

RAINWATER TANK TESTING PROCEDURE

DOCUMENT NO: EC PRO 321



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VERSION HISTORY

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1. PURPOSE AND SCOPE

The purpose of this rainwater tank testing procedure is to provide a standard and consistent methodology of undertaking sampling, testing, recording and reporting of rainwater tank testing. The scope of the procedure covers all rainwater tank testing undertaken for the Hillside Mine (Hillside).

Rex Minerals Ltd (“Rex” or “the Company”) undertook some initial rainwater tank testing in 2014 on a sample of properties and residences around Hillside. This included tanks on neighbour’s properties and within the townships from the north and south in Pine Point and Rouges Point/James Well.

Rainwater tank testing was (and will be) undertaken prior to construction of the Hillside Mine to gain an understanding of the current water quality in the surrounding rainwater tanks and to provide a comparison of the water quality during mining operations.

During the assessment process of the Mining Lease Proposal (MLP), independent consultants engaged by both the Company and by the DPC determined that the quantum of copper or other metals in predicted dust will be at such low levels that they will not impact on rainwater tank water quality (refer to Section 7.1 – Rainwater Tank Testing – Introduction and Background).

The testing of rainwater tanks in the region required by the ML conditions is to demonstrate and confirm that there will be no significant impact on rainwater tank quality from any fugitive mine dust, nor by any metals that may be contained within that dust. The primary metals that will be measured from rainwater tank water samples will be copper and uranium, and these will be compared to allowable levels in Australian drinking water standards. While other trace metals may exist in Hillside ore and waste rock, they are at extremely low levels in situ, and hence will not present a hazard in dust. No organics nor biologicals will be analysed as Hillside Mine dust will not impact these.

Air quality management and monitoring for Hillside is addressed in the Air Quality Management Plan (AQMP) which includes details of the dust control measures, monitoring program and compliance reporting. As outlined in the AQMP and Section 7.1, the rainwater tank testing is a third tier of protection for the surrounding community, with the on-site dust management controls, and the comprehensive dust monitoring program being the first and second tier of protection for employees and the surrounding communities.

The 4km zone that is stated as the rainwater tank testing zone as per Rex’s ML conditions is more than adequate as supported by the dust modelling and likely extent of fugitive dust leaving the site. Dust is not an instantaneous hazard (refer to Section 7.1) and annual testing is proposed with the timing of this to be consistent from year to year. Recommendation on best timing has been after the first significant rains following summer.

The implementation and communication of the rainwater tank testing program will be set out in an ‘action plan’ in line with Rex’s Community Engagement Plan (CEP).

2. CONDITIONS

The rainwater tank testing as required by ML Condition 8 states:

8. The Tenement Holder must:

- 8.1. within 6 months of the grant of this Lease write to all third parties who have an interest within the Land, or in land within 4 kilometres of the boundary of the Land, and offer to undertake (at least annual) water quality testing of all rainwater tanks owned (or used) by those third parties; and
- 8.2. where a third party who has an interest within the Land, or in land within 4 kilometres of the boundary of the Land, indicates to the Tenement Holder that they wish to have rainwater tanks that they own or use tested, undertake testing of the relevant tank(s); and
- 8.3. if testing of a tank is undertaken, provide the third party with those test results (reported against the most recent Australian Drinking Water Guidelines (Australian Government)) within one month of the sampling.

In March 2015, Rex sent out an expression of interest to all third parties who have an interest within the Land, or in land within 4 kilometres of the boundary of the Land, and offered to undertake annual water quality testing of all rainwater tanks owned (or used) by those third parties. A record of the land owners who registered their interest is maintained by Rex.

Rex, in consultation with the Hillside Mine Community Voice (HMCV) and the State Government agreed that the commencement of the annual programme for rainwater tank testing would be undertaken prior to construction of the Hillside Mine at an agreed time to be defined in consultation with the community. Prior to commencement of construction, Rex will again send out an expression of interest to those landowners and residences within a 4km radius of the ML.

3. DEFINITIONS

Air Quality Management Plan (AQMP): AQMP developed and circulated as part of PEPR process which details the management controls, monitoring and reporting of dust.

Hillside Mine Community Voice (HMCV): Hillside's community reference group.

Mining Lease Proposal (MLP): Rex's document that was submitted to the State Government for assessment to decide whether to grant a mining lease or not.

Mining Lease (ML) Conditions: The set of conditions as a part of the grant of the mining lease by which Rex must comply with prior to, during and after mining finishes at Hillside. Applies to ML 6438 only.

National Association of Testing Authorities (NATA): Certification level of a laboratory.

Program for Environmental Protection and Rehabilitation (PEPR): Rex's document which describes the mining operations, consultation and how the mining lease conditions will be achieved through the monitoring and reporting.

Total Dust Deposition (TDD): The components of dust which are likely to settle in the area of the ML and the surrounding area which is measured by using dust deposition gauges. TDD gauges will be located at key nearest receptors, and at other agreed locations (e.g. on some adjacent properties monitoring TDD on agricultural land).

4. PROCEDURE OVERVIEW

This procedure outlines details for collection of water samples for chemical analysis. Details of the type of sample containers and preservatives to be used are also included. The sampling procedures and details of containers and preservatives are based on requirements outlined in AS/NZS 5667.1 (1998).

Rainwater tank water samples will be collected using this procedure by Rex's sustainability personnel. Sealed sample bottles are obtained from an Australian NATA (National Association of Testing Authorities) accredited laboratory. Rainwater samples will be sent to an Australian NATA.

The quality of water from rainwater tanks can be affected by roofing and tank materials, paints, other atmospheric contaminants, leaves, dust, and animal droppings. Contamination from these sources are outside the scope of the Hillside Mine rainwater tank testing. The heavy metals copper and uranium are the parameters that will be tested as a part of Rex's rainwater tank testing as these are the elements which could be sourced from Hillside.

Rex will maintain a database of residences and contacts (and will try and determine preferred contact method) within 4km of the mining lease boundary, and will update this database on annual basis. A letter will be sent to these contacts 2 months prior to the planned rainwater tank sampling period to ask residents whether they would like their rainwater tank tested for copper and uranium.

Testing will be on an annual basis, and planned over a three-week period, including weekends, to try and capture as many residences and tanks as possible in this time. Preferred timing for the testing has been recommended as just after the first significant rains following the summer months.

Two Rex personnel from the Sustainability department will attend each tank site during sampling, with preference for the resident/owner to be present unless authorisation is provided for the sample collection to occur without them present.

The details of the process for sample collection are outlined below.

5. PROCEEDURE DETAILS

This procedure is relevant for the collection of water samples from a tap (reticulated town water, tank water or other storage facilities with a tap outlet):

1. Receive sealed sample bottles from Australian NATA accredited laboratory.
2. Record the name of sampler, date and time of sampling, location of sample (easting and northing if possible), the unique identifier on laboratory sample submission forms and the environment where the sample is taken (i.e. where is the tap, type of roof/tank/tap/pipes, use of pump or filter, any overhanging trees, etc).
Note: *if there are several taps in the area of test, choose a tap which is most frequently used. Record condition of these roof/tap/pipe materials, note signs of corrosion.*
3. Remove any external fittings such as filters and remove any contaminants (e.g. grease, slime, sediment build-up etc.) around the spout with a clean cloth.
4. Turn the tap on to a steady stream and run for at least 2-3 minutes to remove any stagnant water in the plumbing network. If possible this should be done into a bucket or similar so as not to waste the water. Seal the bottle with the cap.
5. Label the bottle and place in a suitable container for transportation to the laboratory (samples can be transported at ambient temperatures).

6. RESPONSIBILITIES

The Hillside Mine Sustainability department is responsible for the implementation of the Procedure.

7. REPORTING

Individual test results will be reported against Australian Drinking Water Guidelines and sent to the resident/owner electronically or through postal services as requested within one month of the sampling. The data will be collated and mapped to detect any patterns of change in copper or uranium content in the rainwater tank. The results will also be reported on an anonymous basis in the Annual Environment Report and to HMCV meetings..

8. ATTACHMENTS/APPENDICES

- Rainwater tank testing equipment list
- Results spreadsheet (blank for completing at the time of testing)
- Rain Water Testing Results (letter template)
- Public Release Consent Form (letter template)

(The above documents are currently being reviewed / updated and will be provided in updated draft as completed)

9. RELATED DOCUMENTS

PEPR Section 7.1 – Rainwater Tank Testing – Introduction and Background

“Results Spreadsheet” – controlled by the Sustainability team.

AS/NZS 5667.1 (1998) Water Quality – Sampling: Guidance on the design of sampling programs, sampling techniques and preservation and handling of samples.

Air Quality Management Plan (AQMP)

Pre-mining ‘action plan’ in line with Rex’s Community Engagement Plan (CEP)

Database of residences within 4km of mine lease boundary.

National Water Quality Management Strategy – Australian Drinking Water Guidelines 6, 2011. Version 3.4 updated October 2017



Property Owner	Site ID	Postal Address	Address	Contact	Easting	Northing	Comments (where is the tap, type of roof/tank/tap/pipes, use of pump or filter, any overhanging trees)	Location	Results Sent (dd/mm/yyyy)	Public Release Forms (dd/mm/yyyy)



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