

24 May 2013

**James Dick Construction**

P.O. Box 470  
Bolton, Ontario  
L7E 5T4

Attn: Greg Sweetnam

Re: Response to Peer Review from Novus Environmental Inc. for Proposed Hidden Quarry in Rockwood, Ontario, dated April 8, 2013.

The comments in this letter are in response to the peer review of Mr. Scott Penton, of Novus Environmental Inc, dated April 8, 2013, regarding Aercoustics' Noise Impact Study<sup>1</sup>.

Our responses to the comments raised by Novus are presented below. ***A summarized version of our interpretation of the Novus comments is presented in italics followed by our responses:***

1. *Receptor Height.*

*The AEL report notes that a receptor height of 1.5m was used in the assessment. This is inconsistent with both MOE NPC-205 and NPC-232 noise guidelines*

Aercoustics' assessment was indeed conducted at a 1.5m receptor height for daytime and night-time operations at all receptors which have only one storey. For two storey receptors, the day-time assessment was also performed at a 1.5m receptor height.

Although Aercoustics disagrees with Novus' interpretation of the MOE guidelines with respect to daytime receptor heights, Aercoustics has verified that impacts from daytime quarry operations at a 4.5m receptor height for two-storey dwellings does satisfy the established daytime sound level limit criteria, with the implementation of the acoustic controls as recommended in our Noise Impact Study<sup>1</sup>.

Night time operations were assessed at a 4.5m receptor height as part of our report for residences which have a 2<sup>nd</sup> storey, however a clerical oversight resulted in 1.5m night time sound levels being reported for *all* receptors. This has been addressed in an updated report.

---

<sup>1</sup> Aercoustics report entitled "[...] Noise Impact Study," dated November 19, 2012

The following table summarizes the above:

Quarry Operations	Receptor Construction	Receptor Height Basis for Assessment	November 15th, 2012 Report	Updated April 25th, 2012 Report
			Receptor Height Basis for Reported Levels	Receptor Height Basis for Reported Levels
Daytime	One Storey	1.5m	1.5m	1.5m
	Two Storey	1.5m*	1.5m	1.5m
Night-time	One Storey	1.5m	1.5m	1.5m
	Two Storey	4.5m	1.5m	4.5m

\*As noted earlier, in response to Novus' comments Aercoustics has verified that predicted impacts at a 4.5m receptor height satisfy the established day-time sound level criteria.

## 2. Construction Activity

*The AEL report does not address Guelph/Eramosa Noise Bylaw 5001/05*

Aercoustics agrees with Novus' comments and has updated its report accordingly.

## 3. Noise Source Emission Rates

*It is uncertain if a tonal penalty has been applied to rock truck drilling noise.*

To clarify, our report recommended a quiet rock drill satisfying a maximum sound power level of 112dBA. This can be accomplished either using a non-tonal rock drill with a maximum sound power of 112dBA, or a tonal rock drill with a maximum sound power equal to 107dBA.

## 4. Noise Source Emission Rates

*The report does not indicate which phase was being assessed (or if the results are worst-case for all phases).*

As noted in Table 6 of AEL's report, worst case impacts for each source are provided. The assessment process used is clarified below:

a) For each phase, noise sources which move through the excavation process are assessed at positions within that extraction phase which provide generate worst-case levels at receptors.

b) The worst-case levels obtained for each noise source from a) in each phase are compared, and the highest (i.e worst-case) are reported in table 6.

c) The same process as in b) is performed for overall levels and for sources which do not move across phases.

*The report does not indicate where source equipment is being located within the quarry for noise modelling purposes. A contour map is required to confirm that compliance is achieved at all points at ground level within 30m of dwellings.*

In its updated report, Aercoustics has included contour maps at 1.5m receptor height generated within CadnaA which also indicate source positions in its updated report in order to confirm that compliance is achieved within 30m of dwellings at ground level.

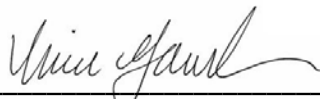
Aercoustics has attached sample daytime contours to this letter, generated at 4.5m, to validate the claims made in item 1 above.

Thank you for considering the responses in this letter. Please feel free to contact us if there are any questions or if further discussion is required.



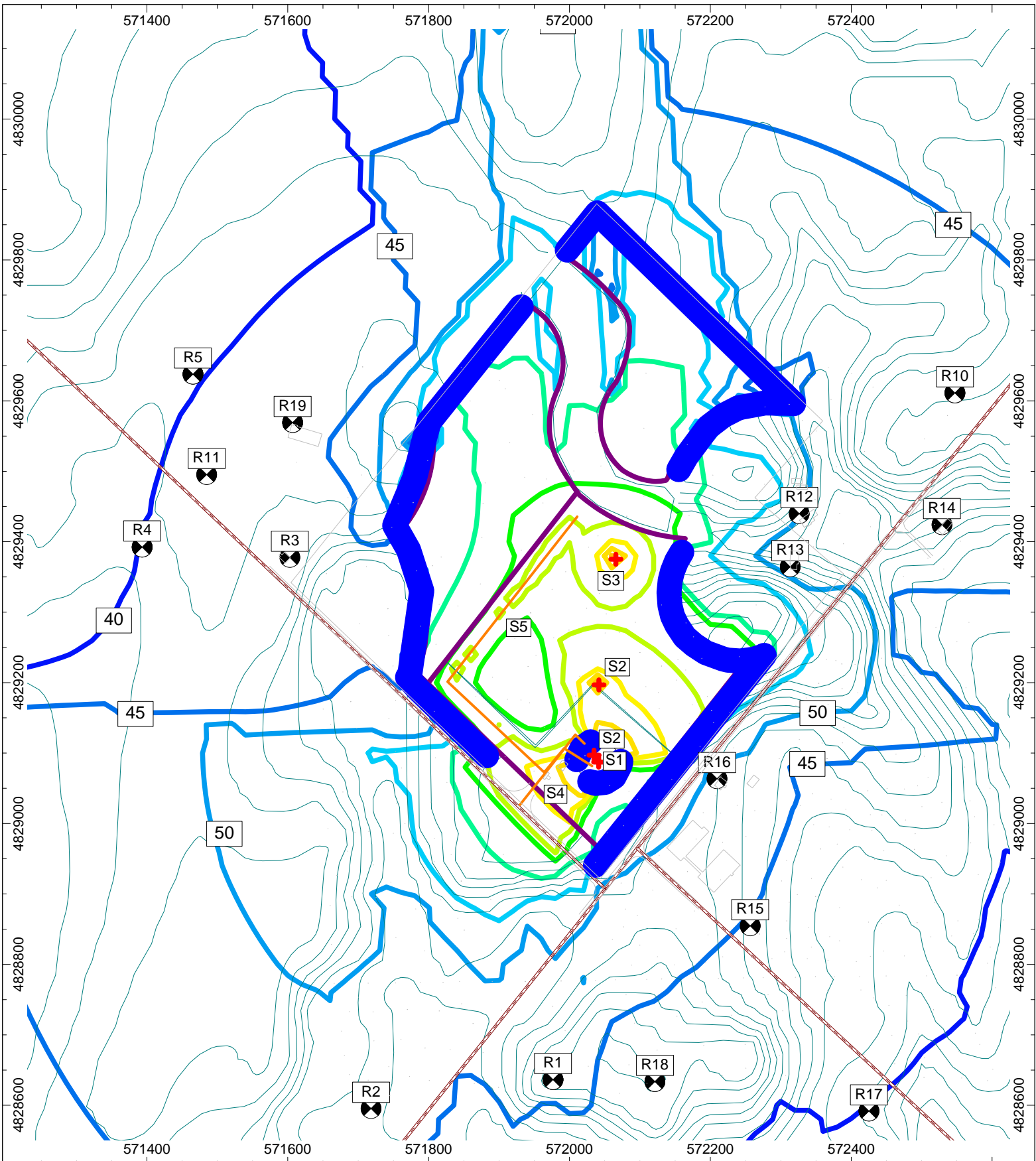
---

David Grant, B.A.Sc., P.Eng.



---

Vince Gambino, P.Eng.




  
 50 Ronson Dr, Suite 165, Toronto ON
   
 P: 416 249 3361 F: 416 249 9813

Scale: NTS
   
 Drawn: DG
   
 Eng: VG
   
 Date: May 24, 2013

The scope of the work outlined in this document is limited to the acoustic, noise, and/or vibration control aspects of the design. Contractors to verify all dimensions

Project:
   
 Hidden Quarry

Project Number: 11007

Drawing Title:
   
 Daytime Sound Level Contours @ 4.5m Height
   
 Phase 3, Stage 2

Figure: 1