3 April 2017

Mineral Assessment Hub
Department of Natural Resources and Mines
PO Box 1752
TOWNSVILLE QLD 4810

Dear Sir or Madam:

APPLICATION TO AMEND ENVIRONMENTAL AUTHORITY (EPVX00703313)

Please find enclosed an application to amend Environmental Authority EPVX00703313 attaching to EPM18486 and EPM19343 on behalf of Roar Resources Pty Ltd (the applicant). Roar Resources is currently undertaking mineral exploration activities on two tenements (EPM18486 & EPM19343) adjacent to the Norton Goldfields historical site, which is listed on the Queensland Heritage Register.

Roar Resources is seeking approval to undertake limited subsurface drilling below the Norton Goldfields historical site. Drill pads would be established on an existing access road within the historical site boundary or outside of the boundary. As subsurface drilling is deep enough to prevent destabilisation of the remaining structures, there will be no detrimental impact on the heritage place.

Relevant application forms are provided at Attachment 1. For your information, please note that an application for a Heritage Exemption Certificate has also been lodged with the Department of Environment and Heritage Protection (DEHP).

NORTON GOLDFIELDS HISTORICAL SITE

The Norton Goldfields is listed on the Queensland Heritage Register for its significance in demonstrating mining and settlement patterns from the late 1870s through to the 1940s. The significance of the place is linked to a series of sites containing the remains of gold processing infrastructure, including the abandoned gold roasting furnace (2 sites), chimney stack, 10-head stamper battery and mine adit. The original listing also referenced a water race on the banks of Norton Creek; however, Metal Bank understands that floods in Norton Creek have resulted in the removal of this feature. An established access road bisects the historical site.

An extract of the listing on the Queensland Heritage Register which details the history and significance of the Norton Goldfields is provided at Attachment 2.
PROPOSED EXPLORATION ACTIVITIES

It is proposed to undertake reverse circulation (RC) or percussion drilling below the Norton Goldfields historical site. Drill pads (i.e. ‘launch’ sites) would be established at surface level either on the existing access road which bisects the heritage site or outside the boundaries of the heritage site with drilling below the site itself occurring at a depth of between 40 and 250 metres.

In the proposed drilling method, reverse circulation is achieved by blowing compressed air down to the drill bit so that drill cuttings are returned to the surface inside the drill rods. This method results in limited vibration resulting from the use of a pneumatic rock hammer. Metal Bank has sought advice from Mr Brendan Turner of Centurion Drilling who has advised the following impact zones:

- At surface level, vibration from RC drilling can be easily felt to a distance of 3 metres, with no vibrations felt beyond 10-15 metres.
- Once the drill hammer reaches solid, unweathered rock, the vibration is reduced due to the dense nature of the basement rocks so that vibration is restricted to approximately a 2 metre radius around the drill hammer, with no vibration felt on the surface.

A copy of this advice is provided at Attachment 3.

POTENTIAL IMPACTS ON NORTON GOLDFIELDS HERITAGE PLACE

The indicative location of proposed drill collars and traces in relation to the features that make up the Norton Goldfields heritage site is shown in Figure 1 (refer Attachment 4). All surface exploration activities will be conducted either outside of the site boundaries of the Norton Goldfields heritage place or on an existing access road within the boundary and there will be no direct impact on these features.

Reverse circulation drilling does result in limited ground vibration as described above. Of the features that make up the Norton Goldfields heritage site, the gold roasting furnace sites and chimneystack may be particularly vulnerable to destabilisation as these are of brick and timber construction. As indicated on Figure 2 (refer Attachment 4) a minimum 40 metre buffer distance would be maintained from these features by drilling diagonally from a point on the surface. As described by Mr Turner, no vibration at all would be expected beyond 15 metres at surface level or beyond 2 metres in solid rock.

Drill pads would also be located to maintain a minimum 15-metre buffer (2 metres in solid rock) from the stamper battery although this is less vulnerable to destabilisation due to its steel construction. Subject to the maintenance of these buffer zones, no detrimental impact on the cultural heritage significance of the Norton Goldfields site is expected to occur.

Please do not hesitate to contact the undersigned on mobile 0466 618 357 or email at kate@orangegum.com.au if you require further information regarding the project.

Yours sincerely,

Kate Hourigan
PRINCIPAL CONSULTANT