



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov

Bruce Rauner, Governor
Wayne A. Rosenthal, Director

MAY 15 2015
VILLAGE OF MANTENO

May 13, 2015

Village of Manteno

Attn: Ms. Janice Schulteis

98 East Third Street

Manteno, Illinois 60950

Dear Ms. Schulteis:

The Illinois Department of Natural Resources installed a blasting seismograph on property located at 1203 Whitetail Drive, Manteno, Illinois 60950. Enclosed, please find a copy of the seismographic data obtained at this location. This data includes blasting events occurring at the VCNA Prairie, Inc. – North Central Materials quarry from 01/30/15 through 03/26/15.

The first page(s) of digital information is a summary of all events recorded by the seismograph, including both blasting and non-blasting events. All subsequent pages are copies of the waveform analysis of the recorded events determined to be blast induced vibrations. Analysis of the waveforms indicate **compliance** with the regulatory limits established to prevent damage to protected structures.

Looking at the waveform analysis, four (4) channels of information are displayed. The first channel is the acoustic or airblast waveform. The regulatory airblast limit is 133 decibels (dB). The next three channels are the ground vibrations waveforms, measured in three (3) mutually perpendicular directions (Radial, Vertical and Transverse). The regulatory ground vibration limit is 1.0 inch per second (ips) for all three (3) directions of motion.

If you have any questions concerning this seismograph information, please contact myself at (815) 216-2361 (cell).

Sincerely,

A handwritten signature in blue ink that reads "Myron L. McCaskey".

Myron L. McCaskey – Blasting Specialist

Explosives and Aggregate Division

Office of Mines and Minerals

Enclosure
cc. M. McCaskey
J. Steiner

Illinois Department of Natural Resources
Office of Mines and Minerals
Explosives and Aggregate Division
VCNA Prairie Inc. - North Central Quarry
John Bobera Property *67 MAW*

Record Name	Date	Peak (ips)	Acoustic (dB)	Radial (ips)	Vertical (ips)	Transverse (ips)	Seismic Trigger (ips)	Battery	
Number	Time	Hz	Hz	Hz	Hz	Hz	Serial Number	Acoustic Trigger dB	Gain
*c:\myron\seismograph...\110520150130001.dtb 001	1/30/2015 13:36	0.5100 0.0	134 0.0	0.5100 0.0	0.5000 0.0	0.5100 0.0	1105	0.0800 130	6.8 x2
c:\myron\seismograph...\110520150201002.dtb 002	2/1/2015 16:42	0.0000 0.0	130 3.0	0.0000 0.0	0.0000 0.0	0.0000 0.0	1105	0.0800 130	6.8 x2
*c:\myron\seismograph...\110520150205003.dtb 003	2/5/2015 04:44	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520150208004.dtb 004	2/8/2015 16:45	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.2 x2
c:\myron\seismograph...\110520150210005.dtb 005	2/10/2015 14:23	0.1500 24.9	112 2.7	0.1100 9.6	0.1200 37.9	0.1500 24.9	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520150214006.dtb 006	2/14/2015 02:24	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.0 x2
c:\myron\seismograph...\110520150214007.dtb 007	2/14/2015 09:28	0.0000 0.0	131 23.8	0.0000 0.0	0.0000 0.0	0.0000 0.0	1105	0.0800 130	7.1 x2
c:\myron\seismograph...\110520150214008.dtb 008	2/14/2015 10:05	0.0000 0.0	131 19.6	0.0000 0.0	0.0000 0.0	0.0000 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520150217009.dtb 009	2/17/2015 22:06	0.5100 0.0	134 0.0	0.5100 0.0	0.5000 0.0	0.5000 0.0	1105	0.0800 130	7.1 x2
c:\myron\seismograph...\110520150220010.dtb 010	2/20/2015 13:25	0.1900 34.1	112 11.9	0.1700 27.6	0.1900 34.1	0.1900 22.2	1105	0.0800 130	7.2 x2
*c:\myron\seismograph...\110520150224011.dtb 011	2/24/2015 01:26	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.4900 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520150227012.dtb 012	2/27/2015 13:27	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1105	0.0800 130	7.2 x2
*c:\myron\seismograph...\110520150303013.dtb 013	3/3/2015 01:28	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520150306014.dtb 014	3/6/2015 13:29	0.5100 0.0	134 0.0	0.5100 0.0	0.5000 0.0	0.5000 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520150310015.dtb 015	3/10/2015 01:30	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1105	0.0800 130	7.1 x2

* Denotes a calibration event.

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VCNA Prairie Inc. - North Central Quarry
John Bobera Property**

Record Name	Date	Peak (ips)	Acoustic (dB)	Radial (ips)	Vertical (ips)	Transverse (ips)	Serial Number	Seismic Trigger (ips)	Battery
Number	Time	Hz	Hz	Hz	Hz	Hz	Number	Acoustic Trigger dB	Gain
*c:\myron\seismograph...\110520150313016.dtb 016	3/13/2015 13:31	0.5100 0.0	134 0.0	0.5100 0.0	0.5000 0.0	0.5100 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520150317017.dtb 017	3/17/2015 01:32	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5100 0.0	1105	0.0800 130	6.9 x2
c:\myron\seismograph...\110520150317018.dtb 018	3/17/2015 07:28	0.0100 0.0	131 9.3	0.0000 0.0	0.0100 0.0	0.0100 0.0	1105	0.0800 130	7.0 x2
c:\myron\seismograph...\110520150317019.dtb 019	3/17/2015 07:31	0.0100 0.0	133 5.3	0.0100 0.0	0.0100 0.0	0.0100 0.0	1105	0.0800 130	7.0 x2
c:\myron\seismograph...\110520150317020.dtb 020	3/17/2015 09:17	0.0100 0.0	134 9.8	0.0100 0.0	0.0100 0.0	0.0100 0.0	1105	0.0800 130	7.0 x2
*c:\myron\seismograph...\110520150320021.dtb 021	3/20/2015 21:18	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.0 x2
*c:\myron\seismograph...\110520150324022.dtb 022	3/24/2015 09:19	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.0 x2
*c:\myron\seismograph...\110520150326023.dtb 023	3/26/2015 13:22	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5100 0.0	1105	0.0800 130	7.1 x2

* Denotes a calibration event.

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File Name: c:\myron\seismograph analysis\manteno\man67\110520150210005.dtb
 Number: 005
 Date: 2/10/2015
 Time: 14:23
 Serial Number: 1105
 Seismic Trigger: 0.0800 in/sec
 Acoustic Trigger: 130 dB
 Sample Rate: 2048
 Duration: 6.0 Seconds
 Pre-Trigger: 0.25 Seconds
 Gain: 2x
 Voltage: 7.1

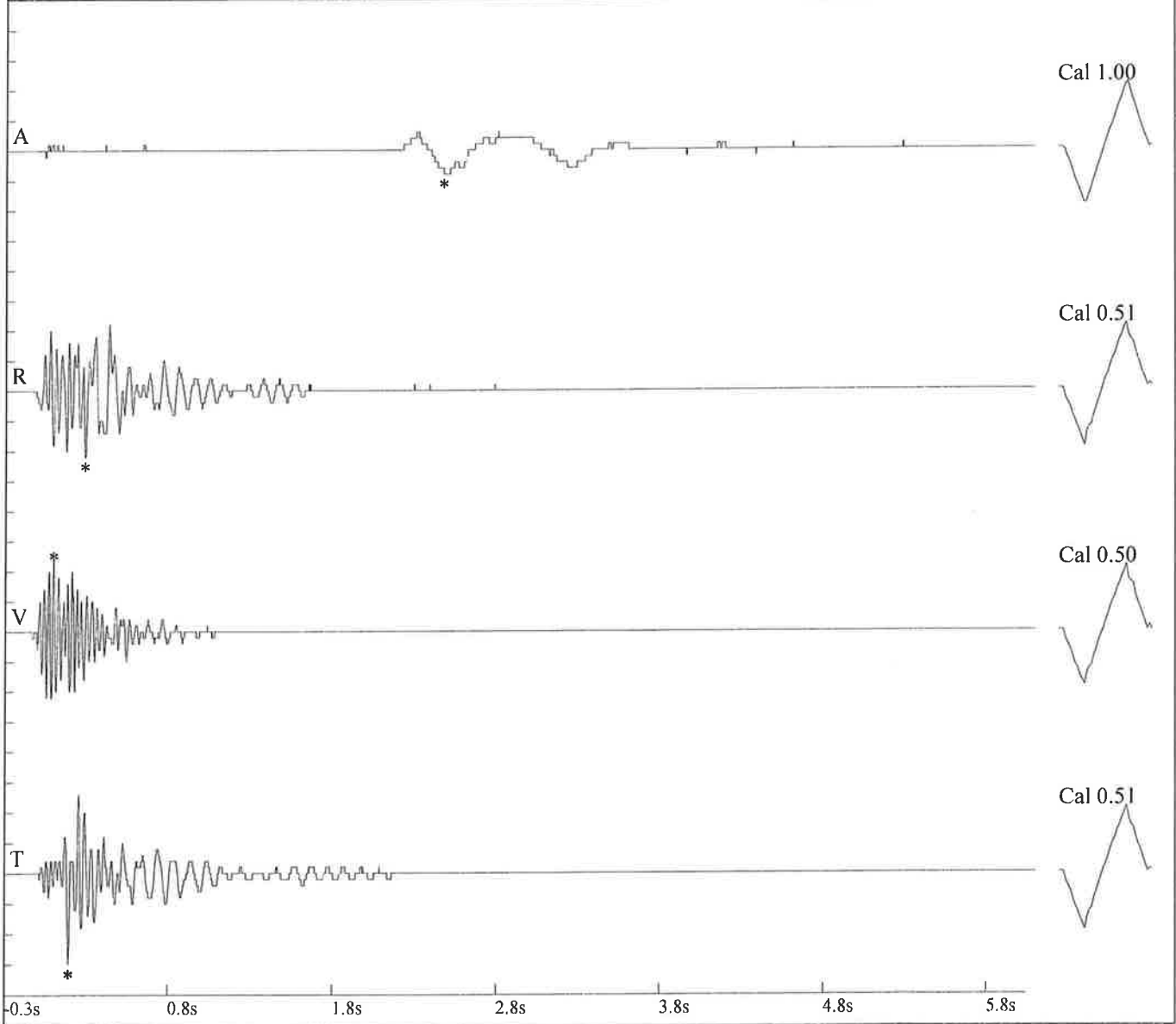
MSM

Amplitudes and Frequencies

Acoustic: 112 dB @ 2.7 Hz
Radial: 0.1100 in/sec @ 9.6Hz
Vertical: 0.1200 in/sec @ 37.9Hz
Transverse: **0.1500 in/sec @ 24.9Hz**

Graph Information

Duration: -0.250 s To: 6.000 s
Acoustic Scale: 126 dB
Seismic Scale: 0.20 in/sec (0.050 in/sec/div)
Time Intervals at: 1.00 s



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File Name: c:\myron\seismograph analysis\manteno\man67\110520150220010.dtb
 Number: 010
 Date: 2/20/2015
 Time: 13:25
 Serial Number: 1105
 Seismic Trigger: 0.0800 in/sec
 Acoustic Trigger: 130 dB
 Sample Rate: 2048
 Duration: 6.0 Seconds
 Pre-Trigger: 0.25 Seconds
 Gain: 2x
 Voltage: 7.2

M&M

Amplitudes and Frequencies

Acoustic: 112 dB @ 11.9 Hz
Radial: 0.1700 in/sec @ 27.6Hz
Vertical: 0.1900 in/sec @ 34.1Hz
Transverse: 0.1900 in/sec @ 22.2Hz

Graph Information

Duration: -0.250 s To: 6.000 s
Acoustic Scale: 126 dB
Seismic Scale: 0.20 in/sec (0.050 in/sec/div)
Time Intervals at: 1.00 s

