

BLAST REPORT

NAME OF BLASTER Christopher Pagan DATE July 02, 2020 TIME 1402 AM/PM (PM)
 SIGNATURE OF BLASTER [Signature] PERMIT NO: 1-041-41950
 LOCATION Buena Vista Quarry ACA - 135 DC 05692 95652
 DIRECTION AND DISTANCE TO NEAREST STRUCTURE Dam - 5713 mls / 713.67 ft 135 DC 055 958
 WEATHER: CLEAR ✓ OVERCAST TEMPERATURE WIND DIRECTION WIND VELOCITY Nominal
 TYPE OF MATERIAL BLASTED Granite CUBIC YDS 2778 cy³ LINEAR FT. TRENCH
 HOLE DIAMETER 3.5" NUMBER OF HOLES 25 BURDEN 10 ft SPACING 12 ft
 AVERAGE DEPTH OF HOLE 25 ft AVERAGE STEMMING 7 ft TYPE OF STEMMING PC - Drill cuttings
 TOTAL WEIGHT OF EXPLOSIVES USED 1534.1 POWDER FACTOR .55 LBS/CUBIC YD LBS/TON
 DECKING
 MAX. DETONATED WITHIN 8 MILLISECOND PERIOD: WEIGHT 63.92 lbs HOLES 1
 INITIATION SYSTEM EL Instant DELAY TYPE 25ms 1500ms DELAY PERIODS 24
 NO. OF DELAYS USED MATS AND/OR PROTECTION USED

TYPE OF EXPLOSIVES	DESCRIPTION / BRAND	DATE CODE	AMOUNT USED
HIGH EXPLOSIVES	Sentel 2" x 16'	060320	51.86 lbs
	Fortel ultra 2.5" x 16"	23 AUL844	174.34 lbs
	Dyno Blastex 2.5" x 16"	03AP19J1	42.9 lbs
BLASTING AGENTS	Anfo	12 MA2001	1265 lbs
DETONATORS	Handidets - 30ft	09MA2004	24 QTY
	EL Instant	22 MX1751	1 QTY
DETONATING CORD			
OTHER			
OTHER			

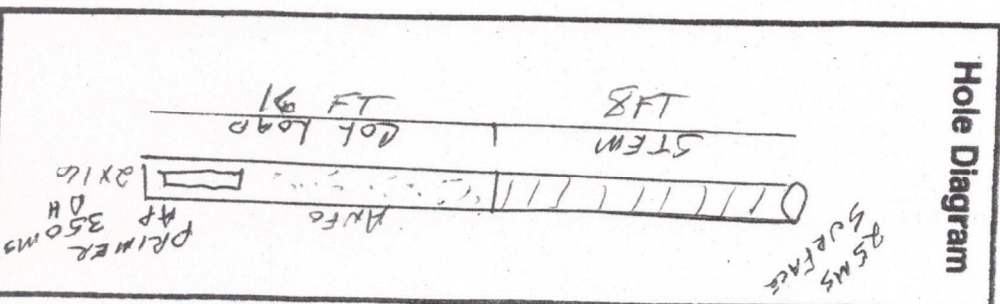
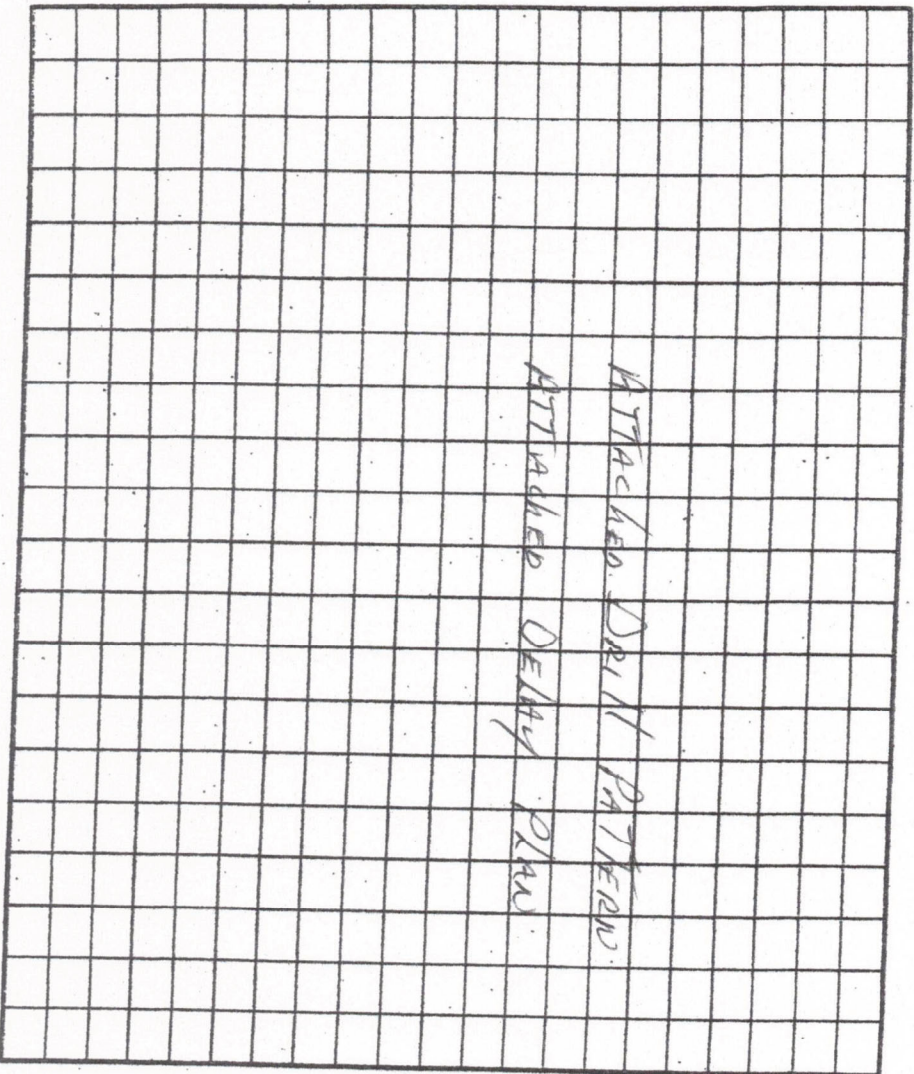
SEISMOGRAPHIC RECORDS: LOCATION: 135 DC 05582 95788 DISTANCE: 576.89 ft
 MEASUREMENTS: PEAK PARTICLE VELOCITY: TRANSVERSE .119 VERTICAL .095 LONGITUDE .0159
 PEAK SOUND PRESSURE 102.5 db NAME OF SEISMOGRAPHIC READER PMT
 NAME OF SEISMOGRAPHIC ANALYZING FIRM Christopher Pagan - Exad 8 system

Black Mining Blasting, Inc.

Blast Plan

Contractor	ALC	Operation		Project No.		Coal ☐	Quarry ☐	Construction ☐
Location	BU	State	CO	Date	7-2-20 Time 1200	Other		

Shot No.	1
Hole Dia.	3 1/2 IN
Depth	24 FT
Stemming	8 FT
Type	DC
Length	80 FT
Burden	10 FT
Spacing	12 FT
Overburden	NA
Cu. Yd.	5333
Explosive Data	
Detonator	EZ DET
Primer	2X16 AP
Col. Load	3.4 lbs FT
Net Load	NA
Col. Wt.	54 lbs
Total Wt.	2720 lbs
Lbs/delay	54 lbs
Delay Pds.	50
Scale Dist.	50
PF	0.51



Notes: FIFTY CAP SHOT BOX ELECTRIC INITIATOR DYNO AP 1.15 QALC 15.400 VDS/ANFO, 82 QALC 12,800 VDS SIESMAGRAPHER ~~QALC~~ Q DAWN VCE REPORT

ACA

TROUT CREEK QUARRY
CR 301 Buena Vista

Permittee: KEVIN GRANT

Permit #

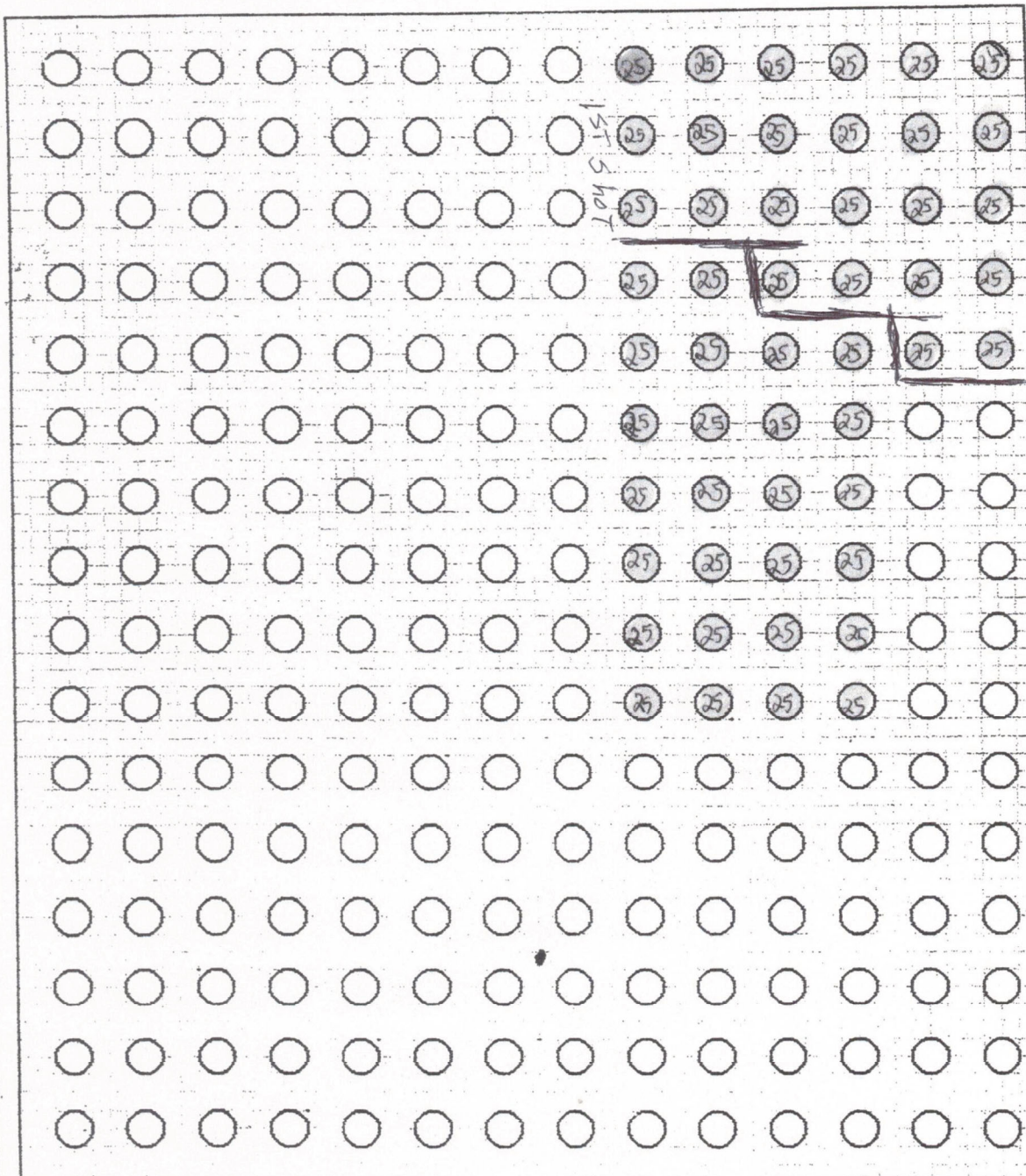
Date: 6-26-2020

Time:

A.M. P.M.

Location: Buena Vista

Blast Id:



Pattern 10x12
Depth 24-25 ft
Hole size 3 1/2

50 TOTAL HOLES

Indicate North



Record Analysis

File Name: HG6V2KRK.VE2
 Trigger Time: 14:57:05
 Trigger Date: 07/02/20
 Monitor Start Time: 14:42:52
 Monitor Start Date: 07/02/20
 Software Version: 8.00.0.9

eXAD-8 Serial Number: A12073220
 Firmware Version: 8.00
 Record Length: 1s
 Cutoff Frequency: 256 Hz
 Geo Trigger: .1

Measurements

Vibration Analysis	X (R)	Y (T)	Z (V)
PPV - Max 0 to Peak (in/s)	0.154	0.119	0.095
Time of Peak (s)	0.367	0.203	0.375
ZC Frequency at Peak (Hz)	56.9	32.0	25.6
Peak Vector Sum (in/s)	0.175 @407ms		
Max Acceleration (milli(g)s)	95.28	66.92	56.37
Max Displacement (inches)	0.001	0.001	0.001

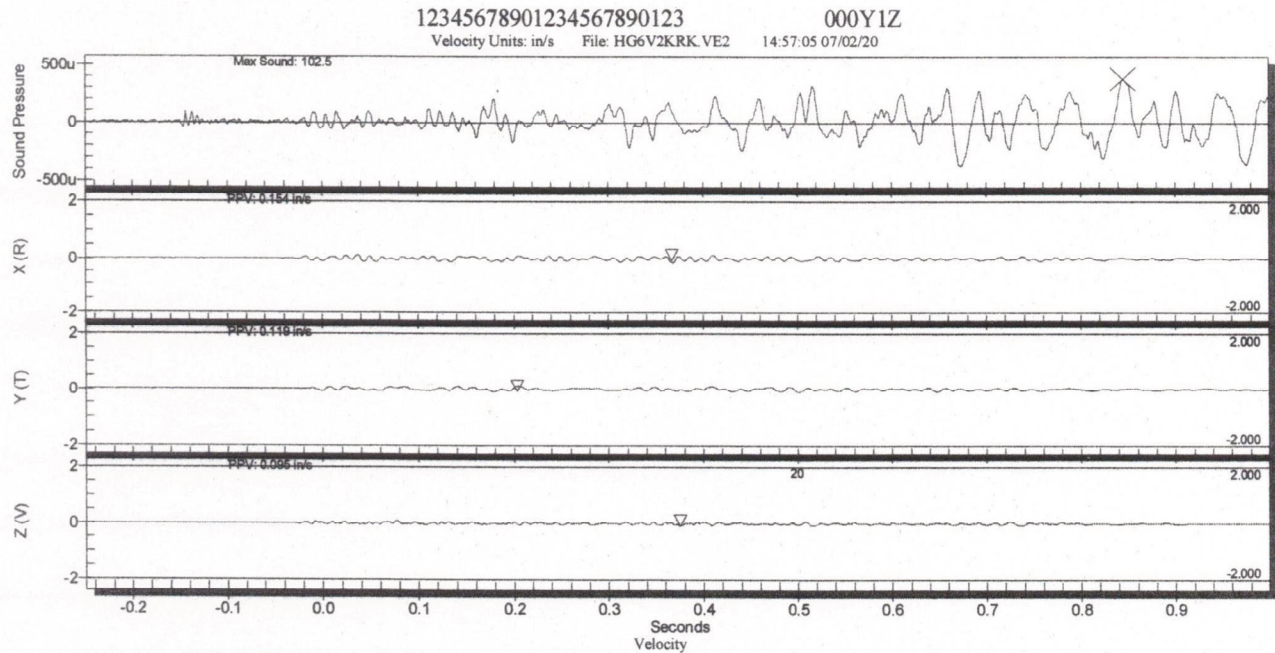
Description

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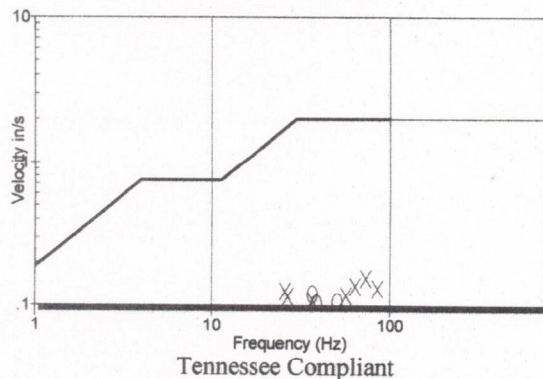
000Y1Z

Sound Pressure Analysis

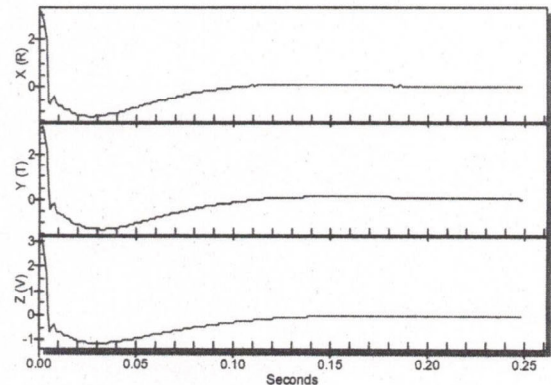
Max dB (PSI) 102.5 (0.0004)



Analysis RE Tennessee/OSM



Sensor Test Data



BLAST REPORT

NAME OF BLASTER Christopher Pagan DATE 7-10-20 TIME 1430 AM/PM (PM)
 SIGNATURE OF BLASTER [Signature] PERMIT NO: 1-041-41950
 LOCATION Buena Vista Quarry ACA - 13 S DC 05692-95652
 DIRECTION AND DISTANCE TO NEAREST STRUCTURE DAM 5713 m / 716.67 ft 13 S DC 058958
 WEATHER: CLEAR ☒ OVERCAST ☐ TEMPERATURE 92.2°F WIND DIRECTION S-N 0° WIND VELOCITY 4-Smph
 TYPE OF MATERIAL BLASTED Granite CUBIC YDS 2889 cy³ LINEAR FT. TRENCH _____
 HOLE DIAMETER 3.5" NUMBER OF HOLES 26 BURDEN 60 ft SPACING 12 ft
 AVERAGE DEPTH OF HOLE 25 ft AVERAGE STEMMING 7 ft TYPE OF STEMMING Fill / Drill cuttings
 TOTAL WEIGHT OF EXPLOSIVES USED 1252.19 lbs POWDER FACTOR .43 LBS/CUBIC YD _____ LBS/TON _____
 DECKING _____
 MAX. DETONATED WITHIN 8 MILLISECOND PERIOD: WEIGHT 96.32 HOLES 2
 INITIATION SYSTEM Electric Instant DELAY TYPE 25ms / 500ms DELAY PERIODS 5 28
 NO. OF DELAYS USED 28 MATS AND/OR PROTECTION USED _____

TYPE OF EXPLOSIVES	DESCRIPTION / BRAND	DATE CODE	AMOUNT USED
HIGH EXPLOSIVES	Senatel Ultra 2" x 16"	060320	49.70 lbs
	Fortel Ultra - 2.5" x 16"	1002201	116.22 lbs
BLASTING AGENTS	Anfo	04JU2001	1086.27 lbs
DETONATORS	Handidets 16 ft	01JUL904	2 QTY
	Handidets 30 ft	09MA2004	26 QTY
	EL Instant 12 ft		1 QTY
OTHER			
OTHER			

SEISMOGRAPHIC RECORDS: LOCATION: 13 S DC 05582 95788 DISTANCE: 577 ft
 MEASUREMENTS: PEAK PARTICLE VELOCITY: TRANSVERSE 0.169 VERTICAL 0.158 LONGITUDE 0.226
 PEAK SOUND PRESSURE 75.6 NAME OF SEISMOGRAPHIC READER PMT
 NAME OF SEISMOGRAPHIC ANALYZING FIRM Christopher Pagan - Evad 8 system

ACA

TROUT CREEK QUARRY
CR 301 Buena Vista

Permittee: KEVIN GRANT

Permit #

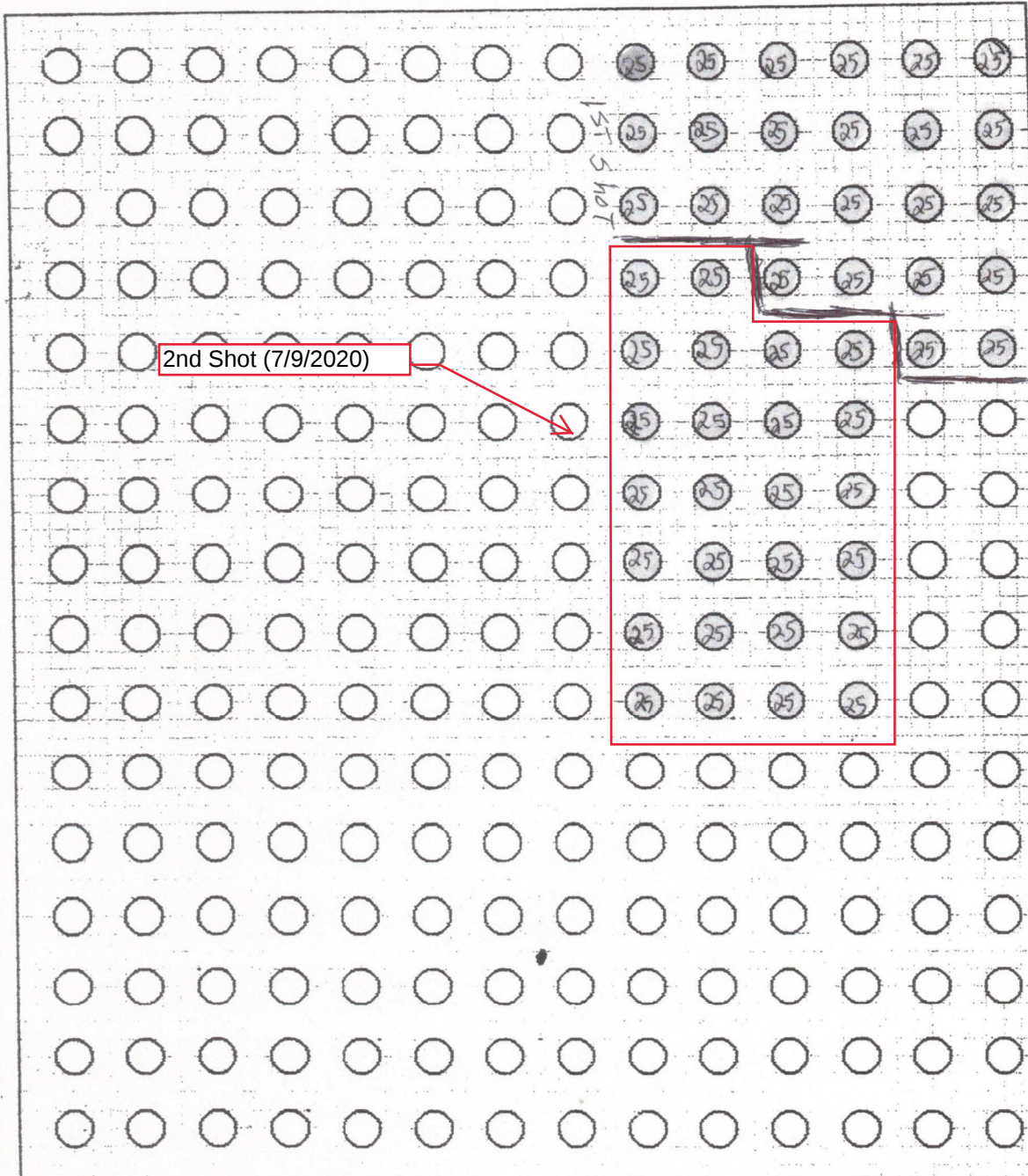
Date: 6-26-2020

Time:

A.M. P.M.

Location: Buena Vista

Blast Id:



2nd Shot (7/9/2020)

Pattern 10x12
Depth 24-25 ft
Hole size 3 1/2

50 TOTAL HOLES

Indicate North



OPEN
FACE

Record Analysis

File Name: HG6V9LFN.VE2
Trigger Time: 15:25:59
Trigger Date: 07/09/20
Monitor Start Time: 14:52:59
Monitor Start Date: 07/09/20
Software Version: 8.00.0.9

eXAD-8 Serial Number: A12073220
Firmware Version: 8.00
Record Length: 1s
Cutoff Frequency: 256 Hz
Geo Trigger: .1

Measurements

Vibration Analysis	X (R)	Y (T)	Z (V)
PPV - Max 0 to Peak (in/s)	0.226	0.169	0.158
Time of Peak (s)	0.076	0.126	0.035
ZC Frequency at Peak (Hz)	32.0	13.1	26.9
Peak Vector Sum (in/s)	0.257 @114ms		
Max Acceleration (milli(g)s)	114.56	64.01	53.82
Max Displacement (inches)	0.002	0.002	0.001

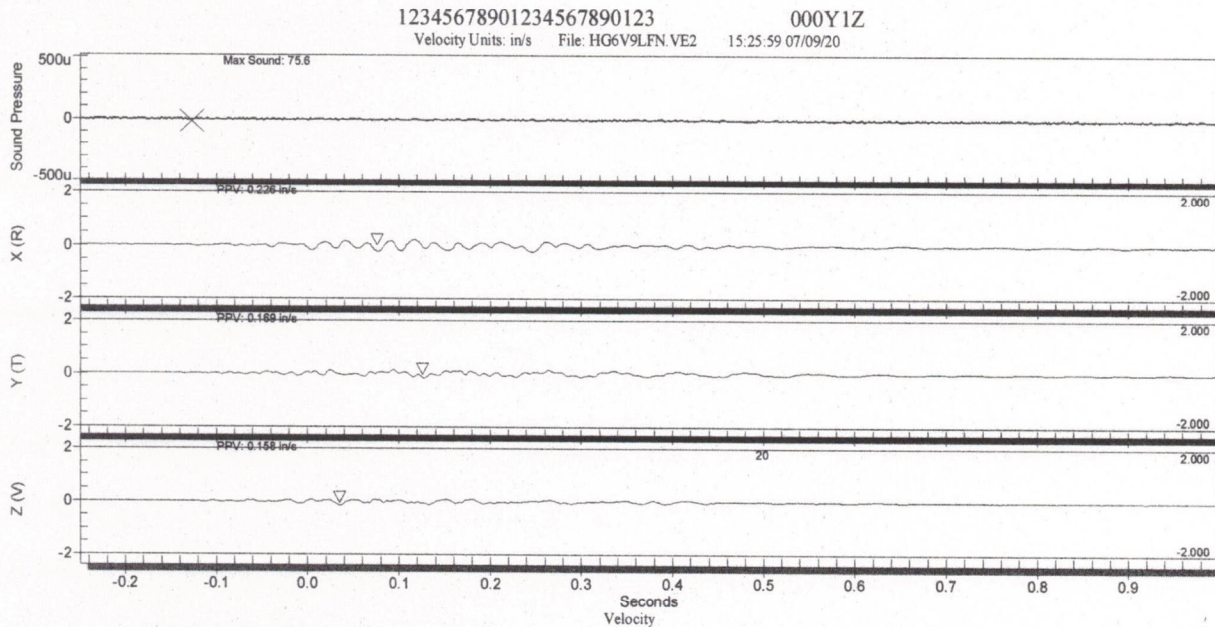
Sound Pressure Analysis

Max dB (PSI) 75.6 (0.0000)

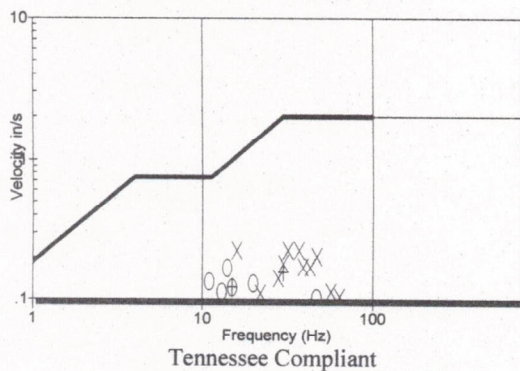
Description

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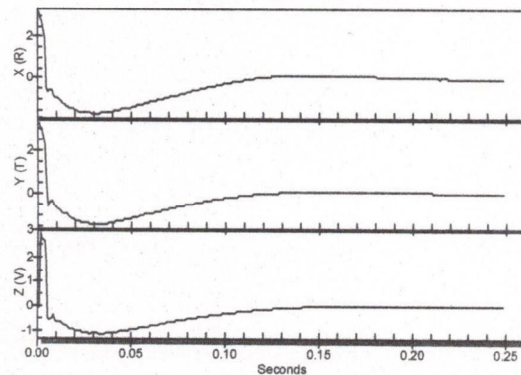
000Y1Z



Analysis RE Tennessee/OSM



Sensor Test Data



Not 17

BLAST REPORT

NAME OF BLASTER Christopher Pagan DATE 8.26.20 TIME 1634 AM / PM

SIGNATURE OF BLASTER [Signature] PERMIT NO: 1-041-41980

LOCATION Buena Vista ACA 13 S DC 05692 95652

DIRECTION AND DISTANCE TO NEAREST STRUCTURE Dam 5713 m/s / 716 ft 13 S DC 055 958

WEATHER: CLEAR OVERCAST ☒ TEMPERATURE 80° WIND DIRECTION SW WIND VELOCITY 0-5 mph

TYPE OF MATERIAL BLASTED Granite CUBIC YDS 4222 yd³ LINEAR FT. TRENCH ✓

HOLE DIAMETER 3.5" NUMBER OF HOLES 38 BURDEN 10 ft SPACING 12 ft

AVERAGE DEPTH OF HOLE 25 ft AVERAGE STEMMING 7 ft TYPE OF STEMMING Squeeze / DC

TOTAL WEIGHT OF EXPLOSIVES USED 2205.48 lbs POWDER FACTOR .52 LBS/CUBIC YD LBS/TON

DECKING

MAX. DETONATED WITHIN 8 MILLISECOND PERIOD: WEIGHT 116.08 lbs HOLES 2

INITIATION SYSTEM Electric DELAY TYPE 25ms / 500ms DELAY PERIODS 38

NO. OF DELAYS USED 38 MATS AND/OR PROTECTION USED

TYPE OF EXPLOSIVES	DESCRIPTION / BRAND	DATE CODE	AMOUNT USED
HIGH EXPLOSIVES	<u>Antex CD S.S. Booster</u>	<u>21 N01951</u>	<u>19.80 lbs</u>
	<u>Senatrel 2"x16"</u>	<u>060320</u>	<u>62.67 lbs</u>
	<u>Portrel 2.5"x16"</u>	<u>1002201</u>	<u>523 lbs</u>
BLASTING AGENTS	<u>Anto</u>	<u>04JU2001</u>	<u>1600 lbs</u>
DETONATORS	<u>Exel Handidet 30ft</u>	<u>23MA2004</u>	<u>38 QTY</u>
	<u>Exel Handidet 16ft</u>	<u>05AU19B4</u>	<u>10 QTY</u>
DETONATING CORD			
OTHER	<u>Electric Det 12ft</u>	<u>07AU1751</u>	<u>2 QTY</u>
OTHER			

SEISMOGRAPHIC RECORDS: LOCATION: 13 S DC 05582 95788 DISTANCE: 577 ft

MEASUREMENTS: PEAK PARTICLE VELOCITY: TRANSVERSE .205 VERTICAL .150 LONGITUDE .256

PEAK SOUND PRESSURE 119 db NAME OF SEISMOGRAPHIC READER PMT

NAME OF SEISMOGRAPHIC ANALYZING FIRM Christopher Pagan Exad-8-system

ACA TROUT CREEK QUARRY

Permittee: KEVIN, AUSTIN, CORBIN Permit #

Date: 8-6-2020

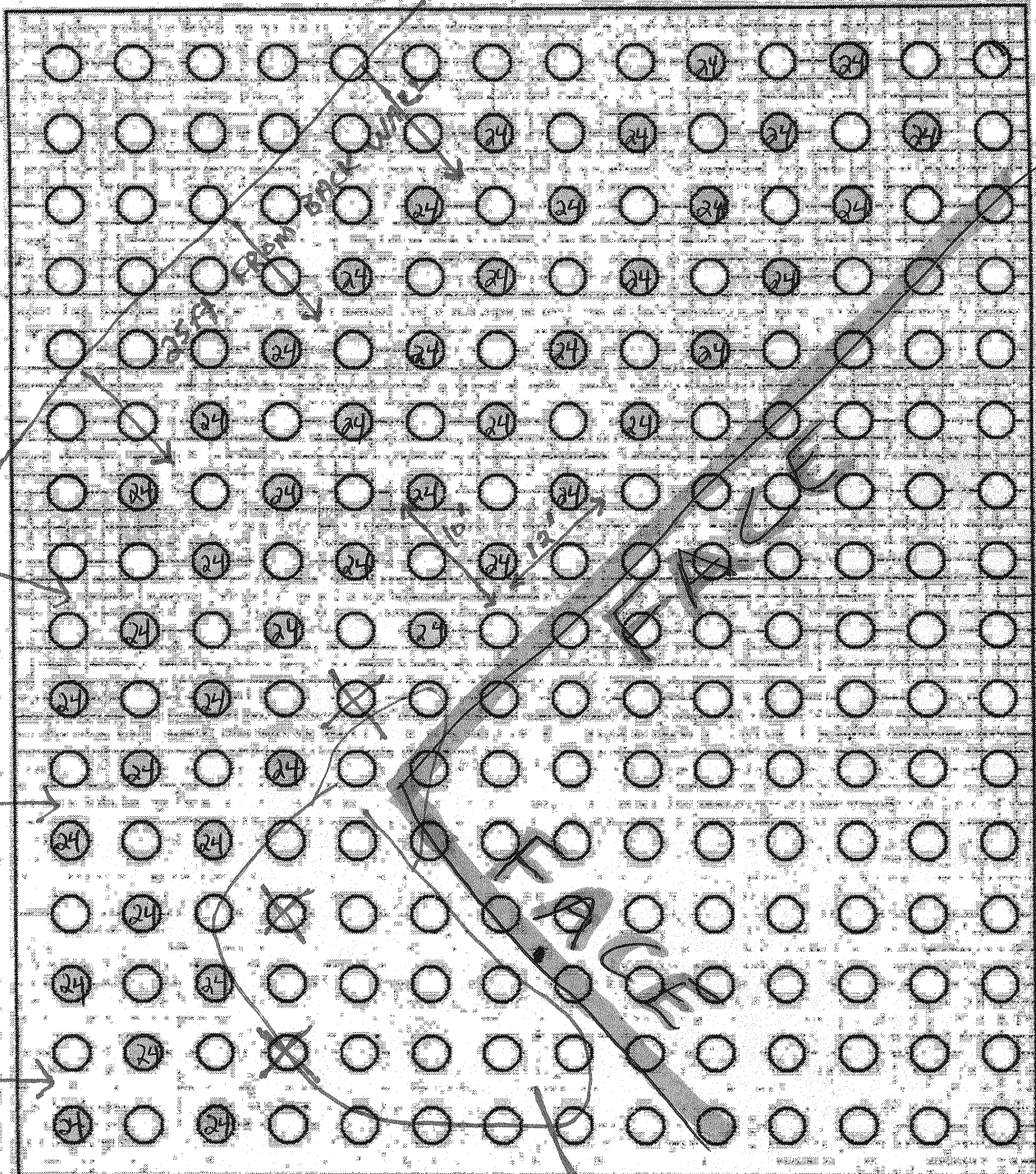
Time:

AM. P.M.

Location:

Buena Vista
Chaffee Cty

Blast Id:



PATTERN 10' x 12'
HOLE DIA. 3 1/2"
HOLE DEPTH 24-25 Feet
TOTAL HOLES 44

Section of LAST 5 HOT
HAVE NOT DUG
Indicate North



Record Analysis

File Name: HG6WQN0D.VE2
 Trigger Time: 16:34:03
 Trigger Date: 08/26/20
 Monitor Start Time: 16:13:48
 Monitor Start Date: 08/26/20
 Software Version: 8.00.0.9

eXAD-8 Serial Number: A12073220
 Firmware Version: 8.00
 Record Length: 1s
 Cutoff Frequency: 256 Hz
 Geo Trigger: .1

Measurements

Vibration Analysis	X (R)	Y (T)	Z (V)
PPV - Max 0 to Peak (in/s)	0.256	0.205	0.150
Time of Peak (s)	0.928	0.282	0.251
ZC Frequency at Peak (Hz)	11.1	14.6	13.5
Peak Vector Sum (in/s)	0.275 @926ms		
Max Acceleration (milli(g)s)	90.92	75.28	57.46
Max Displacement (inches)	0.003	0.002	0.002

Description

123456789 12345678901234567890123

000Y1Z

Sound Pressure Analysis

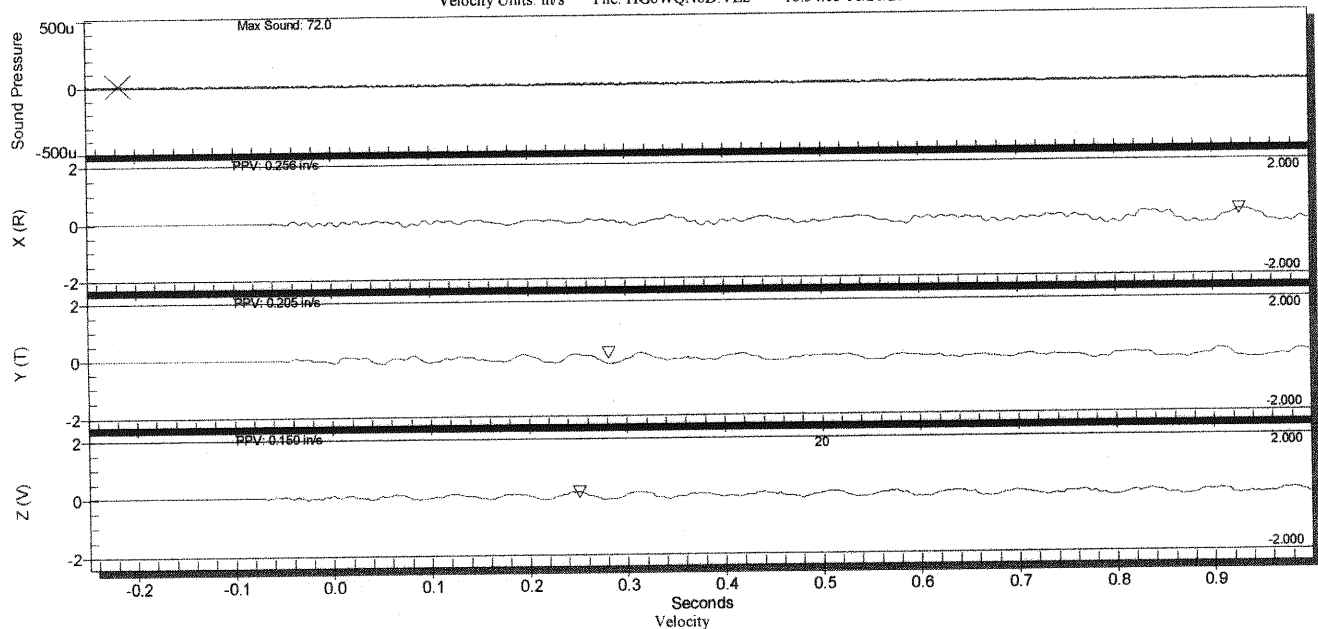
Max dB (PSI) 72.0 (0.0000)

12345678901234567890123

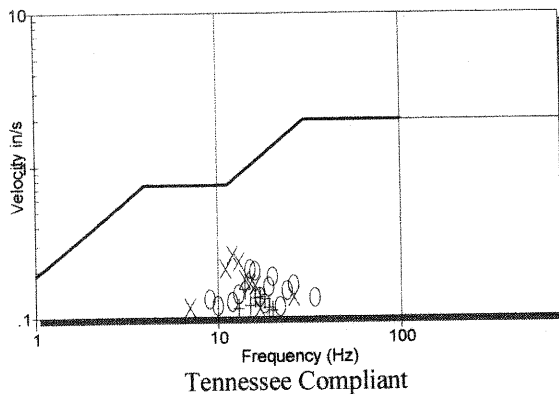
000Y1Z

Velocity Units: in/s File: HG6WQN0D.VE2

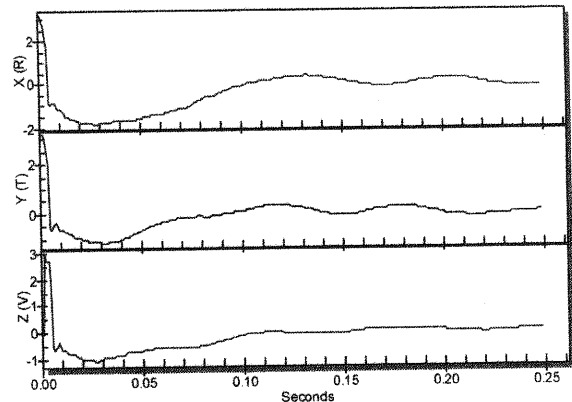
16:34:03 08/26/20



Analysis RE Tennessee/OSM



Sensor Test Data



BLAST REPORT

NAME OF BLASTER ALICK BATISTA DATE 10-6-20 TIME 15.45 AM / PM
 SIGNATURE OF BLASTER [Signature] PERMIT NO: 119-0643
 LOCATION TROUT CREEK QUARRY
 DIRECTION AND DISTANCE TO NEAREST STRUCTURE +1000
 WEATHER: CLEAR X OVERCAST _____ TEMPERATURE _____ WIND DIRECTION _____ WIND VELOCITY _____
 TYPE OF MATERIAL BLASTED GRANITE CUBIC YDS 966 LINEAR FT. TRENCH _____
 HOLE DIAMETER 3 IN NUMBER OF HOLES 38 BURDEN 10 FT SPACING 10 FT
 AVERAGE DEPTH OF HOLE 14 FT AVERAGE STEMMING 6 FT TYPE OF STEMMING DC
 TOTAL WEIGHT OF EXPLOSIVES USED 420 lbs POWDER FACTOR 43 LBS/CUBIC YD _____ LBS/TON _____
 DECKING NA
 MAX. DETONATED WITHIN 8 MILLISECOND PERIOD: WEIGHT 21 lbs HOLES 1
 INITIATION SYSTEM HANDY DET DELAY TYPE 25/500 DELAY PERIODS 38
 NO. OF DELAYS USED 0 MATS AND/OR PROTECTION USED 0

TYPE OF EXPLOSIVES	DESCRIPTION / BRAND	DATE CODE	AMOUNT USED
HIGH EXPLOSIVES	SENATEL	060320	40 lbs
BLASTING AGENTS	FORTEL	05 AV 19 B4	80 lbs
	ANFO	23 MA 20 B4	300 lbs
DETONATORS	HANDY DET	11400255	380
		09 MA 20 B4	1
DETONATING CORD			
OTHER			
OTHER			

SEISMOGRAPHIC RECORDS: LOCATION: DAMN SITE DISTANCE: 500 -
 MEASUREMENTS: PEAK PARTICLE VELOCITY: TRANSVERSE 23 VERTICAL 24 LONGITUDE _____
 PEAK SOUND PRESSURE DBL 119 NAME OF SEISMOGRAPHIC READER [Signature]
 NAME OF SEISMOGRAPHIC ANALYZING FIRM VER

ACA

TRIBUT CREEK QUARRY

Permittee: KEVIN Austin Corbin

Permit #

Date: 9-17-2020

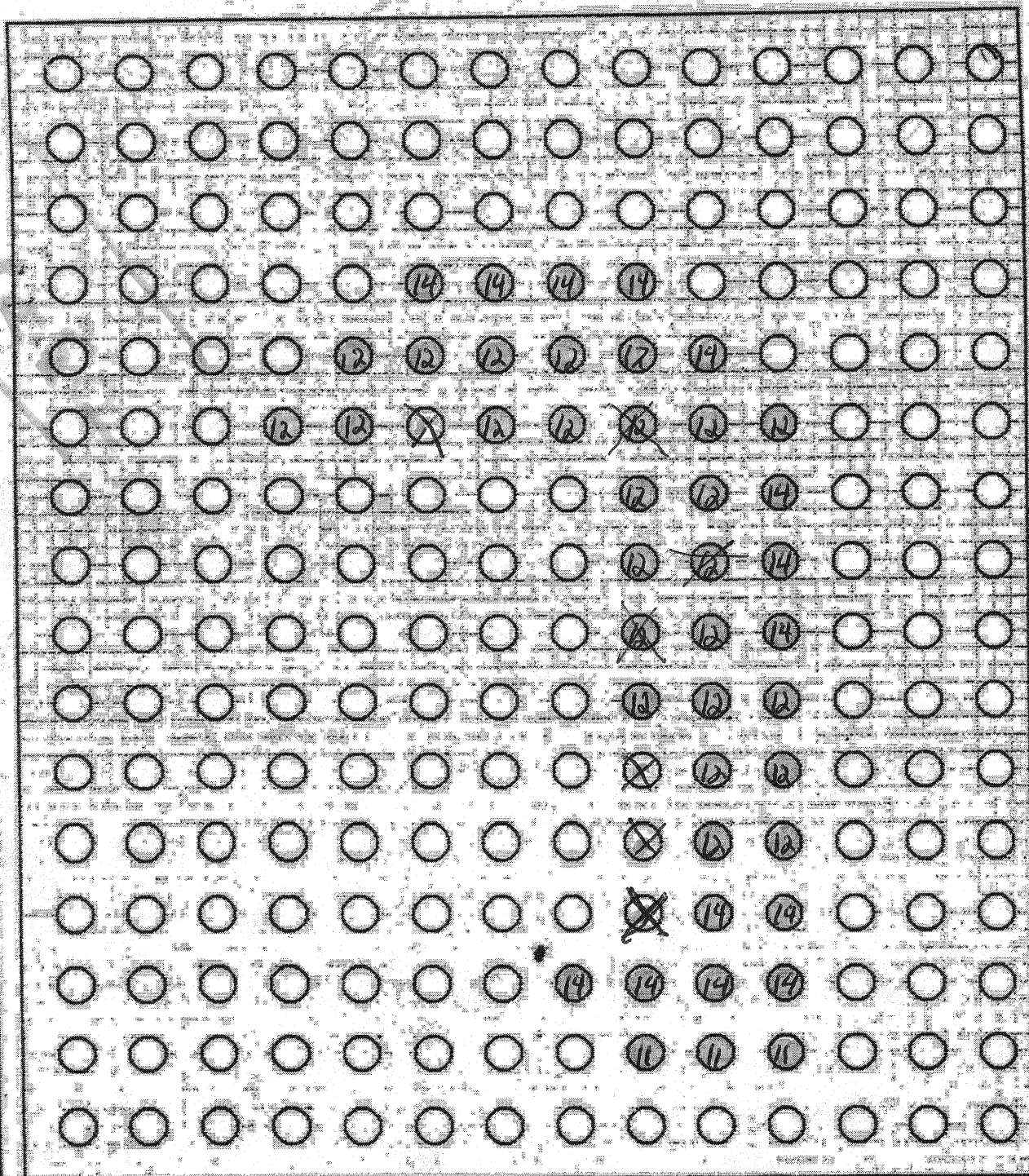
Time:

A.M.

P.M.

Location: Buena Vista

Blast Id:



Pattern 10x10
Hole size 3 1/2

41 HOLES TOTAL

Indicate North

