

Notice

Environmental Protection Act 1994

Environmental Evaluation

Notice to conduct or commission an environmental evaluation

This notice to conduct or commission an environmental evaluation is issued by the administering authority pursuant to section 326B of the Environmental Protection Act 1994.

Mount Isa Mines Limited
Level 38, 1 Macquarie Place
SYDNEY NSW 2000

Cc: Mount Isa Mines Limited
Private Mail Bag 6
MOUNT ISA QLD 4825

Your reference: EPML00977513

Our reference: 101/0008689

Re-issued under STAT1033

30/06/16

Take notice: that under the *Environmental Protection Act 1994* (the Act) a notice to conduct an environmental investigation is issued to Mount Isa Mines Limited (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment and Heritage Protection (the department).

The notice to conduct an environmental investigation is issued in respect of the activities of Mount Isa Mines Limited at Mount Isa Mine on mining lease ML8058 situated adjacent to the town of Mount Isa on Railway Avenue.

A. Grounds

The notice to conduct an environmental investigation is issued on the following grounds:

- Section 326B (1)(b) of the *Environmental Protection Act 1994* 'an activity or proposed activity is causing, or is likely to cause environmental harm'.

The facts and circumstances forming the basis for these grounds are:

- Mount Isa Mines Limited (MIM) are likely to have caused or be causing environmental harm through a release of contaminated material via surface and predominantly subsurface flow/seepage from the Black Star Open Cut Waste Rock Dump (BSOC WRD) in three locations known as the BSOC WRD North Seepage Point, BSOC WRD South Seepage Point and TD3 Seepage Point.
- The BSOC WRD seepage point was first identified during 11-15 November 2013 compliance inspection. Seepage has continued to express at the BSOC WRD seepage point since 2013 and an additional seepage point known as TD3 was identified during the time of the pre-wet inspection on 29-30 October 2014. The potential impact of a release to the receiving environment has not been assessed, nor has acceptable remediation options been implemented on site.

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- MIM advised departmental officers during a pre-wet compliance inspection on 29-30 October 2014 that fault lines were present in the geology of the rock on which the BSOC WRD is built on. In addition to this Appendix 1 - BSOC WRD Seepage identifies the drainage lines present at the BSOC WRD and includes the three known seepage points relative to these drainage lines. It is likely that seepage at these locations will result in seepage being released to the receiving environment. In addition, MIM have built a dam known as the King Gully Pond at the eastern end of the BSOC WRD West Diversion Drain.
- While seepage is being captured/ diverted within the containment structure (BSOC WRD West Diversion Drain and King Gully Pond) built by MIM, water will follow preferential pathways of which, there is potential for it to enter the receiving environment with the quantity and quality of seepage likely to cause environmental harm.
- As water will follow preferential paths, the water bodies, alluvial creeks and their associated environmental values which are likely to be impacted via seepage and sub seepage expressing from the BSOC WRD include Hazeldene Creek, Spear Creek, King Gully Creek, Leichhardt River and Lake Moondarra.
- Water sampling results from 13/11/2013 and 25/11/2013 show elevated levels of Electrical Conductivity (EC) and uranium (above the ANZECC aquatic ecosystems quality values*) and elevated levels of sulphate (above the ANZECC livestock trigger values) which if released into the receiving environment, is likely to cause environmental harm.
- Water sampling results from 29/10/2014 and 30/10/2014 at GPS waypoints 114 (King Gully Pond) and 115 (TD3 Seepage Point) show elevated levels of cadmium and selenium (King Gully Pond only) for both ANZECC aquatic ecosystems* and livestock trigger values; elevated levels of sulphate for the ANZECC livestock trigger value* at both sample locations; elevated levels of EC, copper, cobalt, nickel, lead, zinc, thallium and uranium for ANZECC aquatic ecosystems values* at both locations and lastly elevated levels of chromium (King Gully Pond only), boron (King Gully Pond only) and manganese (TD3 Seepage Point only) for the ANZECC aquatic ecosystems values*. If these contaminants are released into the receiving environment, there is potential for environmental harm to occur.
- MIM are unsure as to the volume of seepage/sub seepage expressing from the BSOC WRD that may be transmitted at the above mentioned locations on the western boundary of Kings Gully.
- While seepage is being intercepted at the BSOC WRD, it is unclear whether the seepage is also escaping via sub surface expression to other locations.
- It is unclear what engineering designs have been implemented for the MIM King Gully diversion western drain/trench. Details on the depth, interception rate, hydraulic characteristics, length, maintenance, containment capabilities and design have not been provided to the administering authority and as such the containment capacity, potential for overtopping and/or seepage from this structure is unknown.
- Laboratory results from the samples taken on 13/11/2013, 25/11/2013 and 29/10/2014 and 30/10/2014 show elevated levels of contaminants which exceed the ANZECC aquatic ecosystems values* and ANZECC livestock trigger values. Particular contaminants of concern include sulphate; cadmium and selenium which exceeded both ANZECC aquatic ecosystem* and livestock trigger values. EHP has concerns on the volume, location and quality of the seepage that is occurring and the associated environmental harm that is likely to occur to environmental values.

B. Requirements

The report on the environmental investigation must address the following relevant matters:

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1. Identify the source, cause and extent of all **seepage** that are being, or are likely to be released from the Black Star Open Cut Waste Rock Dump (BSOC WRD) to the **receiving environment**. This must include:
 - a) the current preferential pathways/ mechanisms/ fault lines for release of **seepage** from the BSOC WRD to the **receiving environment**; and
 - b) the current and expected volume and rate of any **seepage** released from the BSOC WRD to the **receiving environment**; and
 - c) the current concentration of **seepage** released from the BSOC WRD to the **receiving environment**.
2. The investigation required under item 1 must,
 - a) be in accordance with **ANZECC (2000)** methodology; and,
 - b) assess impacts on the **receiving environment** and all identified environmental values, the assessment must include consideration of:
 - i) water quality for surface and groundwater's (including any shallow ephemeral aquifers);
 - ii) sediment quality;
 - iii) soils;
 - iv) flora and fauna
3. Determine all potential options for the prevention or reduction of any further release of **seepage** from the BSOC WRD to the **receiving environment**; for all options, provide,
 - a) A detailed description of each option; and,
 - b) Costs for implementation of each option; and,
 - c) A timeframe for implementation of each option.
4. Identify a preferred option/s for both the remediation of identified impacts to the **receiving environment**, and measure to prevent or limit any future impacts. Provide justification for the nominated option/s, which includes assessment against best practice environmental management; and, identify a time-frame for implementation and completion of the nominated option/s.
5. An environmental report on the investigation must be submitted to:
The Department of Environment and Heritage Protection by **29 July 2016**.

Department of Environment and Heritage Protection

Level 3, 5b Sheridan Street

CAIRNS QLD 4870

PO Box 7230, CAIRNS QLD 4870

*The Environmental Evaluation needs to be read in conjunction with the requirements of Environmental Authority EPML00977513 and Transitional Environmental Program MAN14741.

Definitions:

ANZECC (2000) – means the 'Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000)' produced by the Australian and New Zealand Environment and Conservation Council.

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Seepage – means ‘any liquid originating from the Black Star Waste Rock Dump footprint regardless of its contaminant concentration that has the potential to enter the receiving environment.’

Receiving environment – ‘means all groundwater and surface water that are not in disturbed areas authorised by this environmental authority and excludes land within the surface water containment areas.’

The environmental report must be submitted to the department on or before:

- **29 July 2016.**

As the recipient of this notice, you are also required to provide a statutory declaration in the form attached, to accompany the environmental report submitted to the department.

You can view an electronic version of the statutory declaration for a recipient using the following search term (EM494).¹

Take notice:

1. the requirements of the notice to conduct an environmental investigation take effect immediately upon service of this notice;
2. this notice remains in force until further notice from the department; and
3. you are responsible for meeting the costs of conducting or commissioning the environmental evaluation, preparing the environmental report and providing any further information as requested by the department.

C. Reviews and appeals

The provisions regarding reviews of decisions and appeals are found in sections 519 to 539 of the Act.

A person who is dissatisfied with certain decisions of the department, may be able to apply to have the department review that original decision.

Generally, a request to have a decision reviewed must be made:

- within 10 business days of the decision being notified to the person;
- be supported by enough information to enable the department to decide the application for review; and
- be made using the application for review of an original decision form (EM709).

Where an application has been made for a decision to be reviewed, the applicant may also apply to the relevant court for a stay of the decision to secure the effectiveness of the review.

Once the original decision has been reviewed, a person who is dissatisfied with the review decision may be able to appeal against that decision to the relevant court within 22 business days after receiving notice of the review decision.

A person whose interests are or would be adversely affected by a decision of the department may also be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991*.

For further information about reviews and appeals see the:

¹ This is the publication number. The publication number can be used as a search term to find the latest version of a publication at <www.ehp.qld.gov.au>.

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1. Information sheet - internal review and appeal to the Planning and Environment Court (EM1866).
2. Information sheet - internal review and appeal to the Land Court (EM1157).

You may have other legal rights or obligations and should seek your own legal advice.

D. Penalty

Failure to comply with a notice to conduct or commission an environmental evaluation is an offence.

- a) The maximum penalty for an individual is 300 penalty units, totalling \$35,340.00.
- b) The maximum penalty for a corporation is 1500 penalty units, totalling \$176,700.00.

Should you have any queries in relation to this notice, please contact Teale Gibbs of the department on telephone number (07) 4222 5385.



Signature



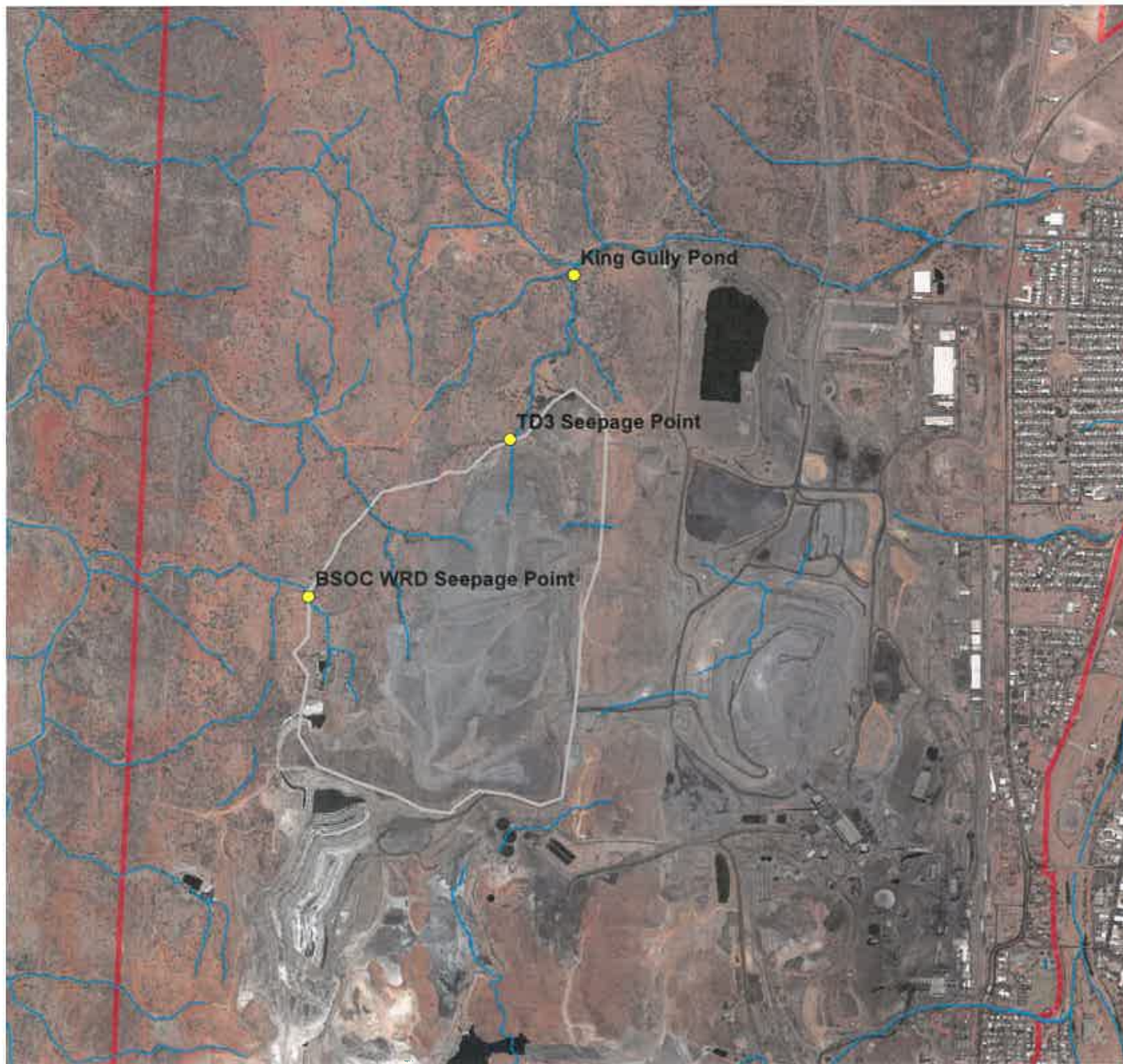
Date

Rebecca Booker
Delegate of the Chief Executive
Department of Environment and Heritage Protection
Environmental Protection Act 1994

Enquiries:

PO Box 7230
CAIRNS QLD 4870
Ph: (07) 4222 5385
Email: teale.gibbs@ehp.qld.gov.au

BLACK STAR OPEN CUT WASTE ROCK DUMP (BSOC WRD) SEEPAGE



Legend

- Seepage and Collection Points
- Watercourses
- Indicative BSOC WRD
- ML8058 boundary



1:25,000



DATA SOURCES:
Satellite Image © 2009 DigitalGlobe Incorporated

DISCLAIMER
While care is taken to ensure the accuracy of this data, the Queensland Government (Department of Environment and Heritage Protection) gives no warranty in relation to the data (including accuracy, reliability, completeness or suitability) and accept no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data.

PRODUCED: ESR Northern Region, Cairns, DEHP (12 November 2014)

MAP REFERENCE: 14_11_12_Mt_Isa_Mine_EE_RT

ACCURACY STATEMENT
Due to varying sources and scale of data, spatial locations may not coincide when overlaid.

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