

EMAIL TRANSMITTAL

REF: 27207-1-20101-02
TO: Pantoro
ATTENTION: Kevin Dochery
EMAIL: Kevin.dochery@pantoro.com.au
FROM: Paul Drew
DATE: 8 February 2021
**SUBJECT: COBBLER OPERATIONS
NOISE EMISSION PREDICTIONS**

Kevin,

Acoustic modelling of the proposed Cobbler deposit mining operation has been undertaken to determine the potential maximum noise emission from the operations to the Norseman Townsite (the nearest identified residential receptors).

The project noise emissions are expected to be highest during initial operations, when equipment is at surface level. After approximately 3 weeks there will have been some excavation, so some equipment will be below natural ground level. Another 3 weeks and most of the significant noise sources will be 10m below natural ground and required bunding will be also around the pit outer.

The noise emission predictions have been made for 'worst case' wind scenarios, as recommended by the Department of Water Environment and Recreation (DWER). These conditions are for wind direction directly from noise source to receiver (residences), with light winds that represent a thermal inversion. Typically, these conditions occur in Autumn when the combination of high pressure cells and cold temperatures combine to create inversions. For the majority of the time, particularly during seasonal periods of strong winds, noise propagation to the Norseman Townsite can be expected to be significantly less.

The modelled scenario noise contour plots are attached. These are:

<u>Plot</u>	<u>Description</u>
1	Initial sediment removal (Day – Worst Case Winds);
2	Initial sediment removal (Day – East Winds);
3	Initial mining / bund construction (Day & Night – Worst Case Winds at Night);
4	Developed mining (Day & Night – Worst Case Winds at Night).

The day-time 'assigned level' is an L_{A10} of 45 dB(A) weekdays, 40 dB(A) on Sundays and Public Holidays, and the night-time 'assigned level' is an L_{A10} of 35 dB(A). The 'assigned levels' for residences near industrial, commercial or mining areas may be higher than these levels, so this assessment is conservative.

All scenarios under 'worst case' maximum propagation conditions have predicted noise emissions at Norseman that are compliant with regulation 'assigned levels' for the respective times of the day.

Noise levels of 35 dB(A) are relatively quiet. It would only be on rare occasions that the combination of light winds directly towards Norseman townsite and the initial mining scenario are likely to coincide, so the likelihood of hearing the operations from the town are relatively low. The initial surface level mining is only occurring for a short period of time, subsequent mining within a developing pit will have lower noise emissions and minimal acoustic impact.

Blast events may be audible on some occasions, depending on wind direction. These events will be during the day period.

The noise emissions from the proposed Cobbler mining operations are not expected to have a significant impact on residential receptors.

Yours faithfully,
for **HERRING STORER ACOUSTICS**

Paul Drew
DIRECTOR

Att.







