

ATTENDED SAMPLING OF SOUND FROM WIND TURBINE #1
FALMOUTH, MA

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Executive Summary

This report presents the results of attended sound sampling of Falmouth's Wind Turbine #1 located at the Waste Water Treatment Facility on Service Road in East Falmouth. In September, 2011 the town of Falmouth requested the Department of Environmental Protection (MassDEP) to conduct sound sampling of Falmouth's Wind #1 turbine in response to numerous noise complaints from neighbors. This sampling augments the unattended sound study conducted by the Town's consultants in the summer of 2010.

In order to quantify the impact of the turbine under the worst-case scenario operating conditions, MassDEP technicians took samples from five separate residential locations during nighttime hours (when ambient noise is quietest). The sampling protocol was designed to try to capture sound for the "worst case" conditions in the area of Wind #1 while monitoring sound that could be directly attributable to Wind #1. This approach is typical of what MassDEP does when conducting a sound survey for purposes of determining compliance with the MassDEP noise policy.

Over the course of four nights, MassDEP conducted sound sampling with Wind #1 operational at five residential locations close to the wind turbine. Data was also collected for background sound without turbine operations. Because the sampling was attended, the study was able to focus directly on sound from the wind turbine without interference from other sound sources.

The results of the field sampling indicate that Wind #1 exceeds 10 decibels above background sound levels during nighttime hours, which is the limit above which MassDEP considers a noise a nuisance regulated by MassDEP's noise regulation (310 CMR 7.10) and MassDEP's noise policy. The noise exceedance was found at one location under both high and low wind conditions.

Based upon the same sampling data, this report indicates that octave band analysis for pure tone is inconclusive.

1.0 Introduction

Since 2009, the Town of Falmouth has received numerous noise complaints from neighbors of the Town's Wind Turbines located at the Waste Water Treatment Plant on Service Road in Falmouth, MA. In June of 2010, the Town of Falmouth and their consultants Weston & Sampson, engaged Harris Miller Miller & Hanson, Inc. (HMMH) to perform a sound survey and quantify the noise impacts from the then operating Wind#1 Turbine. HMMH released their initial report in September 2010 and subsequent to a meeting with MassDEP on the results of the report, released an addendum on April 1, 2011.

On June 30, 2011 MassDEP sent a letter to the Falmouth Board of Selectmen and the Falmouth Board of Health with comments on the HMMH Wind Turbine Study and its addendum. The HMMH study used short and long term unattended sound sampling with the wind turbine operating and not operating and then compared the results to conclude that the Wind Turbine sound complied with MassDEP's noise regulation at 310 CMR 7.10 and MassDEP's noise policy which indicates that MassDEP considers sound emissions that result in a 10 dBA increase over ambient or background sound levels to be a violation of the noise regulation. As the studies done by HMMH were unattended, the report's conclusion was based on a comparison of the L90 sound levels with wind turbine "off" and "on". In the June 30, 2011 letter, MassDEP recommended that the unattended study results be augmented with some attended sampling. This attended sampling, consistent with the procedures MassDEP uses to determine compliance, could then be utilized to compare the L90 ambient sound level to the Lmax sound level attributed to Wind #1 to determine if the Wind Turbine's operation is in compliance with the MassDEP noise policy.

In September 2011, the Town of Falmouth requested MassDEP assistance to conduct attended sound sampling to augment the HMMH Study results. This report presents the results of the MassDEP attended sound sampling.

The results of the sound study as documented by this report are specific to the operation of Falmouth's Wind#1 turbine operating under the specific conditions cited herein. These results should not be interpreted, extrapolated or represented as being representative of the sound impacts from any other wind turbine either planned or operating.

2.0 Sampling Procedure

Prior to conducting the attended sampling, MassDEP prepared a sampling protocol and shared this with the Town of Falmouth. The initial protocol was revised to correct an address for one of the sampling sites. The protocol is included here as Attachment A.

2.1 Equipment

Sampling was performed with a Quest Technologies Sound Pro SE/DL Meter (Type I) with accuracy to +/- 1 dB as set forth in American National Standards Institute (ANSI) S1.4-1983 for acoustical measuring devices as specified in ANSI S12.18-1994. The sampler was tripod mounted approximately 5 feet (1.5m) above ground level and the microphone was equipped with a wind screen. The tripod was located at least 25 feet (7.5m) from any large vertical reflective surface and 5 feet (1.5m) from any small diameter object in compliance with ANSI standards S12.9-1992.

The sampler was calibrated and certified as accurate to standards set by National Institute of Standards & Technology (NIST) by an independent laboratory within the past 6 months and was calibrated in the field before and after each sampling study with a manufacturer supplied acoustical calibrator which meets the standards of ANSI S1.4-1984.

For broadband impact analysis, the sampler was set to collect data in decibels (dB) for the "A" weighted scale (dBA) in "slow" response mode. For analysis of pure tone, the sampler set to collect linear sound (Z scale) on a "slow" response rate (dBZ) and an octave band filter was be employed to speciate sound to each of 9 octave bands. For this measurement, Leq^1 is used.

2.2 Operating Conditions

The sampling protocol was designed to try to capture sound for the "worst case" conditions in the area of Wind #1 while monitoring sound that could be directly attributable to Wind #1. This approach is typical of what MassDEP does when conducting a sound survey for purposes of determining compliance with the MassDEP noise policy.

Most of the five sampling sites chosen were the same as those used by HMMH. But the selected sampling conditions were focused on wind direction and wind speeds based on input from the residents on regarding the conditions where sound impacts were reported to be the greatest. Sampling was also conducted during the quietest time of day (midnight through 4 am) and during a quiet time of year (late winter) with no leaves on the trees or wildlife sounds to mask the sound from the wind turbine.

Initially, the protocol envisioned three specific wind conditions: wind speeds just above cut-in (4 m/s), at the manufacturers maximum sound power level (8m/s) and at 12-15 m/s. The reason for these three wind speeds was to obtain one sound sample set with very low ground level background, one sample set with moderate ground level background and maximum turbine sound power level and one sample set with high ground level background plus the maximum turbine sound. These conditions were difficult to achieve when limiting the selection to

¹ Leq is the level of hypothetical steady sound that has the same energy as the fluctuating sound observed.

certain wind directions. What transpired in practice was four “studies” that combine various wind speeds and wind direction that are representative of the range of conditions that MassDEP initially defined in the protocol and which achieve the same goal as that desired in designing the protocol. The specific conditions sampled are defined in the table below:

Table 1. Summary of Study Operating Conditions

Study #	Location	Wind Speed at site (m/s)	Wind Direction (degrees)/ Wind Speed (m/s) CGAS	Wind Direction (degrees)/ Wind Speed (m/s) at Hub
STUDY #1 7 Mar 2012	260 Fire Tower Rd	No wind	210 / 2.0	261 / 7.7
	211 Blacksmith Shop Rd	No wind	225 / 2.0	256 / 7.5
	161 Blacksmith Shop Rd	No wind	200 / calm	252 / 7.0
	Service Rd/ Blacksmith Shop Rd	No wind	150 / 1.56	237 / 7.9
STUDY #2 8 Mar 2012	260 Fire Tower Rd	5.1	240 / 8.7	232 / 13.1
	211 Blacksmith Shop Rd	3.4	240 / 10.8	232 / 13.7
	161 Blacksmith Shop Rd	3.8	240 / 10.8	232 / 13.7
	Service Rd/ Blacksmith Shop Rd	7.5	240 / 11.3	232 / 14.8
STUDY #3 15 Mar 2012	211 Blacksmith Shop Rd	No wind	020 / 2.6	035 / 4.4
	27 Ridgeview Rd	< 1	010 / 2.1	033 / 5.2
STUDY #4 27 Mar 2012	211 Blacksmith Shop Rd	2.7	320 / 4.6	350 / 10.7
	27 Ridgeview Rd	3.8	320 / 4.8	357 / 9.4

Meteorological data was obtained using a Davis Instruments hand held wind meter on site (instantaneous) plus METARS data from Coast Guard Air Station (CGAS) in East Falmouth. The Town of Falmouth provide hub-height wind speed and wind direction data (10 minute averages) obtained from meteorological equipment on Wind #1. While the use of a hand held meter is not a precise tool to measure wind conditions at ground level, when combined with data from CGAS and technician input, it was deemed sufficient to document a generalized local ground level wind speed.

2.3 Sampling Sites

Sampling sites included three sites that were included in the HMMH Study: 161 Blacksmith Shop Road, 211 Blacksmith Shop Road and 27 Ridgeview Road. Two additional sites along Blacksmith Shop Road were added including 260 Fire Tower Road which is a residential property at the corner of Fire Tower Road and Blacksmith Shop Road and a site at the corner of Service Road and Blacksmith Shop Road. The sampler was positioned between the residential home and Wind #1, in the front yard of each site on Blacksmith Shop Road and in the backyard at the site on Ridgeview Road.

2.4 Procedure

On each day when conditions appeared to be optimal for sampling, the Town of Falmouth was asked to shut down Wind #2 and start up Wind #1. This was generally accomplished before 5pm. The MassDEP technician and a local resident (Todd Drummey of Blacksmith Shop Road) would meet at Fire Tower Road at approximately 11:30 pm to organize the order of sampling for the night.

Sampling would begin at approximately midnight. On most nights, source sound sampling would take from 2-3 hours to complete. Once source sound sampling was complete, the MassDEP technician communicated with the Town of Falmouth who then shut down Wind #1 to allow for ambient sampling to be performed. It took approximately 15 minutes to shut down Wind #1 from the time of the call. Ambient sampling took another 1-2 hours to complete. Wind #2 would not be brought back into operation until after 8 am so there would be no interference with the ambient sampling. There was some initial concern that even with Wind #1 and Wind #2 shut down there might be some influence on sound levels from the operating turbine at the Falmouth Industrial Park (Web Turbine). This concern turned out to be minimal and in only one instance could the Web Turbine be heard or detected (intermittently) on the sampler and this sample run was not used in the final analysis.

As this was an attended study, both the technician and the sampler collected data. The technician wrote down the dBA reading shown by the sampler every 5 seconds during each sample run (5 minutes). There was a minimum of 3 sample runs for each site in each study (except for Study 3 at one of the sampling sites). In the course of writing down the readings, the technician flagged sound readings that were influenced by a transient sound such as a passing motor vehicle or airplane which could not be done had the survey been unattended.

Since some of the sampling was done under very windy conditions, the sound of wind in the trees in large gusts that overwhelmed the sound from the wind turbine was also flagged. With this approach the impacts of the wind turbine sound could be verified and not masked or influenced by other sound sources. It should be noted that under very low wind background conditions, some transient noises from nearby homes had an influence on sound levels. One of these was a residential heating system north of the sampling site on Ridgeview Ave. that contributed up to 3 dBA to ambient sound.

On March 15, 2012, there was some variation in the procedure employed for the study. First, sampling at 211 Blacksmith Shop Rd was limited to 2 runs with the wind turbine operating and one run to establish background. The meteorological conditions for that night were not predicted to be "worst case" so MassDEP sampled some additional parameters at the site and in the course of collecting this data collected two valid sample runs. The resulting data is consistent with other data collected for the site but inconclusive in the specifics.

Also on this night MassDEP collected data at 27 Ridgeview Road. This site presented a number of challenges the foremost being traffic sound from Route 28. Because of the

interference from traffic, five impact sampling runs were performed at this site so as to have a sufficiently large data set for analysis. These two instances are the only times where MassDEP deviated from the established protocol to collect the sound impact data.

2.5 Limitations

There has been much debate in the community over how noise sampling for wind turbines should be conducted. It is therefore important to disclose what MassDEP did not sample in the course of doing this study. The following was not sampled in this study:

- MassDEP did not sample at a frequency or on a scale that would allow any evaluation of amplitude modulation.
- MassDEP does not have the type of equipment to adequately and accurately measure and evaluate infrasound levels.
- MassDEP set the sampler to "slow" response consistent with the MassDEP procedures for sampling sound for compliance assessment. The results will therefore differ from a sampler set to collect data in "fast" response mode. The sampler used Todd Drummey was set to "fast" response.

In the pure tone analysis, MassDEP collected data with regards to low frequency sound impacts but has drawn no conclusions about this information. A low frequency sound assessment would need to be refined with more information about the frequency distribution of the sound from the wind (absent a wind turbine).

MassDEP also conducted some limited sampling on October 22 and November 13, 2011. The sample runs on both dates were terminated when the sampler malfunctioned. The data set for both dates are therefore incomplete and have not been used in this study.

3.0 Results

MassDEP's Noise policy states: *"A source of sound emissions is considered to be violating MassDEP's noise regulation (310 CMR 7.10) if the source:*

- 1. Increases the broadband sound level by more than ten dB(A) above ambient, or*
- 2. Produces a "pure tone" condition – when any octave band center frequency sound pressure level exceeds the two adjacent center frequency sound pressure levels by three decibels or more."*

This section summarizes the results from the attending sampling described in this report. For the sampling summary sheets showing all the collected data, the meteorological data as well as the statistical metrics from the sound sampler are included here as Attachment B.

3.1 Broadband Sound Impact

To determine broadband sound level impact, the collected data is evaluated to compare L90² sound levels to Lmax attributable to the turbine. As stated in the protocol, the Lmax³ for each of the three five minute runs collected at each site under each operating condition was averaged to calculate an Lmax value that was then compared to the L90 background for each operating condition. The Lmax only takes into account sound that can be attributed to Wind #1. With an attended study, the attending technician "throws out" any sound that came from an interfering source such as a motor vehicle or an airplane. The following table summarizes the results of the broadband sound impact study.

Table 2. Summary of Broadband Analysis

Study #	Location	Ambient (L90) dB(A)	Impact Sound (Lmax) dB(a)	Difference dB(A)
Study #1 7 Mar 2012	260 Fire Tower Rd	29	37.3	8.3
	211 Blacksmith Shop Rd	29	40.9	11.9
	161 Blacksmith Shop Rd	29	36.1	7.1
	Service Rd/ Blacksmith Shop Rd	30.8	36.2	5.4
Study #2 8 Mar 2012	260 Fire Tower Rd	39.8	47.1	7.2
	211 Blacksmith Shop Rd	39.8	50.5	10.7
	161 Blacksmith Shop Rd	39.8	46.3	6.5
	Service Rd/ Blacksmith Shop Rd	40.2	47.4	7.2
Study #3 15 Mar 2012 ⁴	211 Blacksmith Shop Rd	27	37.8	10.8
	27 Ridgeview Rd	29.3	37.7	8.4
Study #4 27 Mar 2012	211 Blacksmith Shop Rd	38.3	48.8	10.5
	27 Ridgeview Rd	39.2	46.2	7.0

As the table above indicates, the sound impact at 211 Blacksmith Shop Road under all of the selected sampling conditions exceeds the MassDEP 10 dBA above ambient limit for what constitutes "noise" pursuant to 310 CMR 7.10.

While other locations did not demonstrate noise levels of 10 dBA or more above ambient, minor modifications in how the data was collected might have produced different results. For example, if MassDEP had used the absolute value for Lmax rather than Lmax as

² L90 is the decibel level that is exceeded 90% of the time and therefore reflects a quiet background or ambient condition.

³ Lmax is the maximum decibel level attributable to the sound source being studied.

⁴ See Section 2.4 for a description of the sampling procedures employed on this date.

an average of three sampling runs, the 27 Ridgeview Road site would have exhibited an impact sound of 11.5 dBA over ambient on March 15, 2012.

3.2 Pure tone

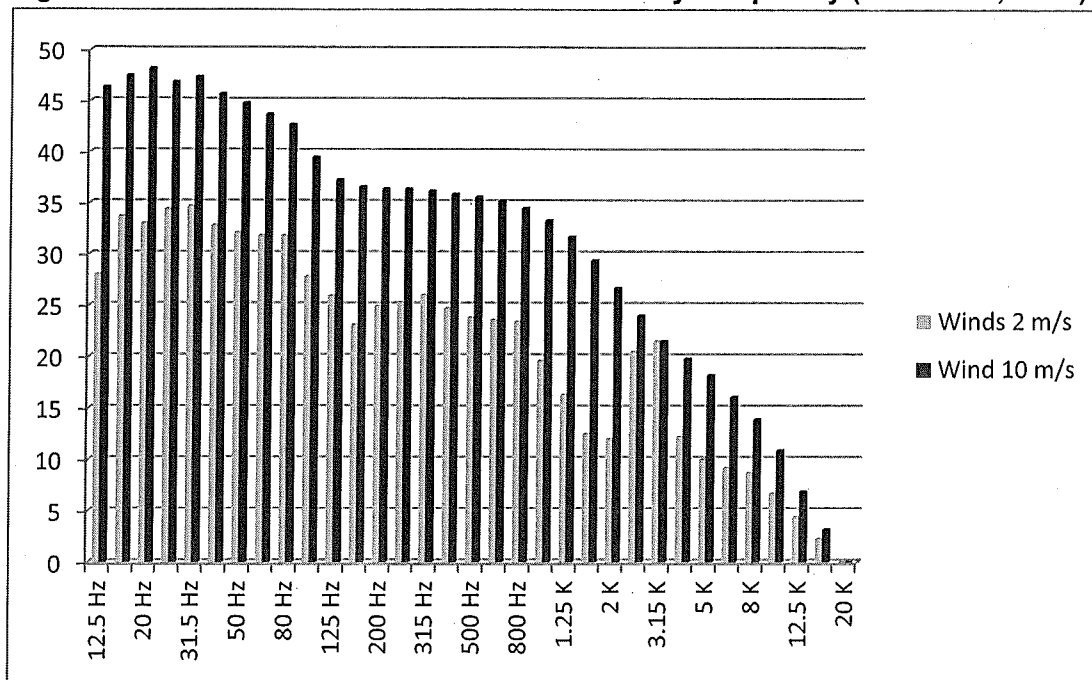
The assessment of pure tone when sampling wind turbine sound is complicated by the sound of the wind as the wind itself contributes to the tonal quality of sound particularly at higher wind speeds. In order to attempt to separate the contribution of the wind from the contribution of the wind turbine, center octave band readings were taken with Wind#1 off as well as when it was operating. It was then possible to determine the amount of sound contributed by the turbine alone at each of the center octave bands.

The following table shows the results of the octave band analysis for pure tone at low wind speed on March 27. The contribution of the wind is illustrated in the table when you compare the 500 to 1000 Hz frequency readings and again in the 1000 to 2000 hz frequency readings. As can be seen, there is a significant change in decibel level (greater than 3 decibels) but this large change is also apparent without the turbine operating indicating that the source of the disparity is another sound source or the wind itself. The graph that follows illustrates the sound of wind alone at higher and lower wind speeds and for a 1/3 octave band range.

Table 3. Octave Band Analysis for Pure Tone

Frequency (Hz)	dBZ (Leq)			
	211 Blacksmith Shop Rd		27 Ridgeview Rd	
	Turbine On	Turbine Off	Turbine On	Turbine Off
31.5	52.3	39.3	58.2	47
63.0	48.2	35.7	49.3	41.9
125	45.7	34.7	46.6	42.6
250	38.2	32.8	44.5	42.5
500	36.3	33.8	42.2	38.8
1000	32.1	31.3	38.8	36.3
2000	23.8	24	34.4	32.1
4000	19.1	19.4	35.6	28.3
8000	16.6	16.7	31.9	24.8
16000	12.6	11.8	21.8	16.1

Figure 1 - Illustration of the sound of the Wind by Frequency (March 7-8, 2012)



On March 8, 2012, the octave band sampling at 211 Blacksmith Shop Road and at the Corner of Blacksmith Shop Road and Service Road identified a pure tone condition at the 1000 KHz frequency. This was a windy night and a pure tone condition was also found at the 1000 KHz frequency when the wind turbine was off (at the corner of Service Road).

On March 15, 2012, the octave band sampling at 27 Ridgeview Road identified a pure tone condition at 500 Hz with the wind turbine operating that was not apparent when the wind turbine was off. On the same night, there was no pure tone evident at 211 Blacksmith Shop Road.

In conclusion, the octave band analysis for pure tone is inconclusive. A summary of the octave band analysis for pure tone can be found in Appendix B. The data in Appendix B shows the octave band readings both with and without the wind turbine operating.

APPENDIX A

SAMPLING PROTOCOL

Equipment:

- Sampling will be performed with a Type I digital Meter (Quest Technologies Model 1900) with accuracy to +/- 1 Db. The sampler will collect data on the "A" weighted scale in "slow" response mode with a one second recording interval (log period). The sampler will be calibrated before and after each sampling period.
- Meteorological data (ground level wind speed) will be extrapolated from nearby airport data, including data from Otis Air Station augmented with a handheld wind instrument for each sampling site. The Town of Falmouth will provide hub-height wind speeds (10 minute averages) obtained from equipment on Wind #1.

Sampling Sites:

5 Sites will be monitored at the point of perceived maximum impact . The sites will include sites used in the initial study by HMMH in September 2010 (161 Blacksmith Shop Road, 27 Ridgeview Road, 211 Blacksmith Shop Road, and Research Road/property line). MassDEP will coordinate with the residents at the selected sites to determine point of greatest impact and will conduct the sampling at or near that location or at the property line, whichever is appropriate.

Procedure:

- Sampling will be conducted during three to five nights where wind conditions are sufficient to operate the wind turbine. Sampling will be conducted between 1 am and 4 am or during the quietest part of the night. Sampling nights will be selected based on predicted wind conditions 24 hours in advance. Additional nights may be necessary should the wind conditions change significantly during the sampling period.
- To evaluate the impact of wind speed on turbine sound emission levels, three sampling runs will be conducted for each of three different turbine operating conditions (wind speeds). This will establish an Lmax for each respective wind turbine operating condition. Lmax is the highest sampled sound level during the run time on a one second average.
- The three different operating conditions (wind speeds) to be evaluated are:
 1. At or near the cut-in wind speed where background sound will be the lowest (4-5 m/s wind speed at hub height);
 2. At the wind speed where manufacturer data indicates there will be the greatest sound power level from the turbine;(8-9 m/s) and,
 3. At a wind speed in excess of the wind speed that the manufacturer data indicates will produce the greatest sound power level (12-15 m/s).
- Each sampling run will be 5 minutes in duration and samples will be collected every 5 seconds (60 sound measurements). To ensure data capture of the highest sound level emitted by the turbine as the blade rotates past the tower, each 5 minute study for turbine operation will be initiated as near as possible to wind turbine sound cycle emission peak. Consistent with current guidance, any peak sound levels that can be attributed to another sound source (e.g. local traffic, resident generated sounds, etc.) will be identified by the study attendant and discarded from the data set before determining Lmax.

- At two sites, a pure tone analysis will be conducted. For pure tone analysis, the meter will be set to collect linear sound on a “slow” response and an octave band filter will be employed to speciate sound pressure levels for 9 octave bands.
- At three sites (Blacksmith Shop Road, Research Road and Ridgeview Road), background sampling shall be performed to determine the L90 background against which the LMax will be compared. Sampling for background will require making arrangements to shut down the turbine. The Town of Falmouth has agreed to shut down the turbine for one (1) hours starting at 1 am on select sampling nights to facilitate background sampling. The turbine will return to normal operation at 2 am. The background values developed through this study will be compared to the background values determined through longer term monitoring by HMMH.
- In order to sample sound at wind speeds greater than 10 m/s, MassDEP may request that the Town temporarily remove the operating restriction that currently shuts down the turbine at wind speeds above 10 m/s. MassDEP will submit a written request for the towns consideration for removal of the curtailment and shall notify the Town once the sampling is complete so the curtailment can be reinstated.

Assessment of Results

Once the data is collected, the L90 background as defined by sampling will be compared to the Lmax for each of the sampling sites. The Lmax for each of the three five minute runs collected at each site under each of the three different operating conditions being evaluated will be averaged to calculate an Lmax value that can be compared to the L90 background for each operating condition.

APPENDIX B

SAMPLING DATA

BACKGROUND SOUND LEVELS

211 Black Smith Shop Rd			211 Black Smith Shop Rd			211 Black Smith Shop Rd		
Date: 7 Mar 2012			Date: 7 Mar 2012			Date: 7 Mar 2012		
Time 2:30 am			Time 2:42 am			Time 2:50 am		
Run #	MM:ss	DbA	Run #	MM:ss	DbA	Run #	MM:ss	DbA
1	5	34.5	2	5	35.1	3	5	30.6
1	10	29.4	2	10	29.9	3	10	29.5
1	15	29.5	2	15	29.8	3	15	30.3
1	20	29.3	2	20	30.3	3	20	30.5
1	25	29.6	2	25	30	3	25	29.8
1	30	29.3	2	30	29.9	3	30	29.2
1	35	30.1	2	35	29.7	3	35	29.5
1	40	29.9	2	40	31.7	3	40	30
1	45	29.9	2	45	30.3	3	45	29.2
1	50	29.9	2	50	30.8	3	50	29.2
1	55	29.7	2	55	30.1	3	55	32.6
1	60	29.8	2	60	30.3	3	60	28.9
1	1:05	29.9	2	1:05	30.3	3	1:05	28.8
1	1:10	29.9	2	1:10	30.3	3	1:10	28.5
1	1:15	29.7	2	1:15	29.8	3	1:15	28.6
1	1:20	29.5	2	1:20	29.8	3	1:20	29
1	1:25	29.4	2	1:25	30.5	3	1:25	29.1
1	1:30	29.6	2	1:30	30.2	3	1:30	29.9
1	1:35	29.7	2	1:35	29.4	3	1:35	29.2
1	1:40	29.9	2	1:40	29.6	3	1:40	29.7
1	1:45	31.7	2	1:45	32	3	1:45	30.6
1	1:50	30	2	1:50	30.4	3	1:50	28.9
1	1:55	30.1	2	1:55	30.1	3	1:55	29
1	2:00	29.7	2	2:00	29.7	3	2:00	29.8
1	2:05	30.2	2	2:05	30.6	3	2:05	29
1	2:10	29.5	2	2:10	30.3	3	2:10	28.6
1	2:15	29.2	2	2:15	29.8	3	2:15	28.6
1	2:20	29.3	2	2:20	30.5	3	2:20	29.6
1	2:25	29.3	2	2:25	30.5	3	2:25	31.1
1	2:30	29.4	2	2:30	30.5	3	2:30	30.7
1	2:35	29.9	2	2:35	30.1	3	2:35	32.1
1	2:40	30.2	2	2:40	28.4	3	2:40	30.3
1	2:45	31.5	2	2:45	30.1	3	2:45	30
1	2:50	30.2	2	2:50	29.5	3	2:50	29.9
1	2:55	29.7	2	2:55	29.2	3	2:55	32.1
1	3:00	29.4	2	3:00	30	3	3:00	30.1
1	3:05	29.6	2	3:05	28.8	3	3:05	31.4
1	3:10	29.1	2	3:10	28.6	3	3:10	28.9
1	3:15	29.5	2	3:15	28.2	3	3:15	28.9
1	3:20	29.6	2	3:20	28.2	3	3:20	29.1
1	3:25	29.8	2	3:25	28.9	3	3:25	32.7
1	3:30	29.4	2	3:30	31	3	3:30	33
1	3:35	30.4	2	3:35	30.7	3	3:35	29.4
1	3:40	29.9	2	3:40	29.7	3	3:40	29.1
1	3:45	30.2	2	3:45	29.4	3	3:45	29.8
1	3:50	30	2	3:50	29.6	3	3:50	30
1	3:55	30.4	2	3:55	29.7	3	3:55	30.2
1	4:00	30.5	2	4:00	30.2	3	4:00	30.7
1	4:05	30.9	2	4:05	30.1	3	4:05	32.8
1	4:10	30.7	2	4:10	30.4	3	4:10	34.1
1	4:15	30.7	2	4:15	30.5	3	4:15	34.4
1	4:20	32.8	2	4:20	30.1	3	4:20	33.7
1	4:25	32.8	2	4:25	29.7	3	4:25	31.5
1	4:30	33.6	2	4:30	29.8	3	4:30	31.2
1	4:35	32.8	2	4:35	29.4	3	4:35	32.7

BACKGROUND SOUND LEVELS

OBSERVED DATA								
211 Black Smith Shop Rd			211 Black Smith Shop Rd			211 Black Smith Shop Rd		
Date: 7 Mar 2012			Date: 7 Mar 2012			Date: 7 Mar 2012		
Time 2:30 am			Time 2:42 am			Time 2:50 am		
Run #	MM:ss	DbA	Run #	MM:ss	DbA	Run #	MM:ss	DbA
1	4:40	32	2	4:40	29	3	4:40	31.3
1	4:45	31.1	2	4:45	29.5	3	4:45	31.8
1	4:50	30.6	2	4:50	32.5	3	4:50	31.7
1	4:55	30.5	2	4:55	32.6	3	4:55	31.3
1	5:00	30.9	2	5:00	32	3	5:00	33

L90	29	dBA
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Sampler Summary Data								
Lmax	36.3	dBA	Lmax	40.6	dBA	Lmax	36.6	dBA
Leq	30.5	dBA	Leq	30.5	dBA	Leq	30.7	dBA
L01	34.1	dBA	L01	35.9	dBA	L01	35.3	dBA
L10	31.7	dBA	L10	31.5	dBA	L10	32.7	dBA
L50	29.9	dBA	L50	29.9	dBA	L50	29.8	dBA
L90	29.3	dBA	L90	29	dBA	L90	28.8	dBA
LC-A	13.3	dBA	LC-A	16.5	dBA	LC-A	14	dBA

Met Data		
WS at Hub	5.9	m/s
WS at CGAS	2	m/s
WS at Ground	no wind	m/s
WD at Hub	232	degrees
WD at CGAS	140	degrees
BP	30.58	in
Humidity	80	%
Temp	26.6	degr F

BACKGROUND SOUND LEVELS

OBSERVED DATA					
Service Rd/ Blacksmith Shop Rd			Service Rd/ Blacksmith Shop Rd		
DATE: 7 Mar 2012			DATE: 7 Mar 2012		
Time 3:15 am			Time 3:23 am		
Run #	MM:ss	DbA	Run #	MM:ss	DbA
1	5	36.1	2	5	34.2
1	10	33.2	2	10	32.8
1	15	33.2	2	15	30.8
1	20	33	2	20	31
1	25	33.2	2	25	31.1
1	30	36.3	2	30	32.3
1	35	40.6	2	35	30.6
1	40	40.7	2	40	30.7
1	45	37.6	2	45	31.1
1	50	37	2	50	32
1	55	37.9	2	55	31.4
1	60	34.5	2	60	32
1	1:05	33.2	2	1:05	33.5
1	1:10	32.9	2	1:10	31.2
1	1:15	34.8	2	1:15	32.1
1	1:20	35.3	2	1:20	36.3
1	1:25	33.8	2	1:25	37
1	1:30	33.1	2	1:30	40.9
1	1:35	31.6	2	1:35	39.6
1	1:40	32.2	2	1:40	36.8
1	1:45	33.4	2	1:45	35.5
1	1:50	32.4	2	1:50	32.8
1	1:55	31.4	2	1:55	32.6
1	2:00	31.9	2	2:00	32.1
1	2:05	31.7	2	2:05	31.4
1	2:10	32.5	2	2:10	32.8
1	2:15	36.1	2	2:15	32.4
1	2:20	31.5	2	2:20	31.5
1	2:25	30.7	2	2:25	31.2
1	2:30	30.7	2	2:30	31.1
1	2:35	30.7	2	2:35	31.2
1	2:40	30.5	2	2:40	31.1
1	2:45	31.7	2	2:45	31.4
1	2:50	30.6	2	2:50	31.2
1	2:55	31.8	2	2:55	30.2
1	3:00	31.4	2	3:00	30.6
1	3:05	32.3	2	3:05	30.6
1	3:10	33.6	2	3:10	30.4
1	3:15	31.5	2	3:15	30.9
1	3:20	33.2	2	3:20	30.7
1	3:25	33.2	2	3:25	36
1	3:30	35.9	2	3:30	40.1
1	3:35	32.8	2	3:35	47.2
1	3:40	32.1	2	3:40	49.4
1	3:45	39	2	3:45	46.4
1	3:50	34.4	2	3:50	42.3
1	3:55	33.9	2	3:55	41.1
1	4:00	38.9	2	4:00	40.9
1	4:05	39.1	2	4:05	38.5
1	4:10	40.5	2	4:10	37.4
1	4:15	48.5	2	4:15	34.2
1	4:20	41.8	2	4:20	34.3
1	4:25	36.9	2	4:25	36.3
1	4:30	31.1	2	4:30	34.7
1	4:35	30	2	4:35	34
1	4:40	29.6	2	4:40	35
			L90		
Service Rd/ Blacksmith Shop Rd			Service Rd/ Blacksmith Shop Rd		
DATE: 7 Mar 2012			DATE: 7 Mar 2012		
Time 3:32 am					
Run #	MM:ss	DbA			
3	5	33.9			
3	10	32			
3	15	31.5			
3	20	32			
3	25	31.7			
3	30	31.7			
3	35	31.7			
3	40	31.5			
3	45	31.9			
3	50	32.8			
3	55	35.3			
3	60	30.8			
3	1:05	30.8			
3	1:10	30.8			
3	1:15	31.8			
3	1:20	31.7			
3	1:25	32.5			
3	1:30	31.4			
3	1:35	31			
3	1:40	31.3			
3	1:45	33.2			
3	1:50	31.8			
3	1:55	31.6			
3	2:00	30.7			
3	2:05	30.7			
3	2:10	31			
3	2:15	30.3			
3	2:20	30.8			
3	2:25	30.8			
3	2:30	31.7			
3	2:35	32.8			
3	2:40	31.3			
3	2:45	31.2			
3	2:50	32.1			
3	2:55	31.7			
3	3:00	34			
3	3:05	34.3			
3	3:10	32.6			
3	3:15	35.5			
3	3:20	36.4			
3	3:25	40.3			
3	3:30	40			
3	3:35	45.2			
3	3:40	40.7			
3	3:45	49.5			
3	3:50	46.8			
3	3:55	39.8			
3	4:00	35.5			
3	4:05	34.9			
3	4:10	33.2			
3	4:15	33.9			
3	4:20	32.4			
3	4:25	32.3			
3	4:30	32.7			
3	4:35	31.8			
3	4:40	31.5			

BACKGROUND SOUND LEVELS

OBSERVED DATA

Service Rd/ Blacksmith Shop Rd		
DATE: 7 Mar 2012		
Time 3:15 am		
Run #	MM:ss	DbA
1	4:45	29.7
1	4:50	29.4
1	4:55	29.9
1	5:00	30.2

Service Rd/ Blacksmith Shop Rd		
DATE: 7 Mar 2012		
Time 3:23 am		
Run #	MM:ss	DbA
2	4:45	33.8
2	4:50	33.3
2	4:55	32.9
2	5:00	34

Service Rd/ Blacksmith Shop Rd		
DATE: 7 Mar 2012		
Time 3:32 am		
Run #	MM:ss	DbA
3	4:45	32.6
3	4:50	32.7
3	4:55	34.4
3	5:00	34.9

L90 30.7 dBA

Sampler Summary Data

Lmax	49.2	dBA
Leq	36.3	dBA
L01	47.7	dBA
L10	38.5	dBA
L50	33	dBA
L90	30.3	dBA
LC-A	10.4	dBA

Lmax	49.6	dBA
Leq	37.7	dBA
L01	48.9	dBA
L10	40.7	dBA
L50	32.7	dBA
L90	30.7	dBA
LC-A	10.3	dBA

Lmax	50.8	dBA
Leq	37.1	dBA
L01	49.1	dBA
L10	39.2	dBA
L50	32.1	dBA
L90	30.8	dBA
LC-A	8.2	dBA

Met Data

WS at Hub	6.7	m/s
WS at CGAS	2	m/s
WS at Ground	None	m/s
WD at Hub	221	degrees
WD at CGAS	180	degrees
BP	30.57	in
Humidity	86	%
Temp	26.6	degr F

BACKGROUND SOUND LEVELS

OBSERVED DATA

211 Black Smith Shop Rd			211 Black Smith Shop Rd			211 Black Smith Shop Rd		
Date: 8 Mar 12			Date: 8 Mar 12			Date: 8 Mar 12		
Time: 2:23 am			Time: 2:30 am			Time: 2:37 am		
Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)
1	5	40	2	5	40.6	3	5	39.6
1	10	39.4	2	10	42.6	3	10	42
1	15	39.3	2	15	41.6	3	15	44.5
1	20	40	2	20	41	3	20	44.9
1	25	40.5	2	25	40.5	3	25	43.3
1	30	41.7	2	30	42.1	3	30	40.1
1	35	42.9	2	35	41.1	3	35	40.2
1	40	42.2	2	40	44.4	3	40	37.8
1	45	41.9	2	45	43.8	3	45	38
1	50	44.2	2	50	45.2	3	50	40.2
1	55	44.2	2	55	42	3	55	39.5
1	60	43.6	2	60	42.1	3	60	39.8
1	1:05	42.9	2	1:05	40.9	3	1:05	39.7
1	1:10	43.8	2	1:10	40.8	3	1:10	40
1	1:15	45.7	2	1:15	40.8	3	1:15	41.5
1	1:20	46.7	2	1:20	41.8	3	1:20	40.6
1	1:25	44	2	1:25	41.5	3	1:25	40.7
1	1:30	42.1	2	1:30	41.2	3	1:30	40.8
1	1:35	43	2	1:35	41.6	3	1:35	42.3
1	1:40	43.5	2	1:40	40	3	1:40	42.2
1	1:45	43.8	2	1:45	40.9	3	1:45	41.1
1	1:50	44.4	2	1:50	39.7	3	1:50	39.8
1	1:55	45.9	2	1:55	39.4	3	1:55	42.6
1	2:00	45.6	2	2:00	40.6	3	2:00	41.8
1	2:05	44.1	2	2:05	41.3	3	2:05	41.2
1	2:10	42.9	2	2:10	41.4	3	2:10	41.1
1	2:15	41.6	2	2:15	41.4	3	2:15	40.4
1	2:20	42.5	2	2:20	40.1	3	2:20	41.4
1	2:25	44.4	2	2:25	40.9	3	2:25	39.9
1	2:30	44.2	2	2:30	44.1	3	2:30	40.1
1	2:35	42.7	2	2:35	46	3	2:35	40.8
1	2:40	41.8	2	2:40	46.1	3	2:40	42.1
1	2:45	41.1	2	2:45	43.3	3	2:45	42.9
1	2:50	43.3	2	2:50	42.1	3	2:50	42.3
1	2:55	44.6	2	2:55	42.2	3	2:55	41.3
1	3:00	45.1	2	3:00	39.6	3	3:00	41.3
1	3:05	44.3	2	3:05	41	3	3:05	41.9
1	3:10	42.1	2	3:10	41.2	3	3:10	40.7
1	3:15	41.7	2	3:15	38.8	3	3:15	40.5
1	3:20	40.8	2	3:20	39.4	3	3:20	41.4
1	3:25	40.5	2	3:25	41	3	3:25	41.3
1	3:30	40.5	2	3:30	40.4	3	3:30	41.1
1	3:35	39.8	2	3:35	41.4	3	3:35	37.3
1	3:40	40.9	2	3:40	41.9	3	3:40	42.6
1	3:45	41	2	3:45	41.4	3	3:45	43.9
1	3:50	40.9	2	3:50	41.9	3	3:50	43.6
1	3:55	39.3	2	3:55	41.7	3	3:55	41.6
1	4:00	40.7	2	4:00	41.1	3	4:00	42.1
1	4:05	40.5	2	4:05	40.4	3	4:05	40.7
1	4:10	41	2	4:10	43.3	3	4:10	41.5
1	4:15	41.3	2	4:15	42.9	3	4:15	41.4
1	4:20	42.5	2	4:20	41.5	3	4:20	40.2
1	4:25	41.7	2	4:25	43.2	3	4:25	39.8
1	4:30	41.7	2	4:30	42.1	3	4:30	41.1
1	4:35	41	2	4:35	40.8	3	4:35	40.7
1	4:40	41.3	2	4:40	41.7	3	4:40	39.7
1	4:45	44.1	2	4:45	43.4	3	4:45	40.1

L90

BACKGROUND SOUND LEVELS

OBSERVED DATA

211 Black Smith Shop Rd			211 Black Smith Shop Rd			211 Black Smith Shop Rd		
Date: 8 Mar 12			Date: 8 Mar 12			Date: 8 Mar 12		
Time: 2:23 am			Time: 2:30 am			Time: 2:37 am		
Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)
1	4:50	47.6	2	4:50	44.7	3	4:50	39.1
1	4:55	41.8	2	4:55	41.9	3	4:55	42
1	5:00	41.1	2	5:00	39.7	3	5:00	44

L90 39.8 dBA

Sampler Summary Data

Lmax	47.6	dB(A)	Lmax	51	dB(A)	Lmax	46.8	dB(A)
Leq	42.9	dB(A)	Leq	42.1	dB(A)	Leq	41.4	dB(A)
L01	46.6	dB(A)	L01	46.3	dB(A)	L01	45.4	dB(A)
L10	45.1	dB(A)	L10	44.1	dB(A)	L10	42.9	dB(A)
L50	42.1	dB(A)	L50	41.4	dB(A)	L50	41	dB(A)
L90	40	dB(A)	L90	40	dB(A)	L90	39.5	dB(A)
LC-A	12.9	dB(A)	LC-A	14.4	dB(A)	LC-A	14.1	dB(A)

Met Data

WS at Hub	10.3	m/s
WS at CGAS	10.3	m/s
WS at Ground	3.3	m/s
WD at Hub	234	degrees
WD at CGAS	240	degrees
BP	30.3	in
Humidity	87	%
Temp	48.2	degr F

BACKGROUND SOUND LEVELS

OBSERVED DATA

Service Rd/ Blacksmith Shop Rd			Service Rd/ Blacksmith Shop Rd			Service Rd/ Blacksmith Shop Rd		
Date: 8 Mar 12			Date: 8 Mar 12			Date: 8 Mar 12		
Time: 2:55 am			Time: 3:02 am			Time: 3:07 am		
Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)
1	5	45.9	2	5	42.7	3	5	41.4
1	10	41.2	2	10	40.5	3	10	40
1	15	40.2	2	15	42.9	3	15	40
1	20	41.3	2	20	42	3	20	40.4
1	25	41.7	2	25	41.7	3	25	41.2
1	30	40.9	2	30	39.8	3	30	41.2
1	35	41.6	2	35	40.1	3	35	39.2
1	40	40.6	2	40	41.3	3	40	40.2
1	45	43.6	2	45	39.5	3	45	41.2
1	50	41.5	2	50	42.9	3	50	39.9
1	55	41.2	2	55	42.5	3	55	41.5
1	60	41.5	2	60	44.7	3	60	41.6
1	1:05	42	2	1:05	44	3	1:05	39.7
1	1:10	41.5	2	1:10	43.6	3	1:10	41.3
1	1:15	41.8	2	1:15	43.1	3	1:15	42.1
1	1:20	41.4	2	1:20	40.8	3	1:20	42.6
1	1:25	46.3	2	1:25	41.4	3	1:25	43.7
1	1:30	44.5	2	1:30	41.7	3	1:30	49.1
1	1:35	41.3	2	1:35	42.3	3	1:35	45.6
1	1:40	40	2	1:40	41.9	3	1:40	46
1	1:45	40.5	2	1:45	42.9	3	1:45	43.9
1	1:50	41	2	1:50	44.5	3	1:50	40.6
1	1:55	41	2	1:55	43.7	3	1:55	41.4
1	2:00	40.5	2	2:00	43.4	3	2:00	46.5
1	2:05	42	2	2:05	41.6	3	2:05	44.7
1	2:10	42.7	2	2:10	42.1	3	2:10	41.2
1	2:15	46	2	2:15	41	3	2:15	39.7
1	2:20	50.5	2	2:20	42	3	2:20	41.4
1	2:25	48.4	2	2:25	43.5	3	2:25	40.4
1	2:30	45.1	2	2:30	42.2	3	2:30	41
1	2:35	44.3	2	2:35	42.6	3	2:35	41.2
1	2:40	43.9	2	2:40	41.4	3	2:40	41.5
1	2:45	42.3	2	2:45	46.1	3	2:45	40.9
1	2:50	45	2	2:50	45.1	3	2:50	41.5
1	2:55	42.7	2	2:55	40.8	3	2:55	41.9
1	3:00	44.8	2	3:00	40.4	3	3:00	40
1	3:05	42.9	2	3:05	41.2	3	3:05	40.1
1	3:10	42	2	3:10	42	3	3:10	39.9
1	3:15	43.2	2	3:15	43	3	3:15	39.5
1	3:20	45.4	2	3:20	42	3	3:20	41
1	3:25	45.3	2	3:25	44.4	3	3:25	41.6
1	3:30	45.8	2	3:30	41.2	3	3:30	40.6
1	3:35	42.6	2	3:35	42.2	3	3:35	40.7
1	3:40	41.4	2	3:40	41.9	3	3:40	41.3
1	3:45	41.9	2	3:45	41.9	3	3:45	41.2
1	3:50	43.7	2	3:50	41	3	3:50	41.6
1	3:55	44.7	2	3:55	41	3	3:55	41.2
1	4:00	45.9	2	4:00	41.8	3	4:00	41.1
1	4:05	44.2	2	4:05	42.2	3	4:05	41.2
1	4:10	43.5	2	4:10	42.8	3	4:10	41.6
1	4:15	43.7	2	4:15	41.7	3	4:15	40.6
1	4:20	42.8	2	4:20	39.6	3	4:20	40.7
1	4:25	43.3	2	4:25	43.3	3	4:25	41.9
1	4:30	41	2	4:30	43.8	3	4:30	40.9
1	4:35	42.2	2	4:35	41.9	3	4:35	41.4
1	4:40	40	2	4:40	41.6	3	4:40	41.3
1	4:45	40.8	2	4:45	41.9	3	4:45	41.2
1	4:50	43.3	2	4:50	41.4	3	4:50	41.8
1	4:55	43.1	2	4:55	42	3	4:55	40.3
1	5:00	41.7	2	5:00	41.9	3	5:00	40.5

L90

BACKGROUND SOUND LEVELS

OBSERVED DATA

Service Rd/ Blacksmith Shop Rd			Service Rd/ Blacksmith Shop Rd			Service Rd/ Blacksmith Shop Rd		
Date: 8 Mar 12			Date: 8 Mar 12			Date: 8 Mar 12		
Time: 2:55 am			Time: 3:02 am			Time: 3:07 am		
Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)

L90	40.2	dB(A)
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Sampler Summary Data

Lmax	57.8	dB(A)	Lmax	51.6	dB(A)	Lmax	49.9	dB(A)
Leq	43.9	dB(A)	Leq	42.5	dB(A)	Leq	42	dB(A)
L01	50.7	dB(A)	L01	46.3	dB(A)	L01	48.1	dB(A)
L10	45.6	dB(A)	L10	44	dB(A)	L10	43.4	dB(A)
L50	42.5	dB(A)	L50	41.9	dB(A)	L50	41.1	dB(A)
L90	40.7	dB(A)	L90	40.7	dB(A)	L90	39.8	dB(A)
LC-A	18.4	dB(A)	LC-A	17.6	dB(A)	LC-A	17.2	dB(A)

Met Data

WS at Hub	7	m/s
WS at CGAS	9.7	m/s
WS at Ground	3.5	m/s
WD at Hub	232	degrees
WD at CGAS	240	degrees
BP	30.29	in
Humidity	93	%
Temp	46.4	degr F

BACKGROUND SOUND LEVELS

OBSERVED DATA

211 Blacksmith Shop Rd		
Date: 15 Mar 12		
Time: 3:23 am		
Run #	mm:ss	dB(A)
1	5	28.2
1	10	28.9
1	15	27.8
1	20	28.5
1	25	28
1	30	27.9
1	35	28.9
1	40	30
1	45	31.1
1	50	29.9
1	55	28.3
1	60	28.9
1	1:05	28.9
1	1:10	29.3
1	1:15	28.3
1	1:20	27.9
1	1:25	28.2
1	1:30	28.3
1	1:35	28.5
1	1:40	27.9
1	1:45	29.9
1	1:50	27.4
1	1:55	27.5
1	2:00	27.9
1	2:05	27.2
1	2:10	27.1
1	2:15	27.5
1	2:20	30.4
1	2:25	31
1	2:30	27.2
1	2:35	27.1
1	2:40	30.8
1	2:45	27.2
1	2:50	30.2
1	2:55	27.9
1	3:00	30.2
1	3:05	29.6
1	3:10	28.9
1	3:15	35.2
1	3:20	29.2
1	3:25	30.1
1	3:30	26.9
1	3:35	28.5
1	3:40	28.5
1	3:45	27.1

BACKGROUND SOUND LEVELS

OBSERVED DATA

211 Blacksmith Shop Rd		
Date: 15 Mar 12		
Time: 3:23 am		
Run #	mm:ss	dB(A)
1	3:50	26
1	3:55	26.3
1	4:00	26.4
1	4:05	26.3
1	4:10	26.8
1	4:15	26.6
1	4:20	26.7
1	4:25	26.6
1	4:30	28.2
1	4:35	26.5
1	4:40	28.4
1	4:45	28.1
1	4:50	27.7
1	4:55	31.6
1	5:00	28.8

L90

L90 26.6 dBA

Sampler Summary Data

Lmax	46.6	dBA
Leq	29.7	dBA
L01	34.6	dBA
L10	30.5	dBA
L50	28.7	dBA
L90	27	dBA
LC-A	12.3	dBA

Met Data

WS at Hub	3.8	m/s
WS at CGAS	3	m/s
WS at Ground	no wind	m/s
WD at Hub	33	degrees
WD at CGAS	20	degrees
BP	30.28	in
Humidity	93	%
Temp	39.2	degr F

BACKGROUND SOUND LEVELS

OBSERVED DATA								
27 Ridgeview Rd			27 Ridgeview Rd			27 Ridgeview Rd		
Date: 15 Mar 2012			Date: 15 Mar 2012			Date: 15 Mar 2012		
Time: 2:22 am			Time: 02:30 am			Time: 2: 47 am		
1	5	34	2	5	32.5	3	5	43.7
1	10	34	2	10	29.7	3	10	39.2
1	15	33.3	2	15	29.8	3	15	39.2
1	20	33.7	2	20	30	3	20	39.2
1	25	34.2	2	25	30.3	3	25	39.2
1	30	32.8	2	30	29.8	3	30	39.8
1	35	30.4	2	35	29.2	3	35	40.6
1	40	30.9	2	40	29.2	3	40	43.6
1	45	31.7	2	45	29.4	3	45	45
1	50	30.1	2	50	29.4	3	50	47.4
1	55	32.6	2	55	30.5	3	55	50
1	60	39.4	2	60	31.8	3	60	45.7
1	1:05	29.8	2	1:05	30.9	3	1:05	41.1
1	1:10		2	1:10	29.5	3	1:10	39
1	1:15	28.9	2	1:15	29.6	3	1:15	38.5
1	1:20	29.8	2	1:20	32	3	1:20	38.6
1	1:25	29.5	2	1:25	28.8	3	1:25	38.6
1	1:30	29.3	2	1:30	28.6	3	1:30	38.6
1	1:35	30	2	1:35	28.9	3	1:35	38.7
1	1:40	30.3	2	1:40	30.6	3	1:40	38.8
1	1:45	33.8	2	1:45	33.1	3	1:45	38.6
1	1:50	29.4	2	1:50	30.1	3	1:50	38.7
1	1:55	29.3	2	1:55	31	3	1:55	38.7
1	2:00	28.3	2	2:00	31.2	3	2:00	31.9
1	2:05	28.6	2	2:05	33.6	3	2:05	32
1	2:10	27.5	2	2:10	36.3	3	2:10	31.3
1	2:15	27.6	2	2:15	37.3	3	2:15	32.1
1	2:20	27.4	2	2:20	37.7	3	2:20	32.7
1	2:25	27.8	2	2:25	38.5	3	2:25	35
1	2:30	29.1	2	2:30	42	3	2:30	34.4
1	2:35	29.8	2	2:35	45	3	2:35	34.8
1	2:40	29.2	2	2:40	47.1	3	2:40	35.3
1	2:45	28.8	2	2:45	45.9	3	2:45	40.5
1	2:50	29.1	2	2:50	50.9	3	2:50	38.6
1	2:55	29.1	2	2:55	56.8	3	2:55	43
1	3:00	28.9	2	3:00	50.1	3	3:00	43
1	3:05	29.7	2	3:05	44	3	3:05	48.5
1	3:10	33	2	3:10	41.2	3	3:10	46.5
1	3:15	42.5	2	3:15	39.2	3	3:15	38.3
1	3:20	46	2	3:20	38.4	3	3:20	35.6
1	3:25	44.3	2	3:25	40.6	3	3:25	41.1
1	3:30	42.9	2	3:30	38.6	3	3:30	37.6
1	3:35	42.8	2	3:35	38.5	3	3:35	41.5
1	3:40	38.5	2	3:40	38.4	3	3:40	45.8
1	3:45	37.3	2	3:45		3	3:45	44.6
1	3:50	35.6	2	3:50	38.3	3	3:50	48.5
1	3:55	34	2	3:55	37.9	3	3:55	44
1	4:00	31	2	4:00	37.8	3	4:00	36.2
1	4:05	31.1	2	4:05	37.8	3	4:05	34.4
1	4:10	31.2	2	4:10	37.8	3	4:10	33.1
1	4:15	30.2	2	4:15	38.1	3	4:15	32.9
1	4:20	30.7	2	4:20	38.2	3	4:20	32.6
1	4:25	31.3	2	4:25	37.9	3	4:25	33.6
1	4:30	30.5	2	4:30	37.8	3	4:30	32.8
1	4:35	30	2	4:35	38.2	3	4:35	34.7
1	4:40	28.2	2	4:40	38.4	3	4:40	33.6

L90

BACKGROUND SOUND LEVELS

OBSERVED DATA								
27 Ridgeview Rd			27 Ridgeview Rd			27 Ridgeview Rd		
Date: 15 Mar 2012			Date: 15 Mar 2012			Date: 15 Mar 2012		
Time: 2:22 am			Time: 02:30 am			Time: 2: 47 am		
1	5	34	2	5	32.5	3	5	43.7
1	4:45	28.9	2	4:45	37.9	3	4:45	33.8
1	4:50	29.9	2	4:50	37.9	3	4:50	33.5
1	4:55	30.6	2	4:55	37.9	3	4:55	33.8
1	5:00	30.9	2	5:00	38	3	5:00	34.4

L90	29.2	dBA
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Sampler Summary Data								
Lmax	46.5	dBA	Lmax	56.9	dBA	Lmax	52.4	dBA
Leq	35.3	dBA	Leq	42.5	dBA	Leq	41.8	dBA
L01	45.7	dBA	L01	56.2	dBA	L01	51.5	dBA
L10	38.2	dBA	L10	44.3	dBA	L10	45.3	dBA
L50	30.5	dBA	L50	37.7	dBA	L50	38.6	dBA
L90	28.6	dBA	L90	29.3	dBA	L90	32.9	dBA
LC-A	8.8	dBA	LC-A	8.4	dBA	LC-A	7.1	dBA

Met Data		
WS at Hub	5.2	m/s
WS at CGAS	3	m/s
WS at Ground	< 1	m/s
WD at Hub	037	degrees
WD at CGAS	020	degrees
BP	30.27	in
Humidity	93	%
Temp	39.2	degr F

BACKGROUND SOUND LEVELS

OBSERVED DATA

211 Blacksmith			211 Blacksmith			211 Blacksmith		
Date: 27 Mar 12			Date: 27 Mar 12			Date: 27 Mar 12		
Time: 2:23 am			Time: 2:30 am			Time: 02:38 am		
Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)
1	5	40	2	5	41.9	3	5	44.5
1	10	42.6	2	10	45.2	3	10	45
1	15	43.9	2	15	47	3	15	44.3
1	20	42.2	2	20	44	3	20	43.8
1	25	40.7	2	25	44.9	3	25	45.6
1	30	40.5	2	30	46.2	3	30	46.9
1	35	41	2	35	45.9	3	35	44.7
1	40	40.9	2	40	44	3	40	44.3
1	45	41.9	2	45	43.1	3	45	42.9
1	50	42.3	2	50	42.6	3	50	43.2
1	55	41	2	55	44.6	3	55	43.1
1	60	40	2	60	41.9	3	60	44.8
1	1:05	40.8	2	1:05	40.7	3	1:05	47.7
1	1:10	43.9	2	1:10	41.1	3	1:10	45.6
1	1:15	43.9	2	1:15	40.5	3	1:15	44.8
1	1:20	43.2	2	1:20	41.8	3	1:20	43
1	1:25	41.1	2	1:25	42.8	3	1:25	42.1
1	1:30	41.2	2	1:30	44.2	3	1:30	41.7
1	1:35	42.9	2	1:35	42.9	3	1:35	41.2
1	1:40	41.7	2	1:40	42	3	1:40	41.5
1	1:45	41.1	2	1:45	41.2	3	1:45	40.3
1	1:50	41.9	2	1:50	40.4	3	1:50	38.9
1	1:55	44	2	1:55	38.7	3	1:55	39.5
1	2:00	45.8	2	2:00	38.4	3	2:00	40.1
1	2:05	44.1	2	2:05	38.3	3	2:05	39.9
1	2:10	42.3	2	2:10	39	3	2:10	40.7
1	2:15	40.5	2	2:15	38.3	3	2:15	42.9
1	2:20	39.9	2	2:20	40.5	3	2:20	44.3
1	2:25	40.1	2	2:25	38.9	3	2:25	42.9
1	2:30	40.3	2	2:30	39.5	3	2:30	42.2
1	2:35	40.3	2	2:35	39.7	3	2:35	42.4
1	2:40	39.7	2	2:40	40.1	3	2:40	42.2
1	2:45	40.7	2	2:45	41.4	3	2:45	41.3
1	2:50	41.3	2	2:50	40.7	3	2:50	42.1
1	2:55	41.5	2	2:55	40.2	3	2:55	41.5
1	3:00	40.8	2	3:00	39.5	3	3:00	41
1	3:05	41.6	2	3:05	43.6	3	3:05	42.1
1	3:10	41.7	2	3:10	37.7	3	3:10	41.6
1	3:15	42.3	2	3:15	37	3	3:15	42.7
1	3:20	43.9	2	3:20	36.9	3	3:20	42.8
1	3:25	45	2	3:25	39.5	3	3:25	42.3
1	3:30	42	2	3:30	41	3	3:30	42.9
1	3:35	43.1	2	3:35	42.3	3	3:35	42.6
1	3:40	42.4	2	3:40	41.6	3	3:40	43.4
1	3:45	41.1	2	3:45	40.6	3	3:45	42.9
1	3:50	40.5	2	3:50	40.9	3	3:50	41.8
1	3:55	40.9	2	3:55	36.8	3	3:55	41.1
1	4:00	41.1	2	4:00	34.6	3	4:00	42
1	4:05	41.6	2	4:05	34.9	3	4:05	42.4
1	4:10	41.7	2	4:10	34.7	3	4:10	42.7
1	4:15	40.1	2	4:15	34.7	3	4:15	42.3
1	4:20	40.2	2	4:20	35.4	3	4:20	42.4
1	4:25	40.3	2	4:25	36.4	3	4:25	43.2
1	4:30	40.9	2	4:30	35.4	3	4:30	42.2
1	4:35	41.2	2	4:35	36.3	3	4:35	45.1

L90

BACKGROUND SOUND LEVELS

OBSERVED DATA								
211 Blacksmith			211 Blacksmith			211 Blacksmith		
Date: 27 Mar 12			Date: 27 Mar 12			Date: 27 Mar 12		
Time: 2:23 am			Time: 2:30 am			Time: 02:38 am		
Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)
1	4:40	42.7	2	4:40	34.7	3	4:40	43.3
1	4:45	43.3	2	4:45	35	3	4:45	42.6
1	4:50	44.2	2	4:50	34.9	3	4:50	43.1
1	4:55	45.4	2	4:55	36.5	3	4:55	50.2
1	5:00	45.1	2	5:00	36.6	3	5:00	50.3

L90	38.3	dBA
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Sampler Summary Data								
Lmax	46.6	dBA	Lmax	50.6	dBA	Lmax	48.5	dBA
Leq	42.2	dBA	Leq	43.7	dBA	Leq	41.2	dBA
L01	45.8	dBA	L01	50.2	dBA	L01	47.1	dBA
L10	44.1	dBA	L10	45.9	dBA	L10	44.2	dBA
L50	41.4	dBA	L50	42.5	dBA	L50	40	dBA
L90	40.1	dBA	L90	40.7	dBA	L90	35	dBA
LC-A	12.3	dBA	LC-A	13.6	dBA	LC-A	17.9	dBA

Met Data		
WS at Hub	10	m/s
WS at CGAS	6.7	m/s
WS at Ground	2.6	m/s
WD at Hub	357	degrees
WD at CGAS	330	degrees
BP	29.98	in
Humidity	31	%
Temp	28.4	degr F

BACKGROUND SOUND LEVELS

OBSERVED DATA

27 Ridgeview			27 Ridgeview			27 Ridgeview		
Date: 27 Mar 12			Date: 27 Mar 12			Date: 27 Mar 12		
Time: 1:52 am			Time: 2:00 am			Time: 2:07 am		
Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)
1	5	40.8	2	5	46.4	3	5	43.2
1	10	39.3	2	10	40.2	3	10	44.3
1	15	40.5	2	15	38.6	3	15	43.5
1	20	37.5	2	20	39.9	3	20	41.2
1	25	37.6	2	25	42.9	3	25	42.2
1	30	40.1	2	30	38.4	3	30	39.9
1	35	38.4	2	35	36.8	3	35	39.1
1	40	35.6	2	40	37.6	3	40	41.4
1	45	38.5	2	45	37	3	45	41.6
1	50	43.5	2	50	39.2	3	50	51.3
1	55	44	2	55	41.5	3	55	49.4
1	60	45.1	2	60	42.9	3	60	47.1
1	1:05	43.6	2	1:05	45.1	3	1:05	49.8
1	1:10	46.5	2	1:10	45.1	3	1:10	45.9
1	1:15	48.2	2	1:15	43.9	3	1:15	50.5
1	1:20	50.3	2	1:20	45.5	3	1:20	49.5
1	1:25	49.1	2	1:25	46.7	3	1:25	45.9
1	1:30	48.5	2	1:30	55.7	3	1:30	47.9
1	1:35	49.8	2	1:35	51	3	1:35	49.4
1	1:40	49.4	2	1:40	45	3	1:40	49.2
1	1:45	51.3	2	1:45	42.5	3	1:45	49.4
1	1:50	48.6	2	1:50	43.5	3	1:50	46.9
1	1:55	48	2	1:55	43.1	3	1:55	50.5
1	2:00	46	2	2:00	44.9	3	2:00	46.7
1	2:05	45.6	2	2:05	44.4	3	2:05	48.6
1	2:10	44.6	2	2:10	44.2	3	2:10	51.8
1	2:15	45.3	2	2:15	43.2	3	2:15	50.5
1	2:20	44.6	2	2:20	46.5	3	2:20	46.7
1	2:25	45.3	2	2:25	48.6	3	2:25	45.1
1	2:30	43.2	2	2:30	50.8	3	2:30	47.4
1	2:35	41.9	2	2:35	48.4	3	2:35	46.1
1	2:40	45.4	2	2:40	46.8	3	2:40	46.2
1	2:45	47.9	2	2:45	46.9	3	2:45	45.5
1	2:50	45	2	2:50	48.7	3	2:50	44.7
1	2:55	43.4	2	2:55	46	3	2:55	45.6
1	3:00	42	2	3:00	44	3	3:00	43.8
1	3:05	40.5	2	3:05	42.5	3	3:05	43.5
1	3:10	40.4	2	3:10	41.9	3	3:10	43.2
1	3:15	42	2	3:15	40	3	3:15	44.6
1	3:20	43.6	2	3:20	39.3	3	3:20	46.3
1	3:25	48.1	2	3:25	40.6	3	3:25	47.9
1	3:30	44.2	2	3:30	39.6	3	3:30	46.3
1	3:35	45	2	3:35	38.7	3	3:35	45.1
1	3:40	46.8	2	3:40	37.5	3	3:40	43.9
1	3:45	46.8	2	3:45	37.1	3	3:45	42.2
1	3:50	47.5	2	3:50	37.7	3	3:50	46.1
1	3:55	52	2	3:55	39.2	3	3:55	41.1
1	4:00	49.3	2	4:00	39.4	3	4:00	41.8
1	4:05	48	2	4:05	39.4	3	4:05	42.3
1	4:10	48.4	2	4:10	45.9	3	4:10	44
1	4:15	44.9	2	4:15	45.5	3	4:15	46.5
1	4:20	44.8	2	4:20	42.2	3	4:20	44
1	4:25	40.6	2	4:25	39.9	3	4:25	41.3
1	4:30	41.6	2	4:30	41.7	3	4:30	40.5
1	4:35	44.1	2	4:35	42.2	3	4:35	42.2

L90

BACKGROUND SOUND LEVELS

OBSERVED DATA

27 Ridgeview			27 Ridgeview			27 Ridgeview		
Date: 27 Mar 12			Date: 27 Mar 12			Date: 27 Mar 12		
Time: 1:52 am			Time: 2:00 am			Time: 2:07 am		
Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)
1	4:40	46.4	2	4:40	43.6	3	4:40	41.5
1	4:45	47.1	2	4:45	43	3	4:45	41.7
1	4:50	46.2	2	4:50	39.7	3	4:50	43.3
1	4:55	45.6	2	4:55	39.1	3	4:55	42.6
1	5:00	44.2	2	5:00	39.4	3	5:00	44.1

L90 39.2 dBA

Sampler Summary Data

Lmax	57.8	dBA	Lmax	56.7	dBA	Lmax	52.5	dBA
Leq	46.2	dBA	Leq	45.3	dBA	Leq	56.5	dBA
L01	51.9	dBA	L01	55.3	dBA	L01	51.8	dBA
L10	49.1	dBA	L10	48.4	dBA	L10	49.7	dBA
L50	45	dBA	L50	42.7	dBA	L50	45.2	dBA
L90	39.7	dBA	L90	38.1	dBA	L90	41.4	dBA
LC-A	12.1	dBA	LC-A	11	dBA	LC-A	13.6	dBA

Met Data

WS at Hub	10.5	m/s
WS at CGAS	4.6	m/s
WS at Ground	3.4	m/s
WD at Hub	357	degrees
WD at CGAS	320	degrees
BP	29.97	in
Humidity	32	%
Temp	30.2	degr F

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

260 Fire Tower Rd			Lmax1	260 Fire Tower Rd			x	260 Fire Tower Rd			Lmax3
Date: 6 Mar 2012				Date: 6 Mar 2012				Date: 6 Mar 2012			
Time 11:36 pm				Time 11:45 pm				Time 11:58 pm			
Run #	MM:ss	DbA		Run #	MM:ss	DbA		Run #	MM:ss	DbA	
1	5	36.6		2	5	39.4		3	5	37	
1	10	37.5		2	10	36.8		3	10	36.5	
1	15	37.7		2	15	34.6		3	15	34.6	
1	20	36.3		2	20	34.7		3	20	36.1	
1	25	35		2	25	35.3		3	25	35.4	
1	30	37.6		2	30	36.2		3	30	35.8	
1	35	35.4		2	35	35.4		3	35	35.7	
1	40	35.3		2	40	35.7		3	40	34.6	
1	45	33.5		2	45	36.1		3	45	34.3	
1	50	33.9		2	50	36		3	50	33.8	
1	55	33.5		2	55	36		3	55	34.7	
1	60	36		2	60	34.7		3	60	34.7	
1	1:05	36.3		2	1:05	35.3		3	1:05	35.2	
1	1:10	35.4		2	1:10	35.2		3	1:10	35.8	
1	1:15	36.4		2	1:15	35.4		3	1:15	34.7	
1	1:20	35.2		2	1:20	35.4		3	1:20	33.3	
1	1:25	37.4	x	2	1:25	33.9		3	1:25	34.9	
1	1:30	36.5	x	2	1:30	34		3	1:30	32.7	
1	1:35	38.6	x	2	1:35	34.1		3	1:35	35.4	
1	1:40	40	x	2	1:40	34.2		3	1:40	35.4	
1	1:45	37.4	x	2	1:45	36		3	1:45	35.8	
1	1:50	36.5		2	1:50	34.7		3	1:50	36.6	
1	1:55	38.9	x	2	1:55	34.3		3	1:55	34.9	
1	2:00	38	x	2	2:00	36.6		3	2:00	34.6	
1	2:05	38.7	x	2	2:05	36.5		3	2:05	35	
1	2:10	36.7		2	2:10	36.2		3	2:10	35.8	
1	2:15	36.6		2	2:15	37.2	Lmax2	3	2:15	35.8	
1	2:20	35.7		2	2:20	36.1		3	2:20	35.1	
1	2:25	35.1		2	2:25	37.8	x	3	2:25	35	
1	2:30	34.6		2	2:30	36.9	x	3	2:30	35.4	
1	2:35	35.5		2	2:35	37	x	3	2:35	35.2	
1	2:40	35.9		2	2:40	37.6	x	3	2:40	34	
1	2:45	34.2		2	2:45	37.8	x	3	2:45	34.2	
1	2:50	34.2		2	2:50	37.3	x	3	2:50	35.6	
1	2:55	34.5		2	2:55	37.8	x	3	2:55	36.2	
1	3:00	33.9		2	3:00	37.9	x	3	3:00	35	
1	3:05	35.8		2	3:05	37.8	x	3	3:05	33.4	
1	3:10	34.5		2	3:10	37.9	x	3	3:10	34	
1	3:15	34.2		2	3:15	37.6	x	3	3:15	35.1	
1	3:20	34.5		2	3:20	38.1	x	3	3:20	35.2	
1	3:25	35.1		2	3:25	36.3		3	3:25	35.5	
1	3:30	33.6		2	3:30	36		3	3:30	37.8	
1	3:35	34.5		2	3:35	35.2		3	3:35	36.5	
1	3:40	33.7		2	3:40	35.1		3	3:40	35.9	
1	3:45	33.5		2	3:45	35.2		3	3:45	35.5	
1	3:50	34.2		2	3:50	34.2		3	3:50	36.2	
1	3:55	36		2	3:55	33.4		3	3:55	35.6	
1	4:00	36.1		2	4:00	35		3	4:00	35.3	
1	4:05	35.8		2	4:05	35.6		3	4:05	35.9	
1	4:10	35.2		2	4:10	34.9		3	4:10	34.8	
1	4:15	35.9		2	4:15	37.2		3	4:15	35.9	
1	4:20	35.6		2	4:20	36.3		3	4:20	36.9	
1	4:25	34.6		2	4:25	33.8		3	4:25	35.3	
1	4:30	35.9		2	4:30	33.6		3	4:30	37.2	
1	4:35	36.9	x	2	4:35	34.6		3	4:35	37.7	
1	4:40	49.6	x	2	4:40	34.7		3	4:40	37.1	
1	4:45	54.7	x	2	4:45	35.4		3	4:45	34.7	

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

260 Fire Tower Rd			x	260 Fire Tower Rd				260 Fire Tower Rd		
Date: 6 Mar 2012				Date: 6 Mar 2012				Date: 6 Mar 2012		
Time 11:36 pm				Time 11:45 pm				Time 11:58 pm		
Run #	MM:ss	DbA		Run #	MM:ss	DbA		Run #	MM:ss	DbA
1	4:50	42.6		2	4:50	35.3		3	4:50	36
1	4:55	37.3	2	4:55	34.7	3	4:55	36.6		
1	5:00	35.4	2	5:00	35.5	3	5:00	34.6		

Lmax (Avg) 37.3 dBA

Sampler Summary Data

Lmax	43.1	dBA		Lmax	40.3	dBA		Lmax	39.7	dBA
Leq	35.6	dBA		Leq	36.1	dBA		Leq	35.5	dBA
L01	39.7	dBA		L01	38.8	dBA		L01	37.9	dBA
L10	37.1	dBA		L10	37.6	dBA		L10	36.6	dBA
L50	35.2	dBA		L50	35.7	dBA		L50	35.3	dBA
L90	33.5	dBA		L90	34	dBA		L90	34.1	dBA
LC-A	13.7	dBA		LC-A	13.6	dBA		LC-A	15	dBA

Met Data

WS at Hub	7.7	m/s
WS at CGAS	2	m/s
WS at Ground	NONE	m/s
WD at Hub	261	degrees
WD at CGAS	210	degrees
BP	30.6	in
Humidity	69	%
Temp	32	degr F

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

211 Black Smith Shop Rd		
Date: 7 Mar 2012		
Time: 12:15 am		
Run #	MM:ss	DbA
1	5	39.1
1	10	38.3
1	15	40.1
1	20	40.3
1	25	39.2
1	30	39.7
1	35	37.3
1	40	37.7
1	45	38.9
1	50	39.4
1	55	40.3
1	60	37.3
1	1:05	37.9
1	1:10	37.7
1	1:15	39
1	1:20	39.2
1	1:25	38.6
1	1:30	38.1
1	1:35	39
1	1:40	36.6
1	1:45	36.4
1	1:50	38.2
1	1:55	38.8
1	2:00	37.9
1	2:05	38.6
1	2:10	39.7
1	2:15	40.1
1	2:20	38.9
1	2:25	39.1
1	2:30	40.2
1	2:35	38.4
1	2:40	41.7
1	2:45	39
1	2:50	39.8
1	2:55	39
1	3:00	39.5
1	3:05	39.6
1	3:10	38.7
1	3:15	38.4
1	3:20	38.8
1	3:25	39.1
1	3:30	40.1
1	3:35	40.3
1	3:40	39.1
1	3:45	38.7
1	3:50	38.9
1	3:55	38.2
1	4:00	40.8
1	4:05	39.2
1	4:10	38.3
1	4:15	39.1
1	4:20	39.4
1	4:25	39.7
1	4:30	40.2
1	4:35	38.8
1	4:40	37.3
1	4:45	39
1	4:50	41.4
1	4:55	40.8
1	5:00	37.6

Lmax 1

211 Black Smith Shop Rd		
Date: 7 Mar 2012		
Time: 12:25am		
Run #	MM:ss	DbA
2	5	41.2
2	10	39.5
2	15	40.1
2	20	40.3
2	25	38.9
2	30	39.2
2	35	39.4
2	40	40.8
2	45	40.5
2	50	39.5
2	55	40.8
2	60	40.5
2	1:05	40.1
2	1:10	38.5
2	1:15	38.2
2	1:20	38.2
2	1:25	38.1
2	1:30	38.4
2	1:35	40
2	1:40	39.1
2	1:45	39.5
2	1:50	37.6
2	1:55	38
2	2:00	38.3
2	2:05	38.5
2	2:10	38.7
2	2:15	38.7
2	2:20	39.6
2	2:25	39.6
2	2:30	40
2	2:35	38.3
2	2:40	38.8
2	2:45	37.6
2	2:50	38.8
2	2:55	40
2	3:00	38.9
2	3:05	39.2
2	3:10	40
2	3:15	37.7
2	3:20	38.4
2	3:25	39.3
2	3:30	39.1
2	3:35	40.1
2	3:40	38.5
2	3:45	38.5
2	3:50	38
2	3:55	37.7
2	4:00	38
2	4:05	38.1
2	4:10	38.9
2	4:15	38.3
2	4:20	39
2	4:25	38.3
2	4:30	40.1
2	4:35	39.3
2	4:40	39
2	4:45	37.6
2	4:50	37.8
2	4:55	36.9
2	5:00	39.3

x

Lmax 2

211 Black Smith Shop Rd		
Date: 7 Mar 2012		
Time: 12:35 am		
Run #	MM:ss	DbA
3	5	40.7
3	10	38.2
3	15	39.5
3	20	39.8
3	25	40
3	30	38.9
3	35	37.2
3	40	39.9
3	45	40.3
3	50	39.4
3	55	39.4
3	60	40.5
3	1:05	38.5
3	1:10	39.2
3	1:15	41.2
3	1:20	39.4
3	1:25	40.2
3	1:30	39.8
3	1:35	39.2
3	1:40	40.1
3	1:45	39.6
3	1:50	38.4
3	1:55	39.1
3	2:00	42.5
3	2:05	40.5
3	2:10	39.7
3	2:15	40.9
3	2:20	42.6
3	2:25	42.1
3	2:30	44.6
3	2:35	46.7
3	2:40	45.5
3	2:45	45
3	2:50	43.8
3	2:55	42
3	3:00	41.6
3	3:05	43.2
3	3:10	44.3
3	3:15	43.2
3	3:20	43.2
3	3:25	42.3
3	3:30	40.2
3	3:35	41.5
3	3:40	40.9
3	3:45	40.5
3	3:50	40.3
3	3:55	39.1
3	4:00	40.5
3	4:05	39.3
3	4:10	38.5
3	4:15	37.7
3	4:20	39.4
3	4:25	40.1
3	4:30	39.4
3	4:35	38.3
3	4:40	38.1
3	4:45	39.8
3	4:50	38.5
3	4:55	38.9
3	5:00	39

Lmax 3

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

211 Black Smith Shop Rd		
Date: 7 Mar 2012		
Time: 12:15 am		
Run #	MM:ss	DbA
Lmax (Avg)	40.9	dBA

211 Black Smith Shop Rd		
Date: 7 Mar 2012		
Time: 12:25am		
Run #	MM:ss	DbA

211 Black Smith Shop Rd		
Date: 7 Mar 2012		
Time: 12:35 am		
Run #	MM:ss	DbA

Sampler Summary Data

Lmax	42.2	dBA
Leq	39.1	dBA
L01	41.2	dBA
L10	40.2	dBA
L50	38.9	dBA
L90	37.5	dBA
LC-A	11.3	dBA

Lmax	43.6	dBA
Leq	39.2	dBA
L01	41.6	dBA
L10	40.4	dBA
L50	39	dBA
L90	37.7	dBA
LC-A	11.3	dBA

Lmax	51.6	dBA
Leq	41.2	dBA
L01	47.1	dBA
L10	43.3	dBA
L50	39.9	dBA
L90	38.3	dBA
LC-A	11	dBA

Met Data

WS at Hub	7.5	m/s
WS at CGAS	2	m/s
WS at Ground	NONE	m/s
WD at Hub	256	degrees
WD at CGAS	225	degrees
BP	30.6	in
Humidity	80	%
Temp	28.4	degr F

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

161 Blacksmith Shop Rd			161 Blacksmith Shop Rd			161 Blacksmith Shop Rd		
Date: 7 Mar 2012			Date: 7 Mar 2012			Date: 7 Mar 2012		
Time 1:15 am			Time 1:25 am			Time 1:32 am		
Run #	MM:ss	DbA	Run #	MM:ss	DbA	Run #	MM:ss	DbA
1	5	36	2	5	31.6	3	5	34.3
1	10	35.5	2	10	36.1	3	10	34.5
1	15	36.1	2	15	33.2	3	15	32.6
1	20	35.9	2	20	33.1	3	20	33.2
1	25	34.1	2	25	33.8	3	25	32.8
1	30	36.6	2	30	34.4	3	30	32.8
1	35	35.2	2	35	35.9	3	35	32.3
1	40	34.4	2	40	35	3	40	32.5
1	45	34	2	45	35	3	45	33.6
1	50	35	2	50	34.2	3	50	32.6
1	55	36.8	2	55	34.7	3	55	32.5
1	60	35.8	2	60	35.1	3	60	32.1
1	1:05	35.3	2	1:05	36.1	3	1:05	33.1
1	1:10	38.2	2	1:10	36.2	3	1:10	33.1
1	1:15	36.6	2	1:15	35.5	3	1:15	32.9
1	1:20	36.9	2	1:20	34.3	3	1:20	33.8
1	1:25	36.5	2	1:25	33.7	3	1:25	31.8
1	1:30	34.2	2	1:30	34.1	3	1:30	33
1	1:35	35.3	2	1:35	32.9	3	1:35	33.6
1	1:40	34.3	2	1:40	33.1	3	1:40	32.5
1	1:45	35.9	2	1:45	36.1	3	1:45	34.5
1	1:50	35.2	2	1:50	35.1	3	1:50	33.5
1	1:55	34.7	2	1:55	36.7	3	1:55	34
1	2:00	34.7	2	2:00	34.1	3	2:00	33.4
1	2:05	34	2	2:05	32.9	3	2:05	33.7
1	2:10	34.8	2	2:10	32.9	3	2:10	32
1	2:15	34.9	2	2:15	32.9	3	2:15	31.1
1	2:20	34.5	2	2:20	36.1	3	2:20	31.4
1	2:25	35.2	2	2:25	36.2	3	2:25	32.1
1	2:30	37.4	2	2:30	35.8	3	2:30	32.2
1	2:35	37.9	2	2:35	36.7	3	2:35	33.6
1	2:40	36.7	2	2:40	38.4	3	2:40	33.7
1	2:45	35.9	2	2:45	37.6	3	2:45	33.8
1	2:50	35.7	2	2:50	35.9	3	2:50	33.7
1	2:55	36.2	2	2:55	36	3	2:55	34
1	3:00	35.6	2	3:00	34.7	3	3:00	33.7
1	3:05	35.4	2	3:05	34.7	3	3:05	33.4
1	3:10	35	2	3:10	35	3	3:10	33.5
1	3:15	34.8	2	3:15	34.9	3	3:15	33.4
1	3:20	36	2	3:20	36.2	3	3:20	33.2
1	3:25	37.1	2	3:25	38.9	3	3:25	34.1
1	3:30	37.2	2	3:30	35.7	3	3:30	33.1
1	3:35	35.3	2	3:35	35	3	3:35	33.7
1	3:40	33.6	2	3:40	34.1	3	3:40	33
1	3:45	34.5	2	3:45	35.2	3	3:45	33.5
1	3:50	36	2	3:50	34.5	3	3:50	33.7
1	3:55	35.1	2	3:55	36.1	3	3:55	34.1
1	4:00	33.7	2	4:00	34.7	3	4:00	34
1	4:05	33.8	2	4:05	33.8	3	4:05	33.3
1	4:10	33.5	2	4:10	33.5	3	4:10	32.9
1	4:15	34.1	2	4:15	34.1	3	4:15	33.1
1	4:20	34.5	2	4:20	33.7	3	4:20	33
1	4:25	34.5	2	4:25	34.6	3	4:25	33.5
1	4:30	34.9	2	4:30	33.7	3	4:30	33.3
1	4:35	36	2	4:35	33.6	3	4:35	33.9

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

161 Blacksmith Shop Rd			161 Blacksmith Shop Rd			161 Blacksmith Shop Rd		
Date: 7 Mar 2012			Date: 7 Mar 2012			Date: 7 Mar 2012		
Time 1:15 am			Time 1:25 am			Time 1:32 am		
Run #	MM:ss	DbA	Run #	MM:ss	DbA	Run #	MM:ss	DbA
1	4:40	35	2	4:40	35	3	4:40	34.8
1	4:45	34.1	2	4:45	34.7	3	4:45	34
1	4:50	35.7	2	4:50	35.8	3	4:50	33.3
1	4:55	34.1	2	4:55	35.9	3	4:55	33.2
1	5:00	33.5	2	5:00	34.7	3	5:00	33.5

Lmax3

Lmax (Avg) 36.1 dBA

Sampler Summary Data

Lmax	40.8	dBA	Lmax	44.9	dBA	Lmax	39.6	dBA
Leq	35.5	dBA	Leq	35.1	dBA	Leq	33.5	dBA
L01	39	dBA	L01	38.6	dBA	L01	36.9	dBA
L10	36.8	dBA	L10	36.2	dBA	L10	43.3	dBA
L50	35.1	dBA	L50	34.7	dBA	L50	33.2	dBA
L90	33.7	dBA	L90	33.4	dBA	L90	32.1	dBA
LC-A	13	dBA	LC-A	14.1	dBA	LC-A	14.5	dBA

Met Data

WS at Hub	7	m/s
WS at CGAS	Calm	m/s
WS at Ground	None	m/s
WD at Hub	252	degrees
WD at CGAS	200	degrees
BP	30.6	in
Humidity	86	%
Temp	26.6	degr F

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

OBSERVED DATA (x indicates interference from another sound source)											
Corner Service RD/ Black Smith Shop Rd				Corner Service RD/ Black Smith Shop Rd				Corner Service RD/ Black Smith Shop Rd			
Date: 7 Mar 2012				Date: 7 Mar 2012				Date: 7 Mar 2012			
Time 1:40 am				Time 1:53 am				Time 2:00 am			
Run #	MM:ss	DbA		Run #	MM:ss	DbA		Run #	MM:ss	DbA	
1	5	33.9	Lmax1	2	5	34.4	Lmax2	3	5	34	Lmax 3
1	10	33.2		2	10	31.8		3	10	33	
1	15	32.6		2	15	30.9		3	15	32.4	
1	20	32.2		2	20	30.9		3	20	32.1	
1	25	32.9		2	25	30.8		3	25	32.8	
1	30	32.8		2	30	32.1		3	30	32.8	
1	35	33.7		2	35	31.9		3	35	32.4	
1	40	34.5		2	40	32.1		3	40	32.2	
1	45	38.6		2	45	32.2		3	45		
1	50	41.5		2	50	32.5		3	50	33	
1	55	38.6		2	55	32.8		3	55	33.7	
1	60	36.5		2	60	33		3	60	33.9	
1	1:05	36.2		2	1:05	33		3	1:05	33	
1	1:10	34.7		2	1:10	33.3		3	1:10	32.6	
1	1:15	36.1		2	1:15	32.5		3	1:15	33.5	
1	1:20	33.6		2	1:20	37.2		3	1:20	32.3	
1	1:25	33.2		2	1:25	33.6		3	1:25	32.4	
1	1:30	33.3		2	1:30	33.1		3	1:30	32.8	
1	1:35	34.4		2	1:35	32.5		3	1:35	32.8	
1	1:40	33.5		2	1:40	33.5		3	1:40	32.9	
1	1:45	34.3		2	1:45	35.6		3	1:45	34.9	
1	1:50	35.2		2	1:50	33		3	1:50	33.8	
1	1:55	32.3		2	1:55	32.7		3	1:55	33.3	
1	2:00	32		2	2:00	32.6		3	2:00	33.1	
1	2:05	33.1		2	2:05	32.6		3	2:05	33.5	
1	2:10	33.6		2	2:10	32.7		3	2:10	32.2	
1	2:15	33.2		2	2:15	31.7		3	2:15	31.9	
1	2:20	33.2		2	2:20	32.7		3	2:20	32.5	
1	2:25	32.9		2	2:25	32.9		3	2:25	35.3	
1	2:30	34.2		2	2:30	32.9		3	2:30	32.8	
1	2:35	33.2		2	2:35	32		3	2:35	34.6	
1	2:40	33.9		2	2:40	31.9		3	2:40	33.1	
1	2:45	33.9		2	2:45	32.1		3	2:45	32.3	
1	2:50	32.6		2	2:50	32.1		3	2:50	31.7	
1	2:55	33.2		2	2:55	31.8		3	2:55	32.1	
1	3:00	35.2		2	3:00	32.4		3	3:00	31.8	
1	3:05	36		2	3:05	31.8		3	3:05	32.3	
1	3:10	35.5		2	3:10	31.6		3	3:10	32.6	
1	3:15	36.6		2	3:15	32.2		3	3:15	32.9	
1	3:20	43.1		2	3:20	32.4		3	3:20	32.9	
1	3:25	42.4		2	3:25	32.6		3	3:25	35	
1	3:30	38.7		2	3:30	31.7		3	3:30	34.1	
1	3:35	33.3		2	3:35	34.5		3	3:35	32.8	
1	3:40	32.4		2	3:40	32.5		3	3:40	33.5	
1	3:45	32.1		2	3:45	33		3	3:45	33.2	
1	3:50	32.1		2	3:50	32.5		3	3:50	33.6	
1	3:55	31.9		2	3:55	32.7		3	3:55	33.2	
1	4:00	31.5		2	4:00	32.8		3	4:00	32.9	
1	4:05	31.8		2	4:05	32.2		3	4:05	33.1	
1	4:10	31.3		2	4:10	33		3	4:10	34.1	
1	4:15	32.3		2	4:15	33.2		3	4:15	32.3	
1	4:20	32.9		2	4:20	32.5		3	4:20	32.8	
1	4:25	33.3		2	4:25	31.8		3	4:25	32.8	
1	4:30	32.9		2	4:30	32		3	4:30	32.5	

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

Corner Service RD/ Black Smith Shop Rd		
Date: 7 Mar 2012		
Time 1:40 am		
Run #	MM:ss	DbA
1	4:35	32.7
1	4:40	32.4
1	4:45	31.4
1	4:50	32
1	4:55	32.2
1	5:00	31.5

Corner Service RD/ Black Smith Shop Rd		
Date: 7 Mar 2012		
Time 1:53 am		
Run #	MM:ss	DbA
2	4:35	32.4
2	4:40	32.1
2	4:45	31.8
2	4:50	32.2
2	4:55	32.2
2	5:00	31.3

Corner Service RD/ Black Smith Shop Rd		
Date: 7 Mar 2012		
Time 2:00 am		
Run #	MM:ss	DbA
3	4:35	32.2
3	4:40	32.6
3	4:45	32.6
3	4:50	32.7
3	4:55	32.9
3	5:00	41 x

Lmax (Avg) 36.2 dBA

Sampler Summary Data

Lmax	45.2	dBA
Leq	35.3	dBA
L01	43.3	dBA
L10	37.2	dBA
L50	33.2	dBA
L90	31.7	dBA
LC-A	13.2	dBA

Lmax	39.6	dBA
Leq	32.6	dBA
L01	36.2	dBA
L10	33.2	dBA
L50	32.3	dBA
L90	31.5	dBA
LC-A	15	dBA

Lmax	46.7	dBA
Leq	33.5	dBA
L01	38.5	dBA
L10	34.1	dBA
L50	32.7	dBA
L90	32	dBA
LC-A	18.6	dBA

Met Data

WS at Hub	7.9	m/s
WS at CGAS	1.6	m/s
WS at Ground	None	m/s
WD at Hub	237	degrees
WD at CGAS	150	degrees
BP	30.59	in
Humidity	80	%
Temp	24.8	degr F

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

260 Fire Tower Rd			260 Fire Tower Rd			260 Fire Tower Rd		
Date: 7 Mar 12			Date: 7 Mar 12			Date: 7 Mar 12		
Time: 11:46 pm			Time: 11:53 pm			Time: 12:02 am		
Run #	mm:SS	dB(A)	Run #	mm:SS	dB(A)	Run #	mm:SS	dB(A)
1	5	44.8	2	5	45	3	5	43.8
1	10	45.3	2	10	45.3	3	10	43.7
1	15	45.1	2	15	44.9	3	15	44.4
1	20	45.6	2	20	46.3	3	20	43.4
1	25	45	2	25	46.2	3	25	44.4
1	30	44	2	30	44.9	3	30	45
1	35	44.7	2	35	44.4	3	35	45.3
1	40	43.6	2	40	43.5	3	40	45.3
1	45	44.7	2	45	44.7	3	45	45.8
1	50	47.1	2	50	44.2	3	50	45.1
1	55	45.5	2	55	43.9	3	55	45.5
1	60	46.9	2	60	44.6	3	60	45.7
1	1:05	44.7	2	1:05	44.5	3	1:05	45.7
1	1:10	44.1	2	1:10	46.1	3	1:10	44.2
1	1:15	46	2	1:15	45.1	3	1:15	44.7
1	1:20	46.1	2	1:20	44	3	1:20	45.9
1	1:25	45	2	1:25	42.9	3	1:25	46
1	1:30	44.5	2	1:30	44.7	3	1:30	45.2
1	1:35	43.7	2	1:35	45.3	3	1:35	43.2
1	1:40	44.8	2	1:40	45.4	3	1:40	43.7
1	1:45	45.4	2	1:45	46	3	1:45	44
1	1:50	45.5	2	1:50	45.3	3	1:50	45.4
1	1:55	45.4	2	1:55	45.8	3	1:55	42.8
1	2:00	44.6	2	2:00	45.8	3	2:00	43.4
1	2:05	44.2	2	2:05	49	3	2:05	44.3
1	2:10	45	2	2:10	48.2	3	2:10	43.3
1	2:15	44.6	2	2:15	48.7	3	2:15	43.2
1	2:20	44.9	2	2:20	47.6	3	2:20	43.9
1	2:25	46.7	2	2:25	45.7	3	2:25	43.1
1	2:30	45.7	2	2:30	45.4	3	2:30	43.4
1	2:35	45.1	2	2:35	46.5	3	2:35	44.4
1	2:40	45.6	2	2:40	45.3	3	2:40	45.5
1	2:45	44.8	2	2:45	45.7	3	2:45	45
1	2:50	45.4	2	2:50	46.1	3	2:50	43.6
1	2:55	43.7	2	2:55	46.5	3	2:55	44.8
1	3:00	45	2	3:00	46.6	3	3:00	42.8
1	3:05	44.9	2	3:05	46.1	3	3:05	44.8
1	3:10	45.6	2	3:10	45	3	3:10	44.4
1	3:15	45.8	2	3:15	45	3	3:15	43.8
1	3:20	46.4	2	3:20	46.5	3	3:20	44.6
1	3:25	45.7	2	3:25	45.8	3	3:25	44.7
1	3:30	45.1	2	3:30	43.1	3	3:30	45.1
1	3:35	45.9	2	3:35	44.4	3	3:35	45.1
1	3:40	46.3	2	3:40	45	3	3:40	44.1
1	3:45	45.6	2	3:45	46.2	3	3:45	44.5
1	3:50	44.3	2	3:50	46.2	3	3:50	43
1	3:55	44.2	2	3:55	48.1	3	3:55	43.6
1	4:00	44.7	2	4:00	45.9	3	4:00	47
1	4:05	45.2	2	4:05	45.6	3	4:05	43.9
1	4:10	47.6	2	4:10	45.2	3	4:10	45.2
1	4:15	45.3	2	4:15	45.6	3	4:15	44.2
1	4:20	46	2	4:20	43.7	3	4:20	44
1	4:25	44.8	2	4:25	45.2	3	4:25	45.3
1	4:30	46	2	4:30	44.6	3	4:30	44.4
1	4:35	45.8	2	4:35	44.6	3	4:35	44.6
1	4:40	47.1	2	4:40	44.5	3	4:40	43.9

Lmax1

x

x

x

x

x

x

x

x

x

x

Lmax2

x

x

Lmax3

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

260 Fire Tower Rd		
Date: 7 Mar 12		
Time: 11:46 pm		
Run #	mm:SS	dB(A)
1	4:45	46.3
1	4:50	44.5
1	4:55	45.8
1	5:00	44.5

260 Fire Tower Rd		
Date: 7 Mar 12		
Time: 11:53 pm		
Run #	mm:SS	dB(A)
2	4:45	44.4
2	4:50	45.6
2	4:55	48.3
2	5:00	47.3

x

x

260 Fire Tower Rd		
Date: 7 Mar 12		
Time: 12:02 am		
Run #	mm:SS	dB(A)
3	4:45	42.8
3	4:50	45.1
3	4:55	43.2
3	5:00	42.9

Lmax (Avg) 47.06 dBA

Sampler Summary Data

Lmax	49	dBA
Leq	45.3	dBA
L01	47.5	dBA
L10	46.4	dBA
L50	45.1	dBA
L90	44	dBA
LC-A	12.9	dBA

Lmax	50.2	dBA
Leq	45.6	dBA
L01	49	dBA
L10	46.9	dBA
L50	45.2	dBA
L90	43.7	dBA
LC-A	12.5	dBA

Lmax	53.8	dBA
Leq	44.6	dBA
L01	47.2	dBA
L10	45.6	dBA
L50	44.2	dBA
L90	43	dBA
LC-A	12.7	dBA

Met Data

WS at Hub	13.1	m/s
WS at CGAS	8.7	m/s
WS at Ground	5.1	m/s
WD at Hub	232	degrees
WD at CGAS	240	degrees
BP	30.33	in
Humidity	87	%
Temp	46.4	degr F

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

211 Blacksmith Shop Rd		
Date: 8 Mar 12		
Time: 12:24 am		
Run #	mm:ss	dB(A)
1	5	nd
1	10	nd
1	15	nd
1	20	45.3
1	25	46.5
1	30	46.2
1	35	46.2
1	40	46.9
1	45	46.7
1	50	48.2
1	55	47.2
1	60	45.5
1	1:05	44.1
1	1:10	45.8
1	1:15	47.5
1	1:20	45.2
1	1:25	45.8
1	1:30	43.3
1	1:35	44.6
1	1:40	44.7
1	1:45	45.1
1	1:50	48.2
1	1:55	48
1	2:00	50.2
1	2:05	49.1
1	2:10	47.9
1	2:15	45.9
1	2:20	46.1
1	2:25	47.9
1	2:30	47.8
1	2:35	48.3
1	2:40	47.3
1	2:45	45.7
1	2:50	45.1
1	2:55	47.7
1	3:00	48.8
1	3:05	47.2
1	3:10	46.9
1	3:15	46.1
1	3:20	44.8
1	3:25	47.4
1	3:30	45.4
1	3:35	48.1
1	3:40	47.2
1	3:45	48
1	3:50	46.9
1	3:55	46
1	4:00	46.5
1	4:05	44.4
1	4:10	45.2
1	4:15	47.7
1	4:20	50.4
1	4:25	51.1
1	4:30	46.8
1	4:35	47.7
1	4:40	46.8

x

x

x

x

LMax1

x

x

211 Blacksmith Shop Rd		
Date: 8 Mar 12		
Time: 12:30 am		
Run #	mm:ss	dB(A)
2	5	46.2
2	10	47.4
2	15	46.5
2	20	46.1
2	25	48.8
2	30	47.1
2	35	46.6
2	40	46.3
2	45	47.5
2	50	45.2
2	55	47
2	60	46.7
2	1:05	48.6
2	1:10	46.8
2	1:15	45.9
2	1:20	48.9
2	1:25	45.3
2	1:30	46.8
2	1:35	46.5
2	1:40	46.5
2	1:45	44.5
2	1:50	48.1
2	1:55	50.5
2	2:00	48.6
2	2:05	48.7
2	2:10	48
2	2:15	49.6
2	2:20	46
2	2:25	48.6
2	2:30	50
2	2:35	47.6
2	2:40	51.7
2	2:45	47.6
2	2:50	48.7
2	2:55	48.5
2	3:00	49.3
2	3:05	48.7
2	3:10	48.3
2	3:15	46.6
2	3:20	47.6
2	3:25	45.5
2	3:30	45
2	3:35	46.1
2	3:40	47.8
2	3:45	49.8
2	3:50	49
2	3:55	48.5
2	4:00	48.9
2	4:05	47.3
2	4:10	48.3
2	4:15	47.9
2	4:20	46
2	4:25	47.3
2	4:30	47.5
2	4:35	49.6
2	4:40	48.6

x

x

x

x

LMax2

211 Blacksmith Shop Rd		
Date: 8 Mar 12		
Time: 12:38 am		
Run #	mm:ss	dB(A)
3	5	46.4
3	10	47.7
3	15	48.1
3	20	48
3	25	49.4
3	30	49.5
3	35	48.3
3	40	49.6
3	45	47.8
3	50	50.2
3	55	49
3	60	48
3	1:05	48
3	1:10	49.3
3	1:15	49.8
3	1:20	47.3
3	1:25	51.6
3	1:30	50.8
3	1:35	48.5
3	1:40	48
3	1:45	47.8
3	1:50	47.7
3	1:55	50
3	2:00	49.4
3	2:05	49.1
3	2:10	51
3	2:15	49.4
3	2:20	50.5
3	2:25	49.5
3	2:30	50.8
3	2:35	49.8
3	2:40	49.6
3	2:45	46
3	2:50	50.4
3	2:55	43.7
3	3:00	48.3
3	3:05	47.9
3	3:10	49.6
3	3:15	49.1
3	3:20	52.4
3	3:25	50.1
3	3:30	49.7
3	3:35	47.4
3	3:40	50.1
3	3:45	49.9
3	3:50	50.4
3	3:55	50.5
3	4:00	49.8
3	4:05	49
3	4:10	50.3
3	4:15	47.3
3	4:20	48.9
3	4:25	49.4
3	4:30	49.6
3	4:35	49.6
3	4:40	49.9

x

x

x

Lmax3

x

x

x

x

x

x

x

x

x

x

x

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

211 Blacksmith Shop Rd			211 Blacksmith Shop Rd			211 Blacksmith Shop Rd		
Date: 8 Mar 12			Date: 8 Mar 12			Date: 8 Mar 12		
Time: 12:24 am			Time: 12:30 am			Time: 12:38 am		
Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)
1	4:45	47.1	2	4:45	48.6	3	4:45	48.2
1	4:50	48.2	2	4:50	50.5	3	4:50	47.9
1	4:55	48.2	2	4:55	48.6	3	4:55	49.5
1	5:00	46.6	2	5:00	47.4	3	5:00	47.8

Lmax (Avg) 50.5 dBA

Sampler Summary Data

Lmax	51.2	dBA	Lmax	51.8	dBA	Lmax	52.8	dBA
Leq	47	dBA	Leq	47.8	dBA	Leq	49.2	dBA
L01	50.7	dBA	L01	51	dBA	L01	52.3	dBA
L10	48.5	dBA	L10	49.4	dBA	L10	50.5	dBA
L50	46.7	dBA	L50	47.6	dBA	L50	49	dBA
L90	44.9	dBA	L90	45.5	dBA	L90	47.4	dBA
LC-A	14.4	dBA	LC-A	14.9	dBA	LC-A	14.2	dBA

Met Data

WS at Hub	13.7	m/s
WS at CGAS	10.8	m/s
WS at Ground	3.4	m/s
WD at Hub	232	degrees
WD at CGAS	240	degrees
BP	30.32	in
Humidity	87	%
Temp	46.4	degr F

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

161 Blacksmith Shop Rd			161 Blacksmith Shop Rd			161 Blacksmith Shop Rd		
Date: Mar 8, 2012			Date: Mar 8, 2012			Date: Mar 8, 2012		
Time: 12:52 am			Time: 1:03 am			Time: 1:18 am		
Run #	MM:SS	dB(A)	Run #	MM:SS	dB(A)	Run #	MM:SS	dB(A)
1	5	44.8	2	5	46.6	3	5	45
1	10	45.2	2	10	43.7	3	10	45.1
1	15	46.8	2	15	42.7	3	15	44.5
1	20	45.3	2	20	42.3	3	20	43.6
1	25	43.1	2	25	42.5	3	25	43.7
1	30	43.8	2	30	43.5	3	30	44.6
1	35	47.1	2	35	42.5	3	35	44.2
1	40	46.7	2	40	43	3	40	44.3
1	45	43.7	2	45	51.6	3	45	43.6
1	50	42.7	2	50	45.5	3	50	43.1
1	55	45.1	2	55	44.7	3	55	42.7
1	60	45.6	2	60	44.8	3	60	41.9
1	1:05	44.6	2	1:05	44	3	1:05	43.2
1	1:10	48.6	2	1:10	44.7	3	1:10	42.3
1	1:15	43.5	2	1:15	44.2	3	1:15	42.3
1	1:20	42.9	2	1:20	44.5	3	1:20	41.6
1	1:25	43.2	2	1:25	44.1	3	1:25	42.1
1	1:30	43.7	2	1:30	44.6	3	1:30	43.1
1	1:35	43.7	2	1:35	45.1	3	1:35	45.7
1	1:40	43.4	2	1:40	44.2	3	1:40	45.3
1	1:45	44.1	2	1:45	42.7	3	1:45	44.1
1	1:50	44.4	2	1:50	41.9	3	1:50	42.9
1	1:55	46.8	2	1:55	42.7	3	1:55	42.6
1	2:00	45.1	2	2:00	43	3	2:00	42.9
1	2:05	45.1	2	2:05	42.3	3	2:05	43.6
1	2:10	45.1	2	2:10	43.5	3	2:10	43.4
1	2:15	43.2	2	2:15	44.3	3	2:15	43.5
1	2:20	44.8	2	2:20	44.5	3	2:20	43.2
1	2:25	43.1	2	2:25	45.7	3	2:25	42.5
1	2:30	43.2	2	2:30	44.1	3	2:30	42.3
1	2:35	41.3	2	2:35	44.3	3	2:35	43.2
1	2:40	42	2	2:40	43.2	3	2:40	43.1
1	2:45	43.2	2	2:45	44.5	3	2:45	43
1	2:50	42.5	2	2:50	43.9	3	2:50	43.3
1	2:55	44.3	2	2:55	42.5	3	2:55	43.7
1	3:00	48	2	3:00	43.9	3	3:00	45.9
1	3:05	48.9	2	3:05	43.7	3	3:05	44.6
1	3:10	49.5	2	3:10	42.8	3	3:10	43
1	3:15	47.1	2	3:15	42	3	3:15	43
1	3:20	45.1	2	3:20	44	3	3:20	43.7
1	3:25	44.3	2	3:25	42.9	3	3:25	44.5
1	3:30	43.1	2	3:30	44.1	3	3:30	43.8
1	3:35	42.2	2	3:35	46.4	3	3:35	43.5
1	3:40	41.8	2	3:40	43.9	3	3:40	42.6
1	3:45	42.6	2	3:45	42.4	3	3:45	42.2
1	3:50	43.2	2	3:50	43.1	3	3:50	43.4
1	3:55	43.2	2	3:55	43.3	3	3:55	44.7
1	4:00	45	2	4:00	44.7	3	4:00	44.7
1	4:05	46.1	2	4:05	44.3	3	4:05	42.7
1	4:10	47.3	2	4:10	43.6	3	4:10	43.1
1	4:15	46.1	2	4:15	44	3	4:15	43.7
1	4:20	41.5	2	4:20	44	3	4:20	43
1	4:25	43.5	2	4:25	43.7	3	4:25	43
1	4:30	43.4	2	4:30	42.7	3	4:30	44.6
1	4:35	44	2	4:35	42.2	3	4:35	44.9

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

161 Blacksmith Shop Rd		
Date: Mar 8, 2012		
Time: 12:52 am		
Run #	MM:SS	dB(A)
1	4:40	42.6
1	4:45	43.2
1	4:50	43.7
1	4:55	45.9
1	5:00	46

161 Blacksmith Shop Rd		
Date: Mar 8, 2012		
Time: 1:03 am		
Run #	MM:SS	dB(A)
2	4:40	42.5
2	4:45	41.7
2	4:50	42.2
2	4:55	41.8
2	5:00	42.7

161 Blacksmith Shop Rd		
Date: Mar 8, 2012		
Time: 1:18 am		
Run #	MM:SS	dB(A)
3	4:40	45.2
3	4:45	45.6
3	4:50	44.4
3	4:55	44.5
3	5:00	43.9

Lmax 3

Lmax (Avg) 46.3 dBA

Sampler Summary Data

Lmax	54.1	dBA
Leq	45.1	dBA
L01	49.8	dBA
L10	47.2	dBA
L50	44.1	dBA
L90	42.2	dBA
LC-A	16.7	dBA

Lmax	51.7	dBA
Leq	43.9	dBA
L01	48.7	dBA
L10	44.9	dBA
L50	43.4	dBA
L90	42.3	dBA
LC-A	18	dBA

Lmax	48.8	dBA
Leq	43.8	dBA
L01	46.2	dBA
L10	45	dBA
L50	43.5	dBA
L90	42.4	dBA
LC-A	16.6	dBA

Met Data

WS at Hub	13.7	m/s
WS at CGAS	10.8	m/s
WS at Ground	3.8	m/s
WD at Hub	232	degrees
WD at CGAS	240	degrees
BP	30.31	in
Humidity	87	%
Temp	48.2	degr F

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

Service Rd/ Blacksmith Shop Rd			Service Rd/ Blacksmith Shop Rd			Service Rd/ Blacksmith Shop Rd		
Date: 8 Mar 12			Date: 8 Mar 12			Date: 8 Mar 12		
Time: 1:28 am			Time: 1:37 am			Time: 1:45 am		
Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)
1	5	46	2	5	45.4	3	5	43.5
1	10	46.9	2	10	45.1	3	10	45.2
1	15	46.6	2	15	43.9	3	15	44.7
1	20	46.2	2	20	43.4	3	20	43.4
1	25	44.9	2	25	42.3	3	25	43.4
1	30	43.4	2	30	43.2	3	30	42.9
1	35	45.6	2	35	44.4	3	35	45
1	40	45.5	2	40	47.9	3	40	42.2
1	45	43.1	2	45	45.8	3	45	43.3
1	50	42.9	2	50	42.2	3	50	44.6
1	55	42	2	55	44.5	3	55	44.6
1	60	42.8	2	60	43.8	3	60	45.8
1	1:05	42.8	2	1:05	44.2	3	1:05	46.4
1	1:10	44.4	2	1:10	44.9	3	1:10	46.5
1	1:15	42.5	2	1:15	44.7	3	1:15	45.9
1	1:20	42.5	2	1:20	43.6	3	1:20	42.1
1	1:25	43	2	1:25	47.2	3	1:25	44.2
1	1:30	42.3	2	1:30	46.9	3	1:30	45
1	1:35	47.4	2	1:35	43.9	3	1:35	43.5
1	1:40	43.4	2	1:40	45.7	3	1:40	44.7
1	1:45	44.2	2	1:45	43.6	3	1:45	46
1	1:50	44.4	2	1:50	44.7	3	1:50	45.3
1	1:55	41.5	2	1:55	42.2	3	1:55	43.2
1	2:00	41.5	2	2:00	44.8	3	2:00	43.1
1	2:05	43.5	2	2:05	43	3	2:05	44.4
1	2:10	43.7	2	2:10	42.4	3	2:10	42.1
1	2:15	45.3	2	2:15	43.5	3	2:15	43.4
1	2:20	45.2	2	2:20	43.5	3	2:20	40.9
1	2:25	45.9	2	2:25	44.1	3	2:25	42.6
1	2:30	45.6	2	2:30	43	3	2:30	42.3
1	2:35	45.5	2	2:35	42.2	3	2:35	44.8
1	2:40	45.7	2	2:40	42.8	3	2:40	42.6
1	2:45	45.9	2	2:45	43.7	3	2:45	41.2
1	2:50	46.6	2	2:50	43.7	3	2:50	44
1	2:55	45.6	2	2:55	43.6	3	2:55	43.1
1	3:00	47.3	2	3:00	43.7	3	3:00	42.8
1	3:05	45.9	2	3:05	43.8	3	3:05	42.6
1	3:10	46.4	2	3:10	48	3	3:10	42.2
1	3:15	47	2	3:15	45	3	3:15	40.1
1	3:20	47.5	2	3:20	45.3	3	3:20	42.2
1	3:25	44.4	2	3:25	45	3	3:25	43.1
1	3:30	45.3	2	3:30	44	3	3:30	43.5
1	3:35	45.1	2	3:35	43.7	3	3:35	43.6
1	3:40	41.5	2	3:40	42.6	3	3:40	43.3
1	3:45	44.6	2	3:45	42.7	3	3:45	44.2
1	3:50	43.1	2	3:50	44.1	3	3:50	44.5
1	3:55	44.7	2	3:55	44.1	3	3:55	44.6
1	4:00	44.4	2	4:00	43.8	3	4:00	43
1	4:05	46.4	2	4:05	44	3	4:05	39.7
1	4:10	46.9	2	4:10	41.7	3	4:10	41.6
1	4:15	46.8	2	4:15	43.2	3	4:15	42
1	4:20	45.7	2	4:20	42.9	3	4:20	40.1
1	4:25	45.2	2	4:25	44.2	3	4:25	44.3
1	4:30	47.6	2	4:30	43.7	3	4:30	44.3
1	4:35	46.5	2	4:35	46.5	3	4:35	42.9
1	4:40	42.8	2	4:40	44.4	3	4:40	43

Lmax3

Lmax2

x

x

x

x

x

x

x

Lmax1

x

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

Service Rd/ Blacksmith Shop Rd		
Date: 8 Mar 12		
Time: 1:28 am		
Run #	mm:ss	dB(A)
1	4:45	47.1
1	4:50	45
1	4:55	45.7
1	5:00	47.8

x

Service Rd/ Blacksmith Shop Rd		
Date: 8 Mar 12		
Time: 1:37 am		
Run #	mm:ss	dB(A)
2	4:45	43.8
2	4:50	44.8
2	4:55	43.8
2	5:00	44.6

Service Rd/ Blacksmith Shop Rd		
Date: 8 Mar 12		
Time: 1:45 am		
Run #	mm:ss	dB(A)
3	4:45	43.5
3	4:50	44.7
3	4:55	44.3
3	5:00	44

Lmax (Avg) 47.4 dBA

Sampler Summary Data

Lmax	50.8	dBA
Leq	45.4	dBA
L01	49	dBA
L10	47.1	dBA
L50	45.1	dBA
L90	42.3	dBA
LC-A	18.5	dBA

Lmax	49.8	dBA
Leq	44.3	dBA
L01	48.1	dBA
L10	45.7	dBA
L50	43.8	dBA
L90	42.5	dBA
LC-A	18	dBA

Lmax	49.3	dBA
Leq	43.8	dBA
L01	46.5	dBA
L10	45.3	dBA
L50	43.5	dBA
L90	41.4	dBA
LC-A	19	dBA

Met Data

WS at Hub	14.8	m/s
WS at CGAS	11.3	m/s
WS at Ground	7.5	m/s
WD at Hub	232	degrees
WD at CGAS	240	degrees
BP	30.3	in
Humidity	87	%
Temp	48.2	degr F

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

211 Blacksmith Shop Rd				211 Blacksmith Shop Rd			
Date: 15 Mar 2012				Date: 15 Mar 2012			
Time: 1222				Time: 1249			
Run #	mm:ss	dB(A)		Run #	mm:ss	dB(A)	
1	5	39.8	p	2	5	36.5	p
1	10	38	p	2	10	35.5	p
1	15	37.7	p	2	15	35.6	p
1	20	37.7	p	2	20	35.9	p
1	25	37.8	p	2	25	35.8	p
1	30	37.7	p	2	30	35.7	p
1	35	37.7	p	2	35	35.1	p
1	40	37.9	p	2	40	35.1	p
1	45	38.2	p	2	45	35.2	p
1	50	38.5	p	2	50	35.6	
1	55	40	LMax1P	2	55	35.3	
1	60	42	x	2	60	34.3	
1	1:05	47.4	x	2	1:05	34.6	
1	1:10	45	x	2	1:10	34.9	
1	1:15	45.8	x	2	1:15	34.6	
1	1:20	47	x	2	1:20	35.8	
1	1:25	46.5	x	2	1:25	34.7	
1	1:30	43.1	x	2	1:30	35.4	p
1	1:35	41	x	2	1:35	35.4	p
1	1:40	40.7	x	2	1:40	36	p
1	1:45	39.9	x	2	1:45	36.8	Lmax 2P
1	1:50	39.2	x	2	1:50	35.7	p
1	1:55	39.1	x	2	1:55	36.2	p
1	2:00	39	x	2	2:00	36.1	p
1	2:05	38.4	p	2	2:05	35.7	p
1	2:10	36.9	p	2	2:10	33.8	
1	2:15	36.2	p	2	2:15	33.6	
1	2:20	35.7	p	2	2:20	34.3	
1	2:25	35.2		2	2:25	34.3	
1	2:30	35.5		2	2:30	34.5	
1	2:35	36.2		2	2:35	35	
1	2:40	36.4		2	2:40	35.2	
1	2:45	36.2		2	2:45	35.8	p
1	2:50	36.3		2	2:50	36.2	p
1	2:55	35.2		2	2:55	36	p
1	3:00	35.6		2	3:00	36	p
1	3:05	35.2		2	3:05	35.7	p
1	3:10	35.6		2	3:10	35.9	p
1	3:15	35.4		2	3:15	36.1	p
1	3:20	35.1		2	3:20	36	p
1	3:25	35.9		2	3:25	36.8	p
1	3:30	34.9		2	3:30	35.7	p

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

211 Blacksmith Shop Rd			211 Blacksmith Shop Rd		
Date: 15 Mar 2012			Date: 15 Mar 2012		
Time: 1222			Time: 1249		
Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)
1	3:35	35.7	2	3:35	35.3
1	3:40	36.3	2	3:40	35.8
1	3:45	38.9	2	3:45	36.2
1	3:50	42.6	2	3:50	35.2
1	3:55	44.5	2	3:55	36.1
1	4:00	43.5	2	4:00	36.5
1	4:05	46.2	2	4:05	43
1	4:10	44.8	2	4:10	45.3
1	4:15	42	2	4:15	39
1	4:20	40.5	2	4:20	36.6
1	4:25	41.8	2	4:25	35.5
1	4:30	38.9	2	4:30	35.2
1	4:35	39.1	2	4:35	35.5
1	4:40	38.3	2	4:40	35.3
1	4:45	38.1	2	4:45	35.2
1	4:50	37.4	2	4:50	35.6
1	4:55	37.7	2	4:55	34.9
1	5:00	38.3	2	5:00	35.3

NOTE: Levels marked "p" are influenced by the sound from nearby tree frogs

Lmax (Avg) 37.8 dBA

Without tree frogs

Lmax (Avg) 38.4 dBA

With tree frogs

Sampler Summary Data

Lmax	47.8	dBA	Lmax	49	dBA
Leq	40.5	dBA	Leq	36.9	dBA
L01	46.9	dBA	L01	46.8	dBA
L10	44.7	dBA	L10	36.5	dBA
L50	38.3	dBA	L50	35.5	dBA
L90	35.3	dBA	L90	34.4	dBA
LC-A	11.6	dBA	LC-A	14.1	dBA

Met Data

WS at Hub	4.4	m/s
WS at CGAS	2.6	m/s
WS at Ground	None	m/s
WD at Hub	035	degrees
WD at CGAS	020	degrees
BP	30.25	in
Humidity	93	%
Temp	39.2	degr F

BROADBAND IMPACT ANALYSIS

27 Ridgeview Rd				27 Ridgeview Rd				27 Ridgeview Rd				27 Ridgeview Rd				27 Ridgeview Rd			
Date:15 Mar 12				Date:15 Mar 12				Date:15 Mar 12				Date:15 Mar 12				Date:15 Mar 12			
Time: 1:08 am				Time: 1:18 am				Time: 1:36 am				Time: 1:43 am				Time: 1:51 am			
Run #	mm:ss	dB(A)		Run #	mm:ss	dB(A)		Run #	mm:ss	dB(A)		Run #	mm:ss	dB(A)		Run #	mm:ss	dB(A)	
1	5	38.7	Lmax 1	2	5	32.8		3	5	33.1		4	5	41	x	5	5	36.3	
1	10	40.3	x	2	10	nd		3	10	30.2		4	10	39.3		5	10	34.6	
1	15	44.6	x	2	15	33.2		3	15	29		4	15	39.3		5	15	34.2	
1	20	42.5	x	2	20	32.5		3	20	27.8		4	20	39.2		5	20	34.1	
1	25	42.6	x	2	25	33.2		3	25	28.2		4	25	39.6		5	25	35.1	
1	30	40.7	x	2	30	33.7		3	30	28.6		4	30	39.7	Lmax 4	5	30	33.9	
1	35	38.7	x	2	35	33.5		3	35	28.7		4	35	39.6		5	35	35.9	
1	40	37.7	x	2	40	33.2		3	40	29.6		4	40	39.6		5	40	34.4	
1	45	36.3	x	2	45	32.6		3	45	31.1		4	45	40.3	x	5	45	35.2	
1	50	35.2	x	2	50	34.2		3	50	32.8	x	4	50	38.2	x	5	50	34.1	
1	55	35.3	x	2	55	34.4		3	55	33.1	x	4	55	38.2	x	5	55	34	
1	60	33.5		2	60	40.2	Lmax 2	3	60	34.5	x	4	60	42.7	x	5	60	33.7	
1	1:05	34.1		2	1:05	37.4	x	3	1:05	35.3	x	4	1:05	48.1	x	5	1:05	35.2	
1	1:10	33.5		2	1:10	40.3	x	3	1:10	35.9	x	4	1:10	44.1	x	5	1:10	34	
1	1:15	33.9		2	1:15	43	x	3	1:15	35.7	x	4	1:15	36.9		5	1:15	34.1	
1	1:20	33.4		2	1:20	42.6	x	3	1:20	36.6	x	4	1:20	35.4		5	1:20	34.3	
1	1:25	33.3		2	1:25	46.3	x	3	1:25	37.6	x	4	1:25	35		5	1:25	34.3	
1	1:30	32.1		2	1:30	48.9	x	3	1:30	40.4	x	4	1:30	35.3		5	1:30	34.8	
1	1:35	32.2		2	1:35	46.3	x	3	1:35	41	x	4	1:35	32.9		5	1:35	34.9	
1	1:40	32.5		2	1:40	44.4	x	3	1:40	50.1	x	4	1:40	32.1		5	1:40	34.9	
1	1:45	38.3	x	2	1:45	45.9	x	3	1:45			4	1:45	35.1		5	1:45	40.8	Lmax 5
1	1:50	43.7	x	2	1:50	50.9	x	3	1:50	44.2	x	4	1:50	34.1		5	1:50	36	
1	1:55	41.7	x	2	1:55	48.2	x	3	1:55	41.7	x	4	1:55	33.5		5	1:55	35.4	
1	2:00	40.3	x	2	2:00	38	x	3	2:00	41.4	x	4	2:00	33.5		5	2:00	33.1	
1	2:05	40.1	x	2	2:05	34		3	2:05	46.5	x	4	2:05	34.7		5	2:05	33	
1	2:10	37.6	x	2	2:10	31.6		3	2:10	50.8	x	4	2:10	32.6		5	2:10	33.8	
1	2:15	36.2	x	2	2:15	31.2		3	2:15	43	x	4	2:15	32.4		5	2:15	32.6	
1	2:20	35.8	x	2	2:20	31.5		3	2:20	39	x	4	2:20	33.9		5	2:20	34	
1	2:25	33.7		2	2:25	30.6		3	2:25	36.2	x	4	2:25	34		5	2:25	32.1	
1	2:30	35		2	2:30	30.5		3	2:30	35	Lmax 3	4	2:30	33.5		5	2:30	33.7	
1	2:35	33.8		2	2:35	30.1		3	2:35	32.7		4	2:35	37.3		5	2:35	32.3	
1	2:40	34.1		2	2:40	30.1		3	2:40	31.8		4	2:40	34.2		5	2:40	32.6	
1	2:45	34.9		2	2:45	30.6		3	2:45	31.4		4	2:45	33.8		5	2:45	33.5	
1	2:50	35.2		2	2:50	33.3	x	3	2:50	31.9		4	2:50	33.8		5	2:50	33.6	
1	2:55	37.4	x	2	2:55	40.6	x	3	2:55	31.3		4	2:55	34.2		5	2:55	39.3	x
1	3:00	40.8	x	2	3:00	48.3	x	3	3:00	30.3		4	3:00	34.1		5	3:00	37.2	x
1	3:05	46.7	x	2	3:05	52.6	x	3	3:05	29.6		4	3:05	35.3		5	3:05	36.8	x
1	3:10	45.1	x	2	3:10	50.2	x	3	3:10	30.8		4	3:10	36.7	x	5	3:10	37.3	x
1	3:15	44.8	x	2	3:15	48.1	x	3	3:15	31.1		4	3:15	47.5	x	5	3:15	38	x
1	3:20	42.5	x	2	3:20	50.6	x	3	3:20	29.2		4	3:20	49.3	x	5	3:20	42.2	x
1	3:25	42.2	x	2	3:25	49.6	x	3	3:25	32.4		4	3:25	47.3	x	5	3:25		
1	3:30	43.5	x	2	3:30	47	x	3	3:30	30.5		4	3:30	45.8	x	5	3:30	48.9	x
1	3:35	52.2	x	2	3:35	44.1	x	3	3:35	30.9		4	3:35	44.1	x	5	3:35	45	x
1	3:40	47	x	2	3:40	43.2	x	3	3:40	29.5		4	3:40	41.1	x	5	3:40	37.7	x
1	3:45	40.2	x	2	3:45	44.3	x	3	3:45	29.4		4	3:45	39.6	x	5	3:45	33.7	
1	3:50	37.8	x	2	3:50	46	x	3	3:50	31.4		4	3:50	36.9	x	5	3:50	33.2	
1	3:55	36		2	3:55	44.7	x	3	3:55	30		4	3:55	35.9	x	5	3:55	31	
1	4:00	33.2		2	4:00	44.7	x	3	4:00	30.3		4	4:00	35.6	x	5	4:00	30.2	

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

27 Ridgeview Rd			27 Ridgeview Rd			27 Ridgeview Rd			27 Ridgeview Rd			27 Ridgeview Rd		
Date: 15 Mar 12			Date: 15 Mar 12			Date: 15 Mar 12			Date: 15 Mar 12			Date: 15 Mar 12		
Time: 1:08 am			Time: 1:18 am			Time: 1:36 am			Time: 1:43 am			Time: 1:51 am		
Run #	mmiss	dB(A)	Run #	mmiss	dB(A)	Run #	mmiss	dB(A)	Run #	mmiss	dB(A)	Run #	mmiss	dB(A)
1	4:05	34.5	2	4:05	45.5	3	4:05	31.3	4	4:05	36.1	5	4:05	31.9
1	4:10	33.6	2	4:10	42.5	3	4:10	32	4	4:10	35.2	5	4:10	30.2
1	4:15	34.1	2	4:15	39.3	3	4:15	33.5	4	4:15	35.4	5	4:15	30.9
1	4:20	34.8	2	4:20	37.5	3	4:20	44.8	4	4:20	35.6	5	4:20	30.2
1	4:25	36.5	2	4:25	33.3	3	4:25	44.2	4	4:25	35.2	5	4:25	30.3
1	4:30	36.9	2	4:30	33.9	3	4:30	42.9	4	4:30	35.4	5	4:30	29.9
1	4:35	42.6	2	4:35	32	3	4:35	42.9	4	4:35	34.5	5	4:35	30.5
1	4:40	43.7	2	4:40	31.8	3	4:40	40.8	4	4:40	34.6	5	4:40	31.4
1	4:45	45	2	4:45	32.7	3	4:45	41.1	4	4:45	35.3	5	4:45	31.3
1	4:50	43.8	2	4:50	32.3	3	4:50	39.4	4	4:50	36.6	5	4:50	30.3
1	4:55	51.6	2	4:55	31.1	3	4:55	41.5	4	4:55	35.9	5	4:55	30.5
1	5:00	49.7	2	5:00	30.6	3	5:00	41	4	5:00	39.4	5	5:00	31.4

Lmax (Avg) 37.7 dBA

Sampler Summary Data			Sampler Summary Data			Sampler Summary Data			Sampler Summary Data			Sampler Summary Data		
Lmax	Leq	LC-A	Lmax	Leq	LC-A	Lmax	Leq	LC-A	Lmax	Leq	LC-A	Lmax	Leq	LC-A
53	42.1	9.4	58.6	44.1	9.8	51	40.5	6.5	54.1	40.4	7.2	49	37.2	9.1
L01	51.8		52.2			50.2			49.3			48.5		
L10	45.1		49			44.5			44.2			38.4		
L50	37.8		37.8			33			35.7			34.2		
L90	33.5		31			29.4			33.4			30.7		
LC-A														

Met Data		
WS at Hub	5.2	m/s
WS at CGAS	2.1	m/s
WS at Ground	< 1	m/s
WD at Hub	033	degrees
WD at CGAS	010	degrees
BP	30.25	in
Humidity	93	%
Temp	39.2	degr F

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

211 Blacksmith Shop Rd			Lmax 1	211 Blacksmith Shop Rd			LMax2	211 Blacksmith Shop Rd			Lmax3
Date: 26 March 2011				Date: 27 March 2011				Date: 27 March 2011			
Time: 11:58 pm				Time: 12:09 am				Time: 12:16 am			
Run #	mm:ss	dB(A)		Run #	mm:ss	dB(A)		Run #	mm:ss	dB(A)	
1	5	45.9	2	5	45.9	3	5	46.1			
1	10	48.8	2	10	44.1	3	10	46.8			
1	15	48.8	2	15	44.8	3	15	48			
1	20	48.6	2	20	44.9	3	20	45.7			
1	25	47.6	2	25	48	3	25	47.5			
1	30	47.9	2	30	46.9	3	30	48.5			
1	35	46.8	2	35	46.7	3	35	47.6			
1	40	45.8	2	40	46.8	3	40	47.8			
1	45	46.6	2	45	46.5	3	45	47.2			
1	50	45.4	2	50	47.6	3	50	49.6			
1	55	45.5	2	55	47.9	3	55	48.4			
1	60	45.7	2	60	48.9	3	60	46.9			
1	1:05	45.4	2	1:05	48.6	3	1:05	46.6			
1	1:10	48	2	1:10	46.4	3	1:10	47.5			
1	1:15	46.7	2	1:15	47.3	3	1:15	48.7			
1	1:20	47.6	2	1:20	45.6	3	1:20	46.5			
1	1:25	48.5	2	1:25	45.9	3	1:25	46			
1	1:30	47	2	1:30	45.5	3	1:30	45.9			
1	1:35	45.1	2	1:35	44.8	3	1:35	44.3			
1	1:40	47	2	1:40	45.1	3	1:40	46.7			
1	1:45	47	2	1:45	43.3	3	1:45	47.1			
1	1:50	46.2	2	1:50	43.6	3	1:50	45.7			
1	1:55	46.3	2	1:55	43	3	1:55	45.7			
1	2:00	46.2	2	2:00	42.9	3	2:00	44.2			
1	2:05	44.9	2	2:05	42.9	3	2:05	45.7			
1	2:10	46.3	2	2:10	43.3	3	2:10	47.7			
1	2:15	46.6	2	2:15	43.3	3	2:15	49			
1	2:20	45.8	2	2:20	43.6	3	2:20	49.4			
1	2:25	45.2	2	2:25	45	3	2:25	48.4			
1	2:30	46.6	2	2:30	45.2	3	2:30	47.5			
1	2:35	48.8	2	2:35	44.1	3	2:35	48			
1	2:40	47.9	2	2:40	42.9	3	2:40	46.3			
1	2:45	47.9	2	2:45	42.6	3	2:45	46.6			
1	2:50	47.5	2	2:50	41.9	3	2:50	45.1			
1	2:55	45.7	2	2:55	44.3	3	2:55	46.3			
1	3:00	45.3	2	3:00	42.9	3	3:00	44.9			
1	3:05	44.8	2	3:05	42.1	3	3:05	44.5			
1	3:10	44.8	2	3:10	43.5	3	3:10	44.1			
1	3:15	44.6	2	3:15	43.8	3	3:15	44.6			
1	3:20	45.1	2	3:20	44.8	3	3:20	42.1			
1	3:25	46.8	2	3:25	45.4	3	3:25	43.5			
1	3:30	47	2	3:30	44.6	3	3:30	44.4			
1	3:35	45.8	2	3:35	45	3	3:35	45.6			
1	3:40	44.2	2	3:40	43.2	3	3:40	46.8			
1	3:45	43.6	2	3:45	43	3	3:45	45.2			
1	3:50	44.1	2	3:50	47.5	3	3:50	43			
1	3:55	45.2	2	3:55	46	3	3:55	41.7			
1	4:00	47.1	2	4:00	45.5	3	4:00	41.2			
1	4:05	46.2	2	4:05	43.7	3	4:05	42.5			
1	4:10	45.8	2	4:10	43.9	3	4:10	43			
1	4:15	45.8	2	4:15	43.3	3	4:15	45.9			
1	4:20	46.9	2	4:20	44	3	4:20	46.2			
1	4:25	46.2	2	4:25	43.5	3	4:25	49.1			
1	4:30	45.8	2	4:30	45.2	3	4:30	47.6			
1	4:35	45.7	2	4:35	46	3	4:35	47.6			

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

211 Blacksmith Shop Rd		
Date: 26 March 2011		
Time: 11:58 pm		
Run #	mm:ss	dB(A)
1	4:40	46
1	4:45	47.2
1	4:50	45.8
1	4:55	45.6
1	5:00	45.6

211 Blacksmith Shop Rd		
Date: 27 March 2011		
Time: 12:09 am		
Run #	mm:ss	dB(A)
2	4:40	43.6
2	4:45	44.1
2	4:50	41.6
2	4:55	40.8
2	5:00	41

211 Blacksmith Shop Rd		
Date: 27 March 2011		
Time: 12:16 am		
Run #	mm:ss	dB(A)
3	4:40	48
3	4:45	47.3
3	4:50	45.8
3	4:55	44.9
3	5:00	46.9

Lmax (Avg) 48.8 dBA

Sampler Summary Data

Lmax	53	dBA
Leq	46.6	dBA
L01	50.6	dBA
L10	47.9	dBA
L50	46.2	dBA
L90	44.7	dBA
LC-A	15.2	dBA

Lmax	53.3	dBA
Leq	45.1	dBA
L01	49.1	dBA
L10	47.2	dBA
L50	44.3	dBA
L90	42.4	dBA
LC-A	16	dBA

Lmax	50.3	dBA
Leq	46.5	dBA
L01	49.6	dBA
L10	48.3	dBA
L50	46.2	dBA
L90	43.5	dBA
LC-A	15.9	dBA

Met Data

WS at Hub	11.6	m/s
WS at CGAS	4.6	m/s
WS at Ground	2.7	m/s
WD at Hub	350	degrees
WD at CGAS	320	degrees
BP	29.95	in
Humidity	37	%
Temp	30.2	degr F

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

27 Ridgeview Road			27 Ridgeview Road			27 Ridgeview Road		
Date: 27 Mar 12			Date: 27 Mar 12			Date: 27 Mar 12		
Time: 12:45 am			Time: 12:52 am			Time: 12:59 am		
Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)	Run #	mm:ss	dB(A)
1	5	45.5	2	5	41.9	3	5	47.3
1	10	47.4	2	10	40.1	3	10	42.5
1	15	50.5	2	15	41.4	3	15	42.9
1	20	49.6	2	20	47.8	3	20	42.8
1	25	47.7	2	25	52.8	3	25	44.5
1	30	46.5	2	30	50.4	3	30	44.9
1	35	46.7	2	35	48.3	3	35	48.1
1	40	49.7	2	40	47.8	3	40	44.7
1	45	47.4	2	45	45.9	3	45	45.2
1	50	47	2	50	43.3	3	50	43
1	55	48.4	2	55	44.4	3	55	43.4
1	60	45	2	60	45.6	3	60	43.4
1	1:05	44.3	2	1:05	44.8	3	1:05	42.9
1	1:10	42	2	1:10	42.5	3	1:10	42.4
1	1:15	42.9	2	1:15	42.6	3	1:15	42.3
1	1:20	43.7	2	1:20	43.5	3	1:20	43.9
1	1:25	43.8	2	1:25	44.6	3	1:25	44.8
1	1:30	43.7	2	1:30	45	3	1:30	43.5
1	1:35	43.2	2	1:35	44.9	3	1:35	45
1	1:40	43.1	2	1:40	44.3	3	1:40	42.6
1	1:45	44.3	2	1:45	43.5	3	1:45	43.7
1	1:50	44.7	2	1:50	41.6	3	1:50	44.1
1	1:55	41.9	2	1:55	43.2	3	1:55	41.9
1	2:00	40.1	2	2:00	45.2	3	2:00	43.9
1	2:05	41	2	2:05	43.9	3	2:05	45.5
1	2:10	42.8	2	2:10	42.5	3	2:10	44.2
1	2:15	42.4	2	2:15	44.5	3	2:15	43.2
1	2:20	46.3	2	2:20	45	3	2:20	42.5
1	2:25	44.8	2	2:25	43.4	3	2:25	41
1	2:30	42.8	2	2:30	44	3	2:30	42.5
1	2:35	42.6	2	2:35	45.7	3	2:35	45.6
1	2:40	43.1	2	2:40	47.6	3	2:40	43
1	2:45	43.5	2	2:45	49.5	3	2:45	41.6
1	2:50	42.7	2	2:50	47.4	3	2:50	42.7
1	2:55	43	2	2:55	45.7	3	2:55	42.4
1	3:00	45.1	2	3:00	47.3	3	3:00	43.5
1	3:05	42.7	2	3:05	46.5	3	3:05	45.5
1	3:10	48.7	2	3:10	48.6	3	3:10	44.4
1	3:15	47.3	2	3:15	48.5	3	3:15	41.6
1	3:20	47.1	2	3:20	42.5	3	3:20	40.8
1	3:25	49.8	2	3:25	41	3	3:25	44.6
1	3:30	50.8	2	3:30	42.2	3	3:30	50.1
1	3:35	49.4	2	3:35	44.5	3	3:35	47.2
1	3:40	50.1	2	3:40	47.3	3	3:40	47.5
1	3:45	52.9	2	3:45	47.7	3	3:45	45.6
1	3:50	51.2	2	3:50	45	3	3:50	46
1	3:55	47.3	2	3:55	43.6	3	3:55	44.4
1	4:00	47.2	2	4:00	42.2	3	4:00	43.3
1	4:05	49.4	2	4:05	41.6	3	4:05	42.1
1	4:10	50.7	2	4:10	40.5	3	4:10	42.9
1	4:15	49.2	2	4:15	42.9	3	4:15	42.8
1	4:20	49	2	4:20	40.7	3	4:20	42.6
1	4:25	47.5	2	4:25	40.5	3	4:25	43
1	4:30	45.1	2	4:30	41.7	3	4:30	44.1
1	4:35	44.9	2	4:35	44	3	4:35	42.7
1	4:40	45.9	2	4:40	41.8	3	4:40	43

BROADBAND IMPACT ANALYSIS

OBSERVED DATA (x indicates interference from another sound source)

27 Ridgeview Road		
Date: 27 Mar 12		
Time: 12:45 am		
Run #	mm:ss	dB(A)
1	4:45	45.9
1	4:50	44.7
1	4:55	44.1
1	5:00	44.2

27 Ridgeview Road		
Date: 27 Mar 12		
Time: 12:52 am		
Run #	mm:ss	dB(A)
2	4:45	41.3
2	4:50	42.2
2	4:55	43.1
2	5:00	41.9

27 Ridgeview Road		
Date: 27 Mar 12		
Time: 12:59 am		
Run #	mm:ss	dB(A)
3	4:45	42.5
3	4:50	44.1
3	4:55	41.9
3	5:00	42.1

Lmax (Avg) 46.2 dBA

Sampler Summary Data

Lmax	55	dBA
Leq	47.1	dBA
L01	52.6	dBA
L10	50	dBA
L50	45.6	dBA
L90	42.5	dBA
LC-A	14.2	dBA

Lmax	53.7	dBA
Leq	45.5	dBA
L01	52.7	dBA
L10	48.3	dBA
L50	43.9	dBA
L90	41	dBA
LC-A	15.7	dBA

Lmax	50.6	dBA
Leq	44.2	dBA
L01	48.6	dBA
L10	46	dBA
L50	43.4	dBA
L90	42.1	dBA
LC-A	17.1	dBA

Met Data

WS at Hub	11.1	m/s
WS at CGAS	5.1	m/s
WS at Ground	3.8	m/s
WD at Hub	357	degrees
WD at CGAS	320	degrees
BP	29.96	in
Humidity	37	%
Temp	28.4	degr F

PURE TONE ANALYSIS

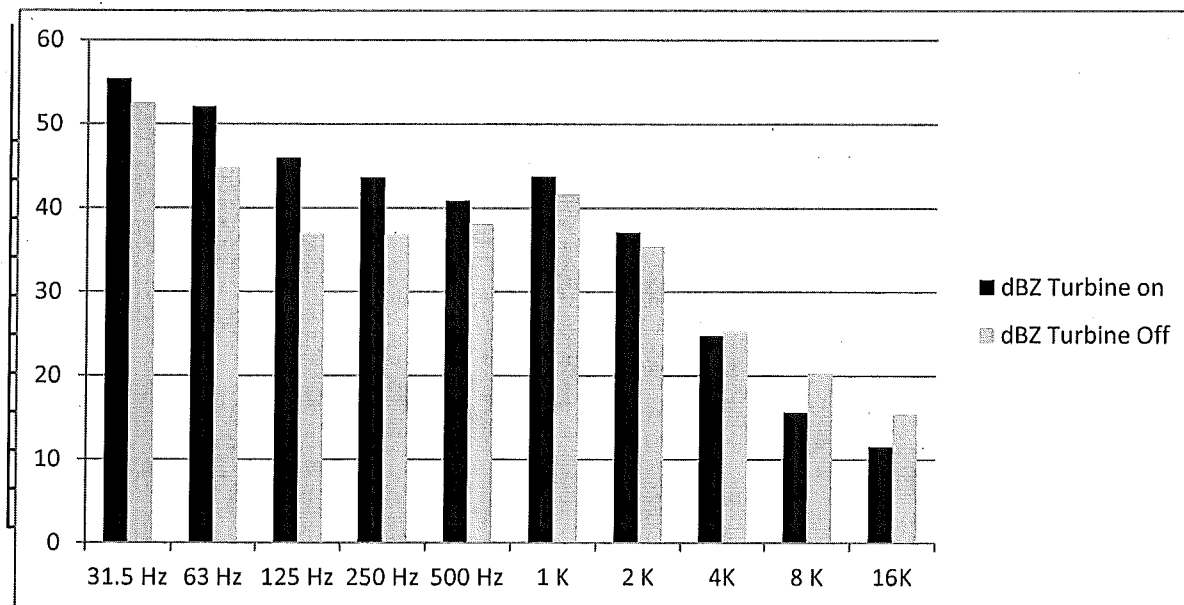
PURE TONE ANALYSIS

Location: 211 Blacksmith Shop Road

Date: 8 March 2012

1/1 Oct Band	dBZ Turbine on	compare to previous	compare to next		Oct Band	dBZ Turbine Off	compare to previous	compare to next
31.5 Hz	55.35	na	-3.3		31.5 Hz	52.47	na	-7.7
63 Hz	52.07	3.3	6.1		63 Hz	44.79	7.7	7.8
125 Hz	45.94	6.1	2.3		125 Hz	37.01	7.8	0.2
250 Hz	43.63	2.3	2.8		250 Hz	36.85	0.2	-1.3
500 Hz	40.87	2.8	-2.9		500 Hz	38.19	-1.3	-3.4
1 K	43.75	-2.9	6.6		1 K	41.63	-3.4	6.2
2 K	37.12	6.6	12.3		2 K	35.40	6.2	10.0
4K	24.78	12.3	9.1		4K	25.42	10.0	5.1
8 K	15.64	9.1	4.1		8 K	20.32	5.1	4.9
16K	11.54	4.1			16K	15.38	4.9	na

1/1 Oct Band	difference	compare to previous	compare to next
31.5 Hz	2.88	na	-4.4
63 Hz	7.28	-4.4	-1.7
125 Hz	8.93	-1.7	2.2
250 Hz	6.78	2.2	4.1
500 Hz	2.68	4.1	0.6
1 K	2.12	0.6	0.4
2 K	1.72	0.4	2.4
4K	-0.64	2.4	4.0
8 K	-4.68	4.0	-0.8
16K	-3.84	-0.8	na



PURE TONE ANALYSIS

PURE TONE ANALYSIS

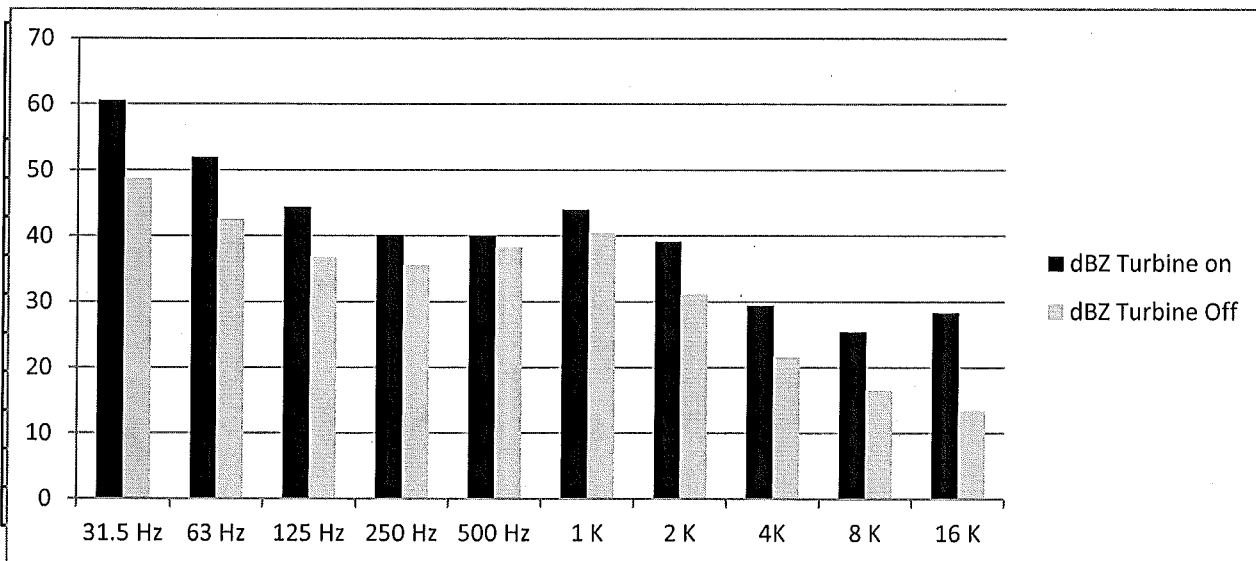
Location: Corner Service Rd/ Blacksmith Shop Road

Date: 8 March 2012

Oct Band	dBZ Turbine on	compare to previous	compare to next
31.5 Hz	60.55	na	8.59
63 Hz	51.96	8.59	7.61
125 Hz	44.35	7.61	4.26
250 Hz	40.09	4.26	0.08
500 Hz	40.01	0.08	-3.99
1 K	44	-3.99	4.89
2 K	39.11	4.89	9.71
4K	29.4	9.71	3.97
8 K	25.43	3.97	-2.93
16 K	28.36	-2.93	na

Oct Band	dBZ Turbine Off	compare to previous	compare to next
31.5 Hz	48.81	na	6.28
63 Hz	42.53	6.28	5.72
125 Hz	36.81	5.72	1.28
250 Hz	35.53	1.28	-2.77
500 Hz	38.3	-2.77	-2.07
1 K	40.37	-2.07	9.22
2 K	31.15	9.22	9.58
4K	21.57	9.58	5.05
8 K	16.52	5.05	3.06
16 K	13.46	3.06	na

1/1 Oct Band	dBZ difference	compare to previous	compare to next
31.5 Hz	11.74	na	2.3
63 Hz	9.43	2.3	1.9
125 Hz	7.54	1.9	3.0
250 Hz	4.56	3.0	2.9
500 Hz	1.71	2.9	-1.9
1 K	3.63	-1.9	-4.3
2 K	7.96	-4.3	0.1
4K	7.83	0.1	-1.1
8 K	8.91	-1.1	-6.0
16K	14.90	-6.0	na



PURE TONE ANALYSIS

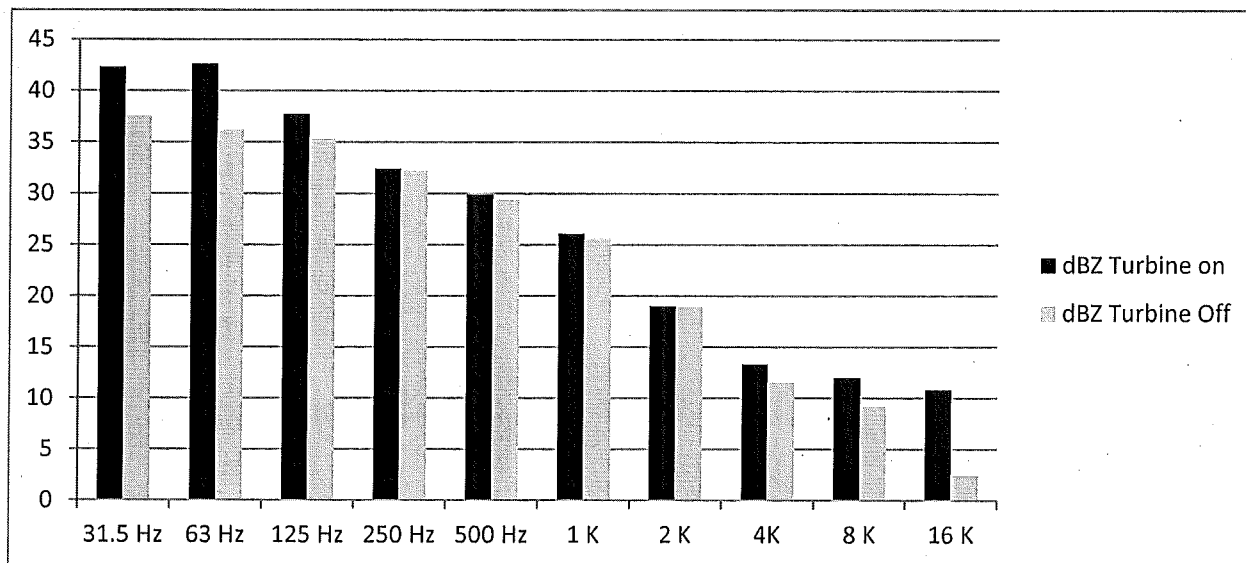
Location: 211 Blacksmith Shop Road

Date: 15 March 2012

Oct Band	dBZ Turbine on	compare to previous	compare to next
31.5 Hz	42.3	na	-0.3
63 Hz	42.6	-0.3	4.9
125 Hz	37.7	4.9	5.3
250 Hz	32.4	5.3	2.5
500 Hz	29.9	2.5	3.8
1 K	26.1	3.8	7.1
2 K	19	7.1	5.7
4K	13.3	5.7	1.3
8 K	12	1.3	1.2
16 K	10.8	1.2	na

Oct Band	dBZ Turbine Off	compare to previous	compare to next
31.5 Hz	37.5	na	1.3
63 Hz	36.2	1.3	0.9
125 Hz	35.3	0.9	3.1
250 Hz	32.2	3.1	2.8
500 Hz	29.4	2.8	3.8
1 K	25.6	3.8	6.7
2 K	18.9	6.7	7.4
4K	11.5	7.4	2.3
8 K	9.2	2.3	6.8
16 K	2.4	6.8	na

1/1 Oct Band	dBZ difference	compare to previous	compare to next
31.5 Hz	4.80	na	-1.6
63 Hz	6.40	-1.6	4.0
125 Hz	2.40	4.0	2.2
250 Hz	0.20	2.2	-0.3
500 Hz	0.50	-0.3	0.0
1 K	0.50	0.0	0.4
2 K	0.10	0.4	-1.7
4K	1.80	-1.7	-1.0
8 K	2.80	-1.0	-5.6
16K	8.40	-5.6	na



PURE TONE ANALYSIS

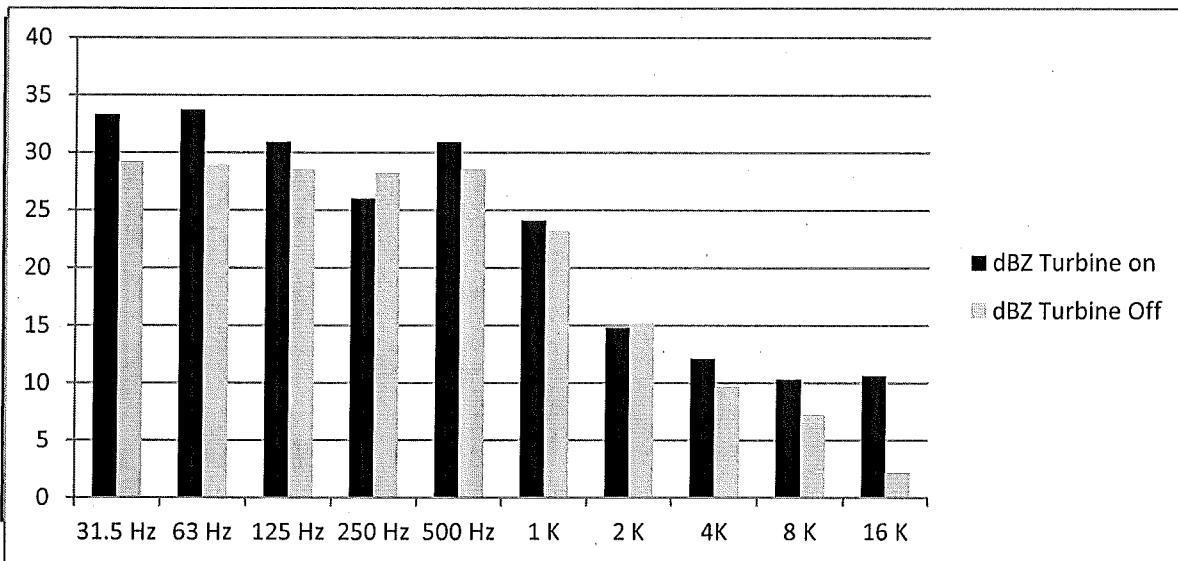
Location: 27 Ridgeview Road

Date: 15 March 2012

Oct Band	dBZ Turbine on	compare to previous	compare to next
31.5 Hz	33.3	na	-0.4
63 Hz	33.7	-0.4	2.8
125 Hz	30.9	2.8	4.9
250 Hz	26	4.9	-4.9
500 Hz	30.9	-4.9	6.8
1 K	24.1	6.8	9.3
2 K	14.8	9.3	2.7
4K	12.1	2.7	1.8
8 K	10.3	1.8	-0.3
16 K	10.6	-0.3	na

Oct Band	dBZ Turbine Off	compare to previous	compare to next
31.5 Hz	29.2	na	0.3
63 Hz	28.9	0.3	0.4
125 Hz	28.5	0.4	0.3
250 Hz	28.2	0.3	-0.3
500 Hz	28.5	-0.3	5.3
1 K	23.2	5.3	8
2 K	15.2	8	5.6
4K	9.6	5.6	2.4
8 K	7.2	2.4	5
16 K	2.2	5	na

1/1 Oct Band	dBZ difference	compare to previous	compare to next
31.5 Hz	4.10	na	-0.7
63 Hz	4.80	-0.7	2.4
125 Hz	2.40	2.4	4.6
250 Hz	-2.20	4.6	-4.6
500 Hz	2.40	-4.6	1.5
1 K	0.90	1.5	1.3
2 K	-0.40	1.3	-2.9
4K	2.50	-2.9	-0.6
8 K	3.10	-0.6	-5.3
16K	8.40	-5.3	na



PURE TONE ANALYSIS

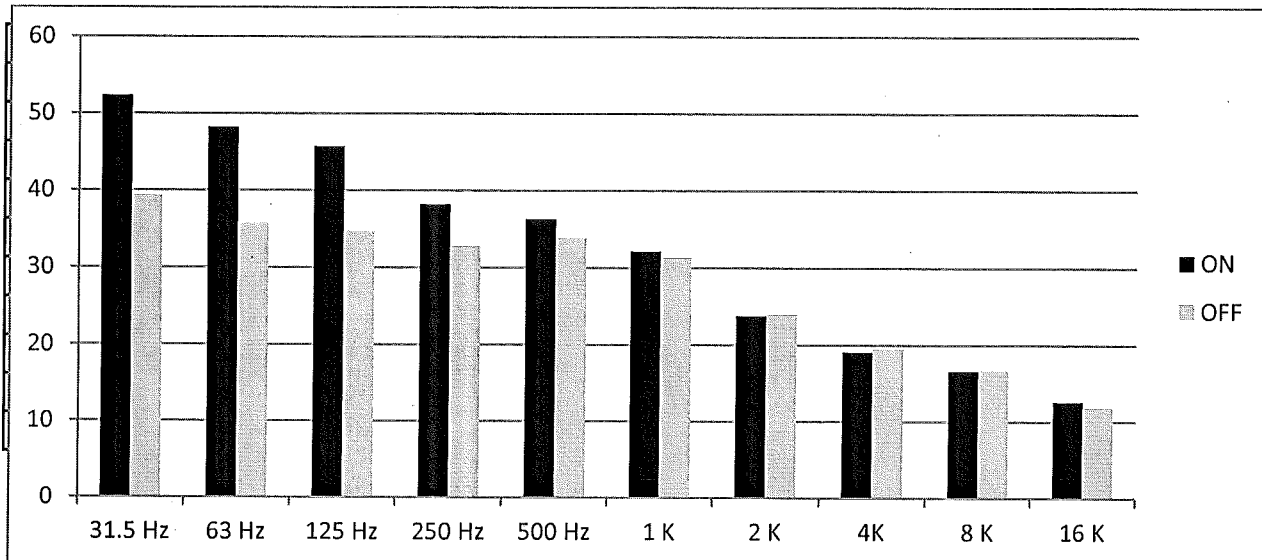
Location: 211 Blacksmith Shop Road

Date: 27 March 2012

Oct Band	ON	compare to previous	compare to next
31.5 Hz	52.3	na	4.1
63 Hz	48.2	4.1	2.5
125 Hz	45.7	2.5	7.5
250 Hz	38.2	7.5	1.9
500 Hz	36.3	1.9	4.2
1 K	32.1	4.2	8.3
2 K	23.8	8.3	4.7
4K	19.1	4.7	2.5
8 K	16.6	2.5	4.0
16 K	12.6	4.0	na

Oct Band	OFF	compare to previous	compare to next
31.5 Hz	39.3	na	3.6
63 Hz	35.7	3.6	1.0
125 Hz	34.7	1.0	1.9
250 Hz	32.8	1.9	-1.0
500 Hz	33.8	-1.0	2.5
1 K	31.3	2.5	7.3
2 K	24	7.3	4.6
4K	19.4	4.6	2.7
8 K	16.7	2.7	4.9
16 K	11.8	4.9	na

1/1 Oct Band	difference	compare to previous	compare to next
31.5 Hz	13.00	na	0.5
63 Hz	12.50	0.5	1.5
125 Hz	11.00	1.5	5.6
250 Hz	5.40	5.6	2.9
500 Hz	2.50	2.9	1.7
1 K	0.80	1.7	1.0
2 K	-0.20	1.0	0.1
4K	-0.30	0.1	-0.2
8 K	-0.10	-0.2	-0.9
16K	0.80	-0.9	na



PURE TONE ANALYSIS

Location: 27 Ridgeview Road

Date: 27 March 2012

Oct Band	dBZ Turbine on	compare to previous	compare to next
31.5 Hz	58.2	na	-8.9
63 Hz	49.3	8.9	2.7
125 Hz	46.6	2.7	2.1
250 Hz	44.5	2.1	2.3
500 Hz	42.2	2.3	3.4
1 K	38.8	3.4	4.4
2 K	34.4	4.4	-1.2
4K	35.6	-1.2	3.7
8 K	31.9	3.7	10.1
16K	21.8	10.1	na

Oct Band	dBZ Turbine Off	compare to previous	compare to next
31.5 Hz	47	na	-5.1
63 Hz	41.9	5.1	-0.7
125 Hz	42.6	-0.7	0.1
250 Hz	42.5	0.1	3.7
500 Hz	38.8	3.7	2.5
1 K	36.3	2.5	4.2
2 K	32.1	4.2	3.8
4K	28.3	3.8	3.5
8 K	24.8	3.5	8.7
16K	16.1	8.7	na

1/1 Oct Band	dBZ difference	compare to previous	compare to next
31.5 Hz	11.20	na	3.8
63 Hz	7.40	3.8	3.4
125 Hz	4.00	3.4	2.0
250 Hz	2.00	2.0	-1.4
500 Hz	3.40	-1.4	0.9
1 K	2.50	0.9	0.2
2 K	2.30	0.2	-5.0
4K	7.30	-5.0	0.2
8 K	7.10	0.2	1.4
16K	5.70	1.4	na

