This document was too large to scan as a whole document, therefore it required breaking into smaller sections.

Document number: SD-WM-DP-137

Section 4 **of** 4

Title: 90 DAY SAFETY SCREEN RESULTS + FINAL REPORT FOR TANK 241-B-104 RUN MODE CORES 88 + 89

Date: 10/24/95 **Revision:** R001

Originator: JO J.
Co: WHC

Recipient:
Co:

References: ECN-623835

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RADIOCHEMICAL ANALYSES

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LABCORE Data Entry Template for Worklist# 1708

Analyst: AK **Instrument:** AB00 14 WB27807 **Book #** 115B52

Method: LA-508-101 Rev/Mod D-2 WHC-SD-WM-DP-131, REV. 1

Worklist Comment: Determine sample size using Ludlum. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0.78			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	4	SAMPLE	S95T001050	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	4	SAMPLE	S95T001050	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	5	DUP	S95T001050	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	5	DUP	S95T001050	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000085	B-104	6	SAMPLE	S95T001056	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	6	SAMPLE	S95T001056	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	7	DUP	S95T001056	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	7	DUP	S95T001056	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error

Final page for worklist # 1708

A Lewis 6/28/95
Analyst Signature Date

Sharon L Walker 6-29-95
Analyst Signature Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		14	14
STANDARD	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	3917	3884
1708	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.9	0.9
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		129.667	128.567
Sample #	Sample Concentration in µCi/L		2.57E-02	BOOK#
WORKLIST#1708	Replicate Concentration in µCi/L		2.55E-02	115B52
Instrument Code				
WB27807	Average Concentration in µCi/L		2.5576E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
06/28/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:30 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.56E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.2%	1.78E-07 µCi/mL

Data Entry by:	Shawna L. Walker	Date:	06/29/95
Approved by:	S.A. Costner	Date:	JUN 29 1995

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		14	14
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	25	17
1708	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.9	0.9
AT	SAMPLE SIZE in mL	(SS)	0.200	0.200
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.2456	2.2456
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.404	0.404
Sample #	Sample Concentration in µCi/g	<	1.78E-03	BOOK#
S95T1050	Replicate Concentration in µCi/g	<	1.78E-03	
Instrument Code				
WB27807	Maximum Concentration in µCi/g	<	1.7826E-03	
Analyst				
AKL				
Date				
06/28/95				
Time				
02:30 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 1.78E-03	DETECTION LEVEL
LESS Than Value was Determined from Lc.				3.97E-03 µCi/g
RELATIVE COUNTING ERROR		=	500.0%	

Data Entry by:		Date:	06/29/95
Approved by:		Date:	JUN 29 1995

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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	290	295
1708	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.9	0.9
AT	SAMPLE SIZE in mL	(SS)	0.200	0.200
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.2456	2.2456
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		8.767	8.933
Sample #	Sample Concentration in µCi/g		3.87E-02	BOOK#
S95T1050	Replicate Concentration in µCi/g		3.94E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		3.9033E-02	
Analyst				
AKL				
Date				
06/28/95				
Time				
02:30 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.90E-02	DETECTION LEVEL
				3.97E-03 µCi/g
RELATIVE COUNTING ERROR		=	13.3%	

Data Entry by:	[signature]	Date:	06/29/95
Approved by:	[signature]	Date:	JUN 29 1995

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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV.1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	306	247
1708	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.9	0.9
AT	SAMPLE SIZE in mL	(SS)	0.200	0.200
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1184	2.1184
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		9.300	7.333
Sample #	Sample Concentration in µCi/g		4.35E-02	BOOK#
S95T1050	Replicate Concentration in µCi/g		3.43E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		3.8884E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
06/28/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:30 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.89E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	14.7%	4.20E-03 µCi/g

Data Entry by: [signature] Date: 06/29/95

Approved by: [signature] Date: JUN 29 1995

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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	388	288
1708	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.9	0.9
AT	SAMPLE SIZE in mL	(SS)	0.200	0.200
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.2768	2.2768
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		12.033	8.700
Sample #	Sample Concentration in µCi/g		5.23E-02	BOOK#
S95T1056	Replicate Concentration in µCi/g		3.78E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		4.5096E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
06/28/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:30 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.51E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	13.3%	3.91E-03 µCi/g

Data Entry by:	[signature]	Date:	06/29/95
Approved by:	[signature]	Date:	JUN 29 1995

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	410	395
1708	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.9	0.9
AT	SAMPLE SIZE in mL	(SS)	0.200	0.200
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.2524	2.2524
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		12.767	12.267
Sample #	Sample Concentration in µCi/g		5.61E-02	BOOK#
S95T1056	Replicate Concentration in µCi/g		5.39E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		5.5039E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
06/28/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:30 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.50E-02	DETECTION LEVEL
				3.95E-03 µCi/g
RELATIVE COUNTING ERROR		=	10.9%	

Data Entry by: [signature] Date: 06/29/95

Approved by: [signature] Date: JUN 29 1995

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62801	20.54	000000	0030.00	00.0	62801	20.54	003917	0030.00	00.0
62802	21.24	000000	0030.00	00.0	62802	21.24	003884	0030.00	00.0
62803	21.55	000000	0030.00	00.0	62803	21.55	000025	0030.00	00.0
62804	22.25	000000	0030.00	00.0	62804	22.25	000017	0030.00	00.0
62805	22.56	000000	0030.00	00.0	62805	22.56	000290	0030.00	00.0
62806	23.26	000000	0030.00	00.0	62806	23.26	000295	0030.00	00.0
62807	23.57	000000	0030.00	00.0	62807	23.57	000306	0030.00	00.0
62908	00.27	000000	0030.00	00.0	62908	00.27	000247	0030.00	00.0
62909	00.58	000000	0030.00	00.0	62909	00.58	000388	0030.00	00.0
62910	01.28	000000	0030.00	00.0	62910	01.28	000288	0030.00	00.0
62911	01.59	000000	0030.00	00.0	62911	01.59	000410	0030.00	00.0
62912	02.29	000000	0030.00	00.0	62912	02.29	000395	0030.00	00.0

LABCORE Data Entry Template for Worklist# 1769

Analyst: AKL **Instrument:** AB00 16 WB27806 **Book #** ~~115645~~ 115852 SLF 7-12-95

Method: LA-508-101 Rev/Mod D-2

Worklist Comment: Determine sample size using Ludlum. --LLF WHC-SD-WM-DP-137, REV. 1

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0.30			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	4	SAMPLE	S95T001115	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	4	SAMPLE	S95T001115	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	5	DUP	S95T001115	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	5	DUP	S95T001115	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	6	SPK	S95T001115	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	7	SAMPLE	S95T001116	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	7	SAMPLE	S95T001116	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	8	DUP	S95T001116	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	8	DUP	S95T001116	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	9	SPK	S95T001116	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1769

G Lewis 7-6-95 Sharon L Hale 7-7-95

Data Entry Comments: Samples need digest dilution values

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

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LABCORE Data Entry Template for Worklist# 1769

GROUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature		Date			Analyst Signature			Date	

WHC-SD-WM-DP-131, REV. 1

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		16	16
STANDARD	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	3792	3801
1769	COUNT TIME in MINUTES	(CT)	30	30
AT or 15.7	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		125.900	126.200
Sample #	Sample Concentration in µCi/L		2.70E-02	BOOK#
WORKLIST#1769	Replicate Concentration in µCi/L		2.70E-02	115B52
Instrument Code				
WB27806	Average Concentration in µCi/L		2.6986E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/06/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.70E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.2%	1.48E-07 µCi/mL

Data Entry by: Sharon L. Yates Date: 07/07/95

Approved by: [signature] Date: 7/10/95

Form 508101_C Rev. 1.3

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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137 , REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		16	16
BLANK	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4	5
1769	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.075	0.075
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.0024	7.0024
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.301	0.301
Sample #	Sample Concentration in µCi/g	<	1.23E-03	BOOK#
S95T1115	Replicate Concentration in µCi/g	<	1.23E-03	
Instrument Code				
WB27806	Maximum Concentration in µCi/g	<	1.2281E-03	
Analyst				
AKL				
Date				
07/06/95				
Time				
02:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 1.23E-03	DETECTION LEVEL
LESS Than Value was Determined from Lc.				2.83E-03 µCi/g
RELATIVE COUNTING ERROR		=	87.7%	

Data Entry by: [signature] Date: 07/07/95

Approved by: [signature] Date: JUL 7 1995

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	425	367
1769	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.075	0.075
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.0024	7.0024
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		13.667	11.733
Sample #	Sample Concentration in µCi/g		5.57E-02	BOOK#
S95T1115	Replicate Concentration in µCi/g		4.78E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		5.1772E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/06/95				
Time	Relative Counting Error = [ ](The Square Root of TC + BKG * CT) / (TC - BKG * CT)[ ] * 1.96 * 100			
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

				DETECTION LEVEL
ALPHA TOTAL	in µCi/g	(Average) =	5.18E-02	2.83E-03 µCi/g
RELATIVE COUNTING ERROR		=	10.9%	

Data Entry by: Shawn L Udy Date: 07/07/95

Approved by: G A Coates Date: JUL 7 1995

Form 508101_C Rev. 1.3

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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV.1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	393	367
1769	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.075	0.075
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	6.8224	6.8224
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		12.600	11.733
Sample #	Sample Concentration in µCi/g		5.27E-02	BOOK#
S95T1115	Replicate Concentration in µCi/g		4.91E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		5.0907E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/06/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.09E-02	DETECTION LEVEL
				2.90E-03 µCi/g
RELATIVE COUNTING ERROR		=	10.9%	

Data Entry by:	Sharon L Hughes	Date:	07/07/95
Approved by:	S A Roth	Date:	JUL 7 1995

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	50352	41350
1769	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.075	0.075
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.0024	7.0024
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	36.359	36.359
S95T1115	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	6.84E+00	5.62E+00
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		5.1772E-02	
Analyst	BOOK#		94B43	
AKL				
Date				
07/06/95				
Time				
02:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT AVG. PERCENT SPIKE RECOVERY = 89.2%

Data Entry by: [signature] Date: 07-Jul-95

Approved by: [signature] Date: JUL 7 1995

Form 508101_X Rev. 1.3

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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	221	221
1769	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.050	0.050
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.19	7.19
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		6.867	6.867
Sample #	Sample Concentration in µCi/g		4.09E-02	BOOK#
S95T1116	Replicate Concentration in µCi/g		4.09E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.0893E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/06/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

				DETECTION LEVEL
ALPHA TOTAL	in µCi/g	(Average) =	4.09E-02	
RELATIVE COUNTING ERROR		=	14.6%	4.13E-03 µCi/g

Data Entry by: Sherry L Ugle Date: 07/07/95

Approved by: [illegible] Date: JUL 7 1995

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	256	273
1769	COUNT TIME in MINUTES	(CT)	30	30
AT or NB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.050	0.050
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.174	7.174
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		8.033	8.600
Sample #	Sample Concentration in µCi/g		4.79E-02	BOOK#
S95T1116	Replicate Concentration in µCi/g		5.13E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.9639E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/06/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.96E-02	DETECTION LEVEL
				4.14E-03 µCi/g
RELATIVE COUNTING ERROR		=	13.4%	

Data Entry by:	[signature]	Date:	07/07/95
Approved by:	[signature]	Date:	JUL 7 1995

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	44833	48730
1769	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.050	0.050
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.19	7.19
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	36.359	36.359
S95T1116	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	8.90E+00	9.67E+00
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		4.0893E-02	
Analyst	BOOK#		94B43	
AKL				
Date				
07/06/95				
Time				
02:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT | AVG. PERCENT SPIKE RECOVERY = 91.4%

Data Entry by: [signature] Date: 07-Jul-95

Approved by: [signature] Date: JUL 7 1995

Form 508101_X Rev. 1.3 Page 1 of 1

LABCORE Data Entry Template for Worklist# 1779

Analyst: AKL **Instrument:** AB00 14 **Book #** 130852

Method: LA-508-101 Rev/Mod D-2 WHC-SD-WM-DP-131, REV. 1

Worklist Comment: Determine sample size using Ludlum. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	1.04			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	4	SAMPLE	S95T001057	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	4	SAMPLE	S95T001057	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	5	DUP	S95T001057	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	5	DUP	S95T001057	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000085	B-104	6	SAMPLE	S95T001063	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	6	SAMPLE	S95T001063	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	7	DUP	S95T001063	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	7	DUP	S95T001063	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error

Final page for worklist # 1779

G Lewis 7-11-95
Analyst Signature **Date**

M G Sirman 7-12-95
Analyst Signature **Date**

Data Entry Comments: Sample 1063 RPD is out of control limits. Sample will be rerun. [illegible] 7/14/95

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		14	14
STANDARD	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4513	4638
1779	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA-01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		150.033	154.200
Sample #	Sample Concentration in µCi/L		2.97E-02	BOOK#
WRK LST #1779	Replicate Concentration in µCi/L		3.05E-02	130B52
Instrument Code				
WB27807	Average Concentration in µCi/L		3.0132E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/11/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

				DETECTION LEVEL
ALPHA TOTAL	in µCi/mL	(Average) =	3.01E-05	
				1.25E-07 µCi/mL
RELATIVE COUNTING ERROR		=	2.9%	

Data Entry by:		Date:	07/11/95
Approved by:		Date:	7/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		14	14
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	8	17
1779	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.350	0.350
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA-01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.21	2.21
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.269	0.463
Sample #	Sample Concentration in µCi/g	<	6.90E-04	BOOK#
WRK LST #1779	Replicate Concentration in µCi/g	<	1.19E-03	
Instrument Code				
WB27807	Maximum Concentration in µCi/g	<	1.1853E-03	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/11/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 1.19E-03	DETECTION LEVEL
LESS THAN Value was Determined from Rmax.				1.61E-03 µCi/g
RELATIVE COUNTING ERROR		=	219.1%	

Data Entry by:	[signature]	Date:	07/11/95
Approved by:	[signature]	Date:	7/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	577	547
1779	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.350	0.350
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA-01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.21	2.21
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		18.833	17.833
Sample #	Sample Concentration in µCi/g		4.82E-02	BOOK#
S95T1057	Replicate Concentration in µCi/g		4.57E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		4.6950E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/11/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.70E-02	DETECTION LEVEL
				1.61E-03 µCi/g
RELATIVE COUNTING ERROR		=	8.7%	

Data Entry by: [signature] Date: 07/11/95

Approved by: [signature] Date: 7/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)
LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	527	549
1779	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.350	0.350
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA-01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.246	2.246
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		17.167	17.900
Sample #	Sample Concentration in µCi/g		4.33E-02	BOOK#
S95T1057	Replicate Concentration in µCi/g		4.51E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		4.4182E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/11/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.42E-02	DETECTION LEVEL
				1.59E-03 µCi/g
RELATIVE COUNTING ERROR		=	8.8%	

Data Entry by:	[signature]	Date:	07/11/95
Approved by:	[signature]	Date:	7/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	451	456
1779	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA-01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.162	2.162
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		14.633	14.800
Sample #	Sample Concentration in µCi/g		5.36E-02	BOOK#
S95T1063	Replicate Concentration in µCi/g		5.42E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		5.3935E-02	
Analyst				
AKL				
Date				
07/11/95				
Time				
10:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.39E-02	DETECTION LEVEL
				2.31E-03 µCi/g
RELATIVE COUNTING ERROR		=	9.6%	

Data Entry by:	[signature]	Date:	07/11/95
Approved by:	[signature]	Date:	7/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	32	42
1779	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA-01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1628	2.1628
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.667	1.000
Sample #	Sample Concentration in µCi/g		2.44E-03	BOOK#
S95T1063	Replicate Concentration in µCi/g		3.66E-03	
Instrument Code				
WB27807	Average Concentration in µCi/g		3.0529E-03	
Analyst				
AKL				
Date				
07/11/95				
Time				
10:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.05E-03	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	65.0%	2.31E-03 µCi/g

Data Entry by: [signature] Date: 07/11/95

Approved by: [signature] Date: 7/12/95

Form 508101_C Rev. 1.3

LABCORE Data Entry Template for Worklist# 1780

Analyst: S.C.L **Instrument:** AB00 16 **Book #** 130B52

Method: LA-508-101 Rev/Mod D-2 WHC-SD-WM-DP-131, REV. 1

Worklist Comment: Determine sample size using Ludlum. Use .100 mL A-SPK. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	.10			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	4	SAMPLE	S95T001064	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	4	SAMPLE	S95T001064	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	5	DUP	S95T001064	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	5	DUP	S95T001064	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000085	B-104	6	SAMPLE	S95T001071	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	6	SAMPLE	S95T001071	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	7	DUP	S95T001071	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	7	DUP	S95T001071	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000085	B-104	8	SPK	S95T001071	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1780

Sue C Lai 7-11-95
Analyst Signature **Date**

M Bivins 7-12-95
Analyst Signature **Date**

Data Entry Comments:
spike: 94843
Sample 1064 RPD is out of control limits. Sample will be rerun. [illegible] 7-14-95

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		16	16
STANDARD	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	3679	3941
1780	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA-01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		122.133	130.867
Sample #	Sample Concentration in µCi/L		2.61E-02	BOOK#
WRK LST #1780	Replicate Concentration in µCi/L		2.80E-02	130B52
Instrument Code				
WB27806	Average Concentration in µCi/L		2.7083E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/11/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.71E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.3%	1.48E-07 µCi/mL

Data Entry by:	[signature]	Date:	07/11/95
Approved by:	[signature]	Date:	7/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		16	16
BLANK	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	2	1
1780	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA-01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1684	2.1684
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.301	0.301
Sample #	Sample Concentration in µCi/g	<	2.97E-03	BOOK#
WRK LST #1780	Replicate Concentration in µCi/g	<	2.97E-03	
Instrument Code				
WB27806	Maximum Concentration in µCi/g	<	2.9743E-03	
Analyst				
SCL				
Date				
07/11/95				
Time				
11:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 2.97E-03	DETECTION LEVEL
LESS Than Value was Determined from Lc.				6.84E-03 µCi/g
RELATIVE COUNTING ERROR		=	62.2%	

Data Entry by:	[signature]	Date:	07/11/95
Approved by:	[signature]	Date:	7/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	149	144
1780	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA-01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1684	2.1684
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		4.467	4.300
Sample #	Sample Concentration in µCi/g		4.41E-02	BOOK#
S95T1064	Replicate Concentration in µCi/g		4.25E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.3278E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/11/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.33E-02	DETECTION LEVEL
				6.84E-03 µCi/g
RELATIVE COUNTING ERROR		=	19.2%	

Data Entry by:	[illegible]	Date:	07/11/95
Approved by:	[illegible]	Date:	7/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	308	279
1780	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA-01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1988	2.1988
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		9.767	8.800
Sample #	Sample Concentration in µCi/g		9.51E-02	BOOK#
S95T1064	Replicate Concentration in µCi/g		8.57E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		9.0390E-02	
Analyst				
SCL				
Date				
07/11/95				
Time				
11:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	9.04E-02	DETECTION LEVEL
				6.75E-03 µCi/g
RELATIVE COUNTING ERROR		=	12.7%	

Data Entry by:		Date:	07/11/95
Approved by:		Date:	7/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	164	168
1780	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA-01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.0184	2.0184
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		4.967	5.100
Sample #	Sample Concentration in µCi/g		5.27E-02	BOOK#
S95T1071	Replicate Concentration in µCi/g		5.41E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		5.3389E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/11/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.34E-02	DETECTION LEVEL
				7.35E-03 µCi/g
RELATIVE COUNTING ERROR		=	17.6%	

Data Entry by:		Date:	07/11/95
Approved by:		Date:	7/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	131	145
1780	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA-01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.0144	2.0144
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		3.867	4.333
Sample #	Sample Concentration in µCi/g		4.11E-02	BOOK#
S95T1071	Replicate Concentration in µCi/g		4.61E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.3575E-02	
Analyst				
SCL				
Date				
07/11/95				
Time				
11:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.36E-02	DETECTION LEVEL
				7.37E-03 µCi/g
RELATIVE COUNTING ERROR		=	20.4%	

Data Entry by:	[signature]	Date:	07/11/95
Approved by:	[signature]	Date:	7/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	51372	44748
1780	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA-01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.0184	2.0184
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	36.359	36.359
S95T1071	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	1.82E+01	1.58E+01
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		5.3389E-02	
Analyst	BOOK#		94B43	
SCL				
Date				
07/11/95				
Time				
11:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT | AVG. PERCENT SPIKE RECOVERY = 94.0%

Data Entry by:	[signature]	Date:	11-Jul-95
Approved by:	[signature]	Date:	7/12/95

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1781

Analyst: S.C L **Instrument:** AB00 15 WB26872 **Book #** 13.B52

Method: LA-508-101 Rev/Mod D-2 WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Determine sample size using Ludlum. Use .100 mL A-SPK. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0.25			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	4	SAMPLE	S95T001072	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	4	SAMPLE	S95T001072	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	5	DUP	S95T001072	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	5	DUP	S95T001072	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000085	B-104	6	SPK	S95T001072	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	7	SAMPLE	S95T001077	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	7	SAMPLE	S95T001077	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	8	DUP	S95T001077	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	8	DUP	S95T001077	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000085	B-104	9	SPK	S95T001077	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1781

~~spike:~~ SLF 7-17-95 Sue C Fu 7-17-95 Sharon J Walch 7-17-95

Data Entry Comments:

spike: 94B43

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1781

GROUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature		Date			Analyst Signature			Date	

WHC-SD-WM-DP-131, REV. 1

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		15	15
STANDARD	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4330	4278
1781	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		143.933	142.200
Sample #	Sample Concentration in µCi/L		2.72E-02	BOOK#
WORKLIST#1781	Replicate Concentration in µCi/L		2.69E-02	130B52
Instrument Code				
WB26872	Average Concentration in µCi/L		2.7077E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/13/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:30 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.71E-05	DETECTION LEVEL
				1.19E-07 µCi/mL
RELATIVE COUNTING ERROR		=	3.0%	

Data Entry by:	Sharon Gillaher	Date:	07/14/95
Approved by:	[illegible]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137 REV 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		15	15
BLANK	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	6	0
1781	COUNT TIME in MINUTES	(CT)	30	30
AT or IB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	20.504	20.504
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.269	0.269
Sample #	Sample Concentration in µCi/g	<	2.51E-03	BOOK#
S95T1072	Replicate Concentration in µCi/g	<	2.51E-03	
Instrument Code				
WB26872	Maximum Concentration in µCi/g	<	2.5120E-03	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:30 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 2.51E-03	DETECTION LEVEL
LESS Than Value was Determined from Lc.				5.87E-03 µCi/g
RELATIVE COUNTING ERROR		=	138.6%	

Data Entry by:	[signature]	Date:	07/14/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-131, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	138	162
1781	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	20.504	20.504
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		4.200	5.000
Sample #	Sample Concentration in µCi/g		3.92E-02	BOOK#
S95T1072	Replicate Concentration in µCi/g		4.66E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		4.2886E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:30 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.29E-02	DETECTION LEVEL
				5.87E-03 µCi/g
RELATIVE COUNTING ERROR		=	19.1%	

Data Entry by:	Shyrman L. Yafsle	Date:	07/14/95
Approved by:	[illegible]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	160	179
1781	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	20.488	20.488
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		4.933	5.567
Sample #	Sample Concentration in µCi/g		4.60E-02	BOOK#
S95T1072	Replicate Concentration in µCi/g		5.19E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		4.8984E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:30 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.90E-02	DETECTION LEVEL
				5.87E-03 µCi/g
RELATIVE COUNTING ERROR		=	17.4%	

Data Entry by: Sharon L Wolfe		Date:	07/14/95
Approved by: [signature]		Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)
LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
DETECTOR NUMBER			15	15
DISH SIZE 1 , 2 , or 5		(MS)	2	2
TOTAL COUNTS		(TC)	49628	51225
COUNT TIME in MINUTES		(CT)	30	30
BACKGROUND in cpm		(BKG)	0.4	0.4
SAMPLE VOLUME in mL	(Spiked Vial)	(SS)	1.000	1.000
SAMPLE DILUTION FACTOR	(Spiked Vial)	(DF)	101	101
DIGEST GRAMS of SOLIDS/L		(Dg/L)	20.504	20.504
SPIKE VOLUME in mL		(SVol)	0.100	0.100
SPIKE DILUTION FACTOR		(SDF)	1	1
SPIKE VALUE in µCi/L		(SVal)	36.358	36.358
INSTRUMENT EFFICIENCY FACTOR		(EFF)	0.238	0.238
SAMPLE + SPIKE µCi/g		(S+S)	1.54E+01	1.59E+01
AVERAGE or MAXIMUM µCi/g from FORM C			4.2886E-02	
BOOK#			94B43	

Type	Work List	AT or TB ?	Test Code	Matrix	Sample #	Instrument Code	Analyst	Date	Time
SPIKE	1781	AT	@ALPHA01	SOLID	S95T1072	WB26872	SCL	07/13/95	01:30 PM

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 87.2%**

Data Entry by:	Shyman Y. Yalch	Date:	14-Jul-95
Approved by:	[illegible]	Date:	7/17/95

Form 508101_X Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	150	178
1781	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	18.184	18.184
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		4.600	5.533
Sample #	Sample Concentration in µCi/g		4.84E-02	BOOK#
S95T1077	Replicate Concentration in µCi/g		5.82E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		5.3263E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:30 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.33E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	18.1%	6.62E-03 µCi/g

Data Entry by:	Sharon L Yoder	Date:	07/14/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	168	179
1781	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	1.000	1.000
Test Code	DILUTION FACTOR	(DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	18.104	18.104
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		5.200	5.567
Sample #	Sample Concentration in µCi/g		5.49E-02	BOOK#
S95T1077	Replicate Concentration in µCi/g		5.88E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		5.6842E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:30 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.68E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	16.9%	6.65E-03 µCi/g

Data Entry by: Shayan L. Habib Date: 07/14/95

Approved by: [illegible] Date: 7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		15	15
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	53284	53310
1781	COUNT TIME in MINUTES	(CT)	30	30
AT or TS ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	1.000	1.000
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	18.184	18.184
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	36.358	36.358
S95T1077	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.238	0.238
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	1.87E+01	1.87E+01
WB26872	AVERAGE or MAXIMUM µCi/g from FORM C		5.3263E-02	
Analyst	BOOK#		94B43	
SCL				
Date				
07/13/95				
Time				
01:30 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT | AVG. PERCENT SPIKE RECOVERY = 92.2%

Data Entry by:	Sharon L Hoffer	Date:	14-Jul-95
Approved by:	[illegible]	Date:	7/17/95

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1782

Analyst: S C L **Instrument:** AB00 16 **Book #** 130B52

WD 27806

Method: LA-508-101 Rev/Mod D -2

WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Determine sample size using Ludlum. Use .100 mL A-SPK. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	1.56			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	4	SAMPLE	S95T001079	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	4	SAMPLE	S95T001079	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	5	DUP	S95T001079	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	5	DUP	S95T001079	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000085	B-104	6	SPK	S95T001079	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	7	SAMPLE	S95T001093	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	7	SAMPLE	S95T001093	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	8	DUP	S95T001093	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	8	DUP	S95T001093	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000085	B-104	9	SPK	S95T001093	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1782

Sue C Lai 7-14-95 Shawn Udell

Data Entry Comments:

Spike: 94B43

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1782

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature			Date					Analyst Signature			Date	

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		16	16
STANDARD	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4114	4334
1782	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		136.833	144.167
Sample #	Sample Concentration in µCi/L		2.93E-02	BOOK#
WORKLIST#1782	Replicate Concentration in µCi/L		3.09E-02	130B52
Instrument Code				
WB27806	Average Concentration in µCi/L		3.0080E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/14/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	3.01E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.1%	1.19E-07 µCi/mL

Data Entry by:	Sharon L. Gilbert	Date:	07/17/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		16	16
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	9	19
1782	COUNT TIME in MINUTES	(CT)	30	30
AT or 18 ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	1.9308	1.9308
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.233	0.333
Sample #	Sample Concentration in µCi/g	<	2.59E-03	BOOK#
S95T1079	Replicate Concentration in µCi/g		3.70E-03	
Instrument Code				
WB27806	Maximum Concentration in µCi/g	<	3.6961E-03	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/14/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 3.70E-03	DETECTION LEVEL
LESS THAN Value was Determined from Rs.				6.18E-03 µCi/g
RELATIVE COUNTING ERROR		=	500.0%	

Data Entry by: Sharon L Walker Date: 07/17/95

Approved by: [signature] Date: 8/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	145	152
1782	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	1.9308	1.9308
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		4.533	4.767
Sample #	Sample Concentration in µCi/g		5.03E-02	BOOK#
S9571079	Replicate Concentration in µCi/g		5.29E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		5.1560E-02	
Analyst				
SCL				
Date				
07/14/95				
Time				
11:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.16E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	17.9%	6.18E-03 µCi/g

Data Entry by: Sharon Gilbert Date: 07/17/95

Approved by: [signature] Date: 7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	181	158
1782	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	1.9412	1.9412
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		5.733	4.967
Sample #	Sample Concentration in µCi/g		6.32E-02	BOOK#
S95T1079	Replicate Concentration in µCi/g		5.48E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		5.9004E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/14/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.90E-02	DETECTION LEVEL
				6.15E-03 µCi/g
RELATIVE COUNTING ERROR		=	17.0%	

Data Entry by:	[signature]	Date:	07/17/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3 Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)
LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	48527	46139
1782	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	1.9308	1.9308
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	36.358	36.358
S95T1079	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	1.79E+01	1.71E+01
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		5.1560E-02	
Analyst	BOOK#		94B43	
SCL				
Date				
07/14/95				
Time				
11:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 92.6%**

Data Entry by:	[signature]	Date:	17-Jul-95
Approved by:	[signature]	Date:	7/17/95

Form 508101_X Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	111	107
1782	COUNT TIME in MINUTES	(CT)	30	30
AT Group	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	1.92	1.92
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		3.400	3.267
Sample #	Sample Concentration in µCi/g		3.79E-02	BOOK#
S95T1093	Replicate Concentration in µCi/g		3.64E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		3.7169E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/14/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.72E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	21.5%	6.21E-03 µCi/g

Data Entry by:	[signature]	Date:	07/17/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	122	135
1782	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	1.9832	1.9832
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		3.767	4.200
Sample #	Sample Concentration in µCi/g		4.07E-02	BOOK#
S95T1093	Replicate Concentration in µCi/g		4.53E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.3001E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/14/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.30E-02	DETECTION LEVEL
				6.02E-03 µCi/g
RELATIVE COUNTING ERROR		=	19.9%	

Data Entry by:	Sherry L Yoder	Date:	07/17/95
Approved by:	[illegible]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	45129	46022
1782	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	1.92	1.92
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	36.358	36.358
S95T1093	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	1.68E+01	1.71E+01
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		3.7169E-02	
Analyst	BOOK#		94B43	
SCL				
Date				
07/14/95				
Time				
11:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 89.2%**

Data Entry by:	Sharon J. Hall	Date:	17-Jul-95
Approved by:	[illegible]	Date:	7/17/95

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1784

Analyst: ARL **Instrument:** AB00 18 **Book #** 130B52

UB27809

Method: LA-508-101 Rev/Mod D-2 WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Determine sample size using Ludlum. Use .100 mL A-SPK. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0.50			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	4	SAMPLE	S95T001094	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	4	SAMPLE	S95T001094	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	5	DUP	S95T001094	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	5	DUP	S95T001094	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000085	B-104	6	SPK	S95T001094	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1784

G Lewis 7-13-95
Analyst Signature Date

Sharon L Uald 7-17-95
Analyst Signature Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137 , REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		18	18
STANDARD	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4426	4426
1764	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.2	0.2
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2095	0.2095
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		147.333	147.333
Sample #	Sample Concentration in µCi/L		3.17E-02	BOOK#
WORKLIST#1764	Replicate Concentration in µCi/L		3.17E-02	130B52
Instrument Code				
WB27809	Average Concentration in µCi/L		3.1678E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/13/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L.			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	3.17E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.0%	1.01E-07 µCi/mL

Data Entry by:	[signature]	Date:	07/14/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		18	18
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	5	1
1784	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.2	0.2
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	1.9284	1.9284
Matrix	EFFICIENCY FACTOR	(EFF)	0.2095	0.2095
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.191	0.191
Sample #	Sample Concentration in µCi/g	<	8.50E-04	BOOK#
S95T1094	Replicate Concentration in µCi/g	<	8.50E-04	
Instrument Code				
WB27809	Maximum Concentration in µCi/g	<	8.4973E-04	
Analyst				
AKL				
Date				
07/13/95				
Time				
01:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 8.50E-04	DETECTION LEVEL
LESS Than Value was Determined from Lc.				2.10E-03 µCi/g
RELATIVE COUNTING ERROR		=	500.0%	

Data Entry by: [signature] Date: 07/14/95

Approved by: [signature] Date: 7/17/95

Form 508101_C Rev. 1.3

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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137 REV 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		18	18
SAMPLE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	342	328
1784	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.2	0.2
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	1.9284	1.9284
Matrix	EFFICIENCY FACTOR	(EFF)	0.2095	0.2095
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		11.200	10.733
Sample #	Sample Concentration in µCi/g		5.00E-02	BOOK#
S95T1094	Replicate Concentration in µCi/g		4.79E-02	
Instrument Code				
WB27809	Average Concentration in µCi/g		4.8910E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.89E-02	DETECTION LEVEL
				2.10E-03 µCi/g
RELATIVE COUNTING ERROR		=	11.1%	

Data Entry by:	[signature]	Date:	07/14/95
Approved by:	[signature]	Date:	7/15/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		18	18
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	302	302
1784	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.2	0.2
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	1.9512	1.9512
Matrix	EFFICIENCY FACTOR	(EFF)	0.2095	0.2095
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		9.867	9.867
Sample #	Sample Concentration in µCi/g		4.35E-02	BOOK#
S95T1094	Replicate Concentration in µCi/g		4.35E-02	
Instrument Code				
WB27809	Average Concentration in µCi/g		4.3490E-02	
Analyst				
AKL				
Date				
07/13/95				
Time				
01:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.35E-02	DETECTION LEVEL
				2.08E-03 µCi/g
RELATIVE COUNTING ERROR		=	11.6%	

Data Entry by:	Sharon L Yates	Date:	07/14/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

Type			SPIKE	REPLICATE
SPIKE	DETECTOR NUMBER		18	18
Work List	DISH SIZE 1 , 2 , or 5	(MS)	2	2
1784	TOTAL COUNTS	(TC)	52817	50652
AT or IS ?	COUNT TIME in MINUTES	(CT)	30	30
AT	BACKGROUND in cpm	(BKG)	0.2	0.2
Test Code	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.250	0.250
@ALPHA01	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
Matrix	DIGEST GRAMS of SOLIDS/L	(Dg/L)	1.9284	1.9284
SOLID	SPIKE VOLUME in mL	(SVol)	0.100	0.100
Sample #	SPIKE DILUTION FACTOR	(SDF)	1	1
S95T1094	SPIKE VALUE in µCi/L	(SVal)	44.787	44.787
Instrument Code	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2095	0.2095
WB27809	SAMPLE + SPIKE µCi/g	(S+S)	7.85E+00	7.53E+00
Analyst	AVERAGE or MAXIMUM µCi/g from FORM C		4.8910E-02	
AKL	BOOK#		112B43	
Date				
07/13/95				
Time				
01:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 82.3%**

Data Entry by: [signature] Date: 14-Jul-95

Approved by: [signature] Date: 7/17/95

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1785

Analyst: AKL **Instrument:** AB00 13 WB27810 **Book #** 130B52

Method: LA-508-101 Rev/Mod D-2 WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Determine sample size using Ludlum. Use .100 mL A-SPK. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	033			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	4	SAMPLE	S95T001109	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	4	SAMPLE	S95T001109	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	5	DUP	S95T001109	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	5	DUP	S95T001109	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	6	SPK	S95T001109	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	7	SAMPLE	S95T001110	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	7	SAMPLE	S95T001110	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	8	DUP	S95T001110	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	8	DUP	S95T001110	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	9	SPK	S95T001110	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1785

[illegible] 7-13-95 Sharon L Walker 7-17-95

Data Entry Comments: SPK Recoveries are out of controll limits. Batch will be rerun. [illegible] 7/14/95

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1785

GROUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature		Date			Analyst Signature			Date	

WHC-SD-WM-DP-137, REV. 1

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		13	13
STANDARD	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4360	4275
1785	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2322	0.2322
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		145.033	142.200
Sample #	Sample Concentration in µCi/L		2.81E-02	BOOK#
WORKLIST#1785	Replicate Concentration in µCi/L		2.76E-02	130B52
Instrument Code				
WB27810	Average Concentration in µCi/L		2.7861E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/13/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.79E-05	DETECTION LEVEL
				1.08E-07 µCi/mL
RELATIVE COUNTING ERROR		=	3.0%	

Data Entry by: [signature] Date: 07/14/95

Approved by: [signature] Date: 7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		13	13
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	5	1
1785	COUNT TIME in MINUTES	(CT)	30	30
AT or IB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.050	0.050
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	11.51	11.51
Matrix	EFFICIENCY FACTOR	(EFF)	0.2322	0.2322
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.233	0.233
Sample #	Sample Concentration in µCi/g	<	7.87E-04	BOOK#
S95T1109	Replicate Concentration in µCi/g	<	7.87E-04	
Instrument Code				
WB27810	Maximum Concentration in µCi/g	<	7.8657E-04	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 7.87E-04	DETECTION LEVEL
LESS Than Value was Determined from Lc.				1.88E-03 µCi/g
RELATIVE COUNTING ERROR		=	183.3%	

Data Entry by:	[signature]	Date:	07/14/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		13	13
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	415	427
1785	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.050	0.050
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	11.51	11.51
Matrix	EFFICIENCY FACTOR	(EFF)	0.2322	0.2322
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		13.533	13.933
Sample #	Sample Concentration in µCi/g		4.56E-02	BOOK#
S95T1109	Replicate Concentration in µCi/g		4.70E-02	
Instrument Code				
WB27810	Average Concentration in µCi/g		4.6293E-02	
Analyst				
AKL				
Date				
07/13/95				
Time				
01:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

				DETECTION LEVEL
ALPHA TOTAL	in µCi/g	(Average) =	4.63E-02	
				1.88E-03 µCi/g
RELATIVE COUNTING ERROR		=	9.9%	

Data Entry by: Sharon Lefebvre Date: 07/14/95

Approved by: [illegible] Date: 7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DF- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		13	13
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	389	383
1785	COUNT TIME in MINUTES	(CT)	30	30
AT or IS ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.050	0.050
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	11.4852	11.4852
Matrix	EFFICIENCY FACTOR	(EFF)	0.2322	0.2322
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		12.667	12.467
Sample #	Sample Concentration in µCi/g		4.28E-02	BOOK#
S95T1109	Replicate Concentration in µCi/g		4.21E-02	
Instrument Code				
WB27810	Average Concentration in µCi/g		4.2452E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

				DETECTION LEVEL
ALPHA TOTAL	in µCi/g	(Average) =	4.25E-02	
				1.88E-03 µCi/g
RELATIVE COUNTING ERROR		=	10.4%	

Data Entry by:	[signature]	Date:	07/14/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)
LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
DETECTOR NUMBER			13	13
DISH SIZE 1 , 2 , or 5		(MS)	2	2
TOTAL COUNTS		(TC)	57408	53470
COUNT TIME in MINUTES		(CT)	30	30
BACKGROUND in cpm		(BKG)	0.3	0.3
SAMPLE VOLUME in mL	(Spiked Vial)	(SS)	0.050	0.050
SAMPLE DILUTION FACTOR	(Spiked Vial)	(DF)	1	1
DIGEST GRAMS of SOLIDS/L		(Dg/L)	11.51	11.51
SPIKE VOLUME in mL		(SVol)	0.100	0.100
SPIKE DILUTION FACTOR		(SDF)	1	1
SPIKE VALUE in µCi/L		(SVal)	44.787	44.787
INSTRUMENT EFFICIENCY FACTOR		(EFF)	0.2322	0.2322
SAMPLE + SPIKE µCi/g		(S+S)	6.45E+00	6.01E+00
AVERAGE or MAXIMUM µCi/g from FORM C			4.6293E-02	
BOOK#			112B43	

Type	SPIKE
Work List	1785
AT or TB ?	AT
Test Code	@ALPHA01
Matrix	SOLID
Sample #	S95T1109
Instrument Code	WB27810
Analyst	AKL
Date	07/13/95
Time	01:00 PM

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 79.4%**

Data Entry by:	Shyron L Uglik	Date:	14-Jul-95
Approved by:	[illegible]	Date:	7-17-95

Form 508101_X Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		13	13
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	225	244
1785	COUNT TIME in MINUTES	(CT)	30	30
AT or 18 ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	4.0508	4.0508
Matrix	EFFICIENCY FACTOR	(EFF)	0.2322	0.2322
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		7.200	7.833
Sample #	Sample Concentration in µCi/g		3.45E-02	BOOK#
S95T1110	Replicate Concentration in µCi/g		3.75E-02	
Instrument Code				
WB27810	Average Concentration in µCi/g		3.5997E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.60E-02	DETECTION LEVEL
				2.67E-03 µCi/g
RELATIVE COUNTING ERROR		=	13.9%	

Data Entry by:	[signature]	Date:	07/14/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		13	13
DUPLICATE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	228	275
1785	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	4.0756	4.0756
Matrix	EFFICIENCY FACTOR	(EFF)	0.2322	0.2322
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		7.300	8.867
Sample #	Sample Concentration in µCi/g		3.47E-02	BOOK#
S95T1110	Replicate Concentration in µCi/g		4.22E-02	
Instrument Code				
WB27810	Average Concentration in µCi/g		3.8475E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.85E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	13.8%	2.65E-03 µCi/g

Data Entry by: [signature] Date: 07/14/95

Approved by: [signature] Date: 7-12-95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		13	13
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	50196	57200
1785	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	4.0508	4.0508
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.787	44.787
S95T1110	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2322	0.2322
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	8.01E+00	9.13E+00
WB27810	AVERAGE or MAXIMUM µCi/g from FORM C		3.5997E-02	
Analyst	BOOK#		112B43	
AKL				
Date				
07/13/95				
Time				
01:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 77.2%**

Data Entry by:	[signature]	Date:	14-Jul-95
Approved by:	[signature]	Date:	7-17-95

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1786

Analyst: AVL **Instrument:** AB00 16 WB27806 **Book #** 130B52

Method: LA-508-101 Rev/Mod D-2 WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Determine sample size using Ludlum. Use .100 mL A-SPK. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0.13			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	4	SAMPLE	S95T001132	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	4	SAMPLE	S95T001132	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	5	DUP	S95T001132	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	5	DUP	S95T001132	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	6	SPK	S95T001132	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	7	SAMPLE	S95T001133	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	7	SAMPLE	S95T001133	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	8	DUP	S95T001133	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	8	DUP	S95T001133	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	9	SPK	S95T001133	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1786

C J Lewis 7-13-95 Sharon L Walker 7-17-95

Data Entry Comments: Sample 1132 RPD is out of control limits. Sample will be rerun. [illegible] 7-17-95

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1786

GROUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature		Date			Analyst Signature			Date	

WHC-SD-WM-DP-137, REV. 1

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		16	16
STANDARD	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4140	4247
1786	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		137.600	141.167
Sample #	Sample Concentration in µCi/L		2.95E-02	BOOK#
WORKLIST#1786	Replicate Concentration in µCi/L		3.02E-02	130B52
Instrument Code				
WB27806	Average Concentration in µCi/L		2.9841E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/13/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.98E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.1%	1.35E-07 µCi/mL

Data Entry by: Shyma [illegible] Date: 07/14/95

Approved by: [illegible] Date: 7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137 REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		16	16
BLANK	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	2	1
1786	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.2764	7.2764
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.269	0.269
Sample #	Sample Concentration in µCi/g	<	7.93E-04	BOOK#
S95T1132	Replicate Concentration in µCi/g	<	7.93E-04	
Instrument Code				
WB27806	Maximum Concentration in µCi/g	<	7.9278E-04	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 7.93E-04	DETECTION LEVEL
LESS Than Value was Determined from Lc.				1.85E-03 µCi/g
RELATIVE COUNTING ERROR		=	73.3%	

Data Entry by:	[signature]	Date:	07/14/95
Approved by:	[signature]	Date:	7/12/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	514	395
1786	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.2764	7.2764
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		16.733	12.767
Sample #	Sample Concentration in µCi/g		4.92E-02	BOOK#
S95T1132	Replicate Concentration in µCi/g		3.76E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.3399E-02	
Analyst				
AKL				
Date				
07/13/95				
Time				
01:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.34E-02	DETECTION LEVEL
				1.85E-03 µCi/g
RELATIVE COUNTING ERROR		=	10.3%	

Data Entry by:	[signature]	Date:	07/14/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV.1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	526	583
1786	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.2652	7.2652
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		17.133	19.033
Sample #	Sample Concentration in µCi/g		5.05E-02	BOOK#
S95T1132	Replicate Concentration in µCi/g		5.61E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		5.3288E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.33E-02	DETECTION LEVEL
				1.86E-03 µCi/g
RELATIVE COUNTING ERROR		=	8.8%	

Data Entry by:	[signature]	Date:	07/14/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)
LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	55651	53376
1768	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.2764	7.2764
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.787	44.787
S95T1132	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	5.46E+00	5.23E+00
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		4.3399E-02	
Analyst	BOOK#		112B43	
AKL				
Date				
07/13/95				
Time				
01:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 86.1%**

Data Entry by:	[signature]	Date:	14-Jul-95
Approved by:	[signature]	Date:	7/17/95

Form 508101_X Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	479	512
1786	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.04	7.04
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		15.567	16.667
Sample #	Sample Concentration in µCi/g		4.73E-02	BOOK#
S95T1133	Replicate Concentration in µCi/g		5.07E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.9012E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/13/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
01:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.90E-02	DETECTION LEVEL
				1.91E-03 µCi/g
RELATIVE COUNTING ERROR		=	9.3%	

Data Entry by: Shyam L Yadav		Date:	07/14/95
Approved by: [signature]		Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	477	504
1768	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.056	7.056
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		15.500	16.400
Sample #	Sample Concentration in µCi/g		4.70E-02	BOOK#
S95T1133	Replicate Concentration in µCi/g		4.98E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.8395E-02	
Analyst				
AKL				
Date				
07/13/95				
Time				
01:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.84E-02	DETECTION LEVEL
				1.91E-03 µCi/g
RELATIVE COUNTING ERROR		=	9.3%	

Data Entry by: [signature] Date: 07/14/95

Approved by: [signature] Date: 7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)
LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	49967	51184
1768	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.04	7.04
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.787	44.787
S95T1133	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	5.06E+00	5.19E+00
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		4.9012E-02	
Analyst	BOOK#		112B43	
AKL				
Date				
07/13/95				
Time				
01:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 79.8%**

Data Entry by: Sharon [illegible] Date: 14-Jul-95

Approved by: [illegible] Date: 7/17/95

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1821

Analyst: RAG **Instrument:** AB00 #15 WB 26872 **Book #** 130 B52

Method: LA-508-101 Rev/Mod D-2 WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Use .250 mL sample volume. SLF Rerun # 1 SLF 7-14-95

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0 23			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	4	SAMPLE	S95T001063	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	4	SAMPLE	S95T001063	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	5	DUP	S95T001063	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	5	DUP	S95T001063	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error

Final page for worklist # 1821

Rae Ann Green 07-16-95
Analyst Signature Date

Sharon Walsh 7-18-95
Analyst Signature Date

Data Entry Comments:
The elevated RPD for sample 1063 is due to inhomogeneity. No further reruns are required. [illegible] 7/18/95

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		15	15
STANDARD	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4172	4335
1821	COUNT TIME in MINUTES	(CT)	30	30
AT or IB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		138.567	144.000
Sample #	Sample Concentration in µCi/L		2.62E-02	BOOK#
WORKLIST#1821	Replicate Concentration in µCi/L		2.73E-02	130B52
Instrument Code				
WB26872	Average Concentration in µCi/L		2.6740E-02	
Analyst				
RAG	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/16/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
04:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.67E-05	DETECTION LEVEL
				1.31E-07 µCi/mL
RELATIVE COUNTING ERROR		=	3.1%	

Data Entry by:	[signature]	Date:	07/17/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		15	15
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4	3
1821	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.162	2.162
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.301	0.301
Sample #	Sample Concentration in µCi/g	<	1.05E-03	BOOK#
S95T1063	Replicate Concentration in µCi/g	<	1.05E-03	
Instrument Code				
WB26872	Maximum Concentration in µCi/g	<	1.0549E-03	
Analyst				
RAG	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/16/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
04:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 1.05E-03	DETECTION LEVEL
LESS Than Value was Determined from Lc.				2.43E-03 µCi/g
RELATIVE COUNTING ERROR		=	77.7%	

Data Entry by: [signature] Date: 07/17/95

Approved by: [signature] Date: 7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	523	399
1821	COUNT TIME in MINUTES	(CT)	30	30
AT or TE ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.162	2.162
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		16.933	12.800
Sample #	Sample Concentration in µCi/g		5.93E-02	BOOK#
S95T1063	Replicate Concentration in µCi/g		4.48E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		5.2058E-02	
Analyst				
RAG	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/16/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
04:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.21E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	10.4%	2.43E-03 µCi/g

Data Entry by:	Sharon Hale	Date:	07/17/95
Approved by:	[illegible]	Date:	7/17/95

Form 508101_C Rev. 1.3

Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	39	37
1821	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1628	2.1628
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.800	0.733
Sample #	Sample Concentration in µCi/g		2.80E-03	BOOK#
S95T1063	Replicate Concentration in µCi/g		2.57E-03	
Instrument Code				
WB26872	Average Concentration in µCi/g		2.6836E-03	
Analyst				
RAG	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/16/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
04:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	2.68E-03	DETECTION LEVEL
				2.43E-03 µCi/g
RELATIVE COUNTING ERROR		=	64.2%	

Data Entry by:	Sharon [illegible]	Date:	07/17/95
Approved by:	[illegible]	Date:	7/17/95

Form 508101_C Rev. 1.3

LABCORE Data Entry Template for Worklist# 1822

Analyst: RAG **Instrument:** AB00 #14 WB27807 **Book #** 130352

Method: LA-508-101 Rev/Mod D-2 WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Use .100 mL sample volume. Rerun # 1. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	1.07			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	4	SAMPLE	S95T001064	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	4	SAMPLE	S95T001064	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	5	DUP	S95T001064	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	5	DUP	S95T001064	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error

Final page for worklist # 1822

Raylynn Green 07-16-95
Analyst Signature **Date**

[illegible] 7-17-95
Analyst Signature **Date**

Data Entry Comments: The elevated RPD for Sample 1064 is due to inhomogeneity. No further reruns are required. [illegible] 7/18/95

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		14	14
STANDARD	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4507	4109
1822	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		149.733	136.467
Sample #	Sample Concentration in µCi/L		2.97E-02	BOOK#
WORKLIST#1822	Replicate Concentration in µCi/L		2.70E-02	130B52
Instrument Code				
WB27807	Average Concentration in µCi/L		2.8346E-02	
Analyst				
RAG				
Date				
07/16/95				
Time				
05:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.83E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.1%	1.37E-07 µCi/mL

Data Entry by:	[signature]	Date:	07/17/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		14	14
BLANK	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	17	15
1822	COUNT TIME in MINUTES	(CT)	30	30
AT or TB #	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1684	2.1684
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.378	0.301
Sample #	Sample Concentration in µCi/g	<	3.45E-03	BOOK#
S95T1064	Replicate Concentration in µCi/g	<	2.75E-03	
Instrument Code				
WB27807	Maximum Concentration in µCi/g	<	3.4512E-03	
Analyst				
RAG	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/18/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
05:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 3.45E-03	DETECTION LEVEL
LESS THAN Value was Determined from Rmax.				6.33E-03 µCi/g
RELATIVE COUNTING ERROR		=	500.0%	

Data Entry by:	Shyrey Walker	Date:	07/17/95
Approved by:	[illegible]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	116	156
1822	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1684	2.1684
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		3.367	4.700
Sample #	Sample Concentration in µCi/g		3.08E-02	BOOK#
S95T1064	Replicate Concentration in µCi/g		4.29E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		3.6845E-02	
Analyst				
RAG	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/16/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
05:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.68E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	22.2%	6.33E-03 µCi/g

Data Entry by:	Shyamaj Ullah	Date:	07/17/95
Approved by:	[signature]	Date:	7/17/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	290	298
1822	COUNT TIME in MINUTES	(CT)	30	30
AT or TB #	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1988	2.1988
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		9.167	9.433
Sample #	Sample Concentration in µCi/g		8.26E-02	BOOK#
S95T1064	Replicate Concentration in µCi/g		8.50E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		8.3783E-02	
Analyst				
RAG	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/16/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
05:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	8.38E-02	DETECTION LEVEL
				6.24E-03 µCi/g
RELATIVE COUNTING ERROR		=	12.4%	

Data Entry by:	Steven Gilbert	Date:	07/17/95
Approved by:	[illegible]	Date:	7/17/95

Form 508101_C Rev. 1.3

LABCORE Data Entry Template for Worklist# 1824

Analyst: S C L. **Instrument:** AB00 14 UD 27507 **Book #** 130B52

Method: LA-508-101 Rev/Mod D-2 WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Determine sample size using Ludlum. Use .100 mL A-SPK. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0.56			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	4	SAMPLE	S95T001101	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	4	SAMPLE	S95T001101	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	5	DUP	S95T001101	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	5	DUP	S95T001101	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000085	B-104	6	SPK	S95T001101	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	7	SAMPLE	S95T001102	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000085	B-104	7	SAMPLE	S95T001102	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000085	B-104	8	DUP	S95T001102	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000085	B-104	8	DUP	S95T001102	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000085	B-104	9	SPK	S95T001102	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1824

Sue C Lai 7-18-95 Sharon L Valdez 7-20-95

Data Entry Comments:

Spike: 94B43

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1824

ROUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature		Date			Analyst Signature			Date	

WHC-SD-WM-DP-137, REV. 1

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		14	14
STANDARD	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	3764	3961
1824	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		124.867	131.433
Sample #	Sample Concentration in µCi/L		2.47E-02	BOOK#
WORKLIST#1824	Replicate Concentration in µCi/L		2.60E-02	130B43
Instrument Code				
WB27807	Average Concentration in µCi/L		2.5385E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/18/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.54E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.2%	1.49E-07 µCi/mL

Data Entry by:	Stephanie Hughes	Date:	07/19/95
Approved by:	[illegible]	Date:	7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		14	14
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	7	13
1824	COUNT TIME in MINUTES	(CT)	30	30
AT or IB?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.0728	2.0728
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.330	0.330
Sample #	Sample Concentration in µCi/g	<	3.19E-01	BOOK#
S95T1101	Replicate Concentration in µCi/g	<	3.19E-01	
Instrument Code				
WB27807	Maximum Concentration in µCi/g	<	3.1852E-01	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/18/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 3.19E-01	DETECTION LEVEL
LESS Than Value was Determined from Lc.				7.25E-01 µCi/g
RELATIVE COUNTING ERROR		=	218.3%	

Data Entry by:	Sharon [illegible]	Date:	07/19/95
Approved by:	[illegible]	Date:	7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	11	11
1824	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.0728	2.0728
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.330	0.330
Sample #	Sample Concentration in µCi/g	<	3.19E-01	BOOK#
S95T1101	Replicate Concentration in µCi/g	<	3.19E-01	
Instrument Code				
WB27807	Maximum Concentration in µCi/g	<	3.1852E-01	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/18/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 3.19E-01	DETECTION LEVEL
LESS Than Value was Determined from Lc.				7.25E-01 µCi/g
RELATIVE COUNTING ERROR		=	150.8%	

Data Entry by:	Shayon [illegible]	Date:	07/19/95
Approved by:	[illegible]	Date:	7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	9	15
1624	COUNT TIME in MINUTES	(CT)	30	30
AT or 18 ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1356	2.1356
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.330	0.330
Sample #	Sample Concentration in µCi/g	<	3.09E-01	BOOK#
S95T1101	Replicate Concentration in µCi/g	<	3.09E-01	
Instrument Code				
WB27807	Maximum Concentration in µCi/g	<	3.0915E-01	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/18/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 3.09E-01	DETECTION LEVEL
LESS Than Value was Determined from Lc.				7.03E-01 µCi/g
RELATIVE COUNTING ERROR		=	375.3%	

Data Entry by: Sharon L Hyde		Date:	07/19/95
Approved by:		Date:	7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137 REV. 1

AT : LA-508-101 (D-2)
LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		14	14
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	55159	53928
1824	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.0728	2.0728
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	36.357	36.357
S95T1101	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	1.77E+03	1.73E+03
WB27807	AVERAGE or MAXIMUM µCi/g from FORM C		<3.1852E-1	
Analyst	BOOK#		94B43	
SCL				
Date				
07/18/95				
Time				
11:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT AVG. PERCENT SPIKE RECOVERY = 99.0%

Data Entry by: [signature] Date: 19-Jul-95

Approved by: [signature] Date: 7/19/95

Form 508101_X Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
SAMPLE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	152	147
1824	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.002	2.002
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		4.467	4.300
Sample #	Sample Concentration in µCi/g		4.42E-02	BOOK#
S95T1102	Replicate Concentration in µCi/g		4.25E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		4.3371E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/18/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.34E-02	DETECTION LEVEL
				7.43E-03 µCi/g
RELATIVE COUNTING ERROR		=	19.5%	

Data Entry by:	Shawn Lyle	Date:	07/19/95
Approved by:	[illegible]	Date:	7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
DUPLICATE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	157	174
1824	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.044	2.044
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		4.633	5.200
Sample #	Sample Concentration in µCi/g		4.49E-02	BOOK#
S95T1102	Replicate Concentration in µCi/g		5.04E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		4.7648E-02	
Analyst				
SCL				
Date				
07/18/95				
Time				
11:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

				DETECTION LEVEL
ALPHA TOTAL	in µCi/g	(Average) =	4.76E-02	7.27E-03 µCi/g
RELATIVE COUNTING ERROR		=	18.7%	

Data Entry by: Shyam [illegible] Date: 07/19/95

Approved by: [illegible] Date: 7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV.1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
DETECTOR NUMBER			14	14
DISH SIZE 1 , 2 , or 5		(MS)	2	2
TOTAL COUNTS		(TC)	56125	57320
COUNT TIME in MINUTES		(CT)	30	30
BACKGROUND in cpm		(BKG)	0.6	0.6
SAMPLE VOLUME in mL	(Spiked Vial)	(SS)	0.100	0.100
SAMPLE DILUTION FACTOR	(Spiked Vial)	(DF)	1	1
DIGEST GRAMS of SOLIDS/L		(Dg/L)	2.002	2.002
SPIKE VOLUME in mL		(SVol)	0.100	0.100
SPIKE DILUTION FACTOR		(SDF)	1	1
SPIKE VALUE in µCi/L		(SVal)	36.357	36.357
INSTRUMENT EFFICIENCY FACTOR		(EFF)	0.2274	0.2274
SAMPLE + SPIKE µCi/g		(S+S)	1.85E+01	1.89E+01
AVERAGE or MAXIMUM µCi/g from FORM C			4.3371E-02	
BOOK#			94B43	

Type	
SPIKE	
Work List	
1824	
AT or TB ?	
AT	
Test Code	
@ALPHA01	
Matrix	
SOLID	
Sample #	
S95T1102	
Instrument Code	
WB27807	
Analyst	
SCL	
Date	
07/18/95	
Time	
11:00 AM	

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT | AVG. PERCENT SPIKE RECOVERY = 102.7%

Data Entry by: Sharon Hyatt		Date:	19-Jul-95
Approved by: [illegible]		Date:	7/19/95

LABCORE Data Entry Template for Worklist# 1825

Analyst: S.C.L. **Instrument:** AB00 14 W027807 **Book #** 130B52

Method: LA-508-101 Rev/Mod D-2

Worklist Comment: Determine sample size using Ludlum. Use .100 mL A-SPK. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0.93			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	4	SAMPLE	S95T001138	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	4	SAMPLE	S95T001138	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	5	DUP	S95T001138	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	5	DUP	S95T001138	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	6	SPK	S95T001138	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	7	SAMPLE	S95T001139	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	7	SAMPLE	S95T001139	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	8	DUP	S95T001139	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	8	DUP	S95T001139	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	9	SPK	S95T001139	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1825

Sue C Lan 7-17-95

~~7-19-95~~ SLF 7-18-95
Sharon L Clark 7-19-95

Data Entry Comments:

spike: 94B43

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1825

ROUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature		Date			Analyst Signature			Date	

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		14	14
STANDARD	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	3668	3741
1825	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		121.767	124.200
Sample #	Sample Concentration in µCi/L		2.41E-02	BOOK#
WORKLIST#1825	Replicate Concentration in µCi/L		2.46E-02	130b52
Instrument Code				
WB27807	Average Concentration in µCi/L		2.4361E-02	
Analyst				
SCL				
Date				
07/17/95				
Time				
11:30 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.44E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.3%	1.37E-07 µCi/mL

Data Entry by: Shyrya L Yoder Date: 07/18/95

Approved by: [signature] Date: 7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		14	14
BLANK	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	16	12
1825	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	20.132	20.132
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.340	0.301
Sample #	Sample Concentration in µCi/g	<	3.34E-04	BOOK#
S95T1138	Replicate Concentration in µCi/g	<	2.96E-04	
Instrument Code				
WB27807	Maximum Concentration in µCi/g	<	3.3411E-04	
Analyst				
SCL				
Date				
07/17/95				
Time				
11:30 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 3.34E-04	DETECTION LEVEL
LESS THAN Value was Determined from Rmax.				6.82E-04 µCi/g
RELATIVE COUNTING ERROR		=	500.0%	

Data Entry by:	Shannon L Hyde	Date:	07/18/95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137 REV 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
SAMPLE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	657	885
1825	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	20.132	20.132
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		21.400	29.000
Sample #	Sample Concentration in µCi/g		2.11E-02	BOOK#
S95T1138	Replicate Concentration in µCi/g		2.85E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		2.4795E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/17/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:30 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	2.48E-02	DETECTION LEVEL
				6.82E-04 µCi/g
RELATIVE COUNTING ERROR		=	7.9%	

Data Entry by:	Sharon L Yoder	Date:	07/18/95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	878	1030
1825	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	20.072	20.072
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		28.767	33.833
Sample #	Sample Concentration in µCi/g		2.84E-02	BOOK#
S95T1138	Replicate Concentration in µCi/g		3.34E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		3.0889E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/17/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:30 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.09E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	6.8%	6.84E-04 µCi/g

Data Entry by: Sharon L Yoder		Date:	07/18/95
Approved by: [signature]		Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		14	14
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	36381	43546
1825	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	20.132	20.132
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	36.358	36.358
S95T1138	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	1.19E+00	1.43E+00
WB27807	AVERAGE or MAXIMUM µCi/g from FORM C		2.4795E-02	
Analyst	BOOK#		94B43	
SCL				
Date				
07/17/95				
Time				
11:30 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT AVG. PERCENT SPIKE RECOVERY = 71.2%

Data Entry by:	Shyron L Walker	Date:	18-Jul-95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_X Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	934	959
1825	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	19.896	19.896
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		30.633	31.467
Sample #	Sample Concentration in µCi/g		3.05E-02	BOOK#
S95T1139	Replicate Concentration in µCi/g		3.13E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		3.0914E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/17/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:30 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.09E-02	DETECTION LEVEL
				6.90E-04 µCi/g
RELATIVE COUNTING ERROR		=	6.6%	

Data Entry by:	[signature]	Date:	07/18/95
Approved by:	[signature]	Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		14	14
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	991	1051
1825	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	19.756	19.756
Matrix	EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		32.533	34.533
Sample #	Sample Concentration in µCi/g		3.26E-02	BOOK#
S95T1139	Replicate Concentration in µCi/g		3.46E-02	
Instrument Code				
WB27807	Average Concentration in µCi/g		3.3623E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/17/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
11:30 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.36E-02	DETECTION LEVEL
				6.95E-04 µCi/g
RELATIVE COUNTING ERROR		=	6.4%	

Data Entry by: Sharon Fullerton		Date:	07/18/95
Approved by: [signature]		Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		14	14
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	41090	42710
1825	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	19.896	19.896
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	36.358	36.358
S95T1139	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2274	0.2274
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	1.36E+00	1.42E+00
WB27807	AVERAGE or MAXIMUM µCi/g from FORM C		3.0914E-02	
Analyst	BOOK#		94B43	
SCL				
Date				
07/17/95				
Time				
11:30 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT | AVG. PERCENT SPIKE RECOVERY = 74.4% |

Data Entry by:	Sharon L Wolf	Date:	18-Jul-95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1827

Analyst: AKL **Instrument:** AB00 15 WB26872 **Book #** 132B52

Method: LA-508-101 Rev/Mod D-2

Worklist Comment: Determine sample size using Ludlum. Use .100 mL A-SPK. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0.50			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	4	SAMPLE	S95T001150	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	4	SAMPLE	S95T001150	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	5	DUP	S95T001150	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	5	DUP	S95T001150	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	6	SPK	S95T001150	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	7	SAMPLE	S95T001151	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	7	SAMPLE	S95T001151	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	8	DUP	S95T001151	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	8	DUP	S95T001151	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	9	SPK	S95T001151	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1827

G Lewis 7-17-95 Sharon L Walker 7-19-95

Data Entry Comments: The sample sizes for all samples are .3 ml with a dilution factor of 1.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1827

ROUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature		Date			Analyst Signature			Date	

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		15	15
STANDARD	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4053	4158
1827	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		134.800	138.300
Sample #	Sample Concentration in µCi/L		2.55E-02	BOOK#
WORKLIST#1827	Replicate Concentration in µCi/L		2.62E-02	132B52
Instrument Code				
WB26872	Average Concentration in µCi/L		2.5844E-02	
Analyst				
AKL				
Date				
07/17/95				
Time				
02:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.58E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.1%	1.05E-07 µCi/mL

Data Entry by:	Sharon L Walsh	Date:	07/18/95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		15	15
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4	5
1827	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.300	0.300
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1128	2.1128
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.233	0.233
Sample #	Sample Concentration in µCi/g	<	6.97E-04	BOOK#
S95T1150	Replicate Concentration in µCi/g	<	6.97E-04	
Instrument Code				
WB26872	Maximum Concentration in µCi/g	<	6.9677E-04	
Analyst				
AKL				
Date				
07/17/95				
Time				
02:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 6.97E-04	DETECTION LEVEL
LESS Than Value was Determined from Lc.				1.66E-03 µCi/g
RELATIVE COUNTING ERROR		=	183.3%	

Data Entry by:	Shannon Holden	Date:	07/18/95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	448	359
1827	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.300	0.300
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1128	2.1128
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		14.633	11.667
Sample #	Sample Concentration in µCi/g		4.37E-02	BOOK#
S95T1150	Replicate Concentration in µCi/g		3.48E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		3.9266E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/17/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.93E-02	DETECTION LEVEL
				1.66E-03 µCi/g
RELATIVE COUNTING ERROR		=	10.7%	

Data Entry by:	[signature]	Date:	07/18/95
Approved by:	[signature]	Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	495	481
1827	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.300	0.300
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.0968	2.0968
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		16.200	15.733
Sample #	Sample Concentration in µCi/g		4.87E-02	BOOK#
S95T1150	Replicate Concentration in µCi/g		4.73E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		4.8040E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/17/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.80E-02	DETECTION LEVEL
				1.68E-03 µCi/g
RELATIVE COUNTING ERROR		=	9.2%	

Data Entry by:	[signature]	Date:	07/18/95
Approved by:	[signature]	Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		15	15
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	44486	41551
1827	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.300	0.300
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1128	2.1128
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.787	44.787
S95T1150	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.238	0.238
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	4.43E+00	4.13E+00
WB26872	AVERAGE or MAXIMUM µCi/g from FORM C		3.9266E-02	
Analyst	BOOK#		112B43	
AKL				
Date				
07/17/95				
Time				
02:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 60.0%**

Data Entry by:	Shyron J. Haley	Date:	18-Jul-95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_X Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
SAMPLE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	359	434
1827	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.300	0.300
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.3164	2.3164
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		11.667	14.167
Sample #	Sample Concentration in µCi/g		3.18E-02	BOOK#
S95T1151	Replicate Concentration in µCi/g		3.86E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		3.5179E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/17/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.52E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	10.7%	1.52E-03 µCi/g

Data Entry by:	Shyron Gaber	Date:	07/18/95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	412	426
1827	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE SIZE in mL	(SS)	0.300	0.300
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.2968	2.2968
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		13.433	13.900
Sample #	Sample Concentration in µCi/g		3.69E-02	BOOK#
S95T1151	Replicate Concentration in µCi/g		3.82E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		3.7539E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/17/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.75E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	10.0%	1.53E-03 µCi/g

Data Entry by: Shyron Hale Date: 07/18/95

Approved by: [signature] Date: 7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		15	15
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	51426	49976
1827	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.3	0.3
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.300	0.300
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.3164	2.3164
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.787	44.787
S95T1151	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.238	0.238
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	4.67E+00	4.54E+00
WB26872	AVERAGE or MAXIMUM µCi/g from FORM C		3.5179E-02	
Analyst	BOOK#		112B43	
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)			
07/17/95	PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100			
Time				
02:00 PM				

RESULT | AVG. PERCENT SPIKE RECOVERY = 70.9%

Data Entry by:		Date:	18-Jul-95
Approved by:		Date:	7/18/95

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1830

Analyst: AKL **Instrument:** AB00 16 WB27806 **Book #** 130852

Method: LA-508-101 Rev/Mod D-2

Worklist Comment: Determine sample size using Ludlum. Use .100 mL A-SPK. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	013			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	4	SAMPLE	S95T001156	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	4	SAMPLE	S95T001156	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	5	DUP	S95T001156	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	5	DUP	S95T001156	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	6	SPK	S95T001156	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	7	SAMPLE	S95T001157	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	7	SAMPLE	S95T001157	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	8	DUP	S95T001157	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	8	DUP	S95T001157	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	9	SPK	S95T001157	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1830

G Lewis 7/17/95 Sharon L Walch 7-19-95

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1830

GROUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature		Date			Analyst Signature			Date	

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		16	16
STANDARD	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4133	4222
1830	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		137.267	140.233
Sample #	Sample Concentration in µCi/L		2.94E-02	BOOK#
WORKLIST#1830	Replicate Concentration in µCi/L		3.00E-02	130B52
Instrument Code				
WB27806	Average Concentration in µCi/L		2.9705E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/17/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.97E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.1%	1.48E-07 µCi/mL

Data Entry by: Shyron Holden Date: 07/18/95

Approved by: [illegible] Date: 7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		16	16
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	2	2
1830	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.114	2.114
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.301	0.301
Sample #	Sample Concentration in µCi/g	<	1.22E-03	BOOK#
S95T1156	Replicate Concentration in µCi/g	<	1.22E-03	
Instrument Code				
WB27806	Maximum Concentration in µCi/g	<	1.2203E-03	
Analyst				
AKL				
Date				
07/17/95				
Time				
10:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 1.22E-03	DETECTION LEVEL
LESS Than Value was Determined from Lc.				2.81E-03 µCi/g
RELATIVE COUNTING ERROR		=	62.2%	

Data Entry by:	Shyam Uppal	Date:	07/18/95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	361	353
1830	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.114	2.114
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		11.533	11.267
Sample #	Sample Concentration in µCi/g		4.67E-02	BOOK#
S95T1156	Replicate Concentration in µCi/g		4.56E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.6181E-02	
Analyst				
AKL				
Date				
07/17/95				
Time				
10:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.62E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	11.1%	2.81E-03 µCi/g

Data Entry by:	Shyron Hyde	Date:	07/18/95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV.1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	334	346
1830	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1156	2.1156
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		10.533	10.933
Sample #	Sample Concentration in µCi/g		4.26E-02	BOOK#
S95T1156	Replicate Concentration in µCi/g		4.43E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.3447E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/17/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.34E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	11.6%	3.04E-03 µCi/g

Data Entry by: Thomas L Hoyle Date: 07/18/95

Approved by: [signature] Date: 7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	56662	56366
1830	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.250	0.250
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.114	2.114
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.787	44.787
S95T1156	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	7.65E+00	7.61E+00
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		4.6181E-02	
Analyst	BOOK#		112B43	
AKL				
Date				
07/17/95				
Time				
10:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 89.5%**

Data Entry by:	Sharon Lyford	Date:	18-Jul-95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_X Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	292	309
1830	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.0084	2.0084
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		9.233	9.800
Sample #	Sample Concentration in µCi/g		3.94E-02	BOOK#
S95T1157	Replicate Concentration in µCi/g		4.18E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.0578E-02	
Analyst				
AKL				
Date				
07/17/95				
Time				
10:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.06E-02	DETECTION LEVEL
				2.96E-03 µCi/g
RELATIVE COUNTING ERROR		=	12.4%	

Data Entry by:	Shawn Gilgen	Date:	07/18/95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	300	291
1830	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.0512	2.0512
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		9.500	9.200
Sample #	Sample Concentration in µCi/g		3.97E-02	BOOK#
S95T1157	Replicate Concentration in µCi/g		3.84E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		3.9036E-02	
Analyst				
AKL				
Date				
07/17/95				
Time				
10:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.90E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	12.4%	2.89E-03 µCi/g

Data Entry by:	Sharon [illegible]	Date:	07/18/95
Approved by:	[illegible]	Date:	7/18/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-QP- 137 REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	51263	52074
1830	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.250	0.250
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.0084	2.0084
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.787	44.787
S95T1157	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	7.28E+00	7.40E+00
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		4.0578E-02	
Analyst	BOOK#		112B43	
AKL				
Date				
07/17/95				
Time				
10:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT | AVG. PERCENT SPIKE RECOVERY = 81.9% |

Data Entry by: Sharon L. Gaddis		Date:	18-Jul-95
Approved by:		Date:	7/18/95

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1840

Analyst: S.C.L **Instrument:** AB00 16 **Book #** 130B52

Method: LA-508-101 Rev/Mod D-2

Worklist Comment: Use .05 mL for 1109 & .100 mL for 1110. Rerun #1 SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0.39			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	4	SAMPLE	S95T001109	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	4	SAMPLE	S95T001109	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	5	DUP	S95T001109	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	5	DUP	S95T001109	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	6	SPK	S95T001109	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	7	SAMPLE	S95T001110	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	7	SAMPLE	S95T001110	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	8	DUP	S95T001110	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	8	DUP	S95T001110	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	9	SPK	S95T001110	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1840

Sue C Lai 7-18-95 Sharon L Walker 7-20-95

Data Entry Comments:

spike: 112 B43

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1840

GROUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature		Date			Analyst Signature			Date	

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		16	16
STANDARD	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4588	4250
1840	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		152.333	141.067
Sample #	Sample Concentration in µCi/L		3.26E-02	BOOK#
WORKLIST#1840	Replicate Concentration in µCi/L		3.02E-02	130B52
Instrument Code				
WB27806	Average Concentration in µCi/L		3.1407E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/18/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	3.14E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.0%	1.61E-07 µCi/mL

Data Entry by:	Shyron L Walsh	Date:	07/19/95
Approved by:	[illegible]	Date:	7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		16	16
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	8	6
1840	COUNT TIME in MINUTES	(CT)	30	30
AT or TB 7	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	0.050	0.050
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	11.51	11.51
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.330	0.330
Sample #	Sample Concentration in µCi/g	<	1.23E-03	BOOK#
S95T1109	Replicate Concentration in µCi/g	<	1.23E-03	
Instrument Code				
WB27806	Maximum Concentration in µCi/g	<	1.2276E-03	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/18/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 1.23E-03	DETECTION LEVEL
LESS Than Value was Determined from Lc.				2.79E-03 µCi/g
RELATIVE COUNTING ERROR		=	99.9%	

Data Entry by:	Sharon [illegible]	Date:	07/19/95
Approved by:	[illegible]	Date:	7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	453	412
1840	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	0.050	0.050
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	11.51	11.51
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		14.500	13.133
Sample #	Sample Concentration in µCi/g		5.39E-02	BOOK#
S95T1109	Replicate Concentration in µCi/g		4.89E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		5.1400E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/18/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.14E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	10.3%	2.79E-03 µCi/g

Data Entry by:	[signature]	Date:	07/19/95
Approved by:	[signature]	Date:	7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	437	412
1840	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	0.050	0.050
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	11.4852	11.4852
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		13.967	13.133
Sample #	Sample Concentration in µCi/g		5.21E-02	BOOK#
S95T1109	Replicate Concentration in µCi/g		4.90E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		5.0516E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/18/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.05E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	10.3%	2.80E-03 µCi/g

Data Entry by:	[signature]	Date:	07/19/95
Approved by:	[signature]	Date:	7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)
LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	56397	49628
1840	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.050	0.050
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	11.51	11.51
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.787	44.787
S95T1109	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	6.99E+00	6.15E+00
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		5.1400E-02	
Analyst	BOOK#		112B43	
SCL				
Date				
07/18/95				
Time				
03:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT AVG. PERCENT SPIKE RECOVERY = 83.8%

Data Entry by: Sharon [illegible] Date: 19-Jul-95

Approved by: [illegible] Date: 7/19/95

Form 508101_X Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)
LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	251	226
1840	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	4.0508	4.0508
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		7.767	6.933
Sample #	Sample Concentration in µCi/g		4.10E-02	BOOK#
S95T1110	Replicate Concentration in µCi/g		3.66E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		3.8846E-02	
Analyst				
SCL				
Date				
07/18/95				
Time				
03:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.88E-02	DETECTION LEVEL
				3.97E-03 µCi/g
RELATIVE COUNTING ERROR		=	14.7%	

Data Entry by: Shana L Yaldo Date: 07/19/95

Approved by: [signature] Date: 7/19/95

Form 508101_C Rev. 1.3

86.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	247	275
1840	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	4.0756	4.0756
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		7.633	8.567
Sample #	Sample Concentration in µCi/g		4.01E-02	BOOK#
S95T1110	Replicate Concentration in µCi/g		4.50E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.2550E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/18/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.25E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	13.9%	3.94E-03 µCi/g

Data Entry by:	[signature]	Date:	07/19/95
Approved by:	[signature]	Date:	7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	53295	58410
1840	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.6	0.6
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	4.0508	4.0508
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.787	44.787
S95T1110	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	9.39E+00	1.03E+01
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		3.8846E-02	
Analyst	BOOK#		112B43	
SCL				
Date				
07/18/95				
Time				
03:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 88.6%**

Data Entry by:	Sharon L Yoder	Date:	19-Jul-95
Approved by:	[illegible]	Date:	7/19/95

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1841

Analyst: NK **Instrument:** AB00 15 WB 26372 **Book #** 132B52

Method: LA-508-101 Rev/Mod D-2

Worklist Comment: Use .100 ml sample size. Use .100 mL A-SPK. Rerun #1 SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0.53			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	4	SAMPLE	S95T001132	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	4	SAMPLE	S95T001132	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	5	DUP	S95T001132	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	5	DUP	S95T001132	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	6	SPK	S95T001132	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1841

Analyst Signature 7/18/95 Date

Analyst Signature ~~7/19/95~~ 7.20.95 Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		15	15
STANDARD	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4274	4262
1841	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		141.967	141.567
Sample #	Sample Concentration in µCi/L		2.69E-02	BOOK#
WORKLIST#1841	Replicate Concentration in µCi/L		2.68E-02	132B52
Instrument Code				
WB26872	Average Concentration in µCi/L		2.6831E-02	
Analyst				
RWK	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/18/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.68E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.0%	1.31E-07 µCi/mL

Data Entry by:	[signature]	Date:	07/19/95
Approved by:	[signature]	Date:	7/19/95

Form 508101_C Rev. 1.3 Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		15	15
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	9	7
1841	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.2764	7.2764
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.301	0.301
Sample #	Sample Concentration in µCi/g	<	7.84E-04	BOOK#
S95T1132	Replicate Concentration in µCi/g	<	7.84E-04	
Instrument Code				
WB26872	Maximum Concentration in µCi/g	<	7.8357E-04	
Analyst				
RWK	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/18/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 7.84E-04	DETECTION LEVEL
LESS Than Value was Determined from Lc.				1.80E-03 µCi/g
RELATIVE COUNTING ERROR		=	160.0%	

Data Entry by: Shayne Fitzpatrick Date: 07/19/95

Approved by: [signature] Date: 7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	338	408
1841	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.2764	7.2764
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		10.767	13.100
Sample #	Sample Concentration in µCi/g		2.80E-02	BOOK#
S95T1132	Replicate Concentration in µCi/g		3.41E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		3.1040E-02	
Analyst				
RWK	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/18/95				
Time	Relative Counting Error = [ ](The Square Root of TC + BKG * CT) / (TC - BKG * CT)[ ] * 1.96 * 100			
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.10E-02	DETECTION LEVEL
				1.80E-03 µCi/g
RELATIVE COUNTING ERROR		=	11.4%	

Data Entry by:	Sharon Walker	Date:	07/19/95
Approved by:	[illegible]	Date:	7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	561	605
1841	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.2652	7.2652
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		18.200	19.667
Sample #	Sample Concentration in µCi/g		4.74E-02	BOOK#
S95T1132	Replicate Concentration in µCi/g		5.12E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		4.9323E-02	
Analyst				
RWK	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/18/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.93E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	8.6%	1.81E-03 µCi/g

Data Entry by:	[signature]	Date:	07/19/95
Approved by:	[signature]	Date:	7/19/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		15	15
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	53914	51247
1841	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	7.2764	7.2764
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.787	44.787
S95T1132	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.238	0.238
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	4.67E+00	4.44E+00
WB26872	AVERAGE or MAXIMUM µCi/g from FORM C		3.1040E-02	
Analyst	BOOK#		112B43	
RWK				
Date				
07/18/95				
Time				
03:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 73.5%**

Data Entry by:	Sharon Hall	Date:	19-Jul-95
Approved by:	[illegible]	Date:	7/19/95

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1847

Analyst: AKL **Instrument:** AB00 16 WS27806 **Book #** 130B52

Method: LA-508-101 Rev/Mod D-2

Worklist Comment: Determine sample size using Ludlum. Use .100 mL A-SPK. SLF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0-50			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	4	SAMPLE	S95T001144	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	4	SAMPLE	S95T001144	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	5	DUP	S95T001144	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	5	DUP	S95T001144	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	6	SPK	S95T001144	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	7	SAMPLE	S95T001145	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	7	SAMPLE	S95T001145	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	8	DUP	S95T001145	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	8	DUP	S95T001145	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	9	SPK	S95T001145	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1847

A Lewis 7/19/95 Sharon L Hall 07-21-95

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1847

'ROUP	PROJECT	S TYPE	SAMPLE#	R A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature		Date				Analyst Signature			Date	

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		16	16
STANDARD	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	3926	4102
1847	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		130.367	136.233
Sample #	Sample Concentration in µCi/L		2.79E-02	BOOK#
WORKLIST#1847	Replicate Concentration in µCi/L		2.92E-02	130B52
Instrument Code				
WB27806	Average Concentration in µCi/L		2.8539E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/19/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:30 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.85E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.1%	1.48E-07 µCi/mL

Data Entry by:	[signature]	Date:	07/20/95
Approved by:	[signature]	Date:	JUL 21 [illegible]

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		16	16
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	10	5
1847	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.300	0.300
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.2988	2.2988
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.301	0.301
Sample #	Sample Concentration in µCi/g	<	9.35E-04	BOOK#
S95T1144	Replicate Concentration in µCi/g	<	9.35E-04	
Instrument Code				
WB27806	Maximum Concentration in µCi/g	<	9.3519E-04	
Analyst				
AKL				
Date				
07/19/95				
Time				
10:30 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 9.35E-04	DETECTION LEVEL
LESS Than Value was Determined from Lc.				
RELATIVE COUNTING ERROR		=	196.0%	2.15E-03 µCi/g

Data Entry by: Sharon L Yates Date: 07/20/95

Approved by: [signature] Date: JUL 21 1995

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	394	374
1847	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.300	0.300
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.2988	2.2988
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		12.633	11.967
Sample #	Sample Concentration in µCi/g		3.92E-02	BOOK#
S95T1144	Replicate Concentration in µCi/g		3.71E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		3.8184E-02	
Analyst				
AKL				
Date				
07/19/95				
Time				
10:30 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.82E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	10.8%	2.15E-03 µCi/g

Data Entry by: Shyron L. Waller Date: 07/20/95

Approved by: [illegible] Date: JUL 21 1995

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	395	366
1847	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.300	0.300
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.2584	2.2584
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		12.667	11.700
Sample #	Sample Concentration in µCi/g		4.00E-02	BOOK#
S95T1144	Replicate Concentration in µCi/g		3.70E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		3.8499E-02	
Analyst				
AKL				
Date				
07/19/95				
Time				
10:30 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.85E-02	DETECTION LEVEL
				2.19E-03 µCi/g
RELATIVE COUNTING ERROR		=	10.9%	

Data Entry by: Sharon L Walker Date: 07/20/95

Approved by: [signature] Date: JUL 21 1995

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	55276	54143
1847	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.300	0.300
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.2988	2.2988
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.786	44.786
S95T1144	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	5.72E+00	5.60E+00
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		3.8184E-02	
Analyst	BOOK#		112B43	
AKL				
Date				
07/19/95				
Time				
10:30 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT AVG. PERCENT SPIKE RECOVERY = 86.6%

Data Entry by: Sharon L Yates Date: 20-Jul-95

Approved by: S L Yates Date: JUL 21 1995

Form 508101_X Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	435	422
1847	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.300	0.300
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.242	2.242
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		14.000	13.567
Sample #	Sample Concentration in µCi/g		4.46E-02	BOOK#
S95T1145	Replicate Concentration in µCi/g		4.32E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.3873E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/19/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:30 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.39E-02	DETECTION LEVEL
				2.21E-03 µCi/g
RELATIVE COUNTING ERROR		=	10.1%	

Data Entry by: Sharon L Hale Date: 07/20/95

Approved by: [signature] Date: JUL 21 1995

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	387	401
1847	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.300	0.300
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.248	2.248
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		12.400	12.867
Sample #	Sample Concentration in µCi/g		3.94E-02	BOOK#
S95T1145	Replicate Concentration in µCi/g		4.08E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		4.0105E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/19/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:30 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.01E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	10.6%	2.20E-03 µCi/g

Data Entry by:	Sharon L Hurley	Date:	07/20/95
Approved by:	J A Cotter	Date:	JUL 21 1995

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	46711	56640
1847	COUNT TIME in MINUTES	(CT)	30	30
AT or TS ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.300	0.300
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.242	2.242
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.786	44.786
S95T1145	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	4.95E+00	6.01E+00
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		4.3873E-02	
Analyst	BOOK#		112B43	
AKL				
Date				
07/19/95				
Time				
10:30 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 81.7%**

Data Entry by: Sharon L Walsh Date: 20-Jul-95

Approved by: [signature] Date: JUL 21 1995

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1863

Analyst: S.C.L **Instrument:** AB00 16 UB27806 **Book #** 132 B52

Method: LA-508-101 Rev/Mod D-7

Worklist Comment: Use 0.250 mL of sample. Use 0.100 mL of A-Spk. sac

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0.43			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	4	SAMPLE	S95T001150	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	4	SAMPLE	S95T001150	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	5	DUP	S95T001150	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	5	DUP	S95T001150	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	6	SPK	S95T001150	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	7	SAMPLE	S95T001151	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	7	SAMPLE	S95T001151	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	8	DUP	S95T001151	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	8	DUP	S95T001151	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	9	SPK	S95T001151	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1863

Sue C Lai 1-21-95 Sharon L Walsh 7-25-95

Data Entry Comments:

High RPD for H50 is due to sample inhomogeneity.

A spike = 112 B43 Low SPK recoveries are due to high sample solids content.

No further reruns requested. 7/25/95

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1863

DUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature		Date			Analyst Signature			Date	

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP- 137 , REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		16	16
STANDARD	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	3825	3997
1863	COUNT TIME in MINUTES	(CT)	30	30
AT or 1B ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		127.000	132.733
Sample #	Sample Concentration in µCi/L		2.72E-02	BOOK#
WORKLIST#1863	Replicate Concentration in µCi/L		2.84E-02	132B52
Instrument Code				
WB27806	Average Concentration in µCi/L		2.7803E-02	
Analyst				
SCL				
Date				
07/21/95				
Time				
02:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)

ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.78E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.2%	1.48E-07 µCi/mL

Data Entry by: Sharon [illegible] Date: 07/24/95

Approved by: [illegible] Date: 7/24/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		16	16
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	9	4
1863	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1128	2.1128
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.301	0.301
Sample #	Sample Concentration in µCi/g	<	1.22E-03	BOOK#
S95T1150	Replicate Concentration in µCi/g	<	1.22E-03	
Instrument Code				
WB27806	Maximum Concentration in µCi/g	<	1.2210E-03	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/21/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 1.22E-03	DETECTION LEVEL
LESS Than Value was Determined from Lc.				2.81E-03 µCi/g
RELATIVE COUNTING ERROR		=	160.0%	

Data Entry by:	[signature]	Date:	07/24/95
Approved by:	[signature]	Date:	7/24/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	311	285
1863	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.1128	2.1128
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		9.867	9.000
Sample #	Sample Concentration in µCi/g		4.00E-02	BOOK#
S95T1150	Replicate Concentration in µCi/g		3.65E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		3.8236E-02	
Analyst				
SCL				
Date				
07/21/95				
Time				
02:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.82E-02	DETECTION LEVEL
				2.81E-03 µCi/g
RELATIVE COUNTING ERROR		=	12.6%	

Data Entry by:	Shyam Yadav	Date:	07/24/95
Approved by:	[illegible]	Date:	7/24/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	446	381
1863	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.0968	2.0968
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		14.367	12.200
Sample #	Sample Concentration in µCi/g		5.87E-02	BOOK#
S95T1150	Replicate Concentration in µCi/g		4.98E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		5.4251E-02	
Analyst				
SCL				
Date				
07/21/95				
Time				
02:00 PM				

Rs (Sample Count Rate) = (TC / CT) - BKG

ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)

Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100

Detection Levels and Less Than Values are determined from Procedure LA-508-002.

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	5.43E-02	DETECTION LEVEL
				2.83E-03 µCi/g
RELATIVE COUNTING ERROR		=	10.7%	

Data Entry by: [signature] Date: 07/24/95

Approved by: [signature] Date: 7/24/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)
LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
DETECTOR NUMBER			16	16
DISH SIZE 1 , 2 , or 5		(MS)	2	2
TOTAL COUNTS		(TC)	50008	30822
COUNT TIME in MINUTES		(CT)	30	30
BACKGROUND in cpm		(BKG)	0.5	0.5
SAMPLE VOLUME in mL	(Spiked Vial)	(SS)	0.250	0.250
SAMPLE DILUTION FACTOR	(Spiked Vial)	(DF)	1	1
DIGEST GRAMS of SOLIDS/L		(Dg/L)	2.1128	2.1128
SPIKE VOLUME in mL		(SVol)	0.100	0.100
SPIKE DILUTION FACTOR		(SDF)	1	1
SPIKE VALUE in µCi/L		(SVal)	44.786	44.786
INSTRUMENT EFFICIENCY FACTOR		(EFF)	0.2104	0.2104
SAMPLE + SPIKE µCi/g		(S+S)	6.75E+00	4.16E+00
AVERAGE or MAXIMUM µCi/g from FORM C			3.8236E-02	
BOOK#			112B43	

Type	Work List	AT or TB ?	Test Code	Matrix	Sample #	Instrument Code	Analyst	Date	Time
SPIKE	1863	AT	@ALPHA01	SOLID	S95T1150	WB27806	SCL	07/21/95	02:00 PM

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 63.9%**

Data Entry by:	[signature]	Date:	24-Jul-95
Approved by:	[signature]	Date:	7-24-95

Form 508101_X Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-132, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	324	335
1863	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.3164	2.3164
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		10.300	10.667
Sample #	Sample Concentration in µCi/g		3.81E-02	BOOK#
S95T1151	Replicate Concentration in µCi/g		3.94E-02	
Instrument Code				
WB27806	Average Concentration in µCi/g		3.8757E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/21/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.88E-02	DETECTION LEVEL
				2.56E-03 µCi/g
RELATIVE COUNTING ERROR		=	11.7%	

Data Entry by:	[signature]	Date:	07/24/95
Approved by:	[signature]	Date:	7/24/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		16	16
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	314	291
1863	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.5	0.5
AT	SAMPLE SIZE in mL	(SS)	0.250	0.250
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	2.2968	2.2968
Matrix	EFFICIENCY FACTOR	(EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		9.967	9.200
Sample #	Sample Concentration in µCi/g		3.72E-02	BOOK#
S95T1151	Replicate Concentration in µCi/g		3.43E-02	
Instrument Code				
WB27606	Average Concentration in µCi/g		3.5732E-02	
Analyst				
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/21/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.57E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	12.4%	2.58E-03 µCi/g

Data Entry by:	[signature]	Date:	07/24/95
Approved by:	[signature]	Date:	7/24/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
DETECTOR NUMBER			16	16
DISH SIZE 1 , 2 , or 5		(MS)	2	2
TOTAL COUNTS		(TC)	49157	38781
COUNT TIME in MINUTES		(CT)	30	30
BACKGROUND in cpm		(BKG)	0.5	0.5
SAMPLE VOLUME in mL	(Spiked Vial)	(SS)	0.250	0.250
SAMPLE DILUTION FACTOR	(Spiked Vial)	(DF)	1	1
DIGEST GRAMS of SOLIDS/L		(Dg/L)	2.3164	2.3164
SPIKE VOLUME in mL		(SVol)	0.100	0.100
SPIKE DILUTION FACTOR		(SDF)	1	1
SPIKE VALUE in µCi/L		(SVal)	44.786	44.786
INSTRUMENT EFFICIENCY FACTOR		(EFF)	0.2104	0.2104
SAMPLE + SPIKE µCi/g		(S+S)	6.06E+00	4.78E+00
AVERAGE or MAXIMUM µCi/g from FORM C			3.8757E-02	
BOOK#			112B43	

Type	SPIKE
Work List	1863
AT or TB ?	AT
Test Code	@ALPHA01
Matrix	SOLID
Sample #	S95T1151
Instrument Code	WB27806
Analyst	SCL
Date	07/21/95
Time	02:00 PM

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT **AVG. PERCENT SPIKE RECOVERY = 69.5%**

Data Entry by: [signature] Date: 24-Jul-95

Approved by: [signature] Date: 7/24/95

Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist# 1864

Analyst: AKL **Instrument:** AB00 15 WB26872 **Book #** 132B52

Method: LA-508-101 Rev/Mod D-2 WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Use 0.100 mL of sample. Use 0.100 mL of A-Spk. sac

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1	STD				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2	BLNK-PREP				@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2	BLNK-PREP				@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3	BLNK/BKG	0.33			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	4	SAMPLE	S95T001138	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	4	SAMPLE	S95T001138	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	5	DUP	S95T001138	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	5	DUP	S95T001138	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	6	SPK	S95T001138	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	7	SAMPLE	S95T001139	0		@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000088	B-104	7	SAMPLE	S95T001139	0		@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000088	B-104	8	DUP	S95T001139	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000088	B-104	8	DUP	S95T001139	0		@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000088	B-104	9	SPK	S95T001139	0		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist # 1864

A Lewis 7-21-95 Shannon Kelly 7-25-95

Data Entry Comments:

low spk recovery is due to high sample solids content. No further reruns requested. [illegible] 7/25/95

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1864

OUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
Analyst Signature		Date			Analyst Signature			Date	

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) LIQUIDS

			STANDARD	REPLICATE
Type	DETECTOR NUMBER		15	15
STANDARD	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4121	4063
1864	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	10.000	10.000
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR	(DDF)	1	1
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
LIQUID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		136.967	135.033
Sample #	Sample Concentration in µCi/L		2.59E-02	BOOK#
WORKLIST#1864	Replicate Concentration in µCi/L		2.56E-02	132B52
Instrument Code				
WB26872	Average Concentration in µCi/L		2.5740E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/L = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/µCi)			
07/21/95	ALPHA TOTAL µCi/mL = ALPHA TOTAL µCi/L / 1000mL/L			
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/mL	(Average) =	2.57E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	3.1%	1.19E-07 µCi/mL

Data Entry by:	[signature]	Date:	07/24/95
Approved by:	[signature]	Date:	7/24/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			BLANK	REPLICATE
Type	DETECTOR NUMBER		15	15
BLANK	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	4	4
1864	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	20.132	20.132
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		0.269	0.269
Sample #	Sample Concentration in µCi/g	<	2.53E-04	BOOK#
S95T1138	Replicate Concentration in µCi/g	<	2.53E-04	
Instrument Code				
WB26872	Maximum Concentration in µCi/g	<	2.5331E-04	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/21/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Maximum) =	< 2.53E-04	DETECTION LEVEL
LESS Than Value was Determined from Lc.				5.92E-04 µCi/g
RELATIVE COUNTING ERROR		=	98.0%	

Data Entry by:	Shyron Lyblade	Date:	07/24/95
Approved by:	[illegible]	Date:	7/24/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	1032	1102
1864	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	20.132	20.132
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		34.000	36.333
Sample #	Sample Concentration in µCi/g		3.20E-02	BOOK#
S95T1138	Replicate Concentration in µCi/g		3.42E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		3.3061E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/21/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.31E-02	DETECTION LEVEL
				5.92E-04 µCi/g
RELATIVE COUNTING ERROR		=	6.2%	

Data Entry by:	Sharon [illegible]	Date:	07/24/95
Approved by:	[illegible]	Date:	7/24/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
DUPLICATE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	1229	1195
1864	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	20.072	20.072
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		40.567	39.433
Sample #	Sample Concentration in µCi/g		3.83E-02	BOOK#
S95T1138	Replicate Concentration in µCi/g		3.72E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		3.7717E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/21/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.77E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	5.8%	5.94E-04 µCi/g

Data Entry by:	Sharon [illegible]	Date:	07/24/95
Approved by:	[illegible]	Date:	7/24/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

AT : LA-508-101 (D-2)
LA-548-101 (A-3) SOLIDS

Type	DETECTOR NUMBER		SPIKE	REPLICATE
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	58233	57566
1864	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	20.132	20.132
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.786	44.786
S95T1138	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.238	0.238
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	1.82E+00	1.80E+00
WB26872	AVERAGE or MAXIMUM µCi/g from FORM C		3.3061E-02	
Analyst	BOOK#		112B43	
AKL				
Date				
07/21/95				
Time				
10:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT | AVG. PERCENT SPIKE RECOVERY = 80.1%

Data Entry by:	Shyron L Ugler	Date:	24-Jul-95
Approved by:	[illegible]	Date:	7/24/95

Form 508101_X Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
SAMPLE	DISH SIZE 1, 2, or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	1104	1187
1864	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	19.896	19.896
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		36.400	39.167
Sample #	Sample Concentration in µCi/g		3.46E-02	BOOK#
S95T1139	Replicate Concentration in µCi/g		3.73E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		3.5942E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/21/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	3.59E-02	DETECTION LEVEL
				5.99E-04 µCi/g
RELATIVE COUNTING ERROR		=	6.0%	

Data Entry by:	Shayne L. Yoder	Date:	07/24/95
Approved by:	[signature]	Date:	7/24/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		15	15
DUPLICATE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	1345	1308
1864	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE SIZE in mL	(SS)	0.100	0.100
Test Code	DILUTION FACTOR	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	19.756	19.756
Matrix	EFFICIENCY FACTOR	(EFF)	0.2380	0.2380
SOLID	Lc, Rmax, or Rs,(SAMPLE RATE) as APPROPRIATE		44.433	43.200
Sample #	Sample Concentration in µCi/g		4.26E-02	BOOK#
S95T1139	Replicate Concentration in µCi/g		4.14E-02	
Instrument Code				
WB26872	Average Concentration in µCi/g		4.1977E-02	
Analyst				
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	ALPHA TOTAL µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
07/21/95				
Time	Relative Counting Error = [|(The Square Root of TC + BKG * CT) / (TC - BKG * CT)|] * 1.96 * 100			
10:00 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.			

v RESULTS v

ALPHA TOTAL	in µCi/g	(Average) =	4.20E-02	DETECTION LEVEL
RELATIVE COUNTING ERROR		=	5.5%	6.03E-04 µCi/g

Data Entry by: Sharon L Yoder Date: 07/24/95

Approved by: [signature] Date: 7/24/95

Form 508101_C Rev. 1.3

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER WHC-SD-WM-DP-137, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		15	15
SPIKE	DISH SIZE 1 , 2 , or 5	(MS)	2	2
Work List	TOTAL COUNTS	(TC)	57644	50788
1864	COUNT TIME in MINUTES	(CT)	30	30
AT or TB ?	BACKGROUND in cpm	(BKG)	0.4	0.4
AT	SAMPLE VOLUME in mL (Spiked Vial)	(SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial)	(DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L	(Dg/L)	19.896	19.896
Matrix	SPIKE VOLUME in mL	(SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR	(SDF)	1	1
Sample #	SPIKE VALUE in µCi/L	(SVal)	44.786	44.786
S95T1139	INSTRUMENT EFFICIENCY FACTOR	(EFF)	0.238	0.238
Instrument Code	SAMPLE + SPIKE µCi/g	(S+S)	1.83E+00	1.61E+00
WB26872	AVERAGE or MAXIMUM µCi/g from FORM C		3.5942E-02	
Analyst	BOOK#		112B43	
AKL				
Date				
07/21/95				
Time				
10:00 AM				

Rs (Sample Count Rate) = (TC / CT) - BKG

SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L *2220000dpm/µCi)

PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100

RESULT | AVG. PERCENT SPIKE RECOVERY = 74.8%

Data Entry by:	Sharon Hatch	Date:	24-Jul-95
Approved by:	[illegible]	Date:	7/24/95

Form 508101_X Rev. 1.3

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Westinghouse
Hanford Company

P.O. Box 1970 Richland, WA 99352

PART II

WHC-SD-WM-DP-137, REV. 1

WHC-SD-WM-DP-137, REV. 0

45-DAY SAFETY SCREEN RESULTS FOR TANK 241-B-104, PUSH-MODE CORES 88 AND 89

DATE PRINTED: JULY 26, 1995

54-7600-075

Hanford Operations and Engineering Contractor for the US Department of Energy

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45-DAY SAFETY SCREEN RESULTS FOR TANK-B-104, PUSH MODE, CORES 88 AND 89

Summary

Based on the safety screening decision rules, the data from this sampling event indicates that tank B-104 can be classified as a "safe" tank. However, the hydrostatic head fluid (HHF) used during the sampling event may have biased the percent water results. The analysis for the HHF for all the samples is 93% complete. The results as of July 27, 1995, indicate that most of the samples have less than the detectable amount of HHF. Only 4 of the 29 samples showed traces of lithium with less than 100 μg/g. Therefore, the water associated with the HHF will not likely affect the final results.

Tank B-104 was push-mode-sampled from risers 88 and 89 between June 1 and June 9, 1995. Two seven-segment core samples from tank B-104 were received at the 222-S laboratory between June 2 and June 15, 1995. These samples underwent safety screening analyses (differential scanning calorimetry [DSC], thermogravimetric analysis [TGA] and alpha total) (Reference 1). The test results indicate, with >90% confidence, that no safety screening notification limits were exceeded. The summary tables include sample and duplicate results associated with the core samples. Table 1 gives the results of a statistical analysis of the core sample results for percent water and alpha total. A statistical analysis was not run for DSC results because there were no exotherms. The table gives the mean, variance of the mean, and the lower (LL) and upper (UL) limits to 95% confidence interval of the mean. The variance of the mean was obtained using the analysis of variance method.

Table 1. 95 PERCENT TWO-TAILED CONFIDENCE INTERVAL LIMITS

ANALYTE	UNITS	MEAN	VARIANCE OF THE MEAN	LOWER LIMIT	UPPER LIMIT
% Water	%	47.08	1.06	34.02	60.14
Total Alpha	μCi/g	0.05	*0.00	0.00	0.21
DSC	Joules/g	0.00	N/A	N/A	N/A

N/A = Not Applicable
* = The actual number is 0.0001475

Two uncommon events occurred during the sampling and analysis events for Core 88, Segment 6, and Core 89, Segment 2. For Segment 6 of Core 88, a 24-hour delay occurred between the time the drill string was lowered and the time the sampler was inserted. For Segment 2 of Core 89, a power outage occurred in

the 222-S laboratory just as the extrusion process was completed. This power outage resulted in a laboratory evacuation immediately after the first photographs were taken. This sample was exposed to ambient hot cell conditions for two hours. The appearance of the sample did not change within the two hours and the sample did not appear significantly drier. This was confirmed by the analytical results.

Sample Receipt and Extrusion

Core 88, Segment 1, Sample 95-085 (Riser 2)

Sample 95-085 was collected from riser 2 of tank B-104 on June 1, 1995, and received at the 222-S laboratory on June 2, 1995. Extrusion took place on June 7, 1995. The total amount of solid material recovered was 86.4 grams and drainable liquid recovered being 273 grams. There were less than 5 mLs of liquid in the liner. The drainable liquid was opaque yellow. Near the end of the extrusion process, four to five inches of greenish-yellow solid sludge with some black specks were seen. All archiving requirements in accordance with the tank characterization plan (TCP) were performed on the unfiltered liquid and solid subsamples. The drainable liquid was subsampled for analysis after the solids had settled. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001049, S95T001050 and S95T001051.

Core 88, Segment 2, Sample 95-086 (Riser 2)

Sample 95-086 was collected from riser 2 of tank B-104 on June 2, 1995, and received at the 222-S laboratory on June 2, 1995. Extrusion took place on June 7, 1995. The total amount of solid material recovered was 329 grams (approximately 19 inches). No drainable liquid was recovered. The less-than five mLs of liner liquid was not retained. The solid was yellowish-olive moist sludge with embedded black specks. The solid was divided into half segments. All archiving requirements in accordance with the TCP were performed on the solid subsamples. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001054, S95T001055, S95T001056, and S95T001057.

Core 88, Segment 3, Sample 95-087 (Riser 2)

Sample 95-087 was collected from riser 2 of tank B-104 on June 2, 1995, and received at the 222-S laboratory on June 5, 1995. Extrusion took place on June 8, 1995. The total amount of solid material recovered was 402 grams (approximately 19 inches). No drainable liquid was recovered. The less-than five mLs of liner liquid was not retained. The solid was yellowish-olive moist sludge with embedded black specks throughout. The solid sample was divided into half segments. All archiving requirements in accordance with the TCP were performed on the solid subsamples. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001061, S95T001062, S95T001063, and S95T001064.

Core 88, Segment 4, Sample 95-088 (Riser 2)

Sample 95-088 was collected from riser 2 of tank B-104 on June 6, 1995, and received at the 222-S laboratory on June 8, 1995. Extrusion took place on June 9, 1995. The total amount of solid material recovered was 380 grams (approximately 19 inches). No drainable liquid was recovered. The less-than five mLs of liner liquid was not retained. The solid was yellowish-olive moist sludge with embedded black specks throughout. The lower half of the sample was very runny. The last five inches of the upper half of the segment retained its shape. The solid sample was divided into half segments. All archiving requirements in accordance with the TCP were performed on the solid subsamples. Subsamples were provided to the laboratory for analysis. The results appear in the summary table as sample numbers S95T001067, S95T001068, S95T001071, and S95T001072.

Core 88, Segment 5, Sample 95-089 (Riser 2)

Sample 95-089 was collected from riser 2 of tank B-104 on June 7, 1995, and received at the 222-S laboratory on June 8, 1995. Extrusion took place on June 9, 1995. The total amount of solid material recovered was 372 grams (approximately 19 inches). No drainable liquid was recovered. The less-than five mLs of liner liquid was not retained. The solid was yellowish-olive sludge with embedded black specks throughout. It was very wet and could not retain its shape. All archiving requirements in accordance with the TCP were performed on the solid subsamples. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001075, S95T001076, S95T001077, and S95T001079.

Core 88, Segment 6, Sample 95-090 (Riser 2)

Sample 95-090 was collected from riser 2 of tank B-104 on June 8, 1995, and received at the 222-S laboratory on June 9, 1995. During the sampling event for this segment, a 24-hour delay occurred between the time the drill string was lowered and the time the sampler was inserted. Therefore, there may be higher head fluid infiltration. Extrusion took place on June 13, 1995. The total amount of solid material recovered was 410 grams (approximately 19 inches). No drainable liquid was recovered. The less-than five mLs of liner liquid was not retained. The solid was yellowish-olive moist sludge. The first two inches of the upper segment contained black specks with more liquid (possible HHF contamination due to the 24-hour delay in sampling) than other segments. Approximately two inches of the bottom and 5 inches of the top of the segment did not hold shape. The sample had a small amount of light-green sludge spiraling throughout. The solid sample was divided into half segments. All archiving requirements in accordance with the TCP were performed on the solid subsamples. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001091, S95T001092, S95T001093, and S95T001094.

Core 88, Segment 7, Sample 95-091 (Riser 2)

Sample 95-091 was collected from riser 2 of tank B-104 on June 8, 1995, and received at the 222-S laboratory on June 9, 1995. Extrusion took place on June 14, 1995. The total amount of solid material recovered was 294 grams (approximately 17 inches). No drainable liquid was recovered. The less-than five mLs of liner liquid was not retained. The solid was yellowish-olive moist sludge with embedded black specks. The sample contained a small amount of light-green sludge spiraling throughout. The solid sample was divided into half segments. All archiving requirements in accordance with the TCP were performed on the solid subsamples. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001099, S95T001100, S95T001101, and S95T001102.

Core 89, Segment 1, Sample 95-092 (Riser 7)

Sample 95-092 was collected from riser 7 of tank B-104 on June 9, 1995, and received at the 222-S laboratory on June 12, 1995. Extrusion took place on June 14, 1995. The total amount of solid material recovered was 223 grams. The drainable liquid recovered was 127 grams of opaque, yellow-green fluid. There was approximately 10 mLs of liquid in the liner. The solid (about 14 inches) was yellow-brown to yellow-green with embedded black specks. All archiving requirements in accordance with the tank characterization plan (TCP) were performed on the unfiltered liquid and solid subsamples. The drainable liquid was subsampled for analysis after the solids had settled. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001104, S95T001107, S95T001108, S95T001109 and S95T001110.

Core 89, Segment 2, Sample 95-093 (Riser 7)

Sample 95-093 was collected from riser 7 of tank B-104 on June 9, 1995, and received at the 222-S laboratory on June 12, 1995. Extrusion took place on June 15, 1995. The total amount of solid material recovered was 295 grams (approximately 19 inches). No drainable liquid was recovered. The less-than five mLs of liner liquid was not retained. Just as the extrusion process was completed, a power outage occurred in the 222-S laboratory, requiring an evacuation immediately after the first two photographs were taken. This was exposed to ambient hot cell conditions for two hours. After returning to the hot cell, two more photographs were taken. The appearance of the sample did not change within two hours and the sample did not appear to have dried significantly. However, the water results could be biased low. The solid was yellow-green to yellow-brown. The solid sample was divided into half segments. All archiving requirements in accordance with the TCP were performed on the solid subsamples. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001113, S95T001114, S95T001115, and S95T001116.

Core 89, Segment 3, Sample 95-094 (Riser 7)

Sample 95-094 was collected from riser 7 of tank B-104 on June 13, 1995, and received at the 222-S laboratory on June 15, 1995. Extrusion took place on June 19, 1995. The total amount of solid material recovered was 305 grams (approximately 19 inches). No drainable liquid was recovered. The less-than five mLs of liner liquid was not retained. The solid was yellow-olive with a few black specks embedded in the upper half of the sample. The sample appeared smooth and wet and did not hold its shape after being extruded into the tray. All archiving requirements in accordance with the TCP were performed on the solid subsamples. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001130, S95T001131, S95T001132, and S95T001133.

Core 89, Segment 4, Sample 95-095 (Riser 7)

Sample 95-095 was collected from riser 7 of tank B-104 on June 13, 1995, and received at the 222-S laboratory on June 15, 1995. Extrusion took place on June 19, 1995. The total amount of solid material recovered was 360 grams (approximately 19 inches). No drainable liquid was recovered. The less-than five mLs of liner liquid was not retained. The solid was yellow-olive with a few black specks embedded throughout. The sample appeared smooth and wet and did not hold its shape after being extruded into the tray. All archiving requirements in accordance with the TCP were performed on the solid subsamples. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001136, S95T001137, S95T001138, and S95T001139.

Core 89, Segment 5, Sample 95-096 (Riser 7)

Sample 95-096 was collected from riser 7 of tank B-104 on June 13, 1995, and received at the 222-S laboratory on June 15, 1995. Extrusion took place on June 20, 1995. The total amount of solid material recovered was 412 grams (approximately 19 inches). No drainable liquid was recovered. The less-than five mLs of liner liquid was not retained. The solid was yellow-olive with a few black specks embedded in the sample. The sample appeared smooth and wet and held its shape after being extruded into the tray. The solid sample was divided into half segments. All archiving requirements in accordance with the TCP were performed on the solid subsamples. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001142, S95T001143, S95T001144, and S95T001145.

Core 89, Segment 6, Sample 95-097 (Riser 7)

Sample 95-097 was collected from riser 7 of tank B-104 on June 13, 1995, and received at the 222-S laboratory on June 15, 1995. Extrusion took place on June 20, 1995. The total amount of solid material recovered was 407 grams (approximately 19 inches). No drainable liquid was recovered. The less-than five mLs of liner liquid was not retained. The solid was yellow-olive with a few black specks embedded in the sample. The sample appeared smooth and wet and held its shape after being extruded into the tray. The solid sample was

divided into half segments. All archiving requirements in accordance with the TCP were performed on the solid subsamples. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001148, S95T001149, S95T001150, and S95T001151.

Core 89, Segment 7, Sample 95-098 (Riser 7)

Sample 95-098 was collected from riser 7 of tank B-104 on June 14, 1995, and received at the 222-S laboratory on June 15, 1995. Extrusion took place on June 20, 1995. The total amount of solid material recovered was 407 grams (approximately 19 inches). No drainable liquid was recovered. The approximately eight mLs of fluid contained in the liner was not retained. The solid was yellow-olive. It appeared smooth and wet and held its shape after being extruded into the tray. The solid sample was divided into half segments. All archiving requirements in accordance with the TCP were performed on the solid subsamples. Subsamples were provided to the laboratory for analysis. Results appear in the summary table as sample numbers S95T001154, S95T001155, S95T001156, and S95T001157.

Analytical Results

TGA (Moisture)

The weight percent water by TGA was performed using procedures LA-560-112, Rev. A-2, and LA-514-114, Rev. B-0, with a nitrogen purge. All results (Table 1) were above the notification limit (notification is made if the sample is analyzed at less than 17% water); therefore, no notifications were made. All samples met the precision and accuracy criteria stated in Reference 1, except samples S95T001049, S95T001068, and S95T001076. The TGA precision between the sample and duplicate for samples S95T001049, S95T001068, and S95T001076 exceeded the acceptance criteria, with relative percent deviation (RPD) values of 36.4, 40.9, and 11.9, respectively. The sample result for S95T001049 was 61.19% water, the duplicate 42.34%. A third analysis was run with a result of 48.98%. The mean of the three runs is 50.84%, with a standard deviation of 9.56. The sample result for S95T001068 was 42.50% water, the duplicate 28.08%. A third analysis was run with a result of 43.64%. The mean of the three runs is 38.07%, with a standard deviation of 8.67. The third results do not appear on Table 1, but are included in the raw data. The sample, duplicate, and triplicate results were run out of chronological order for S95T001068, with the triplicate being run first, and rejected initially because the run was ended at 250 versus 450 degrees. The analytical effect of this was deemed negligible following analysis of the sample and duplicate pair, and this first run was renamed the triplicate analysis. The sample result for S95T001076 was 49.84% water, the duplicate 44.24%. A third analysis was not run because the RPD was marginally above the 10% RPD request and additional runs would not add significant value and the water content was high for this sample.

An analysis of variance was performed using the data from this sampling event with the exception of the third analysis for samples S95T001049 and S95T001068. The lower limit to a 95% confidence interval of the mean is 34.02. Since the low limit is greater than 17%, the safety criteria has been

satisfied. That is, we are 95% confident that the mean percent water in the tank is greater than 17%.

DSC

Differential thermal analyses were performed using procedures LA-514-113, Rev. B-1, and LA-514-114, Rev B-0, under a nitrogen purge. All results were below the safety screen notification limit of 481 joules/g (dry); therefore, no notifications were made. No exotherms were observed in any of the samples.

Alpha Total

The alpha total analyses were performed using procedure LA-508-101, Rev. D-2. All alpha total results were below the notification limit. Nineteen of 27 samples exceeded the accuracy criteria. These samples demonstrated lower than normal spike recovery, with values ranging from 63.9 to 89.5% recovery. Twelve of 27 samples exceeded the acceptance criteria, with RPD values ranging from 11.7 to 180%. Because alpha activities in the samples were approximately 4 orders of magnitude less than the action limit for total alpha, a rerun was not requested for most of the sample. The results are contained in Table 3. Only the results from LABCORE are contained in this report.

An analysis of variance was performed using the data from this sampling event. The upper limit to the 95% confidence interval of the mean was 0.21 μCi/g. This indicates that we are 95% confident that the mean alpha activity in the tank is less than the safety limit of 41 μCi/g.

Project Coordinator: Jaiduk Jo

Reference: WHC-SD-WM-TP-349, REV. OA, "Tank 241-B-104 Tank Characterization Plan," dated May 5, 1995, Westinghouse Hanford Company, Richland, Washington.

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SAMPLE DATA SUMMARY

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Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 88
SEGMENT #: Blank

SEGMENT PORTION: n/a

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001084			% Water by TGA on Perkin Elmer	%	16.90	110.0	97.01	n/a	99.51	95.55	97.53	4.06	n/a	n/a	n/a
S95T001084			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001084			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	107.6	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a

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Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 88
SEGMENT #: 1

SEGMENT PORTION: W Whole Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001049			% Water by TGA using Mettler	%	16.90	110.0	99.86	n/a	61.19	42.34	51.77	36.4	n/a	n/a	n/a
S95T001049			DSC Exotherm on Perkin Elmer	Joules/g	-1.0e+00	481.1	97.82	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001049			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001050		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	98.08	<1.78e-03	3.90e-02	3.89e-02	3.89e-02	0.26	n/a	3.97e-03	13.3

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Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 88
SEGMENT #: 1

SEGMENT PORTION: Drainable Liquid

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001051			% Water by TGA using Mettler	%	16.90	110.0	99.64	n/a	51.68	49.90	50.79	3.50	n/a	n/a	n/a
S95T001051			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001051			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	104.4	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a

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Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 88
SEGMENT #: 2

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001054			% Water by TGA using Mettler	%	16.90	110.0	99.86	n/a	40.90	44.75	42.83	8.99	n/a	n/a	n/a
S95T001054			DSC Exotherm on Perkin Elmer	Joules/g	-1.0e+00	481.1	97.82	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001054			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001057		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	101.7	<1.19e-03	4.70e-02	4.42e-02	4.56e-02	6.14	n/a	1.61e-03	8.7

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001055			% Water by TGA on Perkin Elmer	%	16.90	110.0	97.23	n/a	49.93	49.14	49.53	1.59	n/a	n/a	n/a
S95T001055			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001055			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	107.2	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001056		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	98.08	<1.78e-03	4.51e-02	5.50e-02	5.00e-02	19.8	n/a	3.91e-03	13.3

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Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 88
SEGMENT #: 3

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001062			% Water by TGA using Mettler	%	16.90	110.0	99.64	n/a	44.18	40.79	42.48	7.98	n/a	n/a	n/a
S95T001062			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001062			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	95.61	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001064		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	95.61	<3.45e-03	3.68e-02	8.38e-02	6.03e-02	77.9	n/a	6.33e-03	22.2

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001061			% Water by TGA on Perkin Elmer	%	16.90	110.0	97.23	n/a	46.69	47.98	47.33	2.73	n/a	n/a	n/a
S95T001061			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001061			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	107.2	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001063		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	90.20	<1.05e-03	5.21e-02	2.68e-03	2.74e-02	180	n/a	2.43e-03	10.4

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Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 88
SEGMENT #: 4

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001068			% Water by TGA using Mettler	%	16.90	110.0	101.3	n/a	42.50	28.08	35.29	40.9	n/a	n/a	n/a
S95T001068			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001068			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	97.72	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001072		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	91.55	<2.51e-03	4.29e-02	4.90e-02	4.60e-02	13.3	87.20	5.87e-03	19.1

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001067			% Water by TGA using Mettler	%	16.90	110.0	101.3	n/a	46.69	44.72	45.70	4.31	n/a	n/a	n/a
S95T001067			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001067			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	97.72	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001071		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	91.55	<2.97e-03	5.34e-02	4.36e-02	4.85e-02	20.2	94.00	7.35e-03	17.6

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Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 88
SEGMENT #: 5

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001076			% Water by TGA using Mettler	%	16.90	110.0	97.33	n/a	49.84	44.24	47.04	11.9	n/a	n/a	n/a
S95T001076			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001076			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	99.37	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001079		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	101.7	<3.70e-03	5.16e-02	5.90e-02	5.53e-02	13.4	92.60	6.18e-03	17.9

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001075			% Water by TGA using Mettler	%	16.90	110.0	97.33	n/a	48.98	48.39	48.69	1.21	n/a	n/a	n/a
S95T001075			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001075			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	99.37	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001077		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	91.55	<2.51e-03	5.33e-02	5.68e-02	5.51e-02	6.36	92.20	6.62e-03	18.1

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Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 88
SEGMENT #: 6

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001092			% Water by TGA on Perkin Elmer	%	16.90	110.0	97.20	n/a	45.15	46.11	45.63	2.10	n/a	n/a	n/a
S95T001092			DSC Exotherm on Perkin Elmer	Joules/g	-1.0e+00	481.1	98.66	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001092			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001094		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	107.1	<8.50e-04	4.89e-02	4.35e-02	4.62e-02	11.7	82.30	2.10e-03	11.1

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001091			% Water by TGA on Perkin Elmer	%	16.90	110.0	97.20	n/a	46.15	46.26	46.20	0.24	n/a	n/a	n/a
S95T001091			DSC Exotherm on Perkin Elmer	Joules/g	-1.0e+00	481.1	98.66	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001091			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001093		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	101.7	<3.70e-03	3.72e-02	4.30e-02	4.01e-02	14.5	89.20	6.21e-03	21.5

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Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 88
SEGMENT #: 7

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001100			% Water by TGA using Mettler	%	16.90	110.0	101.1	n/a	46.20	47.65	46.92	3.09	n/a	n/a	n/a
S95T001100			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001100			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	99.47	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001102		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	85.81	<3.19e-01	4.34e-02	4.76e-02	4.55e-02	9.23	102.7	7.43e-03	19.5

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001099			% Water by TGA using Mettler	%	16.90	110.0	101.1	n/a	44.64	44.37	44.50	0.61	n/a	n/a	n/a
S95T001099			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001099			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	99.47	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001101		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	85.81	<3.19e-01	< 3.19e-1	<3.09e-1	n/a	n/a	99.00	7.25e-01	150.8

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Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 89
SEGMENT #: 1

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001108			% Water by TGA on Perkin Elmer	%	16.90	110.0	99.35	n/a	46.64	45.46	46.05	2.56	n/a	n/a	n/a
S95T001108			DSC Exotherm on Perkin Elmer	Joules/g	-1.0e+00	481.1	96.17	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001108			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001110		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	106.1	<1.23e-03	3.88e-02	4.25e-02	4.07e-02	9.10	88.60	3.97e-03	14.7

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001107			% Water by TGA on Perkin Elmer	%	16.90	110.0	99.35	n/a	47.84	47.14	47.49	1.47	n/a	n/a	n/a
S95T001107			DSC Exotherm on Perkin Elmer	Joules/g	-1.0e+00	481.1	96.17	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001107			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001109		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	106.1	<1.23e-03	5.14e-02	5.05e-02	5.10e-02	1.77	83.80	2.79e-03	10.3

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Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 89
SEGMENT #: 1

SEGMENT PORTION: Drainable Liquid

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001104			% Water by TGA using Mettler	%	16.90	110.0	99.48	n/a	53.69	53.11	53.40	1.09	n/a	n/a	n/a
S95T001104			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001104			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	105.1	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a

=> Limit violated
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867

WHC-SD-WM-DP-137, REV. 1

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A-0002-1

INTERIM

Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 89
SEGMENT #: 2

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001114			% Water by TGA on Perkin Elmer	%	16.90	110.0	98.01	n/a	48.32	48.13	48.23	0.39	n/a	n/a	n/a
S95T001114			DSC Exotherm on Perkin Elmer	Joules/g	-1.0e+00	481.1	92.09	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001114			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001116		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	103.4	<1.23e-03	4.09e-02	4.96e-02	4.52e-02	19.2	91.40	4.13e-03	14.6

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001113			% Water by TGA on Perkin Elmer	%	16.90	110.0	98.01	n/a	47.16	47.09	47.12	0.15	n/a	n/a	n/a
S95T001113			DSC Exotherm on Perkin Elmer	Joules/g	-1.0e+00	481.1	92.09	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001113			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001115		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	103.4	<1.23e-03	5.18e-02	5.09e-02	5.13e-02	1.75	89.20	2.83e-03	10.9

=> Limit violated
=> Selected Limit

INTERIM

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A-0002-1

INTERIM

Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 89
SEGMENT #: 3

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001131			% Water by TGA on Perkin Elmer	%	16.90	110.0	100.7	n/a	47.63	47.55	47.59	0.17	n/a	n/a	n/a
S95T001131			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001131			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	111.4	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001133		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	100.7	<7.93e-04	4.90e-02	4.84e-02	4.87e-02	1.23	79.80	1.91e-03	9.3

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001130			% Water by TGA on Perkin Elmer	%	16.90	110.0	100.7	n/a	47.93	46.20	47.06	3.68	n/a	n/a	n/a
S95T001130			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001130			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	111.4	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001132		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	96.06	<7.84e-04	3.10e-02	4.93e-02	4.01e-02	45.6	73.50	1.80e-03	11.4

=> Limit violated
=> Selected Limit

INTERIM

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A-0002-1

INTERIM

Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 89
SEGMENT #: 4

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001137			% Water by TGA using Mettler	%	16.90	110.0	98.82	n/a	48.17	48.24	48.20	0.15	n/a	n/a	n/a
S95T001137			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001137			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	106.2	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001139	F		Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	92.11	<2.53e-04	3.59e-02	4.20e-02	3.89e-02	15.7	74.80	5.99e-04	6.0

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001136			% Water by TGA using Mettler	%	16.90	110.0	98.82	n/a	46.97	47.23	47.10	0.55	n/a	n/a	n/a
S95T001136			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001136			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	106.2	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001138	F		Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	92.11	<2.53e-04	3.31e-02	3.77e-02	3.54e-02	13.0	80.10	5.92e-04	6.2

=> Limit violated
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INTERIM

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Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 89
SEGMENT #: 5

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001143			% Water by TGA using Mettler	%	16.90	110.0	100.8	n/a	49.80	49.08	49.44	1.46	n/a	n/a	n/a
S95T001143			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001143			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	104.4	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001145	F		Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	96.28	<9.35e-04	4.39e-02	4.01e-02	4.20e-02	9.05	81.70	2.21e-03	10.1

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001142			% Water by TGA using Mettler	%	16.90	110.0	100.8	n/a	47.12	47.40	47.26	0.59	n/a	n/a	n/a
S95T001142			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001142			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	104.4	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001144	F		Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	96.28	<9.35e-04	3.82e-02	3.85e-02	3.83e-02	0.78	86.60	2.15e-03	10.8

=> Limit violated
=> Selected Limit

INTERIM

28-Jul-1995 08:50:39
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INTERIM

Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 89
SEGMENT #: 6

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001149			% Water by TGA using Mettler	%	16.90	110.0	109.1	n/a	46.98	47.07	47.02	0.19	n/a	n/a	n/a
S95T001149			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001149			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	105.4	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001151	F		Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	99.64	<1.22e-03	3.88e-02	3.57e-02	3.73e-02	8.32	69.50	2.56e-03	11.7

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001148			% Water by TGA using Mettler	%	16.90	110.0	109.1	n/a	50.27	48.02	49.15	4.58	n/a	n/a	n/a
S95T001148			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001148			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	105.4	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001150	F		Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	99.64	<1.22e-03	3.82e-02	5.43e-02	4.62e-02	34.8	63.90	2.81e-03	12.6

=> Limit violated
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INTERIM

872

WHC-SD-WM-DP-137, REV.1

28-Jul-1995 08:50:55
A-0002-1

INTERIM

Tank 241-B-104 Safety Screening Data
B-104

CORE NUMBER: 89
SEGMENT #: 7

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001155			% Water by TGA using Mettler	%	16.90	110.0	102.1	n/a	46.62	46.56	46.59	0.13	n/a	n/a	n/a
S95T001155			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001155			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	109.7	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001157		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	100.3	<1.22e-03	4.06e-02	3.90e-02	3.98e-02	4.02	81.90	2.96e-03	12.4

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001154			% Water by TGA using Mettler	%	16.90	110.0	102.1	n/a	47.88	47.82	47.85	0.13	n/a	n/a	n/a
S95T001154			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+00	481.1	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001154			DSC Exotherm using Mettler	Joules/g	-1.0e+00	481.1	109.7	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001156		F	Alpha of Digested Solid	uCi/g	-1.0e+00	41.10	100.3	<1.22e-03	4.62e-02	4.34e-02	4.48e-02	6.25	89.50	2.81e-03	11.1

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LABCORE Data Entry Template for Worklist# 1541

Analyst: RMM Instrument: DSC0 1 Book # 12N/4-A

Method: LA-514-113 Rev/Mod B-1 WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-01	LIQUID	28.45	29.7	N/A	Joules/g
95000085	B-104	2 SAMPLE	S95T001051	0		DSC-01	LIQUID	N/A	Ø		Joules/g
95000085	B-104	3 DUP	S95T001051	0		DSC-01	LIQUID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1541

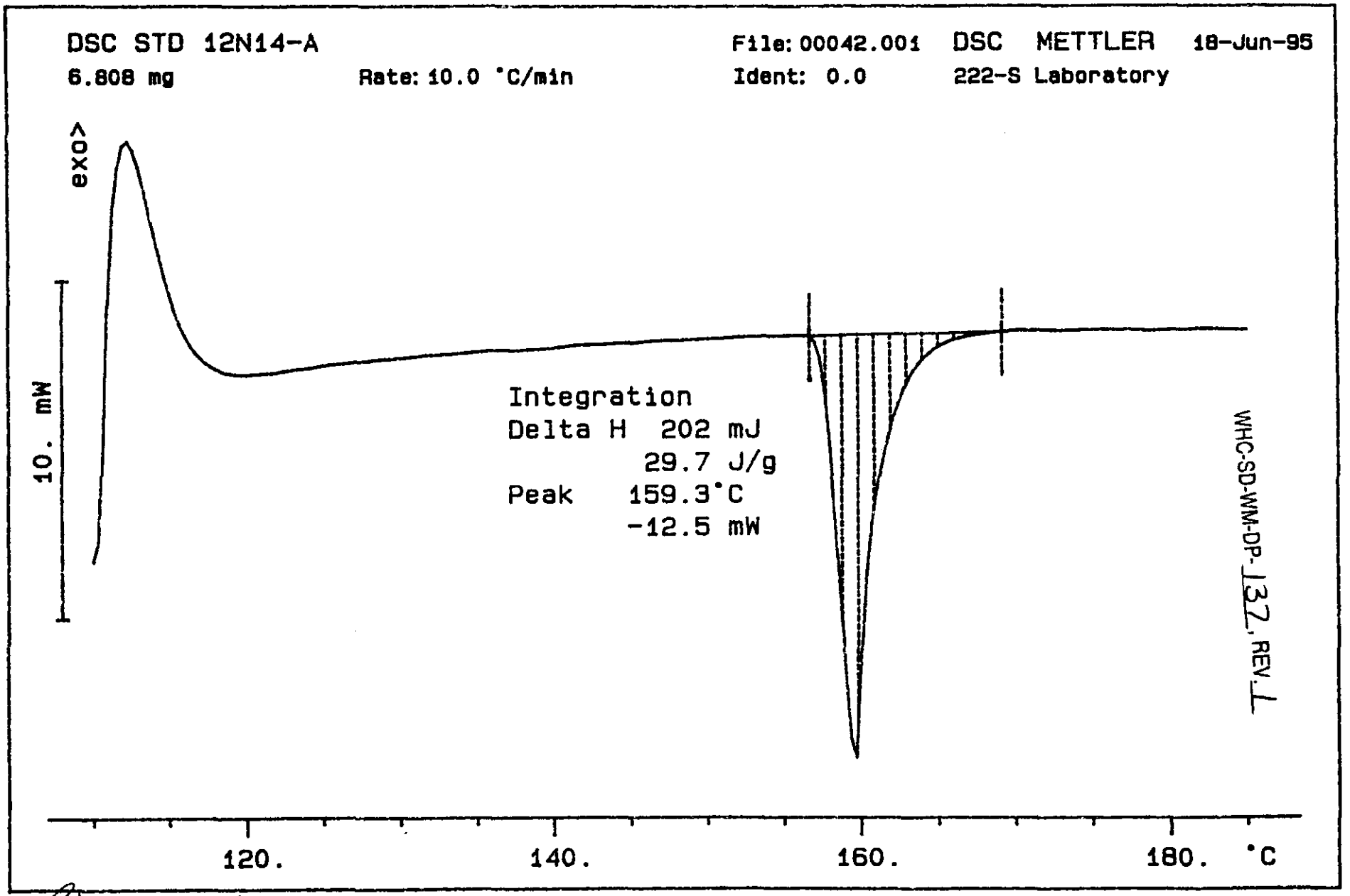
RMM 6/18/95
Analyst Signature Date

6-19-95
Analyst Signature Date

Verified by Blandina Valenzuela 6/20/95

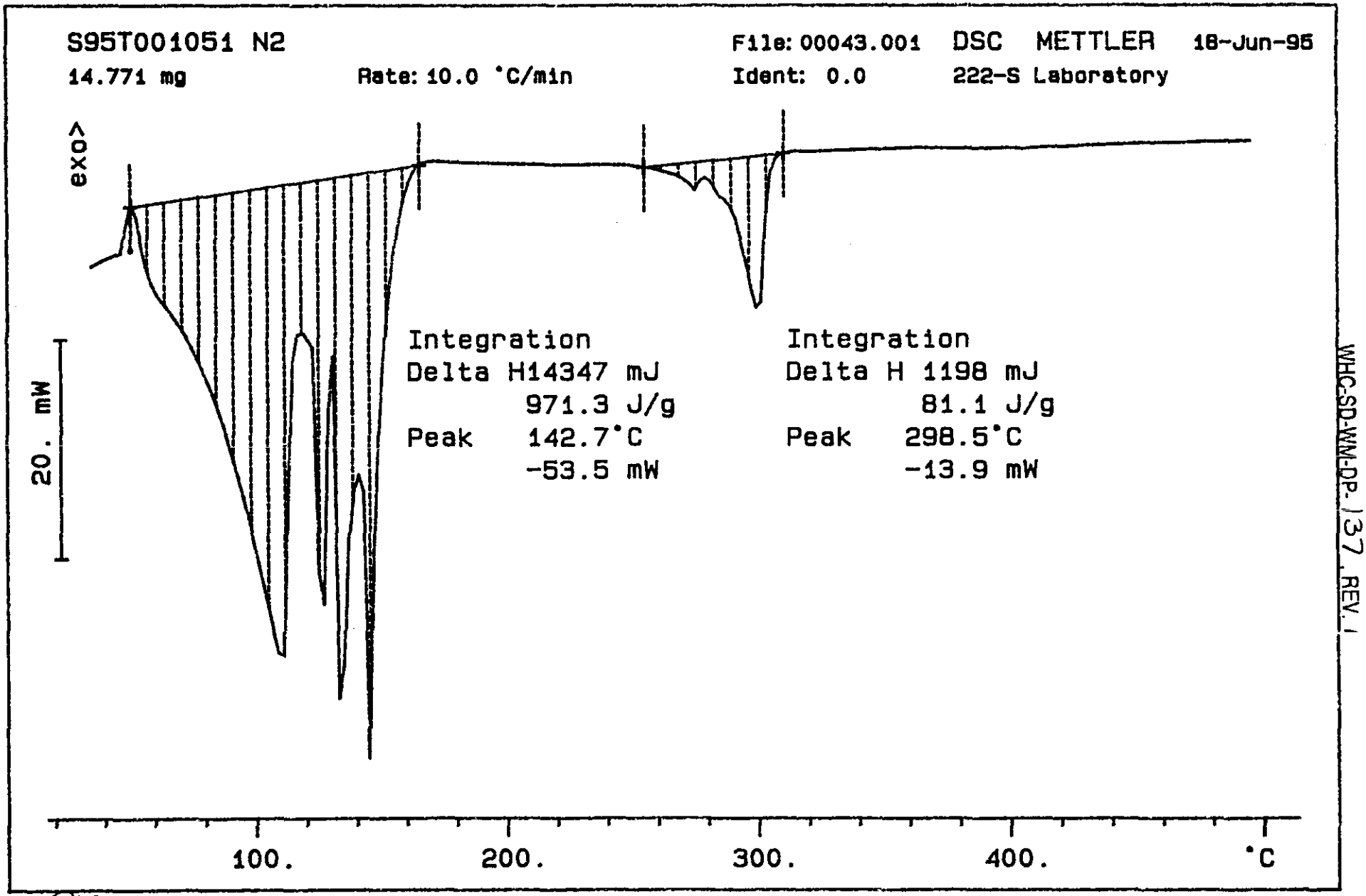
Data Entry Comments: S95T001051 produced two endothermic regions one at 142.7°C with a delta H of 971.3 J/g and the second at 298.5°C with a delta H of 81.1 J/g.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

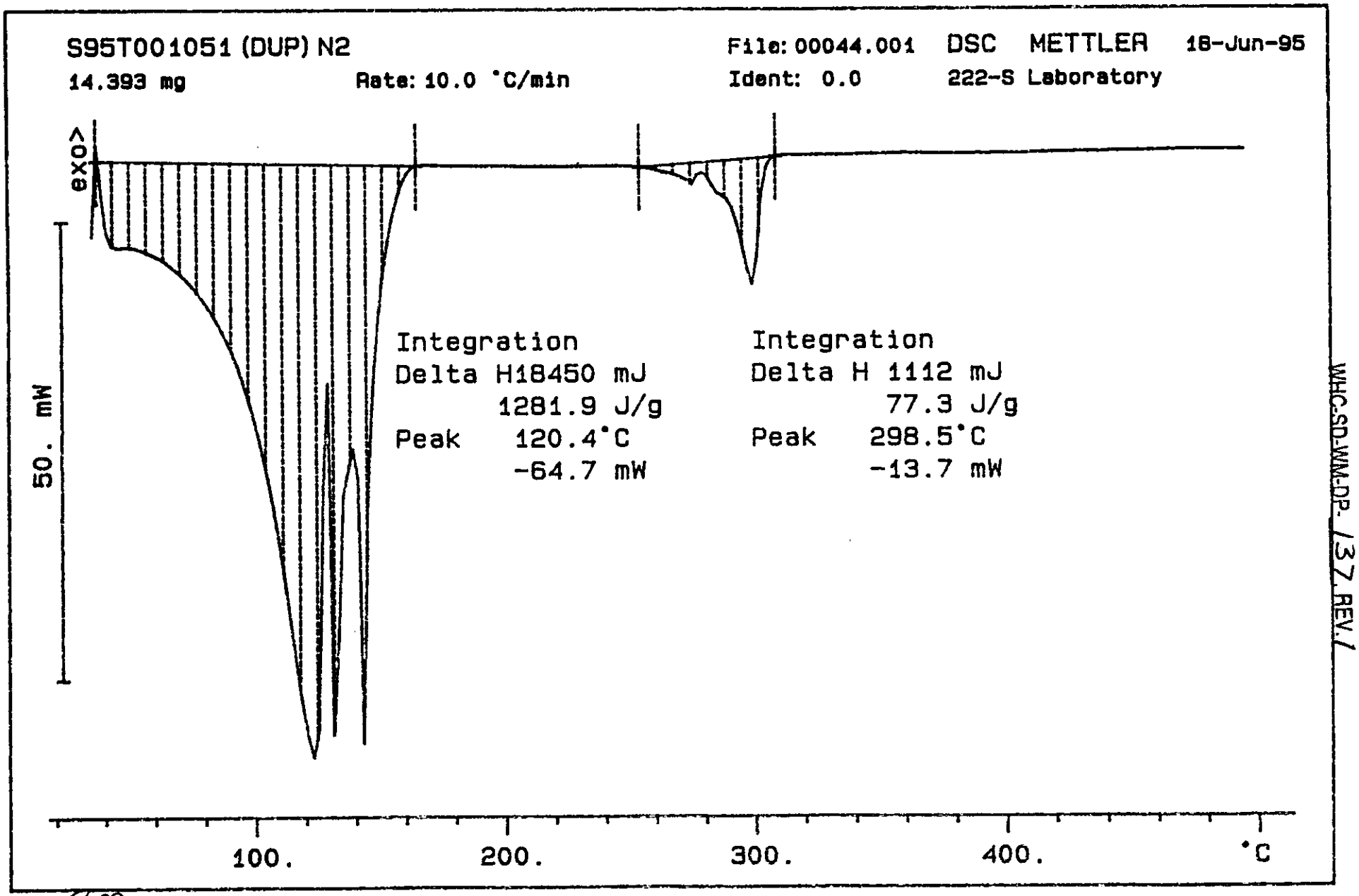


WHC-SD-WM-DP-137, REV. 1

6/18/95



R Mayer 6/18/95



WHC-SD-WM-DP-137, REV. 1

878

6/18/95

LABCORE Data Entry Template for Worklist# 1558

Analyst: JDS **Instrument:** DSC0 3 **Book #** 12N14-A

Method: LA-514-114 Rev/Mod B-0

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-03	SOLID	28.45	27.83	N/A	Joules/g
95000085	B-104	2	SAMPLE	S95T001049	0		DSC-03	SOLID	N/A	Ø		Joules/g
95000085	B-104	3	DUP	S95T001049	0		DSC-03	SOLID	Ø	Ø	N/A	Joules/g
95000085	B-104	4	SAMPLE	S95T001054	0		DSC-03	SOLID	N/A	Ø		Joules/g
95000085	B-104	5	DUP	S95T001054	0		DSC-03	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1558

See attached for signatures
Analyst Signature Date 6/28/95

Analyst Signature Date 6-29-95

Verified by Blandina Valenzuela BDV 6/29/95

S95T001049 produced two endotherms, one at 121.7°C with a delta H of 568.7 J/g and the second at 297.9°C with a delta H of 46.8 J/g.

Data Entry Comments: S95T001054 produced two endotherms, one at 115.2°C with a delta H of 946.7 J/g and the second at 299.0°C with a delta H of 54.5 J/g

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1558

Analyst: Jds **Instrument:** DSC0 **Book #** 12N/41

Method: LA-514-113 Rev/Mod

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
95000085	B-104	2	SAMPLE	S95T001049	0		DSC-01	SOLID	N/A			Joules/g
95000085	B-104	3	DUP	S95T001049	0		DSC-01	SOLID			N/A	Joules/g
95000085	B-104	4	SAMPLE	S95T001054	0		DSC-01	SOLID	N/A			Joules/g
95000085	B-104	5	DUP	S95T001054	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 1558

JA Spk 6-27-95

Analyst Signature **Date**

Analyst Signature **Date**

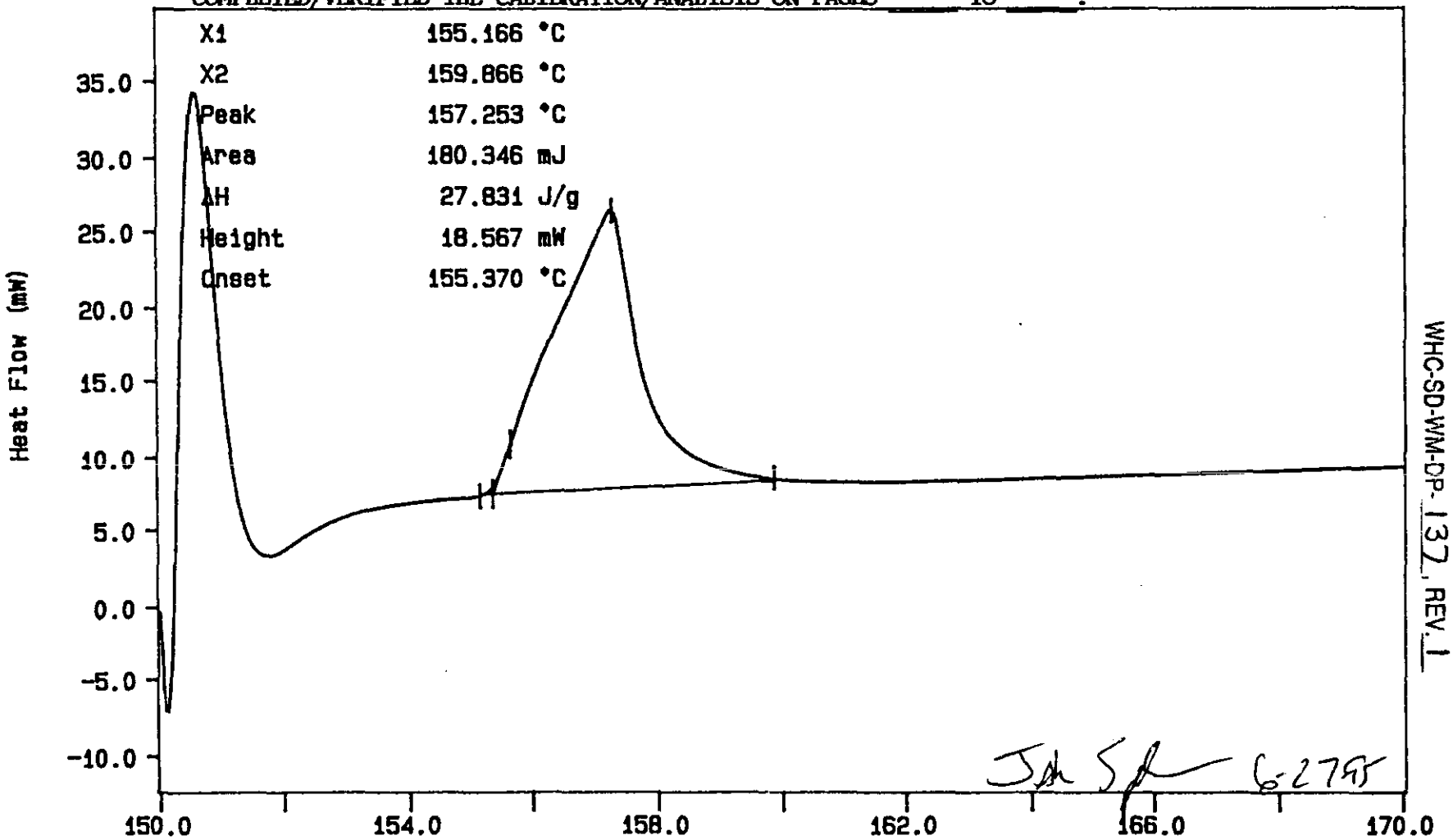
Other instrument was used.
6/28/95
BDV

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND062702 Tue Jun 27 15:20:12 1995
Sample Weight: 6.480 mg
DSC STD 12N14A

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES _____ TO _____.

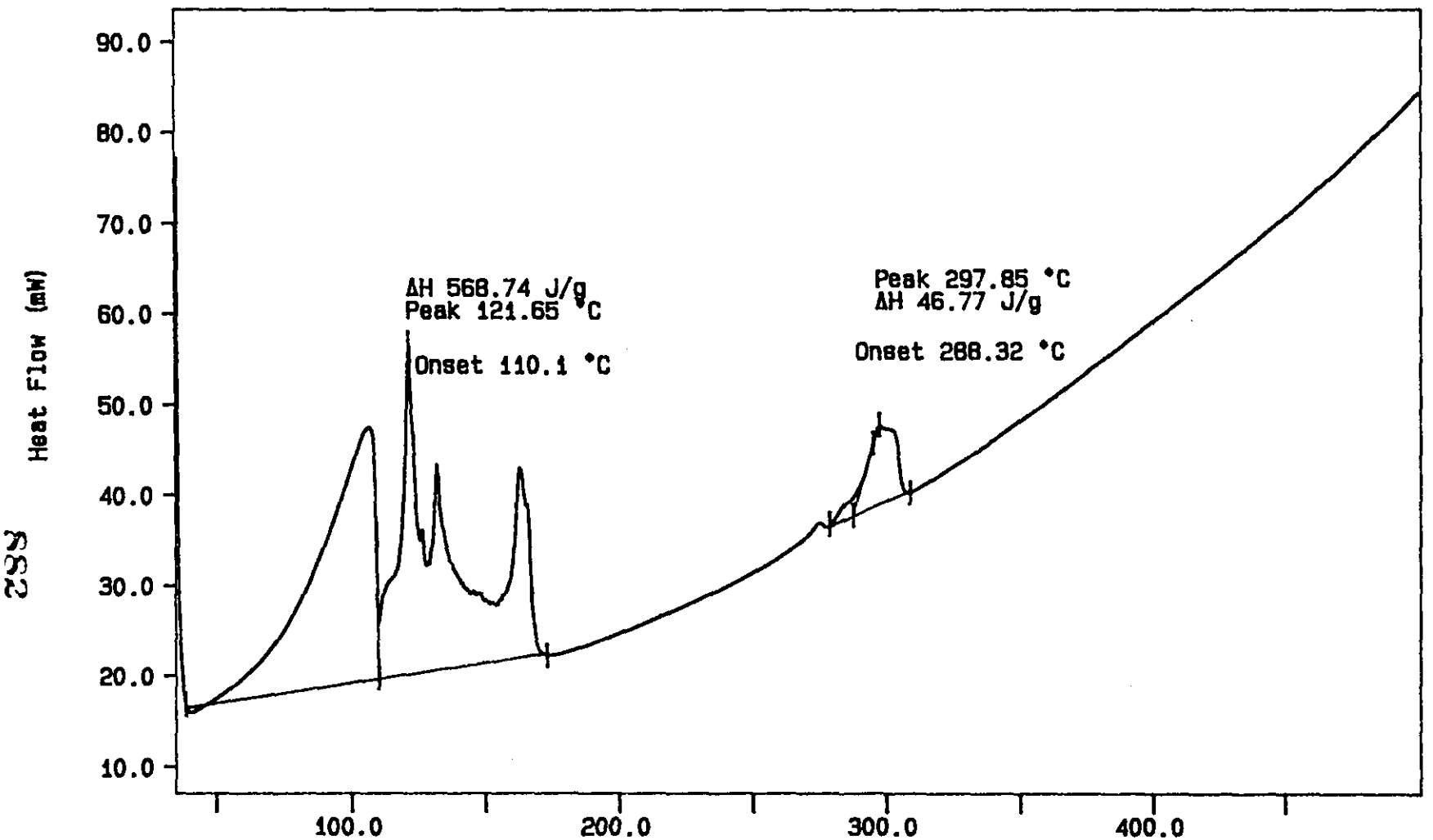


N2 exotherm down
TEMP1: 150.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 170.0 C

JD SPELLMAN
PERKIN ELMER
222-S Lab
Tue Jun 27 16:28:24 1995

WHC-SD-WM-DP-137, REV 1

Curve 1: DSC
File info: SAM062703 Tue Jun 27 17:28:49 1995
Sample Weight: 14.940 mg
S95T001049



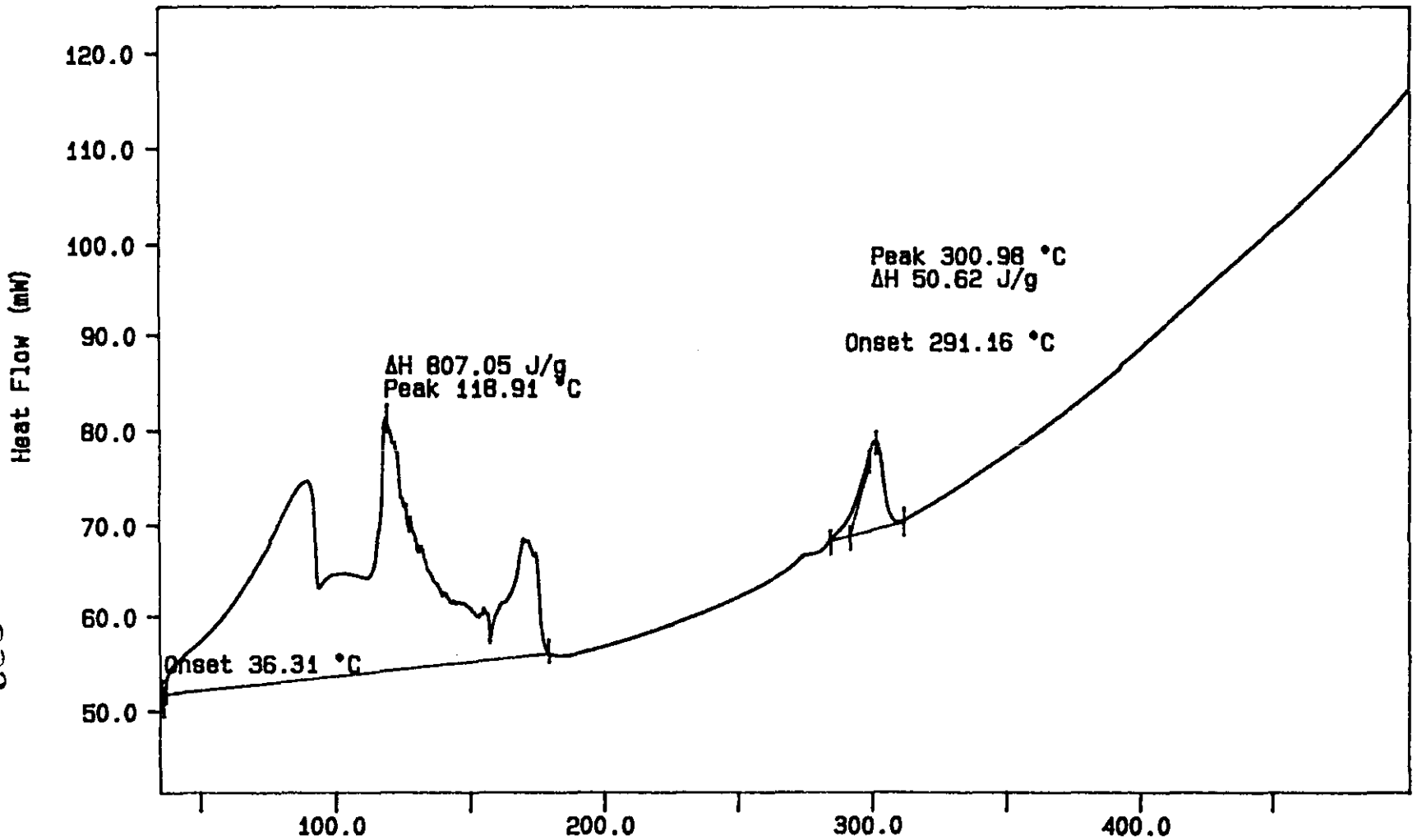
exotherm down, N2 purge gas

TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

JD SPELLMAN
PERKIN ELMER
222-S Lab
Tue Jun 27 17:52:03 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM062704 Tue Jun 27 18:48:34 1995
Sample Weight: 10.900 mg
S95T001049DUP

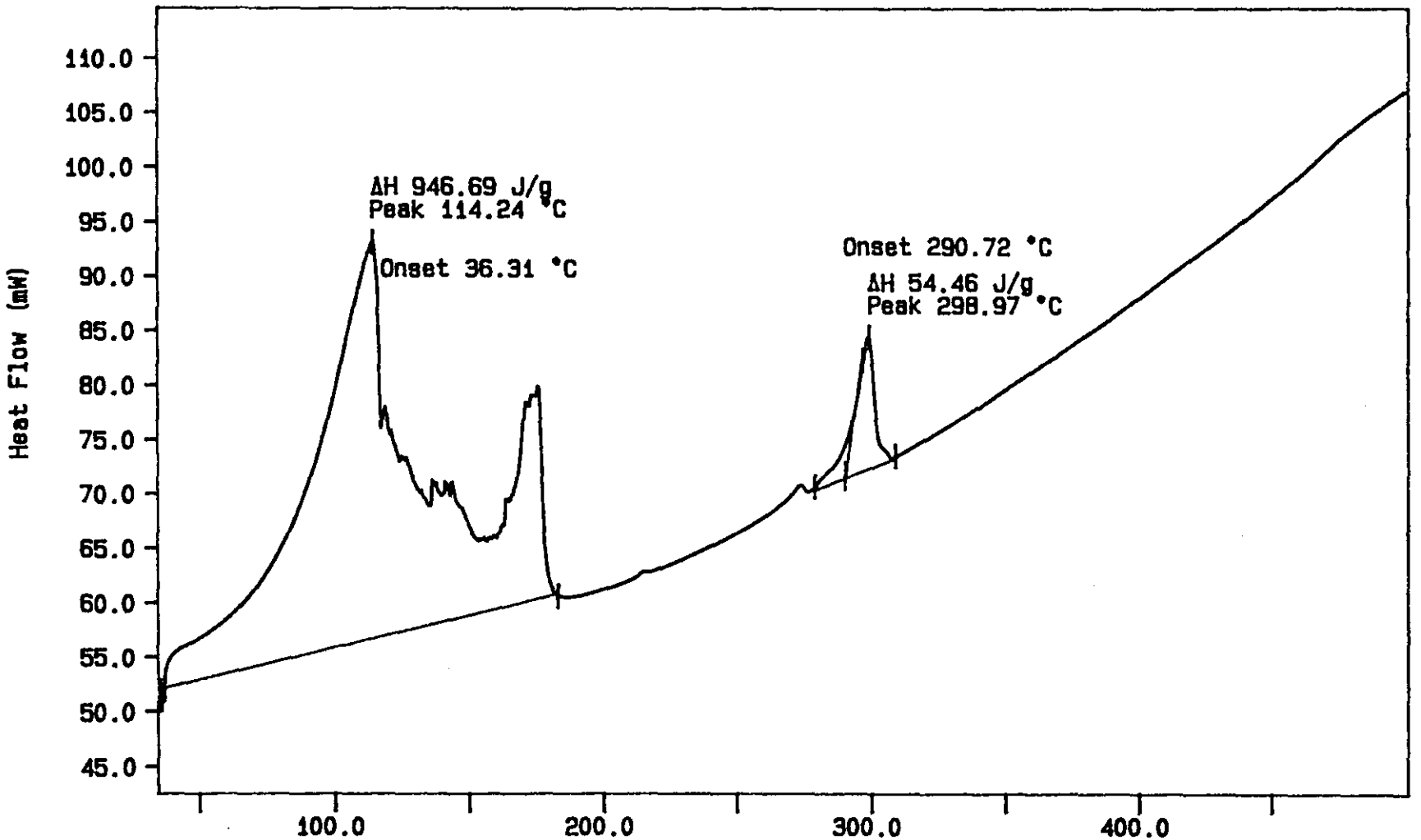


exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

JD SPELLMAN
PERKIN ELMER
222-S Lab
Tue Jun 27 18:57:41 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM062705 Tue Jun 27 20:08:00 1995
Sample Weight: 11.700 mg
S95T001054

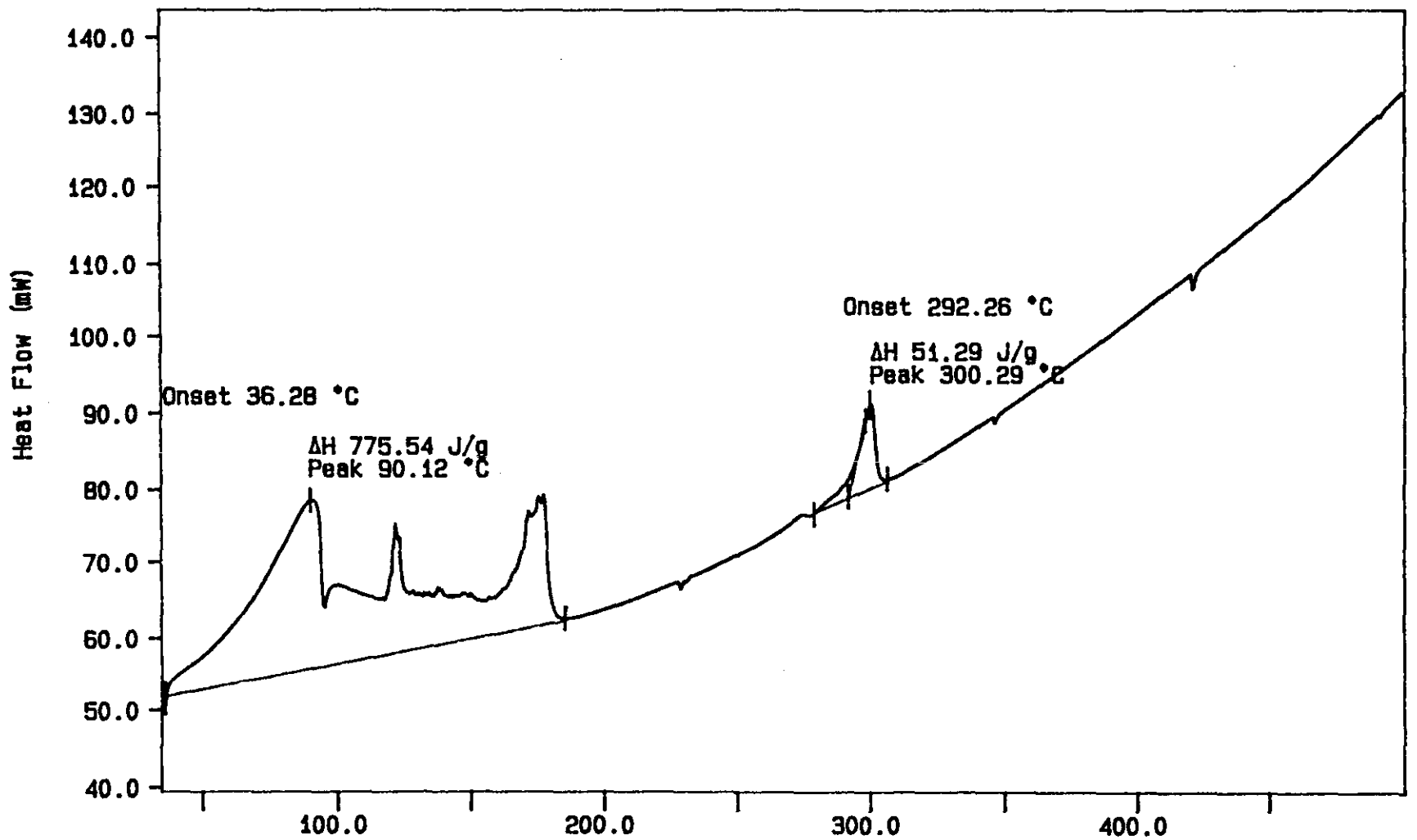


exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

JD SPELLMAN
PERKIN ELMER
222-S Lab
Tue Jun 27 20:49:36 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM062706 Tue Jun 27 21:44:29 1995
Sample Weight: 10.290 mg
S95001054DUP



exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

JD SPELLMAN
PERKIN ELMER
222-S Lab
Tue Jun 27 21:46:58 1995

WHC-SD-WM-DP-137, REV. 1

865

LABCORE Data Entry Template for Worklist# 1559

Analyst: JDS **Instrument:** DSC0 1 **Book #** 12N14-A

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID	28.45	31.6	N/A	Joules/g
95000085	B-104	2	SAMPLE	S95T001055	0		DSC-01	SOLID	N/A	Ø		Joules/g
		3	STD				DSC-01	SOLID	28.45	30.5	N/A	Joules/g
95000085	B-104	4	DUP	S95T001055	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g
95000085	B-104	5	SAMPLE	S95T001061	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000085	B-104	6	DUP	S95T001061	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1559

See attached for signatures
Analyst Signature **Date** 7-10-95 BDV

Analyst Signature **Date** 6/30/95

Verified by Blandina Valenzuela 7-10-95 BDV

Data Entry Comments: S95T001055 produced two endothermic regions at 90.2°C with a delta H of 982.3 J/g and second at 298.7°C with a ΔH of 70.0 J/g. S95T001061 produced two endothermic regions at 123.5°C with a delt. 1 of 947.6 J/g and second at ~~292~~ 297.9°C with a ΔH. 104.4 J/g. 7-10-95 BDV

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1559

Analyst: Jds **Instrument:** DSC0 **Book #** 12N144

Method: LA-514-113 Rev/Mod B1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
95000085	B-104	2	SAMPLE	S95T001055	0		DSC-01	SOLID	N/A			Joules/g
95000085	B-104	3	DUP	S95T001055	0		DSC-01	SOLID			N/A	Joules/g
95000085.	B-104	4	SAMPLE	S95T001061	0		DSC-01	SOLID	N/A			Joules/g
95000085	B-104	5	DUP	S95T001061	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 1559

JDS 6-29-95

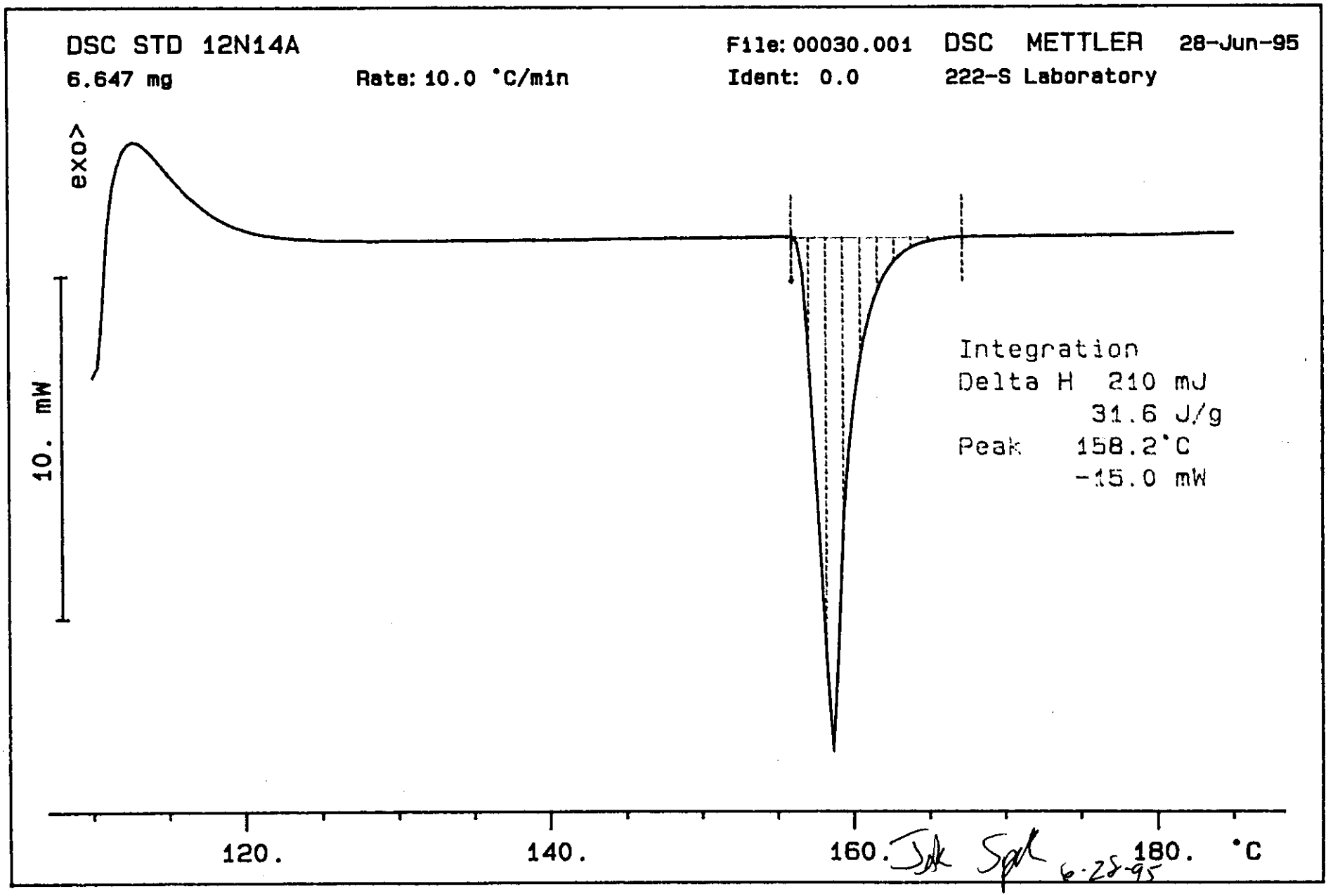
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

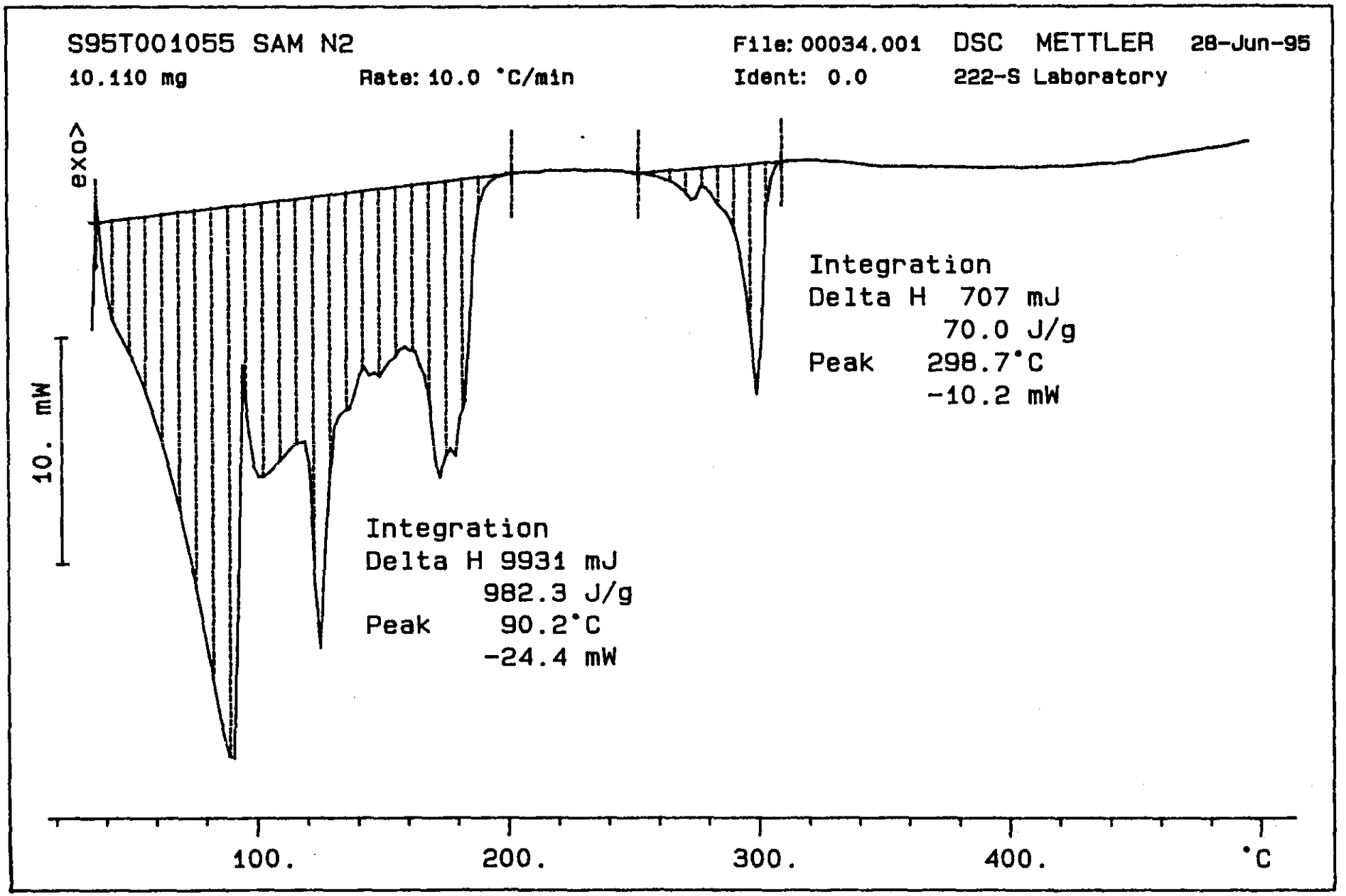
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

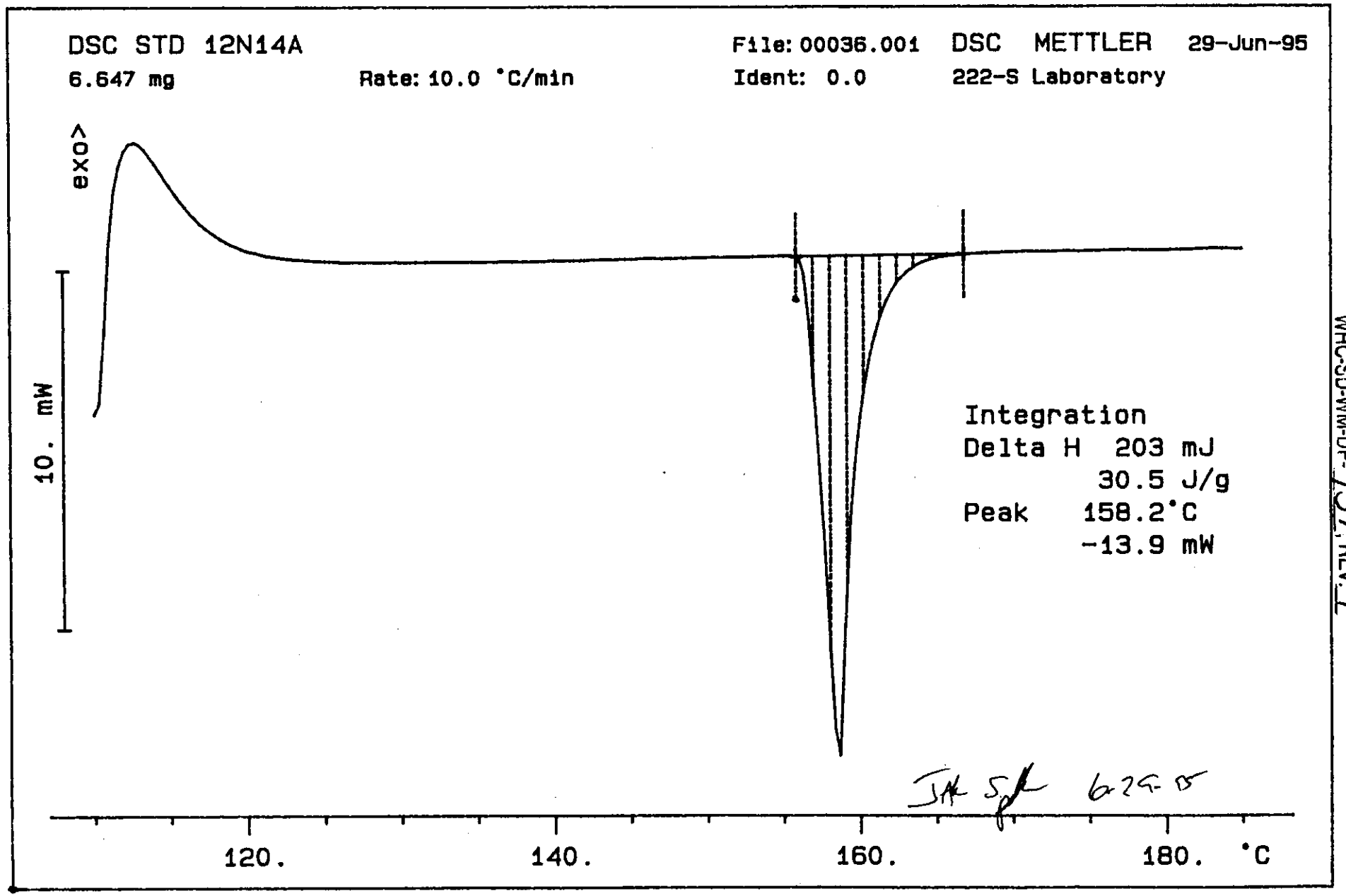
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES _____ TO _____.



Jak Spk 6-28-95

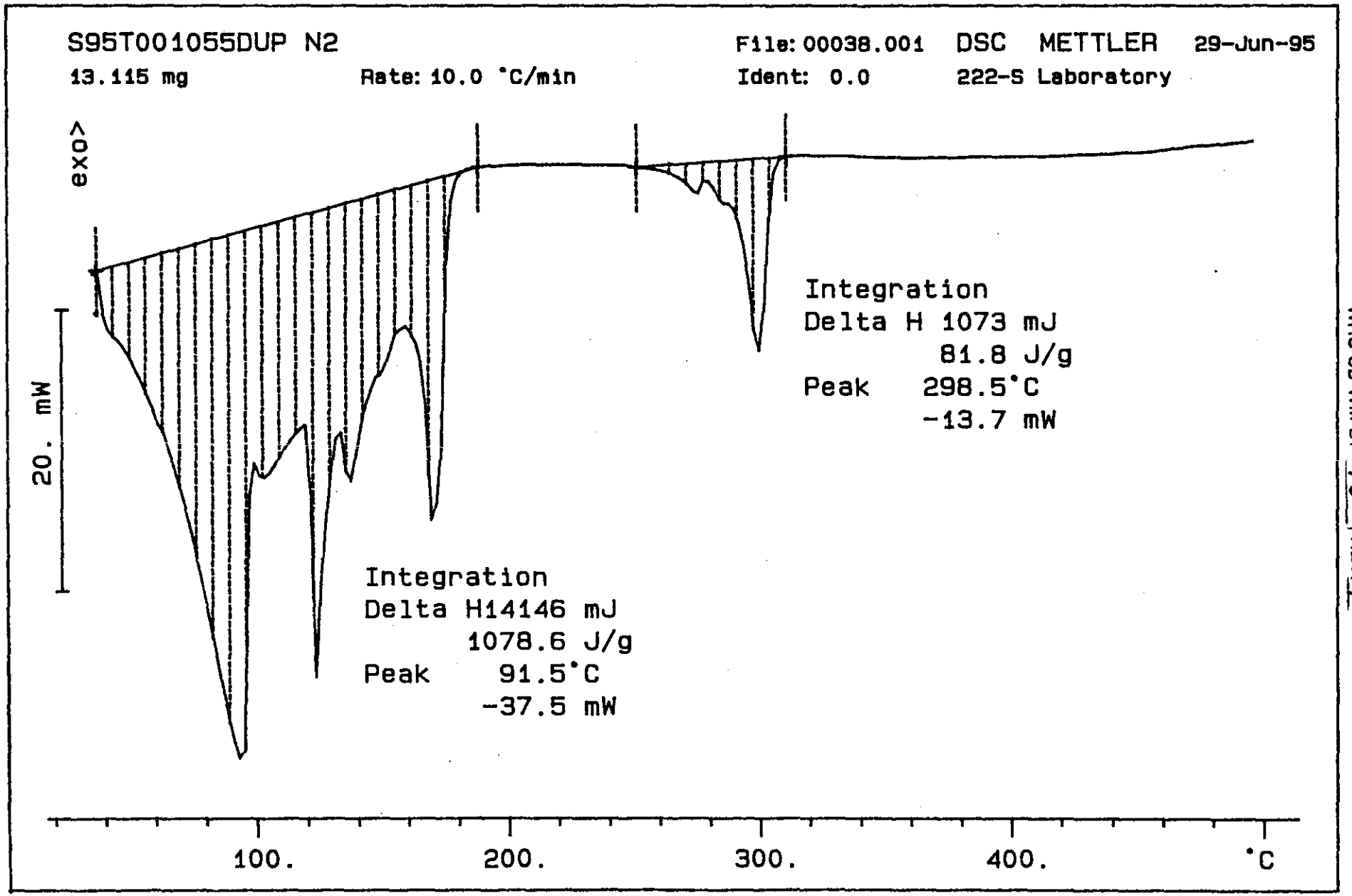
WHC-SD-WM-DP-137, REV. 1

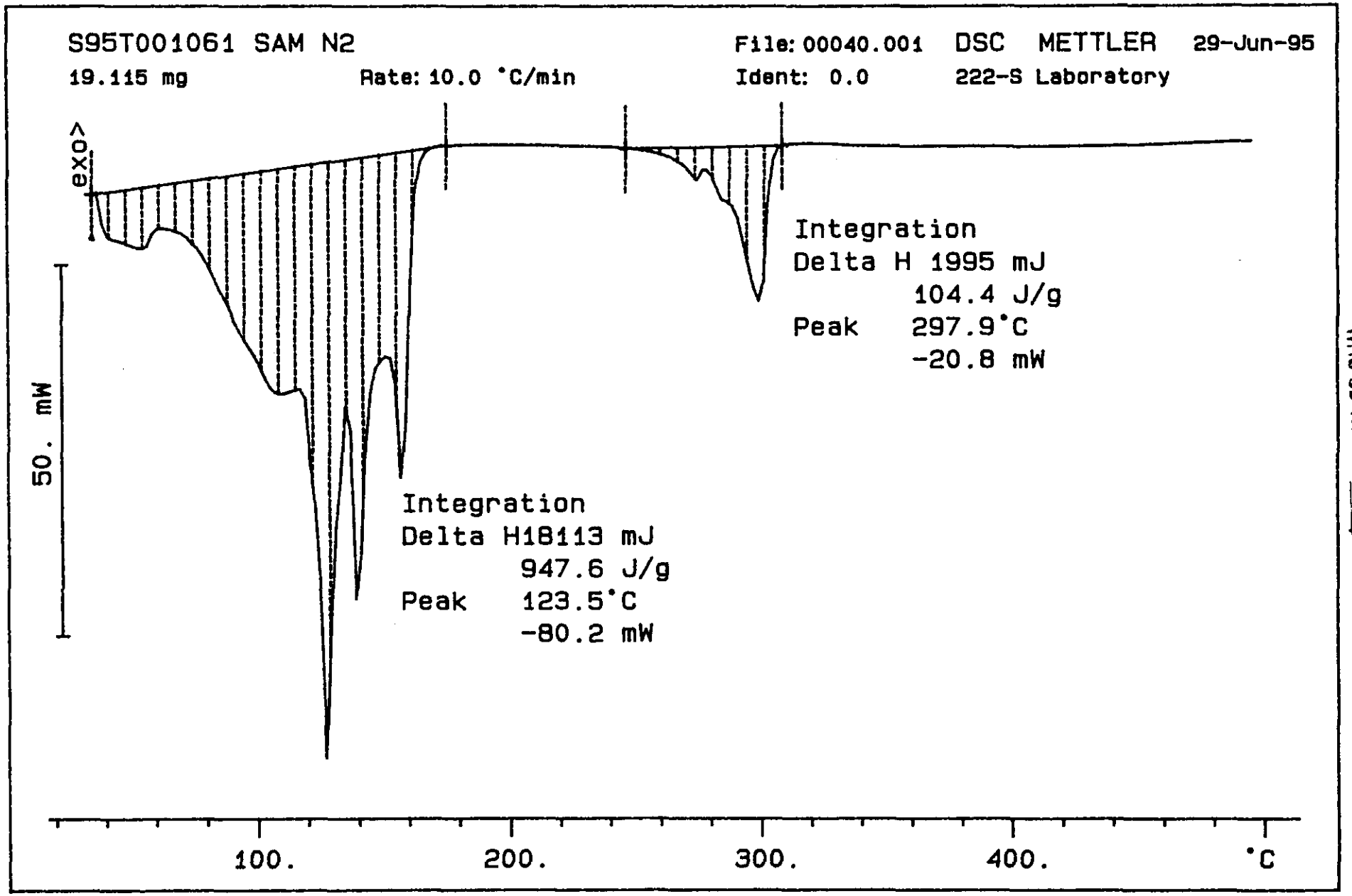

S95T001055 SAM N2
10.110 mg
Rate: 10.0 °C/min
File: 00034.001
DSC METTLER
28-Jun-95
Ident: 0.0
222-S Laboratory
exo>
10. mW
Integration
Delta H 707 mJ
70.0 J/g
Peak 298.7°C
-10.2 mW
Integration
Delta H 9931 mJ
982.3 J/g
Peak 90.2°C
-24.4 mW
100.
200.
300.
400.
°C

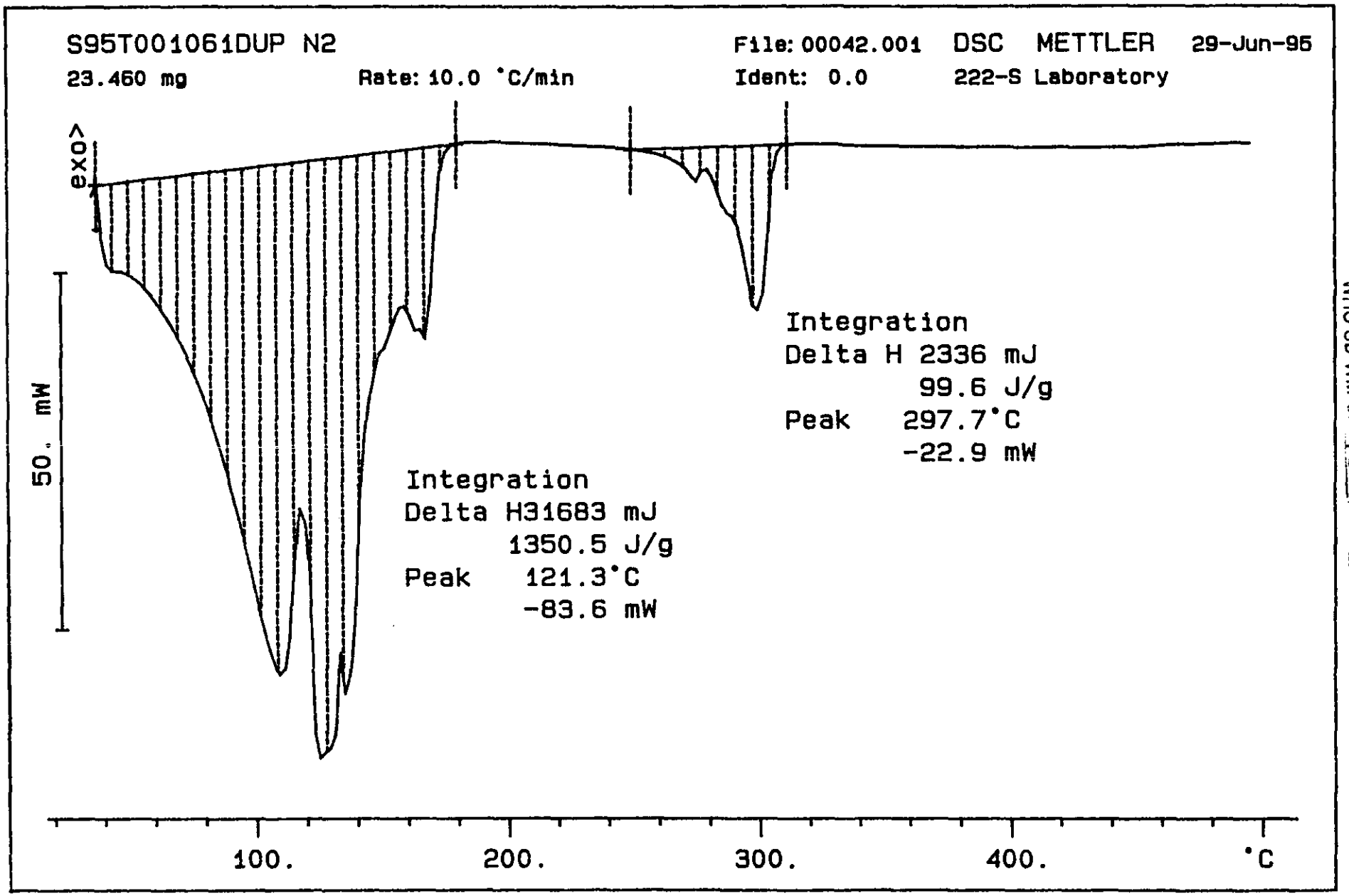


WHC-SD-WM-DP-137, REV. 1

830


S95T001055DUP N2
13.115 mg
Rate: 10.0 °C/min
File: 00038.001
Ident: 0.0
DSC METTLER
222-S Laboratory
29-Jun-95
exo>
20. mW
Integration
Delta H 1073 mJ
81.8 J/g
Peak 298.5°C
-13.7 mW
Integration
Delta H14146 mJ
1078.6 J/g
Peak 91.5°C
-37.5 mW
100.
200.
300.
400.
°C


S95T001061 SAM N2
19.115 mg
Rate: 10.0 °C/min
File: 00040.001
Ident: 0.0
DSC METTLER
222-S Laboratory
29-Jun-95
exo>
50. mW
Integration
Delta H 1995 mJ
104.4 J/g
Peak 297.9°C
-20.8 mW
Integration
Delta H18113 mJ
947.6 J/g
Peak 123.5°C
-80.2 mW
100.
200.
300.
400.
°C


S95T001061DUP N2
23.460 mg
Rate: 10.0 °C/min
File: 00042.001
Ident: 0.0
DSC METTLER
222-S Laboratory
29-Jun-95
exo>
50. mW
Integration
Delta H31683 mJ
1350.5 J/g
Peak 121.3°C
-83.6 mW
Integration
Delta H 2336 mJ
99.6 J/g
Peak 297.7°C
-22.9 mW
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1560

Analyst: RDM **Instrument:** DSC0 1 **Book #** 12N14-A

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID	28.45	29.0	N/A	Joules/g
95000085	B-104	2	SAMPLE	S95T001062	0		DSC-01	SOLID	N/A	Ø		Joules/g
		3	STD				DSC-01	SOLID	28.45	27.2	N/A	Joules/g
95000085	B-104	4	DUP	S95T001062	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1560

See attached for signatures
Analyst Signature Date 6/27/95

Analyst Signature Date 6-27-95

Verified by Blandina Valenzuela BDV 6/28/95

Data Entry Comments: This batch was split up by a standard due to the fact the computer did not save the thermogram. The sample did produce two endothermic regions at 123.4°C with a delta H of 1641.9J/g and second at 298.8°C with a delta H of 127.3J/g.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1560

Analyst: RDM **Instrument:** DSC0 **Book #** 12N14-A

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
95000085	B-104	2	SAMPLE	S95T001062	0		DSC-01	SOLID	N/A			Joules/g
95000085	B-104	3	DUP	S95T001062	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 1560

RDM 6/26/95
Analyst Signature **Date**

JAL 6-26-95
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES TO _____.

BEST AVAILABLE COPY

DSC STD 12N14-A

6.808 mg

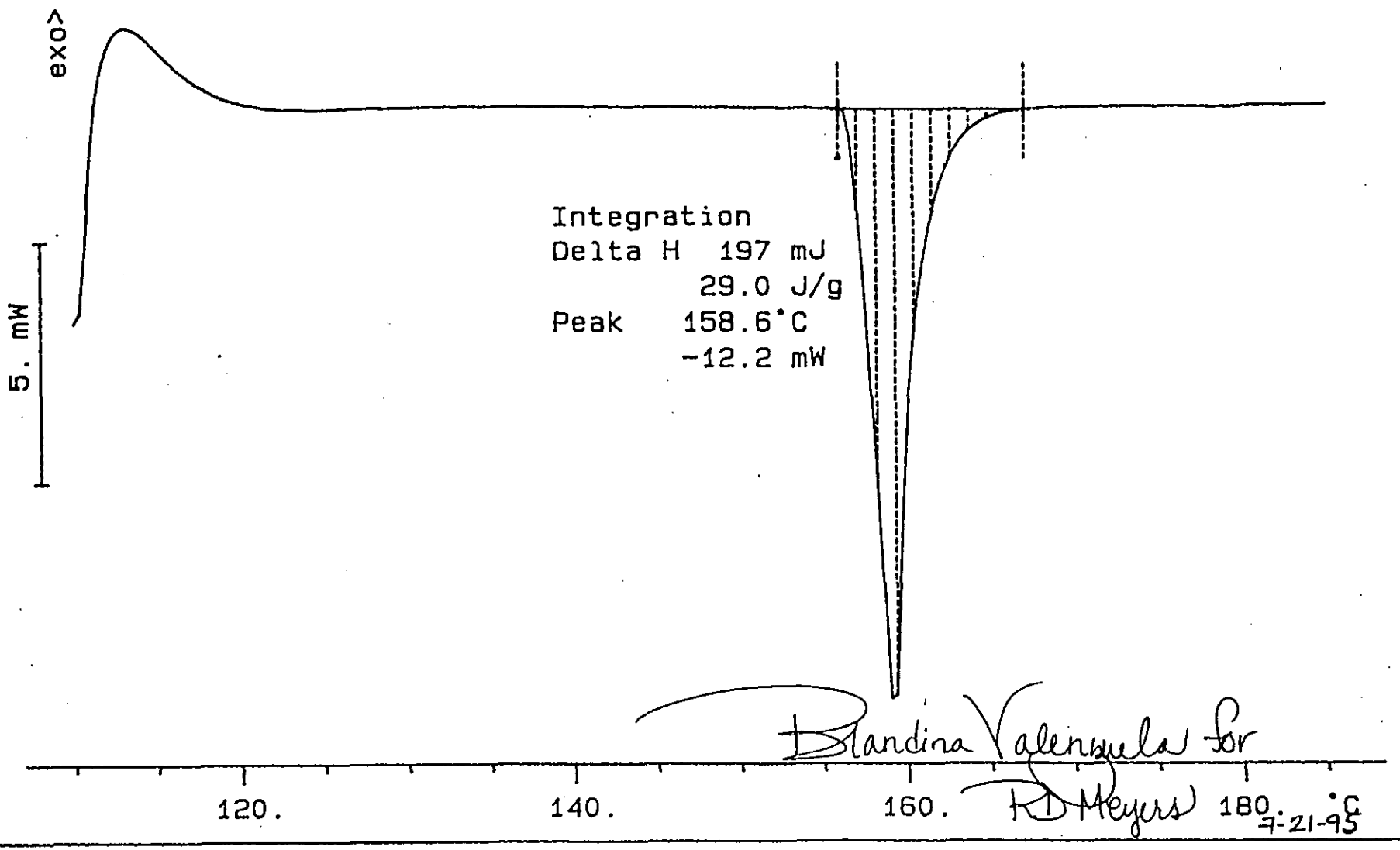
Rate: 10.0 °C/min

File: 00114.001

Ident: 0.0

DSC METTLER 26-Jun-95

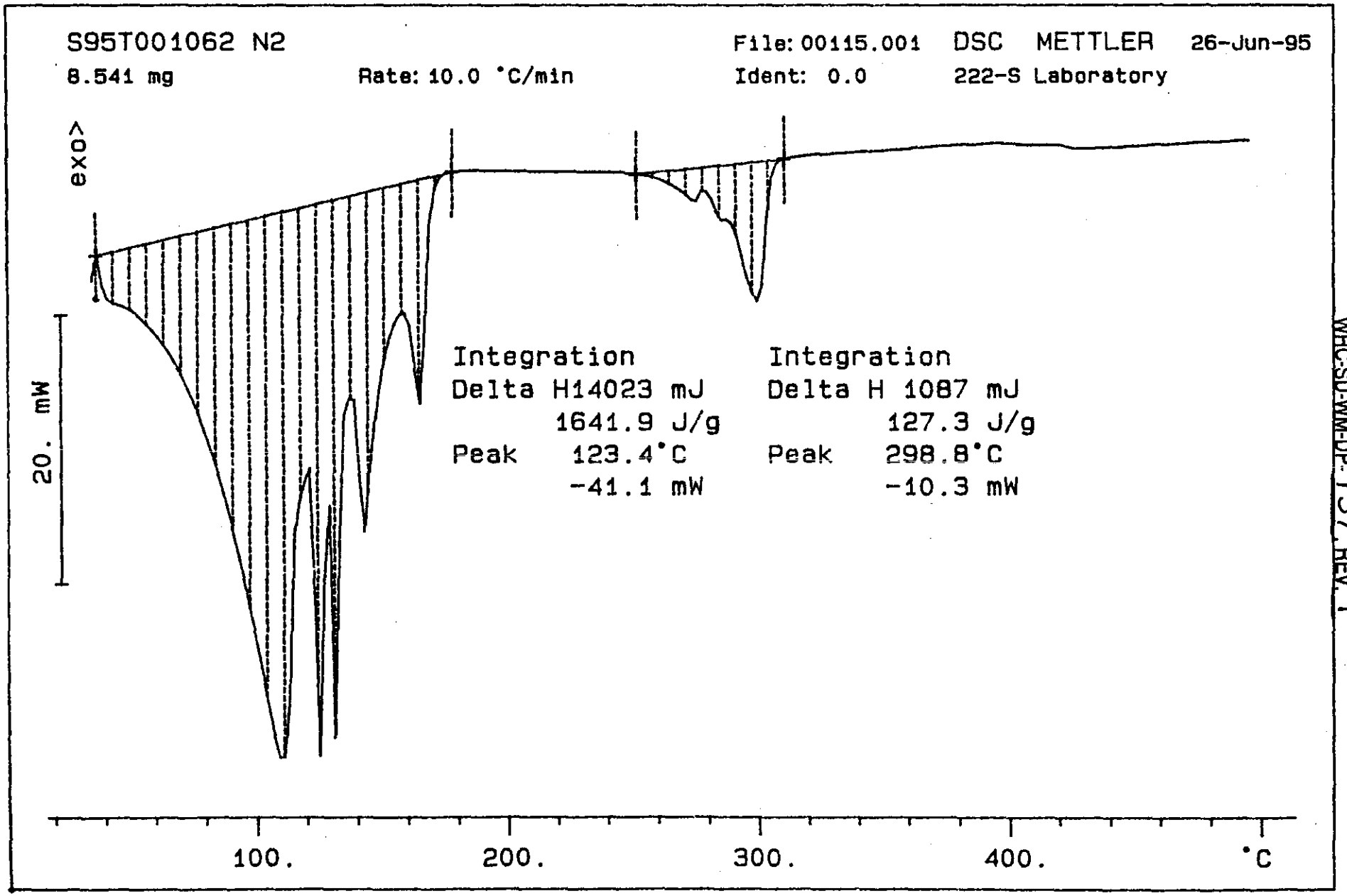
222-S Laboratory

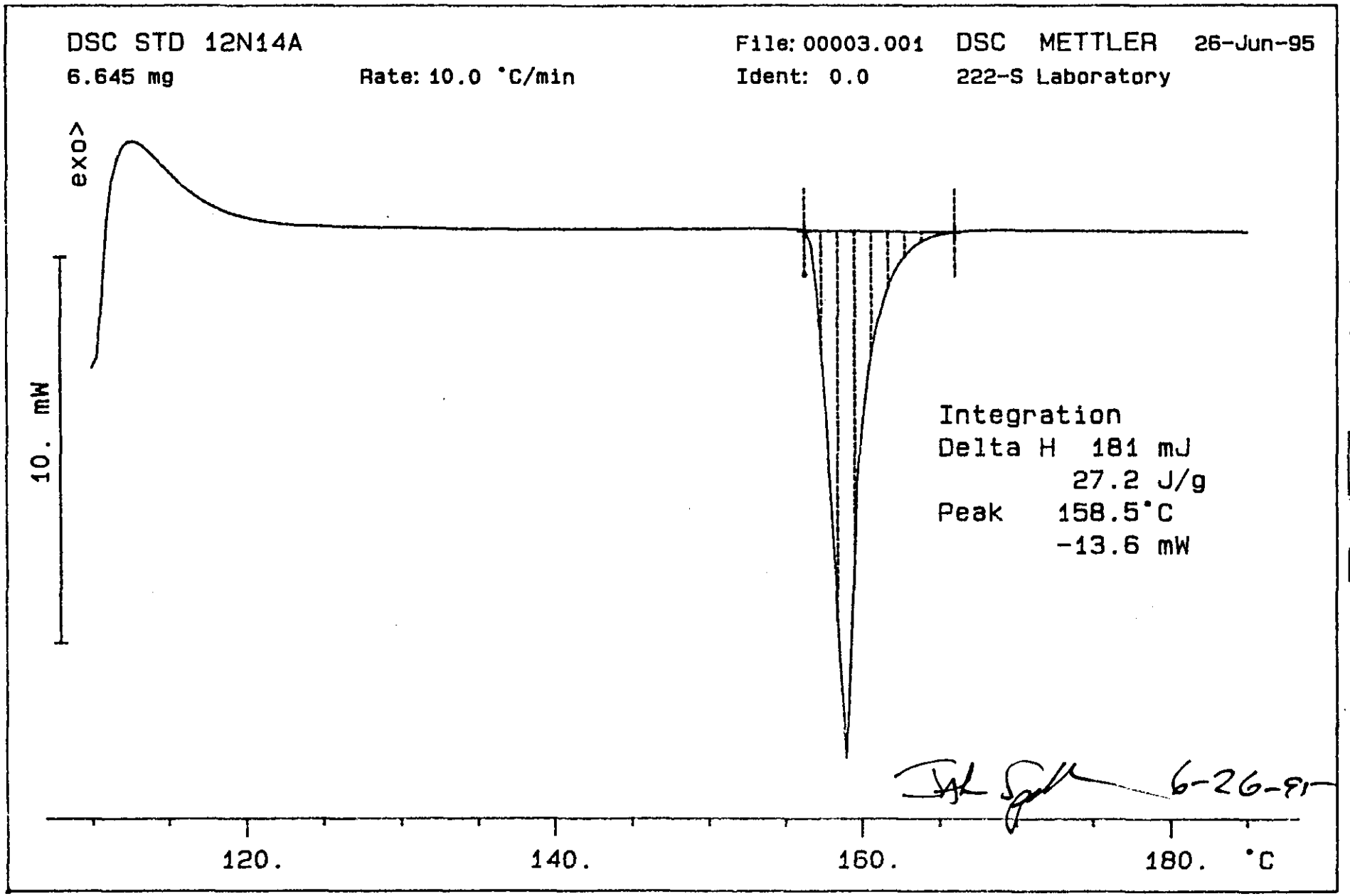


Blandina Valenzuela for
RD Meyers
7-21-95

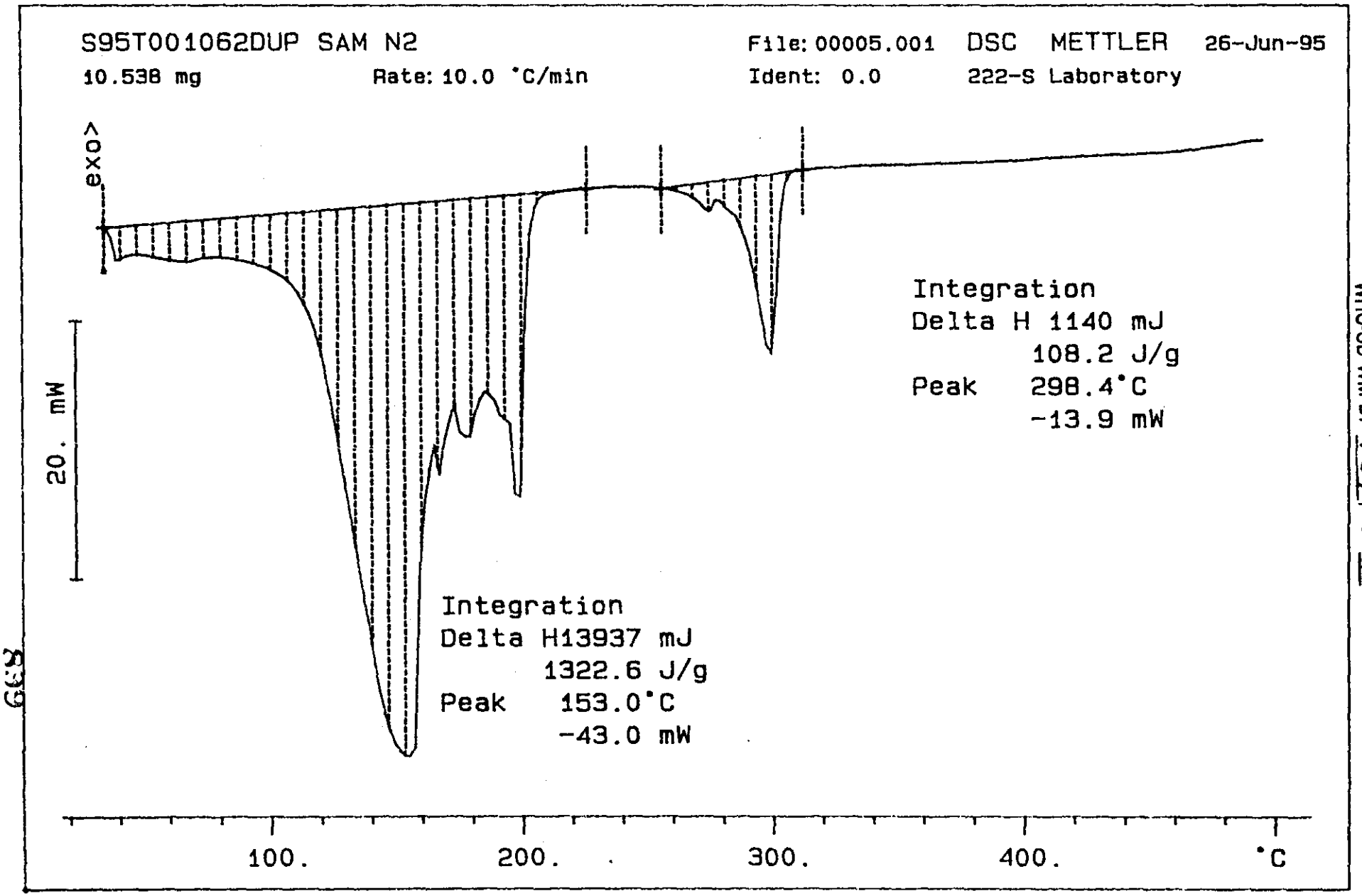
WHC-SD-WM-DP-137, REV 1

968


S95T001062 N2
8.541 mg
Rate: 10.0 °C/min
File: 00115.001
Ident: 0.0
DSC METTLER
222-S Laboratory
26-Jun-95
exo>
20. mW
Integration
Delta H14023 mJ
1641.9 J/g
Peak 123.4°C
-41.1 mW
Integration
Delta H 1087 mJ
127.3 J/g
Peak 298.8°C
-10.3 mW
100.
200.
300.
400.
°C



WHC-SD-WM-DP-132, REV. 1


S95T001062DUP SAM N2
10.538 mg
Rate: 10.0 °C/min
File: 00005.001
Ident: 0.0
DSC METTLER
222-S Laboratory
26-Jun-95
exo>
20. mW
Integration
Delta H 1140 mJ
108.2 J/g
Peak 298.4°C
-13.9 mW
Integration
Delta H13937 mJ
1322.6 J/g
Peak 153.0°C
-43.0 mW
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1599

Analyst: JDS **Instrument:** DSC0 1 **Book #** 12N14-A

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-01	SOLID	28.45	27.8	N/A	Joules/g
95000085	B-104	2 SAMPLE	S95T001067	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000085	B-104	3 DUP	S95T001067	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g
		4 STD				DSC-01	SOLID	28.45	32.1	N/A	Joules/g
95000085	B-104	5 SAMPLE	S95T001068	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000085	B-104	6 DUP	S95T001068	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1599

See attached for signatures
Analyst Signature Date 7-19-95 BDV
Verified by Blandina Valenzuela 7-19-95

Analyst Signature Date 7-19-95

Sample S95T001068 was analyzed first. Therefore the thermograms are out of chronological order.

Data Entry Comments: Sample S95T001067 produced two endotherms, one at 115.3°C with a delta H of 1001.6 J/g and second at ~~6~~ 7-19-95 BDV 297.1°C with ~~67.7~~ 7-19-95 BDV 67.7 J/g Sample S95T001068 produced two endotherms, one at 97.5°C with a delta of 1009.7 J/g and second at 298.3°C with a delta H of 81.3 J/g

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1599

Analyst: Jds **Instrument:** DSC0 _____ **Book #** 12N14A

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
95000085	B-104	2	SAMPLE	S95T001067	0		DSC-01	SOLID	N/A			Joules/g
95000085	B-104	3	DUP	S95T001067	0		DSC-01	SOLID			N/A	Joules/g
95000085	B-104	4	SAMPLE	S95T001068	0		DSC-01	SOLID	N/A			Joules/g
95000085	B-104	5	DUP	S95T001068	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 1599

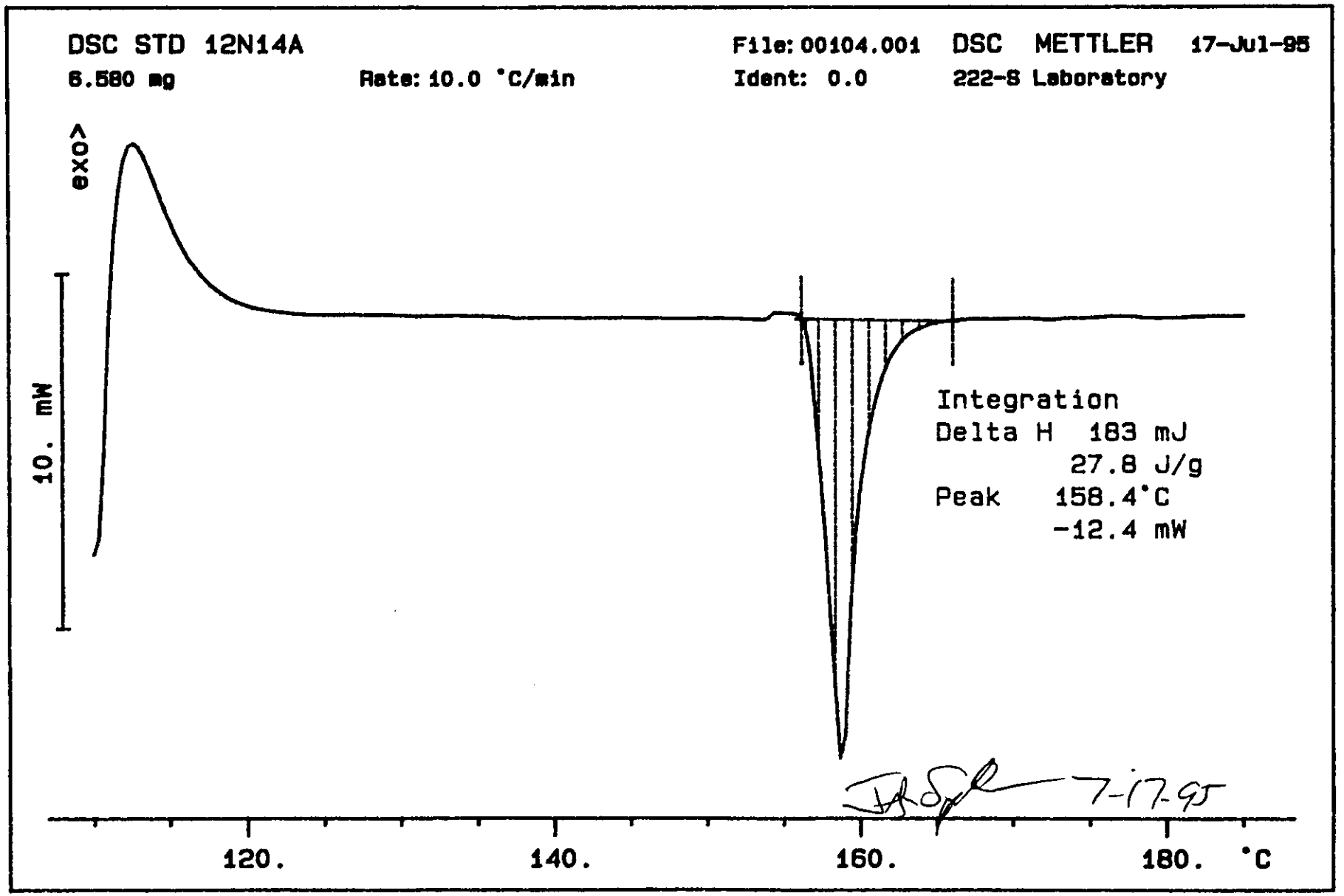
Jak Spell 7-17-95

Analyst Signature **Date** **Analyst Signature** **Date**

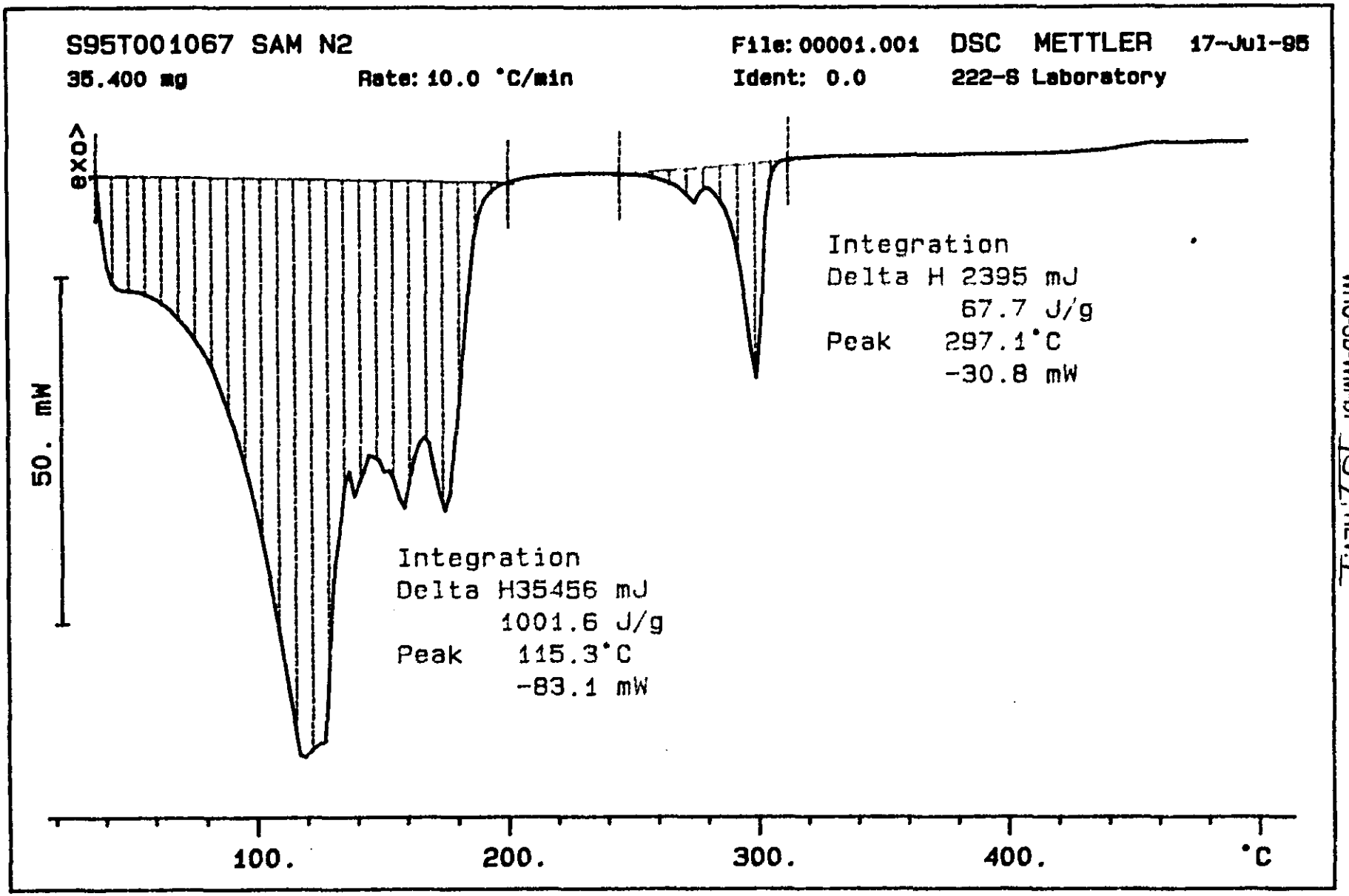
Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

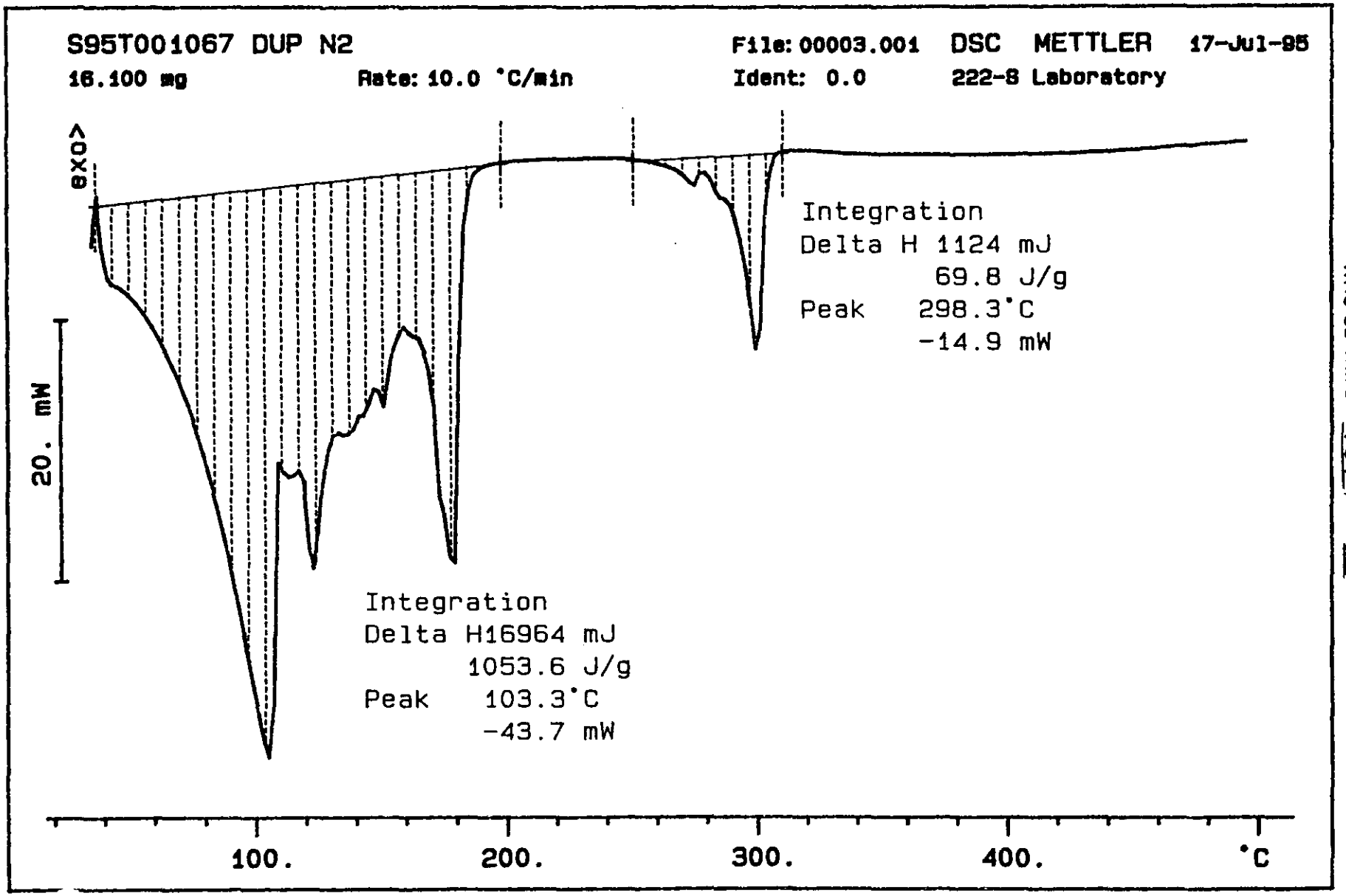
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 902 TO 907.

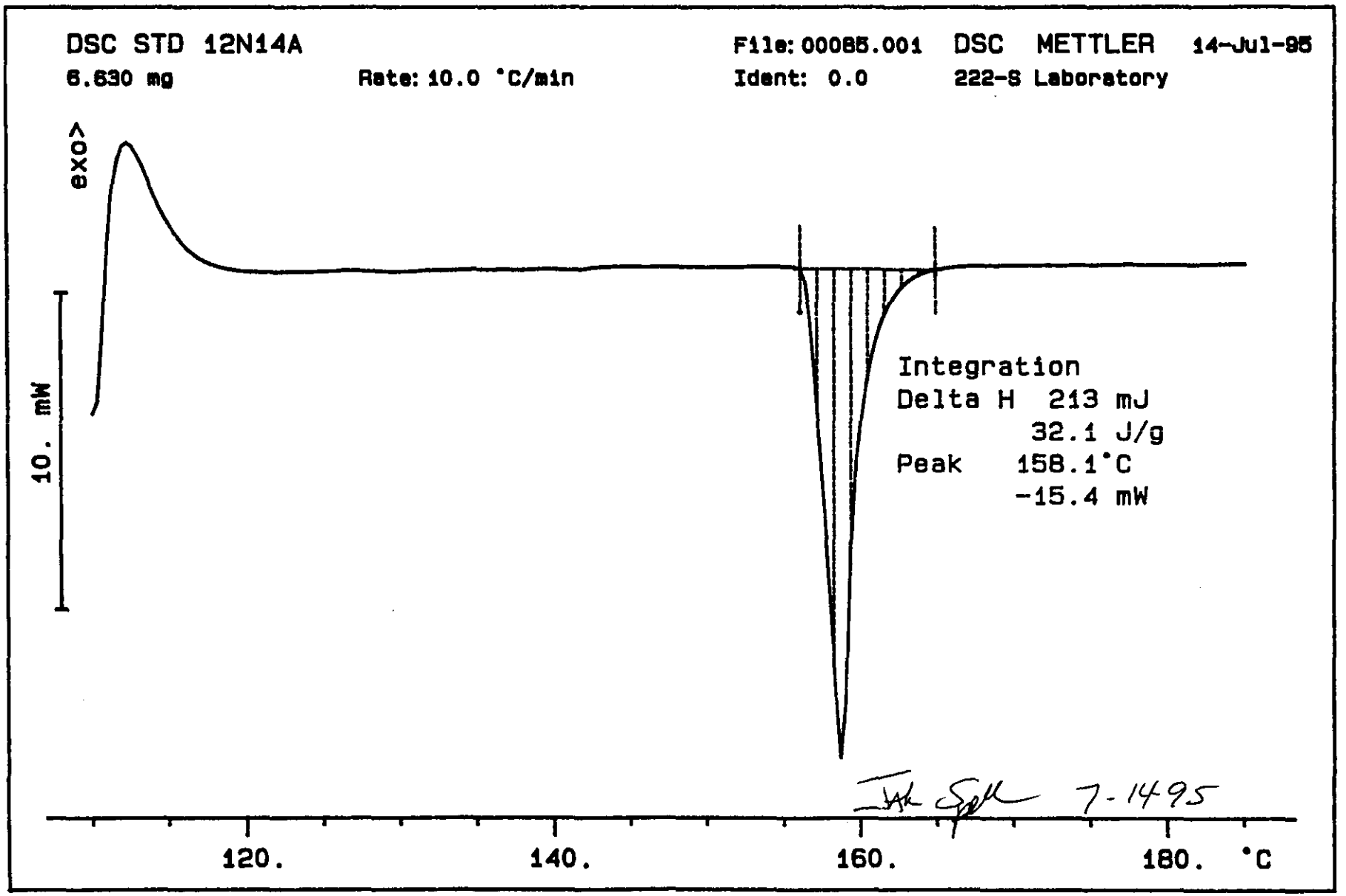


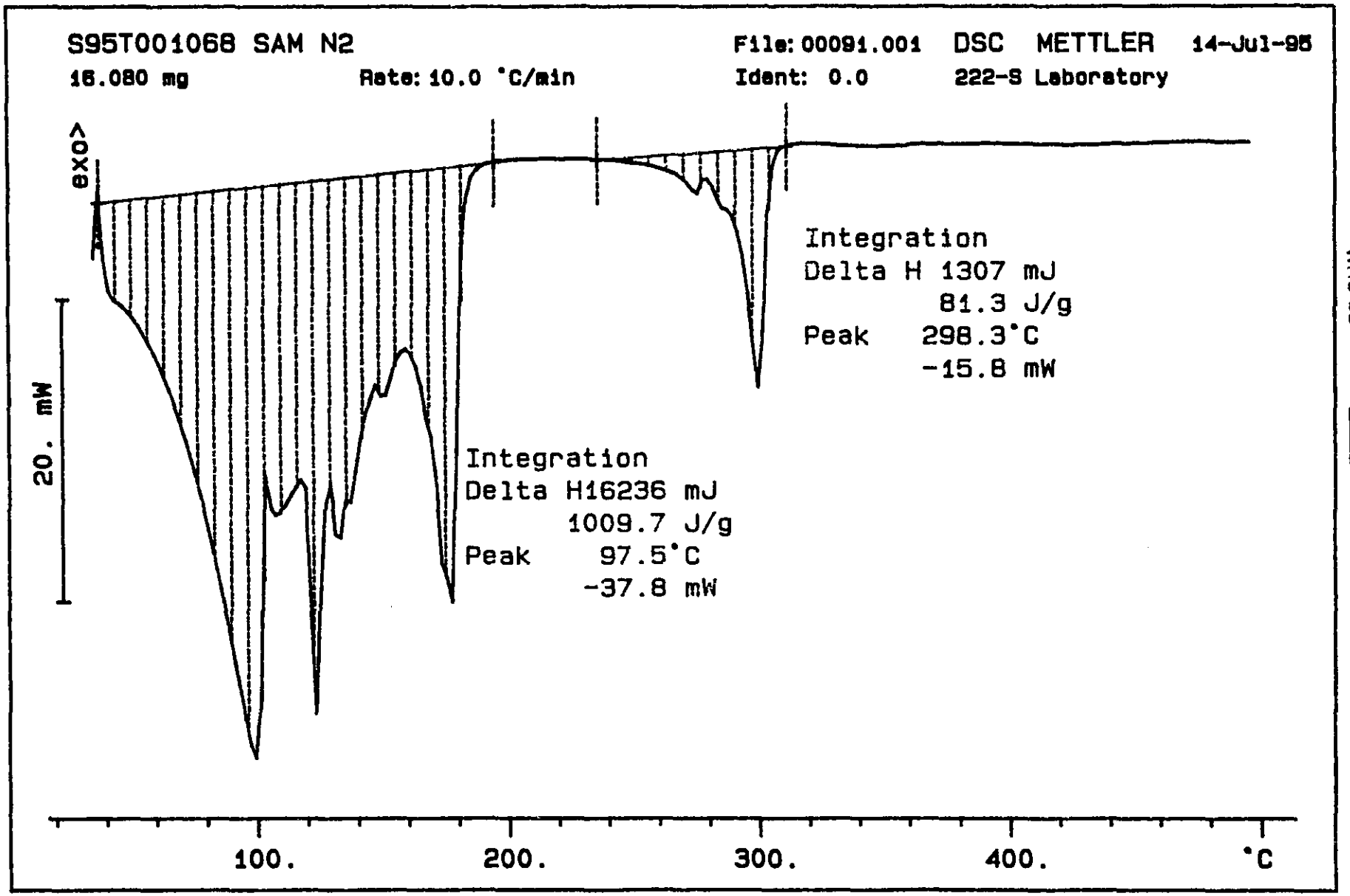
WHC-SD-WM-DP-137, REV. 1

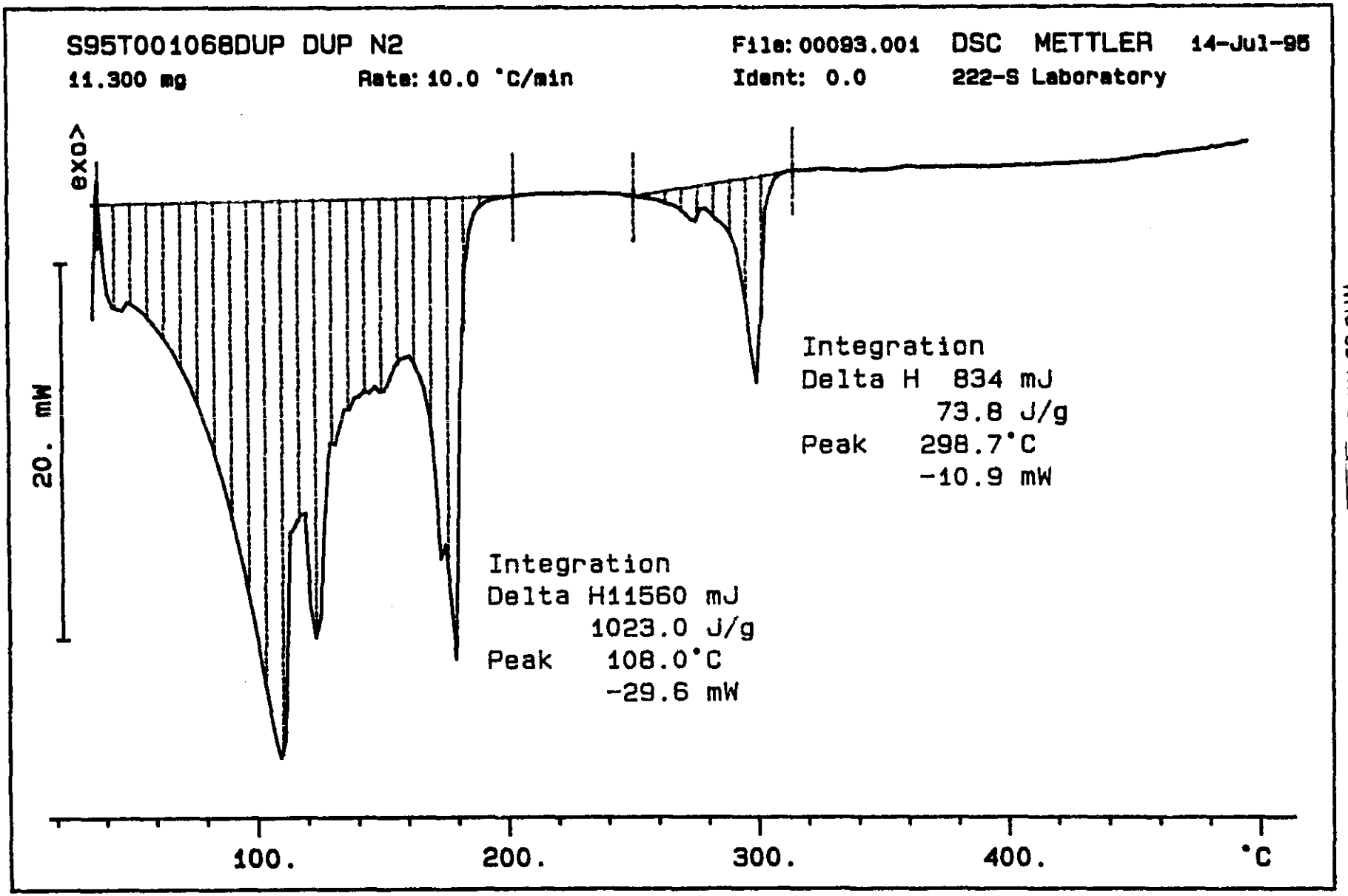


WHC-SD-WM-DP-137, REV. 1


S95T001067 DUP N2
16.100 mg
Rate: 10.0 °C/min
File: 00003.001
Ident: 0.0
DSC METTLER
222-8 Laboratory
17-Jul-95
<exo
20. mW
Integration
Delta H 1124 mJ
69.8 J/g
Peak 298.3°C
-14.9 mW
Integration
Delta H16964 mJ
1053.6 J/g
Peak 103.3°C
-43.7 mW
100.
200.
300.
400.
°C


DSC STD 12N14A
6.630 mg
Rate: 10.0 °C/min
File: 00085.001
Ident: 0.0
DSC METTLER
222-S Laboratory
14-Jul-95
exo>
10. mW
Integration
Delta H 213 mJ
32.1 J/g
Peak 158.1°C
-15.4 mW
7-14-95
120.
140.
160.
180.
°C


S95T001068 SAM N2
16.080 mg
Rate: 10.0 °C/min
File: 00091.001
Ident: 0.0
DSC METTLER
222-S Laboratory
14-Jul-95
exo>
20. mW
Integration
Delta H 1307 mJ
81.3 J/g
Peak 298.3°C
-15.8 mW
Integration
Delta H16236 mJ
1009.7 J/g
Peak 97.5°C
-37.8 mW
100.
200.
300.
400.
°C


S95T001068DUP DUP N2
11.300 mg
Rate: 10.0 °C/min
File: 00093.001
Ident: 0.0
DSC METTLER
222-S Laboratory
14-Jul-95
exo>
20. mW
Integration
Delta H 834 mJ
73.8 J/g
Peak 298.7°C
-10.9 mW
Integration
Delta H11560 mJ
1023.0 J/g
Peak 108.0°C
-29.6 mW
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1600

Analyst: SMF **Instrument:** DSC0 1 **Book #** 12N14-A

Method: LA-514-~~113~~ 114 Rev/Mod B-0

SMF 6-29-95

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID	28.45	28.27	N/A	Joules/g
95000085	B-104	2	SAMPLE	S95T001075	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000085	B-104	3	DUP	S95T001075	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g
95000085	B-104	4	SAMPLE	S95T001076	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000085	B-104	5	DUP	S95T001076	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1600

S M Fulton 6-29-95
Analyst Signature **Date**

[signature] 6-30-95
Analyst Signature **Date**

Verified by Blandina Valenzuela 7-10-95

S95T001075 produced two endothermic regions one at 107.4°C with a delta H of 871.5 J/g and second at 291.2°C with a ΔH of 44.2 J/g

S95T001076 produced two endothermic regions, one at 108.4°C with a ΔH of 962.7 J/g and second at 289.5°C with a ΔH of 46.7 J/g.

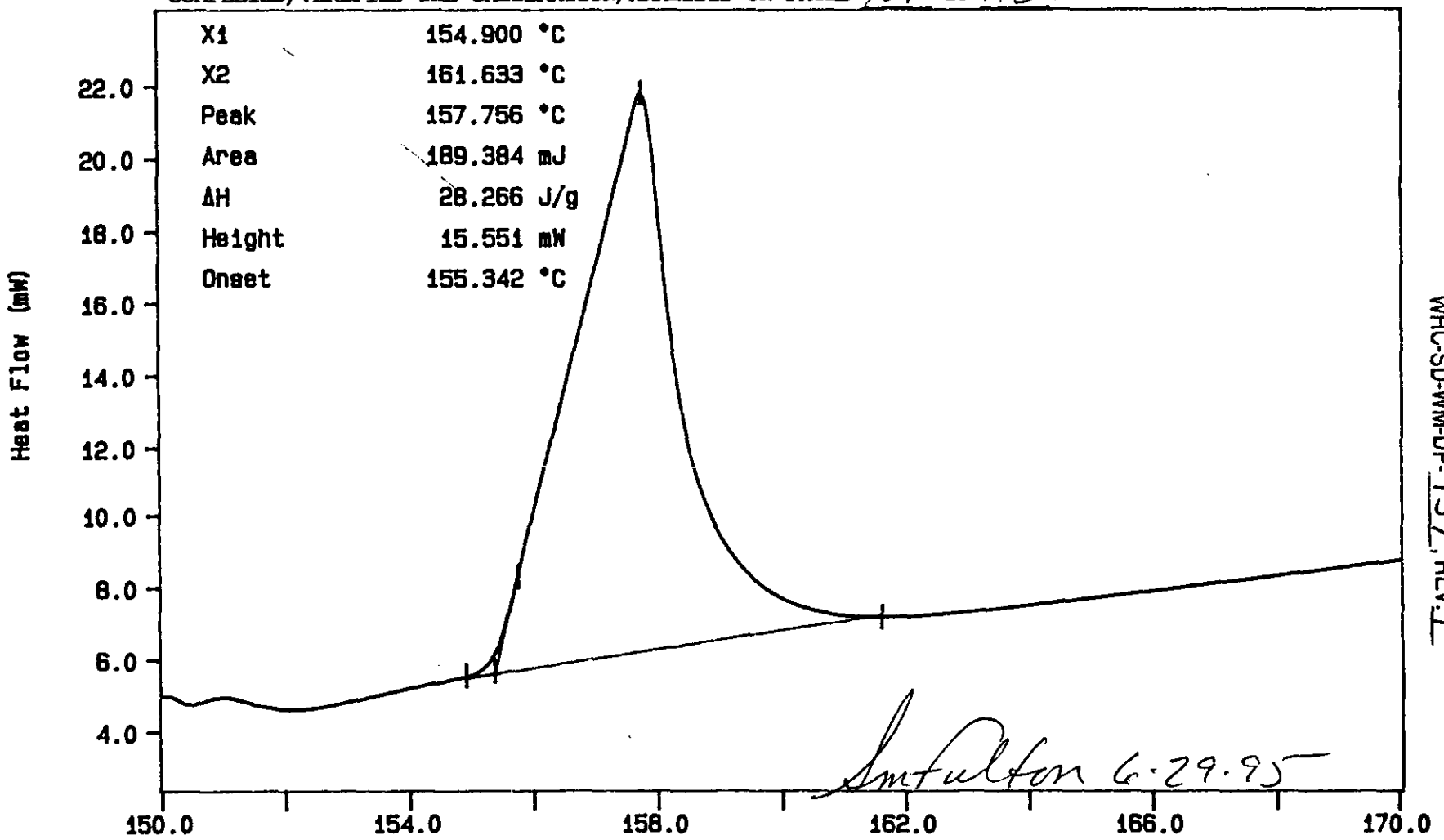
Data Entry Comments:

Both samples are a mustard yellow liquid with about 50% sludge like solids.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND062902 Thu Jun 29 17:55:15 1995
Sample Weight: 6.700 mg
12N14A Indium at 10C/min

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 909 TO 913.

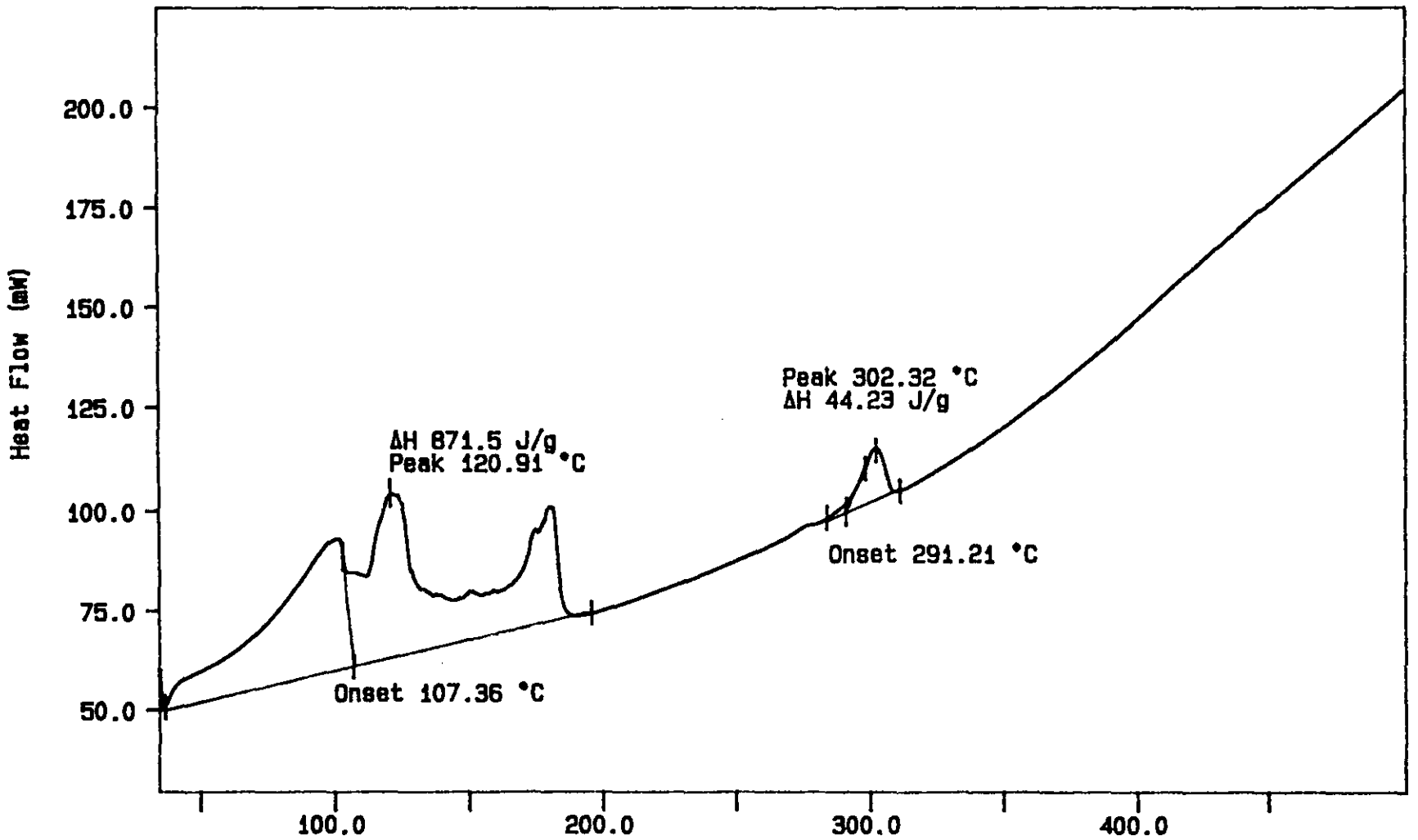


N2 exotherm down
TEMP1: 150.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 170.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Thu Jun 29 17:56:28 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM062902 Thu Jun 29 19:09:21 1995
Sample Weight: 18.150 mg
S95T001075 10C/min

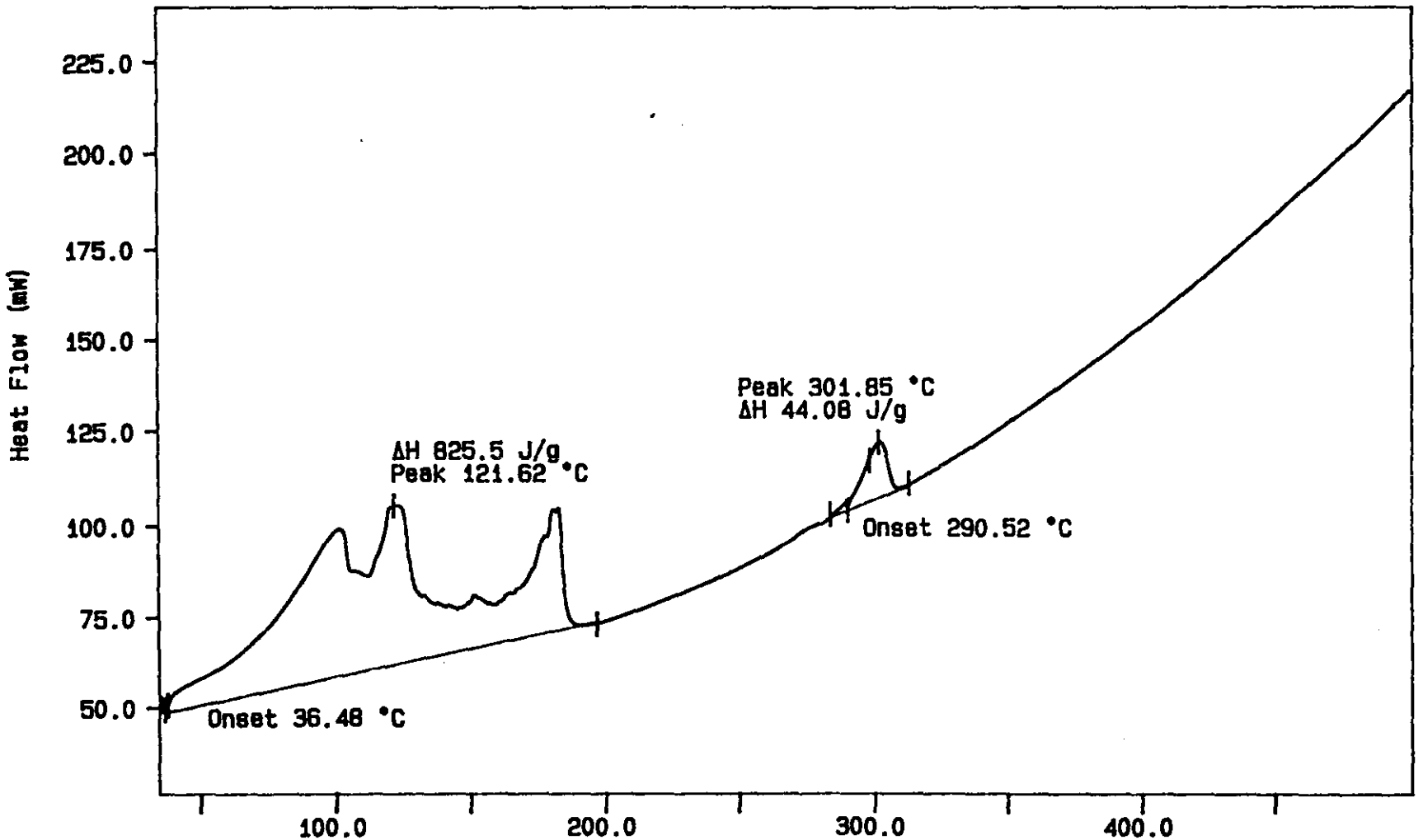


exotherm down, N2 purge gas
TEMP1: 30.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Thu Jun 29 19:11:08 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM062903 Thu Jun 29 20:03:28 1995
Sample Weight: 21.390 mg
S95T001075DUP, 10C/min

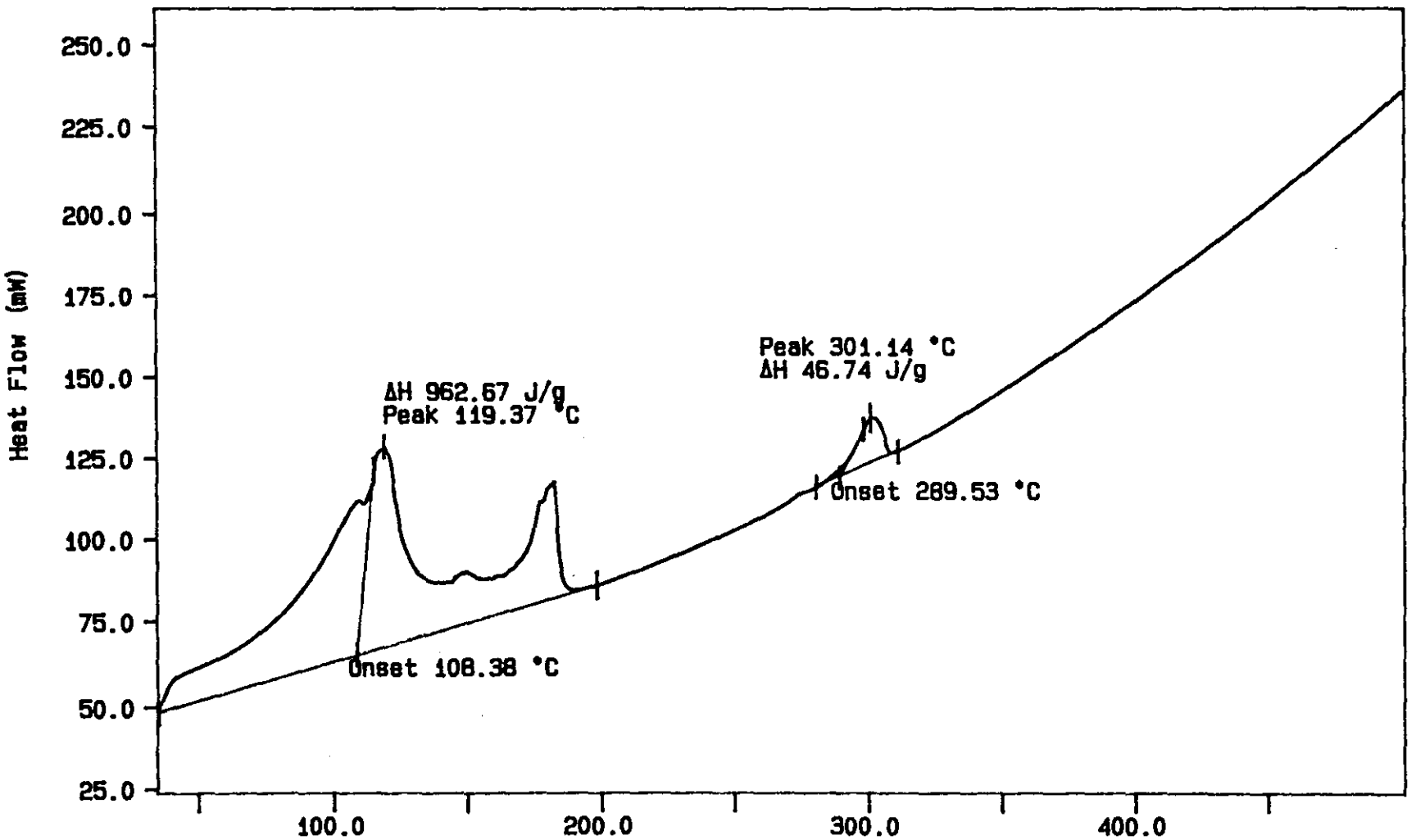


exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Thu Jun 29 20:50:13 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM062904 Thu Jun 29 21:41:37 1995
Sample Weight: 20.740 mg
S95T001076, 10C/min

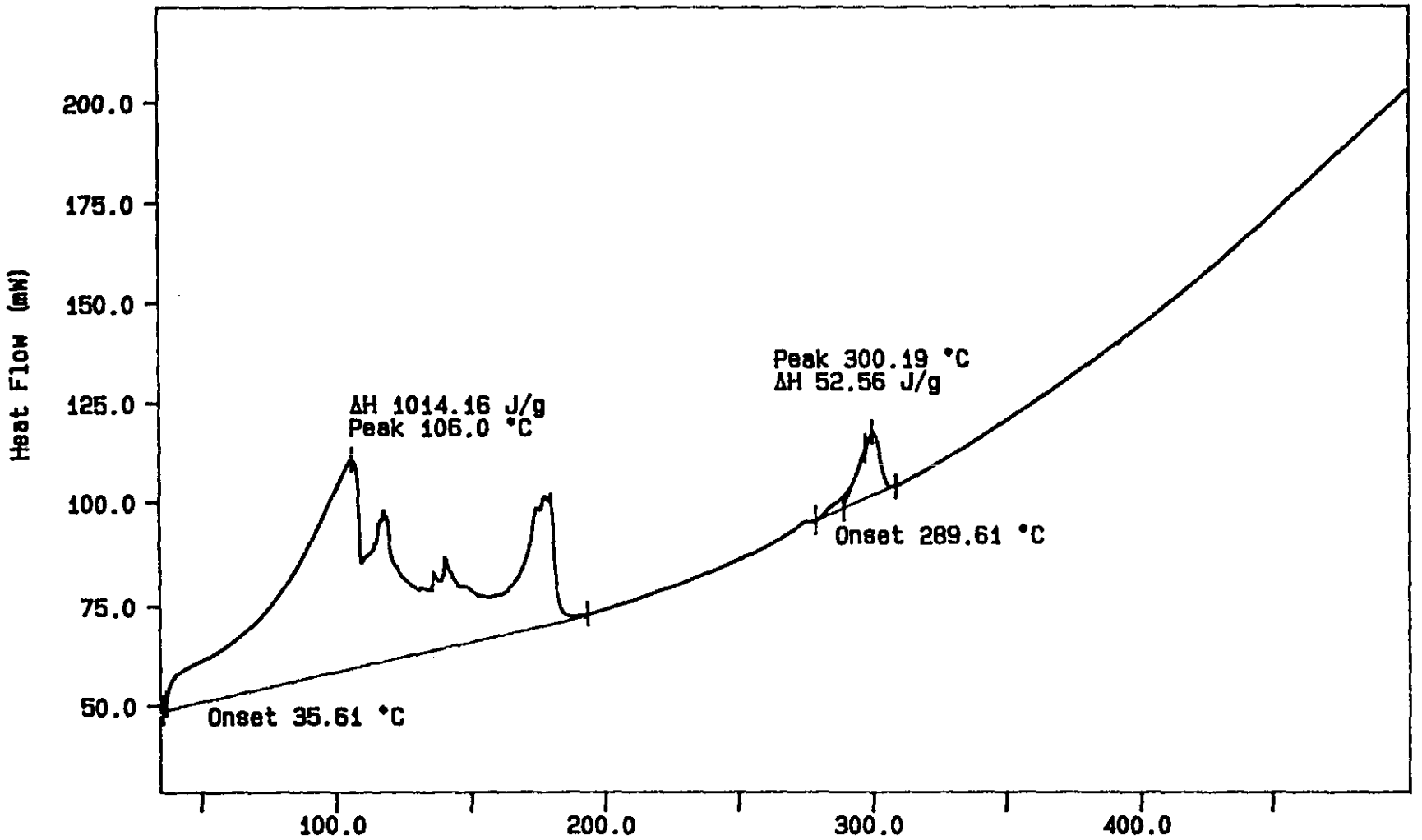


exotherm down, N2 purge gas
TEMP1: 25.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Thu Jun 29 21:43:00 1995

WHC-SD-WM-DP-137, REV 1

Curve 1: DSC
File info: SAM062905 Thu Jun 29 22:33:03 1995
Sample Weight: 18.290 mg
S95T001076DUP, 10C/min



exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Thu Jun 29 22:35:32 1995

LABCORE Data Entry Template for Worklist# 1601

Analyst: SMF **Instrument:** DSC0 3 **Book #** 12N14A

Method: LA-514-114 Rev/Mod B-0

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	SOLID	28.45	28.07	N/A	Joules/g
95000085	B-104	2 SAMPLE	S95T001091	0		DSC-03	SOLID	N/A	Ø		Joules/g
95000085	B-104	3 DUP	S95T001091	0		DSC-03	SOLID	Ø	Ø	N/A	Joules/g
95000085	B-104	4 SAMPLE	S95T001092	0		DSC-03	SOLID	N/A	Ø		Joules/g
95000085	B-104	5 DUP	S95T001092	0		DSC-03	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1601

See attached for Signatures
Analyst Signature Date 7-11-95 BDV

Analyst Signature Date 7-12-95

Verified by Blandina Valenzuela 7-12-95

S95T001091 produced two endothermic regions one at 103.~~79~~ 4 °C 7-11-95 BDV with a delta H of 845.9 J/g, and second at a 300.6°C with a delta H of 42.2 J/g.

Data Entry Comments: S95T001092 produced two endothermic regions, one at 104.5°C with a delta H of 897.2 J/g and second at 301.5°C with a delta H of 41.1 J/g.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1601

Analyst: SMF **Instrument:** DSC0 _____ **Book #** 12N14A

Method: ~~LA-514-113 Rev~~ SMF/Mod LA-514-114/BD

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
95000085	B-104	2	SAMPLE	S95T001091	0		DSC-01	SOLID	N/A			Joules/g
95000085	B-104	3	DUP	S95T001091	0		DSC-01	SOLID			N/A	Joules/g
95000085	B-104	4	SAMPLE	S95T001092	0		DSC-01	SOLID	N/A			Joules/g
95000085	B-104	5	DUP	S95T001092	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 1601

S M Fulton 7-3-95
Analyst Signature Date

Analyst Signature Date

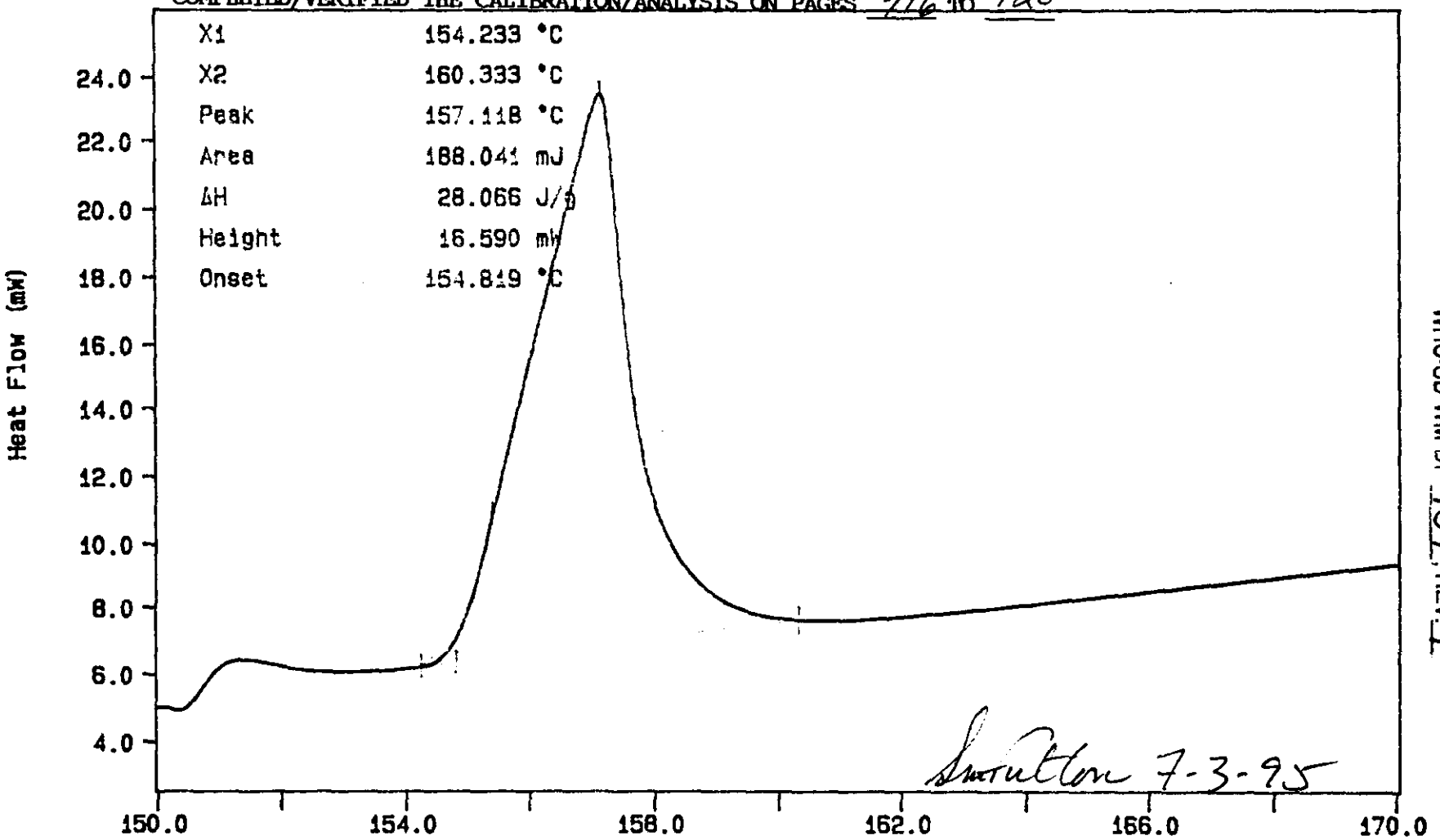
Other instrument was used
7-11-95
BDV

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND070301 Mon Jul 3 15:52:14 1995
Sample Weight: 6.700 mg
12N14A Indium at 10C/min

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 916 TO 920

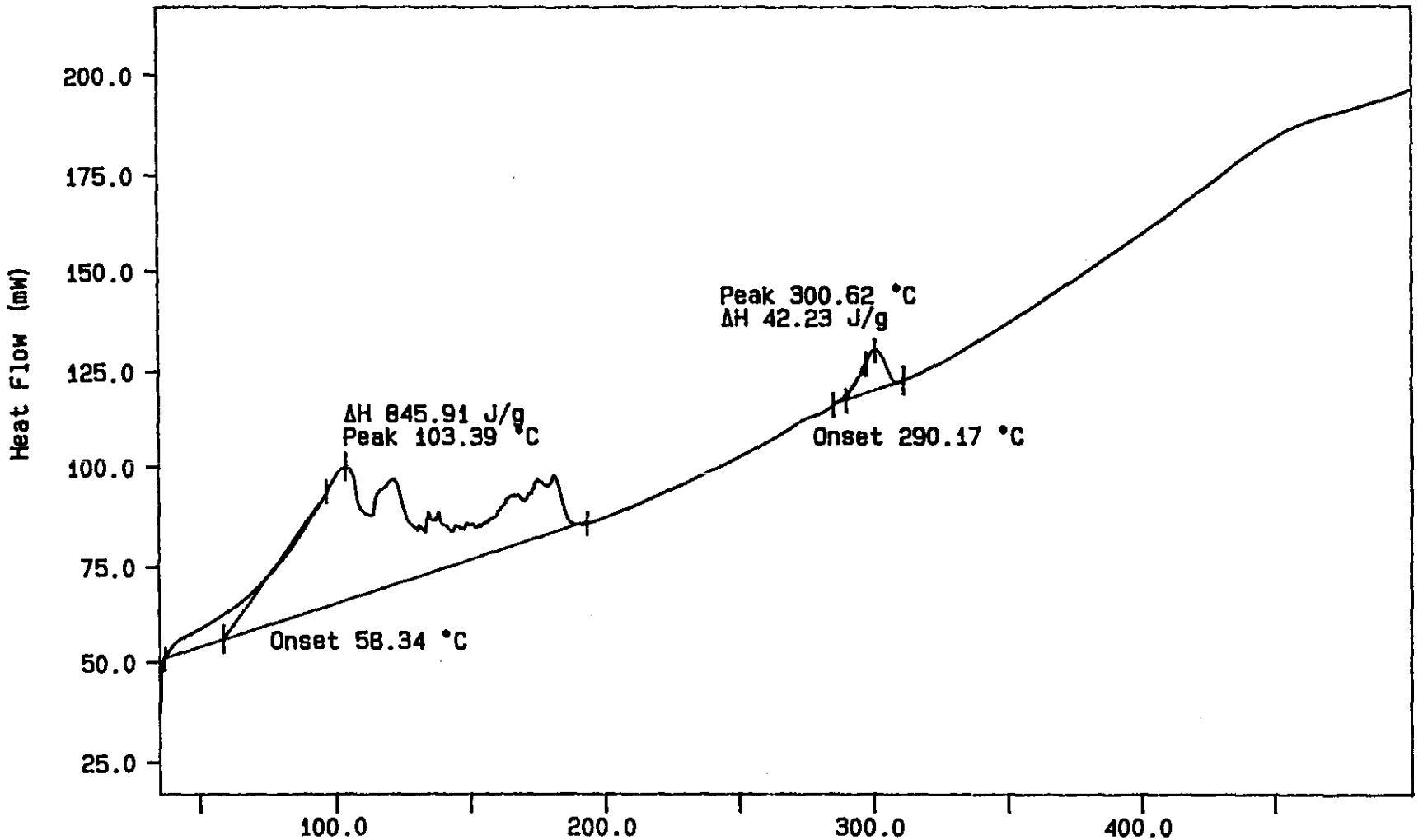


N2 exotherm down
TEMP1: 150.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 170.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Mon Jul 3 16:07:22 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM070301 Mon Jul 3 17:14:22 1995
Sample Weight: 15.280 mg
S95T001091, 10C/min

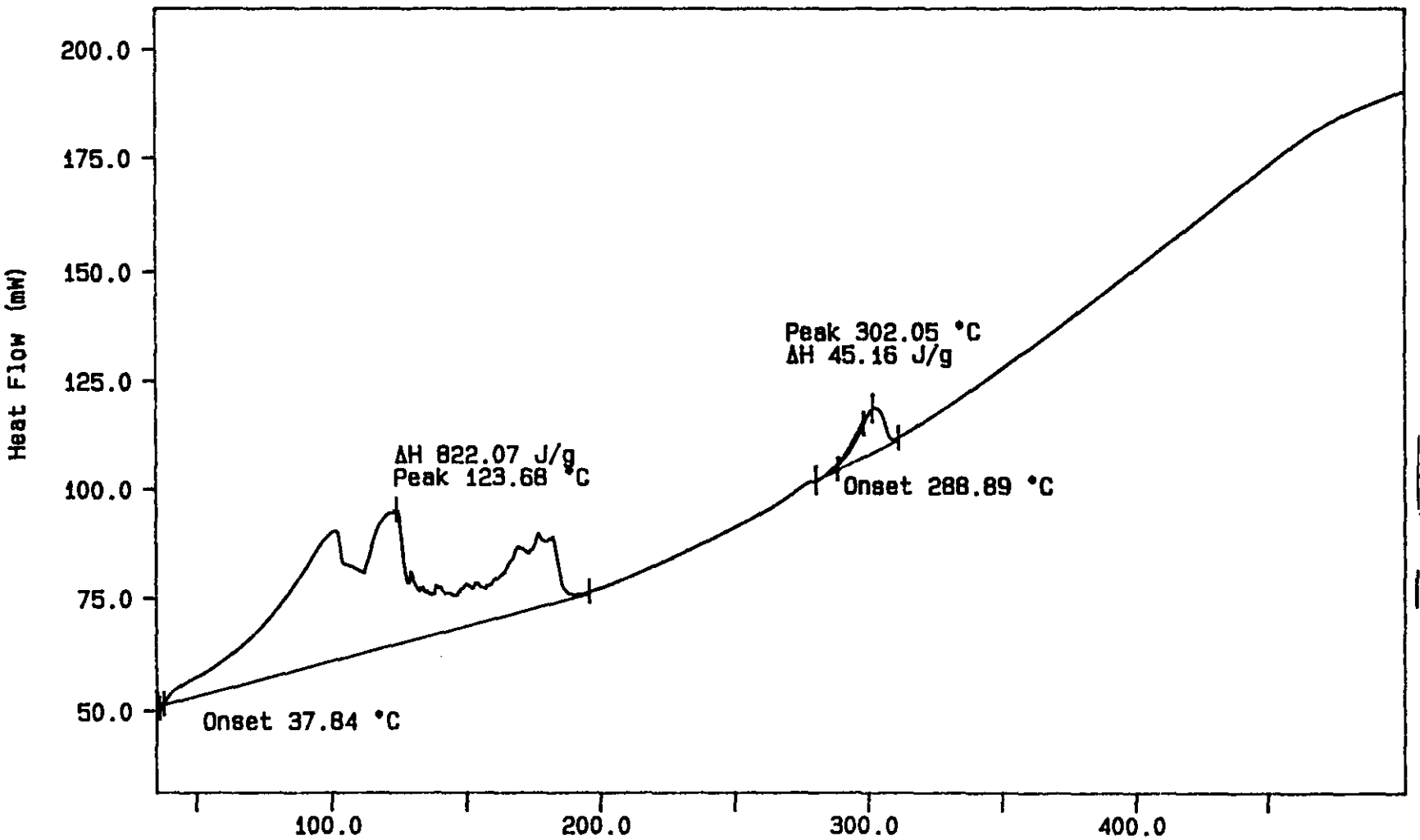


exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Mon Jul 3 17:56:13 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM070302 Mon Jul 3 18:46:39 1995
Sample Weight: 14.670 mg
S95T001091DUP, 10C/min

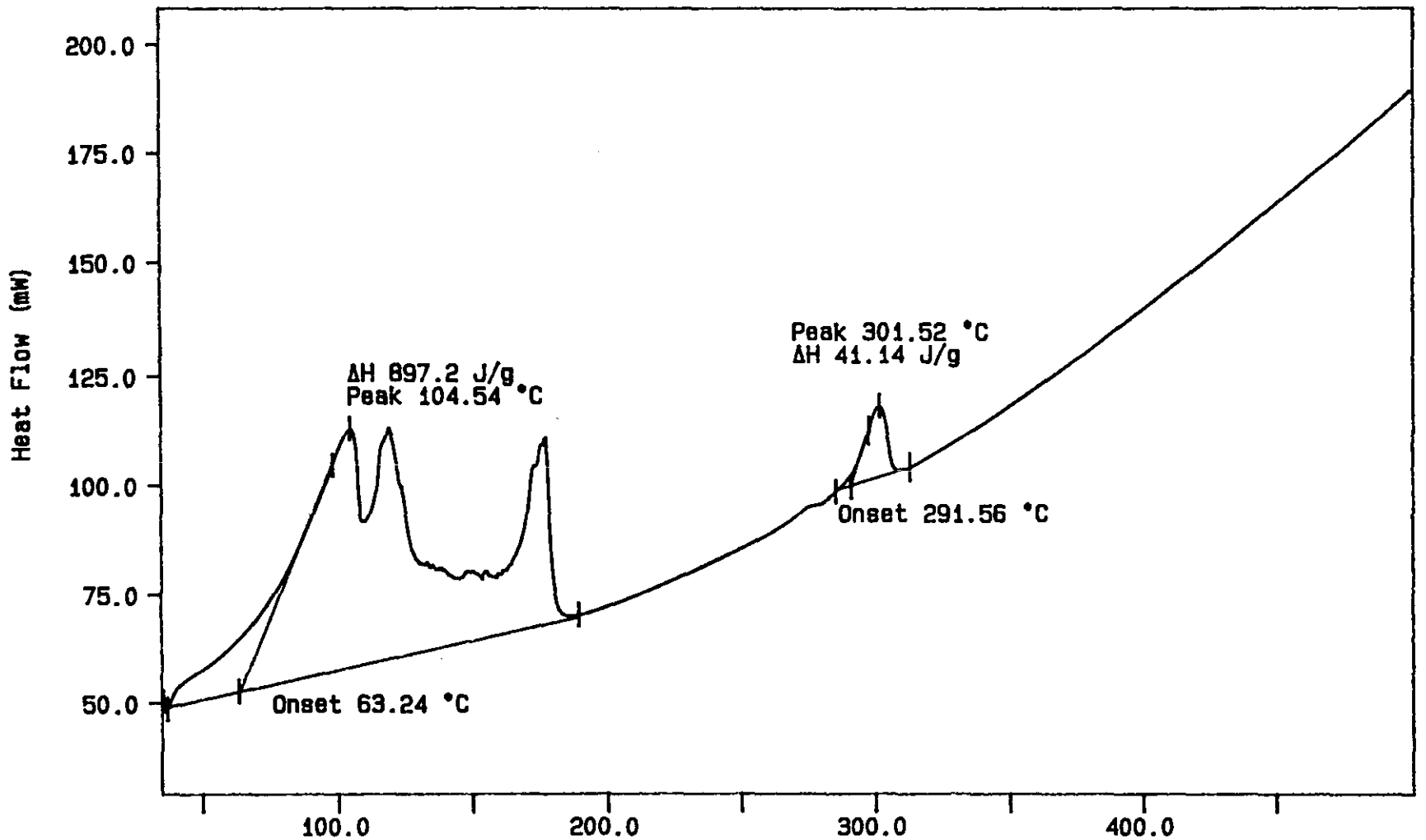


exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Mon Jul 3 18:48:08 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM070303 Mon Jul 3 19:47:33 1995
Sample Weight: 22.890 mg
S95T001092, 10C/min

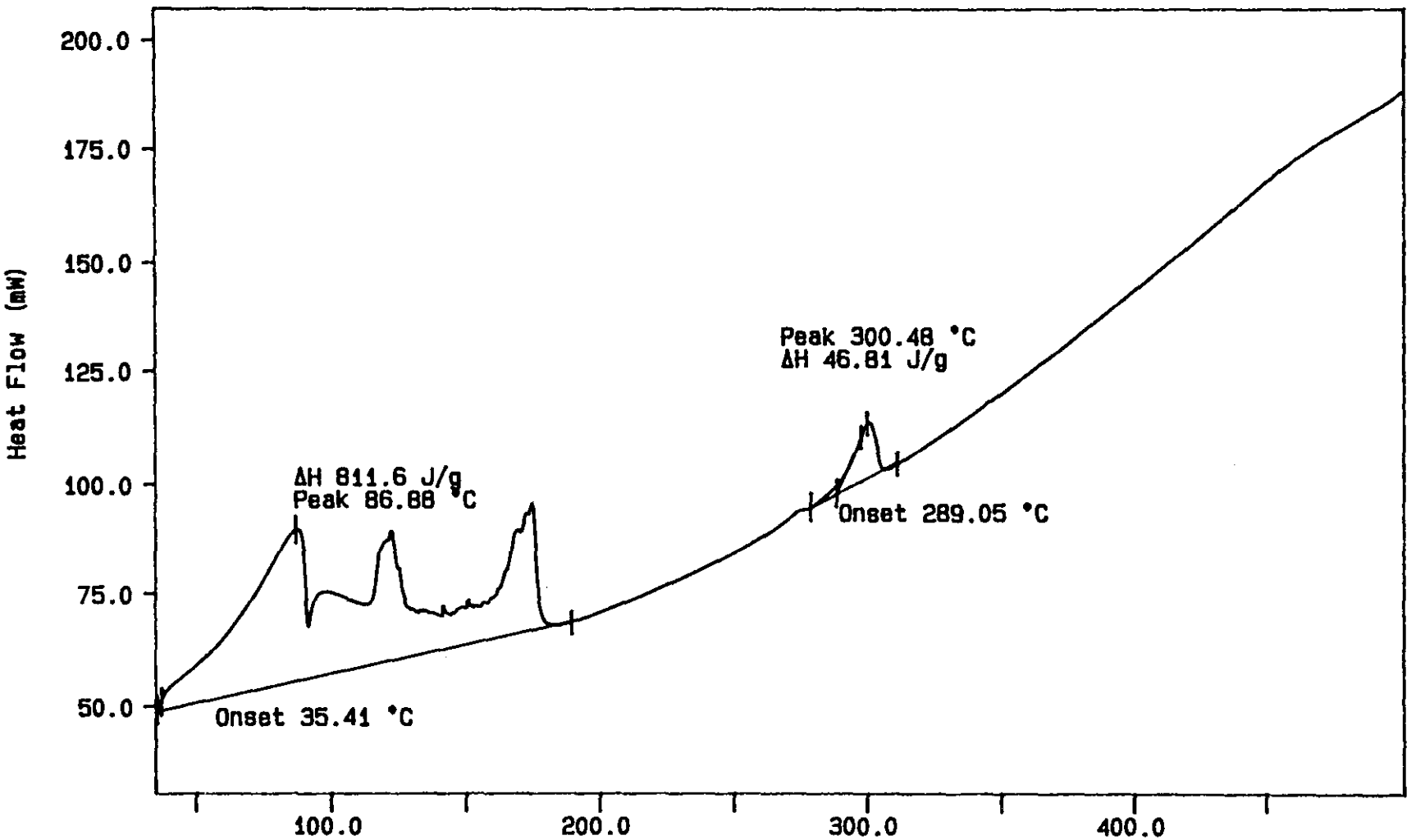


exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Mon Jul 3 21:04:46 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM070304 Mon Jul 3 21:55:17 1995
Sample Weight: 16.650 mg
S95T001092DUP, 10C/min



exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Mon Jul 3 21:57:23 1995

LABCORE Data Entry Template for Worklist# 1603

Analyst: sds **Instrument:** DSC0 1 **Book #** 12N144

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-01	LIQUID	28.45	30.6	N/A	Joules/g
95000085	B-104	2 SAMPLE	S95T001084	0		DSC-01	LIQUID	N/A	Ø		Joules/g
95000085	B-104	3 DUP	S95T001084	0		DSC-01	LIQUID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1603

[signature] 6-27-95
Analyst Signature **Date**

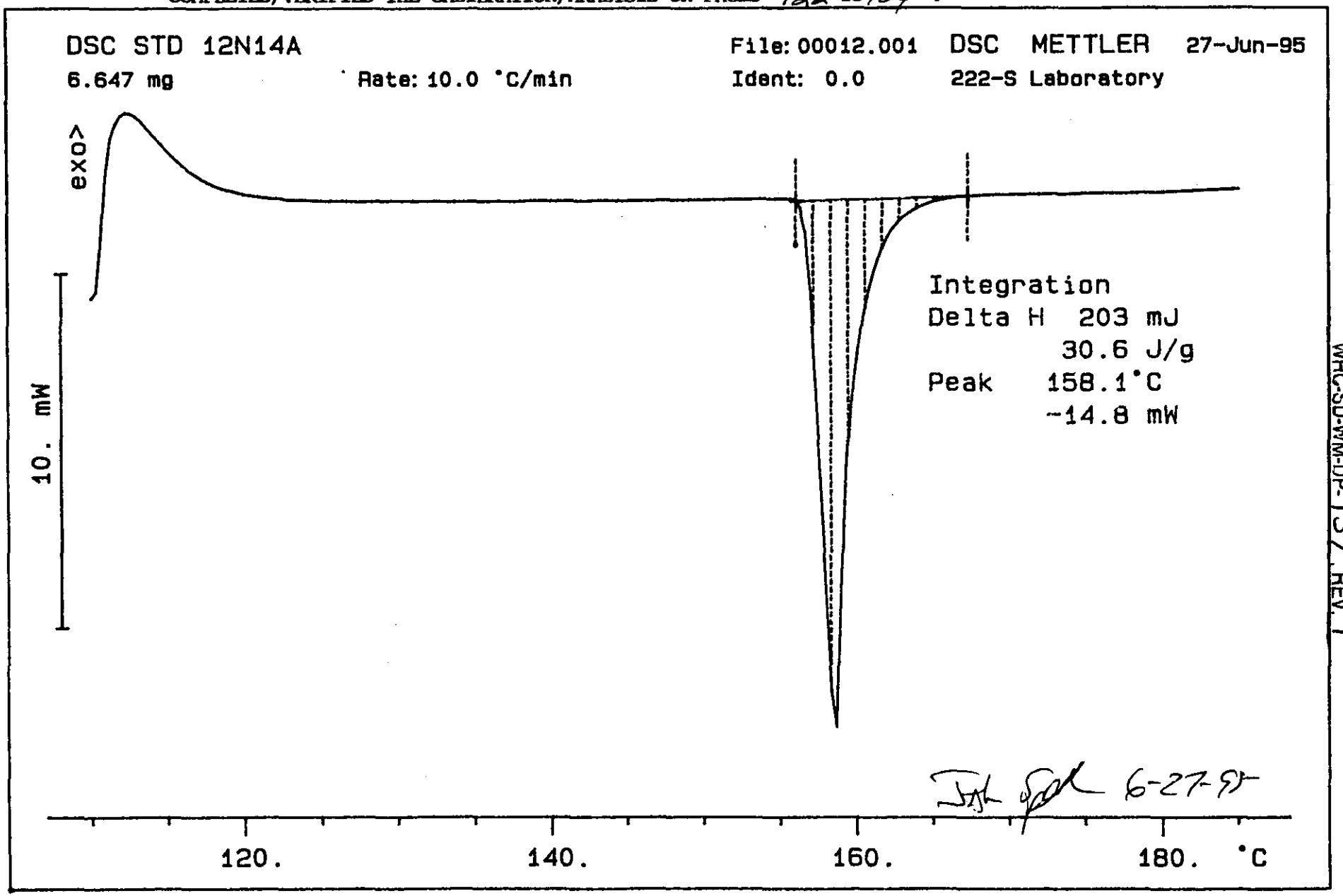
[signature] 6-29-95
Analyst Signature **Date**

Verified by Blandina Valenzuela 6-29-95

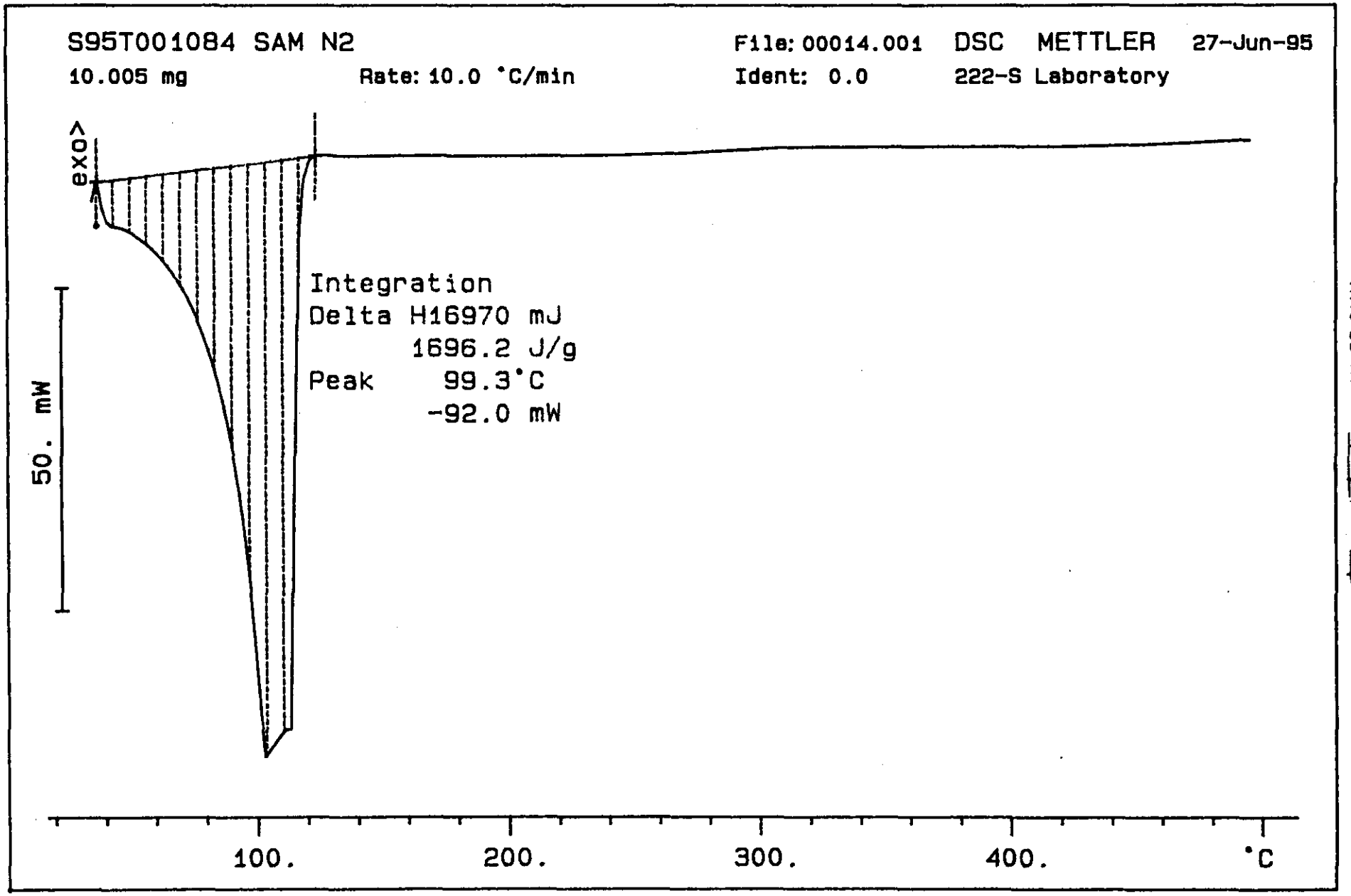
Data Entry Comments: Sample produced an endothermic region at 99.3°C with a delta H of 1696.2 J/g.

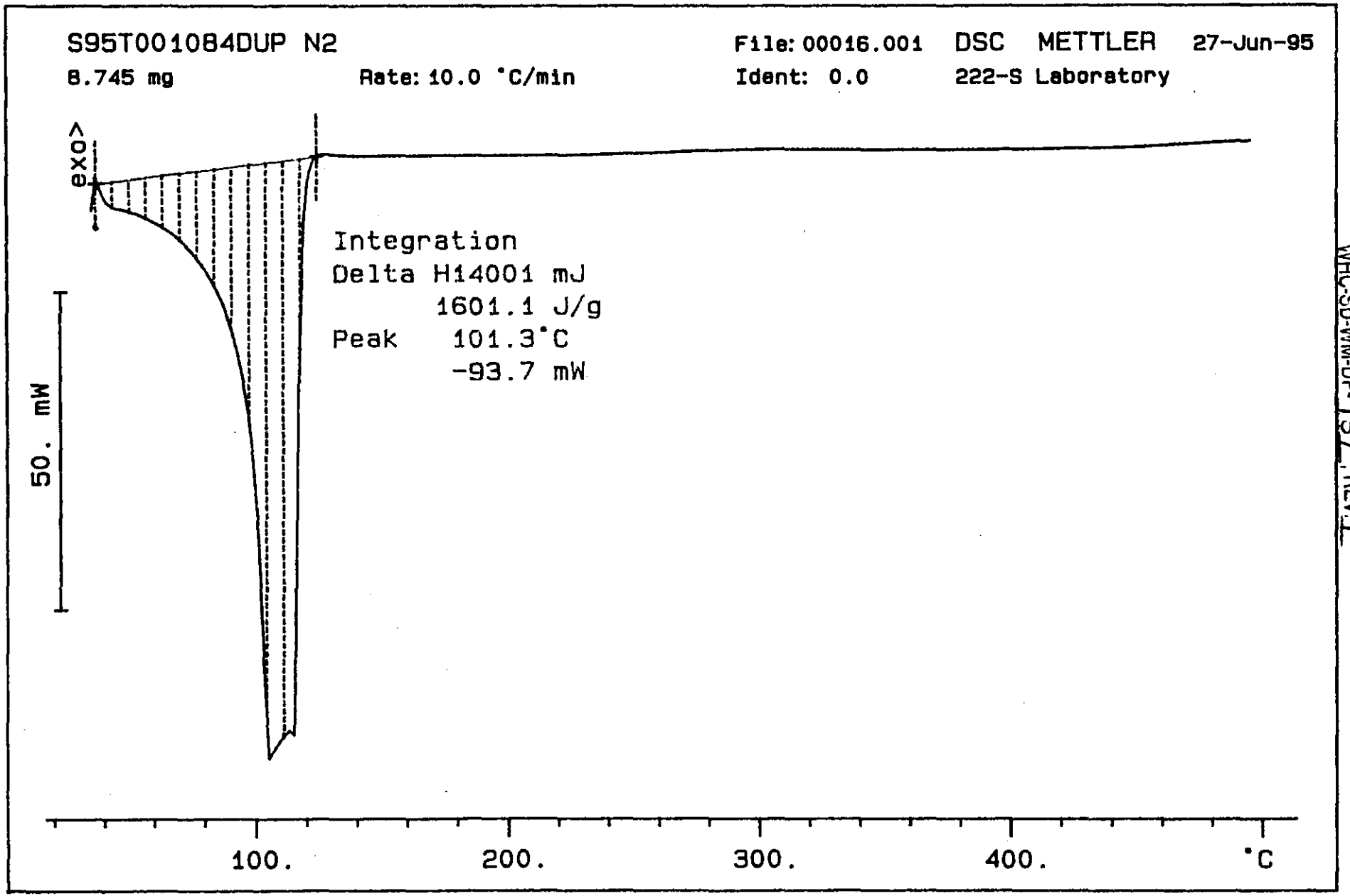
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 922 TO 924 .



6-27-95


S95T001084 SAM N2
10.005 mg
Rate: 10.0 °C/min
File: 00014.001
Ident: 0.0
DSC METTLER
222-S Laboratory
27-Jun-95
exo>
50. mW
Integration
Delta H16970 mJ
1696.2 J/g
Peak 99.3°C
-92.0 mW
100.
200.
300.
400.
°C



WHC-SD-WM-DP-137, REV. 1

LABCORE Data Entry Template for Worklist# 1627

Analyst: BMcCown **Instrument:** DSC0 1 **Book #** 12N14A

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-01	SOLID	28.45	28.3	N/A	Joules/g
95000085	B-104	2 SAMPLE	S95T001099	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000085	B-104	3 DUP	S95T001099	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g
95000085	B-104	4 SAMPLE	S95T001100	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000085	B-104	5 DUP	S95T001100	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1627

BMcCown 7/2/95
Analyst Signature Date

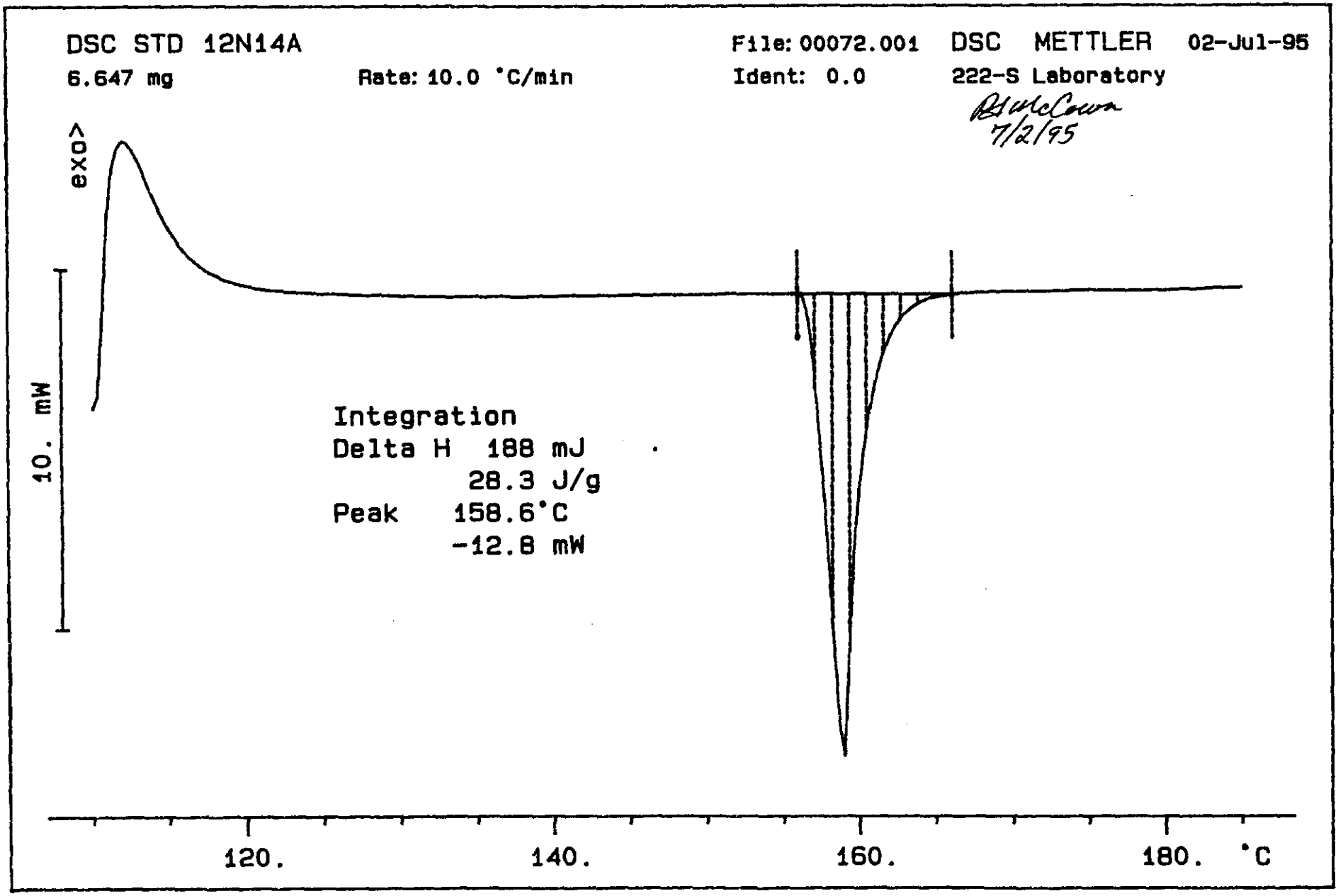
Blandina Valenzuela 7-11-95
Analyst Signature Date

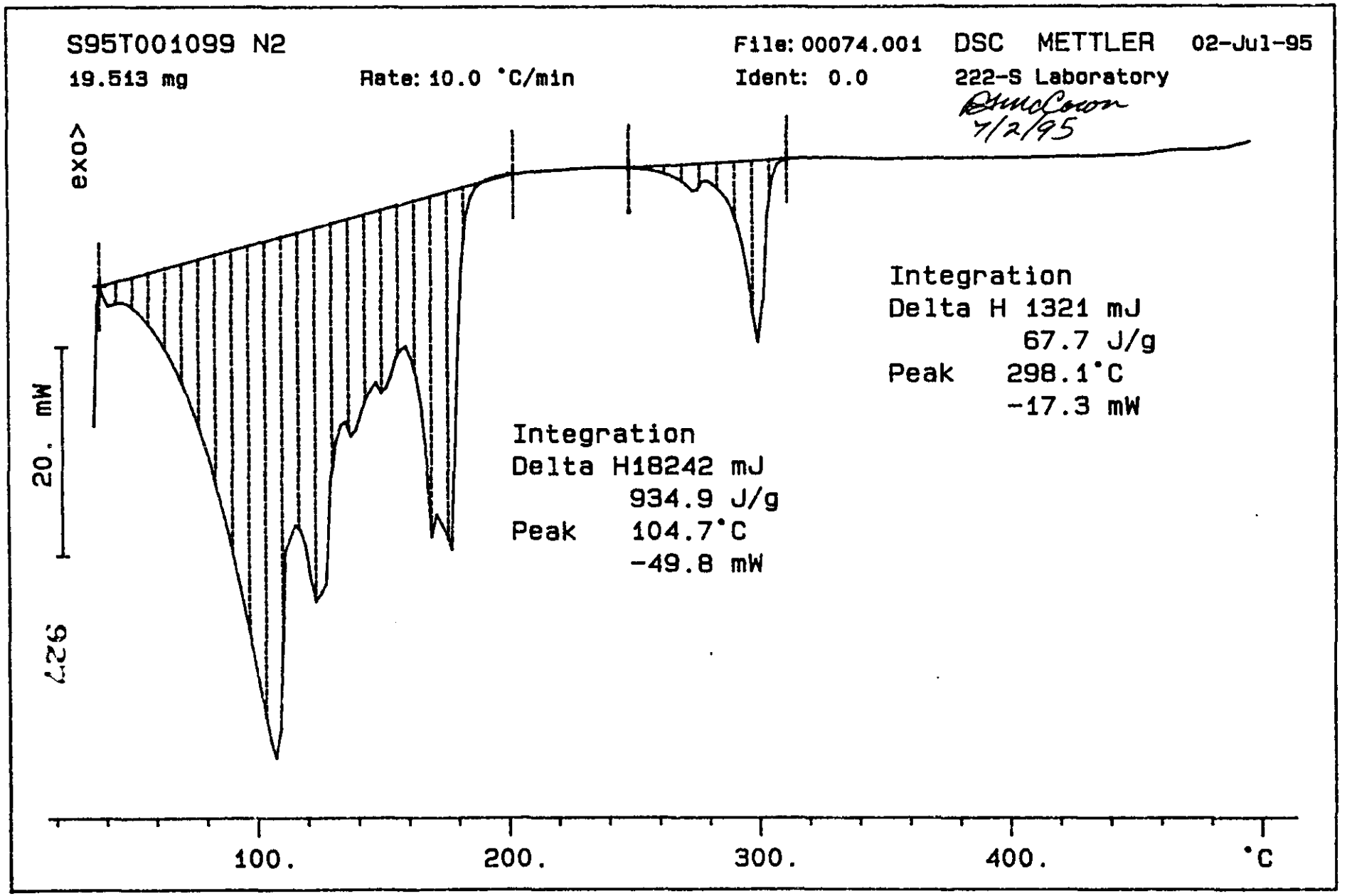
Verified by Blandina Valenzuela 7-12-95

S95T001099 produced two endothermic regions one at 104.7°C with a delta H of 934.9 J/g and the second at 298.1°C with a delta H of 67.7 J/g.

Data Entry Comments: S95T001100 produced two endothermic regions one at 113.1°C with a delta H of 1155.0 J/g and second at 298.5°C with a delta H of 70.9 J/g.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.


DSC STD 12N14A
6.647 mg
Rate: 10.0 °C/min
File: 00072.001
Ident: 0.0
DSC METTLER
222-S Laboratory
02-Jul-95
R H McCown
7/2/95
exo>
10. mW
Integration
Delta H 188 mJ
28.3 J/g
Peak 158.6°C
-12.8 mW
120.
140.
160.
180.
°C



927

WHC-SD-WM-DP-137, REV. 1

S95T001099 DUP N2

17.366 mg

Rate: 10.0 °C/min

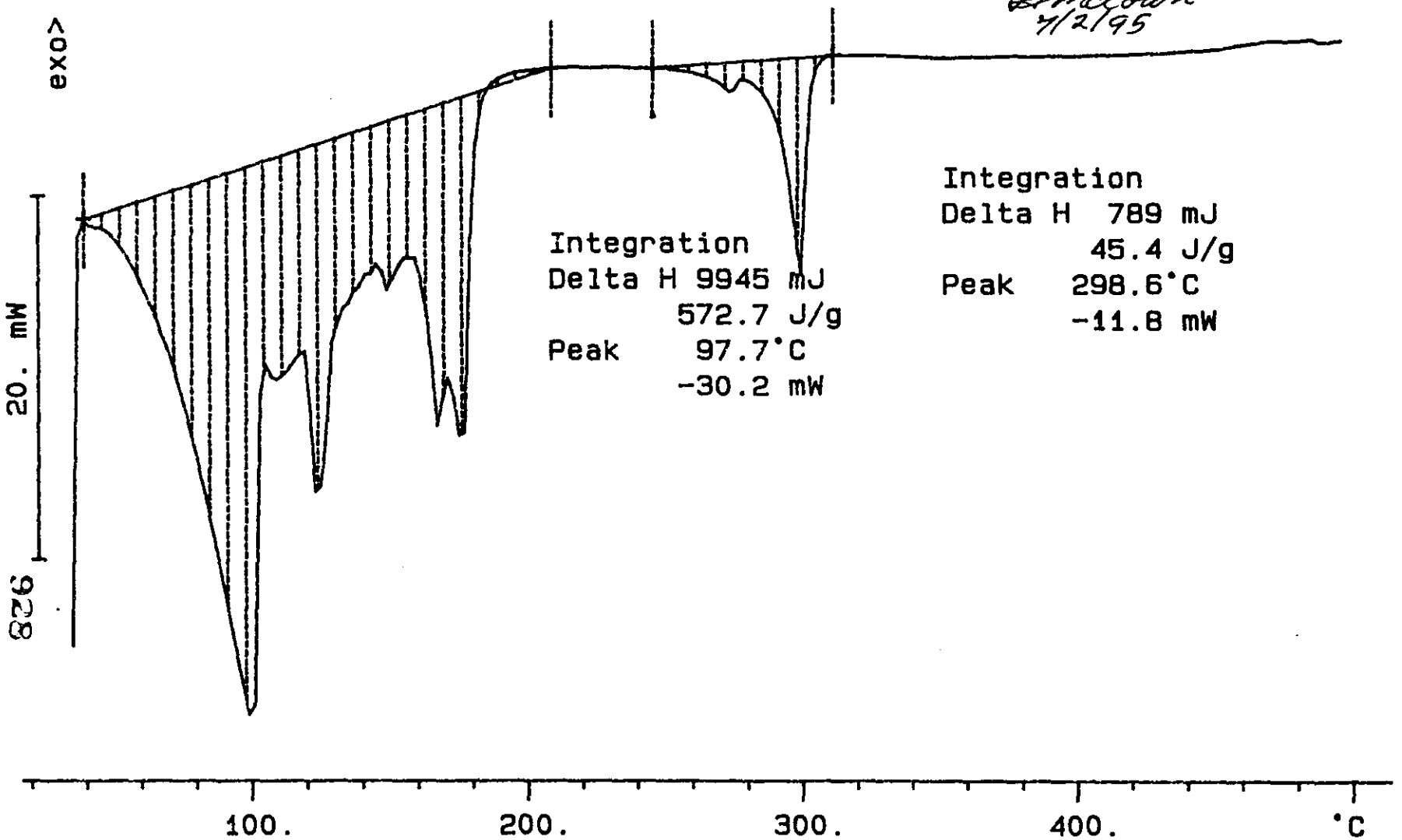
File: 00077.001

Ident: 0.0

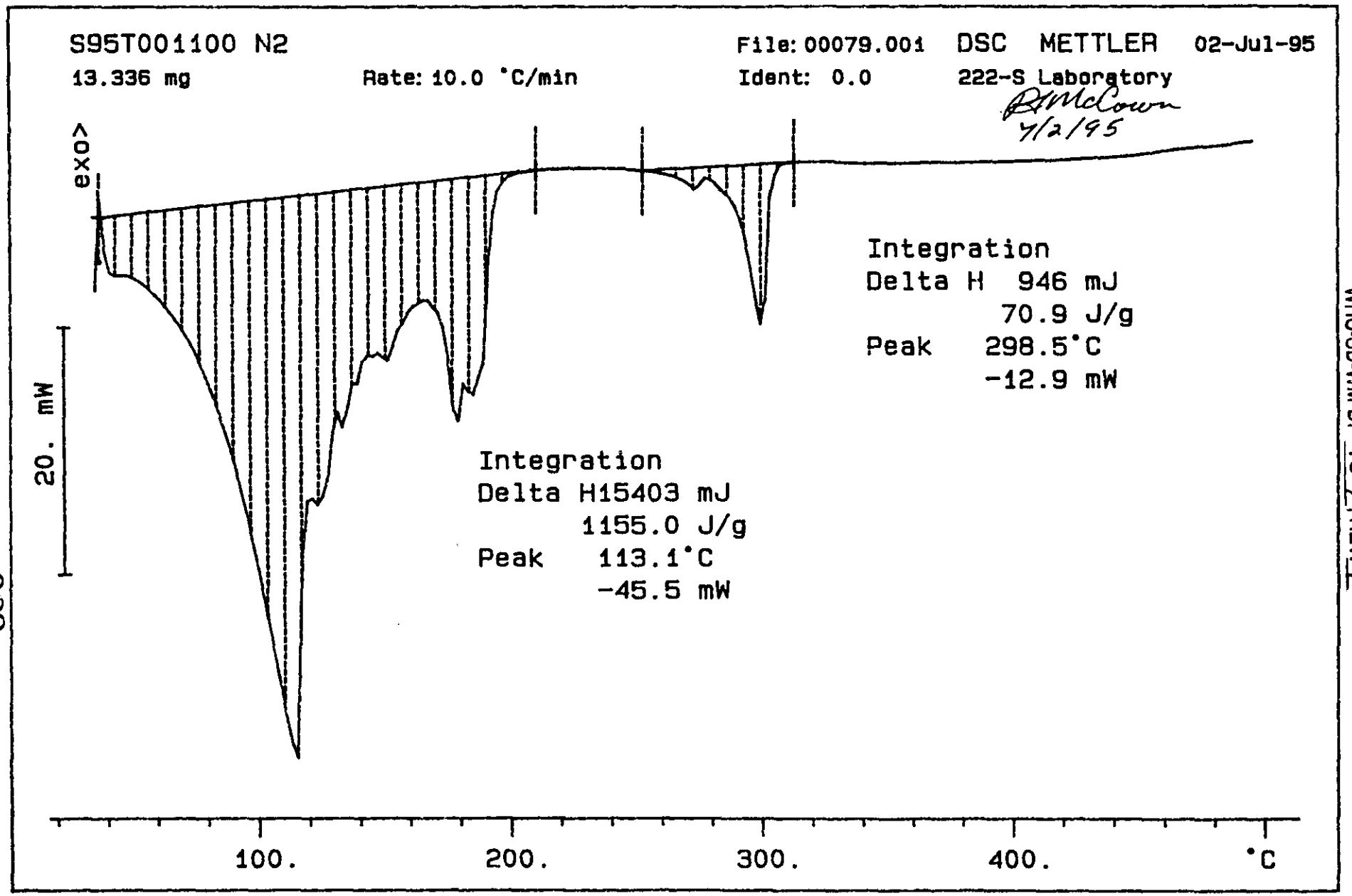
DSC METTLER 02-Jul-95

222-S Laboratory

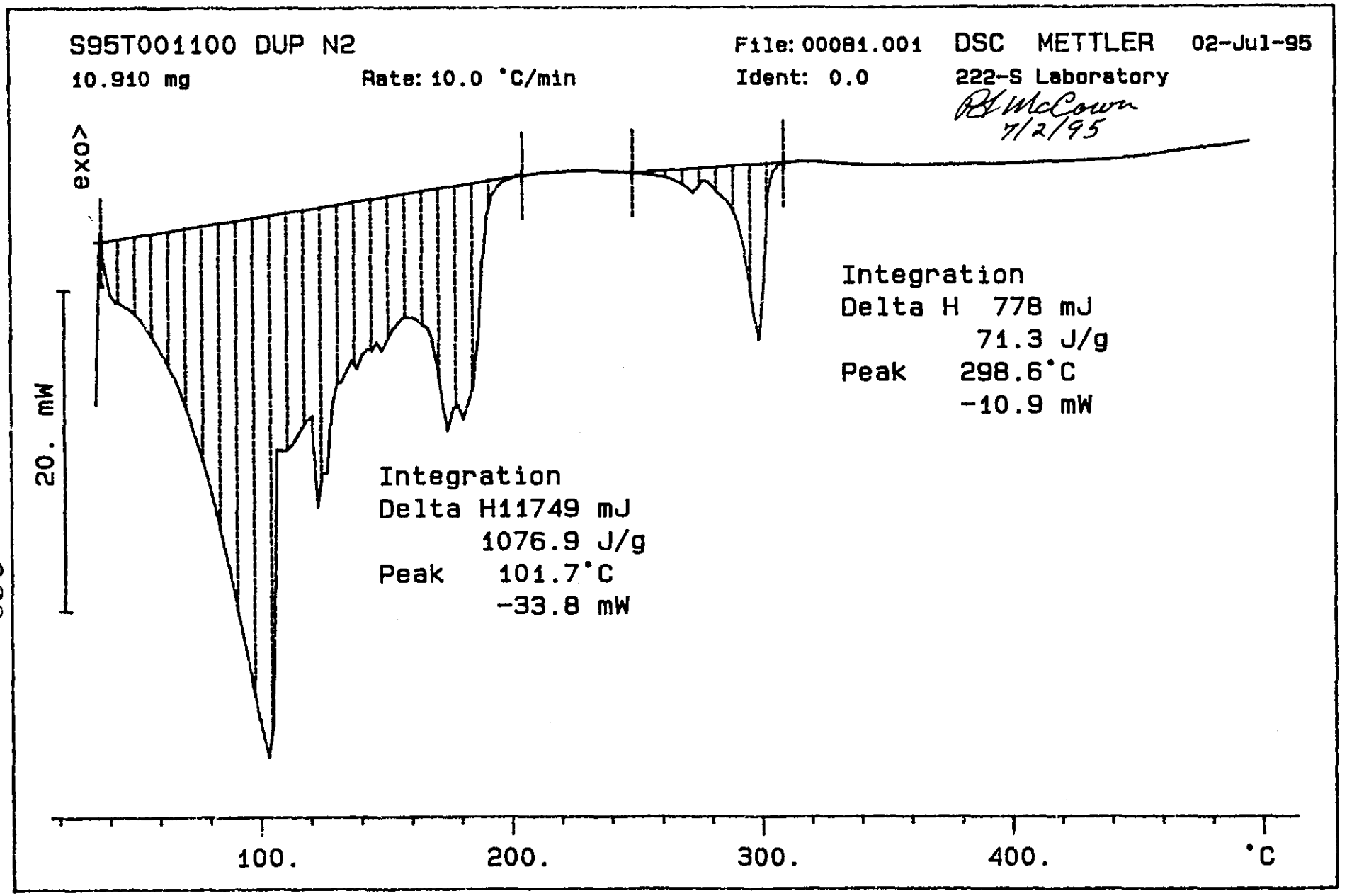
D M Cowan
7/2/95



WHC-SD-WM-DP-137, REV. 1



WHC-SD-WM-DP-137, REV. 1


S95T001100 DUP N2
10.910 mg
Rate: 10.0 °C/min
File: 00081.001
Ident: 0.0
DSC METTLER
222-S Laboratory
02-Jul-95
R H McCown
7/2/95
<exo
20. mW
Integration
Delta H 778 mJ
71.3 J/g
Peak 298.6°C
-10.9 mW
Integration
Delta H11749 mJ
1076.9 J/g
Peak 101.7°C
-33.8 mW
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1628

Analyst: SMF **Instrument:** DSC0 3 **Book #** 12N14-A

Method: LA-514-114 Rev/Mod B-0

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	SOLID	28.45	27.36	N/A	Joules/g
95000088	B-104	2 SAMPLE	S95T001107	0		DSC-03	SOLID	N/A	Ø		Joules/g
95000088	B-104	3 DUP	S95T001107	0		DSC-03	SOLID	Ø	Ø	N/A	Joules/g
95000088	B-104	4 SAMPLE	S95T001108	0		DSC-03	SOLID	N/A	Ø		Joules/g
95000088	B-104	5 DUP	S95T001108	0		DSC-03	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1628

See attached for signatures
Analyst Signature Date 7-10-95 BDV

Verified by Blandina Valenzuela 7-12-95

[signature] 7-11-95
Analyst Signature Date

S95T001107 produced two endothermic regions one at 123.2 °C with a ΔH = 623.28 J/g and the second at ~~2~~ 302.3°C with a ΔH = 32.1 J/g. 7-10-95 BDV

Data Entry Comments: S95T001108 produced two endothermic regions, one at 104.9°C with a delta H of 905.4 J/g and second at 300.4°C with a delta H of ~~43~~ 44.0 J/g. 10-95 BDV

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1628

Analyst: SMF **Instrument:** DSC0 _____ **Book #** 12N14A

Method: ~~LA-514-113 Rev/Mod~~ SMF LA-514-114/B0

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
95000088	B-104	2	SAMPLE	S95T001107	0		DSC-01	SOLID	N/A			Joules/g
95000088	B-104	3	DUP	S95T001107	0		DSC-01	SOLID			N/A	Joules/g
95000088	B-104	4	SAMPLE	S95T001108	0		DSC-01	SOLID	N/A			Joules/g
95000088	B-104	5	DUP	S95T001108	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 1628

Samuel Ferguson 7-95

Analyst Signature **Date** **Analyst Signature** **Date**

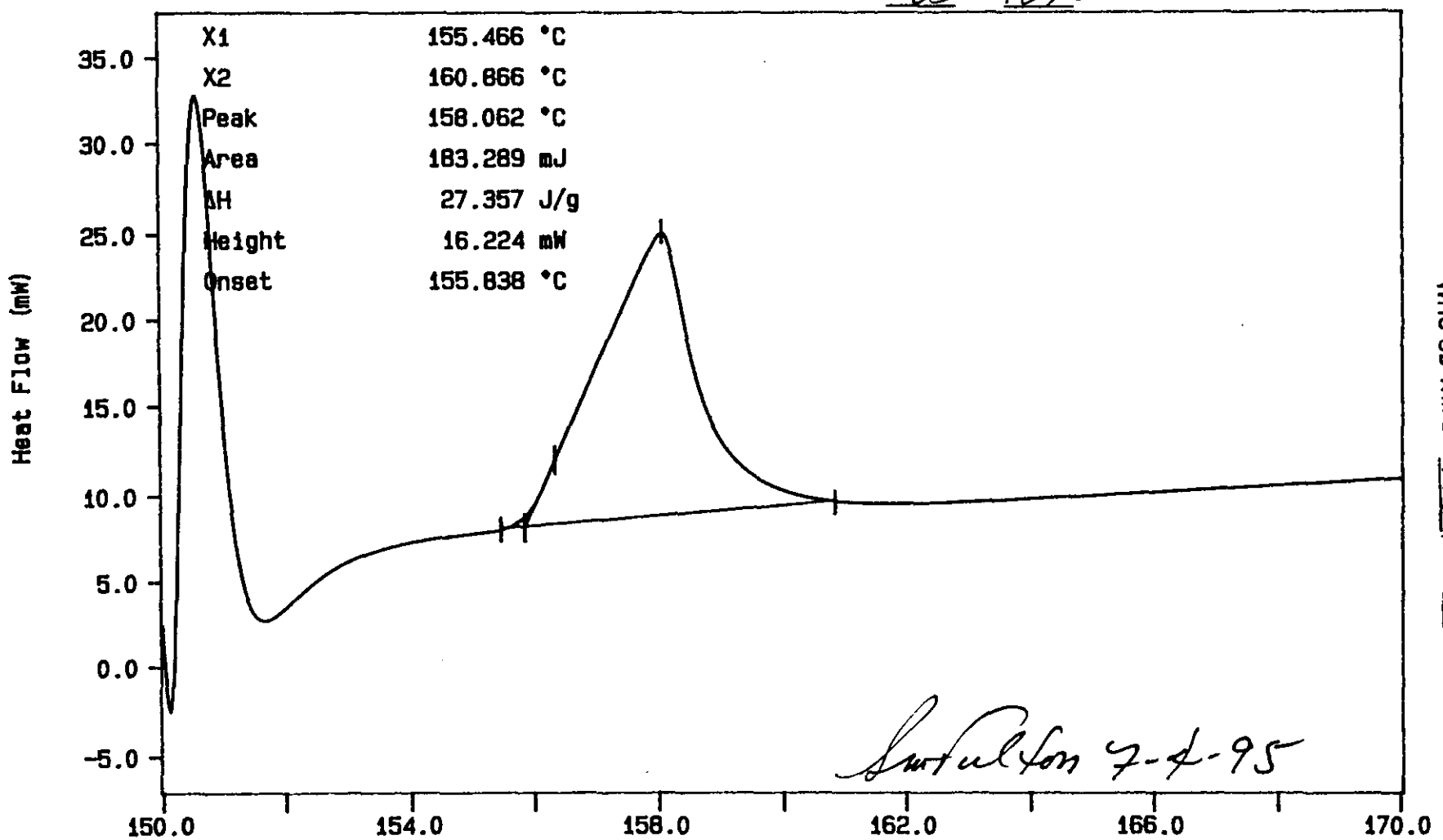
Other instrument was used
7-10-95
BDV

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND070401 Tue Jul 4 15:49:26 1995
Sample Weight: 6.700 mg
12N14A Indium at 10C/min

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 933 TO 937.

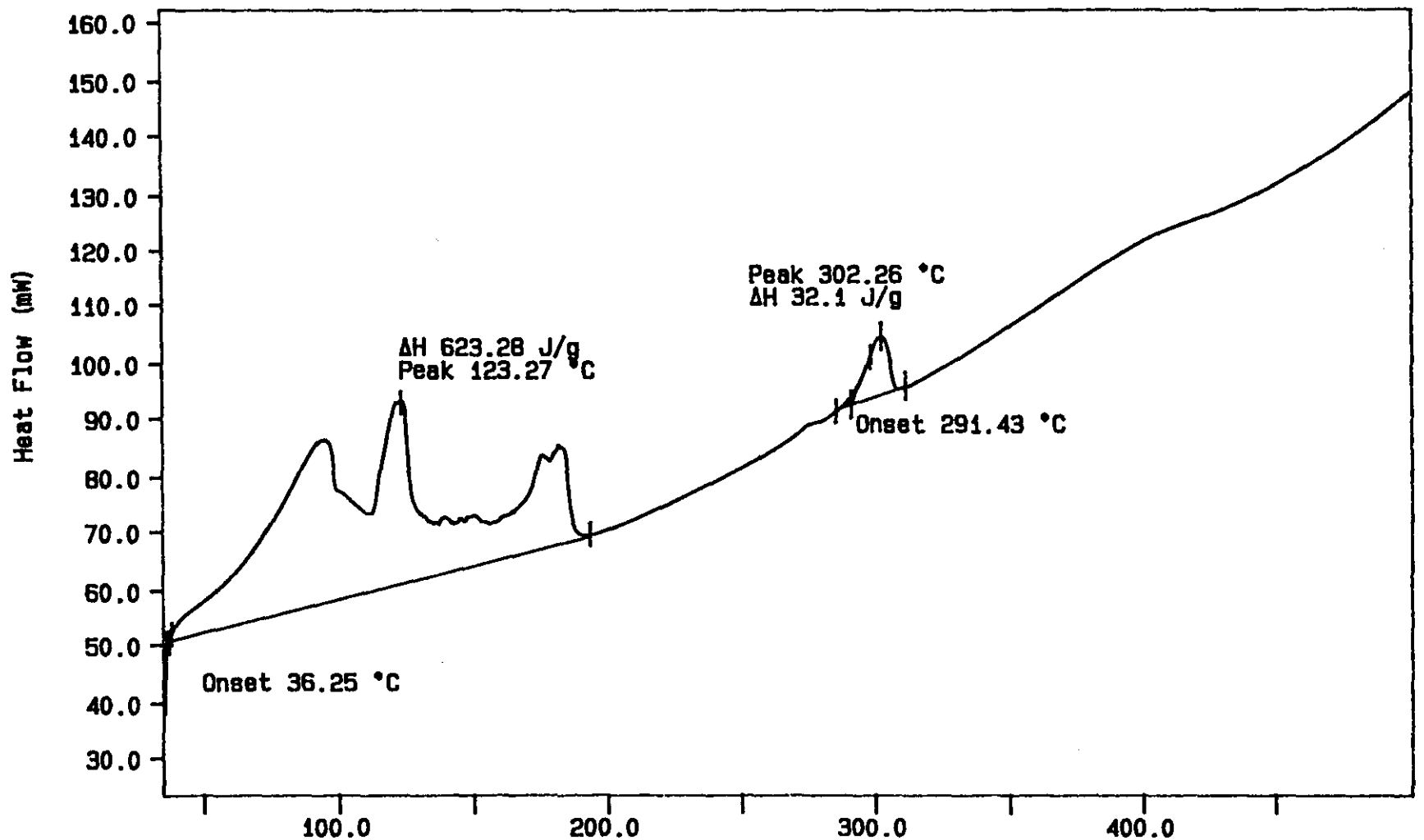


N2 exotherm down
TEMP1: 150.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 170.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Tue Jul 4 15:50:13 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM070401 Tue Jul 4 17:08:02 1995
Sample Weight: 19.930 mg
S95T001107, 10C/min

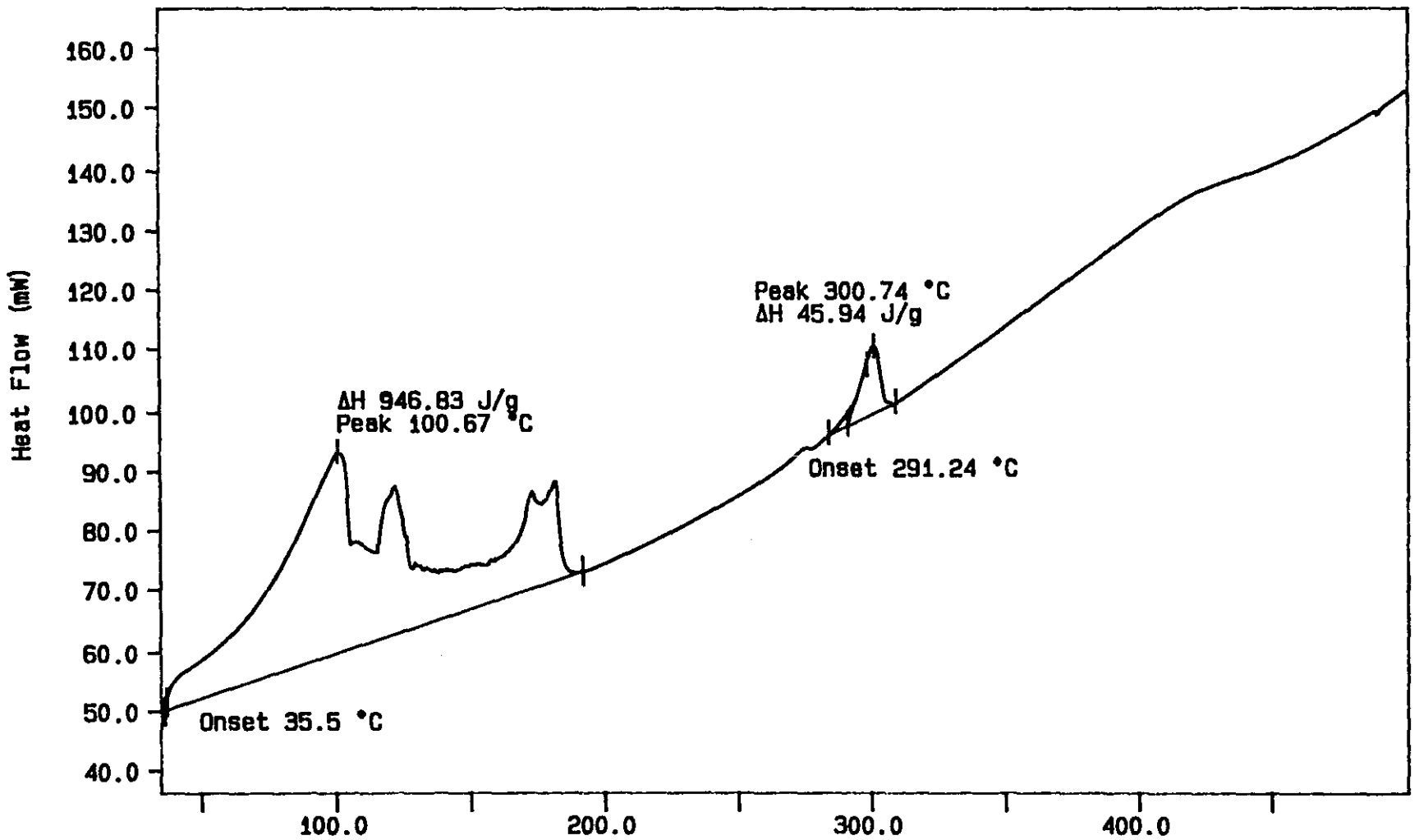


exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Tue Jul 4 17:39:23 1995

WHC-SD-WM-DP-132, REV. 1

Curve 1: DSC
File info: SAM070402 Tue Jul 4 18:30:26 1995
Sample Weight: 12.750 mg
S95T001107DUP, 10C/min

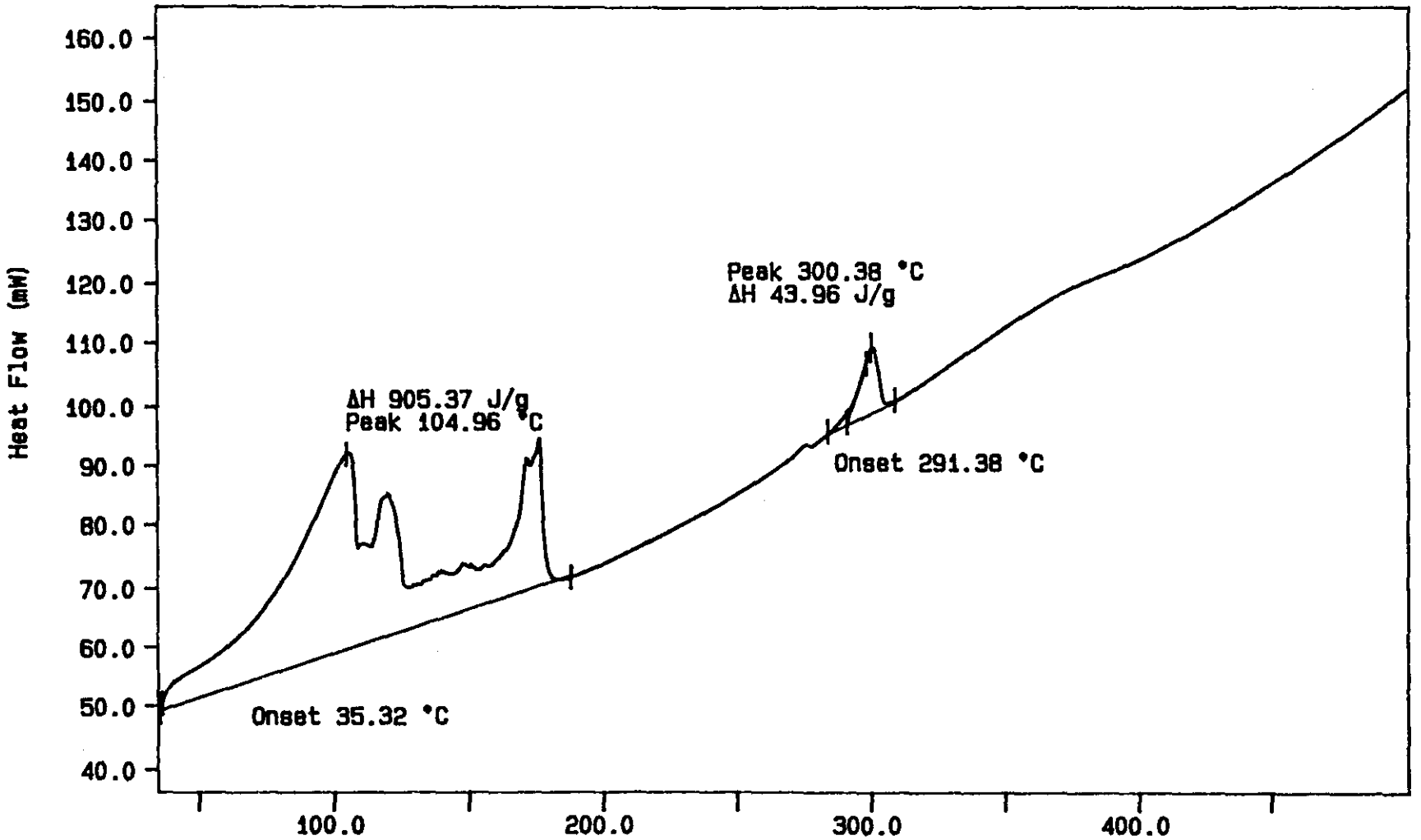


exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Tue Jul 4 18:32:01 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM070403 Tue Jul 4 19:27:37 1995
Sample Weight: 12.130 mg
S95T001108, 10C/min

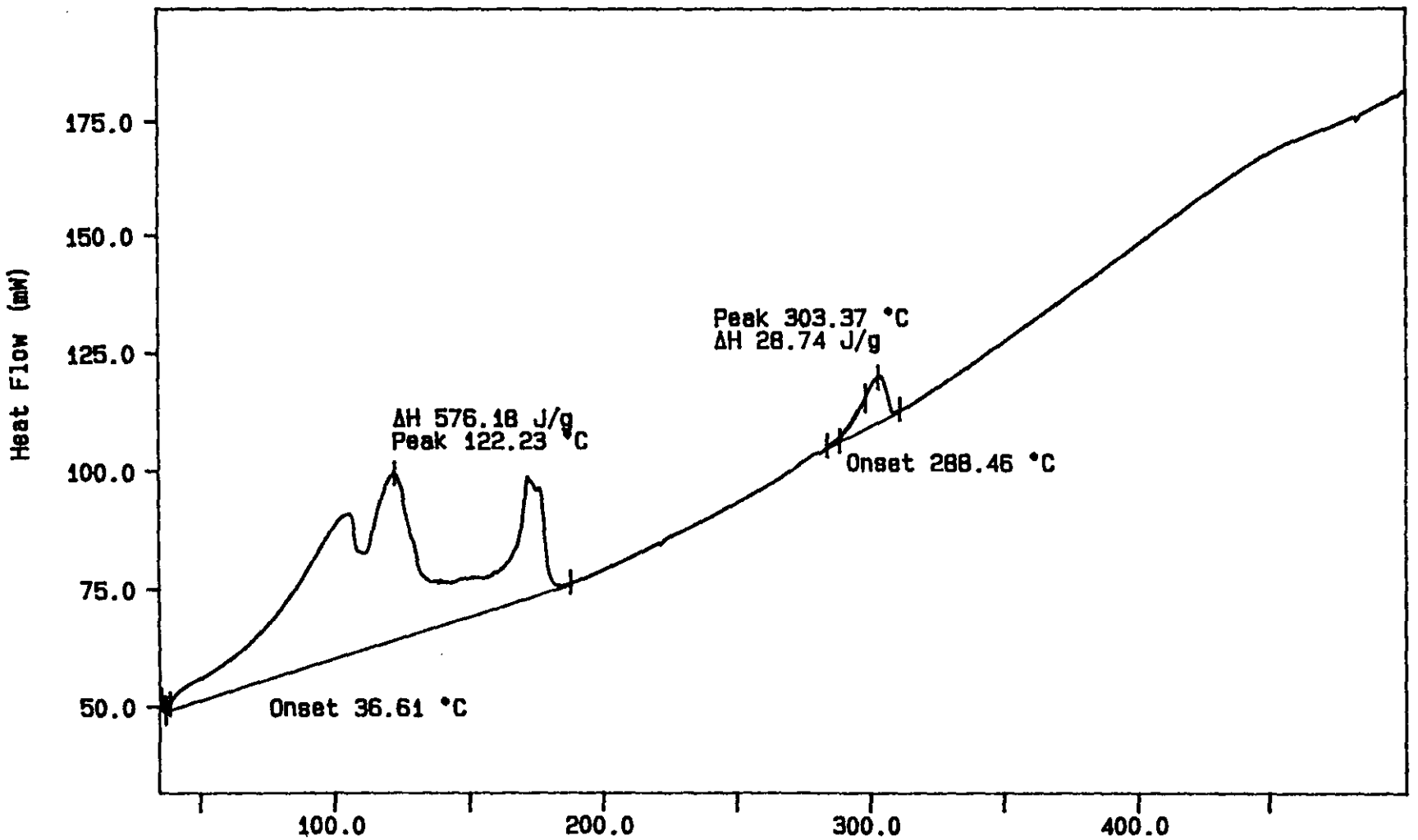


exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Tue Jul 4 21:02:40 1995

WHC-SD-WM-DP-132, REV. 1

Curve 1: DSC
File info: SAM070404 Tue Jul 4 21:54:54 1995
Sample Weight: 21.870 mg
S95T001108DUP, 10C/min



exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Tue Jul 4 21:57:55 1995

WHC-SD-WM-DP-137, REV. 1

LABCORE Data Entry Template for Worklist# 1629

Analyst: SMF **Instrument:** DSC0 3 **Book #** 12N14-A

Method: LA-514-114 Rev/Mod B-0

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-03	SOLID	28.45	27.5	N/A	Joules/g
95000088	B-104	2 SAMPLE	S95T001113	0		DSC-03	SOLID	N/A	Ø		Joules/g
95000088	B-104	3 DUP	S95T001113	0		DSC-03	SOLID	Ø	Ø	N/A	Joules/g
		4 STD				DSC-03	SOLID	28.45	28.2	N/A	Joules/g
95000088	B-104	5 SAMPLE	S95T001114	0		DSC-03	SOLID	N/A	Ø		Joules/g
95000088	B-104	6 DUP	S95T001114	0		DSC-03	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1629

See attached for signature
Analyst Signature **Date** 7-11-95 BDV

Verified by Blandina Valenzuela 7-12-95

[illegible] 7-12-95
Analyst Signature **Date**

S95T001113 was a mustard yellow thin sludge with a clear yellow liquid layer. Sample produced two endothermic regions one at 124.9°C with a delta H of 857.6 J/g and second at 303.3°C with a delta H of 41.1 J/g.

Data Entry Comments: S95T1114 was a mustard yellow thin sludge with a clear yellow liquid layer. Sample produced two endothermic regions, one at 117.3°C with a delta H of 994.7 J/g and second at 301.0°C with a delta H of 48.3 J/g.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1629

Analyst: SMF **Instrument:** DSC0 _____ **Book #** 12N14-A

Method: ~~LA-514-113 Rev/Mod~~ LA-514-114/B-0
SMF

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
95000088	B-104	2	SAMPLE	S95T001113	0		DSC-01	SOLID	N/A			Joules/g
95000088	B-104	3	DUP	S95T001113	0		DSC-01	SOLID			N/A	Joules/g
95000088	B-104	4	SAMPLE	S95T001114	0		DSC-01	SOLID	N/A			Joules/g
95000088	B-104	5	DUP	S95T001114	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 1629

SMFullen 7-1-95
Analyst Signature Date

Analyst Signature Date

Other instrument was used
7-11-95
BDV

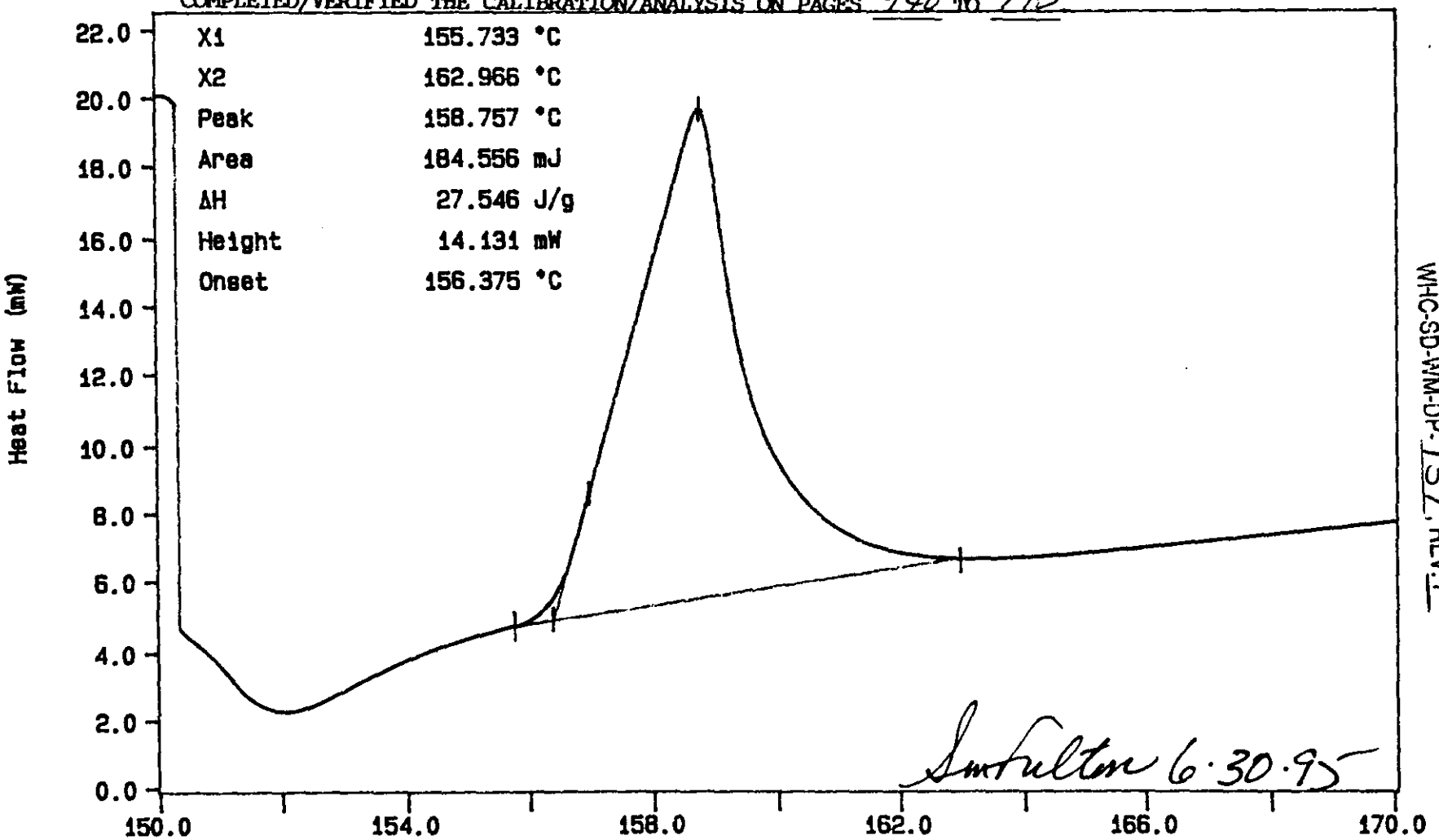
Data Entry Comments:

Both samples are a Mustard yellow thin sludge (with a clear yellow liquid layer)

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: DSC
File info: IND3002 Fri Jun 30 17:53:59 1995
Sample Weight: 6.700 mg
12N14A Indium at 10C/min

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 940 TO 945

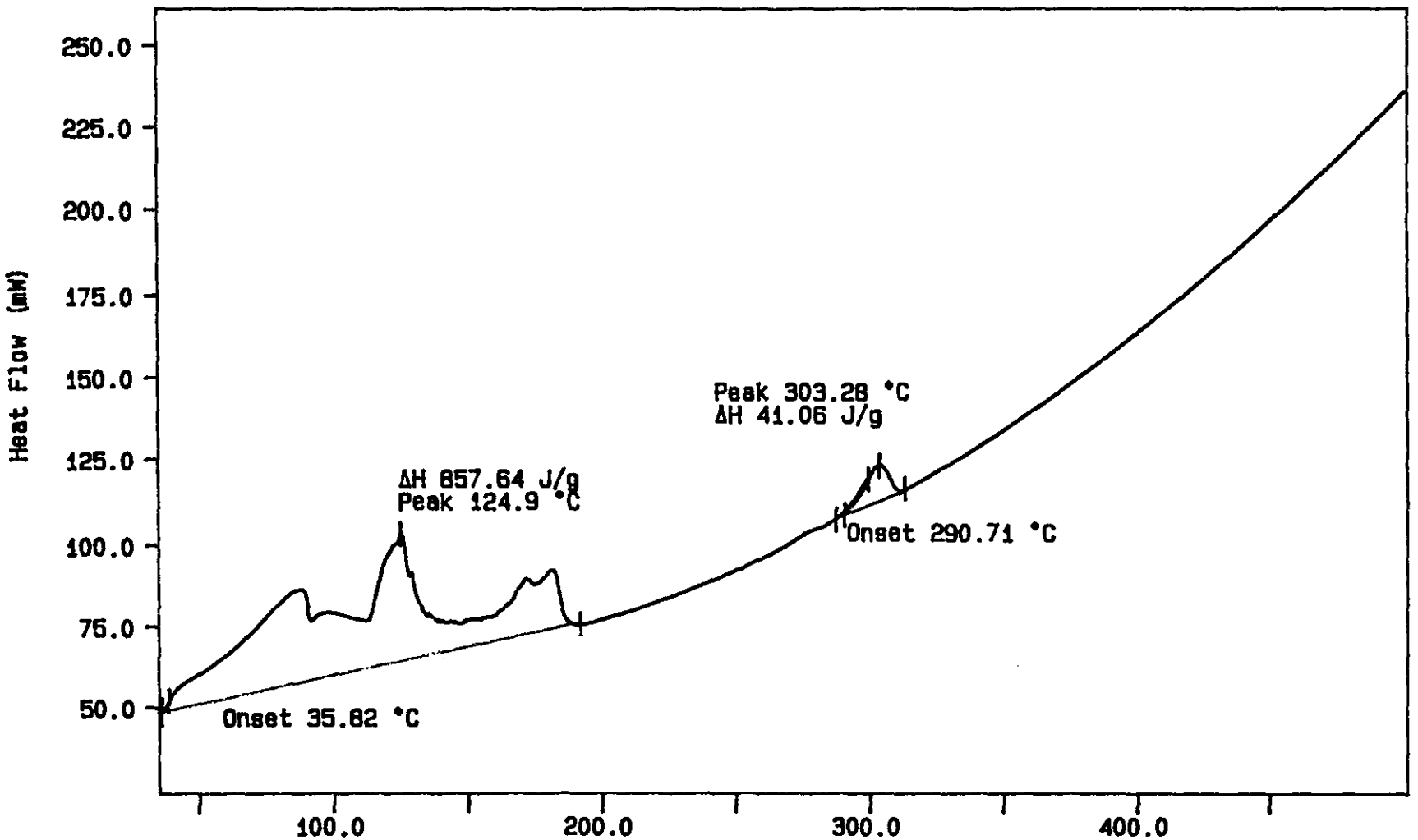


N2 exotherm down
TEMP1: 150.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 170.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Fri Jun 30 17:57:09 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM063006 Fri Jun 30 20:12:36 1995
Sample Weight: 17.050 mg
S95T001113, 10C/min

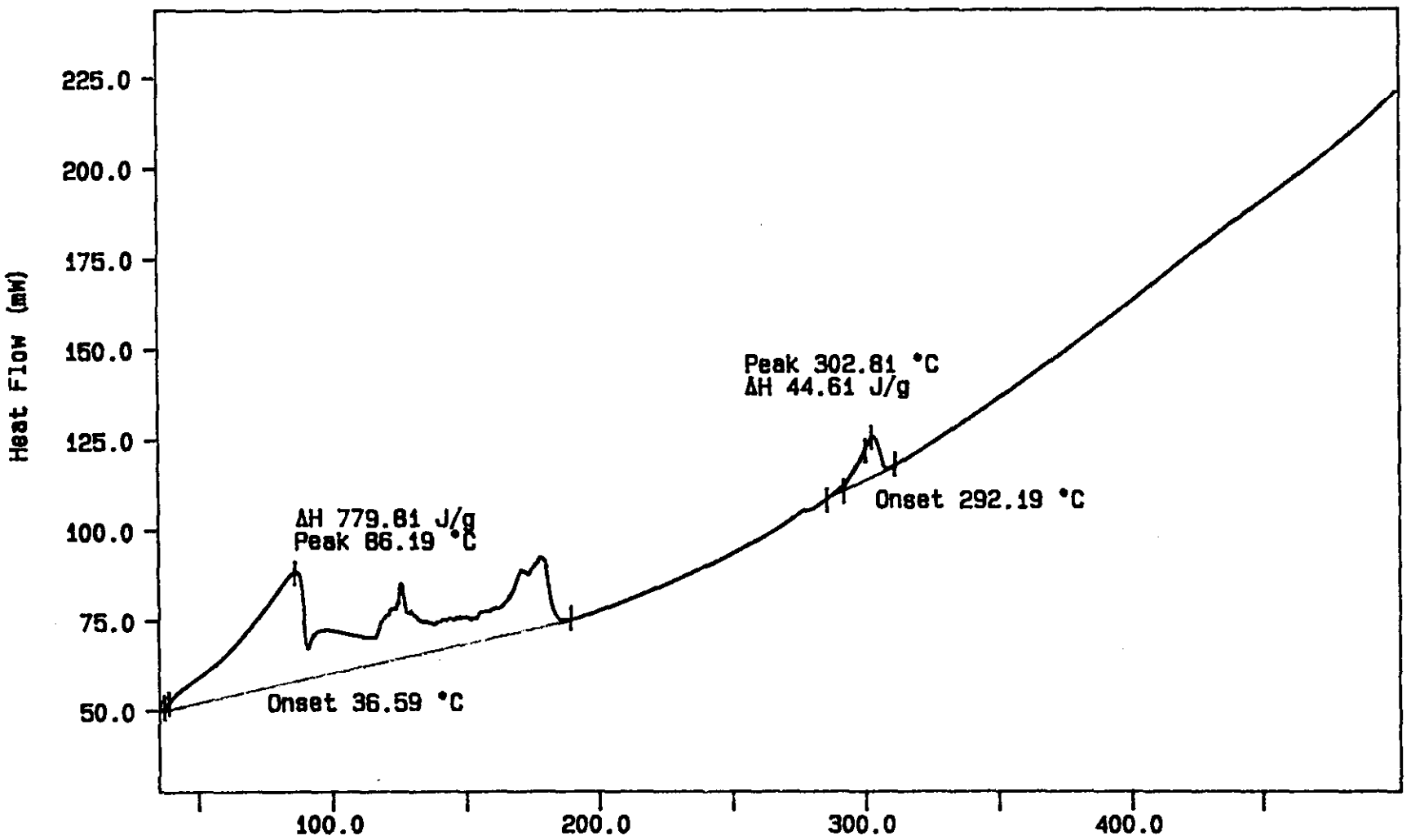


exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Fri Jun 30 20:59:28 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM063007 Fri Jun 30 21:54:02 1995
Sample Weight: 13.580 mg
S95T001113DUP, 10C/min



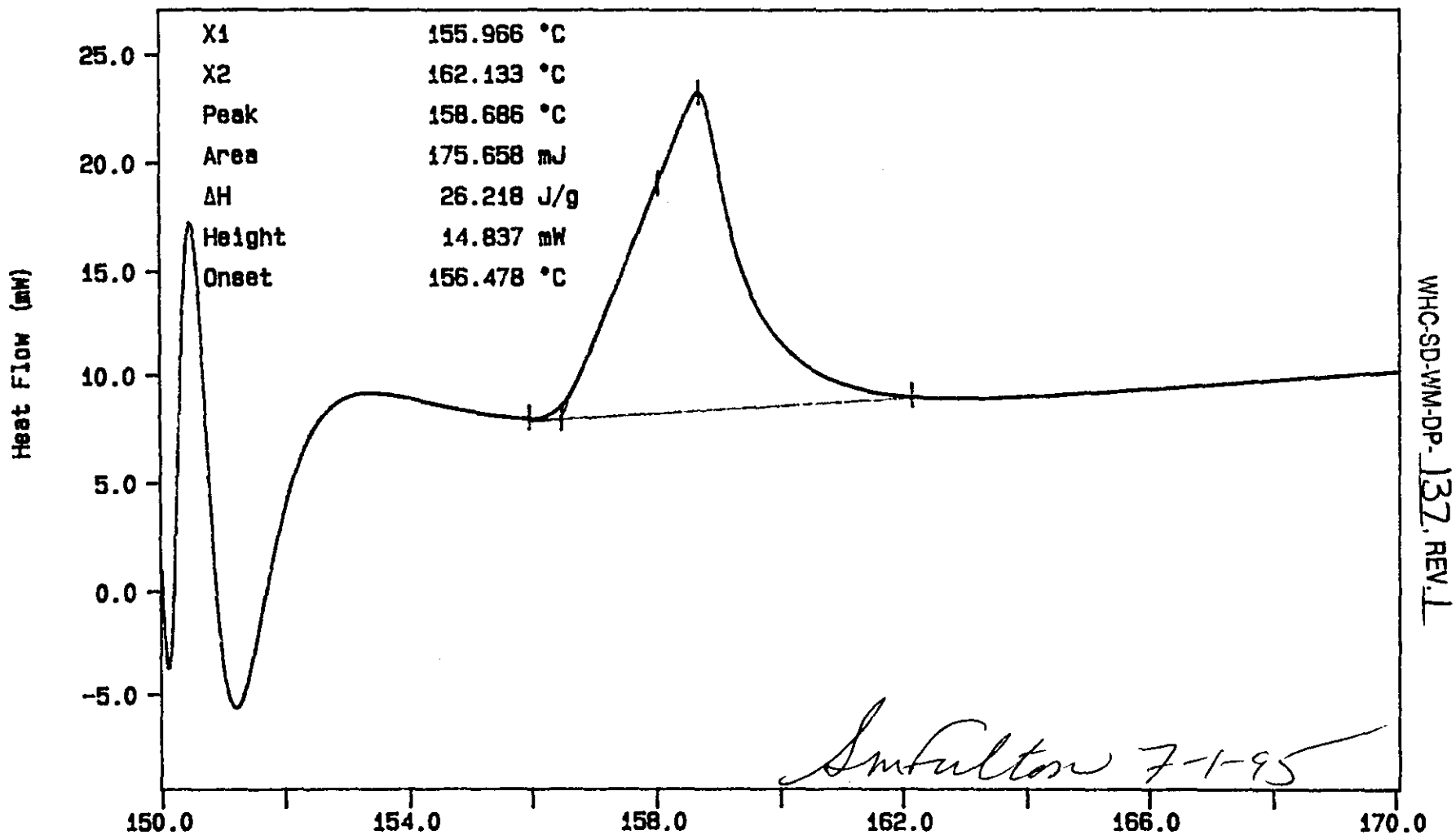
exotherm down, N2 purge gas

TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Fri Jun 30 21:59:37 1995

WHC-SD-WM-DP-132, REV. 1

Curve 1: DSC
File info: IND070101 Sat Jul 1 17:55:03 1995
Sample Weight: 6.700 mg
12N14A Indium at 10C/min

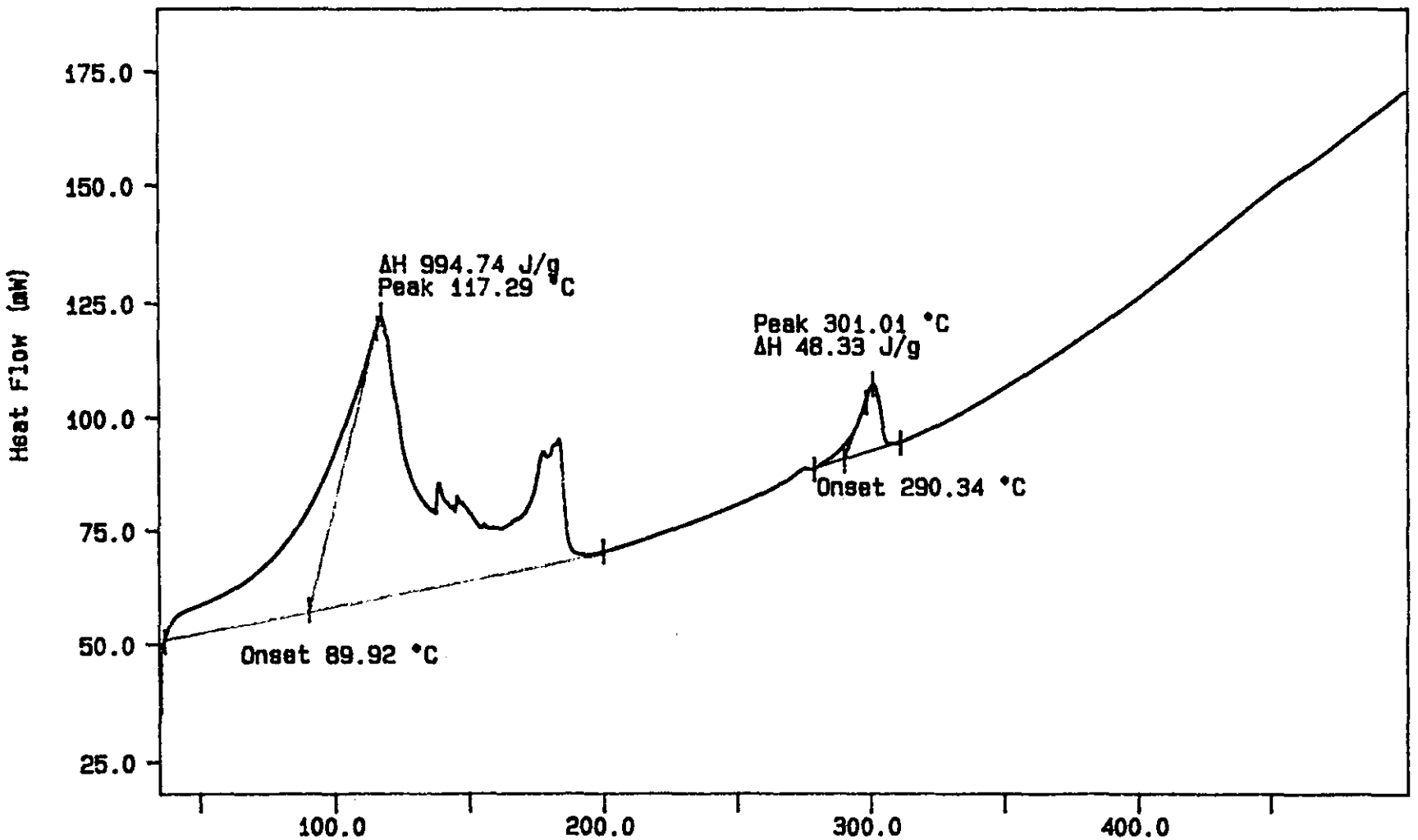


N2 exotherm down
TEMP1: 150.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 170.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Sat Jul 1 17:56:59 1995

WHC-SD-WM-DP-137, REV.1

Curve 1: DSC
File info: SAM070101 Sat Jul 1 20:02:53 1995
Sample Weight: 18.240 mg
S95T001114, 10C/min

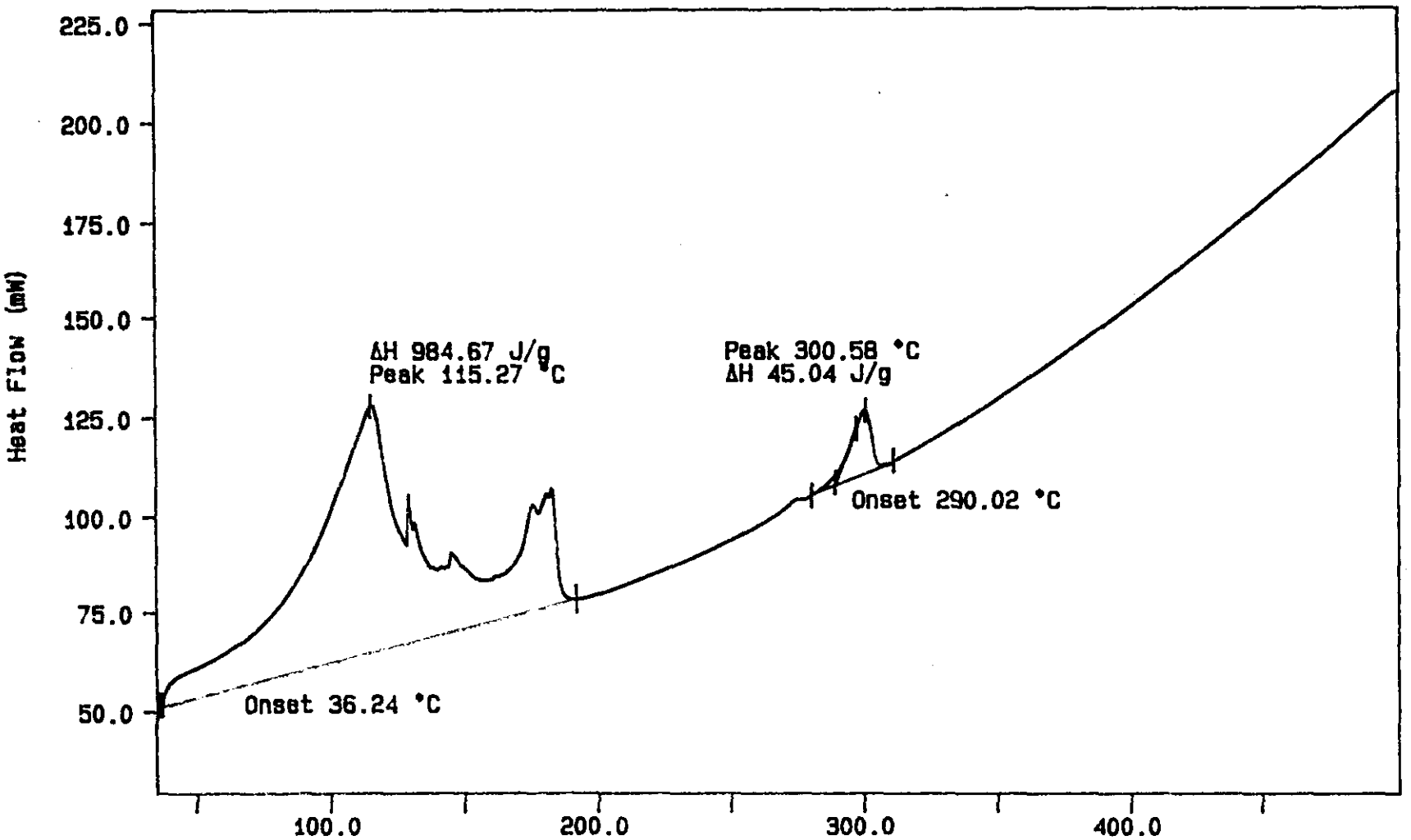


exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Sat Jul 1 20:48:17 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: DSC
File info: SAM070102 Sat Jul 1 21:44:34 1995
Sample Weight: 20.280 mg
S95T001114DUP, 10C/min



exotherm down, N2 purge gas
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN ELMER
222-S Lab
Sat Jul 1 21:59:21 1995

LABCORE Data Entry Template for Worklist# 1636

Analyst: JdS **Instrument:** DSC0 1 **Book #** 12N141

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	LIQUID	28.45	29.9	N/A	Joules/g
95000088	B-104	2	SAMPLE	S95T001104	0		DSC-01	LIQUID	N/A	Ø		Joules/g
95000088	B-104	3	DUP	S95T001104	0		DSC-01	LIQUID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1636

Jdl 6-27-95 — Analyst Signature Date

6-29-95 — Analyst Signature Date

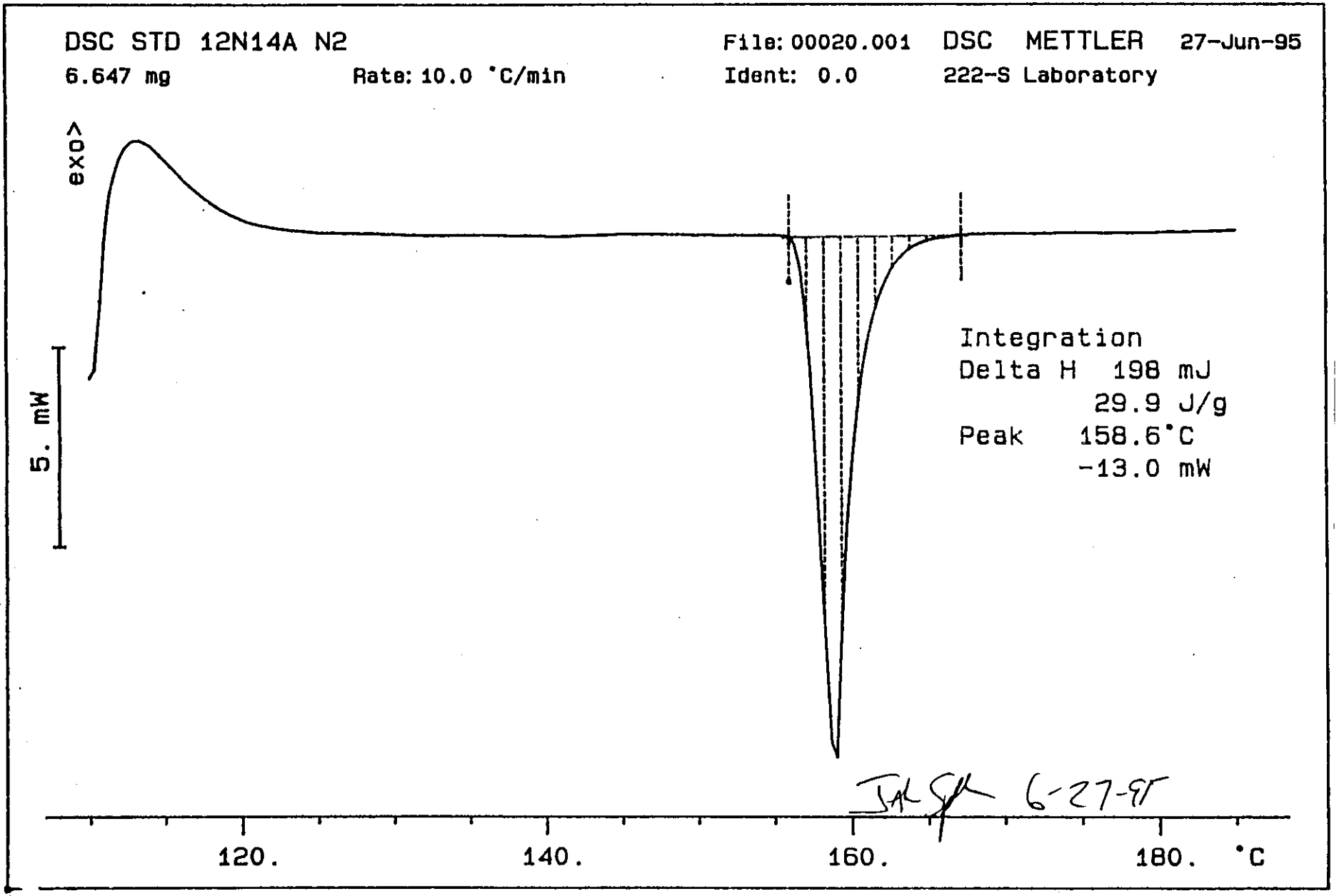
Verified by Blandina Valenzuela 6-29-95

Data Entry Comments: Sample produced two endothermo one at 122.1°C with a delta H of 1813.3 J/g and the second at 298.3°C with a delta H of 129.2 J/g.

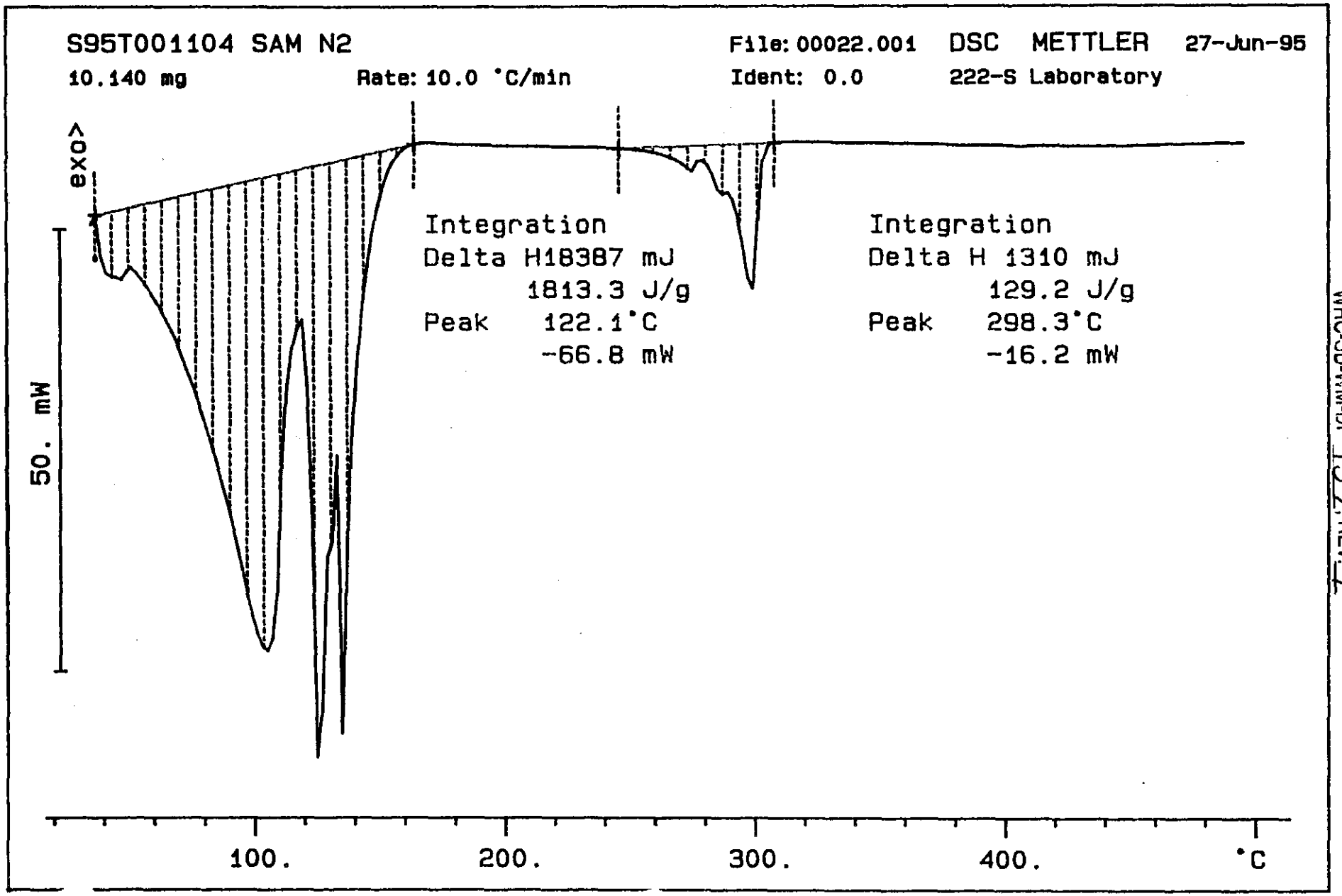
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 947 TO 949.

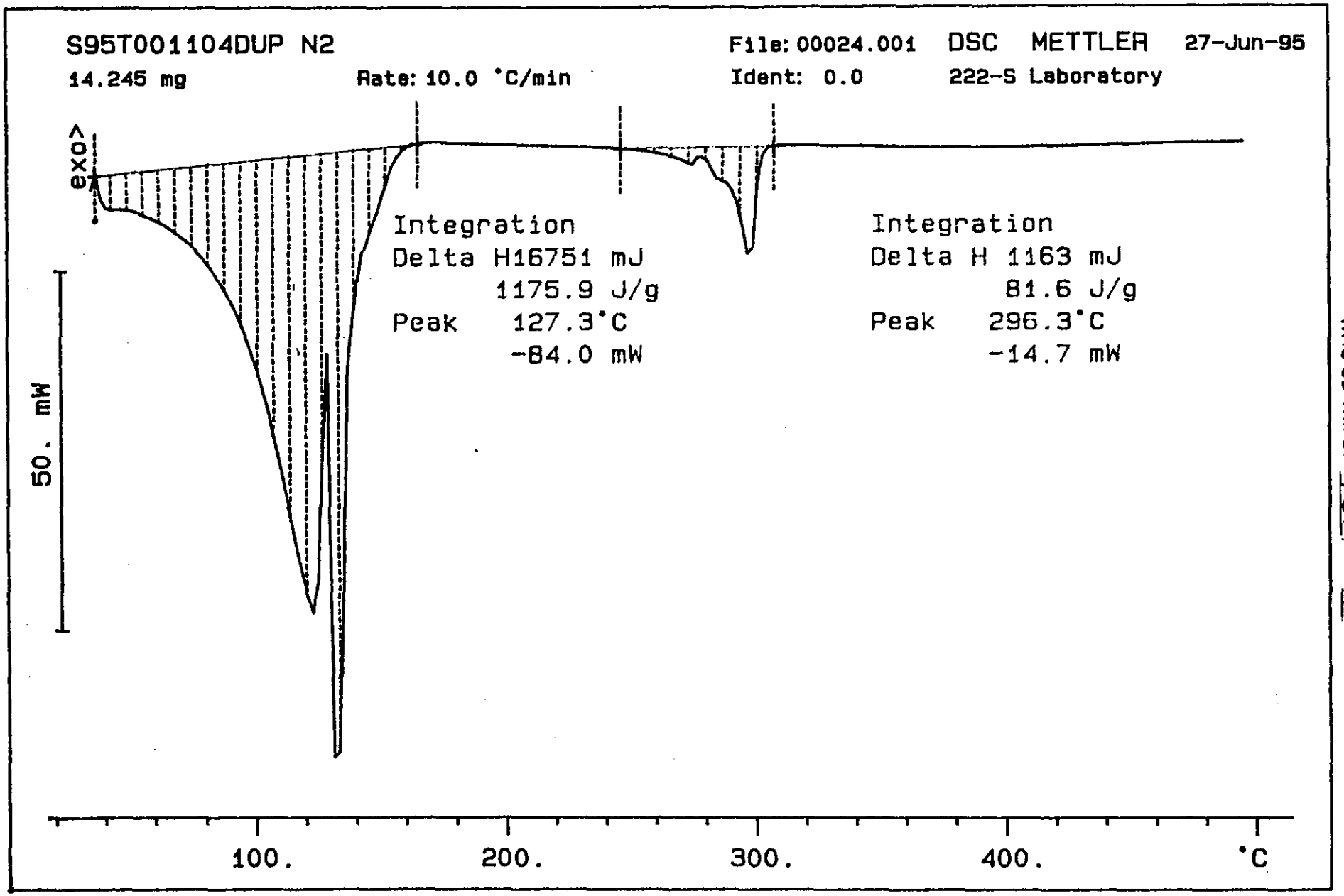
BEST AVAILABLE COPY



WHC-SD-WM-DP-137, REV. 1



WHC-SD-WM-DP-137, REV. 1


S95T001104DUP N2
14.245 mg
Rate: 10.0 °C/min
File: 00024.001
Ident: 0.0
DSC METTLER
222-S Laboratory
27-Jun-95
exo>
50. mW
Integration
Delta H16751 mJ
1175.9 J/g
Peak 127.3°C
-84.0 mW
Integration
Delta H 1163 mJ
81.6 J/g
Peak 296.3°C
-14.7 mW
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1665

Analyst: SMF **Instrument:** DSC0 1 **Book #** 12 N1417

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID	28.45	31.7	N/A	Joules/g
95000088	B-104	2	SAMPLE	S95T001130	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000088	B-104	3	DUP	S95T001130	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g
95000088	B-104	4	SAMPLE	S95T001131	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000088	B-104	5	DUP	S95T001131	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1665

SMFulton 7-3-95
Analyst Signature **Date**

Verified by Blandina Valenzuela 7-12-95

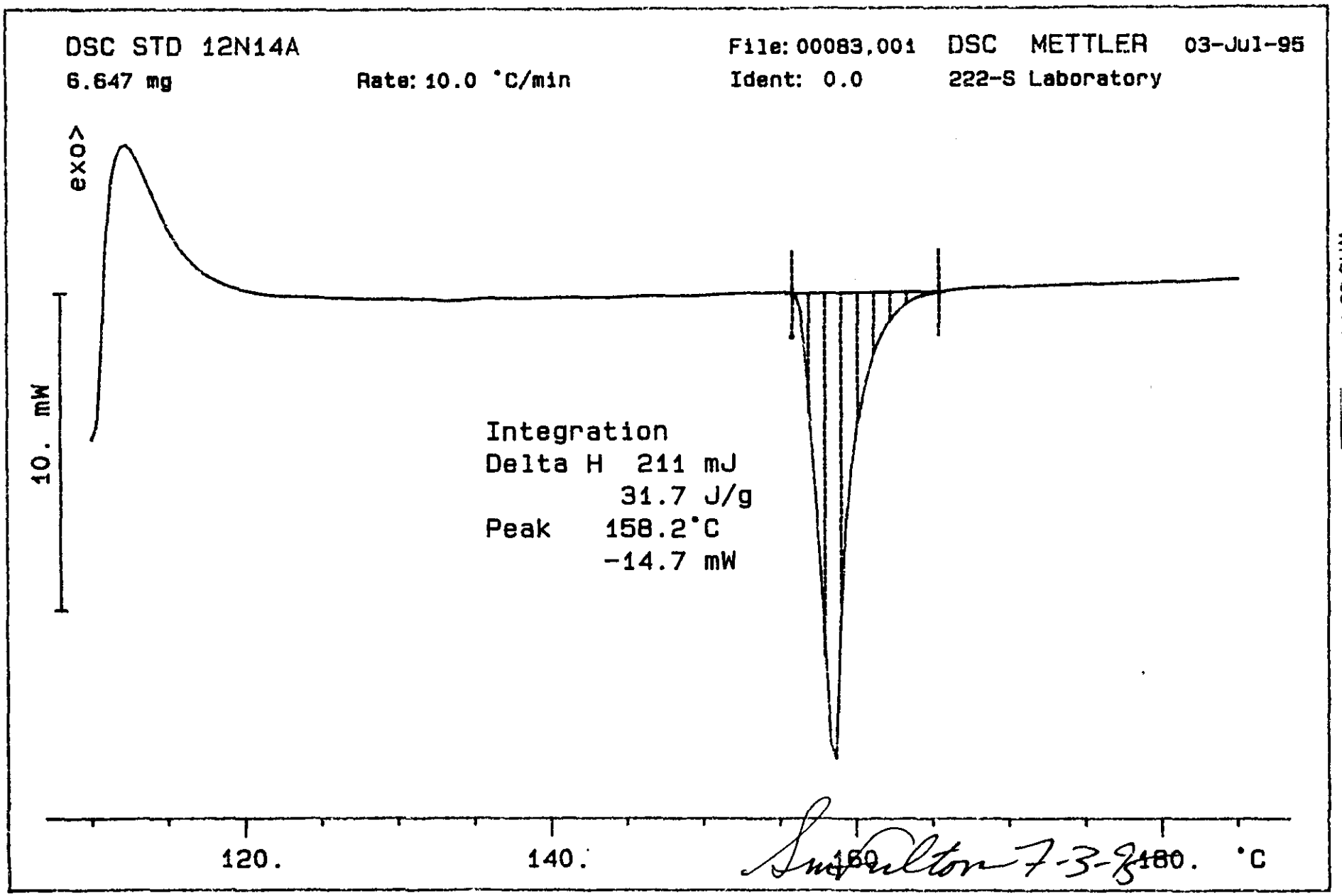
RS Jones 7-11-95
Analyst Signature **Date**

S95T001130 produced two endotherms one at 125.1°C with a delta H of 772.1 J/g and second at 298.7°C with a delta H of 56.7 J/g.

Data Entry Comments: S95T001131 produced two endotherms one at ~~72~~ 106.7°C with a delta H of 867.0 J/g and the second at 298.4°C with a delta H of 72.7 J/g. BDV 7-11-95

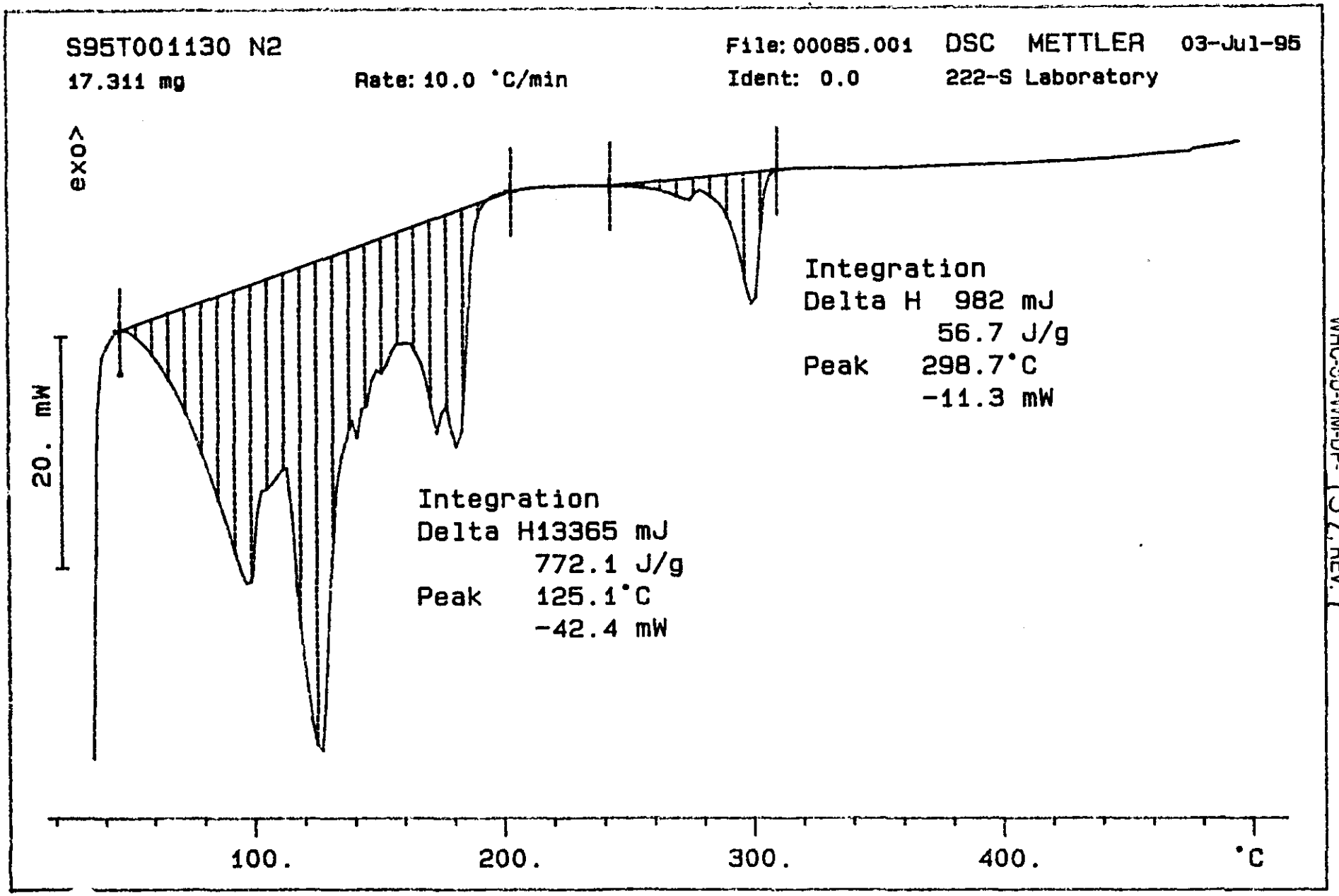
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

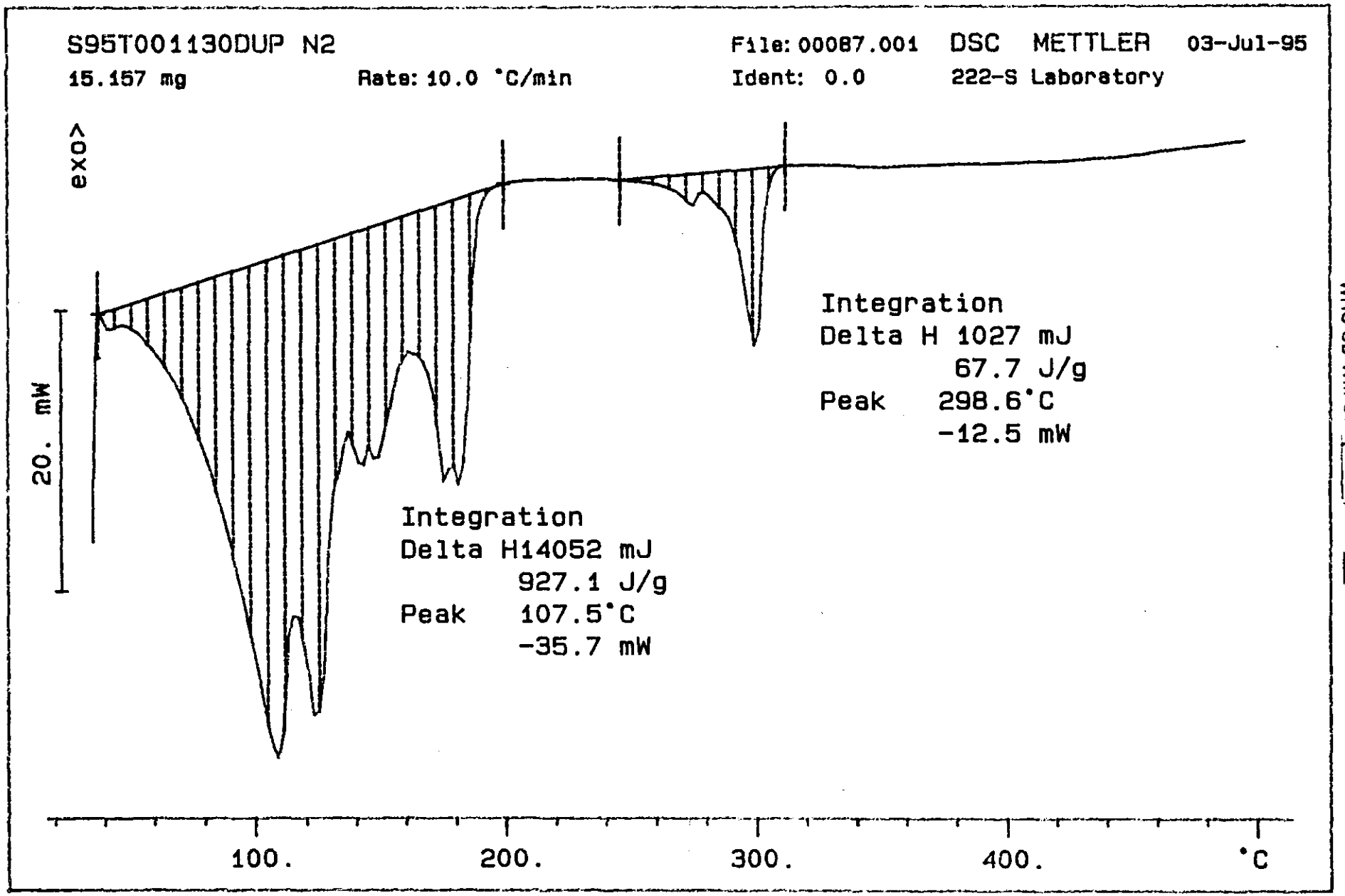
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 951 TO 955.

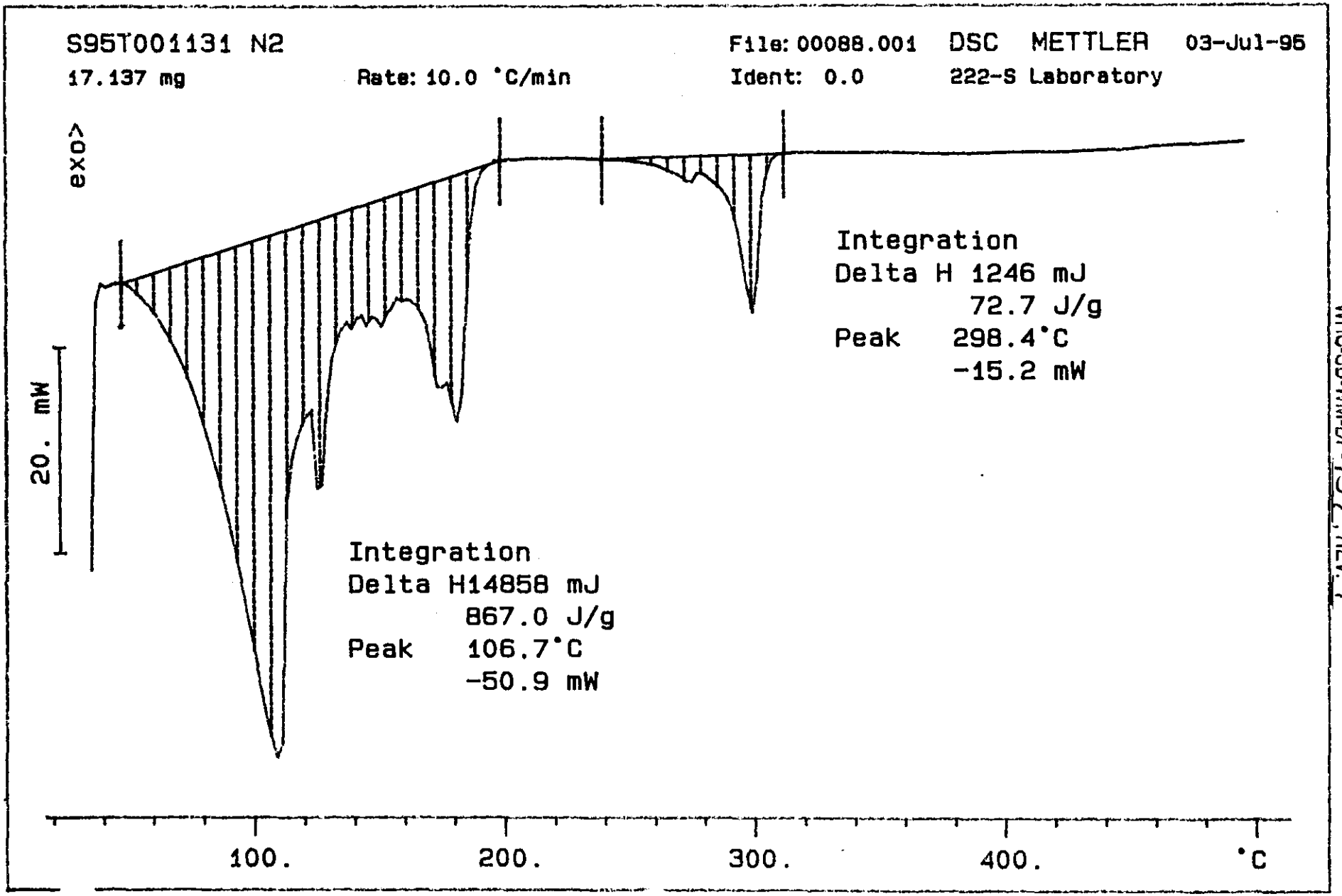


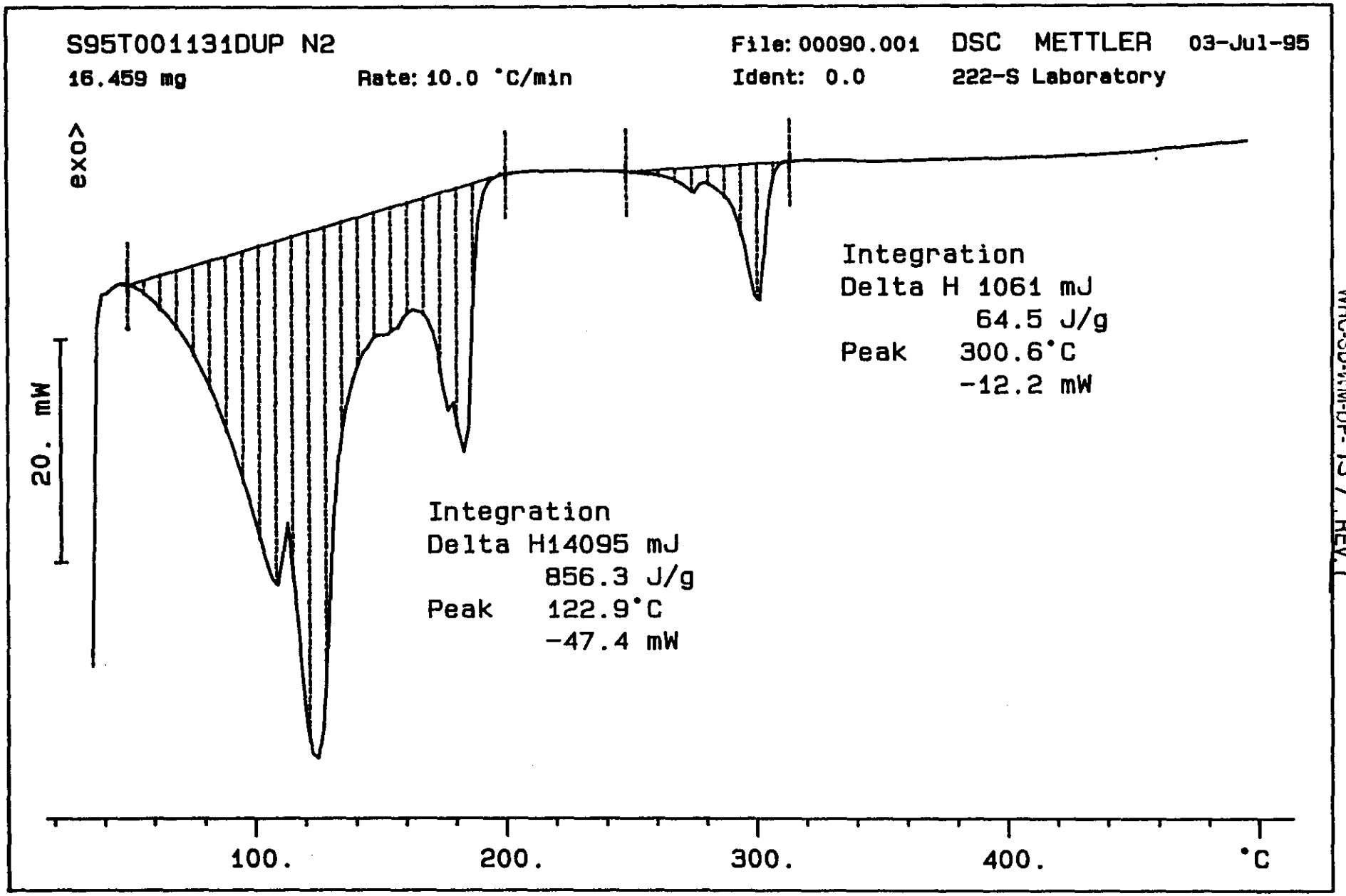
S. Sulton 7-3-95

WHC-SD-WM-DP-137, REV. 1


S95T001130 N2
17.311 mg
Rate: 10.0 °C/min
File: 00085.001
Ident: 0.0
DSC METTLER
222-S Laboratory
03-Jul-95
exo>
20. mW
Integration
Delta H 982 mJ
56.7 J/g
Peak 298.7°C
-11.3 mW
Integration
Delta H13365 mJ
772.1 J/g
Peak 125.1°C
-42.4 mW
100.
200.
300.
400.
°C


S95T001130DUP N2
15.157 mg
Rate: 10.0 °C/min
File: 00087.001
DSC METTLER 03-Jul-95
Ident: 0.0
222-S Laboratory
exo>
20. mW
Integration
Delta H14052 mJ
927.1 J/g
Peak 107.5°C
-35.7 mW
Integration
Delta H 1027 mJ
67.7 J/g
Peak 298.6°C
-12.5 mW
100.
200.
300.
400.
°C


S95T001131 N2
17.137 mg
Rate: 10.0 °C/min
File: 00088.001
DSC METTLER
03-Jul-95
Ident: 0.0
222-S Laboratory
exo>
20. mW
Integration
Delta H 1246 mJ
72.7 J/g
Peak 298.4°C
-15.2 mW
Integration
Delta H14858 mJ
867.0 J/g
Peak 106.7°C
-50.9 mW
100.
200.
300.
400.
°C


S95T001131DUP N2
16.459 mg
Rate: 10.0 °C/min
File: 00090.001
Ident: 0.0
DSC METTLER
222-S Laboratory
03-Jul-95
exo>
20. mW
Integration
Delta H 1061 mJ
64.5 J/g
Peak 300.6°C
-12.2 mW
Integration
Delta H14095 mJ
856.3 J/g
Peak 122.9°C
-47.4 mW
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1666

Analyst: RJMcCown **Instrument:** DSC0 1 **Book #** 12N14A

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID	28.45	30.2	N/A	Joules/g
95000088	B-104	2	SAMPLE	S95T001136	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000088	B-104	3	DUP	S95T001136	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g
95000088	B-104	4	SAMPLE	S95T001137	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000088	B-104	5	DUP	S95T001137	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1666

RJMcCown 7/4/95
Analyst Signature Date

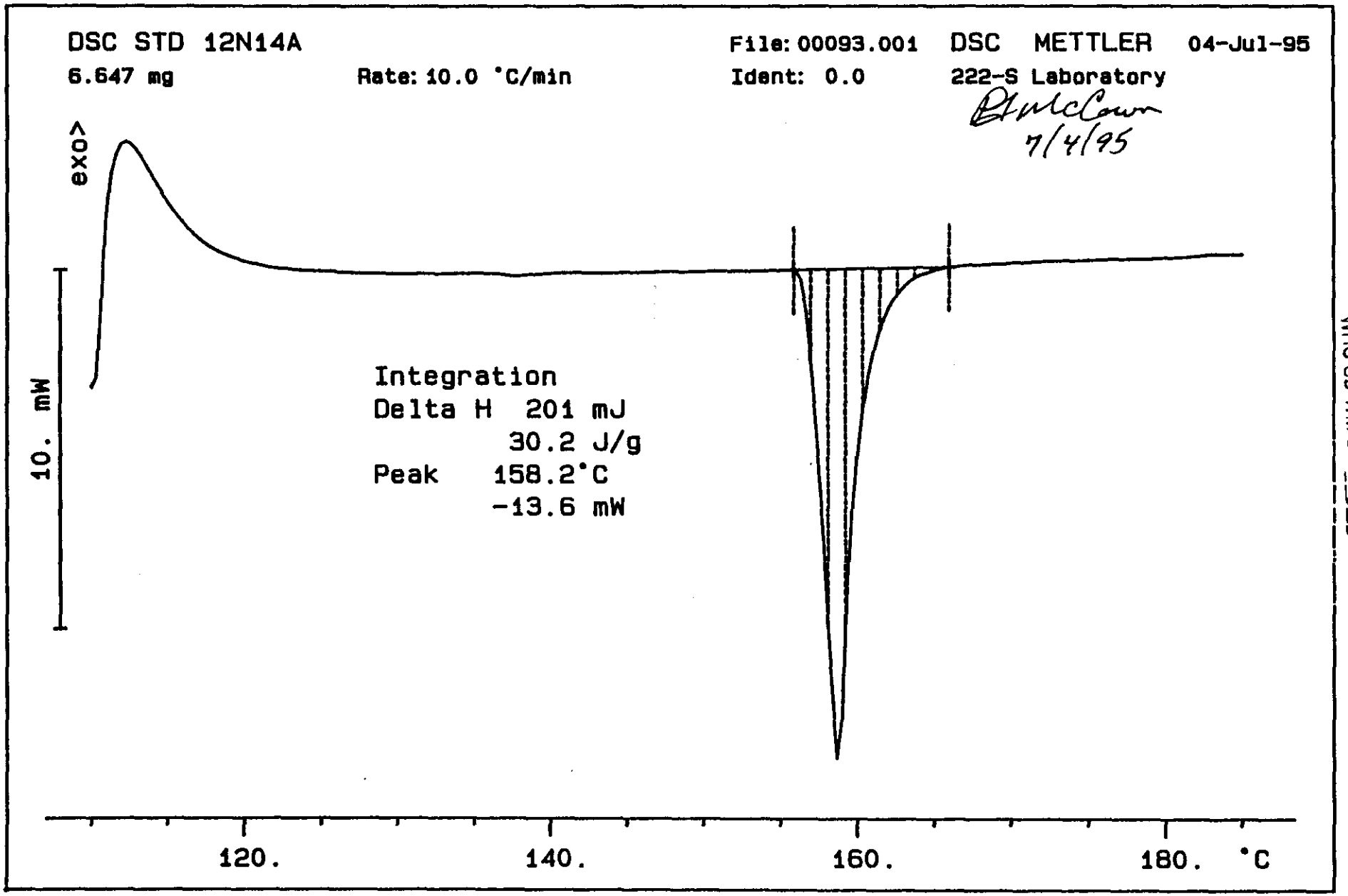
Gary Lamm 7-11-95
Analyst Signature Date

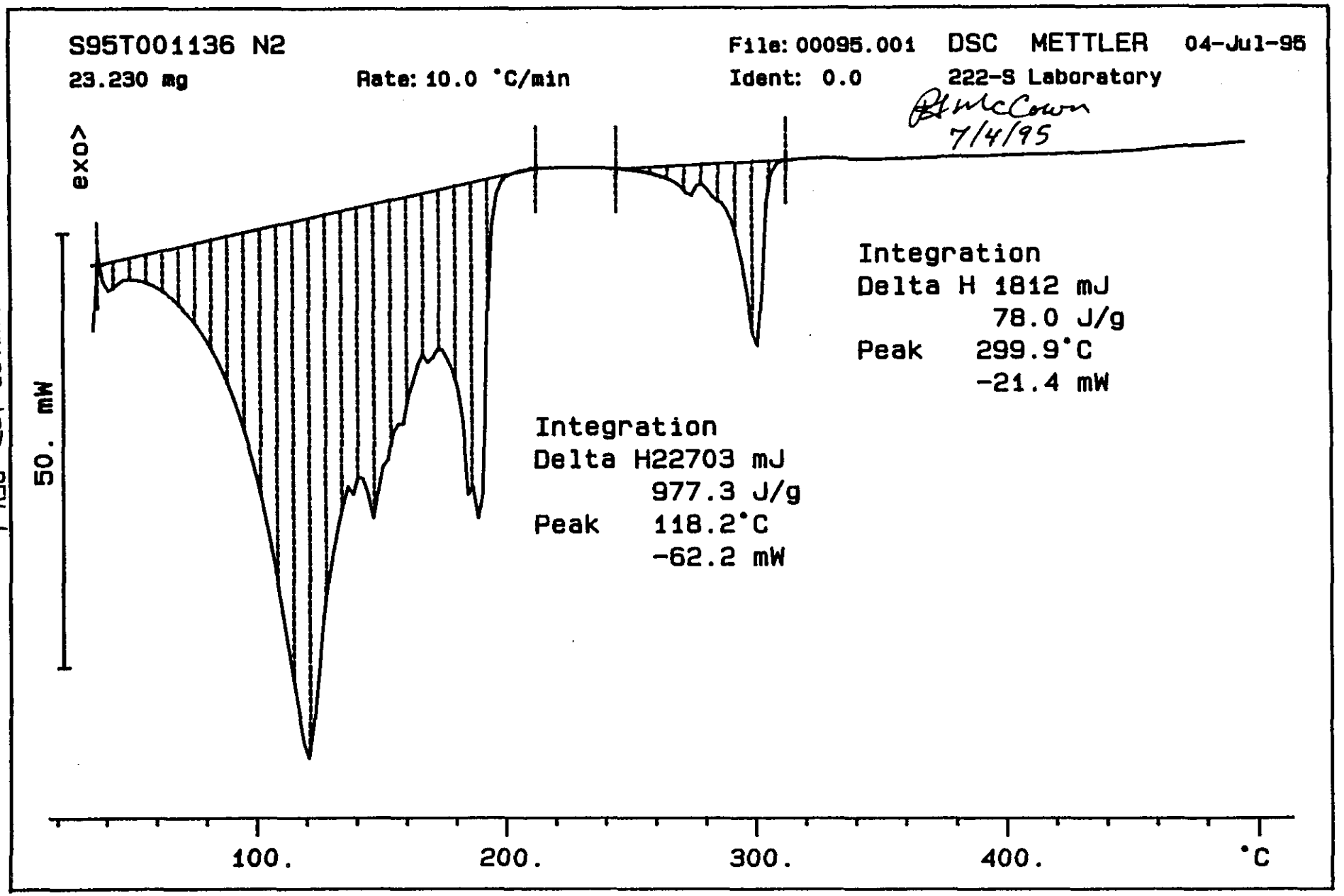
Verified by Blandina Valenzuela (7-12-95)

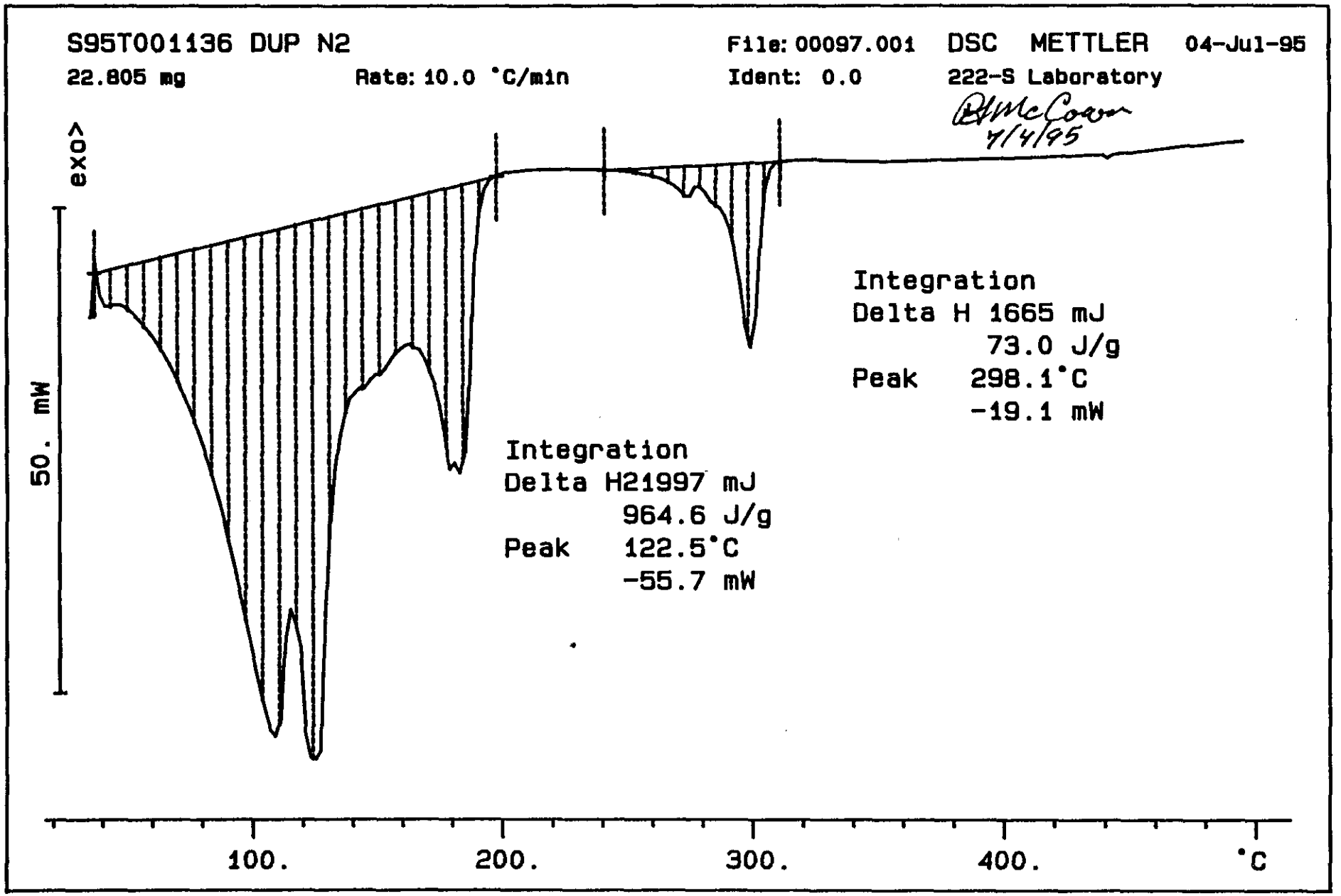
S95T001136 produced two endothermic regions one at 118.2°C with a delta H 777.3 J/g and the second at 299.9°C with a delta H of 78.0 J/g.

Data Entry Comments: S95T001137 produced two endothermic regions one at 112.6°C with a delta H of 988.7 J/g and second at 298.3°C with a delta H of 72.0 J/g.

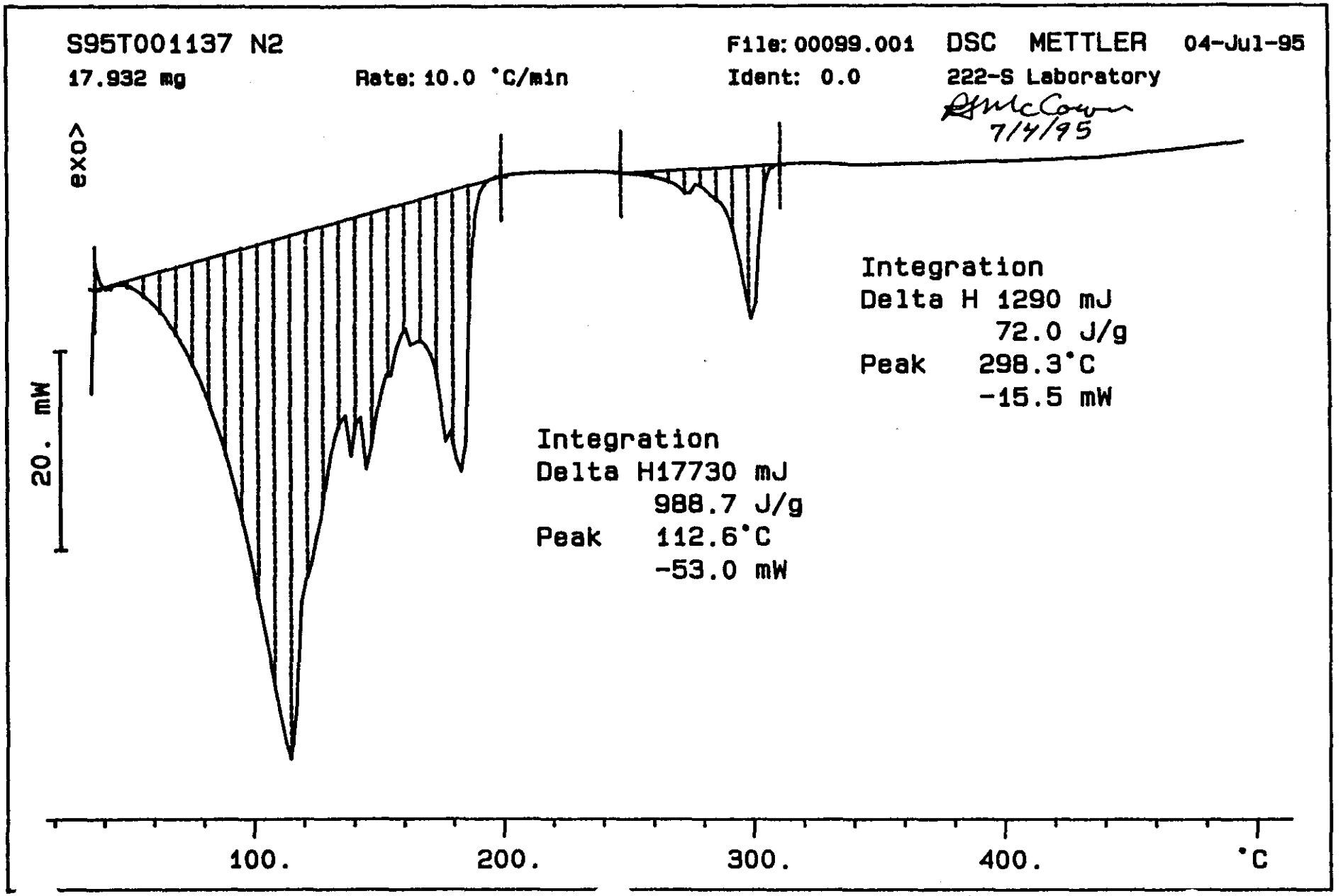
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

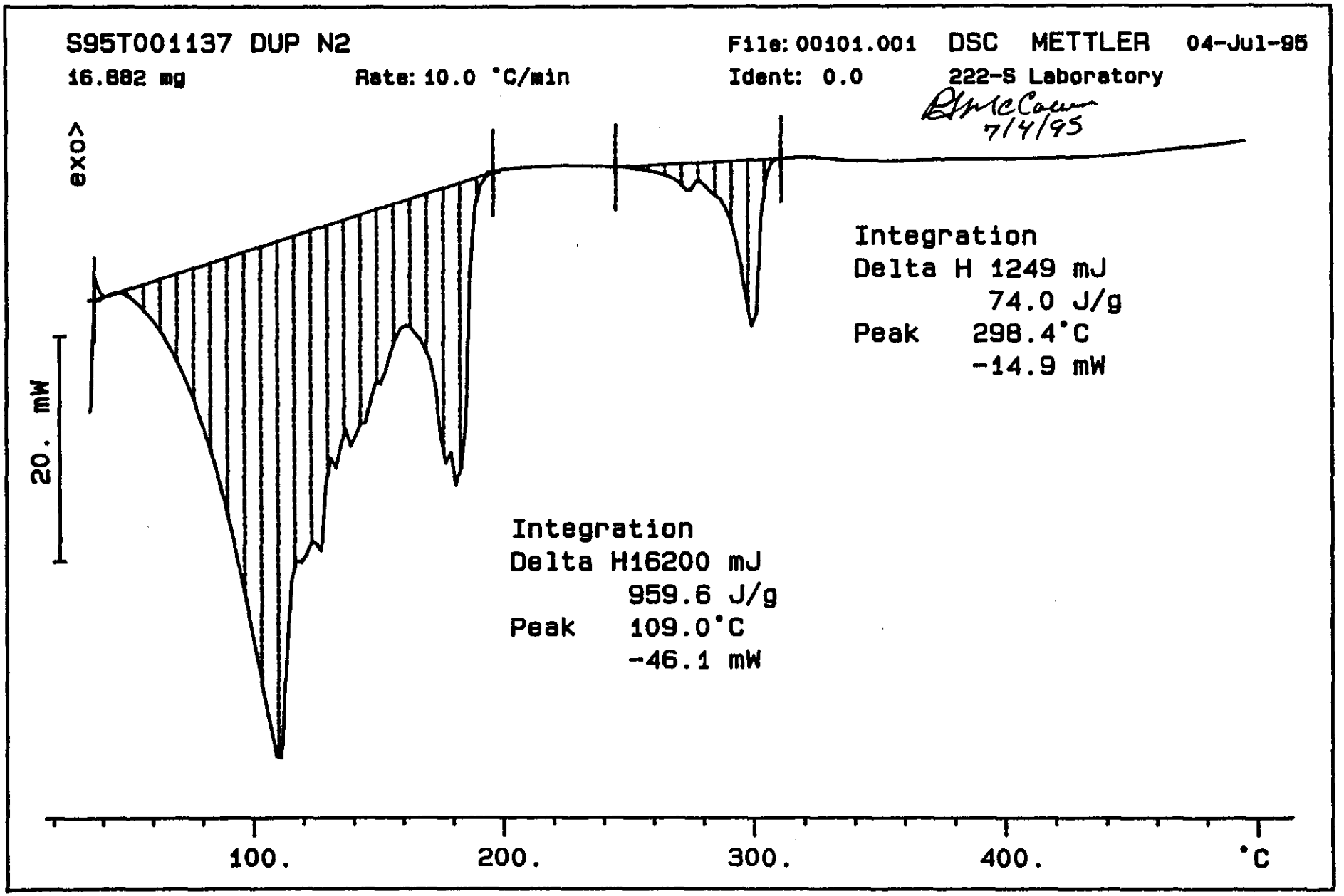

DSC STD 12N14A
6.647 mg
Rate: 10.0 °C/min
File: 00093.001
Ident: 0.0
DSC METTLER
222-S Laboratory
04-Jul-95
7/4/95
exo>
10. mW
Integration
Delta H 201 mJ
30.2 J/g
Peak 158.2°C
-13.6 mW
120.
140.
160.
180.
°C


S95T001136 N2
23.230 mg
Rate: 10.0 °C/min
File: 00095.001
Ident: 0.0
DSC METTLER
222-S Laboratory
04-Jul-95
R H McCown
7/4/95
exo>
50. mW
Integration
Delta H 1812 mJ
78.0 J/g
Peak 299.9°C
-21.4 mW
Integration
Delta H22703 mJ
977.3 J/g
Peak 118.2°C
-62.2 mW
100.
200.
300.
400.
°C



WHC-SD-WM-DP-137, REV. 1


S95T001137 N2
17.932 mg
Rate: 10.0 °C/min
File: 00099.001
Ident: 0.0
DSC METTLER
222-S Laboratory
04-Jul-95
7/4/95
exo>
20. mW
Integration
Delta H 1290 mJ
72.0 J/g
Peak 298.3°C
-15.5 mW
Integration
Delta H17730 mJ
988.7 J/g
Peak 112.6°C
-53.0 mW
100.
200.
300.
400.
°C


S95T001137 DUP N2
16.882 mg
Rate: 10.0 °C/min
File: 00101.001
Ident: 0.0
DSC METTLER
222-S Laboratory
04-Jul-95
RHMcCain
7/4/95
exo>
20. mW
Integration
Delta H 1249 mJ
74.0 J/g
Peak 298.4°C
-14.9 mW
Integration
Delta H16200 mJ
959.6 J/g
Peak 109.0°C
-46.1 mW
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1667

Analyst: SMF **Instrument:** DSC0 1 **Book #** 12N14A

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID	28.45	29.7	N/A	Joules/g
95000088	B-104	2	SAMPLE	S95T001142	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000088	B-104	3	DUP	S95T001142	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g
95000088	B-104	4	SAMPLE	S95T001143	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000088	B-104	5	DUP	S95T001143	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1667

7-4-95
Analyst Signature **Date**

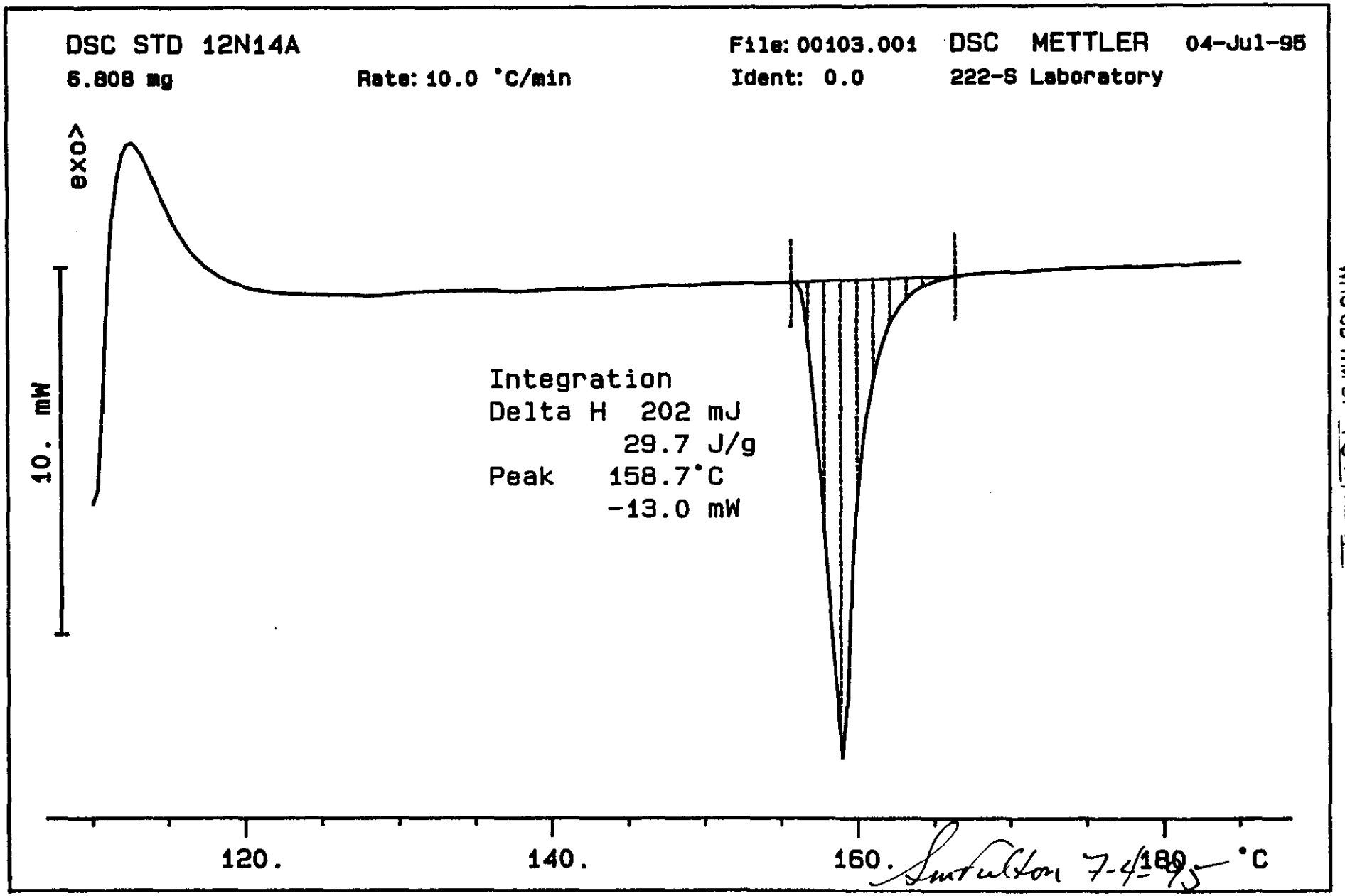
7-11-95
Analyst Signature **Date**

Verified by Blandina Valenzuela 7-12-95

S95T001142 produced two endothermic regions one at 125.4°C with a delta H of 891.4 J/g and second at 298.6°C with a delta H of 69.0 J/g.

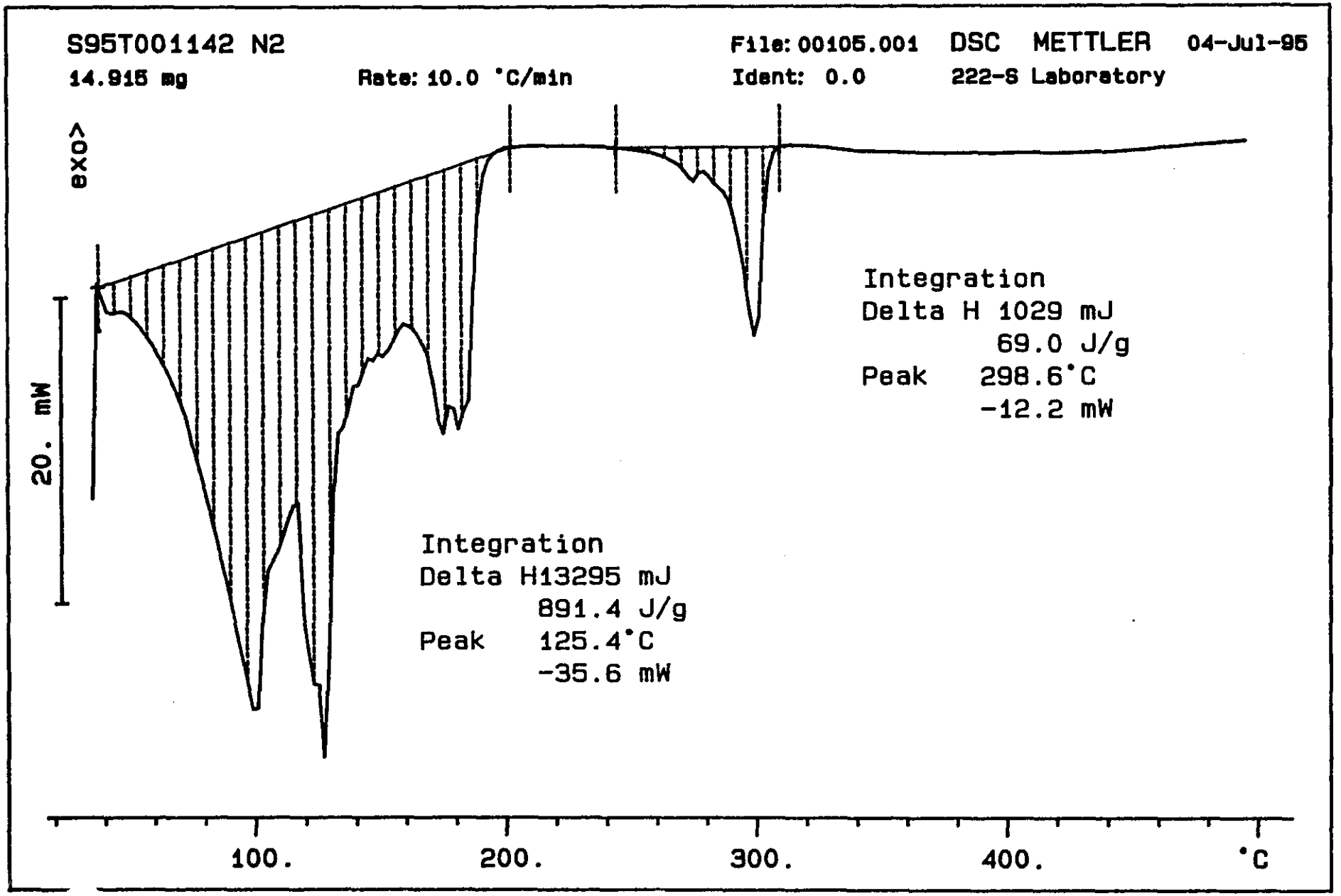
Data Entry Comments: S95T001143 produced two endothermic regions one at 120.3°C with a delta H of 1307.1 J/g, and second at 298.2°C with a delta H of 94.6 J/g.

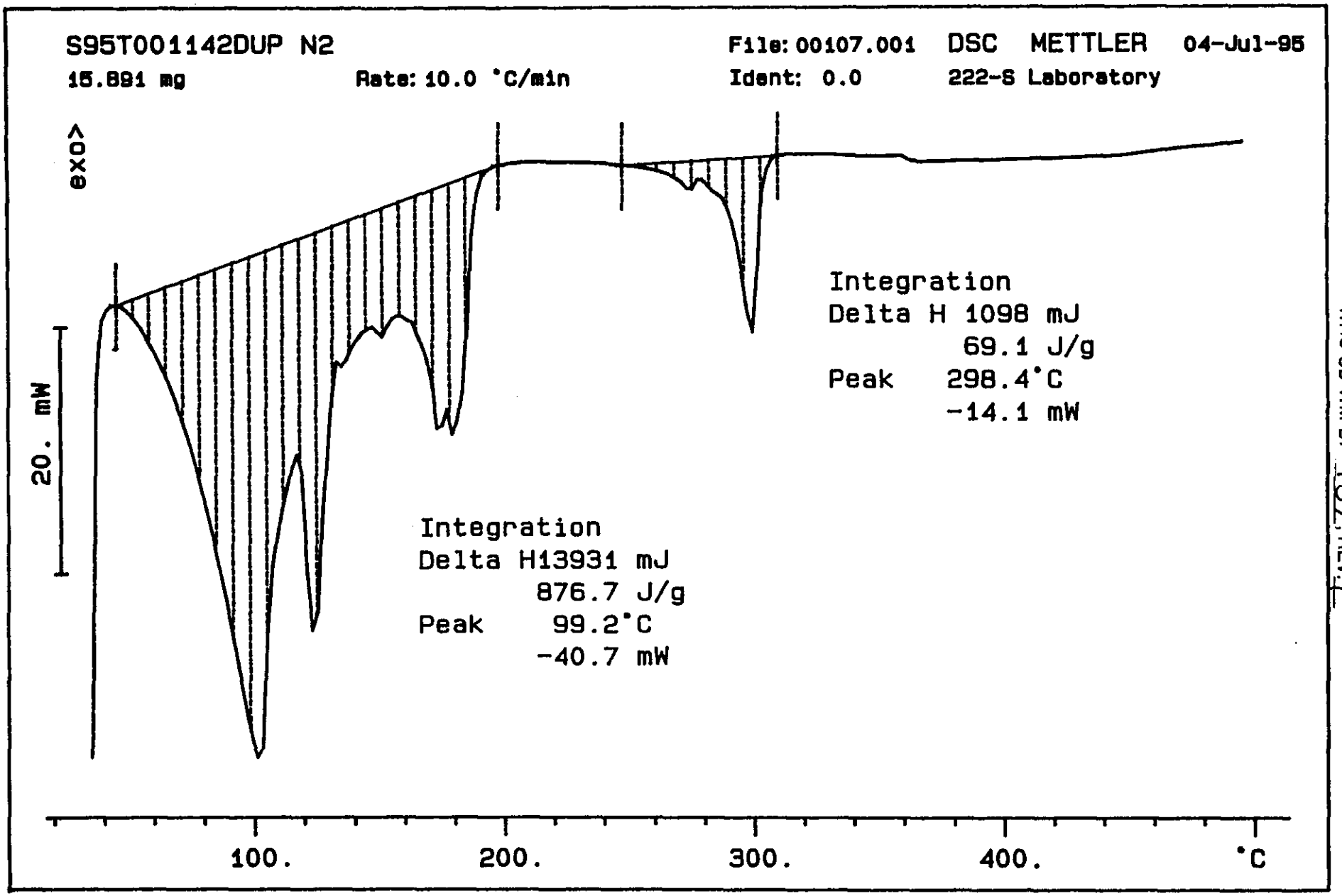
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

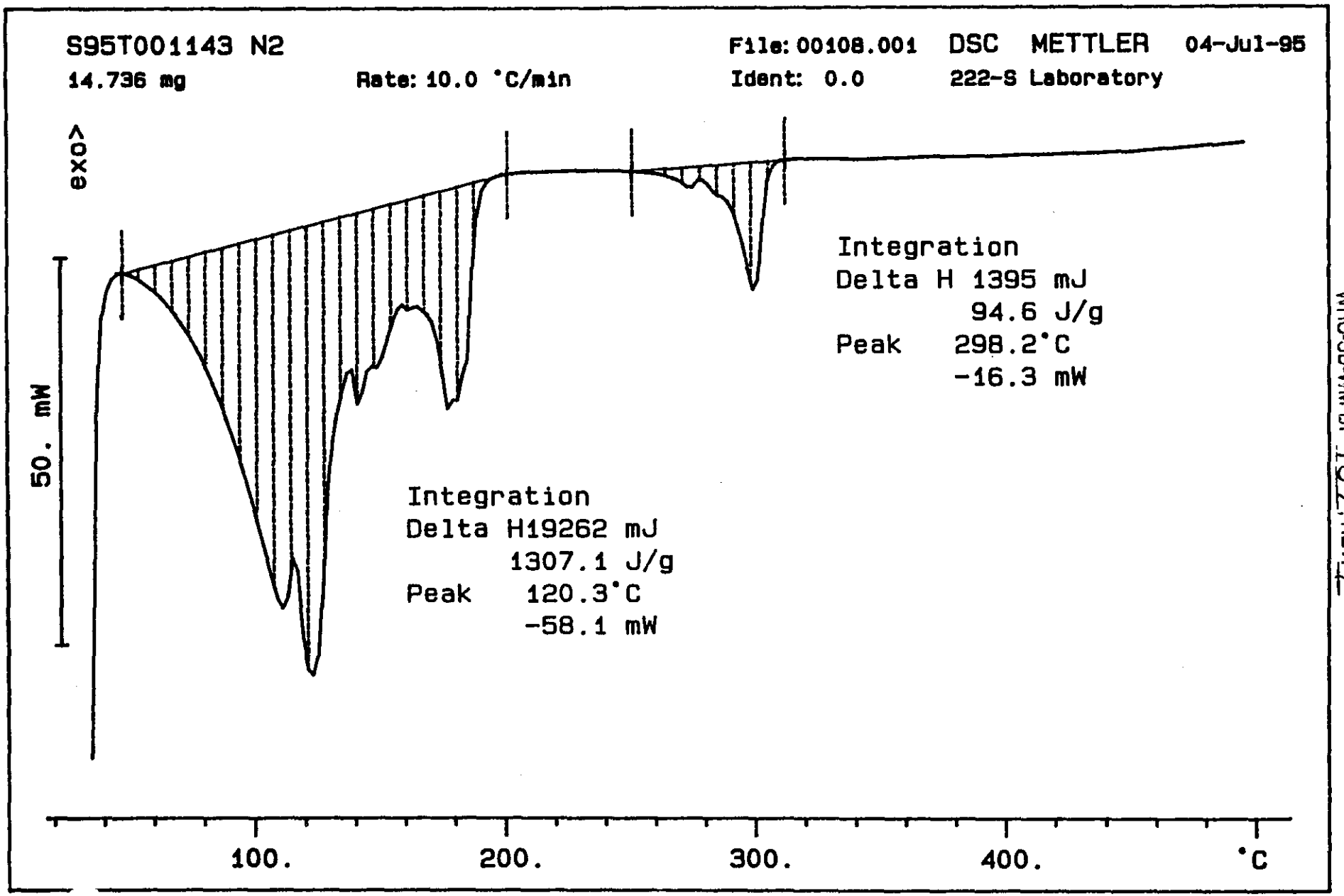


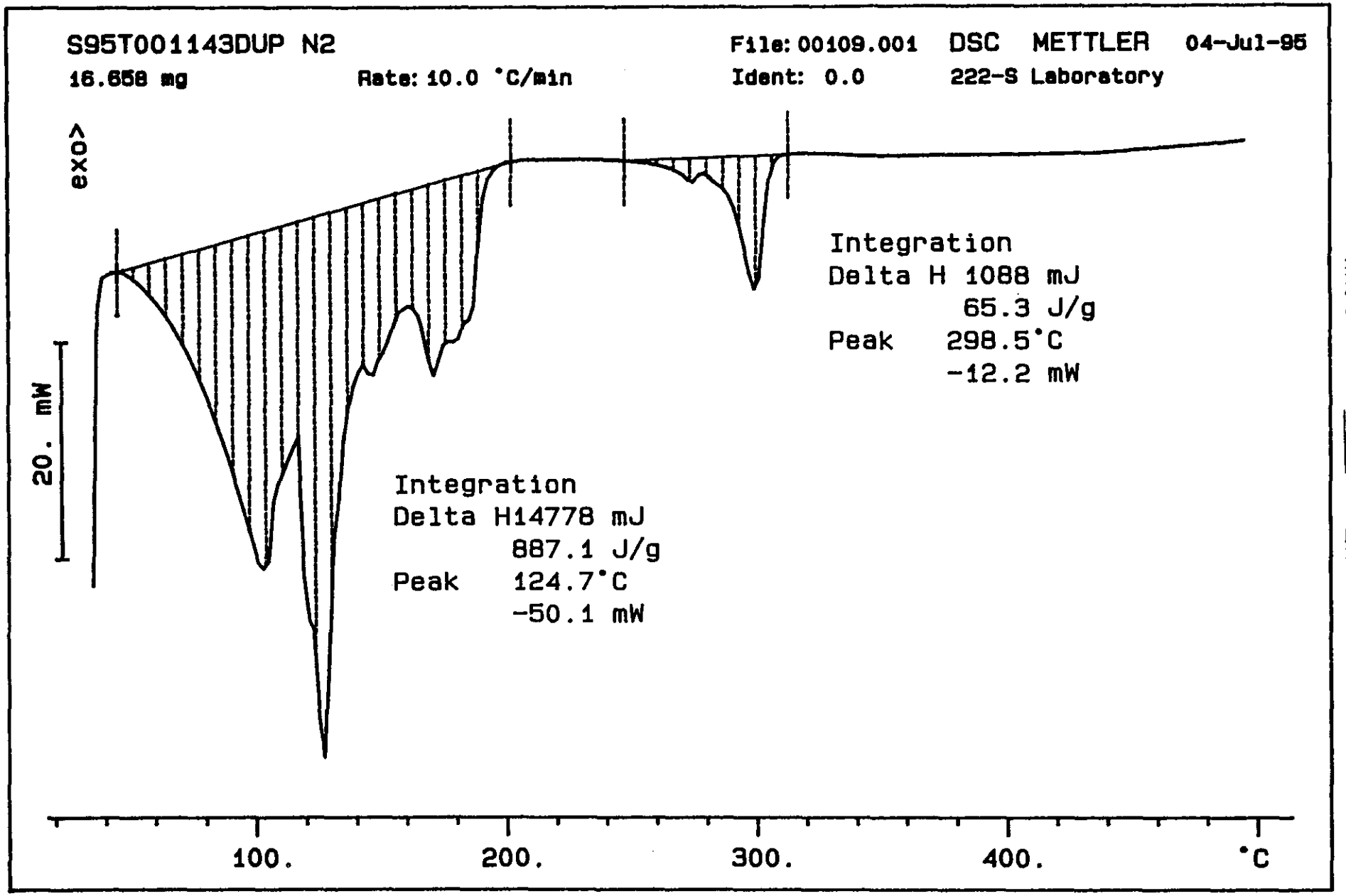
S M Fulton 7-4-95

WHC-SD-WM-DP-137, REV. 1


S95T001142 N2
14.915 mg
Rate: 10.0 °C/min
File: 00105.001
Ident: 0.0
DSC METTLER
222-S Laboratory
04-Jul-95
exo>
20. mW
Integration
Delta H 1029 mJ
69.0 J/g
Peak 298.6°C
-12.2 mW
Integration
Delta H13295 mJ
891.4 J/g
Peak 125.4°C
-35.6 mW
100.
200.
300.
400.
°C


S95T001142DUP N2
15.891 mg
Rate: 10.0 °C/min
File: 00107.001
Ident: 0.0
DSC METTLER
222-S Laboratory
04-Jul-95
exo>
20. mW
Integration
Delta H 1098 mJ
69.1 J/g
Peak 298.4°C
-14.1 mW
Integration
Delta H13931 mJ
876.7 J/g
Peak 99.2°C
-40.7 mW
100.
200.
300.
400.
°C


S95T001143 N2
14.736 mg
Rate: 10.0 °C/min
File: 00108.001
Ident: 0.0
DSC METTLER
222-S Laboratory
04-Jul-95
exo>
50. mW
Integration
Delta H 1395 mJ
94.6 J/g
Peak 298.2°C
-16.3 mW
Integration
Delta H19262 mJ
1307.1 J/g
Peak 120.3°C
-58.1 mW
100.
200.
300.
400.
°C


S95T001143DUP N2
16.658 mg
Rate: 10.0 °C/min
File: 00109.001
Ident: 0.0
DSC METTLER
222-S Laboratory
04-Jul-95
exo>
20. mW
Integration
Delta H 1088 mJ
65.3 J/g
Peak 298.5°C
-12.2 mW
Integration
Delta H14778 mJ
887.1 J/g
Peak 124.7°C
-50.1 mW
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1668

Analyst: SMF **Instrument:** DSC0 1 **Book #** 12N14-A

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				DSC-01	SOLID	28.45	30.0	N/A	Joules/g
95000088	B-104	2 SAMPLE	S95T001148	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000088	B-104	3 DUP	S95T001148	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g
95000088	B-104	4 SAMPLE	S95T001149	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000088	B-104	5 DUP	S95T001149	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1668

S M Fulton 6-29-95
Analyst Signature **Date**

Gary Hammond 6/30/95
Analyst Signature **Date**

Verified by Blandina Valenzuela 7-10-95

S95T001148 produced two endothermic regions one at 113.3°C with a delta H of 886.2 J/g. and second at 299.1°C with a delta H of 76.3 J/g.

S95T001149 produced two endothermic regions one at 122.8°C with a delta H of 812.0 J/g and second at 298.4°C with a delta H of 63.4 J/g.

Data Entry Comments:

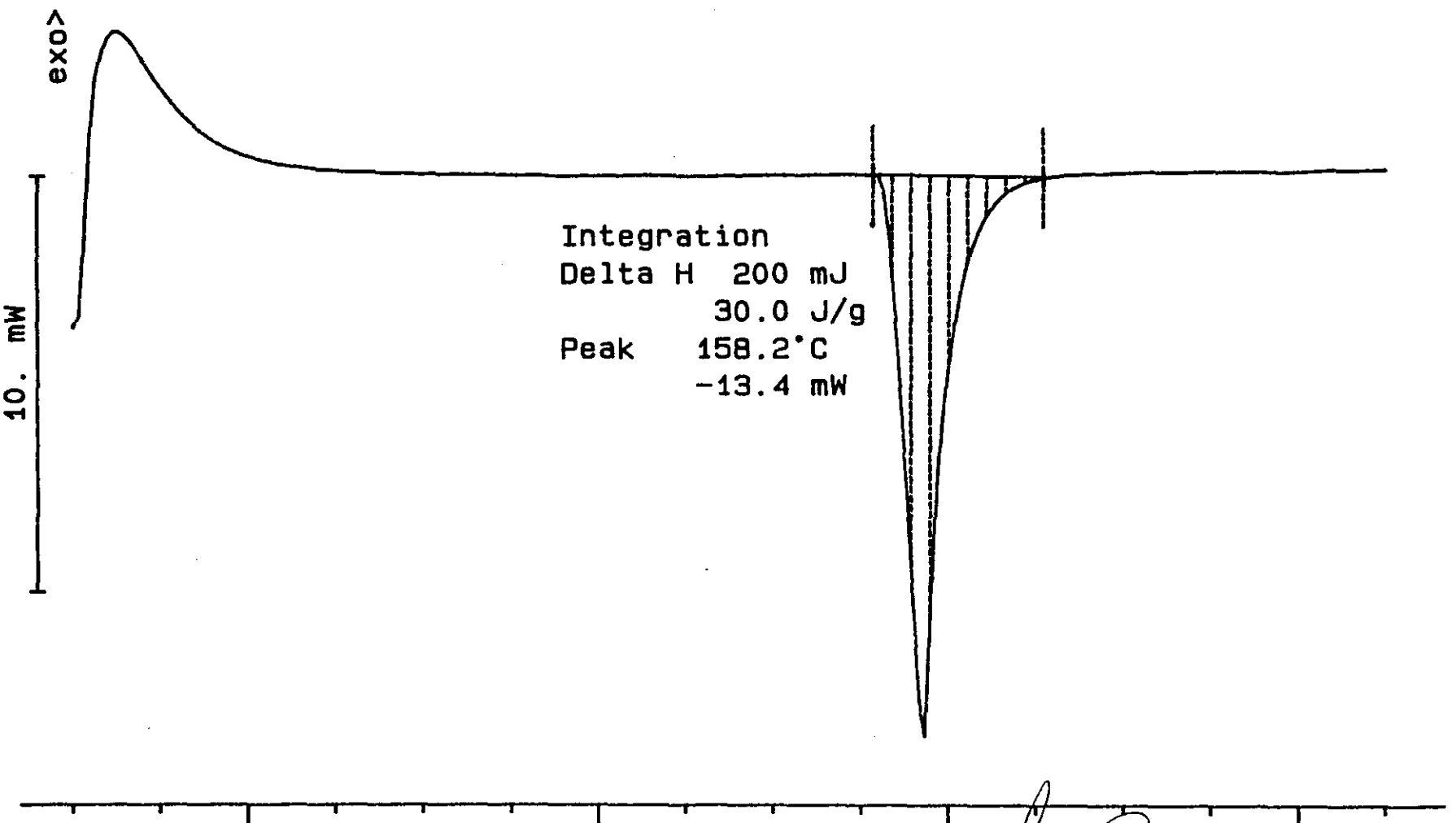
S95T001148 - mustard yellow sample w/approx. 50% solu
S95T001149 - same as S95T001148

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES TO .

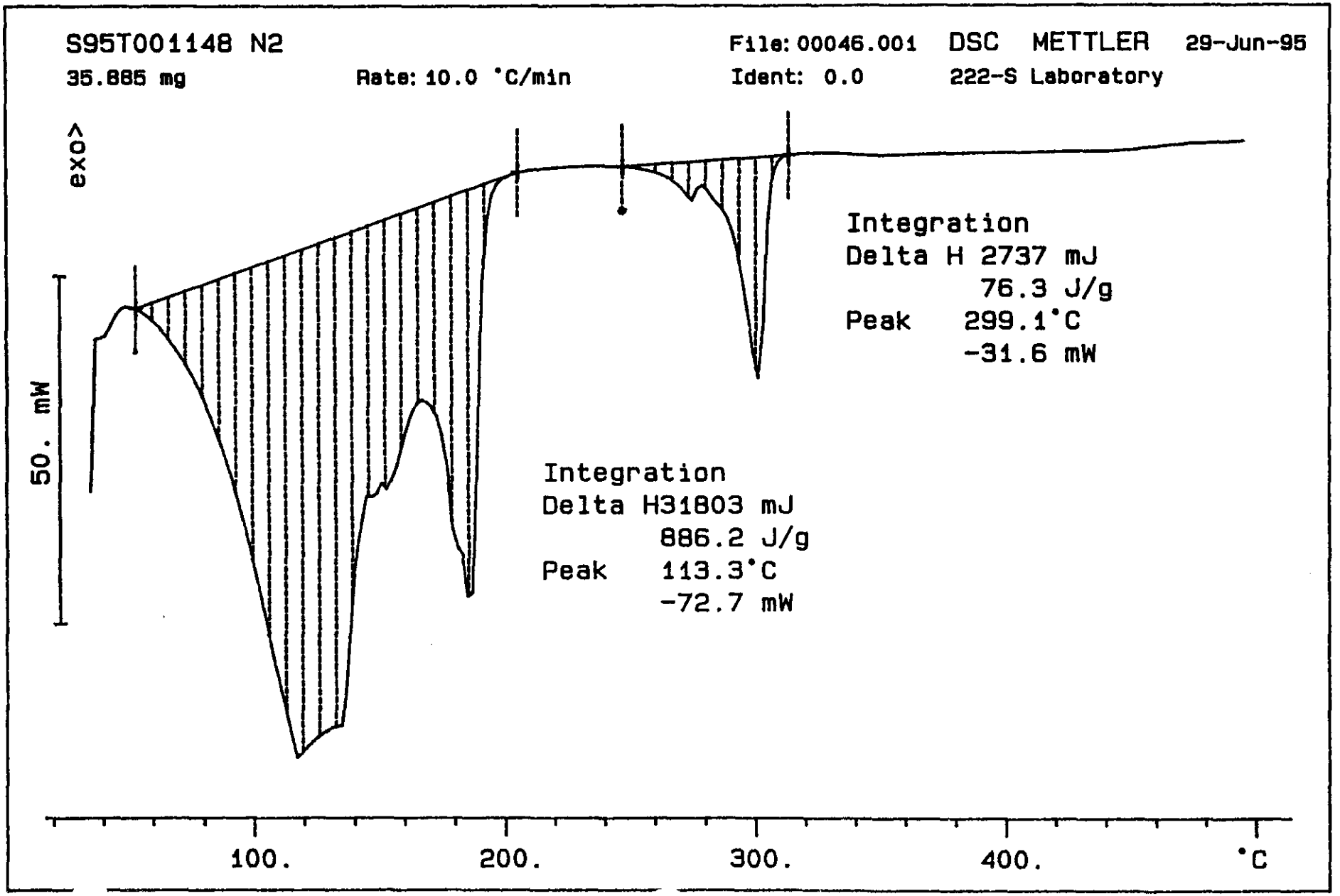
DSC STD 12N14A File: 00045.001 DSC METTLER 29-Jun-95

6.647 mg Rate: 10.0 °C/min Ident: 0.0 222-S Laboratory

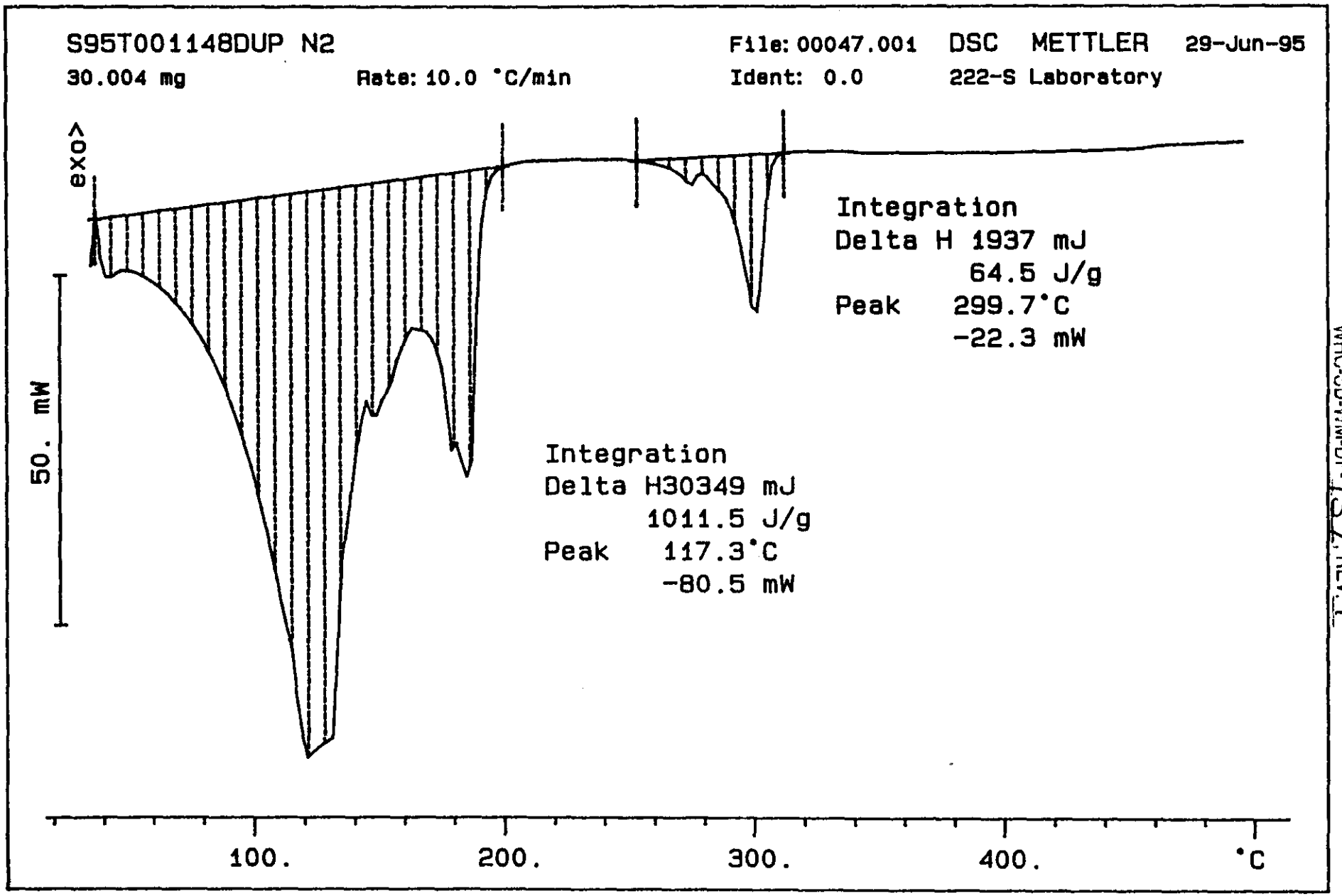


S. Hulton 6-29-95

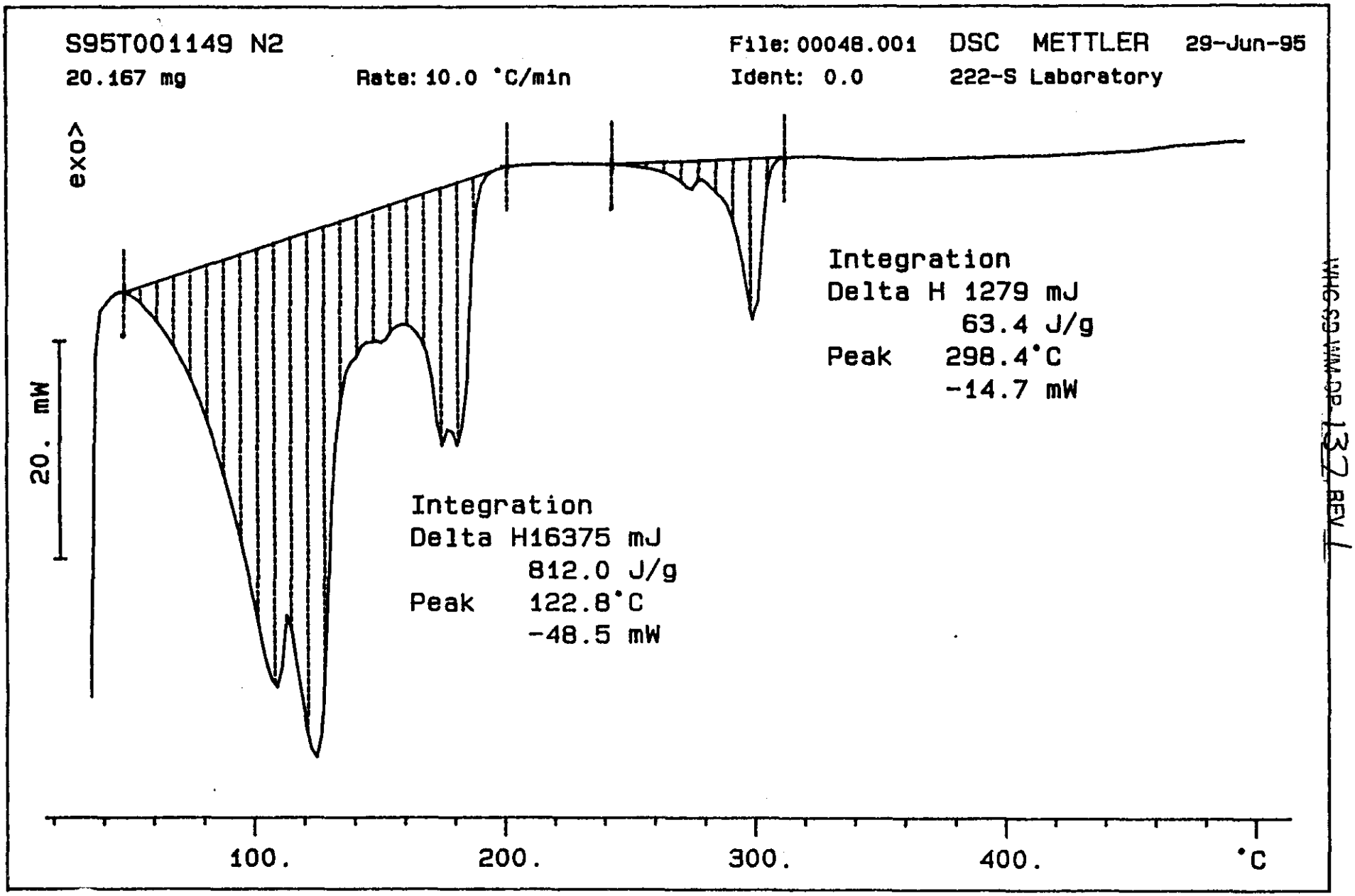
WHC-SD-WM-DP-137, REV 1



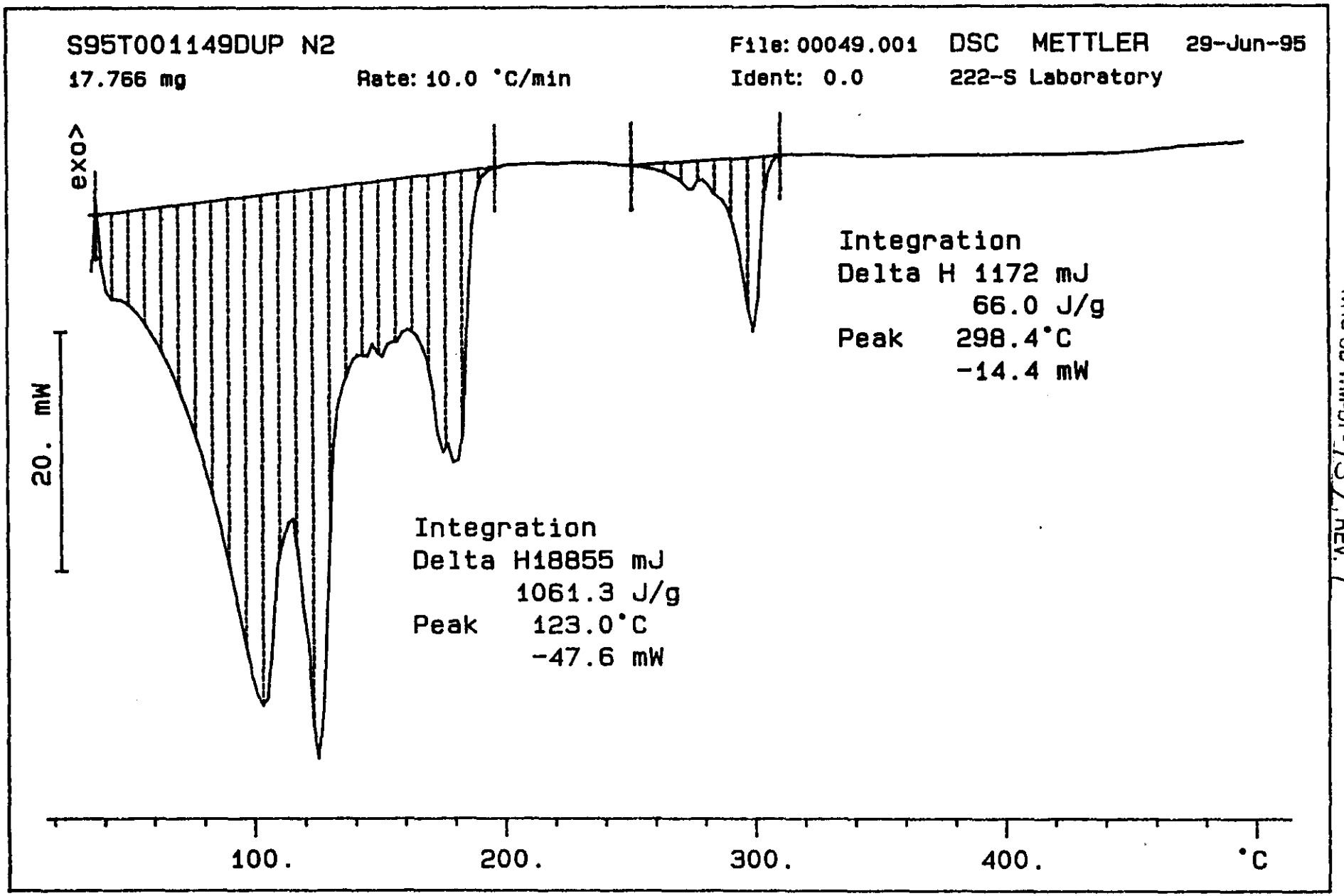
WHC-SD-WM-DP-137 REV 1



WHC-SD-WM-DP-137, REV. 1



WHC SD WM OP 137 REV 1


S95T001149DUP N2
17.766 mg
Rate: 10.0 °C/min
File: 00049.001
Ident: 0.0
DSC METTLER
222-S Laboratory
29-Jun-95
exo>
20. mW
Integration
Delta H 1172 mJ
66.0 J/g
Peak 298.4°C
-14.4 mW
Integration
Delta H18855 mJ
1061.3 J/g
Peak 123.0°C
-47.6 mW
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1669

Analyst: SMF **Instrument:** DSC0 1 **Book #** 12N14-A

Method: LA-514-113 Rev/Mod B-1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID	28.45	32.0	N/A	Joules/g
95000088	B-104	2	SAMPLE	S95T001154	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000088	B-104	3	DUP	S95T001154	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g
		4	STD				DSC-01	SOLID	28.45	31.2	N/A	Joules/g
95000088	B-104	5	SAMPLE	S95T001155	0		DSC-01	SOLID	N/A	Ø		Joules/g
95000088	B-104	6	DUP	S95T001155	0		DSC-01	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1669

See attached for signatures
Analyst Signature **Date** 7-11-95 BDV

[signature] 7-11-95
Analyst Signature **Date**

Verified by Blandina Valenzuela 7-12-95

S95T001154 was a mustard yellow thin sludge with a clear yellowish liquid on top. Sample produced two endothermic regions, one at 119.3°C with a delta H of 865.1 J/g and the second at 297.7°C with a delta H of 63.2 J/g

Data Entry Comments: S95T001155 was a mustard yellow thin sludge with a clear yellowish liquid on top. Sample produced two endothermic regions, one at ~~119.3~~ 123.1 with a delta H of ~~865.1 J/g~~ 859.9 J/g and the second at 298.5°C with a delta H of 65.1 J/g 7-11-95 BDV

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1669

Analyst: SMF **Instrument:** DSC0 1 **Book #** ~~42N8-A~~ 7-11-95 BDV
12N14-A

Method: LA-514-113 Rev/Mod B1

Worklist Comment: Please run B-104 DSCs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID			N/A	Joules/g
95000088	B-104	2	SAMPLE	S95T001154	0		DSC-01	SOLID	N/A			Joules/g
95000088	B-104	3	DUP	S95T001154	0		DSC-01	SOLID			N/A	Joules/g
95000088	B-104	4	SAMPLE	S95T001155	0		DSC-01	SOLID	N/A			Joules/g
95000088	B-104	5	DUP	S95T001155	0		DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 1669

S M Fulton 7-1-95
Analyst Signature **Date**

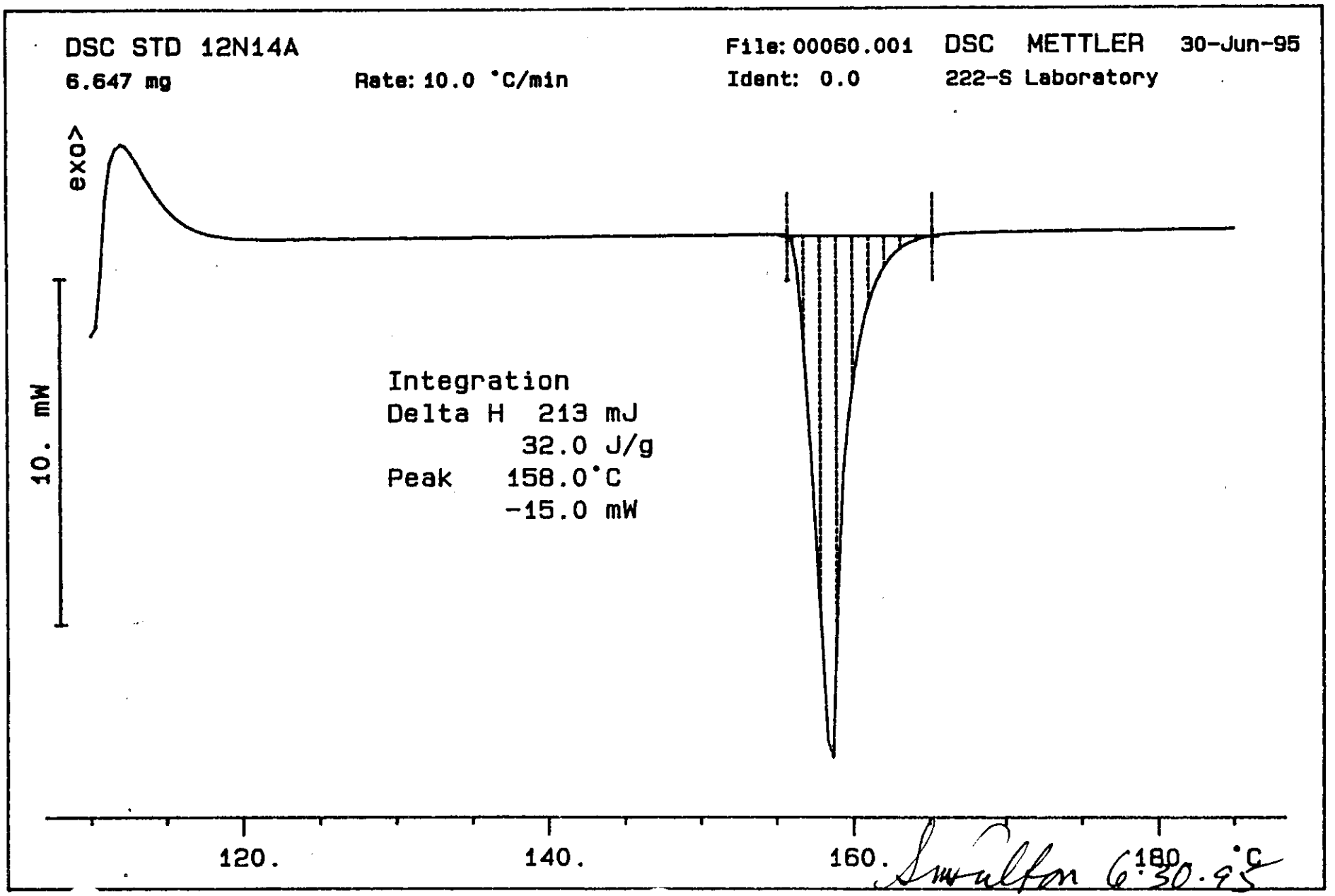
Analyst Signature **Date**

Data Entry Comments:

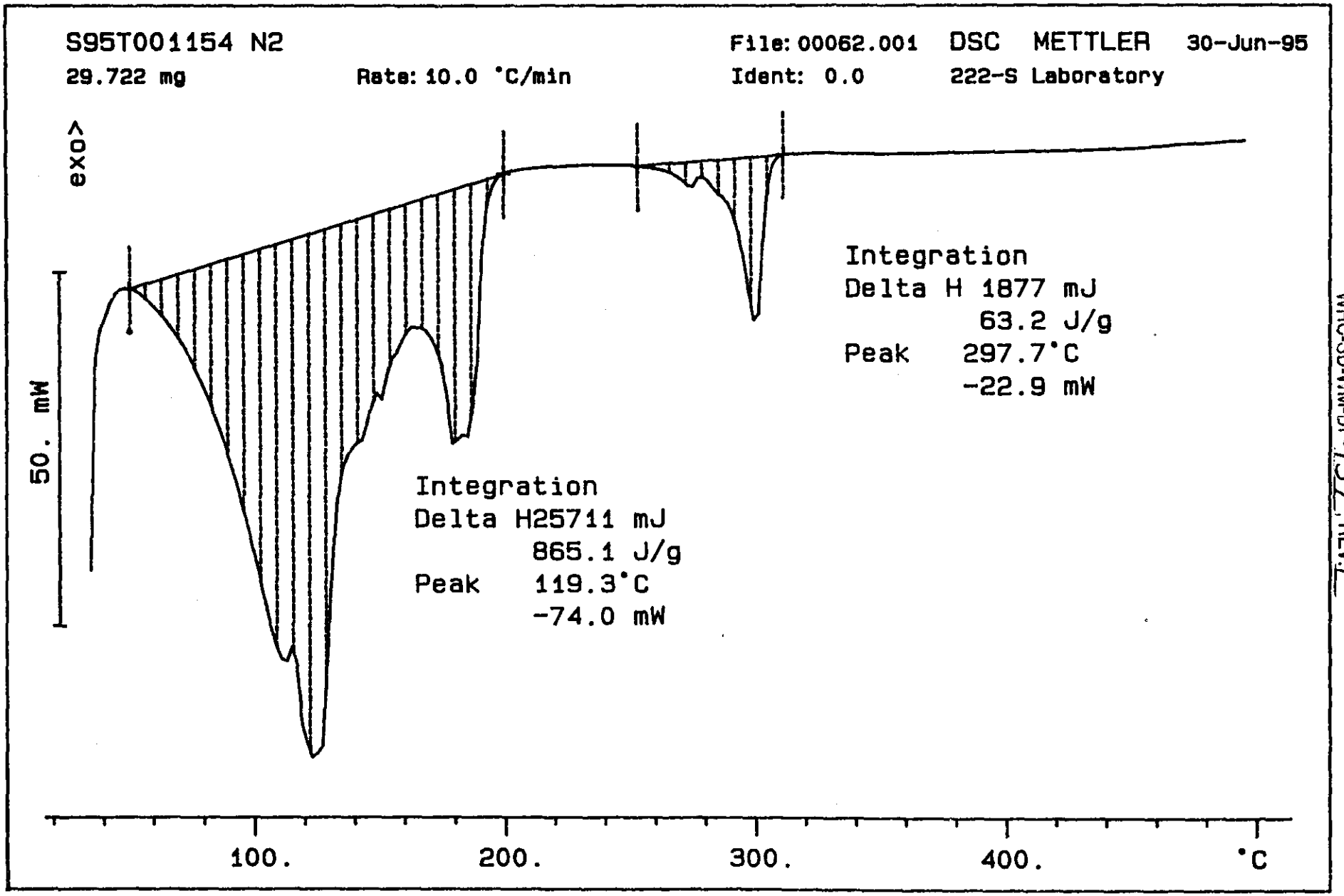
Both Samples are a Mustard yellow thin sludge (clear yellowish liquid on top)

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

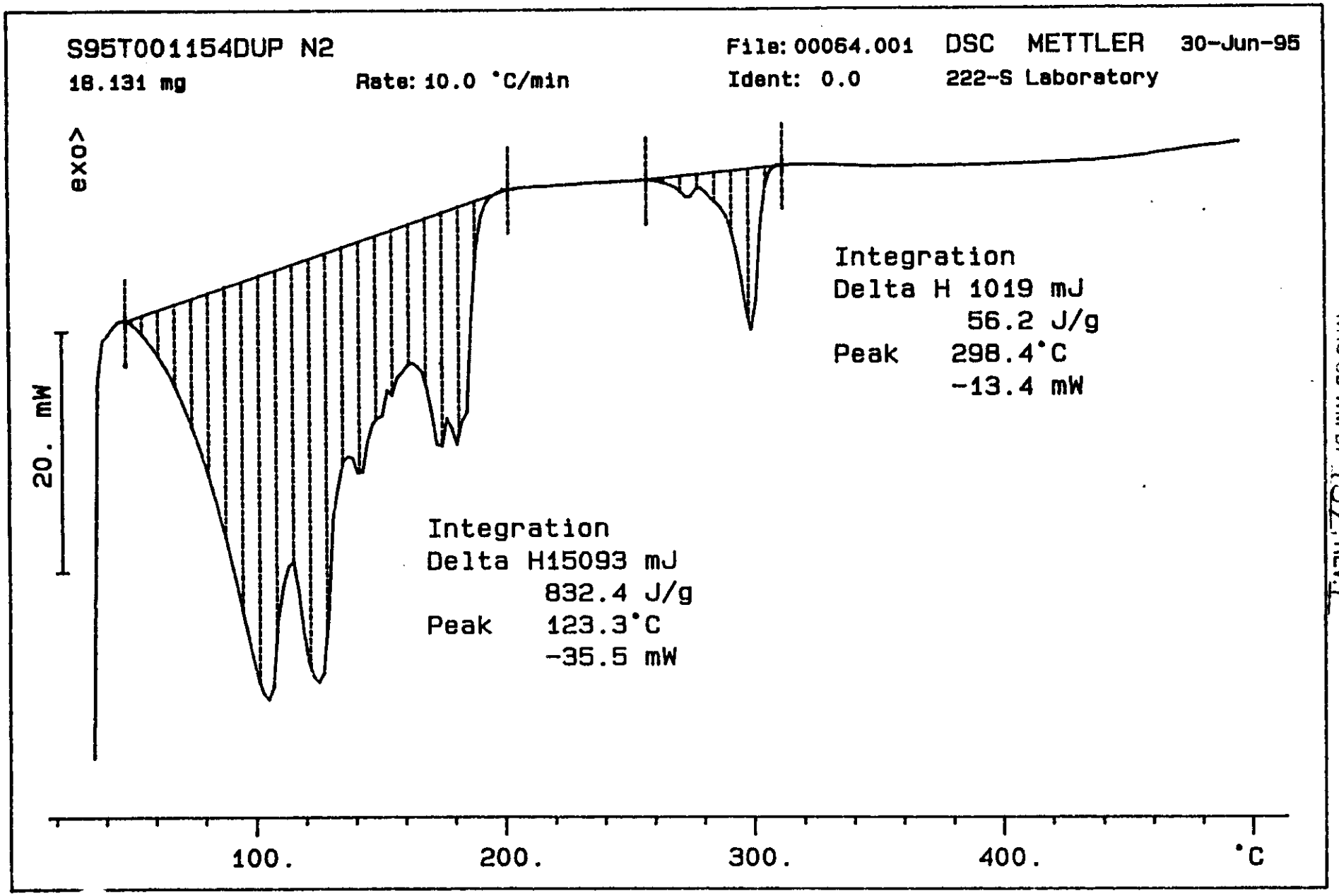
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 976 TO 981.

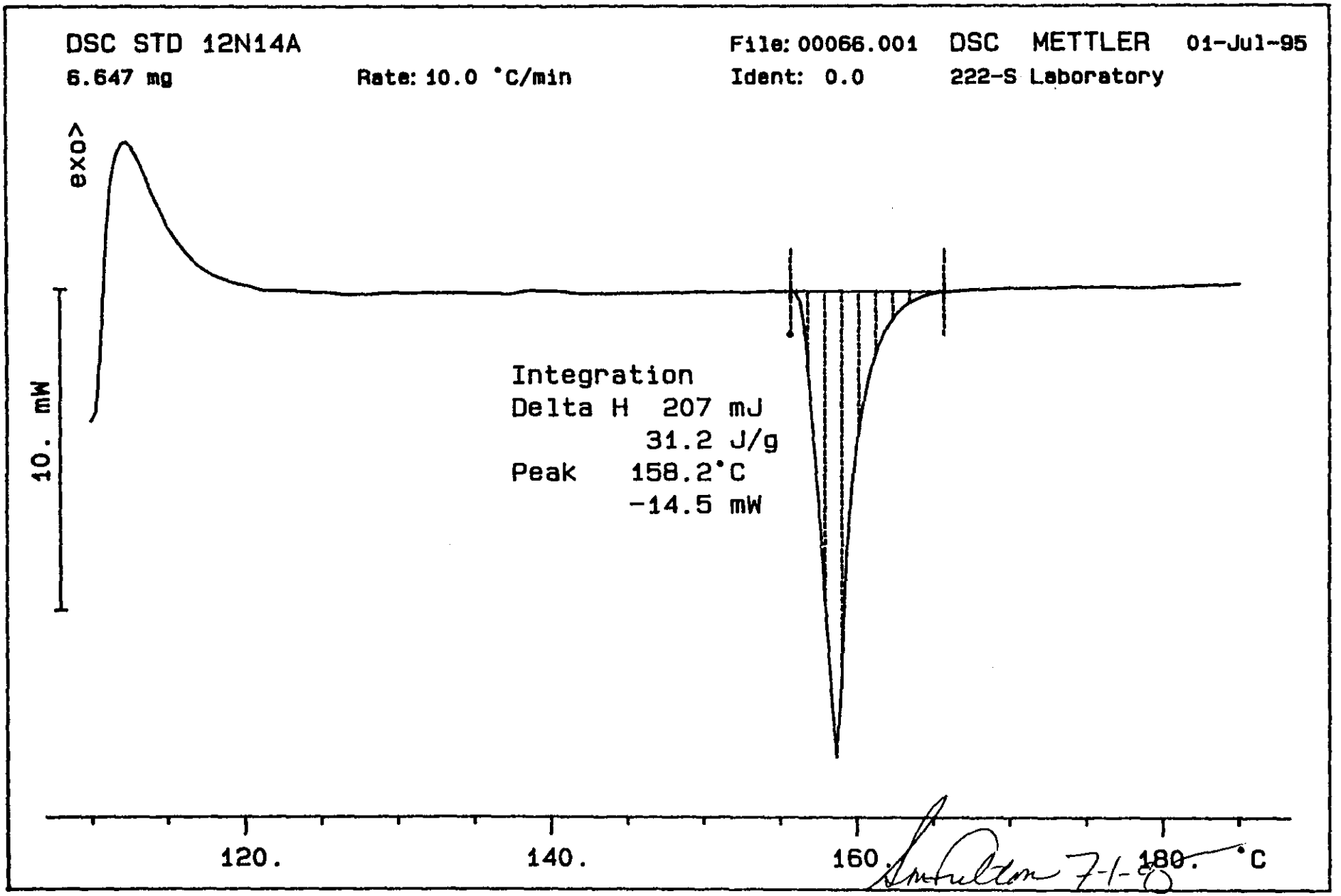


Swulfon 6.30.95



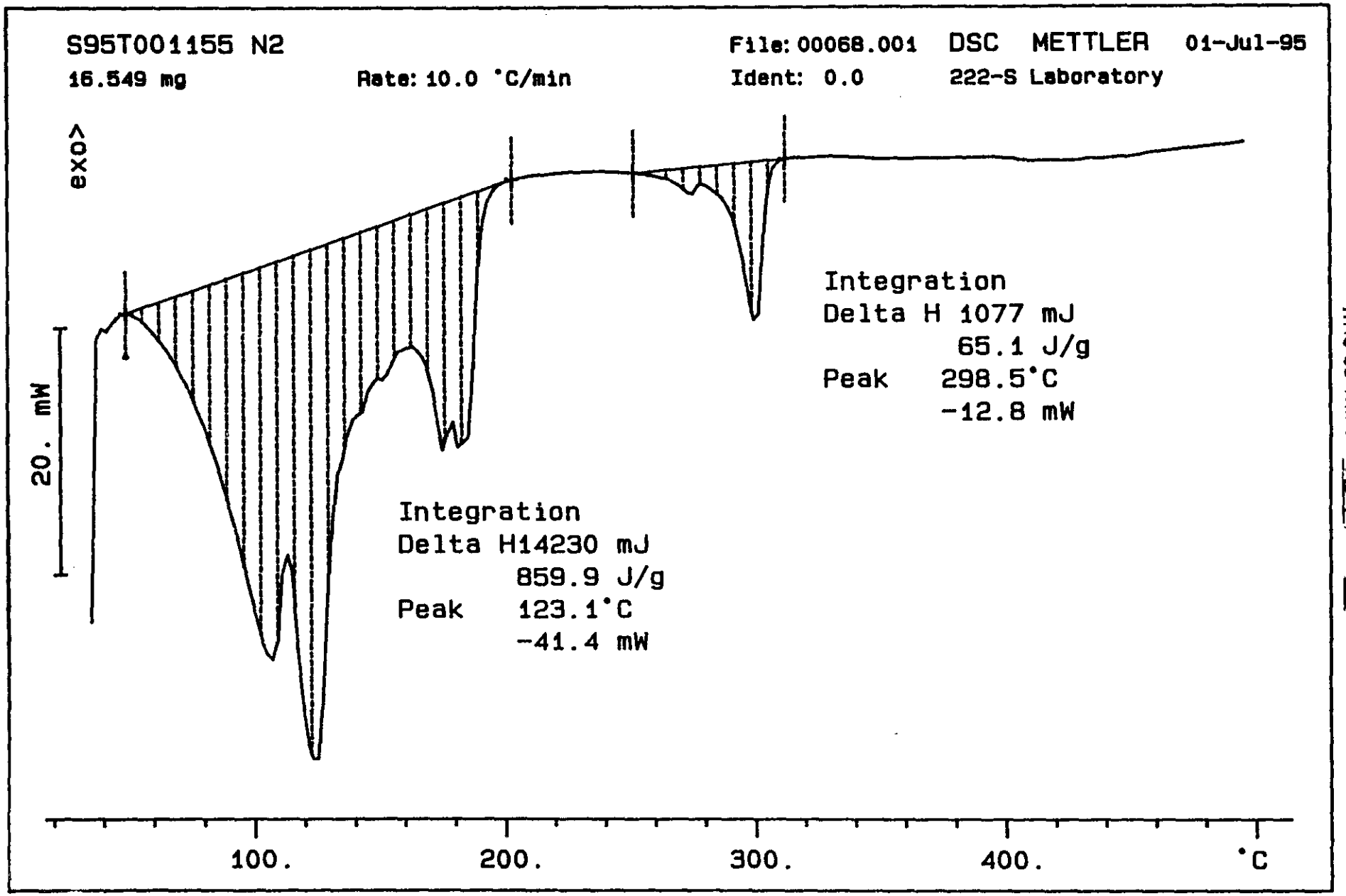
WHC-SD-WM-DP-137, REV. 1

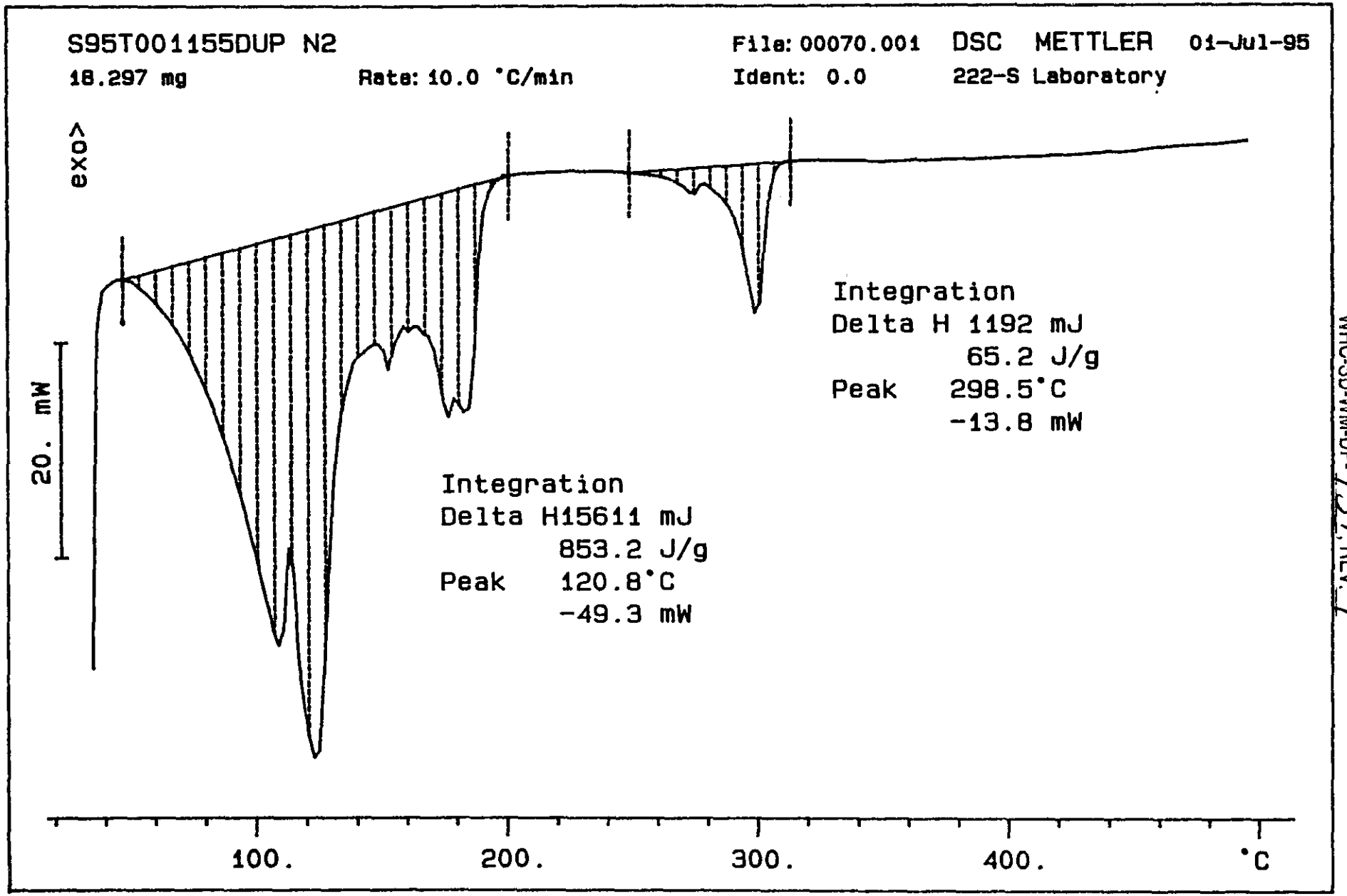

S95T001154DUP N2
18.131 mg
Rate: 10.0 °C/min
File: 00064.001
Ident: 0.0
DSC METTLER
222-S Laboratory
30-Jun-95
exo>
20. mW
Integration
Delta H 1019 mJ
56.2 J/g
Peak 298.4°C
-13.4 mW
Integration
Delta H15093 mJ
832.4 J/g
Peak 123.3°C
-35.5 mW
100.
200.
300.
400.
°C



WHC-SD-WM-DP-137, REV. 1

GLG


S95T001155 N2
16.549 mg
Rate: 10.0 °C/min
File: 00068.001
Ident: 0.0
DSC METTLER 01-Jul-95
222-S Laboratory
exo>
20. mW
Integration
Delta H 1077 mJ
65.1 J/g
Peak 298.5°C
-12.8 mW
Integration
Delta H14230 mJ
859.9 J/g
Peak 123.1°C
-41.4 mW
100.
200.
300.
400.
°C



WHC-SD-WM-DP-137, REV. 1

LABCORE Data Entry Template for Worklist# 1865

Analyst: BDV **Instrument:** DSC01 **Book #** —

Method: LA-514-113 Rev/Mod —

Worklist Comment: Dry DSC for B-104. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
95000085	B-104	1	SAMPLE	S95T001049	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	2	DUP	S95T001049	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000085	B-104	3	SAMPLE	S95T001054	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	4	DUP	S95T001054	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000085	B-104	5	SAMPLE	S95T001055	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	6	DUP	S95T001055	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000085	B-104	7	SAMPLE	S95T001061	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	8	DUP	S95T001061	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000085	B-104	9	SAMPLE	S95T001062	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	10	DUP	S95T001062	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000085	B-104	11	SAMPLE	S95T001067	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	12	DUP	S95T001067	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry

Final page for worklist # 1865

Blandina Valenzuela 7-24-95
Analyst Signature **Date**

Data entered + verified by
Blandina Valenzuela 7-24-95
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1866

Analyst: BDV **Instrument:** DSC01 **Book #** —

Method: LA-514-113 Rev/Mod —

Worklist Comment: Dry DSC for B-104. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000085	B-104	1	SAMPLE	S95T001068	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	2	DUP	S95T001068	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000085	B-104	3	SAMPLE	S95T001075	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	4	DUP	S95T001075	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000085	B-104	5	SAMPLE	S95T001076	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	6	DUP	S95T001076	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000085	B-104	7	SAMPLE	S95T001091	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	8	DUP	S95T001091	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000085	B-104	9	SAMPLE	S95T001092	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	10	DUP	S95T001092	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000085	B-104	11	SAMPLE	S95T001099	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	12	DUP	S95T001099	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000085	B-104	13	SAMPLE	S95T001100	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000085	B-104	14	DUP	S95T001100	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000088	B-104	15	SAMPLE	S95T001107	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	16	DUP	S95T001107	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000088	B-104	17	SAMPLE	S95T001108	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	18	DUP	S95T001108	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1866

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT

Final page for worklist # 1866

Blandina Valenzuela 7-24-95
Analyst Signature Date

Data entered + verified by
Blandina Valenzuela 7-24-95
Analyst Signature Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1867

Analyst: BDV **Instrument:** DSC01 **Book #** —

Method: LA-514-113 Rev/Mod —

Worklist Comment: Dry DSC for B-104. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000088	B-104	1	SAMPLE	S95T001113	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	2	DUP	S95T001113	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000088	B-104	3	SAMPLE	S95T001114	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	4	DUP	S95T001114	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000088	B-104	5	SAMPLE	S95T001130	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	6	DUP	S95T001130	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000088	B-104	7	SAMPLE	S95T001131	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	8	DUP	S95T001131	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000088	B-104	9	SAMPLE	S95T001136	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	10	DUP	S95T001136	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000088	B-104	11	SAMPLE	S95T001137	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	12	DUP	S95T001137	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000088	B-104	13	SAMPLE	S95T001142	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	14	DUP	S95T001142	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000088	B-104	15	SAMPLE	S95T001143	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	16	DUP	S95T001143	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000088	B-104	17	SAMPLE	S95T001148	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	18	DUP	S95T001148	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1867

GROUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT

Final page for worklist # 1867

Blandina Valenzuela ~~7-25-95~~ 7-24-95 7-24-95
Analyst Signature Date

Data entered + verified by
Blandina Valenzuela 7-24-95
Analyst Signature Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1869

Analyst: BDV **Instrument:** DSC01 **Book #** —

Method: LA-514-113 Rev/Mod —

Worklist Comment: Dry DSC for B-104. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000088	B-104	1	SAMPLE	S95T001149	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	2	DUP	S95T001149	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000088	B-104	3	SAMPLE	S95T001154	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	4	DUP	S95T001154	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry
95000088	B-104	5	SAMPLE	S95T001155	0		DSC-02	SOLID	N/A	0		Joules/g Dry
95000088	B-104	6	DUP	S95T001155	0		DSC-02	SOLID	0	0	N/A	Joules/g Dry

Final page for worklist # 1869

Blandina Valenzuela 7-24-95
Analyst Signature Date

Data entered + verified
Blandina Valenzuela 7-24-95
Analyst Signature Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1880

Analyst: BDV **Instrument:** DSC01 **Book #** —

Method: LA-514-113 Rev/Mod —

Worklist Comment: Dry DSC for B-104. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
95000085	B-104	1 SAMPLE	S95T001051	0		DSC-02	LIQUID	N/A	0		Joules/g Dry
95000085	B-104	2 DUP	S95T001051	0		DSC-02	LIQUID	0	0	N/A	Joules/g Dry
95000085	B-104	3 SAMPLE	S95T001084	0		DSC-02	LIQUID	N/A	0		Joules/g Dry
95000085	B-104	4 DUP	S95T001084	0		DSC-02	LIQUID	0	0	N/A	Joules/g Dry
95000088	B-104	5 SAMPLE	S95T001104	0		DSC-02	LIQUID	N/A	0		Joules/g Dry
95000088	B-104	6 DUP	S95T001104	0		DSC-02	LIQUID	0	0	N/A	Joules/g Dry

Final page for worklist # 1880

Blandina Valenzuela 7-24-95
Analyst Signature **Date**

Data entered + verified by
Blandina Valenzuela 7-24-
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1538

Analyst: ADP **Instrument:** TGA0 **Book #** 42N8-A

Method: LA-560-112 Rev/Mod A 2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-01	LIQUID	~~58~~ 59.19 6/27 RS BDV	58.98	N/A	%
95000085	B-104	2 SAMPLE	S95T001051	0		TGA-01	LIQUID	N/A	51.68		%
95000085	B-104	3 DUP	S95T001051	0		TGA-01	LIQUID	51.68	49.90	N/A	%

Final page for worklist # 1538

Anthony Pirinto 6-26-95
Analyst Signature **Date**

Analyst Signature **Date**

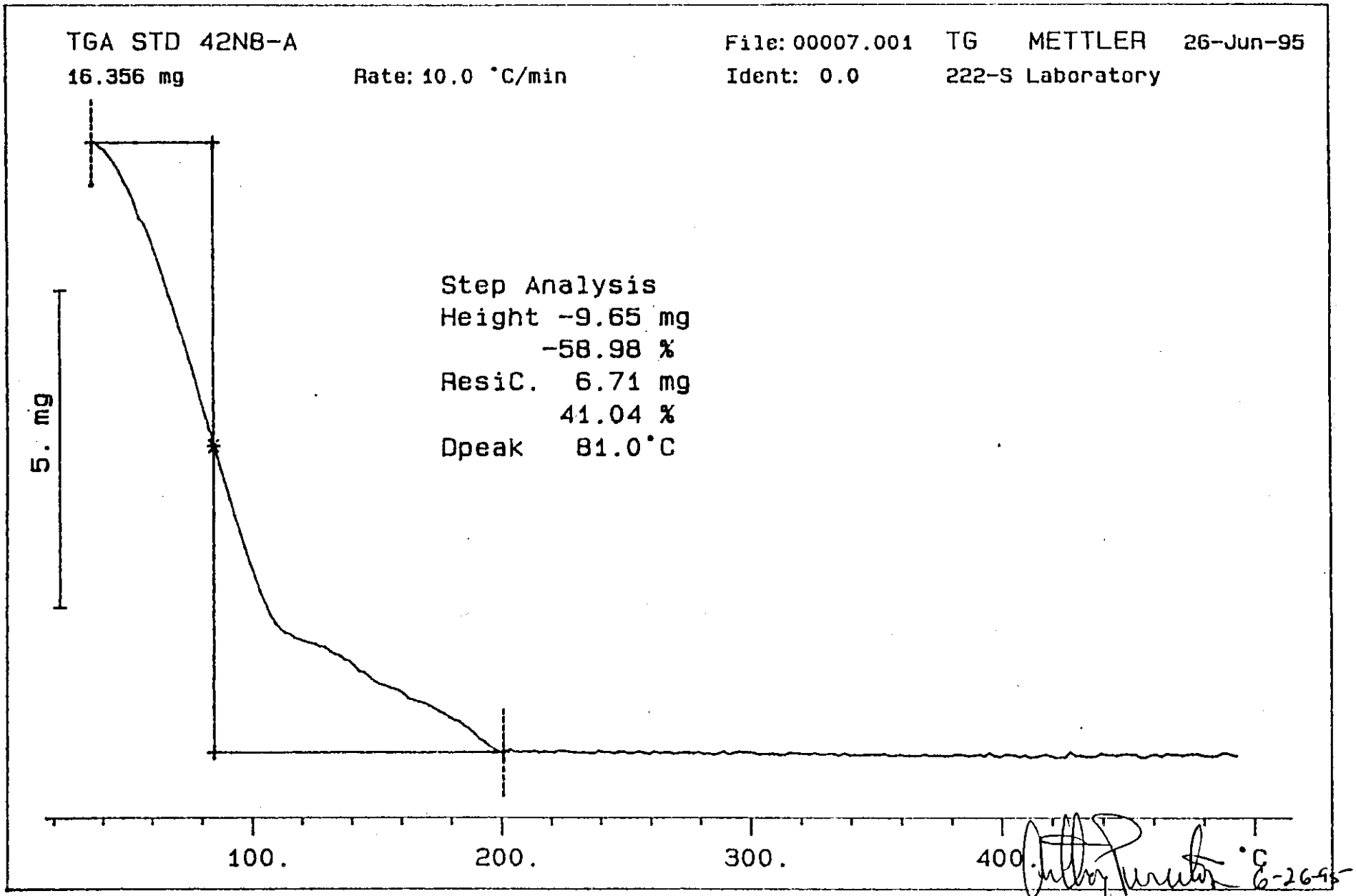
Verified by Blandina Valenzuela 6-29-95

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

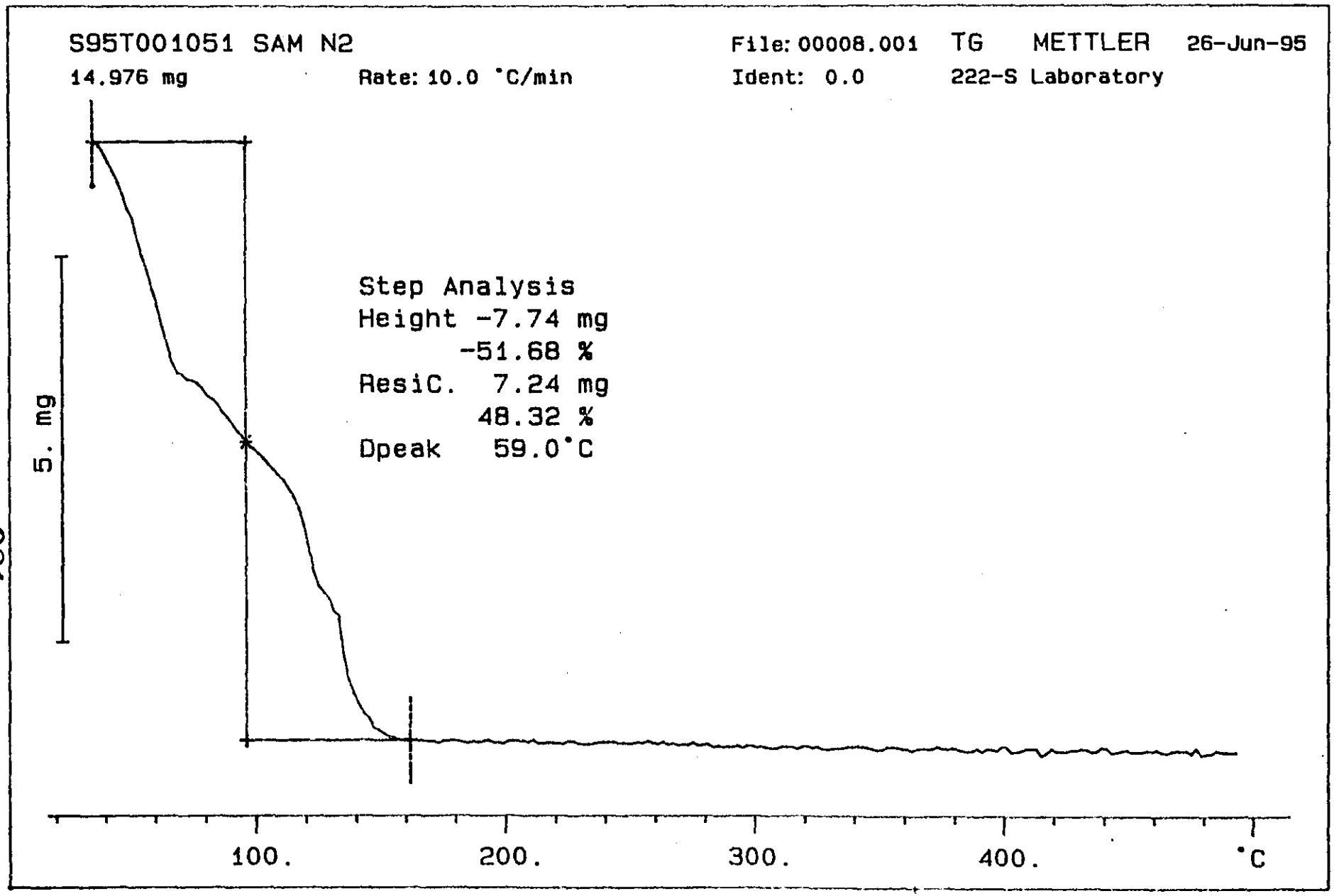
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 990 TO 992.

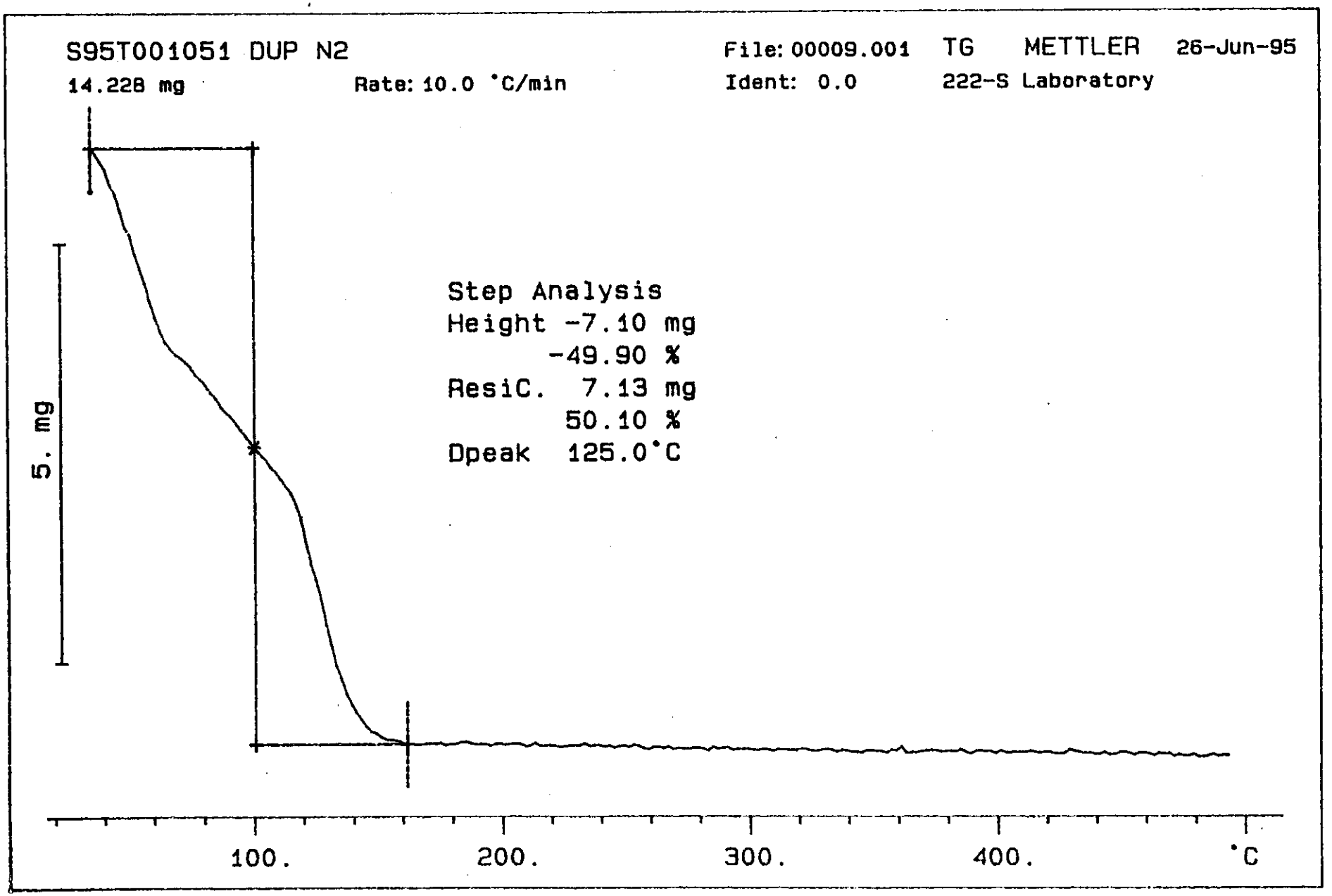
BEST AVAILABLE COPY



6-26-95

WHC-SD-WM-DP-137, REV. 1


S95T001051 SAM N2
14.976 mg
Rate: 10.0 °C/min
File: 00008.001
Ident: 0.0
TG
METTLER
26-Jun-95
222-S Laboratory
Step Analysis
Height -7.74 mg
-51.68 %
ResiC. 7.24 mg
48.32 %
Dpeak 59.0°C
5. mg
100.
200.
300.
400.
°C


S95T001051 DUP N2
14.228 mg
Rate: 10.0 °C/min
File: 00009.001
Ident: 0.0
TG
METTLER
222-S Laboratory
26-Jun-95
Step Analysis
Height -7.10 mg
-49.90 %
ResiC. 7.13 mg
50.10 %
Dpeak 125.0°C
5. mg
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1561

Analyst: JDS **Instrument:** TGA0 1 **Book #** 42N8-A

Method: LA-560-112 Rev/Mod A-2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID	57.17	57.09	N/A	%
95000085	B-104	2	SAMPLE	S95T001049	0		TGA-01	SOLID	N/A	61.19		%
95000085	B-104	3	DUP	S95T001049	0		TGA-01	SOLID	61.19	42.34	N/A	%
		4	STD				TGA-01	SOLID	57.17	57.65	N/A	%
95000085	B-104	5	TRIPL	S95T001049	0		TGA-01	SOLID	61.19	48.98	N/A	%
95000085	B-104	6	SAMPLE	S95T001054	0		TGA-01	SOLID	N/A	40.90		%
95000085	B-104	7	DUP	S95T001054	0		TGA-01	SOLID	40.90	44.75	N/A	%

Final page for worklist # 1561

See attached for signatures 7-10-95
Analyst Signature **Date**

Data entered + verified by Blandina Valenzuela 7-11-95
Analyst Signature **Date**

Verified by Blandina Valenzuela BDV 7-13-95

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1561

Analyst: JLS **Instrument:** TGA0 _____ **Book #** 4/2N18A

Method: LA-560-112 Rev/Mod _____

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
95000085	B-104	2	SAMPLE	S95T001049	0		TGA-01	SOLID	N/A			%
95000085	B-104	3	DUP	S95T001049	0		TGA-01	SOLID			N/A	%
95000085	B-104	4	SAMPLE	S95T001054	0		TGA-01	SOLID	N/A			%
95000085	B-104	5	DUP	S95T001054	0		TGA-01	SOLID			N/A	%

Final page for worklist # 1561

JLS 6-27-95

Analyst Signature **Date**

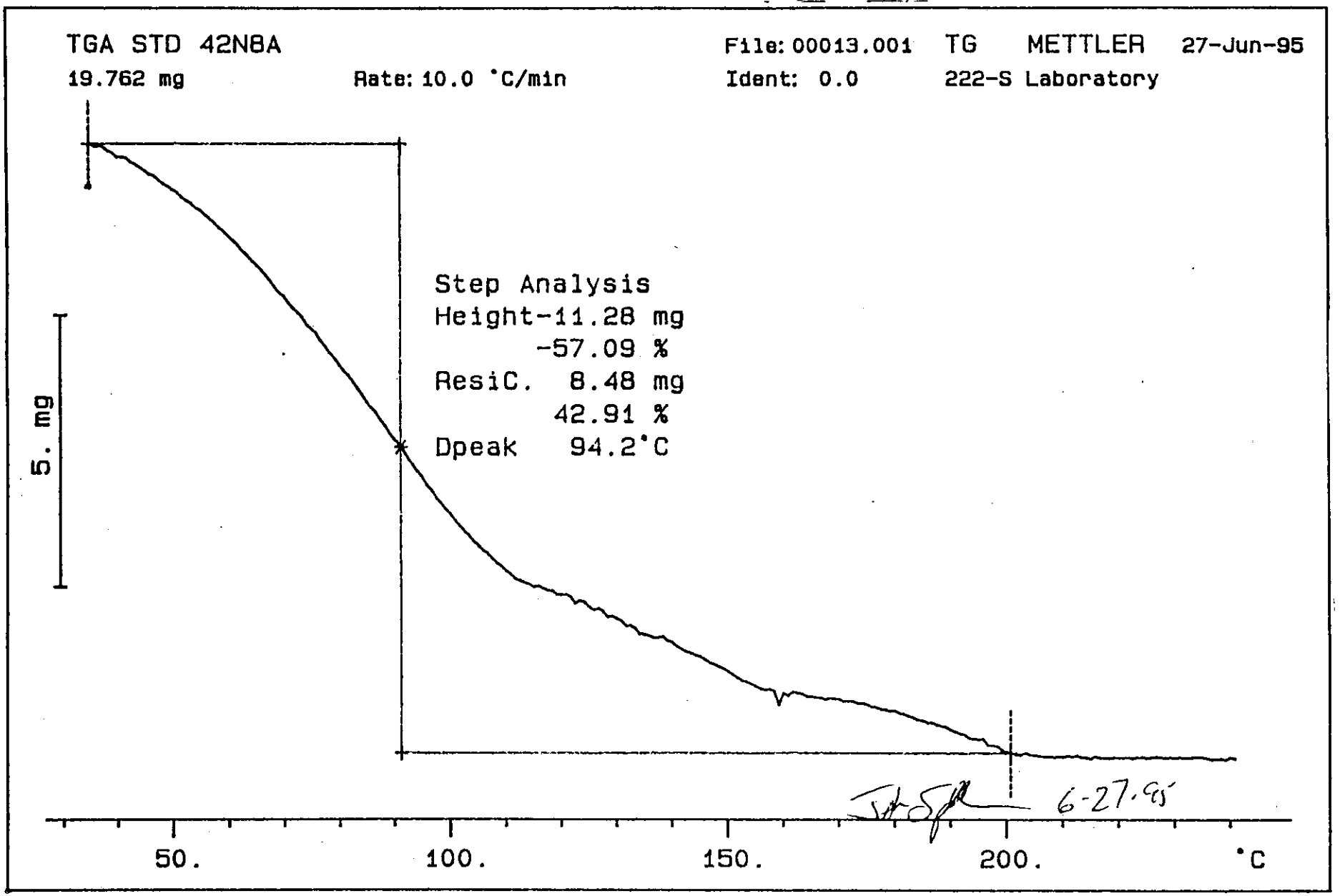
Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

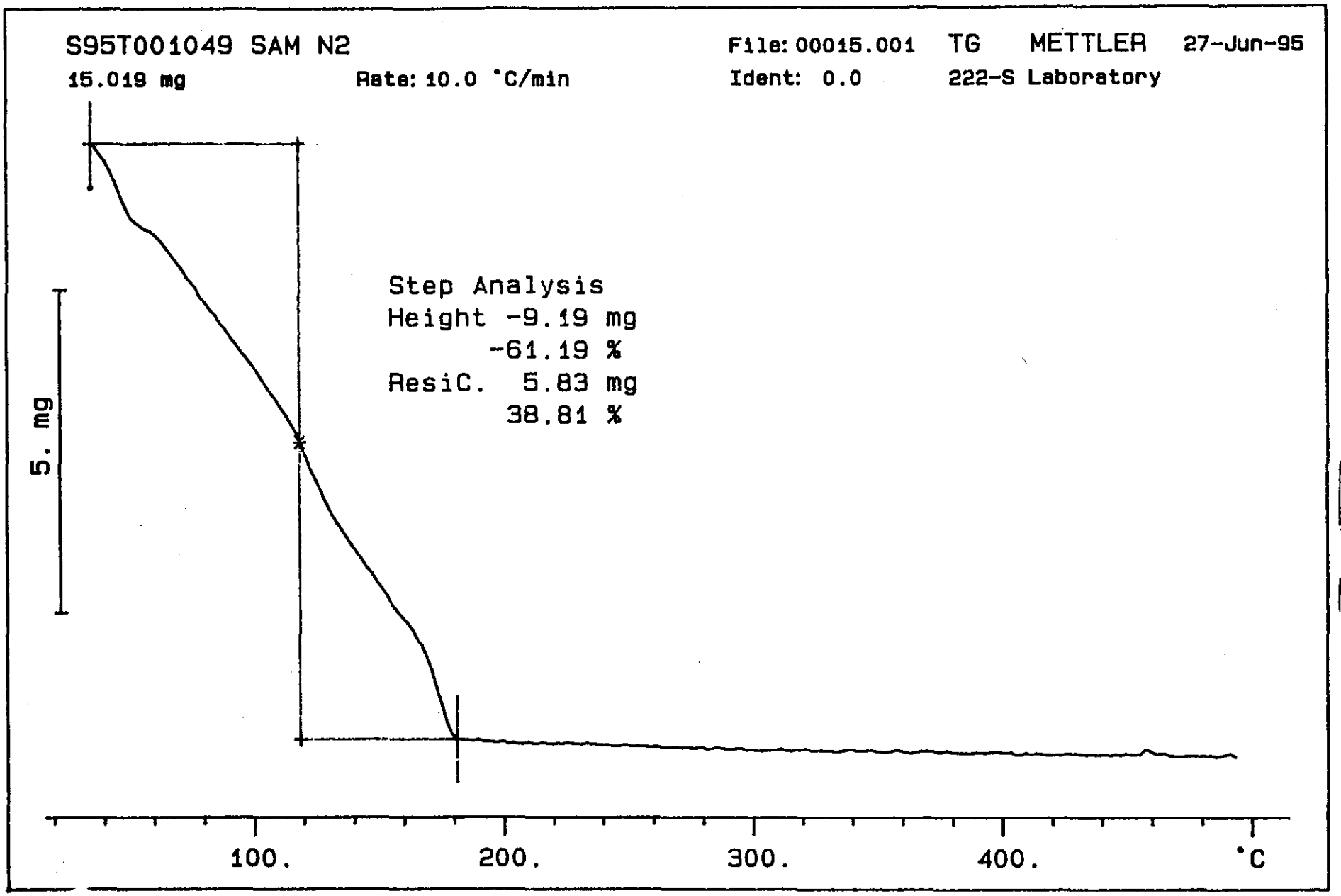
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 995 TO 1001.

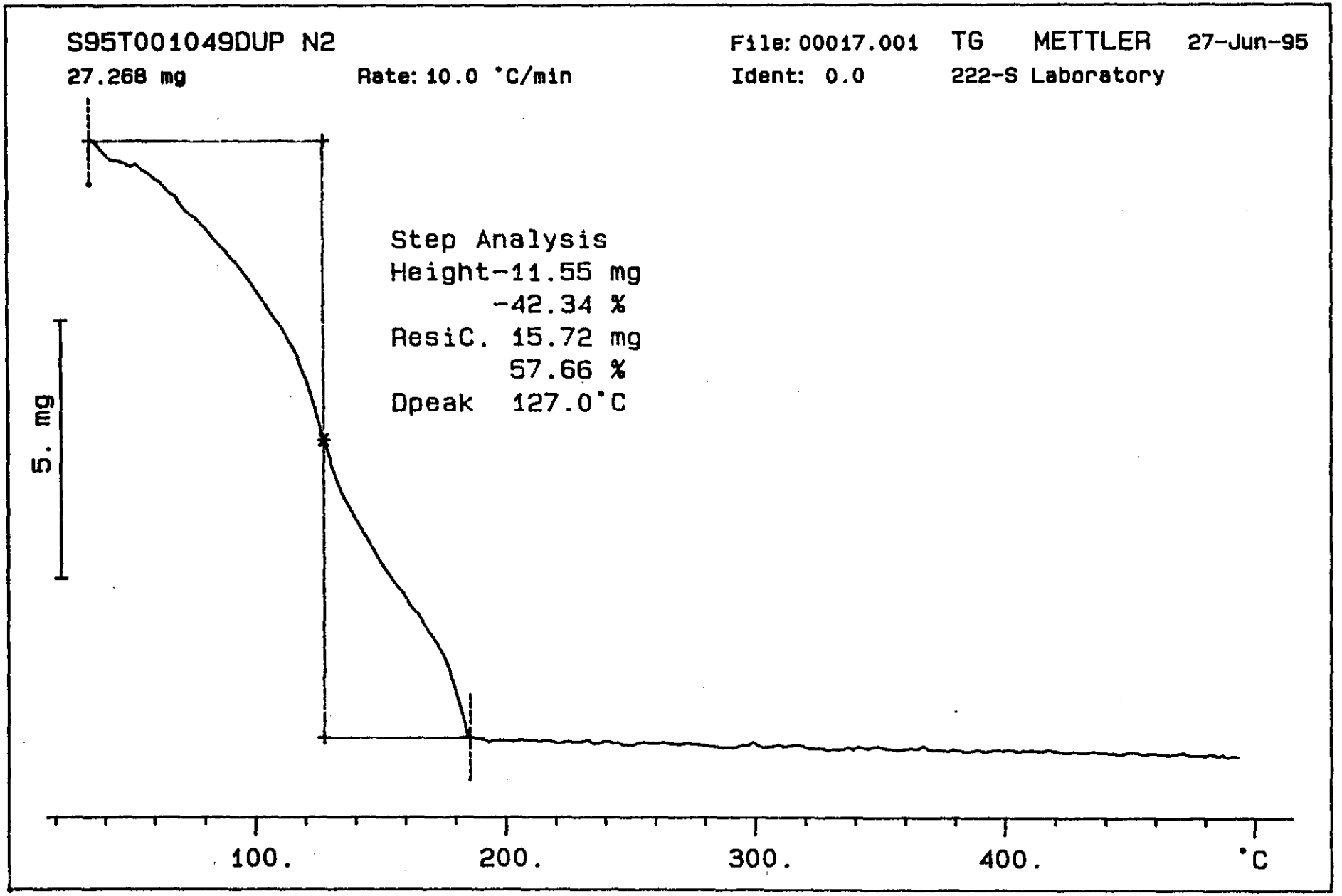
BEST AVAILABLE COPY

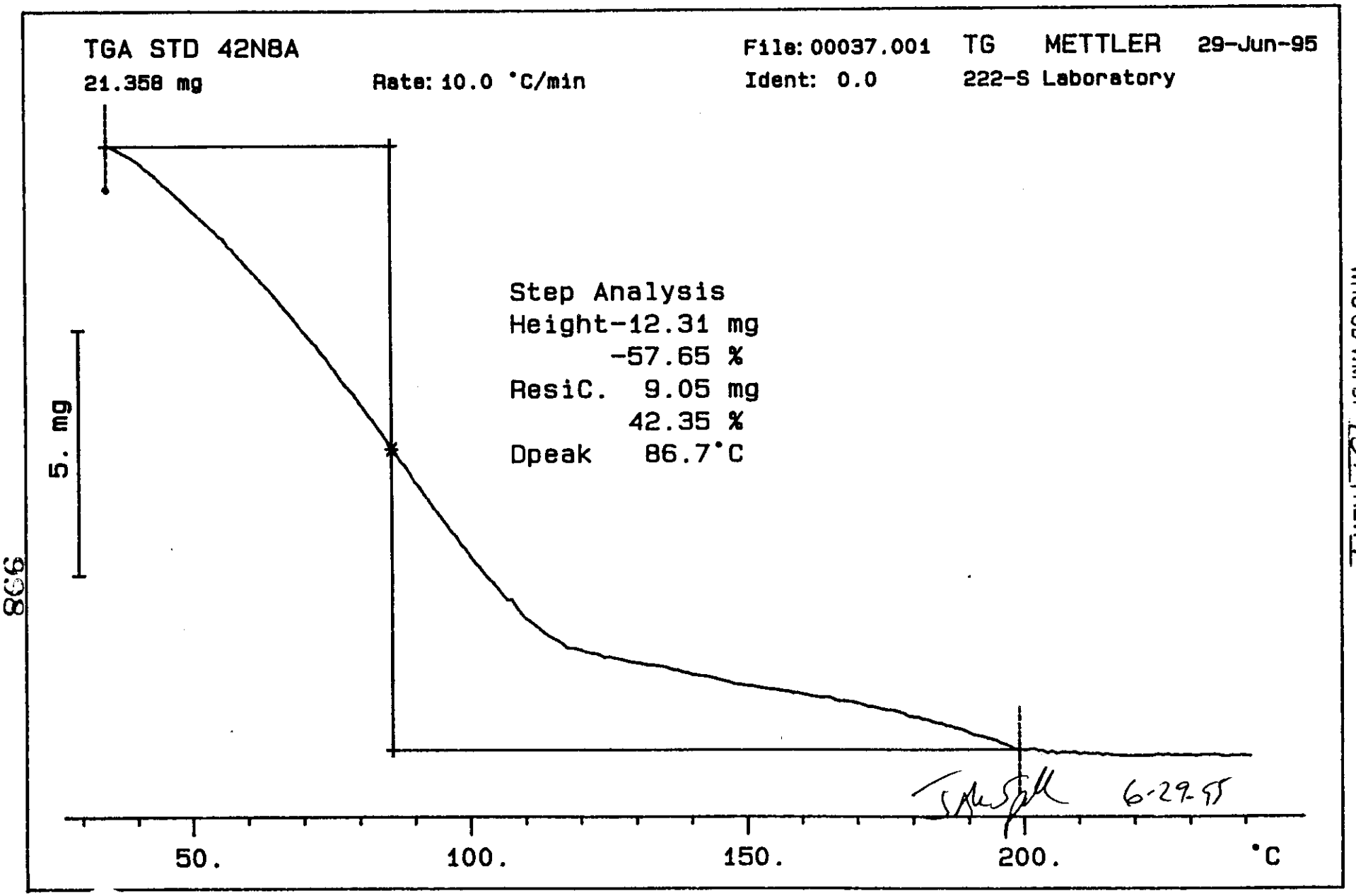


995

WHC-SD-WM-DP-137, REV. 1

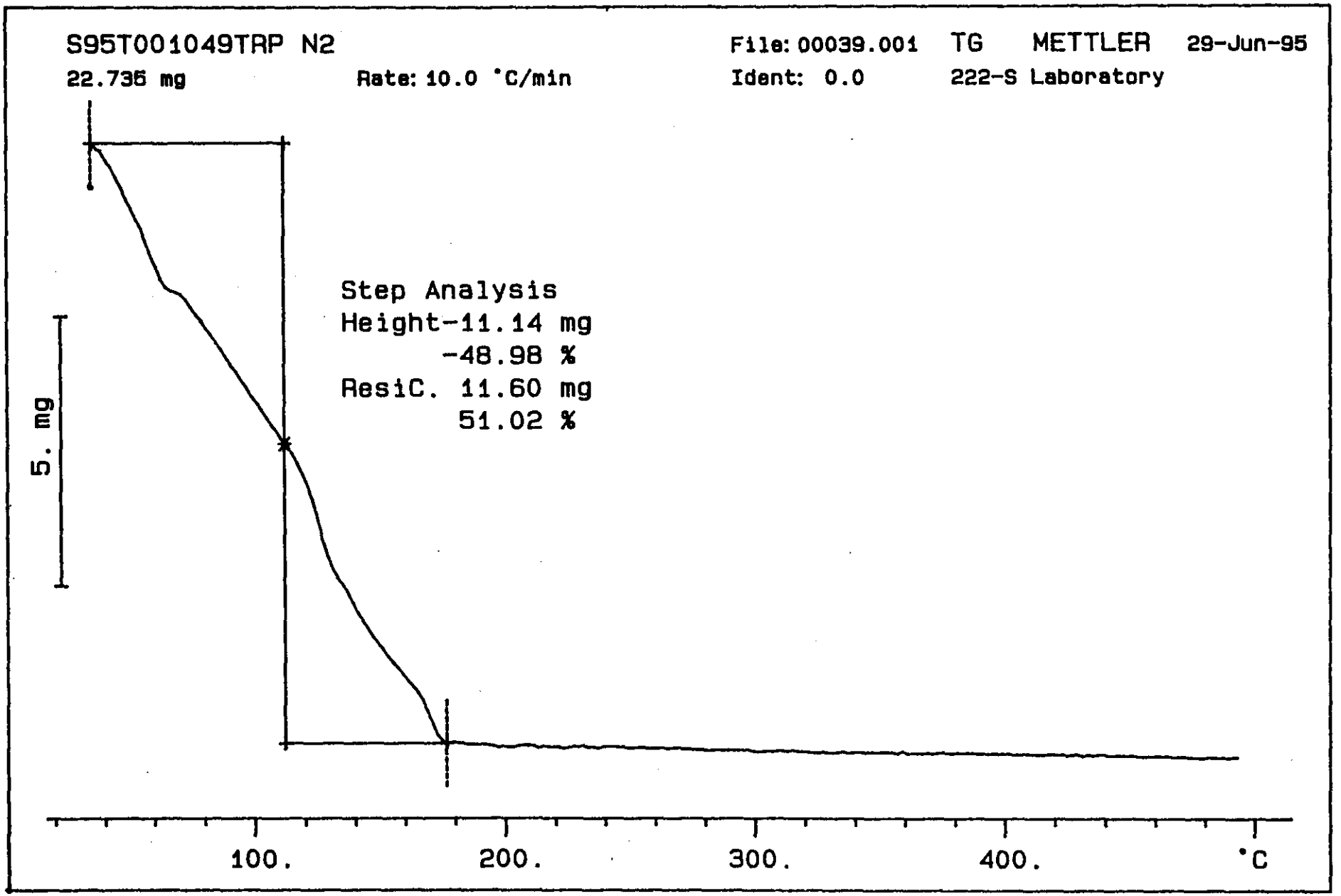

S95T001049 SAM N2
15.019 mg
Rate: 10.0 °C/min
File: 00015.001
TG
METTLER
27-Jun-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -9.19 mg
-61.19 %
ResiC. 5.83 mg
38.81 %
5. mg
100.
200.
300.
400.
°C

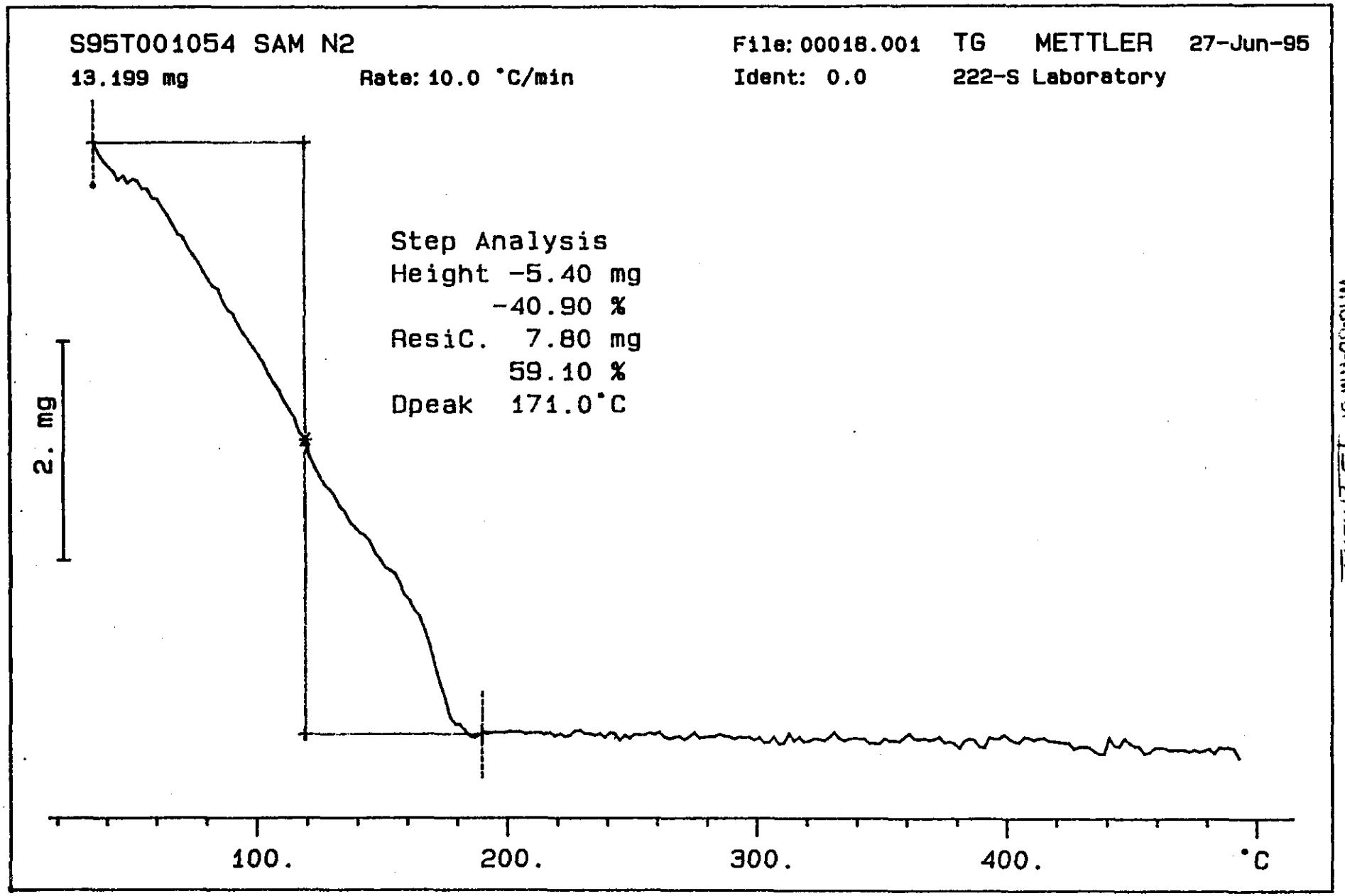

S95T001049DUP N2
27.268 mg
Rate: 10.0 °C/min
File: 00017.001
TG METTLER 27-Jun-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -11.55 mg
-42.34 %
ResiC. 15.72 mg
57.66 %
Dpeak 127.0°C
5. mg
100.
200.
300.
400.
°C



WHC-SD-WM-DP-137, REV. 1

998


S95T001049TRP N2
22.736 mg
Rate: 10.0 °C/min
File: 00039.001
TG METTLER 29-Jun-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height-11.14 mg
-48.98 %
ResiC. 11.60 mg
51.02 %
5. mg
100.
200.
300.
400.
°C



1000

WHC-SD-WM-DP-137, REV. 1

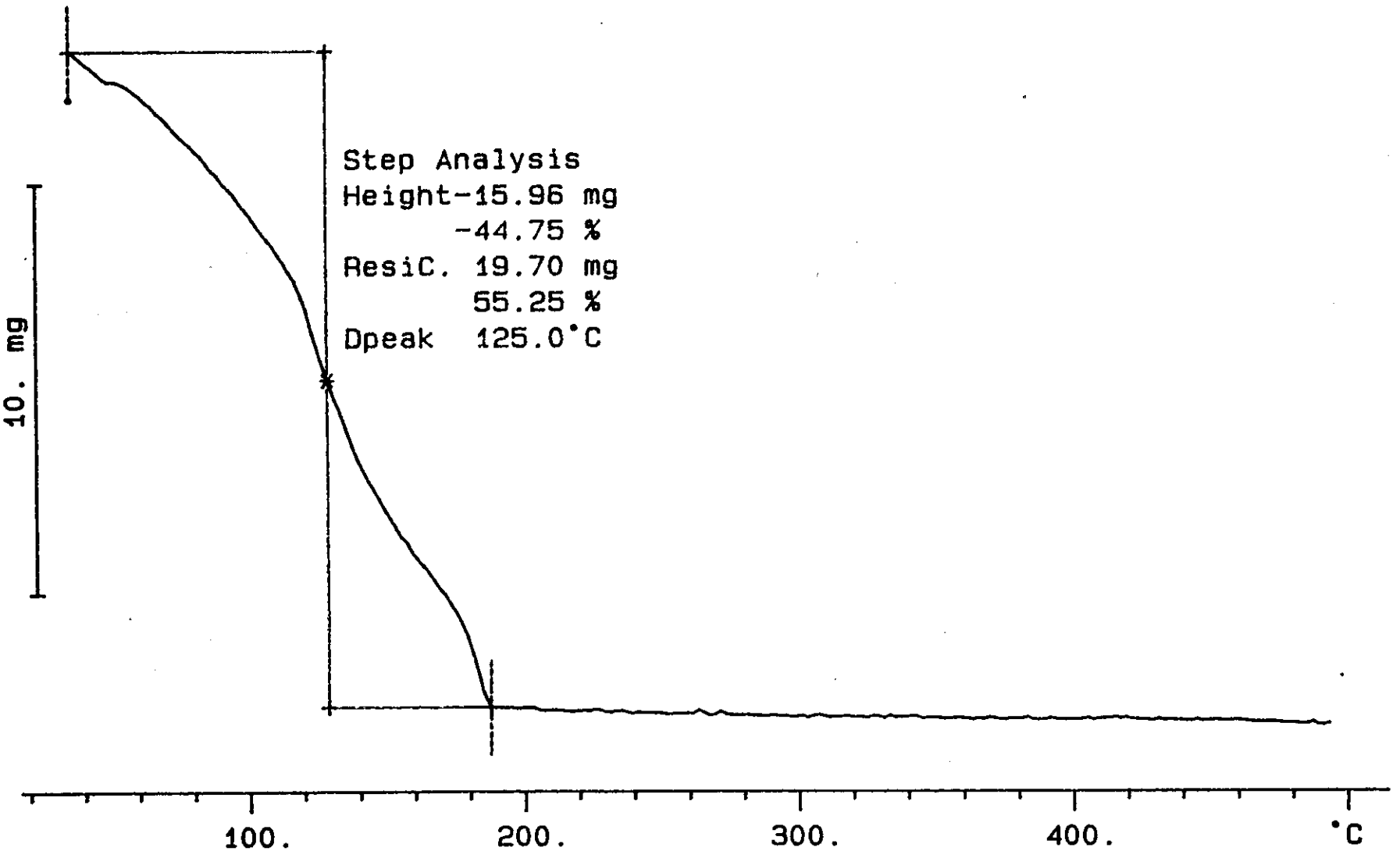
S95T001054 ~~SAM~~ N2
Dup JS 6-27-95

35.652 mg

Rate: 10.0 °C/min

File: 00019.001 TG METTLER 27-Jun-95

Ident: 0.0 222-S Laboratory



WHC-SD-WM-DP-137, REV. 1

1001

LABCORE Data Entry Template for Worklist# 1562

Analyst: JDS **Instrument:** TGA0 3 **Book #** 42N8A

Method: LA-514-114 Rev/Mod B-0

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-03	SOLID	59.19	57.55	N/A	%
95000085	B-104	2 SAMPLE	S95T001055	0		TGA-03	SOLID	N/A	49.93		%
95000085	B-104	3 DUP	S95T001055	0		TGA-03	SOLID	49.93	49.14	N/A	%
95000085	B-104	4 SAMPLE	S95T001061	0		TGA-03	SOLID	N/A	46.69		%
95000085	B-104	5 DUP	S95T001061	0		TGA-03	SOLID	46.69	47.98	N/A	%

Final page for worklist # 1562

See attached for signatures 6/28/95
Analyst Signature **Date**

[signature] 6-29-95
Analyst Signature **Date**

Verified by Blandina Valenzuela 6/29/95

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1562

Analyst: Jds **Instrument:** TGA0 _____ **Book #** 42N8A

Method: LA-560-112 Rev/Mod _____

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
95000085	B-104	2	SAMPLE	S95T001055	0		TGA-01	SOLID	N/A			%
95000085	B-104	3	DUP	S95T001055	0		TGA-01	SOLID			N/A	%
95000085	B-104	4	SAMPLE	S95T001061	0		TGA-01	SOLID	N/A			%
95000085	B-104	5	DUP	S95T001061	0		TGA-01	SOLID			N/A	%

Final page for worklist # 1562

Jds 6-27-95

Analyst Signature **Date**

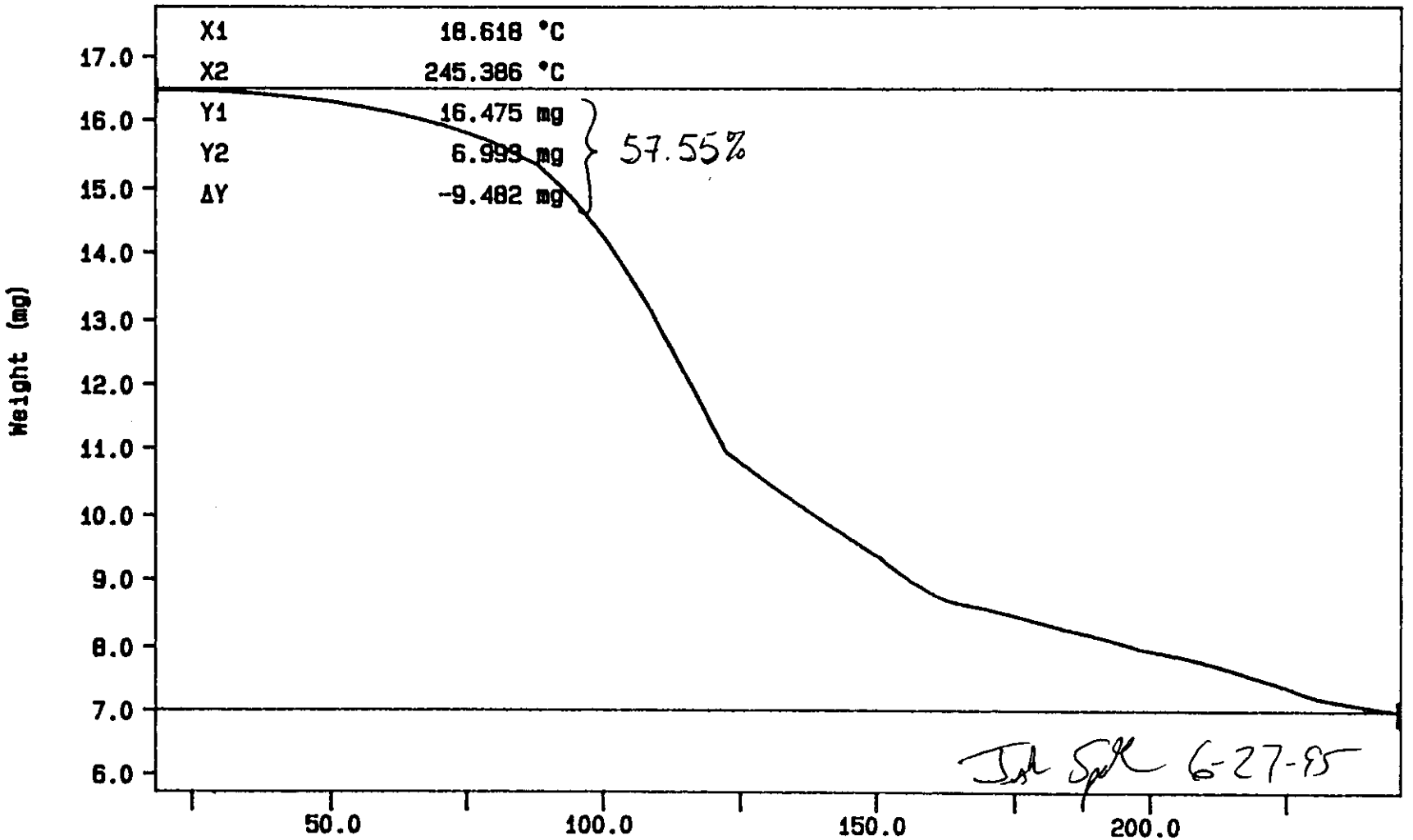
Analyst Signature **Date**

Other instrument was used.
6/28/95
BDV

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER062702 Tue Jun 27 15:35:57 1995
Sample Weight: 16.483 mg
42N8A Terliq SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1004 TO 1008.



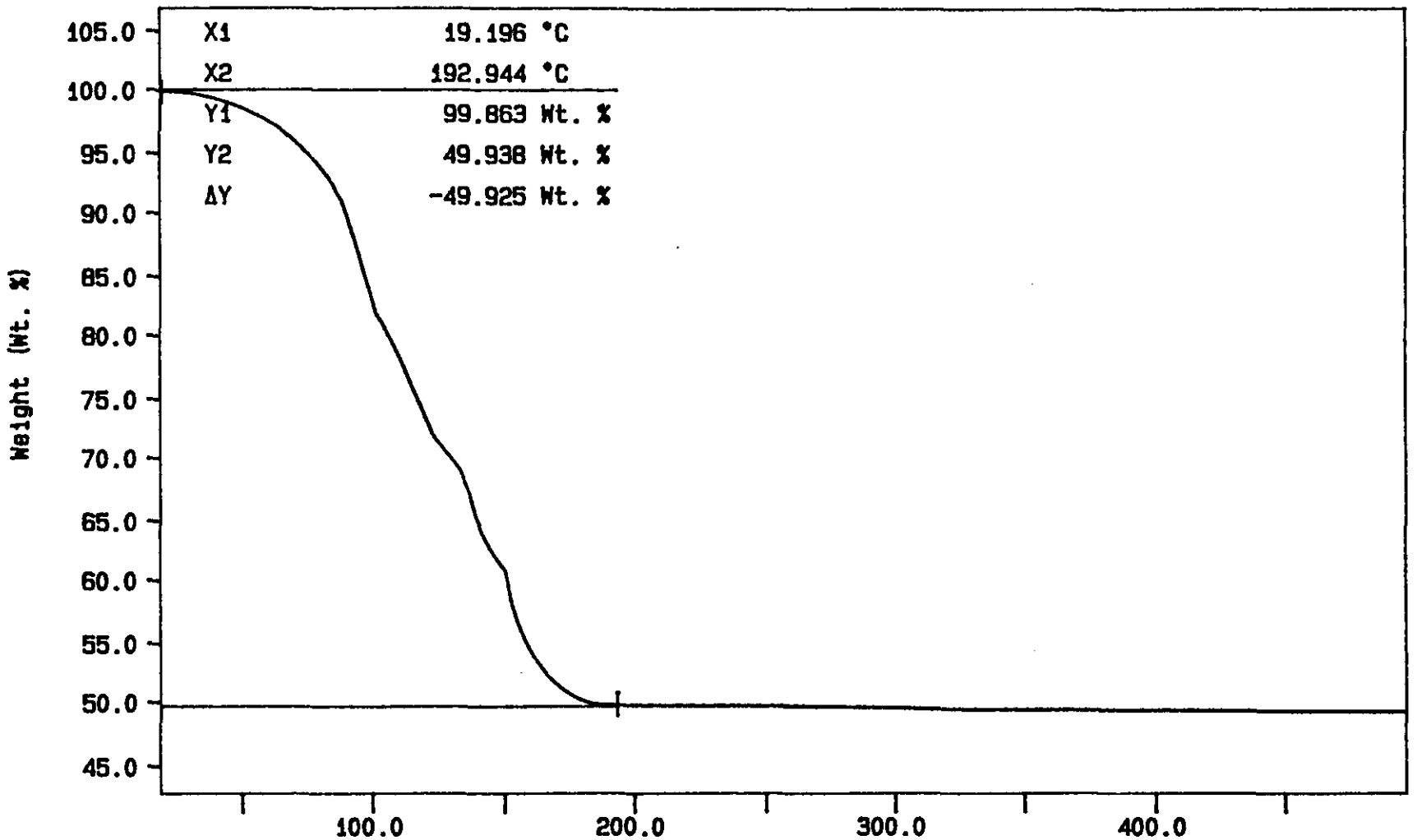
N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 250.0 C

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jun 27 16:30:00 1995

WHC-SD-WM-DP-137, REV. 1

1004

Curve 1: TGA
File info: SAM062703 Tue Jun 27 17:46:14 1995
Sample Weight: 10.880 mg
S95T001055

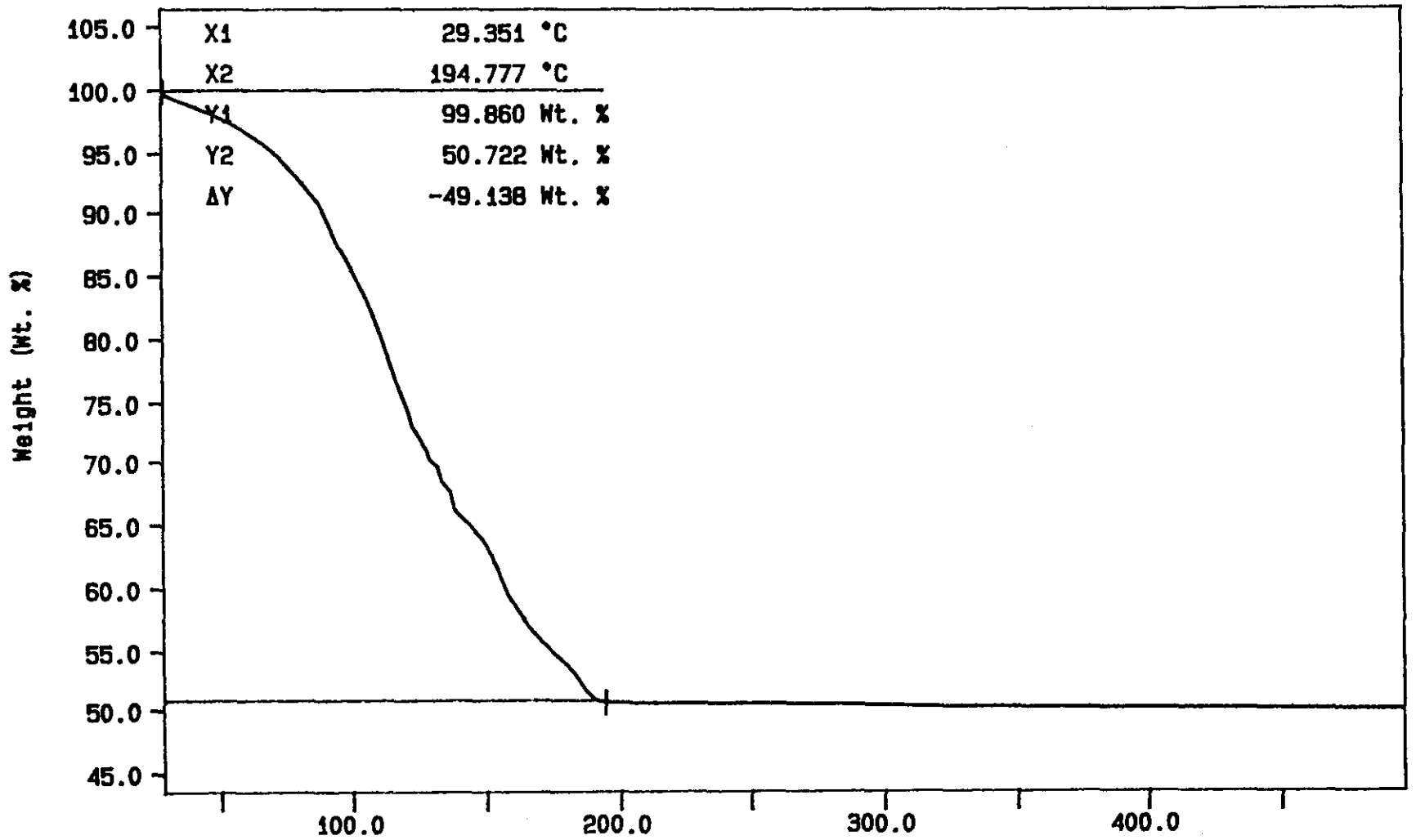


N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jun 27 17:59:06 1995

WHC-SD-WM-DP-132, REV. 1

Curve 1: TGA
File info: SAM062704 Tue Jun 27 18:54:11 1995
Sample Weight: 9.817 mg
S95T001055DUP

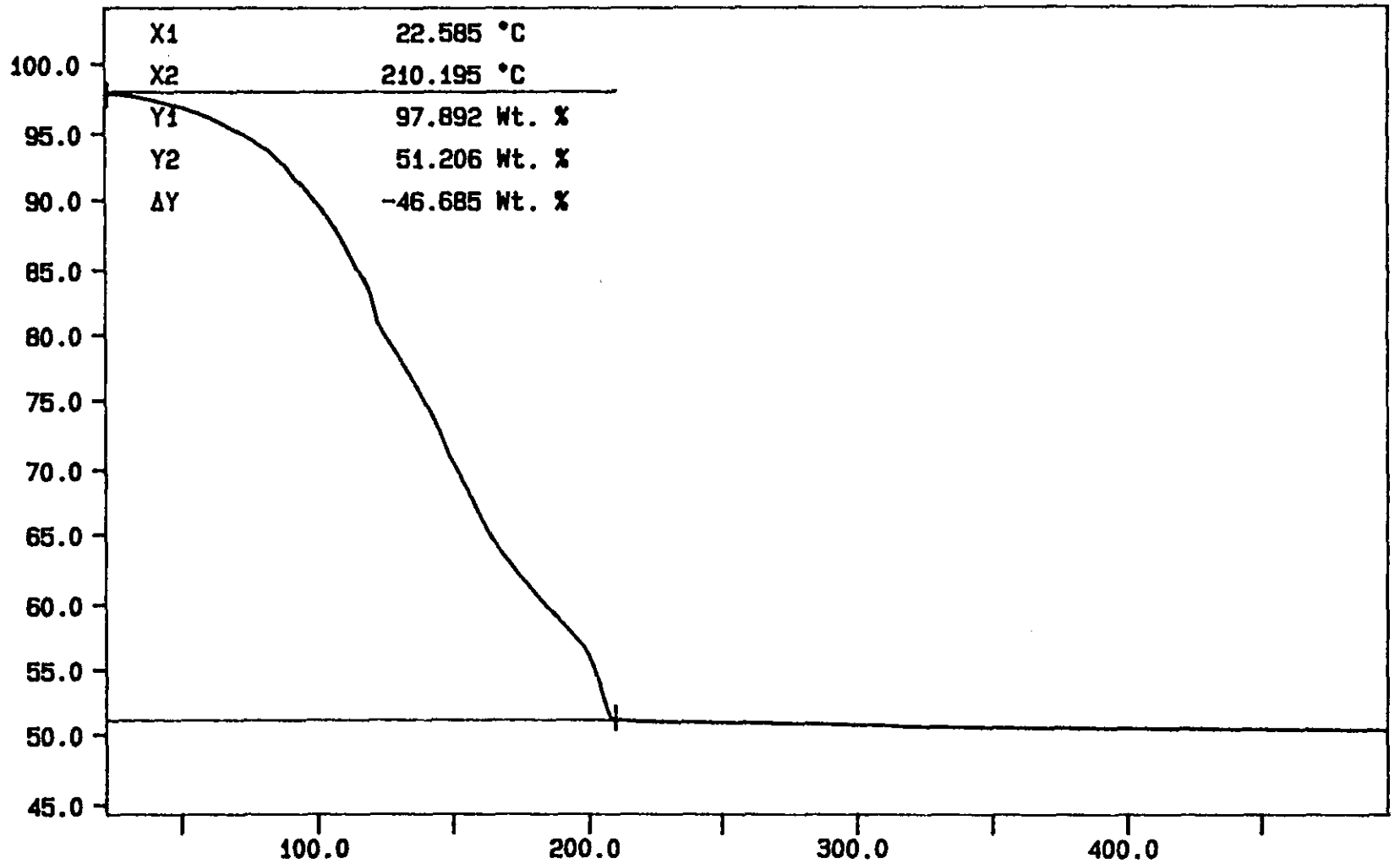


N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jun 27 19:09:47 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: TGA
File info: SAM062705 Tue Jun 27 20:19:26 1995
Sample Weight: 19.106 mg
~~S95T001055DUP~~ JS 6-27-95
S95T001061



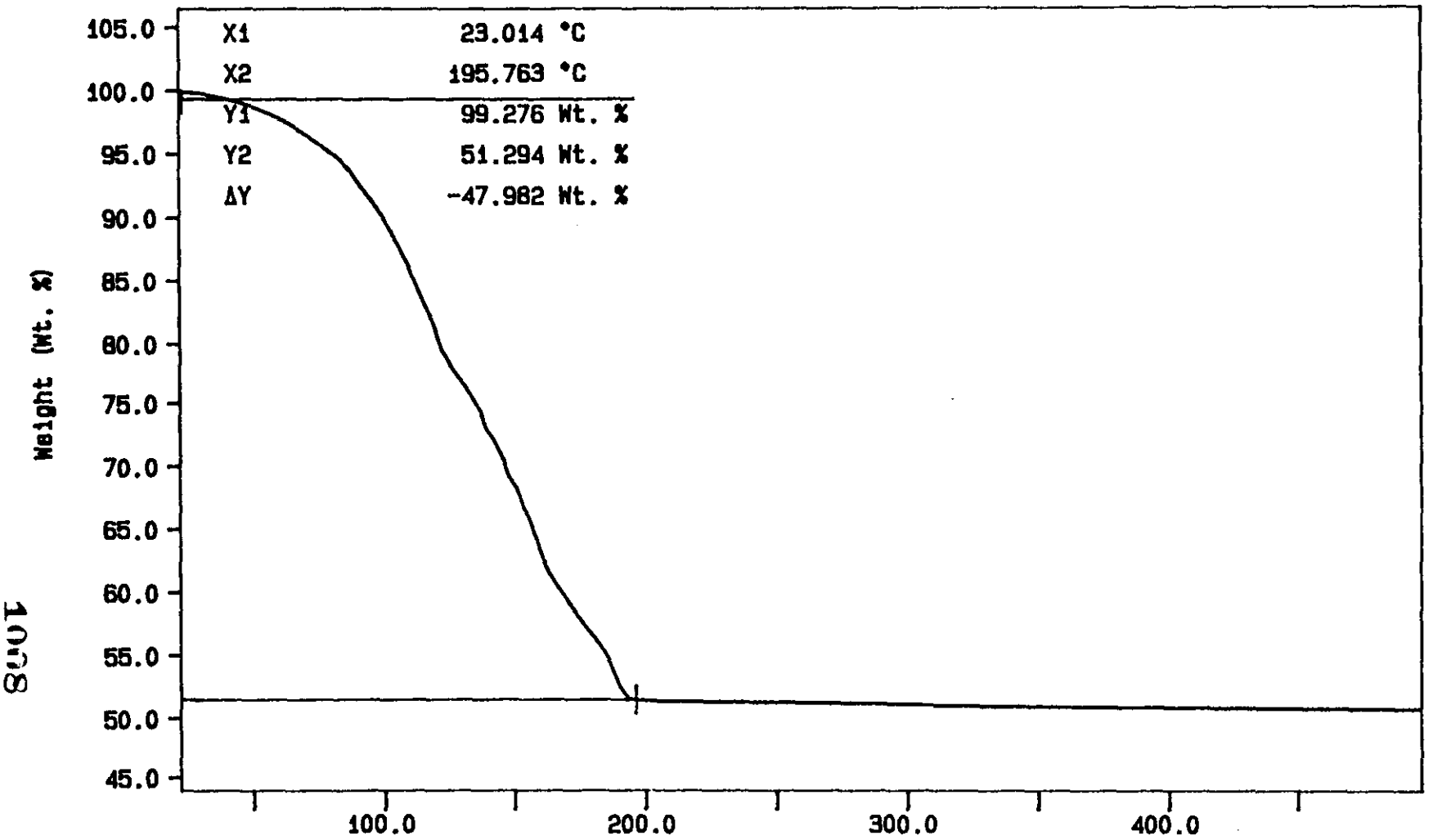
N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jun 27 20:58:44 1995

WHC-SD-WM-DP-131, REV. 1

1007

Curve 1: TGA
File info: SAM062706 Tue Jun 27 21:53:02 1995
Sample Weight: 14.983 mg
S95T001061DUP



N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jun 27 21:53:38 1995

WHC-SD-WM-DP-131, REV. 1

1008

LABCORE Data Entry Template for Worklist# 1563

Analyst: ADP **Instrument:** TGA0 **Book #** 42N 8-A

Method: LA-560-112 Rev/Mod A-2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID	59.19	58.98	N/A	%
95000085	B-104	2	SAMPLE	S95T001062	0		TGA-01	SOLID	N/A	44.18		%
95000085	B-104	3	DUP	S95T001062	0		TGA-01	SOLID	44.18	40.79	N/A	%

Final page for worklist # 1563

Anthony Purunton 6-26-95
Analyst Signature **Date**

[illegible] 6-27-95
Analyst Signature **Date**

Verified by Blandina Valenzuela 6/28/95

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1010 TO ~~1011~~ 1012

LAW 10/18/95

BEST AVAILABLE COPY

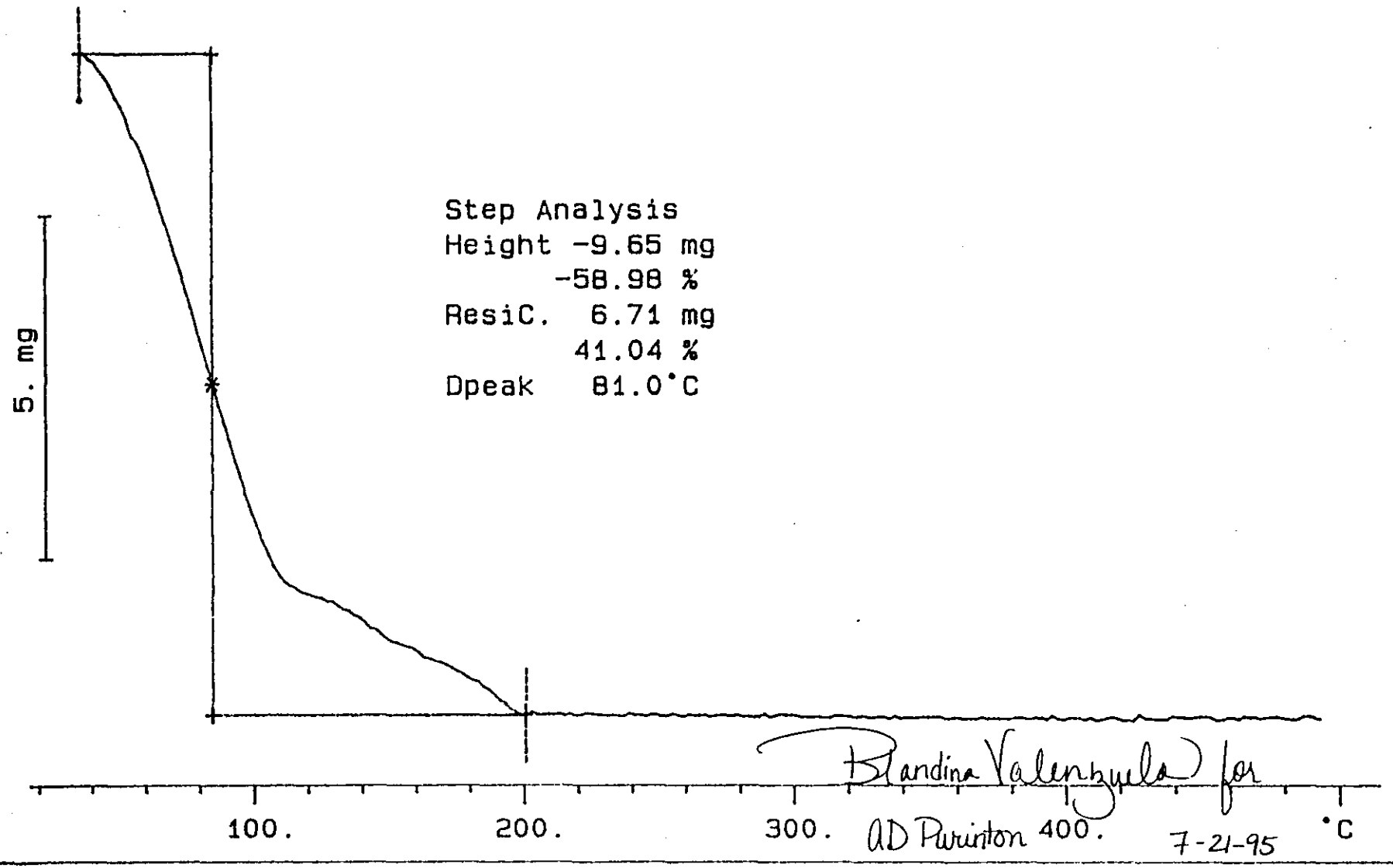
TGA STD 42N8-A

16.356 mg

Rate: 10.0 °C/min

File: 00007.001 TG METTLER 26-Jun-95

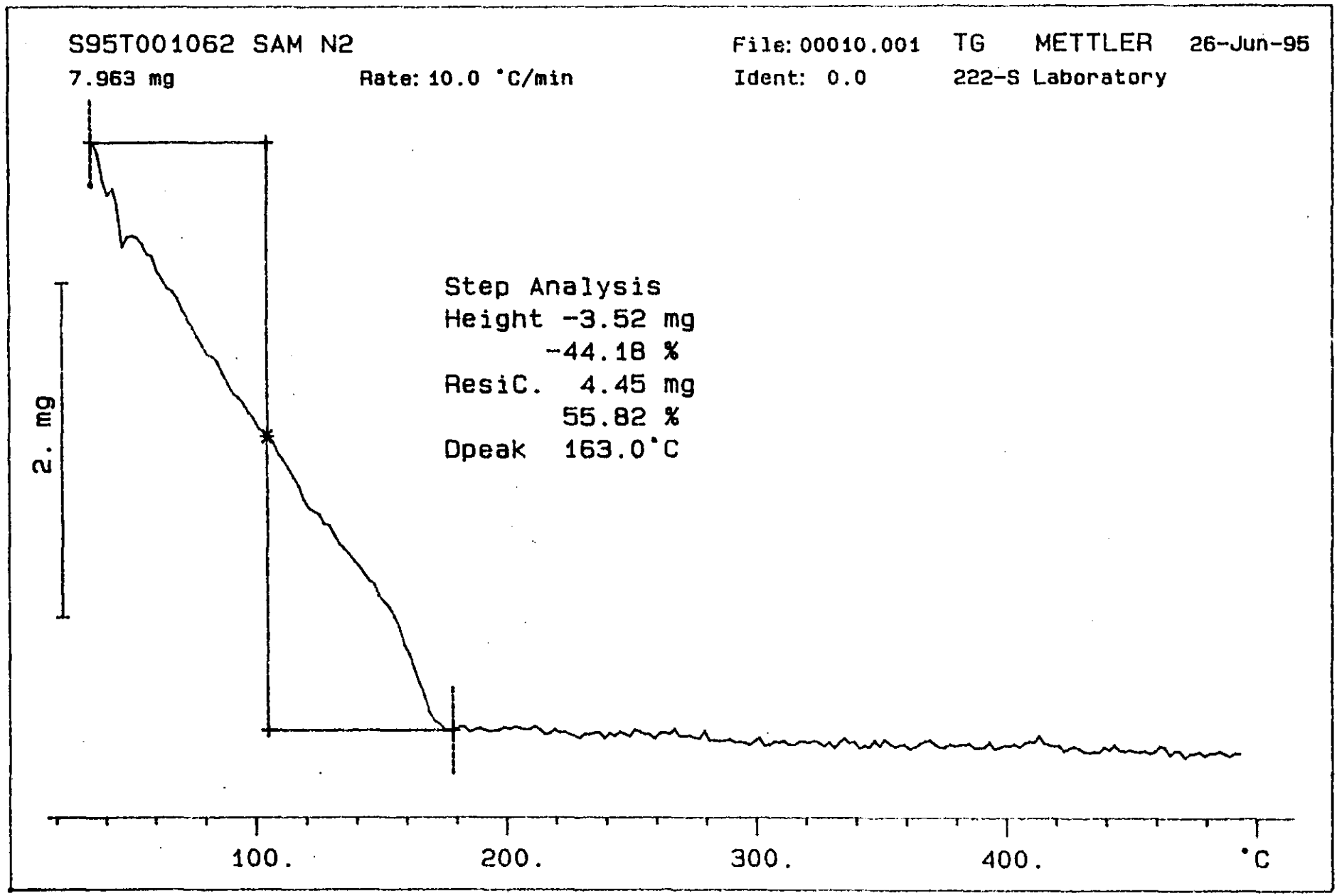
Ident: 0.0 222-S Laboratory



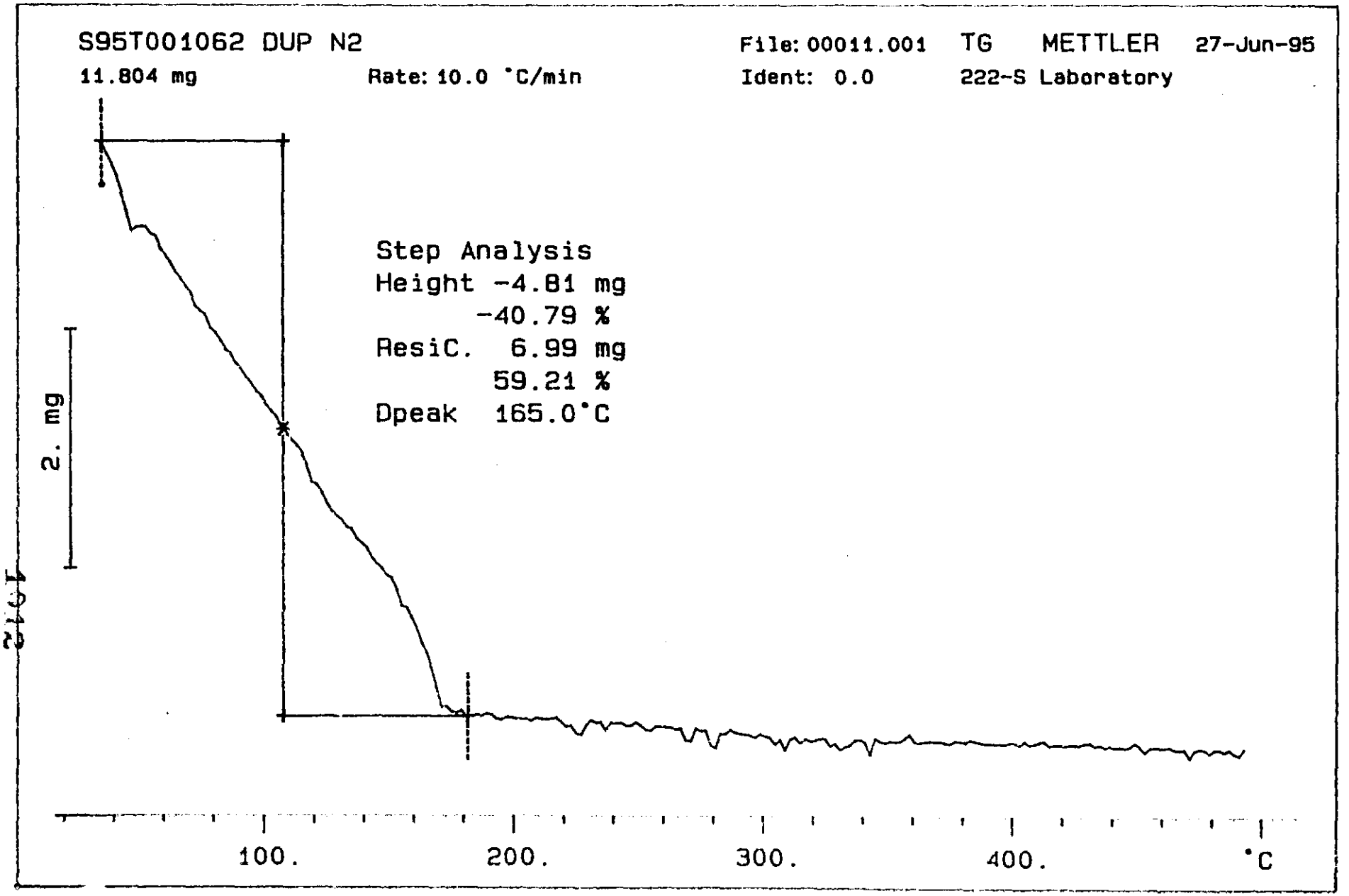
Step Analysis
Height -9.65 mg
-58.98 %
ResiC. 6.71 mg
41.04 %
Dpeak 81.0°C

Blandina Valenzuela for AD Purinton 7-21-95

WHC-SD-WM-DP-131, REV. 1



WHC-SD-WM-DP-131, REV. 1


S95T001062 DUP N2
11.804 mg
Rate: 10.0 °C/min
File: 00011.001
TG METTLER 27-Jun-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -4.81 mg
-40.79 %
ResiC. 6.99 mg
59.21 %
Dpeak 165.0°C
2. mg
100.
200.
300.
400.
°C

WHC-SD-WM-DP-137, REV. 1

LABCORE Data Entry Template for Worklist# 1604

Analyst: JDS Instrument: TGA0 Book # 65N8-A

Method: LA-560-112 Rev/Mod A-2

WHC-SD-WM-DP-_____, REV.___

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	59.74	60.52	N/A	%
95000085	B-104	2 SAMPLE	S95T001067	0	TGA-01	SOLID	N/A	46.69		%
95000085	B-104	3 DUP	S95T001067	0	TGA-01	SOLID	46.69	44.72	N/A	%
		4 STD			TGA-01	SOLID	59.74	60.60	N/A	%
95000085	B-104	5 SAMPLE	S95T001068	0	TGA-01	SOLID	N/A	42.50		%
95000085	B-104	6 DUP	S95T001068	0	TGA-01	SOLID	42.50	28.08	N/A	%
95000085	B-104	7 TRIPL	S95T001068	0	TGA-01	SOLID	42.50	43.64	N/A	%

Final page for worklist # 1604

See attached for signatures
Analyst Signature Date 7-21-95

Data entered + verified by
Blandina Valenzuela 7-21-95
Analyst Signature Date

Data Entry Comments: Samples were run out of chronological order.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1604

Analyst: JDS Instrument: TGA0 _____ Book # 65N84

Method: LA-560-112 Rev/Mod A2

Worklist Comment: Please run B-104 TGAs under N2. bdv

WHC-SD-WM-DP-_____, REV.__

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
95000085	B-104	2	SAMPLE	S95T001067	0		TGA-01	SOLID	N/A			%
95000085	B-104	3	DUP	S95T001067	0		TGA-01	SOLID			N/A	%
95000085	B-104	4	SAMPLE	S95T001068	0		TGA-01	SOLID	N/A			%
95000085	B-104	5	DUP	S95T001068	0		TGA-01	SOLID			N/A	%

Final page for worklist # 1604

JDS 7-17-95

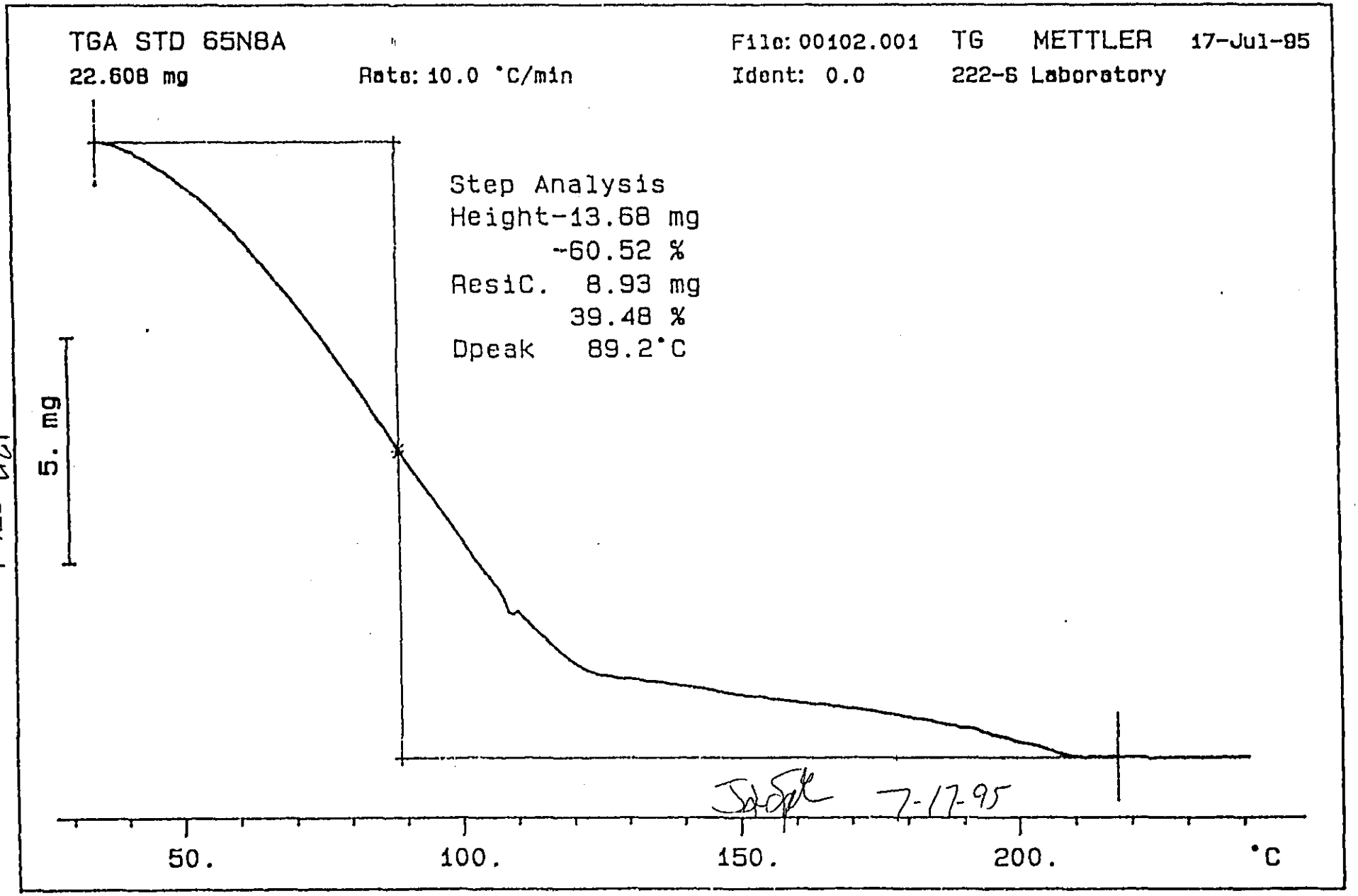
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

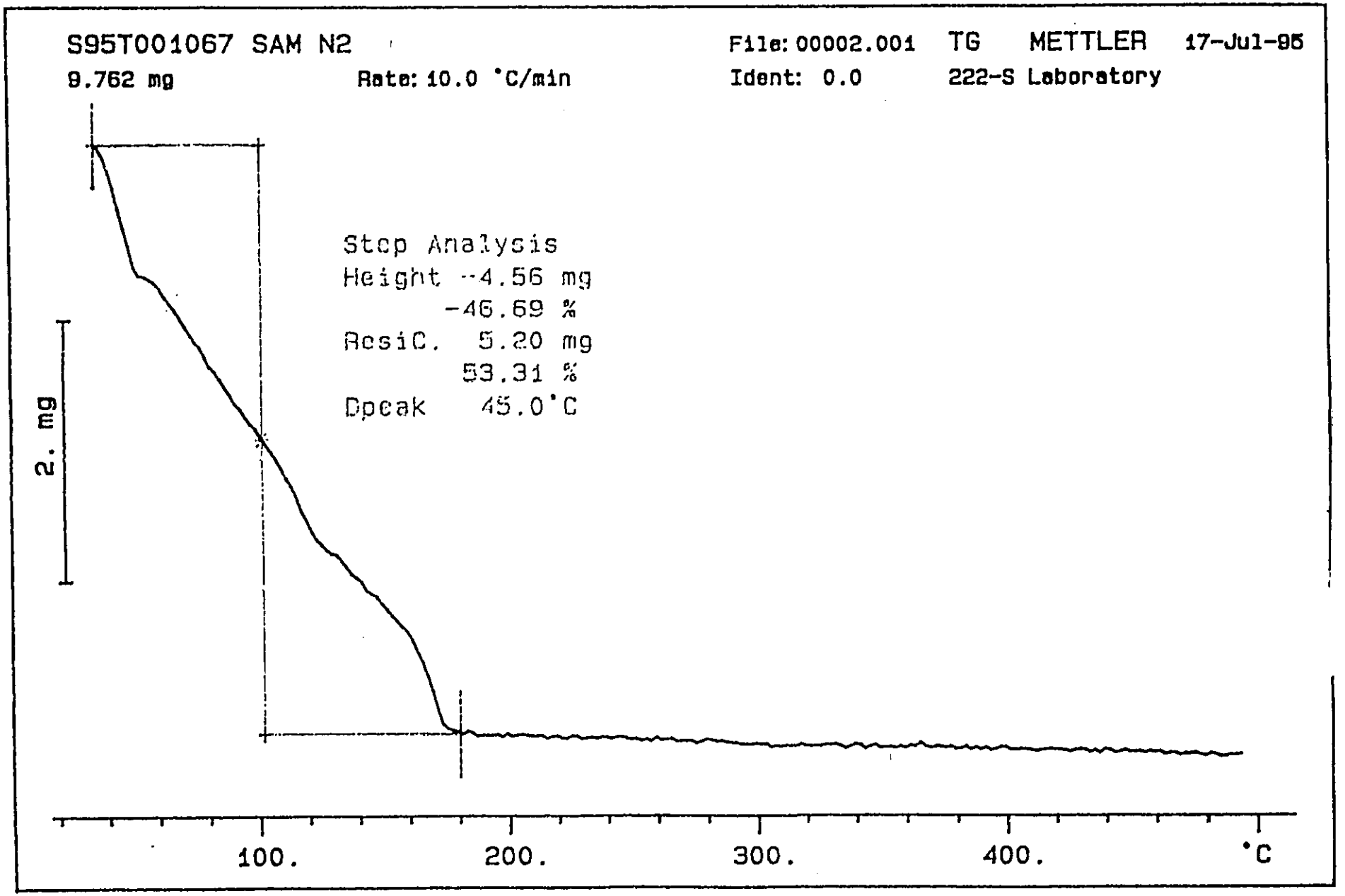
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1015 TO 1021

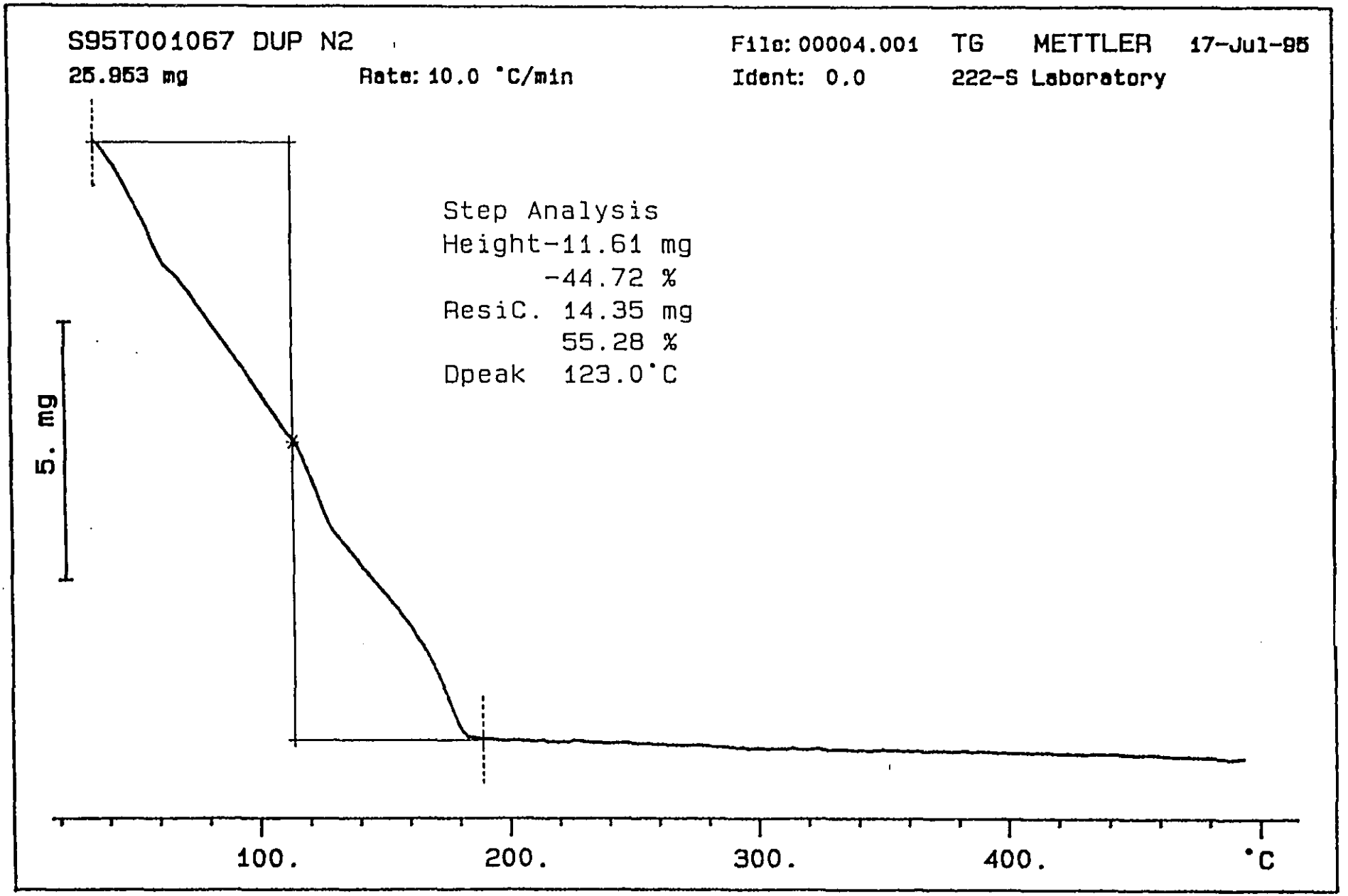


7-17-95

BEST AVAILABLE COPY



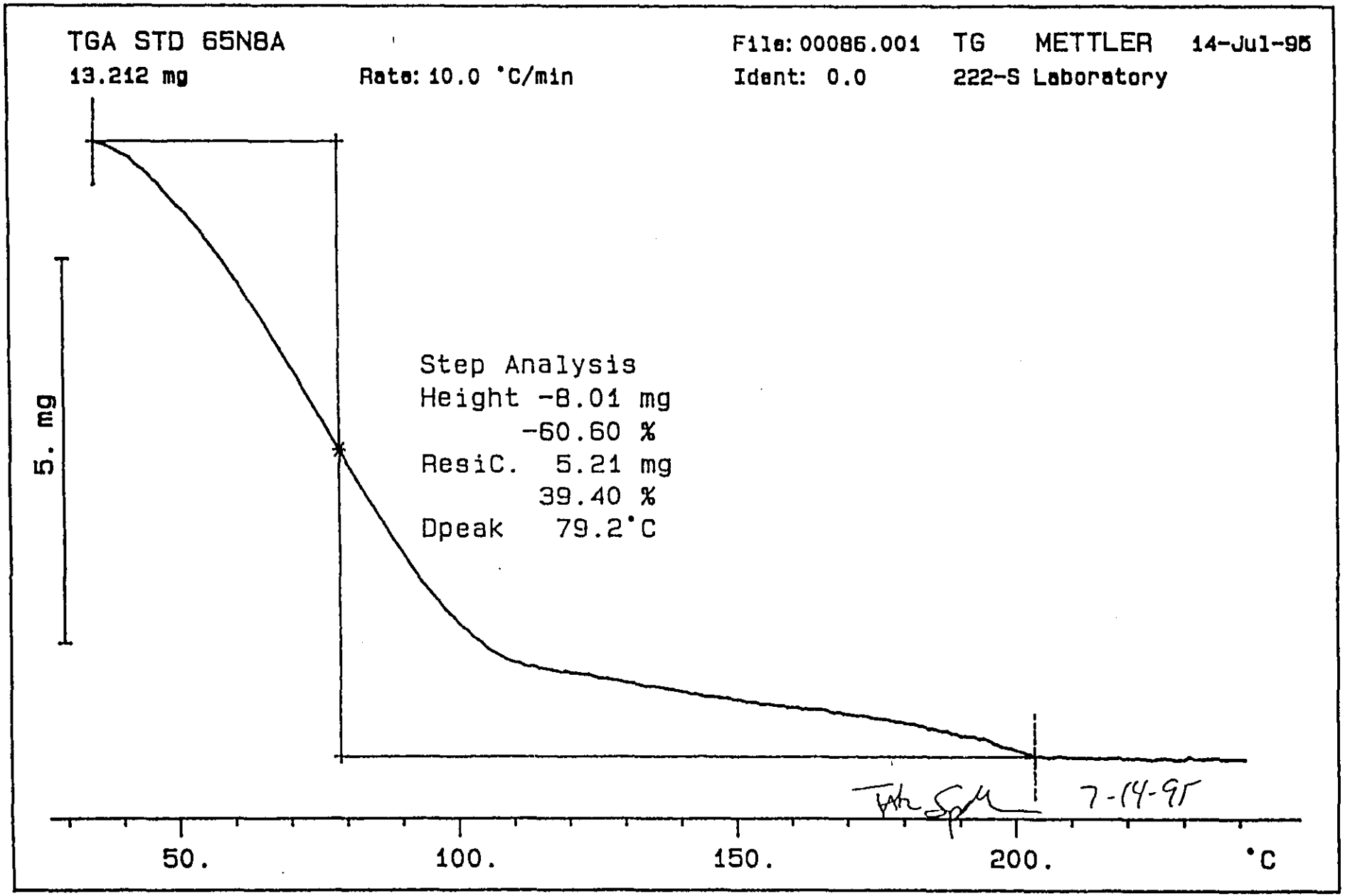
BEST AVAILABLE COPY



WHC-SD-WM-DP-137, REV. 1

1017

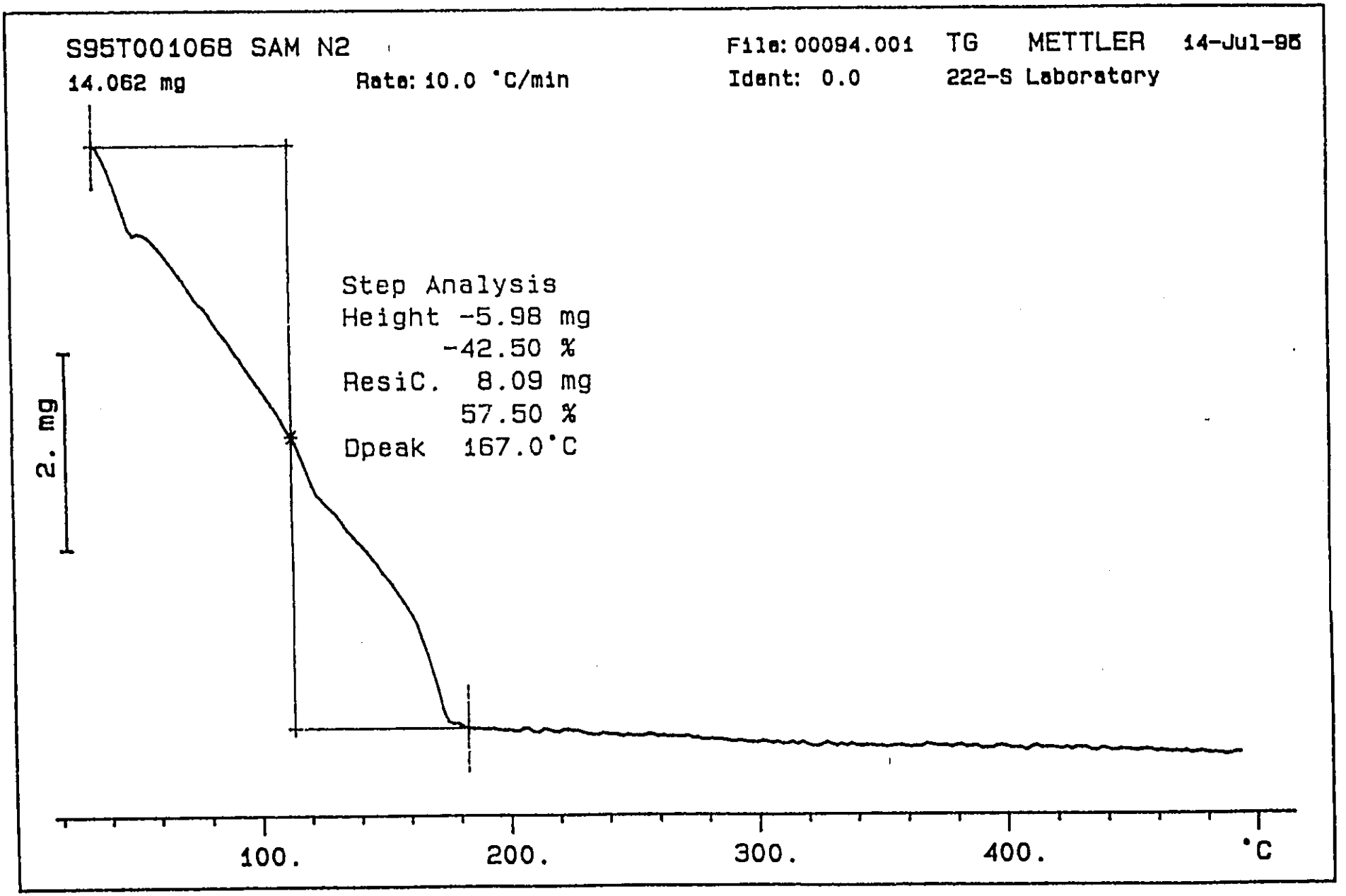
BEST AVAILABLE COPY



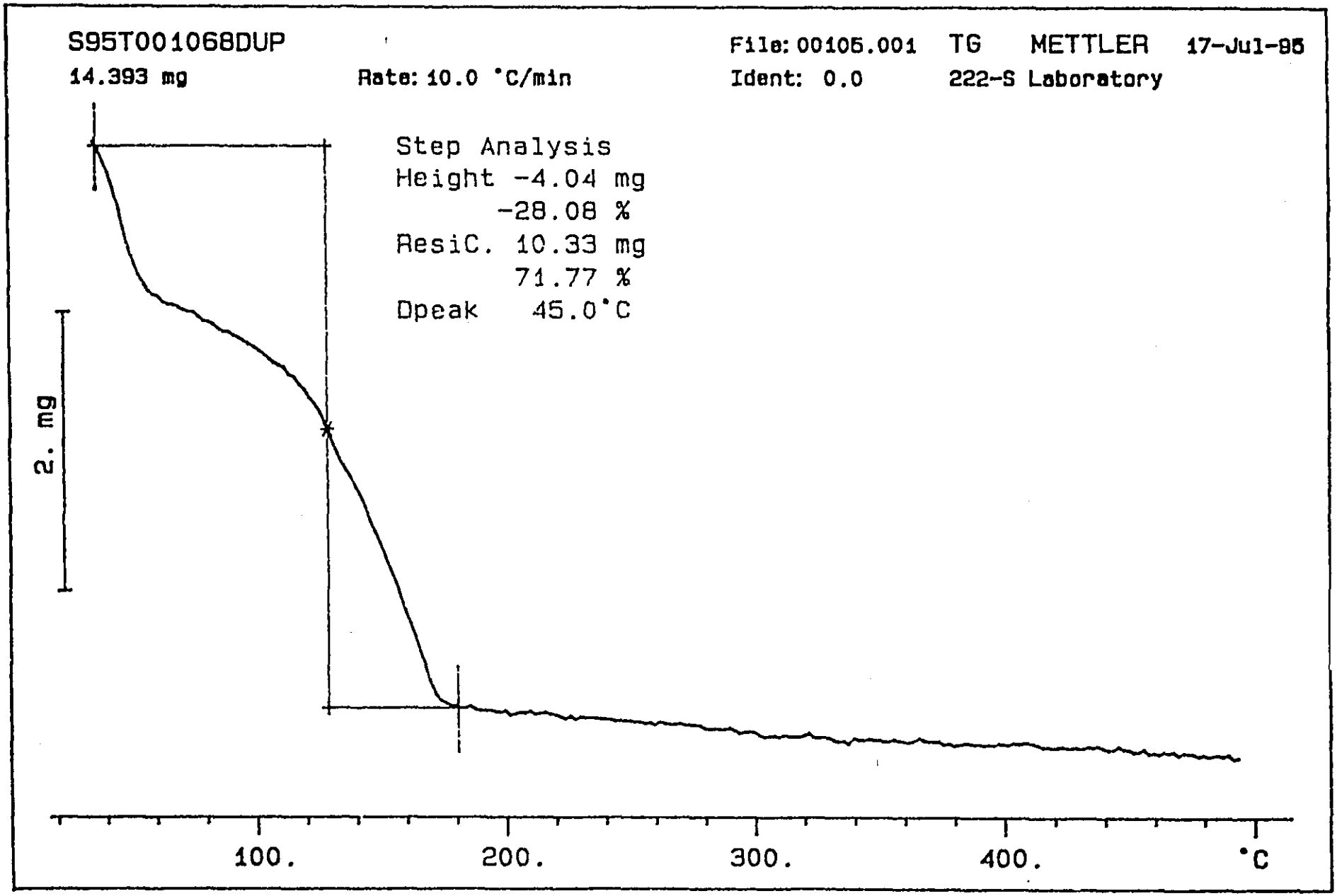
WHC-SD-WM-DP-137, REV. 1

1018

BEST AVAILABLE COPY



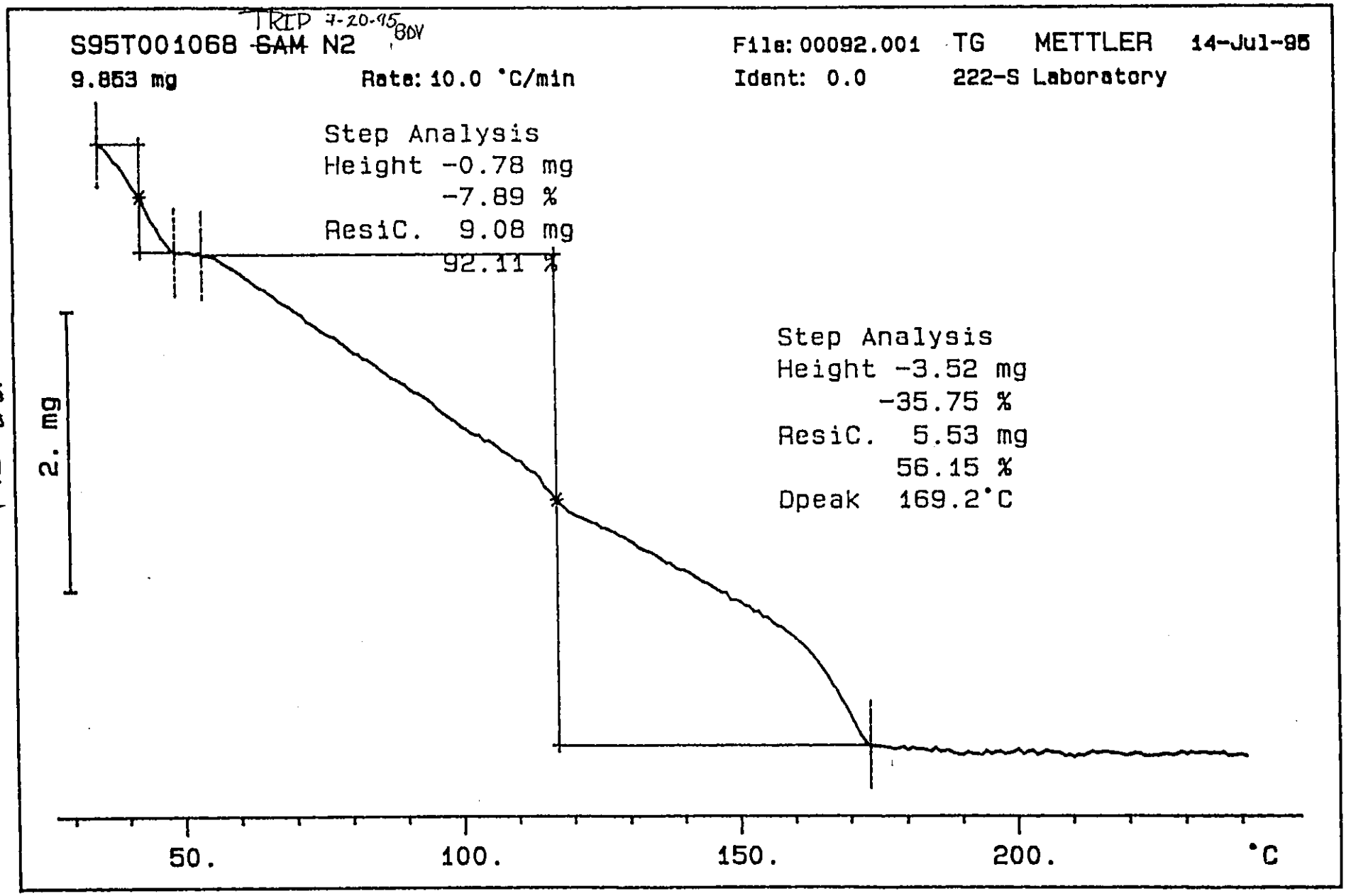
BEST AVAILABLE COPY



WHC-SD-WM-DP-132, REV. 1

1020

BEST AVAILABLE COPY



WHC-SD-WM-DP-137, REV. 1

1021

LABCORE Data Entry Template for Worklist# 1606

Analyst: JDS **Instrument:** TGA0 1 **Book #** 42N8-A

Method: LA-560-112 Rev/Mod A-2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID	59.19	57.61	N/A	%
95000085	B-104	2	SAMPLE	S95T001075	0		TGA-01	SOLID	N/A	48.98		%
		3	STD				TGA-01	SOLID	59.19	57.62	N/A	%
95000085	B-104	4	DUP	S95T001075	0		TGA-01	SOLID	~~48.39~~ 48.98 7-10-95 BDV	48.39	N/A	%
95000085	B-104	5	SAMPLE	S95T001076	0		TGA-01	SOLID	N/A	49.84		%
95000085	B-104	6	DUP	S95T001076	0		TGA-01	SOLID	49.84	44.24	N/A	%

Final page for worklist # 1606

See attached for signatures
Analyst Signature Date 7-13-95 BDV

Verified by Blandina Valenzuela (7-13-95)

[signature] 7-11-95
Analyst Signature Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1606

Analyst: Jds **Instrument:** TGA0 1 **Book #** 42N8A

Method: LA-560-112 Rev/Mod A-2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
95000085	B-104	2	SAMPLE	S95T001075	0		TGA-01	SOLID	N/A			%
95000085	B-104	3	DUP	S95T001075	0		TGA-01	SOLID			N/A	%
95000085	B-104	4	SAMPLE	S95T001076	0		TGA-01	SOLID	N/A			%
95000085	B-104	5	DUP	S95T001076	0		TGA-01	SOLID			N/A	%

Final page for worklist # 1606

Jds 6-29-95

Analyst Signature Date

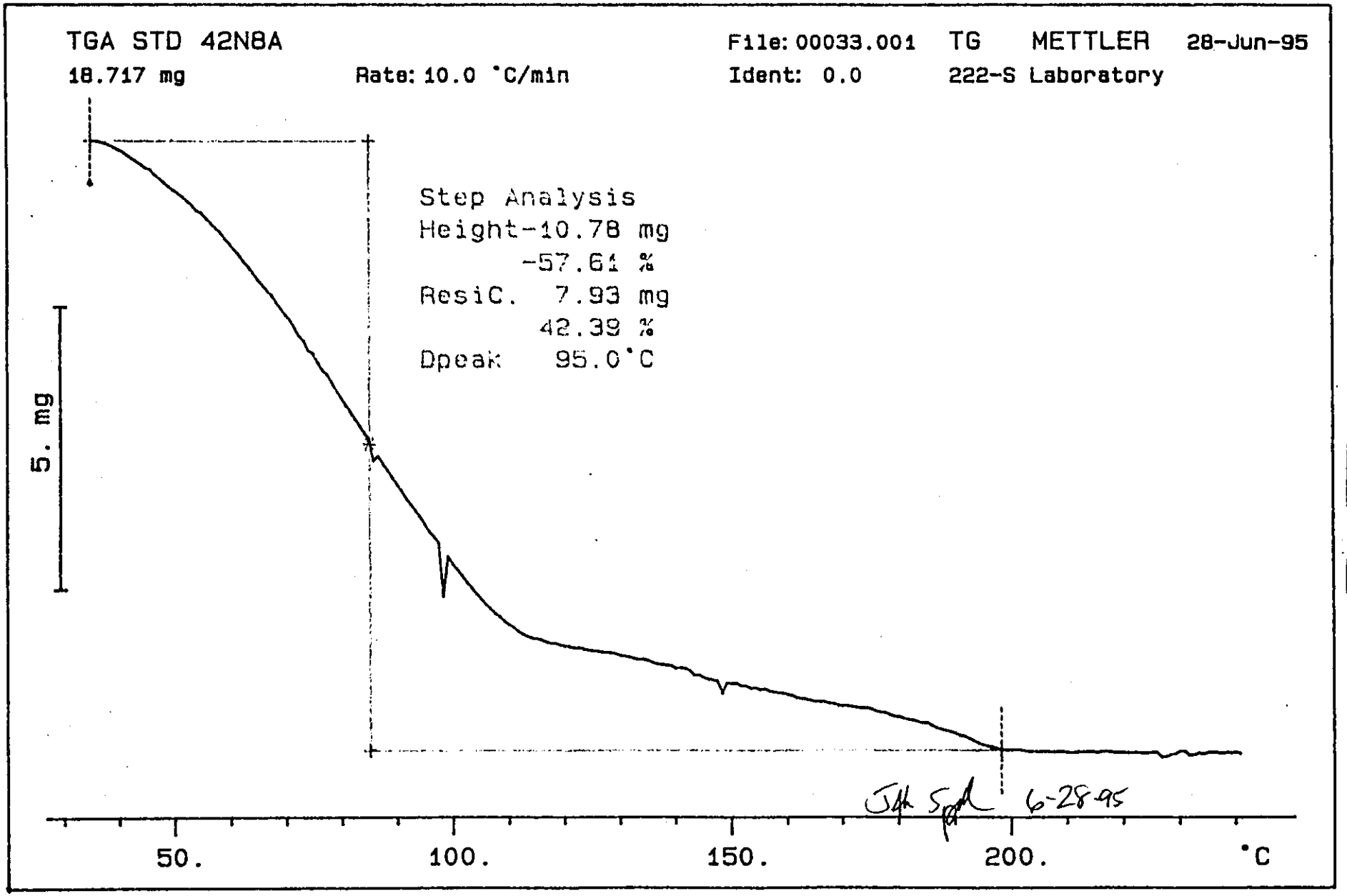
Analyst Signature Date

Data Entry Comments: The peaks found on the TGA standard were caused by disturbances from people closing doors.

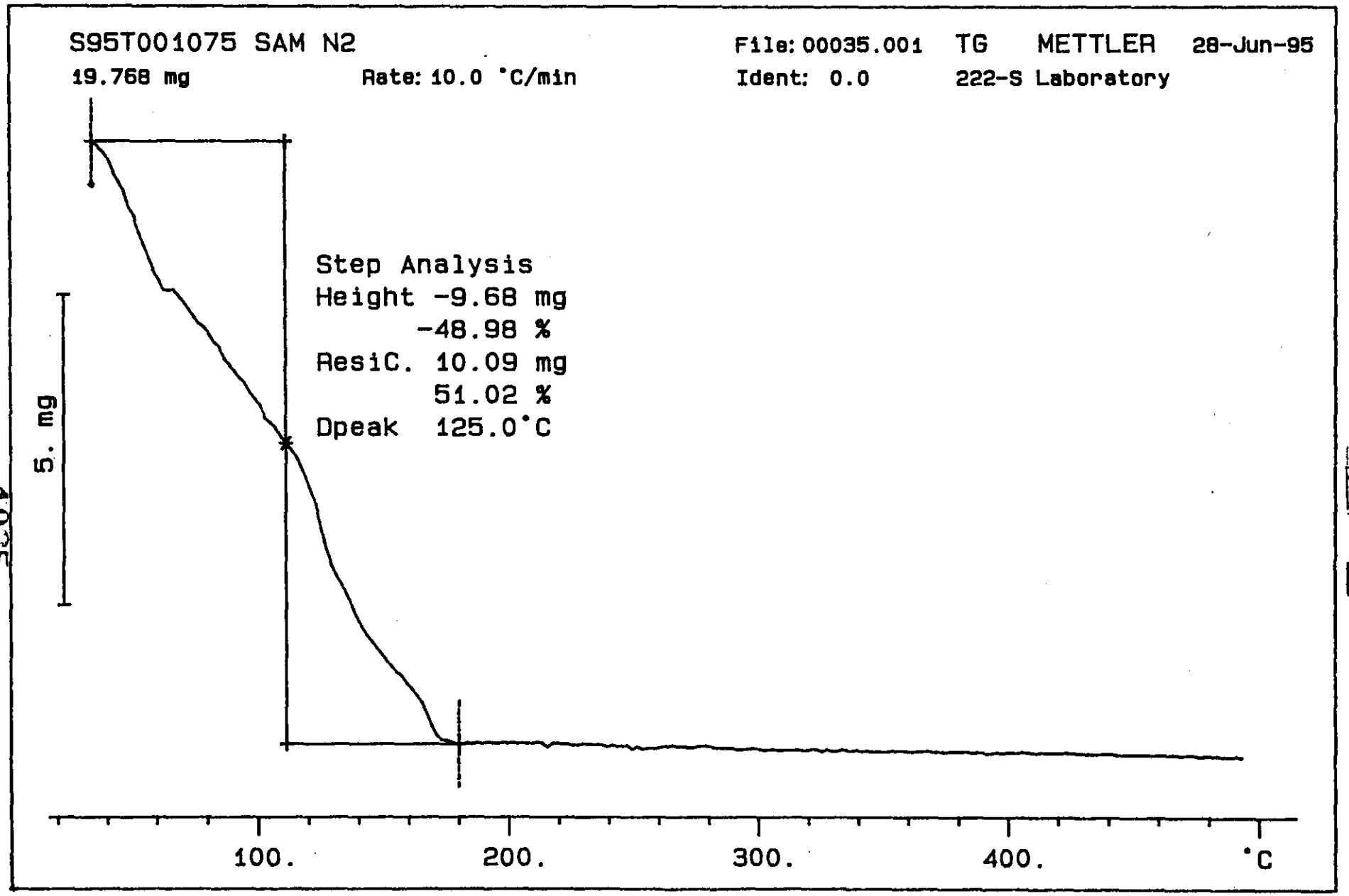
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

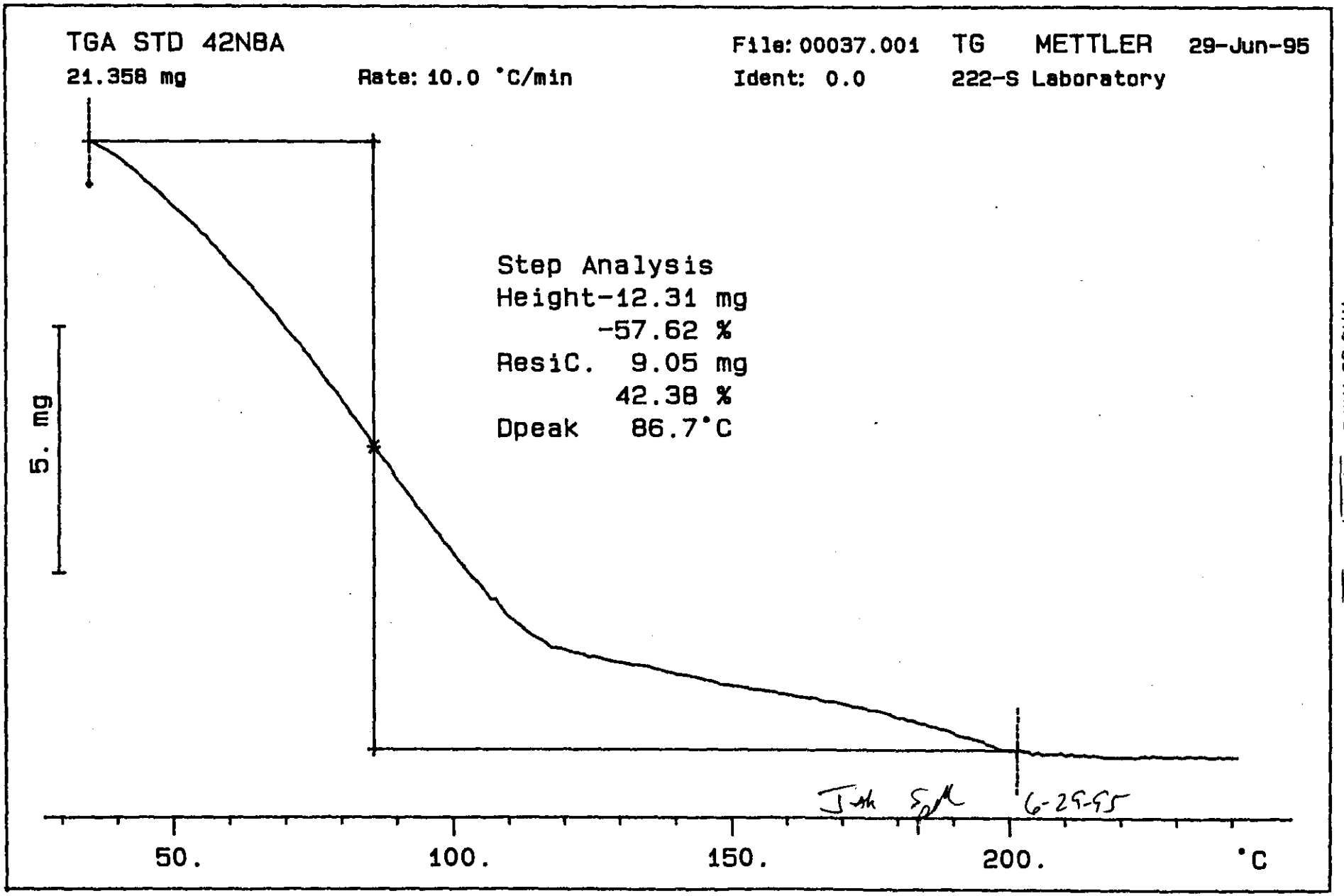
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1024 TO 1029.

BEST AVAILABLE COPY

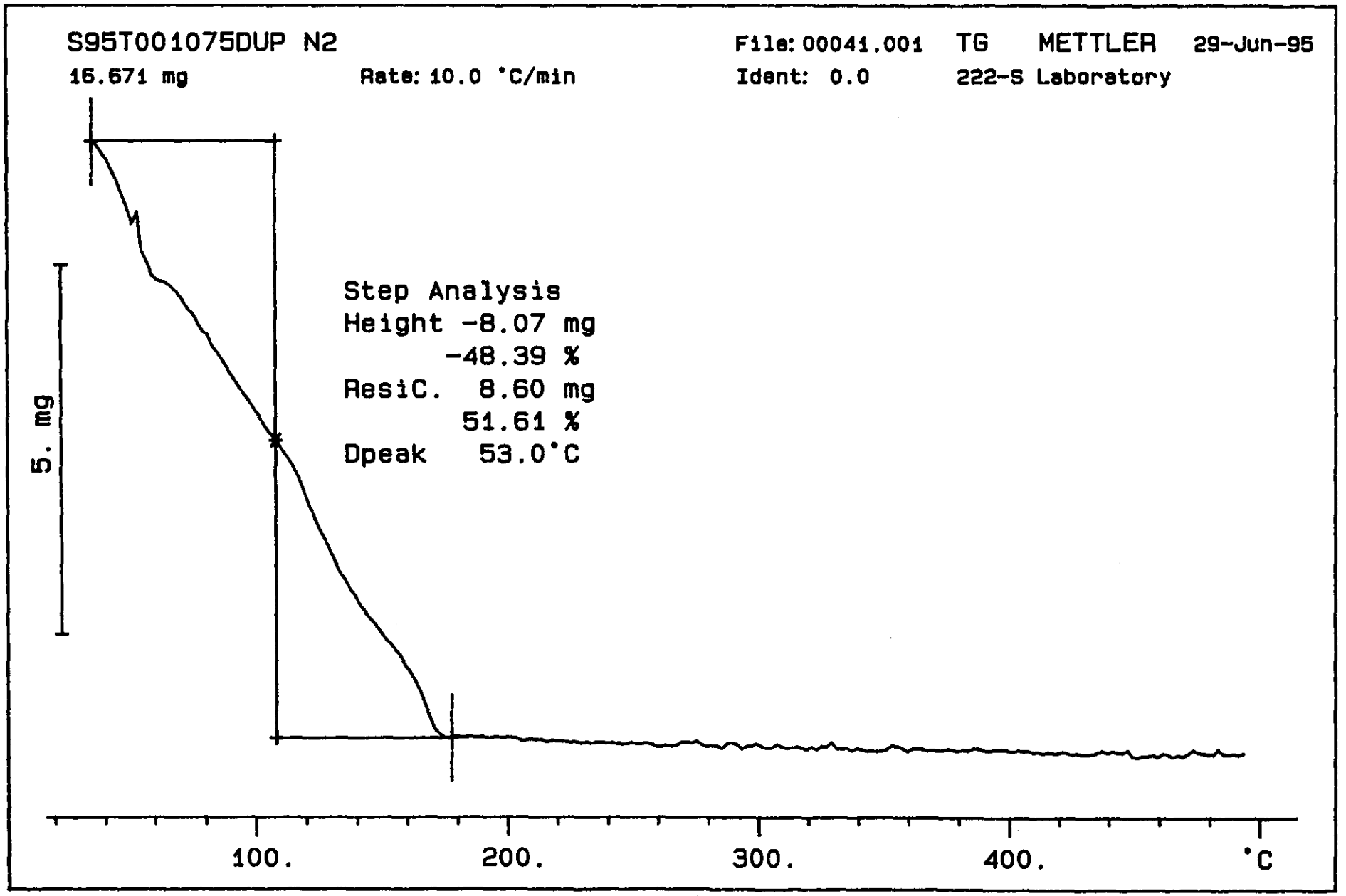


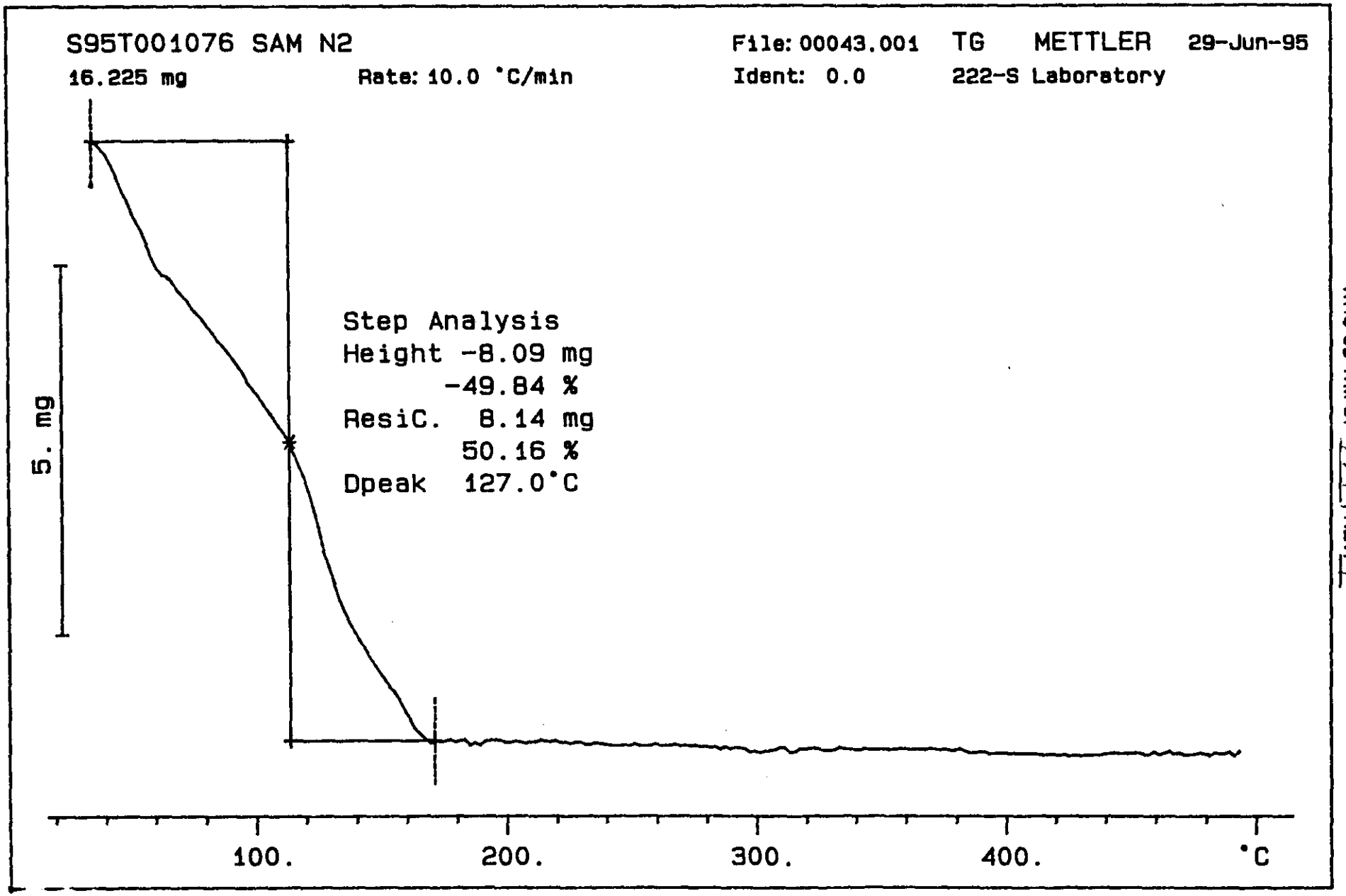
WHC-SD-WM-DP-131, REV. 1

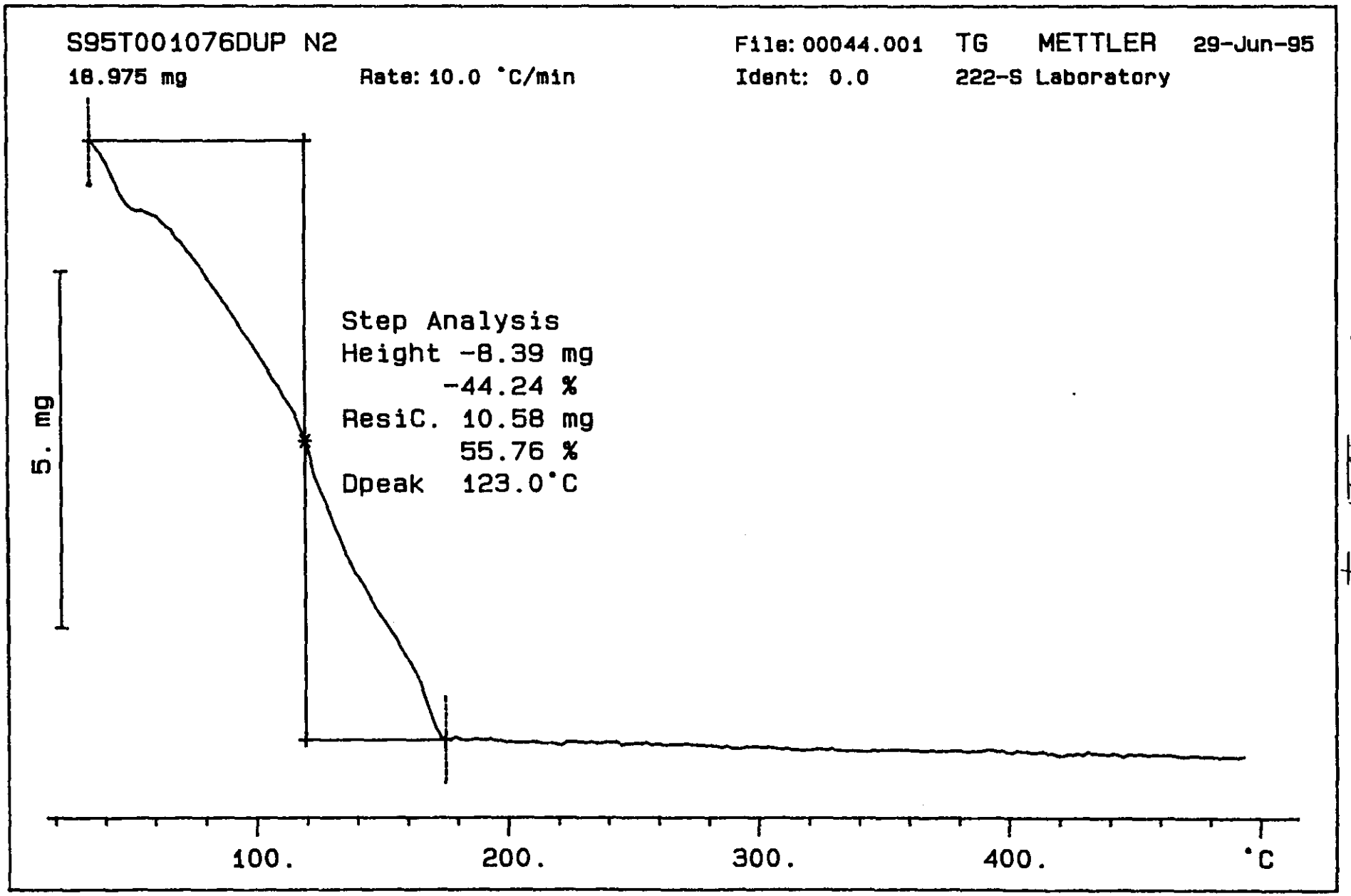

S95T001075 SAM N2
19.768 mg
Rate: 10.0 °C/min
File: 00035.001
TG
METTLER
28-Jun-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -9.68 mg
-48.98 %
ResiC. 10.09 mg
51.02 %
Dpeak 125.0°C
5. mg
100.
200.
300.
400.
°C



WHC-SD-WM-DP-131, REV. 1


S95T001075DUP N2
16.671 mg
Rate: 10.0 °C/min
File: 00041.001
TG METTLER 29-Jun-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -8.07 mg
-48.39 %
ResiC. 8.60 mg
51.61 %
Dpeak 53.0°C
5. mg
100.
200.
300.
400.
°C


S95T001076 SAM N2
16.225 mg
Rate: 10.0 °C/min
File: 00043.001
TG METTLER 29-Jun-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -8.09 mg
-49.84 %
ResiC. 8.14 mg
50.16 %
Dpeak 127.0°C
5. mg
100.
200.
300.
400.
°C


S95T001076DUP N2
18.975 mg
Rate: 10.0 °C/min
File: 00044.001
TG METTLER 29-Jun-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -8.39 mg
-44.24 %
ResiC. 10.58 mg
55.76 %
Dpeak 123.0°C
5. mg
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1607

Analyst: SMF **Instrument:** TGA0 3 **Book #** 65N8A

Method: LA-514-114 Rev/Mod B-0

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-03	SOLID	59.74	58.07	N/A	%
95000085	B-104	2 SAMPLE	S95T001091	0	TGA-03	SOLID	N/A	46.15		%
95000085	B-104	3 DUP	S95T001091	0	TGA-03	SOLID	46.15	46.26	N/A	%
95000085	B-104	4 SAMPLE	S95T001092	0	TGA-03	SOLID	N/A	45.15		%
95000085	B-104	5 DUP	S95T001092	0	TGA-03	SOLID	45.15	46.11	N/A	%

Final page for worklist # 1607

See attached for signatures
Analyst Signature Date 7-11-95 BDV

Verified by Blandina Valenzuela 7-12-95

[signature] 7-12-95
Analyst Signature Date

S95T001091 produced a weight loss that continued to drop out ~~passed~~ past 200°C 7-11-95 BDV which suggests there are other weight loss reactions occuring other than the evaporation of water.

Data Entry Comments: 7-11-95 BDV S95T001092 produced a weight loss that continued out ~~past~~ 7-11-95 BDV past 200°C which suggests there are other weight loss reactions occuring other than the evaporation of water.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1607

Analyst: SMF **Instrument:** TGA0 _____ **Book #** 65N8A

Method: ~~LA-560-112 Rev/Mod~~ ~~A-2~~ LA-514-114/B0
SMF

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
95000085	B-104	2	SAMPLE	S95T001091	0		TGA-01	SOLID	N/A			%
95000085	B-104	3	DUP	S95T001091	0		TGA-01	SOLID			N/A	%
95000085	B-104	4	SAMPLE	S95T001092	0		TGA-01	SOLID	N/A			%
95000085	B-104	5	DUP	S95T001092	0		TGA-01	SOLID			N/A	%

Final page for worklist # 1607

Sm Fulton 7-3-95
Analyst Signature Date

Analyst Signature Date

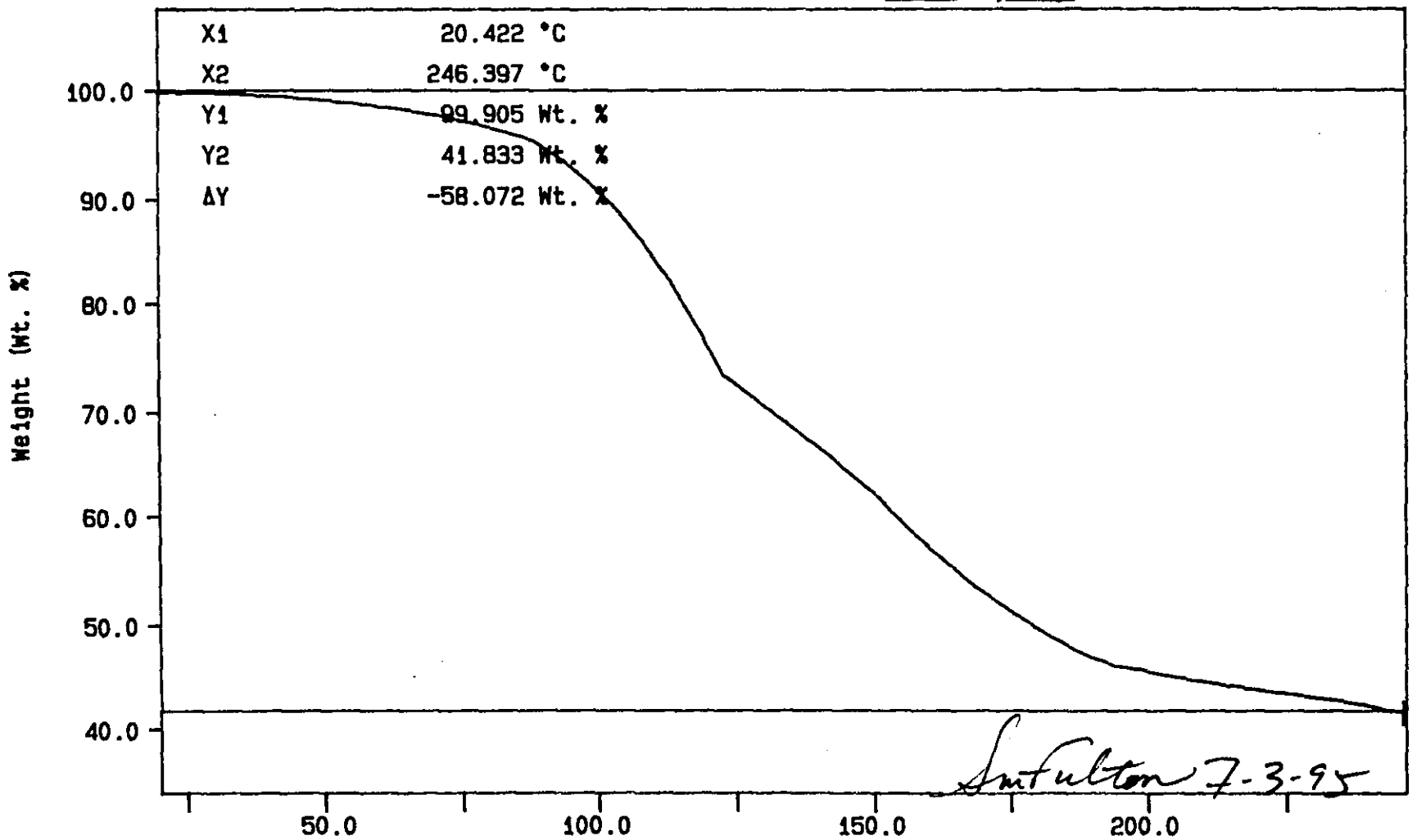
Other instrument was used
7-11-95
BDV

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER070301 Mon Jul 3 16:09:38 1995
Sample Weight: 14.617 mg
65N8-A Terliq

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1032 TO 1036.



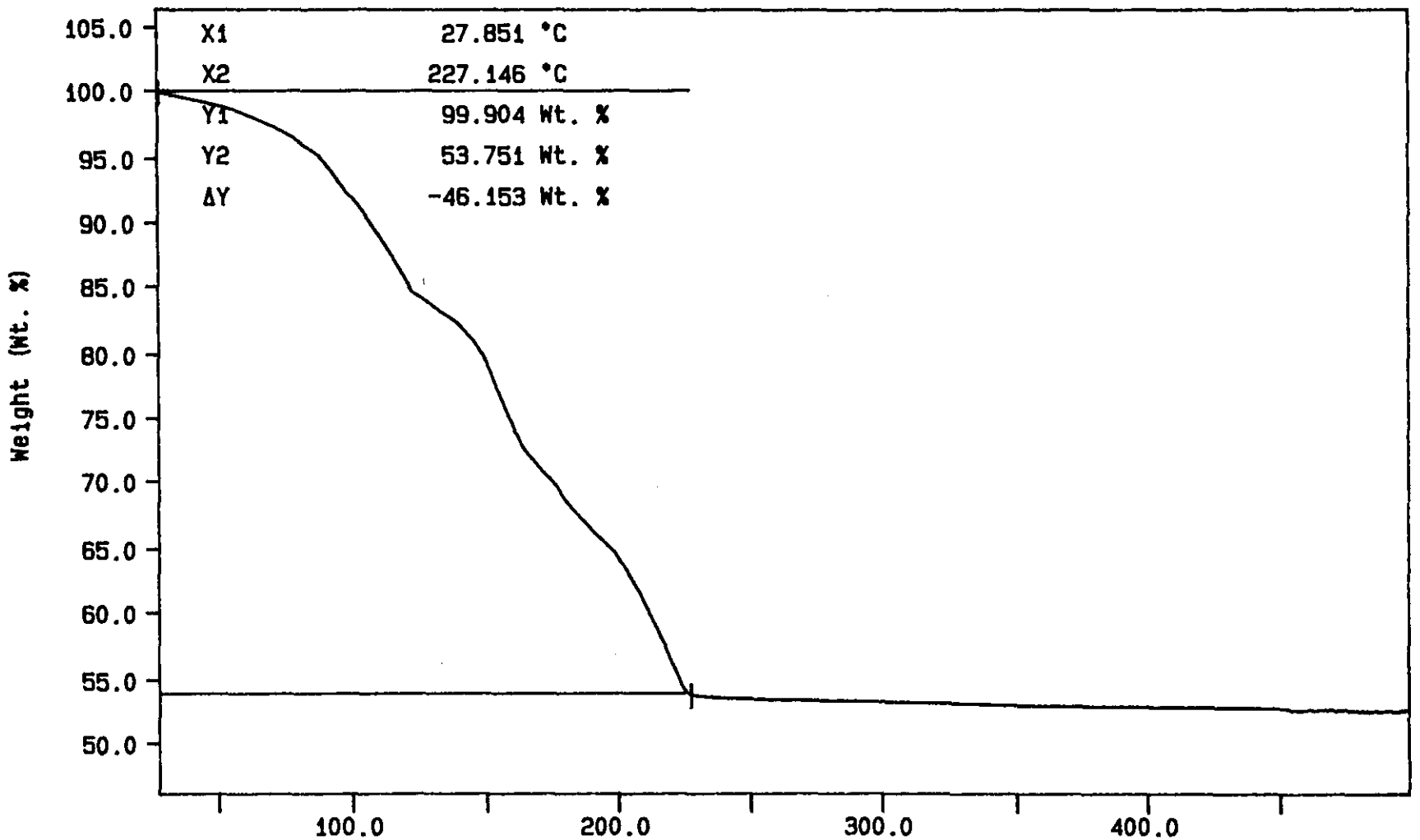
N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 250.0 C

SM Fulton
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Jul 3 16:14:35 1995

WHC-SD-WM-DP-131, REV. 1

1032

Curve 1: TGA
File info: SAM070301 Mon Jul 3 17:15:11 1995
Sample Weight: 16.897 mg
S95T001091, 10C/min

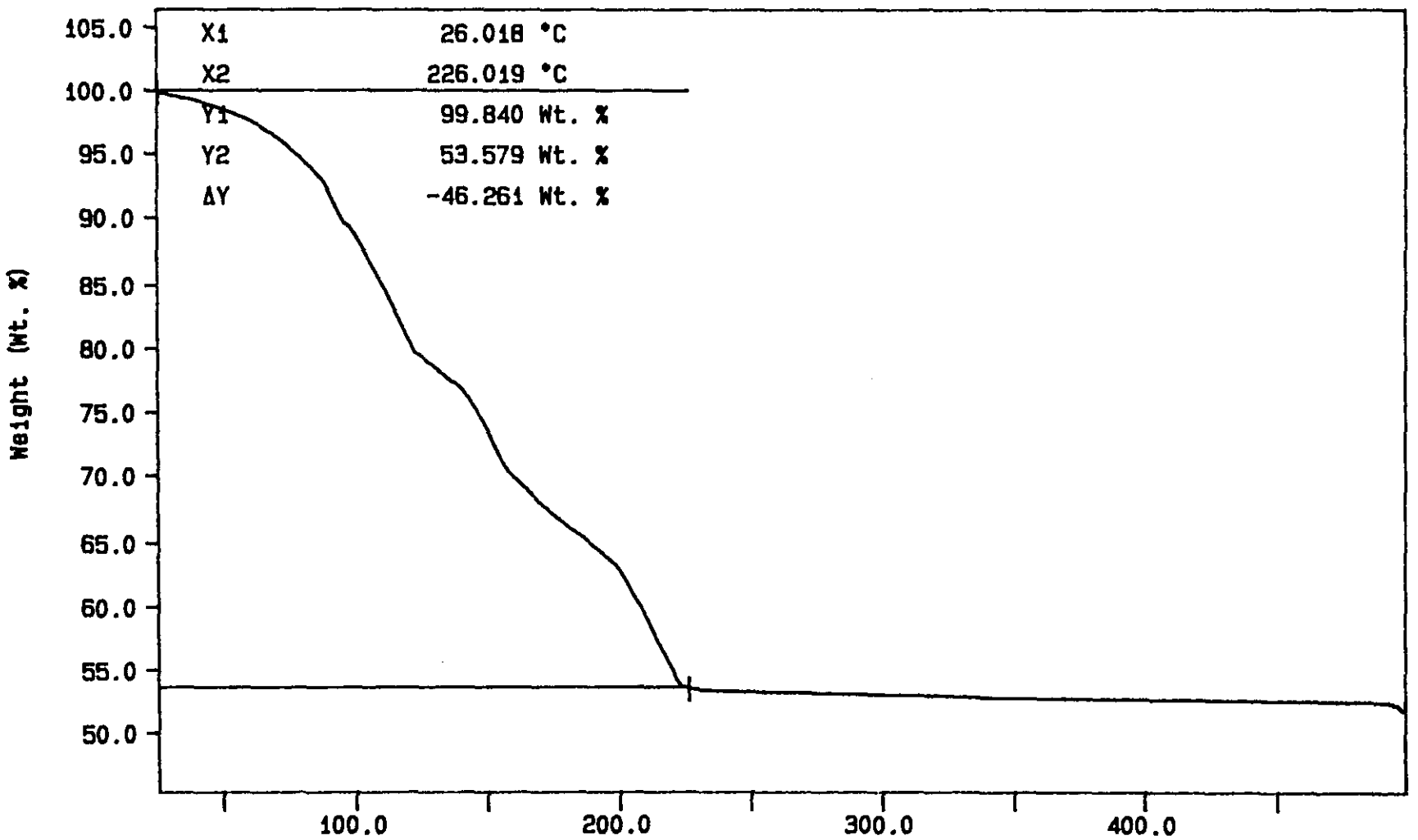


N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Jul 3 17:46:55 1995

WHC-SD-WM-DP-137, REV. 1

Curve 1: TGA
File info: SAM070302 Mon Jul 3 18:50:57 1995
Sample Weight: 11.919 mg
S95T001091DUP, 10C/min

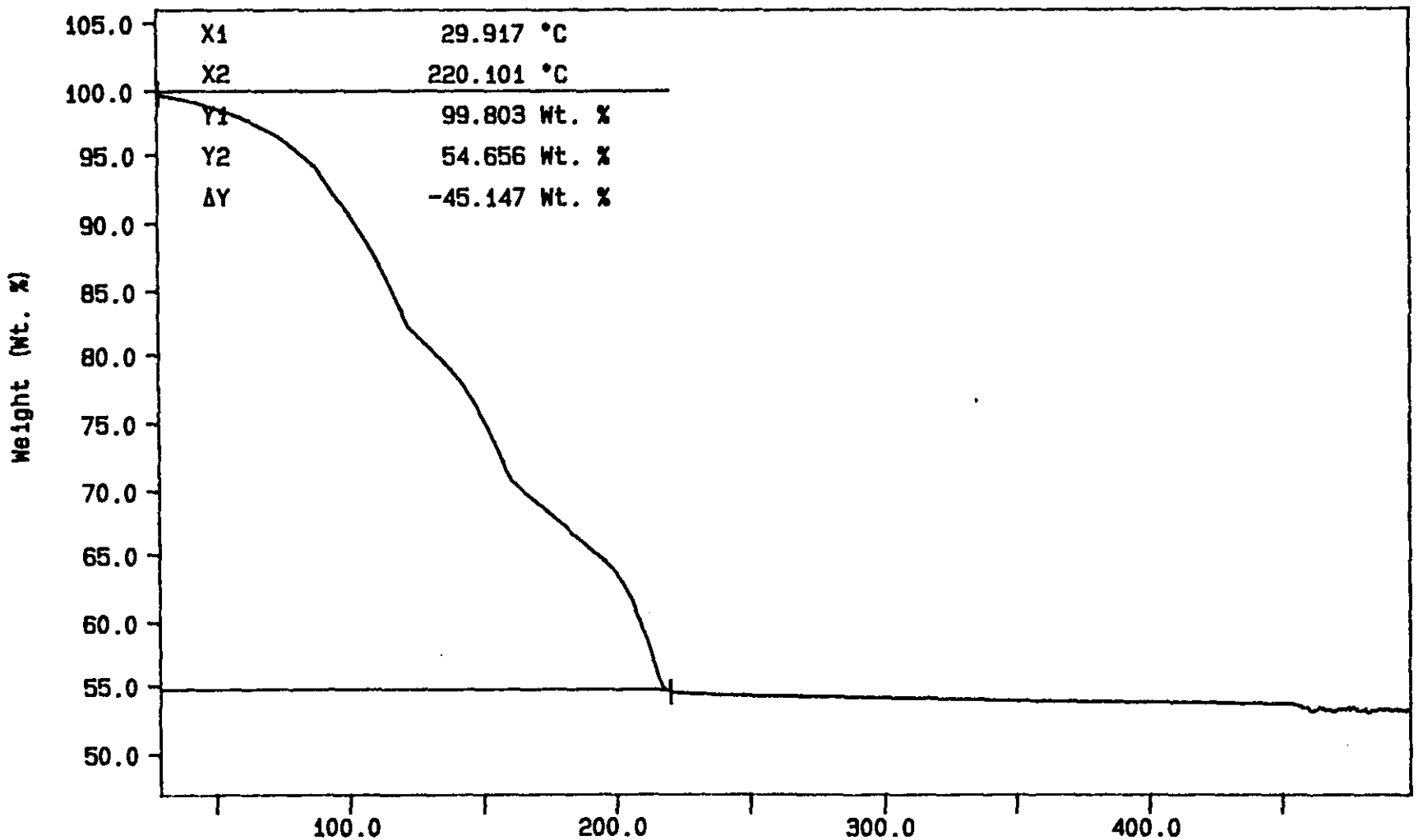


N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Jul 3 18:56:09 1995

WHC-SD-WM-DP-131, REV. 1

Curve 1: TGA
File info: SAM070303 Mon Jul 3 19:58:39 1995
Sample Weight: 13.425 mg
S95T001092, 10C/min



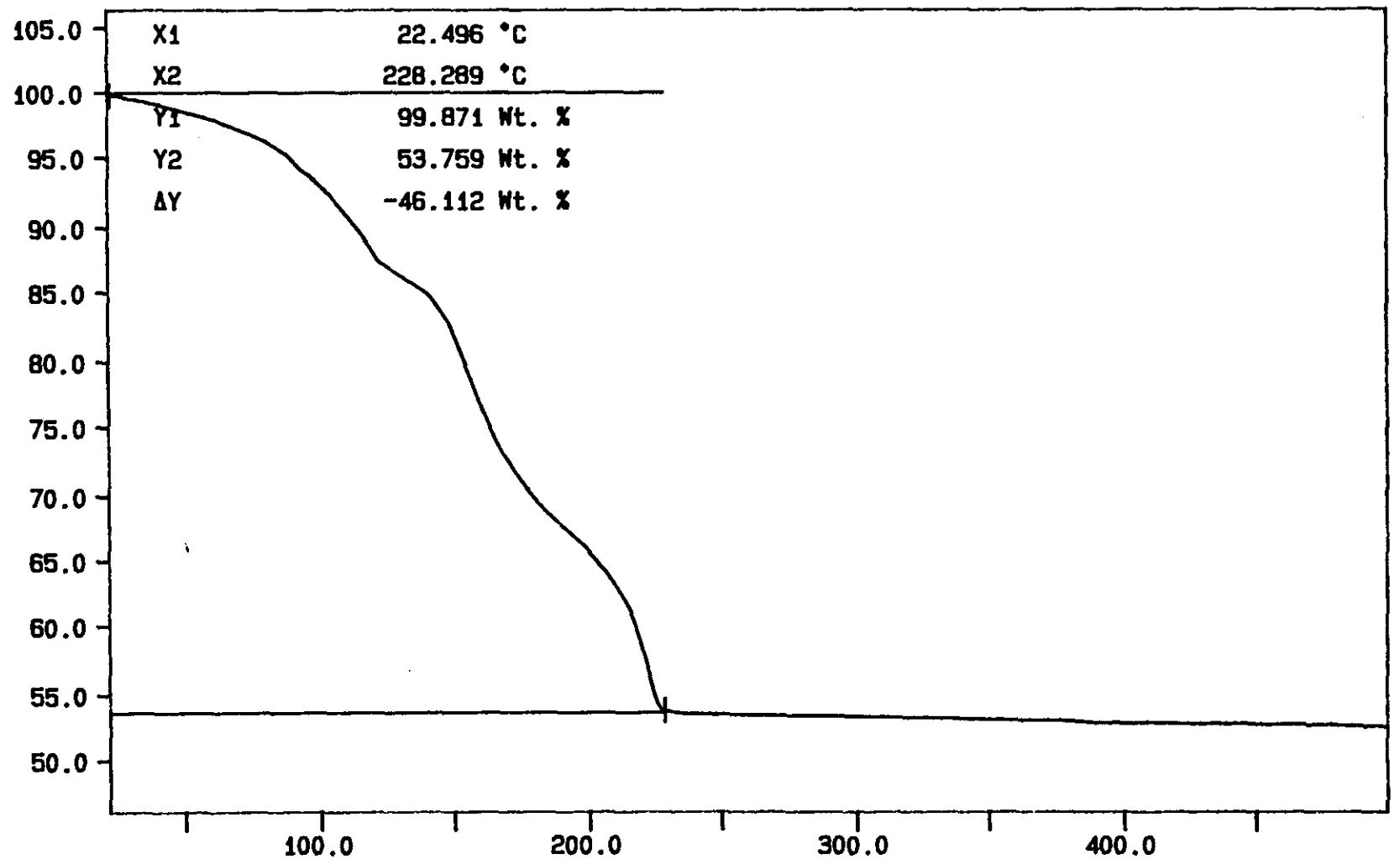
N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Jul 3 20:55:26 1995

WHC-SD-WM-DP-131, REV. 1

10.35

Curve 1: TGA
File info: SAM070304 Mon Jul 3 21:56:46 1995
Sample Weight: 21.928 mg
S95T001092DUP, 10C/min



N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Jul 3 22:03:00 1995

WHC-SD-WM-DP-131, REV. 1

1036

LABCORE Data Entry Template for Worklist# 1609

Analyst: JDS **Instrument:** TGA0 3 **Book #** 4N8-A

Method: LA-514-114 Rev/Mod B-0 WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-03	LIQUID	59.19	57.42	N/A	%
95000085	B-104	2	SAMPLE	S95T001084	0		TGA-03	LIQUID	N/A	99.51		%
95000085	B-104	3	DUP	S95T001084	0		TGA-03	LIQUID	99.51	95.55	N/A	%

Final page for worklist # 1609

See attached for signatures 6/28/95 BDV
Analyst Signature **Date**

[signature] 6-29-95
Analyst Signature **Date**

Verified by Blandina Valenzuela 6/29/95

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1609

Analyst: bds **Instrument:** TGA0 _____ **Book #** 42 N8 A

Method: LA-560-112 Rev/Mod _____

WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	LIQUID			N/A	%
95000085	B-104	2	SAMPLE	S95T001084	0		TGA-01	LIQUID	N/A			%
95000085	B-104	3	DUP	S95T001084	0		TGA-01	LIQUID			N/A	%

Final page for worklist # 1609

Analyst Signature **Date** **Analyst Signature** **Date**

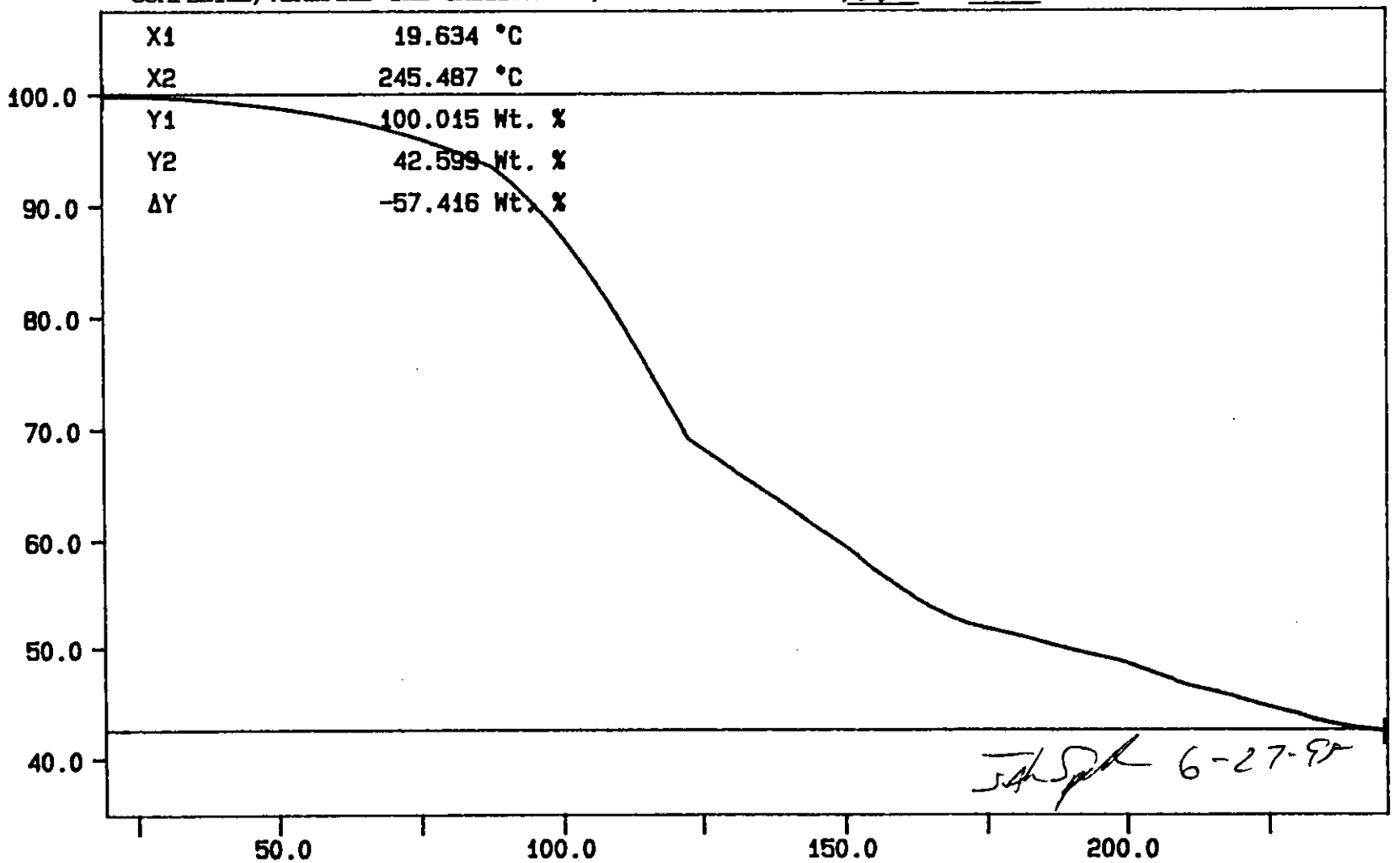
Other instrument was used 6/28/95 BDV

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: ter062701 Tue Jun 27 08:48:10 1995
Sample Weight: 19.704 mg
42N8A Terliq

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1039 TO 1041.



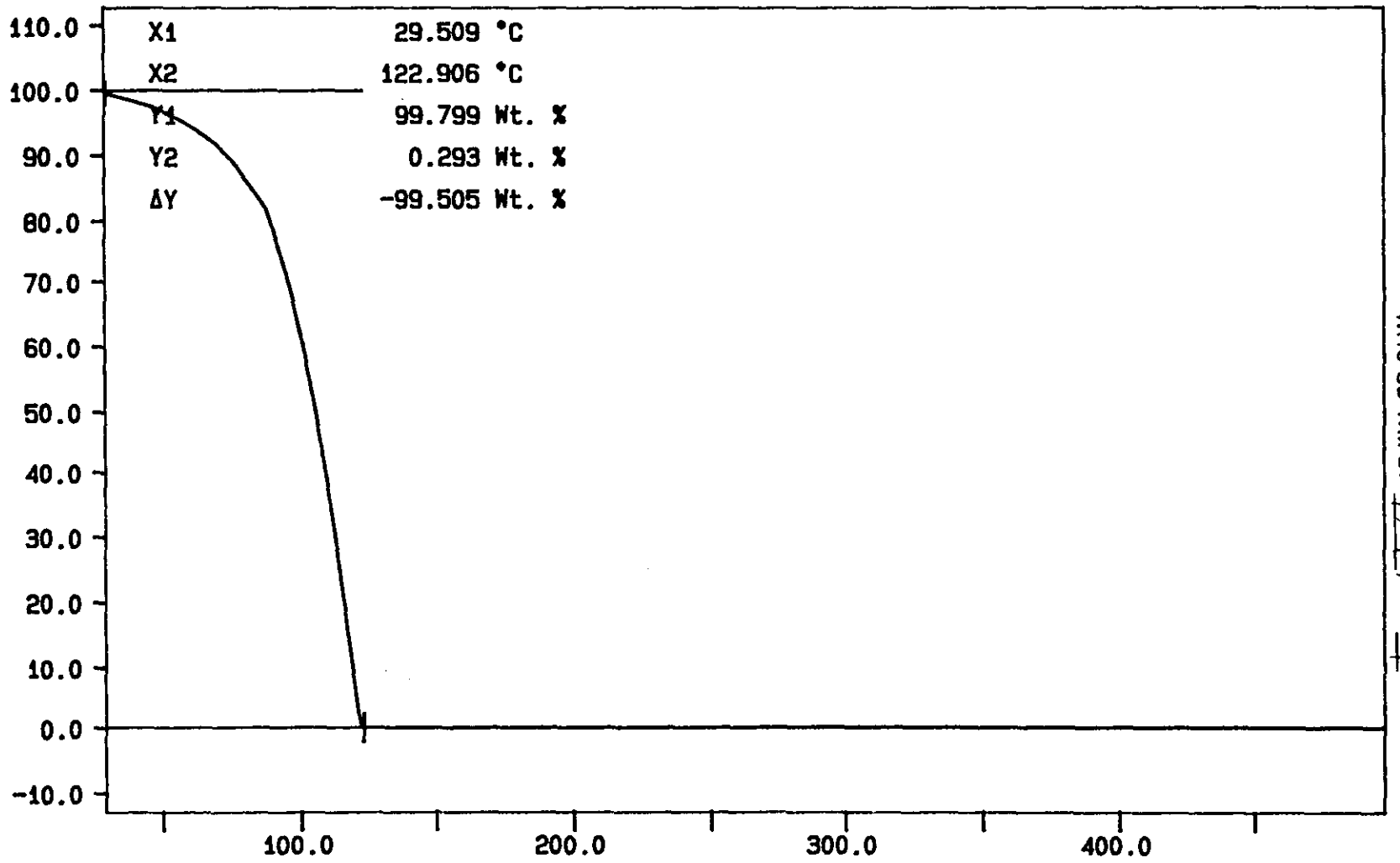
JD Spellman 6-27-95

N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 250.0 C

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jun 27 08:56:14 1995

WHC-SD-WM-DP-131, REV. 1

Curve 1: TGA
File info: SAM062701 Tue Jun 27 09:51:33 1995
Sample Weight: 8.677 mg
~~695T000935~~ JS 6-27-95
595T001084



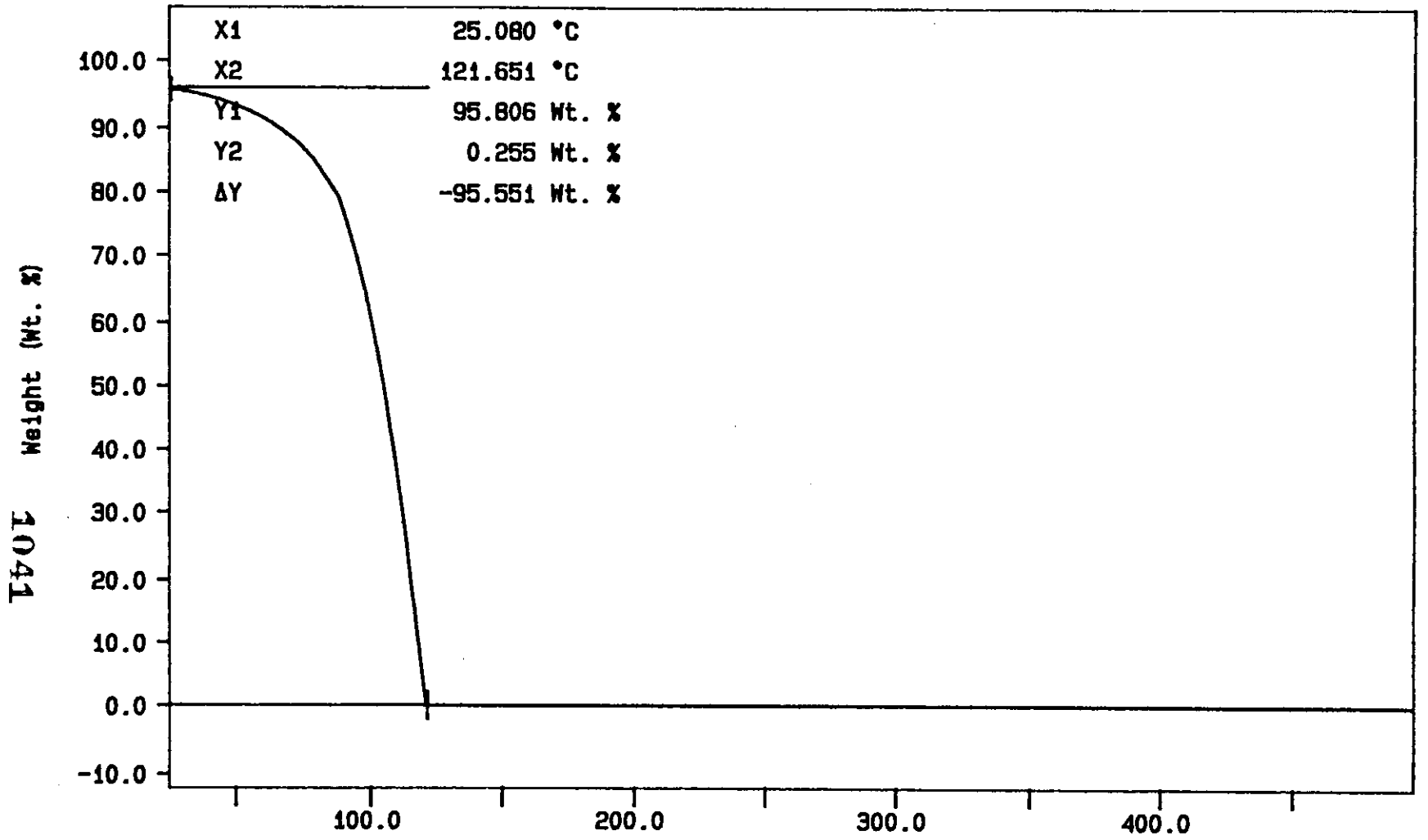
N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jun 27 09:58:36 1995

WHC-SD-WM-DP-121, REV. 1

1040

Curve 1: TGA
File info: SAM062702 Tue Jun 27 11:03:07 1995
Sample Weight: 8.863 mg
S95T001084DUP



N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jun 27 12:35:55 1995

1041

WHC-SD-WM-DP-137, REV. 1

LABCORE Data Entry Template for Worklist# 1631

Analyst: JDS **Instrument:** TGA0 1 **Book #** 65N8-A

Method: LA-560-112 Rev/Mod A-2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-01	SOLID	59.74	60.37	N/A	%
95000085	B-104	2 SAMPLE	S95T001099	0		TGA-01	SOLID	N/A	44.64		%
95000085	B-104	3 DUP	S95T001099	0		TGA-01	SOLID	44.64	44.37	N/A	%
95000085	B-104	4 SAMPLE	S95T001100	0		TGA-01	SOLID	N/A	46.20		%
95000085	B-104	5 DUP	S95T001100	0		TGA-01	SOLID	46.20	47.65	N/A	%

Final page for worklist # 1631

Blandina Valenzuela 7-13-95 — Analyst Signature, Date
for JD Spellman

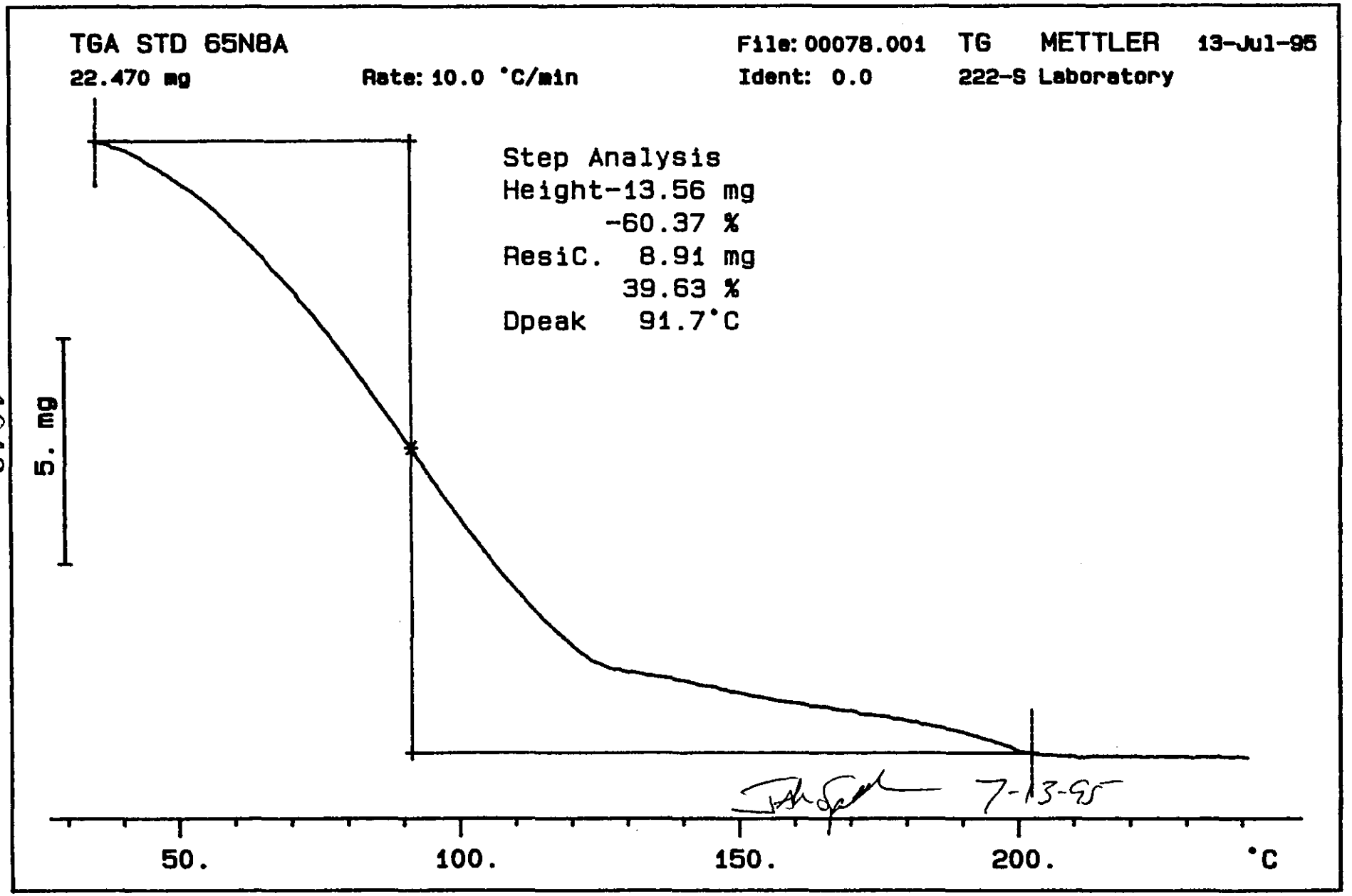
[illegible] 7-14-95 — Analyst Signature, Date

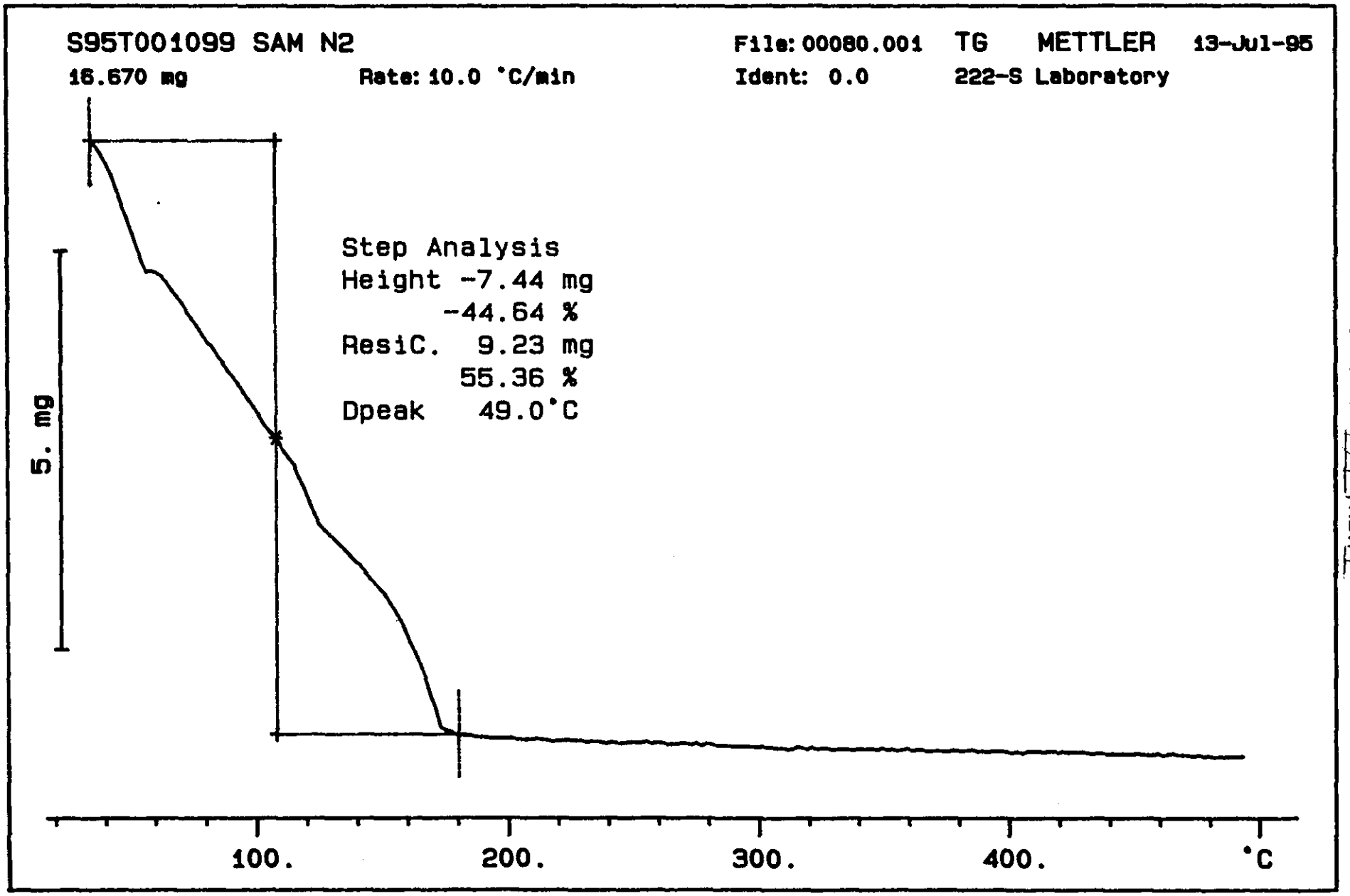
Verified by Blandina Valenzuela 7-14-95

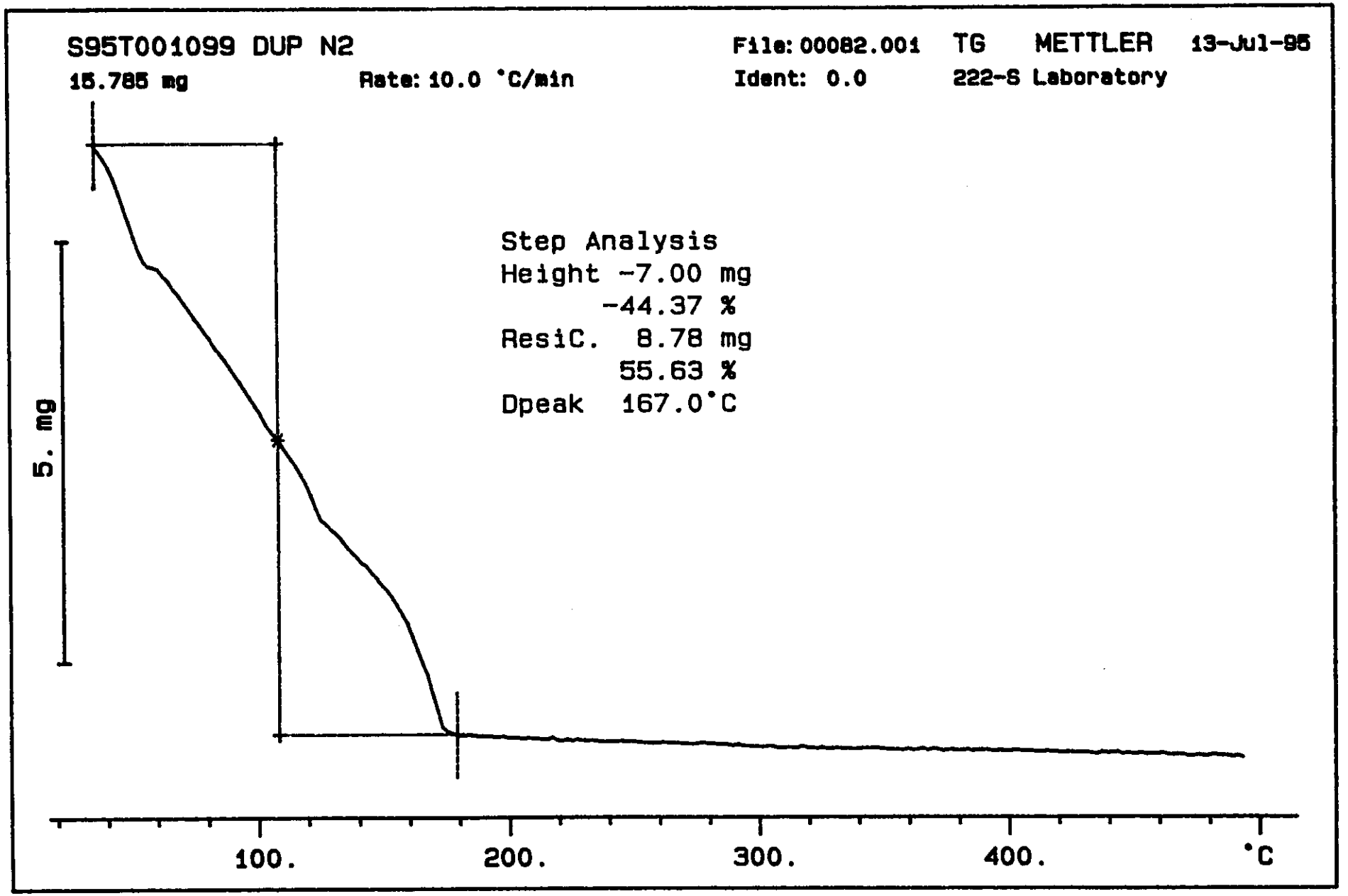
Data Entry Comments:

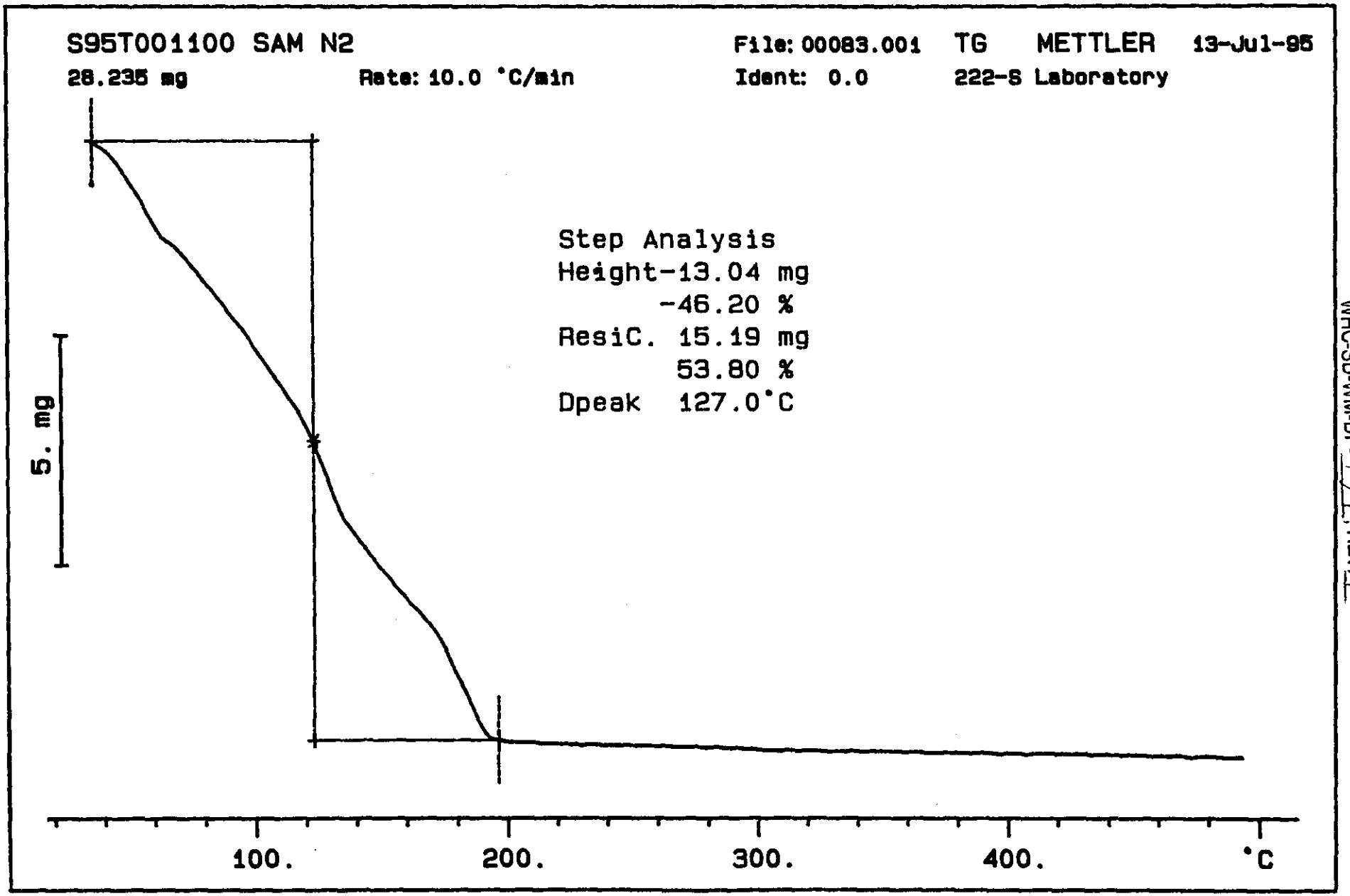
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

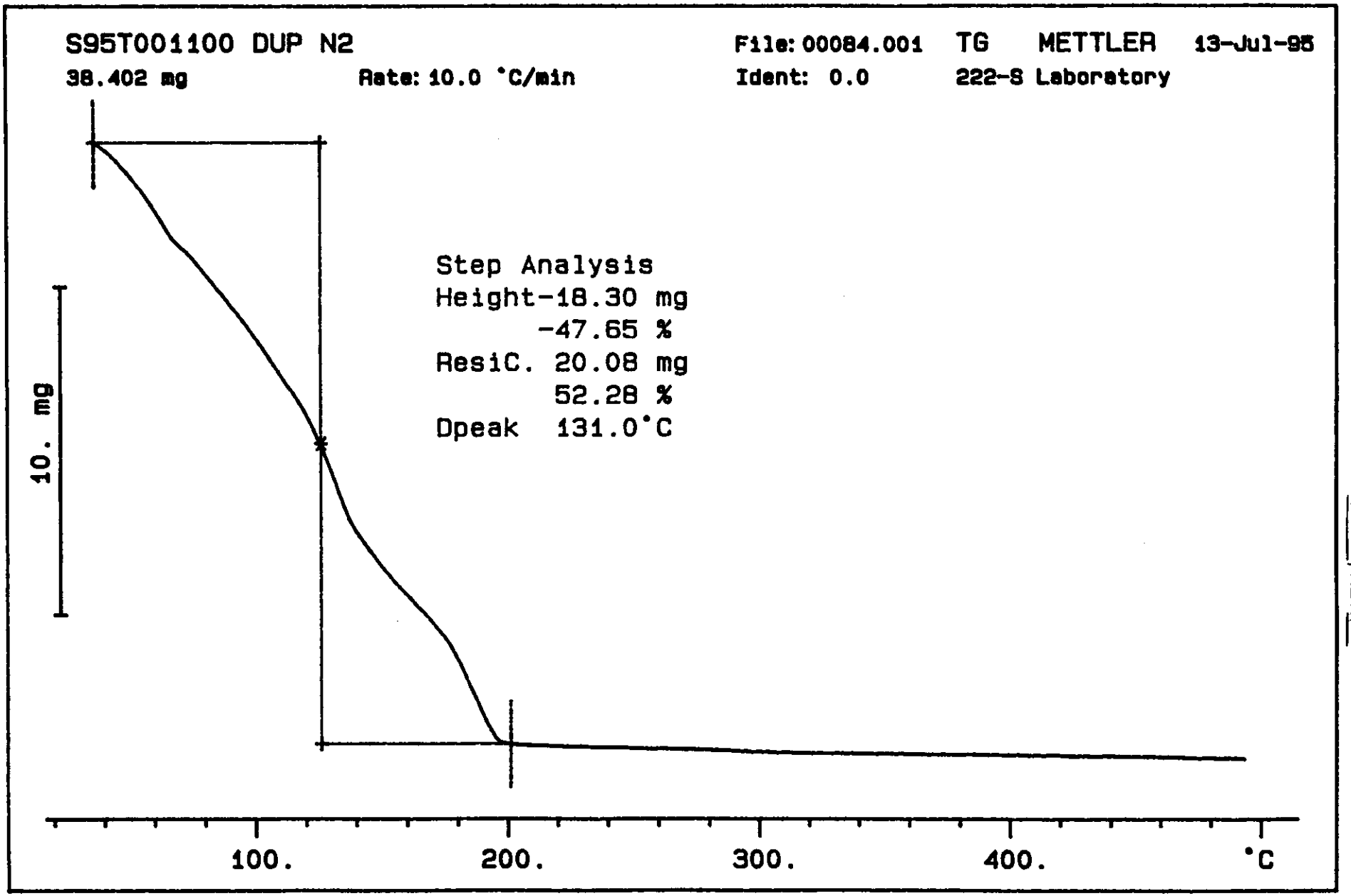
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1043 TO 1047.




S95T001099 SAM N2
16.670 mg
Rate: 10.0 °C/min
File: 00080.001
TG METTLER
13-Jul-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -7.44 mg
-44.64 %
ResiC. 9.23 mg
55.36 %
Dpeak 49.0°C
5. mg
100.
200.
300.
400.
°C


S95T001099 DUP N2
15.785 mg
Rate: 10.0 °C/min
File: 00082.001
Ident: 0.0
TG
METTLER
222-S Laboratory
13-Jul-95
Step Analysis
Height -7.00 mg
-44.37 %
ResiC. 8.78 mg
55.63 %
Dpeak 167.0°C
5. mg
100.
200.
300.
400.
°C


S95T001100 SAM N2
28.235 mg
Rate: 10.0 °C/min
File: 00083.001
Ident: 0.0
TG
METTLER
222-S Laboratory
13-Jul-95
Step Analysis
Height-13.04 mg
-46.20 %
ResiC. 15.19 mg
53.80 %
Dpeak 127.0°C
5. mg
100.
200.
300.
400.
°C


S95T001100 DUP N2
38.402 mg
Rate: 10.0 °C/min
File: 00084.001
Ident: 0.0
TG
METTLER
222-S Laboratory
13-Jul-95
Step Analysis
Height-18.30 mg
-47.65 %
ResiC. 20.08 mg
52.28 %
Dpeak 131.0°C
10. mg
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1632

Analyst: SMF **Instrument:** TGA0 3 **Book #** 65N8-A

Method: LA-514-114 Rev/Mod B-0

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-03	SOLID	59.74	59.35	N/A	%
95000088	B-104	2 SAMPLE	S95T001107	0		TGA-03	SOLID	N/A	47.84		%
95000088	B-104	3 DUP	S95T001107	0		TGA-03	SOLID	47.84	47.14	N/A	%
95000088	B-104	4 SAMPLE	S95T001108	0		TGA-03	SOLID	N/A	46.64		%
95000088	B-104	5 DUP	S95T001108	0		TGA-03	SOLID	46.64	45.46	N/A	%

Final page for worklist # 1632

See attached for signatures
Analyst Signature **Date** 7-10-95

[signature] 7-11-95
Analyst Signature **Date**

Verified by Blandina Valenzuela BDV
(7-13-95)

S95T001107 produced a weight loss step out ~~passed~~ past 200°C which suggests a weight reducing reaction other than the evaporation of water. 7-13-95 BDV

Data Entry Comments: S95T001108 produced an anomolous region above 400°C was caused from a computer glich. Sample also produced a weightloss step out past 200°C which suggests a weight reducing reaction other than the evaporation of water.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1632

Analyst: SMF **Instrument:** TGA0 _____ **Book #** 65N8-A

Method: ~~LA-560-112 Rev/Mod~~ SMF LA-514-114/B-D

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
95000088	B-104	2	SAMPLE	S95T001107	0		TGA-01	SOLID	N/A			%
95000088	B-104	3	DUP	S95T001107	0		TGA-01	SOLID			N/A	%
95000088	B-104	4	SAMPLE	S95T001108	0		TGA-01	SOLID	N/A			%
95000088	B-104	5	DUP	S95T001108	0		TGA-01	SOLID			N/A	%

Final page for worklist # 1632

Smfulton 7-4-95

Analyst Signature Date

Analyst Signature Date

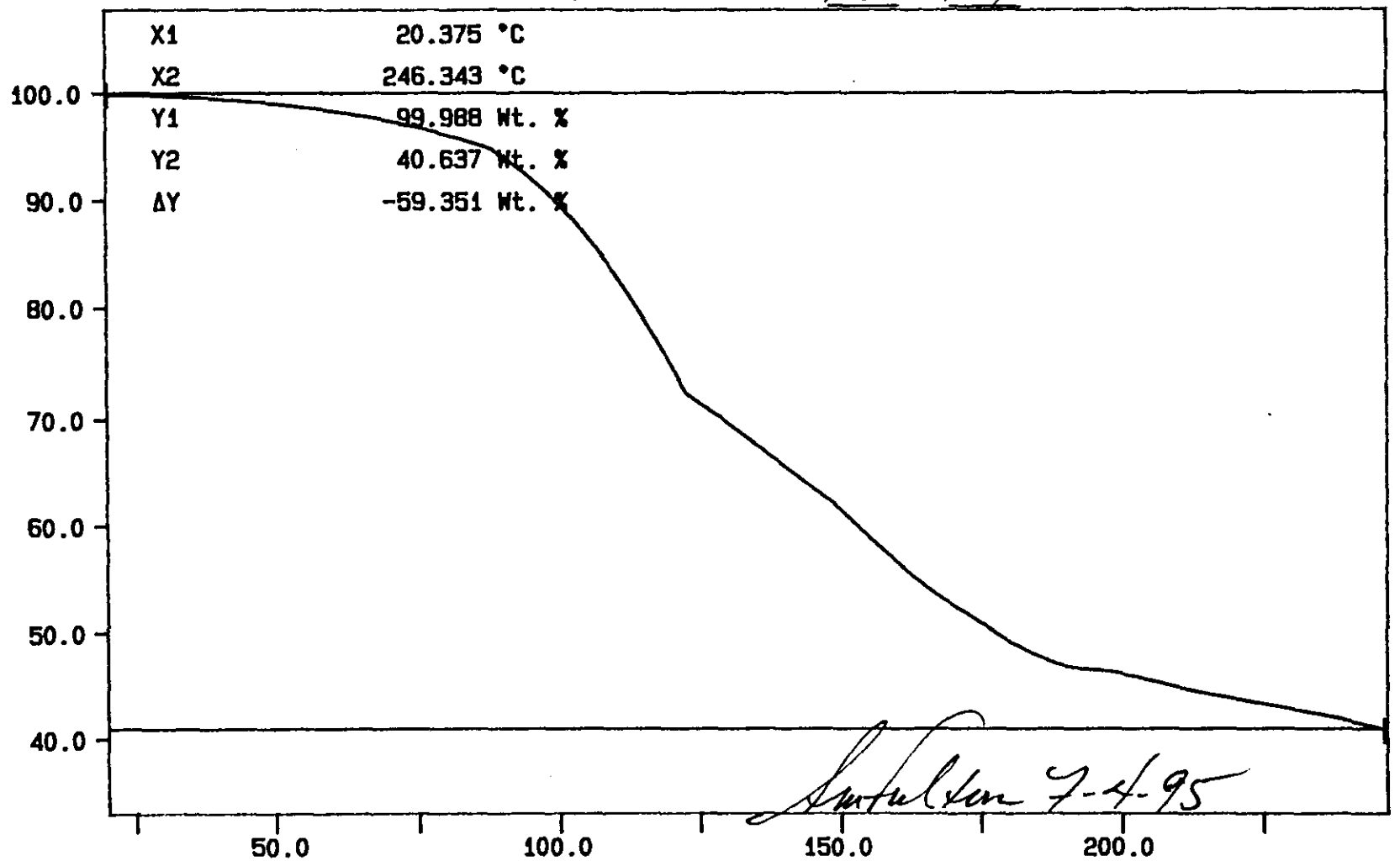
Other instrument was used
7-10-95
BDV

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER070401 Tue Jul 4 16:08:46 1995
Sample Weight: 14.974 mg
65N8-A Terliq

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1051 TO 1054.



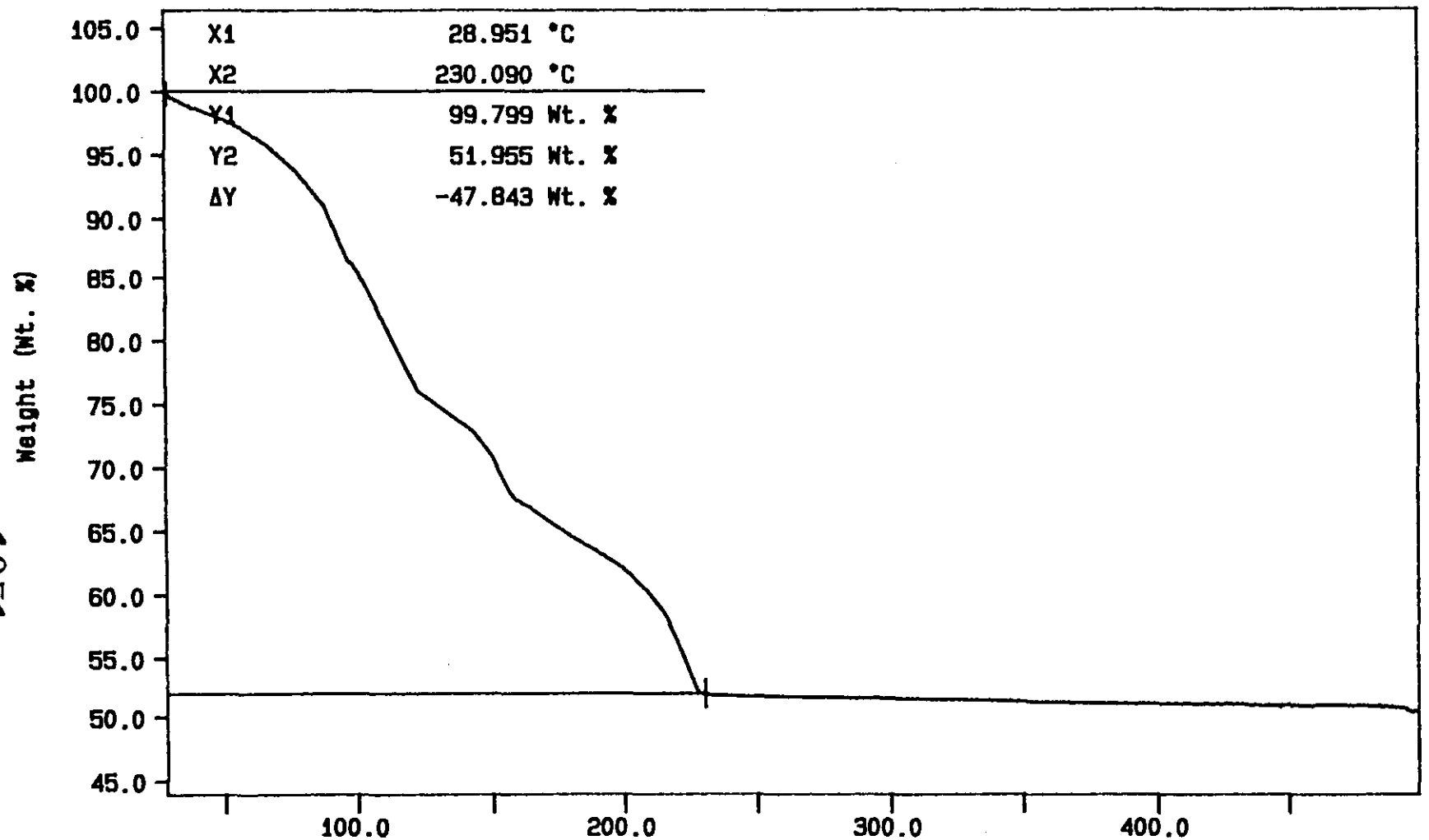
SM Fulton 7-4-95

N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 250.0 C

SM Fulton
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jul 4 16:10:20 1995

WHC-SD-WM-DP-131, REV. 1

Curve 1: TGA
File info: SAM070401 Tue Jul 4 17:11:27 1995
Sample Weight: 8.218 mg
~~G95T001091~~, 10C/min
SMF 7-4-95 S95T001107



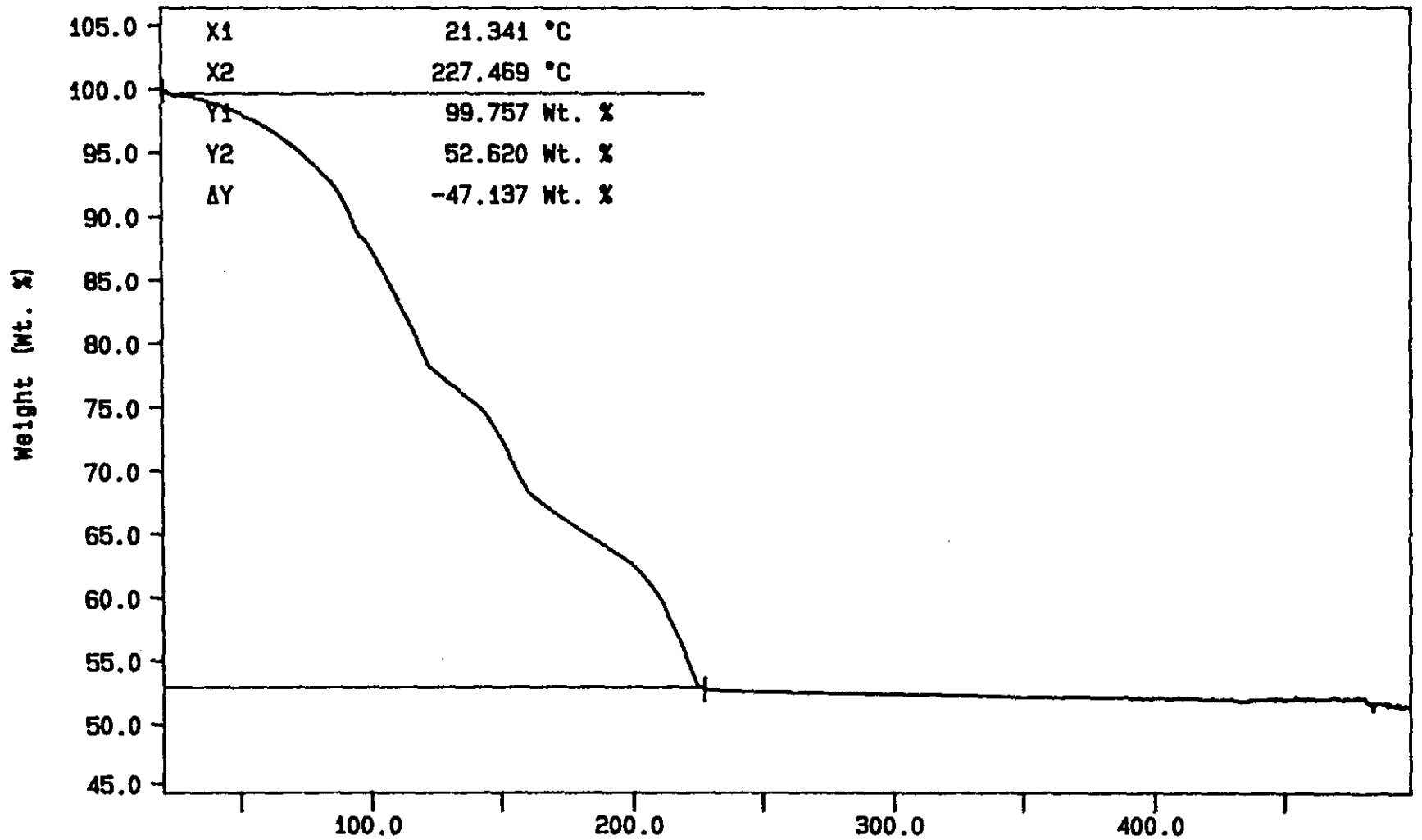
N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jul 4 17:33:37 1995

1051

WHC-SD-WM-DP-131, REV. 1

Curve 1: TGA
File info: SAM070402 Tue Jul 4 18:32:10 1995
Sample Weight: 9.256 mg
S95T001107DUP, 10C/min

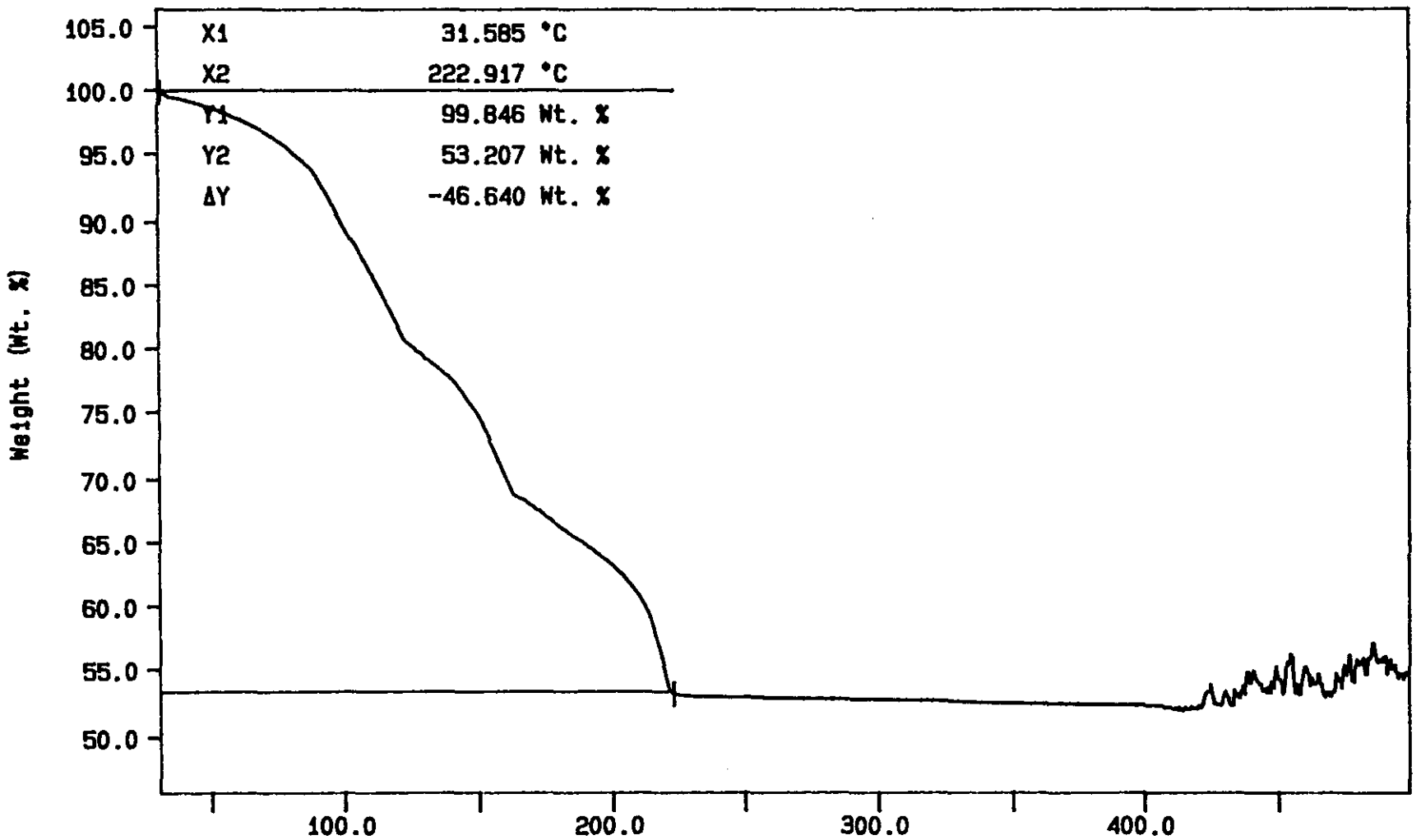


N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jul 4 18:37:59 1995

WHC-SD-WM-DP-131, REV. 1

Curve 1: TGA
File info: SAM070403 Tue Jul 4 19:38:58 1995
Sample Weight: 13.456 mg
S95T001108, 10C/min



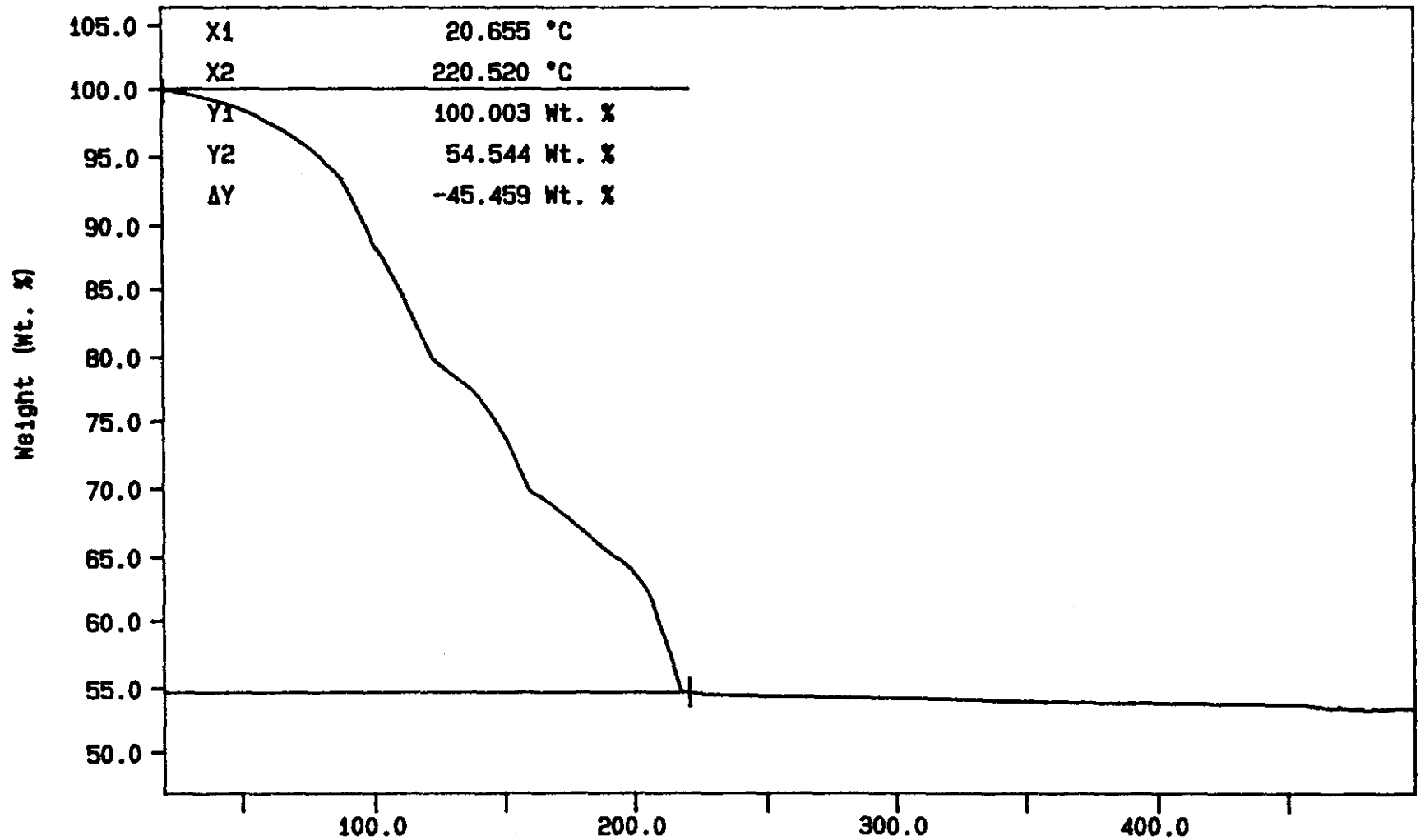
N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jul 4 20:55:37 1995

WHC-SD-WM-DP-131, REV. 1

1053

Curve 1: TGA
File info: SAM070404 Tue Jul 4 21:56:14 1995
Sample Weight: 11.983 mg
S95T001108DUP, 10C/min



N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 600.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jul 4 22:20:58 1995

WHC-SD-WM-DP-137, REV. 1

LABCORE Data Entry Template for Worklist# 1633

Analyst: SMF **Instrument:** TGA0 3 **Book #** 65N8-A

Method: LA-514-114 Rev/Mod B-0 WHC-SD-WM-DP-137, REV. 1

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-03	SOLID	59.74	58.65	N/A	%
95000088	B-104	2	SAMPLE	S95T001113	0		TGA-03	SOLID	N/A	47.16		%
95000088	B-104	3	DUP	S95T001113	0		TGA-03	SOLID	47.16	47.09	N/A	%
		4	STD				TGA-03	SOLID	59.74	58.55	N/A	%
95000088	B-104	5	SAMPLE	S95T001114	0		TGA-03	SOLID	N/A	48.32		%
95000088	B-104	6	DUP	S95T001114	0		TGA-03	SOLID	48.32	48.13	N/A	%

Final page for worklist # 1633

See attached for signatures
Analyst Signature **Date** 7-11-95 BDV

[signature] 7-12-95
Analyst Signature **Date**

Verified by Blandina Valenzuela 7-12-95

S95T001113 produced a weight loss that continued out past 200°C which suggests another weight loss reaction other than the evaporation of water.

Data Entry Comments: S95T001114 produced a weight loss that continued out past 200°C which suggests another weight loss reaction other than the evaporation of water.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1633

Analyst: SMF **Instrument:** TGA0 _____ **Book #** ~~4218-A~~

Method: ~~LA-560-112 Rev/Mod~~ SMF LA-514-114 / B-0 WHC-SD-WM-DP-137, REV. 1 7-11-95 BDV

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
95000088	B-104	2	SAMPLE	S95T001113	0		TGA-01	SOLID	N/A			%
95000088	B-104	3	DUP	S95T001113	0		TGA-01	SOLID			N/A	%
95000088	B-104	4	SAMPLE	S95T001114	0		TGA-01	SOLID	N/A			%
95000088	B-104	5	DUP	S95T001114	0		TGA-01	SOLID			N/A	%

Final page for worklist # 1633

S M Fulton 7-1-95
Analyst Signature **Date**

Analyst Signature **Date**

Other instrument was used
7-11-95
BDV

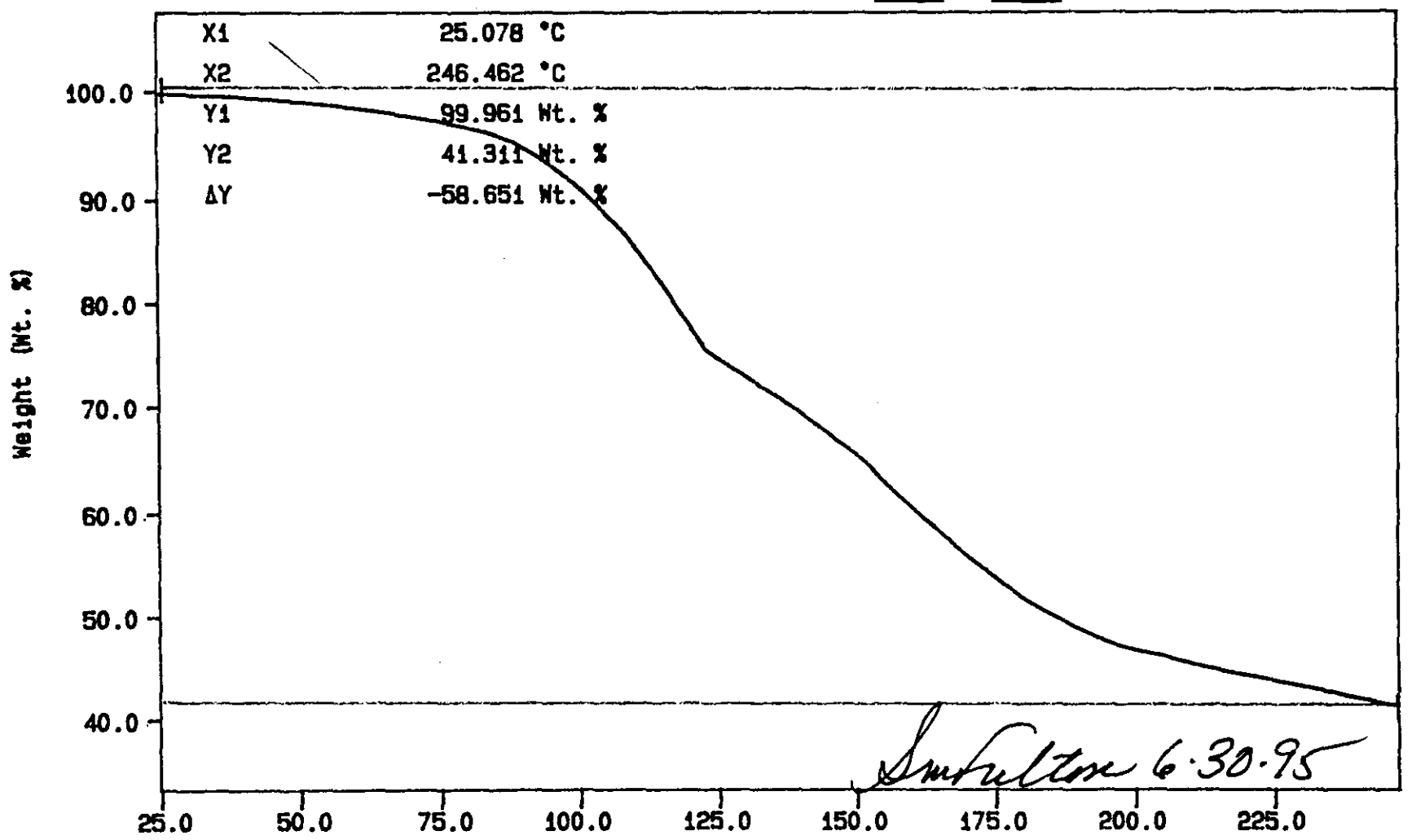
Data Entry Comments:

Both samples are a Mustard yellow thin sludge (with a clear yellow liquid layer)

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Curve 1: TGA
File info: TER063001 Fri Jun 30 19:51:53 1995
Sample Weight: 17.057 mg
65N8-A Terliq

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1057 TO 1062.



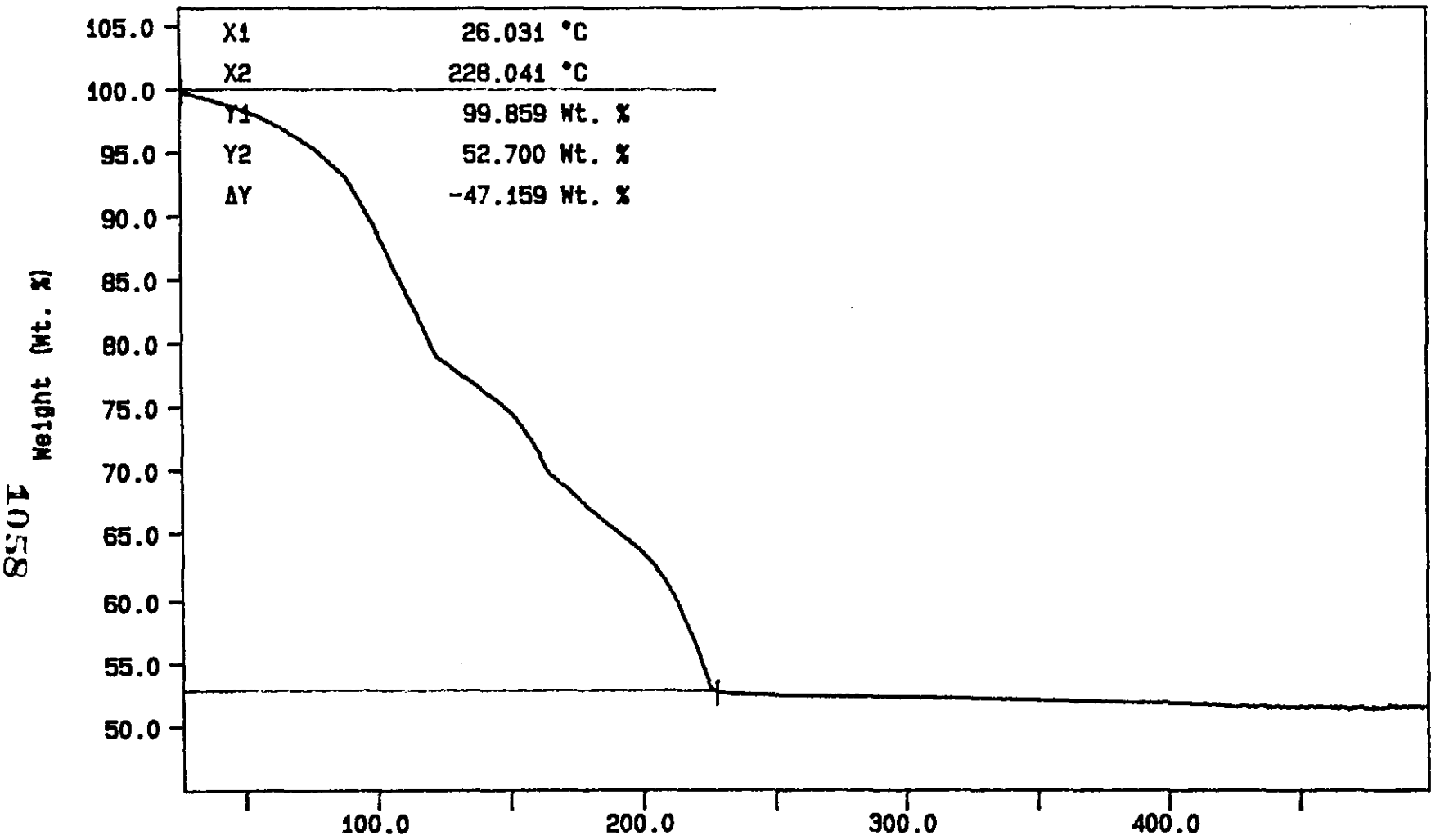
N2
TEMP1: 30.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 250.0 C

SM Fulton
PERKIN-ELMER
7 Series Thermal Analysis System
Fri Jun 30 20:51:43 1995

WHC-SD-WM-DP-131, REV. 1

1057

Curve 1: TGA
File info: SAM063001 Fri Jun 30 21:44:20 1995
Sample Weight: 14.570 mg
S95T001113, 10C/min



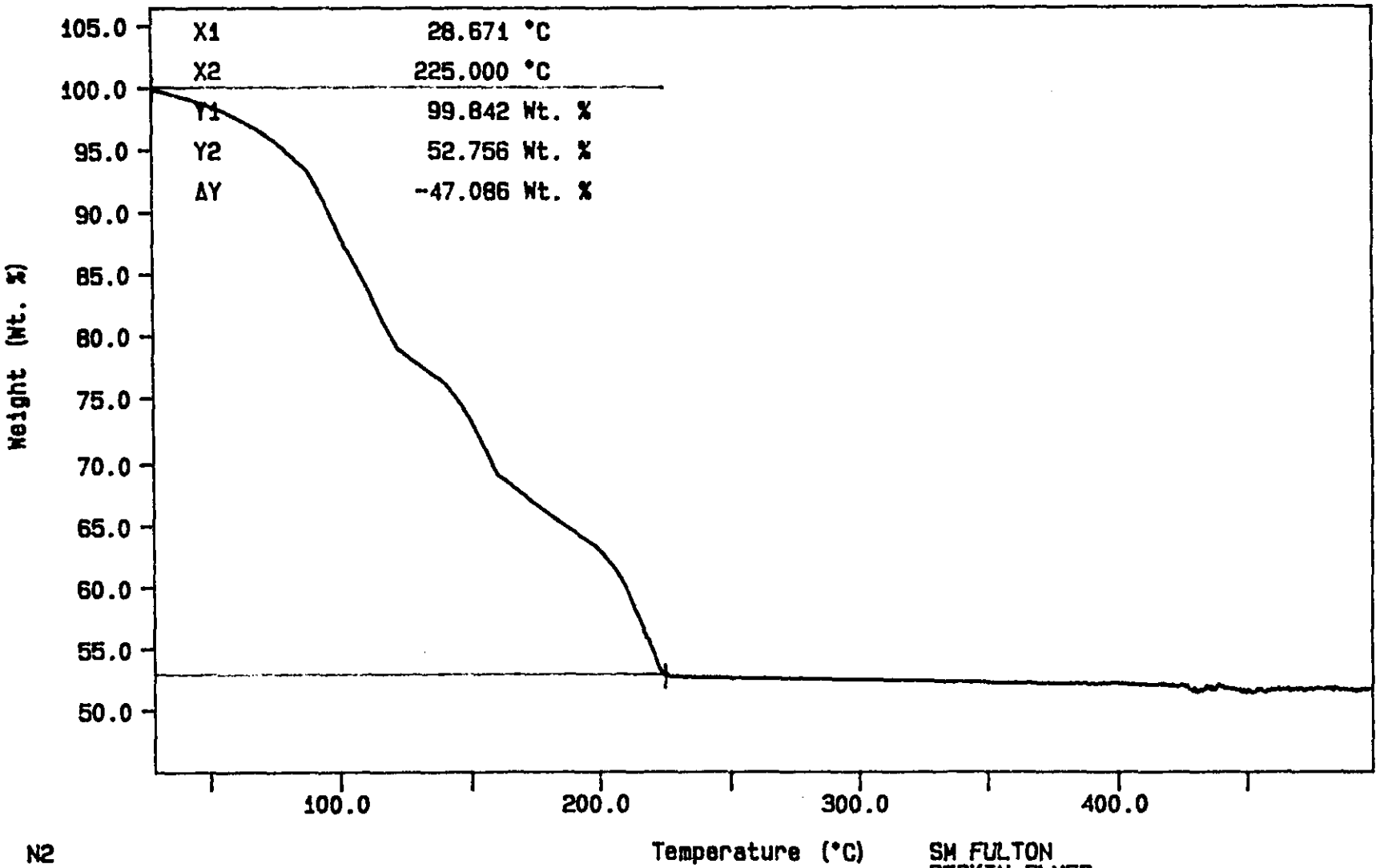
N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Fri Jun 30 21:46:08 1995

1058

WHC-SD-WM-DP-137, REV. 1

Curve 1: TGA
File info: SAM063007 Fri Jun 30 22:51:16 1995
Sample Weight: 12.842 mg
S95T001113DUP, 10C/min



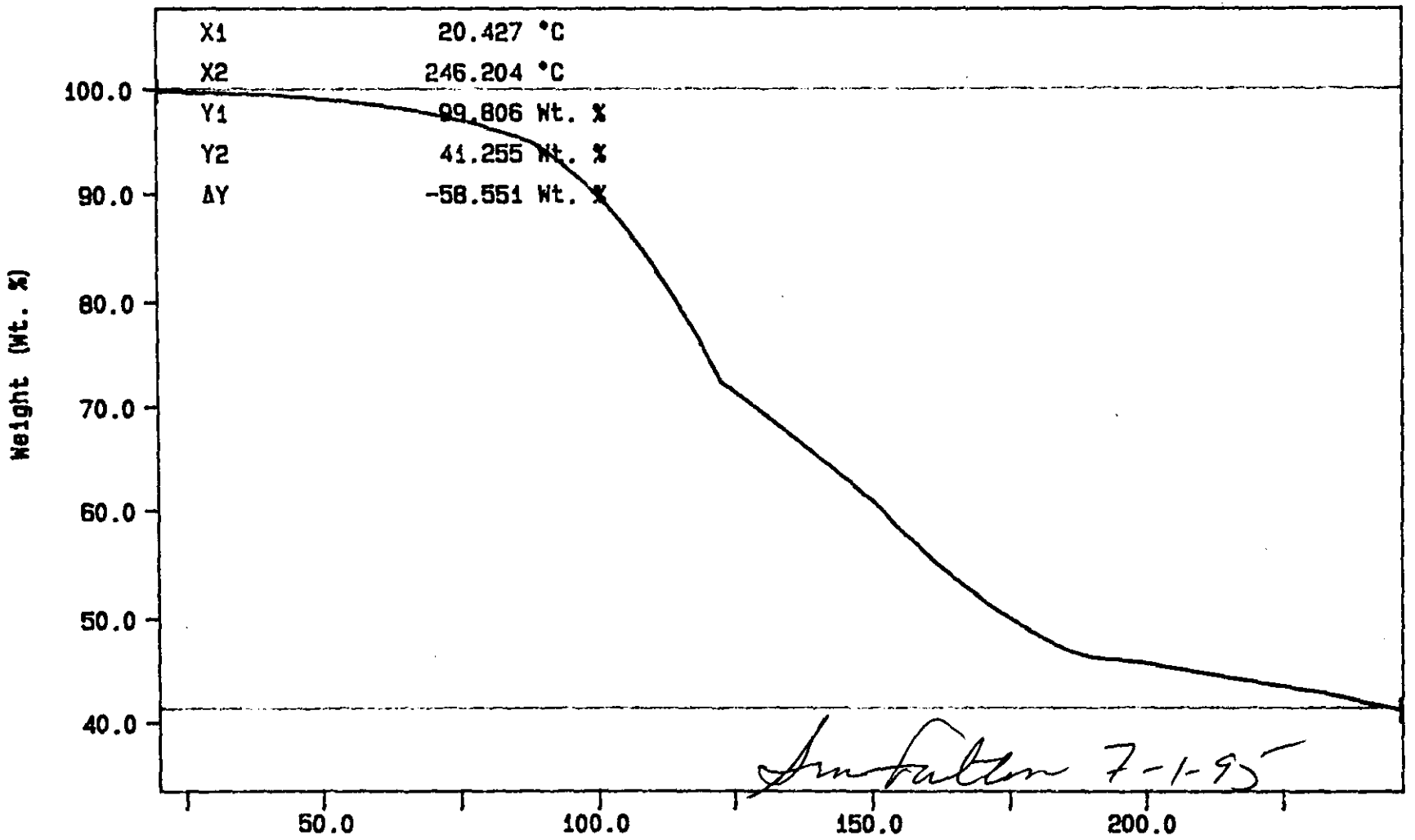
N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Fri Jun 30 22:53:01 1995

1059

WHC-SD-WM-DP-131, REV. 1

Curve 1: TGA
File info: TER070101 Sat Jul 1 18:17:41 1995
Sample Weight: 14.215 mg
65N8-A Terliq



N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 250.0 C

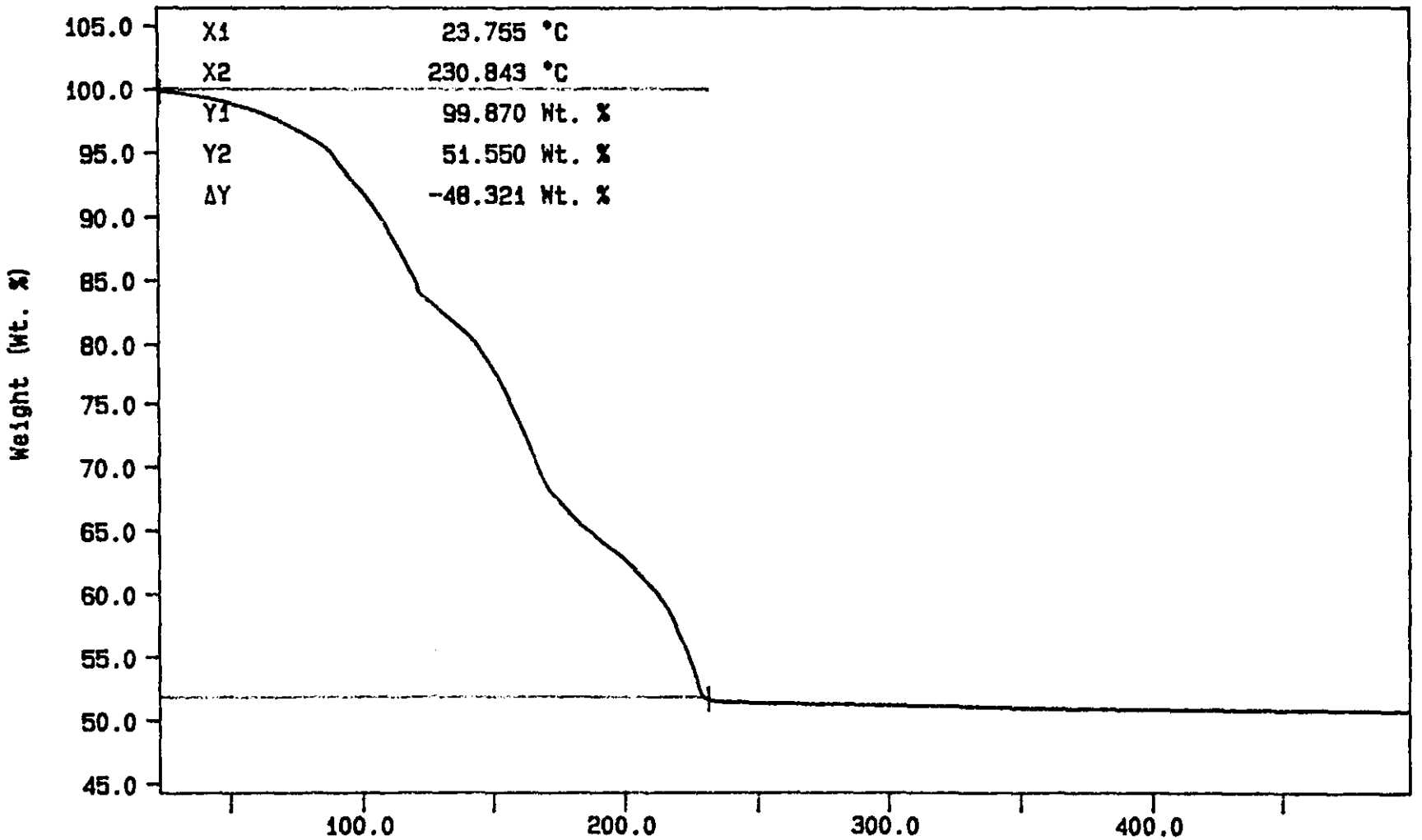
SM Fulton
PERKIN-ELMER
7 Series Thermal Analysis System
Sat Jul 1 18:50:44 1995

SM Fulton 7-1-95

WHC-SD-WM-DP-131, REV. 1

1060

Curve 1: TGA
File info: SAM070101 Sat Jul 1 20:04:53 1995
Sample Weight: 18.869 mg
S95T001114, 10C/min



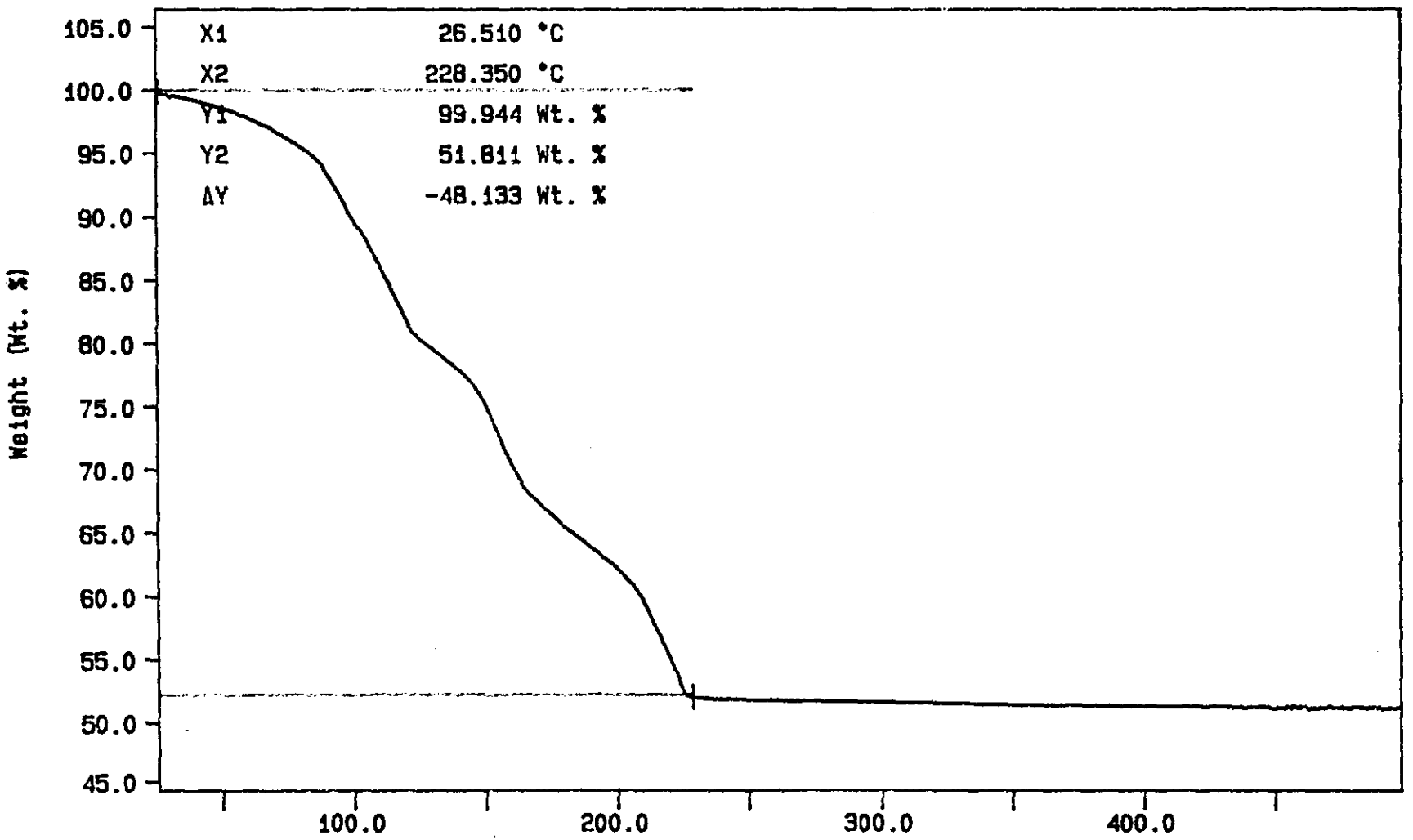
N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat Jul 1 20:54:38 1995

WHC-SD-WM-DP-131, REV. 1

1061

Curve 1: TGA
File info: SAM070102 Sat Jul 1 21:46:47 1995
Sample Weight: 14.989 mg
S95T001114DUP, 10C/min



N2
TEMP1: 35.0 C TIME1: 0.0 min RATE1: 10.0 C/min
TEMP2: 500.0 C

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sat Jul 1 21:52:27 1995

WHC-SD-WM-DP-131, REV. 1

1062

LABCORE Data Entry Template for Worklist# 1634

Analyst: JdS **Instrument:** TGA0 1 **Book #** 42N 8A

Method: LA-560-112 Rev/Mod A-2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	LIQUID	59.19	58.88	N/A	%
95000088	B-104	2	SAMPLE	S95T001104	0		TGA-01	LIQUID	N/A	53.69		%
95000088	B-104	3	DUP	S95T001104	0		TGA-01	LIQUID	53.69	53.11	N/A	%

Final page for worklist # 1634

JdS 6-27-95
Analyst Signature **Date**

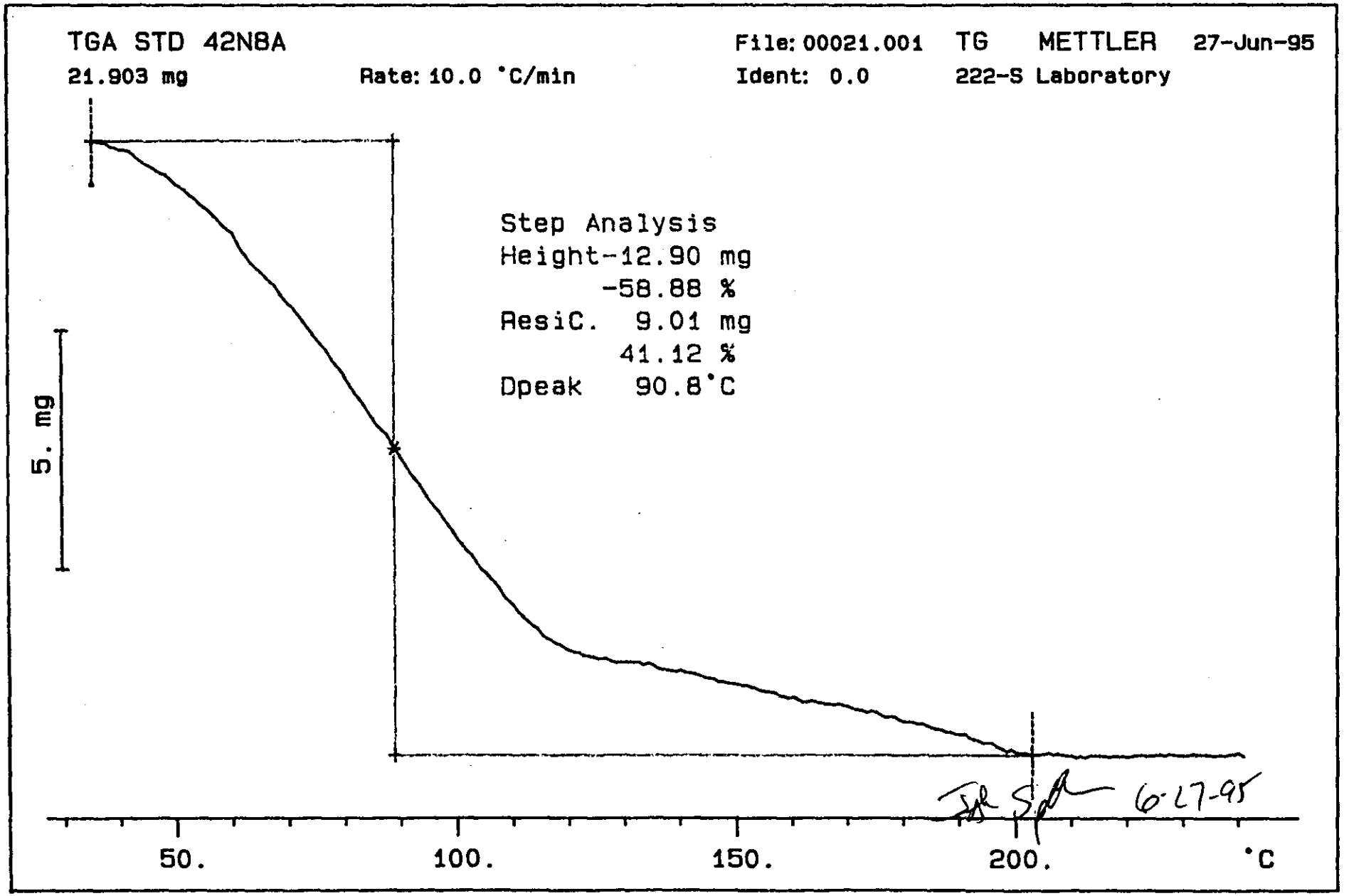
6-29-95
Analyst Signature **Date**

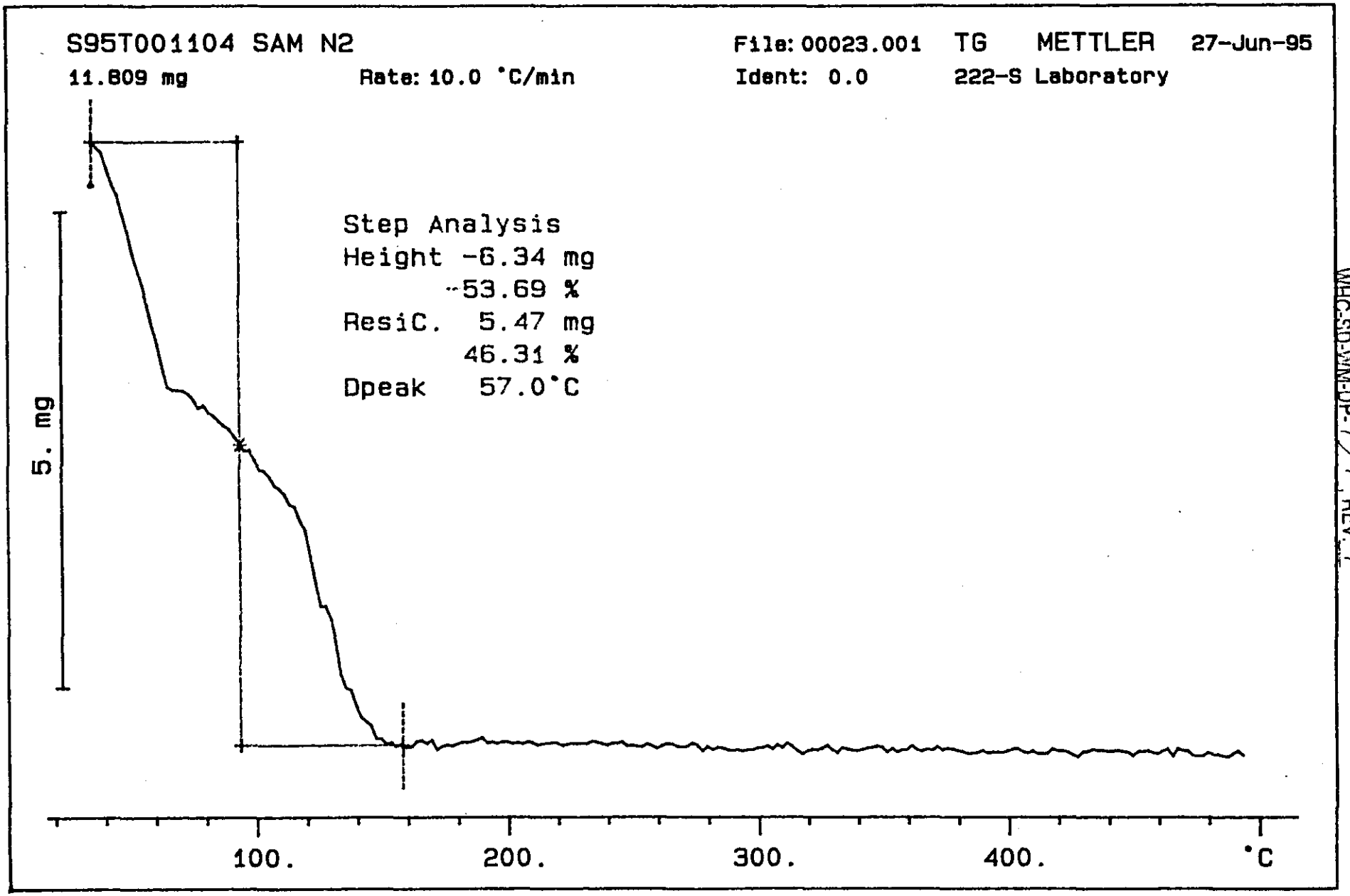
Verified by Blandina Valenzuela 6-29-95

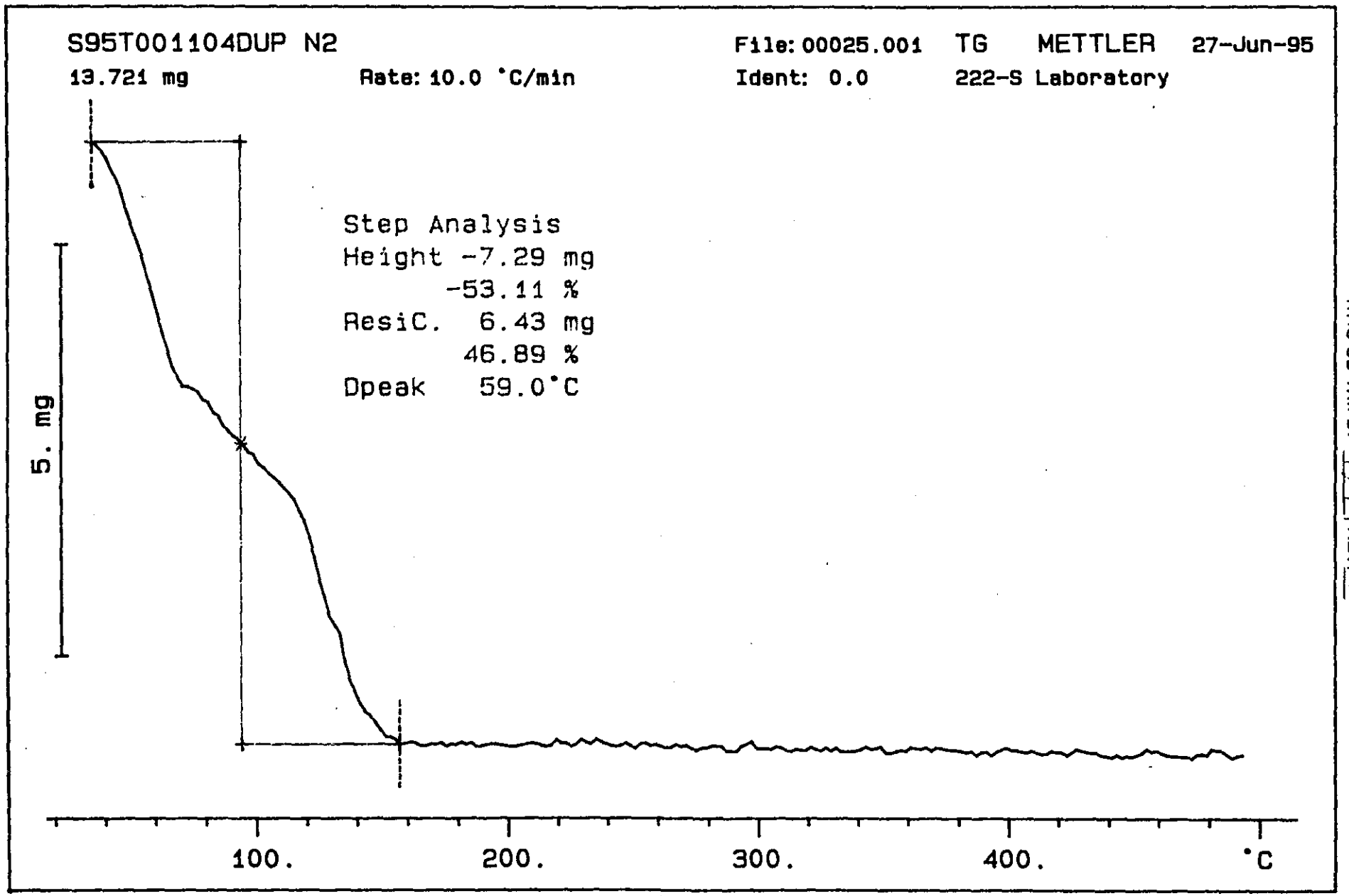
Data Entry Comments: JdS 6/29/95 BDV

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1064 TO 1066.




S95T001104 SAM N2
11.809 mg
Rate: 10.0 °C/min
File: 00023.001
TG METTLER 27-Jun-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -6.34 mg
-53.69 %
ResiC. 5.47 mg
46.31 %
Dpeak 57.0°C
5. mg
100.
200.
300.
400.
°C


S95T001104DUP N2
13.721 mg
Rate: 10.0 °C/min
File: 00025.001
TG METTLER 27-Jun-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -7.29 mg
-53.11 %
ResiC. 6.43 mg
46.89 %
Dpeak 59.0°C
5. mg
100.
200.
300.
400.
°C

LABCORE Data Entry Template for Worklist# 1673

Analyst: SMF **Instrument:** TGA0 3 **Book #** 65N8-A

Method: LA-514-114 Rev/Mod B-0

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-03	SOLID	59.74	60.13	N/A	%
95000088	B-104	2	SAMPLE	S95T001130	0		TGA-03	SOLID	N/A	47.93		%
95000088	B-104	3	DUP	S95T001130	0		TGA-03	SOLID	47.93	46.20	N/A	%
95000088	B-104	4	SAMPLE	S95T001131	0		TGA-03	SOLID	N/A	47.63		%
95000088	B-104	5	DUP	S95T001131	0		TGA-03	SOLID	47.63	47.55	N/A	%

Final page for worklist # 1673

See attached for signatures
Analyst Signature Date 7-11-95

Analyst Signature Date 7-12-95

Verified by Blandina Valenzuela BDV 7-12-95

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1673

Analyst: SME **Instrument:** TGA0 _____ **Book #** 65N8-72

Method: ~~LA-560-112~~ Rev/Mod ~~LA-560-112~~ LA-560-112-BA.2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
95000088	B-104	2	SAMPLE	S95T001130	0		TGA-01	SOLID	N/A			%
95000088	B-104	3	DUP	S95T001130	0		TGA-01	SOLID			N/A	%
95000088	B-104	4	SAMPLE	S95T001131	0		TGA-01	SOLID	N/A			%
95000088	B-104	5	DUP	S95T001131	0		TGA-01	SOLID			N/A	%

Final page for worklist # 1673

S M Fulton 7-3-95
Analyst Signature **Date**

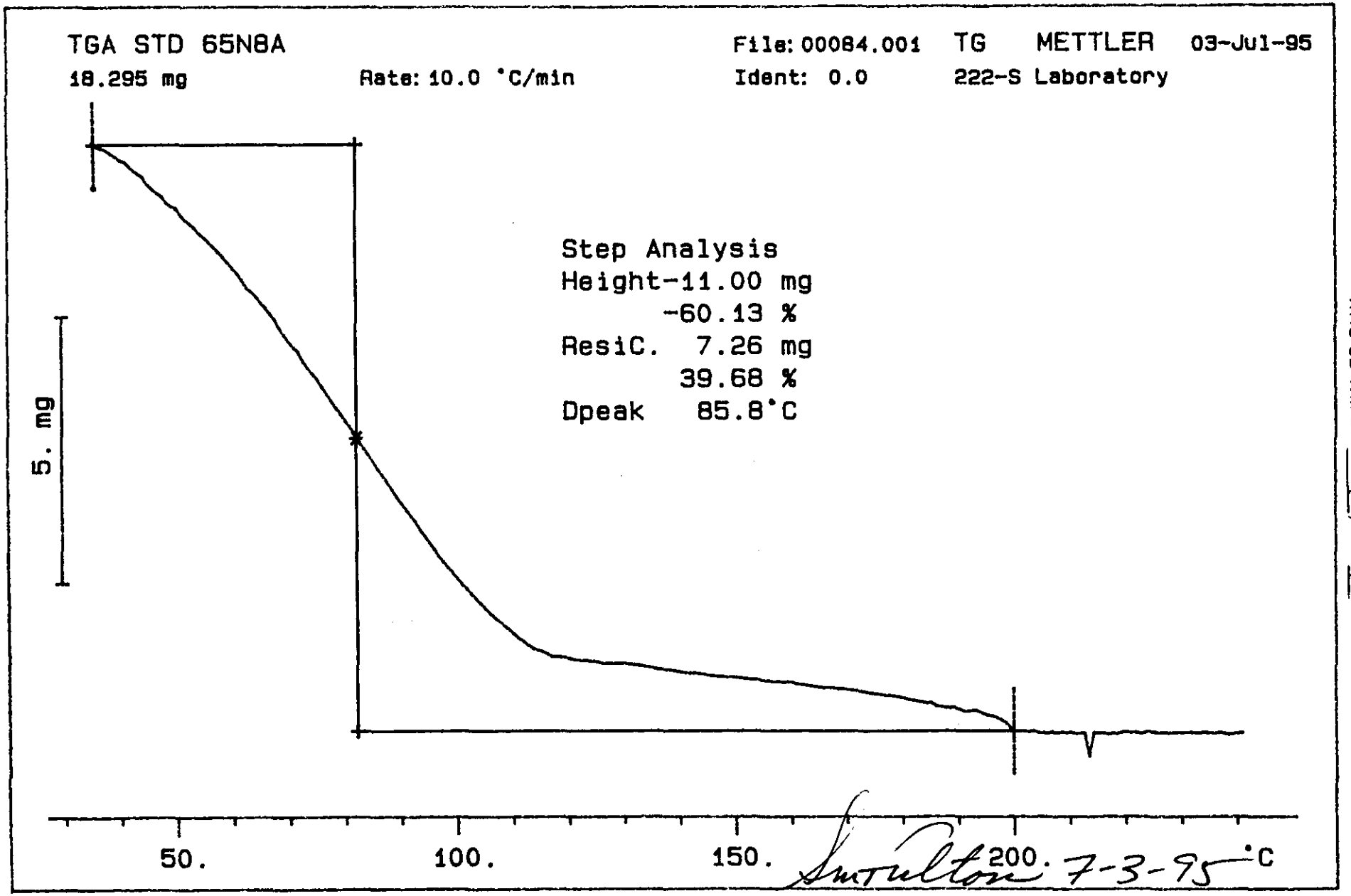
Analyst Signature **Date**

Other instrument was used
7-11-95
BDV

Data Entry Comments:

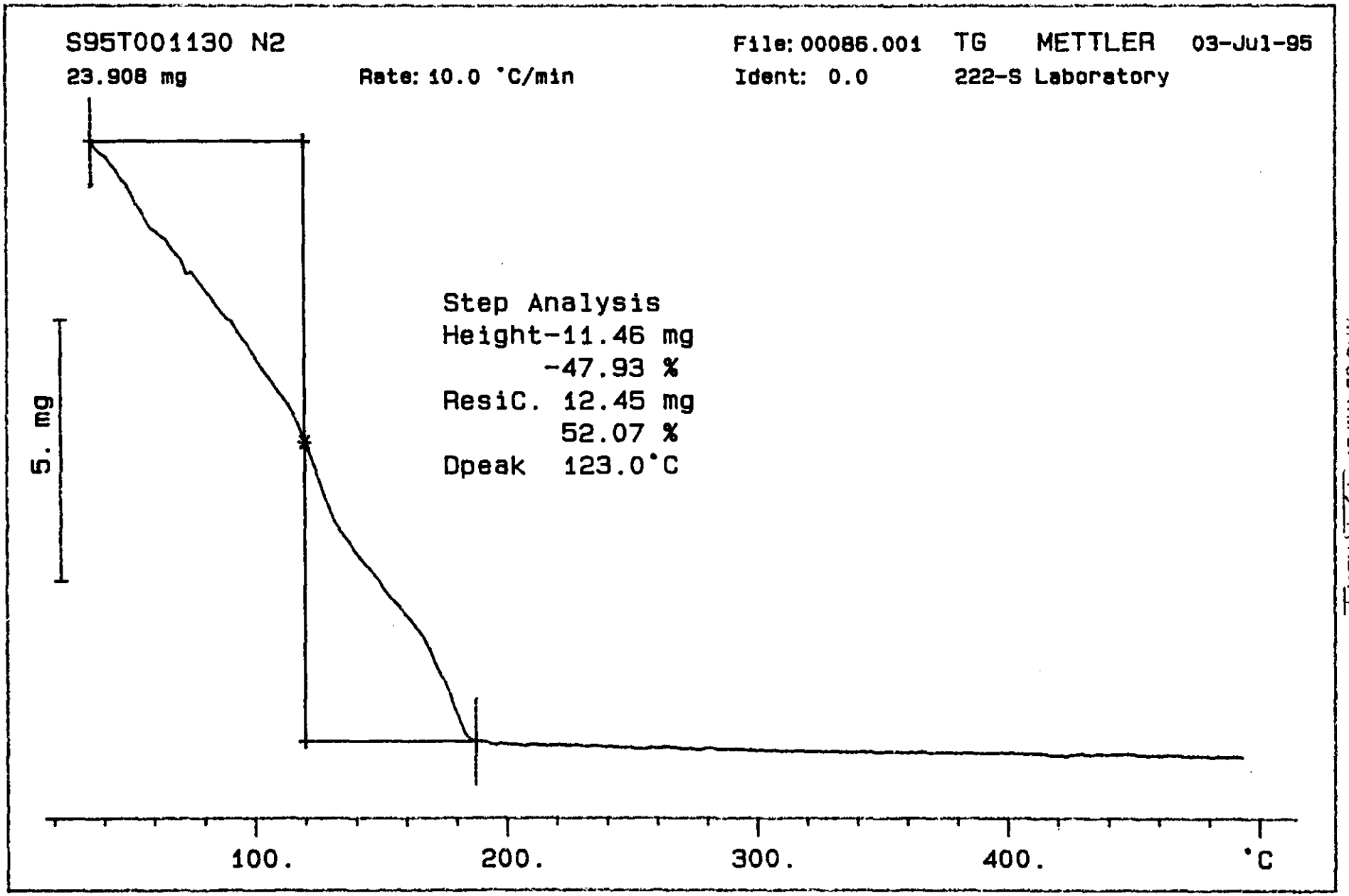
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

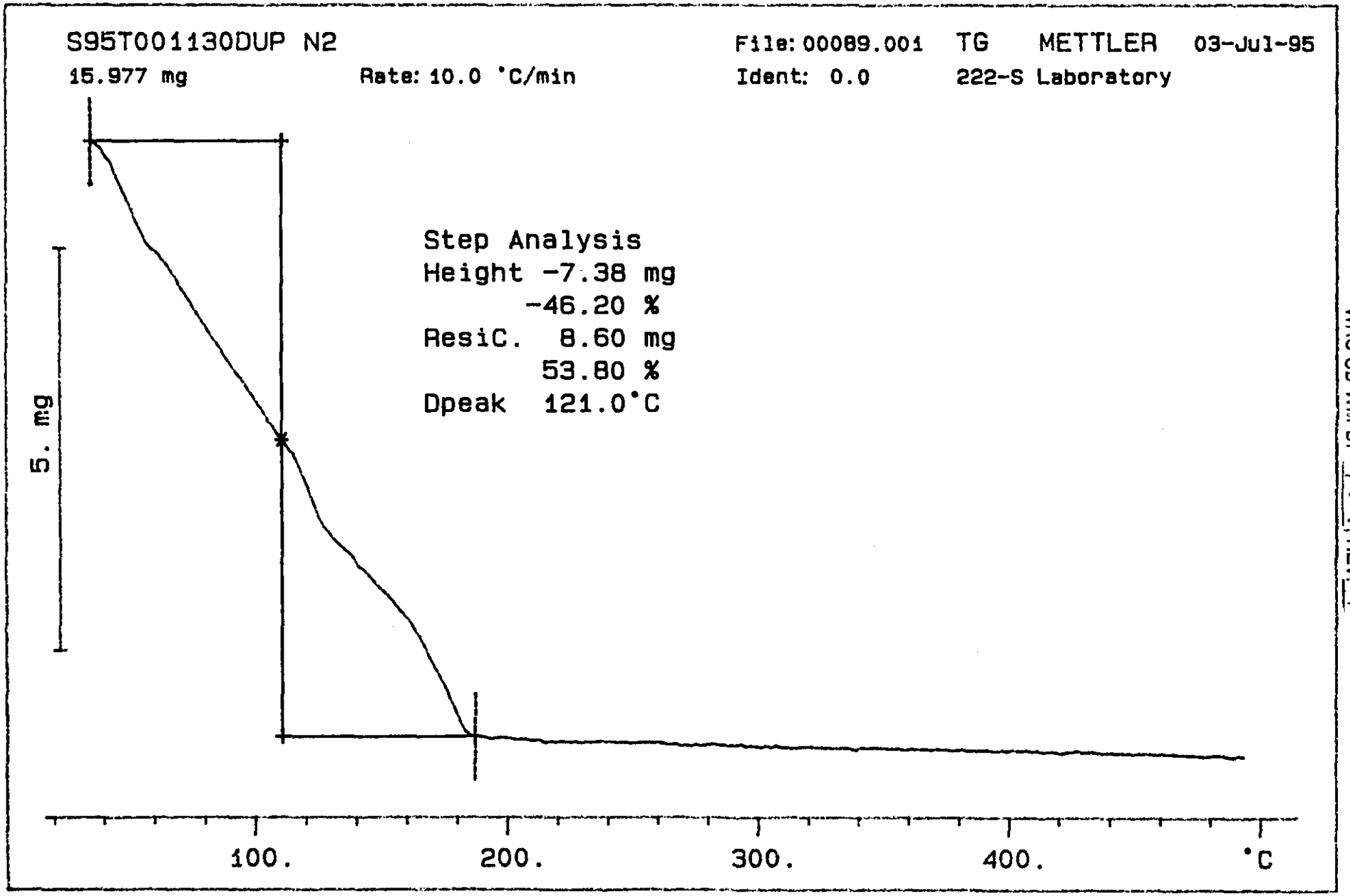
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1069 TO 1073.



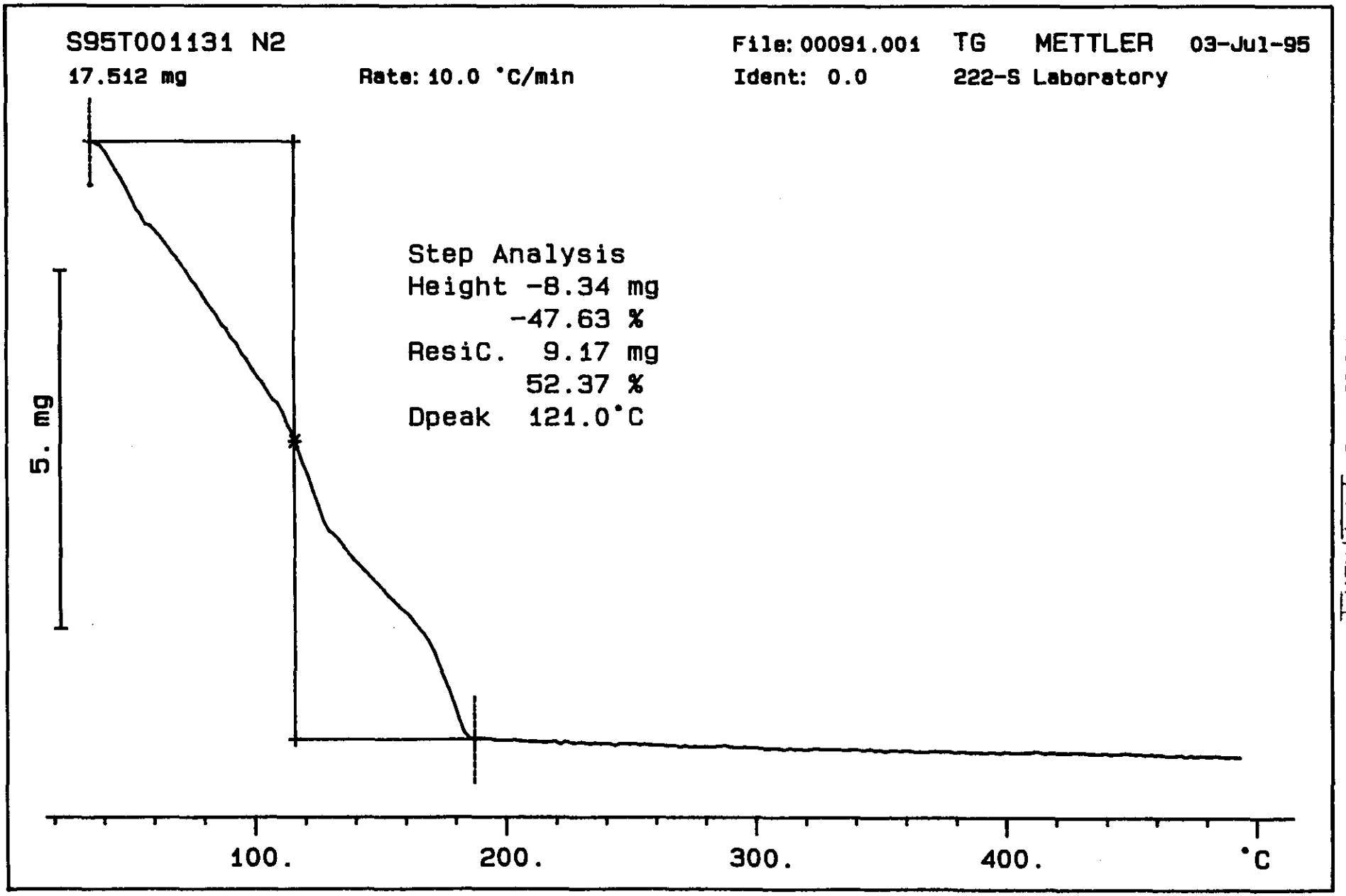
S M Fulton 7-3-95

WHC-SD-WM-DP-137, REV. 1

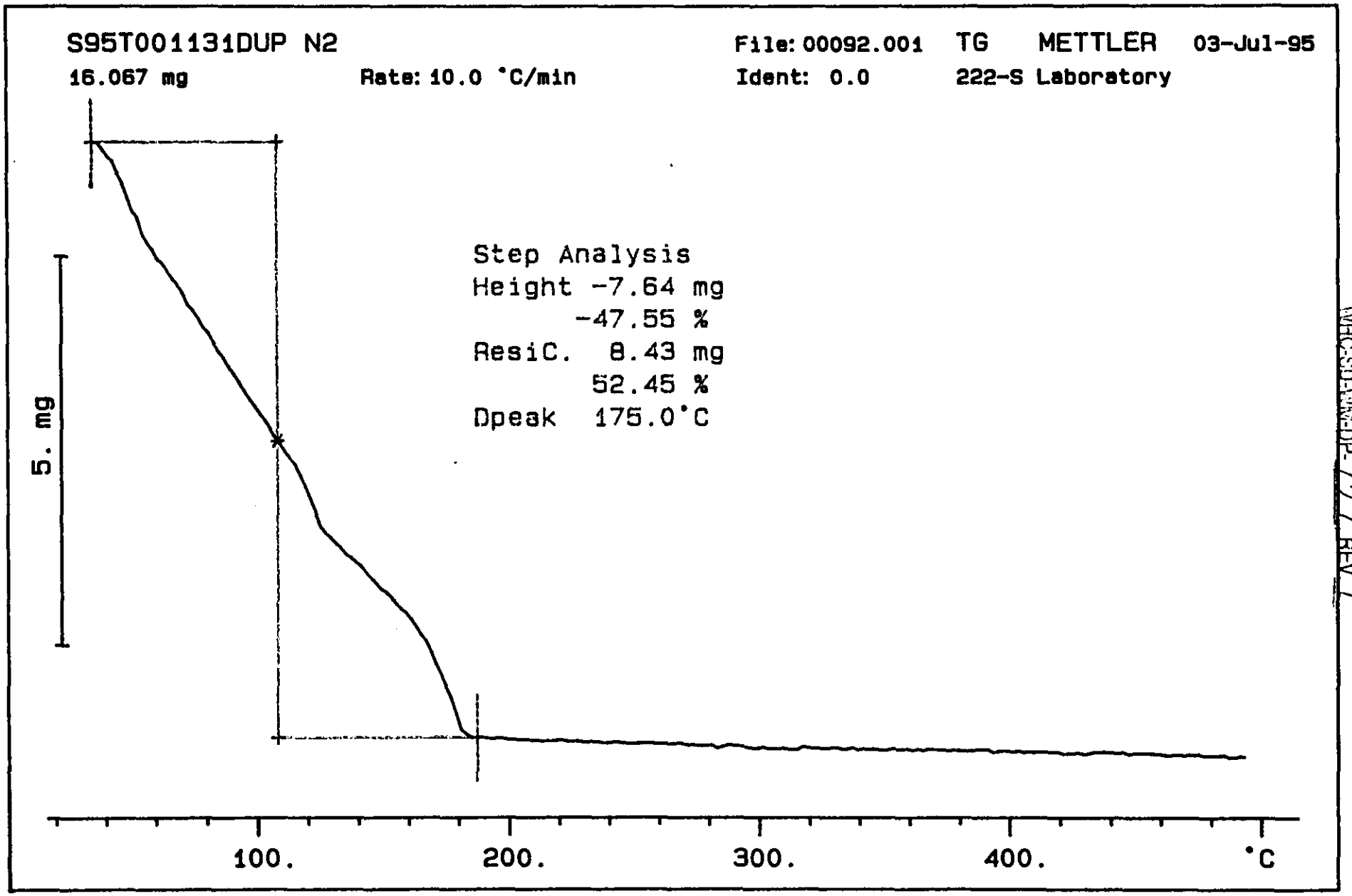

S95T001130 N2
23.908 mg
Rate: 10.0 °C/min
File: 00086.001
TG METTLER 03-Jul-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height-11.46 mg
-47.93 %
ResiC. 12.45 mg
52.07 %
Dpeak 123.0°C
5. mg
100.
200.
300.
400.
°C



WHC-SD-WM-DP-131, REV. 1



WHC-SD-WM-DP-131, REV. 1



WHC-SD-WM-DP-137 REV 1

LABCORE Data Entry Template for Worklist# 1674

Analyst: RWKCown **Instrument:** TGA0 1 **Book #** 42U8A

Method: LA-560-112 Rev/Mod A2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID	59.19	58.49	N/A	%
95000088	B-104	2	SAMPLE	S95T001136	0		TGA-01	SOLID	N/A	46.97		%
95000088	B-104	3	DUP	S95T001136	0		TGA-01	SOLID	46.97	47.23	N/A	%
95000088	B-104	4	SAMPLE	S95T001137	0		TGA-01	SOLID	N/A	48.17		%
95000088	B-104	5	DUP	S95T001137	0		TGA-01	SOLID	48.17	48.24	N/A	%

Final page for worklist # 1674

RWKCown 7/4/95
Analyst Signature Date

Gary Hemmer 7-11-95
Analyst Signature Date

Verified by Blandina Valenzuela (7-13-95)

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TGA STD 42N8A

20.240 mg

Rate: 10.0 °C/min

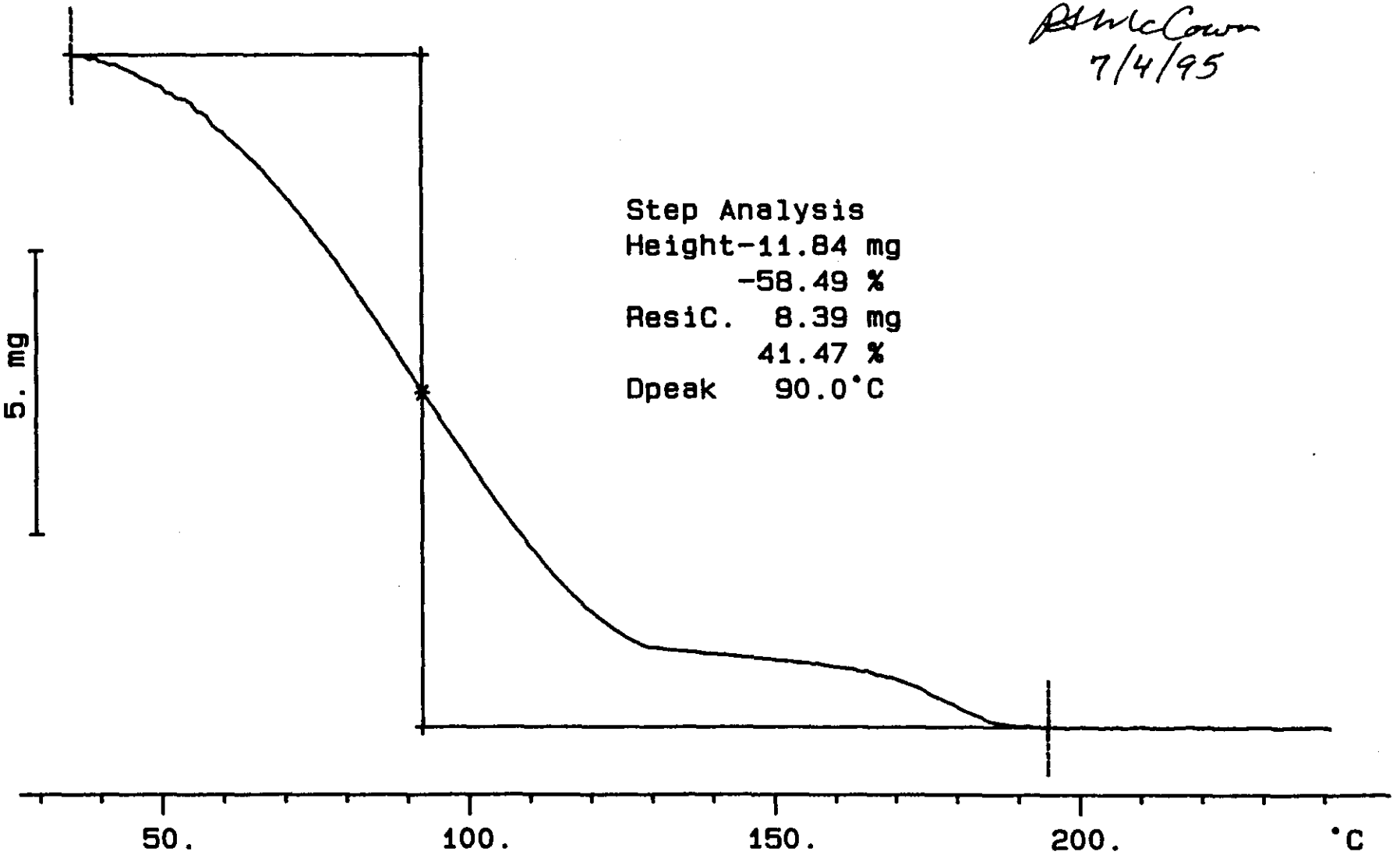
File: 00094.001

Ident: 0.0

TG METTLER 04-Jul-95

222-S Laboratory

A H McCown
7/4/95



WHC-SD-WM-DP-121, REV. 1

S95T001136 DUP N2

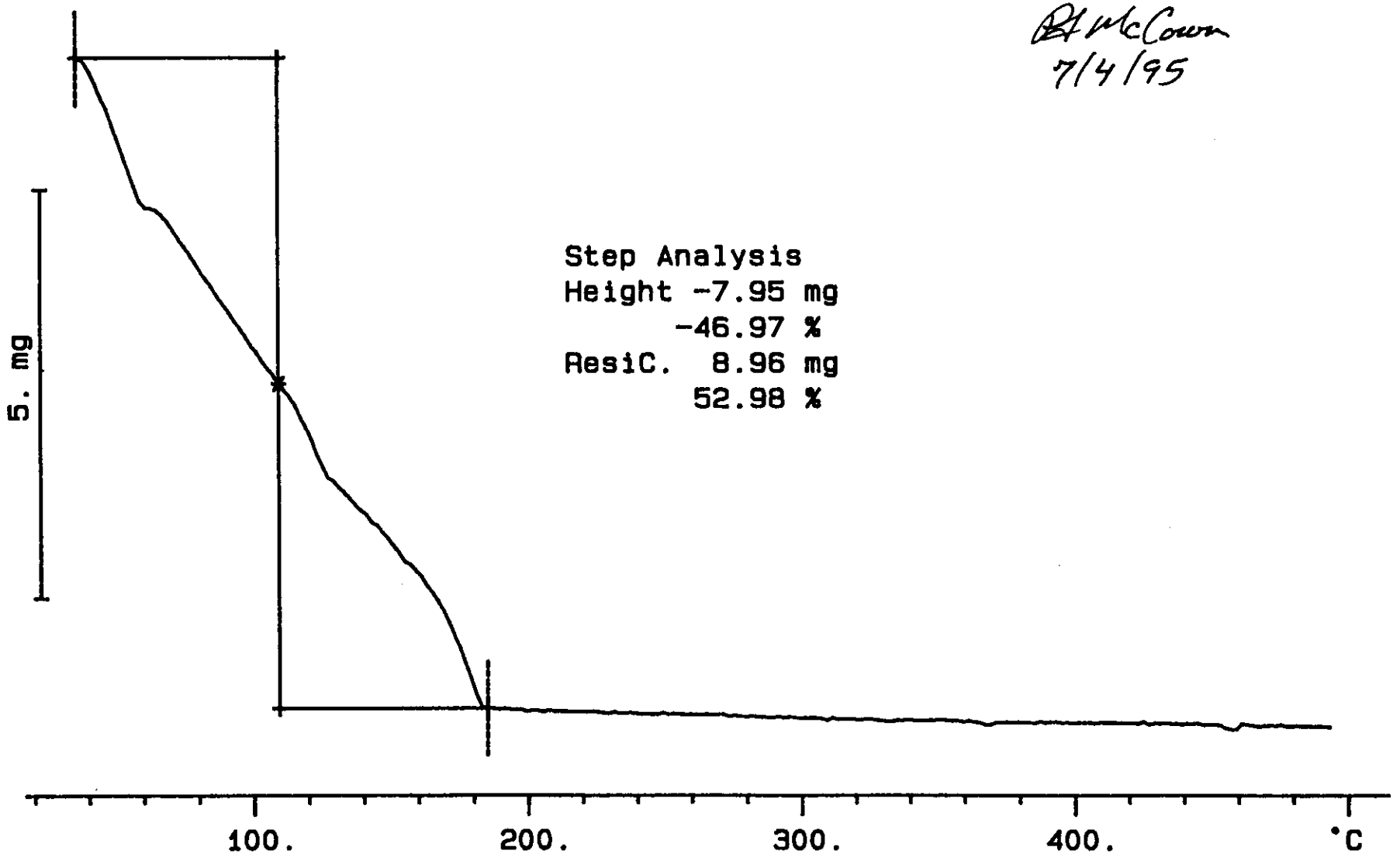
16.916 mg

Rate: 10.0 °C/min

File: 00098.001 TG METTLER 04-Jul-95

Ident: 0.0 222-S Laboratory

RH McCown
7/4/95



Step Analysis
Height -7.95 mg
-46.97 %
ResiC. 8.96 mg
52.98 %

WHC-SD-WM-DP-137, REV. 1

S95T001136 N2

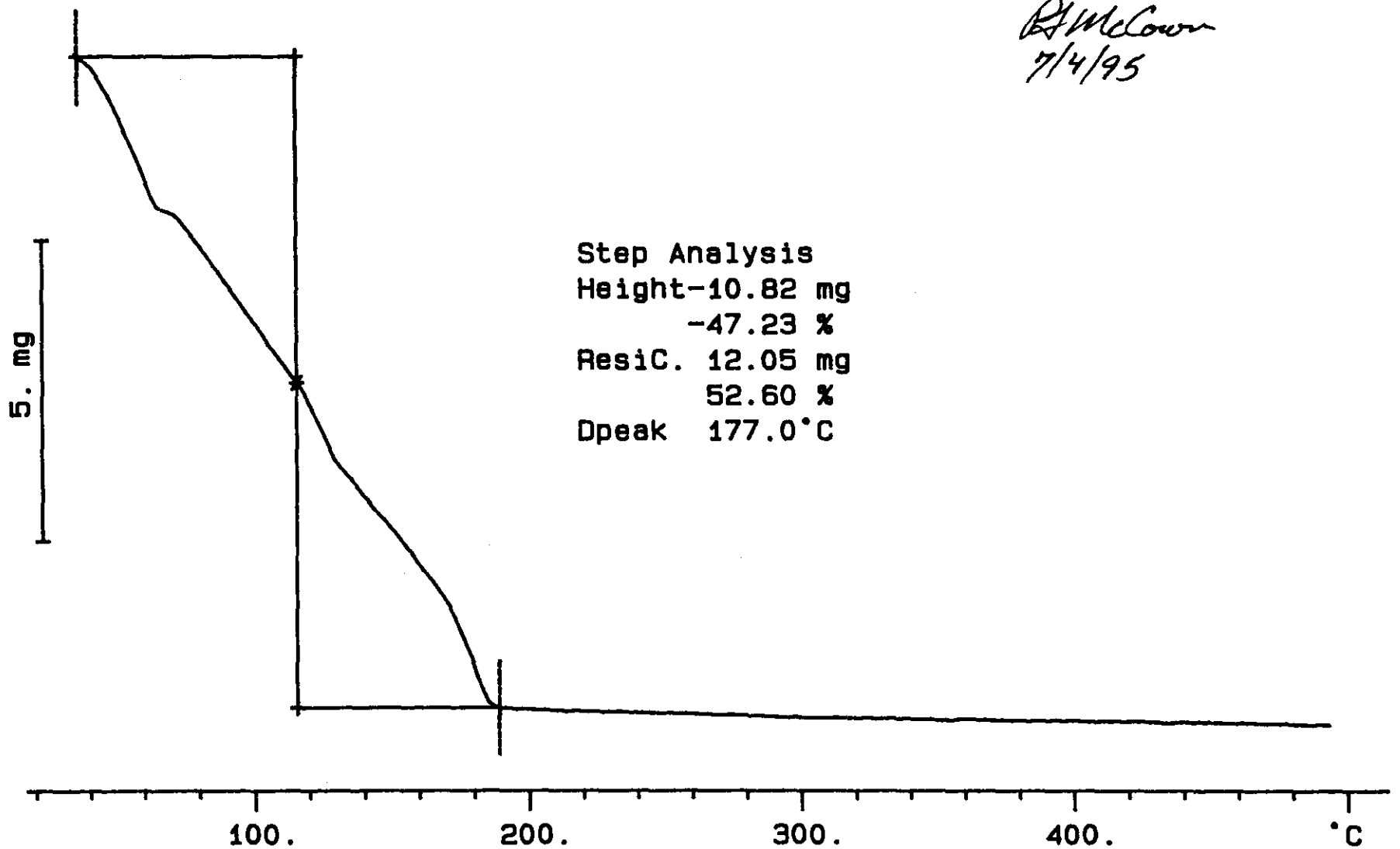
22.905 mg

Rate: 10.0 °C/min

File: 00096.001 TG METTLER 04-Jul-95

Ident: 0.0 222-S Laboratory

RJ McCown
7/4/95



Step Analysis
Height -10.82 mg
-47.23 %
ResiC. 12.05 mg
52.60 %
Dpeak 177.0°C

WHC-SD-WM-DP-137, REV. 1

S95T001137 N2

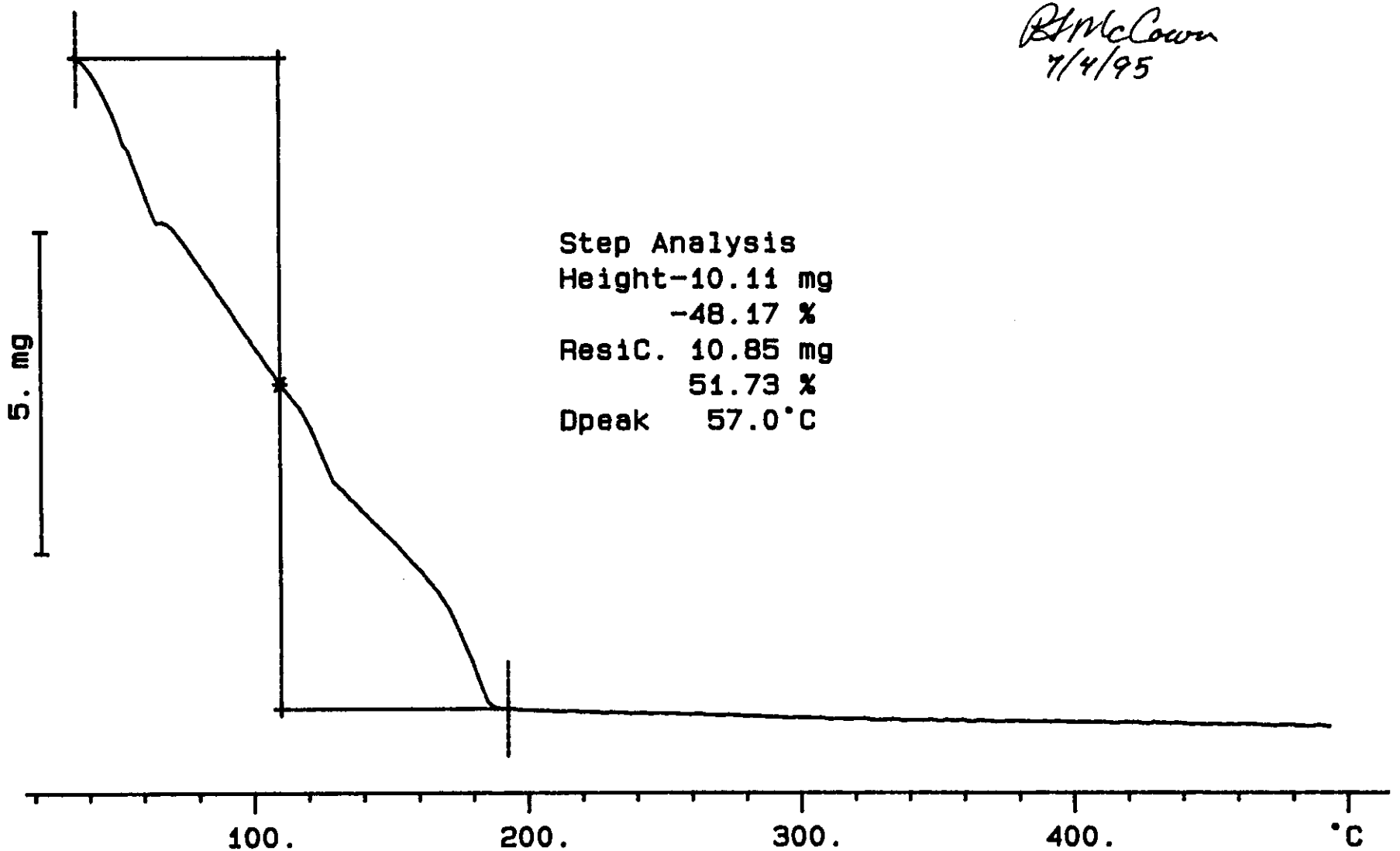
20.980 mg

Rate: 10.0 °C/min

File: 00100.001 TG METTLER 04-Jul-95

Ident: 0.0 222-S Laboratory

BHMcCown
7/4/95



Step Analysis
Height-10.11 mg
-48.17 %
ResiC. 10.85 mg
51.73 %
Dpeak 57.0°C

WHC-SD-WM-DP-137, REV. 1

S95T001137 DUP N2

16.177 mg

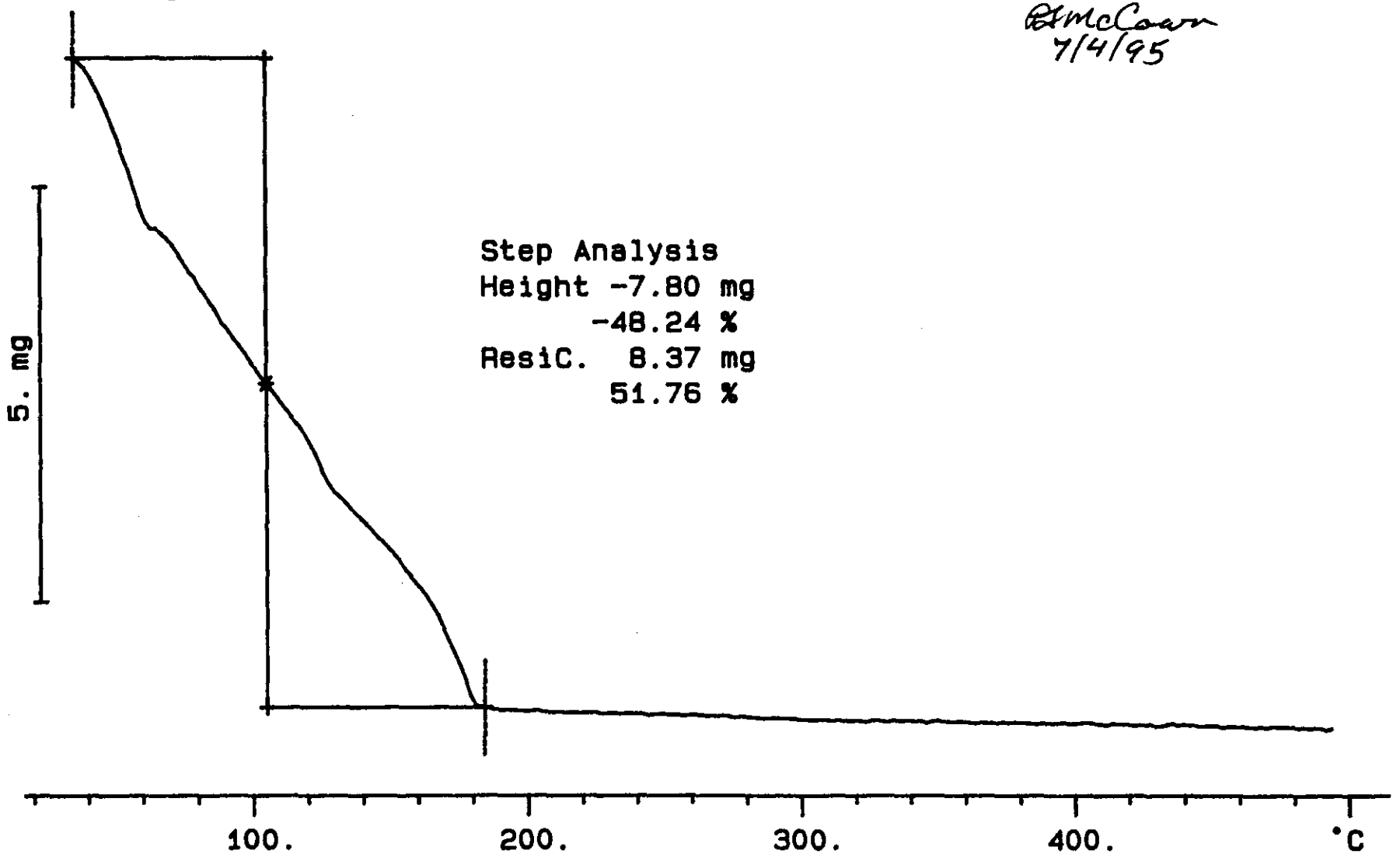
Rate: 10.0 °C/min

File: 00102.001 TG METTLER 04-Jul-95

Ident: 0.0

222-S Laboratory

RHMcCann
7/4/95



WHC-SD-WM-DP-131, REV. 1

LABCORE Data Entry Template for Worklist# 1676

Analyst: SMF **Instrument:** TGA0 1 **Book #** 65N8-A

Method: LA-560-112 Rev/Mod A-2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID	59.74	60.23	N/A	%
95000088	B-104	2	SAMPLE	S95T001142	0		TGA-01	SOLID	N/A	47.12		%
95000088	B-104	3	DUP	S95T001142	0		TGA-01	SOLID	47.12	47.40	N/A	%
		4	STD				TGA-01	SOLID	59.74	~~61.04~~ 60.60 7-19-95 BDV	N/A	%
95000088	B-104	5	SAMPLE	S95T001143	0		TGA-01	SOLID	N/A	49.80		%
95000088	B-104	6	DUP	S95T001143	0		TGA-01	SOLID	49.80	49.08	N/A	%

Final page for worklist # 1676

See attached for signatures 7-10-95 BDV
Analyst Signature Date

7-19-95
Analyst Signature Date

Verified by Blandina D. Valenzuela 7-19-95

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1676

Analyst: SMF **Instrument:** TGA0 1 **Book #** 65N8-A

Method: LA-560-112 Rev/Mod A-2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID	59.74	60.23	N/A	%
95000088	B-104	2	SAMPLE	S95T001142	0		TGA-01	SOLID	N/A	47.12		%
95000088	B-104	3	DUP	S95T001142	0		TGA-01	SOLID	47.12	47.40	N/A	%
95000088	B-104	4	SAMPLE	S95T001143	0		TGA-01	SOLID	N/A			%
95000088	B-104	5	DUP	S95T001143	0		TGA-01	SOLID			N/A	%

Final page for worklist # 1676

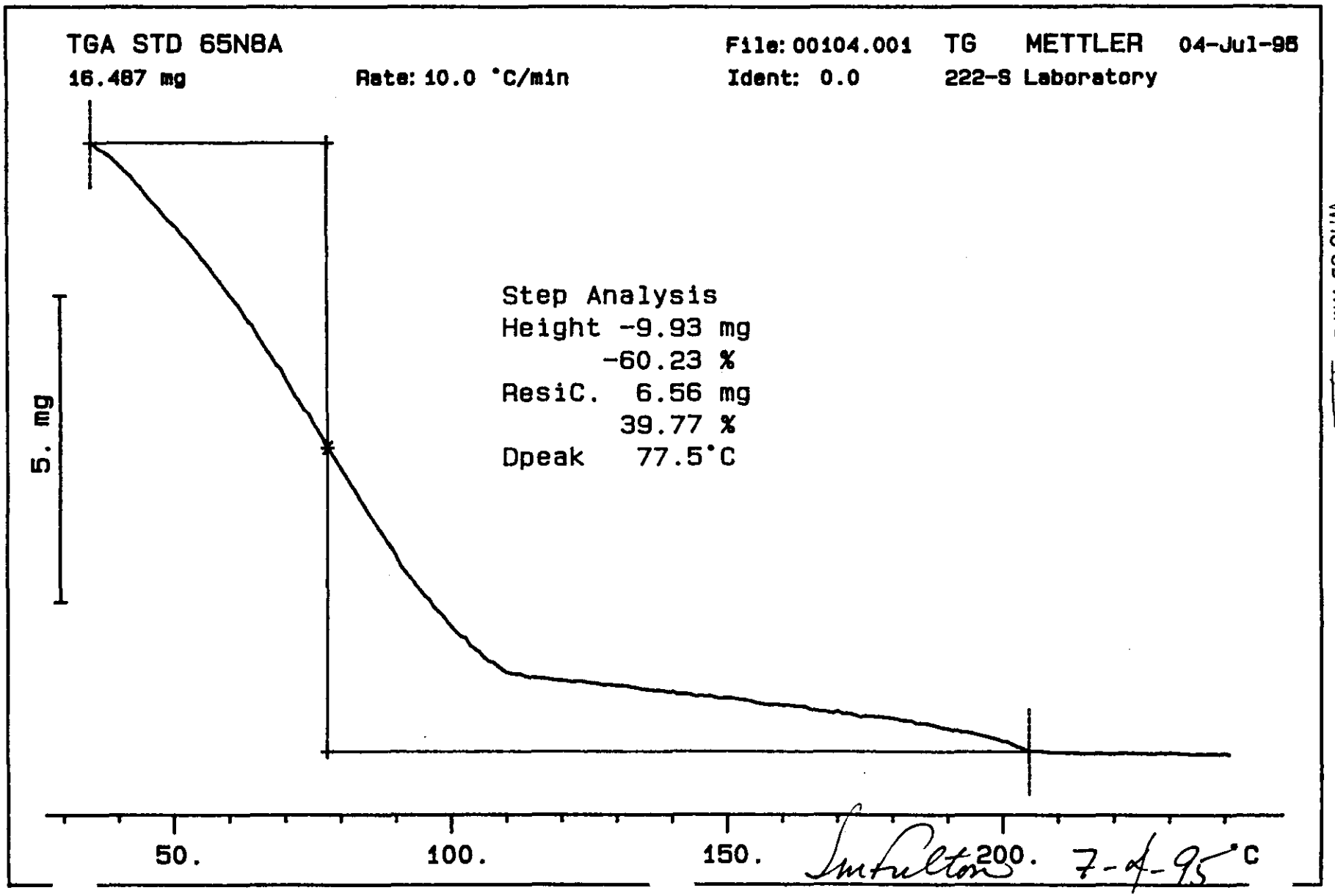
S M Fulton 7-8-95

Analyst Signature **Date** **Analyst Signature** **Date**

Data Entry Comments: A standard needed to be added to the batch.

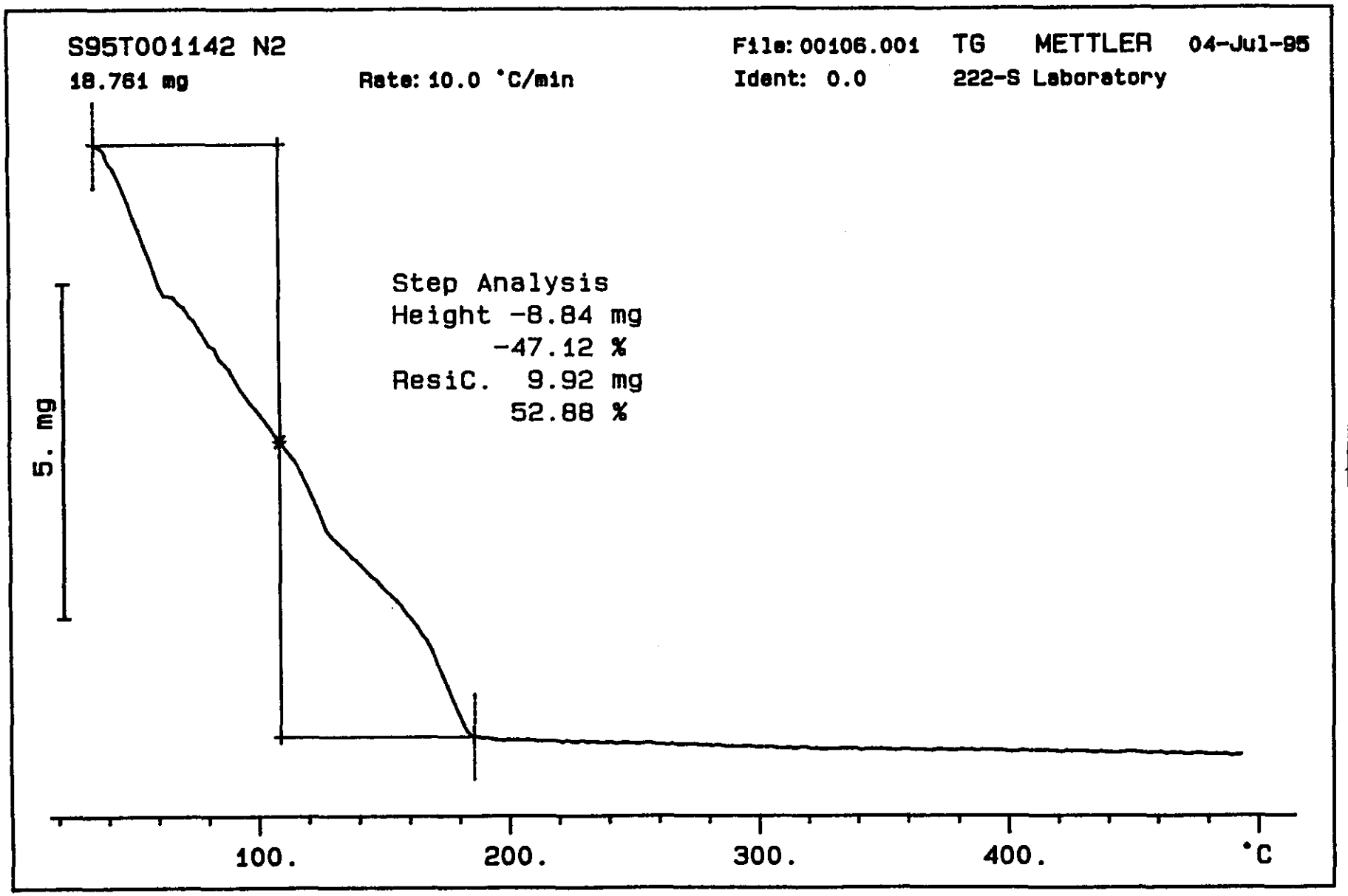
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

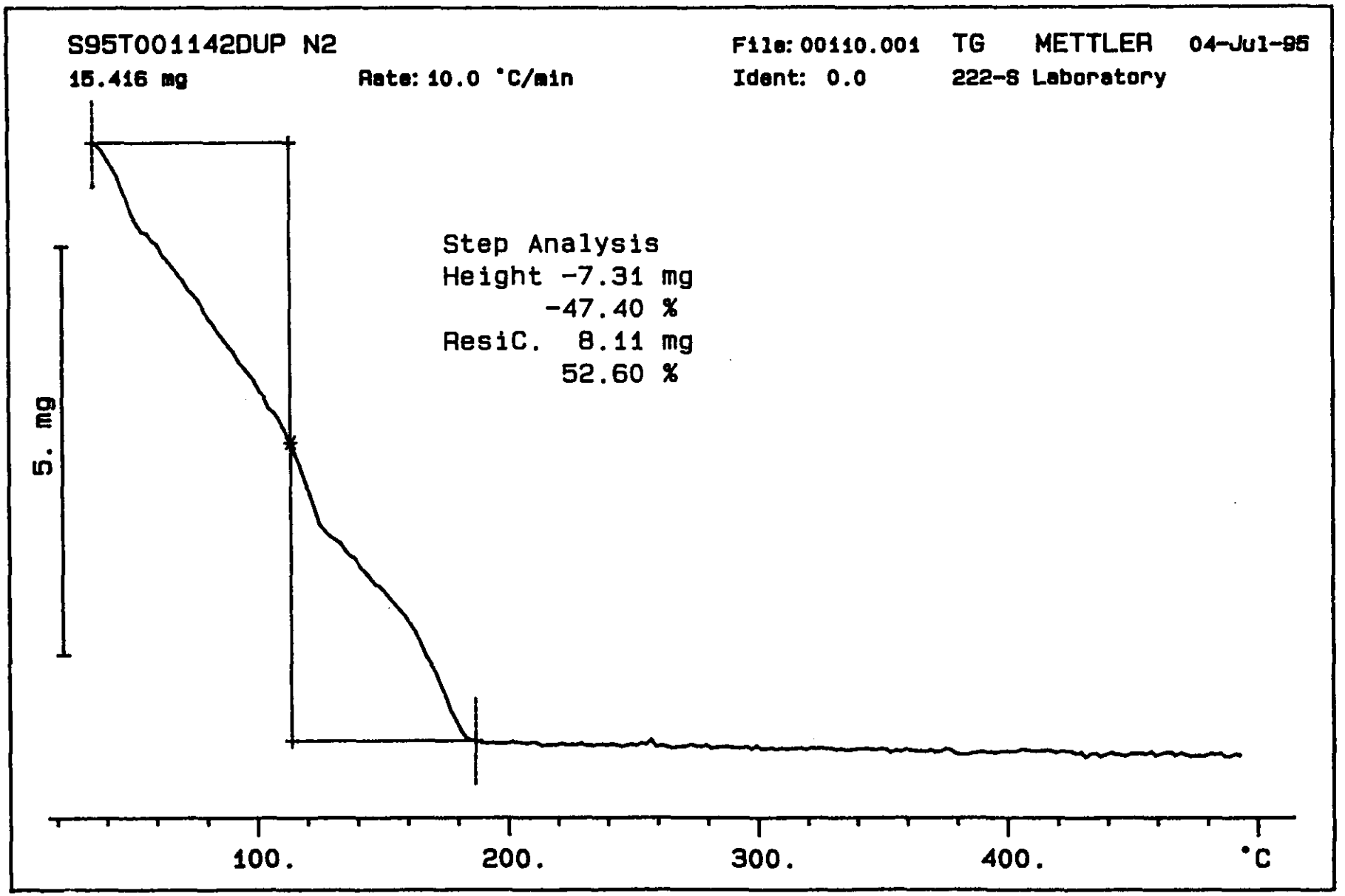
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1082 TO 1087.

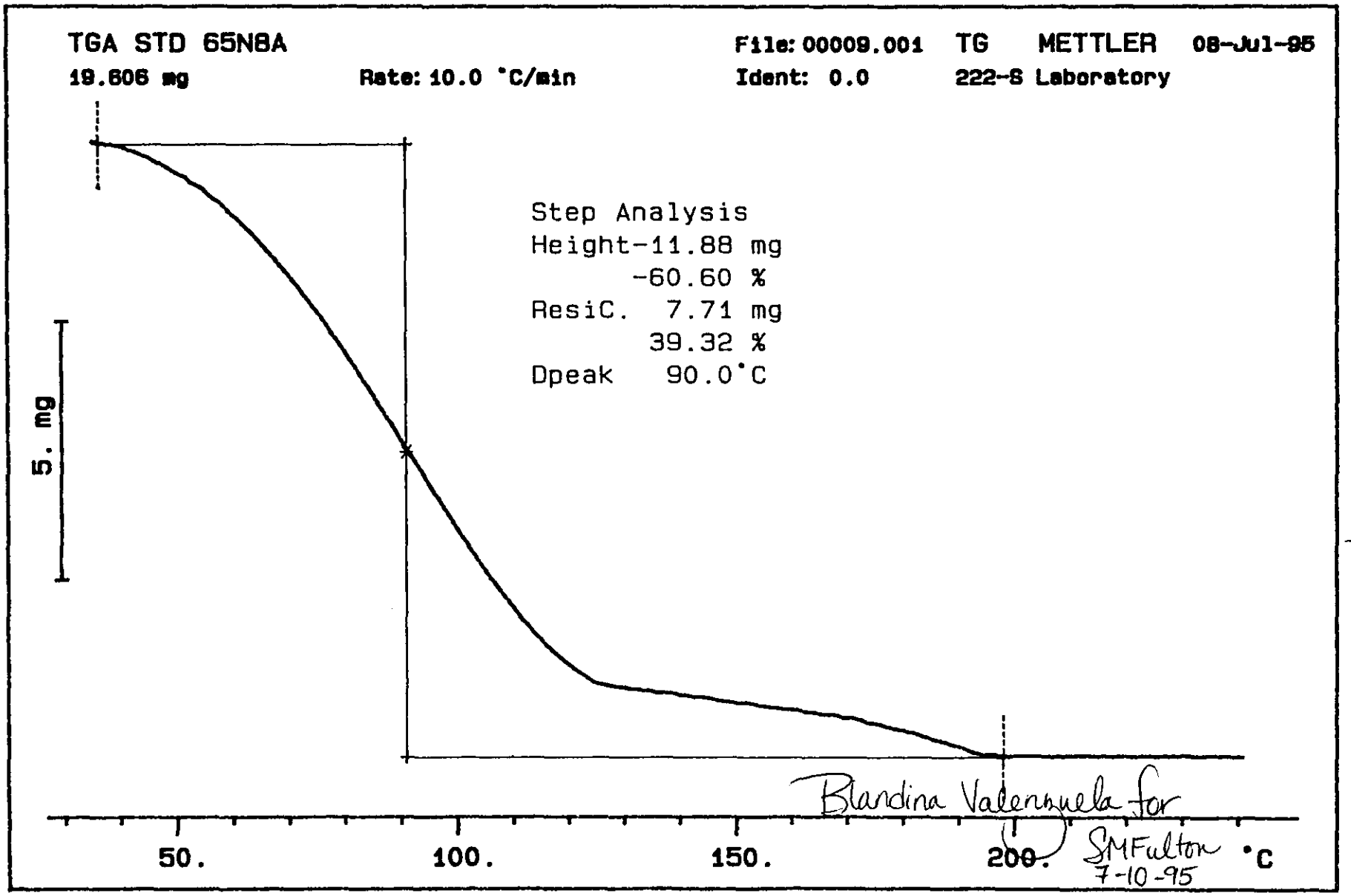


7-4-95

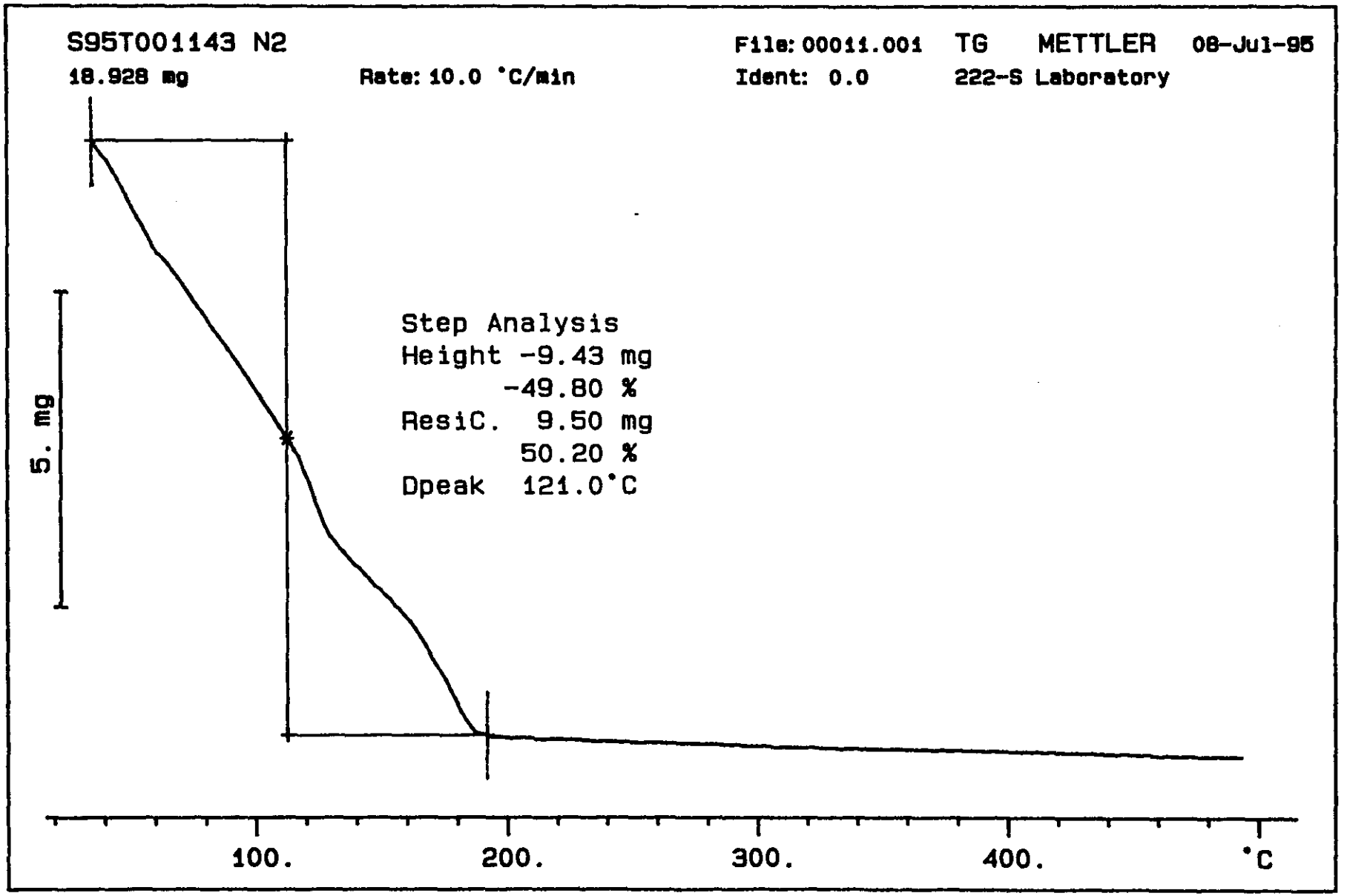
WHC-SD-WM-DP-131, REV. 1


S95T001142 N2
18.761 mg
Rate: 10.0 °C/min
File: 00106.001
TG METTLER 04-Jul-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -8.84 mg
-47.12 %
ResiC. 9.92 mg
52.88 %
5. mg
100.
200.
300.
400.
°C

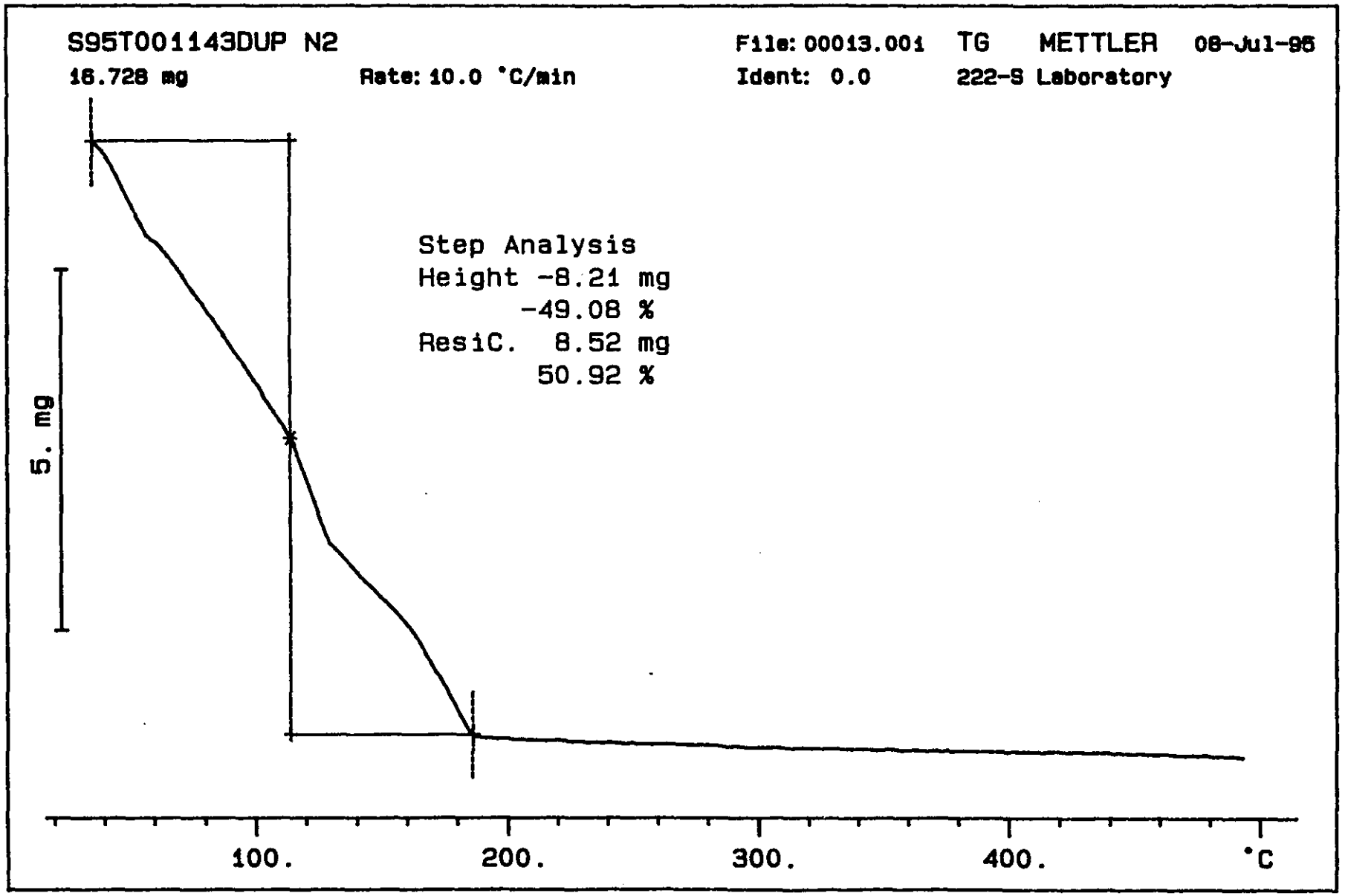

S95T001142DUP N2
15.416 mg
Rate: 10.0 °C/min
File: 00110.001
TG METTLER 04-Jul-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -7.31 mg
-47.40 %
ResiC. 8.11 mg
52.60 %
5. mg
100.
200.
300.
400.
°C



WHC-SD-WM-DP-131, REV. 1



WHC-SD-WM-DP-121, REV. 1



WHC-SD-WM-DP-131, REV. 1

LABCORE Data Entry Template for Worklist# 1677

Analyst: RDM **Instrument:** TGA0 1 **Book #** 65N8A

Method: LA-560-112 Rev/Mod A-2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID	59.74	65.20	N/A	%
95000088	B-104	2	SAMPLE	S95T001148	0		TGA-01	SOLID	N/A	50.27		%
95000088	B-104	3	DUP	S95T001148	0		TGA-01	SOLID	50.27	48.02	N/A	%
95000088	B-104	4	SAMPLE	S95T001149	0		TGA-01	SOLID	N/A	46.98		%
95000088	B-104	5	DUP	S95T001149	0		TGA-01	SOLID	46.98	47.07	N/A	%

Final page for worklist # 1677

RDMayn 7/6/95
Analyst Signature Date

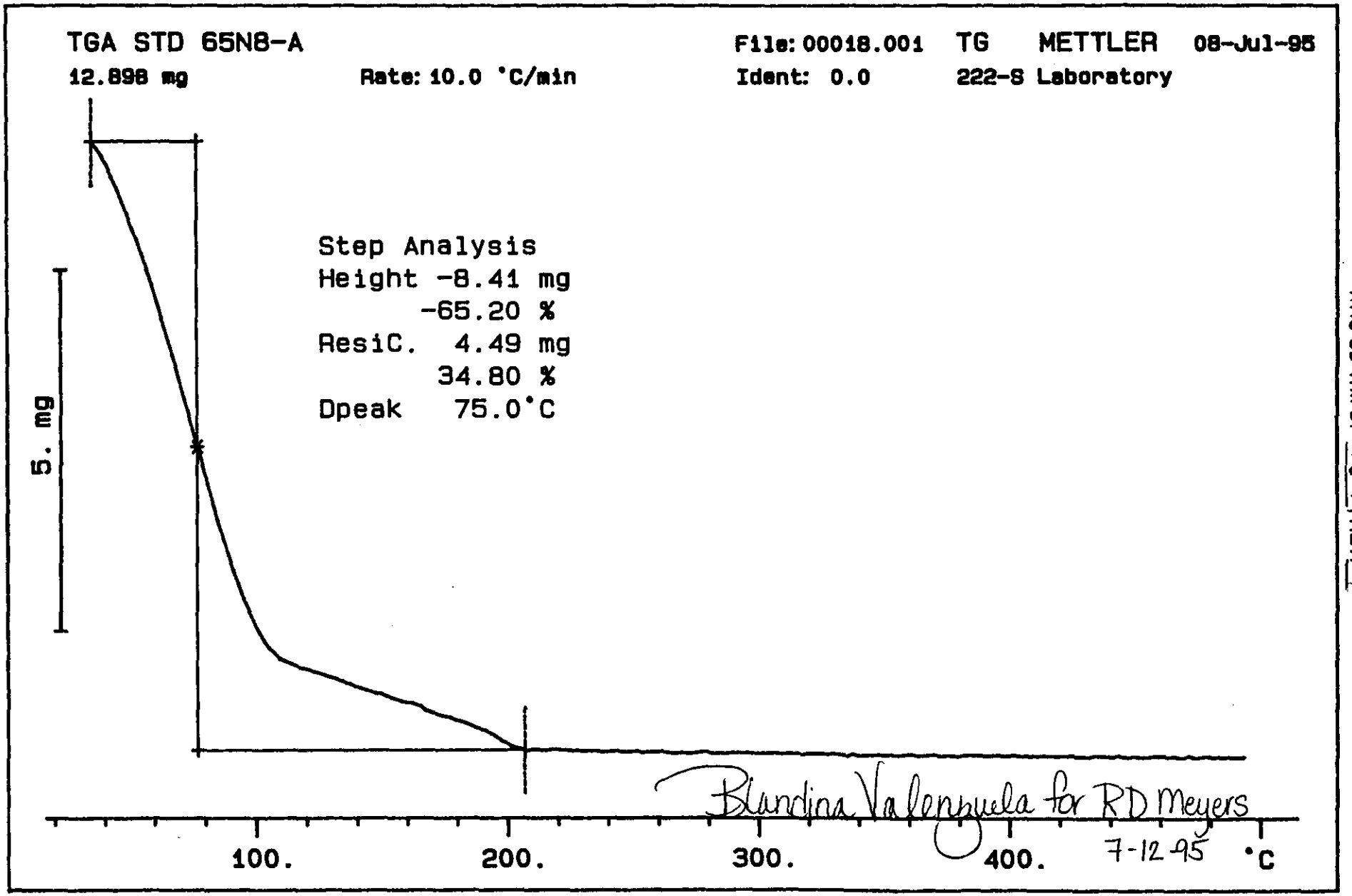
Analyst Signature 7-8-95
Date

Verified by Blandina Valenzuela
(7-12-95)

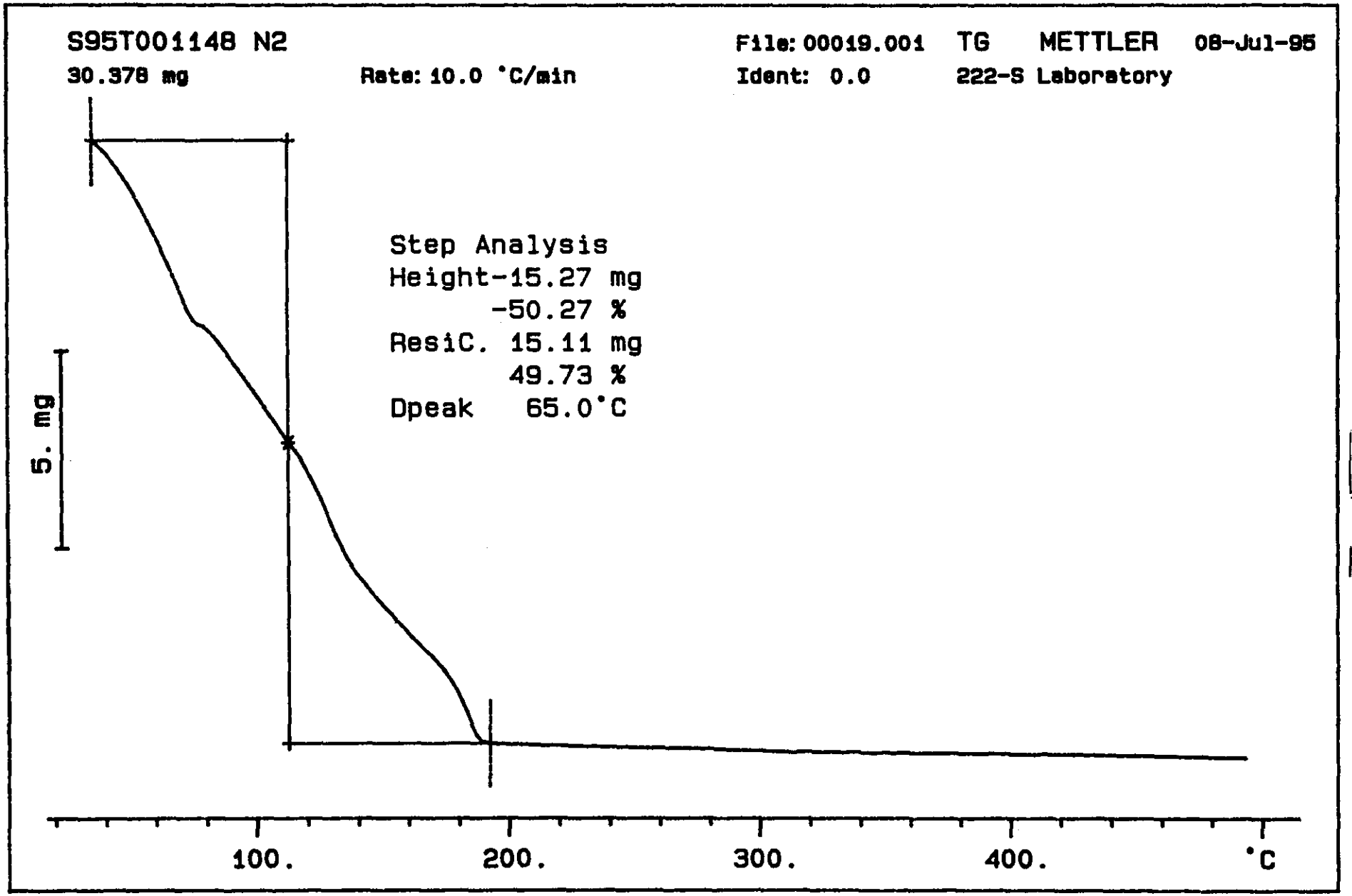
Data Entry Comments: S95T001149 has a small peak which was produced by a person closing the door to hard.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

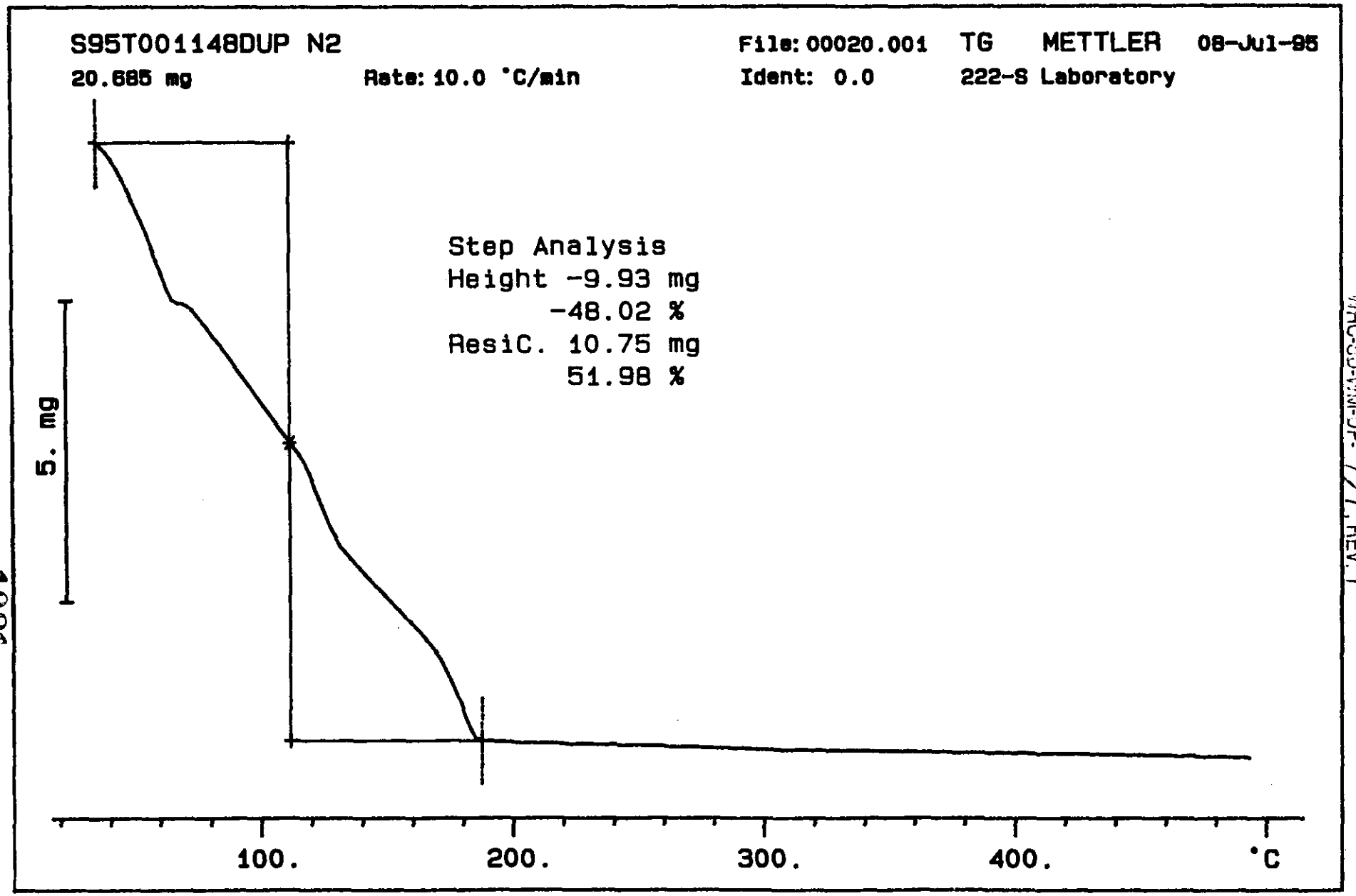
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1089 TO 1093.

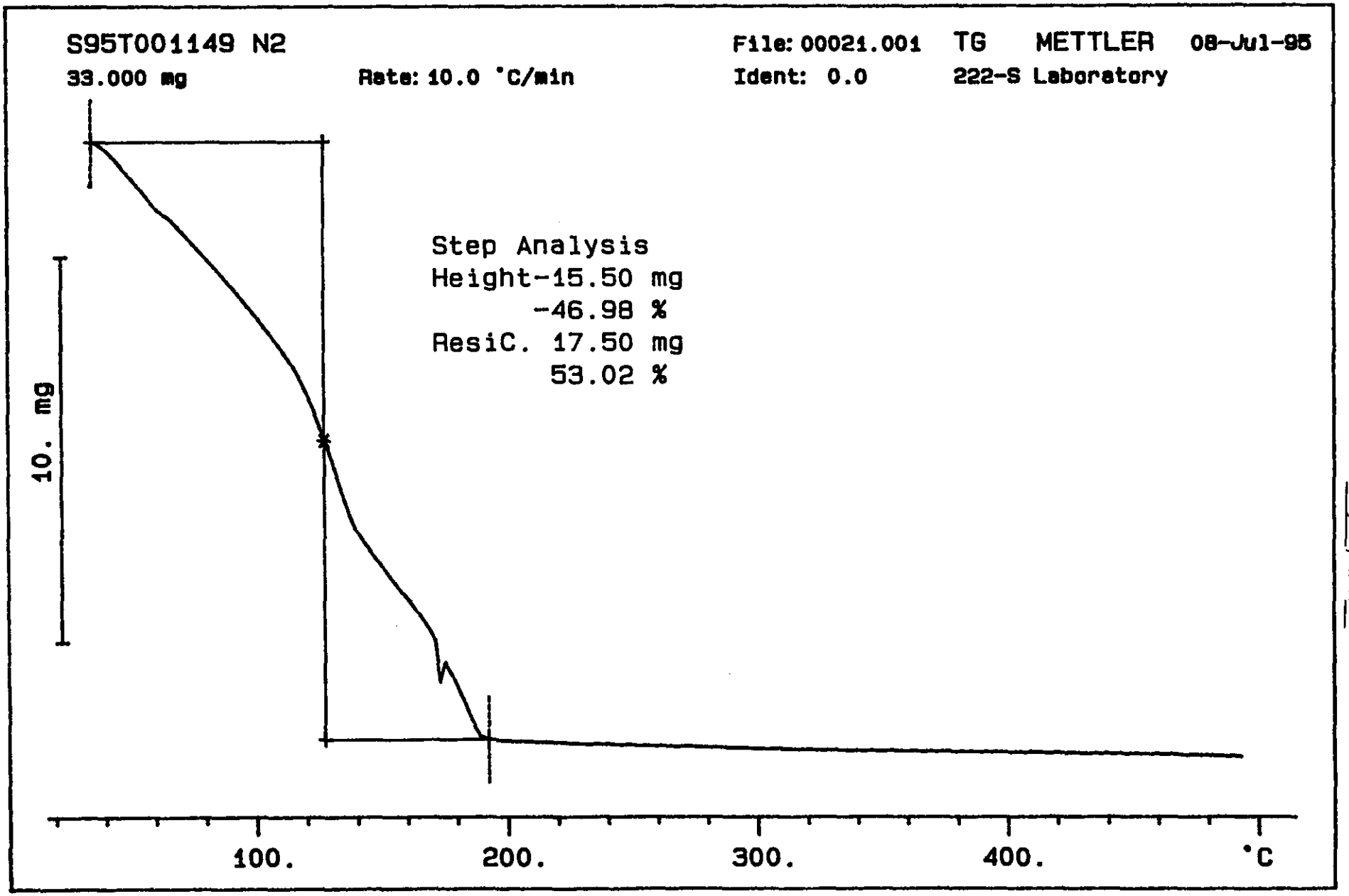


Blandina Valenzuela for RD Meyers 7-12-95

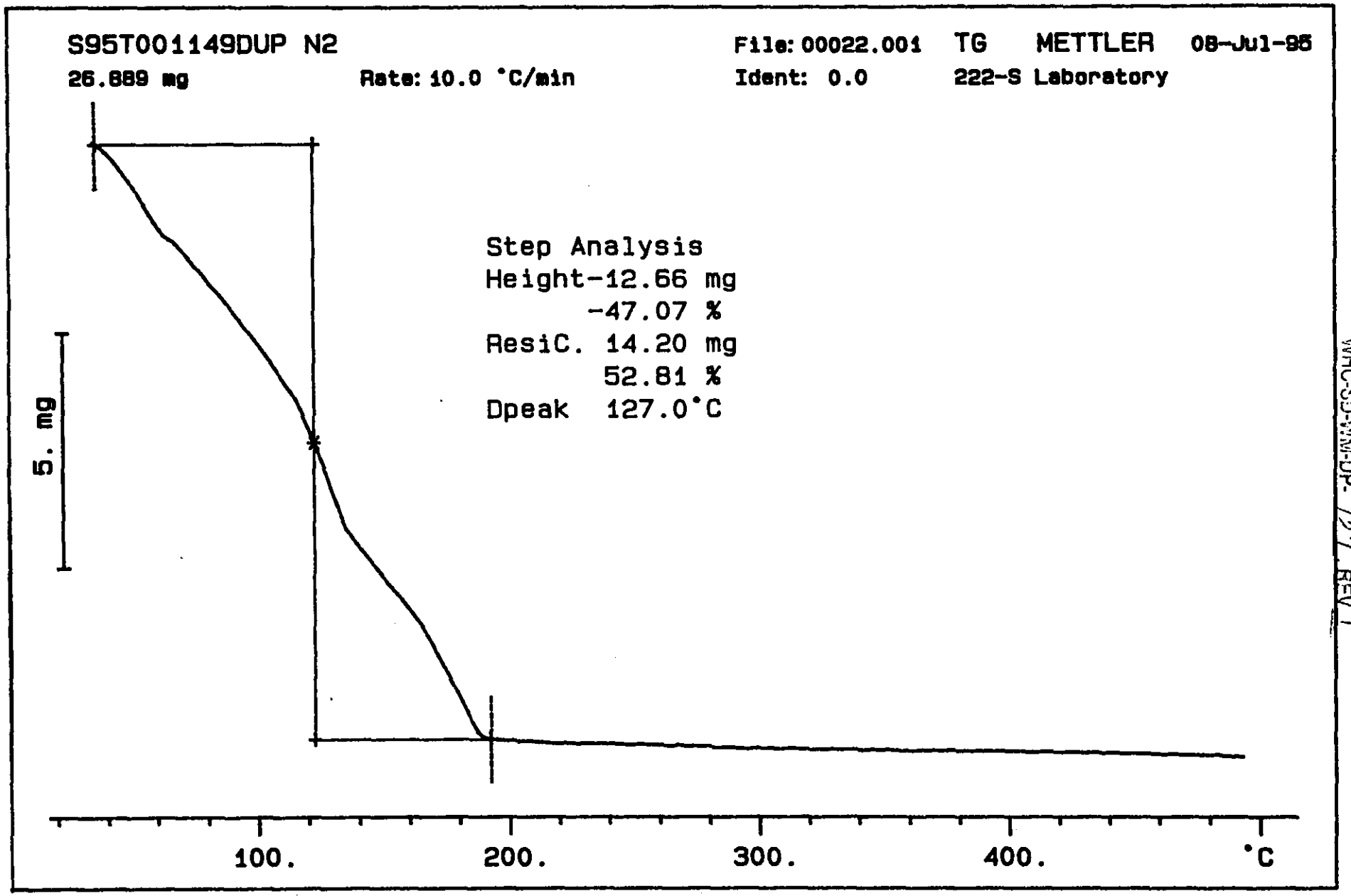


WHC-SD-WM-DP-137 REV. 1


S95T001148DUP N2
20.685 mg
Rate: 10.0 °C/min
File: 00020.001
TG METTLER 08-Jul-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -9.93 mg
-48.02 %
ResiC. 10.75 mg
51.98 %
5. mg
100.
200.
300.
400.
°C



WHC-SD-WM-DP-131, REV. 1



WHC-SD-WM-DP- 137 REV 1

LABCORE Data Entry Template for Worklist# 1678

Analyst: SMF **Instrument:** TGA0 1 **Book #** 65N8-A

Method: LA-560-112 Rev/Mod A-2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID	59.74	61.28	N/A	%
95000088	B-104	2	SAMPLE	S95T001154	0		TGA-01	SOLID	N/A	47.88		%
95000088	B-104	3	DUP	S95T001154	0		TGA-01	SOLID	47.88	47.82	N/A	%
		4	STD				TGA-01	SOLID	59.74	60.99	N/A	%
95000088	B-104	5	SAMPLE	S95T001155	0		TGA-01	SOLID	N/A	46.62		%
95000088	B-104	6	DUP	S95T001155	0		TGA-01	SOLID	46.62	46.56	N/A	%

Final page for worklist # 1678

See attached for signatures
Analyst Signature Date 7-12-95

[signature] 7-11-95
Analyst Signature Date

Verified by Blandina Valenzuela (7-13-95)

Data Entry Comments: Both samples are a mustard yellow thin sludge with a clear yellow liquid on top.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 1678

Analyst: SMF **Instrument:** TGA0 _____ **Book #** 65N8-A

Method: LA-560-112 Rev/Mod A-2

Worklist Comment: Please run B-104 TGAs under N2. bdv

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				TGA-01	SOLID			N/A	%
95000088	B-104	2	SAMPLE	S95T001154	0		TGA-01	SOLID	N/A			%
95000088	B-104	3	DUP	S95T001154	0		TGA-01	SOLID			N/A	%
95000088	B-104	4	SAMPLE	S95T001155	0		TGA-01	SOLID	N/A			%
95000088	B-104	5	DUP	S95T001155	0		TGA-01	SOLID			N/A	%

Final page for worklist # 1678

SMFulton 7-1-95

Analyst Signature Date

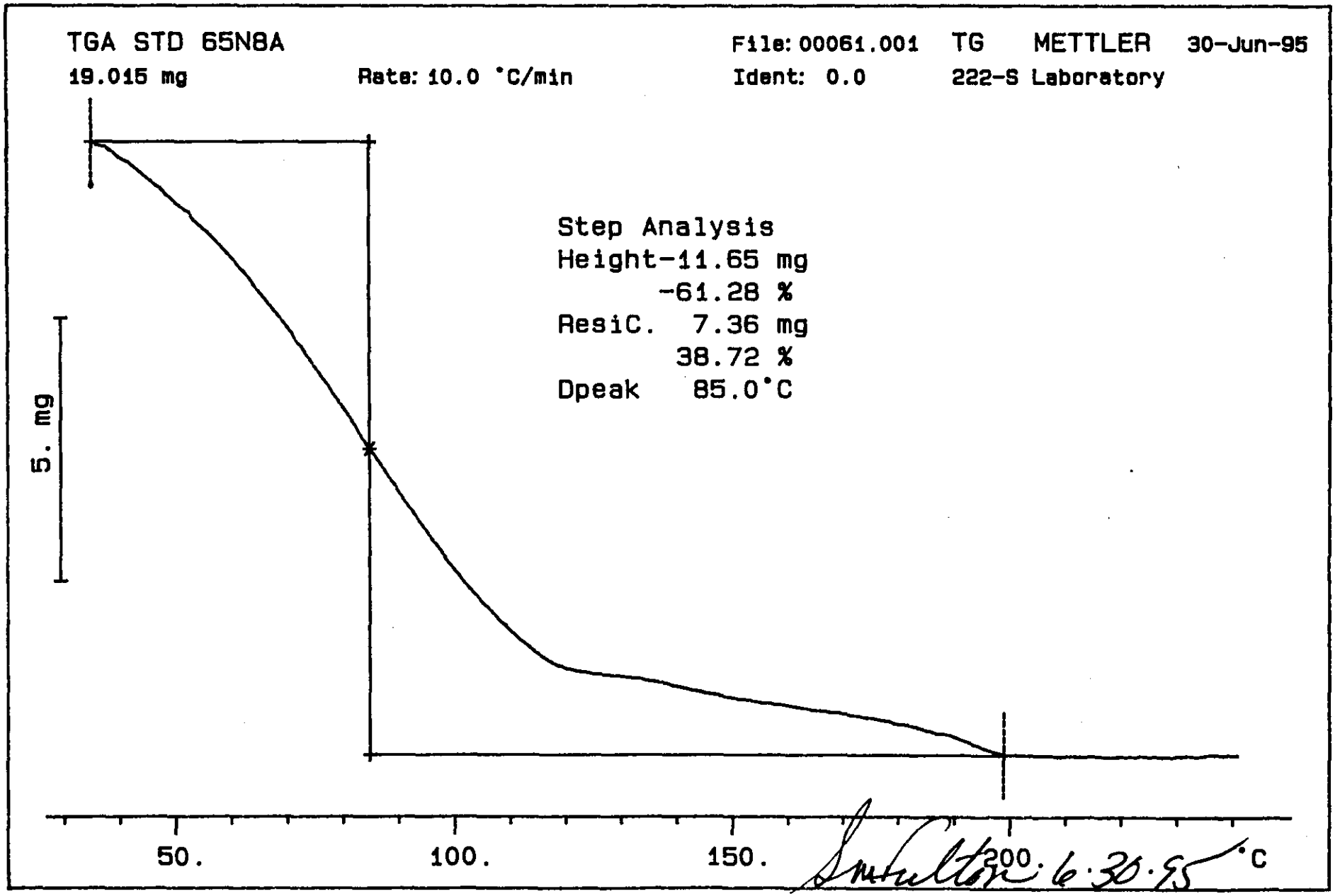
Analyst Signature Date

Data Entry Comments:

Both samples are a Mustard yellow thin sludge (clear yellow liquid on top)

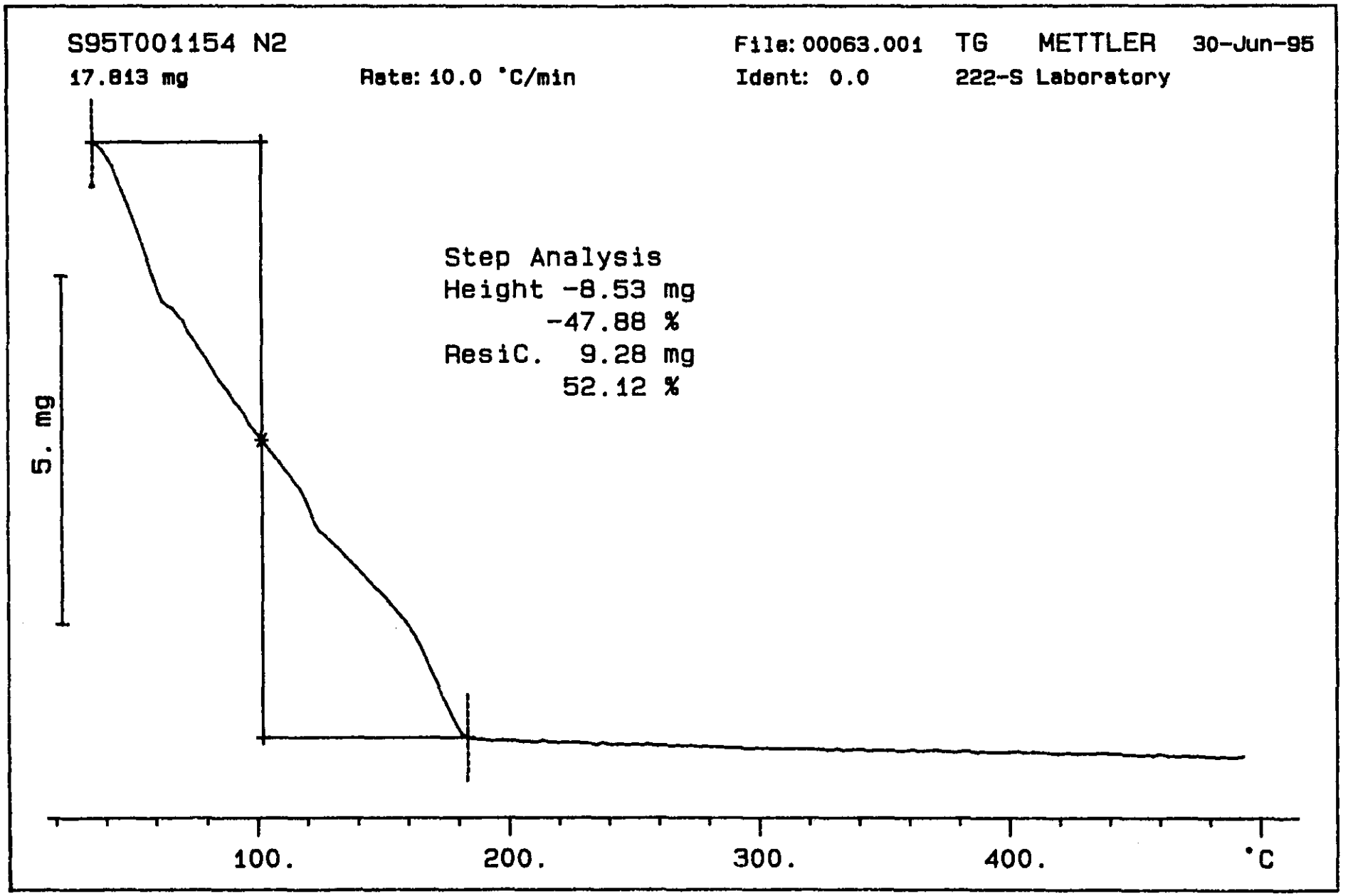
Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

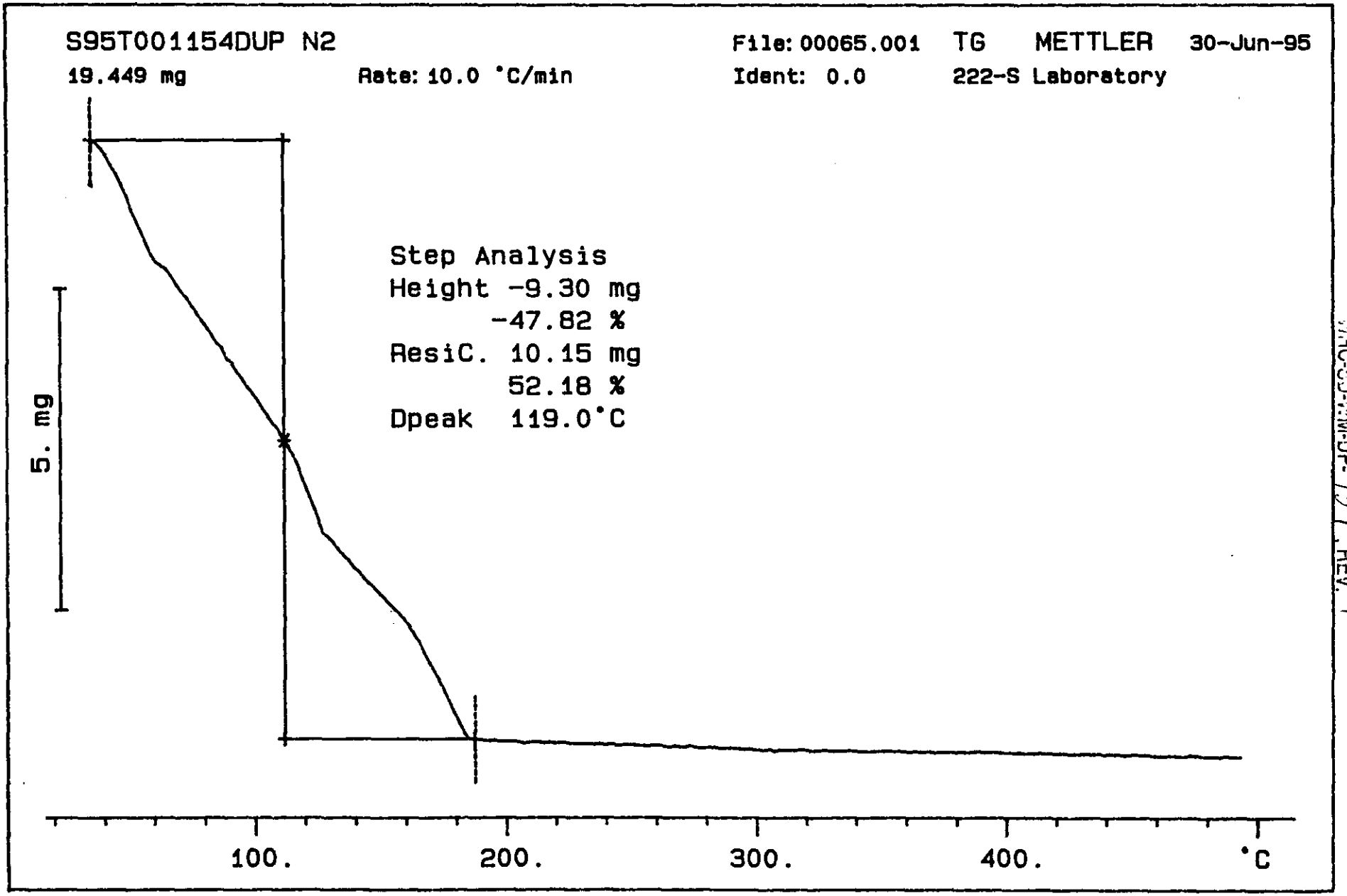
SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1096 TO 1101.



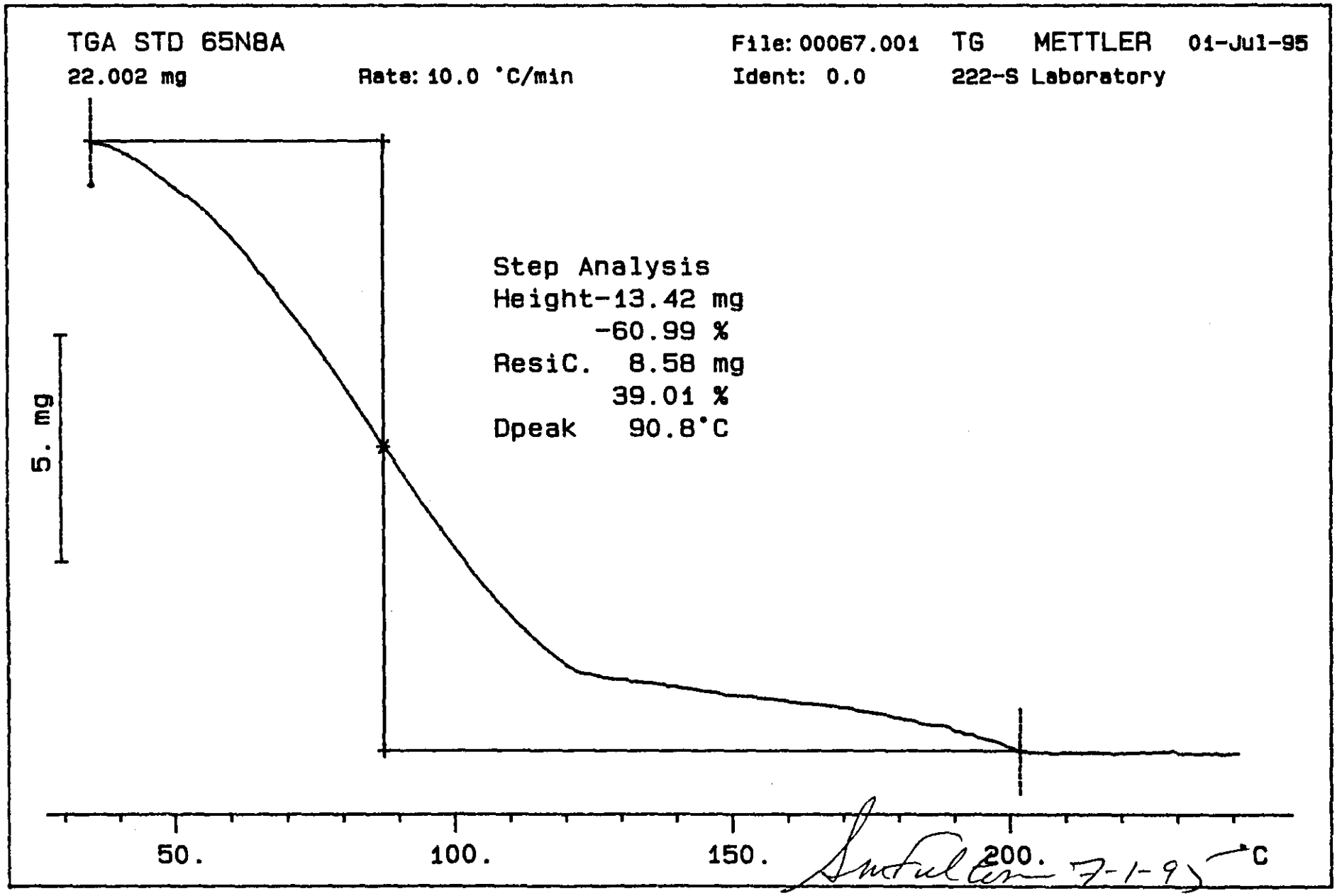
Smulton 6·30·95

WHC-SD-WM-DP-131, REV. 1


S95T001154 N2
17.813 mg
Rate: 10.0 °C/min
File: 00063.001
TG METTLER 30-Jun-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -8.53 mg
-47.88 %
ResiC. 9.28 mg
52.12 %
5. mg
100.
200.
300.
400.
°C

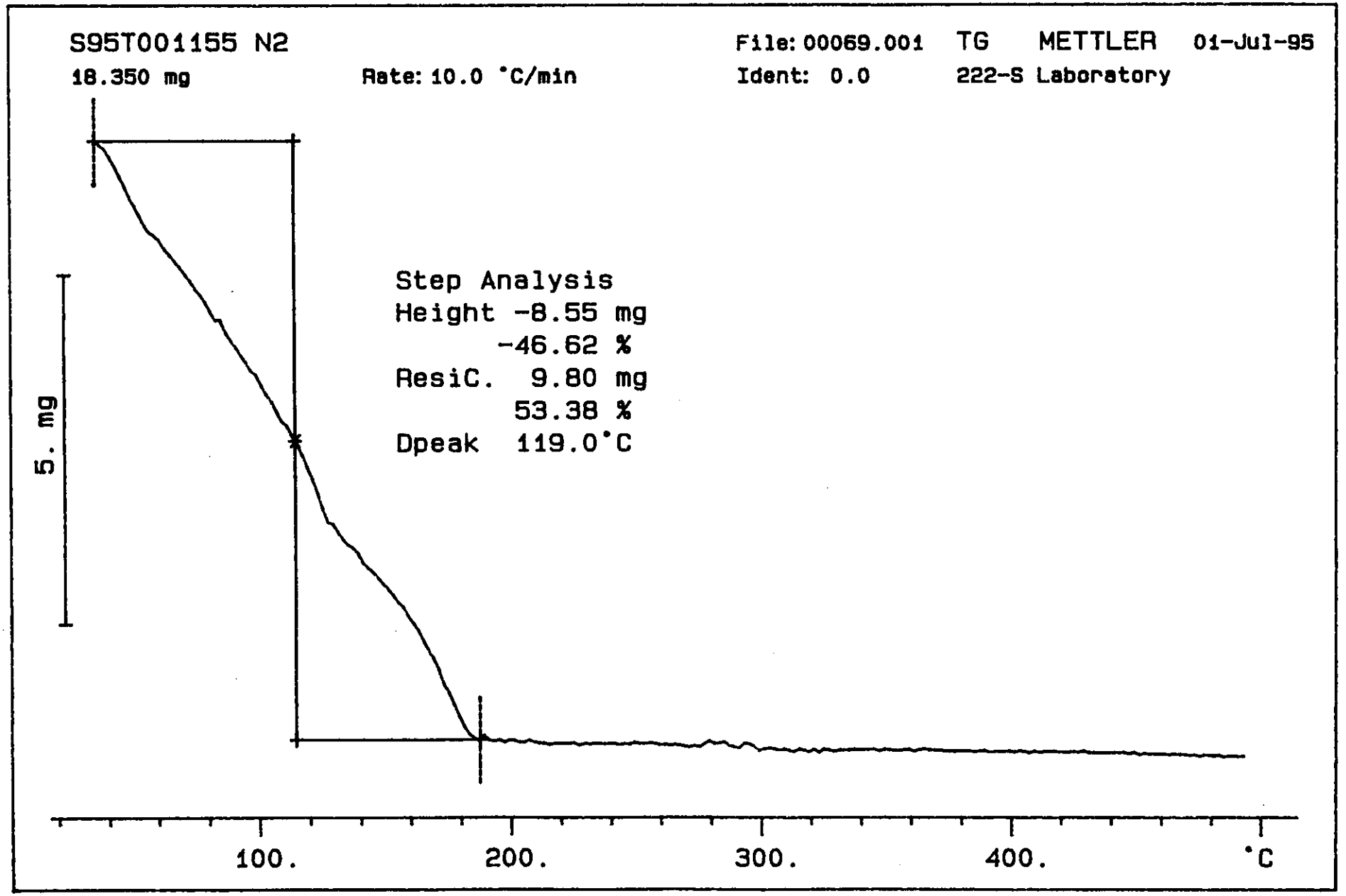


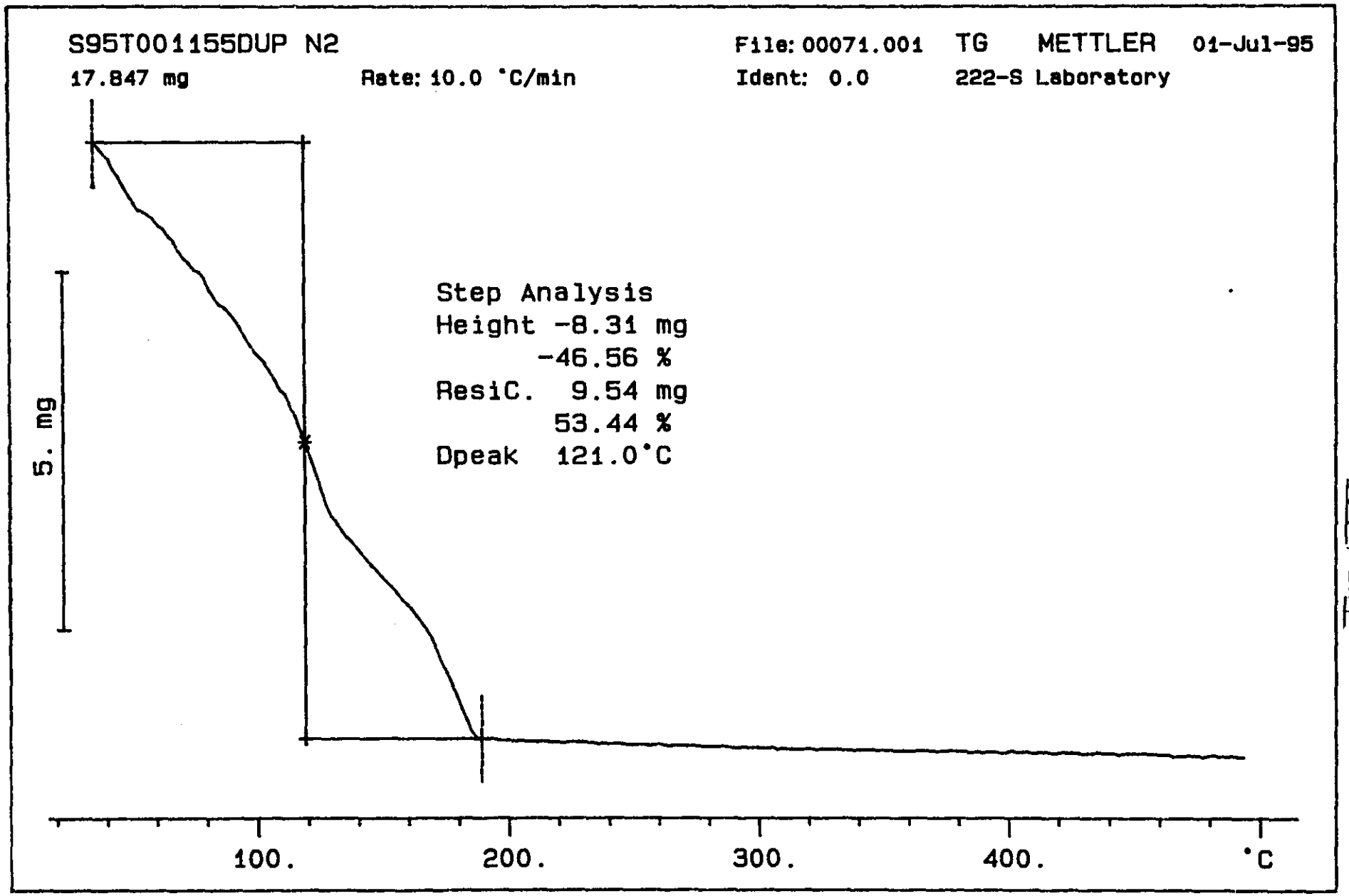
WHC-SD-WM-DP-137, REV. 1



7-1-95

WHC-SD-WM-DP-131, REV. 1


S95T001155 N2
18.350 mg
Rate: 10.0 °C/min
File: 00069.001
TG
METTLER
01-Jul-95
Ident: 0.0
222-S Laboratory
Step Analysis
Height -8.55 mg
-46.62 %
ResiC. 9.80 mg
53.38 %
Dpeak 119.0°C
5. mg
100.
200.
300.
400.
°C



WHC-SD-WM-DP-131, REV. 1

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