

The seismograph on Quarry Property (S/N 10634) did not record the shot on January 10, 2022, due to an instrument malfunction.

The seismograph located at 16 Marin Bay Park Court (S/N 8145) did not record the shot on January 10, 2022, due to an instrument malfunction.

Seismic Analysis

Velocity Waveform Analysis

Serial Number: 11786
Firmware Version: 0C-10.29
Event Date: 02/16/2022 11:32:53 (UTC -08:00)
Event number: 2
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: On Quarry Property
Distance:
Operator: Vibra-Tech IP2
Comment:
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-01253
N37 59.481, W122 27.256

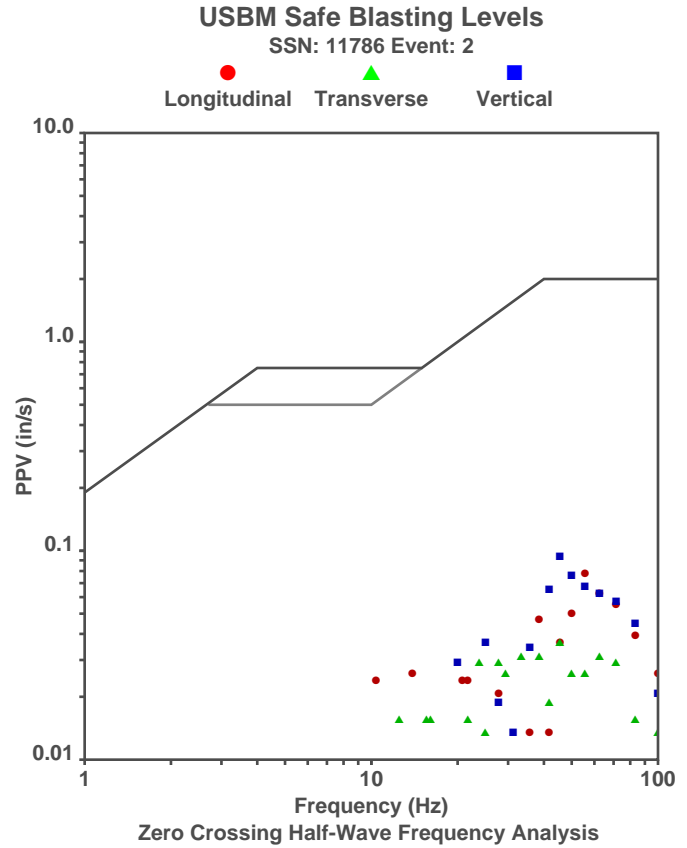
Summary Data

	L	T	V
PPV (in/s):	0.075	0.035	0.09
FREQ (HZ):	55.6	41.7	45.5
PD (.001'')	0.37	0.25	0.42
PPA (g):	0.072	0.033	0.078

Peak Vector Sum: 0.105 in/s
Peak Air Pressure: 106 dB
 0.0006 psi @ 5.9 HZ

Shaketable Calibrated

On: 12/13/2021 (UTC -08:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

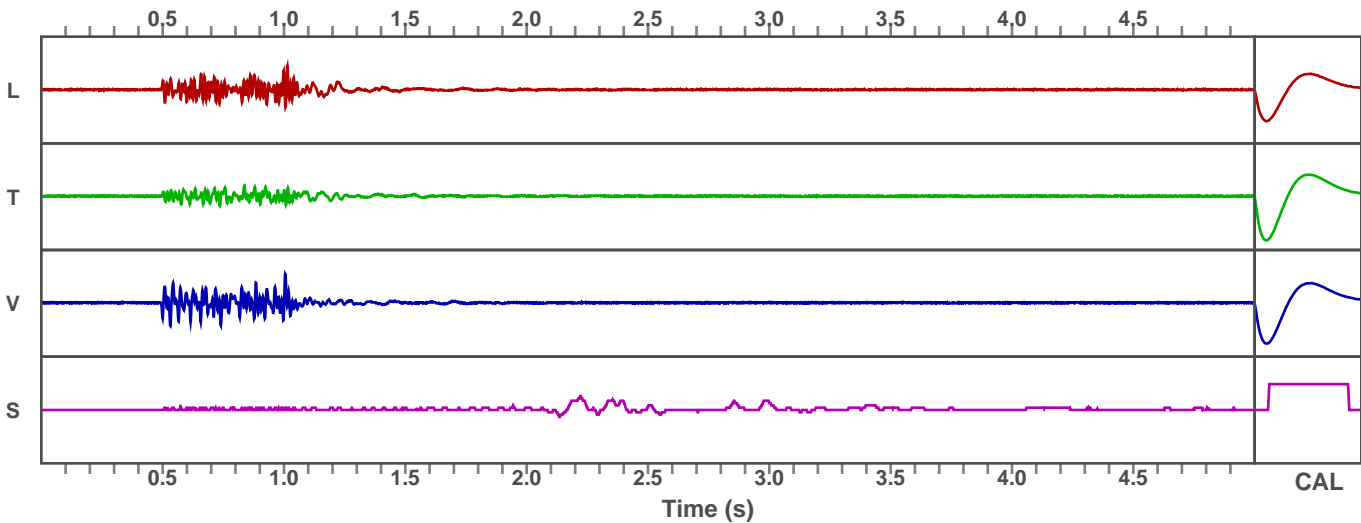


Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 11786 Event: 2



Seismic Analysis

Velocity Waveform Analysis

Serial Number: 8179
Firmware Version: 0C-06.19
Event Date: 02/16/2022 11:32:54 (UTC -08:00)
Event number: 2
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: 16 Marin Bay Park Ct.
Distance:
Operator: Vibra - Tech IP2
Comment: William Hosken Res
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-34724
N37 59.524, W122 27.373

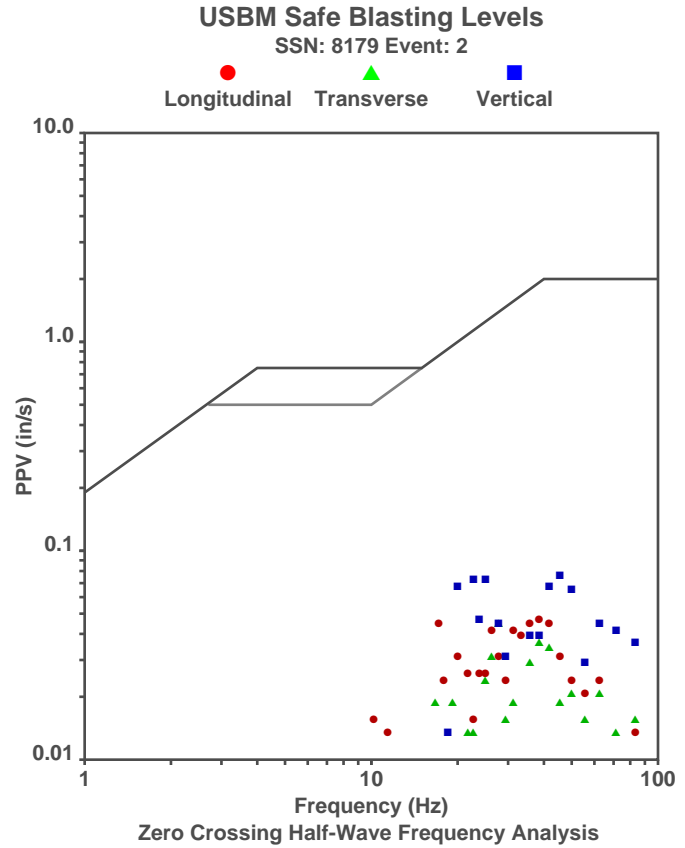
Summary Data

	L	T	V
PPV (in/s):	0.045	0.043	0.073
FREQ (HZ):	38.5	27.8	41.7
PD (.001'')	0.33	0.23	0.36
PPA (g):	0.039	0.026	0.072

Peak Vector Sum: 0.075 in/s
Peak Air Pressure: 103 dB
 0.0004 psi @ 1.5 HZ

Shaketable Calibrated

On: 12/20/2021 (UTC -08:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

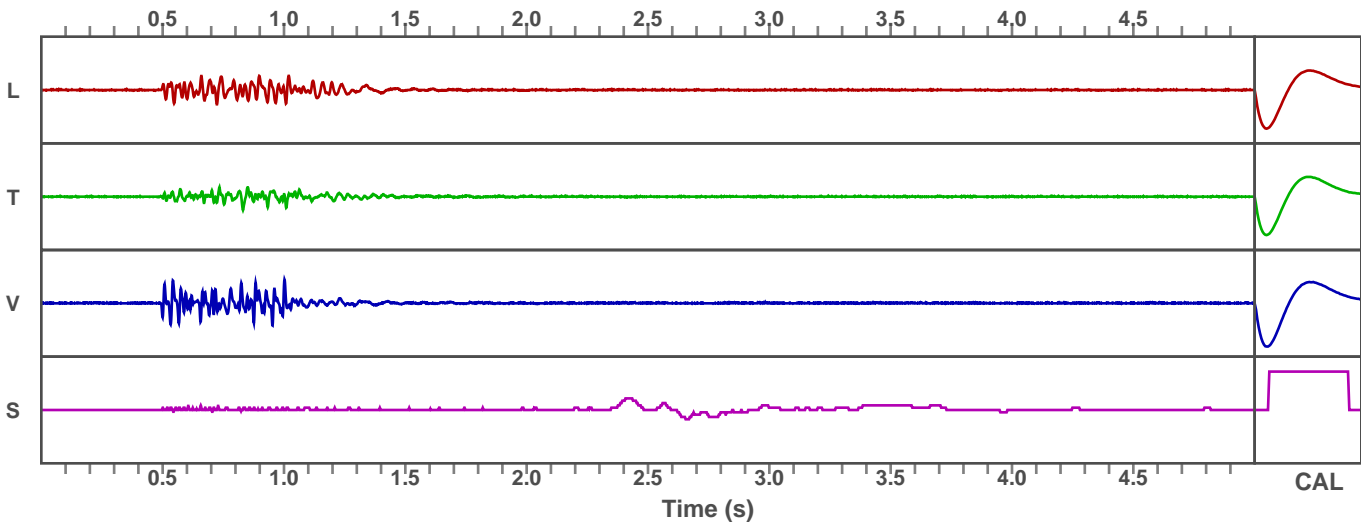


Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 8179 Event: 2



Seismic Analysis

Velocity Waveform Analysis

Serial Number: 11786
Firmware Version: 0C-10.29
Event Date: 03/17/2022 11:48:47 (UTC -07:00)
Event number: 9
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: On Quarry Property
Distance:
Operator: Vibra-Tech IP2
Comment:
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-01253
N37 59.481, W122 27.256

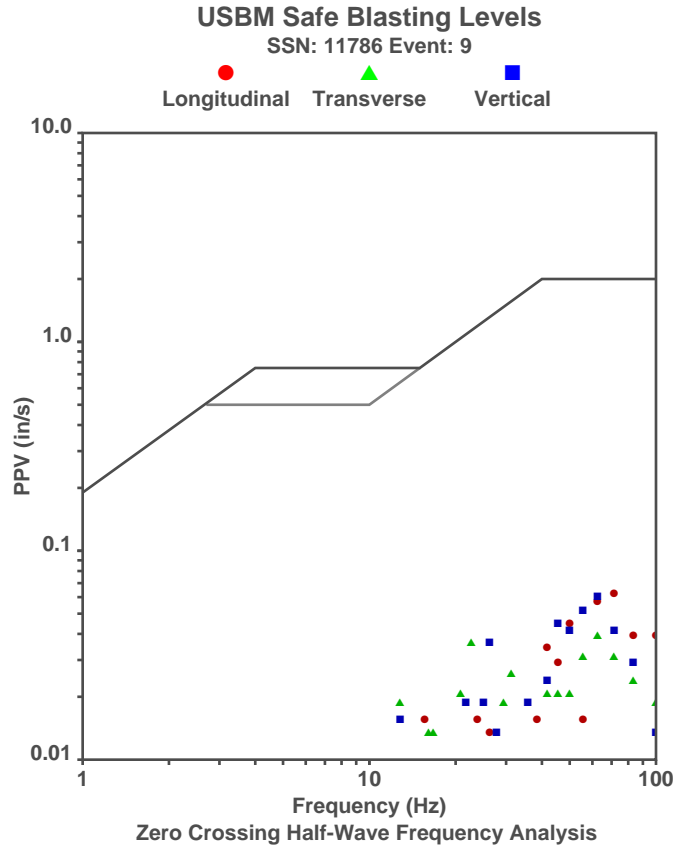
Summary Data

	L	T	V
PPV (in/s):	0.06	0.038	0.058
FREQ (HZ):	71.4	62.5	62.5
PD (.001"):	0.25	0.27	0.28
PPA (g):	0.065	0.033	0.059

Peak Vector Sum: 0.083 in/s
Peak Air Pressure: 104 dB
 0.0005 psi @ 4.7 HZ

Shaketable Calibrated

On: 12/13/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

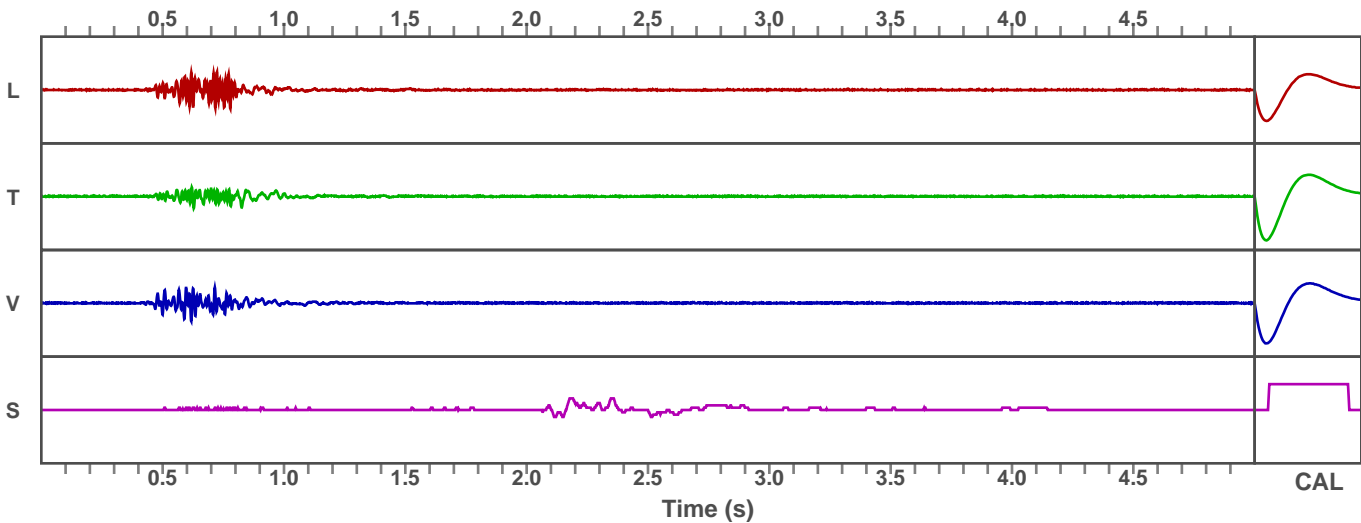


Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 11786 Event: 9



Seismic Analysis

Velocity Waveform Analysis

Serial Number: 8179
Firmware Version: 0C-06.19
Event Date: 03/17/2022 11:48:47 (UTC -07:00)
Event number: 33
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: 16 Marin Bay Park Ct.
Distance:
Operator: Vibra - Tech IP2
Comment: William Hosken Res
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:
 j-GEO-34724
 N37 59.524, W122 27.373

Summary Data

	L	T	V
PPV (in/s):	0.033	0.02	0.043
FREQ (HZ):	29.4	31.3	45.5
PD (.001''):	0.19	0.12	0.21
PPA (g):	0.033	0.02	0.046

Peak Vector Sum: 0.048 in/s
Peak Air Pressure: 108 dB
 0.0007 psi @ 1.9 HZ

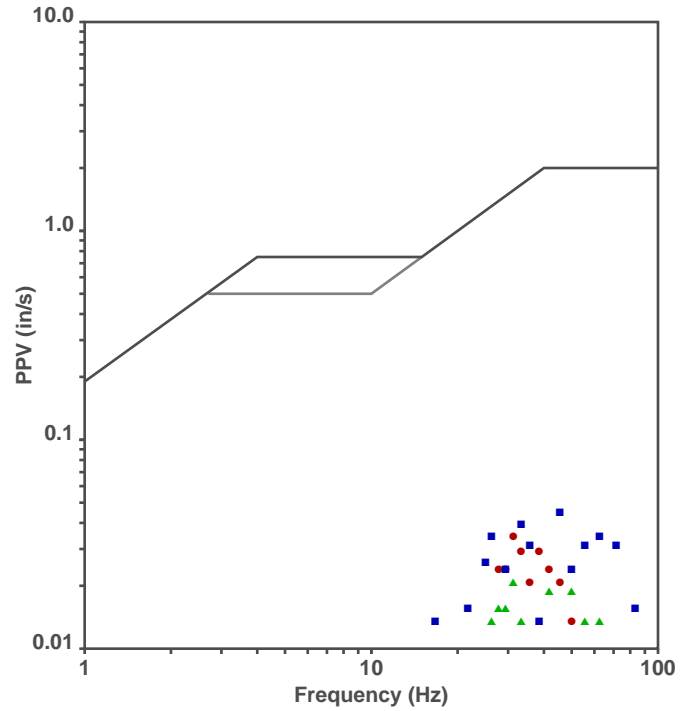
Shaketable Calibrated

On: 12/20/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 8179 Event: 33

● Longitudinal ▲ Transverse ■ Vertical



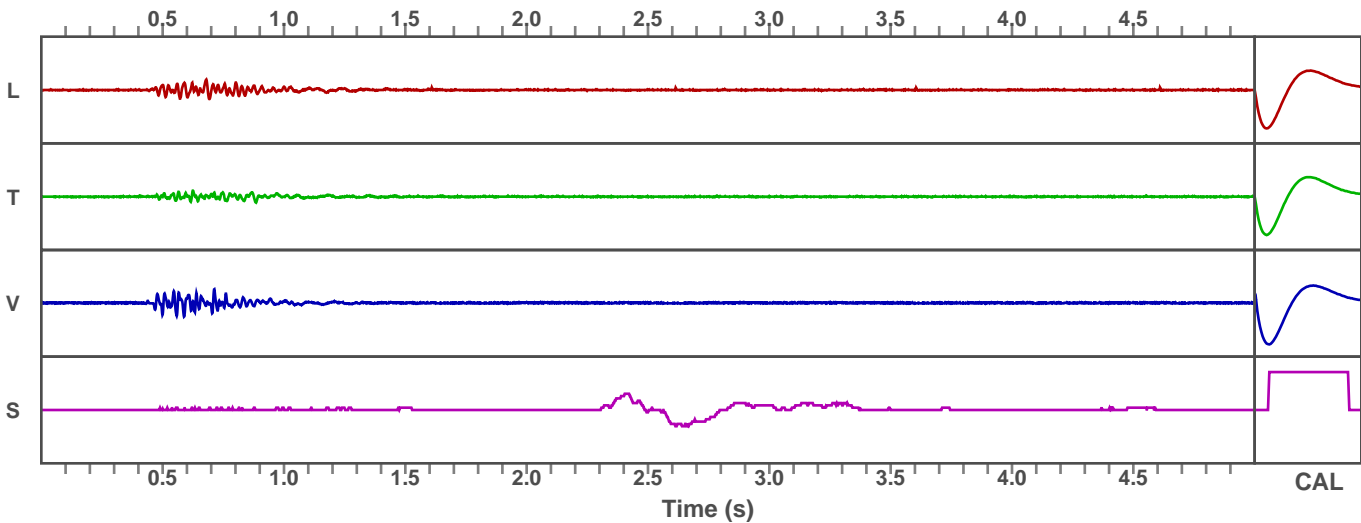
Zero Crossing Half-Wave Frequency Analysis

Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 8179 Event: 33



Seismic Analysis

Velocity Waveform Analysis

Serial Number: 11786
Firmware Version: 0C-10.29
Event Date: 03/25/2022 11:57:39 (UTC -07:00)
Event number: 52
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: On Quarry Property
Distance:
Operator: Vibra-Tech IP2
Comment:
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-01253
N37 59.481, W122 27.256

Summary Data

	L	T	V
PPV (in/s):	0.065	0.048	0.068
FREQ (HZ):	62.5	62.5	62.5
PD (.001'')	0.33	0.24	0.32
PPA (g):	0.072	0.046	0.078

Peak Vector Sum: 0.093 in/s
Peak Air Pressure: 110 dB
 0.0009 psi @ 9.3 HZ

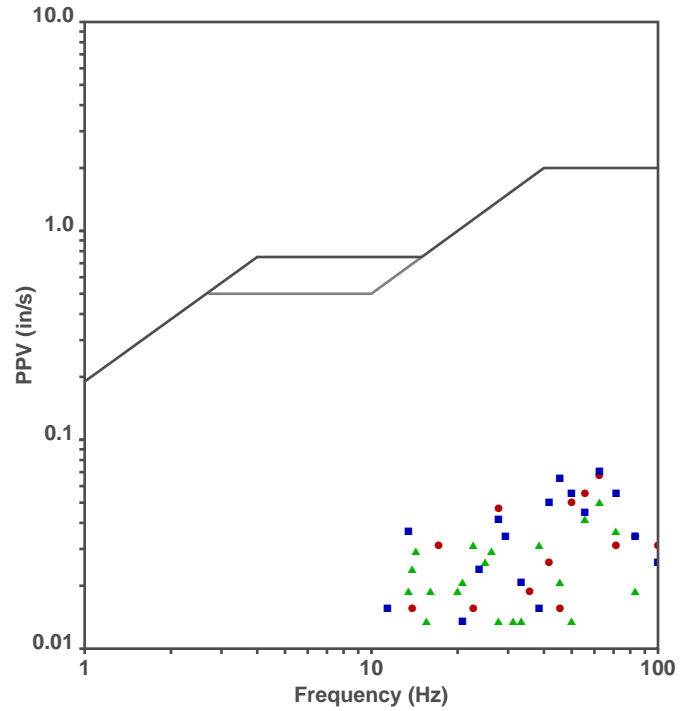
Shaketable Calibrated

On: 12/13/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 11786 Event: 52

● Longitudinal ▲ Transverse ■ Vertical

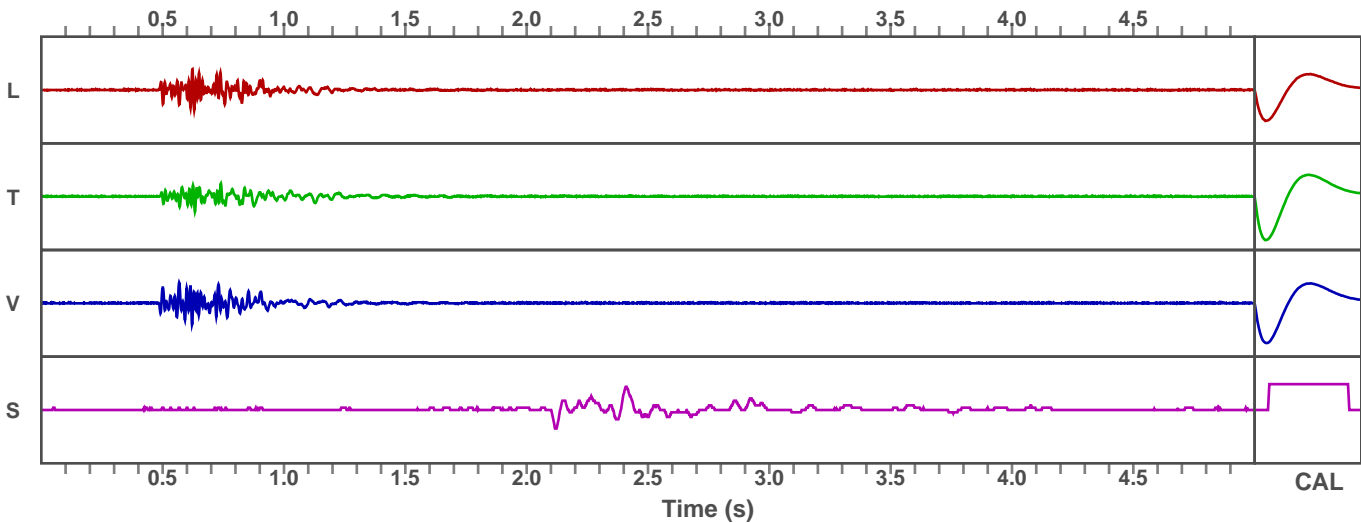


Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 11786 Event: 52



Seismic Analysis

Velocity Waveform Analysis

Serial Number: 8179
Firmware Version: 0C-06.19
Event Date: 03/25/2022 11:57:40 (UTC -07:00)
Event number: 37
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: 16 Marin Bay Park Ct.
Distance:
Operator: Vibra - Tech IP2
Comment: William Hosken Res
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-34724
 N37 59.524, W122 27.373

Summary Data

	L	T	V
PPV (in/s):	0.028	0.03	0.05
FREQ (HZ):	35.7	22.7	23.8
PD (.001'')	0.31	0.19	0.25
PPA (g):	0.033	0.026	0.052

Peak Vector Sum: 0.05 in/s
Peak Air Pressure: 114 dB
 0.0014 psi @ 2.1 HZ

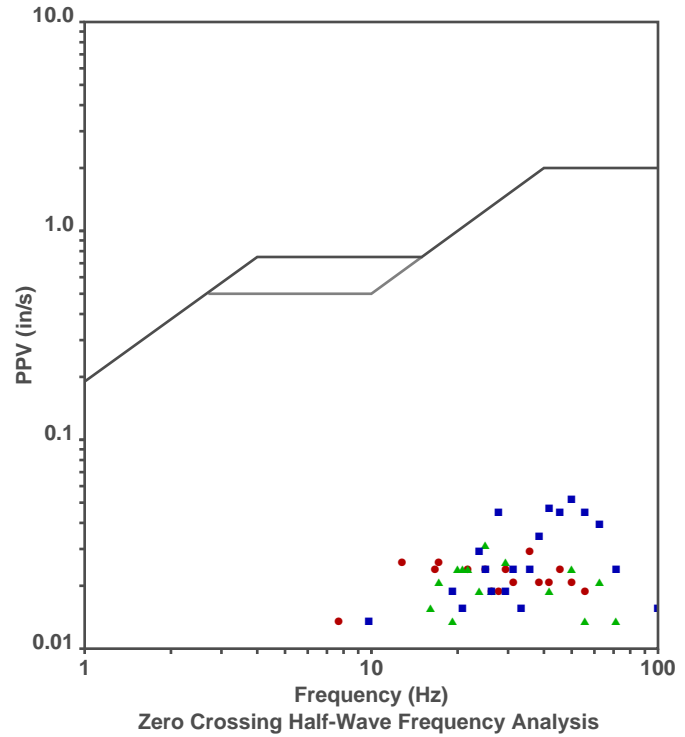
Shaketable Calibrated

On: 12/20/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 8179 Event: 37

● Longitudinal ▲ Transverse ■ Vertical

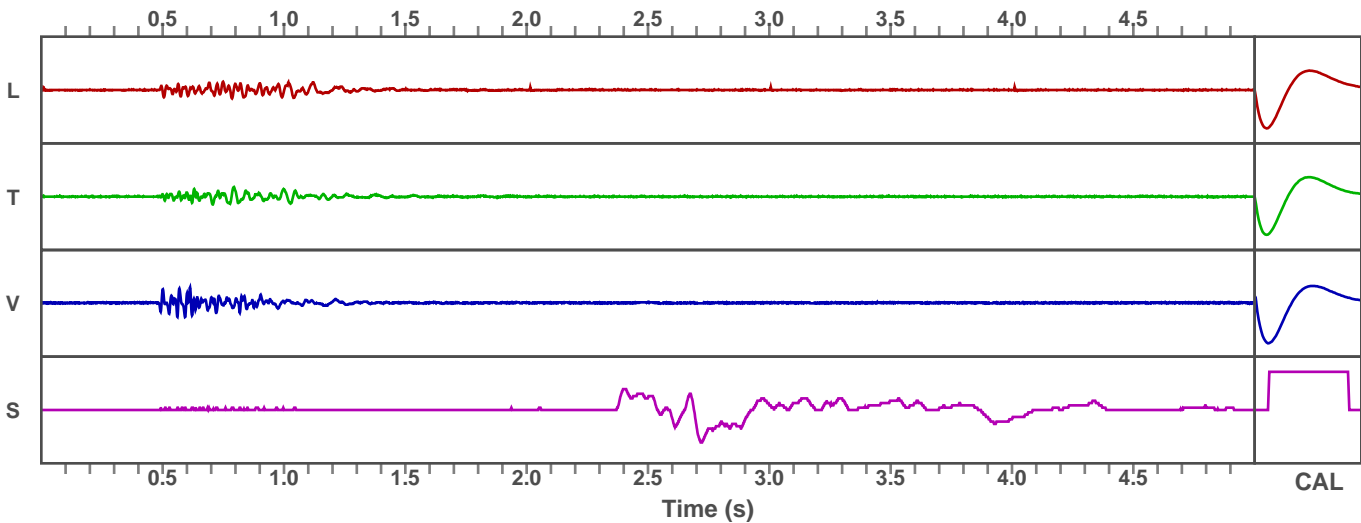


Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 8179 Event: 37



Seismic Analysis

Velocity Waveform Analysis

Serial Number: 11786
Firmware Version: 0C-10.29
Event Date: 06/02/2022 12:17:57 (UTC -07:00)
Event number: 59
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: On Quarry Property
Distance:
Operator: Vibra-Tech IP2
Comment:
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-01253
 N37 59.481, W122 27.256

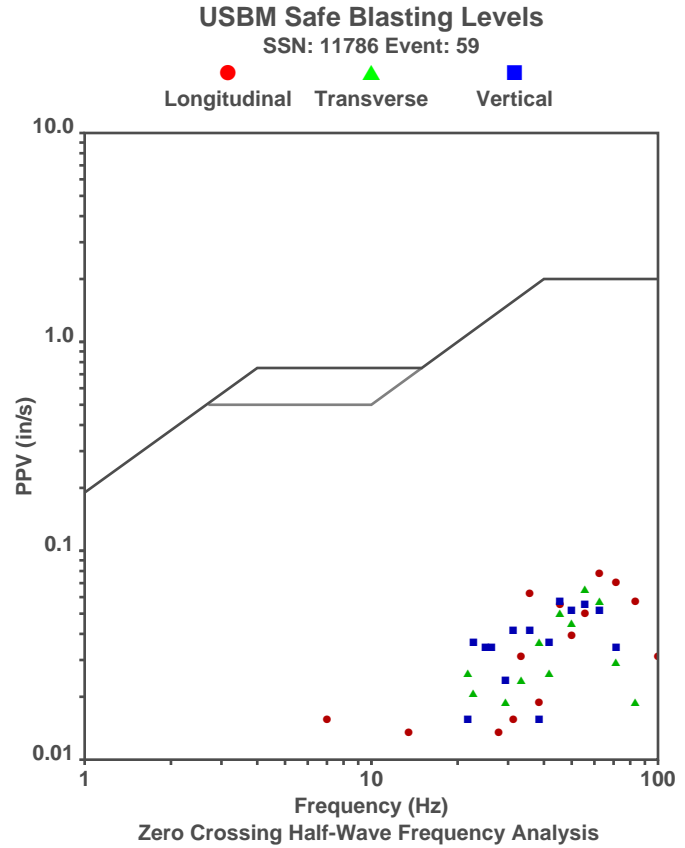
Summary Data

	L	T	V
PPV (in/s):	0.075	0.063	0.055
FREQ (HZ):	62.5	55.6	45.5
PD (.001''):	0.33	0.3	0.26
PPA (g):	0.085	0.065	0.052

Peak Vector Sum: 0.09 in/s
Peak Air Pressure: 110 dB
 0.0009 psi @ 7.1 HZ

Shaketable Calibrated

On: 12/13/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

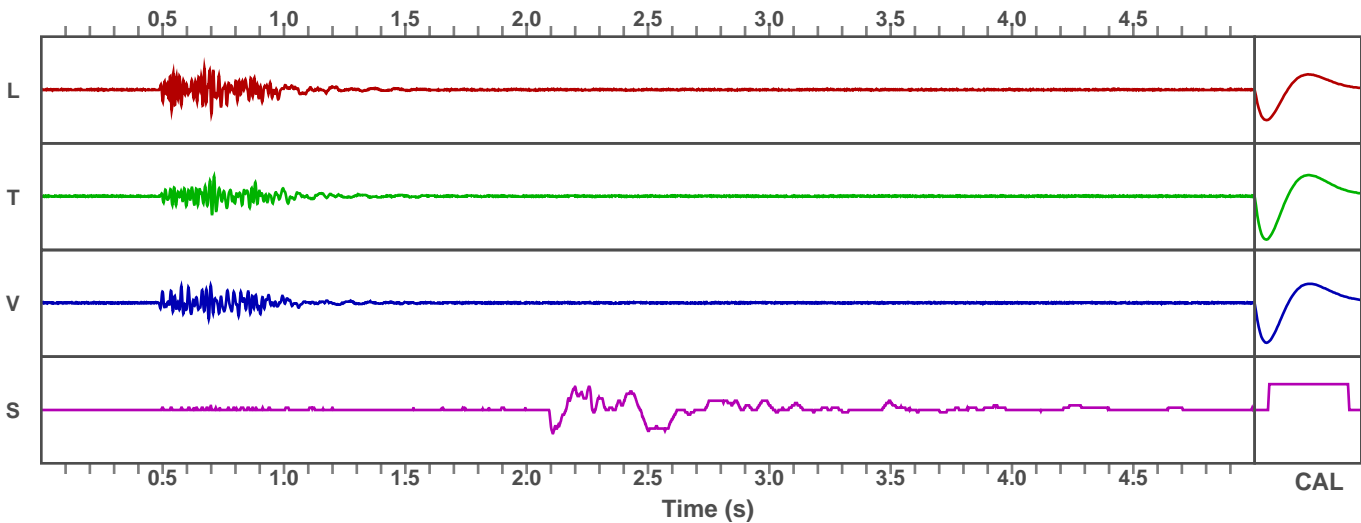


Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 11786 Event: 59



Seismic Analysis

Velocity Waveform Analysis

Serial Number: 8179
Firmware Version: 0C-06.19
Event Date: 06/02/2022 12:17:58 (UTC -07:00)
Event number: 101
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: 16 Marin Bay Park Ct.
Distance:
Operator: Vibra - Tech IP2
Comment: William Hosken Res
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-34724
 N37 59.524, W122 27.373

Summary Data

	L	T	V
PPV (in/s):	0.033	0.023	0.043
FREQ (HZ):	38.5	50	50
PD (.001''):	0.24	0.15	0.18
PPA (g):	0.026	0.02	0.052

Peak Vector Sum: 0.05 in/s
Peak Air Pressure: 113 dB
 0.0013 psi @ 2.3 HZ

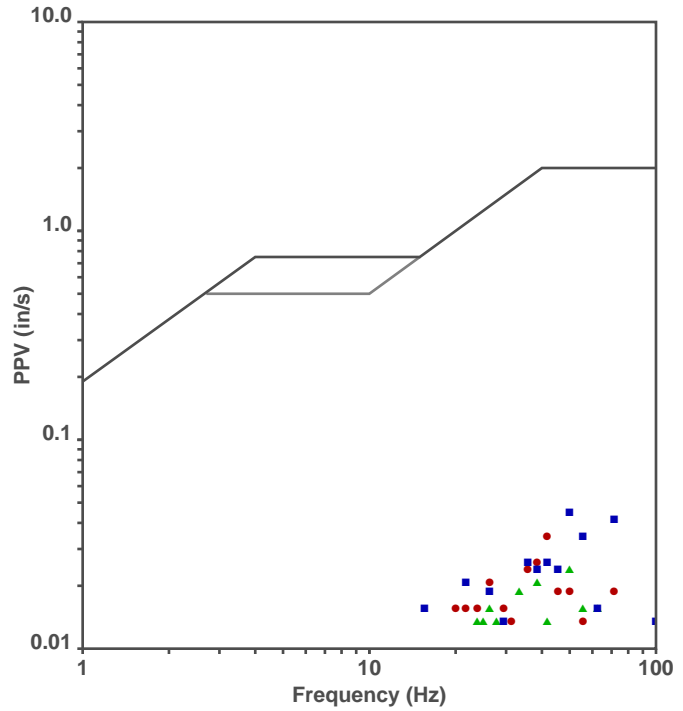
Shaketable Calibrated

On: 12/20/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 8179 Event: 101

● Longitudinal ▲ Transverse ■ Vertical



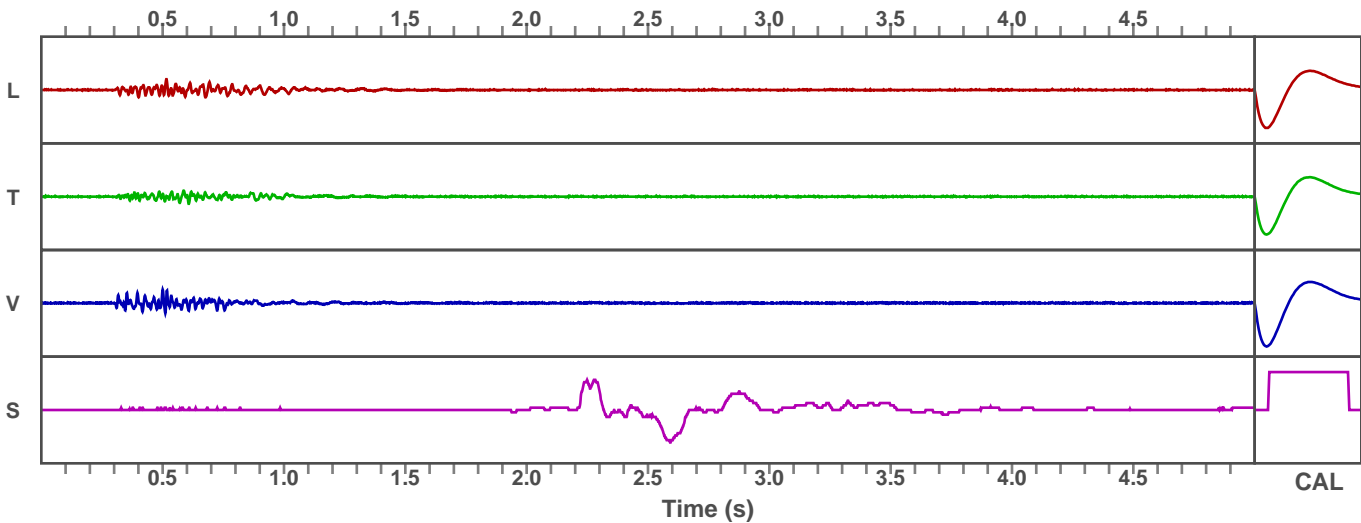
Zero Crossing Half-Wave Frequency Analysis

Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 8179 Event: 101



Seismic Analysis

Velocity Waveform Analysis

Serial Number: 11786
Firmware Version: 0C-10.29
Event Date: 07/12/2022 12:11:48 (UTC -07:00)
Event number: 60
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: On Quarry Property
Distance:
Operator: Vibra-Tech IP2
Comment:
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-01253
N37 59.481, W122 27.256

Summary Data

	L	T	V
PPV (in/s):	0.06	0.053	0.05
FREQ (HZ):	55.6	41.7	45.5
PD (.001'')	0.36	0.19	0.31
PPA (g):	0.065	0.046	0.039

Peak Vector Sum: 0.073 in/s
Peak Air Pressure: 108 dB
 0.0007 psi @ 4.8 HZ

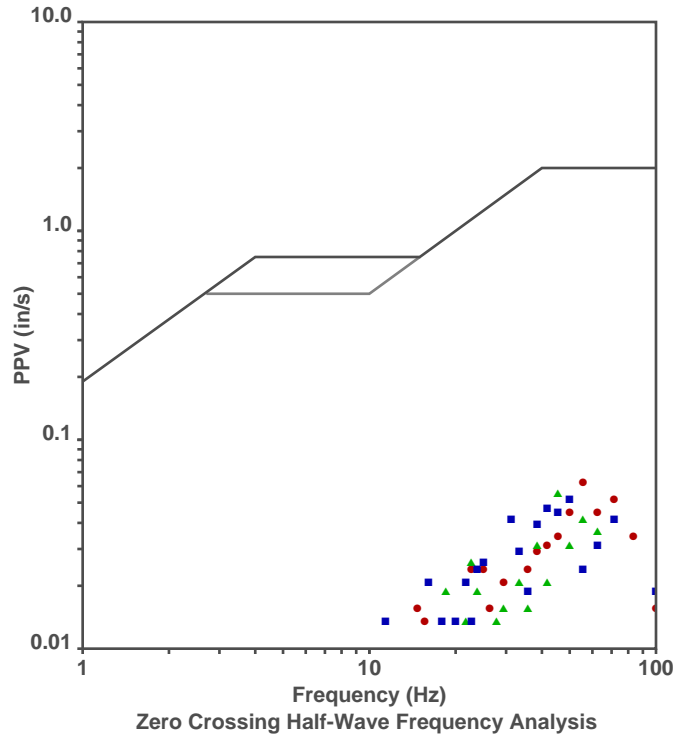
Shaketable Calibrated

On: 12/13/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 11786 Event: 60

● Longitudinal ▲ Transverse ■ Vertical

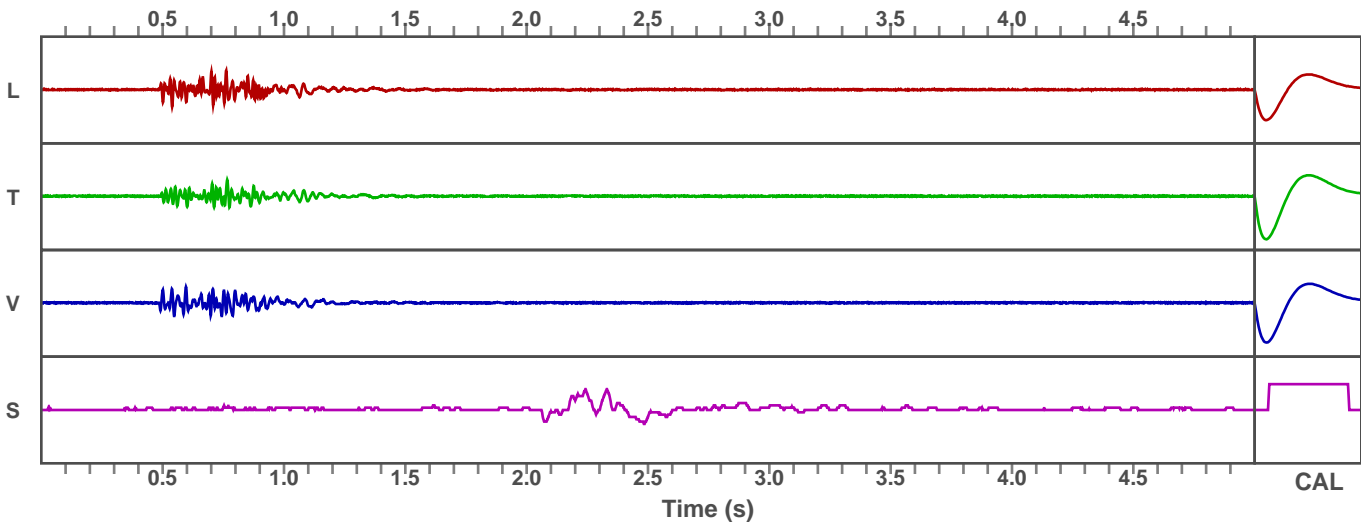


Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 11786 Event: 60



Vibra-Tech Engineers, Inc. Seismic Analysis

Stop Event Report

Serial No: 8179 v6.19
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: 16 Marin Bay Park Ct.
Distance:
Operator: Vibra - Tech IP2
Comment: William Hosken Res

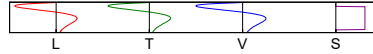
Begin Date: 07/12/2022 07:00:53 (UTC-7)
End Date: 07/12/2022 12:25:28 (UTC-7)
Events over Trigger: 0 (102-101)
Record Time: 5.0 s
Seismic Trigger: 0.030 in/s
Sound Trigger: 127 db
Battery Level: 8.3

Additional Info:

j-GEO-34724
N37 59.524, W122 27.373

Shaketable Calibrated: 12/20/2021
By: Vibra-Tech, Inc.
2700 Holloway Road - Suite 113
Louisville, KY 40299 U.S.A.
TEL: 502.240.9900 FAX: 502.240.9902

Dynamic Calibration Graph:



Cal Test Results:

Longitudinal: Pass
Transverse: Pass
Vertical: Pass
Sound: Pass

The seismograph located at 16 Marin Bay Park Court (S/N 8179) did not trigger during the shot on July 12, 2022 at approximately 12:11 indicating the ground vibrations produced were below the ground trigger level of 0.030 in/sec.

Seismic Analysis

Velocity Waveform Analysis

Serial Number: 11786
Firmware Version: 0C-10.29
Event Date: 08/12/2022 11:37:55 (UTC -07:00)
Event number: 61
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: On Quarry Property
Distance:
Operator: Vibra-Tech IP2
Comment:
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:
 j-GEO-01253
 N37 59.481, W122 27.256

Summary Data

	L	T	V
PPV (in/s):	0.035	0.03	0.043
FREQ (HZ):	17.9	11.4	33.3
PD (.001''):	0.45	0.22	0.25
PPA (g):	0.026	0.02	0.026

Peak Vector Sum: 0.053 in/s
Peak Air Pressure: 109 dB
 0.0008 psi @ 3.7 HZ

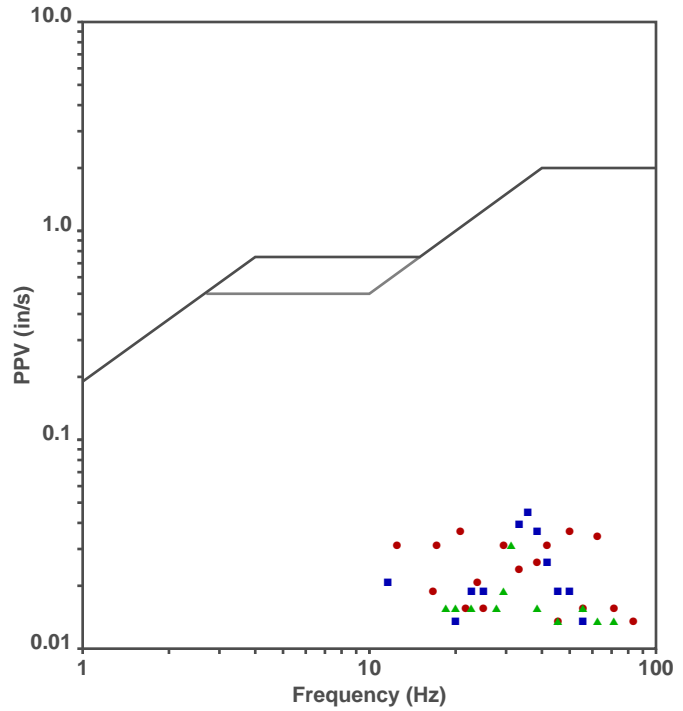
Shaketable Calibrated

On: 12/13/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 11786 Event: 61

● Longitudinal ▲ Transverse ■ Vertical

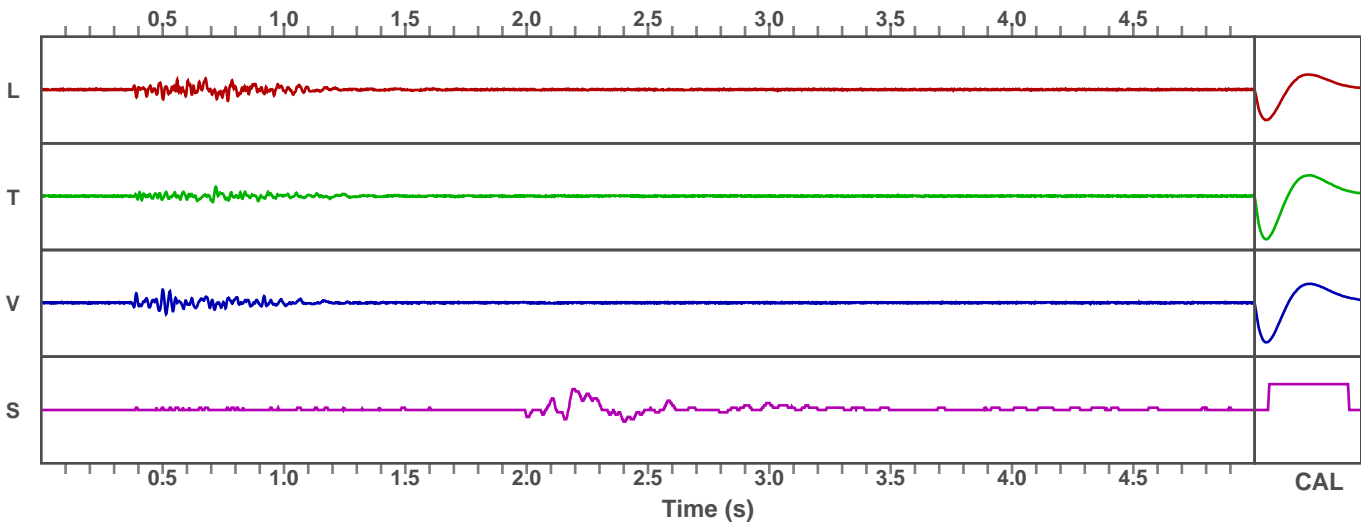


Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 11786 Event: 61



Vibra-Tech Engineers, Inc. Seismic Analysis

Stop Event Report

Serial No: 8179 v6.19
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: 16 Marin Bay Park Ct.
Distance:
Operator: Vibra - Tech IP2
Comment: William Hosken Res

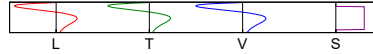
Begin Date: 08/12/2022 07:00:53 (UTC-7)
End Date: 08/12/2022 11:57:27 (UTC-7)
Events over Trigger: 0 (102-101)
Record Time: 5.0 s
Seismic Trigger: 0.030 in/s
Sound Trigger: 127 db
Battery Level: 8.3

Additional Info:

j-GEO-34724
N37 59.524, W122 27.373

Shaketable Calibrated: 12/20/2021
By: Vibra-Tech, Inc.
2700 Holloway Road - Suite 113
Louisville, KY 40299 U.S.A.
TEL: 502.240.9900 FAX: 502.240.9902

Dynamic Calibration Graph:



Cal Test Results:

Longitudinal: Pass
Transverse: Pass
Vertical: Pass
Sound: Pass

The seismograph located at 16 Marin Bay Park Court (S/N 8179) did not trigger during the shot on August 12, 2022 at approximately 11:37 indicating the ground vibrations produced were below the ground trigger level of 0.030 in/sec.

Seismic Analysis

Velocity Waveform Analysis

Serial Number: 11786
Firmware Version: 0C-10.29
Event Date: 09/02/2022 12:13:40 (UTC -07:00)
Event number: 62
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: On Quarry Property
Distance:
Operator: Vibra-Tech IP2
Comment:
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-01253
 N37 59.481, W122 27.256

Summary Data

	L	T	V
PPV (in/s):	0.058	0.043	0.05
FREQ (HZ):	55.6	31.3	50
PD (.001'')	0.44	0.3	0.31
PPA (g):	0.052	0.033	0.039

Peak Vector Sum: 0.078 in/s
Peak Air Pressure: 110 dB
 0.0009 psi @ 8.3 HZ

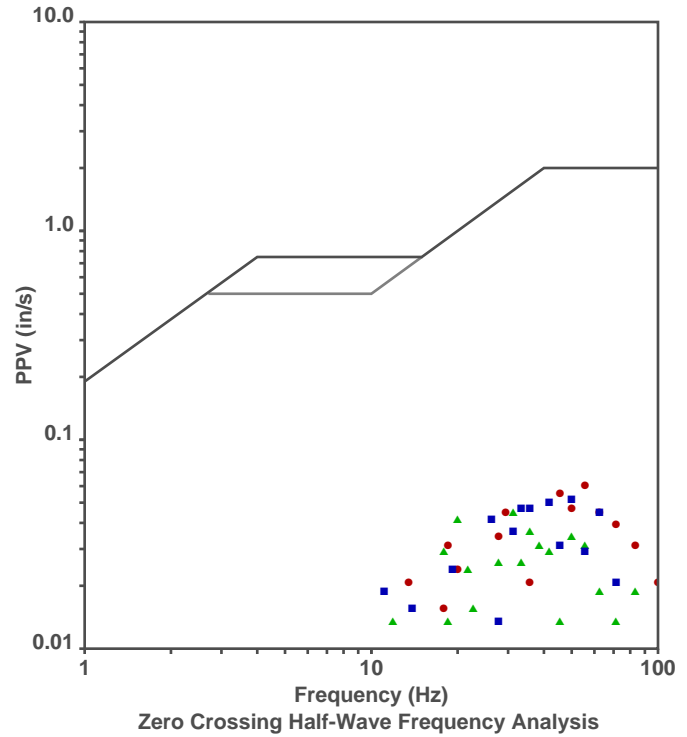
Shaketable Calibrated

On: 12/13/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 11786 Event: 62

● Longitudinal ▲ Transverse ■ Vertical

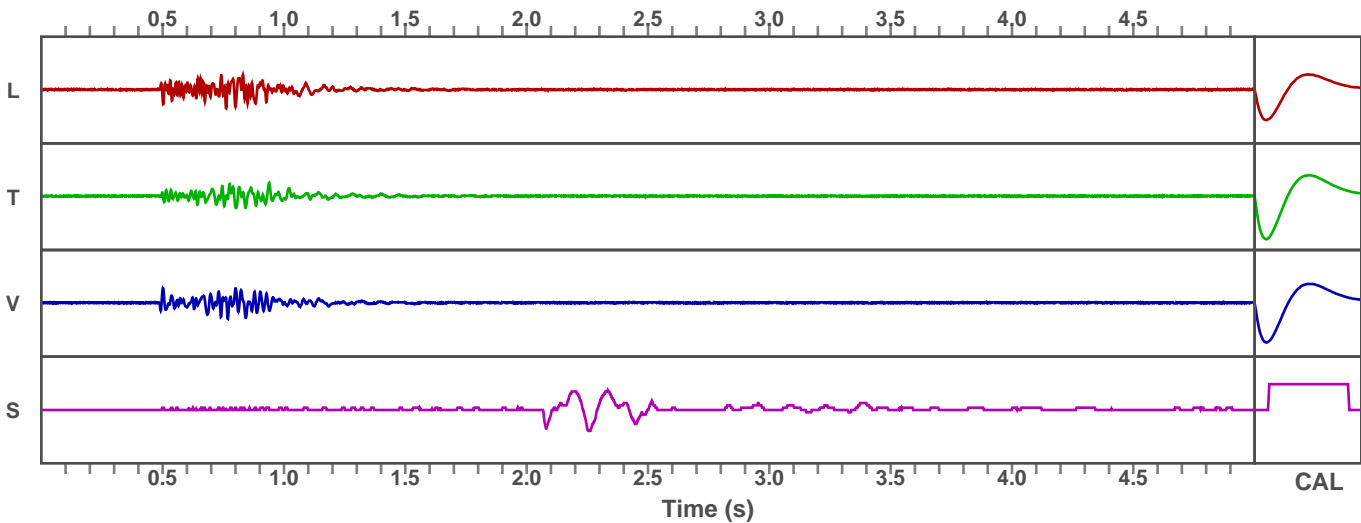


Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 11786 Event: 62



Vibra-Tech Engineers, Inc. Seismic Analysis

Stop Event Report

Serial No: 8179 v6.19
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: 16 Marin Bay Park Ct.
Distance:
Operator: Vibra - Tech IP2
Comment: William Hosken Res

Begin Date: 09/02/2022 07:00:53 (UTC-7)
End Date: 09/02/2022 13:52:22 (UTC-7)
Events over Trigger: 0 (102-101)
Record Time: 5.0 s
Seismic Trigger: 0.030 in/s
Sound Trigger: 127 db
Battery Level: 8.3

Additional Info:

j-GEO-34724
N37 59.524, W122 27.373

Shaketable Calibrated: 12/20/2021
By: Vibra-Tech, Inc.
2700 Holloway Road - Suite 113
Louisville, KY 40299 U.S.A.
TEL: 502.240.9900 FAX: 502.240.9902

Dynamic Calibration Graph:



Cal Test Results:

Longitudinal: Pass
Transverse: Pass
Vertical: Pass
Sound: Pass

The seismograph located at 16 Marin Bay Park Court (S/N 8179) did not trigger during the shot on September 2, 2022 at approximately 12:13 indicating the ground vibrations produced were below the ground trigger level of 0.030 in/sec.

Seismic Analysis

Velocity Waveform Analysis

Serial Number: 11786
Firmware Version: 0C-10.29
Event Date: 09/21/2022 12:41:54 (UTC -07:00)
Event number: 63
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: On Quarry Property
Distance:
Operator: Vibra-Tech IP2
Comment:
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:
 j-GEO-01253
 N37 59.481, W122 27.256

Summary Data

	L	T	V
PPV (in/s):	0.063	0.06	0.073
FREQ (HZ):	20	14.7	21.7
PD (.001''):	0.55	0.42	0.49
PPA (g):	0.046	0.039	0.046

Peak Vector Sum: 0.078 in/s
Peak Air Pressure: 108 dB
 0.0007 psi @ 2.7 HZ

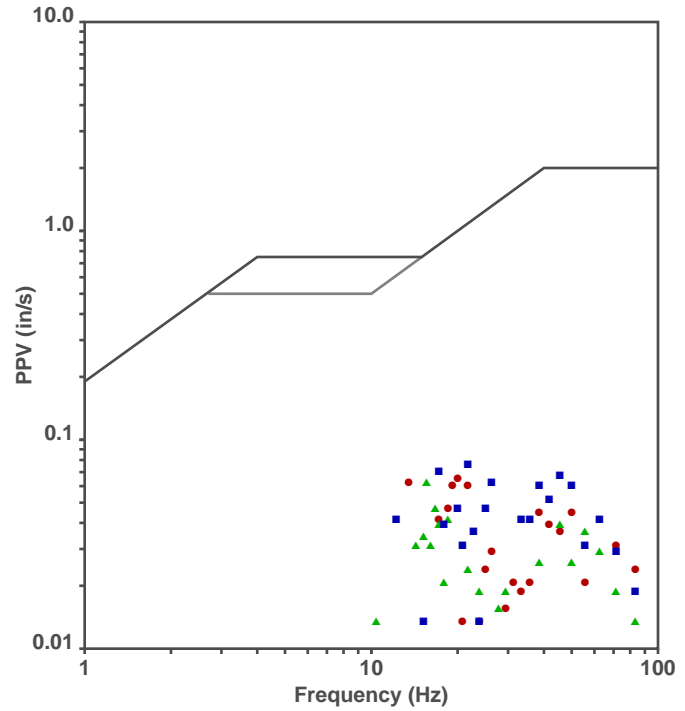
Shaketable Calibrated

On: 12/13/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 11786 Event: 63

● Longitudinal ▲ Transverse ■ Vertical

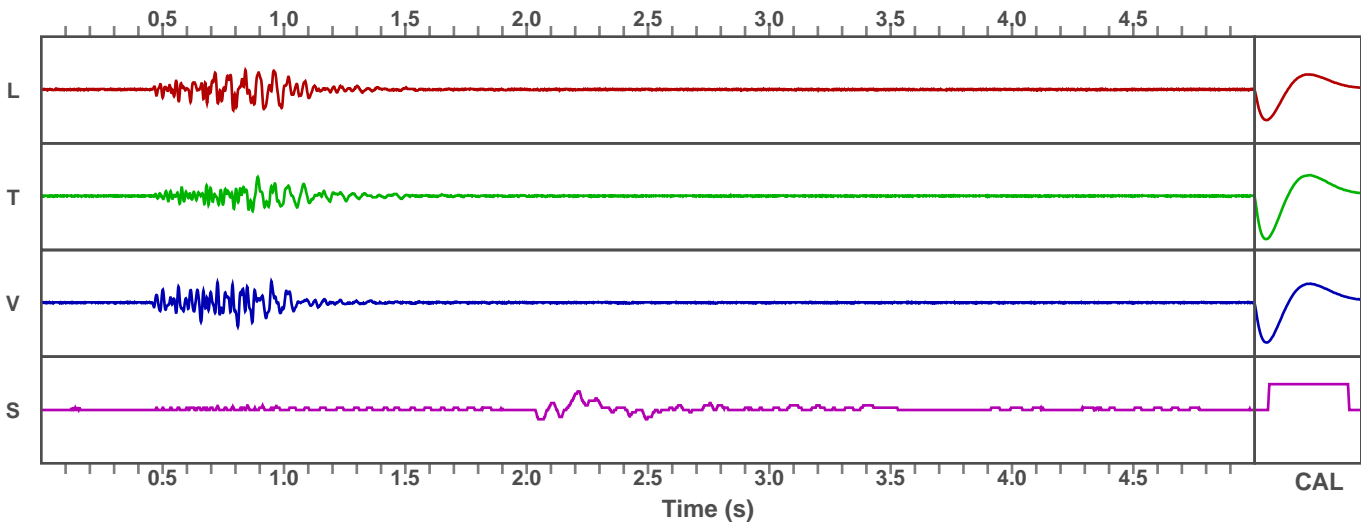


Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 11786 Event: 63



Seismic Analysis

Velocity Waveform Analysis

Serial Number: 8179
Firmware Version: 0C-06.19
Event Date: 09/21/2022 12:41:56 (UTC -07:00)
Event number: 103
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: 16 Marin Bay Park Ct.
Distance:
Operator: Vibra - Tech IP2
Comment: William Hosken Res
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-34724
 N37 59.524, W122 27.373

Summary Data

	L	T	V
PPV (in/s):	0.04	0.025	0.03
FREQ (HZ):	19.2	22.7	20
PD (.001'')	0.39	0.18	0.22
PPA (g):	0.02	0.013	0.026

Peak Vector Sum: 0.043 in/s
Peak Air Pressure: 107 dB
 0.0006 psi @ 7.2 HZ

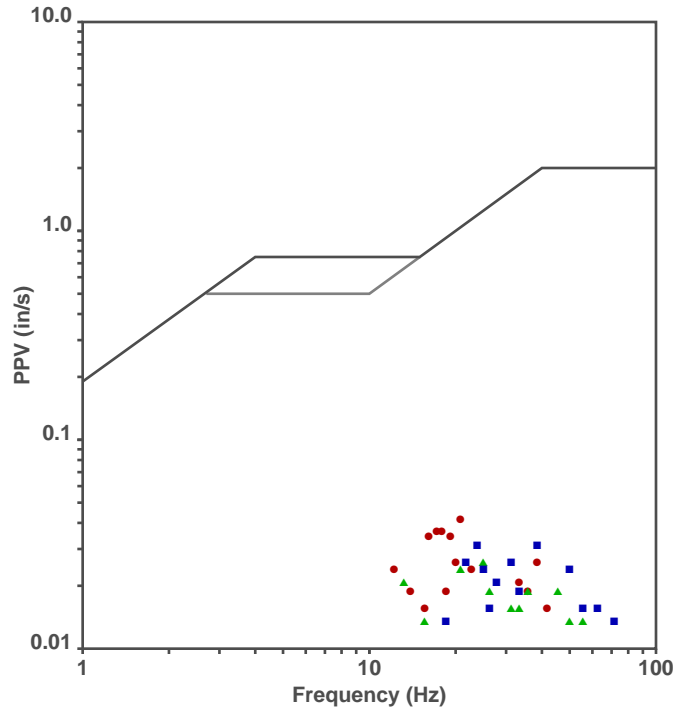
Shaketable Calibrated

On: 12/20/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 8179 Event: 103

● Longitudinal ▲ Transverse ■ Vertical



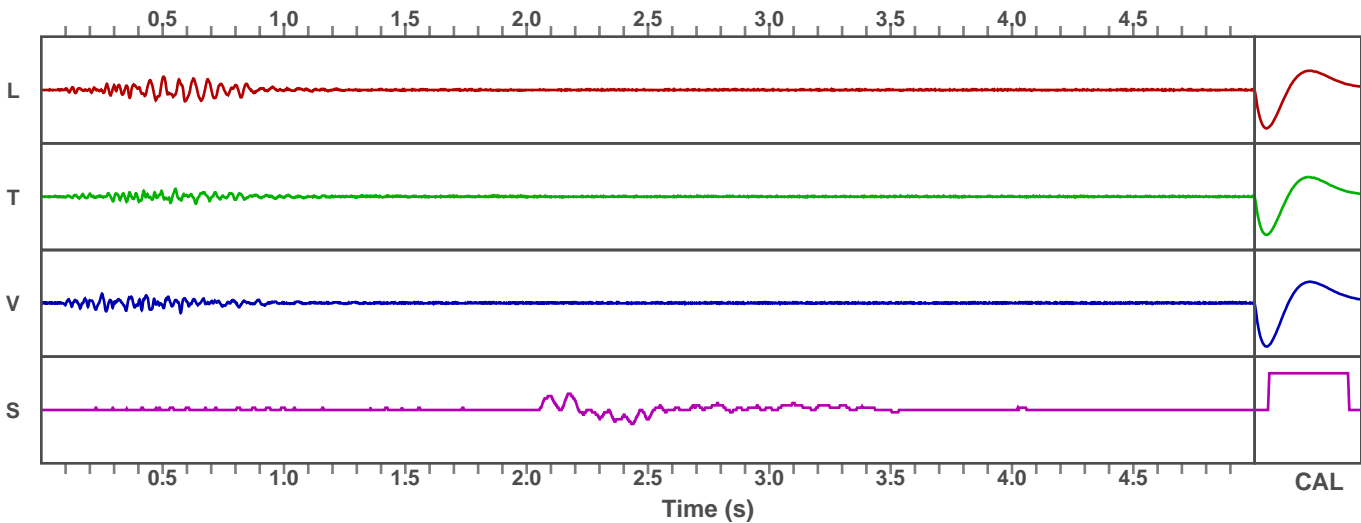
Zero Crossing Half-Wave Frequency Analysis

Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 8179 Event: 103



Vibra-Tech Engineers, Inc. Seismic Analysis

Stop Event Report

Serial No: 11786 v10.29
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: On Quarry Property
Distance:
Operator: Vibra-Tech IP2
Comment:

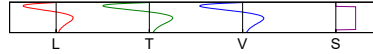
Begin Date: 10/06/2022 07:00:52 (UTC-7)
End Date: 10/06/2022 20:00:00 (UTC-7)
Events over Trigger: 0 (64-63)
Record Time: 5.0 s
Seismic Trigger: 0.030 in/s
Sound Trigger: 127 db
Battery Level: 8.7

Additional Info:

j-GEO-01253
N37 59.481, W122 27.256

Shaketable Calibrated: 12/13/2021
By: Vibra-Tech, Inc.
2700 Holloway Road - Suite 113
Louisville, KY 40299 U.S.A.
TEL: 502.240.9900 FAX: 502.240.9902

Dynamic Calibration Graph:



Cal Test Results:

Longitudinal: Pass
Transverse: Pass
Vertical: Pass
Sound: Pass

The seismograph on Quarry Property (S/N 11786) did not trigger during the shot on October 6, 2022 at approximately 11:30 indicating the ground vibrations produced were below the ground trigger level of 0.030 in/sec.

Vibra-Tech Engineers, Inc. Seismic Analysis

Stop Event Report

Serial No: 8179 v6.19
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: 16 Marin Bay Park Ct.
Distance:
Operator: Vibra - Tech IP2
Comment: William Hosken Res

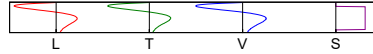
Begin Date: 10/06/2022 07:00:53 (UTC-7)
End Date: 10/06/2022 20:00:00 (UTC-7)
Events over Trigger: 0 (104-103)
Record Time: 5.0 s
Seismic Trigger: 0.030 in/s
Sound Trigger: 127 db
Battery Level: 8.3

Additional Info:

j-GEO-34724
N37 59.524, W122 27.373

Shaketable Calibrated: 12/20/2021
By: Vibra-Tech, Inc.
2700 Holloway Road - Suite 113
Louisville, KY 40299 U.S.A.
TEL: 502.240.9900 FAX: 502.240.9902

Dynamic Calibration Graph:



Cal Test Results:

Longitudinal: Pass
Transverse: Pass
Vertical: Pass
Sound: Pass

The seismograph located at 16 Marin Bay Park Court (S/N 8179) did not trigger during the shot on October 6, 2022 at approximately 11:30 indicating the ground vibrations produced were below the ground trigger level of 0.030 in/sec.

Vibra-Tech Engineers, Inc. Seismic Analysis

Stop Event Report

Serial No: 11786 v10.29
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: On Quarry Property
Distance:
Operator: Vibra-Tech IP2
Comment:

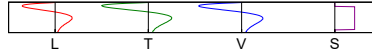
Begin Date: 10/18/2022 07:00:53 (UTC-7)
End Date: 10/18/2022 20:00:00 (UTC-7)
Events over Trigger: 0 (64-63)
Record Time: 5.0 s
Seismic Trigger: 0.030 in/s
Sound Trigger: 127 db
Battery Level: 8.7

Additional Info:

j-GEO-01253
N37 59.481, W122 27.256

Shaketable Calibrated: 12/13/2021
By: Vibra-Tech, Inc.
2700 Holloway Road - Suite 113
Louisville, KY 40299 U.S.A.
TEL: 502.240.9900 FAX: 502.240.9902

Dynamic Calibration Graph:



Cal Test Results:

Longitudinal: Pass
Transverse: Pass
Vertical: Pass
Sound: Pass

The seismograph on Quarry Property (S/N 11786) did not trigger during the shot on October 18, 2022 at approximately 11:45 indicating the ground vibrations produced were below the ground trigger level of 0.030 in/sec.

Vibra-Tech Engineers, Inc. Seismic Analysis

Stop Event Report

Serial No: 8179 v6.19
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: 16 Marin Bay Park Ct.
Distance:
Operator: Vibra - Tech IP2
Comment: William Hosken Res

Begin Date: 10/18/2022 07:00:53 (UTC-7)
End Date: 10/18/2022 20:00:00 (UTC-7)
Events over Trigger: 0 (104-103)
Record Time: 5.0 s
Seismic Trigger: 0.030 in/s
Sound Trigger: 127 db
Battery Level: 8.3

Additional Info:

j-GEO-34724
N37 59.524, W122 27.373

Shaketable Calibrated: 12/20/2021
By: Vibra-Tech, Inc.
2700 Holloway Road - Suite 113
Louisville, KY 40299 U.S.A.
TEL: 502.240.9900 FAX: 502.240.9902

Dynamic Calibration Graph:



Cal Test Results:

Longitudinal: Pass
Transverse: Pass
Vertical: Pass
Sound: Pass

The seismograph located at 16 Marin Bay Park Court (S/N 8179) did not trigger during the shot on October 18, 2022 at approximately 11:45 indicating the ground vibrations produced were below the ground trigger level of 0.030 in/sec.

Seismic Analysis

Velocity Waveform Analysis

Serial Number: 11786
Firmware Version: 0C-10.29
Event Date: 10/24/2022 12:30:16 (UTC -07:00)
Event number: 64
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: On Quarry Property
Distance:
Operator: Vibra-Tech IP2
Comment:
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-01253
N37 59.481, W122 27.256

Summary Data

	L	T	V
PPV (in/s):	0.06	0.04	0.085
FREQ (HZ):	21.7	38.5	33.3
PD (.001'')	0.47	0.33	0.43
PPA (g):	0.052	0.033	0.052

Peak Vector Sum: 0.098 in/s
Peak Air Pressure: 108 dB
 0.0007 psi @ 5 HZ

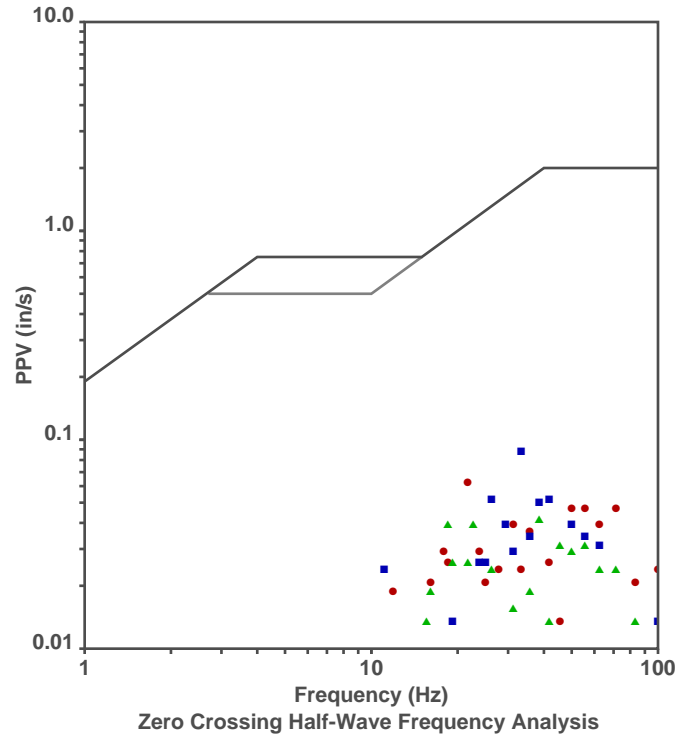
Shaketable Calibrated

On: 12/13/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 11786 Event: 64

● Longitudinal ▲ Transverse ■ Vertical

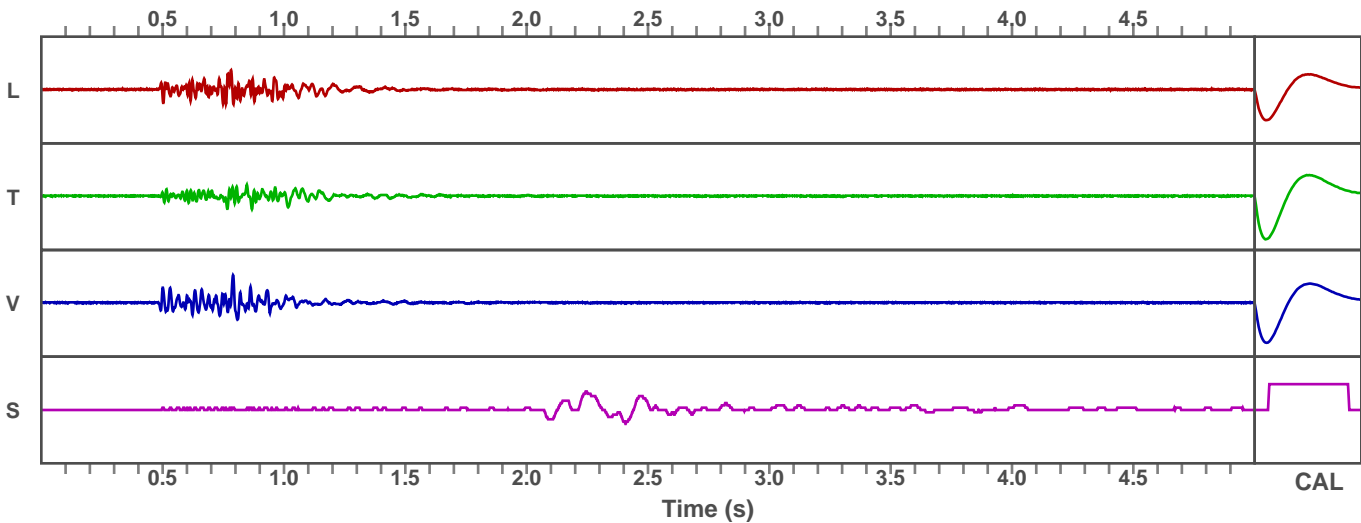


Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 11786 Event: 64



Seismic Analysis

Velocity Waveform Analysis

Serial Number: 8179
Firmware Version: 0C-06.19
Event Date: 10/24/2022 12:30:17 (UTC -07:00)
Event number: 104
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: 16 Marin Bay Park Ct.
Distance:
Operator: Vibra - Tech IP2
Comment: William Hosken Res
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-34724
 N37 59.524, W122 27.373

Summary Data

	L	T	V
PPV (in/s):	0.03	0.018	0.033
FREQ (HZ):	21.7	29.4	26.3
PD (.001"):	0.34	0.21	0.24
PPA (g):	0.013	0.013	0.02

Peak Vector Sum: 0.043 in/s
Peak Air Pressure: 110 dB
 0.0009 psi @ 5.2 HZ

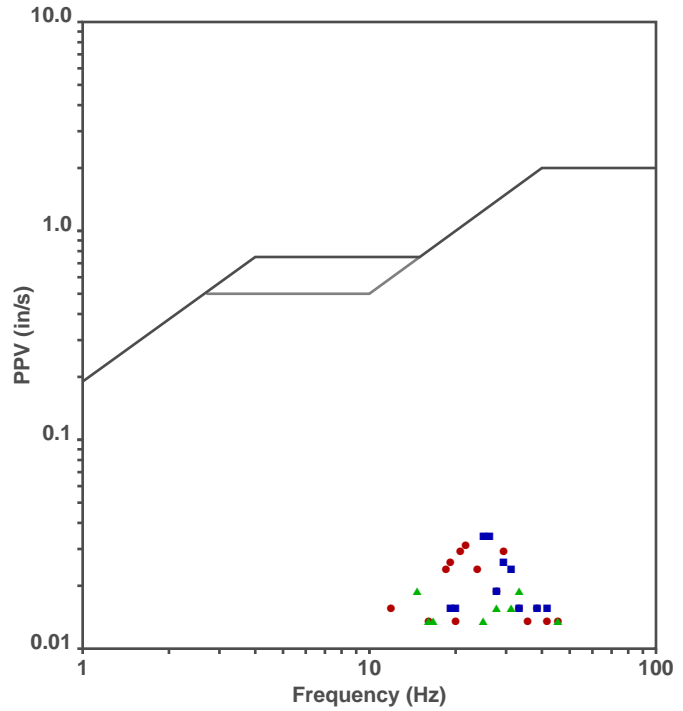
Shaketable Calibrated

On: 12/20/2021 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 8179 Event: 104

● Longitudinal ▲ Transverse ■ Vertical



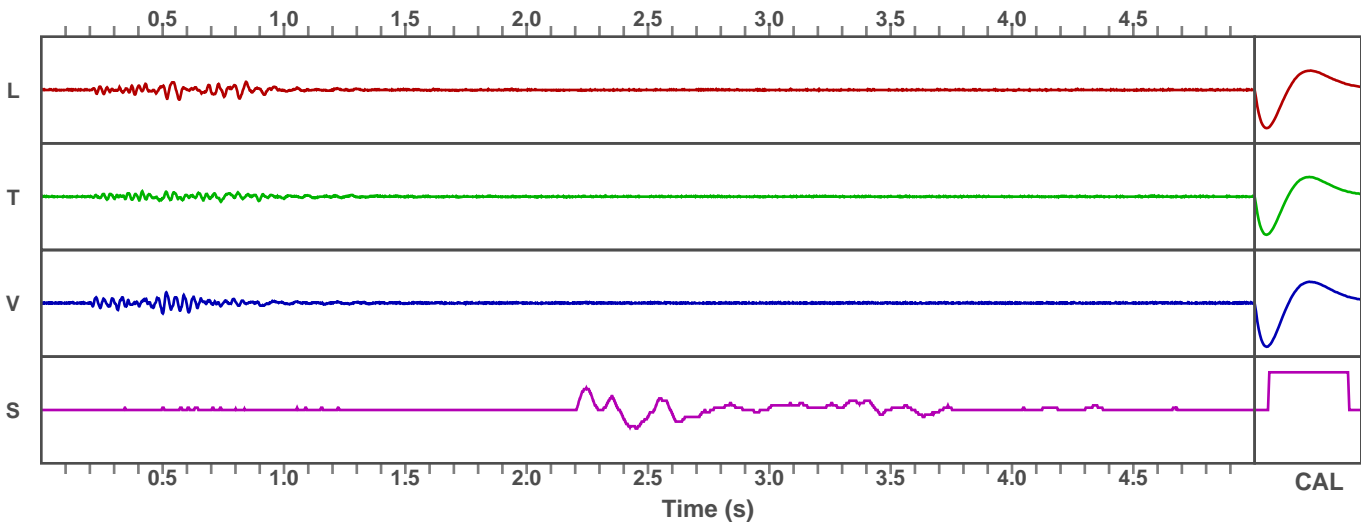
Zero Crossing Half-Wave Frequency Analysis

Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 8179 Event: 104



Seismic Analysis

Velocity Waveform Analysis

Serial Number: 11786
Firmware Version: 0C-10.29
Event Date: 11/16/2022 11:37:39 (UTC -08:00)
Event number: 65
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: On Quarry Property
Distance:
Operator: Vibra-Tech IP2
Comment:
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-01253
N37 59.481, W122 27.256

Summary Data

	L	T	V
PPV (in/s):	0.078	0.055	0.063
FREQ (HZ):	55.6	17.2	41.7
PD (.001'')	0.55	0.6	0.33
PPA (g):	0.065	0.046	0.059

Peak Vector Sum: 0.09 in/s
Peak Air Pressure: 96 dB
 0.0002 psi @ 4.1 HZ

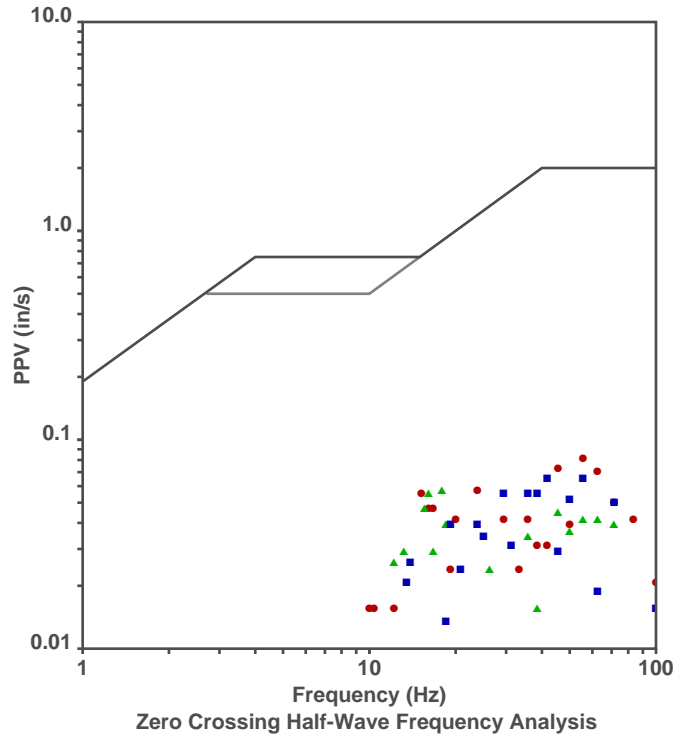
Shaketable Calibrated

On: 12/13/2021 (UTC -08:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 11786 Event: 65

● Longitudinal ▲ Transverse ■ Vertical

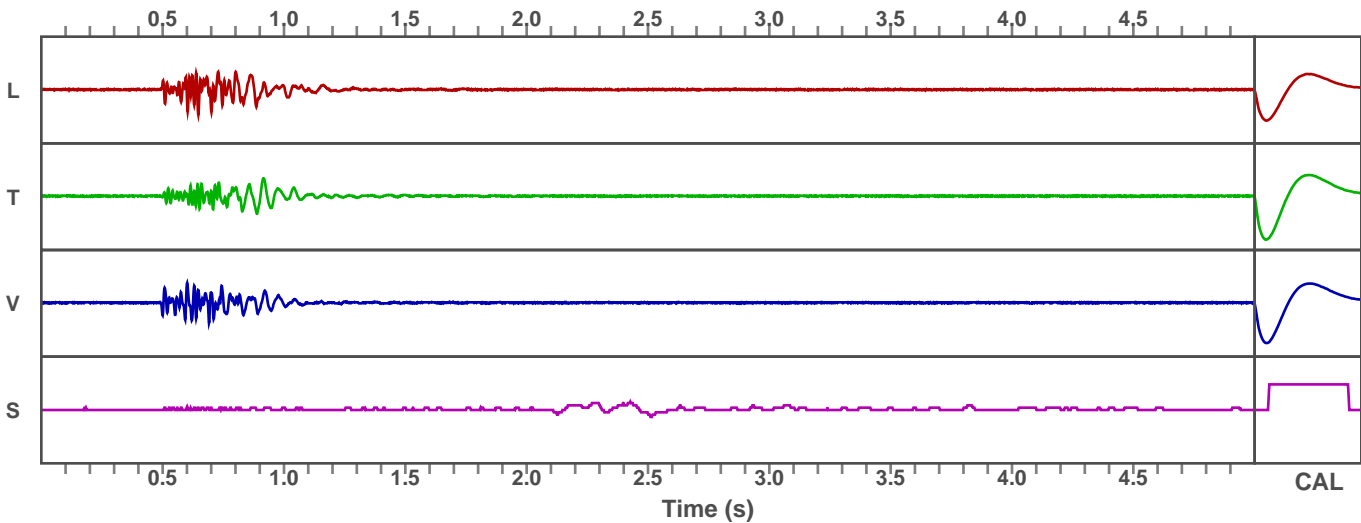


Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 11786 Event: 65



Seismic Analysis

Velocity Waveform Analysis

Serial Number: 8179
Firmware Version: 0C-06.19
Event Date: 11/16/2022 11:37:39 (UTC -08:00)
Event number: 108
Recording Time: 5 s
Client: County of Marin
Operation: San Rafael Rock Quarry
Location: 16 Marin Bay Park Ct.
Distance:
Operator: Vibra - Tech IP2
Comment: William Hosken Res
Seismic Trigger: 0.03 in/s
Sound Trigger: 127 dB

Additional Info:

j-GEO-34724
 N37 59.524, W122 27.373

Summary Data

	L	T	V
PPV (in/s):	0.033	0.023	0.035
FREQ (HZ):	16.1	20.8	55.6
PD (.001"):	0.36	0.24	0.22
PPA (g):	0.013	0.02	0.033

Peak Vector Sum: 0.04 in/s
Peak Air Pressure: 107 dB
 0.0006 psi @ 2.5 HZ

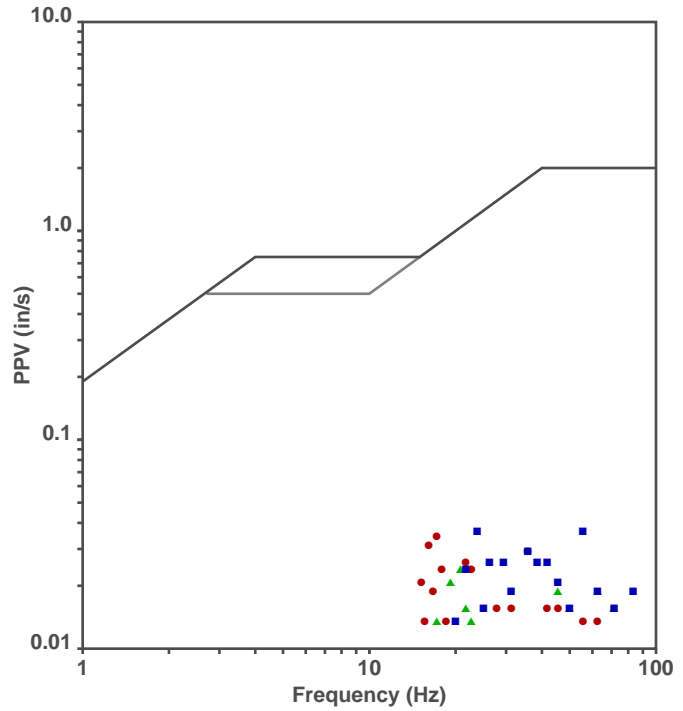
Shaketable Calibrated

On: 12/20/2021 (UTC -08:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 8179 Event: 108

● Longitudinal ▲ Transverse ■ Vertical



Zero Crossing Half-Wave Frequency Analysis

Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 8179 Event: 108

