

APPENDIX C. SELECTED HEAVY VEHICLE SIMULATOR RESULTS

Issue No.	Issue Title	Issue ID	Issue Description	Issue Status	Issue Category	Issue Type	Issue Date	Issue Location	Issue Details	Issue Resolution	Issue Status	Issue Date	Issue Location	Issue Details	Issue Resolution	Issue Status	Issue Date	Issue Location	Issue Details	Issue Resolution
1	Issue 1	101	Issue 1 Description	Issue 1 Status	Issue 1 Category	Issue 1 Type	Issue 1 Date	Issue 1 Location	Issue 1 Details	Issue 1 Resolution	Issue 1 Status	Issue 1 Date	Issue 1 Location	Issue 1 Details	Issue 1 Resolution	Issue 1 Status	Issue 1 Date	Issue 1 Location	Issue 1 Details	Issue 1 Resolution
2	Issue 2	102	Issue 2 Description	Issue 2 Status	Issue 2 Category	Issue 2 Type	Issue 2 Date	Issue 2 Location	Issue 2 Details	Issue 2 Resolution	Issue 2 Status	Issue 2 Date	Issue 2 Location	Issue 2 Details	Issue 2 Resolution	Issue 2 Status	Issue 2 Date	Issue 2 Location	Issue 2 Details	Issue 2 Resolution
3	Issue 3	103	Issue 3 Description	Issue 3 Status	Issue 3 Category	Issue 3 Type	Issue 3 Date	Issue 3 Location	Issue 3 Details	Issue 3 Resolution	Issue 3 Status	Issue 3 Date	Issue 3 Location	Issue 3 Details	Issue 3 Resolution	Issue 3 Status	Issue 3 Date	Issue 3 Location	Issue 3 Details	Issue 3 Resolution
4	Issue 4	104	Issue 4 Description	Issue 4 Status	Issue 4 Category	Issue 4 Type	Issue 4 Date	Issue 4 Location	Issue 4 Details	Issue 4 Resolution	Issue 4 Status	Issue 4 Date	Issue 4 Location	Issue 4 Details	Issue 4 Resolution	Issue 4 Status	Issue 4 Date	Issue 4 Location	Issue 4 Details	Issue 4 Resolution
5	Issue 5	105	Issue 5 Description	Issue 5 Status	Issue 5 Category	Issue 5 Type	Issue 5 Date	Issue 5 Location	Issue 5 Details	Issue 5 Resolution	Issue 5 Status	Issue 5 Date	Issue 5 Location	Issue 5 Details	Issue 5 Resolution	Issue 5 Status	Issue 5 Date	Issue 5 Location	Issue 5 Details	Issue 5 Resolution
6	Issue 6	106	Issue 6 Description	Issue 6 Status	Issue 6 Category	Issue 6 Type	Issue 6 Date	Issue 6 Location	Issue 6 Details	Issue 6 Resolution	Issue 6 Status	Issue 6 Date	Issue 6 Location	Issue 6 Details	Issue 6 Resolution	Issue 6 Status	Issue 6 Date	Issue 6 Location	Issue 6 Details	Issue 6 Resolution
7	Issue 7	107	Issue 7 Description	Issue 7 Status	Issue 7 Category	Issue 7 Type	Issue 7 Date	Issue 7 Location	Issue 7 Details	Issue 7 Resolution	Issue 7 Status	Issue 7 Date	Issue 7 Location	Issue 7 Details	Issue 7 Resolution	Issue 7 Status	Issue 7 Date	Issue 7 Location	Issue 7 Details	Issue 7 Resolution
8	Issue 8	108	Issue 8 Description	Issue 8 Status	Issue 8 Category	Issue 8 Type	Issue 8 Date	Issue 8 Location	Issue 8 Details	Issue 8 Resolution	Issue 8 Status	Issue 8 Date	Issue 8 Location	Issue 8 Details	Issue 8 Resolution	Issue 8 Status	Issue 8 Date	Issue 8 Location	Issue 8 Details	Issue 8 Resolution
9	Issue 9	109	Issue 9 Description	Issue 9 Status	Issue 9 Category	Issue 9 Type	Issue 9 Date	Issue 9 Location	Issue 9 Details	Issue 9 Resolution	Issue 9 Status	Issue 9 Date	Issue 9 Location	Issue 9 Details	Issue 9 Resolution	Issue 9 Status	Issue 9 Date	Issue 9 Location	Issue 9 Details	Issue 9 Resolution
10	Issue 10	110	Issue 10 Description	Issue 10 Status	Issue 10 Category	Issue 10 Type	Issue 10 Date	Issue 10 Location	Issue 10 Details	Issue 10 Resolution	Issue 10 Status	Issue 10 Date	Issue 10 Location	Issue 10 Details	Issue 10 Resolution	Issue 10 Status	Issue 10 Date	Issue 10 Location	Issue 10 Details	Issue 10 Resolution

Issue No. 101-110
Issue Title
Issue Description
Issue Status
Issue Category
Issue Type
Issue Date
Issue Location
Issue Details
Issue Resolution
Issue Status
Issue Date
Issue Location
Issue Details
Issue Resolution
Issue Status
Issue Date
Issue Location
Issue Details
Issue Resolution

HVS / SVN NUMBER 4		TEST PROGRAM				km :- 14.310 - 14.318		TEST LOAD 80kN		Start Date 26/09/2000	
Base ETB		Section no. 410A4			Road No. P243-1			Tyre Pressure 800 kPa		Dual Wheel	
REPETITIONS	DATE	DISK NO.	WHEEL TRAFFIC LOAD KN	PROFILO-METER	MDD LOADS KN ALONG C/L	RSD LOADS KN ALONG C/L	RSD LOADS KN AT 200 TS	RSD LOADS KN AT 200 CS	PHOTOS	TEMPERATURE THERMOCOUPLES	MDD Depths & Positions
				MP 0 to 15	Points 4 & 12	MP 3 to 13	MP 4,6,8,10,12	MP 4,6,8,10,12		13 CS & TS	4
ON SITE CALIBRATION OF ALL INSTRUMENTS				PROF	MDD's	RSD					topcap
N10	26/09/2000	251	80	YES	40,80	40,80	40,80	40,80	YES	0 & 40 mm	275mm
50	26/09/2000	252	80	NO	40	40	No	No	NO		450mm
200	26/09/2000	253	80	NO	40	40	No	No	NO		650mm
1000	27/09/2000	254	80	YES	40	40	40	40	NO		850mm
3000	27/09/2000	255	80	YES	40	40	40	40	NO		
5000	28/09/2000	256	80	YES	40	40	40	40	NO		
7500	28/09/2000	257	80	YES	40	40	40	40	NO		
10000	29/09/2000	258	80	YES	40,80	40,80	40,80	40,80	YES	Telephone numbers	
15000	03/10/2000	259	80	YES	40	40	40	40	NO	Willie Diederiks	0823776940
20000	04/10/2000	260	80	YES	40,80	40,80	40,80	40,80	YES	Louw Du Plessis	(012) 841-2922
25000	05/10/2000	261	80	YES	40	40	40	40	NO	Wynand Steyn	(012) 841-2634
28000	05/10/2000	262	80	YES	40	40	40	40	NO	Wynand Steyn	(H)(012) 567-4685
33400	06/10/2000	263	80	YES	40	40	40	40	NO	Wynand Steyn	0822199704
37000	06/10/2000	264	80	YES	40,80	40,80	40,80	40,80	YES	Colin Fisher	(012) 841-3960
43800	07/10/2000	265	80	YES	40	40	40	40	NO	SPECIAL NOTES	
47500	07/10/2000	266	80	YES	40	40	40	40	NO	Tyre Pressure @ 800kPa & 40 kN load	
57619	08/10/2000	267	80	YES	40,80	40,80	40,80	40,80	YES	Monitor Cracks & take Photos	
87000	10/10/2000	268	80	YES	40	40	40	40	NO	Test is to be DONE DRY	
117700	12/10/2000	269	80	YES	40	40	40	40	NO	Write down PD values Daily	
190300	17/10/2000	270	80	YES	40,80	40,80	40,80	40,80	YES	All measurements mailed to	
233000	20/10/2000	271	80	YES	40	40	40	40	NO	cfisher@csir.co.za within 24hrs.	
295617	27/10/2000	272	80	YES	40,80	40,80	40,80	40,80	YES	STRATA READINGS AT LOADS	
										ALL STRATA POINTS	
										HAPPY TESTING	

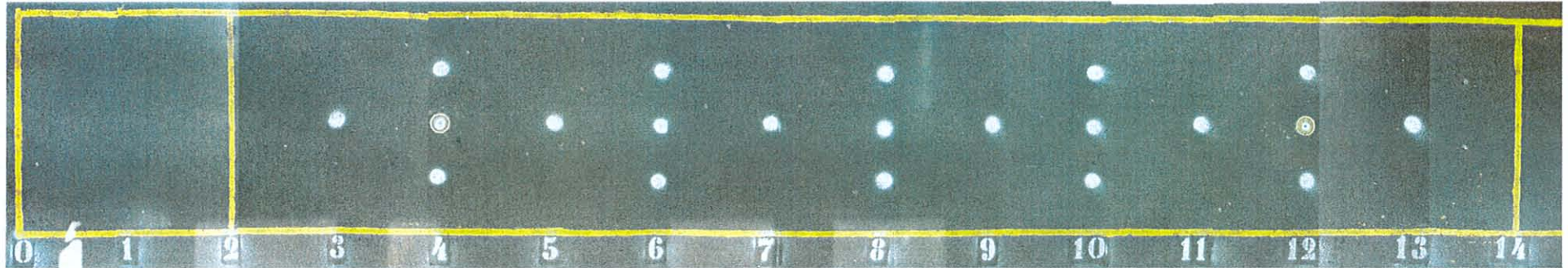
Structure Description	20 AC / 250ETB , 250 G6
Section Objectives	EVALUATION OF THE ETB

HVS / SVN NUMBER 4		TEST PROGRAM				km :- 14.310 - 14.318		TEST LOAD 100kN		Start Date 30/10/2000	
Base ETB		Section no. 410B4			Road No. P243-1			Tyre Pressure 850 kPa		Dual Wheel	
REPETITIONS	DATE	DISK NO.	WHEEL TRAFFIC LOAD kN	PROFILO-METER	MDD LOADS kN ALONG C/L	RSD LOADS kN ALONG C/L	RSD LOADS kN AT 200 TS	RSD LOADS kN AT 200 CS	PHOTOS	TEMPERATURE THERMOCOUPLES	MDD Depths & Positions 4 & 12
ON SITE CALIBRATION OF ALL INSTRUMENTS				MP 0 to 15	4 & 12	MP 3 to 13	MP 4,6,8,10,12	MP 4,6,8,10,12		5 CS & TS	topcap
N10	31/10/2000	273	100	YES	40,80	40,80	40,80	40,80	YES	0 & 40 mm	275mm
50	31/10/2000	274	100	NO	40	40	No	No	NO		450mm
200	31/10/2000	275	100	NO	40	40	40	40	NO		650mm
1000	01/11/2000	276	100	YES	40	40	40	40	NO		850mm
2000	01/11/2000	277	100	YES	40	40	40	40	NO		
3000	01/11/2000	278	100	YES	40	40	40	40	NO		
4000	02/11/2000	279	100	YES	40	40	40	40	NO	Telephone numbers	
6000	02/11/2000	280	100	YES	40	40	40	40	NO	Willie Diederiks	0823776940
8000	02/11/2000	281	100	YES	40	40	40	40	NO	Louw Du Plessis	(012) 841-2922
10000	07/11/2000	282	100	YES	40,80	40,80	40,80	40,80	YES	Wynand Steyn	(012) 841-2634
39600	09/11/2000	283	100	YES	40	40	40	40	NO	Wynand Steyn	(H)(012) 567-4685
50000	10/11/2000	284	100	YES	40	40	40	40	NO	Wynand Steyn	0822199704
70000	14/11/2000	285	100	YES	40,80	40,80	40,80	40,80	YES	Colin Fisher	(012) 841-3960
80000	15/11/2000	286	100	YES	40	40	40	40	NO	SPECIAL NOTES	
100000	16/11/2000	287	100	YES	40,80	40,80	40,80	40,80	YES	Tyre Pressure @ 850kPa & 40 kN load	
129544	20/11/2000	288	100	YES	40	40	40	40	NO	Monitor Cracks & take Photos	
171500	23/11/2000	289	100	YES	40,80	40,80	40,80	40,80	YES	Test is to be DONE DRY	
185407	28/11/2000	290	100	YES	40,80	40,80	40,80	40,80	YES	Write down PD values Daily	
										All measurements mailed to cfisher@csir.co.za within 24hrs.	
										STRATA READINGS AT LOADS	
										ALL STRATA POINTS	
										HAPPY TESTING	
Structure Description		20 AC / 250 ETB , 250 G6									
Section Objectives		EVALUATION OF THE ETB									

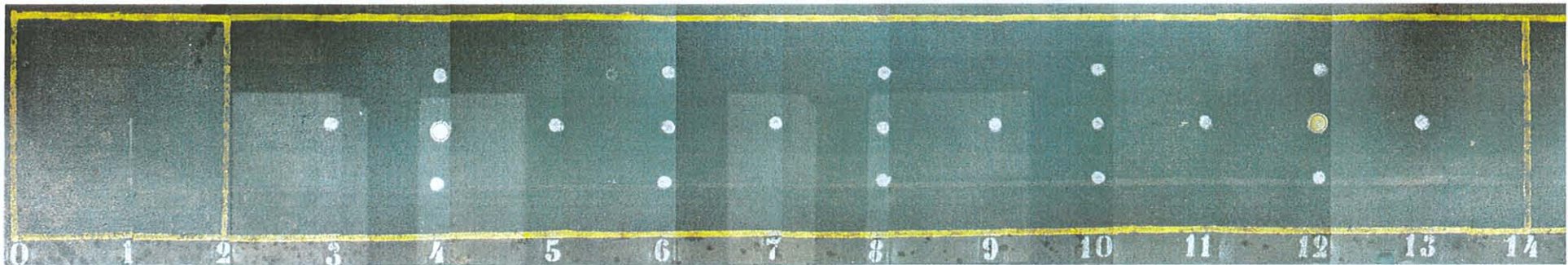
HVS / SVN NUMBER 4		TEST PROGRAM					TEST LOAD	40kN	Start Date 04/07/2001		
Base ETB		Section no. 412A4			Road No. P243-1		Tyre Pressure 620 kPa		Dual Wheel		
REPETITIONS	DATE	DISK NO.	WHEEL TRAFFIC LOAD kN	PROFILO-METER	MDD LOADS kN ALONG C/L	RSD LOADS kN ALONG C/L	RSD LOADS kN AT 200 TS	RSD LOADS kN AT 200 CS	PHOTOS	TEMPERATURE THERMOCOUPLES	MDD Depths & Positions 4, 8, 12
ON SITE CALIBRATION OF ALL INSTRUMENTS				PROF	MDD's	RSD					
N10	04/07/2001	31	40	YES	40	40	40	40	YES	4 & 12 CS & TS	topcap 275mm
2000	05/07/2001	32	40	YES	40	40	40	40		0 & 25 mm	450mm
5000	06/07/2001	33	40	YES	40	40	40	40			650mm
10000	09/07/2001	34	40	YES	40	40	40	40			850mm
15000	10/07/2001	35	40	YES	40	40	40	40			
20000	11/07/2001	35	40	YES	40	40	40	40		Telephone numbers	
40000	13/07/2001	36	40	YES	40	40	40	40			
60000	16/07/2001	37	40	YES	40	40	40	40		Louw Du Plessis	(012) 841-2922
175395	24/07/2001	38	40	YES	40	40	40	40		Wynand Steyn	(012) 841-2634
300814	15/08/2001	39	40	YES	40	40	40	40		Wynand Steyn	(H)(012) 567-4685
401700	22/08/2001	40	40	YES	40	40	40	40		Colin Fisher	(012) 841-3960
490800	29/08/2001	41	40	YES	40	40	40	40		SPECIAL NOTES	
597900	06/09/2001	42	40	YES	40	40	40	40		Monitor Cracks & take Photos	
695000	20/09/2001	43	40	YES	40	40	40	40		Test is to be DONE DRY	
827100	03/10/2001	44	40	YES	40	40	40	40		Write down PD values Daily	
957121	11/10/2001	45	40	YES	40	40	40	40			
1019700	15/10/2001	46	80	YES	40	40	40	40			
1052100	18/10/2001	47	80	YES	40, 80	40, 80	40	40			
1128700	24/10/2001	48	80	YES	40, 80	40, 80	40	40			
1226000	21/10/2001	49	80	YES	40, 80	40, 80	40	40	YES		
1321700 wet	06/11/2001	50	80	YES	40/80	40/80	40	40	YES		

Structure Description	20 AC / 250 Emulsion Treated Base (ETB) , 250 G6
Section Objectives	EVALUATION OF THE FOAMED BITUMEN BASE & ETB

Crack Pattern: Section 410A4 (80 kN)

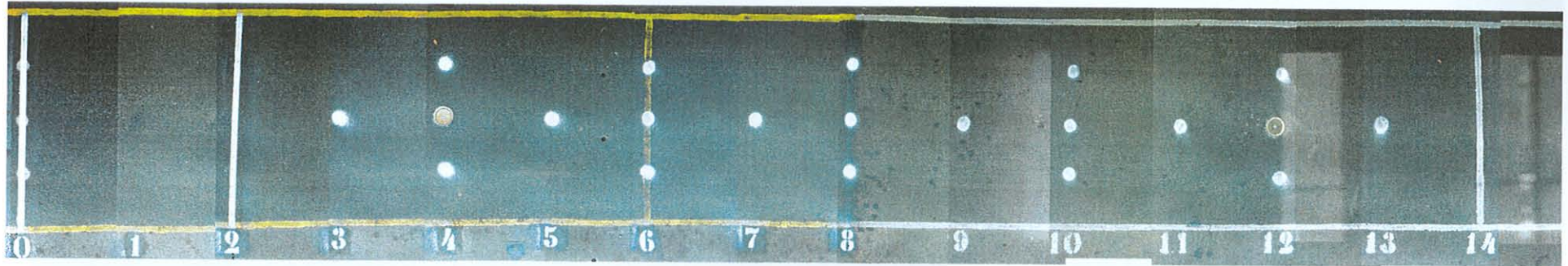


Repetitions = 10

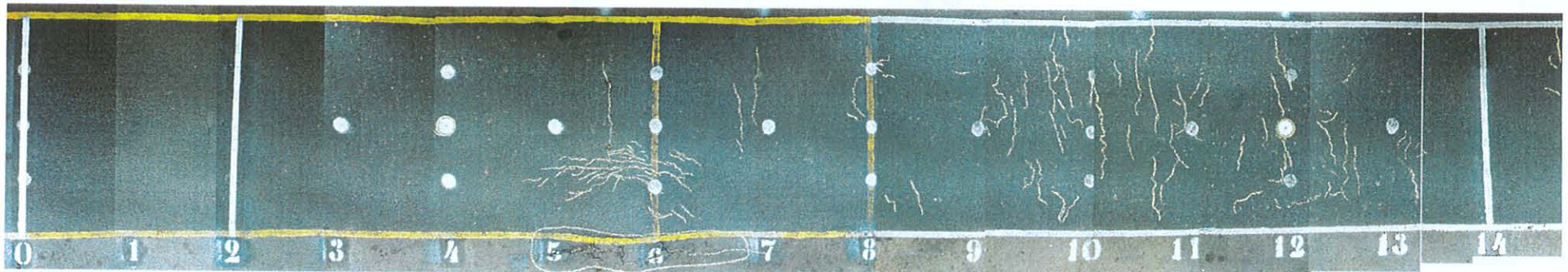


Repetitions = 295 617

Crack Pattern: Section 410B4 (100 kN)

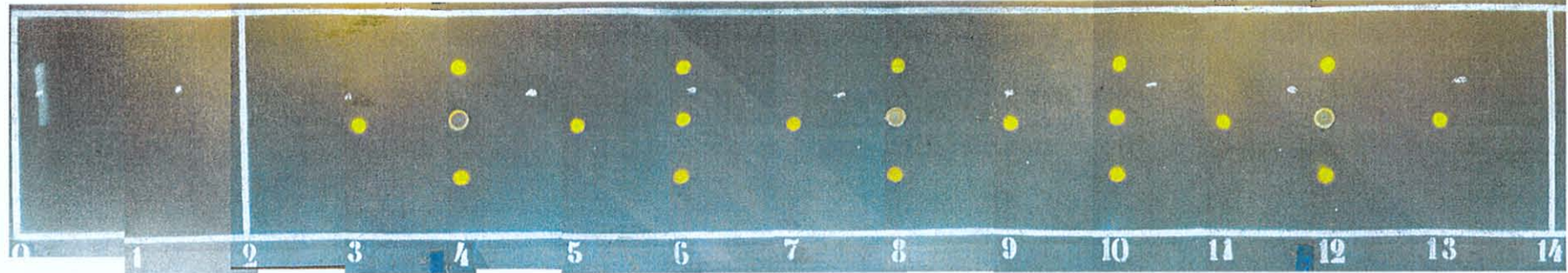


Repetitions = 10

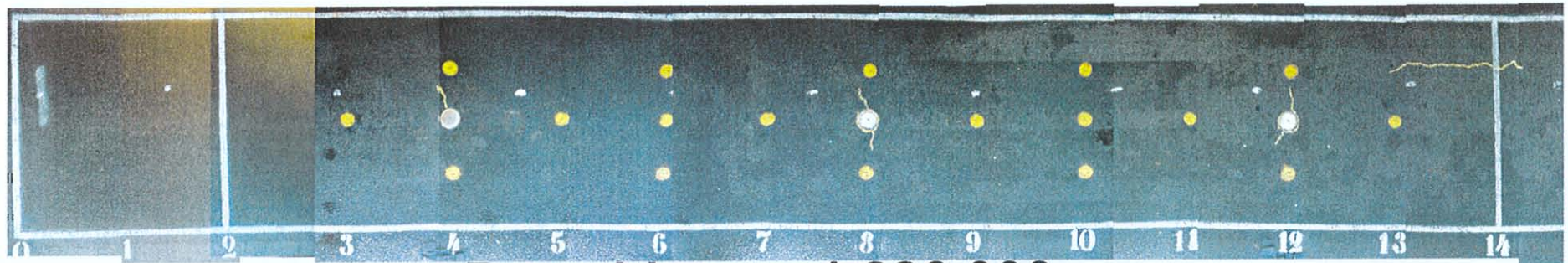


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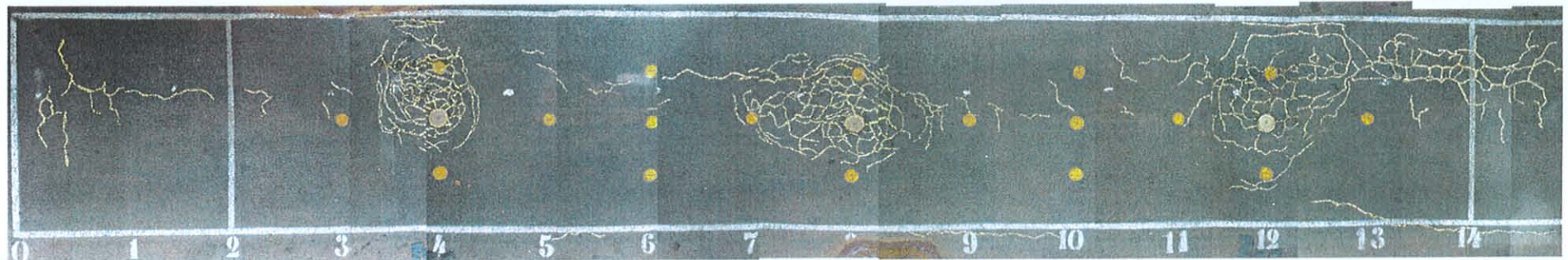
Crack Pattern: Section 412A4 (40 kN)



Repetitions = 10

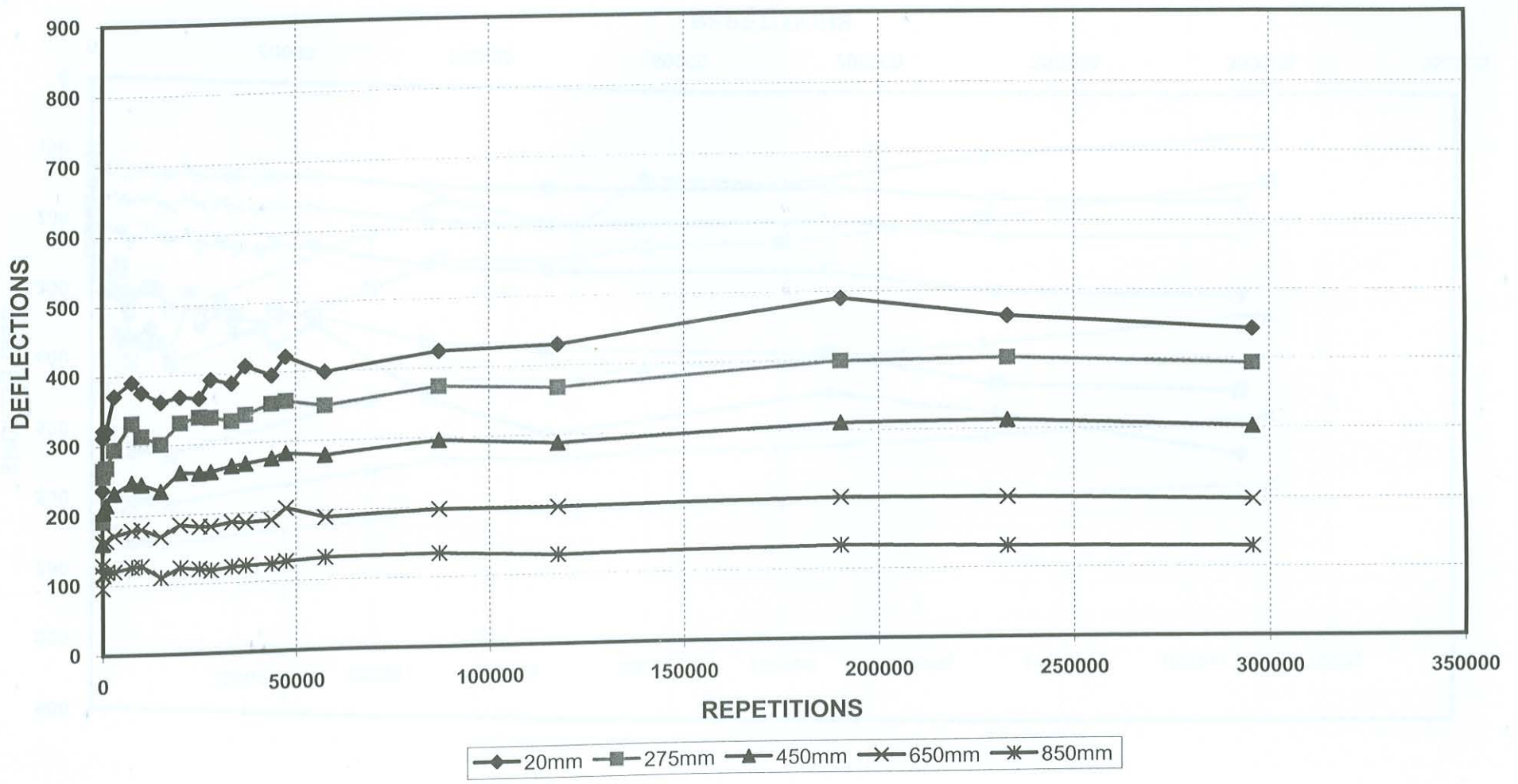


Repetitions = 1 226 000



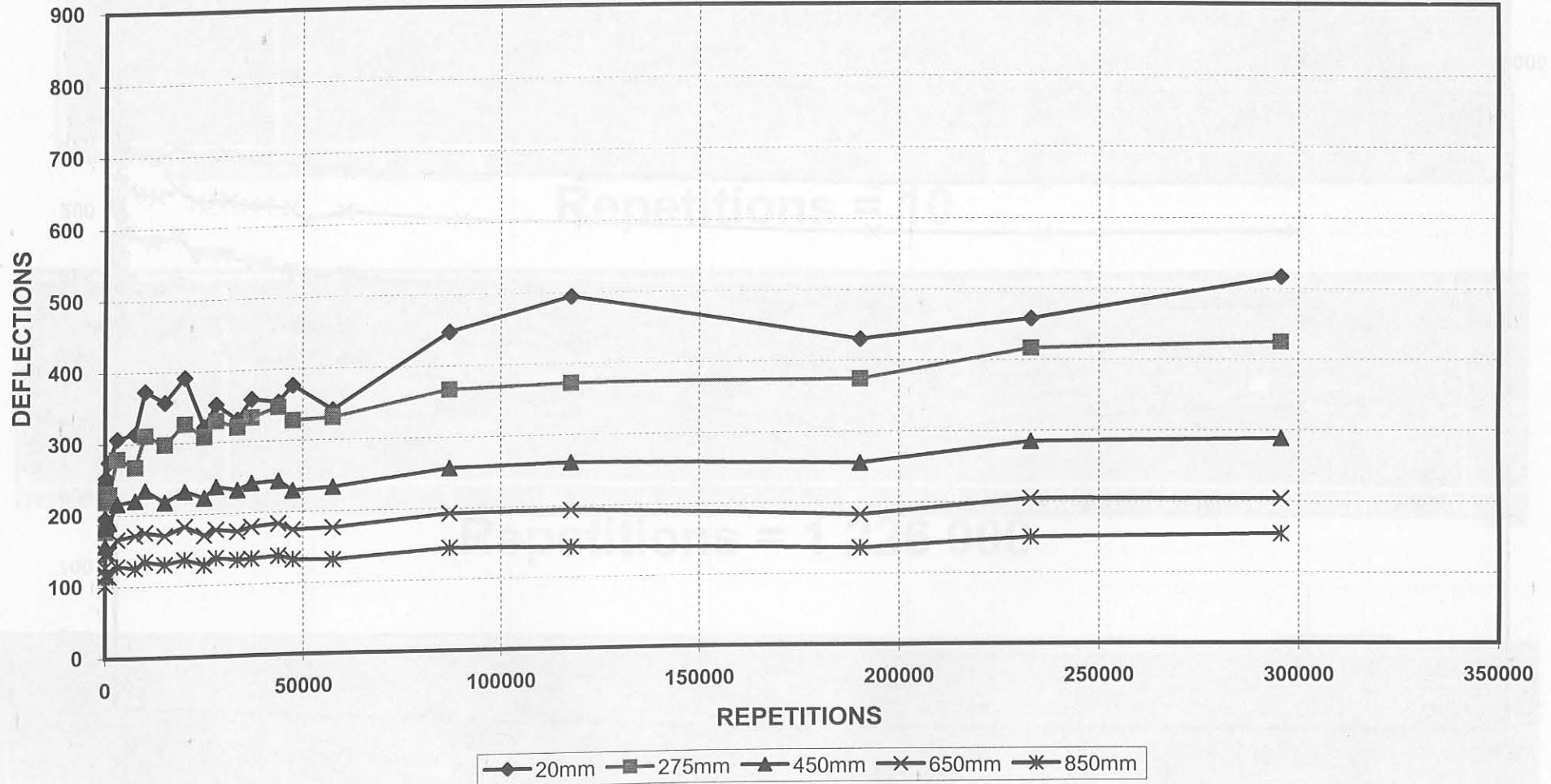
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MDD 4 DEFLECTION AT 40kN ON SECTION 410A4 (250 ETB)

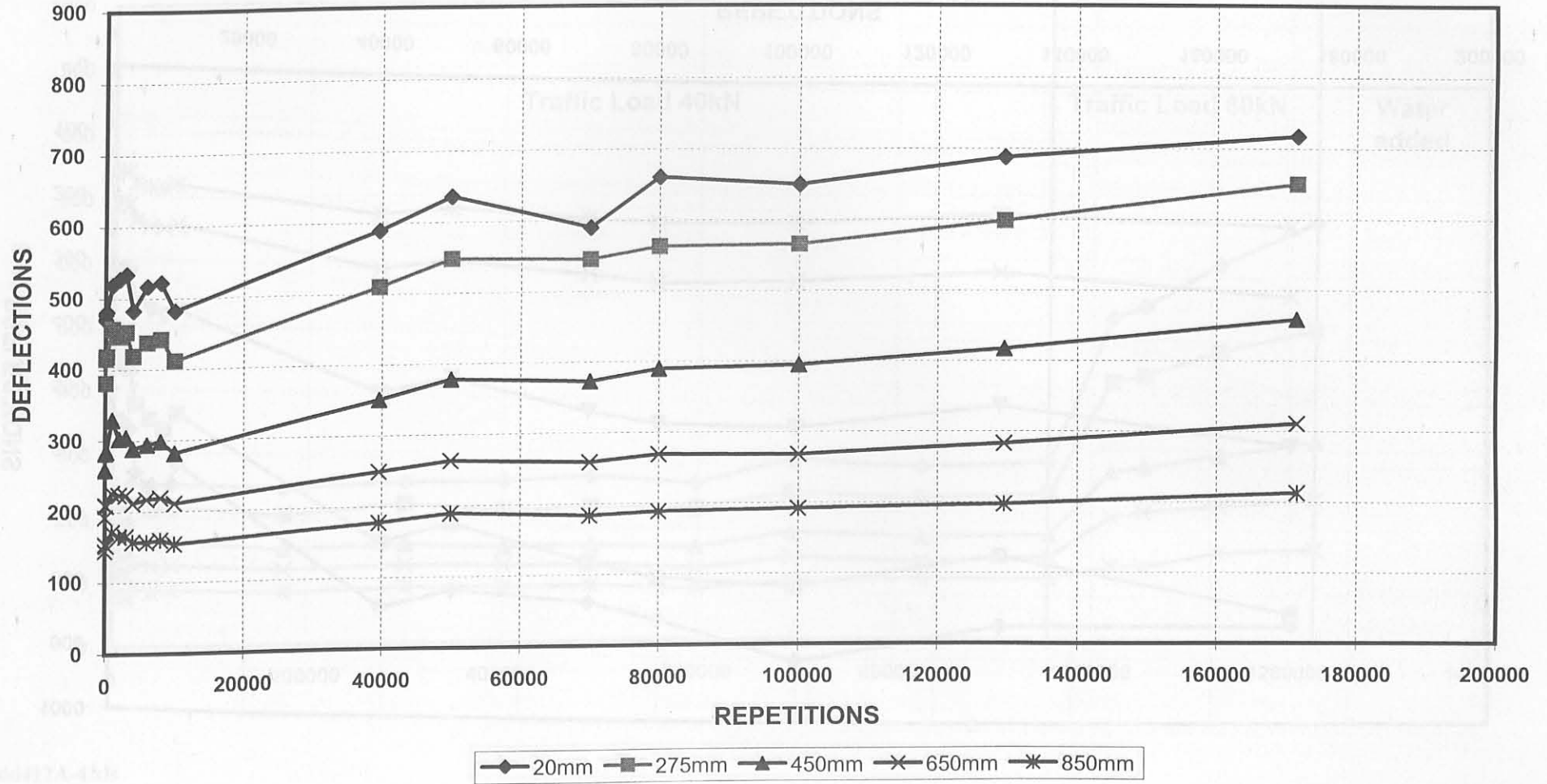


Crack Pattern: Section 412A4 (40 kN)

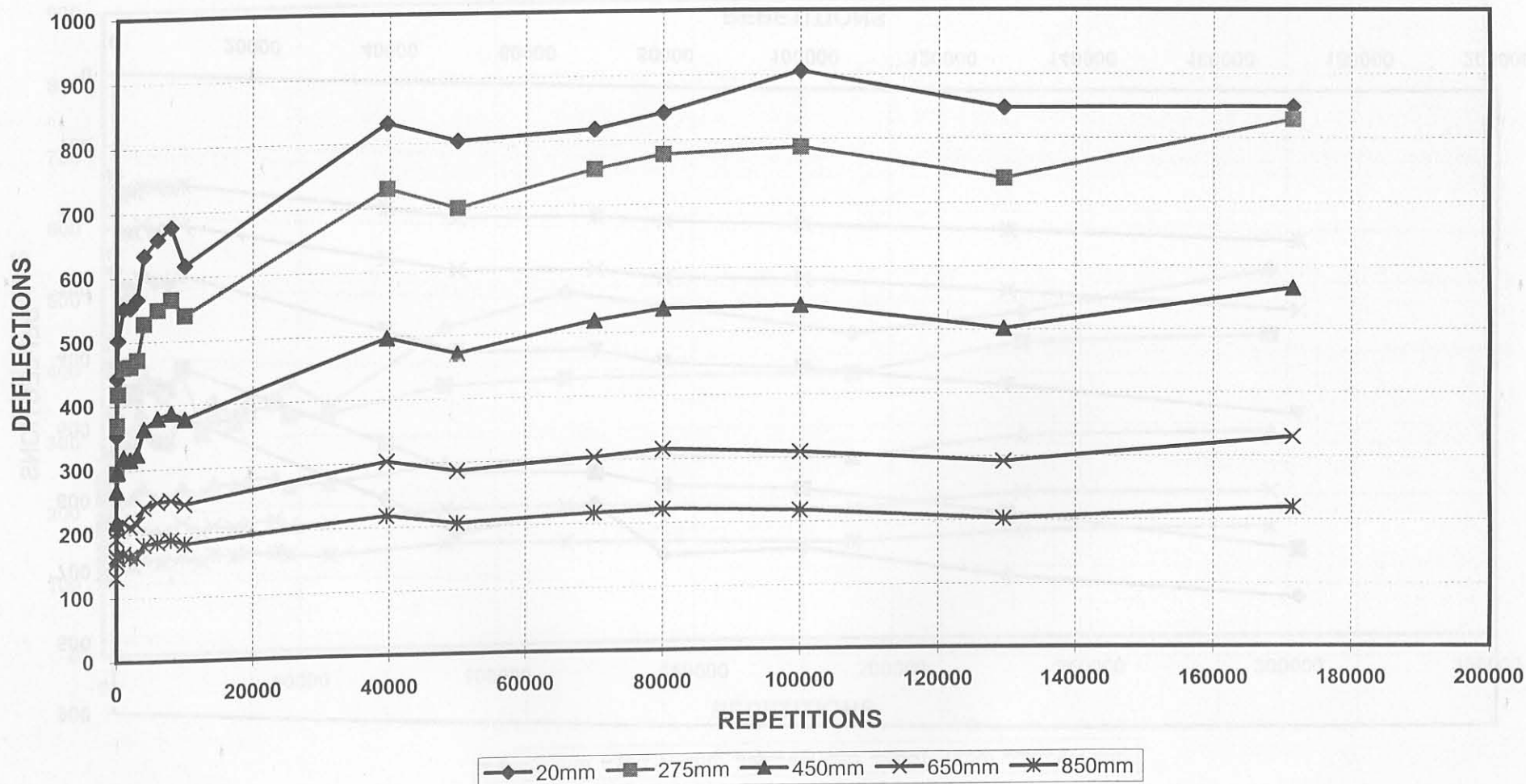
MDD 12 DEFLECTION AT 40kN ON SECTION 410A4 (250 ETB)



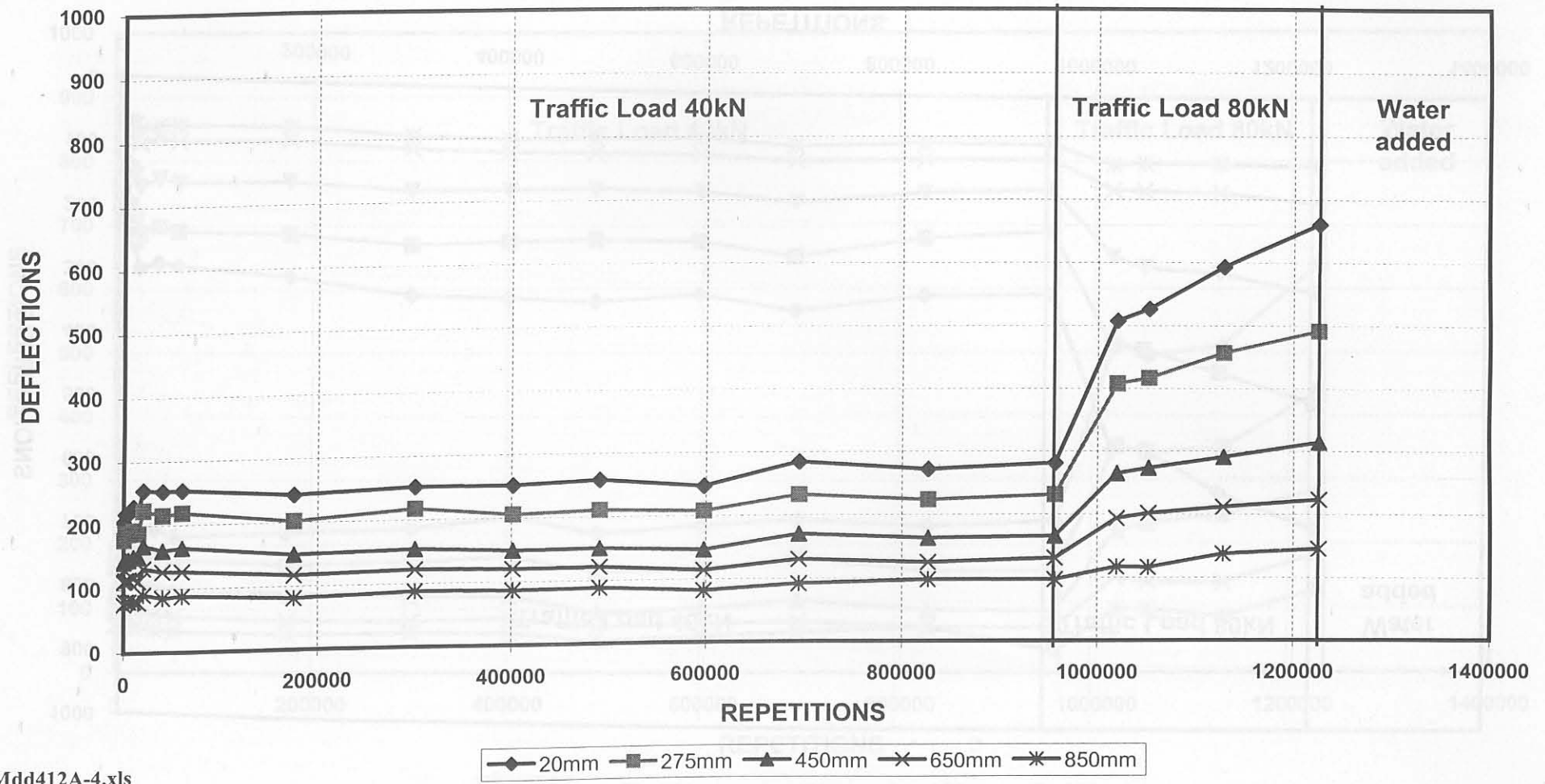
MDD 4 DEFLECTION AT 40kN ON SECTION 410B4 (250 ETB)



MDD 12 DEFLECTION AT 40kN ON SECTION 410B4 (250 ETB)

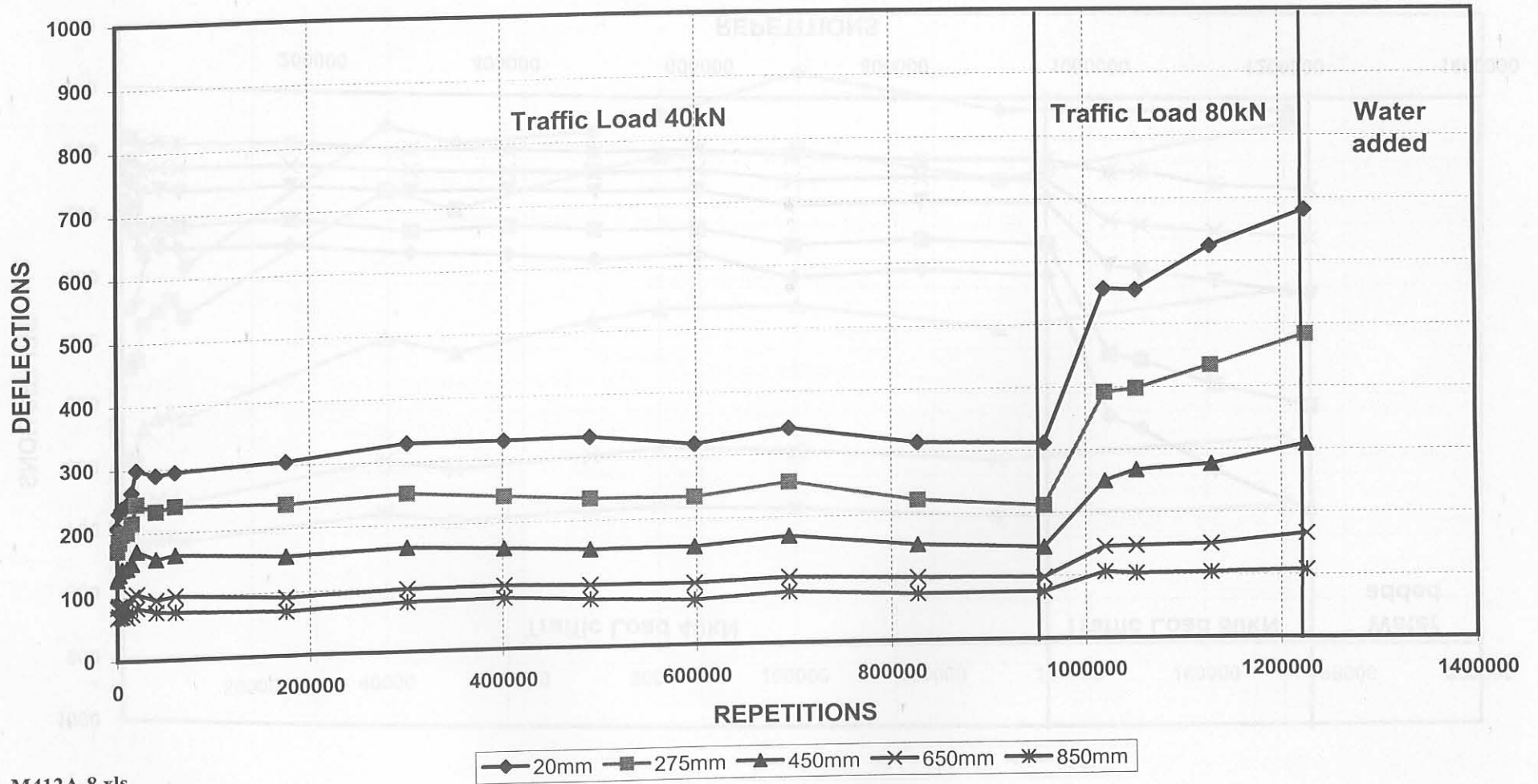


MDD 4 DEFLECTION AT 40kN ON SECTION 412A4 (250 ETB)

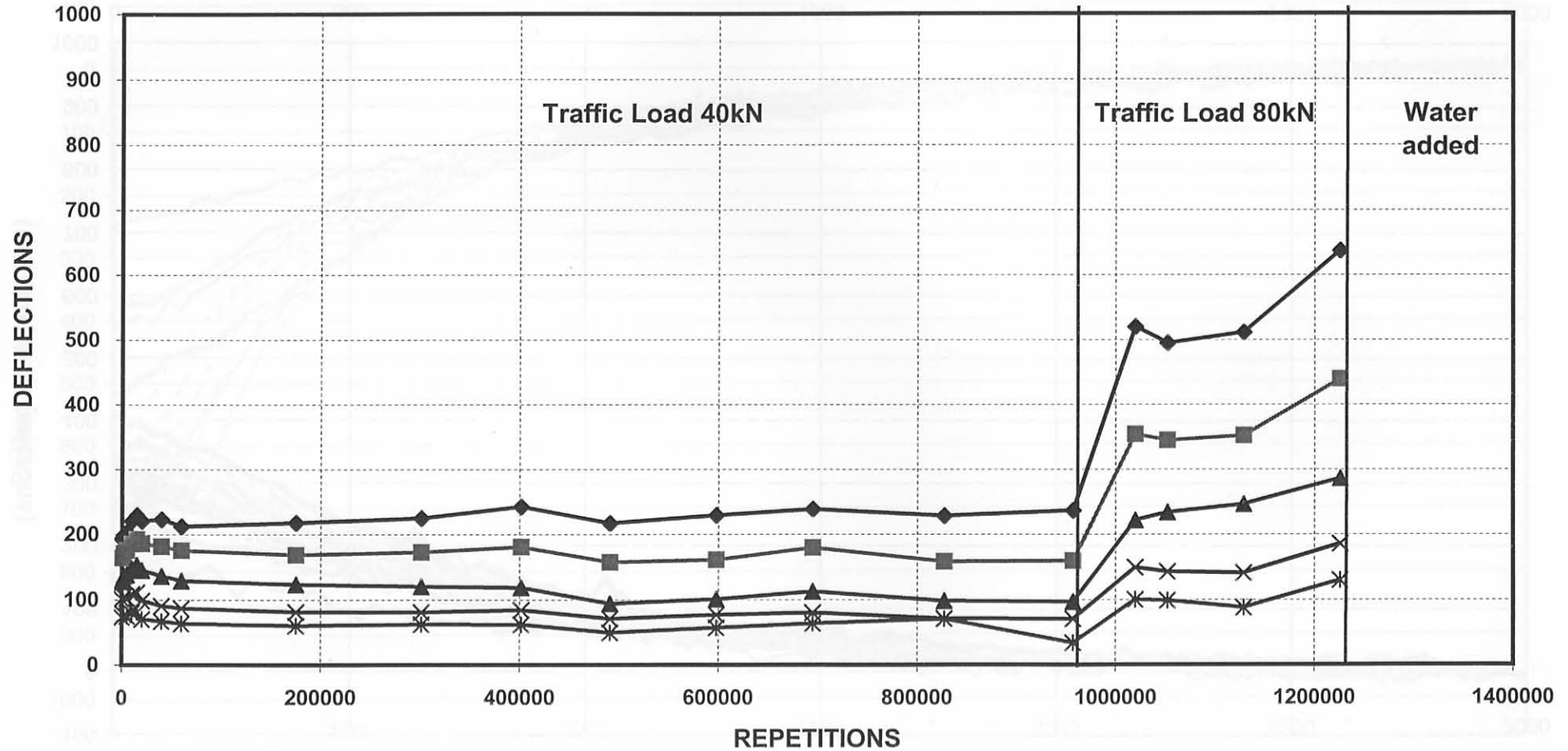


Mdd412A-4.xls

MDD 8 DEFLECTION AT 40kN ON SECTION 412A4 (250 ETB)

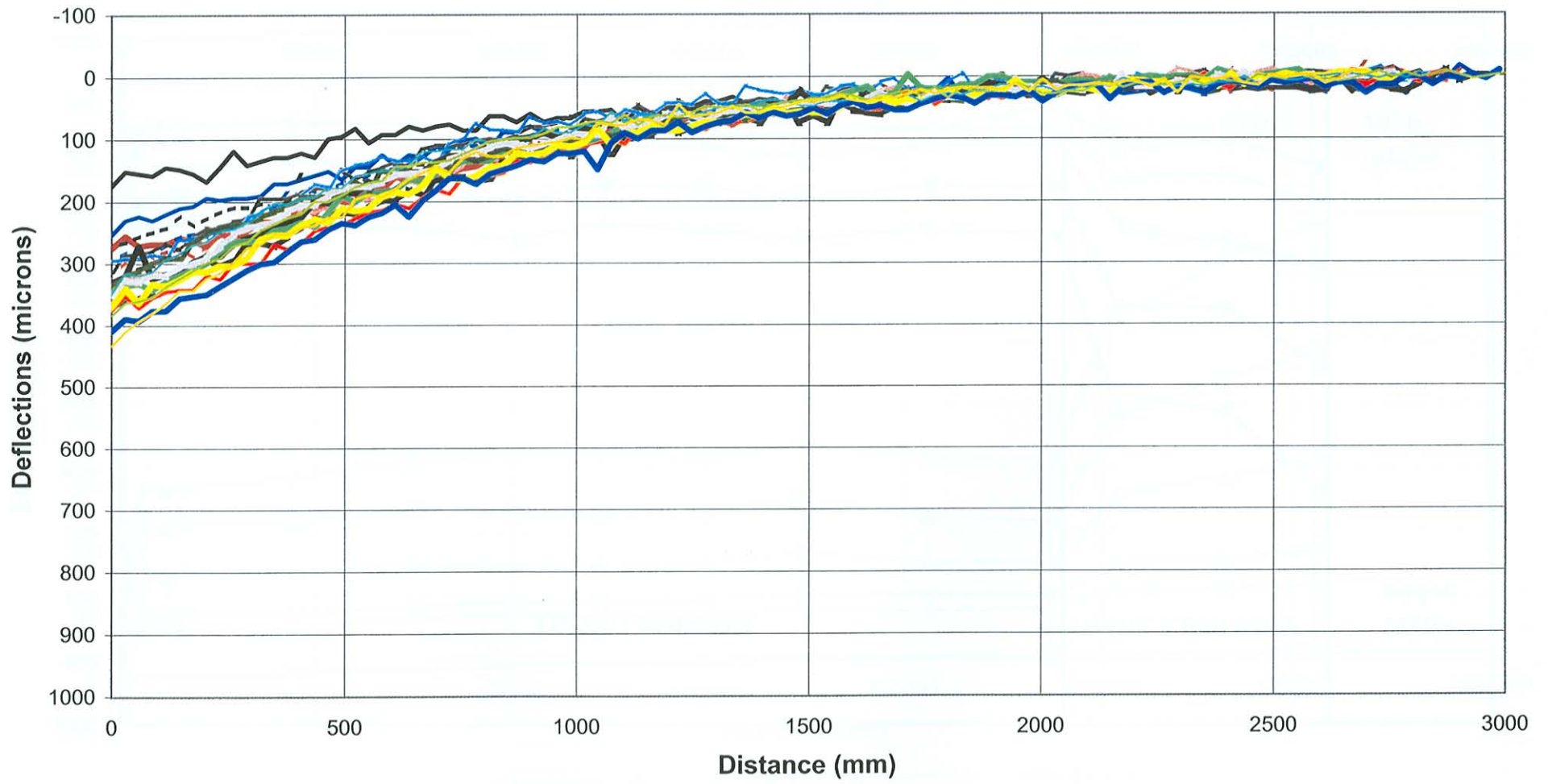


MDD 12 DEFLECTION AT 40kN ON SECTION 412A4 (250 ETB)



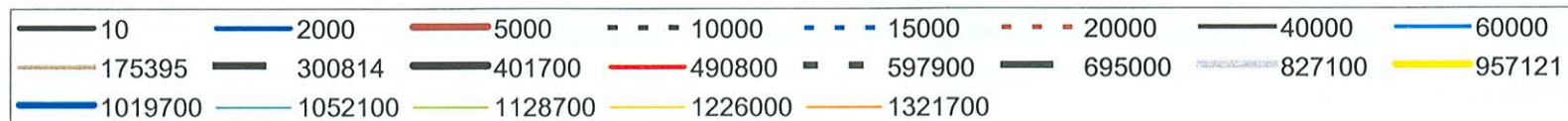
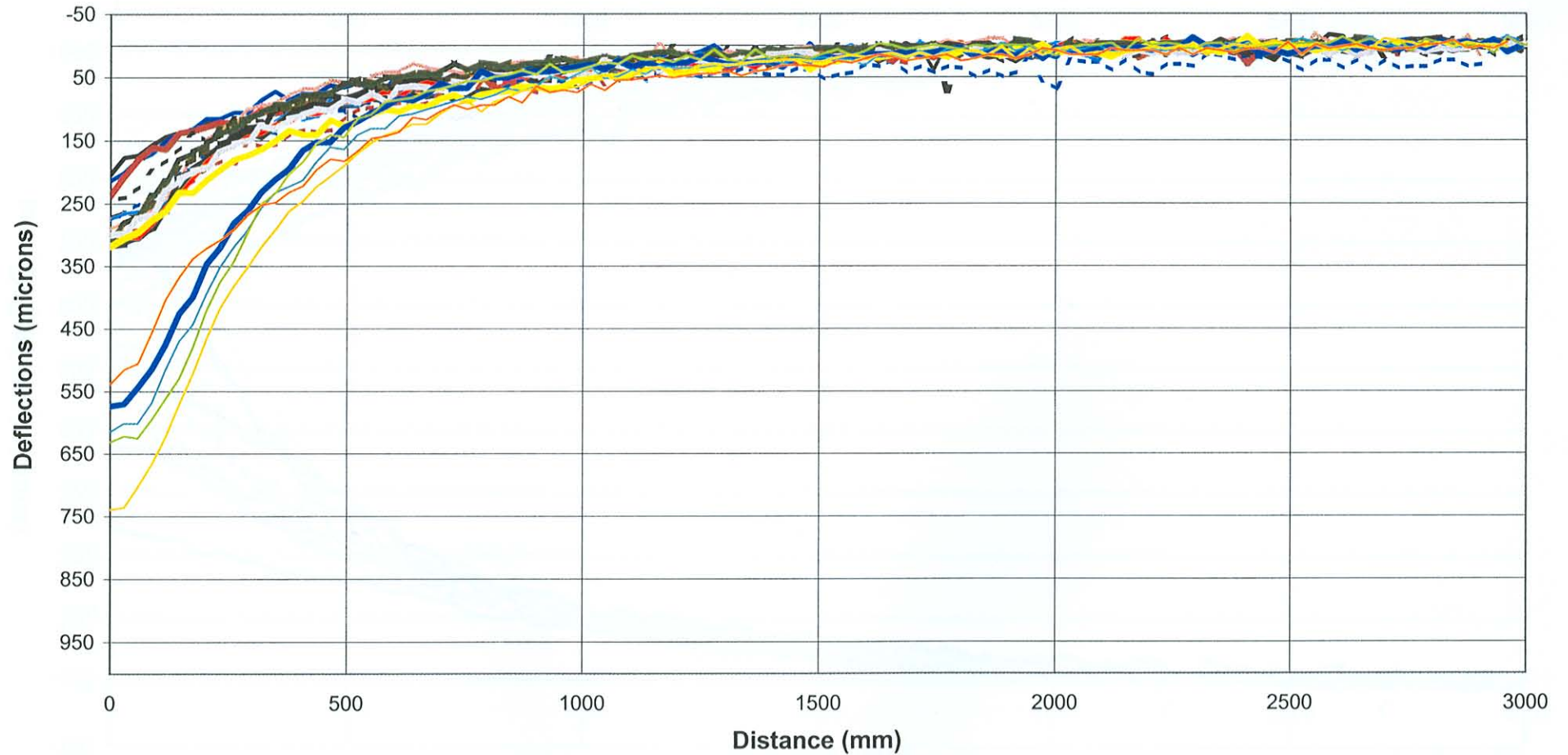
20mm
 275mm
 450mm
 650mm
 850mm

Section 410A4 RSD at Point 8 CentreLine Test Load 40kN

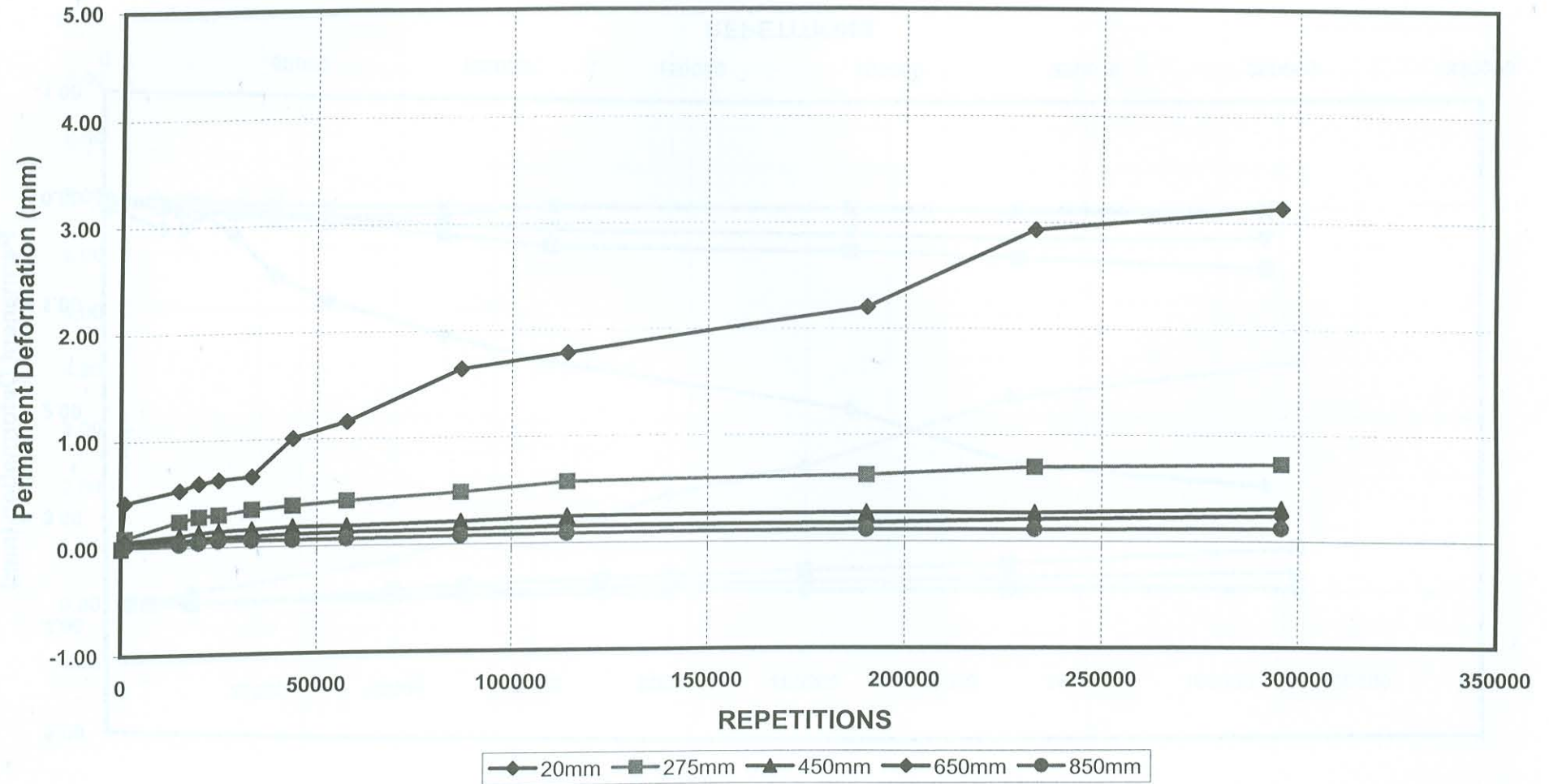


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28000	33400	37000	43800	47500	57619	87000	117700	190300	233000

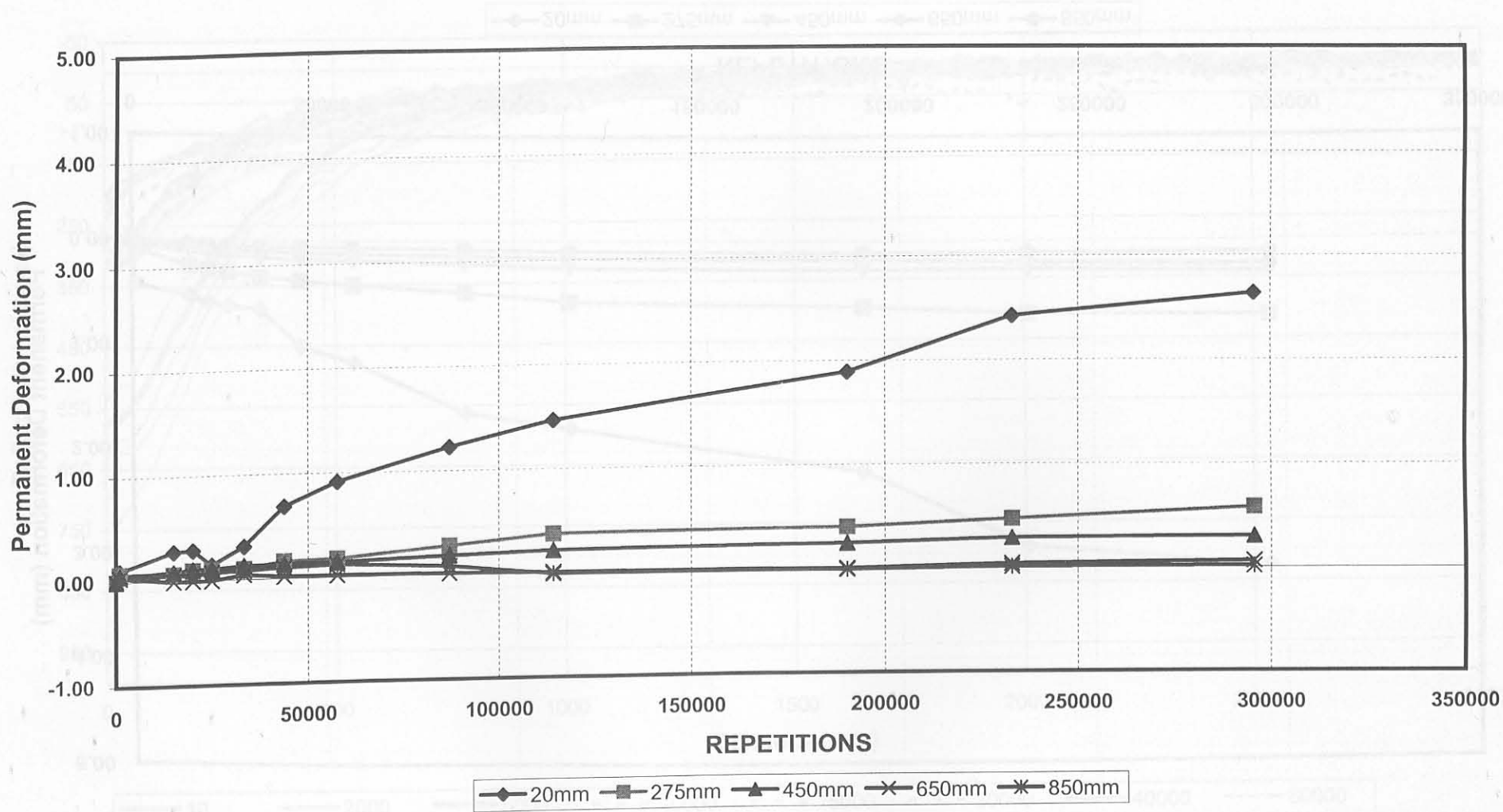
Section 412A4 RSD at Point 8 CentreLine Test Load 40kN



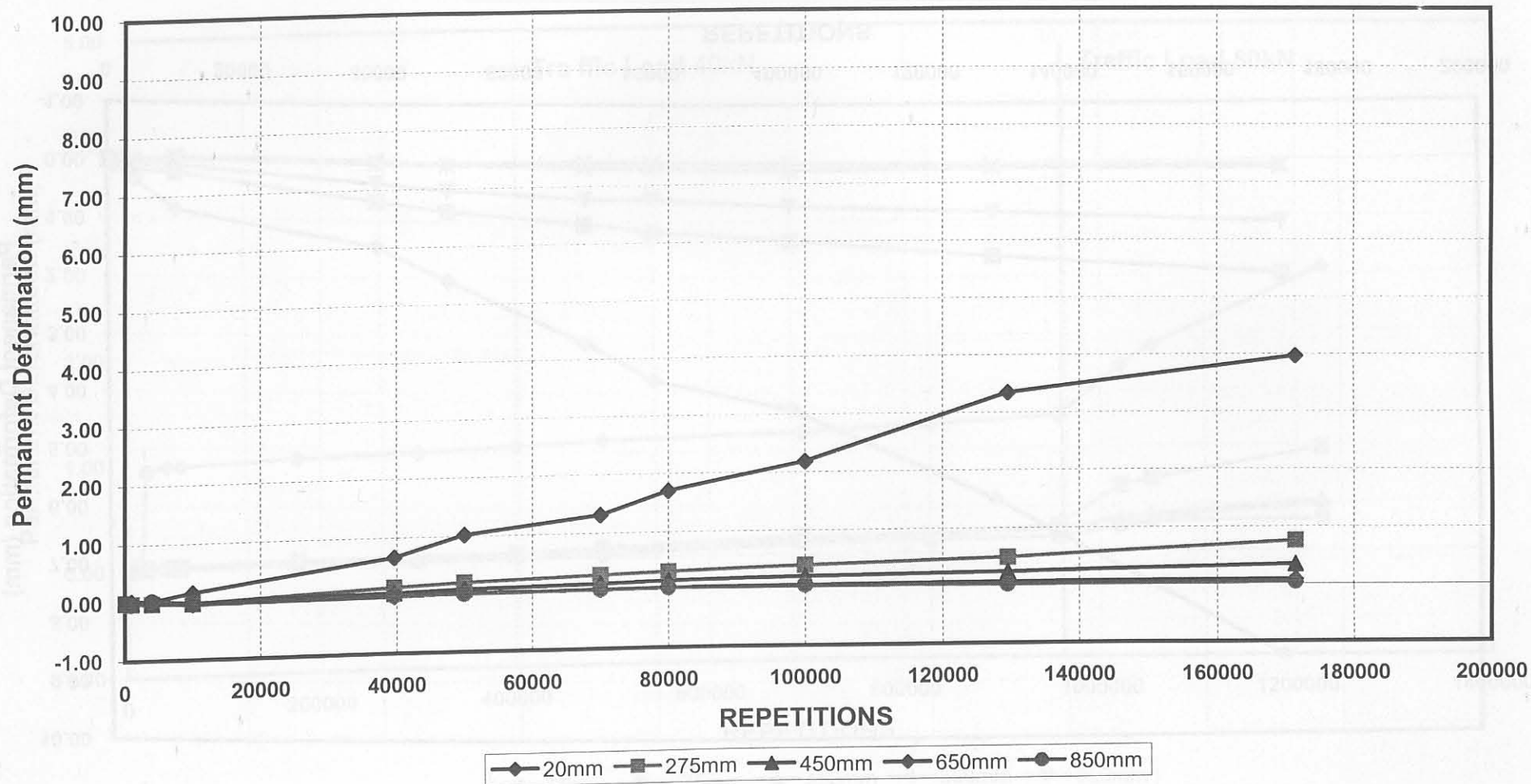
MDD 4 Permanent Deformation SECTION 410A4 (250 ETB)



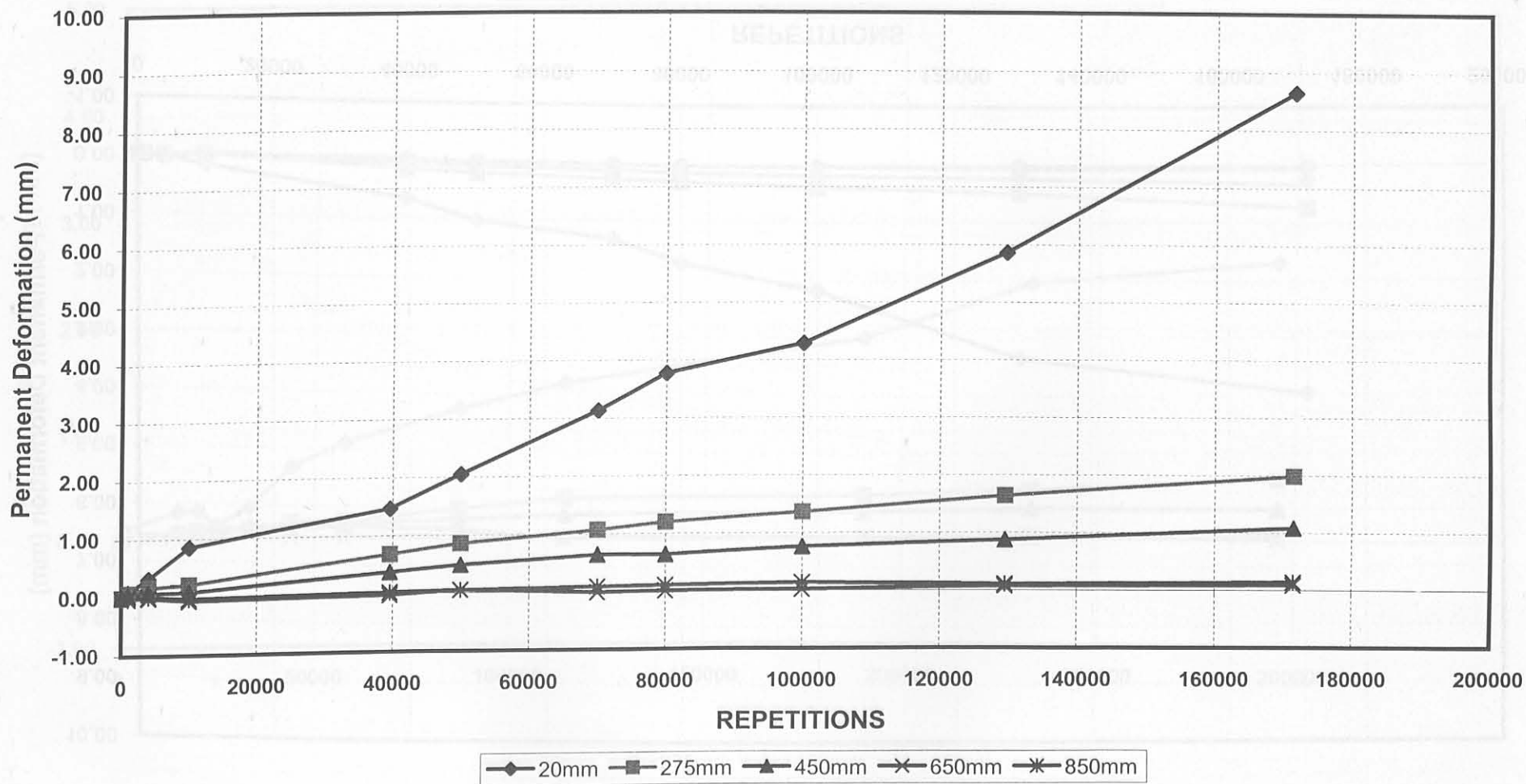
MDD 12 Permanent Deformation SECTION 410A4 (250 ETB)



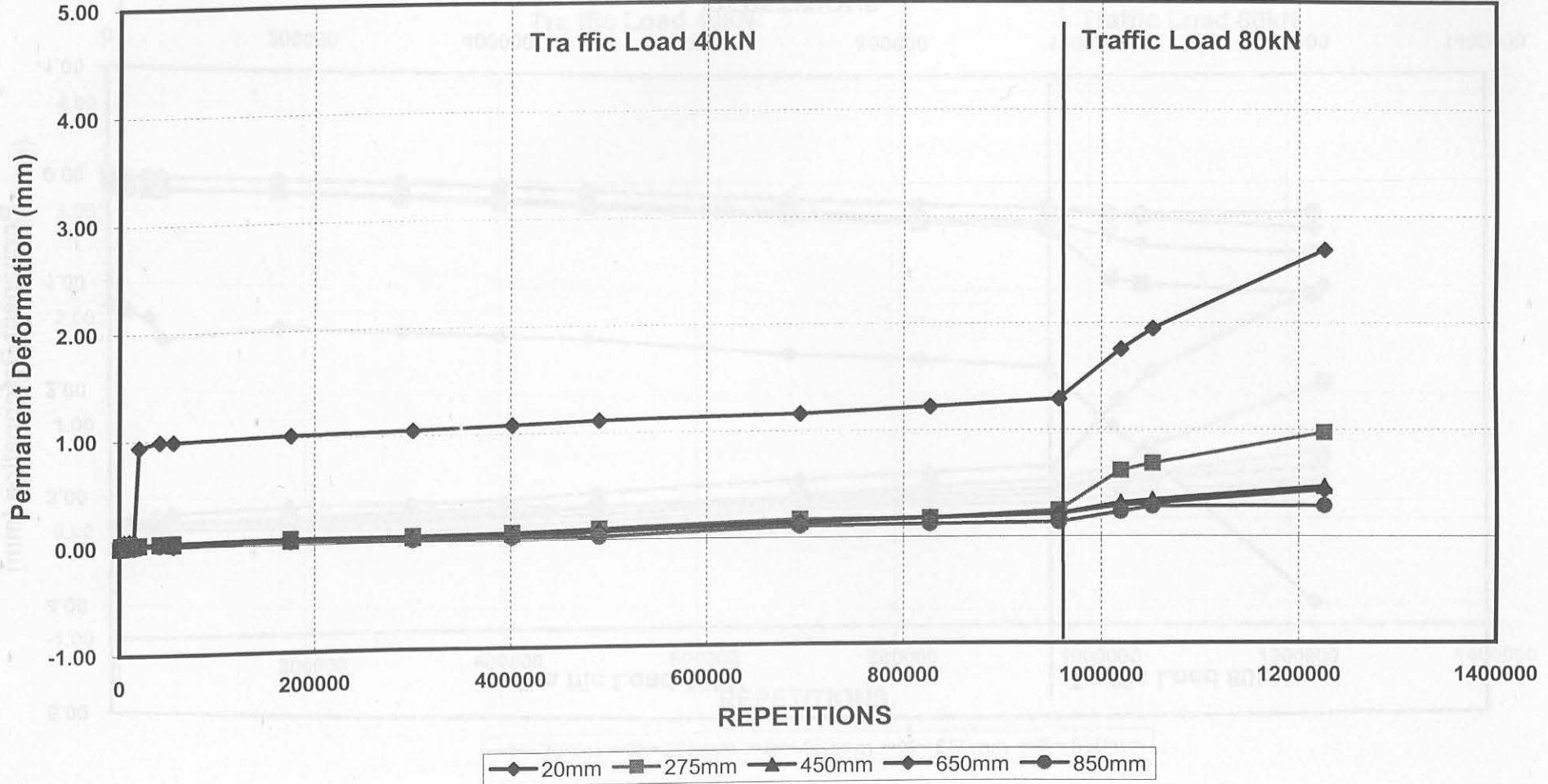
MDD 4 Permanent Deformation SECTION 410B4 (250 ETB)



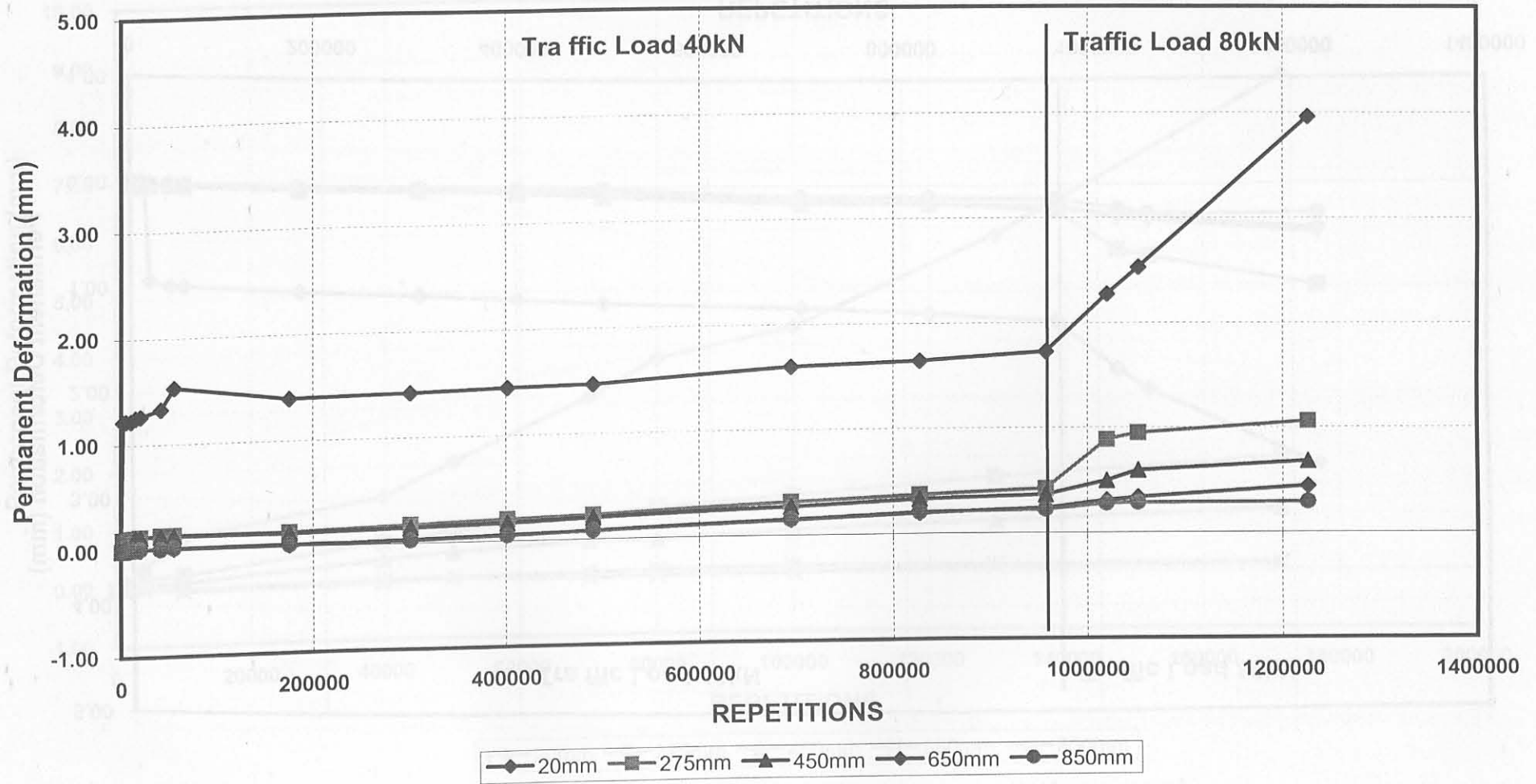
MDD 12 Permanent Deformation SECTION 410B4 (250 ETB)



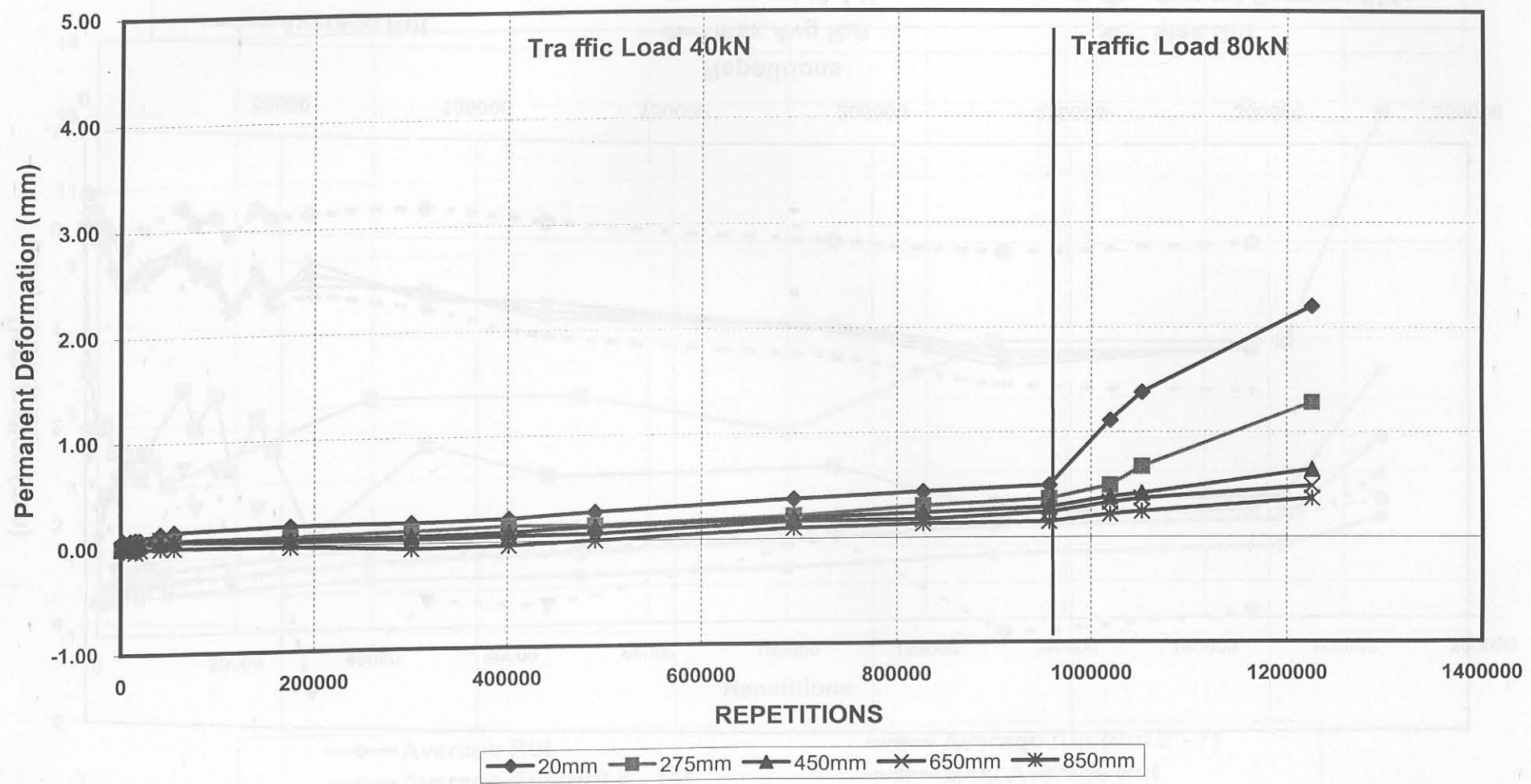
MDD 4 Permanent Deformation SECTION 412A4 (250 ETB)



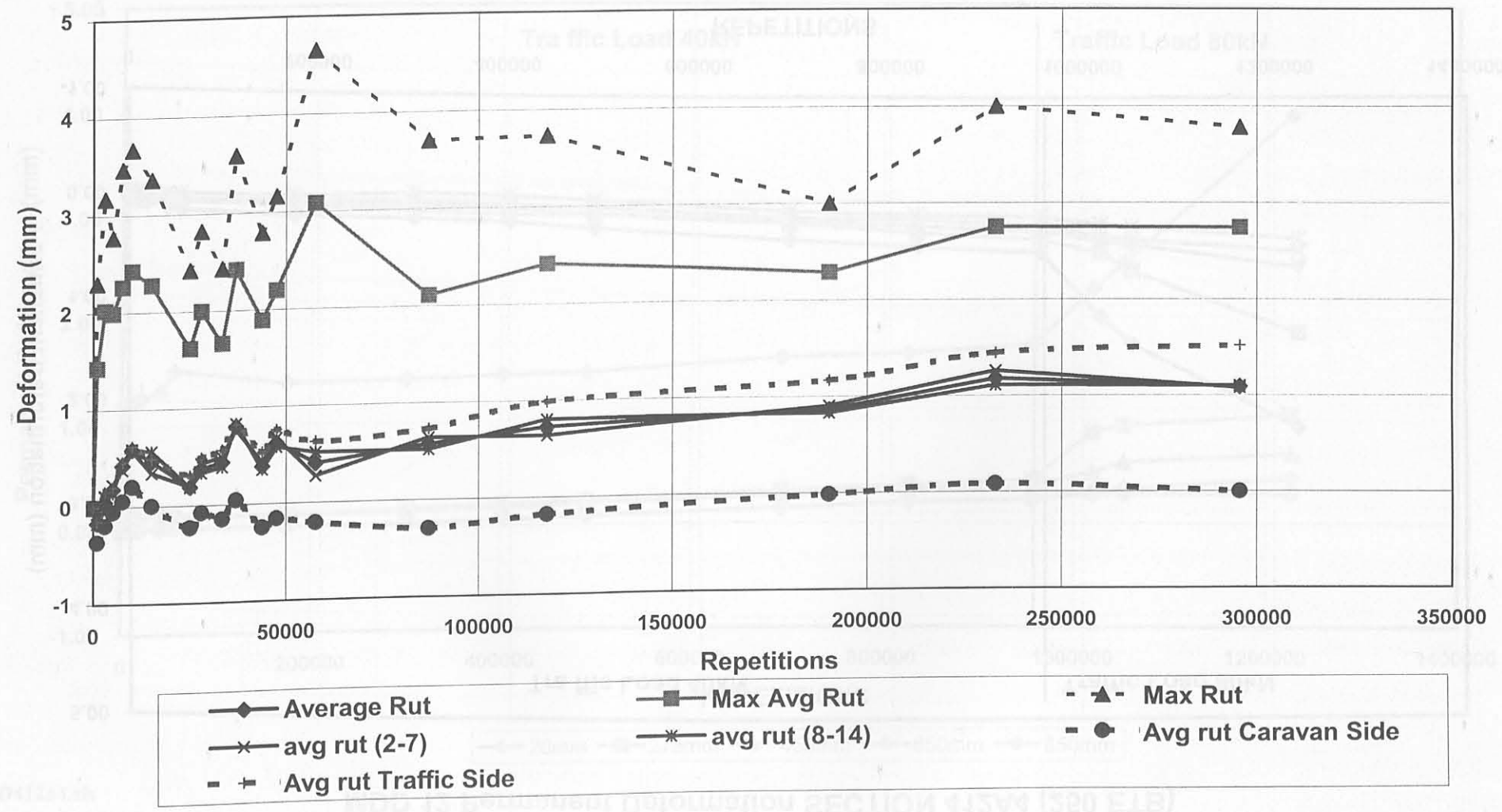
MDD 8 Permanent Deformation SECTION 412A4 (250 ETB)



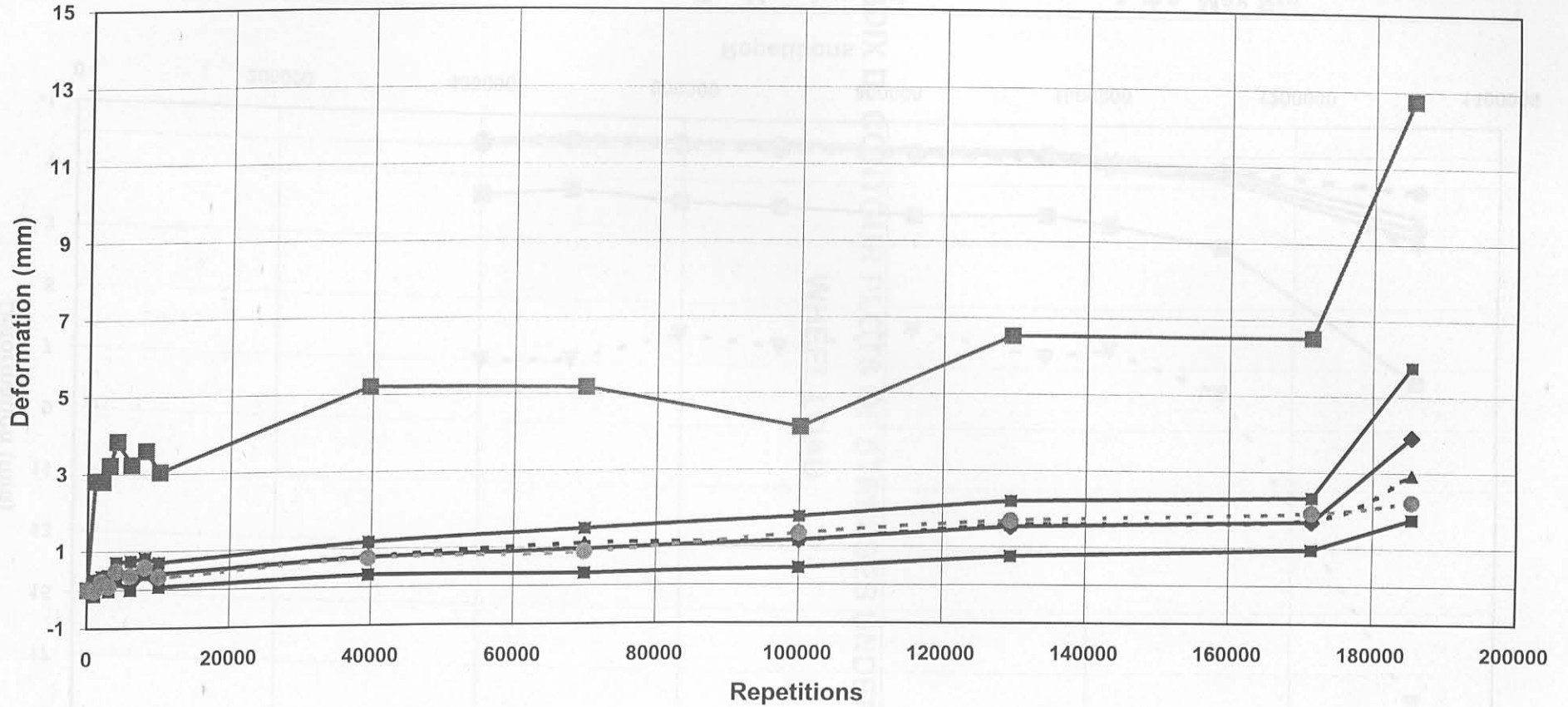
MDD 12 Permanent Deformation SECTION 412A4 (250 ETB)



Profilometer Rut Section 410A4 (250 ETB)



Profilometer Rut Section 410B4 (250 ETB)



Profilometer Rut Section 412A4 (250 ETB)

