



Noise Summary Report
First Quarter 2026



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1. Introduction

This report provides a summary of noise measurements and assessments undertaken by OceanaGold (NZ) Ltd Waihi Operations (OceanaGold) for the first quarter of 2026. The report is prepared to comply with the requirements of six consents:

- Hauraki District Council (HDC) Land Use Consent (LUC) for Project Martha (LUC 202.2018.857.1, condition 26A). OceanaGold is required to submit quarterly summary reports to Council on representative noise levels.
- Under the Noise Conditions of the LUC for the Favona Underground Mine (No. 85.050.326.E, condition 9) a summary report is required at the end of each 3-month period from commencement to completion of work.
- Under the Noise Conditions of the LUC for the Trio Underground Mine (RC-15774, condition 6d) a summary report is required at the end of each 3-month period from commencement to completion of work.
- Under the Noise Conditions of the LUC for the Correnso Underground Mine (RC-202.2012, condition 11d) a summary report is required at the end of each 3-month period from commencement to completion of work.
- Under the Noise Conditions of the LUSE for the Services Trench (LUSE-202.2024.00001981, condition 13), a summary report on compliance with Condition 11 is required to be submitted to Hauraki District Council every three months.
- Under the Construction Noise Conditions of the Waihi North Project LUC, a summary report on compliance with Condition 7 is required to be submitted to Hauraki District Council every three months.

Although a report is required, there was no active mining in Favona and Trio during the period. For exploration drilling operations, the conditions set out in section 8.3.1 of the Hauraki District Plan apply. Any monitoring of these activities is also included in this report.

2. Equipment and Calibration

2.1. Instrumentation Information

OceanaGold (NZ) Ltd Waihi Operations uses equipment and accessories from the manufacturer Brüel & Kjær to measure sound, these are outlined in **Table 1** below. These are calibrated by Diatec, an IANZ accredited laboratory in the field of metrology and calibration to ISO 17025.

Table 1. Monitoring Equipment and Accessory information and calibration schedule

Type	Model	Serial Number	*Date of Calibration
Sound Level Meter (night use)	B&K 2250	3025096	30/04/2024
Sound Level Meter (day use)	B&K 2250	2619858	27/06/2024
Acoustic Calibrator	B&K 4231	3014415	02/05/2025
Microphone	B&K 4189	2345693	27/06/2024
Microphone	B&K 4189	3087408	30/04/2024
Microphone	B&K 4952	3166745	11/11/2025

* Calibrations are valid for two years

2.1. Field Checks/Calibration

Field Checks (pre and post calibration) of the microphone are completed before and after each reading. Sensitivity is automatically calculated and accepted or rejected. Any differences greater than 0.5dB as well as any adjustments made are recorded below.

During this quarter there were no variations over 0.5dB or changes made to the calibration of the sound level meters.

2.2. Additional Equipment

OceanaGold (NZ) Ltd Waihi Operations uses the Brüel & Kjær Applications – BZ5503 – Measurement Partner Suite to store and assess noise readings.

3. Methodology

Sound measurements and assessments by OceanaGold comply with the consent conditions and the New Zealand Standards *NZS 6801:2008 Acoustics - Measurement of Environmental Sound*, *6802:2008 Acoustics - Environmental Noise and NZS 6803:1999 Acoustics - Construction Noise*.

Compliance noise is measured for a minimum of 15 minutes as required under the consent conditions. Compliance readings cannot always be made on every site visit or check due to excessive wind conditions (i.e. greater than 5 m/s).

Monitoring checks are made in response to complaints whenever necessary; initially to verify the noise level and subsequently (if necessary) to determine the effectiveness of any mitigating actions and/or the effect of changing wind conditions (changing wind strength or direction influences noise transmission between the mine and the receiver).

OceanaGold uses noise monitoring procedures to ensure compliance with the above standards and consent conditions, and to support noise mitigation protocols documented in the site Noise Management Plan. The noise mitigation protocols require review of wind conditions that could potentially result in noise levels generating complaints. Monitoring has shown that wind speeds over 3 m/s (as measured at the OceanaGold weather station at Kenny St) are likely to increase mine noise downwind of an activity to levels that may generate complaints. When such wind conditions occur, OceanaGold implements mitigating actions to reduce noise levels where practicable. During periods when high frequency sounds such as birds, cicadas and crickets become the controlling noise, a filter may be applied to noise measurements to exclude four and eight kHz (kilohertz) and enable analysis of the lower frequency noise levels (i.e. those usually associated with mine operations).

Wind has a significant influence on sound propagation. Sound measurement and assessment must take the effect of wind into account. Sound measurements are taken in conditions ranging from nil wind up to 5 m/s at the receiver (*NZS 6801:2008 Acoustics - Measurement of Environmental Sound*). Wind greater than 5 m/s is generally unacceptable for monitoring due to wind noise effects in the nearby environment (e.g. trees) on the microphone.

Downwind, wind speeds of 3 - 5 m/s are considered marginal due to propagation of sound by wind from source to receiver. Conditions like those for which the compliance limits are set generally occur when wind speeds are less than 3 m/s (*Hegley, 2003: Evidence of Nevil Hegley – Favona Underground Project 2003 Final – 11/11/03*).

Wind speeds are recorded at both the OceanaGold Kenny Street and Willows Road weather stations. Noise measurements taken in closer proximity to the Willows Road weather station are assessed using data from that station, as it is considered representative of conditions in that area and at the corresponding noise source. Conversely, measurements closer to the Kenny Street weather station utilise data from that station, as it best represents the local conditions associated with those readings.

Other meteorological factors influencing the overall sound environment include solar radiation, cloud cover, sunrise and sunset times, wind direction and the direction from source to receiver. These factors were also measured to derive a meteorological stability rating at the time of monitoring. Meteorological stability categories of 4 (neutral) or 5 (slightly positive) are considered suitable meteorological influences on sound propagation and are used to determine noise compliance (*NZS 6801:2008 Acoustics - Measurement of Environmental Sound* (HDC LUC 97/98-105, Condition 3.8 (e))).

4. Results

4.1. Operations

4.1.1. Summary of Noise and Compliance

A summary of monitoring activity for operational noise during the reporting period is shown in Table 2 and 3. These measurements include all quarterly compliance readings for operations and all other checks completed over the quarter.

Of the eleven noise measurements undertaken during the reporting period, no mine-dominated Single Corrected Measured Level (SCML) readings exceeded the applicable compliance limits under suitable meteorological conditions (see Table 2).

Table 2. Summary of Single Corrected Measured Levels (SCML).

	Number of days monitored	Number of SCML readings (compliance & other)	Marginal SCML (limit + 5dB during the day)	SCML 5dB over the limit	SCML readings in Suitable Met	SCML over (in suitable met)
January	3	3	0	0	2	0
February	0	0	0	0	0	0
March	3	8	0	0	5	0
Total	6	11	0	0	7	0

One Mean Corrected Noise Level (MCNL) assessment was undertaken during the quarter and was within consent limits. MCNL assessments are derived from the quarterly daytime operational mine and mill noise measurements.

Table 3. Summary of Mean Corrected Noise Levels (MCNL).

	Total MCNL calculations	Marginal MCNL	MCNL 5 dB over the limit	MCNL in suitable met*	MCNL over limit in suitable met
January	0	0	0	0	0
February	0	0	0	0	0
March	1	0	0	0	0
Total	1	0	0	0	0

* All SCML readings that contribute to the MCNL reading must be in suitable met

4.1.2. Wind

As shown in Table 4, 81.8% (9/11) of the measurements made in the reporting period were in suitable wind conditions (<3m/s at the weather station). 100% (3/3) of the measurements made in the reporting period were in suitable wind conditions at the receiver, under 3m/s on average over the time monitored, using a handheld kestrel. (This total number is lower than the total number of measurements taken This total is lower due to some monitoring being unattended).

63.6% (7/11) of the measurements made in the reporting period had suitable met scores of 4 or 5. Adverse wind conditions can influence suitable met assessments, as well as other factors including wind direction, solar radiation, and cloud cover. While it is the general prevailing wind condition as measured at the weather station that primarily affects noise propagation, measurements may be made under adverse conditions if the wind at the receiver or at street level is generally more favourable for monitoring. Even then, representative noise measurements of mining activities are not always possible due to wind noise.

There were no occasions where a period of high wind strength above 5 m/s was experienced during the monitoring period.

Table 4. Meteorological conditions of noise assessments during the reporting period

	Monitoring occasions with average windspeed ≤ 3 m/s		Monitoring occasions with suitable met
	Receiver	Weather Station	
January	2/2	1/3	2/3
February	-	-	-
March	1/1	8/8	5/8
Total	3/3*	9/11	7/11

*Unattended monitoring does not include wind readings at the receiver location; therefore, the total number of records with wind data is less than the total number of noise checks

4.2. Waihi North Project

4.2.1. Summary of Noise and Compliance

A summary of monitoring activity for noise associated with the Waihi North Project during the reporting period is shown in Table 5 and 6. These measurements include all weekly compliance Construction readings and weekly compliance Services Trench readings for the project, as well as all other checks completed over the quarter.

Of the thirty-seven noise measurements undertaken during the reporting period, one mine-dominated Single Corrected Measured Level (SCML) reading exceeded the applicable compliance limits under suitable meteorological conditions (see Table 5). This exceedance was associated with construction noise from overnight bridge-raising works for the Services Trench project. This was the final night that this activity was undertaken, and all other measurements recorded during the same night were within the applicable limits. The applicable limit was an LAeq of 45 dB, and the measured level was LAeq 45.6 dB. The dominant noise sources were bridge construction activities and crickets, with additional background noise from general construction activity, voices, and intermittent passing traffic. No noise complaints were received in relation to this event.

Table 5. Summary of Single Corrected Measured Levels (SCML).

	Number of days monitored	Number of SCML readings (compliance & other)	Marginal SCML (limit + 5dB during the day)	SCML 5dB over the limit	SCML readings in Suitable Met	SCML over (in suitable met)
January	3	3	0	0	1	0
February	8	9	0	0	5	0
March	8	25	0	1	19	1
Total	19	37	0	1	25	1

4.2.2. Wind

As shown in Table 6, 83.7% (31/37) of the measurements made in the reporting period were in suitable wind conditions (<3m/s at the weather station). 100% (14/14) of the measurements made in the reporting period were in suitable wind conditions at the receiver, under 3m/s on average over the time monitored, using a handheld kestrel. (This total number is lower than the total number of measurements taken. This total is lower due to some monitoring being unattended).

67.6% (25/37) of the measurements made in the reporting period had suitable met scores of 4 or 5. Adverse wind conditions can influence suitable met assessments, as well as other factors including wind direction, solar radiation, and cloud cover. While it is the general prevailing wind condition as measured at the weather station that primarily affects noise propagation, measurements may be made under adverse conditions if the wind at the receiver or at street level is generally more favourable for monitoring. Even then, representative noise measurements of mining activities are not always possible due to wind noise.

There were three occasions during the monitoring period where wind speeds exceeded 5 m/s. On two of these occasions, wind speeds of 6.8 m/s and 7.6 m/s were recorded at the weather station during unattended overnight monitoring. As monitoring was unattended, no wind measurements were obtained at the receiver location. The dominant noises recorded during these periods were wind and cicadas. On the third occasion, a wind speed of 6.8 m/s was recorded at the weather station, while a wind speed of 2.6 m/s was measured at the receiver. The dominant noises recorded during this period were wind and vegetation (trees).

These wind speeds were sourced from the Kenny Street weather station, as the Willows Road weather station had not yet been installed. Consequently, the recorded weather station data may not accurately represent wind conditions at the monitoring locations, which likely explains the variation between weather station and handheld receiver measurements.

Table 6. Meteorological conditions of noise assessments during the reporting period

	Monitoring occasions with average windspeed \leq 3 m/s		Monitoring occasions with suitable met
	Receiver	Weather Station	
January	3/3	2/3	1/3
February	6/6	6/9	5/9
March	5/5	23/25	19/25
Total	14/14*	31/37	25/37

*Unattended monitoring does not include wind readings at the receiver location; therefore, the total number of records with wind data is less than the total number of noise checks

5. Site Activities and Associated Noise

5.1. Processing and Underground Operations

Processing and underground mining operations continued as usual during the quarter. Seven compliance measurements were made of activities at the processing plant and surface-related activities supporting underground operations; all were compliant with noise limits. Noise levels ranged between 44.9dB and 53.8dB (MCNL 53.1dB), with cicadas, crickets, birds and mill machinery being the dominant noises.

Extra generators were in use on site this quarter and may have contributed to elevated noise levels. To assess compliance, two noise checks were undertaken under these conditions. Measured levels were 48.0 dB during the day and 35.1 dB at night, with both results compliant with the applicable limits.

One complaint was lodged about blasting noise; this is explained in section 6.

5.2. Exploration & Other Drilling

Exploration drilling during the quarter continued underground. Local surface drilling occurred at the Willows Road site for geotechnical and hydrogeological investigations.

5.3. Martha Pit

In-pit stockpiling of waste rock from underground has continued during the quarter when material is not being used for backfilling underground. No significant surface-related works were conducted in the Martha Pit, with only essential maintenance (drainage, weed control, and security) and low-impact geotechnical monitoring being undertaken.

5.4. TSF Construction

Construction at the TSFs continued during the first quarter of the year. The current project involves a crest raise at TSF1a. As a result, noise monitoring is carried out on public roads closest to the southwest and southeast of the development site. One noise monitoring check was undertaken during construction activities on the crest. The result was compliant with the noise limit of 55 dB, with a recorded level of 46.8 dB. At the time, cicadas and birds were the dominant sources of noise.

One complaint and a follow up investigation was made about TSF construction noise; this is explained in section 6.

5.5. Services Trench

Services trench works continued during the first quarter. In accordance with consent conditions, weekly noise monitoring was undertaken throughout the operational period. Measurements were taken at various locations, depending on where active works were occurring at the time. All recorded noise levels were compliant with the relevant limits other than the one explained in section 4.2.1. The levels measured ranged between 36.6dB and 69.9dB, with construction (including but not limited to diggers, directional drills, water carts, pumps, and motors), cicadas, birds, traffic, and wind being the dominant noises.

5.6. Waihi North Project Construction

Construction activities for the Waihi North Project (WNP) began in the first quarter of the year. To meet consent requirements, noise monitoring was carried out on a weekly basis while works were underway. Monitoring locations varied and were selected based on the areas where construction activities were taking place at the time. All measured noise levels complied with the applicable limits. Recorded levels ranged from 33.3 dB to 65.8 dB. The primary noise sources identified during monitoring included cicadas, crickets, wind, birds, construction machinery, and helicopters. One noise complaint relating to WNP construction was received and is discussed further in Section 6.

6. Complaints

There were five complaints received during this reporting period from four different complainants (Figure 1). Although Figure 1 indicates five complainants, the same individual lodged complaints in two separate months.

In February and March, two complaints were received from separate individuals relating to helicopter noise. One complaint was investigated and determined to be unrelated to mining activities. The other was followed up and identified as being associated with a helicopter removing directional drilling cuttings from the Willows Road site. The complainant was informed of the nature of the activity and advised that they would be notified if similar activities were to occur again.

The remaining three complaints were received in March. One complaint related to beeping from machinery on the tailings storage facility. Site staff were notified, and when a follow-up noise reading was undertaken, the beeping noise was no longer present. The recorded noise level at the time was 46.4 dB, with TSF machinery and birds identified as the dominant noise sources. Another complaint concerned a blast that was perceived as being particularly close and of long duration at the complainant’s residence. No blast activity was recorded on nearby vibration monitoring equipment at the time. The complaint was logged and reported to management. The final complaint related to Waihi North Project construction noise at Willows Farm. Noise monitoring undertaken at the property showed all recorded levels were compliant with the applicable noise limits.

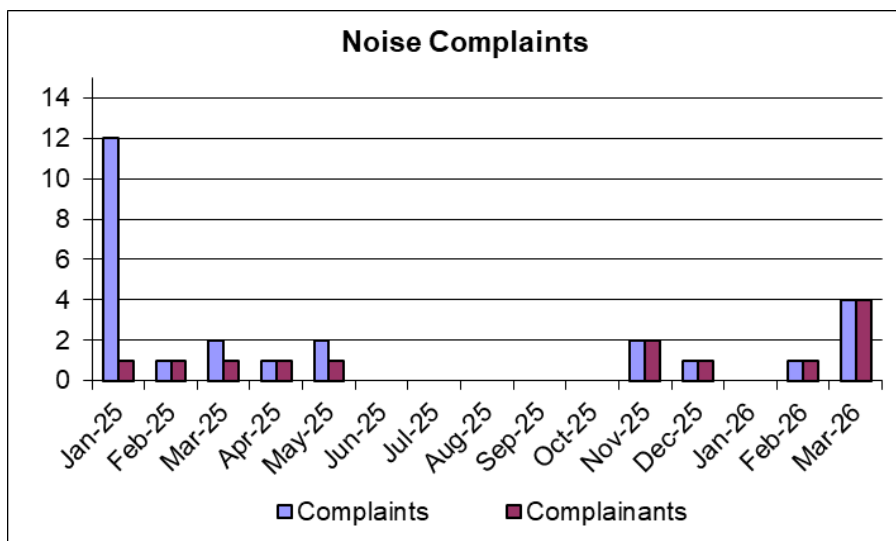


Figure 1. Noise complaint history

7. Mitigation

7.1. Mine & Exploration

Commitment to the management and mitigation of mine noise was sustained during the reporting period. In accordance with the Noise Management Plan (noise mitigation), no yellow or red assessments were determined during the quarter.

7.2. Services Trench

In accordance with Condition 11 of the consent, monitoring was undertaken to determine whether temporary noise barriers were required at the specified addresses to achieve the noise limits. During this quarter, works that occurred within 100 metres of the identified dwellings had temporary noise barriers installed to achieve the noise limits. Any other barriers erected at other locations were a proactive measure taken by the construction team to reduce noise.

7.3. WNP Construction

Commitment to the management and mitigation of construction noise was sustained during the reporting period. In accordance with the Construction Noise Management Plan (noise mitigation), no yellow or red assessments were determined during the quarter.