

Miramar Siesmic Reading: White Rock Quarries.

Location: 5276 SW 152 Ave

Date:	Time:	PPV:
8/13/2019	1:31 PM	0.075
8/15/2019	11:15 AM	0.04
8/16/2019	2:00 PM	0.083
8/22/2019	1:16 PM	0.05
8/23/2019	2:01 PM	0.105
8/28/2019	11:16 AM	0.053
9/5/2019	1:18 PM	0.073
9/9/2019	11:35 AM	0.085
9/13/2019	2:20 PM	0.08

Location: 16171 SW 49 Ct

Date:	Time:	PPV:
8/13/2019	1:31 PM	0.063
8/15/2019	11:16 AM	0.1
8/16/2019	2:01 PM	0.083
8/22/2019	1:16 PM	0.083
8/23/2019	2:02 PM	0.113
9/5/2019	1:17 PM	0.063
9/9/2019	11:35 AM	0.085
9/13/2019	2:20 PM	0.093
9/18/2019	1:17 PM	0.075

Location: 17040 SW 53 Ct

Date:	Time:	PPV:
8/13/2019	1:31 PM	0.143
8/15/2019	11:16 AM	0.095
8/16/2019	2:01 PM	0.17
8/22/2019	1:16 PM	0.105
8/23/2019	2:01 PM	0.223
8/28/2019	11:16 AM	0.205
9/5/2019	1:17 PM	0.185
9/9/2019	11:35 AM	0.295
9/13/2019	2:19 PM	0.203
9/17/2019	2:18 PM	0.093
9/18/2019	1:16 PM	0.293

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5150 v3.67
Date: 08/13/2019 13:31:01
Event No: 1
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

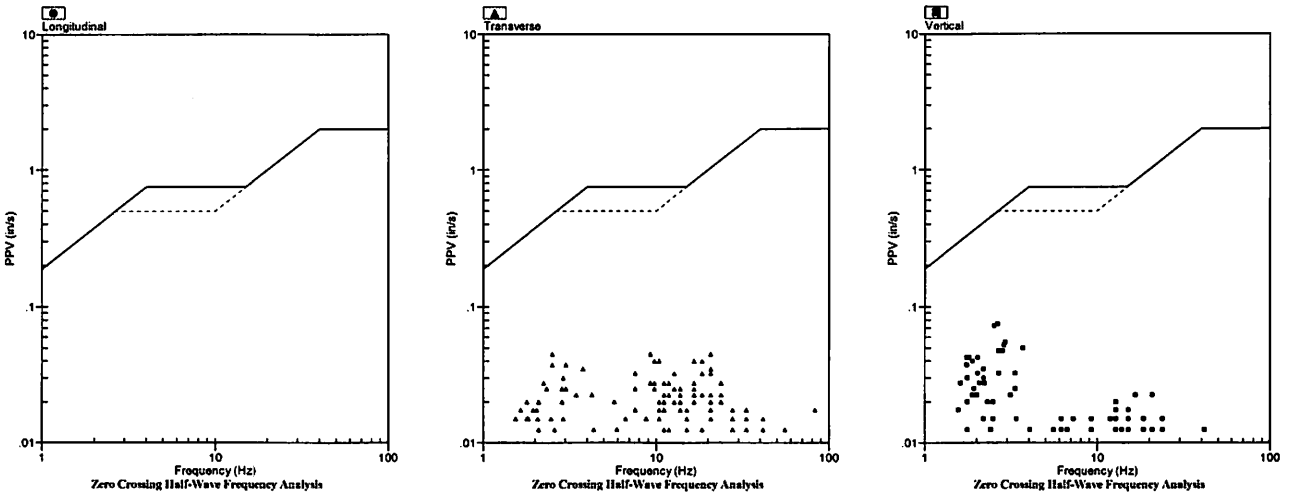
Summary Data

	L	T	V
PPV (in/s)	0.003	0.045	0.075
FREQ (Hz)	.2	20.8	2.6
PD (.001")	0.13	2.48	4.52
PPA (g)	0.007	0.013	0.013
Peak Vector Sum:		0.078 in/s	
Peak Air Pressure:		105 db	
		0.00057 PSI @ 4.1 Hz	

Additional Info:

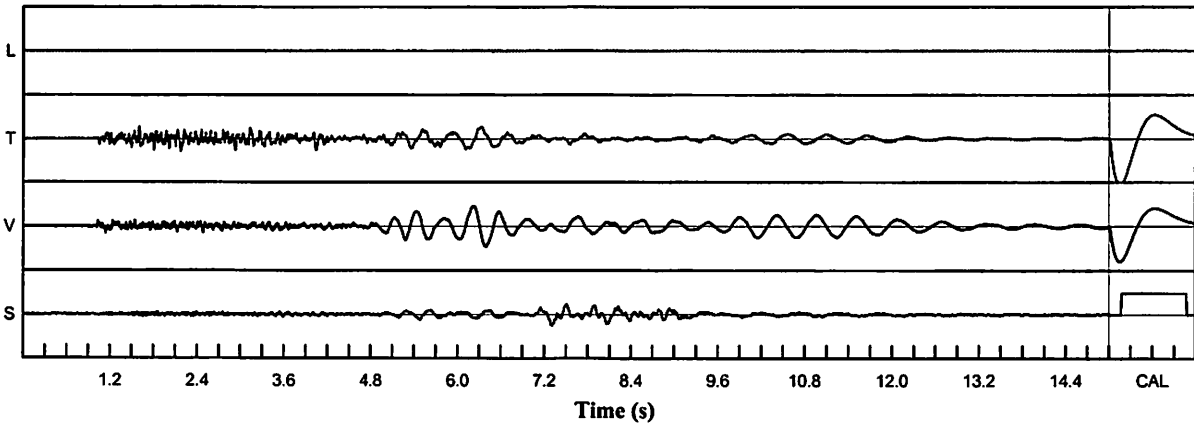
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 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: 5150 v3.67
Date: 08/15/2019 11:15:20
Event No: 2
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

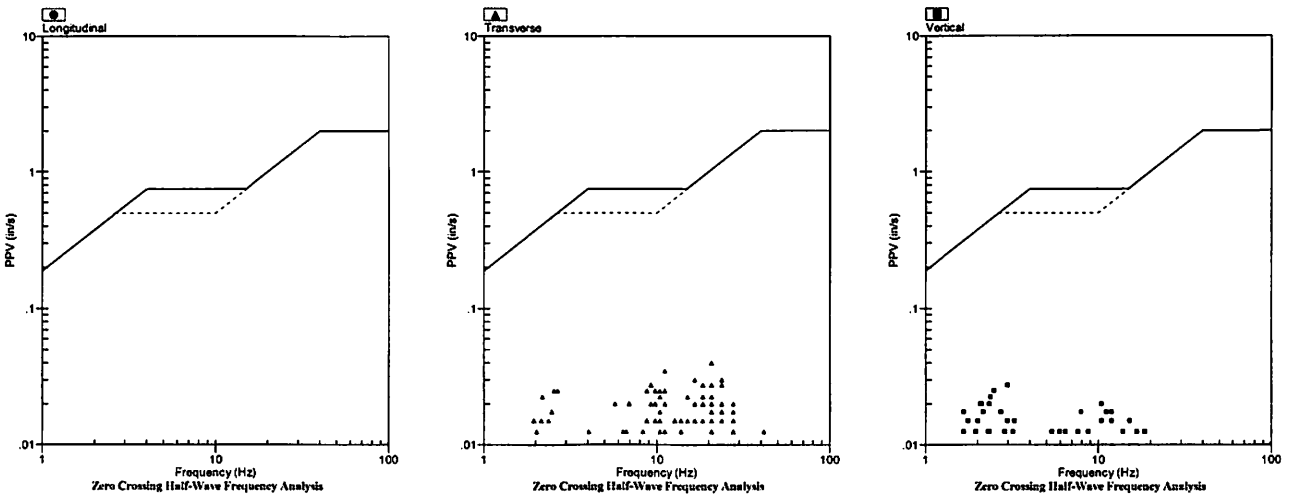
Summary Data

	L	T	V
PPV (in/s)	0.003	0.040	0.028
FREQ (Hz)	.6	20.8	3.0
PD (.001")	0.11	1.48	1.57
PPA (g)	0.007	0.013	0.007
Peak Vector Sum:		0.040 in/s	
Peak Air Pressure:		105 db	
		0.00061 PSI @ 2.5 Hz	

Additional Info:

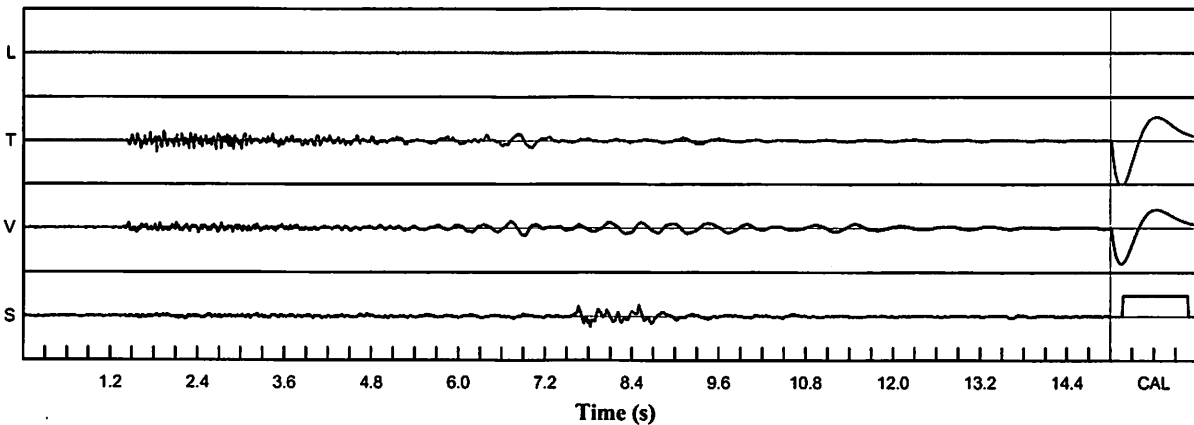
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 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: 5150 v3.67
Date: 08/16/2019 14:00:27
Event No: 3
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

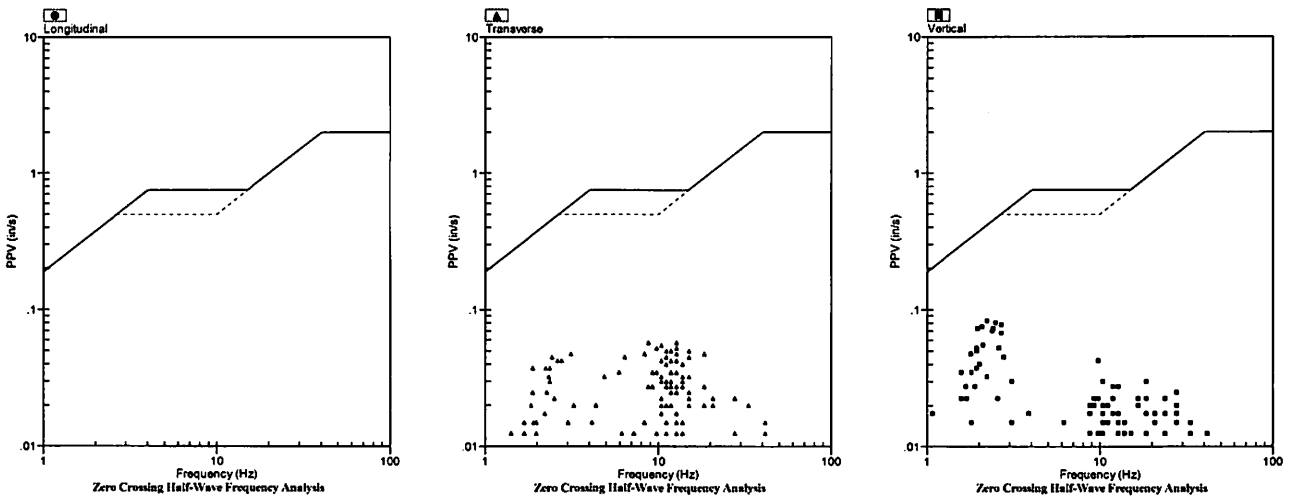
Summary Data

	L	T	V
PPV (in/s)	0.003	0.058	0.083
FREQ (Hz)	.7	8.8	2.2
PD (.001")	0.17	2.93	5.91
PPA (g)	0.007	0.020	0.013
Peak Vector Sum:	0.085 in/s		
Peak Air Pressure:	104 db		
	0.00055 PSI @ 3.6 Hz		

Additional Info:

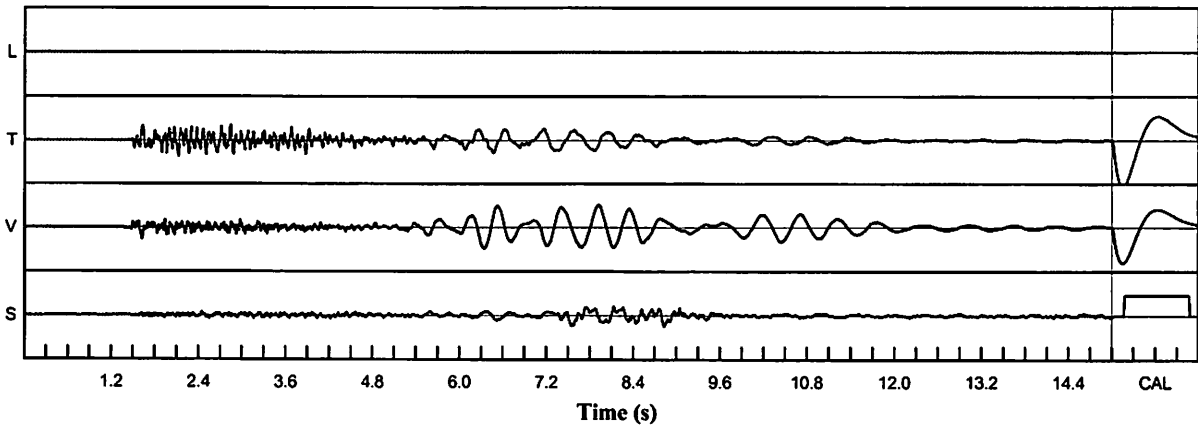
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 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

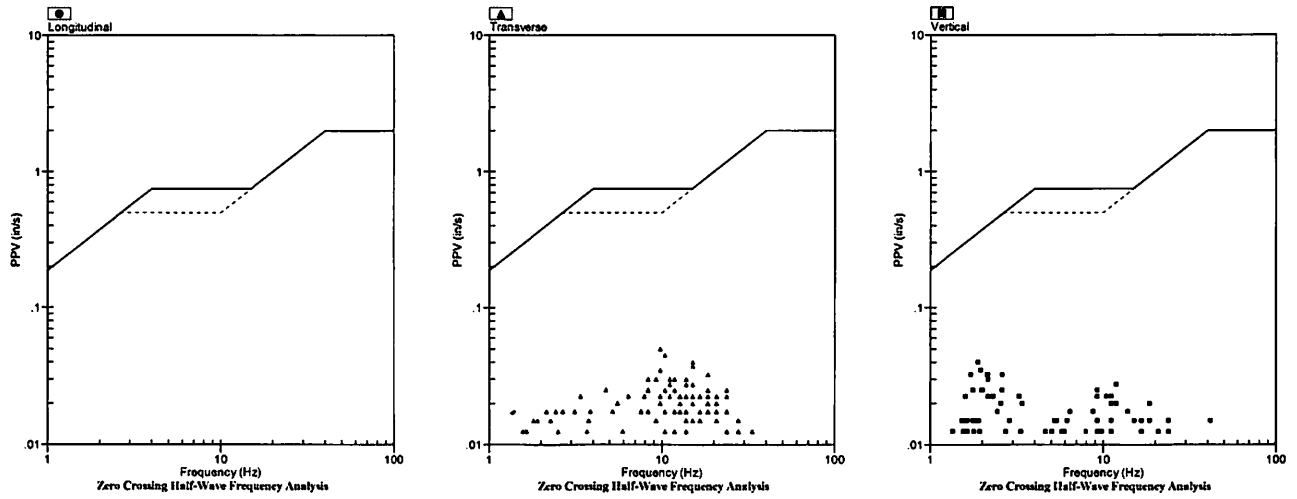
Serial No: 5150 v3.67
Date: 08/22/2019 13:15:37
Event No: 4
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

	L	T	V
PPV (in/s)	0.003	0.050	0.040
FREQ (Hz)	.1	9.8	1.9
PD (.001")	0.16	1.16	3.06
PPA (g)	0.007	0.013	0.007
Peak Vector Sum:	0.053 in/s		
Peak Air Pressure:	102 db		
	0.00039 PSI @ 2.9 Hz		

Additional Info:

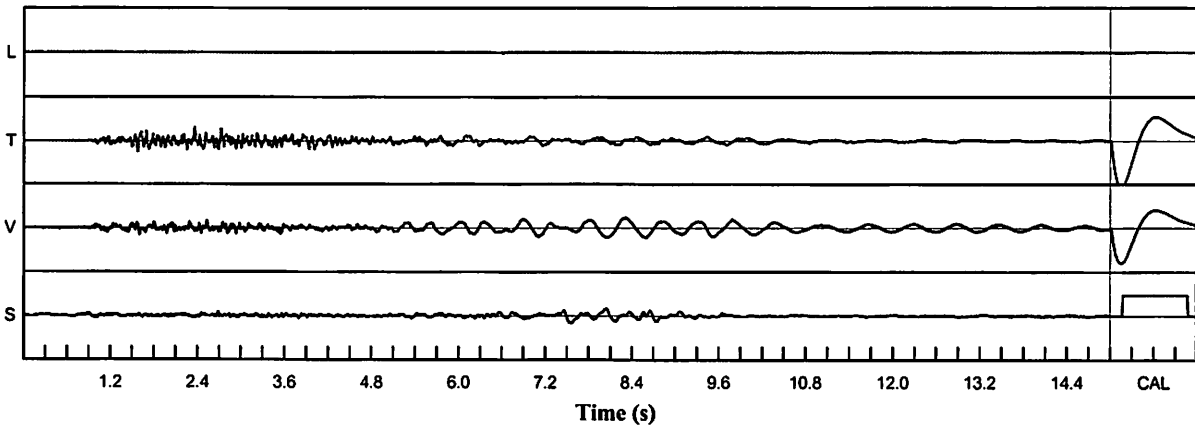
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 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: 5150 v3.67
Date: 08/23/2019 14:01:04
Event No: 5
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

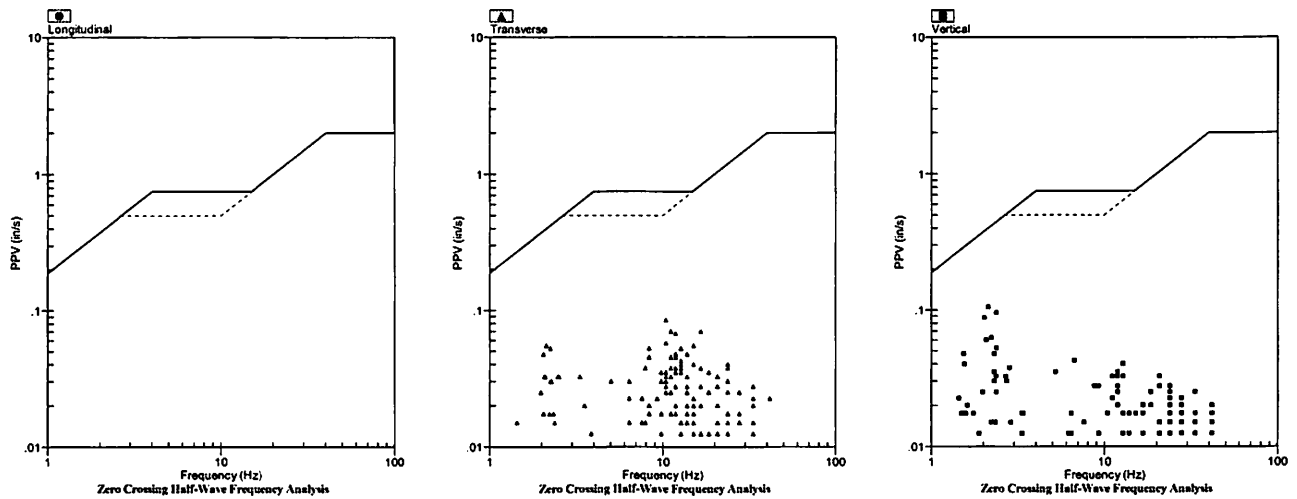
Summary Data

	L	T	V
PPV (in/s)	0.003	0.085	0.105
FREQ (Hz)	.3	10.4	2.1
PD (.001")	0.20	3.45	7.72
PPA (g)	0.007	0.026	0.020
Peak Vector Sum:	0.105 in/s		
Peak Air Pressure:	108 db		
	0.00077 PSI @ 2.7 Hz		

Additional Info:

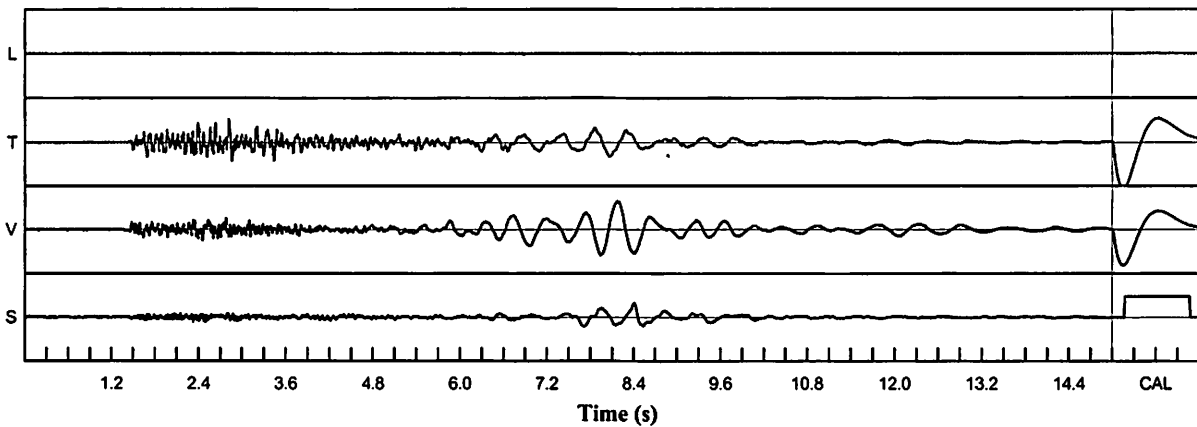
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 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: 5150 v3.67
Date: 08/28/2019 11:15:51
Event No: 6
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

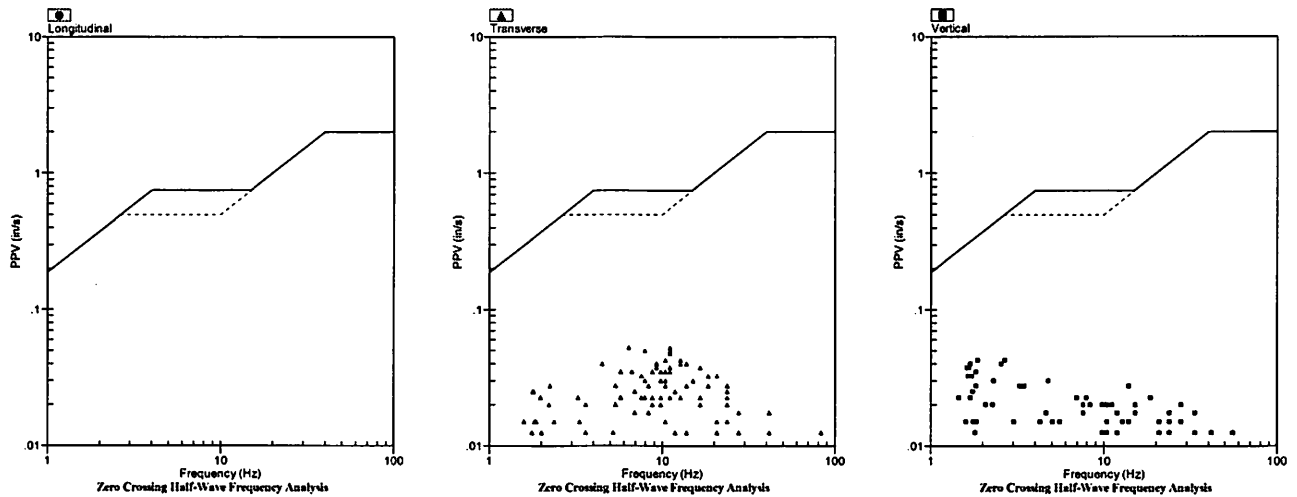
Summary Data

	L	T	V
PPV (in/s)	0.003	0.053	0.043
FREQ (Hz)	.3	11.1	2.7
PD (.001")	0.17	1.70	3.83
PPA (g)	0.007	0.020	0.013
Peak Vector Sum:		0.055 in/s	
Peak Air Pressure:		102 db	
		0.00041 PSI @ 1.9 Hz	

Additional Info:

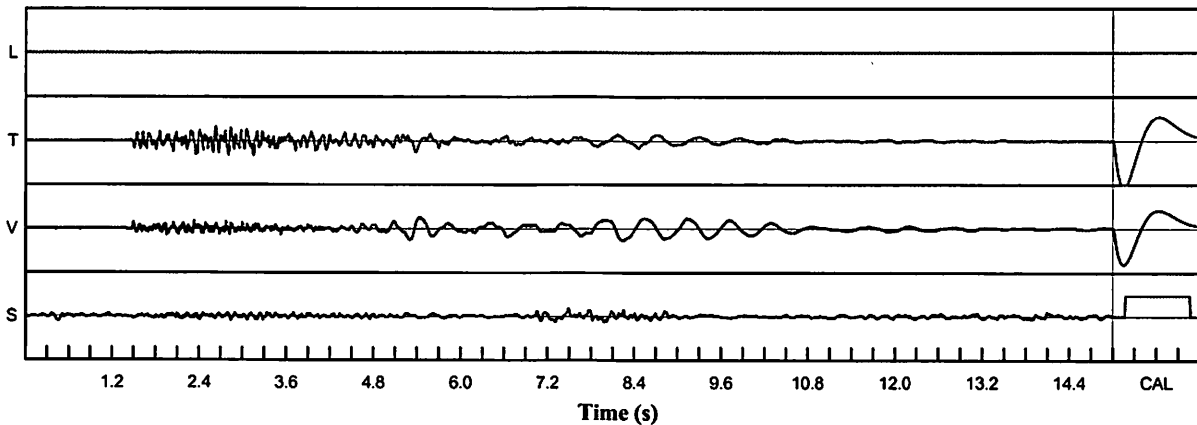
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 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: 08/13/2019 13:31:12
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: 0.050 in/s

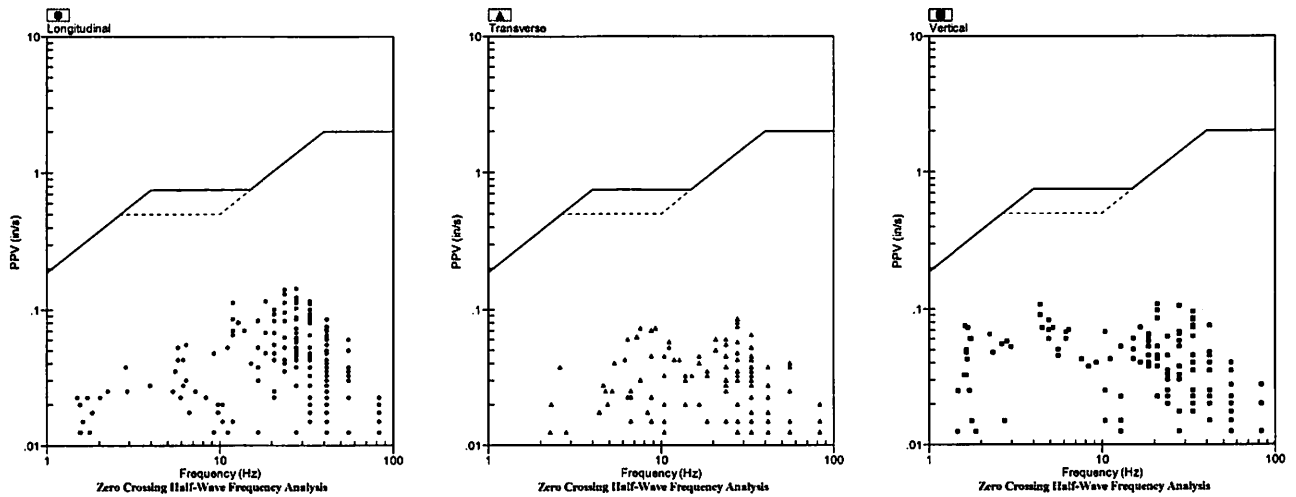
Summary Data

	L	T	V
PPV (in/s)	0.143	0.085	0.108
FREQ (Hz)	27.8	27.8	20.8
PD (.001")	2.05	2.07	5.52
PPA (g)	0.078	0.039	0.059
Peak Vector Sum:	0.178 in/s		
Peak Air Pressure:	108 db		
	0.00085 PSI @ 8.3 Hz		

Additional Info:

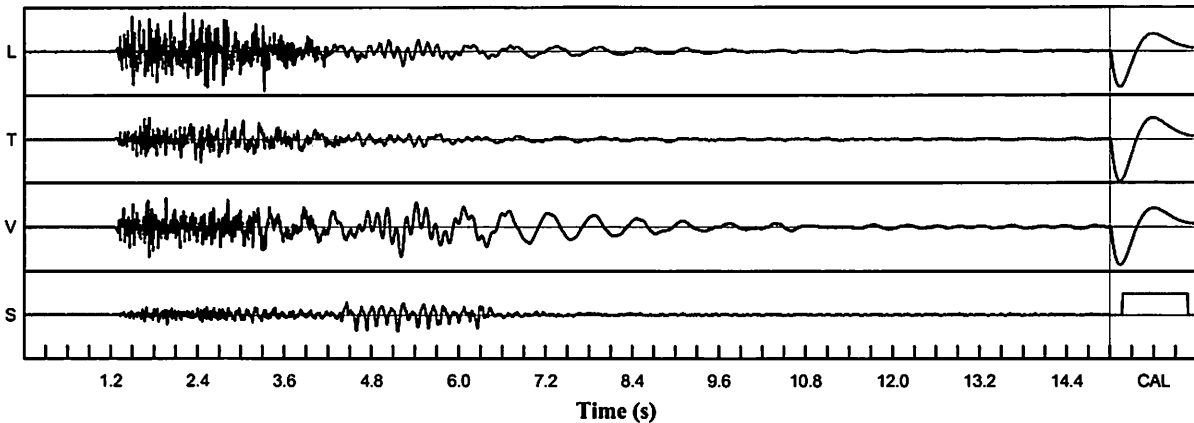
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

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

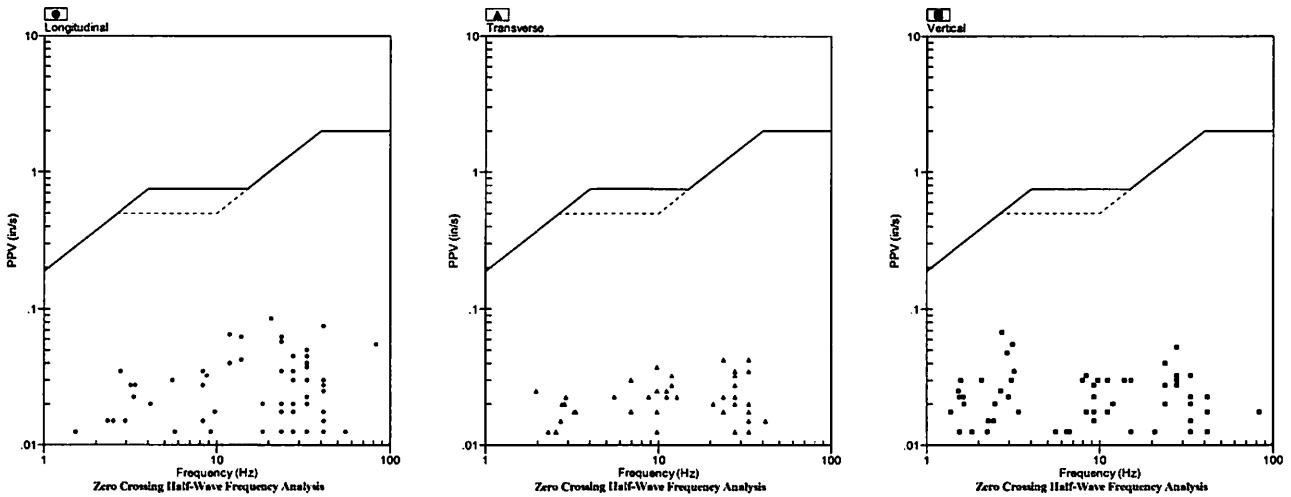
Serial No: 5148 v3.67
Date: 08/15/2019 11:15:34
Event No: 2
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.095	0.043	0.068
FREQ (Hz)	20.8	23.8	2.7
PD (.001")	1.28	1.25	3.46
PPA (g)	0.046	0.020	0.026
Peak Vector Sum:	0.105 in/s		
Peak Air Pressure:	107 db		
	0.00068 PSI @ 4.0 Hz		

Additional Info:

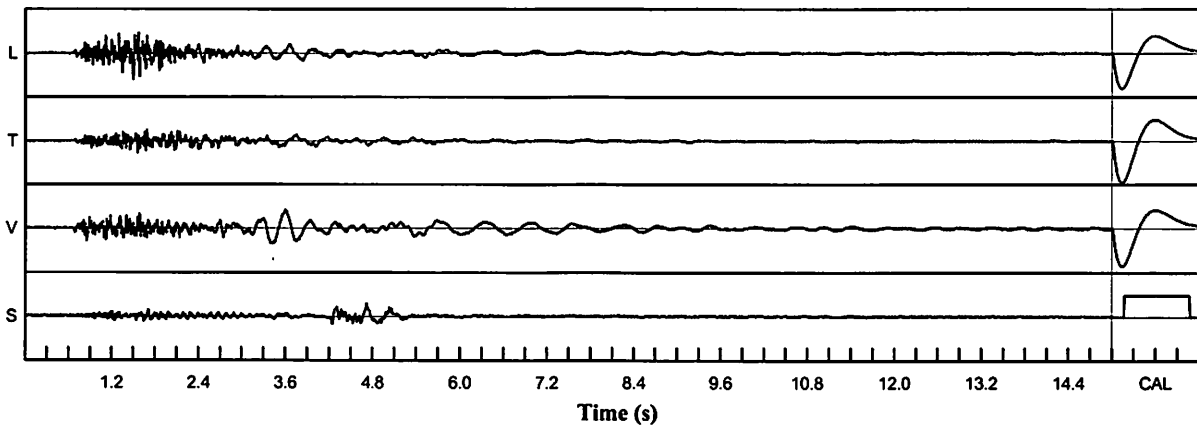
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

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: 08/16/2019 14:00:41
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: 0.050 in/s

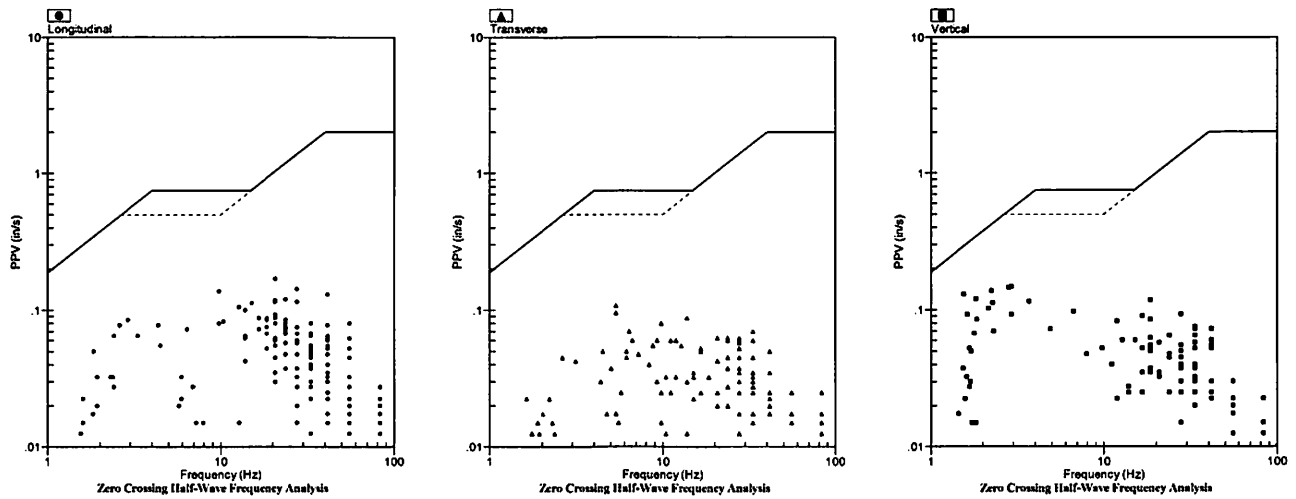
Summary Data

	L	T	V
PPV (in/s)	0.170	0.108	0.148
FREQ (Hz)	20.8	5.4	2.9
PD (.001")	3.87	2.80	9.57
PPA (g)	0.072	0.039	0.046
Peak Vector Sum:	0.175 in/s		
Peak Air Pressure:	110 db		
	0.00110 PSI @ 8.3 Hz		

Additional Info:

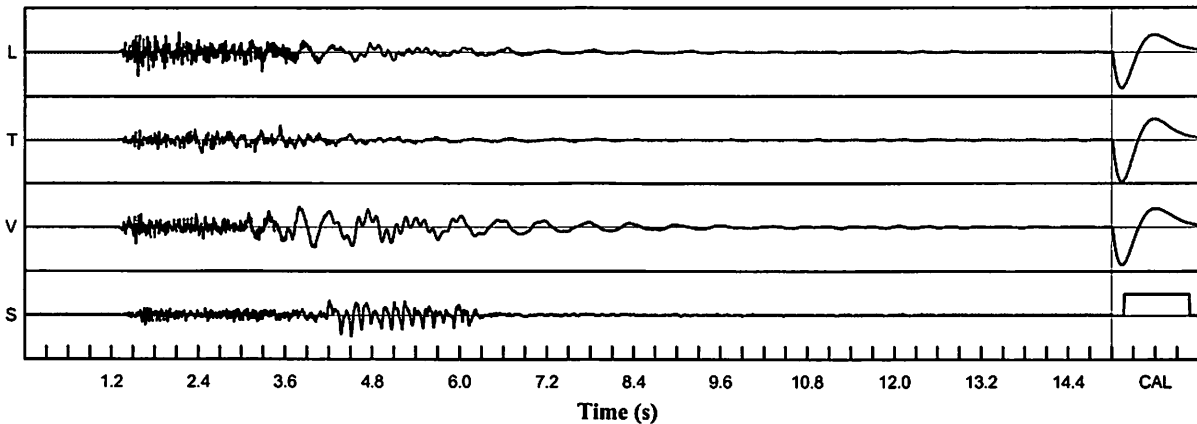
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 3



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 08/22/2019 13:15:57
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: 0.050 in/s

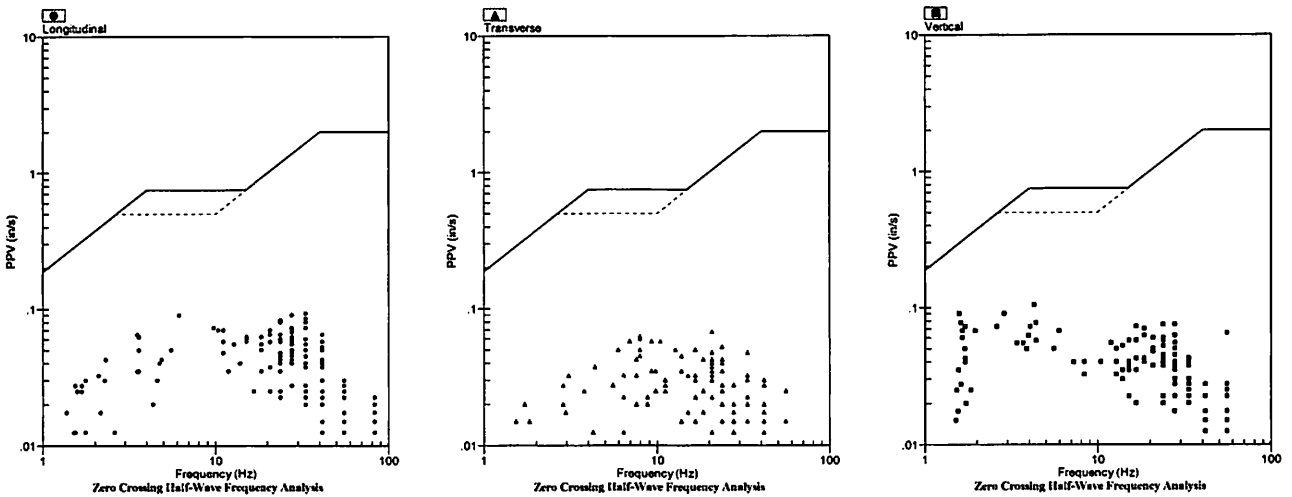
Summary Data

	L	T	V
PPV (in/s)	0.093	0.068	0.105
FREQ (Hz)	33.3	20.8	4.3
PD (.001")	2.54	1.82	6.47
PPA (g)	0.046	0.026	0.033
Peak Vector Sum:	0.115 in/s		
Peak Air Pressure:	113 db		
	0.00139 PSI @ 6.2 Hz		

Additional Info:

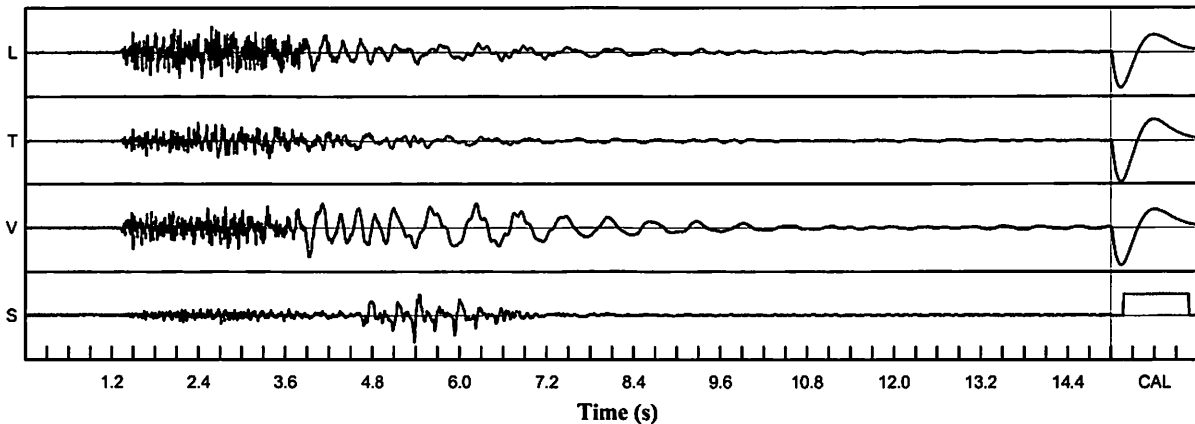
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

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

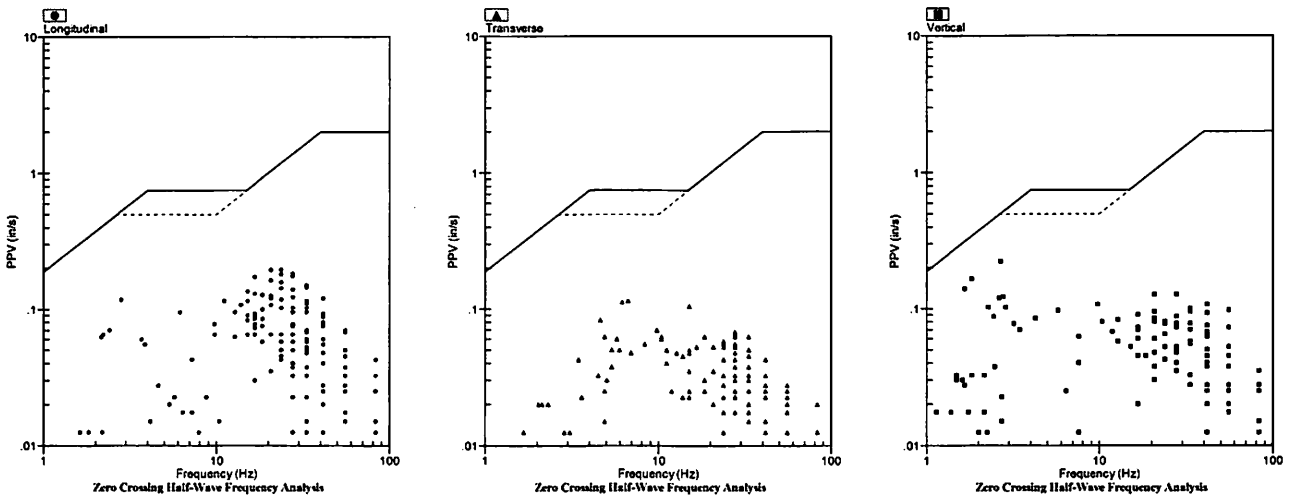
Serial No: 5148 v3.67
Date: 08/23/2019 14:01:25
Event No: 5
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.195	0.115	0.223
FREQ (Hz)	20.8	6.7	2.7
PD (.001")	4.62	3.05	12.67
PPA (g)	0.104	0.046	0.078
Peak Vector Sum:	0.228 in/s		
Peak Air Pressure:	113 db		
	0.00142 PSI @ 7.2 Hz		

Additional Info:

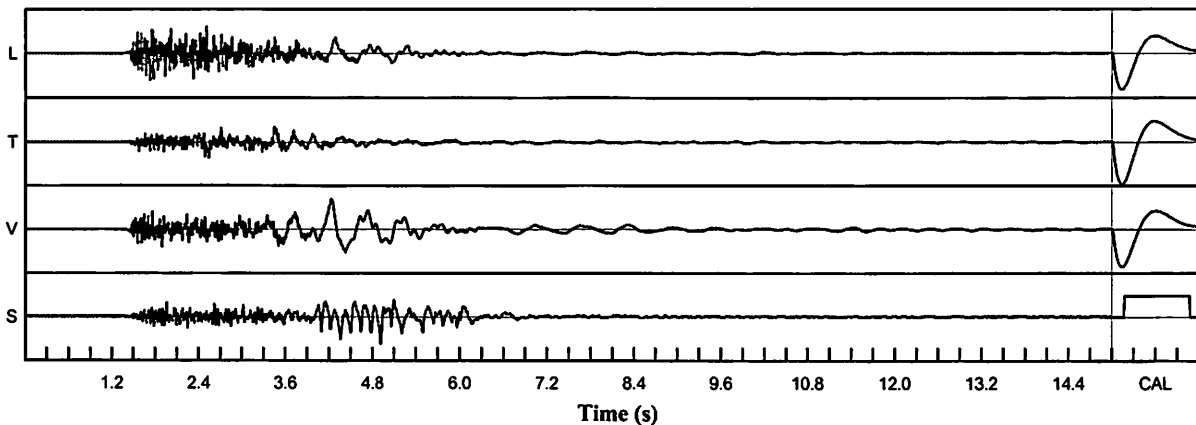
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 5



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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 08/28/2019 11:16:18
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: 0.050 in/s

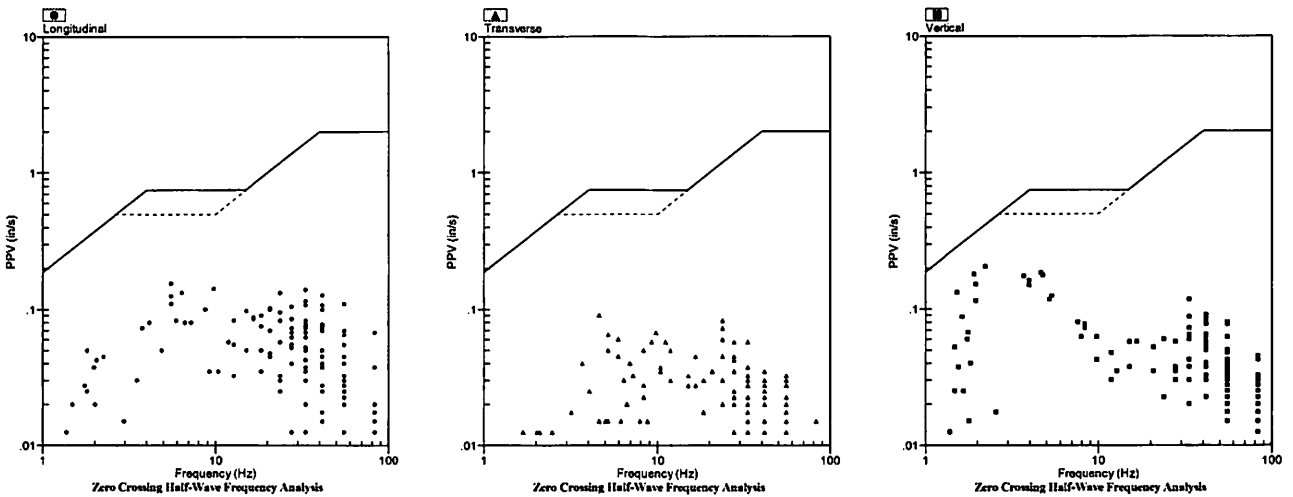
Summary Data

	L	T	V
PPV (in/s)	0.155	0.090	0.205
FREQ (Hz)	5.6	4.6	2.2
PD (.001")	4.35	3.16	10.34
PPA (g)	0.098	0.033	0.065
Peak Vector Sum:	0.223 in/s		
Peak Air Pressure:	107 db		
	0.00075 PSI @ 7.6 Hz		

Additional Info:

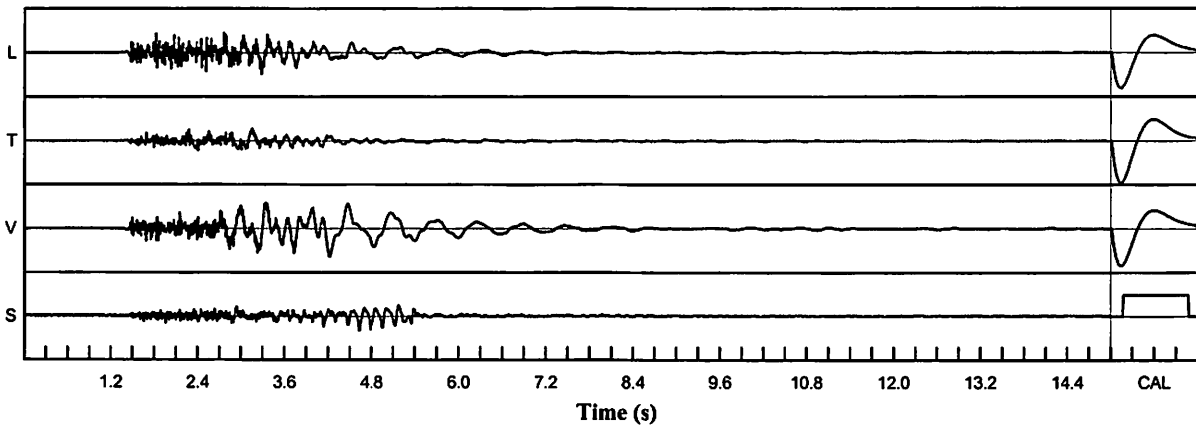
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 6



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 08/13/2019 13:31:07
Event No: 3
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

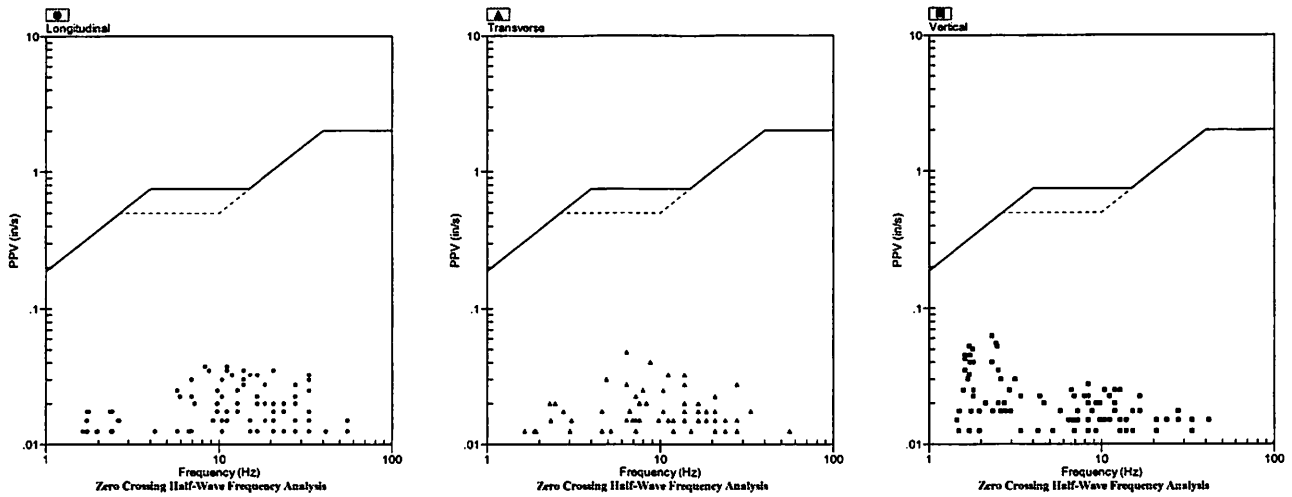
Summary Data

	L	T	V
PPV (in/s)	0.040	0.048	0.063
FREQ (Hz)	6.4	6.4	2.3
PD (.001")	1.24	1.45	4.66
PPA (g)	0.020	0.013	0.013
Peak Vector Sum:	0.063 in/s		
Peak Air Pressure:	107 db		
	0.00071 PSI @ 6.0 Hz		

Additional Info:

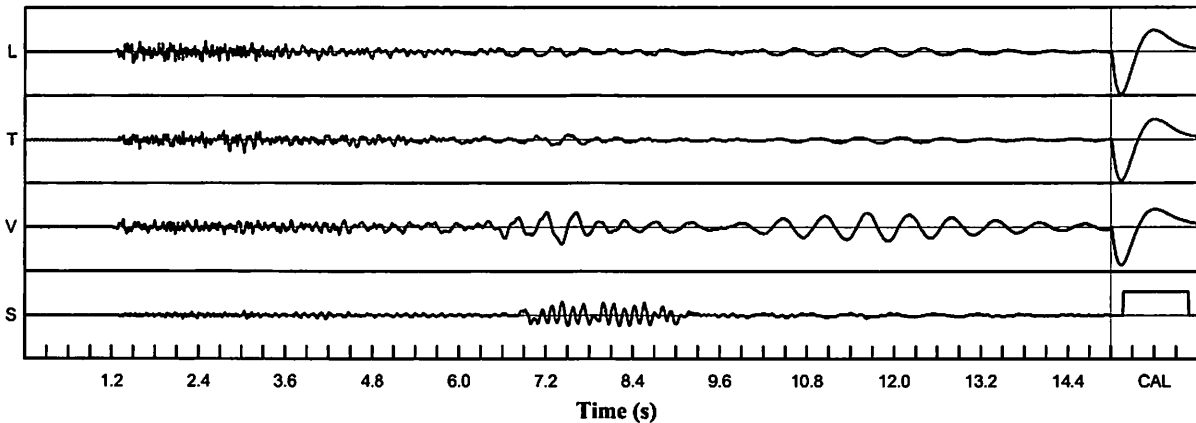
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 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: 5149 v3.67
Date: 08/15/2019 11:15:36
Event No: 4
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

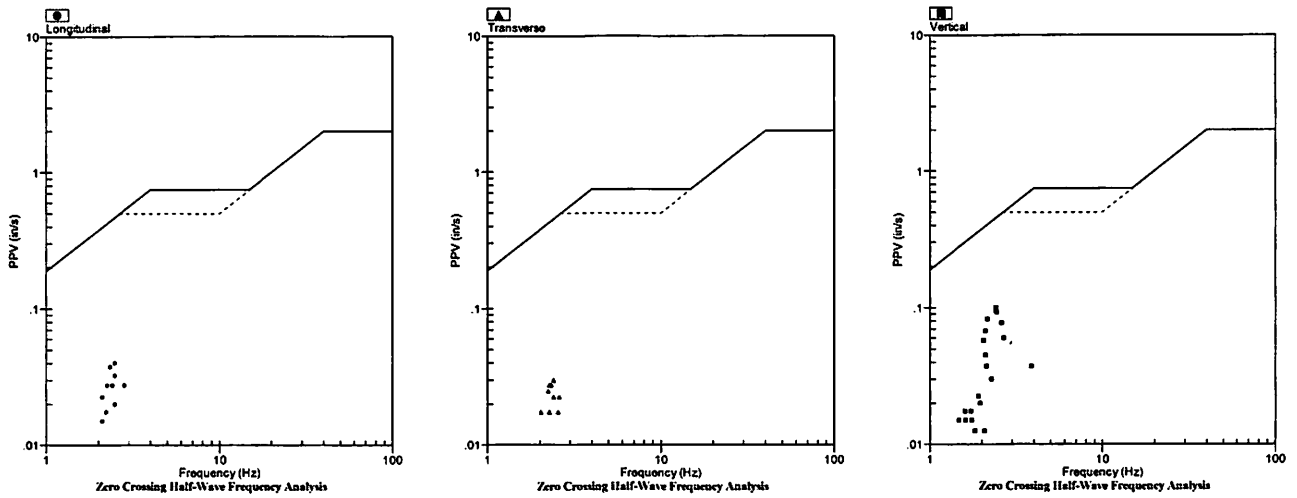
Summary Data

	L	T	V
PPV (in/s)	0.040	0.030	0.100
FREQ (Hz)	2.5	2.4	2.4
PD (.001")	2.26	2.09	6.78
PPA (g)	0.007	0.007	0.007
Peak Vector Sum:	0.103 in/s		
Peak Air Pressure:	104 db		
	0.00055 PSI @ 6.9 Hz		

Additional Info:

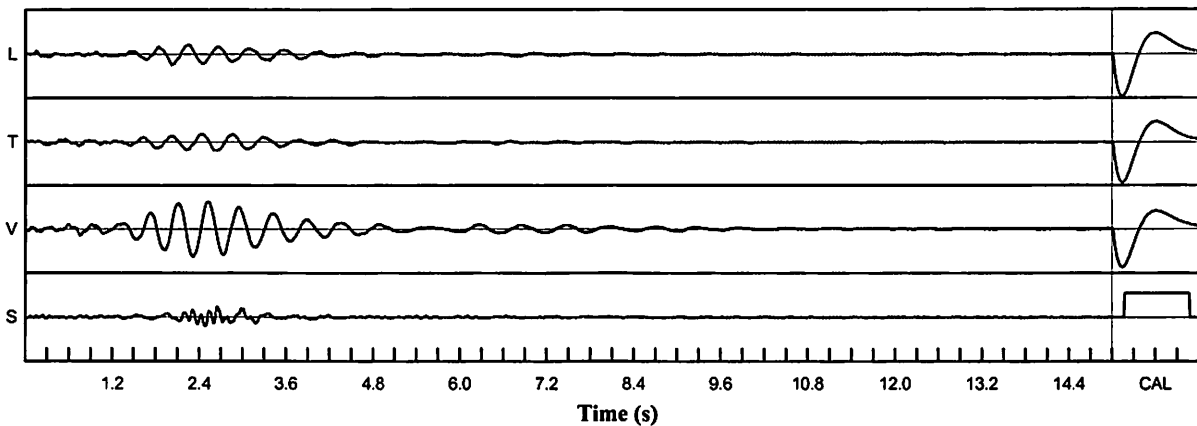
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 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

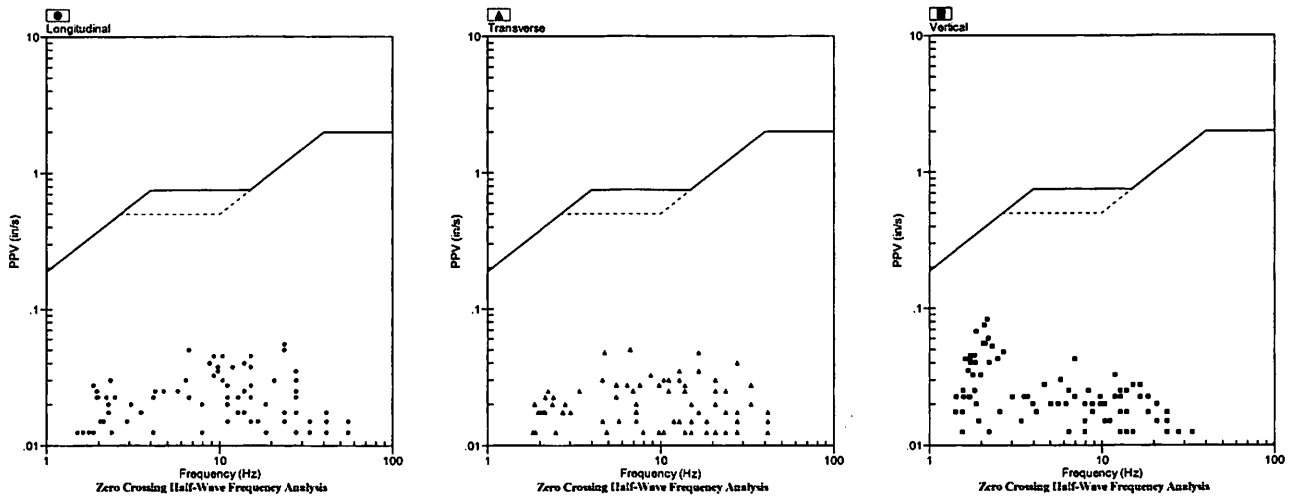
Serial No: 5149 v3.67
Date: 08/16/2019 14:00:40
Event No: 5
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

	L	T	V
PPV (in/s)	0.055	0.050	0.083
FREQ (Hz)	23.8	6.7	2.2
PD (.001")	1.85	2.03	6.05
PPA (g)	0.026	0.026	0.013
Peak Vector Sum:	0.085 in/s		
Peak Air Pressure:	106 db		
	0.00064 PSI @ 4.4 Hz		

Additional Info:

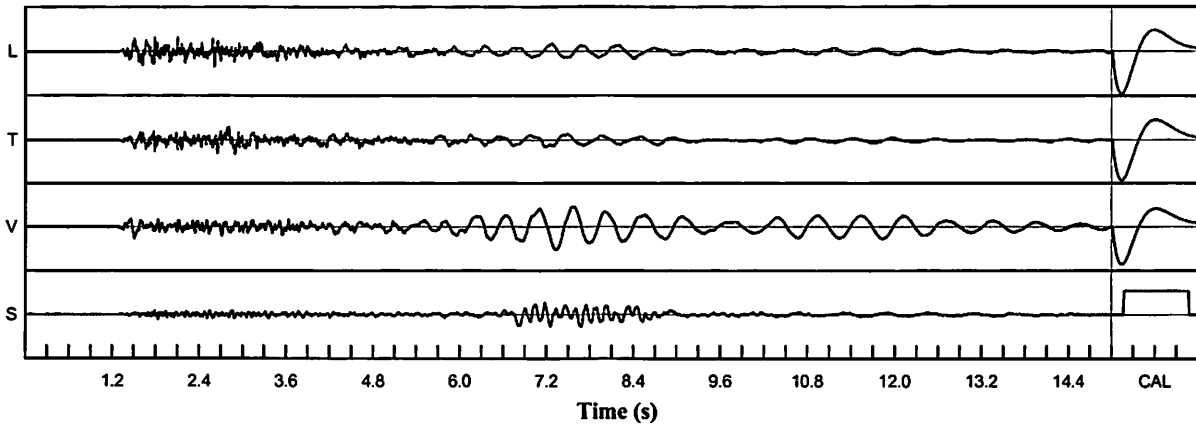
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 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: 5149 v3.67
Date: 08/22/2019 13:16:02
Event No: 6
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

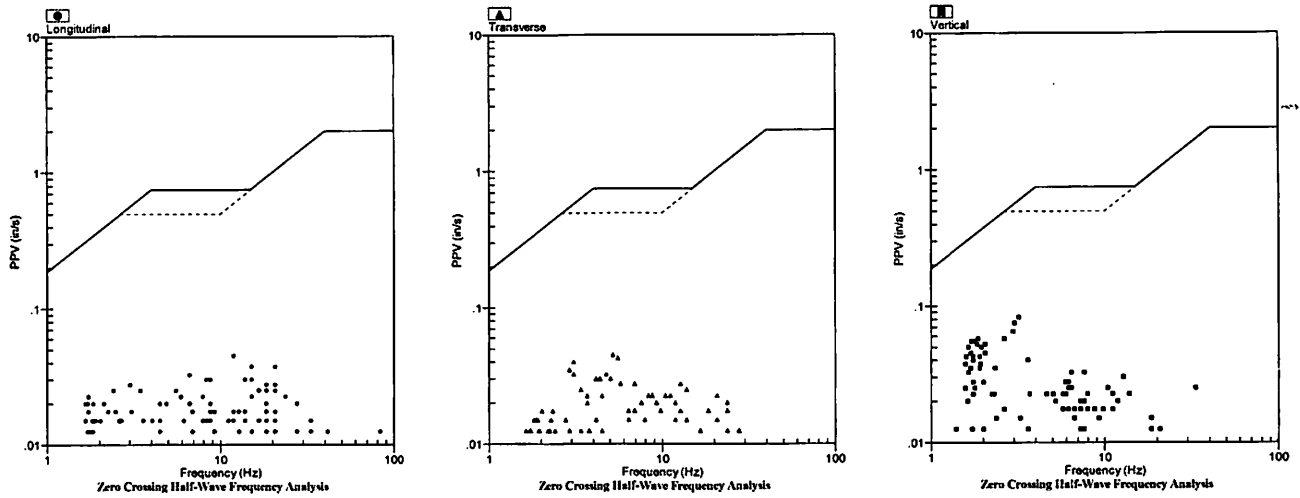
Summary Data

	L	T	V
PPV (in/s)	0.045	0.045	0.083
FREQ (Hz)	11.9	5.2	3.2
PD (.001")	1.63	1.87	4.97
PPA (g)	0.020	0.013	0.007
Peak Vector Sum:	0.085 in/s		
Peak Air Pressure:	105 db		
	0.00057 PSI @ 3.5 Hz		

Additional Info:

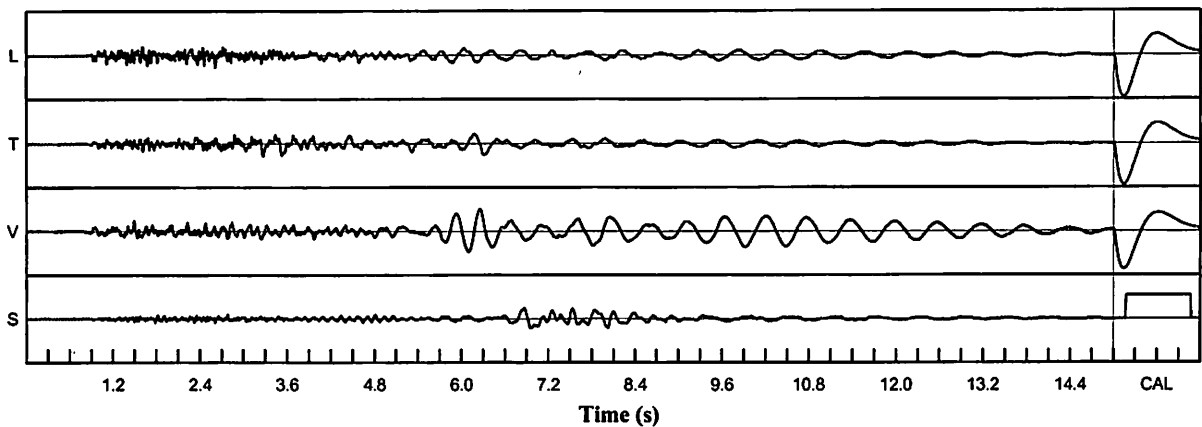
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 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: 5149 v3.67
Date: 08/23/2019 14:01:32
Event No: 7
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

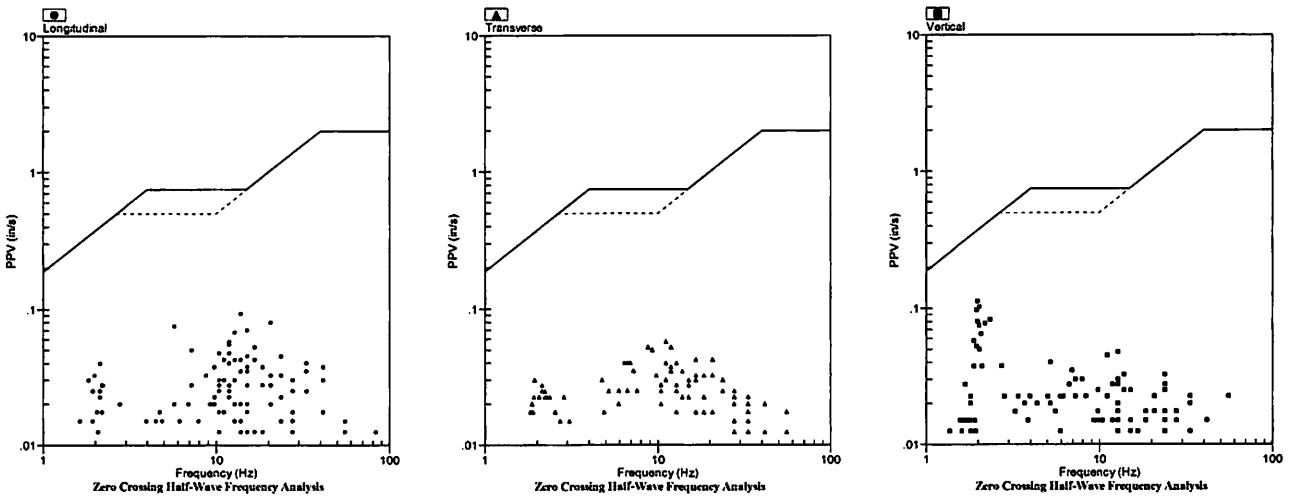
Summary Data

	L	T	V
PPV (in/s)	0.093	0.058	0.113
FREQ (Hz)	13.9	11.1	2.0
PD (.001")	2.74	2.05	8.68
PPA (g)	0.026	0.020	0.020
Peak Vector Sum:	0.115 in/s		
Peak Air Pressure:	103 db		
	0.00046 PSI @ 20.8 Hz		

Additional Info:

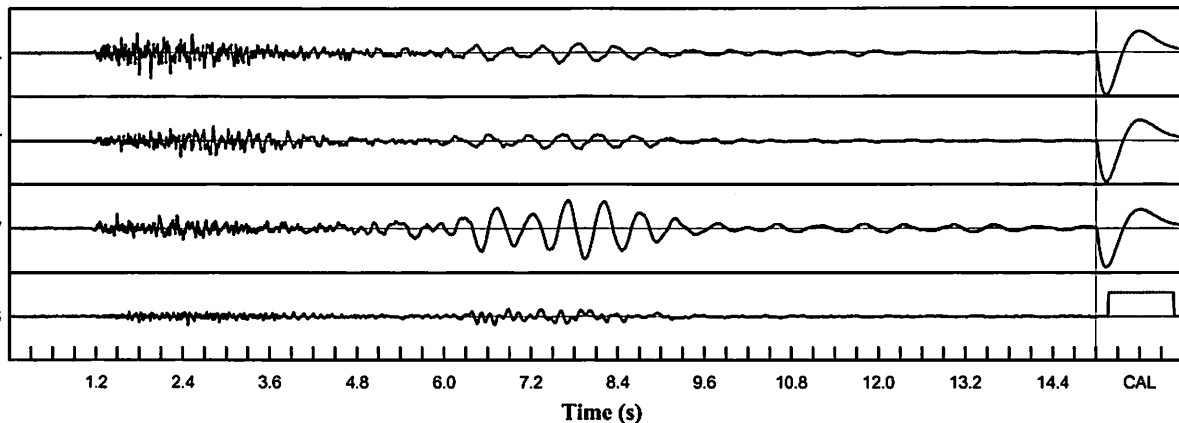
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 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: 09/05/2019 13:17:05
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: 0.050 in/s

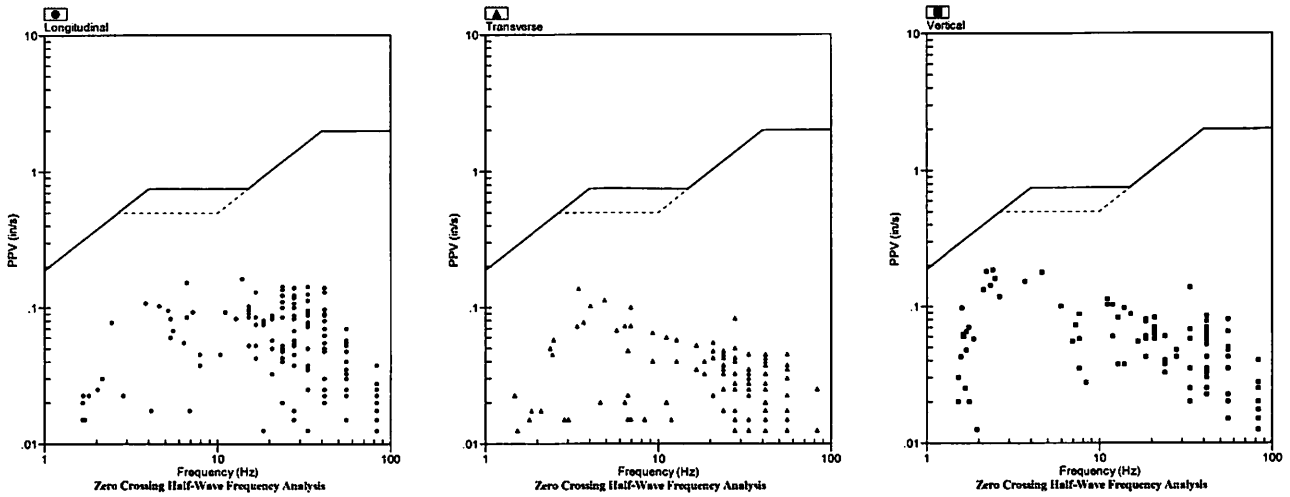
Summary Data

	L	T	V
PPV (in/s)	0.163	0.138	0.185
FREQ (Hz)	13.9	3.5	2.4
PD (.001")	4.27	4.28	12.63
PPA (g)	0.091	0.046	0.072
Peak Vector Sum:	0.215 in/s		
Peak Air Pressure:	116 db		
	0.00182 PSI @ 9.3 Hz		

Additional Info:

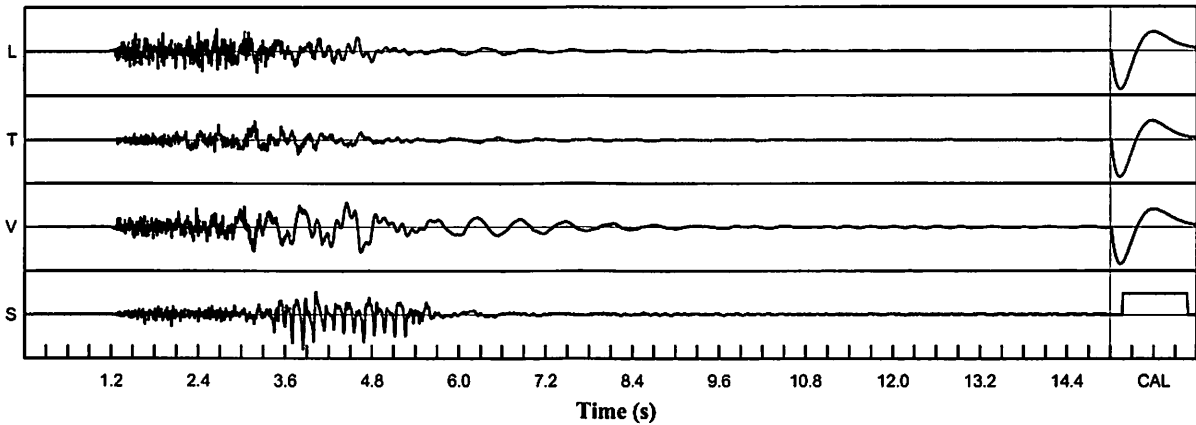
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 7



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 09/09/2019 11:34:32
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: 0.050 in/s

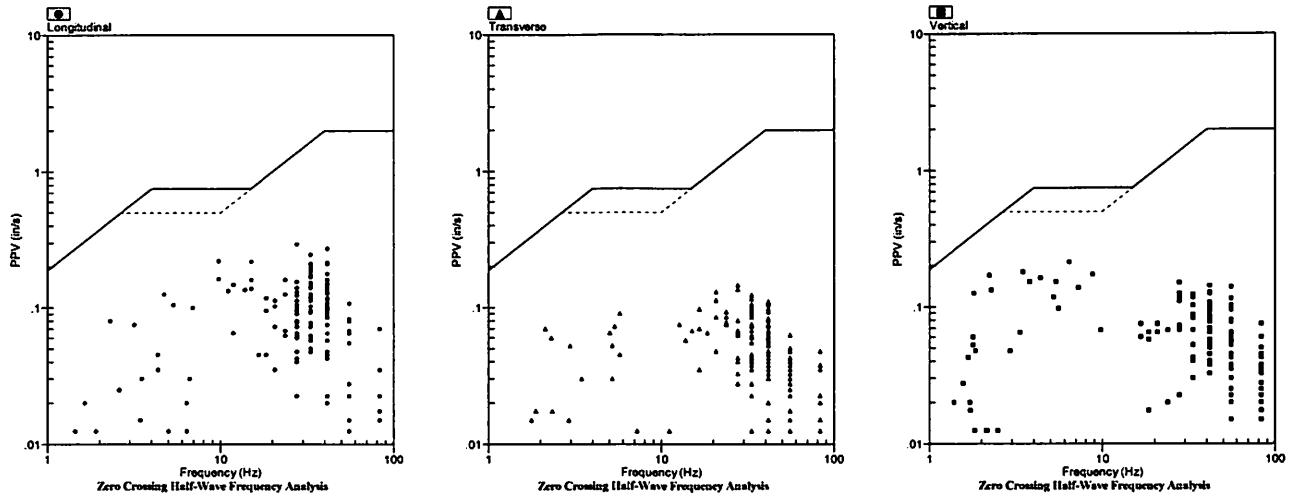
Summary Data

	L	T	V
PPV (in/s)	0.293	0.145	0.213
FREQ (Hz)	27.8	27.8	6.4
PD (.001")	4.60	3.82	10.03
PPA (g)	0.169	0.078	0.098
Peak Vector Sum:	0.315 in/s		
Peak Air Pressure:	110 db		
	0.00110 PSI @ 5.7 Hz		

Additional Info:

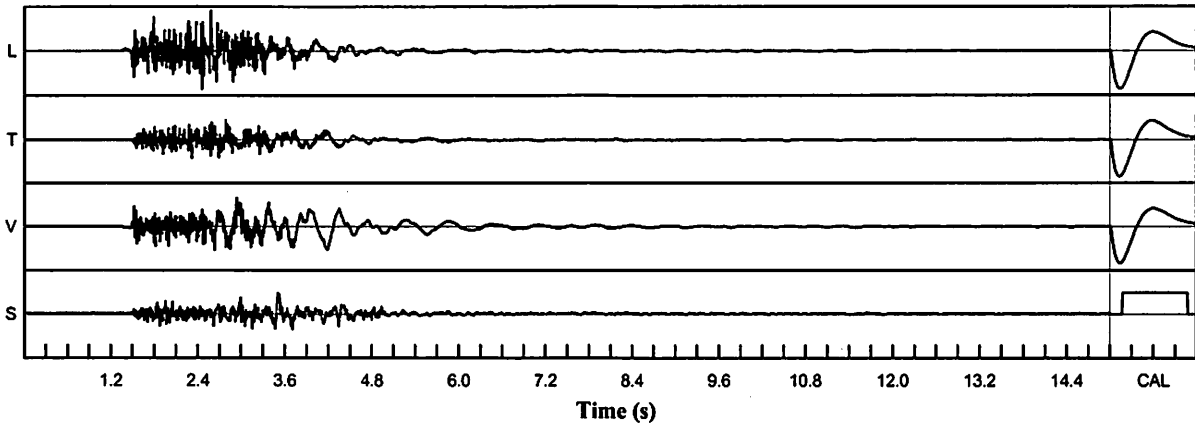
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 8



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 09/13/2019 14:19:25
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: 0.050 in/s

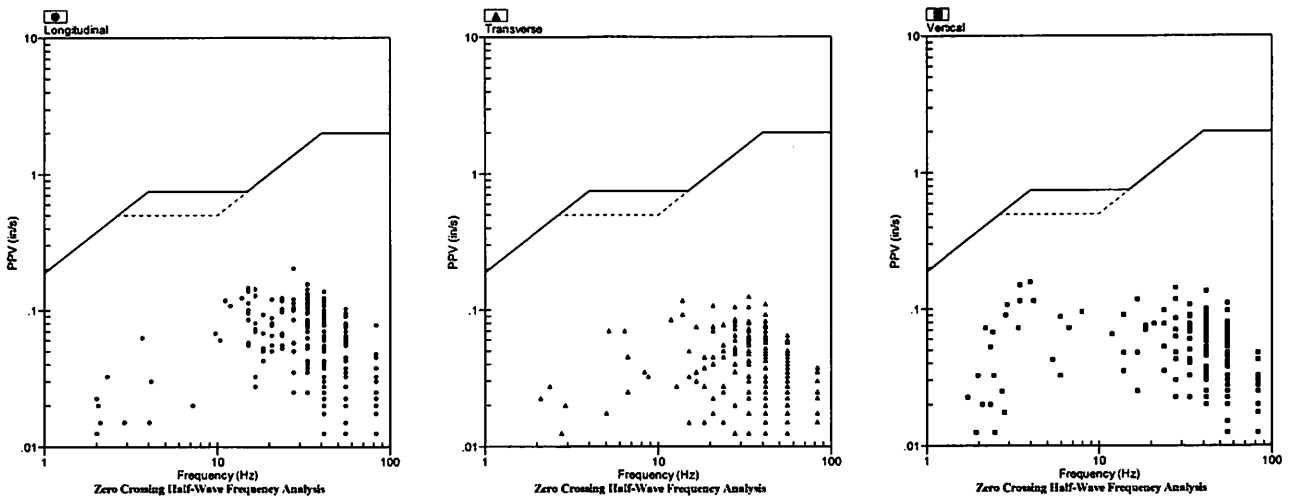
Summary Data

	L	T	V
PPV (in/s)	0.203	0.125	0.158
FREQ (Hz)	27.8	33.3	4.0
PD (.001")	2.86	2.60	5.52
PPA (g)	0.098	0.065	0.085
Peak Vector Sum:	0.223 in/s		
Peak Air Pressure:	106 db		
	0.00064 PSI @ 11.1 Hz		

Additional Info:

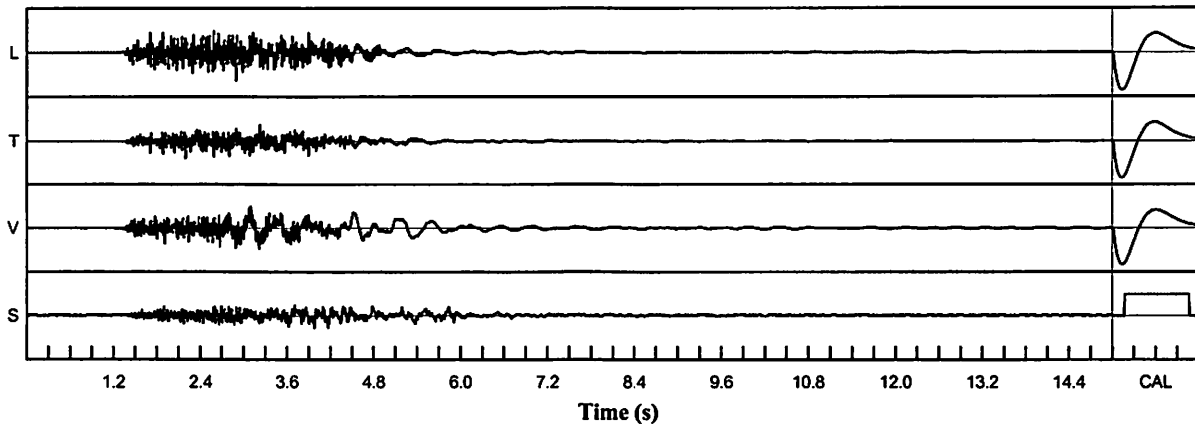
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 9



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 09/17/2019 14:18:05
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: 0.050 in/s

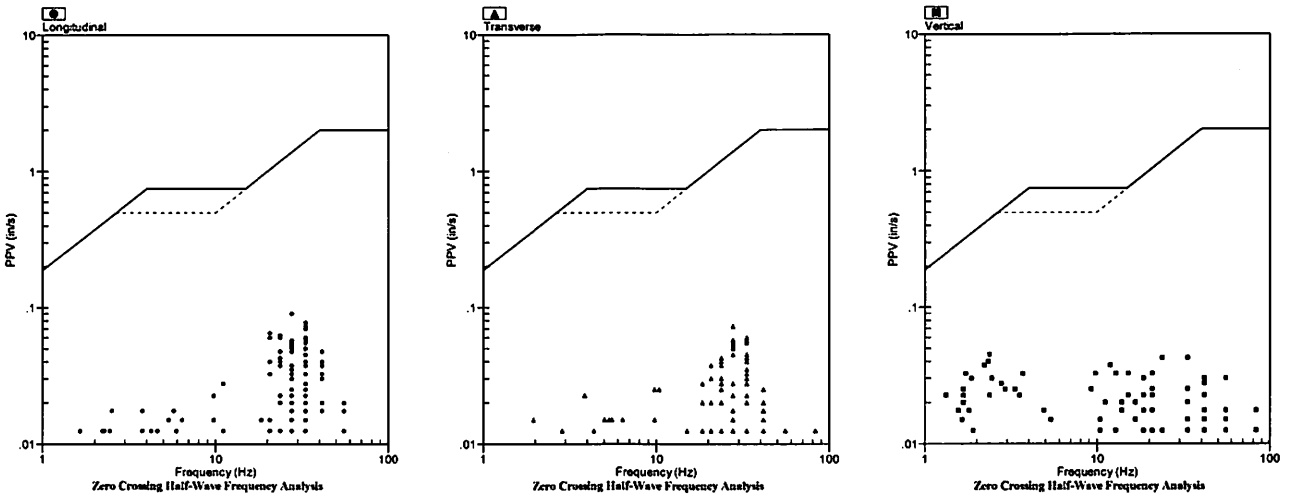
Summary Data

	L	T	V
PPV (in/s)	0.093	0.073	0.048
FREQ (Hz)	27.8	27.8	20.8
PD (.001")	1.00	1.26	2.82
PPA (g)	0.046	0.039	0.026
Peak Vector Sum:	0.110 in/s		
Peak Air Pressure:	91 db		
	0.00025 PSI @ 5.6 Hz		

Additional Info:

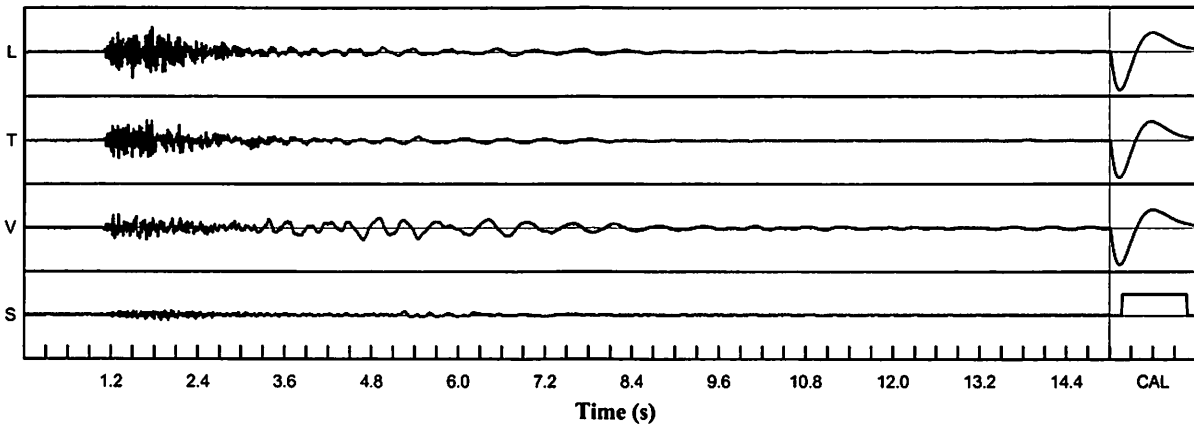
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

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: 09/18/2019 13:16:21
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: 0.050 in/s

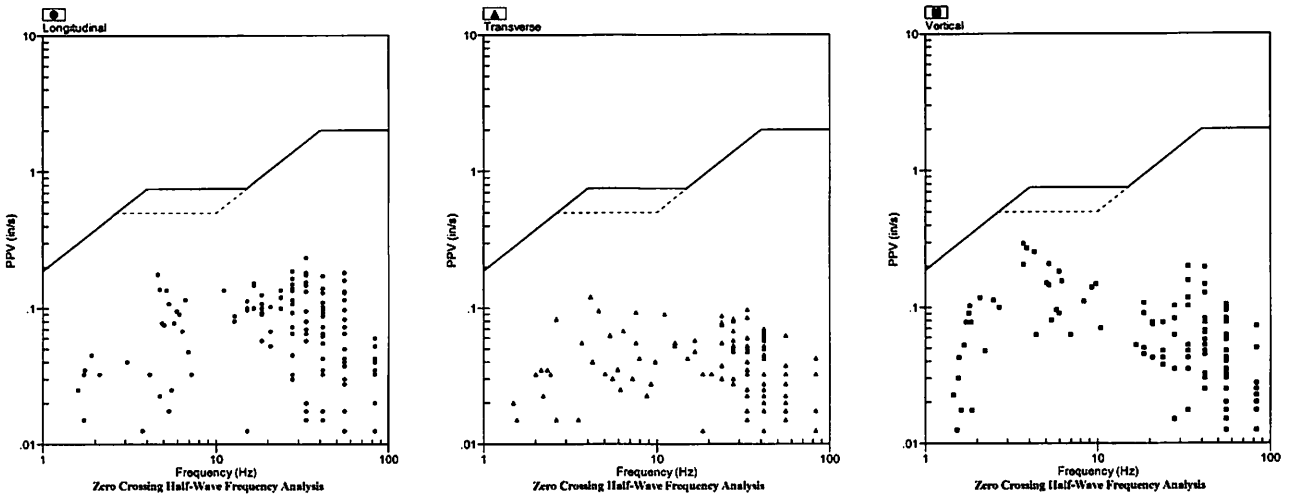
Summary Data

	L	T	V
PPV (in/s)	0.235	0.120	0.293
FREQ (Hz)	33.3	4.2	3.7
PD (.001")	5.11	4.10	12.18
PPA (g)	0.156	0.052	0.124
Peak Vector Sum:	0.323 in/s		
Peak Air Pressure:	113 db		
	0.00139 PSI @ 5.4 Hz		

Additional Info:

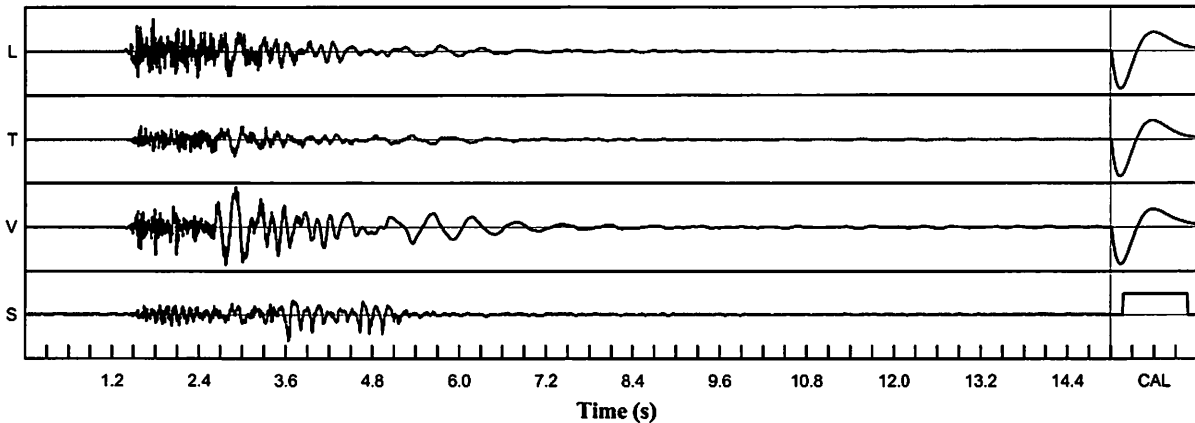
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 11



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 09/05/2019 13:17:13
Event No: 1
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

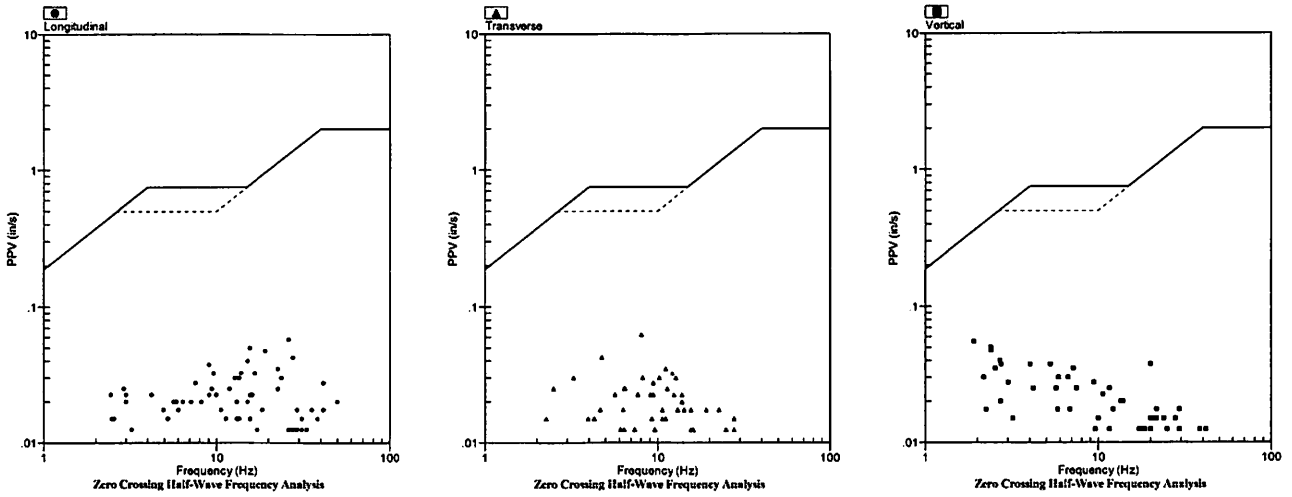
Summary Data

	L	T	V
PPV (in/s)	0.060	0.063	0.055
FREQ (Hz)	10.2	8.1	1.9
PD (.001")	1.60	1.67	3.58
PPA (g)	0.033	0.020	0.020
Peak Vector Sum:	0.075 in/s		
Peak Air Pressure:	110 db		
	0.00087 PSI @ 6.3 Hz		

Additional Info:

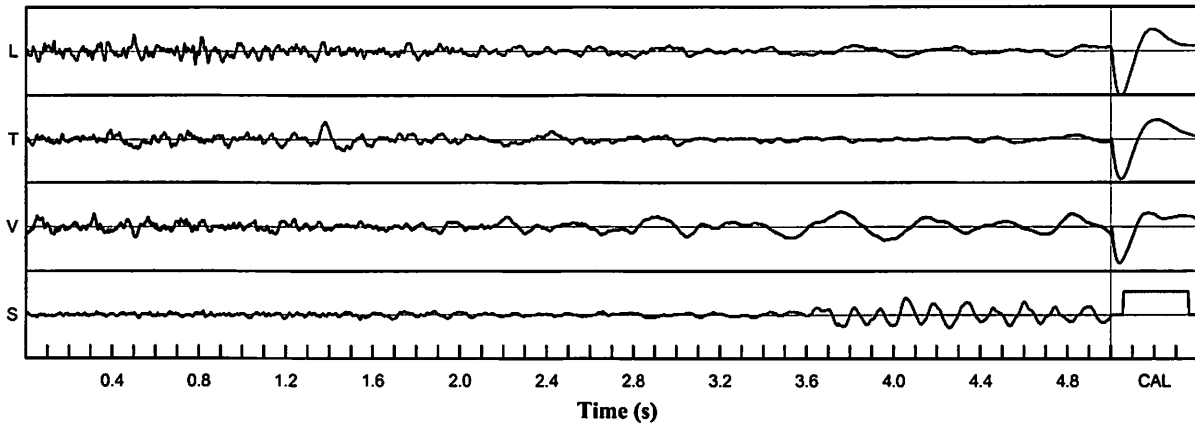
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 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: 5149 v3.67
Date: 09/09/2019 11:34:43
Event No: 2
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

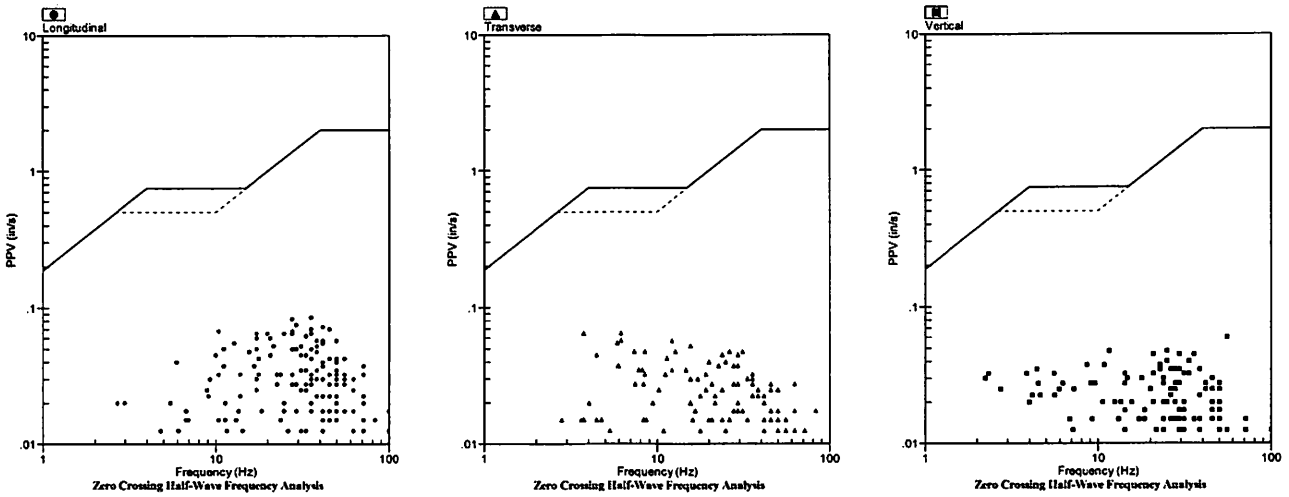
Summary Data

	L	T	V
PPV (in/s)	0.085	0.065	0.060
FREQ (Hz)	35.7	6.2	29.4
PD (.001")	1.00	2.25	1.87
PPA (g)	0.065	0.033	0.039
Peak Vector Sum:	0.088 in/s		
Peak Air Pressure:	101 db		
	0.00036 PSI @ 26.3 Hz		

Additional Info:

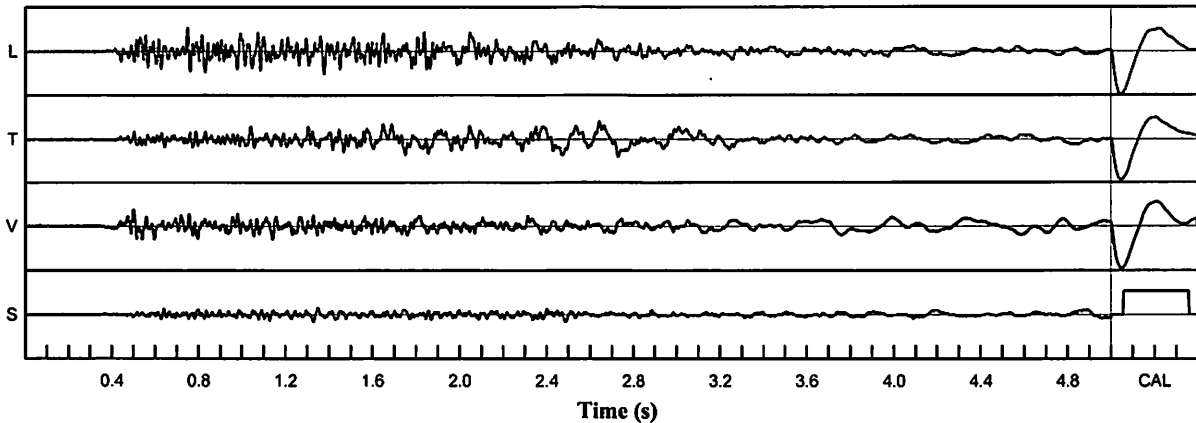
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 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: 5149 v3.67
Date: 09/13/2019 14:19:41
Event No: 3
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

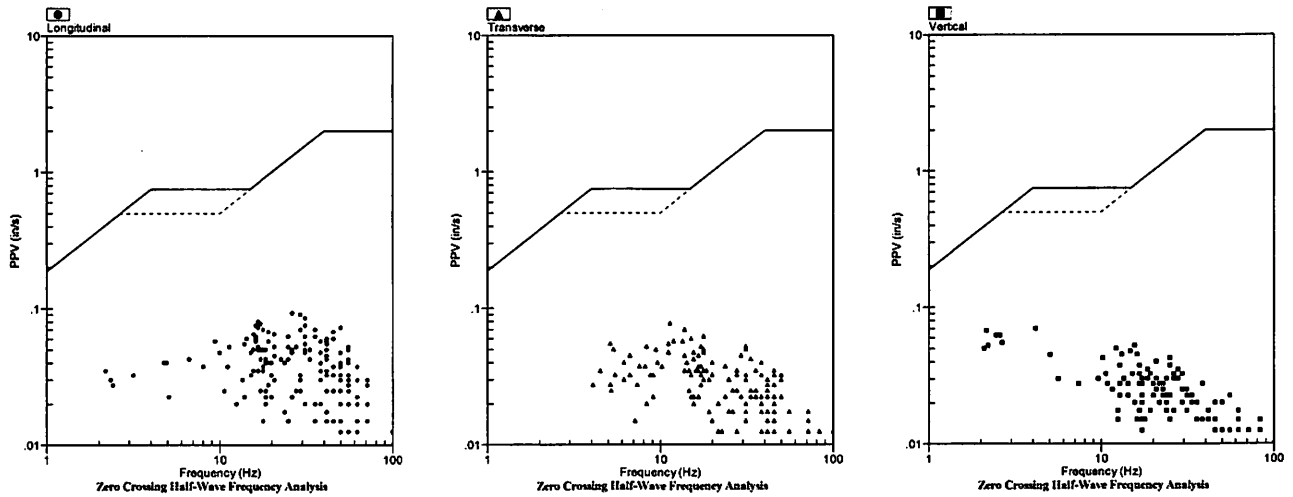
Summary Data

	L	T	V
PPV (in/s)	0.093	0.078	0.070
FREQ (Hz)	26.3	11.4	4.2
PD (.001")	1.64	1.41	3.47
PPA (g)	0.059	0.039	0.026
Peak Vector Sum:	0.108 in/s		
Peak Air Pressure:	101 db		
	0.00037 PSI @ 29.4 Hz		

Additional Info:

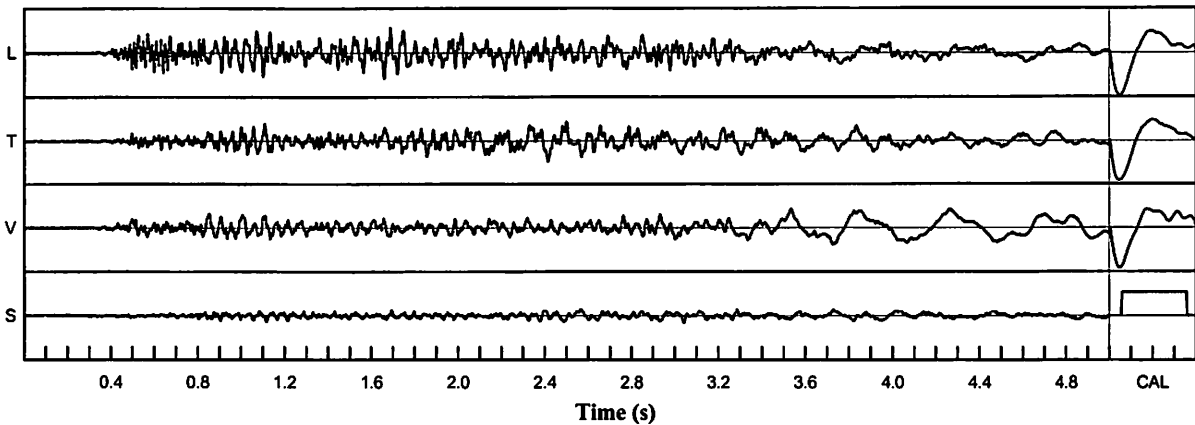
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 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: 5149 v3.67
Date: 09/18/2019 13:16:43
Event No: 4
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

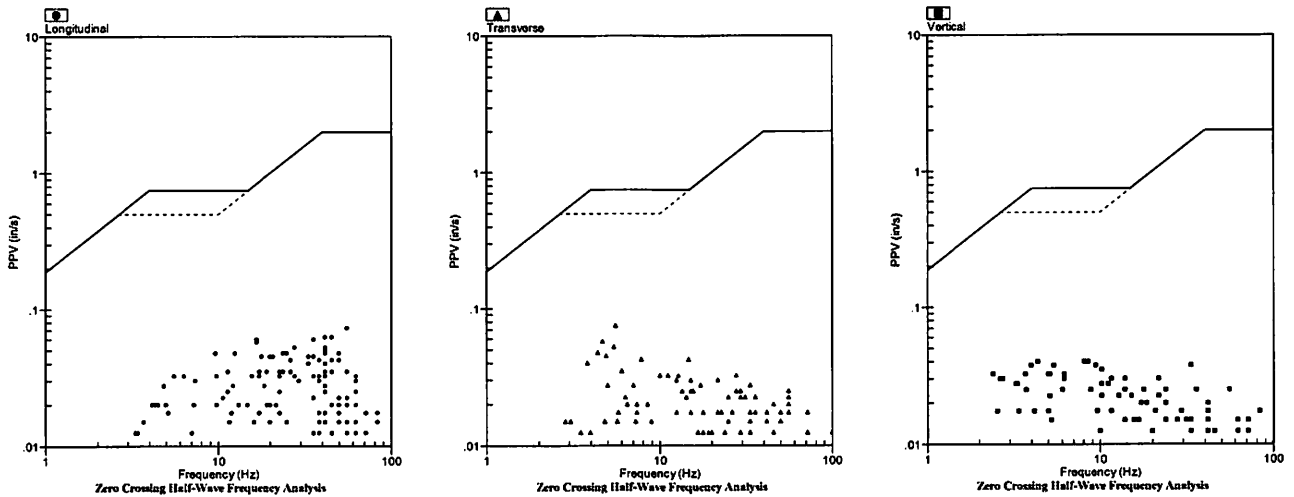
Summary Data

	L	T	V
PPV (in/s)	0.075	0.075	0.050
FREQ (Hz)	31.3	5.6	27.8
PD (.001")	0.93	2.49	1.85
PPA (g)	0.059	0.033	0.033
Peak Vector Sum:	0.085 in/s		
Peak Air Pressure:	94 db		
	0.00021 PSI @ 16.1 Hz		

Additional Info:

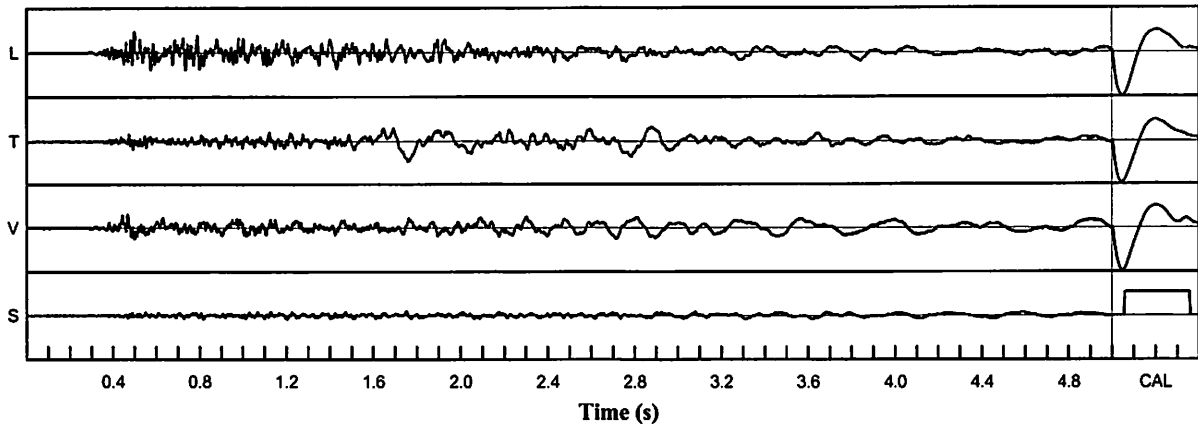
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 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: 5150 v3.67
Date: 09/05/2019 13:17:47
Event No: 7
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

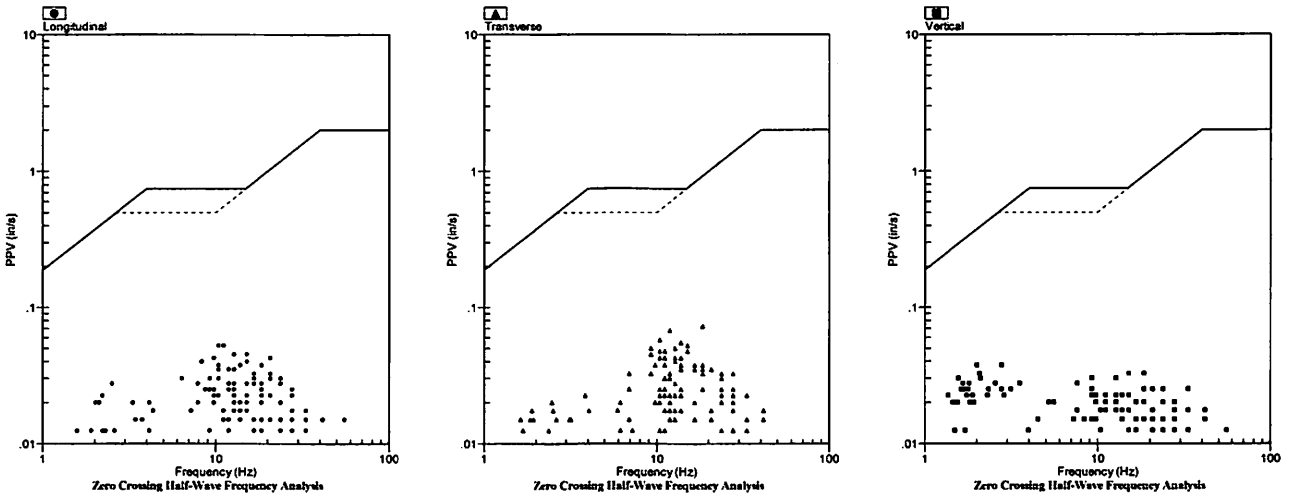
Summary Data

	L	T	V
PPV (in/s)	0.053	0.073	0.038
FREQ (Hz)	10.4	18.5	2.8
PD (.001")	1.47	1.55	3.00
PPA (g)	0.020	0.020	0.013
Peak Vector Sum:	0.083 in/s		
Peak Air Pressure:	106 db		
	0.00066 PSI @ 8.3 Hz		

Additional Info:

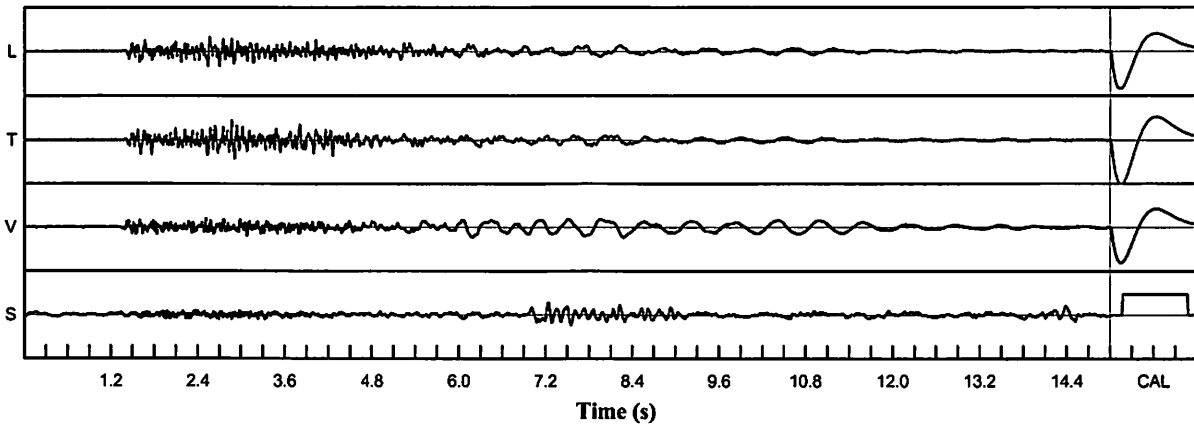
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 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

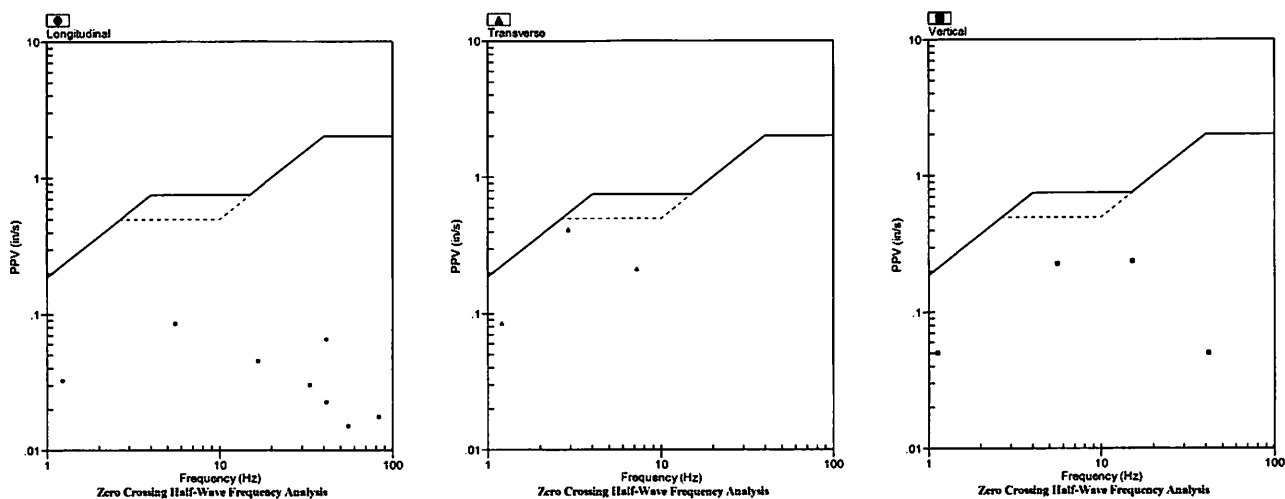
Serial No: 5150 v3.67
Date: 09/06/2019 08:59:21
Event No: 8
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

	L	T	V
PPV (in/s)	0.085	0.415	0.238
FREQ (Hz)	5.6	2.9	11.1
PD (.001")	3.11	12.34	6.57
PPA (g)	0.078	0.085	0.104
Peak Vector Sum:	0.425 in/s		
Peak Air Pressure:	111 db		
	0.00102 PSI @ 83.3 Hz		

Additional Info:

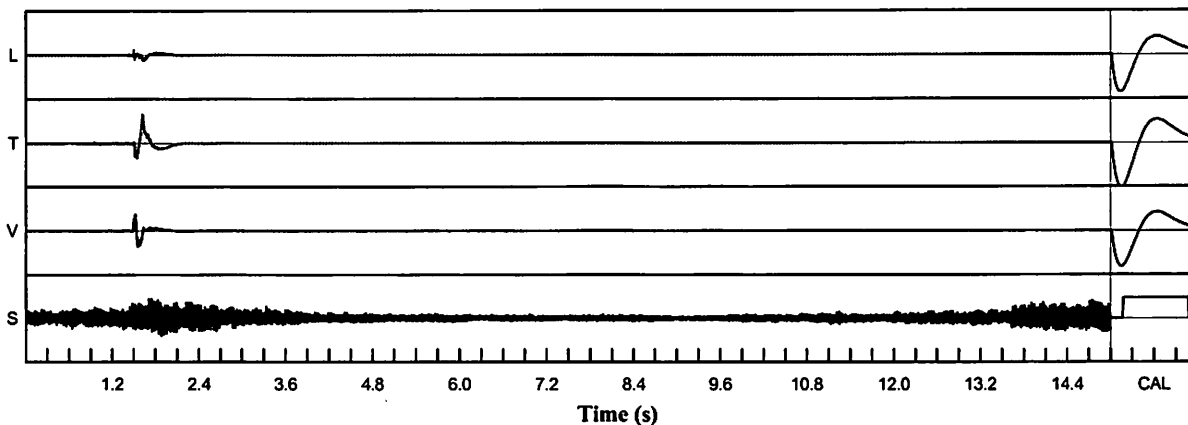
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 Event: 8



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5150 v3.67
Date: 09/09/2019 11:35:10
Event No: 9
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

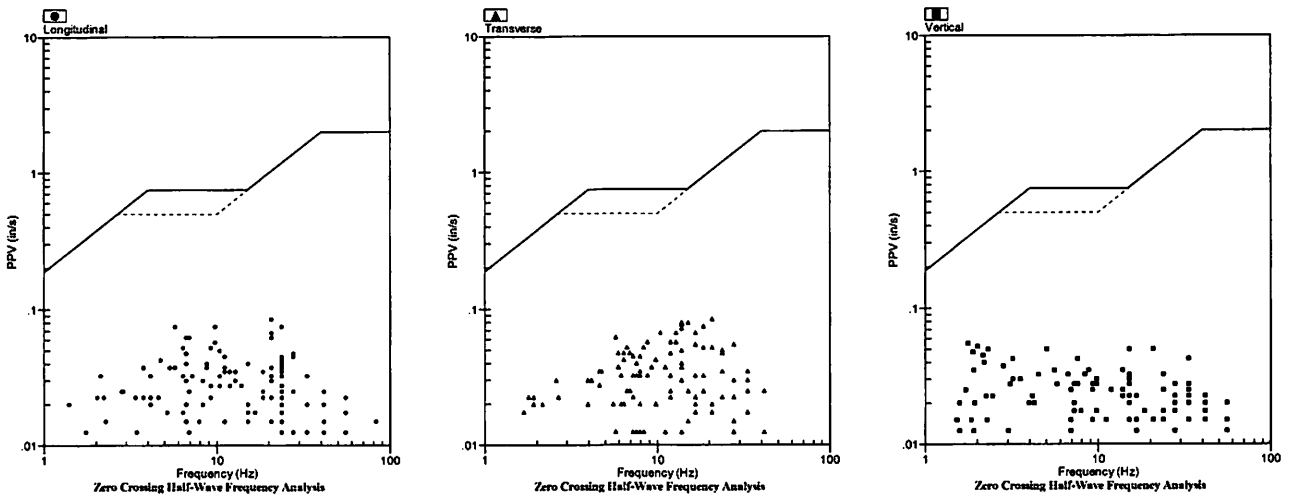
Summary Data

	L	T	V
PPV (in/s)	0.085	0.085	0.055
FREQ (Hz)	20.8	20.8	1.8
PD (.001")	1.95	1.89	4.50
PPA (g)	0.033	0.033	0.020
Peak Vector Sum:	0.113 in/s		
Peak Air Pressure:	102 db		
	0.00039 PSI @ 3.4 Hz		

Additional Info:

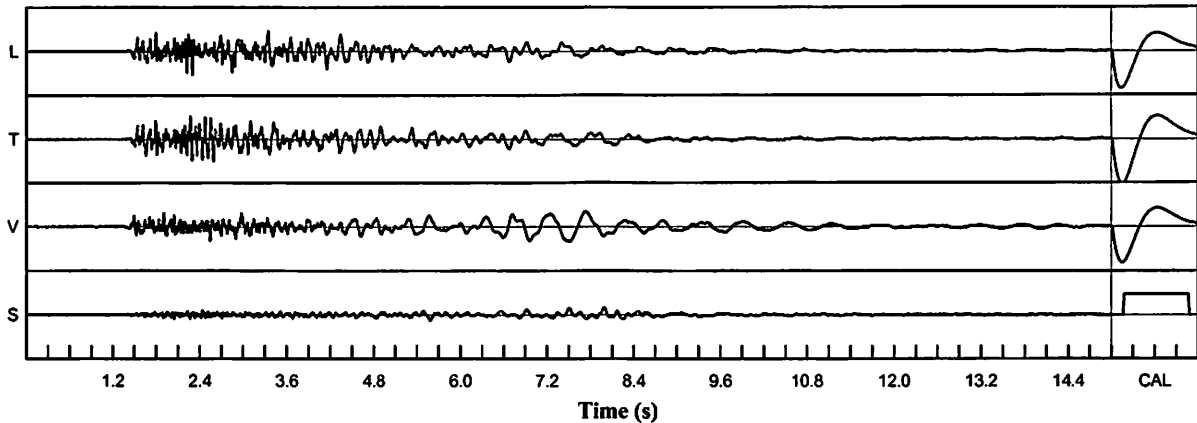
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 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: 5150 v3.67
Date: 09/13/2019 14:20:00
Event No: 10
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

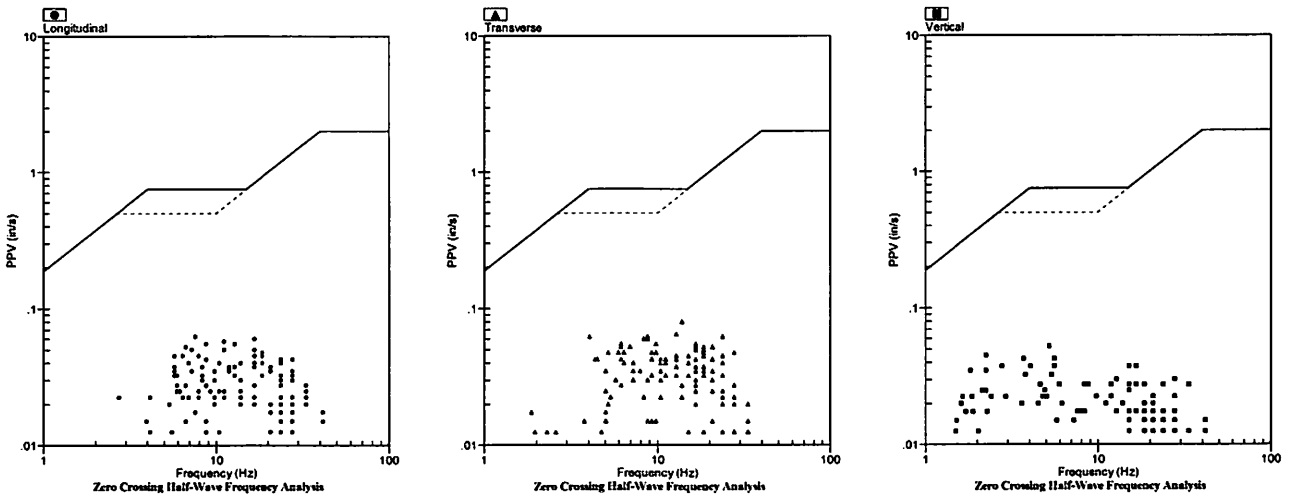
Summary Data

	L	T	V
PPV (in/s)	0.063	0.080	0.053
FREQ (Hz)	7.6	13.9	5.2
PD (.001")	1.59	1.73	2.78
PPA (g)	0.020	0.026	0.013
Peak Vector Sum:	0.088 in/s		
Peak Air Pressure:	102 db		
	0.00039 PSI @ 5.7 Hz		

Additional Info:

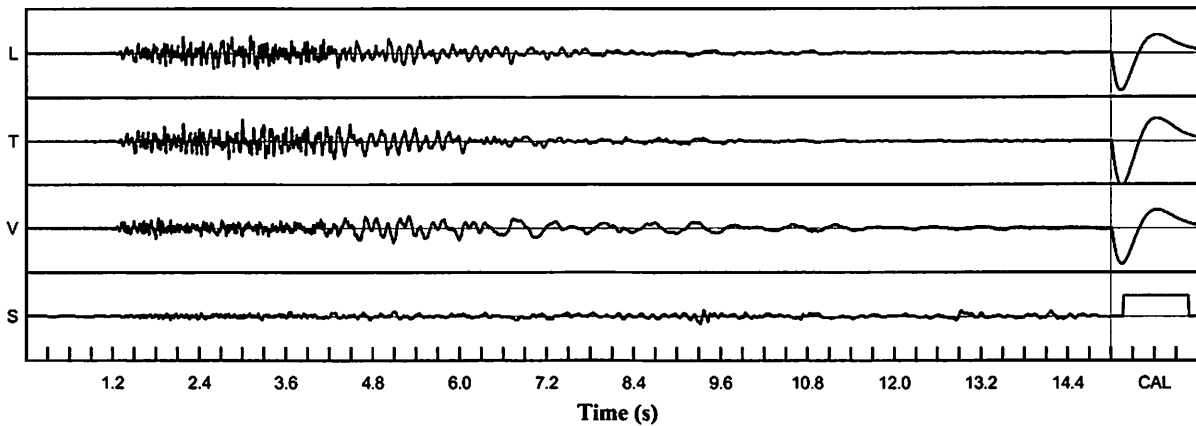
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 Event: 10



Velocity Waveform Graph Scale

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