Proposed Milton Quarry East Extension JART COMMENT SUMMARY TABLE – Noise

Please accept the following as feedback from the Milton Quarry Joint Agency Review Team (JART). Fully addressing each comment below will help expedite the potential for resolutions of the consolidated JART objections and individual agency objections. Additional, new comments may be provided once a response has been prepared to the comments raised below and additional information provided.

	JART Comments (September 2022)	Reference	Source of Comment	Applicant Response (November 2022)	JART Response (June 2023)
Re	port/Date: Noise Impact Study December 7, 2021			Aercoustics Engineering Ltd.	
1.	The noise study has applied the sound level limits at off site receptor locations in accordance with MECP Publication NPC-300. The use of NPC-300 is considered appropriate.	General	Valcoustics Canada Ltd.	N/A	No response from the applicant is required.
2.	Even though the Milton Quarry operation will be comprised of three separate licenses (two for the existing quarry and an assumed new licence for the East Extension), the operation as a whole including all three licenses needs to be assessed.	General	Valcoustics Canada Ltd.	This noise assessment, when considered with existing noise controls on separate licences for Milton Quarry, addresses all potential noise from both the existing approved quarry operations and the proposed extension. Simultaneous extraction operations in the separate licences are not planned. The same equipment is used for operations on the different licences. Regardless of the separate licences, the site is operated as one operation. Any operations that occur in the quarry within the other licences are subject to the noise controls of those licences which, when considered with the proposed noise controls in this study, ensure that the noise from those operations is in compliance with the appropriate sound level limits. As part of the noise study, noise controls were developed to be included in Licences 608621 and 5481. It is our understanding that these noise controls will be added to these licences as part of a site plan amendment to integrate the proposed East Extension if approved. All operations occurring outside the proposed East Extension licence boundary that are associated with extraction in the East Extension were assessed in the noise study. For example, all noise from transportation to and processing within the Main Quarry was included.	must be maintained at the existing licenses is needed. Also, some clarification regarding the equipment that can be used at the Quarry is also needed.
3.	The report indicates the existing Milton Quarry is permitted to operate 24 hours per day with an unlimited annual extraction limit. The NIS for the East Extension has been prepared utilizing a maximum daily production scenario. We have the following questions/comments regarding the extraction limit. a. Is this maximum only applicable to the East Extension? b. Will there be additional extraction occurring on other parts of the quarry? c. If this daily production limit applies to the entire site, then this daily production limit effectively	General	Valcoustics Canada Ltd.	 a. Yes. b. Extraction is permitted in other parts of the quarry and must be conducted as outlined in the respective licence. There is not expected to be any simultaneous extraction in multiple parts of the quarry. c. The discussion of maximum daily production with the operator was used to inform the equipment size and numbers, which do form part of the noise control design. An annual or daily production limit is not an effective noise control as it would not directly affect the predictable worst-case hour. 	The noise mitigation recommendations must clearly provide the equipment limitations for the entire quarry operation (both existing and for the extension combined). A few issues have been identified in the latest noise report which need to be addressed.

	creates a maximum annual extraction limit (i.e. the daily limit times the number of production days in a year) which should be incorporated into a noise control recommendation.				
4.	There appear to be a number of assumptions that have been made to complete the assessment that should be incorporated into the noise control recommendations since these assumptions establish a limit on the amount of equipment that can operate on the site. a. Section 2.1 implies that the only activity that could occur in the East Cell during Scenario 1 extraction in the East Extension is rehabilitation. This means that there should be no operations in the East Cell once extraction in the East Extension have commenced; and b. Section 5.1 indicates that noise assessment accounts for the berms that currently exist on the site. Thus, the maintenance of these existing berms needs to be a noise control recommendation.	Section 2.1 and Section 5.1	Valcoustics Canada Ltd.	a. b.	The operations in the East Cell would be constrained by the noise controls included on the licence for the East Cell. There is not expected to be any simultaneous extraction from different parts of the quarry. Some of the extraction and processing of the East Extension lands will involve equipment located in the East Cell and this was considered in the noise study. The existing berm that is required to be maintained is included in the noise control recommendations. Refer to Noise Control Item #5. The maintenance of each acoustic barrier required by the noise controls is specified as part of that noise control as it relates to one of the two Scenarios.
5.	There also appear to be a number of contradictions within the text of the report. Thus, it is not possible to determine the operations that will occur on the quarry site and that these operations were appropriately accounted for in the acoustical modelling. For example: a. Section 2.2 states that the processing area in the main plant will "wind down" and that any processing in the main plant area will be done using one or two portable plants to process either recycled material or material extracted from below the main plant. However, later in the same section the report states that material from the muck pile in the East Extension will be hauled to the processing plant in the Main Quarry; b. Section 4.3.2 states the processing plant in the Main Quarry will be removed for Scenario 2 and (all?) processing will be done in the East Cell using a portable processing plant. However, the second paragraph in 4.3.2 goes on to state processing could also be done in the Main Plant using two portable plants; and	Section 2.2, Section 4.3.2, Table A and Table 3	Valcoustics Canada Ltd.	b.	Section 2.2 has been revised to clarify that, although not a primary part of the Scenario 2 operations, the portable plants located in the Main Quarry may also process material extracted from the East Extension. The noise from this operation was included in the Scenario 2 assessment. Section 4.3.2 has been revised to clarify that the portable plants located in the Main Quarry may also process material extracted from the East Extension. Table 3 and Table A have been revised to include equipment that had been omitted and ensure their consistency for clarity. The limit on the amount of equipment is not presented in the Table and is instead included in Noise Control Item #10 for each of the 2 scenarios.
	 The maximum equipment sound emission levels outlined in Table A do not appear to include all of the equipment that could operate on the site. 				

	The list is different in Table 3 and in the sample calculations. Table A needs to set limits on the types and amount of equipment that can operate on the site as well as their sound emission limits.			
6.	Section 4 Quarry Operations outlines the nature of the work that will occur on the quarry site. The list should include the movement of material on the quarry site.	Section 4	Valcoustics Canada Ltd.	 a. The list of the nature of work that will occur in the quarry has been revised in Section 4 to clarify that the work will include transport of the material.
7.	 Table 2 in the report outlines the typical operating hours at the East Extension while Section 4.1 states the quarry is proposed to operate 24 hours per day seven days a week. a. Was the assessment completed using the typical operating hours or the worst case 24 hours per day? If typical operating hours were used, these time restrictions need to be clearly outlined in the noise mitigation recommendations; b. In Table 2, for the loading and shipping activities, the typical operating hours are indicated as being "05:30 to 17:00, typically (24 hours is proposed)". Clarification regarding what this actually means is needed; c. The indicated hours are only for the East Extension. What will the operating hours be for the remainder of the quarry? 	Table 2	Valcoustics Canada Ltd.	 a. The assessment was completed using the worst-case predictable hour for each time period. Extraction, processing, loading and shipping are not restricted based on time. Site preparation and rehabilitation are not part of the regular operations of the quarry and are not assessed in this study. Drilling is limited to daytime hours per Noise Control Item #7. b. Loading and shipping can occur at any time if it conforms to Noise Control Items #6 and #10. The typical hours during which loading and shipping occurs is presented in Table 2 is included for informational purposes. c. The existing quarry is permitted to operate 24 hours in compliance with the site plan requirements.
8.	Section 4.2 Site Preparation and Rehabilitation proposes construction activities be restricted to daytime hours only to minimize their noise impact. The off-site noise impacts from construction can be significant. To minimize their potential noise impact, it is recommended that it only occur during the daytime (i.e. 07:00 to 19:00 hours) Monday to Friday and not on statutory holidays.	Section 4.2	Valcoustics Canada Ltd.	Limitations based on days of the week and holidays are not considered in the provincial noise guidelines. Aercoustics agrees that avoiding weekends and holidays may minimize the potential impact from some construction activities in certain cases. Based on the consideration of the size of the site and the separation distance to surrounding receptors restricting construction activity on Saturdays, Sundays or Statutory Holidays for this site is not necessary. The size of the site and variation in noise from these activities could result in some construction noise being inaudible or barely noticeable at surrounding dwellings. Restricting all construction noise is generally left to the operator.
9.	Section 4.3 indicates the annual tonnage to be removed in the East Extension is 2 million tonnes. Is this the annual production limit for the entire site or just for the East Extension?	Section 4.3	Valcoustics Canada Ltd.	The two million annual tonnage to be removed in the East Extension in Section 4.3 is not a limit but an estimate of the production based on operating Scenario 2. As mentioned above, this estimate informed the type and amount of proposed equipment. 4.3.2 states that material will be transported to the main portable processing plant located in the East Cell or to two portable processing plants located in the Main Plant. Does this mean that processing can only be done in either the Each Cell or Main Plant but not both simultaneously? Clarification is needed.

10.	 There are some issues with the on-site trucking equipment limits: a. The general equipment limit reference the number of "Off-Road truck trips/hr". This is a difficult to enforce limit since a 24 trips/hr limit could have 1 truck making all 24 trips or 24 trucks each making 1 trip. Unless an inspector were to count truck movements for an entire hour, this equipment limit could not be verified. Thus, the preference would be to recommend a maximum number of trucks, which can be easily counted, instead of the maximum number of trips/hr; b. The equipment limits for the two scenarios indicate a separate truck trip limit for the East Extension, Milton Quarry Extension, and the Main and North Quarry. Are these limits cumulative (i.e. will there be up to 72 truck trips/hr)? c. Why is the Off-Road truck trips limit of 32 higher for Scenario 2 than the 24 for Scenario 1 when the extraction limit for Scenario 2 is reduced? 	General	Valcoustics Canada Ltd.		 a. Comment addressed. b. The description in the noise report does not include haul truck traffic through the Main Quarry and North Quarry for Scenario 2. Our understanding is that both shipping traffic and haul trucks could be using this route simultaneously for Scenario 2. c. Comment addressed.
11.	In Section 4.4, what will the additional two front end loaders in the Main Quarry and North Quarry be used for in both Scenarios 1 and 2?	Section 4.4	Valcoustics Canada Ltd.	The additional two front end loaders in the Main Quarry and North Quarry are associated with the Large and small Portable Plants. They will be used to move material into the two portable plants in the Main Quarry and also as shipment loaders for delivery to market.	Comment addressed.
12.	Section 5.1 states the modelling generally accounts for hard ground in the quarry area. When was hard ground not used in the model for the quarry area?	Section 5.1	Valcoustics Canada Ltd.	Hard ground was not used in the plots of land to the south of the Main Quarry that are not for extraction. Hard ground was also not used for the Escarpment Natural Area between the Main Quarry and North Quarry.	Comment addressed.
13.	Table 3 outlines the reference sound pressure levels of the equipment that was used to model the sound emissions from the facility. This table is not the same as Table A and does not include all of the noise sources that were modelled (as can be seen in the sample calculations in Appendix B). Also, which sources were measured at the existing Milton Quarry and which sound levels were assumed?	Table 3	Valcoustics Canada Ltd.	Table 3 and Table A have been revised to include equipment that had been omitted and to ensure consistency.	Comment addressed.
14.	For the Highway Truck and Off-Road Truck noise sources, what operating speed was used to complete the assessment?	General	Valcoustics Canada Ltd.	Based on site visit observations, highway trucks were modelled using a speed of 25 km/h when travelling on the licences that allow extraction and 50 km/h elsewhere such as on the site access roadway. Off-road trucks were modelled using a speed ranging between 20 km/h and 45 km/h depending upon the road conditions. Based on site measurements, a further correction of 3 dB was added for movements on an incline. More detail can be provided upon request.	Comment addressed.

15.	Section 5.3 indicates that the recommended noise controls can be modified if appropriate studies are prepared. These studies need to be reviewed and approved prior to any modifications on the site.	Section 5.3	Valcoustics Canada Ltd.	must meet the appropriate sound level limits and must be confirmed through documentation prepared by a Professional Engineer specializing in noise control.	5.3 outlines the recommended noise controls and indicates stockpiles may be used to provide acoustical screening. If temporary stockpiles are to be used as a noise mitigation measures, guidance on how they are to be deployed and maintained (are minimum heights and extents required) should be provided in the Noise Impact Study. These recommendations would need to be translated onto the Site Plans.
16.	Section 5.4 presents the worst-case noise level produced by operations within the East Extension. The noise study needs to confirm that the sound emissions from the entire site comply with the MECP noise guideline limits and not just from the East Extension.	Section 5.4	Valcoustics Canada Ltd.	to extraction from the East Extension as well as all other associated operations elsewhere on the entire site.	The noise control recommendations (and the notes on the Site Plans) need to be clear that if certain operations are occurring within the existing licenses then extraction must not occur in the proposed extension.
17.	Section 5.5. is titled Cumulative Noise Impact. It is not clear which quarry sites are being considered here since the Key Plan only shows the Milton Quarry. As indicated in p) above, the sound emissions from the entire Milton Quarry site must be shown to comply with the noise guideline limits. This section seems to indicate that the noise impacts from the entire Milton Quarry could exceed the noise guideline limits.	Section 5.5	Valcoustics Canada Ltd.	Section 5.5 refers to operations that may occur in other parts of Milton Quarry while material is being extracted from the East Extension. The noise study assessed the noise emissions from the entire quarry due to extraction from the East Extension. There is not expected to be any simultaneous extraction from different parts of the quarry. If any unplanned overlap does occur, the cumulative noise discussion in Section 5.5 addresses this. If extraction does occur in a different part of the quarry, it will be subject to the noise controls in the respective licence.	Comment has been addressed. Simultaneous operations will not occur such that cumulative assessment is not needed.
18.	Section 6 states "since the quarry extension truck traffic will use the same haul routes, no significant change in truck trips is expected to occur". It is not clear how the use of the same haul routes results in no change in truck trips. Clarification is needed.	Section 6	Valcoustics Canada Ltd.	This extension is intended to replace nearly exhausted reserves. There is no expected increase in the amount of material shipped to market. Therefore, there will be no increase in the amount of highway trucks servicing the quarry. As the number of trucks servicing the quarry is not expected to increase and the route travelled to service the quarry will not change, there is no predicted change in noise along the haul route.	Comment has been addressed.
19.	Figure 3b only shows highway trucks coming to the site entrance and not travelling to the actual stockpile areas. In addition, the 7 shipping loaders are shown at a central location that is not close to the highway trucks they are loading and appear to not represent a predictable worst-case operating location(s).	Figure 3b	Valcoustics Canada Ltd.	•	Review of Figure 3a indicates that shipping trucks will only just come into the Main Plant where they will circle and leave the site. The elevation contours indicate that there are existing stockpiles distributed throughout the Main Plant area and that shipping trucks could travel much closer to R4, R5 and R6 than has been accounted for in the model. The shipping truck route(s) must account for the predictable worst case noise impacts at the indicated receptors.
20.	Figure 4 shows a 100 m long berm and has a dimension of 80 m immediately beside the berm. Either this drawing is not to scale or there is an issue with the dimensioning on this drawing. Clarification is needed.	Figure 4	Valcoustics Canada Ltd.	The label on Figure 4 was corrected to 280 m, the distance of the berm from the northwest corner of the North Quarry.	Comment addressed.
21.	Figure 5a seems to show two front end loaders operating in the East Cell for Scenario 1. However, the descriptions in the report indicate there will be no equipment operating at this location. Clarification	Figure 5a	Valcoustics Canada Ltd.	The excavator and extraction loader in Figure 5a represent equipment that will be used to load the off-road trucks. This equipment is associated with extraction of the East Extension but as Phase 1 begins it may be located near or slightly within the East Cell	Comment addressed.

	is needed.		area as modeled.	
22.	 In the General Noise Controls Scenarios 1 and Scenario 2: a. Item 6. recommends a limit of 200 trucks per hour enter the site during the nighttime hour. This exceeds the 168 highway trucks per hour that were included in the assessment; b. Item 8. should be revised to indicate the bottom of the first lift shall have a maximum elevation of 325 m a.s.l. 	General Noise Controls Scenarios 1 and 2	 a. Noise control #6 has been revised to clarify that the number of highway truck movements during the nighttime is limited to 200 truck passes which is equivalent to 100 trucks per hour. b. Noise control #8 has been revised to clarify the first lift extraction elevation requirement of 325 m a.s.l 	Comment addressed.
23.	 In the Noise Controls for Scenario 1: a. Items 11 and 13 recommend an acoustic barrier on the north and west sides of the truck ramp(s). These barriers are not shown on the mitigation plans within the report; b. Item 12 recommends a noise mitigation measure for the screen decks. However, a reference sound emission level (either before or after the recommended mitigation) is not presented in the report. Thus, it will not be possible to confirm that the mitigation, if implemented, is adequate; c. Item 15 refers to a "single drill area". It is not known where this location is since it is not shown on the drawings in the report; d. Item 15 also recommends a 3 m acoustic barrier for the drills. However, a specific extent and location for this barrier is not indicated. The recommendation needs to clearly indicate the maximum distance this barrier can be from the drills. 	Noise Controls for Scenario 1 Valcoustics Canada Ltd.	that the sound pressure level for the Sorting Facility includes the 4 dB reduction due to the noise control #12. c. The label for the area where drill operations are limited in Figure 5b has been revised to clarify the location of the "single drill area" as indicated in Noise Control Item #15	There are a number of "suggested" noise best management practices that are identified within the report. However, they have not been included in the noise control recommendations presented as Appendix A. These include: a. Site preparation and rehabilitation should be restricted to weekday daytime hours and not on statutory holidays. b. Where possible, the use of broadband alarms is encouraged. How are these going to be included on the Site Plans?
24.	Under Phase 1 and 2 in the Noise Controls for Scenario 2 section, the recommendation is no additional noise controls. It is not clear what no additional noise controls means. Since the operations and equipment in the extension are largely the same or greater than for Scenario 1 and there is increased activity in the East Cell, it is not clear why it appears no noise mitigation is needed when noise mitigation was required for Scenario 1.	Noise Controls for Scenario 2 Valcoustics Canada Ltd.	There are no noise controls specific to Phase 1 or Phase 2 in Scenario 2 because the general noise controls for Scenario 1 and Scenario 2 along with the Scenario 2 equipment limits are sufficient to ensure the quarry meets the appropriate sound level limits. For clarification, part of the reasoning for this is that the equipment in the East Cell, while located closer to some receptors, is to be located on the quarry floor and well shielded by the steep quarry face. Offroad trucks and existing Main Quarry processing plants have a reduced noise impact compared to Scenario 1.	Comment addressed.

25.	 Appendix B provides sample calculations. We have these comments/questions: a. How are we to determine which scenario the calculations are for? b. The calculations appear to account for equipment that is not included in the equipment lists (Table 3 and Table A); c. Many of the results in the sample calculations are different than the worst-case sound levels presented in Table 4. For example, the calculation for R4 shows 42 dBA while the results in Table 4 show 40 dBA and 39 dBA for Scenarios 1 and 2, respectively. If the results in Table 4 are worst-case, why are the sample calculations showing higher results? d. Why are all the noise sources not included in the sample calculation for each receptor? 	Appendix B	Valcoustics Canada Ltd.	b. c.	Appendix B has been revised to clarify that the sample calculations refer to Phase 1 of Scenario 1. The ID and naming for the sample calculations have been updated to reflect the items in Tables A and 3. The results in Appendix B have been revised to accurately reflect the results of the model. Noise sources that do not contribute significantly to the sound pressure level at a receptor are not included in the sample calculation table for that receptor. A noise source that contributes 15 dBA or less to a receptor's overall sound pressure level is considered insignificant at that receptor.	Comment addressed.
26.	 The noise assessment should also incorporate these typical best practices into the noise mitigation recommendations: a. Since back up beepers are a common source of complaint, even when their sound emissions comply with the MECP noise guideline limits, the operator should consider the use of broadband alarms on the equipment operating on site and to design interior haul routes that minimize the need for trucks to operate in reverse; b. A noise monitoring program should be included in the recommendations to ensure equipment noise emission levels do not exceed those recommended within the report and that off site sound levels comply with the MECP limits; and c. A protocol should be established that provides a mechanism for the public to provide noise concerns to the operator and a procedure for the operator to follow to address any concerns. 	General	Valcoustics Canada Ltd.	b.	requirement for the proposed East Extension to meet the noise	Aercoustics provides suggestions within the noise report that are not part of their recommendations. How are these to be incorporated onto the Site Plans?
27.	As part of the public circulation of the OPA/UHOPA comments were received from nearby land owners with concerns about noise and blasting impacts. Does the applicant's noise consultant need to specifically address this now as part of a resubmission? Or are those comments just presented to the applicant at the time of the public meeting next year.	General	Town of Halton Hills	in a	e noise from blasting, termed "overpressure", is typically dealt with a Blast Impact Assessment study which compares the predicted ise and vibration to the MECP limits as outlined in NPC-119.	Comment has been addressed.

	JART Comments (June 2023)	Reference	Source of Comment	Applicant Response	JART Response
28.	The statement "noise controls presented in this report do not replace existing noise controls for extraction in other areas of the quarry" should also include processing, transport and shipment off-site, and not just extraction.		Valcoustics Canada Ltd.		
29.	The Noise Impact Study should include a mitigation recommendation that the portable processing plants in the Main Plant be in locations consistent with what is shown on Figures 7a and 7b.	Noise Study Review	Valcoustics Canada Ltd.		
30.	Noise Control Recommendation 3 should be clear that both reference source levels and sound levels at the receptors will be measured as part of the noise monitoring.	Noise Study Review	Valcoustics Canada Ltd.		
31.	Noise Control Recommendation 14 (for both Scenarios 1 and 2) must be clear that quarry refers to the entire Milton Quarry and not just the East Quarry Extension and that there is to be no other equipment operating other than what is listed unless the other equipment is being used for a construction activity.	Noise Study Review	Valcoustics Canada Ltd.		
32.	The noise mitigation recommendations need to be included on the Site Plans. We have not received the updated Site Plans and cannot confirm that they have been properly included.		Valcoustics Canada Ltd.		