



STATE OF
COLORADO

Cazier - DNR, Tim <tim.cazier@state.co.us>

Seismograph For Yesterday's Blast

1 message

Wayne Stoughton <Wayne.Stoughton@martinmarietta.com>
To: "Cazier - DNR, Tim" <tim.cazier@state.co.us>

Tue, Apr 28, 2020 at 4:56 AM

Hello Tim,

Thought I'd send you this one due to the yesterday's issues. Only one unit triggered, the North Hillside unit. Very good readings.

Wayne Stoughton

Manager, Red Canyon Quarry| Rocky Mountain Agg District

Martin Marietta

3131 Barrett Road, Colorado Springs, CO 80926

t. (719) 629-8372

e. wayne.stoughton@martinmarietta.com

www.martinmarietta.com



Seismograph North Hillside 4-20-2020.pdf
97K

Seismic Analysis

Velocity Waveform Analysis

Serial Number: 7755
 Firmware Version: 0C-06.13
 Event Date: 04/27/2020 14:15:18 (UTC -06:00)
 Event number: 20
 Recording Time: 5 s
 Client: Martin Marietta
 Operation: Red Canyon Quarry
 Location: North Hill Side
 Distance:
 Operator: Vibra-Tech
 Comment:
 Seismic Trigger: 0.02 in/s
 Sound Trigger: 133 dB

Additional Info: Colorado Springs, CO
 j-GEO-16060
 N38 36 22.4 W104 56 31.

Summary Data

	L	T	V
PPV (in/s):	0.015	0.023	0.02
FREQ (HZ):	31.3	29.4	41.7
PD (.001"):	0.17	0.14	0.15
PPA (g):	0.02	0.02	0.02

Peak Vector Sum: 0.028 in/s
 Peak Air Pressure: 113 dB
 0.0015 psi @ 2.9 HZ

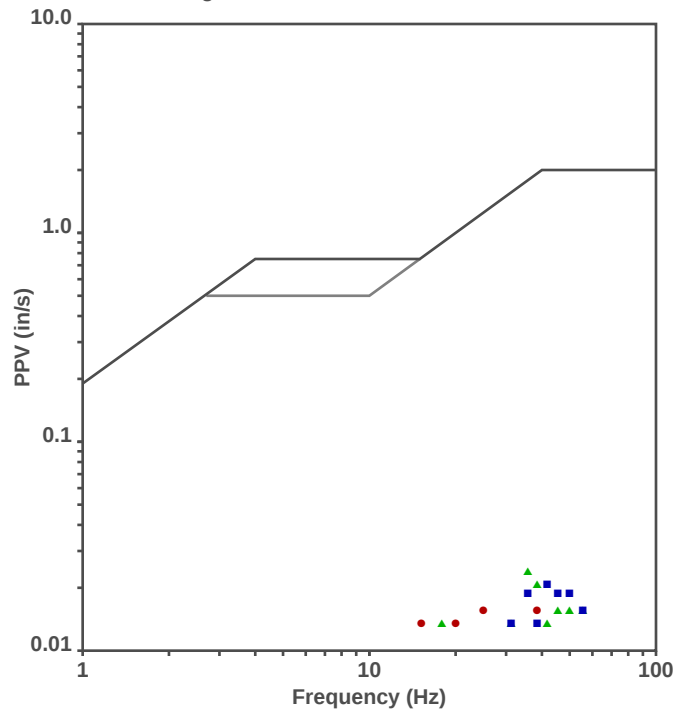
Shaketable Calibrated

On: 09/03/2019 (UTC -06:00)
 By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 7755 Event: 20

● 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: 7755 Event: 20

