

Arpeggio Acoustic Consulting, LLC
1947 Aspen Dr. NE
Atlanta, GA 30345
(404) 277-6528 (DIRECT)
(404) 417-0100
(404) 806-6104 (FAX)

November 11, 2010

Mr. Warren Fondu
Andretti Indoor Karting and Games
11000 Alpharetta Highway
Roswell, Georgia 30076

Re: Andretti Speed Lab November 4, 2010 Noise Survey

Dear Warren:

We have completed our analysis of the data we collected at our November 4, 2010 survey in the community around your karting facility and offer the following report.

INVESTIGATION

We visited your facility on Thursday night, November 4, 2010 from approximately 9:00 pm until approximately 11:00 pm to perform sound level measurements at several off-site locations in the immediate area and in the surrounding community. The locations for the measurements are depicted in Figure 1.



Figure 1 – Sound Measurement Locations for 11/4/10 Andretti Survey

During our visit the temperature, in degrees Fahrenheit, was in the upper 40s and there was no precipitation. Winds were generally out of the northwest and under 15 miles per hour; winds during measurement intervals were calm to light, with no sustained winds or significant gusts. While measurements were made at each location, 20 karts were being operated on two temporary tracks on the south side of your facility, at the approximate location of your proposed outdoor tracks. According to Andretti representatives, conditions replicated those that would be typical at the proposed outdoor tracks.

The survey employed three identical, time-synchronized logging sound level meters. One sound level meter (SLM) was stationary at the facility at a location, denoted as Location 1, positioned toward the west end of the temporary track area, for the entire duration of the survey to provide a reference for other measurements made at off-site locations. Measurements at the off-site locations were coordinated with the operation of the karts on the Andretti property. The operator of each sound level meter was tasked with manually logging any extraneous sound sources and subjective perceptions at each measurement location.

For discrimination of sound contributions due to kart operations, the measurement procedure called for all of the karts to be put into operation for a time interval, followed by an interval with the karts at idle. The karts were typically run in three to five minute heats as measurements were made. Each heat was followed by approximately two minutes of stationary idling. The off-site meters measured and recorded data throughout this sequence of kart operation and were moved after completion of each cycle. As noted previously, the on-site stationary meter at Location 1 continuously recorded data throughout the entire duration of the survey.

Table 1 identifies the sound level measurement equipment used at each location in terms of model and serial number (SN). The survey equipment comprised three SLM systems, each consisting of a Larson•Davis System 824 sound level meter and real time analyzer with a Larson•Davis ½" random incidence microphone and Larson•Davis Model PRM902 preamplifier. All systems were calibrated with a Larson•Davis precision acoustic calibrator both before and after the measurement session and fitted with a windscreen. Each sound level meter was configured to log data every second. Several acoustical metrics were logged, including the slow response A-weighted equivalent sound level, L_{eq} , which is defined as the steady sound level which, over a stated time period (in this case, one second), would have the same sound energy as the actual varying sound level over that time period. In addition, third-octave band spectral data was logged every second at each location. While measurements were taken, each sound level meter was mounted on a tripod at a height of approximately 5'.

Table 1 – Equipment Identification for 11/4/10 Andretti Survey

SLM SN	Microphone Model/SN	Preamplifier Model/SN	Calibrator Model/SN	Location
824A1769	2560/2467	PRM902/2268	CAL200/3354	1
824A3843	377A60/107233	PRM902/4224	CAL200/6346	2, 3, 5, 11, 12, 13
824A1771	2560/3249	PRM902/2276	CAL250/4096	4, 6, 7, 8, 9, 10

RESULTS

Subjectively, the karts were only plainly audible at Locations 1, 2, 3, and 5. The karts were weakly audible at Location 4 when there was no traffic in the vicinity on either Houze Way or Houze Road. The karts were not audible at any of the other locations, thus, measurements made at those locations represent the ambient produced by other sources such as road and air traffic and occasional breezes. The measured sound levels support these subjective assessments, as well.

Figure 2 depicts the time history of the A-weighted sound level measured at Location 1 for the duration of the survey. The periods when the levels are approximately 75-80 dBA are those periods when all of the karts were in sustained operation under power and in motion. Appendix A includes plots of the time histories at each of the measurement locations corresponding to each time interval in Figure 2 with the karts in operation. Evaluation of the plots in Appendix A indicates that the karts had measurable impact at Locations 1, 2, 3 and 5, but no measurable impact at Locations 4 and 6 through 13.

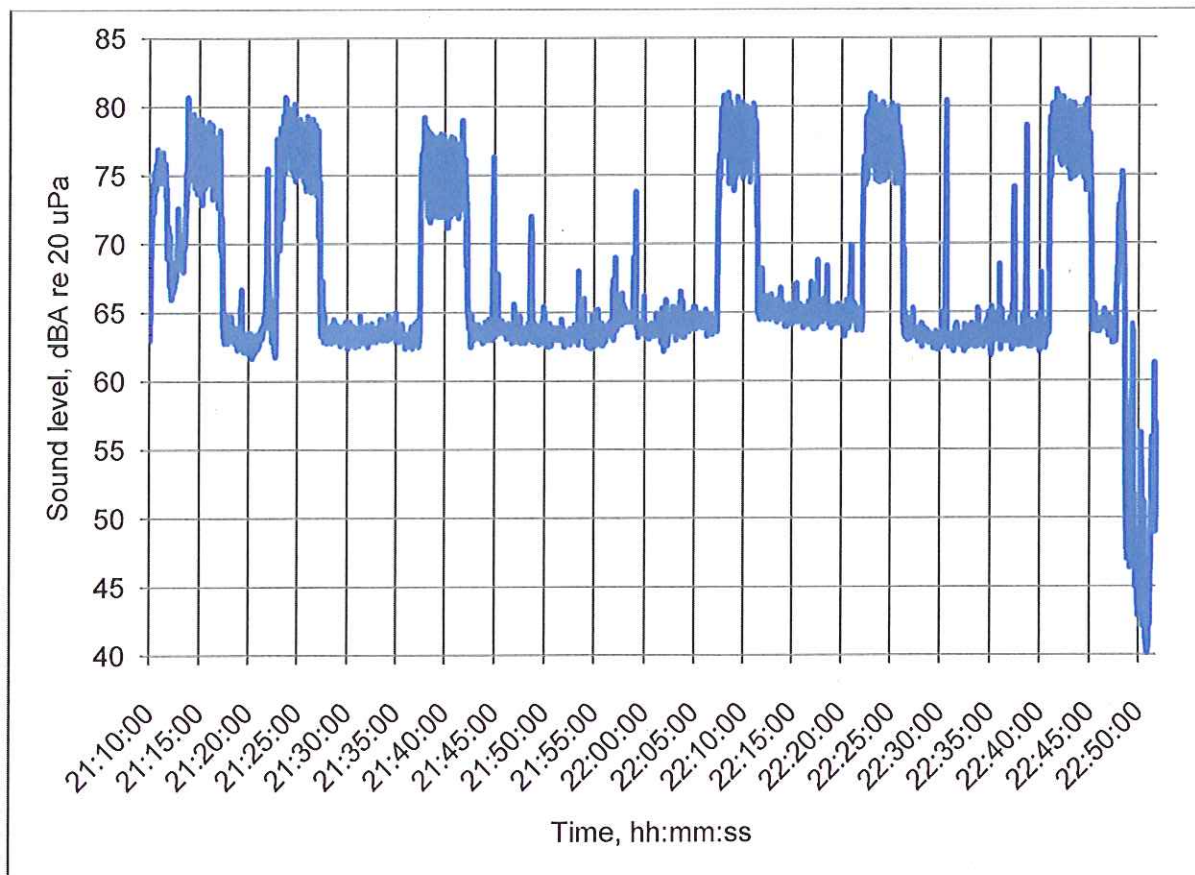


Figure 2 – Time History of Sound Levels at Location 1 During 11/4/10 Andretti Survey

Table 2 summarizes the broadband A-weighted levels at each location where the karts were plainly audible as well as subjective assessments at each of these locations. The values given in the table generally represent the steady state levels measured while there were no other extraneous sources such as nearby traffic. Table 3 presents the subjective assessment of the sounds at each of the measurement locations where the karts were not plainly audible, including Location 4. Concerning Location 4, the time history of the levels at this location presented in Figure A2 was dominated by traffic noise from the adjacent roads, and there is no clear indication of impact due to operation of the karts.

Table 2 – Sound Levels at Measurement Locations 1, 2, 3, and 5 Where Karts Were Plainly Audible During Andretti Noise Survey (Sound level is the level observed with karts in sustained operation. Impact is the approximate increase above the ambient sound level due to kart operation.)

Location	Sound Level, dBA	Kart Impact, dBA	Subjective Assessment
1	73-80	~12-17*	Karts were main source when under power
2	63	~10	Karts audible, traffic on Houze Way routinely exceeded 70 dBA
3	62	~10	Karts audible, traffic on Houze Way routinely approached 70 dBA
5	49	~5	Kart operation approximately equal in level to nearby road traffic

*Between levels observed with all karts in operation vs. all karts at idle. At Location 1, the change in level between all karts off and all karts in operation was 30-40 dB.

Table 3 – Subjective Assessment of Sounds at Measurement Locations 4 and 6 Through 13 Where Karts Were Not Plainly Audible During 11/4/10 Andretti Noise Survey

Location	Subjective Assessment
4	Karts intermittently weakly audible during traffic lulls
6	Karts inaudible; distant traffic noise
7	Karts inaudible, masking from Houze Road
8	Karts inaudible, distant traffic noise from northwest
9	Karts inaudible, distant traffic noise from west
10	Karts inaudible, traffic noise from Houze Road dominates
11	Karts inaudible, traffic noise from Houze Road dominates
12	Karts inaudible, traffic noise from Houze Road dominates
13	Karts inaudible, traffic noise from Hollyberry drive dominates

Besides the issue of audibility, the City of Roswell Noise Ordinance states that “no person shall cause, suffer, allow, or permit a domestic animal or the operation of any sound source in such a manner as to create a sound level that exceeds” 70 dBA between 7:00 am and 11:00 pm or 60 dBA between 11:00 pm and 7:00 am on a residential receiving property “when measured at or within the real property line of the receiving property using the slow response setting unless otherwise noted” and that “such a sound source would constitute a noise disturbance.” Sound levels measured during our 11/4/10 survey at Andretti’s did not exceed these limits at any of the residential measurement locations (Locations 6-13) nor at Location 4 which may be zoned residential.

In addition, the ordinance provides limits of 70 dBA and 65 dBA in office, commercial, or business districts for the same daytime and nighttime hours, respectively. Sound levels measured during our 11/4/10 survey at Andretti’s did not exceed these limits at any of the off-site measurement locations to which this limit would apply (Locations 2, 3, and 5). However, the measured levels at Location 1 indicate that levels on the Andretti property line immediately to the west would exceed the ordinance limits.

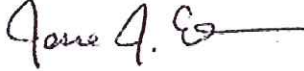
Note that the subjective assessment of audibility, and of other sources, is applicable to the conditions that existed at the time of this survey.

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Please feel free to contact me at 404-277-6528 if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Jesse J. Ehnert", followed by a horizontal line.

Jesse J. Ehnert
Arpeggio Acoustic Consulting, LLC

APPENDIX A – Sound Level Time Histories at Each Measurement Location During 11/4/2010 Andretti Noise Survey

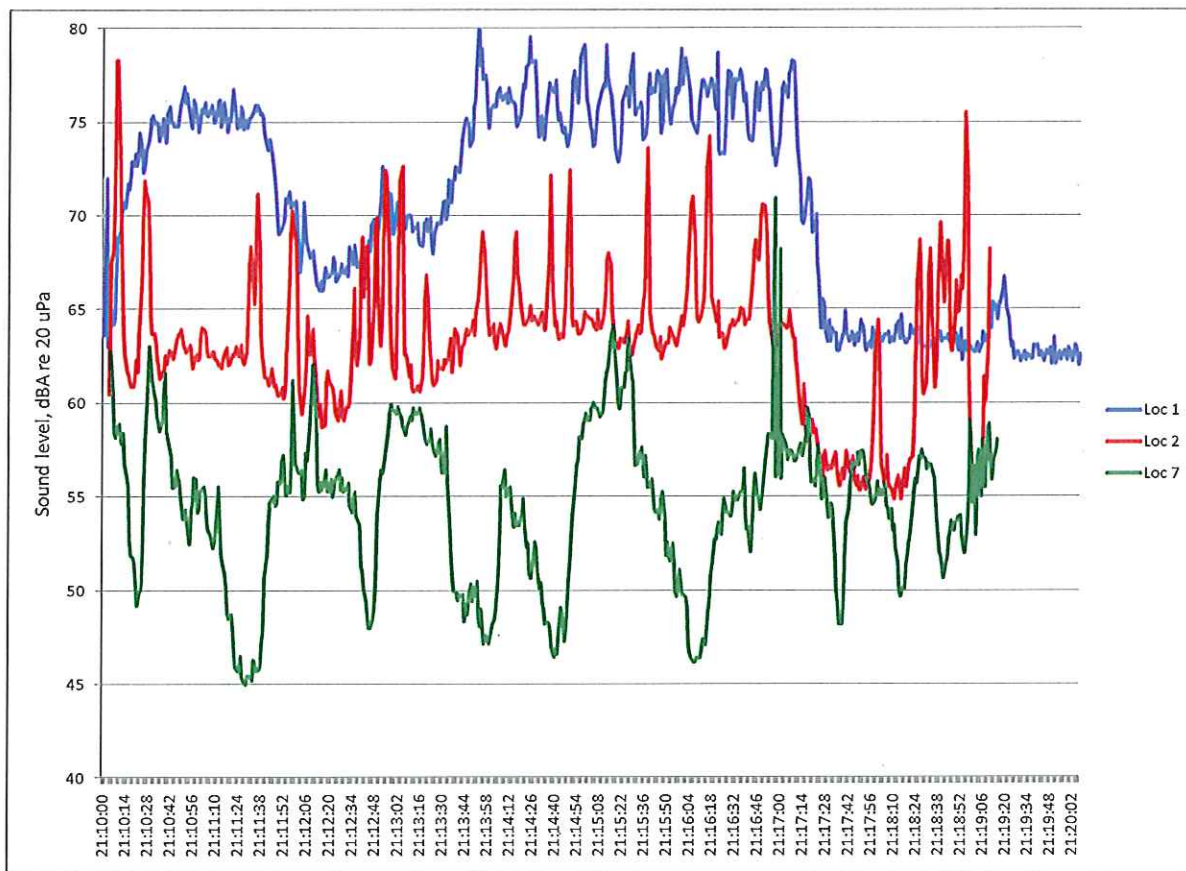


Figure A1 – Time History of Measured Levels at Locations 1, 2 and 7 During Andretti Noise Survey of 11/4/2010

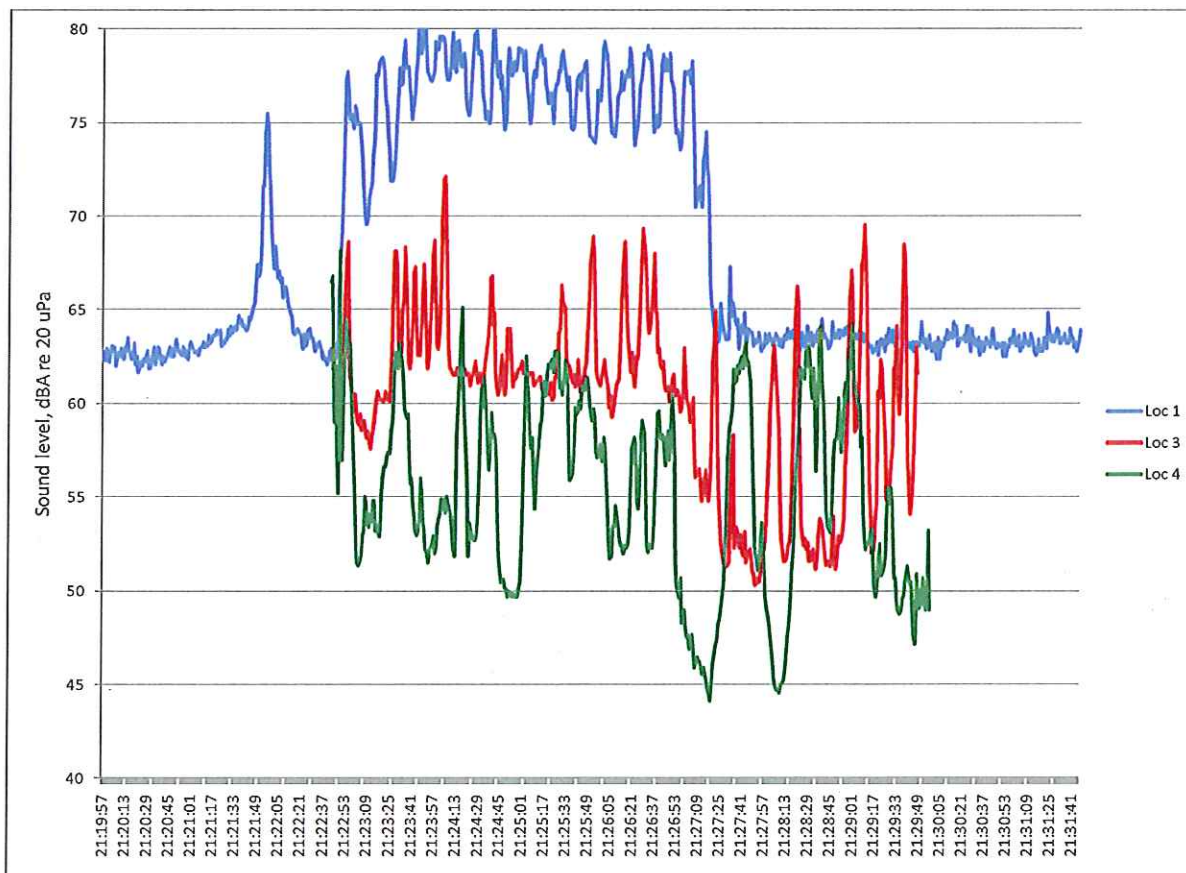


Figure A2 – Time History of Measured Levels at Locations 1, 3 and 4 During
Andretti Noise Survey of 11/4/2010

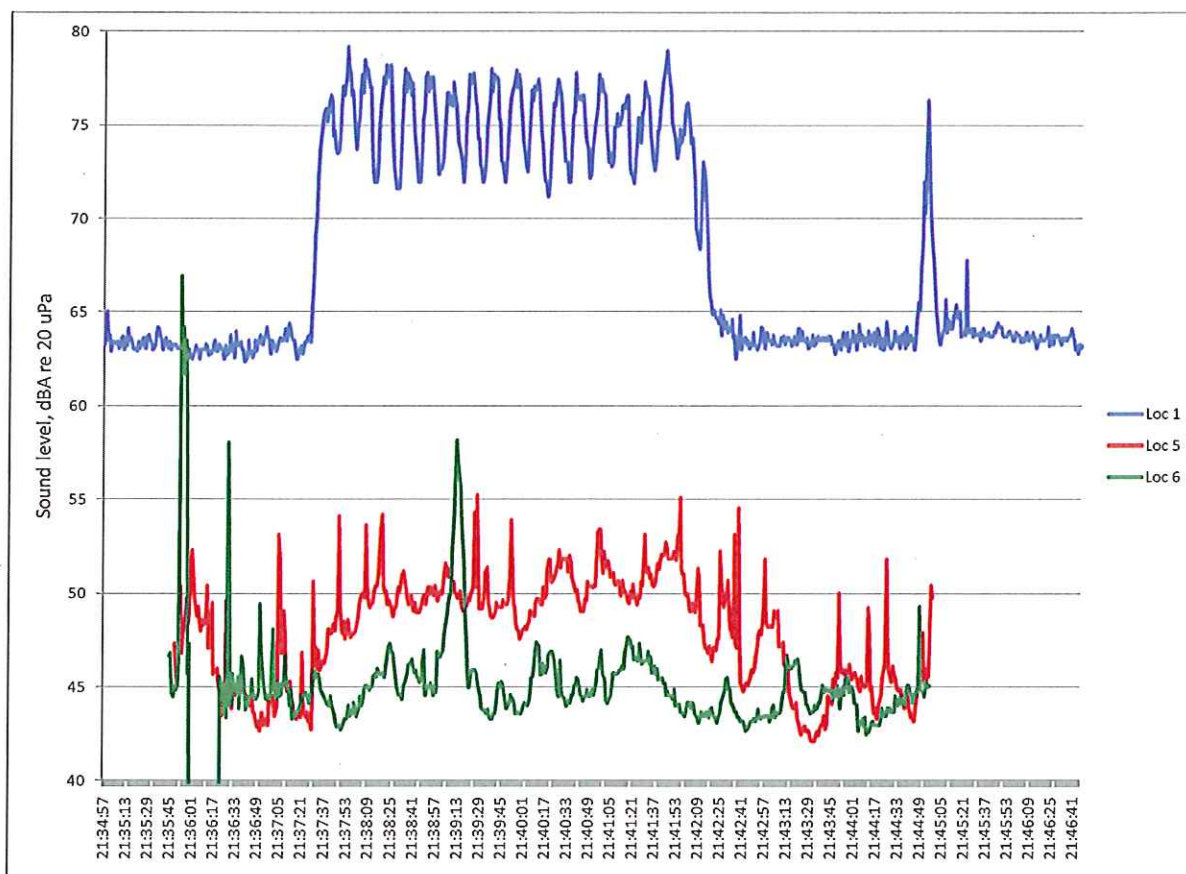


Figure A3 – Time History of Measured Levels at Locations 1, 5 and 6 During Andretti Noise Survey of 11/4/2010

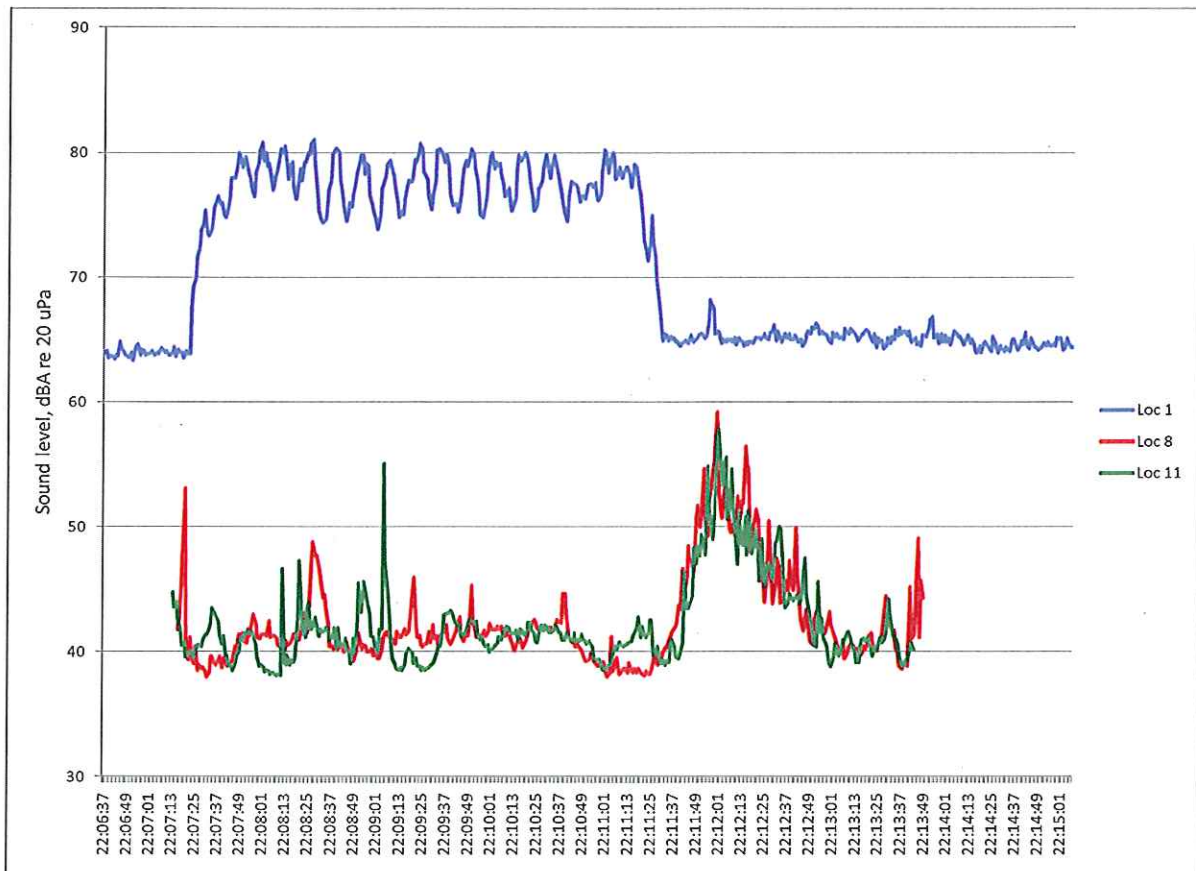


Figure A4 – Time History of Measured Levels at Locations 1, 8 and 11 During Andretti Noise Survey of 11/4/2010

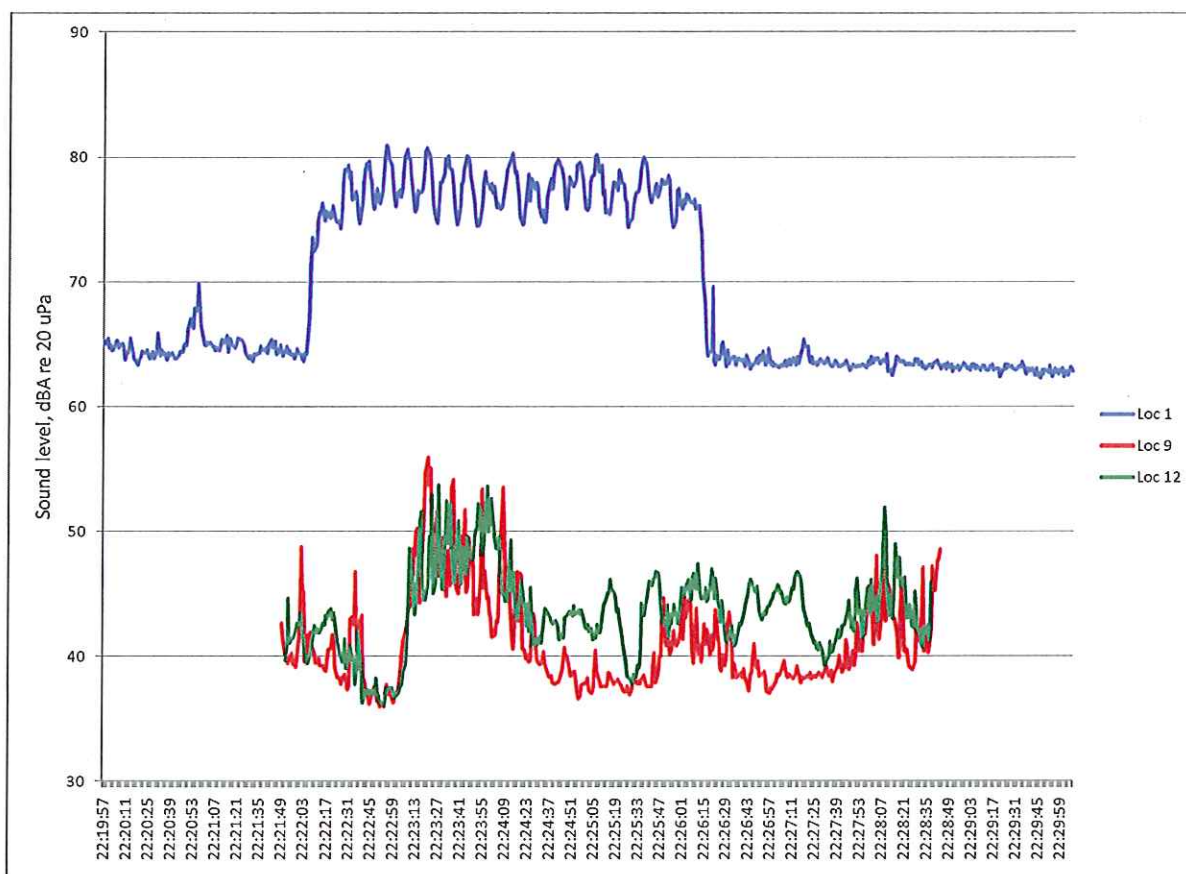


Figure A5 – Time History of Measured Levels at Locations 1, 9 and 12 During Andretti Noise Survey of 11/4/2010

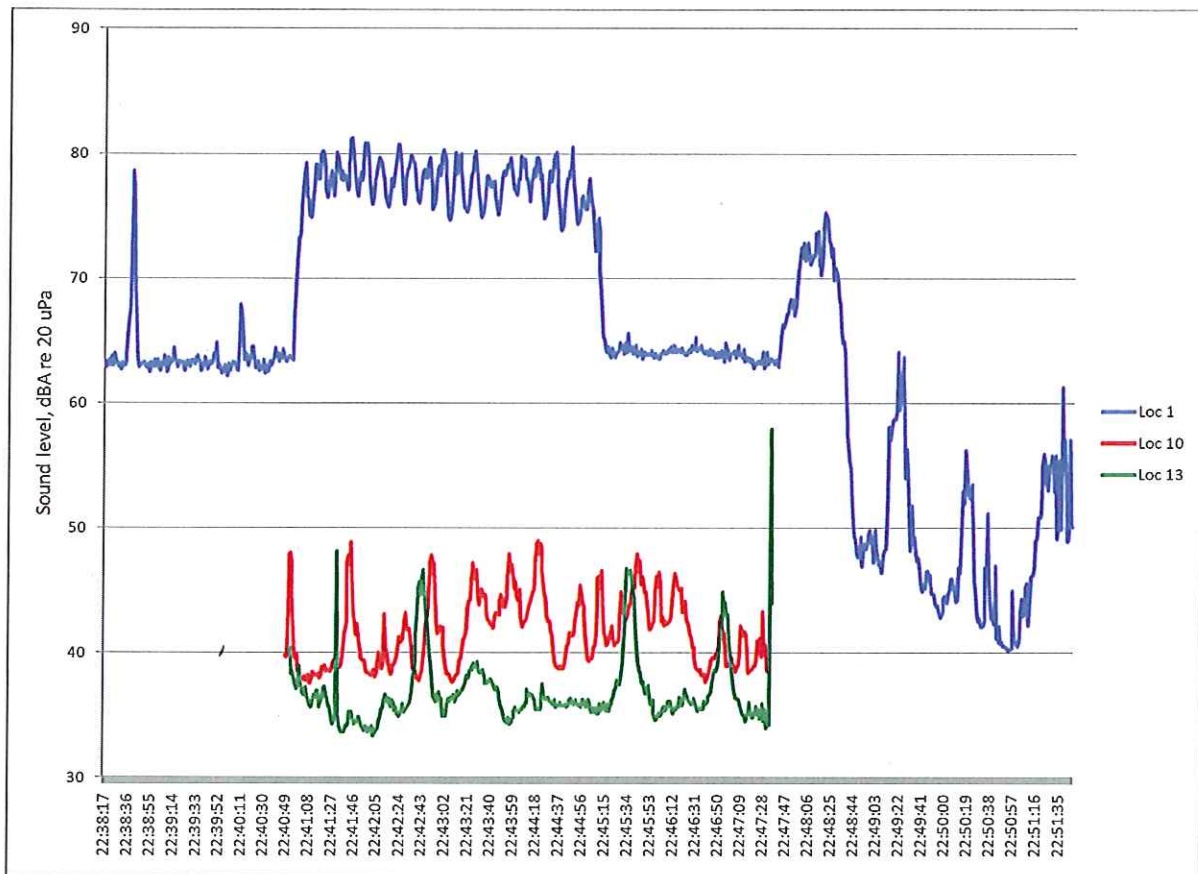


Figure A6 – Time History of Measured Levels at Locations 1, 10 and 13 During Andretti Noise Survey of 11/4/2010