Memo



To:	Kristal Harman, Director – Environmental Compliance and Enforcement
From:	Amir A. Iravani – Dillon Consulting Limited
CC:	Zac Moorhead, Katie Whyte – Dillon Consulting Limited
	Siobhan Burland Ross, Eshetu Beshada – Environmental Approvals
	Peter Crocker, Nada Suresh, Sonja Bridges – Environmental Compliance and Enforcement
	Linda Gammon – Urbanmine Inc.
Date:	April 21, 2022
Subject:	Urbanmine Inc. – Ambient Noise Monitoring Report #1 – Responses to Manitoba Environment, Climate and Parks (MECP) Comments
Our File:	21-1712

1. The raw monitoring data for the third monitoring location was not included in Appendix C.

As indicated in Sub-Section 3.2.3 the monitoring location 3 was installed for confirmatory measurement purposes and the data is not analyzed beyond confirming that the general noise levels are in line with locations 1 and 2.

P. The report stated that the noise monitoring units were adjusted to collect the L90 value but the results are not included in the report.

The 90th percentile values are provided in Appendix C. Please see the chart below (L90 is the column identified as LN4).

$L_{\rm N1}$	(L05)
L_{N2}	(L10)
$L_{\rm N3}$	(L50)
$L_{\rm N4}$	(L90)
L_{N5}	(L95)

3. The raw monitoring data contained in Appendix C show several exceedances over 55 decibels during the monitoring period which are not ⁽¹⁾ identified in the report.

In Section 4.0 of the report, the paragraph following Table 1 indicates sources of noise that resulted in noise levels of greater than 55 dBA (hourly Leq). To elaborate more, the following table provides a summary of when the hourly Leq values exceeded the 55 dBA at either of the monitoring locations and the corresponding comment from audio files describing the dominant noise sources. The dominant noise source that corresponds to operations at the facility is the handling of scrap metal, with metal clinging and metal hitting metal falling under the same general activity. The facility has confirmed that the height of the stockpile was relatively higher than usual when the noise monitoring was being undertaken. Material drop/pick-up at the stockpile is likely the source that was most audible at the receptors, and at times resulted in noise levels that exceeded 55 dBA. It should also be noted that there were instances of receptor noise levels >55 dBA when the Urbanmine facility was not operating. In those instances the anthropogenic sources of noise included train and truck operations.

្មេរ Noise Monitoring		Leq(A) - Hourly				
Date	Time	ML #1	ML #2	Location 1: Comment (Audio File Info)	location 2: Comment (Audio File Info)	
2021-09-29	14:00	55.5	51.8	Faint audio - no distinguishable noise source is heard	Scrap metal handling	
2021-09-30	7:00	56.8	55.4	Faint audio - no distinguishable noise source is heard	Faint audio - no distinguishable noise source is heard	
2021-09-30	8:00	55.4	55.8	Faint audio - no distinguishable noise source is heard	Scrap metal handling	
2021-09-30	10:00	56.7	52.7	Metals clinging	scrap handling	
2021-09-30	11:00	56.5	53.2	People talking, train passby	Faint audio - no distinguishable noise source is heard	
2021-09-30	12:00	68.1	56.6	Something metal hitting metal	Scap metal handling	
2021-09-30	14:00	57.4	54.3	Faint audio - no distinguishable noise source is heard	Faint audio - no distinguishable noise source is heard	
2021-09-30	15:00	55.7	52.9	metals clinging, scrap handling, train	faint noise of a metal clinging	
2021-09-30	19:00	66	54.7	Ducks	insect noises	
2021-10-01	8:00	62.3	53.5	Faint audio - no distinguishable noise source is heard	Metals clinging	
2021-10-01	11:00	56.3	46.4	Scrap handling, birds	Faint audio - no distinguishable noise source is heard	
2021-10-04	11:00	60.9	43.5	Metals clinging	Faint audio - no distinguishable noise source is heard	
2021-10-04	14:00	57.1	45.1	Faint audio - no distinguishable noise source is heard	Faint audio - no distinguishable noise source is heard	
2021-10-05	10:00	60.3	49.4	Faint audio - no distinguishable noise source is heard	birds chirping	
2021-10-05	12:00	58.7	49.3	Faint audio - no distinguishable noise source is heard	Faint audio - no distinguishable noise source is heard	
2021-10-05	13:00	61.5	52.3	Scrap metal handling, metals clinging	Faint audio - no distinguishable noise source is heard	
2021-10-05	14:00	58.4	53.7	Scrap metal handling, train passby	metals clinging, train passby	
2021-10-05	15:00	55.5	53.2	Scrap metal handling, scrap metal dump	Faint audio - no distinguishable noise source is heard	
2021-10-06	2:00	63	51.4	truck engine, truck beeping	truck engine, truck beeping	
2021-10-06	3:00	58.2	56	truck beeping, truck engine, train	train	
2021-10-06	5:00	57.3	50.8	Faint audio - no distinguishable noise source is heard	Faint audio - no distinguishable noise source is heard	
2021-10-06	7:00	56	52.7	Faint audio - no distinguishable noise source is heard	Faint audio - no distinguishable noise source is heard	
2021-10-06	8:00	62.9	52.8	Faint audio - no distinguishable noise source is heard	Faint audio - no distinguishable noise source is heard	
2021-10-06	9:00	57.6	56.5	Faint audio - no distinguishable noise source is heard	Faint audio - no distinguishable noise source is heard	
2021-10-06	10:00	56.7	56.5	Faint audio - no distinguishable noise source is heard	Faint audio - no distinguishable noise source is heard	

4. The noise exceedances over 55 decibels must be reported based on an hourly average Leq (hourly) as per the Manitoba Environment Guidelines for Sound Pollution not as an Leq (Average) for the operating day between 8:00am and 5:00pm. The data shown in Table 1 should be presented in a way that shows the number of hours during the day where the Leq (hourly) result exceeded 55 decibels and provide an explanation for the result.

The hourly exceedances of >55 dBA are presented in Appendix C. Reproducing the same table in the body of the report is not warranted. Please see response to comment #3 above.

5. There is no discussion of what activities took place or what equipment was operating at the site that would result in the noise exceedances observed during the monitoring period.

It should be noted that this is an ambient noise monitoring report and as such there is only limited information that can be deduced from the data gathered. Section 4.0 of the report discusses what dominated the noise environment and the sources at the facility that are audible at the receptors. Please see response to comment #3 for more details.

6. Wind and weather information was included in Appendix B, but there was very little discussion in the report on how the wind or weather would impact the noise generated on site and what those impacts would be off site.

Section 4.0 of the report speaks to the potential impact of weather on propagation of noise and windinduced noise generation that generally results in higher background noise levels. The predominant wind direction in the area is north-south. Comparison of measured ambient noise levels for periods with westerly winds (i.e., during September 29 and October 2) against days with predominantly northerly/southerly winds does not provide a conclusive finding that westerly winds result in higher hourly Leq at the nearby receptors.

7. There was no discussion on whether the noise mitigation measures implemented on site had effectively reduced the noise level at off site receptors.

The previous ambient noise monitoring was conducted in November of 2017 (Dillon report of February 3, 2018), with some of the mitigation measures implemented at the facility (e.g., noise barrier wall for the shear and the north property boundary). The 2018 report indicated that the average receptor sound levels range from low to mid 50's dBA and that when the facility was operational there

was a 2 to 3 dB increase in noise levels. Since then, the facility has expanded to include the ferrous plant and has also implemented additional noise mitigation measures, and as such comparing the results between 2018 and 2022 reports may not appropriately reflect the effectiveness of the noise mitigation measures. However, the next ambient monitoring program (to be completed in April-May 2022) will provide a better answer.

8. The report indicated that the 108 metre acoustic barrier on the roof of the building and partial enclosure east of the ferrous rotary shear were not implemented at the time of the noise monitoring. However, the report did not assess the anticipated noise reduction once these mitigation measures will be implemented.

That is not part of the noise monitoring report and cannot be determined through receptor ambient noise monitoring. Please refer to the acoustic assessment report (Dillon report dated: September 2020). April-May 2022 monitoring should provide more clarification on the impact of these two mitigation measures.

 The report indicated that the average peak noises are 1 to 13 decibels higher during facility operation. The report does not make any recommendations to lower the noise level and reduce its impact on the off site receptors.

Key dominant noise sources at the site and relevant noise mitigation measures were identified in the acoustic assessment report (September 2020). They are also listed in the ambient noise monitoring report (see Section 2.0). Please refer to the response provided for comment #3, #4 and #8 above.