

Miramar Siesmic Reading: White Rock Quarries.

Location: 17040 SW 53 Ct

Date:	Time:	PPV:
9/24/2018	11:30 AM	0.145
9/26/2018	2:01 PM	0.068
9/27/2018	11:31 AM	0.103
10/1/2018	11:31 AM	0.135
10/2/2018	11:31 AM	0.095
10/3/2018	11:31 AM	0.038
10/4/2018	11:31 AM	0.11
10/5/2018	11:16 AM	0.068
10/9/2018	2:01 PM	0.05
10/11/2018	2:02 PM	0.065
10/15/2018	11:47 AM	0.1
10/16/2018	11:32 AM	0.05
10/17/2018	1:02 PM	0.053
10/18/2018	1:17 PM	0.098
10/24/2018	11:32 AM	0.078
10/25/2018	11:47 AM	0.128
10/26/2018	11:32 AM	0.13

Location: 5276 SW 152 Ave

Date:	Time:	PPV:
9/24/2018	10:34 AM	0.06
9/27/2018	10:34 AM	0.065
10/1/2018	10:34 AM	0.088
10/2/2018	10:34 AM	0.073
10/4/2018	10:34 AM	0.11
10/15/2018	10:49 AM	0.103
10/18/2018	12:20 PM	0.083
10/24/2018	10:34 AM	0.103
10/26/2018	10:34 AM	0.115
10/30/2018	10:49 AM	0.058
10/31/2018	10:49 AM	0.098
11/5/2018	11:50 AM	0.165

Location: 16171 SW 49 Ct

Date:	Time:	PPV:
10/24/2018	11:33 AM	0.09
10/25/2018	11:48 AM	0.058
10/26/2018	11:33 AM	0.065
10/30/2018	11:48 AM	0.033
10/31/2018	11:48 AM	0.043

11/5/2018
11/14/2018

12:49 PM
3:20 PM

0.078
0.04

Seismic Analysis

USBM/Velocity Waveform Report

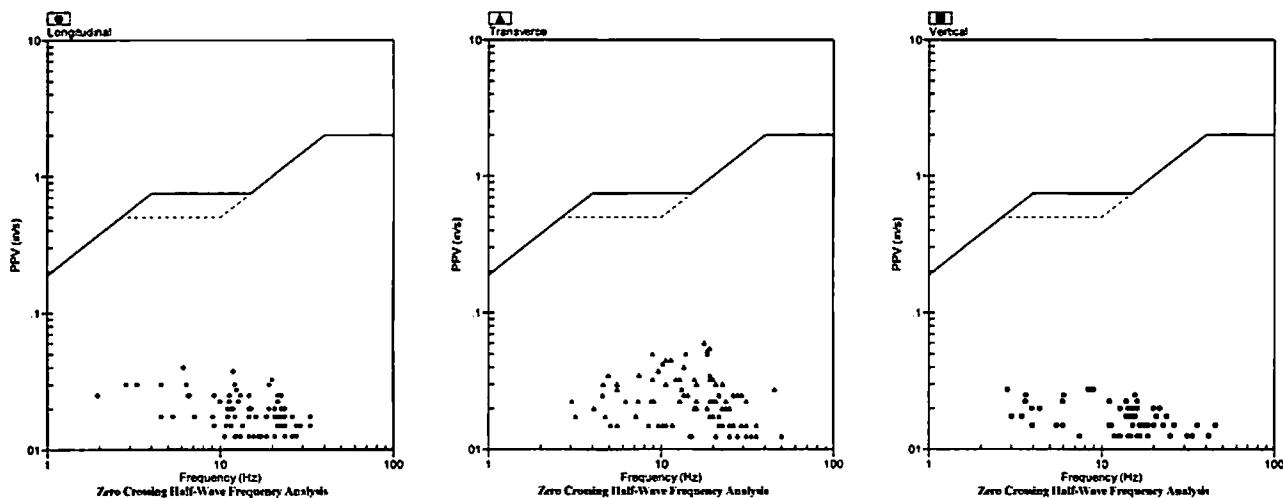
Serial No: 5218 v5.25
Date: 09/24/2018 10:33:49
Event No: 1
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.040	0.060	0.033
FREQ (Hz)	6.2	17.9	7.1
PD (.001")	1.51	1.08	1.42
PPA (g)	0.020	0.033	0.020
Peak Vector Sum:	0.060 in/s		
Peak Air Pressure:	92 db		
	0.00020 PSI @ 31.3 Hz		

Additional Info:

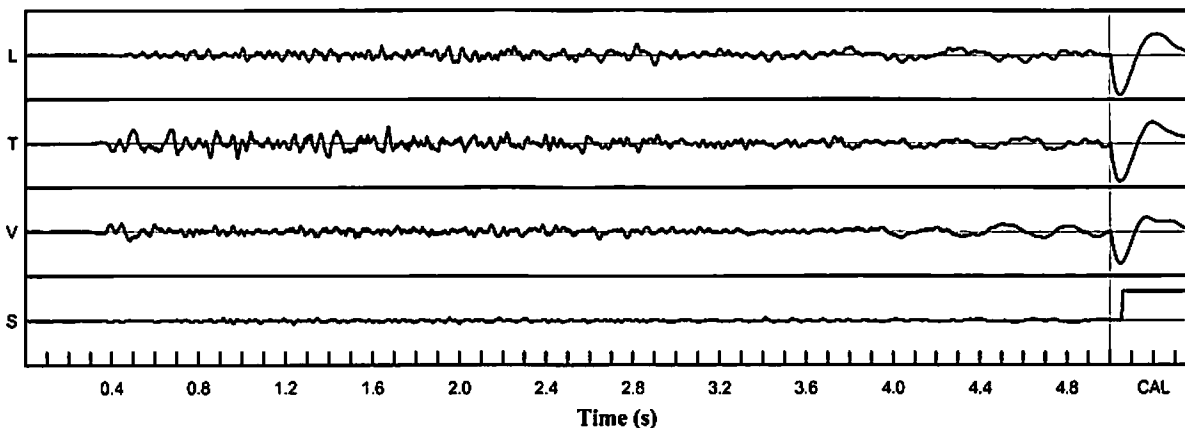
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 1



Velocity Waveform Graph Scale
Time Scale: 0.100 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Seismic Analysis

USBM/Velocity Waveform Report

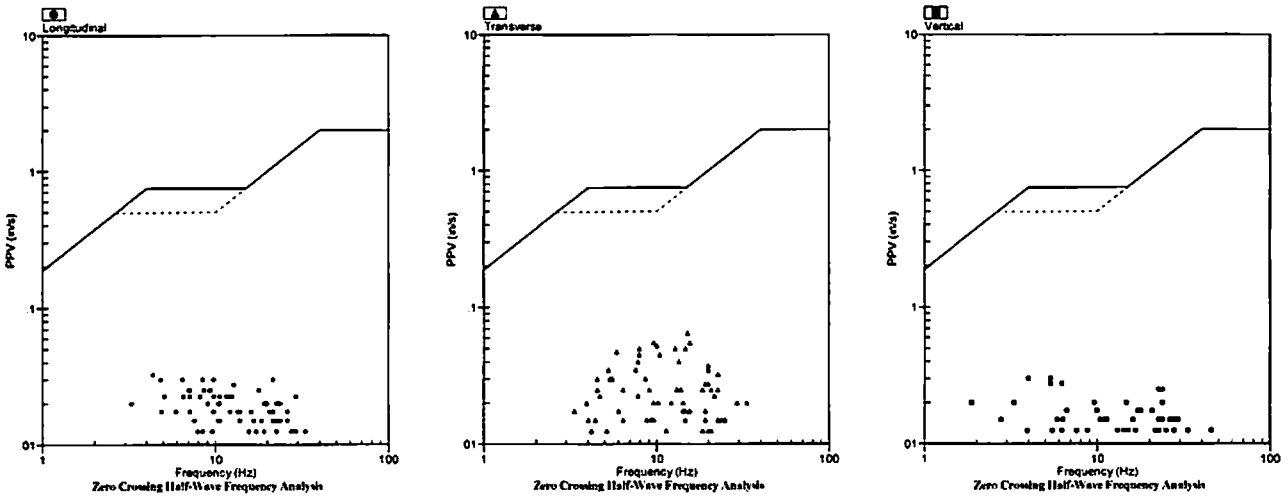
Serial No: 5218 v5.25
Date: 09/27/2018 10:33:57
Event No: 2
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.033	0.065	0.030
FREQ (Hz)	4.4	10.2	4.8
PD (.001")	1.04	1.20	1.30
PPA (g)	0.020	0.020	0.013
Peak Vector Sum:	0.068 in/s		
Peak Air Pressure:	94 db		
	0.00021 PSI @ 21.7 Hz		

Additional Info:

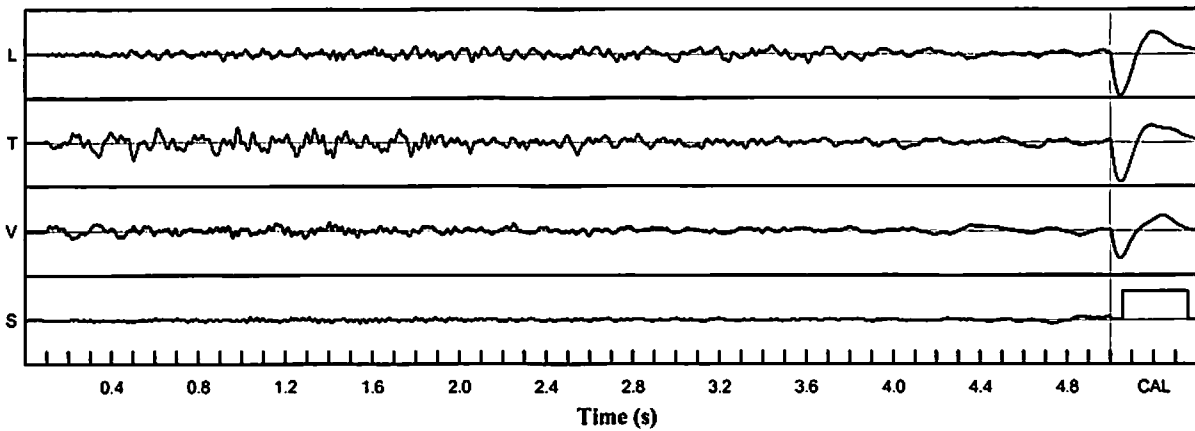
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 2



Velocity Waveform Graph Scale
Time Scale: 0.100 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5218 v5.25
Date: 10/01/2018 10:33:45
Event No: 3
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

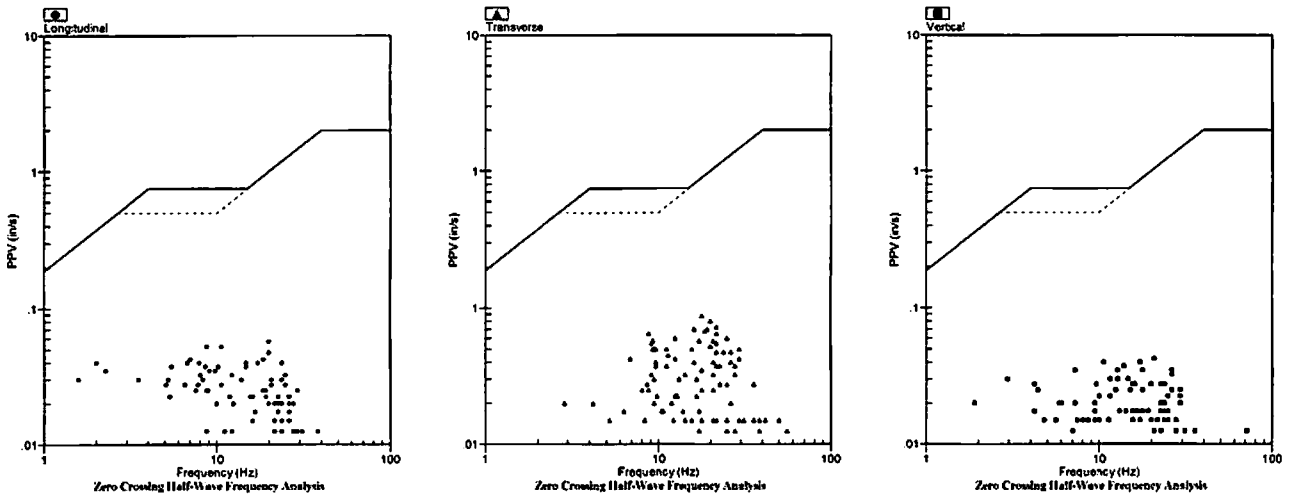
Summary Data

	L	T	V
PPV (in/s)	0.058	0.088	0.043
FREQ (Hz)	20.0	17.9	20.8
PD (.001")	2.23	1.24	1.60
PPA (g)	0.026	0.033	0.020
Peak Vector Sum:	0.093 in/s		
Peak Air Pressure:	92 db		
	0.00020 PSI @ 25.0 Hz		

Additional Info:

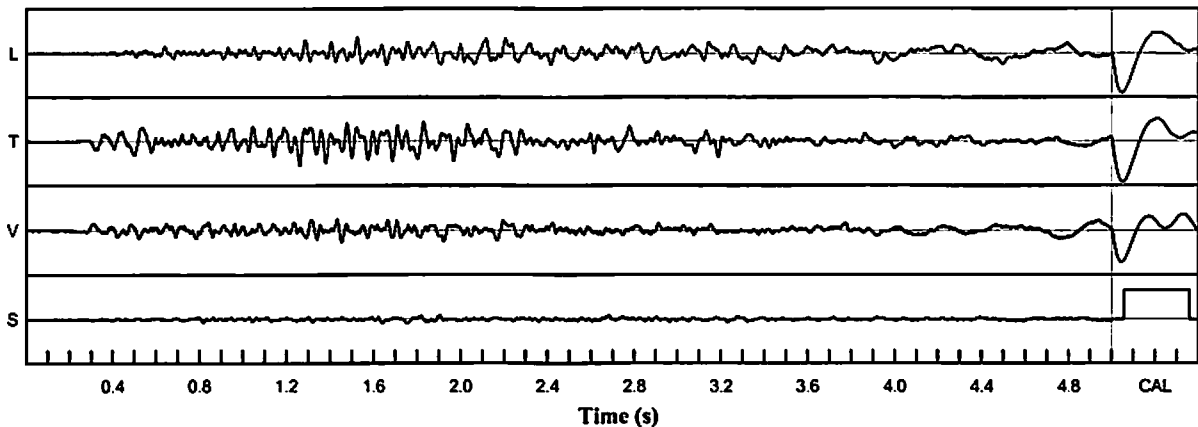
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 3



Velocity Waveform Graph Scale

Time Scale: 0.100 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Seismic Analysis

USBM/Velocity Waveform Report

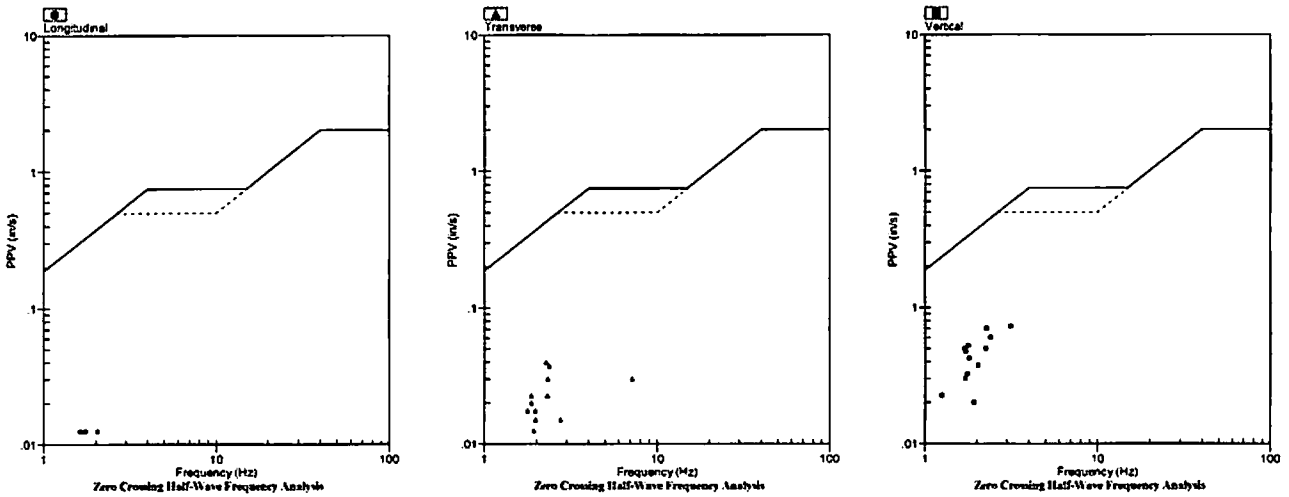
Serial No: 5218 v5.25
Date: 10/02/2018 10:33:56
Event No: 4
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.018	0.040	0.073
FREQ (Hz)	2.4	2.3	2.3
PD (.001")	1.31	2.59	4.98
PPA (g)	0.013	0.013	0.013
Peak Vector Sum:		0.073 in/s	
Peak Air Pressure:		108 db	
		0.00080 PSI @ 2.6 Hz	

Additional Info:

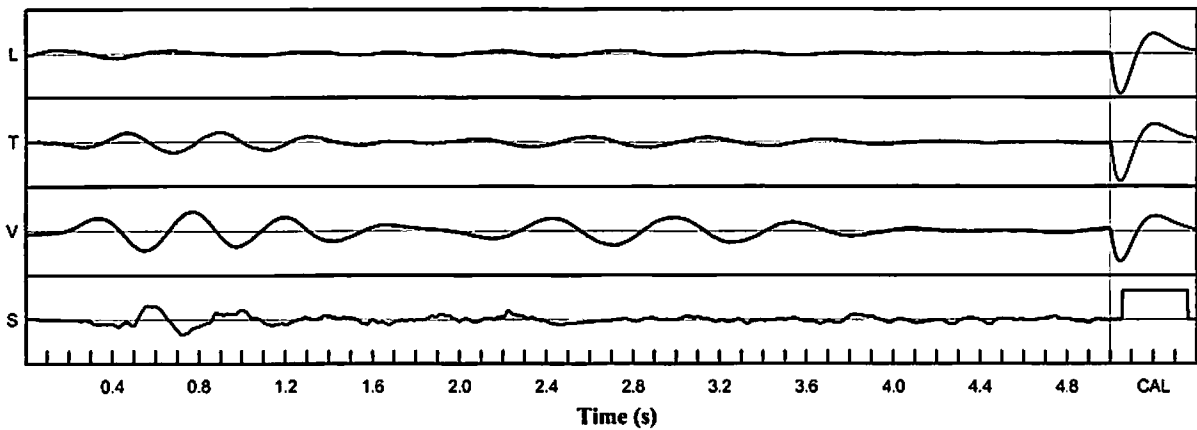
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
TEL: 724.934.2900 **FAX:** 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 4



Velocity Waveform Graph Scale

Time Scale: 0.100 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5218 v5.25
Date: 10/04/2018 10:34:08
Event No: 5
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

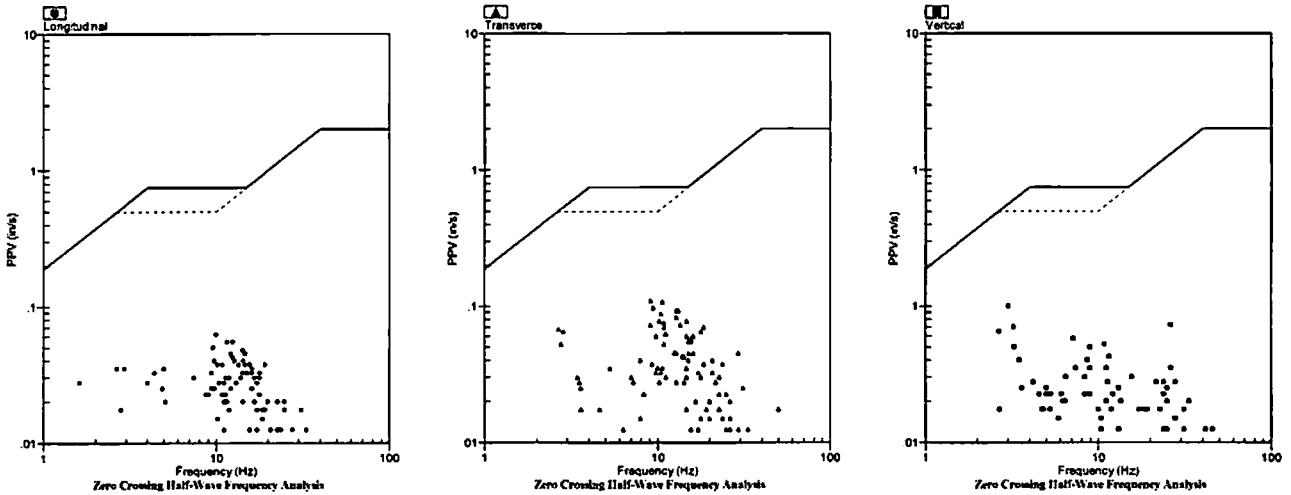
Summary Data

	L	T	V
PPV (in/s)	0.063	0.110	0.105
FREQ (Hz)	10.0	9.1	3.0
PD (.001")	2.10	3.78	7.20
PPA (g)	0.020	0.033	0.026
Peak Vector Sum:	0.120 in/s		
Peak Air Pressure:	101 db		
	0.00037 PSI @ 3.0 Hz		

Additional Info:

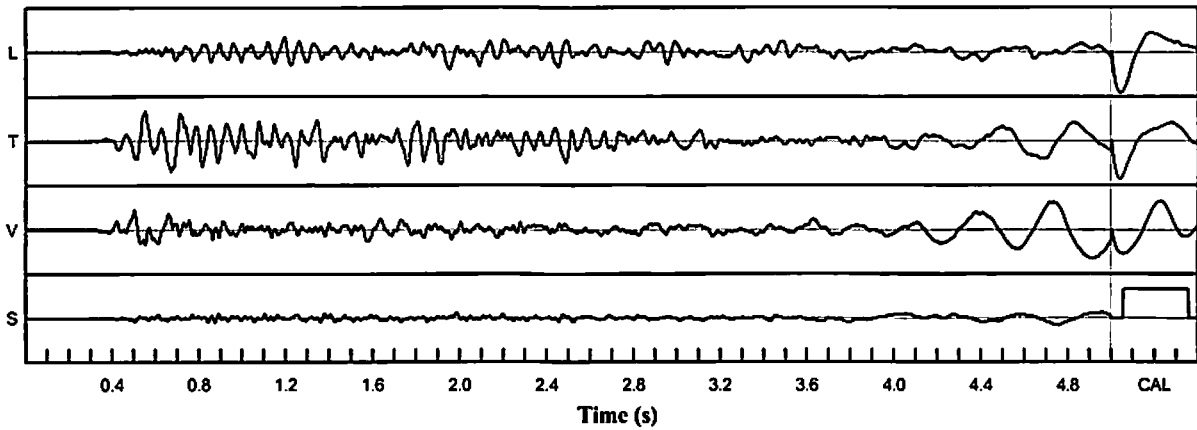
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 5



Velocity Waveform Graph Scale

Time Scale: 0.100 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5218 v5.25
Date: 10/15/2018 10:49:00
Event No: 6
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

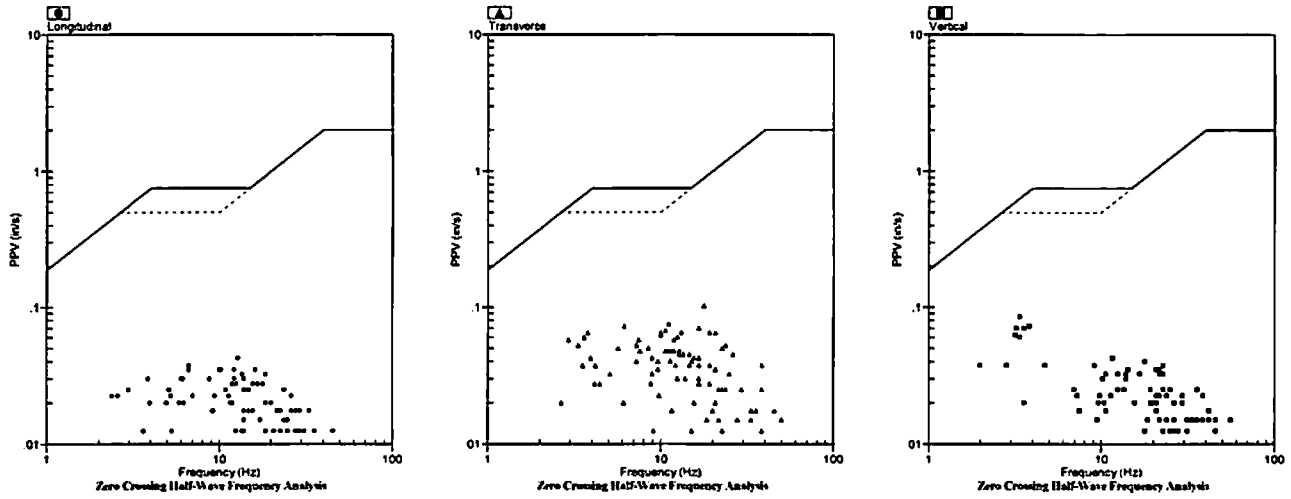
Summary Data

	L	T	V
PPV (in/s)	0.043	0.103	0.085
FREQ (Hz)	12.8	17.9	3.4
PD (.001")	1.36	2.45	4.03
PPA (g)	0.020	0.033	0.026
Peak Vector Sum:	0.103 in/s		
Peak Air Pressure:	100 db		
	0.00030 PSI @ 3.4 Hz		

Additional Info:

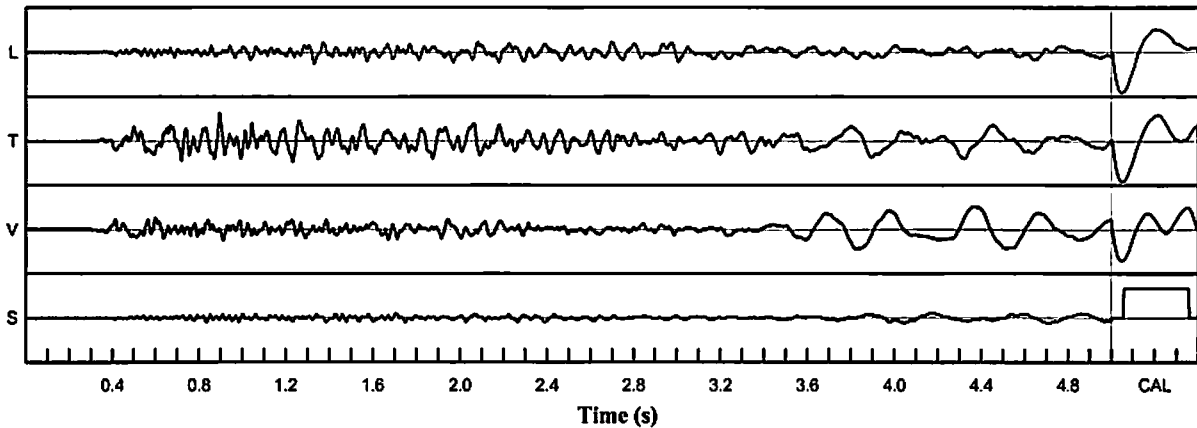
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 6



Velocity Waveform Graph Scale

Time Scale: 0.100 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5218 v5.25
Date: 10/18/2018 12:19:46
Event No: 7
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

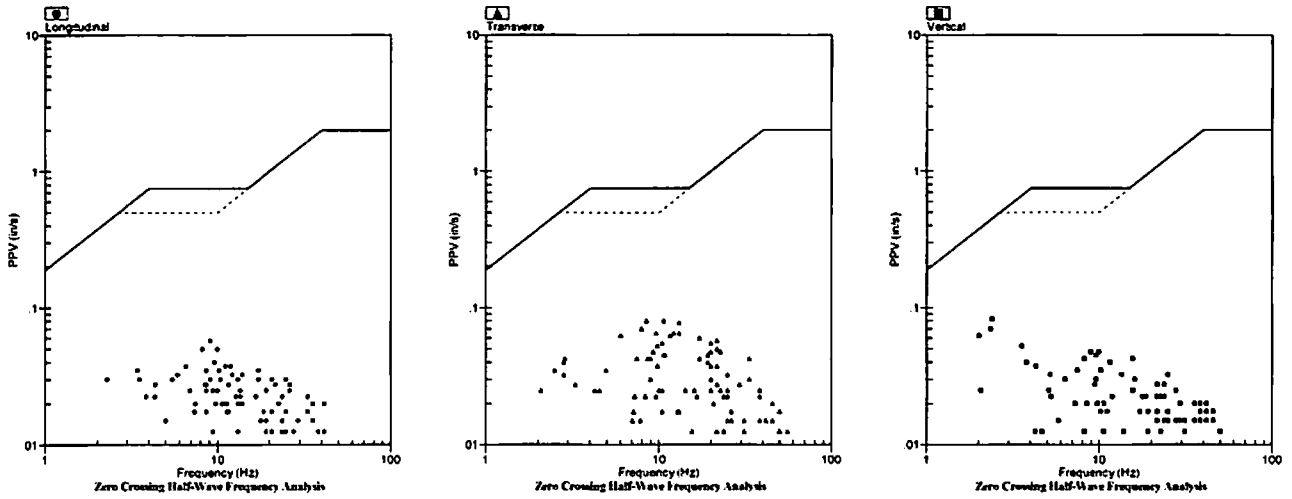
Summary Data

	L	T	V
PPV (in/s)	0.058	0.080	0.083
FREQ (Hz)	9.1	10.6	2.4
PD (.001")	1.79	2.26	5.03
PPA (g)	0.020	0.033	0.026
Peak Vector Sum:	0.088 in/s		
Peak Air Pressure:	97 db		
	0.00025 PSI @ 7.2 Hz		

Additional Info:

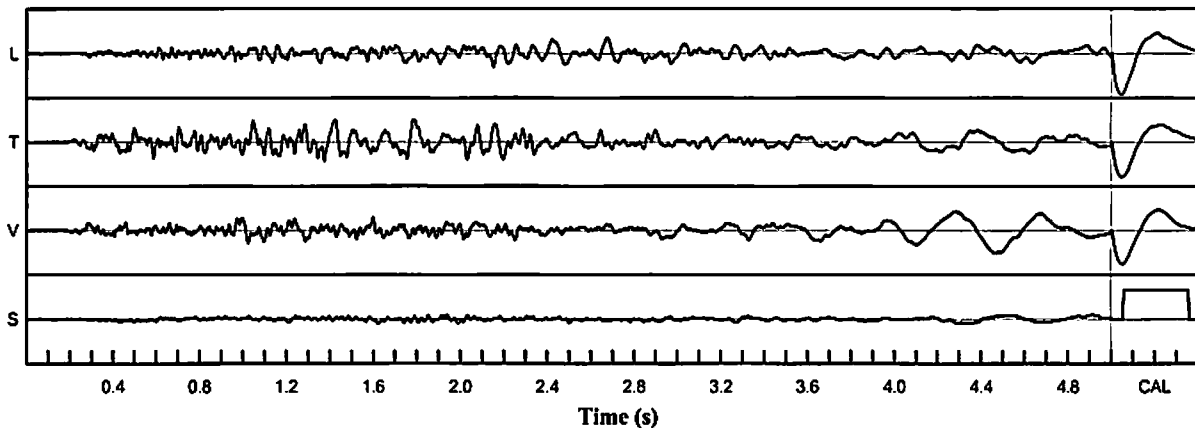
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 7



Velocity Waveform Graph Scale

Time Scale: 0.100 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Seismic Analysis

USBM/Velocity Waveform Report

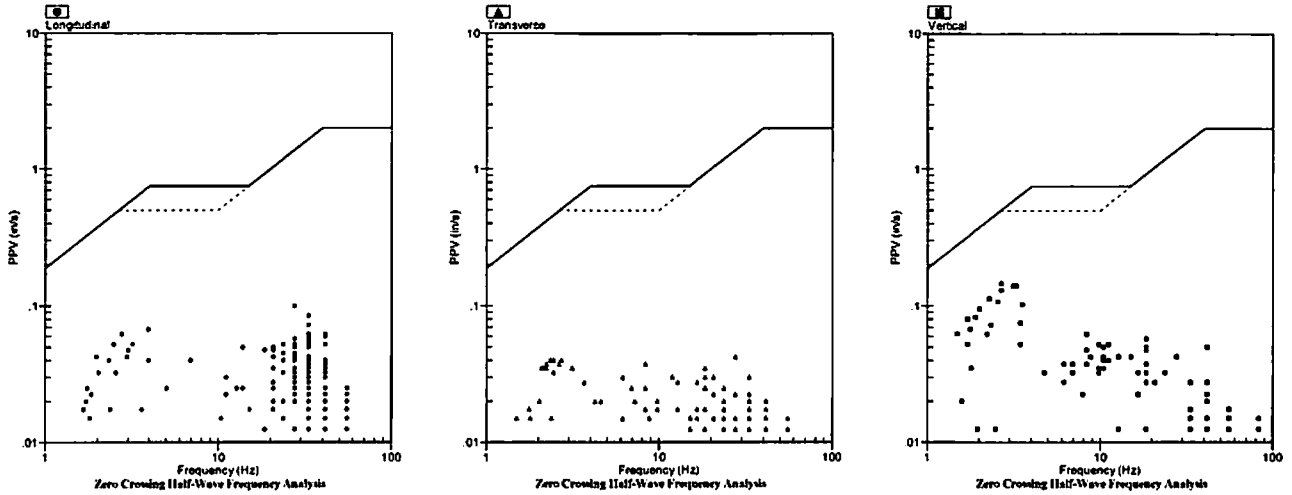
Serial No: 5148 v3.67
Date: 09/24/2018 11:30:24
Event No: 1
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

	L	T	V
PPV (in/s)	0.100	0.043	0.145
FREQ (Hz)	27.8	27.8	2.7
PD (.001")	3.61	2.27	8.47
PPA (g)	0.046	0.020	0.033
Peak Vector Sum:	0.150 in/s		
Peak Air Pressure:	108 db		
	0.00078 PSI @ 4.6 Hz		

Additional Info:

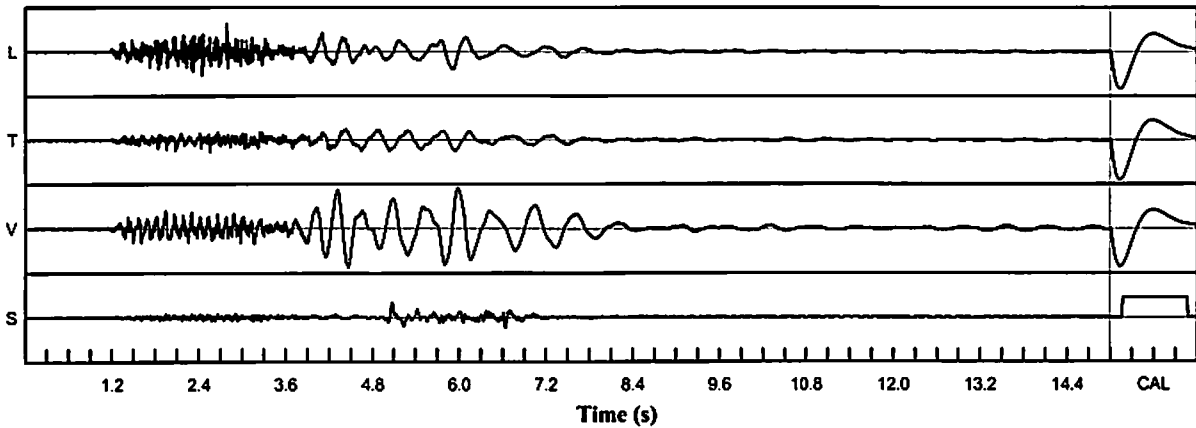
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 1



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 09/26/2018 14:00:42
Event No: 2
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

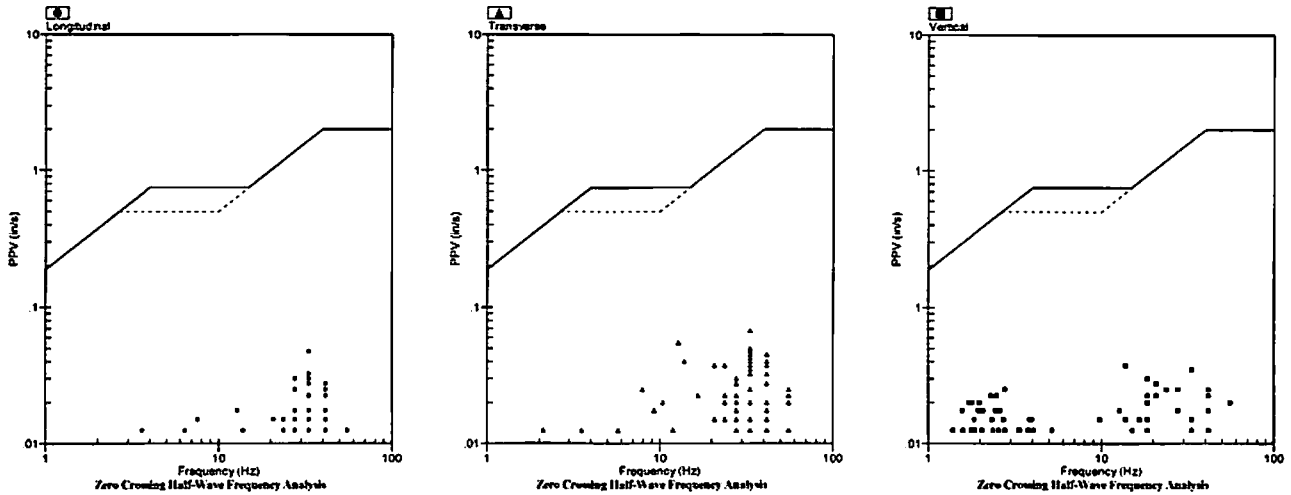
Summary Data

	L	T	V
PPV (in/s)	0.048	0.068	0.038
FREQ (Hz)	33.3	33.3	13.9
PD (.001")	0.67	0.78	1.68
PPA (g)	0.020	0.033	0.020
Peak Vector Sum:	0.083 in/s		
Peak Air Pressure:	91 db		
	0.00025 PSI @ 27.8 Hz		

Additional Info:

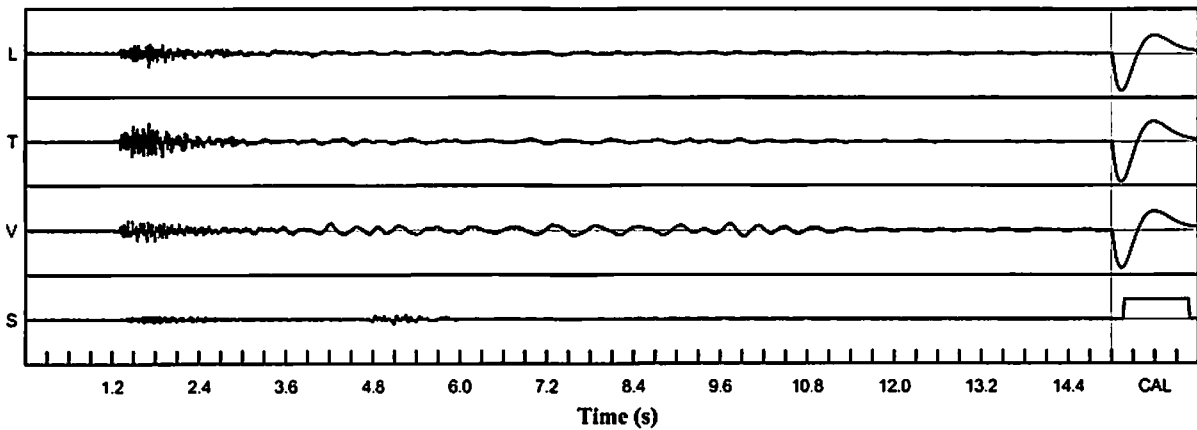
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 2



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 09/27/2018 11:30:39
Event No: 3
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

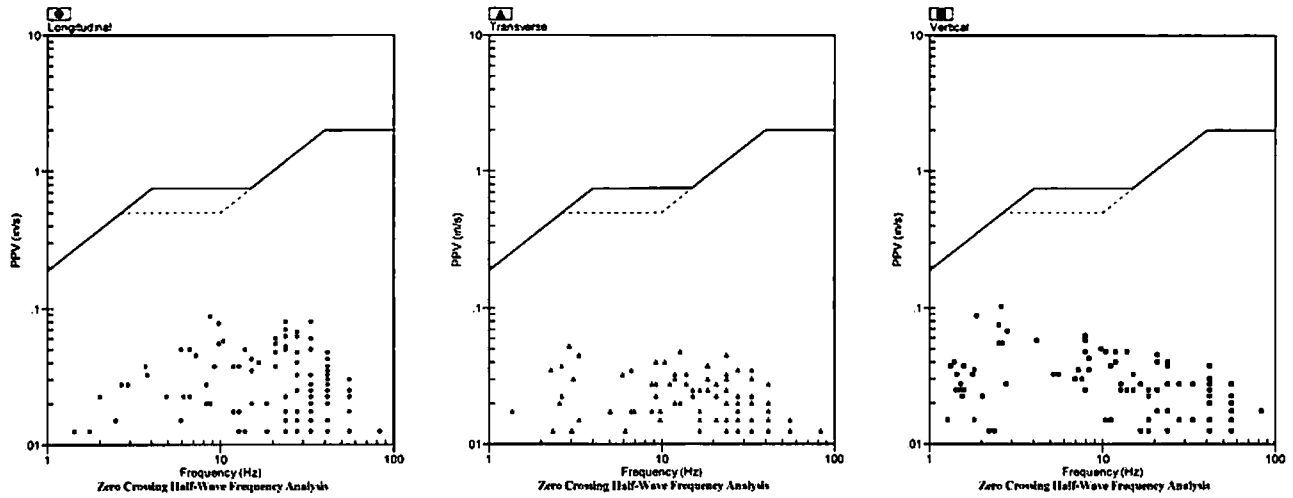
Summary Data

	L	T	V
PPV (in/s)	0.088	0.053	0.103
FREQ (Hz)	8.8	2.9	2.6
PD (.001")	1.72	2.57	5.69
PPA (g)	0.039	0.020	0.026
Peak Vector Sum:	0.108 in/s		
Peak Air Pressure:	111 db		
	0.00117 PSI @ 6.9 Hz		

Additional Info:

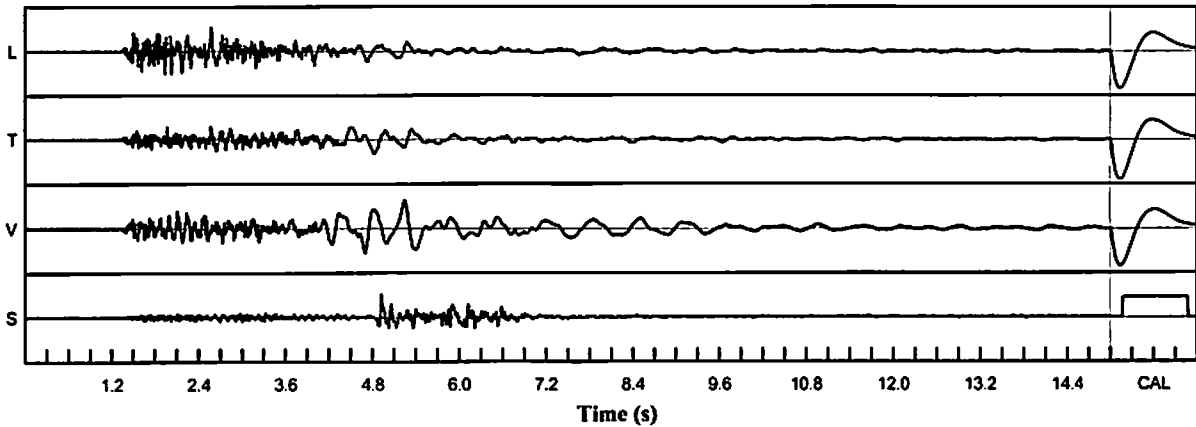
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 3



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/01/2018 11:30:39
Event No: 4
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

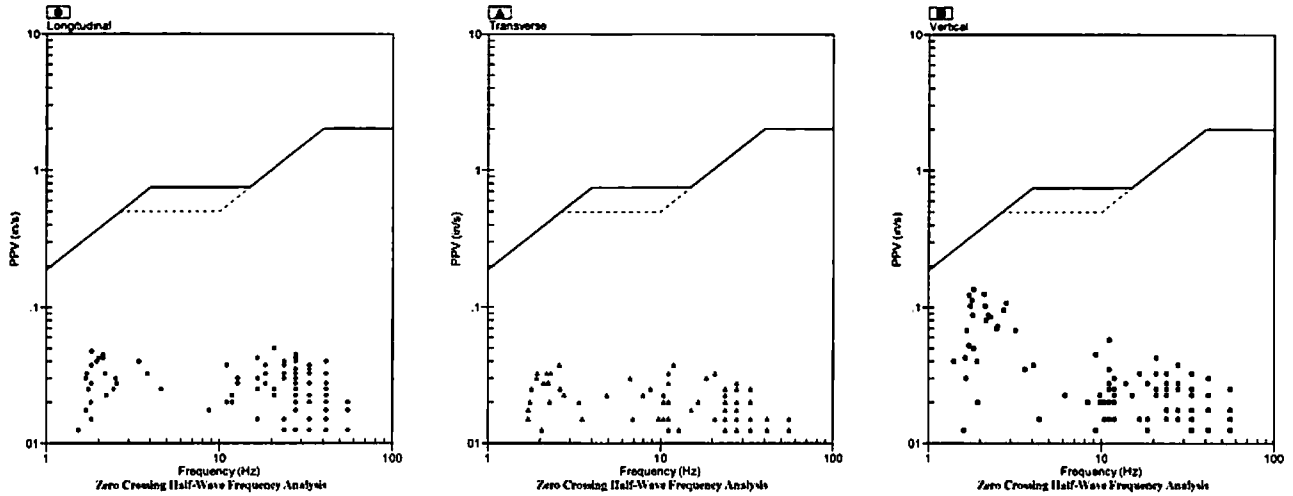
Summary Data

	L	T	V
PPV (in/s)	0.050	0.038	0.135
FREQ (Hz)	20.8	11.9	1.8
PD (.001")	3.45	2.58	11.61
PPA (g)	0.026	0.020	0.026
Peak Vector Sum:	0.140 in/s		
Peak Air Pressure:	110 db		
	0.00107 PSI @ 11.9 Hz		

Additional Info:

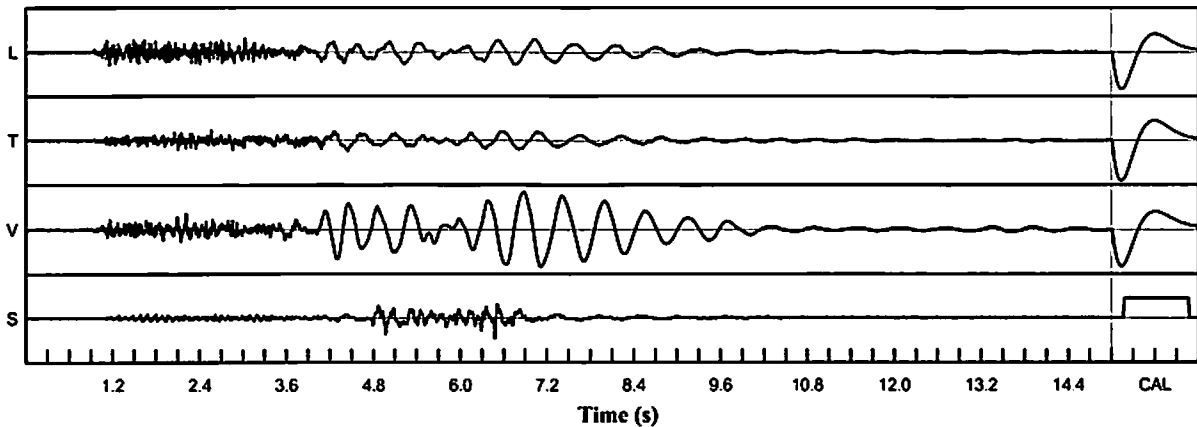
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 4



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/02/2018 11:30:46
Event No: 5
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

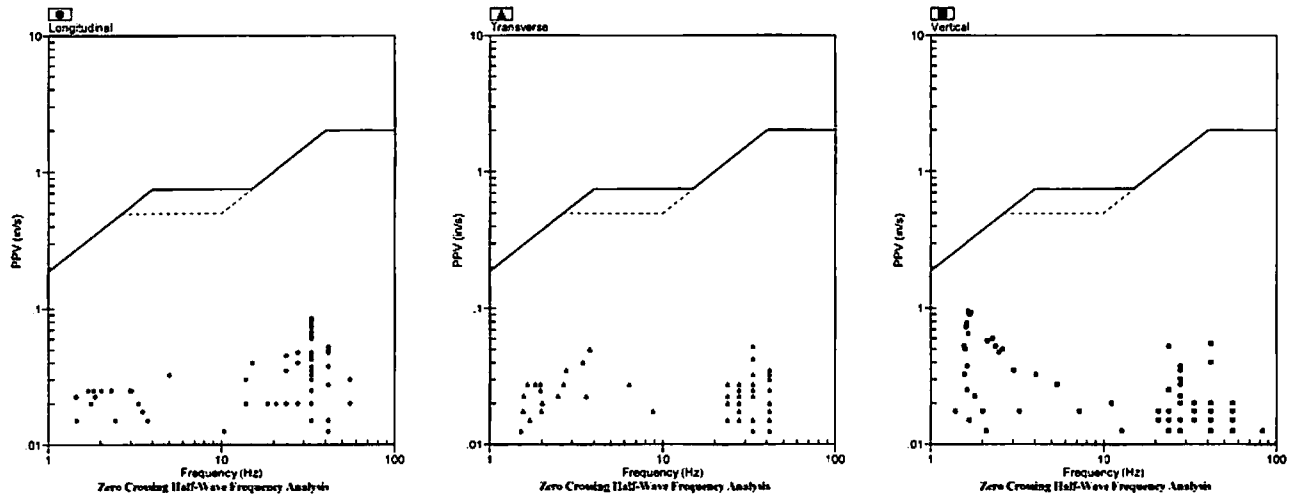
Summary Data

	L	T	V
PPV (in/s)	0.085	0.053	0.095
FREQ (Hz)	33.3	33.3	1.7
PD (.001")	2.11	2.22	8.92
PPA (g)	0.046	0.026	0.033
Peak Vector Sum:	0.095 in/s		
Peak Air Pressure:	106 db		
	0.00061 PSI @ 5.7 Hz		

Additional Info:

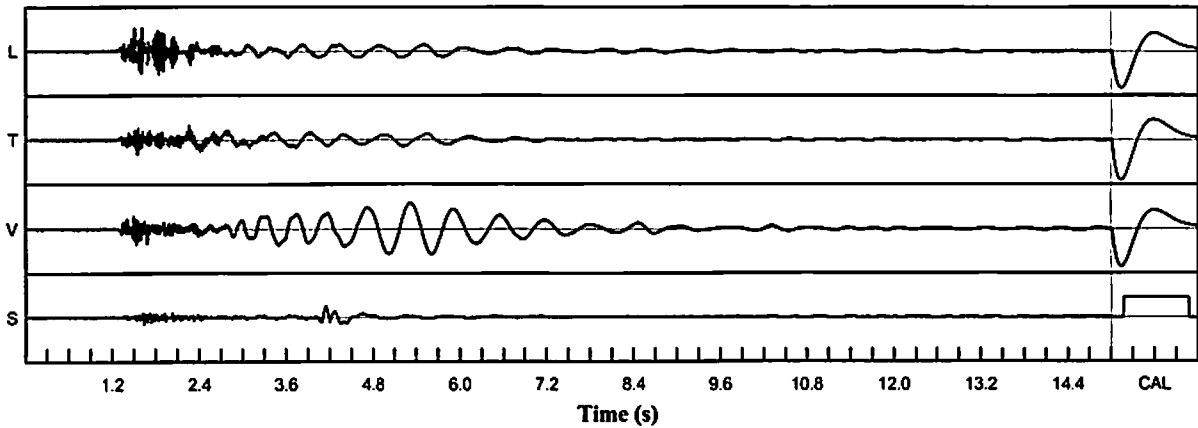
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 5



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/03/2018 11:31:19
Event No: 6
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

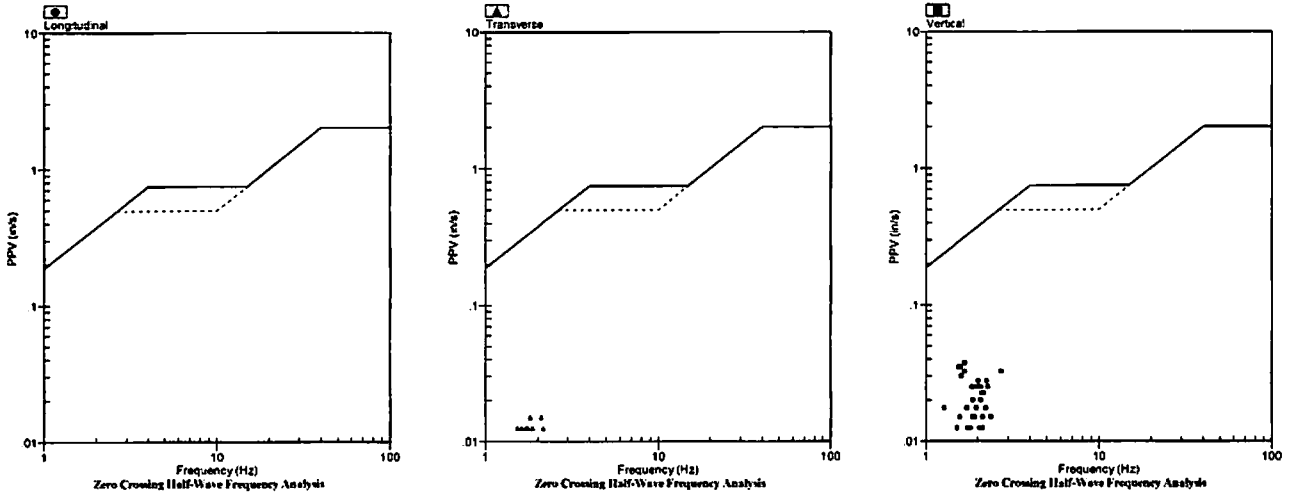
Summary Data

	L	T	V
PPV (in/s)	0.010	0.015	0.038
FREQ (Hz)	1.7	1.7	1.7
PD (.001")	0.77	1.29	3.46
PPA (g)	0.007	0.007	0.007
Peak Vector Sum:	0.040 in/s		
Peak Air Pressure:	85 db		
	0.00011 PSI @ 1.0 Hz		

Additional Info:

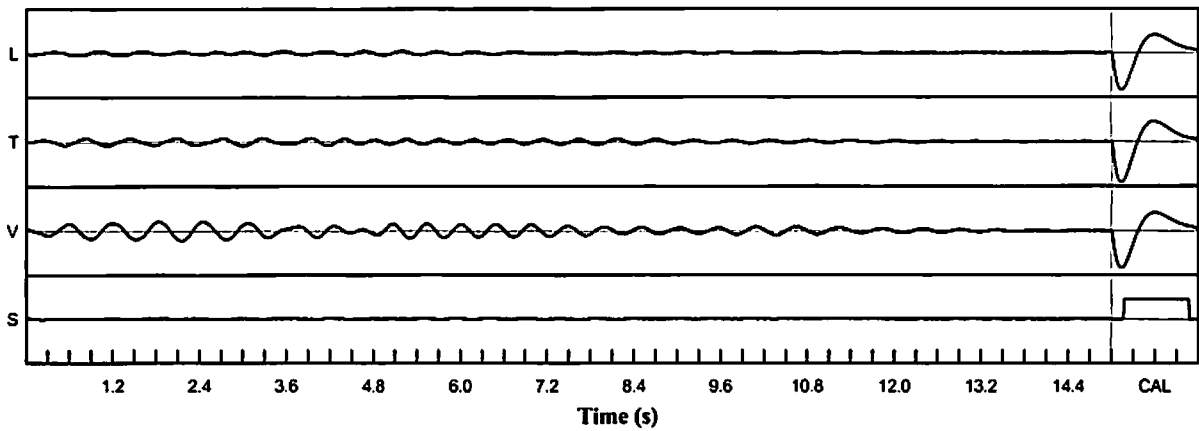
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 6



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/04/2018 11:31:09
Event No: 7
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

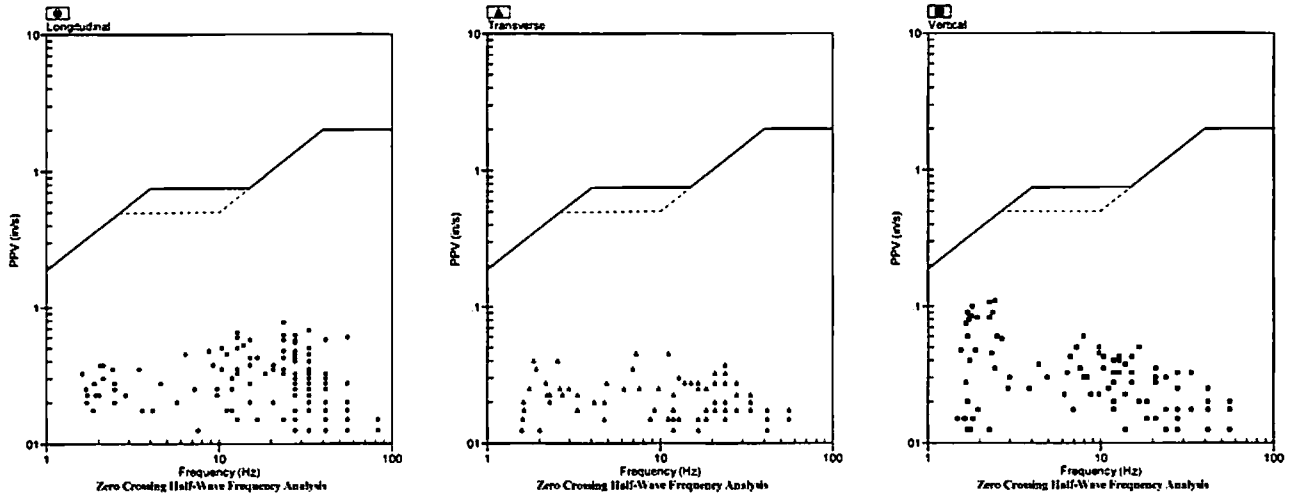
Summary Data

	L	T	V
PPV (in/s)	0.078	0.045	0.110
FREQ (Hz)	23.8	11.1	2.5
PD (.001")	2.82	2.77	8.21
PPA (g)	0.033	0.013	0.020
Peak Vector Sum:	0.113 in/s		
Peak Air Pressure:	111 db		
	0.00117 PSI @ 6.7 Hz		

Additional Info:

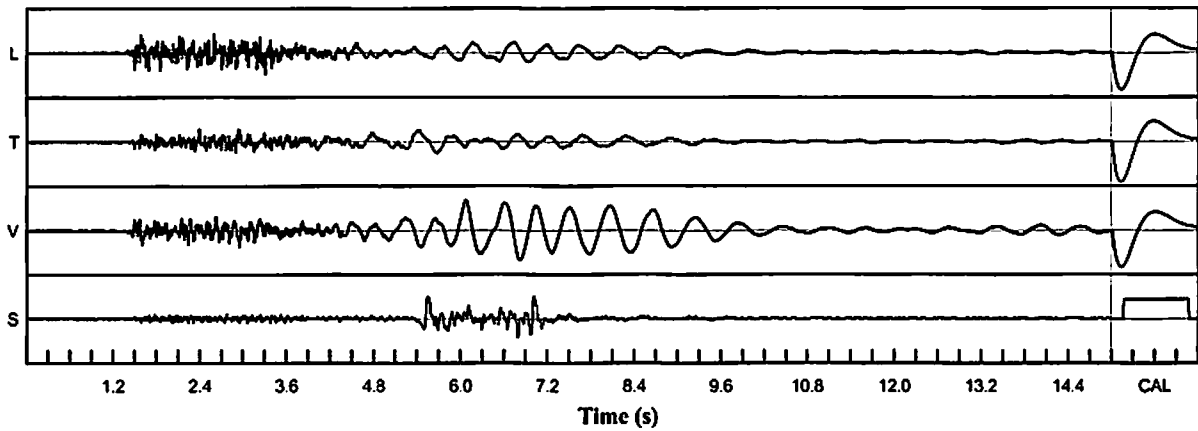
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 7



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/05/2018 11:15:57
Event No: 8
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

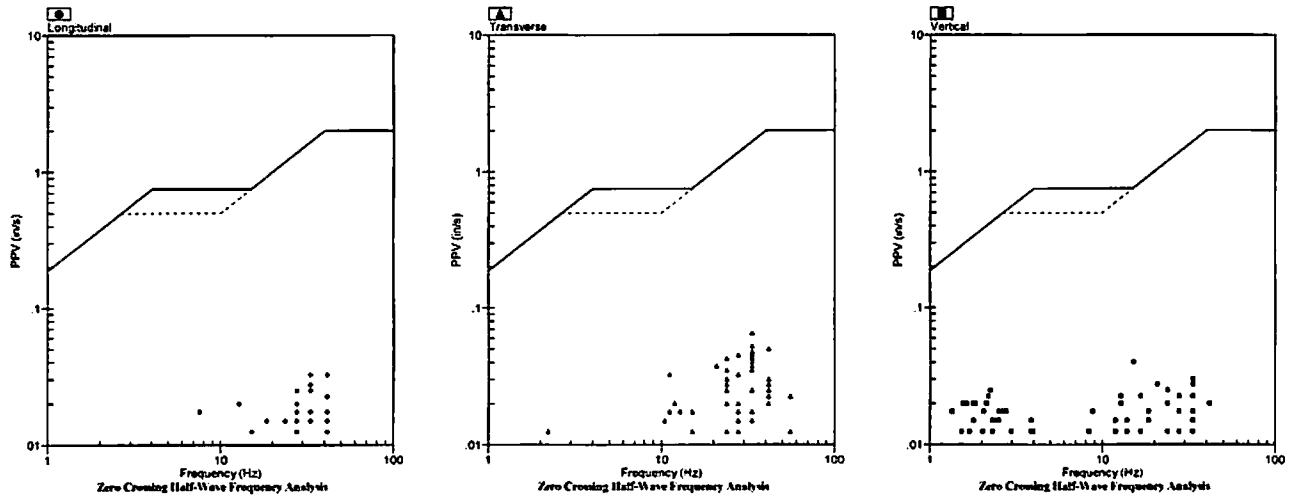
Summary Data

	L	T	V
PPV (in/s)	0.033	0.068	0.040
FREQ (Hz)	41.7	27.8	15.2
PD (.001")	0.67	0.79	1.86
PPA (g)	0.020	0.039	0.020
Peak Vector Sum:	0.075 in/s		
Peak Air Pressure:	88 db		
	0.00018 PSI @ 41.7 Hz		

Additional Info:

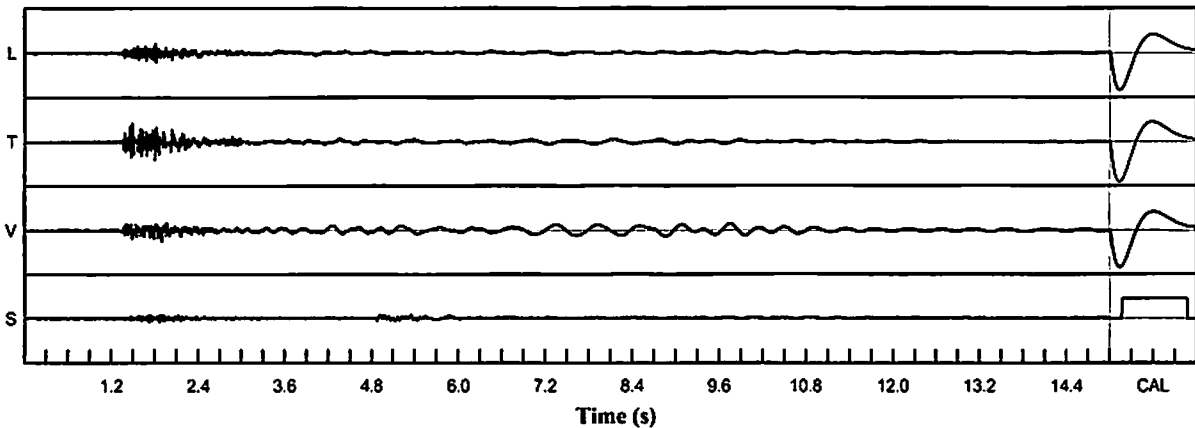
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 8



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

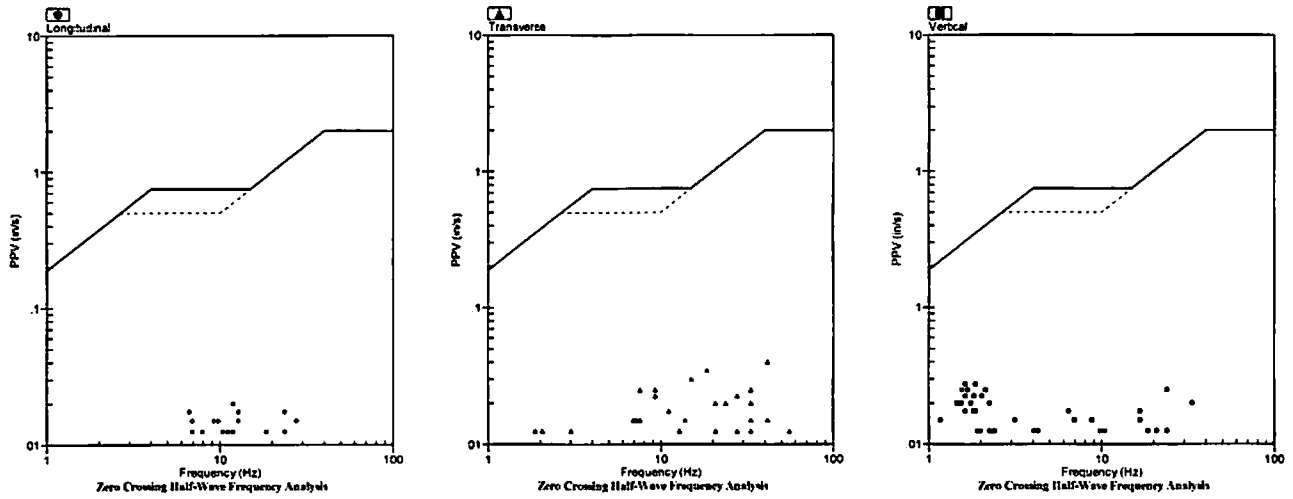
Serial No: 5148 v3.67
Date: 10/09/2018 14:01:12
Event No: 9
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

	L	T	V
PPV (in/s)	0.020	0.050	0.035
FREQ (Hz)	33.3	33.3	8.8
PD (.001")	0.62	0.88	2.43
PPA (g)	0.013	0.026	0.013
Peak Vector Sum:	0.055 in/s		
Peak Air Pressure:	96 db		
	0.00036 PSI @ 3.1 Hz		

Additional Info:

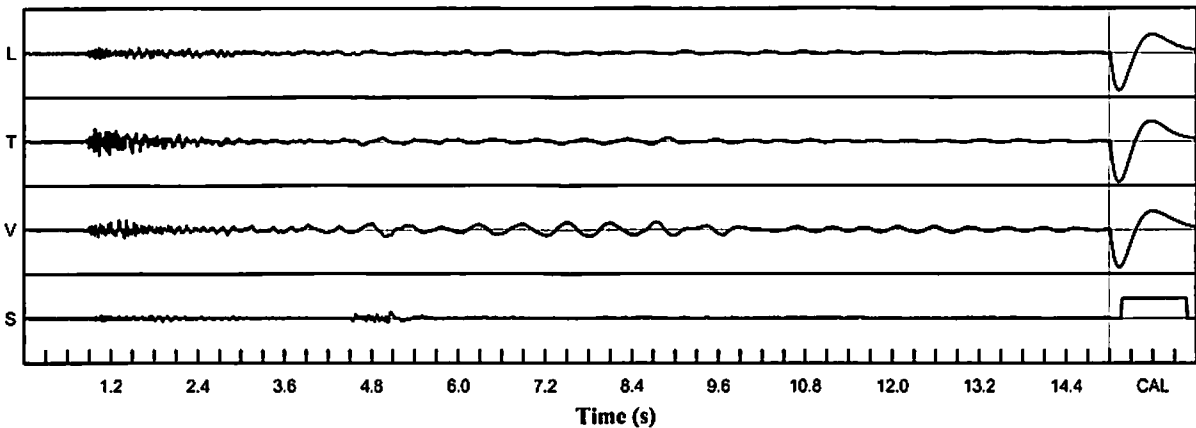
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 9



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/11/2018 14:01:33
Event No: 10
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

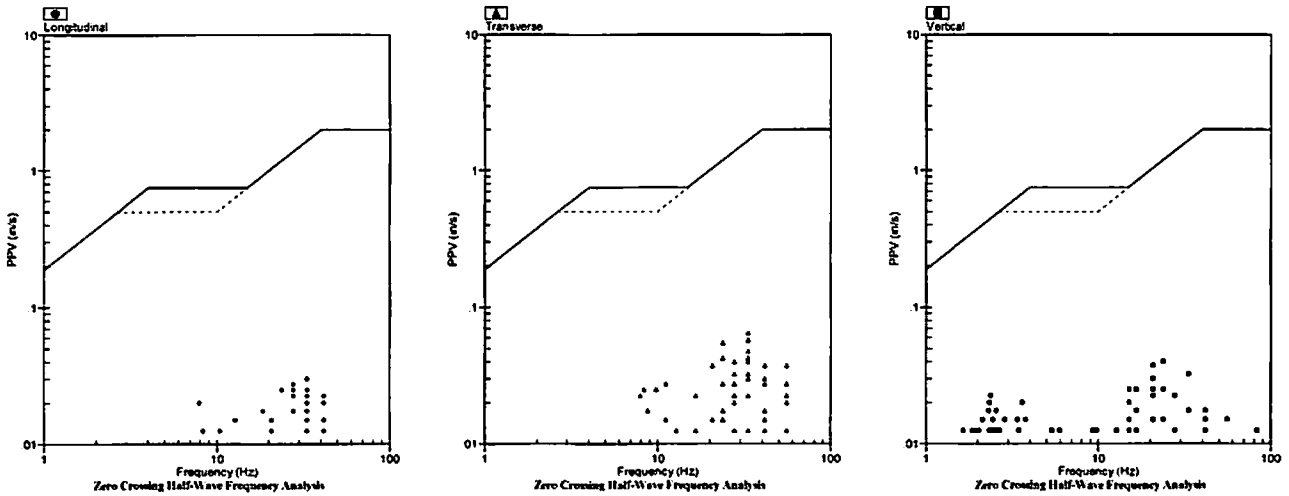
Summary Data

	L	T	V
PPV (in/s)	0.030	0.065	0.040
FREQ (Hz)	33.3	33.3	23.8
PD (.001")	0.64	0.66	1.29
PPA (g)	0.013	0.033	0.020
Peak Vector Sum:	0.068 in/s		
Peak Air Pressure:	93 db		
	0.00028 PSI @ 9.8 Hz		

Additional Info:

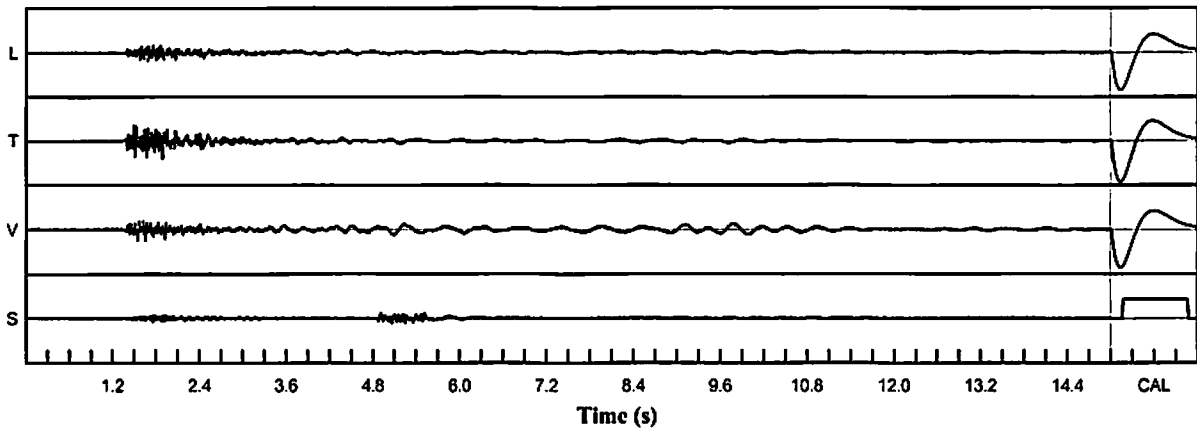
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 10



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/15/2018 11:46:31
Event No: 11
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

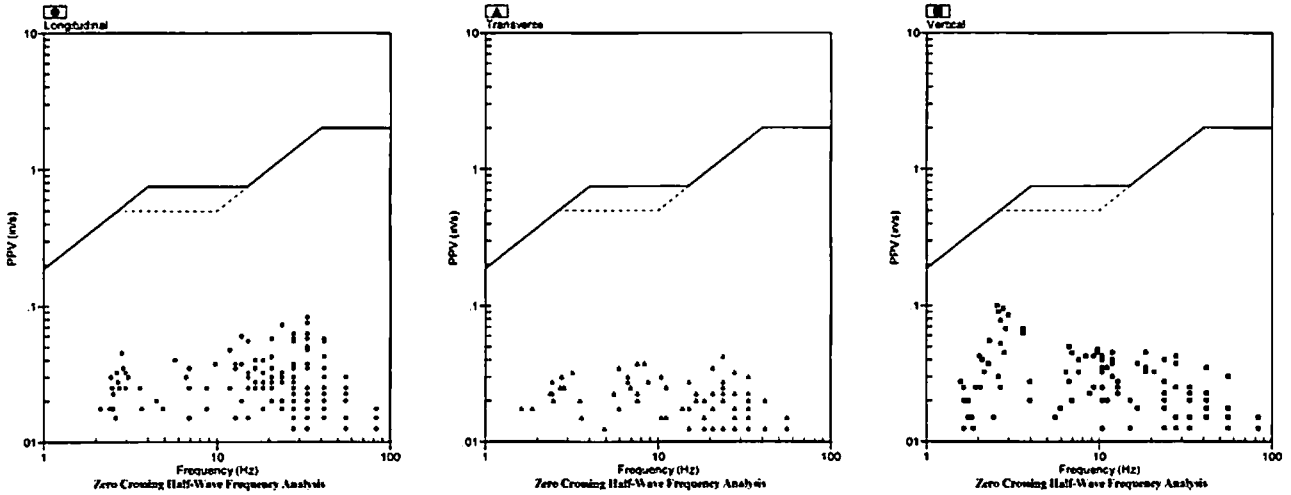
Summary Data

	L	T	V
PPV (in/s)	0.083	0.043	0.100
FREQ (Hz)	33.3	23.8	2.6
PD (.001")	2.18	1.58	6.19
PPA (g)	0.039	0.020	0.026
Peak Vector Sum:	0.105 in/s		
Peak Air Pressure:	106 db		
	0.00064 PSI @ 11.9 Hz		

Additional Info:

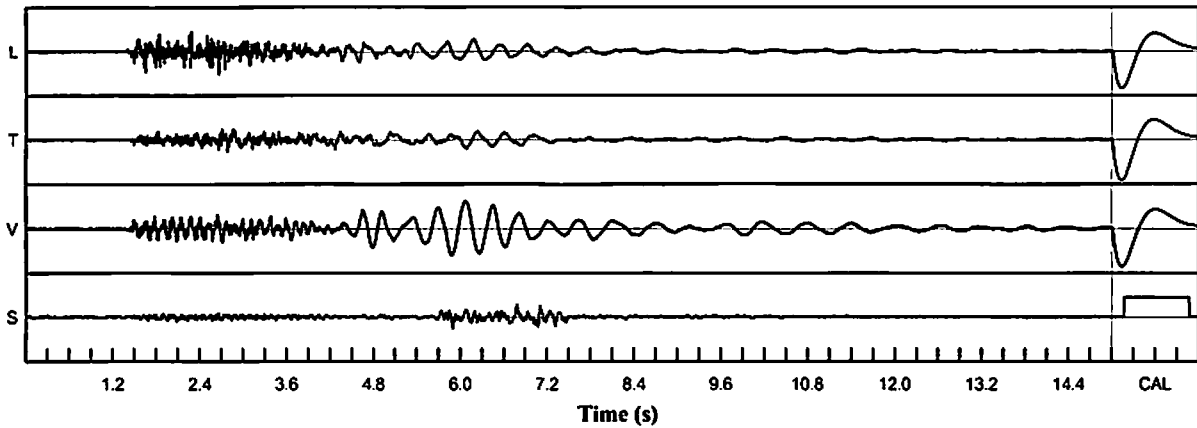
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 11



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/16/2018 11:31:39
Event No: 12
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

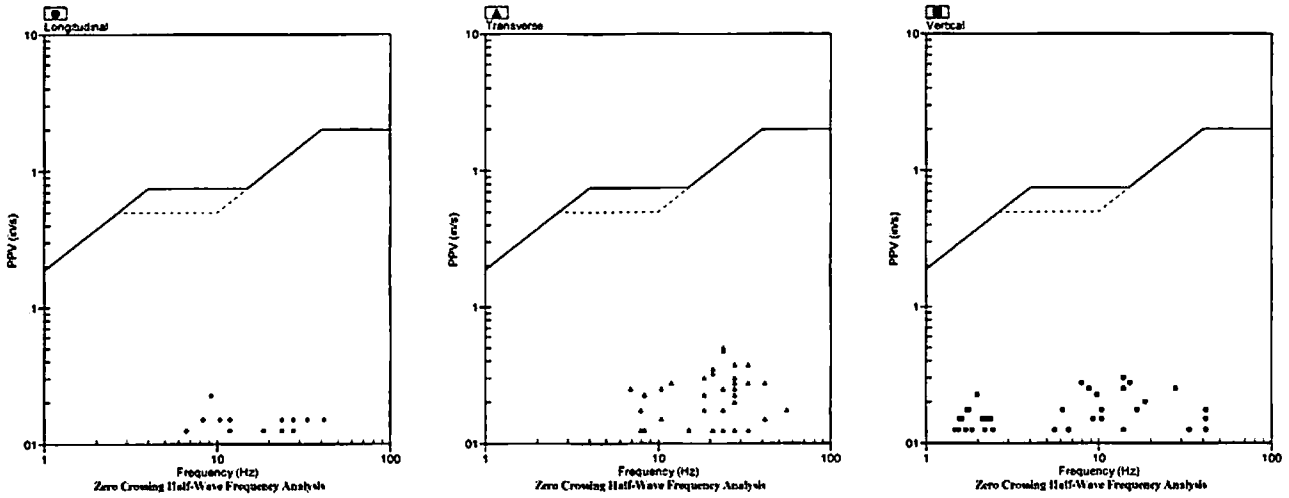
Summary Data

	L	T	V
PPV (in/s)	0.023	0.050	0.030
FREQ (Hz)	33.3	23.8	13.9
PD (.001")	0.47	0.74	1.52
PPA (g)	0.013	0.026	0.013
Peak Vector Sum:	0.055 in/s		
Peak Air Pressure:	87 db		
	0.00014 PSI @ 1.0 Hz		

Additional Info:

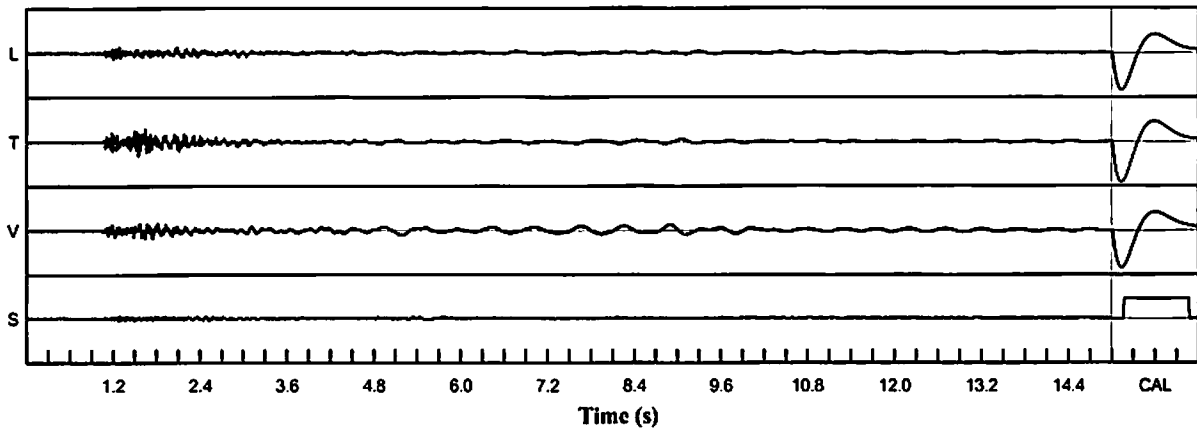
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 12



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

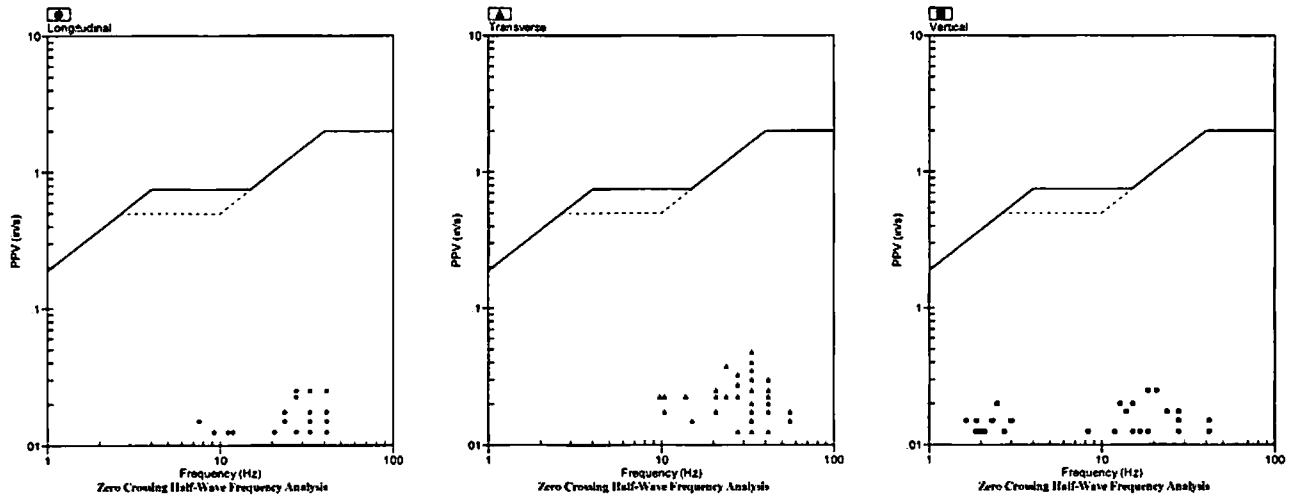
Serial No: 5148 v3.67
Date: 10/17/2018 13:02:21
Event No: 13
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

	L	T	V
PPV (in/s)	0.025	0.053	0.033
FREQ (Hz)	27.8	27.8	23.8
PD (.001")	0.59	0.65	1.07
PPA (g)	0.013	0.026	0.013
Peak Vector Sum:	0.060 in/s		
Peak Air Pressure:	88 db		
	0.00018 PSI @ 9.8 Hz		

Additional Info:

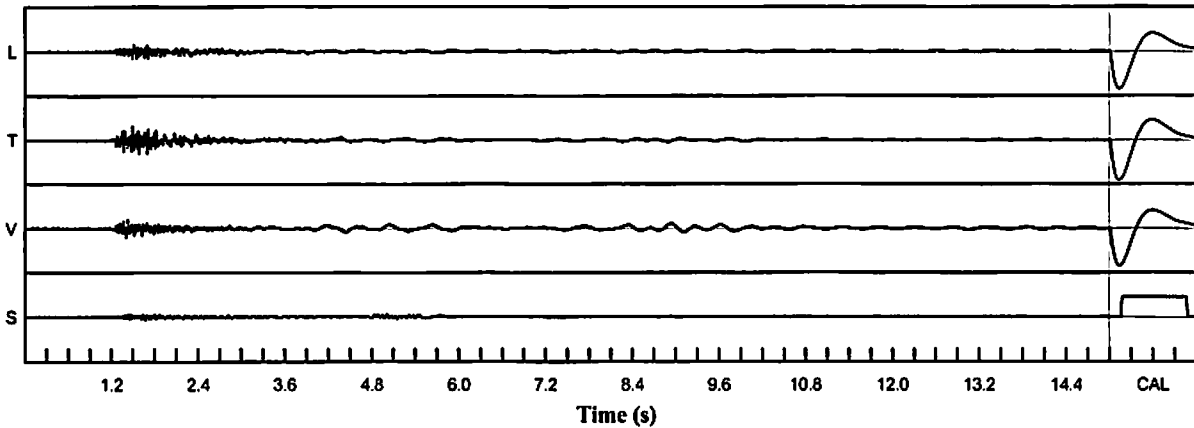
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 13



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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/18/2018 13:17:25
Event No: 14
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

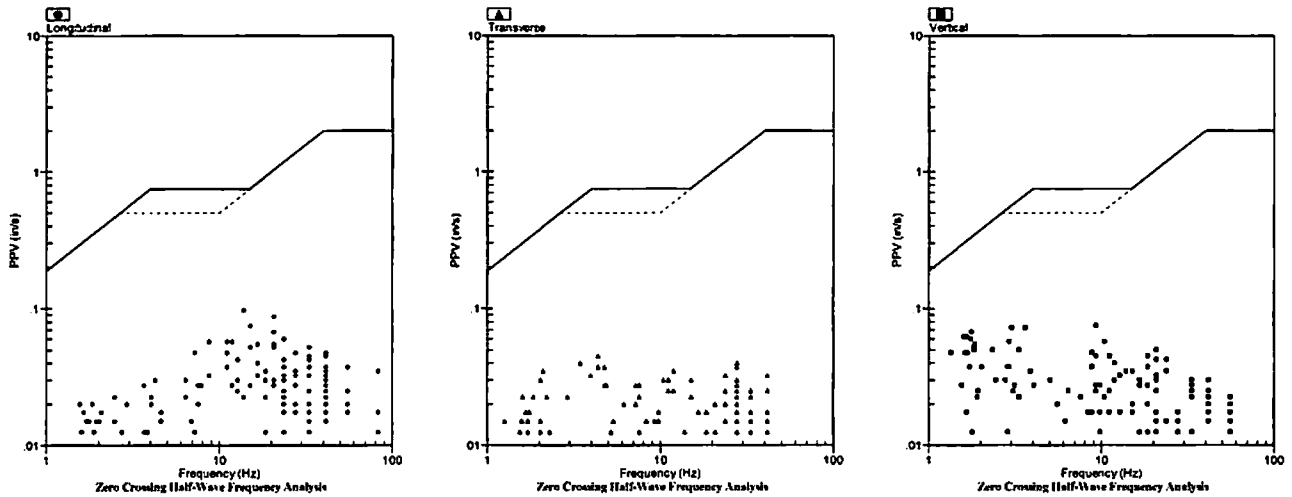
Summary Data

	L	T	V
PPV (in/s)	0.098	0.045	0.075
FREQ (Hz)	13.9	4.4	9.3
PD (.001")	1.83	2.51	6.06
PPA (g)	0.046	0.020	0.026
Peak Vector Sum:	0.118 in/s		
Peak Air Pressure:	107 db		
	0.00071 PSI @ 15.2 Hz		

Additional Info:

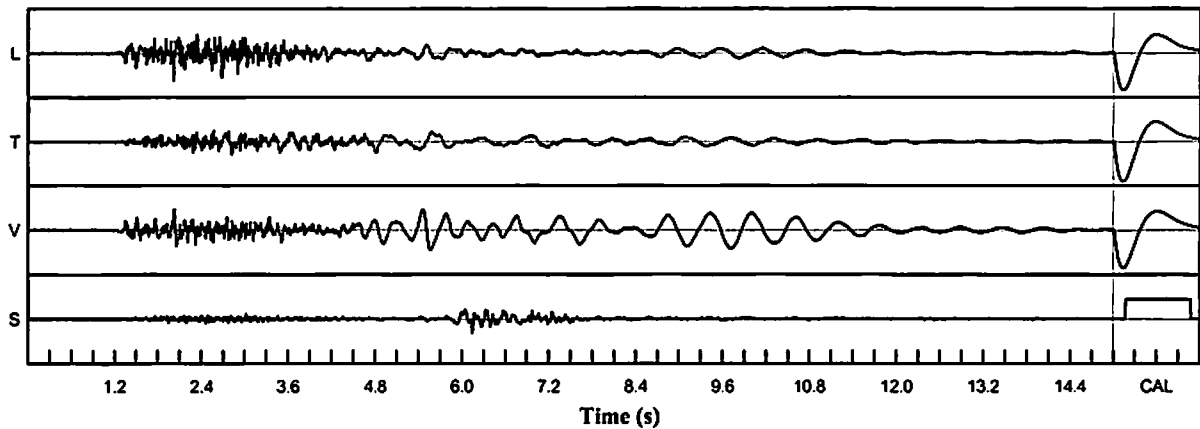
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 14



Velocity Waveform Graph Scale

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