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Data collection of Modified Jelly Roll and Powder In Tube superconducting strand measured at the Short Sample Test Facility

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This note collects data of Modify Jelly Roll and Powder In Tube Superconducting strands measured at the Short Sample Test Facility between January 2003 and August 2004. Critical current and N-value data were obtained by applying a standard non linear fitting technique.

I. Introduction

The goal of this work is to organize and make the data (results of strand studies used in the High Field Magnet program) available for further study.

Results of MJR and PIT superconducting strands measured at the SSTF between 1/03 and 8/04 are collected in four kinds of tables: 1) general information about the strands; 2) measured critical current and associated statistical error; 3) n-value and associated statistical error; 4) measured quench current. In the next paragraphs these tables are described and presented.

II Tested Strands

The MJR strands had two different diameter size, 0.7 mm and 1mm, while almost all the PIT strands had a diameter of 1 mm. Only one 0.7 mm PIT strand has been tested.

In tables 1, 2, 3 the three kinds of strands information is organized in columns:

1) an identification number is assigned to each different sample tested, different letters indicate different test day;
2) date in which the sample has been tested, this information is essential to retrieve the raw data contained in the folder N:\dt\dt_public\Short_Sample;
3) hour when the test has been performed: in case two different measurements have been done in the some day this information is needed to complete point #2;
4) code of the billet where the strand was cut from;
5) number of the Heat Treatment (HT) or in case it is a standard heat treatment, acronym of the strands manufacturer;
6) probe number: two different probes with different characteristics were used;
7) status of the sample: round or extracted from a cable;
8) material of the sample holder (Barrel) : Titanium alloy, Stainless Steel, G-10;
9) bonding agent in order to guarantee immobility of the sample and to study the insulation effect: Sty cast, impregnation (epoxy resin);
10) copper percentage in the strand;
11) measured copper Residual Resistivity Ratio at the SSTF;
12) comments regarding the sample and the test;
13) heating problem of the sample during testing.

The probe #1 allows small helium consumption due to small heat conduction but it can not reach current higher than 1400A while probe #2 allows testing up to the power supply limit (~1800A).

The strand RRR value measured on titanium alloy and stainless steel barrel can be affected by a large error due to current sharing [1].

1mm MJR

	Date	h	Billet	Heat #	Sample	Probe	Strand	Barrel	Bonding	Cu%	RRR	Comment	Heat
1	1/16/2003		187-3				Round	Ti	none	47	5	HFDM 01 Witness, 12 N/m torque, No heat In	yes
2	1/17/2003		190-1A				Round	Ti	none	47		HFDM 01 Witness, 10 N/m No heat In	yes
3	1/30/2003	pm	113A1	107	1	2	Round	Ti	none	48			no
4	2/3/2003		113A1	107	3	1	Round	Ti	none	48		10 N/m, no heat	yes
5	2/5/2003		113A1	107	5	1	Round	Ti	none	48			yes
6-a	2/6/2003		113A1	107	6	2	Round	Ti	none	48			no
6-b	2/10/2003		113A1	107	6	2	Round	Ti	none	48			no
7	3/19/2003		190-2				Round	Ti	none	47	6	HFDM-02 Witness, OST cycle	yes
8	3/20/2003		190-3				Round	Ti	none	47	6	5VT	yes
9	3/25/2003		190-1B				Round	Ti	none	47	7		yes
10	3/26/2003		190-5				Round	Ti	none	47	8		yes
11	3/27/2003		190-1B				Ext	Ti	none	47	5		yes
12	3/28/2003		190-2				Ext	Ti	none	47	23	Broken at the ends	yes
13	3/31/2003		190-3				Ext	Ti	none	47	6		yes
14	4/1/2003		190-1A				Round	Ti	none	47	25		yes
15	4/2/2003		113A2	55		2	Ext	Ti	none	48		HFDM-02 Witness, OST cycle	no
16	4/3/2003		113A1	55	2	2	Round	Ti	none	48			no
17	4/7/2003		113A1	55	1	2	Round	Ti	none	48		2PS	no
18-a	5/1/2003					2	Rolled	Ti	none			Splice HT (180h 650 C) Rolled at 28 mils	no
18-b	5/6/2003					2	Rolled	Ti	stycast			Splice HT (180h 650 C) Rolled at 28 mils	no
19-a	5/7/2003		210G	118			Round	Ti	none	47		HT 118 => 120h 650 C	no
19-b	5/7/2003	pm	210G	118			Round	Ti	none	47		Same sample Tested in afternoon @2.5K	no
19-c	5/8/2003		210G	118			Round	Ti	none	47		Same sample previous day @2.5K	no
20	5/12/2003		210G	118			Round	Ti	stycast	47		Looking at the file: sample broken	no
21	5/13/2003		210-G	118			Round	Ti	stycast	47		2PS, clean sample, HI	no
22-a	5/19/2003		218G	118			Round	G-10	stycast	47			no
22-b	5/19/2003	pm	218G	118			Round	G-10	stycast	47		Same sample Tested in afternoon @2.5K	no
23-a	5/21/2003		218-8C	118			Round	G-10	none	47		Much More data at low field	no
23-b	5/27/2003		218-8C	118		2	Round	G-10	stycast	47		Much More data at low field	no

Tab. 1a) Sample description and test comments

1mm MJR

	Date	h	Billet	Heat #	Sample	Probe	Strand	Barrel	Bonding	Cu%	RRR	Comment	Heat
24	8/1/2003		218	127	1		Ext	Ti	none	47		Keystoned	no
25	8/11/2003		218	127	1		Ext	Ti	none	47		Keystoned	no
26	10/15/2003		190-1A	129	3		Round	Ti	none	47		2PS	no
27	10/16/2003		190-1A	130	1		Round	Ti	none	47		2PS	no
28	10/22/2003		187-1A	129	4		Round	Ti	none	47			no
29	10/23/2003		187-1A	130	2		Round	Ti	none	47		OST HT	no
30	11/26/2003		190-1A	140	1		Round	Ti	none	47			no
31	12/3/2003		190-1A	141		2	Round	Ti	none	47	267		no
32	2/2/2004		187-3		1	2	Ext	SS	none	47		HFDH 011 Witness	no
33	2/3/2004		187-3		2		Ext	SS	none	47	180	HFDH 011 Witness	no
34	2/26/2004		218 8A			2	Round	Ti	none	47	70	72h at 660 C SR02 Witness RRR SR02=125	no
35	3/1/2004		218 3B			2	Round	SS	none	47		SR02 Witness 1A/sec low field	no
36	3/3/2004		218 1			2	Ext	Ti	none	47		SR02 Witness	no
37	3/16/2004		190-2	140	1	2	Round	Ti	none	47			no
38-a	3/22/2004		190-2	140	2	2	Round	G-10	none	47			no
38-b	3/26/2004		190-2	140	2	2	Round	G-10	stycast	47	146		no
39	4/20/2004		218-3B			2	Round	G-10	none	40	123	Keystoned, small racetrack	no
40	7/2/2004		190-B	OST	2	1	Round	G-10	none	47	10	Witness OST HT	no
41-a	7/27/2004		190-1B	OST	3	2	Round	G-10	none	47	7.4	Cable Witness, OST HT	no
41-b	7/28/2004		190-1B	OST	3	2	Round	G-10	none	47	7.4	Cable Witness, OST HT	no
41-c	7/29/2004		190-1B	OST	3	2	Round	G-10	none	47	7.4	Cable Witness, OST HT	no
41-d	8/2/2004		190-1B	OST	3	2	Round	G-10	none	47	7.4	Cable Witness, OST HT	no
41-e	8/5/2004		190-1B	OST	3	2	Round	G-10	Impr	47	7.4	Cable Witness, OST HT, impregnated	no
41-f	8/9/2004		190-1B	OST	3	2	Round	G-10	Impr	47	7.4	Cable Witness, OST HT, impregnated	no

Tab. 1b) Sample description and test comments

0.7 mm MJR

	Date	h	Billet	Heat #	Sample	Probe	Strand	Barrel	Bonding	Cu%	RRR	Comment	Heat
1	1/21/2003		159FE				Round	Ti	none			Torque 10 N/m, No Heat; Sample Broken	
2	1/22/2003		824	2	3		Round	Ti	none			10 N/m, No Heat	no
3	1/23/2003		824	2	4		Round	Ti	none			10 N/m, with heat; Sample Broken	
4	1/24/2003		824	2	5		Round	Ti	none			10 N/m, with heat	no
5	1/27/2003		164BE	2			Round	Ti	none			10 N/m, with heat, OST HT;	no
6	1/27/2003	pm	164 FE	2			Round	Ti	none			10 N/m, with heat	no
7	1/28/2003		166BE	2			Round	Ti	none			10 N/m, No heat, OST HT	no
8	1/28/2003	pm	159FE	2			Round	Ti	none			10 N/m, No heat, OST HT;	no
9	1/29/2003		158FE	2			Round	Ti	none			10 N/m, no heat, OST HT	no
10	1/30/2003		166BE	2			Round	Ti	none			10 N/m, with heat, OST HT	no
11	1/31/2003		205H	110	1		Round	Ti	none	46.8	44	10 N/m, with heat	no
12	2/4/2003		205H	110	2	2	Round	Ti	none	46.8			no
13	2/6/2003		205-L	121			Round	Ti	none	46.8		File not Found	
14	2/7/2003		206J	110	2	1	Round	Ti	none	47.3	654		no
15	2/11/2003		206J	110	1	2	Round	Ti	none	47.3			no
16	2/12/2003		208J	110	1	1	Round	Ti	none	47.6	110		yes
17	2/13/2003		208J	110	2	2	Round	Ti	none	47.6			no
18	2/14/2003		R1000824-1			1	Round	Ti	none			Witness, OST HT	yes
19	2/17/2003		R1000824-2			1	Round	Ti	none		7	Witness, OST HT	yes
20	2/18/2003		R1000824-3			1	Round	Ti	none		11	Witness	no

Tab. 2a) Sample description and test comments

0.7 mm MJR

	Date	h	Billet	Heat #	Sample	Probe	Strand	Barrel	Bonding	Cu%	RRR	Comment	Heat
21	2/19/2003		159FE			1	Round	Ti	none		11	Witness	yes
22	2/20/2003		164FE			1	Round	Ti	none		11	Witness	no
23	2/21/2003		164BE			1	Round	Ti	none		6	Witness	yes
24	2/24/2003		166FE			1	Round	Ti	none		35	Witness	no
25	4/14/2003		164 FE			2	Round	Ti	none			Front End, splice witness	no
26	4/15/2003	pm	159 BE			2	Round	Ti	none			Splice Witness;	no
27	4/16/2003	pm	164 BE			2	Round	Ti	none				no
28	4/29/2003		166BE				Round	Ti	none			Splice HT, no insulation; Sample Broken	
29	10/28/2003		530-BO877R		3	2?	Ext	Ti	none			LBNL S.R. Coil witness	no
30	10/28/2003	pm	530-BO877R		5	1?	Ext	Ti	none			LBNL S.R. Coil witness	no
31	10/31/2003		206-D	121			Round	Ti	none	47.3		Sample Broken	
32	2/27/2004				4	2		Ti	none	48	7	Witness Sub-Sized-LBNL coil 530 BO 877 R	no
33	3/2/2004		186		3	2	Ext	SS	none	48	42	Witness Sub-Sized-LBNL coil 530 BO 877 R	no
34	3/8/2004				2		Ext		stycast			Keystoned LBNL Cable Keystoned with stycast	no
35	3/8/2004	pm			2	1	Ext		none			Keystoned LBNL Cable F60 B00892D ?SC 01?	no
36	3/10/2004				2	2	Ext		none			Rect LBNL Cable F60 B00892D	no
37	4/2/2004		208A	150	2	2	Round	Ti	none	47.6		HT 60h @ 650 C	no
38	4/5/2004		208A	150	3	2	Round	Ti	none	47.6	627		no
39-a	4/6/2004		208A	150	4	2	Round	Ti	none	47.6			no
39-b	4/7/2004		208A	150	4	2	Round	Ti	none	47.6			no
39-c	4/9/2004		208A	150	4	2	Round	Ti	stycast	47.6			no
40-a	4/12/2004		208A	150	5	2	Round	G-10	none	47.6	220		no
40-b	4/14/2004		208A	150	5	2	Round	G-10	Glass	47.6		Glass cloth with B15/TBTA epoxy	no

Tab. 2b) Sample description and test comments

1 mm PIT

	Date	h	Billet	Heat #	Sample	Probe	Strand	Barrel	Bonding	Cu%	RRR	Comment	Heat
1	4/11/2003		159	106	2	2	Ext	Ti	none			Rect.	no
2	4/21/2003		170BE	117	3	2	Round	TI	none	53.6			no
3	4/22/2003		170BE	117	2	2	Round	TI	none	53.6			no
4	4/23/2003		170BE	117	4	2	Round	TI	none	53.6			no
5	4/28/2003		170BE	117	4	2	Round	TI	none	53.6			no
6	7/7/2003		170	124			Round	Ti	none	53.6		2R	no
7	7/8/2003		171	124			Round	Ti	none	53.6		4R	no
8	7/8/2003	pm	172	124			Round	Ti	none	53.6		8R	no
9	7/9/2003		173	124			Round	Ti	none	53.6		12R	no
10	7/17/2003		170	126			Ext	Ti	none	53.6		3F	no
11	7/18/2003		172	126			Ext	Ti	none	53.6		9F	no
12	7/21/2003		171	126			Ext	Ti	none	53.6		6R	no
13	7/22/2003		173-B	126			Round	Ti	none	53.6		14F	no
14	7/25/2003		170	126			Ext	Ti	none	53.6		2F	no
15	7/28/2003		171	126			Ext	Ti	none	53.6		5F	no
16	7/30/2003		170	128			Round	Ti	none	53.6		2F, RECT.	no
17	12/5/2003		170		1		Round	Ti	none	53.6	80	SR01 Witness sample, 170hr @ 660 C	no
18	12/12/2003		171		1		Round	SS	none	53.6		SR01 Witness sample, 170hr @ 660 C	no
19	2/13/2004		173 B			2	Round	SS	none	53.6	90	HFDH 013 Witness	no
20	2/18/2004				4	2	Ext	Ti	none	53.6	90	HFDH 013 Witness	no
21	2/20/2004		171			2	Round	SS	none	53.6		HFDH 013 Witness	no
22	2/23/2004				3	2	Ext	Ti	none	53.6	385	HFDH 013 Witness, data RRR missing	no
23	2/24/2004				1	2	Ext	SS	none	53.6	68	HFDH 013 Witness	no
24	2/25/2004				2	2	Ext	SS	none	53.6	134	HFDH 013 Witness	no
25	3/15/2004		171-6		1	1	Round	SS	none	53.6		01 Witness	no
26	7/19/2004		181		4	1	Ext	Ti	none	52	120	Long cable Witness HT	no
27	8/3/2004		181		2	1	Ext	Ti	none	52	70	Long cable witness HT	no
28	8/10/2004		171			1	Ext	Ti	none	53.6	4.5	HFDH 013 Witness	no
29	8/11/2004				3	1	Ext	S.S	none	53.6	310	HFDH 013 Witness	no
30	8/12/2004		173A			1	Ext	SS	none	53.6	222	HFDH WITNESS	no

Tab. 3 Sample description and test comments

III Critical Current and N-values

The critical current, the n-values and the related statistical error have been measured using a fitting procedure [2]. The confidence level for the error is 95%.

The criteria used to insert data on the tables have been the following: 1) N-value higher than 10 (not to include sample s highly damaged); 2) error on the critical current smaller than 10% ; 3) error on N-values smaller than 100%.

1mm MJR Critical Current

	Ic @ 15T	Ic @ 14T	Ic @ 13T	Ic @ 12T	Ic @ 11T	Ic @ 10T	Ic @ 8T	Ic @ 6T
1	445±1.9	580±4.9	729±4.2	896±12	N/A	N/A	N/A	N/A
2	375±13	482±0.42	612±4.5	760±3.1	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	757±0.73	N/A	967±4.9	1388±3	1969±110
4	N/A	449±1	549±0.86	674±0.79	N/A	931±26	N/A	N/A
5	345±0.74	437±0.61	550±1.3	654±4.3	N/A	N/A	N/A	N/A
6-a	353±1.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6-b	361±3.6	454±3.6	561±3.2	681±5.1	N/A	996±8.1	N/A	N/A
7	402±7	528±21	642±50	795±29	N/A	894±33	926±23	N/A
8	316±1.1	412±0.99	518±0.91	647±1.4	N/A	958±16	N/A	N/A
10	377±2.1	479±1.9	602±2.4	736±3.4	N/A	N/A	N/A	N/A
11	348±1.3	448±0.96	556±4.4	679±5.5	N/A	968±25	N/A	N/A
13	344±1.2	440±1.3	549±2.1	679±1.5	N/A	N/A	N/A	N/A
14	373±1.1	478±1.3	604±9	708±20	N/A	N/A	N/A	N/A
15	286±5.9	359±25	455±42	N/A	N/A	816±2.9	N/A	N/A
16	N/A	N/A	N/A	751±1.8	N/A	N/A	N/A	N/A
18-a	406±3.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18-b	382±4.9	479±6.4	598±4.4	724±3.7	N/A	N/A	N/A	N/A
19a	328±6.7	436±2.8	578±1.9	744±1.6	N/A	1154±2	N/A	N/A
21	302±7.8	404±4.8	523±3.3	660±4.1	N/A	N/A	N/A	N/A
22a	273.7±1.6	N/A	N/A	636.5±2.3	N/A	1003±5.5	N/A	N/A
23-a	N/A	N/A	N/A	617.3±1.4	N/A	969.7±5.6	N/A	N/A
23-b	N/A	N/A	N/A	590±1.1	N/A	947±0.91	N/A	N/A
25	N/A	439±2.8	559±2.3	697±10	N/A	1020±37	N/A	N/A
29	N/A	285±1	N/A	N/A	N/A	N/A	N/A	N/A
30	N/A	N/A	676±17	847±12	N/A	N/A	N/A	N/A
31	N/A	428±0.72	568±0.64	736±0.63	N/A	1153±0.81	N/A	N/A
32	N/A	268±0.85	362±0.88	474±1	N/A	750±0.69	1126±1.3	N/A
33	N/A	266±0.43	359±1	477±3.8	N/A	749±0.63	1130±1	N/A
34	N/A	457±1.6	585±1.5	733±1.5	N/A	1097±1.6	1595±16	N/A
35	N/A	393±1.1	516±1.6	660±1.8	N/A	1010±9.1	N/A	N/A
36	N/A	413±2.1	539±1	681±2.8	N/A	N/A	N/A	N/A
37	N/A	517±1.8	670±1.5	829±0.77	N/A	1286±6.2	N/A	N/A
38-a	N/A	412±1.6	546±1.4	705±1.5	N/A	1117±13	N/A	N/A
38-b	N/A	N/A	503±10	659±5.5	N/A	N/A	1622±34	N/A
40	N/A	437±0.44	549±0.63	N/A	N/A	N/A	N/A	N/A
41-a	339±0.5	442±0.44	563±2.8	704±1.7	N/A	N/A	N/A	N/A
41-b	N/A	N/A	573±1	N/A	N/A	N/A	N/A	N/A
41-e	275±8.2	349±2.2	N/A	N/A	648±12	N/A	N/A	N/A

Tab. 4 Critical current measurement and associated statistical error

1mm MJR N Value

	N @ 15T	N @ 14T	N @ 13T	N @ 12T	N @ 11T	N @ 10T	N @ 8T	N @ 6T
1	25.8±1.1	31.7±5.8	36.4±17	48.5±27	N/A	N/A	N/A	N/A
2	19.8±4.3	22±0.18	25.8±2.6	27.7±4.9	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	67.2±2.3	N/A	13.2±1.6	13.8±0.83	16.8±6.2
4	N/A	24.1±0.5	20.3±0.29	21.5±0.23	N/A	15.8±5.9	N/A	N/A
5	20.8±0.34	19.9±0.21	21.2±0.44	16.4±1.8	N/A	N/A	N/A	N/A
6-a	20.6±0.68	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6-b	19.9±2.1	17.7±1.4	16.1±1	14.2±1.6	N/A	15.9±3.4	N/A	N/A
7	11.4±1.9	11.5±2.5	19.3±8.2	10.9±2.2	N/A	50.7±27	101±64	N/A
8	21.9±0.57	21.1±0.43	19.6±0.3	21.1±0.45	N/A	10.8±3	N/A	N/A
10	20.6±1.1	18.2±0.72	19.2±0.89	18.3±1	N/A	N/A	N/A	N/A
11	18.3±0.46	18.4±0.29	15.8±1.3	13.8±1.5	N/A	14.4±4.6	N/A	N/A
13	15.1±0.47	13.6±0.49	11.9±0.86	13.2±1.4	N/A	N/A	N/A	N/A
14	13.3±0.63	13.9±1.2	11.2±6.4	17.5±5.3	N/A	N/A	N/A	N/A
15	14.4±1.6	12.3±6.6	13.7±12	N/A	N/A	13.7±1.3	N/A	N/A
16	N/A	N/A	N/A	25.5±1.6	N/A	N/A	N/A	N/A
18-a	23.3±6.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18-b	16.9±3.5	15.5±3.5	18.6±3.3	18±2.5	N/A	N/A	N/A	N/A
19a	27±12	24.8±3.5	29.7±3.5	35.6±4	N/A	38.5±4.8	N/A	N/A
21	12.1±4.9	18.6±3.9	26.8±5.9	31.6±13	N/A	N/A	N/A	N/A
22a	23.8±1.3	N/A	N/A	35±7.8	N/A	37.9±7.6	N/A	N/A
23-a	N/A	N/A	N/A	30.9±0.65	N/A	39.9±5	N/A	N/A
23-b	N/A	N/A	N/A	31.1±1.1	N/A	40.2±3.1	N/A	N/A
25	N/A	22.4±4.3	30.7±8.2	22.8±9	N/A	32.5±20	N/A	N/A
29	N/A	48±1.5e+00	N/A	N/A	N/A	N/A	N/A	N/A
30	N/A	N/A	21.8±11	26.6±9.6	N/A	N/A	N/A	N/A
31	N/A	31.8±0.66	35.8±0.64	39.4±0.63	N/A	44.3±2.7	N/A	N/A
32	N/A	26.7±0.78	30.3±0.85	33.5±0.97	N/A	35.4±0.55	31.5±2.4	N/A
33	N/A	26.4±0.39	30±0.94	40.3±4.5	N/A	36.3±0.54	36±1.2	N/A
34	N/A	33.7±2	35.8±1.8	37.4±1.8	N/A	38.8±2.3	38.3±16	N/A
35	N/A	32.8±1.2	36.9±1.8	38.5±1.7	N/A	22.5±15	N/A	N/A
36	N/A	22.3±1.3	27±0.67	30.7±3.2	N/A	N/A	N/A	N/A
37	N/A	29.7±1.5	33.3±1.5	103±3.9	N/A	32.4±12	N/A	N/A
38-a	N/A	29.2±1.3	31.8±1.1	33.9±1.1	N/A	47.5±17	N/A	N/A
38-b	N/A	N/A	42.7±37	49.8±32	N/A	N/A	86.1±85	N/A
40	N/A	31.4±0.76	34±1	N/A	N/A	N/A	N/A	N/A
41-a	31.3±0.45	34.4±0.38	36.1±3.8	64.3±28	N/A	N/A	N/A	N/A
41-b	N/A	N/A	34.7±1.3	N/A	N/A	N/A	N/A	N/A
41-e	22±14	44.8±20	N/A	N/A	33.8±25	N/A	N/A	N/A

Tab.5 N-Value measurement and associated statistical error

0.7mm MJR Critical Current

	Ic @ 15T	Ic @ 14T	Ic @ 13T	Ic @ 12T	Ic @ 10T	Ic @ 8T
2	190±4.7	252±7.6	321±5.9	N/A	N/A	N/A
4	N/A	N/A	146±1.2	184±2.1	286±1.1	431±16
5	128±1.6	181±2.6	240±9.2	320±6.4	N/A	N/A
6	123±7.7	177±2.3	235±6.8	N/A	503±6.7	N/A
7	146±1.1	203±0.99	271±0.69	352±0.8	556±1	833±0.91
8	168±2	230±0.97	306±0.59	394±2.9	N/A	N/A
9	153±1.2	209±0.76	280±0.61	362±1.1	571±0.77	N/A
10	159±0.6	219±0.29	291±1.3	373±0.37	580±0.75	N/A
11	143±5.1	202±13	270±3	N/A	N/A	N/A
12	154±0.43	212±0.41	281±0.45	362±0.38	564±0.43	847±1.5
14	342±0.47	461±0.42	600±0.37	N/A	N/A	N/A
15	N/A	N/A	N/A	N/A	N/A	N/A
16	N/A	198±0.61	273±0.6	357±0.61	566±0.67	N/A
17	162±0.64	222±0.52	292±0.55	373±0.77	579±4	N/A
18	N/A	N/A	N/A	N/A	N/A	N/A
19	163±1	222±2.8	286±2.6	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A	N/A	N/A
21	219±1.1	281±0.6	352±1.5	N/A	N/A	N/A
22	204±2.2	267±2.5	N/A	N/A	N/A	N/A
23	210±2.2	N/A	347±1	426±3.1	N/A	N/A
24	167±3.2	220±2.5	N/A	366±0.99	N/A	N/A
25	N/A	N/A	N/A	351±1.6	N/A	N/A
26	N/A	N/A	N/A	398±0.87	613±0.58	902±14
27	N/A	N/A	N/A	377±1	N/A	N/A
32	N/A	N/A	N/A	N/A	N/A	N/A
33	N/A	190±2.5	241±3.3	N/A	441±8.6	N/A
35	N/A	287±0.69	361±1.2	N/A	N/A	N/A
36	N/A	277±3.3	N/A	428±8.7	N/A	N/A
37	N/A	N/A	N/A	N/A	N/A	924±33
38	N/A	N/A	N/A	N/A	N/A	N/A
39-a	N/A	243±1.7	N/A	404±1.2	N/A	N/A
39-b	N/A	N/A	N/A	N/A	N/A	N/A
40-a	N/A	183±1.4	242±1	316±0.94	507±0.91	N/A
40-b	N/A	171±1.5	N/A	317±2	522.9±5.4	802.7±10

Tab. 6 Critical current measurement and associated statistical error

07 mm MJR N Value

	N @15T	N @14T	N @13T	N @12T	N @10T	N @8T
2	24.7±7.1	28±15	23.6±7.7	N/A	N/A	N/A
4	N/A	N/A	26.1±3.5	23.8±6.5	50.8±16	38.2±34
5	23.8±2.3	29.8±4.2	25.5±16	34.2±17	N/A	N/A
6	21.9±9.8	30.7±5.6	22.6±17	N/A	39.3±24	N/A
7	28.1±1.8	32.4±1.8	35.5±1.1	37.6±1.3	44.8±2	60.3±2.5
8	24.1±2.4	28.1±1.5	34±1.7	44.4±20	N/A	N/A
9	27.5±2.1	27±0.86	30.7±0.72	32.7±1.5	38.4±1	N/A
10	29.7±1	32.2±0.52	40.7±6.5	46.1±3.9	58.9±5.6	N/A
11	10.4±1.6	14.8±8.5	33.4±13	N/A	N/A	N/A
12	23.7±0.61	29.1±0.73	33.5±0.92	37.3±0.99	40.4±1.3	41.6±3.4
14	25.9±0.38	32.5±0.6	31.6±0.73	N/A	N/A	N/A
15	N/A	N/A	N/A	N/A	N/A	N/A
16	N/A	17.7±0.41	22.2±0.5	25.8±0.65	33.2±1.1	N/A
17	25±0.99	29±0.87	32.6±1.1	31.7±1.8	33±11	N/A
18	N/A	N/A	N/A	N/A	N/A	N/A
19	23.4±1.5	33.3±6.4	38.1±7.9	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A	N/A	N/A
21	27.7±1.7	32.8±1.1	62.6±30	N/A	N/A	N/A
22	26±3.5	30.2±5.8	N/A	N/A	N/A	N/A
23	29.1±6.1	N/A	44.4±6.6	41.4±12	N/A	N/A
24	53.8±38	30.2±12	N/A	49.8±15	N/A	N/A
25	N/A	N/A	N/A	36.1±11	N/A	N/A
26	N/A	N/A	N/A	38.3±2.6	51.2±2.8	52.8±22
27	N/A	N/A	N/A	46.6±13	N/A	N/A
32	N/A	N/A	N/A	N/A	N/A	N/A
33	N/A	11.7±1.2	10.6±1.4	N/A	19.2±9.3	N/A
35	N/A	26.9±2.7	29±3.8	N/A	N/A	N/A
36	N/A	19±2.5	N/A	27.4±17	N/A	N/A
37	N/A	N/A	N/A	N/A	N/A	39.9±29
38	N/A	N/A	N/A	N/A	N/A	N/A
39-a	N/A	37.3±7.2	N/A	54.1±18	N/A	N/A
39-b	N/A	N/A	N/A	N/A	N/A	N/A
40-a	N/A	34.8±3.1	35.7±2.2	39.4±2.1	40.6±2.3	N/A
40-b	N/A	42.9±21	N/A	56.9±46	61.1±35	89±66

Tab.7 N-Value measurement and associated statistical error

1mm PIT Critical Current

	Ic @ 15T	Ic @ 14T	Ic @ 13T	Ic @ 12T	Ic @ 10T	Ic @ 8T	Ic @ 6T
1	N/A	N/A	N/A	671±0.99	952±1.1	1331±1.1	N/A
2	N/A	N/A	N/A	707±1	999±0.97	1392±1.1	N/A
3	N/A	355±1.7	433±2.9	527±1.4	750±1.1	1056±1.2	N/A
4	369±1.6	456±1.6	557±1.5	671±1.4	955±1	N/A	N/A
5	401±1	490±1	589±1.3	704±1.4	986±1.1	N/A	N/A
9	318±1.6	393±1.1	483±1	586±1	844±1	1199±1.6	N/A
10	321±1.7	N/A	N/A	572±2.2	814±1.9	1167±2.9	N/A
11	295±2.4	N/A	N/A	550±2.9	801±2	1141±10	N/A
12	347±2	N/A	N/A	617±3.1	858±2.4	N/A	N/A
13	349±1.4	N/A	N/A	633±1.6	903±2	1281±2.2	N/A
14	358±1.4	N/A	N/A	635±1.7	900±1.9	N/A	N/A
15	N/A	N/A	N/A	645±2.2	922±2.4	N/A	N/A
16	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	N/A	470±2.5	571±3.8	683±3.6	N/A	1334±19	N/A
18	N/A	447±0.91	N/A	649±1.8	923±1.8	1296±1.5	1823±29
19	N/A	410±1.2	502±0.89	604±0.64	856±0.6	1196±2.3	N/A
20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21	N/A	403±9.9	N/A	N/A	N/A	N/A	N/A
22	N/A	397±2.6	488±3.7	581±11	819±8.5	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A	N/A	N/A
24	N/A	377±1.3	458±2.2	553±3.9	779±0.98	1087±1.3	1492±1.1e+002
25	N/A	N/A	N/A	660±0.25	N/A	N/A	N/A
26	N/A	421±0.83	492±1.6	595±1.8	N/A	N/A	N/A
27	N/A	406±0.65	497±0.77	597±0.42	N/A	N/A	N/A
28	307±0.95	405±0.98	N/A	N/A	N/A	N/A	N/A
29	283±0.22	372±0.52	479±0.7	601±0.98	916±4.6	N/A	N/A
30	312±0.27	381±0.45	461±0.62	550±0.3	782±0.47	N/A	N/A

Tab. 8 Critical current measurement and associated statistical error

1mm PIT N Value

	N @ 15T	N @ 14T	N @ 13T	N @ 12T	N @ 10T	N @ 8T	N @ 6T
1	N/A	N/A	N/A	44.4±1.5	49.3±2	52.4±2.1	N/A
2	N/A	N/A	N/A	49.9±2.6	56±2.9	55.1±2.7	N/A
3	N/A	29.4±2.1	30.7±3.3	33.3±1.7	38±1.5	40.8±1.8	N/A
4	39.1±3.1	40.7±3.2	46.9±3.5	48.8±3.2	57.2±3.3	N/A	N/A
5	74.8±8.6	83.2±10	75.1±10	80.7±13	97.7±20	N/A	N/A
9	25.3±1.2	25.1±0.71	26.7±0.62	27±0.55	27.3±0.49	27.1±0.71	N/A
10	20±0.8	N/A	N/A	22.1±0.86	22.5±0.6	24.9±0.92	N/A
11	16.9±0.9	N/A	N/A	20.9±0.97	24±0.71	23.3±2.9	N/A
12	26±1.5	N/A	N/A	32.9±4.1	33.3±6.6	N/A	N/A
13	29.3±1.3	N/A	N/A	32.2±1.2	34.1±1.3	39±3.4	N/A
14	41.7±2.4	N/A	N/A	36.8±2.3	38.3±2.1	N/A	N/A
15	N/A	N/A	N/A	37±2.7	37.5±2.3	N/A	N/A
16	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	N/A	45.4±8.9	55.2±19	49.3±16	N/A	65.6±48	N/A
18	N/A	51.8±3.1	N/A	48.5±5.1	49.2±7	49.6±5.5	53.1±32
19	N/A	37.3±4.6	44.2±2.1	45.6±1.3	48.1±1.4	41.7±4.8	N/A
20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21	N/A	36±34	N/A	N/A	N/A	N/A	N/A
22	N/A	70.2±64	35.2±12	30±17	28.5±11	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A	N/A	N/A
24	N/A	31±3.2	30.6±5.2	38±9.3	34.8±1.3	28.7±1.7	27.4±24
25	N/A	N/A	N/A	49.9±0.5	N/A	N/A	N/A
26	N/A	24.2±1.3	20.5±0.83	38.9±11	N/A	N/A	N/A
27	N/A	25.2±0.5	28.4±1.2	29.6±0.32	N/A	N/A	N/A
28	11.3±0.65	14±0.62	N/A	N/A	N/A	N/A	N/A
29	20.2±0.12	21.8±0.25	22±0.54	21.4±0.67	15.7±2.2	N/A	N/A
30	45.1±0.6	43.6±0.78	46.5±1.1	46.8±0.44	49.9±0.58	N/A	N/A

Tab.9 N-Value measurement and associated statistical error

IV Quench Current

The following tables contain the quench currents collected during current ramps at fixed magnetic field. Listed: the sample identification number, date test and version number in order to correlate tests with the files containing the raw data, magnetic field, the maximum (quench) current, last current step before the quench, an average of the last ten current steps, the temperatures measured near the sample (Ts) and in the bottom (Tb) of the helium container.

Data inserted in the tables were measured at those magnetic fields where the critical current could not be measured.

Quench Current 1mm MJR

1 16-Jan-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	10	1	1	195	5.1	5	4.16	4.2
	10	2	1	160	5.1	5	4.16	4.2
	10	3	1	155	5.1	5	4.16	4.2
	10	4	1	205	5.1	5	4.16	4.2
	8	1	2	150	5.1	5	4.18	4.21
	8	2	1	150	5.1	5	4.18	4.21
	8	3	1	185	5.1	5	4.18	4.21
	8	4	1	160	5.1	5	4.18	4.21
	6	1	1	165	5.1	5	4.19	4.23
	6	2	1	150	5.1	5	4.19	4.23
	6	3	1	155	5.1	5	4.19	4.23
	6	4	1	150	5.1	5	4.19	4.23
	4	1	1	170	4.8	5	4.2	4.24
	4	2	2	150	5.1	5	4.2	4.24
	4	3	1	165	5.1	5	4.2	4.24
	4	4	1	150	5.1	5	4.2	4.24
	3	1	1	150	5.1	5	4.2	4.25
	3	2	1	180	4.8	5	4.2	4.25
	3	3	1	155	5.1	5	4.2	4.25
	3	4	1	140	5.1	5	4.2	4.25
	3	4	2	230	0.7	1	4.2	4.25

4 3-Feb-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	15	1	1	105	5.3	5	4.12	4.17
	15	1	3	283	2.9	3	4.11	4.17
	15	1	4	211	2.9	4.6	4.12	4.17
	15	1	6	403	2.9	3	4.12	4.17
	8	1	1	890	4.8	5	4.16	4.19
	8	2	1	890	1.5	1	4.17	4.2
	6	1	2	970	10.2	10	4.18	4.21
	6	2	1	979	3.4	3	4.18	4.21

5	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
5-Feb-03								
	10	1	1	725	4.8	5	4.17	4.2
	10	2	1	717	1.5	1.1	4.18	4.21
	8	1	2	755	5.3	5	4.19	4.22
	8	2	1	731	1	1	4.18	4.22
	6	1	2	703	1	1	4.2	4.24
6-b	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
10-Feb-03								
	8	1	2	1274	2.9	3	4.74	4.2
	8	2	2	1277	1	1	4.84	4.21
	8	3	1	1201	1	1	4.4	4.2
	8	4	2	1282	0.5	0.5	4.24	4.21
	8	5	1	1293	0.5	0.5	4.29	4.21
	6	1	1	780	10.2	10	4.28	4.22
	6	2	1	900	5.3	5	4.25	4.22
	6	3	1	990	1	1	4.28	4.22
9	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
25-Mar-03								
	15	1	1	240	4.8	5	4.14	4.18
	15	2	1	241	1	1	4.14	4.19
	12	1	2	335	5.1	5	4.15	4.19
	12	3	1	337	1.2	1	4.15	4.19
12	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
28-Mar-03								
	10	1	1	855	4.8	5	4.15	4.18
	8	1	1	961	1	1	4.16	4.19
13								
31-Mar-03								
	8	1	1	665	5.3	5	4.18	4.21
	8	2	1	695	0.5	1	4.18	4.21
14	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
1-Apr-03								
	10	1	2	816	0.7	1	4.16	4.19
	6	1	1	957	1.9	1.9	4.18	4.21
	4	1	2	1122	1.5	2	4.2	4.23
	4	2	1	1020	10.2	10	4.2	4.23
	3	1	2	1081	5.3	5	4.19	4.23
	3	2	1	1158	2.4	2	4.2	4.23
	2.5	2	2	1254	2.4	2	4.2	4.23
	2	1	1	1095	4.8	5	4.2	4.23
	2	2	2	1270	1.9	2	4.2	4.23
	1.5	1	2	1439	5.3	5	4.2	4.23
	1	1	1	1365	1	1	4.19	4.24
	1	2	1	1370	5.3	5	4.19	4.23

1	3	2	1541	5.3	3.7	4.19	4.23
0.5	0	1	1655	4.8	4.9	4.19	4.23
0.5	0	2	1695	10.2	10	4.19	4.23
0.5	0	1	1475	1.9	2	4.19	4.23

15 2-Apr-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	12	1	2	599	1	1	4.22	4.18
	6	1	1	140	10.6	10.2	6.07	4.21
	6	1	5	130	11.1	10.3	5.48	4.21
	6	1	7	139	10.2	10.2	5.48	4.21
	6	1	9	211	11.6	10.2	6.31	4.21

16 3-Apr-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	6	2	2	178	9.7	10	4.5	4.22
	4	1	3	147	8.2	9.8	5.09	4.23

17 7-Apr-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	12	1	2	759	9.7	9.9	4.21	4.19
	4.27	1	1	31	1	1	0	0.02
	4	1	3	1299	9.7	9	4.27	4.24
	3	1	2	109	9.7	9.9	5.07	4.25

18-a 1-May-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	14	1	1	487	1	1	4.27	4.19
	13	1	2	581	1	1	4.3	4.19
	12	1	2	674	1.5	1	4.3	4.19
	10	1	2	956	1	1	4.24	4.2
	8	1	1	1160	1	1	4.25	4.21
	6	1	2	979	1	1	4.26	4.23
	4	1	1	1000	9.7	10	4.27	4.24
	3	1	1	1179	1	1	4.29	4.24
	2.5	2	1	1155	4.8	5	4.27	4.23
	2	1	2	1205	4.8	4.9	4.27	4.24
	1.5	1	2	1330	4.8	5	4.29	4.24
	1	1	2	1325	5.3	5	4.31	4.24

18-b 6-May-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	10	1	1	780	5.3	5	4.38	4.18
	8	1	2	1021	1	1	4.42	4.19
	6	1	2	1280	5.3	5	4.34	4.21
	4	1	1	1080	9.7	9.9	4.26	4.22
	3	1	2	1070	4.8	5	4.35	4.23
	2	1	2	1190	4.8	5	4.31	4.23
	1	1	1	1275	5.3	5	4.28	4.23
	0	1	1	1010	10.2	10	4.3	4.22

19-a 7-May-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	8	1	1	1476	1	1	4.22	4.2
	6	1	1	1480	5.3	5	4.24	4.22
	4	1	1	1710	4.8	5	4.27	4.23
	3	1	1	1790	5.3	5	4.28	4.23
	2.5	2	1	1790	4.8	5	4.28	4.24
	2	1	1	1785	5.3	5	4.28	4.24
	1.5	1	1	1790	4.8	5	4.28	4.24
	1	1	1	1790	4.8	5	4.28	4.23
	0.5	0	1	1790	4.8	5	4.28	4.23
	0	1	1	1790	4.8	5	4.27	4.23

19-b 7-May-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	12	1	1	910	9.7	10	2.58	2.64
	8	1	2	1160	10.2	10	2.57	2.63

19-c 8-May-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	6	1	2	1490	10.2	10	2.5	2.54
	4	1	1	1780	10.2	10	2.44	2.48
	2	1	1	1790	10.2	10	2.49	2.53
	0	1	1	1790	10.2	10	2.51	2.55

20 12-May-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	2	1	1	8	0.7	0.5	4.22	4.26

21 13-May-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	10	1	2	990	10.2	10	4.22	4.19
	8	1	1	1305	4.8	5	4.23	4.2
	6	1	2	1485	4.4	4.9	4.25	4.22
	4	1	1	1755	5.3	5	4.27	4.24
	3	1	1	1790	4.8	5	4.28	4.24
	2	1	1	1790	5.3	5	4.28	4.24
	1	1	1	1790	5.3	5	4.28	4.24
	0	1	1	1790	5.3	5	4.27	4.24

22-a 19-May-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	8	1	2	1420	5.3	5	4.23	4.2
	6	1	3	1360	4.8	4.9	4.31	4.22
	5	1	1	1330	4.8	5	4.32	4.22
	4	1	1	1465	4.8	4.9	4.36	4.23
	3	1	3	1630	5.3	5	4.31	4.24
	2.5	1	1	1610	5.3	5	4.32	4.24
	2	1	1	1775	5.3	5	4.34	4.24

1	1	1	1790	5.3	5	4.27	4.24
0	1	2	1790	5.3	5	4.27	4.23

22-b 19-May-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	10	1	1	1075	5.3	5	2.63	2.44
	8	1	1	1185	5.3	5	2.69	2.54
	6	1	1	1365	4.8	5	2.72	2.57
	4	1	1	1445	4.8	5	2.96	2.59
	3	1	1	1735	4.8	5	2.94	2.58
	2.5	1	1	1790	4.8	5	2.48	2.49

23-a 21-May-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	8	1	1	1395	5.3	5	4.24	4.22
	6	1	1	510	10.2	10	4.26	4.24
	6	2	1	1310	5.3	5	4.26	4.23
	4	1	2	1390	10.2	10	4.28	4.25
	3	1	2	1525	5.3	8.4	4.29	4.25
	2.5	2	1	1665	4.8	5	4.29	4.25
	2.5	2	3	1160	40.1	40	4.29	4.25
	2.5	2	4	1520	39.6	40	4.29	4.25
	2	1	1	1670	5.3	5	4.29	4.26
	2	2	1	1700	10.2	10	4.29	4.25
	2	3	1	1760	20.3	20	4.29	4.25
	2	4	1	1720	40.1	40	4.29	4.26
	1.5	1	1	1790	10.6	10	4.29	4.26
	1	1	1	1790	4.8	5	4.29	4.26
	0.6	1	1	1790	5.3	5	4.29	4.25

23-b 27-May-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	8	1	2	1080	9.7	9.9	4.23	4.21
	8	2	1	1055	5.3	5	4.28	4.21
	8	3	1	1330	4.8	5	4.27	4.2
	6	1	1	1280	10.2	10	4.3	4.22
	4	1	1	1450	4.8	5	4.32	4.23
	3	1	1	1635	4.8	5	4.34	4.24
	2.5	2	1	1715	5.3	5	4.35	4.24
	2	2	1	1790	10.2	10	4.28	4.24
	1.5	1	1	1790	10.2	10	4.28	4.24
	1	1	1	1790	10.2	10	4.28	4.24
	0.6	0	1	1790	10.2	10	4.28	4.24
	0	1	1	1790	10.2	10	4.28	4.24

24 1-Aug-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	15	1	0	99	3.9	4	5.38	N/A
	14	1	5	497	1.9	2	4.24	N/A
	13	1	1	100	3.9	4	4.72	N/A

25 11-Aug-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	8	1	2	950	4.8	5	4.23	N/A
	8	2	2	1060	1.5	1	4.23	N/A
	6	1	2	950	4.8	5	4.25	N/A
	6	2	2	967	1	1	4.25	N/A
	4	1	2	1028	1	1	4.27	N/A
	3.5	3	2	1053	1	1	4.28	N/A
	3	1	2	984	1	1	4.28	N/A
	2	1	2	1233	0.5	1	4.28	N/A
	1.5	1	2	1154	1	1	4.28	N/A
	1	1	2	1291	1	1	4.28	N/A
	0.5	0	2	1172	1	1	4.28	N/A
	0	1	3	1158	1.5	1.1	4.28	N/A

26 15-Oct-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	14	1	2	538	1.9	2	4.21	N/A
	13	1	1	684	2.4	2	4.21	N/A
	12	1	1	852	1.9	2	4.21	N/A
	10	1	1	1248	1.9	2	4.21	N/A

27 16-Oct-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	14	1	1	464	1.9	8.2	4.22	N/A
	14	2	2	466	2.4	2	4.23	N/A

28 22-Oct-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	14	1	6	512	1.9	2	4.22	N/A
	13	1	2	629	0.5	1	4.22	N/A

29 23-Oct-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	13	1	1	315	4.8	5	4.22	N/A

30 26-Nov-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	14	1	2	512	2.4	2.1	4.21	4.18

31 3-Dec-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	8	1	1	1580	1.4	1.1	4.24	4.22

33 3-Feb-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	6	1	1	1476	1.4	1	4.25	4.23
	6	2	1	1436	10.1	10.1	4.26	4.23
	6	3	1	1345	5.3	5.1	4.27	4.25
	4	1	1	1188	5.3	5.1	4.29	4.26
	4	2	1	393	9.9	10.1	4.29	4.26
	2	1	1	1568	1	1	4.3	4.27

34 26-Feb-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	6	1	1	1254	20.1	20.2	4.27	4.24
	6	2	1	1386	10.4	10.1	4.27	4.24
	6	3	1	1386	10.4	10.1	4.27	4.24
	6	4	1	1254	20.1	20.3	4.27	4.24
	6	5	1	1259	23.9	24.8	4.27	4.24
	4	1	1	1566	27.3	24.9	4.29	4.26
	4	2	1	1578	20.1	20.3	4.29	4.26

35 1-Mar-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	8	1	1	1295	10.1	10.1	4.22	4.2
	8	2	1	1304	1	1	4.22	4.2
	8	3	1	1308	1	1	4.22	4.2
	8	4	1	1254	20.1	20.3	4.22	4.2
	7	1	1	1504	1	1	4.23	4.21
	7	2	1	1457	20.1	20.2	4.23	4.21
	7	3	1	1375	20.1	20.2	4.23	4.21
	7	4	1	1275	20.5	20.2	4.23	4.21
	7	5	1	1051	20.1	20.3	4.23	4.21
	7	6	1	1518	1	1	4.23	4.21
	7	7	1	44	4.1	2.7	4.23	4.2
	6	1	1	1356	1	1	4.24	4.22
	6	2	1	1315	20.1	20.2	4.24	4.22
	6	3	1	1384	1	1	4.24	4.22
	6	4	1	1355	20.1	20.2	4.24	4.22
	6	5	1	1295	20.1	20.2	4.24	4.22
	6	6	1	1418	1	1	4.24	4.22
	6	7	1	1355	20.1	20.2	4.24	4.22
	6	8	1	1335	20.5	20.2	4.24	4.22
	6	9	1	1404	1	1	4.24	4.22
	5	1	1	1585	1	1	4.25	4.22
	5	2	1	1661	1	1	4.25	4.22

36 3-Mar-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	10	1	1	904	1	1	4.22	4.21
	8	1	1	1011	20.5	20.3	4.24	4.23
	8	2	1	970	20.1	20.3	4.24	4.23
	8	3	1	943	1	1	4.24	4.23
	8	4	1	957	1	1	4.24	4.22
	7	1	1	1045	1	1	4.25	4.23

7	2	1	962	20.1	5.3	4.25	4.23
6	1	1	1120	1	1	4.26	4.24
4	1	1	1092	20.3	20.3	4.28	4.25
4	2	1	1181	9.9	10.1	4.28	4.25
2	1	1	1337	5.3	1.5	4.29	4.26
2	2	1	1456	1	1	4.29	4.25

37 16-Mar-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	8	1	1	1578	20.1	20.3	4.23	4.22
	7.87	1	2	1619	20.3	20.3	4.24	4.21
	7	1	2	1720	20.3	20.2	4.24	4.22
	6.9	1	1	1599	20.5	20.2	4.25	4.22
	6.7	1	1	1700	20.1	20.3	4.25	4.22
	6.5	1	1	1680	20.1	20.2	4.25	4.23
	6.3	1	1	1720	20.1	20.2	4.25	4.23
	4	1	1	1619	20.1	20.2	4.28	4.24
	0	1	2	1781	20.3	20.2	4.28	4.25

38-a 22-Mar-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	9	1	1	1364	5.3	5	4.24	4.22
	9	2	2	1345	5.3	5.1	4.24	4.22
	8	1	3	1497	20.3	20.3	4.24	4.22
	7	1	1	1639	20.1	20.2	4.25	4.23
	6	1	1	1660	20.8	20.3	4.26	4.24
	5	1	2	1700	20.1	20.2	4.27	4.25
	4.57	4	1	1599	20.5	20.2	4.28	4.25
	4.57	4	2	1578	20.1	56.3	4.28	4.25
	4.57	4	1	1619	20.1	20.2	4.28	4.25
	4	1	2	1781	20.1	20.2	4.28	4.26
	3	1	1	1781	20.3	29.3	4.29	4.26
	2	1	1	1781	20.3	74.3	4.3	4.26
	1.09	3	3	1781	20.1	20.2	4.3	4.26
	1	1	1	1781	20.1	65.3	4.3	4.26
	0	1	1	1791	5.3	5.1	4.29	4.26
	0	1	3	415	26.6	24.5	4.29	4.26

38-b 26-Mar-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	14	1	2	360	9.9	10.1	4.22	4.19
	14	1	5	366	1	1	4.22	4.19
	14	2	1	366	1	1	4.22	4.19
	14	2	3	366	1	1	4.22	4.19
	10	1	2	1059	1	1	4.22	4.2
	7	1	2	1781	20.1	20.2	4.24	4.22
	7	2	1	1477	20.8	20.3	4.24	4.22
	6	1	1	1275	20.5	20.2	4.26	4.23
	5	1	1	1295	20.1	56.3	4.27	4.24
	5	1	2	1275	20.5	20.3	4.26	4.24
	5	1	3	1234	20.1	20.2	4.27	4.24
	4	1	1	1558	20	20	4.28	4.24
	4	2	1	1477	20.5	20.3	4.27	4.24

4	3	1	1376	20.1	65.3	4.27	4.24
4	4	1	1457	20.1	20.2	4.28	4.24
4	5	1	1734	1	1	4.27	4.24
4	6	1	1416	20.5	20.3	4.28	4.24
2	1	1	1781	20.1	20.2	4.29	4.25
1	1	1	1781	20	20	4.29	4.25
0	1	2	1781	20.1	20.2	4.28	4.25

39 20-Apr-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	14	1	1	355	1	1	4.21	4.19
	13	1	1	414	1	1	4.21	4.18
	12	1	1	486	0.7	1	4.21	4.19
	4	1	1	950	20.3	20.3	4.27	4.24

40 2-Jul-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	12	1	1	567	1	2.4	4.16	4.18
	10	1	1	584	1	1	4.17	4.19

41-a 27-Jul-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	11	1	1	837	1	1	4.21	4.2
	10	1	1	991	1	1	4.22	4.2
	9	1	1	1157	1	1	4.22	4.2
	8	1	1	1318	1.5	1	4.23	4.21
	7	1	2	1173	10.1	10.1	4.24	4.22
	7	2	1	992	21.7	22.2	4.24	4.22
	7	3	2	936	21	22.2	4.24	4.22
	7	4	1	1067	1	1	4.24	4.22
	7	5	1	1231	1	1	4.24	4.22
	6	1	6	1113	1	1	4.26	4.23
	5	1	4	1121	1	1	4.26	4.23
	4	1	1	1228	1	1	4.27	4.24
	2	1	1	1292	1.5	1	4.29	4.25
	1	1	2	1128	1	1	4.29	4.24
	1	2	2	1470	20.3	20.3	4.28	4.24
	1	2	3	1313	44.5	43.4	4.29	4.24
	1	2	4	1316	44.7	43.4	4.29	4.24
	1	2	5	662	21	21.9	4.29	4.25
	1	2	7	266	21	22.1	4.28	4.24
	1	3	3	1343	20.3	20.2	4.28	4.24
	0	1	2	1112	20.1	20.3	4.28	4.24
	0	1	3	1254	20.1	20.3	4.28	4.24
	0	2	2	1295	1	1	4.28	4.24

41-b 28-Jul-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	12	1	1	707	20.3	20.3	4.21	4.19
	6	1	1	1031	20.1	20.3	4.25	4.23
	6	1	2	990	20.1	20.3	4.25	4.23
	6	1	3	960	20.5	35.6	4.26	4.23

6	2	1	1001	4.8	5	4.25	4.23
6	2	2	960	46.6	45.5	4.25	4.23
6	2	4	961	46.6	45.6	4.26	4.23
6	2	5	1109	1	1	4.26	4.23
5	1	1	956	46.4	45.3	4.26	4.24
5	1	2	950	20.3	20.3	4.26	4.24
5	1	3	1011	20.5	20.3	4.27	4.23
5	1	5	950	20.3	20.3	4.27	4.23
5	2	2	1148	1	1	4.26	4.23
4	1	1	1132	20.1	20.2	4.27	4.24
4	1	2	1132	20.1	20.2	4.27	4.24
4	1	4	1132	20.1	20.2	4.27	4.24
4	2	1	1168	1	1	4.27	4.24
3	1	1	909	20.1	20.3	4.28	4.24
3	1	2	1234	20.3	20.3	4.28	4.24
3	1	3	1213	20.5	20.3	4.28	4.24
3	1	4	1173	20.1	20.3	4.28	4.24
3	2	1	1224	0.7	1	4.28	4.25
3	3	1	1213	20.5	20.3	4.28	4.24
3	3	3	1051	20.1	20.3	4.28	4.24
3	3	4	1071	20.3	20.2	4.28	4.24
2	1	1	909	20.1	20.3	4.28	4.25
2	1	3	1153	20.5	20.3	4.28	4.25
2	1	4	1314	20.1	20.2	4.28	4.24
2	1	6	1335	20.5	20.2	4.28	4.24
2	1	7	1274	20.8	20.3	4.29	4.24
2	1	8	1335	20.5	20.2	4.29	4.25
2	1	9	1395	20.1	20.2	4.28	4.25
2	2	2	1455	0.7	1	4.28	4.25
2	3	1	970	20.3	20.3	4.28	4.24
2	3	3	1314	20.1	20.2	4.28	4.24
2	3	5	1314	20.1	20.2	4.28	4.24
2	3	7	1335	20.5	20.2	4.28	4.24
1	1	0	1477	20.5	20.3	4.28	4.24
1	1	2	1395	20.1	20.2	4.28	4.24
1	1	7	1416	20.8	20.3	4.28	4.24
1	1	8	1395	20.1	20.2	4.28	4.24
1	1	9	1456	20.1	20.2	4.28	4.24
1	2	1	1351	1	1	4.28	4.24
1	2	2	1317	1	1	4.28	4.24

41-c 29-Jul-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	0	1	1	1558	20.1	20.3	4.28	4.24
	0	1	0	1406	20.5	20.3	4.28	4.24
	0	1	1	1547	20.1	20.2	4.28	4.24
	0	1	2	1558	20.1	20.3	4.28	4.24
	0	1	4	1499	20.1	20.3	4.28	4.24
	0	1	5	1333	69.6	70	4.28	4.24
	0	1	6	1405	69.8	70	4.28	4.24
	0	1	8	1477	69.6	69.9	4.28	4.24
	0	1	9	1537	20.5	20.3	4.28	4.24
	0	2	1	1445	1	1	4.28	4.24
	0	2	3	1474	1	1	4.27	4.24
	0	2	8	1433	1	1	4.27	5.51

41-d 2-Aug-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	1.2	1	2	1345	20.5	20.3	4.28	4.24
	0	1	2	322	20.3	13.5	4.26	4.23

41-e 5-Aug-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	13	1	1	435	1	1	4.22	4.19
	12	1	1	528	1.2	1	4.21	4.19
	10	1	1	762	1	1	4.22	4.2
	10	2	1	747	20.1	20.2	4.22	4.2
	10	2	2	758	1	1	4.22	4.2
	9	1	2	904	1	1	4.22	4.21
	8	1	1	990	40.1	40.5	4.23	4.21
	8	1	2	1046	1.5	1	4.23	4.21
	7	1	2	1153	20.5	20.3	4.24	4.22
	7	1	4	1163	20.1	20.2	4.24	4.22
	7	1	6	1163	20.1	20.2	4.24	4.22
	7	2	1	1176	1	1	4.24	4.22
	6	1	1	919	51	50.7	4.25	4.23
	6	1	2	1112	20.3	20.3	4.25	4.23
	6	1	3	1132	20.3	20.2	4.25	4.23
	6	1	4	1143	20.5	20.3	4.25	4.23
	6	1	6	1132	20.3	20.2	4.25	4.23
	5	1	1	1146	25.4	23.8	4.26	4.24
	5	1	2	1153	20.5	20.3	4.26	4.24
	5	1	3	1153	20.5	20.3	4.26	4.24
	4	1	1	1284	20.8	20.3	4.27	4.25
	4	1	2	1305	20.1	20.3	4.28	4.25
	4	1	4	1305	20.1	20.3	4.27	4.25
	3	1	1	1102	20.3	20.3	4.28	4.25
	3	1	2	1406	20.5	20.3	4.28	4.25
	3	1	4	1345	20.5	20.3	4.28	4.25
	3	1	6	1163	20.1	20.2	4.28	4.25
	3	1	8	1325	20.1	20.2	4.28	4.25
	2	1	2	1041	20.1	20.8	4.28	4.25
	2	1	4	1406	20.8	20.3	4.28	4.25
	2	1	5	1426	20.1	20.3	4.28	4.25
	2	1	6	1426	20.1	20.2	4.29	4.25
	2	1	7	1426	20.1	20.2	4.29	4.25
	1	1	2	1203	20.5	20.2	4.28	4.25
	1	1	3	1325	20.1	20.2	4.28	4.25
	1	1	4	1386	20.3	20.2	4.28	4.25
	1	1	6	1386	20.1	20.2	4.28	4.25
	1	2	1	1406	20.5	20.3	4.28	4.25
	1	2	3	1477	20.5	20.3	4.28	4.25
	1	2	4	1618	20.1	20.2	4.28	4.25
	1	2	5	1598	20.5	20.2	4.28	4.25
	0	1	1	1021	20.5	24.4	4.28	4.25
	0	1	0	1649	20.1	20.2	4.28	4.24
	0	1	2	1244	20.3	20.3	4.28	4.24
	0	1	3	1305	20.1	20.3	4.28	4.24
	0	1	5	1629	20.1	20.3	4.28	4.24

0	1	7	1710	20.1	20.2	4.28	4.24
0	1	8	1588	20.3	20.2	4.28	4.24
0	2	1	1193	20.1	20.2	4.28	4.25
0	2	0	1558	20.3	20.3	4.28	4.24
0	2	3	1314	20.1	20.2	4.28	4.25
0	2	4	1375	20.1	20.2	4.28	4.24
0	2	5	1395	20.1	20.2	4.28	4.25
0	2	6	1436	19.8	20.3	4.28	4.25
0	2	8	1578	20.1	20.3	4.28	4.24

Quench Current 0.7 mm MJR

1	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
21-Jan-03								
	15	2	1	50	1	2.8	4.14	4.21
	15	5	1	51	1	1	4.14	4.2
	14	1	1	53	1	1.9	4.14	4.2
	13	1	1	54	1.9	2	4.14	4.2
	12	1	1	56	2.2	2	4.15	4.2
	10	1	1	60	5.1	5	4.16	4.21
	8	1	1	65	5.1	5	4.17	4.22
2	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
22-Jan-03								
	12	1	1	155	5.1	5	4.15	4.2
	12	2	1	150	5.1	5	4.15	4.2
	12	3	1	255	5.1	5	4.15	4.2
	12	4	1	348	0.7	1	4.16	4.2
	12	5	2	395	5.1	5	4.16	4.2
	12	6	1	420	5.1	5	4.16	4.21
	10	1	2	455	4.8	5	4.17	4.21
	10	2	1	461	1	1	4.17	4.21
3	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
23-Jan-03								
	15	1	1	165	4.8	5	4.15	4.21
	14	2	2	40	2.9	3.1	4.16	4.21
	10	1	1	52	4.8	5.2	4.17	4.21
	8	1	2	41	1	2.2	4.2	4.23
	6	1	2	40	1	2.7	4.21	4.25
4	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
24-Jan-03								
	15	1	1	106	1	4.5	4.16	4.21

5 27-Jan-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	10	1	1	74	5.1	5.1	4.17	4.21

6 27-Jan-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	12	1	1	190	5.1	5	4.16	4.2
	12	2	1	170	4.8	5	4.16	4.2
	12	3	1	205	5.1	5	4.16	4.2
	12	4	2	311	1.2	1	4.16	4.2
	12	5	1	317	1	1	4.16	4.2
	8	1	1	635	4.8	5	4.18	4.22

8 28-Jan-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	10	1	2	555	1	1	4.17	4.2
	10	2	1	596	1	1	4.17	4.2
	8	1	1	655	5.1	5	4.18	4.21

9 29-Jan-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	8	1	1	581	1	1	4.2	4.22
	8	2	1	585	4.8	5	4.19	4.22

10 30-Jan-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	8	1	2	818	1	1	4.19	4.22

11 31-Jan-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	12	1	1	283	1	1	4.15	4.19
	12	2	1	160	5.1	5	4.15	4.19
	12	3	2	155	5.1	5	4.15	4.18
	12	4	1	324	1.2	1	4.15	4.18
	10	1	2	472	1	1	4.16	4.19
	8	1	1	671	1	1	4.18	4.2
	6	1	1	680	2.9	3	4.19	4.22
	4	1	2	722	2.9	3	4.2	4.24
	2.5	1	1	830	3.4	3.1	4.2	4.24

12 4-Feb-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	6	1	1	830	5.3	5	1.4	4.22
	6	2	1	855	1	1	1.4	4.22
	6	3	1	710	10.2	10	1.4	4.21
	4	1	1	825	4.8	4.9	1.4	4.24

14	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
7-Feb-03								
	12	1	2	561	1	1	4.16	4.2
	12	2	2	578	1	1	4.16	4.2
	10	1	1	809	1	1	4.17	4.21

15	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
11-Feb-03								
	15	1	2	160	4.8	5	4.72	4.19
	15	1	3	165	4.8	5	4.67	4.19
	15	2	1	168	1	1	4.69	4.19
	14	1	1	219	1	1	4.58	4.19
	13	1	1	252	1	1	4.55	4.19
	12	1	1	321	1	1	4.34	4.19
	10	1	1	230	4.8	5	4.4	4.2
	10	2	1	231	1	1	4.37	4.2
	8	1	1	368	1	1	4.34	4.21

16	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
12-Feb-03								
	15	1	3	170	4.8	5	4.15	4.2
	15	2	1	170	4.8	5	4.15	4.2
	8	1	1	754	1	1	4.18	4.22
	8	2	1	757	1	1	4.18	4.22
	6	1	1	771	1	1	4.2	4.23

17	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
13-Feb-03								
	8	1	1	624	0.5	0.5	4.23	4.22
	8	2	1	660	5.3	5	4.23	4.22
	8	3	1	638	2.9	3	4.23	4.22
	6	1	1	641	1	1	4.26	4.24
	6	2	1	645	4.8	5	4.26	4.23

18	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
14-Feb-03								
	15	1	5	158	1	1	4.16	4.2
	15	2	1	155	5.3	5	4.16	4.2
	15	3	1	177	1	1	4.16	4.2
	14	1	1	162	0.5	1.9	4.16	4.2
	14	2	1	140	1	1	4.17	4.2
	14	3	1	171	1	1	4.16	4.19
	13	1	3	140	1	1	4.17	4.2
	13	2	1	178	1	1	4.17	4.19
	12	1	1	135	4.8	5	4.16	4.19
	12	2	1	141	1.5	1	4.16	4.2
	12	3	1	178	1	1	4.17	4.2
	10	1	1	165	4.8	5	4.17	4.2
	10	2	1	165	1	1	4.18	4.21
	10	3	1	185	1	1	4.18	4.21

8	1	1	170	4.8	5	4.2	4.23
8	2	1	152	1	1	4.19	4.22
8	3	1	198	1.5	1.1	4.19	4.22
6	1	1	170	1	1	4.21	4.24
6	2	1	198	1.5	1.1	4.2	4.24

19	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
17-Feb-03								
	12	1	1	320	1	1	4.15	4.2
	12	2	2	319	1.5	1	4.16	4.2
	12	3	1	315	4.8	5	4.16	4.2
	10	1	1	320	5.3	5	4.17	4.21
	8	1	2	330	5.3	5	4.18	4.23

20	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
18-Feb-03								
	15	1	1	171	1	1	4.14	4.19
	15	2	1	170	1	2.8	4.15	4.2
	15	3	1	170	1	1	4.15	4.19
	14	1	1	222	1	1	4.14	4.19
	13	1	1	283	1	1	4.15	4.19
	12	1	1	325	1	1	4.15	4.19
	10	1	1	403	1	1	4.16	4.2
	8	1	1	513	1	1	4.18	4.21

21	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
19-Feb-03								
	12	1	1	360	1	2.8	4.16	4.2
	12	2	2	370	4.8	5	4.17	4.2
	12	3	1	374	0.5	1	4.16	4.2
	8	1	2	405	4.8	5	4.19	4.23

22	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
20-Feb-03								
	13	1	1	333	1.2	1	4.15	4.2
	13	2	1	340	1	1	4.15	4.2
	12	1	1	415	1.2	1	4.16	4.2
	12	2	1	424	1.2	1	4.16	4.2
	10	1	1	545	1.2	1	4.17	4.21
	10	2	1	525	5.1	5	4.18	4.21
	10	3	1	471	1	1	4.18	4.21
	8	1	1	580	5.1	5	4.19	4.22

23	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
21-Feb-03								
	14	1	2	282	0.7	1	4.14	4.19
	10	1	2	500	4.8	5	4.16	4.2
	10	2	1	505	5.1	5	4.16	4.19
	10	3	1	480	1.2	1	4.16	4.19
	8	1	1	507	1	4.1	4.17	4.2
	8	2	1	505	5.1	5	4.17	4.21

24	Field	Test #	vers #	Max I	ΔI	ΔI ave	Ts	Tb
24-Feb-03								
	13	1	1	293	1	1	4.15	4.2
	10	1	1	465	1	1	4.17	4.21
	10	2	1	450	5.1	5	4.17	4.21
	10	3	1	430	5.1	5	4.18	4.21
	8	1	1	526	1	1	4.18	4.22
	8	2	1	525	5.1	5	4.19	4.22
	6	1	1	618	1.2	1	4.2	4.24

25	Field	Test #	vers #	Max I	ΔI	ΔI ave	Ts	Tb
14-Apr-03								
	10	1	1	535	1	1	4.34	4.2
	4.27	1	1	30	1.2	1	0	0
	4.27	2	1	32	1	1	0	0
	3	1	1	811	1	1	4.33	4.25
	2.5	2	2	840	5.3	5	4.28	4.24
	2	1	1	850	1	1	4.28	4.24
	1.5	1	1	840	10.2	10	4.3	4.24
	1	1	3	940	1	1.1	4.28	4.24

26	Field	Test #	vers #	Max I	ΔI	ΔI ave	Ts	Tb
15-Apr-03								
	6	1	2	780	10.2	10	4.32	4.21
	6	2	2	859	1	1	4.36	4.21
	3	1	1	731	1	1	4.31	4.23
	1	1	1	774	1	1	4.32	4.23

27	Field	Test #	vers #	Max I	ΔI	ΔI ave	Ts	Tb
16-Apr-03								
	10	1	2	559	1	1	4.61	4.19
	8	1	2	613	1.5	1	4.6	4.2
	6	1	1	654	1	1	4.57	4.22
	4.26	3	1	206	1	4.6	0	0
	3	1	1	725	1	1	4.54	4.23
	2	1	1	858	1	1	4.51	4.24
	1	1	1	923	1	1	4.41	4.23

28	Field	Test #	vers #	Max I	ΔI	ΔI ave	Ts	Tb
29-Apr-03								
	15	1	1	47	1	1	4.64	4.18
	13	1	2	62	1	1	4.56	4.18
	12	1	1	61	1	1	4.39	4.18
	12	2	3	87	1.5	1	4.69	4.18
	10	1	3	60	0.5	0.5	4.38	4.19
	8	1	2	67	0.5	0.5	4.4	4.2
	6	1	2	75	0.5	0.5	4.37	4.22

	2	1	1	102	0.5	0.9	4.72	4.24
29	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
28-Oct-03								
	14	1	4	118	3.1	3	4.13	N/A
	14	2	2	150	1	1	4.13	N/A
	14	3	1	161	1	1	4.13	N/A
	14	4	1	50	2.7	3	4.13	N/A
30	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
28-Oct-03								
	14	1	1	180	1	1	4.24	N/A
	14	2	1	231	0.5	0.5	4.21	N/A
	12	1	2	233	2.2	2	4.26	N/A
	12	2	2	260	0.5	0.5	4.22	N/A
	12	3	3	276	0.5	0.5	4.53	N/A
31	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
31-Oct-03								
	14	1	1	145	4.8	5	4.24	N/A
	14	1	2	97	1	1	4.26	N/A
	14	4	1	97	1	1	4.26	N/A
	12	1	1	110	4.8	5	4.38	N/A
	10	2	1	13	0.5	0.5	4.16	N/A
	10	3	1	37	0.5	0.5	4.16	N/A
	9	1	1	21	0.5	0.5	4.17	N/A
32	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
27-Feb-04								
	14	1	1	215	1	1	4.24	4.21
	13	1	1	269	1	1	4.23	4.21
	12	1	1	281	4.8	5.1	4.26	4.21
	12	2	1	307	1	1	4.23	4.21
	10	1	2	364	1	1	4.23	4.22
	10	2	1	306	1	1	4.23	4.22
	8	1	1	386	1	1	4.25	4.23
	6	1	1	400	1	1	4.27	4.25
	6	2	1	388	1	1	4.26	4.25
	4	1	1	411	1	1	4.29	4.26
	2	1	1	495	1	1	4.3	4.26
	0	1	1	418	5.3	5.1	4.29	4.26
	0	1	2	708	1	1	4.29	4.26
	0	1	5	95	5.1	5	4.28	4.26
	0	1	1	30	3.4	2	4.28	4.26
33	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
2-Mar-04								
	12	1	2	329	1	1	4.22	4.2
	8	1	2	505	5.3	5	4.24	4.22
	8	2	1	563	1	1	4.23	4.22

34 8-Mar-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	14	1	1	242	1	1	4.22	4.2
	14	2	1	244	1	1	4.22	4.2

35 8-Mar-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	12	1	2	388	20.1	20.2	4.14	4.19
	12	2	1	378	16.7	17.3	4.14	4.2
	12	2	3	425	1.2	1	4.14	4.19
	10	1	2	523	1	1	4.15	4.2
	8	1	1	548	1	1	4.18	4.22
	6	1	1	635	1	1	4.19	4.24
	4	1	2	508	4.8	1.9	4.21	4.25
	4	1	4	632	1	1	4.23	4.27

36 10-Mar-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	13	1	2	361	1	1	1.4	4.2
	10	1	1	615	0.7	1	1.4	4.21
	8	1	2	545	20.1	20.2	1.4	4.22
	8	2	1	642	1	1	1.4	4.22
	6	3	3	84	1	1	4.32	4.24
	6	1	2	565	20.5	20.3	1.4	4.24
	6	2	1	675	1	1	1.4	4.24
	4	1	1	97	3.4	3	4.28	4.25
	4	2	1	88	3.9	3.2	4.28	4.25
	4	2	2	87	3.9	3.2	4.28	4.25
	4	3	1	90	1	1	4.28	4.25

37 2-Apr-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	14	1	1	234	1	1	4.22	4.19
	14	2	2	236	1	1	4.22	4.19
	13	1	1	301	1.4	1	4.22	4.19
	13	2	3	302	1	1	4.21	4.19
	12	1	1	383	0.5	0.5	4.21	4.2
	12	3	1	205	20.5	19.1	4.21	4.2
	10	1	2	593	1	1	4.22	4.2
	10	2	1	103	1	1	4.22	4.2
	6	1	1	1194	1	1	4.25	4.23
	6	2	1	1191	1	1	4.25	4.23
	5	1	1	1382	1	1	4.26	4.24
	4	1	4	104	5.1	4.4	4.28	4.24
	4	1	1	1072	20.3	20.2	4.27	4.24
	4	1	3	1031	9.9	13.5	4.28	4.24
	4	1	4	1299	1	1	4.28	4.24
	3	1	1	153	3.6	5.2	4.29	4.25
	3	1	2	177	1.7	3.1	4.29	4.25

38 5-Apr-04	Field	Test #	vers #	Max I	ΔI	ΔI ave	Ts	Tb
	14	1	1	218	0.5	0.5	4.22	4.2
	13	1	2	250	9.9	6.1	4.22	4.2
	13	1	3	256	1	1	4.22	4.2
	13	2	1	256	0.5	0.5	4.22	4.2
	12	1	1	309	1	3.1	4.22	4.2
	12	2	1	310	0.5	0.5	4.22	4.2
	10	1	1	444	9.9	10.1	4.22	4.21
	10	1	2	453	1	1	4.22	4.21
	8	1	3	646	9.9	10.1	4.23	4.22
	8	1	4	654	1	1	4.24	4.22
	8	1	1	646	9.9	10.1	4.23	4.22
	8	1	2	654	1	1	4.24	4.22
	6	1	2	894	1	1	4.26	4.24
	4	1	2	1147	1	1	4.28	4.25
	2	1	2	1572	1.5	1	4.29	4.25
	0	1	1	126	3.4	3.2	4.29	4.25
	0	1	2	118	4.3	3.7	4.29	4.25
	0	1	3	128	4.1	4.2	4.28	4.25

39-a 6-Apr-04	Field	Test #	vers #	Max I	ΔI	ΔI ave	Ts	Tb
	13	1	1	317	1	1	4.21	4.19
	13	2	1	321	1	1	4.21	4.18
	10	1	1	563	1	1	4.21	4.19
	8	1	1	874	5.3	5	4.23	4.21
	8	2	1	808	1	1	4.23	4.21
	7	1	1	959	1.5	1.1	4.24	4.21
	6	1	1	1074	2.2	2	4.25	4.22
	5	1	3	1104	4.8	5.1	4.26	4.23
	4	1	1	1297	1	1	4.27	4.24
	3	1	1	1447	1.9	4.7	4.28	4.24
	3	2	1	1401	5.3	5.1	4.28	4.24
	2	1	1	1504	3.1	3	4.28	4.24
	1	1	1	1729	3.4	3.1	4.28	4.24
	0	1	1	1477	20.5	20.3	4.27	4.24
	0	2	1	1754	1	1	4.27	4.24
	0	3	1	1569	2.7	3	4.27	4.23

39-b 7-Apr-04	Field	Test #	vers #	Max I	ΔI	ΔI ave	Ts	Tb
	3.28	1	2	1335	20.5	20.2	4.27	4.24
	3.28	2	2	1315	2.9	3	4.27	4.24
	3.28	2	3	1443	3.1	3	4.27	4.24
	3.28	3	2	1376	20.3	20.3	4.27	4.24
	3.28	3	4	1234	20.1	20.3	4.27	4.24
	3.28	3	6	1234	20.1	20.3	4.27	4.24
	3	1	1	1386	1	1.6	4.27	4.24
	2	1	1	1532	1	1	4.27	4.24
	2	2	1	1469	3.4	3	4.28	4.24
	2	3	1	1477	20.5	20.3	4.28	4.24
	1	1	1	1719	1	1	4.27	4.24

1	2	1	1630	2.9	3	4.27	4.24
1	3	1	1720	20.3	20.2	4.28	4.24
1	4	1	1781	20.3	20.2	4.28	4.24
1	5	1	1679	20.1	20.2	4.28	4.24
0.5	1	3	1436	20.1	20.3	4.28	4.24
0.5	2	1	1574	3.4	3	4.28	4.24
0.5	2	2	1626	3.6	3.1	4.28	4.24
0.5	3	1	1781	20.3	20.2	4.27	4.24
0	1	1	1604	2.9	3	4.27	4.24
0	2	1	1395	20.1	20.2	4.27	4.23
0	3	1	1517	20.1	20.2	4.27	4.24
0	4	1	1335	20.5	20.2	4.27	4.24
0	5	2	1558	20.1	20.3	4.27	4.24
0	6	1	1497	20.3	20.3	4.27	4.24
0	6	2	1682	2.9	3	4.27	4.23
0	7	2	1517	20.1	20.2	4.27	4.23

39-c 9-Apr-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	14	1	2	241	1	1	4.22	4.19
	14	2	2	242	0.5	0.5	4.22	4.19
	13	1	5	281	10.4	10.1	4.22	4.19
	13	1	7	289	1	1	4.22	4.19
	12	1	2	332	10.1	10.1	4.23	4.19
	12	1	5	339	1	1	4.22	4.19
	12	1	7	338	1	1	4.25	4.19
	10	1	1	444	20.1	20.3	4.22	4.2
	10	1	3	454	1	1	4.22	4.2
	10	1	5	454	1	1	4.22	4.2
	8	1	2	585	20.1	20.3	4.23	4.22
	8	1	4	592	1	7.5	4.24	4.22
	8	1	5	593	1	1	4.24	4.22
	6	1	3	641	1	1	4.26	4.23
	6	1	4	645	1	1	4.25	4.23
	4	1	4	747	20.1	20.2	4.28	4.24
	4	1	5	814	1	1	4.28	4.24
	4	1	6	813	1	1	4.28	4.24
	2	1	2	1027	1	1	4.29	4.25
	2	1	3	1065	1	1	4.29	4.25
	2	1	5	1079	1.2	1	4.29	4.25
	1	1	5	1190	1	1	4.29	4.25
	1	1	6	1207	1.2	1	4.29	4.25
	0	1	2	1276	5.3	4.6	4.28	4.24
	0	1	3	1289	1	1	4.28	4.24
	0	1	4	1297	1	1	4.29	4.24

40-a 12-Apr-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	0	2	1	1601	1	4.6	4.28	4.24
	0	3	1	1628	1	1	4.28	4.25

40-a
13-Apr-04

8	1	1	742	1		4.23	4.22
6	1	1	1036	1		4.25	4.23
6	1	2	1038	1		4.25	4.23
4	1	1	1190	1		4.27	4.24
4	1	2	1358	1		4.27	4.24
4	1		1417	1		4.27	4.24
4	1		1329	1		4.27	4.24
2	1		1451	5		4.28	4.25
2	1		1420	1		4.28	4.25
2	1		1536	1		4.28	4.25
2	1		1534	1		4.28	4.25
1	1	1	1790	1		4.28	4.25
0	1	1	1711	1		4.28	4.24

40-b
14-Apr-04

Field	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
13	1	2	239	0.5	0.5	4.22	4.19
9	1	1	644	1		4.22	4.20
7	1	1	967	1		4.24	4.22
6	1	4	1122	1	1	4.25	4.23
5	1	3	977	1	2.3	4.27	4.24
5	2	1	1136	1	1	4.27	4.24
5	2	4	1050	0.7	1	4.27	4.24
5	2	6	1146	1	1	4.27	4.24
4	1	1	1031	27.1	25	4.27	4.24
4	1	0	990	101.2	101.3	4.27	4.24
4	1	2	970	9.7	50.7	4.27	4.24
4	1	6	970	9.7	10.1	4.27	4.24
4	1	7	930	10.4	10.1	4.27	4.24
4	1	9	1001	1	1	4.27	4.24
4	1	1	977	1	1	4.27	4.24
4	2	1	993	1	1	4.28	4.25
4	3	3	1089	1	1	4.28	4.25
4	3	8	1072	1	1	4.28	4.25
3	1	3	1084	10.4	9.1	4.28	4.25
3	1	5	1141	1	1	4.28	4.25
3	1	7	1134	1.4	1.1	4.28	4.24
3	2	2	1158	4.8	5	4.28	4.25
3	2	4	1108	5.3	69.3	4.29	4.25
3	2	8	1162	1	1.4	4.29	4.25
2	1	3	1302	1	1	4.29	4.25
2	1	6	1324	1	1	4.28	4.25
1	1	1	1534	1	1	4.28	4.25
1	1	3	1587	1	1	4.28	4.25
1	1	4	1513	1	1	4.28	4.25
0	1	3	1499	1	79.1	4.28	4.24
0	1	4	1505	0.7	1	4.28	4.24
0	1	6	1498	1.2	45.1	4.28	4.24
0	1	8	1492	1	1	4.28	4.24

Quench Current 1 mm PIT

1	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
11-Apr-03								
	6	1	1	1768	1	1	4.24	4.22
	4	1	1	1790	5.3	5	4.26	4.24
	3	1	1	1790	5.3	5	4.27	4.24
	2	1	1	1790	10.2	10	4.28	4.24
	1	1	1	1790	10.2	10	4.28	4.24
2	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
21-Apr-03								
	6	1	2	1790	1.5	1	4.24	4.22
	4	1	1	1790	10.2	10	4.26	4.23
	2	1	1	1780	10.2	10	4.27	4.23
3	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
22-Apr-03								
	15	1	1	315	1	1	4.22	4.18
	6	1	1	1330	4.8	5	4.24	4.22
	4.27	1	1	205	5.1	5	0	0.34
	4.27	3	1	211	1	2.3	0	0.01
	4	1	1	1400	4.3	4.9	4.27	4.24
	3.5	3	2	1469	1	1	4.28	4.24
	3	1	1	1700	9.7	9.9	4.28	4.24
	2.5	2	1	1790	10.2	10	4.28	4.24
	2	1	1	1790	4.8	5	4.28	4.24
	1.5	1	1	1790	10.2	10	4.28	4.24
	1	1	1	1790	10.2	10	4.28	4.24
	0.5	0	2	1790	10.2	10	4.28	4.24
4	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
23-Apr-03								
	8	1	1	1356	1	1.9	4.23	4.22
	6	1	1	1775	10.2	10	4.25	4.23
	4	1	1	1790	10.2	10	4.27	4.24
6	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
7-Jul-03								
	15	1	1	155	5.3	5	4.22	4.17
	15	1	3	160	4.8	5	4.23	4.17
	14	1	2	186	2.9	3	4.23	4.17
	13	1	2	213	2.9	3	4.23	4.17
	12	1	1	243	3.4	3	4.21	4.18
	10	1	2	308	1	1.9	4.22	4.18

7 8-Jul-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	15	1	1	331	1	1	4.22	4.18
	15	1	2	210	5.3	5	4.22	4.18
	15	1	4	215	4.8	5	4.22	4.18
	14	1	2	250	4.8	5	4.22	4.18
	13	1	2	300	4.8	5	4.21	4.18
	12	1	2	353	1	1	4.21	4.18

8 8-Jul-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	15	2	2	40	1.9	2	4.16	4.19
	12	2	6	34	1.9	2	4.17	4.19

9 9-Jul-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	6	1	1	1589	1	1	4.25	4.22
	6	2	1	1591	1.4	1	4.25	4.22

10 17-Jul-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	15	1	1	373	1.9	2	4.24	N/A
	13.5	1	1	493	2.4	2	4.23	N/A
	12	1	1	641	1.9	2	4.22	N/A
	10	1	1	901	1.9	2	4.23	N/A
	8	1	1	1259	1.9	2	4.24	N/A
	6	1	1	1591	2.4	2.1	4.26	N/A
	4	1	2	1760	10.2	10	4.29	N/A
	1	1	4	140	9.7	10	4.29	N/A
	1	1	5	370	10.2	10	4.3	N/A
	1	1	6	150	10.2	10	4.29	N/A
	1	1	7	130	10.2	10	4.29	N/A
	1	1	8	270	9.7	10	4.29	N/A

11 18-Jul-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	15	1	1	351	1.9	2	4.24	N/A
	13.5	1	1	473	1.9	2	4.23	N/A
	12	1	2	623	2.4	2	4.23	N/A
	10	1	1	881	1.9	2	4.23	N/A
	8	1	1	1219	2.4	2	4.24	N/A
	6	1	1	1613	1.9	2	4.26	N/A
	4	1	1	1787	1.9	2	4.28	N/A
	1	1	1	1789	1.5	2	4.3	N/A

12	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
21-Jul-03								
	15	1	1	388	1.9	2	4.22	N/A
	13.5	1	2	514	1.9	2	4.22	N/A
	12	1	2	646	1.9	2	4.21	N/A
	10	1	1	863	1.9	2	4.22	N/A

13	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
22-Jul-03								
	15	1	2	386	1.9	2	4.22	N/A
	13.5	3	2	520	1.9	2	4.21	N/A
	12	1	2	682	1.9	2	4.21	N/A
	10	1	2	964	1.9	2	4.21	N/A
	8	1	2	1312	1.9	2	4.23	N/A
	6	1	1	1380	9.7	9.9	4.25	N/A

14	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
25-Jul-03								
	15	1	1	384	1.9	2	4.29	N/A
	13.5	1	1	514	1.9	2	4.28	N/A
	12	1	2	668	1.9	2	4.27	N/A
	10	1	1	940	1.9	2	4.28	N/A

15	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
28-Jul-03								
	13.5	1	1	516	1.9	2	4.24	N/A
	12	1	1	680	1.9	2	4.23	N/A
	10	1	2	966	1.9	2	4.24	N/A

16	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
30-Jul-03								
	13.5	3	1	1055	2.4	2	4.23	N/A
	13.5	3	2	50	4.8	5	4.22	N/A
	12	1	1	1392	2.4	2	4.22	N/A
	12	2	2	85	4.8	5	4.22	N/A
	10	1	1	951	1.9	2	4.23	N/A
	8	1	2	1299	1.9	2	4.25	N/A
	6	2	2	190	5.3	5	4.26	N/A
	6	2	3	160	4.8	5	4.26	N/A

17	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
5-Dec-03								
	10	1	2	961	1	1	4.22	4.2

18 12-Dec-03	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	13	1	1	558	1	1	4.22	4.19

19 13-Feb-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	6	1	2	1572	1.5	1	4.26	4.24
	2	1	2	1791	1.4	1	4.29	4.25
	0	1	1	1791	1.4	1	4.29	4.25

20 18-Feb-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	14	1	1	236	4.8	5	4.22	4.2
	14	3	1	271	1.2	1	4.22	4.2
	14	4	2	273	0.7	1	4.22	4.2
	13	1	2	313	1	1	4.22	4.2
	12	1	1	361	1	1	4.22	4.2
	10	1	1	466	1	1	4.22	4.21
	8	1	2	51	3.1	1.1	4.24	4.22
	8	2	3	65	1.9	2	4.24	4.22

21 20-Feb-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	13	1	2	468	1.5	1	4.18	4.16
	13	2	1	468	1.5	1	4.19	4.16
	12	1	1	551	0.7	1	4.18	4.16
	10	1	2	666	9.9	10.1	4.19	4.17
	10	2	1	757	1.5	1.1	4.19	4.17
	8	1	1	849	9.9	10.1	4.21	4.18
	8	2	1	1012	1	1	4.21	4.18

23 24-Feb-04	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
	14	1	1	347	1	1	4.22	4.2
	13	1	1	401	1.2	2	4.23	4.2
	13	2	1	401	1.2	1	4.23	4.2
	13	3	1	400	0.7	1	4.23	4.2
	12	1	2	462	1	1	4.23	4.2
	10	1	2	609	1	1	4.23	4.21
	8	1	2	785	1	1	4.26	4.22
	8	2	2	784	1	1	4.24	4.22
	7	1	1	814	1.2	1	4.25	4.23
	7	2	1	815	1	1	4.25	4.23
	6.5	1	2	802	1	1	4.26	4.24
	6.38	1	1	794	1	1	4.26	4.24
	6.25	1	2	787	1	1	4.26	4.24
	6.25	2	2	790	0.7	1	4.27	4.24
	6.1	1	1	789	1.2	1	4.26	4.24
	6	1	1	798	10.1	10.1	4.26	4.24
	6	2	1	799	2.9	1.4	4.26	4.24
	6	3	1	799	1	1	4.27	4.24

	5.9	1	1	808	1	1	4.27	4.24
	5	1	2	920	0.7	1	4.28	4.25
24	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
25-Feb-04								
	0	1	5	95	5.1	5	4.28	4.26
	0	1	1	30	3.4	2	4.28	4.26
25	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
15-Mar-04								
	14	1	1	606	4.8	5	1.4	2.47
	14	2	2	630	4.1	5	1.95	2.13
	13	1	1	682	5.3	5	1.85	2.03
	13	1	3	729	2.9	3.1	1.95	2.11
26	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
19-Jul-04								
	10	1	1	647	0.7	1	1.4	4.2
	10	2	1	459	10.6	10.2	1.4	4.18
27	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
3-Aug-04								
	10	1	1	768	0.7	1	4.17	4.19
	8	1	1	799	1.2	9.1	4.19	4.2
28	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
10-Aug-04								
	13	1	1	496	1	1	4.16	4.18
	12	1	1	556	1	1	4.16	4.18
	10	1	1	661	1	1	4.17	4.19
	8	1	1	865	1	1	4.19	4.2
29	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
11-Aug-04								
	8	1	1	858	9.9	10.1	4.18	4.2
	8	2	1	1082	1	1	4.19	4.21
30	**Field**	**Test #**	**vers #**	**Max I**	**ΔI**	**ΔI ave**	**Ts**	**Tb**
12-Aug-04								
	8	1	1	957	1	1	4.18	4.2
	8	2	1	1033	1	1	4.14	4.19

1) B. Bordini, '*New RRR procedure measurement at the FNAL TD SSTF and considerations about the sample holder material*' FermiLab TD-note 04-015
2) B. Bordini, S. Feher, '*Strand Critical Current Determination By Fitting Voltage Current Measurement Values*' , FermiLab TD-note 04-055