



REPORT

หน่วยงานเจาะ-ระเบิด

แผนก เหมือง 2

ฝ่าย เหมือง

Title : ประเมินหน้างานระเบิดด้วยโปรแกรม JKSimBlast

Area : เหมือง A

Purpose : เพื่อวิเคราะห์ค่าที่ได้จากโปรแกรมและประเมินการใช้วัตถุระเบิดสำหรับหน้างานจริง

Details : หน้างาน 455-447 W01P R13

มีตัวแปรคงที่ คือ

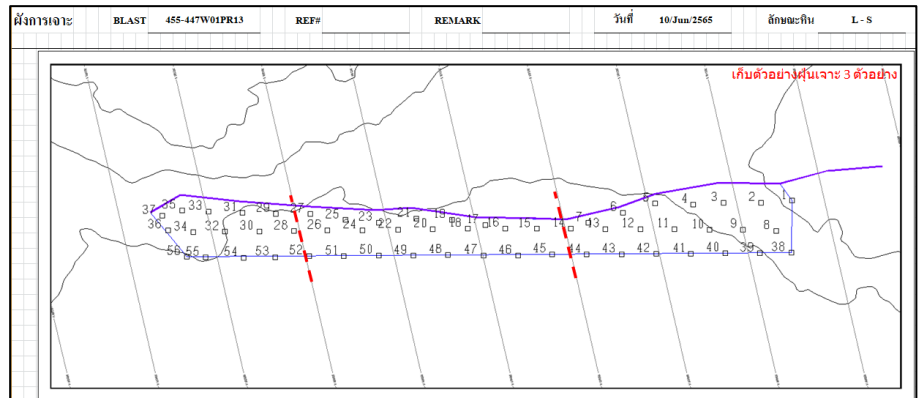
ปริมาณวัตถุระเบิด HE = 4.16 kg/hole

Stemming = 3.5 m/hole

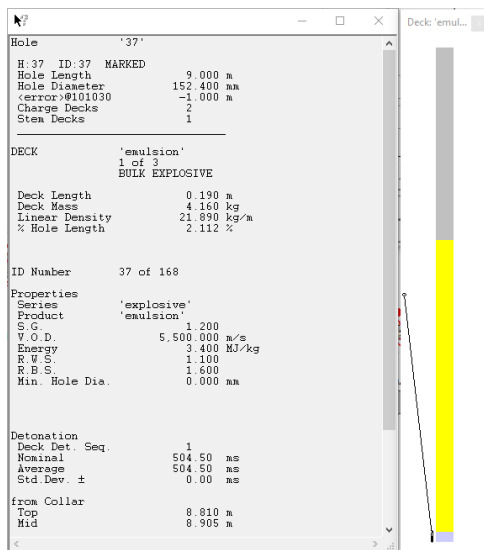
ความลึกรูเฉลี่ย = 9.37 m.

Downhole delays = 500 ms.

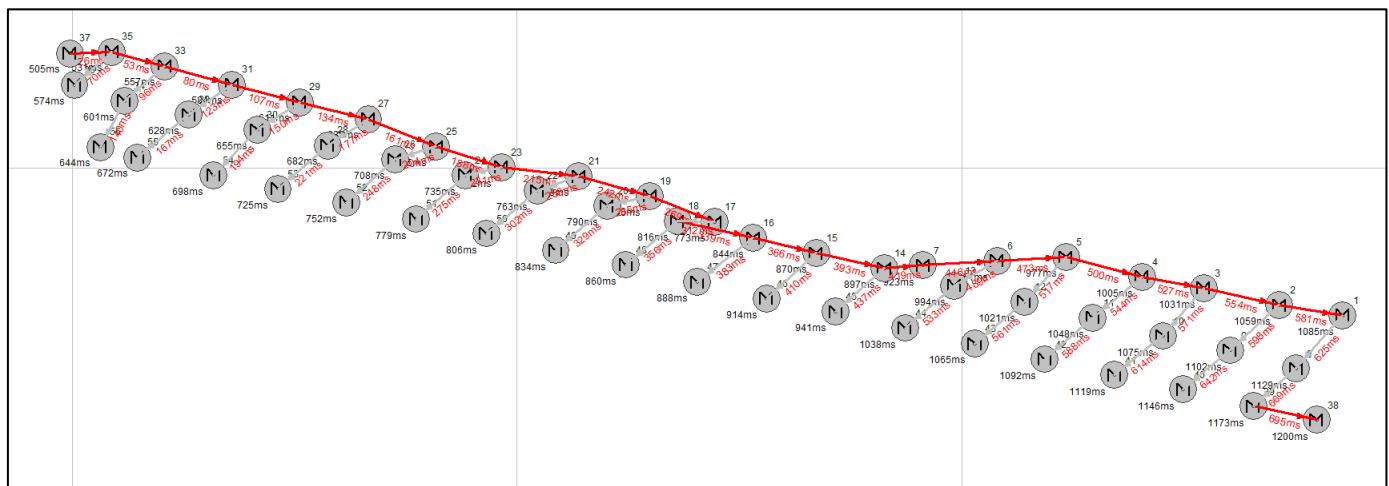
Inter-hole delays = 25 , 42 ms.



1. Charge Diagram



2. Detonator delay

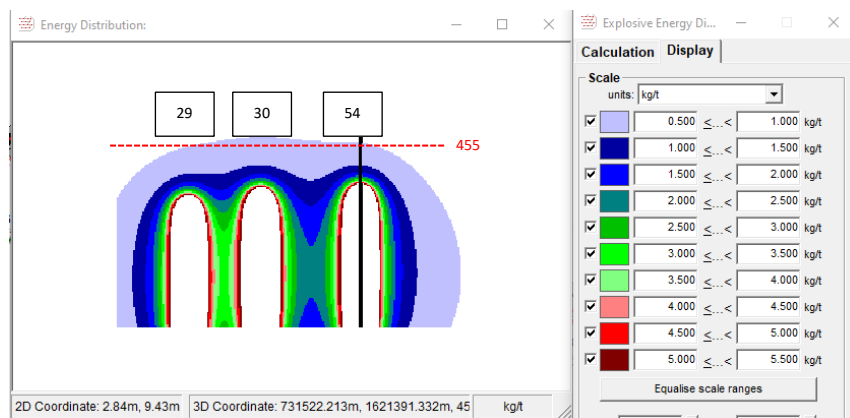
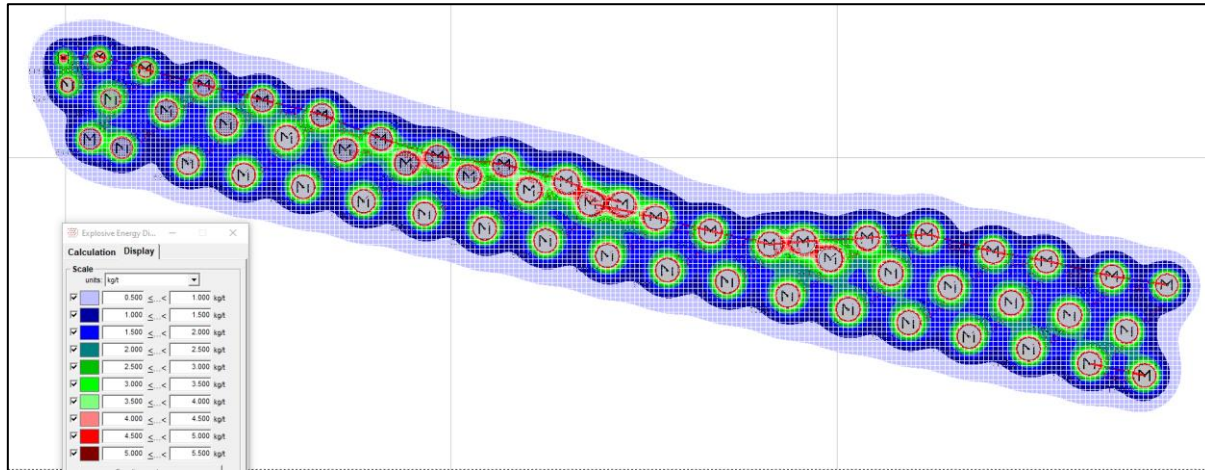


3. Deck and Delay Totals

Deck Totals		Details...		Delay Element Totals		Details...	
Num. Charge Decks	112			Num. Downhole Delays	56		
Length Of All Charges	308.000 m			Total Length Used	504.000 m		
Mass Of All Charges	4572.351 kg			Total Supplied Length	504.000 m		
Num. Stemming Decks	56			Num. Surface Delays	55		
Length Of All Stemming	196.000 m			Total Length Used	191.484 m		
Mass Of All Stemming	7150.655 kg			Total Supplied Length	191.484 m		

ปริมาณ ANFO = $4572.351 - (4.16 \times 56) = 4339.39 \text{ kg}$

4. Explosive Energy Distribution



5. Fragmentation

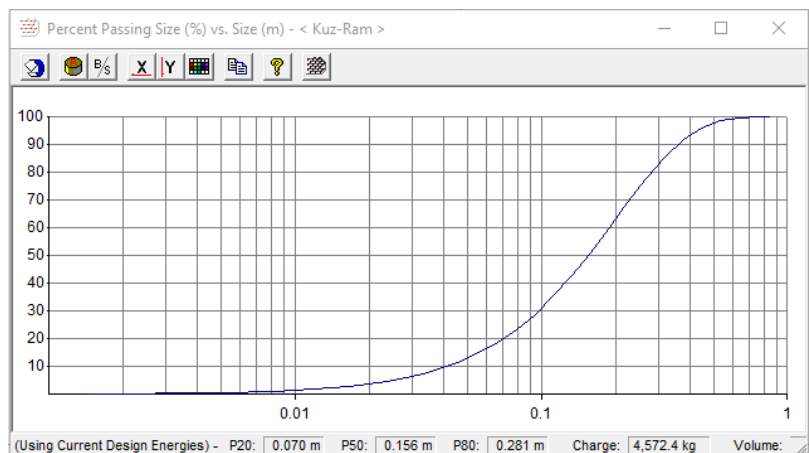
ประเมิน Lily Blastability Index ~50

Size Distribution ของหินตามกราฟ

Percent Passing 50 = 156 mm

Percent Passing 80 = 281 mm

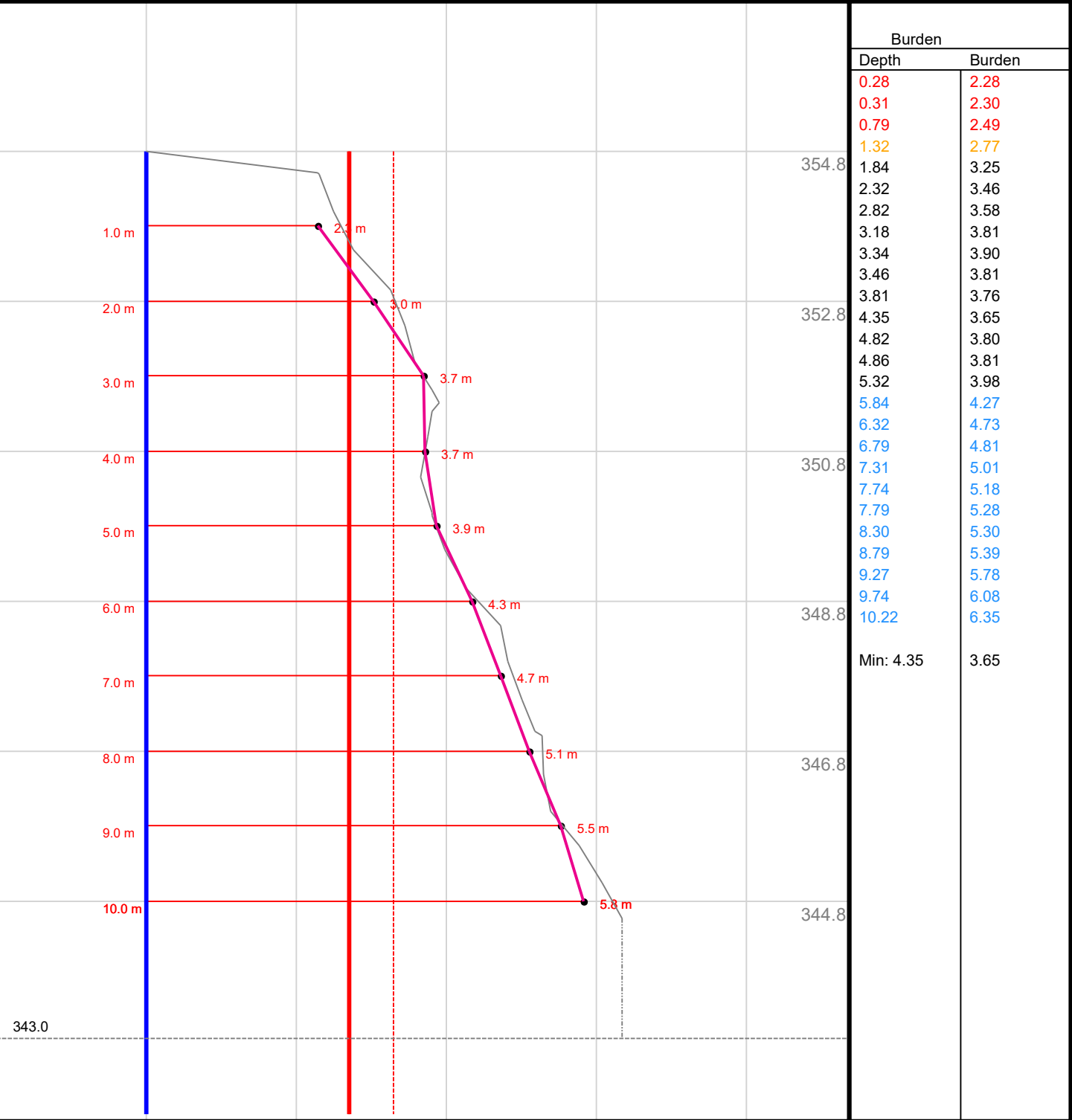
Percent Passing 95 = 400 – 500 mm



QuarryX

Blasting Engineer: Pachaya S.
Client: TPIPL 2022
Site:QUARRY C2
Hole 18 of 13

Project: 355-343 N38P M6
Filename: 355-343 N38P M6.qxd
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Scale: 1:75



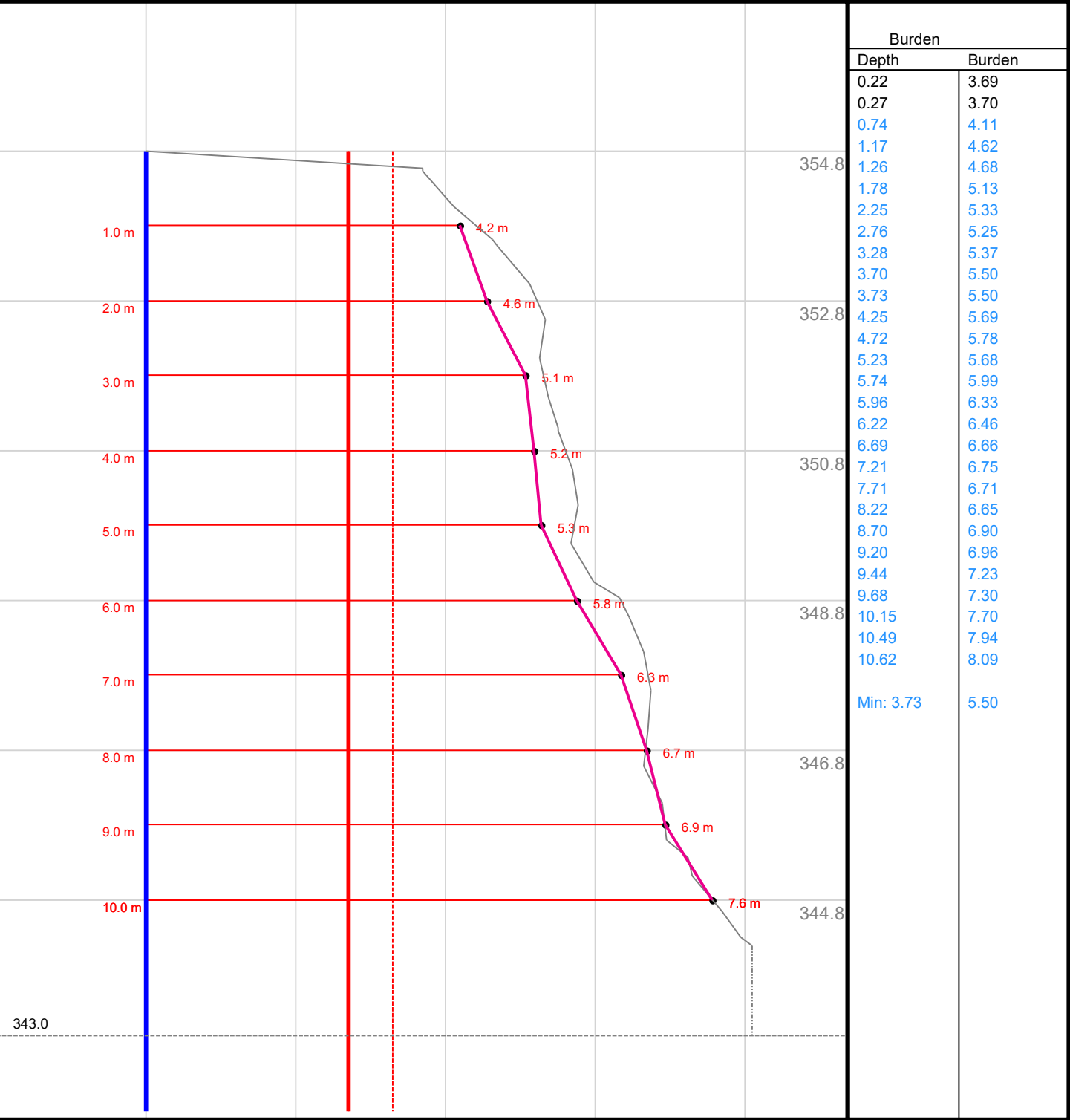
TECHNICAL DATA

Hole:	1	Offset:	0.0 m	BurdenMaster Settings:	
East:	730842.26	Horizontal Offset:	0.0 m	Search Width:	3.0 m
North:	1613958.56	Vert. Face Height:	11.6 m	BM Grid (H x V):	1.0 m x 1.0 m
Elevation:	354.84	Profile Area:	52.9 m ²	Burden To Report:	3.0 m
Drill Azimuth (°):	25.0	Planned Burden:	3.0 m	Excessive Burden:	4.0 m
Search Azimuth (°):	25.0	Tolerance:	10.0 %		
Drill Angle (°):	0.0	Floorlevel:	343.0		
Hole length:	12.8 m	Critical Burden:	2.7 m		
Subdrill:	1.0 m	Stemming:	3.5 m		
Diameter:	114.3 mm				

QuarryX

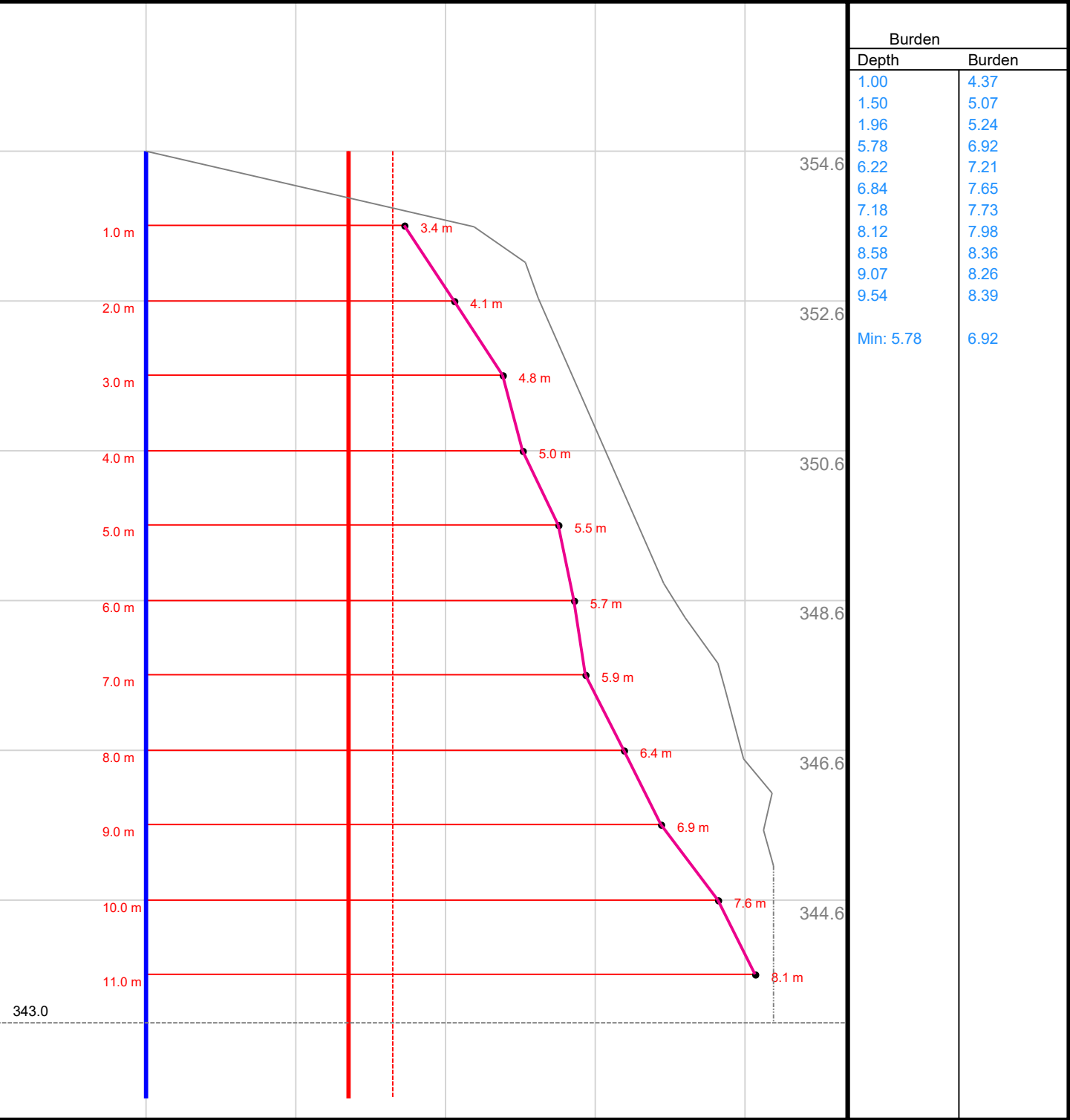
Blasting Engineer: Pachaya S.
Client: TPIPL 2022
Site:QUARRY C2
Hole 19 of 13

Project: 355-343 N38P M6
Filename: 355-343 N38P M6.qxd
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Scale: 1:75



TECHNICAL DATA

Hole:	2	Offset:	0.0 m	BurdenMaster Settings:	
East:	730839.42	Horizontal Offset:	0.0 m	Search Width:	3.0 m
North:	1613959.03	Vert. Face Height:	11.6 m	BM Grid (H x V):	1.0 m x 1.0 m
Elevation:	354.82	Profile Area:	72.6 m²	Burden To Report:	3.0 m
Drill Azimuth (°):	40.0	Planned Burden:	3.0 m	Excessive Burden:	4.0 m
Search Azimuth (°):	40.0	Tolerance:	10.0 %		
Drill Angle (°):	0.0	Floorlevel:	343.0		
Hole length:	12.8 m	Critical Burden:	2.7 m		
Subdrill:	1.0 m	Stemming:	3.5 m		
Diameter:	114.3 mm				



Burden	
Depth	Burden
1.00	4.37
1.50	5.07
1.96	5.24
5.78	6.92
6.22	7.21
6.84	7.65
7.18	7.73
8.12	7.98
8.58	8.36
9.07	8.26
9.54	8.39
Min: 5.78	6.92

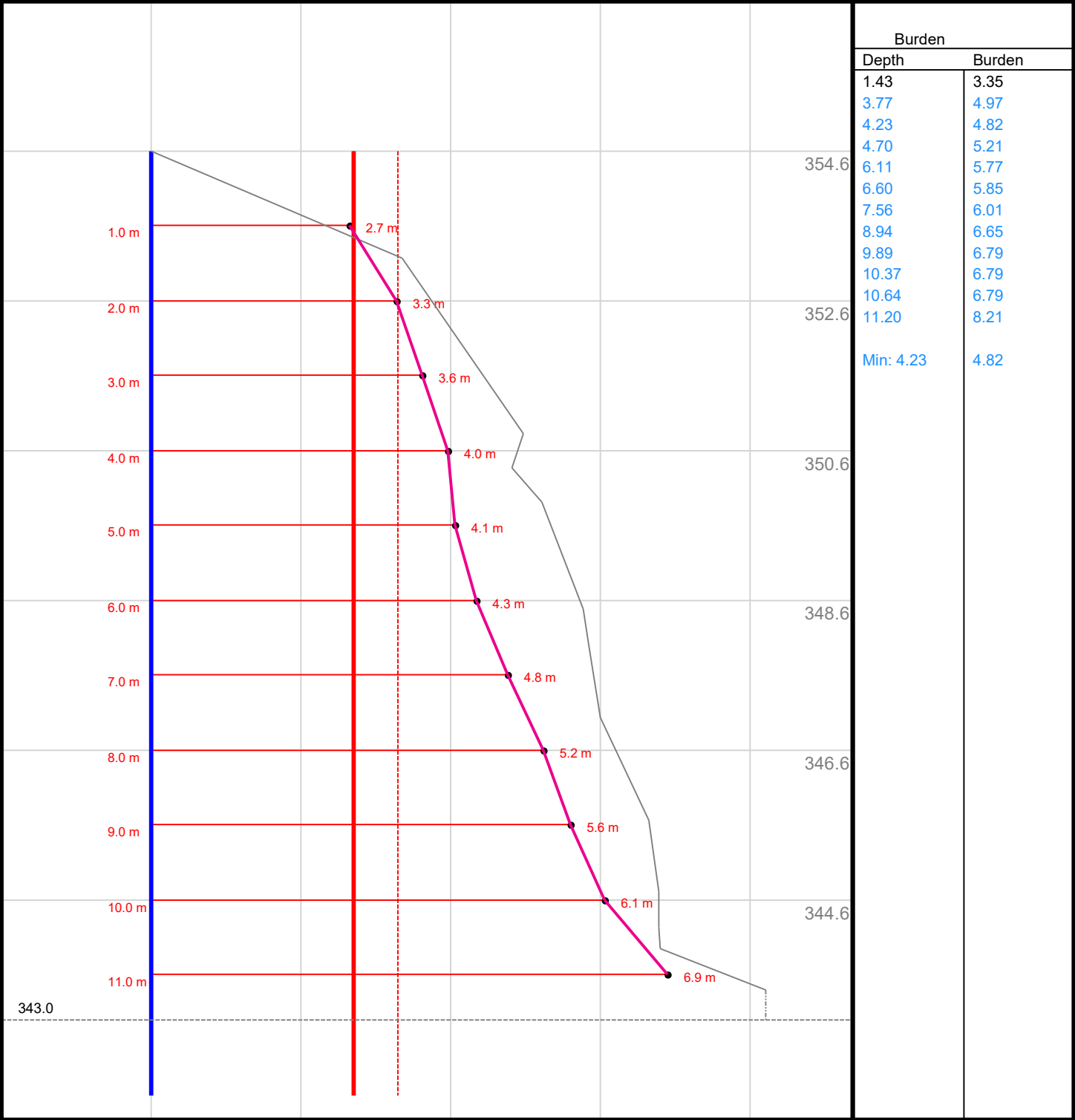
TECHNICAL DATA

Hole:	3	Offset:	0.0 m	BurdenMaster Settings:	
East:	730837.2	Horizontal Offset:	0.0 m	Search Width:	3.0 m
North:	1613961.96	Vert. Face Height:	10.6 m	BM Grid (H x V):	1.0 m x 1.0 m
Elevation:	354.65	Profile Area:	77.3 m²	Burden To Report:	3.0 m
Drill Azimuth (°):	0.0	Planned Burden:	3.0 m	Excessive Burden:	4.0 m
Search Azimuth (°):	0.0	Tolerance:	10.0 %		
Drill Angle (°):	0.0	Floorlevel:	343.0		
Hole length:	12.6 m	Critical Burden:	2.7 m		
Subdrill:	1.0 m	Stemming:	3.5 m		
Diameter:	114.3 mm				

QuarryX

Blasting Engineer: Pachaya S.
Client: TPIPL 2022
Site:QUARRY C2
Hole 1 of 13

Project: 355-343 N38P M6
Filename: 355-343 N38P M6.qxd
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Scale: 1:75



TECHNICAL DATA

Hole:	4	Offset:	0.0 m	BurdenMaster Settings:	
East:	730835.16	Horizontal Offset:	0.0 m	Search Width:	3.0 m
North:	1613964.76	Vert. Face Height:	10.2 m	BM Grid (H x V):	1.0 m x 1.0 m
Elevation:	354.6	Profile Area:	60.8 m²	Burden To Report:	3.0 m
Drill Azimuth (°):	0.0	Planned Burden:	3.0 m	Excessive Burden:	4.0 m
Search Azimuth (°):	0.0	Tolerance:	10.0 %		
Drill Angle (°):	0.0	Floorlevel:	343.0		
Hole length:	12.6 m	Critical Burden:	2.7 m		
Subdrill:	1.0 m	Stemming:	3.5 m		
Diameter:	114.3 mm				

QuarryX

Blasting Engineer: Pachaya S.
Client: TPIPL 2022
Site:QUARRY C2
Hole 2 of 13

Project: 355-343 N38P M6
Filename: 355-343 N38P M6.qxd
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TECHNICAL DATA

Hole:	5	Offset:	0.0 m	BurdenMaster Settings:	
East:	730831.48	Horizontal Offset:	0.0 m	Search Width:	3.0 m
North:	1613964.87	Vert. Face Height:	10.9 m	BM Grid (H x V):	1.0 m x 1.0 m
Elevation:	354.6	Profile Area:	61.0 m²	Burden To Report:	3.0 m
Drill Azimuth (°):	0.0	Planned Burden:	3.0 m	Excessive Burden:	4.0 m
Search Azimuth (°):	0.0	Tolerance:	10.0 %		
Drill Angle (°):	0.0	Floorlevel:	343.0		
Hole length:	12.6 m	Critical Burden:	2.7 m		
Subdrill:	1.0 m	Stemming:	3.5 m		
Diameter:	114.3 mm				

QuarryX

Blasting Engineer: Pachaya S.
Client: TPIPL 2022
Site:QUARRY C2
Hole 3 of 13

Project: 355-343 N38P M6
Filename: 355-343 N38P M6.qxd
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Scale: 1:100



TECHNICAL DATA

Hole:	6	Offset:	0.0 m	BurdenMaster Settings:	
East:	730827.64	Horizontal Offset:	0.0 m	Search Width:	3.0 m
North:	1613964.93	Vert. Face Height:	8.7 m	BM Grid (H x V):	1.0 m x 1.0 m
Elevation:	354.59	Profile Area:	63.5 m²	Burden To Report:	3.0 m
Drill Azimuth (°):	0.0	Planned Burden:	3.0 m	Excessive Burden:	4.0 m
Search Azimuth (°):	0.0	Tolerance:	10.0 %		
Drill Angle (°):	0.0	Floorlevel:	343.0		
Hole length:	12.6 m	Critical Burden:	2.7 m		
Subdrill:	1.0 m	Stemming:	3.5 m		
Diameter:	114.3 mm				

QuarryX

Blasting Engineer: Pachaya S.
Client: TPIPL 2022
Site:QUARRY C2
Hole 4 of 13

Project: 355-343 N38P M6
Filename: 355-343 N38P M6.qxd
Printed at: 6/28/2022 3:56:18 PM
Scale: 1:125

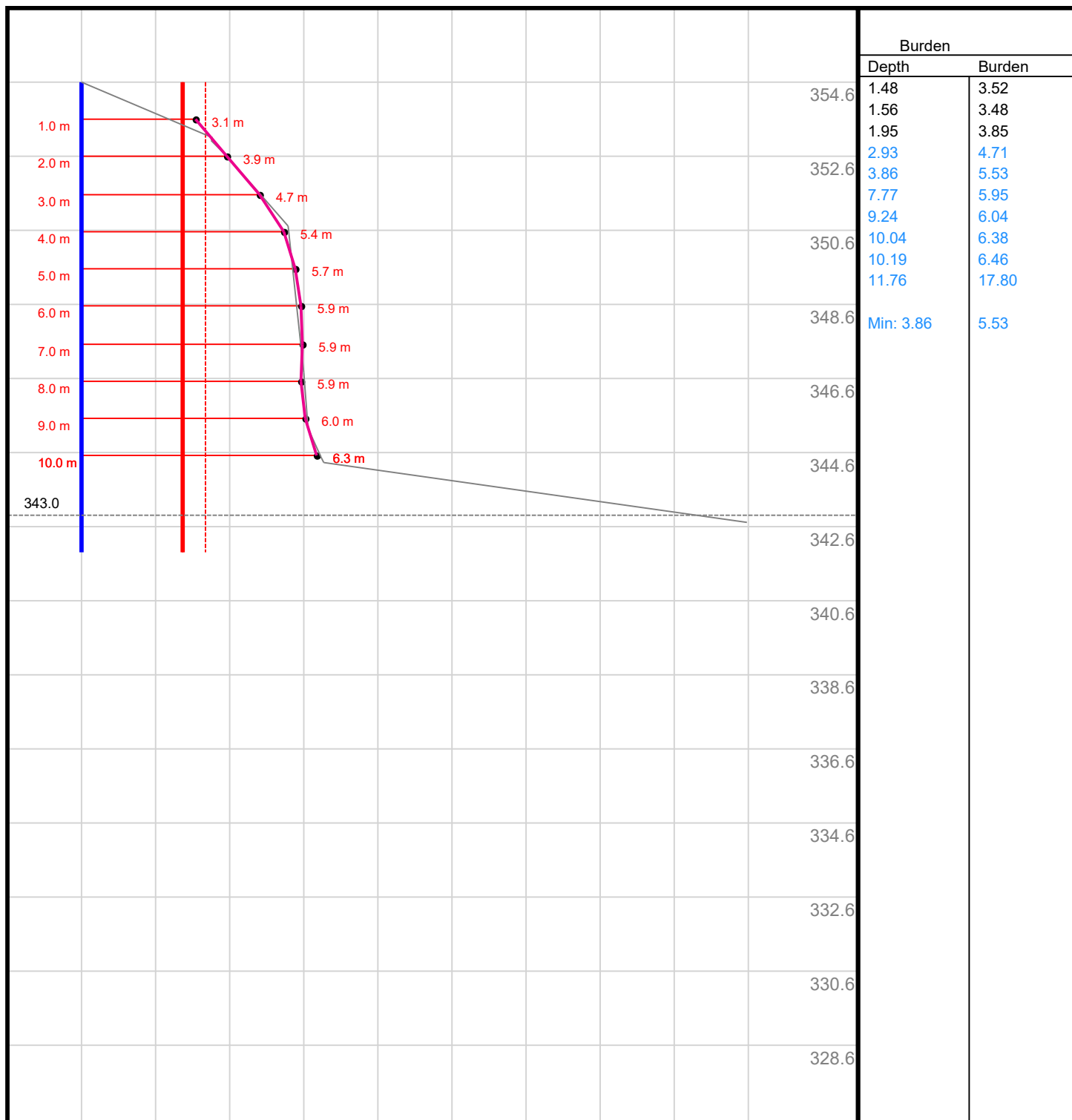


TECHNICAL DATA

Hole:	7	Offset:	0.0 m	BurdenMaster Settings:	
East:	730823.69	Horizontal Offset:	0.0 m	Search Width:	3.0 m
North:	1613964.95	Vert. Face Height:	10.1 m	BM Grid (H x V):	1.0 m x 1.0 m
Elevation:	354.58	Profile Area:	66.8 m²	Burden To Report:	3.0 m
Drill Azimuth (°):	0.0	Planned Burden:	3.0 m	Excessive Burden:	4.0 m
Search Azimuth (°):	0.0	Tolerance:	10.0 %		
Drill Angle (°):	0.0	Floorlevel:	343.0		
Hole length:	12.6 m	Critical Burden:	2.7 m		
Subdrill:	1.0 m	Stemming:	3.5 m		
Diameter:	114.3 mm				

Blasting Engineer: Pachaya S.
Client: TPIPL 2022
Site:QUARRY C2
Hole 5 of 13

Project: 355-343 N38P M6
Filename: 355-343 N38P M6.qxd
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Scale: 1:150



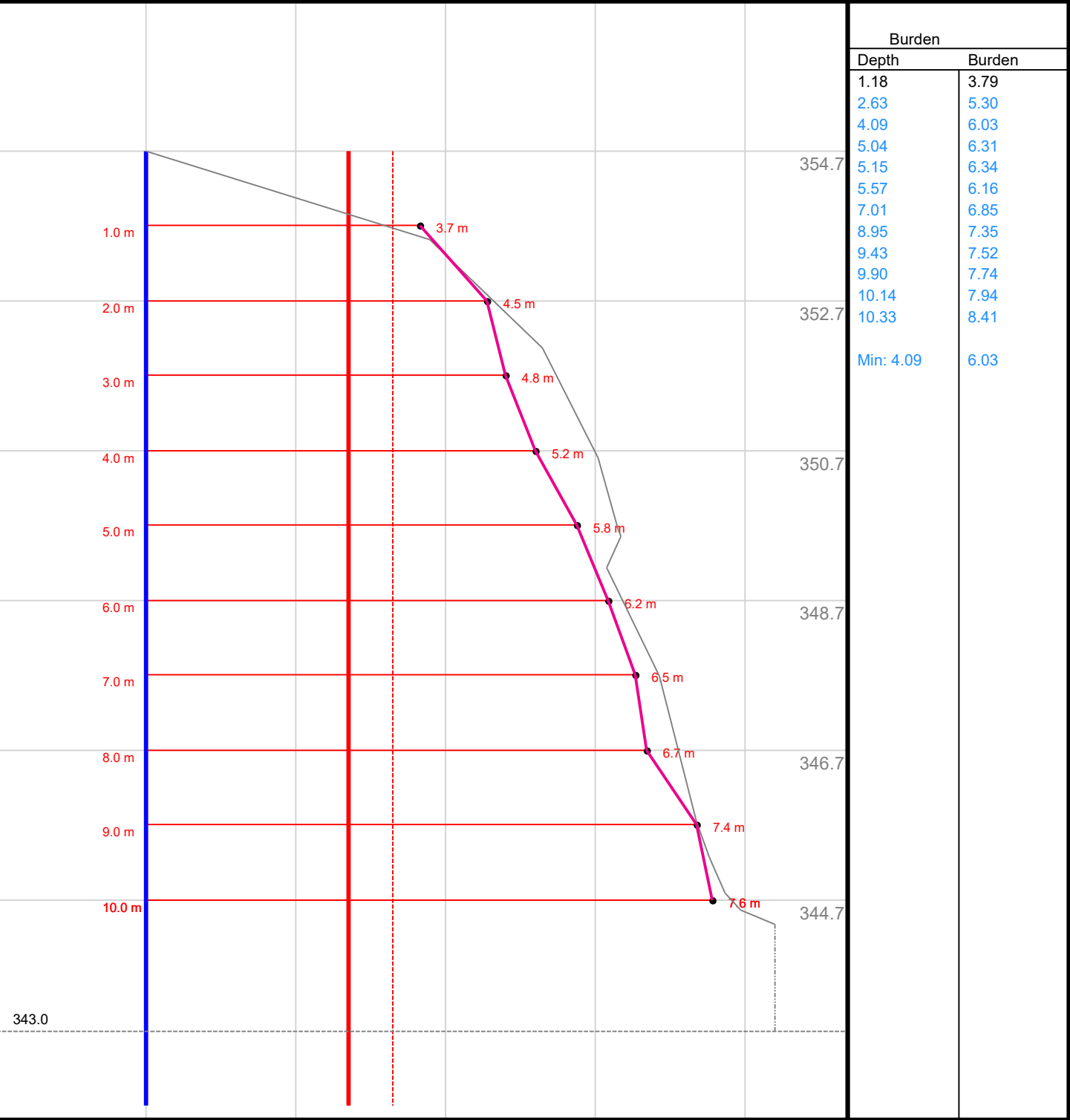
TECHNICAL DATA

Hole:	8	Offset:	0.0 m	BurdenMaster Settings:	
East:	730819.52	Horizontal Offset:	0.0 m	Search Width:	3.0 m
North:	1613964.95	Vert. Face Height:	10.1 m	BM Grid (H x V):	1.0 m x 1.0 m
Elevation:	354.57	Profile Area:	66.2 m²	Burden To Report:	3.0 m
Drill Azimuth (°):	0.0	Planned Burden:	3.0 m	Excessive Burden:	4.0 m
Search Azimuth (°):	0.0	Tolerance:	10.0 %		
Drill Angle (°):	0.0	Floorlevel:	343.0		
Hole length:	12.6 m	Critical Burden:	2.7 m		
Subdrill:	1.0 m	Stemming:	3.5 m		
Diameter:	114.3 mm				

QuarryX

Blasting Engineer: Pachaya S.
Client: TPIPL 2022
Site:QUARRY C2
Hole 6 of 13

Project: 355-343 N38P M6
Filename: 355-343 N38P M6.qxd
Printed at: 6/28/2022 3:56:23 PM
Scale: 1:75



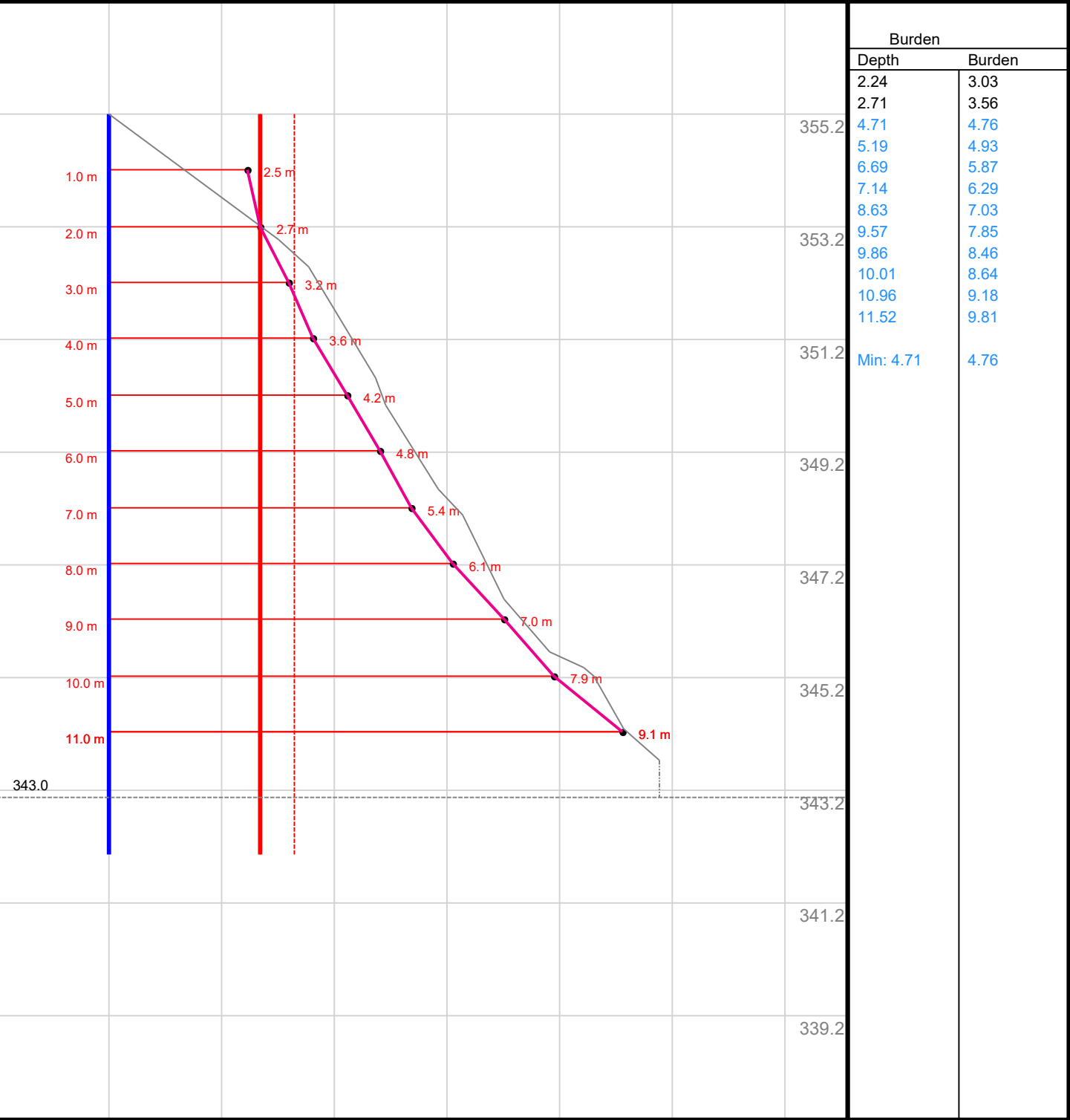
TECHNICAL DATA

Hole:	9	Offset:	0.0 m	BurdenMaster Settings:	
East:	730815.55	Horizontal Offset:	0.0 m	Search Width:	3.0 m
North:	1613964.54	Vert. Face Height:	10.6 m	BM Grid (H x V):	1.0 m x 1.0 m
Elevation:	354.75	Profile Area:	72.0 m²	Burden To Report:	3.0 m
Drill Azimuth (°):	0.0	Planned Burden:	3.0 m	Excessive Burden:	4.0 m
Search Azimuth (°):	0.0	Tolerance:	10.0 %		
Drill Angle (°):	0.0	Floorlevel:	343.0		
Hole length:	12.7 m	Critical Burden:	2.7 m		
Subdrill:	1.0 m	Stemming:	3.5 m		
Diameter:	114.3 mm				

QuarryX

Blasting Engineer: Pachaya S.
Client: TPIPL 2022
Site:QUARRY C2
Hole 8 of 13

Project: 355-343 N38P M6
Filename: 355-343 N38P M6.qxd
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Scale: 1:100



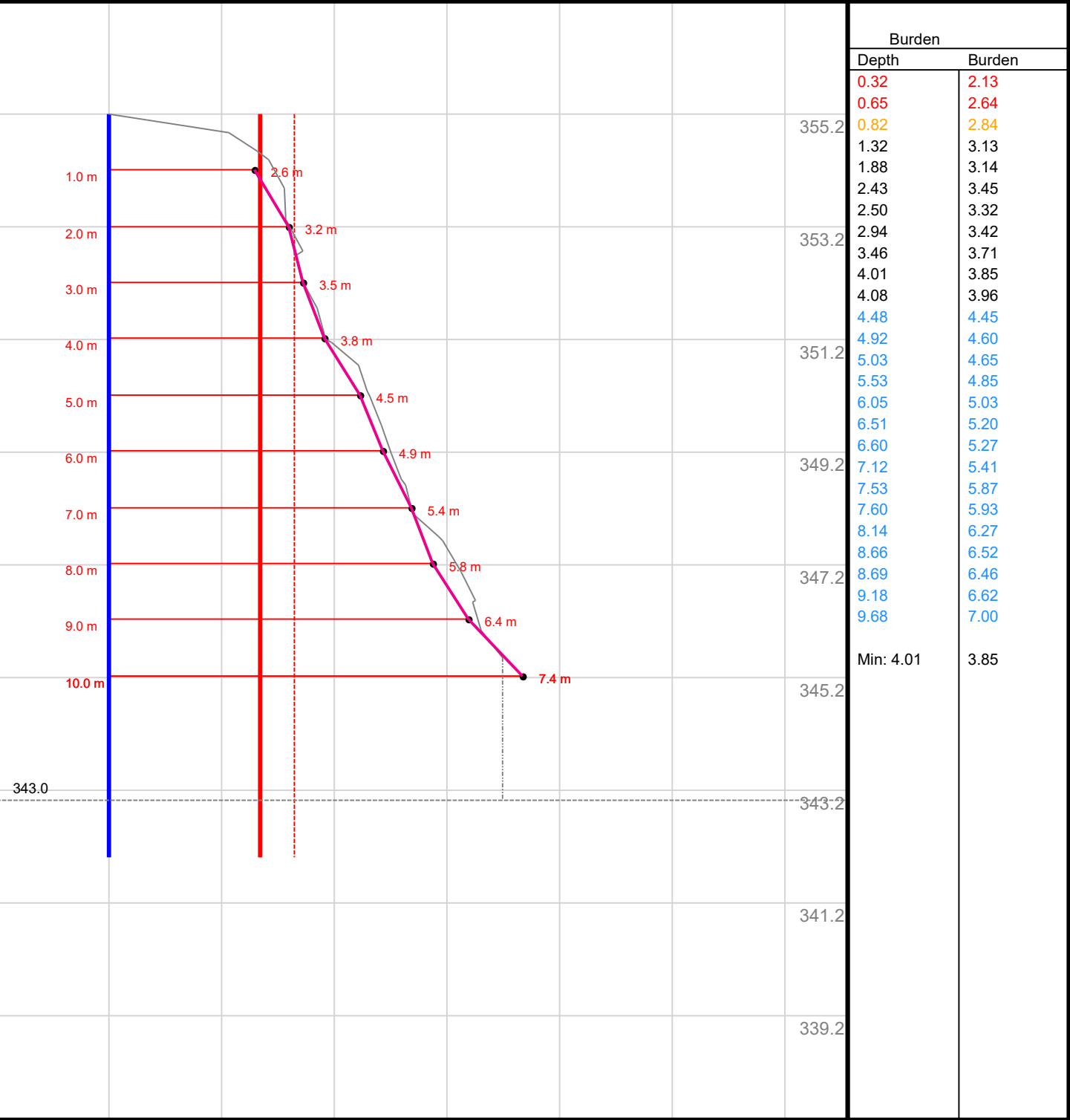
TECHNICAL DATA

Hole:	11	Offset:	0.0 m	BurdenMaster Settings:
East:	730807.81	Horizontal Offset:	0.0 m	Search Width: 3.0 m
North:	1613964.24	Vert. Face Height:	9.9 m	BM Grid (H x V): 1.0 m x 1.0 m
Elevation:	355.17	Profile Area:	67.2 m²	Burden To Report: 3.0 m
Drill Azimuth (°):	0.0	Planned Burden:	3.0 m	Excessive Burden: 4.0 m
Search Azimuth (°):	0.0	Tolerance:	10.0 %	
Drill Angle (°):	0.0	Floorlevel:	343.0	
Hole length:	13.2 m	Critical Burden:	2.7 m	
Subdrill:	1.0 m	Stemming:	3.5 m	
Diameter:	114.3 mm			

QuarryX

Blasting Engineer: Pachaya S.
Client: TPIPL 2022
Site:QUARRY C2
Hole 17 of 13

Project: 355-343 N38P M6
Filename: 355-343 N38P M6.qxd
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Scale: 1:100



TECHNICAL DATA

Hole:	12	Offset:	0.0 m	BurdenMaster Settings:	
East:	730805.45	Horizontal Offset:	0.0 m	Search Width:	3.0 m
North:	1613961.51	Vert. Face Height:	11.9 m	BM Grid (H x V):	1.0 m x 1.0 m
Elevation:	355.22	Profile Area:	61.3 m²	Burden To Report:	3.0 m
Drill Azimuth (°):	325.0	Planned Burden:	3.0 m	Excessive Burden:	4.0 m
Search Azimuth (°):	325.0	Tolerance:	10.0 %		
Drill Angle (°):	0.0	Floorlevel:	343.0		
Hole length:	13.2 m	Critical Burden:	2.7 m		
Subdrill:	1.0 m	Stemming:	3.5 m		
Diameter:	114.3 mm				

QuarryX

Blasting Engineer: Pachaya S.
Client: TPIPL 2022
Site:QUARRY C2
Hole 28 of 13

Project: 355-343 N38P M6
Filename: 355-343 N38P M6.qxd
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Scale: 1:100



TECHNICAL DATA

Hole:	13	Offset:	0.0 m	BurdenMaster Settings:	
East:	730803.62	Horizontal Offset:	0.0 m	Search Width:	3.0 m
North:	1613958.71	Vert. Face Height:	11.3 m	BM Grid (H x V):	1.0 m x 1.0 m
Elevation:	355.26	Profile Area:	50.6 m²	Burden To Report:	3.0 m
Drill Azimuth (°):	300.0	Planned Burden:	3.0 m	Excessive Burden:	4.0 m
Search Azimuth (°):	300.0	Tolerance:	10.0 %		
Drill Angle (°):	0.0	Floorlevel:	343.0		
Hole length:	13.3 m	Critical Burden:	2.7 m		
Subdrill:	1.0 m	Stemming:	3.5 m		
Diameter:	114.3 mm				