

# Appendix 23: 2021 Noise Monitoring Report



**AGNICO EAGLE**

**MELIADINE GOLD MINE**

# 2021 Noise Monitoring Report

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In Accordance with NIRB Project Certificate No. 006

Prepared by:  
Agnico Eagle Mines Limited – Meliadine Division

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## EXECUTIVE SUMMARY

In accordance with Nunavut Impact Review Board (NIRB) Project Certificate No. 006 (NIRB, 2019), and as described in the Noise Abatement and Monitoring Plan (the Plan), Agnico Eagle Mines Ltd. (Agnico Eagle) monitors outdoor ambient noise levels at the Meliadine site. The objective of the noise monitoring program is to measure noise levels at three or four previously determined monitoring locations over at least two 24 h periods. Results are compared to the Final Environmental Impact Statement (FEIS, Golder 2014) predictions for the 24-h  $L_{eq}$ , the  $L_{eq}$ -nighttime design target, and the site's noise monitoring criteria (24-h  $L_{eq}$ ).

Since high winds in the area tend to significantly reduce the amount of available data, technicians aim to conduct two or more monitoring events for each station, lasting two to four days each. In 2021, two or three monitoring events were successfully conducted for all stations (NPOR006a, NPOR008, NPOR017a, and NPOR014a).

Following data processing in accordance with standard methods (Alberta Energy Resource Conservation Board Directive 038), sufficient valid data was available for the calculation of at least two 24-h  $L_{eq}$  values for each monitoring station in 2021. Final values are shown in Table 1.

For stations NPOR006a, NPOR014a, and NPOR017a, all monitoring results were below the associated FEIS prediction, noise monitoring criteria, and night-time design target.

For NPOR008, one exceedance of the FEIS prediction (41.7 dBA) and site's noise monitoring criterion (45 dBA) occurred during monitoring event 2 (September 8 - 10), with a measured 24-h  $L_{eq}$  of 45.4 dBA. Elevated sound levels during this event were caused by occasional helicopter flyovers (1-2 per hour, from 5 – 7 am and 5 – 7 pm) causing brief but significant sound peaks. As discussed in previous reports, no mine activity is ongoing in the area of NPOR008 but this location lies on the flight path between the Exploration Camp and the Discovery deposit area. For transparency in reporting, this helicopter-related noise is not filtered out of the dataset. However, it is noted that this traffic is largely related to exploration activities and not mine construction or operations as modeled in the existing Project FEIS, so direct comparison to those predictions is not considered appropriate. Results during monitoring event 1 for this location (in the absence of exploration-related helicopter traffic) provide a more appropriate comparison, and did not exceed predictions or noise monitoring criteria.

To date, no noise-related complaints have been received for the Meliadine site. Based on these findings, no changes to existing noise monitoring plans and mitigation measures are proposed at this time.

**Table 1. Summary of noise monitoring results in 2021. Values exceeding FEIS predictions, criteria and/or design targets are in bold. A dash “-” indicates not applicable. \*Exceedance related to helicopter traffic that is time-limited and/or exploration related (not suitable for comparison to FEIS prediction).**

<b>Location</b>	<b>Monitoring Start</b>	<b>Monitoring End</b>	<i>Noise Monitoring Criterion</i> <i>L<sub>eq</sub>(24 h)</i> <i>(dBA)</i>	<i>FEIS Prediction</i> <i>L<sub>eq</sub>(24 h)</i> <i>(dBA)</i>	<b>Measured</b> <b>L<sub>eq</sub>(24 h)</b> <b>(dBA)</b>	<i>Design Target</i> <i>L<sub>eq</sub> (nighttime)</i> <i>(dBA)</i>	<b>Measured</b> <b>L<sub>eq</sub> (nighttime)</b> <b>(dBA)</b>
NPOR006a	7/17/2021 5:03 PM	7/20/2021 5:25 PM	45	39.8	31.2	-	-
	7/31/2021 11:28 AM	8/03/2021 3:22 PM			37.1		-
NPOR008	7/18/2021 1:59 PM	7/21/2021 3:27 PM	45	41.7	33.0	40	33.3
	9/08/21 10:09 AM	9/10/21 11:59 PM			<b>(45.4*)</b>		34.3
NPOR014a	7/26/2021 1:56 PM	7/29/2021 8:04 AM	45	44.7	41.2	-	-
	8/09/2021 3:06 PM	8/13/2021 1:29 PM			41.0		-
	8/25/2021 10:58 AM	8/28/2021 7:21 AM			40.7		-
NPOR017a	7/21/2021 11:40 AM	7/24/2021 2:36 PM	45	43.4	37.7	-	-
	8/04/2021 8:08 AM	8/08/2021 6:59 AM			39.4		-
	8/29/2021 1:47 PM	9/01/2021 11:59 PM			41.9		-



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## 1 INTRODUCTION

The Meliadine Gold Mine (the Mine) near Rankin Inlet, Nunavut is subject to the terms and conditions of the amended Project Certificate 006 issued by the Nunavut Impact Review Board (NIRB) in accordance with the Nunavut Land Claims Agreement Article 12.5.12 on February 26, 2019 (NIRB, 2019).

In accordance with this Project Certificate, and as described in the Noise Abatement and Monitoring Plan (the Plan), Agnico Eagle Mines Ltd. (Agnico Eagle) began conducting outdoor noise monitoring at the Meliadine site in 2016. The objective of the Plan is to validate predictions of noise levels made in the FEIS, confirm the findings of the noise impact assessment (FEIS Vol. 5 – Atmospheric Environment and Impact Assessment, Golder 2014), and inform the implementation of noise mitigation measures. If noise monitoring confirms excessive Project-associated noise levels exist, the monitoring data will be used to determine where noise abatement requires improvement.

A summary of the noise monitoring program is shown in Table 2, according to the Noise Abatement and Monitoring Plan. Locations NPOR006 and NPOR017 were adjusted at the beginning of 2020 to accommodate COVID-related restrictions (NPOR006a and NPOR017a; discussed in Section 2.1).

**Table 2. Noise monitoring objectives, frequency, duration, and locations.**

Project Phase	Project Objectives	Frequency and Duration of Monitoring	Monitoring Locations
Construction and Operations	<p>To verify that the noise emissions used in the FEIS noise assessment were reasonable, yet conservative.</p> <p>To verify that the mitigation measures considered integral to the Project are incorporated as planned, and are effective.</p>	Two noise surveys per year per station, for a minimum period of 24 h per survey.	<p>FEIS receptor locations:</p> <p>NPOR005 and/or NPOR006 (pre-2020) or NPOR006a (2020+)</p> <p>NPOR008</p> <p>NPOR014 (pre-2020) or NPOR014a (2020+) – <i>when activities associated with the Discovery Pit are occurring.</i></p> <p>NPOR017 (pre-2020) or NPOR017a (2020+)</p>

## 2 METHODS

## 2.1 MONITORING LOCATIONS

In 2021, noise monitoring was conducted at four locations, as required by the Noise Abatement and Monitoring Plan. Very limited activities were ongoing in the Discovery deposit area, but NPOR014a was opportunistically monitored.

The monitoring locations in 2021 are identified in Figure 1, and summarized in Table 3. Photos of the noise monitoring locations are provided in Section 3. These monitoring locations will be reviewed and may be adapted throughout the construction and/or operations phases of the Project, as necessary. Changes will be detailed in subsequent updates to the Noise Abatement and Monitoring Plan.

**Table 3. Noise monitoring locations and conditions for monitoring.**

Location ID	UTM (Zone 15V)	Project Area	Monitoring Conditions	Monitored in 2021?
NPOR006	538286E 6991299N	Mine	Monitor during the entire Construction and Operations Phases, and initial stages of Closure when extensive activities are occurring.	No
NPOR006a	537550E 6991300N	Mine	Adjusted NPOR006 location beginning in 2020 to reduce potential for community interaction due to COVID-19 restrictions.	Yes
NPOR008	543707E 6987276N	Mine	Monitor during the entire Construction and Operations Phases, and initial stages of Closure when extensive activities are occurring.	Yes
NPOR014	549401E 6982060N	Mine	Pre-2020 monitoring location. Monitor only if activities associated with the Discovery deposit are occurring.	No
NPOR014a	548829 E 6982610 N	Mine	Adjusted NPOR014 location for 2020 +. This station has been moved based on community concerns around monitoring near cabin. Monitor only if activities associated with the Discovery deposit are occurring.	Yes
NPOR017	544203E 6970537N	AWAR <sup>1</sup>	Monitor during the entire Construction and Operations Phases, and initial stages of Closure when extensive activities are occurring.	No
NPOR017a	546152E 6971995N	AWAR	Adjusted NPOR017 location beginning in 2020 to reduce potential for community interaction due to COVID-19 restrictions.	Yes
(NPOR005)	537978E 6991742N	Mine	Alternate to NPOR006 if monitoring at that location is not feasible due to high occupancy rates of the adjacent cabin.	No

<sup>1</sup> All Weather Access Road

NPOR006 is located approximately 1 km north of the Mine disturbance area, and approximately 200 m outside the FEIS site study area (SSA). The surrounding terrain is a mix of small rock and lichen. The slope is very minimal towards the SW. Meliadine Lake is approximately 150 m NE and an unnamed small lake is approximately 120 m SSW. The adjacent cabin was in use at the time of the 2017 and 2018 noise surveys, but did not appear to be in use in 2019. In 2020, this monitoring station was moved approximately 700 m to the west to reduce potential for interaction with community members during the COVID-19 pandemic. The new station, NPOR006a, is approximately the same distance from the FEIS SSA boundary as NPOR006 (approximately 200 m north), and is within the same noise isopleth (band of predicted sound levels) in the FEIS noise assessment. Results at this station are therefore compared to the same criteria as applied previously for NPOR006. In 2019, station NPOR005 was identified as an alternate location to NPOR006 in the event of ongoing cabin-related noise, but its use has not been necessary since that time.

Station NPOR008 is located approximately 1.25 km from the SSA, on the east side of the Mine. The surrounding terrain is on the summit of a small vegetated hill with very little apparent rock. Meliadine Lake is approximately 51 m to the NNE. The mine camp is approximately 2 km to the northwest, and the AWAR is approximately 2.5 km to the southwest. No changes have been made to the location of this station since monitoring began in 2016.

Station NPOR014 is located approximately 130 m from a traditionally used ATV trail. This station is at the southern end of Meliadine Lake and is approximately 10 km away from the Meliadine Exploration Camp and 5 km from the Discovery area. It is located within the SSA. Currently there are limited activities in this area, thus monitoring has only been conducted opportunistically, and any measurements at NPOR014 are expected to be indicative of background values. Due to community concerns with the presence of noise monitors at this station that were brought to Agnico Eagle's attention in early 2020, the monitoring location was adjusted in 2021. The new station (NPOR014a) is similarly sited with respect to expected noise emissions from future local activities (e.g. similar distance from the proposed roadway, similar distance from the proposed Discovery Pit).

NPOR017 is located at the southern end of the AWAR. It is approximately 150 m SE of the road. No SSA was assessed for the AWAR. Since this station is located outside (south) of the AWAR gatehouse and could not be accessed in 2020 due to COVID-19 restrictions, monitoring was conducted at new station NPOR017a which is approximately 2 km further north along the AWAR. This site was again assessed in 2021. Station NPOR017a is sited at the same distance from the AWAR (150 m SE), which is the dominant noise source of interest for this station. Topography in both locations is similarly flat, and results for station NPOR017a are suitable for comparison to criteria and FEIS predictions previously applied to NPOR017.



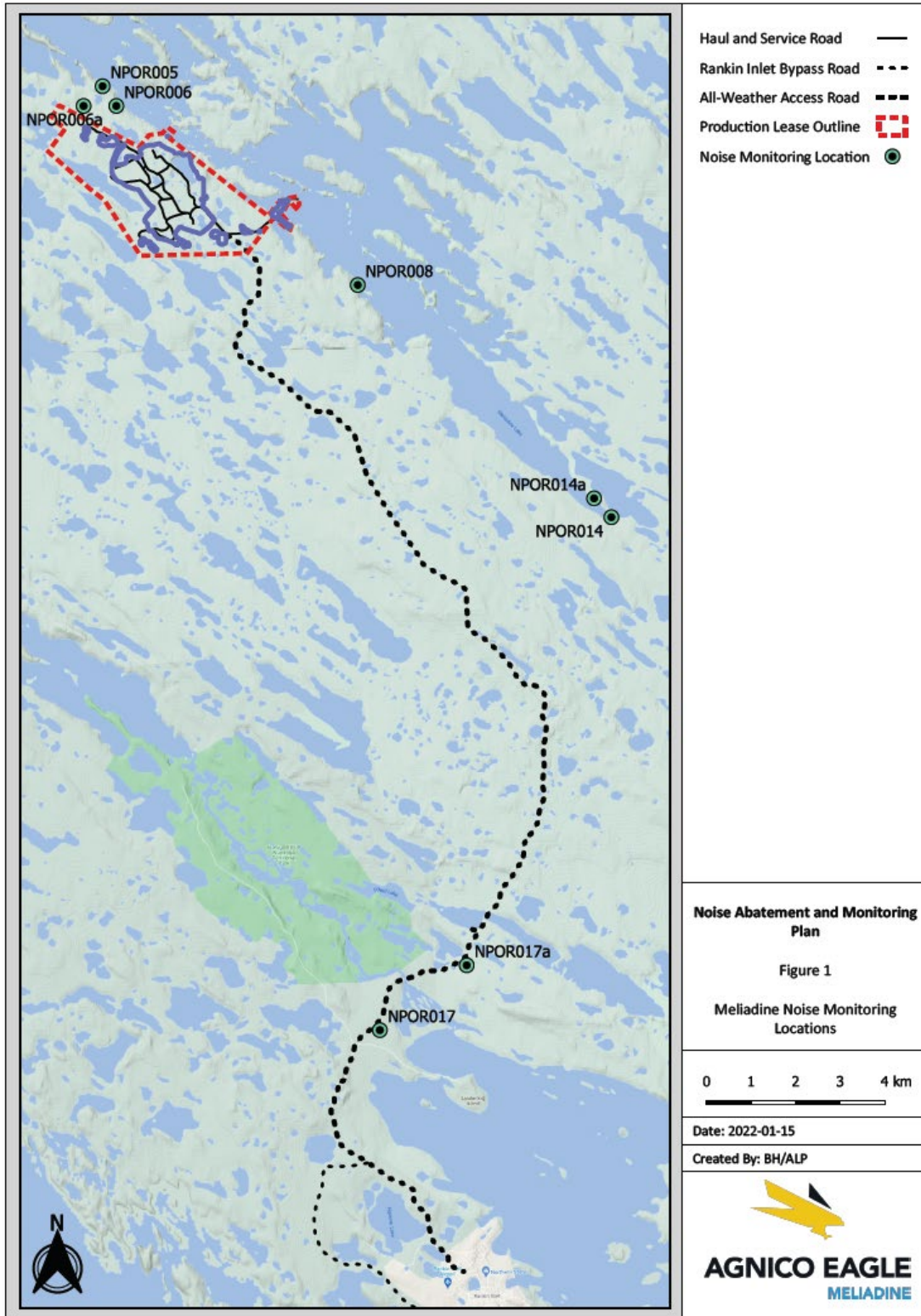


Figure 1. Noise monitoring stations for the Meliadine site. Monitoring was conducted at NPOR006a, NPOR008, NPOR014a, and NPOR017 in 2021.

## 2.2 MONITORING DATES

In accordance with the Noise Abatement and Monitoring Plan, two or more 24-h+ noise surveys were conducted for each location. Surveys were planned to last a minimum of 48 h, since a significant portion of data has historically been filtered out due to sub-optimal weather conditions (see Section 2.4). Monitoring dates and times for each survey are provided in Table 4.

**Table 4. Noise monitoring dates in 2021, and total duration of the survey based on recorded data.**

Location	Monitoring Start	Monitoring End	Duration (h)
NPOR006a	7/17/2021 5:03 PM	7/20/2021 5:25 PM	72
	7/31/2021 11:28 AM	8/03/2021 3:22 PM	76
NPOR008	7/18/2021 1:59 PM	7/21/2021 3:27 PM	74
	9/08/21 10:09 AM	9/10/21 11:59 PM	61
NPOR014a	7/26/2021 1:56 PM	7/29/2021 8:04 AM	67
	8/09/2021 3:06 PM	8/13/2021 1:29 PM	95
	8/25/2021 10:58 AM	8/28/2021 7:21 AM	69
NPOR017a	7/21/2021 11:40 AM	7/24/2021 2:36 PM	75
	8/04/2021 8:08 AM	8/08/2021 6:59 AM	94
	8/29/2021 1:47 PM	9/01/2021 11:59 PM	82

## 2.3 SOUND LEVEL METER

For all stations a Bruel and Kjaer Model 2250 integrating sound level meter with outdoor microphone type 4952 was used to conduct the noise survey. In 2019, a second sound level meter was purchased to facilitate the noise monitoring program. Historically, a secondary windscreen was used for all measurements. This equipment was not available for purchase with the second sound level meter, therefore beginning of 2020, the secondary wind screen was only used for some monitoring events. Wind screens do not alter final noise measurements, but rather reduce the quantity of data that is ultimately filtered out due to wind-induced interference, thus data collected with and without the screen is considered comparable.

The noise logging rate was set at one-minute intervals, and according to the Noise Abatement and Monitoring Plan, logged parameters included:

- Integrated equivalent A-weighted sound level ( $L_{Aeq}$ );
- 1/3 octave band sound levels in decibels (dB);
- Statistical data ( $L_{10}$ ,  $L_{90}$ );
- Maximum sound level ( $L_{max}$ ) in dBA; and
- Minimum sound level ( $L_{min}$ ) in dBA.

Calibration of the instrument was performed before and after each monitoring event using a Bruel and Kjaer Type 4231 Calibrator, to ensure variance was within 0.5 dB (see field notes, Appendix A). Estimated uncertainty, over a yearly time period for the calibrator is +/- 0.12 dB at a 99% confidence level.

According to the Plan, professional calibration of the instruments is performed every year (calibrator and microphone) or every two years (sound level meter). A record of professional calibration is provided in Table 5.

**Table 5. Professional calibration record for noise monitoring instruments (calibration for each microphone includes the field calibrator). P = purchase date. ✓ = professional calibration. Meter 1 was purchased in 2016.**

Year	B&K Sound Level Meter 1	B&K Microphone 1	B&K Sound Level Meter 2	B&K Microphone 2
2019			P	
2020		✓		✓
2021	✓	✓	✓	✓

## 2.4 WEATHER DATA

Weather data for the noise monitoring periods was collected using the Mine’s permanent weather station. Hourly data for wind, temperature, and precipitation were available from this station.

In the case of noise monitoring for complaint situations, the Alberta Energy Resource Conservation Board Directive 038 (Directive 038) requires noise data to be collected under appropriate weather conditions, which are represented by an absence of steady precipitation, snow, water, or ice ground cover, as well as restrictions on wind speed. To adhere as much as possible to these conditions, noise data was initially filtered out from analyses when wind speed exceeded 15 km/h. Average wind speed values were used, since filtering based on maximum values has historically resulted in exclusion of nearly the entire noise dataset. This approach is considered conservative, since higher winds are likely to result in increased noise levels due to wind effects. Data was further filtered on the basis of recorded and audible precipitation as necessary during the secondary filtering stage (see Section 2.6.1), to preserve available data as much as



possible. This approach was considered acceptable since no noise-related complaints were under investigation (none have been received to date). Weather data for the monitoring periods (wind speed, wind direction, temperature, relative humidity) are provided in Appendix B.

## 2.5 FIELD NOTES

A pocket weather meter (WeatherHawk® WindMate™, WM-300) was used by field staff to record wind speed, direction, and temperature at the beginning and end of each monitoring period. Other observations included precipitation, cloud cover, and observed noises during instrument set-up and takedown. All field notes are provided in Appendix A.

## 2.6 DATA ANALYSIS

Recorded sound levels were downloaded for assessment using the Bruel and Kjaer 5503 Measurement Suite software, with some calculations performed using Microsoft Excel. Recorded one-minute  $L_{Aeq}$  values were used to calculate hourly equivalent energy noise levels ( $L_{eq, 1h}$ ) for further processing.

### 2.6.1 DATA FILTERING

#### 2.6.1.1 Initial Filtering

All datapoints associated with the first and last hour of measurement were filtered out to remove noise from technician activity, and to ensure more than 30 min of data contributed to hourly averages. Data was also filtered on the basis of hourly recorded wind conditions to comply with Directive 038 (see Section 2.4). After this initial data filtering, valid hourly  $L_{eq}$  values for each monitoring period were used to calculate average 24-h equivalent energy noise levels ( $L_{eq, 24h}$ ). When a data point ( $L_{eq, 1h}$ ) was available from more than one day within a monitoring period, values were energy-averaged across calendar days to ensure time points contributed equally to 24-h  $L_{eq}$  values. All calculated hourly  $L_{eq}$  values are provided in Appendix B.

#### 2.6.1.2 Secondary Filtering

When calculated 24-h  $L_{eq}$  values exceeded FEIS predictions or noise criteria (see Section 3.6.2, below), data and sound recordings were further reviewed to identify and if appropriate, remove noise data dominated by background noise sources unrelated to mine activity, and causing recorded  $L_{eq}$  values in excess of FEIS predictions or noise criteria (e.g. wind, rain, ongoing animal disturbance in close proximity to the microphone, direct human interference). These noise sources were assumed to be minimal in the FEIS process, since a background sound level of 35 dBA was used. Episodes of human and/or animal interference were identified through review of sound recordings. When interference was minimal (<30 min in an hour), 1-min  $L_{eq}$  values were filtered out and hourly  $L_{eq}$  values re-calculated. When period of extended animal interference occurred (>30 min in an hour), the 1-h  $L_{eq}$  was filtered out. Periods of rain were identified through review of recorded weather data and sound recordings, and hourly  $L_{eq}$  values were filtered out when audible and/or recorded precipitation occurred. Extended periods of local elevated wind gusts were identified through review of sound recordings and calculated L90 values, which are typically assumed representative of background sound levels. When hourly L90 values exceeded 35 dBA, and review of sound recordings did not identify audible mine-related noise, this data was filtered out. The 1-h  $L_{eq}$  values excluded on the basis of this secondary filtering step are indicated in Appendix B.

After this second data filtering, night-time and 24-h  $L_{eq}$  values were re-calculated. Final  $L_{eq}$  values are reported for monitoring events with more than 180 valid minutes available from each of the daytime and nighttime periods. In 2021, sufficient valid data was available for all monitoring periods after filtering.

## 2.6.2 NOISE MONITORING CRITERIA

Final  $L_{eq}$  values were compared to FEIS predictions and the site's noise monitoring criteria (see Table 6).

As indicated in the Noise Abatement and Monitoring Plan, night-time (11 pm – 7 am)  $L_{eq}$  values were also calculated, and are compared with the design target of 40 dBA for sites NPOR005 and NPOR008, for reference only. It should be noted that this target was designed to apply at a distance of 1.5 km from the SSA in remote areas. NPOR005 and NPOR008 are located approximately 1.2 km from the SSA, so exceedances of this target value may occur at the monitoring stations without exceeding the design target at the 1.5 km distance. If concerns arise regarding nighttime sound levels around the Mine, one or more stations may be added or moved in future monitoring events to coincide with this design target location to more precisely assess FEIS predictions. The other Mine monitoring stations (NPOR006a, NPOR014a) are located significantly closer to or within the SSA, so comparison to the nighttime design target is not considered appropriate. Similarly, no SSA was assessed for AWAR locations in the FEIS, so results at NPOR017a are not compared to the nighttime design target.

**Table 6. FEIS predictions for 24-h equivalent sound levels, FEIS design targets for 1.5 km from the site study area perimeter, and noise monitoring criteria from the Noise Abatement and Monitoring Plan.**

Location	FEIS Prediction $L_{eq-24h}$ (dBA)	FEIS Design Target (1.5 km from SSA) $L_{eq-nighttime}$ (dBA)	Noise Monitoring Criteria $L_{eq-24h}$ (dBA)
(NPOR005)*	36.3	40	45
NPOR006/6a	39.8	-	45
NPOR008	41.7	40	45
NPOR014/14a	44.7	-	45
NPOR017/17a	43.4	-	45

\*Station NPOR005 is an alternate to NPOR006, and was not required to be monitored in 2021.

## 3 RESULTS

24-h and night-time  $L_{eq}$  values are presented and reviewed below, for comparison to criteria in Section 2.6.2. All 1-h  $L_{eq}$  values are provided in Appendix B.

### 3.1 NPOR006A

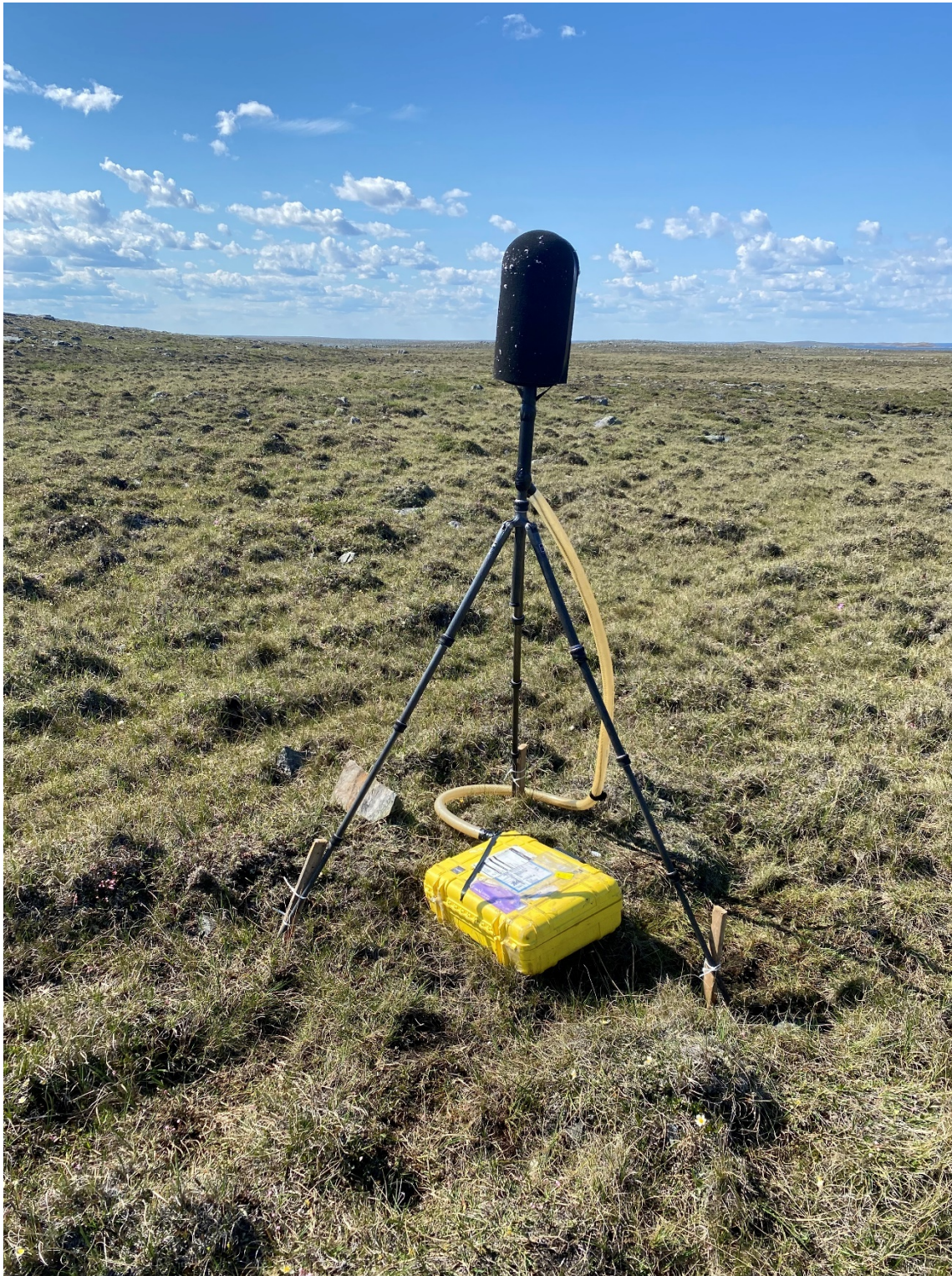
Recorded 1-min  $L_{eq}$  values for monitoring events 1 and 2 at NPOR006a are shown in Figures 3 and 4. For event 1 at station NPOR006a (July 17 - 20), 72 h of monitoring were conducted, and 15 h of valid data were available after filtering. For event 2 at NPOR006a (July 31 – August 3), 76 h of monitoring were conducted, and 12 h of valid data were available after filtering.

Noise sources noted in the field log for this location in 2021 include possibility for human activities from the nearby cabin (approximately 600 m), and animal sounds (birds).

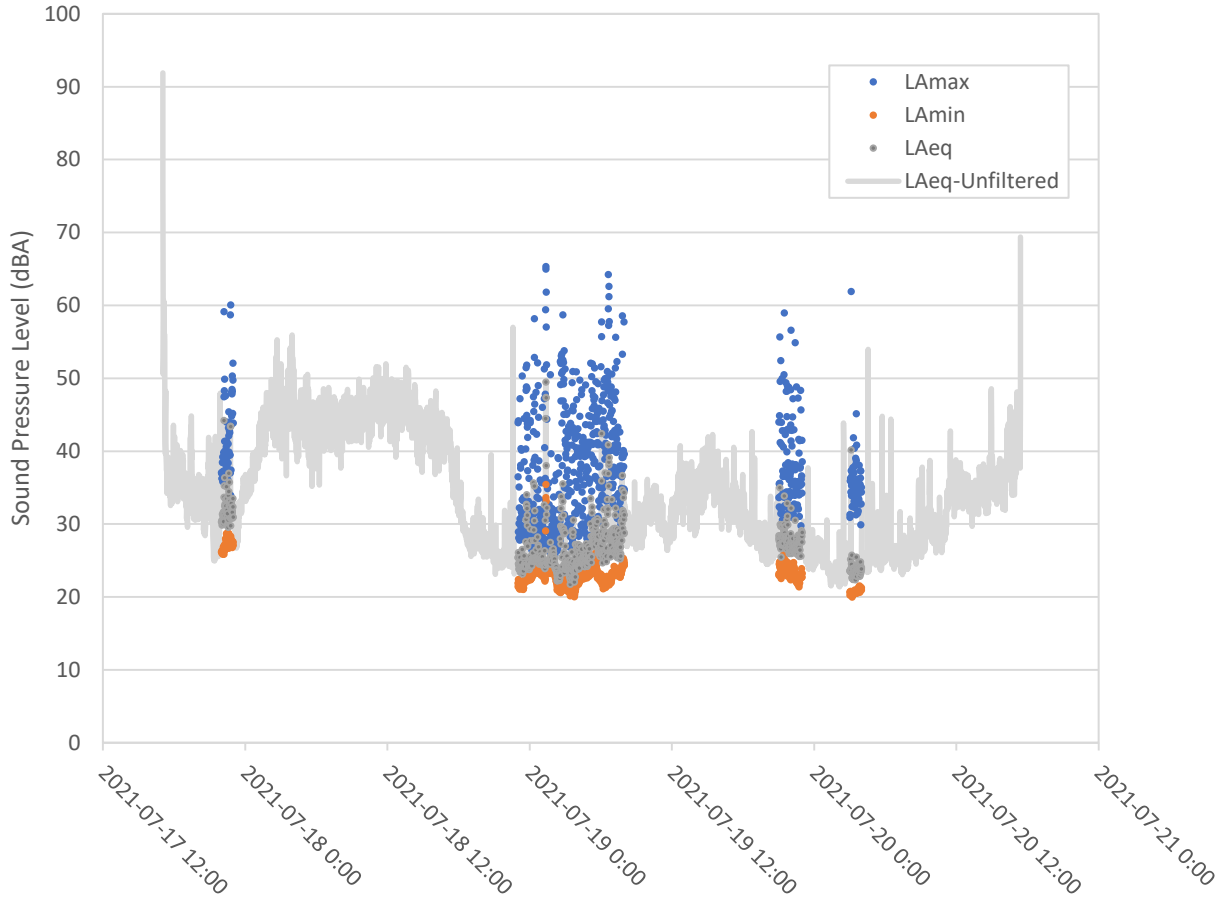
For event 1, the 24-h  $L_{eq}$  value was below the FEIS prediction after the primary filtering, so sound recordings were not required to be reviewed. Review of the data and sound recordings for event 2 indicated that elevated recordings were generally caused by local wind gusts or rain, so these time points were removed during the secondary filtering step.

After data filtering, the calculated 24-h  $L_{eq}$  value for event 1 was 31.2 dBA, and for event 2, the 24-h  $L_{eq}$  value was 37.1 dBA, which are both below the FEIS prediction (39.8 dBA) and noise monitoring criterion (45 dBA).





**Figure 2. Noise monitoring location NPOR006a (July 17, 2021).**



**Figure 3. 1-min L<sub>max</sub>, L<sub>min</sub>, and L<sub>eq</sub> values recorded at site NPOR006a during monitoring event 1.**



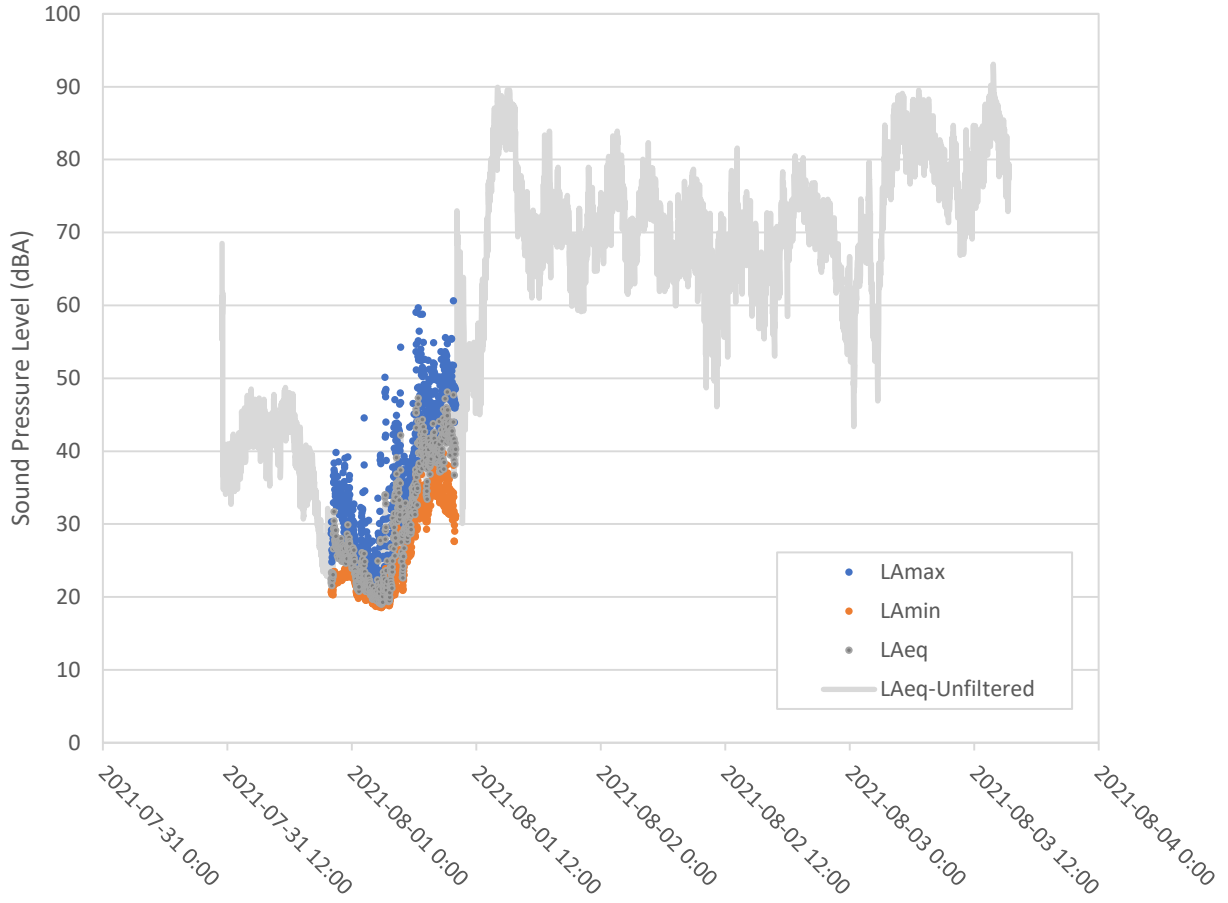


Figure 4. 1-min  $L_{max}$ ,  $L_{min}$ , and  $L_{eq}$  values recorded at site NPOR006a during monitoring event 2.

### 3.2 NPOR008

Recorded 1-min  $L_{eq}$  values for monitoring events 1 and 2 at NPOR008 are shown in Figures 6 and 7. For monitoring event 1 at this station (July 18 - 21), 74 h of monitoring were conducted, and 16 h of valid data were available after filtering. For monitoring event 2 (September 8 - 10), 62 h of monitoring were conducted, and 43 h of valid data were available after filtering.

Possible noise sources noted in the field log at this location include helicopters and wildlife (birds, ground squirrels).

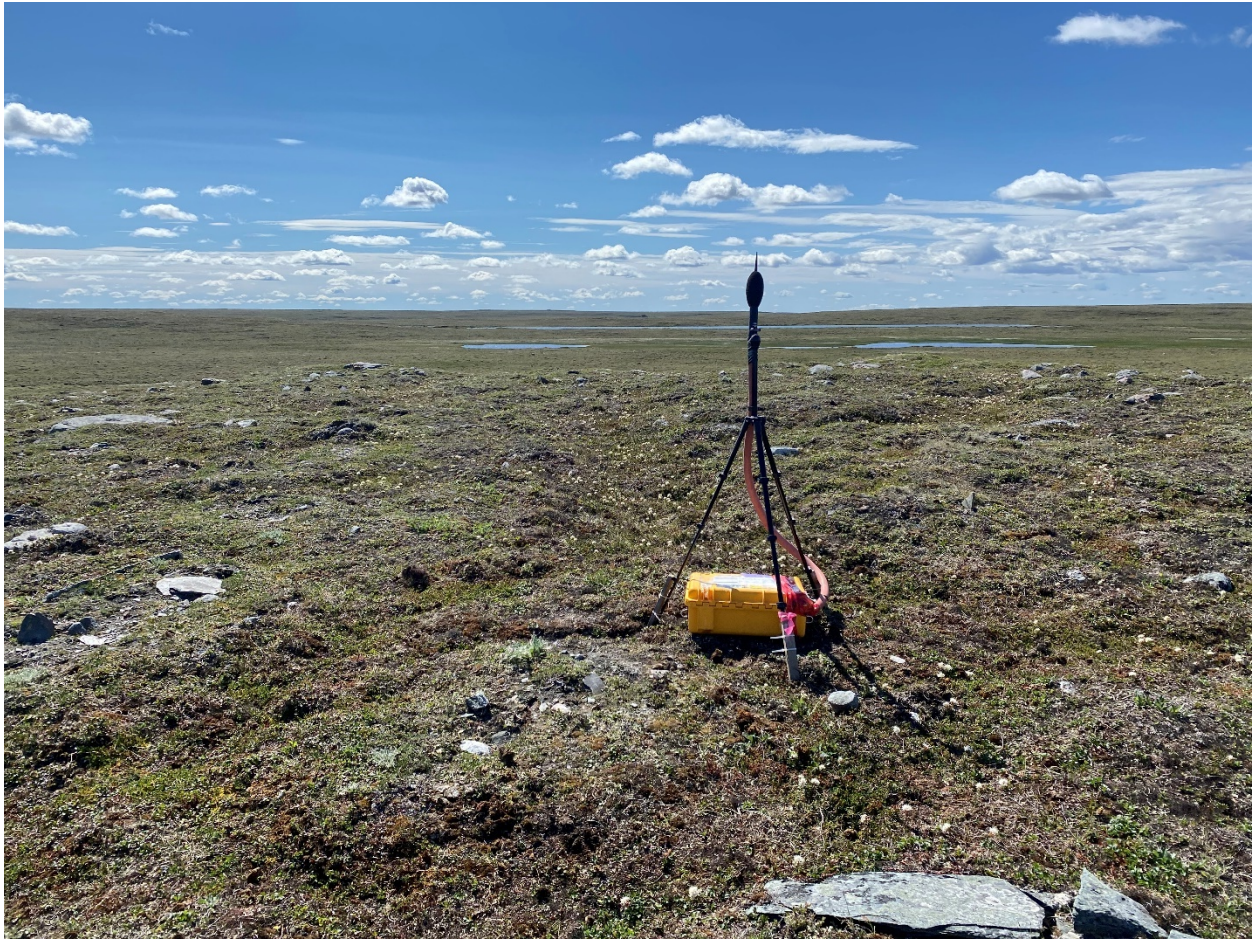
For event 1, the 24-h  $L_{eq}$  value was below the FEIS prediction after the primary filtering, thus sound recordings were not required to be reviewed. For event 2, sound files were reviewed to determine the cause of noise peaks. Two hours of data were filtered out due to rain, and 5 min were filtered out due to animal interference (bird calls). Remaining noise peaks were mine-related (helicopter flyovers) and not filtered out but are discussed further below.

After all data filtering, the calculated 24-h  $L_{eq}$  values for events 1 and 2 were 33.0 dBA and 45.4 dBA, respectively. The measured value for event 1 does not exceed the FEIS prediction of 41.7 dBA, or the noise monitoring criterion (45 dBA), however the measured value for event 2 exceeds both the prediction and the criterion.

The night-time  $L_{eq}$  values for events 1 and 2 were 33.3 dBA and 34.3 dBA, which do not exceed the design target of 40 dBA for 1.5 km from the mine SSA.

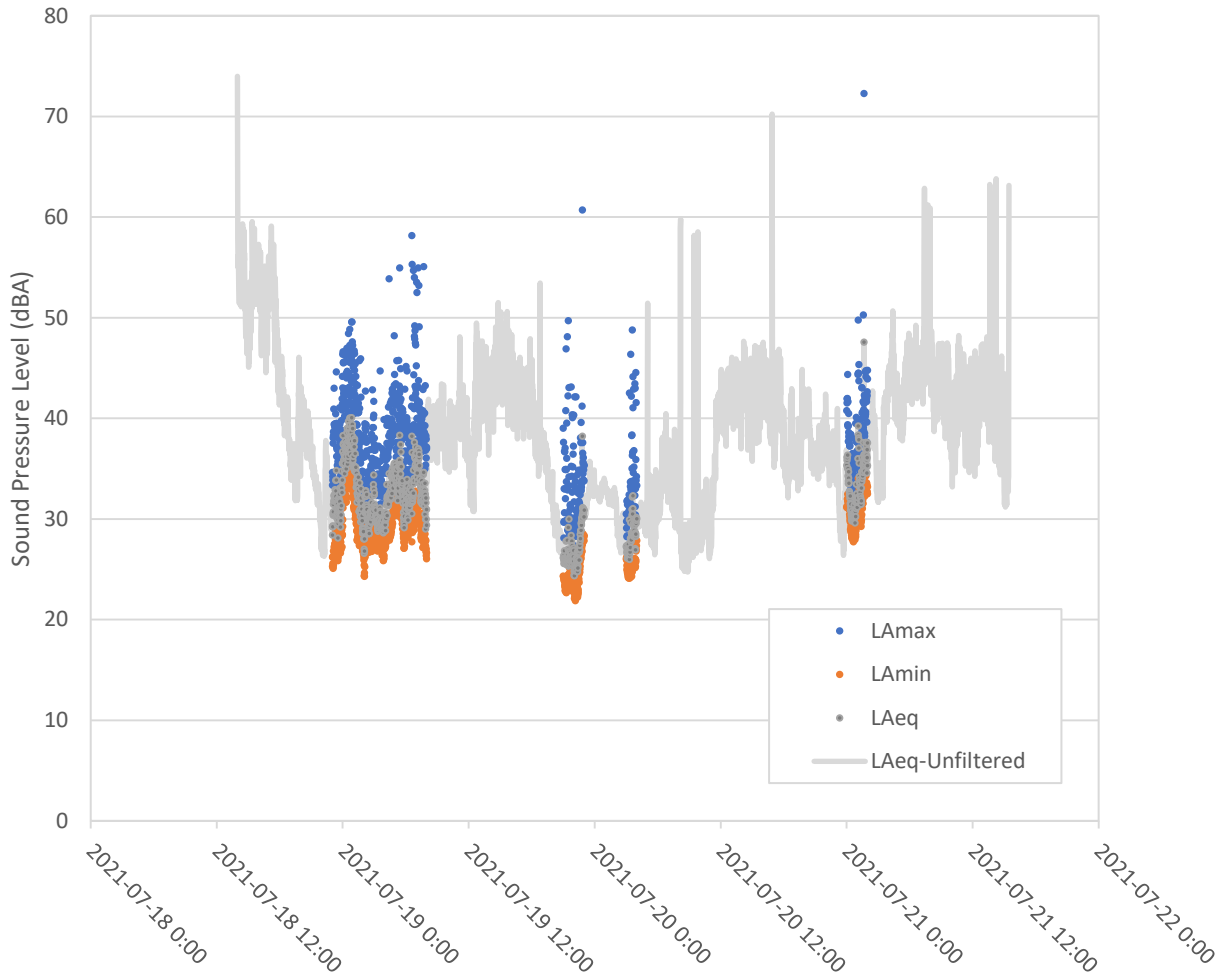
For event 2, review of the data and sound recordings indicated that the observed exceedances were caused by occasional helicopter fly-overs. Each flyover event tended to cause increased noise levels up to 70 dBA for 1-2 minutes, and occurred 1-2 times per hour between 5 – 7 am and 5 – 7 pm. As discussed in previous reports, this station is located under the flight path for helicopters between the Exploration Camp and the Discovery deposit area, and has seen increased air traffic since 2020. In 2020, helicopter activities related to a specific activity (fuel tank recovery) occurred during one monitoring event, and in 2021 elevated noise levels during the September monitoring event were a result of helicopter fly-overs for exploration and/or limited pre-construction activities in the Discovery area. Since these activities are not expected to be ongoing occurrences year-round (helicopters generally fly June through September) and/or are related to exploration (excluded from FEIS modeling), direct comparison of these results to FEIS predictions is not considered appropriate. Results during monitoring event 1 for this location (in the absence of helicopter traffic) provide a better comparison, and did not exceed predictions or noise monitoring criteria.

Noise monitoring for NPOR008 will proceed as planned in 2022 and results reviewed in this context.

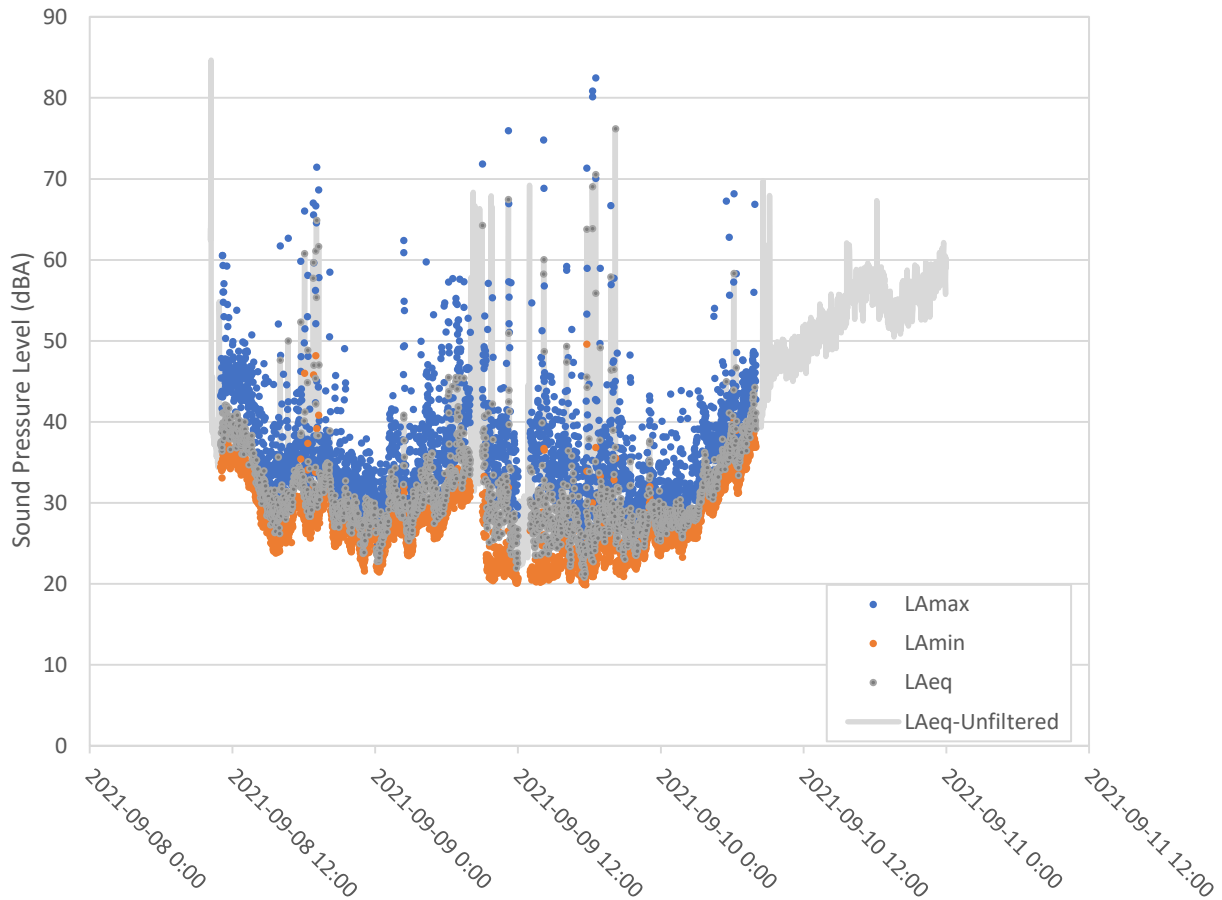


**Figure 5. Noise monitoring location NPOR008 (July 18, 2021).**





**Figure 6. 1-min L<sub>max</sub>, L<sub>min</sub>, and L<sub>eq</sub> values recorded at site NPOR008 during monitoring event 1.**



**Figure 7. 1-min  $L_{max}$ ,  $L_{min}$ , and  $L_{eq}$  values recorded at site NPOR008 during monitoring event 2.**

### 3.3 NPOR014A

No construction or operational activity is currently occurring in the area of NPOR014a, but monitoring was conducted in 2021 opportunistically. Results are assumed representative of background sound levels.

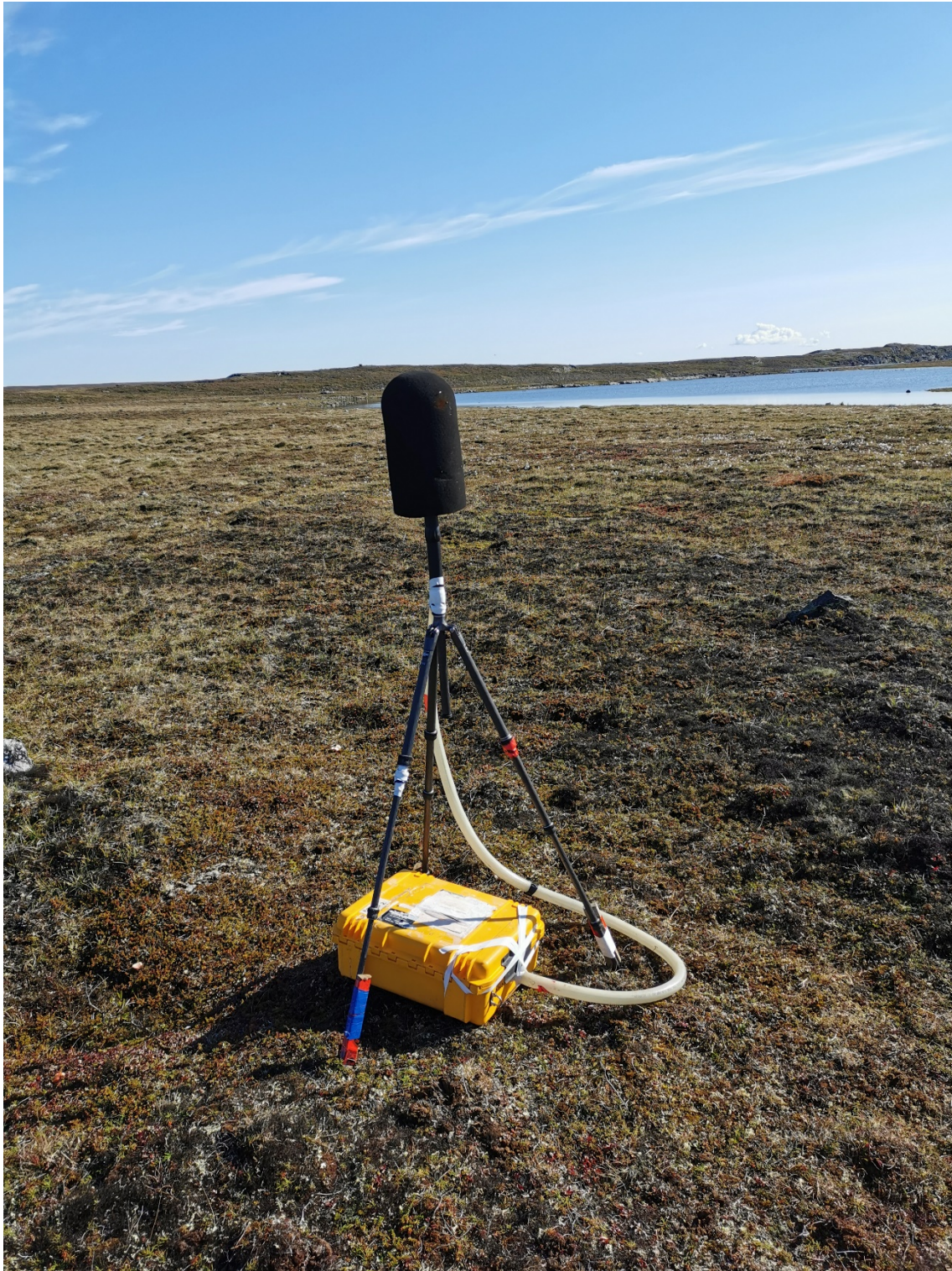
Recorded 1-min  $L_{eq}$  values for monitoring events 1, 2, and 3 at NPOR014a are shown in Figures 9, 10, and 11. For event 1 (July 26-29), 67 h of monitoring were conducted, and 33 h of valid data were available after filtering. For event 2 (August 9 - 13), 95 h of monitoring were conducted, and 13 h of valid data were available after filtering. For event 3 (August 25 – 28), 69 h of monitoring were conducted and 40 h were available after filtering.

Noise sources noted in the field log for this location in 2021 include helicopters, possibility for human activities at the nearby cabin including boats, and animal sounds (birds, ground squirrels).

For events 1 and 3, the 24 h  $L_{eq}$  was below the FEIS prediction after the primary filtering, thus sound recordings were not required to be reviewed in detail. Review of the data and sound recordings for event 2

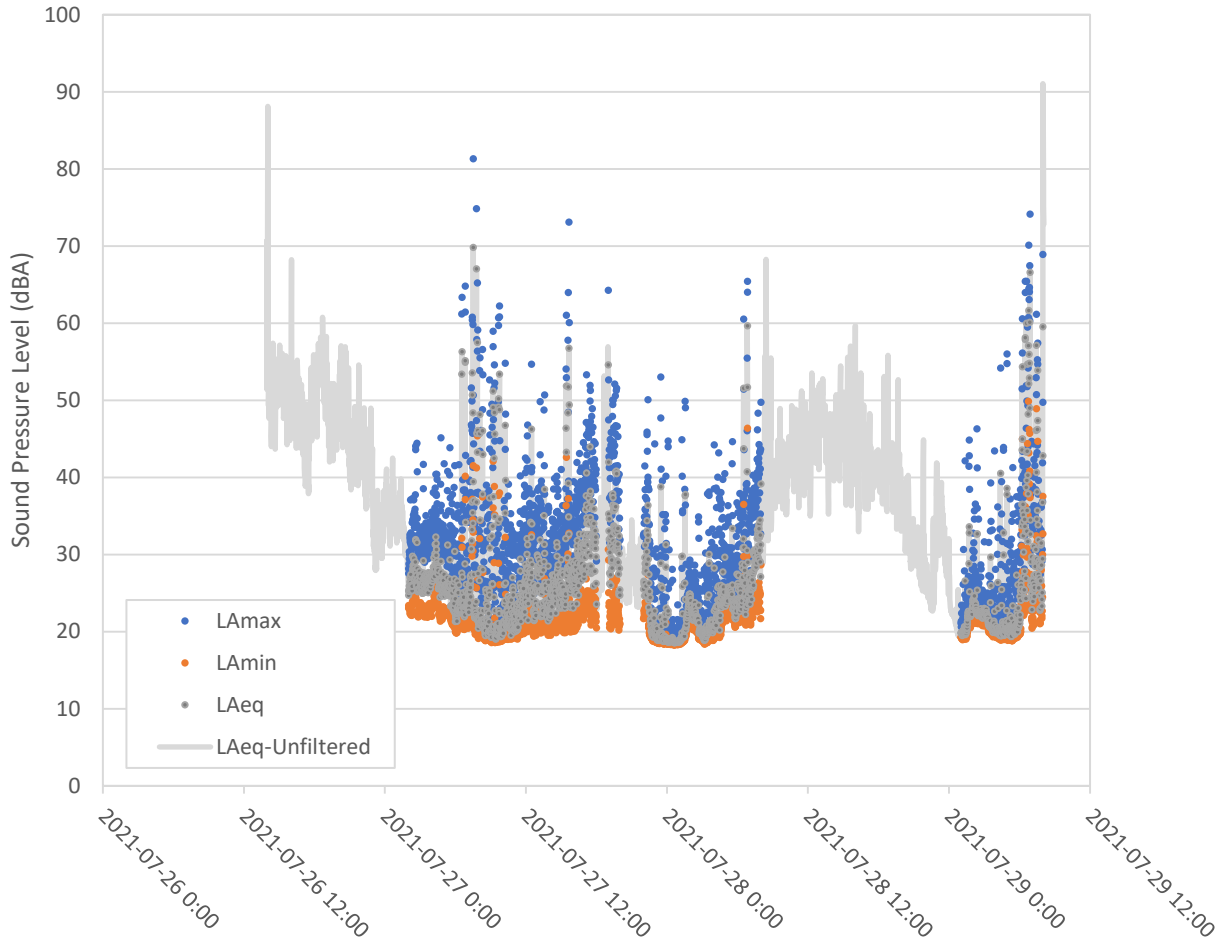
indicated that elevated recordings were generally caused by local wind gusts, and these data points were removed during the secondary filtering step.

Final calculated 24-h  $L_{eq}$  values for events 1, 2, and 3 were 41.2 dBA, 41.0 dBA, and 40.7 dBA which are below the FEIS prediction (44.7 dBA) and noise monitoring criterion (45 dBA).



**Figure 8. Noise monitoring location NPOR014a (August 25, 2021).**





**Figure 9. 1-min L<sub>max</sub>, L<sub>min</sub>, and L<sub>eq</sub> values recorded during monitoring event 1 at site NPOR014a.**

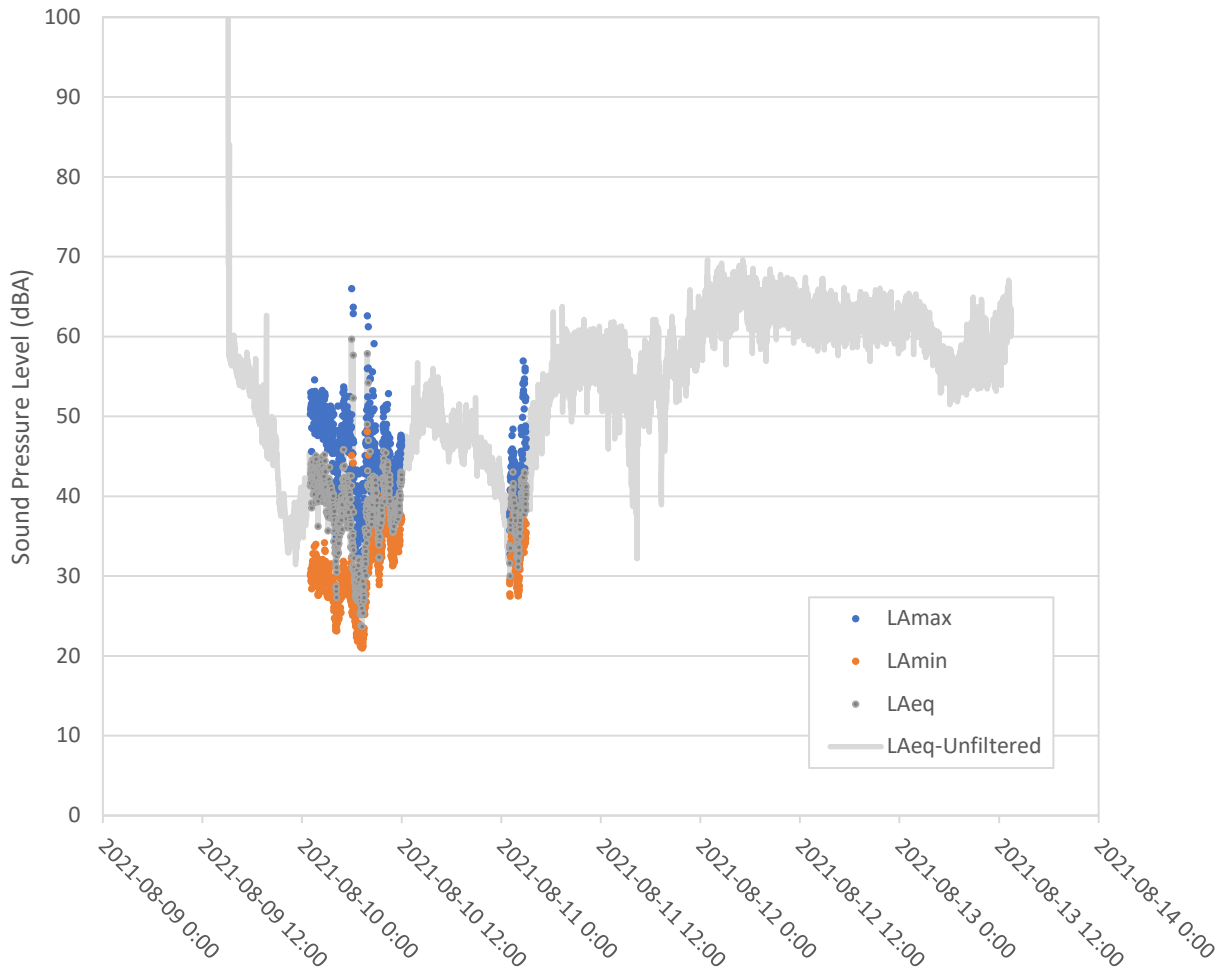
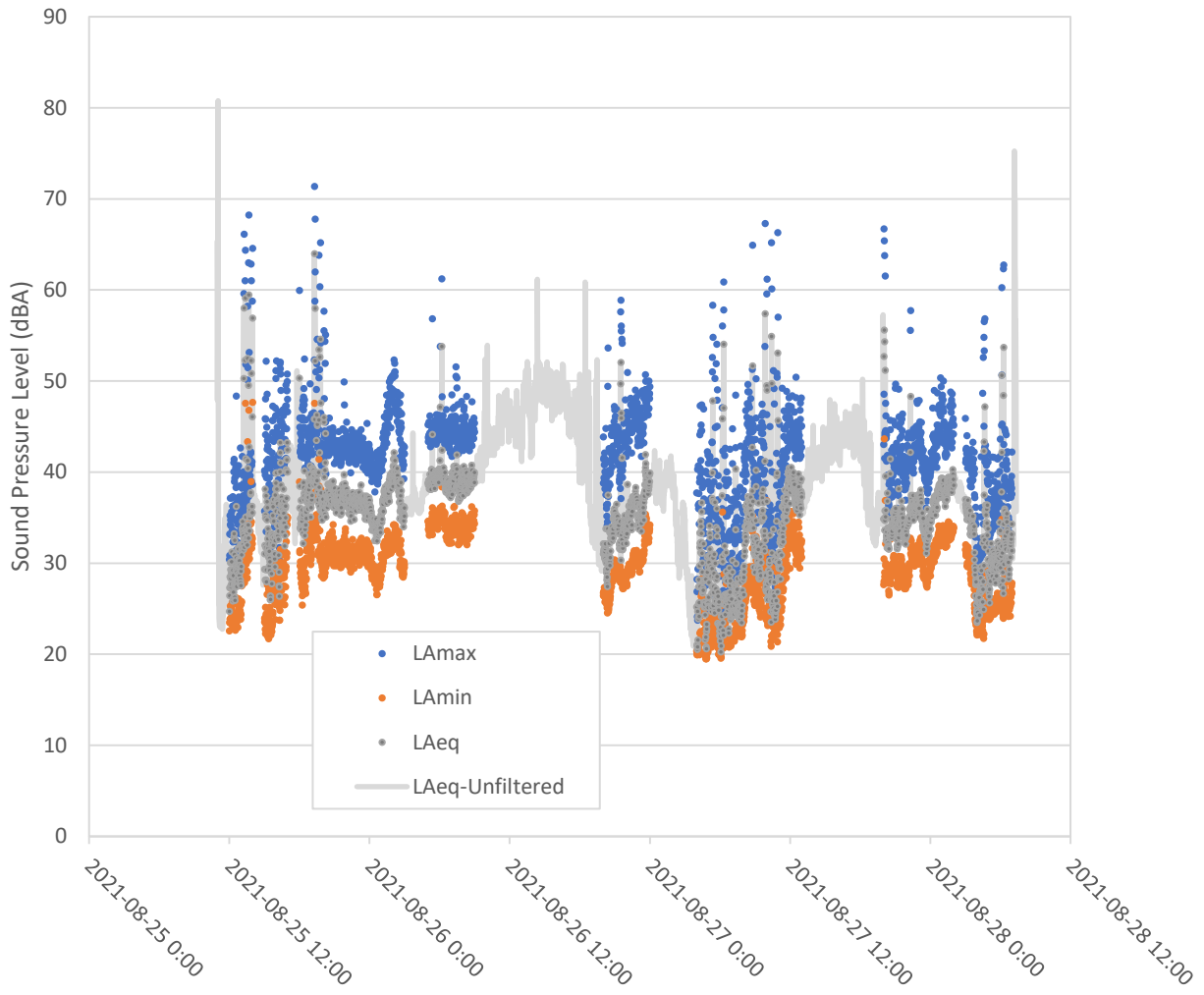


Figure 10. 1-min  $L_{max}$ ,  $L_{min}$ , and  $L_{eq}$  values recorded during monitoring event 2 at site NPOR014a.



**Figure 11. 1-min  $L_{max}$ ,  $L_{min}$ , and  $L_{eq}$  values recorded during monitoring event 3 at site NPOR014a.**

### 3.4 NPOR017A

Recorded 1-min  $L_{eq}$  values over monitoring events 1, 2, and 3 at NPOR017a are shown in Figures 13, 14 and 15. For event 1 (July 21 - 24), 75 h of monitoring were conducted, and 18 h of valid data were available after filtering. For event 2 (August 4 - 8), 94 h of monitoring were conducted, and 20 h of valid data were available after filtering. For event 3 (August 29 – September 1), 82 h of monitoring were conducted and 9 h of valid data were available after filtering.

This station is located 150 m from the AWAR. Noise sources noted in the field log include AWAR traffic and animal noises (birds).

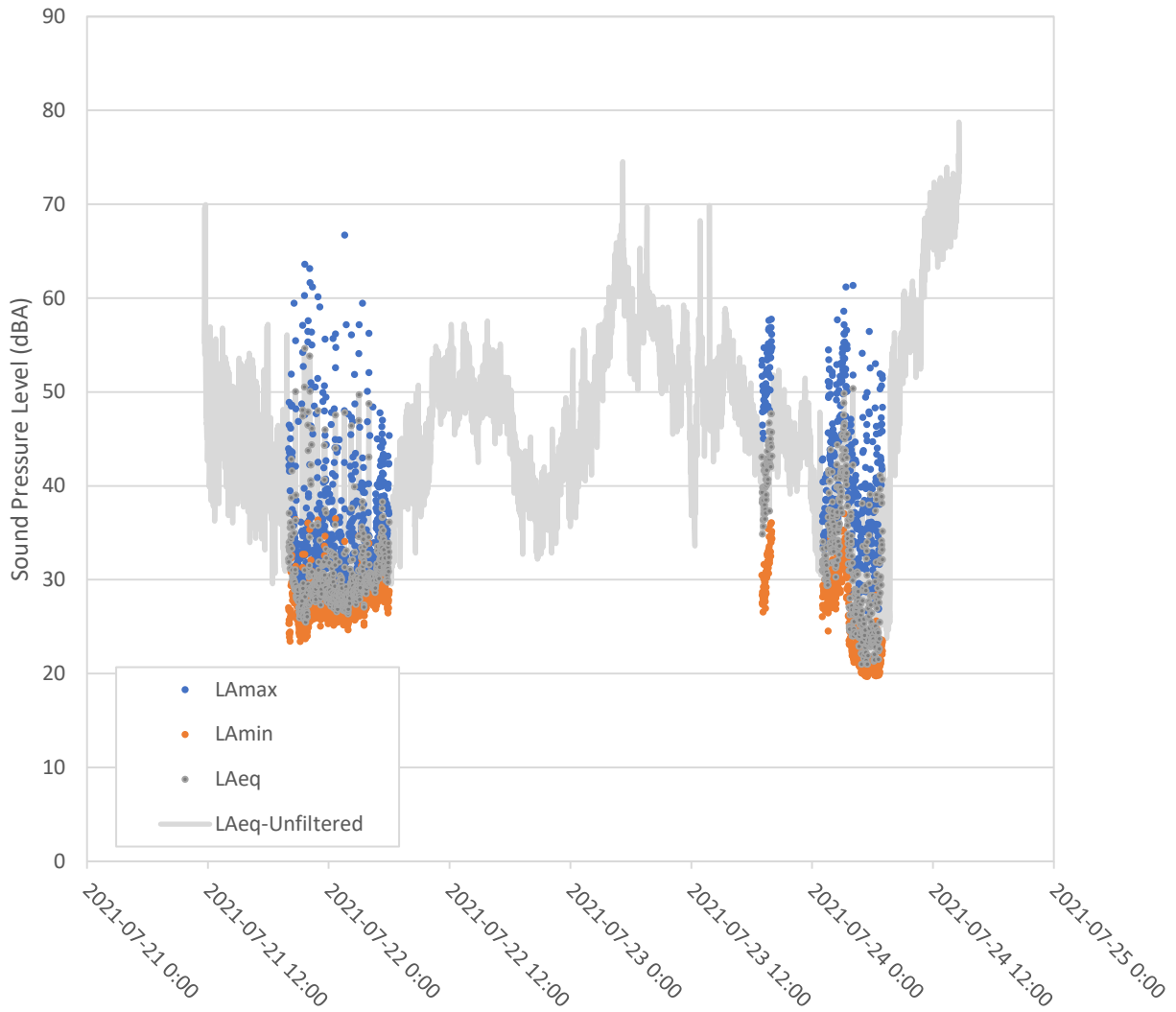
Review of the data and sound recordings for event 1 indicated that elevated noise levels were caused by rain or local wind gusts, and these data points were removed during the secondary filtering step. For event 2, the 24-h  $L_{eq}$  value was below the FEIS prediction after the primary filtering, thus sound recordings were not required to be reviewed in detail. For event 3, review of the data and sound recordings indicated that elevated noise levels were caused by rain, local wind gusts, and prolonged periods of bird calls in close proximity to the microphone, and these data were removed during the secondary filtering.

After all data filtering, the calculated final 24-h  $L_{eq}$  value for events 1, 2, and 3 were 37.7 dBA, 39.4 dBA, and 41.9 dBA respectively. These values do not exceed the FEIS prediction of 43.4 dBA, or the noise monitoring criterion (45 dBA).

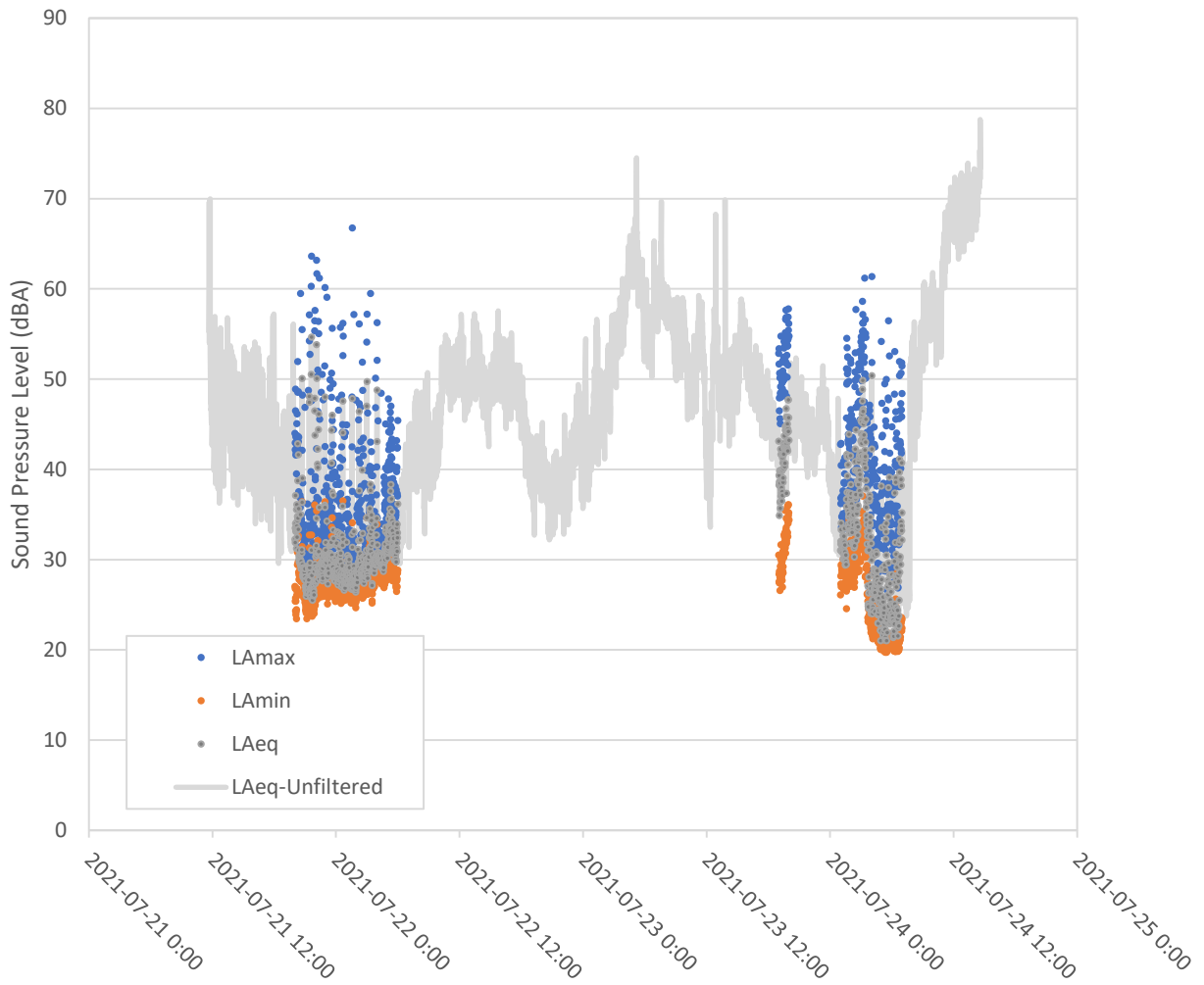




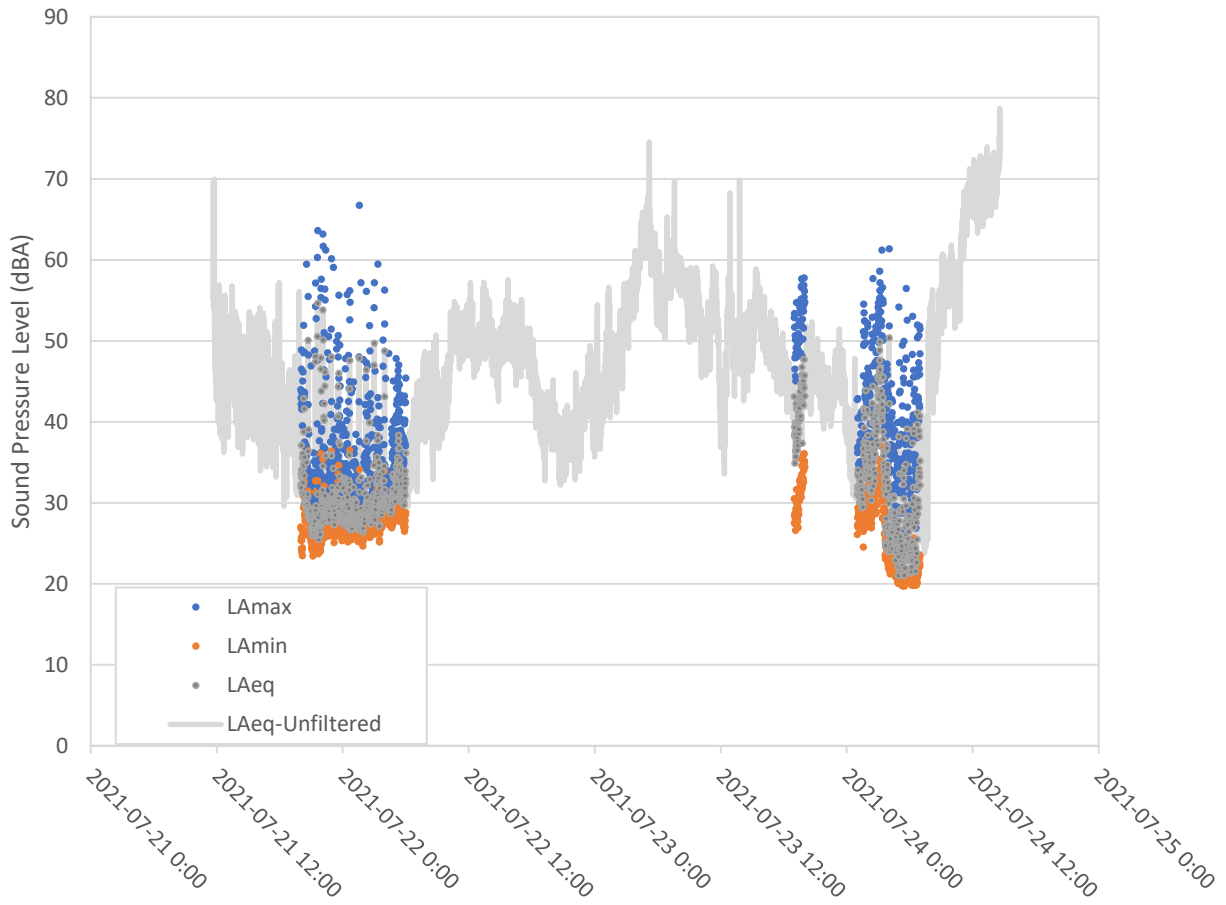
**Figure 12. Noise monitoring location NPOR017a (August 8, 2021).**



**Figure 13. 1-min  $L_{max}$ ,  $L_{min}$ , and  $L_{eq}$  values recorded at site NPOR017a during monitoring event 1.**



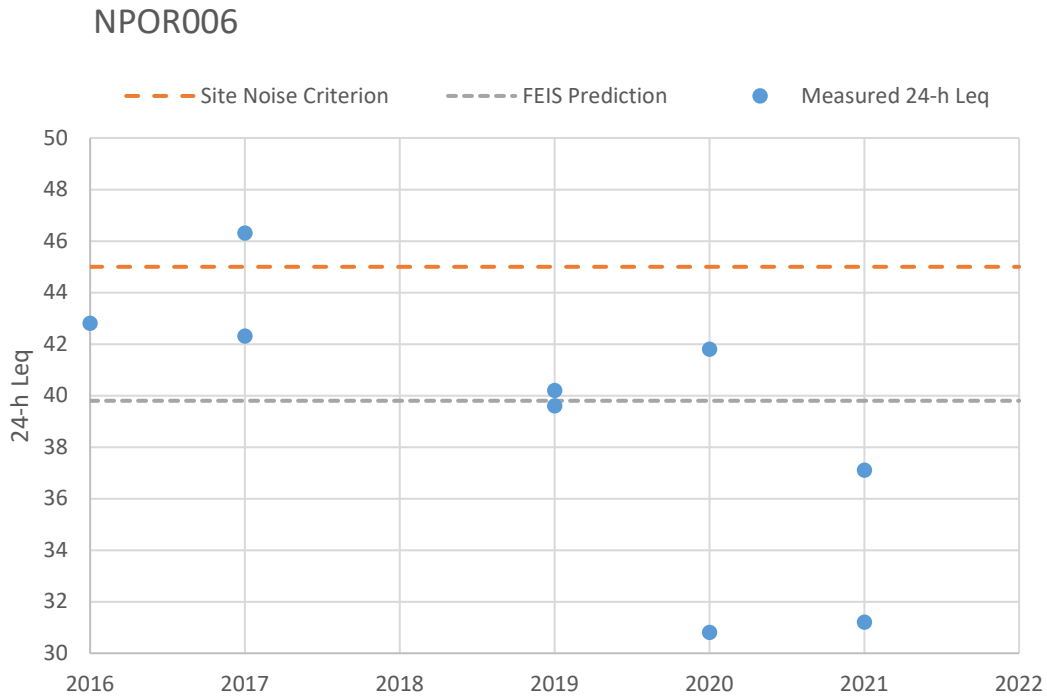
**Figure 14. 1-min L<sub>max</sub>, L<sub>min</sub>, and L<sub>eq</sub> values recorded at site NPOR017a during monitoring event 2.**



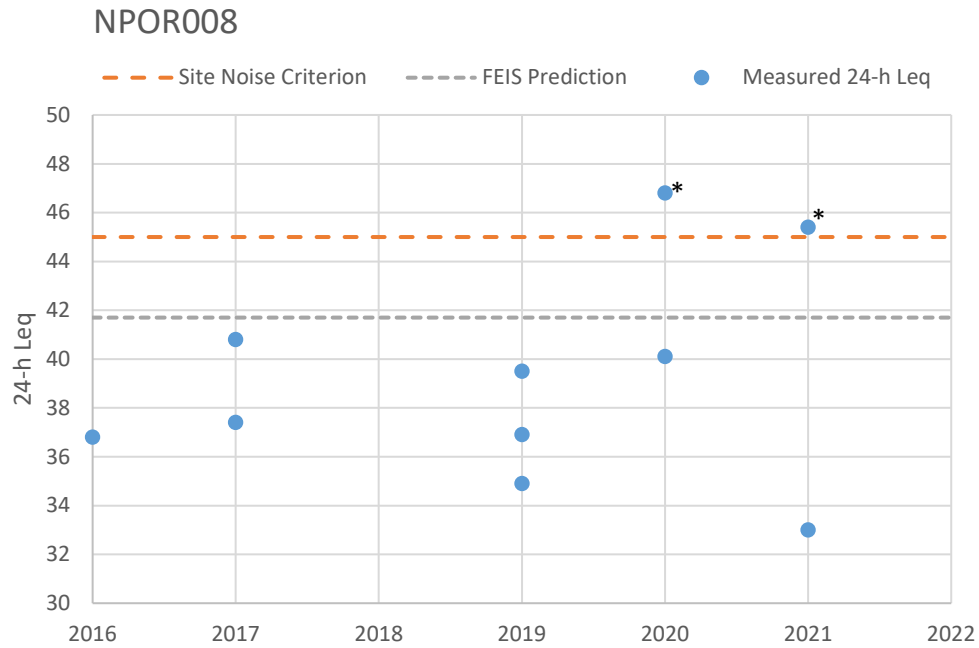
**Figure 15. 1-min  $L_{max}$ ,  $L_{min}$ , and  $L_{eq}$  values recorded at site NPOR017a during monitoring event 3.**

## **4 HISTORICAL COMPARISON**

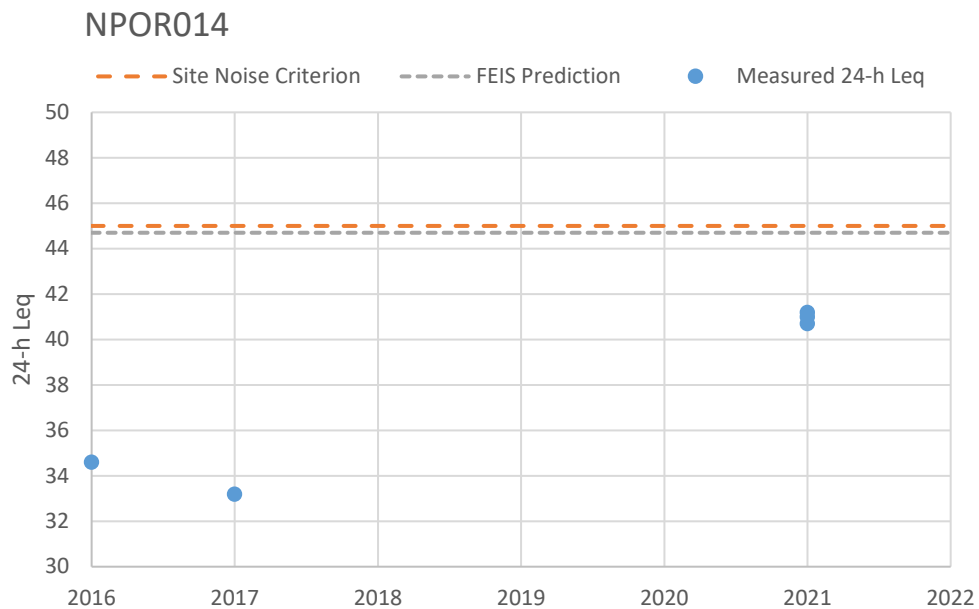
A historical comparison of all available 24-h  $L_{eq}$  values for each monitoring site is provided in Figures 17 - 20.



**Figure 16. Historical noise monitoring results (24-h  $L_{eq}$  values) for site NPOR006 (2016 – 2019) and NPOR006a (2020+). In 2016 and 2017, ongoing works at the adjacent cabin may have contributed to an elevated background acoustic environment but sound recording were not available at that time to assist in data filtering. Insufficient valid data was available in 2018 to calculate  $L_{eq}$  values.**

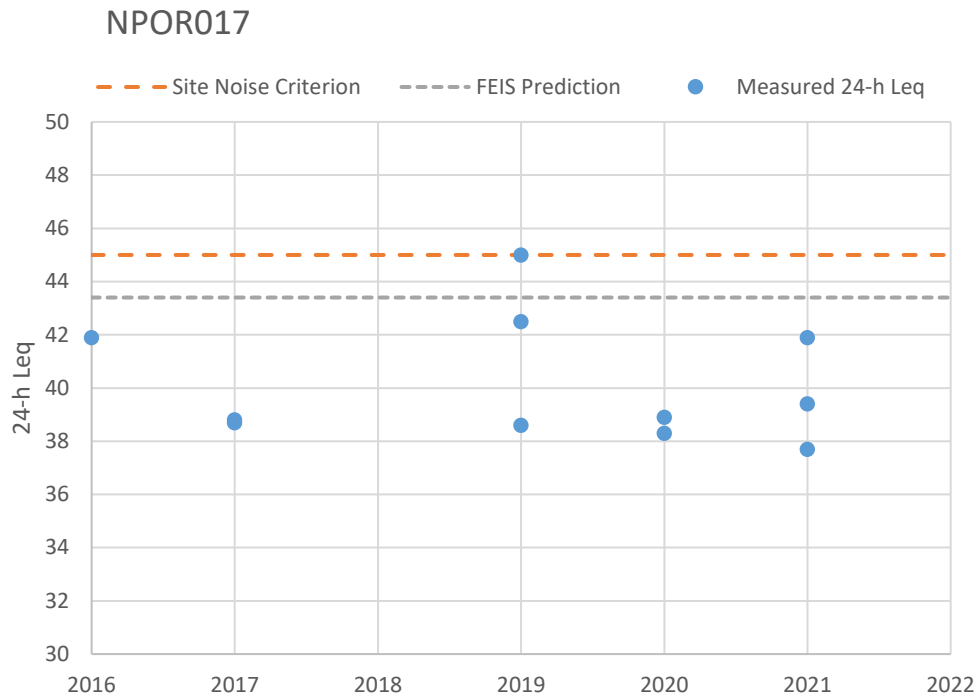


**Figure 17. Historical noise monitoring results (24-h  $L_{eq}$  values) for site NPOR008. Insufficient valid data was available in 2018 to calculate  $L_{eq}$  values. \* Exceedance related to helicopter traffic that is time-limited and/or exploration-related (not suitable for comparison to FEIS prediction).**



**Figure 18. Historical noise monitoring results (24-h  $L_{eq}$  values) for sites NPOR014 (2016 – 2017) and NPOR014a (2021+). Insufficient valid data was available after filtering in 2018 to calculate the 24-h  $L_{eq}$ . Monitoring was not conducted in 2019 or 2020. No mining activity has yet occurred in this area.**





**Figure 19. Historical noise monitoring results (24-h  $L_{eq}$  values) for site NPOR017 (2016 – 2019) and NPOR017a (2020+). Insufficient valid data was available in 2018 to calculate  $L_{eq}$  values.**

## 5 CONCLUSION

The objective of the noise monitoring program at the Mine is to measure noise levels at three or four previously determined monitoring locations over at least two 24 h periods to help inform the need for noise mitigation.

In 2021, Agnico Eagle conducted two or three successful rounds of monitoring for all required stations (NPOR006a, NPOR008, and NPOR017a) and opportunistic monitoring at NPOR014a. Monitoring at NPOR014a is not yet required, since construction or operational activities related to the Discovery deposit are not ongoing.

A summary of the noise monitoring results for 2021 is provided in Table 7.

For all stations, sufficient valid data was available after filtering to calculate 24-h and night-time  $L_{eq}$  values for comparison to FEIS predictions and noise monitoring criteria.

A single exceedance of the 24-h predictions and criteria occurred, during monitoring event 2 at NPOR008. Review of sound recordings indicated this was due to infrequent helicopter flyovers causing 1 – 2 min elevated noise peaks during 8 of the 43 monitoring hours (5 – 7 am and 5 – 7 pm). As discussed in the



2020 report, no mine activity is ongoing in the area of NPOR008, but this location lies on the flight path between the Exploration Camp and the Discovery area, as well as an area of exploration activities. Due to increased helicopter traffic from the Exploration Camp since 2020, monitoring results have exceeded FEIS predictions during one of two events in each of 2020 and 2021. For transparency in reporting, this helicopter-related noise is not filtered out of the dataset. However, it is noted that this traffic is time-limited (generally helicopters fly June – September) and largely related to exploration activities and not mine construction or operations as modeled in the existing Project FEIS. Therefore, direct comparison to those predictions is not considered appropriate. Results during monitoring event 1 for this location (in the absence of exploration helicopter traffic) provide a more appropriate comparison, and did not exceed predictions or noise monitoring criteria.

To date, no noise-related complaints have been received for the Mine. Based on these findings, no changes to existing noise monitoring plans and mitigation measures are proposed.

**Table 7. Summary of noise monitoring results in 2021. Values exceeding FEIS predictions, criteria and/or design targets are in bold. A dash “-” indicates not applicable. \*Exceedance related to helicopter traffic that is time-limited and/or exploration-related (not suitable for comparison to FEIS prediction).**

<b>Location</b>	<b>Monitoring Start</b>	<b>Monitoring End</b>	<i>Noise Monitoring Criterion</i> <i>L<sub>eq</sub>(24 h)</i> <i>(dBA)</i>	<i>FEIS Prediction</i> <i>L<sub>eq</sub>(24 h)</i> <i>(dBA)</i>	<b>Measured</b> <b>L<sub>eq</sub>(24 h)</b> <b>(dBA)</b>	<i>Design Target</i> <i>L<sub>eq</sub> (nighttime)</i> <i>(dBA)</i>	<b>Measured</b> <b>L<sub>eq</sub> (nighttime)</b> <b>(dBA)</b>
NPOR006a	7/17/2021 5:03 PM	7/20/2021 5:25 PM	45	39.8	31.2	-	-
	7/31/2021 11:28 AM	8/03/2021 3:22 PM			37.1		-
NPOR008	7/18/2021 1:59 PM	7/21/2021 3:27 PM	45	41.7	33.0	40	33.3
	9/08/21 10:09 AM	9/10/21 11:59 PM			<b>(45.4*)</b>		34.3
NPOR014a	7/26/2021 1:56 PM	7/29/2021 8:04 AM	45	44.7	41.2	-	-
	8/09/2021 3:06 PM	8/13/2021 1:29 PM			41.0		-
	8/25/2021 10:58 AM	8/28/2021 7:21 AM			40.7		-
NPOR017a	7/21/2021 11:40 AM	7/24/2021 2:36 PM	45	43.4	37.7	-	-
	8/04/2021 8:08 AM	8/08/2021 6:59 AM			39.4		-
	8/29/2021 1:47 PM	9/01/2021 11:59 PM			41.9		-

## **6 ACTIONS**

No specific supplemental actions related to noise mitigation or monitoring were planned for 2021, and none are planned for 2022.

Monitoring will continue to be conducted at alternate monitoring stations NPOR006a, NPOR017a, and NPOR008 to facilitate ongoing historical comparisons.

No significant construction activities related to the Discovery deposit are planned in 2022, therefore monitoring will again be conducted opportunistically at NPOR014a, as feasible.

## **7 REFERENCES**

Alberta Energy Resource Conservation Board (Alberta Energy Regulator, since 2013), 2007. Directive 038: Noise Control, February 2007.

Agnico Eagle, 2020. Meliadine Gold Project Noise Abatement and Monitoring Plan, Version 3, March 2020.

Golder (Golder Associates), 2014. Final Environmental Impact Statement (FEIS) – Meliadine Gold Project, Nunavut. Volume 5.0 Atmospheric Environment and Impact Assessment. April, 2014.

Nunavut Impact Review Board (NIRB). 2019. NIRB Meliadine Gold Mine Project Certificate [NO.: 006] Amendment. February 26, 2019.

## Appendix A: Field Logs

N

Monitoring Starts	
Sample ID: NPOR05	Cloud Cover: 100%
Date: 2021-07-26	Height of Clouds: 0-10 000 <u>10 000-25 000</u> 25 000+
Operators: DM-RS	Air Temperature (°C): 7°C
Calibration Completed: <input checked="" type="checkbox"/> (Y/N)	Wind Speed (km/h): 25km/h N
Sensitivity: 30.15 mv/pa	Wind Direction: N
Deviation: 0.00db	Relative Humidity (%): 70%
Time of Calibration: 11:20 AM	Precipitation: NONE <input checked="" type="radio"/> None <input type="radio"/> Drizzle <input type="radio"/> Rain
Photographs of Set up: <input type="checkbox"/> (Y/N)	Barometric Pressure (kPa):
Photographs of Surroundings: <input type="checkbox"/> (Y/N)	Northing: 15V 0537978
Check Available Memory on SD Card: <input checked="" type="checkbox"/> (Y/N)	Easting: 6991741
Battery Power Check: <input checked="" type="checkbox"/> (Y/N)	Noise Monitor Start Time:

General Site Description	
Type of Ground Surface:	tundra - canadian shield
Traffic in Area:	ATV'S
Human Activities in Area:	Ron Brown's cabin 300m S
Animals in Area:	Ron Brown's dog
Other Noise Sources:	

Monitoring Ends	
Sample ID: NPOR05	Cloud Cover: 80%
Date: 2021-07-30	Height of Clouds: 0-10 000 <u>10 000-25 000</u> 25 000+
Operators: RS-SK	Air Temperature (°C): 4°C
Calibration Completed: <input checked="" type="checkbox"/> (Y/N)	Wind Speed (km/h): 41km/h S
Sensitivity:	Wind Direction: North
Deviation:	Relative Humidity (%): 60%
Time of Calibration: 9:30am	Precipitation: None <input checked="" type="radio"/> Drizzle <input type="radio"/> Rain
Photographs of Set up: <input type="checkbox"/> (Y/N)	Barometric Pressure (kPa):
Photographs of Surroundings: <input type="checkbox"/> (Y/N)	Northing: 15V 0537978
Check Available Memory on SD Card: <input checked="" type="checkbox"/> (Y/N)	Easting: 6991741
Battery Power Check: <input checked="" type="checkbox"/> (Y/N)	Noise Monitor Start Time: 9:30am

M

Monitoring Starts	
Sample ID: NCR05	Cloud Cover: 5 /
Date: 2021	Height of Clouds: <input checked="" type="radio"/> 0-10 000 <input type="radio"/> 10 000-25 000 <input type="radio"/> 25 000+
Operators: Alice Butler-Allard	Air Temperature (°C): 15.2°
Calibration Completed: <input type="checkbox"/> (Y/N)	Wind Speed (km/h): 14 km/h
Sensitivity: 30.95	Wind Direction: South
Deviation: 0.12	Relative Humidity (%): 52.9 / RH
Time of Calibration: 16h00	Precipitation: <input checked="" type="radio"/> None <input type="radio"/> Drizzle <input type="radio"/> Rain
Photographs of Set up: <input type="checkbox"/> (Y/N)	Barometric Pressure (kPa): —
Photographs of Surroundings: <input type="checkbox"/> (Y/N)	Northing: 0537970
Check Available Memory on SD Card: <input type="checkbox"/> (Y/N)	Easting: 6991746
Battery Power Check: <input type="checkbox"/> (Y/N)	Noise Monitor Start Time: 16:15
General Site Description	
Type of Ground Surface: fun dra	
Traffic in Area: No	
Human Activities in Area: Rob cake 300m	
Animals in Area: Squirrel, tiny birds.	
Other Noise Sources: Mnd	
Monitoring Ends	
Sample ID: NCR05	Cloud Cover: 100 %
Date: 2021-08-28	Height of Clouds: <input checked="" type="radio"/> 0-10 000 <input type="radio"/> 10 000-25 000 <input type="radio"/> 25 000+
Operators: JR	Air Temperature (°C): 6.8
Calibration Completed: <input type="checkbox"/> (Y/N)	Wind Speed (km/h): 6.5
Sensitivity: 30.73	Wind Direction: SW
Deviation: -0.06	Relative Humidity (%): 84.9
Time of Calibration: 2021-08-21 10:07	Precipitation: <input checked="" type="radio"/> None <input type="radio"/> Drizzle <input type="radio"/> Rain
Photographs of Set up: <input type="checkbox"/> (Y/N)	Barometric Pressure (kPa):
Photographs of Surroundings: <input type="checkbox"/> (Y/N)	Northing:
Check Available Memory on SD Card: <input type="checkbox"/> (Y/N)	Easting:
Battery Power Check: <input type="checkbox"/> (Y/N)	Noise Monitor End Time: 7:00



first round

Monitoring Starts	
Sample ID: NPOR06A	Cloud Cover: 25%
Date: 2021-07-17	Height of Clouds: 0-10 000 10 000-25 000 25 000+
Operators: DM-ABA	Air Temperature (°C): 18.6
Calibration Completed: (Y/N)	Wind Speed (km/h): 17
Sensitivity: 30.03 MV/PA	Wind Direction: South
Deviation: 0.00 db	Relative Humidity (%): 49.9
Time of Calibration: 17:01	Precipitation: None Drizzle Rain
Photographs of Set up: (Y/N)	Barometric Pressure (kPa): N/A
Photographs of Surroundings: (Y/N)	Northing: 0537547
Check Available Memory on SD Card: (Y/N)	Easting: 6991296
Battery Power Check: (Y/N)	Noise Monitor Start Time: 17:02

General Site Description	
Type of Ground Surface: Rock	
Traffic in Area: No	
Human Activities in Area: Ron brown cabin 500m away	
Animals in Area: birds	
Other Noise Sources: ←	

Monitoring Ends	
Sample ID: NPOR06A	Cloud Cover: @ Steato - 40%
Date: 2021-07-20	Height of Clouds: 0-10 000 10 000-25 000 25 000+
Operators: RS-BF	Air Temperature (°C): 18.7
Calibration Completed: (Y/N)	Wind Speed (km/h): 21.1 km/h / 21.8 max
Sensitivity: 30.20	Wind Direction: North west
Deviation: 0.05	Relative Humidity (%): <del>60.4%</del> <del>60.4%</del> <del>60.4%</del> 60.4%
Time of Calibration: 17:35	Precipitation: None Drizzle Rain
Photographs of Set up: (Y/N)	Barometric Pressure (kPa): N/A
Photographs of Surroundings: (Y/N)	Northing: 0537547
Check Available Memory on SD Card: (Y/N)	Easting: 6991296
Battery Power Check: (Y/N)	Noise Monitor End Time: @ 17:30

### Monitoring Starts

Sample ID: <u>NPOR06A</u>	Cloud Cover: <u>100%</u>
Date: <u>2021-07-31</u>	Height of Clouds: <input checked="" type="radio"/> 0-10 000 <input type="radio"/> 10 000-25 000 <input type="radio"/> 25 000+
Operators: <u>VR/SK</u>	Air Temperature (°C): <u>17.2°</u>
Calibration Completed: <input checked="" type="radio"/> (Y/N)	Wind Speed (km/h): <u>10.4</u>
Sensitivity: <u>30.42</u>	Wind Direction: <u>NE</u>
Deviation: <u>0.08 dB</u>	Relative Humidity (%): <u>76.8</u>
Time of Calibration: <u>11:15</u>	Precipitation: <input checked="" type="radio"/> None <input type="radio"/> Drizzle <input type="radio"/> Rain
Photographs of Set up: <input checked="" type="radio"/> (Y/N)	Barometric Pressure (kPa):
Photographs of Surroundings: <input checked="" type="radio"/> (Y/N)	Northing: <u>537549</u>
Check Available Memory on SD Card: <input checked="" type="radio"/> (Y/N)	Easting: <u>6941345</u>
Battery Power Check: <input checked="" type="radio"/> (Y/N)	Noise Monitor Start Time: <u>11:25</u>

### General Site Description

Type of Ground Surface: <u>tundra</u>
Traffic in Area: <del>Ron's cabin</del> <u>ATV'S</u>
Human Activities in Area: <del>Ron's dog</del> <u>Ron's cabin</u>
Animals in Area: <u>Ron's dog</u>
Other Noise Sources:

### Monitoring Ends

Sample ID: <u>NPOR06A</u>	Cloud Cover: <u>50%</u>
Date: <u>2021-08</u>	Height of Clouds: <input checked="" type="radio"/> 0-10 000 <input type="radio"/> 10 000-25 000 <input type="radio"/> 25 000+
Operators: <u>VR</u>	Air Temperature (°C): <u>13.7</u>
Calibration Completed: <input checked="" type="radio"/> (Y/N)	Wind Speed (km/h): <u>54</u>
Sensitivity: <u>33.24</u>	Wind Direction: <u>NW</u>
Deviation: <u>0.77</u>	Relative Humidity (%): <u>74.3</u>
Time of Calibration: <u>15:21</u>	Precipitation: <input checked="" type="radio"/> None <input type="radio"/> Drizzle <input type="radio"/> Rain
Photographs of Set up: <input checked="" type="radio"/> (Y/N)	Barometric Pressure (kPa):
Photographs of Surroundings: <input type="radio"/> (Y/N)	Northing:
Check Available Memory on SD Card: <input type="radio"/> (Y/N)	Easting:
Battery Power Check: <input checked="" type="radio"/> (Y/N)	Noise Monitor End Time: <u>15:17</u>



### Monitoring Starts

Sample ID: <b>NPOR08</b>	Cloud Cover: <b>50%</b>
Date: <b>2021-07-18</b>	Height of Clouds: 0-10 000 <b>10 000-25 000</b> 25 000+
Operators: <b>Dm</b>	Air Temperature (°C): <b>17.1</b>
Calibration Completed: <input checked="" type="checkbox"/> (Y/N)	Wind Speed (km/h): <b>32 km/h</b>
Sensitivity: <b>30.23</b>	Wind Direction: <b>North</b>
Deviation: <b>-0.15</b>	Relative Humidity (%): <b>47</b>
Time of Calibration: <b>13:57</b>	Precipitation: <input checked="" type="radio"/> None <input type="radio"/> Drizzle <input type="radio"/> Rain
Photographs of Set up: <input checked="" type="checkbox"/> (Y/N) <b>N</b>	Barometric Pressure (kPa): <b>N/A</b>
Photographs of Surroundings: <input checked="" type="checkbox"/> (Y/N) <b>N</b>	Northing: <b>543707</b>
Check Available Memory on SD Card: <b>Y</b> <input checked="" type="checkbox"/> (Y/N)	Easting: <b>6987273</b>
Battery Power Check: <b>Y</b> <input checked="" type="checkbox"/> (Y/N)	Noise Monitor Start Time:

### General Site Description

Type of Ground Surface: <b>Tundra</b>
Traffic in Area: <b>Helicopter</b>
Human Activities in Area:
Animals in Area: <b>ground Squirrel / Caribou / bugs</b>
Other Noise Sources:

### Monitoring Ends

Sample ID: <b>MPOR08</b>	Cloud Cover: <b>50%</b>
Date: <b>2021-07-21</b>	Height of Clouds: 0-10 000 <b>10 000-25 000</b> 25 000+
Operators: <b>ABARS</b>	Air Temperature (°C): <b>17.5</b>
Calibration Completed: <input checked="" type="checkbox"/> (Y/N)	Wind Speed (km/h): <b>15.6</b>
Sensitivity: <b>31.51</b>	Wind Direction: <b>N-W</b>
Deviation: <b>0.08</b>	Relative Humidity (%): <b>57.1</b>
Time of Calibration: <b>15:31</b>	Precipitation: <input checked="" type="radio"/> None <input type="radio"/> Drizzle <input type="radio"/> Rain
Photographs of Set up: <input checked="" type="checkbox"/> (Y/N)	Barometric Pressure (kPa): <b>NA</b>
Photographs of Surroundings: <input checked="" type="checkbox"/> (Y/N)	Northing: <b>30V0543707</b>
Check Available Memory on SD Card: <input checked="" type="checkbox"/> (Y/N)	Easting: <b>6987276</b>
Battery Power Check: <input checked="" type="checkbox"/> (Y/N)	Noise Monitor Start Time: <b>15:29</b>

*end*

### Monitoring Starts

Sample ID: NPOR08	Cloud Cover: 90%
Date: 2021-07-31	Height of Clouds: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">0-10 000</span> 10 000-25 000 25 000+
Operators: SK-JR	Air Temperature (°C): 9.5
Calibration Completed: <input checked="" type="checkbox"/> (Y/N)	Wind Speed (km/h): 10.2
Sensitivity: 29.80 mV/Pa	Wind Direction: NE
Deviation: -0.10dB	Relative Humidity (%): 77.9
Time of Calibration: 9:47	Precipitation: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">None</span> Drizzle Rain
Photographs of Set up: <input checked="" type="checkbox"/> (Y/N)	Barometric Pressure (kPa):
Photographs of Surroundings: <input checked="" type="checkbox"/> (Y/N)	Northing: 0543708
Check Available Memory on SD Card: <input checked="" type="checkbox"/> (Y/N)	Easting: 6987276
Battery Power Check: <input checked="" type="checkbox"/> (Y/N)	Noise Monitor Start Time: 9:55

### General Site Description

Type of Ground Surface: Tundra - Canadian shield
Traffic in Area: None
Human Activities in Area: None
Animals in Area: None
Other Noise Sources:

### Monitoring Ends

Sample ID: NP0208	Cloud Cover: 90%
Date: 2021-08-05	Height of Clouds: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">0-10 000</span> 10 000-25 000 25 000+
Operators: SK-JR	Air Temperature (°C):
Calibration Completed: <input checked="" type="checkbox"/> (Y/N)	Wind Speed (km/h):
Sensitivity:	Wind Direction:
Deviation:	Relative Humidity (%):
Time of Calibration:	Precipitation: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">None</span> Drizzle Rain
Photographs of Set up: <input checked="" type="checkbox"/> (Y/N)	Barometric Pressure (kPa):
Photographs of Surroundings: <input checked="" type="checkbox"/> (Y/N)	Northing: 0543708
Check Available Memory on SD Card: <input checked="" type="checkbox"/> (Y/N)	Easting: 6987276
Battery Power Check: <input checked="" type="checkbox"/> (Y/N)	Noise Monitor End Time: 14:30

### Monitoring Starts

Sample ID: NPOR-08	Cloud Cover: 100%
Date: 2021-09-08	Height of Clouds: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">0-10 000</span> 10 000-25 000 25 000+
Operators: GL / KB	Air Temperature (°C): <del>6.3</del> 6.3°C
Calibration Completed: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(N)</span>	Wind Speed (km/h): 12.2 km/h
Sensitivity: 30.43	Wind Direction: SE
Deviation: 0.07	Relative Humidity (%): 87.7% RH
Time of Calibration: 9h30	Precipitation: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">None</span> Drizzle Rain
Photographs of Set up: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Barometric Pressure (kPa):
Photographs of Surroundings: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Northing: 543704
Check Available Memory on SD Card: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(N)</span>	Easting: 6987276
Battery Power Check: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Noise Monitor Start Time: 9h40

### General Site Description

Type of Ground Surface: Tundra
Traffic in Area: None
Human Activities in Area: Mine site @ 2 km away
Animals in Area: None
Other Noise Sources: None

### Monitoring Ends

Sample ID: NPOR-08	Cloud Cover: 70%
Date: 2021-09-15	Height of Clouds: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">0-10 000</span> 10 000-25 000 25 000+
Operators: DM / KB	Air Temperature (°C): <del>14.3</del> 14.3°C
Calibration Completed: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Wind Speed (km/h): 3 KMPH
Sensitivity: 30.85	Wind Direction: SW
Deviation: 0.12	Relative Humidity (%): 64.5%
Time of Calibration: 14:30	Precipitation: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">None</span> Drizzle Rain
Photographs of Set up: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Barometric Pressure (kPa):
Photographs of Surroundings: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Northing: 543704
Check Available Memory on SD Card: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Easting: 6987276
Battery Power Check: dead <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Noise Monitor End Time:

Monitoring Starts	
Sample ID: NPOR14A	Cloud Cover:
Date: 2021-07-26 13:18	Height of Clouds: 0-10 000 10 000-25 000 25 000+
Operators: DM/RS	Air Temperature (°C): 8°
Calibration Completed: (Y/N) (N)	Wind Speed (km/h): 31 km/h
Sensitivity: 30.45	Wind Direction: NE
Deviation: -0.01	Relative Humidity (%): 47%
Time of Calibration: 13:21	Precipitation: None (Drizzle) Rain
Photographs of Set up: (Y/N) (N)	Barometric Pressure (kPa): <del>1012.0</del>
Photographs of Surroundings: (Y/N) (N)	Northing: 15U <del>549825</del> 549825
Check Available Memory on SD Card: (Y/N) (N)	Easting: 6982593
Battery Power Check: (Y/N) (N)	Noise Monitor Start Time: 13:22

General Site Description	
Type of Ground Surface: Tundra	
Traffic in Area: Helicopters, local summer boats	
Human Activities in Area: Cabins	
Animals in Area: Geese, Ground Squirrels	
Other Noise Sources:	

Monitoring Ends	
Sample ID: NPOR14A	Cloud Cover:
Date: 2021-07-29	Height of Clouds: 0-10 000 10 000-25 000 25 000+
Operators: RS	Air Temperature (°C): 12°
Calibration Completed: (Y/N) (N)	Wind Speed (km/h): 18 km/h
Sensitivity: 30.13	Wind Direction: North
Deviation: <del>0.01</del> 0	Relative Humidity (%): 53%
Time of Calibration: 8:01 am	Precipitation: None (Drizzle) Rain
Photographs of Set up: (Y/N) (N)	Barometric Pressure (kPa):
Photographs of Surroundings: (Y/N) (N)	Northing: 15U 549825
Check Available Memory on SD Card: (Y/N) (N)	Easting: 6982593
Battery Power Check: (Y/N) (N)	Noise Monitor End Time: 8:00



### Monitoring Starts

Sample ID: <u>NPOR 14A</u>	Cloud Cover: <u>3%</u>
Date: <u>2021-08-25</u>	Height of Clouds: <u>0-10 000</u> 10 000-25 000 25 000+
Operators: <u>JR SK</u>	Air Temperature (°C): <u>12.6</u>
Calibration Completed: <input checked="" type="checkbox"/> (Y/N)	Wind Speed (km/h): <u>8.7</u>
Sensitivity: <u>30.56</u>	Wind Direction: <u>W</u>
Deviation: <u>-0.05</u>	Relative Humidity (%): <u>74.4</u>
Time of Calibration: <u>10:51</u>	Precipitation: <input checked="" type="radio"/> None <input type="radio"/> Drizzle <input type="radio"/> Rain
Photographs of Set up: <input checked="" type="checkbox"/> (Y/N)	Barometric Pressure (kPa):
Photographs of Surroundings: <input checked="" type="checkbox"/> (Y/N)	Northing:
Check Available Memory on SD Card: <input checked="" type="checkbox"/> (Y/N)	Easting:
Battery Power Check: <input checked="" type="checkbox"/> (Y/N)	Noise Monitor Start Time: <u>10:55</u>

### General Site Description

Type of Ground Surface: <u>tundra</u>
Traffic in Area: <u>none</u>
Human Activities in Area: <u>none</u>
Animals in Area: <u>birds</u>
Other Noise Sources:

### Monitoring Ends

Sample ID: <u>NPOR 14A</u>	Cloud Cover: <u>none</u>
Date: <u>2021-08-28</u>	Height of Clouds: <u>—</u> 0-10 000 10 000-25 000 25 000+
Operators: <u>SK</u>	Air Temperature (°C): <u>11.7</u>
Calibration Completed: <input type="checkbox"/> (Y/N)	Wind Speed (km/h): <u>12.2</u>
Sensitivity:	Wind Direction: <u>S</u>
Deviation:	Relative Humidity (%): <u>77.7</u>
Time of Calibration:	Precipitation: <input checked="" type="radio"/> None <input type="radio"/> Drizzle <input type="radio"/> Rain
Photographs of Set up: <input type="checkbox"/> (Y/N)	Barometric Pressure (kPa):
Photographs of Surroundings: <input type="checkbox"/> (Y/N)	Northing: <u>6.982610</u>
Check Available Memory on SD Card: <input type="checkbox"/> (Y/N)	Easting: <u>549829</u>
Battery Power Check: <input type="checkbox"/> (Y/N)	Noise Monitor End Time: <u>7:20 AM</u>

### Monitoring Starts

Sample ID: NPOR017A	Cloud Cover: Light
Date: July 21, 2021	Height of Clouds: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">0-10 000</span> 10 000-25 000 25 000+
Operators: BE/DM	Air Temperature (°C): 18°C
Calibration Completed: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Wind Speed (km/h): 16 km/h
Sensitivity: 30.45 mV/Pa	Wind Direction: <del>176</del> 176° S
Deviation: 0.07 dB	Relative Humidity (%): 57.7
Time of Calibration: 11:37	Precipitation: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">None</span> Drizzle Rain
Photographs of Set up: (Y/N)	Barometric Pressure (kPa):
Photographs of Surroundings: (Y/N)	Northing: 546153
Check Available Memory on SD Card: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Easting: 6971994
Battery Power Check: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Noise Monitor Start Time: 11:41

### General Site Description

Type of Ground Surface: tundra
Traffic in Area: <del>gatehouse 1km</del> None, but AWAR traffic on daily basis
Human Activities in Area: gatehouse 1km away S
Animals in Area: None
Other Noise Sources: Birds

### Monitoring Ends

Sample ID: NPOR017A	Cloud Cover: 70%
Date: July 24, 2021	Height of Clouds: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">0-10 000</span> 10 000-25 000 25 000+
Operators: DM-RS	Air Temperature (°C): 10.2
Calibration Completed: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Wind Speed (km/h): 52 km/hr
Sensitivity: 30.81	Wind Direction: WNW
Deviation: 0.10	Relative Humidity (%): 77%
Time of Calibration: 15:32	Precipitation: None <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Drizzle</span> Rain
Photographs of Set up: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Barometric Pressure (kPa): <del>1000</del> 98.3
Photographs of Surroundings: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Northing: 546153
Check Available Memory on SD Card: (Y/N)	Easting: 6971994
Battery Power Check: (Y/N)	Noise Monitor End Time: 15:34

### Monitoring Starts

Sample ID: NPOR17A	Cloud Cover: Partly cloudy
Date: 2021-08-04	Height of Clouds: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">0-10 000</span> 10 000-25 000 25 000+
Operators: JR - SK	Air Temperature (°C): 9.1
Calibration Completed: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Wind Speed (km/h): <del>20</del> 20
Sensitivity: 30.58	Wind Direction: W
Deviation: -0.72	Relative Humidity (%): 75.4
Time of Calibration: 7:58	Precipitation: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">None</span> Drizzle Rain
Photographs of Set up: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Barometric Pressure (kPa):
Photographs of Surroundings: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Northing: 546141
Check Available Memory on SD Card: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Easting: 6971997
Battery Power Check: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Noise Monitor Start Time: 8:05am

### General Site Description

Type of Ground Surface: Tundra - Canadian shield <del>XXXX</del>
Traffic in Area: Yes (AWAR 200m away)
Human Activities in Area: No
Animals in Area: No
Other Noise Sources:

### Monitoring Ends

Sample ID: NPOR17A	Cloud Cover: 100%
Date: 2021-08-08	Height of Clouds: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">0-10 000</span> 10 000-25 000 25 000+
Operators: SK - JR	Air Temperature (°C): 13.1
Calibration Completed: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Wind Speed (km/h): 28.5
Sensitivity:	Wind Direction: S
Deviation:	Relative Humidity (%): 86.2
Time of Calibration:	Precipitation: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">None</span> Drizzle Rain
Photographs of Set up: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Barometric Pressure (kPa):
Photographs of Surroundings: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Northing: 546141
Check Available Memory on SD Card: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Easting: 6971997
Battery Power Check: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">(Y/N)</span>	Noise Monitor End Time: 10:15am

### Monitoring Starts

Sample ID: NPOR17A	Cloud Cover: none
Date: 2021-08-29	Height of Clouds: — 0-10 000 10 000-25 000 25 000+
Operators: SK-JR	Air Temperature (°C): 14.3
Calibration Completed: <input checked="" type="checkbox"/> (Y/N)	Wind Speed (km/h): 11.7
Sensitivity: 30.68	Wind Direction: E
Deviation: 0.03	Relative Humidity (%): 68.2
Time of Calibration: 1:40pm	Precipitation: <input checked="" type="checkbox"/> None <input type="checkbox"/> Drizzle <input type="checkbox"/> Rain
Photographs of Set up: <input checked="" type="checkbox"/> (Y/N)	Barometric Pressure (kPa):
Photographs of Surroundings: <input checked="" type="checkbox"/> (Y/N)	Northing: 6971992
Check Available Memory on SD.Card: <input checked="" type="checkbox"/> (Y/N)	Easting: 546151
Battery Power Check: <input checked="" type="checkbox"/> (Y/N)	Noise Monitor Start Time: 1:45pm

### General Site Description

Type of Ground Surface: Tundra
Traffic in Area: AWAR: ATU, Tracks, etc...
Human Activities in Area: none
Animals in Area: Birds
Other Noise Sources:

### Monitoring Ends

Sample ID: NPOR17A	Cloud Cover: 95%
Date: 2021-09-01	Height of Clouds: <input checked="" type="checkbox"/> 0-10 000 <input type="checkbox"/> 10 000-25 000 <input type="checkbox"/> 25 000+
Operators: JR AH GL	Air Temperature (°C):
Calibration Completed: <input checked="" type="checkbox"/> (Y/N)	Wind Speed (km/h): 4.1
Sensitivity:	Wind Direction: N
Deviation:	Relative Humidity (%): 59
Time of Calibration:	Precipitation: <input checked="" type="checkbox"/> None <input type="checkbox"/> Drizzle <input type="checkbox"/> Rain
Photographs of Set up: <input checked="" type="checkbox"/> (Y/N)	Barometric Pressure (kPa):
Photographs of Surroundings: <input checked="" type="checkbox"/> (Y/N)	Northing:
Check Available Memory on SD Card: <input checked="" type="checkbox"/> (Y/N)	Easting:
Battery Power Check: <input checked="" type="checkbox"/> (Y/N)	Noise Monitor End Time: 15:09



## Appendix B: Weather Data and Hourly $L_{eq}$ values

**Appx B - Table 1. Weather data recorded from the Meliadine site permanent weather station for noise monitoring dates, and hourly  $L_{eq}$  values calculated after primary data filtering. *Values filtered out during secondary filtering are in italics.* Asterisk “\*” indicates value adjusted during secondary filtering.**

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
7/17/21	5:00:00 PM	14.46	25.2	341	53				
	6:00:00 PM	14.66	21.3	340	52				
	7:00:00 PM	14.44	20.2	323	53				
	8:00:00 PM	14.30	19.8	301	57				
	9:00:00 PM	13.38	17.5	286	64				
	10:00:00 PM	12.26	14.3	298	71	34.53			
	11:00:00 PM	11.60	17.6	293	77				
7/18/21	12:00:00 AM	10.46	16.9	308	82				
	1:00:00 AM	9.64	22.0	307	86				
	2:00:00 AM	9.61	25.2	338	90				
	3:00:00 AM	9.44	27.0	1	81				
	4:00:00 AM	8.57	28.1	3	76				
	5:00:00 AM	7.95	28.1	347	76				
	6:00:00 AM	8.16	27.6	351	77				
	7:00:00 AM	8.82	26.1	344	75				
	8:00:00 AM	9.62	27.5	333	72				
	9:00:00 AM	10.33	27.9	325	69				
	10:00:00 AM	11.30	28.7	316	66				
	11:00:00 AM	12.94	28.6	321	61				
	12:00:00 PM	14.62	30.3	331	55				
	1:00:00 PM	15.69	30.6	333	50				
	2:00:00 PM	16.48	30.6	329	47				
	3:00:00 PM	16.25	27.5	328	50				
	4:00:00 PM	15.85	27.8	327	54				
	5:00:00 PM	15.22	27.7	328	57				
	6:00:00 PM	15.30	25.8	328	58				
	7:00:00 PM	14.81	17.6	326	63				
	8:00:00 PM	15.56	15.9	322	63				
	9:00:00 PM	15.32	14.0	319	66	25.73	33.62		
	10:00:00 PM	13.92	13.8	318	73	39.49	32.30		
	11:00:00 PM	13.59	12.5	315	76	26.65	31.96		
7/19/21	12:00:00 AM	13.48	13.0	308	78	27.05	37.55		
	1:00:00 AM	12.94	14.0	310	83	36.32	33.34		
	2:00:00 AM	12.78	14.1	307	83	27.22	30.83		
	3:00:00 AM	12.67	14.2	295	82	25.07	29.89		
	4:00:00 AM	12.26	12.6	298	84	25.31	33.05		

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	5:00:00 AM	12.19	13.4	309	85	28.29	33.64		
	6:00:00 AM	12.35	14.0	318	84	32.54	33.68		
	7:00:00 AM	12.52	14.3	324	83	29.42	33.71		
	8:00:00 AM	13.42	15.8	332	79				
	9:00:00 AM	14.37	18.9	331	75				
	10:00:00 AM	15.73	19.5	332	66				
	11:00:00 AM	16.93	19.8	330	57				
	12:00:00 PM	18.03	17.9	330	55				
	1:00:00 PM	19.37	19.5	321	53				
	2:00:00 PM	20.66	19.7	314	50				
	3:00:00 PM	21.49	21.3	312	47				
	4:00:00 PM	22.26	23.1	320	43				
	5:00:00 PM	22.61	21.9	324	42				
	6:00:00 PM	22.61	21.3	328	43				
	7:00:00 PM	22.48	19.4	334	43				
	8:00:00 PM	21.95	17.8	336	44				
	9:00:00 PM	20.19	13.1	318	50	28.68	26.46		
	10:00:00 PM	18.36	11.4	291	59	27.46	28.61		
	11:00:00 PM	16.38	15.3	282	69				
7/20/21	12:00:00 AM	14.88	15.9	282	78				
	1:00:00 AM	14.04	16.2	280	81				
	2:00:00 AM	13.38	15.7	278	82				
	3:00:00 AM	12.94	14.9	286	82	26.09	28.56		
	4:00:00 AM	12.03	15.7	278	85				
	5:00:00 AM	12.20	15.6	289	84				
	6:00:00 AM	13.01	15.8	293	83				
	7:00:00 AM	14.10	15.1	315	80				
	8:00:00 AM	14.49	15.7	324	80				
	9:00:00 AM	16.43	15.1	347	72				
	10:00:00 AM	17.82	16.4	338	68				
	11:00:00 AM	18.36	15.2	322	66				
	12:00:00 PM	19.44	21.0	326	60				
	1:00:00 PM	20.00	22.7	327	57				
	2:00:00 PM	19.73	21.8	327	56				
	3:00:00 PM	20.49	21.6	342	53				
	4:00:00 PM	19.89	22.3	345	54				
	5:00:00 PM	17.96	20.4	354	57				
	6:00:00 PM	17.73	20.0	356	62				
	7:00:00 PM	17.53	18.0	354	57				
	8:00:00 PM	16.91	17.6	356	59				

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	9:00:00 PM	15.83	17.5	0	64				
	10:00:00 PM	15.01	18.9	10	70				
	11:00:00 PM	14.23	18.8	14	77				
7/21/21	12:00:00 AM	13.51	14.7	354	79		32.37		
	1:00:00 AM	12.83	14.3	336	82		36.38		
	2:00:00 AM	12.43	16.8	354	85				
	3:00:00 AM	12.25	17.6	11	87				
	4:00:00 AM	11.39	18.8	22	85				
	5:00:00 AM	10.00	21.5	30	82				
	6:00:00 AM	9.81	23.7	26	75				
	7:00:00 AM	10.36	23.1	23	70				
	8:00:00 AM	11.03	26.0	28	65				
	9:00:00 AM	11.75	23.1	27	63				
	10:00:00 AM	12.26	19.2	15	65				
	11:00:00 AM	13.42	21.1	345	62				
	12:00:00 PM	14.44	19.4	338	61				
	1:00:00 PM	15.38	22.5	330	60				
	2:00:00 PM	16.36	23.3	331	58				
	3:00:00 PM	17.08	21.3	327	58				
	4:00:00 PM	17.93	21.1	341	57				
	5:00:00 PM	18.35	17.6	344	57				
	6:00:00 PM	18.62	19.1	329	57				
	7:00:00 PM	18.03	16.7	325	60				
	8:00:00 PM	17.78	13.4	317	61				35.97
	9:00:00 PM	17.28	7.8	323	64				40.58
	10:00:00 PM	17.21	5.2	290	66				39.80
	11:00:00 PM	16.56	5.4	261	71				33.82
7/22/21	12:00:00 AM	15.90	6.8	248	77				33.58
	1:00:00 AM	15.36	9.4	232	78				32.36
	2:00:00 AM	13.94	9.5	242	88				34.27
	3:00:00 AM	12.97	10.4	251	91				36.62
	4:00:00 AM	12.50	10.4	250	92				30.28
	5:00:00 AM	12.11	11.6	243	93				33.25
	6:00:00 AM	12.77	16.0	257	92				
	7:00:00 AM	13.53	19.0	255	85				
	8:00:00 AM	14.52	20.4	254	78				
	9:00:00 AM	15.78	21.2	246	71				
	10:00:00 AM	16.68	23.3	237	66				
	11:00:00 AM	17.97	23.8	240	61				
	12:00:00 PM	18.76	22.5	236	59				

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	1:00:00 PM	18.94	21.7	211	57				
	2:00:00 PM	18.29	20.7	213	59				
	3:00:00 PM	18.42	22.1	206	59				
	4:00:00 PM	17.93	22.6	207	58				
	5:00:00 PM	17.32	22.7	207	60				
	6:00:00 PM	16.53	20.4	211	64				
	7:00:00 PM	15.02	20.5	216	68				
	8:00:00 PM	13.77	18.8	203	72				
	9:00:00 PM	12.57	16.3	202	78				
	10:00:00 PM	11.42	15.5	197	83				
	11:00:00 PM	10.73	11.6	180	87				44.58
7/23/21	12:00:00 AM	10.15	12.9	171	89				44.87
	1:00:00 AM	10.00	11.6	174	92				49.64
	2:00:00 AM	9.86	10.3	171	94				51.24
	3:00:00 AM	9.61	14.6	165	97				56.34
	4:00:00 AM	9.66	12.7	174	100				62.36
	5:00:00 AM	9.94	25.2	162	99				
	6:00:00 AM	10.42	19.8	190	100				
	7:00:00 AM	9.97	18.4	168	100				
	8:00:00 AM	10.15	23.0	164	99				
	9:00:00 AM	10.05	20.5	169	97				
	10:00:00 AM	10.15	15.1	167	97				
	11:00:00 AM	9.81	13.5	166	98				54.10
	12:00:00 PM	10.03	18.2	155	99				
	1:00:00 PM	10.73	12.9	155	100				54.37
	2:00:00 PM	10.26	15.8	161	100				
	3:00:00 PM	10.76	17.2	152	100				
	4:00:00 PM	11.70	17.6	156	100				
	5:00:00 PM	11.77	16.8	161	100				
	6:00:00 PM	11.23	15.3	166	100				
	7:00:00 PM	10.68	14.4	160	100				42.46
	8:00:00 PM	10.39	14.0	162	100				47.16
	9:00:00 PM	10.30	13.1	157	100				45.94
	10:00:00 PM	10.54	12.3	150	97				44.41
	11:00:00 PM	10.27	15.0	158	94				46.61
7/24/21	12:00:00 AM	9.80	12.5	156	95				37.28
	1:00:00 AM	9.71	12.4	150	97				35.61
	2:00:00 AM	9.66	12.1	140	98				38.16
	3:00:00 AM	9.62	12.0	131	97				41.88
	4:00:00 AM	9.52	9.4	104	97				34.32

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	5:00:00 AM	9.23	9.1	69	100				29.00
	6:00:00 AM	10.40	9.9	43	98				32.54
	7:00:00 AM	11.05	15.0	22	97				
	8:00:00 AM	10.77	20.5	14	97				
	9:00:00 AM	10.78	22.7	5	98				
	10:00:00 AM	10.98	27.8	356	98				
	11:00:00 AM	11.24	32.3	347	100				
	12:00:00 PM	10.79	41.2	332	97				
	1:00:00 PM	10.13	45.3	328	94				
	2:00:00 PM	9.70	46.6	327	94				
7/26/21	1:00:00 PM	7.36	29.0	319	79				
	2:00:00 PM	7.90	28.5	315	76				
	3:00:00 PM	8.61	28.1	320	71				
	4:00:00 PM	9.64	27.7	319	66				
	5:00:00 PM	10.16	27.9	313	64				
	6:00:00 PM	10.23	27.7	323	67				
	7:00:00 PM	9.97	29.5	331	67				
	8:00:00 PM	8.83	26.5	338	71				
	9:00:00 PM	8.36	27.0	332	69				
	10:00:00 PM	8.30	20.9	332	71				
	11:00:00 PM	8.28	20.8	333	71				
7/27/21	12:00:00 AM	7.86	20.2	345	73				
	1:00:00 AM	7.61	18.6	323	71				
	2:00:00 AM	6.79	13.6	299	74			27.36	
	3:00:00 AM	5.05	10.3	276	84			26.41	
	4:00:00 AM	5.06	10.3	272	90			27.85	
	5:00:00 AM	4.88	10.2	276	93			25.61	
	6:00:00 AM	5.64	8.2	277	92			43.34	
	7:00:00 AM	6.66	8.8	302	88			54.20	
	8:00:00 AM	7.29	9.6	339	84			34.99	
	9:00:00 AM	7.60	8.5	351	80			41.48	
	10:00:00 AM	8.31	8.2	357	70			30.70	
	11:00:00 AM	8.98	9.8	338	66			23.75	
	12:00:00 PM	9.66	10.7	328	62			30.94	
	1:00:00 PM	9.44	12.2	320	63			27.66	
	2:00:00 PM	10.00	12.4	318	62			25.99	
	3:00:00 PM	10.63	11.9	320	60			42.35	
	4:00:00 PM	10.99	13.0	318	59			28.85	
	5:00:00 PM	11.11	14.8	337	60			34.12	



Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	6:00:00 PM	11.12	15.7	353	59				
	7:00:00 PM	10.56	14.0	356	60			38.65	
	8:00:00 PM	9.99	16.5	20	60				
	9:00:00 PM	9.36	16.2	18	63				
	10:00:00 PM	8.91	14.1	25	64			27.35	
	11:00:00 PM	8.72	10.7	19	66			24.32	
7/28/21	12:00:00 AM	7.84	5.3	318	73			18.94	
	1:00:00 AM	6.68	8.4	310	80			25.73	
	2:00:00 AM	6.44	10.3	305	86			21.86	
	3:00:00 AM	6.33	10.1	287	88			21.28	
	4:00:00 AM	6.58	10.2	265	88			23.83	
	5:00:00 AM	5.67	10.9	288	92			24.72	
	6:00:00 AM	7.73	14.0	339	89			43.26	
	7:00:00 AM	8.13	15.9	350	86				
	8:00:00 AM	8.80	17.8	360	81				
	9:00:00 AM	9.14	19.4	351	76				
	10:00:00 AM	9.68	20.9	341	73				
	11:00:00 AM	10.46	21.7	336	67				
	12:00:00 PM	10.23	23.2	339	67				
	1:00:00 PM	10.16	27.4	324	67				
	2:00:00 PM	10.23	23.1	333	65				
	3:00:00 PM	10.40	24.3	330	60				
	4:00:00 PM	11.01	20.8	342	58				
	5:00:00 PM	11.49	23.1	339	58				
	6:00:00 PM	11.71	20.3	334	57				
	7:00:00 PM	11.57	20.5	338	59				
	8:00:00 PM	10.92	20.5	347	62				
	9:00:00 PM	10.73	18.5	342	61				
	10:00:00 PM	9.96	15.2	349	71				
	11:00:00 PM	9.45	17.5	0	77				
7/29/21	12:00:00 AM	9.36	15.0	357	77				
	1:00:00 AM	8.64	10.3	325	80			23.31	
	2:00:00 AM	8.43	12.7	332	83			23.97	
	3:00:00 AM	7.37	10.9	349	88			21.90	
	4:00:00 AM	6.58	8.8	352	92			27.54	
	5:00:00 AM	6.14	5.0	353	94			21.19	
	6:00:00 AM	6.48	1.9	20	96			52.93	
	7:00:00 AM	7.25	1.9	105	91			44.96	
	8:00:00 AM	8.41	3.8	135	82				

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
7/31/21	11:00:00 AM	9.05	16.3	257	94				
	12:00:00 PM	10.27	18.3	268	94				
	1:00:00 PM	11.56	19.8	289	94				
	2:00:00 PM	12.32	23.6	326	91				
	3:00:00 PM	11.68	27.2	335	88				
	4:00:00 PM	12.52	25.7	341	78				
	5:00:00 PM	14.16	24.8	343	62				
	6:00:00 PM	14.30	25.6	345	56				
	7:00:00 PM	14.23	24.9	351	55				
	8:00:00 PM	13.36	20.9	356	57				
	9:00:00 PM	12.47	15.7	343	64				
	10:00:00 PM	11.58	11.5	331	72	27.02			
	11:00:00 PM	10.79	11.8	313	78	26.28			
8/01/21	12:00:00 AM	10.00	12.1	308	80	23.61			
	1:00:00 AM	9.32	10.1	291	84	22.14			
	2:00:00 AM	9.13	8.9	285	85	21.24			
	3:00:00 AM	9.48	7.0	266	82	25.98			
	4:00:00 AM	9.74	6.5	252	83	33.01			
	5:00:00 AM	8.86	10.1	252	88	31.46			
	6:00:00 AM	8.21	7.2	174	92	41.25			
	7:00:00 AM	8.31	9.6	167	94	39.88			
	8:00:00 AM	8.71	9.0	182	90	41.19			
	9:00:00 AM	8.83	14.2	199	90	42.94			
	10:00:00 AM	9.36	16.5	203	92				
	11:00:00 AM	9.83	10.2	208	100	51.75			
	12:00:00 PM	10.90	9.4	221	100	60.17			
	1:00:00 PM	13.45	11.3	272	100	80.77			
	2:00:00 PM	13.99	23.0	339	100				
	3:00:00 PM	13.23	29.2	349	98				
	4:00:00 PM	13.86	28.2	3	93				
	5:00:00 PM	13.07	22.8	14	96				
	6:00:00 PM	12.17	18.4	16	100				
	7:00:00 PM	10.12	24.0	66	100				
	8:00:00 PM	9.38	27.2	65	96				
	9:00:00 PM	8.97	25.3	60	96				
	10:00:00 PM	8.58	21.1	46	97				
	11:00:00 PM	8.48	22.1	33	97				
8/02/21	12:00:00 AM	7.82	23.3	30	94				
	1:00:00 AM	7.41	20.8	13	96				
	2:00:00 AM	7.01	20.4	2	97				

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	3:00:00 AM	6.94	19.7	15	98				
	4:00:00 AM	7.47	21.1	15	96				
	5:00:00 AM	7.57	22.3	12	93				
	6:00:00 AM	7.02	19.5	19	95				
	7:00:00 AM	7.63	20.1	28	90				
	8:00:00 AM	8.18	19.2	18	85				
	9:00:00 AM	8.78	17.9	359	75				
	10:00:00 AM	8.99	16.7	356	73				
	11:00:00 AM	9.39	13.6	328	72	65.68			
	12:00:00 PM	9.87	13.5	312	72	70.53			
	1:00:00 PM	10.31	14.9	292	72	70.88			
	2:00:00 PM	10.87	15.3	270	72				
	3:00:00 PM	11.64	14.2	257	72	63.08			
	4:00:00 PM	12.18	13.6	235	75	66.78			
	5:00:00 PM	11.89	12.5	224	84	72.08			
	6:00:00 PM	10.80	15.5	207	91				
	7:00:00 PM	10.82	20.8	205	90				
	8:00:00 PM	10.77	21.0	204	89				
	9:00:00 PM	10.19	18.6	205	92				
	10:00:00 PM	10.15	15.3	215	93				
	11:00:00 PM	10.04	17.4	220	95				
8/03/21	12:00:00 AM	10.41	17.6	229	96				
	1:00:00 AM	12.34	14.4	258	92	72.41			
	2:00:00 AM	13.60	21.1	319	85				
	3:00:00 AM	11.84	15.1	313	93				
	4:00:00 AM	11.50	24.0	330	93				
	5:00:00 AM	10.72	27.0	340	95				
	6:00:00 AM	9.56	25.8	339	96				
	7:00:00 AM	9.14	28.6	336	94				
	8:00:00 AM	9.08	28.3	338	93				
	9:00:00 AM	9.89	23.5	334	89				
	10:00:00 AM	9.98	21.6	338	88				
	11:00:00 AM	9.01	21.9	339	98				
	12:00:00 PM	8.84	21.4	329	100				
	1:00:00 PM	9.11	22.4	333	97				
	2:00:00 PM	10.38	24.0	341	92				
	3:00:00 PM	11.37	22.6	339	85				
8/04/21	8:00:00 AM	7.74	32.4	347	93				
	9:00:00 AM	8.32	36.3	349	86				

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	10:00:00 AM	8.16	37.1	337	90				
	11:00:00 AM	8.16	39.2	350	84				
	12:00:00 PM	7.38	44.4	341	78				
	1:00:00 PM	7.64	44.4	340	70				
	2:00:00 PM	7.60	47.7	336	68				
	3:00:00 PM	7.84	44.1	337	69				
	4:00:00 PM	8.63	44.3	341	66				
	5:00:00 PM	9.39	45.9	339	67				
	6:00:00 PM	10.02	48.2	338	63				
	7:00:00 PM	10.13	47.3	336	60				
	8:00:00 PM	9.49	44.7	335	60				
	9:00:00 PM	8.71	42.8	331	64				
	10:00:00 PM	7.74	42.5	336	67				
	11:00:00 PM	7.29	36.9	327	68				
8/05/21	12:00:00 AM	7.03	36.0	319	75				
	1:00:00 AM	6.88	36.2	313	77				
	2:00:00 AM	7.01	41.3	325	76				
	3:00:00 AM	6.24	37.0	334	79				
	4:00:00 AM	5.54	34.6	330	81				
	5:00:00 AM	5.27	37.2	327	81				
	6:00:00 AM	5.49	39.4	329	79				
	7:00:00 AM	5.51	39.2	327	77				
	8:00:00 AM	5.57	39.8	330	75				
	9:00:00 AM	6.11	39.0	335	72				
	10:00:00 AM	6.64	36.3	337	72				
	11:00:00 AM	7.15	36.4	334	73				
	12:00:00 PM	7.99	38.5	336	64				
	1:00:00 PM	8.37	38.0	335	63				
	2:00:00 PM	8.90	38.0	336	60				
	3:00:00 PM	9.74	35.4	332	58				
	4:00:00 PM	9.84	33.2	332	59				
	5:00:00 PM	9.77	34.4	334	61				
	6:00:00 PM	9.15	35.8	341	68				
	7:00:00 PM	8.48	35.5	342	75				
	8:00:00 PM	8.19	35.6	347	77				
	9:00:00 PM	8.29	31.4	347	77				
	10:00:00 PM	7.97	29.9	354	79				
	11:00:00 PM	7.77	28.7	349	80				
8/06/21	12:00:00 AM	7.42	28.5	355	81				
	1:00:00 AM	6.90	27.5	352	84				

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	2:00:00 AM	6.48	28.0	356	86				
	3:00:00 AM	6.34	27.9	358	86				
	4:00:00 AM	6.21	29.5	349	87				
	5:00:00 AM	6.03	28.0	356	89				
	6:00:00 AM	6.04	26.6	355	90				
	7:00:00 AM	6.05	26.3	352	90				
	8:00:00 AM	6.40	30.0	347	88				
	9:00:00 AM	7.00	29.7	346	84				
	10:00:00 AM	8.18	30.5	346	78				
	11:00:00 AM	8.58	28.6	345	77				
	12:00:00 PM	9.56	28.4	346	73				
	1:00:00 PM	11.03	28.8	345	67				
	2:00:00 PM	12.25	28.3	345	62				
	3:00:00 PM	12.98	27.9	341	56				
	4:00:00 PM	13.00	26.1	345	54				
	5:00:00 PM	13.02	23.6	339	56				
	6:00:00 PM	13.24	21.8	332	54				
	7:00:00 PM	12.76	19.6	328	56				
	8:00:00 PM	12.07	16.7	329	60				
	9:00:00 PM	11.29	13.9	326	65				35.91
	10:00:00 PM	10.42	11.6	324	72				36.77
	11:00:00 PM	9.49	7.3	304	80				39.89
8/07/21	12:00:00 AM	8.68	8.3	286	84				34.73
	1:00:00 AM	8.78	8.0	260	86				32.45
	2:00:00 AM	8.94	7.7	253	88				35.25
	3:00:00 AM	8.81	8.6	244	90				34.59
	4:00:00 AM	8.80	8.5	240	88				30.31
	5:00:00 AM	8.97	9.3	225	85				31.27
	6:00:00 AM	9.21	10.6	224	81				32.27
	7:00:00 AM	8.96	10.5	224	88				36.61
	8:00:00 AM	9.65	9.5	219	85				37.87
	9:00:00 AM	10.93	10.3	217	81				41.04
	10:00:00 AM	12.07	9.8	207	76				44.22
	11:00:00 AM	12.45	9.5	201	76				43.16
	12:00:00 PM	12.83	9.6	198	77				36.33
	1:00:00 PM	14.08	13.4	200	71				44.44
	2:00:00 PM	15.49	18.3	205	61				
	3:00:00 PM	16.68	18.5	211	55				
	4:00:00 PM	17.02	20.1	205	53				
	5:00:00 PM	16.62	20.6	203	54				

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	6:00:00 PM	15.82	18.6	202	59				
	7:00:00 PM	14.06	18.2	202	69				
	8:00:00 PM	13.15	21.6	203	73				
	9:00:00 PM	11.83	17.7	199	79				
	10:00:00 PM	9.67	15.7	194	92				
	11:00:00 PM	9.23	16.2	194	95				
8/08/21	12:00:00 AM	9.08	15.4	193	96				
	1:00:00 AM	9.24	15.5	196	95				
	2:00:00 AM	9.20	13.1	186	95				37.61
	3:00:00 AM	9.22	16.1	196	97				
	4:00:00 AM	8.79	12.3	181	100				41.33
	5:00:00 AM	8.50	13.0	175	100				40.83
	6:00:00 AM	8.81	15.4	198	100				
8/09/21	3:00:00 PM	11.86	42.7	309	66				
	4:00:00 PM	12.22	44.8	309	64				
	5:00:00 PM	12.50	37.3	308	63				
	6:00:00 PM	12.50	36.2	308	63				
	7:00:00 PM	11.40	31.3	317	69				
	8:00:00 PM	10.74	26.8	321	71				
	9:00:00 PM	9.63	24.8	311	75				
	10:00:00 PM	8.47	19.5	288	78				
	11:00:00 PM	7.50	15.8	274	86				
8/10/21	12:00:00 AM	7.56	15.8	265	88				
	1:00:00 AM	7.35	13.6	250	91			42.46	
	2:00:00 AM	6.97	13.2	245	92			41.96	
	3:00:00 AM	6.95	12.7	240	92			39.39	
	4:00:00 AM	6.95	11.4	234	91			38.02	
	5:00:00 AM	7.10	11.2	223	91			44.07	
	6:00:00 AM	7.76	11.3	214	89			41.36	
	7:00:00 AM	8.75	7.6	203	83			42.86	
	8:00:00 AM	10.21	8.0	191	79			40.20	
	9:00:00 AM	10.96	10.3	185	74			39.68	
	10:00:00 AM	11.27	12.5	163	73			40.88	
	11:00:00 AM	9.63	11.9	166	85			39.45	
	12:00:00 PM	9.72	13.8	159	85			45.44	
	1:00:00 PM	10.56	12.3	174	80			48.28	
	2:00:00 PM	11.23	12.6	178	80			50.32	
	3:00:00 PM	12.24	12.6	181	80			51.52	
	4:00:00 PM	14.25	14.8	186	75			50.89	



Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	5:00:00 PM	13.78	15.5	187	77				
	6:00:00 PM	13.01	14.7	175	81			48.87	
	7:00:00 PM	11.59	18.8	166	85				
	8:00:00 PM	10.20	17.9	162	90				
	9:00:00 PM	8.74	19.0	158	96				
	10:00:00 PM	8.71	19.0	154	98				
	11:00:00 PM	8.76	18.8	154	98				
8/11/21	12:00:00 AM	8.60	16.0	163	100				
	1:00:00 AM	8.32	14.5	165	100			38.05	
	2:00:00 AM	8.34	13.4	165	100			39.36	
	3:00:00 AM	8.14	17.3	152	100				
	4:00:00 AM	8.21	18.5	143	96				
	5:00:00 AM	7.78	16.4	131	93				
	6:00:00 AM	7.27	21.8	123	95				
	7:00:00 AM	6.85	27.3	118	97				
	8:00:00 AM	6.86	28.3	107	95				
	9:00:00 AM	6.74	32.1	98	96				
	10:00:00 AM	6.57	32.3	91	99				
	11:00:00 AM	6.67	33.5	85	99				
	12:00:00 PM	6.76	34.6	82	100				
	1:00:00 PM	6.76	34.4	78	99				
	2:00:00 PM	6.85	31.1	86	97				
	3:00:00 PM	7.11	35.5	83	97				
	4:00:00 PM	7.55	34.7	80	97				
	5:00:00 PM	7.47	30.0	73	97				
	6:00:00 PM	7.23	32.8	61	99				
	7:00:00 PM	6.98	30.8	60	100				
	8:00:00 PM	7.28	37.4	57	100				
	9:00:00 PM	7.58	36.1	54	100				
	10:00:00 PM	7.94	34.6	48	100				
	11:00:00 PM	8.18	36.3	47	100				
8/12/21	12:00:00 AM	8.40	35.6	42	100				
	1:00:00 AM	8.10	41.1	42	100				
	2:00:00 AM	7.81	43.0	34	100				
	3:00:00 AM	7.69	45.4	37	100				
	4:00:00 AM	7.76	44.5	40	97				
	5:00:00 AM	7.64	42.6	32	98				
	6:00:00 AM	7.76	42.0	29	97				
	7:00:00 AM	7.97	49.1	22	96				
	8:00:00 AM	7.84	48.8	26	98				

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	9:00:00 AM	7.83	45.8	24	98				
	10:00:00 AM	7.53	45.4	21	100				
	11:00:00 AM	7.37	46.4	17	100				
	12:00:00 PM	7.48	45.7	15	100				
	1:00:00 PM	7.64	44.5	12	100				
	2:00:00 PM	7.82	44.0	10	99				
	3:00:00 PM	8.05	45.0	8	98				
	4:00:00 PM	7.98	43.6	5	98				
	5:00:00 PM	7.96	42.3	2	98				
	6:00:00 PM	7.89	43.9	360	98				
	7:00:00 PM	7.70	43.8	358	98				
	8:00:00 PM	7.48	44.4	355	98				
	9:00:00 PM	7.32	43.9	354	98				
	10:00:00 PM	7.08	42.4	351	99				
	11:00:00 PM	6.97	42.0	351	100				
8/13/21	12:00:00 AM	7.03	39.8	351	100				
	1:00:00 AM	7.07	41.3	349	100				
	2:00:00 AM	7.08	41.5	347	100				
	3:00:00 AM	7.07	40.4	349	100				
	4:00:00 AM	6.99	38.6	350	100				
	5:00:00 AM	6.98	36.6	351	100				
	6:00:00 AM	6.98	34.3	355	100				
	7:00:00 AM	7.16	33.7	358	100				
	8:00:00 AM	7.40	33.5	2	100				
	9:00:00 AM	7.70	35.1	6	100				
	10:00:00 AM	7.84	38.0	7	100				
	11:00:00 AM	7.95	36.9	5	100				
	12:00:00 PM	8.70	38.5	360	97				
	1:00:00 PM	9.25	37.7	1	93				
	2:00:00 PM	9.94	40.5	358	88				
8/25/21	10:00:00 AM	10.90	7.4	310	81				
	11:00:00 AM	12.57	8.7	281	74				
	12:00:00 PM	14.10	10.7	279	68			29.51	
	1:00:00 PM	15.84	13.1	295	57			48.10	
	2:00:00 PM	16.83	15.4	305	46				
	3:00:00 PM	17.39	13.7	294	43			33.69	
	4:00:00 PM	17.52	13.2	271	43			37.50	
	5:00:00 PM	17.59	16.8	261	43				
	6:00:00 PM	17.16	12.4	253	46			38.19	

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	7:00:00 PM	16.83	11.7	244	50			48.86	
	8:00:00 PM	14.83	12.2	217	65			38.55	
	9:00:00 PM	12.90	13.2	209	74			37.25	
	10:00:00 PM	11.78	14.7	201	78			36.73	
	11:00:00 PM	10.97	13.3	206	84			36.55	
8/26/21	12:00:00 AM	11.31	12.4	212	84			34.34	
	1:00:00 AM	11.68	11.8	218	82			37.83	
	2:00:00 AM	11.67	14.7	228	82			38.45	
	3:00:00 AM	11.63	17.5	231	81				
	4:00:00 AM	11.03	16.1	227	82				
	5:00:00 AM	10.89	14.1	223	81			39.42	
	6:00:00 AM	10.45	13.3	216	83			41.12	
	7:00:00 AM	10.45	13.3	218	82			39.12	
	8:00:00 AM	11.34	14.2	226	79			39.14	
	9:00:00 AM	13.11	16.0	229	73				
	10:00:00 AM	14.51	15.3	232	70				
	11:00:00 AM	15.70	17.1	236	68				
	12:00:00 PM	17.39	18.8	239	64				
	1:00:00 PM	18.32	22.0	249	62				
	2:00:00 PM	19.73	23.0	254	60				
	3:00:00 PM	21.54	24.9	267	55				
	4:00:00 PM	21.96	24.0	266	54				
	5:00:00 PM	22.77	25.9	274	52				
	6:00:00 PM	22.59	20.5	270	53				
	7:00:00 PM	21.81	16.7	265	57				
	8:00:00 PM	20.09	11.0	255	64			32.57	
	9:00:00 PM	18.22	10.8	247	72			39.17	
	10:00:00 PM	16.80	11.4	243	77			36.16	
	11:00:00 PM	15.82	12.9	244	81			37.73	
8/27/21	12:00:00 AM	14.75	15.5	252	85				
	1:00:00 AM	13.93	15.7	253	86				
	2:00:00 AM	13.64	15.7	255	86				
	3:00:00 AM	13.23	15.6	254	86				
	4:00:00 AM	12.54	14.7	256	88			29.10	
	5:00:00 AM	12.69	12.1	247	87			33.38	
	6:00:00 AM	12.50	6.7	224	87			37.95	
	7:00:00 AM	12.34	10.6	224	88			28.03	
	8:00:00 AM	12.47	13.7	227	88			37.36	
	9:00:00 AM	13.92	12.8	238	82			40.62	
	10:00:00 AM	15.52	13.2	246	76			41.60	

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	11:00:00 AM	17.70	11.0	238	69			36.09	
	12:00:00 PM	20.43	13.9	233	59			38.05	
	1:00:00 PM	21.93	16.0	236	53				
	2:00:00 PM	22.99	16.4	247	49				
	3:00:00 PM	23.47	18.9	251	46				
	4:00:00 PM	23.50	19.2	248	47				
	5:00:00 PM	23.13	19.4	250	48				
	6:00:00 PM	22.50	19.3	257	50				
	7:00:00 PM	21.59	15.8	249	54				
	8:00:00 PM	20.08	12.6	244	58			42.72	
	9:00:00 PM	18.01	12.7	243	65			34.24	
	10:00:00 PM	16.43	12.6	221	72			37.13	
	11:00:00 PM	15.17	13.9	224	77			34.86	
8/28/21	12:00:00 AM	14.40	14.2	226	79			37.06	
	1:00:00 AM	13.50	13.9	225	83			38.43	
	2:00:00 AM	13.16	16.2	228	83				
	3:00:00 AM	12.59	11.9	223	85			34.15	
	4:00:00 AM	12.64	12.1	219	83			34.54	
	5:00:00 AM	12.13	12.6	218	85			30.38	
	6:00:00 AM	11.10	7.2	183	90			39.48	
	7:00:00 AM	10.14	5.5	177	95				
8/29/21	1:00:00 PM	15.73	15.0	146	68				
	2:00:00 PM	16.14	12.9	161	61				45.31
	3:00:00 PM	16.47	9.1	172	58				44.85
	4:00:00 PM	16.62	9.6	167	55				46.94
	5:00:00 PM	16.26	13.7	145	60				49.02
	6:00:00 PM	15.50	16.0	147	63				
	7:00:00 PM	14.22	16.4	151	66				
	8:00:00 PM	11.86	14.8	143	79				40.10
	9:00:00 PM	10.37	12.0	136	85				38.38
	10:00:00 PM	9.39	13.6	140	89				38.31
	11:00:00 PM	8.40	15.3	146	94				
8/30/21	12:00:00 AM	7.34	15.7	152	98				
	1:00:00 AM	6.00	19.6	146	100				
	2:00:00 AM	6.16	18.0	151	100				
	3:00:00 AM	6.45	18.1	146	100				
	4:00:00 AM	6.68	16.3	149	100				
	5:00:00 AM	6.18	16.6	151	100				
	6:00:00 AM	5.94	16.8	148	100				

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	7:00:00 AM	5.85	16.4	147	100				
	8:00:00 AM	6.35	16.8	149	100				
	9:00:00 AM	7.37	16.5	151	100				
	10:00:00 AM	8.58	14.8	156	95				51.59
	11:00:00 AM	9.73	15.6	153	90				
	12:00:00 PM	11.06	15.8	154	85				
	1:00:00 PM	12.05	17.0	154	78				
	2:00:00 PM	12.33	14.5	160	75				51.87
	3:00:00 PM	11.91	13.4	165	74				51.74
	4:00:00 PM	10.54	12.3	164	80				52.26
	5:00:00 PM	9.86	13.1	166	83				51.85
	6:00:00 PM	9.05	13.4	167	87				48.81
	7:00:00 PM	7.75	11.6	170	94				46.73
	8:00:00 PM	6.80	13.6	163	99				51.59
	9:00:00 PM	6.38	16.0	157	100				
	10:00:00 PM	6.02	15.5	156	100				
	11:00:00 PM	5.89	14.1	161	100				45.02
8/31/21	12:00:00 AM	5.98	15.5	155	100				
	1:00:00 AM	6.18	15.6	155	100				
	2:00:00 AM	6.30	15.6	154	100				
	3:00:00 AM	6.18	15.3	155	100				
	4:00:00 AM	6.26	13.4	157	100				46.26
	5:00:00 AM	6.90	13.6	162	98				48.70
	6:00:00 AM	7.34	13.3	169	99				50.15
	7:00:00 AM	7.46	13.7	167	98				50.63
	8:00:00 AM	7.87	11.8	167	96				46.48
	9:00:00 AM	8.33	11.1	176	94				50.31
	10:00:00 AM	8.77	12.7	169	92				51.35
	11:00:00 AM	9.55	11.8	174	89				55.49
	12:00:00 PM	9.35	13.8	170	91				55.19
	1:00:00 PM	11.01	13.4	176	84				56.78
	2:00:00 PM	11.31	14.4	175	81				56.88
	3:00:00 PM	10.89	14.2	171	82				55.96
	4:00:00 PM	10.60	15.2	168	83				
	5:00:00 PM	9.61	14.3	170	88				55.20
	6:00:00 PM	9.06	13.3	167	93				59.22
	7:00:00 PM	8.73	17.1	163	95				
	8:00:00 PM	9.33	14.1	170	94				56.22
	9:00:00 PM	9.35	15.6	165	90				
	10:00:00 PM	8.74	14.3	170	92				54.95

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	11:00:00 PM	8.93	13.8	184	91				53.35
9/01/21	12:00:00 AM	8.90	11.6	176	91				50.69
	1:00:00 AM	8.66	11.6	185	92				47.81
	2:00:00 AM	8.53	14.6	194	92				47.12
	3:00:00 AM	8.60	12.9	192	92				41.78
	4:00:00 AM	9.13	25.1	203	90				
	5:00:00 AM	8.87	22.5	203	91				
	6:00:00 AM	8.33	12.6	198	95				44.17
	7:00:00 AM	8.10	9.9	188	97				45.87
	8:00:00 AM	8.64	9.0	182	96				48.87
	9:00:00 AM	8.60	10.6	176	95				43.97
	10:00:00 AM	8.87	10.4	185	95				44.63
	11:00:00 AM	9.75	14.1	196	91				40.94
	12:00:00 PM	9.48	16.8	199	92				
	1:00:00 PM	11.33	15.7	199	87				
	2:00:00 PM	11.51	15.5	197	87				
	3:00:00 PM	11.02	13.7	179	90				47.62
	4:00:00 PM	12.34	15.9	197	84				
	5:00:00 PM	12.01	11.5	186	85				44.29
	6:00:00 PM	12.00	19.2	203	84				
	7:00:00 PM	11.17	14.1	196	87				43.53
	8:00:00 PM	9.82	13.4	195	93				40.94
	9:00:00 PM	8.86	11.9	190	98				42.03
	10:00:00 PM	8.41	12.8	192	99				39.97
	11:00:00 PM	8.13	11.5	190	99				
9/08/21	10:00:00 AM	5.65	13.0	144	100				
	11:00:00 AM	5.82	13.1	149	100		39.60		
	12:00:00 PM	6.18	13.8	150	100		38.64		
	1:00:00 PM	6.59	13.8	154	99		36.88		
	2:00:00 PM	7.32	13.1	155	95		32.03		
	3:00:00 PM	7.80	9.8	161	94		29.33		
	4:00:00 PM	7.94	7.3	178	92		35.51		
	5:00:00 PM	7.91	7.6	163	91		36.92		
	6:00:00 PM	7.65	8.6	162	92		48.52		
	7:00:00 PM	7.00	9.2	164	92		49.27		
	8:00:00 PM	6.48	9.2	160	96		31.09		
	9:00:00 PM	6.10	6.8	171	98		29.30		
	10:00:00 PM	5.59	8.7	166	100		28.13		
	11:00:00 PM	5.39	6.8	176	100		28.41		



Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
9/09/21	12:00:00 AM	5.20	6.9	169	100		26.25		
	1:00:00 AM	5.21	6.3	172	100		31.00		
	2:00:00 AM	5.28	7.4	167	100		31.17		
	3:00:00 AM	5.32	6.6	168	100		29.98		
	4:00:00 AM	5.31	6.6	163	100		32.94		
	5:00:00 AM	5.37	6.1	165	100		30.30		
	6:00:00 AM	5.51	6.3	168	100		38.28		
	7:00:00 AM	5.39	6.7	165	100		36.94		
	8:00:00 AM	5.48	5.6	175	100		55.37		
	9:00:00 AM	5.97	6.6	190	100		46.74*		
	10:00:00 AM	6.46	8.4	199	100		30.07		
	11:00:00 AM	6.68	8.0	197	100		49.86		
	12:00:00 PM	6.97	6.0	186	100		51.55		
	1:00:00 PM	7.44	5.8	187	100		28.55		
	2:00:00 PM	7.90	6.1	194	100		44.77		
	3:00:00 PM	8.53	5.6	202	98		28.26		
	4:00:00 PM	8.65	6.4	186	97		34.92		
	5:00:00 PM	8.77	7.7	174	98		46.15		
	6:00:00 PM	8.55	8.5	167	98		55.68		
	7:00:00 PM	8.08	7.9	167	98		40.78		
	8:00:00 PM	7.15	7.3	177	100		58.42		
	9:00:00 PM	6.53	7.7	170	100		27.03		
	10:00:00 PM	6.18	7.6	176	100		27.22		
	11:00:00 PM	6.12	7.2	181	100		30.07		
9/10/21	12:00:00 AM	5.99	7.0	169	100		27.76		
	1:00:00 AM	6.00	7.6	161	100		27.98		
	2:00:00 AM	5.78	8.1	158	100		28.39		
	3:00:00 AM	5.67	10.7	150	100		32.33		
	4:00:00 AM	5.57	9.6	153	100		32.84		
	5:00:00 AM	5.34	10.7	136	100		36.94		
	6:00:00 AM	5.40	13.2	148	100		42.45		
	7:00:00 AM	5.55	13.8	136	100		40.04		
	8:00:00 AM	5.69	15.0	139	100				
	9:00:00 AM	6.05	15.5	136	100				
	10:00:00 AM	6.54	19.0	133	100				
	11:00:00 AM	6.97	20.0	133	100				
	12:00:00 PM	7.40	22.1	127	97				
	1:00:00 PM	7.61	24.2	123	95				
	2:00:00 PM	8.11	27.4	119	93				
	3:00:00 PM	8.36	27.8	117	82				

Date and Time		Avg. Air Temp (C)	Avg. Wind Speed (km/h)	Avg. Wind Direction (deg.)	Avg. Relative Humidity (%)	1-h Leq (dBA)			
						NPOR 6a	NPOR 8	NPOR 14a	NPOR 17a
	4:00:00 PM	7.93	31.2	109	85				
	5:00:00 PM	6.83	31.9	97	90				
	6:00:00 PM	5.50	31.0	97	97				
	7:00:00 PM	5.10	31.5	95	98				
	8:00:00 PM	5.21	30.0	96	100				
	9:00:00 PM	5.60	31.3	95	99				
	10:00:00 PM	5.46	32.1	96	98				
	11:00:00 PM	5.71	31.4	94	100				