



Illinois Department of Natural Resources

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

JB Pritzker, Governor
Colleen Callahan, Director

November 9, 2021



Village of Manteno

Attn: Ms. Janice Schulteis

98 East Third Street

Manteno, Illinois 60950

Dear Ms. Schulteis:

On 05/24/16 the Illinois Department of Natural Resources installed a blasting seismograph on property located at the [REDACTED] residence at [REDACTED] Manteno, Illinois. Enclosed, please find a copy of the seismographic data obtained at the [REDACTED] location. This data includes blasting events occurring at the VCNA Prairie, LLC – North Central Materials quarry from 07/22/21 through 11/04/21.

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. The 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

Explosives and Aggregate Division

Office of Mines and Minerals

Enclosure

cc. M.McCaskey

Illinois Department of Natural Resources
Office of Mines and Minerals
Explosives and Aggregate Division
VCNA Prairie Inc. - North Central Quarry
XXXXXXXXXX Property *Man 98*

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...\110920210722001.dtb 001	7/22/2021 14:57	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1109	0.0800 132	6.7 x2
*c:\myron\seismograph...\110920210726002.dtb 002	7/26/2021 02:58	0.5200 0.0	134 0.0	0.5200 0.0	0.5200 0.0	0.5000 0.0	1109	0.0800 132	6.7 x2
*c:\myron\seismograph...\110920210729003.dtb 003	7/29/2021 14:59	0.5200 0.0	134 0.0	0.5200 0.0	0.5200 0.0	0.5000 0.0	1109	0.0800 132	7.1 x2
c:\myron\seismograph...\110920210730004.dtb 004	7/30/2021 11:45	0.0800 16.5	121 9.8	0.0800 16.5	0.0600 20.4	0.0800 18.2	1109	0.0800 132	7.0 x2
*c:\myron\seismograph...\110920210802005.dtb 005	8/2/2021 23:46	0.5200 0.0	134 0.0	0.5000 0.0	0.5200 0.0	0.5000 0.0	1109	0.0800 132	7.0 x2
*c:\myron\seismograph...\110920210806006.dtb 006	8/6/2021 11:47	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1109	0.0800 132	7.1 x2
*c:\myron\seismograph...\110920210809007.dtb 007	8/9/2021 23:48	0.5200 0.0	134 0.0	0.5000 0.0	0.5200 0.0	0.5000 0.0	1109	0.0800 132	7.0 x2
c:\myron\seismograph...\110920210811008.dtb 008	8/11/2021 10:15	0.0000 0.0	133 15.0	0.0000 0.0	0.0000 0.0	0.0000 0.0	1109	0.0800 132	7.0 x2
*c:\myron\seismograph...\110920210814009.dtb 009	8/14/2021 22:17	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1109	0.0800 132	7.0 x2
c:\myron\seismograph...\110920210817010.dtb 010	8/17/2021 11:45	0.0800 23.2	110 5.7	0.0400 0.0	0.0400 0.0	0.0800 23.2	1109	0.0800 132	7.1 x2
*c:\myron\seismograph...\110920210820011.dtb 011	8/20/2021 23:46	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1109	0.0800 132	7.0 x2
*c:\myron\seismograph...\110920210824012.dtb 012	8/24/2021 11:47	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1109	0.0800 132	7.1 x2
*c:\myron\seismograph...\110920210827013.dtb 013	8/27/2021 23:48	0.5200 0.0	134 0.0	0.5200 0.0	0.5200 0.0	0.5000 0.0	1109	0.0800 132	7.0 x2
*c:\myron\seismograph...\110920210831014.dtb 014	8/31/2021 11:49	0.5200 0.0	134 0.0	0.5200 0.0	0.5200 0.0	0.5000 0.0	1109	0.0800 132	7.0 x2
c:\myron\seismograph...\110920210902015.dtb 015	9/2/2021 11:36	0.1400 10.0	122 8.2	0.1400 10.0	0.0600 26.9	0.1400 9.6	1109	0.0800 132	7.0 x2

* Denotes a calibration event.

Illinois Department of Natural Resources
Office of Mines and Minerals
Explosives and Aggregate Division
VCNA Prairie Inc. - North Central Quarry
XXXXXXXXXX **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...\\110920210905016.dtb 016	9/5/2021 23:37	0.5200 0.0	134 0.0	0.5200 0.0	0.5200 0.0	0.5000 0.0	1109	0.0800 132	7.0 x2
*c:\myron\seismograph...\\110920210909017.dtb 017	9/9/2021 11:38	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1109	0.0800 132	7.1 x2
c:\myron\seismograph...\\110920210910018.dtb 018	9/10/2021 12:22	0.0800 18.2	114 7.4	0.0400 0.0	0.0400 0.0	0.0800 18.2	1109	0.0800 132	7.1 x2
*c:\myron\seismograph...\\110920210914019.dtb 019	9/14/2021 00:23	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1109	0.0800 132	7.0 x2
*c:\myron\seismograph...\\110920210917020.dtb 020	9/17/2021 12:24	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1109	0.0800 132	7.1 x2
*c:\myron\seismograph...\\110920210921021.dtb 021	9/21/2021 00:25	0.5200 0.0	134 0.0	0.5200 0.0	0.5200 0.0	0.5000 0.0	1109	0.0800 132	7.0 x2
c:\myron\seismograph...\\110920210922022.dtb 022	9/22/2021 11:25	0.1200 10.4	122 11.1	0.1200 10.4	0.0600 10.0	0.1200 10.4	1109	0.0800 132	7.1 x2
c:\myron\seismograph...\\110920210924023.dtb 023	9/24/2021 10:47	0.0800 16.0	119 6.4	0.0800 16.0	0.0400 0.0	0.0800 15.5	1109	0.0800 132	7.1 x2
*c:\myron\seismograph...\\110920210927024.dtb 024	9/27/2021 22:49	0.5200 0.0	134 0.0	0.5000 0.0	0.5200 0.0	0.5000 0.0	1109	0.0800 132	7.1 x2
*c:\myron\seismograph...\\110920211001025.dtb 025	10/1/2021 10:50	0.5200 0.0	134 0.0	0.5000 0.0	0.5200 0.0	0.5000 0.0	1109	0.0800 132	7.1 x2
*c:\myron\seismograph...\\110920211004026.dtb 026	10/4/2021 22:51	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1109	0.0800 132	7.1 x2
*c:\myron\seismograph...\\110920211008027.dtb 027	10/8/2021 10:52	0.5200 0.0	134 0.0	0.5200 0.0	0.5200 0.0	0.5000 0.0	1109	0.0800 132	7.1 x2
*c:\myron\seismograph...\\110920211011028.dtb 028	10/11/2021 22:53	0.5200 0.0	134 0.0	0.5200 0.0	0.5200 0.0	0.5000 0.0	1109	0.0800 132	7.1 x2
c:\myron\seismograph...\\110920211014029.dtb 029	10/14/2021 11:32	0.1200 19.6	118 11.6	0.1000 17.6	0.0600 24.3	0.1200 19.6	1109	0.0800 132	7.2 x2
*c:\myron\seismograph...\\110920211017030.dtb 030	10/17/2021 23:34	0.5000 0.0	134 0.0	0.4800 0.0	0.5000 0.0	0.4800 0.0	1109	0.0800 132	7.1 x2

* Denotes a calibration event.

Illinois Department of Natural Resources
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Explosives and Aggregate Division
VCNA Prairie Inc. - North Central Quarry
Property

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...\\110920211021031.dtb 031	10/21/2021 11:35	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.4800 0.0	1109	0.0800 132	7.2 x2
c:\myron\seismograph...\\110920211021032.dtb 032	10/21/2021 12:44	0.1000 13.4	114 11.9	0.1000 13.4	0.0400 0.0	0.1000 9.1	1109	0.0800 132	7.2 x2
*c:\myron\seismograph...\\110920211025033.dtb 033	10/25/2021 00:45	0.4800 0.0	134 0.0	0.4800 0.0	0.4800 0.0	0.4800 0.0	1109	0.0800 132	7.2 x2
*c:\myron\seismograph...\\110920211028034.dtb 034	10/28/2021 12:46	0.5000 0.0	134 0.0	0.4800 0.0	0.5000 0.0	0.4800 0.0	1109	0.0800 132	7.2 x2
*c:\myron\seismograph...\\110920211101035.dtb 035	11/1/2021 00:47	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1109	0.0800 132	7.2 x2
*c:\myron\seismograph...\\110920211104036.dtb 036	11/4/2021 12:48	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.4800 0.0	1109	0.0800 132	7.3 x2
*c:\myron\seismograph...\\110920211104037.dtb 037	11/4/2021 13:29	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.4800 0.0	1109	0.0800 132	7.2 x2

* Denotes a calibration event.

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Explosives and Aggregate Division
VCNA Prairie Inc. - North Central Quarry
[REDACTED] Property**

File Name: c:\myron\seismograph analysis\manteno\man98\110920210730004.dib
 Number: 004
 Date: 7/30/2021
 Time: 11:45
 Serial Number: 1109
 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: 7.0

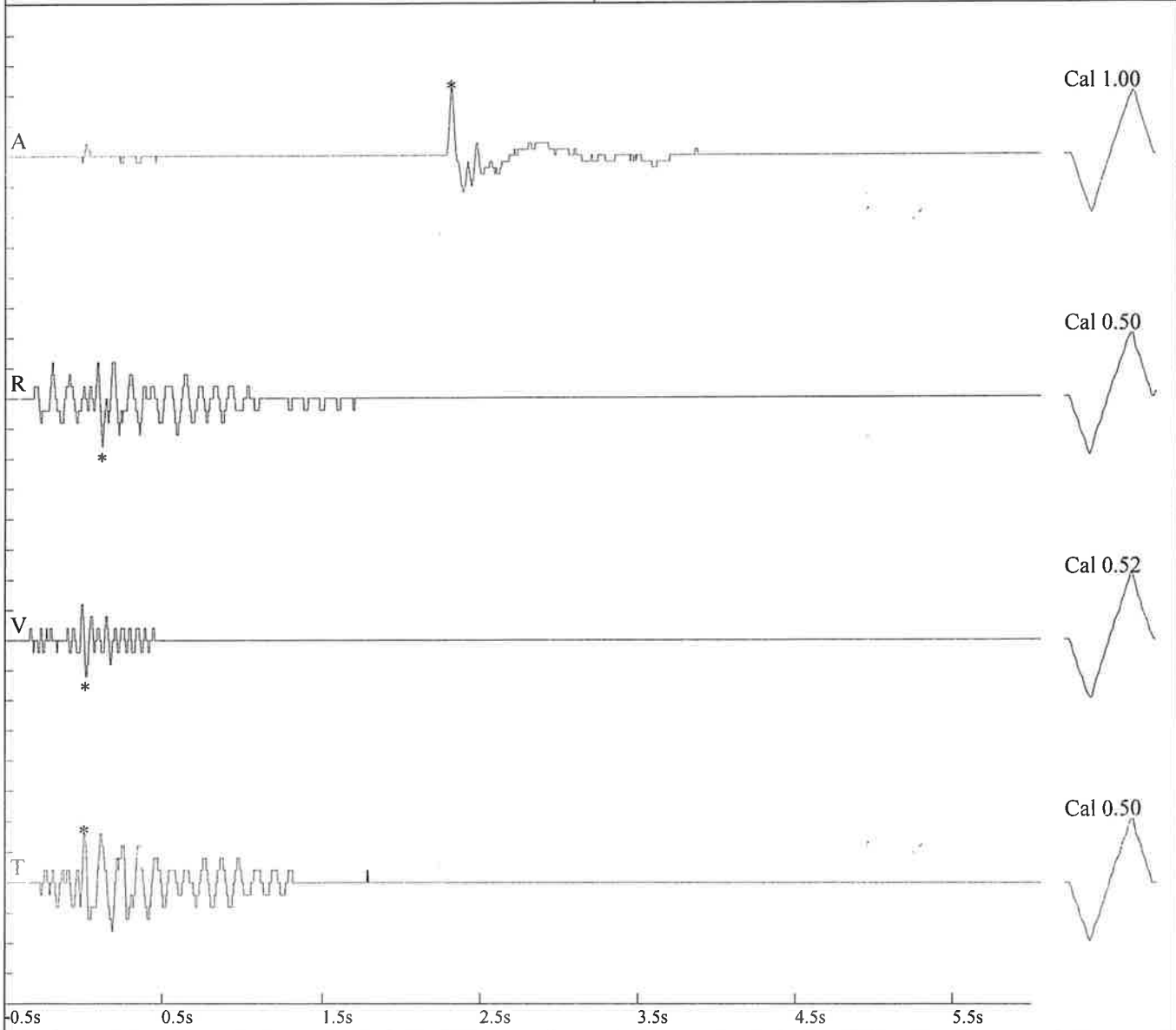
MSM

Amplitudes and Frequencies

*Acoustic: 121 dB @ 9.8 Hz
 Radial: 0.0800 in/sec @ 16.5Hz
 Vertical: 0.0600 in/sec @ 20.4Hz
 Transverse: 0.0800 in/sec @ 18.2Hz*

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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Property

File Name: c:\myron\seismograph analysis\manteno\man98\110920210817010.dtb
 Number: 010
 Date: 8/17/2021
 Time: 11:45
 Serial Number: 1109
 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

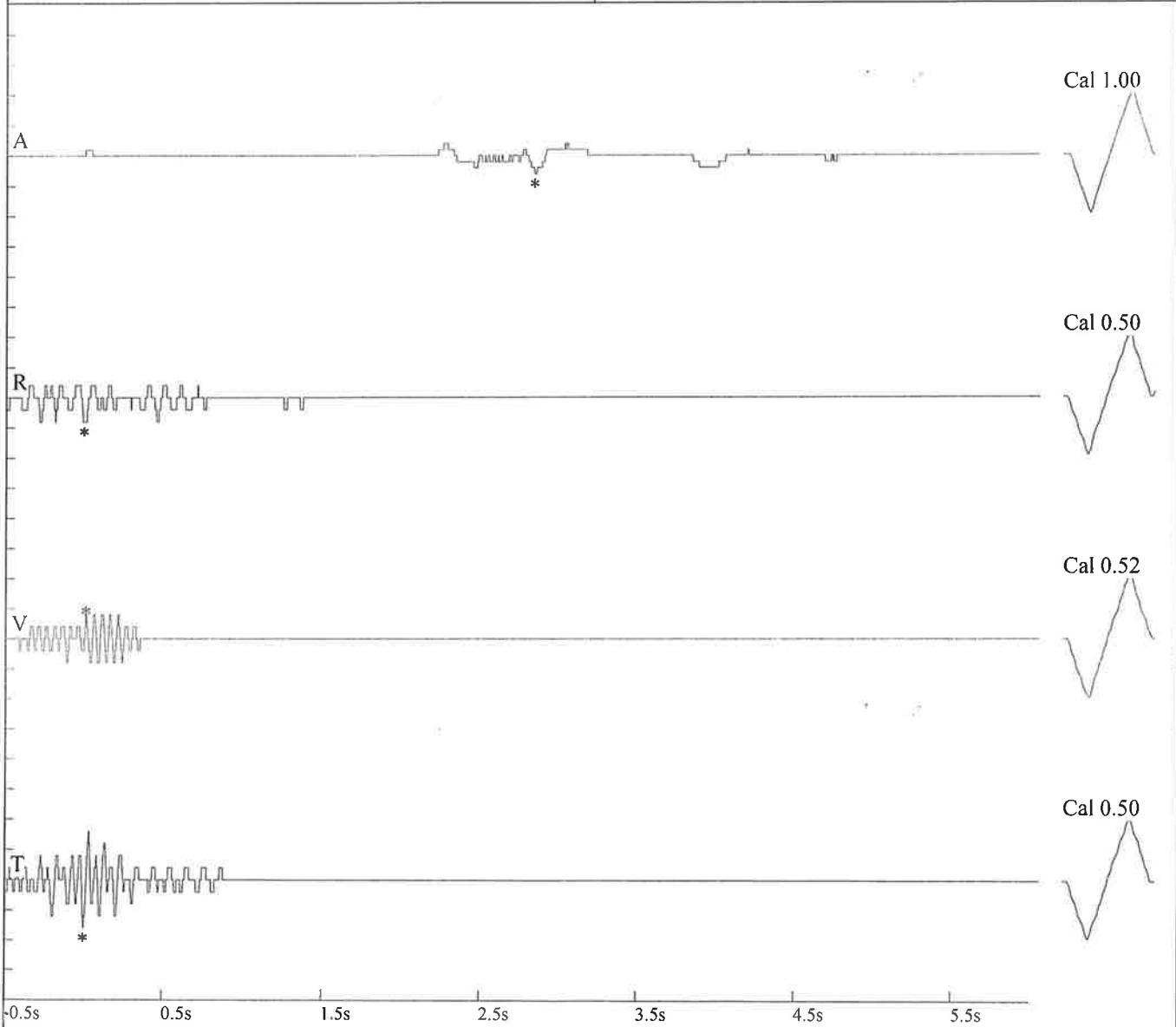
M.S.M.

Amplitudes and Frequencies

Acoustic: 110 dB @ 5.7 Hz
Radial: 0.0400 in/sec @ 0.0Hz
Vertical: 0.0400 in/sec @ 0.0Hz
Transverse: 0.0800 in/sec @ 23.2Hz

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



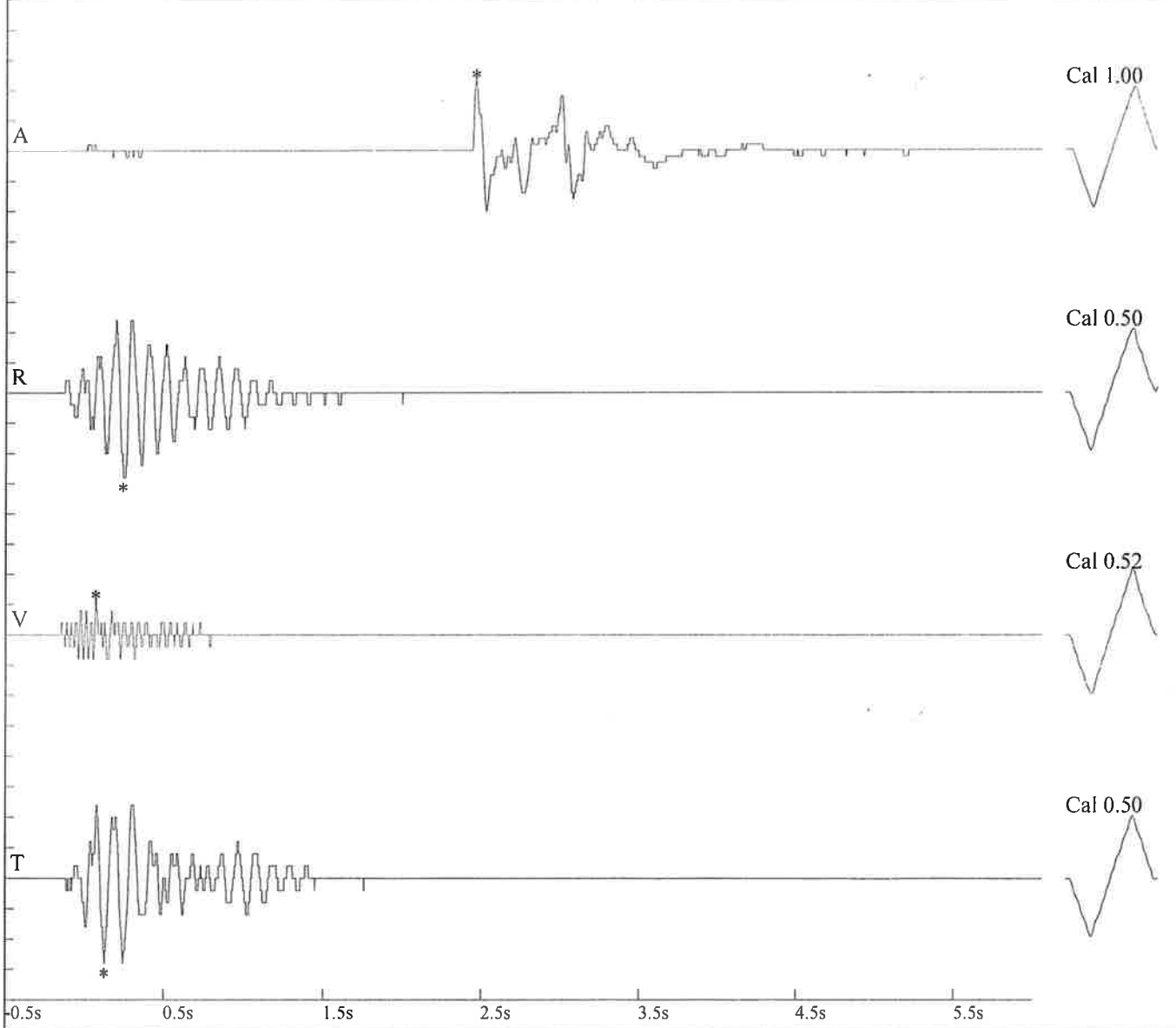
Illinois Department of Natural Resources
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Explosives and Aggregate Division
VCNA Prairie Inc. - North Central Quarry
Property

File Name: c:\myron\seismograph analysis\manteno\man98\110920210902015.dtb
 Number: 015
 Date: 9/2/2021
 Time: 11:36
 Serial Number: 1109
 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: 7.0

MSM

Amplitudes and Frequencies
Acoustic: 122 dB @ 8.2 Hz
Radial: 0.1400 in/sec @ 10.0Hz
Vertical: 0.0600 in/sec @ 26.9Hz
Transverse: 0.1400 in/sec @ 9.6Hz

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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Office of Mines and Minerals
Explosives and Aggregate Division
VCNA Prairie Inc. - North Central Quarry
[Redacted] Property**

File Name: c:\myron\seismograph analysis\manteno\man98\110920210910018.db

Number: 018

Date: 9/10/2021

Time: 12:22

Serial Number: 1109

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

MJM

Amplitudes and Frequencies

Acoustic: 114 dB @ 7.4 Hz

Radial: 0.0400 in/sec @ 0.0Hz

Vertical: 0.0400 in/sec @ 0.0Hz

Transverse: 0.0800 in/sec @ 18.2Hz

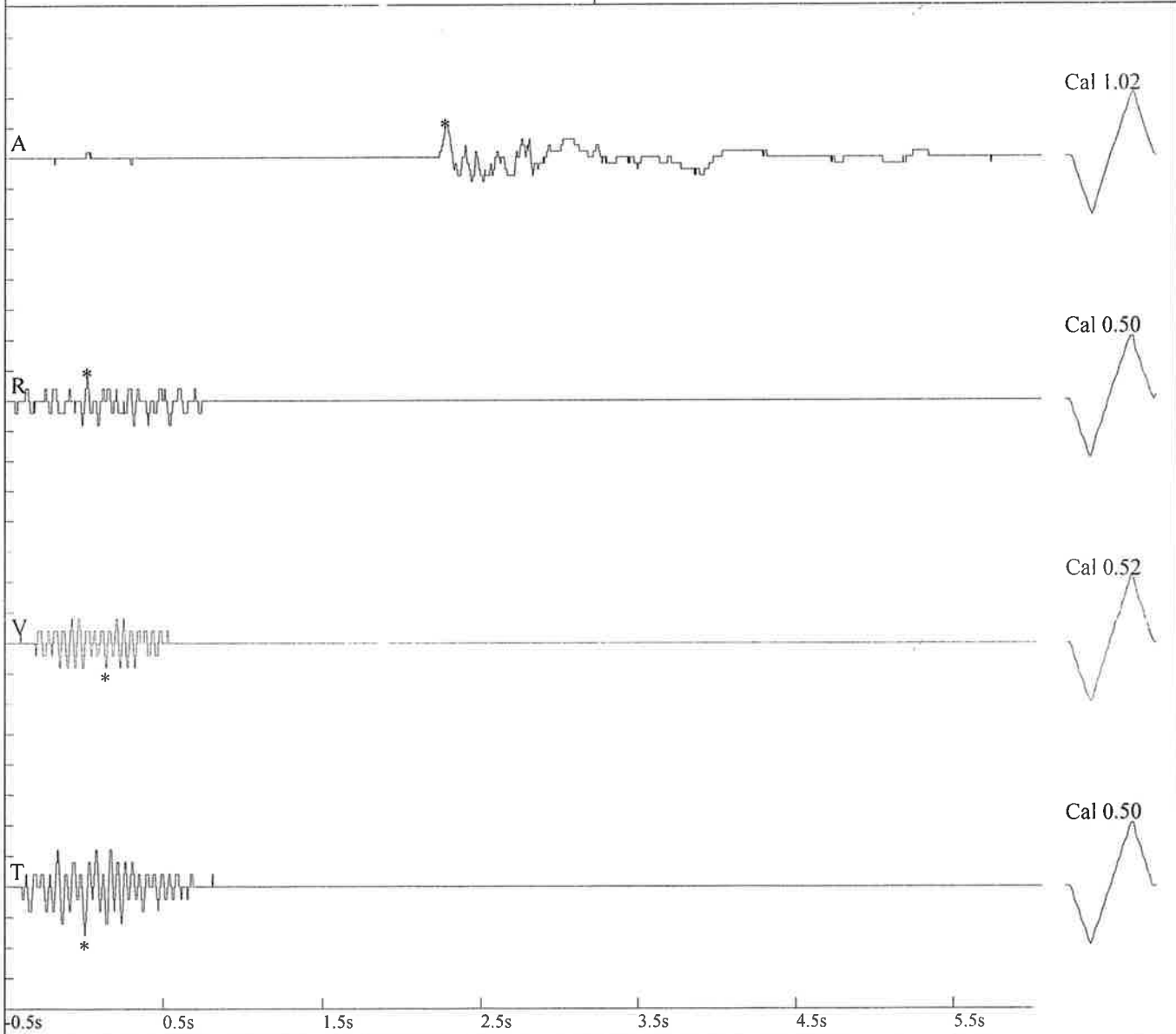
Graph Information

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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File Name: c:\myron\seismograph analysis\manteno\man98\110920210922022.db

Number: 022
 Date: 9/22/2021
 Time: 11:25
 Serial Number: 1109
 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

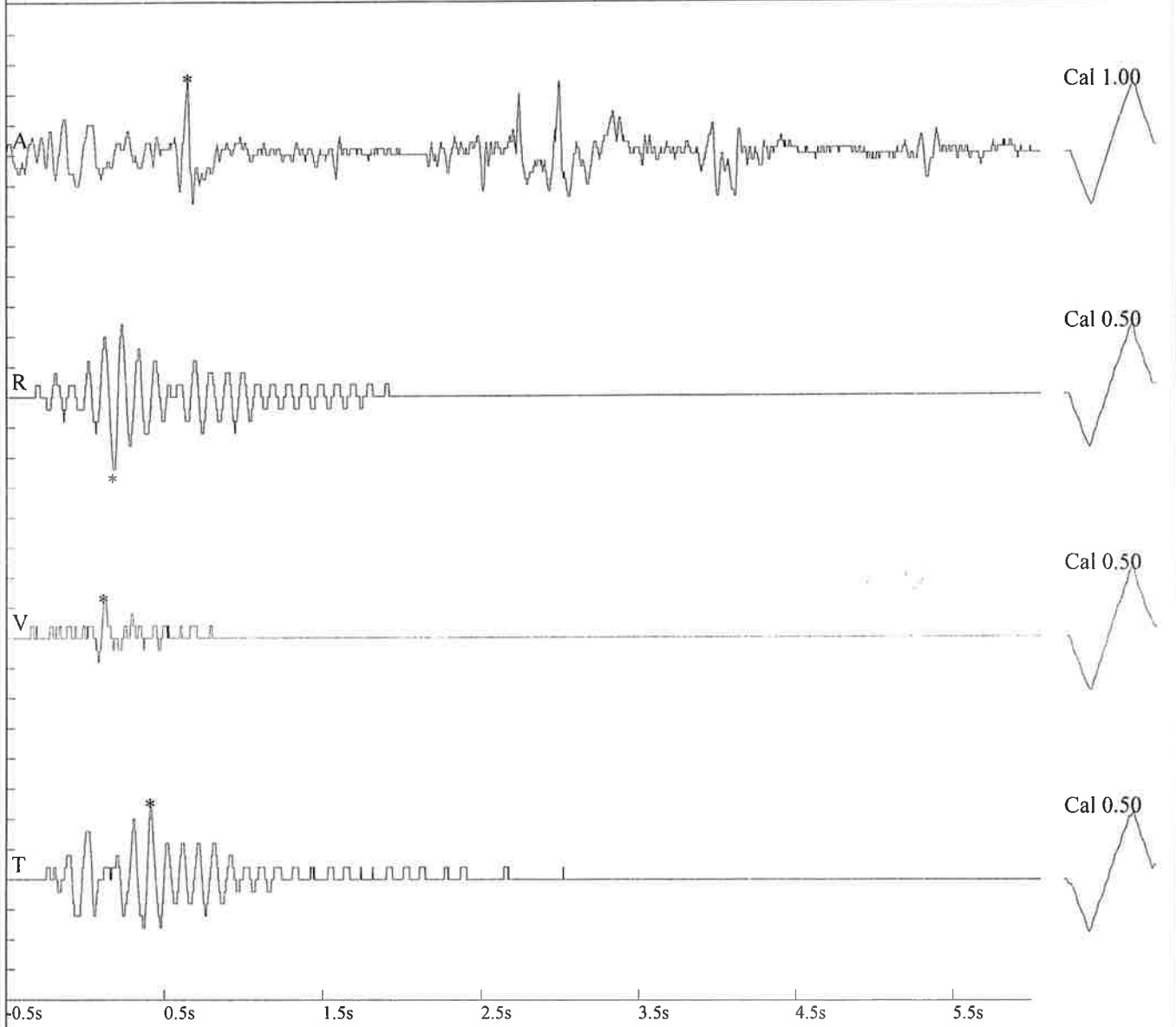
M&M

Amplitudes and Frequencies

Acoustic: 122 dB @ 11.1 Hz
Radial: 0.1200 in/sec @ 10.4Hz
Vertical: 0.0600 in/sec @ 10.0Hz
Transverse: 0.1200 in/sec @ 10.4Hz

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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File Name: c:\myron\seismograph analysis\manteno\man98\110920210924023.dtb
 Number: 023
 Date: 9/24/2021
 Time: 10:47
 Serial Number: 1109
 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

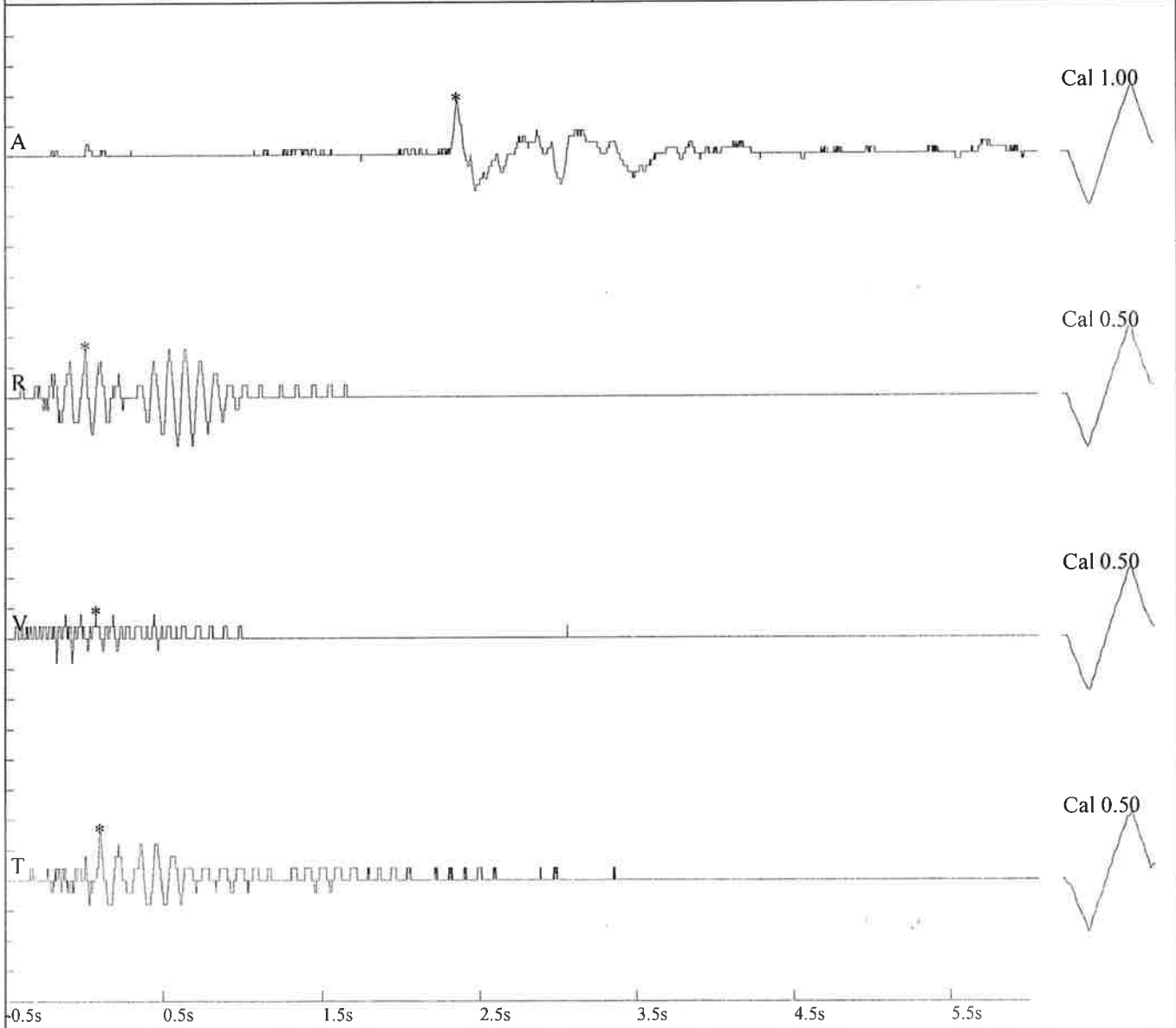
MM

Amplitudes and Frequencies

Acoustic: 119 dB @ 6.4 Hz
Radial: 0.0800 in/sec @ 16.0Hz
Vertical: 0.0400 in/sec @ 0.0Hz
Transverse: 0.0800 in/sec @ 15.5Hz

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



**Illinois Department of Natural Resources
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Explosives and Aggregate Division
VCNA Prairie Inc. - North Central Quarry
[Redacted] Property**

File Name: c:\myron\seismograph analysis\manteno\man98\110920211014029.dtb

Number: 029

Date: 10/14/2021

Time: 11:32

Serial Number: 1109

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: 7.2

MM

Amplitudes and Frequencies

Acoustic: 118 dB @ 11.6 Hz

Radial: 0.1000 in/sec @ 17.6Hz

Vertical: 0.0600 in/sec @ 24.3Hz

Transverse: 0.1200 in/sec @ 19.6Hz

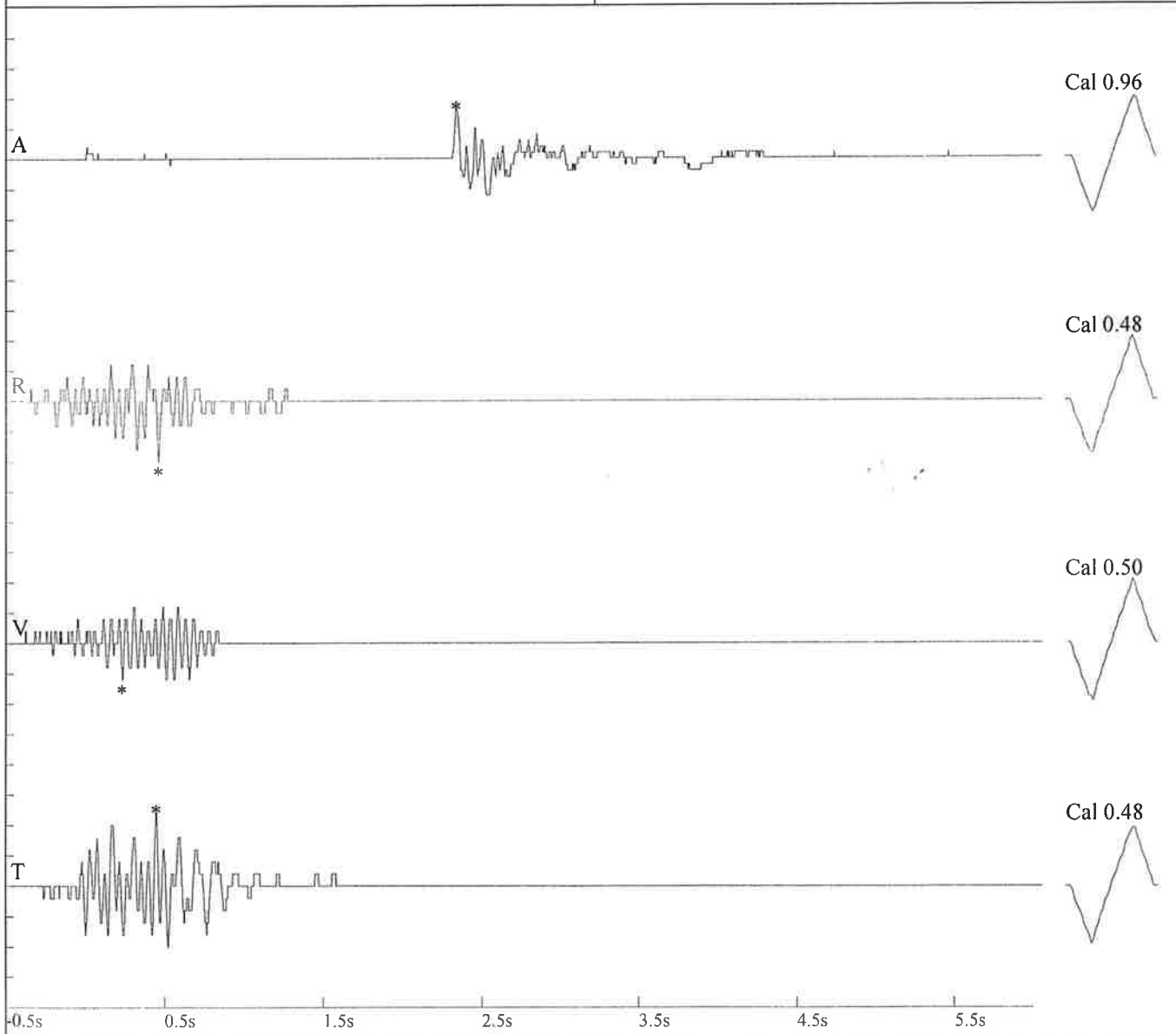
Graph Information

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 Inc. - North Central Quarry
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File Name: c:\myron\seismograph analysis\manteno\man98\11092021\1021032.dtb
 Number: 032
 Date: 10/21/2021
 Time: 12:44
 Serial Number: 1109
 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: 7.2

MPM

Amplitudes and Frequencies	Graph Information
Acoustic: 114 dB @ 11.9 Hz Radial: 0.1000 in/sec @ 13.4Hz Vertical: 0.0400 in/sec @ 0.0Hz Transverse: 0.1000 in/sec @ 9.1Hz	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

