Serial Number: 10636  
Firmware Version: 0C-06.05  
Event Date: 07/27/2017 11:32:55 (UTC -07:00)  
Event number: 281  
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**

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>T</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPV (in/s):</td>
<td>0.178</td>
<td>0.123</td>
<td>0.203</td>
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<tr>
<td>FREQ (HZ):</td>
<td>71.4</td>
<td>62.5</td>
<td>50</td>
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<tr>
<td>PD (.001&quot;)</td>
<td>0.69</td>
<td>0.82</td>
<td>0.87</td>
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<tr>
<td>PPA (g):</td>
<td>0.176</td>
<td>0.117</td>
<td>0.228</td>
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Peak Vector Sum: 0.245 in/s  
Peak Air Pressure: 109 dB  
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: +/- 0.3045 in/s  
Sound Scale: +/- 0.0023 psi

**Velocity Waveform**

SSN: 10636 Event: 281

**USBM Safe Blasting Levels**

<table>
<thead>
<tr>
<th>Longitudinal</th>
<th>Transverse</th>
<th>Vertical</th>
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</thead>
<tbody>
<tr>
<td>●</td>
<td>▲</td>
<td>■</td>
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</tbody>
</table>

PPV (in/s)  
Frequency (Hz):  
Zero Crossing Half-Wave Frequency Analysis
Seismic Analysis
Velocity Waveform Analysis

Serial Number: 10640
Firmware Version: 0C-06.05
Event Date: 07/27/2017 11:32:55 (UTC -07:00)
Event number: 15
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

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<tbody>
<tr>
<td>PPV (in/s):</td>
<td>0.055</td>
<td>0.065</td>
<td>0.075</td>
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<td>FREQ (HZ):</td>
<td>35.7</td>
<td>23.8</td>
<td>27.8</td>
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<tr>
<td>PD (.001”):</td>
<td>0.28</td>
<td>0.48</td>
<td>0.39</td>
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<tr>
<td>PPA (g):</td>
<td>0.039</td>
<td>0.039</td>
<td>0.072</td>
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</tbody>
</table>

Peak Vector Sum: 0.08 in/s
Peak Air Pressure: 109 dB
0.0008 psi @ 3.4 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.

USBM Safe Blasting Levels
SSN: 10640 Event: 15

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

Vibra-Tech