

BLAST MONITORING REPORT

HM 01 Ta' Żuta I/o Siġġiewi

10th November 2010

Details

Date	10-11-2010
Quarry number	HM01- Ta' Żuta I/o Siġġiewi Malta
Quarry operator	C Abdilla and Sons Ltd.
ANFO Supplier	Framegrip Ltd.
Police escort	PC1127 – F Bonello

Location and time of blasting

One blast was carried out at 14:34 at the point as indicated on the attached site diagram.

Summary of blasting conditions

Max charge per delay: 50Kg

Recommended vibration limit: <8 mm/s at the nearest residential/commercial areas.

Site Specific Permit

All holes were within quarry boundaries and within maximum depth.

Maximum charge per delay of 50Kg was not exceeded.

Comments

All holes are at the top shelf of the quarry.

Notes

Seismograph was placed at the side of the road in the direction of Dingli village as indicated on the attached site diagram. Seismograph was set to trigger at 0.51 mm/s. Seismograph used is MiniMate Plus BE9488.

Readings

Blast number	1
Time	14:34
No. of holes	15
No. of delays	15
Depth of holes (m)	18
Max. Charge per delay (kg)	45
Total charge (kg)	675
Dist. from seismograph (m)	260
PPV (mm/s)	0.36
Frequency (Hz)	18.6
Air Overpressure (dB)	120.7
Scaled Distance (m kg^{-1/2})	38.8

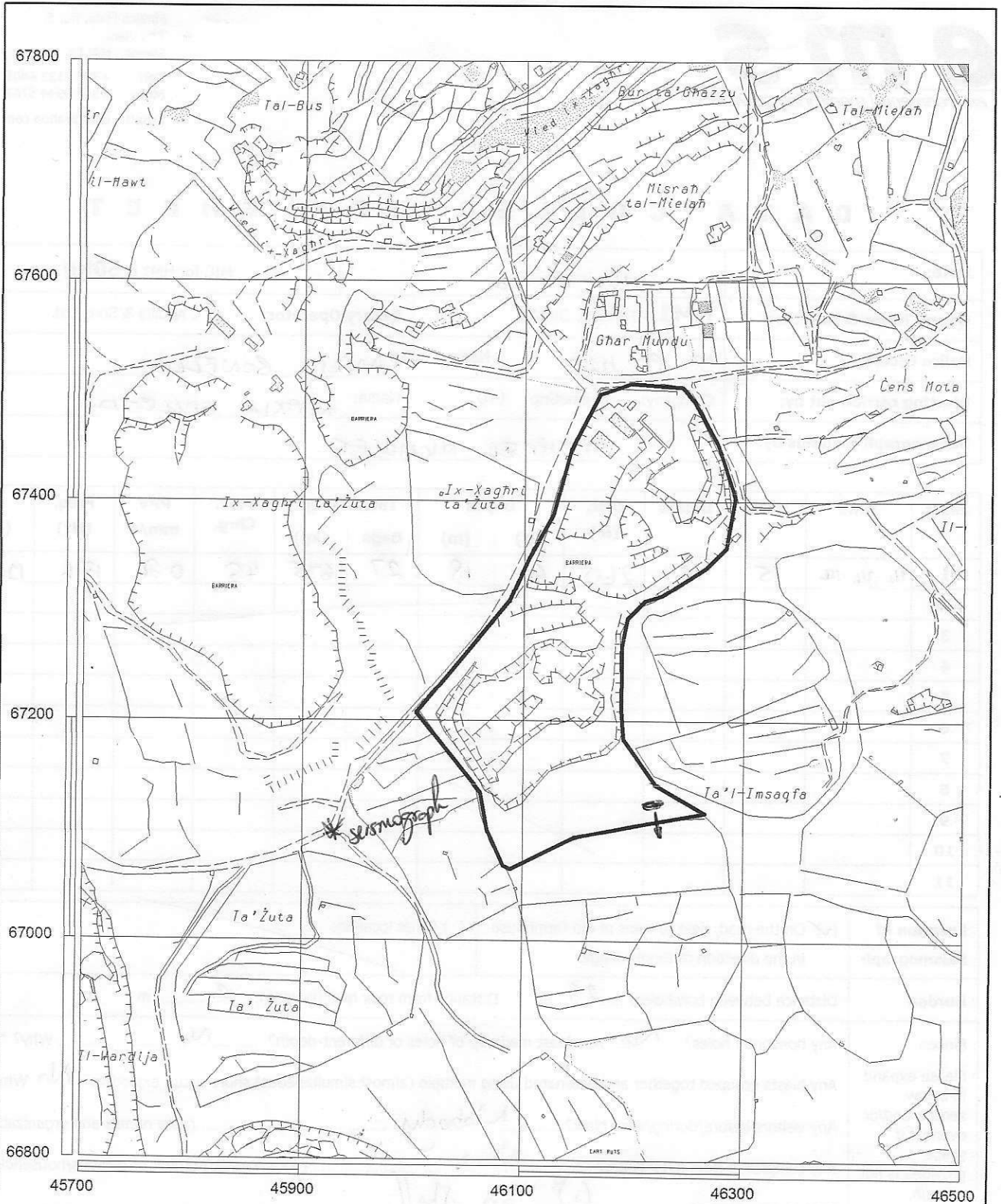
Burden is an average of 2 metres and distance between holes is about 2.5 metres.

Weights in kilograms are rounded-up to the nearest unit, and depths in metres are rounded to the nearest half unit. Displacement between the holes and the seismograph is to the nearest 10 metres.

Observations:

No damage to the surroundings was observed after the blast.

Anthony Cini B.Sc.



Malta Environment & Planning Authority

Hardstone (UC) Quarry Site Plan

St. Francis Ravelin
Floriana

PO Box 200, Valletta
Tel:240976 Fax:224846



Quarry No. :-

HM 1

Location :- Ta' Zuta, Dingli

Scale :-

1:5000

Permitted Quarry Area :- 62796.58 sqm

Permitted Quarry Depth :- 199 m amsl

10-11-10
[Handwritten signature]

Part of Survey Sheet(s): 4466 4467 4666 4667

Date :- 6/5/03

DATA COLLECTION SHEET

Date:	10-11-10		MIC for HM1 is 50Kg
Quarry Name & Number:	HM1 - Ta' Zuta, Dingli	Quarry Operator:	C Abdilla & Sons Ltd.
Police Escort:	No: PC 1127	Name:	FRANKIE BONELLO
Blasting carried out by:	Company: FrameGrip LTD	Name:	MARIO CALEJA
Seismograph readings by:	RAPHAEL NICKALUF.		

Blast	Time	Holes	Delays	Dist.		Depth		Total charge		Max. Chrg.	PPV mm/s	Freq. (Hz)	Air (dB)
				(m)	(ft)	(m)	(kg)	Bags					
1	14:34.14	15	15	260	60	18	27	675	45	0.36	13.6	120.7	
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													

Location of Seismograph	<input checked="" type="checkbox"/> On the road, next to ruins of old farmhouse in the direction of Dingli village.	<input type="checkbox"/> Other location:
Burden	Distance between boreholes: 25 m	Distance from rock face (burden): 2 m
Notes	Any horizontal holes? <u>No</u> . Any blast made up of holes of different-depth? <u>No</u> . Why? <u>-</u> Any blasts grouped together and detonated using multiple (almost simultaneous) short-circuit exploders? <u>No</u> . Why? <u>-</u> Any visitors before/during/after blast? <u>Nobody</u> (note names and organizations) Any complaints from neighbours? <u>None</u> (note names, number of persons/households?) Note levels of holes: <u>(1) Top shelf</u> Flyrock observation: <u>None Outside</u> Any damage to quarry surroundings? <u>None Observed</u>	
Further Comments		

(use overleaf if more space is required)

Signatures

Police escort

f/ Quarry operator

f/ ems

Date/Time Tran at 14:34:14 November 10, 2010
Trigger Source Geo: 0.500 mm/s
Range Geo :31.7 mm/s
Record Time 2.0 sec at 4096 sps

Serial Number BE9488 V 8.01-8.0 MiniMate Plus
Battery Level 6.1 Volts
Calibration September 9, 2010 by Datum Monitoring
File Name K488DHU0.H20

Notes

Location: Quarry Blasting
 Client:
 User Name: ems
 General:

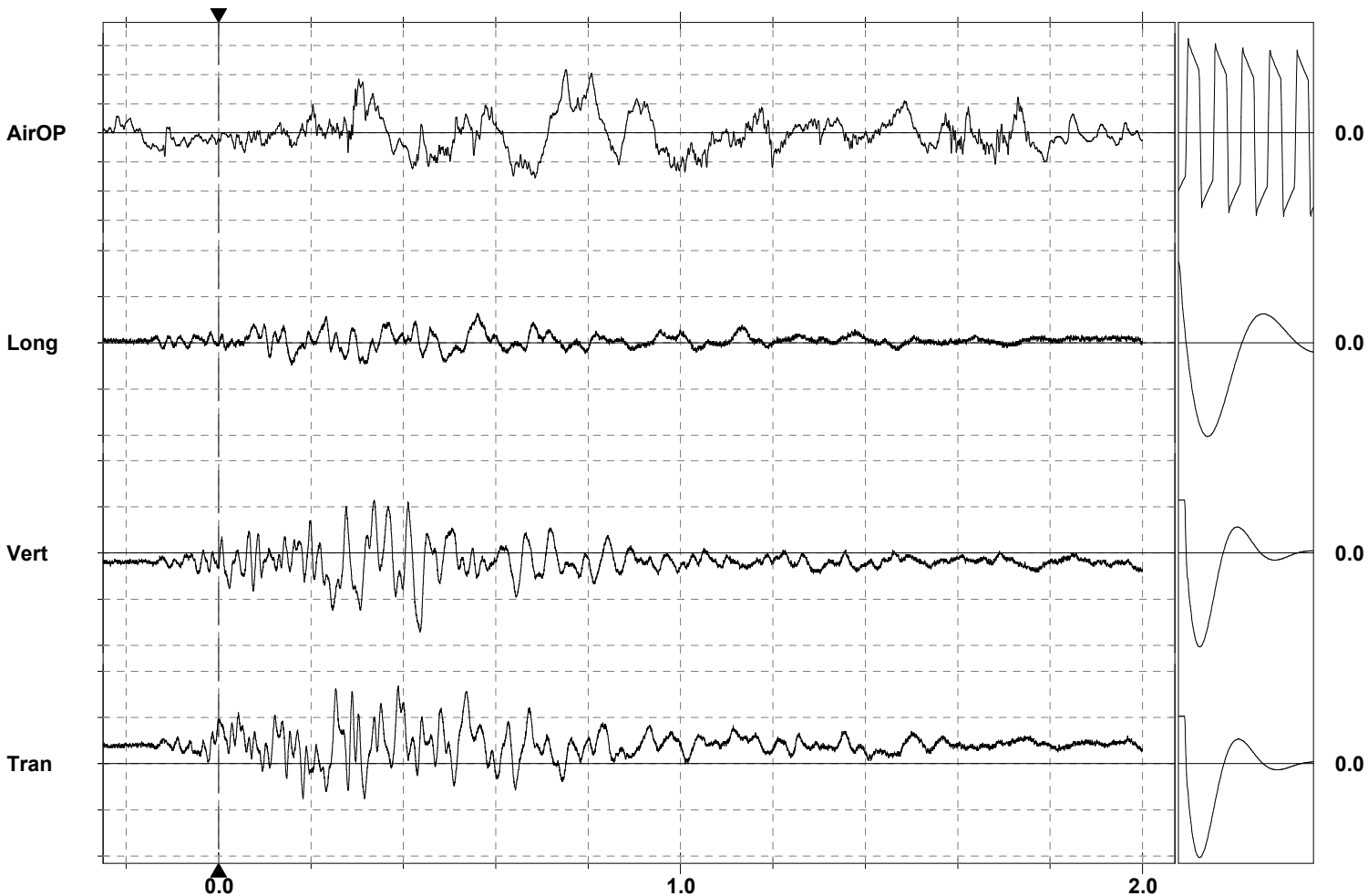
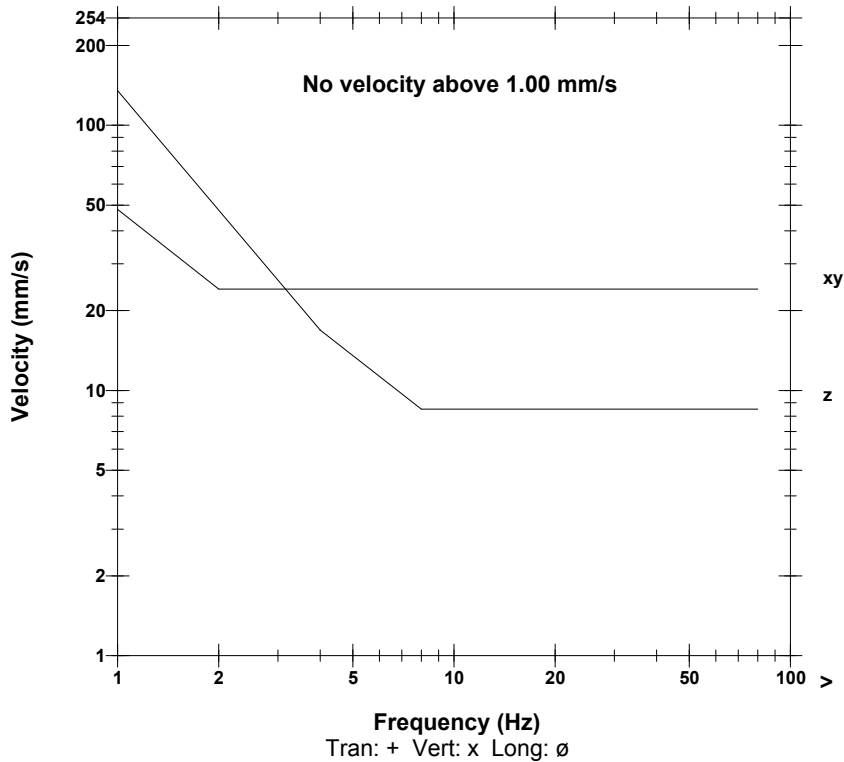
Post Event Notes

Microphone Linear Weighting
PSPL 120.7 dB(L) at 0.751 sec
ZC Freq 4.0 Hz
Channel Test Passed (Freq = 20.1 Hz Amp = 501 mv)

	Tran	Vert	Long	
PPV	0.841	0.857	0.317	mm/s
ZC Freq	10.0	18.6	10.4	Hz
Time (Rel. to Trig)	0.389	0.436	0.560	sec
Peak Acceleration	0.0265	0.0265	0.0199	g
Peak Displacement	0.0214	0.00855	0.00427	mm
Sensorcheck	Passed	Passed	Check	
Frequency	7.3	7.4	4.9	Hz
Overswing Ratio	3.9	3.7	3.3	

Peak Vector Sum 0.942 mm/s at 0.438 sec

BS 6472:1992 CURVE 60



Time Scale: 0.20 sec/div **Amplitude Scale:** Geo: 0.500 mm/s/div Mic: 10.00 pa.(L)/div
Trigger =

Sensorcheck