



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

Pat Quinn, Governor
Marc Miller, Director

May 6, 2013

Village of Manteno
Attn: Ms. Janice Schulteis
269 N. Main Street
Manteno, Illinois 60950

Dear Ms. Schulteis:

The Illinois Department of Natural Resources installed a blasting seismograph on property located at 891 Whitetail Bend, 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 02/11/13 through 04/09/13.

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,

Myron L. McCaskey – Blasting Specialist
Mine Safety and Training Division
Office of Mines and Minerals
Enclosure

cc: M.McCaskey

Illinois Department of Natural Resources
Office of Mines and Minerals
Mine Safety and Training Div.
VCNA Prairie Agg. Ill., Inc. - North Central Pit
Manteno Village Property *MAN 56*

Record Name	Date	Peak (ips)	Acoustic (dB/Mb)	Vertical (ips)	Transverse (ips)	Vector Sum (ips)	Seismic Trigger (ips)	Battery
Number	Time	Hz	Hz	Hz	Hz	Serial Number	Acoustic Trigger dB	Gain
*c:\myron\downloads\m...\82620130211001.dtb 001	2/11/2013 16:10	0.5050 0.0	134/1.00 0.0	0.4950 0.0	0.5050 0.0	0.0000 826	0.0800 132	7.0 x2
*c:\myron\downloads\m...\82620130215002.dtb 002	2/15/2013 04:11	0.5000 0.0	134/0.98 0.0	0.4900 0.0	0.5000 0.0	0.0000 826	0.0800 132	7.0 x2
*c:\myron\downloads\m...\82620130218003.dtb 003	2/18/2013 16:12	0.5000 0.0	134/1.00 0.0	0.4900 0.0	0.5000 0.0	0.0000 826	0.0800 132	7.2 x2
c:\myron\downloads\m...\82620130218004.dtb 004	2/18/2013 19:08	0.0050 0.0	135/1.08 256.0	0.0050 0.0	0.0050 0.0	0.0050 826	0.0800 132	7.1 x2
c:\myron\downloads\m...\82620130219005.dtb 005	2/19/2013 09:37	0.0050 0.0	134/0.98 9.9	0.0050 0.0	0.0050 0.0	0.0050 826	0.0800 132	7.1 x2
*c:\myron\downloads\m...\82620130222006.dtb 006	2/22/2013 21:39	0.5000 0.0	134/0.98 0.0	0.4900 0.0	0.5000 0.0	0.0000 826	0.0800 132	7.2 x2
*c:\myron\downloads\m...\82620130226007.dtb 007	2/26/2013 09:40	0.5000 0.0	134/0.98 0.0	0.4900 0.0	0.4950 0.0	0.0000 826	0.0800 132	7.2 x2
*c:\myron\downloads\m...\82620130301008.dtb 008	3/1/2013 21:41	0.5000 0.0	134/0.98 0.0	0.4900 0.0	0.5000 0.0	0.0000 826	0.0800 132	7.2 x2
*c:\myron\downloads\m...\82620130305009.dtb 009	3/5/2013 09:42	0.5000 0.0	134/0.98 0.0	0.4900 0.0	0.5000 0.0	0.0000 826	0.0800 132	7.2 x2
*c:\myron\downloads\m...\82620130308010.dtb 010	3/8/2013 21:43	0.5000 0.0	134/0.98 0.0	0.4900 0.0	0.5000 0.0	0.0000 826	0.0800 132	7.2 x2
c:\myron\downloads\m...\82620130310011.dtb 011	3/10/2013 05:14	0.0050 0.0	135/1.08 256.0	0.0050 0.0	0.0050 0.0	0.0050 826	0.0800 132	7.2 x2
c:\myron\downloads\m...\82620130310012.dtb 012	3/10/2013 10:30	0.0050 0.0	135/1.10 11.0	0.0050 0.0	0.0050 0.0	0.0050 826	0.0800 132	7.2 x2
*c:\myron\downloads\m...\82620130313013.dtb 013	3/13/2013 22:32	0.5000 0.0	134/0.98 0.0	0.4900 0.0	0.5000 0.0	0.0000 826	0.0800 132	7.1 x2
*c:\myron\downloads\m...\82620130317014.dtb 014	3/17/2013 10:33	0.5000 0.0	134/0.98 0.0	0.4900 0.0	0.4950 0.0	0.0000 826	0.0800 132	7.2 x2
c:\myron\downloads\m...\82620130318015.dtb 015	3/18/2013 11:49	0.1150 10.3	120/0.20 2.9	0.0500 24.9	0.1150 10.3	0.1150 826	0.0800 132	7.1 x2

* Denotes a calibration event.

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Record Name	Date	Peak (ips)	Acoustic (dB/Mb)	Vertical (ips)	Transverse (ips)	Vector Sum (ips)	Seismic Trigger (ips)	Battery
Number	Time	Hz	Hz	Hz	Hz	Serial Number	Acoustic Trigger dB	Gain
*c:\myron\downloads\m...82620130321016.dtb 016	3/21/2013 23:50	0.5000 0.0	134/0.98 0.0	0.4900 0.0	0.5000 0.0	0.0000 826	0.0800 132	7.2 x2
*c:\myron\downloads\m...82620130325017.dtb 017	3/25/2013 11:51	0.5050 0.0	134/0.98 0.0	0.4950 0.0	0.5000 0.0	0.0000 826	0.0800 132	7.2 x2
*c:\myron\downloads\m...82620130328018.dtb 018	3/28/2013 23:52	0.5000 0.0	134/0.98 0.0	0.4900 0.0	0.5000 0.0	0.0000 826	0.0800 132	7.2 x2
c:\myron\downloads\m...82620130329019.dtb 019	3/29/2013 14:42	0.1600 78.7	100/0.02 0.0	0.1200 85.3	0.1600 78.7	0.1850 826	0.0800 132	7.2 x2
*c:\myron\downloads\m...82620130402020.dtb 020	4/2/2013 02:43	0.5050 0.0	134/1.00 0.0	0.4950 0.0	0.5000 0.0	0.0000 826	0.0800 132	7.0 x2
c:\myron\downloads\m...82620130403021.dtb 021	4/3/2013 14:14	0.1350 24.9	116/0.12 2.1	0.0550 25.6	0.1350 24.9	0.1450 826	0.0800 132	7.2 x2
c:\myron\downloads\m...82620130406022.dtb 022	4/6/2013 22:08	0.0050 0.0	134/1.02 3.8	0.0050 0.0	0.0050 0.0	0.0050 826	0.0800 132	7.0 x2
c:\myron\downloads\m...82620130408023.dtb 023	4/8/2013 03:28	0.0050 0.0	133/0.94 170.6	0.0050 0.0	0.0050 0.0	0.0050 826	0.0800 132	7.0 x2
c:\myron\downloads\m...82620130409024.dtb 024	4/9/2013 15:37	0.0100 0.0	133/0.90 4.2	0.0100 0.0	0.0050 0.0	0.0100 826	0.0800 132	7.1 x2
*c:\myron\downloads\m...82620130409025.dtb 025	4/9/2013 15:38	0.5100 0.0	134/0.98 0.0	0.5050 0.0	0.5050 0.0	0.0000 826	0.0800 132	7.0 x2

* Denotes a calibration event.

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File Name: c:\myron\downloads\manteno\man56\82620130318015.dtb
 Number: 015
 Date: 3/18/2013
 Time: 11:49
 Serial Number: 826
 Seismic Trigger: 0.0800 in/sec
 Acoustic Trigger: 132 dB
 Sample Rate: 2048
 Duration: 6.0 Seconds
 Pre-Trigger: 0.25 Seconds
 Gain: 2x
 Voltage: 7.1

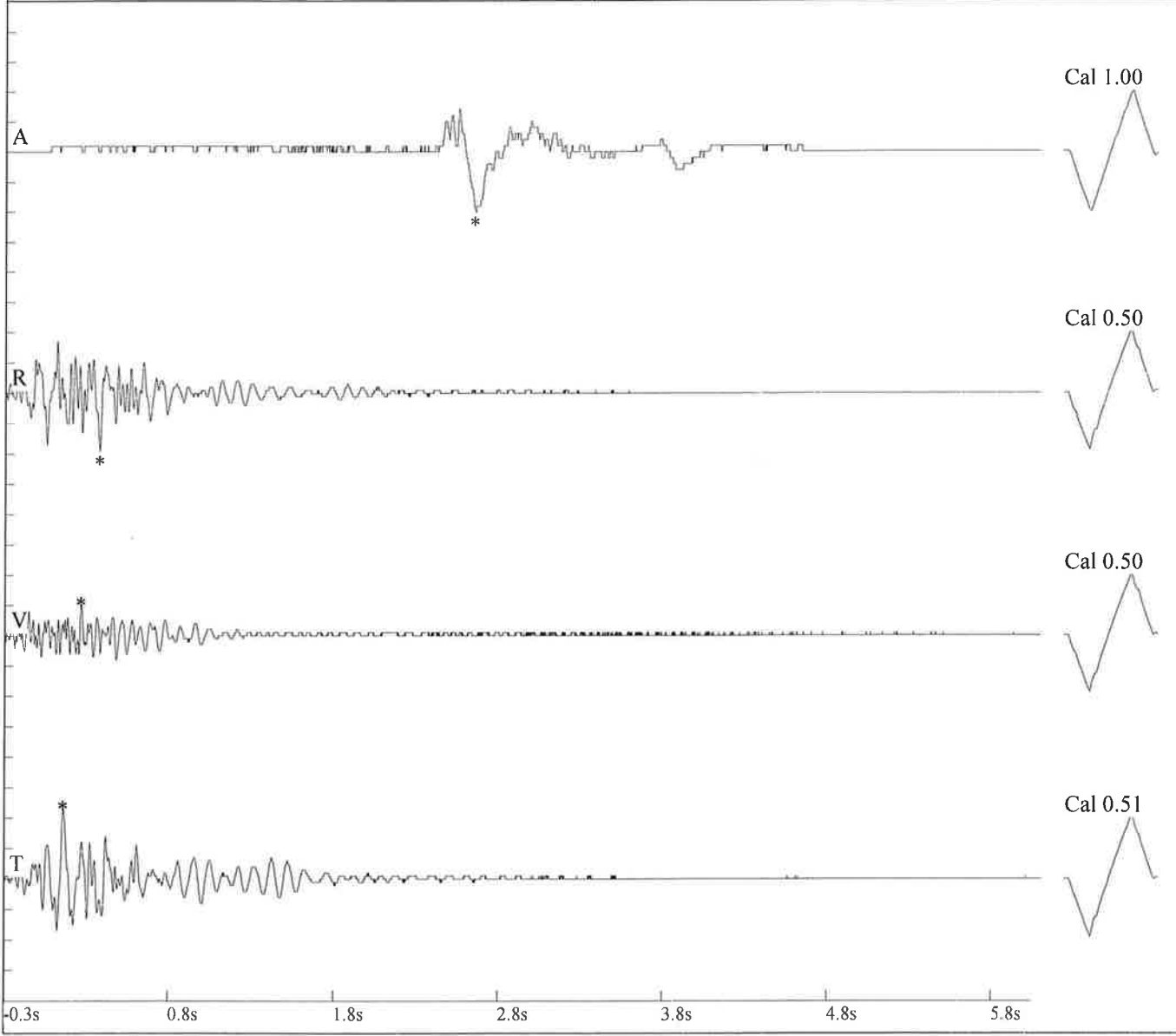
MSM

Amplitudes and Frequencies

Acoustic: 120 dB, 0.20 Mb @ 2.9 Hz
Radial: 0.0950 in/sec @ 12.4Hz
Vertical: 0.0500 in/sec @ 24.9Hz
Transverse: 0.1150 in/sec @ 10.3Hz

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\downloads\manteno\man56\82620130403021.dtb
 Number: 021
 Date: 4/3/2013
 Time: 14:14
 Serial Number: 826
 Seismic Trigger: 0.0800 in/sec
 Acoustic Trigger: 132 dB
 Sample Rate: 2048
 Duration: 6.0 Seconds
 Pre-Trigger: 0.25 Seconds
 Gain: 2x
 Voltage: 7.2

MASUM

Amplitudes and Frequencies

Acoustic: 116 dB, 0.12 Mb @ 2.1 Hz
Radial: 0.1150 in/sec @ 14.8Hz
Vertical: 0.0550 in/sec @ 25.6Hz
Transverse: 0.1350 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

