, including disturbance within the 500m buffer of any Category B Environmentally Sensitive Area must be rehabilitated within six (6) months of the commencement of this Environmental Authority.

Rehabilitation and reporting

F3 Rehabilitation of areas disturbed within the 500m buffer of any Category B Environmentally Sensitive Area must be completed as soon as practicable but no longer than 3 months after completion of the disturbance activity.

F4 The environmental authority holder must revegetate disturbed areas within 500m of any Category B Environmentally Sensitive Area with plant species that will promote the same vegetation type and density of cover to that of the surrounding undisturbed areas.

F5 All land subject to mining activities must be rehabilitated to a non-polluting, safe, stable and self-sustaining landform.

F6 An annual report must be prepared each year and submitted with each annual return. The report must include a map and details of all exploration activities undertaken, including details of new tracks, monitoring bores and progressive rehabilitation works completed to demonstrate compliance with F1 to F5.

END OF CONDITIONS

Schedule H: 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 Code of Environmental Protection Act 1994, its regulations and policies must be used.

"Artesian bore" includes a shaft, well, gallery, spear or excavation, and any works constructed in connection with the shaft well, gallery, spear or excavation, that taps an aquifer and the water flows, or has flowed, naturally to the surface.

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

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

"Campsite" 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.

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

"Density of cover" In reference to trees and/or shrubs, it means the number of trees or shrubs in a specified area (e.g. 50 trees per square kilometre). With reference to understorey plant species (e.g. grasses and forbs), it means the percentage of surface area covered by a particular species.

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

"Endangered regional ecosystem" means a regional ecosystem identified as endangered in the database maintained by the administering authority called 'Regional ecosystem description database' containing regional ecosystem numbers and descriptions.

"Environmental authority" means a licence or approval issued by the administrating authority under the Environmental Protection Act 1994.

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

"Environmentally Sensitive Areas" refers to locations, however large or small, that have environmental values that contribute to maintaining biological diversity and integrity, have intrinsic or attributed scientific,. historical or cultural heritage value, or are important in providing amenity, harmony or sense of community. Refer to Appendix A of Code of Environmental Compliance for Exploration and Mineral Development Projects.

"Financial assurance" means a security deposit, either cash or a bank guarantee, that is held by the administrating authority to cover the potential:

(a) costs to rehabilitate areas disturbed by mining activities; and

(b) costs to restore property improvements disturbed by mining activities; and

(c) failure of the tenure holder to pay rents and royalties.

"General waste" Schedule 9 of the Environmental Protection Regulation 1998 defines general waste as "means waste other than regulated waste". Waste rock, overburden and the contents of tailings dams are not included in the definition of general waste for the purposes of these conditions.

"Habitat tree" A tree used or potentially used by hollow-dwelling fauna. Habitat trees are identified as a living tree with one or more visible hollows of 10cm or more in diameter that are positioned at least 2m above the base of the tree.

"Landowner" is as per the definition in the Code of Environmental Compliance for Exploration and Mineral Development Projects.

"Mature trees" are trees greater than 20 centimetres diameter at breast height (measured at 1.3 metres from the ground).

"Native vegetation" Vegetation that occurs naturally in a certain area.

"Non-artesian exploration drill hole" An exploration drill hole that does not intersect aquifers of an artesian basin.

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

"Regulated Waste" as per the definition in the Environmental Protection Regulation 2008.

"Rehabilitation processes" The measures and actions taken to achieve rehabilitation outcomes, including any or all of the following:

- removing all unwanted infrastructure;
- backfilling mine excavations (e.g. pits) and capping drill holes;
- reshaping the land surface to a stable landform similar to that of surrounding
- undisturbed areas;
- spreading of topsoil;
- spreading seed or planting seedlings to promote revegetation;
- benching ridge cuts and removing any overhanging material.

"Significantly disturbed land" Land is significantly disturbed if –

(a) it is contaminated land; or

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

Significantly disturbed land includes:

- 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 project 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 has ceased; or
- areas where land has been contaminated.

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 EPA, areas previously significantly disturbed which have not achieved the rehabilitation objectives 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 EPA;
  - disturbances that pre-existed the grant of the tenure unless those areas are disturbed during the term of the tenure.

"Standard environmental conditions" For an environmental authority, means the standard environmental conditions approved for the authority under section 549 of the Environmental Protection Act 1994.

"Subartesian bore" includes a shaft, well, gallery, spear or excavation (excluding the mining pits), and any works constructed in connection with the shaft, well, gallery, spear or excavation, that taps an aquifer and the water does not flow and never has flowed naturally to the surface.

"Subartesian water" means water that occurs naturally in, or is introduced artificially into, an aquifer, which I tapped by a bore, would not flow naturally to the surface.

"Watercourse" means a river, creek or stream in which water flows permanently or intermittently in a visibly defined channel (natural, artificial or artificially improved) with:

(a) continuous bed and banks;

(b) an extended period of flow for some months after rain ceases, and

(c) an adequacy of flow that sustains basic ecological processes and maintains biodiversity

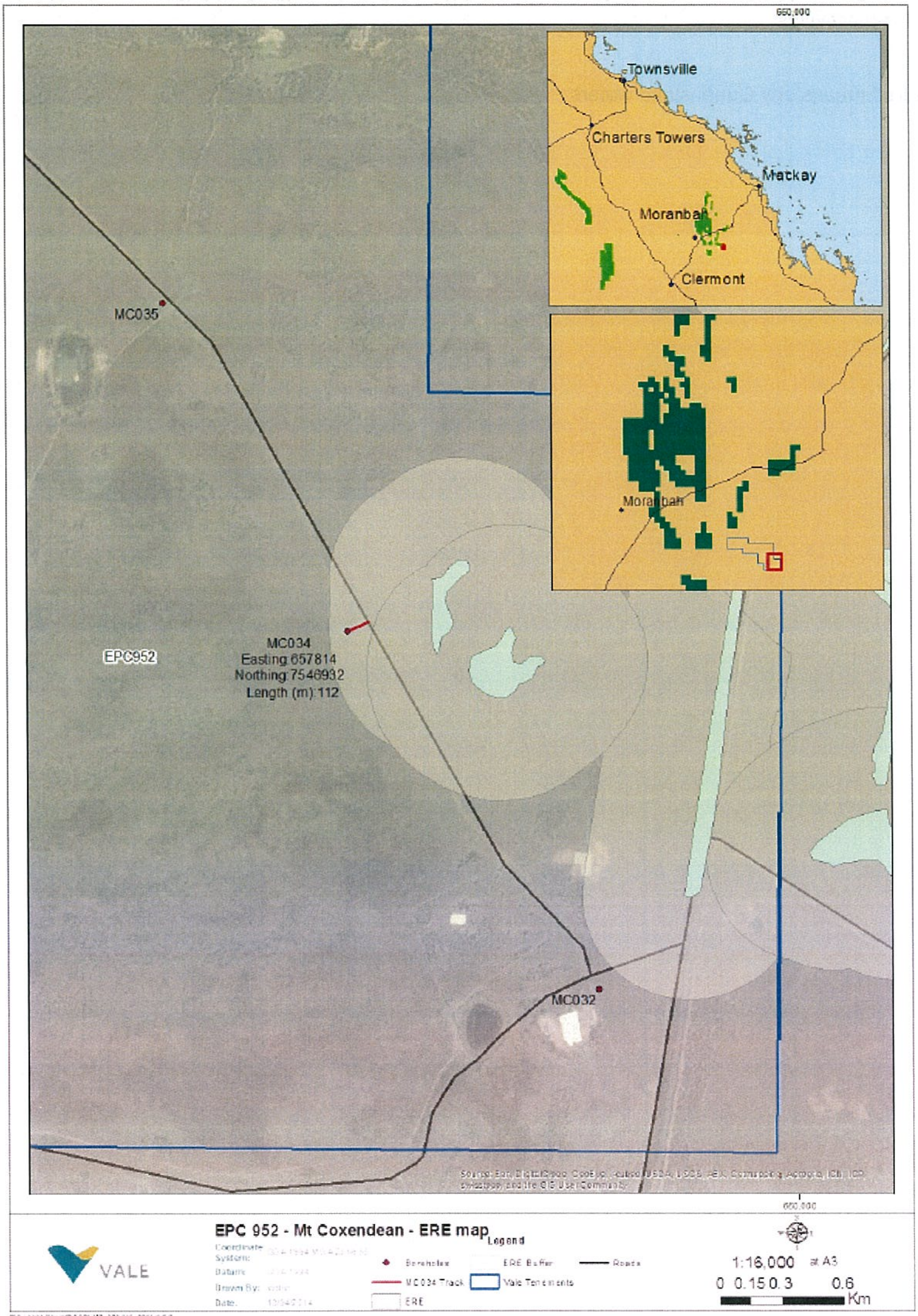
"Water bore" means an artesian bore or a subartesian bore.

"Water monitoring bore" means a water bore used for monitoring impacts on underground water caused by the mining activities.

"Waters" means any Queensland waters

Attachment

Appendix 1 – Map of drill hole and access track in ERE buffer zone on EPC 952



END OF ENVIRONMENTAL AUTHORITY