Seismic Analysis

Velocity Waveform Analysis

Serial Number: 10636
Firmware Version: 0C-06.05
Event Date: 02/07/2017 11:42:59 (UTC -08:00)
Event number: 5
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>0.055</td>
<td>0.03</td>
<td>0.09</td>
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<tr>
<td>FREQ (HZ):</td>
<td>50</td>
<td>17.2</td>
<td>45.5</td>
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<tr>
<td>PD (.001&quot;)</td>
<td>0.4</td>
<td>0.44</td>
<td>0.47</td>
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<tr>
<td>PPA (g):</td>
<td>0.046</td>
<td>0.026</td>
<td>0.078</td>
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<tr>
<td>Peak Vector Sum:</td>
<td>0.105 in/s</td>
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<tr>
<td>Peak Air Pressure:</td>
<td>113 dB</td>
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USBM Safe Blasting Levels

SSN: 10636 Event: 5

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: 10636 Event: 5

Vibra-Tech, Inc.
2700 Holloway Road - Suite 113
Louisville, KY 40203 U.S.A.
Seismic Analysis

Velocity Waveform Analysis

Serial Number: 10640
Firmware Version: 0C-06.05
Event Date: 02/07/2017 11:42:59 (UTC -08:00)
Event number: 4
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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<td>PPV (in/s):</td>
<td>0.028</td>
<td>0.023</td>
<td>0.038</td>
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<td>FREQ (HZ):</td>
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<td>26.3</td>
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<td>PD (.001&quot;)</td>
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<td>0.27</td>
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<td>PPA (g):</td>
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<td>0.02</td>
<td>0.033</td>
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</table>

Peak Vector Sum: 0.043 in/s
Peak Air Pressure: 111 dB
Peak Air Pressure: 0.001 psi @ 2.4 HZ

USBM Safe Blasting Levels

SSN: 10640 Event: 4

Waveform Graph Scale

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

Velocity Waveform

SSN: 10640 Event: 4

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