Seismic Analysis

Velocity Waveform Analysis

Serial Number: 7438
Firmware Version: 0C-06.01
Event Date: 09/04/2015 11:30:31 (UTC -07:00)
Event number: 12
Recording Time: 5 s
Client: COUNTY OF MARIN
Operation: SAN RAFAEL ROCK QUARRY
Location: 16 MARIN BAY PARK CT.
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

<table>
<thead>
<tr>
<th>PPV (in/s)</th>
<th>FREQ (HZ)</th>
<th>PD (.001&quot;)</th>
<th>PPA (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>22.7</td>
<td>0.38</td>
<td>0.02604</td>
</tr>
<tr>
<td>0.0325</td>
<td>17.2</td>
<td>0.2725</td>
<td>0.02604</td>
</tr>
<tr>
<td>0.0575</td>
<td>29.4</td>
<td>0.395</td>
<td>0.04557</td>
</tr>
</tbody>
</table>

Peak Vector Sum: 0.0575 in/s
Peak Air Pressure: 107.5 dB
0.0007485 psi @ 2.8 HZ

Shaketable Calibrated
On: 01/15/2015 (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

USBM Safe Blasting Levels

<table>
<thead>
<tr>
<th>SSN: 7438 Event: 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longitudinal</td>
</tr>
<tr>
<td>●</td>
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</tbody>
</table>

Zero Crossing Half-Wave Frequency Analysis

Velocity Waveform

SSN: 7438 Event: 12

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Seismic Analysis
Velocity Waveform Analysis

Serial Number: 7543
Firmware Version: 0C-06.01
Event Date: 09/04/2015 11:30:30 (UTC -07:00)
Event number: 16
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>
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<th>PPV (in/s)</th>
<th>L</th>
<th>T</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREQ (HZ)</td>
<td>55.6</td>
<td>19.2</td>
<td>55.6</td>
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<tr>
<td>PD (.001&quot;)</td>
<td>0.77</td>
<td>0.64</td>
<td>0.615</td>
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<tr>
<td>PPA (g)</td>
<td>0.09766</td>
<td>0.05859</td>
<td>0.1107</td>
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</tbody>
</table>

Peak Vector Sum: 0.155 in/s
Peak Air Pressure: 109.9 dB
01/15/2015 (UTC -07:00)
Vibra-Tech, Inc.
2700 Holloway Road - Suite 113
Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels
SSN: 7543 Event: 16
Longitudinal Transverse Vertical

PPV (in/s)

Frequency (Hz)

Zero Crossing Half-Wave Frequency Analysis

Waveform Graph Scale
Time Scale: 0.1 s
Seismic Scale: +/- 0.1875 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform
SSN: 7543 Event: 16

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