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Ms L Eykamp  
Environmental Scientist  
GHD Pty Ltd  
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Dear Lucy

**Revised Calculation of Rail Noise Levels, Proposed Rail Link (Missing Link), North Goonyella Colliery to Newlands Colliery, Queensland, at Denham Park and Woolambi Homesteads**

In accordance with my report R05156 titled *Environmental Noise Level Study for Proposed Rail Link (Missing Link) from North Goonyella Colliery to Newlands Colliery, Queensland conducted for GHD Pty Ltd* the following was assumed:

- 20 trains per day, 2 minutes 50 seconds for each train, 61 dB(A)  $L_{Aeq,T}$  @ 300 metres;
- ambient noise level (no train noise) of 42.1 dB(A)  $L_{Aeq,24H}$ ;
- from approximately 300 metres from the railway line  $L_{Aeq,T}$  noise levels will reduce by 3 dB(A) per doubling of distance and the maximum noise level will reduce by 6 dB(A) per doubling of distance;
- Denham Park homestead 1600 metres from railway line; and
- Woolambi homestead 1500 metres from railway line.

Based on your recent telephone call I now believe that there will be 29 trains per 24 hours and the separation distances to the railway line will 1850 m for Denham Park and 1350 m Woolambi.

For 29 train passes the total duration of train noise will be 2 minutes 50 seconds  $\times$  29 trains = 1.3694 hours with train noise and 22.6305 hours with no train noise, in any 24-hour period. On this basis the  $L_{Aeq,24H}$  will be 52.0 dB(A) @ 300 metres from the railway line.

At the above nominated separation distances rail noise levels will be:

- Denham Park:
  - $52.0 - 7 = 45$  dB(A)  $L_{Aeq,24H}$ ;
  - $73.3 - 15.8 = 57.5$  dB(A) maximum.
- Woolambi:
  - $52.0 - 6 = 46$  dB(A)  $L_{Aeq,24H}$ ;
  - $73.3 - 14 = 59.3$  dB(A) maximum.

These noise levels easily comply with the nominated rail noise limits of 65 dB(A)  $L_{Aeq,24H}$  and 87 dB(A) maximum.

Yours sincerely,  
DAVID MOORE & ASSOCIATES PTY LTD

**David Moore**