

Miramar Siesmic Reading: White Rock Quarries.

Location: 16171 SW 49 Ct

Date:	Time:	PPV:
1/7/2019	11:49 AM	0.088
1/10/2019	11:34 AM	0.083
1/12/2019	2:33 PM	0.04
1/14/2019	2:34 PM	0.08
1/16/2019	1:34 PM	0.058
1/18/2019	11:29 AM	0.075
1/22/2019	11:35 AM	0.038
1/23/2019	1:35 PM	0.098
1/29/2019	11:50 AM	0.058
1/30/2019	1:05 PM	0.078

Location: 5276 SW 152 Ave

Date:	Time:	PPV:
1/7/2019	11:46 AM	0.088
1/9/2019	10:03 AM	0.078
1/10/2019	11:31 AM	0.048
1/14/2019	2:31 PM	0.068
1/16/2019	1:31 PM	0.058
1/18/2019	11:26 AM	0.1
1/22/2019	12:47 PM	0.058
1/23/2019	1:31 PM	0.085

Location: 17040 SW 53 Ct

Date:	Time:	PPV:
1/7/2019	8:38 AM	0.065
1/7/2019	11:46 AM	0.21
1/8/2019	11:31 AM	0.048
1/10/2019	11:31 AM	0.125
1/11/2019	11:31 AM	0.09
1/14/2019	2:31 PM	0.338
1/15/2019	11:31 AM	0.08
1/16/2019	1:35 PM	0.22
1/17/2019	11:32 AM	0.103
1/18/2019	11:26 AM	0.235
1/22/2019	11:32 AM	0.11
1/23/2019	1:32 PM	0.163
1/25/2019	11:32 AM	0.065
1/29/2019	11:47 AM	0.213
1/30/2019	3:02 PM	0.213

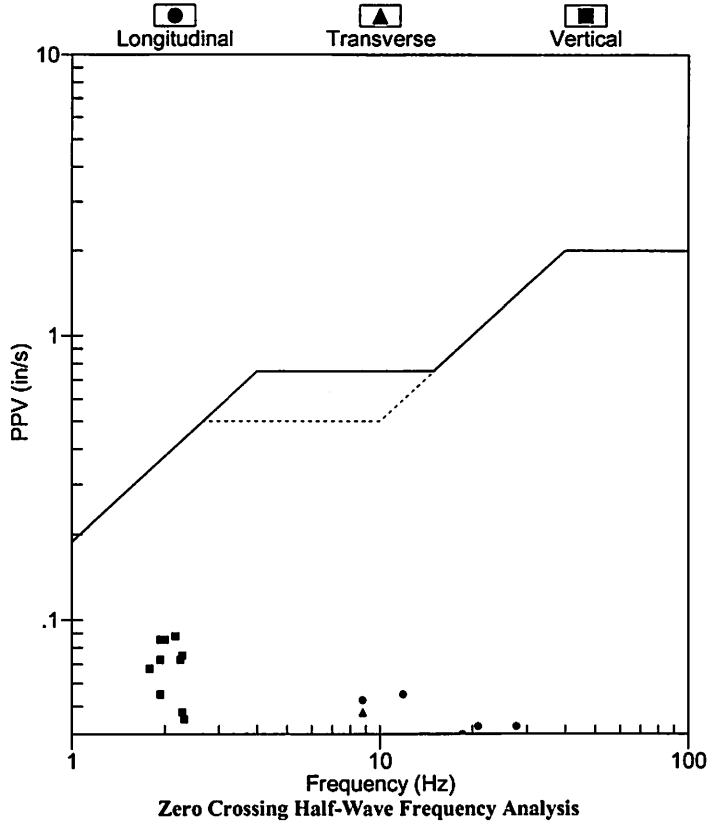
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 01/07/2019 11:49:18
Event No: 15
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 15



	Summary Data		
	L	T	V
PPV (in/s)	0.055	0.048	0.088
FREQ (Hz)	11.9	8.8	2.2
PD (.001")	2.30	1.27	6.26
PPA (g)	0.026	0.013	0.013
Peak Vector Sum :	0.090 in/s		
Peak Air Pressure:	107 db		
	0.00070 PSI @ 3.9 Hz		

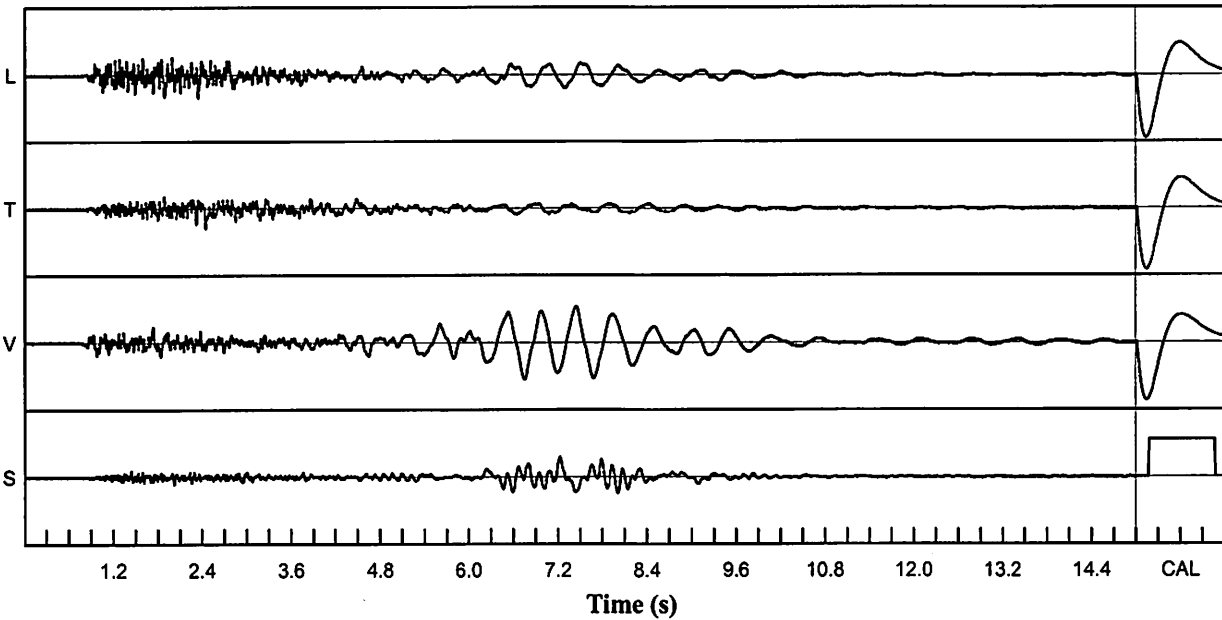
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 15



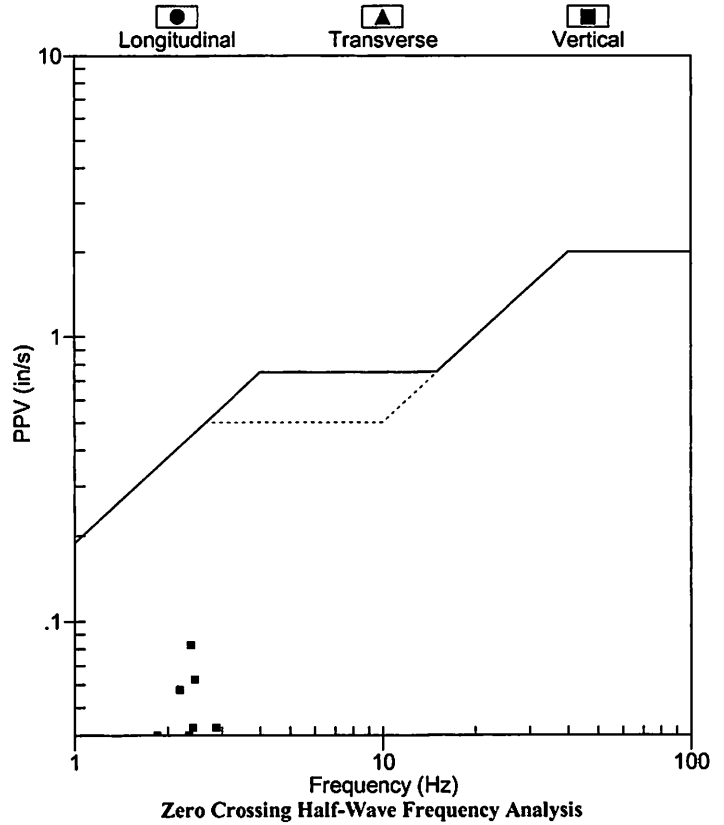
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 01/10/2019 11:33:48
Event No: 16
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 16



	Summary Data		
	L	T	V
PPV (in/s)	0.043	0.033	0.083
FREQ (Hz)	9.8	6.4	2.4
PD (.001")	1.81	1.06	4.76
PPA (g)	0.013	0.013	0.007
Peak Vector Sum :	0.083 in/s		
Peak Air Pressure:	103 db		
	0.00045 PSI @ 3.2 Hz		

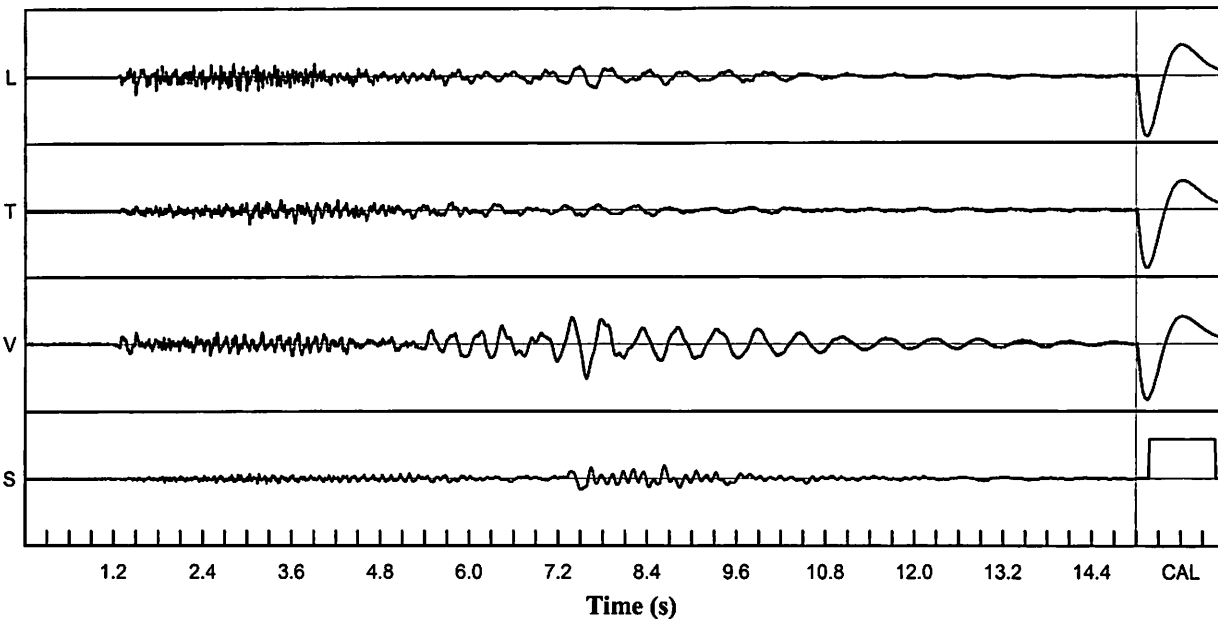
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 16



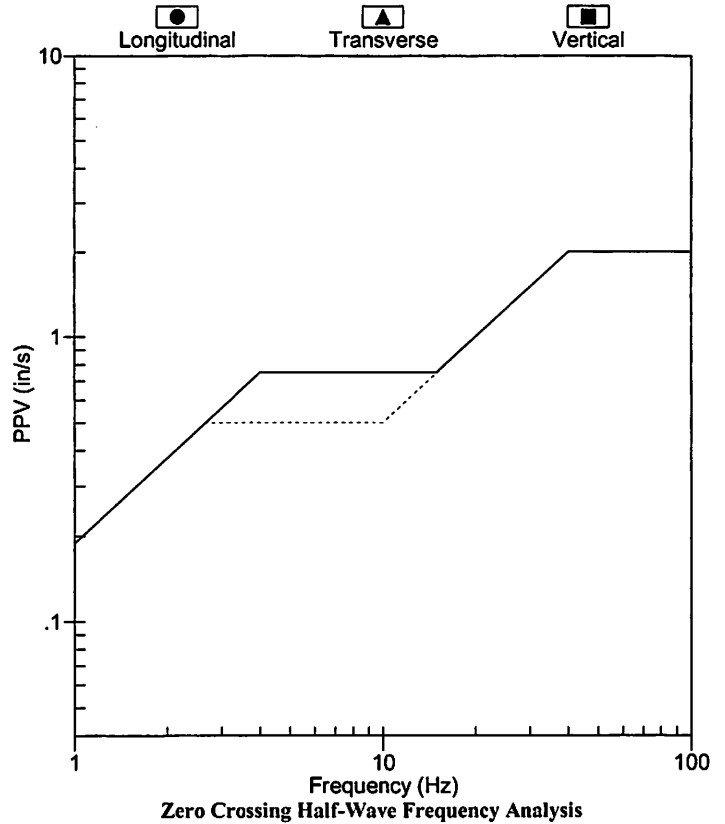
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 01/12/2019 14:33:28
Event No: 17
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 17



Summary Data

	L	T	V
PPV (in/s)	0.020	0.015	0.040
FREQ (Hz)	1.6	2.3	2.4
PD (.001")	1.46	1.05	1.88
PPA (g)	0.013	0.007	0.013
Peak Vector Sum :	0.043 in/s		
Peak Air Pressure:	79 db		
	0.00005 PSI @ 1.0 Hz		

Additional Info:

Shaketable Calibrated: 04/12/2018

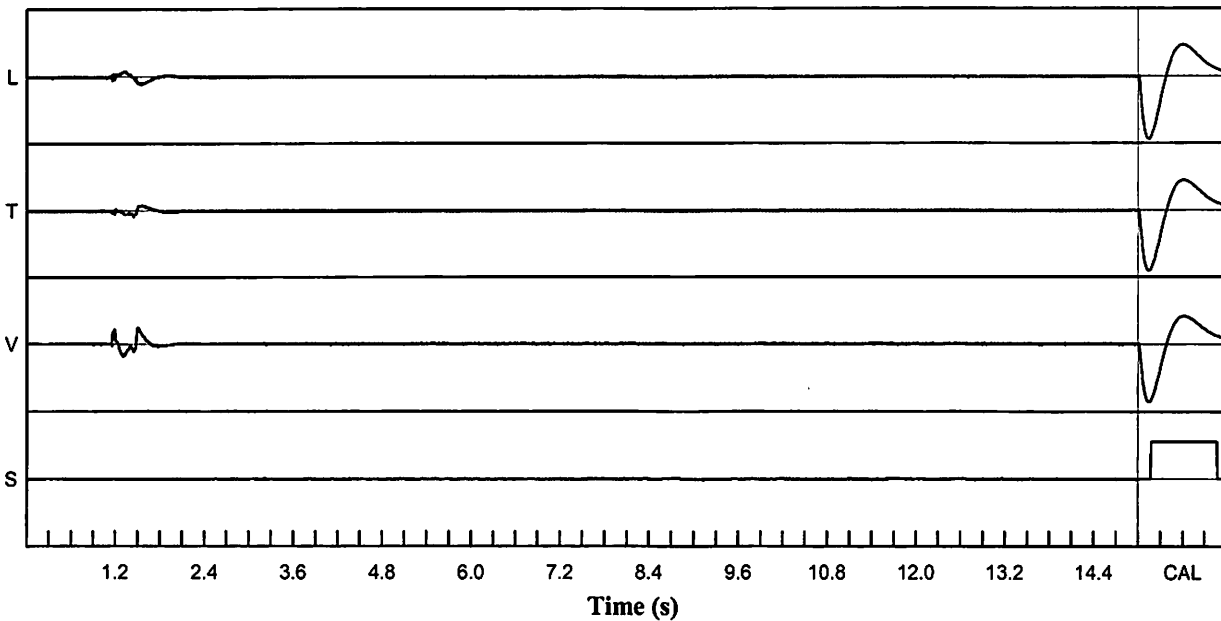
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 17



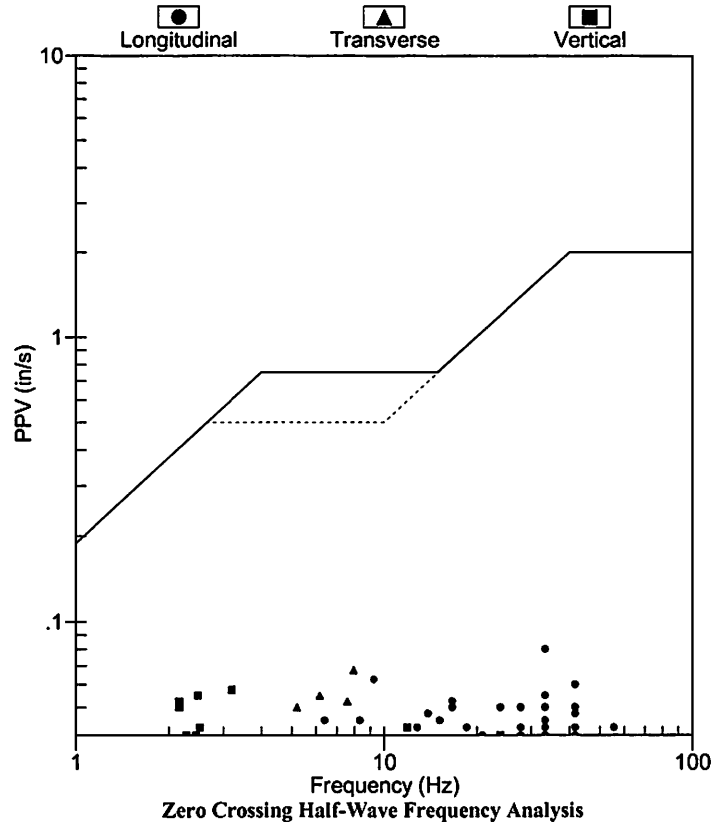
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 01/14/2019 14:34:16
Event No: 18
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 18



	Summary Data		
	L	T	V
PPV (in/s)	0.080	0.068	0.058
FREQ (Hz)	33.3	7.9	3.2
PD (.001")	1.38	1.50	3.69
PPA (g)	0.046	0.020	0.026
Peak Vector Sum :	0.085 in/s		
Peak Air Pressure:	103 db		
	0.00045 PSI @ 5.1 Hz		

Additional Info:

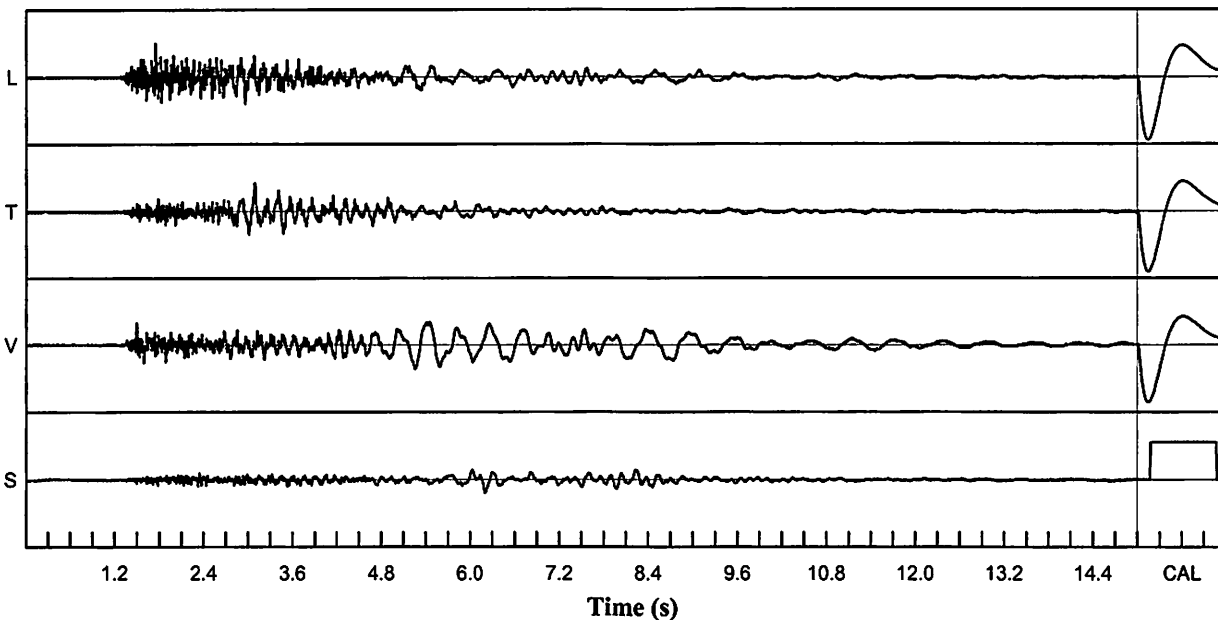
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 18



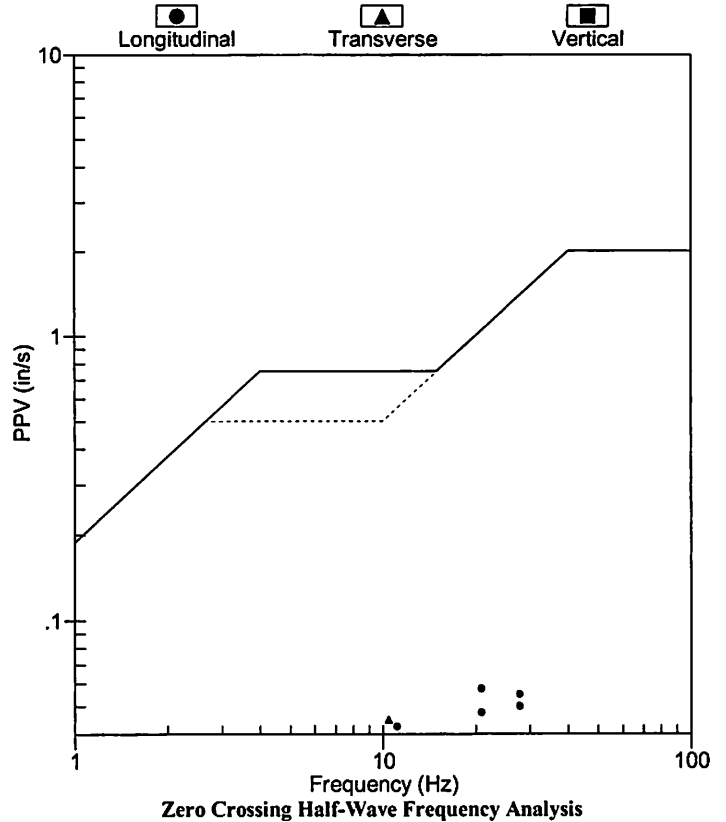
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 01/16/2019 13:34:24
Event No: 19
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 19



	Summary Data		
	L	T	V
PPV (in/s)	0.058	0.045	0.038
FREQ (Hz)	20.8	10.4	2.4
PD (.001")	1.11	1.43	3.19
PPA (g)	0.026	0.013	0.020
Peak Vector Sum :	0.060 in/s		
Peak Air Pressure:	103 db		
	0.00046 PSI @ 6.2 Hz		

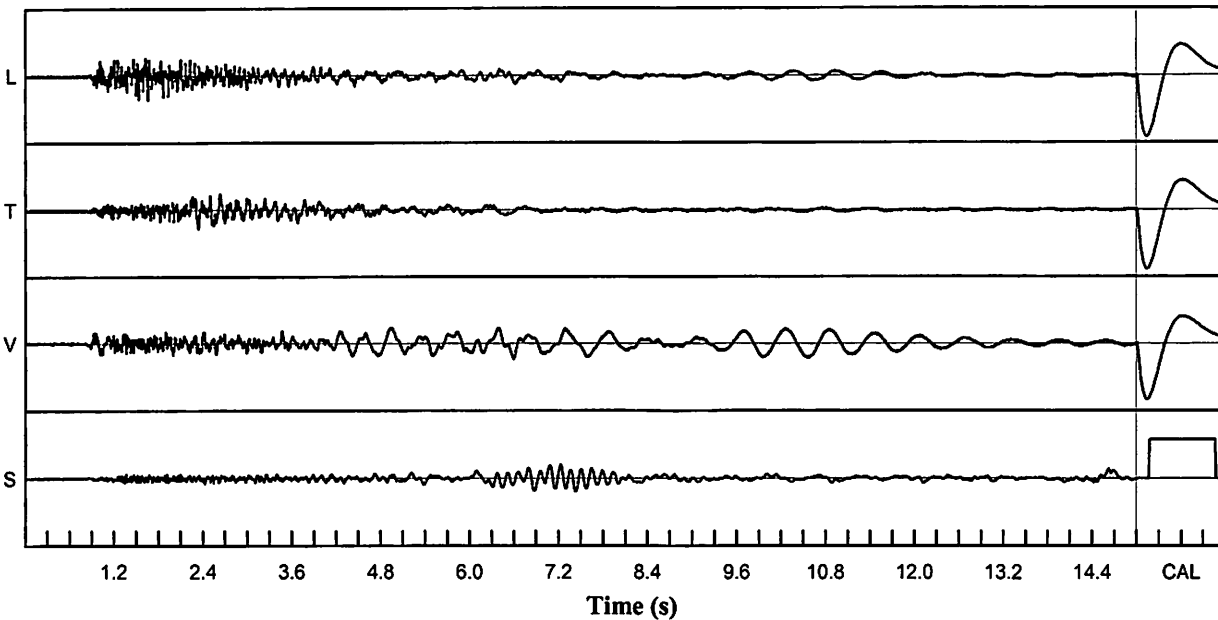
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 19



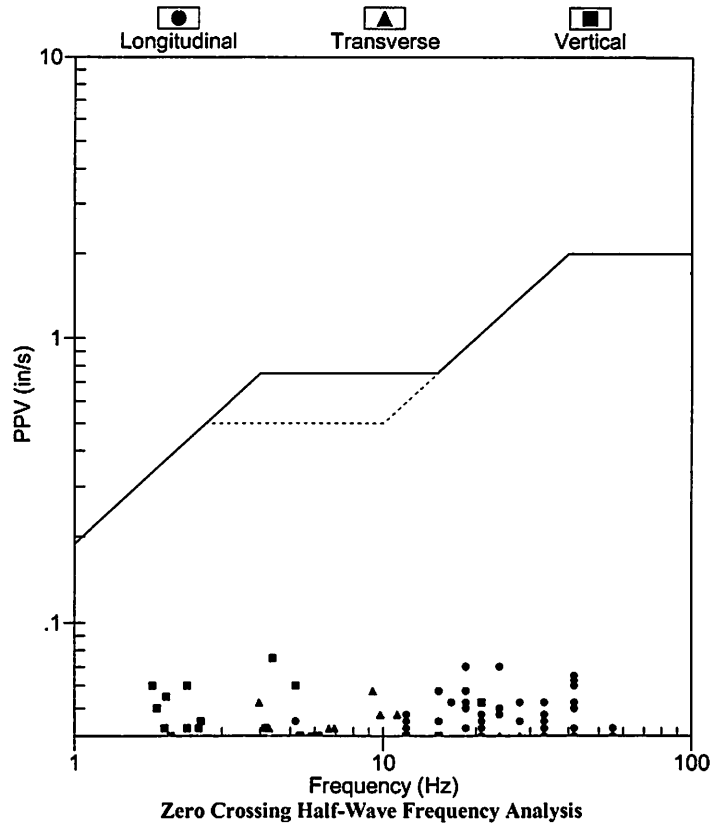
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 01/18/2019 11:29:05
Event No: 20
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 20



	Summary Data		
	L	T	V
PPV (in/s)	0.070	0.058	0.075
FREQ (Hz)	23.8	9.3	4.4
PD (.001")	1.55	1.82	4.03
PPA (g)	0.046	0.026	0.026
Peak Vector Sum :	0.075 in/s		
Peak Air Pressure:	101 db		
	0.00036 PSI @ 3.5 Hz		

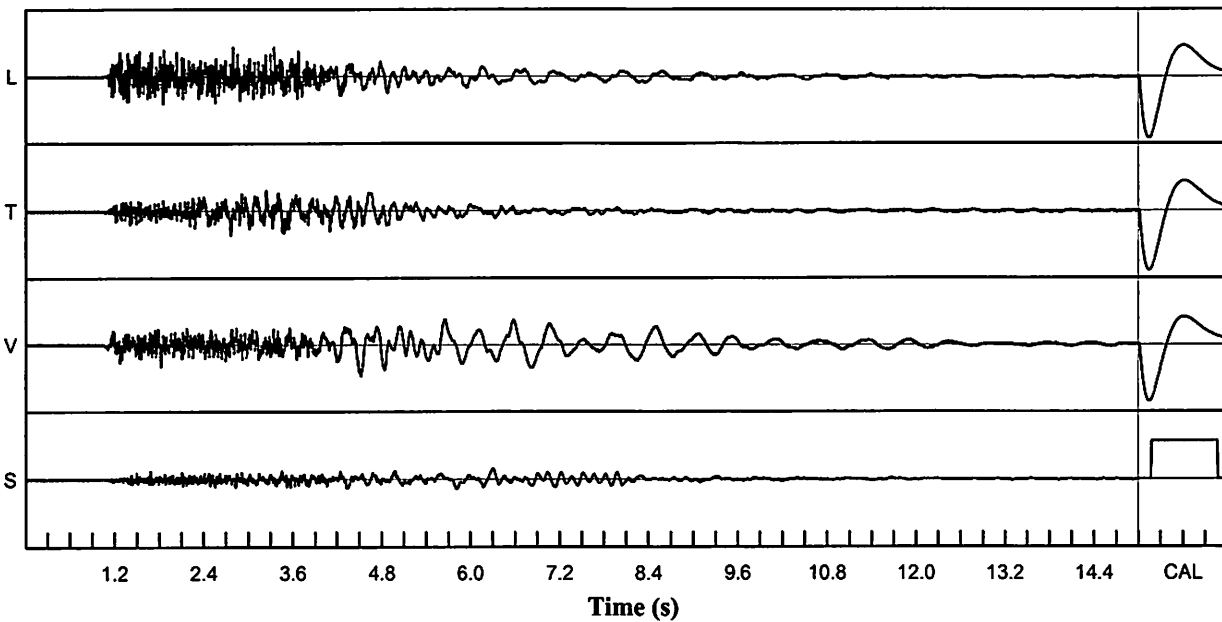
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 20



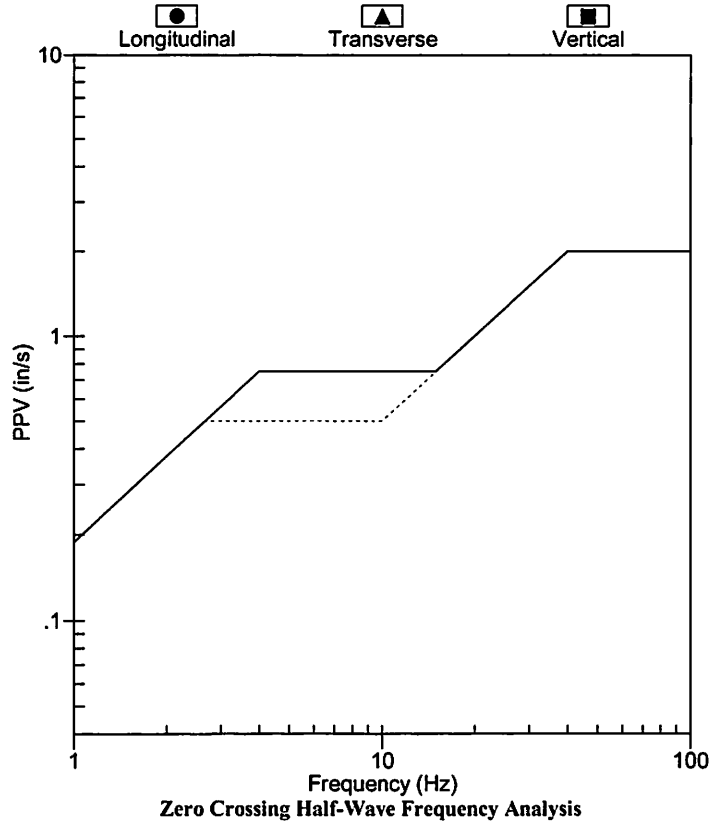
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 01/22/2019 11:35:14
Event No: 21
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 21



	Summary Data		
	L	T	V
PPV (in/s)	0.013	0.008	0.038
FREQ (Hz)	2.4	9.3	2.2
PD (.001")	0.89	0.67	2.70
PPA (g)	0.007	0.007	0.007
Peak Vector Sum :	0.038 in/s		
Peak Air Pressure:	86 db		
	0.00012 PSI @ 166.7 Hz		

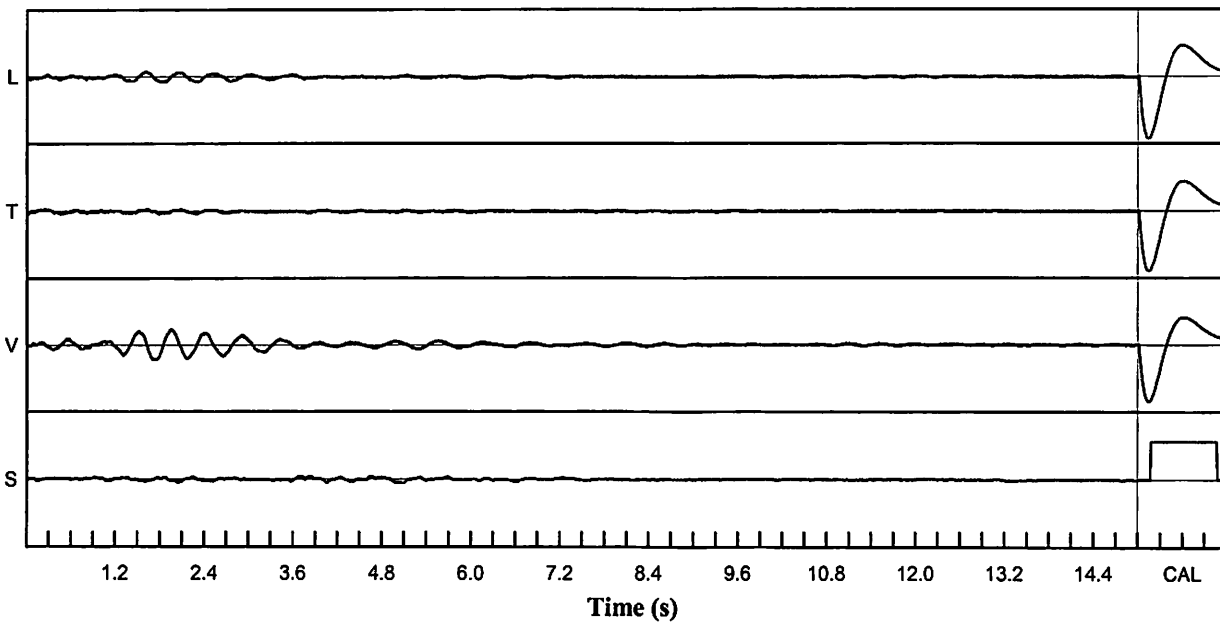
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 21



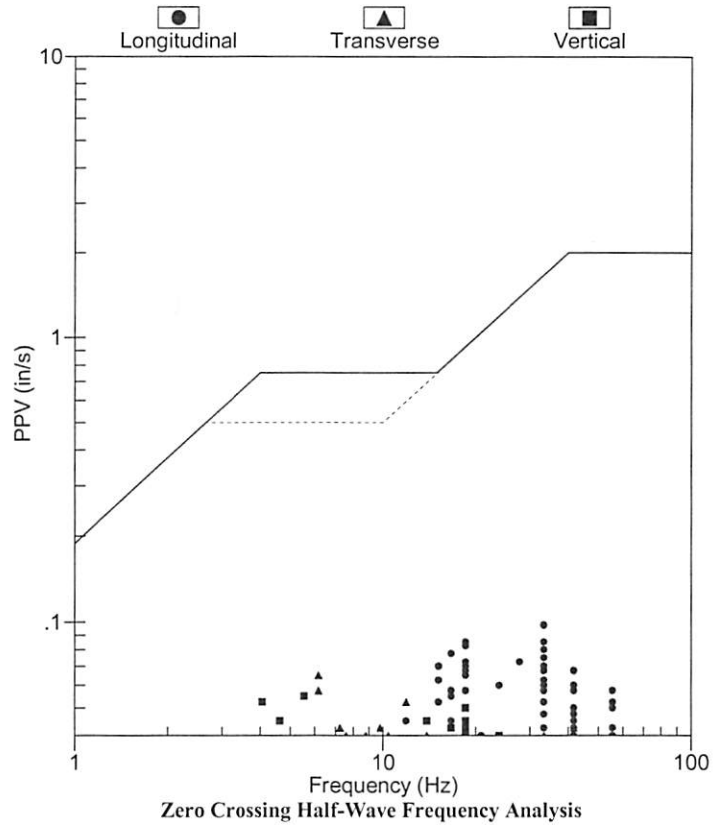
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 01/23/2019 13:34:50
Event No: 22
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 22



Summary Data

	L	T	V
PPV (in/s)	0.098	0.065	0.055
FREQ (Hz)	33.3	6.2	5.6
PD (.001")	1.24	1.23	2.58
PPA (g)	0.052	0.026	0.026
Peak Vector Sum :	0.108 in/s		
Peak Air Pressure:	101 db		
	0.00034 PSI @ 18.5 Hz		

Additional Info:

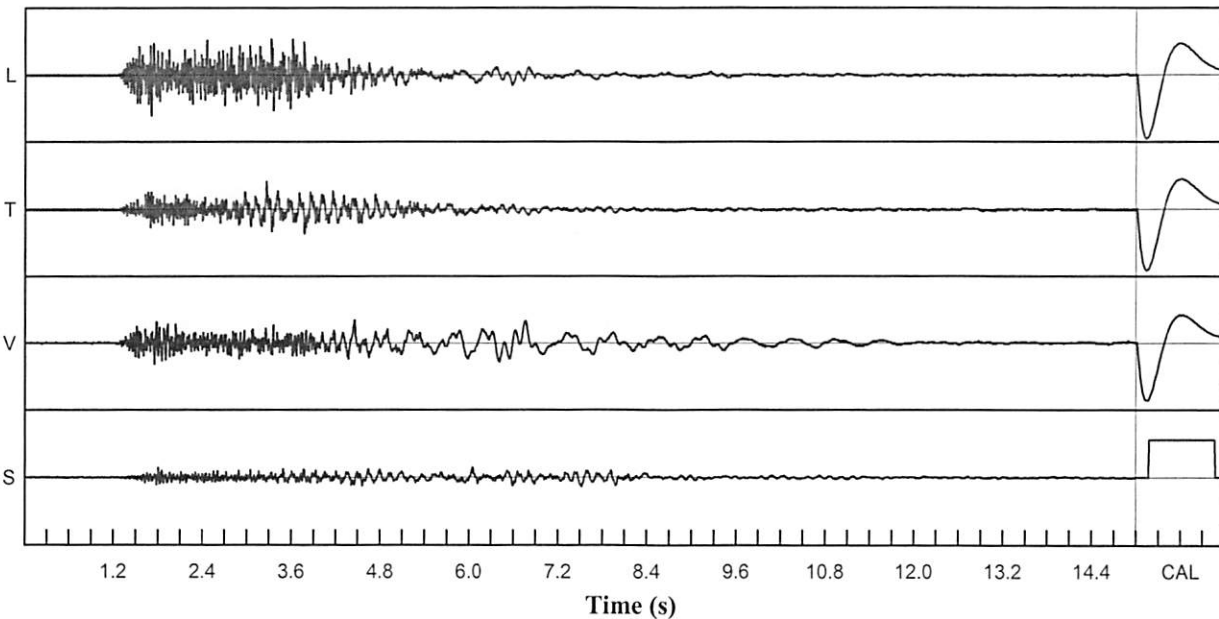
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 22



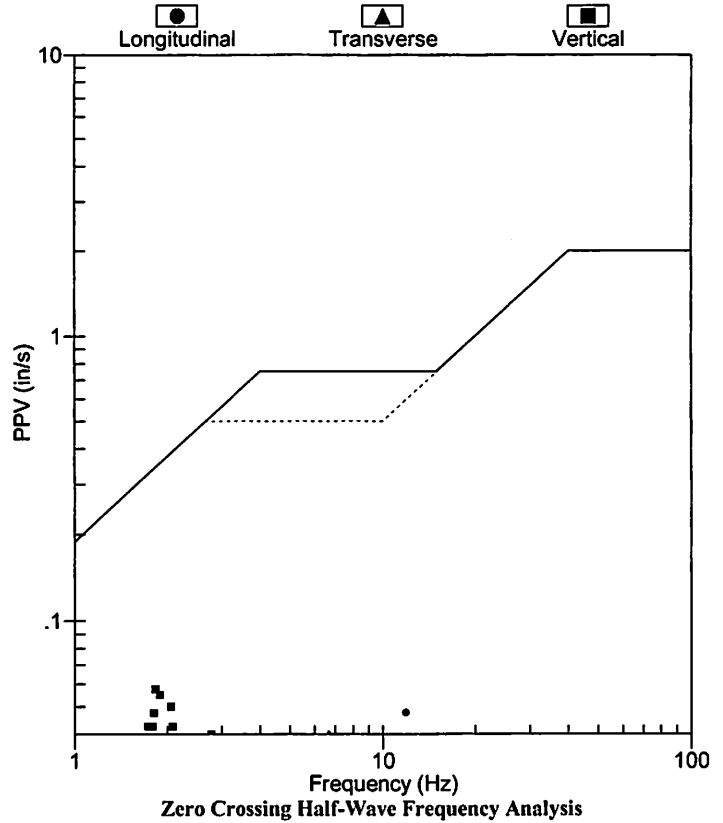
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 01/29/2019 11:50:15
Event No: 23
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 23



	Summary Data		
	L	T	V
PPV (in/s)	0.048	0.040	0.058
FREQ (Hz)	11.9	6.7	1.8
PD (.001")	1.33	1.11	4.65
PPA (g)	0.020	0.020	0.013
Peak Vector Sum :	0.058 in/s		
Peak Air Pressure:	106 db		
	0.00062 PSI @ 6.4 Hz		

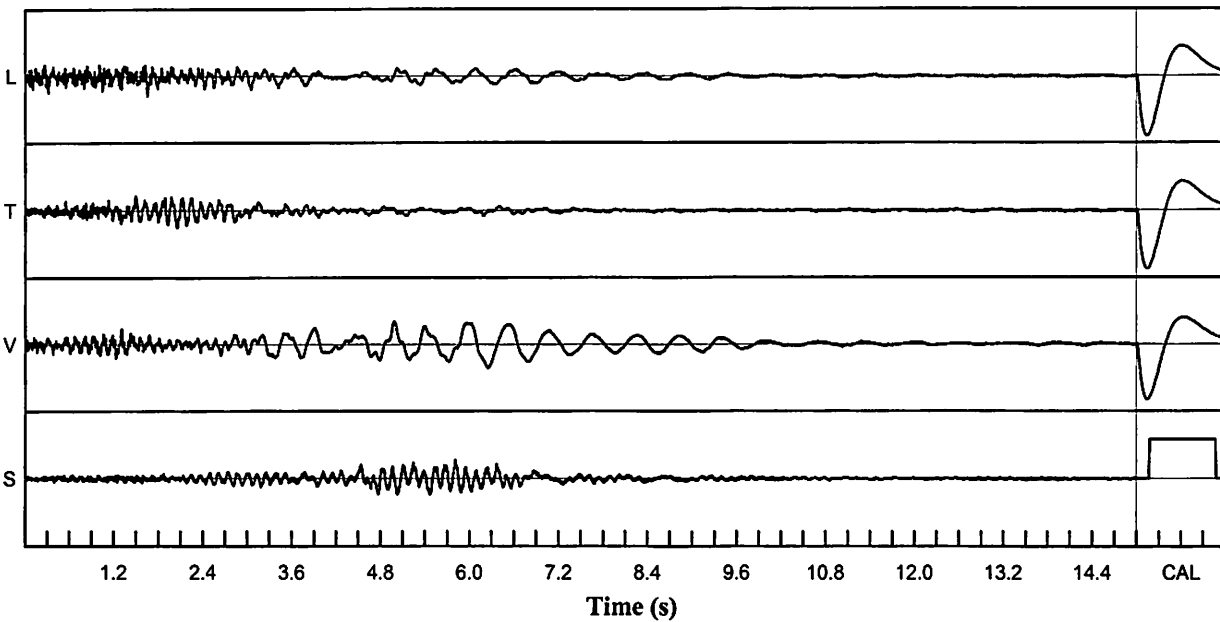
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 23



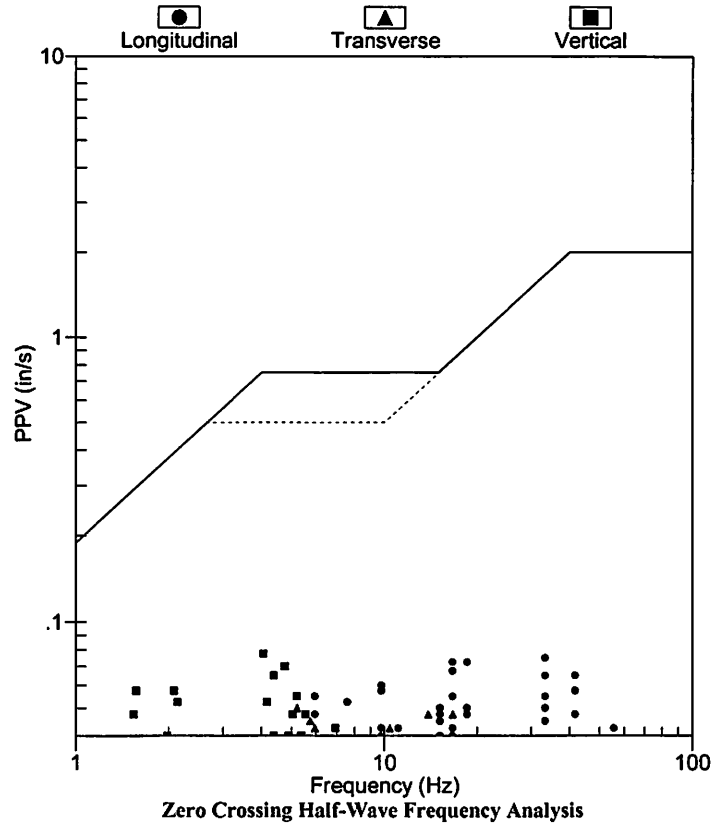
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 01/30/2019 15:05:22
Event No: 24
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

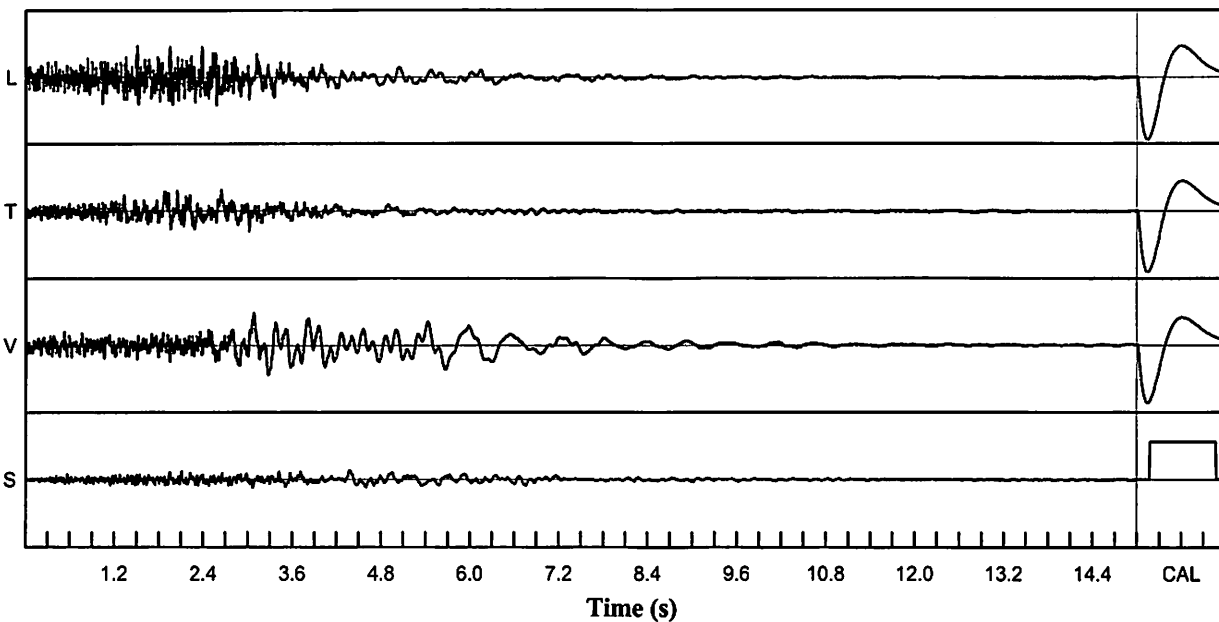
USBM Safe Blasting Levels

SN: 5149 Event: 24



Velocity Waveform

SN: 5149 Event: 24



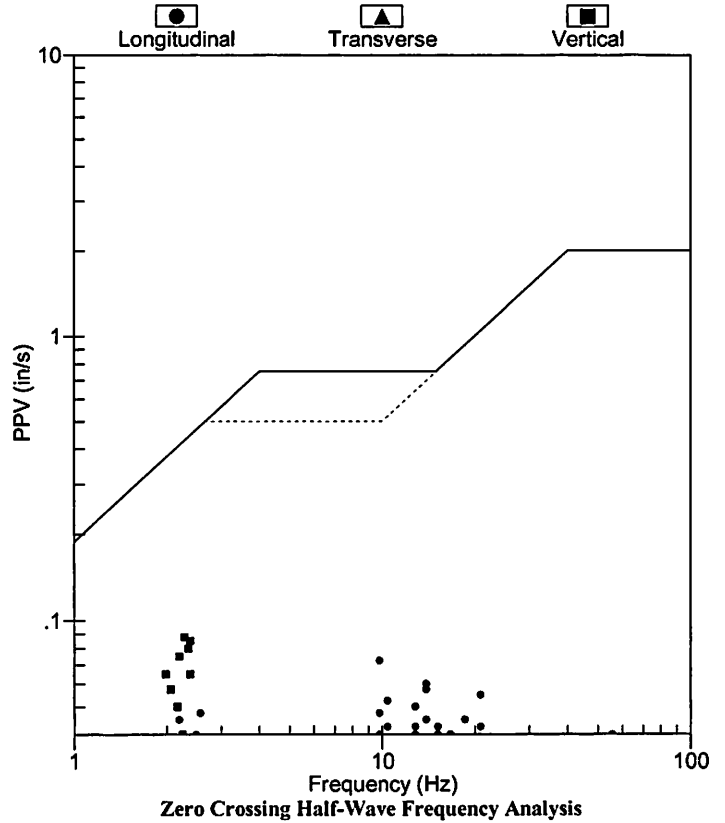
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 01/07/2019 11:46:29
Event No: 16
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5218 Event: 16



	Summary Data		
	L	T	V
PPV (in/s)	0.073	0.035	0.088
FREQ (Hz)	9.8	15.2	2.3
PD (.001")	2.87	1.51	5.95
PPA (g)	0.026	0.013	0.020
Peak Vector Sum :	0.088 in/s		
Peak Air Pressure:	105 db		
	0.00061 PSI @ 2.6 Hz		

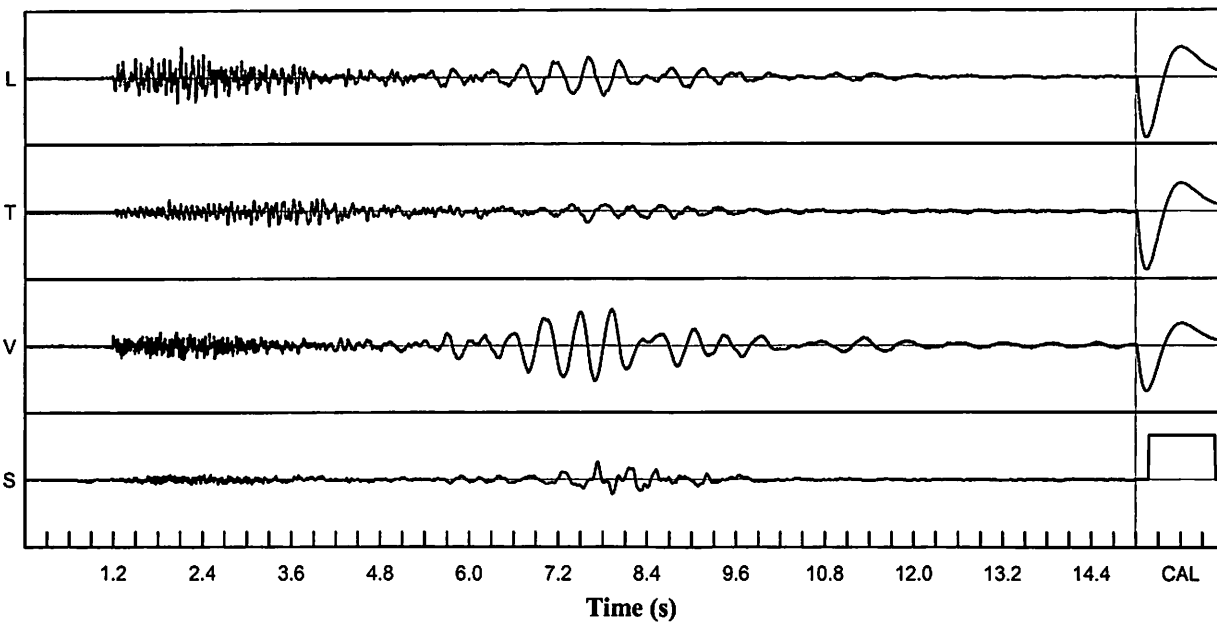
Additional Info:

Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5218 Event: 16



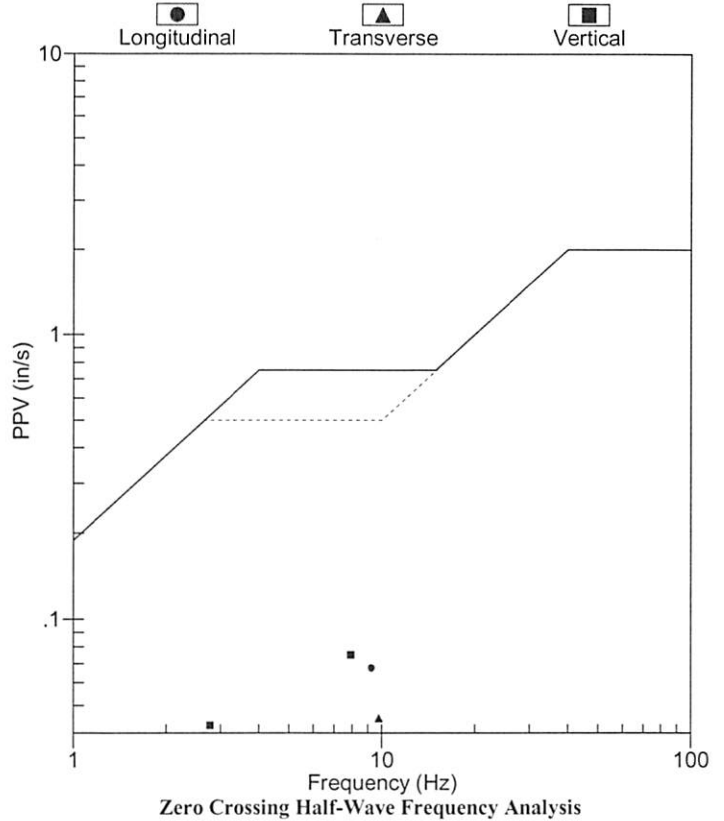
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 01/09/2019 10:02:46
Event No: 17
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5218 Event: 17



Summary Data

	L	T	V
PPV (in/s)	0.078	0.045	0.075
FREQ (Hz)	5.2	9.8	5.6
PD (.001")	1.68	1.00	1.71
PPA (g)	0.046	0.072	0.039
Peak Vector Sum :	0.103 in/s		
Peak Air Pressure:	110 db		
	0.00093 PSI @ 166.7 Hz		

Additional Info:

Shaketable Calibrated: 01/22/2018

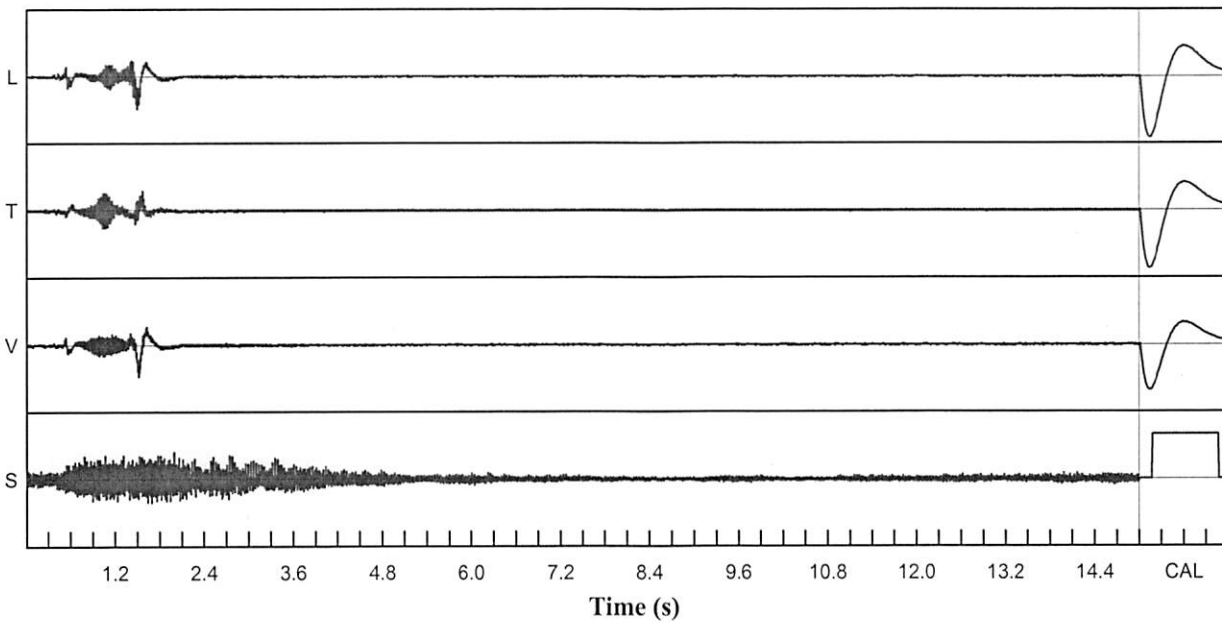
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5218 Event: 17



GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 01/10/2019 11:30:49
Event No: 18
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5218 Event: 18

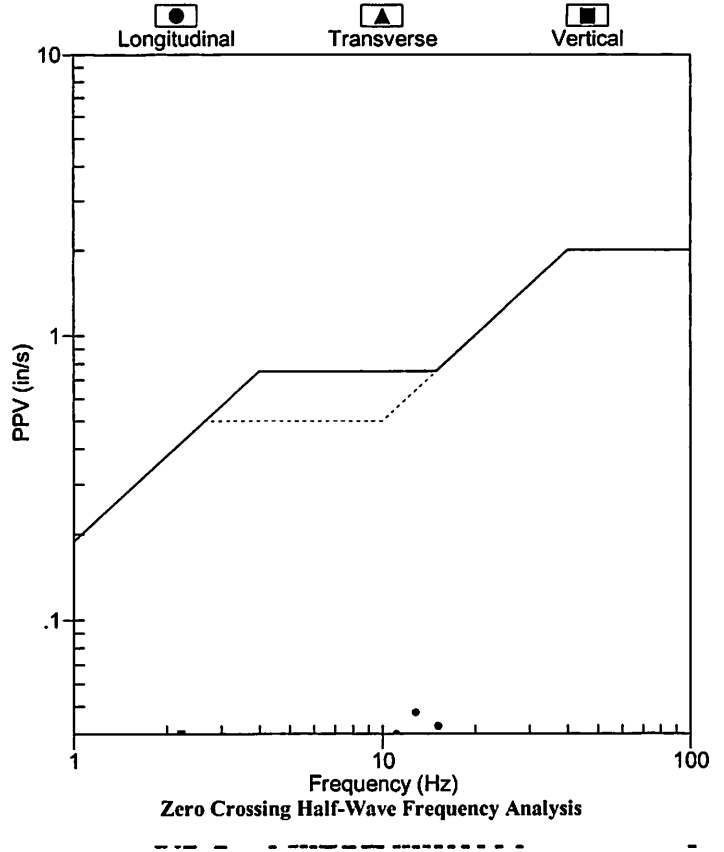
	Summary Data		
	L	T	V
PPV (in/s)	0.048	0.038	0.040
FREQ (Hz)	12.8	8.3	2.2
PD (.001")	1.40	1.20	3.04
PPA (g)	0.020	0.007	0.013
Peak Vector Sum :	0.048 in/s		
Peak Air Pressure:	101 db		
	0.00036 PSI @ 3.9 Hz		

Additional Info:

Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

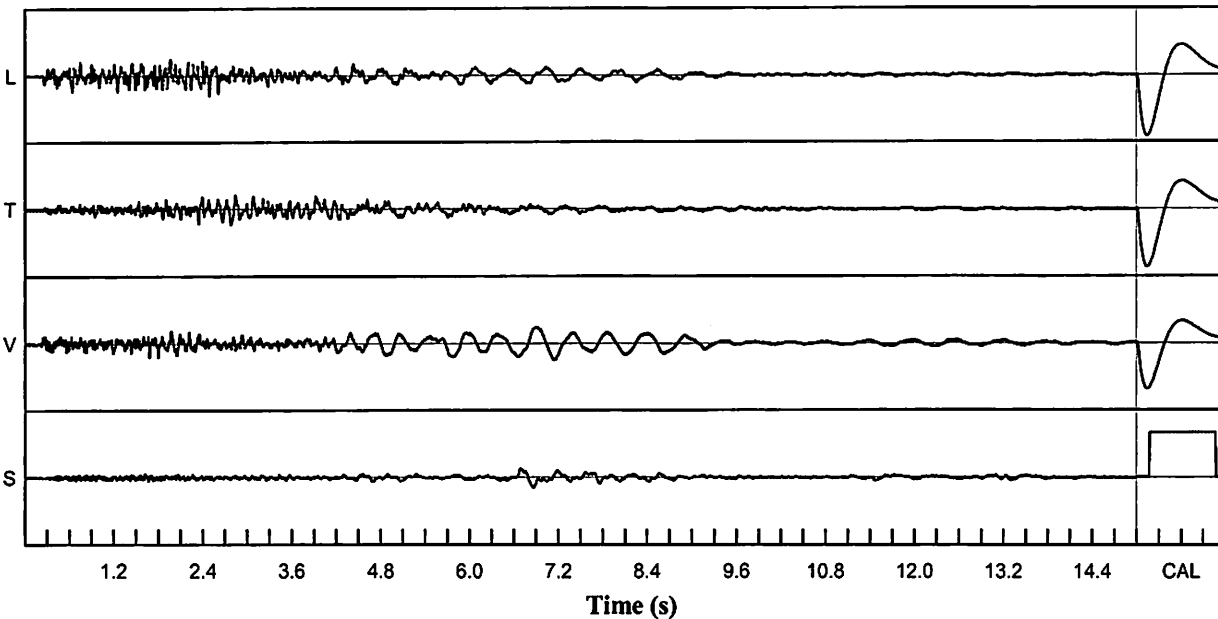
Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI



Velocity Waveform

SN: 5218 Event: 18



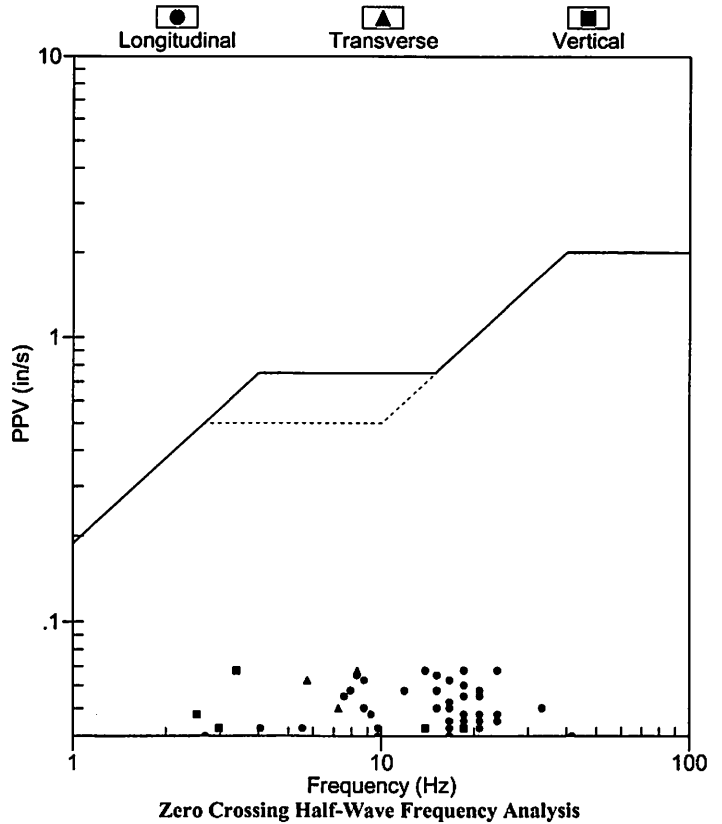
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 01/14/2019 14:31:00
Event No: 19
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5218 Event: 19



	Summary Data		
	L	T	V
PPV (in/s)	0.068	0.068	0.068
FREQ (Hz)	23.8	8.3	3.4
PD (.001")	1.78	1.46	2.82
PPA (g)	0.033	0.013	0.026
Peak Vector Sum :	0.080 in/s		
Peak Air Pressure:	101 db		
	0.00032 PSI @ 5.7 Hz		

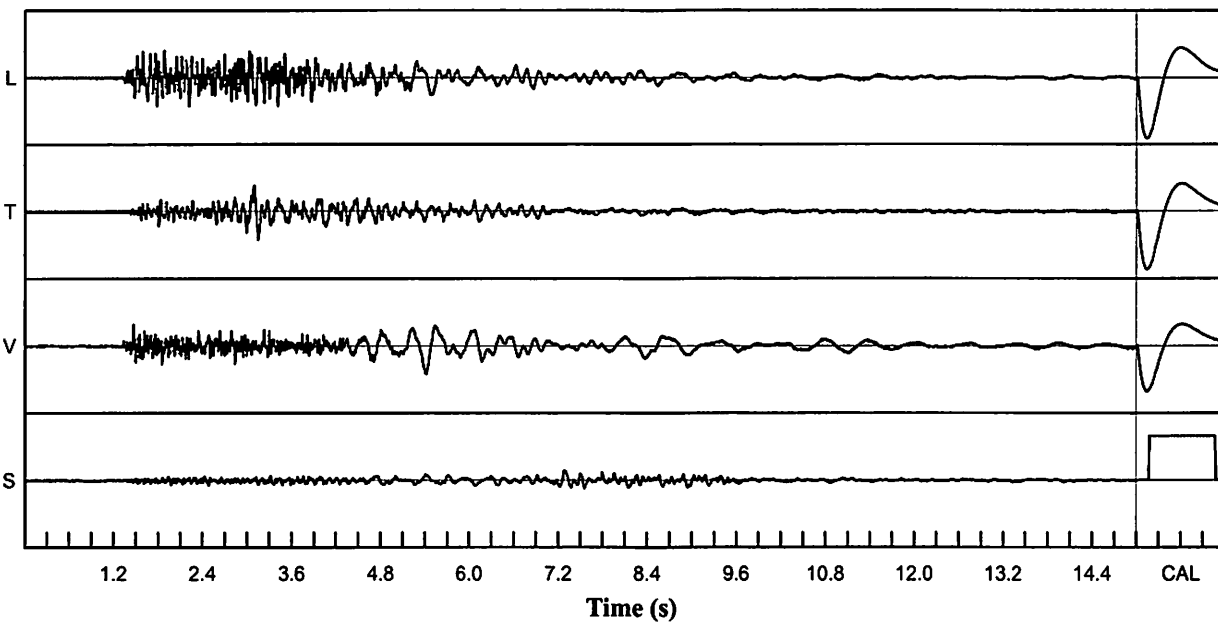
Additional Info:

Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5218 Event: 19



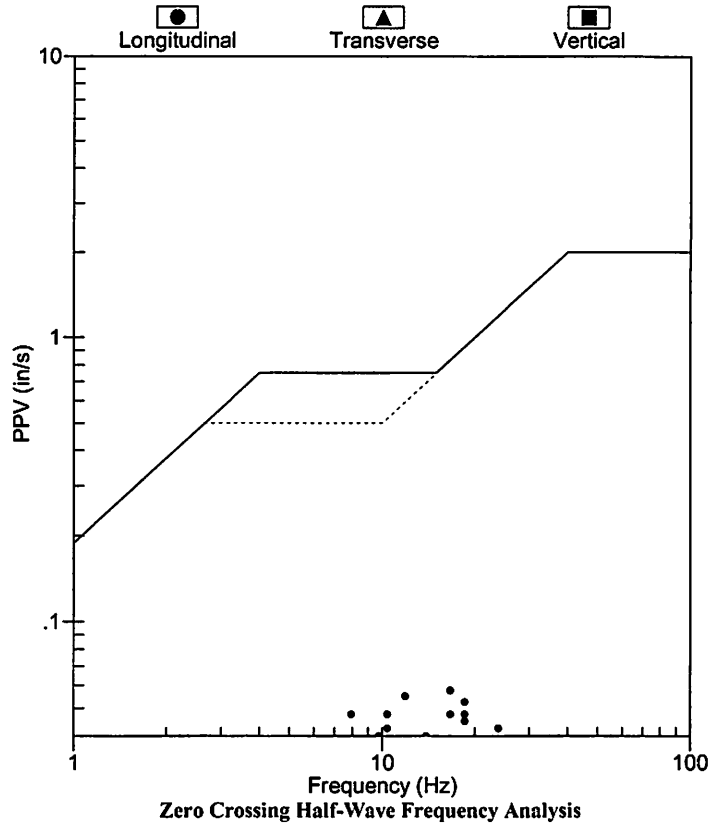
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 01/16/2019 13:31:00
Event No: 20
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5218 Event: 20



	Summary Data		
	L	T	V
PPV (in/s)	0.058	0.038	0.035
FREQ (Hz)	16.7	7.9	20.8
PD (.001")	1.17	1.01	2.33
PPA (g)	0.020	0.013	0.020
Peak Vector Sum :	0.060 in/s		
Peak Air Pressure:	100 db		
	0.00029 PSI @ 3.4 Hz		

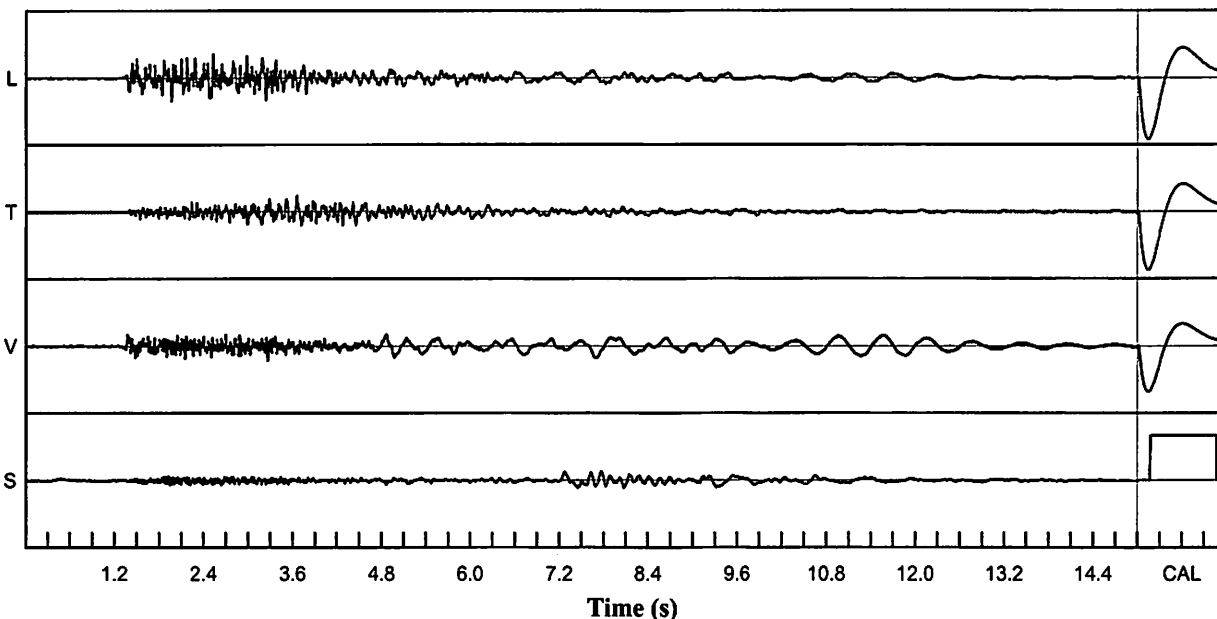
Additional Info:

Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5218 Event: 20



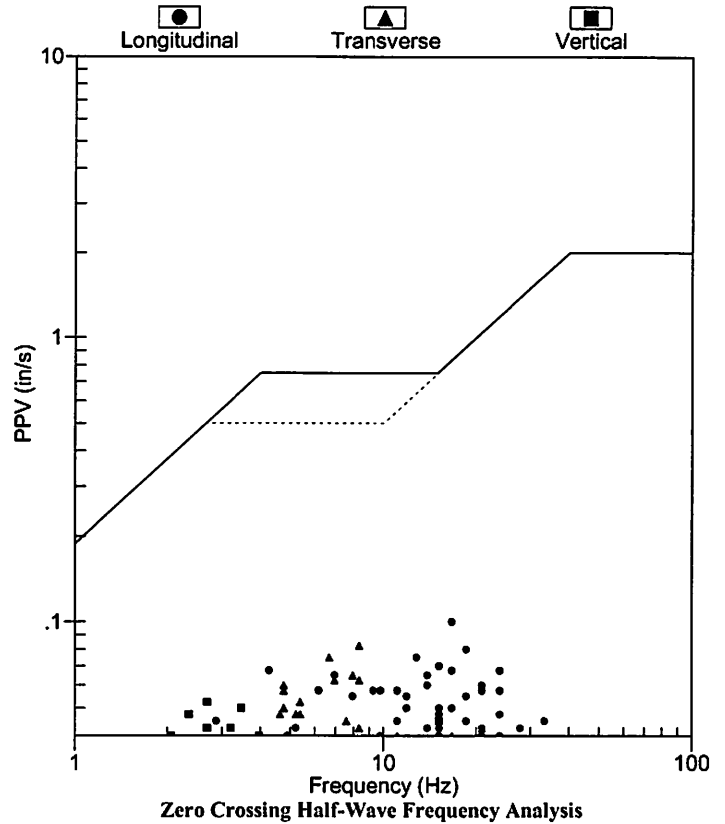
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 01/18/2019 11:25:34
Event No: 21
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5218 Event: 21



	Summary Data		
	L	T	V
PPV (in/s)	0.100	0.083	0.053
FREQ (Hz)	16.7	8.3	2.7
PD (.001")	1.91	2.35	2.95
PPA (g)	0.039	0.013	0.026
Peak Vector Sum :	0.113 in/s		
Peak Air Pressure:	102 db		
	0.00043 PSI @ 7.2 Hz		

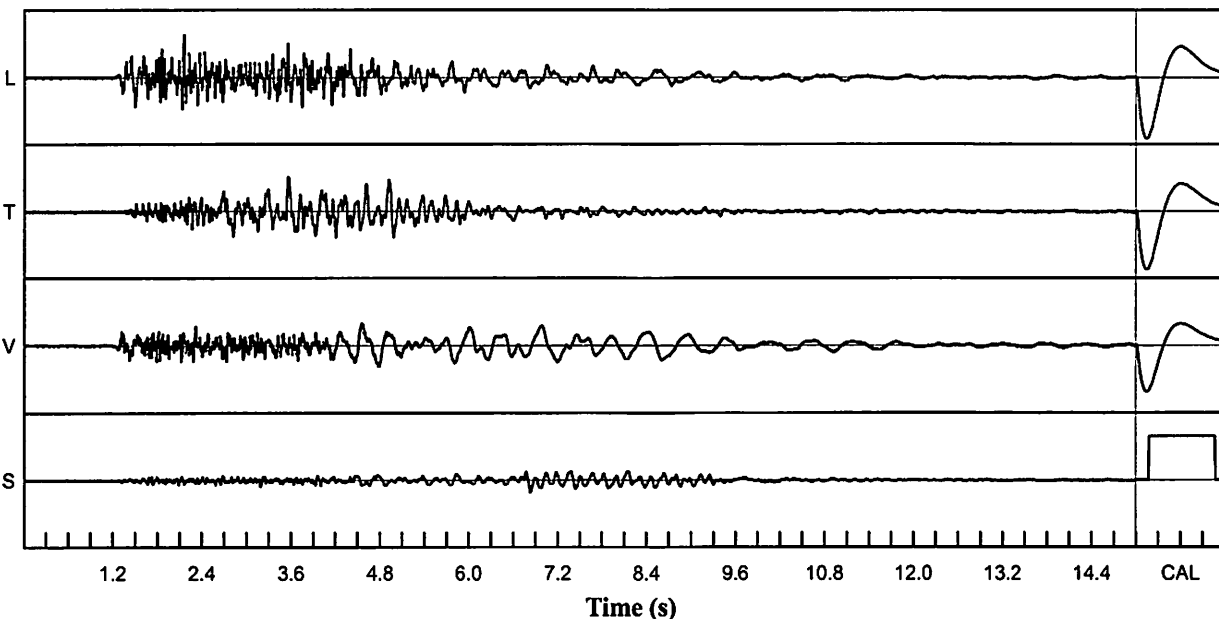
Additional Info:

Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5218 Event: 21



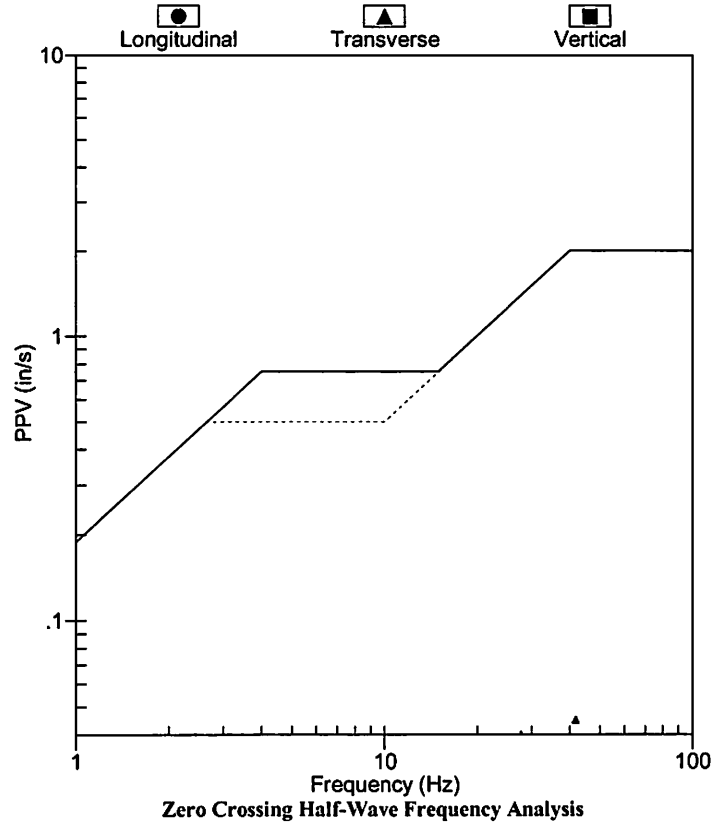
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 01/22/2019 12:46:59
Event No: 22
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5218 Event: 22



	Summary Data		
	L	T	V
PPV (in/s)	0.043	0.045	0.058
FREQ (Hz)	20.8	41.7	83.3
PD (.001")	1.01	1.30	0.67
PPA (g)	0.039	0.033	0.085
Peak Vector Sum :	0.063 in/s		
Peak Air Pressure:	110 db		
	0.00089 PSI @ 83.3 Hz		

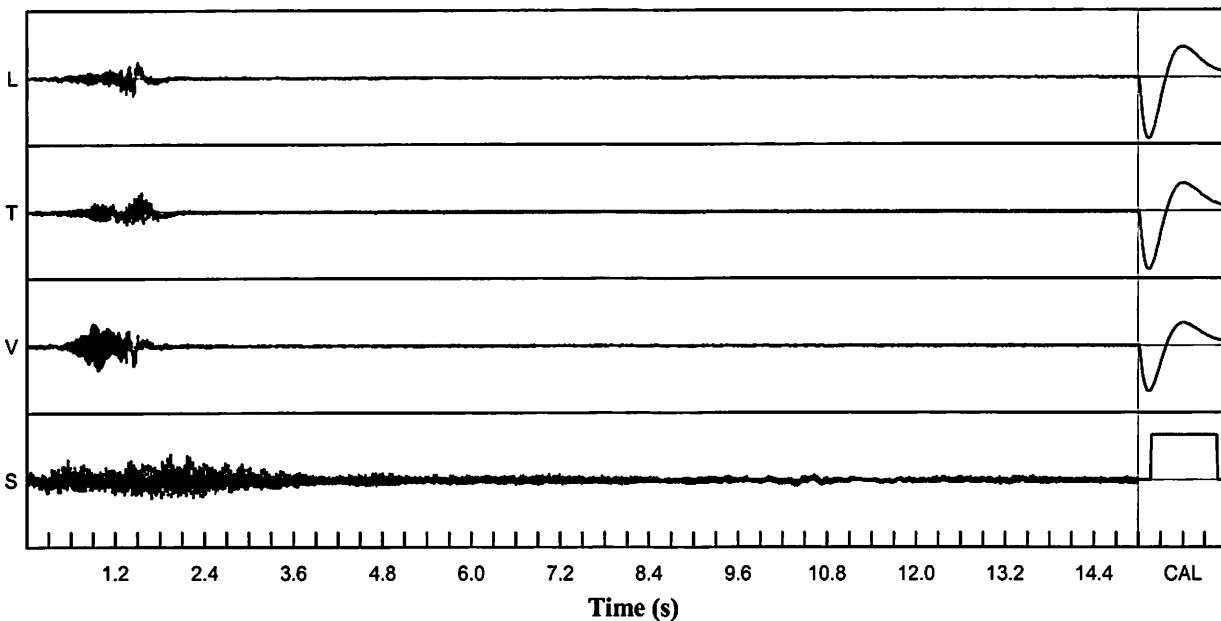
Additional Info:

Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5218 Event: 22



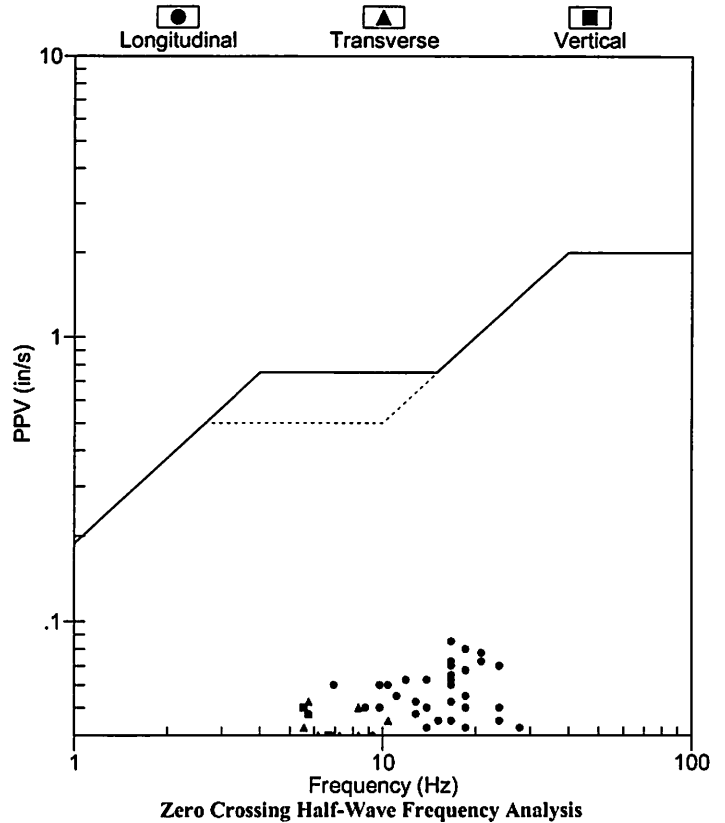
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 01/23/2019 13:30:59
Event No: 23
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

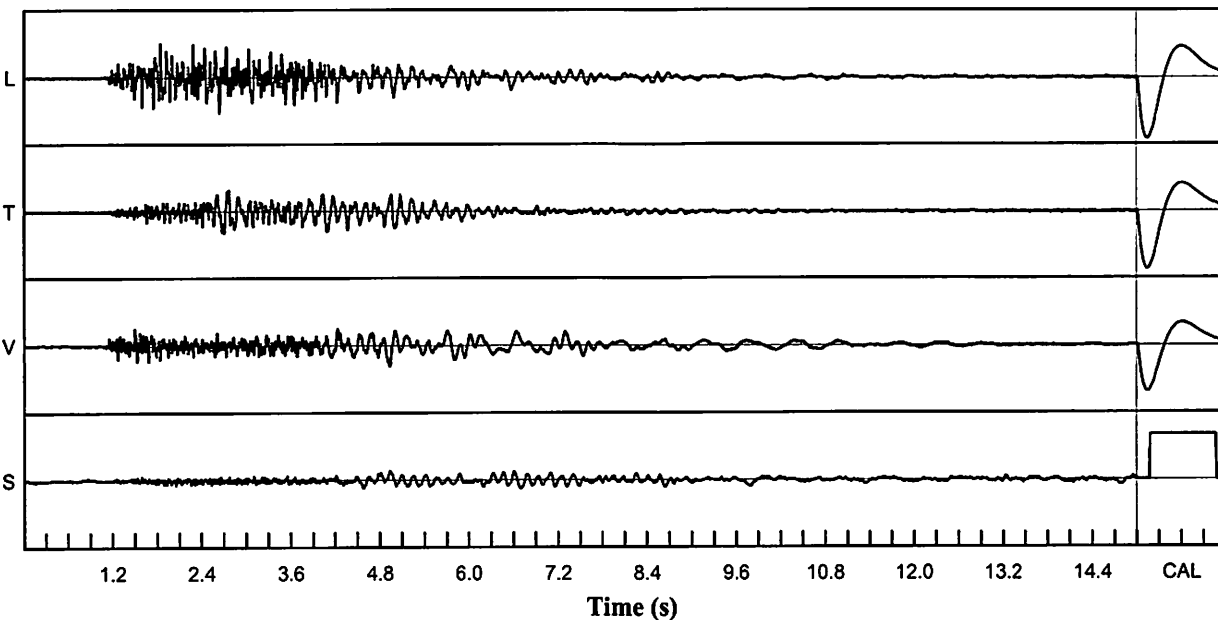
USBM Safe Blasting Levels

SN: 5218 Event: 23



Velocity Waveform

SN: 5218 Event: 23



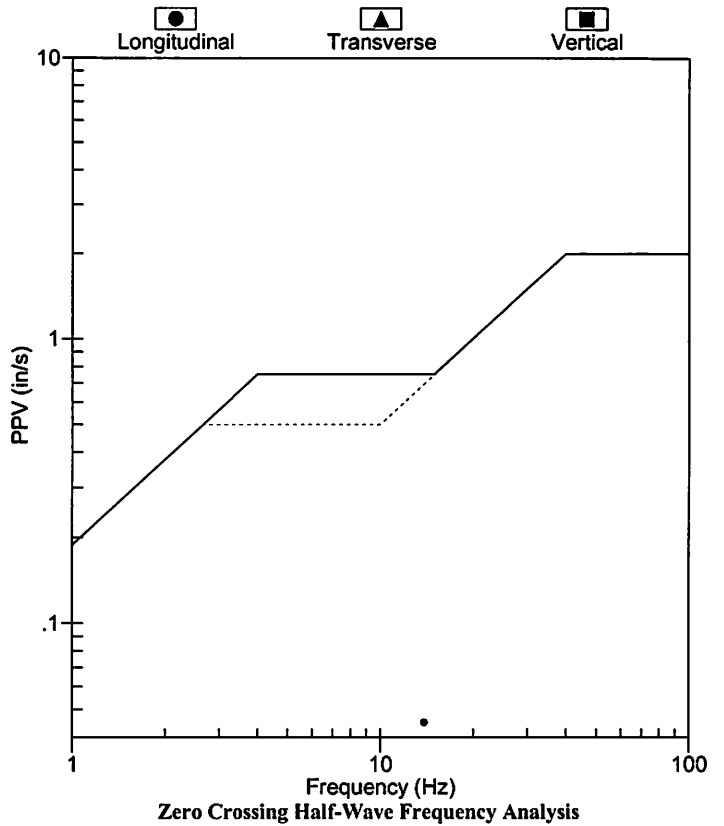
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/07/2019 08:38:12
Event No: 17
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 17



	Summary Data		
	L	T	V
PPV (in/s)	0.065	0.045	0.008
FREQ (Hz)	12.8	11.9	1.7
PD (.001")	0.53	0.44	0.20
PPA (g)	0.033	0.020	0.007
Peak Vector Sum :	0.080 in/s		
Peak Air Pressure:	82 db		
	0.00004 PSI @ 1.0 Hz		

Additional Info:

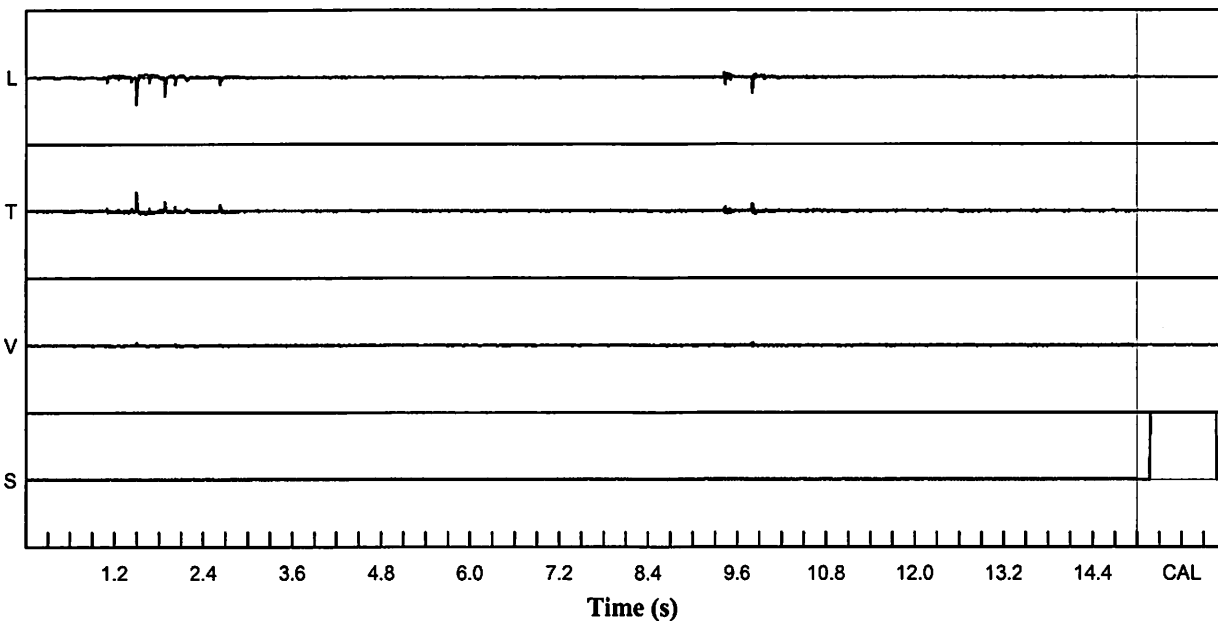
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 17



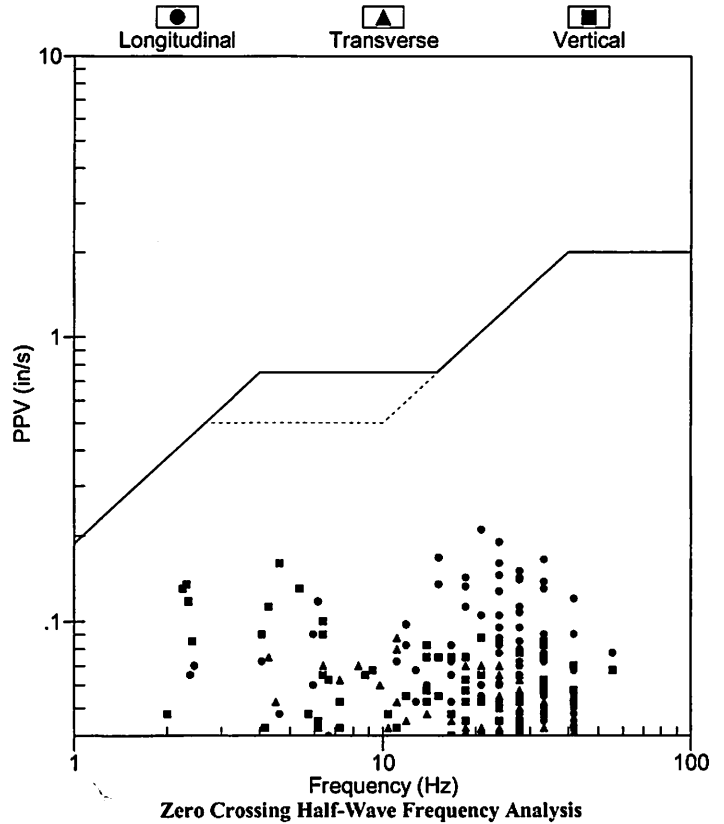
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/07/2019 11:46:28
Event No: 18
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 18



	Summary Data		
	L	T	V
PPV (in/s)	0.210	0.088	0.160
FREQ (Hz)	20.8	11.1	4.6
PD (.001")	3.55	2.41	8.51
PPA (g)	0.091	0.033	0.059
Peak Vector Sum :	0.210 in/s		
Peak Air Pressure:	106 db		
	0.00061 PSI @ 9.8 Hz		

Additional Info:

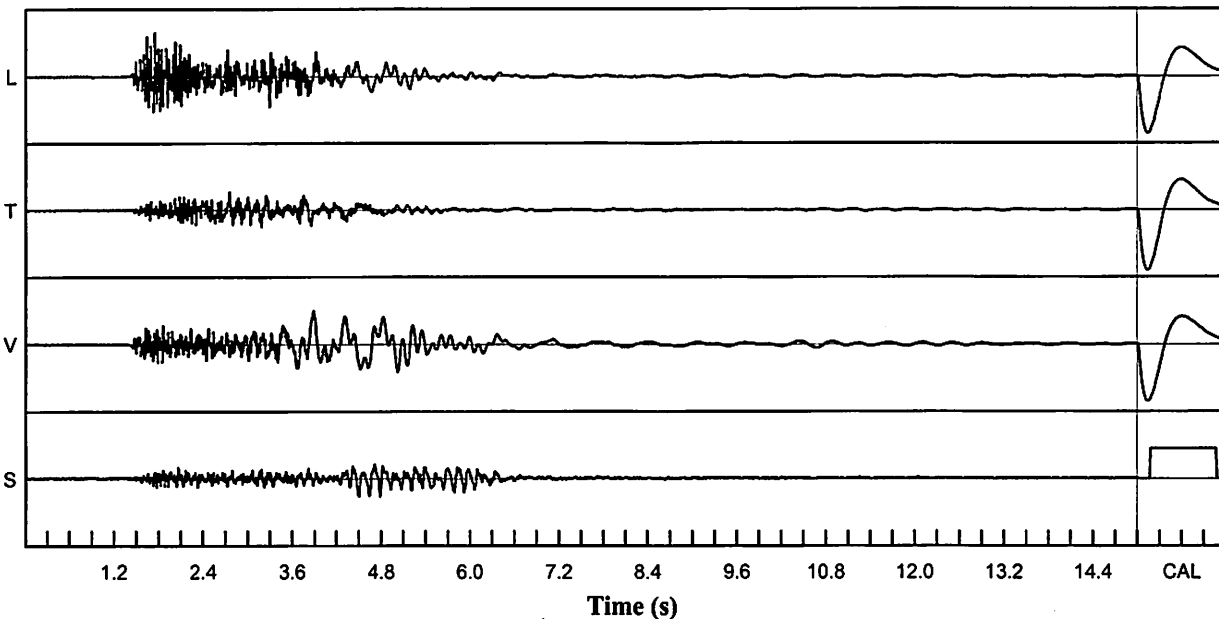
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.320 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 18



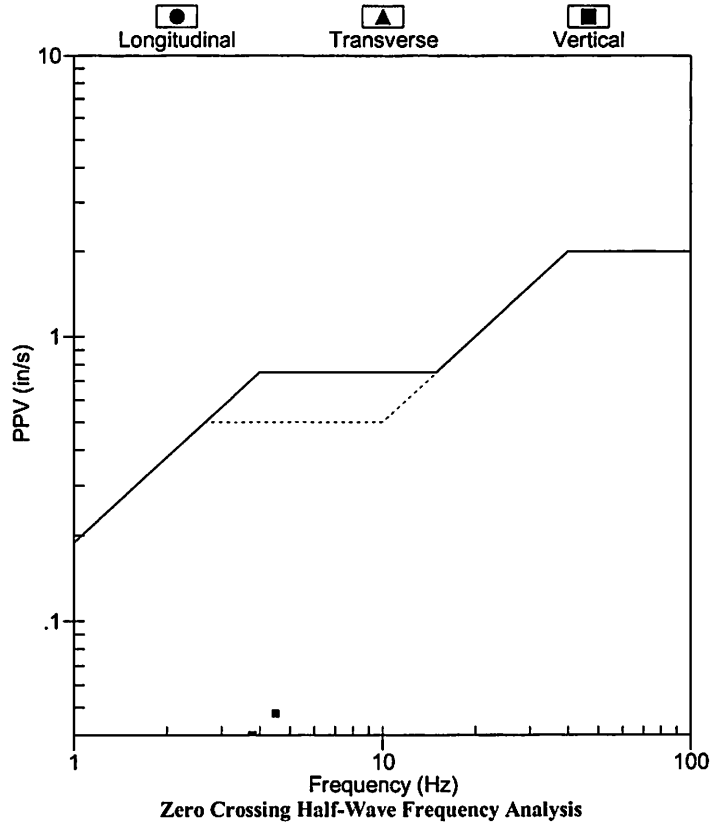
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/08/2019 11:31:21
Event No: 19
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 19



	Summary Data		
	L	T	V
PPV (in/s)	0.028	0.035	0.048
FREQ (Hz)	27.8	27.8	4.5
PD (.001")	0.56	0.65	1.52
PPA (g)	0.026	0.026	0.033
Peak Vector Sum :	0.053 in/s		
Peak Air Pressure:	91 db		
	0.00025 PSI @ 1.6 Hz		

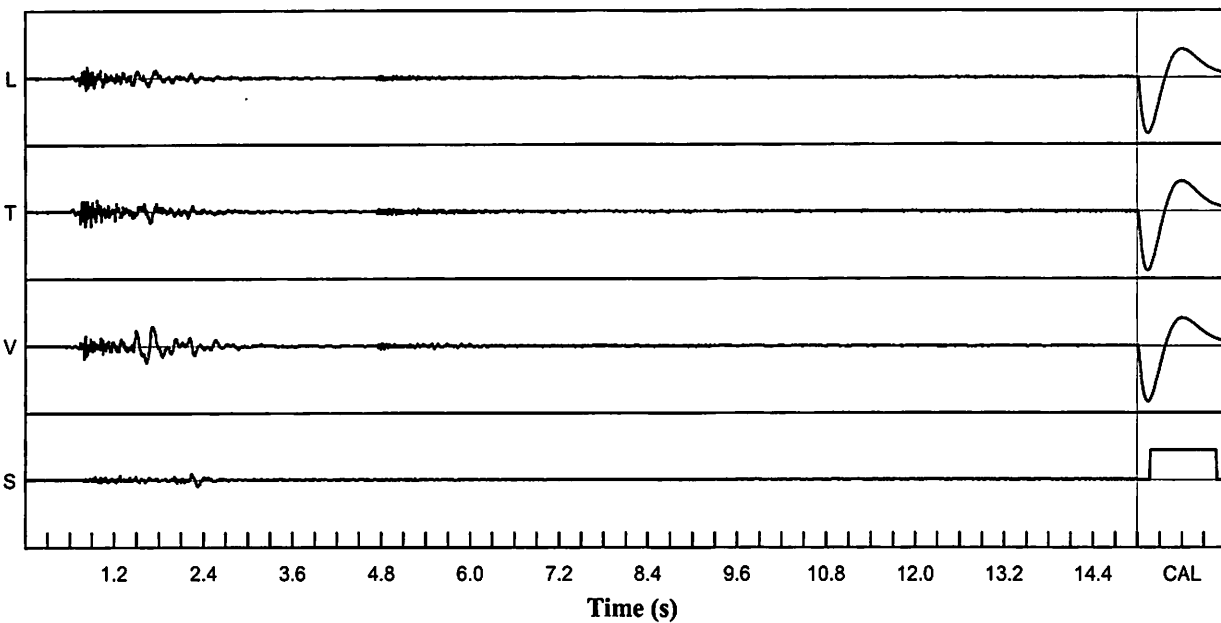
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 19



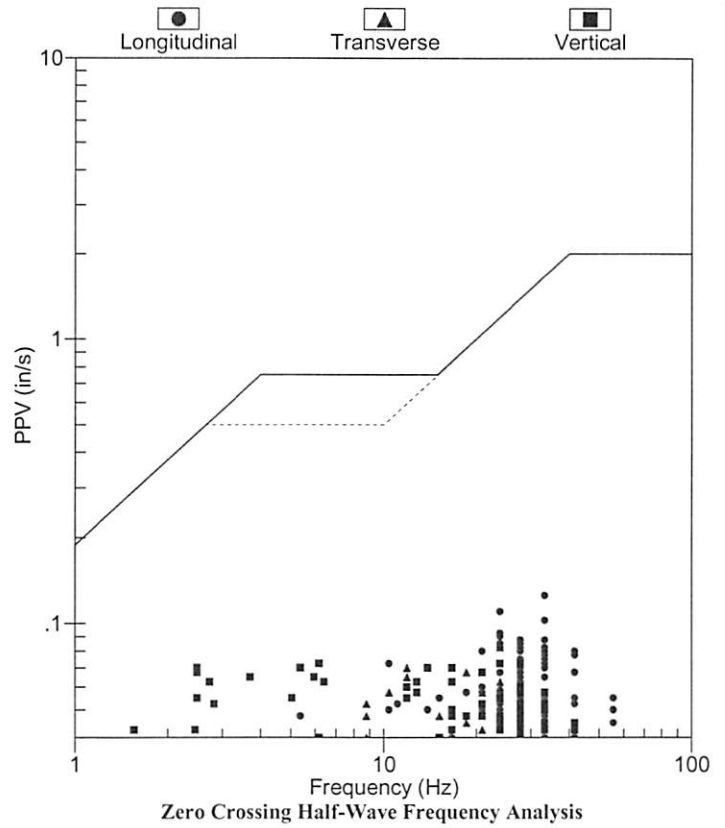
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/10/2019 11:30:56
Event No: 20
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 20



Summary Data

	L	T	V
PPV (in/s)	0.125	0.083	0.073
FREQ (Hz)	33.3	23.8	23.8
PD (.001")	1.64	1.76	3.81
PPA (g)	0.065	0.033	0.039
Peak Vector Sum :	0.138 in/s		
Peak Air Pressure:	106 db		
	0.00061 PSI @ 7.9 Hz		

Additional Info:

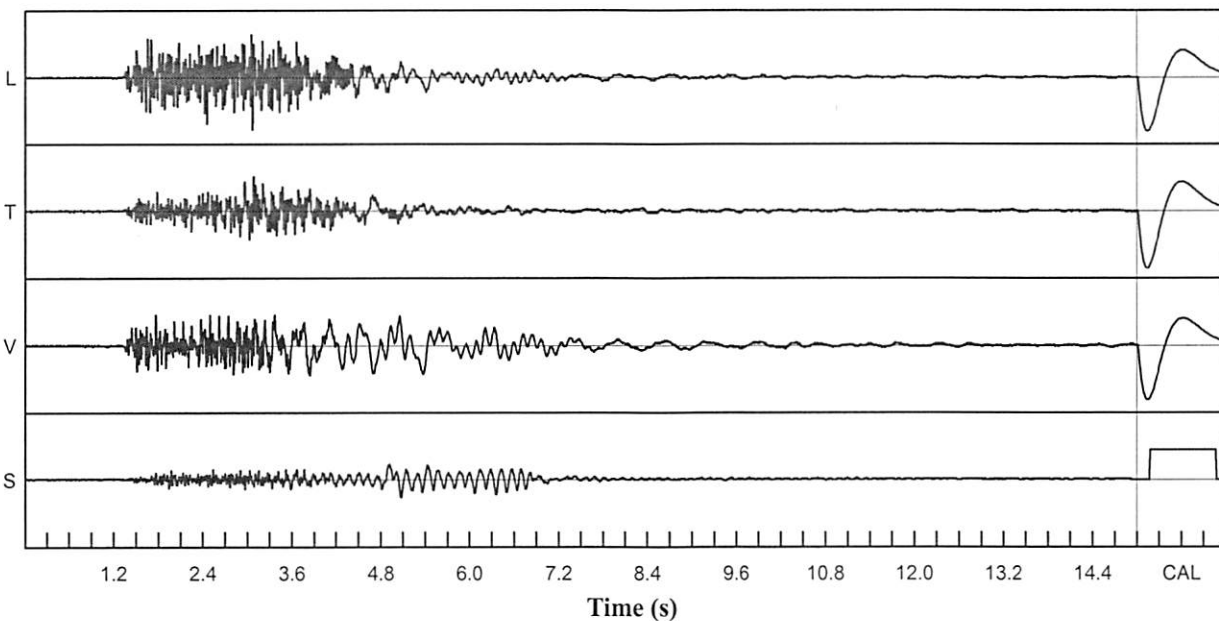
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 20



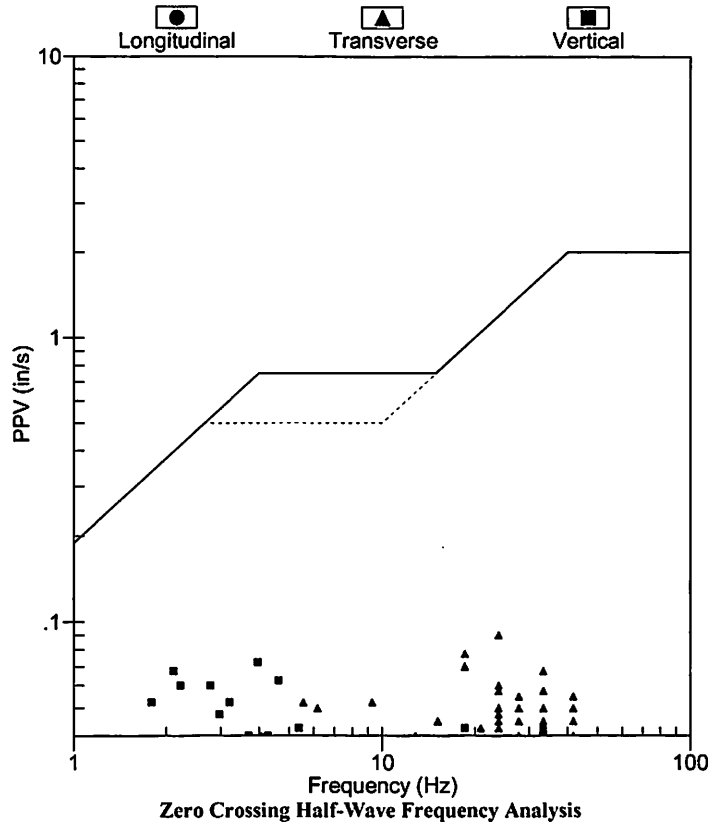
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/11/2019 11:31:15
Event No: 21
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

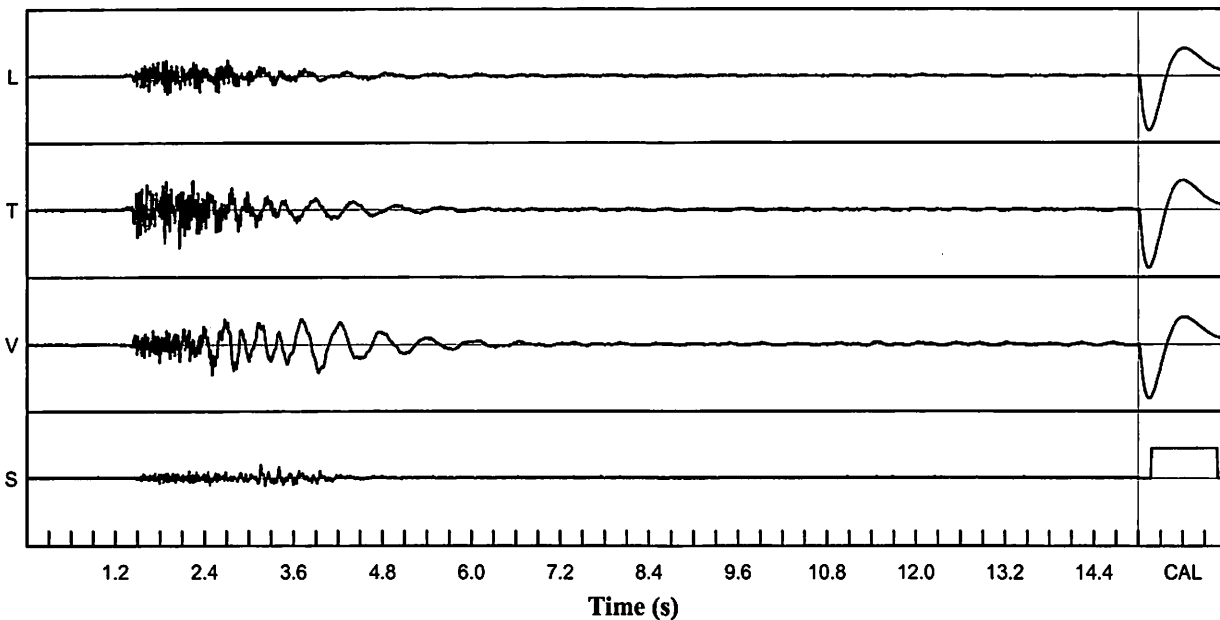
USBM Safe Blasting Levels

SN: 5148 Event: 21



Velocity Waveform

SN: 5148 Event: 21



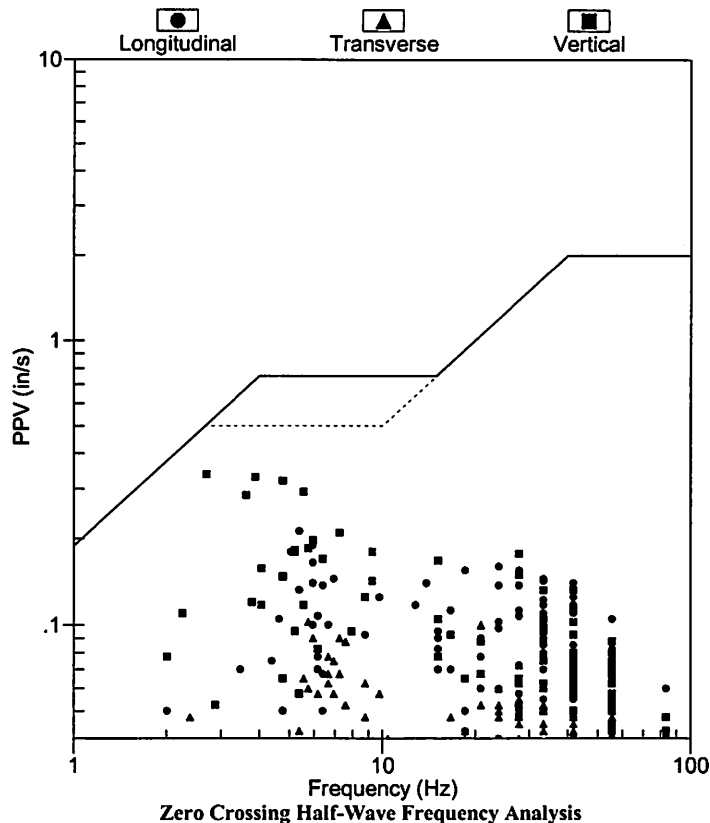
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/14/2019 14:31:20
Event No: 22
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 22



	Summary Data		
	L	T	V
PPV (in/s)	0.213	0.103	0.338
FREQ (Hz)	5.4	5.7	2.7
PD (.001")	6.41	2.65	13.34
PPA (g)	0.111	0.046	0.091
Peak Vector Sum :	0.353 in/s		
Peak Air Pressure:	109 db		
	0.00089 PSI @ 9.8 Hz		

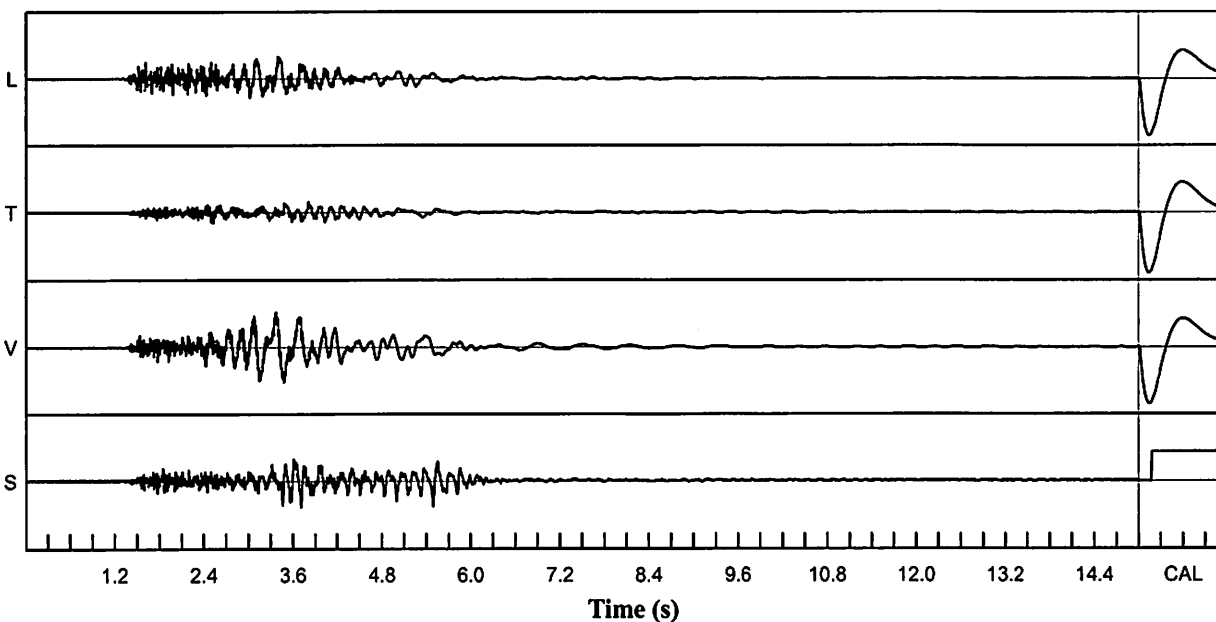
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.640 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 22



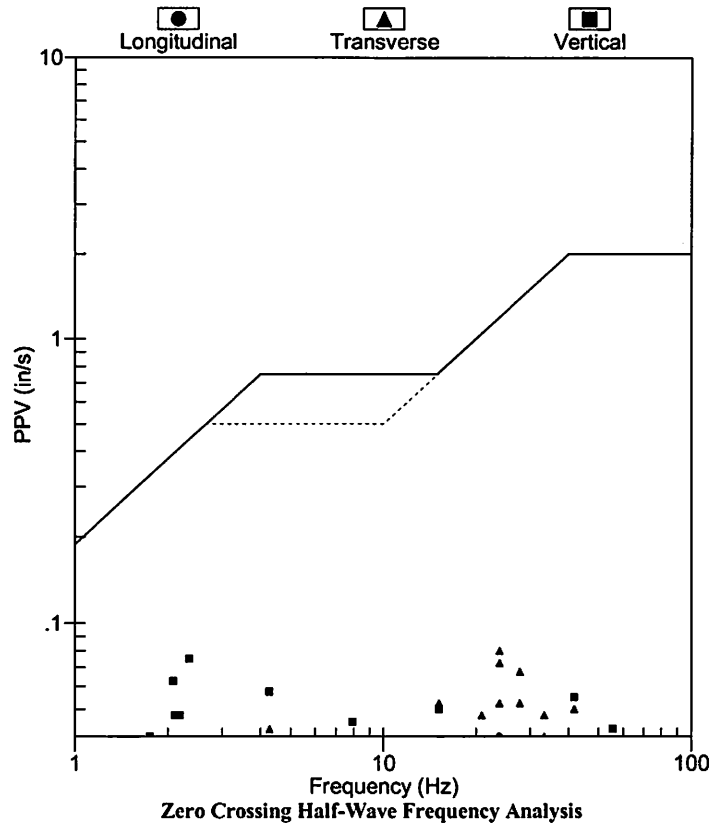
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/15/2019 11:31:30
Event No: 23
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 23



	Summary Data		
	L	T	V
PPV (in/s)	0.040	0.080	0.075
FREQ (Hz)	23.8	23.8	2.3
PD (.001")	0.70	1.56	3.40
PPA (g)	0.020	0.039	0.039
Peak Vector Sum :	0.083 in/s		
Peak Air Pressure:	95 db		
	0.00032 PSI @ 4.5 Hz		

Additional Info:

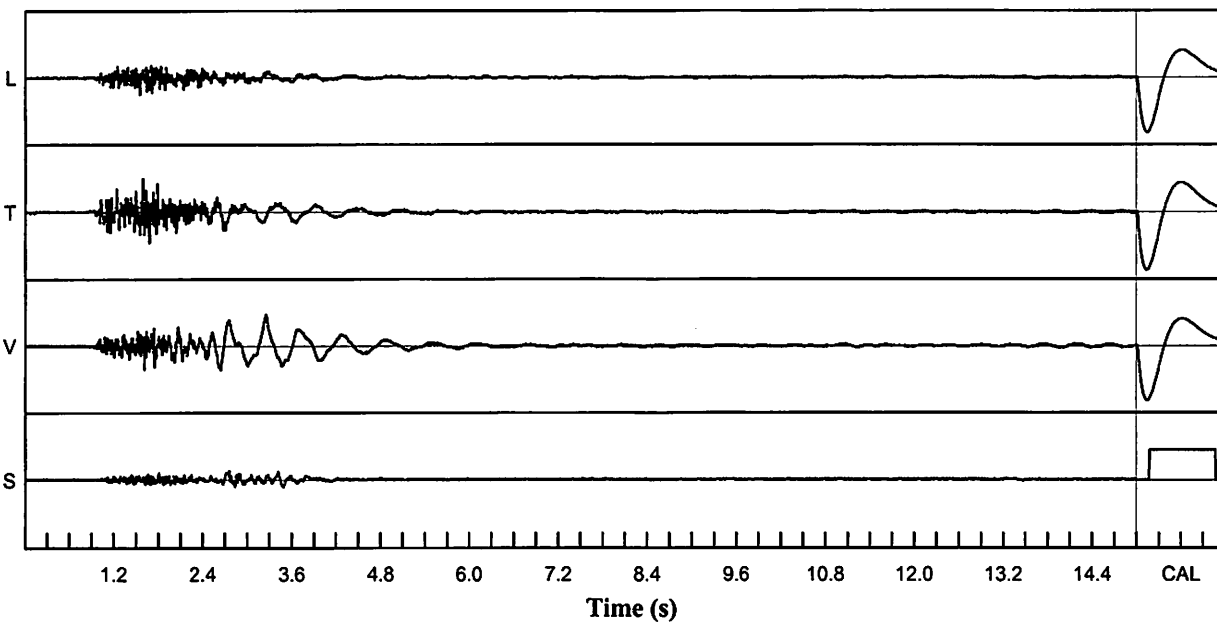
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 23



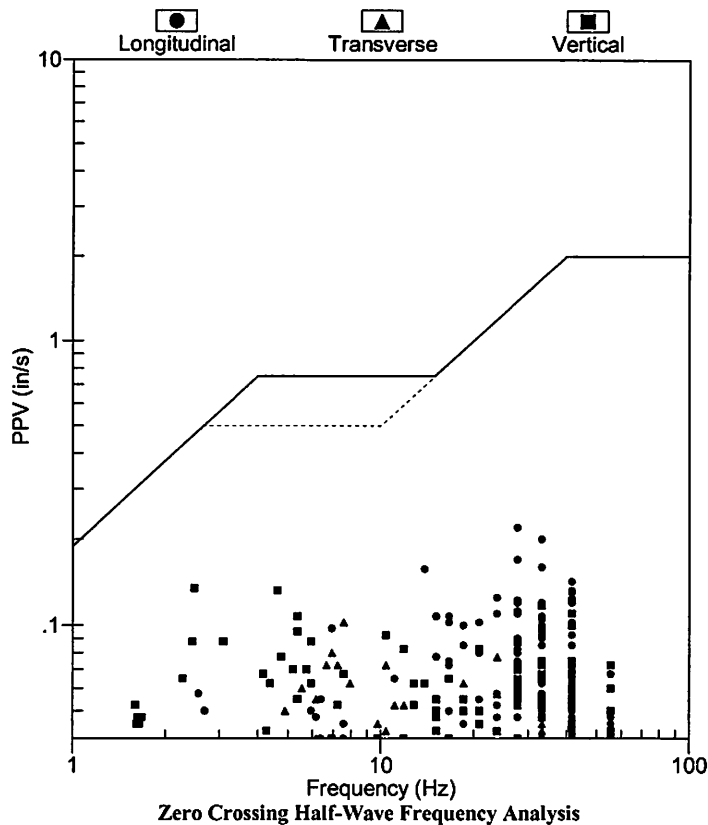
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/16/2019 13:31:25
Event No: 24
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 24



	Summary Data		
	L	T	V
PPV (in/s)	0.220	0.103	0.135
FREQ (Hz)	27.8	7.6	2.5
PD (.001")	2.81	2.38	5.25
PPA (g)	0.111	0.052	0.078
Peak Vector Sum :	0.223 in/s		
Peak Air Pressure:	108 db		
	0.00085 PSI @ 9.3 Hz		

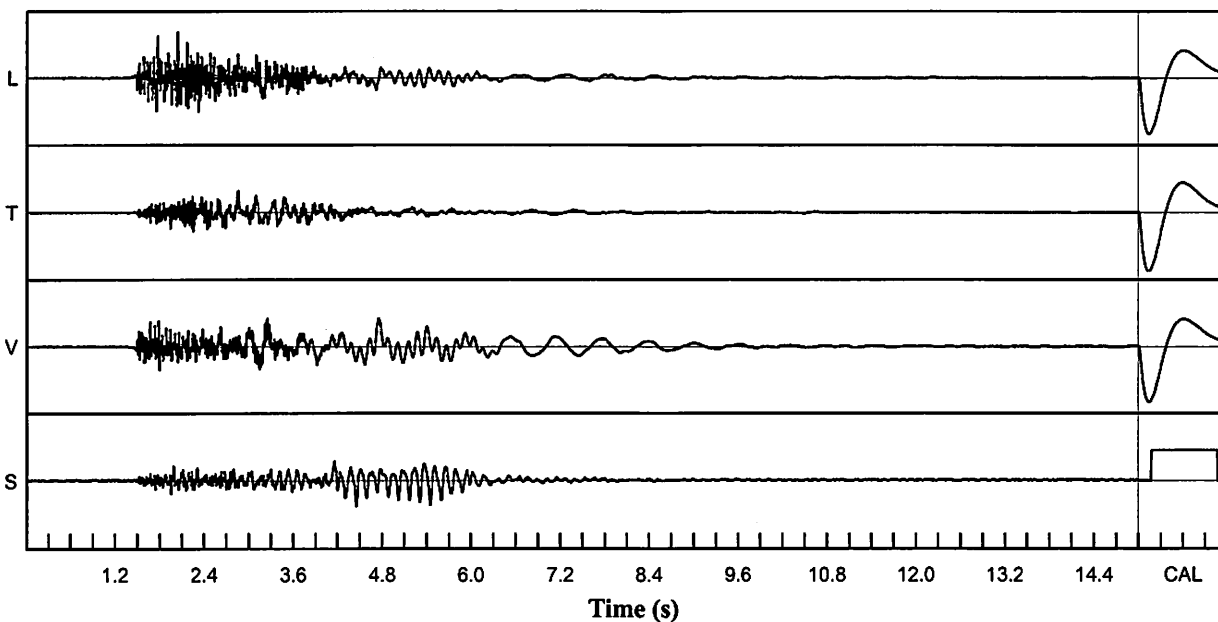
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.320 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 24



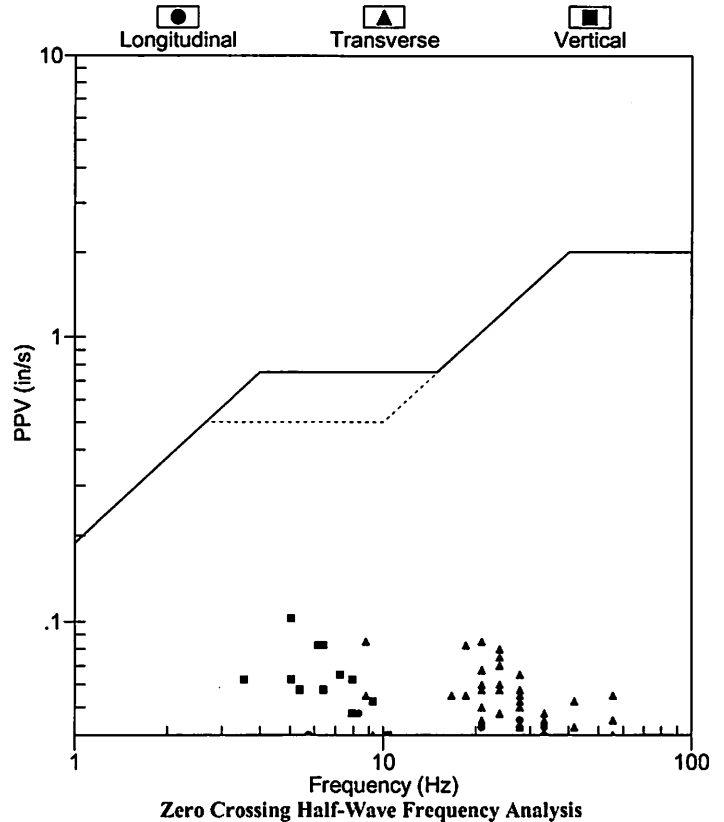
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/17/2019 11:31:38
Event No: 25
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

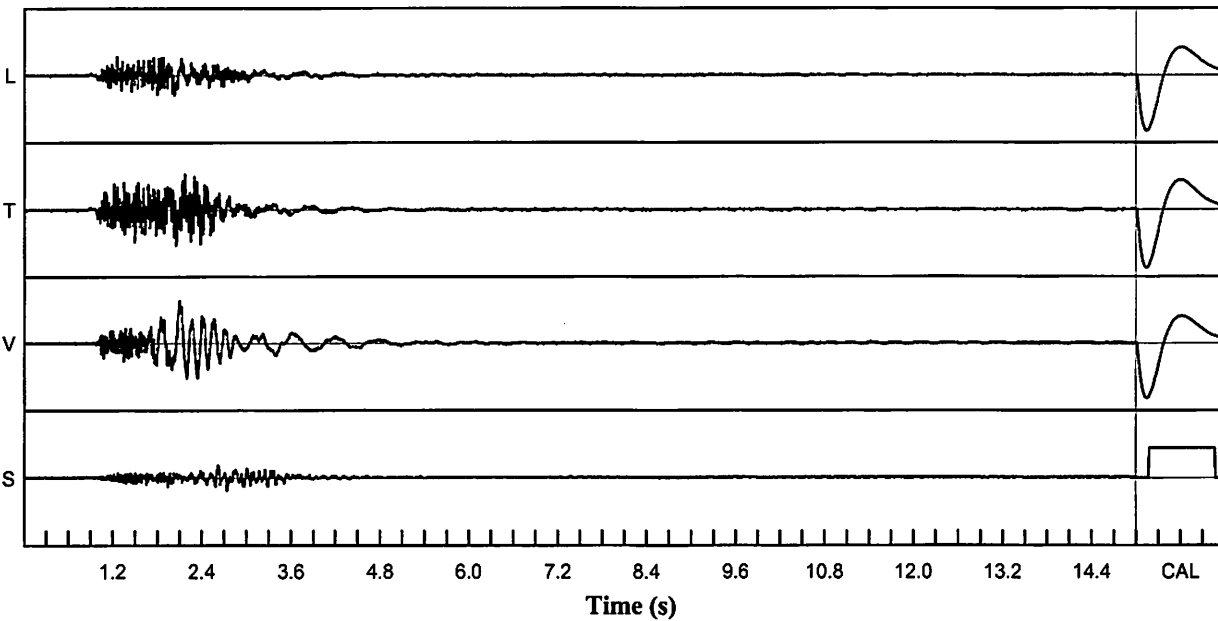
USBM Safe Blasting Levels

SN: 5148 Event: 25



Velocity Waveform

SN: 5148 Event: 25



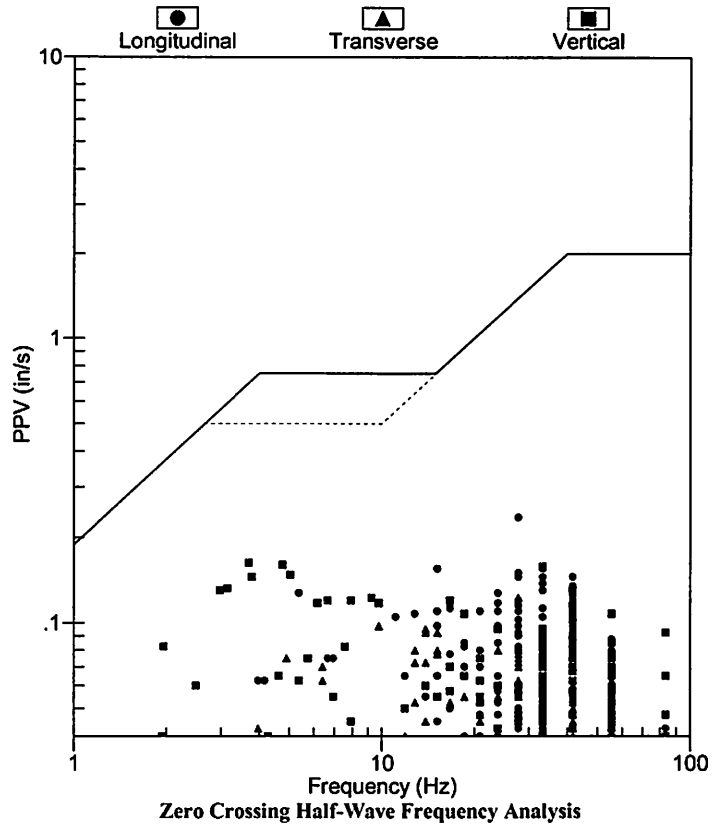
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/18/2019 11:26:04
Event No: 26
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 26



	Summary Data		
	L	T	V
PPV (in/s)	0.235	0.123	0.163
FREQ (Hz)	27.8	27.8	3.7
PD (.001")	4.02	2.50	7.70
PPA (g)	0.104	0.059	0.085
Peak Vector Sum :	0.285 in/s		
Peak Air Pressure:	108 db		
	0.00082 PSI @ 8.3 Hz		

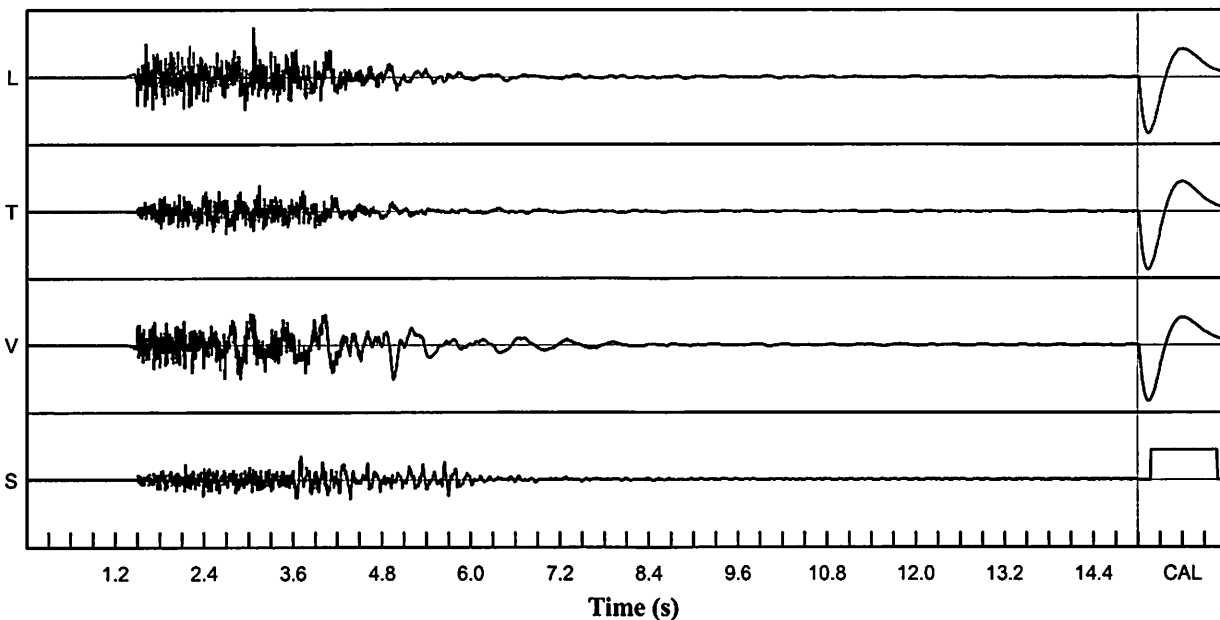
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.320 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 26



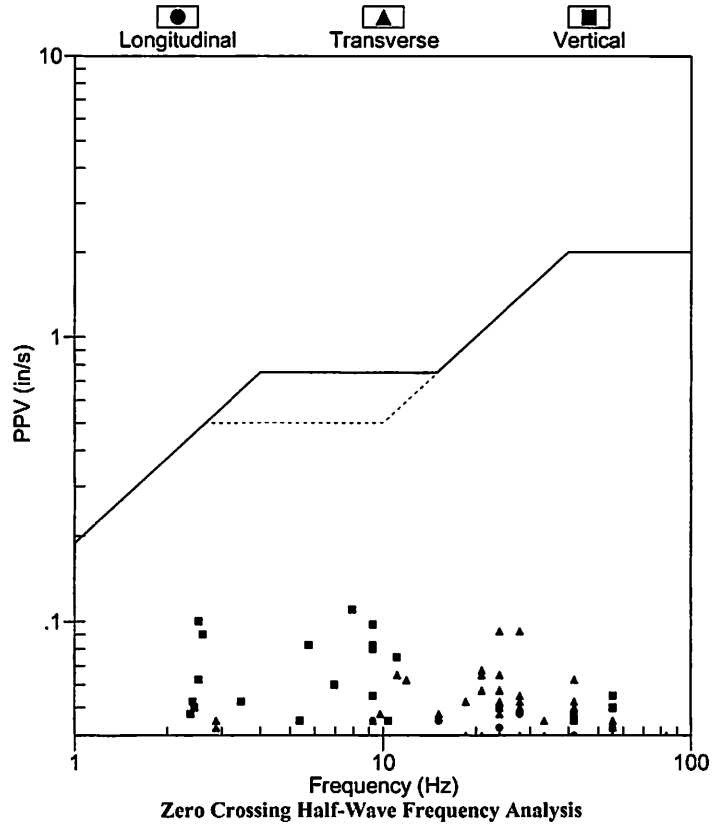
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/22/2019 11:32:03
Event No: 27
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 27



	Summary Data		
	L	T	V
PPV (in/s)	0.050	0.093	0.110
FREQ (Hz)	23.8	23.8	7.9
PD (.001")	1.08	2.38	6.16
PPA (g)	0.033	0.052	0.046
Peak Vector Sum :	0.138 in/s		
Peak Air Pressure:	98 db		
	0.00039 PSI @ 10.4 Hz		

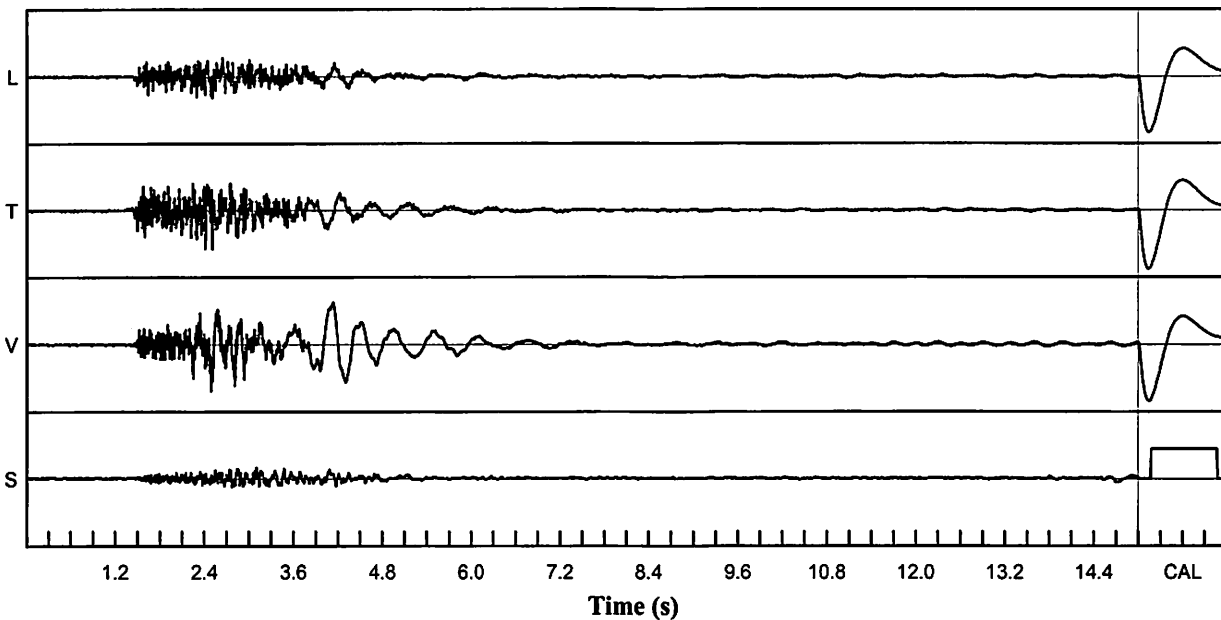
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 27



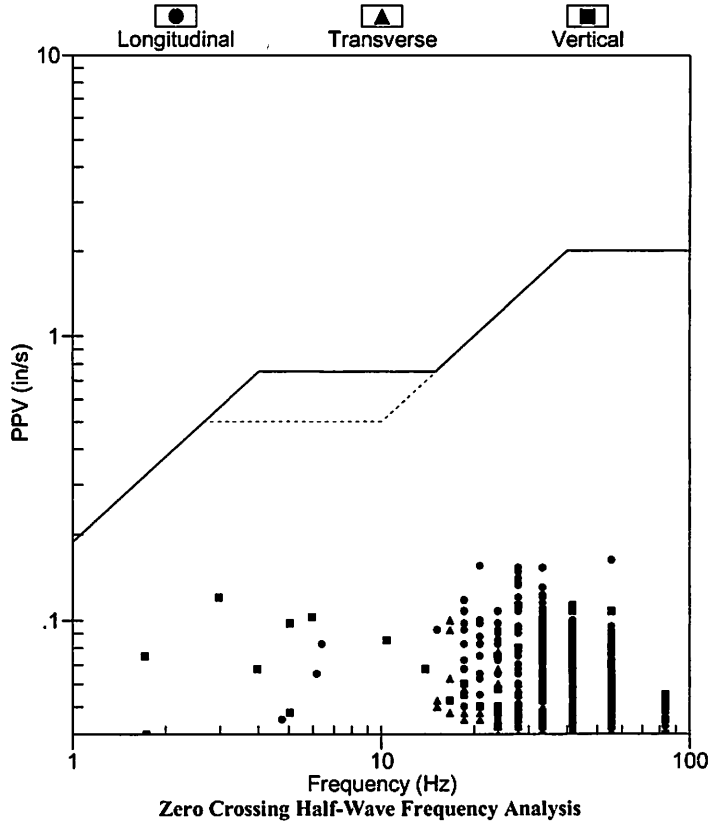
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/23/2019 13:31:44
Event No: 28
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

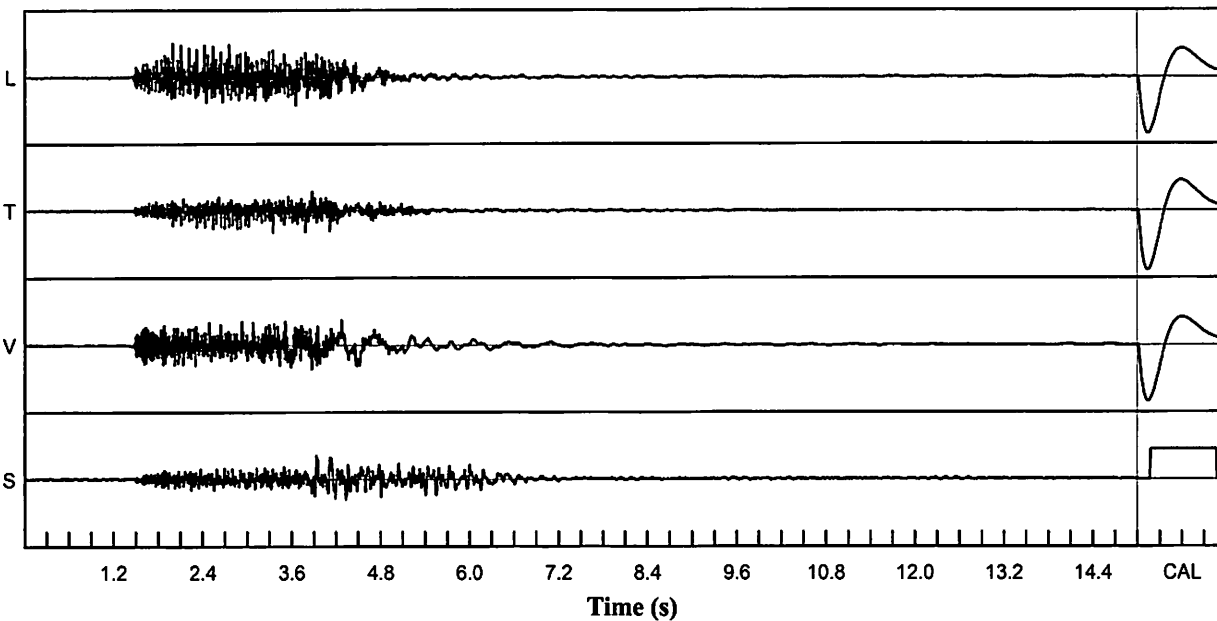
USBM Safe Blasting Levels

SN: 5148 Event: 28



Velocity Waveform

SN: 5148 Event: 28



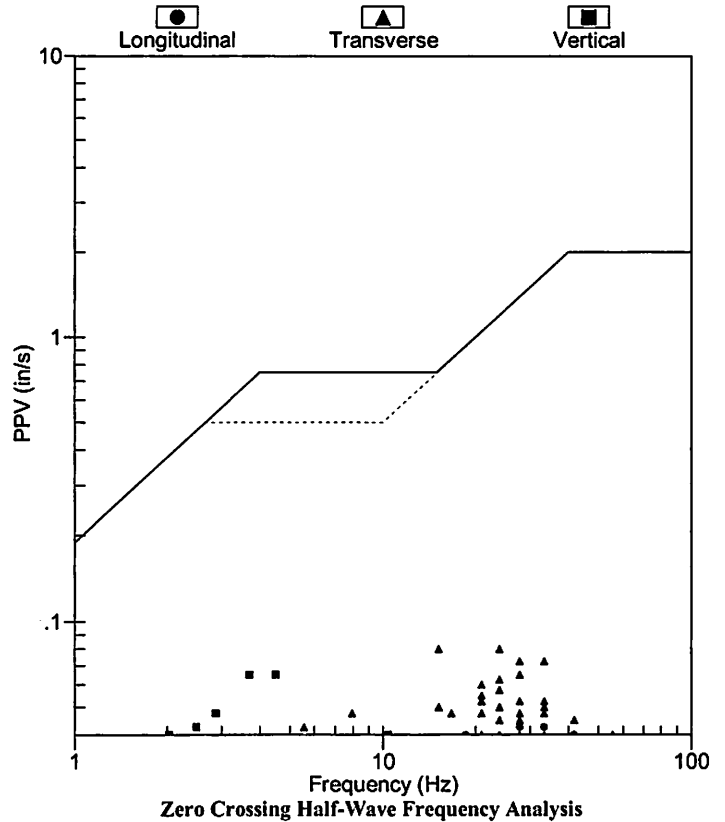
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/25/2019 11:32:07
Event No: 29
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 29



	Summary Data		
	L	T	V
PPV (in/s)	0.043	0.080	0.065
FREQ (Hz)	33.3	23.8	4.5
PD (.001")	0.70	1.24	3.00
PPA (g)	0.026	0.046	0.033
Peak Vector Sum :	0.083 in/s		
Peak Air Pressure:	96 db		
	0.00036 PSI @ 9.8 Hz		

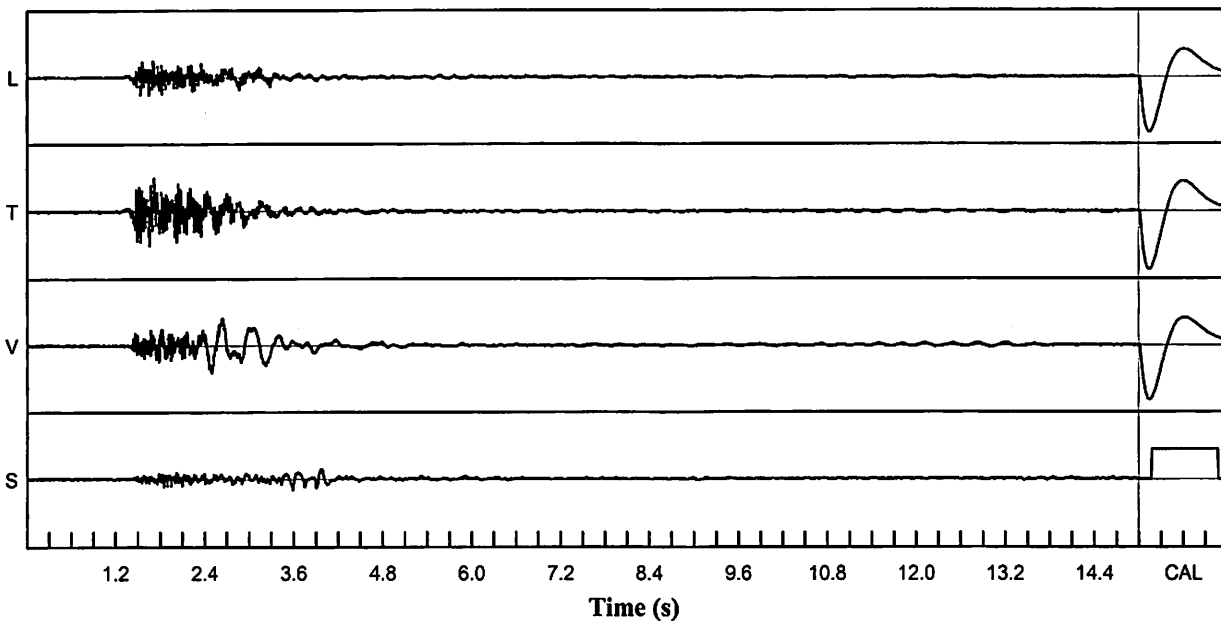
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 29



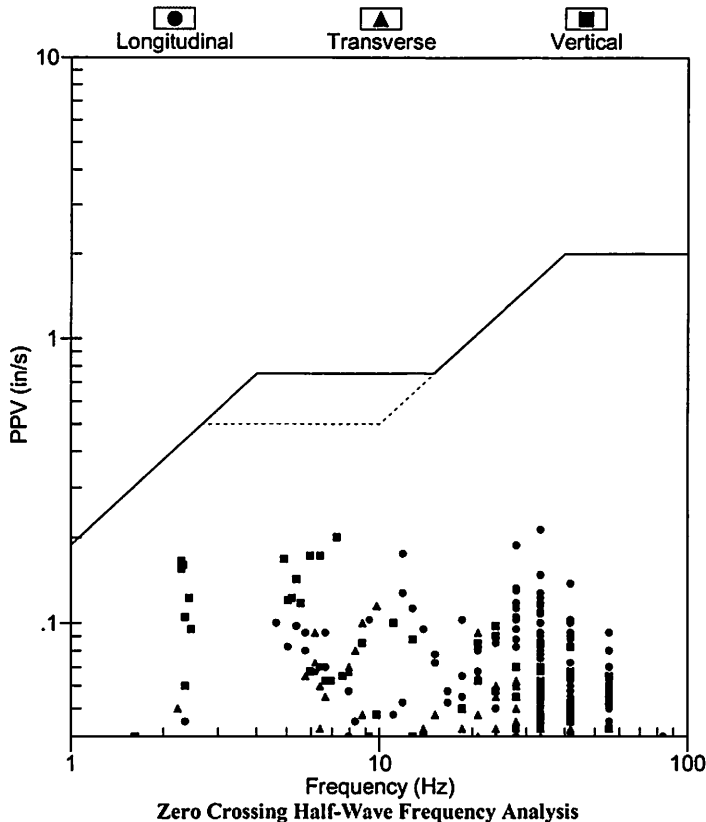
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/29/2019 11:47:02
Event No: 30
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 30



	Summary Data		
	L	T	V
PPV (in/s)	0.213	0.115	0.200
FREQ (Hz)	33.3	9.8	7.2
PD (.001")	4.03	2.68	9.99
PPA (g)	0.091	0.039	0.065
Peak Vector Sum :	0.250 in/s		
Peak Air Pressure:	114 db		
	0.00160 PSI @ 8.8 Hz		

Additional Info:

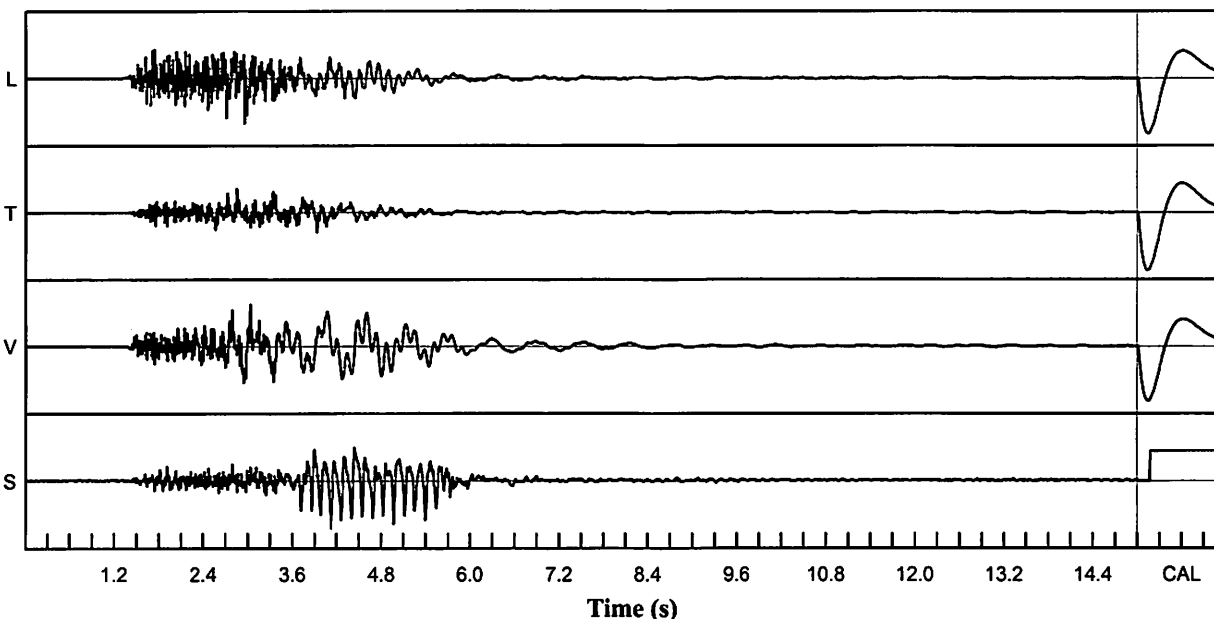
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.320 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 30



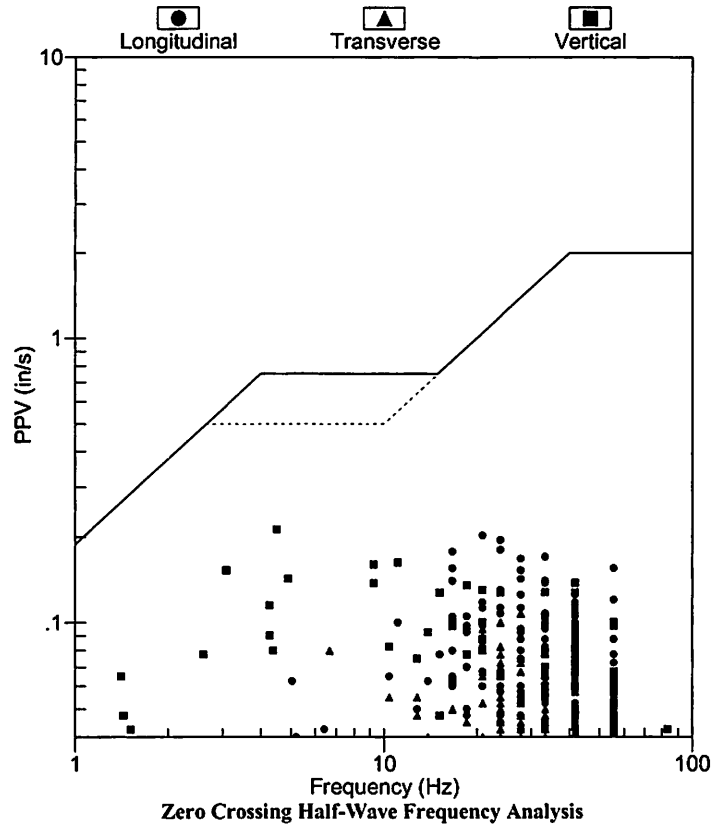
GeoSonics, Inc. Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 01/30/2019 15:02:08
Event No: 31
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 31



	Summary Data		
	L	T	V
PPV (in/s)	0.203	0.108	0.213
FREQ (Hz)	20.8	27.8	4.5
PD (.001")	2.98	1.97	6.12
PPA (g)	0.104	0.059	0.085
Peak Vector Sum :	0.220 in/s		
Peak Air Pressure:	106 db		
	0.00057 PSI @ 12.8 Hz		

Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.320 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 31

