



Illinois Department of Natural Resources

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

Pat Quinn, Governor
Marc Miller, Director

December 31, 2012

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 10/23/12 through 11/09/12.

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

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VILLAGE OF MANTENO

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

File Name: c:\myron\downloads\manteno\man54\11012012\1025002.dtb
 Number: 002
 Date: 10/25/2012
 Time: 10:36
 Serial Number: 1101
 Seismic Trigger: 0.0800 in/sec
 Acoustic Trigger: 132 dB
 Sample Rate: 1024
 Duration: 6.0 Seconds
 Pre-Trigger: 0.50 Seconds
 Gain: 2x
 Voltage: 6.8

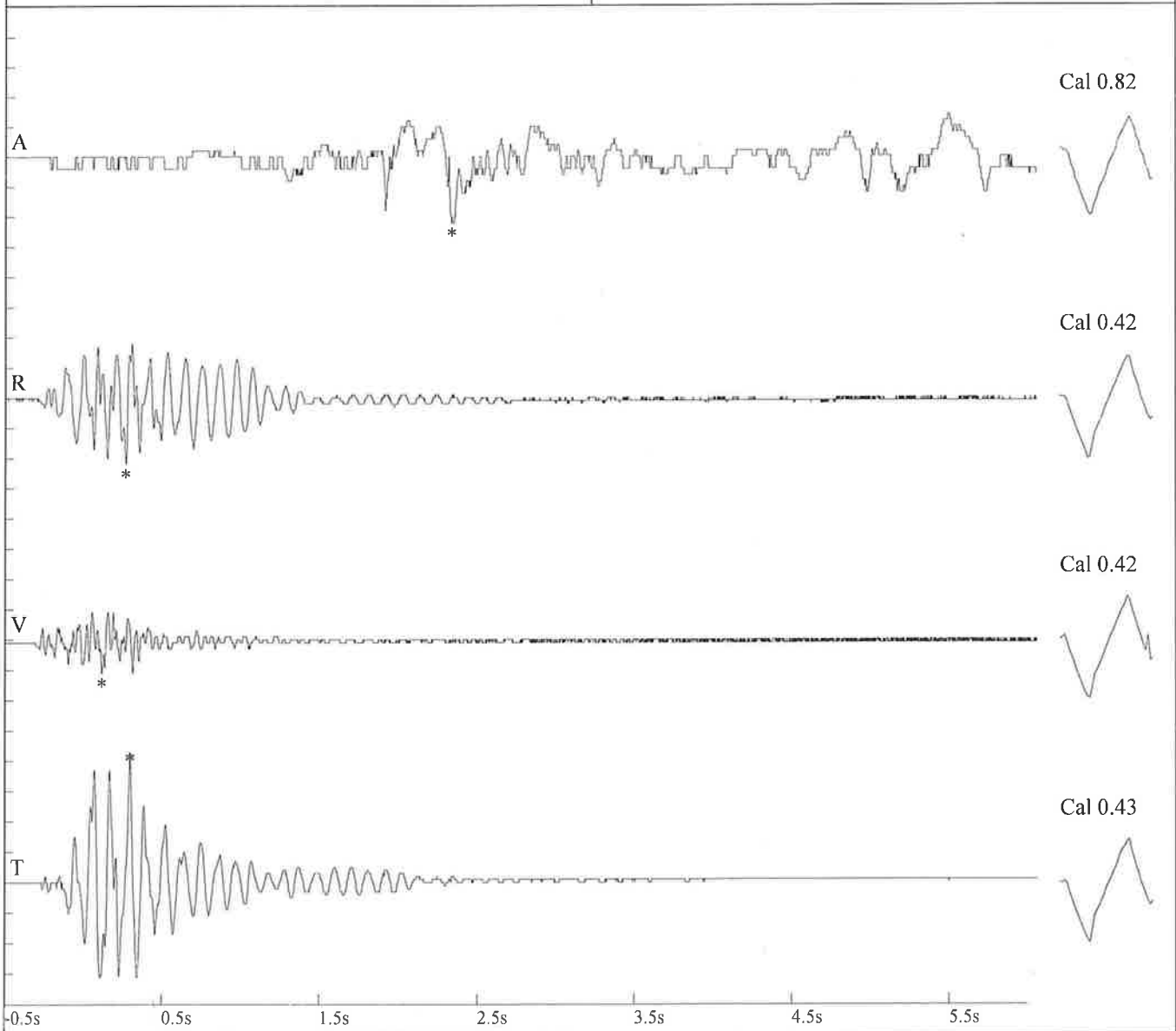
MSM

Amplitudes and Frequencies

Acoustic: 121 dB, 0.22 Mb @ 3.3 Hz
Radial: 0.1100 in/sec @ 10.2Hz
Vertical: 0.0550 in/sec @ 11.1Hz
Transverse: 0.2000 in/sec @ 10.6Hz

Graph Information

Duration: -0.500 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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Manteno Village Property

File Name: c:\myron\downloads\manteno\man54\11012012\1105007.dtb
 Number: 007
 Date: 11/5/2012
 Time: 16:53
 Serial Number: 1101
 Seismic Trigger: 0.0800 in/sec
 Acoustic Trigger: 132 dB
 Sample Rate: 1024
 Duration: 6.0 Seconds
 Pre-Trigger: 0.50 Seconds
 Gain: 2x
 Voltage: 7.1

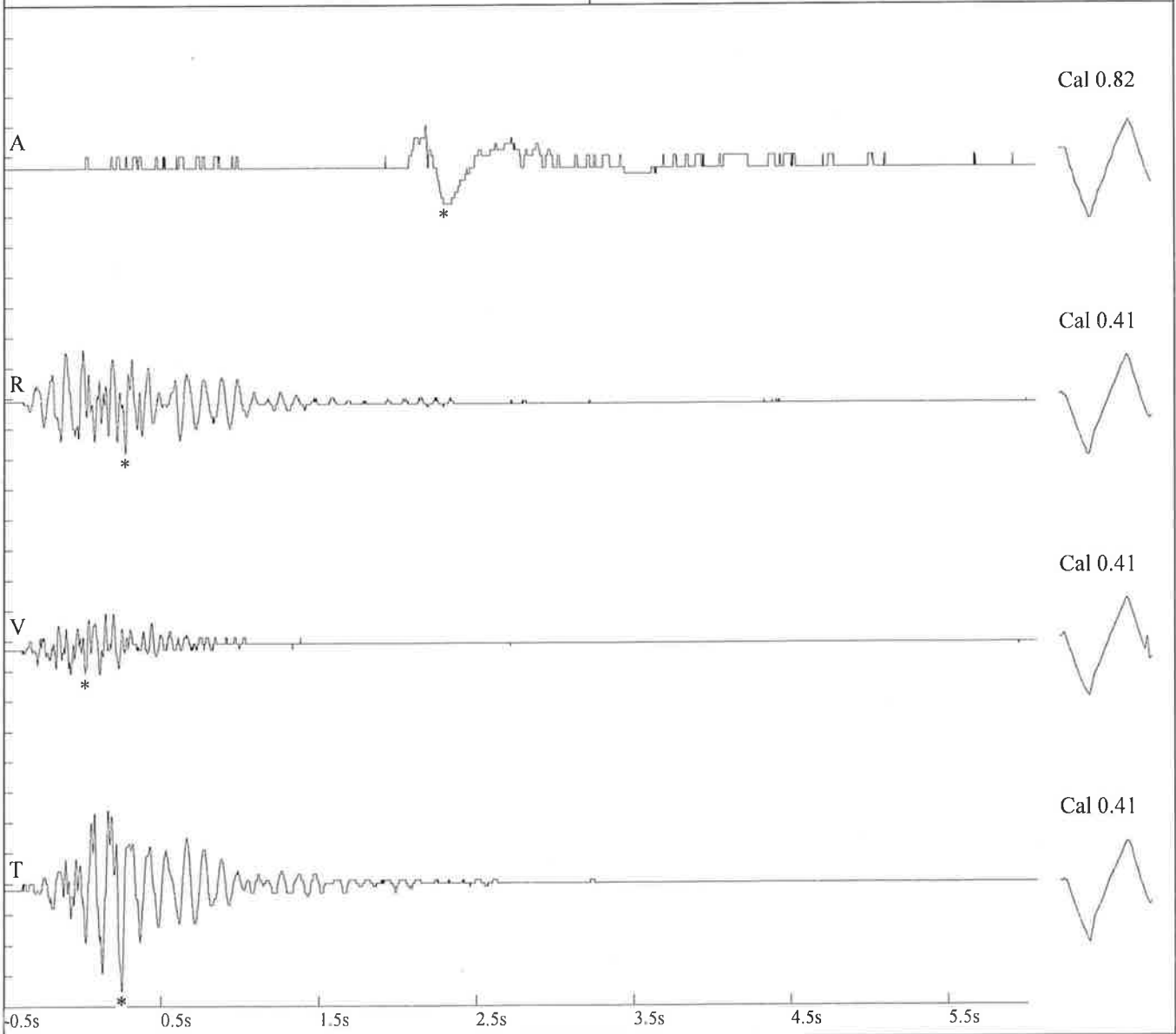
MLM

Amplitudes and Frequencies

Acoustic: 118 dB, 0.16 Mb @ 1.9 Hz
Radial: 0.0900 in/sec @ 12.4Hz
Vertical: 0.0550 in/sec @ 22.2Hz
Transverse: **0.1750 in/sec @ 11.6Hz**

Graph Information

Duration: -0.500 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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VCNA Prairie Agg. Ill., Inc. - North Central Pit
Manteno Village Property *MAN 54*

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...110120121023000.dtb 000	10/23/2012 16:47	0.4300 0.0	133/0.86 0.0	0.4300 0.0	0.4300 0.0	0.0000 1101	0.0800 132	6.8 x2
*c:\myron\downloads\m...110120121023001.dtb 001	10/23/2012 16:47	0.4300 0.0	133/0.86 0.0	0.4300 0.0	0.4300 0.0	0.0000 1101	0.0800 132	6.8 x2
c:\myron\downloads\m...110120121025002.dtb 002	10/25/2012 10:36	0.2000 10.6	121/0.22 3.3	0.0550 11.1	0.2000 10.6	0.2100 1101	0.0800 132	6.8 x2
c:\myron\downloads\m...110120121025003.dtb 003	10/25/2012 18:05	0.0050 0.0	137/1.38 102.4	0.0050 0.0	0.0050 0.0	0.0100 1101	0.0800 132	6.9 x2
*c:\myron\downloads\m...110120121029004.dtb 004	10/29/2012 06:07	0.4200 0.0	133/0.86 0.0	0.4100 0.0	0.4200 0.0	0.0000 1101	0.0800 132	6.9 x2
*c:\myron\downloads\m...110120121101005.dtb 005	11/1/2012 18:08	0.4050 0.0	132/0.84 0.0	0.4050 0.0	0.4050 0.0	0.0000 1101	0.0800 132	7.1 x2
*c:\myron\downloads\m...110120121105006.dtb 006	11/5/2012 06:09	0.4050 0.0	132/0.80 0.0	0.4000 0.0	0.4000 0.0	0.0000 1101	0.0800 132	6.9 x2
c:\myron\downloads\m...110120121105007.dtb 007	11/5/2012 16:53	0.1750 11.6	118/0.16 1.9	0.0550 22.2	0.1750 11.6	0.1750 1101	0.0800 132	7.1 x2
*c:\myron\downloads\m...110120121109008.dtb 008	11/9/2012 04:54	0.4050 0.0	132/0.82 0.0	0.4000 0.0	0.4050 0.0	0.0000 1101	0.0800 132	7.0 x2
*c:\myron\downloads\m...110120121109009.dtb 009	11/9/2012 14:58	0.4150 0.0	132/0.84 0.0	0.4150 0.0	0.4150 0.0	0.0000 1101	0.0800 132	7.1 x2

* Denotes a calibration event.