

# Seismic Analysis

## Velocity Waveform Analysis

**Serial Number:** 10636  
**Firmware Version:** 0C-06.05  
**Event Date:** 07/13/2017 11:54:50 (UTC -07:00)  
**Event number:** 251  
**Recording Time:** 5 s  
**Client:** COUNTY OF MARIN  
**Operation:** SAN RAFAEL ROCK QUARRY  
**Location:** ON QUARRY PROPERTY  
**Distance:**  
**Operator:** VIBRA-TECH IP2  
**Comment:**  
**Seismic Trigger:** 0.03 in/s  
**Sound Trigger:** OFF

**Additional Info:**

j-GEO-01253  
 N37 59.481, W122 27.256

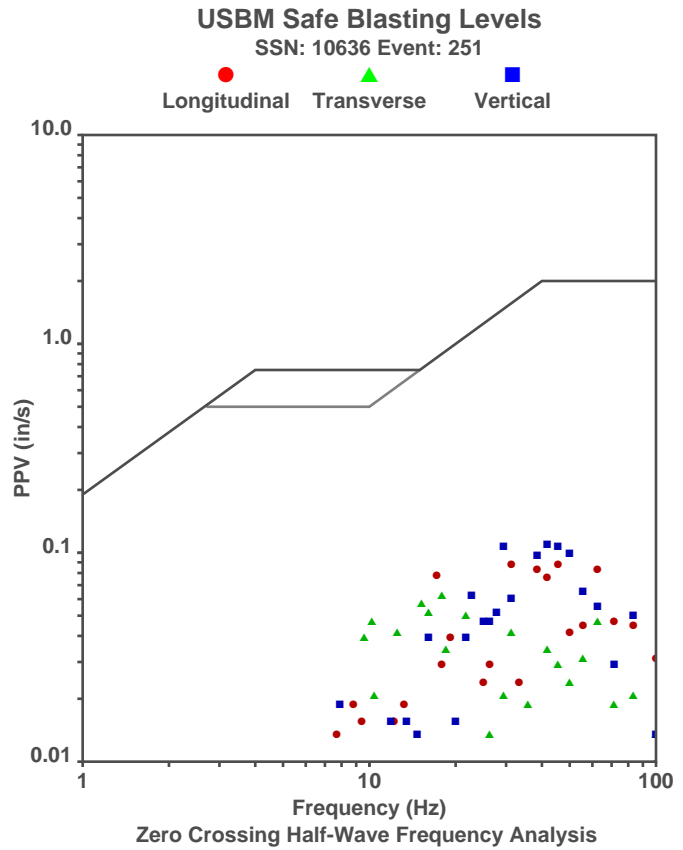
**Summary Data**

	L	T	V
<b>PPV (in/s):</b>	0.085	0.06	0.105
<b>FREQ (HZ):</b>	45.5	17.9	41.7
<b>PD (.001"):</b>	0.57	0.78	0.57
<b>PPA (g):</b>	0.072	0.052	0.085

**Peak Vector Sum:** 0.13 in/s  
**Peak Air Pressure:** 110 dB  
 0.0009 psi @ 5.4 HZ

**Shaketable Calibrated**

**On:** 12/06/2016 (UTC -07:00)  
**By:** Vibra-Tech, Inc.  
 2700 Holloway Road - Suite 113  
 Louisville, KY 40203 U.S.A.

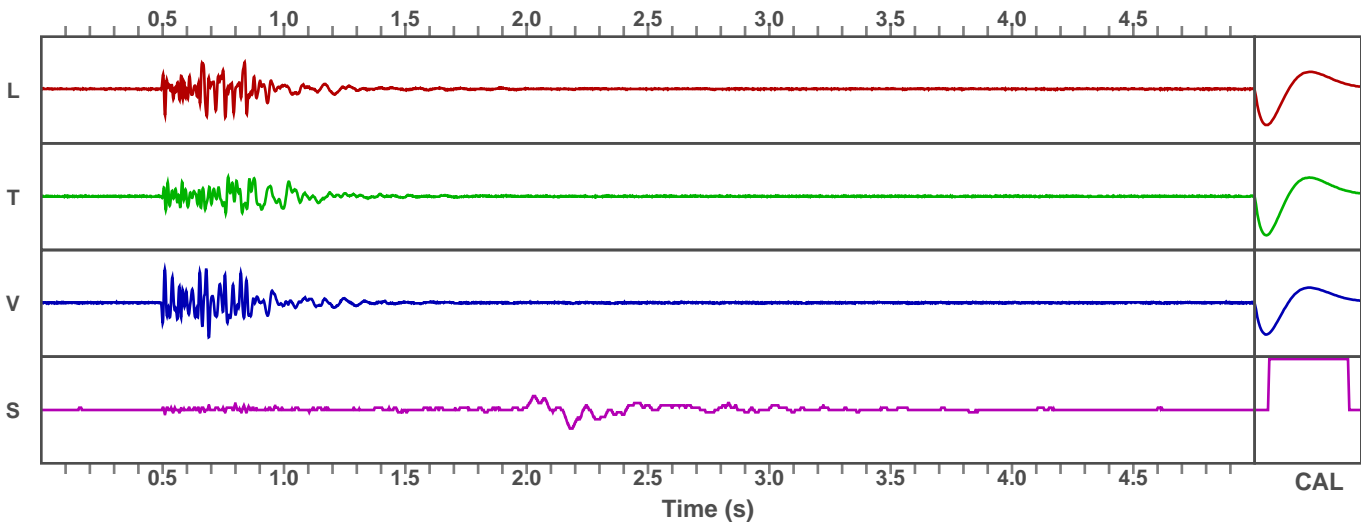


**Waveform Graph Scale**

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

### Velocity Waveform

SSN: 10636 Event: 251



# Seismic Analysis

## Velocity Waveform Analysis

**Serial Number:** 10640  
**Firmware Version:** 0C-06.05  
**Event Date:** 07/13/2017 11:54:47 (UTC -07:00)  
**Event number:** 14  
**Recording Time:** 5 s  
**Client:** COUNTY OF MARIN  
**Operation:** SAN RAFAEL ROCK QUARRY  
**Location:** 16 MARIN BAY PARK CT.  
**Distance:**  
**Operator:** VIBRA-TECH IP2  
**Comment:** WILLIAM HOSKEN RES.  
**Seismic Trigger:** 0.03 in/s  
**Sound Trigger:** OFF

**Additional Info:**

j-GEO-01252  
N37 59.524, W122 27.373

**Summary Data**

	L	T	V
PPV (in/s):	0.075	0.053	0.063
FREQ (HZ):	33.3	27.8	23.8
PD (.001''):	0.46	0.46	0.36
PPA (g):	0.046	0.033	0.039

**Peak Vector Sum:** 0.083 in/s  
**Peak Air Pressure:** 108 dB  
 0.0007 psi @ 2.6 HZ

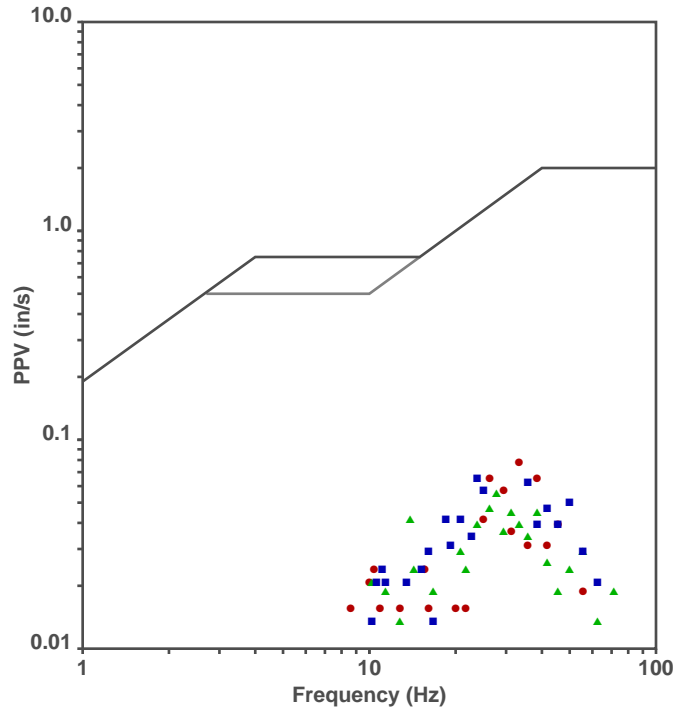
**Shaketable Calibrated**

**On:** 12/06/2016 (UTC -07:00)  
**By:** Vibra-Tech, Inc.  
 2700 Holloway Road - Suite 113  
 Louisville, KY 40203 U.S.A.

**USBM Safe Blasting Levels**

SSN: 10640 Event: 14

● Longitudinal    ▲ Transverse    ■ Vertical



Zero Crossing Half-Wave Frequency Analysis

**Waveform Graph Scale**

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

### Velocity Waveform

SSN: 10640 Event: 14

