

NRQA Blakebrook quarry  
Blast BLA 40  
Monitor Location MP# 4 (Booerie Creek Rd Booerie Creek)

Event Report: Monitor Log

Start Time	End Time	Status
----- Mar 18 /22 14:53:30	----- Mar 18 /22 15:00:09	SERIAL NUMBER: BE12705 No events recorded. (Keyboard Exit) Geo: 0.900 mm/s



## No Trigger Report Summary

Customer	Northern Rivers Quarry	
Date of blast	18/3/2022	
Blast number	BLA40	
Monitor Location – 4 (Primary)	MP#4 –	Booerie Creek Road, Booerie Creek
Monitor name/ model details:	InstanTel Minimate Blaster	
Monitor Serial no:	BE12705	
Calibration date	12/1/2022	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		(Y) N
Airblast overpressure result (dB)	Not triggered. Overpressure reading set to geo trigger no overpressure dB detected	
Ground vibration result (PPV)	Less than 0.900 mm/s	
EPL limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	Monitor was set to record ground vibration above 0.900 mm/s – no event was recorded. This monitor report is compliant with EPL conditions and has been undertaken in accordance with AS 2187.2-2006	

  
 Name (& signature)

18/3/22  
 date

**Date/Time** Long at 14:59:44 March 18, 2022  
**Trigger Source** Geo: 0.900 mm/s  
**Range** Geo: 254.0 mm/s  
**Record Time** 6.0 sec at 1024 sps

**Serial Number** BE13371 V 10.72-1.1 Minimate Blaster  
**Battery Level** 5.9 Volts  
**Unit Calibration** November 30, 2021 by Saros Int  
**File Name** O371JF3T.NK0

**Notes**

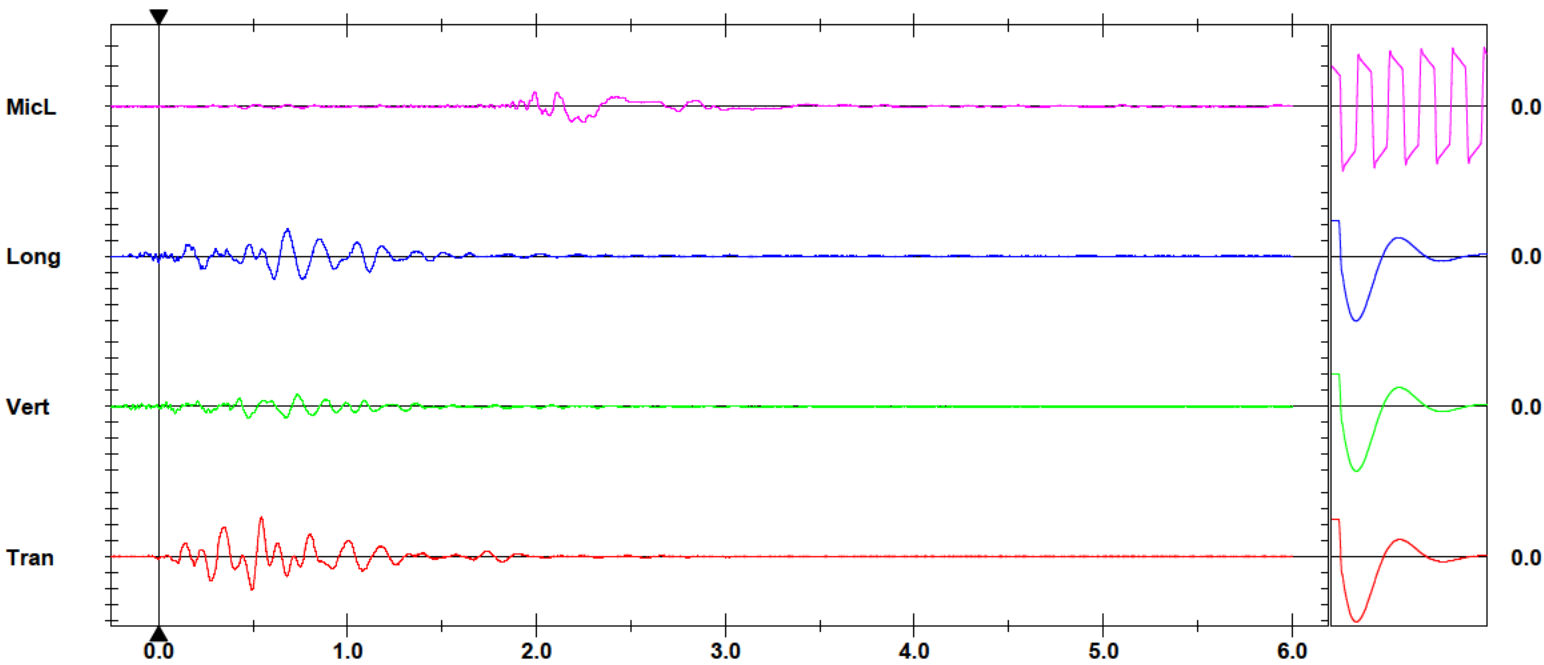
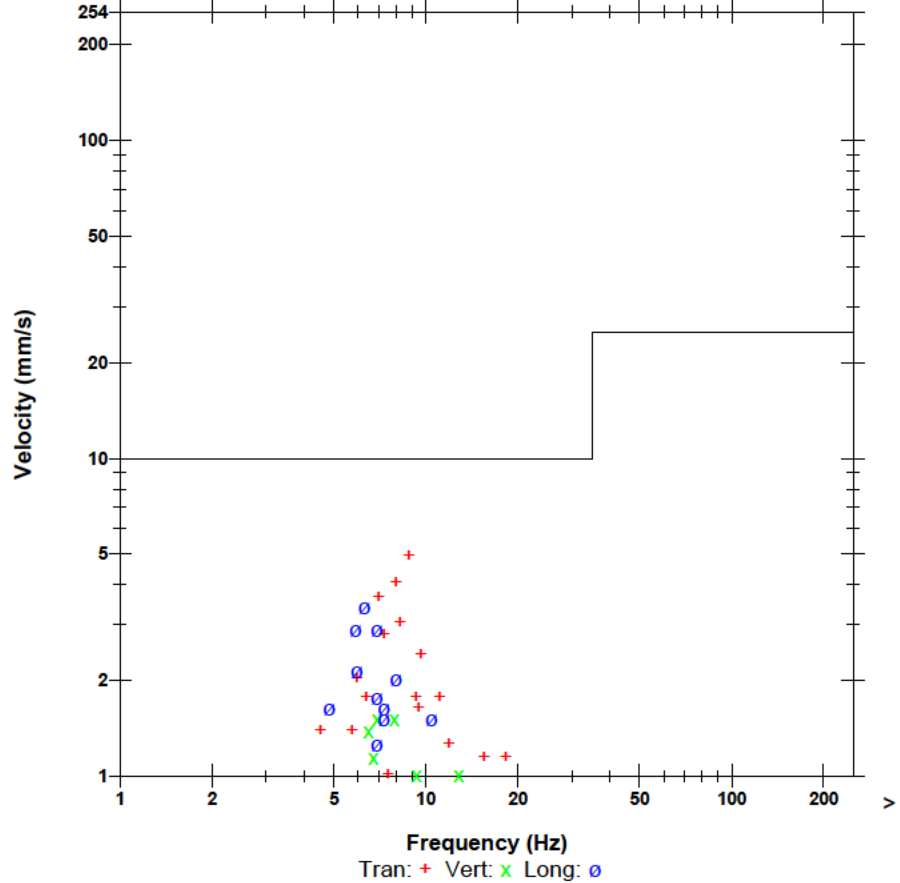
**Post Event Notes**  
 Customer Site NRQA Blakebrook Quarry  
 Blast ID BLA 40  
 Monitor Location MP#2 [REDACTED] Keerrong Road Blakebrook)  
 Monitored By [REDACTED]

**Microphone** Linear Weighting  
**PSPL** 112.0 dB(L) at 2.244 sec  
**ZC Freq** 2.7 Hz  
**Channel Test** Passed (Freq = 20.1 Hz Amp = 546 mv )

	Tran	Vert	Long	
PPV	4.953	1.524	3.429	mm/s
PPV	128.9	118.7	125.7	dB
ZC Freq	8.8	6.9	6.3	Hz
Time (Rel. to Trig)	0.544	0.472	0.681	sec
Peak Acceleration	0.027	0.027	0.027	g
Peak Displacement	0.090	0.035	0.085	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.4	7.5	Hz
Overswing Ratio	3.8	3.5	3.5	

**Peak Vector Sum** 5.072 mm/s at 0.544 sec

**QLD APP Standard**



**Time Scale:** 0.50 sec/div    **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div  
**Trigger =**

Sensor Check

**Date/Time** Long at 14:59:45 March 18, 2022  
**Trigger Source** Geo: 1.000 mm/s  
**Range** Geo: 254.0 mm/s  
**Record Time** 6.0 sec at 1024 sps  
**Operator/Setup:** Operator/LINEAR.MMB

**Serial Number** UM11467 V 10-90FB Micromate ISEE  
**Battery Level** 3.8 Volts  
**Unit Calibration** September 10, 2021 by Saros Int.  
**File Name** UM11467\_20220318145945.IDFW

**Notes**  
 Location:  
 Client:  
 User Name:  
 General:

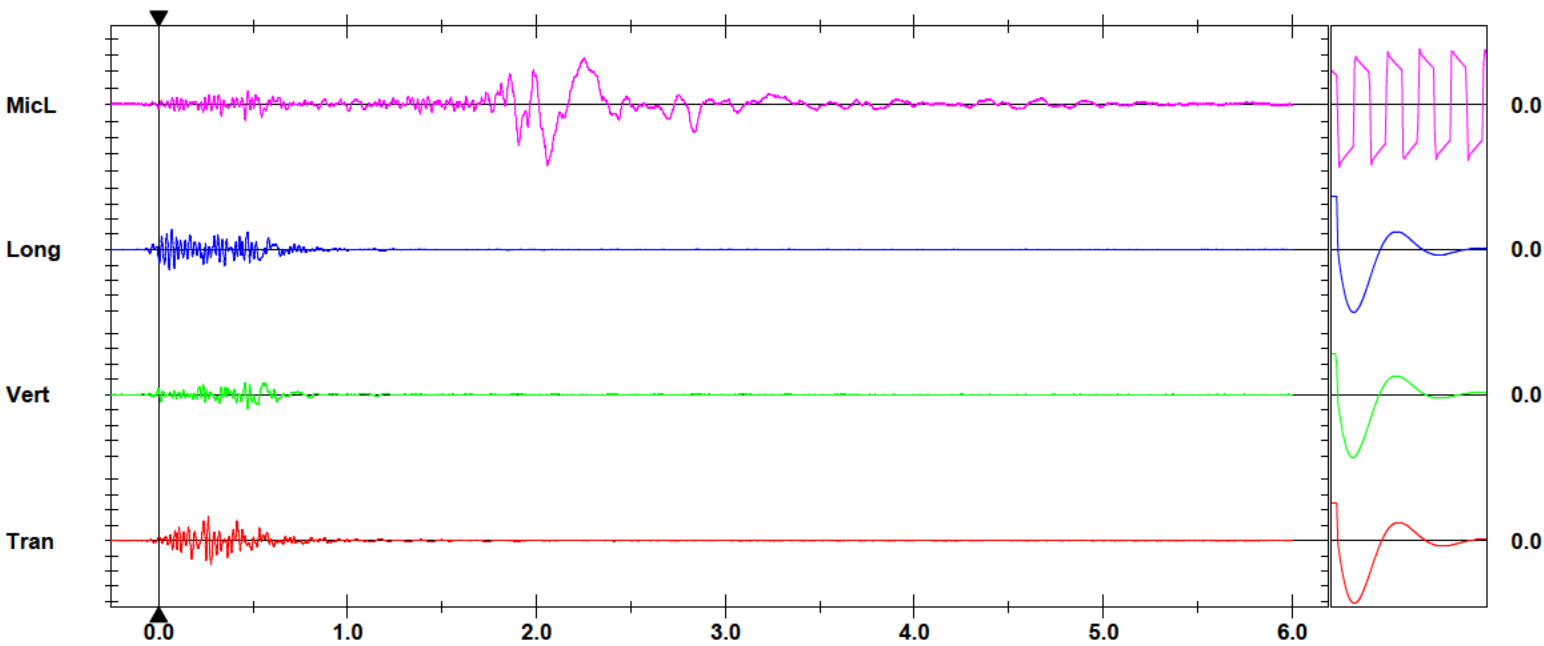
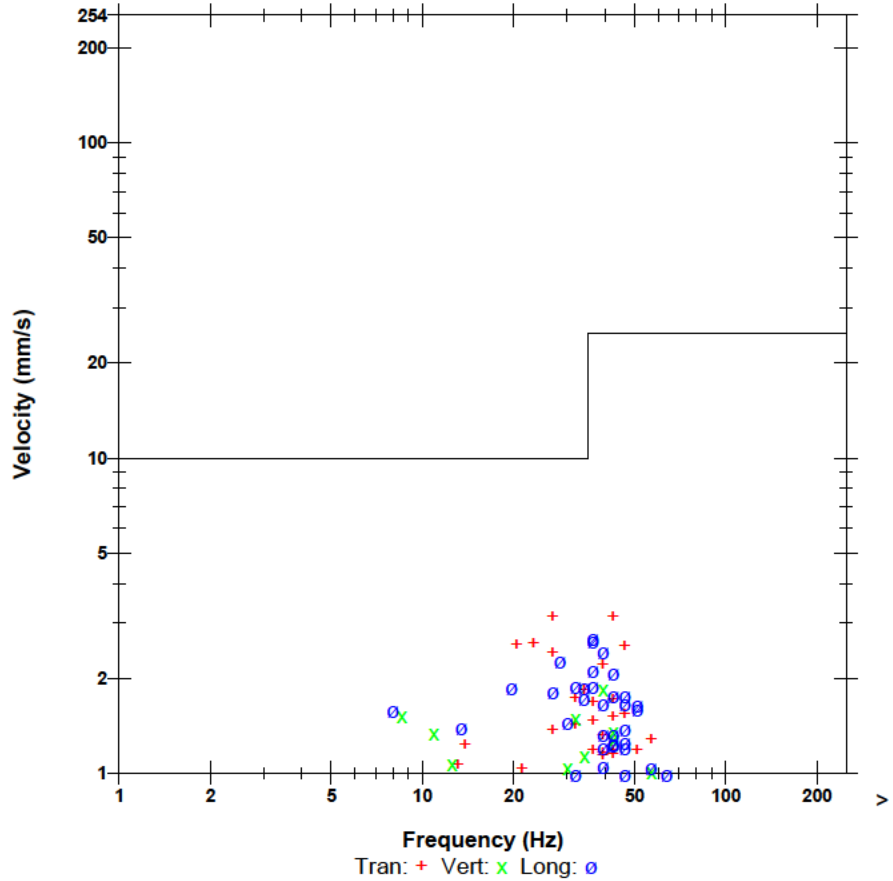
**Post Event Notes**  
 Customer Site NRQA Blakebrook Quarry  
 Blast ID BLA 40  
 Monitor Location MP#8 [REDACTED] Nimbin Rd Blakebrook)  
 Monitored By [REDACTED]

**Microphone** Linear Weighting  
**PSPL** 105.3 dB(L) at 2.057 sec  
**ZC Freq** 3.3 Hz  
**Channel Test** Passed (Freq = 19.7 Hz Amp = 1510 mv )

	Tran	Vert	Long	
PPV	3.145	1.852	2.688	mm/s
PPV	125.0	120.4	123.6	dB
ZC Freq	43	39	37	Hz
Time (Rel. to Trig)	0.263	0.471	0.069	sec
Peak Acceleration	0.090	0.041	0.064	g
Peak Displacement	0.017	0.026	0.020	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	7.5	Hz
Overswing Ratio	3.5	3.3	3.5	

**Peak Vector Sum** 3.336 mm/s at 0.238 sec

### QLD APP Standard



**Time Scale:** 0.50 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 1.000 pa.(L)/div  
 Trigger =

Sensor Check

Customer NRQA  
 Location Blakebrook Quarry  
 Shot Number BLA41  
 Bench No. 0

**Flyrock Assumptions**

Rock density	g/cc	2.8
Hole diameter	mm	89
Stemming length	m	3.0
Charge length	m	11.8
Burden	m	2.8
Explosive density	g/cc	1.15
Flyrock constant		25
Factor of safety	FoS	2
Drill Angle	deg	10
Charge mass/m	kg/m	7.2
Gravity	m/s/s	9.81

**Scaled Depth of Burial**

Contributing charge length factor	8
Scaled depth of burial	m/kg <sup>1/3</sup> 1.95

**Maximum Flyrock Projection Range**

Distance	m
----------	---

**Clearance Distance and Projectile Size**

Projectile size	mm	12
Projectile weight	kg	0.00
Clearance Distance	m	103

**Maximum Horizontal Distance**

Face burst	m	113
Cratering	m	95
Stemming ejection	m	32

**Maximum Vertical Distance**

Launch velocity (FB)	m/s	33
Launch velocity (C)	m/s	30
Launch velocity (SE)	m/s	18
Face burst	m	57
Cratering	m	47
Stemming ejection	m	16

**Equipment Exclusion Zone (Factor of safety 2)**

Face burst	m	226
Cratering	m	189
Stemming ejection	m	65

**Personell Exclusion Zone (Factor of safety 4)**

Face burst	m	453
Cratering	m	378
Stemming ejection	m	129



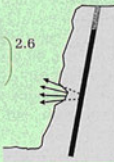
**CLEARANCE DISTANCE DESIGN IN FRONT OF FACE (FACE BURST)**

Step 1 – Determine L<sub>max</sub>  
 FIGURE 11

$$L_{max} = \frac{K^2}{g} \times \left( \frac{\sqrt{m}}{B} \right)^{2.6}$$

where...

- B = burden (m)
- k = site constant
- m = charge mass/m (kg)
- L = horizontal throw (m)
- g = gravitational constant (9.8 m/s/s)



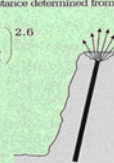
**CLEARANCE DISTANCE DESIGN BEHIND FACE (CRATERING)**

Step 2 – Determine L<sub>max</sub>  
 If the stemming height to hole diameter ratio is too small, flyrock can be projected in any direction from a crater at the hole collar a distance determined from...

$$L_{max} = \frac{K^2}{g} \times \left( \frac{\sqrt{m}}{SH} \right)^{2.6}$$

where...

- SH = Stemming height (m)
- k = site constant
- m = charge mass/m (kg)
- L = horizontal throw (m)
- g = gravitational constant (9.8 m/s/s)



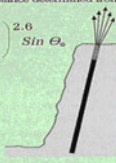
**CLEARANCE DISTANCE DESIGN BEHIND FACE (GUN BARRELLING)**

Step 3 – Determine L<sub>max</sub>  
 If the stemming height to hole diameter ratio is too small flyrock can be projected in any direction from a crater at the hole collar a distance determined from...

$$L_{max} = \frac{K^2}{g} \times \left( \frac{\sqrt{m}}{SH} \right)^{2.6} \sin \theta_0$$

where...

- B = burden (m)
- k = site constant
- m = charge mass/m (kg)
- L = horizontal throw (m)
- g = gravitational constant (9.8 m/s/s)
- θ<sub>0</sub> = launch angle (degrees)



NRQA Blakebrook Quarry  
Blast ID BLA-41  
Monitor Location ■■■ keerong road

Event Report: Monitor Log

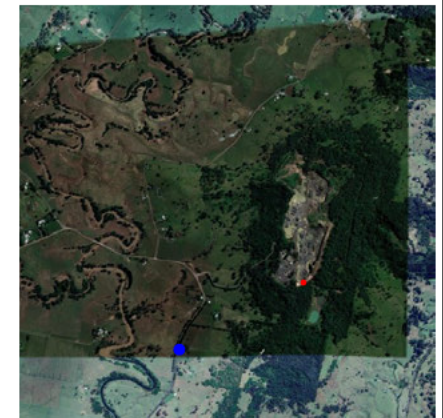
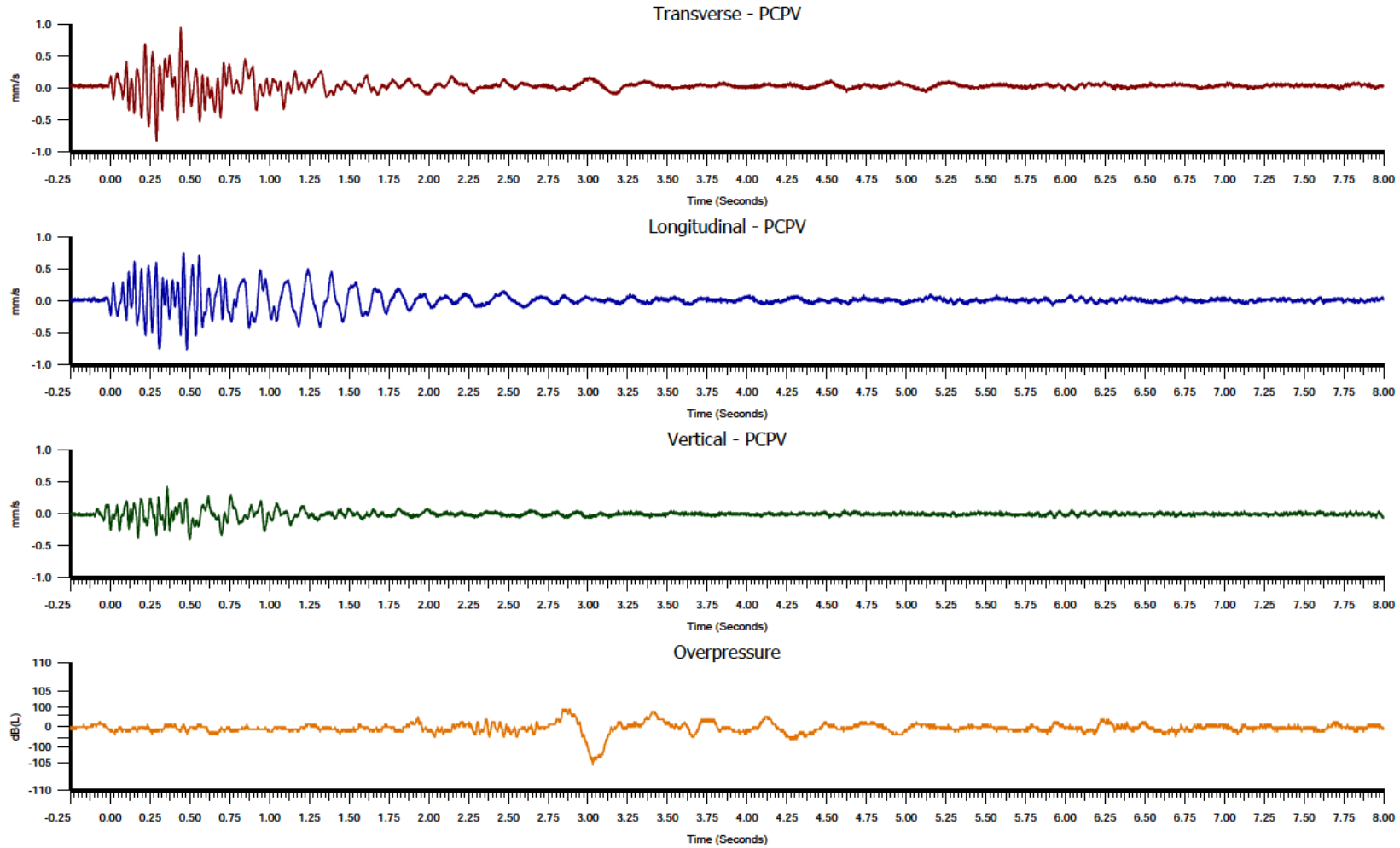
Start Time	End Time	Status
-----	-----	SERIAL NUMBER: BE12705
May 31 /22 14:27:18	May 31 /22 14:27:26	Event recorded. Trigger Level Tran: 0.130 mm/s
May 31 /22 14:27:26		Start Monitoring Trigger Level: Geo: 0.130 mm/s
May 31 /22 14:27:27	May 31 /22 14:27:33	Event recorded. (Keyboard Exit) Trigger Level Tran: 0.130 mm/s
May 31 /22 14:29:33	May 31 /22 15:17:20	No events recorded. (Keyboard Exit) Geo: 2.00 mm/s



# Blakebrook Quarry

Date 31/05/2022  
Time 2:58:15 PM  
Blast Number 20220531  
Monitoring Location Location 8  
Distance 1059 m

Monitoring Results	
Peak Vibration Level (Vector Sum)	1.10 mm/s
Peak Overpressure Level	105.5 dB(L)
Peak Vibration Level for frequencies less than 35Hz	(Tran) 0.95 mm/s
Peak Vibration Level for frequencies greater than 35Hz	(Tran) 0.38 mm/s



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Telephone +61 7 3367 3400; Facsimile +61 7 3367 3844;

Serial Number	BE15216
Coupling	Unknown
Last Calibration Date	May 26, 2021 by Saros Int
Source Reference	Q216JIWU.X30
File Reference	

NRQA Blakebrook Quarry  
Blast ID BLA-41  
Monitor Location ■ Boorie Creek Road

Event Report: Monitor Log

Start Time	End Time	Status
----- May 31 /22 14:53:47	----- May 31 /22 14:57:09	SERIAL NUMBER: BE13371 No events recorded. (Keyboard Exit) Geo: 0.900 mm/s



**NRQA Blakebrook Quarry**  
**Blast ID BLA-41**  
**Monitor Location            Rosehill road**

**Event Report: Monitor Log**

Start Time	End Time	Status
-----	-----	SERIAL NUMBER: BE13456
May 31 /22 14:51:08		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 14:52:23	May 31 /22 14:52:33	Event recorded. Trigger Level Long: 0.210 mm/s
May 31 /22 14:52:33		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 14:56:02	May 31 /22 14:56:12	Event recorded. Trigger Level Long: 0.210 mm/s
May 31 /22 14:56:12		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 14:56:47	May 31 /22 14:56:57	Event recorded. Trigger Level Tran: 0.210 mm/s
May 31 /22 14:56:57		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 15:00:21	May 31 /22 15:00:31	Event recorded. Trigger Level Long: 0.210 mm/s
May 31 /22 15:00:31		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 15:00:51	May 31 /22 15:01:01	Event recorded. Trigger Level Tran: 0.210 mm/s
May 31 /22 15:01:01		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 15:01:29	May 31 /22 15:01:39	Event recorded. Trigger Level Tran: 0.210 mm/s
May 31 /22 15:01:39		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 15:03:00	May 31 /22 15:03:10	Event recorded. Trigger Level Tran: 0.210 mm/s
May 31 /22 15:03:10		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 15:06:09	May 31 /22 15:06:19	Event recorded. Trigger Level Long: 0.210 mm/s
May 31 /22 15:06:19		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 15:07:29	May 31 /22 15:07:39	Event recorded. Trigger Level Long: 0.210 mm/s
May 31 /22 15:07:39		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 15:09:31	May 31 /22 15:09:41	Event recorded. Trigger Level Tran: 0.210 mm/s
May 31 /22 15:09:41		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 15:11:23	May 31 /22 15:11:33	Event recorded. Trigger Level Tran: 0.210 mm/s
May 31 /22 15:11:33		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 15:11:58	May 31 /22 15:12:08	Event recorded. Trigger Level Long: 0.210 mm/s
May 31 /22 15:12:08		Start Monitoring Trigger Level: Geo: 0.210 mm/s
May 31 /22 15:12:41	May 31 /22 15:12:51	Event recorded. Trigger Level Tran: 0.210 mm/s
May 31 /22 15:12:51	May 31 /22 15:12:54	No events recorded. (Keyboard Exit) Geo: 0.210 mm/s



## No Trigger Report Summary

Customer	Northern Rivers Quarry	
Date of blast	31/5/2022	
Blast number	BLA41	
Monitor Location – 2 (Primary)	[REDACTED] Keerrong Road, Keerrong	
Monitor name/ model details:	InstanTel Minimate Blaster	
Monitor Serial no:	BE12705	
Calibration date	12/1/2022	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		(Y) / N
Airblast overpressure result (dB)	Not triggered. Overpressure reading set to geo trigger no overpressure dB detected	
Ground vibration result (PPV)	Less than 0.130 mm/s	
EPL limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	Monitor was set to record ground vibration above 0.130 mm/s – no event was recorded. This monitor report is compliant with EPL conditions and has been undertaken in accordance with AS 2187.2-2006	

[REDACTED SIGNATURE]

Name (& signature)

31/5/22

date



## No Trigger Report Summary

Customer	Northern Rivers Quarry	
Date of blast	31/5/2022	
Blast number	BLA41	
Monitor Location – 4 (Primary)	Booerie Creek Road, Booerie Creek	
Monitor name/ model details:	InstanTel Minimate Blaster	
Monitor Serial no:	BE13371	
Calibration date	30/11/2021	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		(Y) N
Airblast overpressure result (dB)	Not triggered. Overpressure reading set to geo trigger no overpressure dB detected	
Ground vibration result (PPV)	Less than 0.900 mm/s	
EPL limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	Monitor was set to record ground vibration above 0.900 mm/s – no event was recorded. This monitor report is compliant with EPL conditions and has been undertaken in accordance with AS 2187.2-2006	

.....  


Name (& signature)

.....  
 31/5/22

date



## No Trigger Report Summary

Customer	Northern Rivers Quarry	
Date of blast	31/5/2022	
Blast number	BLA41	
Monitor Location – additional	[REDACTED] Rosehill Road, Blakebrook	
Monitor name/ model details:	InstanTel Minimate Blaster	
Monitor Serial no:	BE13456	
Calibration date	15/4/2021	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		(Y/N)
Airblast overpressure result (dB)	Not triggered. Overpressure reading set to geo trigger no overpressure dB detected	
Ground vibration result (PPV)	Less than 0.210 mm/s	
EPL limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	Monitor was set to record ground vibration above 0.210 mm/s – no event was recorded. This monitor report is compliant with EPL conditions and has been undertaken in accordance with AS 2187.2-2006	

[REDACTED SIGNATURE]

Name (& signature)

31-5-22

date

## No Trigger Report Summary

Customer	Northern Rivers Quarry	
Date of blast	16/8/2022	
Blast number	BLA 42	
Monitor Location – additional	[REDACTED] Rosehill Road, Blakebrook	
Monitor name/ model details:	InstanTel Micromate Blaster	
Monitor Serial no:	UM11467	
Calibration date	10/09/2021	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		Y/
Airblast overpressure result (dB)	No trigger Reading at monitor location	
Ground vibration result (PPV)	No trigger Reading at monitor location	
EPL limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	Monitor was set to record ground vibration above 1.0 mm/s – no event was recorded. This monitor report is compliant with EPL conditions and has been undertaken in accordance with AS 2187.2-2006	

[REDACTED]

16.8.22

Name (& signature)

date

**Date/Time** Tran at 14:26:39 August 16, 2022  
**Trigger Source** Geo: 0.900 mm/s, Mic: 100.0 dB(L)  
**Range** Geo: 254.0 mm/s  
**Record Time** 8.0 sec at 1024 sps

**Serial Number** BE13371 V 10.72-1.1 Minimate Blaster  
**Battery Level** 6.0 Volts  
**Unit Calibration** November 30, 2021 by Saros Int  
**File Name** \_\_TEMP.EVT

**Notes**

**Post Event Notes**

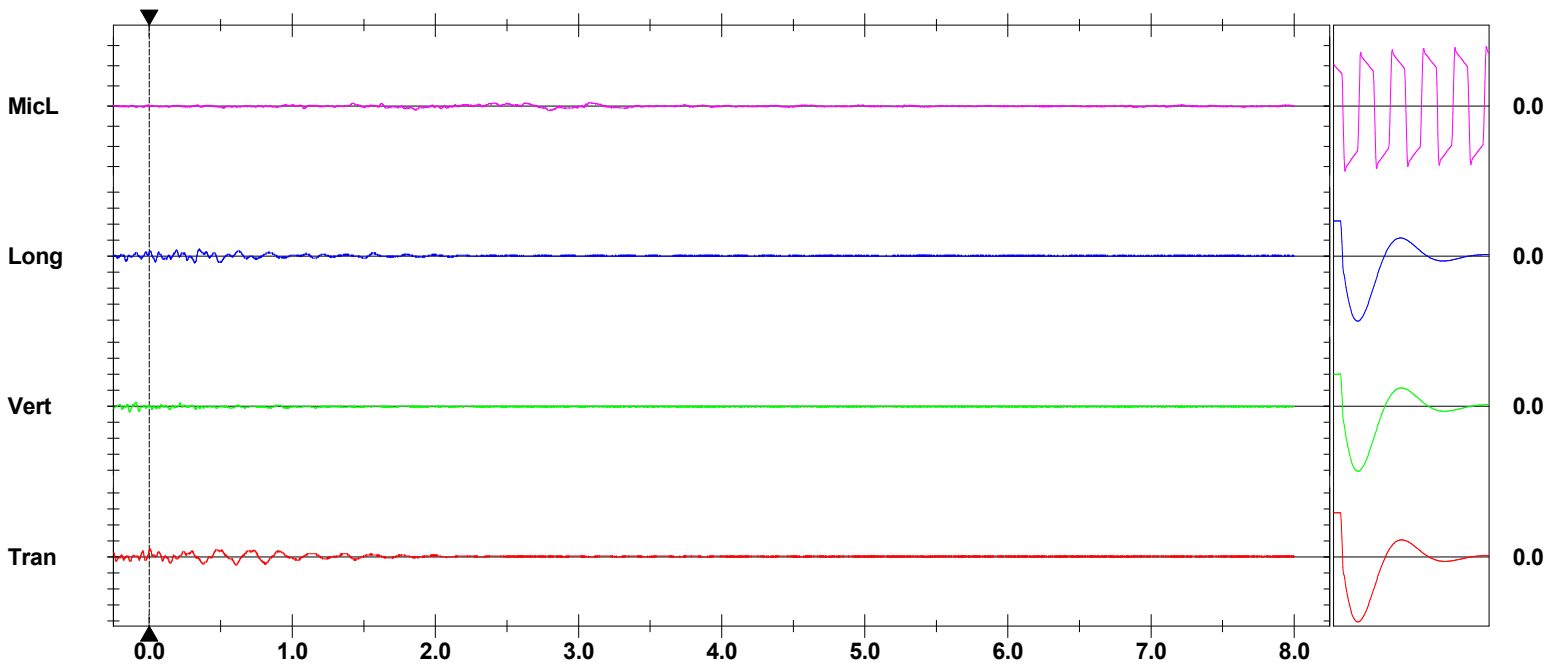
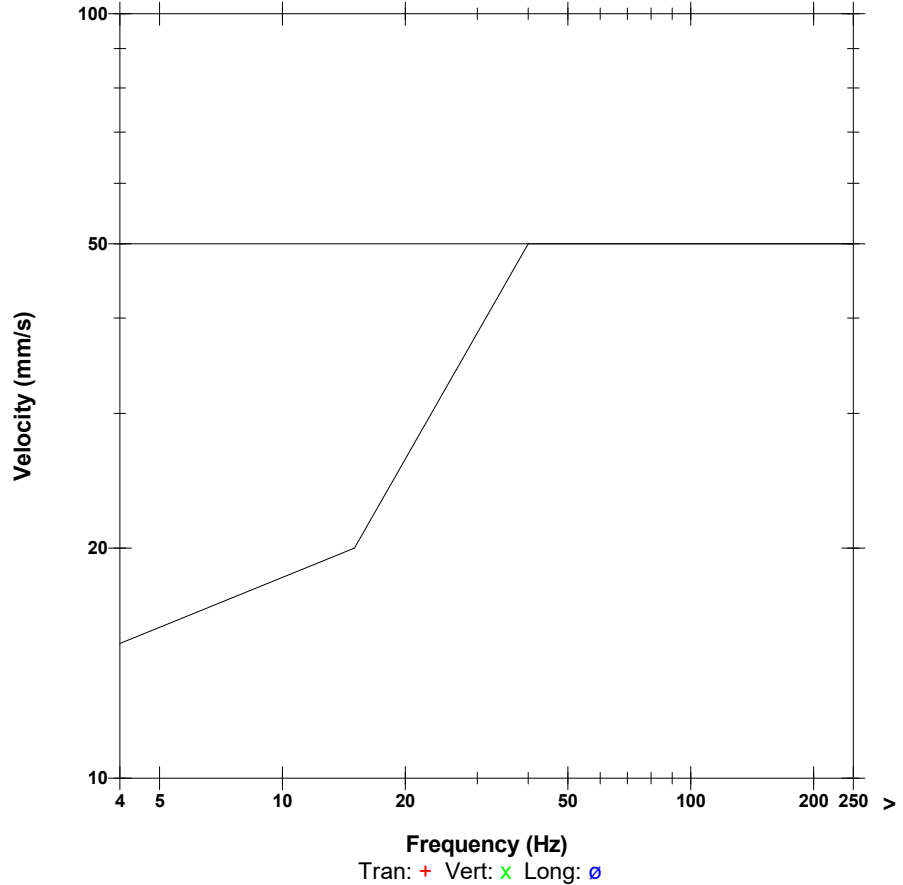
**Customer** Site Blakebrook  
**Blast ID** BLA42  
**Monitor Location** Keerrong Rd Blakebrook  
**Monitored By**

**Microphone** Linear Weighting  
**PSPL** 101.0 dB(L) at 2.795 sec  
**ZC Freq** 3.3 Hz  
**Channel Test** Passed (Freq = 20.1 Hz Amp = 588 mv )

	Tran	Vert	Long	
PPV	1.016	0.762	0.889	mm/s
PPV	115.1	112.6	114.0	dB
ZC Freq	17	23	14	Hz
Time (Rel. to Trig)	0.003	-0.136	0.318	sec
Peak Acceleration	0.013	0.013	0.013	g
Peak Displacement	0.031	0.005	0.018	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.4	7.4	7.5	Hz
Overswing Ratio	3.8	3.6	3.6	

**Peak Vector Sum** 1.205 mm/s at 0.004 sec

**British Standard 7385**



**Time Scale:** 0.50 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div  
**Trigger =**

Sensor Check

## No Trigger Report Summary

Customer	Northern Rivers Quarry	
Date of blast	16/8/2022	
Blast number	BLA 42	
Monitor Location – 8 (Primary)	[REDACTED] Nimbin Rd, Blakebrook	
Monitor name/ model details:	Instatel Minimate Blaster	
Monitor Serial no:	BE 12705	
Calibration date	12/01/2022	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		Y/
Airblast overpressure result (dB)	No recorded trigger	
Ground vibration result (PPV)	No recorded trigger	
EPL limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	Monitor was set to record ground vibration above 0.91 mm/s – no event was recorded. This monitor report is compliant with EPL conditions and has been undertaken in accordance with AS 2187.2-2006	

[REDACTED]

Name (& signature)

16-8-22

date

**Date/Time** Long at 14:26:38 August 16, 2022  
**Trigger Source** Geo: 0.210 mm/s  
**Range** Geo: 31.75 mm/s  
**Record Time** 10.0 sec at 1024 sps

**Serial Number** BE13456 V 10.72-1.1 Minimate Blaster  
**Battery Level** 6.3 Volts  
**Unit Calibration** July 5, 2022 by Saros Int.  
**File Name** \_\_TEMP.EVT

**Notes**

**Post Event Notes**

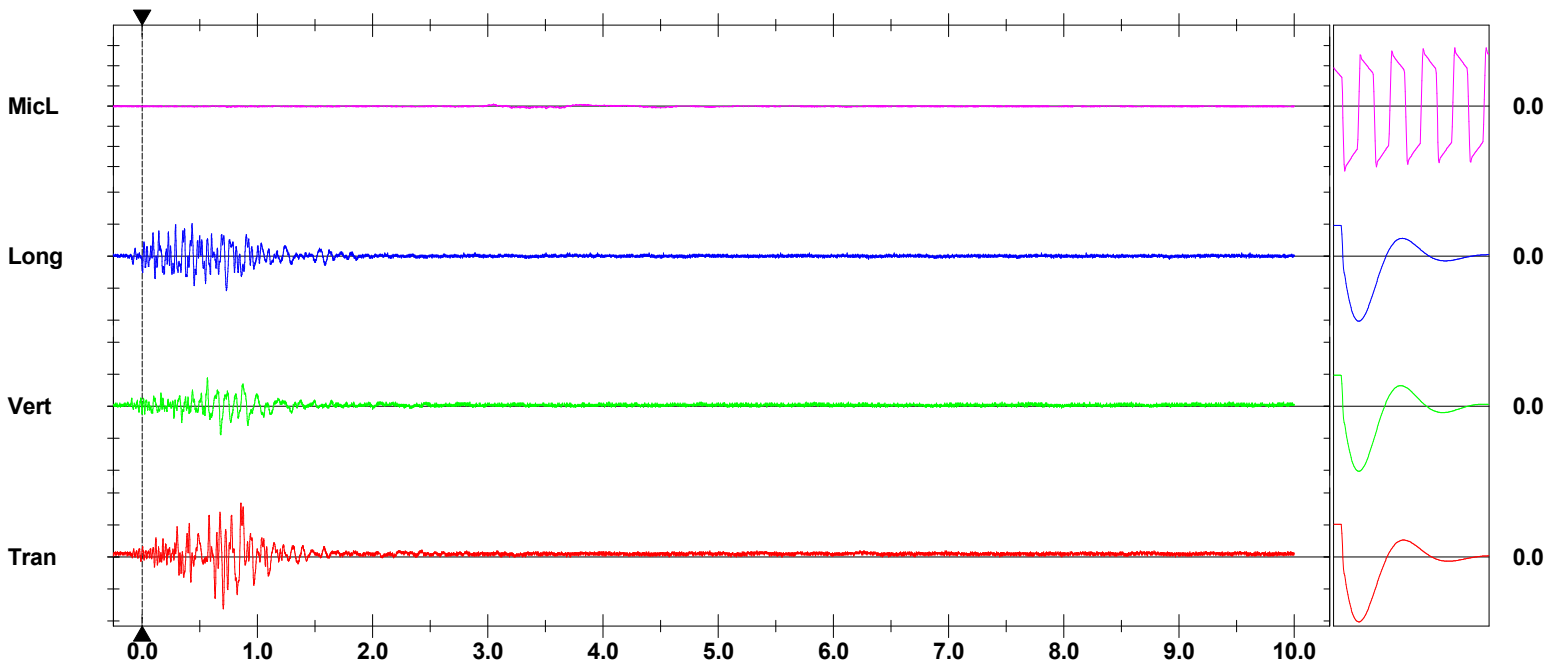
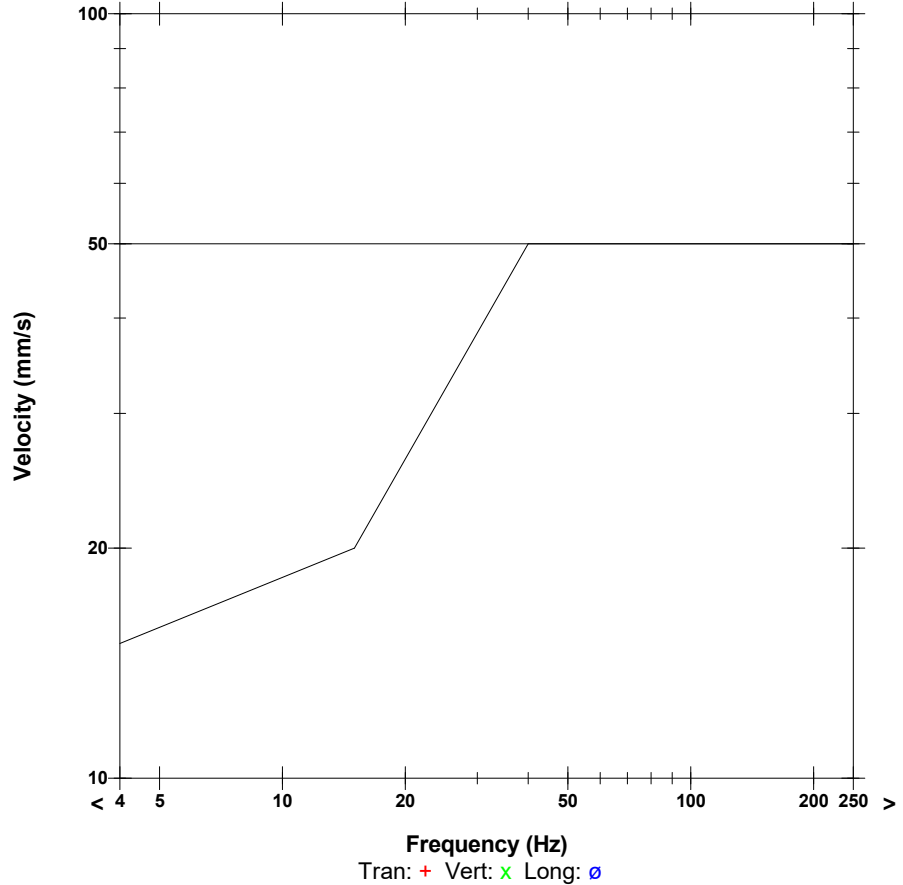
**Customer Site** Blakebrook  
**Blast ID** BLA42  
**Monitor Location** ████████ Boorerie Creek Rd Boorerie Creek  
**Monitored By** ████████

**Microphone** Linear Weighting  
**PSPL** 95.9 dB(L) at 3.362 sec  
**ZC Freq** 5.6 Hz  
**Channel Test** Passed (Freq = 20.1 Hz Amp = 565 mv )

	Tran	Vert	Long	
PPV	0.841	0.444	0.540	mm/s
PPV	113.5	108.0	109.6	dB
ZC Freq	12	19	16	Hz
Time (Rel. to Trig)	0.855	0.565	0.729	sec
Peak Acceleration	0.013	0.008	0.012	g
Peak Displacement	0.012	0.005	0.005	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.1	7.5	7.3	Hz
Overswing Ratio	3.9	3.2	3.7	

**Peak Vector Sum** 0.880 mm/s at 0.857 sec

**British Standard 7385**



**Time Scale:** 0.50 sec/div **Amplitude Scale:** Geo: 0.500 mm/s/div Mic: 10.000 pa.(L)/div  
**Trigger =**

Sensor Check



## Blast Monitoring Results Summary

Customer	Northern Rivers Quarry	
Date of blast	26 September 2022	
Blast number	LCC 04	
Monitor Location	Location 8 [REDACTED] Nimbin Road, Blakebrook)	
Monitor name/ model details:	Texcel GTM	
Monitor Serial no	4296	
Calibration date	23/08/2022	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		Y / N
Airblast overpressure result (dB)	110.6BDL	
Ground vibration result (PPV)	7.71mm/s	
Peak Vector Sum (PVS)	7.71mm/s	
Licence limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	Recommend installing small concrete footing for better coupling to ground as the set up area is rocky in nature and can be problematic when placing geophone.	

Monitor Location	Location 4 [REDACTED] Boorie Creek Rd, Boorie Creek)	
Monitor name/ model details:	Texcel GTM	
Monitor Serial no	4384	
Calibration date	14/09/2022	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		Y / N
Airblast overpressure result (dB)	108.3DBL	
Ground vibration result (PPV)	0.69mm/s	
Peak Vector Sum (PVS)	0.69mm/s	
Licence limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	N/A	

Monitor Location	Location 2 (█ Keerong Road Blakebrook)	
Monitor name/ model details:	Texcel GTM	
Monitor Serial no	4298	
Calibration date	19/05/2022	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		Y / N
Airblast overpressure result (dB)	104.7DBL	
Ground vibration result (PPV)	0.45mm/s	
Peak Vector Sum (PVS)	0.45mm/s	
Licence limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	N/A	

Monitor Location	█ Rosehill Road	
Monitor name/ model details:	Texcel GTM	
Monitor Serial no	4207	
Calibration date	20/09/2022	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		Y / N
Airblast overpressure result (dB)	105.4DBL	
Ground vibration result (PPV)	0.08mm/s	
Peak Vector Sum (PVS)	0.08mm/s	
Licence limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	N/A	

**Date/Time** Long at 09:10:41 December 23, 2022  
**Trigger Source** Geo: 0.127 mm/s, Mic: 100.00 dB(L)  
**Range** Geo: 254.0 mm/s  
**Record Time** 3.0 sec at 2048 sps  
**Operator/Setup:** Operator/Default Micromate DIN.MMB

**Serial Number** UM10342 V 10-90GC Micromate DIN  
**Battery Level** 3.8 Volts  
**Unit Calibration** June 3, 2022 by Saros Int  
**File Name** UM10342\_20221223091041.IDFW

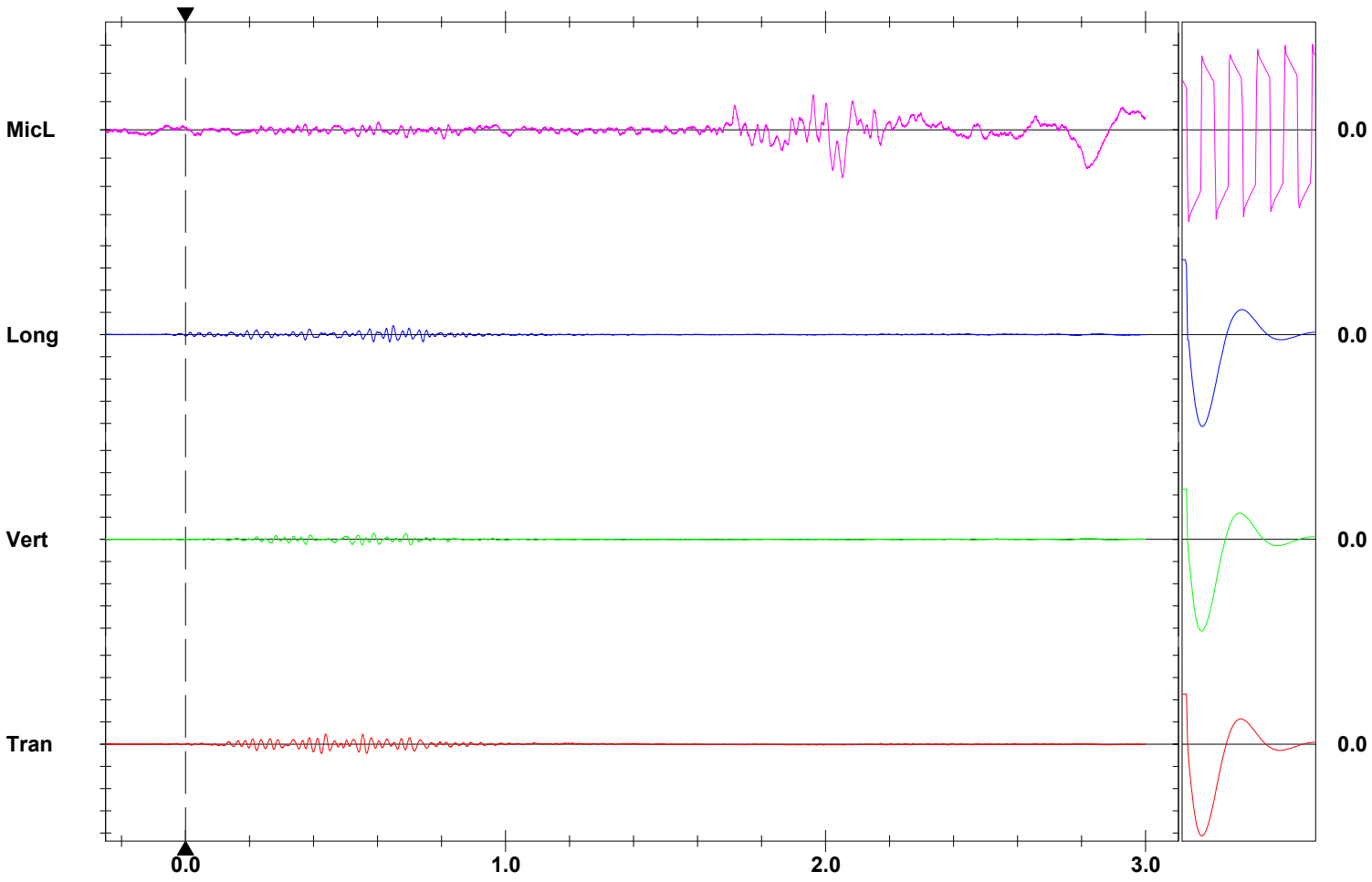
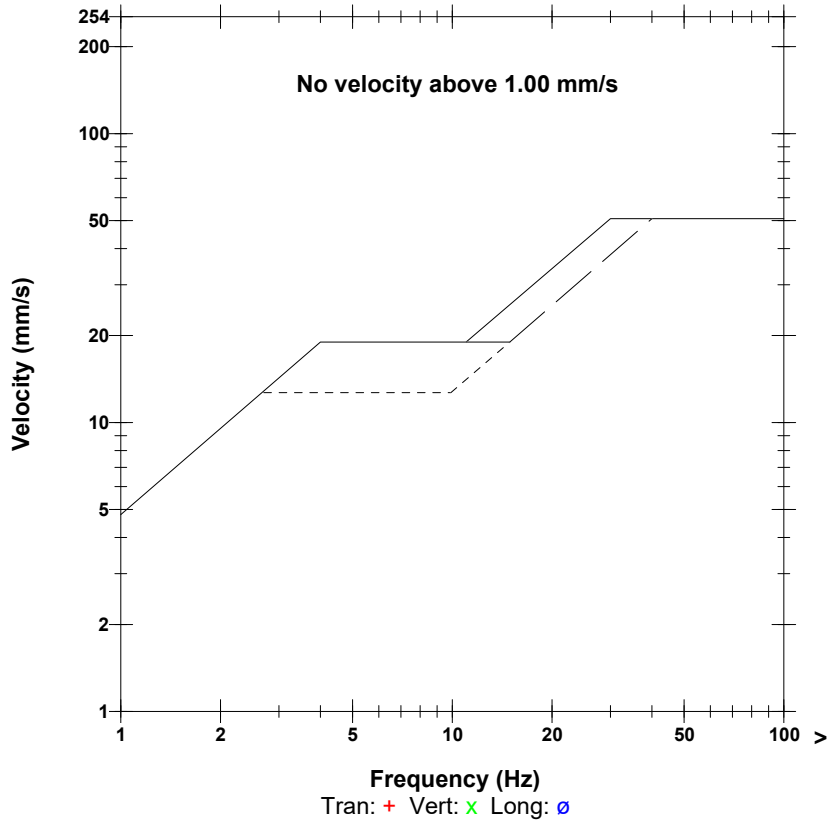
**Notes:** Location 8

**Microphone** Linear Weighting  
**PSPL** 98.5 dB(L) at 2.053 sec  
**ZC Freq** 8.1 Hz  
**Channel Test** Passed (Freq = 20.5 Hz Amp = 1592 mv)

	Tran	Vert	Long	
PPV	0.914	0.544	0.820	mm/s
ZC Freq	35	29	38	Hz
Time (Rel. to Trig)	0.438	0.588	0.649	sec
Peak Acceleration	0.035	0.018	0.030	g
Peak Displacement	0.004	0.003	0.003	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.1	7.3	7.1	Hz
Overswing Ratio	3.6	3.5	3.6	

**Peak Vector Sum** 1.092 mm/s at 0.554 sec

## USBM RI8507 And OSMRE



**Time Scale:** 0.20 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 1.000 pa.(L)/div  
**Trigger =**

Sensor Check

Customer	Blakebrook Quarry	
Date of blast	23-12-2022	
Blast number	01	
Monitor Location	<b>Location 8</b>	
Monitor name/ model details:	Monitor 2 - Micromate	
Monitor Serial no	UM10342	
Calibration date	03.06.2022	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		Y
Airblast overpressure result (dB)	98.5	
Ground vibration result (PPV)	1.092 mm/s	
Peak Vector Sum (PVS)	1.092 mm/s at 0.554 sec	
Licence limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	Monitor set to record airblast overpressure above 110 dB Monitor set to record ground vibration above 0.5 mm/s	

Customer	Northern Rivers Quarry (Blakebrook Quarry)	
Date of blast	23-12-2022	
Blast number	01	
Monitor Location	<b>Additional residence</b> – ■ Rosehill Rd, Blakebrook	
Monitor name/ model details:	Monitor 6 – Blastmate III	
Monitor Serial no	BA8980	
Calibration date	15.03.2022	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		Y
Airblast overpressure result (dB)	No result triggered	
Ground vibration result (PPV)	No result triggered	
EPL limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	<i>Monitor set to record airblast overpressure above 110 dB Monitor set to record ground vibration above 0.5 mm/s – no event was recorded.</i>	

Customer	Northern Rivers Quarry (Blakebrook Quarry)	
Date of blast	23-12-2022	
Blast number	01	
Monitor Location	<b>Location 2</b>	
Monitor name/ model details:	Monitor 3 – Minimate plus	
Monitor Serial no	BE22005	
Calibration date	15.03.2022	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		Y

Airblast overpressure result (dB)	No result triggered
Ground vibration result (PPV)	No result triggered
EPL limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s
Comments	<i>Monitor set to record ground vibration above 0.5 mm/s Monitor set to record airblast overpressure above 110 dB – no event was recorded.</i>

Customer	Northern Rivers Quarry (Blakebrook Quarry)	
Date of blast	23-12-2022	
Blast number	01	
Monitor Location	<b>Additional residence</b> - [REDACTED] Keerong Rd, Blakebrook	
Monitor name/ model details:	Monitor 4 – Blastmate III	
Monitor Serial no	BA17309	
Calibration date	15.12.2021	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		Y
Airblast overpressure result (dB)	No result triggered	
Ground vibration result (PPV)	No result triggered	
EPL limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	<i>Monitor set to record ground vibration above 0.5 mm/s Monitor set to record airblast overpressure above 110 dB – no event was recorded.</i>	

Customer	Northern Rivers Quarry (Blakebrook Quarry)	
Date of blast	23-12-2022	
Blast number	01	
Monitor Location	<b>Location 4</b>	
Monitor name/ model details:	Monitor 5 – Blastmate III	
Monitor Serial no	BA10184	
Calibration date	15.12.2021	
Instrumentation used to measure the airblast overpressure and ground vibration levels meets the requirements of Australian Standard AS 2187.2-2006.		Y
Airblast overpressure result (dB)	No result triggered	
Ground vibration result (PPV)	No result triggered	
EPL limits	Airblast overpressure - 115 dB Ground vibration (PPV) - 5mm/s	
Comments	<i>Monitor set to record ground vibration above 0.5 mm/s Monitor set to record airblast overpressure above 110 dB – no event was recorded.</i>	
Name:	[REDACTED]	
Signature:	[REDACTED]	
Position:	Owner/Director	Date:23-12-2022