

Exploration for minerals can generate noise from a range of activities, particularly when operating drill rigs to collect core samples from deep beneath the surface.

Stavely Minerals has an active program to reduce the noise generated during drilling as well as placing noise reducing barriers between the operations and nearby residences.

Noise monitoring

Stavely Minerals uses noise loggers as part of an ongoing noise monitoring process. A weather station is used to collect real-time environmental data including wind speed and direction that can be correlated to the noise monitoring data.



Reducing the noise generated by drill rigs



New exhaust mufflers

Mufflers on the drill rigs have been changed to reduce exhaust noise.

Acoustic panelling

Acoustic panels have been placed on the sides of the drill rig engines to reduce engine noise. Heat generated by the engine makes it impossible to fully enclose the engine.

Metal on metal noise mitigation

The drillers were instructed to make every effort to reduce noise. They have been proactive in this and are targeting metal on metal noise. In an effort to reduce this, they installed rubber conveyor belt material on the sides of their rod slew and the mast to reduce metal on metal interactions.

When the drillers are pulling the steel inner tube containing the drill core to surface, it is common for the tube to bang against the steel panel on the mast causing a high frequency noise. Now, when the inner tube falls against the mast, the rubber pad softens the blow and deadens the sound.

After bringing the inner tube to surface, the components of the tube must be dismantled to be able to remove the drill core. Often the components are stuck and the drillers are required to use stilsons (pipe wrenches) to break the seal on the components. This metal-on-metal interaction causes a high frequency noise. Rubber conveyor belt material has been fixed to the side of the rod slew so that there is no longer metal striking metal. This conveyor belt material softens the blow and deadens the sound.



Noise reduction through obstruction and absorption



As sound waves travel in a straight line, Stavely Minerals has been able to further reduce noise for neighbouring residents by placing a barrier between the drill rigs and nearby residences.

Large square hay bales are readily available in most farming areas. Using these 2.4m L x 1.2m W x 0.85m hay bales to construct a solid wall 15 metres long and 3.4 metres high, obstructs and absorbs the noise for the nearest residents.

Local farmers are employed to shift the hay bales to new locations when each drill rig is moved to a new location.



Keeping the hay bale wall as close as practicable to the drill rig improves the sound deadening properties.

More information

Stakeholder Relations Manager Lyall Grey T: 0419 720 041 E: lgrey@stavely.com.au

Head Office T: 08 9287 7630 E: info@stavely.com.au W: www.stavely.com.au