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# Memorandum

**To:** Todd Powell, Director, Mineral Resources, Energy, Mines and Resources

**From:** Hecla Yukon.

**CC:** Keno City Residents

**Date:** Nov 1, 2022

**Re:** 2022 Q3 Noise Monitoring Report

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## INTRODUCTION

This report summarizes noise monitoring levels recorded during the third quarter of 2022 within Keno City, in accordance with the Keno Hill Silver District Mining Operations (KHSD) Noise Monitoring Management Plan (October 2021).

Addressing potential noise effects on community wellbeing is of key importance given the location of the KHSD Mine Operations to Keno City. Hecla Yukon Keno Hill monitors noise levels within the community at various locations to assess noise levels to monitor the effectiveness of noise mitigation measures. These locations are shown in Figure 1.

Noise within the 20-60 dBA range is considered acceptable for daytime noise limits. A permissible sound level (PSL) of 40 decibels energy level equivalent (dBA Leq) 1,2 has been established from a noise impact assessment (NIA). Hecla Yukon uses a maximum NIA threshold of 39 Db to determine if noise is excessive and may cause issues for residents in the area. The company has also set up a system for recording noise complaints filed by area residents.

## RESULTS

The data used to evaluate noise during the third quarter of 2022 was collected between July 1st and September 7th. There were 27 days in this period when data was collected. The maximum dB that occurred in July was 34.4, August's maximum was 7.8, and September's maximum was 7.7. Table 1 outlines the data recorded for the maximum dB recorded during the quarter at each location. An error occurred where no data

was collected from location R01, which has been corrected for next quarter. There were no dates where the 39dB threshold was exceeded.

**Table 1: Concentrations Summary for 2022 Q3 (24-hour)**

Location	R01	R02	R03	R04	R05	Campground
Maximum dBA	N/A	30.9	31.1	30.9	34.4	32.5
Date	N/A	7/12/2022	7/2/2022	7/7/2022	7/14/2022	7/9/2022
Time	N/A	19:07:26	17:19:53	17:00:11	21:19:00	20:43:55

## CONCLUSION

The data collected during the third quarter of 2022 shows noise from Hecla Yukon Keno Hill did not exceed the threshold warranting a change in operations for noise reduction. The company will continue noise monitoring throughout the year.

## REFERENCES

AKHM (Alexco Keno Hill Mining Corp.). (2021). *Keno Hill Silver District Mining Operations, Noise Monitoring and Management Plan, October 2021.*

PAAE (Patching Associates Acoustical Engineering Ltd.). (2014). *Noise Impact Assessment Update, Alexco Keno Hill Mining Corp., Proposed Flame and Moth Mine Project, Yukon Territory. Prepared for Yukon Environmental and Socio-Economic Assessment Board (YESAB), September 23, 2014.*





Satellite imagery obtained from Yukon Geomatics map service <http://mapservices.gov.yk.ca/ArcGIS/services> on February 2020

Datum: NAD 83; Projection: UTM Zone 8N


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1:6,000 (when printed on 11 x17 inch paper)


0 50 100 150 200 250 Meters


 Noise Monitoring Station


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 Current DSTF

 Pond

 Mine Feature Footprint

 Watercourse

 Silver Trail Highway

 Secondary Road



Hecla Yukon Keno Hill

FIGURE 1  
NOISE MONITORING STATIONS

October 2022

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(Last edited by: amattashevska, 2020-02-21/13:32 PM)