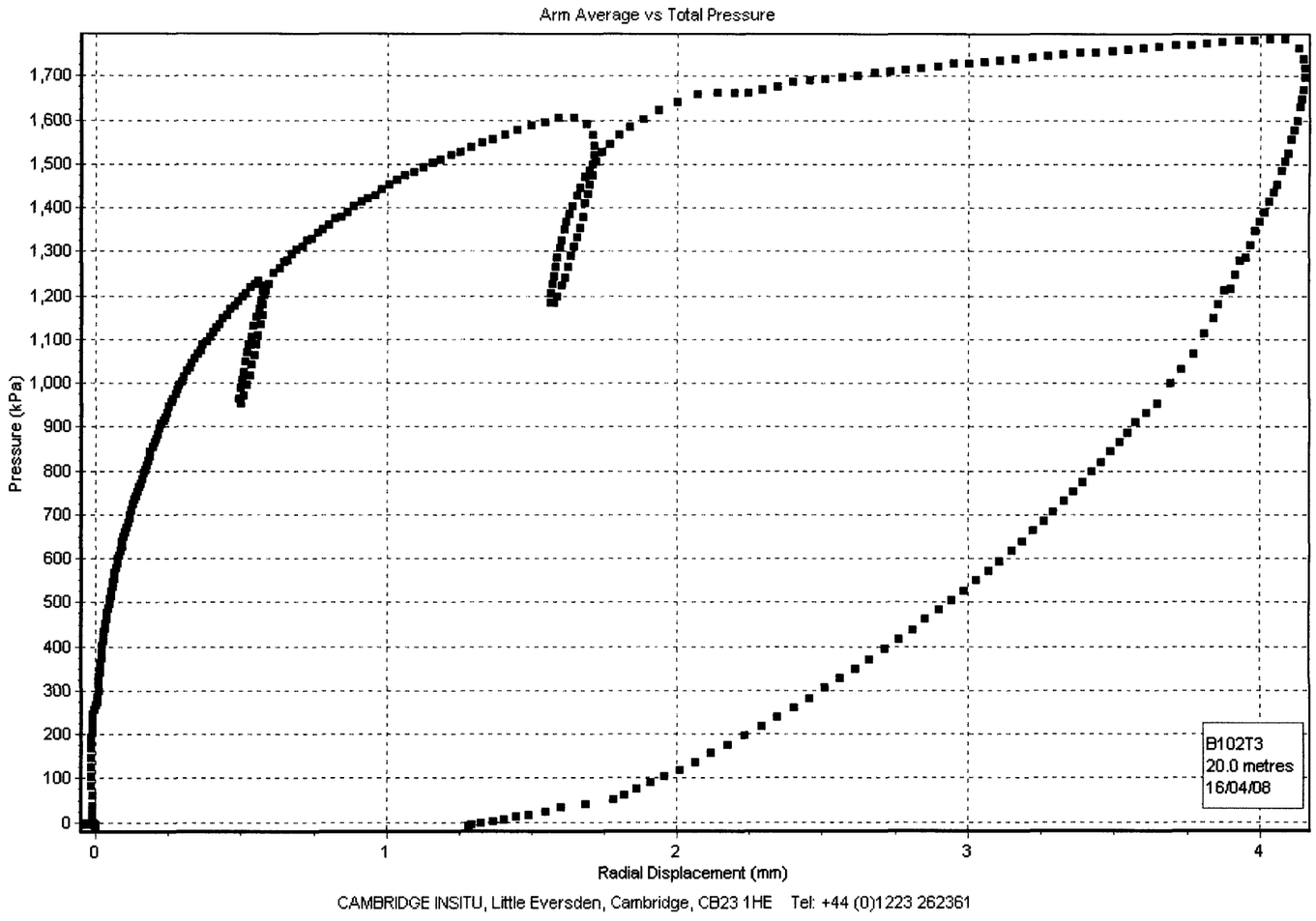
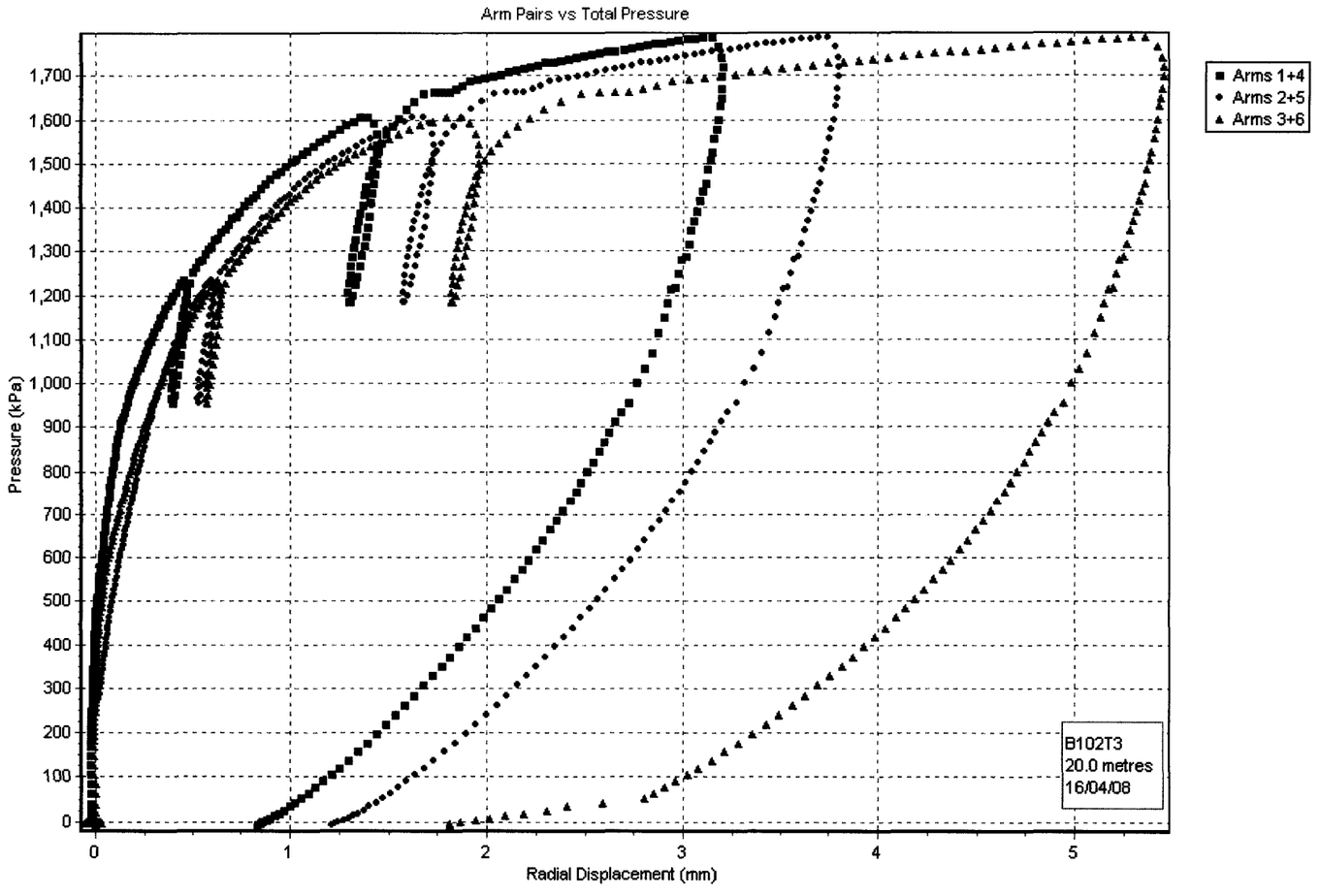


CAMBRIDGE INSITU, Little Eversden, Cambridge, CB23 1HE Tel: +44 (0)1223 262361



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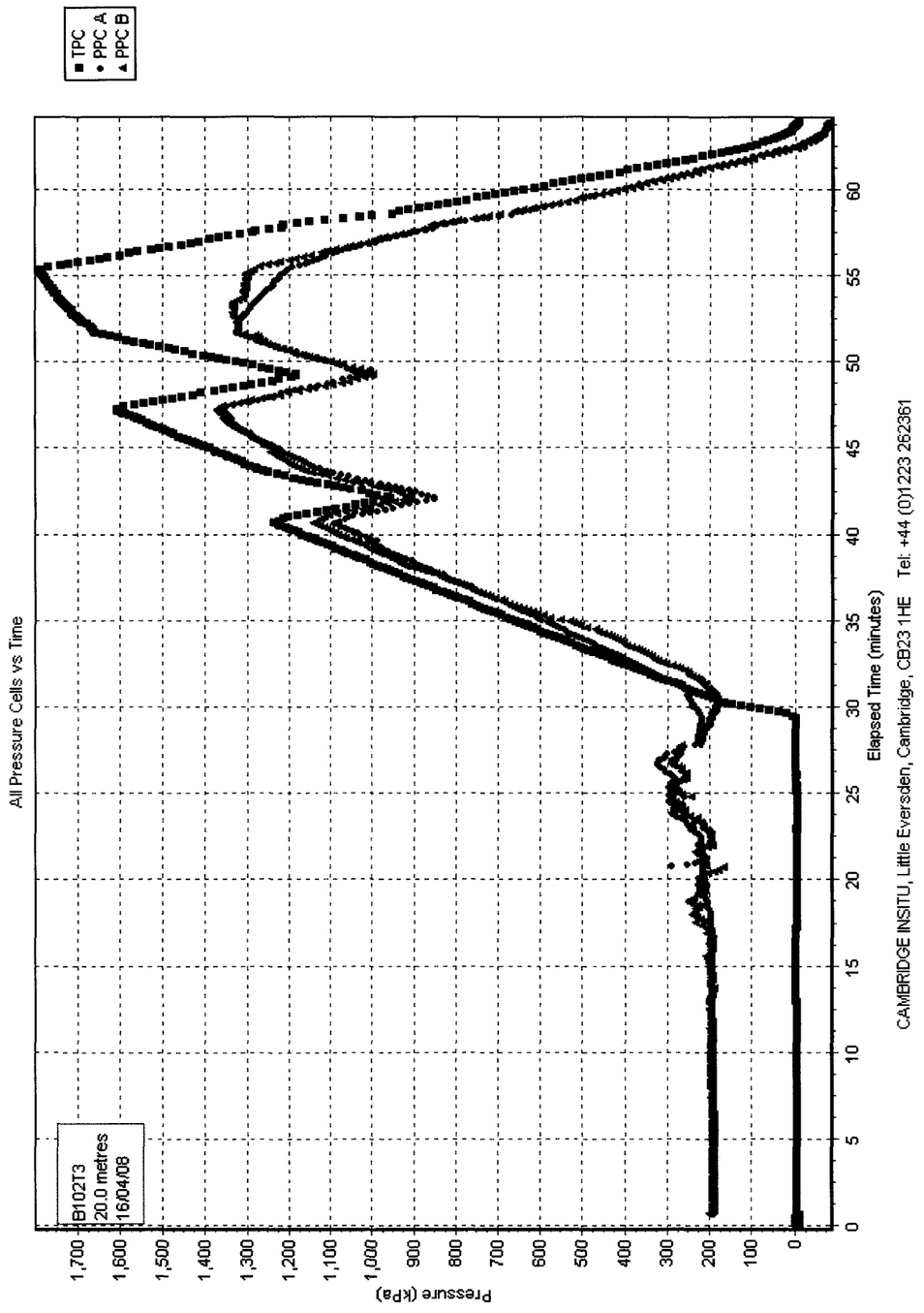
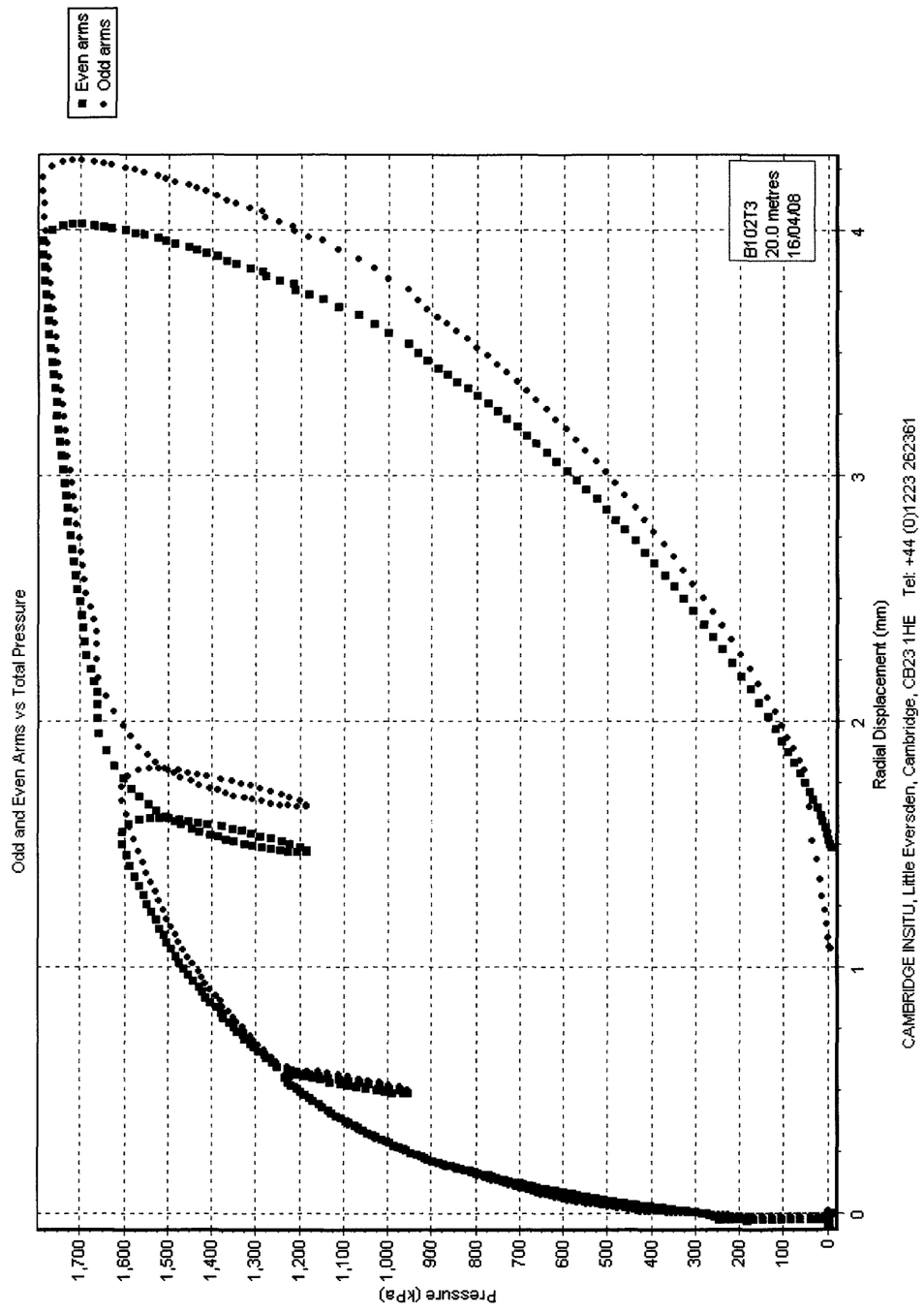

TPC
PPC A
PPC B
All Pressure Cells vs Time
Pressure (kPa)
Elapsed Time (minutes)
B102T3
20.0 metres
16/04/08
CAMBRIDGE INSITU, Little Eversden, Cambridge, CB23 1HE Tel: +44 (0)1223 262361


Even arms
Odd arms
Odd and Even Arms vs Total Pressure
Pressure (kPa)
Radial Displacement (mm)
B102T3
20.0 metres
16/04/08
CAMBRIDGE INSITU, Little Eversden, Cambridge, CB23 1HE Tel: +44 (0)1223 262361

B102T4 - SUMMARY OF RESULTS
[File made with WinSitu Version 1.20.1.1]

[DETAILS OF TEST]

Project	:	36237
Site	:	Denmark Place
Borehole	:	BH102
Test name	:	B102T4
Test date	:	16 Apr 08
Test depth	:	26.00 Metres
Water table	:	5.6 Metres
Ambient PWP	:	200.1 kPa
Material	:	London Clay
Probe	:	Digital 6 arm weak rock self boring pressuremeter
Diameter	:	88.1 mm

Data analysed using average arm displacement curve
A non-linear analysis of the rebound cycles has been carried out
The file includes results from a curve fitting analysis

Analysed by RWW on 17 Apr 08

Remarks:

[RESULTS FOR CAVITY REFERENCE PRESSURE]

Strain Origin (mm)	:	"Arm ave=0.020"
Po from Marsland & Randolph (kPa)	:	"Arm ave=447.2"
Po from Lift off (kPa)	:	"Arm ave=472.6"
PWP versus Total Stress (kPa)	:	"PPC Ave=332.1"
Best estimate of Po (kPa)	:	"Arm ave=566.0"

[UNDRAINED STRENGTH PARAMETERS]

Gibson & Anderson 1961 - Cu (kPa)	:	"Arm ave=287.0"
Limit pressure (kPa)	:	"Arm ave=2336"
Jefferies 1988 - Cu (kPa)	:	"Arm ave=288.5"
Undrained yield stress (kPa)	:	"Arm ave=680.3"

[LINEAR INTERPRETATION OF SHEAR MODULUS G]
Initial slope shear modulus (MPa) :"Arm ave=69.3"

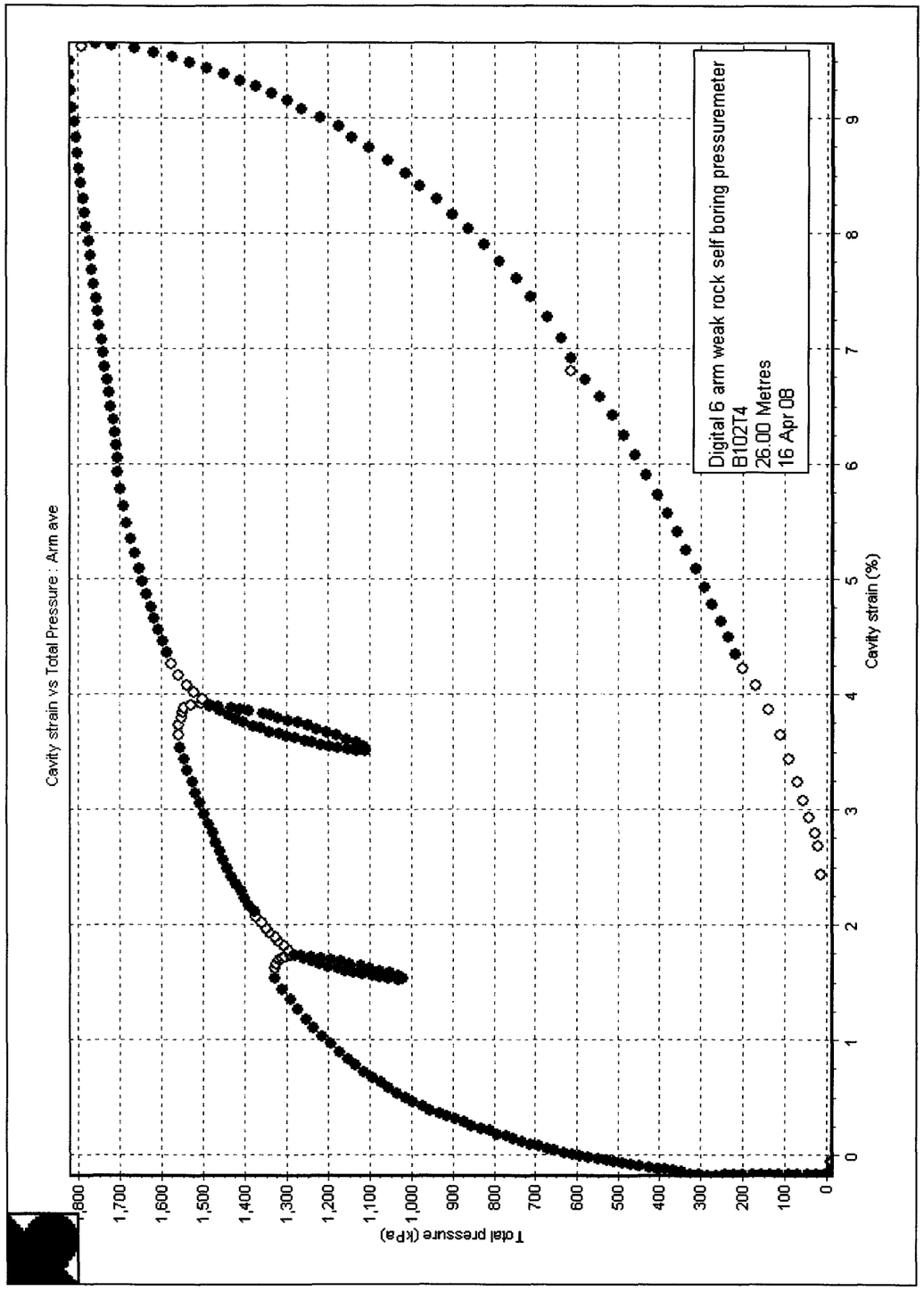
Axis	Loop No	Value (MPa)	Mean Strain (%)	Mean Pc (kPa)	dE (%)	dPc (kPa)
Arm ave	1	62.7	1.644	1152	0.413	259
Arm ave	2	49.8	3.726	1301	0.763	381

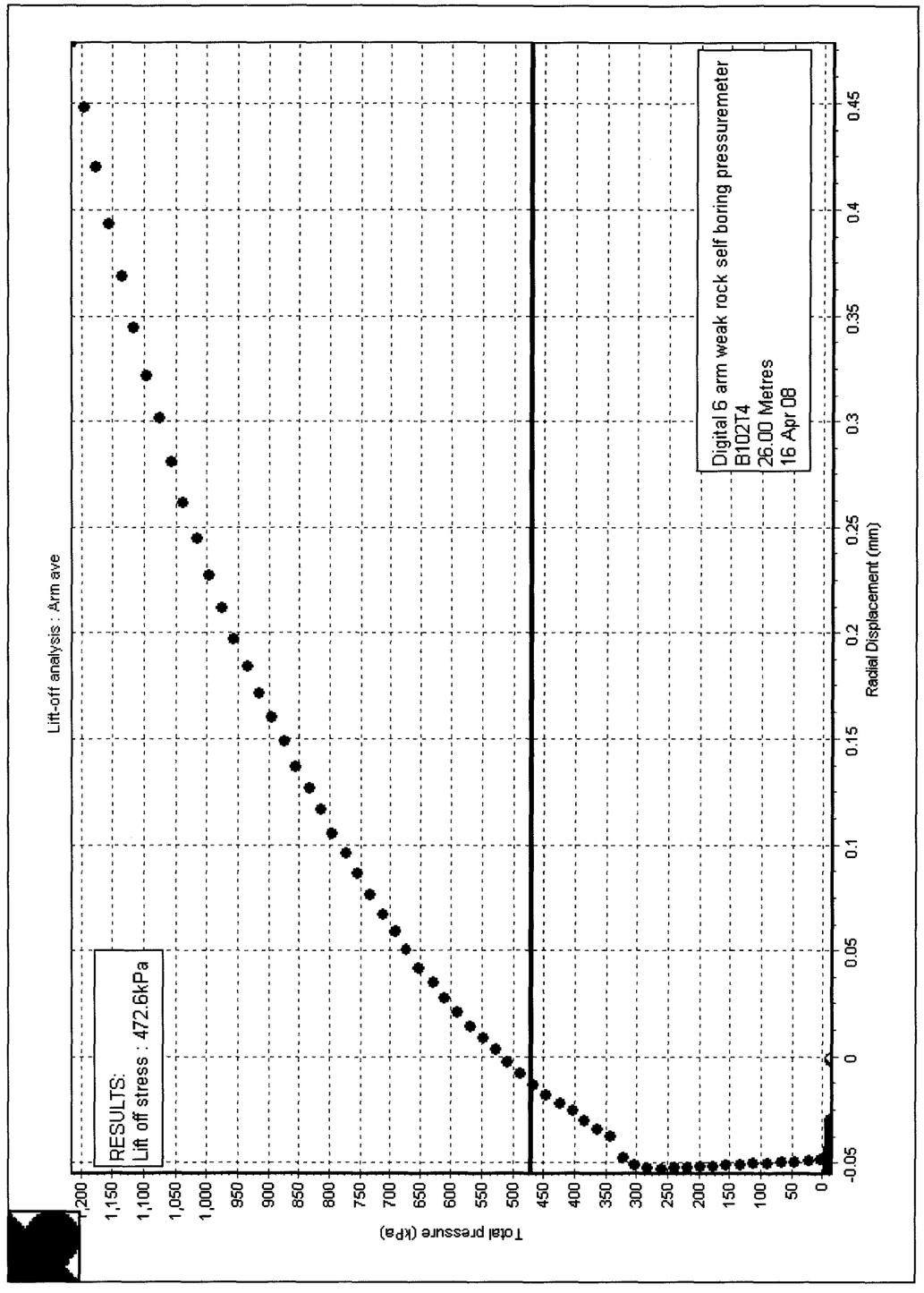
[NON LINEAR INTERPRETATION OF SECANT SHEAR MODULUS]

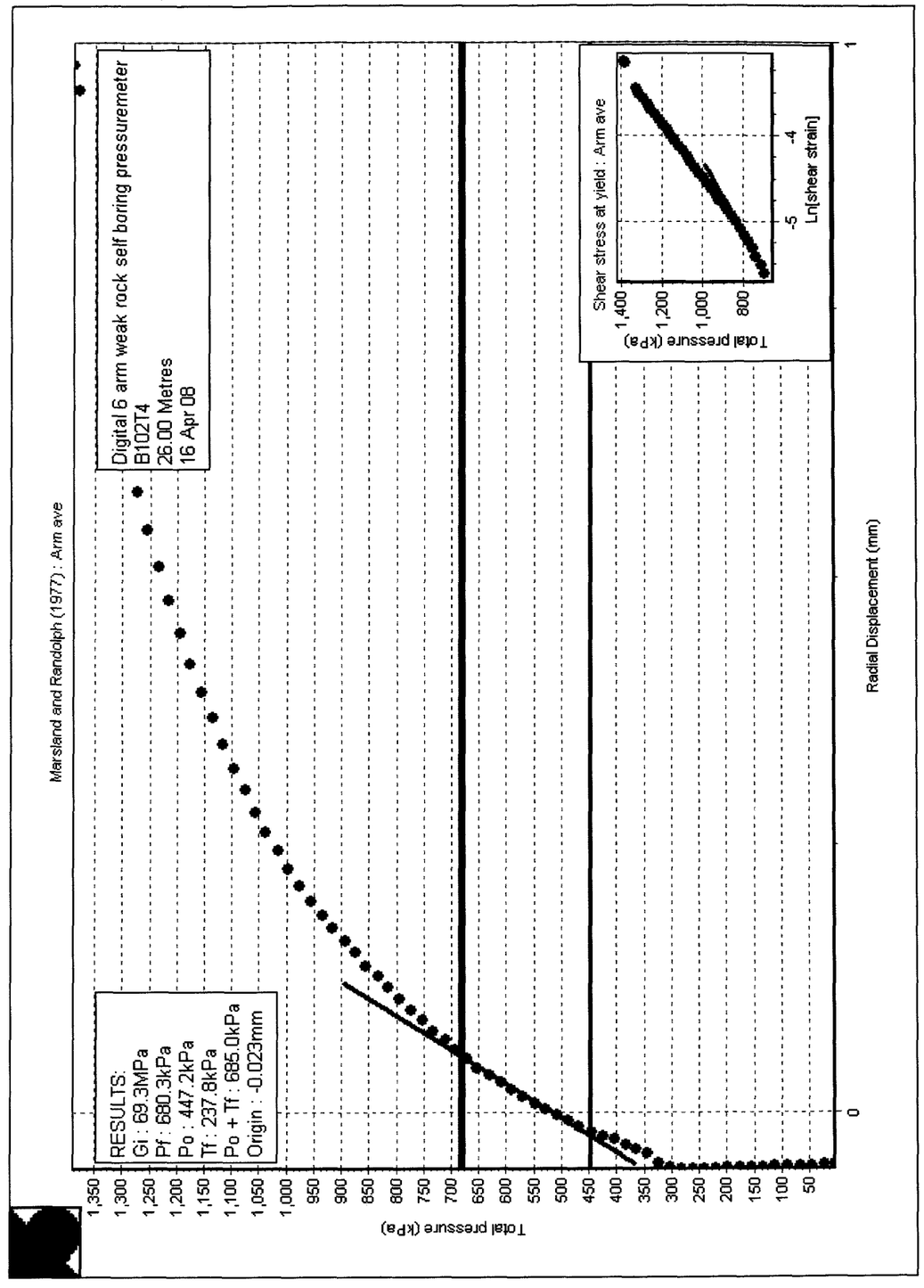
Axis	Loop No	Intercept (MPa)	Alpha (MPa)	Gradient
Arm ave	1	10.021	6.662	0.665
Arm ave	2	9.973	6.566	0.658

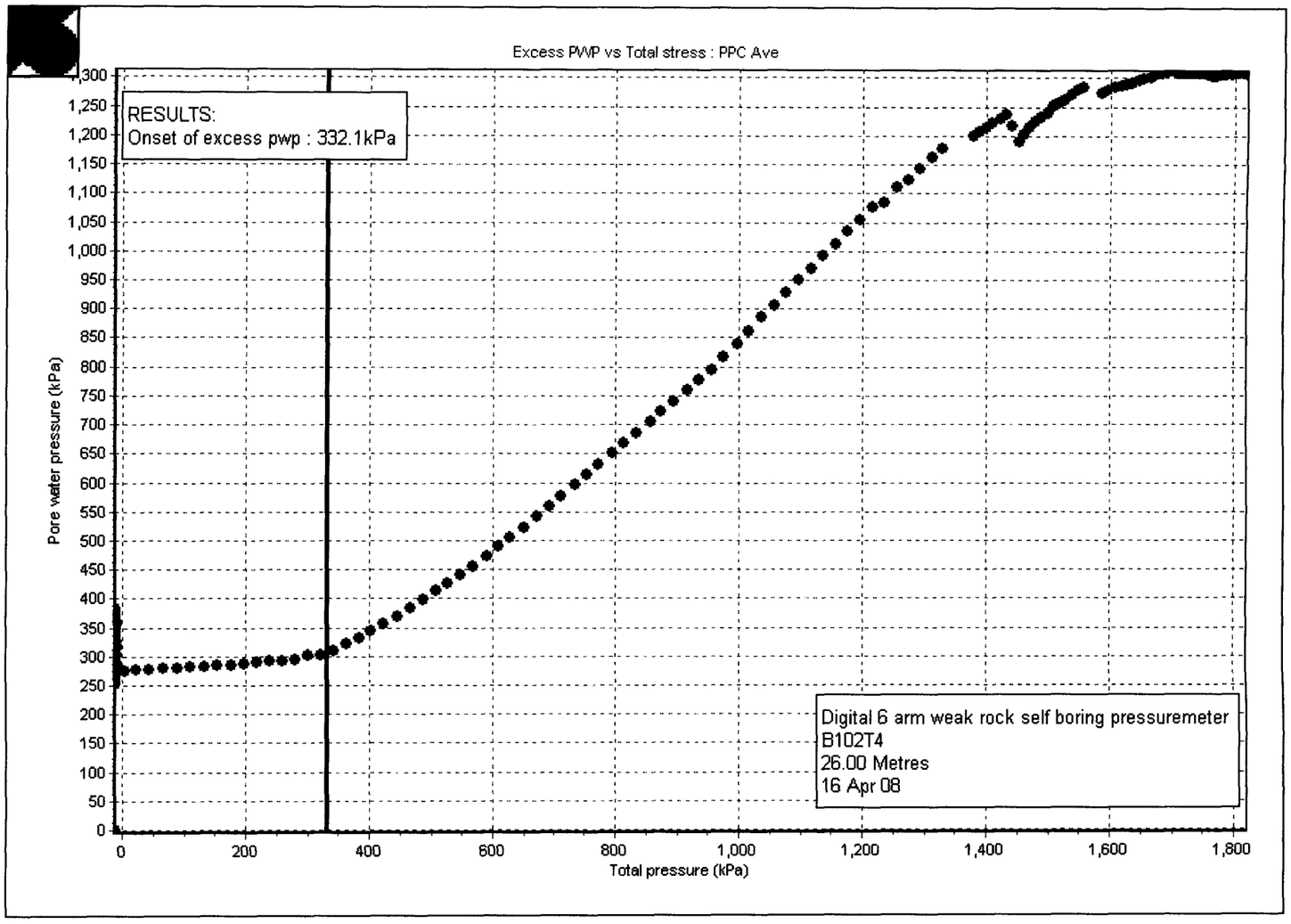
[PARAMETERS USED FOR UNDRAINED CURVE MODELLING]
Axis is Arm ave

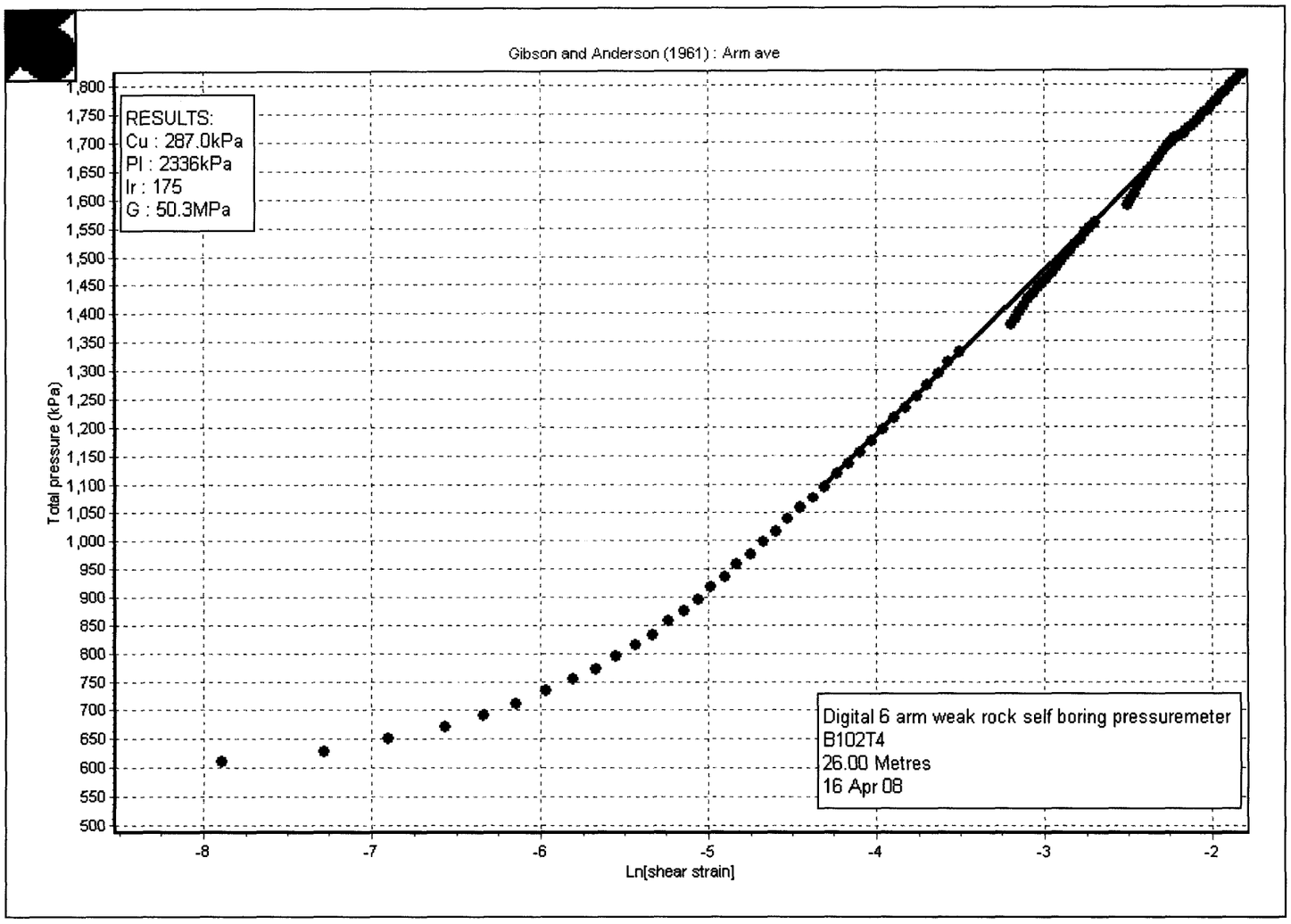
Strain Origin (mm)	:	0.02
Po (kPa)	:	566
Cu (kPa)	:	287.0
Limit pressure (kPa)	:	2336
Non-linear exponent	:	0.658
Calculated alpha (MPa)	:	6.122
G at yield (MPa)	:	30.0




Lift-off analysis : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T4
26.00 Metres
16 Apr 08
RESULTS:
Lift off stress : 472.6kPa
Total pressure (kPa)
Radial Displacement (mm)


Marsland and Randolph (1977) : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T4
26.00 Metres
16 Apr 08
RESULTS:
Gi : 69.3MPa
Pf : 680.3kPa
Po : 447.2kPa
Tf : 237.8kPa
Po + Tf : 685.0kPa
Origin : -0.023mm
Shear stress at yield : Arm ave
Total pressure (kPa)
Ln[shear strain]
Total pressure (kPa)
Radial Displacement (mm)


Excess PWP vs Total stress : PPC Ave
RESULTS:
Onset of excess pwp : 332.1kPa
Digital 6 arm weak rock self boring pressuremeter
B102T4
26.00 Metres
16 Apr 08
Pore water pressure (kPa)
Total pressure (kPa)
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1,000
1,050
1,100
1,150
1,200
1,250
1,300
0
200
400
600
800
1,000
1,200
1,400
1,600
1,800


Gibson and Anderson (1961) : Arm ave
RESULTS:
Cu : 287.0kPa
PI : 2336kPa
Ir : 175
G : 50.3MPa
Digital 6 arm weak rock self boring pressuremeter
B102T4
26.00 Metres
16 Apr 08
Total pressure (kPa)
Ln[shear strain]
500
550
600
650
700
750
800
850
900
950
1,000
1,050
1,100
1,150
1,200
1,250
1,300
1,350
1,400
1,450
1,500
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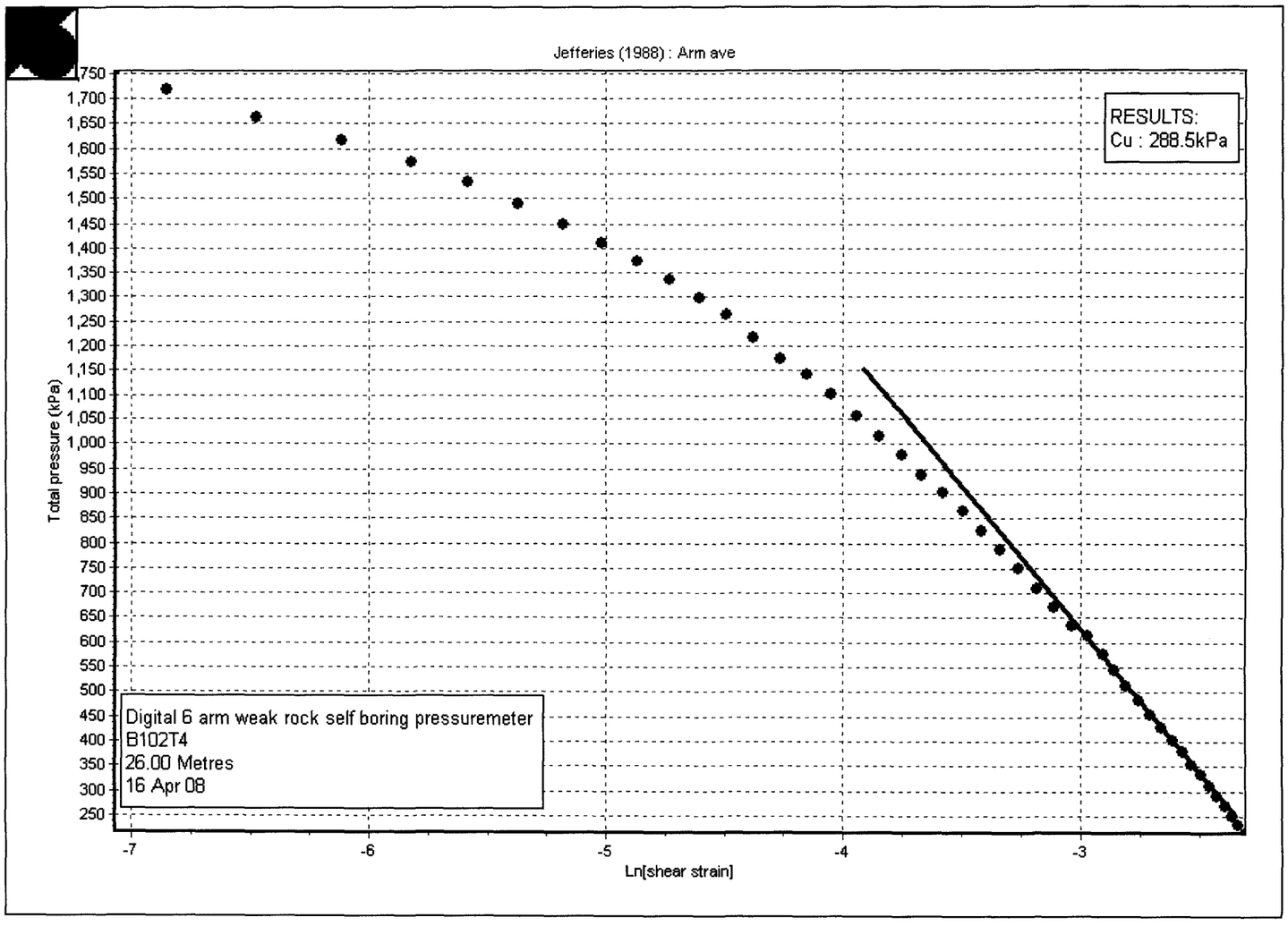
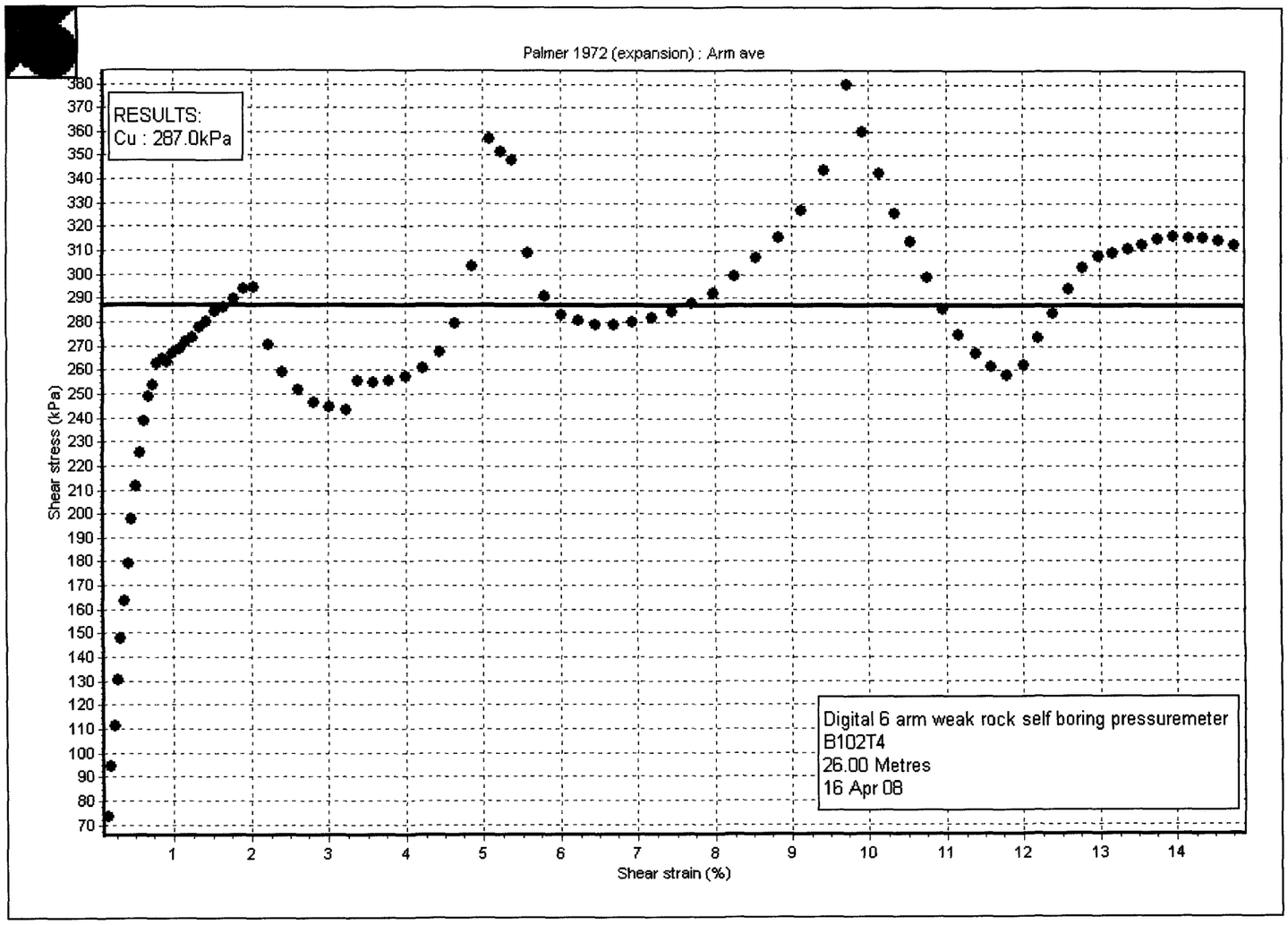
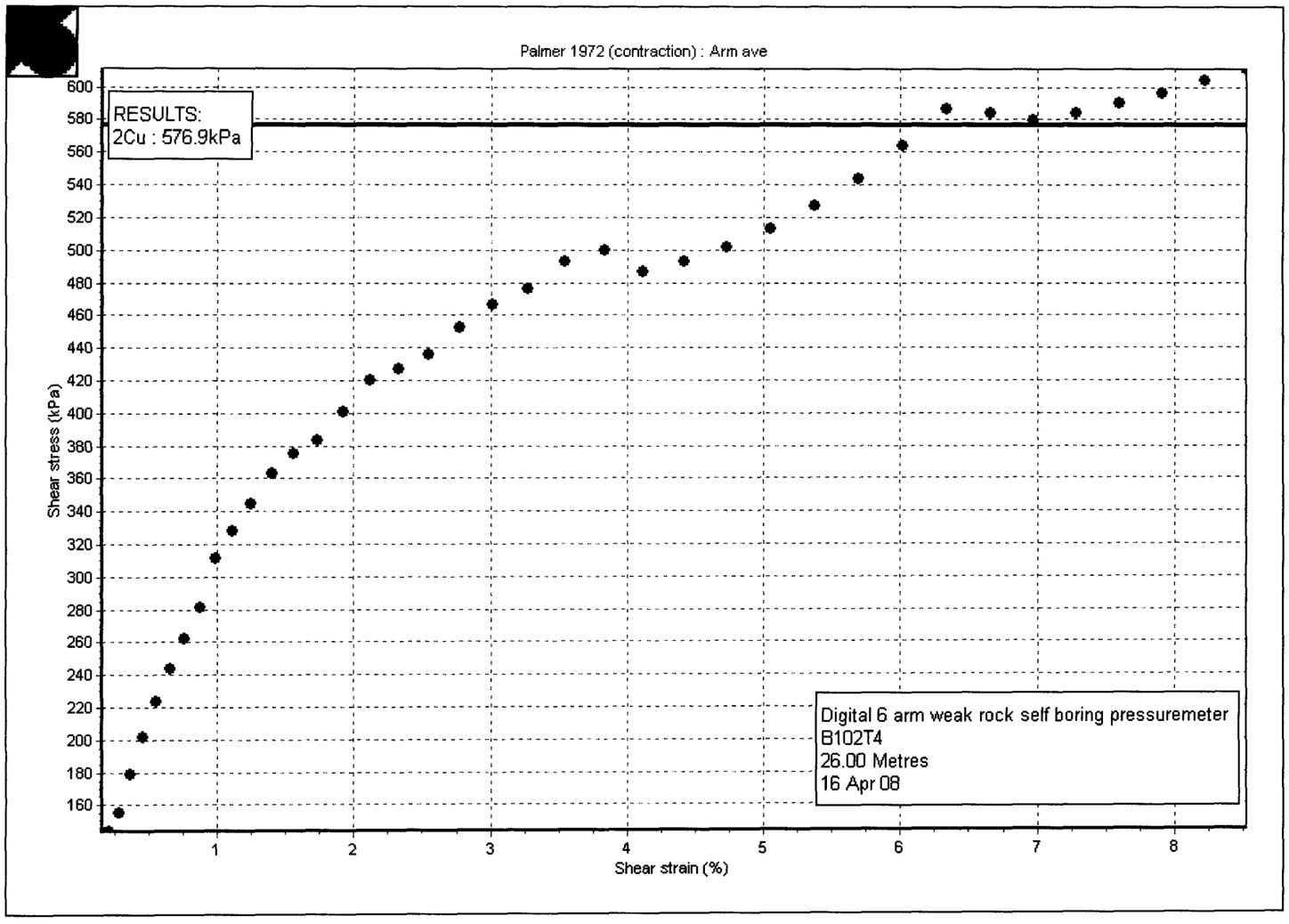
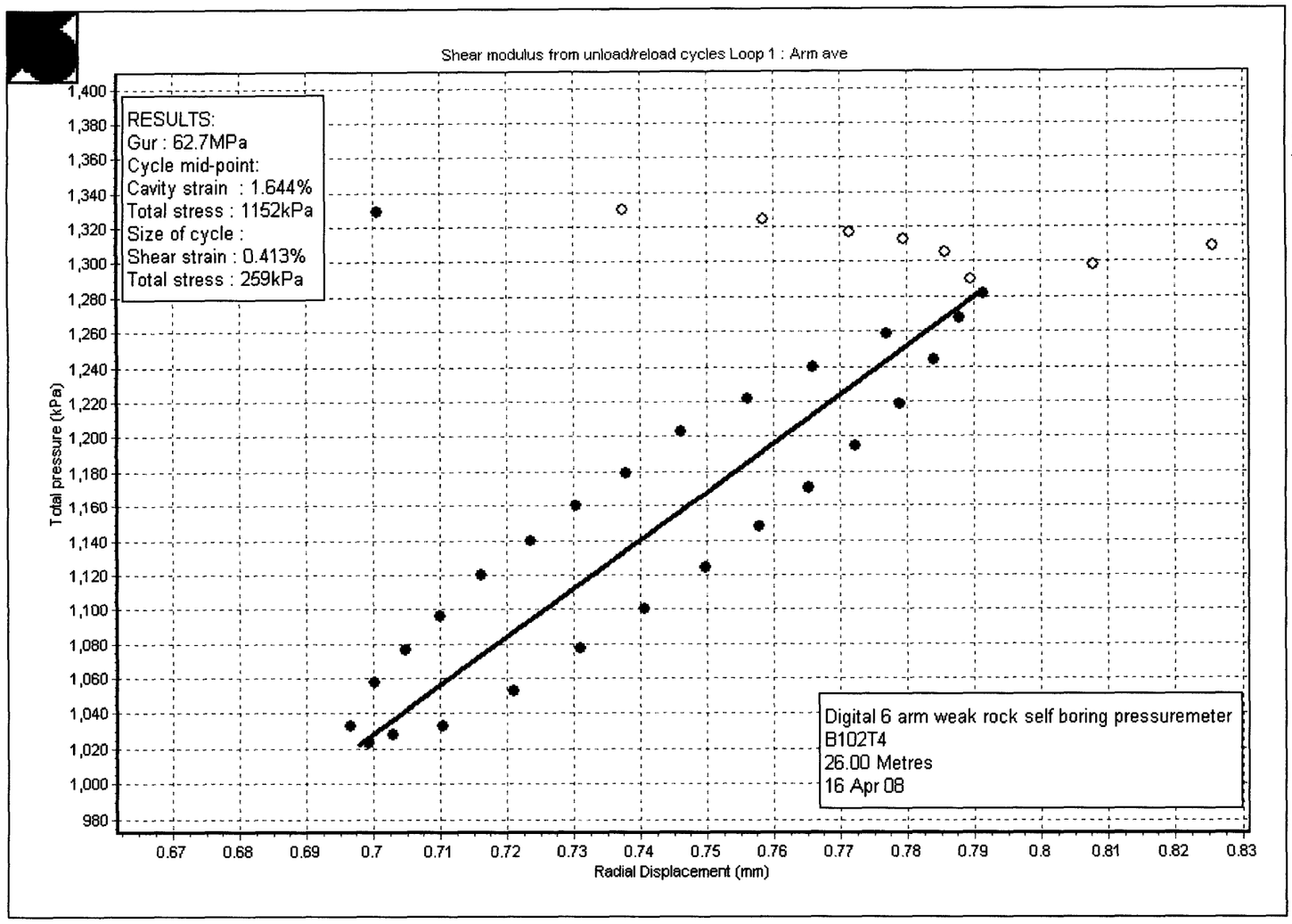
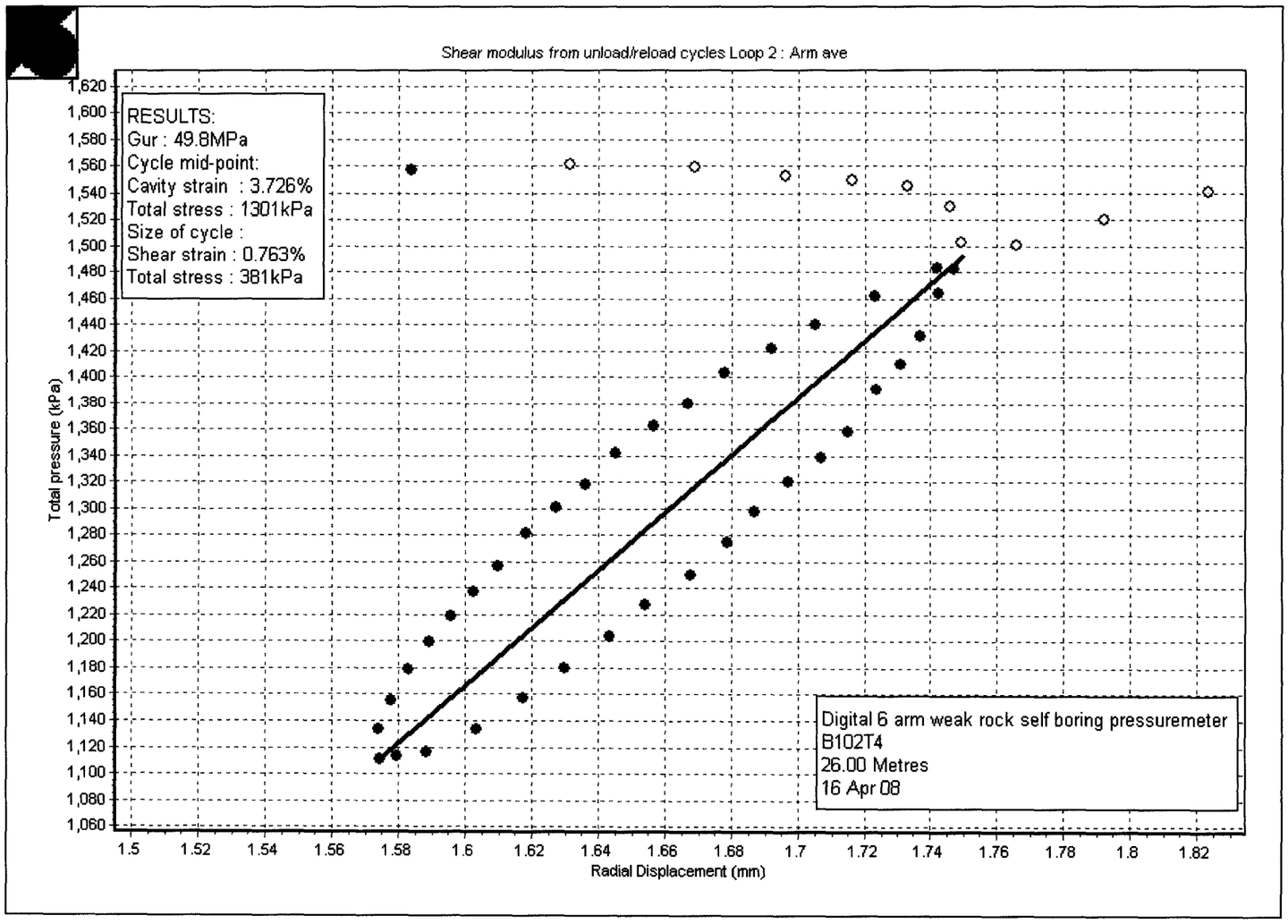
1,650
1,700
1,750
1,800
-8
-7
-6
-5
-4
-3
-2

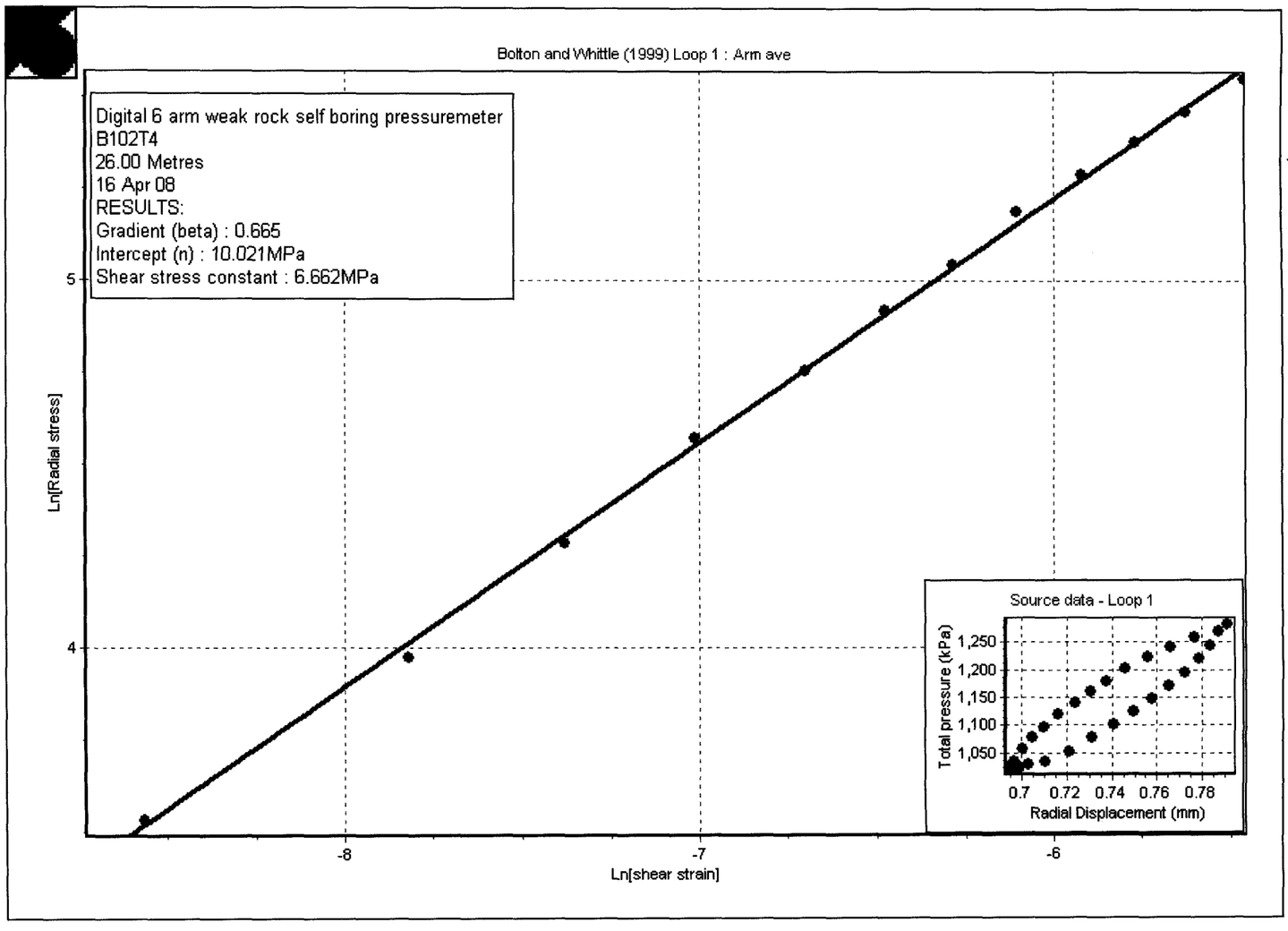

Jefferies (1988) : Arm ave
RESULTS:
Cu : 288.5kPa
Total pressure (kPa)
Ln[shear strain]
Digital 6 arm weak rock self boring pressuremeter
B102T4
26.00 Metres
16 Apr 08

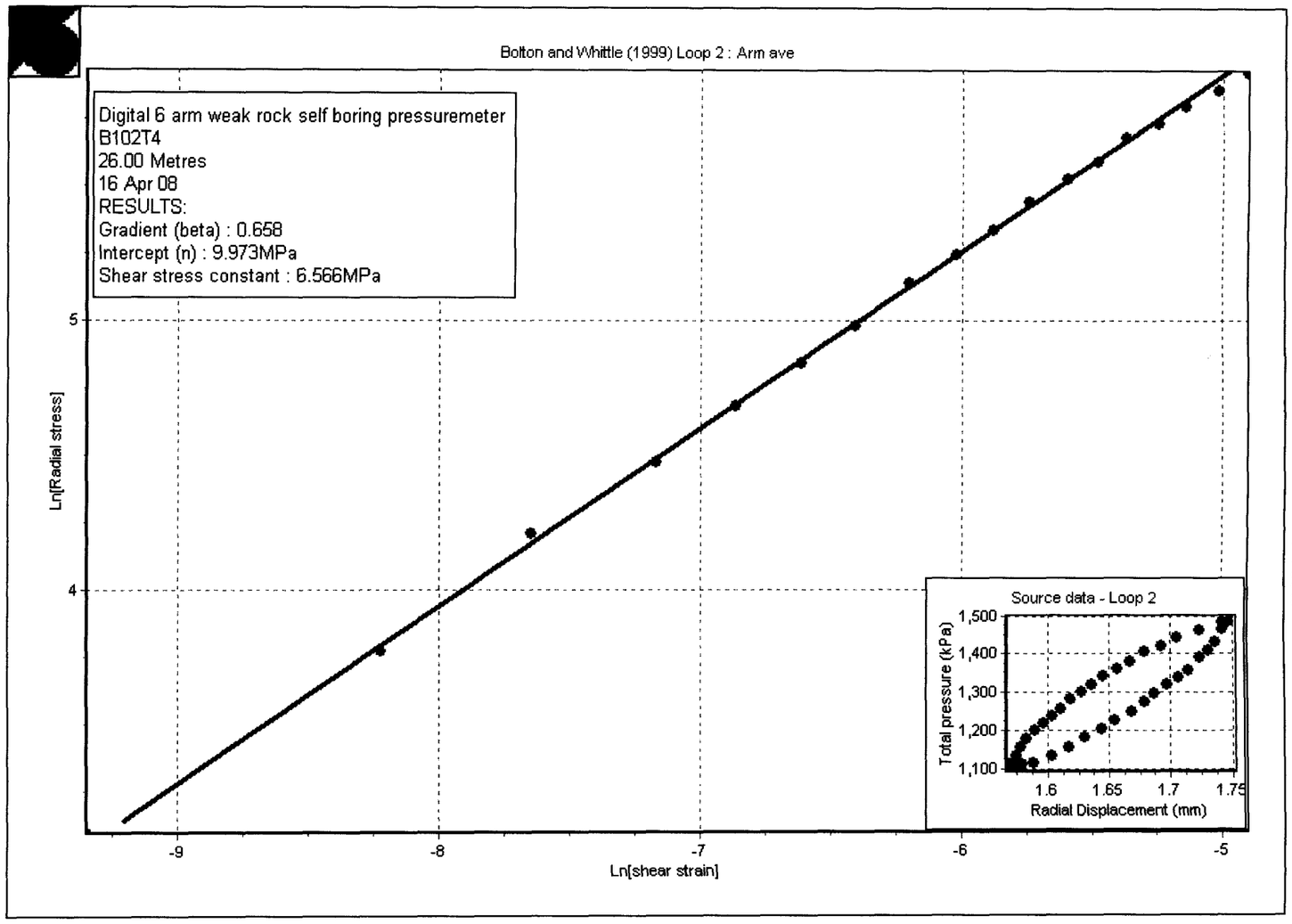

Palmer 1972 (expansion) : Arm ave
RESULTS:
Cu : 287.0kPa
Shear stress (kPa)
Shear strain (%)
Digital 6 arm weak rock self boring pressuremeter
B102T4
26.00 Metres
16 Apr 08

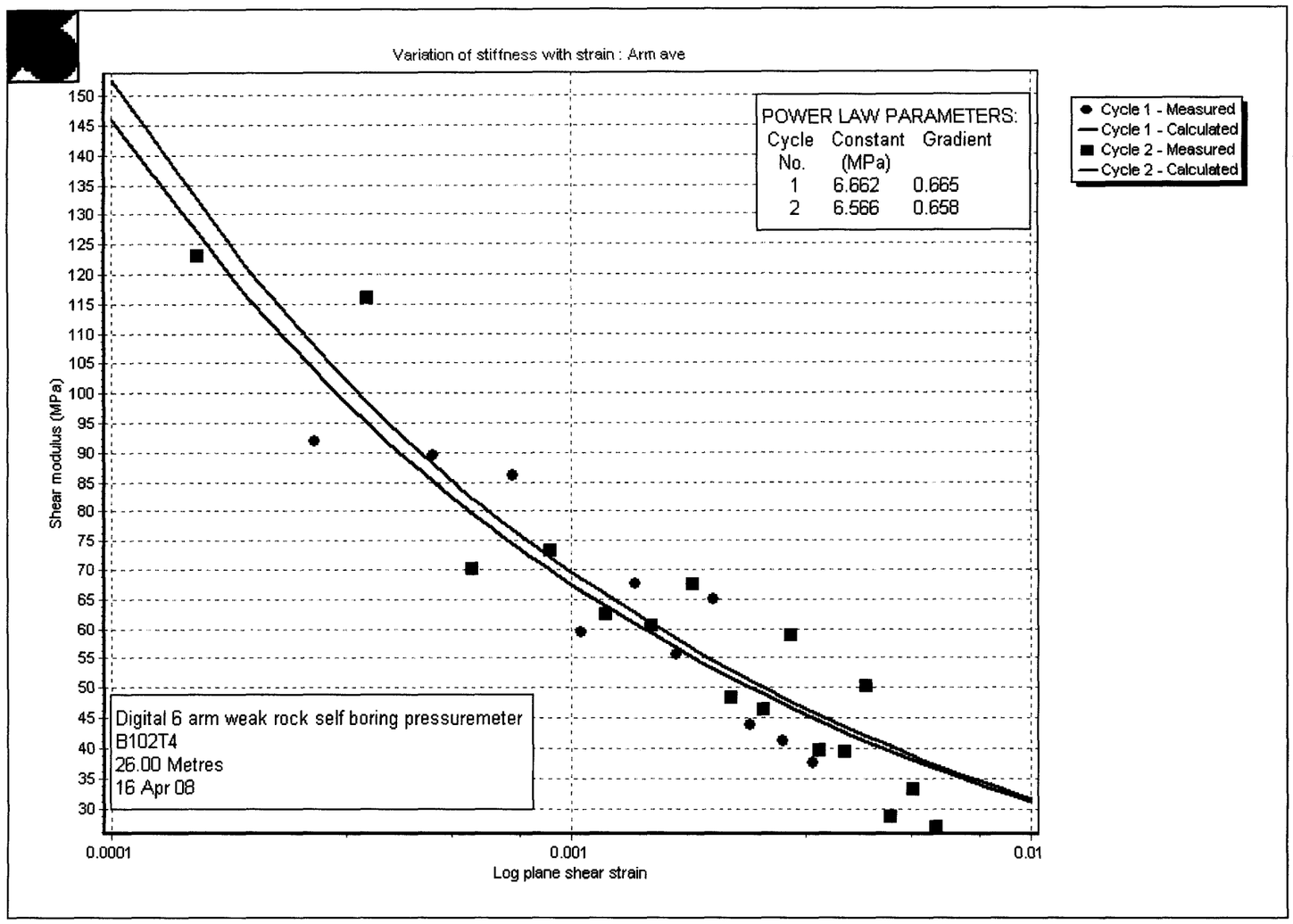

Palmer 1972 (contraction) : Arm ave
RESULTS:
2Cu : 576.9kPa
Shear stress (kPa)
Shear strain (%)
Digital 6 arm weak rock self boring pressuremeter
B102T4
26.00 Metres
16 Apr 08

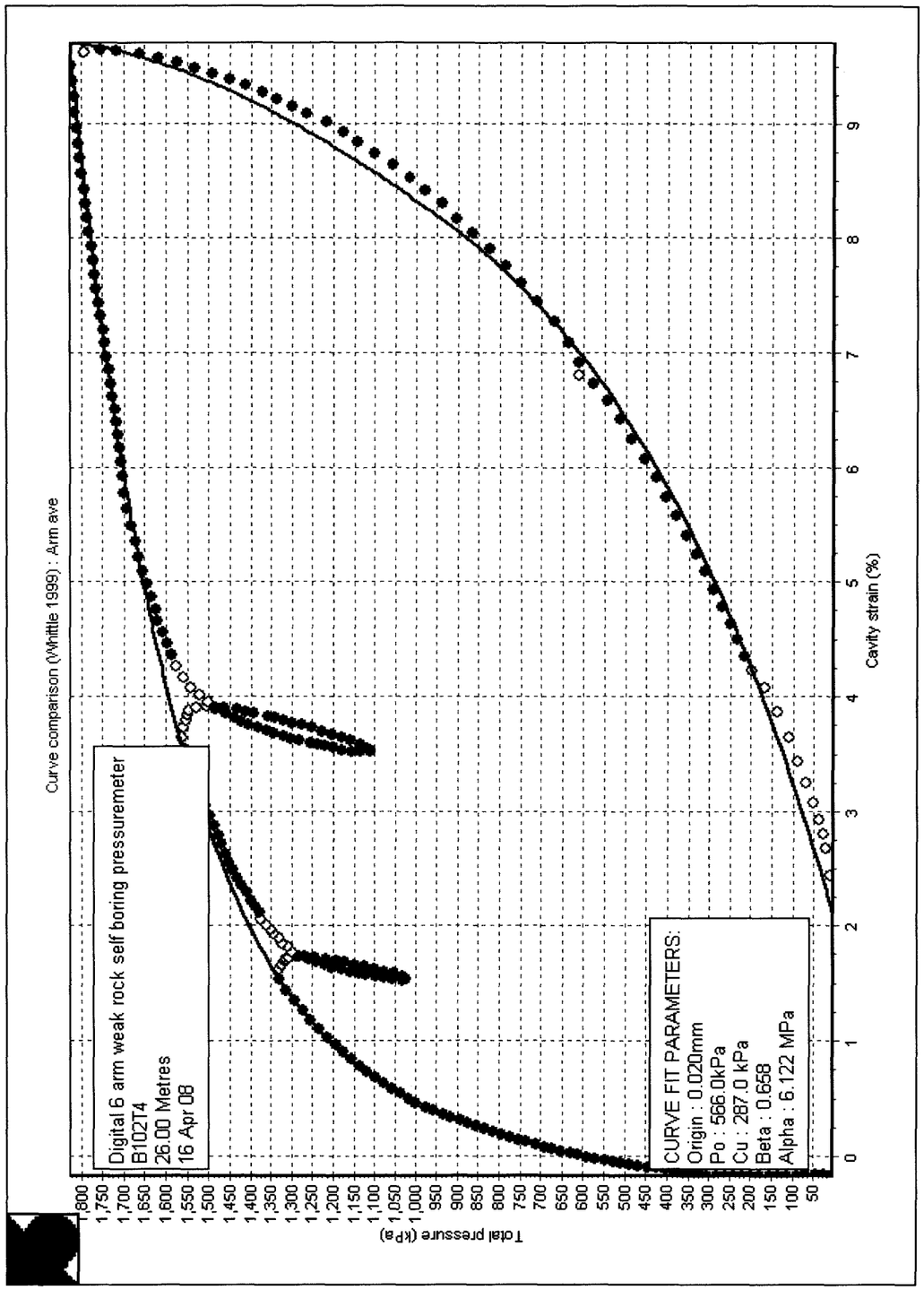

Shear modulus from unload/reload cycles Loop 1 : Arm ave
RESULTS:
Gur : 62.7MPa
Cycle mid-point:
Cavity strain : 1.644%
Total stress : 1152kPa
Size of cycle :
Shear strain : 0.413%
Total stress : 259kPa
Total pressure (kPa)
Radial Displacement (mm)
Digital 6 arm weak rock self boring pressuremeter
B102T4
26.00 Metres
16 Apr 08


Shear modulus from unload/reload cycles Loop 2 : Arm ave
RESULTS:
Gur : 49.8MPa
Cycle mid-point:
Cavity strain : 3.726%
Total stress : 1301kPa
Size of cycle :
Shear strain : 0.763%
Total stress : 381kPa
Digital 6 arm weak rock self boring pressuremeter
B102T4
26.00 Metres
16 Apr 08
Total pressure (kPa)
Radial Displacement (mm)


Bolton and Whittle (1999) Loop 1 : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T4
26.00 Metres
16 Apr 08
RESULTS:
Gradient (beta) : 0.665
Intercept (n) : 10.021MPa
Shear stress constant : 6.662MPa
Ln[Radial stress]
Ln[shear strain]
Source data - Loop 1
Total pressure (kPa)
Radial Displacement (mm)


Bolton and Whittle (1999) Loop 2 : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T4
26.00 Metres
16 Apr 08
RESULTS:
Gradient (beta) : 0.658
Intercept (n) : 9.973MPa
Shear stress constant : 6.566MPa
Ln[Radial stress]
Ln[shear strain]
Source data - Loop 2
Total pressure (kPa)
Radial Displacement (mm)


Variation of stiffness with strain : Arm ave
POWER LAW PARAMETERS:
Cycle No. | Constant (MPa) | Gradient
1 | 6.662 | 0.665
2 | 6.566 | 0.658
Cycle 1 - Measured
Cycle 1 - Calculated
Cycle 2 - Measured
Cycle 2 - Calculated
Digital 6 arm weak rock self boring pressuremeter
B102T4
26.00 Metres
16 Apr 08
Shear modulus (MPa)
Log plane shear strain



6 ARM SELF BORING PRESSUREMETER **TEST RECORD SHEET**

Site	Date	Day	Borehole	Test	Depth to Test Centre (below ground level)
Denmark Place	16/4/08	Wed	102	4	26.0

Weather:- Fine Material - London Clay

Water table	Drilling Start	Drilling End	Distance	Drill Rate	Ram Pressure
?	14:25	15:05	1m.	1m/30min.	To Back

Ground level :- Orientation:- NR.

Water Press.	Inst. OD	Shoe OD	Cutter Type	Cutter position.	Probe Reference
>Zero	97.1	99.1	93 RR	3mm Back	'New'

Drilling Remarks:-

Strain Rate	Press. Rate	Cycle Time	Gas Bottle	Battery	PPC Type	Max Pressure Cap.
1%/min	S(L)	65sec	120 BAR	12.52	TRIAX	1mPa

Arm 1	Arm 2	Arm 3	Arm 4	Arm 5	Arm 6	PPC A	PPC B	TPC	Date:-
-113	85	-57	38	-91	129	-1089	-914	-2481	Ground Level Zeros
									Pre-drilling Zeros
									Post-drilling Zeros
-117	74	-72	23	-108	105	-994	-856	-2456	Pre-test Zeros
									Ground Level Zeros

Test starts:- 15:08

Line	Notes
394	Loop 1 P23
424	P24
459	Loop 2 P23
517	P23
543	unload

Test ends:- 15:37 Max Press:- 1972kPa

Calibrated Date details:

Mem. Correction	Mem. Compression	Strain Cals.	Pressure Cals.
W0130T1	W0130T2	10/4/09	11/4/09

TEST REMARKS:

Driller: Dan

Tester: PJ

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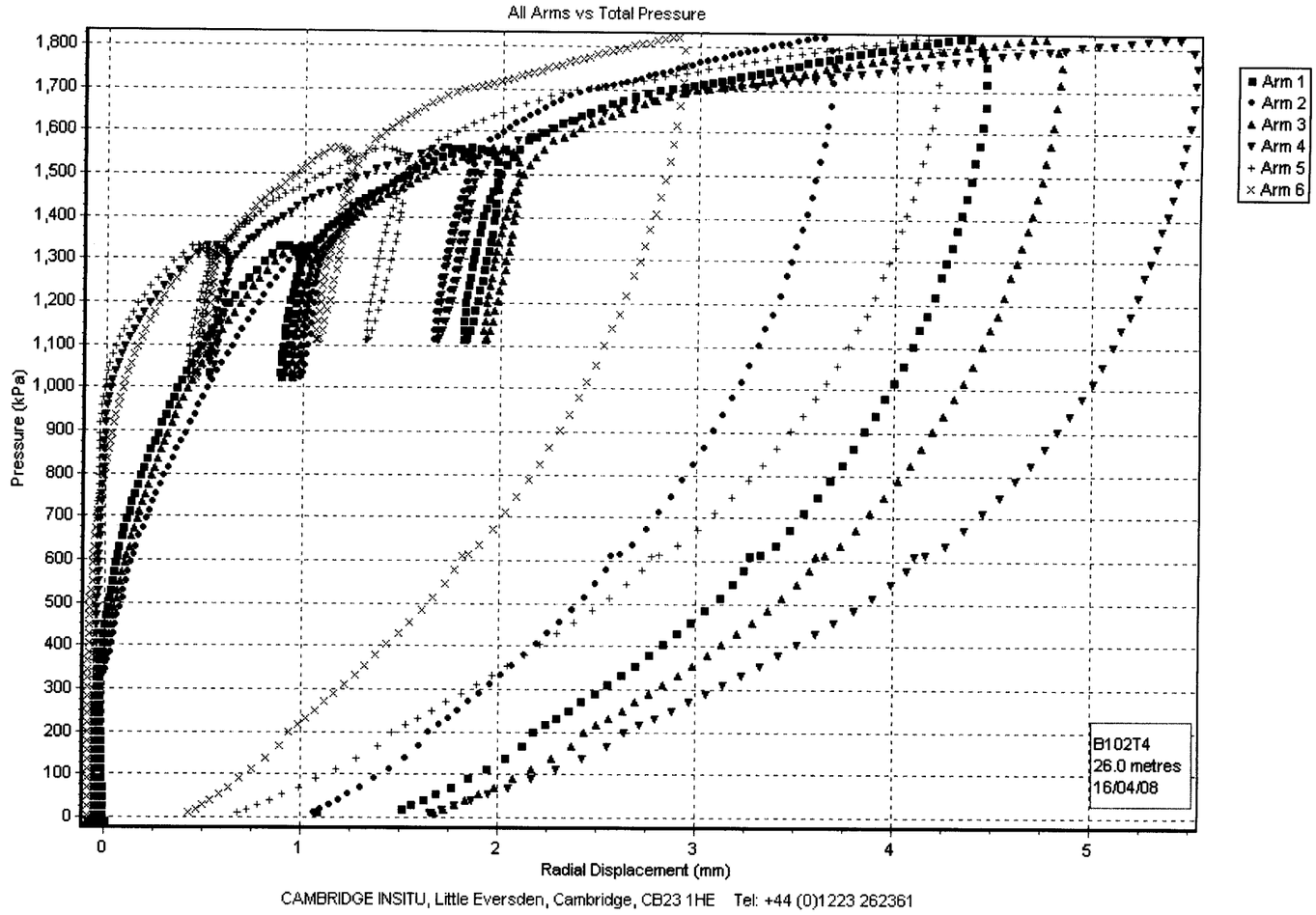
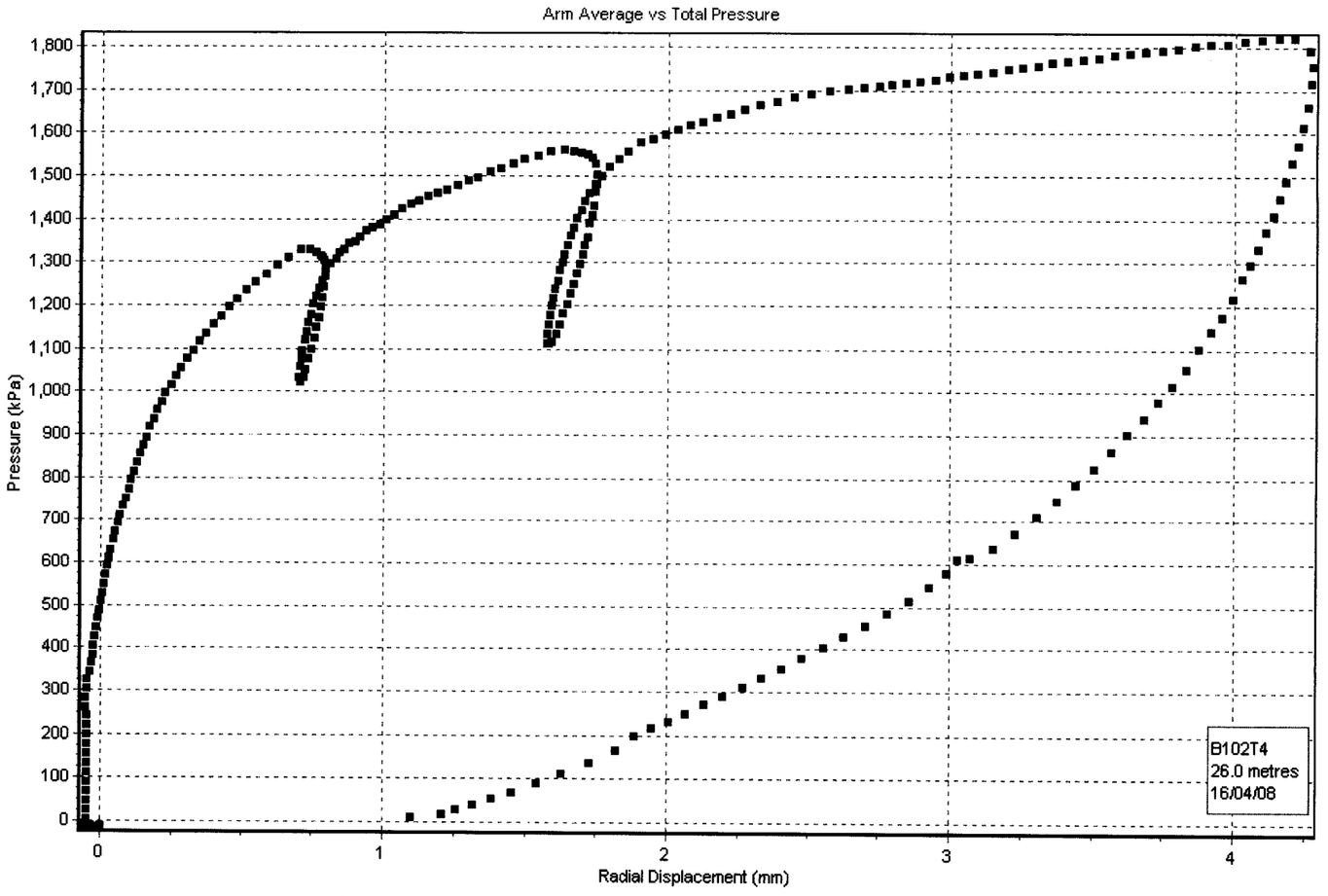
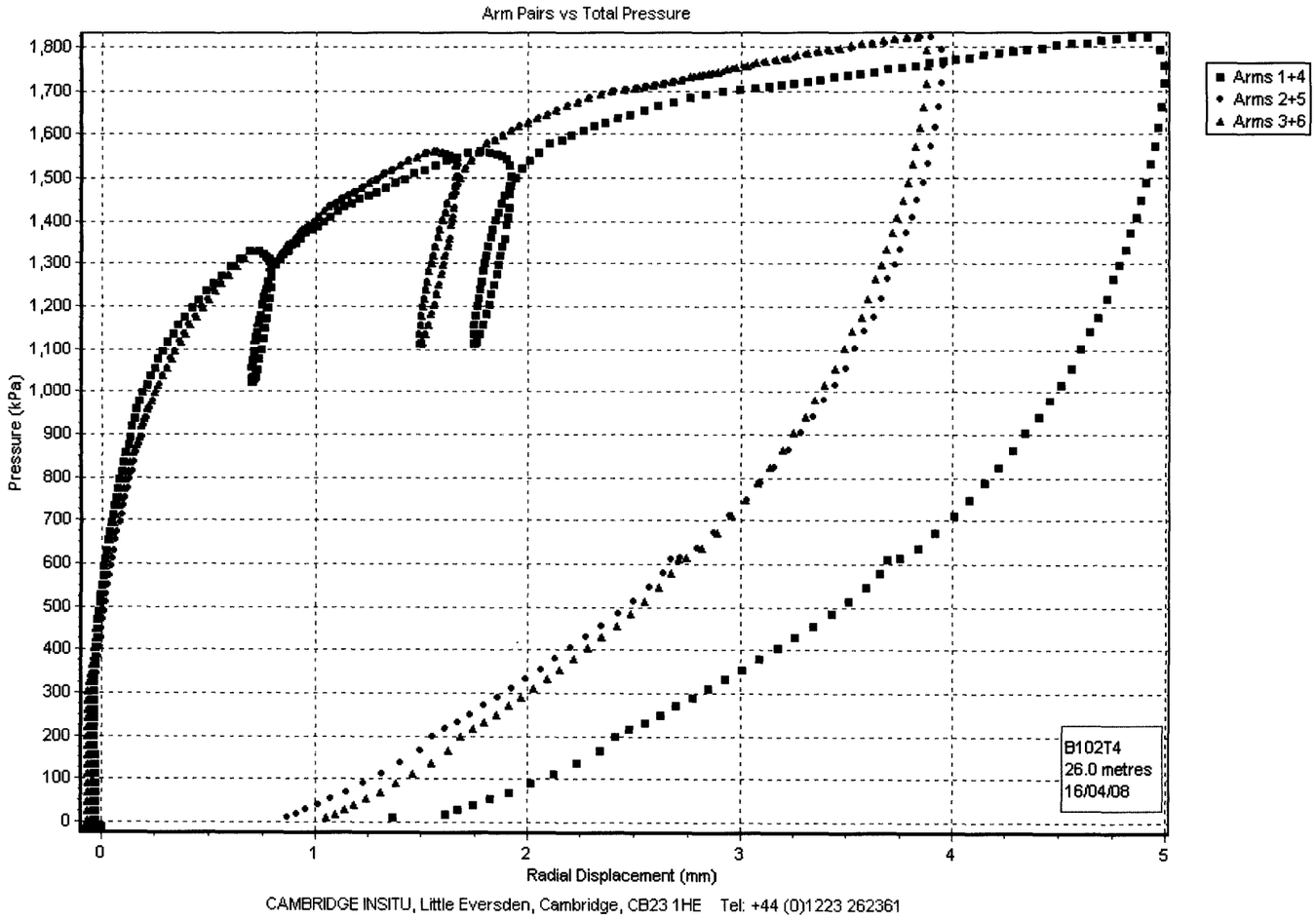
SBP6TRS.DOC May 25th, 2001 E-mail: Cambinsitu@AOL.com Web site: Cambridge-Insitu.com


All Arms vs Total Pressure
Pressure (kPa)
Radial Displacement (mm)
Arm 1
Arm 2
Arm 3
Arm 4
Arm 5
Arm 6
B102T4
26.0 metres
16/04/08


Arm Average vs Total Pressure
Pressure (kPa)
Radial Displacement (mm)
B102T4
26.0 metres
16/04/08



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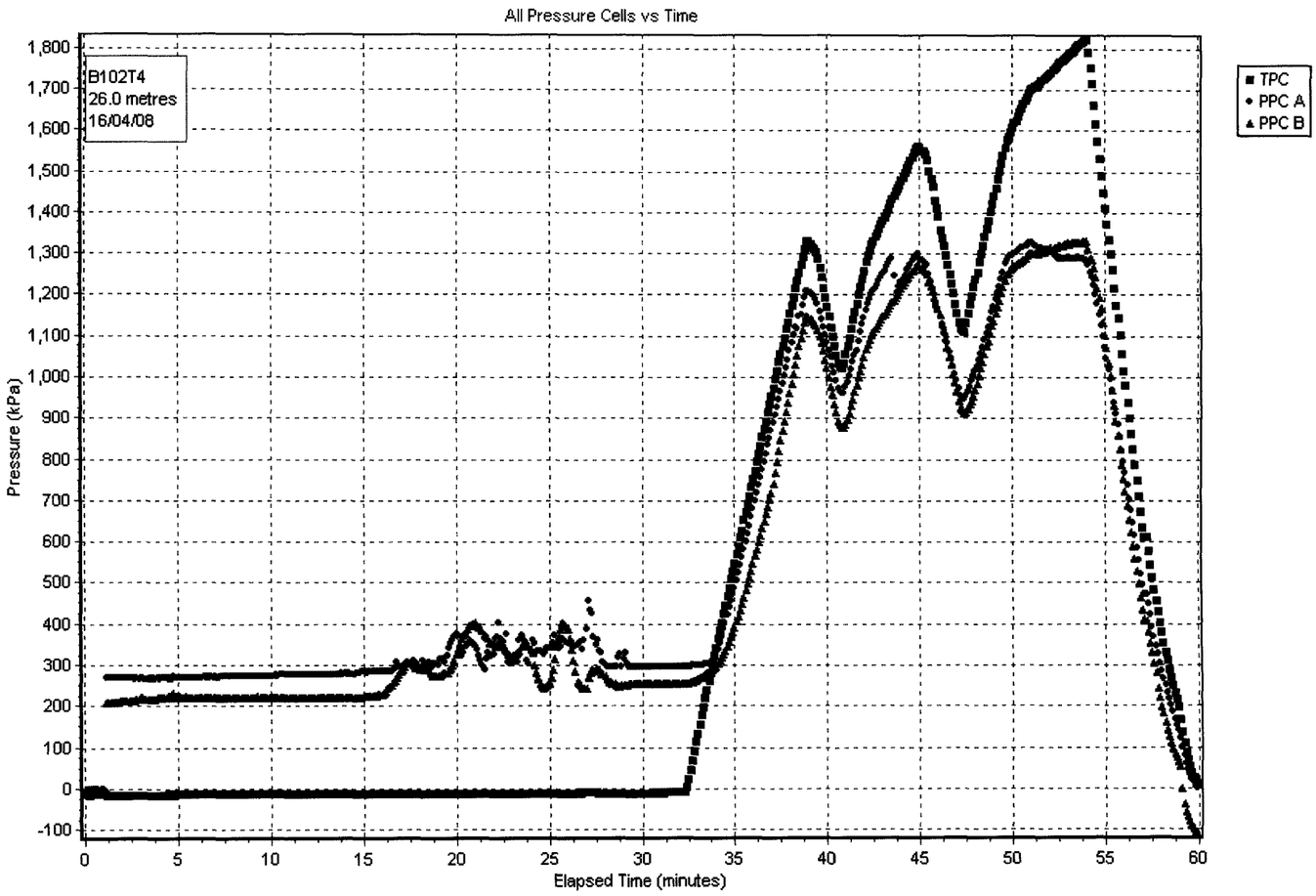

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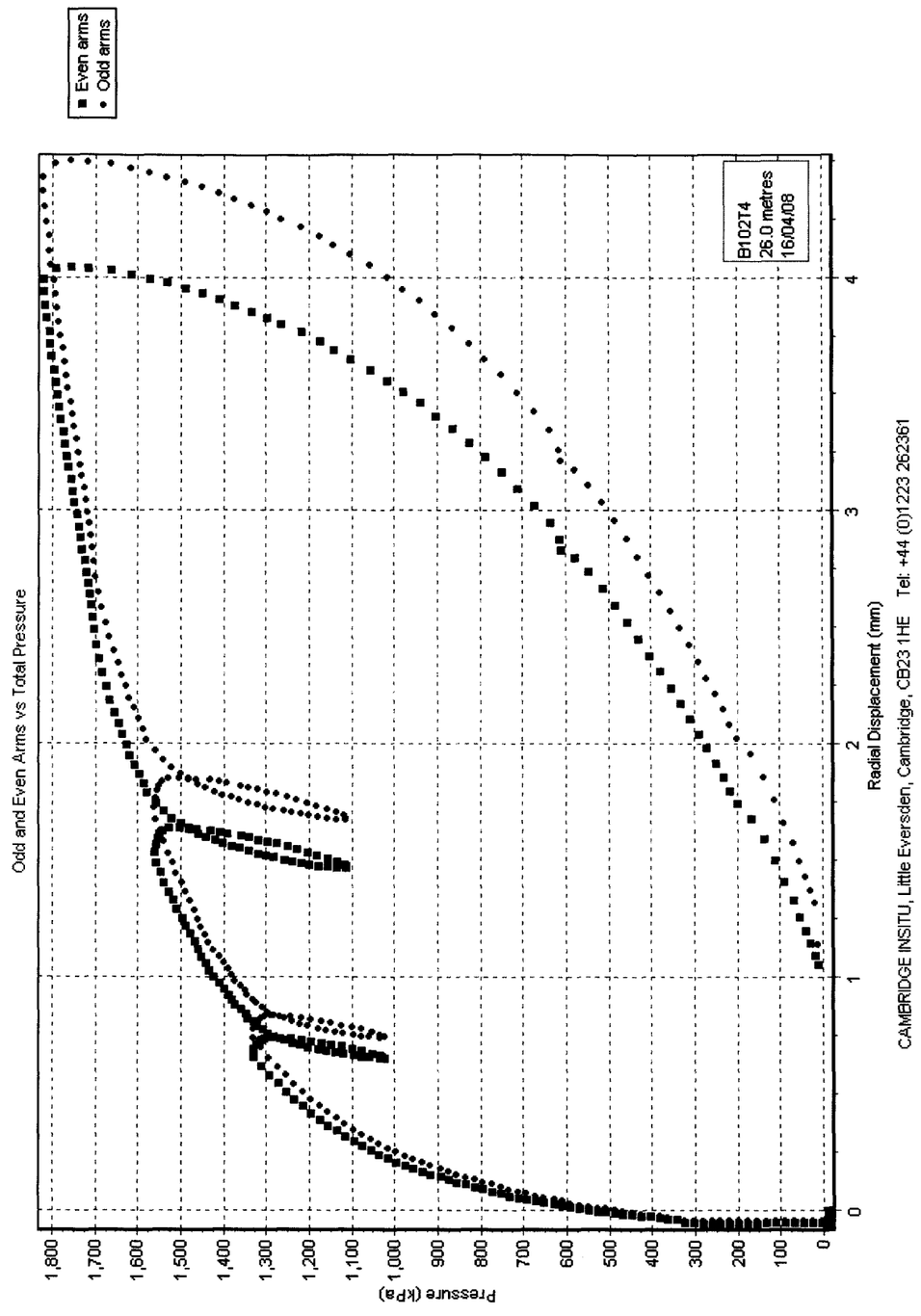


B102T5 - SUMMARY OF RESULTS
[File made with WinSitu Version 1.20.1.1]

[DETAILS OF TEST]

Project	:	36237
Site	:	Denmark Place
Borehole	:	BH102
Test name	:	B102T5
Test date	:	17 Apr 08
Test depth	:	33.00 Metres
Water table	:	5.6 Metres
Ambient PWP	:	268.8 kPa
Material	:	Lambeth Group - clay
Probe	:	Digital 6 arm weak rock self boring pressuremeter
Diameter	:	88.1 mm

Data analysed using average arm displacement curve
A non-linear analysis of the rebound cycles has been carried out
The file includes results from a curve fitting analysis

Analysed by RWW on 18 Apr 08

Remarks: Reddish/Grey clay, very stiff - SAF

[RESULTS FOR CAVITY REFERENCE PRESSURE]

Strain Origin (mm)	:	"Arm ave=0.420"
Po from Marsland & Randolph (kPa)	:	"Arm ave=839.5"
Po from Lift off (kPa)	:	"Arm ave=849.5"
PWP versus Total Stress (kPa)	:	"PPC Ave=358.4"
Best estimate of Po (kPa)	:	"Arm ave=1006.0"

[UNDRAINED STRENGTH PARAMETERS]

Gibson & Anderson 1961 - Cu (kPa)	:	"Arm ave=664.7"
Limit pressure (kPa)	:	"Arm ave=4962"
Jefferies 1988 - Cu (kPa)	:	"Arm ave=658.5"
Undrained yield stress (kPa)	:	"Arm ave=1279.6"

[LINEAR INTERPRETATION OF SHEAR MODULUS G]
Initial slope shear modulus (MPa) :"Arm ave=79.4"

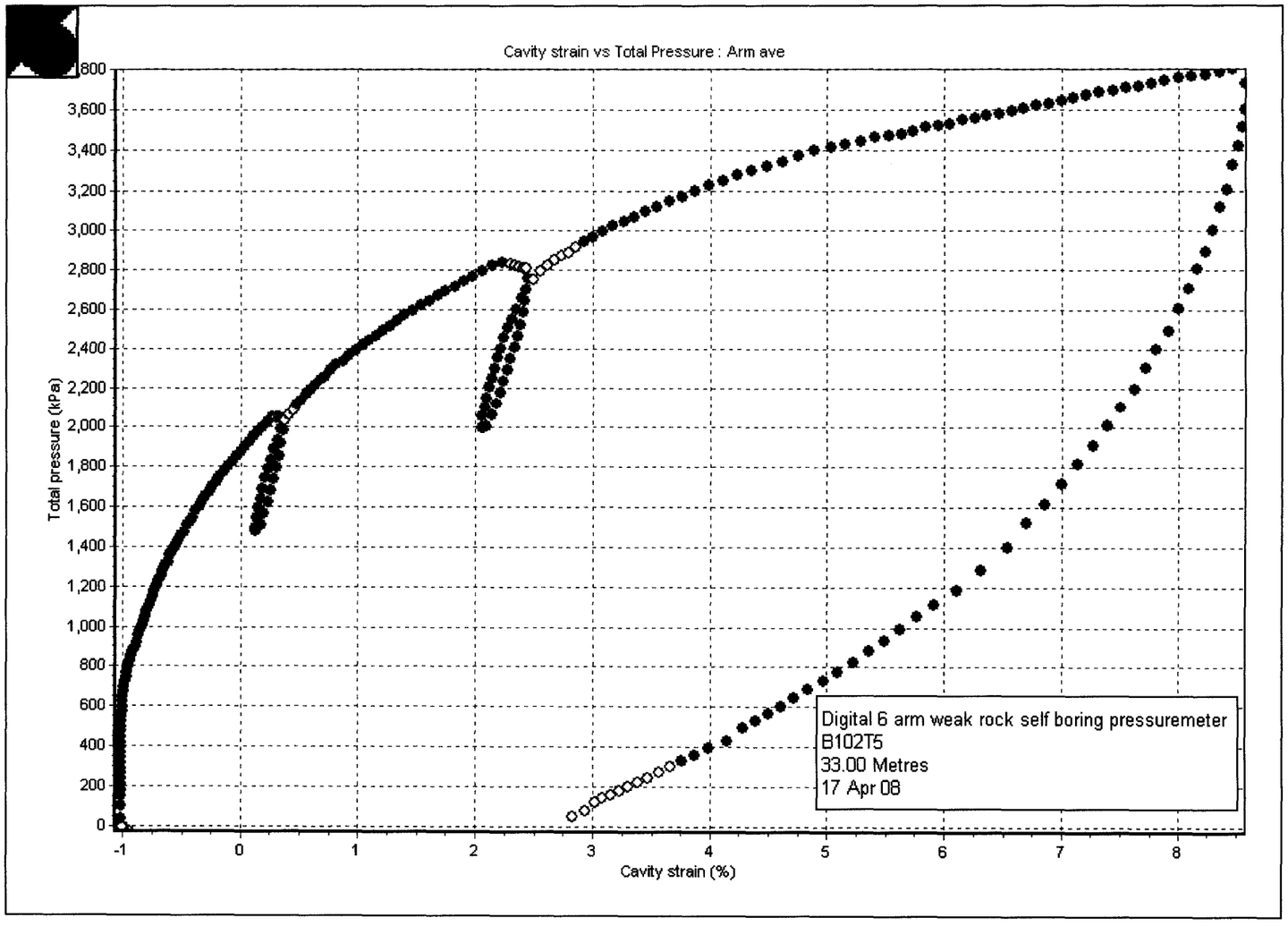
Axis	Loop No	Value (MPa)	Mean Strain (%)	Mean Pc (kPa)	dE (%)	dPc (kPa)
Arm ave	1	112.6	0.250	1759	0.489	552
Arm ave	2	96.0	2.253	2358	0.796	767

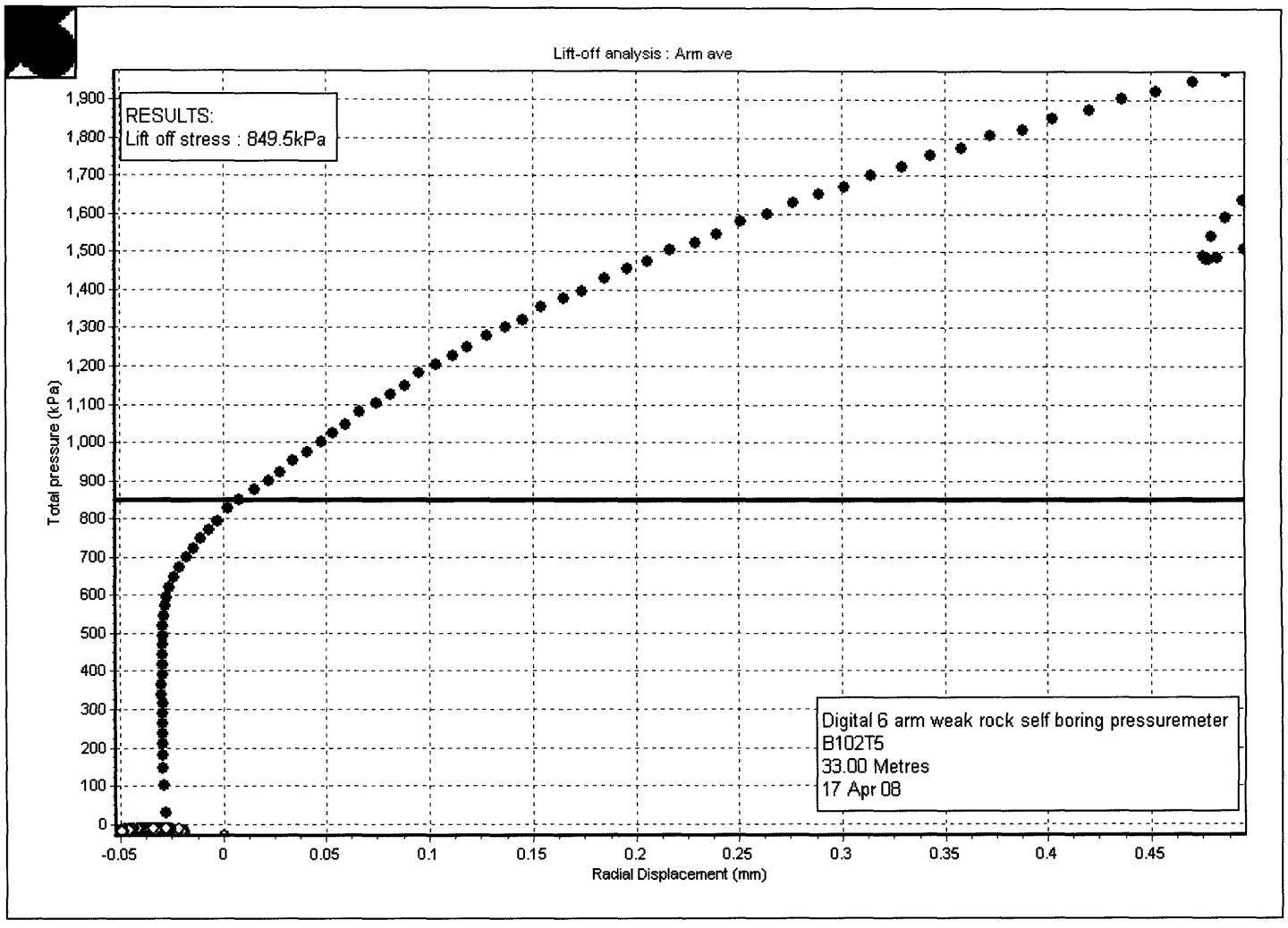
[NON LINEAR INTERPRETATION OF SECANT SHEAR MODULUS]

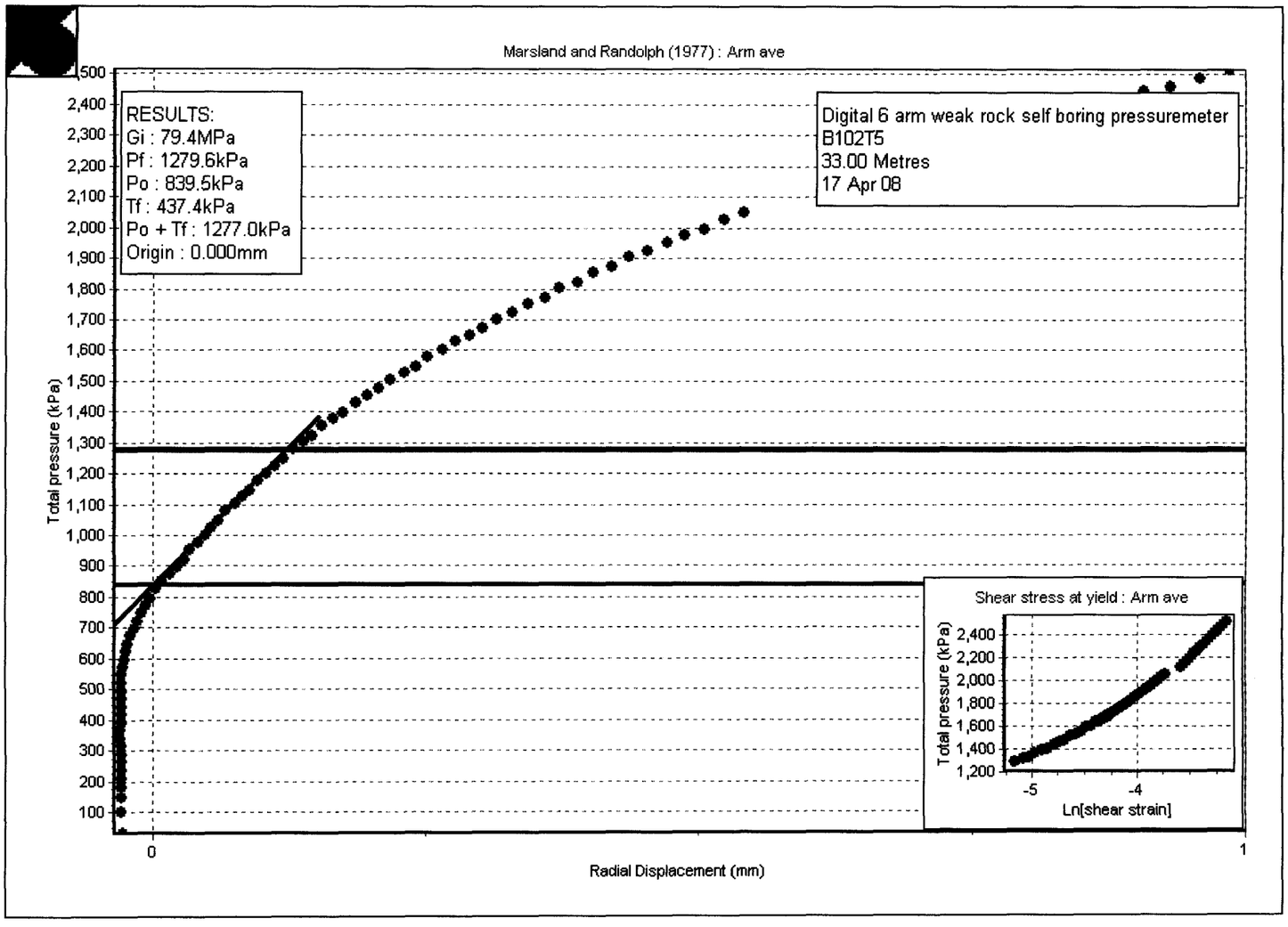
Axis	Loop No	Intercept (MPa)	Alpha (MPa)	Gradient
Arm ave	1	23.503	16.624	0.707
Arm ave	2	20.866	14.296	0.685

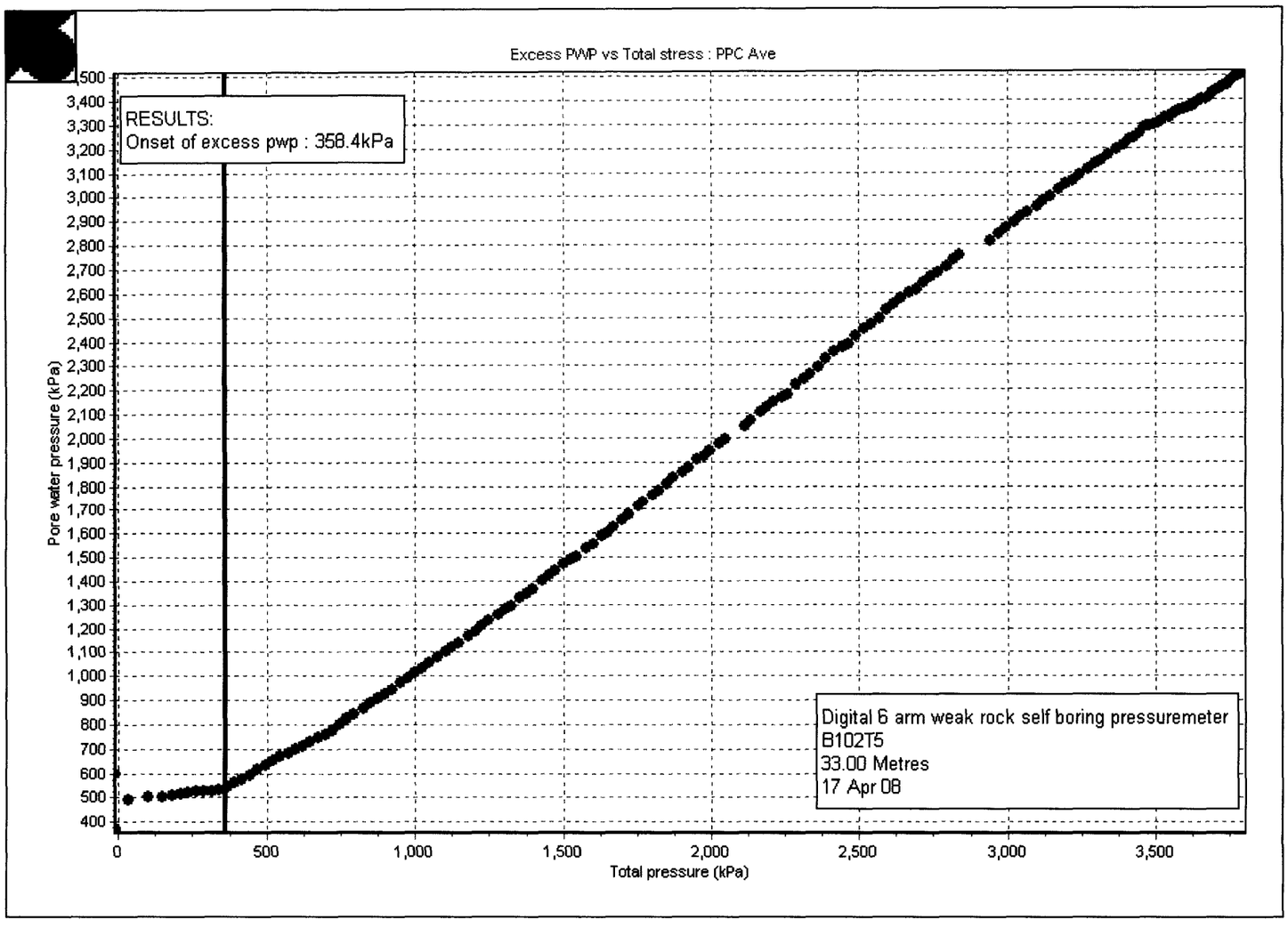
[PARAMETERS USED FOR UNDRAINED CURVE MODELLING]
Axis is Arm ave

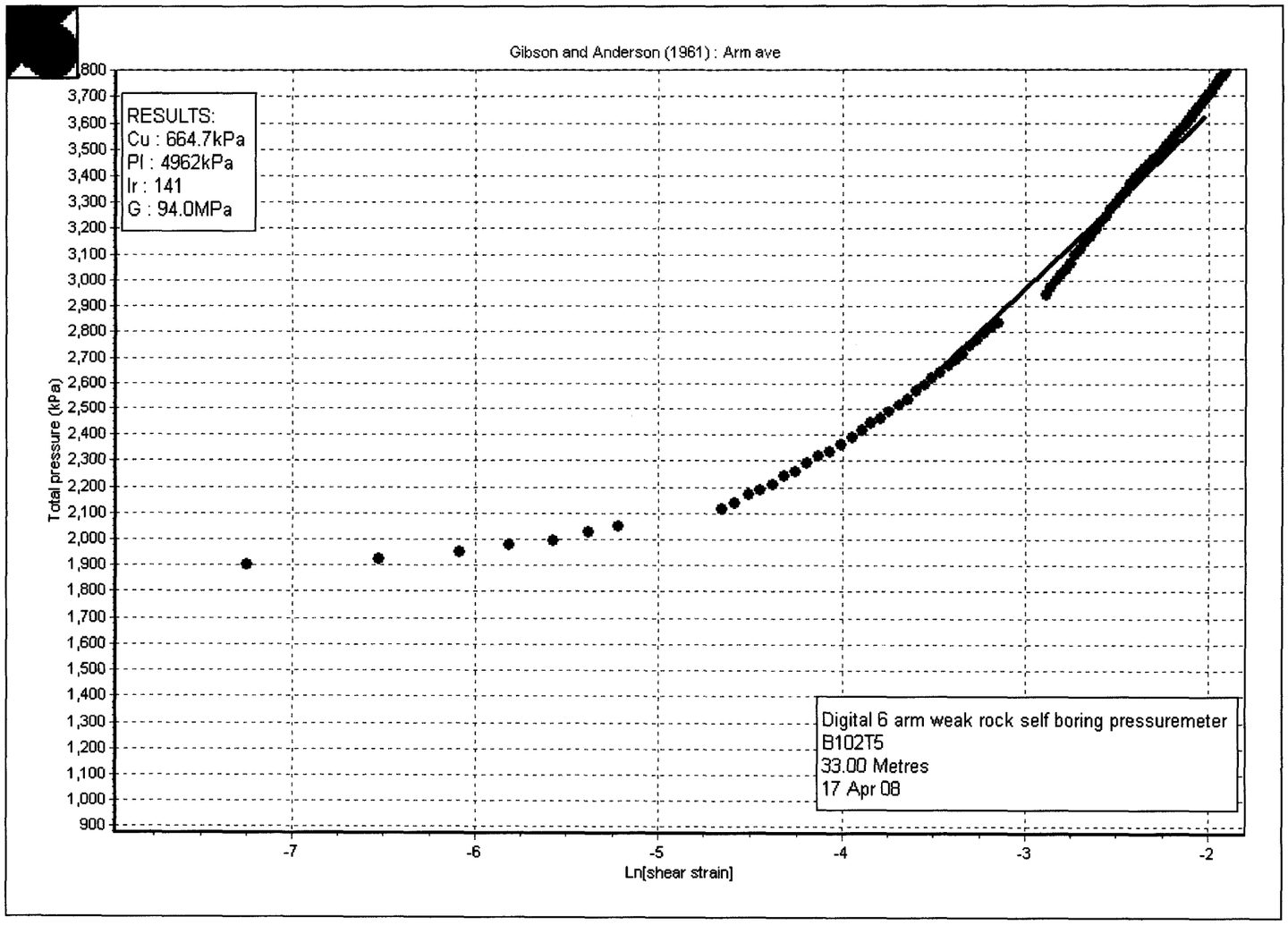
Strain Origin (mm)	:	0.42
Po (kPa)	:	1006
Cu (kPa)	:	664.7
Limit pressure (kPa)	:	4962
Non-linear exponent	:	0.685
Calculated alpha (MPa)	:	14.424
G at yield (MPa)	:	59.3

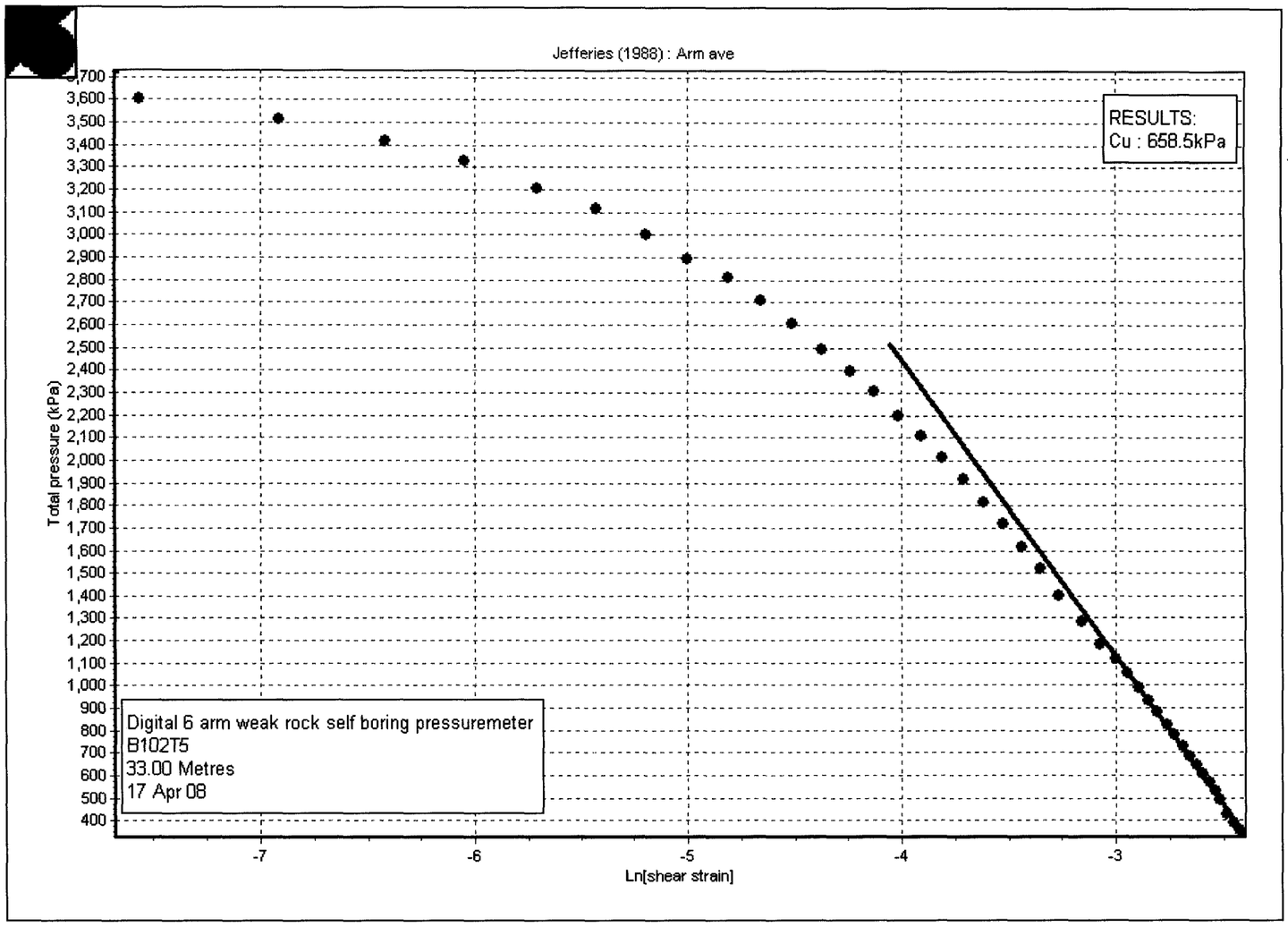

Cavity strain vs Total Pressure : Arm ave
Total pressure (kPa)
Cavity strain (%)
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08

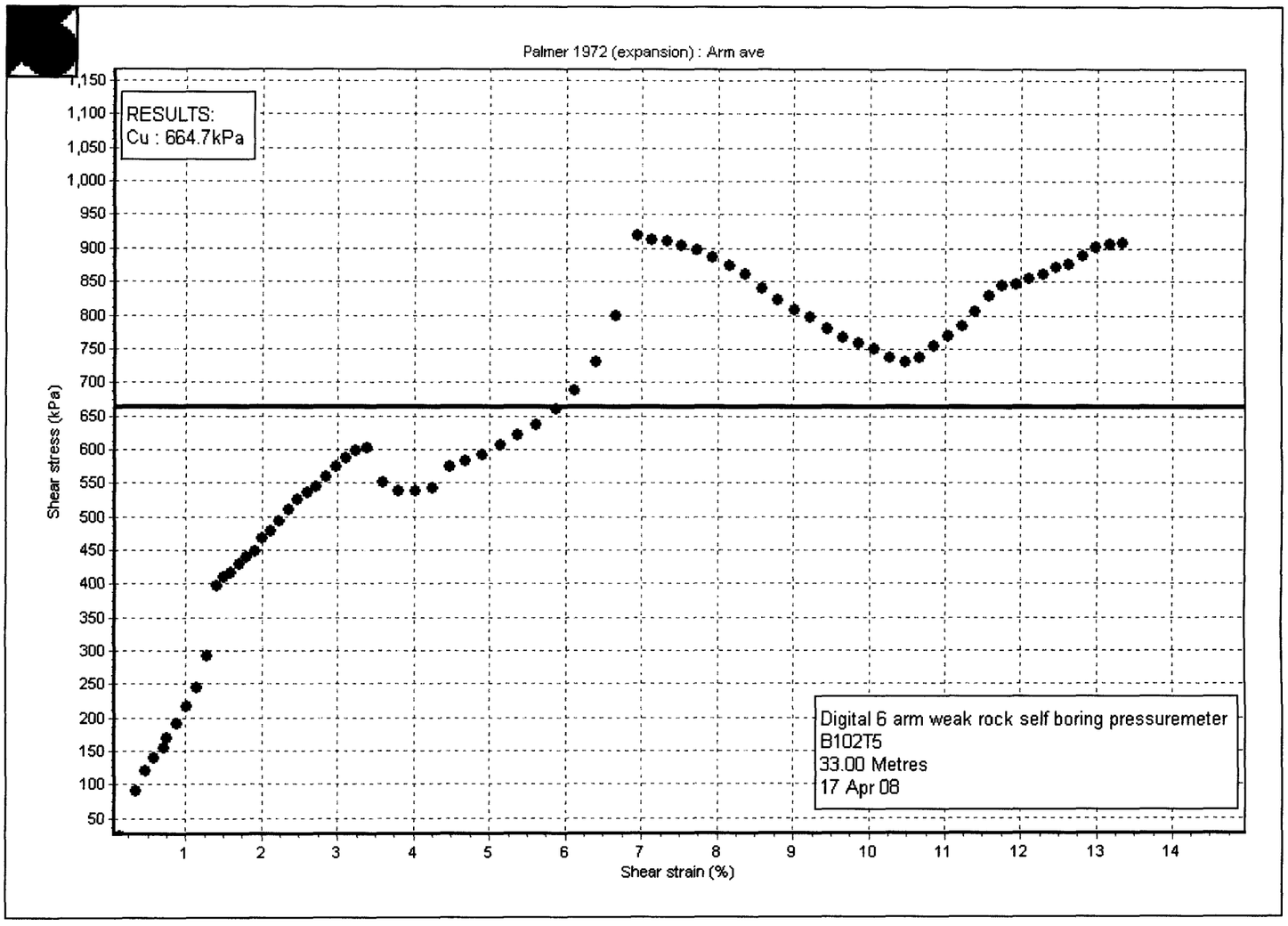

Lift-off analysis : Arm ave
RESULTS:
Lift off stress : 849.5kPa
Total pressure (kPa)
Radial Displacement (mm)
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08

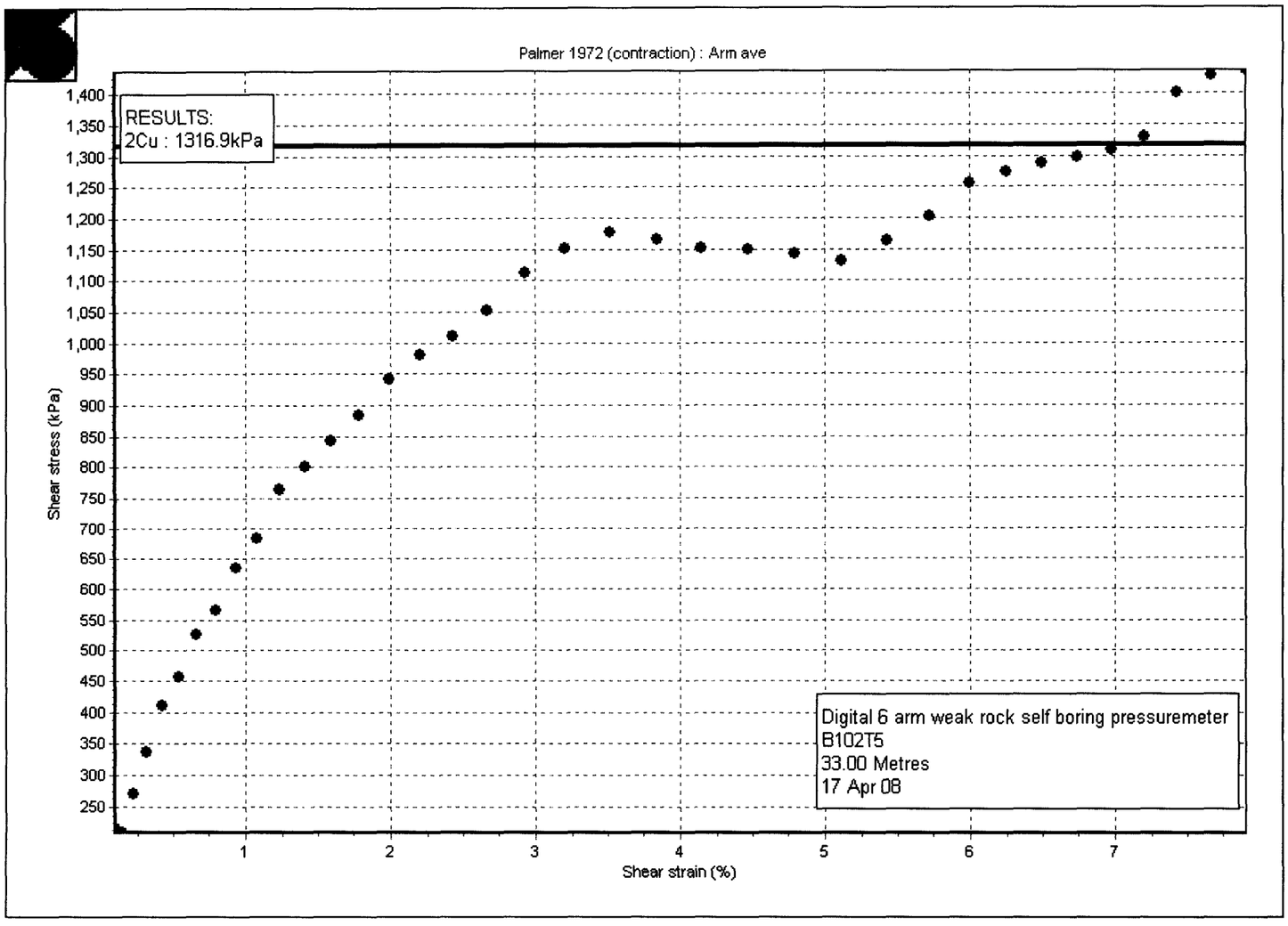

Marsland and Randolph (1977) : Arm ave
RESULTS:
Gi : 79.4MPa
Pf : 1279.6kPa
Po : 839.5kPa
Tf : 437.4kPa
Po + Tf : 1277.0kPa
Origin : 0.000mm
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08
Total pressure (kPa)
Radial Displacement (mm)
Shear stress at yield : Arm ave
Total pressure (kPa)
Ln[shear strain]

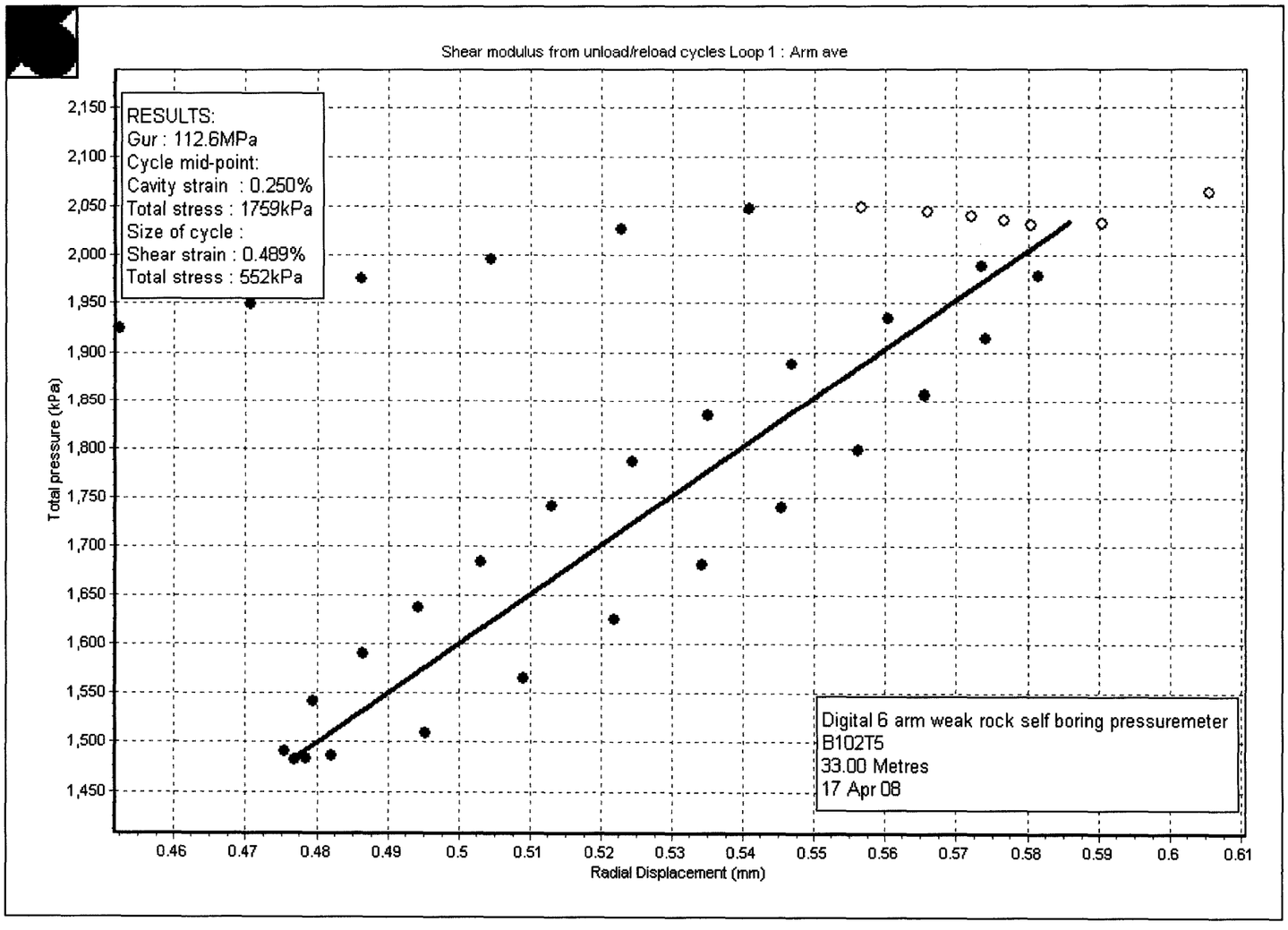

Excess PWP vs Total stress : PPC Ave
RESULTS:
Onset of excess pwp : 358.4kPa
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08
Pore water pressure (kPa)
Total pressure (kPa)

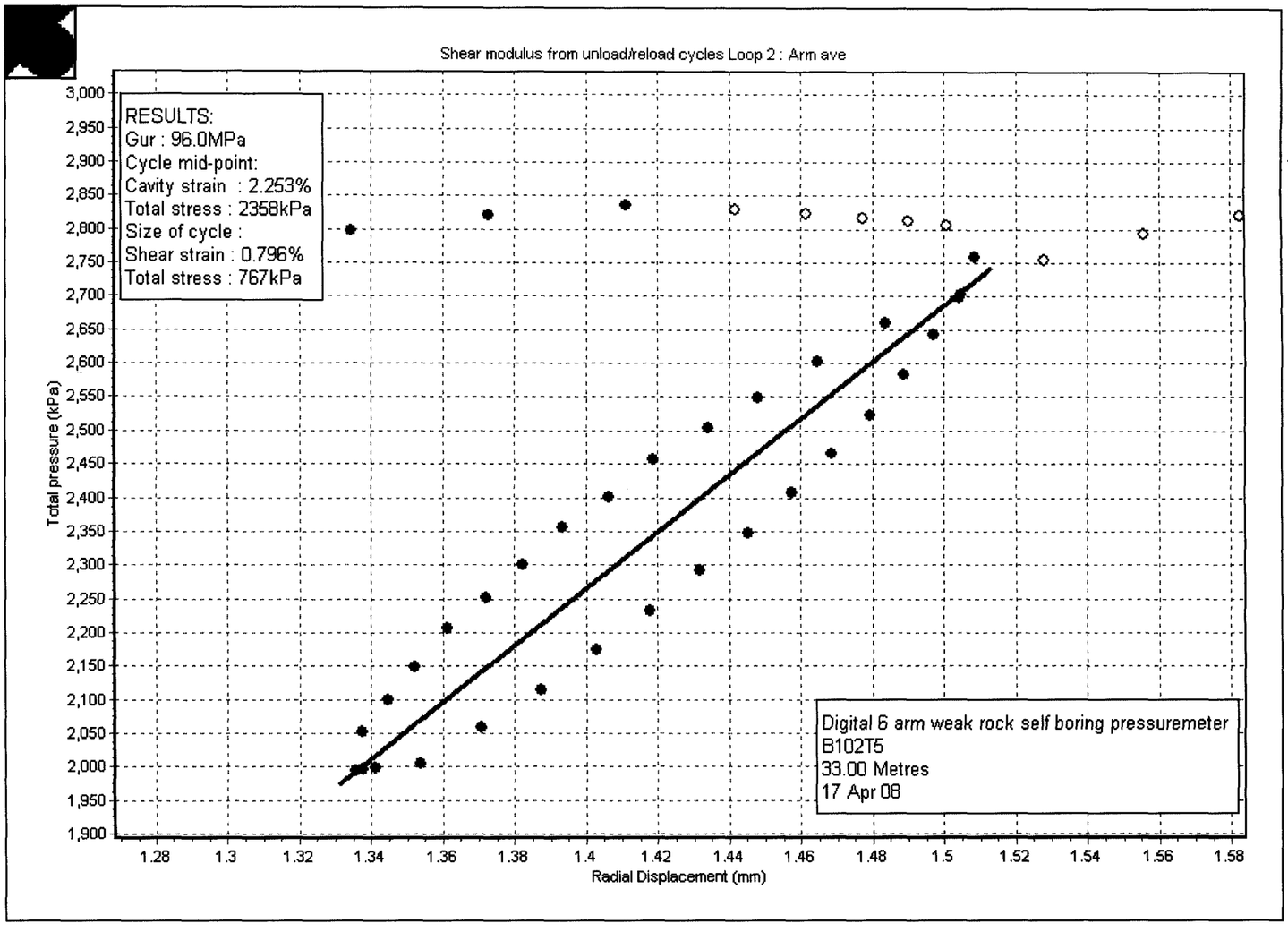

Gibson and Anderson (1961) : Arm ave
RESULTS:
Cu : 664.7kPa
PI : 4962kPa
Ir : 141
G : 94.0MPa
Total pressure (kPa)
Ln[shear strain]
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08

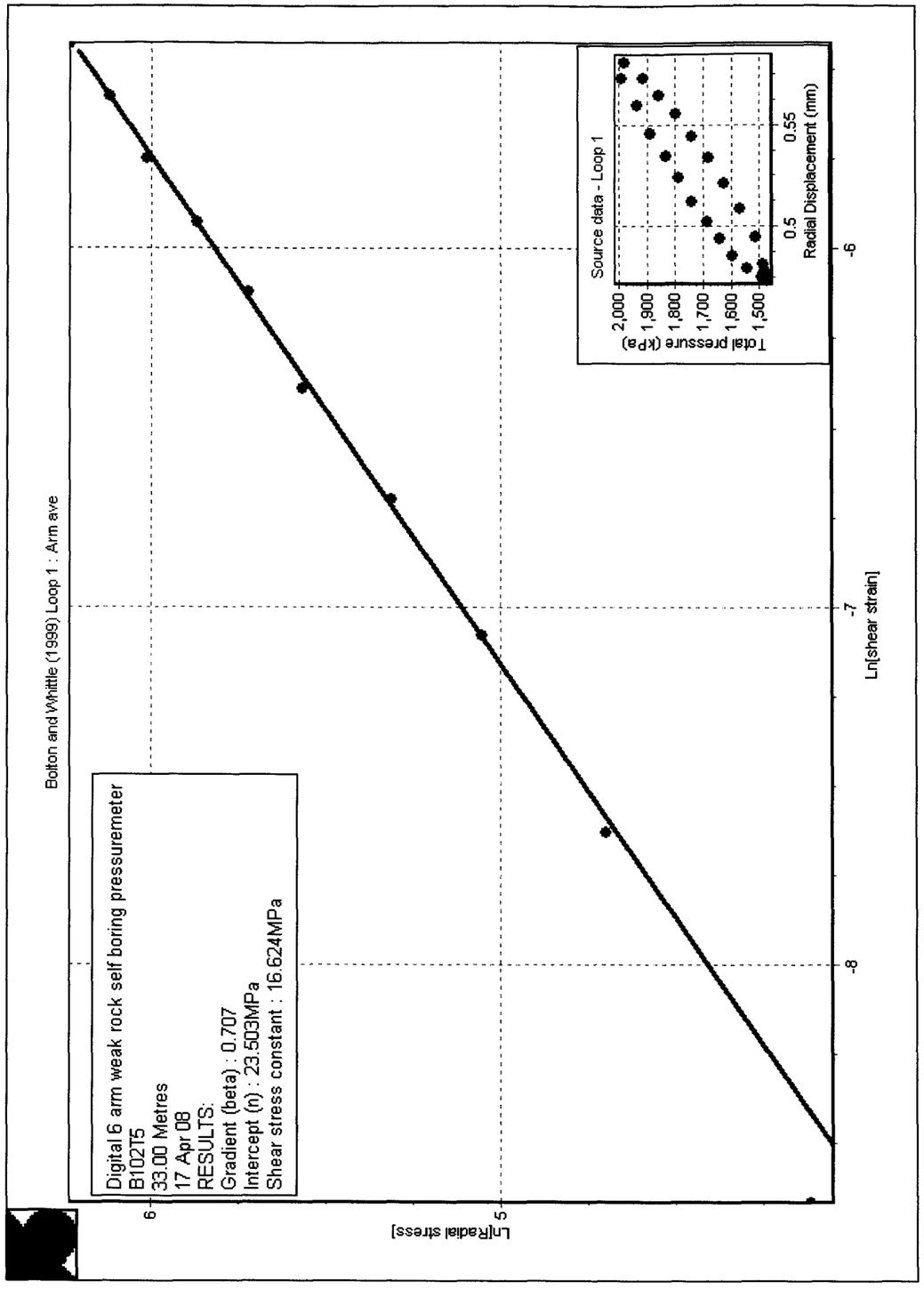

Jefferies (1988) : Arm ave
RESULTS:
Cu : 658.5kPa
Total pressure (kPa)
Ln[shear strain]
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08

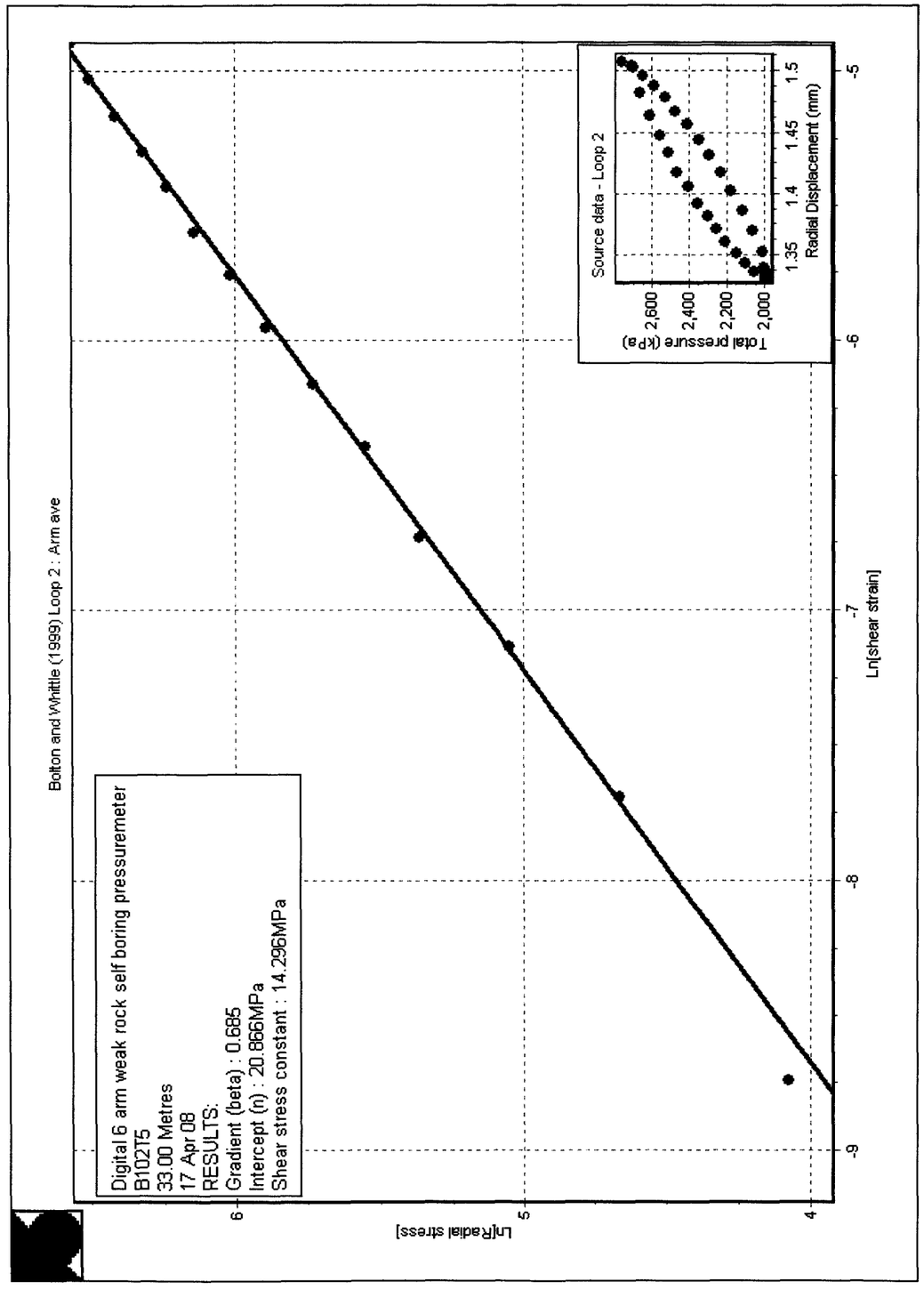

Palmer 1972 (expansion) : Arm ave
RESULTS:
Cu : 664.7kPa
Shear stress (kPa)
Shear strain (%)
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08

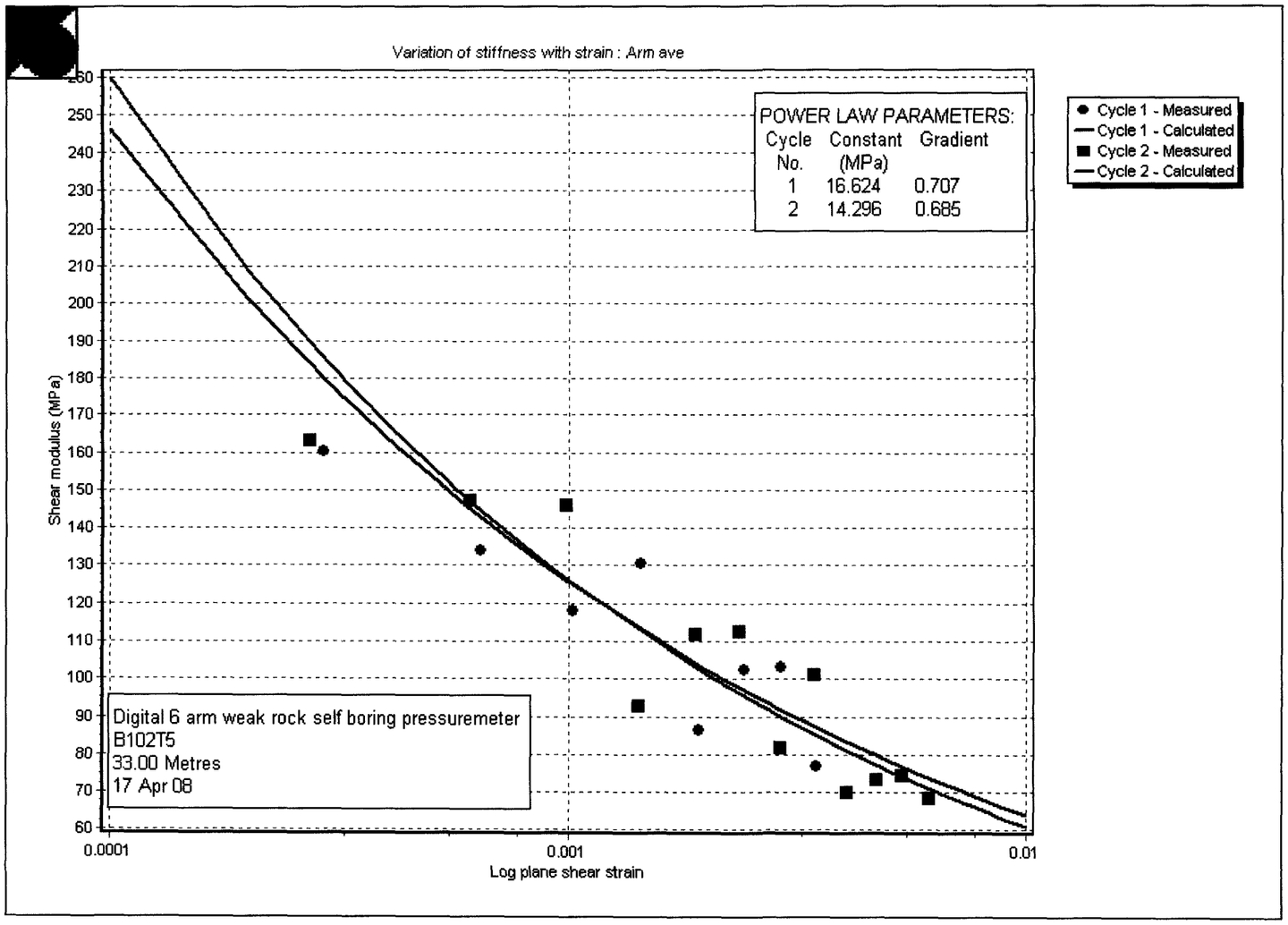

Palmer 1972 (contraction) : Arm ave
RESULTS:
2Cu : 1316.9kPa
Shear stress (kPa)
Shear strain (%)
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08

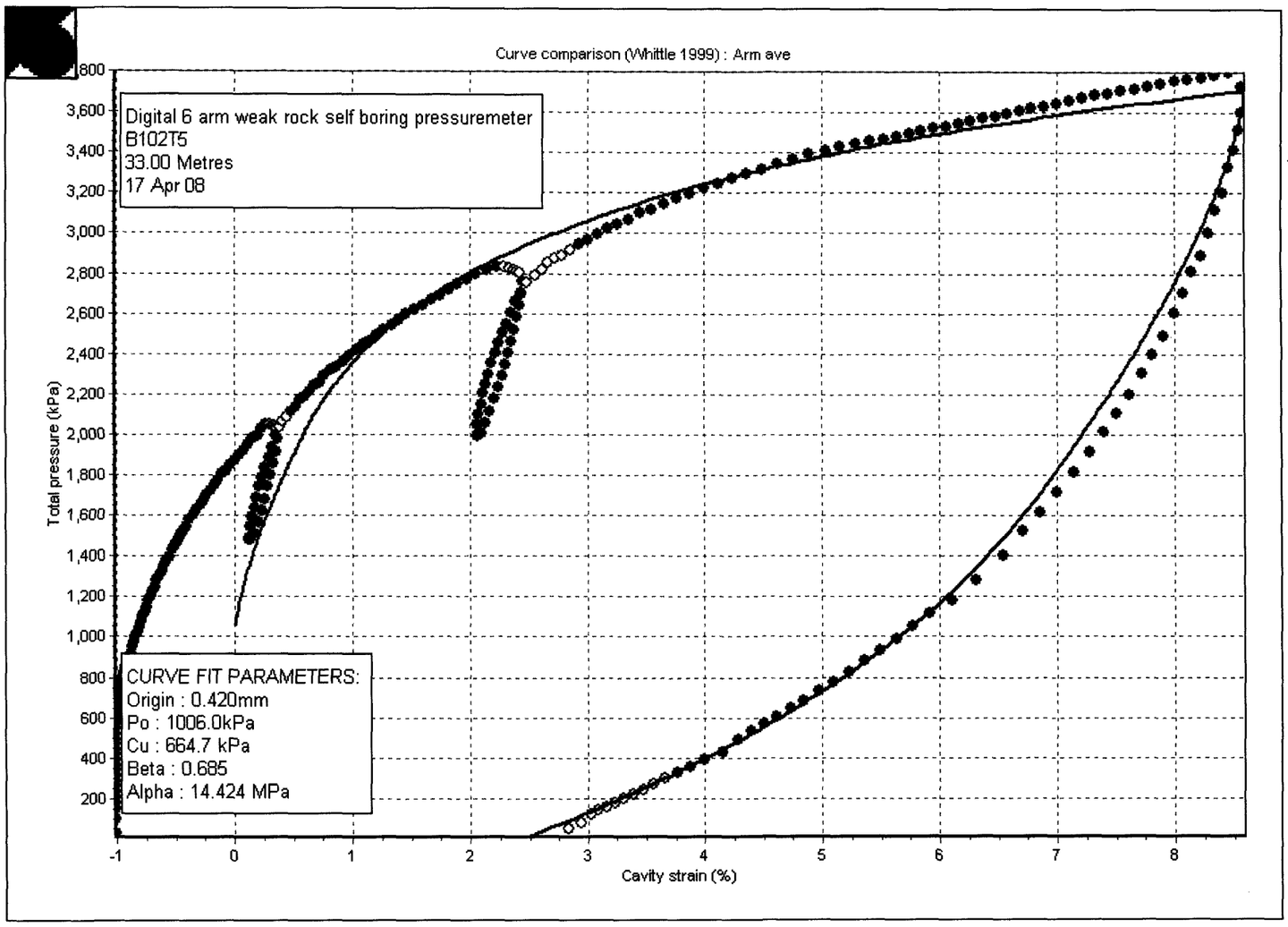

Shear modulus from unload/reload cycles Loop 1 : Arm ave
RESULTS:
Gur : 112.6MPa
Cycle mid-point:
Cavity strain : 0.250%
Total stress : 1759kPa
Size of cycle :
Shear strain : 0.489%
Total stress : 552kPa
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08
Total pressure (kPa)
Radial Displacement (mm)


Shear modulus from unload/reload cycles Loop 2 : Arm ave
RESULTS:
Gur : 96.0MPa
Cycle mid-point:
Cavity strain : 2.253%
Total stress : 2358kPa
Size of cycle :
Shear strain : 0.796%
Total stress : 767kPa
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08
Total pressure (kPa)
Radial Displacement (mm)


Bolton and Whittle (1999) Loop 1 : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08
RESULTS:
Gradient (beta) : 0.707
Intercept (n) : 23.503MPa
Shear stress constant : 16.624MPa
Ln[Radial stress]
Ln[shear strain]
Source data - Loop 1
Total pressure (kPa)
Radial Displacement (mm)


Bolton and Whittle (1999) Loop 2 : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08
RESULTS:
Gradient (beta) : 0.685
Intercept (n) : 20.866MPa
Shear stress constant : 14.296MPa
Ln[Radial stress]
Ln[shear strain]
Source data - Loop 2
Total pressure (kPa)
Radial Displacement (mm)


Variation of stiffness with strain : Arm ave
POWER LAW PARAMETERS:
Cycle No. | Constant (MPa) | Gradient
1 | 16.624 | 0.707
2 | 14.296 | 0.685
Cycle 1 - Measured
Cycle 1 - Calculated
Cycle 2 - Measured
Cycle 2 - Calculated
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08
Shear modulus (MPa)
Log plane shear strain
0.0001
0.001
0.01


Curve comparison (Whittle 1999) : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T5
33.00 Metres
17 Apr 08
CURVE FIT PARAMETERS:
Origin : 0.420mm
Po : 1006.0kPa
Cu : 664.7 kPa
Beta : 0.685
Alpha : 14.424 MPa
Total pressure (kPa)
Cavity strain (%)

6 ARM SELF BORING PRESSUREMETER TEST RECORD SHEET

Site	Date	Day	Borehole	Test	Depth to Test Centre (below ground level)
Denmark Place	9/4/08	THUR	B102	5	33m

Weather:- Fine Material:- London Clay - Reddish/Grey Clay

Water table	Drilling Start	Drilling End	Distance	Drill Rate	Ram Pressure
?	11:35	12:35	1m	1m/40min	130 BAR

Ground level :- Orientation:-

Water Press./	Inst.OD	Shoe OD	Cutter Type	Cutter position	Probe Reference
See R;	81-1	85-1	7B RR	4mm	Flat-4

Drilling Remarks:- Difficult - Pulled back several times.

Strain Rate	Press. Rate	Cycle Time	Gas Bottle	Battery	PPC Type	Max Pressure Cap.
1%/min	4(H)	6.55s	130 Bar.	12.45	TRIG	10MPa

Arm 1	Arm 2	Arm 3	Arm 4	Arm 5	Arm 6	PPC A	PPC B	TPC	Data:-
-110	80	-61	-35	-83	130	-1022	-916	-2455	Ground Level Zeros
									Pre-drilling Zeros
-42	71	-45	81	91	119	-908	-796	-2441	Post-drilling Zeros
									Pre-test Zeros
									Ground Level Zeros

Test starts:- 12:35

Line	Notes
711	Heard 2.1MPa.
716	Loop 1 PRS — Back to PDA at end of Test
721	Heard 2.45 MPa
798	Loop 2 PRS
834	PR3
884	Unload

Test ends:- 13:02 Max Press:- 3801 KPa

Calibrated Data details:

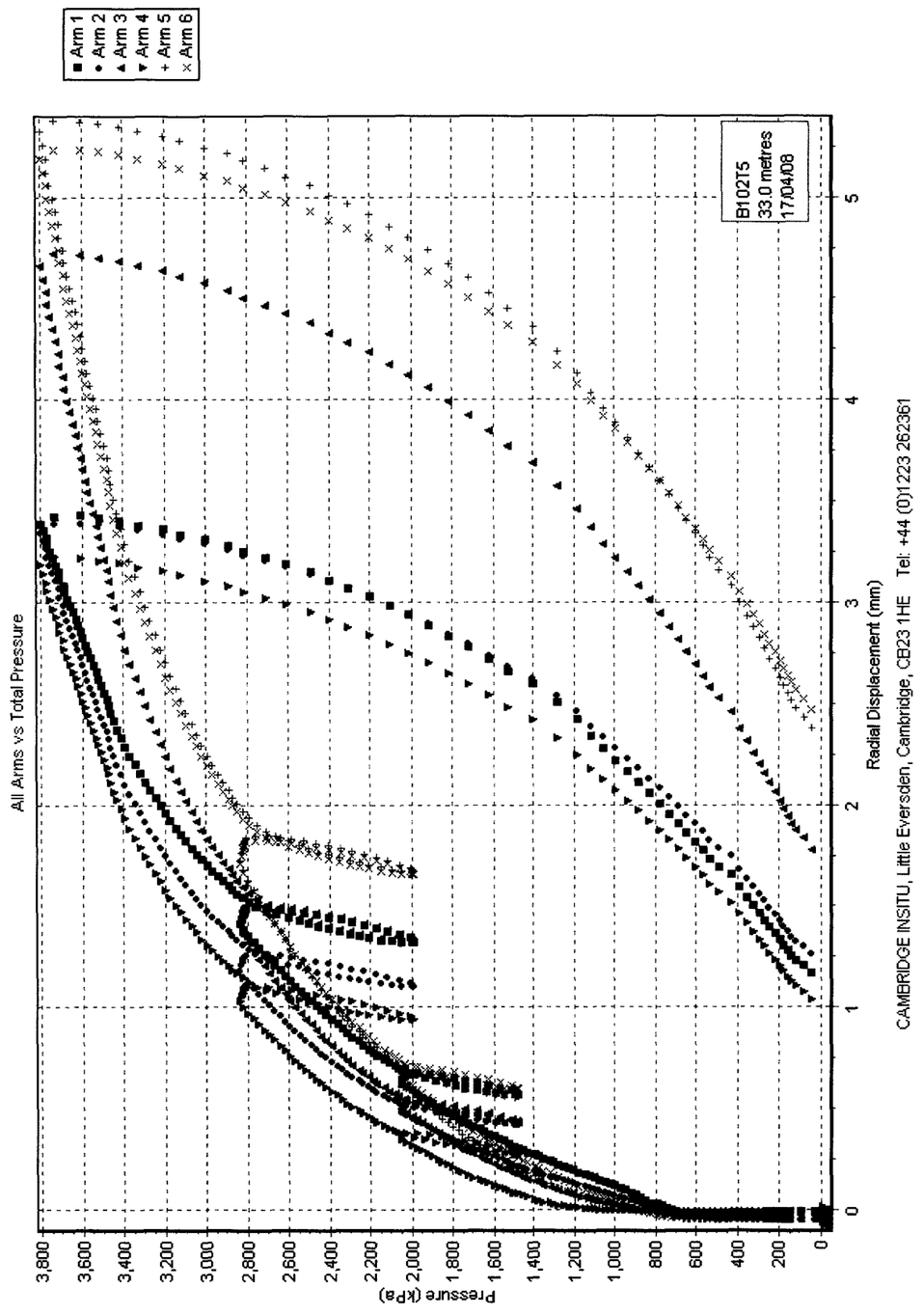
Mem. Correction.	Mem. Compression	Strain Cals.	Pressure Cals
W013071	W013072	10/4/08	11/4/08

TEST REMARKS: V. Good Pmt response, Strain hardening loading.

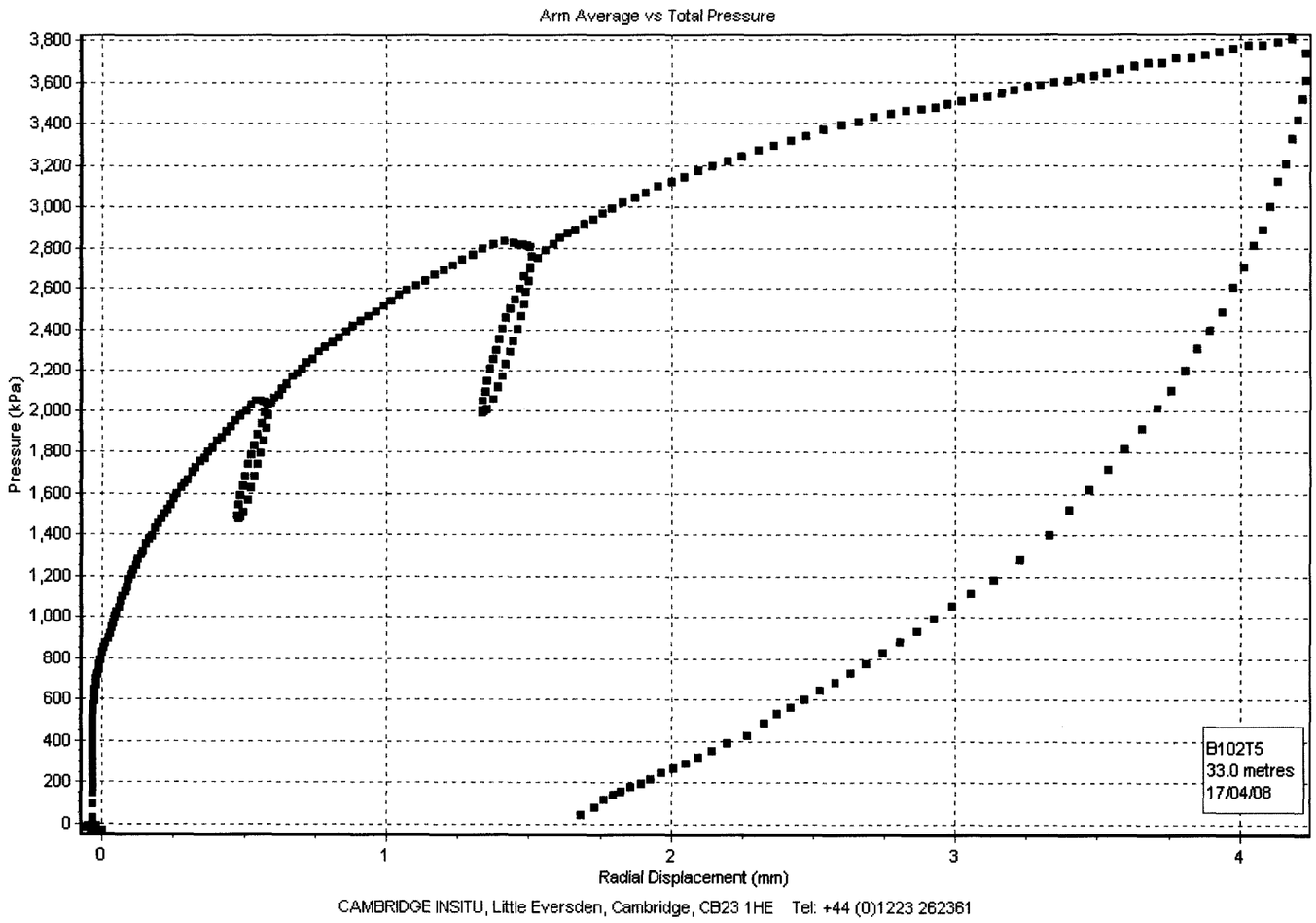
Driller: DAW

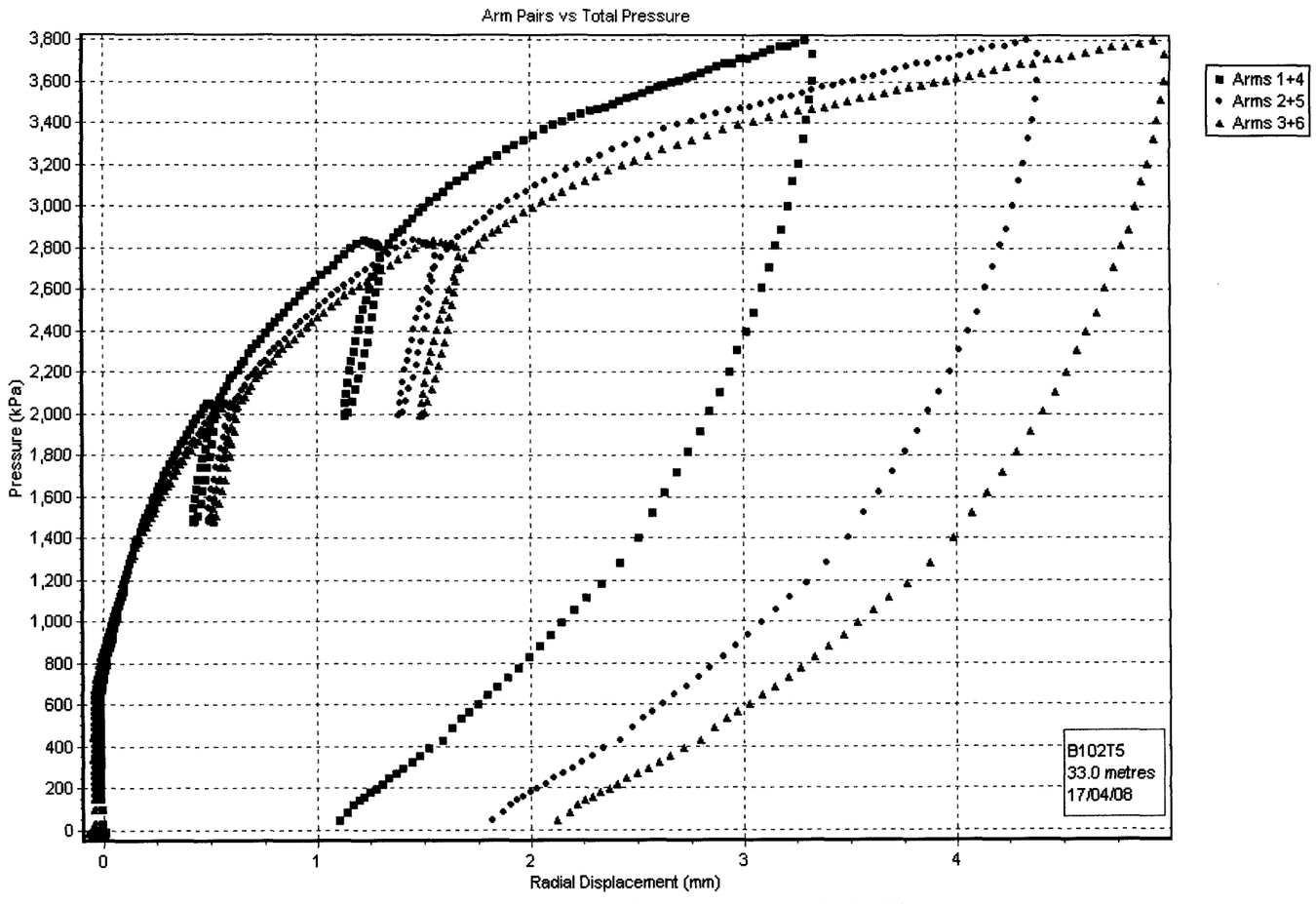
Tester: PW.

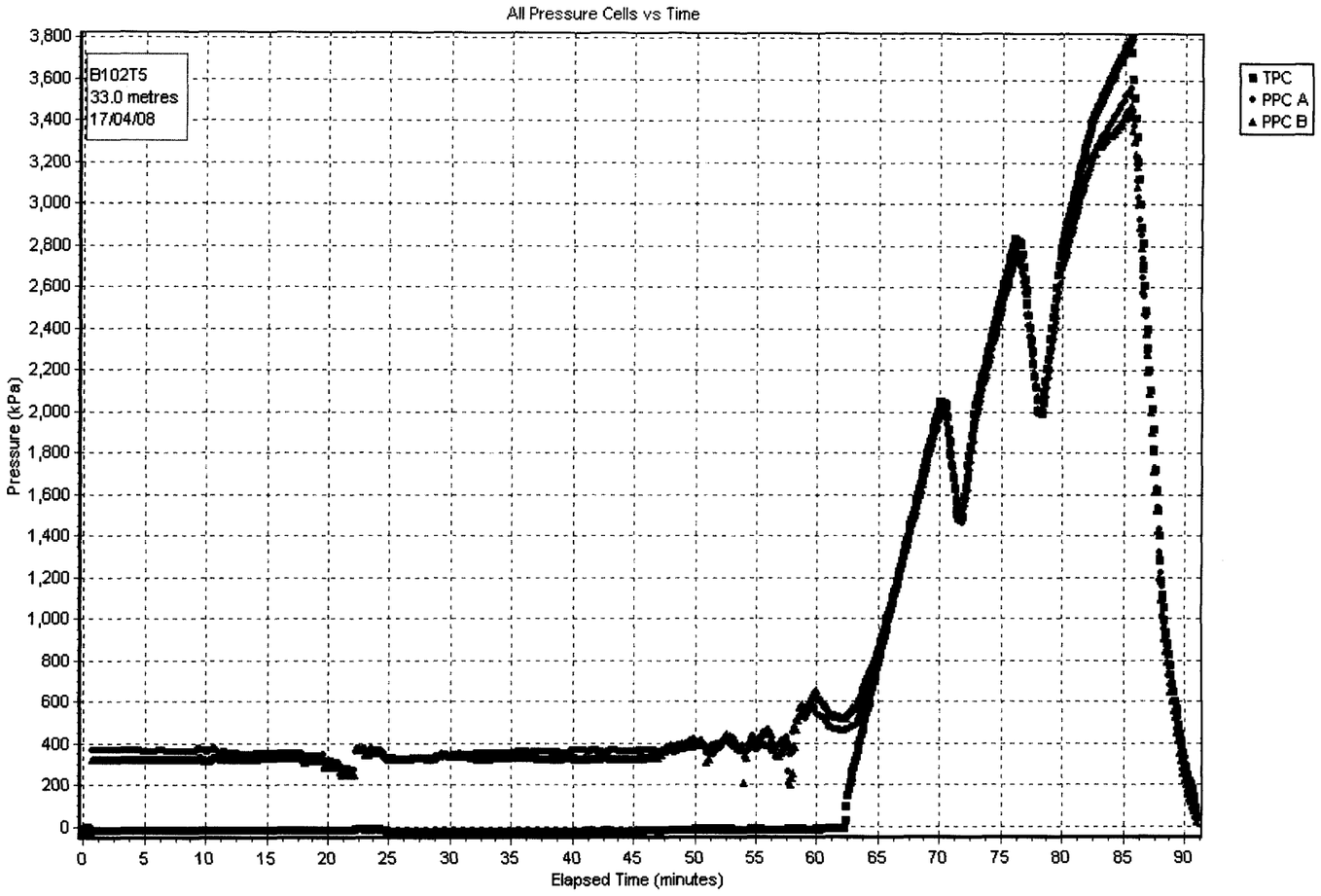
CAMBRIDGE INSITU, Little Eversden, Cambridge CB5 7HB Tel: (01223) 262 361 Fax: (01223) 263 547
SBP6TRS.DOC May 25th, 2001 E-mail: Camlnsitu@AOL.com Web site: Cambridge-Insitu.com



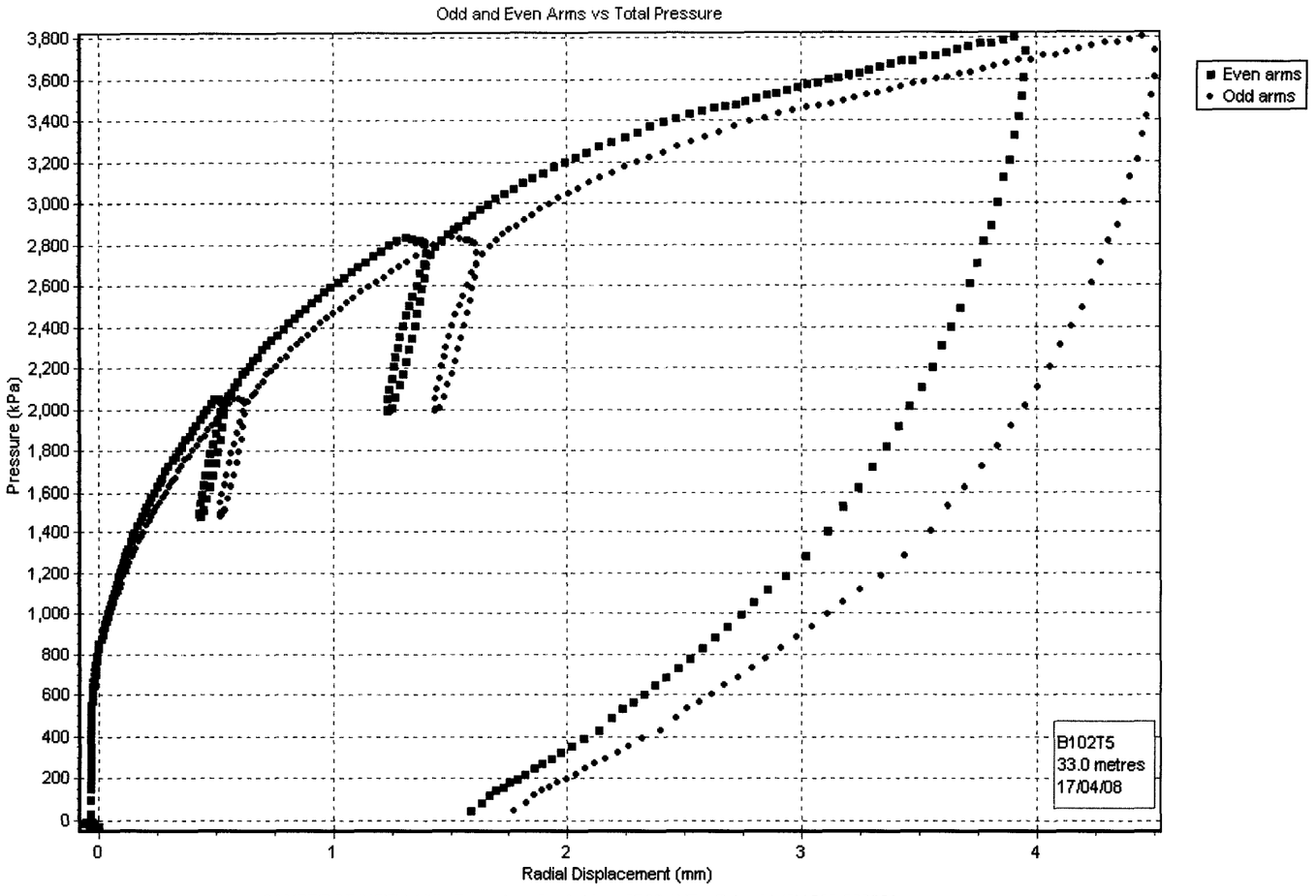
CAMBRIDGE INSITU, Little Eversden, Cambridge, CB23 1HE Tel: +44 (0)1223 262361


Arm Average vs Total Pressure
Pressure (kPa)
Radial Displacement (mm)
B102T5
33.0 metres
17/04/08


Arm Pairs vs Total Pressure
Arms 1+4
Arms 2+5
Arms 3+6
Pressure (kPa)
Radial Displacement (mm)
B102T5
33.0 metres
17/04/08



CAMBRIDGE INSITU, Little Eversden, Cambridge, CB23 1HE Tel: +44 (0)1223 262361



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B102T6 - SUMMARY OF RESULTS
[File made with WinSitu Version 1.20.1.1]

[DETAILS OF TEST]

Project	:	36237
Site	:	Denmark Place
Borehole	:	BH102
Test name	:	B102T6
Test date	:	18 Apr 08
Test depth	:	43.00 Metres
Water table	:	5.6 Metres
Ambient PWP	:	366.9 kPa
Material	:	Lambeth Group - clay/sand
Probe	:	Digital 6 arm weak rock self boring pressuremeter
Diameter	:	88.1 mm

Data analysed using average arm displacement curve
A non-linear analysis of the rebound cycles has been carried out
The file includes results from a curve fitting analysis

Analysed by RWW on 18 Apr 08

Remarks:

[RESULTS FOR CAVITY REFERENCE PRESSURE]

Strain Origin (mm)	:	"Arm ave=0.054"
Po from Marsland & Randolph (kPa)	:	"Arm ave=976.0"
Po from Lift off (kPa)	:	"Arm ave=1017.3"
PWP versus Total Stress (kPa)	:	"PPC Ave=310.3"
Best estimate of Po (kPa)	:	"Arm ave=1017.0"

[UNDRAINED STRENGTH PARAMETERS]

Gibson & Anderson 1961 - Cu (kPa)	:	"Arm ave=1748.7"
Limit pressure (kPa)	:	"Arm ave=9854"
Jefferies 1988 - Cu (kPa)	:	"Arm ave=1047.3"
Undrained yield stress (kPa)	:	"Arm ave=2218.9"

[LINEAR INTERPRETATION OF SHEAR MODULUS G]
Initial slope shear modulus (MPa) :"Arm ave=115.1"

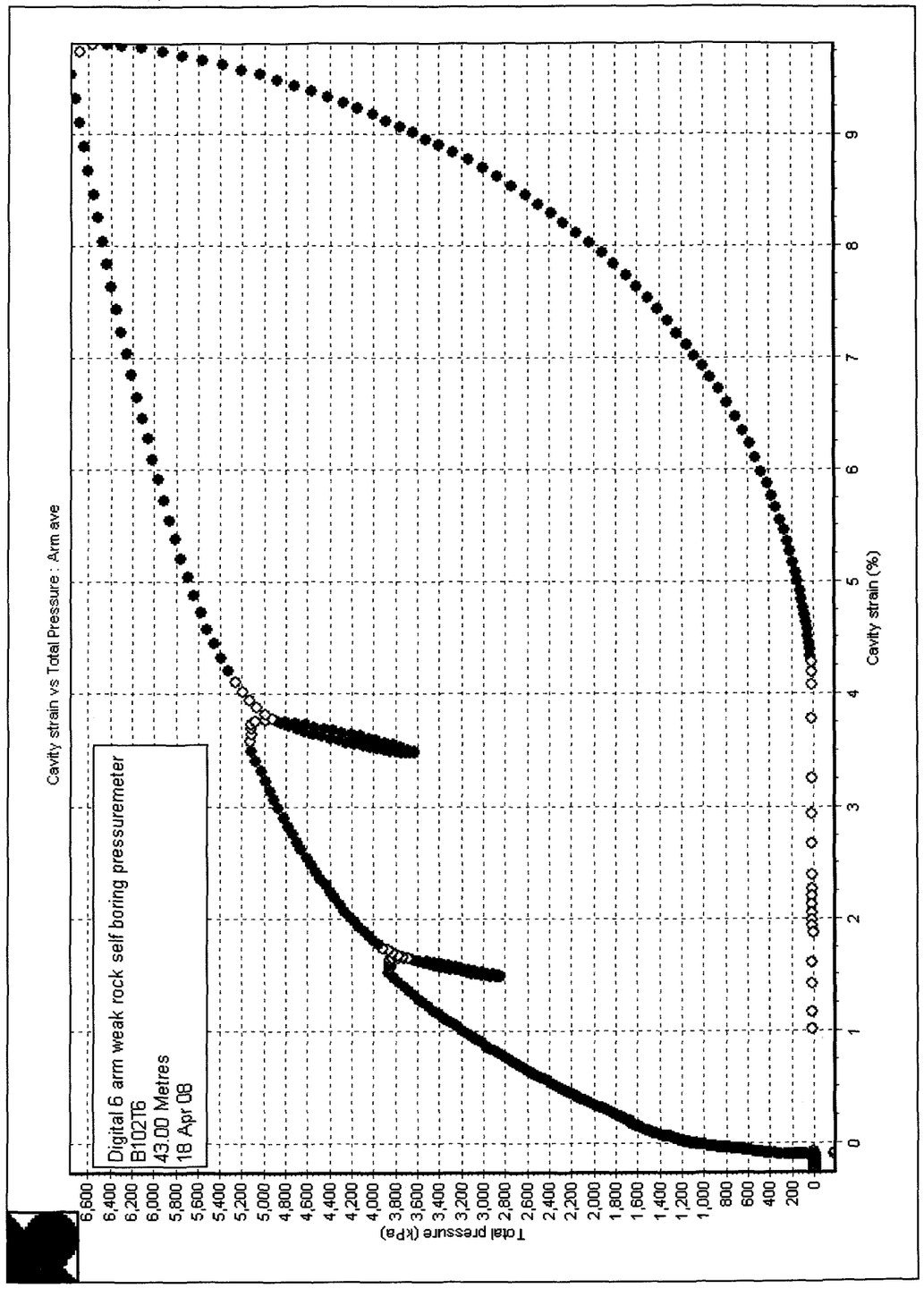
Axis	Loop No	Value (MPa)	Mean Strain (%)	Mean Pc (kPa)	dE (%)	dPc (kPa)
Arm ave	1	261.8	1.569	3258	0.325	852
Arm ave	2	231.2	3.632	4269	0.571	1324

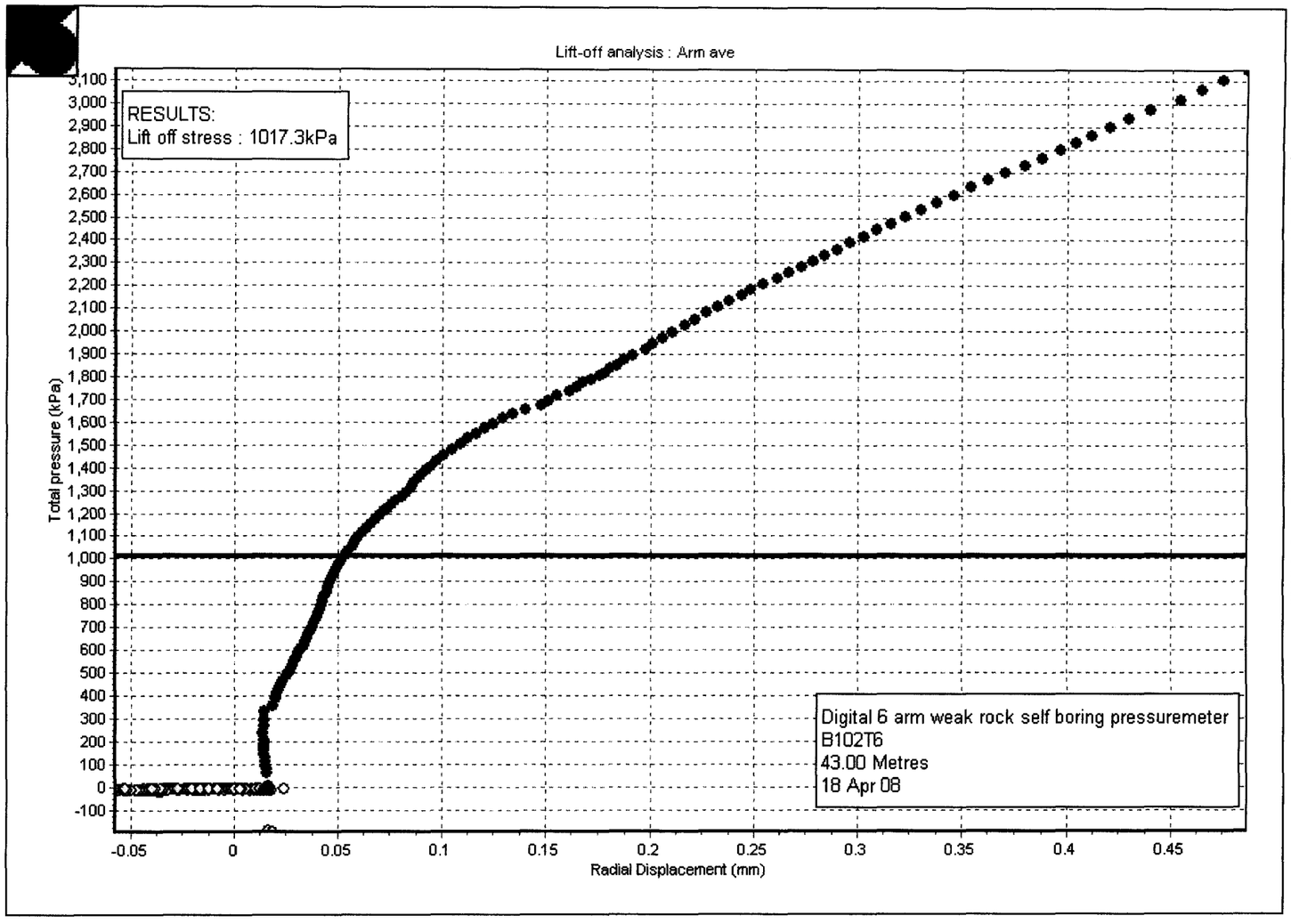
[NON LINEAR INTERPRETATION OF SECANT SHEAR MODULUS]

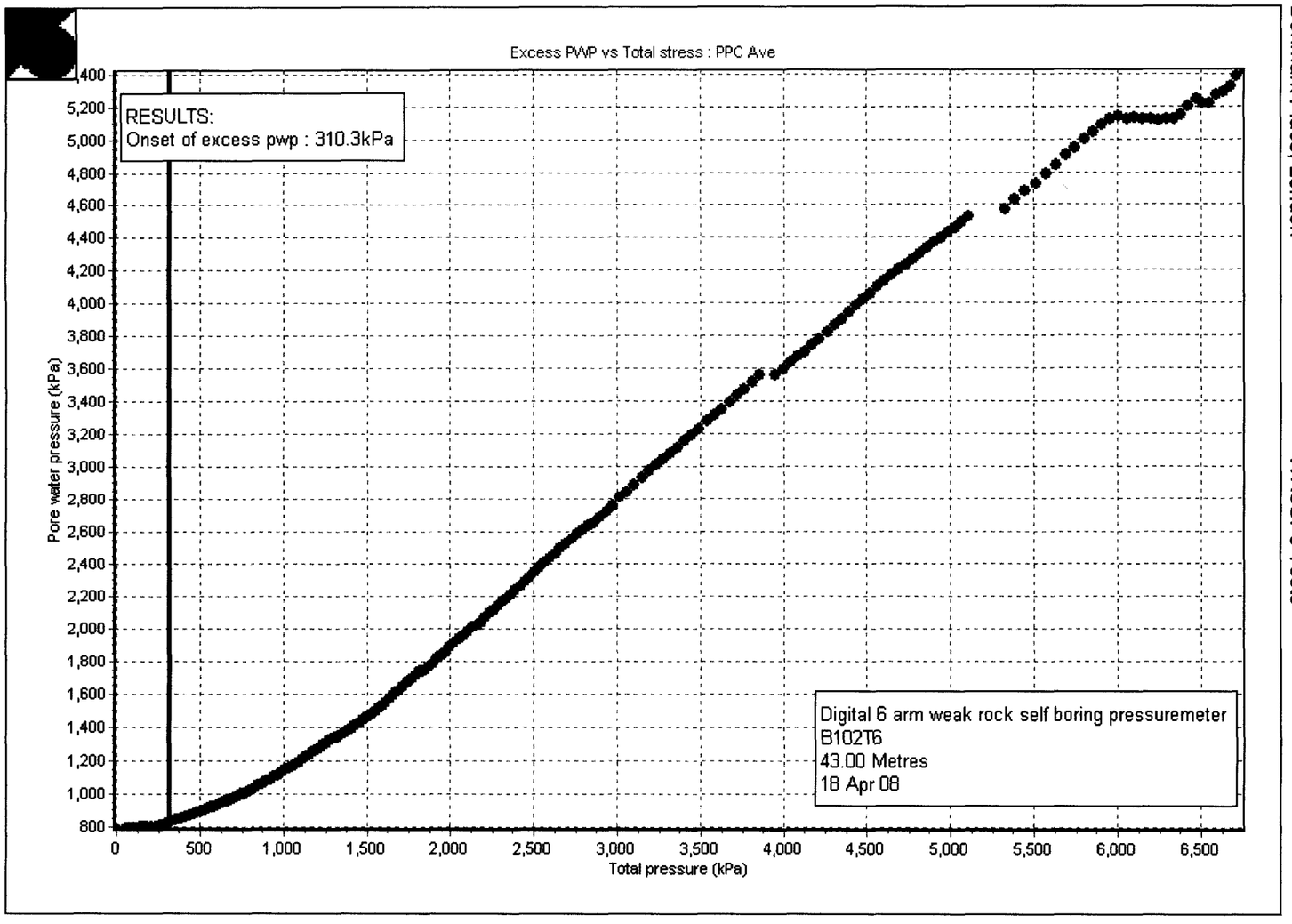
Axis	Loop No	Intercept (MPa)	Alpha (MPa)	Gradient
Arm ave	1	57.681	42.590	0.738
Arm ave	2	55.721	39.838	0.715

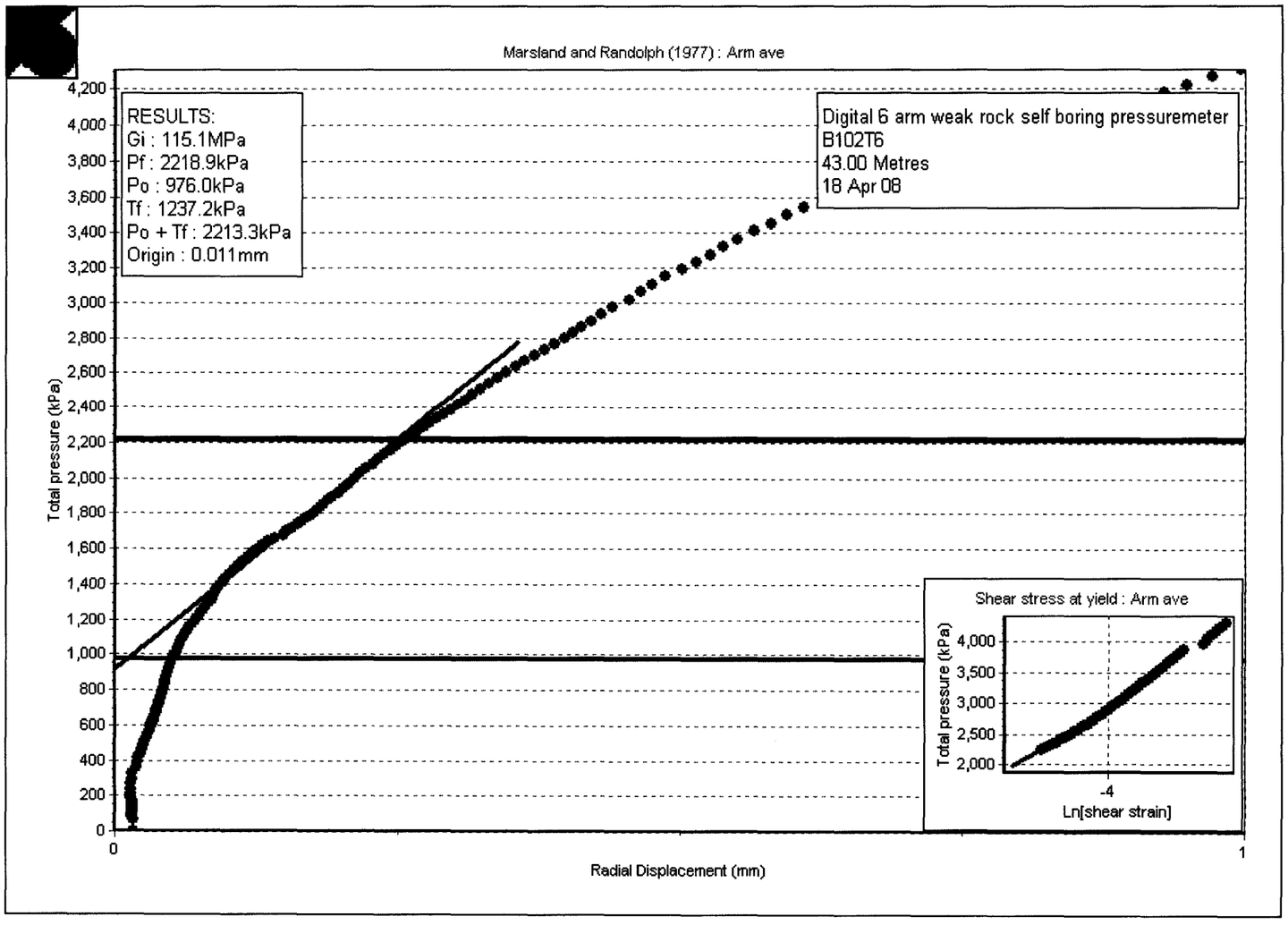
[PARAMETERS USED FOR UNDRAINED CURVE MODELLING]
Axis is Arm ave

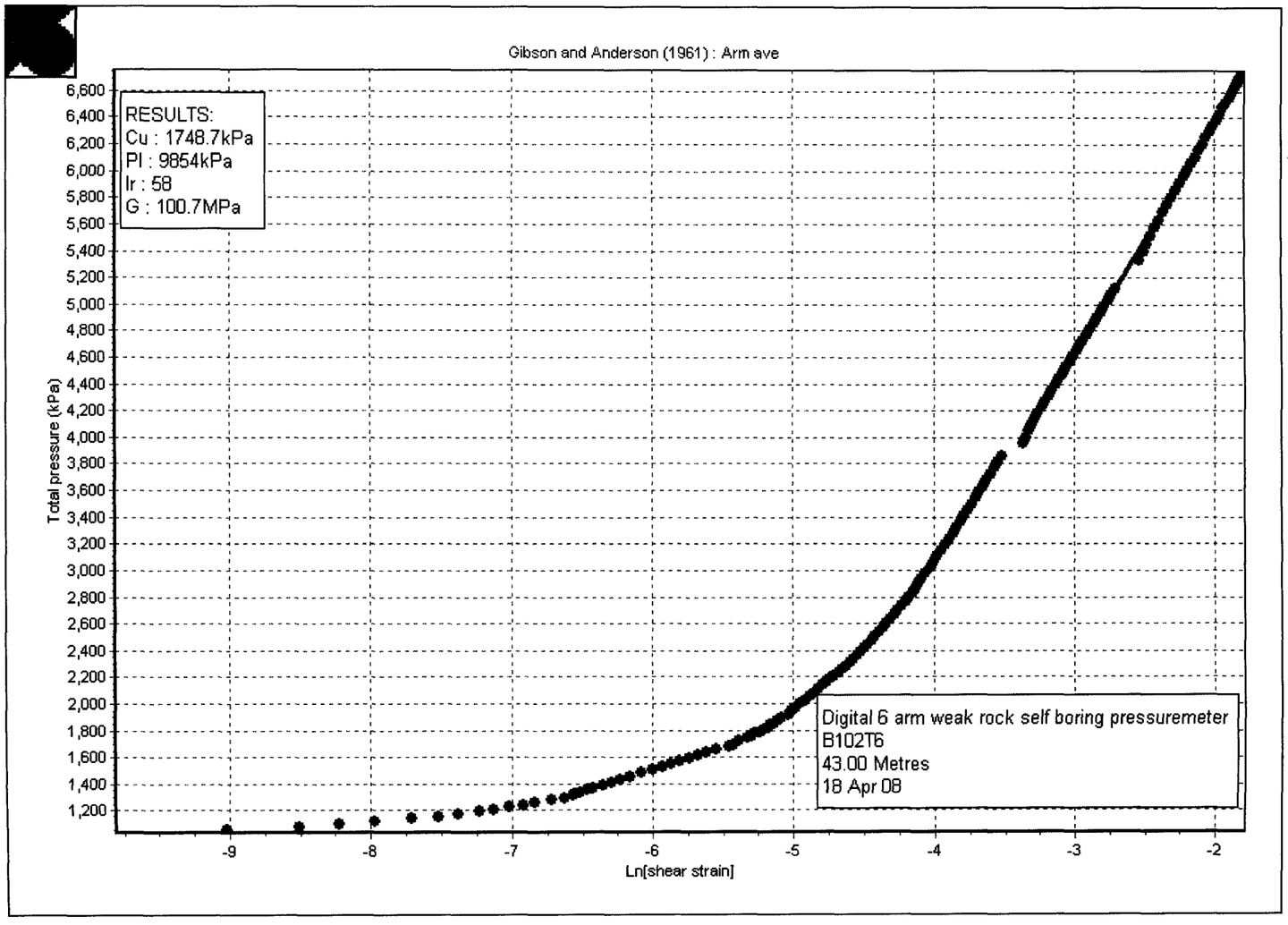
Strain Origin (mm)	:	0.45
Po (kPa)	:	1502
Cu (kPa)	:	1082.6
Limit pressure (kPa)	:	8366
Non-linear exponent	:	0.715
Calculated alpha (MPa)	:	37.064
G at yield (MPa)	:	151.6

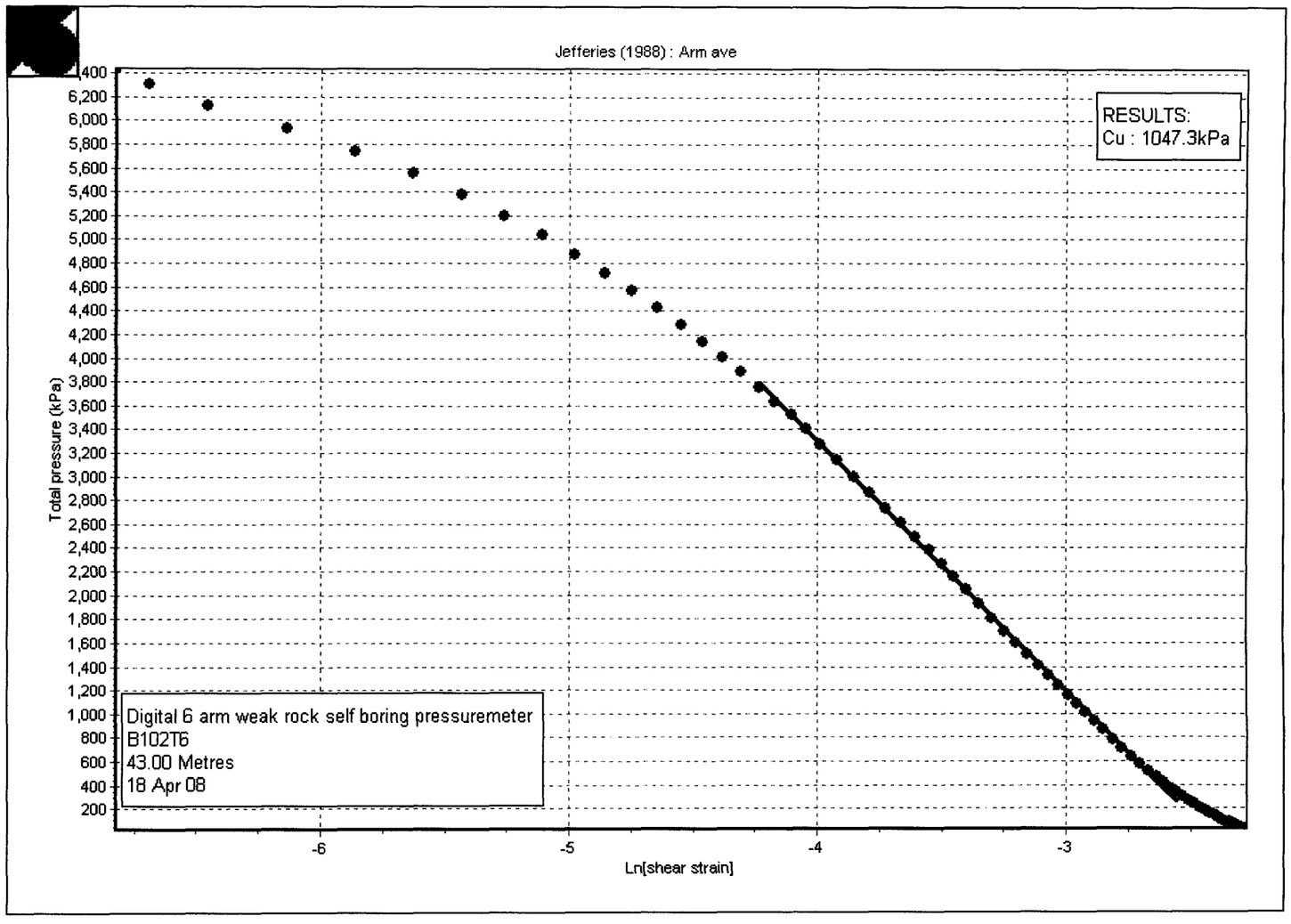


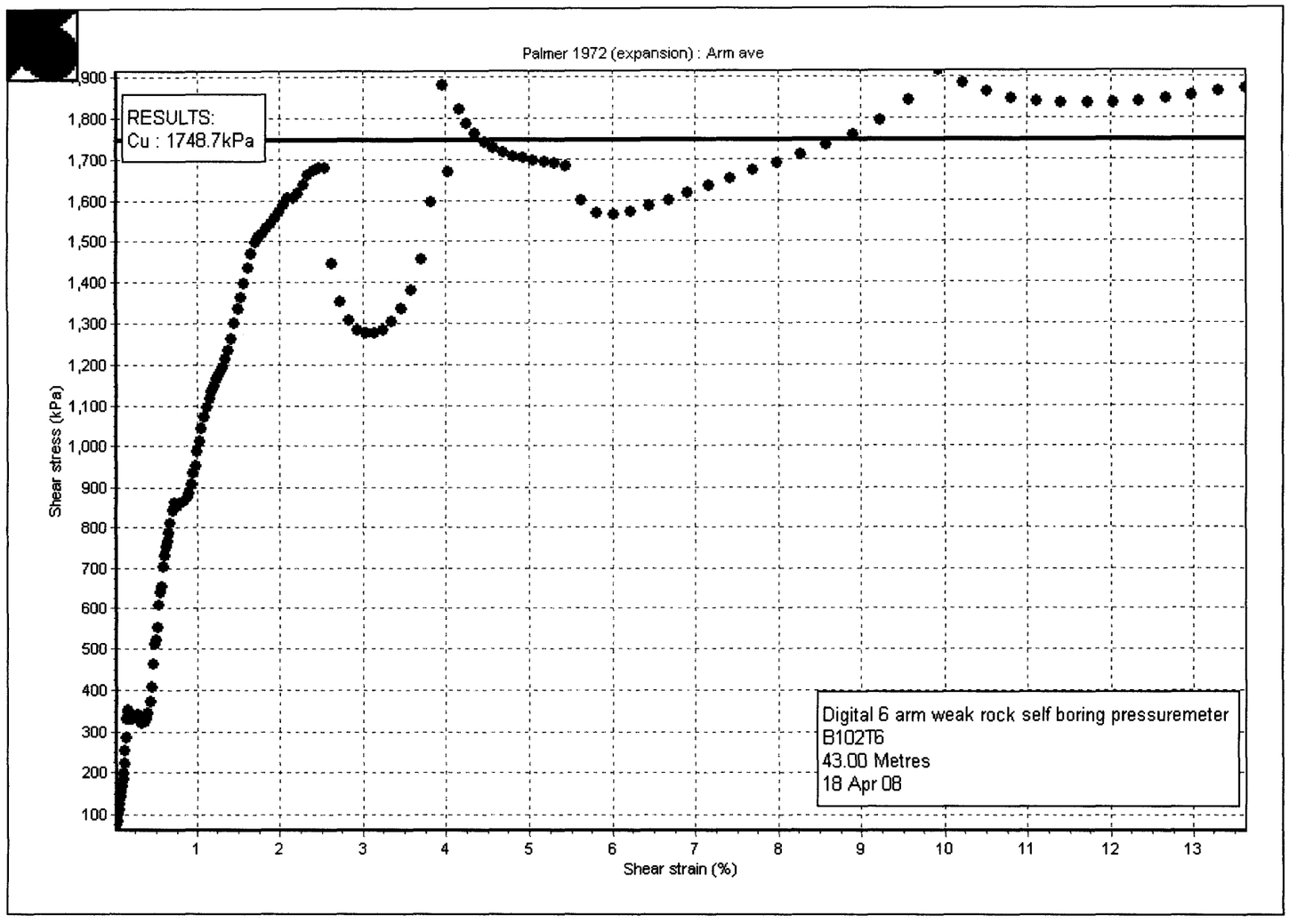

Lift-off analysis : Arm ave
RESULTS:
Lift off stress : 1017.3kPa
Total pressure (kPa)
Radial Displacement (mm)
Digital 6 arm weak rock self boring pressuremeter
B102T6
43.00 Metres
18 Apr 08

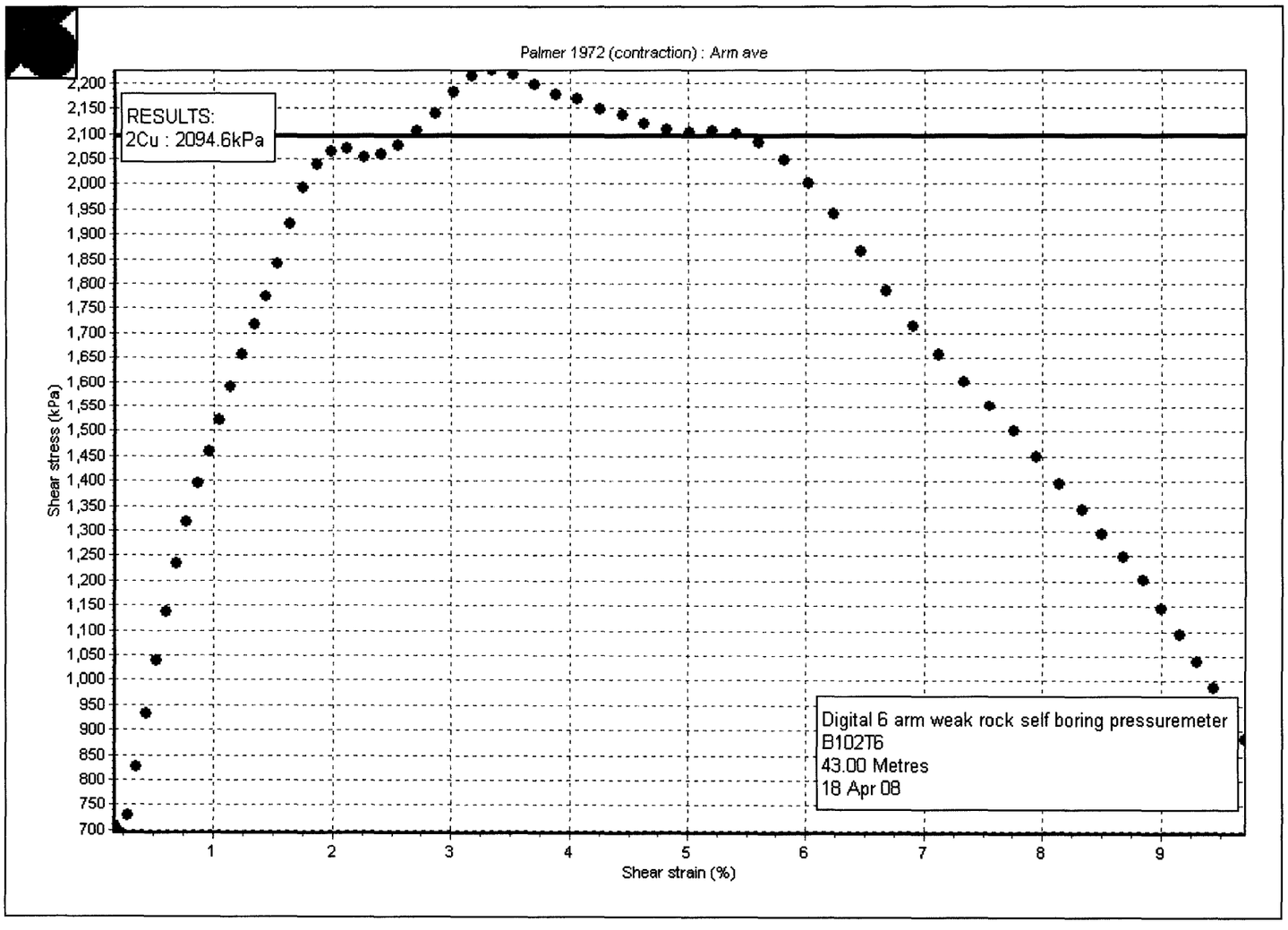

Excess PWP vs Total stress : PPC Ave
RESULTS:
Onset of excess pwp : 310.3kPa
Pore water pressure (kPa)
Total pressure (kPa)
Digital 6 arm weak rock self boring pressuremeter
B102T6
43.00 Metres
18 Apr 08

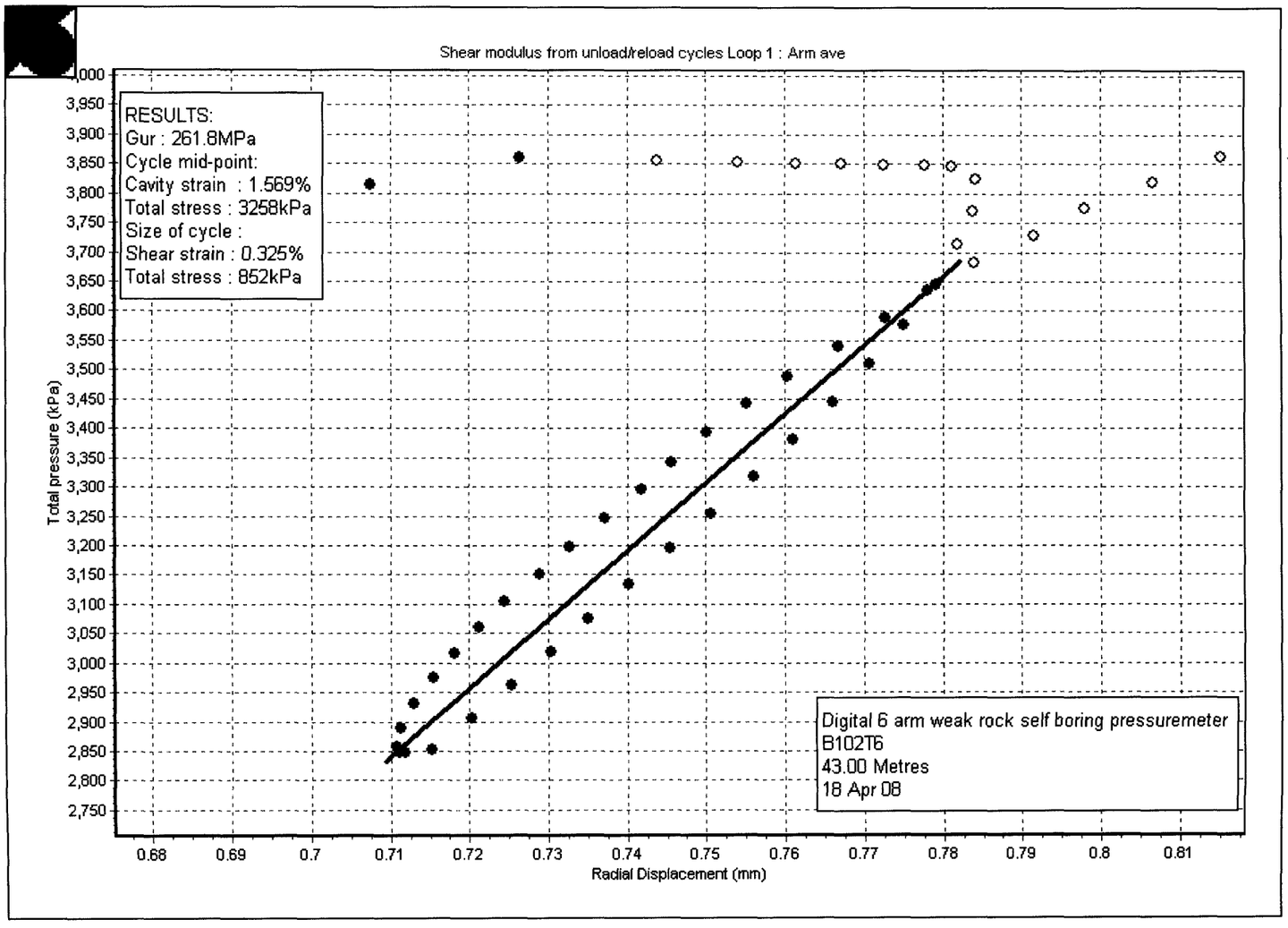

Marsland and Randolph (1977) : Arm ave
RESULTS:
Gi : 115.1MPa
Pf : 2218.9kPa
Po : 976.0kPa
Tf : 1237.2kPa
Po + Tf : 2213.3kPa
Origin : 0.011mm
Digital 6 arm weak rock self boring pressuremeter
B102T6
43.00 Metres
18 Apr 08
Total pressure (kPa)
Radial Displacement (mm)
Shear stress at yield : Arm ave
Total pressure (kPa)
Ln[shear strain]

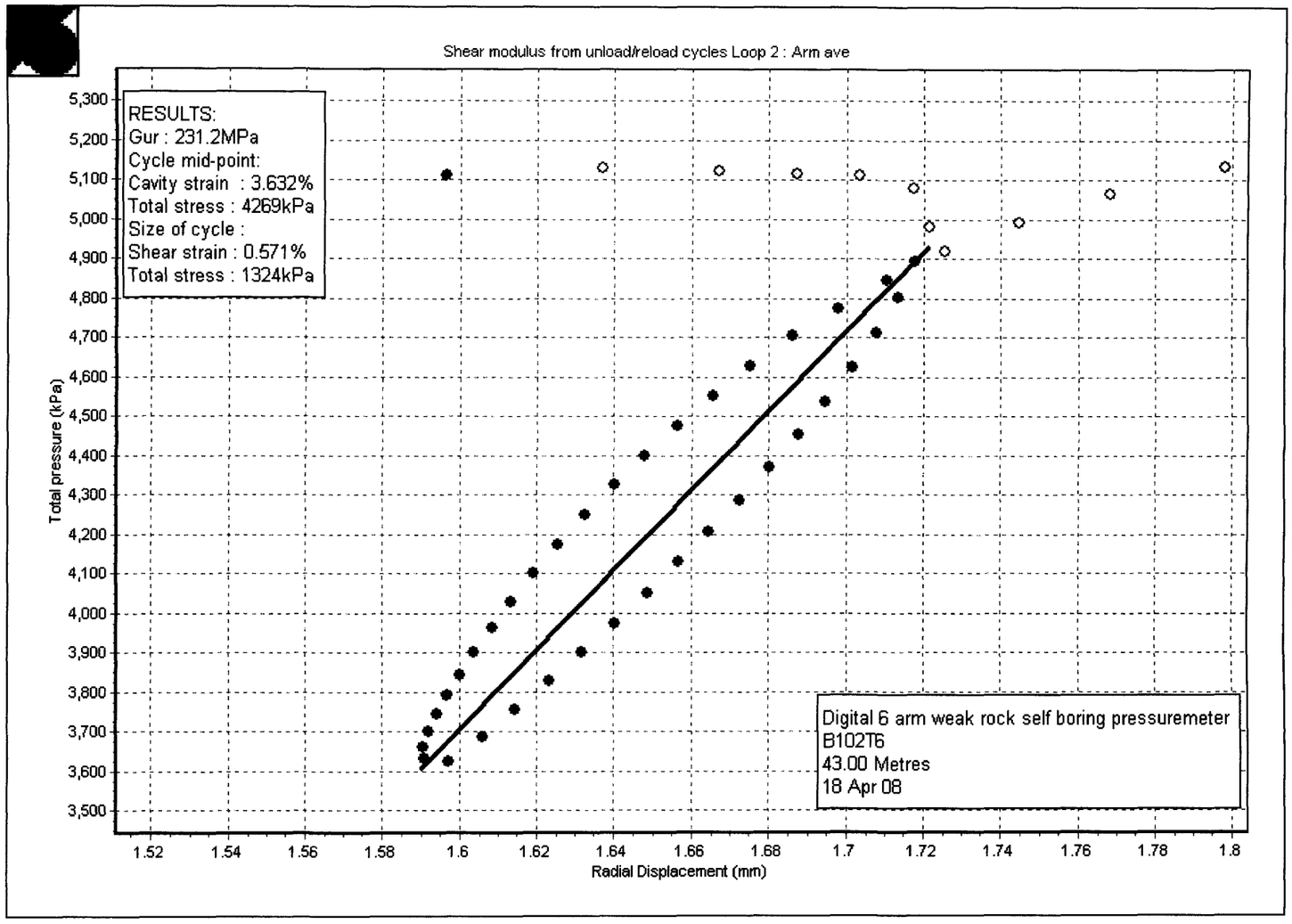

Gibson and Anderson (1961) : Arm ave
RESULTS:
Cu : 1748.7kPa
PI : 9854kPa
Ir : 58
G : 100.7MPa
Digital 6 arm weak rock self boring pressuremeter
B102T6
43.00 Metres
18 Apr 08
Total pressure (kPa)
Ln[shear strain]

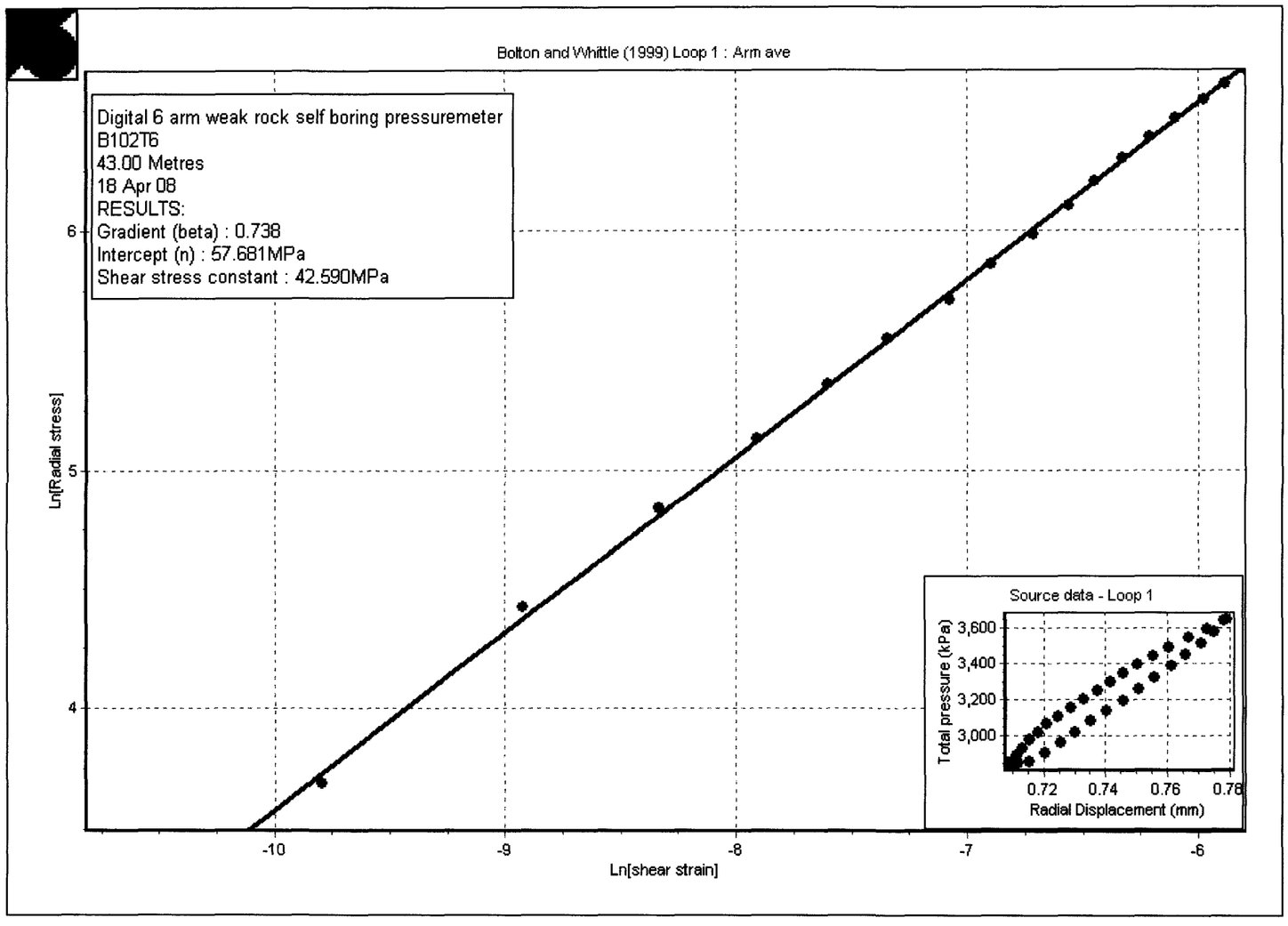

Jefferies (1988) : Arm ave
RESULTS:
Cu : 1047.3kPa
Total pressure (kPa)
6,400
6,200
6,000
5,800
5,600
5,400
5,200
5,000
4,800
4,600
4,400
4,200
4,000
3,800
3,600
3,400
3,200
3,000
2,800
2,600
2,400
2,200
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
-6
-5
-4
-3
Ln[shear strain]
Digital 6 arm weak rock self boring pressuremeter
B102T6
43.00 Metres
18 Apr 08

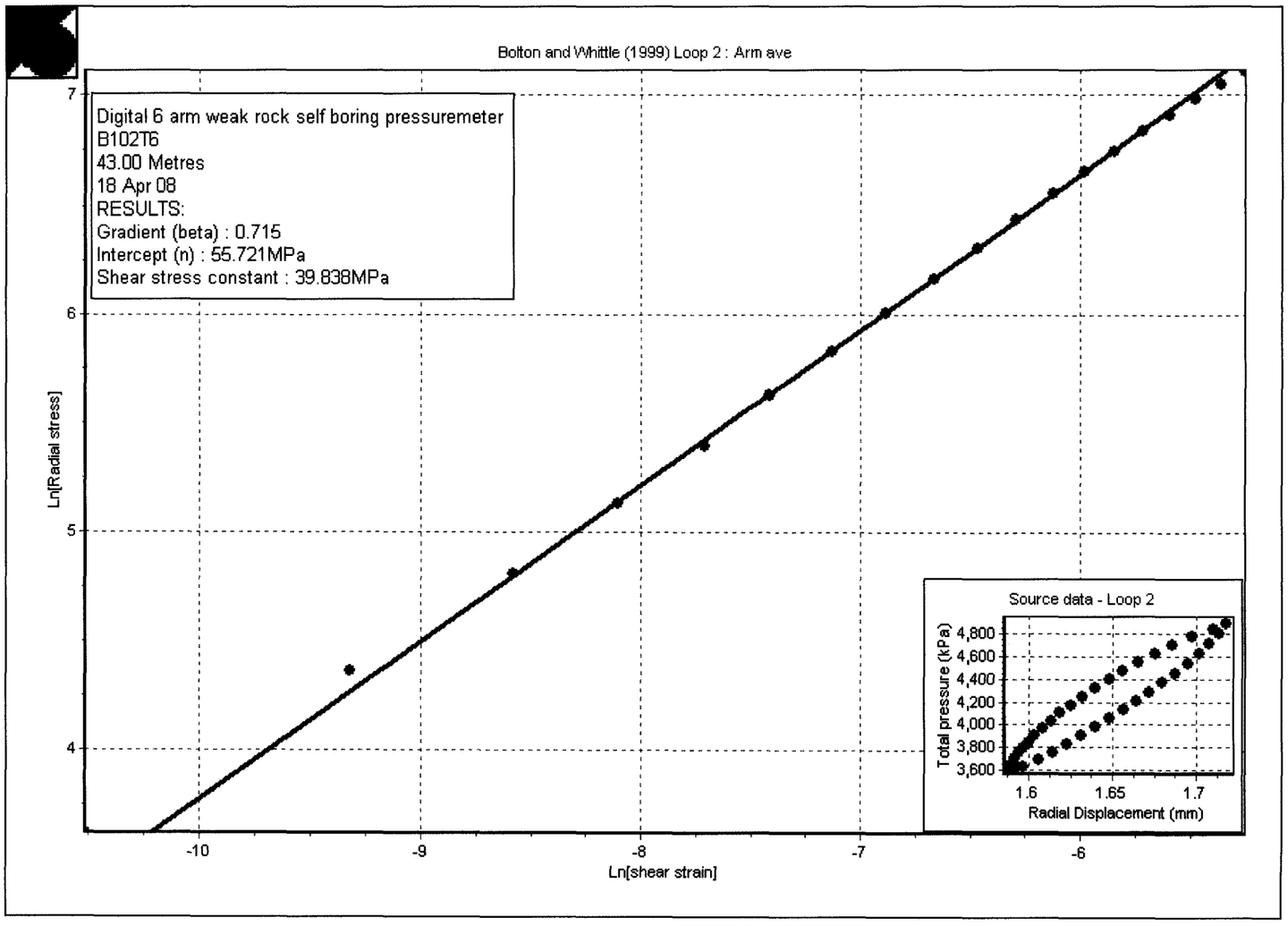

Palmer 1972 (expansion) : Arm ave
RESULTS:
Cu : 1748.7kPa
Shear stress (kPa)
1,900
1,800
1,700
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
1
2
3
4
5
6
7
8
9
10
11
12
13
Shear strain (%)
Digital 6 arm weak rock self boring pressuremeter
B102T6
43.00 Metres
18 Apr 08

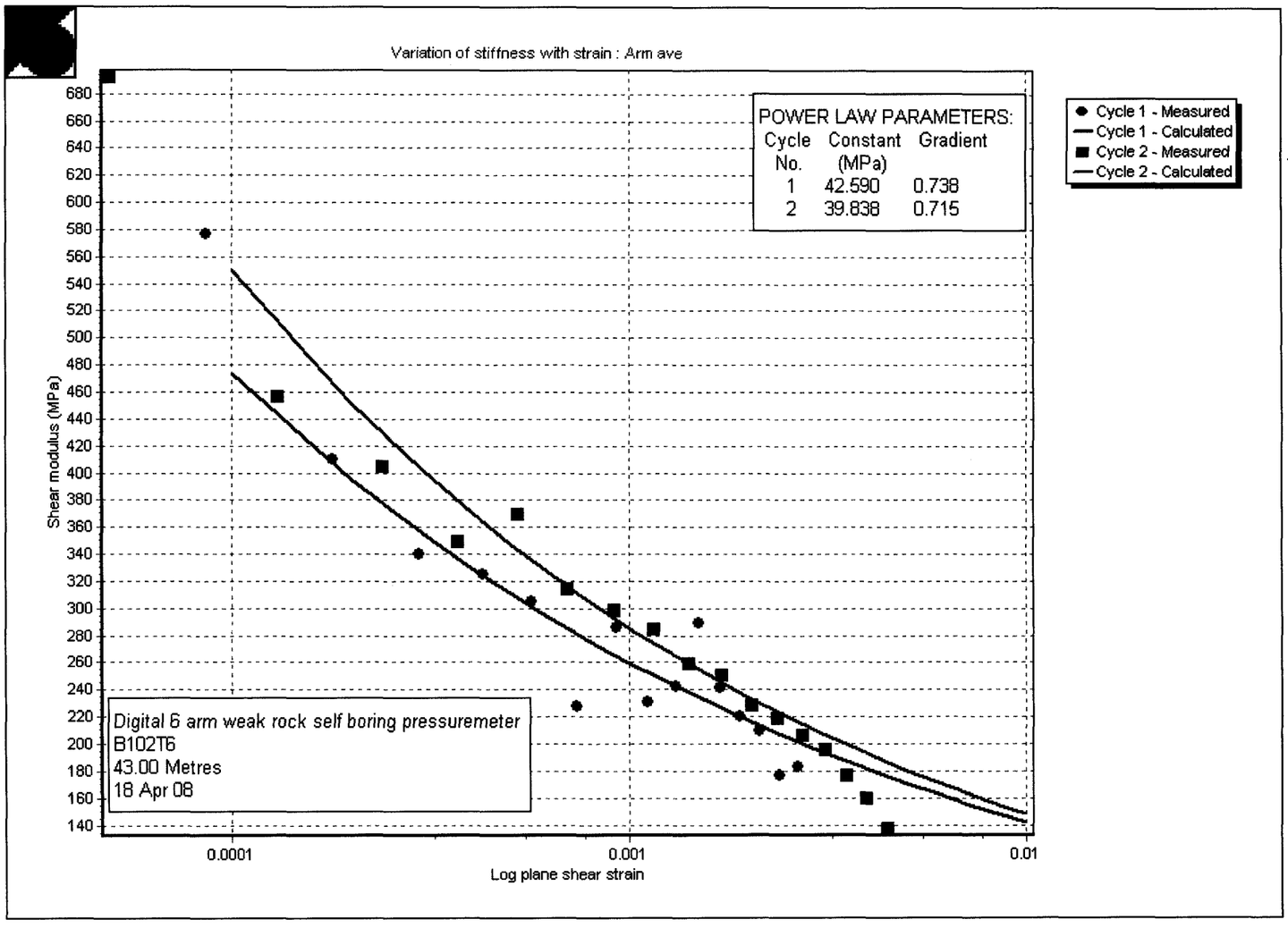

Palmer 1972 (contraction) : Arm ave
RESULTS:
2Cu : 2094.6kPa
Shear stress (kPa)
Shear strain (%)
Digital 6 arm weak rock self boring pressuremeter
B102T6
43.00 Metres
18 Apr 08

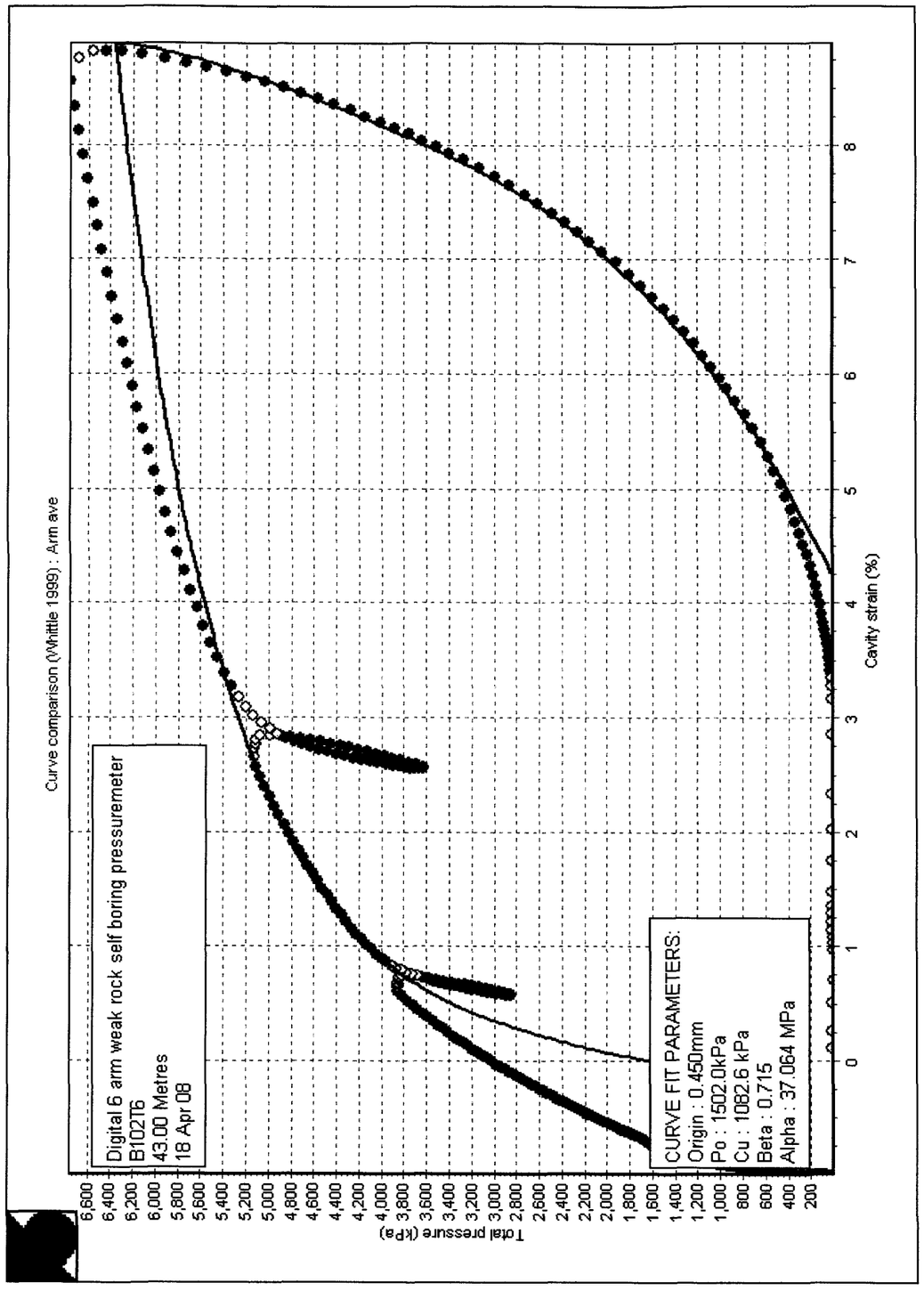

Shear modulus from unload/reload cycles Loop 1 : Arm ave
RESULTS:
Gur : 261.8MPa
Cycle mid-point:
Cavity strain : 1.569%
Total stress : 3258kPa
Size of cycle :
Shear strain : 0.325%
Total stress : 852kPa
Total pressure (kPa)
Radial Displacement (mm)
Digital 6 arm weak rock self boring pressuremeter
B102T6
43.00 Metres
18 Apr 08


Shear modulus from unload/reload cycles Loop 2 : Arm ave
RESULTS:
Gur : 231.2MPa
Cycle mid-point:
Cavity strain : 3.632%
Total stress : 4269kPa
Size of cycle :
Shear strain : 0.571%
Total stress : 1324kPa
Digital 6 arm weak rock self boring pressuremeter
B102T6
43.00 Metres
18 Apr 08
Total pressure (kPa)
Radial Displacement (mm)


Bolton and Whittle (1999) Loop 1 : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T6
43.00 Metres
18 Apr 08
RESULTS:
Gradient (beta) : 0.738
Intercept (n) : 57.681MPa
Shear stress constant : 42.590MPa
Ln[Radial stress]
Ln[shear strain]
Source data - Loop 1
Total pressure (kPa)
Radial Displacement (mm)


Bolton and Whittle (1999) Loop 2 : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T6
43.00 Metres
18 Apr 08
RESULTS:
Gradient (beta) : 0.715
Intercept (n) : 55.721MPa
Shear stress constant : 39.838MPa
Ln[Radial stress]
Ln[shear strain]
Source data - Loop 2
Total pressure (kPa)
Radial Displacement (mm)


Variation of stiffness with strain : Arm ave
POWER LAW PARAMETERS:
Cycle No. | Constant (MPa) | Gradient
1 | 42.590 | 0.738
2 | 39.838 | 0.715
Cycle 1 - Measured
Cycle 1 - Calculated
Cycle 2 - Measured
Cycle 2 - Calculated
Digital 6 arm weak rock self boring pressuremeter
B102T6
43.00 Metres
18 Apr 08
Shear modulus (MPa)
Log plane shear strain



6 ARM SELF BORING PRESSUREMETER TEST RECORD SHEET

Site	Date	Day	Borehole	Test	Depth to Test Centre (below ground level)
DENMARK PLACE	18/4/08	FRI	102	6	43

Weather:- OVERCAST Material:- LONDON CLAY SAND/GRAVEL

Water table	Drilling Start	Drilling End	Distance	Drill Rate	Ram Pressure
?	11:05	11:40	1m	1m/35mm	150 Bars

Ground level :- Orientation:- N/R

Water Press.	Inst OD	Shoe OD	Cutter Type	Cutter position	Probe Reference
20Bar	87.1	87.1	73 ER	3mm	'Mark 7'

Drilling Remarks:- SLIGHTLY SANDY. - SANDBANDS REDUCE WP

Strain Rate	Press. Rate	Cycle Time	Gas Bottle	Battery	PPC Type	Max Pressure Cap
- standard	Constant	63Sec	300BAR	12.5	TEN8	10MP

Arm 1	Arm 2	Arm 3	Arm 4	Arm 5	Arm 6	PPC A	PPC B	TPC	Date:-
-107	83	-67	36	-82	130	-1020	-918	-2448	Ground Level Zeros
									Pre-drilling Zeros
									Post-drilling Zeros
-89	135	-80	24	-83	121	-964	-665	-2447	Pre-test Zeros
									Ground Level Zeros

Test starts:- 11:50.

Line	Notes
61	Hard
89	Loop
60	Hard
63	Loop 2
42	Unload

Test ends.- 12:51. Max Press:- 6977 kPa

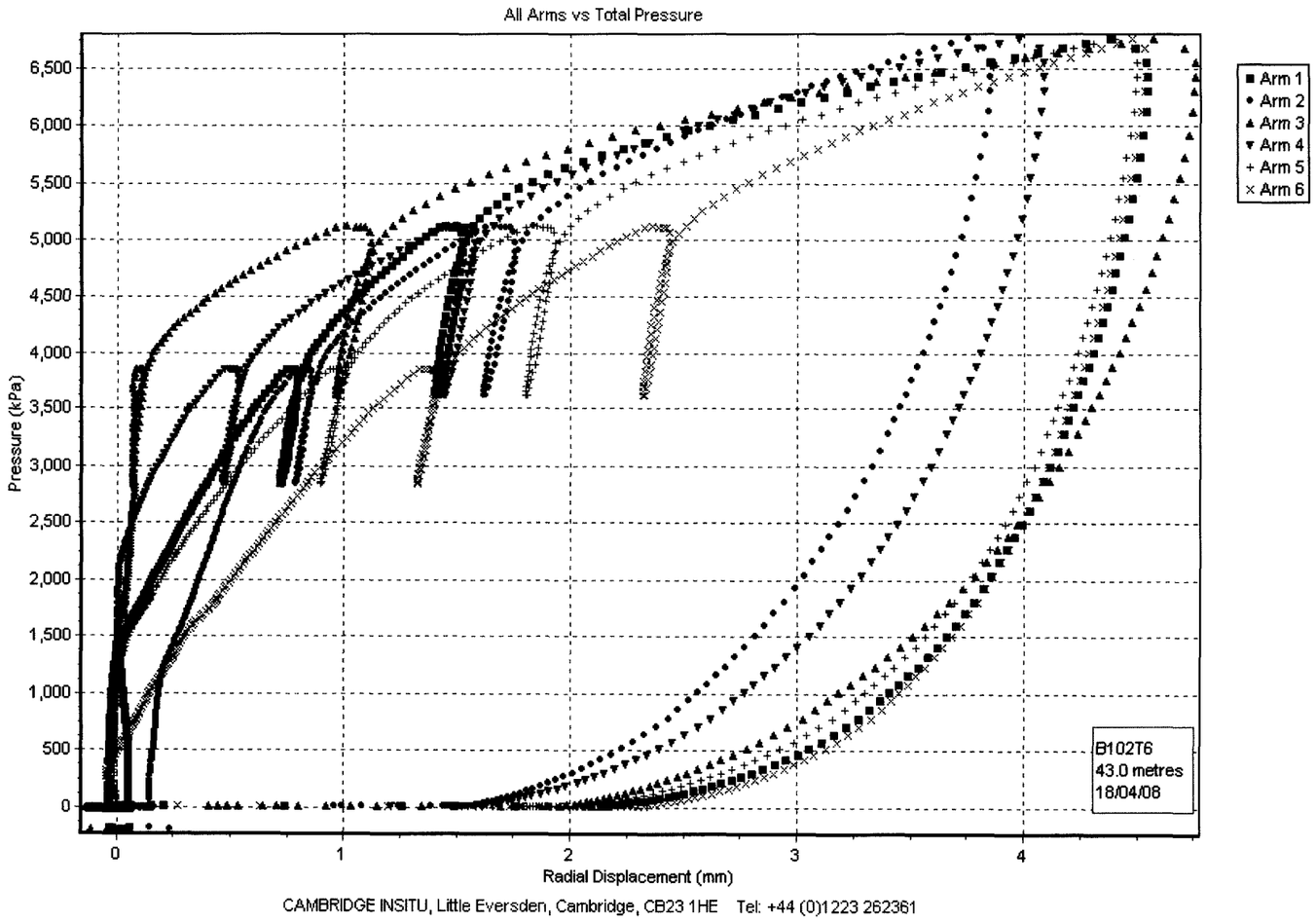
Calibrated Data details:

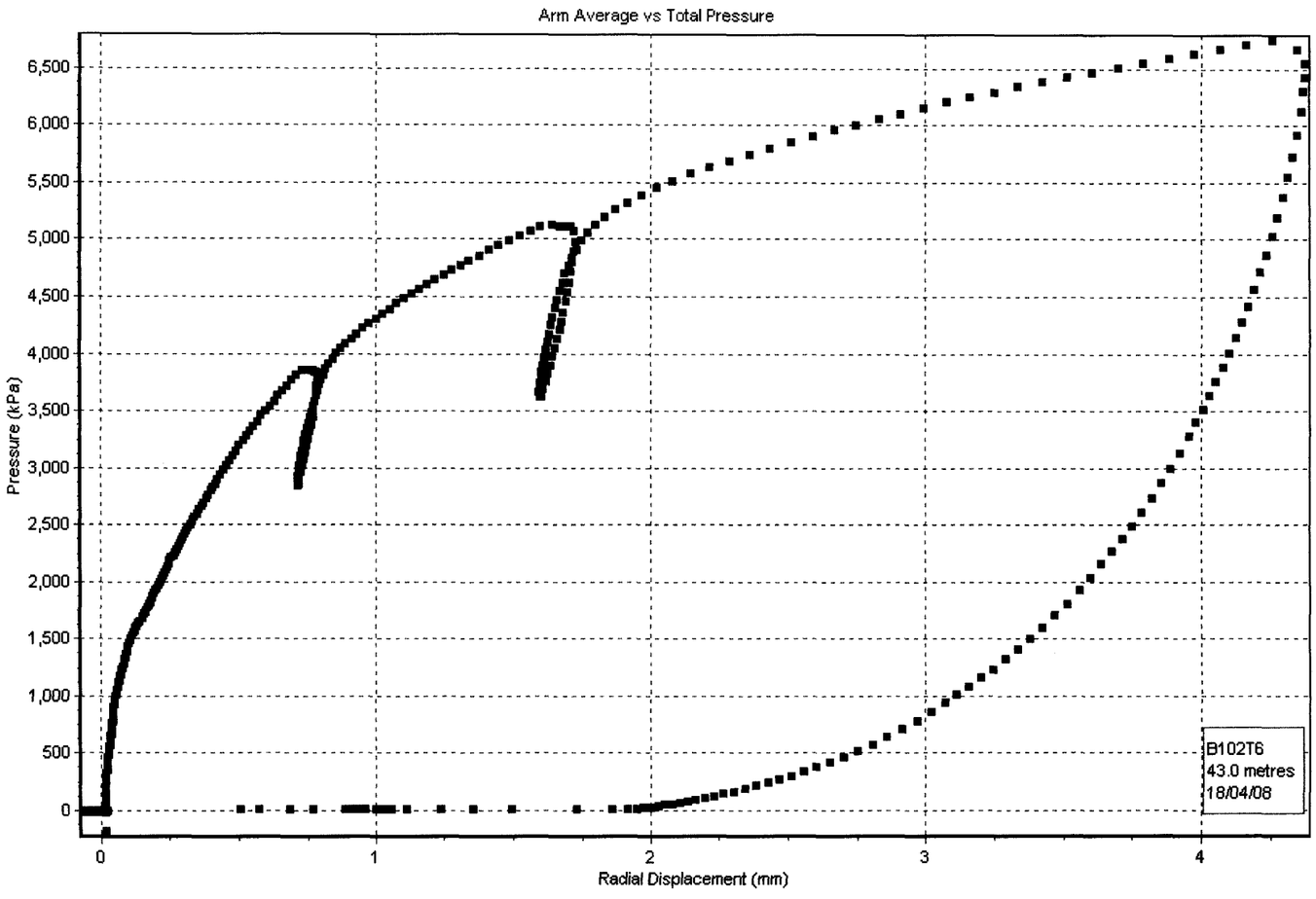
Mem. Correction.	Mem. Compression.	Strain Cals.	Pressure Cals.
W01307	W01307	10/4/08	11/4/08

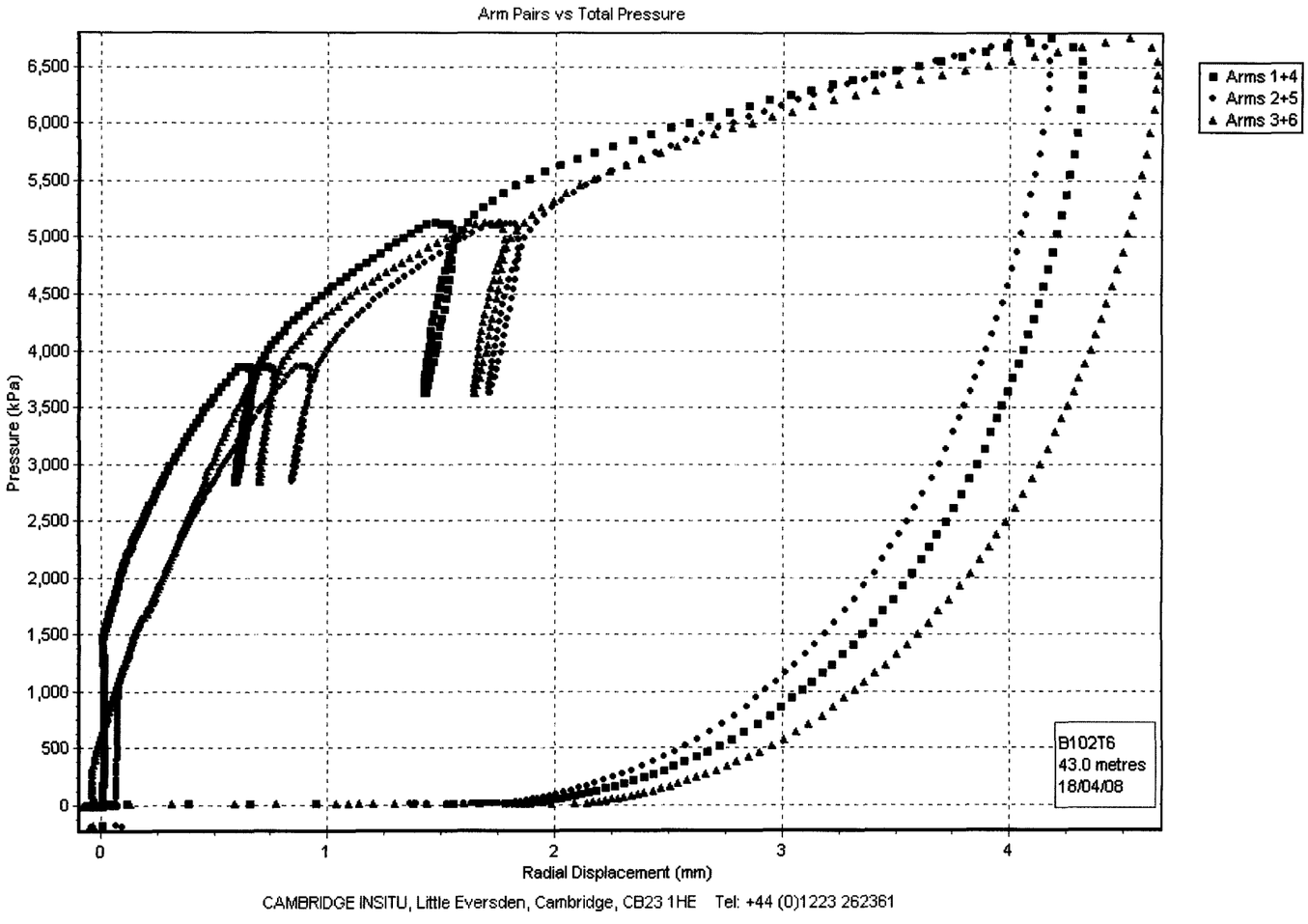
TEST REMARKS: As before, good Pump response & Strain hardening. Pump failed to generate end of test.

Driller: DAN
Tester: RW

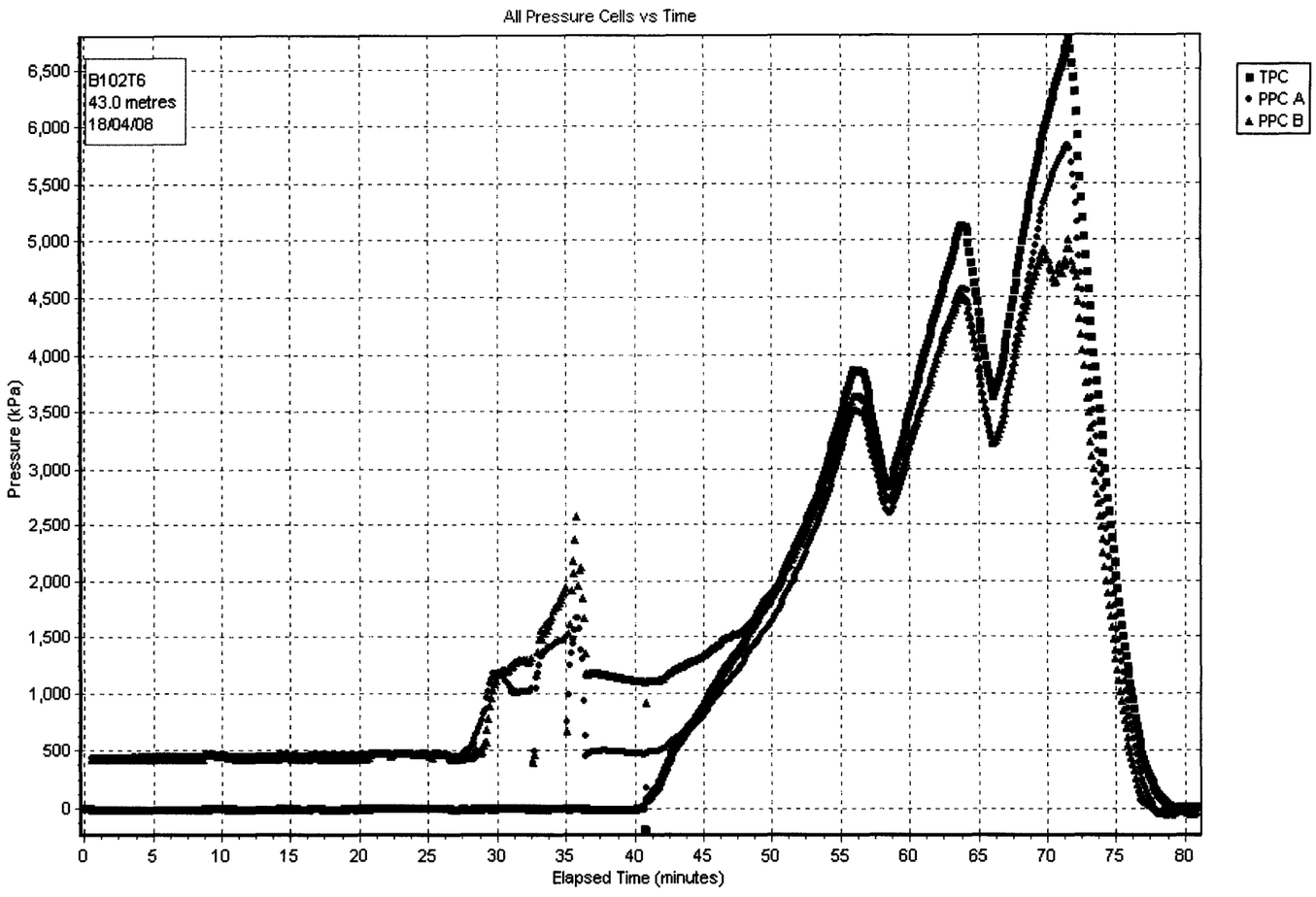
CAMBRIDGE INSITU, Little Eversden, Cambridge CB3 7HF Tel: (01223) 262 361 Fax: (01223) 263 947
SBP6TRS.DOC May 25th, 2001 E-mail CamInsitu@AOL.com Web site: Cambridge-Insitu.com


All Arms vs Total Pressure
Pressure (kPa)
6,500
6,000
5,500
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
1
2
3
4
Radial Displacement (mm)
Arm 1
Arm 2
Arm 3
Arm 4
Arm 5
Arm 6
B102T6
43.0 metres
18/04/08

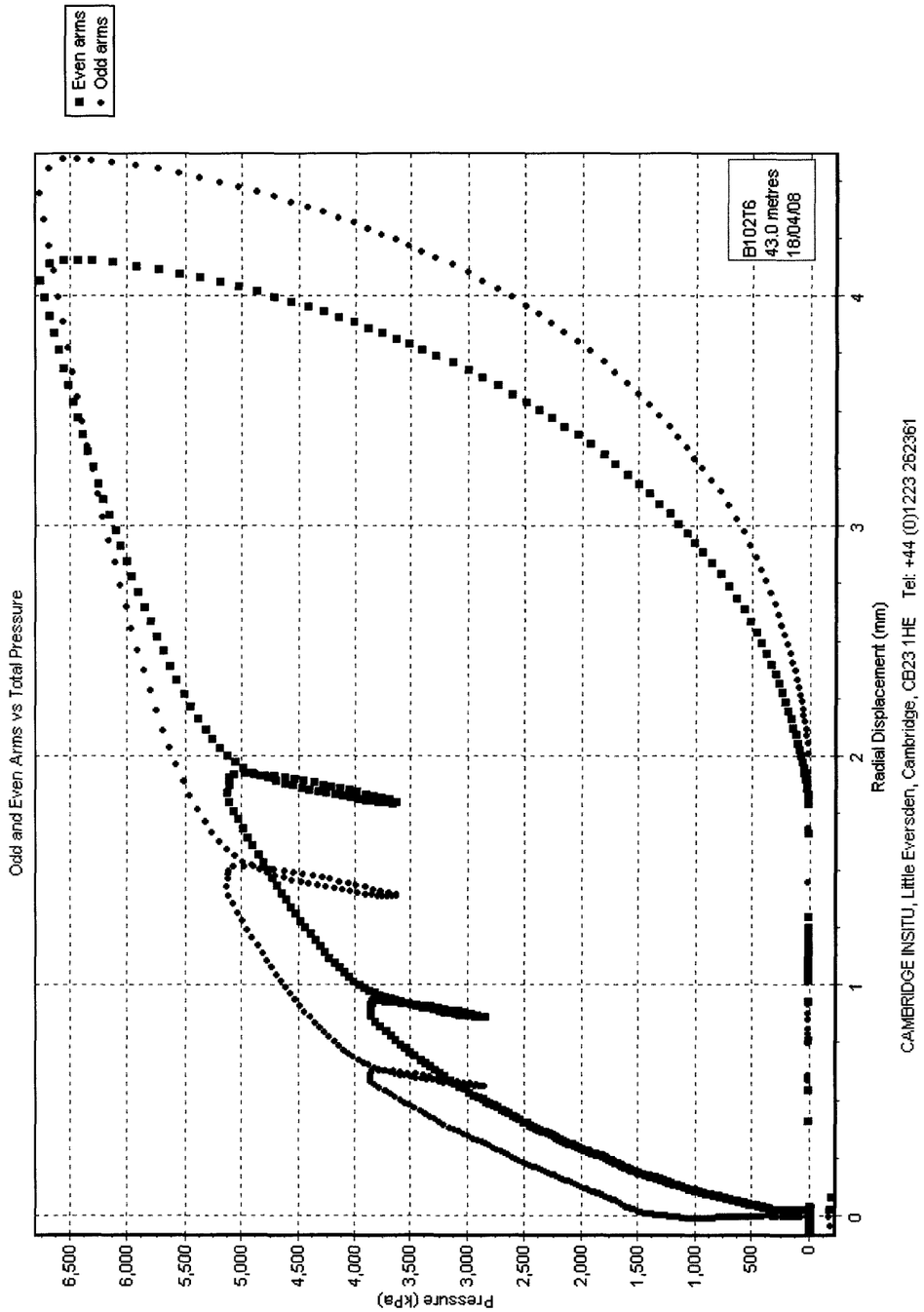

Arm Average vs Total Pressure
Pressure (kPa)
6,500
6,000
5,500
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
1
2
3
4
Radial Displacement (mm)
B102T6
43.0 metres
18/04/08



CAMBRIDGE INSITU, Little Eversden, Cambridge, CB23 1HE Tel: +44 (0)1223 262361



CAMBRIDGE INSITU, Little Eversden, Cambridge, CB23 1HE Tel: +44 (0)1223 262361



B102T7 - SUMMARY OF RESULTS
[File made with WinSitu Version 1.20.1.1]

[DETAILS OF TEST]

Project	:	36237
Site	:	Denmark Place
Borehole	:	BH102
Test name	:	B102T7
Test date	:	21 Apr 08
Test depth	:	47.90 Metres
Water table	:	5.6 Metres
Ambient PWP	:	0.0 kPa
Material	:	Upnor Beds
Probe	:	Digital 6 arm weak rock self boring pressuremeter
Diameter	:	88.1 mm

Data analysed using average arm displacement curve
A non-linear analysis of the rebound cycles has been carried out

Analysed by RWW on 22 Apr 08

Remarks: Shoe edge and CHL badly damaged by gravel. Material gravelly, silty, greenish sand.

[RESULTS FOR CAVITY REFERENCE PRESSURE]

Strain Origin (mm)	:	"Arm ave=2.016"
Po from Marsland & Randolph (kPa)	:	"Arm ave=1389.5"
Best estimate of Po (kPa)	:	"Arm ave=1390.0"

[UNDRAINED STRENGTH PARAMETERS]

Jefferies 1988 - Cu (kPa)	:	"Arm ave=722.9"
Undrained yield stress (kPa)	:	"Arm ave=2051.2"

[DRAINED ANALYSIS OF SANDS - HUGHES et al 1977]

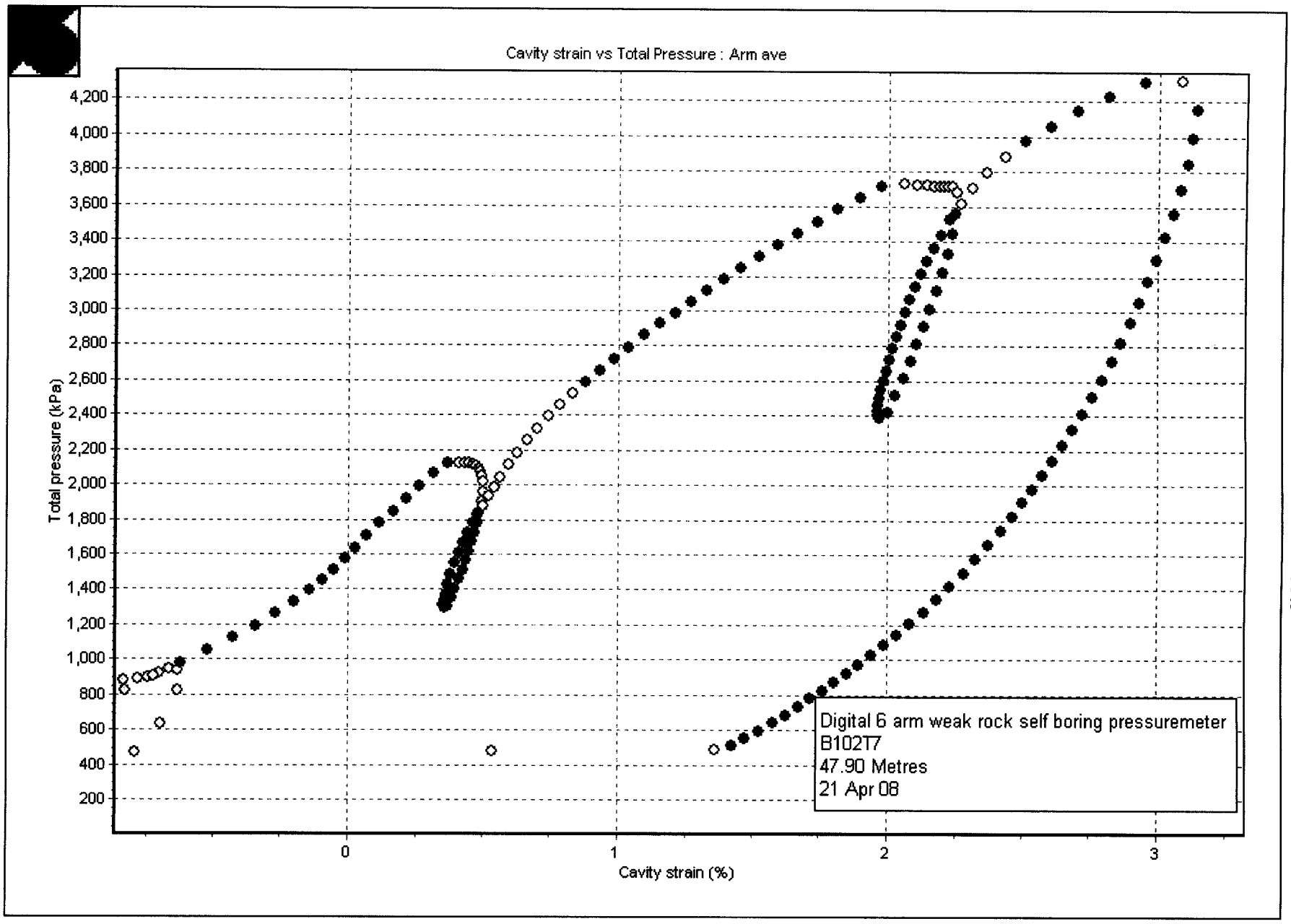
Constant volume friction angle (°)	:	32.0
Angle of internal friction (°)	:	"Arm ave=39.3"
Dilation angle (°)	:	"Arm ave=9.0"
Gradient of log-log plot	:	"Arm ave=0.448"

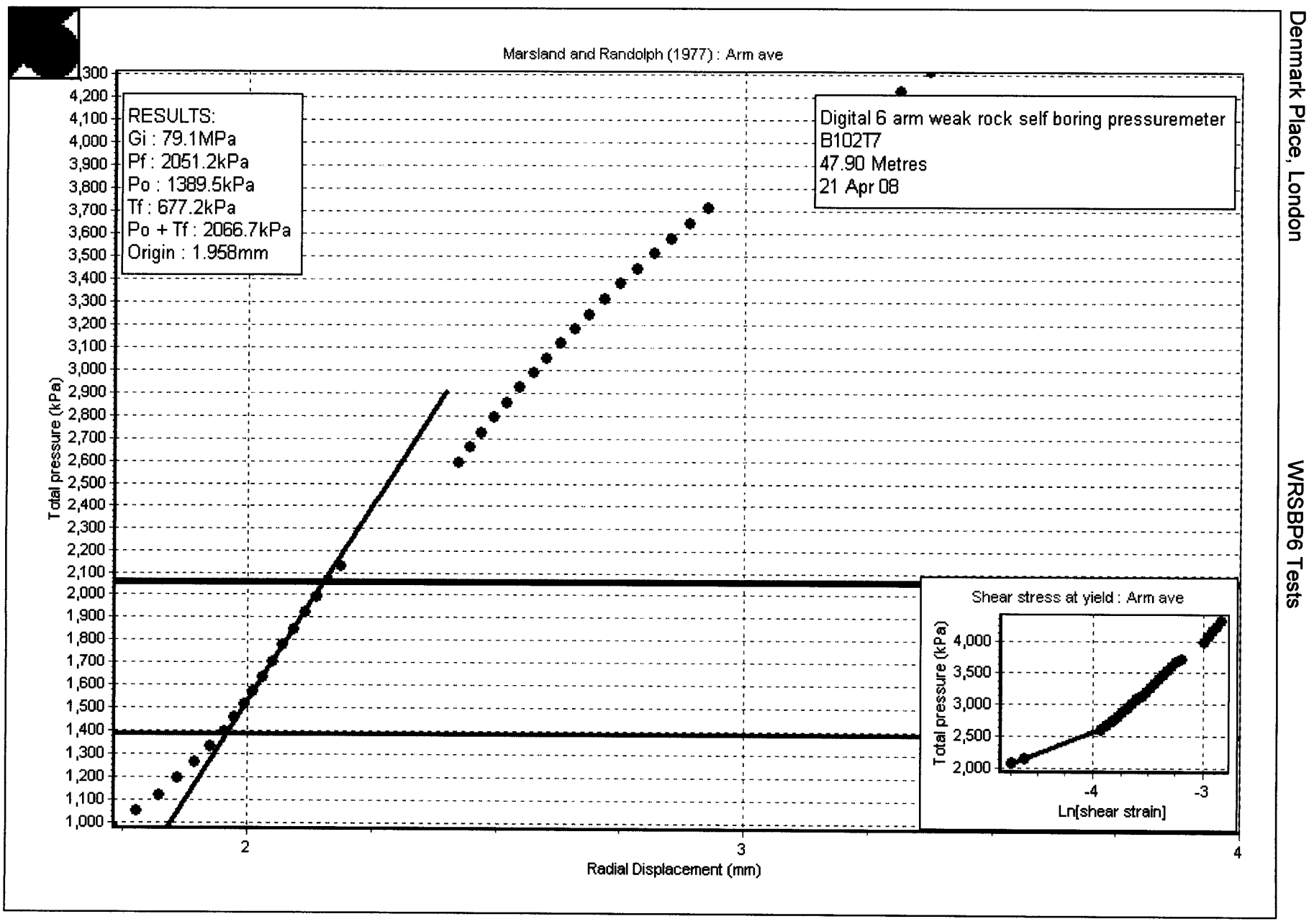
[LINEAR INTERPRETATION OF SHEAR MODULUS G]
Initial slope shear modulus (MPa) :"Arm ave=79.1"

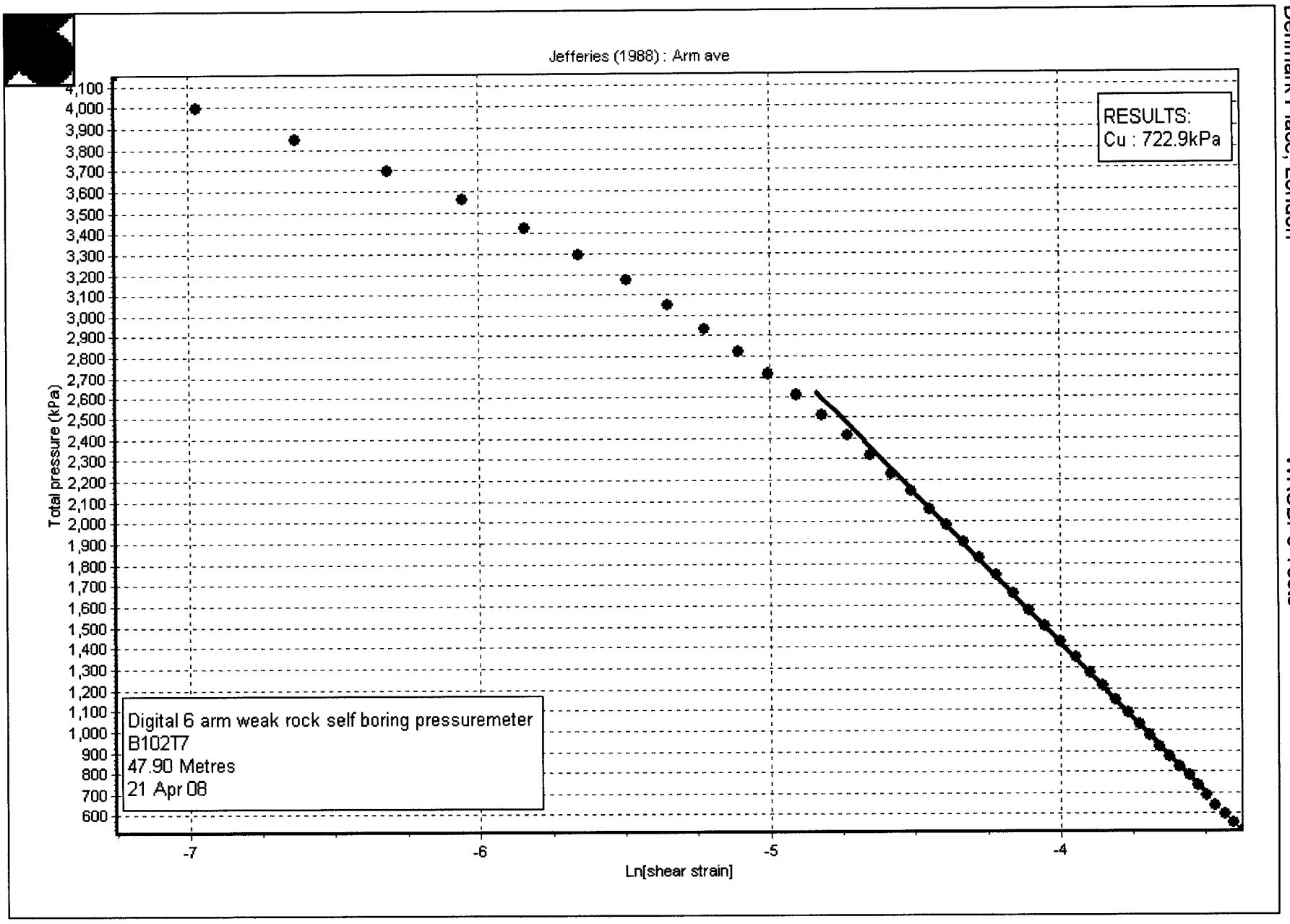
Axis	Loop No	Value (MPa)	Mean Strain (%)	Mean Pc (kPa)	dE (%)	dPc (kPa)
Arm ave	1	205.7	0.423	1568	0.278	573
Arm ave	2	208.5	2.111	2985	0.577	1208

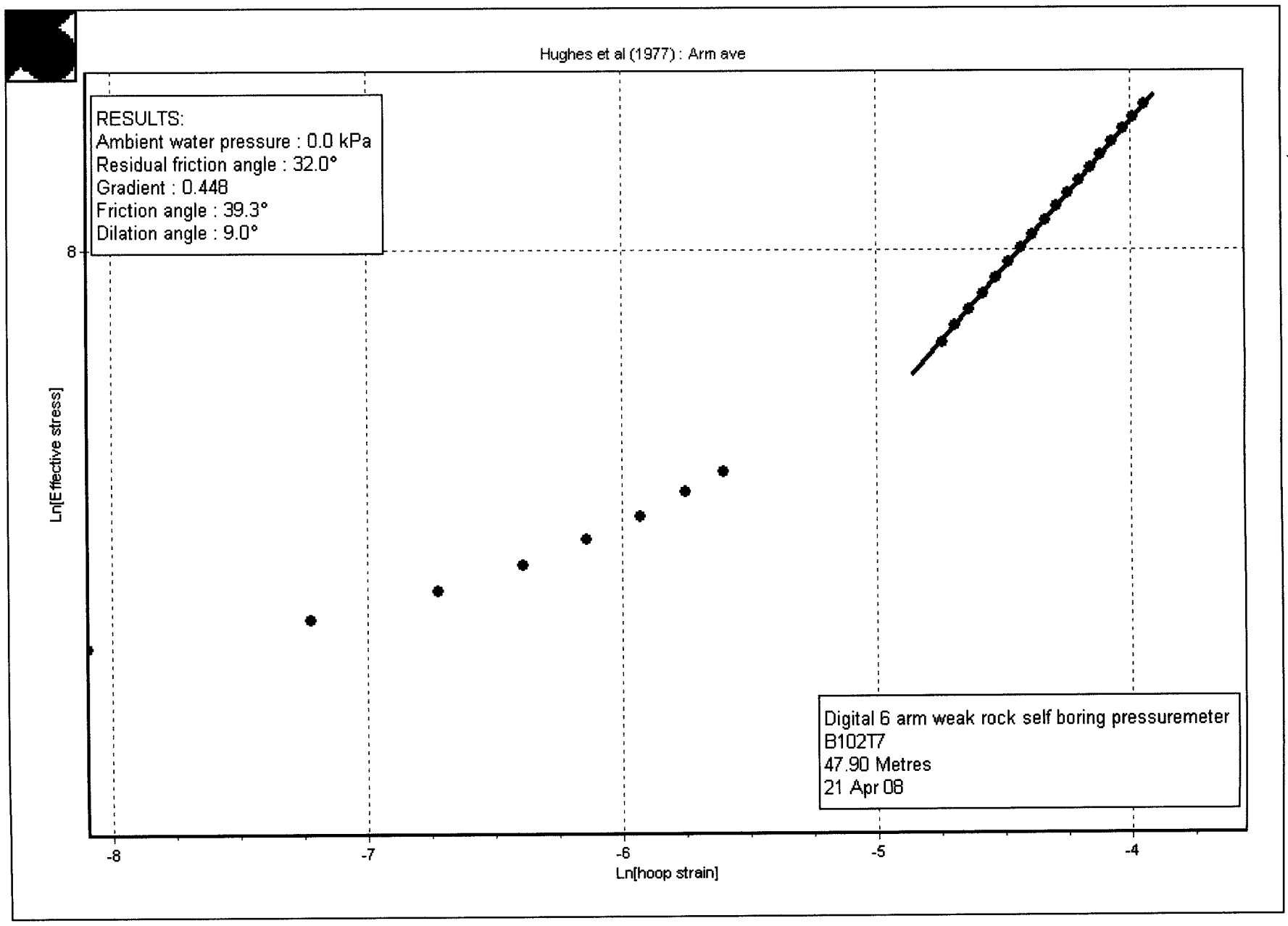
[NON LINEAR INTERPRETATION OF SECANT SHEAR MODULUS]

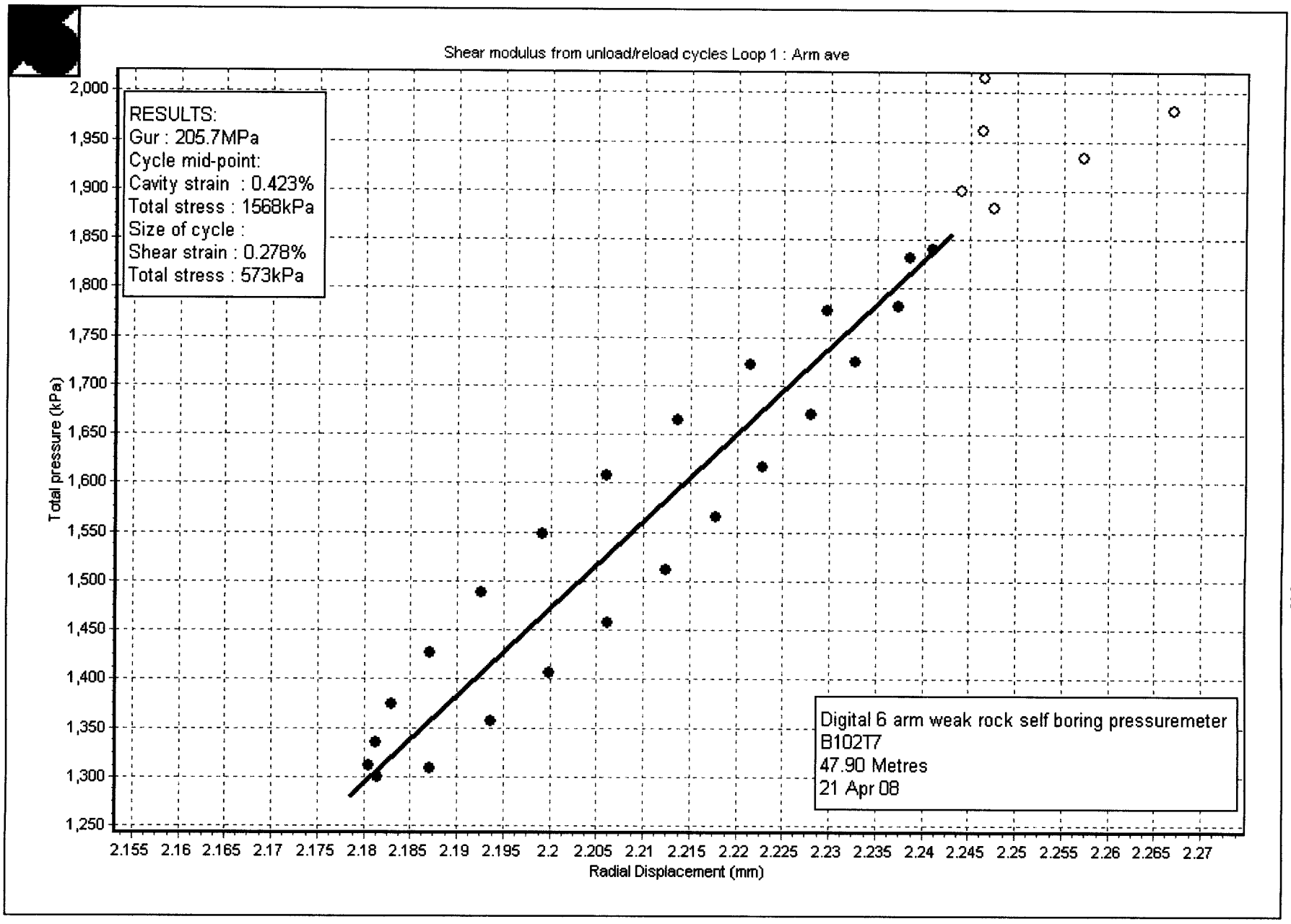
Axis	Loop No	Intercept (MPa)	Alpha (MPa)	Gradient
Arm ave	1	29.940	20.126	0.672
Arm ave	2	41.164	28.039	0.681

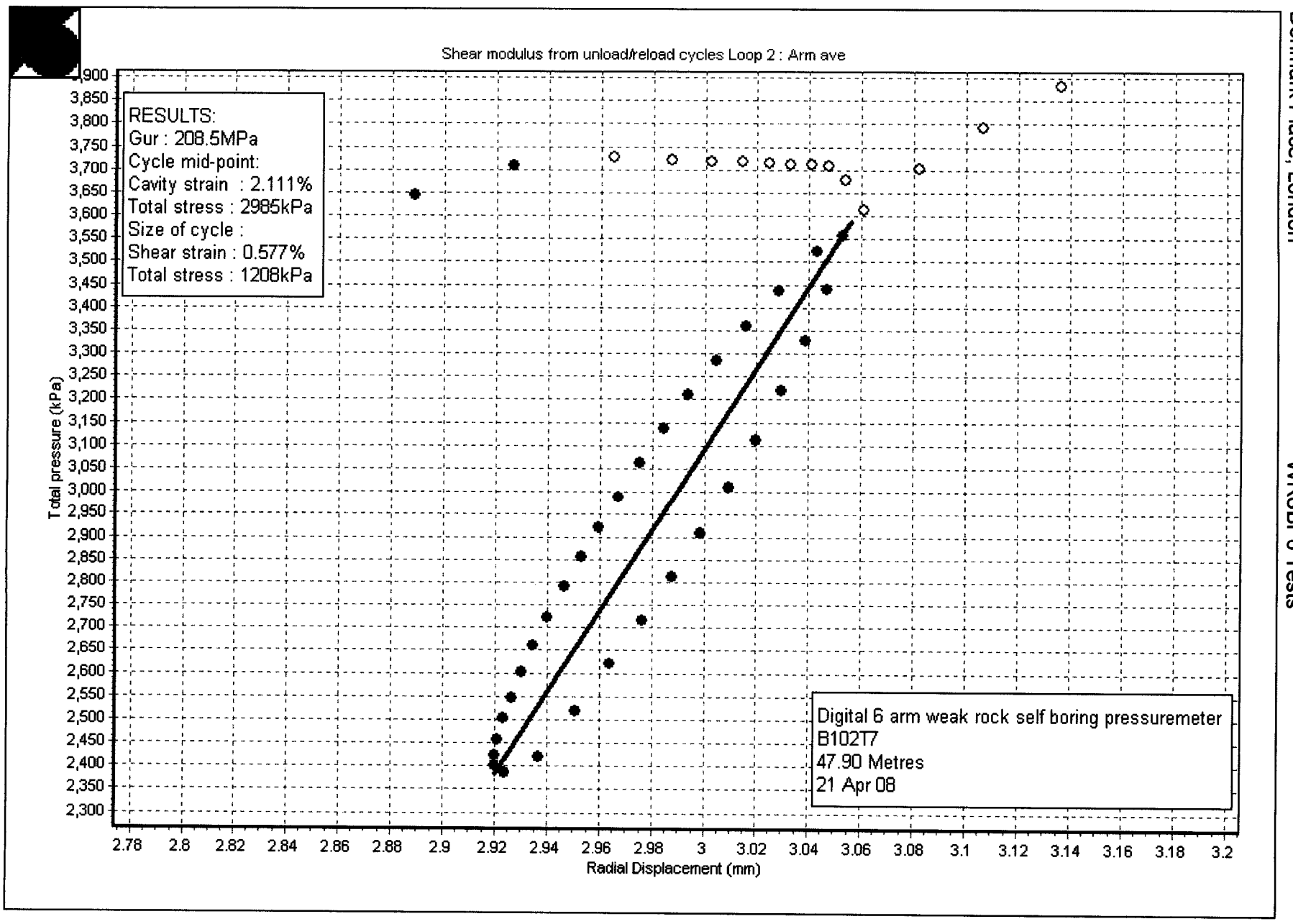

Cavity strain vs Total Pressure : Arm ave
Total pressure (kPa)
4,200
4,000
3,800
3,600
3,400
3,200
3,000
2,800
2,600
2,400
2,200
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
1
2
3
Cavity strain (%)
Digital 6 arm weak rock self boring pressuremeter
B102T7
47.90 Metres
21 Apr 08

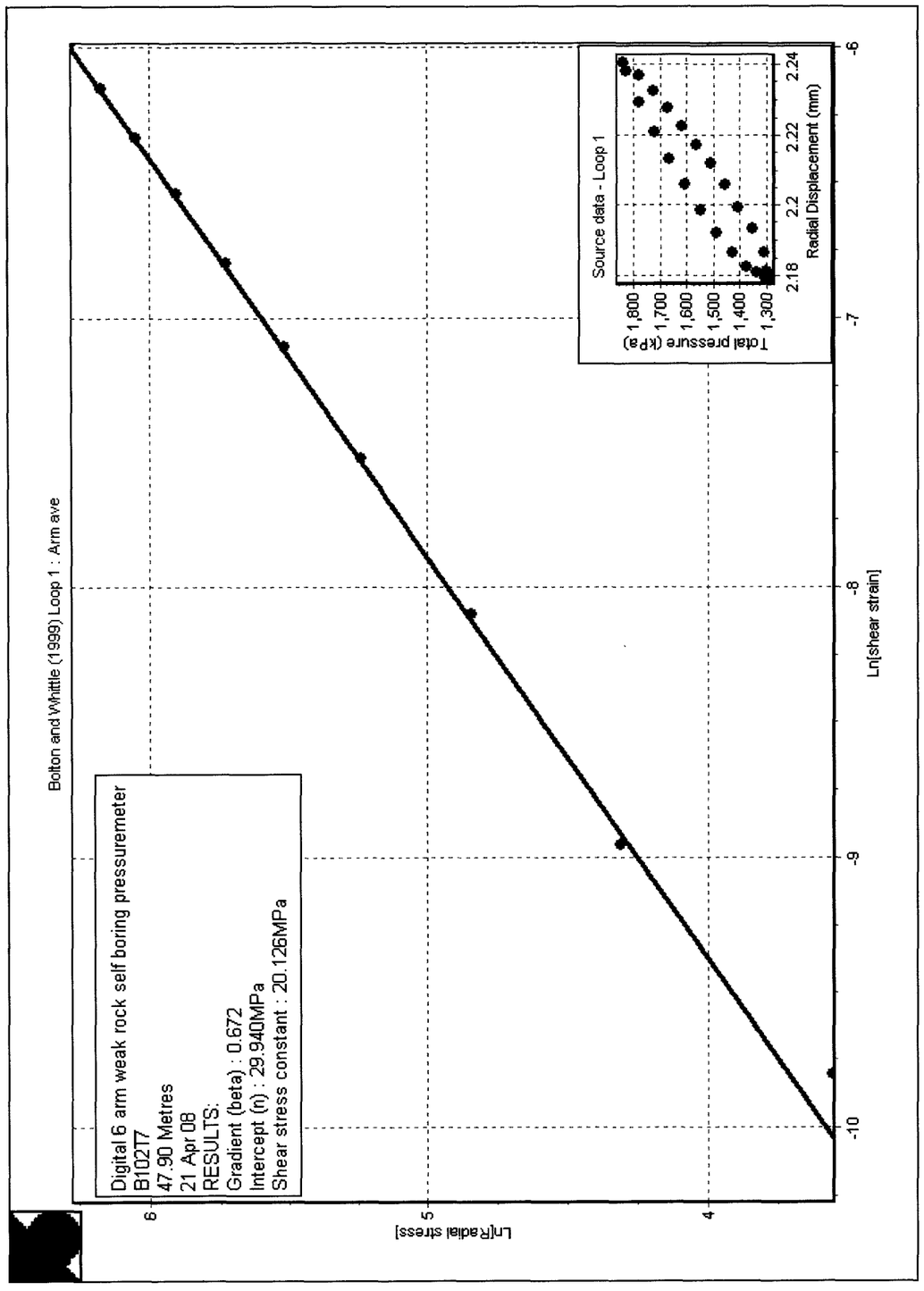

Marsland and Randolph (1977) : Arm ave
RESULTS:
Gi : 79.1MPa
Pf : 2051.2kPa
Po : 1389.5kPa
Tf : 677.2kPa
Po + Tf : 2066.7kPa
Origin : 1.958mm
Digital 6 arm weak rock self boring pressuremeter
B102T7
47.90 Metres
21 Apr 08
Total pressure (kPa)
4,300
4,200
4,100
4,000
3,900
3,800
3,700
3,600
3,500
3,400
3,300
3,200
3,100
3,000
2,900
2,800
2,700
2,600
2,500
2,400
2,300
2,200
2,100
2,000
1,900
1,800
1,700
1,600
1,500
1,400
1,300
1,200
1,100
1,000
2
3
4
Radial Displacement (mm)
Shear stress at yield : Arm ave
Total pressure (kPa)
4,000
3,500
3,000
2,500
2,000
-4
-3
Ln[shear strain]

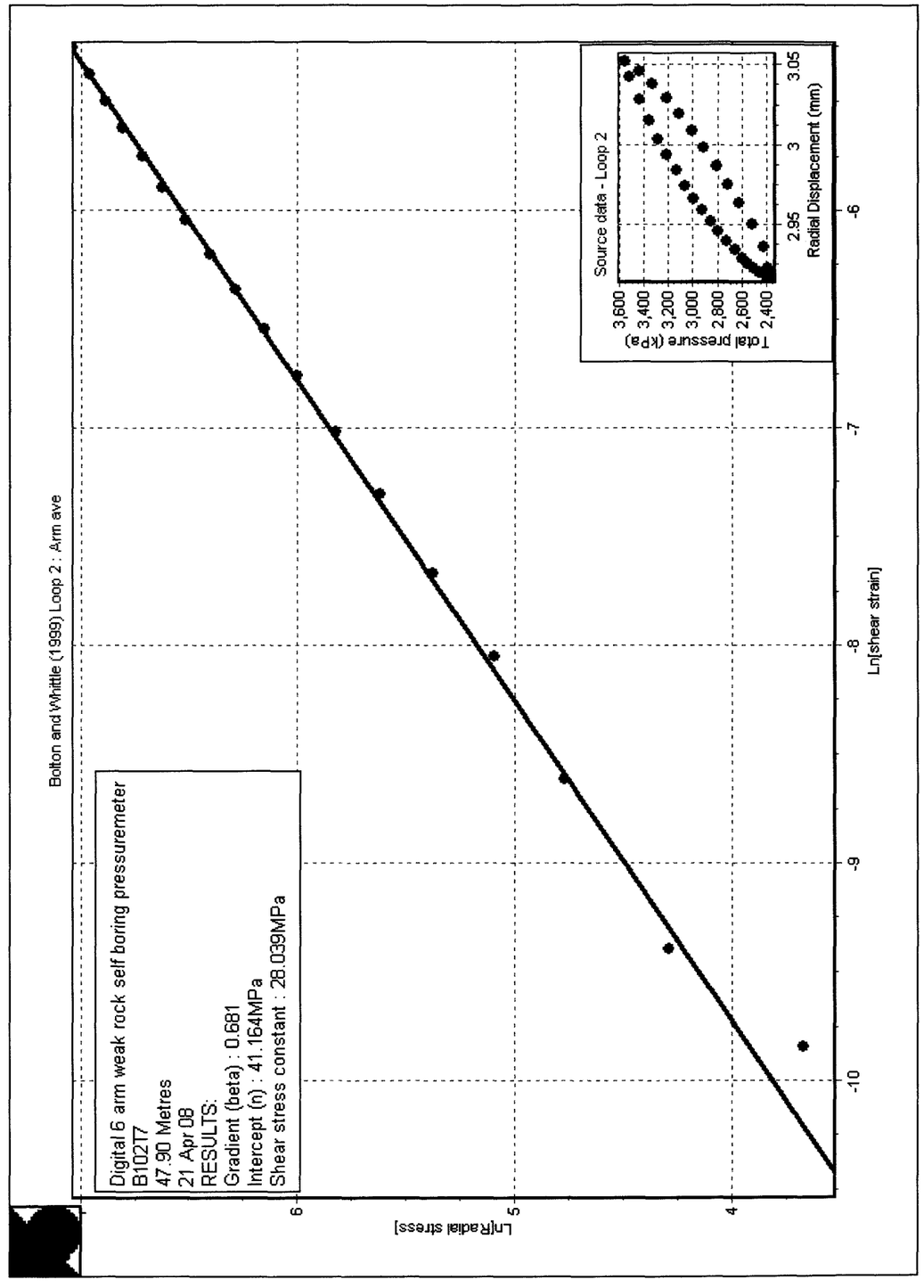

Jefferies (1988) : Arm ave
RESULTS:
Cu : 722.9kPa
Digital 6 arm weak rock self boring pressuremeter
B102T7
47.90 Metres
21 Apr 08
Total pressure (kPa)
Ln[shear strain]

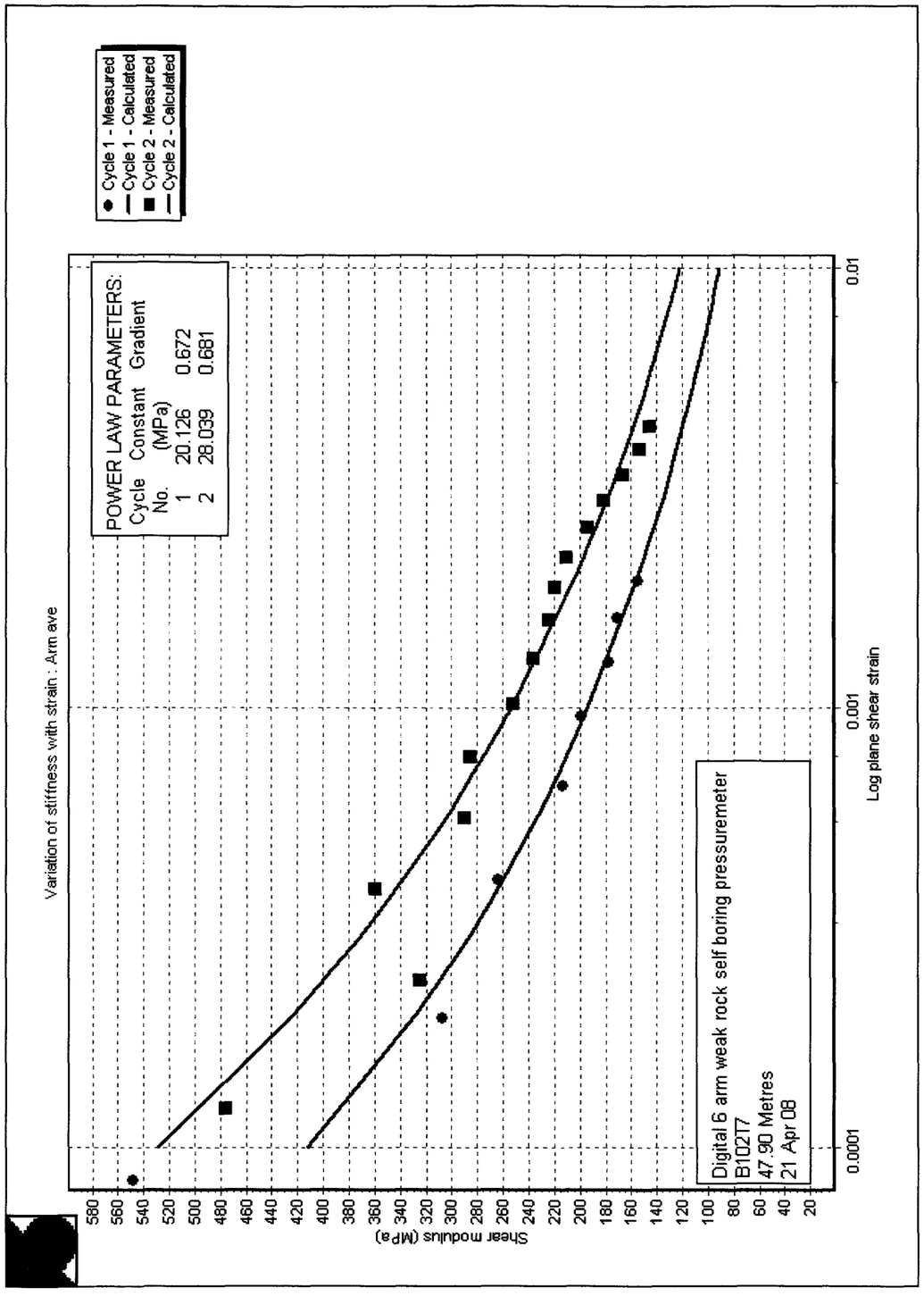

Hughes et al (1977) : Arm ave
RESULTS:
Ambient water pressure : 0.0 kPa
Residual friction angle : 32.0°
Gradient : 0.448
Friction angle : 39.3°
Dilation angle : 9.0°
Digital 6 arm weak rock self boring pressuremeter
B102T7
47.90 Metres
21 Apr 08
Ln[Effective stress]
Ln[hoop strain]

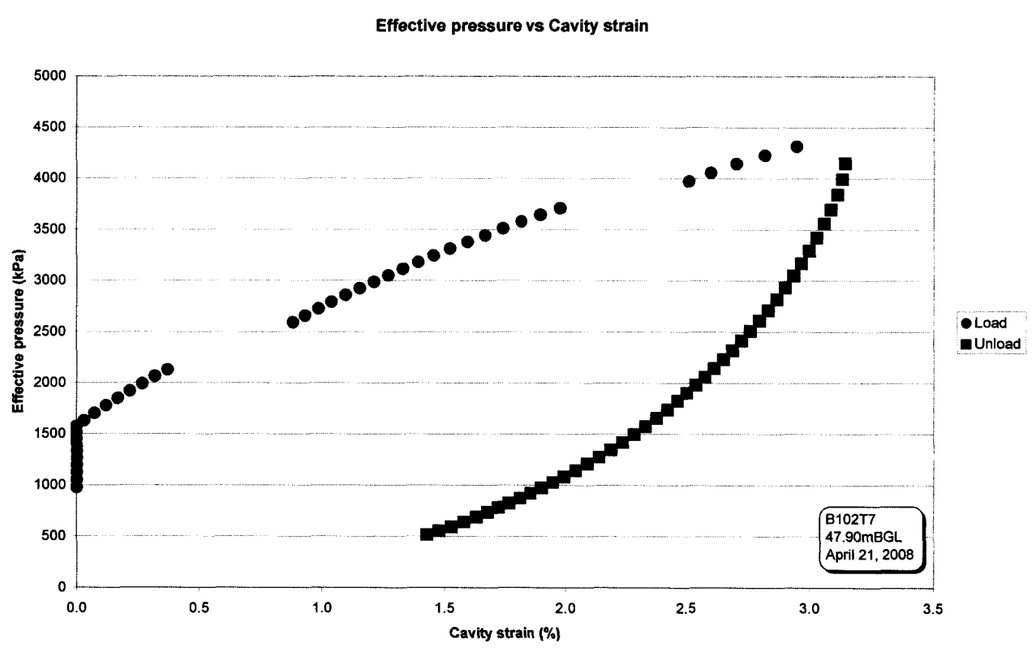

Shear modulus from unload/reload cycles Loop 1 : Arm ave
RESULTS:
Gur : 205.7MPa
Cycle mid-point:
Cavity strain : 0.423%
Total stress : 1568kPa
Size of cycle :
Shear strain : 0.278%
Total stress : 573kPa
Digital 6 arm weak rock self boring pressuremeter
B102T7
47.90 Metres
21 Apr 08
Total pressure (kPa)
Radial Displacement (mm)

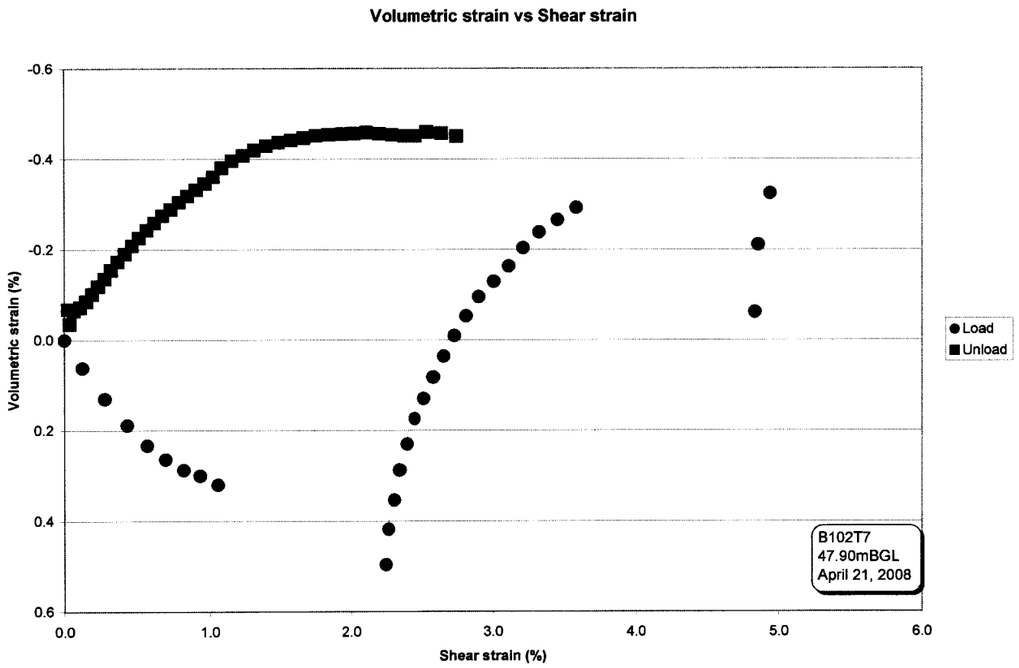

Shear modulus from unload/reload cycles Loop 2 : Arm ave
RESULTS:
Gur : 208.5MPa
Cycle mid-point:
Cavity strain : 2.111%
Total stress : 2985kPa
Size of cycle :
Shear strain : 0.577%
Total stress : 1208kPa
Digital 6 arm weak rock self boring pressuremeter
B102T7
47.90 Metres
21 Apr 08
Total pressure (kPa)
Radial Displacement (mm)

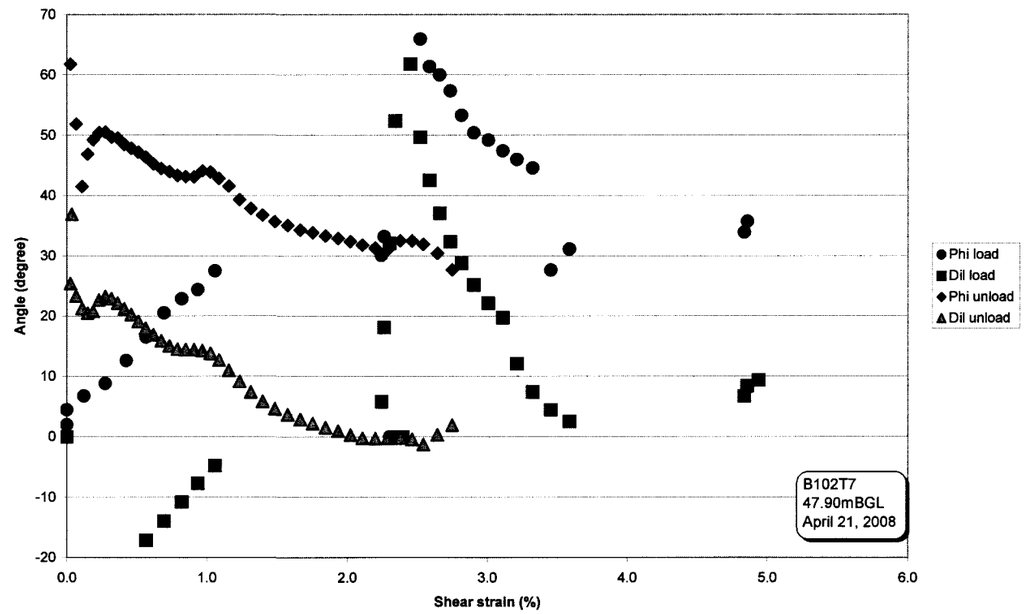

Bolton and Whittle (1999) Loop 1 : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T7
47.90 Metres
21 Apr 08
RESULTS:
Gradient (beta) : 0.672
Intercept (n) : 29.940MPa
Shear stress constant : 20.126MPa
Ln[Radial stress]
Ln[shear strain]
Source data - Loop 1
Total pressure (kPa)
Radial Displacement (mm)

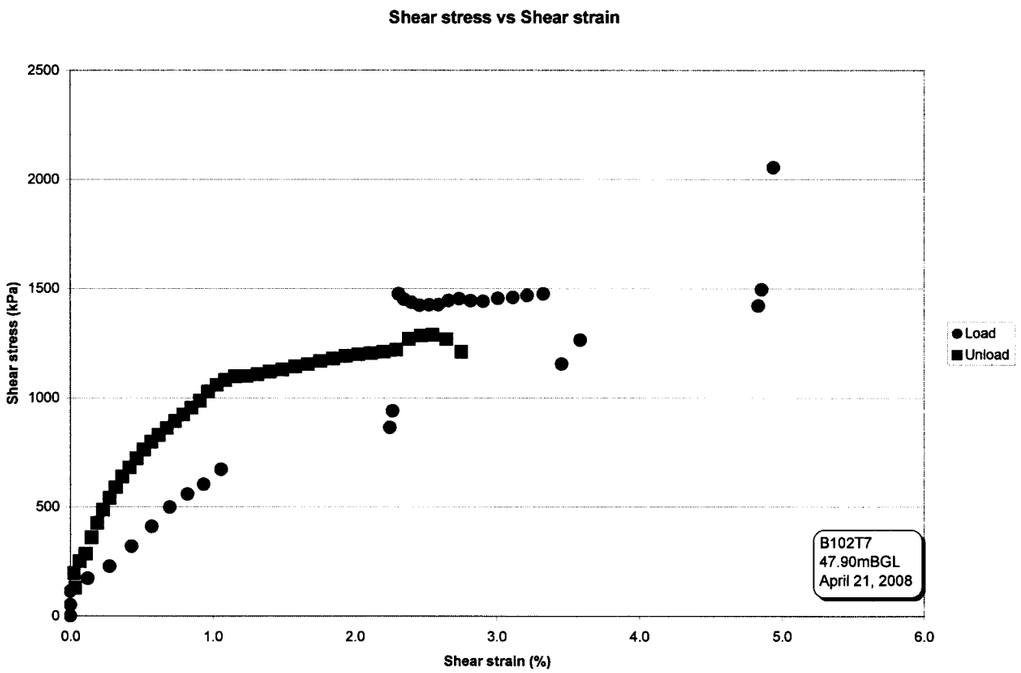

Bolton and Whittle (1999) Loop 2 : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T7
47.90 Metres
21 Apr 08
RESULTS:
Gradient (beta) : 0.681
Intercept (n) : 41.164MPa
Shear stress constant : 28.039MPa
Ln[Radial stress]
Ln[shear strain]
Source data - Loop 2
Total pressure (kPa)
Radial Displacement (mm)

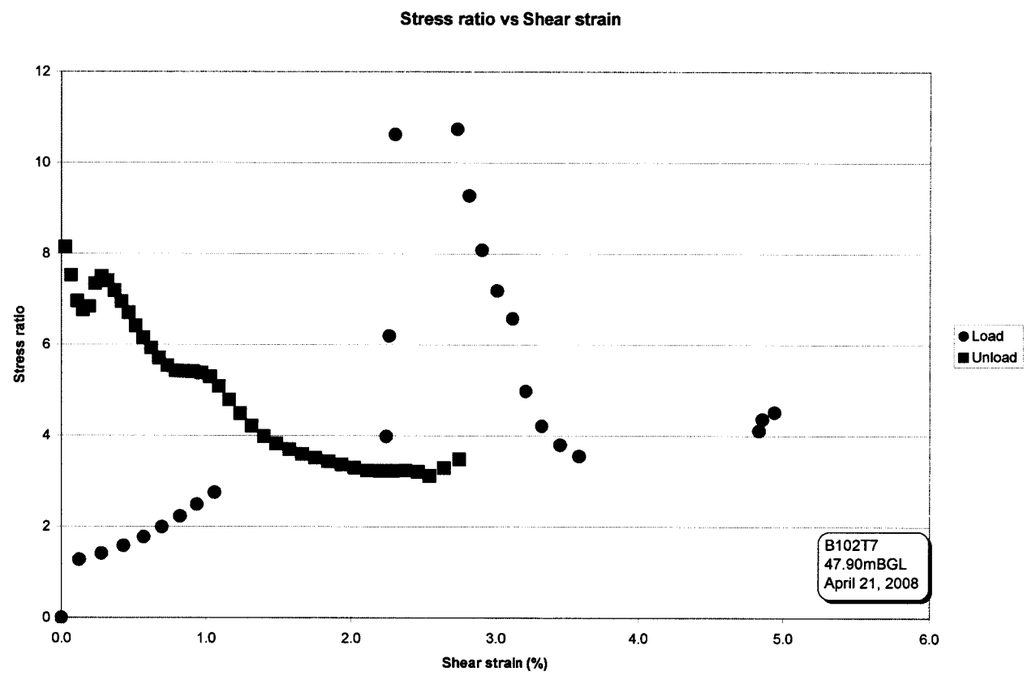

Cycle 1 - Measured
Cycle 1 - Calculated
Cycle 2 - Measured
Cycle 2 - Calculated
POWER LAW PARAMETERS:
Cycle No. Constant (MPa) Gradient
1 20.126 0.672
2 28.039 0.681
Variation of stiffness with strain : Arm ave
Shear modulus (MPa)
Log plane shear strain
0.01
0.001
0.0001
Digital 6 arm weak rock self boring pressuremeter
B102T7
47.90 Metres
21 Apr 08

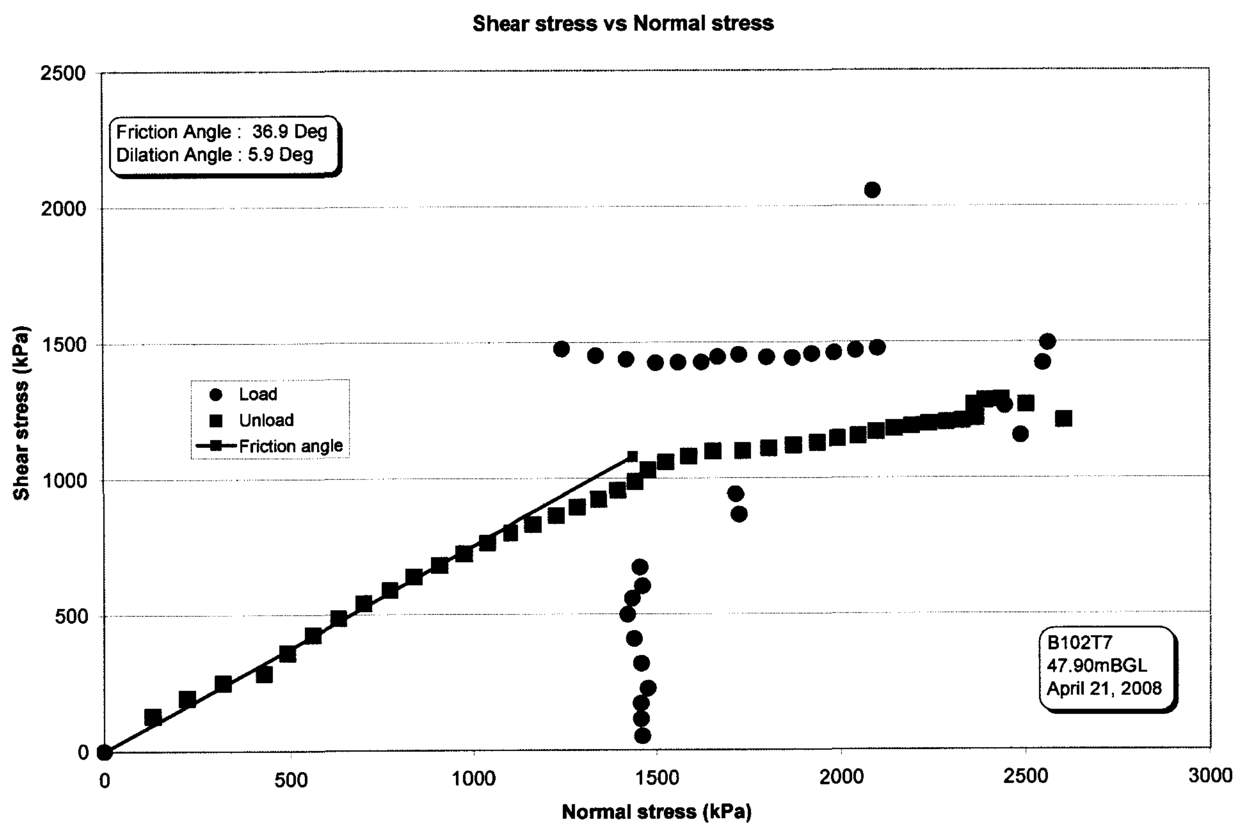

Effective pressure vs Cavity strain
Effective pressure (kPa)
Cavity strain (%)
Load
Unload
B102T7
47.90mBGL
April 21, 2008


Volumetric strain vs Shear strain
Volumetric strain (%)
-0.6
-0.4
-0.2
0.0
0.2
0.4
0.6
0.0
1.0
2.0
3.0
4.0
5.0
6.0
Shear strain (%)
Load
Unload
B102T7
47.90mBGL
April 21, 2008


Angles of friction and dilation vs Shear strain
Angle (degree)
70
60
50
40
30
20
10
0
-10
-20
0.0
1.0
2.0
3.0
4.0
5.0
6.0
Shear strain (%)
Phi load
Dil load
Phi unload
Dil unload
B102T7
47.90mBGL
April 21, 2008


Shear stress vs Shear strain
Shear stress (kPa)
2500
2000
1500
1000
500
0
0.0
1.0
2.0
3.0
4.0
5.0
6.0
Shear strain (%)
Load
Unload
B102T7
47.90mBGL
April 21, 2008


Stress ratio vs Shear strain
Stress ratio
12
10
8
6
4
2
0
0.0
1.0
2.0
3.0
4.0
5.0
6.0
Shear strain (%)
Load
Unload
B102T7
47.90mBGL
April 21, 2008



6 ARM SELF BORING PRESSUREMETER TEST RECORD SHEET

Site	Date	Day	Borehole	Test	Depth to Test Centre (below ground level)
DENMARK PLACE	21/4/08	Mon	B102	7	47.9m

Weather:- | Material:- "TRANSITIONAL"? SANDY, SILTY, BLUEY GREEN, GRAVEL

Water table	Drilling Start	Drilling End	Distance	Drill Rate	Ram Pressure
?	15:47	15:56	0.9m	1m/30mins	160 bars

Ground level : | Orientation:-

Water Press	Inst OD	Shoe OD	Cutter Type	Cutter position	Probe Reference
	88.1	89.1	78-R	3mm	"MOLLY"

Drilling Remarks.- V. difficult.

Strain Rate	Press. Rate	Cycle Time	Gas Bottle	Battery	PPC Type	Max Pressure Cap.
— 1% / min	1kPa —	6sec	300bars	13-0V	TRUE	10mPa.

Arm 1	Arm 2	Arm 3	Arm 4	Arm 5	Arm 6	PPC A	PPC B	TPC	Date:-
-107	84	-70	35	-84	132	-1033	-923	-2445	Ground Level Zeros
									Pre-drilling Zeros
									Post-drilling Zeros
-108	79	-73	39	-70	118	-961	-801	-2441	Pre-test Zeros
									Ground Level Zeros

Test starts:- 16:00

Line	Notes
346	Hold 2.1mPa.
551	Loop 1 G_1 = 213MPa.
609	Hold 3.7mPa.
618	Loop 2. G_1 = 206MPa.
660	unload

Test ends.- 16:28. | Max Press:- 4314kPa.

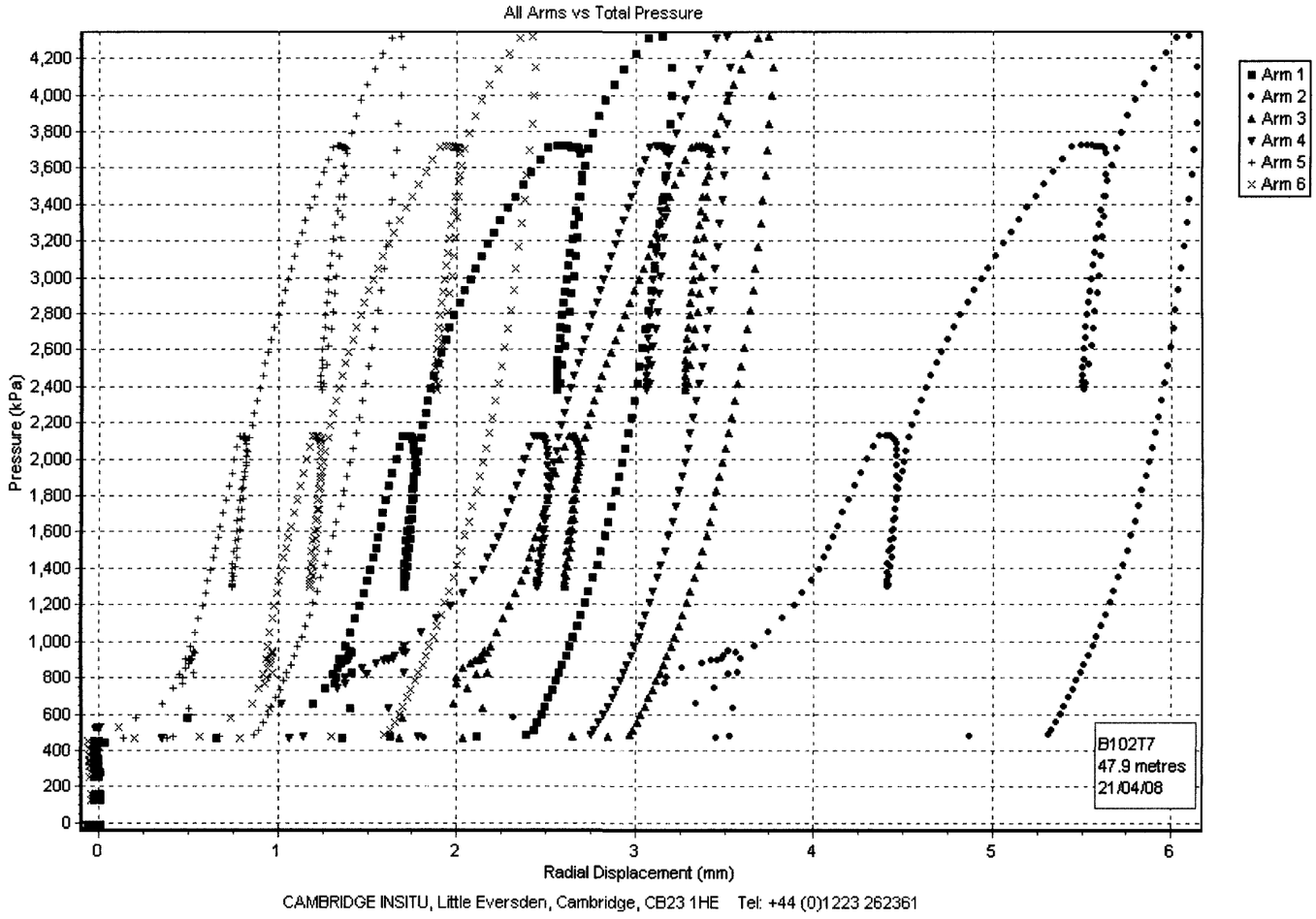
Calibrated Data details:

Mem. Correction.	Mem. Compression.	Strain Cals.	Pressure Cals.
W0130T1	W0130T2	10/4/08	11/4/08

TEST REMARKS: Material probably upper. Disturbed test. Shoe edge & cutter severely damaged by gravel! Apparently no pump. Start of test a bit messy — computer stopped working.

Driller: Dan
Tester: Rio

CAMBRIDGE INSITU, Little Eversden, Cambridge CB3 7HE Tel (01223) 262 361 Fax (01223) 263 947
SBP6TRS.DOC May 25th, 2001 E-mail: Caminsitu@AOL.com Web site: Cambridge-Insitu.com



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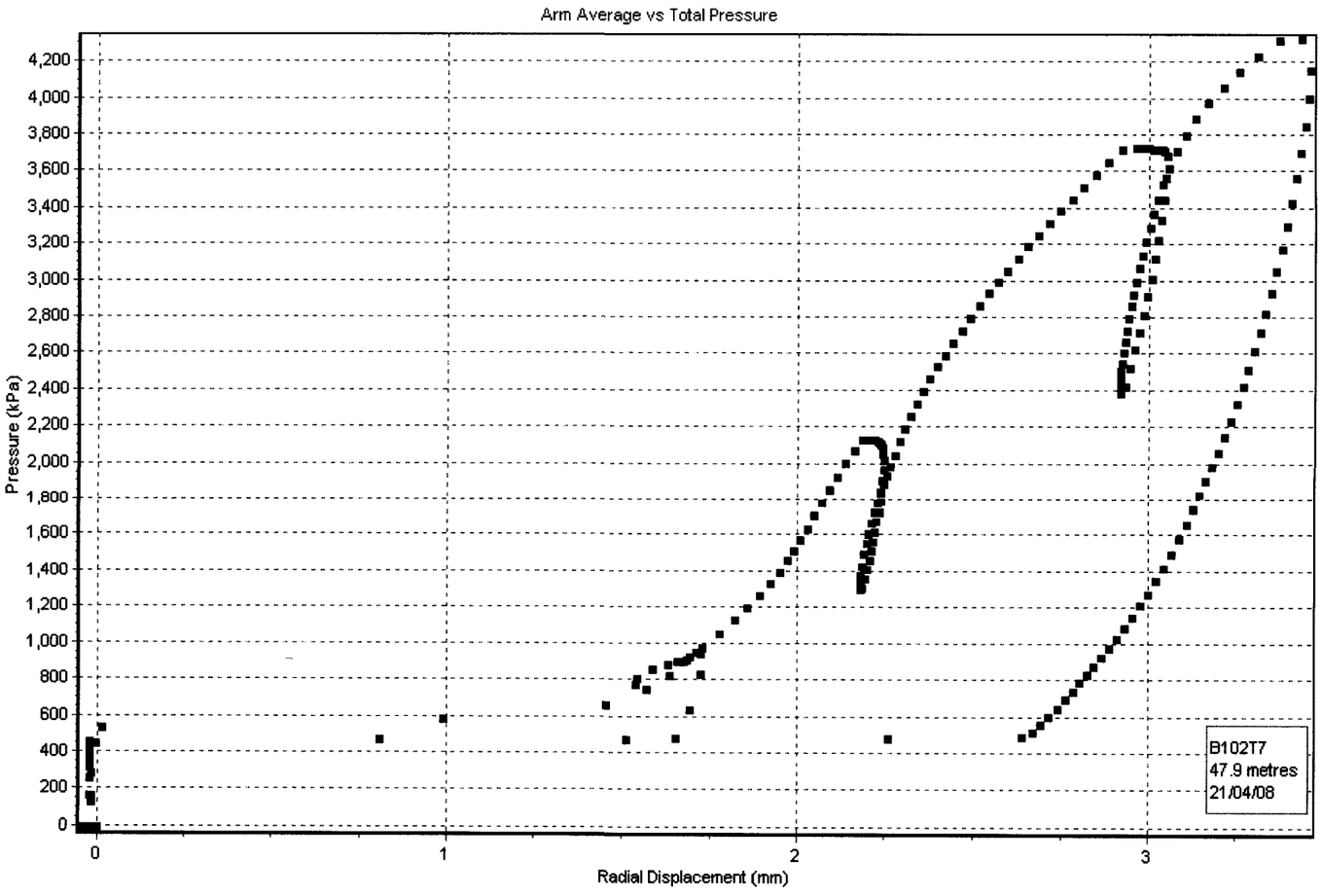
CIR1194/08

Denmark Place

WRSBP6 Tests



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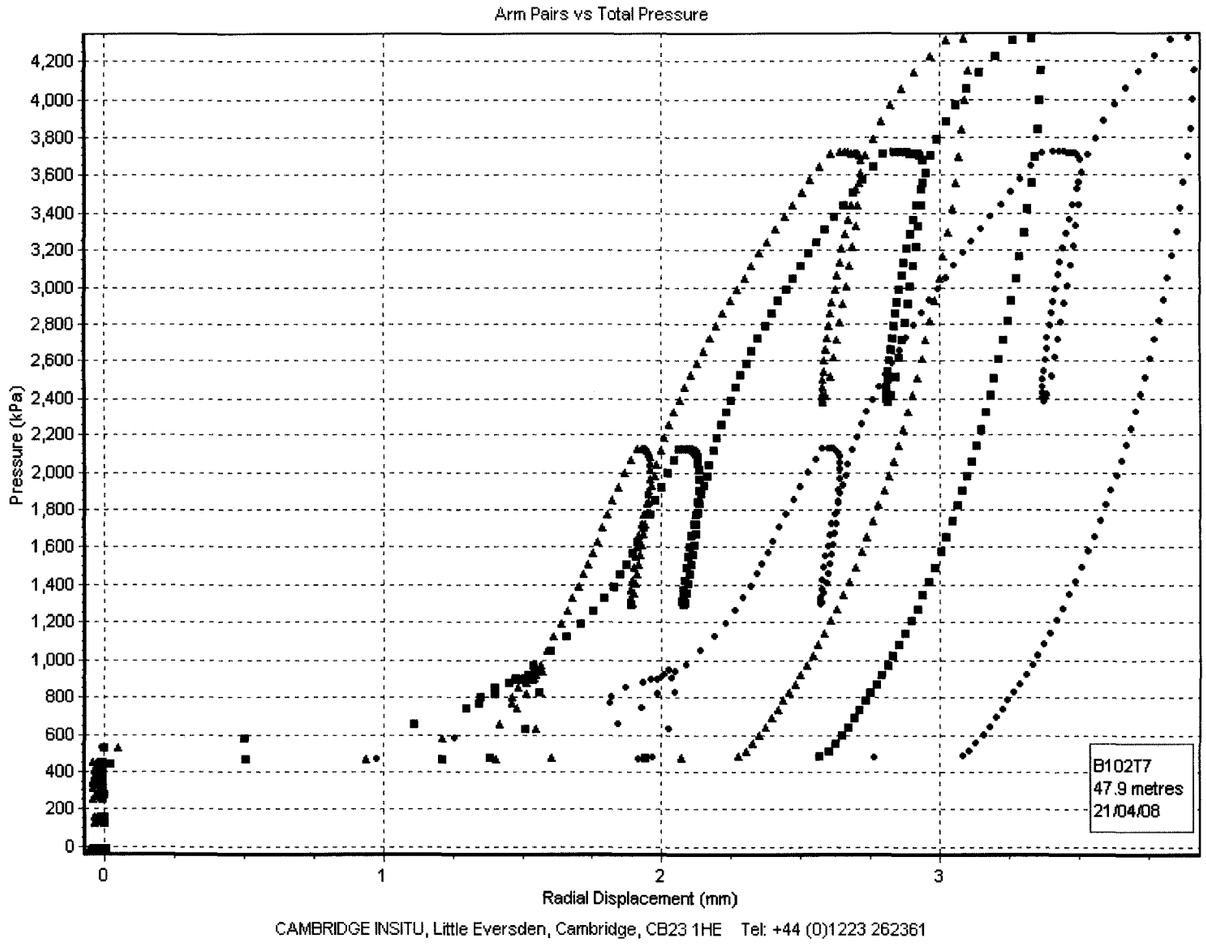
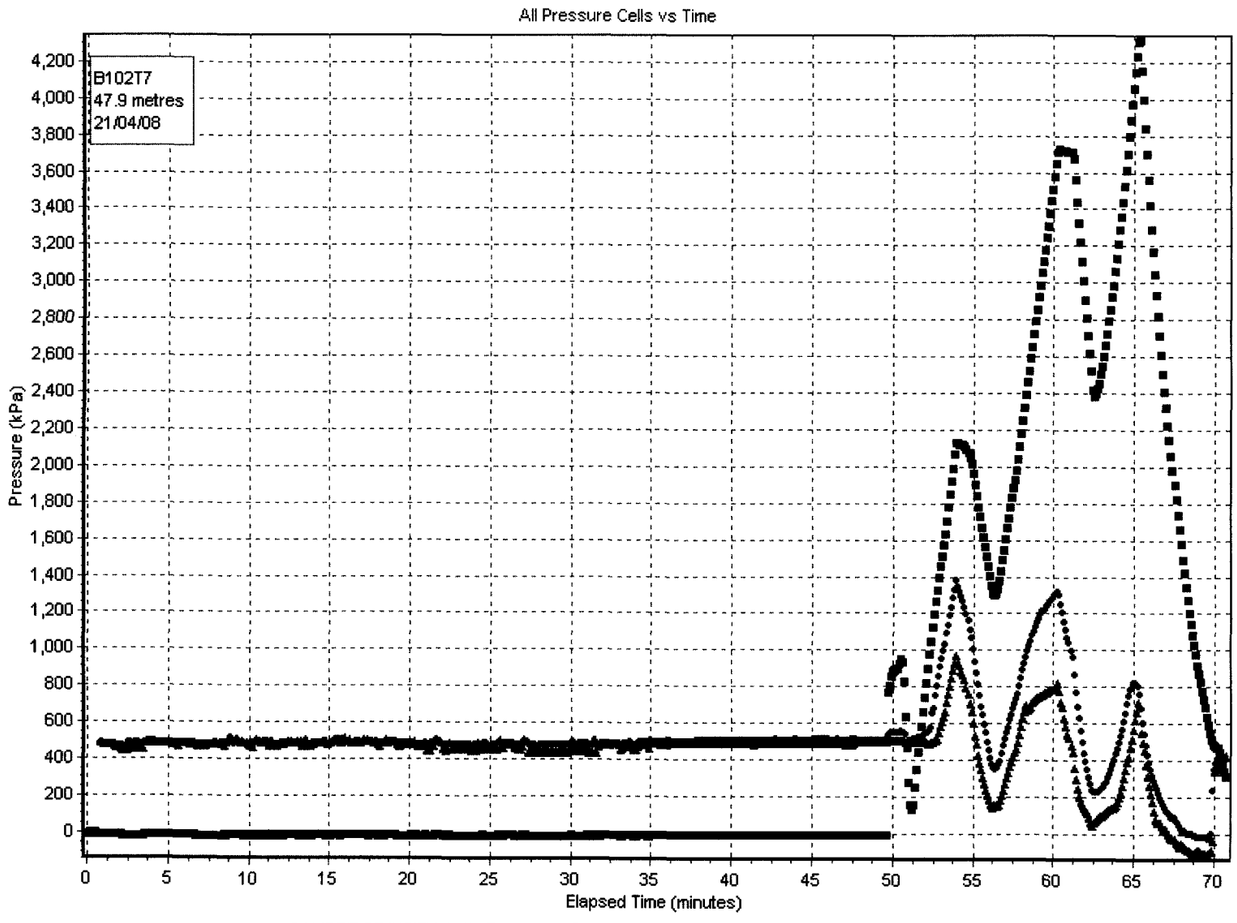
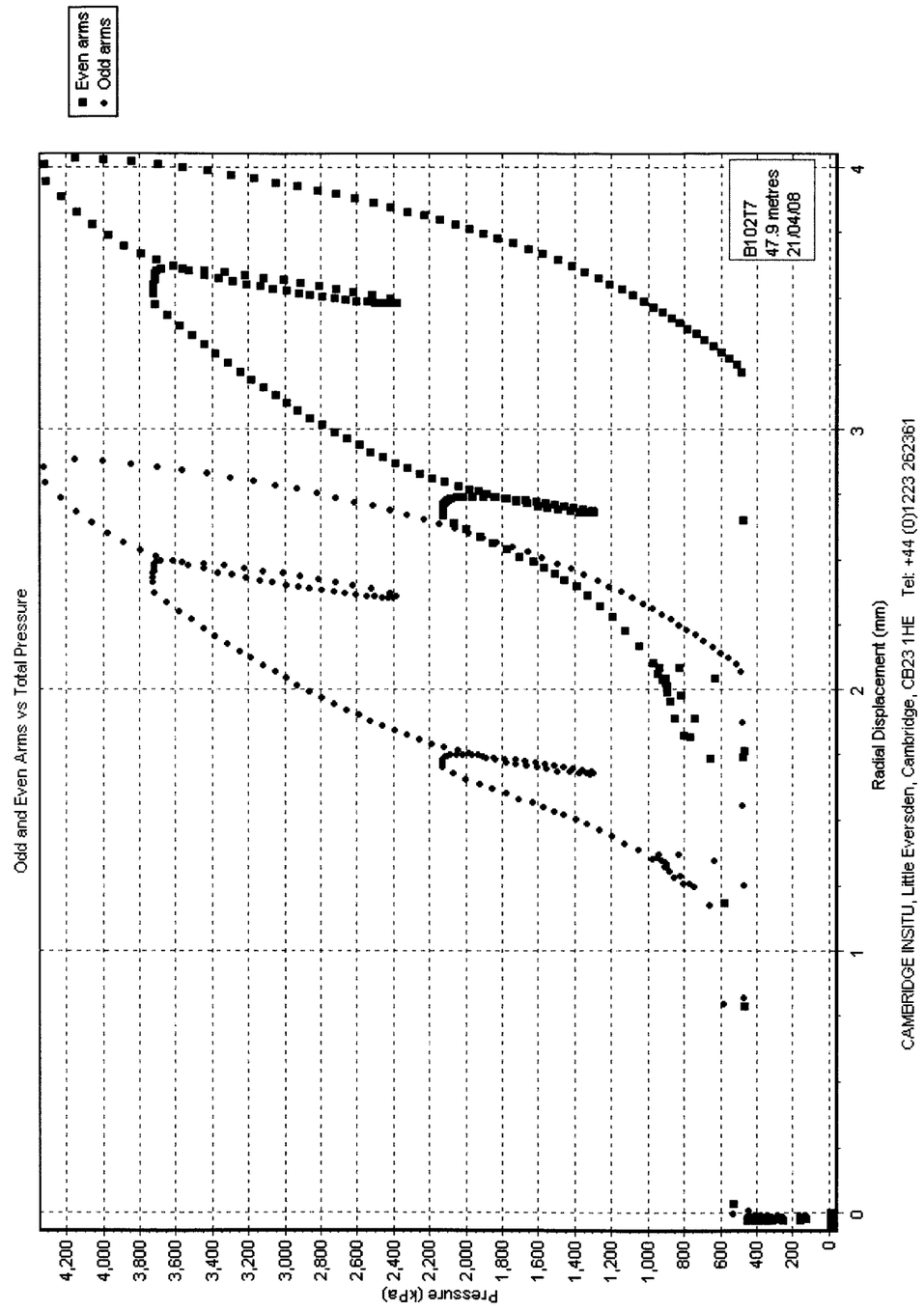

Arm Pairs vs Total Pressure
Pressure (kPa)
Radial Displacement (mm)
Arms 1+4
Arms 2+5
Arms 3+6
B102T7
47.9 metres
21/04/08


All Pressure Cells vs Time
Pressure (kPa)
Elapsed Time (minutes)
TPC
PPC A
PPC B
B102T7
47.9 metres
21/04/08



CAMBRIDGE INSITU, Little Eversden, Cambridge, CB23 1HE Tel: +44 (0)1223 262361

B102T8 - SUMMARY OF RESULTS
[File made with WinSitu Version 1.20.1.1]

[DETAILS OF TEST]

Project	:	36237
Site	:	Denmark Place
Borehole	:	BH102
Test name	:	B102T8
Test date	:	22 Apr 08
Test depth	:	50.00 Metres
Water table	:	5.6 Metres
Ambient PWP	:	0.0 kPa
Material	:	Thanet Sand
Probe	:	Digital 6 arm weak rock self boring pressuremeter
Diameter	:	88.1 mm

Data analysed using average arm displacement curve
A non-linear analysis of the rebound cycles has been carried out

Analysed by RWW on 5 Jun 08

Remarks: Drilled in quickly, but some gravel in hole so test is disturbed. Some PWP response in]

[RESULTS FOR CAVITY REFERENCE PRESSURE]

Strain Origin (mm)	:	"Arm ave=2.100"
Po from Marsland & Randolph (kPa)	:	"Arm ave=1089.2"
Best estimate of Po (kPa)	:	"Arm ave=1089.0"

[UNDRAINED STRENGTH PARAMETERS]

Jefferies 1988 - Cu (kPa)	:	"Arm ave=960.7"
Undrained yield stress (kPa)	:	"Arm ave=4309.1"

[DRAINED ANALYSIS OF SANDS - HUGHES et al 1977]

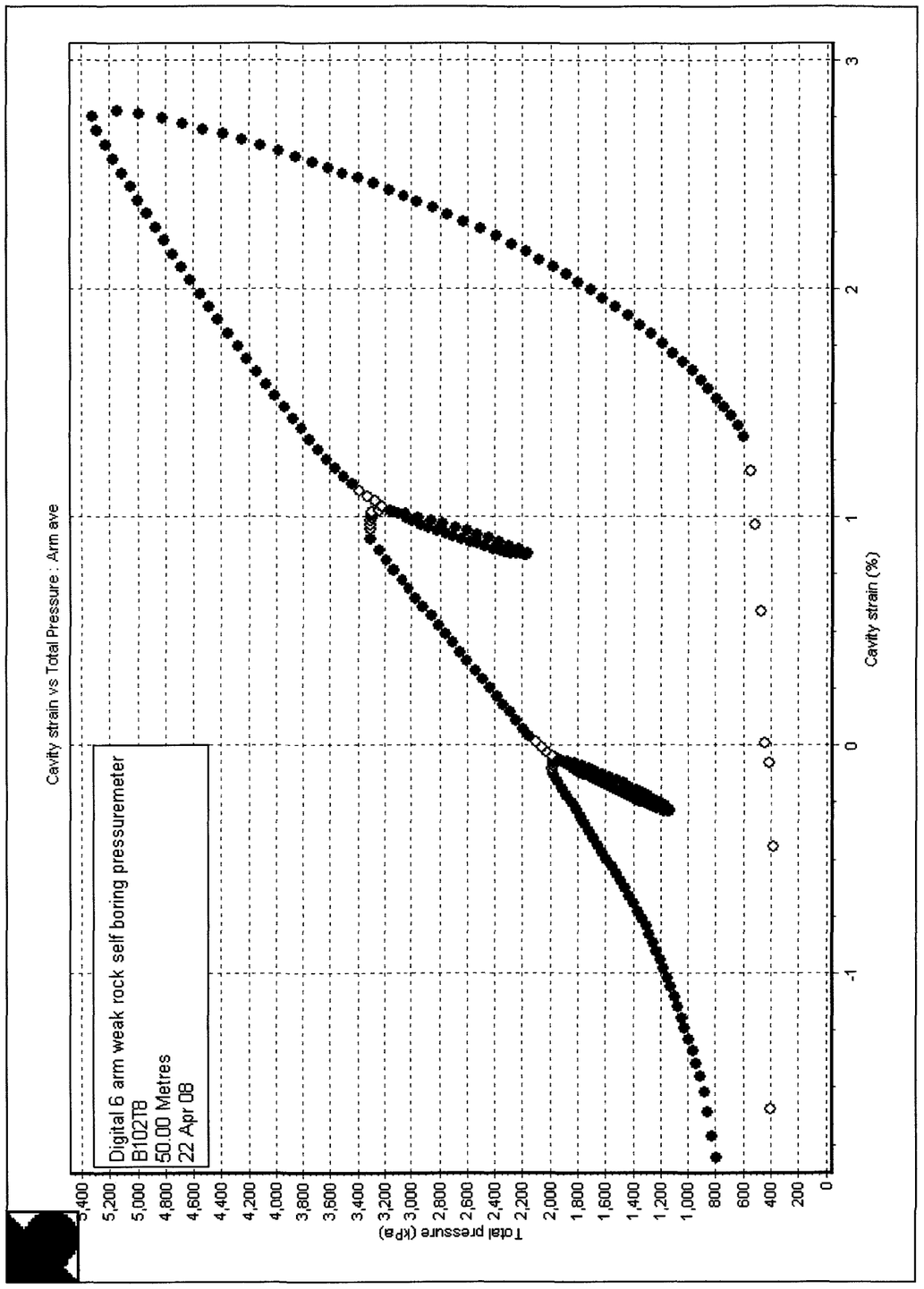
Constant volume friction angle (°)	:	32.0
Angle of internal friction (°)	:	"Arm ave=42.3"
Dilation angle (°)	:	"Arm ave=12.9"
Gradient of log-log plot	:	"Arm ave=0.492"

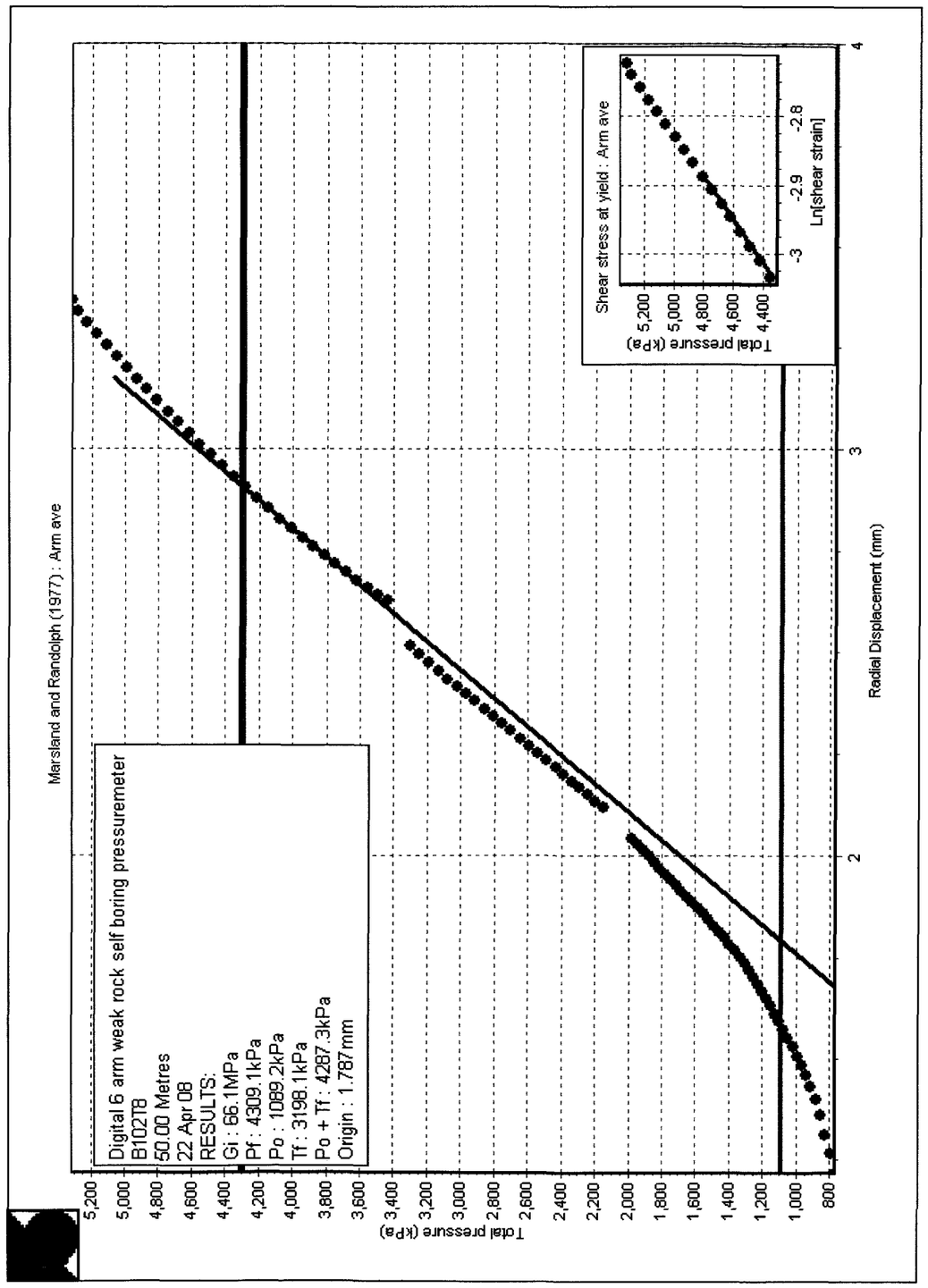
[LINEAR INTERPRETATION OF SHEAR MODULUS G]
Initial slope shear modulus (MPa) :"Arm ave=66.1"

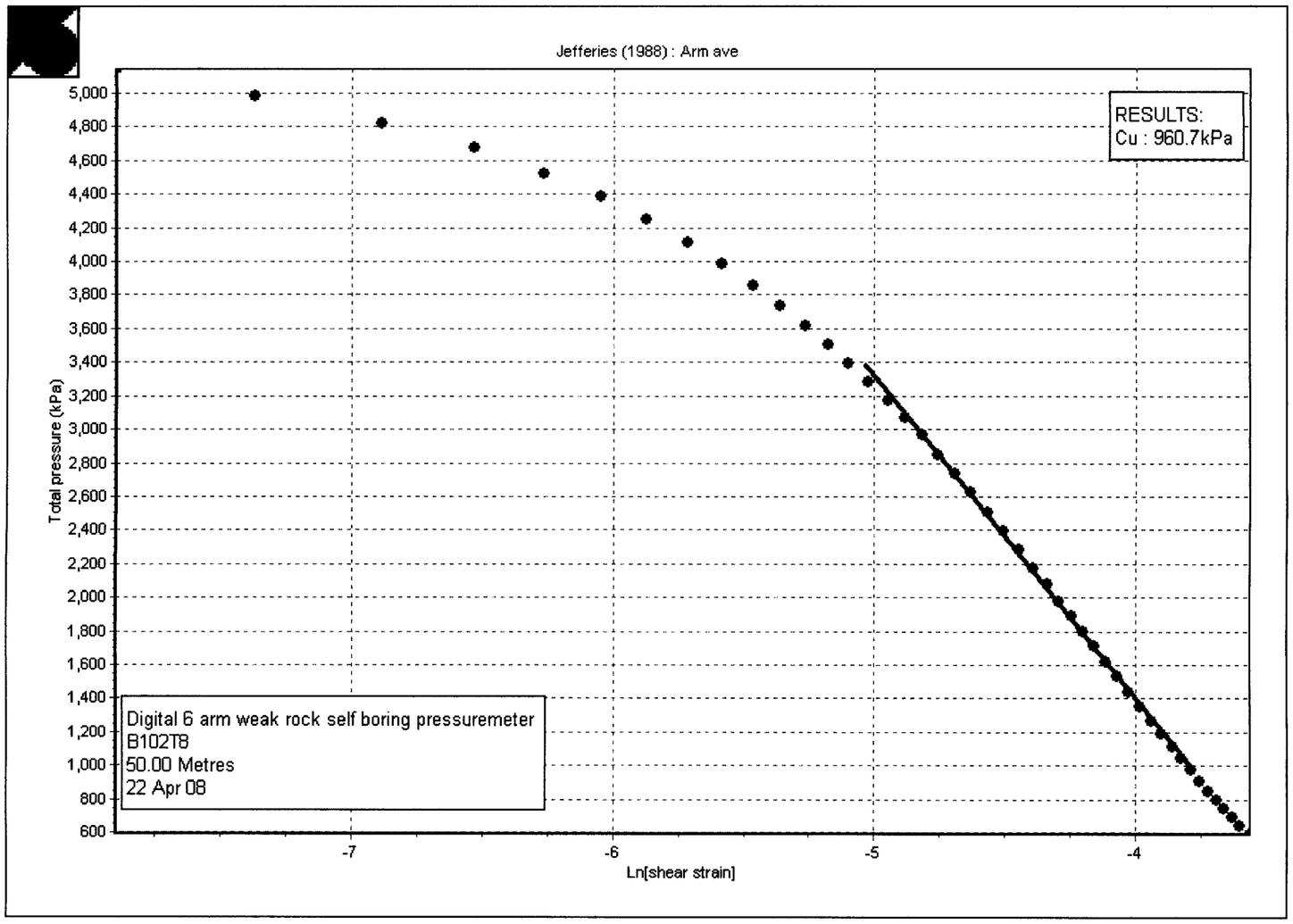
Axis	Loop No	Value (MPa)	Mean Strain (%)	Mean Pc (kPa)	dE (%)	dPc (kPa)
Arm ave	1	175.1	-0.170	1541	0.490	860
Arm ave	2	255.8	0.934	2653	0.402	1030

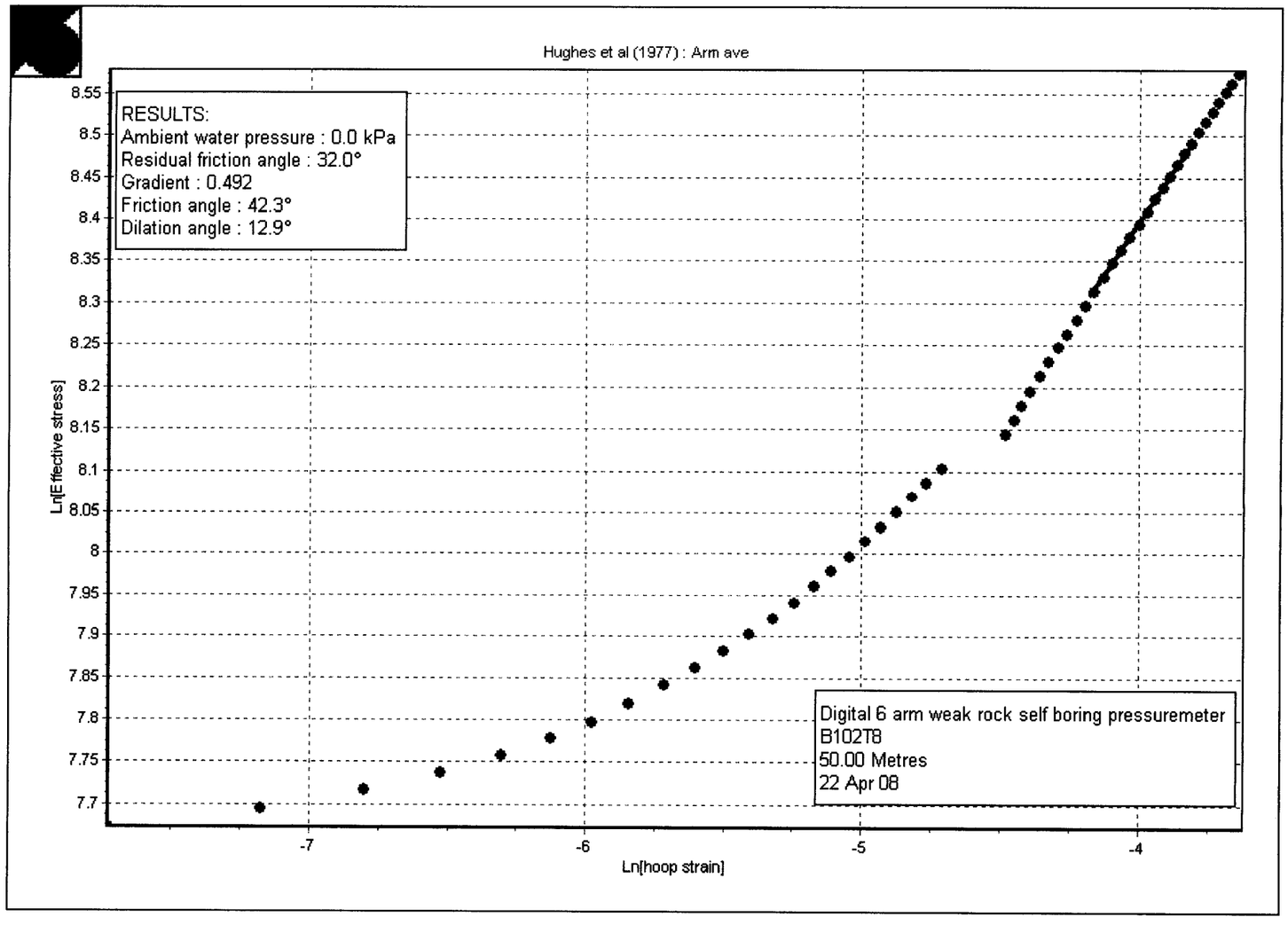
[NON LINEAR INTERPRETATION OF SECANT SHEAR MODULUS]

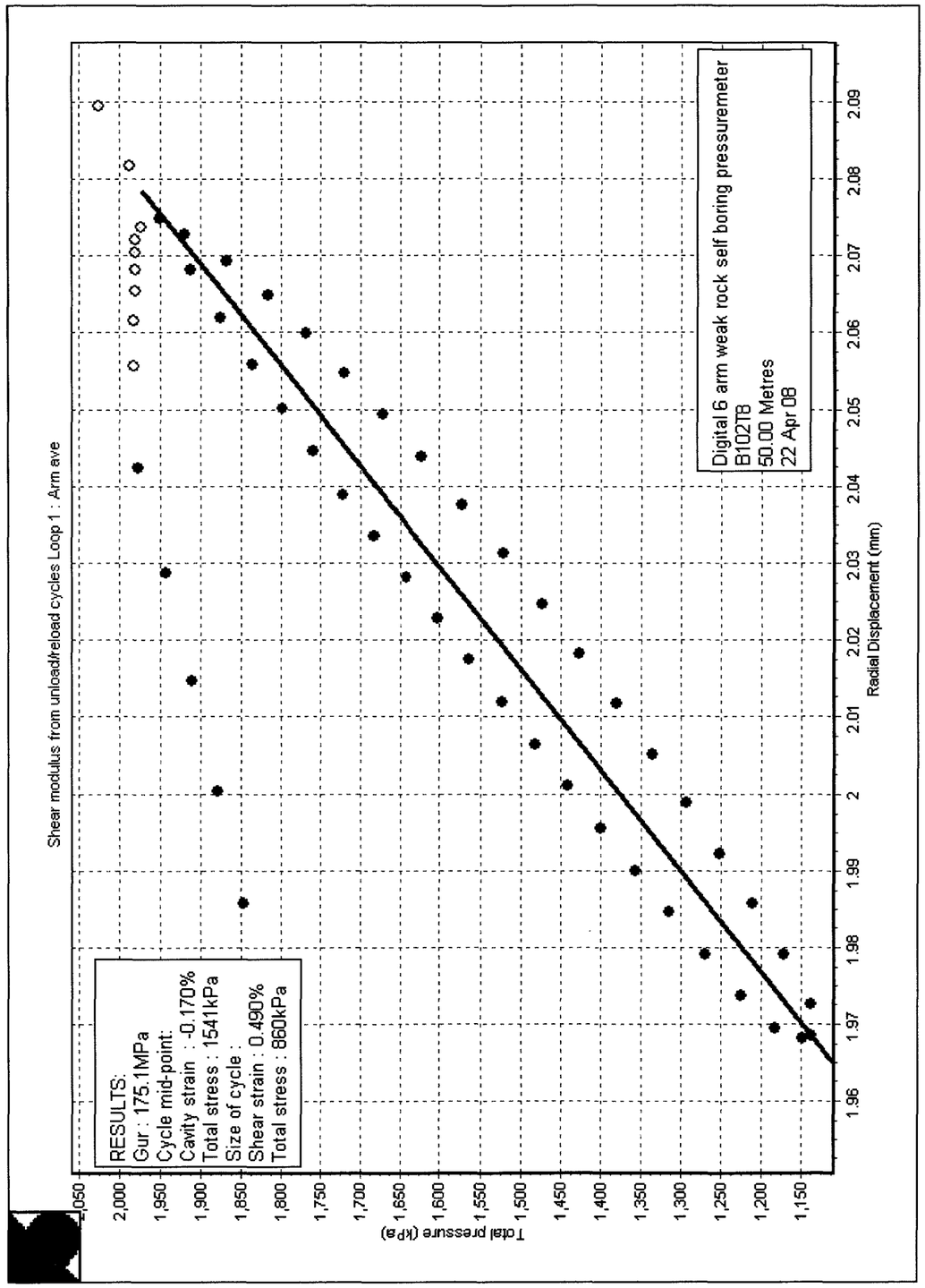
Axis	Loop No	Intercept (MPa)	Alpha (MPa)	Gradient
Arm ave	1	86.836	75.547	0.870
Arm ave	2	59.452	43.718	0.735

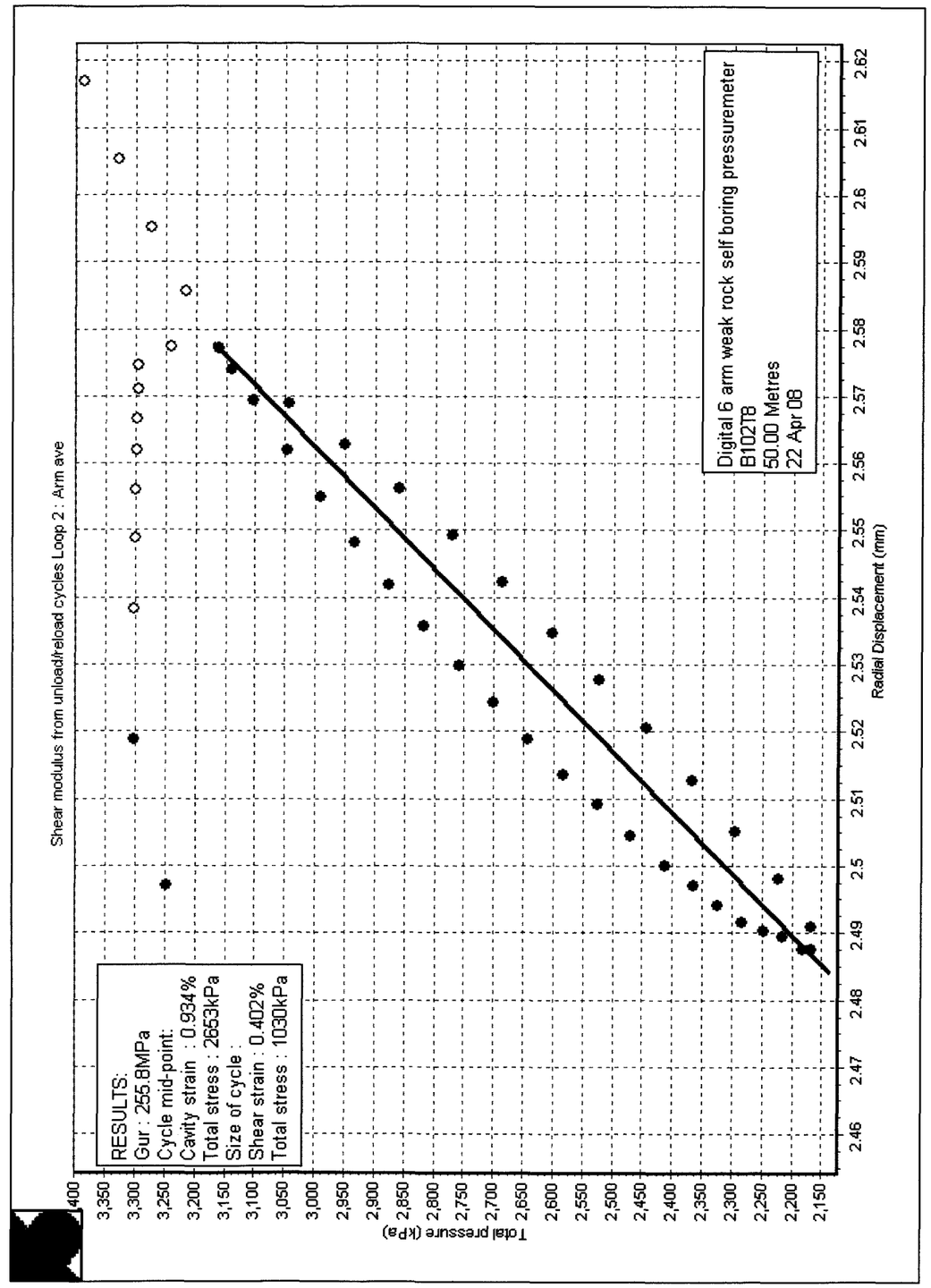

Cavity strain vs Total Pressure : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102TB
50.00 Metres
22 Apr 08
Total pressure (kPa)
Cavity strain (%)

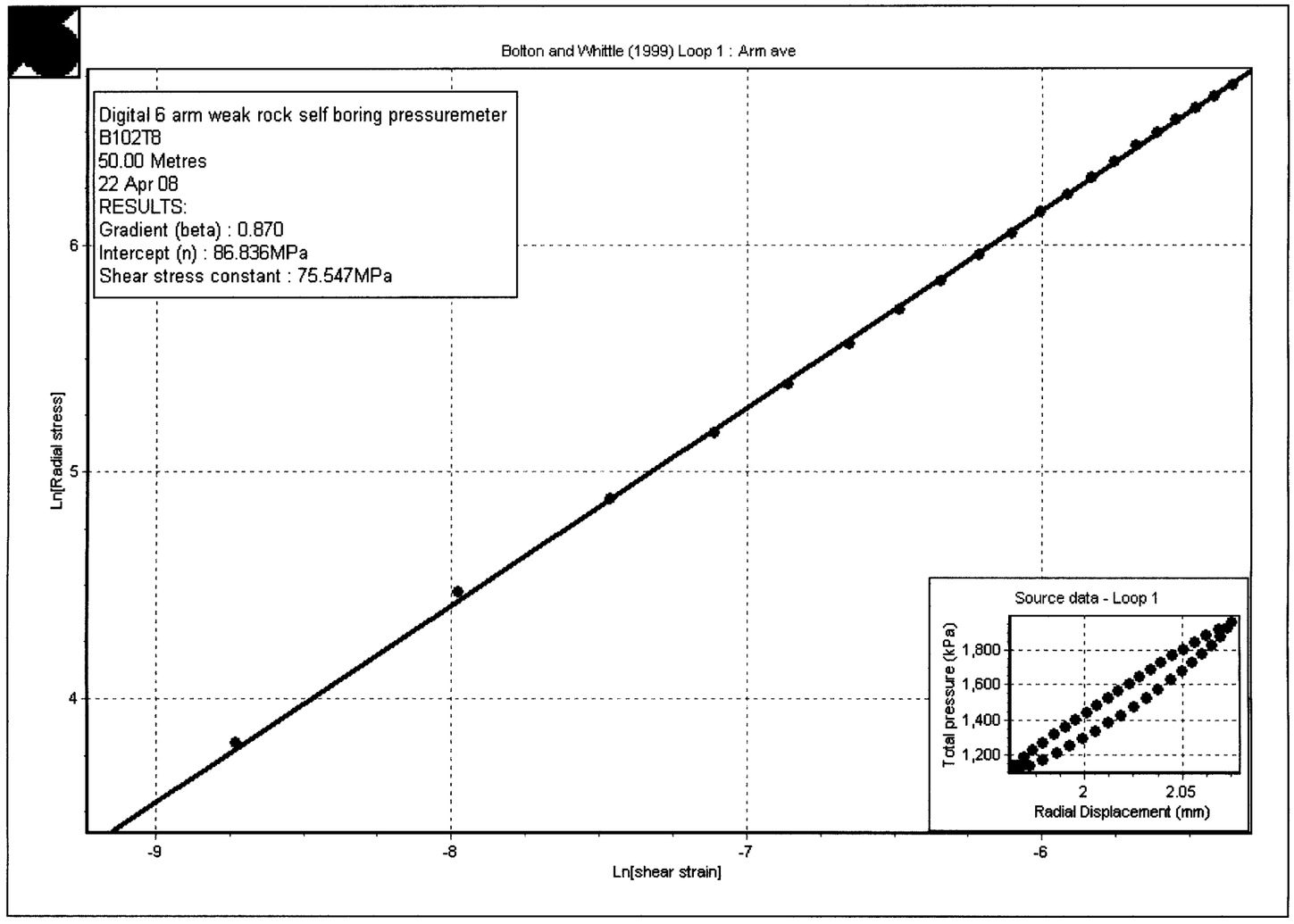

Marsland and Randolph (1977) : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102TB
50.00 Metres
22 Apr 08
RESULTS:
Gi : 66.1MPa
Pf : 4309.1kPa
Po : 1089.2kPa
Tf : 3198.1kPa
Po + Tf : 4287.3kPa
Origin : 1.787mm
Total pressure (kPa)
Radial Displacement (mm)
Shear stress at yield : Arm ave
Total pressure (kPa)
Ln[shear strain]

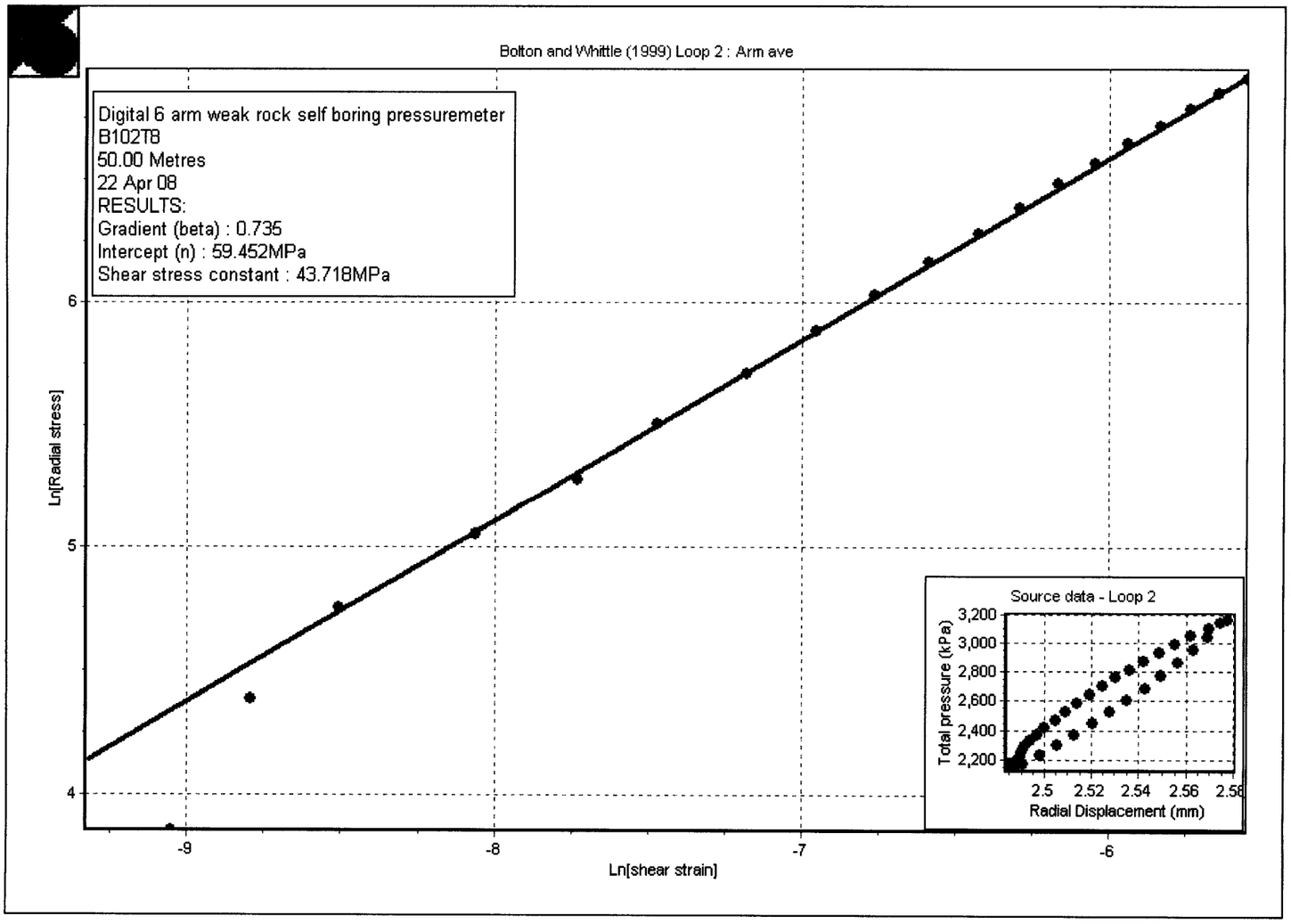

Jefferies (1988) : Arm ave
RESULTS:
Cu : 960.7kPa
Digital 6 arm weak rock self boring pressuremeter
B102T8
50.00 Metres
22 Apr 08
Total pressure (kPa)
Ln[shear strain]
5,000
4,800
4,600
4,400
4,200
4,000
3,800
3,600
3,400
3,200
3,000
2,800
2,600
2,400
2,200
2,000
1,800
1,600
1,400
1,200
1,000
800
600
-7
-6
-5
-4

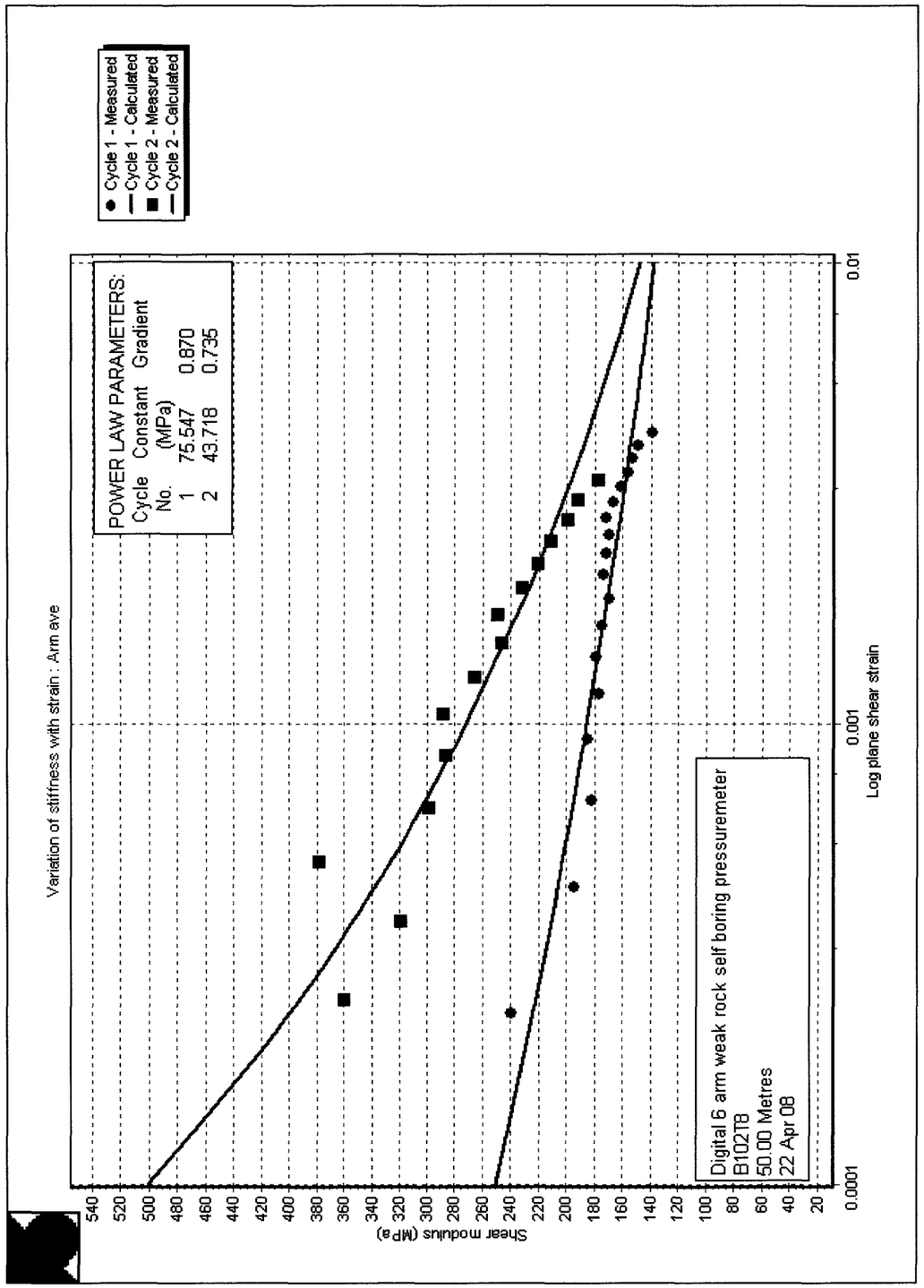

Hughes et al (1977) : Arm ave
RESULTS:
Ambient water pressure : 0.0 kPa
Residual friction angle : 32.0°
Gradient : 0.492
Friction angle : 42.3°
Dilation angle : 12.9°
Digital 6 arm weak rock self boring pressuremeter
B102T8
50.00 Metres
22 Apr 08
Ln[Effective stress]
Ln[hoop strain]
8.55
8.5
8.45
8.4
8.35
8.3
8.25
8.2
8.15
8.1
8.05
8
7.95
7.9
7.85
7.8
7.75
7.7
-7
-6
-5
-4

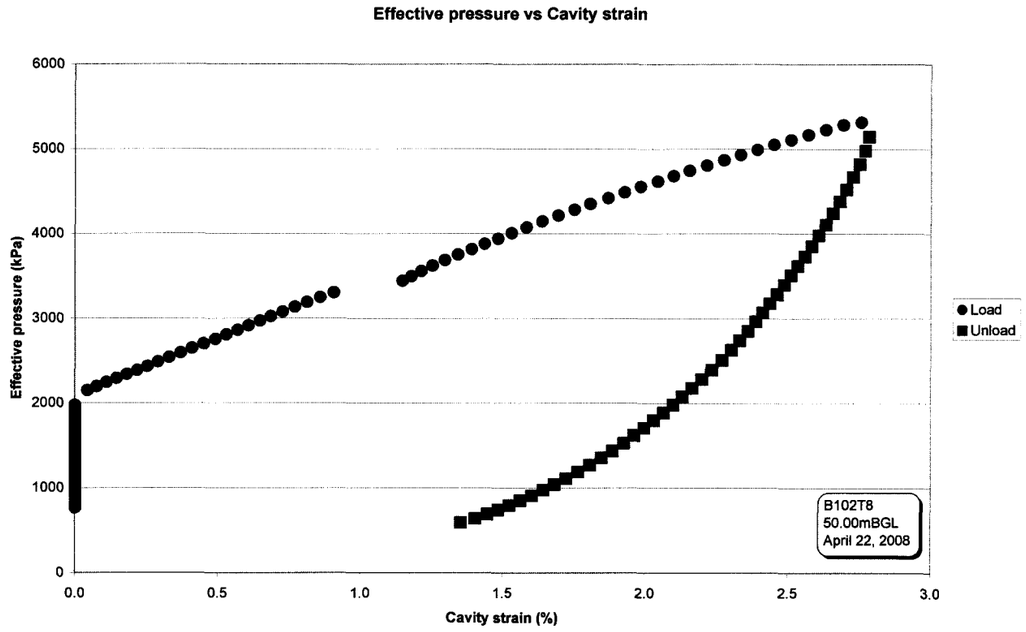

Digital 6 arm weak rock self boring pressuremeter
B102TB
50.00 Metres
22 Apr 08
RESULTS:
Gur : 175.1MPa
Cycle mid-point:
Cavity strain : -0.170%
Total stress : 1541kPa
Size of cycle :
Shear strain : 0.490%
Total stress : 860kPa
Shear modulus from unload/reload cycles Loop 1 : Arm ave
Total pressure (kPa)
Radial Displacement (mm)


Digital 6 arm weak rock self boring pressuremeter
B102TB
50.00 Metres
22 Apr 08
RESULTS:
Gur : 255.8MPa
Cycle mid-point:
Cavity strain : 0.934%
Total stress : 2653kPa
Size of cycle :
Shear strain : 0.402%
Total stress : 1030kPa
Shear modulus from unload/reload cycles Loop 2 : Arm ave
Total pressure (kPa)
Radial Displacement (mm)


Bolton and Whittle (1999) Loop 1 : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T8
50.00 Metres
22 Apr 08
RESULTS:
Gradient (beta) : 0.870
Intercept (n) : 86.836MPa
Shear stress constant : 75.547MPa
Ln[Radial stress]
Ln[shear strain]
Source data - Loop 1
Total pressure (kPa)
Radial Displacement (mm)


Bolton and Whittle (1999) Loop 2 : Arm ave
Digital 6 arm weak rock self boring pressuremeter
B102T8
50.00 Metres
22 Apr 08
RESULTS:
Gradient (beta) : 0.735
Intercept (n) : 59.452MPa
Shear stress constant : 43.718MPa
Ln[Radial stress]
Ln[shear strain]
Source data - Loop 2
Total pressure (kPa)
Radial Displacement (mm)


Cycle 1 - Measured
Cycle 1 - Calculated
Cycle 2 - Measured
Cycle 2 - Calculated
POWER LAW PARAMETERS:
Cycle No. Constant (MPa) Gradient
1 75.547 0.870
2 43.718 0.735
Variation of stiffness with strain : Arm ave
Shear modulus (MPa)
Log plane shear strain
0.01
0.001
0.0001
Digital 6 arm weak rock self boring pressuremeter
B102T8
50.00 Metres
22 Apr 08


Effective pressure vs Cavity strain
Effective pressure (kPa)
Cavity strain (%)
Load
Unload
B102T8
50.00mBGL
April 22, 2008