PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

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PL I.D. **008056**

RECEIVED 2000

November 1, 2000

NMED HWB
2044 A Galisteo Street
Santa Fe, NM 87505

Project Name/Number: VIVEASH SEDIMENT HWB.8.10.00.CG(CGF)

Attention: John Young

On **08/11/00**, Pinnacle Laboratories Inc., (ADHS License No. AZ0592 pending), received a request to analyze **sediment** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

This report is being reissued in part to include a new format, which provides detection limits for metals and wet chemistry data. We apologize for the inconvenience this may have caused.

Radiological chemistry analyses were performed by Enviro-Test Laboratories, LLC. Casper, WY.

Dioxin/Furans analyses were performed by Triangle Laboratories, Inc., Charlotte, NC.

All other analyses were performed by ATEL, Melmore and Marion, OH.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

H. Mitchell Rubenstein, Ph.D.
General Manager

MR:jt

Enclosure

4114

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS (REPRINT) -

Client #: T0608
Pinnacle Labs, Inc.
2709-D Pan-American Freeway, NE
Albuquerque,, NM 87107-

Attn: Mitch Rubenstein

Report Date: *24-Oct-00*
Original Report Date: 06-Sep-00

Phone: (505) 344-3777 **Ext:**
FAX: (505) 344-4413

Our Lab #: MAR00-21921
Date Logged-In: 8/24/00
Matrix: Soil
Project #:

Your Sample ID: 008056-01 UV 01
Sample Source: Other/Undefined
Client Project #:
PO#: 008056
Date Submitted to Lab: 8/22/2000

- COLLECTION INFORMATION -

Date/Time/By: 8/24/00 9:45 AM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
AL-ICP-S	6010B	Aluminum, Al	10700 (11)	MG/KG	8/23/00	BLD	22307
BA-ICP-S	6010B	Barium, Ba	205 (1)	MG/KG	8/23/00	BLD	22307
BE-ICP-S	6010B	Beryllium, Be	ND (1)	MG/KG	8/23/00	BLD	22307
CA-ICP-S	6010B	Calcium, Ca	8750 (11)	MG/KG	8/23/00	BLD	22307
CR-ICP-S	6010B	Chromium, Cr	21 (2)	MG/KG	8/23/00	BLD	22307
CO-ICP-S	6010B	Cobalt, Co	15 (2)	MG/KG	8/23/00	BLD	22307
CU-ICP-S	6010B	Copper, Cu	17 (3)	MG/KG	8/23/00	BLD	22307
FE-ICP-S	6010B	Iron, Fe	15100 (5)	MG/KG	8/23/00	BLD	22307
PB-ICP-S	6010B	Lead, Pb	20 (6)	MG/KG	8/23/00	BLD	22307
MG-ICP-S	6010B	Magnesium, Mg	5900 (11)	MG/KG	8/23/00	BLD	22307
MN-ICP-S	6010B	Manganese, Mn	881 (1)	MG/KG	8/23/00	BLD	22307
HG-S	7471	Mercury, Hg	ND (0.09)	MG/KG	8/29/00	ROH	22384
NI-ICP-S	6010B	Nickel, Ni	61 (2)	MG/KG	8/23/00	BLD	22307
K-ICP-S	6010B	Potassium, K	2390 (230)	MG/KG	8/23/00	BLD	22307
SE-GFAA-S	7740	Selenium, Se	ND (1.6)	MG/KG	8/23/00	ROH	22338
AG-ICP-S	6010B	Silver, Ag	ND (2)	MG/KG	8/23/00	BLD	22307
NA-ICP-S	6010B	Sodium, Na	423 (46)	MG/KG	8/23/00	BLD	22307
V-ICP-S	6010B	Vanadium, V	22 (2)	MG/KG	8/23/00	BLD	22307
ZN-ICP-S	6010B	Zinc, Zn	59 (1)	MG/KG	8/23/00	BLD	22307
TS-%	160.3	Residue, Total, TS	65.8 (0.200)	%	8/23/00	TMB	22308
AS-MS-S	6020	Arsenic, As	3.1 (1.1)	MG/KG	8/23/00	KRG	22361

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS (REPRINT) -

UV 01

Lab Number MAR00-21921 -Continued from Previous Page

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
CD-MS-S	6020	Cadmium, Cd	ND (1.1)	MG/KG	8/23/00	KRG	22361
SB-MS-S	6020	Antimony, Sb	ND (0.6)	MG/KG	8/23/00	KRG	22362
TL-MS-S	200.8/6020	Thallium, Tl	ND (0.5)	MG/KG	8/23/00	KRG	22361
TAL Metals		TAL Metals List	()				0
LI-MS-S	6020	Lithium, Li	ND (26.32)	MG/KG	8/28/00	SMM	22369
SI-MS-S	200.8	Silicon, Si	252 (21.32)	MG/KG	8/23/00	KRG	22362
HCO3	SM2320B	Alkalinity, Bicarbonate (as CaCO3)	3340 (30)	MG/KG			0
CO3	SM2320B	Alkalinity, Carbonate (as CaCO3)	ND (30)	MG/KG			0
PO4	Calc.	Phosphorus, PO4	1141 (115)	MG/KG			0
PH-LAB	150.1/9040	pH, Lab	8.04 (1.00)	S.U.	8/25/00	MDO	22407
SR-MS-S	200.8/6020	Strontium, Sr	35 (2.7)	MG/KG	8/23/00	KRG	22362
CL-IC-S	300.0	Chloride, Cl	99 (81)	MG/KG	8/29/00	JEL	22411
CN-S	335.4/9012	Cyanide, Total, CN	1.73 (0.76)	MG/KG	8/30/00	KVS	22420
SO4-IC-S	300.0	Sulfate, SO4	ND (81)	MG/KG	8/29/00	JEL	22411
BR-IC-S	300.0	Bromide, Br	ND (1.6)	MG/KG	8/29/00	JEL	22411
TKN-S	351.2	Nitrogen, Total Kjeldahl, TKN	1750 (168)	MG/KG	8/29/00	JEL	22388
ALK	SM 2320B	Alkalinity, Total	3340 (30)	MG/KG	8/28/00	RA/BSR	22377
NH3-S	350.1	Nitrogen, Ammonia, N	43.7 (0.8)	MG/KG	8/29/00	KVS	22398
F	SM 4500F-C	Fluoride, F, Dissolved	1.65 (1.62)	MG/KG	8/28/00	LGE	22363
TOC-S	9060	Carbon, Total Organic, TOC	27400 (1520)	MG/KG	8/28/00	DLQ	22393
NO3+NO2-S	353.2/9200	Nitrogen, Nitrate + Nitrite (as N)	1 (1)	MG/KG	8/28/00	JEL	22372
P-S	SM4500-P-E2	Phosphorus, P	372 (115)	MG/KG	8/28/00	RJA/BSR	22380

End of Report

Report Approved By: Deborah R Johnson

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS (REPRINT) -

Client #: T0608
Pinnacle Labs, Inc.
2709-D Pan-American Freeway, NE
Albuquerque,, NM 87107-

Attn: Mitch Rubenstein

Report Date: *24-Oct-00*
Original Report Date: 06-Sep-00

Phone: (505) 344-3777 **Ext:**
FAX: (505) 344-4413

Our Lab #: MAR00-21922
Date Logged-In: 8/24/00
Matrix: Soil
Project #:

Your Sample ID: 008056-02 UV 02
Sample Source: Other/Undefined
Client Project #:
PO#: 008056
Date Submitted to Lab: 8/22/2000

- COLLECTION INFORMATION -

Date/Time/By: 8/24/00 10:37 AM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
AL-ICP-S	6010B	Aluminum, Al	11900 (12)	MG/KG	8/23/00	BLD	22307
BA-ICP-S	6010B	Barium, Ba	257 (1)	MG/KG	8/23/00	BLD	22307
BE-ICP-S	6010B	Beryllium, Be	1 (1)	MG/KG	8/23/00	BLD	22307
CA-ICP-S	6010B	Calcium, Ca	12300 (12)	MG/KG	8/23/00	BLD	22307
CR-ICP-S	6010B	Chromium, Cr	23 (2)	MG/KG	8/23/00	BLD	22307
CO-ICP-S	6010B	Cobalt, Co	16 (2)	MG/KG	8/23/00	BLD	22307
CU-ICP-S	6010B	Copper, Cu	20 (3)	MG/KG	8/23/00	BLD	22307
FE-ICP-S	6010B	Iron, Fe	17000 (5)	MG/KG	8/23/00	BLD	22307
PB-ICP-S	6010B	Lead, Pb	27 (6)	MG/KG	8/23/00	BLD	22307
MG-ICP-S	6010B	Magnesium, Mg	6220 (12)	MG/KG	8/23/00	BLD	22307
MN-ICP-S	6010B	Manganese, Mn	1190 (1)	MG/KG	8/23/00	BLD	22307
HG-S	7471	Mercury, Hg	ND (0.06)	MG/KG	8/29/00	ROH	22384
NI-ICP-S	6010B	Nickel, Ni	63 (2)	MG/KG	8/23/00	BLD	22307
K-ICP-S	6010B	Potassium, K	2970 (230)	MG/KG	8/23/00	BLD	22307
SE-GFAA-S	7740	Selenium, Se	ND (1.9)	MG/KG	8/23/00	ROH	22338
AG-ICP-S	6010B	Silver, Ag	ND (2)	MG/KG	8/23/00	BLD	22307
NA-ICP-S	6010B	Sodium, Na	366 (46)	MG/KG	8/23/00	BLD	22307
V-ICP-S	6010B	Vanadium, V	25 (2)	MG/KG	8/23/00	BLD	22307
ZN-ICP-S	6010B	Zinc, Zn	73 (1)	MG/KG	8/23/00	BLD	22307
TS-%	160.3	Residue, Total, TS	60.6 (0.200)	%	8/23/00	TMB	22308
AS-MS-S	6020	Arsenic, As	3.4 (1.3)	MG/KG	8/23/00	KRG	22361

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS (REPRINT) -

UV 02

Lab Number MAR00-21922 -Continued from Previous Page

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
CD-MS-S	6020	Cadmium, Cd	ND (1.3)	MG/KG	8/23/00	KRG	22361
SB-MS-S	6020	Antimony, Sb	ND (0.6)	MG/KG	8/23/00	KRG	22362
TL-MS-S	200.8/6020	Thallium, Tl	ND (0.6)	MG/KG	8/23/00	KRG	22361
TAL Metals		TAL Metals List	()				0
LI-MS-S	6020	Lithium, Li	ND (35.09)	MG/KG	8/28/00	SMM	22369
SI-MS-S	200.8	Silicon, Si	346 (25.19)	MG/KG	8/23/00	KRG	22362
ALK	SM 2320B	Alkalinity, Total	6320 (33)	MG/KG	8/28/00	RA/BSR	22377
HCO3	SM2320B	Alkalinity, Bicarbonate (as CaCO3)	6320 (33)	MG/KG			0
CO3	SM2320B	Alkalinity, Carbonate (as CaCO3)	ND (33)	MG/KG			0
F	SM 4500F-C	Fluoride, F, Dissolved	ND (1.77)	MG/KG	8/28/00	LGE	22363
PO4	Calc.	Phosphorus, PO4	1527 (115)	MG/KG			0
PH-LAB	150.1/9040	pH, Lab	8.07 (1.00)	S.U.	8/25/00	MDO	22407
SR-MS-S	200.8/6020	Strontium, Sr	43 (3.1)	MG/KG	8/23/00	KRG	22362
CN-S	335.4/9012	Cyanide, Total, CN	1.87 (0.83)	MG/KG	8/30/00	KVS	22420
CL-IC-S	300.0	Chloride, Cl	106 (89)	MG/KG	8/29/00	JEL	22411
SO4-IC-S	300.0	Sulfate, SO4	ND (89)	MG/KG	8/29/00	JEL	22411
BR-IC-S	300.0	Bromide, Br	ND (1.8)	MG/KG	8/29/00	JEL	22411
TKN-S	351.2	Nitrogen, Total Kjeldahl, TKN	3050 (172)	MG/KG	8/29/00	JEL	22388
NH3-S	350.1	Nitrogen, Ammonia, N	79.5 (8.6)	MG/KG	8/29/00	KVS	22398
TOC-S	9060	Carbon, Total Organic, TOC	37100 (1650)	MG/KG	8/28/00	DLQ	22393
NO3+NO2-S	353.2/9200	Nitrogen, Nitrate + Nitrite (as N)	1 (1)	MG/KG	8/28/00	JEL	22372
P-S	SM4500-P-E2	Phosphorus, P	498 (115)	MG/KG	8/28/00	RJA/BSR	22380

End of Report

Report Approved By: Deborah K Johnson

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS (REPRINT) -

Client #: T0608
Pinnacle Labs, Inc.
2709-D Pan-American Freeway, NE
Albuquerque,, NM 87107-

Attn: Mitch Rubenstein

Report Date: *24-Oct-00*
Original Report Date: 06-Sep-00

Phone: (505) 344-3777 **Ext:**
FAX: (505) 344-4413

Our Lab #: MAR00-21923
Date Logged-In: 8/24/00
Matrix: Soil
Project #:

Your Sample ID: 008056-03 UV 03
Sample Source: Other/Undefined
Client Project #:
PO#: 008056
Date Submitted to Lab: 8/22/2000

- COLLECTION INFORMATION -

Date/Time/By: 8/24/00 10:50 AM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
AL-ICP-S	6010B	Aluminum, Al	11600 (12)	MG/KG	8/23/00	BLD	22307
BA-ICP-S	6010B	Barium, Ba	246 (1)	MG/KG	8/23/00	BLD	22307
BE-ICP-S	6010B	Beryllium, Be	1 (1)	MG/KG	8/23/00	BLD	22307
CA-ICP-S	6010B	Calcium, Ca	13500 (12)	MG/KG	8/23/00	BLD	22307
CR-ICP-S	6010B	Chromium, Cr	21 (2)	MG/KG	8/23/00	BLD	22307
CO-ICP-S	6010B	Cobalt, Co	14 (2)	MG/KG	8/23/00	BLD	22307
CU-ICP-S	6010B	Copper, Cu	21 (4)	MG/KG	8/23/00	BLD	22307
FE-ICP-S	6010B	Iron, Fe	17000 (5)	MG/KG	8/23/00	BLD	22307
PB-ICP-S	6010B	Lead, Pb	25 (6)	MG/KG	8/23/00	BLD	22307
MG-ICP-S	6010B	Magnesium, Mg	5350 (12)	MG/KG	8/23/00	BLD	22307
MN-ICP-S	6010B	Manganese, Mn	1160 (1)	MG/KG	8/23/00	BLD	22307
HG-S	7471	Mercury, Hg	ND (0.08)	MG/KG	8/29/00	ROH	22384
NI-ICP-S	6010B	Nickel, Ni	49 (2)	MG/KG	8/23/00	BLD	22307
K-ICP-S	6010B	Potassium, K	2850 (234)	MG/KG	8/23/00	BLD	22307
SE-GFAA-S	7740	Selenium, Se	ND (1.8)	MG/KG	8/23/00	ROH	22338
AG-ICP-S	6010B	Silver, Ag	ND (2)	MG/KG	8/23/00	BLD	22307
NA-ICP-S	6010B	Sodium, Na	407 (47)	MG/KG	8/23/00	BLD	22307
V-ICP-S	6010B	Vanadium, V	26 (2)	MG/KG	8/23/00	BLD	22307
ZN-ICP-S	6010B	Zinc, Zn	78 (1)	MG/KG	8/23/00	BLD	22307
TS-%	160.3	Residue, Total, TS	63.4 (0.200)	%	8/23/00	TMB	22308
AS-MS-S	6020	Arsenic, As	2.7 (1.2)	MG/KG	8/23/00	KRG	22361

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS (REPRINT) -

UV 03

Lab Number MAR00-21923 -Continued from Previous Page

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
CD-MS-S	6020	Cadmium, Cd	ND (1.2)	MG/KG	8/23/00	KRG	22361
SB-MS-S	6020	Antimony, Sb	ND (0.6)	MG/KG	8/23/00	KRG	22362
TL-MS-S	200.8/6020	Thallium, Tl	ND (0.6)	MG/KG	8/23/00	KRG	22361
TAL Metals		TAL Metals List	()				0
LI-MS-S	6020	Lithium, Li	ND (28)	MG/KG	8/28/00	SMM	22369
SI-MS-S	200.8	Silicon, Si	299 (24.07)	MG/KG	8/23/00	KRG	22362
ALK	SM 2320B	Alkalinity, Total	5980 (32)	MG/KG	8/28/00	RA/BSR	22377
HCO3	SM2320B	Alkalinity, Bicarbonate (as CaCO3)	5980 (28)	MG/KG			0
CO3	SM2320B	Alkalinity, Carbonate (as CaCO3)	ND (28)	MG/KG			0
F	SM 4500F-C	Fluoride, F, Dissolved	2.04 (1.94)	MG/KG	8/28/00	LGE	22363
PO4	Calc.	Phosphorus, PO4	1687 (117)	MG/KG			0
PH-LAB	150.1/9040	pH, Lab	8.16 (1.00)	S.U.	8/25/00	MDO	22407
SR-MS-S	200.8/6020	Strontium, Sr	38 (3.0)	MG/KG	8/23/00	KRG	22362
CN-S	335.4/9012	Cyanide, Total, CN	1.33 (0.79)	MG/KG	8/30/00	KVS	22420
CL-IC-S	300.0	Chloride, Cl	121 (97)	MG/KG	8/29/00	JEL	22411
SO4-IC-S	300.0	Sulfate, SO4	ND (97)	MG/KG	8/29/00	JEL	22411
BR-IC-S	300.0	Bromide, Br	ND (1.9)	MG/KG	8/29/00	JEL	22411
TKN-S	351.2	Nitrogen, Total Kjeldahl, TKN	2780 (186)	MG/KG	8/29/00	JEL	22388
NH3-S	350.1	Nitrogen, Ammonia, N	74 (9.3)	MG/KG	8/29/00	KVS	22398
NO3+NO2-S	353.2/9200	Nitrogen, Nitrate + Nitrite (as N)	1 (1)	MG/KG	8/28/00	JEL	22372
TOC-S	9060	Carbon, Total Organic, TOC	34900 (3940)	MG/KG	8/28/00	DLQ	22393
P-S	SM4500-P-E2	Phosphorus, P	550 (117)	MG/KG	8/28/00	RJA/BSR	22380

End of Report

Report Approved By: Deborah K Johns

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Client #: T0608
Pinnacle Labs, Inc.
2709-D Pan-American Freeway, NE
Albuquerque,, NM 87107-

Attn: Mitch Rubenstein

Report Date: *24-Oct-00*
Original Report Date: 06-Sep-00

Phone: (505) 344-3777 **Ext:**
FAX: (505) 344-4413

Our Lab #: MAR00-21924
Date Logged-In: 8/24/00
Matrix: Soil
Project #:

Your Sample ID: 008056-04 UV 04
Sample Source: Other/Undefined
Client Project #:
PO#: 008056
Date Submitted to Lab: 8/22/2000

- COLLECTION INFORMATION -

Date/Time/By: 8/24/00 11:15 AM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
AL-ICP-S	6010B	Aluminum, Al	10400 (11)	MG/KG	8/23/00	BLD	22307
BA-ICP-S	6010B	Barium, Ba	184 (1)	MG/KG	8/23/00	BLD	22307
BE-ICP-S	6010B	Beryllium, Be	1 (1)	MG/KG	8/23/00	BLD	22307
CA-ICP-S	6010B	Calcium, Ca	12000 (11)	MG/KG	8/23/00	BLD	22307
CR-ICP-S	6010B	Chromium, Cr	15 (2)	MG/KG	8/23/00	BLD	22307
CO-ICP-S	6010B	Cobalt, Co	10 (2)	MG/KG	8/23/00	BLD	22307
CU-ICP-S	6010B	Copper, Cu	16 (3)	MG/KG	8/23/00	BLD	22307
FE-ICP-S	6010B	Iron, Fe	14700 (4)	MG/KG	8/23/00	BLD	22307
PB-ICP-S	6010B	Lead, Pb	22 (6)	MG/KG	8/23/00	BLD	22307
MG-ICP-S	6010B	Magnesium, Mg	4270 (11)	MG/KG	8/23/00	BLD	22307
MN-ICP-S	6010B	Manganese, Mn	805 (1)	MG/KG	8/23/00	BLD	22307
HG-S	7471	Mercury, Hg	ND (0.07)	MG/KG	8/29/00	ROH	22384
NI-ICP-S	6010B	Nickel, Ni	25 (2)	MG/KG	8/23/00	BLD	22307
K-ICP-S	6010B	Potassium, K	2760 (224)	MG/KG	8/23/00	BLD	22307
SE-GFAA-S	7740	Selenium, Se	ND (1.6)	MG/KG	8/23/00	ROH	22338
AG-ICP-S	6010B	Silver, Ag	ND (2)	MG/KG	8/23/00	BLD	22307
NA-ICP-S	6010B	Sodium, Na	435 (45)	MG/KG	8/23/00	BLD	22307
V-ICP-S	6010B	Vanadium, V	23 (2)	MG/KG	8/23/00	BLD	22307
ZN-ICP-S	6010B	Zinc, Zn	65 (1)	MG/KG	8/23/00	BLD	22307
TS-%	160.3	Residue, Total, TS	71.8 (0.200)	%	8/23/00	TMB	22308
AS-MS-S	6020	Arsenic, As	1.9 (1.1)	MG/KG	8/23/00	KRG	22361

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS (REPRINT) -

UV 04

Lab Number MAR00-21924 -Continued from Previous Page

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
CD-MS-S	6020	Cadmium, Cd	ND (1.1)	MG/KG	8/23/00	KRG	22361
SB-MS-S	6020	Antimony, Sb	ND (0.6)	MG/KG	8/23/00	KRG	22362
TL-MS-S	200.8/6020	Thallium, Tl	ND (0.5)	MG/KG	8/23/00	KRG	22361
TAL Metals		TAL Metals List	()				0
LI-MS-S	6020	Lithium, Li	ND (21)	MG/KG	8/28/00	SMM	22369
SI-MS-S	200.8	Silicon, Si	292 (21)	MG/KG	8/23/00	KRG	22362
ALK	SM 2320B	Alkalinity, Total	6830 (28)	MG/KG	8/28/00	RA/BSR	22377
HCO3	SM2320B	Alkalinity, Bicarbonate (as CaCO3)	6830 (34)	MG/KG			0
CO3	SM2320B	Alkalinity, Carbonate (as CaCO3)	ND (34)	MG/KG			0
F	SM 4500F-C	Fluoride, F, Dissolved	2.71 (1.48)	MG/KG	8/28/00	LGE	22363
PO4	Calc.	Phosphorus, PO4	1174 (112)	MG/KG			0
PH-LAB	150.1/9040	pH, Lab	8.27 (1.00)	S.U.	8/25/00	MDO	22407
SR-MS-S	200.8/6020	Strontium, Sr	30 (2.7)	MG/KG	8/23/00	KRG	22362
CN-S	335.4/9012	Cyanide, Total, CN	1.60 (0.70)	MG/KG	8/30/00	KVS	22420
CL-IC-S	300.0	Chloride, Cl	90 (74)	MG/KG	8/29/00	JEL	22411
SO4-IC-S	300.0	Sulfate, SO4	91 (74)	MG/KG	8/29/00	JEL	22411
BR-IC-S	300.0	Bromide, Br	ND (1.5)	MG/KG	8/29/00	JEL	22411
TKN-S	351.2	Nitrogen, Total Kjeldahl, TKN	1510 (162)	MG/KG	8/29/00	JEL	22388
NH3-S	350.1	Nitrogen, Ammonia, N	43 (0.8)	MG/KG	8/29/00	KVS	22398
NO3+NO2-S	353.2/9200	Nitrogen, Nitrate + Nitrite (as N)	8 (1)	MG/KG	8/28/00	JEL	22372
TOC-S	9060	Carbon, Total Organic, TOC	17900 (1380)	MG/KG	8/28/00	DLQ	22393
P-S	SM4500-P-E2	Phosphorus, P	383 (112)	MG/KG	8/28/00	RJA/BSR	22380

End of Report

Report Approved By: Deborah R. Johnson

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS (REPRINT) -

Client #: T0608
Pinnacle Labs, Inc.
2709-D Pan-American Freeway, NE
Albuquerque,, NM 87107-

Attn: Mitch Rubenstein

Report Date: *24-Oct-00*
Original Report Date: 06-Sep-00

Phone: (505) 344-3777 **Ext:**
FAX: (505) 344-4413

Our Lab #: MAR00-21925
Date Logged-In: 8/24/00
Matrix: Soil
Project #:

Your Sample ID: 008056-05 UV 05
Sample Source: Other/Undefined
Client Project #:
PO#: 008056
Date Submitted to Lab: 8/22/2000

- COLLECTION INFORMATION -

Date/Time/By: 8/24/00 12:10 PM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
AL-ICP-S	6010B	Aluminum, Al	15600 (12)	MG/KG	8/23/00	BLD	22307
BA-ICP-S	6010B	Barium, Ba	449 (1)	MG/KG	8/23/00	BLD	22307
BE-ICP-S	6010B	Beryllium, Be	1 (1)	MG/KG	8/23/00	BLD	22307
CA-ICP-S	6010B	Calcium, Ca	9650 (12)	MG/KG	8/23/00	BLD	22307
CR-ICP-S	6010B	Chromium, Cr	22 (2)	MG/KG	8/23/00	BLD	22307
CO-ICP-S	6010B	Cobalt, Co	16 (2)	MG/KG	8/23/00	BLD	22307
CU-ICP-S	6010B	Copper, Cu	29 (4)	MG/KG	8/23/00	BLD	22307
FE-ICP-S	6010B	Iron, Fe	21800 (5)	MG/KG	8/23/00	BLD	22307
PB-ICP-S	6010B	Lead, Pb	31 (6)	MG/KG	8/23/00	BLD	22307
MG-ICP-S	6010B	Magnesium, Mg	7240 (12)	MG/KG	8/23/00	BLD	22307
MN-ICP-S	6010B	Manganese, Mn	924 (1)	MG/KG	8/23/00	BLD	22307
HG-S	7471	Mercury, Hg	ND (0.10)	MG/KG	8/29/00	ROH	22384
NI-ICP-S	6010B	Nickel, Ni	25 (2)	MG/KG	8/23/00	BLD	22307
K-ICP-S	6010B	Potassium, K	4740 (239)	MG/KG	8/23/00	BLD	22307
SE-GFAA-S	7740	Selenium, Se	ND (2.0)	MG/KG	8/23/00	ROH	22338
AG-ICP-S	6010B	Silver, Ag	ND (2)	MG/KG	8/23/00	BLD	22307
NA-ICP-S	6010B	Sodium, Na	473 (48)	MG/KG	8/23/00	BLD	22307
V-ICP-S	6010B	Vanadium, V	39 (2)	MG/KG	8/23/00	BLD	22307
ZN-ICP-S	6010B	Zinc, Zn	81 (1)	MG/KG	8/23/00	BLD	22307
TS-%	160.3	Residue, Total, TS	58.9 (0.200)	%	8/23/00	TMB	22308
AS-MS-S	6020	Arsenic, As	2.8 (0.7)	MG/KG	8/23/00	KRG	22361

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS (REPRINT) -

UV 05

Lab Number MAR00-21925 -Continued from Previous Page

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
CD-MS-S	6020	Cadmium, Cd	ND (0.7)	MG/KG	8/23/00	KRG	22361
SB-MS-S	6020	Antimony, Sb	ND (0.6)	MG/KG	8/23/00	KRG	22362
TL-MS-S	200.8/6020	Thallium, Tl	ND (0.7)	MG/KG	8/23/00	KRG	22361
TAL Metals		TAL Metals List	()				0
LI-MS-S	6020	Lithium, Li	ND (25.58)	MG/KG	8/28/00	SMM	22369
SI-MS-S	200.8	Silicon, Si	389 (27.17)	MG/KG	8/23/00	KRG	22362
ALK	SM 2320B	Alkalinity, Total	3600 (34)	MG/KG	8/28/00	RA/BSR	22377
HCO3	SM2320B	Alkalinity, Bicarbonate (as CaCO3)	3600 ()	MG/KG			0
CO3	SM2320B	Alkalinity, Carbonate (as CaCO3)	ND ()	MG/KG			0
F	SM 4500F-C	Fluoride, F, Dissolved	2.08 (1.98)	MG/KG	8/28/00	LGE	22363
PO4	Calc.	Phosphorus, PO4	2244 ()	MG/KG			0
PH-LAB	150.1/9040	pH, Lab	7.98 (1.00)	S.U.	8/25/00	MDO	22407
SR-MS-S	200.8/6020	Strontium, Sr	66 (3.4)	MG/KG	8/23/00	KRG	22362
CN-S	335.4/9012	Cyanide, Total, CN	1.80 (0.84)	MG/KG	8/30/00	KVS	22420
CL-IC-S	300.0	Chloride, Cl	122 (99)	MG/KG	8/29/00	JEL	22411
SO4-IC-S	300.0	Sulfate, SO4	ND (99)	MG/KG	8/29/00	JEL	22411
BR-IC-S	300.0	Bromide, Br	ND (2.0)	MG/KG	8/29/00	JEL	22411
TKN-S	351.2	Nitrogen, Total Kjeldahl, TKN	3640 (192)	MG/KG	8/29/00	JEL	22388
NH3-S	350.1	Nitrogen, Ammonia, N	38.7 (1.0)	MG/KG	8/29/00	KVS	22398
NO3+NO2-S	353.2/9200	Nitrogen, Nitrate + Nitrite (as N)	12 (1)	MG/KG	8/28/00	JEL	22372
TOC-S	9060	Carbon, Total Organic, TOC	66900 (1680)	MG/KG	8/28/00	DLQ	22393
P-S	SM4500-P-E2	Phosphorus, P	732 (119.5)	MG/KG	8/28/00	RJA/BSR	22380

Note: The results for the matrix spike/matrix spike duplicate for Selenium and Antimony were biased low and thus the sample result should be qualified due to a matrix effect. The analytical run was not rejected since the method quality control checks were within limits.

End of Report

Report Approved By: Deborah K Johnson

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Pinnacle Laboratories, Inc.

Interlab Chain of Custody

Date: 8/11/2000 Page: 1 of 1

Network Project Manager: Kimberly D. McNeill

Pinnacle Laboratories, Inc.
2709-D Pan American Freeway, NE
Albuquerque, New Mexico 87107
(505) 344-3777 Fax (505) 344-4413

Authorized by/ Attn: John Young

Bill to HWB

CLIENT: NMED HWB
ADDRESS: 2044A Galisteo St.
CITY, STATE, ZIP: Santa Fe, NM 87505
(505) 827-1558 (ext. 1036) Fax (505)827-1544

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Isotopic Pu (Improved Detection Limit Method)	Isotopic Am (Improved Detection Limit Method)	Isotopic U (Improved Detection Limit Method)	Gamma Spec (Improved Detection Limit Method)	Gross Alpha/Beta (Line Item # 125)	Sr - 90 (Line Item # 130)	Dioxin/Furan (high Resolution Method)	Total Organic Carbon (TOC)	Nitroaromatics & Nitroamines (Line Item # 16)	PNAs PAHs (Line Item # 21)	300 Series (Line Item # 77)	ICPAS Individual metals Li, Si, Sr (Line Item # 33)	Acid Digestion for soils, sludge, sediment 3050 (Line Item 53)	23 Target Analyte List Metals plus CN (Line Item # 44)	310.1 Alkalinity & Carbonate / Bicarbonate (Line Item # 79)	pH (Line Item # 81)	Chlorinated Herbicides (Line Item # 8)	NUMBER OF CONTAINERS
UV 01	8/10/2000	0945 AM	SED	01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
UV 02	8/10/2000	1037 AM	SED	02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
UV 03	8/10/2000	1050 AM	SED	03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
UV 04	8/10/2000	1115 AM	SED	04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
UV 05	8/10/2000	1210 AM	SED	05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2

PROJECT INFORMATION
PROJECT #: HWB.8.10.00.CG
PROJ. NAME: Viveash Sediment
QC LEVEL: STD. IV
QC REQUIRED: MS MSD BLANK
TAT: Priority 2 (50 %) RUSH!!

SAMPLE RECEIPT
Total Number of Containers: 10
Chain of Custody Seals: YES
Received Intact?: YES
Received Good Cond./Cold: YES 02
LAB NUMBER: 008056

DUE DATE:
RUSH SURCHARGE:
CLIENT DISCOUNT:
SPECIAL CERTIFICATION REQUIRED: YES NO

COMMENTS: Homoginize both 500 ml containers for each sample and run all analyses on homogenate.

SAMPLES SENT TO:
PENSACOLA - STL-FL
ESL - OR
STL - CT
ATEL - AZ
ATEL - MARION
ATEL - MELMORE
BARRINGER
WCAS
WOHL

RELINQUISED BY: 1
Signature: [signature] Time: 1750
Printed Name: Darlene Goering Date: 8/11/2000

RECEIVED BY: 1
Signature: Time:
Printed Name: Date:
Company

RELINQUISED BY:
Signature: Time:
Printed Name: Date:
Pinnacle Laboratories, Inc.

RECEIVED BY:
Signature: [signature] Time: 1750
Printed Name: Francine Torres Date: 8/11/00
Company Pinnacle

008056

CASE NARRATIVE

Analysis of Samples for the Presence of Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans by High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	August 30, 2000
Client ID:	Pinnacle Laboratories, Inc.
P.O. Number:	008056
TLI Project Number:	51702

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Rev. 11/19/97

Overview

The samples and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during the sample handling by Triangle Laboratories will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analyses of the four soil samples.

Quality Control Samples

A laboratory method blank, identified as the TLI Blank, was prepared along with the samples.

Laboratory control spike (LCS) and laboratory control spike duplicate (LCSD) samples were extracted and analyzed along with the samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

Quality Control Remarks

This release of this particular set of Pinnacle Laboratories, Inc. analytical data by Triangle Laboratories was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: Five soil samples were received from Pinnacle Laboratories, Inc. at 6.0 °C in good condition on August 22, 2000 and stored in a refrigerator at 4 °C.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: Sample 008056-04 is being re-extracted. The results for this sample will be forwarded as soon as the are available.

Other Comments: No 2,3,7,8-substituted target analytes were detected in the method blank above the target detection limit (TDL).

The analytical data presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the data. Should Pinnacle Laboratories, Inc. have any questions or comments regarding this data package, please feel free to contact a Project Scientist, at (919) 544-5729.

For Triangle Laboratories, Inc.,

Released by,

Kenneth Varley for Ken Varley

Report Preparation Chemist

The total number of pages in the data package is : 201 .

Method 8290 Sample Calculations:

Analyte Concentration

The concentration or amount of any analyte is calculated using the following expression.

$$C_{(\sigma)} = \frac{A_\sigma * Q_\beta}{A_\beta * RRF_{(\sigma)} * W}$$

Where:

$C_{(\sigma)}$	=	concentration or amount of a given analyte
A_σ	=	integrated current for the characteristic ions of the analyte
A_β	=	integrated current of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Detection Limits

The detection limit reported for a target analyte that is not detected or presents an analyte response that is less than 2.5 times the background level is calculated by using the following expression. The area of the analyte is replaced by the noise level measured in a region of the chromatogram clear of genuine GC signals. The detection limits represent the maximum possible concentration of a target analyte that could be present without being detected.

$$DL_{(\sigma)} = \frac{2.5 * H * Q_\beta}{H_\beta * RRF_{(\sigma)} * W}$$

Where:

$DL_{(\sigma)}$	=	estimated detection limit for a target analyte
2.5	=	minimum response required for a GC signal
H	=	sum heights of the noise
H_β	=	sum of peak heights of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Data Flags

In order to assist with data interpretation, data qualifier flags are used on the final reports. Please note that all data qualifier flags are subjective and are applied as consistently as possible. Each flag has been reviewed by two independent Chemists and the impact of the data qualifier flag on the quality of the data discussed above. The most commonly used flags are:

A **'B'** flag is used to indicate that an analyte has been detected in the laboratory method blank as well as in an associated field sample. The 'B' flag is used only when the concentration of analyte found in the sample is less than 20 times that found in the associated blank. This flag denotes possible contribution of background laboratory contamination to the concentration or amount of that analyte detected in the field sample.

An **'E'** flag is used to indicate a concentration based on an analyte to internal standard ratio which exceeds the range of the calibration curve. Values which are outside the calibration curve are estimates only.

An **'I'** flag is used to indicate labeled standards have been interfered with on the GC column by coeluting, interferent peaks. The interference may have caused the standard's area to be overestimated. All quantitations relative to this standard, therefore, may be underestimated.

A **'J'** flag is used to indicate a concentration based on an analyte to internal standard ratio which is below the calibration curve. Values which are outside the calibration curve are estimates only.

A **'PR'** flag is used to indicate that a GC peak is poorly resolved. This resolution problem may be seen as two closely eluting peaks without a reasonable valley between the peak tops, overly broad peaks, or peaks whose shapes vary greatly from a normal distribution. The concentrations or amounts reported for such peaks are most likely overestimated.

A **'Q'** flag is used to indicate the presence of QC ion instabilities caused by quantitative interferences.

An **'RO'** flag is used to indicate that a labeled standard has an ion abundance ratio that is outside of the acceptable QC limits, most likely due to a coeluting interference. This may have caused the percent recovery of the standard to be overestimated. All quantitations versus this standard, therefore, may be underestimated.

An **'S'** flag indicates that the response of a specific PCDD/PCDF isomer has exceeded the normal dynamic range of the mass spectrometer detection system. The corresponding signal is saturated and the reported analyte concentration is a 'minimum estimate'. When the 'S' qualifier is used in the reporting of 'totals', there is saturation of one (not

necessarily from a specific isomer) or more saturated signals for a given class of compounds. Results for saturated analytes are reported as greater than the upper calibration limit.

A **'U'** flag is used to indicate that a specific isomer cannot be resolved from a large, co-eluting interferent GC peak. The specific isomer is reported as not detected as a valid concentration cannot be determined. The calculated detection limit, therefore, should be considered an underestimated value.

A **'V'** flag is used to indicate that, although the percent recovery of a labeled standard may be below a specific QC limit, the signal-to-noise ratio of the peak is greater than ten-to-one. The standard is considered reliably quantifiable. All quantitations derived from the standard are considered valid as well.

An **'X'** flag is used to indicate that a polychlorodibenzofuran (PCDF) peak has eluted at the same time as the associated diphenyl ether (DPE) and that the DPE peak intensity is at least ten percent of the total PCDF peak intensity. Total PCDF values are flagged 'X' if the total DPE contribution to the total PCDF value is greater than ten percent. All PCDF peaks that are significantly influenced by the presence of DPE peaks are either reported as "estimated maximum possible concentration (EMPC) values without regard to the isotopic abundance ratio, or are included in the detection limit value depending on the analytical method.

TRIANGLE LABORATORIES, INC.

LIST OF CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

American Association for Laboratory Accreditation. Extended Expiration Date of October 31, 1999. Certificate Number 0226-01. Accreditation for technical competence in Environmental Testing. 8280, 8290, 1613A Dioxin in Wastewater; Solid or Hazardous Waste, and Air Matrices: XAD Trains - M23, 8290X and PUF Trains 8290X. Absorbable Organic Halides (AOX)/ Toxic Organic Halides (TOX) in Pulp/Paper. Method 1613A & B, 2,3,7,8 TCDD for Drinking. *Currently Applying.*

State of Alabama, Department of Environmental Management. Expires December 31, 2000. Laboratory ID # 40950. 2,3,7,8 TCDD (Dioxin) in drinking water.

State of Alaska, Department of Environmental Conservation. Expires December 21, 2000. Lab ID #NC-06-00. Certificate number NC00140. 2,3,7,8- TCDD (Dioxin) in drinking water.

State of Arizona, Department of Health Services. Expires May 26, 2001. Certificate #AZ0423. Drinking Water for Dioxin, Dioxin in Waste Water and Solid or Hazardous Waste.

State of Arkansas, Department of Pollution Control and Ecology. Expires May 11, 2000. Pulp/paper, soil, water, and Hazardous Waste for Dioxin/Furans. *Currently Applying.*

State of California, Department of Health Services. Expires August 31, 2001. Certificate #1922. Organic Chemistry of Drinking Water -Dioxin in DW; EPA Method 1613, Organic Chemistry of Hazardous Waste by GC/MS - EPA Methods 8240B, 8270B, 8280, 8290, 8260A, and Organic Chemistry of Wastewater by GC/MS - EPA Method 613.

State of Connecticut, Department of Health Services. Expires September 30, 2001. Registration # PH-0117. 2,3,7,8 TCDD (Dioxin) in drinking water (potable water for organic chemicals).

Delaware Health and Social Services. Expired December 31, 1998, **but** current certification will be maintained until DHSS has completed their review of the Laboratory Certification Program. Certificate #NC 140. Dioxin in drinking water.

Florida Department of Health and Rehabilitative Services. Expires June 30, 2001. Method 1613 for Dioxin in Drinking Water. ID HRS# E87769.

Revised 8/2/00 cdb

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Georgia Department of Environmental Quality. Initial application sent August 12, 1998 for Chemical Certification of Drinking Water for Dioxins, method 1613. *Currently applying*

Hawaii Department of Health. Expires March 1, 2000. Certified for Dioxin under the Safe Drinking Water Act. "Accepted" status for regulatory purposes.

Idaho Department of Health and Welfare. Expires December 31, 2000. Dioxin in drinking water.

Indiana Department of Health. Expires December 31, 2000. Dioxin in drinking water, EPA method 1613. Lab ID # C-NC-01.

Illinois Environmental Protection Agency. Sent initial application and fees December 18, 1998. Drinking Water, Wastewater and Hazardous Waste, Methods 608, 610, 624, 625, 8081A, 8260B, 8260C, 8270B, 8270C, 8310, 8315A. *Currently Applying.*

State of Kansas, Department of Health and Environment. Expires January 31, 2001. Cert. # E-10215. Method 1613, 2,3,7,8 TCDD for drinking water. Drinking water and/or pollution control; Cert. # E-10215. Solid or Hazardous Waste 8260B, 8270C.

Commonwealth of Kentucky, Department for Environmental Protection. Expires December 31, 2000. Lab ID #90060. 2,3,7,8 TCDD (Dioxin) in drinking water.

State of Louisiana Department of Environmental Quality. As of January 31, 1999, Triangle Laboratories, Inc. has "Pending Accreditation" until the LADEQ can perform an on-site audit.

State of Louisiana Department of Health & Hospitals. Expires December 31, 2000. Dioxin (2,3,7,8-TCDD) in Organics parameter. Certificate # LA000008.

Maryland Department of Health and Mental Hygiene. Expires September 30, 2000. Certification #728 - 2,3,7,8 TCDD (Dioxin) by 1613A for Water Quality[SOC II]. *Currently Applying.*

State of Michigan, Department of Public Health. Expires June 30, 2001. 2,3,7,8 TCDD by Method 1613.

Mississippi State Department of Health. No expiration date. Dioxin in drinking water.

Montana Department of Health and Environmental Services. Expires December 31, 2000. Dioxin in drinking water.

Revised 8/2/00 cdb

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State of Nebraska Department of Health. Expires December 31, 2000. Reciprocal certification through the North Carolina Department of Health and Human services. 2,3,7,8-TCDD (Dioxin) in drinking water, EPA Method 1613.

State of Nevada, Department of Conservation and Natural Resources. Expires June 30, 2000. Dioxin under Clean Water Act. *Currently applying*

State of Nevada, Department of Human Resources. Expires June 30, 2000. Dioxin under Safe Drinking Water Act. *Currently applying*

State of New Jersey, Department of Environmental Protection and Energy. Expires June 30, 2000. ID #67851. 8290 and 1613(2,3,7,8- TCDD). *Currently Applying*

State of New Mexico, Environment Department. Expired October 31, 1999. Dioxin in Drinking Water per A2LA.

New York State Department of Health. Expires June 30, 2001. ID #11026. Environmental Analyses of Solid and Hazardous Waste for purgeable hydrocarbons, chlorinated hydrocarbons, pesticides, priority pollutant phenols; potable water 2,3,7,8 TCDD (Dioxin).

State of North Carolina, Department of Health and Human Services. Expires December 31, 2000. Certificate # 37751. Dioxin in drinking water.

North Dakota State Department of Health and Consolidated Laboratories. Expires March 31, 2000. Certificate # R-076. Effective October 4, 1993. Dioxin in drinking water. Current certification is extended, based on New York certificate renewal.

Oklahoma Department of Environmental Quality. Expires August 31, 2000. Laboratory #9612. 2,3,7,8 TCDD (Dioxin) by 613, 1613A, 8290 and 8280. *Currently applying*

State of South Carolina, Department of Health and Environmental Control. Expires June 30, 2001. Certificate number #99040001 (Other parameters). Dioxin/Furans by method 1613B - Safe Drinking Water Act; 2,3,7,8-TCDD for Drinking Water, and Organic extractables for Solid and Hazardous Waste. Reciprocal certification with New York. Certificate # 99040002 expires August 31, 2001. Solid Hazardous Waste- Dioxins/Furans by 8280A and 8290. Reciprocal certification with California.

State of Tennessee. Department of Environment and Conservation. Expires January 28, 2002. ID #02992. Dioxin in Drinking water.

U.S. Department of Agriculture Soil Permit. Expires June 30, 2002. Permit No. S-4958 (Revised). Under the authority of the Federal Plant Pest Act, permission is granted to receive foreign soil samples for use in laboratory analysis.

Revised 8/2/00 cdb

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U.S. Army Corps of Engineers. Expires November 15, 2001. Validated to perform analyses for the McAlester Army Ammunition Plant and various sites. EPA SW-846, Methods 8280 and 8290, water and solids.

U.S. EPA Region V. Expires January 19, 2003. 2,3,7,8 TCDD (Dioxin) in drinking water by method 1613A.

U.S. EPA Region VIII, for the State of Wyoming. Expires October 9, 2000. EPA Method 1613 for Dioxin in drinking water.

State of Utah, Department of Health. Expires May 30, 2000. Certificate Number E-166. Certification for the following parameters: Volatiles by 8240; Dioxin/furans by Method 1613, 8280 and 8290; Drinking water for Dioxin by Method 1613; Metals including Mercury and Microwave Digestion. *Currently Applying.*

Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services. Expires June 30, 2000. ID # 00341. 2,3,7,8-TCDD (Dioxin) in drinking water. *Currently Applying.*

State of Washington, Department of Ecology. Expires September 11, 2000. Lab Accreditation Number C067. Scope of Accreditation applies to Dioxins (PCDDs/PCDFs) by EPA methods 1613A, 8280, and 8290.

State of Washington, Department of Health. Expires April 30, 2001. Dioxin by 1613A in drinking water. Lab ID 129.

State of West Virginia, Department of Health. Expires December 31, 2000. Certificate No. 9923(C). 2,3,7,8-TCDD (Dioxin) in drinking water.

State of Wisconsin, Department of Natural Resources. Expires August 31, 2000: Certification for PCDD/PCDF. Laboratory ID Number 999869530. Expires August 31, 2000: Certified for 2,3,7,8-TCDD (Dioxin) in drinking water. *Currently applying*

Revised 8/2/00 cdb

Y:\CERTIFIC\ADMINIST\CERTLIST.MEM

PHARMACEUTICAL

Drug Enforcement Agency (DEA). Expired November 30, 1999. Registration number RT0195835. Controlled substance registration for schedules 1,2,3,3N,4,5.

N.C. Department of Human Resources. Expires October 31, 2000. Registration number NC-PT 0000 0031. North Carolina controlled substances registration for schedules 1, 2, 2N, 3, 3N, 4, 5, 6.

Food & Drug Administration (FDA) Registration. Registered June 17, 1999. ID #'s 001500 1053481(ATL). Annual registration of drug establishment.

OTHER

Clinical Laboratory Improvement Amendments (CLIA) Registration. Expires May 30, 2001. ID # 34D0705123. Department of Health & Human Services, Health Care Financing Administration. Certificate for the Acceptance of Human Specimans for the purposes of performing laboratory examinations or procedures - Chemistry, Toxicology, HCFA.

U.S. EPA Large Quantity Hazardous Waste Generator. No expiration date. EPA ID #NCD982156879. Permit indicates that the laboratory is a large generator of hazardous waste.

North Carolina General License for Radiation Protection. No expiration date. No License. 032-875-OG. The general license applies only to radioactive material contained in devices which have been manufactured and labeled in accordance with specific requirements.

TRIANGLE LABS

DOCUMENT CONTROL

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729

P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

CHAIN-OF-CUSTODY

ATEL

Aqua Tech Environmental Laboratories, Inc.

Client Name:

Project Name:

Project No:

Sampler:

Sample ID	Date	Time	grab/ comp	Matrix	ATEL Lab Number	# of Cont.	Analysis Required
UV-01							
-02							
-03							
-04							
-05							

To: Triangle Labs

Pinnacle Lab samples.
COC should have been faxed to you from Pinnacle.

SEND RESULTS TO:

Person: _____

Company: _____

Street: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____

ATEL Quote #: _____ Company PO #: _____

Relinquished by: Sharon Roach	**Date/Time** 8-21-00	**Received by:**	**Date/Time**
Relinquished by:	**Date/Time**	**Received by:**	**Date/Time**
Relinquished by:	**Date/Time**	**Received at Laboratory by:**	**Date/Time** 8/21/00
Comments:		**Method of Shipment** UPS - 2nd Night	1 DD
		Cooler Temperature	°C

Canton: 5300 Fulton Drive NW
Canton, Ohio 44718
800-635-3222 fax 330-494-2961

Marion: 1776 Marion-Waldo Rd.
Marion, Ohio 43302
800-873-2835 fax 740-389-1481

Sanford: 936 N Horner Boulevard
Sanford, North Carolina 27330
800-522-2832 fax 919-774-7068

Tucson: 2700 E Bilby Rd. Bldg. A
Tucson, Arizona 85706
800-879-2835 fax 520-573-6550

Melmore: 6878 S State Rt. 100
Melmore, Ohio 44845
800-858-8869 fax 419-397-2229

Pinnacle Laboratories, Inc.

Interlab Chain of Custody

Date: 8/21 Page: 1 of 1

Network Project Manager: Jacinta A. Tenorio

Pinnacle Laboratories, Inc.
2709-D Pan American Freeway, NE
Albuquerque, New Mexico 87107
(505) 344-3777 Fax (505) 344-4413

Please report EPA Tests.
Please submit 2 copies.

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Metals (8) RCRA	RCRA TCLP METALS	Metals-13 PP List	Metals-TAL (23 METALS)		TOX	TOC	Gen Chemistry	8240 High Resolution	Oil and Grease Report EPA Tests	Volatile Organics GC/MS (8260)	BOD	COD	PESTICIDES/PCB (608/8082)	Herbicides (615/8151)	PNA (8310)	8240 (TCLP 1311) ZHE		Base/Neutral Acid Compounds GC/MS (625/8270)	URANIUM (ICP-MS)	RADIUM 226+228	Gross Alpha/Beta	TO-14	NUMBER OF CONTAINERS
008056-01	8/10	0945	NAQ										X	X														
-02		1037											X	X														
-03		1050											X	X														
-04		1115											X	X														
-05		1210											X	X														

RUSH!

PROJECT INFORMATION	
PROJECT #:	008056
PROJ. NAME:	NMHW
QC LEVEL:	STD. IV
QC REQUIRED:	MS MSD BLANK
TAT:	RUSH!!
DUE DATE:	8/29
RUSH SURCHARGE:	50%
CLIENT DISCOUNT:	—
SPECIAL CERTIFICATION REQUIRED:	YES NO

SAMPLE RECEIPT	
Total Number of Containers	
Chain of Custody Seals	
Received Intact?	
Received Good Cond./Cold	
LAB NUMBER:	

COMMENTS: Must have verbals 8/29/00!!

SAMPLES SENT TO:	
PENSACOLA - STL-FL	
EBL - OR	
STL - CT	
ATEL - AZ	
ATEL - MARION	
ATEL - MELMORE	
BARRINGER	
WCAS	
WOHL	
Triangle	X

RELINQUISED BY: 1.	RELINQUISED BY: 2.
Signature: Francine Tenorio Time: 1100	Signature: Time:
Printed Name: Francine Tenorio Date: 8/21/00	Printed Name: Date:
Pinnacle Laboratories, Inc.	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**
Signature: Bill Hunt Time: 1020	Signature: Time:
Printed Name: Bill Hunt Date: 8/21/00	Printed Name: Date:
Company: TVI Inc.	Company:

TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

TLI Project Number 51702
Client: PIN01 - Pinnacle Laboratories, Inc.
Project: 008056

Book 268
Page 29

Date Received 08/22/00 By [illegible]
Carrier and Number UPS

Ice Chest ICE Temp 6.0 C

TLI Number.. mR/H:CPM.	Client Sample ID / Client COC ID	Matrix / Location	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
268-29-1	008056-01	SOLID	8/22/00 LB	8/23/00 LB	8/27/00	8/27/00					
	008056-01	C02									
268-29-2	008056-02	SOLID									
	008056-02	C02									
268-29-3	008056-03	SOLID									
	008056-03	C02									
268-29-4	008056-04	SOLID									
	008056-04	C02									
268-29-5	008056-05	SOLID			8/27/00	8/27/00					
	008056-05	C02									

Receiving Remarks:

Archive Remarks:

Form Revised 05/27/1997 -- Page 1 OF 1

TRIANGLE LABORATORIES, INC.
SAMPLE TRACKING AND PROJECT MANAGEMENT FORM

----------ADMINISTRATIVE INFORMATION----------

TLI Proj#: 51702-
Prod Code: D01011
DetectLim: 1 ppt

Samples: 5
Matrix.: Soil
Type...: B
Recvd..: 08/22/00

TurnAround.: 7 Day(s)
Hold Time..: 30 Day(s)
Start Date.: 08/22/00
Ship By....: 08/28/00
DWL Due Dt.: 08/24/00

Analyte List.: Tetra - Octa

Method.....: Method 8290: Tetra-Octa
Client Proj..: 008056
Client.....: Pinnacle Laboratories, Inc. (PIN01)
P.O. No.....: 008056
Contact.....: Mitch Rubenstein
Proj. Mgr....:

Collect Dt/Tm: 08/10/00
Phone.....: 505-344-3777
Fax.....: 505-344-4413
Sample Origin:

----------SPECIAL INSTRUCTIONS / QA REQUIREMENTS----------

TEF.....: EPA

Prespike Standard: n/a
Extraction Exp...: 09/09/00

----------REPORTING REQUIREMENTS----------

Reporting Format: Report Option II

See MILES for Instructions/Communications.

Completed by: _____ DATE: _____

Reviewed by: _____ DATE: 08 22 00 (PMGT0197

Date: 08/24/00
Time: 16:29

TRIANGLE LABORATORIES, INC.
Percent Moisture/Solid Calculations
Project: 51702

PRDPERC v4.03
Page: 1

Sample #	crd	Empty Vial.Wt	Wet Vial Weight...	Dry Vial Weight...	Entered.By.....	Date....	Time....	%Moist	%Solid	Valid Weight From.....-To.....	Target Weight...
001		14.5194	18.7349	17.1840	BAILEY	08/24/00	14:16:27	36.8	63.2		
		14.5194	18.7349	17.1850	BAILEY	08/24/00	07:55:07				
		14.5194	18.7349	0.0000	BAILEY	08/23/00	15:31:43				
		14.5194	0.0000	0.0000	BAILEY	08/23/00	15:13:17			15.1899-16.4557	1 15.8228
002		14.5732	21.4529	18.7767	BAILEY	08/24/00	14:16:28	38.9	61.1		
		14.5732	21.4529	18.7768	BAILEY	08/24/00	07:55:07				
		14.5732	21.4529	0.0000	BAILEY	08/23/00	15:31:43				
		14.5732	0.0000	0.0000	BAILEY	08/23/00	15:13:17			15.7119-17.0213	2 16.3666
003		14.5677	20.5863	18.3020	BAILEY	08/24/00	14:16:28	38.0	62.0		
		14.5677	20.5863	18.3020	BAILEY	08/24/00	07:55:07				
		14.5677	20.5863	0.0000	BAILEY	08/23/00	15:31:43				
		14.5677	0.0000	0.0000	BAILEY	08/23/00	15:13:17			15.4839-16.7742	3 16.1290
004		14.5330	21.6362	19.6415	BAILEY	08/24/00	14:16:28				
		14.5330	21.6362	19.6412	BAILEY	08/24/00	07:55:07	28.1	71.9		
		14.5330	21.6362	0.0000	BAILEY	08/23/00	15:31:43				
		14.5330	0.0000	0.0000	BAILEY	08/23/00	15:13:17			13.3519-14.4645	4 13.9082
005		14.6284	22.2256	18.8922	BAILEY	08/24/00	14:16:28	43.9	56.1		
		14.6284	22.2256	18.8924	BAILEY	08/24/00	07:55:07				
		14.6284	22.2256	0.0000	BAILEY	08/23/00	15:31:43				
		14.6284	0.0000	0.0000	BAILEY	08/23/00	15:13:18			17.1123-18.5383	5 17.8253

Percent Moisture/Solid Summary

TLI.MILES.ID....		TLI.Number..	Client.Id.Number.....	%Moist	%Solid	ExtrctWt	DryWtEqu	RPD..
51702-	-001	268-29-1	008056-01	36.8	63.2			
51702-	-002	268-29-2	008056-02	38.9	61.1			
51702-	-003	268-29-3	008056-03	38.0	62.0			
51702-	-004	268-29-4	008056-04	28.1	71.9			
51702-	-005	268-29-5	008056-05	43.9	56.1			

*** End of Report ***

Date: 08/27/00
Time: 18:14

TRIANGLE LABORATORIES, INC.
Wet Lab Extraction and Observations
Project: 51702

PRDPERC v4.03
Page: 1

Sample #	crd	TLI_Number..	Customer.Sample.Id.....	Init. pH...	NaOH mL..	Adj. pH.1.	H2SO4 mL...	Adj. pH.2.	Appearance.	Color.....	Odor...	Vol.	Entered.By.....	Date....	Time....	S
000		TLI Blank	TLI Blank	n/a	n/a	n/a	n/a	n/a	SAND	TAN	NONE	0	LIVENGOOD	08/27/00	18:14:47	F
001		268-29-1	008056-01	n/a	n/a	n/a	n/a	n/a	MOIST SOIL	DK BROWN	NONE	0	LIVENGOOD	08/27/00	18:14:47	F
002		268-29-2	008056-02	n/a	n/a	n/a	n/a	n/a	MOIST SOIL	DK BROWN	NONE	0	LIVENGOOD	08/27/00	18:14:47	F
003		268-29-3	008056-03	n/a	n/a	n/a	n/a	n/a	MOIST SOIL	DK BROWN	NONE	0	LIVENGOOD	08/27/00	18:14:47	F
004		268-29-4	008056-04	n/a	n/a	n/a	n/a	n/a	MOIST SOIL	DK BROWN	NONE	0	LIVENGOOD	08/27/00	18:14:47	F
005		268-29-5	008056-05	n/a	n/a	n/a	n/a	n/a	MOIST SOIL	DK BROWN	NONE	0	LIVENGOOD	08/27/00	18:14:47	F
006		TLI LCS	TLI LCS	n/a	n/a	n/a	n/a	n/a	SAND	TAN	NONE	0	LIVENGOOD	08/27/00	18:14:47	F
007		TLI LCSD	TLI LCSD	n/a	n/a	n/a	n/a	n/a	SAND	TAN	NONE	0	LIVENGOOD	08/27/00	18:14:47	F

*** End of Report ***

Date: 08/27/00
Time: 18:14

TRIANGLE LABORATORIES, INC.
Sample Size and Extraction Date/Time
Project: 51702

PRDPERC v4.03
Page: 1

Sample # crd	Sample Weight...	Unit	Extract Date....	Extr. Time.	Adjusted Weight...
000	10.0000	G	08/27/00	1735	0.0000
001	16.0000	G	08/27/00	1735	10.1120
002	16.8000	G	08/27/00	1735	10.2650
003	16.4000	G	08/27/00	1735	10.1680
004	14.0000	G	08/27/00	1735	10.0660
005	17.9000	G	08/27/00	1735	10.0420
006	10.0000	G	08/27/00	1735	0.0000
007	10.0000	G	08/27/00	1735	0.0000

*** End of Report ***

2426

TRIANGLE LABORATORIES, INC.

Dioxin Sample Preparation Tracking & Management Form

Project: 51702

Client: Pinnacle Laboratories, Inc. (PIN01)

Solvent(s)/Acid(s): Toluene / _____ / _____

Lot Numbers: 997564 / _____ / _____

Method: Method 8290: Tetra-Octa Matrix: Soil

Extraction Date: 08/27/00

IS Spike: 20 µl conc: 0.1000 ng/µl

SS Spike: ____ µl conc: __.____ ng/µl

MS Spike: 40 µl conc: 0.0100 ng/µl

LCS Spike: 40 µl conc: 0.0100 ng/µl

S#.crd	TLI / SAMPLE ID	/ CLIENT SAMPLE ID	GROSS WEIGHT Before	After	SAMPLE SIZE g/ml					
										Chemist
						7510E	7511K	7530B		Spike #
						USF-A15	USF-M	USF-C		" ID
						07/03/01	07/02/01	7/2/01	/ /	" Expir
						08/27/00	08/27/00	8/28/00	/ /	" Date
						12:35	17:35	12:15	:	" Time
						0.1 ng/µl	0.01 ng/µl	0.01 ng/µl	ng/µl	" Conc.
						20 µl	40 µl	20 µl	µl	" Vol.
000	TLI Blank	TLI Blank			10.0					Any Left yes/no
001	268-29-1	UV01 008056-01	172.0	155.6	16.0					Any Left yes/no
002	268-29-2	UV02 008056-02	170.2	153.4	16.8					Any Left yes/no
003	268-29-3	UV03 008056-03	170.9	154.4	16.4					Any Left yes/no
004	268-29-4	~~U~~ UV04 008056-04	169.3	155.1	14.0					Any Left yes/no
005	268-29-5	~~U~~ UV05 008056-05	165.8	147.8	17.9					Any Left yes/no
006	TLI LCS	TLI LCS			10.0					Any Left yes/no
007	TLI LCSD	TLI LCSD			10.0					Any Left yes/no
										Any Left yes/no
										Any Left yes/no

Gross weight of sample container + sample before/after aliquot removal.

Comments: 000, 006, 007 → sand (53-7-30F); 001 → dk brown moist soil no odor; 002 → same as 001; 003 → same as 001; 004 → same as 001; 005 → same as 001 08/27/00

Initials: _____ Date: __/__/__

Initials of both SPIKER AND OBSERVER must be entered.

XXXXX = Gross Weight not provided for WATER Samples.

REV 05/27/97 (PSTMF 7)

TRIANGLE LABORATORIES, INC.
DIOXIN SAMPLE EXTRACTION and CLEANUP TRACKING FORM
TLI Project No.: 51702

Ext S#.crd and TLI Number	1	2	3	4	7	8	9
000 TLI Blank	8/27/00	8/28/00	8/28/00	8/28/00	8/28/00	8/29/00	8/29/00
001 268-29-1							
002 268-29-2							
003 268-29-3							
004 268-29-4							
005 268-29-5							
006 TLI LCS							
007 TLI LCSD	8/27/00	8/28/00	8/28/00	8/28/00	8/28/00	8/29/00	8/29/00

Enter the procedure number below into the box at the top of each column to signify the step performed.
Initial and date each sample for each numbered procedure performed.

#.. ....PROCEDURE....	SOP.#.	.v..	DETAILS (circle)
1) EXTRACTION	105	15	Time On 18:20 Time Off 10:20
			Soxhlet / Jar / Sep Funnel / Steam Dist / Cont LL / ASE / Waste Dilution
2) SPIKE AFTER EXT'N			
3) ADD TRIDECANE			Lot# H-1-23-291B
4) ROTOVAP			40mL / 10mL / Dryness
5) COMBINE			
6) DIV./LIP. DETERM.			20%/80% 50%/50% 5mL/20mL Other
7) SOLVENT EXCHANGE			Iso-Octane Lot# Heptane Lot# VSSY TI2E38
8) CLEANUP		12	DSP 260 / Modified DSP 260 / DSP 280 / Other
9) TRANSFER	272	7	
10) ADDITIONAL CLEANUP			DSP260(10g)
11) FINAL TRANSFER			

Comments:

Rev 11/25/97 (PSTMF 4)

TRIANGLE LABORATORIES, INC.
Transfer Chain-of-Custody Form
Project 51702

Transfer From: DWLH5 To: DMS5

	Initials..	Date.....	Time...
Released by:	MR	08/29/00	23:45
Accepted by:	[illegible]	8/29/00	23:50

MILES.ID.....		TLI_No.....	Cust.Id.....
51702-	-000	TLI Blank	TLI Blank
51702-	-001	268-29-1	008056-01
51702-	-002	268-29-2	008056-02
51702-	-003	268-29-3	008056-03
51702-	-004	268-29-4	008056-04
51702-	-005	268-29-5	008056-05
51702-	-006	TLI LCS	TLI LCS
51702-	-007	TLI LCSD	TLI LCSD

XfrCOC (Rev 11/01/94)

Additional comments or instructions:

Method: Method 8290: Tetra-Octa
Required Detection Limit: 1 ppt

TRIANGLE LABORATORIES, INC.
HR GC/HRMS ANALYSIS

PROJECT: 51702

SAMPLE INFORMATION

RS Conc
20 µl @ 100.0 PG/µl

S#.crd	TLI SAMPLE ID / CLIENT SAMPLE ID	1ST COLUMN GC/MS FILENAME COLUMN: DB5	CONFIRM	2ND COLUMN CONFIRM FILENAME COLUMN:	USF-RS VOLUME SOLN ID	USF-RS INIT. DATE	ANALYSIS COMMENTS
000	TLI Blank / TLI Blank	T04196	N				
001	268-29-1 / 008056-01	T004207 / T04197	N				
002	268-29-2 / 008056-02	T004208 / TDD4198	N				
003	268-29-3 / 008056-03	T004209 / TDD4199	N				
004	268-29-4 / 008056-04	T004210 / TDD4200	N				
005	268-29-5 / 008056-05	TDD4201	N				
006	TLI LCS / TLI LCS	TDD4202	-				
007	TLI LCSD / TLI LCSD	TDD4203	-				

Comments:

Type: B

Spike File: SPMIT22S

Amt of Extract: 100%

REV 03/07/95 (PSTMF 6)

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	G/C
70T	DB-5	0557337	T02	2.0 µL	NDB5US	NDB5US

David Wheeler
Signature

8-29-00
Date

Filename	Date*	Time*	Project #	Sample#	No.	Client Sample ID	Syr	332	Operator/Date	Comments**
T004192	8-29-00	—	—	7503A	—	8290/1613 CONCAL 10	Auto	—	APW 8-29-00	Needle (BENT) Zee-ed, Aborted Run APW 8-29-00
T004193	8-29-00	2027	—	7503A	—	8290/1613 CONCAL 10	No	6.2 E5	APW 8-29-00	Good 8290 T-0 F16 R-8 APW
T004194	↓	~~2248~~ 21:31 APW 8-29-00		7461	—	RTCHK	↓	~~5.8~~ ~~E3~~	APW 8-29-00	Lost Lock Mass APW 8-29-00
T004195	8-29-00	2248	—	7461	—	RTCHK		1.4 E5	APW 8-29-00	Passed APW 8-29-00
T004196	8-30-00	00:59	51702	TLI BLANK	0	TLI BLANK		~~4.3~~ E5	APW 8-29-00	
97		01:44		268-29-1	1	008056-01		8.3 E3		Restart, Re-injection 8-30-00
98		02:31		268-29-2	2	-02		1.1 E4		
99		03:18		268-29-3	3	-03		1.0E4		Lost Lock mass. Restart TMD 8/30/00
T004200		04:05		268-29-4	4	-04		9.6E5		
01		04:052 TMD 8/30/00		268-29-5	5	008056-05		6.0E5		
02		05:39		TLI LCS	6	TLI LCS		2.4E5		
T004203	↓	06:26	51702	TLI LCSD	7	TLI LCSD	↓	2.4E5	APW 8-29-00	
T004204	8/30/00	07:13	—	7503A	—	8290/1613 Conc 10	Auto	3.4 E5	TMD 8/30/00	Good 8290 T-0, F18. S/N = 1250. TMD 8/30/00

Transcribed from chromatographic data
Dated initials required

ConCal Due: 0827 AM APW 8-29-00
ConCal Due: _____

r1/qa/forms/hrrunlog.doo (02/05/97)

25

Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	G/C
70 T	DB5	0557337	T02	2.0 µl	NDB5YS	NDB5YS

Signature: Johna Gibson Date: 8/30/00

Filename	Date*	Time*	Project #	Sample#	No.	Client Sample ID	Syr	332	Operator/Date	Comments**
T004205	8/30/00	08:42	—	7461	—	RTCHK	Auto	19%	JSY 8/30/00	Changed septa and liner. JSY 8/30/00
06		09:45	51435r1	TLI BLK	0	TLI Blank		6.0 ES		
07		10:31	51702	268-29-1	1	008056-01		3.2 ES		
08		11:18		268-29-2	2	008056-02		5.1 ES		
09		12:05		268-29-3	3	008056-03		6.1 ES		
10			51702	268-29-4	4	008056-04				
11			51435r1	265-59-1	1	MI-00-1				
12				265-59-2	2	RAN-00-3				
13				265-59-3	3	RAC-99-1				
14				265-59-4	4	RAC-95-2				
15				TLI LCS	5	TLI LCS				
16	8/30/00		51435r1	TLI LCSD	6	TLI LCSD	Auto		JSY 8/30/00	

Transcribed from chromatographic data
Dated initials required

ConCal Due: 19.13 JSY 8/30/00
ConCal Due:

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26

Triangle Laboratories, Inc.
Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	G/C
70T	DB-5	0557337	TO2	2.0 µL	NDB5US	NDB5US
				David Wheeler Signature		8-29-00 Date

Filename	Date*	Time*	Project #	Sample#	No.	Client Sample ID	Syr	332	Operator/Date	Comments**
T004192	8-29-00	—	—	7503A	—	8290/1613 CONCAL 10	Auto	—	APW 8-29-00	Needle (BENT) Zee-ed, Aborted Run APW 8-29-00
T004193	8-29-00	2027	—	7503A	—	8290/1613 ConCAL 10	No	6.2 E5	APW 8-29-00	Good 8290 TO FIG RESTART
T004194	↓	21:31 ~~2248~~	APW 8-29-00	7461	—	RTCHK	↓	5.8 ~~E3~~	APW 8-29-00	Lost Lock Mass APW 8-29-00
T004195	8-29-00	2248	—	7461	—	RTCHK	↓	1.4 E5	APW 8-29-00	Passed APW 8-29-00
T004196	8-30-00	00:59	51702	TLI BLANK	0	TLI BLANK	↓	4.3 E5	APW 8-29-00	
97	↓	01:40	↓	268-29-1	1	008056-01	↓	8.3 E3	↓	Restart, [illegible] 8-30-00
98	↓	02:31	↓	268-29-2	2	-02	↓	1.1 E4	↓	Lost Lockmass. Reshoot TRD 8/29/00
99	↓	03:18	↓	268-29-3	3	-03	↓	1.0E4	↓	
T004200	↓	04:05	↓	268-29-4	4	-04	↓	9.6E5	↓	
01	↓	04:052	1818 8/30/00	268-295	5	008056 -05	↓	6.0E5	↓	
02	↓	05:39	↓	TLI LCS	6	TLI LCS	↓	2.4E5	↓	
T004203	↓	06:26	51702	TLI LCSD	7	TLI LCSD	↓	2.4E5	APW 8-29-00	
T004204	8/30/00	07:13	—	750 3A	—	8290/1613 ConCal 10	Auto	3.4 E5	8/30/00	Good 8290 T-0, FIG. S/N = 1250. TSY 8/3/00

Transcribed from chromatographic data
Dated Initials required

ConCal Due: 0827 AM APW 8-29-00
ConCal Due: _____

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Run Log

Instrument ID	Column Type	Column ID	Plot Name	Inj. Vol.	Acquisition	G/C
70T	DB5	0557337	T02	2.0 µl	ND8545	ND8545

Signature: [illegible] Date: 8/30/00

Filename	Date*	Time*	Project #	Sample#	No.	Client Sample ID	Syr	332	Operator/Date	Comments**
T004205	8/30/00	08:42	—	7461	—	RICHK	Auto	19%	JSY 8/30/00	JSY 8/30/00 Changed septa and liner.
06		09:45	51435r1	TLI BLK	0	TLI Blank		6.0 ES		
07		10:31	51702	268-29-1	1	008056-01		3.2 ES		
08		11:14		268-29-2	2	008056-02		5.1 ES		
09		12:00		268-29-3	3	008056-03		[illegible] ES		
10		12:52	51702	268-29-4	4	008056-04		5.4 ES		
11		13:39	51435r1	265-59-1	1	MI-00-1		6.9ES		
12		14:26		265-59-2	2	RAN-00-3		6.3ES		
13		15:13		265-59-3	3	RAC-99-1		4.5 ES		
14		16:00		265-59-4	4	RAC-95-2		5.2 ES		
15		16:47		TLI LCS	5	TLI LCS		4.7 ES		
16	8/30/00	17:34	51435r1	TLI LCSD	6	TLI LCSD	Auto	4.2 ES	JSY 8/30/00	
T004217	8/30/00	18:45	—	7503A	—	8240/1613 CONCAL 10	Auto	5.4 ES	DFS 8/30/00	Good 8240 T-0 FIB MVL 8/30/00

Transcribed from chromatographic data

~ Dated initials required

∞

ConCal Due: 19.13 JSY 8/30/00

ConCal Due: _____

r1/qa/forms/hrrunlog.doc (02/05/97)

TRIANGLE LABS

SAMPLE DATA

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TRIANGLE LABORATORIES, INC.
LAB CONTROL SPIKE RECOVERY ANALYSIS AND COMPARISON

Project: 51702
Matrix: SAND
Method: 8290

Isomer	T004196 ID: TLI Blank Sample (ppt)	T004202 ID: TLI LCS With Spike (ppt)	Percent Recovery	T004203 ID: TLI LCSD Spike Dup (ppt)	Percent Recovery	Relative Percent Difference
2378-TCDD	0.55	44.0	109	47.1	116	6.22
12378-PeCDD	ND	213	107	209	105	1.89
123478-HxCDD	ND	209	105	210	105	0.0
123678-HxCDD	ND	213	106	210	105	0.95
123789-HxCDD	ND	230	115	217	109	5.36
1234678-HpCDD	ND	210	105	210	105	0.0
OCDD	ND	431	108	436	109	0.92
2378-TCDF	ND	41.8	105	44.7	112	6.45
12378-PeCDF	ND	208	104	209	104	0.0
23478-PeCDF	ND	222	111	234	117	5.26
123478-HxCDF	ND	181	90.7	177	88.3	2.68
123678-HxCDF	ND	195	97.3	190	94.9	2.50
234678-HxCDF	ND	228	114	256	128	11.6
123789-HxCDF	ND	233	116	243	121	4.22
1234678-HpCDF	ND	205	103	207	104	0.97
1234789-HpCDF	ND	208	104	242	121	15.1
OCDF	ND	411	103	428	107	3.81

ND: Not Detected
NA: Not Applicable
[..]: EMPC Value

MILES 4.22.16
GRY_PSUM v1.10

Processed By: PPO Date: 08/30/00

Percent Recovery QC Limits: 70 to 130 percent.
Relative Percent Difference QC Limits: +/- 20 percent.

Nominal Spike Levels:
TCDD/TCDF..: 0.4 ng
PeCDD/PeCDF: 2.0 ng
HxCDD/HxCDF: 2.0 ng
HpCDD/HpCDF: 2.0 ng
OCDD/OCDF..: 4.0 ng

TRIANGLE LABORATORIES, INC.
Sample Results for Project 51702
Method MIT3 Analysis (DB-5)

Data File	T004196	T004207	T004208	T004209
Sample ID	TLI Blank	008056-01	008056-02	008056-03
Units	ppt	ppt	ppt	ppt
Extraction Date	08/27/2000	08/27/2000	08/27/2000	08/27/2000
Analysis Date	08/30/2000	08/30/2000	08/30/2000	08/30/2000
Instrument	T	T	T	T
Matrix	SAND	SOIL	SOIL	SOIL
Extraction Type				
Analytes				
2378-TCDD	0.55 J	(0.6)	(0.4)	(0.2)
12378-PeCDD	(0.4)	(0.7)	(0.4)	(0.2)
123478-HxCDD	(0.4)	(0.6)	(0.5)	(0.2)
123678-HxCDD	(0.4)	(0.6)	(0.5)	(0.2)
123789-HxCDD	(0.4)	(0.6)	(0.5)	(0.2)
1234678-HpCDD	(0.7)	7.4	3.7 J	4.1 J
OCDD	(1.1)	52.8	26.4	35.9
2378-TCDF	(0.2)	(0.4)	(0.3)	(0.2)
12378-PeCDF	(0.3)	(0.5)	(0.3)	(0.2)
23478-PeCDF	(0.3)	(0.5)	(0.3)	(0.2)
123478-HxCDF	(0.3)	(0.5)	(0.4)	(0.2)
123678-HxCDF	(0.3)	(0.4)	(0.4)	(0.2)
234678-HxCDF	(0.3)	(0.5)	(0.4)	(0.2)
123789-HxCDF	(0.3)	(0.6)	(0.5)	(0.2)
1234678-HpCDF	(0.4)	3.0 J	1.4 J	1.5 J
1234789-HpCDF	(0.6)	(0.8)	(0.7)	(0.3)
OCDF	(0.9)	22.3	8.8 J	8.3 J
TOTAL TCDD	0.55	(0.6)	{1.7}	{4.0}
TOTAL PeCDD	(0.4)	(0.7)	(0.4)	(0.2)
TOTAL HxCDD	(0.4)	(0.6)	(0.5)	(0.2)
TOTAL HpCDD	(0.7)	12.4	6.7	7.5
TOTAL TCDF	(0.2)	(0.4)	(0.3)	1.2
TOTAL PeCDF	(0.3)	{0.90}	{2.2}	{2.6}
TOTAL HxCDF	(0.3)	1.8	1.1	0.51
TOTAL HpCDF	(0.5)	13.4	5.5	5.0
Other Standards Percent Recovery Summary (% Rec)				
37Cl-TCDD	59.3	73.6	82.4	86.1
Other Standards Percent Recovery Summary (% Rec)				
13C12-PeCDF 234	53.7	84.1	92.0	92.3
13C12-HxCDF 478	58.5	65.5	62.9	71.9
13C12-HxCDD 478	64.0	77.9	81.5	83.7
13C12-HpCDF 789	57.6	81.0	89.9	91.2
Other Standards Percent Recovery Summary (% Rec)				
13C12-HxCDF 789	64.7	75.9	84.9	85.9
13C12-HxCDF 234	65.2	74.0	79.4	78.5
Internal Standards Percent Recovery Summary (% Rec)				
13C12-2378-TCDF	56.2	77.9	84.3	91.0
13C12-2378-TCDD	54.6	75.1	80.8	85.2

Data File	T004196	T004207	T004208	T004209
Sample ID	TLI Blank	008056-01	008056-02	008056-03
Units	ppt	ppt	ppt	ppt
Extraction Date	08/27/2000	08/27/2000	08/27/2000	08/27/2000
Analysis Date	08/30/2000	08/30/2000	08/30/2000	08/30/2000
Instrument	T	T	T	T
Matrix	SAND	SOIL	SOIL	SOIL
Extraction Type				
Internal Standards Percent Recovery Summary (% Rec)				
13C12-PeCDF 123	52.6	81.9	87.4	89.5
13C12-PeCDD 123	56.8	85.3	92.8	99.2
13C12-HxCDF 678	62.1	68.6	66.4	72.3
13C12-HxCDD 678	69.2	80.9	89.1	87.7
13C12-HpCDF 678	56.2	71.6	68.5	76.5
13C12-HpCDD 678	60.8	83.3	91.9	92.8
13C12-OCDD	52.8	72.8	82.9	92.2

Data File	T004201		T004202	T004203
Sample ID	008056-05		TLI LCS	TLI LCSD
Units	ppt		ppt	ppt
Extraction Date	08/27/2000		08/27/2000	08/27/2000
Analysis Date	08/30/2000		08/30/2000	08/30/2000
Instrument	T		T	T
Matrix	SOIL		SAND	SAND
Extraction Type				
Analytes				
2378-TCDD	(0.2)		44.0	47.1
12378-PeCDD	(0.3)		213	209
123478-HxCDD	(0.3)		209	210
123678-HxCDD	(0.3)		213	210
123789-HxCDD	(0.3)		230	217
1234678-HpCDD	2.2	J	210	210
OCDD	11.1		431	436
2378-TCDF	(0.2)		41.8	44.7
12378-PeCDF	(0.2)		208	209
23478-PeCDF	(0.2)		222	234
123478-HxCDF	(0.2)		181	177
123678-HxCDF	(0.2)		195	190
234678-HxCDF	(0.2)		228	256
123789-HxCDF	(0.3)		233	243
1234678-HpCDF	(0.3)		205	207
1234789-HpCDF	(0.4)		208	242
OCDF	1.2	J	411	428
TOTAL TCDD	1.3			
TOTAL PeCDD	(0.3)			
TOTAL HxCDD	{0.31}			
TOTAL HpCDD	4.1			
TOTAL TCDF	(0.2)			
TOTAL PeCDF	{4.3}			
TOTAL HxCDF	0.35			
TOTAL HpCDF	(0.3)			
Other Standards Percent Recovery Summary (% Rec)				
37Cl-TCDD	86.9		73.8	82.9
Other Standards Percent Recovery Summary (% Rec)				
13C12-PeCDF 234	92.9		92.6	84.0
13C12-HxCDF 478	77.7		69.1	60.6
13C12-HxCDD 478	89.3		83.2	83.8
13C12-HpCDF 789	98.2		82.9	85.9
Other Standards Percent Recovery Summary (% Rec)				
13C12-HxCDF 789	93.5		85.8	83.0
13C12-HxCDF 234	88.4		85.7	87.1
Internal Standards Percent Recovery Summary (% Rec)				
13C12-2378-TCDF	101		72.5	82.6
13C12-2378-TCDD	82.1		72.7	77.8

TRIANGLE LABORATORIES, INC.
Sample Results for Project 51702
Method MIT3 Analysis (DB-5)

Data File	T004201	T004202	T004203
Sample ID	008056-05	TLI LCS	TLI LCSD
Units	ppt	ppt	ppt
Extraction Date	08/27/2000	08/27/2000	08/27/2000
Analysis Date	08/30/2000	08/30/2000	08/30/2000
Instrument	T	T	T
Matrix	SOIL	SAND	SAND
Extraction Type			

Internal Standards Percent Recovery Summary (% Rec)

13C12-PeCDF 123	89.8	89.3	78.7
13C12-PeCDD 123	96.3	96.3	83.8
13C12-HxCDF 678	78.0	73.1	66.3
13C12-HxCDD 678	92.3	85.7	90.3
13C12-HpCDF 678	79.0	77.5	67.2
13C12-HpCDD 678	101	86.4	86.9
13C12-OCDD	84.7	76.6	80.4

{Estimated Maximum Possible Concentration}, (Detection Limit).

Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **TLI Blank**

Method 8290 PCDD/PCDF Analysis (b)
Analysis File: **T004196**

Client Project:	008056				
Sample Matrix:	SAND	Date Received:	/ /	Spike File:	SPMIT32S
TLI ID:	TLI Blank	Date Extracted:	08/27/2000	ICal:	TF57140
		Date Analyzed:	08/30/2000	ConCal:	T004193
Sample Size:	10.000 g	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T004196	% Lipid:	n/a
GC Column:	DB-5	Analyst:	DPW	% Solids:	n/a

Analytes	Conc. (ppt)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	0.55			0.70	26:52	J__
1,2,3,7,8-PeCDD	ND	0.4				__
1,2,3,4,7,8-HxCDD	ND	0.4				__
1,2,3,6,7,8-HxCDD	ND	0.4				__
1,2,3,7,8,9-HxCDD	ND	0.4				__
1,2,3,4,6,7,8-HpCDD	ND	0.7				__
1,2,3,4,6,7,8,9-OCDD	ND	1.1				__
2,3,7,8-TCDF	ND	0.2				__
1,2,3,7,8-PeCDF	ND	0.3				__
2,3,4,7,8-PeCDF	ND	0.3				__
1,2,3,4,7,8-HxCDF	ND	0.3				__
1,2,3,6,7,8-HxCDF	ND	0.3				__
2,3,4,6,7,8-HxCDF	ND	0.3				__
1,2,3,7,8,9-HxCDF	ND	0.3				__
1,2,3,4,6,7,8-HpCDF	ND	0.4				__
1,2,3,4,7,8,9-HpCDF	ND	0.6				__
1,2,3,4,6,7,8,9-OCDF	ND	0.9				__

Totals	Conc. (ppt)	Number	DL	EMPC	Flags
Total TCDD	0.55	1		0.78	
Total PeCDD	ND		0.4		__
Total HxCDD	ND		0.4		__
Total HpCDD	ND		0.7		__
Total TCDF	ND		0.2		__
Total PeCDF	ND		0.3		__
Total HxCDF	ND		0.3		__
Total HpCDF	ND		0.5		__

mit3_PSR v1.00, LARS 6.25.00

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Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **TLI Blank**

Method 8290 PCDD/PCDF Analysis (b)
Analysis File: **T004196**

Internal Standards	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	112	56.2	40%-130%	0.75	26:10	—
$^{13}C_{12}$-2,3,7,8-TCDD	109	54.6	40%-130%	0.78	26:50	—
$^{13}C_{12}$-1,2,3,7,8-PeCDF	105	52.6	40%-130%	1.48	29:56	—
$^{13}C_{12}$-1,2,3,7,8-PeCDD	114	56.8	40%-130%	1.47	30:56	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	124	62.1	40%-130%	0.50	33:25	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	138	69.2	40%-130%	1.22	34:06	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	112	56.2	25%-130%	0.42	36:25	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	122	60.8	25%-130%	1.01	37:31	—
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	211	52.8	25%-130%	0.85	41:24	—

Surrogate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	107	53.7	40%-130%	1.54	30:36	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	117	58.5	40%-130%	0.49	33:18	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	128	64.0	40%-130%	1.23	34:01	—
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	115	57.6	25%-130%	0.44	38:04	—

Other Standard	Conc. (ppt)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	11.9	59.3	40%-130%	26:51	—

Alternate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	129	64.7	40%-130%	0.50	34:43	—
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	130	65.2	40%-130%	0.51	33:54	—

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.81	26:40	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.22	34:26	—

Data Reviewer: PM 08/30/2000

mit3_PSR v1.00, LARS 6.25.00

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Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **TLI Blank**

Toxicity Equivalents Report
Analysis File: **T004196**

Client Project:	008056				
Sample Matrix:	SAND	Date Received:	08/22/00	Spike File:	SPMIT32S
TLI ID:	TLI Blank	Date Extracted:	08/27/00	ICal:	TF57140
		Date Analyzed:	08/30/00	ConCal:	T004193
Sample Size:	10.000 g	Dilution Factor:	1	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T004196	% Lipid:	n/a
GC Column:	DB-5	Analyst:	DPW	% Solids:	n/a

Analytes	Conc. (ppt)		TEF		Equivalent
2,3,7,8-TCDD	0.55	x	1.	=	0.55
1,2,3,7,8-PeCDD	{0.4}	x	0.5	=	0.2
1,2,3,4,7,8-HxCDD	{0.4}	x	0.1	=	0.04
1,2,3,6,7,8-HxCDD	{0.4}	x	0.1	=	0.04
1,2,3,7,8,9-HxCDD	{0.4}	x	0.1	=	0.04
1,2,3,4,6,7,8-HpCDD	{0.7}	x	0.01	=	0.007
1,2,3,4,6,7,8,9-OCDD	{1.1}	x	0.001	=	0.0011
TOTAL PCDD					0.9
2,3,7,8-TCDF	{0.2}	x	0.1	=	0.02
1,2,3,7,8-PeCDF	{0.3}	x	0.05	=	0.02
2,3,4,7,8-PeCDF	{0.3}	x	0.5	=	0.2
1,2,3,4,7,8-HxCDF	{0.3}	x	0.1	=	0.03
1,2,3,6,7,8-HxCDF	{0.3}	x	0.1	=	0.03
2,3,4,6,7,8-HxCDF	{0.3}	x	0.1	=	0.03
1,2,3,7,8,9-HxCDF	{0.3}	x	0.1	=	0.03
1,2,3,4,6,7,8-HpCDF	{0.4}	x	0.01	=	0.004
1,2,3,4,7,8,9-HpCDF	{0.6}	x	0.01	=	0.006
1,2,3,4,6,7,8,9-OCDF	{0.9}	x	0.001	=	0.0009
TOTAL PCDF					0.4

Total EPA TEFs, 1989a: 1.2 ppt

{...} indicates that the value is that of a Detection Limit.

GRY_TEF v1.08, MILES 4.22.16

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Printed: 15:20 08/30/00

Initial ....Date...

Data Review By: PL 08/30/00

Calculated Noise Height: 0.03

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of T004196B.dbf
08/30/2000 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF				0.65-0.89						0.880-1.070			
304-306	DC	NL				Height	0.13	0.07	0.06				
	DC	SN		26:11	RO	1.93	0.25			1.001	2378-TCDF	AN	
	DC	SN		27:04	RO	0.27	0.14			1.034			
	DC	SN		27:18	RO	1.00	0.07			1.043			
304-306			0	Peaks			0.00						
13C12-TCDF				0.65-0.89						0.962-1.038			
316-318	DC	NL				Height	0.11	0.05	0.06				
	DC	WL		24:24		0.83	0.84			0.932			
				25:11		0.65	3.00	1.18	1.82	0.962			
				25:48		0.80	1.94	0.86	1.08	0.986			
				26:10		0.75	254.04	109.11	144.93	1.000	13C12-2378-TCDF	ISO	
						Height	65.28	27.69	37.59				
				26:38	RO	1.35	1.72	1.31	0.97	1.018			
				26:50	RO	0.33	0.44	0.19	0.57	1.025			
316-318			5	Peaks			261.14						

---------- Above: TCDF / TCDD Follows ----------

TCDD				0.65-0.89						0.905-1.042			
320-322	DC	NL				Height	0.12	0.06	0.06				
	DC	SN		24:17	RO	1.67	0.16			0.905			
	DC	SN		24:27	RO	1.19	0.37			0.911	1368-TCDD	AN	
				26:52		0.70	0.51	0.21	0.30	1.001	2378-TCDD	AN	J
	DC	SN		26:58		0.75	0.14			1.005			
				27:04	RO	1.75	0.21	0.21	0.12	1.009			J
320-322			2	Peaks			0.72						
37Cl-TCDD										0.925-1.075			
328	DC	NL				Height	0.05	0.05					
	DC	WL		24:13			0.19			0.902			
	DC	WL		24:47			0.02			0.924			
	DC	WL		24:48			0.09			0.924			
	DC	SN		25:02			0.15			0.933			
	DC	SN		25:15			0.13			0.941			
	DC	SN		25:21			0.05			0.945			
				26:44			0.12	0.12		0.996			
				26:51			18.63	18.63		1.001	37Cl-TCDD	CLS	
				27:03			0.19	0.19		1.008			
				27:07			0.15	0.15		1.011			
	DC	SN		27:18			0.22			1.017			
				27:34			0.44	0.44		1.027			
	DC	SN		27:43			0.05			1.033			

Listing of T004196B.dbf
Matched GC Peaks / Ratio / Ret. Time

```
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

                DC  SN  28:20                   0.10                                  1.056
328                       5 Peaks              19.53

13C12-TCDD                        0.65-0.89                                   0.925-1.075
332-334         DC  NL            Height         0.14          0.08          0.06
                          26:40     0.81       352.85        157.96        194.89  0.994 13C12-1234-TCDD RS1
                          26:50     0.78       202.56         88.69        113.87  1.000 13C12-2378-TCDD IS1
                                  Height        52.13         22.83         29.30
                          27:14 RO  1.03         0.67          0.39          0.38  1.015
                          27:35 RO  1.51         0.69          0.59          0.39  1.028
332-334                   4 Peaks              556.77

                    ---------------------- Above: TCDD / PeCDF Follows --------------------

PeCDF                             1.32-1.78                                   0.930-1.060
340-342         DC  NL            Height         0.11          0.05          0.06
                DC  SN    30:01 RO  0.50         0.21                                1.003
                DC  SN    30:32 RO  1.20         0.13                                1.020
340-342                   0 Peaks                0.00

13C12-PeCDF                       1.32-1.78                                   0.866-1.134
352-354         DC  NL            Height         0.11          0.05          0.06
                          29:06     1.61         2.58          1.59          0.99  0.972
                          29:34 RO  1.08         2.52          1.07          0.99  0.988
                          29:56     1.48       222.67        132.74         89.93  1.000 13C12-PeCDF 123 IS2
                                  Height        64.52         38.09         26.43
                          30:13 RO  1.04         3.01          1.23          1.18  1.009
                          30:36     1.54       224.74        136.23         88.51  1:022 13C12-PeCDF 234 SUR1
                          31:01 RO  0.58         0.31          0.19          0.33  1.036
                DC  SN    31:21     1.33         0.35                                1.047
                          31:35     1.44         2.56          1.51          1.05  1.055
352-354                   7 Peaks              458.39

                    ---------------------- Above: PeCDF / PeCDD Follows --------------------

PeCDD                             1.32-1.78                                   0.939-1.021
356-358         DC  NL            Height         0.12          0.07          0.05
356-358                   0 Peaks                0.00

13C12-PeCDD                       1.32-1.78                                   0.871-1.129
368-370         DC  NL            Height         0.11          0.06          0.05
                DC  SN    29:35 RO  1.25         0.20                                0.956
                          29:54 RO  1.23         1.68          0.81          0.66  0.967
                          30:02     1.43         1.12          0.66          0.46  0.971
                DC  SN    30:12 RO  0.57         0.20                                0.976
                DC  SN    30:20 RO  0.44         0.13                                0.981
                          30:56     1.47       136.71         81.44         55.27  1.000 13C12-PeCDD 123 IS3
                                  Height        40.24         23.86         16.38
                          31:16 RO  1.13         0.59          0.26          0.23  1.011
368-370                   4 Peaks              140.10
```

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Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

                    ---------------------- Above: PeCDD / HxCDF Follows ----------------------

HxCDF                                1.05-1.43                                        0.963-1.046
374-376          DC  NL               Height          0.13          0.07          0.06
374-376                0 Peaks                       0.00

13C12-HxCDF                          0.43-0.59                                        0.880-1.120
384-386          DC  NL               Height          0.13          0.07          0.06
                         32:30        0.48           1.08          0.35          0.73  0.973
                         33:18        0.49         178.51         58.84        119.67  0.997 13C12-HxCDF 478 SUR2
                         33:25        0.50         192.57         64.49        128.08  1.000 13C12-HxCDF 678 IS4
                                     Height         55.26         18.50         36.76
                         33:43 RO     3.06           0.27          0.55          0.18  1.009
                         33:54        0.51         184.35         61.87        122.48  1.014 13C12-HxCDF 234 ALT2
                         34:07 RO     0.86           1.89          0.64          0.74  1.021
                         34:19 RO     1.46           0.20          0.19          0.13  1.027
                 DC  SN  34:34 RO     1.57           0.11                              1.034
                         34:43        0.50         134.31         44.61         89.70  1.039 13C12-HxCDF 789 ALT1
                         34:59 RO     0.20           0.44          0.15          0.74  1.047
                         35:02        0.45           0.64          0.20          0.44  1.048
                         35:04 RO     1.43           0.32          0.30          0.21  1.049
                 DC  SN  35:13 RO     0.64           0.41                              1.054
384-386               11 Peaks                     694.58

                    ---------------------- Above: HxCDF / HxCDD Follows ----------------------

HxCDD                                1.05-1.43                                        0.957-1.014
390-392          DC  NL               Height          0.14          0.07          0.07
                 DC  SN  34:29 RO     0.38           0.05                              1.011
390-392                0 Peaks                       0.00

13C12-HxCDD                          1.05-1.43                                        0.971-1.029
402-404          DC  NL               Height          0.12          0.06          0.06
                         33:29        1.09           1.40          0.73          0.67  0.982
                         34:01        1.23         128.42         70.90         57.52  0.998 13C12-HxCDD 478 SUR3
                         34:06        1.22         134.11         73.60         60.51  1.000 13C12-HxCDD 678 IS5
                                     Height         37.76         20.44         17.32
                         34:16 RO     2.17           0.65          0.63          0.29  1.005
                         34:26        1.22         213.40        117.11         96.29  1.010 13C12-HxCDD 789 RS2
                         34:48 RO     0.83           0.36          0.20          0.24  1.021
                         34:49 RO     6.30           0.22          0.63          0.10  1.021
402-404                7 Peaks                     478.56

                    ---------------------- Above: HxCDD / HpCDF Follows ----------------------

HpCDF                                0.88-1.20                                        0.996-1.050
408-410          DC  NL               Height          0.11          0.05          0.06
                 DC  SN  37:46 RO     0.25           0.06                              1.037
                 DC  SN  38:12 RO     0.60           0.18                              1.049
                 DC  WH  38:17 RO     1.38           0.16                              1.051
408-410                0 Peaks                       0.00
```

Listing of T004196B.dbf
Matched GC Peaks / Ratio / Ret. Time

```
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

13C12-HpCDF                    0.37-0.51                                    0.945-1.110
418-420          DC  NL            Height        0.15          0.08          0.07
                         36:25      0.42      116.31         34.65         81.66  1.000 13C12-HpCDF 678 IS6
                                   Height       27.67          8.16         19.51
                         36:55 RO  0.15         0.29          0.09          0.60  1.014
                 DC  SN  37:11 RO  2.50         0.09                              1.021
                         38:04      0.44       92.77         28.21         64.56  1.045 13C12-HpCDF 789 SUR4
                         38:18 RO  0.65         1.31          0.40          0.62  1.052
418-420                    4 Peaks            210.68

                    ---------------------- Above: HpCDF / HpCDD Follows ---------------------

HpCDD                          0.88-1.20                                    0.975-1.005
424-426          DC  NL            Height        0.11          0.06          0.05
                 DC  SN  36:46 RO  0.79         0.37                                   0.980
424-426                    0 Peaks              0.00

13C12-HpCDD                    0.88-1.20                                    0.973-1.027
436-438          DC  NL            Height        0.13          0.07          0.06
                         37:31      1.01      111.25         55.91         55.34  1.000 13C12-HpCDD 678 IS7
                                   Height       26.10         13.04         13.06
                         37:48 RO  1.50         0.65          0.48          0.32  1.008
                         37:56 RO  2.11         0.37          0.38          0.18  1.011
436-438                    3 Peaks            112.27

                    ---------------------- Above: HpCDD / Octa-CDD and CDF Follows ----------

OCDF                           0.76-1.02                                    0.903-1.097
442-444          DC  NL            Height        0.11          0.06          0.05
                 DC  SN  37:53 RO  1.36         0.26                                   0.915
                 DC  SN  38:12      1.00         0.26                                   0.923
                 DC  SN  41:52 RO  1.25         0.15                                   1.011
                 DC  SN  41:56 RO  0.55         0.13                                   1.013
                 DC  SN  42:17 RO  1.10         0.38                                   1.021
                 DC  SN  43:13 RO  2.13         0.15                                   1.044
442-444                    0 Peaks              0.00

OCDD                           0.76-1.02                                    0.903-1.097
458-460          DC  NL            Height        0.12          0.06          0.06
        D        D   SN  41:24      0.93         0.83                                   1.000 OCDD            AN
                 DC  SN  41:39      0.83         0.33                                   1.006
458-460                    0 Peaks              0.00

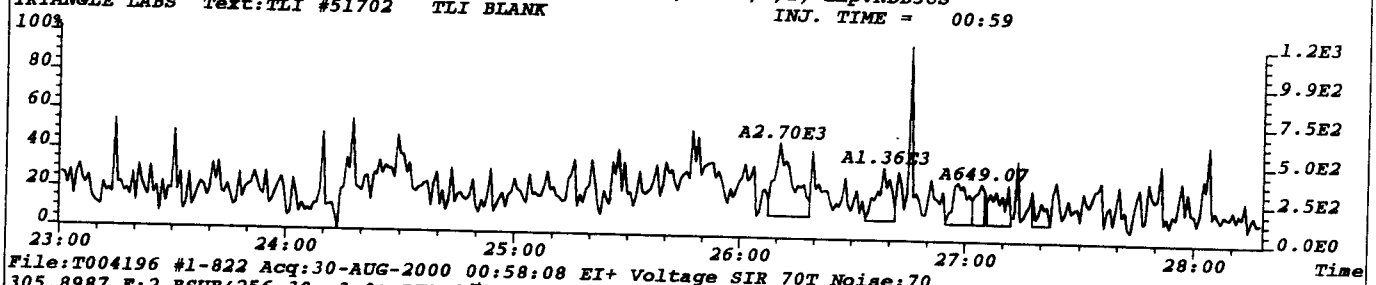
13C12-OCDD                     0.76-1.02                                    0.996-1.004
470-472          DC  NL            Height        0.10          0.05          0.05
                         41:24      0.85      157.15         72.19         84.96  1.000 13C12-OCDD      IS8
                                   Height       29.54         13.39         16.15
                 DC  WH  41:47 RO  0.72         1.04                                   1.009
470-472                    1 Peak             157.15
```

Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

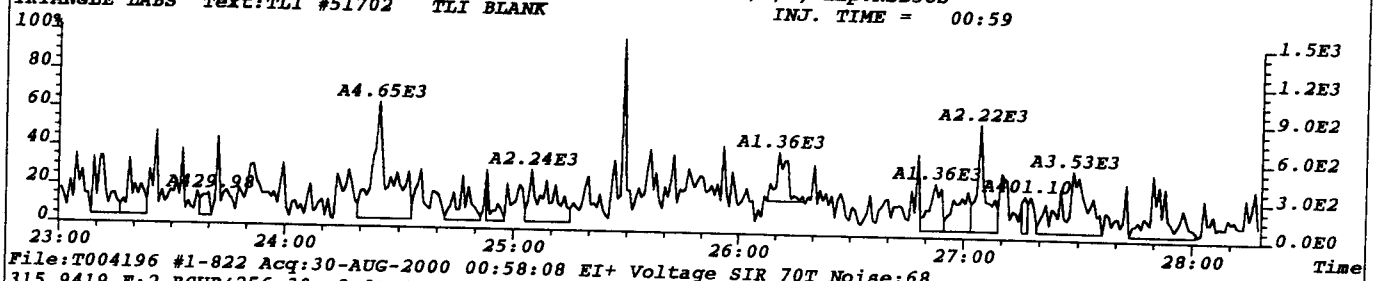
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***

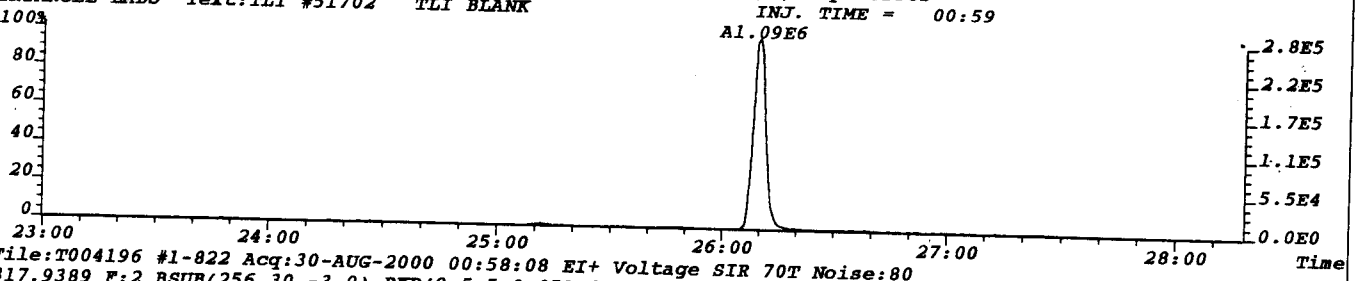
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:82
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,328.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



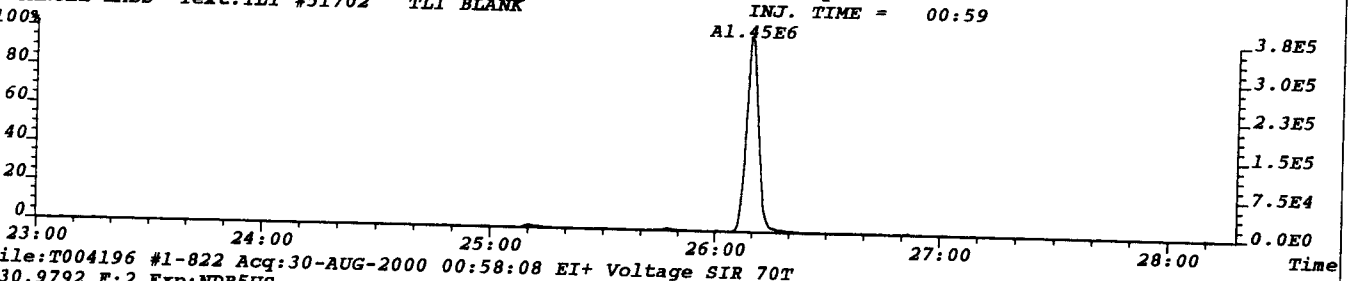
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:70
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,280.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



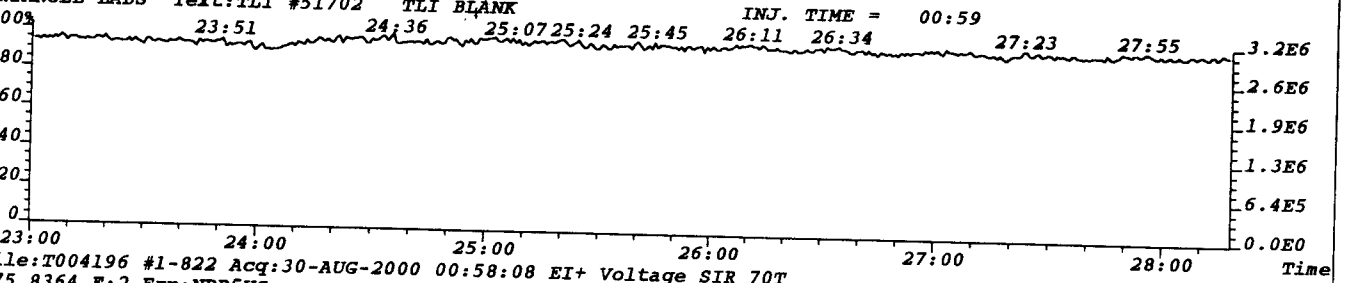
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:68
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,272.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



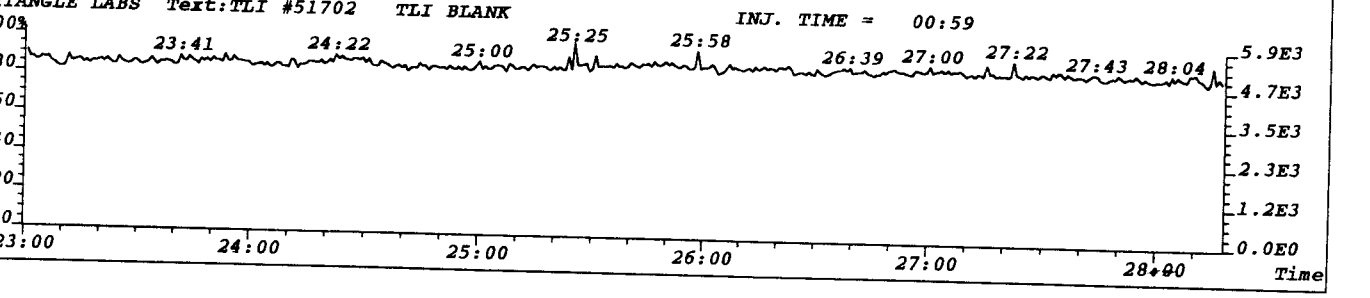
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:80
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,320.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



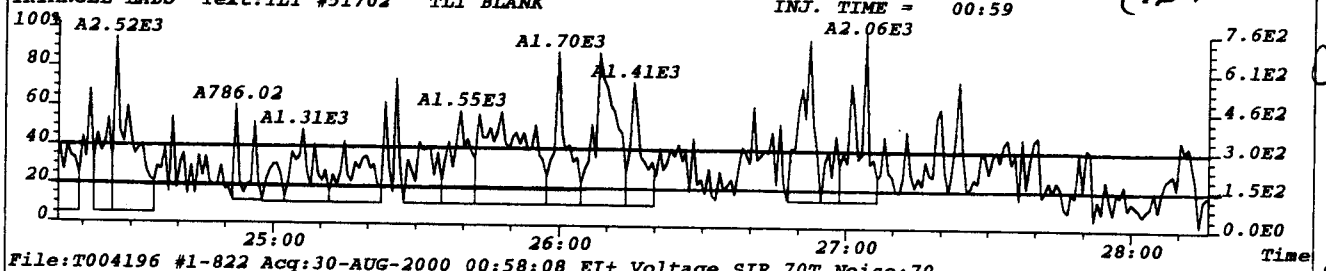
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



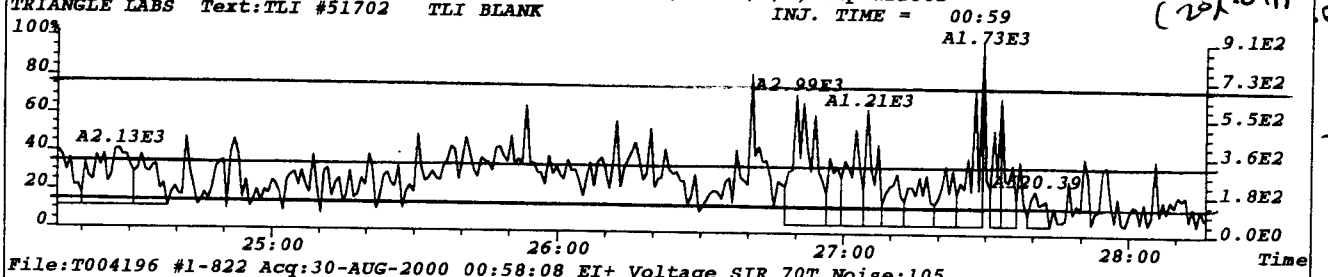
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
375.8364 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



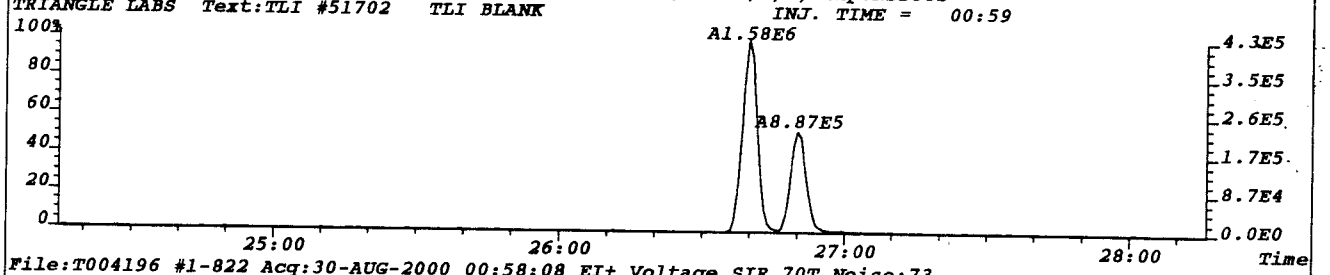
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:70
319.8965 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,280.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



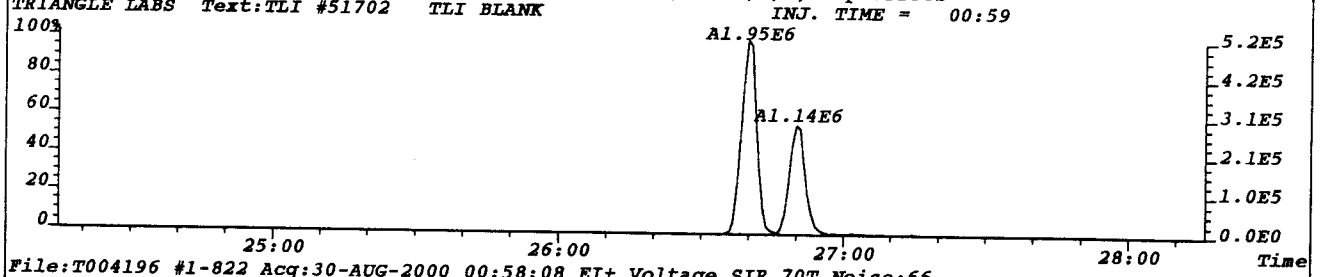
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:70
321.8936 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,280.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



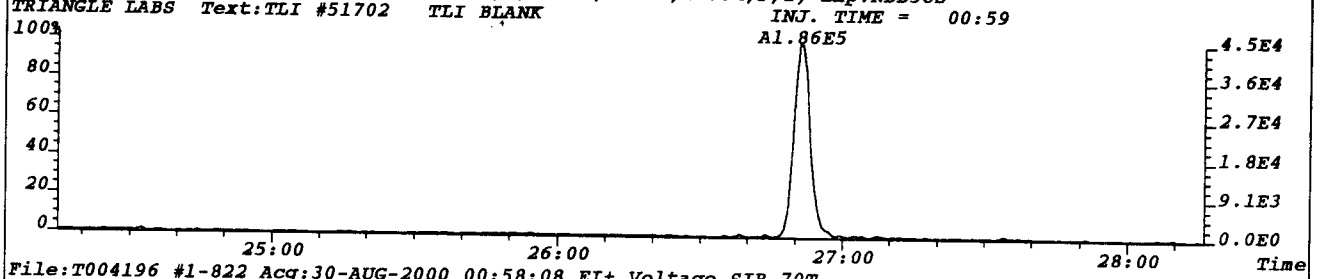
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:105
331.9368 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,420.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



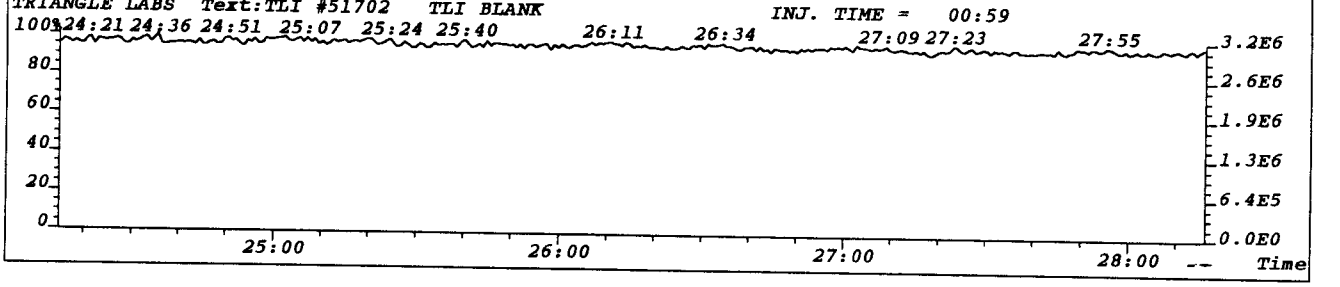
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:73
333.9338 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,292.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



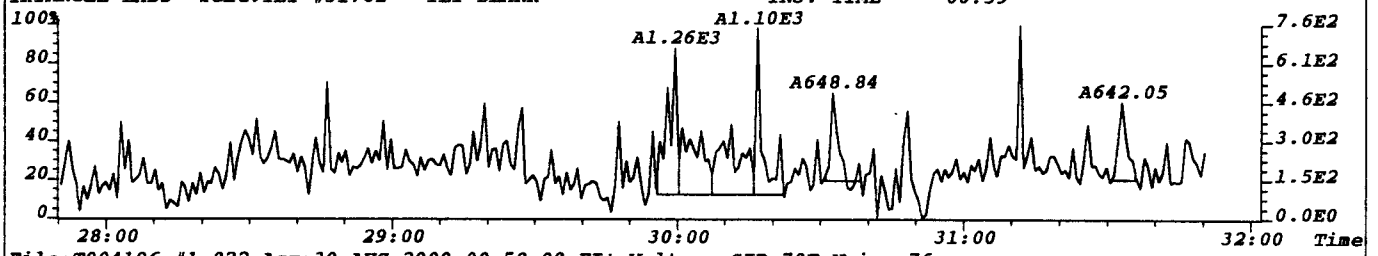
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:66
327.8847 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,264.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



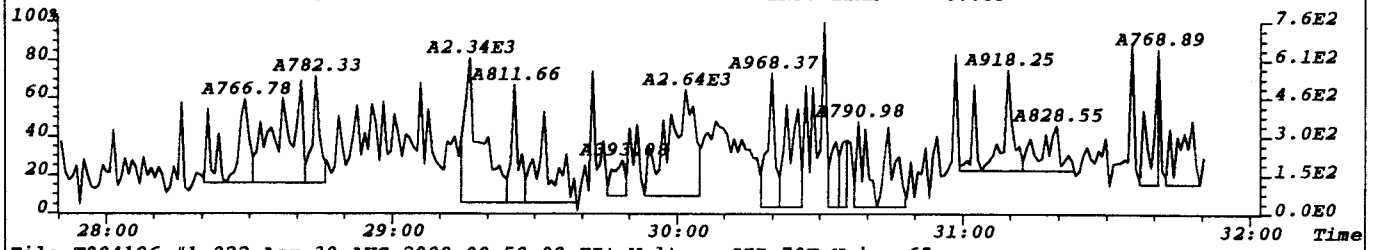
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



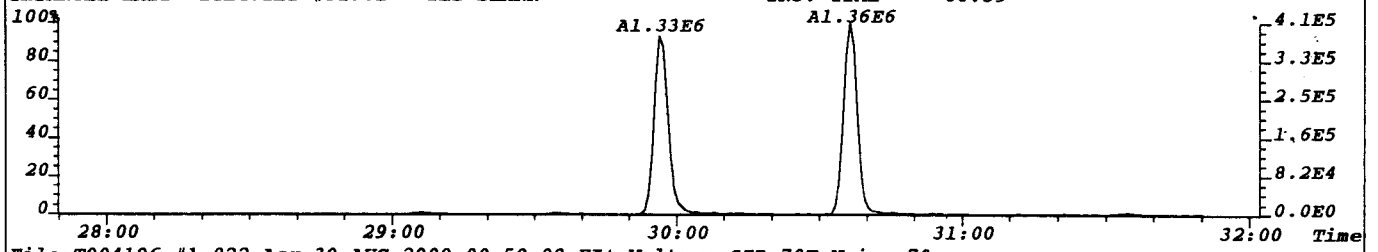
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:68
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,272.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



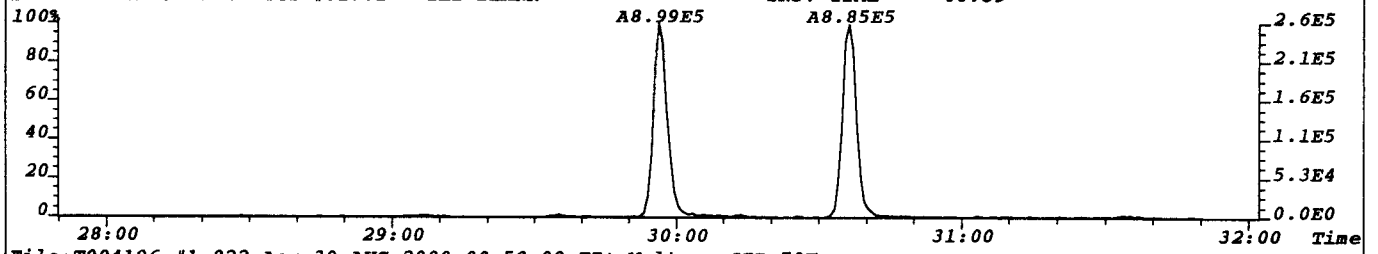
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:76
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,304.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



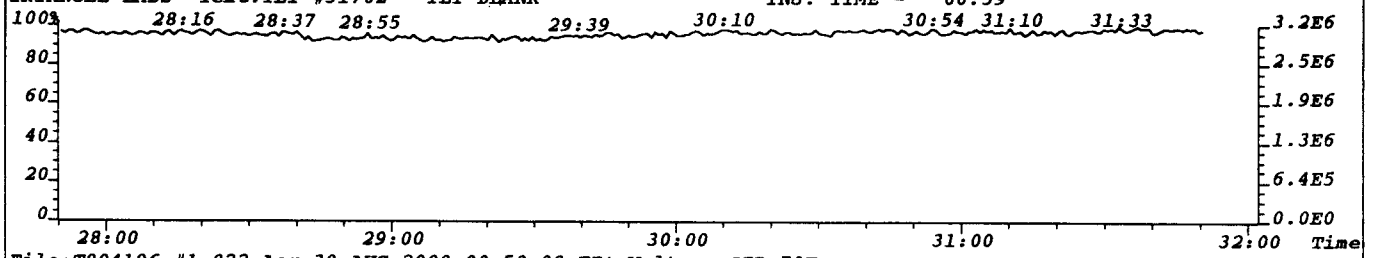
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:65
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,260.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



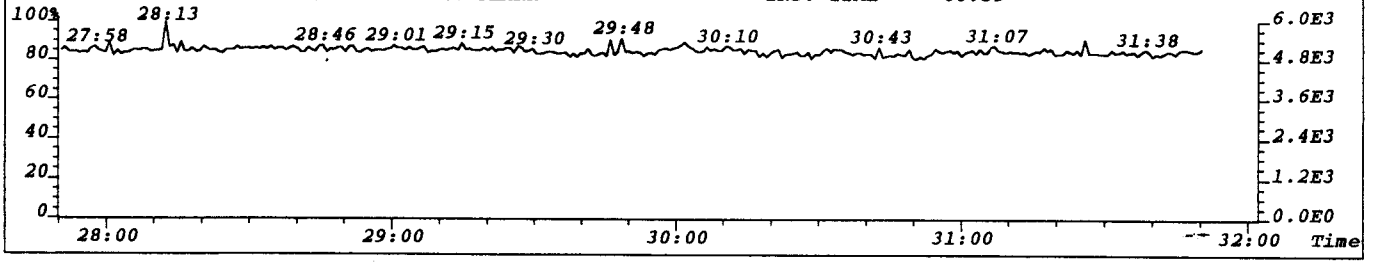
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:70
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,280.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



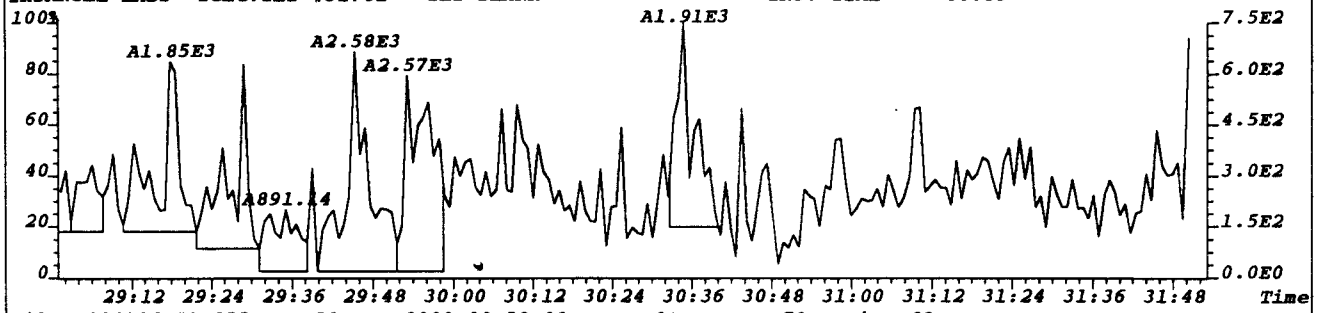
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



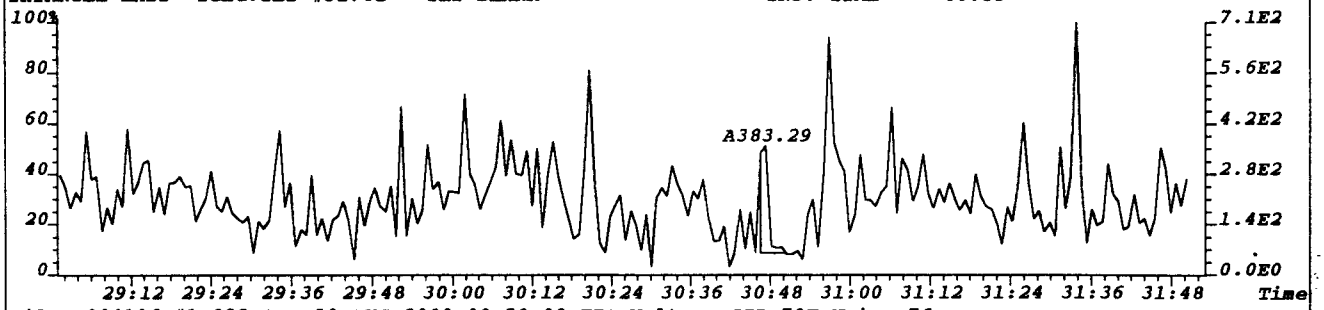
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
409.7974 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



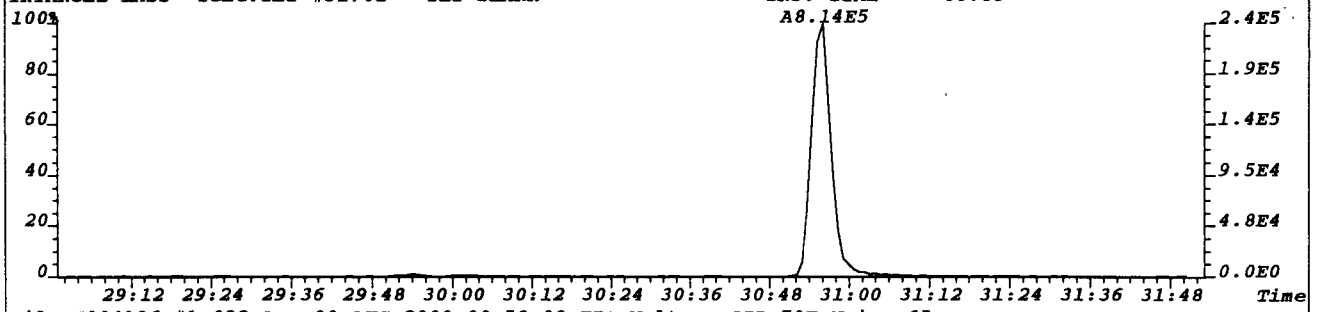
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:82
355.8546 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,328.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



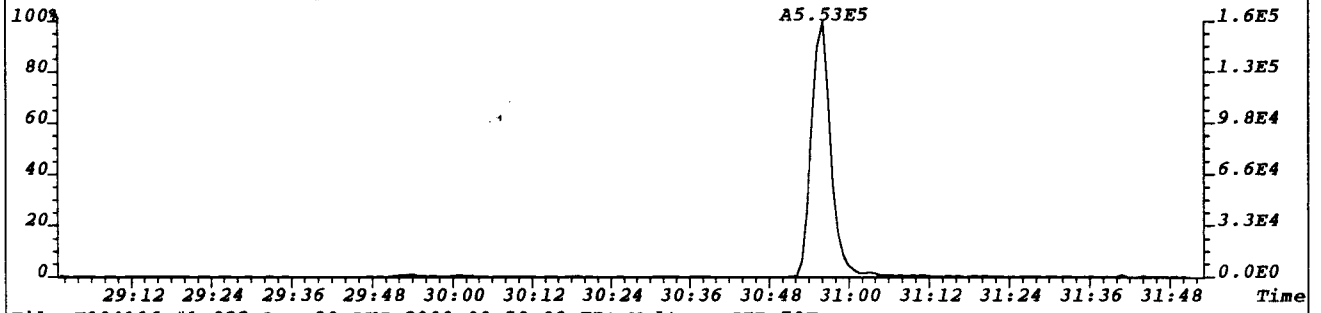
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:63
357.8516 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,252.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



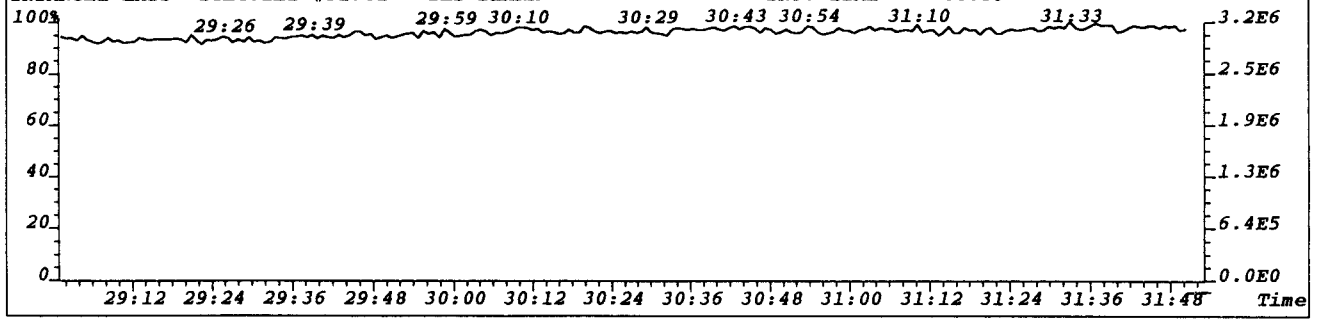
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:76
367.8949 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,304.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



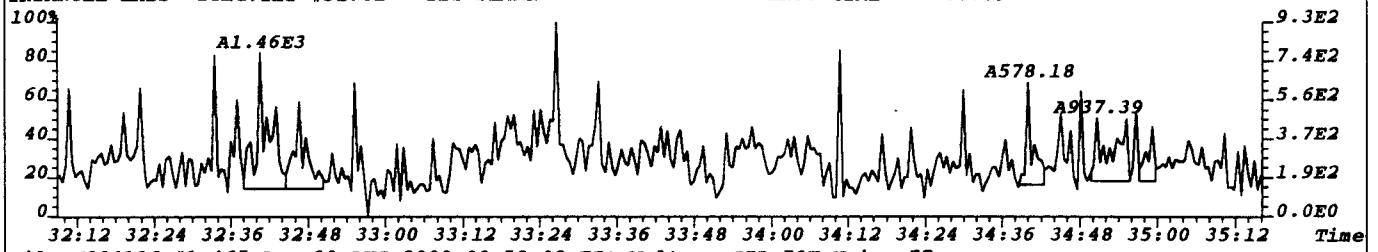
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:65
369.8919 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,260.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



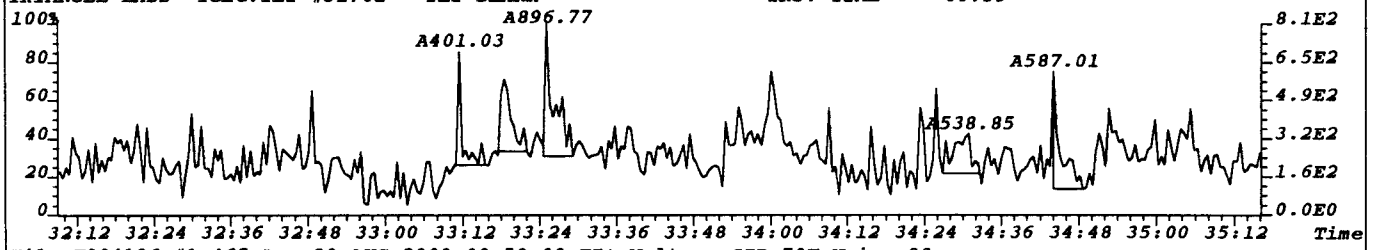
File:T004196 #1-822 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



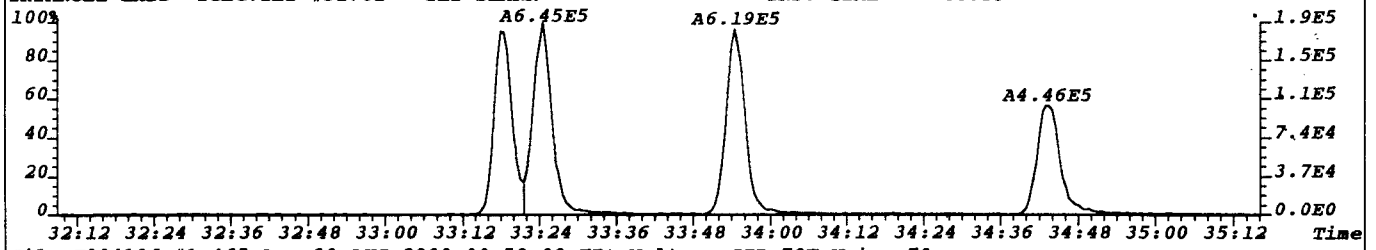
File:T004196 #1-465 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:82
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,328.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



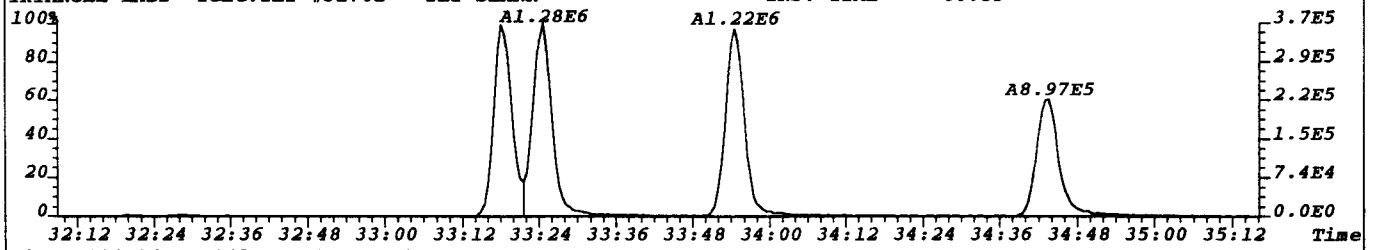
File:T004196 #1-465 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:77
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,308.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



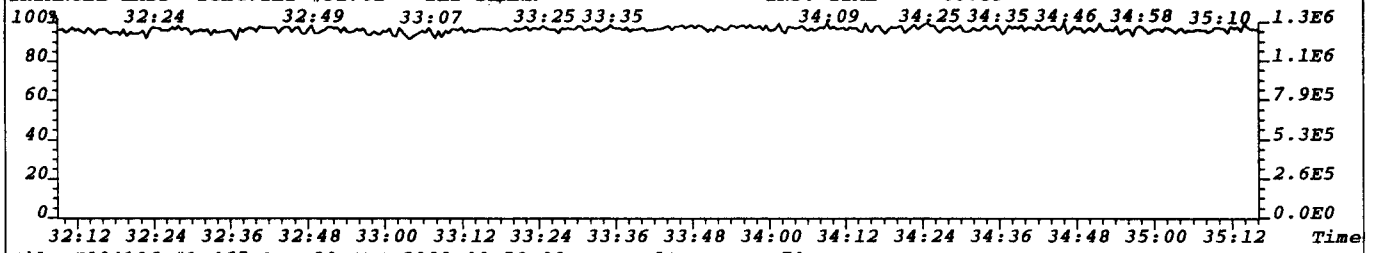
File:T004196 #1-465 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:93
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,372.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



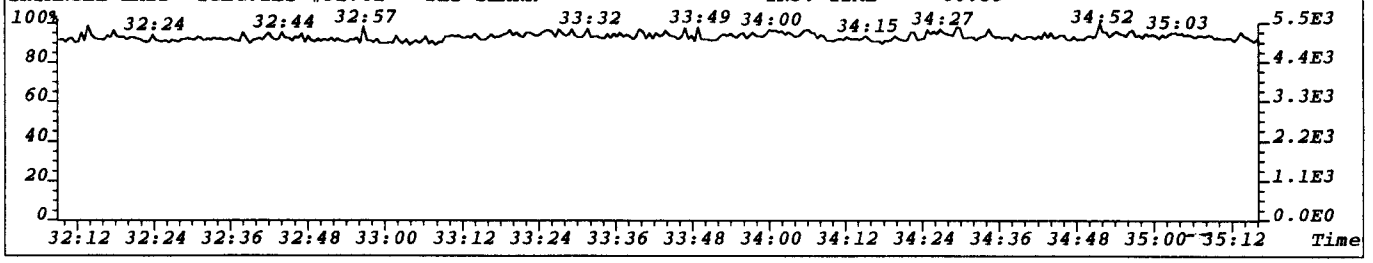
File:T004196 #1-465 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:70
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,280.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



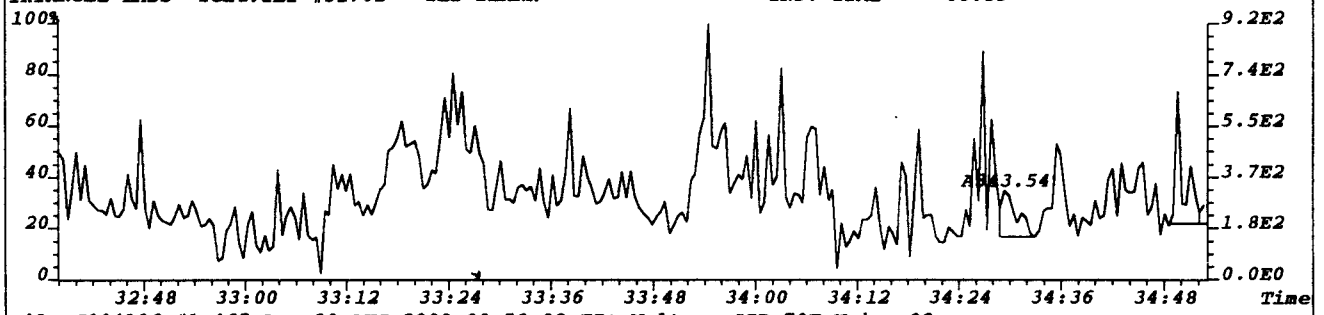
File:T004196 #1-465 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



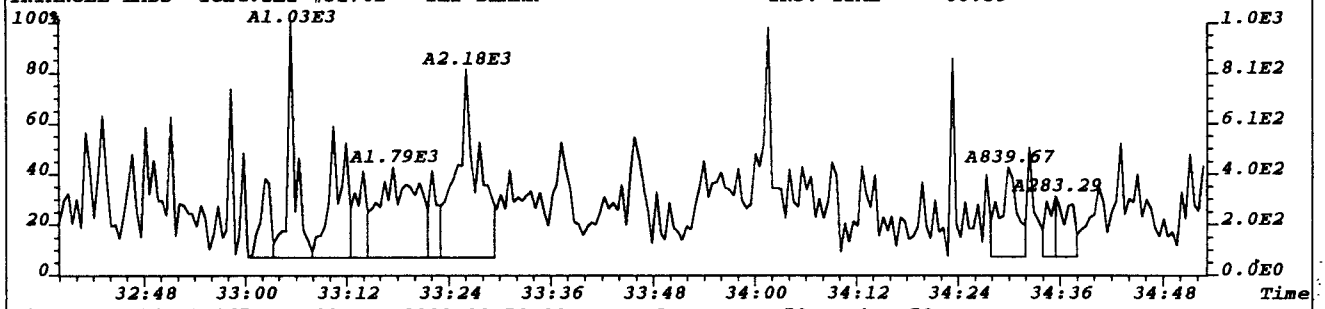
File:T004196 #1-465 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
445.7555 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



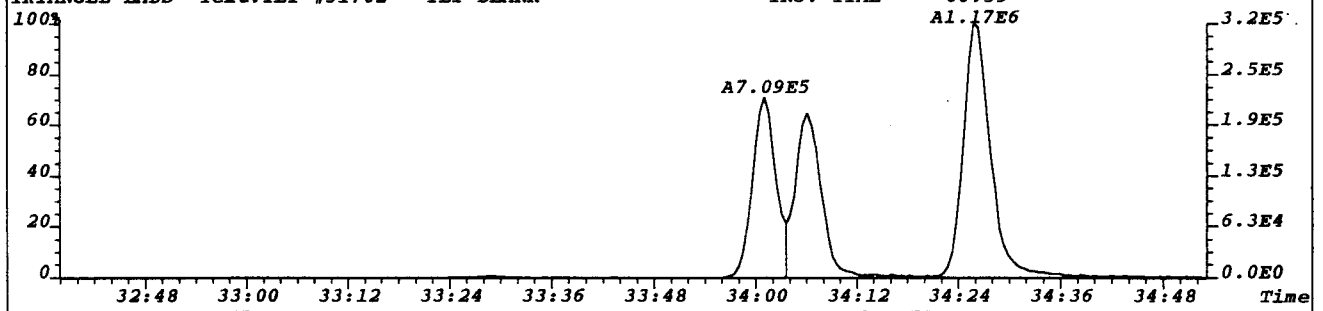
File:T004196 #1-465 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:91
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,364.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



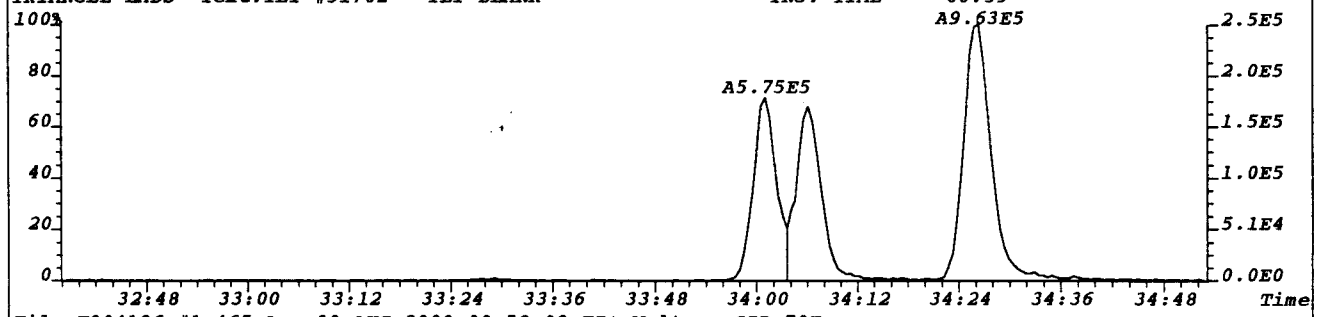
File:T004196 #1-465 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:92
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,368.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



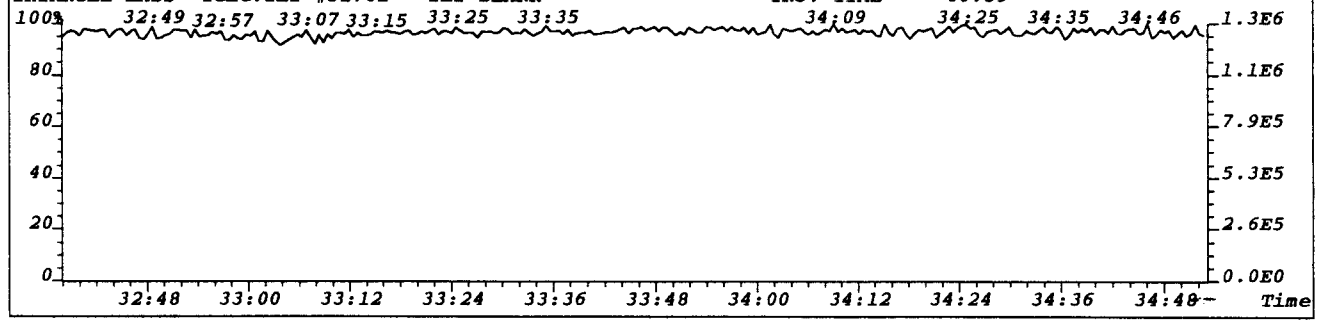
File:T004196 #1-465 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:79
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,316.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



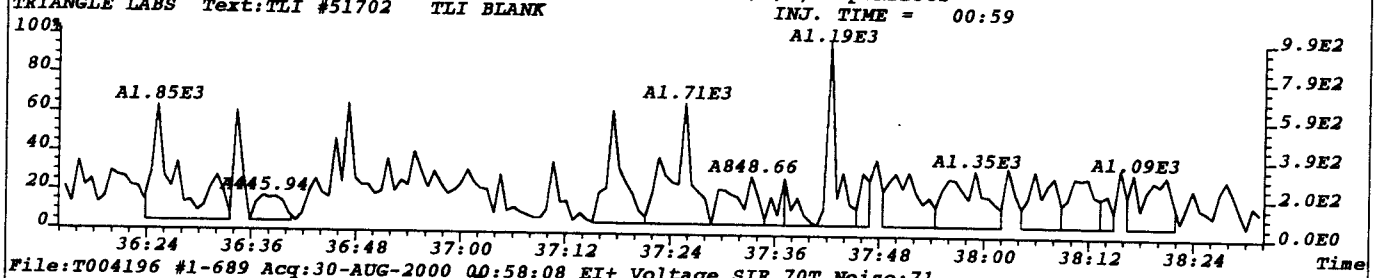
File:T004196 #1-465 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:77
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,308.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



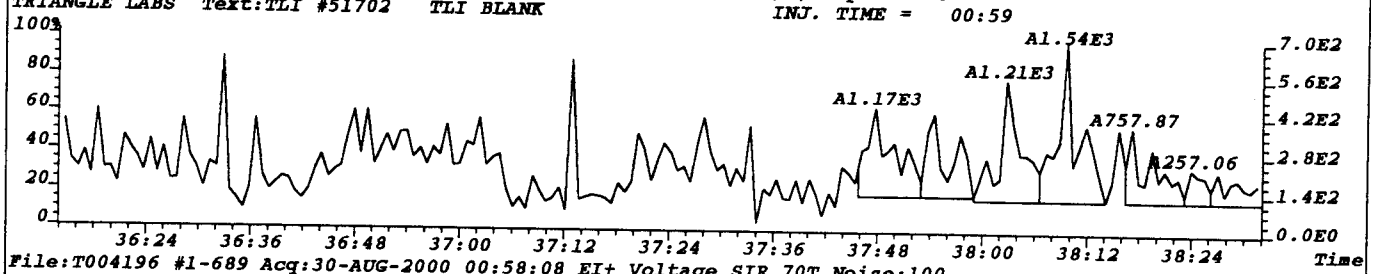
File:T004196 #1-465 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



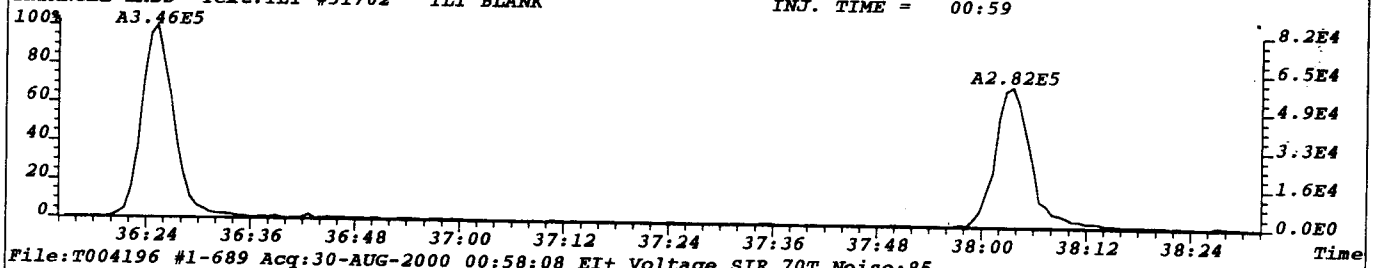
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:60
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,240.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



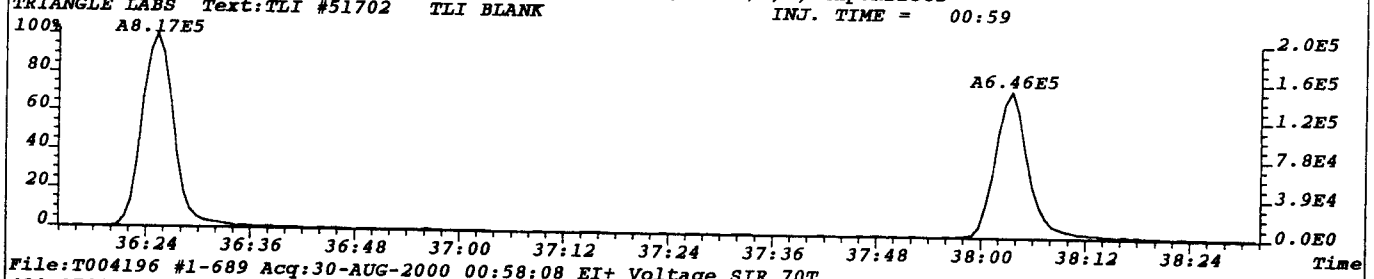
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:71
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,284.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



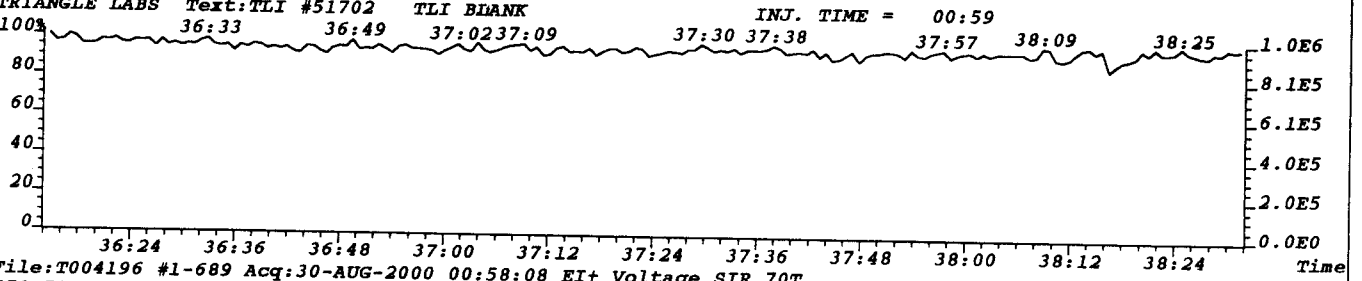
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:100
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,400.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



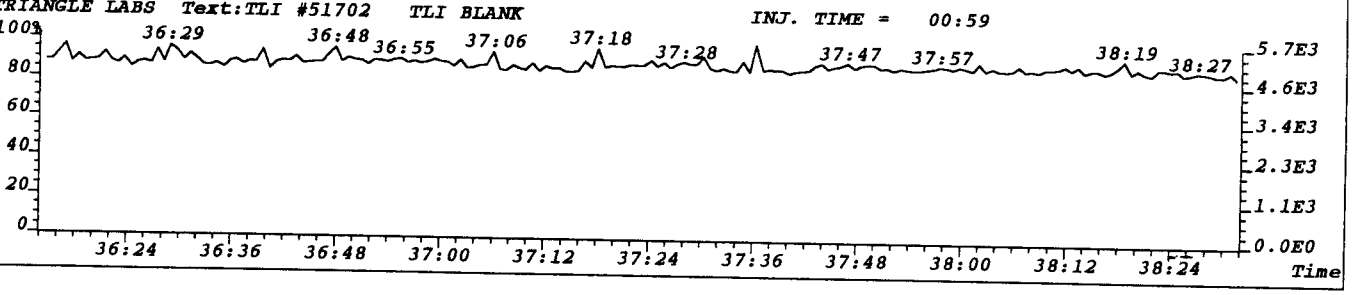
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:85
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,340.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



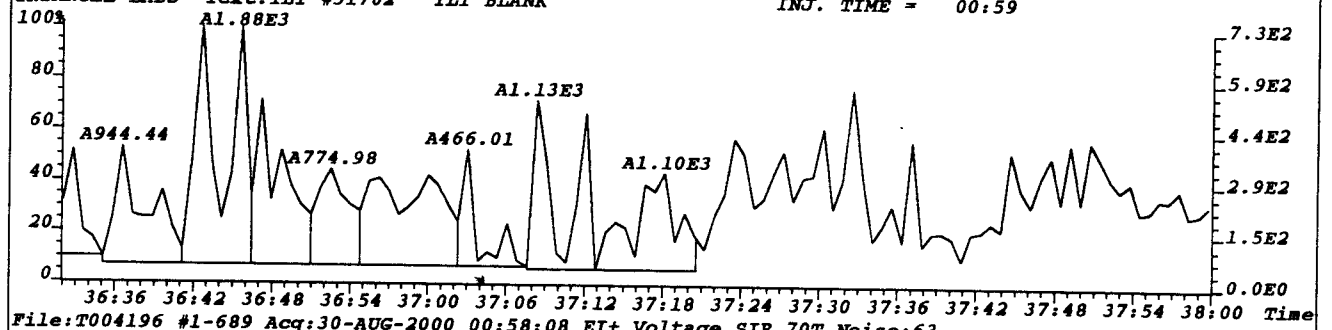
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



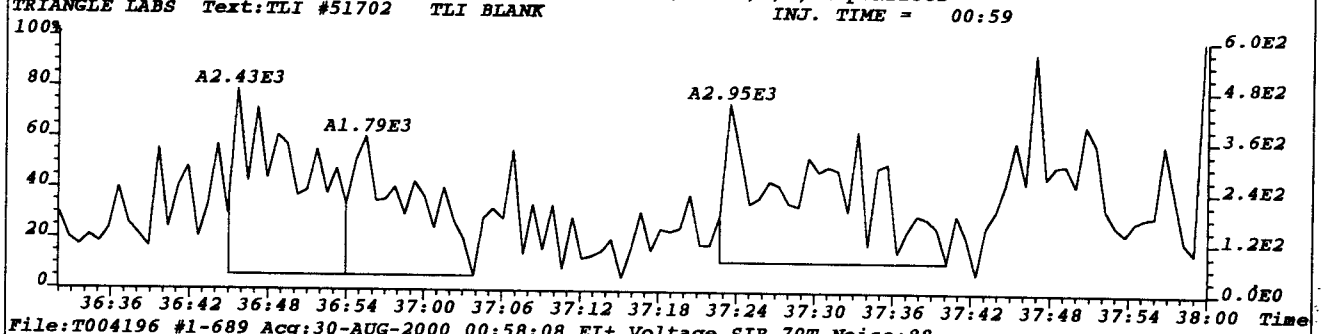
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
479.7165 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



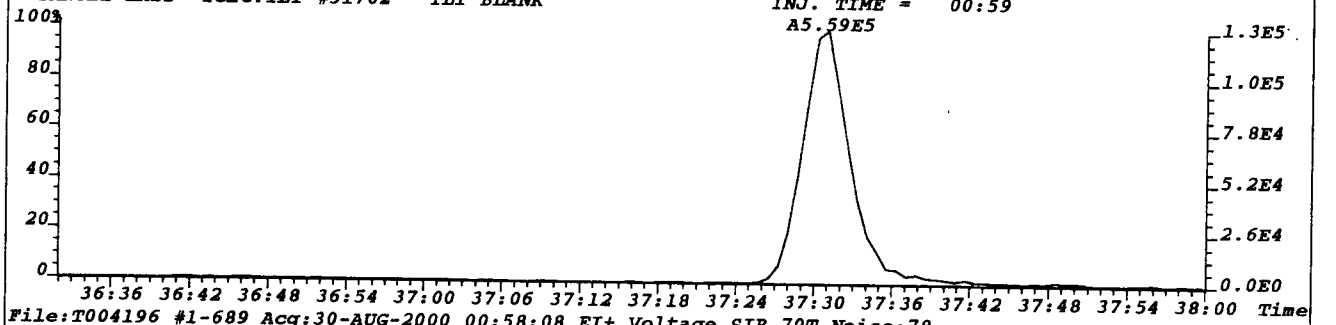
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:75
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,300.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



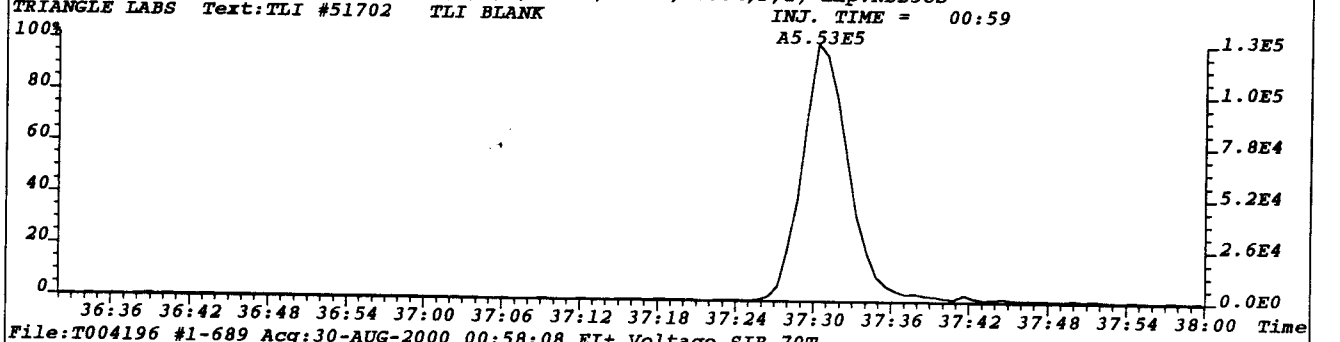
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:63
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,252.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



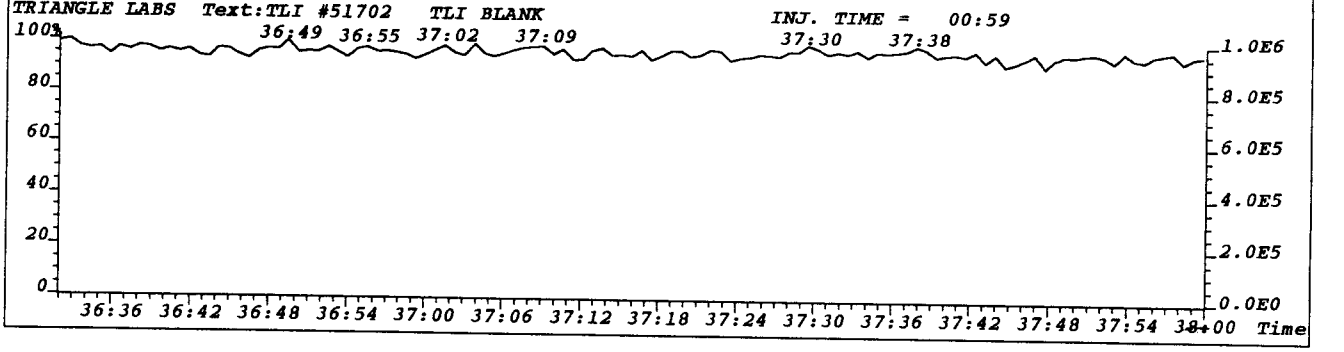
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:88
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,352.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59
A5.59E5



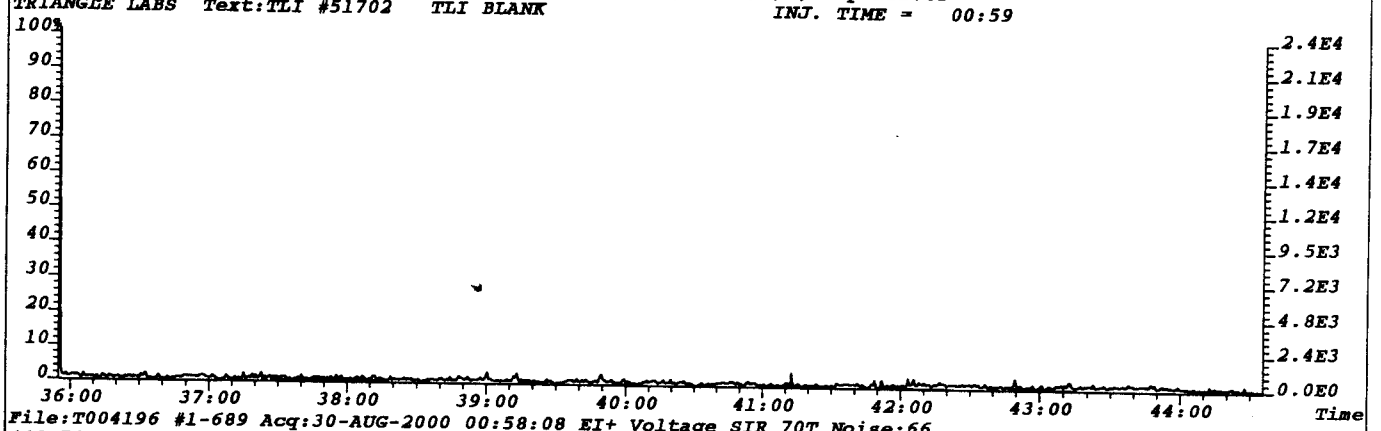
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:78
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,312.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59
A5.53E5



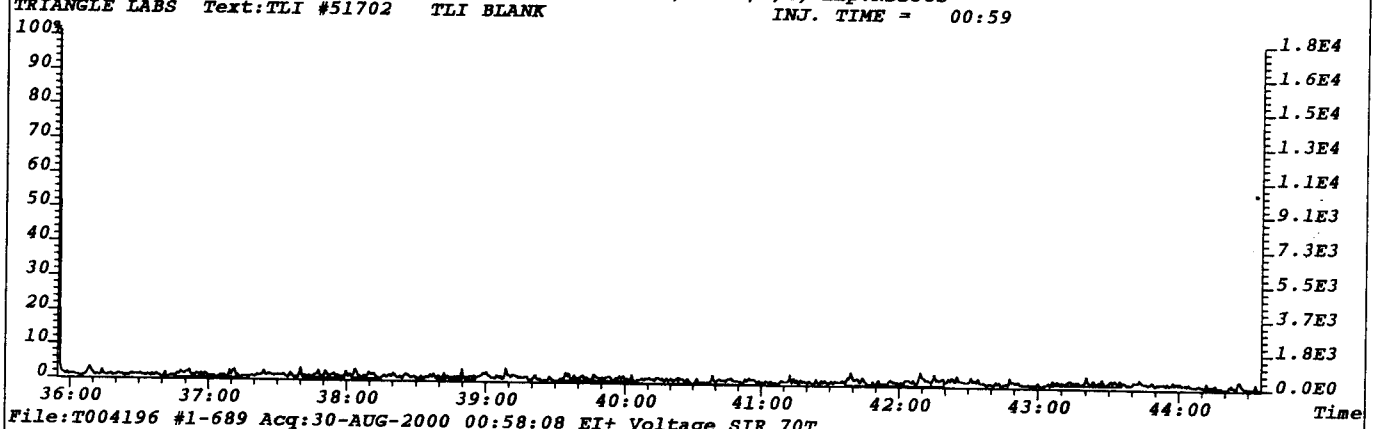
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



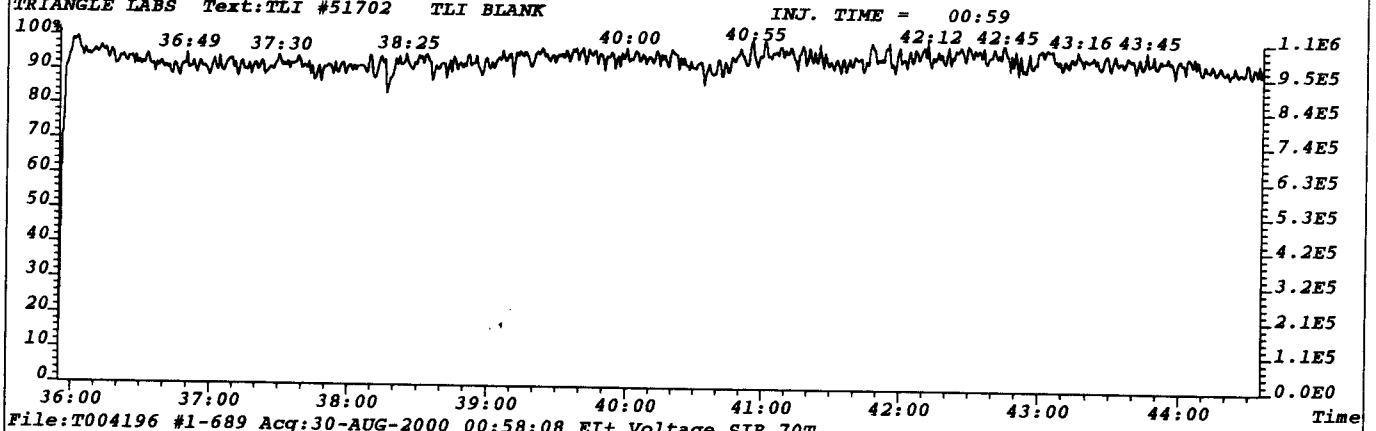
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:70
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,280.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



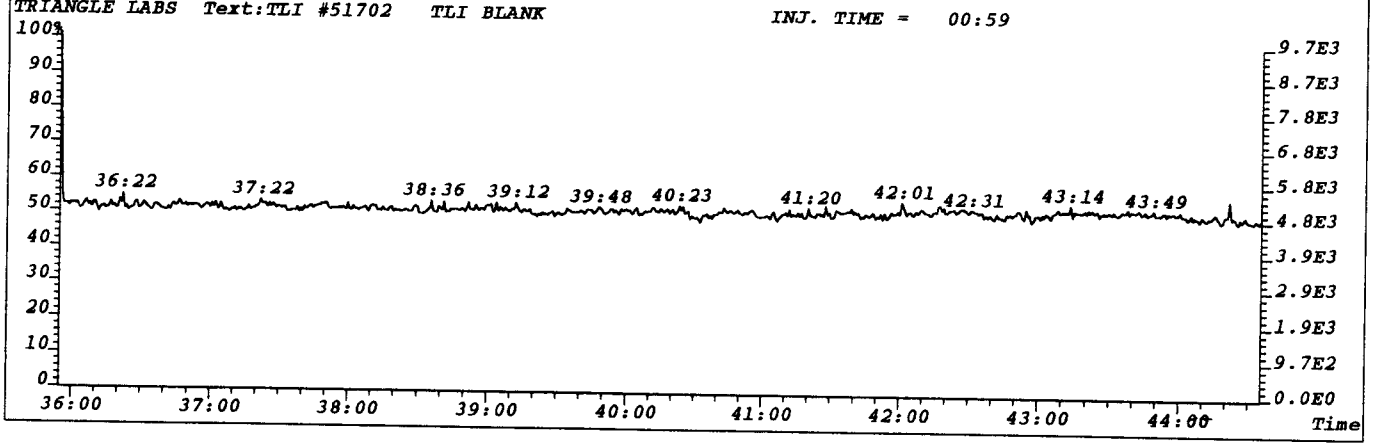
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:66
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,264.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



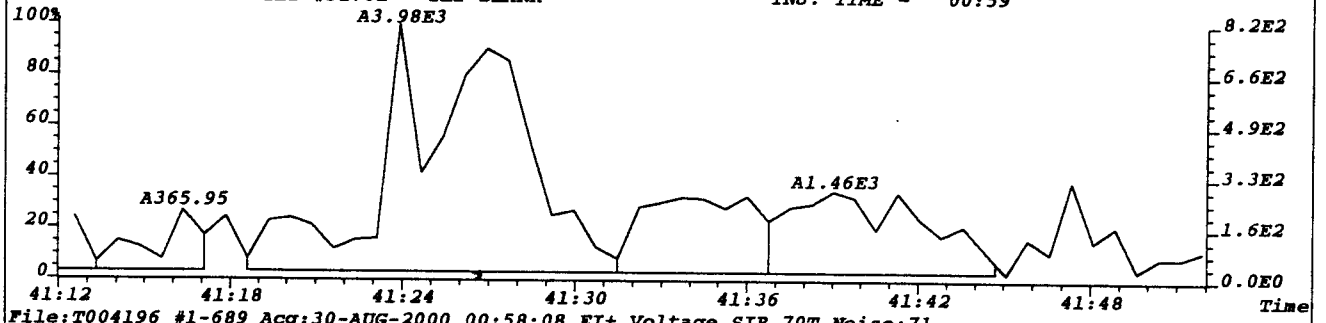
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



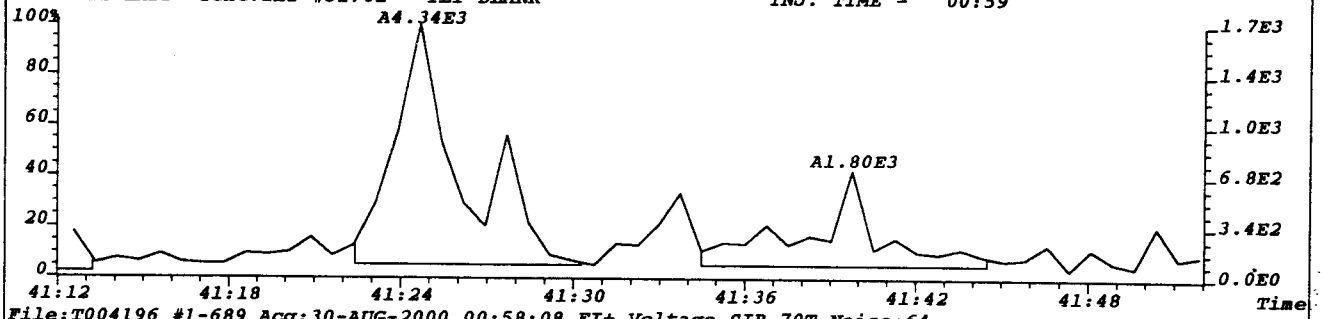
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
513.6775 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



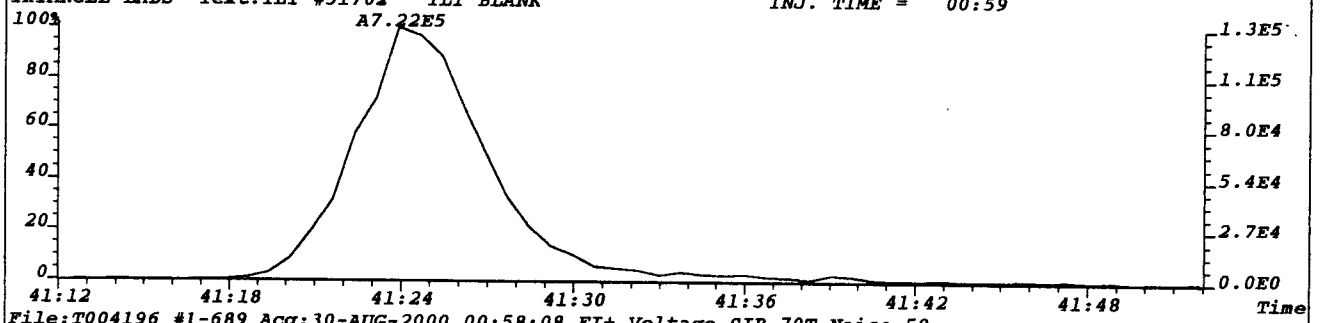
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:71
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,284.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



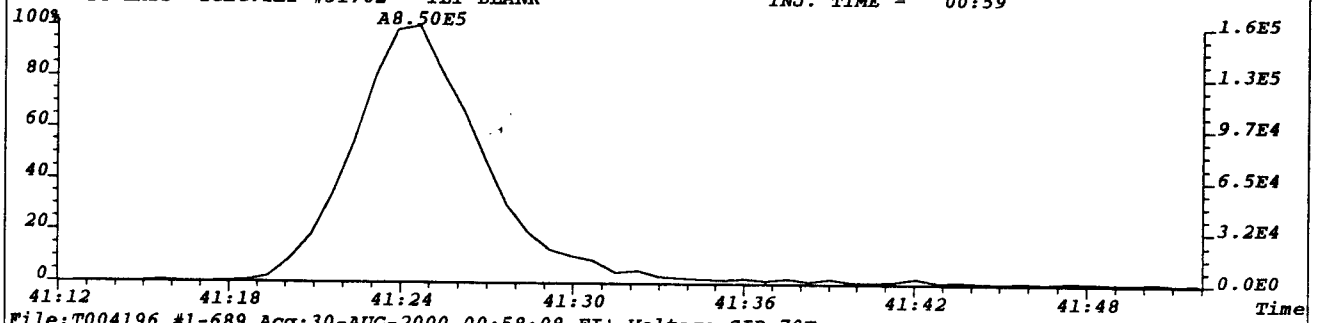
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:71
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,284.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



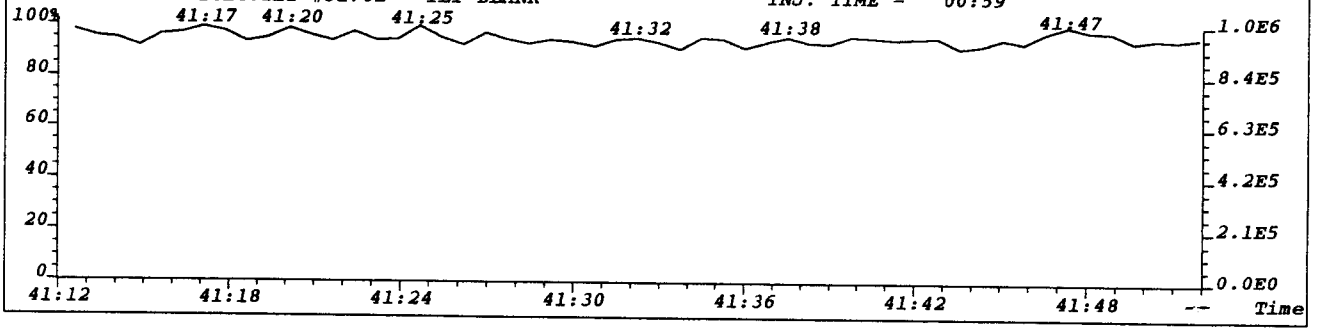
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:64
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,256.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59

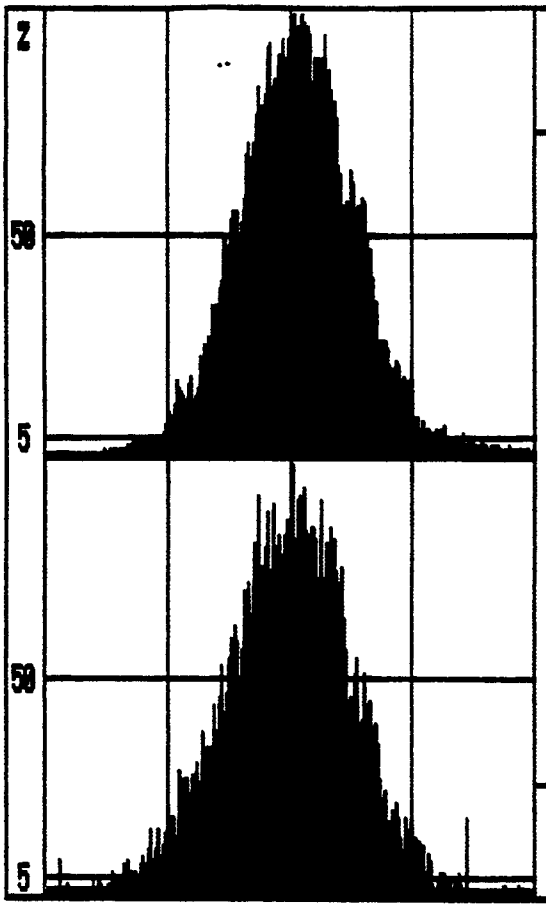


File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T Noise:59
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,236.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59



File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI BLANK INJ. TIME = 00:59





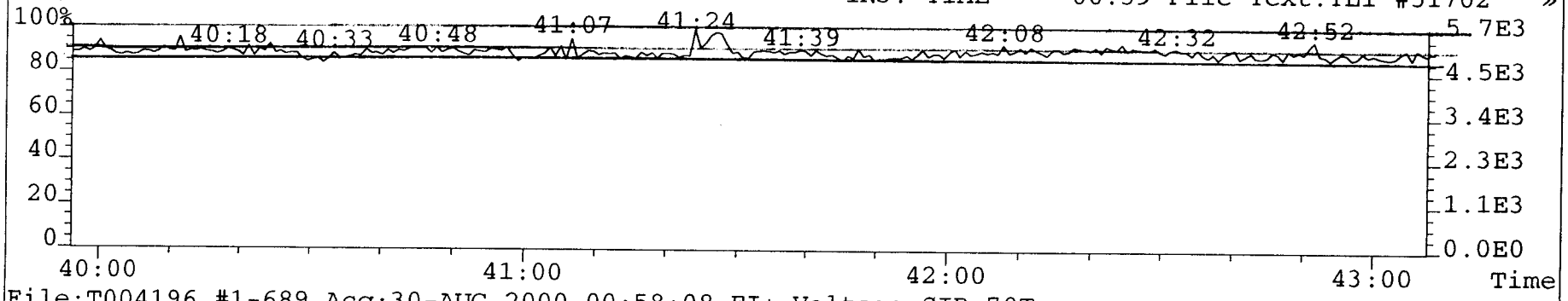
Channel I 330.9792 Peak top
Height .56 volts Span 200 ppm

System file name	MOBIUS
Data file name	A:T830001
Resolution	10000
Group number	2
Ionization mode	EI+
Switching	VOLTAGE
Ref. masses	292.9825, 416.9760

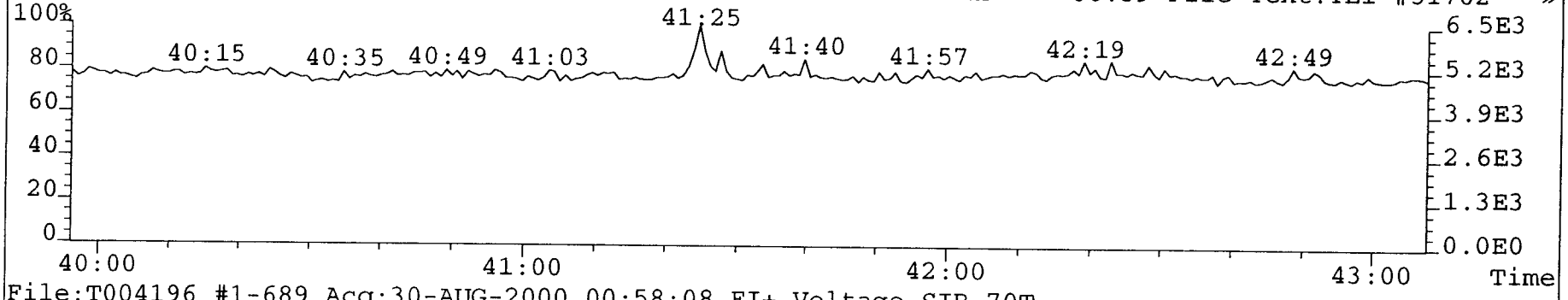
A	293	J	331	S	368
B	304	K	332	T	370
C	306	L	334	U	376
D	316	M	340	V	410
E	318	N	342		
F	320	O	352		
G	322	P	354		
H	328	Q	356		
I	331	R	358		

Ref. mass 416.9760 Peak top
Height .09 volts Span 200 ppm

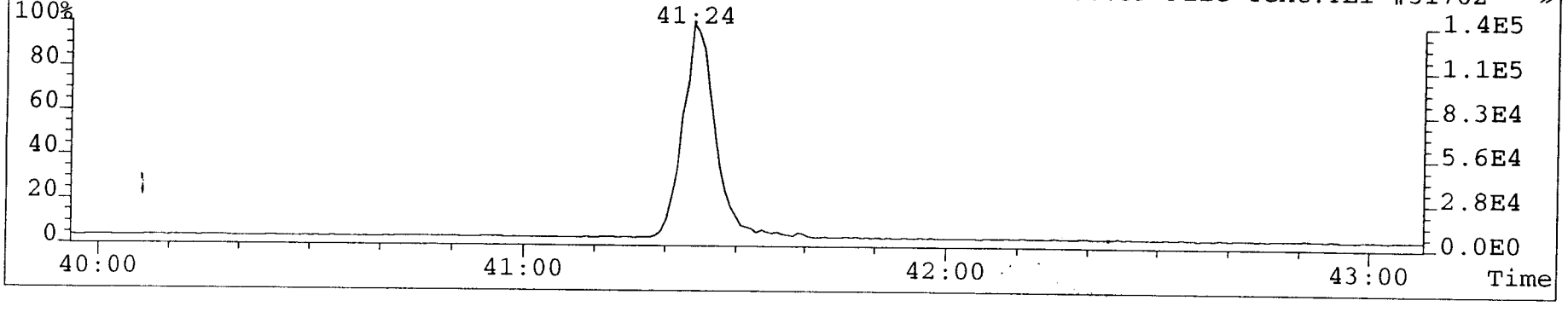
File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
457.7377 F:4 Exp:NDB5US
Sample Text:TLI #51702 TLI BLANK INJ. TIME = 00:59 File Text:TLI #51702 »



File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
459.7348 F:4 Exp:NDB5US
Sample Text:TLI #51702 TLI BLANK INJ. TIME = 00:59 File Text:TLI #51702 »



File:T004196 #1-689 Acq:30-AUG-2000 00:58:08 EI+ Voltage SIR 70T
469.7779 F:4 Exp:NDB5US
Sample Text:TLI #51702 TLI BLANK INJ. TIME = 00:59 File Text:TLI #51702 »



Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **008056-01** UV 01

Method 8290 PCDD/PCDF Analysis (b)
Analysis File: **T004207**

Client Project:	008056				
Sample Matrix:	SOIL	Date Received:	08/22/2000	Spike File:	SPMIT32S
TLI ID:	268-29-1	Date Extracted:	08/27/2000	ICal:	TF57140
		Date Analyzed:	08/30/2000	ConCal:	T004204
Sample Size:	16.000 g	Dilution Factor:	n/a	% Moisture:	36.8
Dry Weight:	10.112 g	Blank File:	T004196	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	63.2

Analytes	Conc. (ppt)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	0.6				
1,2,3,7,8-PeCDD	ND	0.7				
1,2,3,4,7,8-HxCDD	ND	0.6				
1,2,3,6,7,8-HxCDD	ND	0.6				
1,2,3,7,8,9-HxCDD	ND	0.6				
1,2,3,4,6,7,8-HpCDD	7.4			0.90	37:29	
1,2,3,4,6,7,8,9-OCDD	52.8			0.76	41:23	
2,3,7,8-TCDF	ND	0.4				
1,2,3,7,8-PeCDF	ND	0.5				
2,3,4,7,8-PeCDF	ND	0.5				
1,2,3,4,7,8-HxCDF	ND	0.5				
1,2,3,6,7,8-HxCDF	ND	0.4				
2,3,4,6,7,8-HxCDF	ND	0.5				
1,2,3,7,8,9-HxCDF	ND	0.6				
1,2,3,4,6,7,8-HpCDF	3.0			0.92	36:23	J
1,2,3,4,7,8,9-HpCDF	ND	0.8				
1,2,3,4,6,7,8,9-OCDF	22.3			0.97	41:34	

Totals	Conc. (ppt)	Number	DL	EMPC	Flags
Total TCDD	ND		0.6		
Total PeCDD	ND		0.7		
Total HxCDD	ND		0.6		
Total HpCDD	12.4	2			
Total TCDF	ND		0.4		
Total PeCDF	EMPC			0.90	
Total HxCDF	1.8	2		2.2	
Total HpCDF	13.4	2			

mit3_PSR v1.00, LARS 6.25.00

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Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **008056-01** UV 01

Method 8290 PCDD/PCDF Analysis (b)
Analysis File: **T004207**

Internal Standards	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	154	77.9	40%-130%	0.75	26:06	___
$^{13}C_{12}$-2,3,7,8-TCDD	149	75.1	40%-130%	0.78	26:47	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	162	81.9	40%-130%	1.50	29:54	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	169	85.3	40%-130%	1.46	30:53	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	136	68.6	40%-130%	0.52	33:22	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	160	80.9	40%-130%	1.25	34:03	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	142	71.6	25%-130%	0.42	36:22	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	165	83.3	25%-130%	1.01	37:28	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	288	72.8	25%-130%	0.85	41:22	___

Surrogate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	166	84.1	40%-130%	1.49	30:33	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	130	65.5	40%-130%	0.49	33:15	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	154	77.9	40%-130%	1.22	33:58	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	160	81.0	25%-130%	0.41	38:00	___

Other Standard	Conc. (ppt)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	14.6	73.6	40%-130%	26:48	___

Alternate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	150	75.9	40%-130%	0.50	34:40	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	146	74.0	40%-130%	0.49	33:51	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.83	26:37	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.20	34:23	___

Data Reviewer: KhU 08/30/2000

mit3_PSR v1.00, LARS 6.25.00

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Printed: 17:14 08/30/2000

Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **008056-01** UV 01

Toxicity Equivalents Report
Analysis File: **T004207**

Client Project:	008056				
Sample Matrix:	SOIL	Date Received:	08/22/00	Spike File:	SPMIT32S
TLI ID:	268-29-1	Date Extracted:	08/27/00	ICal:	TF57140
		Date Analyzed:	08/30/00	ConCal:	T004204
Sample Size:	16.000 g	Dilution Factor:	1	% Moisture:	36.8
Dry Weight:	10.112 g	Blank File:	T004196	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	63.2

Analytes	Conc. (ppt)		TEF		Equivalent
2,3,7,8-TCDD	{0.6}	x	1.	=	0.6
1,2,3,7,8-PeCDD	{0.7}	x	0.5	=	0.4
1,2,3,4,7,8-HxCDD	{0.6}	x	0.1	=	0.06
1,2,3,6,7,8-HxCDD	{0.6}	x	0.1	=	0.06
1,2,3,7,8,9-HxCDD	{0.6}	x	0.1	=	0.06
1,2,3,4,6,7,8-HpCDD	7.4	x	0.01	=	0.074
1,2,3,4,6,7,8,9-OCDD	52.8	x	0.001	=	0.0528
TOTAL PCDD					1.3
2,3,7,8-TCDF	{0.4}	x	0.1	=	0.04
1,2,3,7,8-PeCDF	{0.5}	x	0.05	=	0.03
2,3,4,7,8-PeCDF	{0.5}	x	0.5	=	0.3
1,2,3,4,7,8-HxCDF	{0.5}	x	0.1	=	0.05
1,2,3,6,7,8-HxCDF	{0.4}	x	0.1	=	0.04
2,3,4,6,7,8-HxCDF	{0.5}	x	0.1	=	0.05
1,2,3,7,8,9-HxCDF	{0.6}	x	0.1	=	0.06
1,2,3,4,6,7,8-HpCDF	3.0	x	0.01	=	0.030
1,2,3,4,7,8,9-HpCDF	{0.8}	x	0.01	=	0.008
1,2,3,4,6,7,8,9-OCDF	22.3	x	0.001	=	0.0223
TOTAL PCDF					0.6

Total EPA TEFs, 1989a: 1.9 ppt

{...} indicates that the value is that of a Detection Limit.

GRY_TEF v1.08, MILES 4.22.16

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Printed: 15:20 08/30/00

Initial ....Date...

Data Review By: KLW 8/30/00

Calculated Noise Height: 0.06

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of T004207B.dbf
08/30/2000 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF						0.65-0.89				0.881-1.071			
304-306	DC	NL				Height	0.28	0.20	0.08				
304-306		0	Peaks				0.00						
13C12-TCDF						0.65-0.89				0.962-1.038			
316-318	DC	NL				Height	0.29	0.12	0.17				
	DC	WL		23:14		0.76	17.86			0.890			
	DC	WL		23:28	RO	0.11	0.14			0.899			
	DC	WL		24:59		0.69	1.88			0.957			
				25:07	RO	0.61	0.80	0.35	0.57	0.962			
				25:45	RO	2.12	0.73	0.87	0.41	0.987			
				26:06		0.75	244.42	104.57	139.85	1.000	13C12-2378-TCDF	ISO	
						Height	65.55	27.37	38.18				
				26:26		0.68	79.79	32.16	47.63	1.013			
316-318		4	Peaks				325.74						

---------- Above: TCDF / TCDD Follows ----------

TCDD						0.65-0.89				0.905-1.043			
320-322	DC	NL				Height	0.13	0.07	0.06				
	DC	SN		26:06	RO	1.73	0.19			0.974			
	DC	SN		26:14	RO	5.00	0.05			0.979			
	DC	SN		26:38		0.72	0.67			0.994			
	DC	SN		26:59	RO	0.25	0.18			1.007			
	DC	SN		27:07	RO	0.24	0.09			1.012			
	DC	SN		27:33	RO	1.00	0.11			1.029			
	DC	SN		27:43	RO	0.44	0.18			1.035			
320-322		0	Peaks				0.00						
37Cl-TCDD										0.925-1.075			
328	DC	NL				Height	0.07	0.07					
	DC	WL		24:15			0.15			0.905			
	DC	WL		24:25			0.08			0.912			
	DC	WL		24:29			0.15			0.914			
	DC	WL		24:36			0.06			0.918			
	DC	WL		24:43			0.06			0.923			
	DC	WL		24:44			0.08			0.923			
				24:48			0.17	0.17		0.926			
	DC	SN		24:54			0.07			0.930			
				25:29			0.33	0.33		0.951			
	DC	SN		26:04			0.13			0.973			
	DC	SN		26:09			0.03			0.976			
	DC	SN		26:18			0.07			0.982			
	DC	SN		26:25			0.08			0.986			

```
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

                        26:48                16.03         16.03                 1.001 37Cl-TCDD       CLS
328                   3 Peaks                16.53

13C12-TCDD                     0.65-0.89                                     0.925-1.075
332-334          DC  NL          Height        0.25          0.17         0.08
                 DC  WL  24:19 RO  1.71        0.30                              0.908
                         26:37     0.83      244.77        111.08       133.69  0.994 13C12-1234-TCDD RS1
                         26:47     0.78      193.37         84.78       108.59  1.000 13C12-2378-TCDD IS1
                                 Height       53.35         23.71        29.64
                 DC  SN  28:00 RO  3.11        0.16                              1.045
332-334               2 Peaks               438.14

                 ---------------------- Above: TCDD / PeCDF Follows --------------------

PeCDF                          1.32-1.78                                     0.930-1.060
340-342          DC  NL          Height        0.15          0.08         0.07
        M                        28:02 RO  0.51        1.00          0.61         1.20  0.938                      J
        D        D   SN  28:18 RO  2.10        0.51                              0.946
                 DC  SN  28:24 RO  6.25        0.10                              0.950
                 DC  SN  28:41 RO  0.82        0.23                              0.959
                 DC  SN  29:01 RO  1.08        0.66                              0.970
        D        D   SN  29:12 RO  0.76        0.72                              0.977
                 DC  SN  29:31 RO  0.17        0.18                              0.987
        D        D   SN  29:56 RO  0.87        0.43                              1.001 12378-PeCDF     AN
340-342               1 Peak                  1.00

13C12-PeCDF                    1.32-1.78                                     0.866-1.134
352-354          DC  NL          Height        0.12          0.06         0.06
                         28:41     1.34        6.26          3.59         2.67  0.959
                         29:03 RO  1.06        1.76          0.73         0.69  0.972
                         29:30 RO  1.83        0.92          0.66         0.36  0.987
                         29:54     1.50      240.42        144.25        96.17  1.000 13C12-PeCDF 123 IS2
                                 Height       70.20         41.75        28.45
                         30:10 RO  2.00        2.22          1.74         0.87  1.009
                 DC  SN  30:25 RO  1.05        0.56                              1.017
                         30:33     1.49      244.34        146.37        97.97  1.022 13C12-PeCDF 234 SUR1
                         30:48 RO  1.24        0.87          0.42         0.34  1.030
                         31:31 RO  1.79        2.45          1.72         0.96  1.054
352-354               8 Peaks               499.24

                 ---------------------- Above: PeCDF / PeCDD Follows --------------------

PeCDD                          1.32-1.78                                     0.940-1.021
356-358          DC  NL          Height        0.13          0.07         0.06
                 DC  WH  31:43 RO  0.40        0.79                              1.027
356-358               0 Peaks                 0.00

13C12-PeCDD                    1.32-1.78                                     0.871-1.129
368-370          DC  NL          Height        0.13          0.07         0.06
                         29:51     1.56        1.46          0.89         0.57  0.967
                         29:57 RO  2.04        0.61          0.49         0.24  0.970
                         30:53     1.46      142.44         84.61        57.83  1.000 13C12-PeCDD 123 IS3
                                 Height       41.52         24.87        16.65
```

Listing of T004207B.dbf
Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
		DC	SN	31:49	RO	0.71	0.16			1.030			
368-370				3 Peaks			144.51						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF				1.05-1.43					0.964-1.047				
374-376 MKT				32:26	RO	0.81	0.38	0.21	0.26	0.972			J
				32:53		1.05	1.27	0.65	0.62	0.986			J
		DC	SN	33:00	RO	4.00	0.07			0.989			
	D	D	SN	33:16		1.31	0.37			0.997	123478-HxCDF	AN	
				33:31		1.28	0.73	0.41	0.32	1.004			J
		DC	SN	34:48	RO	1.50	0.13			1.043			
		DC	SN	34:53	RO	1.00	0.18			1.045			
374-376				3 Peaks			2.38						
13C12-HxCDF				0.43-0.59					0.880-1.120				
384-386		DC	NL	Height			0.15	0.07	0.08				
		DC	SN	32:17	RO	0.41	0.50			0.968			
				32:27		0.48	0.59	0.19	0.40	0.973			
				33:15		0.49	209.42	68.84	140.58	0.997	13C12-HxCDF 478	SUR2	
				33:22		0.52	222.67	76.36	146.31	1.000	13C12-HxCDF 678	IS4	
				Height			63.71	21.30	42.41				
				33:33	RO	0.60	1.42	0.48	0.80	1.005			
				33:41		0.43	0.87	0.26	0.61	1.009			
				33:51		0.49	218.86	72.33	146.53	1.014	13C12-HxCDF 234	ALT2	
				34:09	RO	0.60	0.44	0.15	0.25	1.023			
		DC	SN	34:13	RO	0.27	0.18			1.025			
		DC	SN	34:22	RO	1.36	0.17			1.030			
		DC	SN	34:27	RO	2.50	0.09			1.032			
				34:40		0.50	165.05	54.76	110.29	1.039	13C12-HxCDF 789	ALT1	
				35:01	RO	0.62	0.92	0.31	0.50	1.049			
				35:13	RO	0.85	0.83	0.28	0.33	1.055			
384-386				10 Peaks			821.07						
---------- Above: HxCDF / HxCDD Follows ----------													
HxCDD				1.05-1.43					0.957-1.014				
390-392		DC	NL	Height			0.15	0.07	0.08				
	D	D	SN	32:47		1.41	0.53			0.963			
	D	D	SN	33:27	RO	0.83	0.36			0.982			
		DC	WH	34:36	RO	0.32	7.10			1.016			
390-392				0 Peaks			0.00						
13C12-HxCDD				1.05-1.43					0.971-1.029				
402-404		DC	NL	Height			0.14	0.07	0.07				
				33:26		1.35	1.53	0.88	0.65	0.982			
				33:58		1.22	163.59	89.75	73.84	0.998	13C12-HxCDD 478	SUR3	
				34:03		1.25	164.20	91.18	73.02	1.000	13C12-HxCDD 678	IS5	
				Height			47.91	27.16	20.75				
				34:23		1.20	223.45	121.81	101.64	1.010	13C12-HxCDD 789	RS2	
				34:37		1.34	1.99	1.14	0.85	1.017			
				34:45	RO	4.50	0.13	0.27	0.06	1.021			

```
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

                        34:47 RO  0.77         0.42          0.23          0.30  1.022
                DC  SN  34:51 RO  0.50         0.18                              1.023
                        34:56 RO  0.88         0.40          0.22          0.25  1.026
402-404               8 Peaks                555.71

                ---------------------- Above: HxCDD / HpCDF Follows ---------------------

HpCDF                           0.88-1.20                                   0.996-1.050
408-410         DC  NL          Height         0.15          0.08          0.07
                        36:23     0.92         2.95          1.41          1.54  1.000 1234678-HpCDF   AN   J
                        36:49     1.02         9.09          4.58          4.51  1.012
                DC  SN  38:08 RO  0.82         0.18                              1.049
408-410               2 Peaks                 12.04

13C12-HpCDF                     0.37-0.51                                   0.945-1.110
418-420         DC  NL          Height         0.21          0.11          0.10
                        36:22     0.42       155.26         45.99        109.27  1.000 13C12-HpCDF 678 IS6
                                Height        40.32         11.63         28.69
                        38:00     0.41       136.55         39.63         96.92  1.045 13C12-HpCDF 789 SUR4
418-420               2 Peaks                291.81

                ---------------------- Above: HpCDF / HpCDD Follows ---------------------

HpCDD                           0.88-1.20                                   0.975-1.005
424-426         DC  NL          Height         0.14          0.07          0.07
                        36:40     1.05         3.43          1.76          1.67  0.979
                        37:29     0.90         5.12          2.42          2.70  1.000 1234678-HpCDD   AN
                DC  SN  37:39 RO  0.36         0.18                              1.005
424-426               2 Peaks                  8.55

13C12-HpCDD                     0.88-1.20                                   0.973-1.027
436-438         DC  NL          Height         0.15          0.08          0.07
                DC  SN  36:35 RO  0.81         0.43                              0.976
                        37:28     1.01       159.63         80.06         79.57  1.000 13C12-HpCDD 678 IS7
                                Height        36.57         18.20         18.37
436-438               1 Peak                 159.63

                ---------------------- Above: HpCDD / Octa-CDD and CDF Follows ----------

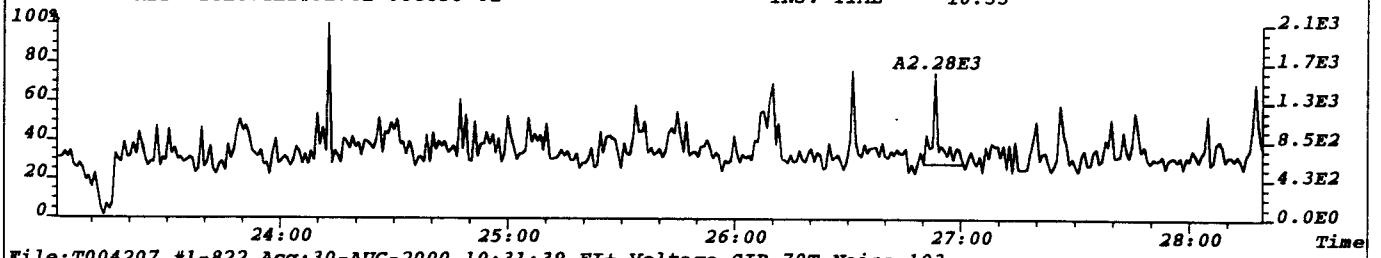
OCDF                            0.76-1.02                                   0.903-1.097
442-444         DC  NL          Height         0.14          0.06          0.08
                DC  WL  36:30 RO  1.43         0.13                              0.882
                DC  WL  36:55 RO  1.41         0.42                              0.892
                DC  WL  37:14 RO  2.57         0.13                              0.900
                DC  SN  37:24 RO  7.40         0.09                              0.904
                DC  SN  40:31     1.00         0.08                              0.979
                DC  SN  40:38     0.76         0.30                              0.982
                DC  SN  41:00     0.89         0.53                              0.991
                DC  SN  41:16     1.00         0.14                              0.998
                DC  SN  41:23 RO  0.58         0.15                              1.000
        N               41:34     0.97        14.06          6.92          7.14  1.005 OCDF            AN
                DC  SN  42:05 RO  0.60         0.06                              1.017
```

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
		DC	SN	43:17	RO	1.14	0.26			1.046			
		DC	SN	43:30	RO	0.19	0.15			1.052			
		DC	SN	43:36		1.00	0.16			1.054			
442-444			1	Peak			14.06						
OCDD				0.76-1.02					0.903-1.097				
458-460		DC	NL	Height			0.11	0.06	0.05				
				41:23		0.76	27.69	11.92	15.77	1.000	OCDD		AN
458-460			1	Peak			27.69						
13C12-OCDD				0.76-1.02					0.996-1.004				
470-472		DC	NL	Height			0.13	0.07	0.06				
				41:22		0.85	227.02	104.04	122.98	1.000	13C12-OCDD		IS8
				Height			41.59	19.33	22.26				
470-472			1	Peak			227.02						

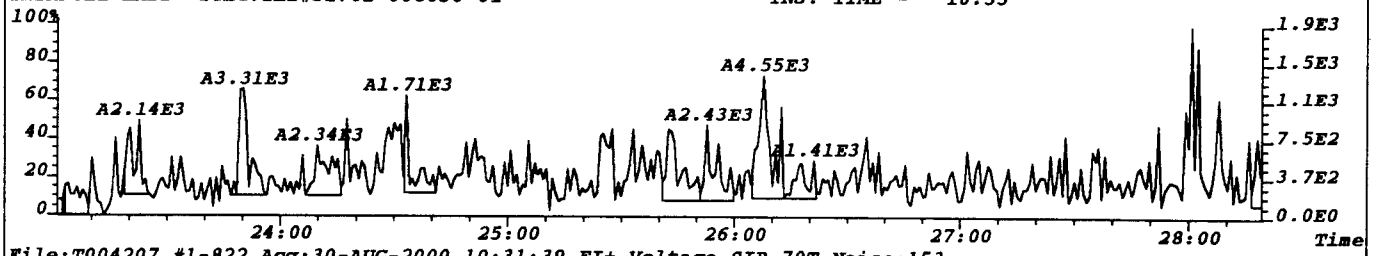
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***

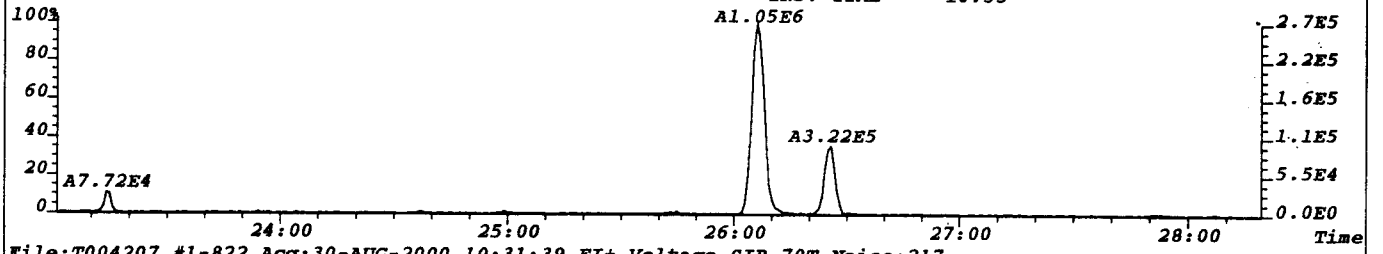
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:246
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,984.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



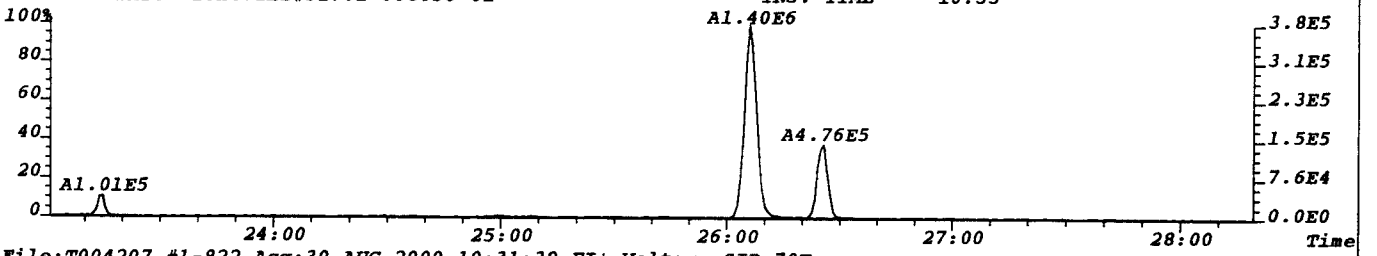
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:103
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,412.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



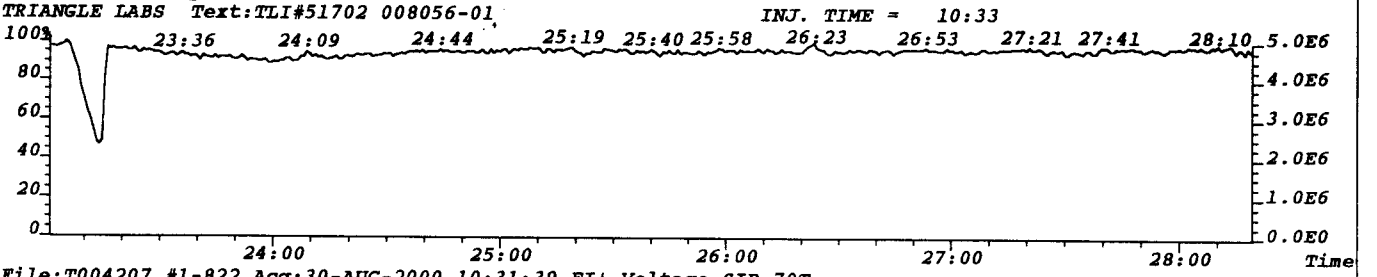
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:153
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,612.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



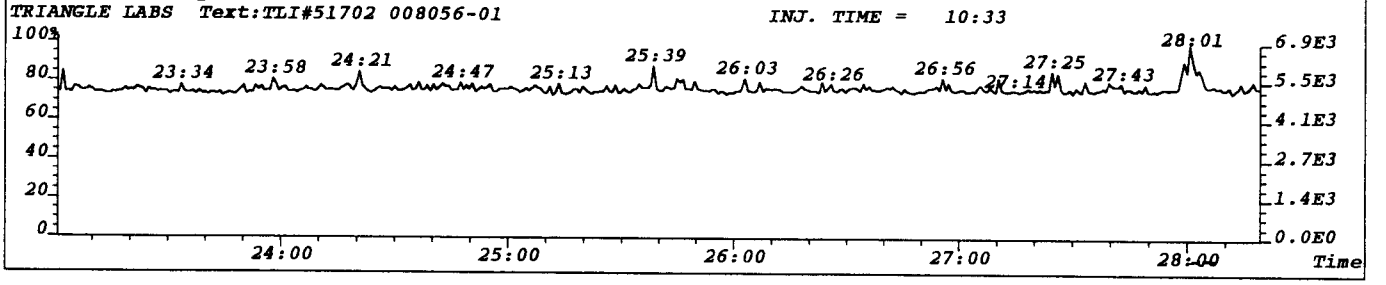
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:217
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,868.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33

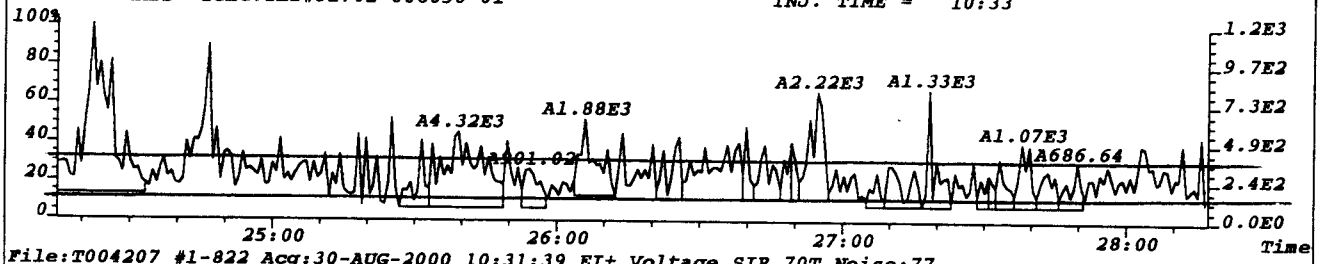


File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
375.8364 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33

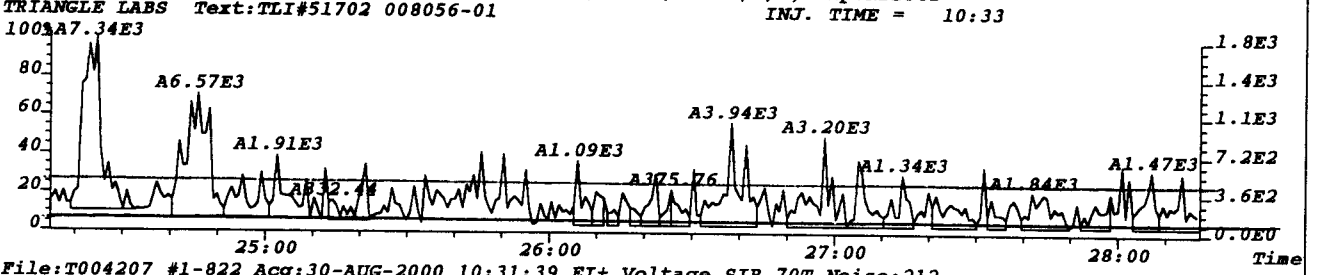


(.20) (127.8) = .06 ppb 08/20

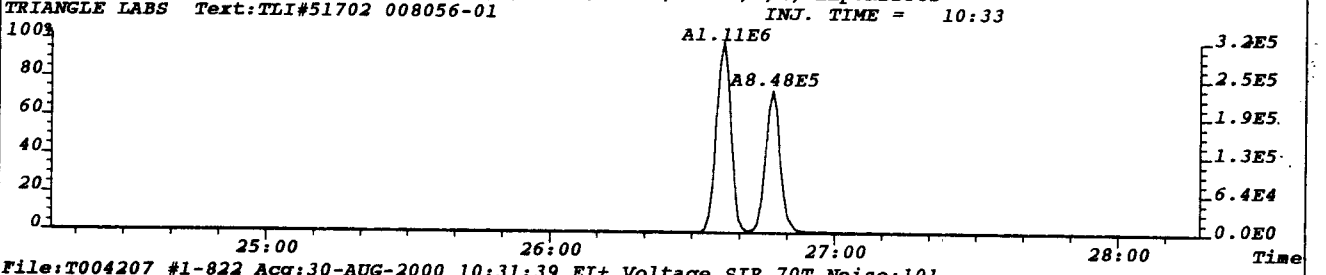
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:87
319.8965 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,348.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



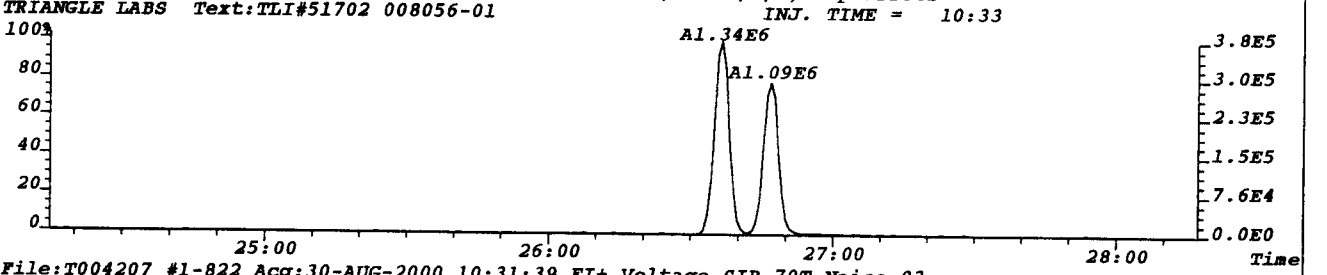
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:77
321.8936 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,308.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



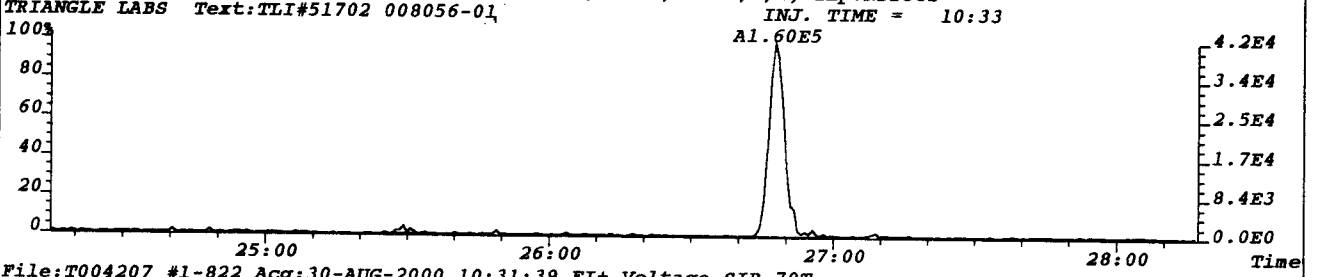
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:212
331.9368 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,848.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



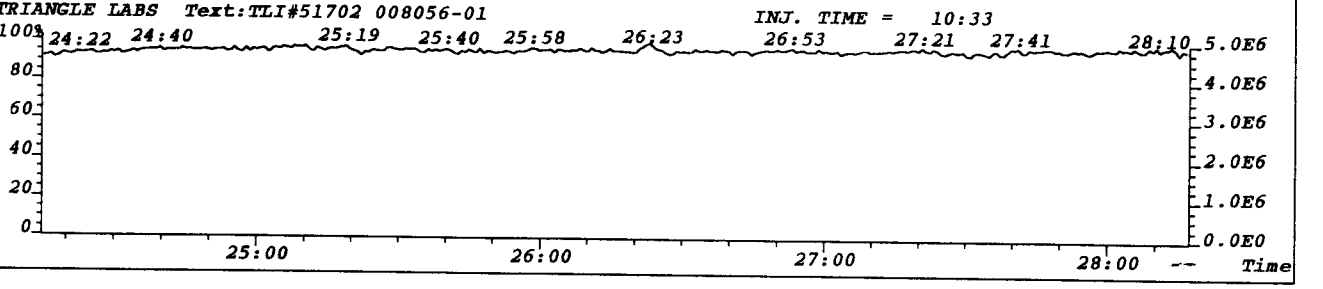
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:101
333.9338 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,404.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



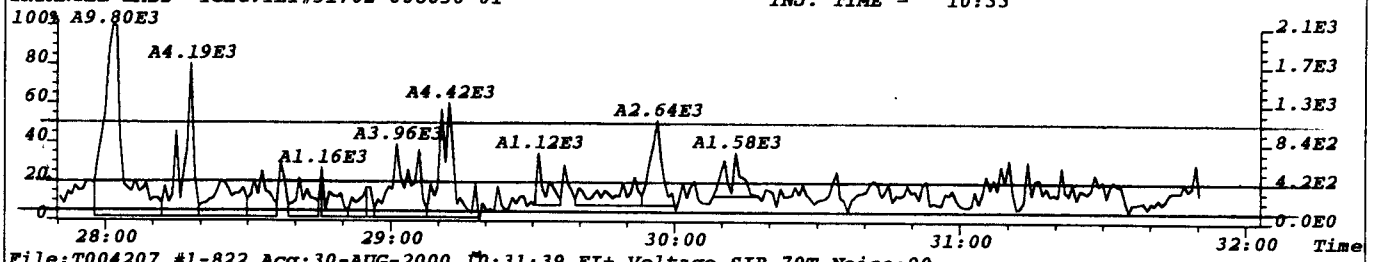
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:83
327.8847 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,332.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



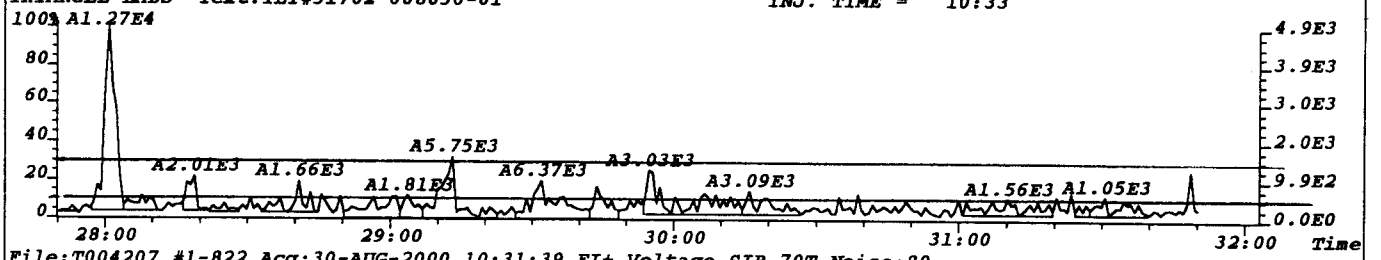
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



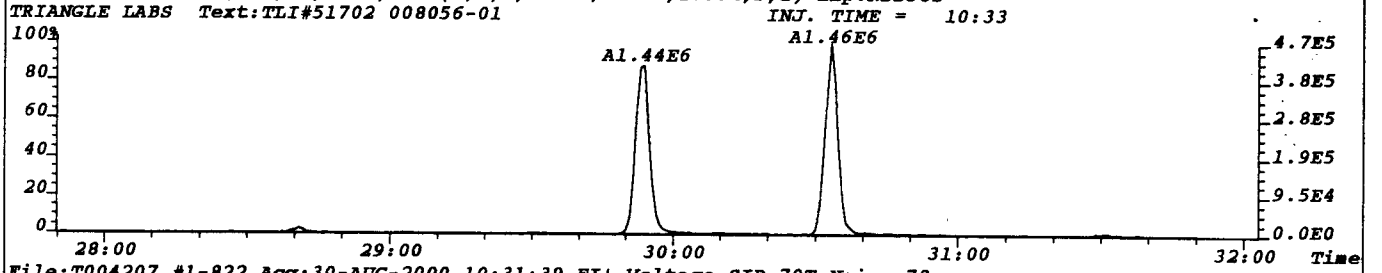
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:98
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,392.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



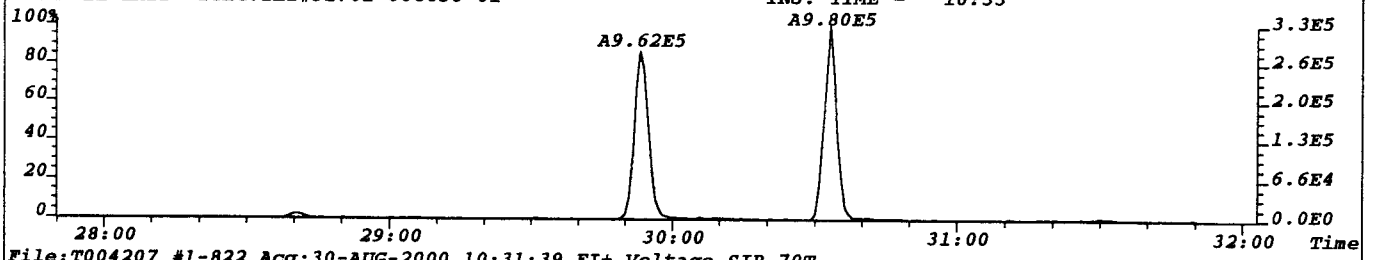
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:90
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,360.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



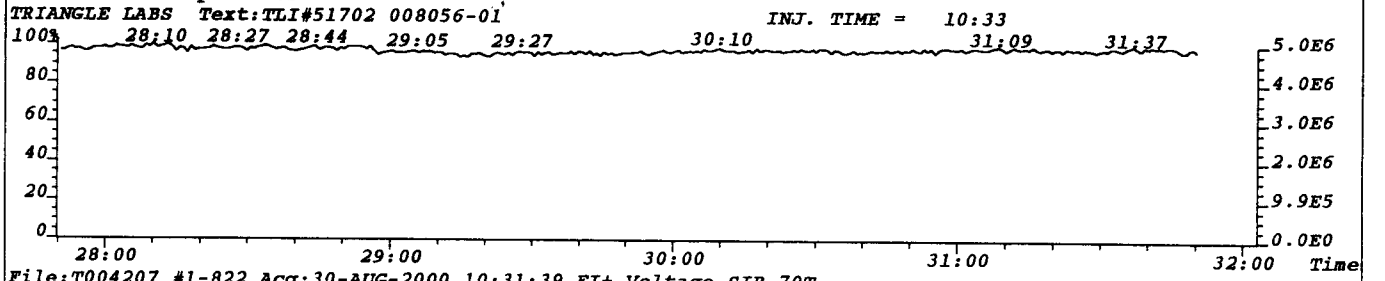
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:80
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,320.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



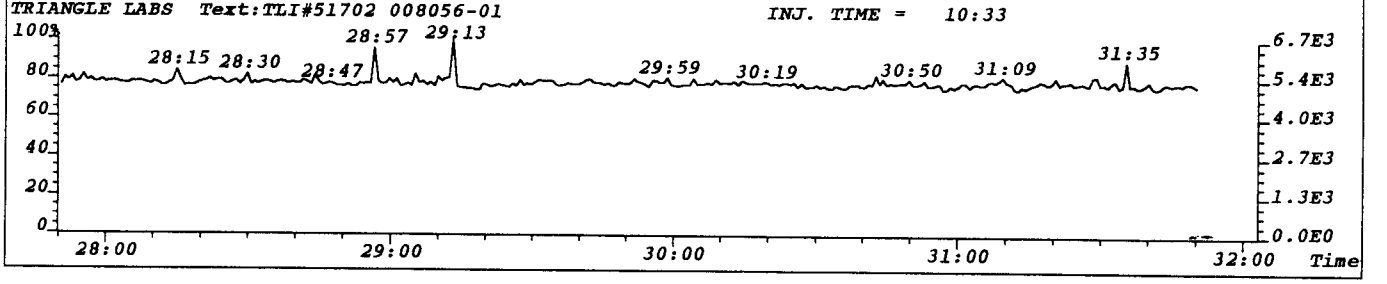
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:78
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,312.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



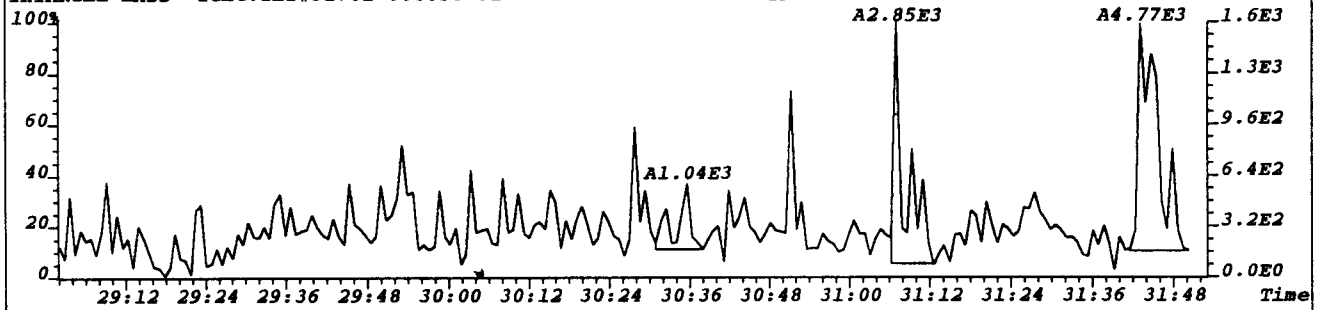
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



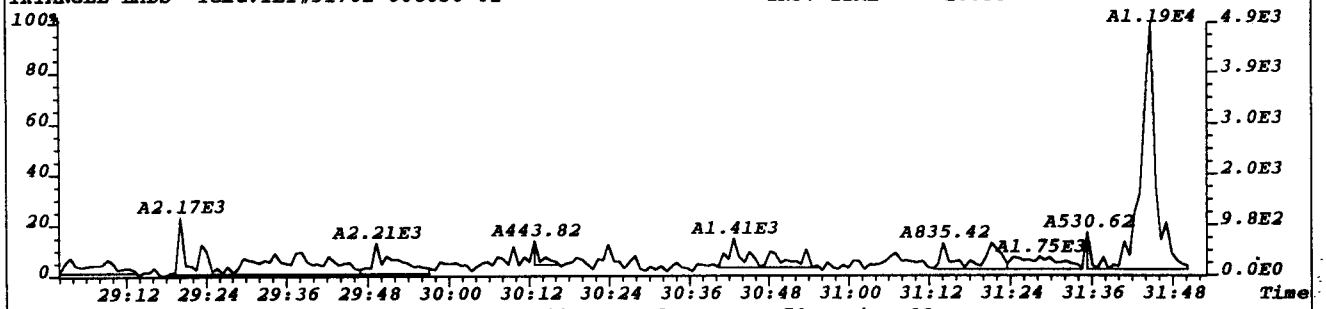
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
409.7974 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



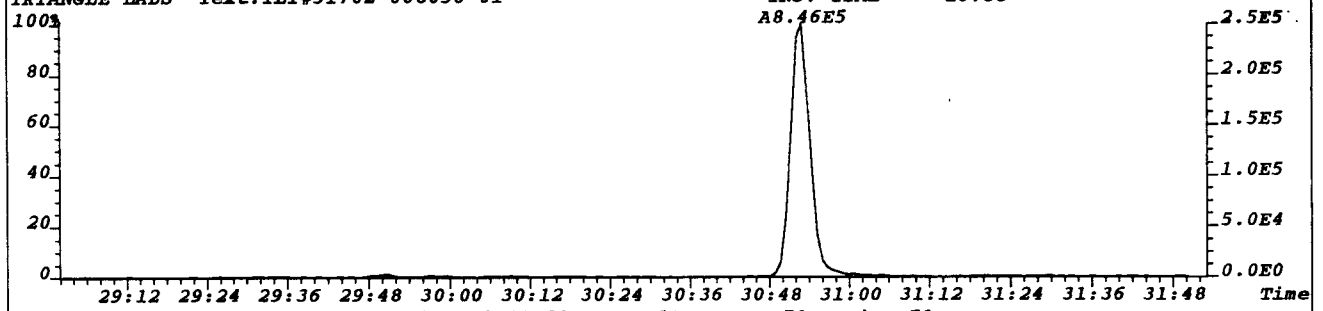
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:89
355.8546 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,356.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



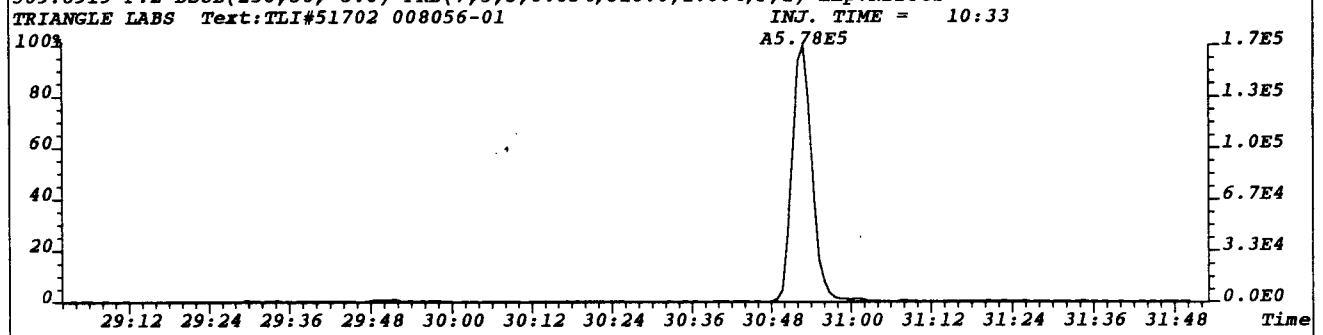
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:74
357.8516 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,296.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



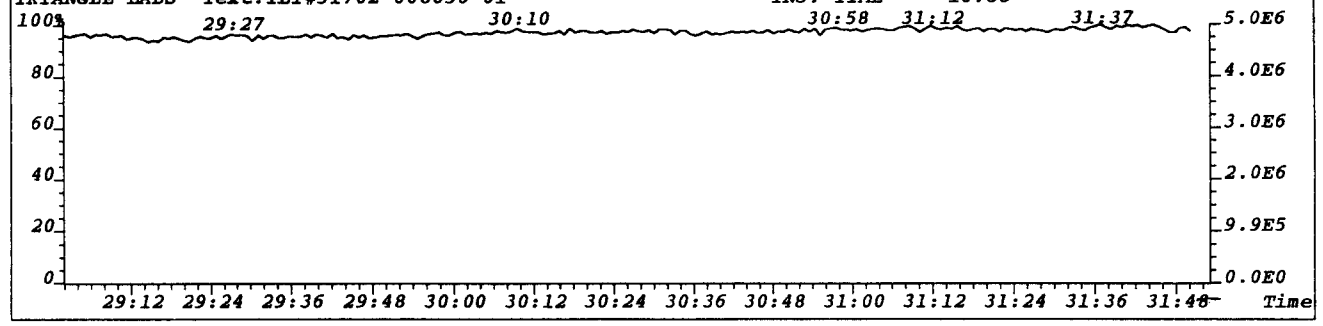
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:83
367.8949 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,332.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



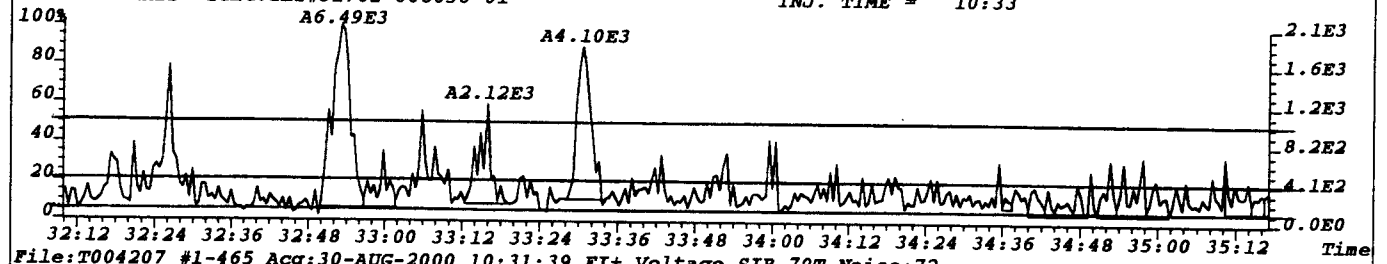
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:79
369.8919 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,316.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



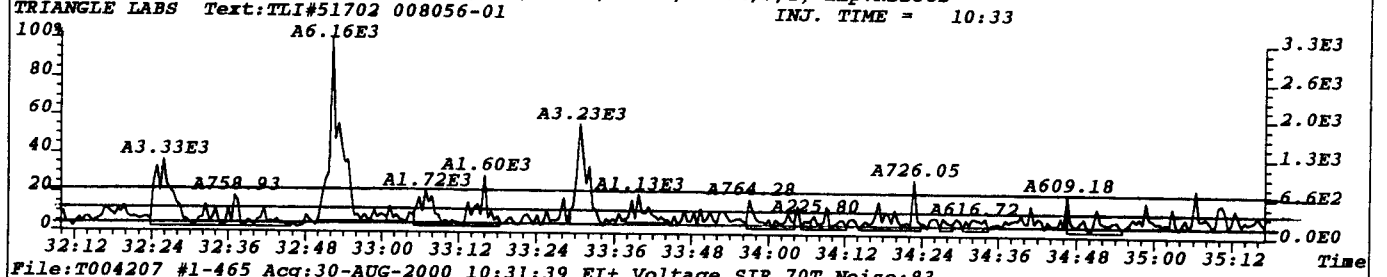
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



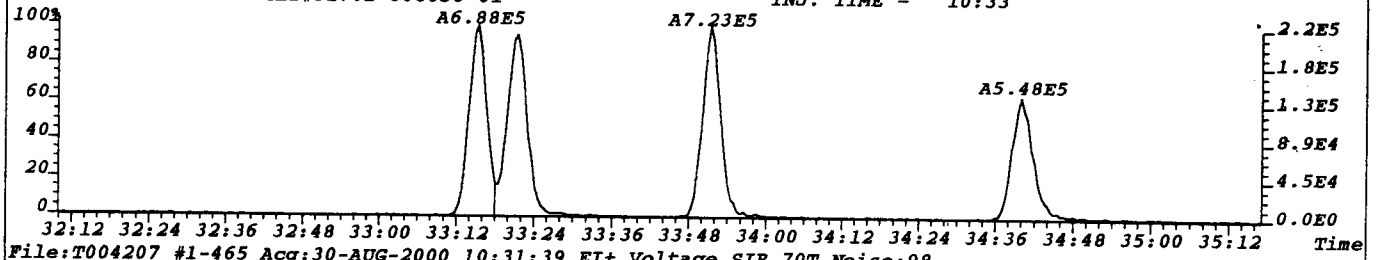
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:83
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,332.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



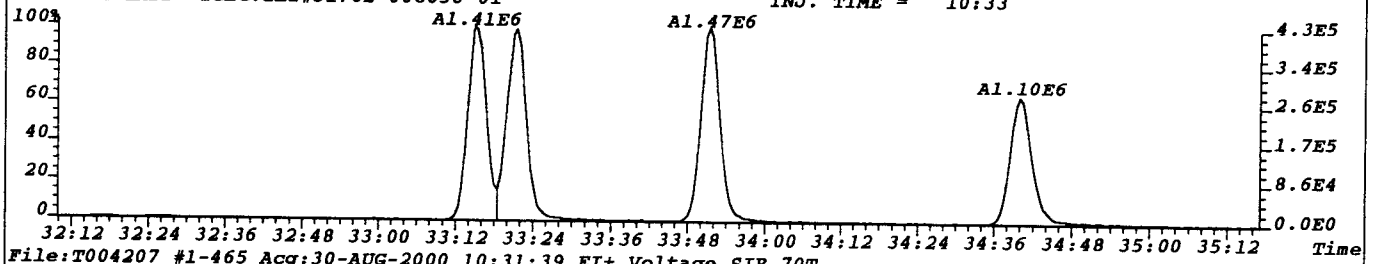
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:72
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,288.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



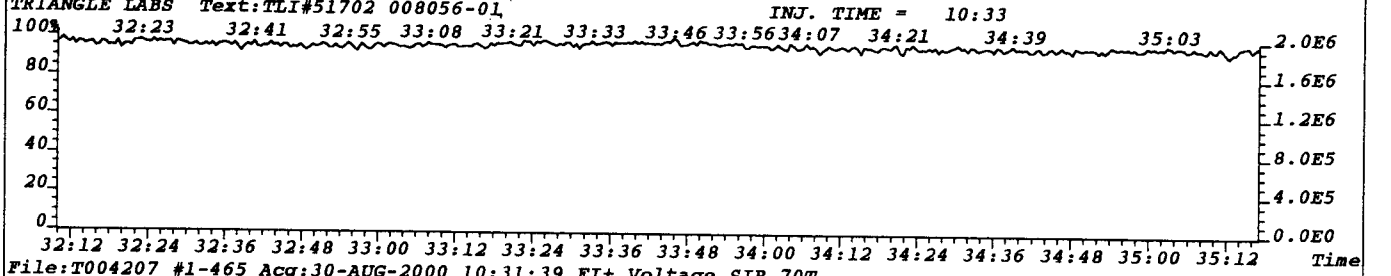
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:83
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,332.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



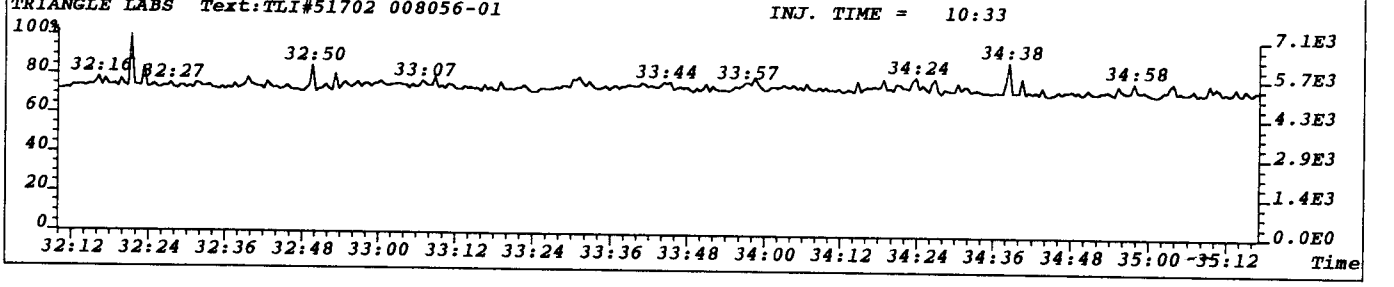
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:98
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,392.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



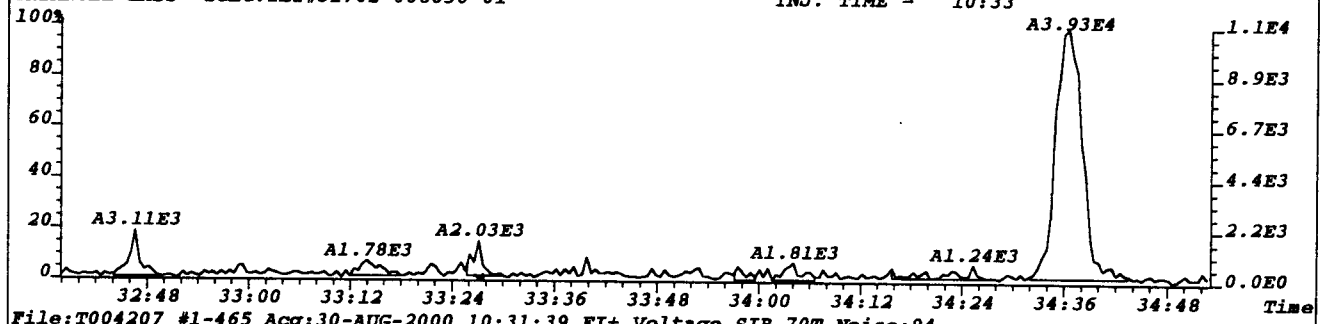
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



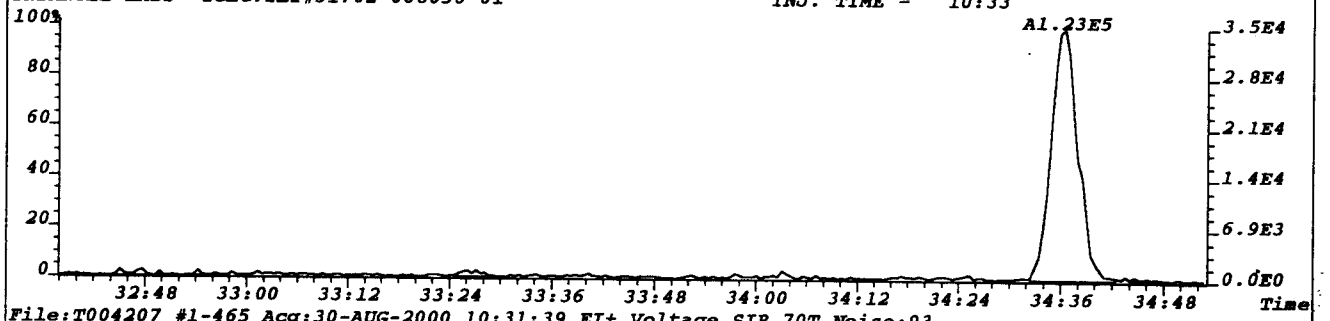
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
445.7555 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



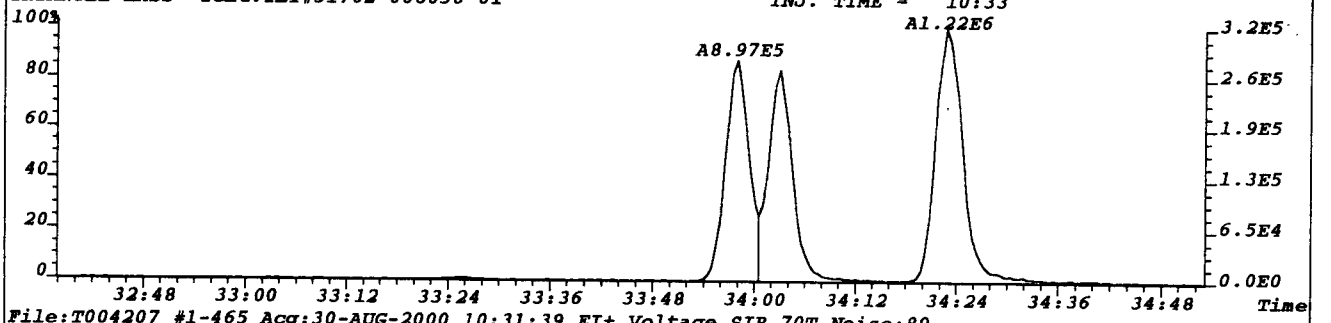
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:86
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,344.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



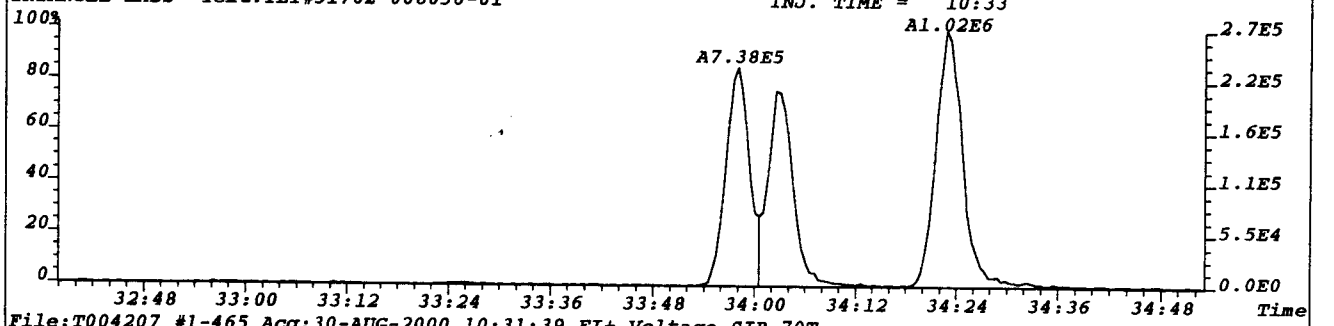
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:94
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,376.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



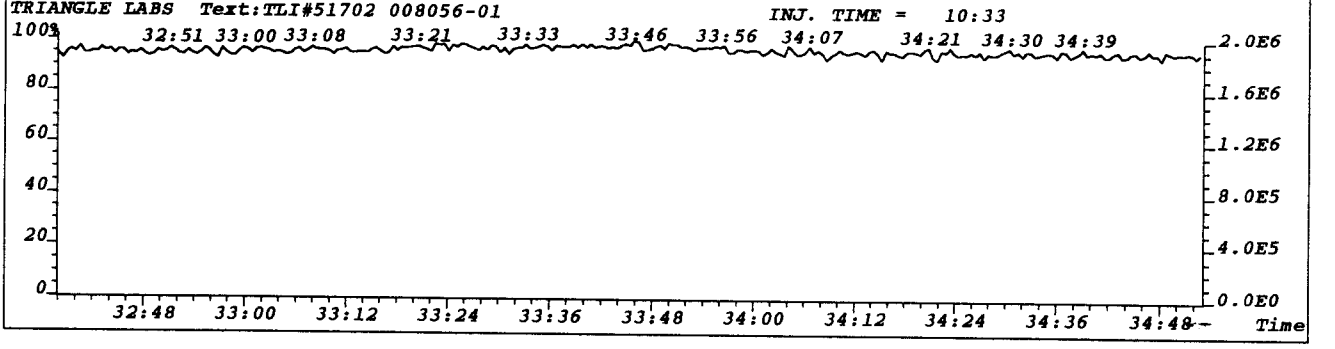
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:93
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,372.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



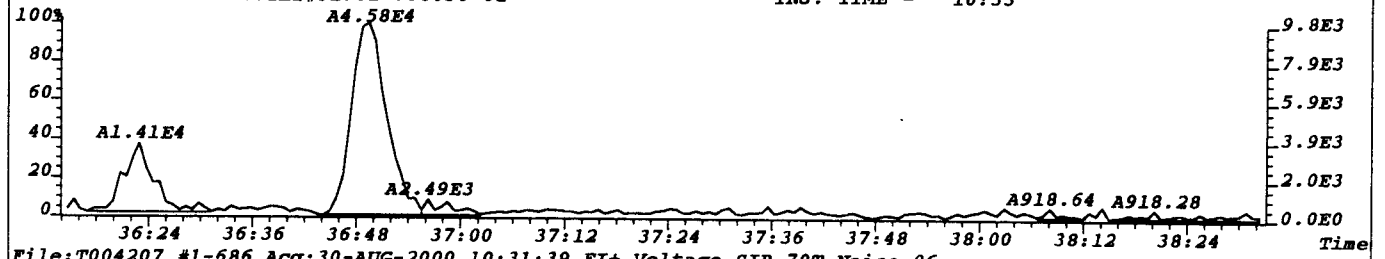
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:89
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,356.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



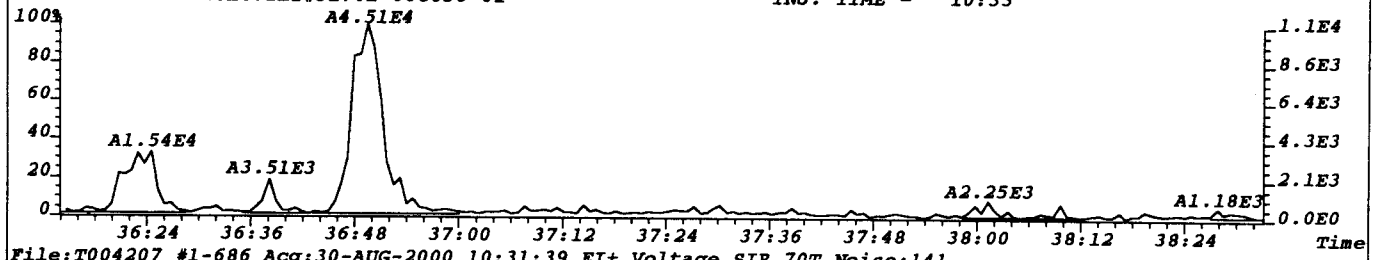
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



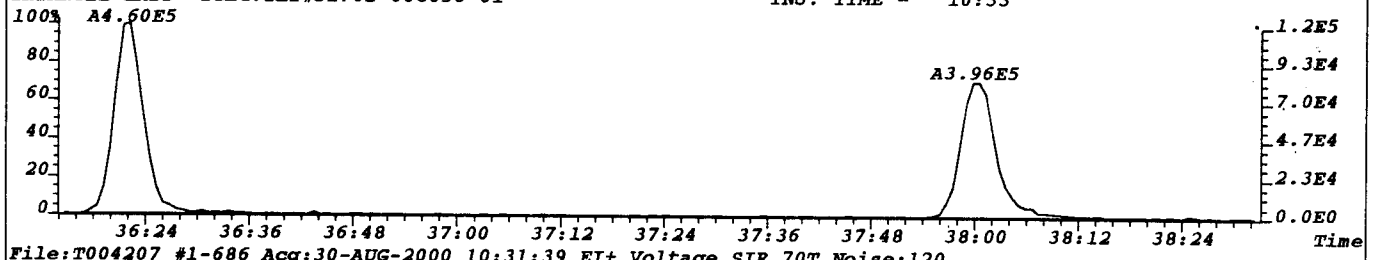
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:95
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,380.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



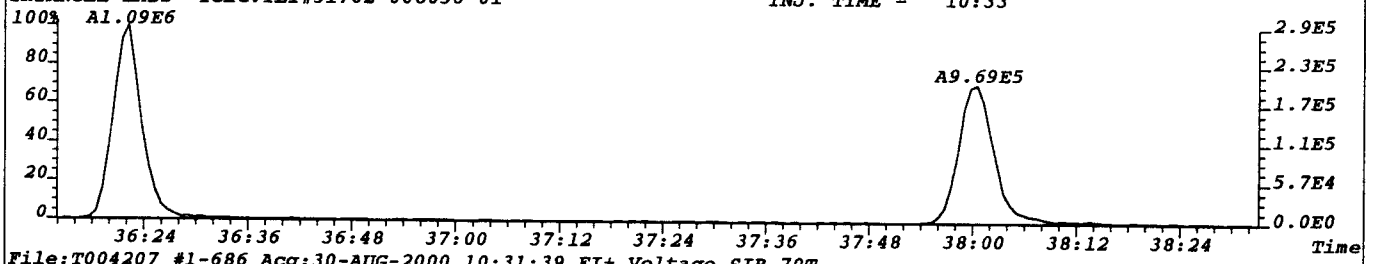
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:86
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,344.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



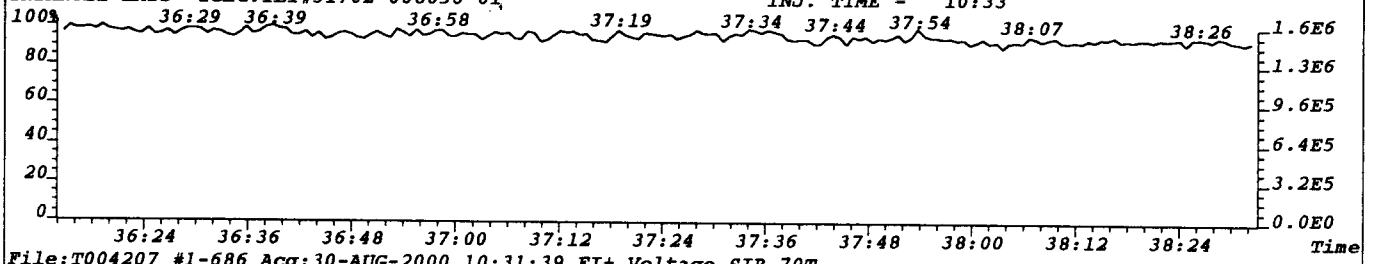
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:141
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,564.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



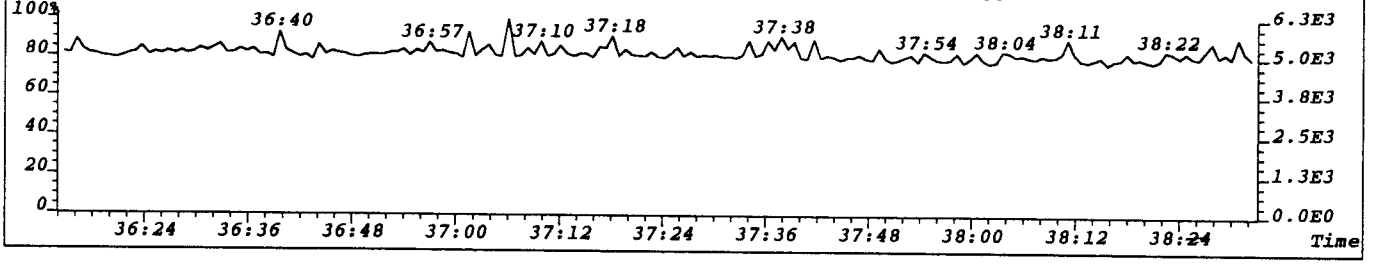
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:120
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,480.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



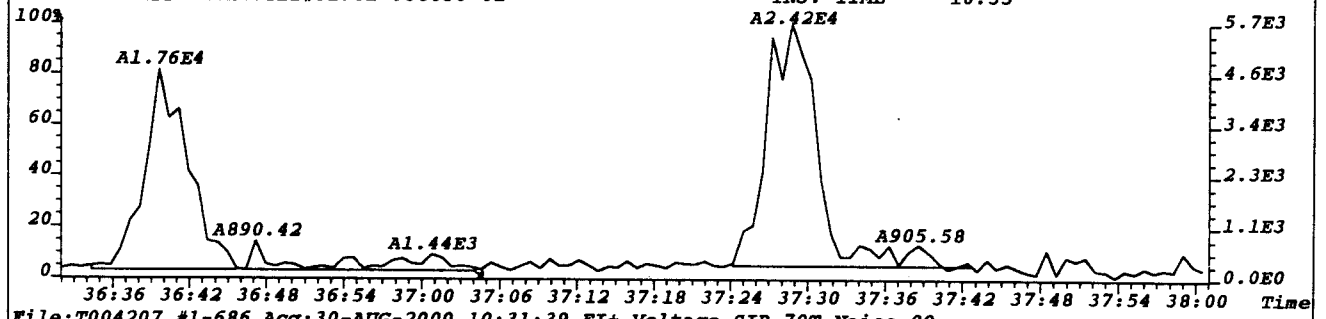
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



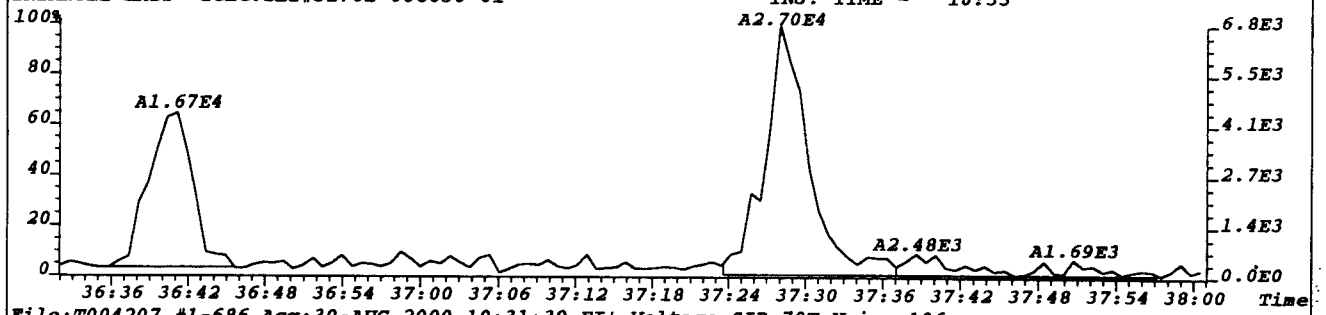
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
479.7165 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



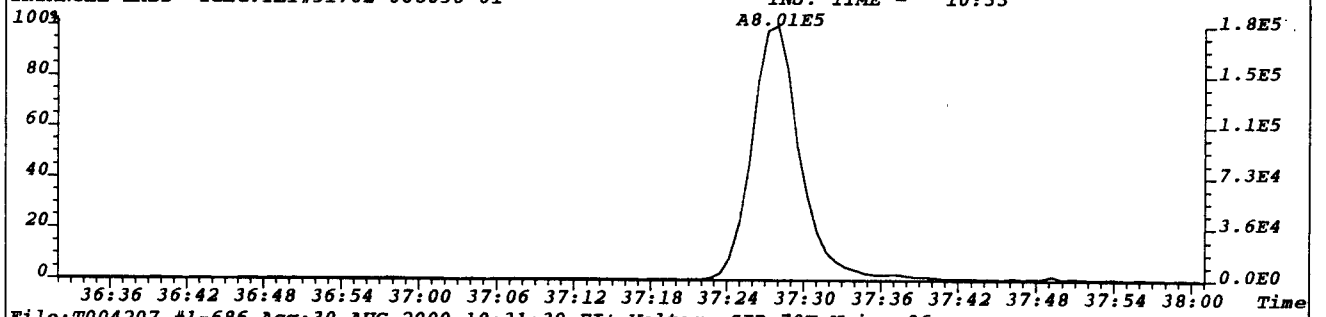
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:91
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,364.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



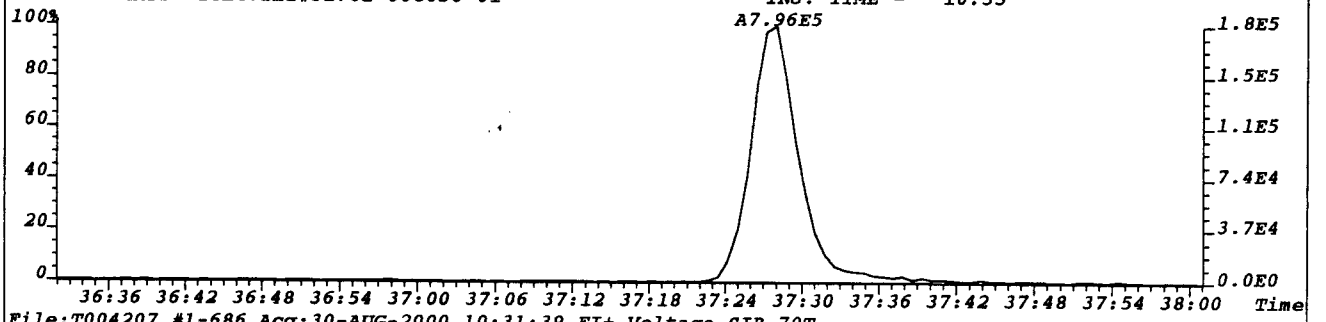
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:89
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,356.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



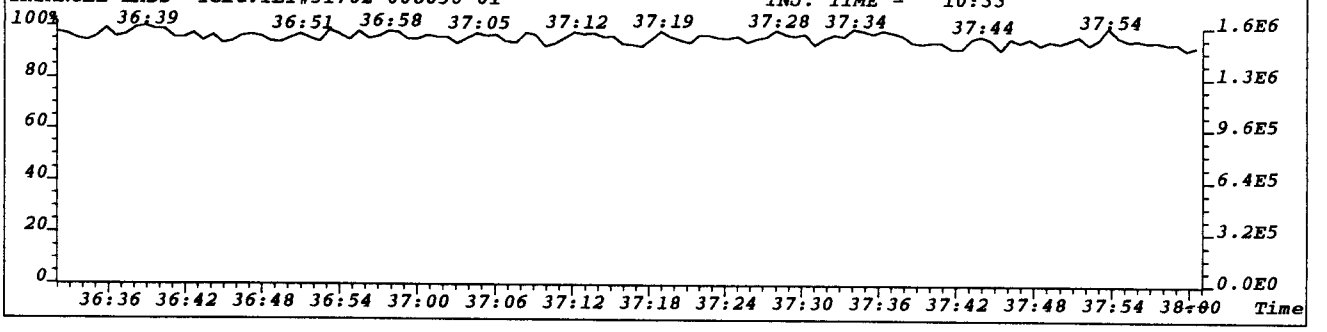
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:106
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,424.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



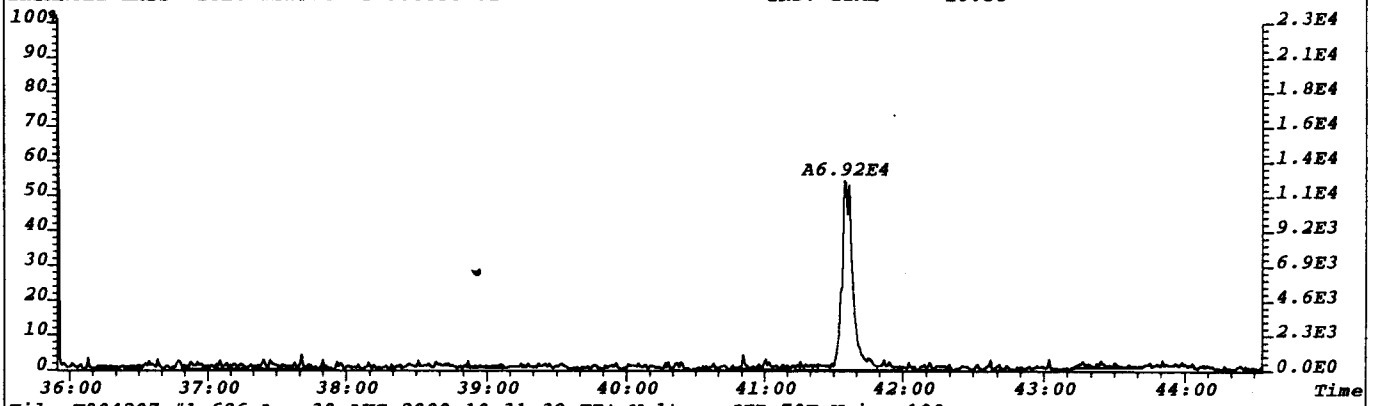
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:86
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,344.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



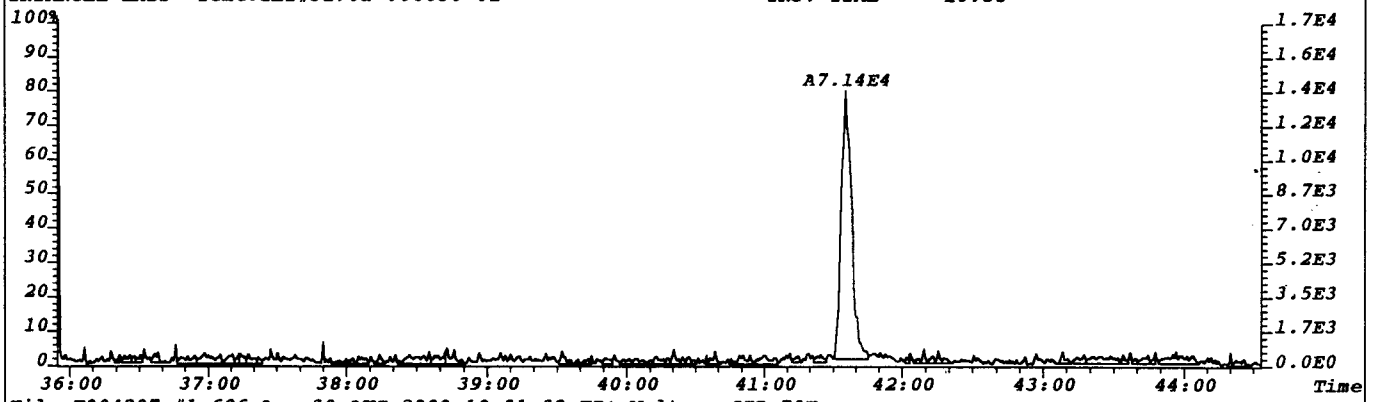
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



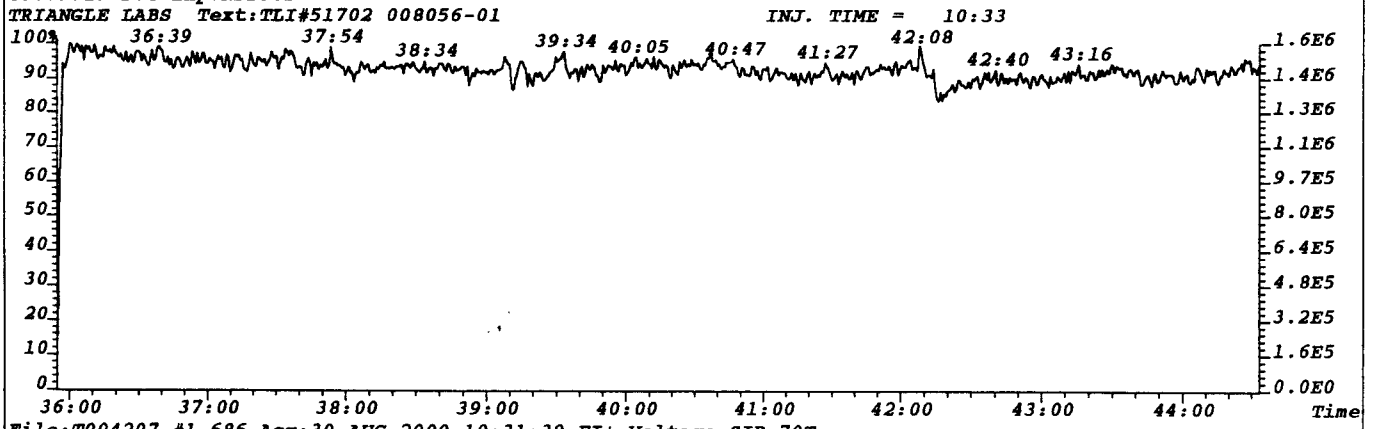
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:81
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,324.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



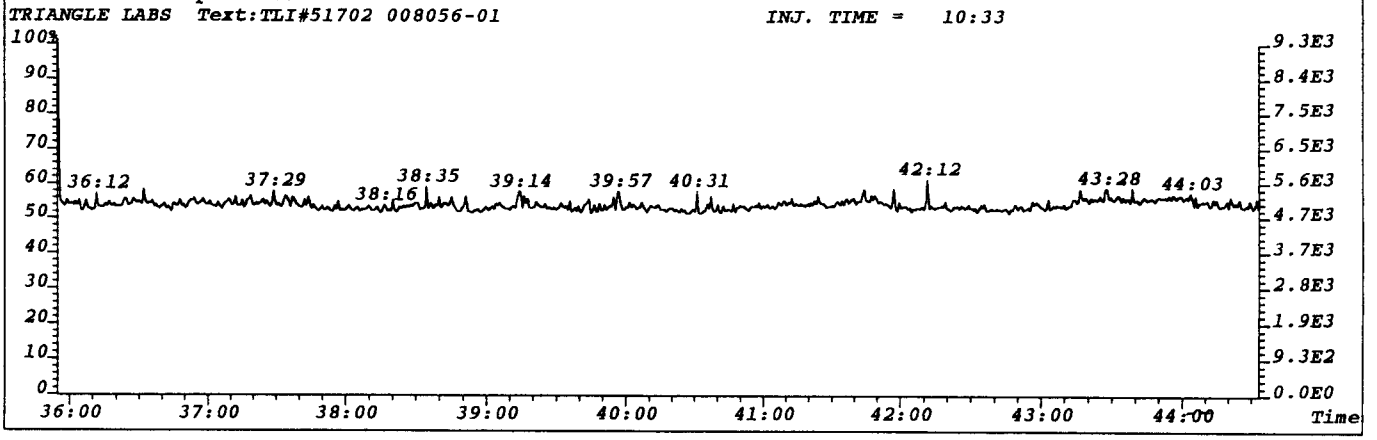
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:100
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,400.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



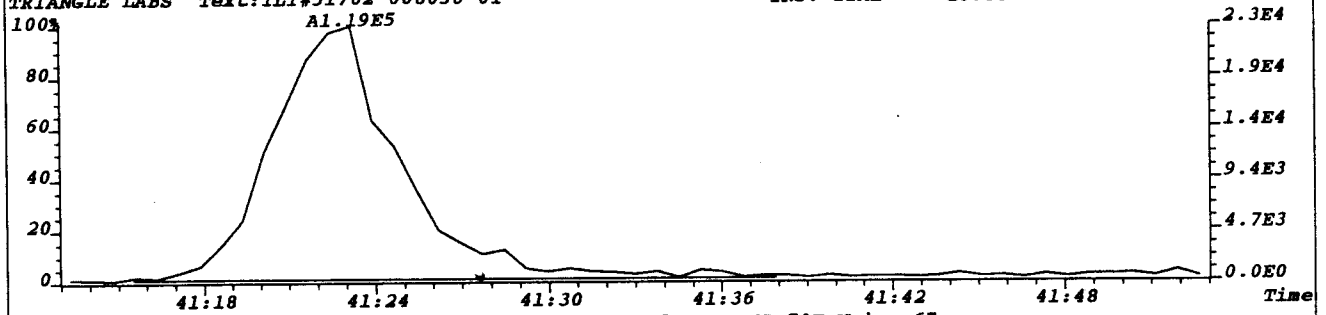
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



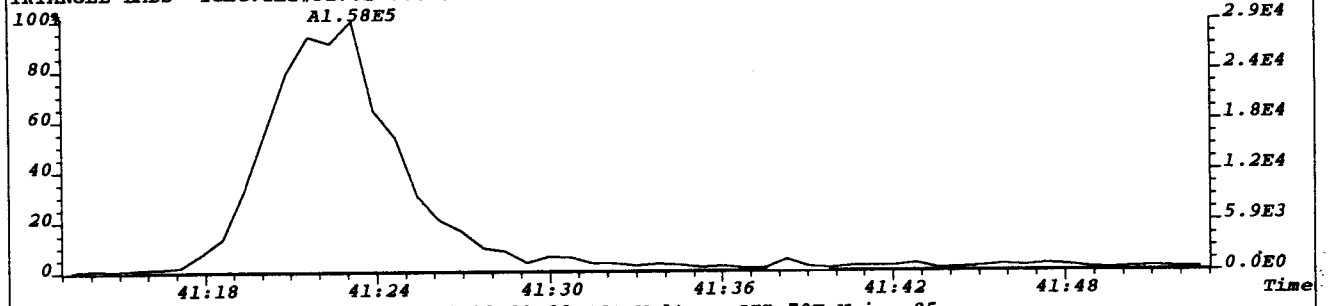
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
513.6775 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



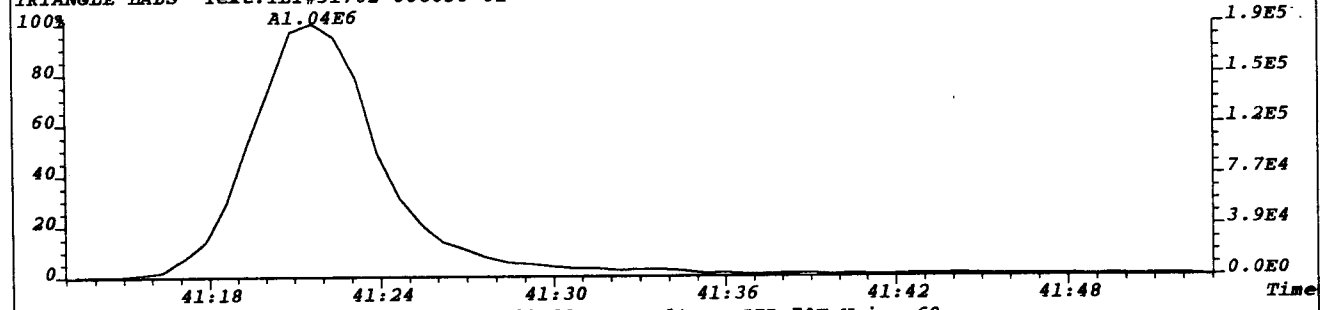
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:73
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,292.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



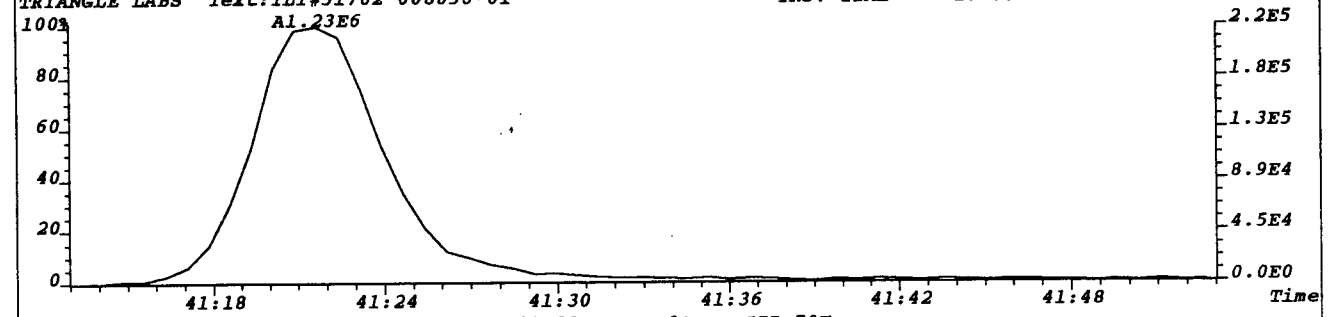
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:67
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,268.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



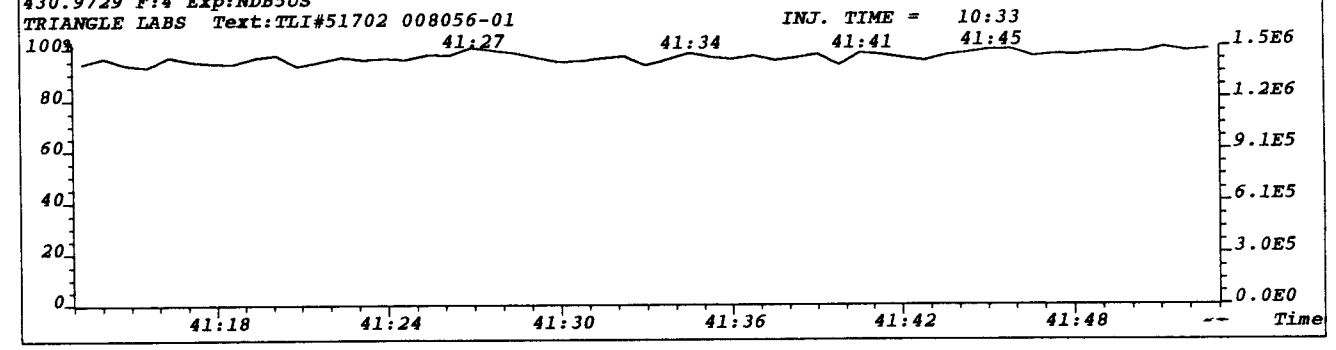
File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:85
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,340.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33

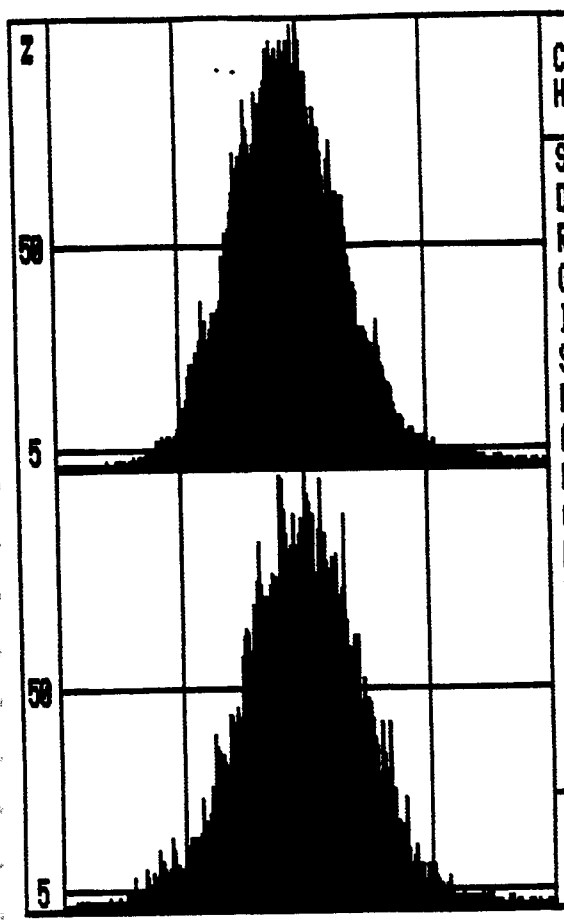


File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T Noise:69
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,276.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33



File:T004207 #1-686 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-01 INJ. TIME = 10:33





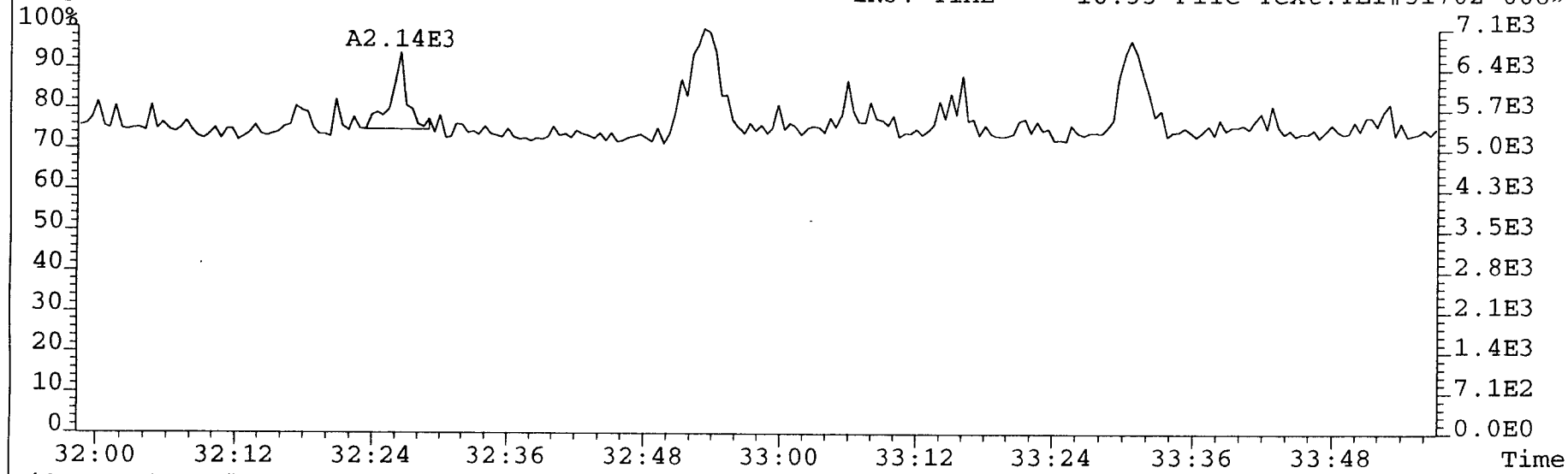
Channel I 330.9792 Peak top
Height .82 volts Span 200 ppm

System file name	NUBSUS
Data file name	A:T030002
Resolution	10000
Group number	2
Ionization mode	EI+
Switching	VOLTAGE
Ref. masses	292.9825, 416.9760

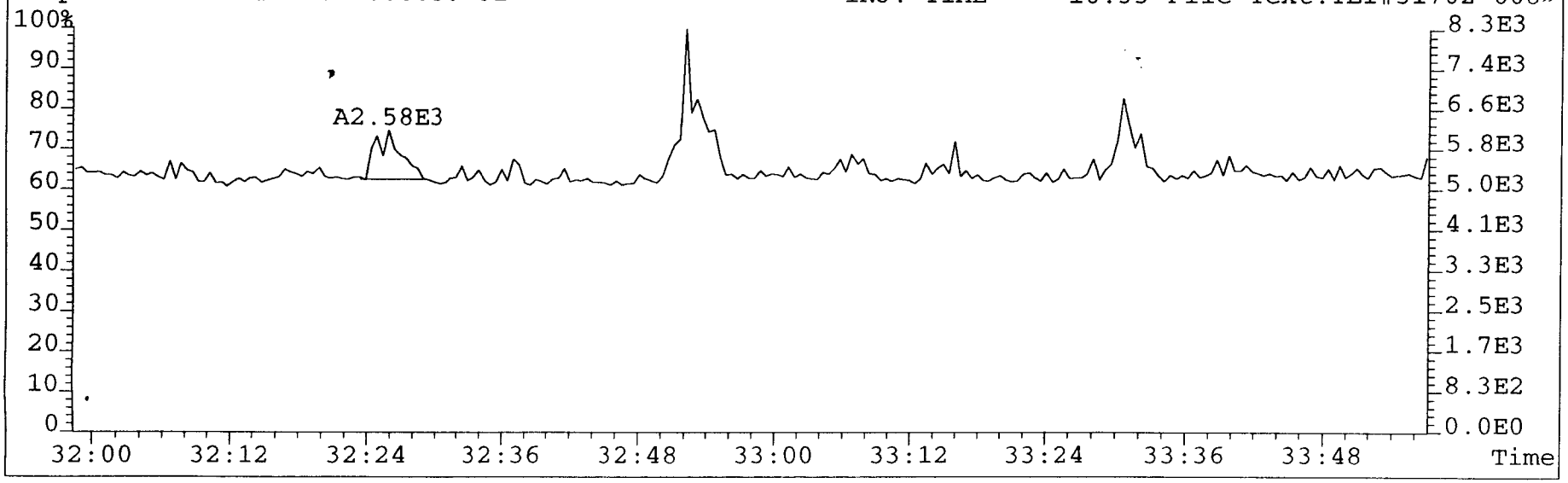
A	293	J	331	S	368
B	304	K	332	T	370
C	306	L	334	U	376
D	316	M	340	V	410
E	318	N	342		
F	320	O	352		
G	322	P	354		
H	328	Q	356		
I	331	R	358		

Ref. mass 416.9760 Peak top
Height .14 volts Span 200 ppm

File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
373.8208 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-01 INJ. TIME = 10:33 File Text:TLI#51702 008»



File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
375.8178 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-01 INJ. TIME = 10:33 File Text:TLI#51702 008»



KLU 9/30/00

Pinnacle Laboratories, Inc.

TLI Project: **51702** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **008056-02** UV 02 Analysis File: **T004208**

Client Project:	**008056**				
Sample Matrix:	**SOIL**	Date Received:	**08/22/2000**	Spike File:	**SPMIT32S**
TLI ID:	**268-29-2**	Date Extracted:	**08/27/2000**	ICal:	**TF57140**
		Date Analyzed:	**08/30/2000**	ConCal:	**T004204**
Sample Size:	**16.800 g**	Dilution Factor:	**n/a**	% Moisture:	**38.9**
Dry Weight:	**10.265 g**	Blank File:	**T004196**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**JSY**	% Solids:	**61.1**

Analytes	Conc. (ppt)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	0.4				
1,2,3,7,8-PeCDD	ND	0.4				
1,2,3,4,7,8-HxCDD	ND	0.5				
1,2,3,6,7,8-HxCDD	ND	0.5				
1,2,3,7,8,9-HxCDD	ND	0.5				
1,2,3,4,6,7,8-HpCDD	3.7			1.06	37:28	J
1,2,3,4,6,7,8,9-OCDD	26.4			0.83	41:22	
2,3,7,8-TCDF	ND	0.3				
1,2,3,7,8-PeCDF	ND	0.3				
2,3,4,7,8-PeCDF	ND	0.3				
1,2,3,4,7,8-HxCDF	ND	0.4				
1,2,3,6,7,8-HxCDF	ND	0.4				
2,3,4,6,7,8-HxCDF	ND	0.4				
1,2,3,7,8,9-HxCDF	ND	0.5				
1,2,3,4,6,7,8-HpCDF	1.4			1.01	36:22	J
1,2,3,4,7,8,9-HpCDF	ND	0.7				
1,2,3,4,6,7,8,9-OCDF	8.8			0.91	41:36	J

Totals	Conc. (ppt)	Number	DL	EMPC	Flags
Total TCDD	EMPC			1.7	
Total PeCDD	ND		0.4		
Total HxCDD	ND		0.5		
Total HpCDD	6.7	2			
Total TCDF	ND		0.3		
Total PeCDF	EMPC			2.2	
Total HxCDF	1.1	2		1.4	
Total HpCDF	5.5	2			

mit3_PSR v1.00, LARS 6.25.00

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Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **008056-02** UV 02

Method 8290 PCDD/PCDF Analysis (b)
Analysis File: **T004208**

Internal Standards	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	164	84.3	40%-130%	0.74	26:06	___
$^{13}C_{12}$-2,3,7,8-TCDD	157	80.8	40%-130%	0.78	26:47	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	170	87.4	40%-130%	1.49	29:53	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	181	92.8	40%-130%	1.49	30:53	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	129	66.4	40%-130%	0.51	33:22	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	174	89.1	40%-130%	1.21	34:03	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	134	68.5	25%-130%	0.43	36:22	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	179	91.9	25%-130%	1.00	37:27	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	323	82.9	25%-130%	0.83	41:22	___

Surrogate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	179	92.0	40%-130%	1.52	30:33	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	122	62.9	40%-130%	0.50	33:15	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	159	81.5	40%-130%	1.21	33:58	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	175	89.9	25%-130%	0.41	38:01	___

Other Standard	Conc. (ppt)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	16.1	82.4	40%-130%	26:48	___

Alternate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	165	84.9	40%-130%	0.51	34:40	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	155	79.4	40%-130%	0.50	33:51	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.83	26:37	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.21	34:23	___

Data Reviewer: KLJ 08/30/2000

mit3_PSR v1.00, LARS 6.25.00

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Printed: 17:15 08/30/2000

Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **008056-02** UV 02

Toxicity Equivalents Report
Analysis File: **T004208**

Client Project:	**008056**				
Sample Matrix:	**SOIL**	Date Received:	**08/22/00**	Spike File:	**SPMIT32S**
TLI ID:	**268-29-2**	Date Extracted:	**08/27/00**	ICal:	**TF57140**
		Date Analyzed:	**08/30/00**	ConCal:	**T004204**
Sample Size:	**16.800 g**	Dilution Factor:	**1**	% Moisture:	**38.9**
Dry Weight:	**10.265 g**	Blank File:	**T004196**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**JSY**	% Solids:	**61.1**

Analytes	Conc. (ppt)		TEF		Equivalent
2,3,7,8-TCDD	{0.4}	x	1.	=	0.4
1,2,3,7,8-PeCDD	{0.4}	x	0.5	=	0.2
1,2,3,4,7,8-HxCDD	{0.5}	x	0.1	=	0.05
1,2,3,6,7,8-HxCDD	{0.5}	x	0.1	=	0.05
1,2,3,7,8,9-HxCDD	{0.5}	x	0.1	=	0.05
1,2,3,4,6,7,8-HpCDD	3.7	x	0.01	=	0.037
1,2,3,4,6,7,8,9-OCDD	26.4	x	0.001	=	0.0264
TOTAL PCDD					0.8
2,3,7,8-TCDF	{0.3}	x	0.1	=	0.03
1,2,3,7,8-PeCDF	{0.3}	x	0.05	=	0.02
2,3,4,7,8-PeCDF	{0.3}	x	0.5	=	0.2
1,2,3,4,7,8-HxCDF	{0.4}	x	0.1	=	0.04
1,2,3,6,7,8-HxCDF	{0.4}	x	0.1	=	0.04
2,3,4,6,7,8-HxCDF	{0.4}	x	0.1	=	0.04
1,2,3,7,8,9-HxCDF	{0.5}	x	0.1	=	0.05
1,2,3,4,6,7,8-HpCDF	1.4	x	0.01	=	0.014
1,2,3,4,7,8,9-HpCDF	{0.7}	x	0.01	=	0.007
1,2,3,4,6,7,8,9-OCDF	8.8	x	0.001	=	0.0088
TOTAL PCDF					0.4

Total EPA TEFs, 1989a: 1.3 ppt

{...} indicates that the value is that of a Detection Limit.

GRY_TEF v1.08, MILES 4.22.16

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Initial ....Date...

Data Review By: KLV 8/30/00

Calculated Noise Height: 0.07

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of T004208B.dbf
08/30/2000 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
13C12-TCDF				0.65-0.89						0.962-1.038			
316-318	DC	NL					Height	0.40	0.18	0.22			
				26:06			0.74	400.97	171.09	229.88	1.000	13C12-2378-TCDF	ISO
							Height	110.36	46.76	63.60			
316-318			1	Peak				400.97					
---------- Above: TCDF / TCDD Follows ----------													
TCDD				0.65-0.89						0.905-1.043			
320-322	DC	NL					Height	0.14	0.06	0.08			
				24:24	RO	0.90		1.49	0.65	0.72	0.911	1368-TCDD	AN
				24:46	RO	1.16		0.90	0.59	0.51	0.925	1379-TCDD	AN J
	DC	SN		27:49	RO	3.80		0.09			1.039		
320-322			2	Peaks				2.39					
37Cl-TCDD										0.925-1.075			
328	DC	NL					Height	0.08	0.08				
	DC	WL		24:13				0.21			0.904		
	DC	WL		24:44				0.15			0.923		
	DC	SN		24:50				0.03			0.927		
	DC	SN		24:51				0.04			0.928		
	DC	SN		25:07				0.31			0.938		
	DC	SN		25:13				0.05			0.942		
	DC	SN		25:15				0.06			0.943		
	DC	SN		25:17				0.03			0.944		
				25:30				1.02	1.02		0.952		
				26:48				27.19	27.19		1.001	37Cl-TCDD	CLS
	DC	SN		27:10				0.20			1.014		
	DC	SN		27:21				0.11			1.021		
328			2	Peaks				28.21					
13C12-TCDD				0.65-0.89						0.925-1.075			
332-334	DC	NL					Height	0.33	0.21	0.12			
				26:37			0.83	370.84	167.68	203.16	0.994	13C12-1234-TCDD	RS1
				26:47			0.78	315.17	138.52	176.65	1.000	13C12-2378-TCDD	IS1
							Height	85.39	37.88	47.51			
				27:01	RO	1.86		0.87	0.91	0.49	1.009		
332-334			3	Peaks				686.88					
---------- Above: TCDD / PeCDF Follows ----------													
PeCDF				1.32-1.78						0.930-1.060			
340-342	DC	NL					Height	0.20	0.10	0.10			
				28:01	RO	0.78		1.96	1.19	1.53	0.938		J

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
		DC	SN	28:09	RO	0.64	0.15			0.942			
				28:17	RO	1.27	1.30	0.65	0.51	0.946			J
		DC	SN	28:25		1.62	0.34			0.951			
		DC	SN	28:34	RO	0.56	0.08			0.956			
				29:12	RO	0.80	0.86	0.52	0.65	0.977			J
340-342			3	Peaks			4.12						
13C12-PeCDF				1.32-1.78					0.866-1.134				
352-354		DC	NL	Height			0.17	0.08	0.09				
				28:41		1.52	6.44	3.88	2.56	0.960			
				29:04		1.34	1.17	0.67	0.50	0.973			
				29:32	RO	0.99	1.17	0.71	0.72	0.988			
				29:53		1.49	388.76	232.42	156.34	1.000	13C12-PeCDF 123	IS2	
				Height			109.98	65.79	44.19				
				30:10		1.62	3.56	2.20	1.36	1.009			
				30:33		1.52	405.17	244.59	160.58	1.022	13C12-PeCDF 234	SUR1	
				31:30	RO	1.79	3.85	2.70	1.51	1.054			
352-354			7	Peaks			810.12						
---------- Above: PeCDF / PeCDD Follows ----------													
PeCDD				1.32-1.78					0.940-1.021				
356-358		DC	NL	Height			0.16	0.08	0.08				
		DC	SN	29:09		1.32	0.51			0.944			
		DC	WH	31:46	RO	0.69	1.28			1.029			
356-358			0	Peaks			0.00						
13C12-PeCDD				1.32-1.78					0.871-1.129				
368-370		DC	NL	Height			0.16	0.09	0.07				
				29:49	RO	0.81	1.32	0.80	0.99	0.965			
		DC	SN	30:10	RO	2.17	0.46			0.977			
				30:53		1.49	234.71	140.51	94.20	1.000	13C12-PeCDD 123	IS3	
				Height			72.60	43.59	29.01				
368-370			2	Peaks			236.03						
---------- Above: PeCDD / HxCDF Follows ----------													
HxCDF				1.05-1.43					0.964-1.047				
374-376	MKT			32:26		1.14	0.62	0.33	0.29	0.972			J
				32:53		1.27	1.00	0.56	0.44	0.986			J
	M			33:31	RO	1.91	0.52	0.44	0.23	1.004			J
374-376			3	Peaks			2.14						
13C12-HxCDF				0.43-0.59					0.880-1.120				
384-386		DC	NL	Height			0.12	0.06	0.06				
		DC	SN	32:18	RO	0.41	0.62			0.968			
		DC	SN	32:26		0.44	0.78			0.972			
				33:15		0.50	280.68	93.90	186.78	0.997	13C12-HxCDF 478	SUR2	
				33:22		0.51	300.81	101.26	199.55	1.000	13C12-HxCDF 678	IS4	
				Height			89.96	30.33	59.63				
				33:37	RO	2.52	0.32	0.53	0.21	1.007			
				33:42	RO	0.93	0.80	0.27	0.29	1.010			

Listing of T004208B.dbf
Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				33:51		0.50	328.08	109.98	218.10	1.014	13C12-HxCDF	234	ALT2
				34:09	RO	0.61	1.01	0.34	0.56	1.023			
	DC	SN		34:16	RO	0.42	0.30			1.027			
	DC	SN		34:33	RO	0.78	0.21			1.035			
				34:40		0.51	257.92	87.39	170.53	1.039	13C12-HxCDF	789	ALT1
				34:57	RO	1.00	0.69	0.46	0.46	1.047			
				35:06		0.55	0.59	0.21	0.38	1.052			
	DC	SN		35:16		0.58	0.52			1.057			
384-386			9	Peaks			1,170.90						

---------- Above: HxCDF / HxCDD Follows ----------

HxCDD						1.05-1.43				0.957-1.014			
390-392		DC	NL			Height	0.16	0.07	0.09				
	D	D	SN	32:46		1.15	0.56			0.962			
		DC	SN	32:58		1.33	0.07			0.968			
		DC	SN	33:05	RO	3.33	0.07			0.972			
		DC	SN	33:17	RO	0.95	0.34			0.977			
		DC	SN	33:27	RO	0.33	0.20			0.982			
		DC	WH	34:37	RO	0.32	8.67			1.017			
		DC	WH	34:45	RO	0.62	0.14			1.021			
		DC	WH	34:50	RO	0.71	0.09			1.023			
390-392			0	Peaks			0.00						
13C12-HxCDD						1.05-1.43				0.971-1.029			
402-404		DC	NL			Height	0.14	0.07	0.07				
		DC	WL	33:02	RO	2.43	0.16			0.970			
				33:25		1.23	2.52	1.39	1.13	0.981			
				33:58		1.21	239.00	131.02	107.98	0.998	13C12-HxCDD	478	SUR3
				34:03		1.21	252.67	138.57	114.10	1.000	13C12-HxCDD	678	IS5
						Height	71.00	39.21	31.79				
				34:23		1.21	312.15	170.92	141.23	1.010	13C12-HxCDD	789	RS2
				34:37	RO	0.85	0.70	0.39	0.46	1.017			
				34:44		1.06	1.01	0.52	0.49	1.020			
				34:48	RO	0.73	0.67	0.37	0.51	1.022			
402-404			7	Peaks			808.72						

---------- Above: HxCDD / HpCDF Follows ----------

HpCDF						0.88-1.20				0.996-1.050			
408-410		DC	NL			Height	0.14	0.08	0.06				
	M			36:22		1.01	1.93	0.97	0.96	1.000	1234678-HpCDF	AN	J
				36:49		0.88	4.84	2.26	2.58	1.012			J
408-410			2	Peaks			6.77						
13C12-HpCDF						0.37-0.51				0.945-1.110			
418-420		DC	NL			Height	0.24	0.11	0.13				
				36:22		0.43	207.55	62.37	145.18	1.000	13C12-HpCDF	678	IS6
						Height	52.54	15.53	37.01				
		DC	SN	37:41	RO	1.55	0.16			1.036			
				38:01		0.41	211.79	61.89	149.90	1.045	13C12-HpCDF	789	SUR4
418-420			2	Peaks			419.34						

```
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

                    ---------------------- Above: HpCDF / HpCDD Follows ---------------------

HpCDD                                0.88-1.20                                      0.975-1.005
424-426             DC  NL            Height          0.12          0.06          0.06
                            36:40      0.97           3.15          1.55          1.60  0.979                        J
                    DC  SN  37:06 RO   3.22           0.18                              0.991
                            37:28      1.06           4.04          2.08          1.96  1.000 1234678-HpCDD   AN   J
424-426                   2 Peaks                     7.19

13C12-HpCDD                          0.88-1.20                                      0.973-1.027
436-438             DC  NL            Height          0.16          0.08          0.08
                            37:27      1.00         246.03        123.13        122.90  1.000 13C12-HpCDD 678 IS7
                                      Height         56.31         28.17         28.14
                            37:56 RO   2.65           0.47          0.61          0.23  1.013
436-438                   2 Peaks                   246.50

                    ---------------------- Above: HpCDD / Octa-CDD and CDF Follows ----------

OCDF                                 0.76-1.02                                      0.903-1.097
442-444             DC  NL            Height          0.14          0.07          0.07
                    DC  WL  36:30      1.00           0.28                              0.882
                    DC  SN  38:59 RO   0.27           0.08                              0.942
                    DC  SN  39:06 RO   1.27           0.21                              0.945
                    DC  SN  39:13 RO   0.58           0.15                              0.948
                    DC  SN  39:20 RO   1.37           0.36                              0.951
                            41:36      0.91           9.00          4.29          4.71  1.006 OCDF           AN   J
                    DC  SN  42:29      0.83           0.33                              1.027
                    DC  SN  42:32 RO   1.63           0.15                              1.028
                    DC  SN  42:45      0.81           0.38                              1.033
442-444                   1 Peak                      9.00

OCDD                                 0.76-1.02                                      0.903-1.097
458-460             DC  NL            Height          0.12          0.06          0.06
                            41:22      0.83          22.36         10.14         12.22  1.000 OCDD           AN
                    DC  SN  41:54 RO   0.52           0.30                              1.013
458-460                   1 Peak                     22.36

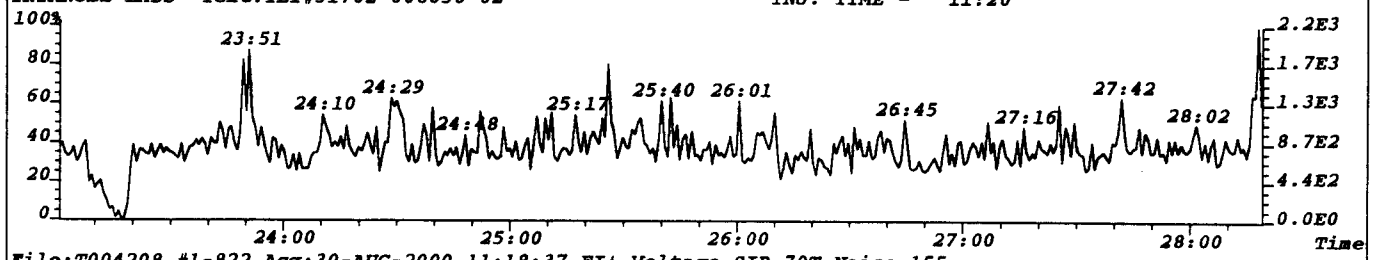
13C12-OCDD                           0.76-1.02                                      0.996-1.004
470-472             DC  NL            Height          0.12          0.06          0.06
                            41:22      0.83         361.32        164.25        197.07  1.000 13C12-OCDD     IS8
                                      Height         68.86         31.19         37.67
470-472                   1 Peak                    361.32
```

Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

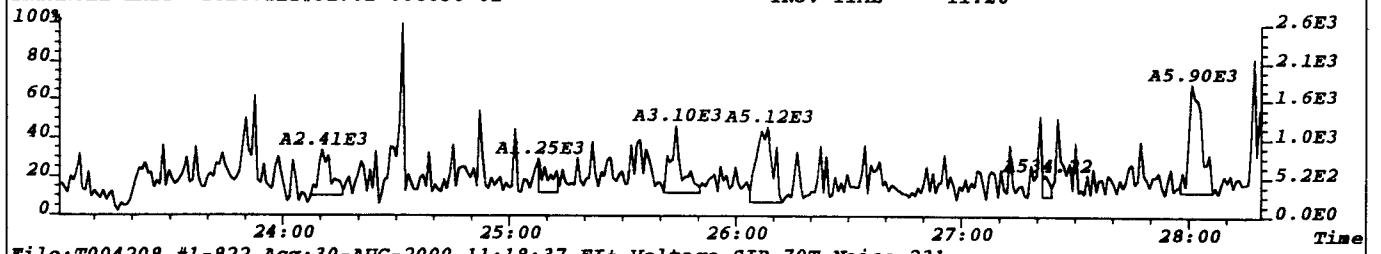
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***

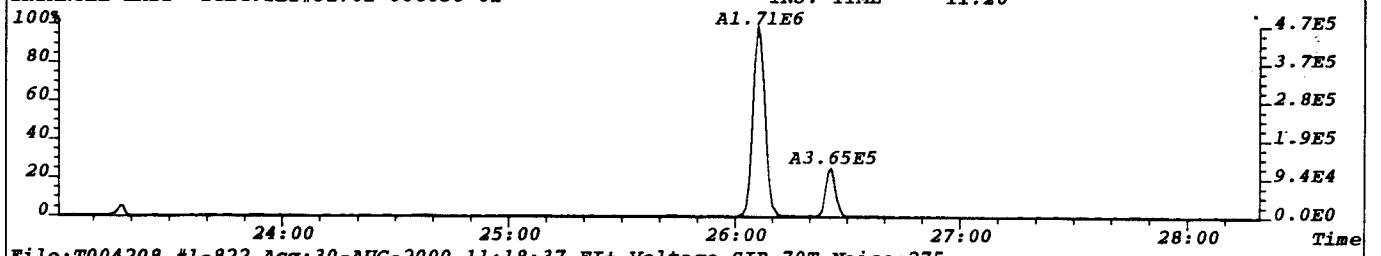
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:271
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,1084.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



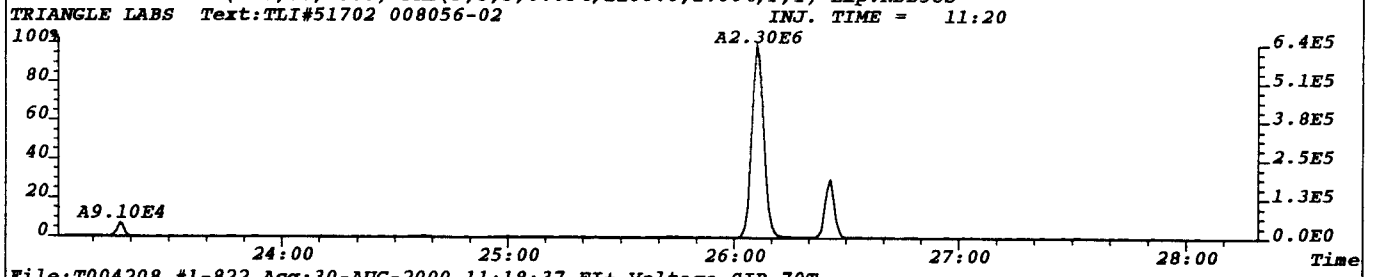
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:155
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,620.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



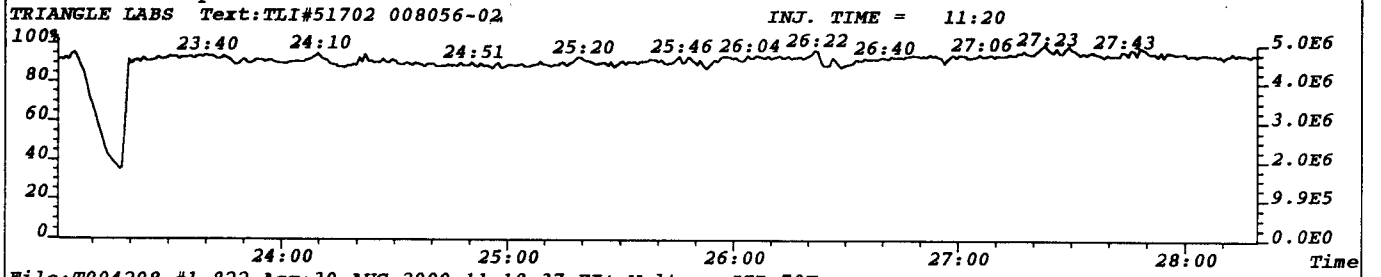
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:231
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,924.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



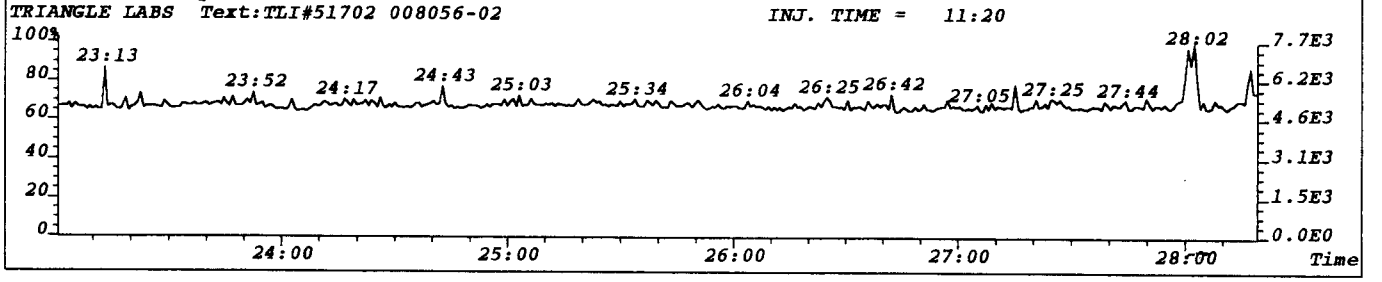
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:275
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,1100.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20

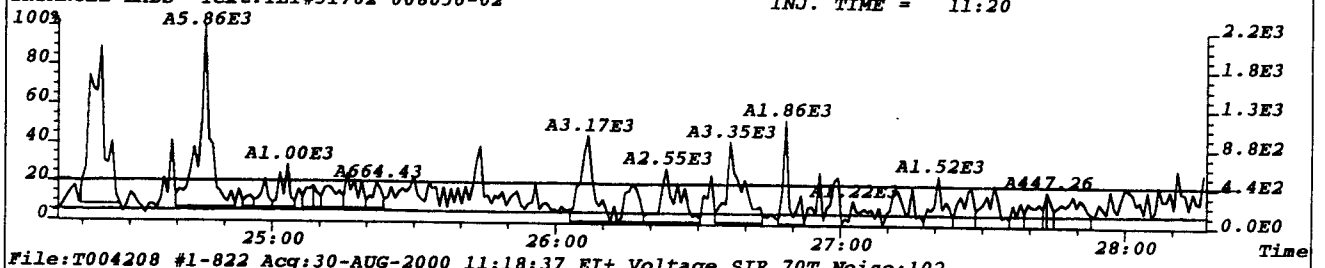


File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
375.8364 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20

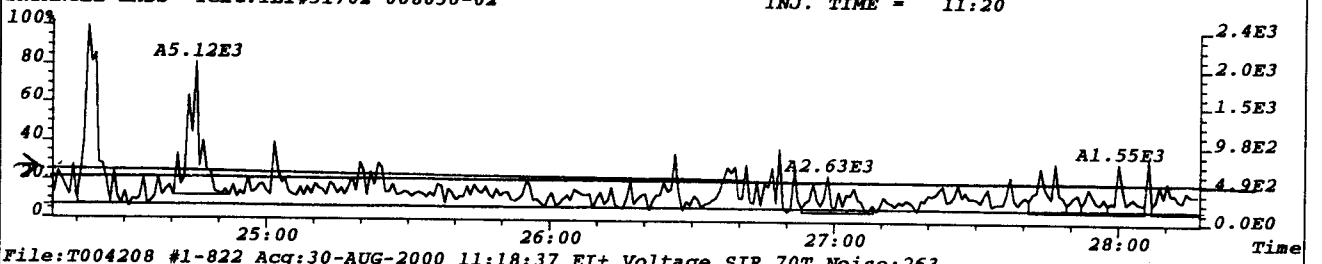


(.15) (.22+.24) = .069 pA 08/30/00

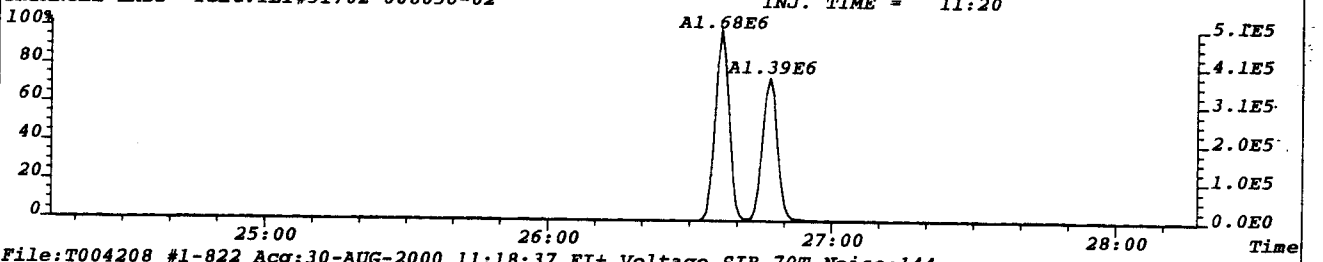
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:77
319.8965 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,308.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



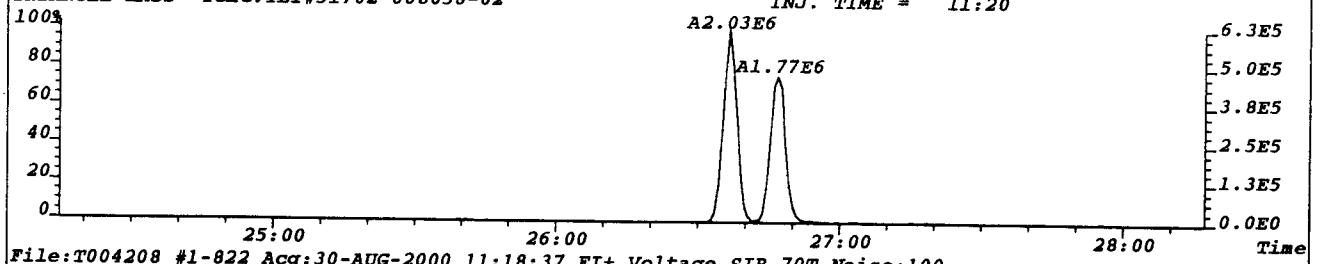
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:102
321.8936 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,408.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



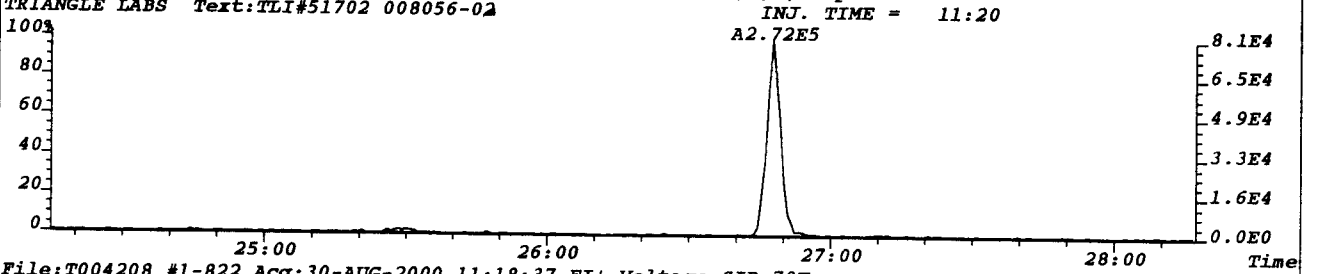
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:263
331.9368 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,1052.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



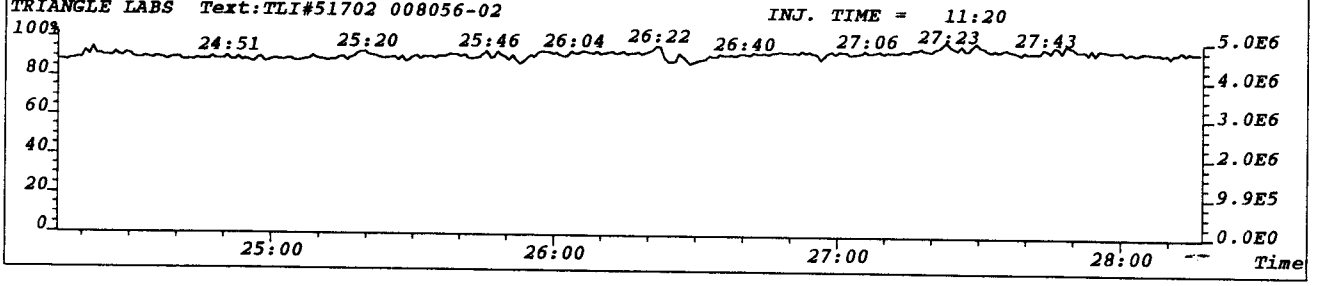
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:144
333.9338 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,576.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



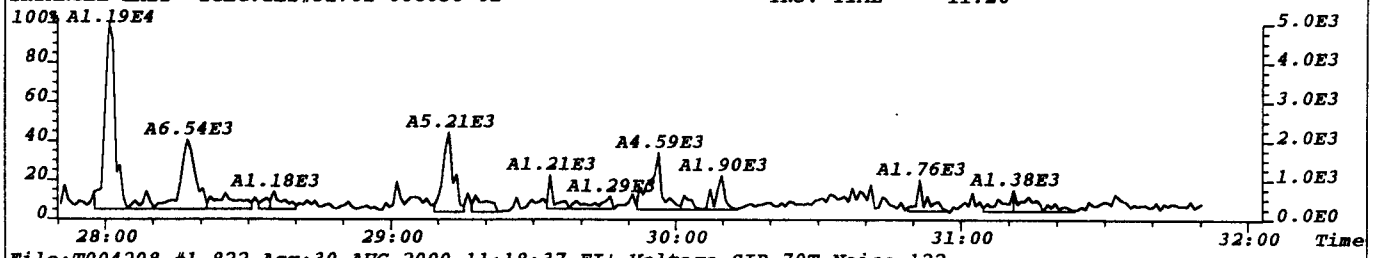
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:100
327.8847 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,400.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



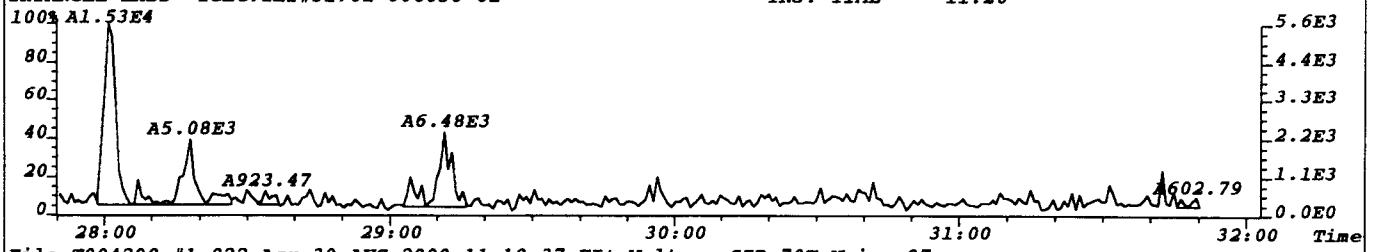
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



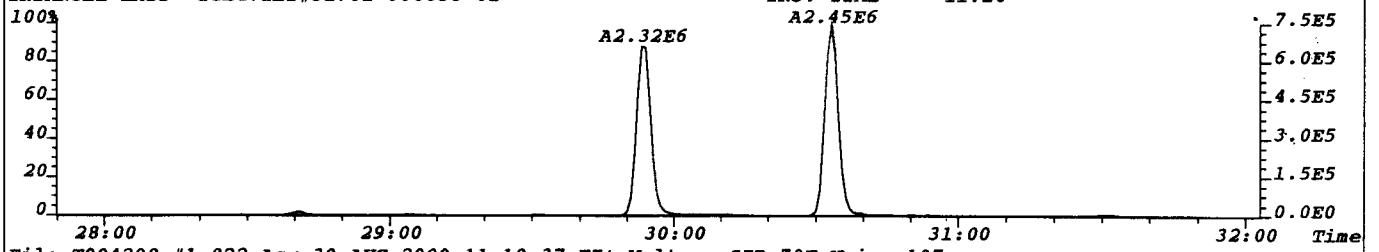
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:126
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,504.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



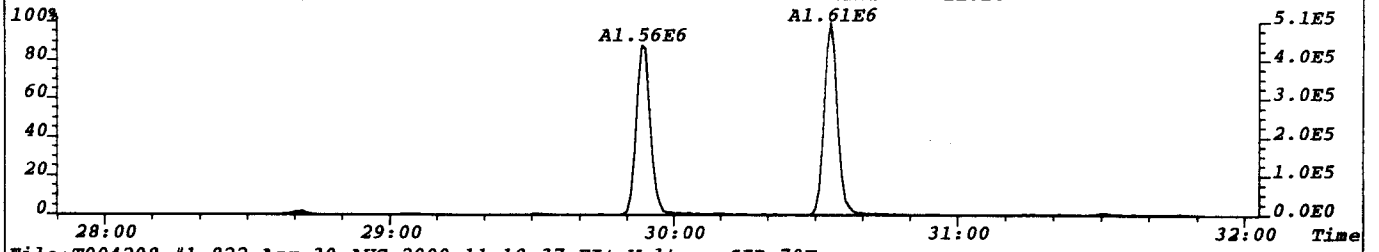
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:122
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,488.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



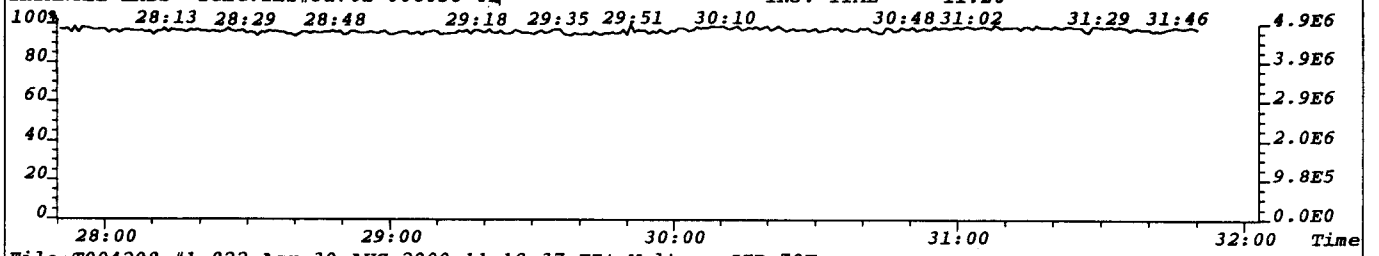
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:97
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,388.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



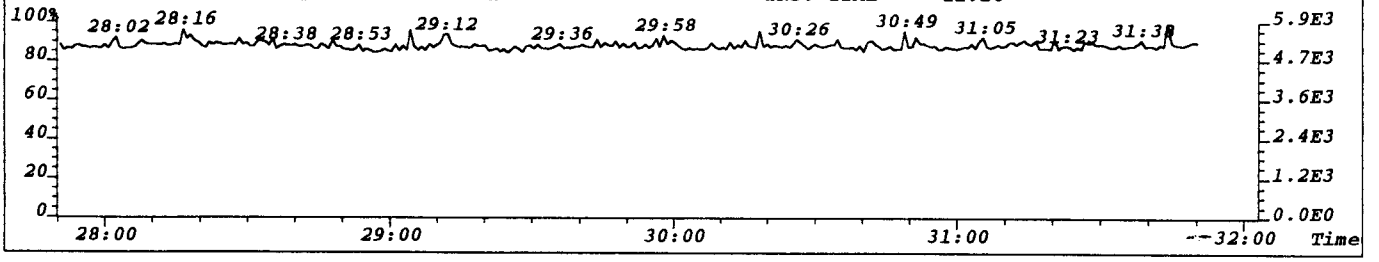
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:107
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,428.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



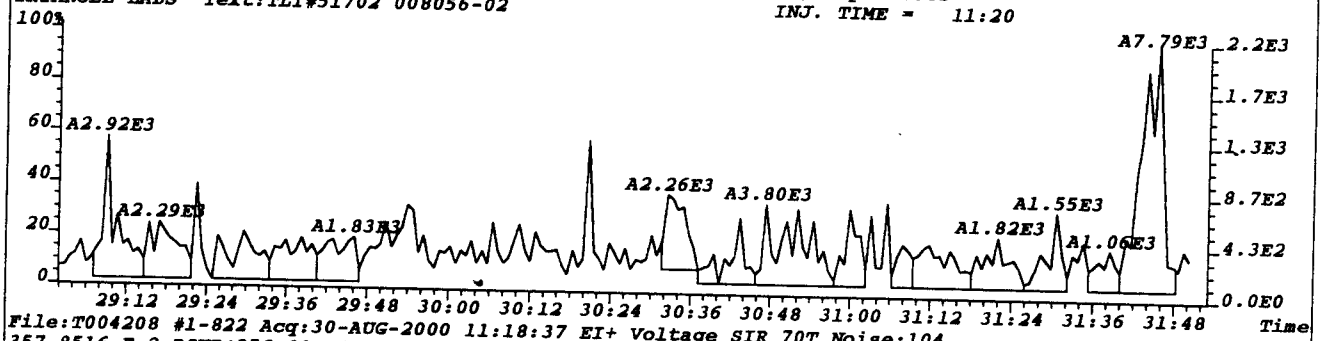
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



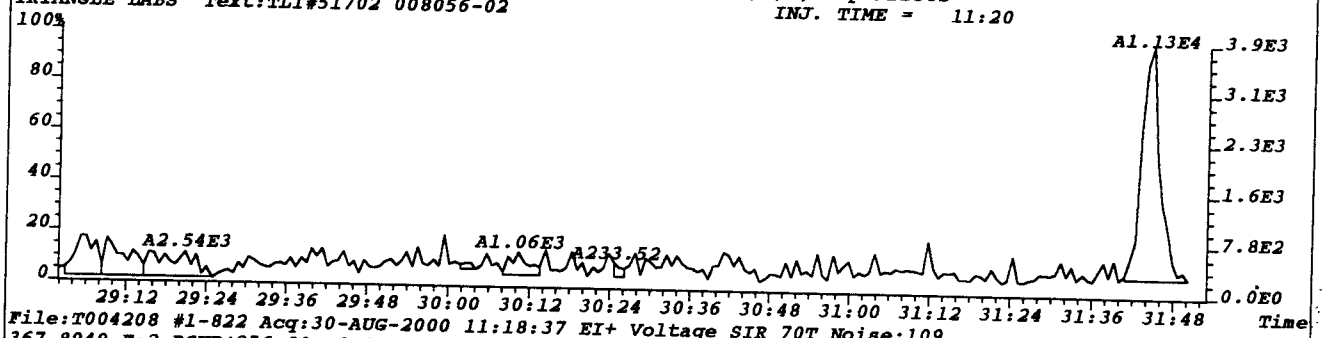
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
409.7974 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



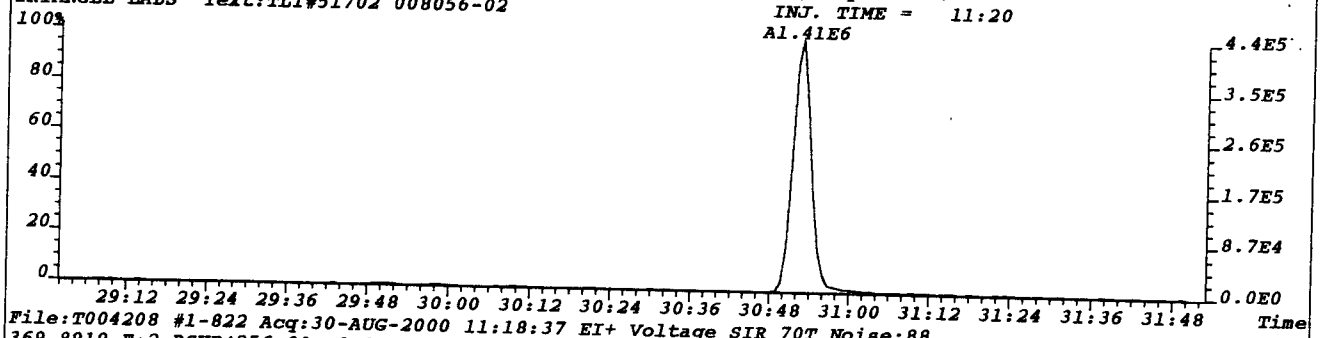
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:104
355.8546 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,416.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02
INJ. TIME = 11:20



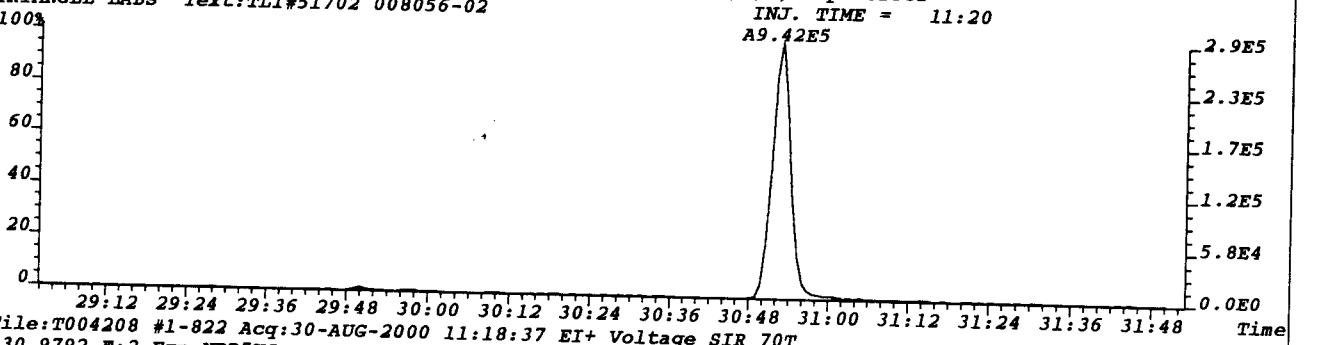
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:104
357.8516 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,416.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02
INJ. TIME = 11:20



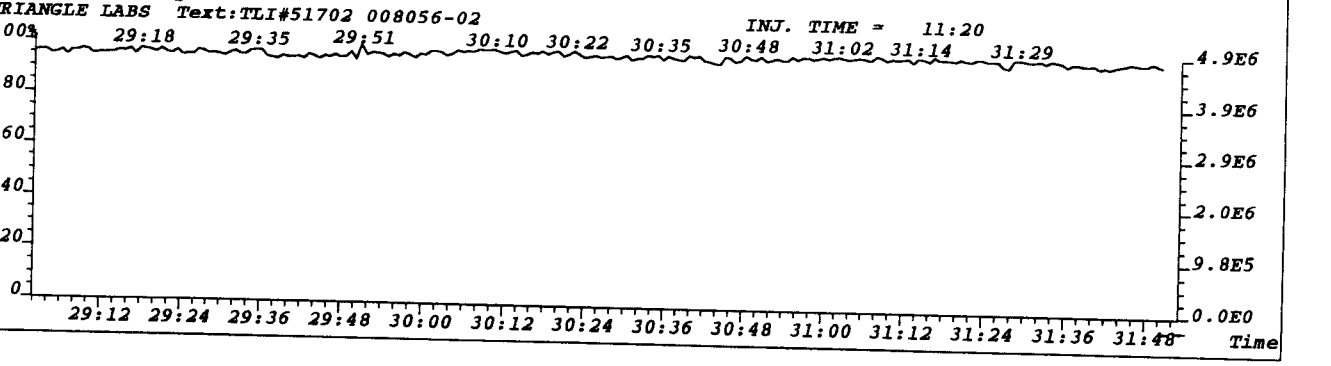
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:109
367.8949 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,436.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02
INJ. TIME = 11:20



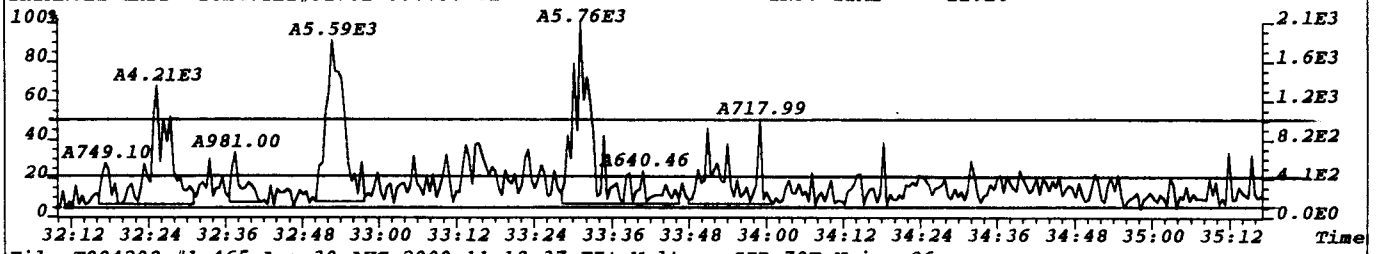
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:88
369.8919 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,352.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02
INJ. TIME = 11:20



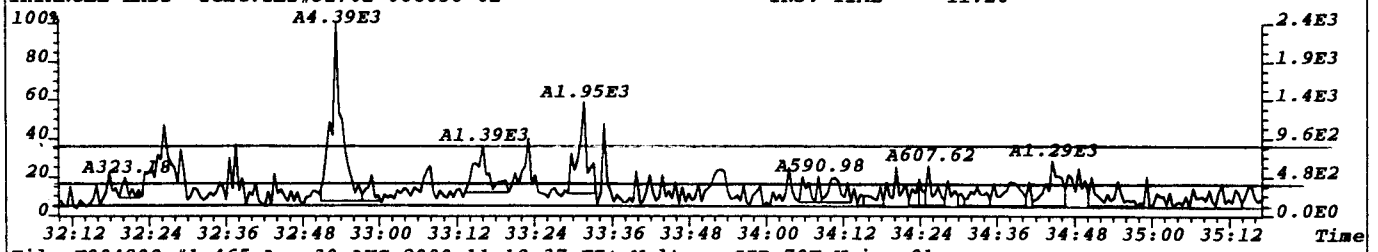
File:T004208 #1-822 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02
INJ. TIME = 11:20



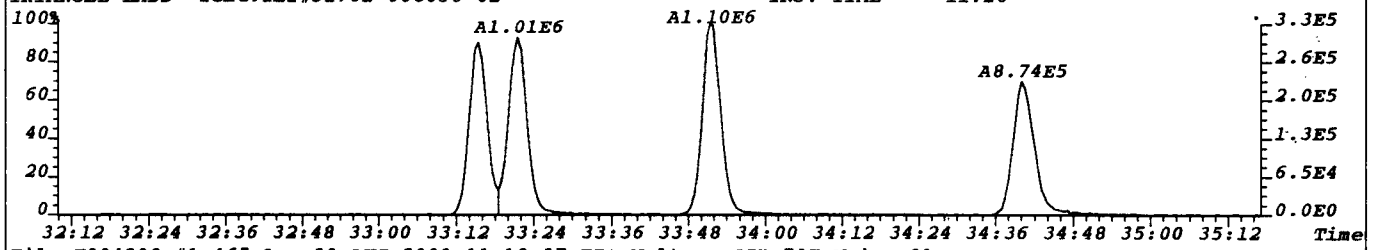
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:85
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,340.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



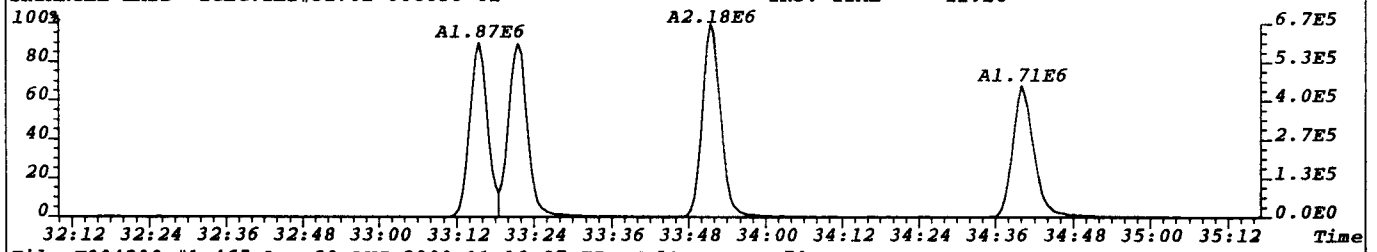
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:86
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,344.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



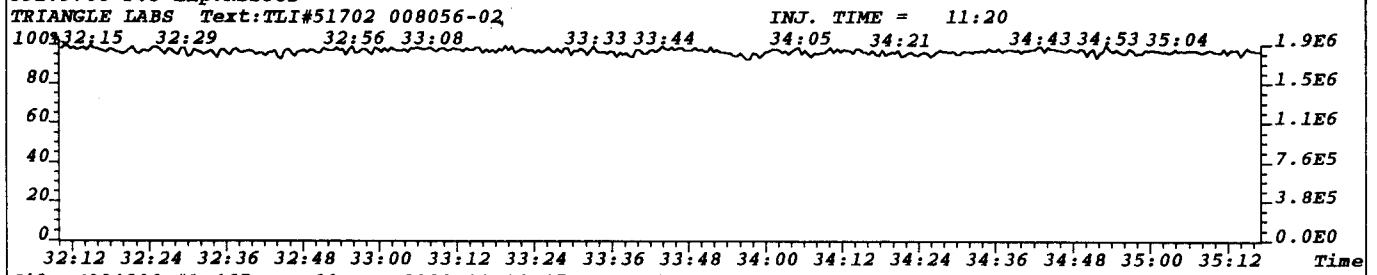
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:81
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,324.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



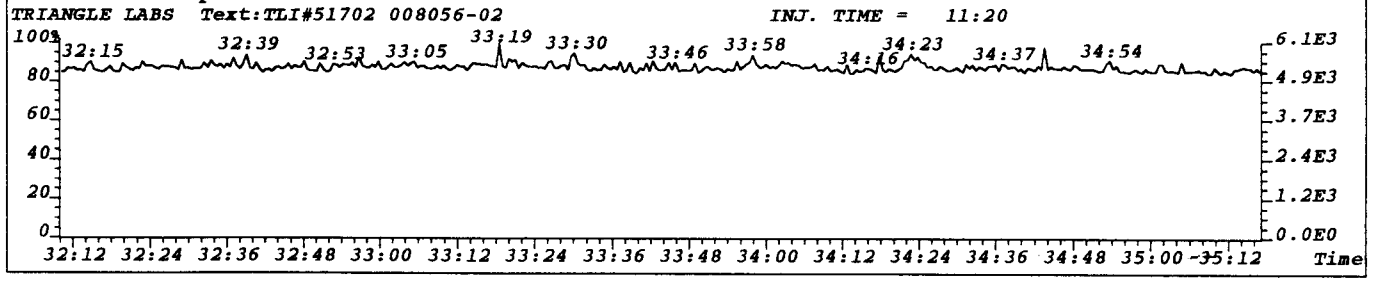
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:81
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,324.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



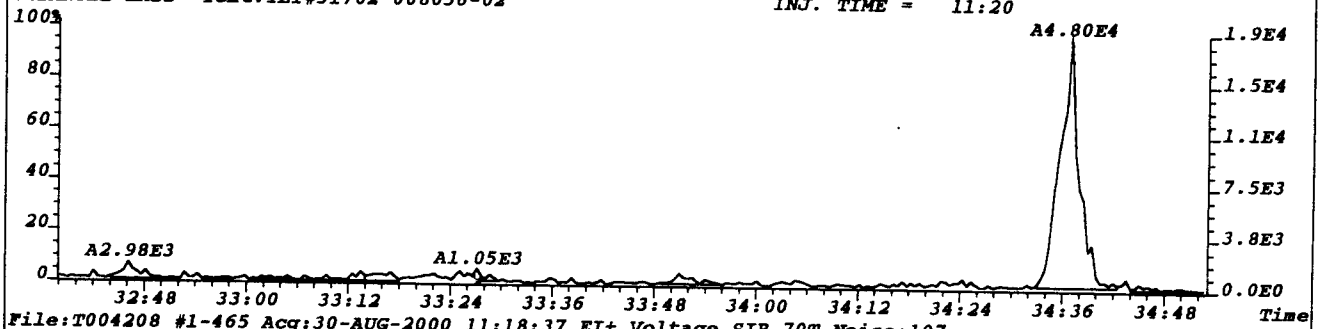
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



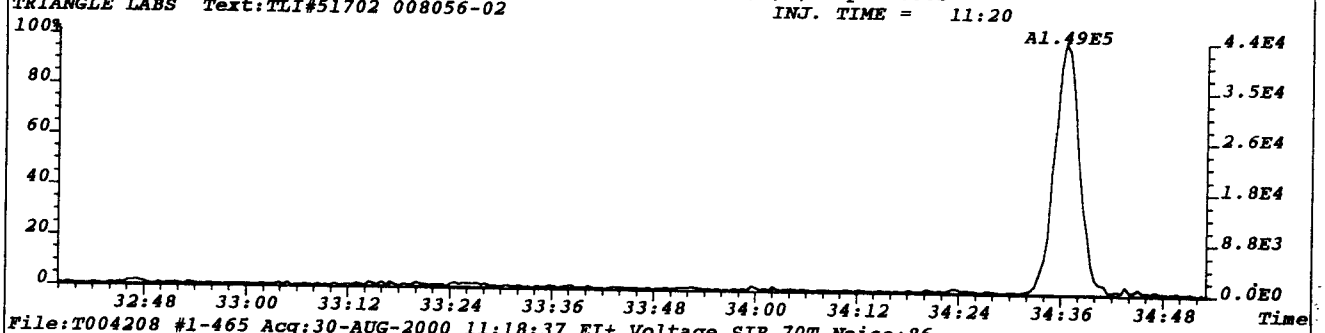
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
445.7555 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



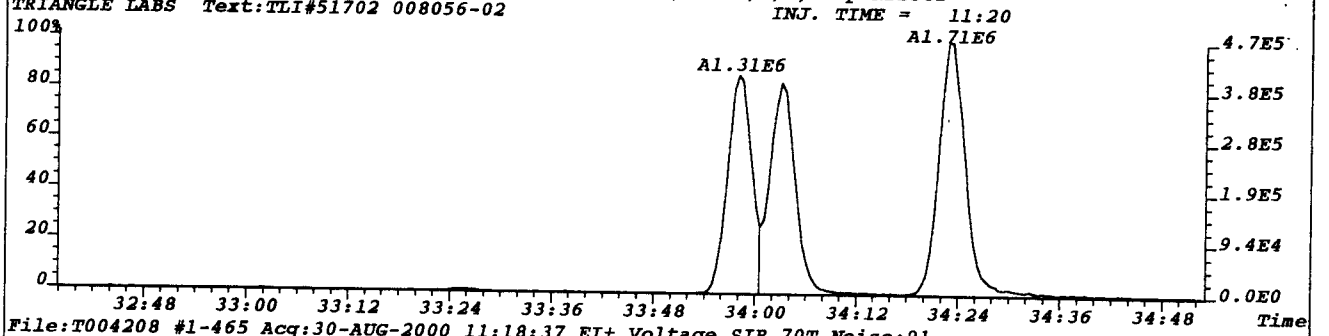
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:87
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,348.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



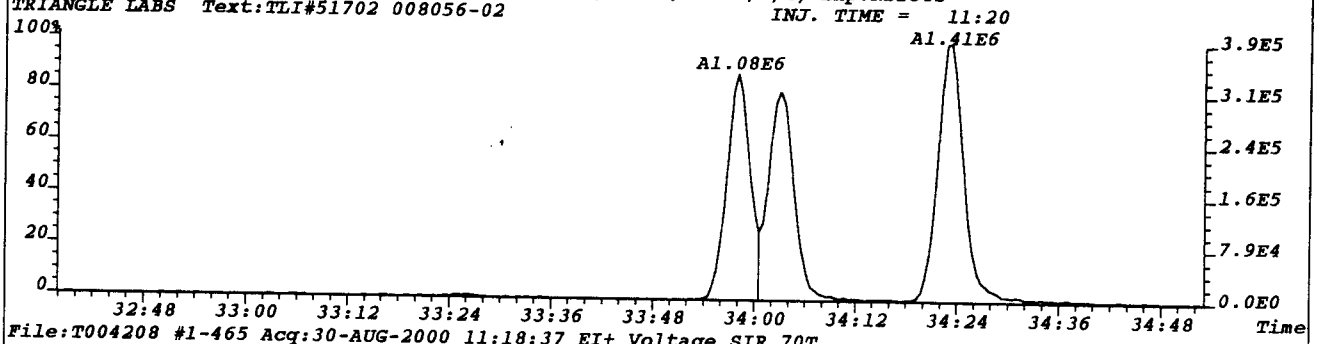
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:107
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,428.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



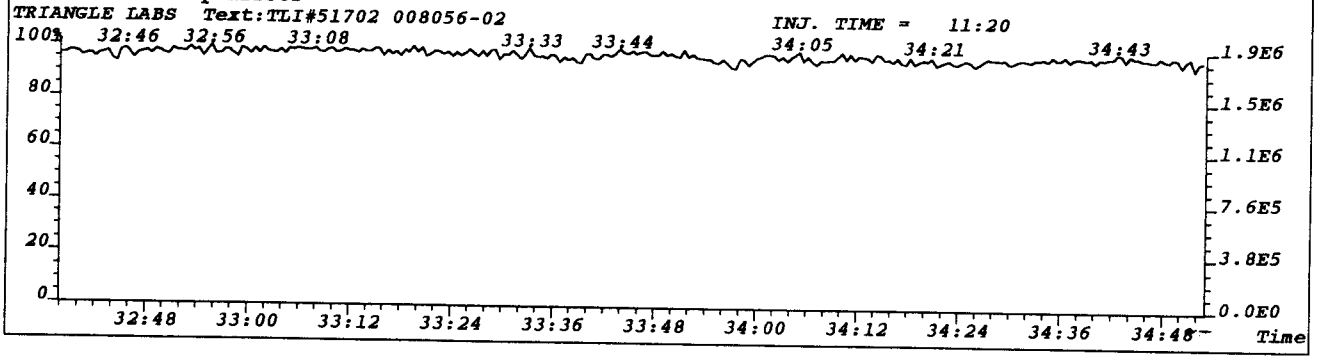
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:86
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,344.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



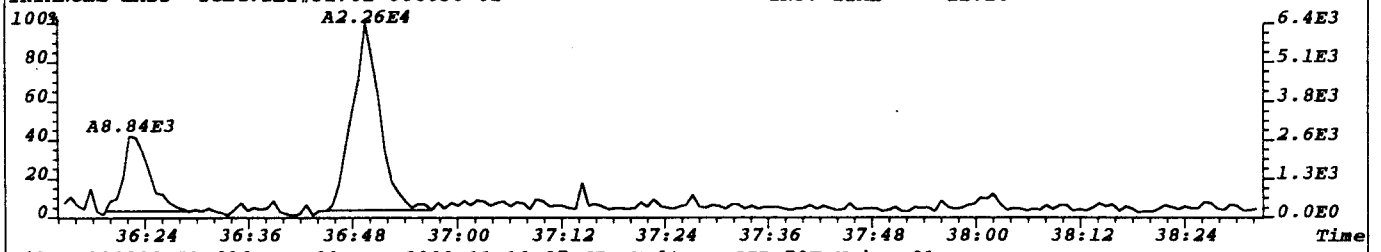
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:91
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,364.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



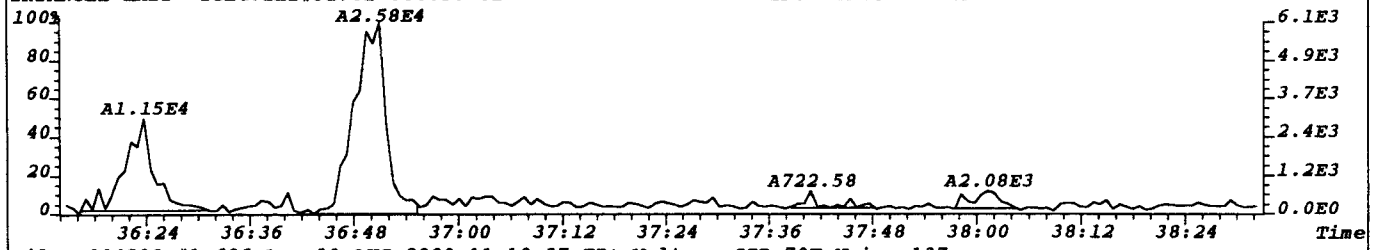
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



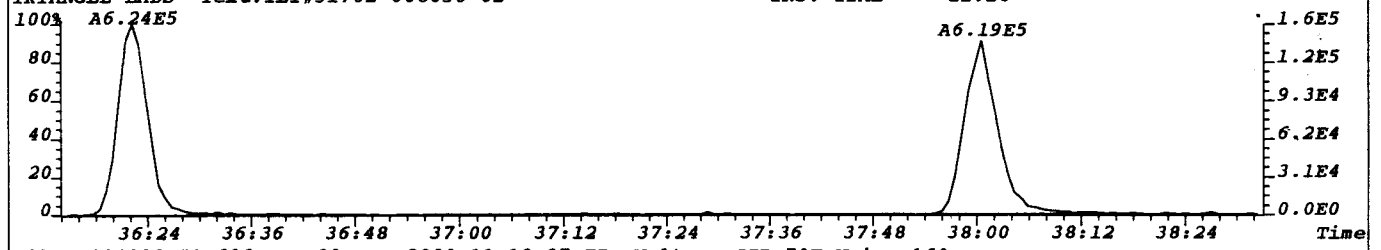
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:106
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,424.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



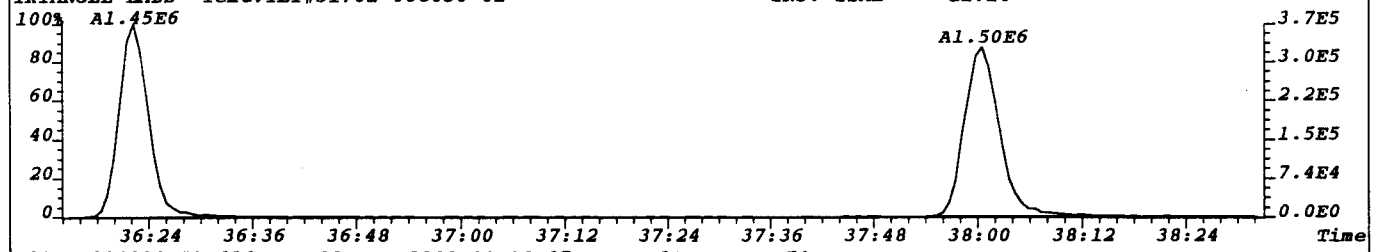
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:81
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,324.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



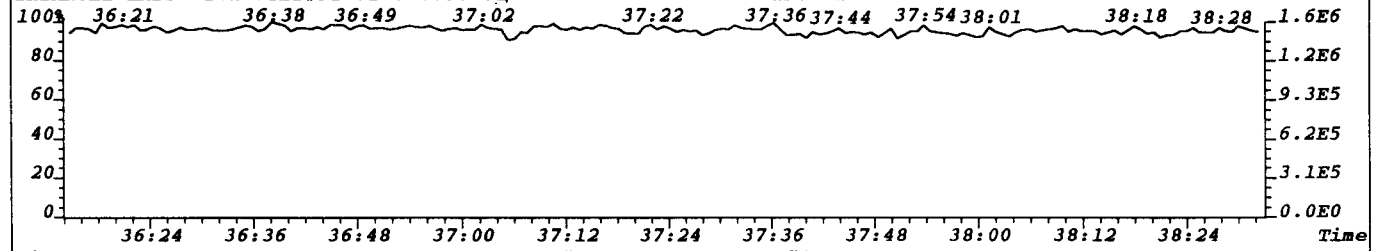
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:137
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,548.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



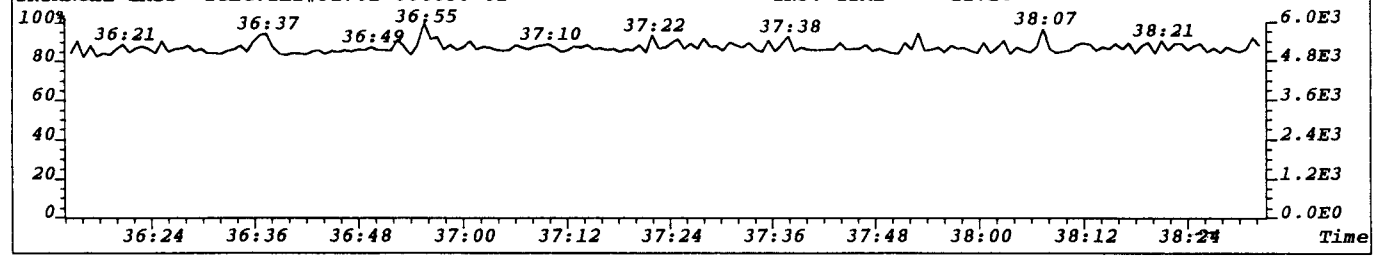
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:160
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,640.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



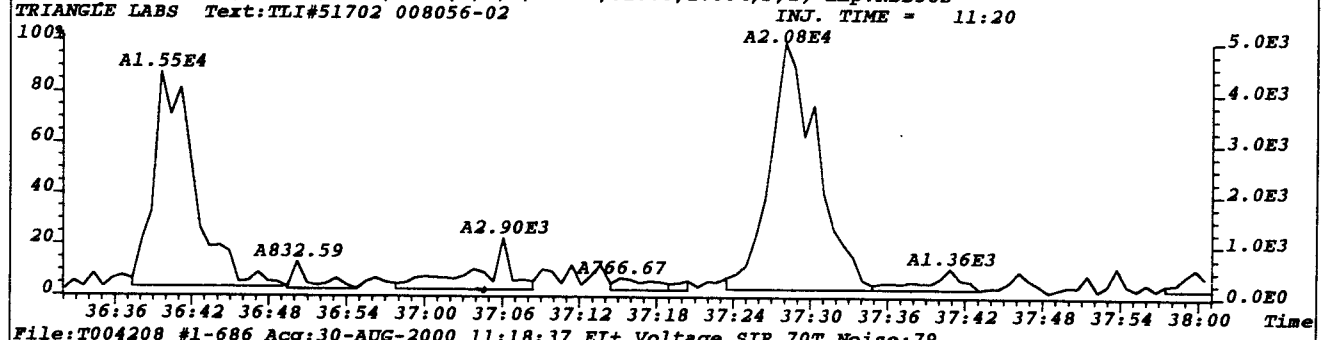
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



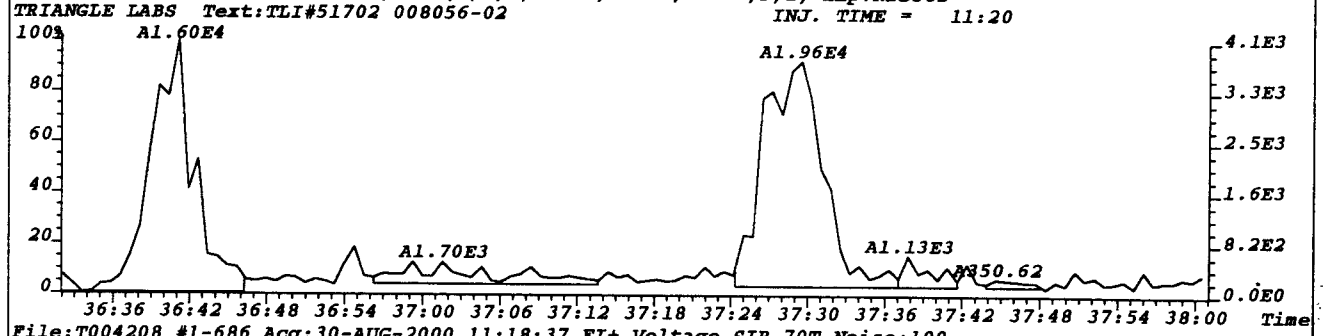
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
479.7165 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



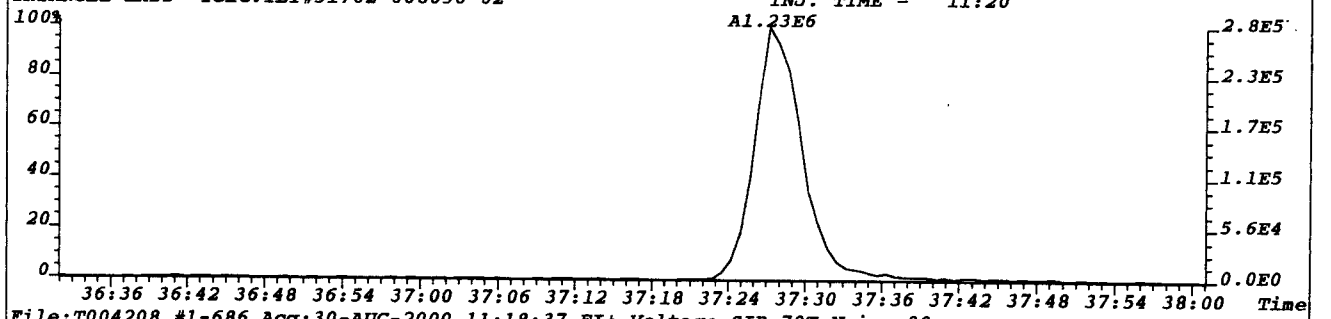
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:80
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,320.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



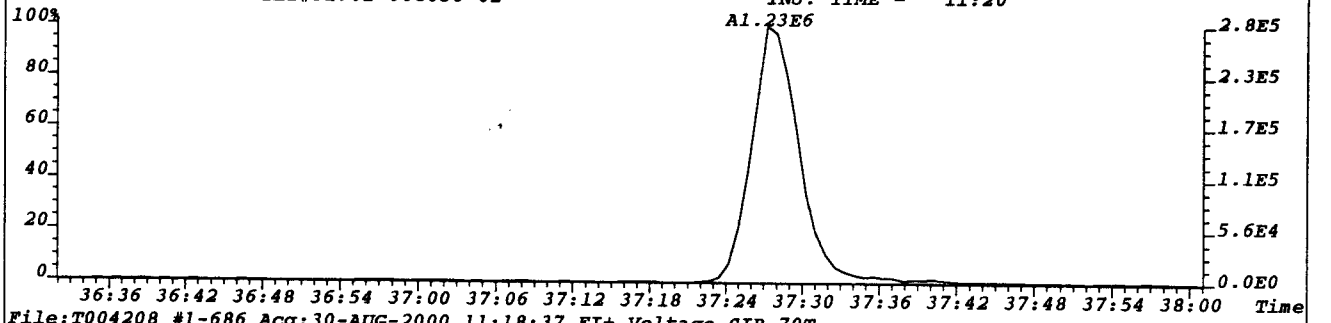
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:79
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,316.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



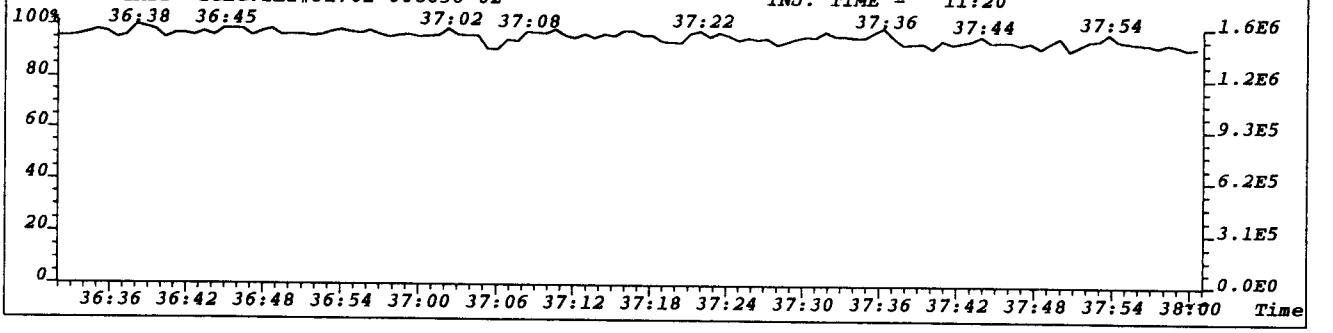
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:100
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,400.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



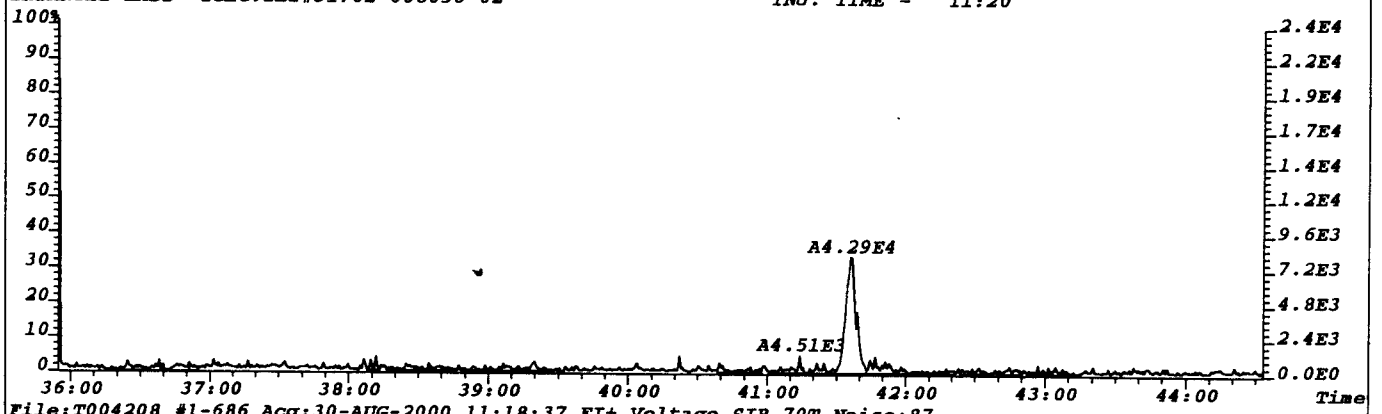
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:99
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,396.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



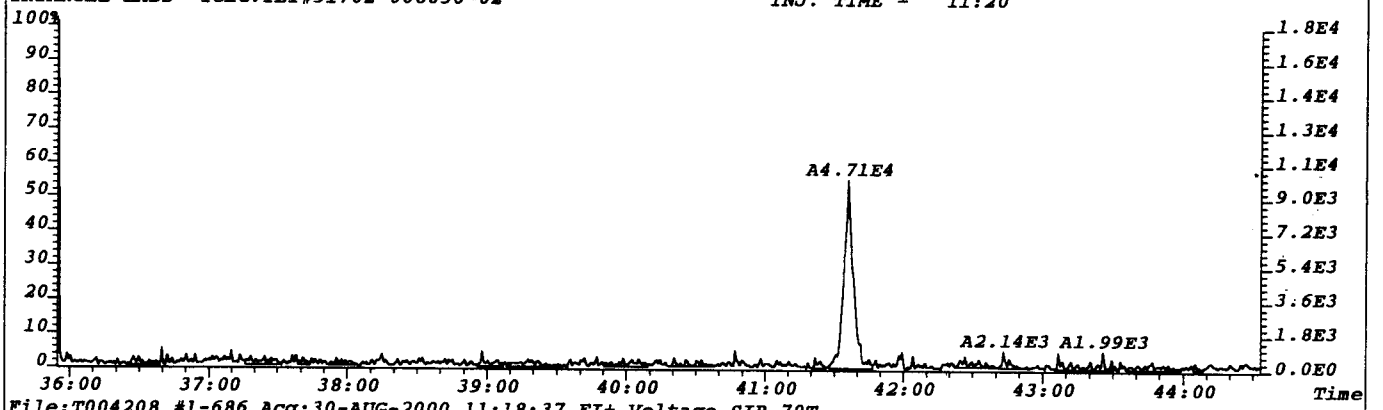
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



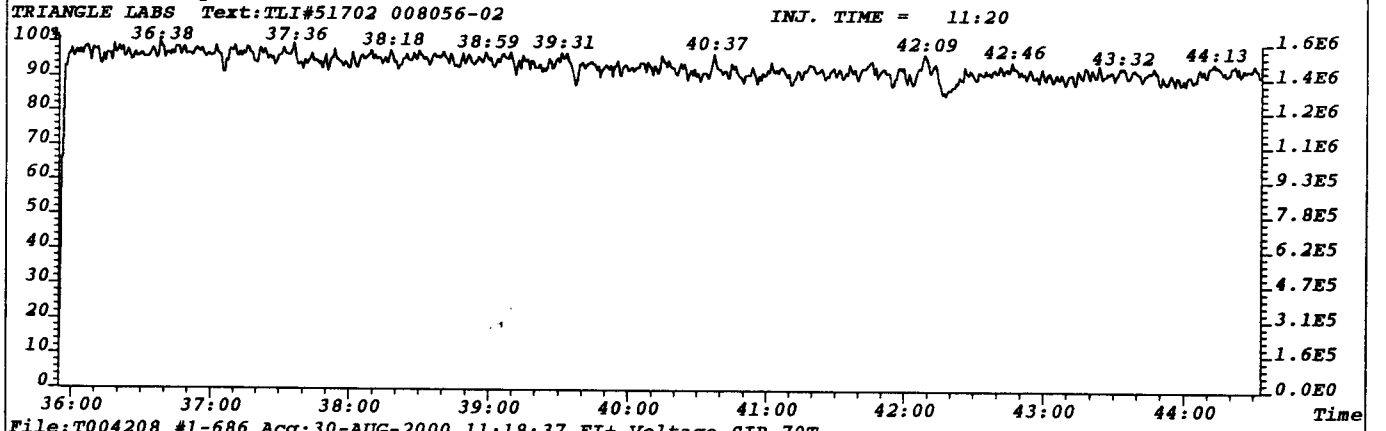
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:93
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,372.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



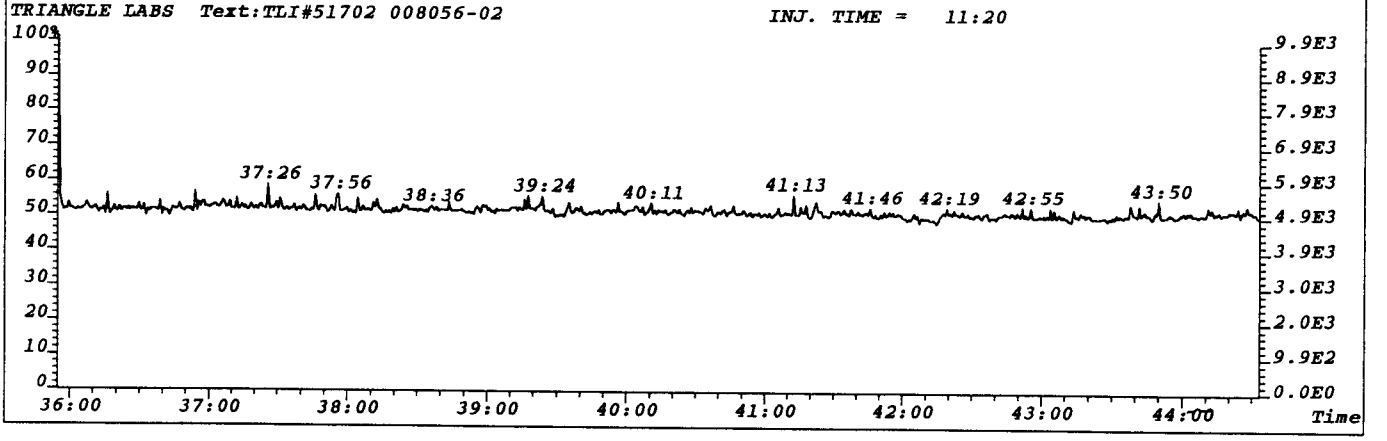
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:87
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,348.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



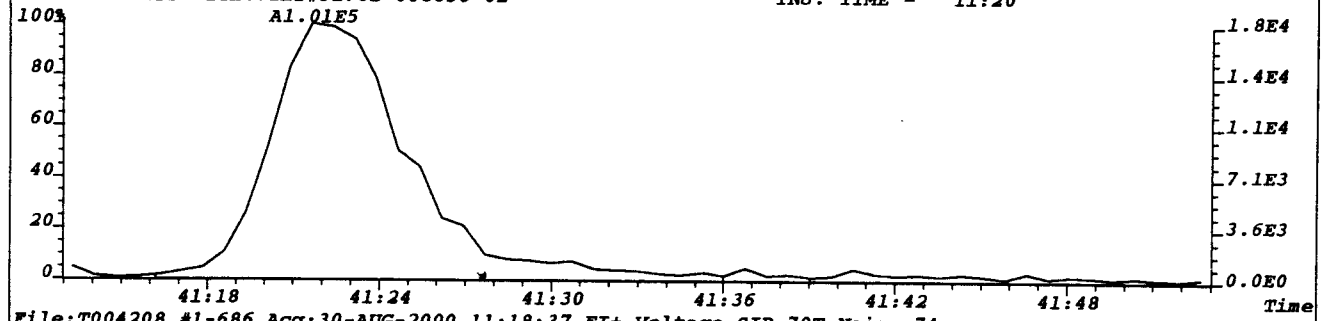
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



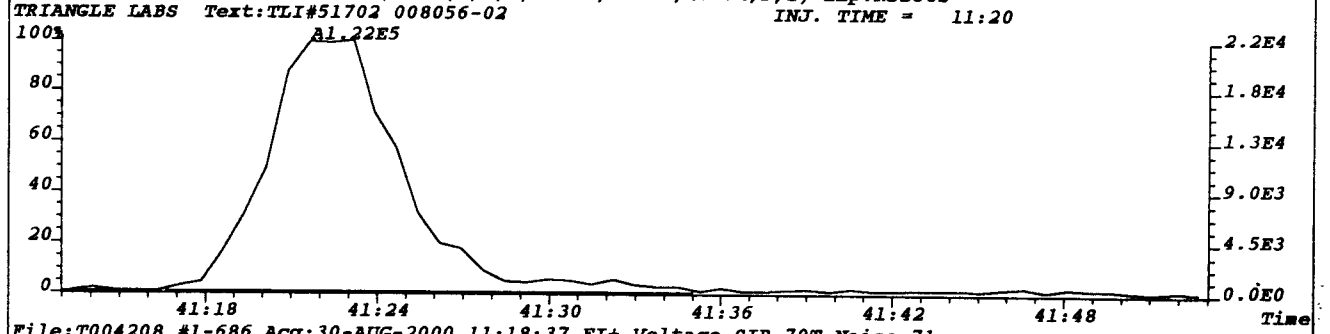
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
513.6775 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



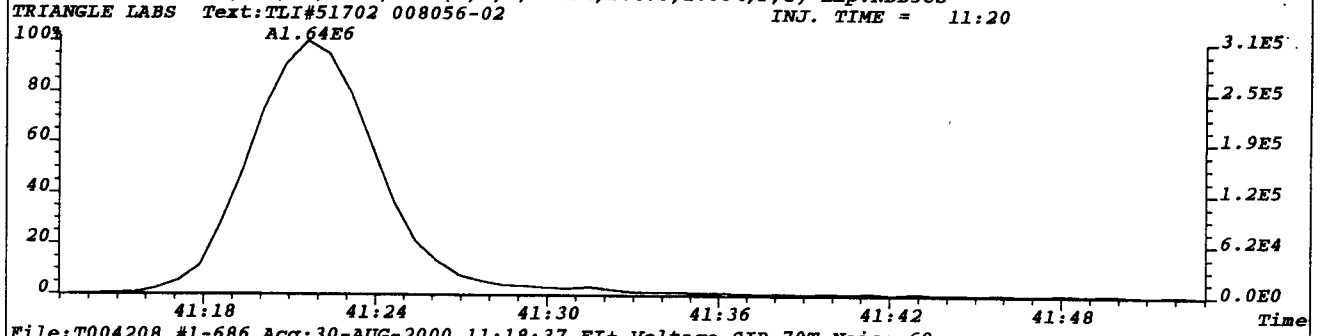
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:76
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,304.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



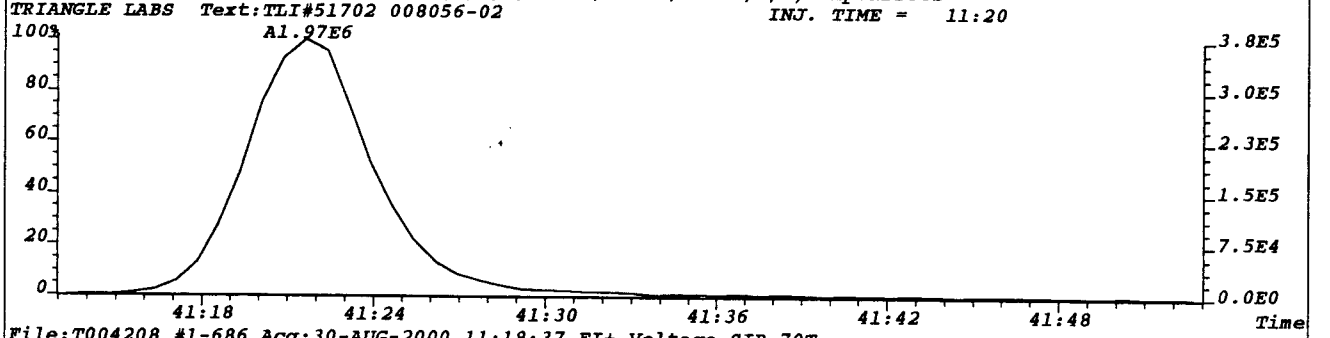
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:74
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,296.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



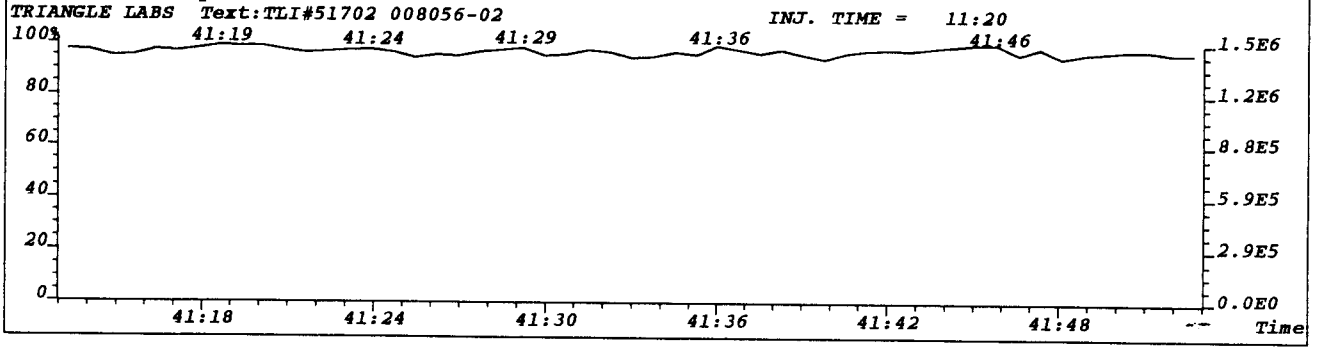
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:71
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,284.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



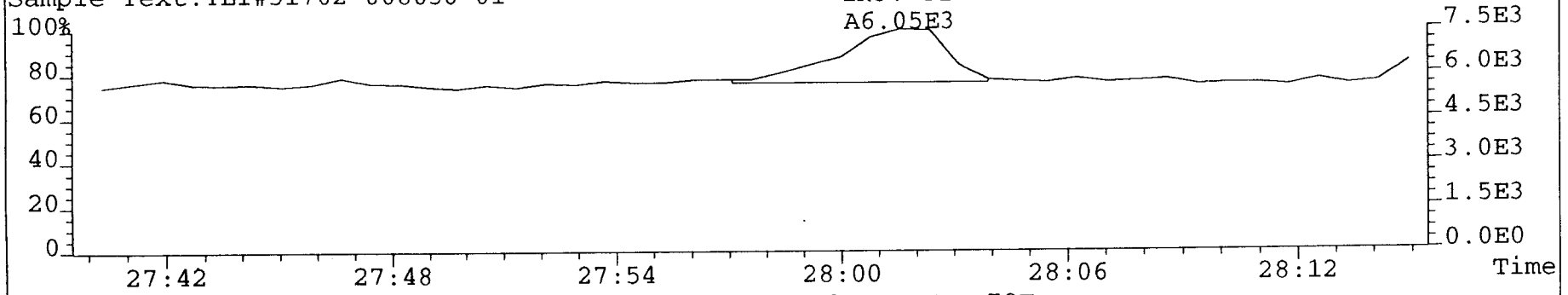
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T Noise:69
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,276.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



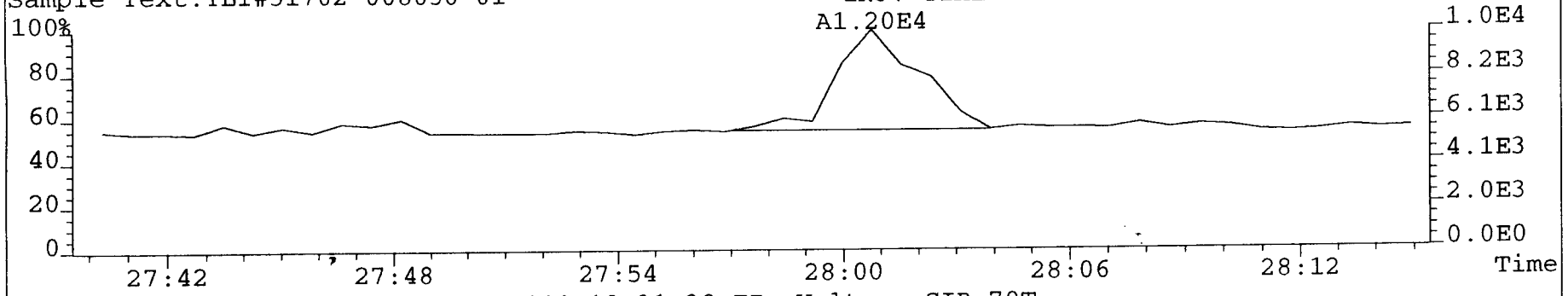
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-02 INJ. TIME = 11:20



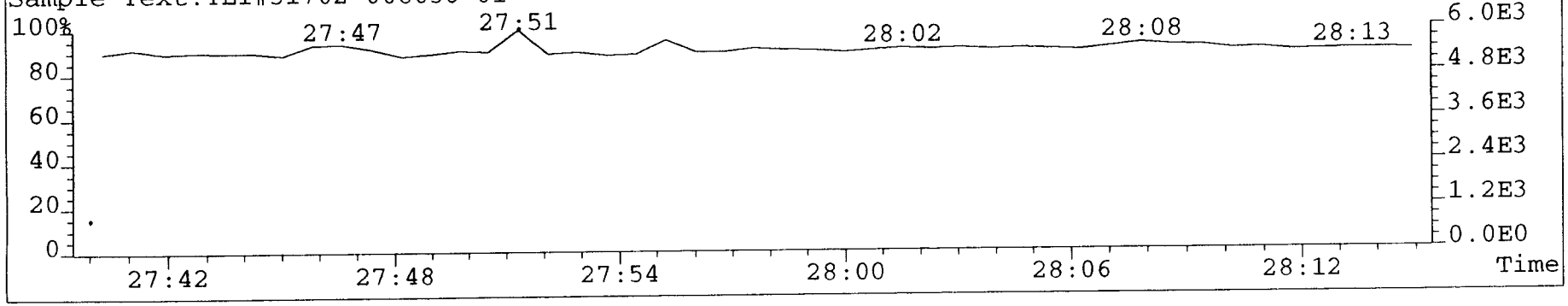
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
339.8597 F:2 Exp:NDB5US
Sample Text:TLI#51702 008056-01 INJ. TIME = 10:33 File Text:TLI#51702 008»



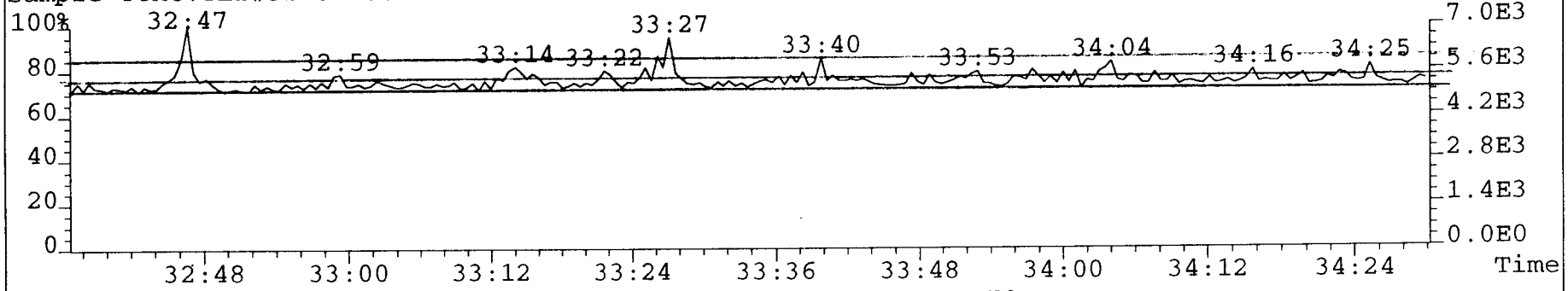
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
341.8567 F:2 Exp:NDB5US
Sample Text:TLI#51702 008056-01 INJ. TIME = 10:33 File Text:TLI#51702 008»



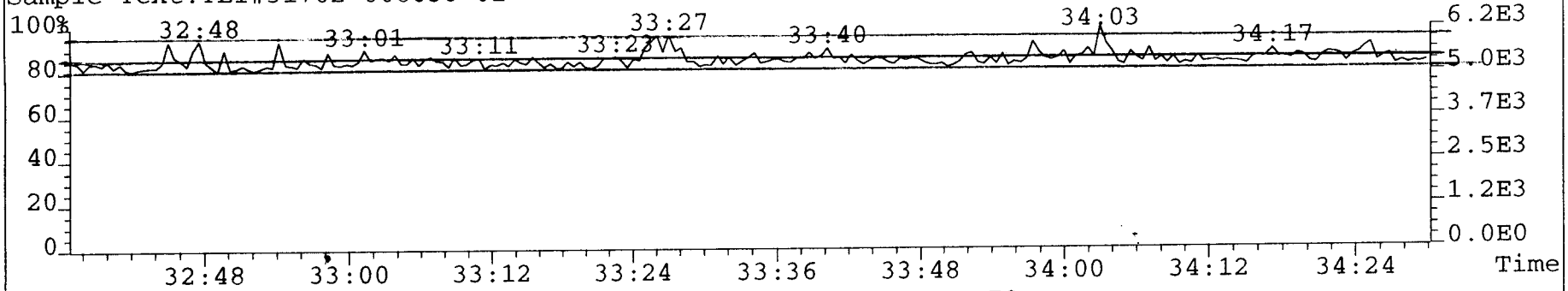
File:T004207 #1-822 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
351.9000 F:2 Exp:NDB5US
Sample Text:TLI#51702 008056-01 INJ. TIME = 10:33 File Text:TLI#51702 008»



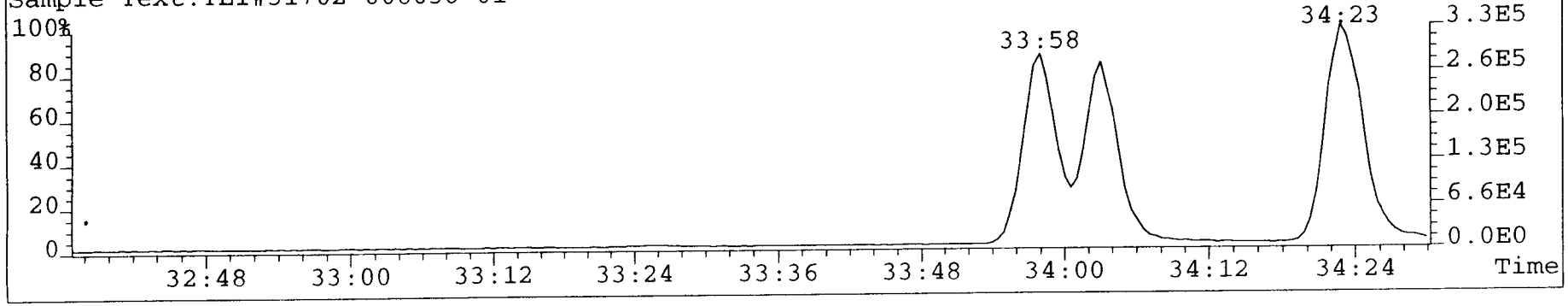
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
389.8156 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-01 INJ. TIME = 10:33 File Text:TLI#51702 008»



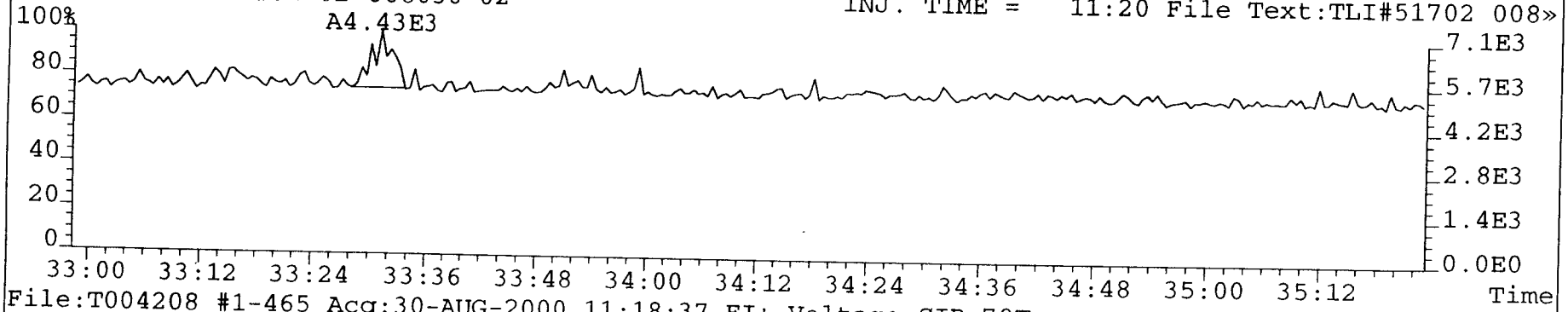
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
391.8127 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-01 INJ. TIME = 10:33 File Text:TLI#51702 008»



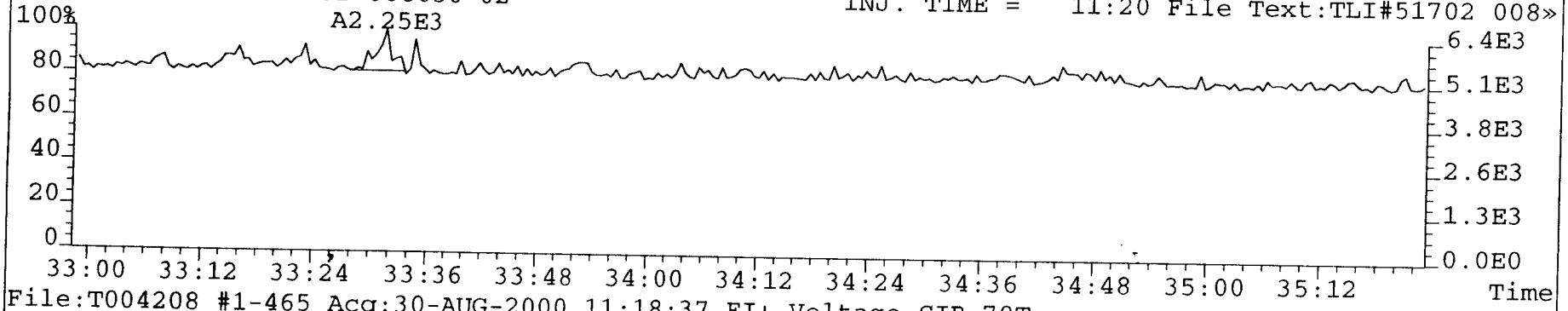
File:T004207 #1-465 Acq:30-AUG-2000 10:31:39 EI+ Voltage SIR 70T
401.8558 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-01 INJ. TIME = 10:33 File Text:TLI#51702 008»



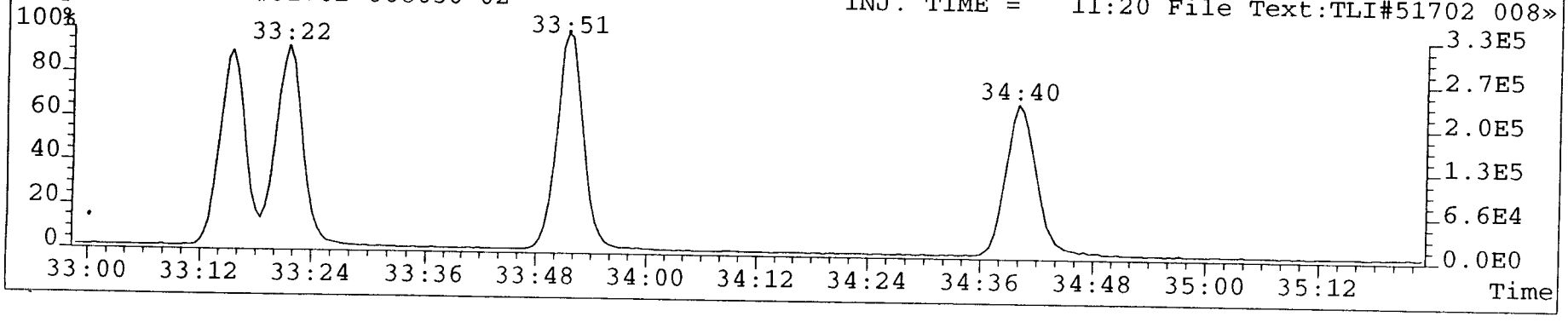
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
373.8208 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-02 INJ. TIME = 11:20 File Text:TLI#51702 008»



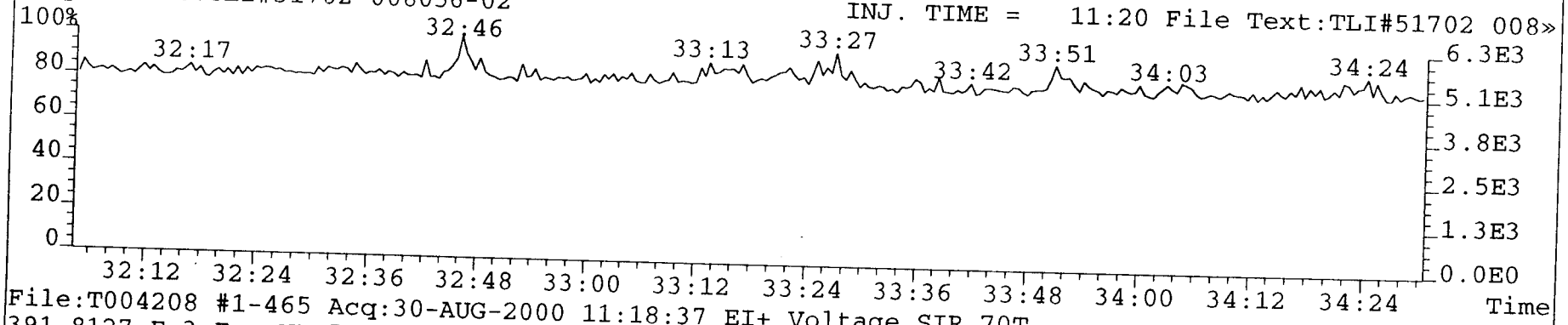
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
375.8178 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-02 INJ. TIME = 11:20 File Text:TLI#51702 008»



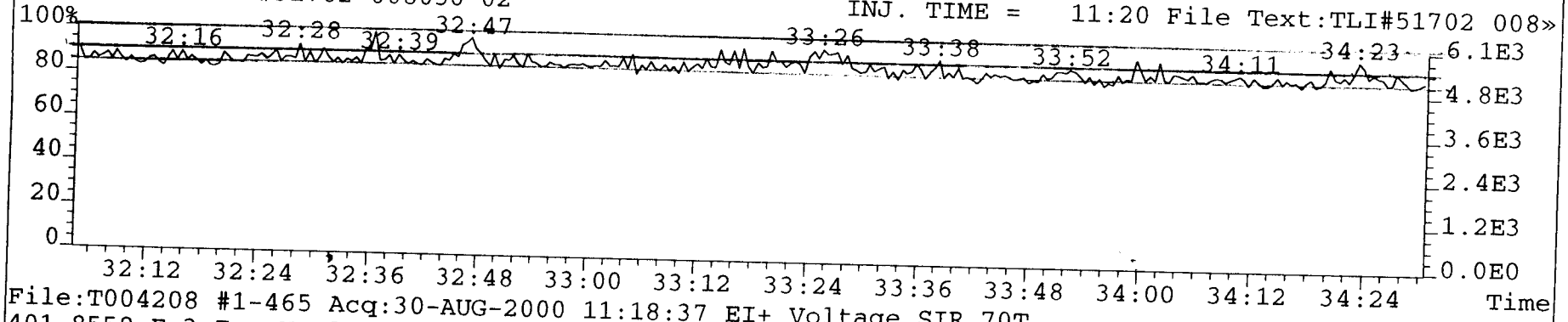
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
383.8639 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-02 INJ. TIME = 11:20 File Text:TLI#51702 008»



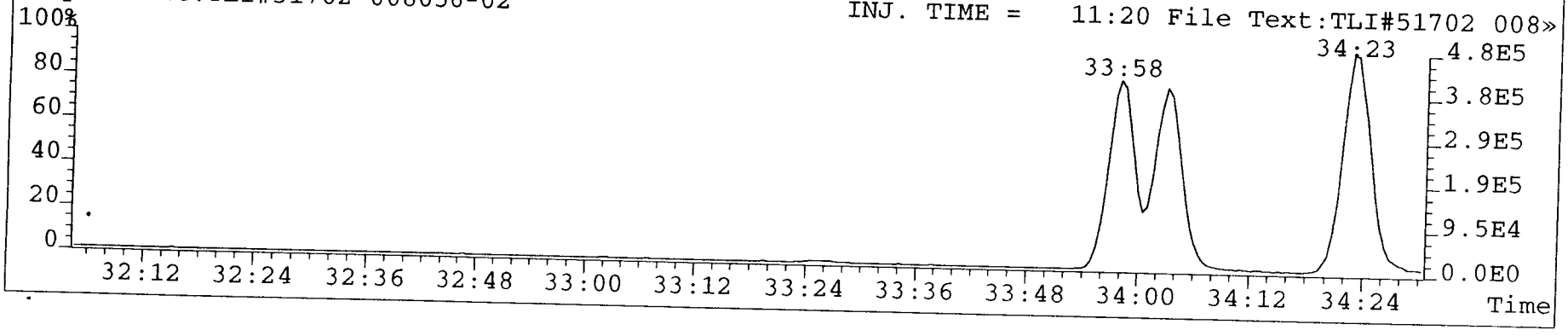
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
389.8156 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-02
INJ. TIME = 11:20 File Text:TLI#51702 008»



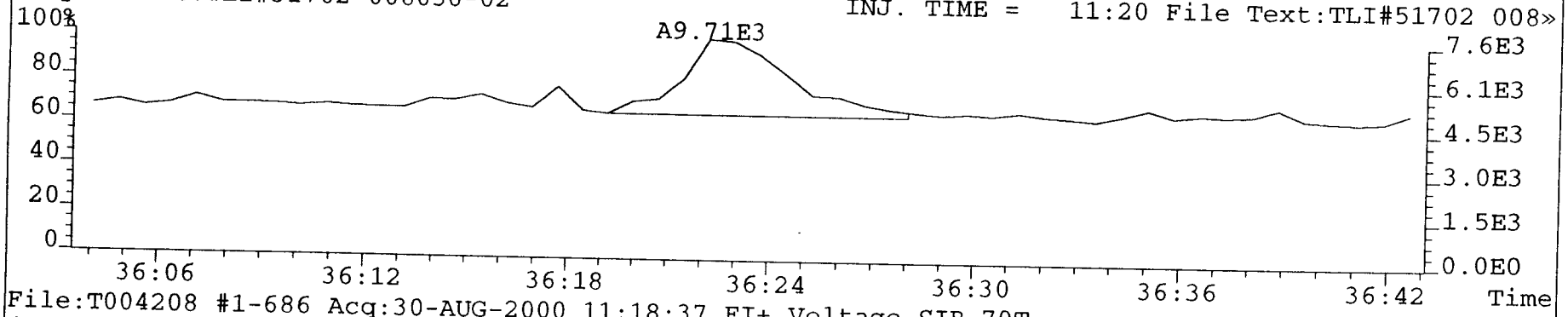
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
391.8127 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-02
INJ. TIME = 11:20 File Text:TLI#51702 008»



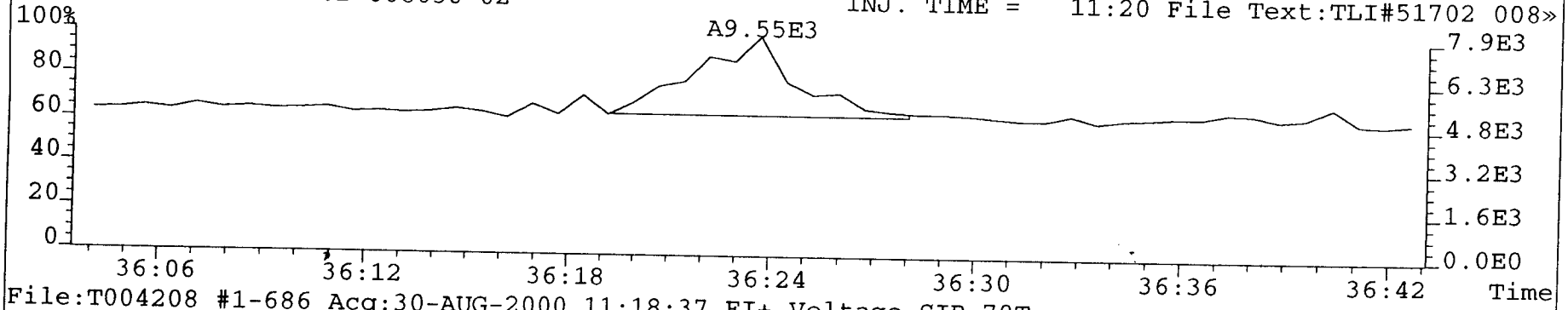
File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
401.8558 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-02
INJ. TIME = 11:20 File Text:TLI#51702 008»



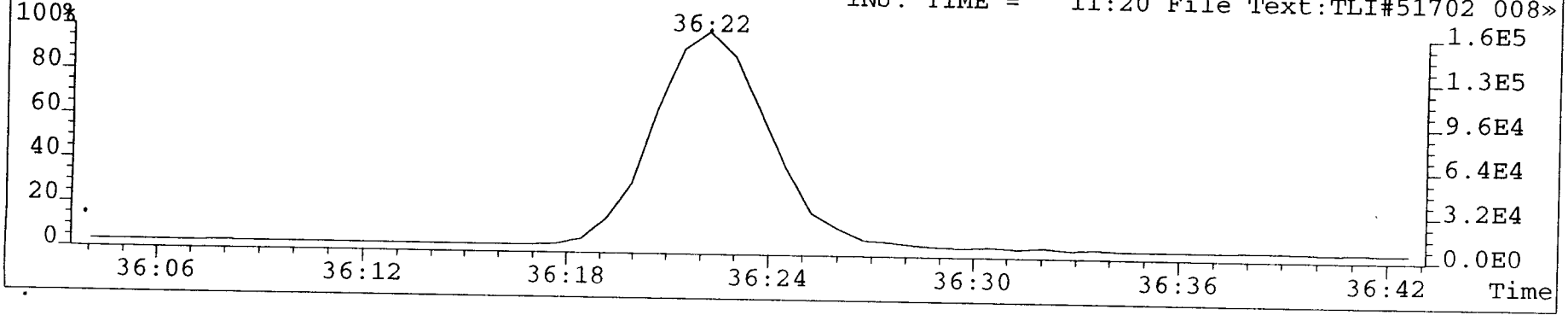
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
407.7818 F:4 Exp:NDB5US
Sample Text:TLI#51702 008056-02
INJ. TIME = 11:20 File Text:TLI#51702 008»



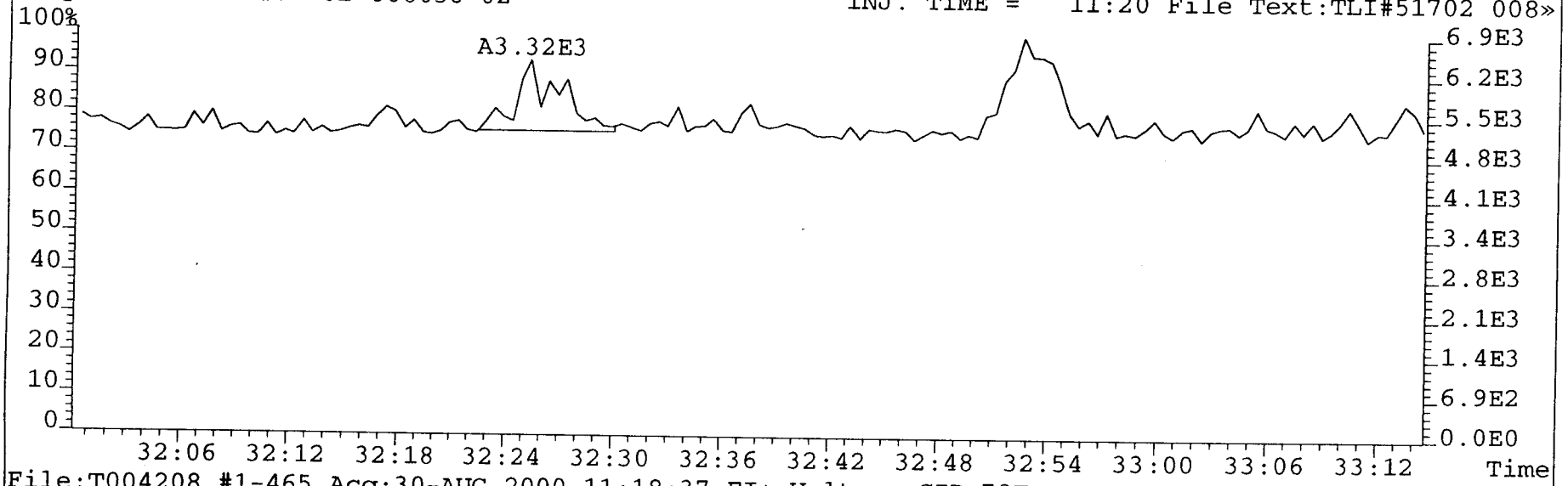
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
409.7789 F:4 Exp:NDB5US
Sample Text:TLI#51702 008056-02
INJ. TIME = 11:20 File Text:TLI#51702 008»



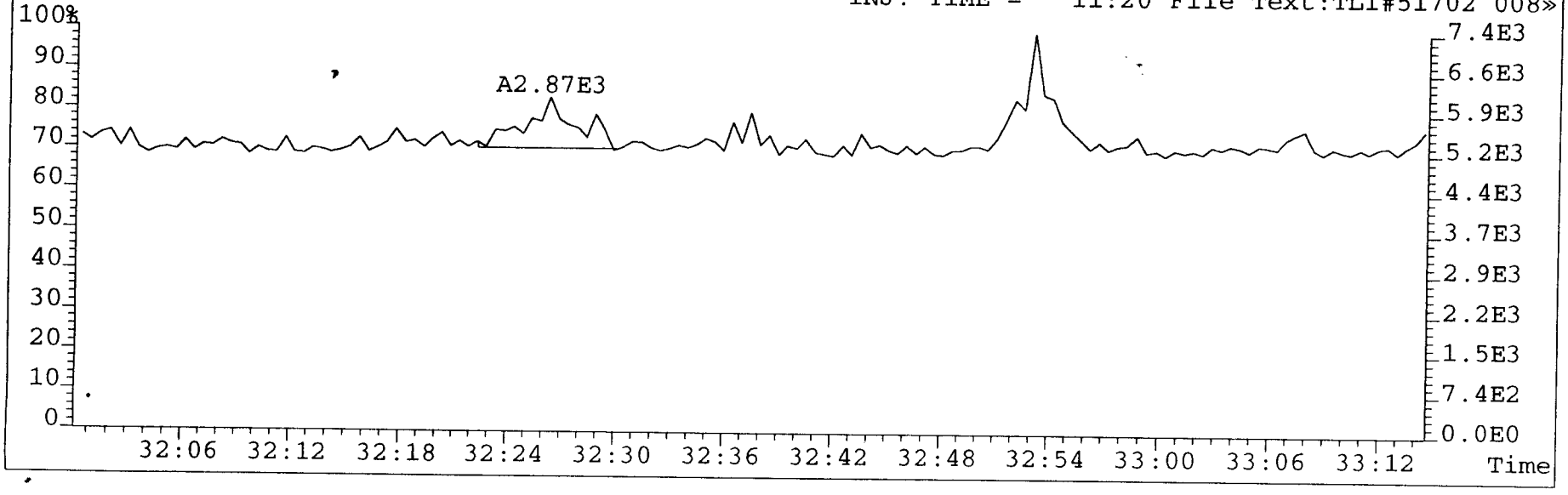
File:T004208 #1-686 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
417.8253 F:4 Exp:NDB5US
Sample Text:TLI#51702 008056-02
INJ. TIME = 11:20 File Text:TLI#51702 008»



File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
373.8208 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-02 INJ. TIME = 11:20 File Text:TLI#51702 008»



File:T004208 #1-465 Acq:30-AUG-2000 11:18:37 EI+ Voltage SIR 70T
375.8178 F:3 Exp:NDB5US
Sample Text:TLI#51702 008056-02 INJ. TIME = 11:20 File Text:TLI#51702 008»



Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **008056-03** UV 03

Method 8290 PCDD/PCDF Analysis (b)
Analysis File: **T004209**

Client Project:	008056				
Sample Matrix:	SOIL	Date Received:	08/22/2000	Spike File:	SPMIT32S
TLI ID:	268-29-3	Date Extracted:	08/27/2000	ICal:	TF57140
		Date Analyzed:	08/30/2000	ConCal:	T004204
Sample Size:	16.400 g	Dilution Factor:	n/a	% Moisture:	38.0
Dry Weight:	10.168 g	Blank File:	T004196	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JSY	% Solids:	62.0

Analytes	Conc. (ppt)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	0.2				
1,2,3,7,8-PeCDD	ND	0.2				
1,2,3,4,7,8-HxCDD	ND	0.2				
1,2,3,6,7,8-HxCDD	ND	0.2				
1,2,3,7,8,9-HxCDD	ND	0.2				
1,2,3,4,6,7,8-HpCDD	4.1			1.05	37:29	J
1,2,3,4,6,7,8,9-OCDD	35.9			0.82	41:24	
2,3,7,8-TCDF	ND	0.2				
1,2,3,7,8-PeCDF	ND	0.2				
2,3,4,7,8-PeCDF	ND	0.2				
1,2,3,4,7,8-HxCDF	ND	0.2				
1,2,3,6,7,8-HxCDF	ND	0.2				
2,3,4,6,7,8-HxCDF	ND	0.2				
1,2,3,7,8,9-HxCDF	ND	0.2				
1,2,3,4,6,7,8-HpCDF	1.5			1.15	36:24	J
1,2,3,4,7,8,9-HpCDF	ND	0.3				
1,2,3,4,6,7,8,9-OCDF	8.3			0.89	41:38	J

Totals	Conc. (ppt)	Number	DL	EMPC	Flags
Total TCDD	EMPC			4.0	
Total PeCDD	ND		0.2		
Total HxCDD	ND		0.2		
Total HpCDD	7.5	2			
Total TCDF	1.2	2			
Total PeCDF	EMPC			2.6	
Total HxCDF	0.51	1		1.0	
Total HpCDF	5.0	2			

mit3_PSR v1.00, LARS 6.25.00

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Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **008056-03** UV 03

Method 8290 PCDD/PCDF Analysis (b)
Analysis File: **T004209**

Internal Standards	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	179	91.0	40%-130%	0.74	26:07	___
$^{13}C_{12}$-2,3,7,8-TCDD	168	85.2	40%-130%	0.79	26:47	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	176	89.5	40%-130%	1.50	29:54	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	195	99.2	40%-130%	1.41	30:53	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	142	72.3	40%-130%	0.50	33:22	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	173	87.7	40%-130%	1.21	34:04	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	151	76.5	25%-130%	0.42	36:23	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	183	92.8	25%-130%	0.99	37:29	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	363	92.2	25%-130%	0.82	41:23	___

Surrogate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	182	92.3	40%-130%	1.51	30:34	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	141	71.9	40%-130%	0.51	33:16	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	165	83.7	40%-130%	1.21	33:58	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	179	91.2	25%-130%	0.42	38:01	___

Other Standard	Conc. (ppt)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	16.9	86.1	40%-130%	26:48	___

Alternate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	169	85.9	40%-130%	0.50	34:40	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	154	78.5	40%-130%	0.51	33:52	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.81	26:37	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.20	34:24	___

Data Reviewer: PR 08/30/2000

mit3_PSR v1.00, LARS 6.25.00

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Printed: 14:45 08/30/2000

Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **008056-03** UV 03

Toxicity Equivalents Report
Analysis File: **T004209**

Client Project:	**008056**				
Sample Matrix:	**SOIL**	Date Received:	**08/22/00**	Spike File:	**SPMIT32S**
TLI ID:	**268-29-3**	Date Extracted:	**08/27/00**	ICal:	**TF57140**
		Date Analyzed:	**08/30/00**	ConCal:	**T004204**
Sample Size:	**16.400 g**	Dilution Factor:	**1**	% Moisture:	**38.0**
Dry Weight:	**10.168 g**	Blank File:	**T004196**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**JSY**	% Solids:	**62.0**

Analytes	Conc. (ppt)		TEF		Equivalent
2,3,7,8-TCDD	{0.2}	x	1.	=	0.2
1,2,3,7,8-PeCDD	{0.2}	x	0.5	=	0.1
1,2,3,4,7,8-HxCDD	{0.2}	x	0.1	=	0.02
1,2,3,6,7,8-HxCDD	{0.2}	x	0.1	=	0.02
1,2,3,7,8,9-HxCDD	{0.2}	x	0.1	=	0.02
1,2,3,4,6,7,8-HpCDD	4.1	x	0.01	=	0.041
1,2,3,4,6,7,8,9-OCDD	35.9	x	0.001	=	0.0359
TOTAL PCDD					0.4
2,3,7,8-TCDF	{0.2}	x	0.1	=	0.02
1,2,3,7,8-PeCDF	{0.2}	x	0.05	=	0.01
2,3,4,7,8-PeCDF	{0.2}	x	0.5	=	0.1
1,2,3,4,7,8-HxCDF	{0.2}	x	0.1	=	0.02
1,2,3,6,7,8-HxCDF	{0.2}	x	0.1	=	0.02
2,3,4,6,7,8-HxCDF	{0.2}	x	0.1	=	0.02
1,2,3,7,8,9-HxCDF	{0.2}	x	0.1	=	0.02
1,2,3,4,6,7,8-HpCDF	1.5	x	0.01	=	0.015
1,2,3,4,7,8,9-HpCDF	{0.3}	x	0.01	=	0.003
1,2,3,4,6,7,8,9-OCDF	8.3	x	0.001	=	0.0083
TOTAL PCDF					0.2

Total EPA TEFs, 1989a: 0.7 ppt

{...} indicates that the value is that of a Detection Limit.

GRY_TEF v1.08, MILES 4.22.16

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Printed: 15:20 08/30/00

Initial ....Date...

Data Review By: pA 08/30/00

Calculated Noise Height: 0.05

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of T004209B.dbf
08/30/2000 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF						0.65-0.89				0.881-1.071			
304-306	DC	NL				Height	0.32	0.20	0.12				
				23:51		0.74	1.50	0.64	0.86	0.913			J
				24:30		0.66	2.16	0.86	1.30	0.938			J
	DC	WH		28:19		0.86	1.06			1.084			
304-306			2	Peaks			3.66						
13C12-TCDF						0.65-0.89				0.962-1.038			
316-318	DC	NL				Height	0.44	0.21	0.23				
	DC	WL		23:08	RO	0.59	1.68			0.886			
	DC	WL		24:59		0.71	4.47			0.957			
				25:44	RO	1.33	2.37	1.78	1.34	0.985			
				26:07		0.74	574.34	243.65	330.69	1.000	13C12-2378-TCDF	ISO	
						Height	157.65	65.53	92.12				
				26:26		0.68	156.00	62.88	93.12	1.012			
316-318			3	Peaks			732.71						

---------- Above: TCDF / TCDD Follows ----------

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDD						0.65-0.89				0.905-1.043			
320-322	DC	NL				Height	0.17	0.08	0.09				
				24:23	RO	0.97	4.67	2.03	2.09	0.910	1368-TCDD		AN
				24:46	RO	0.96	3.10	1.35	1.41	0.925	1379-TCDD		AN
	DC	SN		25:20		0.81	0.38			0.946			
	DC	SN		25:32	RO	1.35	0.30			0.953			
	DC	SN		25:49	RO	0.06	0.05			0.964			
	DC	SN		26:08	RO	2.33	0.42			0.976			
	DC	SN		26:39	RO	3.00	0.30			0.995			
320-322			2	Peaks			7.77						
37Cl-TCDD										0.925-1.075			
328	DC	NL				Height	0.07	0.07					
	DC	WL		24:10			0.34			0.902			
	DC	WL		24:23			0.20			0.910			
	DC	WL		24:27			0.15			0.913			
				25:21			0.26	0.26		0.946			
				25:28			0.47	0.47		0.951			
				25:37			0.11	0.11		0.956			
	DC	SN		26:30			0.11			0.989			
				26:48			37.71	37.71		1.001	37Cl-TCDD		CLS
	DC	SN		27:04			0.14			1.011			
				27:09			0.53	0.53		1.014			
				27:18			0.34	0.34		1.019			
				28:09			0.18	0.18		1.051			

```
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

                DC  SN  28:17                0.19                                 1.056
328                   7 Peaks               39.60

13C12-TCDD                     0.65-0.89                                  0.925-1.075
332-334         DC  NL          Height       0.42          0.26          0.16
                        26:37    0.81      492.12        219.67        272.45  0.994 13C12-1234-TCDD RS1
                        26:47    0.79      441.13        195.27        245.86  1.000 13C12-2378-TCDD IS1
                                Height     124.25         54.30         69.95
332-334               2 Peaks               933.25

                ---------------------- Above: TCDD / PeCDF Follows --------------------

PeCDF                          1.32-1.78                                  0.930-1.060
340-342         DC  NL          Height       0.23          0.12          0.11
                        28:02 RO 0.76        5.33          3.24          4.27  0.938                    J
                        28:19 RO 2.18        1.15          0.98          0.45  0.947                    J
        D       D   SN  29:12 RO 0.70        0.49                              0.977
        D       D   SN  30:40    1.48        0.72                              1.026
340-342               2 Peaks                6.48

13C12-PeCDF                    1.32-1.78                                  0.866-1.134
352-354         DC  NL          Height       0.18          0.09          0.09
                        28:42    1.45       14.70          8.69          6.01  0.960
                        29:04 RO 0.84        1.17          0.71          0.85  0.972
                        29:54    1.50      527.81        316.42        211.39  1.000 13C12-PeCDF 123 IS2
                                Height     165.94         99.31         66.63
                        30:10    1.65        4.66          2.90          1.76  1.009
                        30:34    1.51      539.33        324.73        214.60  1.022 13C12-PeCDF 234 SUR1
                        31:31    1.66        5.22          3.26          1.96  1.054
352-354               6 Peaks            1,092.89

                ---------------------- Above: PeCDF / PeCDD Follows -------------------

PeCDD                          1.32-1.78                                  0.940-1.021
356-358         DC  NL          Height       0.17          0.09          0.08
                DC  SN  29:01 RO 0.18        0.07                              0.940
                DC  SN  30:34    1.42        0.58                              0.990
                DC  WH  31:46 RO 0.43        2.07                              1.029
356-358               0 Peaks                0.00

13C12-PeCDD                    1.32-1.78                                  0.871-1.129
368-370         DC  NL          Height       0.17          0.09          0.08
                        29:50    1.58        2.71          1.66          1.05  0.966
                        29:59    1.49        1.74          1.04          0.70  0.971
                        30:10    1.74        0.74          0.47          0.27  0.977
                        30:53    1.41      332.78        194.76        138.02  1.000 13C12-PeCDD 123 IS3
                                Height     105.91         62.84         43.07
368-370               4 Peaks               337.97

                ---------------------- Above: PeCDD / HxCDF Follows -------------------
```

Listing of T004209B.dbf
Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
HxCDF				1.05-1.43						0.964-1.047			
374-376	DC	NL				Height	0.12	0.06	0.06				
	DC	SN		32:19		1.19	0.35			0.969			
				32:27		1.33	1.14	0.65	0.49	0.973			J
	DC	SN		32:32	RO	1.00	0.13			0.975			
				32:53	RO	1.02	1.14	0.63	0.62	0.986			J
D	D	SN		33:16	RO	1.56	0.56			0.997	123478-HxCDF	AN	
	DC	SN		33:31	RO	1.73	0.25			1.004			
D	D	SN		33:53	RO	1.83	0.27			1.015	234678-HxCDF	AN	
	DC	SN		34:35	RO	0.67	0.04			1.036			
	DC	SN		34:49	RO	3.00	0.11			1.043			
	DC	SN		34:55	RO	3.00	0.22			1.046			
374-376				2 Peaks			2.28						
13C12-HxCDF				0.43-0.59						0.880-1.120			
384-386	DC	NL				Height	0.17	0.06	0.11				
				32:18		0.52	1.20	0.41	0.79	0.968			
				32:27		0.53	1.07	0.37	0.70	0.973			
				33:16		0.51	446.62	150.49	296.13	0.997	13C12-HxCDF 478	SUR2	
				33:22		0.50	456.23	152.58	303.65	1.000	13C12-HxCDF 678	IS4	
						Height	133.75	45.81	87.94				
				33:35		0.47	2.36	0.75	1.61	1.006			
				33:42	RO	0.38	1.33	0.45	1.17	1.010			
				33:52		0.51	451.85	152.41	299.44	1.015	13C12-HxCDF 234	ALT2	
				34:04	RO	0.25	0.77	0.26	1.03	1.021			
				34:08	RO	0.73	0.80	0.27	0.37	1.023			
				34:25	RO	1.25	0.18	0.15	0.12	1.031			
				34:40		0.50	363.39	121.77	241.62	1.039	13C12-HxCDF 789	ALT1	
				35:05	RO	0.73	0.33	0.11	0.15	1.051			
				35:19	RO	0.41	0.36	0.12	0.29	1.058			
384-386				13 Peaks			1,726.49						

---------- Above: HxCDF / HxCDD Follows ----------

HxCDD				1.05-1.43						0.957-1.014			
390-392	DC	NL				Height	0.15	0.07	0.08				
D	D	SN		32:47	RO	0.52	0.42			0.962			
	DC	SN		33:16	RO	4.00	0.22			0.977			
D	D	SN		33:27		1.10	0.86			0.982			
	DC	SN		33:51	RO	3.13	0.18			0.994			
	DC	SN		33:59	RO	0.67	0.18			0.998	123478-HxCDD	AN	
	DC	WH		34:37	RO	0.34	20.81			1.016			
390-392				0 Peaks			0.00						
13C12-HxCDD				1.05-1.43						0.971-1.029			
402-404	DC	NL				Height	0.13	0.07	0.06				
				33:26		1.21	3.45	1.89	1.56	0.981			
				33:58		1.21	341.66	187.33	154.33	0.997	13C12-HxCDD 478	SUR3	
				34:04		1.21	346.14	189.28	156.86	1.000	13C12-HxCDD 678	IS5	
						Height	99.51	55.08	44.43				
				34:24		1.20	434.60	236.69	197.91	1.010	13C12-HxCDD 789	RS2	
				34:43	RO	1.66	1.32	0.98	0.59	1.019			

```
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

                        34:47 RO  0.91          0.36          0.20          0.22  1.021
402-404               6 Peaks                1,127.53

                ---------------------- Above: HxCDD / HpCDF Follows --------------------

HpCDF                           0.88-1.20                                   0.996-1.050
408-410         DC  NL           Height          0.14          0.07          0.07
                        36:24     1.15           3.08          1.65          1.43  1.000 1234678-HpCDF   AN   J
                        36:51     0.96           6.37          3.12          3.25  1.013                      J
        D       D   SN  38:02 RO  1.40           0.51                              1.045 1234789-HpCDF   AN
408-410               2 Peaks                    9.45

13C12-HpCDF                     0.37-0.51                                   0.945-1.110
418-420         DC  NL           Height          0.31          0.16          0.15
                        36:23     0.42         322.70         95.53        227.17  1.000 13C12-HpCDF 678 IS6
                                 Height         82.91         24.92         57.99
                        36:42 RO  0.63           1.34          0.41          0.65  1.009
                        38:01     0.42         299.07         88.31        210.76  1.045 13C12-HpCDF 789 SUR4
418-420               3 Peaks                  623.11

                ---------------------- Above: HpCDF / HpCDD Follows ---------------------

HpCDD                           0.88-1.20                                   0.975-1.005
424-426         DC  NL           Height          0.15          0.07          0.08
                        36:41     1.04           5.07          2.58          2.49  0.979                      J
                DC  SN  36:56 RO  3.14           0.29                              0.985
                        37:29     1.05           6.18          3.17          3.01  1.000 1234678-HpCDD   AN   J
                DC  SN  37:38 RO  1.43           0.29                              1.004
424-426               2 Peaks                   11.25

13C12-HpCDD                     0.88-1.20                                   0.973-1.027
436-438         DC  NL           Height          0.21          0.11          0.10
                        36:41     0.88           0.64          0.30          0.34  0.979
                        37:29     0.99         346.09        172.26        173.83  1.000 13C12-HpCDD 678 IS7
                                 Height         80.30         40.26         40.04
                        37:51 RO  0.53           0.45          0.23          0.43  1.010
                        37:54 RO  1.54           0.80          0.60          0.39  1.011
                        38:01 RO  1.69           0.53          0.44          0.26  1.014
436-438               5 Peaks                  348.51

                ---------------------- Above: HpCDD / Octa-CDD and CDF Follows ----------

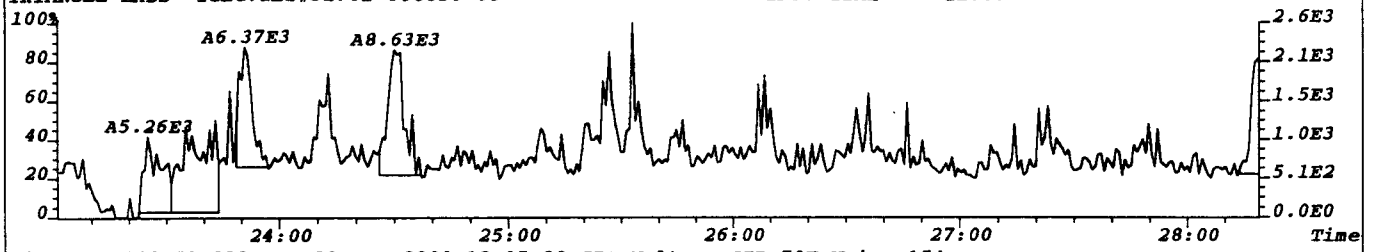
OCDF                            0.76-1.02                                   0.903-1.097
442-444         DC  NL           Height          0.14          0.07          0.07
                DC  SN  39:04     1.00           0.10                              0.944
                DC  SN  39:10 RO  1.14           0.40                              0.946
                DC  SN  41:17 RO  0.55           0.25                              0.998
                DC  SN  41:23 RO  1.28           0.34                              1.000
                        41:38     0.89          12.99          6.10          6.89  1.006 OCDF            AN   J
                DC  SN  42:49     0.88           0.47                              1.035
                DC  SN  42:58     0.88           0.15                              1.038
442-444               1 Peak                    12.99
```

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
OCDD				0.76-1.02						0.903-1.097			
458-460		DC	NL			Height	0.13	0.07	0.06				
				41:24		0.82	46.69	21.04	25.65	1.000	OCDD		AN
				41:46		0.77	0.46	0.20	0.26	1.009			
458-460			2	Peaks			47.15						
13C12-OCDD				0.76-1.02						0.996-1.004			
470-472		DC	NL			Height	0.12	0.06	0.06				
				41:23		0.82	559.62	252.33	307.29	1.000	13C12-OCDD		IS8
						Height	104.00	46.95	57.05				
		DC	WH	41:50		0.90	1.65			1.011			
470-472			1	Peak			559.62						

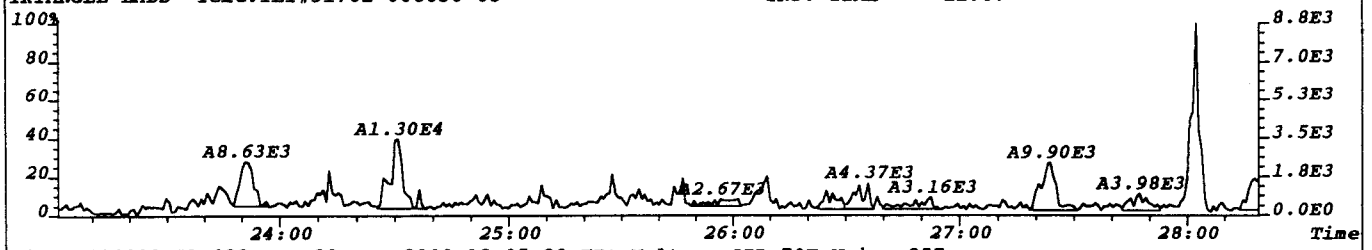
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***

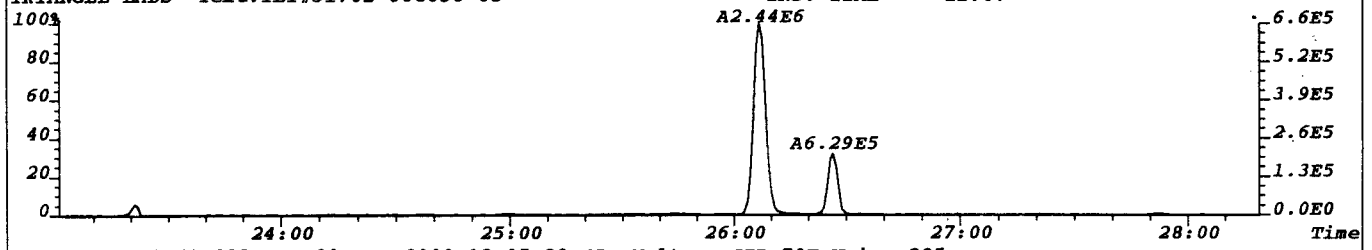
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:251
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,1004.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



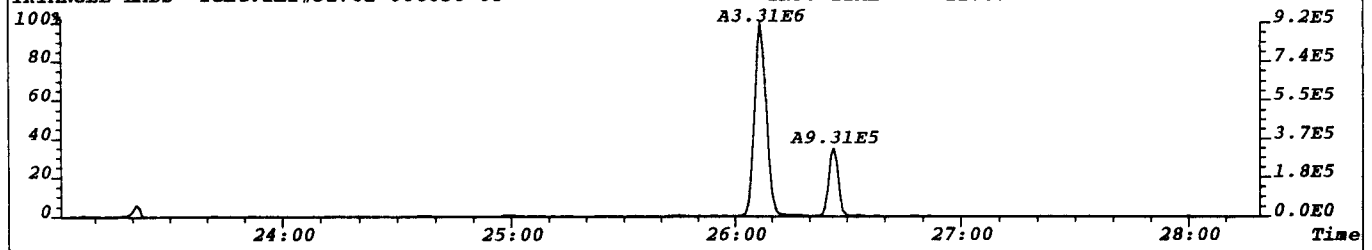
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:154
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,616.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



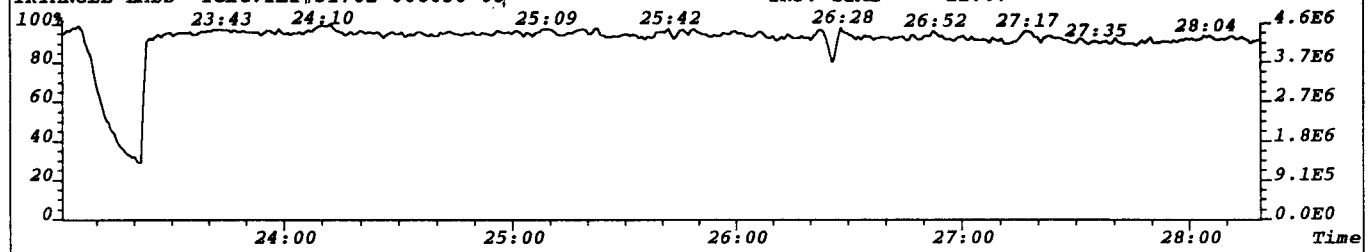
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:257
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,1028.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



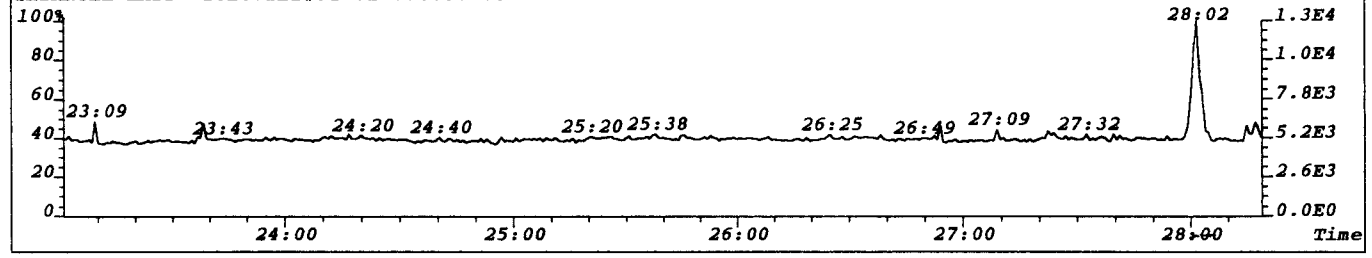
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:285
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,1140.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



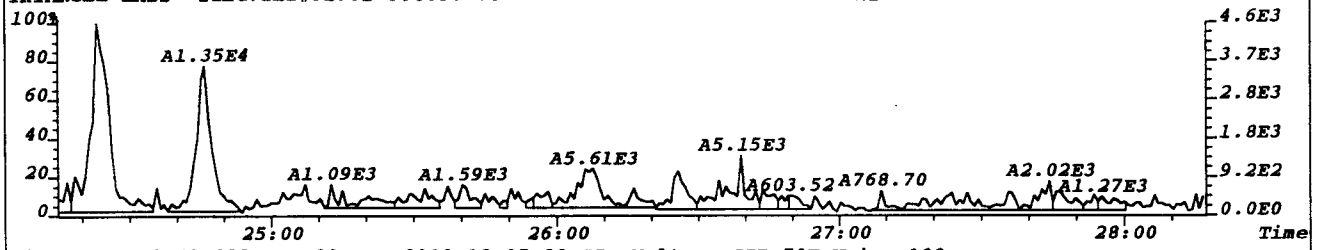
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



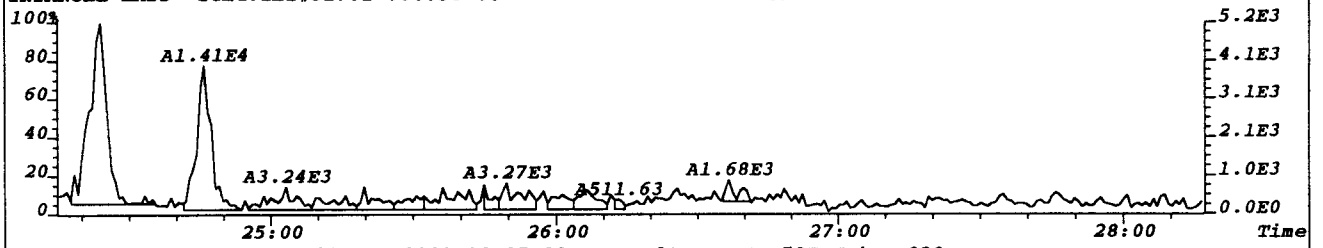
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
375.8364 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



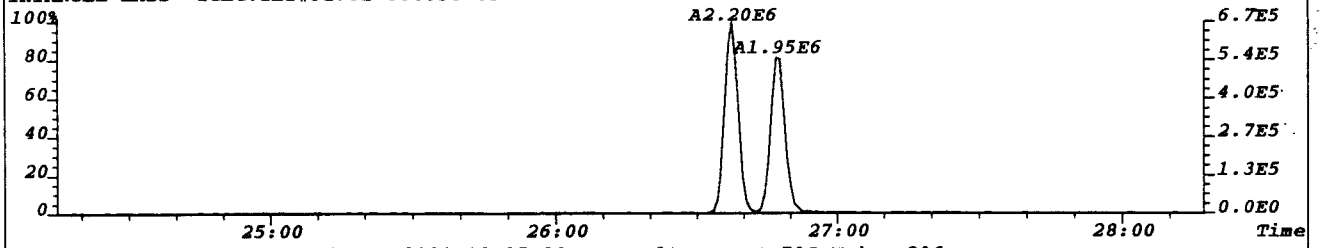
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:96
319.8965 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,384.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



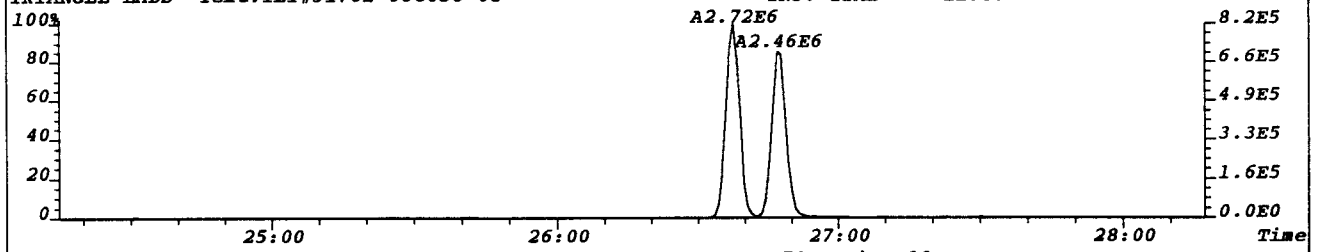
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:108
321.8936 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,432.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



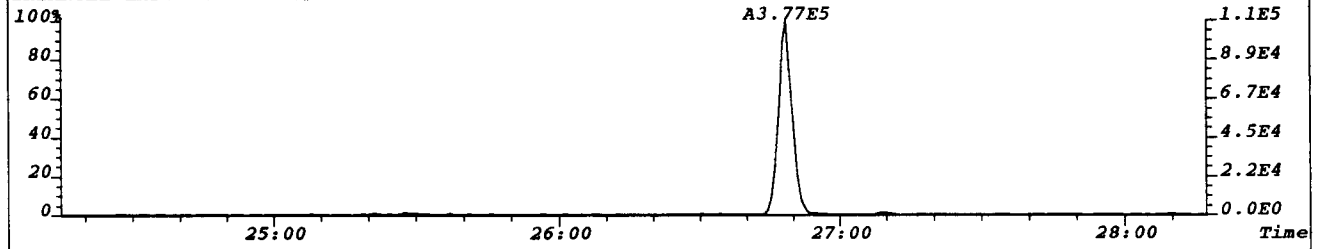
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:328
331.9368 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,1312.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



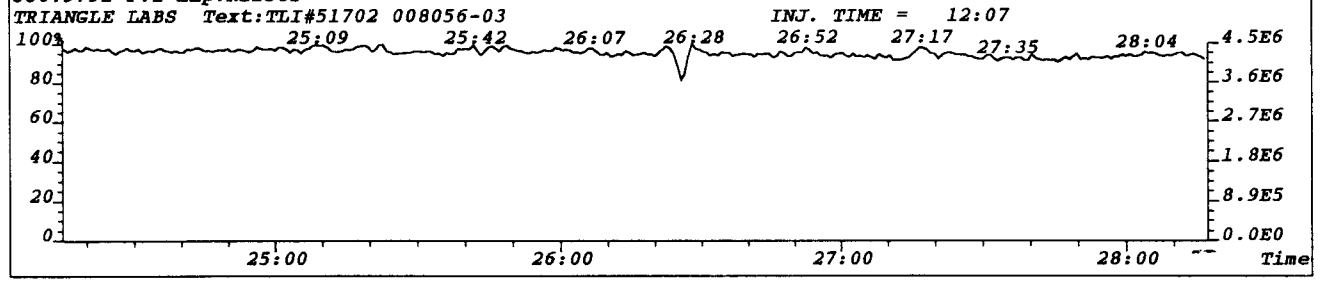
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:206
333.9338 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,824.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



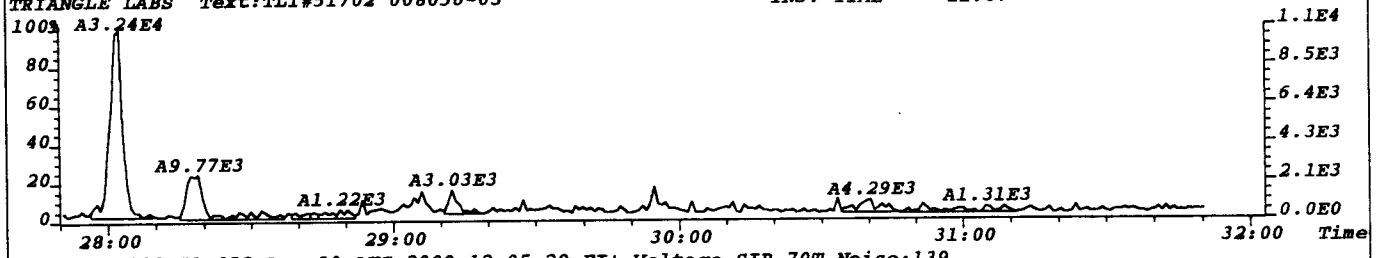
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:93
327.8847 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,372.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



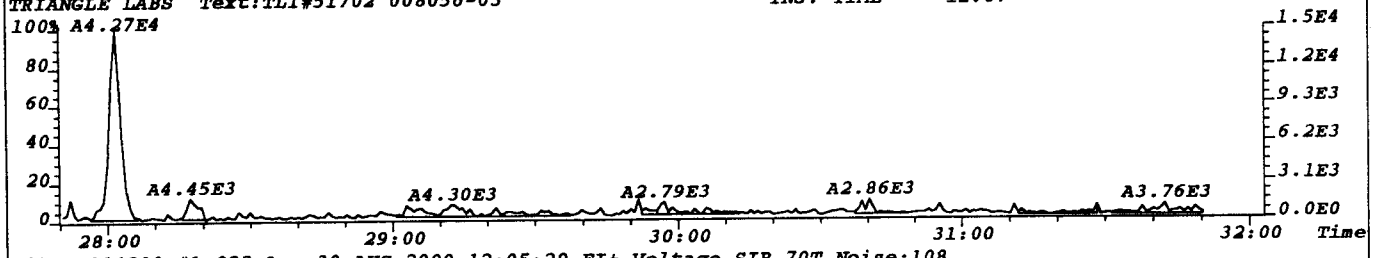
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



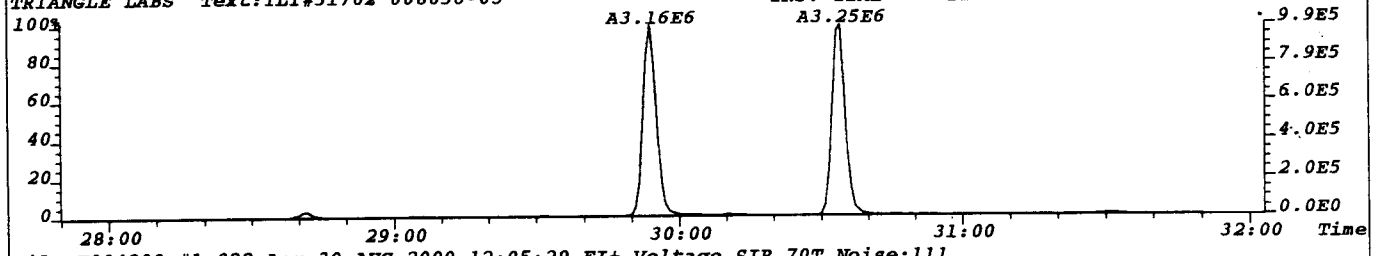
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:149
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,596.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



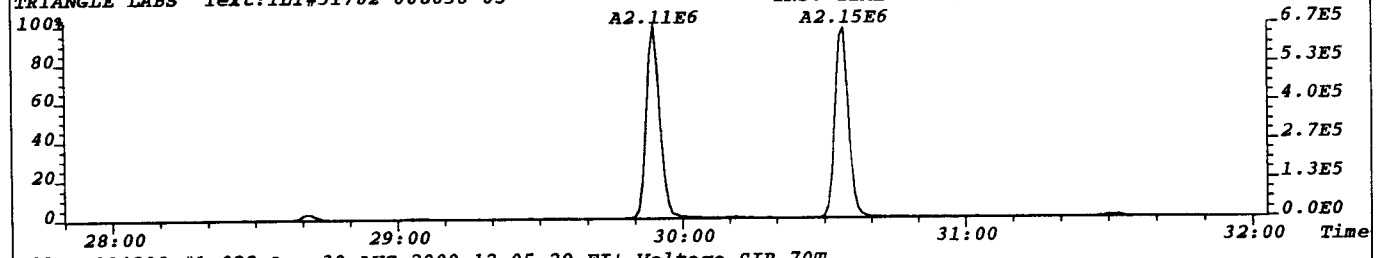
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:139
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,556.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



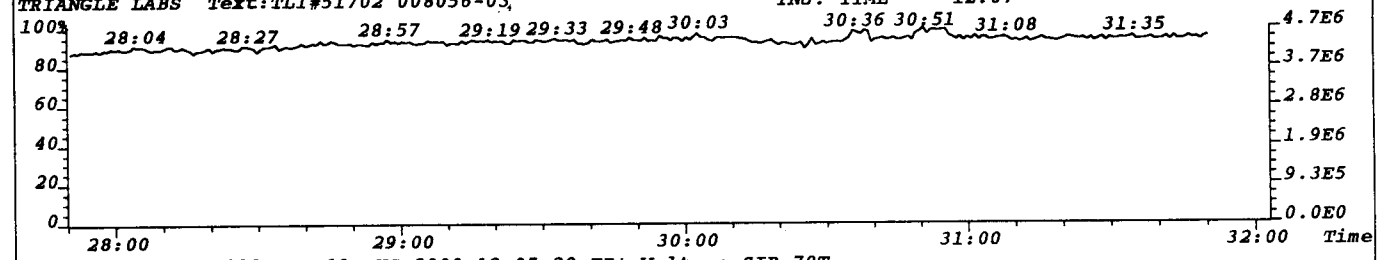
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:108
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,432.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



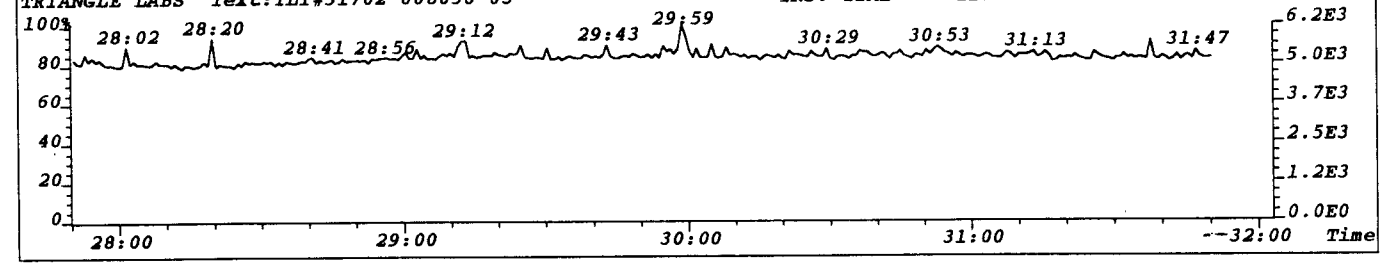
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:111
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,444.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



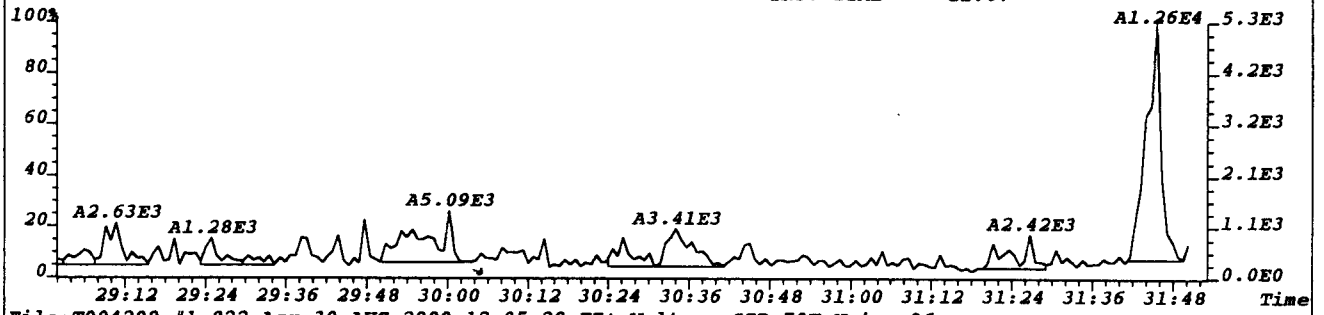
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



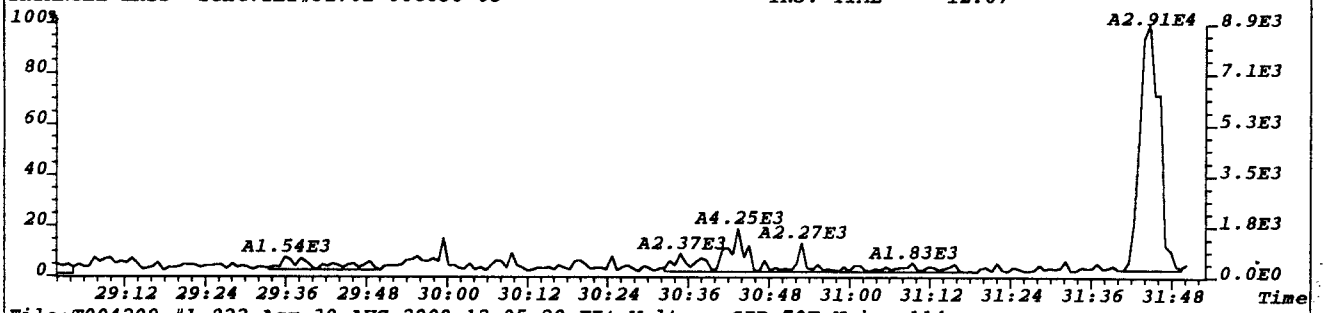
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
409.7974 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



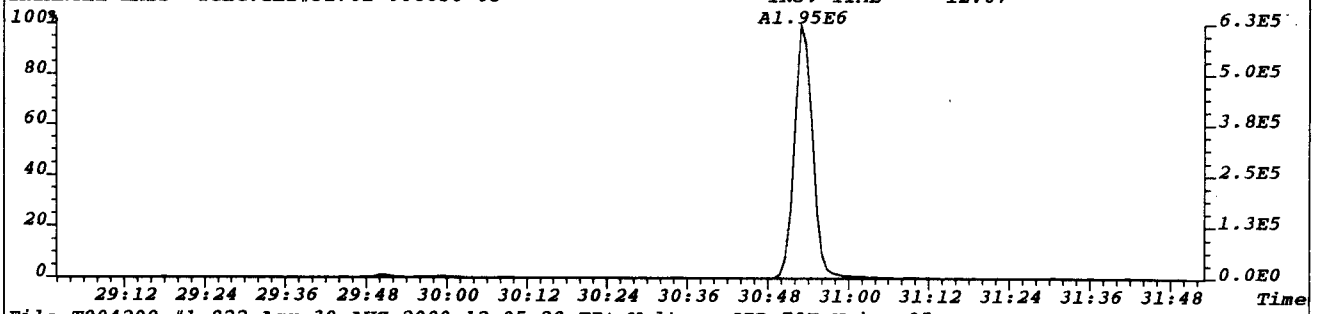
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:115
355.8546 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,460.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



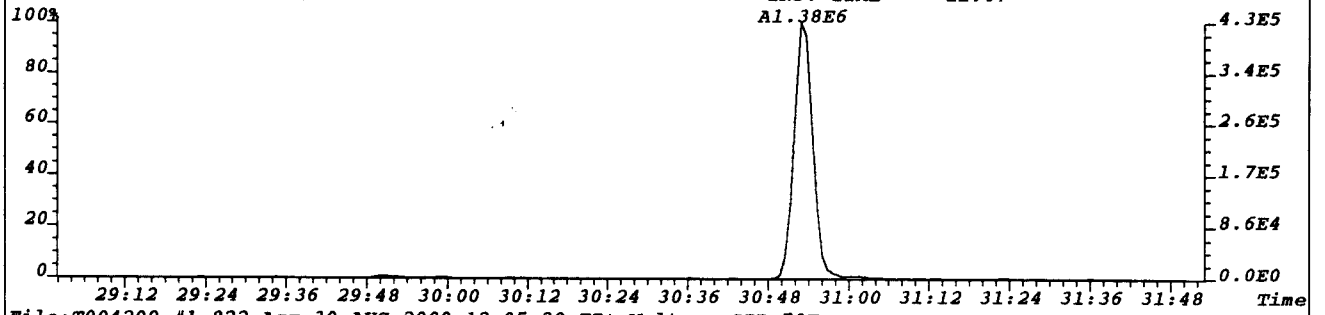
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:96
357.8516 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,384.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



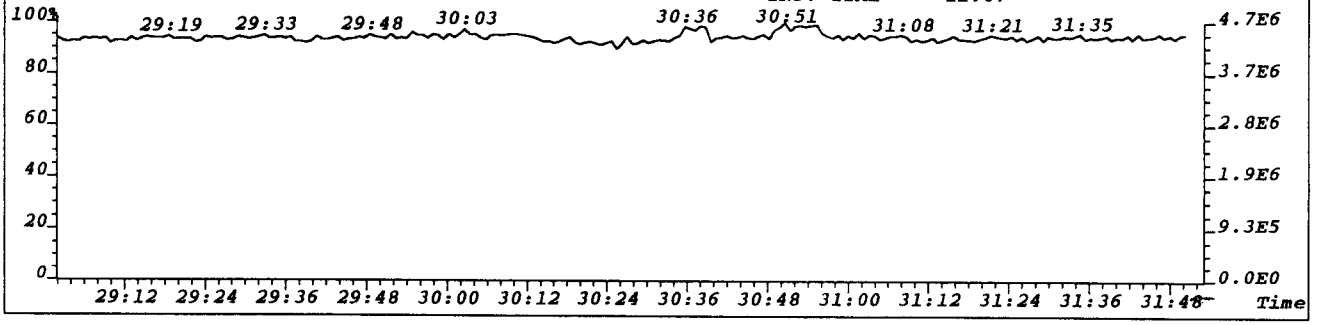
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:114
367.8949 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,456.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



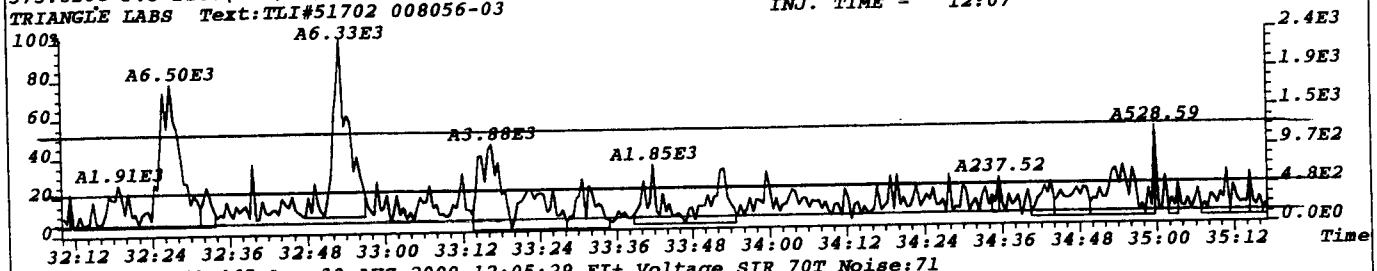
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:95
369.8919 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,380.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



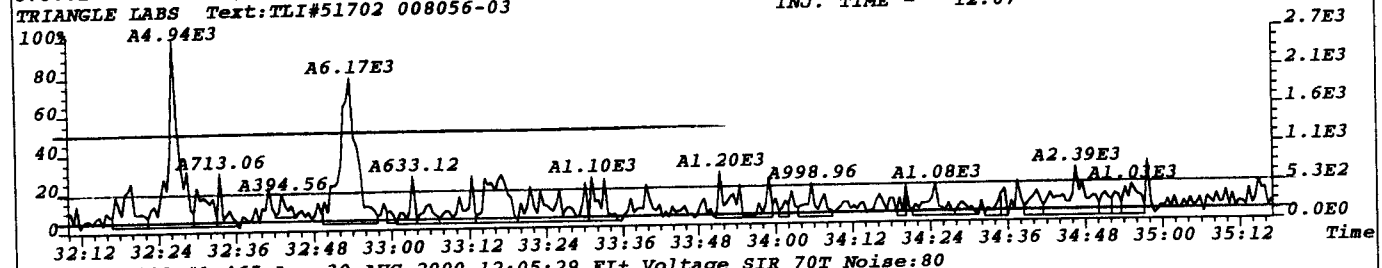
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



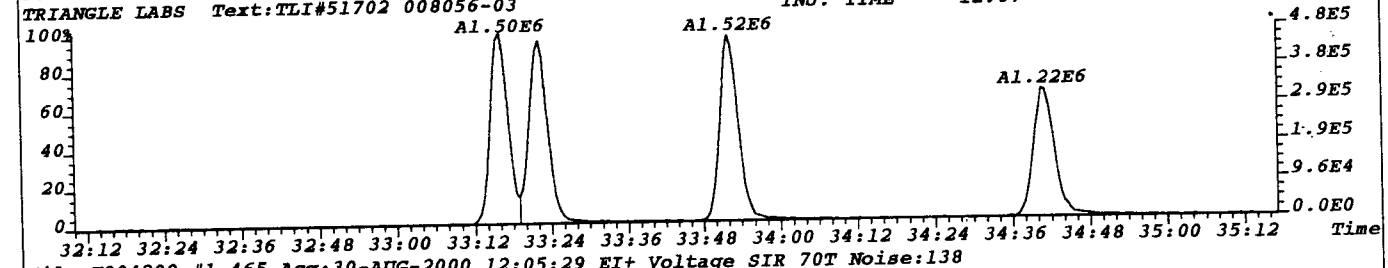
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:80
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,320.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



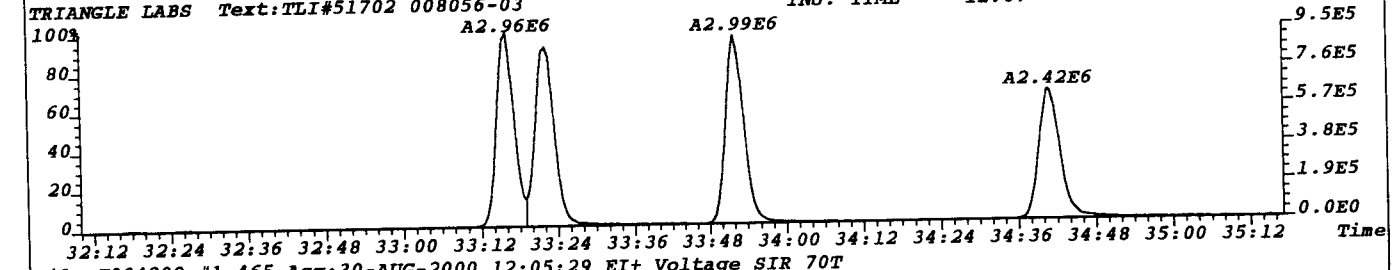
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:71
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,284.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



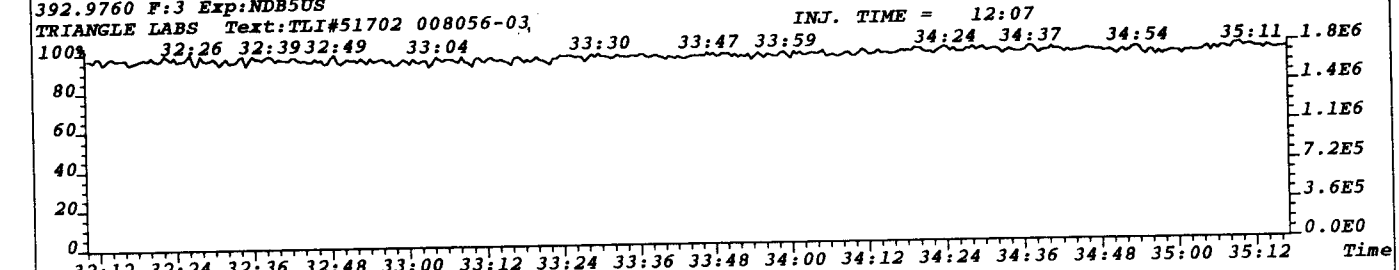
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:80
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,320.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



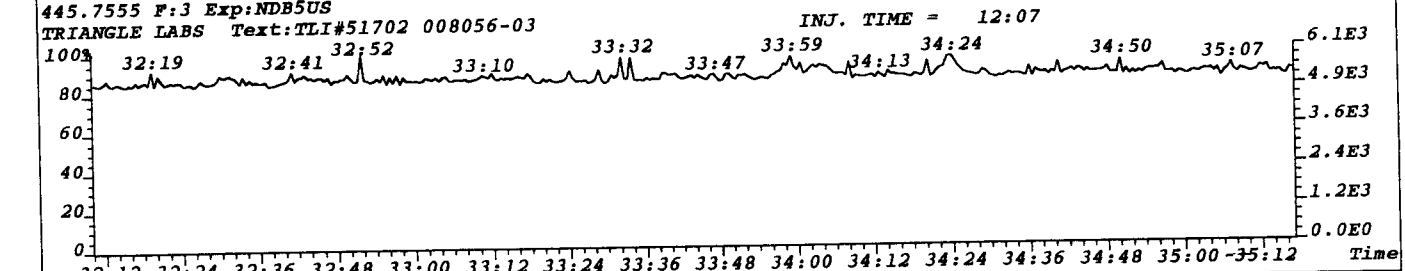
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:138
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,552.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



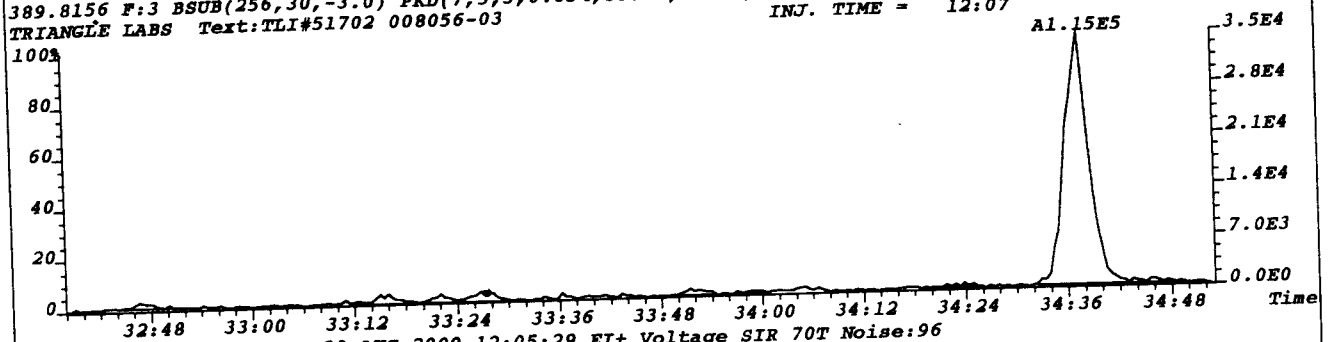
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



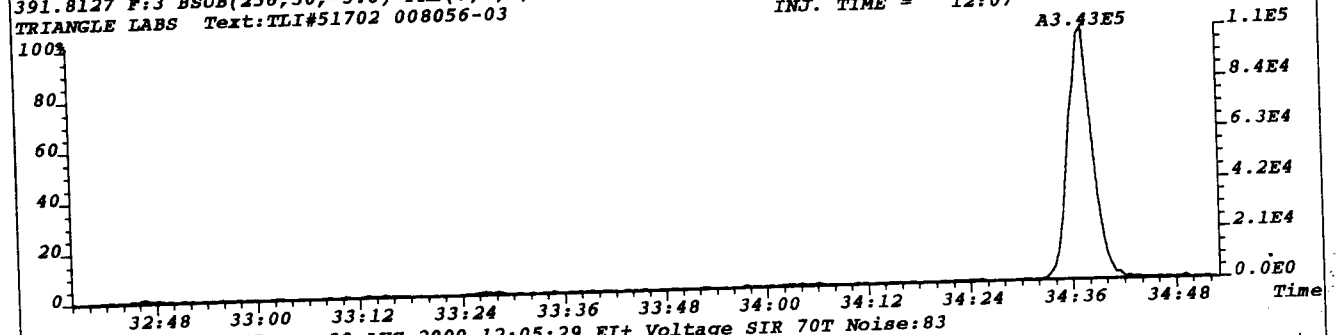
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
445.7555 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



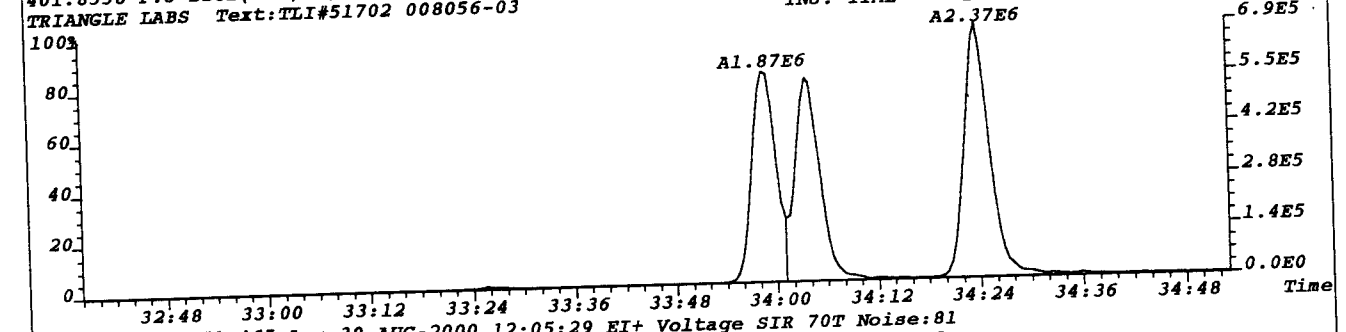
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:89
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,356.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



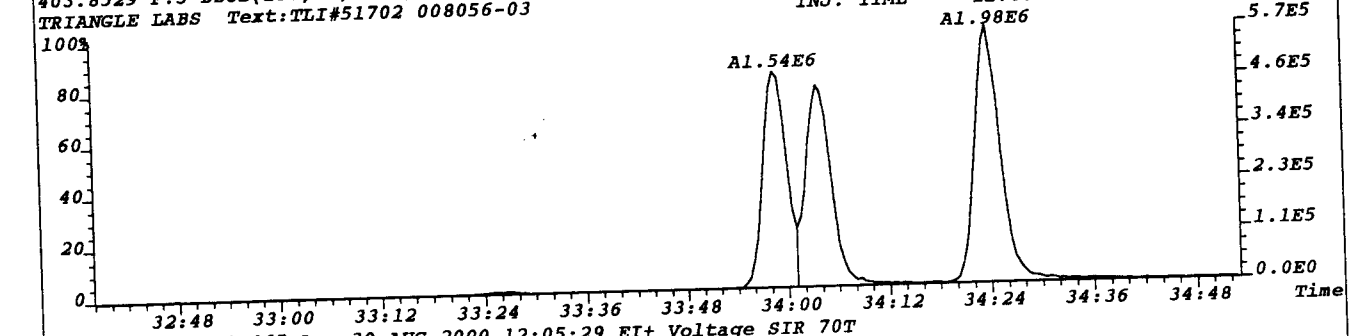
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:96
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,384.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



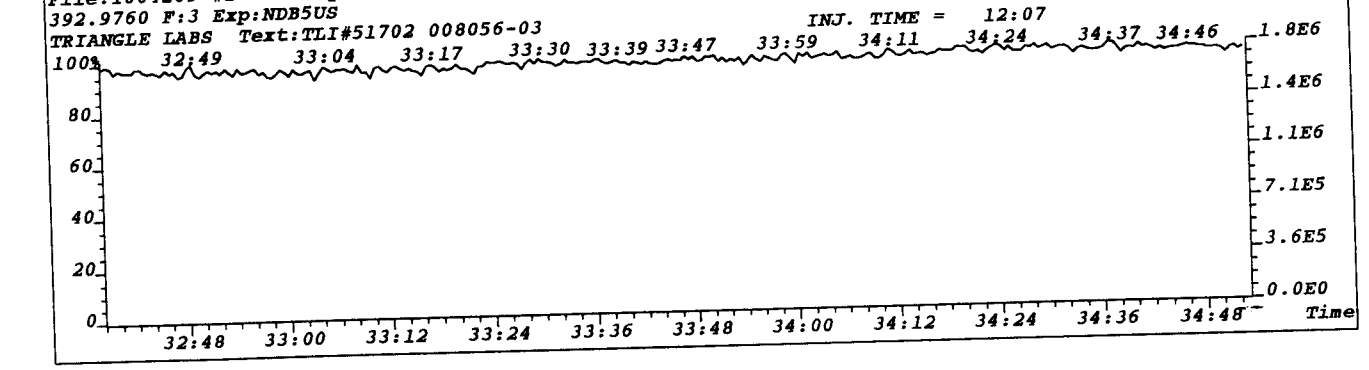
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:83
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,332.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



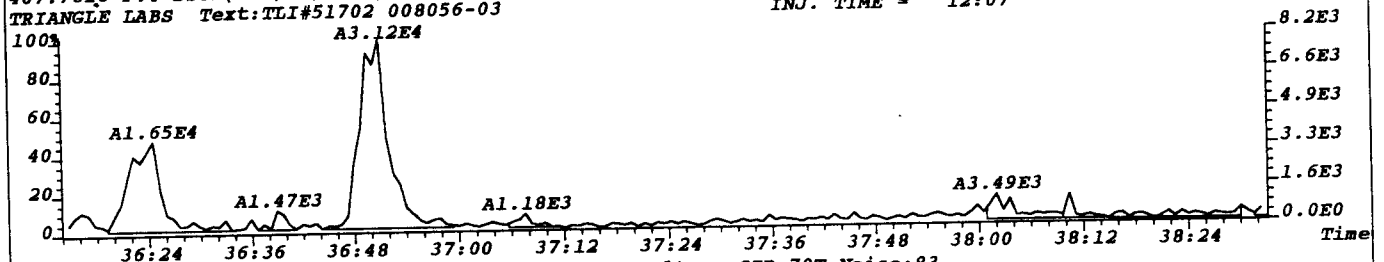
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:81
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,324.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



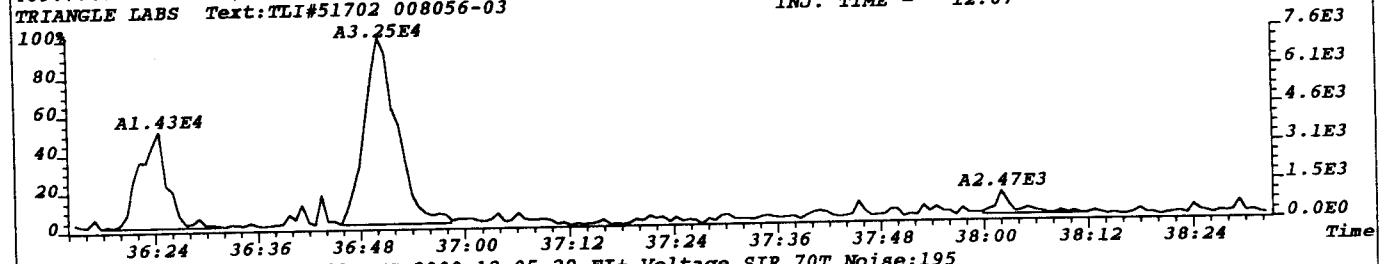
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



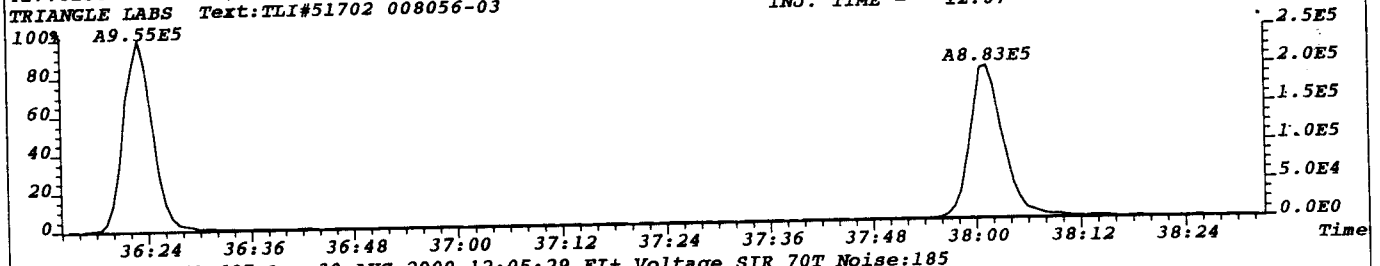
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:85
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,340.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



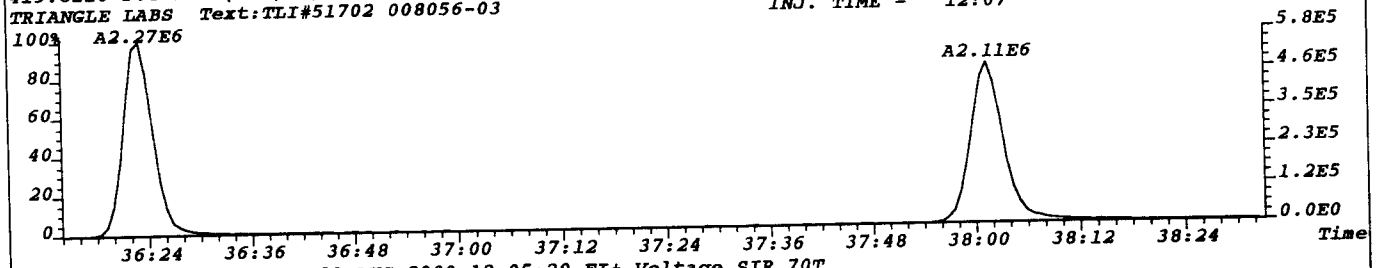
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:83
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,332.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



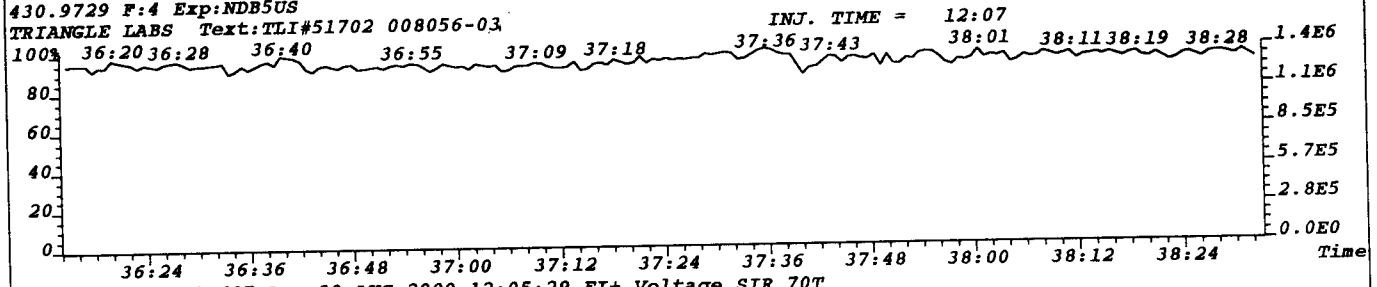
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:195
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,780.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



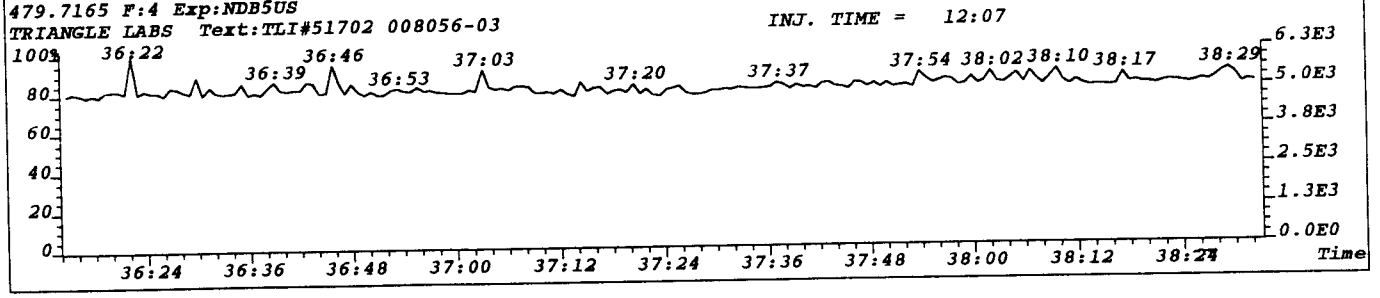
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:185
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,740.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



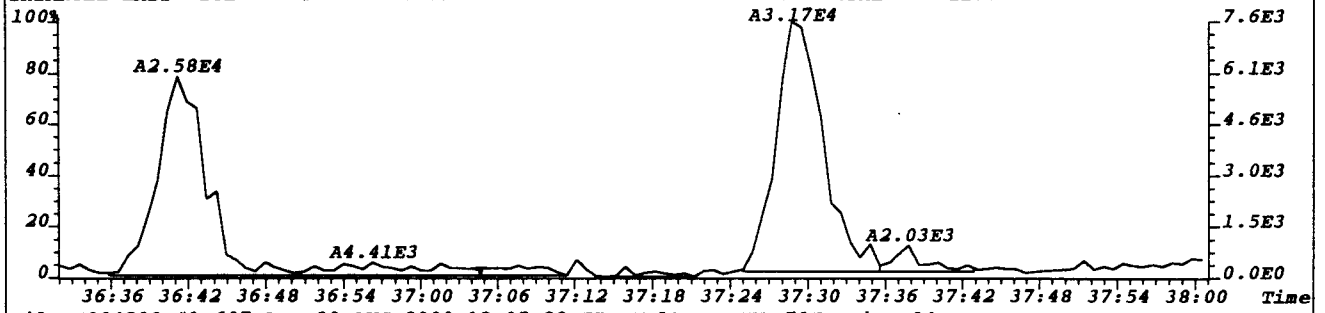
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



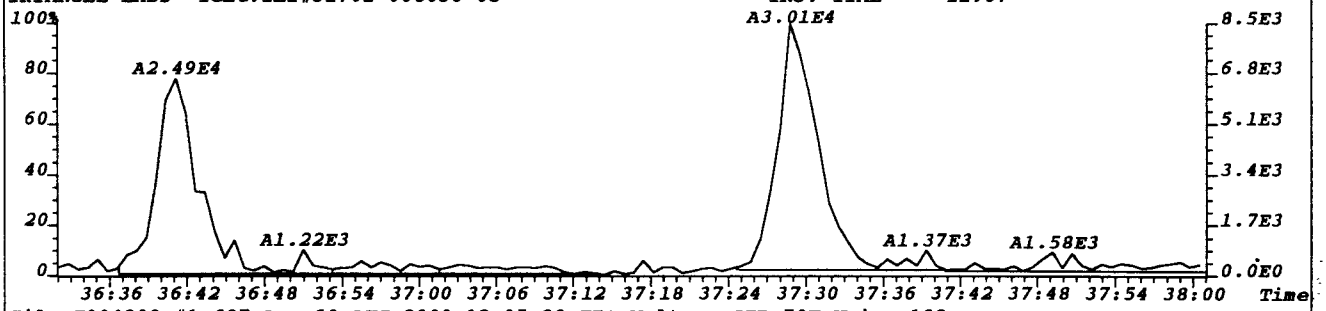
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
479.7165 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



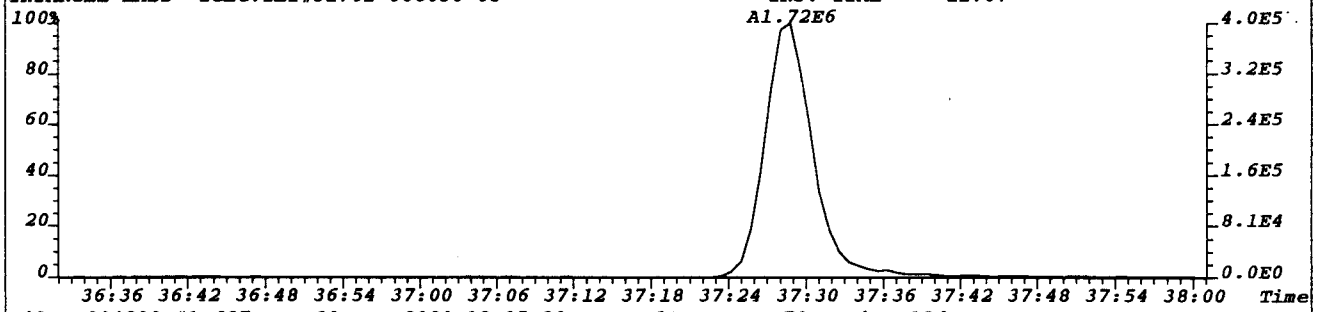
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:91
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,364.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



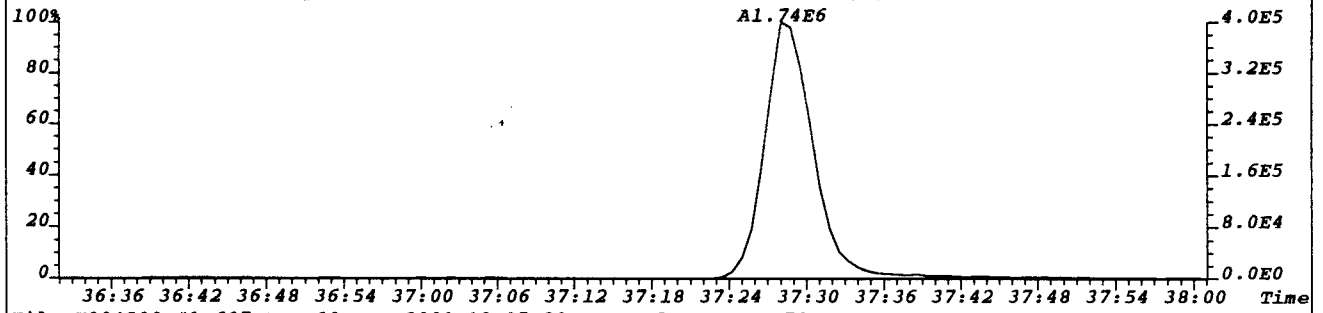
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:94
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,376.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



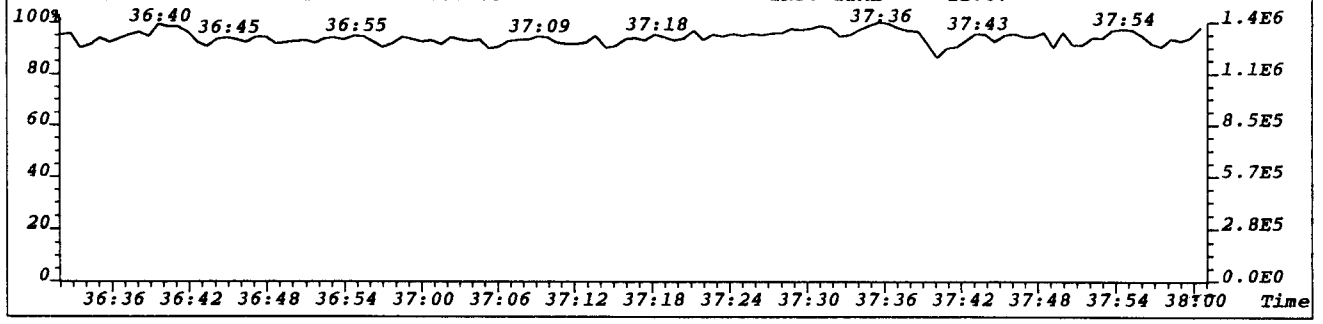
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:132
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,528.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



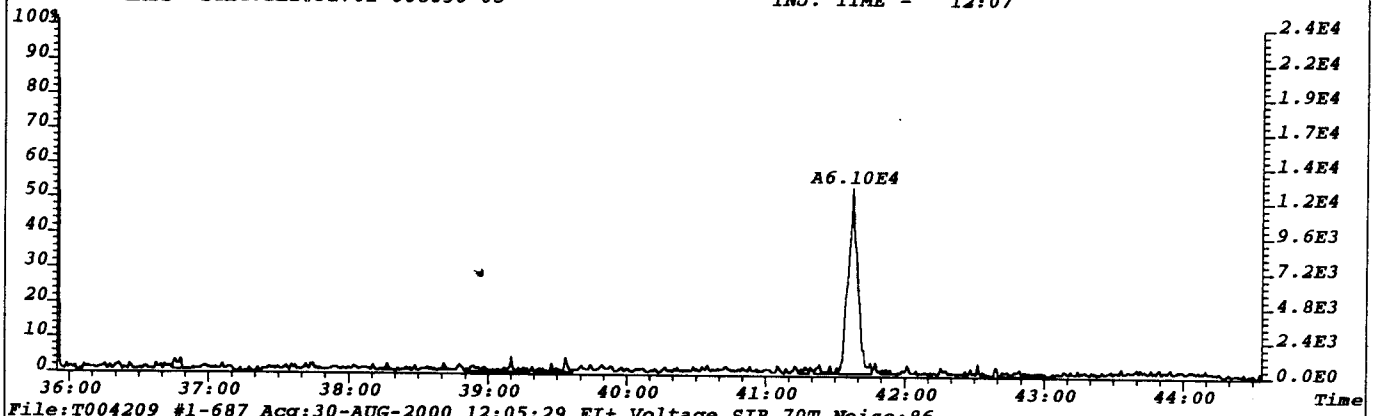
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:126
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,504.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



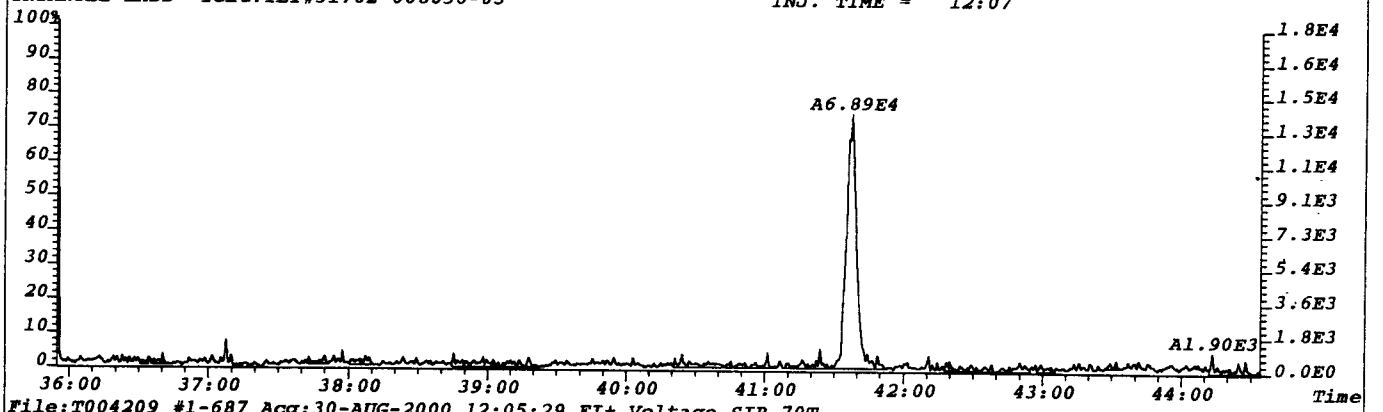
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



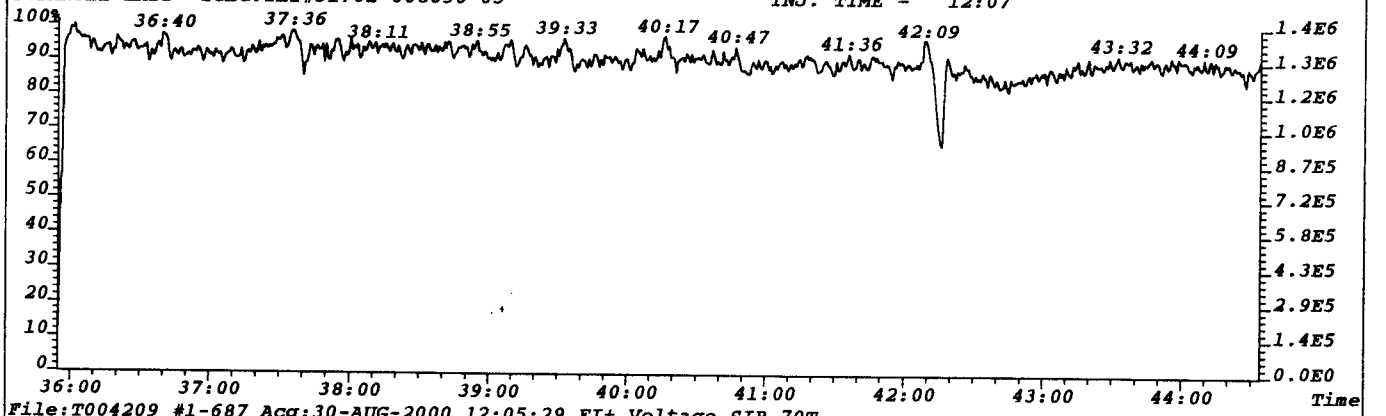
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:88
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,352.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



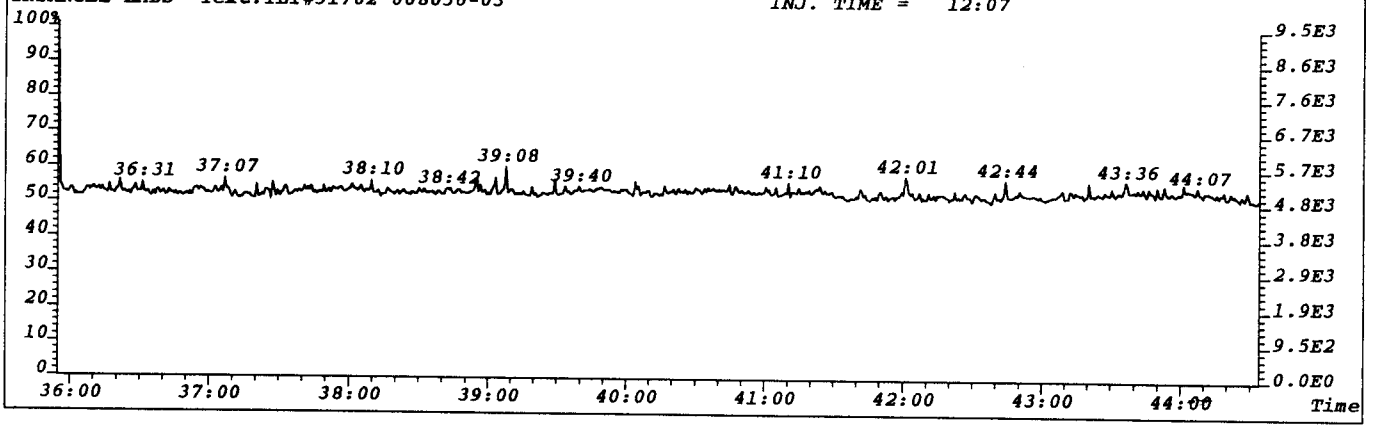
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:86
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,344.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



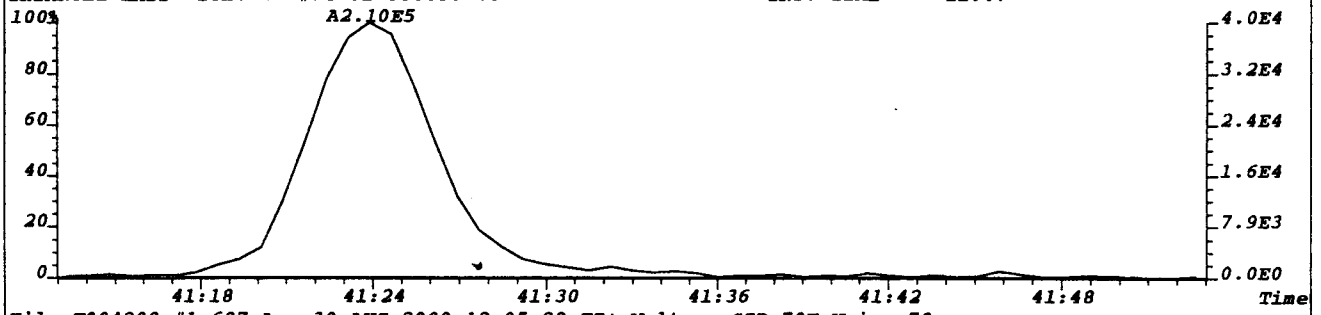
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



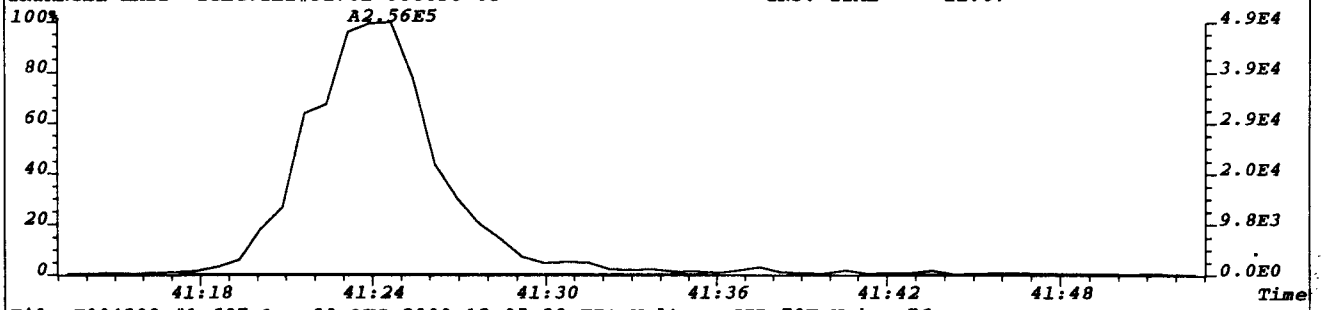
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
513.6775 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



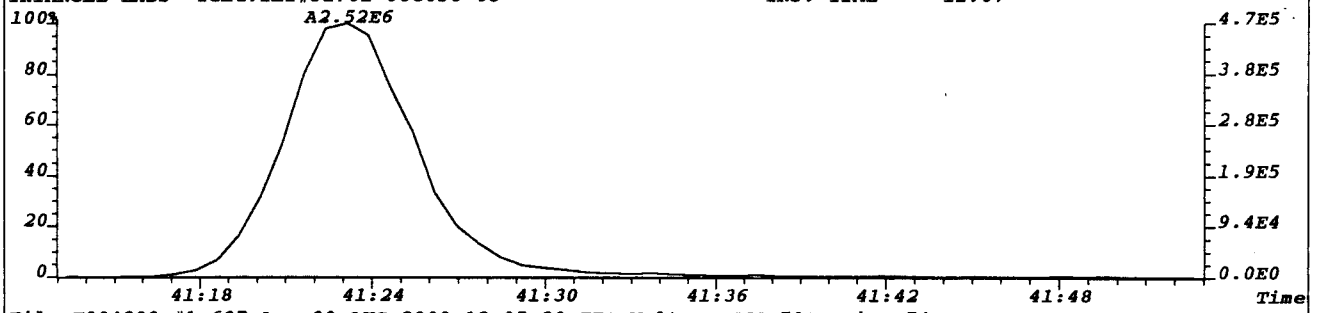
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:86
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,344.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



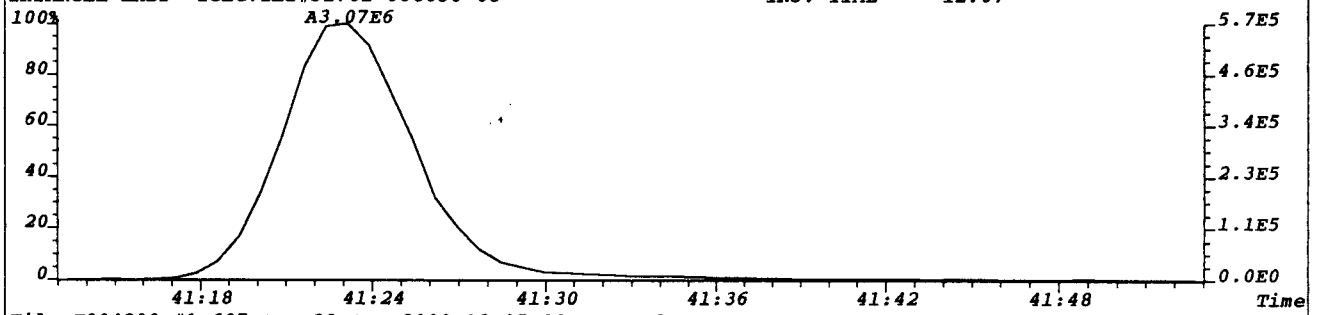
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:78
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,312.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



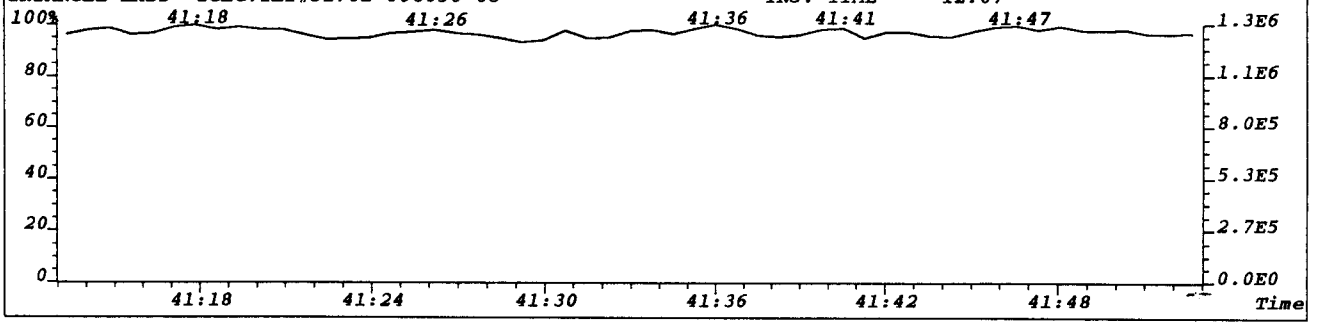
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:76
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,304.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07

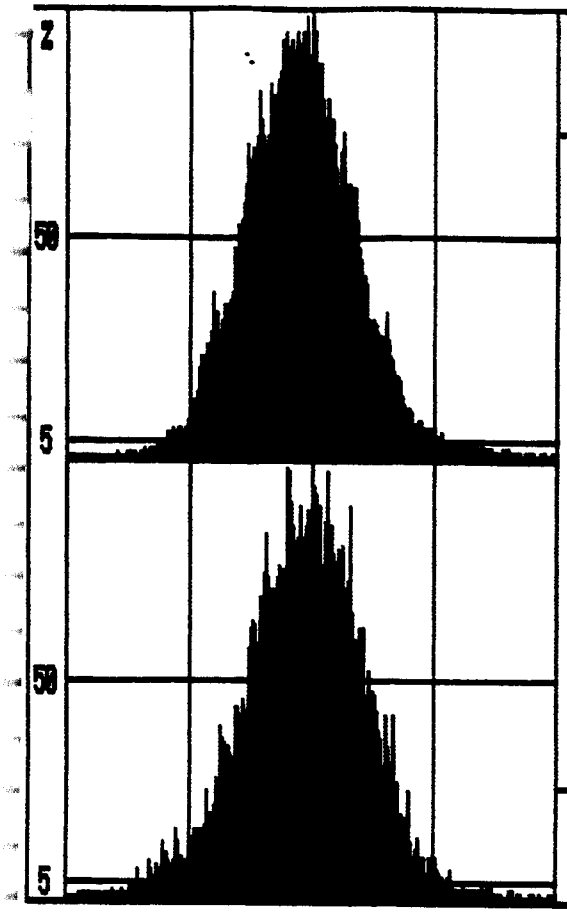


File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T Noise:74
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,296.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07



File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI#51702 008056-03 INJ. TIME = 12:07





Channel I 330.9792 Peak top
Height .82 volts Span 200 ppm

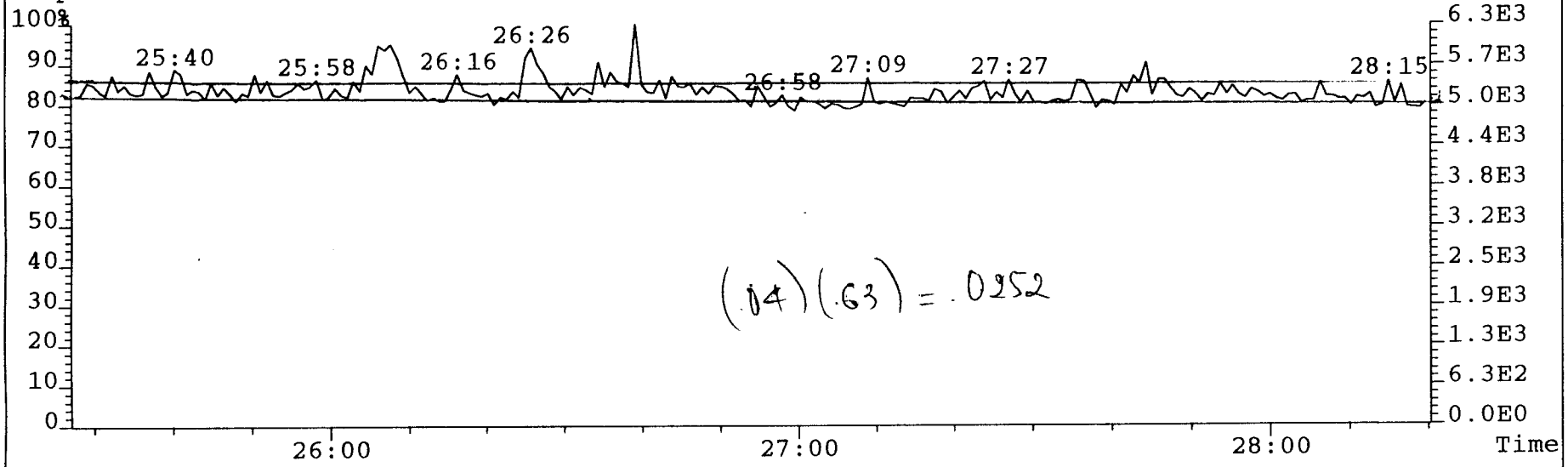
System file name NOBSUS
Data file name A:T830002
Resolution 10000
Group number 2
Ionization mode EI+
Switching VOLTAGE
Ref. masses 292.9825, 416.9760

A	293	J	331	S	368
B	304	K	332	T	370
C	306	L	334	U	376
D	316	M	340	V	410
E	318	N	342		
F	320	O	352		
G	322	P	354		
H	328	Q	356		
I	331	R	358		

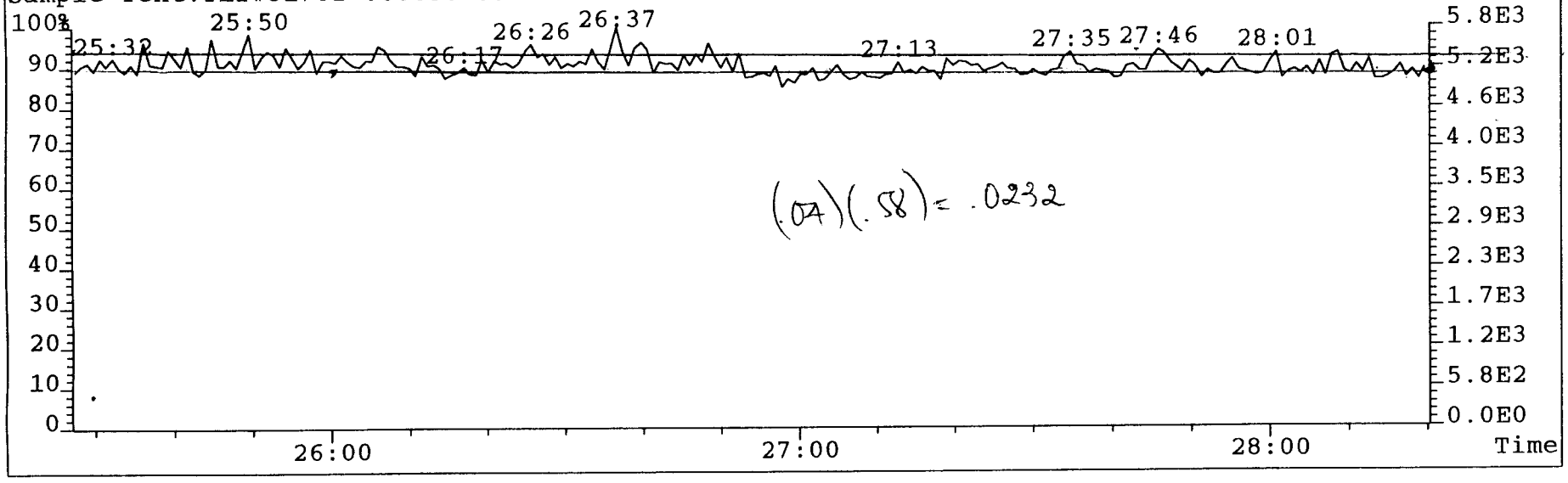
Ref. mass 416.9760 Peak top
Height .14 volts Span 200 ppm

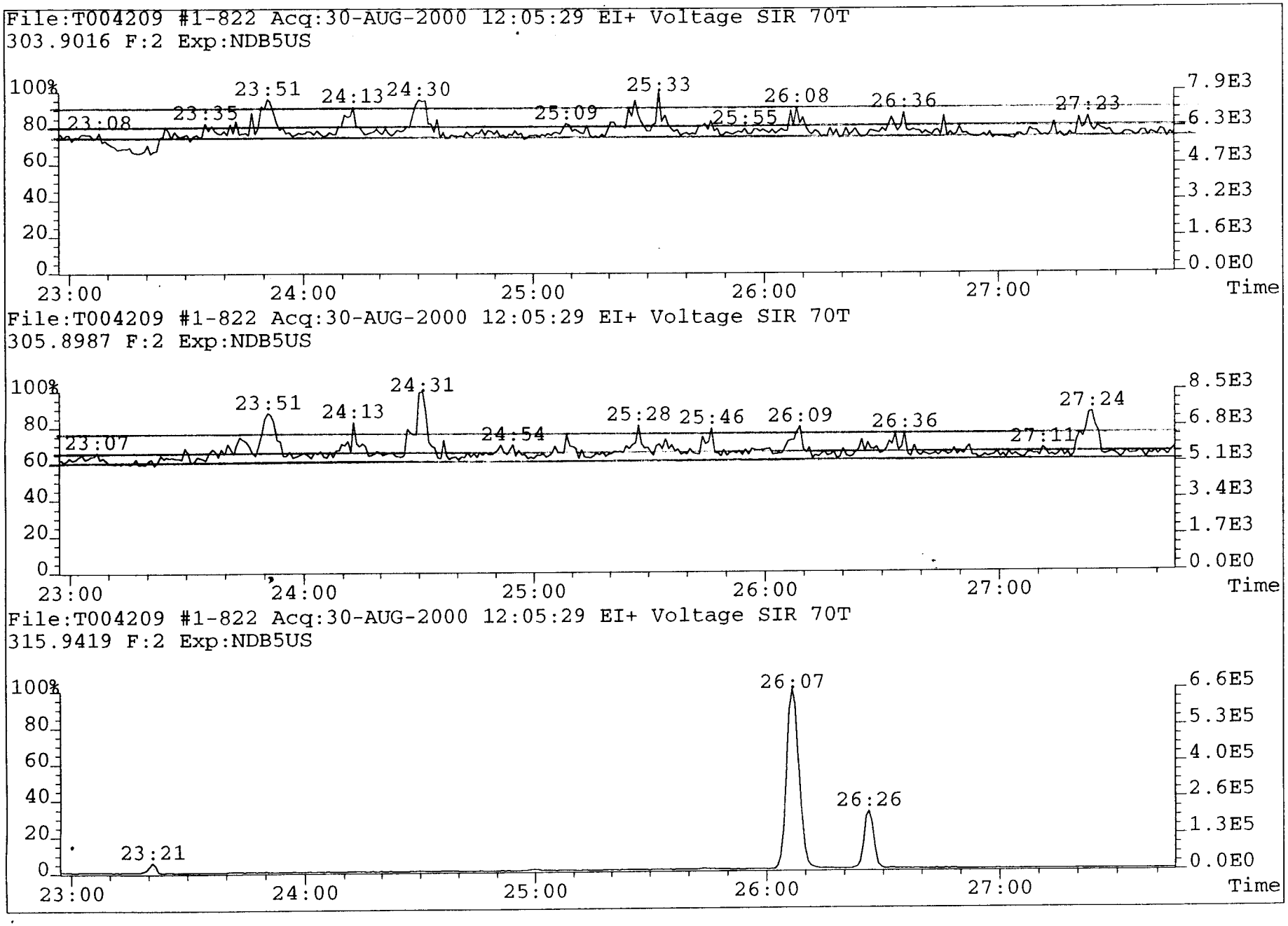
N = .0252 + .0232 = .0484 TMD 8/30/00

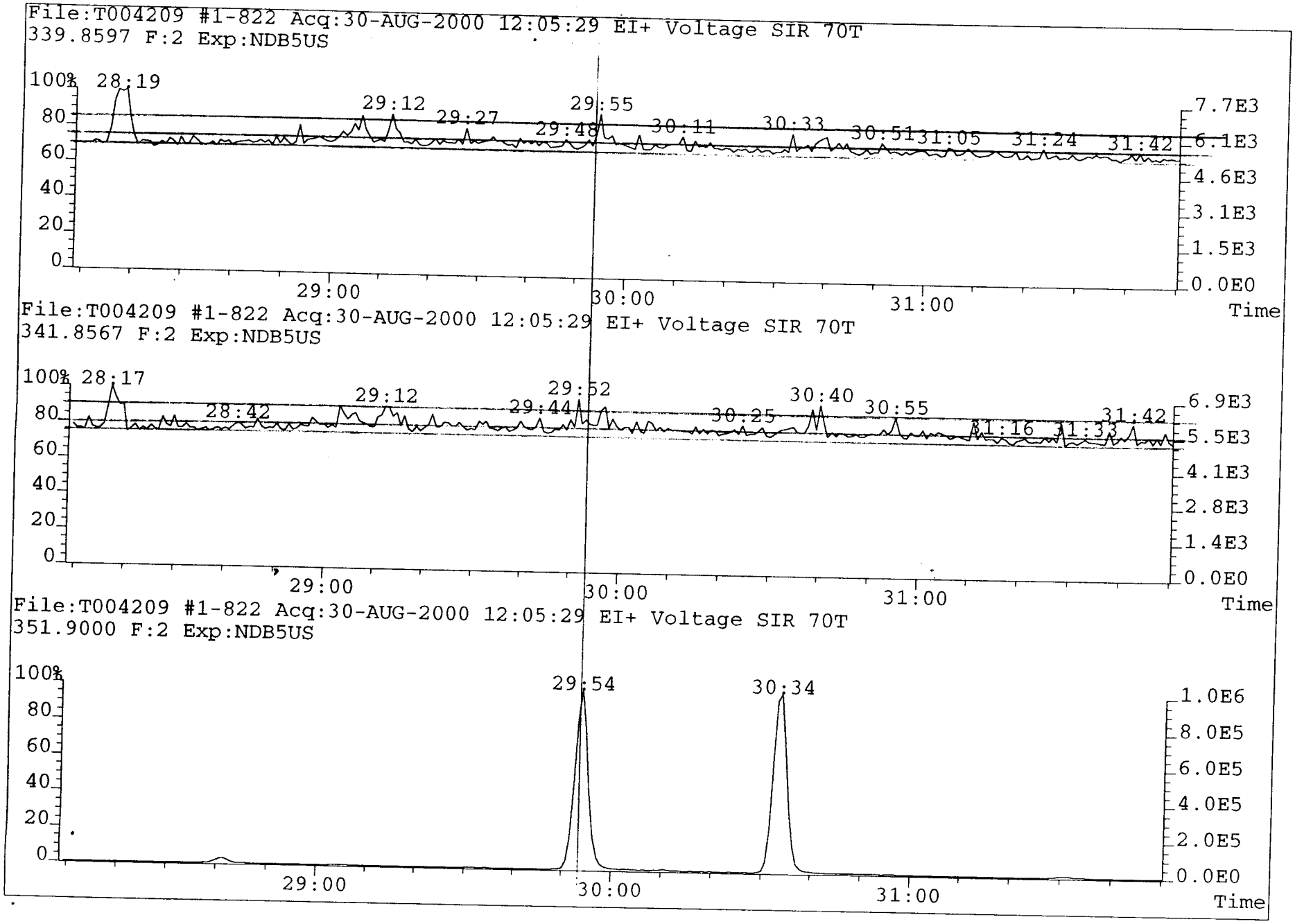
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
319.8965 F:2 Exp:NDB5US
Sample Text:TLI#51702 008056-03 INJ. TIME = 12:07 File Text:TLI#51702 008»



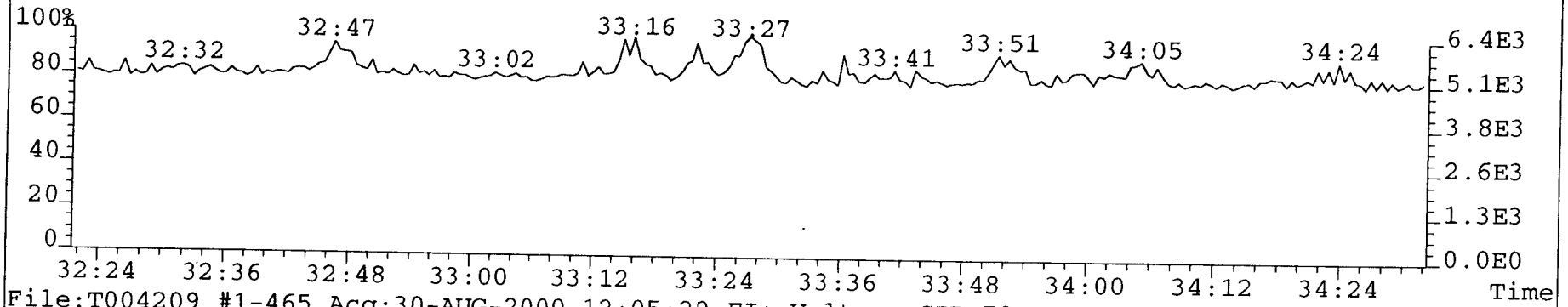
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
321.8936 F:2 Exp:NDB5US
Sample Text:TLI#51702 008056-03 INJ. TIME = 12:07 File Text:TLI#51702 008»



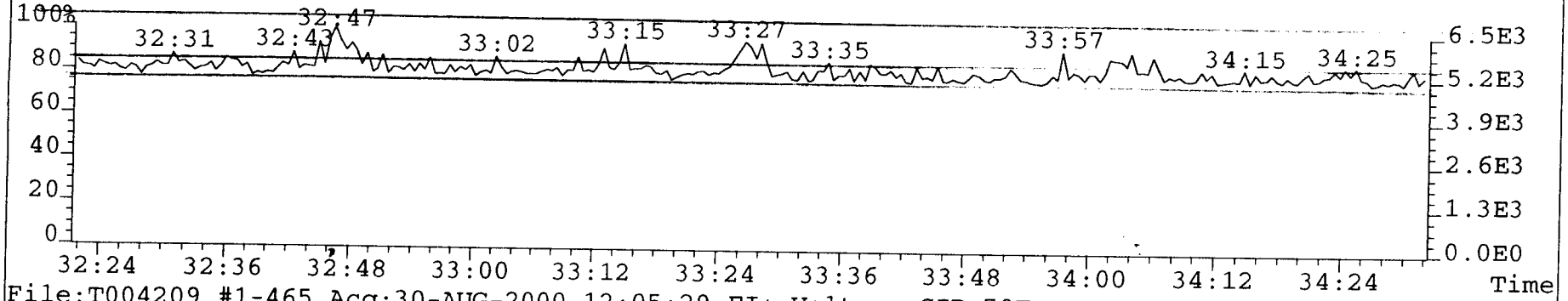

File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
303.9016 F:2 Exp:NDB5US
23:08
23:35
23:51
24:13
24:30
25:09
25:33
25:55
26:08
26:36
27:23
7.9E3
6.3E3
4.7E3
3.2E3
1.6E3
0.0E0
Time
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
305.8987 F:2 Exp:NDB5US
23:07
23:51
24:13
24:31
24:54
25:28
25:46
26:09
26:36
27:11
27:24
8.5E3
6.8E3
5.1E3
3.4E3
1.7E3
0.0E0
Time
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
315.9419 F:2 Exp:NDB5US
23:21
26:07
26:26
6.6E5
5.3E5
4.0E5
2.6E5
1.3E5
0.0E0
Time


File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
339.8597 F:2 Exp:NDB5US
28:19
29:12
29:27
29:48
29:55
30:11
30:33
30:51
31:05
31:24
31:42
7.7E3
6.1E3
4.6E3
3.1E3
1.5E3
0.0E0
29:00
30:00
31:00
Time
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
341.8567 F:2 Exp:NDB5US
28:17
28:42
29:12
29:44
29:52
30:25
30:40
30:55
31:16
31:33
31:42
6.9E3
5.5E3
4.1E3
2.8E3
1.4E3
0.0E0
29:00
30:00
31:00
Time
File:T004209 #1-822 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
351.9000 F:2 Exp:NDB5US
29:54
30:34
1.0E6
8.0E5
6.0E5
4.0E5
2.0E5
0.0E0
29:00
30:00
31:00
Time

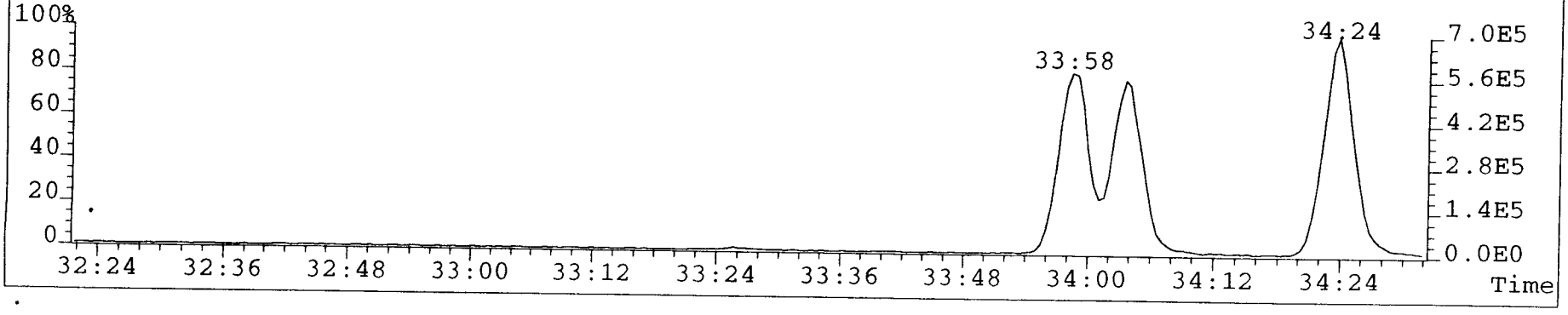
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
389.8156 F:3 Exp:NDB5US



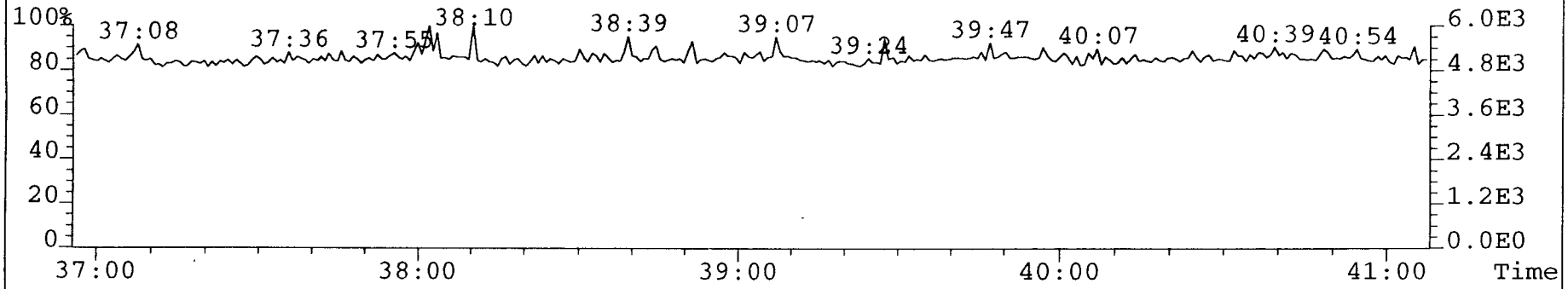
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
391.8127 F:3 Exp:NDB5US



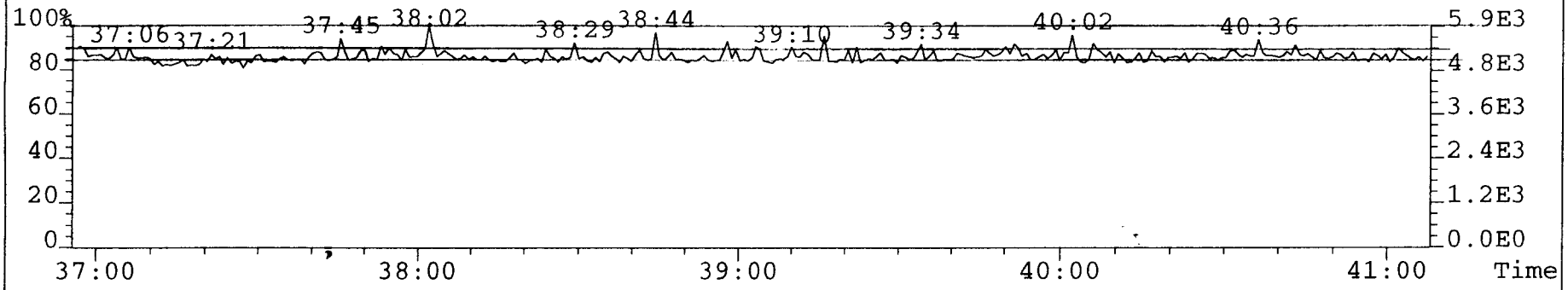
File:T004209 #1-465 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
401.8558 F:3 Exp:NDB5US



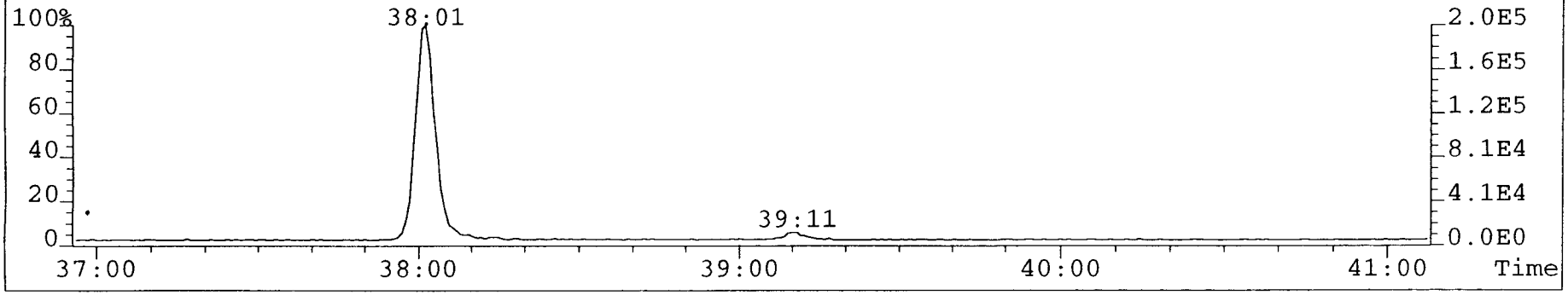
File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
407.7818 F:4 Exp:NDB5US



File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
409.7789 F:4 Exp:NDB5US



File:T004209 #1-687 Acq:30-AUG-2000 12:05:29 EI+ Voltage SIR 70T
417.8253 F:4 Exp:NDB5US



Pinnacle Laboratories, Inc.

TLI Project: **51702** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **008056-05** UV 05 Analysis File: **T004201**

Client Project:	**008056**				
Sample Matrix:	**SOIL**	Date Received:	**08/22/2000**	Spike File:	**SPMIT32S**
TLI ID:	**268-29-5**	Date Extracted:	**08/27/2000**	ICal:	**TF57140**
		Date Analyzed:	**08/30/2000**	ConCal:	**T004193**
Sample Size:	**17.900 g**	Dilution Factor:	**n/a**	% Moisture:	**43.9**
Dry Weight:	**10.042 g**	Blank File:	**T004196**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**DPW**	% Solids:	**56.1**

Analytes	Conc. (ppt)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	0.2				
1,2,3,7,8-PeCDD	ND	0.3				
1,2,3,4,7,8-HxCDD	ND	0.3				
1,2,3,6,7,8-HxCDD	ND	0.3				
1,2,3,7,8,9-HxCDD	ND	0.3				
1,2,3,4,6,7,8-HpCDD	2.2			0.92	37:30	J
1,2,3,4,6,7,8,9-OCDD	11.1			0.76	41:25	
2,3,7,8-TCDF	ND	0.2				
1,2,3,7,8-PeCDF	ND	0.2				
2,3,4,7,8-PeCDF	ND	0.2				
1,2,3,4,7,8-HxCDF	ND	0.2				
1,2,3,6,7,8-HxCDF	ND	0.2				
2,3,4,6,7,8-HxCDF	ND	0.2				
1,2,3,7,8,9-HxCDF	ND	0.3				
1,2,3,4,6,7,8-HpCDF	ND	0.3				
1,2,3,4,7,8,9-HpCDF	ND	0.4				
1,2,3,4,6,7,8,9-OCDF	1.2			0.76	41:38	J

Totals	Conc. (ppt)	Number	DL	EMPC	Flags
Total TCDD	1.3	1		2.9	
Total PeCDD	ND		0.3		
Total HxCDD	EMPC			0.31	
Total HpCDD	4.1	2			
Total TCDF	ND		0.2		
Total PeCDF	EMPC			4.3	
Total HxCDF	0.35	1			
Total HpCDF	ND		0.3		

mit3_PSR v1.00, LARS 6.25.00

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Pinnacle Laboratories, Inc.

TLI Project: **51702** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **008056-05** UV 05 Analysis File: **T004201**

Internal Standards	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	201	101	40%-130%	0.74	26:08	___
$^{13}C_{12}$-2,3,7,8-TCDD	164	82.1	40%-130%	0.78	26:48	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	179	89.8	40%-130%	1.50	29:54	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	192	96.3	40%-130%	1.50	30:54	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	155	78.0	40%-130%	0.50	33:23	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	184	92.3	40%-130%	1.20	34:04	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	157	79.0	25%-130%	0.42	36:24	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	201	101	25%-130%	1.00	37:29	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	337	84.7	25%-130%	0.84	41:24	___

Surrogate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	185	92.9	40%-130%	1.51	30:34	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	155	77.7	40%-130%	0.50	33:16	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	178	89.3	40%-130%	1.23	33:59	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	196	98.2	25%-130%	0.43	38:02	___

Other Standard	Conc. (ppt)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	17.3	86.9	40%-130%	26:48	___

Alternate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	186	93.5	40%-130%	0.50	34:41	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	176	88.4	40%-130%	0.50	33:52	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.82	26:37	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.21	34:24	___

Data Reviewer: PDB 08/30/2000

mi3_PSR v1.00, LARS 6.25.00

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Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **008056-05** UV 05

Toxicity Equivalents Report
Analysis File: **T004201**

Client Project:	008056				
Sample Matrix:	SOIL	Date Received:	08/22/00	Spike File:	SPMIT32S
TLI ID:	268-29-5	Date Extracted:	08/27/00	ICal:	TF57140
		Date Analyzed:	08/30/00	ConCal:	T004193
Sample Size:	17.900 g	Dilution Factor:	1	% Moisture:	43.9
Dry Weight:	10.042 g	Blank File:	T004196	% Lipid:	n/a
GC Column:	DB-5	Analyst:	DPW	% Solids:	56.1

Analytes	Conc. (ppt)		TEF		Equivalent
2,3,7,8-TCDD	{0.2}	x	1.	=	0.2
1,2,3,7,8-PeCDD	{0.3}	x	0.5	=	0.2
1,2,3,4,7,8-HxCDD	{0.3}	x	0.1	=	0.03
1,2,3,6,7,8-HxCDD	{0.3}	x	0.1	=	0.03
1,2,3,7,8,9-HxCDD	{0.3}	x	0.1	=	0.03
1,2,3,4,6,7,8-HpCDD	2.2	x	0.01	=	0.022
1,2,3,4,6,7,8,9-OCDD	11.1	x	0.001	=	0.0111
TOTAL PCDD					0.5
2,3,7,8-TCDF	{0.2}	x	0.1	=	0.02
1,2,3,7,8-PeCDF	{0.2}	x	0.05	=	0.01
2,3,4,7,8-PeCDF	{0.2}	x	0.5	=	0.1
1,2,3,4,7,8-HxCDF	{0.2}	x	0.1	=	0.02
1,2,3,6,7,8-HxCDF	{0.2}	x	0.1	=	0.02
2,3,4,6,7,8-HxCDF	{0.2}	x	0.1	=	0.02
1,2,3,7,8,9-HxCDF	{0.3}	x	0.1	=	0.03
1,2,3,4,6,7,8-HpCDF	{0.3}	x	0.01	=	0.003
1,2,3,4,7,8,9-HpCDF	{0.4}	x	0.01	=	0.004
1,2,3,4,6,7,8,9-OCDF	1.2	x	0.001	=	0.0012
TOTAL PCDF					0.2

Total EPA TEFs, 1989a: 0.8 ppt

{...} indicates that the value is that of a Detection Limit.

GRY_TEF v1.08, MILES 4.22.16

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Initial ....Date...

Data Review By: ph 8/30/00

Calculated Noise Height: 0.05

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of T004201B.dbf
08/30/2000 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF				0.65-0.89						0.880-1.070			
304-306	DC	NL					Height	0.25	0.15	0.10			
D	D	SN		25:35	RO	0.96	0.89			0.979			
	DC	WH		28:19	RO	1.27	0.99			1.084			
304-306			0	Peaks			0.00						
13C12-TCDF				0.65-0.89						0.962-1.038			
316-318	DC	NL					Height	0.27	0.11	0.16			
	DC	WL		22:51		0.76	29.88			0.874			
	DC	WL		23:24		0.70	14.78			0.895			
	DC	WL		24:40		0.84	1.14			0.944			
	DC	WL		25:01	RO	0.96	3.49			0.957			
				25:09	RO	1.25	1.12	0.79	0.63	0.962			
				25:45	RO	0.59	4.09	1.78	3.03	0.985			
				26:08		0.74	573.77	243.12	330.65	1.000	13C12-2378-TCDF	IS0	
							Height	157.27	67.48	89.79			
316-318			3	Peaks			578.98						

---------- Above: TCDF / TCDD Follows ----------

TCDD				0.65-0.89						0.905-1.042			
320-322	DC	NL					Height	0.14	0.07	0.07			
				24:25	RO	0.94	2.92	1.27	1.35	0.911	1368-TCDD		AN
				24:45		0.79	1.99	0.88	1.11	0.924	1379-TCDD		AN
320-322			2	Peaks			4.91						
37Cl-TCDD										0.925-1.075			
328	DC	NL					Height	0.06	0.06				
	DC	SN		25:08			0.09			0.938			
				25:29			0.26	0.26		0.951			
				26:48			34.31	34.31		1.000	37Cl-TCDD		CLS
				27:10			0.35	0.35		1.014			
	DC	SN		27:38			0.07			1.031			
	DC	SN		27:51			0.15			1.039			
	DC	SN		27:58			0.08			1.044			
				28:03			0.99	0.99		1.047			
				28:16			0.22	0.22		1.055			
328			5	Peaks			36.13						
13C12-TCDD				0.65-0.89						0.925-1.075			
332-334	DC	NL					Height	0.25	0.16	0.09			
				25:42	RO	1.02	0.83	0.48	0.47	0.959			
				26:37		0.82	443.42	200.11	243.31	0.993	13C12-1234-TCDD		RS1
				26:48		0.78	382.98	167.66	215.32	1.000	13C12-2378-TCDD		IS1
							Height	110.29	46.52	63.77			

```
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

332-334                3 Peaks                827.23

                ---------------------- Above: TCDD / PeCDF Follows --------------------

PeCDF                           1.32-1.78                                   0.930-1.060
340-342          DC  NL          Height          0.17          0.09          0.08
                         28:02 RO  0.58          7.52          4.57          7.84  0.938                          J
                         28:18 RO  0.82          1.20          0.73          0.89  0.946                          J
                         29:13 RO  0.56          0.79          0.48          0.86  0.977                          J
                 DC  SN  29:33 RO  0.54          0.23                              0.988
                 DC  SN  31:00 RO  3.50          0.10                              1.037
340-342                3 Peaks                   9.51

13C12-PeCDF                     1.32-1.78                                   0.866-1.134
352-354          DC  NL          Height          0.15          0.07          0.08
                         28:42 RO  1.28         14.20          7.14          5.57  0.960
                         29:04 RO  1.95          0.94          0.72          0.37  0.972
                         29:33 RO  1.24          1.25          0.61          0.49  0.988
                         29:54     1.50        477.33        286.64        190.69  1.000 13C12-PeCDF 123 IS2
                                 Height        148.92         90.14         58.78
                         30:10     1.37          4.74          2.74          2.00  1.009
                         30:34     1.51        488.73        293.72        195.01  1.022 13C12-PeCDF 234 SUR1
                         30:54     1.39          1.79          1.04          0.75  1.033
                         31:11     1.64          0.37          0.23          0.14  1.043
                         31:31 RO  1.03          7.04          2.84          2.76  1.054
352-354                9 Peaks                 996.39

                ---------------------- Above: PeCDF / PeCDD Follows --------------------

PeCDD                           1.32-1.78                                   0.939-1.021
356-358          DC  NL          Height          0.14          0.07          0.07
        D        D   SN  29:11 RO  1.00          0.46                              0.944
                 DC  SN  30:01 RO  1.29          0.30                              0.971
                 DC  SN  30:43 RO  0.15          0.10                              0.994
                 DC  WH  31:45 RO  0.48          2.25                              1.028
356-358                0 Peaks                   0.00

13C12-PeCDD                     1.32-1.78                                   0.871-1.129
368-370          DC  NL          Height          0.14          0.07          0.07
                         29:51     1.54          2.26          1.37          0.89  0.966
                         30:01     1.36          1.39          0.80          0.59  0.971
                         30:54     1.50        291.09        174.56        116.53  1.000 13C12-PeCDD 123 IS3
                                 Height         92.54         56.00         36.54
368-370                3 Peaks                 294.74

                ---------------------- Above: PeCDD / HxCDF Follows --------------------

HxCDF                           1.05-1.43                                   0.963-1.046
374-376          DC  NL          Height          0.13          0.07          0.06
                         32:27     1.31          0.67          0.38          0.29  0.972                          J
                 DC  SN  32:56 RO  1.00          0.36                              0.987
                 DC  SN  32:59 RO  0.50          0.04                              0.988
```

Listing of T004201B.dbf
Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
	D	D	SN	33:16		1.38	0.57			0.997	123478-HxCDF	AN	
		DC	SN	33:24	RO	1.00	0.23			1.000	123678-HxCDF	AN	
		DC	SN	33:52	RO	0.75	0.16			1.014	234678-HxCDF	AN	
374-376			1	Peak			0.67						
13C12-HxCDF				0.43-0.59					0.880-1.120				
384-386		DC	NL	Height			0.14	0.09	0.05				
				32:18		0.53	0.90	0.31	0.59	0.968			
				32:26		0.43	1.06	0.32	0.74	0.972			
				33:16		0.50	388.54	128.79	259.75	0.997	13C12-HxCDF 478	SUR2	
				33:23		0.50	395.94	132.09	263.85	1.000	13C12-HxCDF 678	IS4	
				Height			116.40	38.38	78.02				
				33:39	RO	0.80	1.51	0.51	0.64	1.008			
				33:45		0.45	0.58	0.18	0.40	1.011			
				33:52		0.50	409.08	137.03	272.05	1.014	13C12-HxCDF 234	ALT2	
				34:10		0.51	0.65	0.22	0.43	1.023			
		DC	SN	34:17	RO	0.28	0.50			1.027			
				34:24	RO	1.13	0.47	0.35	0.31	1.030			
		DC	SN	34:33		0.47	0.25			1.035			
				34:41		0.50	317.90	105.74	212.16	1.039	13C12-HxCDF 789	ALT1	
				34:58	RO	0.24	0.68	0.23	0.95	1.047			
				35:04	RO	0.69	0.74	0.25	0.36	1.050			
				35:08	RO	0.80	0.83	0.28	0.35	1.052			
384-386			13	Peaks			1,518.88						

---------- Above: HxCDF / HxCDD Follows ----------

HxCDD				1.05-1.43					0.957-1.014				
390-392		DC	NL	Height			0.13	0.06	0.07				
				32:48	RO	2.14	0.47	0.45	0.21	0.963			J
	D	D	SN	33:16	RO	2.00	0.27			0.977			
		DC	SN	33:25	RO	2.80	0.22			0.981			
	D	D	SN	33:29	RO	0.88	0.52			0.983			
		DC	SN	33:54	RO	2.18	0.25			0.995			
		DC	SN	34:06	RO	0.47	0.31			1.001	123678-HxCDD	AN	
		DC	SN	34:25		1.42	0.29			1.010	123789-HxCDD	AN	
		DC	WH	34:37	RO	0.35	23.23			1.016			
390-392			1	Peak			0.47						
13C12-HxCDD				1.05-1.43					0.971-1.029				
402-404		DC	NL	Height			0.10	0.05	0.05				
				33:27		1.37	2.72	1.57	1.15	0.982			
				33:59		1.23	293.39	161.63	131.76	0.998	13C12-HxCDD 478	SUR3	
				34:04		1.20	293.05	159.94	133.11	1.000	13C12-HxCDD 678	IS5	
				Height			80.57	44.22	36.35				
				34:24		1.21	349.65	191.23	158.42	1.010	13C12-HxCDD 789	RS2	
				34:53		1.08	1.06	0.55	0.51	1.024			
402-404			5	Peaks			939.87						

---------- Above: HxCDD / HpCDF Follows ----------

```
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

HpCDF                          0.88-1.20                                  0.996-1.050
408-410          DC  NL         Height        0.18         0.09         0.09
        D        D   SN  36:24    1.06         0.99                            1.000 1234678-HpCDF   AN
        D        D   SN  36:50    0.94         0.60                            1.012
408-410                0 Peaks                 0.00

13C12-HpCDF                    0.37-0.51                                  0.945-1.110
418-420          DC  NL         Height        0.22         0.13         0.09
                         36:24    0.42       267.93        79.68       188.25  1.000 13C12-HpCDF 678 IS6
                                Height        66.59        19.51        47.08
                         38:02    0.43       259.14        78.16       180.98  1.045 13C12-HpCDF 789 SUR4
                         38:25 RO 0.28         0.75         0.23         0.81  1.055
                         38:35 RO 0.60         1.41         0.43         0.72  1.060
418-420                4 Peaks                529.23

                    --------------------- Above: HpCDF / HpCDD Follows --------------------

HpCDD                          0.88-1.20                                  0.975-1.005
424-426          DC  NL         Height        0.17         0.08         0.09
                         36:41    1.04         2.53         1.29         1.24  0.979                     J
                         37:30    0.92         2.82         1.35         1.47  1.000 1234678-HpCDD   AN  J
424-426                2 Peaks                 5.35

13C12-HpCDD                    0.88-1.20                                  0.973-1.027
436-438          DC  NL         Height        0.17         0.09         0.08
                         37:29    1.00       302.44       151.07       151.37  1.000 13C12-HpCDD 678 IS7
                                Height        70.52        35.86        34.66
                         37:46 RO 1.51         1.08         0.80         0.53  1.008
                         37:54 RO 0.57         0.65         0.33         0.58  1.011
436-438                3 Peaks                304.17

                    --------------------- Above: HpCDD / Octa-CDD and CDF Follows ----------

OCDF                           0.76-1.02                                  0.903-1.097
442-444          DC  NL         Height        0.17         0.09         0.08
        M                        41:38    0.76         1.37         0.59         0.78  1.006 OCDF            AN  J
                 DC  SN  43:20 RO 0.60         0.13                                    1.047
                 DC  SN  43:48    0.83         0.22                                    1.058
442-444                1 Peak                  1.37

OCDD                           0.76-1.02                                  0.903-1.097
458-460          DC  NL         Height        0.16         0.08         0.08
        M                        41:25    0.76        10.49         4.54         5.95  1.000 OCDD            AN
458-460                1 Peak                 10.49

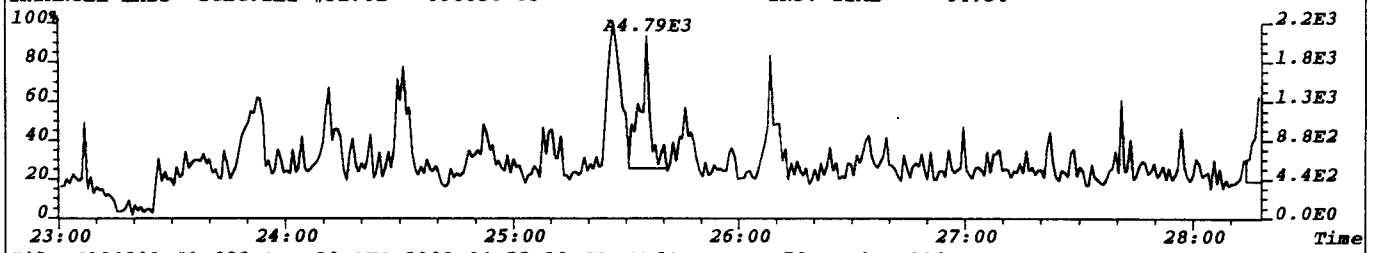
13C12-OCDD                     0.76-1.02                                  0.996-1.004
470-472          DC  NL         Height        0.18         0.09         0.09
                         41:24    0.84       413.27       188.59       224.68  1.000 13C12-OCDD      IS8
                                Height        78.46        36.28        42.18
470-472                1 Peak                 413.27
```

Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

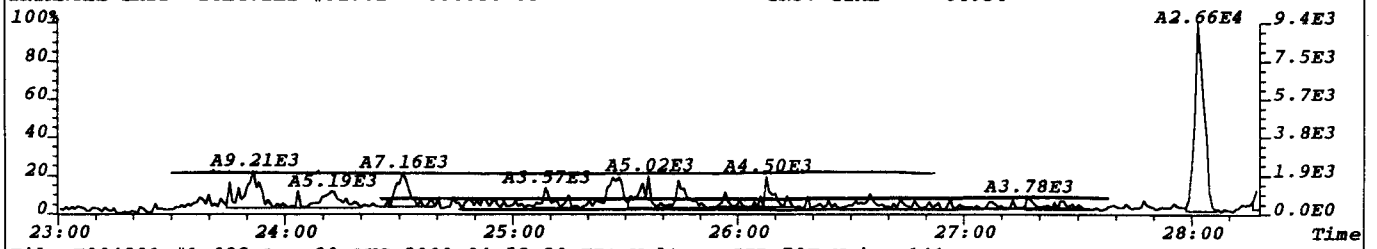
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***

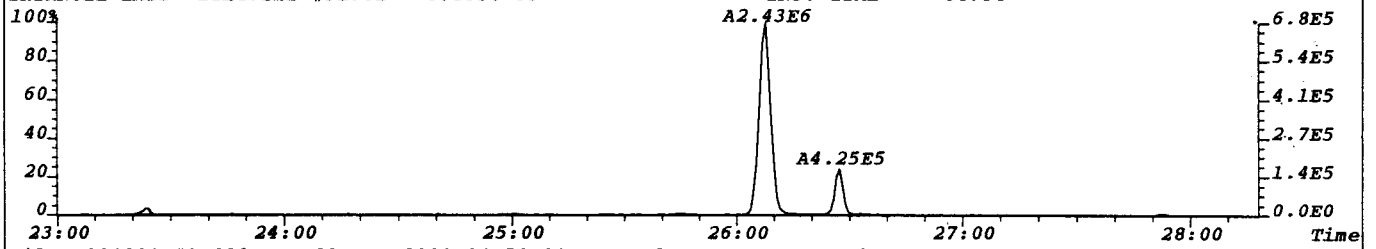
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:186
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,744.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



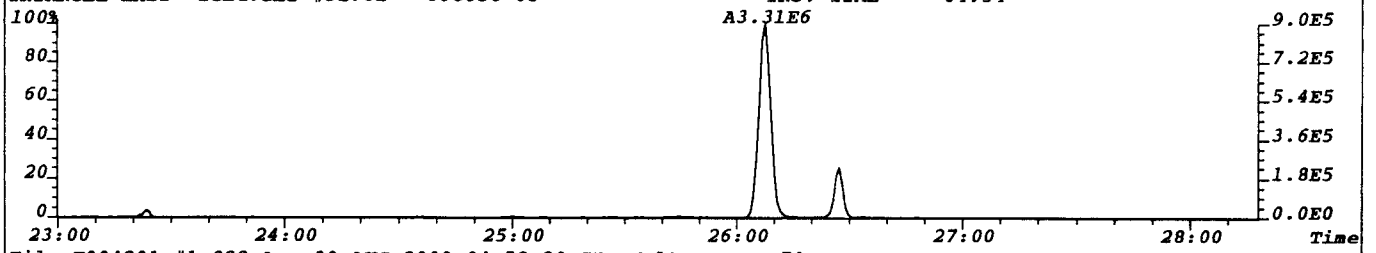
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:119
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,476.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



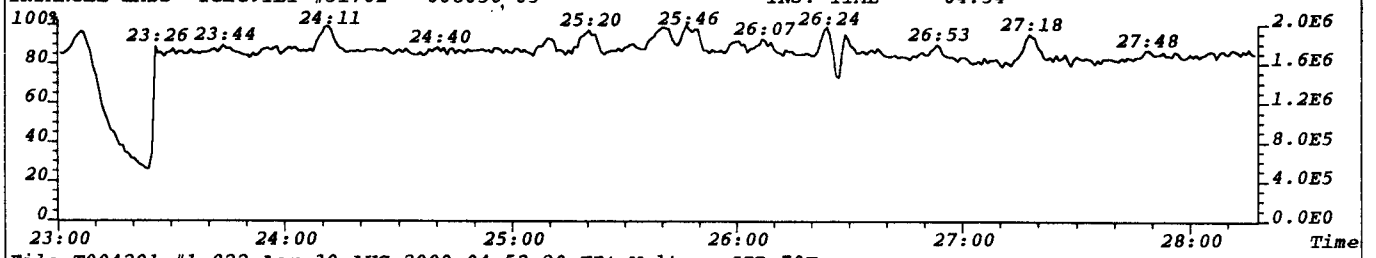
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:141
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,564.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



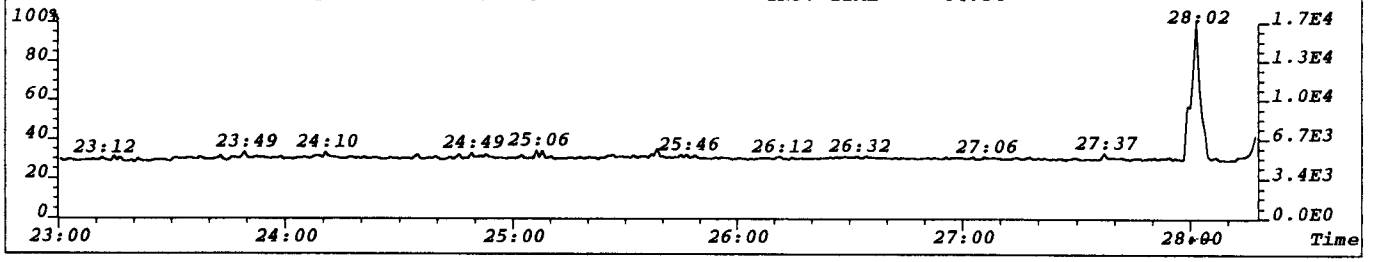
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:199
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,796.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



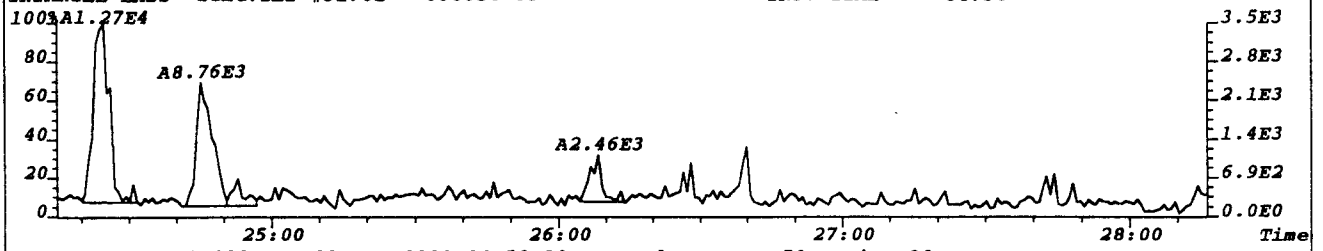
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



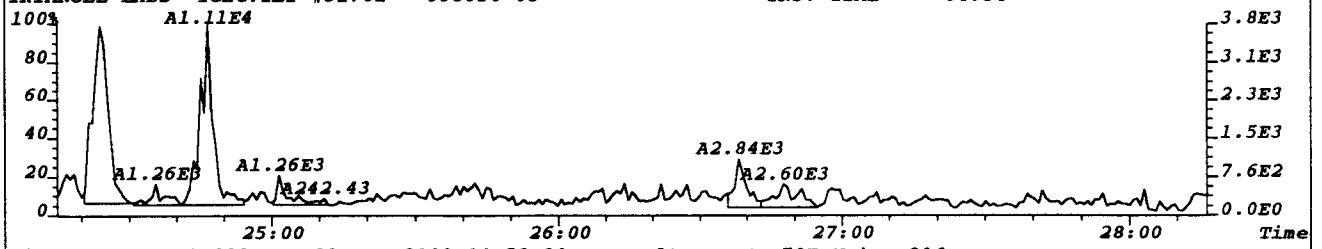
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
375.8364 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



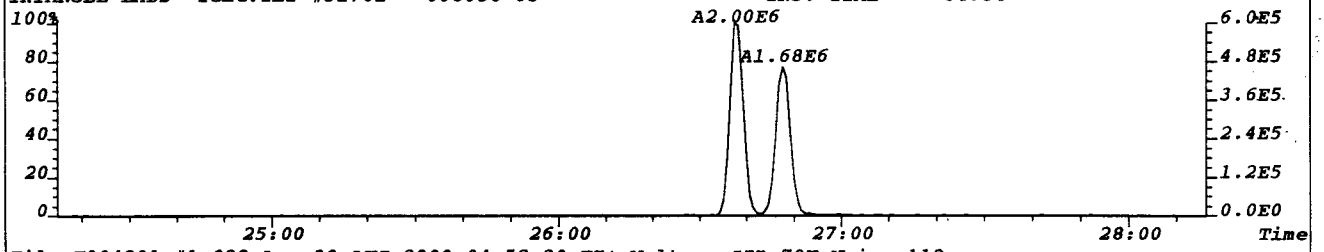
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:91
319.8965 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,364.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



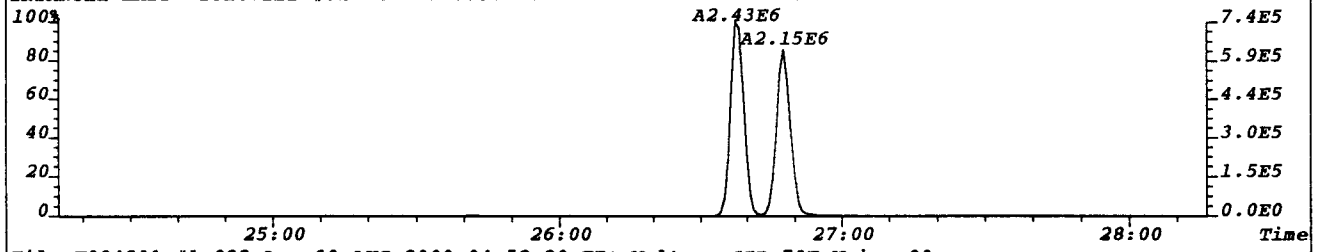
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:93
321.8936 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,372.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



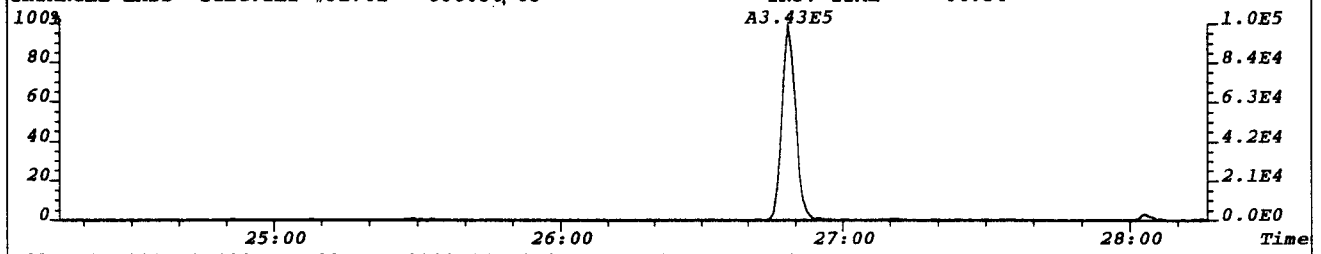
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:206
331.9368 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,824.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



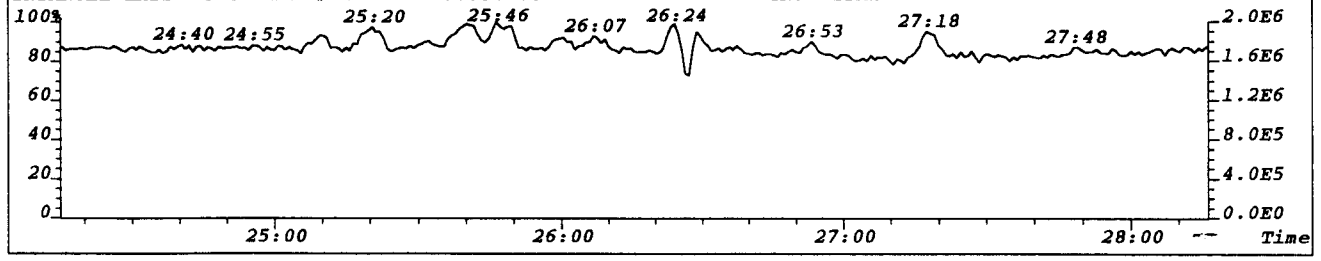
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:112
333.9338 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,448.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



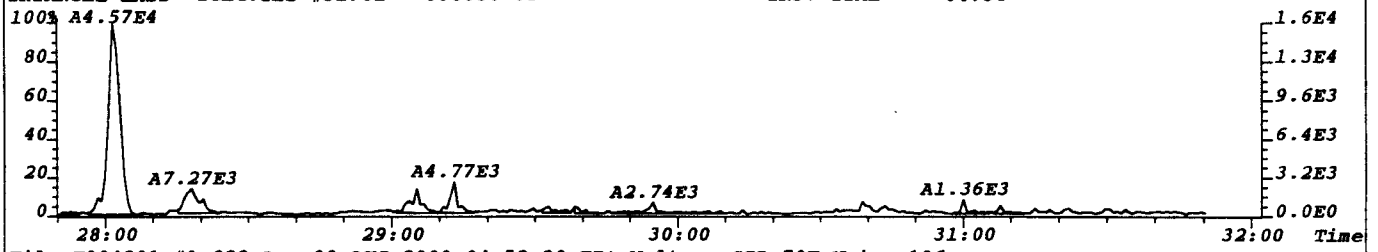
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:80
327.8847 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,320.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



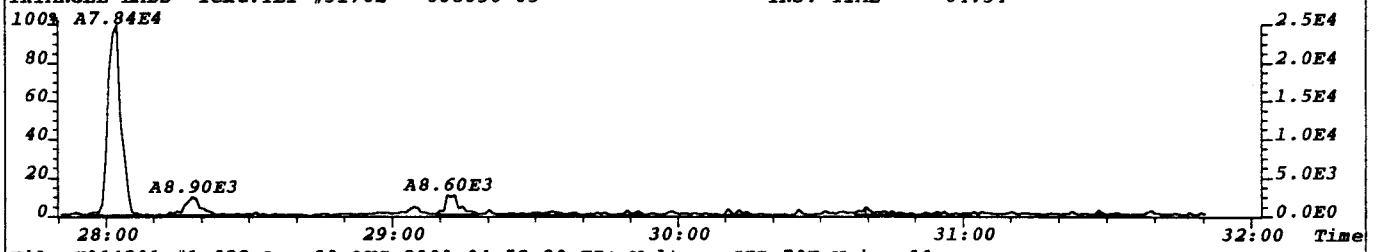
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



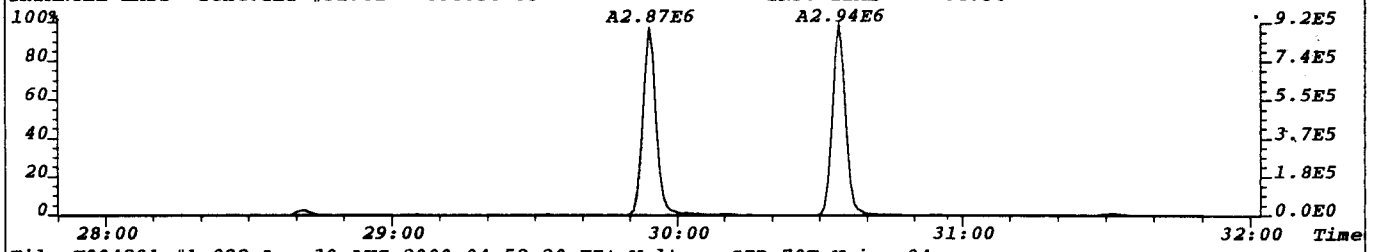
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:114
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,456.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



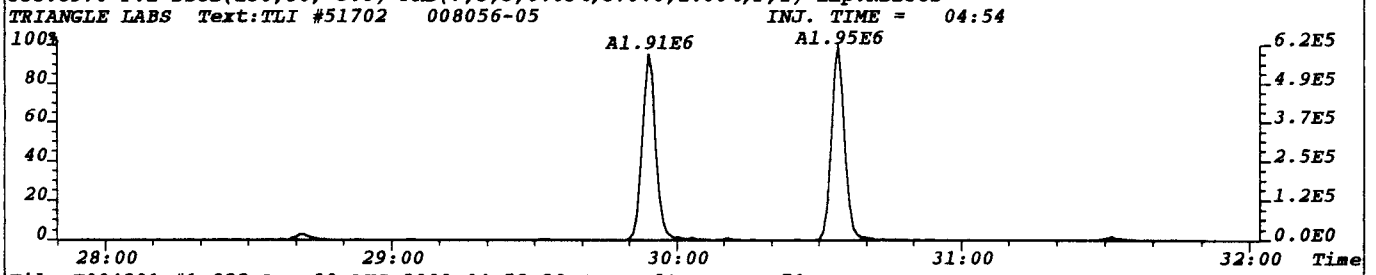
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:106
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,424.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



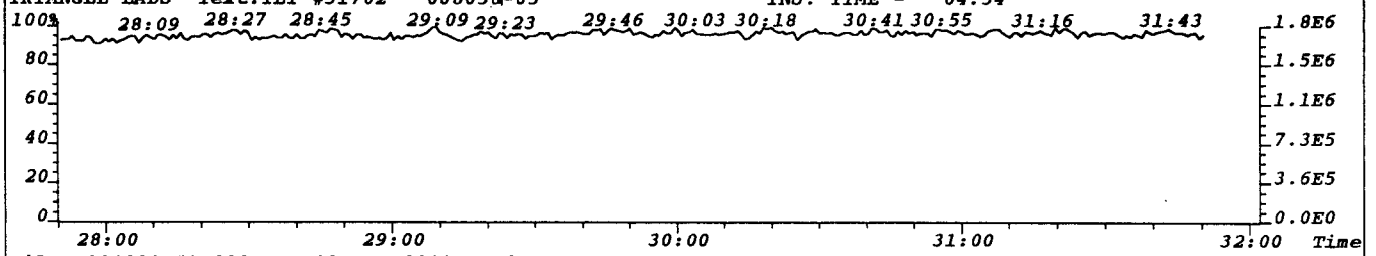
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:90
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,360.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



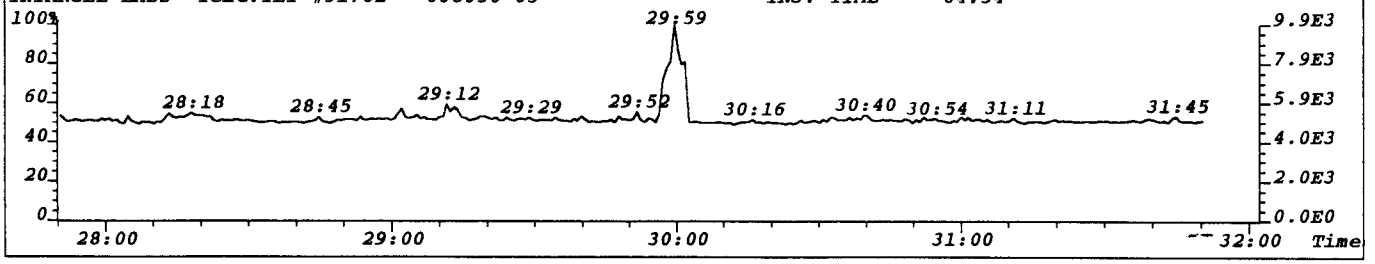
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:94
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,376.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



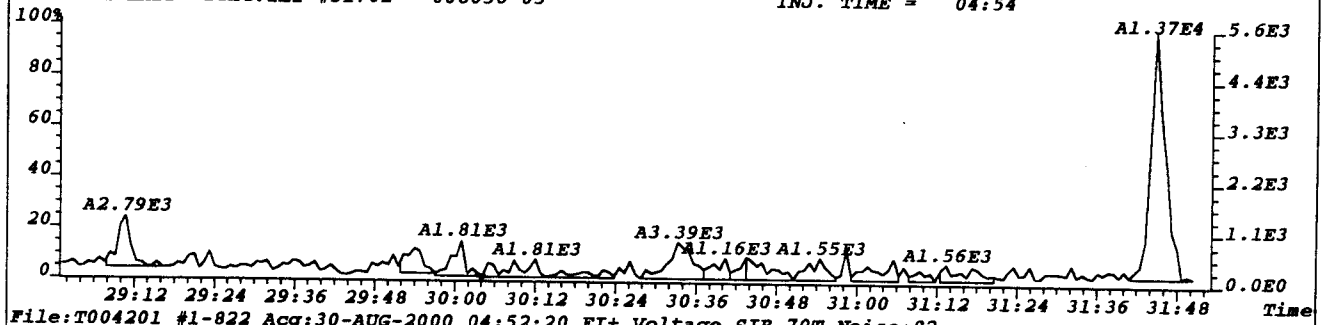
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



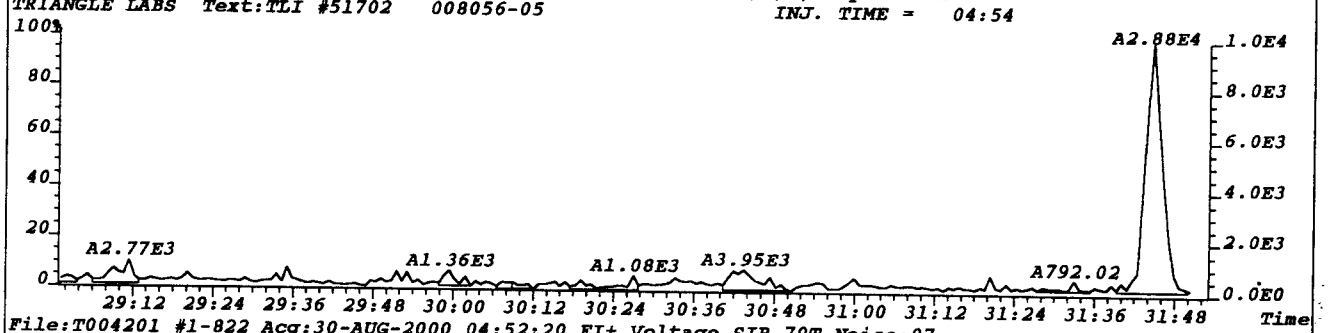
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
409.7974 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



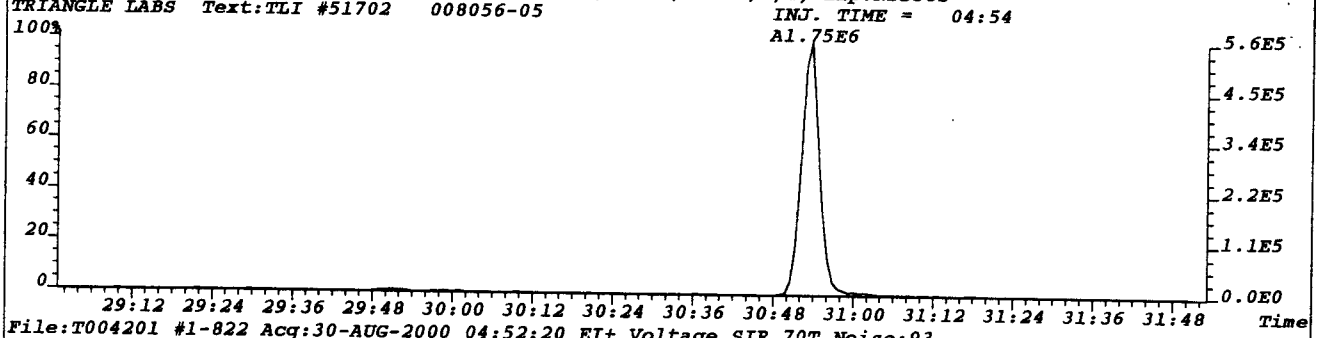
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:85
355.8546 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,340.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



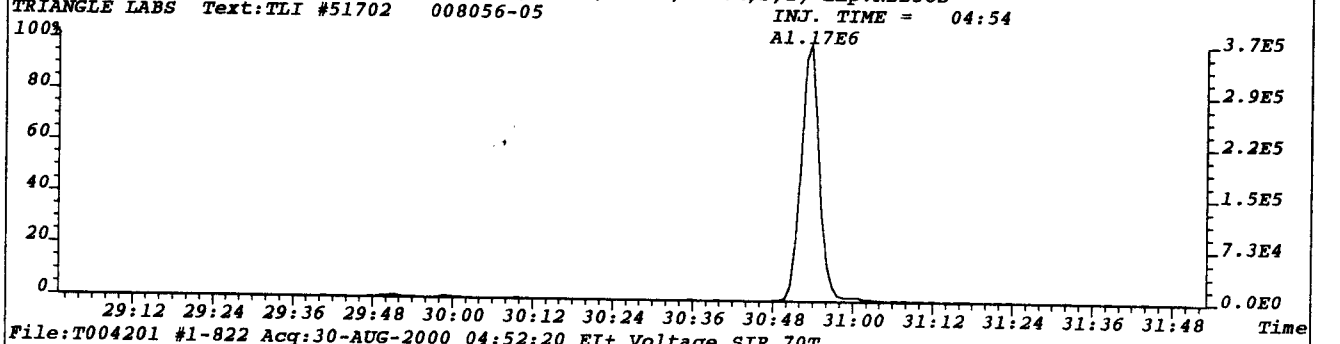
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:82
357.8516 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,328.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



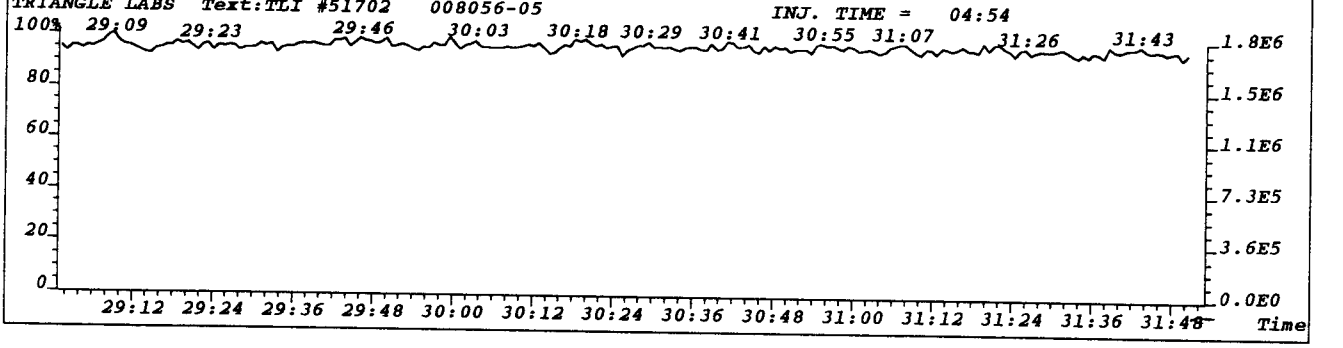
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:87
367.8949 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,348.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



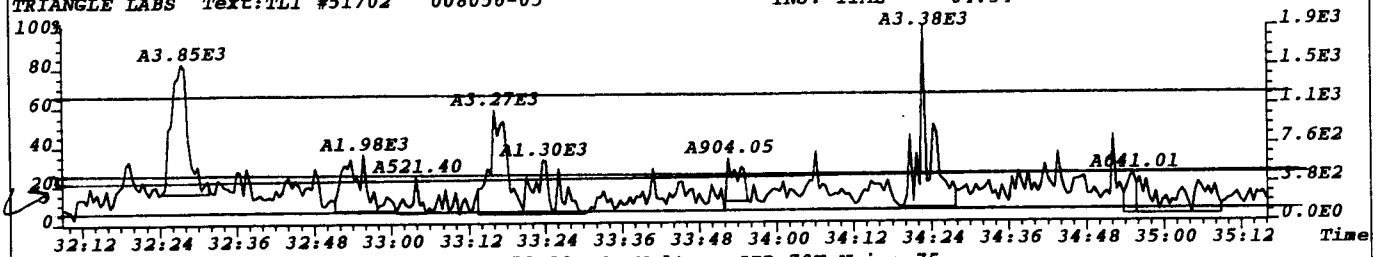
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:93
369.8919 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,372.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



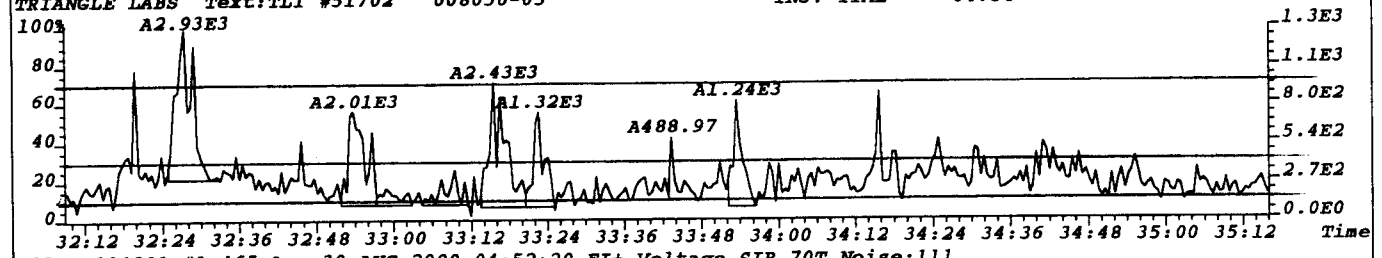
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



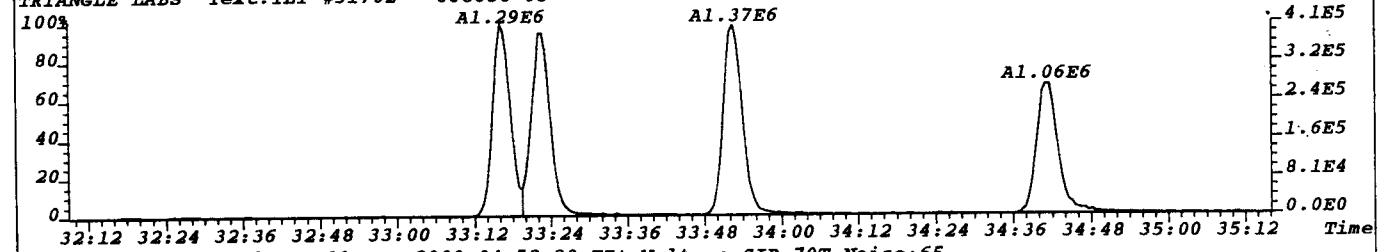
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:87
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,348.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



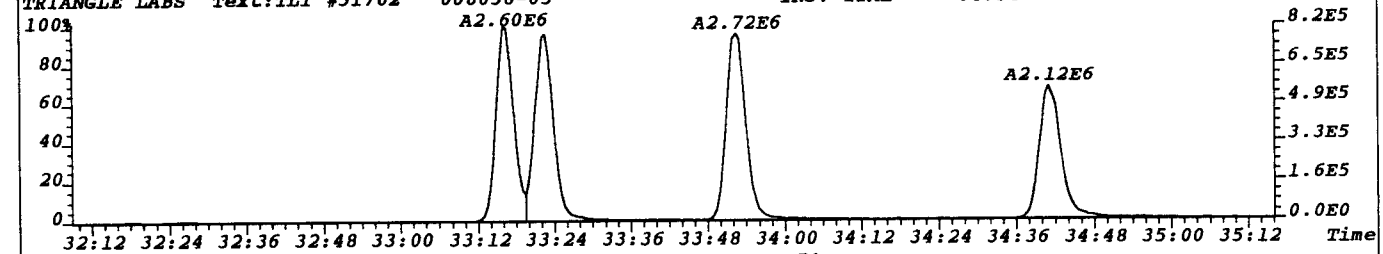
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:75
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,300.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



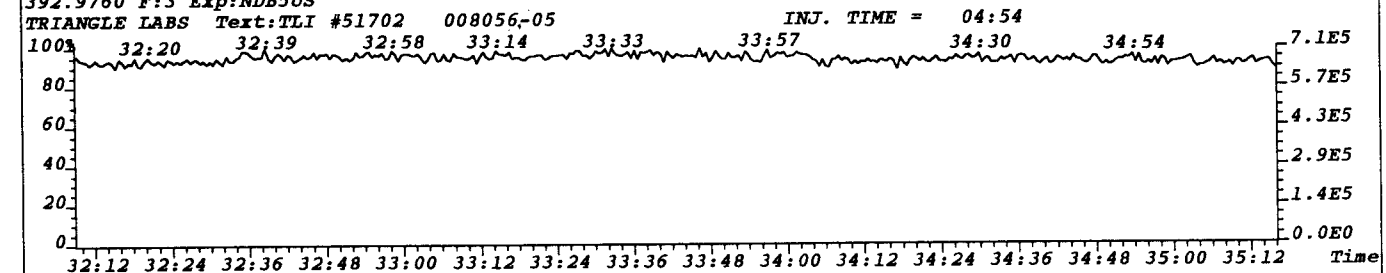
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:111
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,444.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



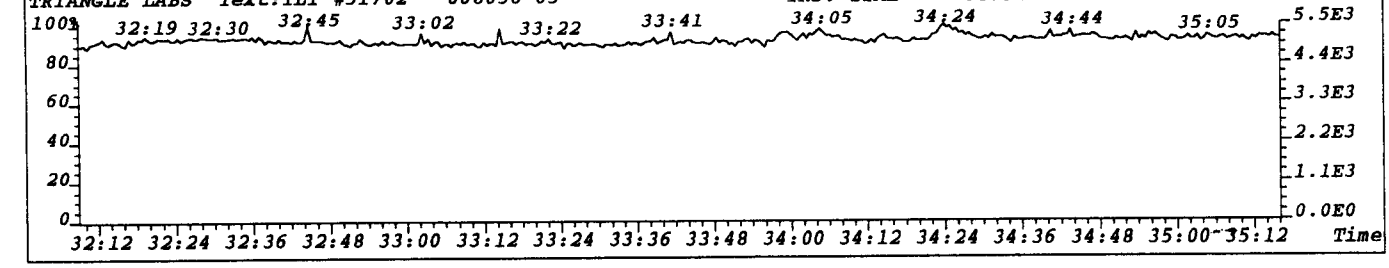
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:65
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,260.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



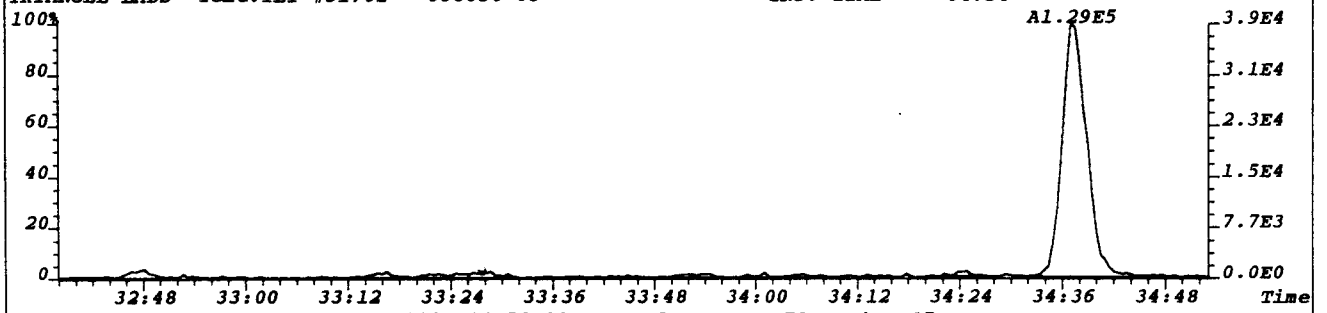
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



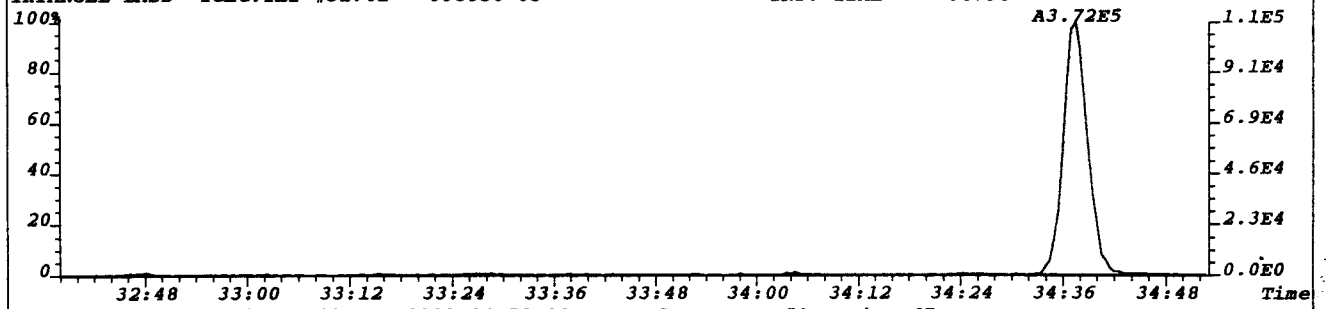
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
445.7555 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



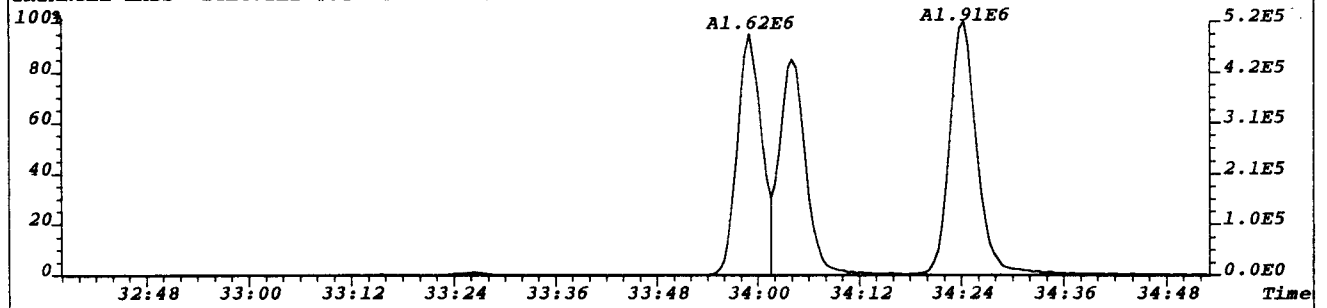
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:81
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,324.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



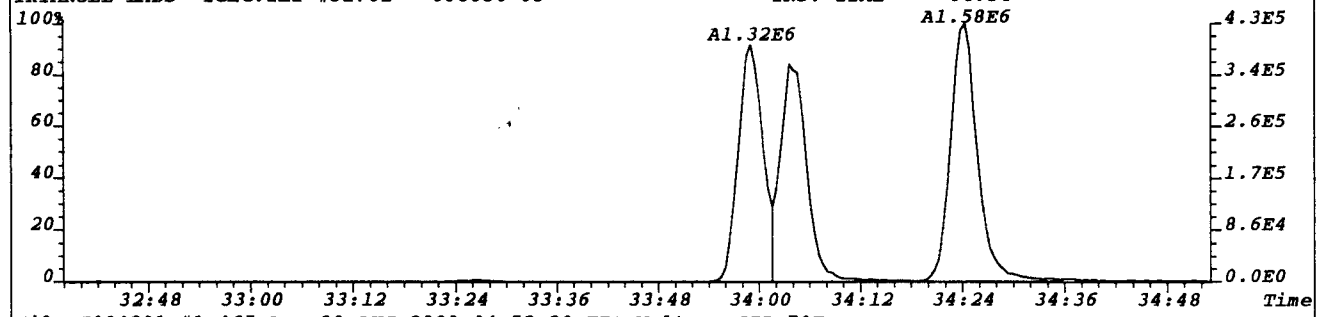
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:87
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,348.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



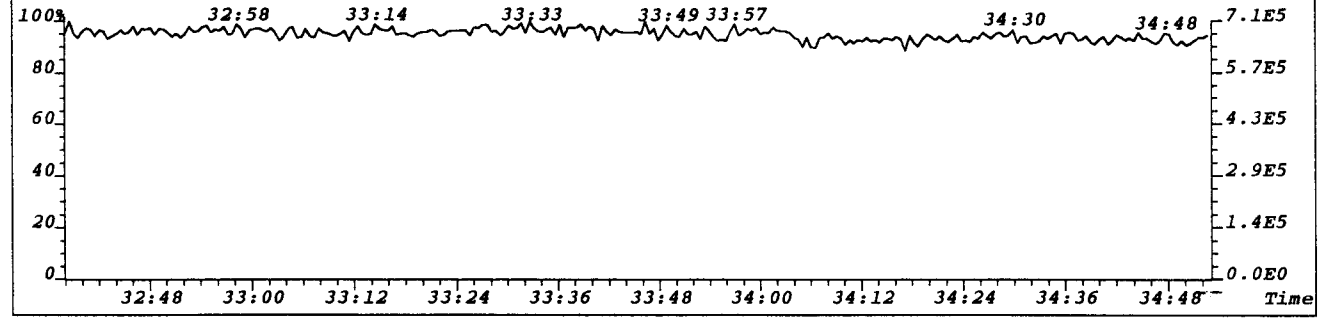
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:67
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,268.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



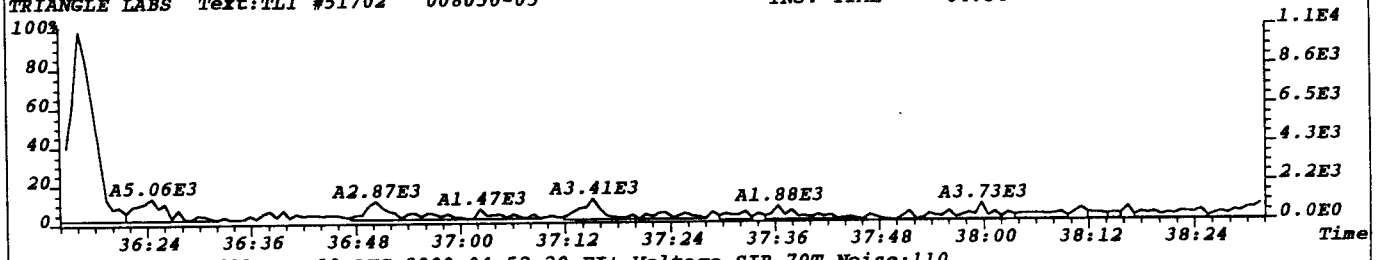
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:64
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,256.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



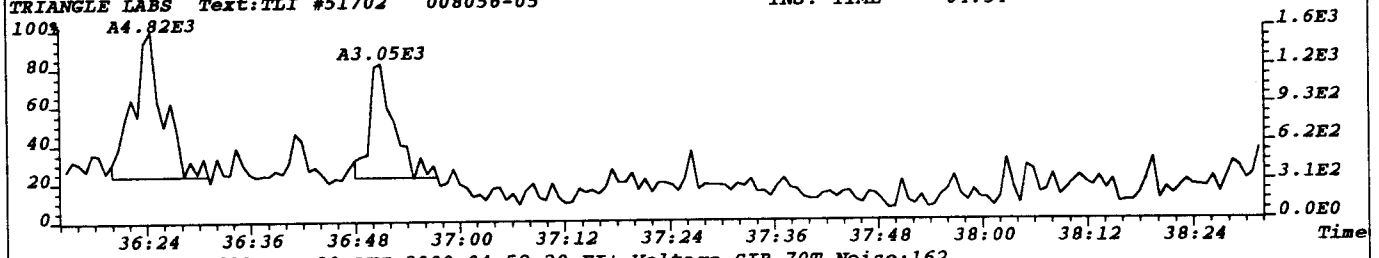
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



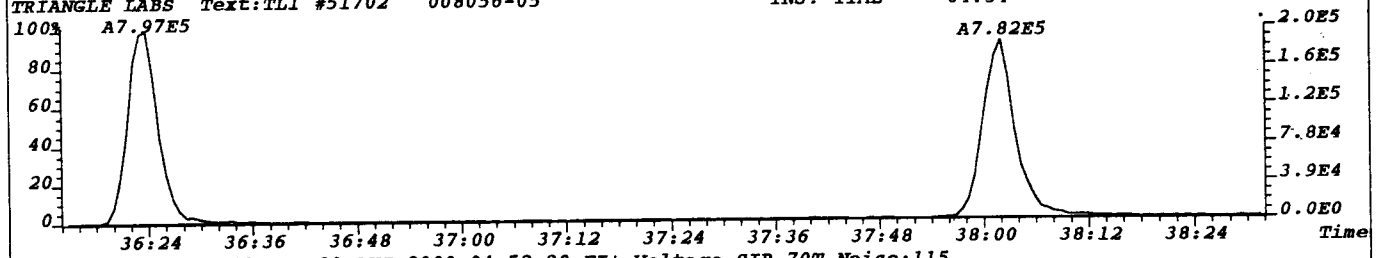
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:117
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,468.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



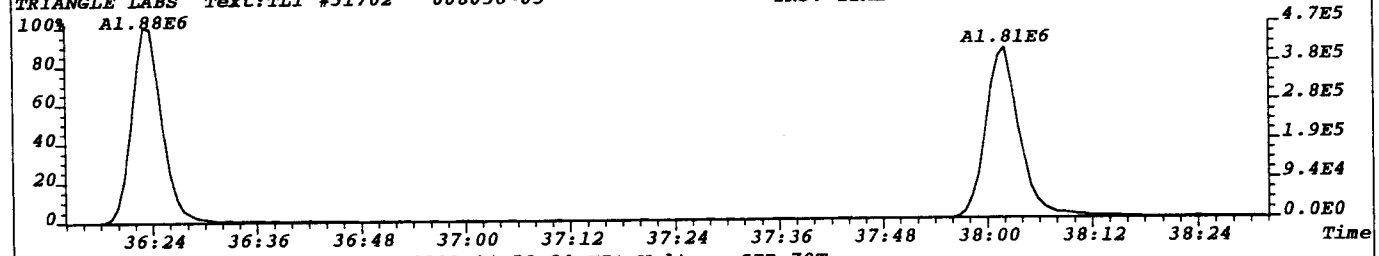
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:110
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,440.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



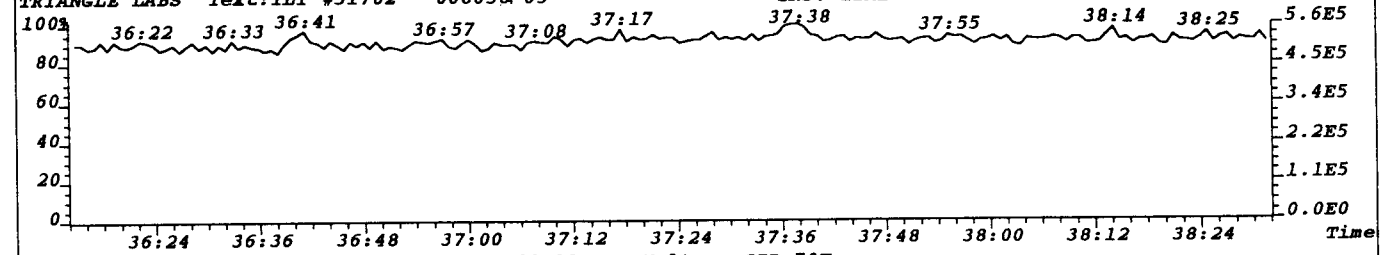
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:162
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,648.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



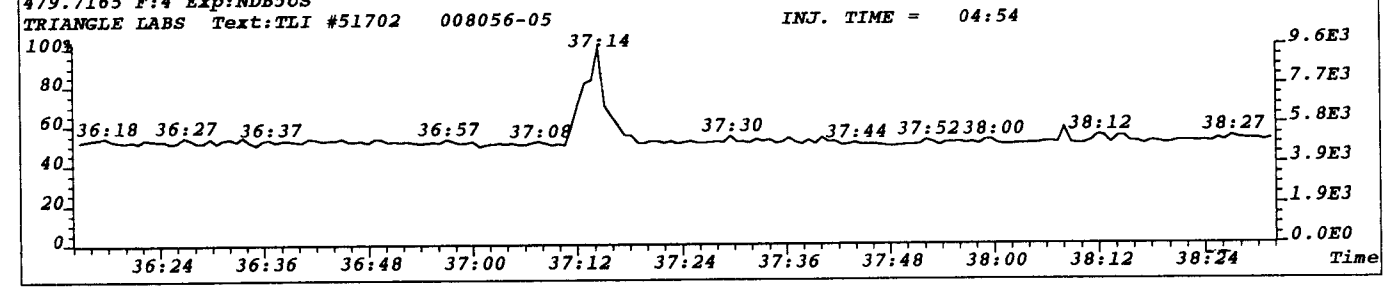
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:115
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,460.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



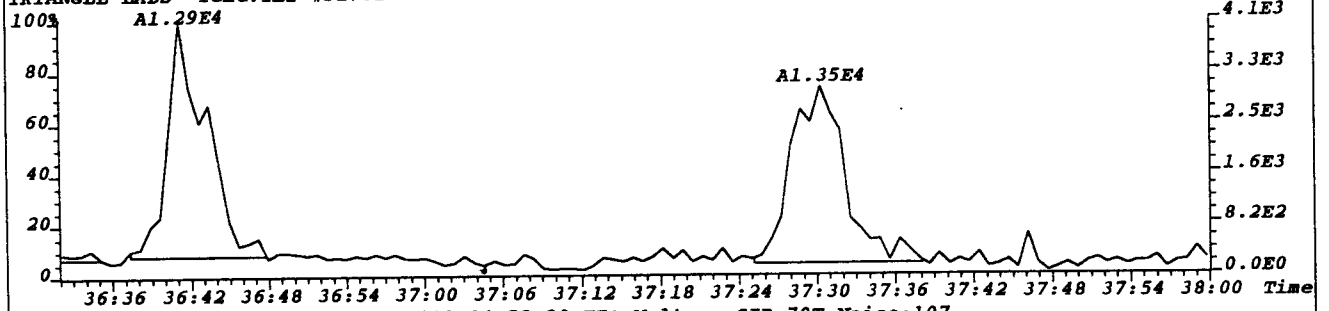
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



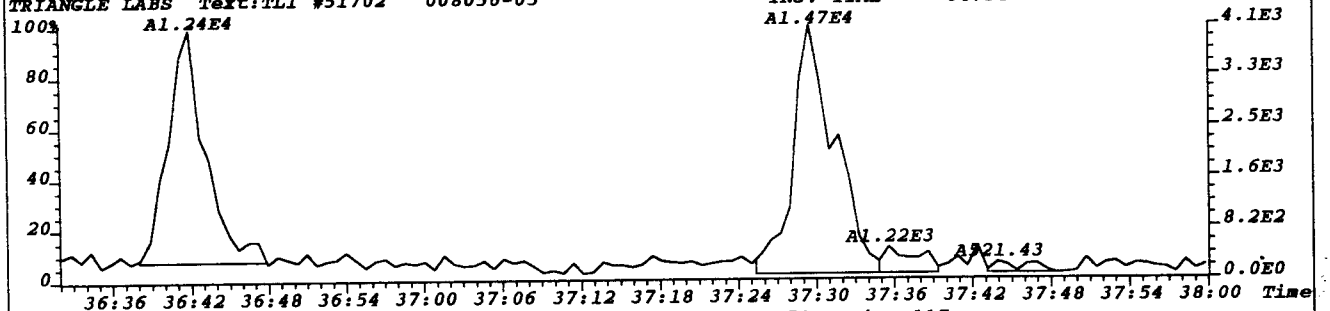
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
479.7165 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



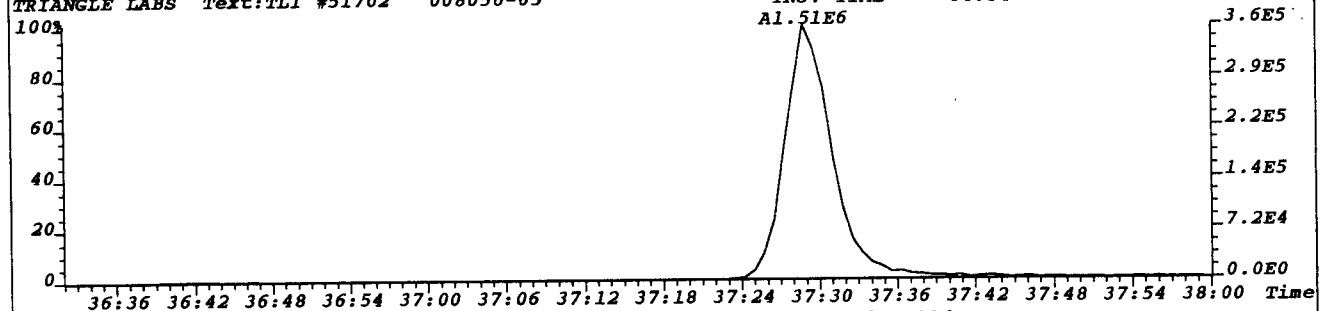
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:104
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,416.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



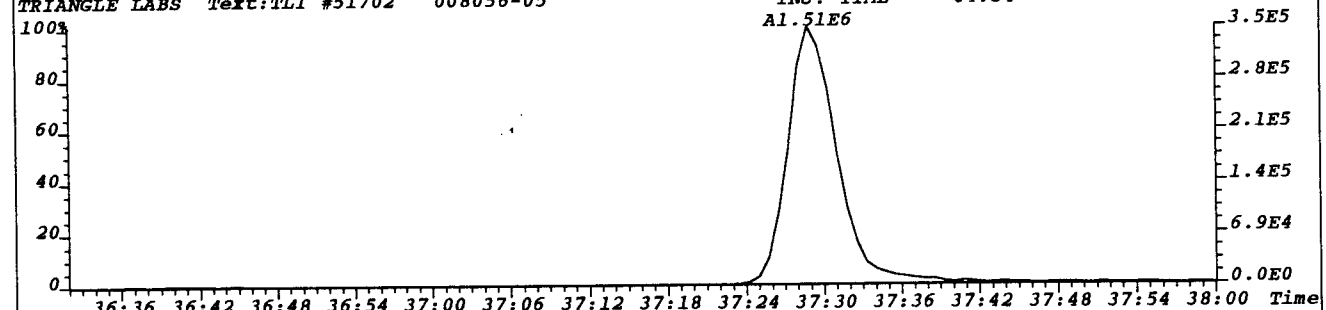
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:107
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,428.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



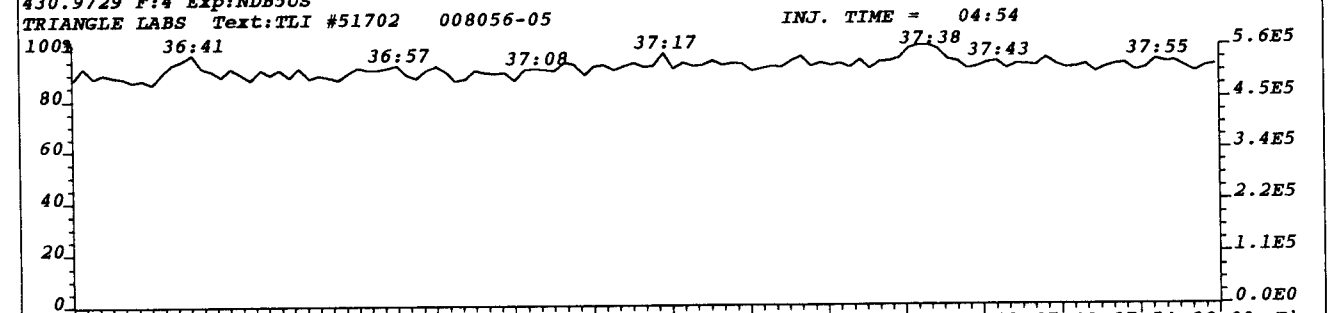
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:117
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,468.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



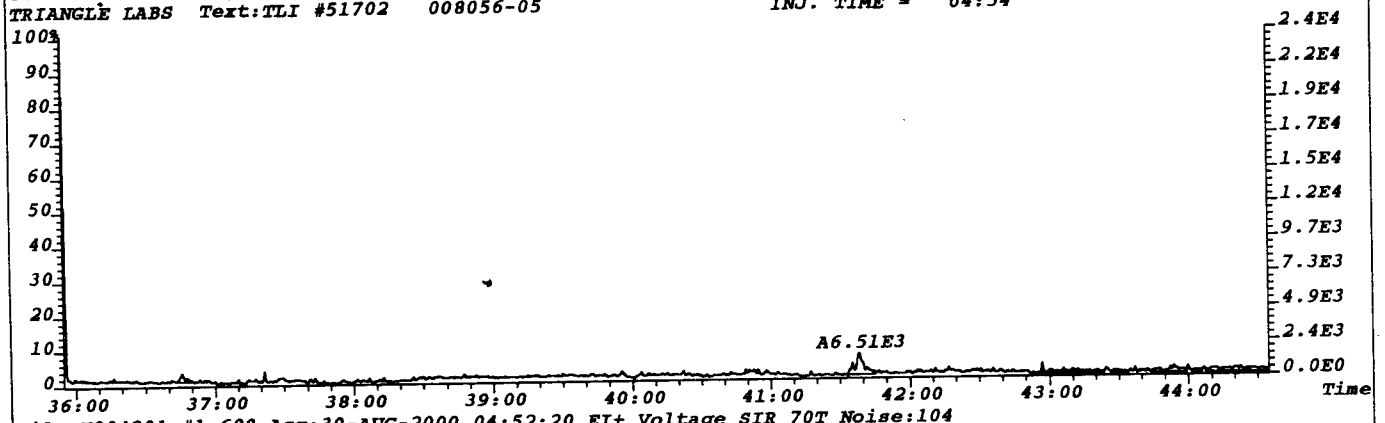
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:106
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,424.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



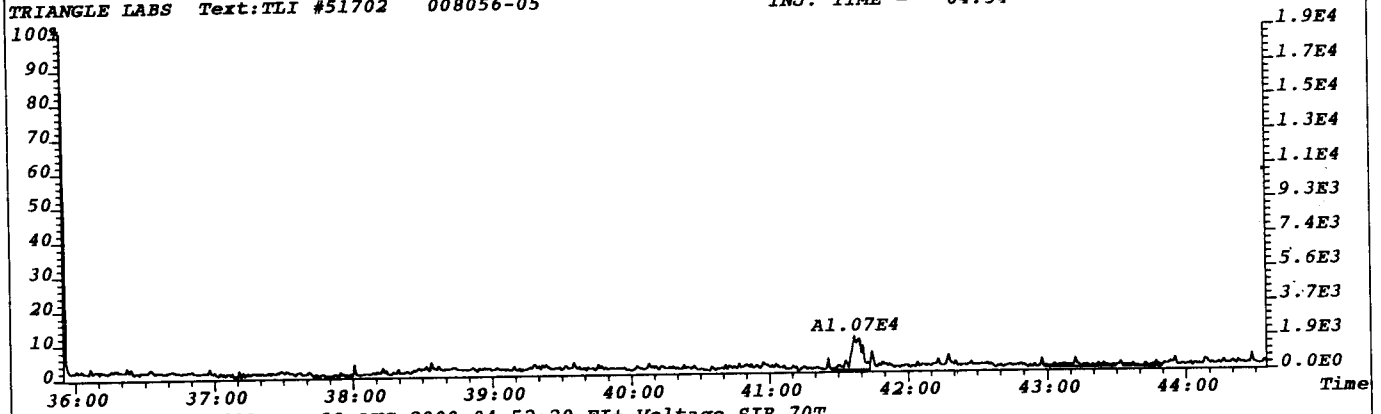
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



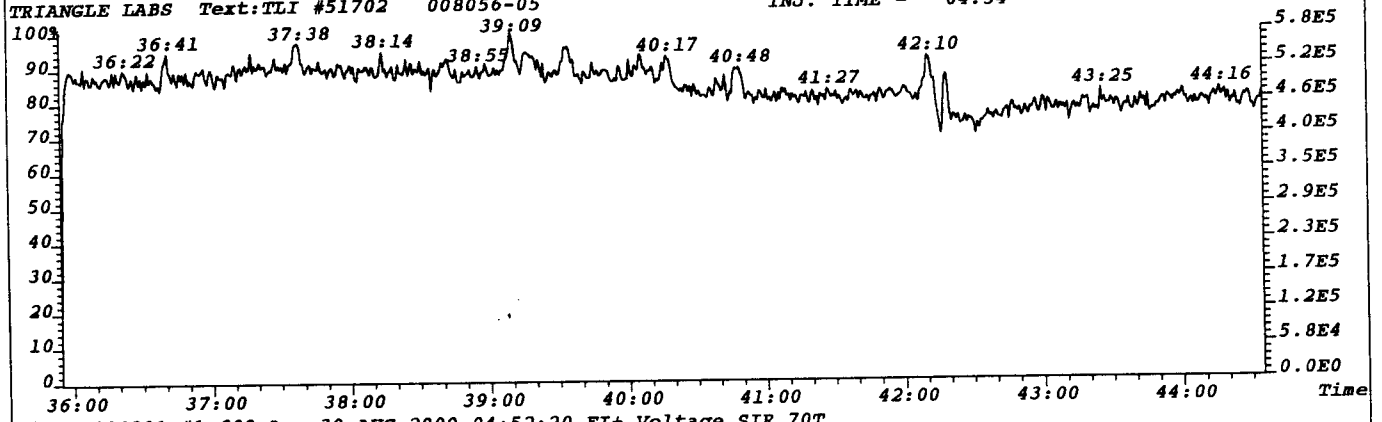
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:109
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,436.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



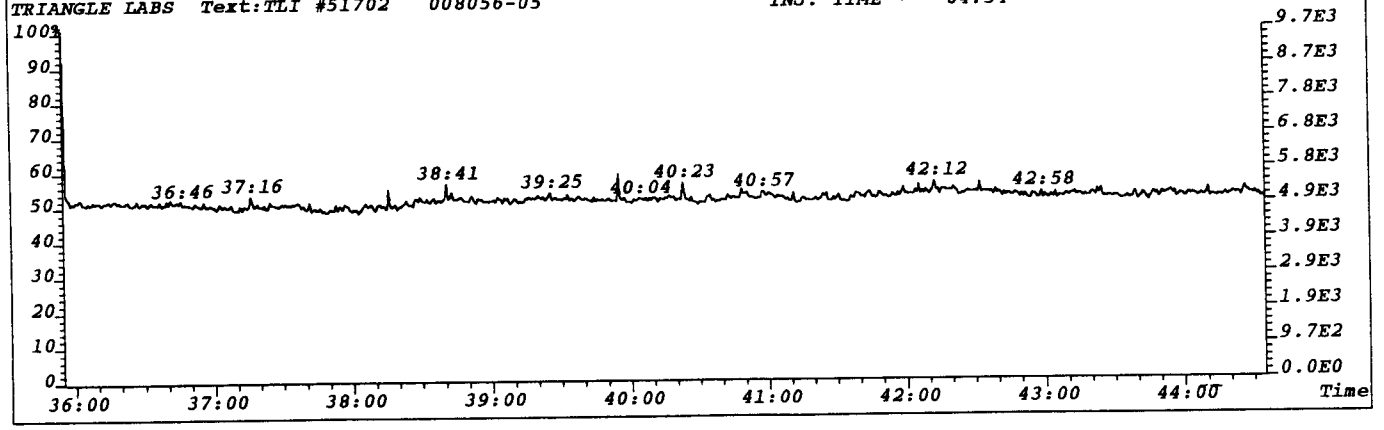
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:104
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,416.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



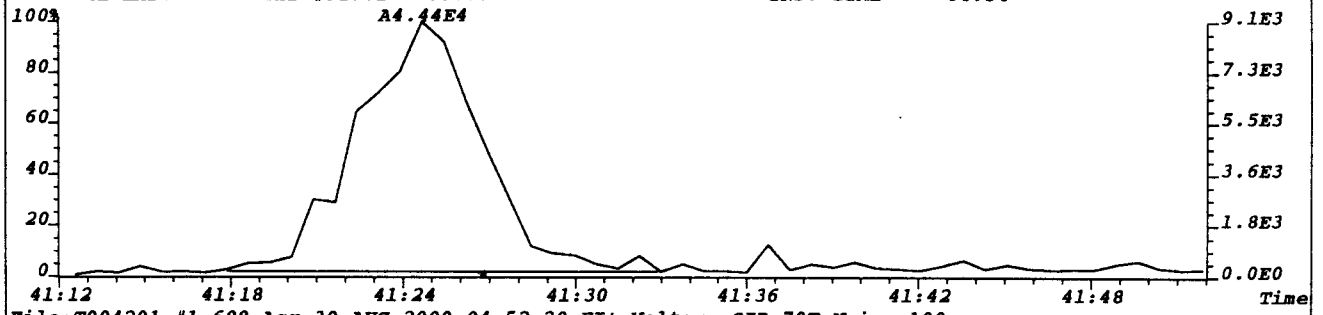
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



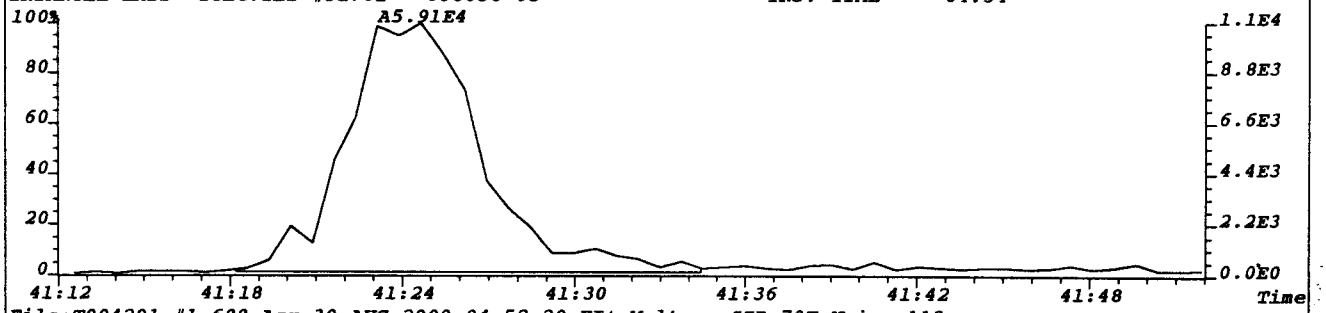
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
513.6775 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



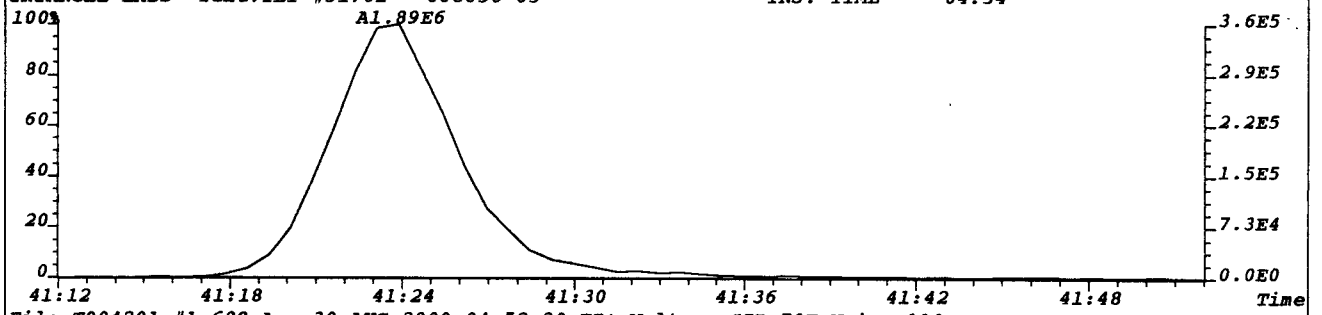
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:104
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,416.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



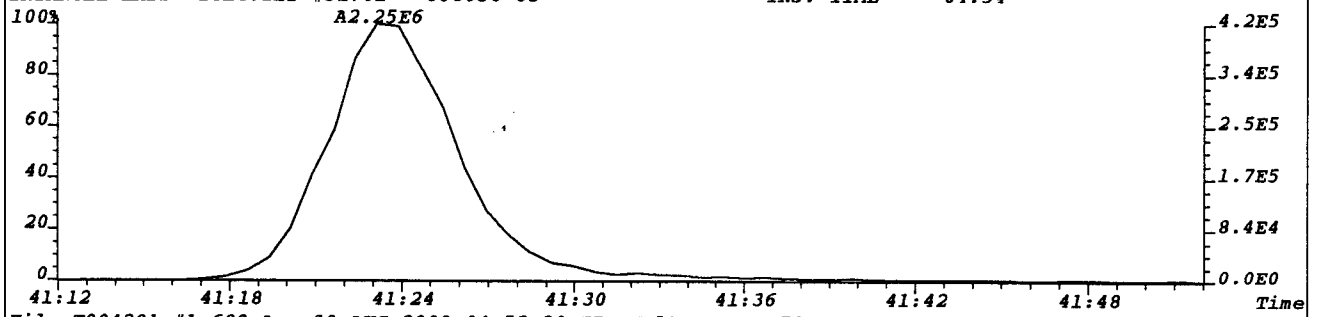
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:100
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,400.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



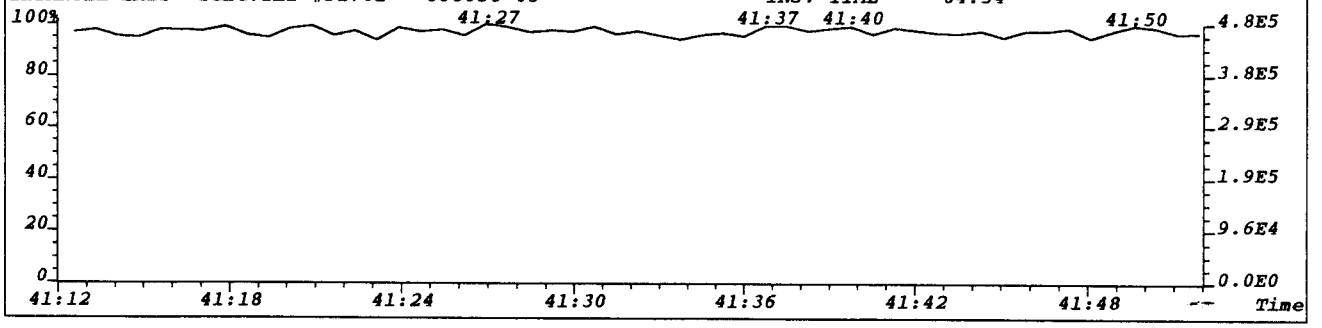
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:112
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,448.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54

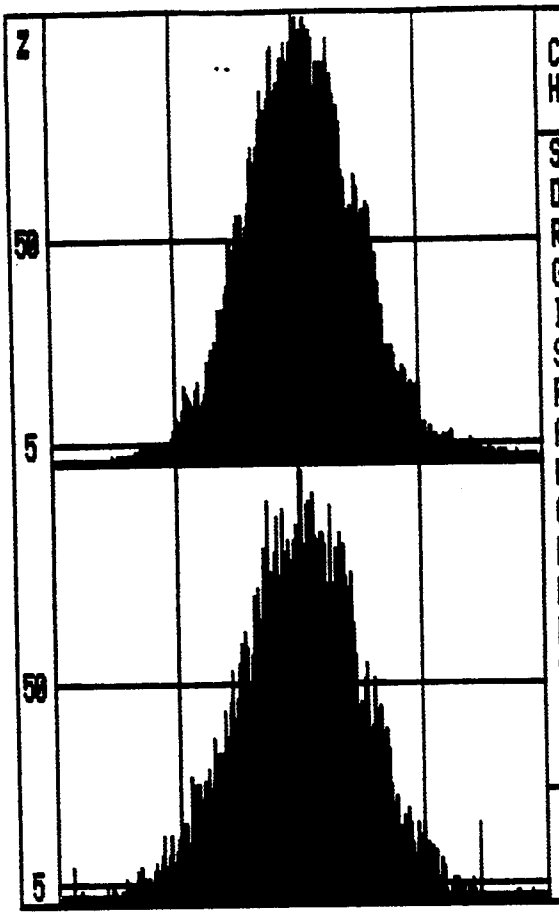


File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T Noise:110
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,440.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54



File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 008056-05 INJ. TIME = 04:54





Channel I 330.9792 Peak top
Height .56 volts Span 200 ppm

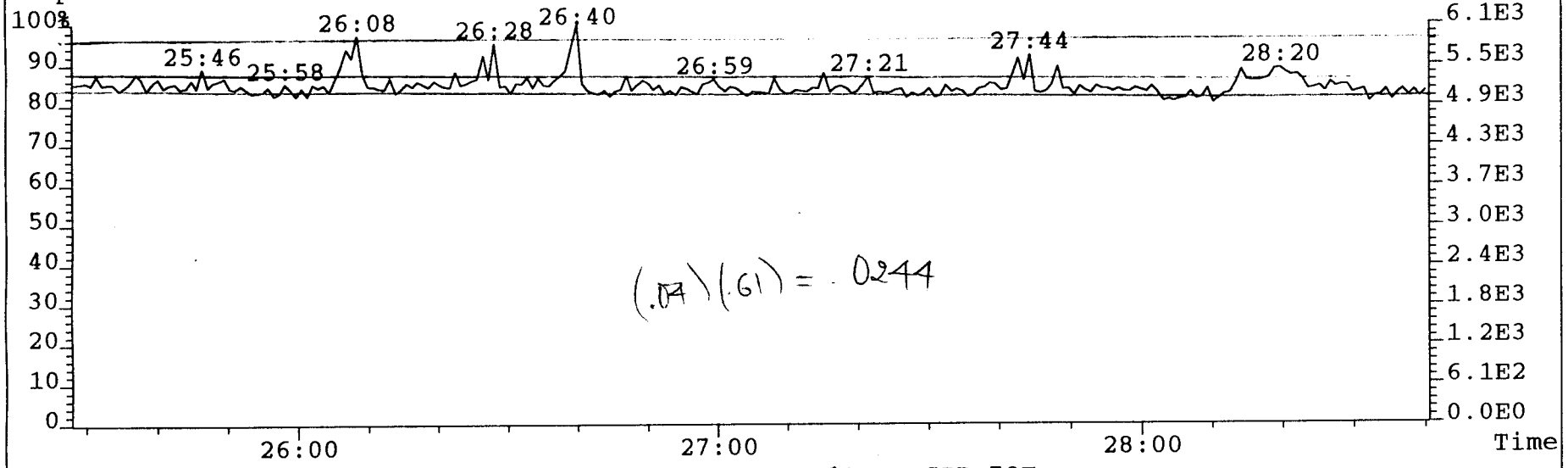
System file name NOBSUS
Data file name A:T030001
Resolution 10000
Group number 2
Ionization mode EI+
Switching VOLTAGE
Ref. masses 292.9825, 416.9760

A	293	J	331	S	368
B	304	K	332	T	370
C	306	L	334	U	376
D	316	M	340	V	410
E	318	N	342		
F	320	O	352		
G	322	P	354		
H	328	Q	356		
I	331	R	358		

Ref. mass 416.9760 Peak top
Height .09 volts Span 200 ppm

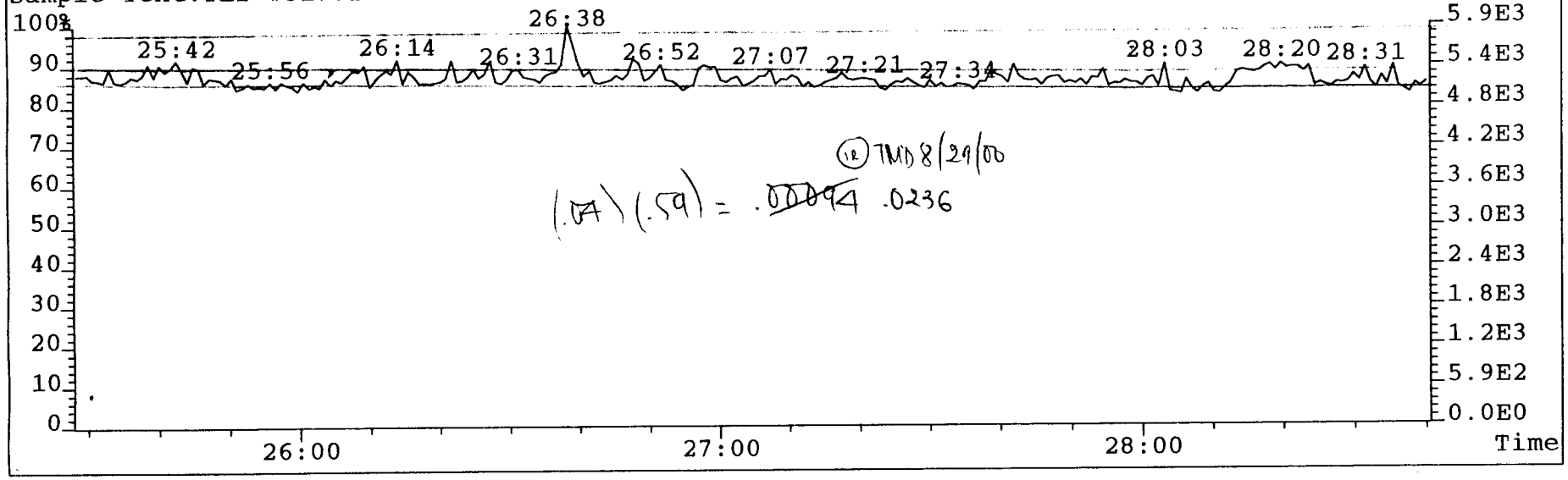
N = .0244 + .0236 = .048 TMD 8/30/00

File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
319.8965 F:2 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



(.04)(.61) = .0244

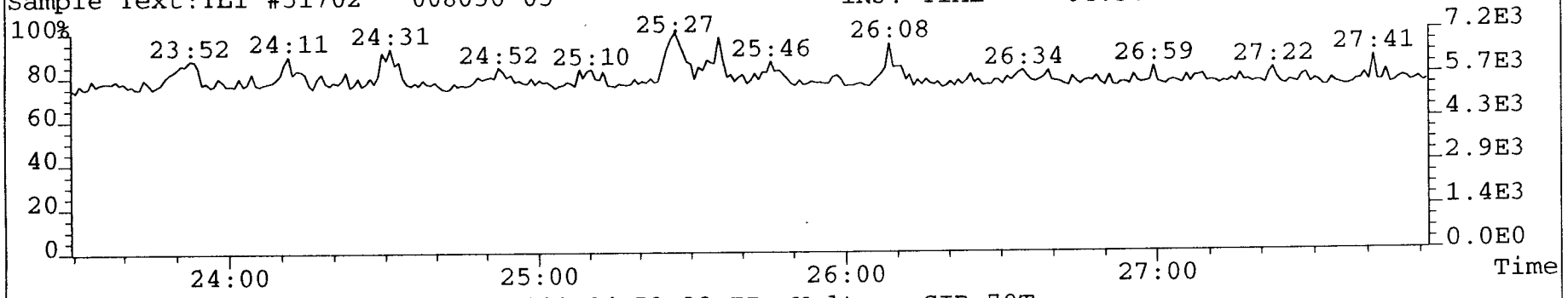
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
321.8936 F:2 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



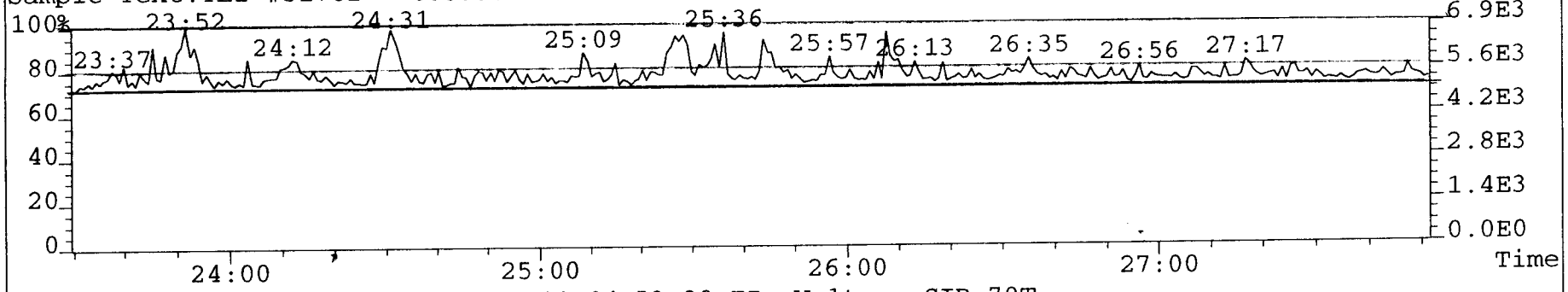
(12) TMD 8/29/00

(.04)(.59) = ~~.00094~~ .0236

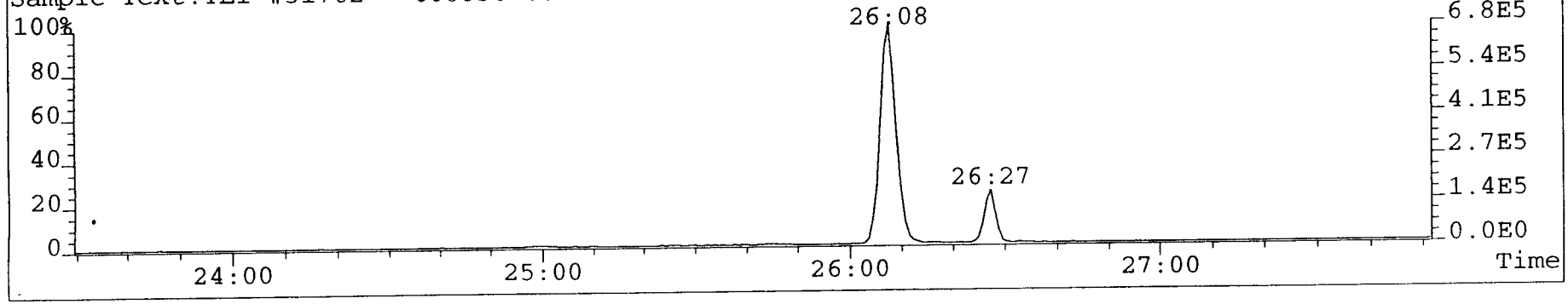
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
303.9016 F:2 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



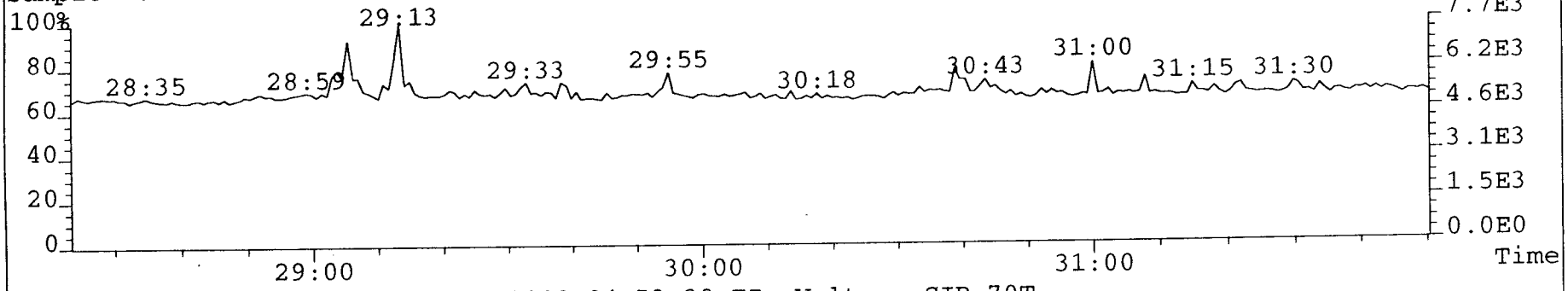
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
305.8987 F:2 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



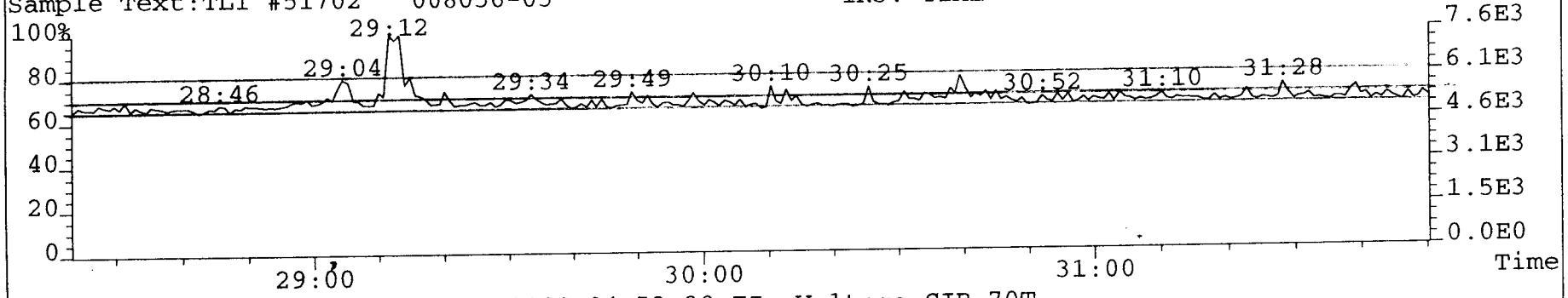
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
315.9419 F:2 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



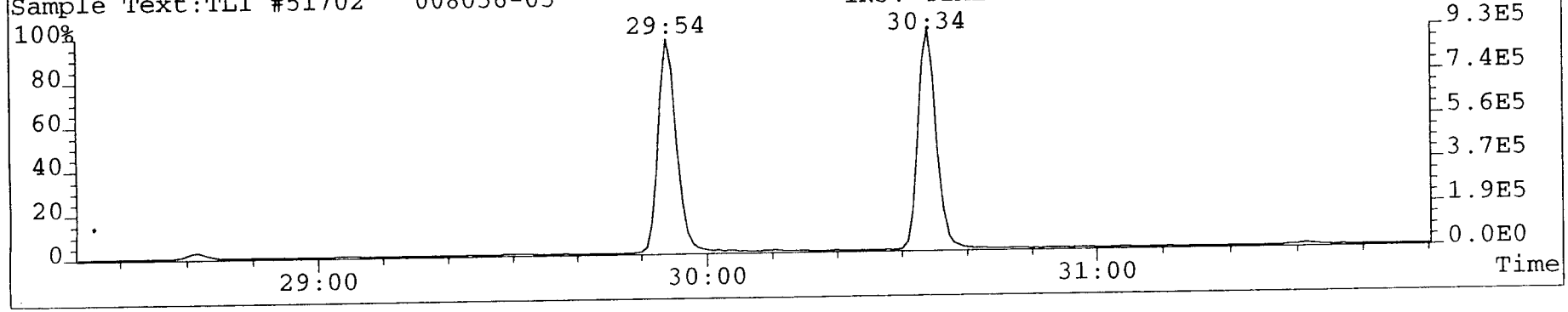
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
339.8597 F:2 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



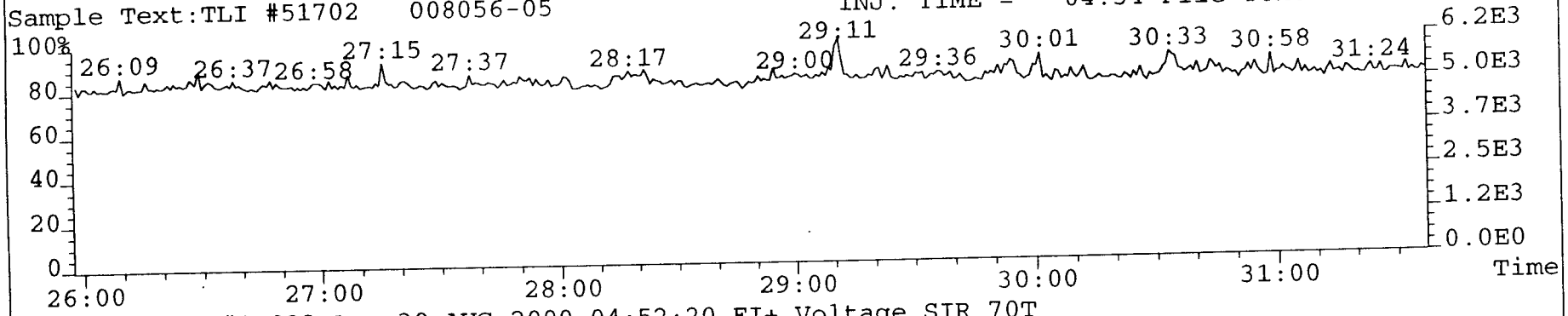
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
341.8567 F:2 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



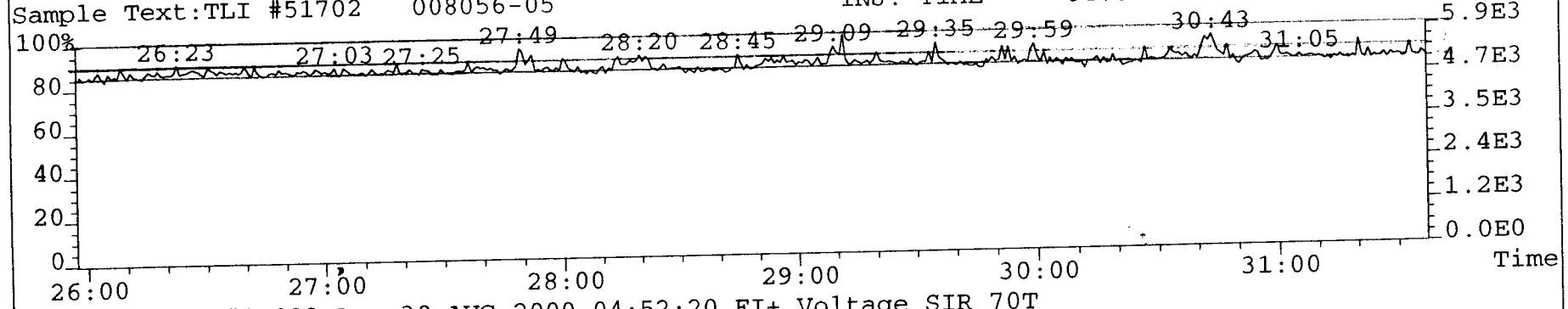
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
351.9000 F:2 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



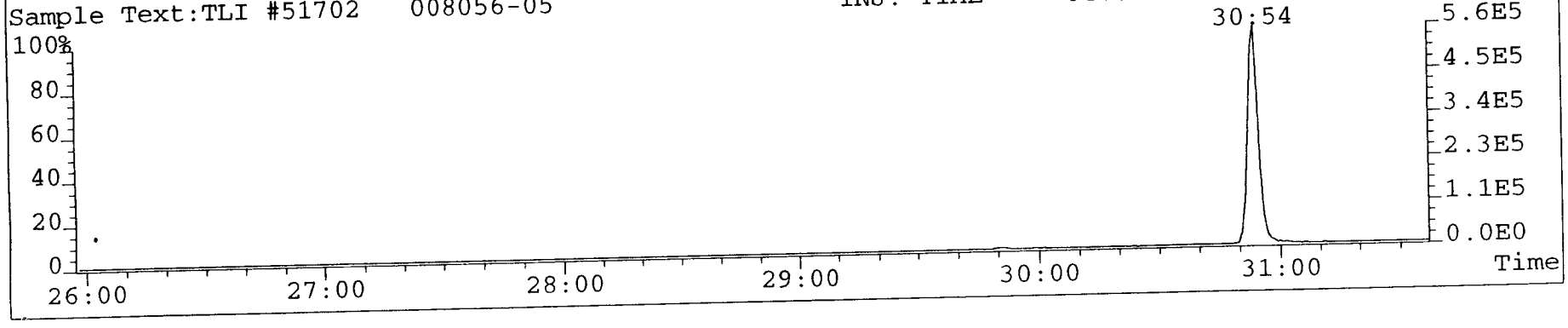
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
355.8546 F:2 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702



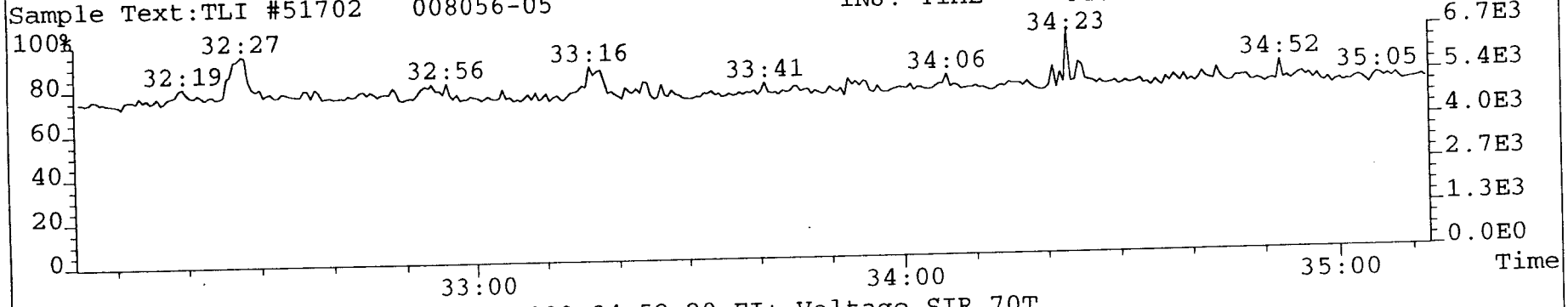
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
357.8516 F:2 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702



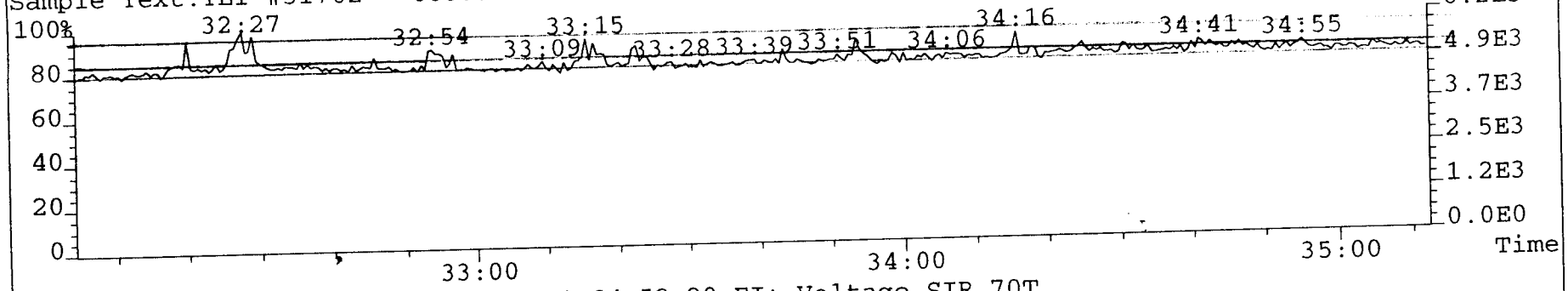
File:T004201 #1-822 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
367.8949 F:2 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702



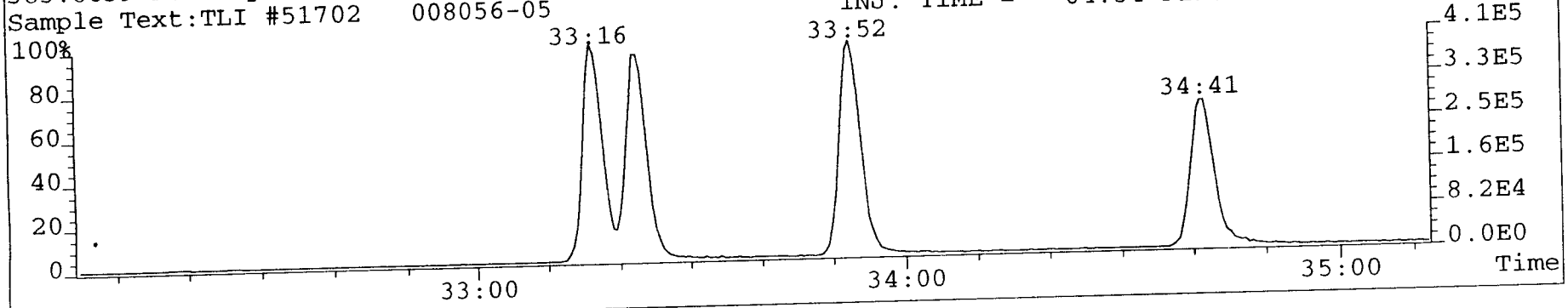
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
373.8208 F:3 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702



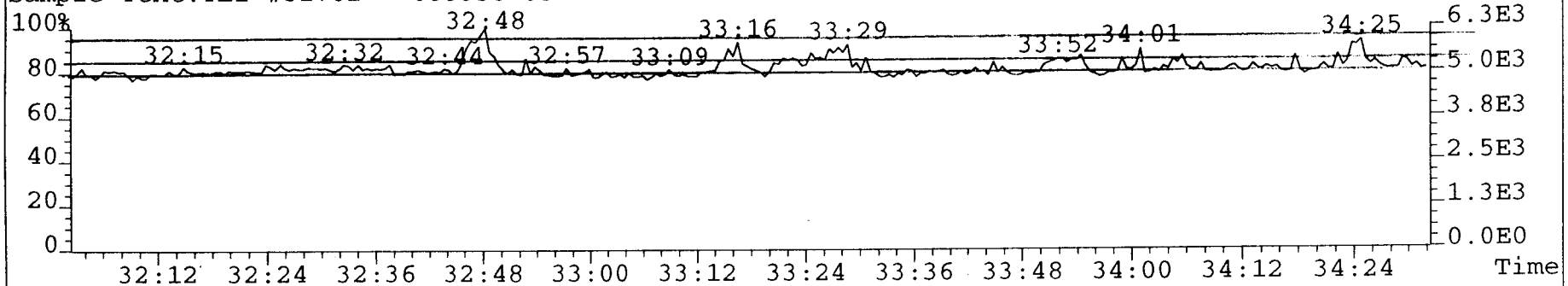
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
375.8178 F:3 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702



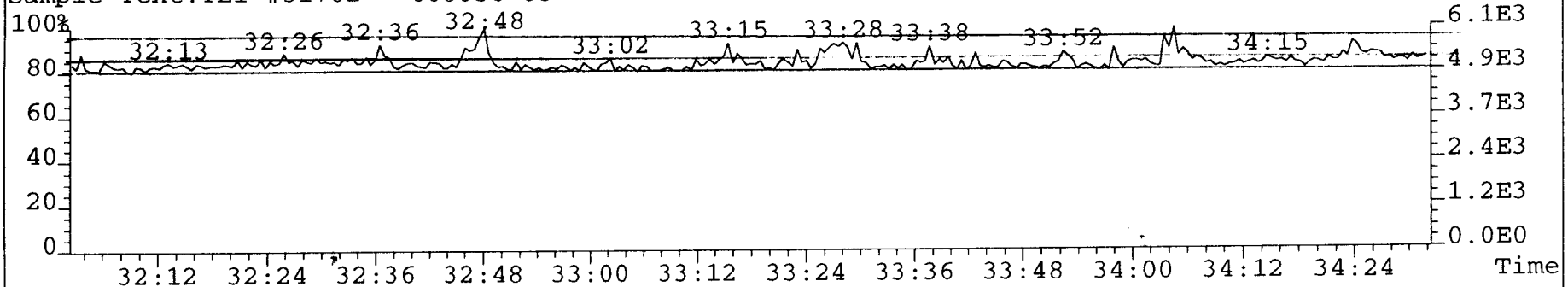
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
383.8639 F:3 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702



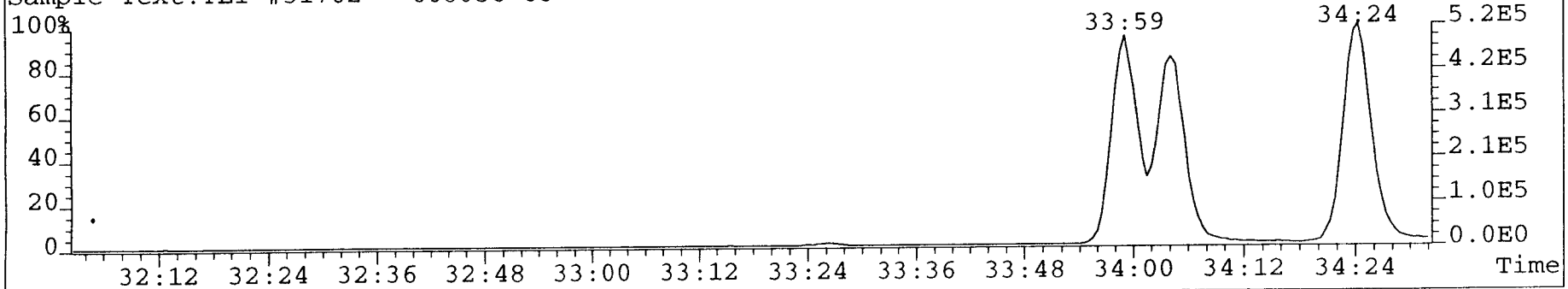
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
389.8156 F:3 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



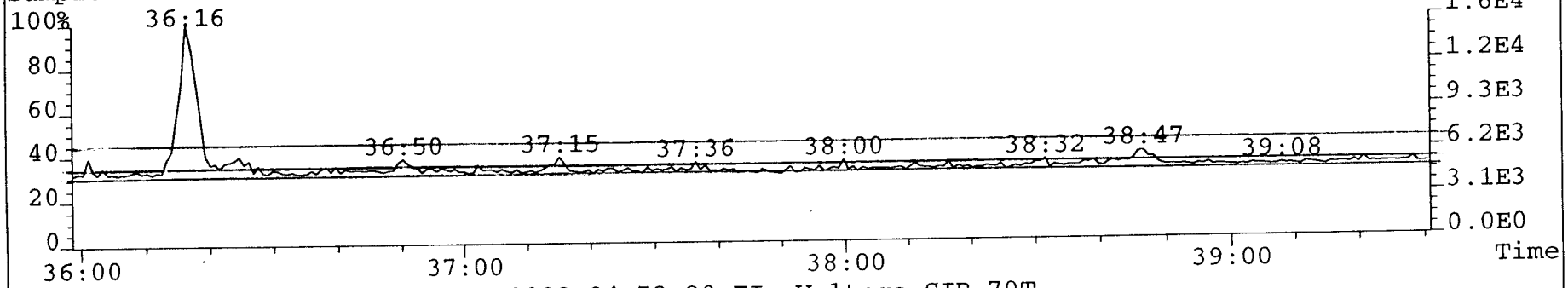
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
391.8127 F:3 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



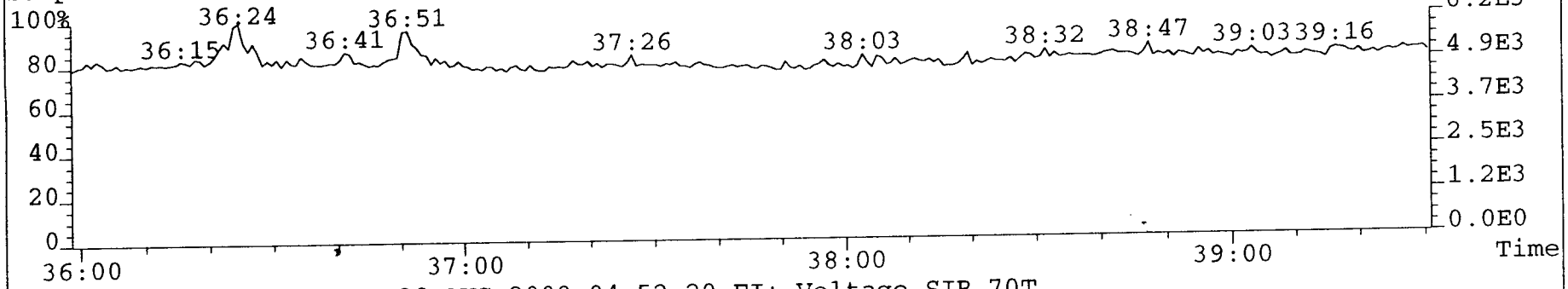
File:T004201 #1-465 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
401.8558 F:3 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



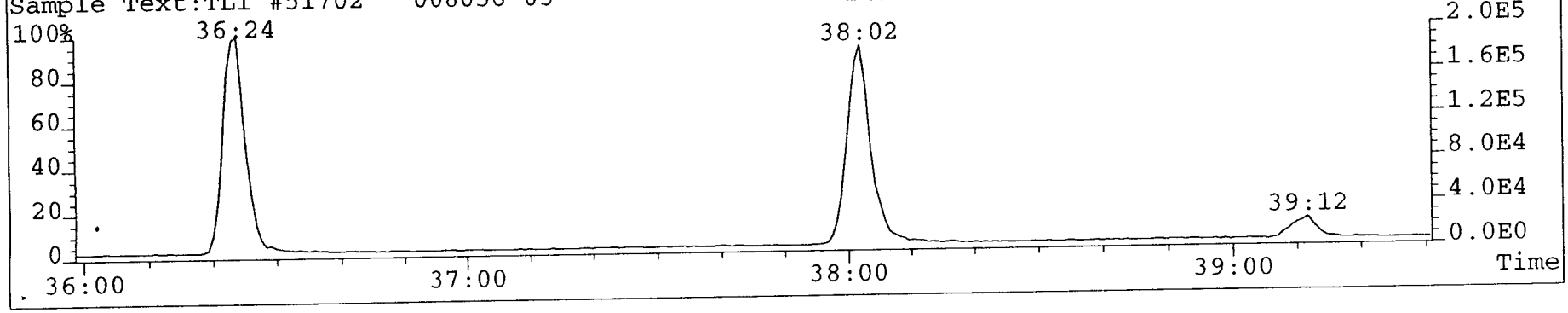
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
407.7818 F:4 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



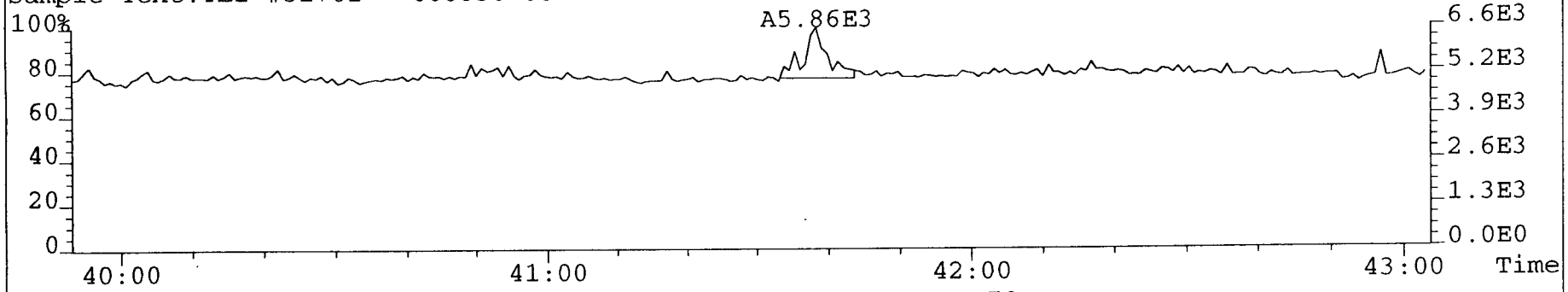
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
409.7789 F:4 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



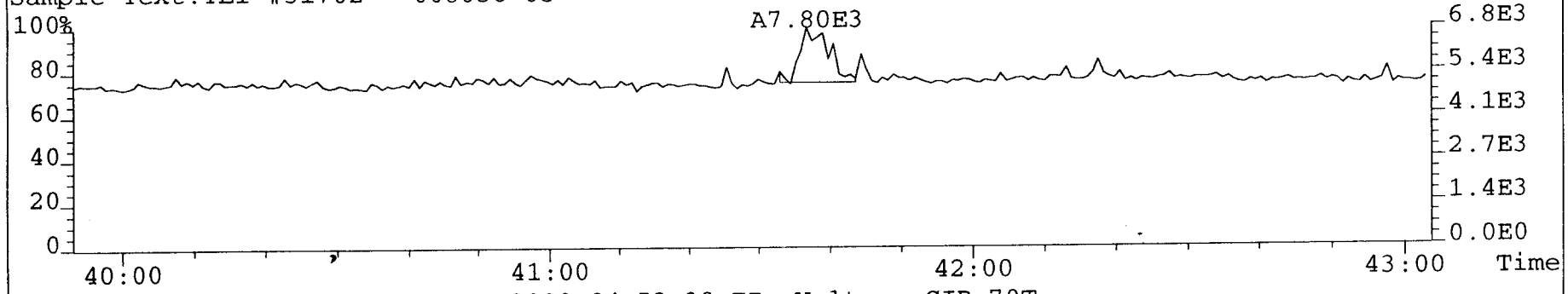
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
417.8253 F:4 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



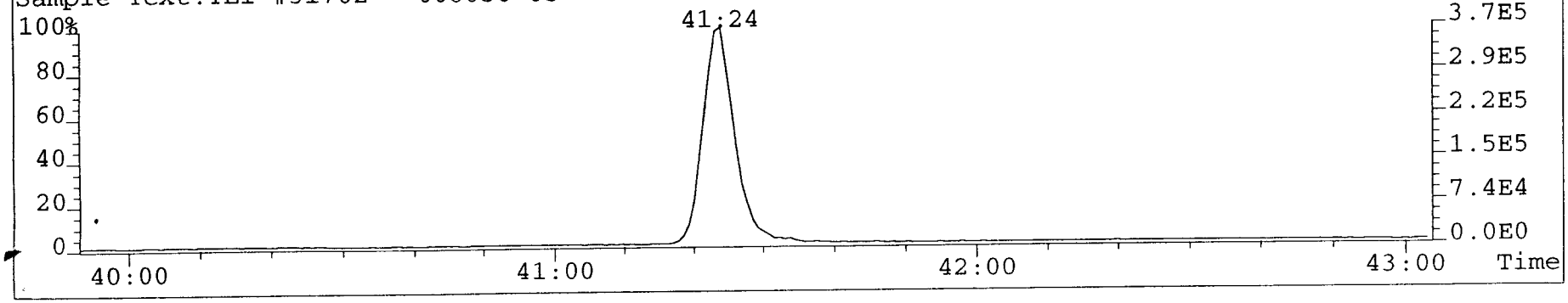
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
441.7428 F:4 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



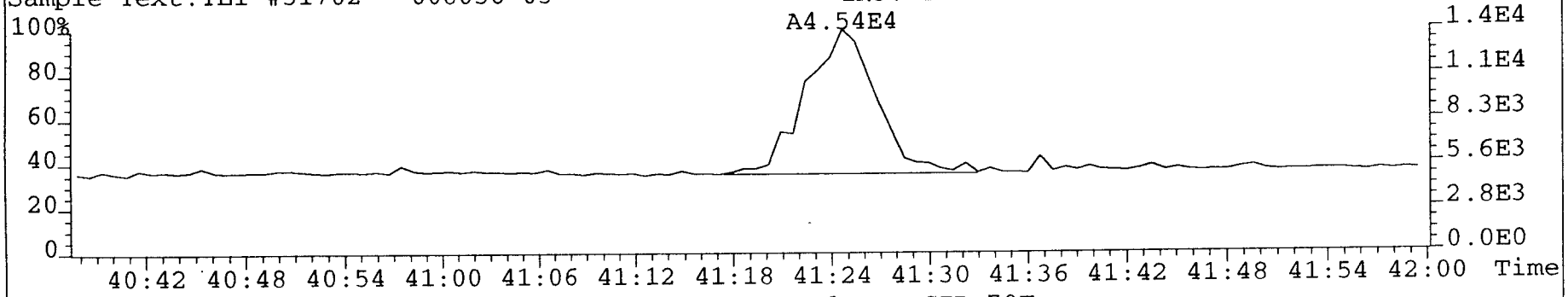
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
443.7399 F:4 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



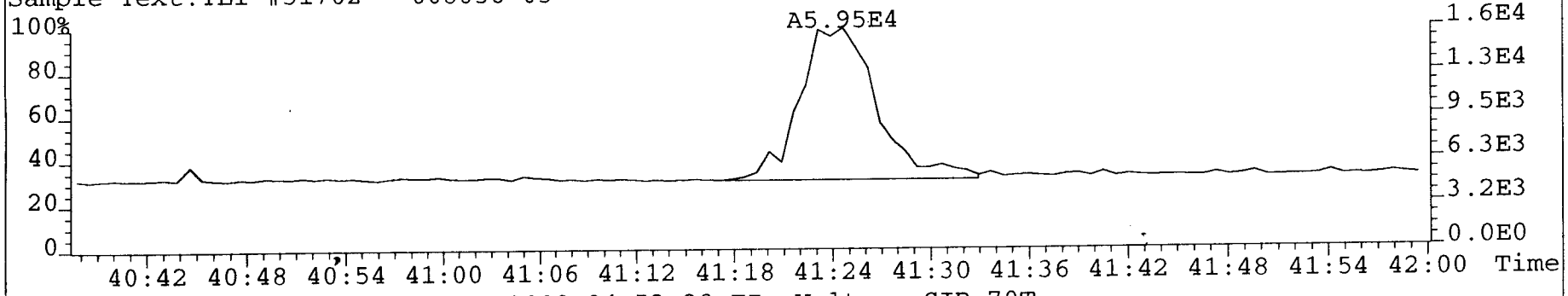
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
469.7779 F:4 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



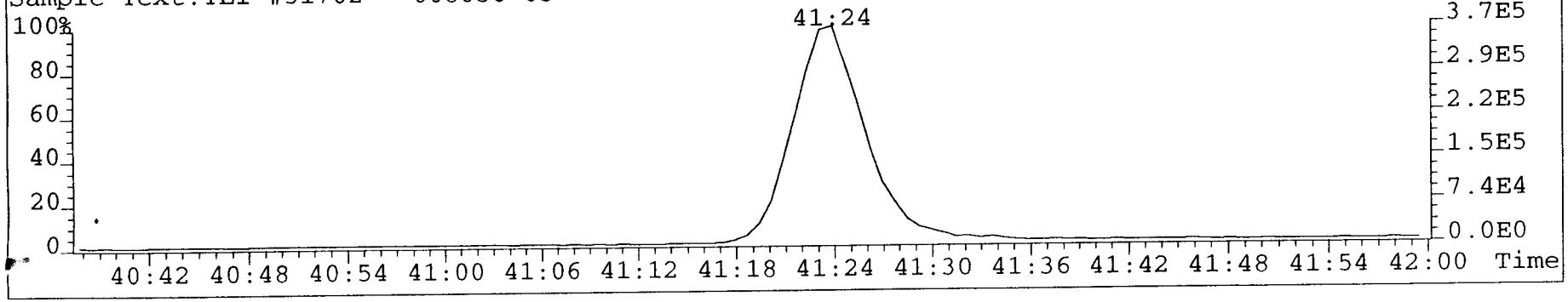
File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
457.7377 F:4 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
459.7348 F:4 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



File:T004201 #1-688 Acq:30-AUG-2000 04:52:20 EI+ Voltage SIR 70T
469.7779 F:4 Exp:NDB5US
Sample Text:TLI #51702 008056-05 INJ. TIME = 04:54 File Text:TLI #51702 »



Pinnacle Laboratories, Inc.

TLI Project: **51702** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **TLI LCS** Analysis File: **T004202**

Client Project:	**008056**				
Sample Matrix:	**SAND**	Date Received:	/ /	Spike File:	**SPMIT32S**
TLI ID:	**TLI LCS**	Date Extracted:	**08/27/2000**	ICal:	**TF57140**
		Date Analyzed:	**08/30/2000**	ConCal:	**T004193**
Sample Size:	**10.000 g**	Dilution Factor:	**n/a**	% Moisture:	**n/a**
Dry Weight:	**n/a**	Blank File:	**T004196**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**DPW**	% Solids:	**n/a**

Analytes	Conc. (ppt)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	44.0			0.77	26:48	___
1,2,3,7,8-PeCDD	213			1.51	30:54	___
1,2,3,4,7,8-HxCDD	209			1.18	33:59	___
1,2,3,6,7,8-HxCDD	213			1.32	34:05	___
1,2,3,7,8,9-HxCDD	230			1.21	34:25	___
1,2,3,4,6,7,8-HpCDD	210			1.03	37:30	___
1,2,3,4,6,7,8,9-OCDD	431			0.84	41:23	___
2,3,7,8-TCDF	41.8			0.78	26:08	___
1,2,3,7,8-PeCDF	208			1.54	29:56	___
2,3,4,7,8-PeCDF	222			1.58	30:35	___
1,2,3,4,7,8-HxCDF	181			1.23	33:17	___
1,2,3,6,7,8-HxCDF	195			1.20	33:23	___
2,3,4,6,7,8-HxCDF	228			1.22	33:53	___
1,2,3,7,8,9-HxCDF	233			1.25	34:42	___
1,2,3,4,6,7,8-HpCDF	205			1.04	36:24	___
1,2,3,4,7,8,9-HpCDF	208			1.03	38:02	___
1,2,3,4,6,7,8,9-OCDF	411			0.87	41:37	___

Internal Standards	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	145	72.5	40%-130%	0.76	26:08	___
$^{13}C_{12}$-2,3,7,8-TCDD	145	72.7	40%-130%	0.77	26:48	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	179	89.3	40%-130%	1.47	29:55	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	193	96.3	40%-130%	1.47	30:54	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	146	73.1	40%-130%	0.50	33:22	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	171	85.7	40%-130%	1.25	34:04	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	155	77.5	25%-130%	0.41	36:23	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	173	86.4	25%-130%	0.99	37:29	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	306	76.6	25%-130%	0.83	41:22	___

mit3_PSR v1.00, LARS 6.25.00

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Printed: 14:45 08/30/2000

Pinnacle Laboratories, Inc.

TLI Project: **51702**
Client Sample: **TLI LCS**

Method 8290 PCDD/PCDF Analysis (b)
Analysis File: **T004202**

Surrogate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	185	92.6	40%-130%	1.49	30:34	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	138	69.1	40%-130%	0.49	33:16	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	166	83.2	40%-130%	1.23	33:59	—
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	166	82.9	25%-130%	0.44	38:01	—

Other Standard	Conc. (ppt)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	14.8	73.8	40%-130%	26:48	—

Alternate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	172	85.8	40%-130%	0.49	34:42	—
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	171	85.7	40%-130%	0.50	33:52	—

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.81	26:38	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.21	34:24	—

Data Reviewer: pA 08/30/2000

mit3_PSR v1.00, LARS 6.25.00

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Printed: 14:45 08/30/2000

Initial ....Date...

Data Review By: pk 08/30/00 Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of T004202B.dbf
08/30/2000 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF						0.65-0.89				0.880-1.070			
304-306	DC	NL				Height	0.11	0.05	0.06				
				25:09		0.80	2.11	0.94	1.17	0.962			
				25:46		0.69	1.27	0.52	0.75	0.986	1278-TCDF		AN
				26:08		0.78	40.22	17.63	22.59	1.000	2378-TCDF		AN
				3 Peaks			43.60						
304-306													
13C12-TCDF						0.65-0.89				0.962-1.038			
316-318	DC	NL				Height	0.12	0.06	0.06				
				25:09	RO	0.54	1.40	0.61	1.13	0.962			
				25:43		0.65	1.42	0.56	0.86	0.984			
				26:08		0.76	188.06	81.28	106.78	1.000	13C12-2378-TCDF		ISO
						Height	49.79	22.08	27.71				
	DC	WH		27:56	RO	1.00	0.25			1.069			
				3 Peaks			190.88						
316-318													

---------- Above: TCDF / TCDD Follows ----------

TCDD						0.65-0.89				0.905-1.042			
320-322	DC	NL				Height	0.10	0.05	0.05				
				26:48		0.77	31.13	13.56	17.57	1.000	2378-TCDD		AN
	DC	SN		27:21	RO	1.17	0.21			1.021			
				1 Peak			31.13						
320-322													
37Cl-TCDD										0.925-1.075			
328	DC	NL				Height	0.06	0.06					
	DC	SN		26:14			0.09			0.979			
	DC	SN		26:19			0.06			0.982			
	DC	SN		26:29			0.25			0.988			
				26:48			13.29	13.29		1.000	37Cl-TCDD		CLS
	DC	SN		27:01			0.14			1.008			
	DC	SN		27:10			0.22			1.014			
	DC	SN		27:18			0.10			1.019			
	DC	SN		27:19			0.04			1.019			
	DC	SN		27:21			0.04			1.021			
	DC	SN		27:23			0.10			1.022			
				1 Peak			13.29						
328													
13C12-TCDD						0.65-0.89				0.925-1.075			
332-334	DC	NL				Height	0.12	0.07	0.05				
				26:38		0.81	202.37	90.44	111.93	0.994	13C12-1234-TCDD		RS1
				26:48		0.77	154.82	67.30	87.52	1.000	13C12-2378-TCDD		IS1
						Height	39.63	17.50	22.13				
				27:18	RO	1.36	0.44	0.34	0.25	1.019			

```
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

                DC  SN  27:34 RO  3.80          0.09                                 1.029
332-334               3 Peaks                  357.63

               ---------------------- Above: TCDD / PeCDF Follows --------------------

PeCDF                          1.32-1.78                                  0.930-1.060
340-342         DC  NL          Height          0.11          0.05          0.06
                        29:06     1.40          2.02          1.18          0.84  0.973                        J
                        29:34     1.60          2.16          1.33          0.83  0.988                        J
                        29:56     1.54        205.91        124.97         80.94  1.001 12378-PeCDF      AN
                        30:12     1.70          4.08          2.57          1.51  1.009                        J
                        30:35     1.58        222.59        136.30         86.29  1.022 23478-PeCDF      AN
                        31:04 RO  1.80          0.51          0.36          0.20  1.038                        J
                        31:33 RO  1.18          1.56          0.72          0.61  1.055                        J
340-342               7 Peaks                  438.83

13C12-PeCDF                    1.32-1.78                                  0.866-1.134
352-354         DC  NL          Height          0.10          0.05          0.05
                        29:05     1.71          2.25          1.42          0.83  0.972
                        29:34 RO  1.05          3.16          1.30          1.24  0.988
                        29:55     1.47        216.70        128.91         87.79  1.000 13C12-PeCDF 123 IS2
                                Height         66.84         38.72         28.12
                DC  SN  30:20 RO  4.00          0.18                              1.014
                        30:34     1.49        222.42        133.02         89.40  1.022 13C12-PeCDF 234 SUR1
                DC  SN  30:54 RO 10.00          0.18                              1.033
                        31:33 RO  1.16          3.16          1.44          1.24  1.055
352-354               5 Peaks                  447.69

               ---------------------- Above: PeCDF / PeCDD Follows --------------------

PeCDD                          1.32-1.78                                  0.939-1.021
356-358         DC  NL          Height          0.12          0.06          0.06
                        30:54     1.51        149.65         89.93         59.72  1.000 12378-PeCDD      AN
                DC  SN  31:12     1.36          0.33                              1.010
                DC  SN  31:24 RO  1.31          0.41                              1.016
356-358               1 Peak                   149.65

13C12-PeCDD                    1.32-1.78                                  0.871-1.129
368-370         DC  NL          Height          0.12          0.06          0.06
                        29:51 RO  1.27          1.50          0.75          0.59  0.966
                        29:59 RO  1.22          1.05          0.50          0.41  0.970
                DC  SN  30:10     1.39          0.43                              0.976
                        30:54     1.47        132.97         79.11         53.86  1.000 13C12-PeCDD 123 IS3
                                Height         41.10         24.84         16.26
                        31:08 RO  0.97          0.53          0.32          0.33  1.008
                DC  SN  31:21 RO  2.50          0.15                              1.015
368-370               4 Peaks                  136.05

               ---------------------- Above: PeCDD / HxCDF Follows --------------------

HxCDF                          1.05-1.43                                  0.963-1.046
374-376         DC  NL          Height          0.16          0.12          0.04
```

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				32:28	RO	0.98	0.99	0.55	0.56	0.973			J
				33:17		1.23	185.73	102.41	83.32	0.998	123478-HxCDF	AN	
				33:23		1.20	208.74	113.81	94.93	1.000	123678-HxCDF	AN	
				33:45		1.07	0.62	0.32	0.30	1.011			J
				33:53		1.22	221.37	121.52	99.85	1.015	234678-HxCDF	AN	
	DC	SN		34:11	RO	0.58	0.34			1.024			
	DC	SN		34:17	RO	0.36	0.18			1.027			
	DC	SN		34:24	RO	0.47	0.25			1.031			
				34:42		1.25	184.56	102.58	81.98	1.040	123789-HxCDF	AN	
	DC	WH		35:14	RO	1.63	0.18			1.056			
374-376			6	Peaks			802.01						
13C12-HxCDF				0.43-0.59					0.880-1.120				
384-386	DC	NL		Height			0.10	0.06	0.04				
				32:19	RO	0.66	0.86	0.29	0.44	0.969			
				32:26		0.49	1.06	0.35	0.71	0.972			
				33:16		0.49	185.93	60.98	124.95	0.997	13C12-HxCDF 478	SUR2	
				33:22		0.50	199.49	66.46	133.03	1.000	13C12-HxCDF 678	IS4	
				Height			57.50	19.20	38.30				
				33:36	RO	0.91	1.84	0.62	0.68	1.007			
				33:44	RO	0.33	0.41	0.14	0.42	1.011			
				33:52		0.50	213.27	70.99	142.28	1.015	13C12-HxCDF 234	ALT2	
				34:05	RO	0.77	0.50	0.17	0.22	1.021			
				34:11	RO	0.38	0.56	0.19	0.50	1.024			
				34:16	RO	2.29	0.11	0.16	0.07	1.027			
	DC	SN		34:26	RO	0.28	0.15			1.032			
	DC	SN		34:30	RO	0.33	0.12			1.034			
				34:42		0.49	156.86	51.90	104.96	1.040	13C12-HxCDF 789	ALT1	
				34:59		0.56	0.50	0.18	0.32	1.048			
	DC	SN		35:06	RO	0.21	0.15			1.052			
	DC	SN		35:12	RO	1.21	0.21			1.055			
				35:17	RO	1.15	0.20	0.15	0.13	1.057			
384-386			13	Peaks			761.59						

---------- Above: HxCDF / HxCDD Follows ----------

HxCDD				1.05-1.43					0.957-1.014				
390-392	DC	NL		Height			0.11	0.06	0.05				
				33:59		1.18	155.77	84.32	71.45	0.998	123478-HxCDD	AN	
				34:05		1.32	158.10	89.90	68.20	1.000	123678-HxCDD	AN	
				34:25		1.21	172.53	94.32	78.21	1.010	123789-HxCDD	AN	
	DC	WH		34:40	RO	2.09	0.74			1.018			
	DC	WH		34:46	RO	1.75	0.36			1.021			
	DC	WH		34:50	RO	1.96	0.56			1.023			
390-392			3	Peaks			486.40						
13C12-HxCDD				1.05-1.43					0.971-1.029				
402-404	DC	NL		Height			0.10	0.05	0.05				
				33:27	RO	1.52	1.25	0.85	0.56	0.982			
				33:59		1.23	146.96	81.04	65.92	0.998	13C12-HxCDD 478	SUR3	
				34:04		1.25	146.40	81.38	65.02	1.000	13C12-HxCDD 678	IS5	
				Height			42.24	23.86	18.38				

```
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

                        34:24     1.21        188.03        103.02         85.01  1.010 13C12-HxCDD 789 RS2
                        34:36     1.36          0.78          0.45          0.33  1.016
                        34:41 RO  3.07          0.60          0.83          0.27  1.018
                        34:51 RO  0.58          0.52          0.29          0.50  1.023
402-404               7 Peaks                 484.54

                ---------------------- Above: HxCDD / HpCDF Follows --------------------

HpCDF                           0.88-1.20                                   0.996-1.050
408-410         DC  NL           Height          0.17          0.09          0.08
                        36:24     1.04        181.81         92.80         89.01  1.000 1234678-HpCDF   AN
                        36:37 RO  0.58          0.65          0.33          0.57  1.006                       J
                DC  SN  36:49 RO  1.24          0.69                              1.012
                        38:02     1.03        142.34         72.19         70.15  1.045 1234789-HpCDF   AN
                DC  WH  38:16 RO  1.50          0.73                              1.052
                DC  WH  38:30 RO  2.09          0.22                              1.058
408-410               3 Peaks                 324.80

13C12-HpCDF                     0.37-0.51                                   0.945-1.110
418-420         DC  NL           Height          0.14          0.07          0.07
                        36:23     0.41        141.33         41.35         99.98  1.000 13C12-HpCDF 678 IS6
                                 Height         36.55         10.94         25.61
                DC  SN  36:38 RO  0.15          0.33                              1.007
                DC  SN  37:20 RO  2.29          0.10                              1.026
                        38:01     0.44        117.64         36.16         81.48  1.045 13C12-HpCDF 789 SUR4
418-420               2 Peaks                 258.97

                ---------------------- Above: HpCDF / HpCDD Follows --------------------

HpCDD                           0.88-1.20                                   0.975-1.005
424-426         DC  NL           Height          0.16          0.08          0.08
                        37:30     1.03        125.27         63.47         61.80  1.000 1234678-HpCDD   AN
                DC  WH  37:51 RO  0.27          0.12                              1.010
                DC  WH  37:53 RO  2.40          0.10                              1.011
                DC  WH  38:02 RO  3.00          0.08                              1.015
424-426               1 Peak                  125.27

13C12-HpCDD                     0.88-1.20                                   0.973-1.027
436-438         DC  NL           Height          0.16          0.08          0.08
                DC  SN  36:40     0.89          0.53                              0.978
                        37:29     0.99        139.34         69.23         70.11  1.000 13C12-HpCDD 678 IS7
                                 Height         34.56         17.56         17.00
436-438               1 Peak                  139.34

                ---------------------- Above: HpCDD / Octa-CDD and CDF Follows ----------

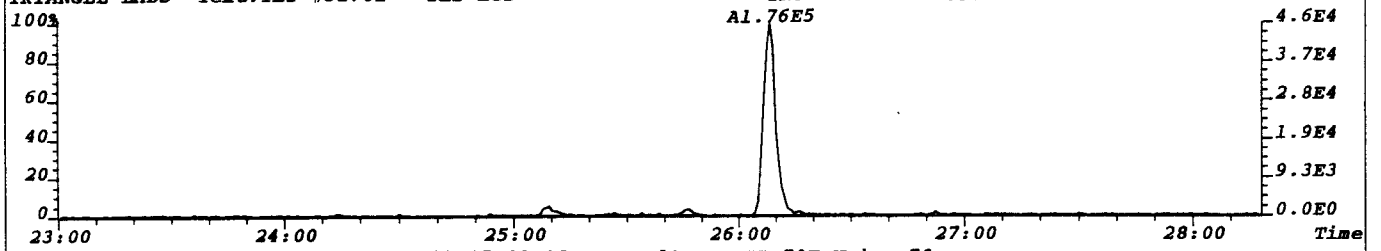
OCDF                            0.76-1.02                                   0.903-1.097
442-444         DC  NL           Height          0.14          0.07          0.07
                DC  SN  38:30 RO  0.30          0.13                              0.931
                        41:37     0.87        227.31        105.79        121.52  1.006 OCDF            AN
442-444               1 Peak                  227.31
```

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
OCDD						0.76-1.02				0.903-1.097			
458-460	DC	NL				Height	0.12	0.06	0.06				
				41:23		0.84	197.94	90.35	107.59	1.000	OCDD		AN
				41:47	RO	0.39	0.81	0.38	0.97	1.010			
458-460			2 Peaks				198.75						
13C12-OCDD						0.76-1.02				0.996-1.004			
470-472	DC	NL				Height	0.11	0.06	0.05				
				41:22		0.83	201.11	91.18	109.93	1.000	13C12-OCDD		IS8
						Height	40.33	18.87	21.46				
470-472			1 Peak				201.11						

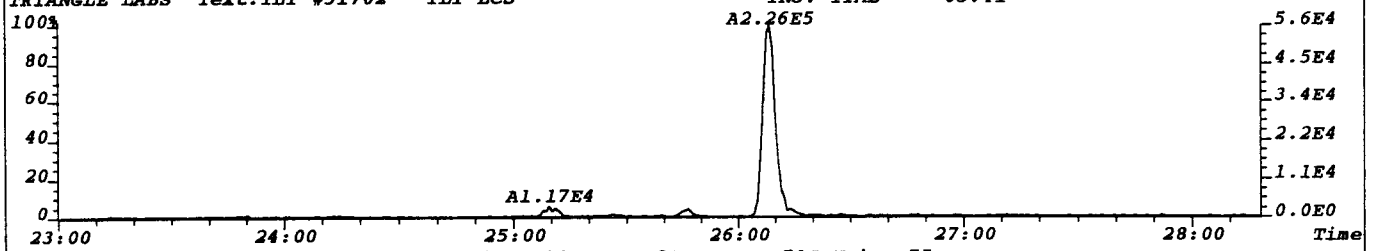
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***

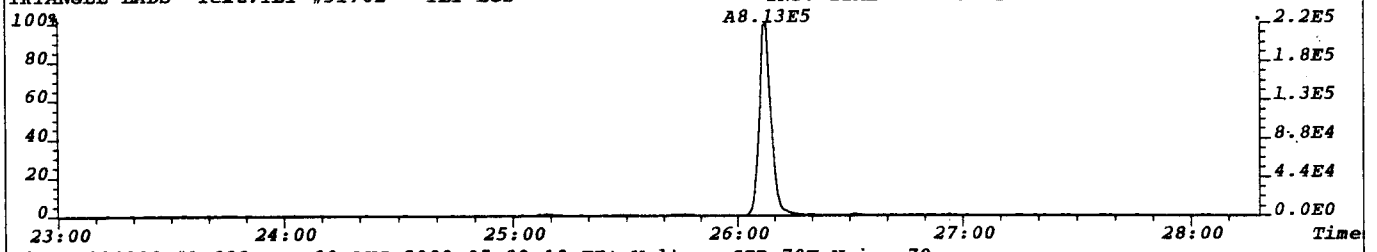
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:65
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,260.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



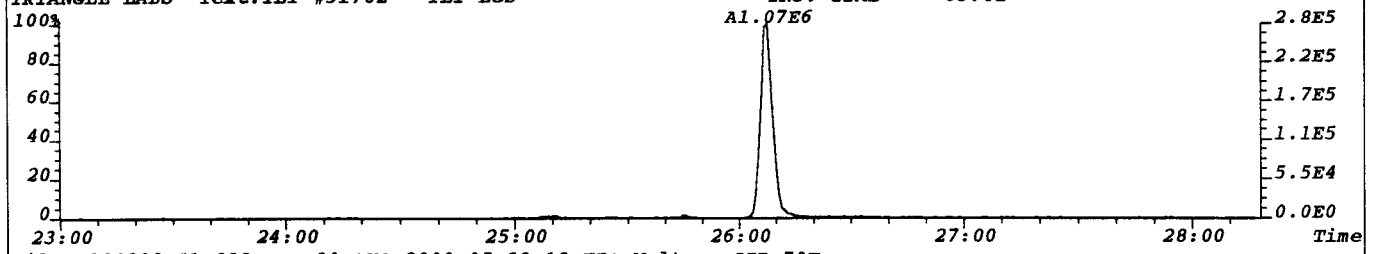
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:73
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,292.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



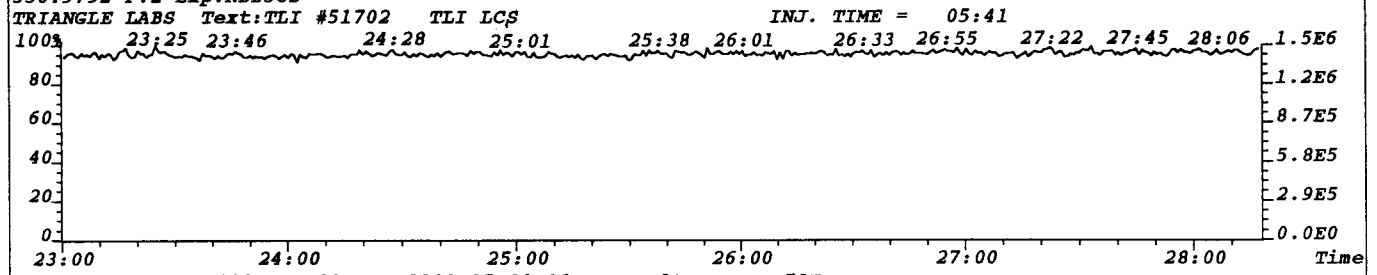
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:75
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,300.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



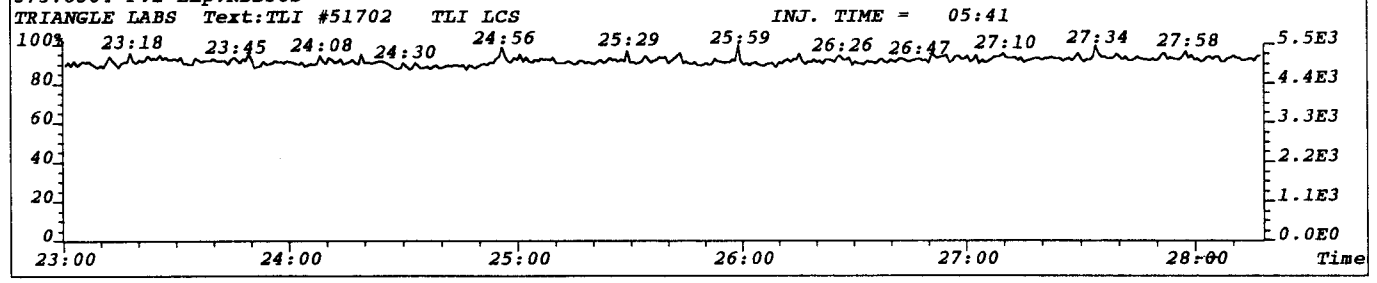
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:79
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,316.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



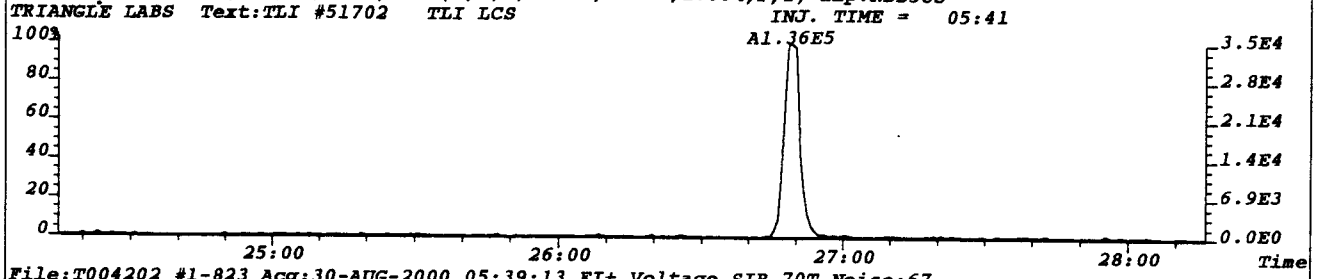
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



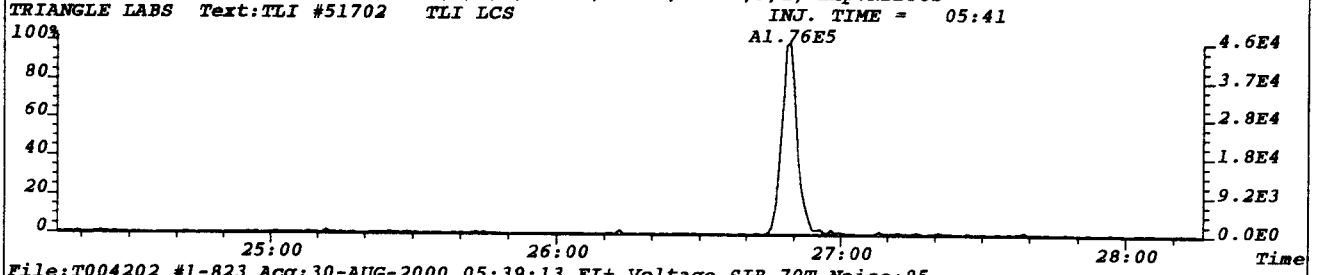
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
375.8364 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



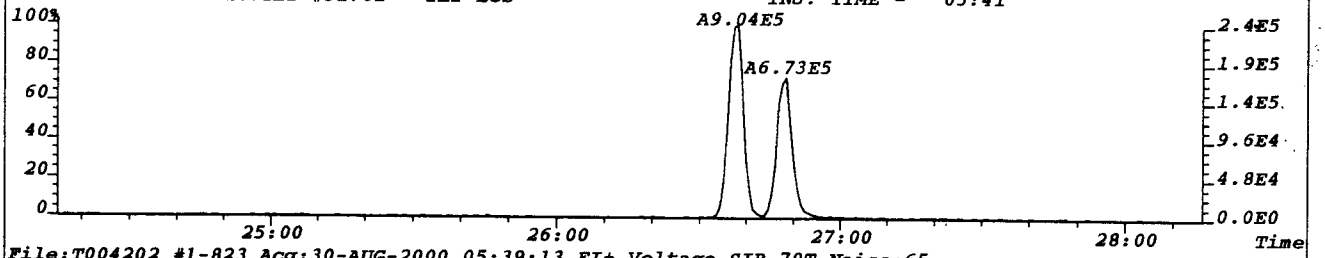
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:64
319.8965 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,256.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



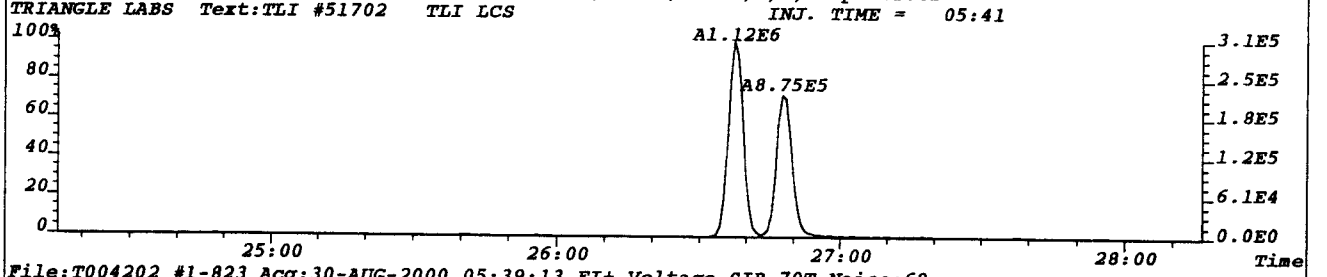
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:67
321.8936 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,268.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



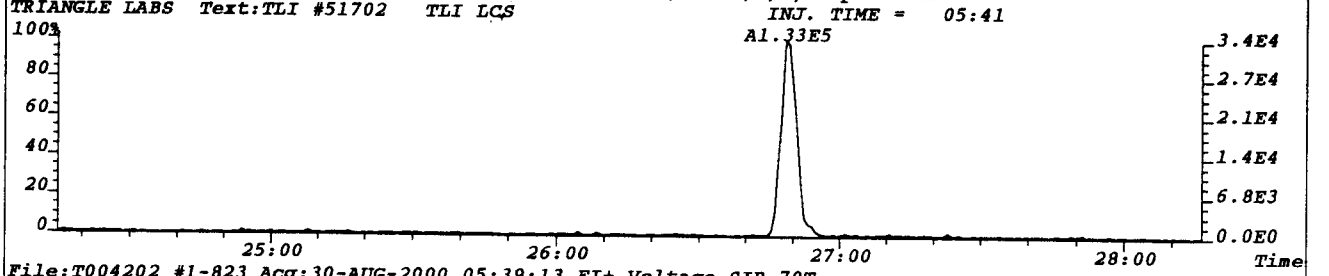
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:85
331.9368 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,340.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



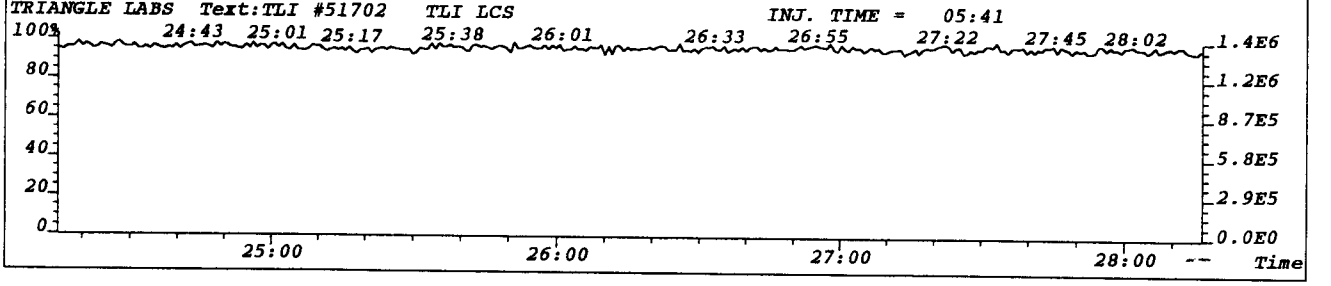
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:65
333.9338 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,260.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



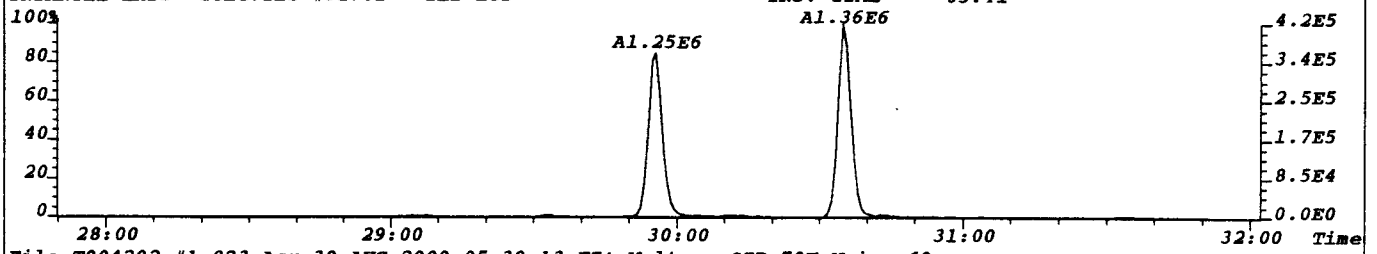
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:69
327.8847 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,276.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



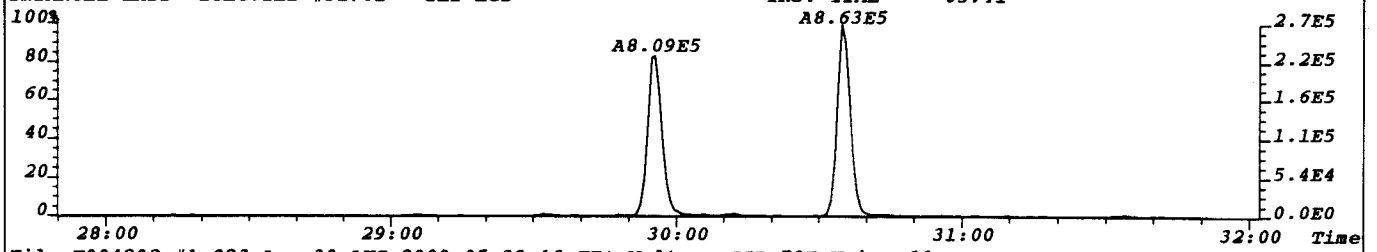
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



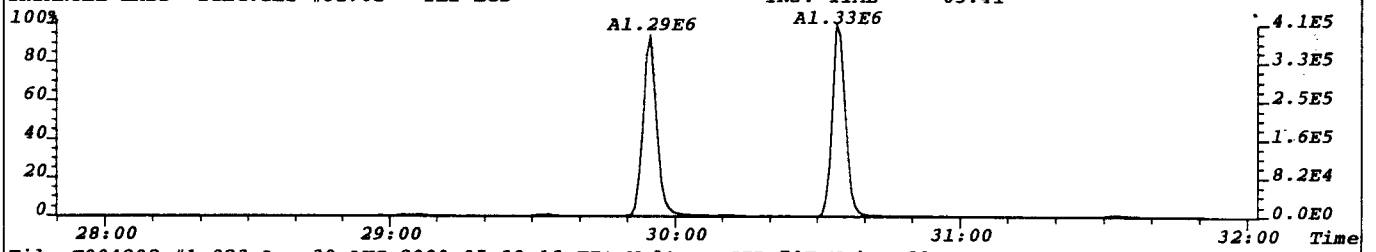
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:66
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,264.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



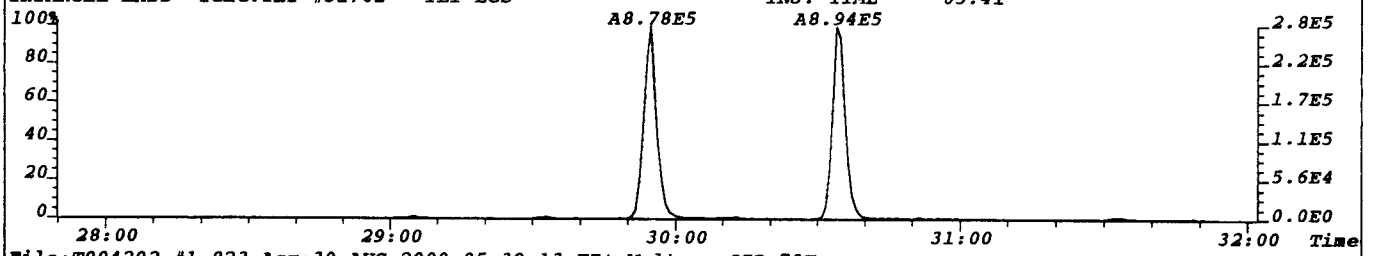
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:69
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,276.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



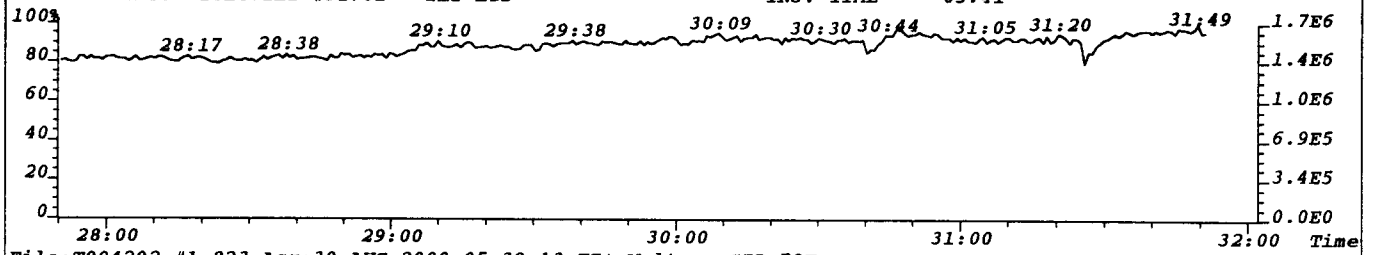
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:66
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,264.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



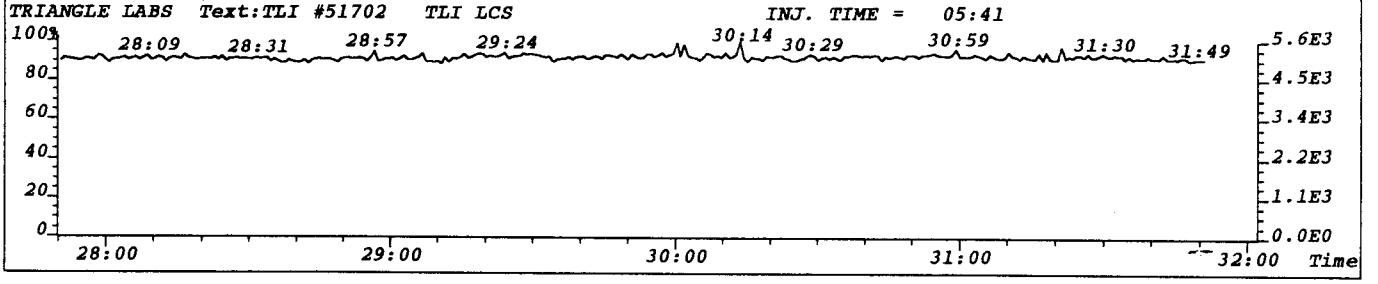
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:68
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,272.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



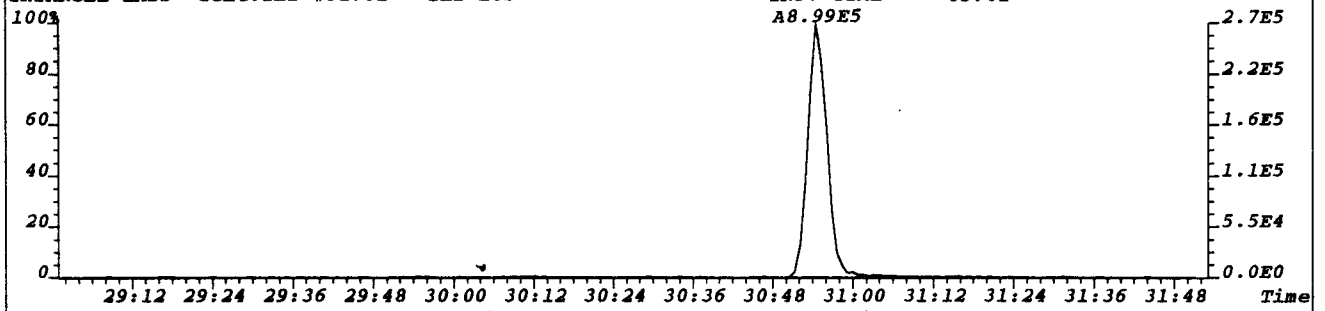
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



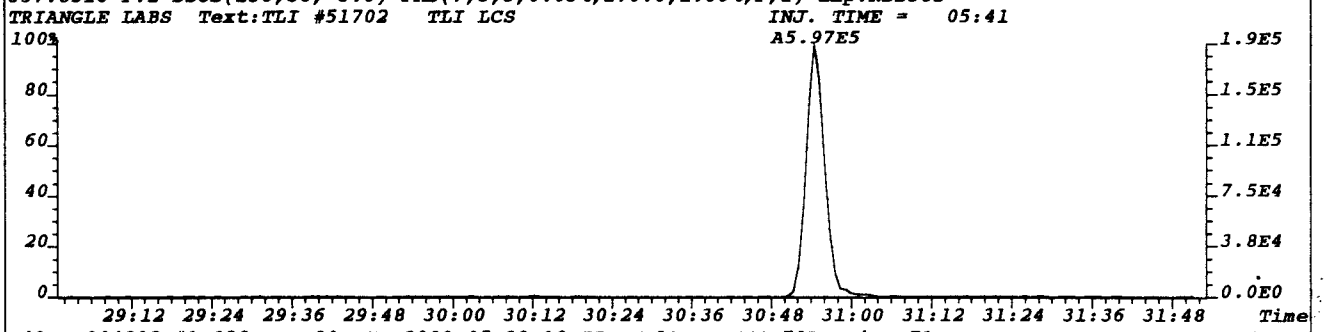
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
409.7974 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



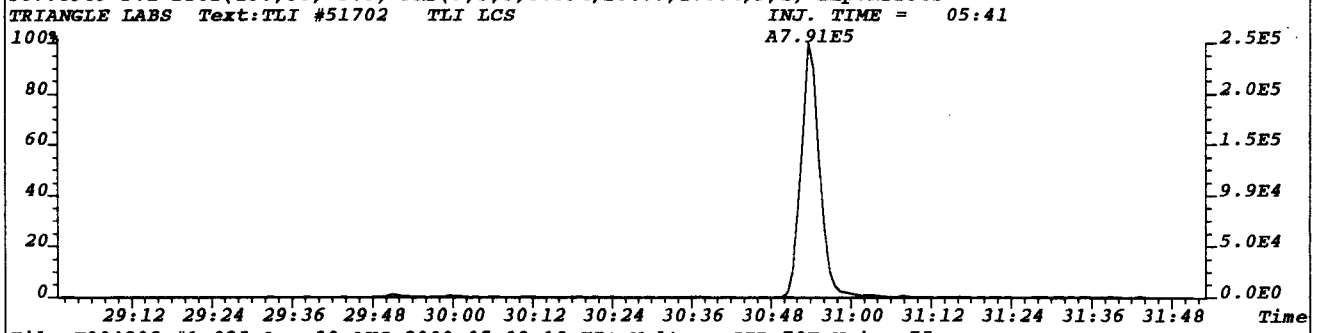
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:74
355.8546 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,296.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



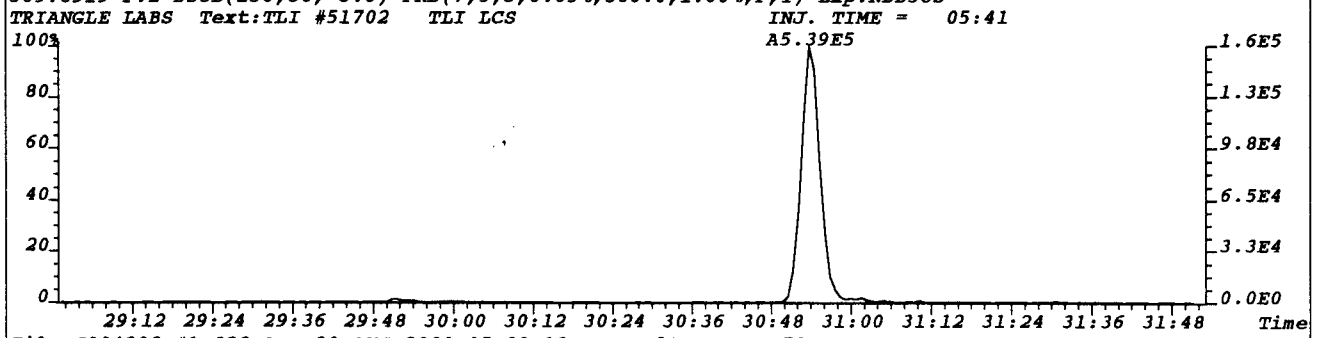
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:69
357.8516 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,276.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



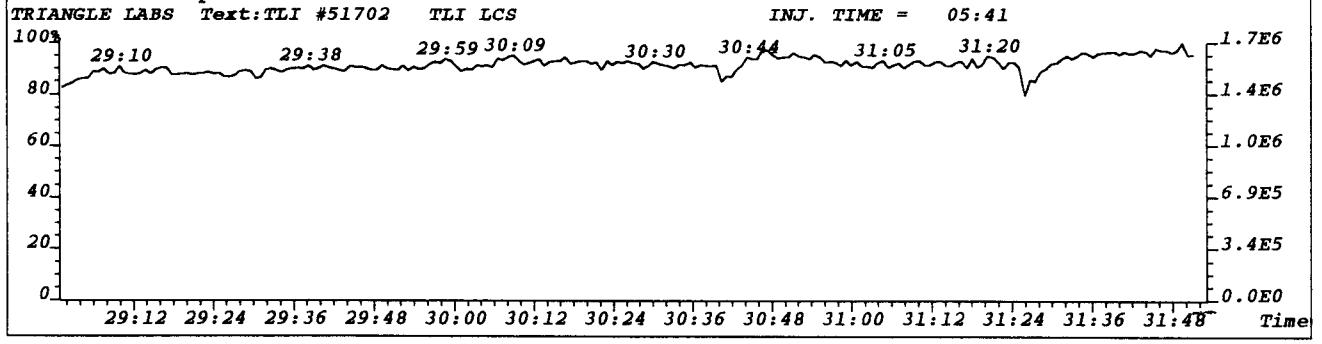
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:71
367.8949 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,284.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



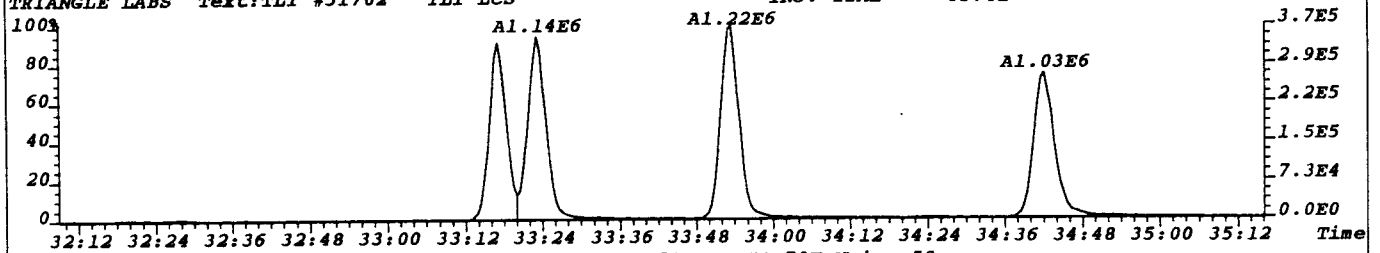
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:75
369.8919 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,300.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



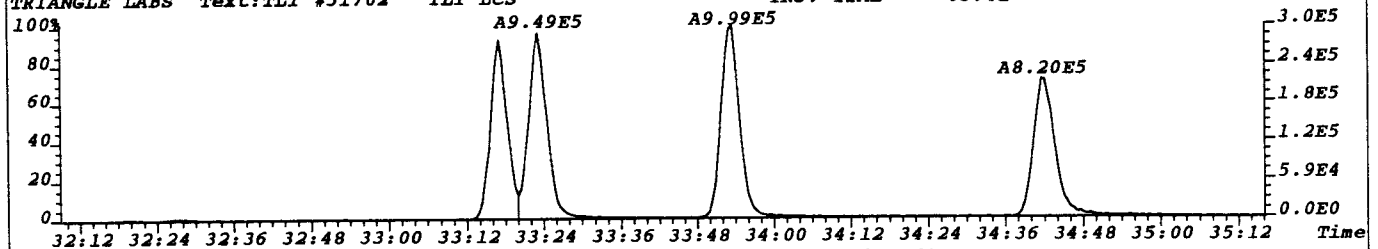
File:T004202 #1-823 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



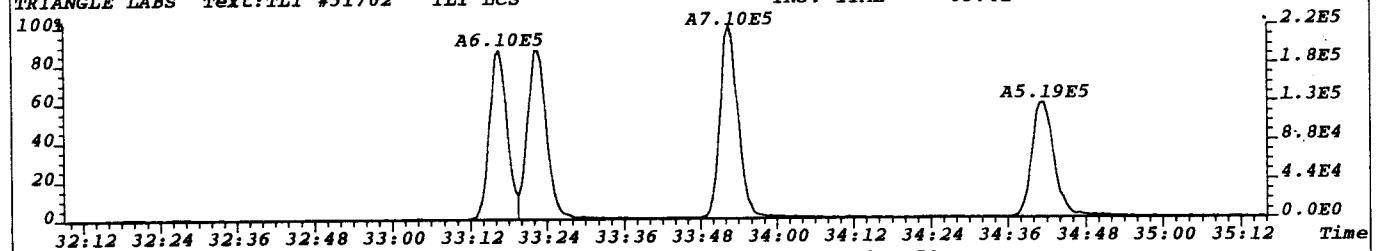
File:T004202 #1-465 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:147
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,588.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



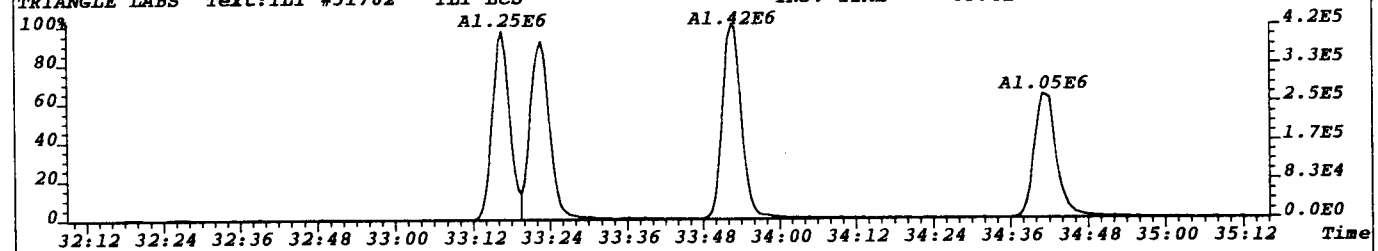
File:T004202 #1-465 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:53
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,212.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



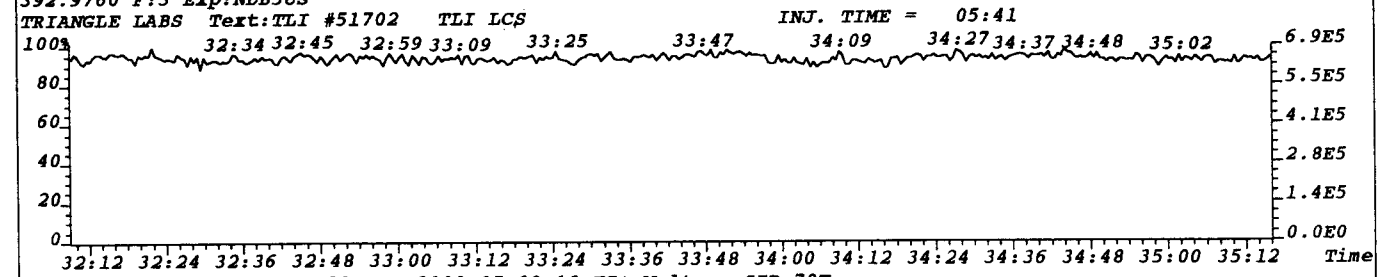
File:T004202 #1-465 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:69
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,276.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



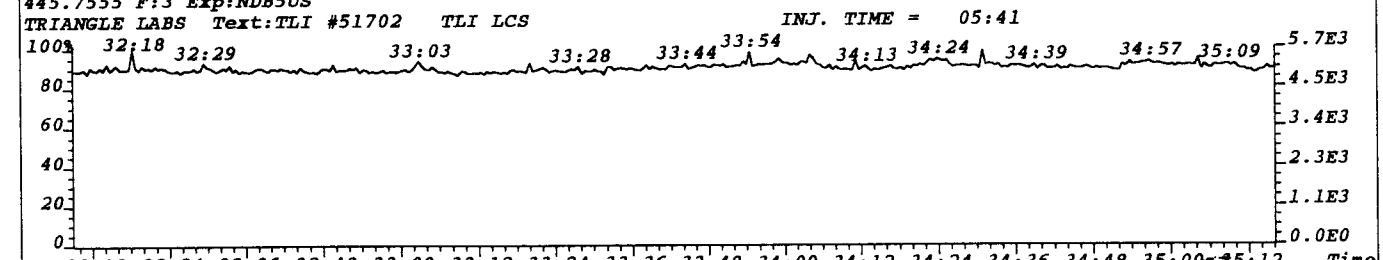
File:T004202 #1-465 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:52
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,208.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



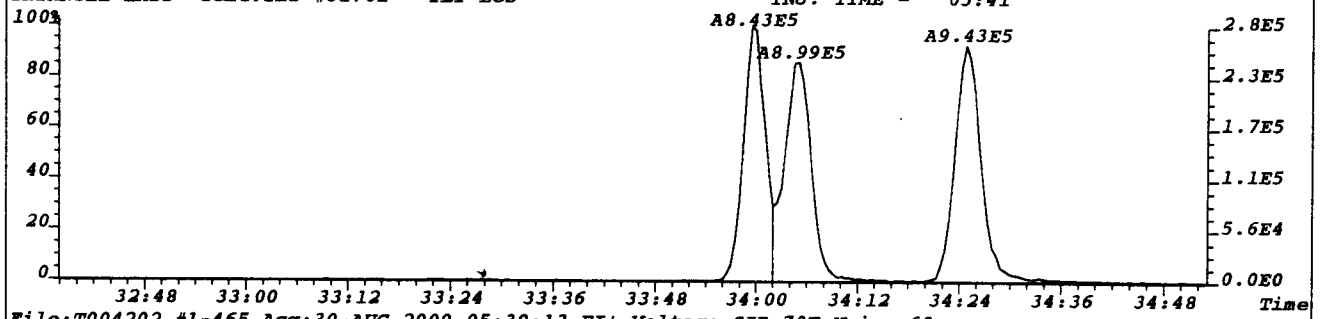
File:T004202 #1-465 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



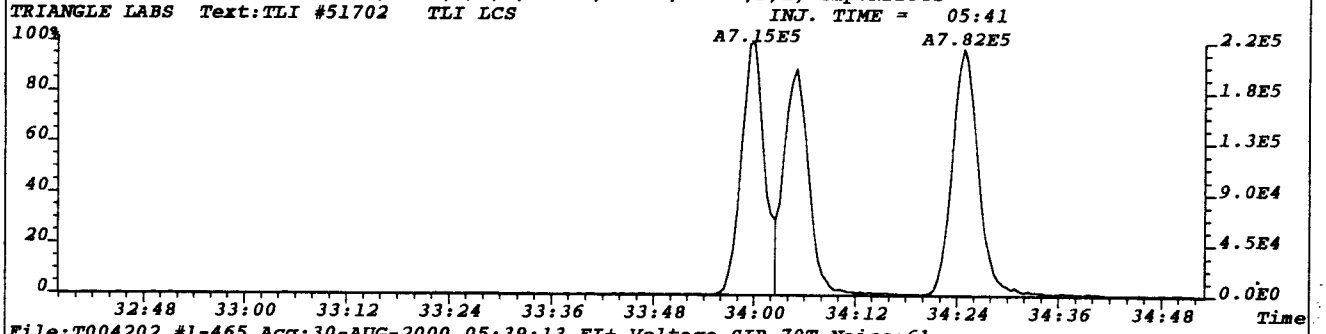
File:T004202 #1-465 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
445.7555 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



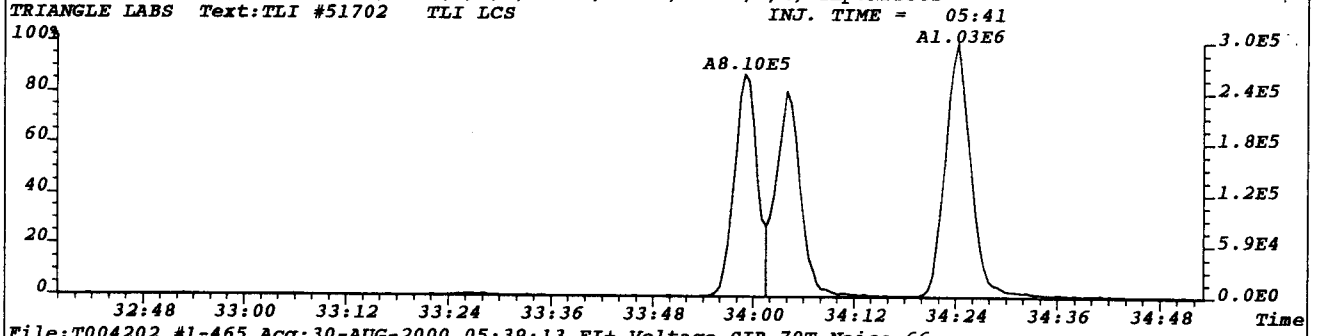
File:T004202 #1-465 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:73
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,292.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



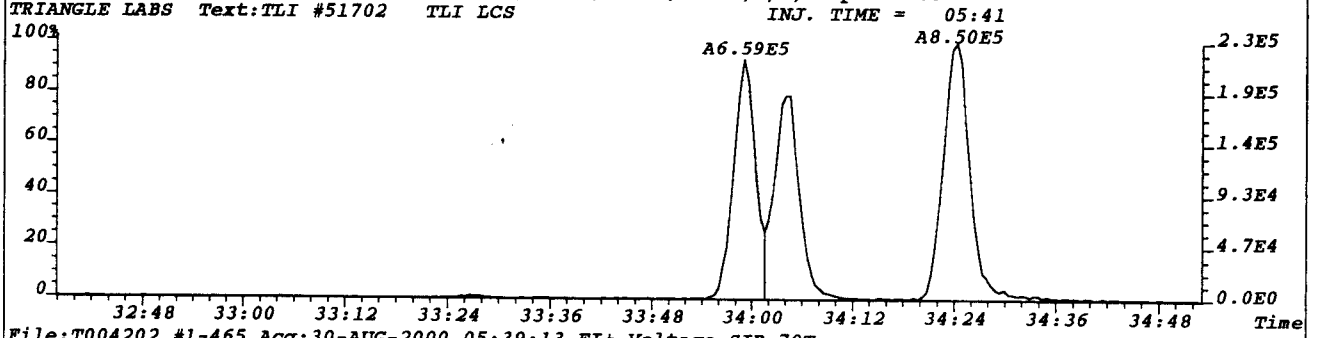
File:T004202 #1-465 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:68
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,272.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



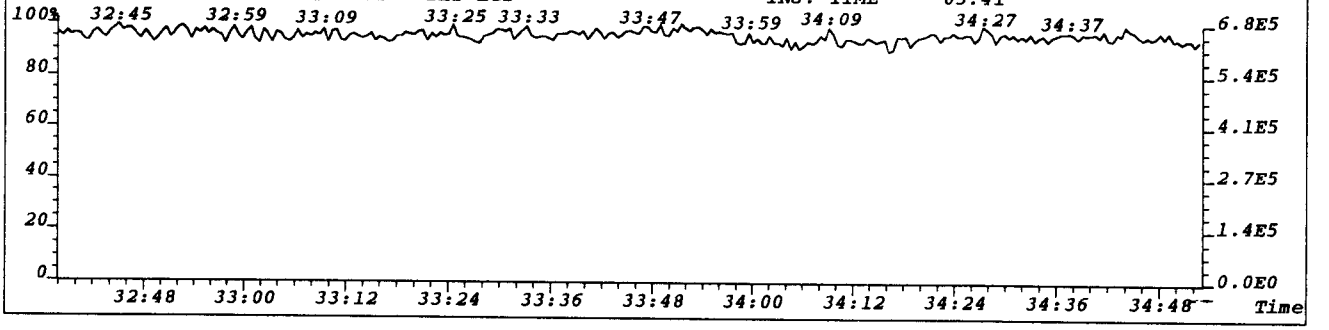
File:T004202 #1-465 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:61
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,244.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



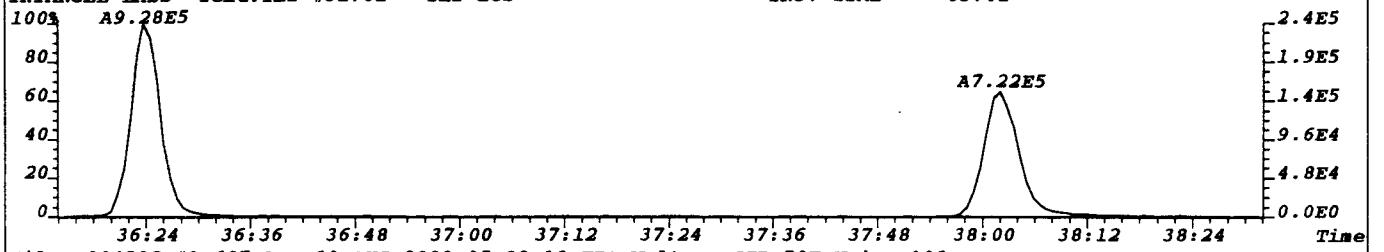
File:T004202 #1-465 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:66
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,264.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



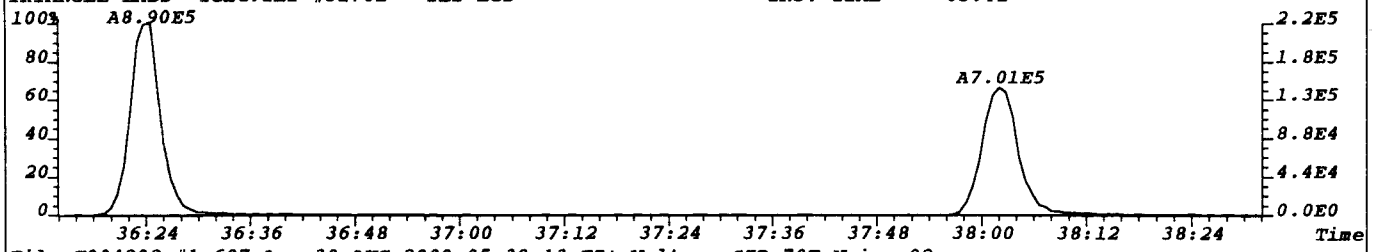
File:T004202 #1-465 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



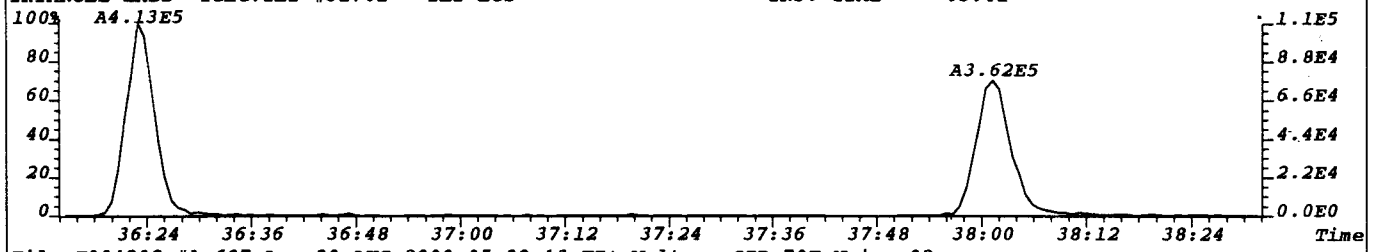
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:111
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,444.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



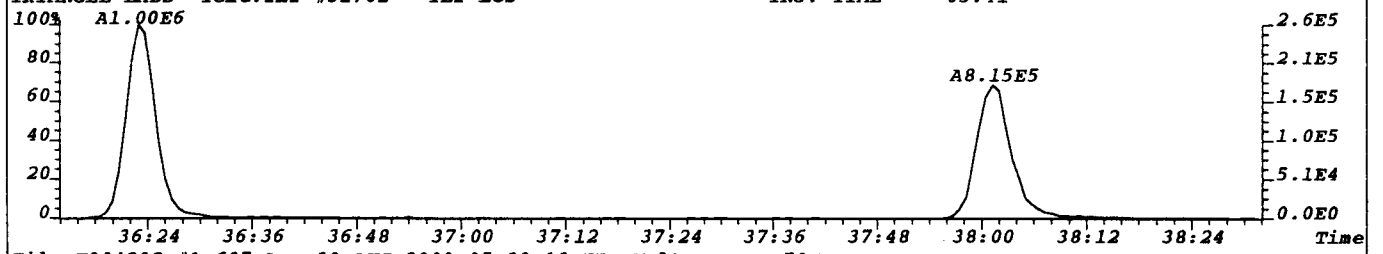
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:103
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,412.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



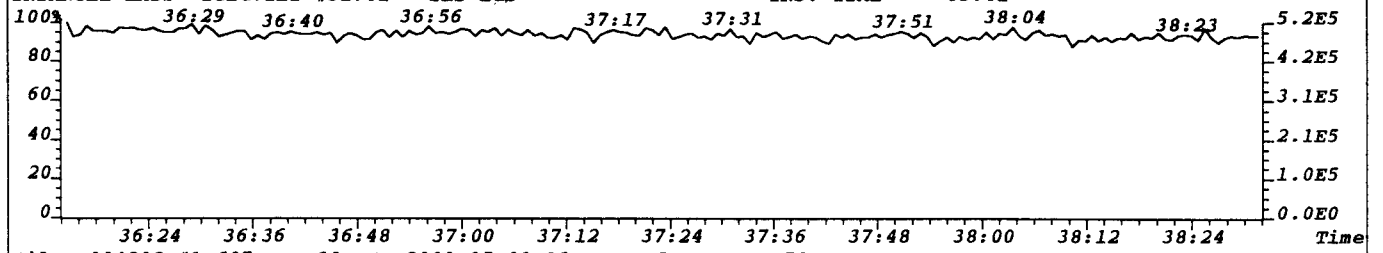
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:92
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,368.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



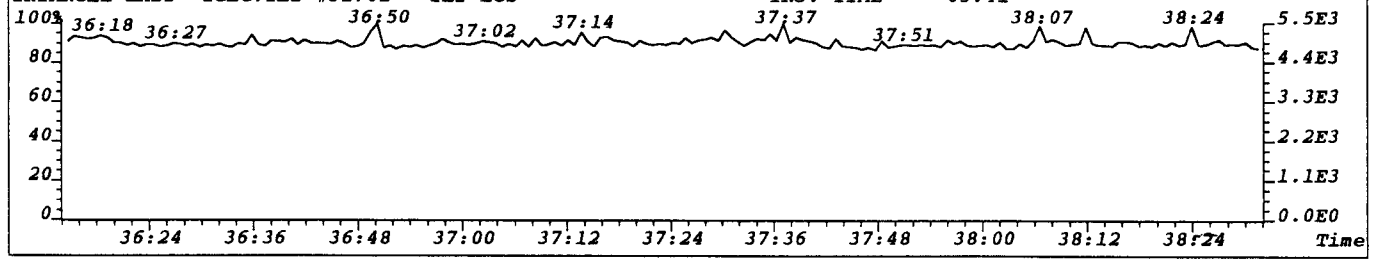
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:92
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,368.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



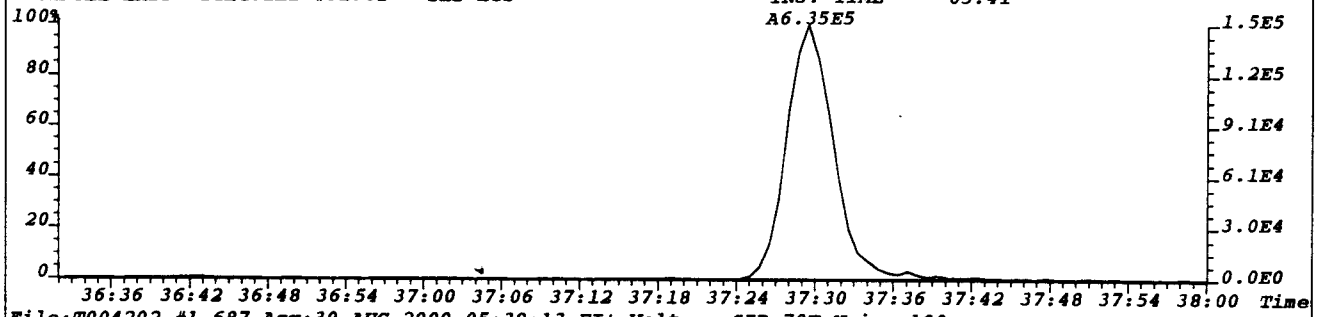
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



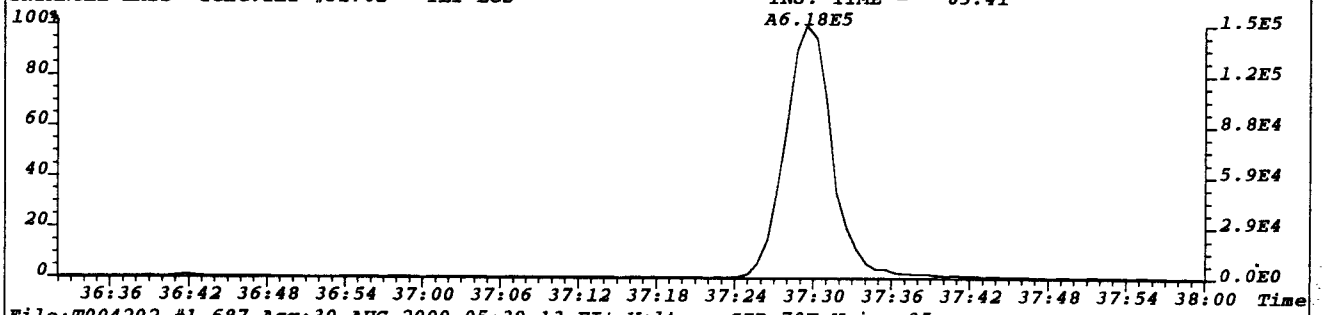
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
479.7165 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



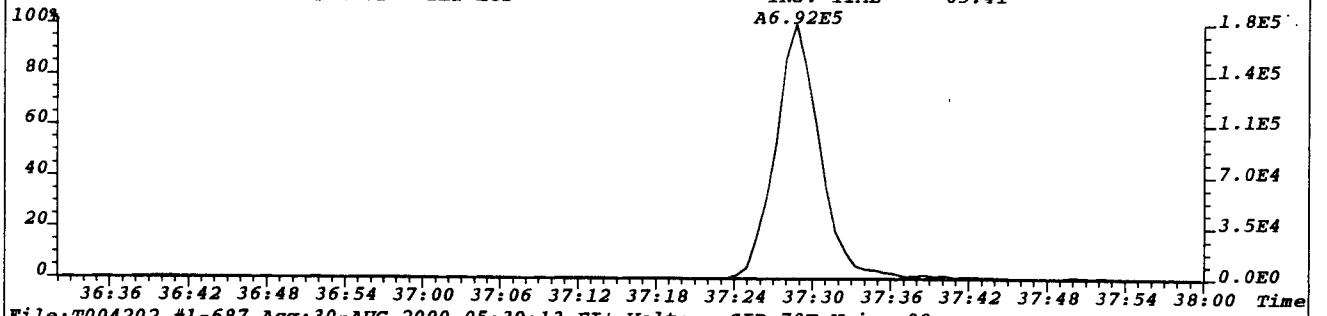
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:97
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,388.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



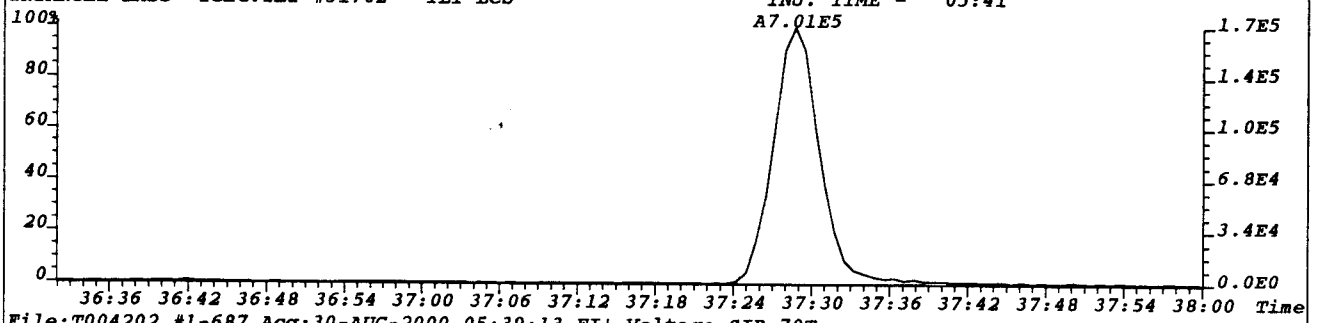
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:100
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,400.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



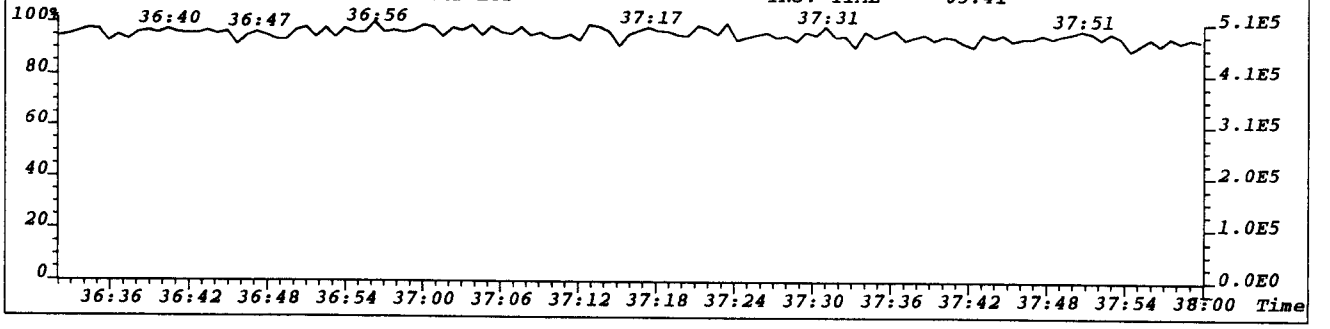
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:95
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,380.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



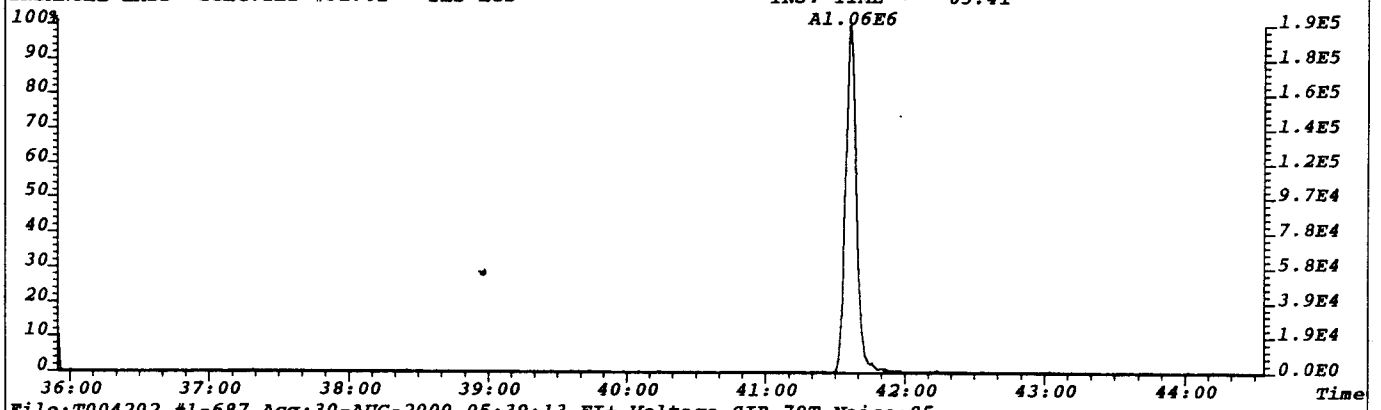
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:99
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,396.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



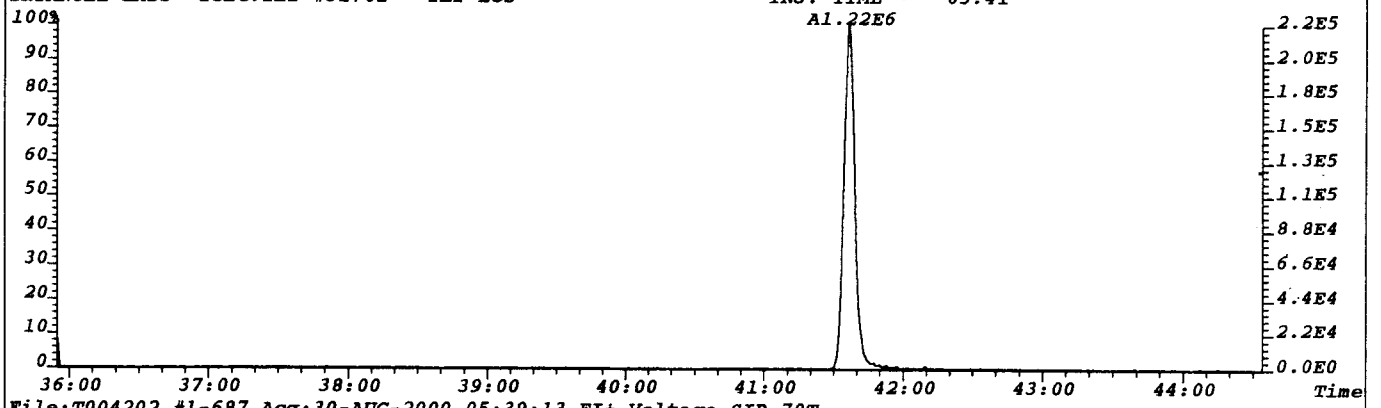
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



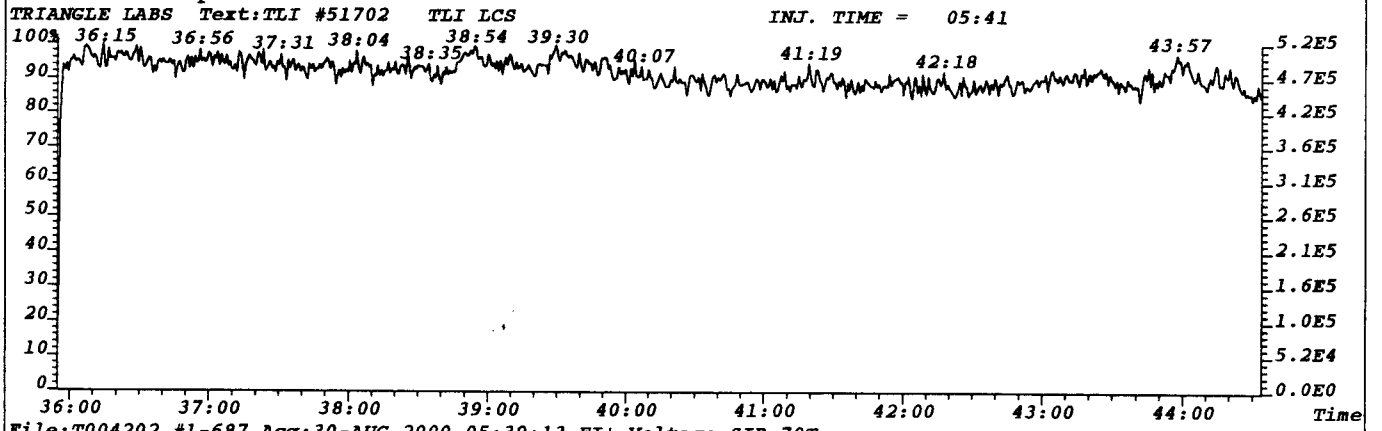
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:86
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,344.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



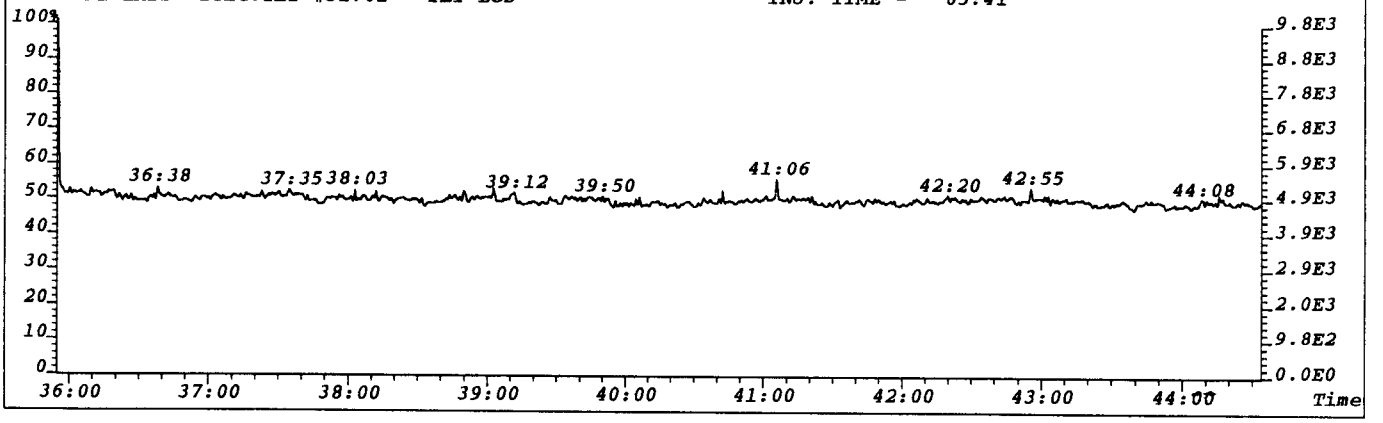
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:85
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,340.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



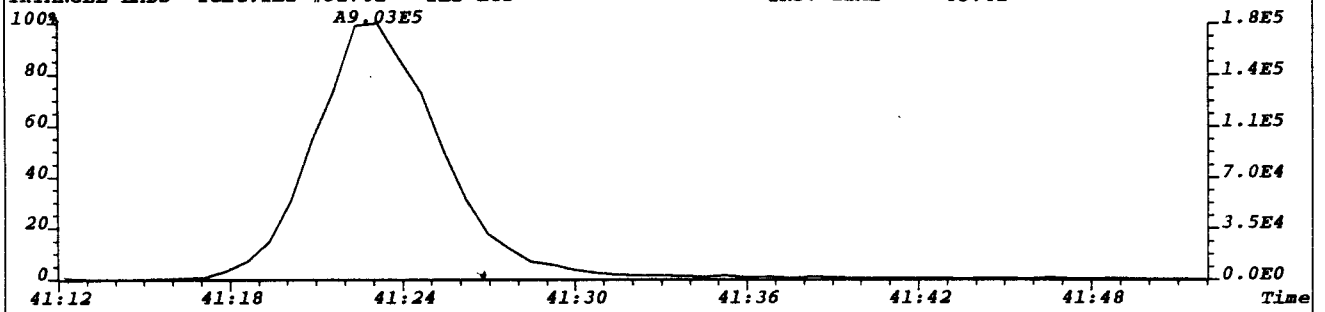
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



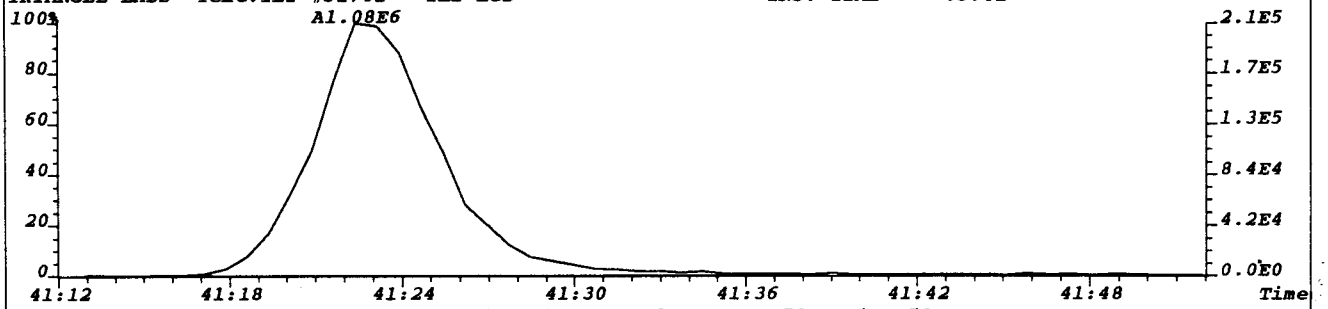
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
513.6775 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



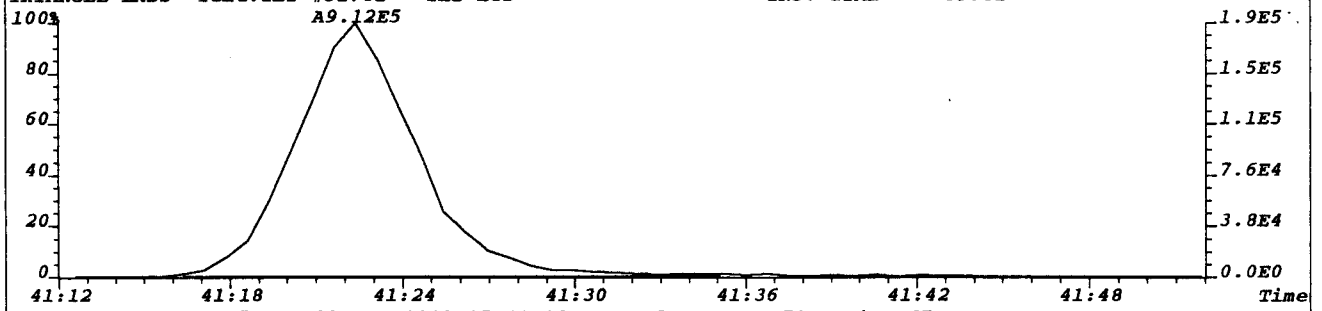
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:73
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,292.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



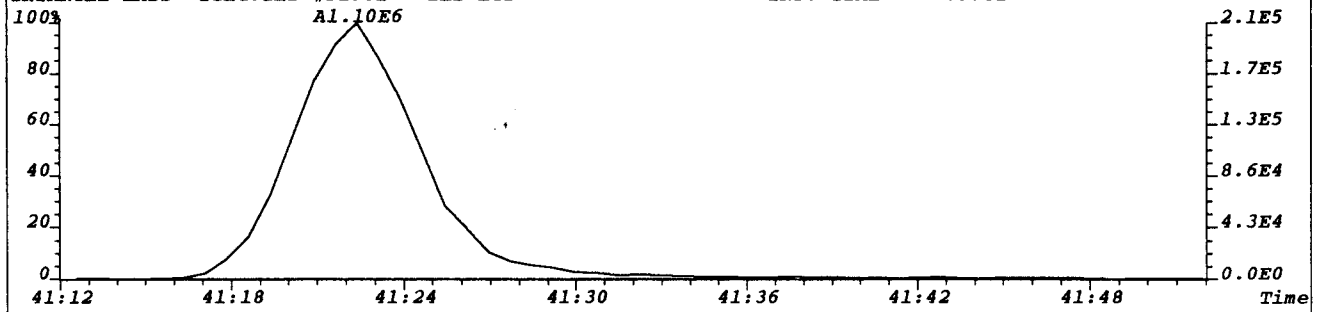
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:78
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,312.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



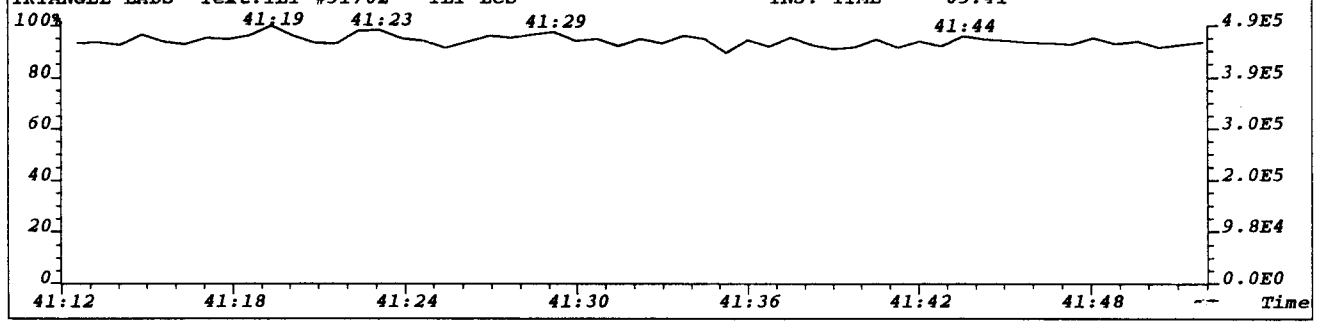
File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:79
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,316.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41

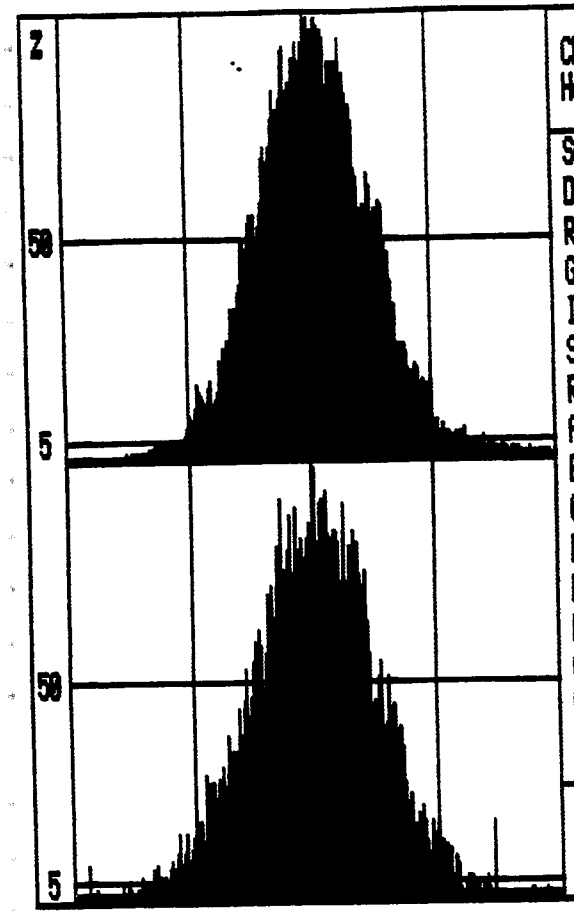


File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T Noise:67
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,268.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41



File:T004202 #1-687 Acq:30-AUG-2000 05:39:13 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCS INJ. TIME = 05:41





Channel I 330.9792 Peak top
Height .56 volts Span 200 ppm

System file name	NOBSUS
Data file name	A:T830001
Resolution	10000
Group number	2
Ionization mode	EI+
Switching	VOLTAGE
Ref. masses	292.9825, 416.9760

A	293	J	331	S	368
B	304	K	332	T	370
C	306	L	334	U	376
D	316	M	340	V	410
E	318	N	342		
F	320	O	352		
G	322	P	354		
H	328	Q	356		
I	331	R	358		

Ref. mass 416.9760 Peak top
Height .09 volts Span 200 ppm

Pinnacle Laboratories, Inc.

TLI Project: **51702** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **TLI LCSD** Analysis File: **T004203**

Client Project:	**008056**				
Sample Matrix:	**SAND**	Date Received:	/ /	Spike File:	**SPMIT32S**
TLI ID:	**TLI LCSD**	Date Extracted:	**08/27/2000**	ICal:	**TF57140**
		Date Analyzed:	**08/30/2000**	ConCal:	**T004193**
Sample Size:	**10.000 g**	Dilution Factor:	**n/a**	% Moisture:	**n/a**
Dry Weight:	**n/a**	Blank File:	**T004196**	% Lipid:	**n/a**
GC Column:	**DB-5**	Analyst:	**DPW**	% Solids:	**n/a**

Analytes	Conc. (ppt)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	47.1			0.78	26:48	___
1,2,3,7,8-PeCDD	209			1.58	30:54	___
1,2,3,4,7,8-HxCDD	210			1.23	33:58	___
1,2,3,6,7,8-HxCDD	210			1.24	34:04	___
1,2,3,7,8,9-HxCDD	217			1.20	34:24	___
1,2,3,4,6,7,8-HpCDD	210			1.03	37:29	___
1,2,3,4,6,7,8,9-OCDD	436			0.83	41:22	___
2,3,7,8-TCDF	44.7			0.81	26:07	___
1,2,3,7,8-PeCDF	209			1.58	29:54	___
2,3,4,7,8-PeCDF	234			1.54	30:34	___
1,2,3,4,7,8-HxCDF	177			1.27	33:16	___
1,2,3,6,7,8-HxCDF	190			1.21	33:23	___
2,3,4,6,7,8-HxCDF	256			1.22	33:52	___
1,2,3,7,8,9-HxCDF	243			1.26	34:41	___
1,2,3,4,6,7,8-HpCDF	207			1.00	36:23	___
1,2,3,4,7,8,9-HpCDF	242			1.05	38:01	___
1,2,3,4,6,7,8,9-OCDF	428			0.87	41:36	___

Internal Standards	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	165	82.6	40%-130%	0.75	26:06	___
$^{13}C_{12}$-2,3,7,8-TCDD	156	77.8	40%-130%	0.78	26:47	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	157	78.7	40%-130%	1.48	29:53	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	168	83.8	40%-130%	1.48	30:53	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	133	66.3	40%-130%	0.50	33:22	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	181	90.3	40%-130%	1.19	34:03	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	134	67.2	25%-130%	0.43	36:22	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	174	86.9	25%-130%	1.04	37:28	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	322	80.4	25%-130%	0.86	41:21	___

mit3_PSR v1.00, LARS 6.25.00

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Printed: 14:45 08/30/2000

Pinnacle Laboratories, Inc.

TLI Project: **51702** Method 8290 PCDD/PCDF Analysis (b)
Client Sample: **TLI LCSD** Analysis File: **T004203**

Surrogate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,4,7,8-PeCDF	168	84.0	40%-130%	1.50	30:33	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	121	60.6	40%-130%	0.50	33:15	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	168	83.8	40%-130%	1.24	33:58	—
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	172	85.9	25%-130%	0.42	38:01	—

Other Standard	Conc. (ppt)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	16.6	82.9	40%-130%	26:48	—

Alternate Standards (Type B)	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	166	83.0	40%-130%	0.50	34:40	—
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	174	87.1	40%-130%	0.49	33:51	—

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.79	26:36	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.18	34:23	—

Data Reviewer: PPb 08/30/2000

mit3_PSR v1.00, LARS 6.25.00

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Printed: 14:45 08/30/2000

Initial ....Date...

Data Review By: ph 08/30/00

Channel specific noise levels computed from 'NL' heights.

The Total Area for each peak with an ion abundance ratio outside ratio limits has been recalculated according to method requirements.

Page No. 1 Listing of T004203B.dbf
08/30/2000 Matched GC Peaks / Ratio / Ret. Time

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
TCDF				0.65-0.89						0.880-1.070			
304-306	DC	NL				Height	0.14	0.07	0.07				
				25:08		0.79	2.01	0.89	1.12	0.963			
	DC	SN		25:26	RO	0.60	0.60			0.974			
				25:44		0.85	1.26	0.58	0.68	0.986	1278-TCDF	AN	
				26:07		0.81	47.68	21.36	26.32	1.001	2378-TCDF	AN	
304-306			3	Peaks			50.95						
13C12-TCDF				0.65-0.89						0.962-1.038			
316-318	DC	NL				Height	0.14	0.07	0.07				
				25:07	RO	0.93	2.39	1.04	1.12	0.962			
				25:44		0.82	1.44	0.65	0.79	0.986			
				26:06		0.75	208.43	89.65	118.78	1.000	13C12-2378-TCDF	IS0	
						Height	54.94	23.20	31.74				
				26:32		0.68	1.93	0.78	1.15	1.017			
316-318			4	Peaks			214.19						

---------- Above: TCDF / TCDD Follows ----------

TCDD				0.65-0.89						0.905-1.042			
320-322	DC	NL				Height	0.14	0.07	0.07				
	DC	SN		25:01	RO	0.92	0.76			0.934			
				26:48		0.78	34.68	15.15	19.53	1.001	2378-TCDD	AN	
320-322			1	Peak			34.68						
37Cl-TCDD										0.925-1.075			
328	DC	NL				Height	0.06	0.06					
	DC	SN		26:27			0.10			0.988			
	DC	SN		26:35			0.06			0.993			
				26:48			14.52	14.52		1.001	37Cl-TCDD	CLS	
	DC	SN		26:59			0.11			1.007			
	DC	SN		27:07			0.13			1.012			
	DC	SN		27:14			0.14			1.017			
	DC	SN		27:21			0.14			1.021			
	DC	SN		27:52			0.03			1.040			
	DC	SN		28:01			0.06			1.046			
328			1	Peak			14.52						
13C12-TCDD				0.65-0.89						0.925-1.075			
332-334	DC	NL				Height	0.15	0.08	0.07				
				25:39	RO	0.91	0.48	0.21	0.23	0.958			
	DC	SN		25:58	RO	0.63	0.28			0.970			
				26:36		0.79	196.85	86.82	110.03	0.993	13C12-1234-TCDD	RS1	
				26:47		0.78	161.20	70.88	90.32	1.000	13C12-2378-TCDD	IS1	
						Height	44.55	19.61	24.94				

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Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

                        27:06 RO  0.96         1.01          0.44          0.46  1.012
                 DC  SN 27:24 RO  2.70         0.35                              1.023
332-334                4 Peaks               359.54

                 ---------------------- Above: TCDD / PeCDF Follows --------------------

PeCDF                          1.32-1.78                                  0.930-1.060
340-342          DC  NL          Height         0.14          0.07          0.07
                        29:04     1.43         1.82          1.07          0.75  0.973                        J
                        29:33     1.35         2.51          1.44          1.07  0.989                        J
                        29:54     1.58       177.00        108.50         68.50  1.001 12378-PeCDF     AN
                        30:10     1.55         3.06          1.86          1.20  1.009                        J
                        30:34     1.54       201.27        122.15         79.12  1.023 23478-PeCDF     AN
                        31:31 RO  0.70         0.74          0.45          0.64  1.055                        J
340-342                6 Peaks               386.40

13C12-PeCDF                    1.32-1.78                                  0.866-1.134
352-354          DC  NL          Height         0.14          0.07          0.07
                        29:04 RO  1.23         1.63          0.79          0.64  0.973
                        29:31 RO  1.19         1.96          0.92          0.77  0.988
                 DC  SN 29:41 RO  0.83         0.16                              0.993
                        29:53     1.48       185.76        110.78         74.98  1.000 13C12-PeCDF 123 IS2
                                Height        56.62         33.91         22.71
                        30:10 RO  1.25         2.01          0.99          0.79  1.009
                 DC  SN 30:18     1.73         0.30                              1.014
                        30:33     1.50       196.20        117.84         78.36  1.022 13C12-PeCDF 234 SUR1
                        31:31 RO  1.98         1.61          1.25          0.63  1.055
352-354                6 Peaks               389.17

                 ---------------------- Above: PeCDF / PeCDD Follows --------------------

PeCDD                          1.32-1.78                                  0.939-1.021
356-358          DC  NL          Height         0.14          0.07          0.07
                        30:54     1.58       124.24         76.07         48.17  1.001 12378-PeCDD     AN
                 DC  WH 31:45 RO  1.20         0.38                              1.028
356-358                1 Peak                124.24

13C12-PeCDD                    1.32-1.78                                  0.871-1.129
368-370          DC  NL          Height         0.14          0.07          0.07
                        29:52 RO  2.07         0.77          0.62          0.30  0.967
                        29:59 RO  1.81         0.66          0.47          0.26  0.971
                        30:53     1.48       112.46         67.13         45.33  1.000 13C12-PeCDD 123 IS3
                                Height        34.13         20.64         13.49
368-370                3 Peaks               113.89

                 ---------------------- Above: PeCDD / HxCDF Follows --------------------

HxCDF                          1.05-1.43                                  0.963-1.046
374-376          DC  NL          Height         0.17          0.09          0.08
                        32:27     1.20         0.97          0.53          0.44  0.973                        J
                        33:16     1.27       147.20         82.35         64.85  0.997 123478-HxCDF    AN
                        33:23     1.21       165.87         90.66         75.21  1.000 123678-HxCDF    AN
```

Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
				33:52		1.22	202.12	111.04	91.08	1.015	234678-HxCDF	AN	
				34:06	RO	1.04	0.56	0.26	0.25	1.022			J
				34:41		1.26	156.87	87.50	69.37	1.039	123789-HxCDF	AN	
		DC	WH	34:58	RO	0.68	0.42			1.048			
		DC	WH	35:07		1.33	0.42			1.052			
		DC	WH	35:11	RO	0.45	0.09			1.054			
		DC	WH	35:13	RO	0.42	0.14			1.055			
374-376			6	Peaks			673.59						
13C12-HxCDF				0.43-0.59					0.880-1.120				
384-386		DC	NL			Height	0.15	0.09	0.06				
		DC	SN	32:26		0.44	0.95			0.972			
				33:15		0.50	146.38	48.68	97.70	0.997	13C12-HxCDF 478	SUR2	
				33:22		0.50	162.52	53.91	108.61	1.000	13C12-HxCDF 678	IS4	
						Height	47.94	16.27	31.67				
				33:51		0.49	194.86	64.41	130.45	1.014	13C12-HxCDF 234	ALT2	
				34:40		0.50	136.32	45.45	90.87	1.039	13C12-HxCDF 789	ALT1	
		DC	SN	34:55	RO	0.18	0.41			1.046			
384-386			4	Peaks			640.08						
---------- Above: HxCDF / HxCDD Follows ----------													
HxCDD				1.05-1.43					0.957-1.014				
390-392		DC	NL			Height	0.14	0.08	0.06				
				33:58		1.23	148.07	81.75	66.32	0.998	123478-HxCDD	AN	
				34:04		1.24	147.39	81.51	65.88	1.000	123678-HxCDD	AN	
				34:24		1.20	154.51	84.13	70.38	1.010	123789-HxCDD	AN	
		DC	WH	34:50		1.33	0.28			1.023			
390-392			3	Peaks			449.97						
13C12-HxCDD				1.05-1.43					0.971-1.029				
402-404		DC	NL			Height	0.10	0.05	0.05				
				33:27	RO	0.97	1.17	0.65	0.67	0.982			
				33:58		1.24	133.05	73.57	59.48	0.998	13C12-HxCDD 478	SUR3	
				34:03		1.19	138.44	75.31	63.13	1.000	13C12-HxCDD 678	IS5	
						Height	38.51	21.07	17.44				
				34:15	RO	0.49	0.47	0.26	0.53	1.006			
				34:23		1.18	168.87	91.43	77.44	1.010	13C12-HxCDD 789	RS2	
				34:39	RO	0.78	0.52	0.29	0.37	1.018			
				34:45	RO	2.25	0.27	0.27	0.12	1.021			
				34:47	RO	0.67	0.33	0.18	0.27	1.022			
		DC	SN	34:51		1.22	0.20			1.023			
402-404			8	Peaks			443.12						
---------- Above: HxCDD / HpCDF Follows ----------													
HpCDF				0.88-1.20					0.996-1.050				
408-410		DC	NL			Height	0.15	0.08	0.07				
				36:23		1.00	142.99	71.59	71.40	1.000	1234678-HpCDF	AN	
		DC	SN	37:49	RO	0.33	0.08			1.040			
				38:01		1.05	129.09	66.19	62.90	1.045	1234789-HpCDF	AN	
		DC	WH	38:22	RO	1.88	0.49			1.055			

```
Compound/
M_Z.... QC.Log Omit Why ..RT. OK Ratio Total.Area/Ht Area/Ht.Peak1 Area/Ht.Peak2 Rel.RT Compound.Name.. ID.. Flags.

408-410              2 Peaks                 272.08

13C12-HpCDF                    0.37-0.51                                    0.945-1.110
418-420         DC  NL          Height          0.13          0.06          0.07
                        36:22     0.43        110.00         33.22         76.78  1.000 13C12-HpCDF 678 IS6
                                Height         29.54          8.42         21.12
                DC  SN  36:40 RO  0.53          0.33                               1.008
                DC  SN  36:52 RO  0.66          0.62                               1.014
                DC  SN  37:38 RO  0.36          0.16                               1.035
                DC  SN  37:45 RO  4.50          0.03                               1.038
                        38:01     0.42        109.45         32.62         76.83  1.045 13C12-HpCDF 789 SUR4
418-420              2 Peaks                 219.45

                ---------------------- Above: HpCDF / HpCDD Follows --------------------

HpCDD                          0.88-1.20                                    0.975-1.005
424-426         DC  NL          Height          0.15          0.07          0.08
                        37:29     1.03        113.00         57.20         55.80  1.000 1234678-HpCDD   AN
                DC  WH  37:45     0.93          0.79                               1.008
                DC  WH  37:55 RO  0.60          0.12                               1.012
                DC  WH  38:01 RO  1.39          0.47                               1.015
424-426              1 Peak                  113.00

13C12-HpCDD                    0.88-1.20                                    0.973-1.027
436-438         DC  NL          Height          0.14          0.07          0.07
                        36:40     1.04          0.53          0.27          0.26  0.979
                DC  SN  36:46 RO  1.30          0.20                               0.981
                        37:28     1.04        125.87         64.10         61.77  1.000 13C12-HpCDD 678 IS7
                                Height         31.16         15.87         15.29
                DC  SN  37:46 RO  0.63          0.24                               1.008
436-438              2 Peaks                 126.40

                ---------------------- Above: HpCDD / Octa-CDD and CDF Follows ----------

OCDF                           0.76-1.02                                    0.903-1.097
442-444         DC  NL          Height          0.10          0.05          0.05
                        41:36     0.87        222.94        103.52        119.42  1.006 OCDF            AN
                        41:53 RO  1.57          0.57          0.47          0.30  1.013
                        42:05 RO  1.12          0.49          0.29          0.26  1.018
                        42:15     0.84          0.70          0.32          0.38  1.022
                DC  SN  43:01 RO  1.33          0.28                               1.040
                DC  SN  43:22 RO  1.75          0.23                               1.049
442-444              4 Peaks                 224.70

OCDD                           0.76-1.02                                    0.903-1.097
458-460         DC  NL          Height          0.10          0.05          0.05
                        41:22     0.83        188.75         85.52        103.23  1.000 OCDD            AN
                        41:36     1.00          2.34          1.17          1.17  1.006
                        41:55 RO  1.50          0.53          0.42          0.28  1.014
458-460              3 Peaks                 191.62
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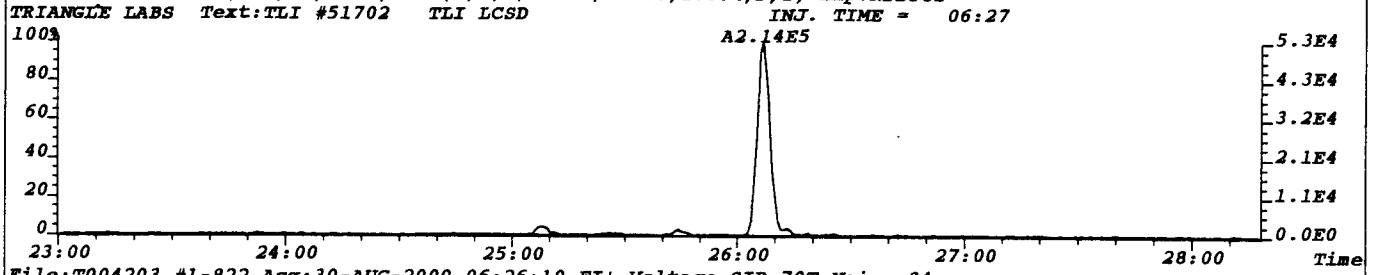
Compound/ M_Z....	QC.Log	Omit	Why	..RT.	OK	Ratio	Total.Area/Ht	Area/Ht.Peak1	Area/Ht.Peak2	Rel.RT	Compound.Name..	ID..	Flags.
13C12-OCDD						0.76-1.02				0.996-1.004			
470-472		DC	NL			Height	0.10	0.05	0.05				
				41:21		0.86	189.51	87.82	101.69	1.000	13C12-OCDD		IS8
						Height	36.38	16.51	19.87				
470-472			1 Peak				189.51						

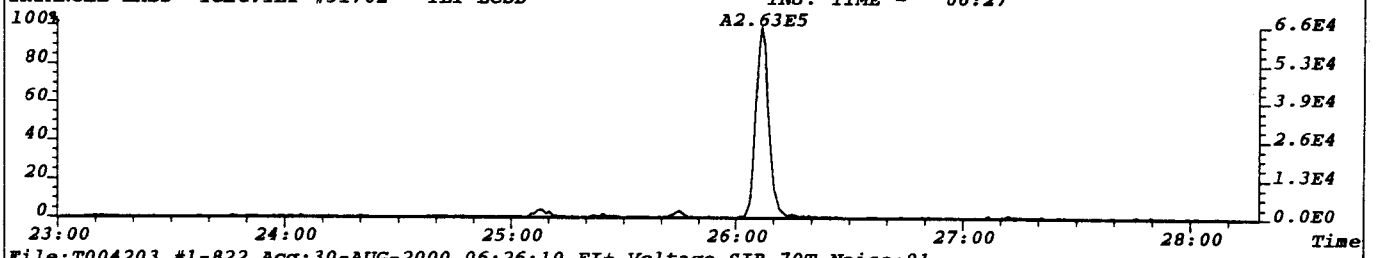
Column Description.....	"Why" Code Description.....	QC Log Desc.....
M_Z -Nominal Ion Mass(es)	WL-Below Retention Time Window	A-Peak Added
..RT. -Retention Time (mm:ss)	WH-Above Retention Time Window	K-Peak Kept
Rat.1 -Ratio of M/M+2 Ions	SN-Below Signal to Noise Level	D-Peak Deleted
OK -RO=Ratio Outside Limits	<M-Below Method Detection Limit	T-Time Changed
Rel.RT-Relative Retention Time	NL-Channel Specific Noise Level	M-Peak Area Changed
		N-Name Changed
		X-Ether Interference

*** End of Report ***

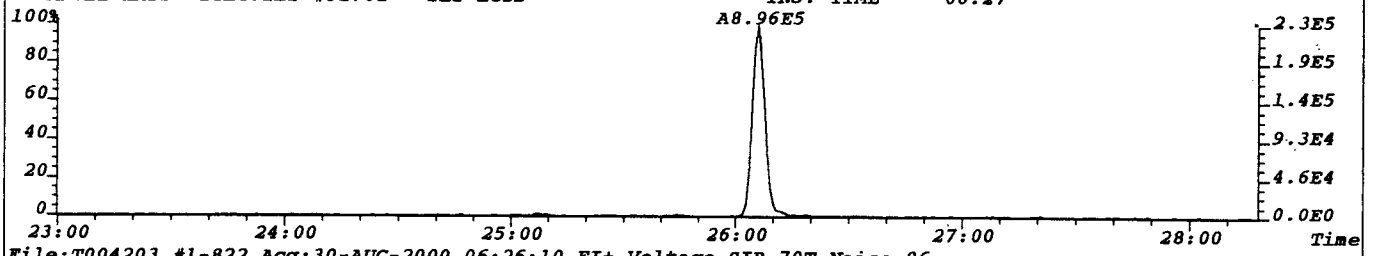
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:82
303.9016 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,328.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



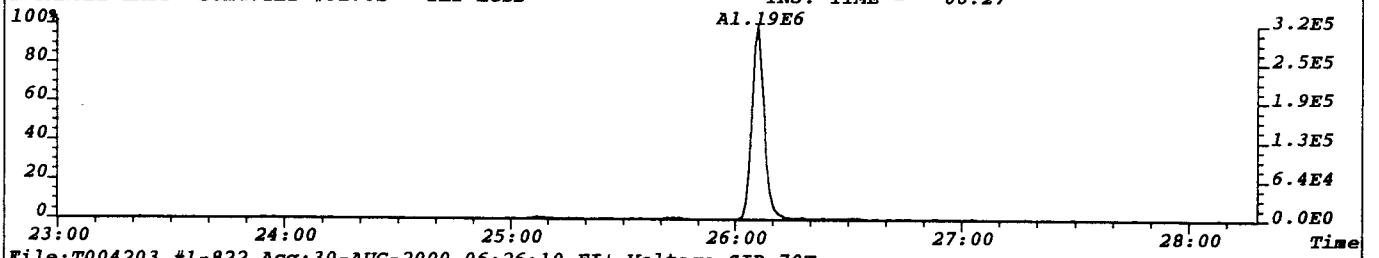
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:84
305.8987 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,336.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



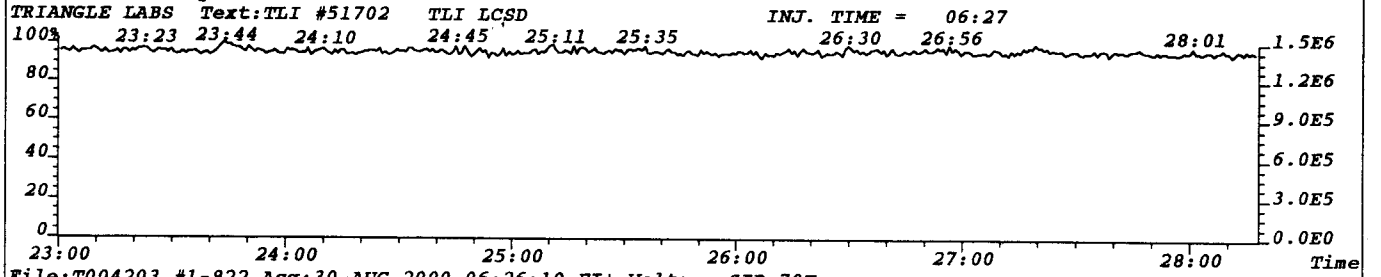
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:91
315.9419 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,364.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



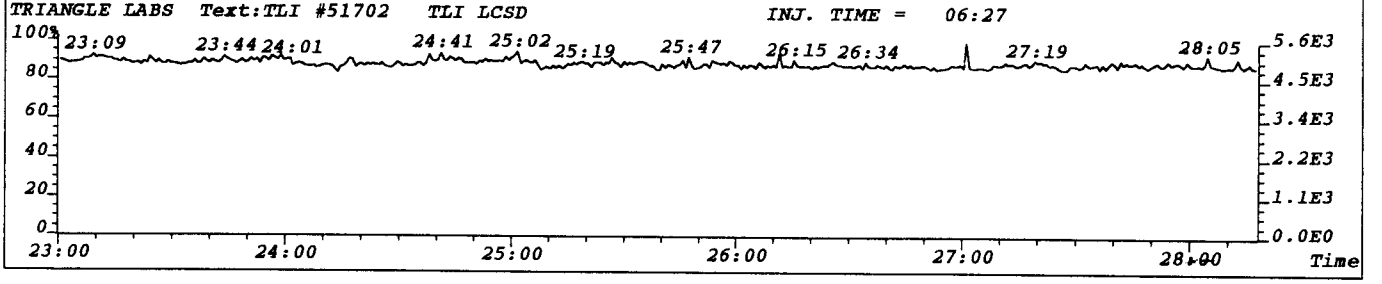
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:86
317.9389 F:2 BSUB(256,30,-3.0) PKD(9,5,5,0.05%,344.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



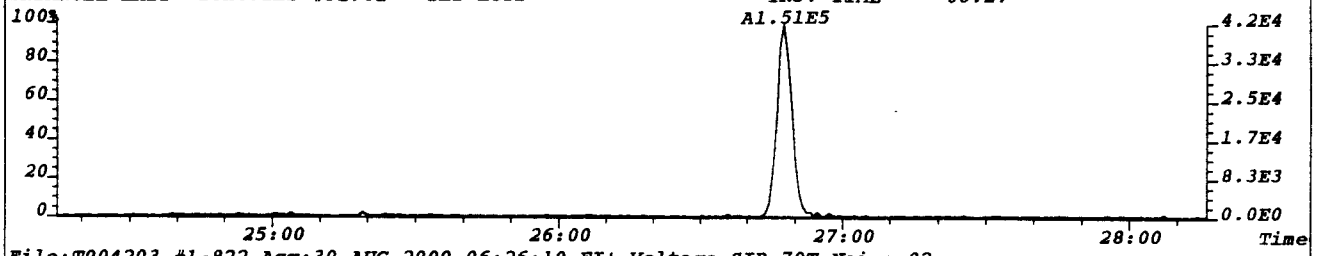
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



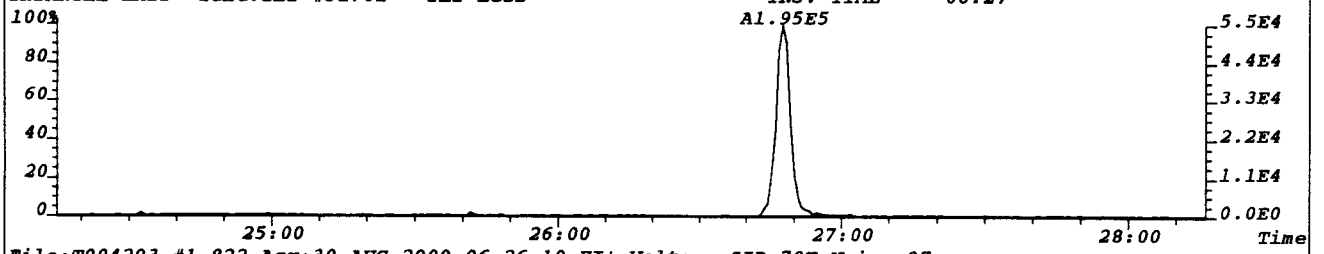
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
375.8364 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



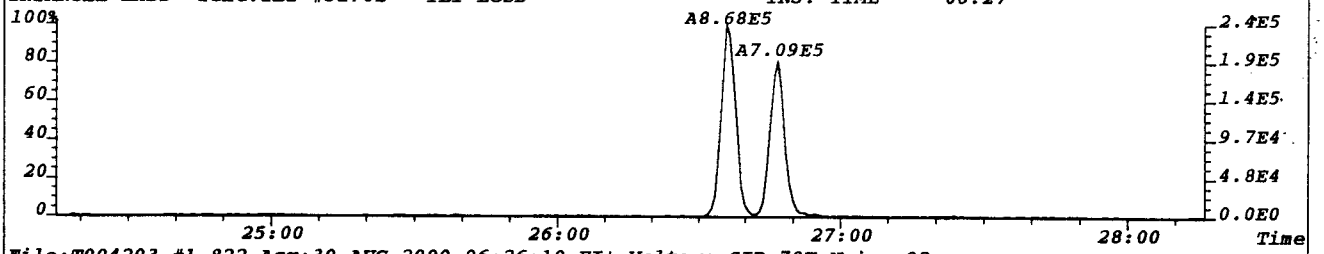
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:85
319.8965 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,340.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



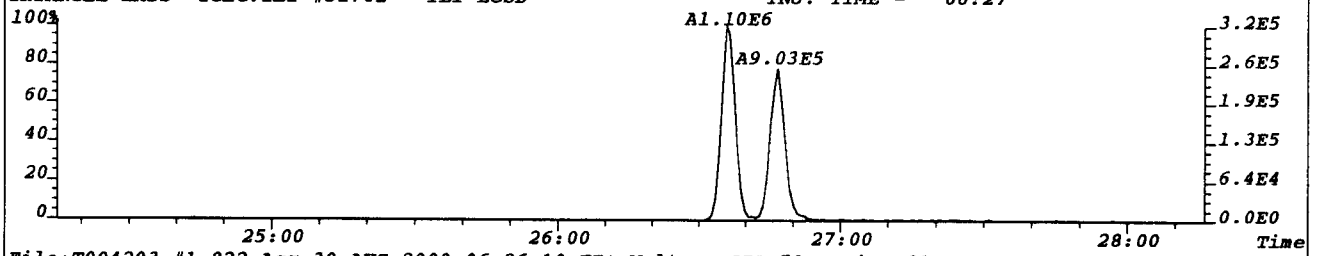
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:82
321.8936 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,328.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



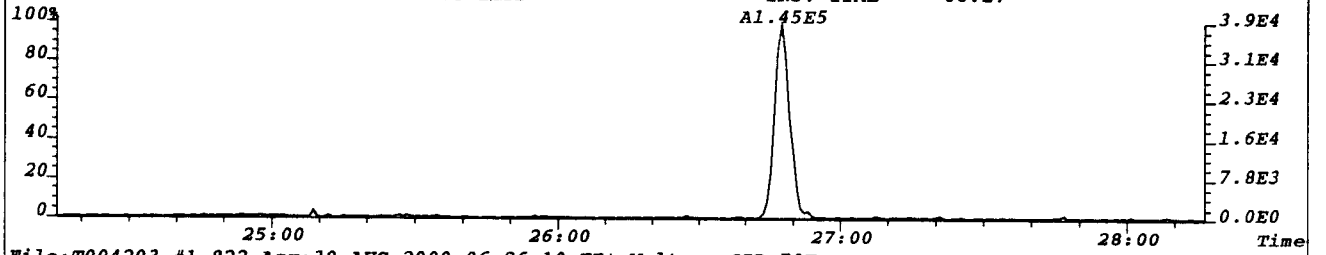
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:97
331.9368 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,388.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



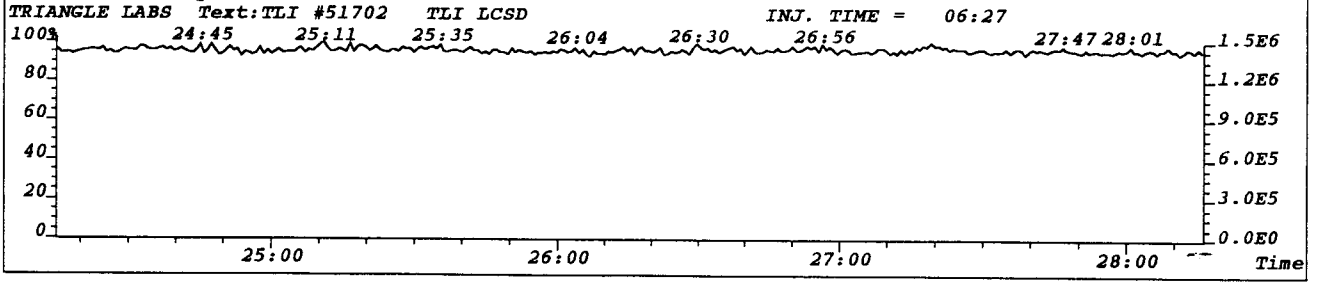
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:92
333.9338 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,368.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



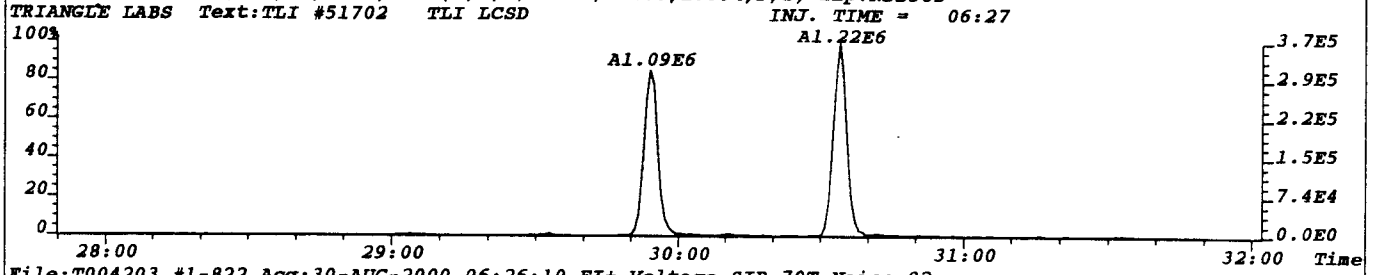
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:81
327.8847 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,324.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



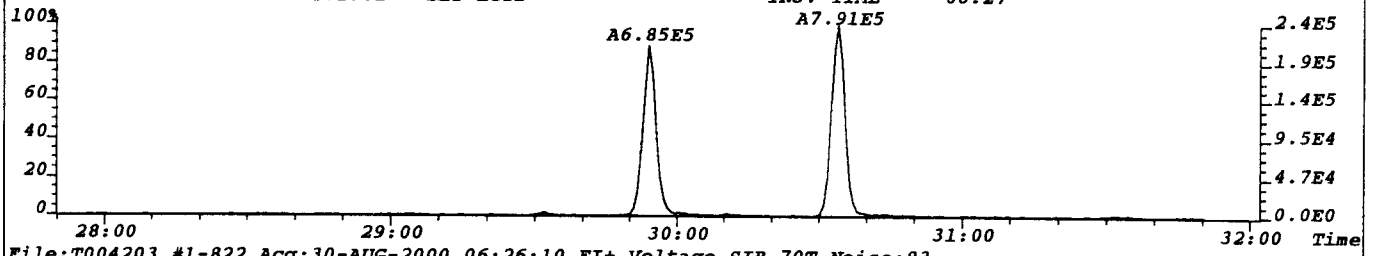
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



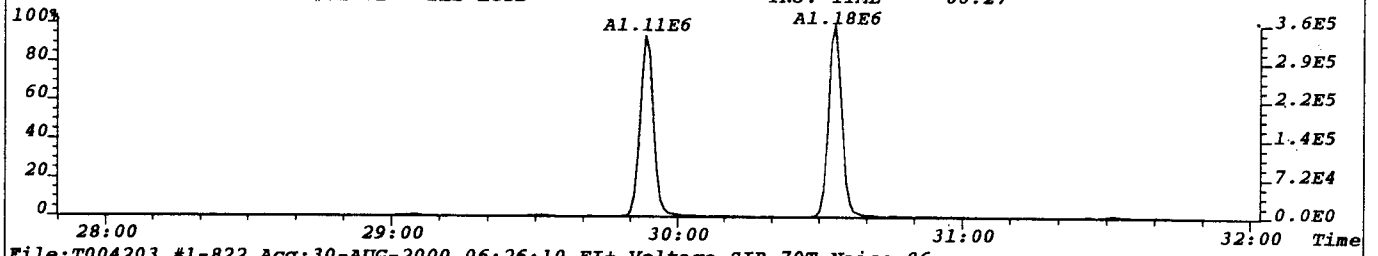
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:86
339.8597 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,344.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



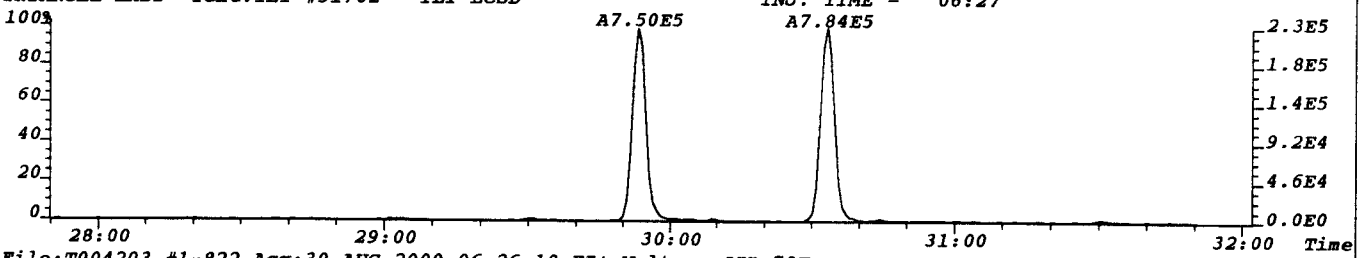
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:92
341.8567 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,368.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



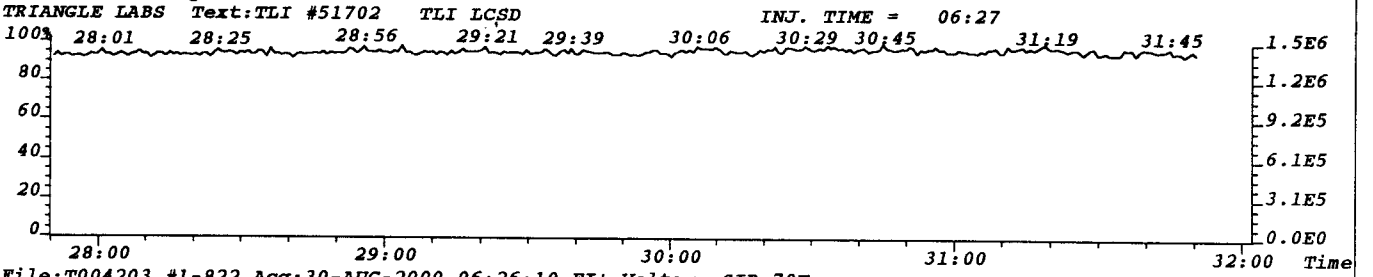
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:83
351.9000 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,332.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



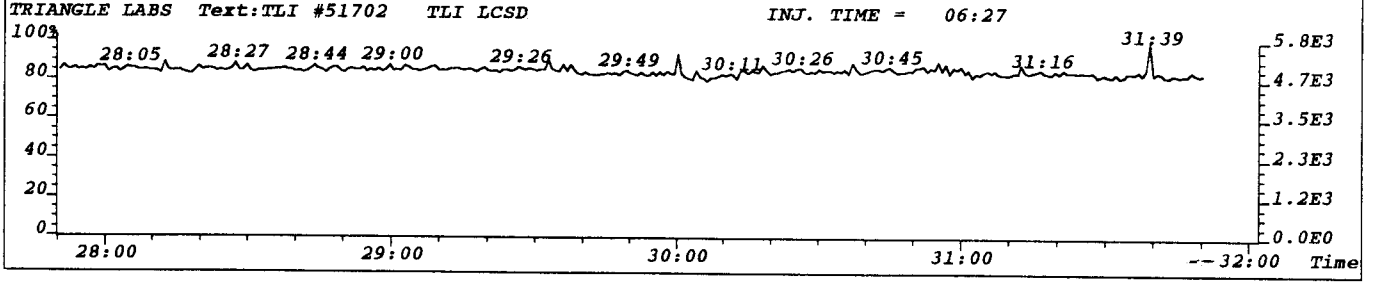
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:86
353.8970 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,344.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



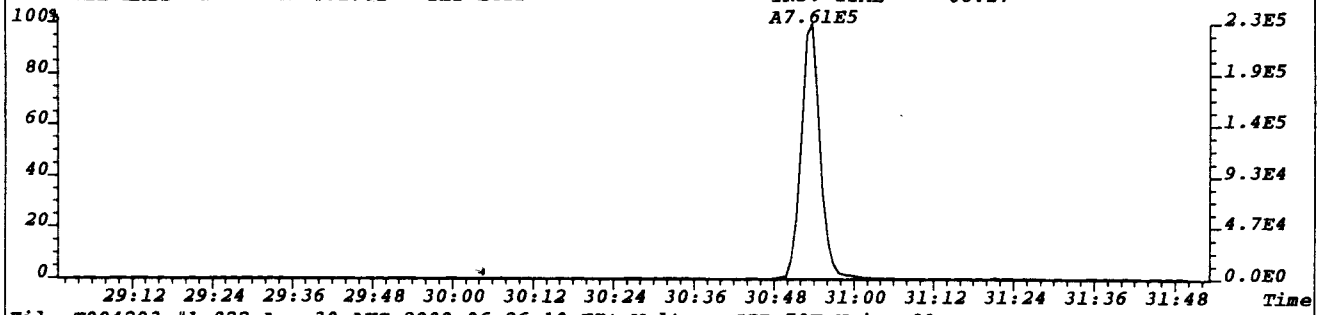
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



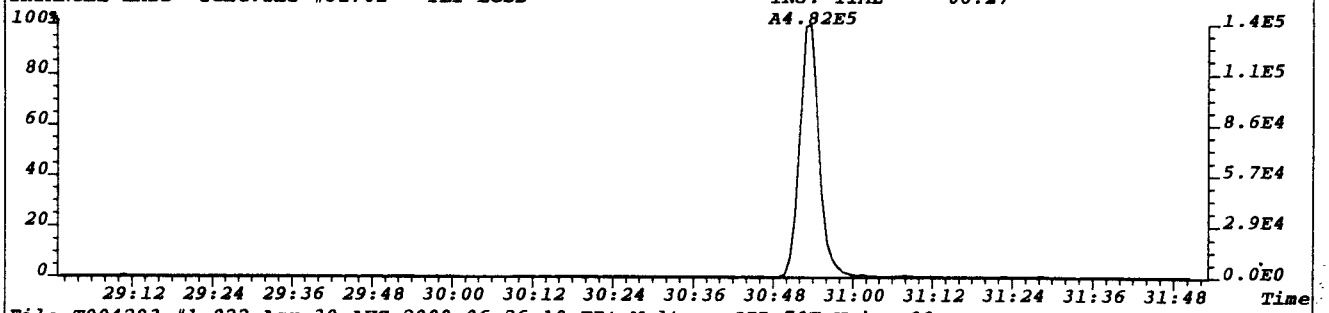
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
409.7974 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



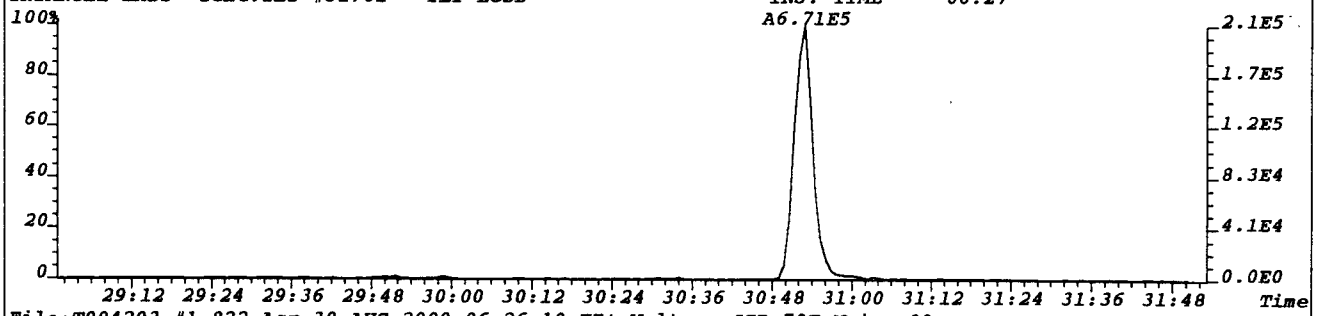
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:84
355.8546 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,336.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



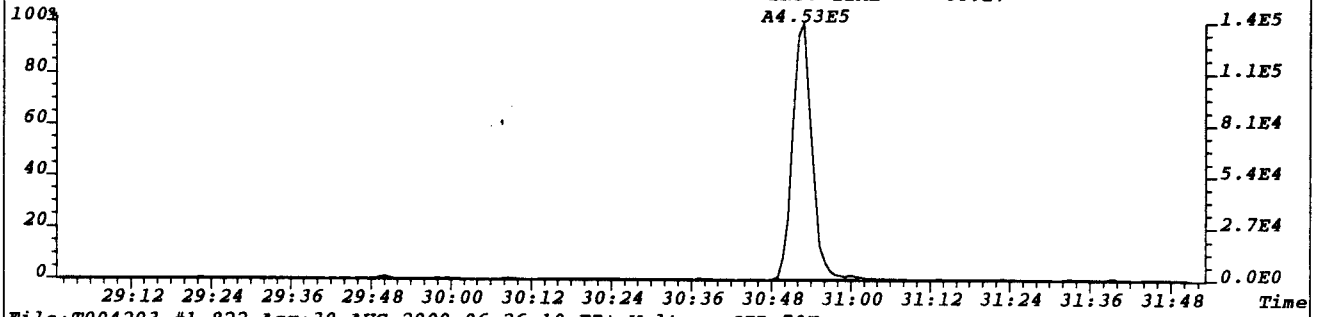
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:89
357.8516 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,356.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



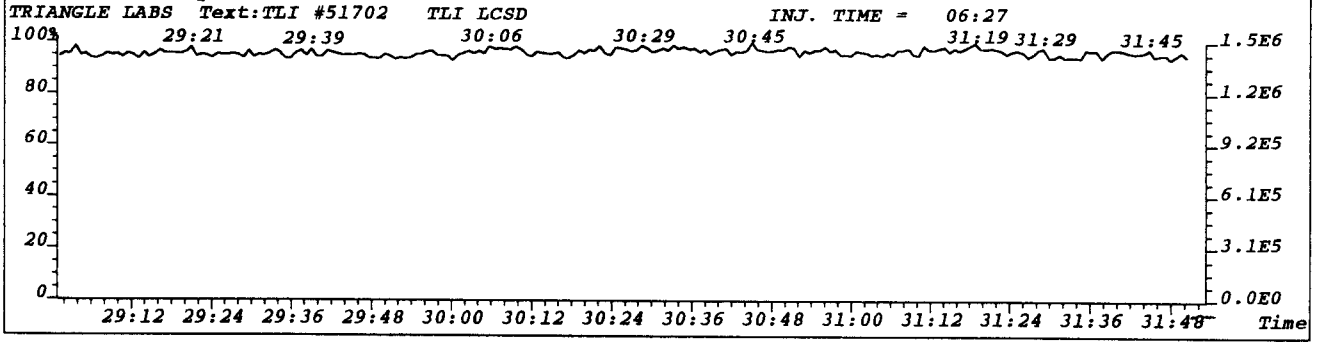
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:88
367.8949 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,352.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



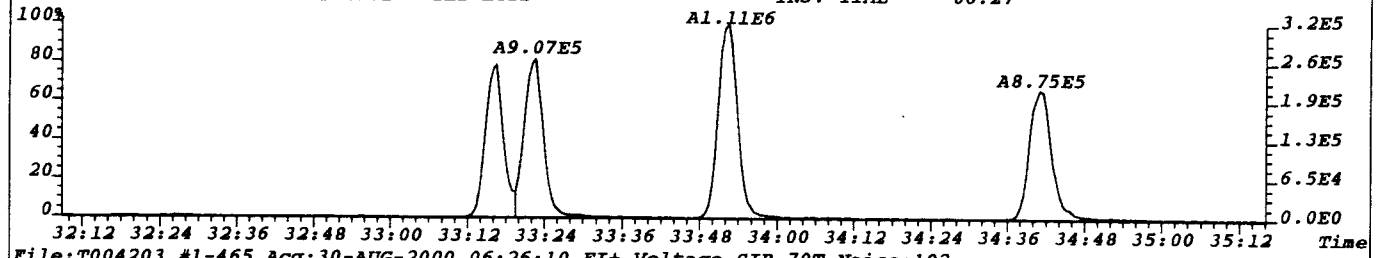
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:89
369.8919 F:2 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,356.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



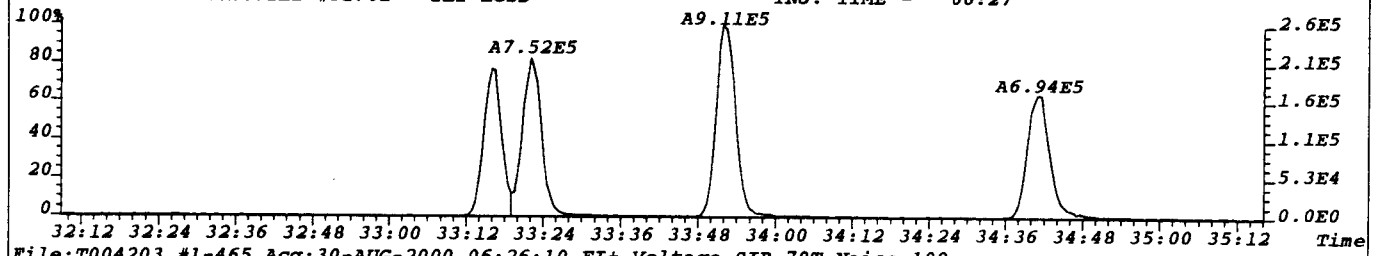
File:T004203 #1-822 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
330.9792 F:2 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



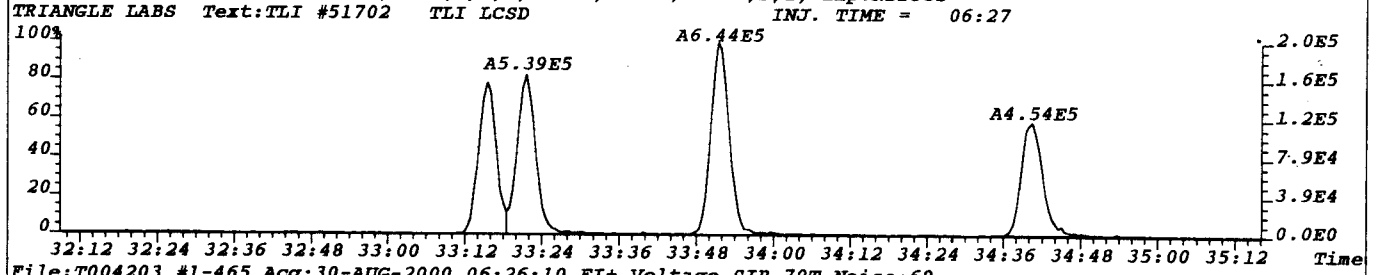
File:T004203 #1-465 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:116
373.8208 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,464.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



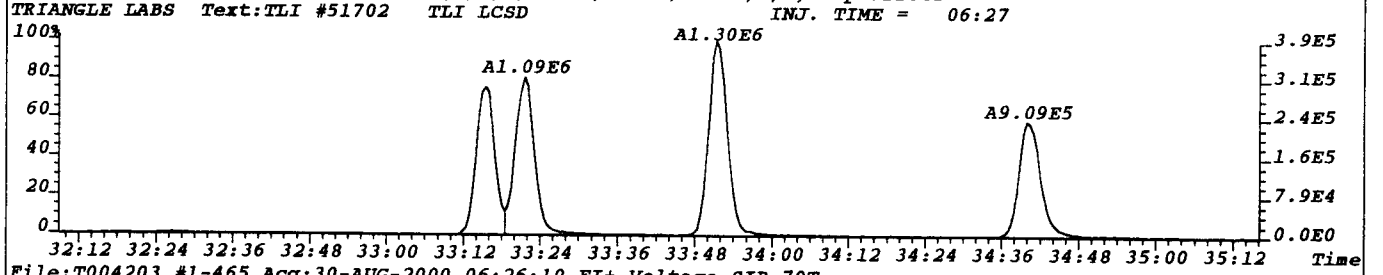
File:T004203 #1-465 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:102
375.8178 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,408.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



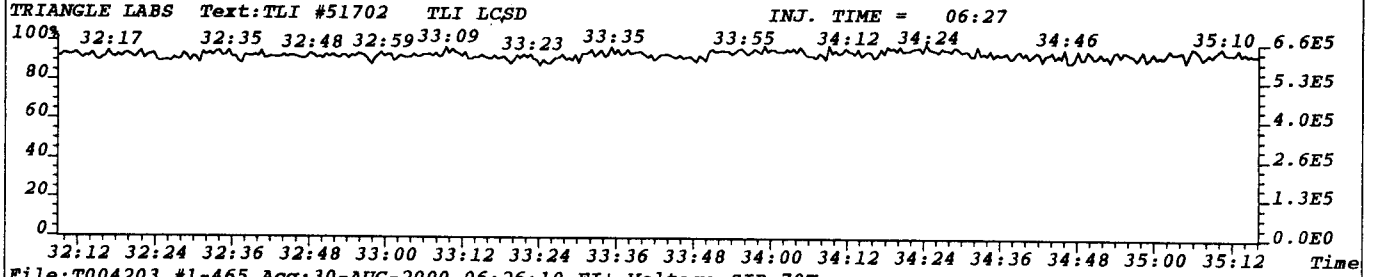
File:T004203 #1-465 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:109
383.8639 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,436.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



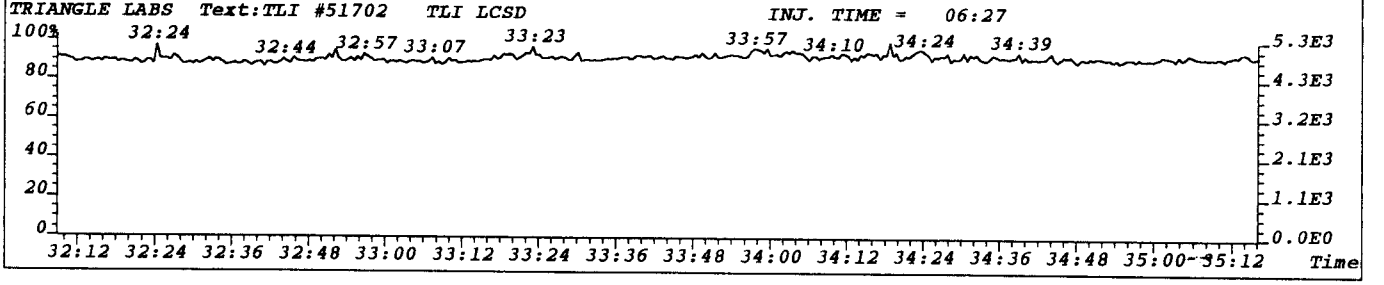
File:T004203 #1-465 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:69
385.8610 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,276.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



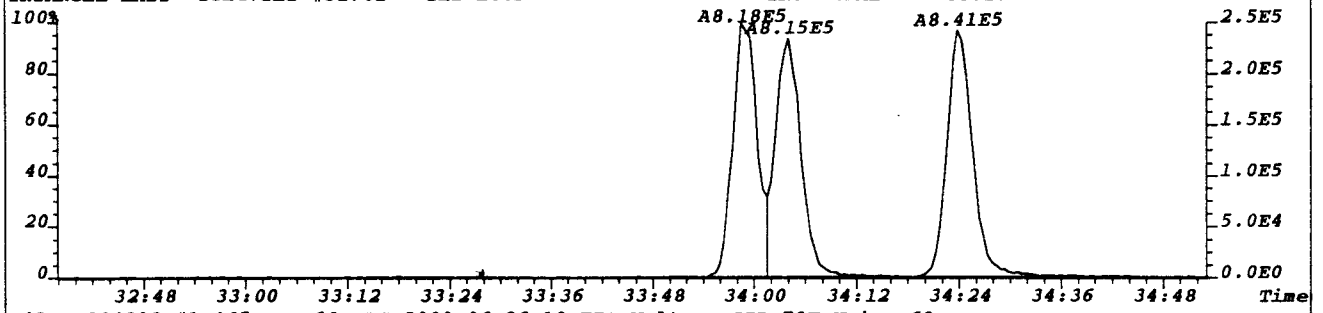
File:T004203 #1-465 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



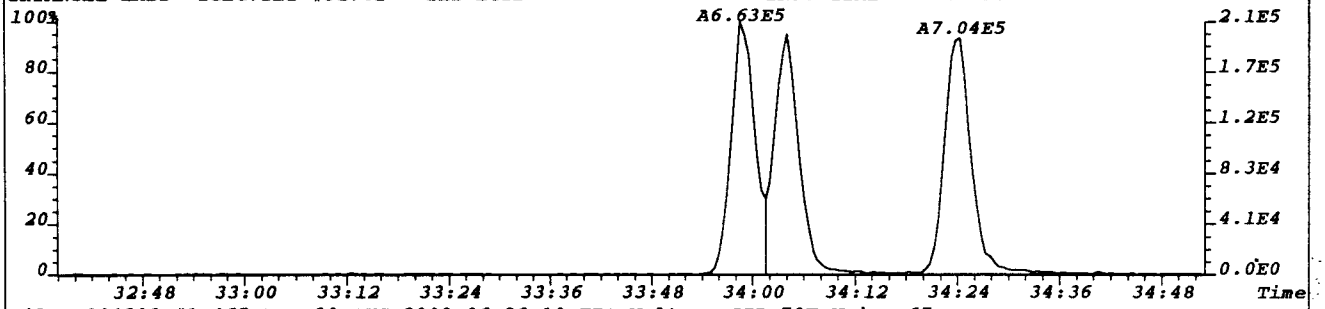
File:T004203 #1-465 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
445.7555 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



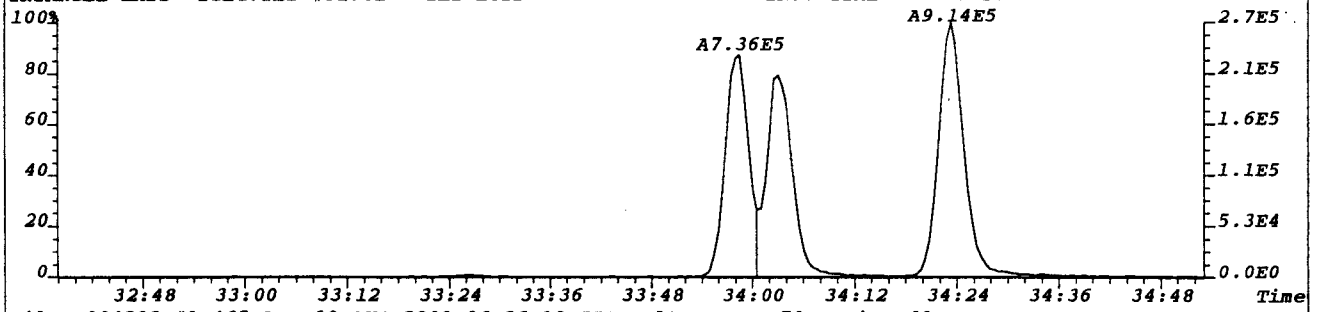
File:T004203 #1-465 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:94
389.8156 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,376.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



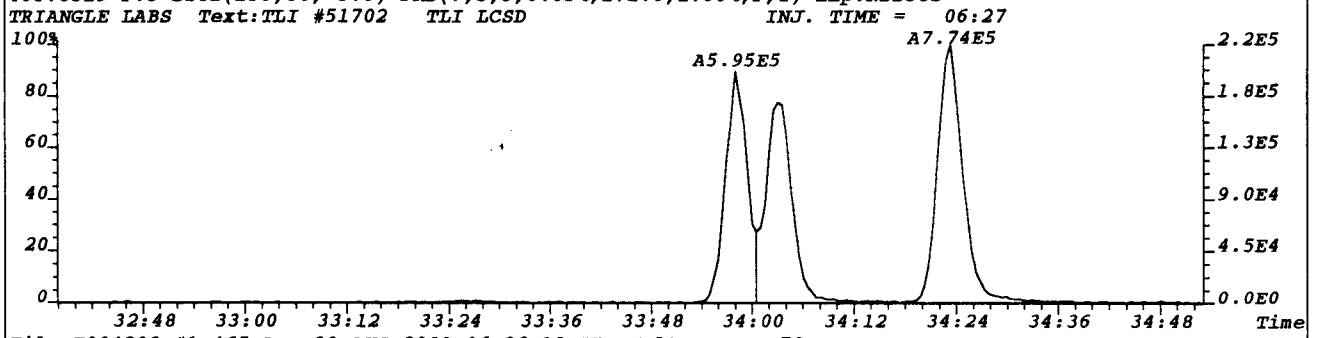
File:T004203 #1-465 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:69
391.8127 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,276.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



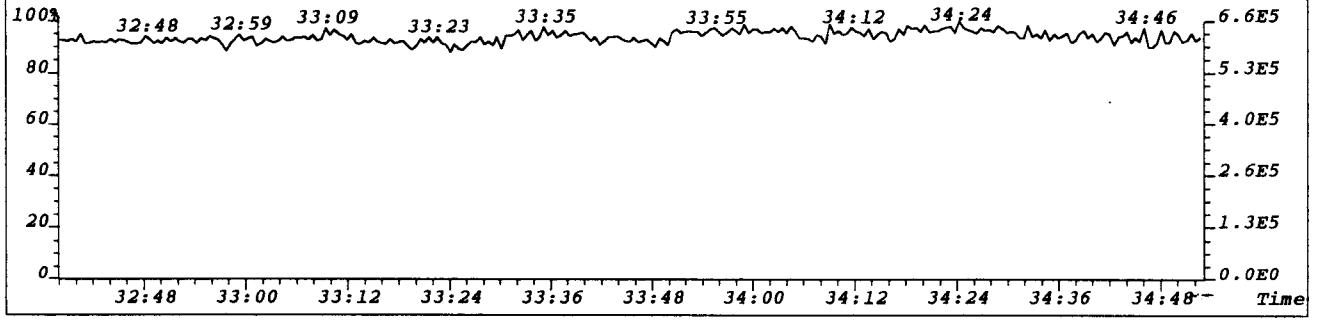
File:T004203 #1-465 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:67
401.8558 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,268.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



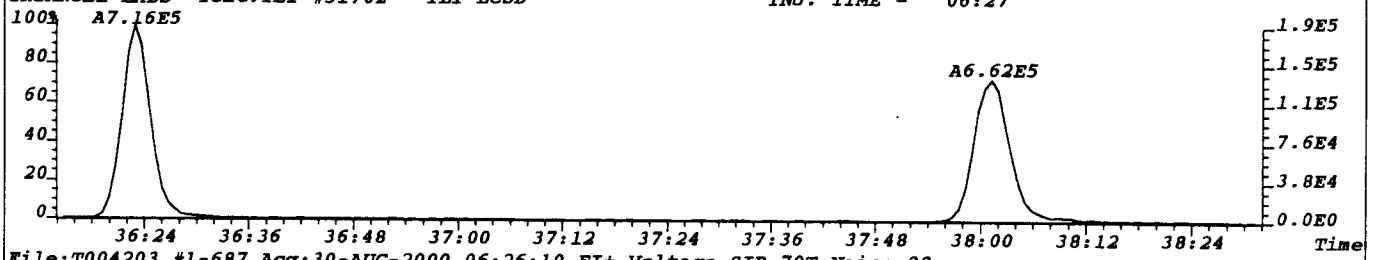
File:T004203 #1-465 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:68
403.8529 F:3 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,272.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



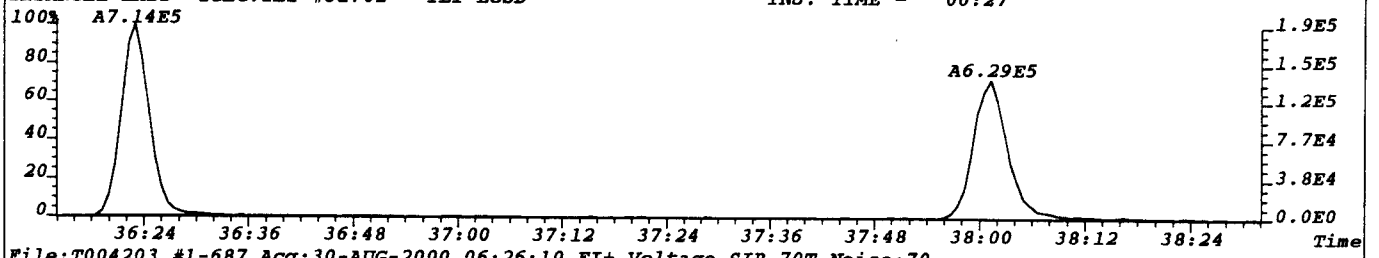
File:T004203 #1-465 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
392.9760 F:3 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



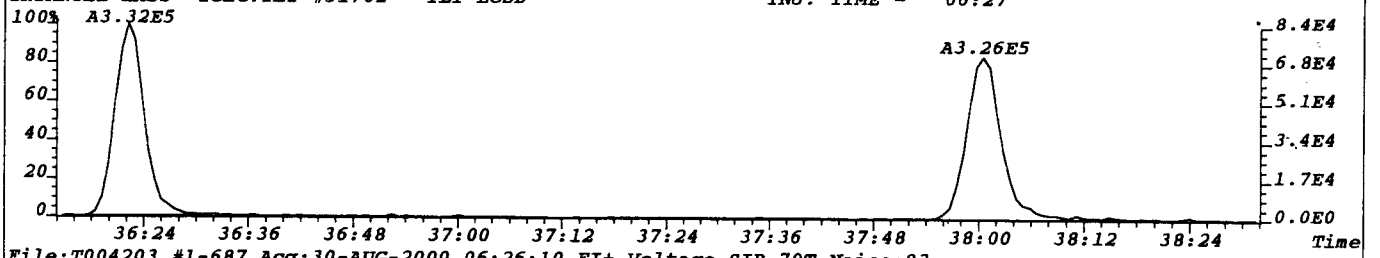
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:100
407.7818 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,400.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



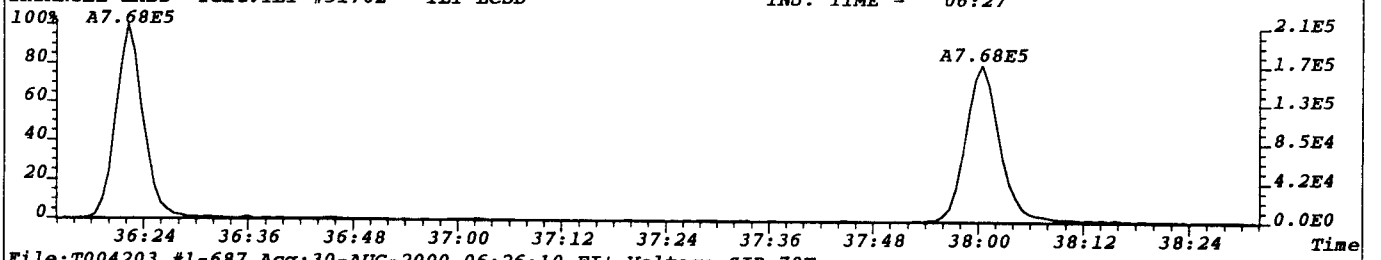
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:88
409.7789 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,352.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



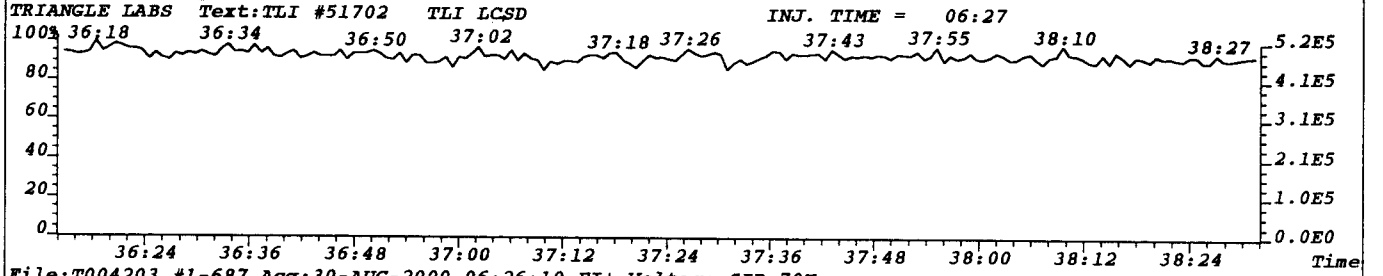
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:70
417.8253 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,280.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



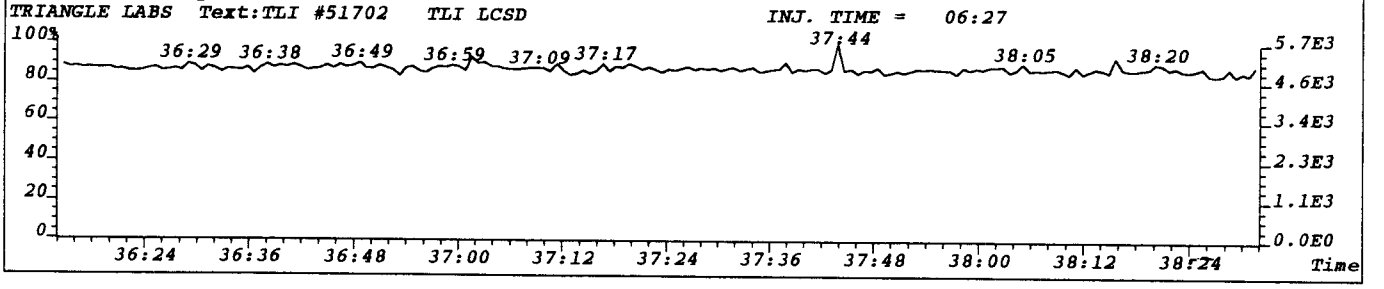
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:93
419.8220 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,372.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



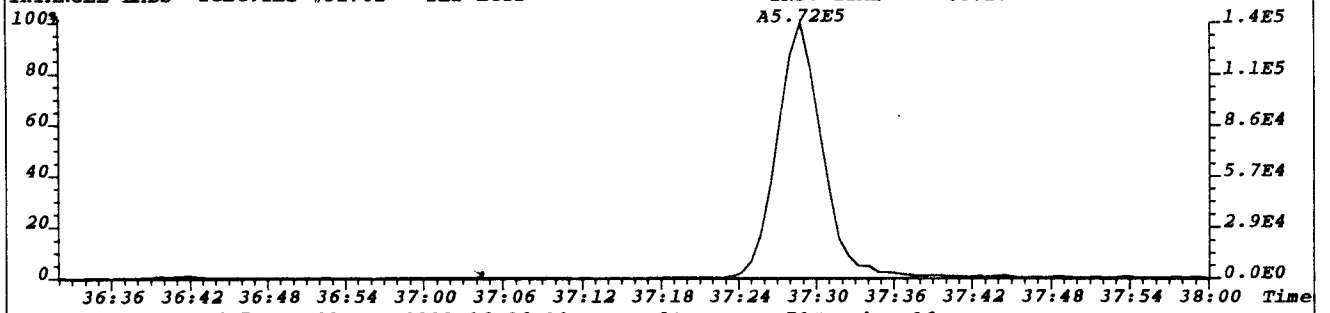
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



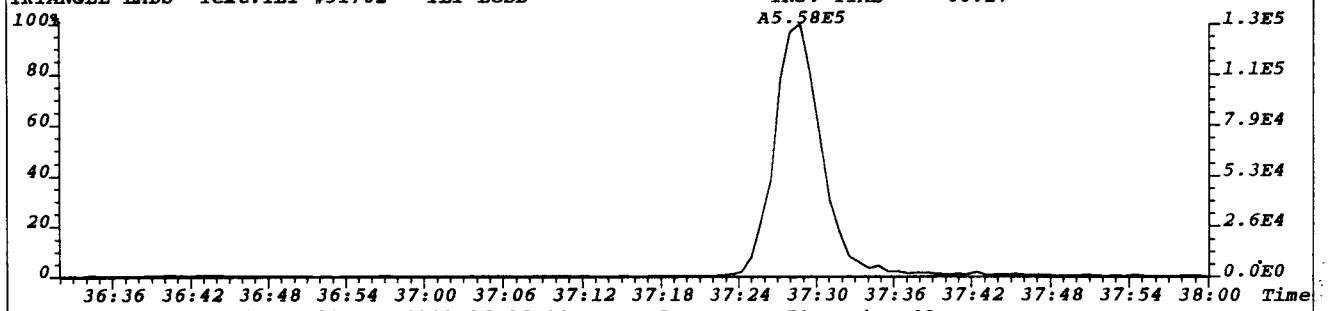
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
479.7165 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



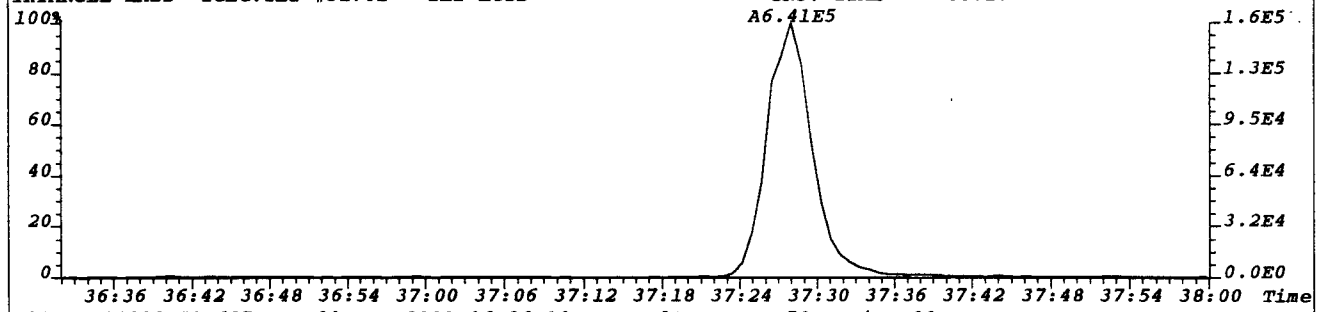
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:82
423.7766 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,328.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



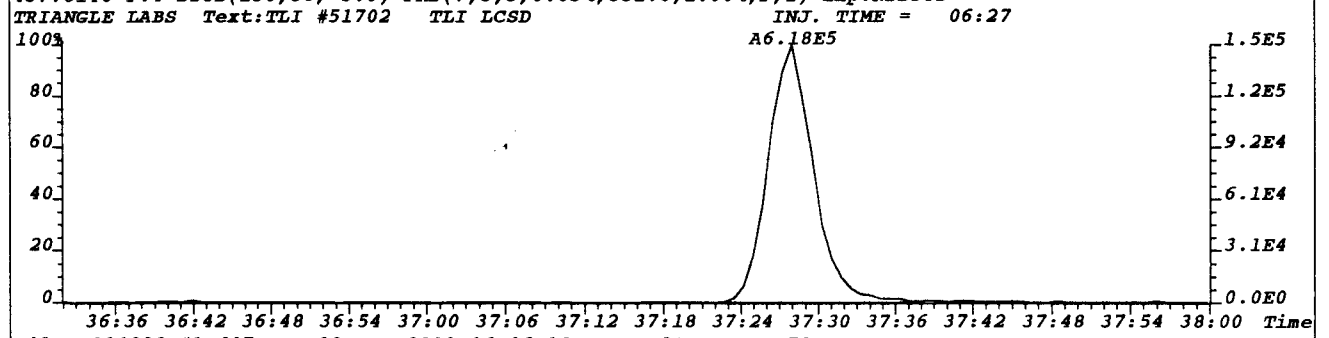
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:96
425.7737 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,384.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



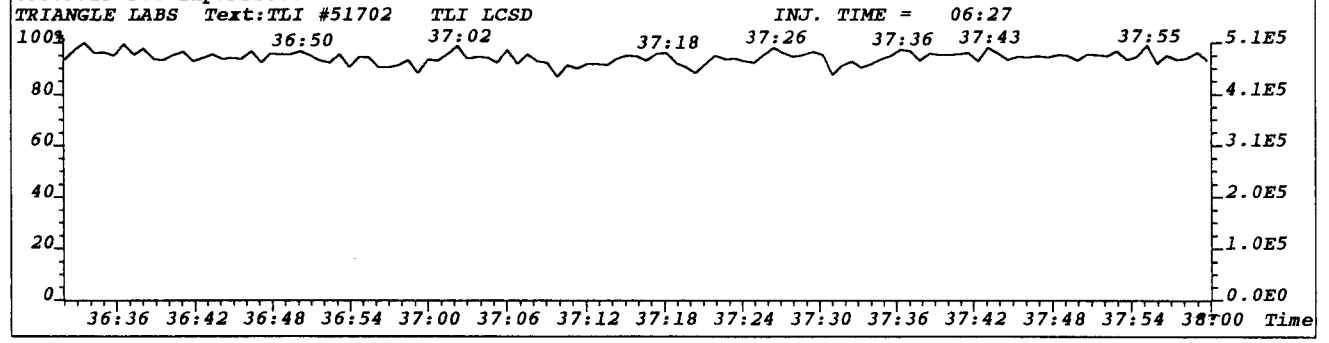
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:82
435.8169 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,328.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



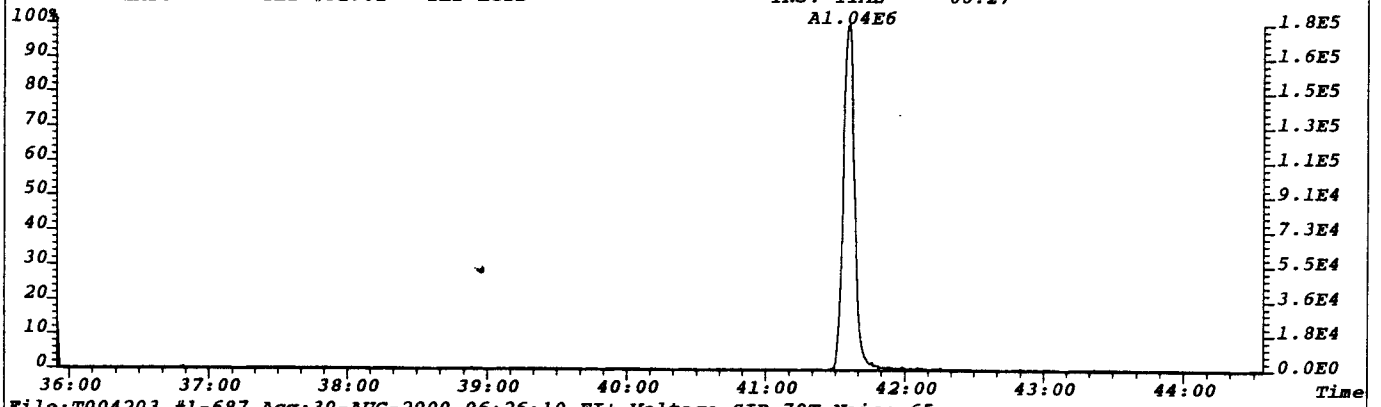
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:88
437.8140 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,352.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



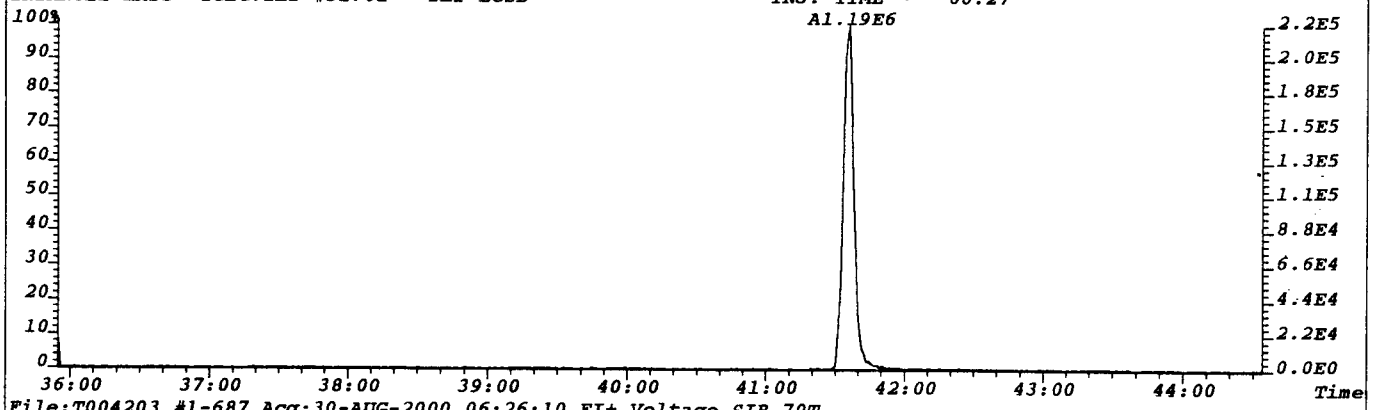
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



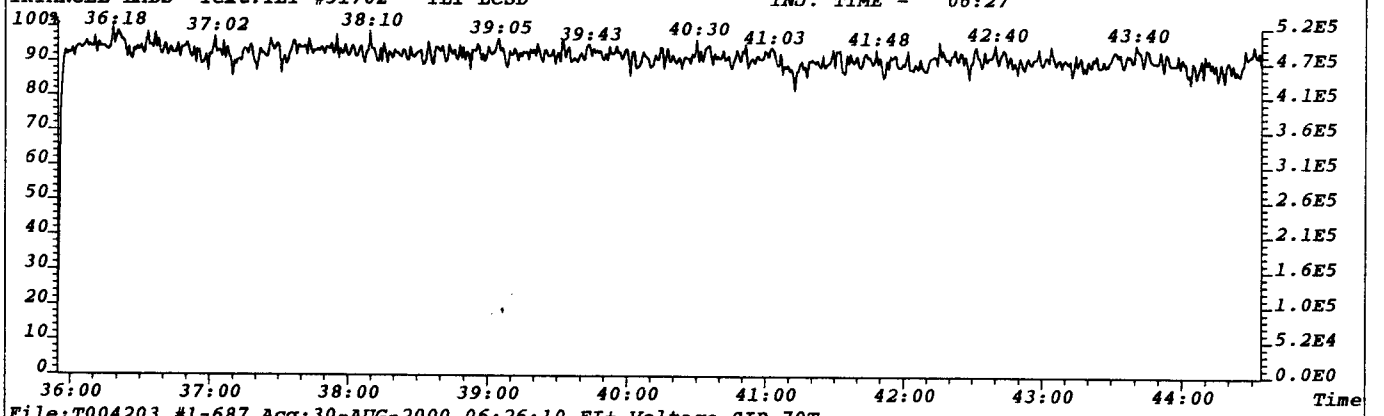
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:62
441.7428 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,248.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



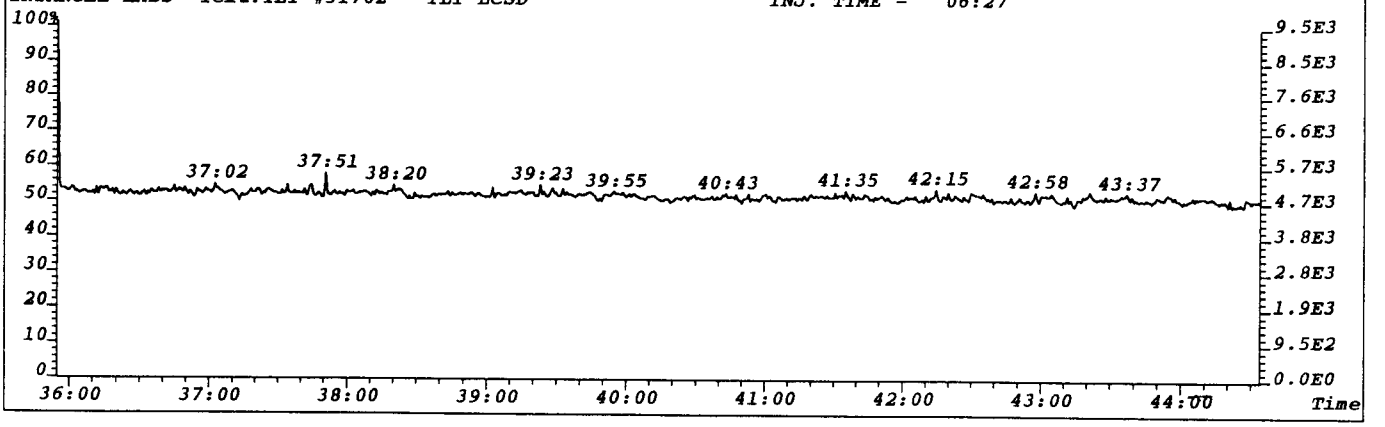
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:65
443.7399 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,260.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



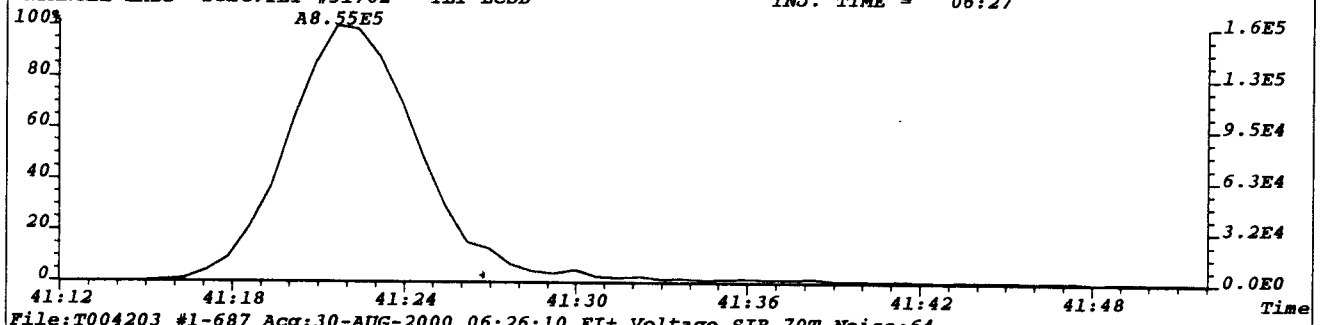
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



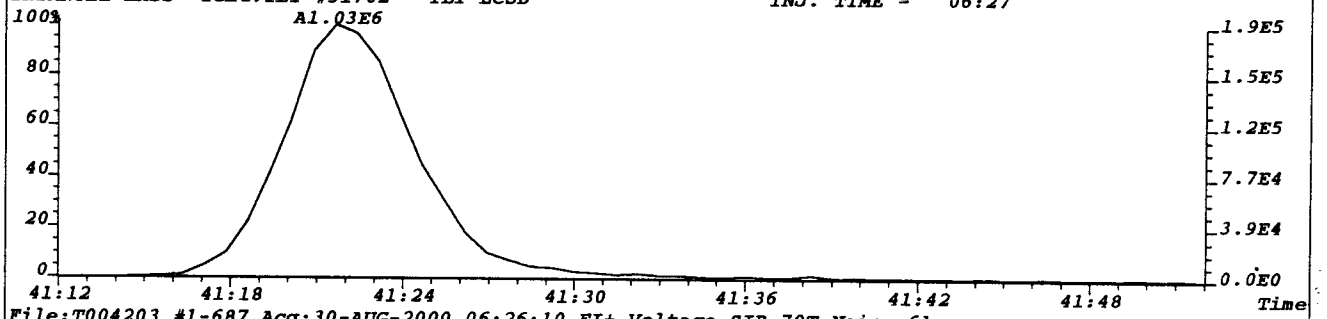
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
513.6775 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



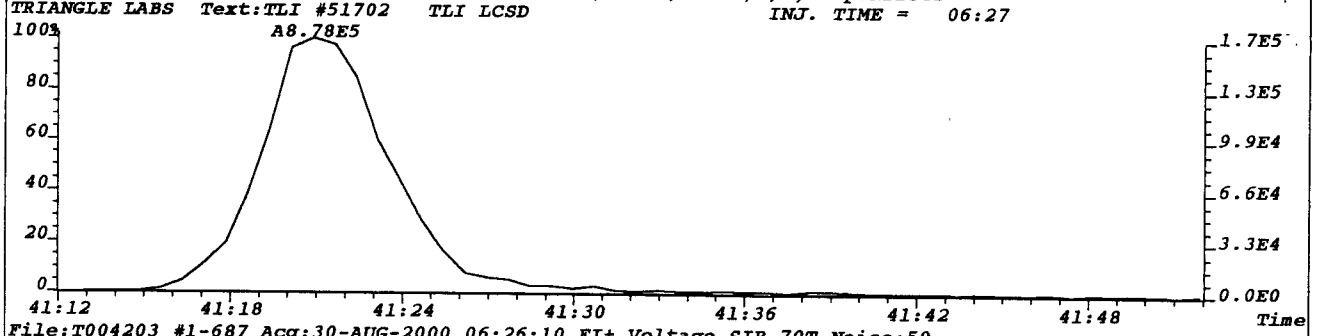
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:63
457.7377 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,252.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



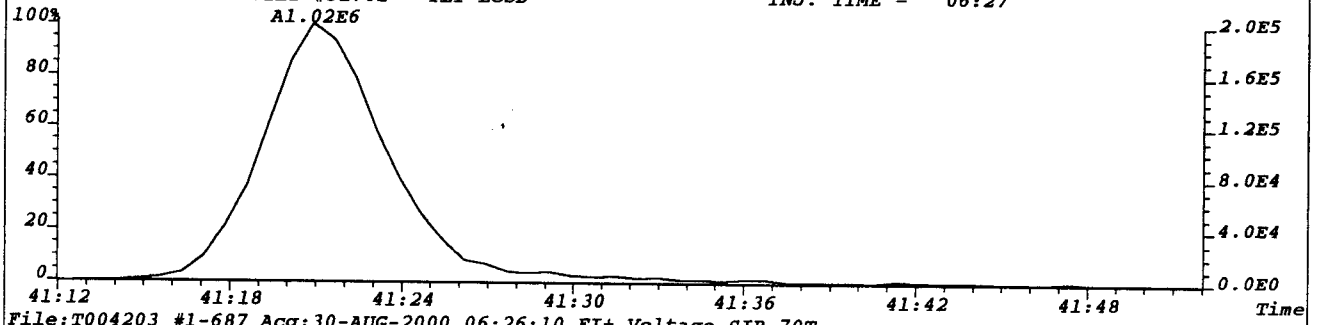
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:64
459.7348 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,256.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



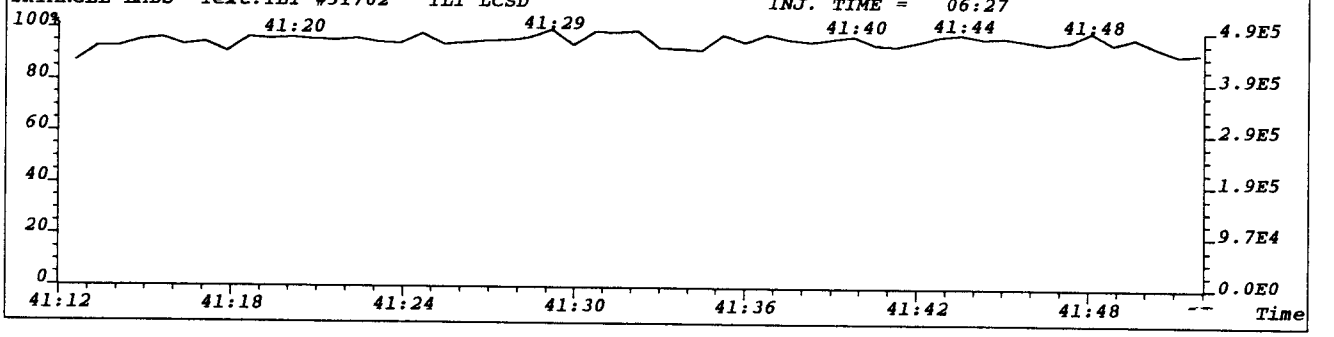
File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:61
469.7779 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,244.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27

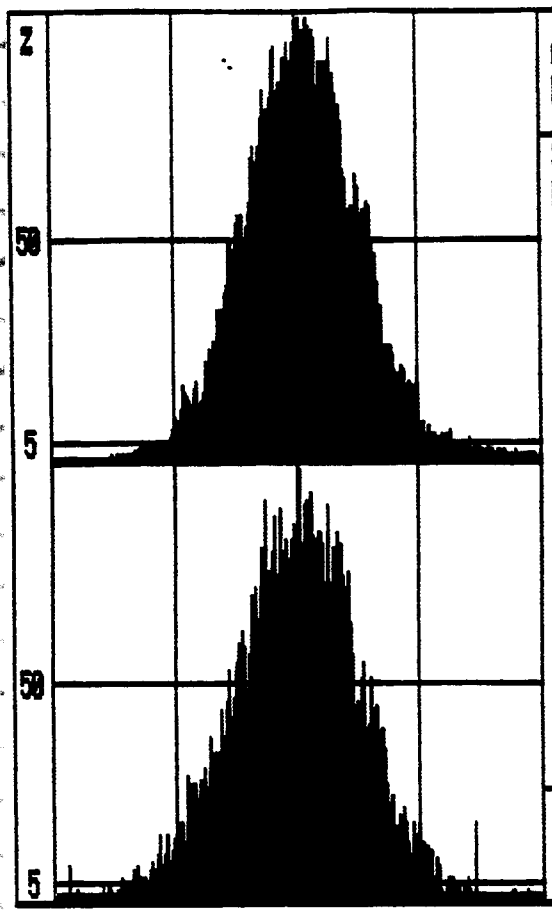


File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T Noise:59
471.7750 F:4 BSUB(256,30,-3.0) PKD(7,5,3,0.05%,236.0,1.00%,F,T) Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27



File:T004203 #1-687 Acq:30-AUG-2000 06:26:10 EI+ Voltage SIR 70T
430.9729 F:4 Exp:NDB5US
TRIANGLE LABS Text:TLI #51702 TLI LCSD INJ. TIME = 06:27





Channel I 330.9792 Peak top
Height .56 volts Span 200 ppm

System file name	NOBSUS
Data file name	A:T830001
Resolution	10000
Group number	2
Ionization mode	EI+
Switching	VOLTAGE
Ref. masses	292.9825, 416.9760

A	293	J	331	S	368
B	304	K	332	T	370
C	306	L	334	U	376
D	316	M	340	V	410
E	318	N	342		
F	320	O	352		
G	322	P	354		
H	328	Q	356		
I	331	R	358		

Ref. mass 416.9760 Peak top
Height .09 volts Span 200 ppm

TRIANGLE LABS

CALIBRATION DATA

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729

P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

TRIANGLE LABORATORIES, INC. Date: 07/15/2000

Initial Calibration Summary for TF57140

Analysis Date....: 07/14/2000 Method.....: MIT3

Instrument.....: T

Analytes	RF	SD	%RSD	RT	RT/LO	RT/HI	Ratio1	Ratio2	N
Total MCDF	1.885	0.000	0%	10:39	6:25	20:25	3.255		1
Total MCDD	1.869	0.000	0%	11:19	7:05	21:05	3.153		1
Total DCDF	0.542	0.000	0%	14:32	13:25	21:25	6.472		1
Total DCDD	0.944	0.000	0%	15:21	14:05	22:05	1.551		1
Total TriCDF	0.785	0.000	0%	20:23	17:25	24:25	0.984		1
Total TriCDD	0.524	0.000	0%	20:29	19:05	25:05	0.949		1
1368-TCDF	1.203	0.050	4%	23:30	25:25	32:25	0.792		6
1278-TCDF	1.051	0.047	4%	26:04			0.799		6
2378-TCDF	1.023	0.028	3%	26:26			0.772		6
TOTAL TCDF	1.023	0.028	3%				0.788		6
1368-TCDD	0.938	0.036	4%	24:43	26:05	33:05	0.788		6
1379-TCDD	0.798	0.024	3%	25:05			0.783		6
2378-TCDD	0.914	0.025	3%	27:06			0.780		6
TOTAL TCDD	0.914	0.025	3%				0.783		6
12378-PeCDF	0.912	0.023	3%	30:12	26:11	34:11	1.508		6
23478-PeCDF	0.925	0.021	2%	30:52			1.499		6
TOTAL PeCDF	0.918	0.019	2%				1.504		6
12378-PeCDD	1.056	0.009	1%	31:12	27:11	35:11	1.602		6
TOTAL PeCDD	1.056	0.009	1%				1.602		6
123478-HxCDF	1.026	0.009	1%	33:36	29:41	37:41	1.262		6
123678-HxCDF	1.075	0.014	1%	33:42			1.266		6
234678-HxCDF	0.972	0.024	2%	34:13			1.262		6
123789-HxCDF	0.795	0.055	7%	35:02			1.262		6
TOTAL HxCDF	0.967	0.020	2%				1.263		6
123478-HxCDD	1.017	0.022	2%	34:19	30:24	38:24	1.244		6
123678-HxCDD	1.016	0.026	3%	34:24			1.233		6
123789-HxCDD	1.027	0.052	5%	34:45			1.230		6
TOTAL HxCDD	1.020	0.032	3%				1.235		6
1234678-HpCDF	1.255	0.016	1%	36:47	32:47	40:47	1.041		6
1234789-HpCDF	0.969	0.076	8%	38:28			1.041		6
TOTAL HpCDF	1.112	0.041	4%				1.041		6
1234678-HpCDD	0.855	0.012	1%	37:54	33:53	41:53	1.031		6
TOTAL HpCDD	0.855	0.012	1%				1.031		6
OCDF	1.100	0.095	9%	42:08	37:53	45:53	0.897		6
OCDD	0.914	0.015	2%	41:54	37:53	45:53	0.852		6

Other Standards	RF	SD	%RSD	RT	RT/LO	RT/HI	Ratio1	Ratio2	N
37Cl-TCDD	0.846	0.021	2%	27:06	25:05	29:05			6
13C12-PeCDF 234	0.990	0.020	2%	30:51	28:11	32:11	1.471		6
13C12-HxCDF 478	0.985	0.015	2%	33:35			0.506		6
13C12-HxCDF 234	0.912	0.018	2%	34:12			0.505		6
13C12-HxCDF 789	0.670	0.041	6%	35:02			0.503		6
13C12-HxCDD 478	1.035	0.028	3%	34:18			1.195		6
13C12-HpCDF 789	0.778	0.043	6%	38:27	34:47	40:47	0.414		6

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Printed: 01:24 07/15/2000

TRIANGLE LABORATORIES, INC. Date: 07/15/2000

Initial Calibration Summary for TF57140

Internal Standards	RF	SD	%RSD	RT	RT/LO	RT/HI	Ratio1	Ratio2	N
13C12-2378-TCDF	1.282	0.051	4%	26:25	25:25	27:25	0.728		6
13C12-2378-TCDD	1.052	0.040	4%	27:05	25:05	29:05	0.796		6
13C12-PeCDF 123	1.199	0.133	11%	30:11	26:11	34:11	1.472		6
13C12-PeCDD 123	0.682	0.075	11%	31:11	27:11	35:11	1.397		6
13C12-HxCDF 678	1.452	0.062	4%	33:41	29:41	37:41	0.504		6
13C12-HxCDD 678	0.908	0.038	4%	34:24	33:24	35:24	1.214		6
13C12-HpCDF 678	0.970	0.014	1%	36:47	34:47	40:47	0.416		6
13C12-HpCDD 678	0.858	0.032	4%	37:53	36:53	38:53	1.021		6
13C12-OCDD	0.698	0.054	8%	41:53	39:53	43:53	0.851		6

Recovery Standards	RF	SD	%RSD	RT	RT/LO	RT/HI	Ratio1	Ratio2	N
13C12-1234-TCDD	1.000	0.000	0%	26:55			0.810		6
13C12-HxCDD 789	1.000	0.000	0%	34:44			1.204		6

*** End of Report ***

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Date: 08/29/2000 TRIANGLE LABORATORIES, INC.

Continuing Calibration for T004193

Analysis Date....: 08/29/2000 Method.....: MIT3
Operator.....: DPW Instrument..: T
Init Calibration.: TF57140 Std.Conc....: 10.00
ICal Date.....: 07/14/2000

Analyte Summary

Name	RF	Ratio 1&2	RT Lo/High	RT	Rel. RT	ICal RF	Delta RF	%D
Total MCDF	0.000		6:08 20:08			1.885	-1.885	100.0%
Total MCDD	0.000		6:48 20:48			1.869	-1.869	100.0%
Total DCDF	0.000		13:08 21:08			0.542	-0.542	100.0%
Total DCDD	0.000		13:48 21:48			0.944	-0.944	100.0%
Total TriCDF	0.000		17:08 24:08			0.785	-0.785	100.0%
Total TriCDD	0.000		18:48 24:48			0.524	-0.524	100.0%
1368-TCDF	1.152	0.80	23:00 27:58	23:11	0.8871	1.203	-0.051	-4.2%
1278-TCDF	0.995	0.78		25:46	0.9862	1.051	-0.056	-5.3%
2378-TCDF	1.014	0.84		26:08	1.0000	1.023	-0.009	-0.9%
TOTAL TCDF	1.014	0.81				1.023	-0.009	-0.9%
1368-TCDD	0.943	0.81	24:15 27:56	24:25	0.9112	0.938	0.005	0.5%
1379-TCDD	0.802	0.77		24:47	0.9246	0.798	0.004	0.5%
2378-TCDD	0.919	0.85		26:49	1.0007	0.914	0.005	0.6%
TOTAL TCDD	0.919	0.81				0.914	0.005	0.6%
12378-PeCDF	0.969	1.48	27:50 31:42	29:56	1.0003	0.912	0.057	6.3%
23478-PeCDF	0.983	1.57		30:36	1.0227	0.925	0.058	6.3%
TOTAL PeCDF	0.976	1.52				0.918	0.058	6.4%
12378-PeCDD	1.061	1.64	29:01 31:33	30:54	1.0000	1.056	0.005	0.5%
TOTAL PeCDD	1.061	1.64				1.056	0.005	0.5%
123478-HxCDF	0.988	1.24	32:09 34:56	33:17	0.9970	1.026	-0.038	-3.7%
123678-HxCDF	1.014	1.25		33:23	1.0000	1.075	-0.061	-5.7%
234678-HxCDF	0.935	1.25		33:53	1.0150	0.972	-0.037	-3.8%

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123789-HxCDF	0.771	1.25		34:42	1.0395	0.795	-0.024	-3.0%
TOTAL HxCDF	0.927	1.25				0.967	-0.040	-4.1%
123478-HxCDD	1.021	1.25	32:38 34:33	34:00	0.9977	1.017	0.004	0.4%
123678-HxCDD	1.011	1.19		34:05	1.0000	1.016	-0.005	-0.5%
123789-HxCDD	1.081	1.20		34:25	1.0100	1.027	0.054	5.3%
TOTAL HxCDD	1.038	1.21				1.020	0.018	1.7%
1234678-HpCDF	1.187	1.11	36:14 38:12	36:24	1.0005	1.255	-0.068	-5.4%
1234789-HpCDF	0.861	1.06		38:02	1.0454	0.969	-0.108	-11.2%
TOTAL HpCDF	1.024	1.09				1.112	-0.088	-7.9%
1234678-HpCDD	0.904	1.01	36:32 37:40	37:30	1.0005	0.855	0.049	5.8%
TOTAL HpCDD	0.904	1.01				0.855	0.049	5.8%
OCDF	1.197	0.89	37:22 45:22	41:37	1.0060	1.100	0.097	8.8%
OCDD	0.942	0.83	37:22 45:22	41:24	1.0007	0.914	0.028	3.1%

Other Standard Summary

Name	RF	Ratio 1&2	RT Lo/High	RT	Rel. RT	ICal RF	Delta RF	%D
37Cl-TCDD	0.869		24:48 28:48	26:49	1.0007	0.846	0.023	2.7%
13C12-PeCDF 234	0.975	1.49	25:55 33:55	30:35	1.0221	0.990	-0.015	-1.5%
13C12-HxCDF 478	1.004	0.51	29:23 37:23	33:16	0.9967	0.985	0.019	1.9%
13C12-HxCDF 234	0.914	0.51		33:52	1.0147	0.912	0.002	0.2%
13C12-HxCDF 789	0.694	0.51		34:41	1.0389	0.670	0.024	3.5%
13C12-HxCDD 478	1.049	1.26	33:05 35:05	33:59	0.9971	1.035	0.014	1.4%
13C12-HpCDF 789	0.751	0.45	34:23 40:23	38:01	1.0451	0.778	-0.027	-3.5%

Internal Standard Summary

Name	RF	Ratio 1&2	RT Lo/High	RT	Rel. RT	ICal RF	Delta RF	%D
13C12-2378-TCDF	1.361	0.74	25:08 27:08	26:08	1.0000	1.282	0.079	6.2%
13C12-2378-TCDD	1.060	0.79	24:48 28:48	26:48	1.0000	1.052	0.008	0.8%

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Continuing Calibration for T004193

13C12-PeCDF 123	1.069	1.50	25:55 33:55	29:55	1.0000	1.199	-0.130	-10.9%
13C12-PeCDD 123	0.615	1.41	26:54 34:54	30:54	1.0000	0.682	-0.067	-9.8%
13C12-HxCDF 678	1.347	0.50	29:23 37:23	33:23	1.0000	1.452	-0.105	-7.3%
13C12-HxCDD 678	0.877	1.15	33:05 35:05	34:05	1.0000	0.908	-0.031	-3.4%
13C12-HpCDF 678	0.899	0.43	34:23 40:23	36:23	1.0000	0.970	-0.071	-7.3%
13C12-HpCDD 678	0.758	0.97	36:29 38:29	37:29	1.0000	0.858	-0.100	-11.6%
13C12-OCDD	0.551	0.90	41:12 41:32	41:22	1.0000	0.698	-0.147	-21.0%

Recovery Standard Summary

Name	RF	Ratio 1&2	RT Lo/High	RT	Rel. RT	ICal RF	Delta RF	%D
13C12-1234-TCDD	1.000	0.83	24:48 28:48	26:38	0.9937	1.000	0.000	0.0%
13C12-HxCDD 789	1.000	1.21	33:05 35:05	34:24	1.0094	1.000	0.000	0.0%

QC Front End Check: 1.4472 TetraRS/HexaRS: 1.245

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Compound/ M_Z....	..RT.	OK Ratio	Total.Area...	Area.Peak.1..	Area.Peak.2..	Rel.RT	Compound.Name..	ID..
TCDF		0.65-0.89						
304-306	23:11	0.80	63.87	28.46	35.41	0.887	1368-TCDF	AN
	25:46	0.78	55.15	24.15	31.00	0.986	1278-TCDF	AN
	26:08	0.84	56.20	25.70	30.50	1.000	2378-TCDF	AN
304-306		3 Peaks						
13C12-TCDF		0.65-0.89						
316-318	26:08	0.74	554.30	235.05	319.25	1.000	13C12-2378-TCDF	IS0
316-318		1 Peak						
---------- Above: TCDF / TCDD Follows ----------								
TCDD		0.65-0.89						
320-322	24:25	0.81	40.71	18.23	22.48	0.911	1368-TCDD	AN
	24:47	0.77	34.63	15.04	19.59	0.925	1379-TCDD	AN
	26:49	0.85	39.69	18.22	21.47	1.001	2378-TCDD	AN
320		3 Peaks						
37Cl-TCDD								
328	26:49		37.51	37.51		1.001	37Cl-TCDD	CLS
328-330		1 Peak						
13C12-TCDD		0.65-0.89						
332-334	26:38	0.83	407.13	184.14	222.99	0.994	13C12-1234-TCDD	RS1
	26:48	0.79	431.70	190.89	240.81	1.000	13C12-2378-TCDD	IS1
332-334		2 Peaks						
---------- Above: TCDD / PeCDF Follows ----------								
PeCDF		1.32-1.78						
340-342	29:56	1.48	210.89	125.82	85.07	1.000	12378-PeCDF	AN
	30:36	1.57	213.95	130.68	83.27	1.023	23478-PeCDF	AN
340-342		2 Peaks						
13C12-PeCDF		1.32-1.78						
352-354	29:55	1.50	435.13	261.07	174.06	1.000	13C12-PeCDF 123	IS2
	30:35	1.49	424.14	253.87	170.27	1.022	13C12-PeCDF 234	SUR1
352-354		2 Peaks						
---------- Above: PeCDF / PeCDD Follows ----------								
PeCDD		1.32-1.78						
356-358	30:54	1.64	132.94	82.55	50.39	1.000	12378-PeCDD	AN
356-358		1 Peak						
13C12-PeCDD		1.32-1.78						
368-370	30:54	1.41	250.57	146.79	103.78	1.000	13C12-PeCDD 123	IS3
368-370		1 Peak						
---------- Above: PeCDD / HxCDF Follows ----------								

Compound/ M_Z....	..RT.	OK Ratio	Total.Area...	Area.Peak.1..	Area.Peak.2..	Rel.RT	Compound.Name..	ID..
HxCDF		1.05-1.43						
374-376	33:17	1.24	180.09	99.70	80.39	0.997	123478-HxCDF	AN
	33:23	1.25	184.75	102.61	82.14	1.000	123678-HxCDF	AN
	33:53	1.25	170.31	94.75	75.56	1.015	234678-HxCDF	AN
	34:42	1.25	140.50	78.05	62.45	1.040	123789-HxCDF	AN
374-376		4 Peaks						
13C12-HxCDF		0.43-0.59						
384-386	33:16	0.51	365.88	122.94	242.94	0.997	13C12-HxCDF 478	SUR2
	33:23	0.50	364.43	121.65	242.78	1.000	13C12-HxCDF 678	IS4
	33:52	0.51	333.07	111.87	221.20	1.015	13C12-HxCDF 234	ALT2
	34:41	0.51	252.78	85.13	167.65	1.039	13C12-HxCDF 789	ALT1
384-386		4 Peaks						

---------- Above: HxCDF / HxCDD Follows ----------

HxCDD		1.05-1.43						
390-392	34:00	1.25	121.22	67.25	53.97	0.998	123478-HxCDD	AN
	34:05	1.19	120.01	65.30	54.71	1.000	123678-HxCDD	AN
	34:25	1.20	128.39	69.99	58.40	1.010	123789-HxCDD	AN
390-392		3 Peaks						
13C12-HxCDD		1.05-1.43						
402-404	33:59	1.26	249.13	139.03	110.10	0.997	13C12-HxCDD 478	SUR3
	34:05	1.15	237.46	126.88	110.58	1.000	13C12-HxCDD 678	IS5
	34:24	1.21	270.63	147.96	122.67	1.009	13C12-HxCDD 789	RS2
402-404		3 Peaks						

---------- Above: HxCDD / HpCDF Follows ----------

HpCDF		0.88-1.20						
408-410	36:24	1.11	144.40	75.81	68.59	1.001	1234678-HpCDF	AN
	38:02	1.06	104.69	53.96	50.73	1.045	1234789-HpCDF	AN
408-410		2 Peaks						
13C12-HpCDF		0.37-0.51						
418-420	36:23	0.43	243.23	72.93	170.30	1.000	13C12-HpCDF 678	IS6
	38:01	0.45	182.55	56.33	126.22	1.045	13C12-HpCDF 789	SUR4
418-420		2 Peaks						

---------- Above: HpCDF / HpCDD Follows ----------

HpCDD		0.88-1.20						
424-426	37:30	1.01	92.75	46.52	46.23	1.001	1234678-HpCDD	AN
424-426		1 Peak						
13C12-HpCDD		0.88-1.20						
436-438	37:29	0.97	205.15	101.09	104.06	1.000	13C12-HpCDD 678	IS7
436-438		1 Peak						

---------- Above: HpCDD / Octa-CDD and CDF Follows ----

Compound/ M_Z....	..RT.	OK	Ratio	Total.Area...	Area.Peak.1..	Area.Peak.2..	Rel.RT	Compound.Name..	ID..
OCDF			0.76-1.02						
442-444	41:37		0.89	178.49	83.92	94.57	1.006	OCDF	AN
442-444			1 Peak						
OCDD			0.76-1.02						
458-460	41:24		0.83	140.48	63.88	76.60	1.001	OCDD	AN
458-460			1 Peak						
13C12-OCDD			0.76-1.02						
470-472	41:22		0.90	298.29	140.95	157.34	1.000	13C12-OCDD	IS8
470			1 Peak						

Column Description.....

M_Z - Nominal Ion Mass(es)
..RT. - Retention Time (mm:ss)
Rat.1 - Ratio of M/M+2 Ions
OK - RO=Ratio Outside Limits
Rel.RT - Relative Retention Time

*** End of Report ***

Date: 08/30/2000

TRIANGLE LABORATORIES, INC.
Continuing Calibration for T004204

Analysis Date....: 08/30/2000
Operator.....: JMM
Init Calibration.: TF57140
ICal Date.....: 07/14/2000

Method.....: MIT3
Instrument..: T
Std.Conc....: 10.00

Analyte Summary

Name	RF	Ratio 1&2	RT Lo/High	RT	Rel. RT	ICal RF	Delta RF	%D
Total MCDF	0.000		6:08 20:08			1.885	-1.885	100.0%
Total MCDD	0.000		6:48 20:48			1.869	-1.869	100.0%
Total DCDF	0.000		13:08 21:08			0.542	-0.542	100.0%
Total DCDD	0.000		13:48 21:48			0.944	-0.944	100.0%
Total TriCDF	0.000		17:08 24:08			0.785	-0.785	100.0%
Total TriCDD	0.000		18:48 24:48			0.524	-0.524	100.0%
1368-TCDF	1.183	0.78	23:01 27:59	23:10	0.8867	1.203	-0.020	-1.7%
1278-TCDF	1.009	0.82		25:46	0.9862	1.051	-0.042	-4.0%
2378-TCDF	1.076	0.82		26:08	1.0000	1.023	0.053	5.1%
TOTAL TCDF	1.076	0.81				1.023	0.053	5.1%
1368-TCDD	0.992	0.80	24:15 27:57	24:25	0.9112	0.938	0.054	5.8%
1379-TCDD	0.877	0.74		24:47	0.9246	0.798	0.079	9.9%
2378-TCDD	0.984	0.76		26:49	1.0007	0.914	0.070	7.6%
TOTAL TCDD	0.984	0.77				0.914	0.070	7.6%
12378-PeCDF	0.933	1.59	27:50 31:43	29:55	1.0000	0.912	0.021	2.3%
23478-PeCDF	0.970	1.54		30:35	1.0221	0.925	0.045	4.8%
TOTAL PeCDF	0.951	1.56				0.918	0.033	3.6%
12378-PeCDD	1.087	1.51	29:02 31:33	30:54	1.0000	1.056	0.031	3.0%
TOTAL PeCDD	1.087	1.51				1.056	0.031	3.0%
123478-HxCDF	0.932	1.26	32:10 34:57	33:17	0.9970	1.026	-0.094	-9.2%
123678-HxCDF	1.011	1.20		33:24	1.0006	1.075	-0.064	-5.9%
234678-HxCDF	0.928	1.23		33:54	1.0156	0.972	-0.044	-4.6%

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123789-HxCDF.	0.761	1.23		34:43	1.0401	0.795	-0.034	-4.3%
TOTAL HxCDF	0.908	1.23				0.967	-0.059	-6.1%
123478-HxCDD	1.059	1.22	32:38 34:33	34:00	0.9977	1.017	0.042	4.1%
123678-HxCDD	1.035	1.24		34:05	1.0000	1.016	0.019	1.9%
123789-HxCDD	1.069	1.24		34:25	1.0100	1.027	0.042	4.1%
TOTAL HxCDD	1.054	1.23				1.020	0.034	3.4%
1234678-HpCDF	1.127	1.03	36:14 38:13	36:24	1.0005	1.255	-0.128	-10.2%
1234789-HpCDF	0.931	1.01		38:02	1.0454	0.969	-0.038	-3.9%
TOTAL HpCDF	1.029	1.02				1.112	-0.083	-7.4%
1234678-HpCDD	0.889	1.07	36:32 37:41	37:30	1.0005	0.855	0.034	4.0%
TOTAL HpCDD	0.889	1.07				0.855	0.034	4.0%
OCDF	1.188	0.89	37:22 45:22	41:37	1.0060	1.100	0.088	8.0%
OCDD	0.968	0.81	37:22 45:22	41:23	1.0002	0.914	0.054	5.9%

Other Standard Summary

Name	RF	Ratio 1&2	RT Lo/High	RT	Rel. RT	ICal RF	Delta RF	%D
37Cl-TCDD	0.900		24:48 28:48	26:48	1.0000	0.846	0.054	6.4%
13C12-PeCDF 234	0.967	1.48	25:55 33:55	30:35	1.0221	0.990	-0.023	-2.3%
13C12-HxCDF 478	0.945	0.49	29:23 37:23	33:16	0.9967	0.985	-0.040	-4.0%
13C12-HxCDF 234	0.923	0.51		33:52	1.0147	0.912	0.011	1.2%
13C12-HxCDF 789	0.681	0.50		34:42	1.0395	0.670	0.011	1.6%
13C12-HxCDD 478	0.963	1.20	33:05 35:05	33:59	0.9971	1.035	-0.072	-7.0%
13C12-HpCDF 789	0.790	0.42	34:23 40:23	38:01	1.0451	0.778	0.012	1.5%

Internal Standard Summary

Name	RF	Ratio 1&2	RT Lo/High	RT	Rel. RT	ICal RF	Delta RF	%D
13C12-2378-TCDF	1.432	0.75	25:08 27:08	26:08	1.0000	1.282	0.150	11.7%
13C12-2378-TCDD	1.051	0.77	24:48 28:48	26:48	1.0000	1.052	-0.001	-0.1%

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Continuing Calibration for T004204

13C12-PeCDF 123	1.180	1.50	25:55 33:55	29:55	1.0000	1.199	-0.019	-1.6%
13C12-PeCDD 123	0.648	1.54	26:54 34:54	30:54	1.0000	0.682	-0.034	-4.9%
13C12-HxCDF 678	1.429	0.50	29:23 37:23	33:23	1.0000	1.452	-0.023	-1.6%
13C12-HxCDD 678	0.904	1.22	33:05 35:05	34:05	1.0000	0.908	-0.004	-0.4%
13C12-HpCDF 678	0.960	0.42	34:23 40:23	36:23	1.0000	0.970	-0.010	-1.0%
13C12-HpCDD 678	0.802	0.97	36:29 38:29	37:29	1.0000	0.858	-0.056	-6.6%
13C12-OCDD	0.596	0.83	41:13 41:33	41:22	1.0000	0.698	-0.102	-14.5%

Recovery Standard Summary

Name	RF	Ratio 1&2	RT Lo/High	RT	Rel. RT	ICal RF	Delta RF	%D
13C12-1234-TCDD	1.000	0.79	24:48 28:48	26:37	0.9933	1.000	0.000	0.0%
13C12-HxCDD 789	1.000	1.21	33:05 35:05	34:24	1.0094	1.000	0.000	0.0%

QC Front End Check: 1.0326 TetraRS/HexaRS: 0.946

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Compound/ M_Z....	..RT.	OK Ratio	Total.Area...	Area.Peak.1..	Area.Peak.2..	Rel.RT	Compound.Name..	ID..
TCDF		0.65-0.89						
304-306	23:10	0.78	45.17	19.73	25.44	0.887	1368-TCDF	AN
	25:46	0.82	38.55	17.37	21.18	0.986	1278-TCDF	AN
	26:08	0.82	41.08	18.57	22.51	1.000	2378-TCDF	AN
304-306		3 Peaks						
13C12-TCDF		0.65-0.89						
316-318	26:08	0.75	381.92	163.42	218.50	1.000	13C12-2378-TCDF	IS0
316-318		1 Peak						

---------- Above: TCDF / TCDD Follows ----------

TCDD		0.65-0.89						
320-322	24:25	0.80	27.83	12.39	15.44	0.911	1368-TCDD	AN
	24:47	0.74	24.59	10.43	14.16	0.925	1379-TCDD	AN
	26:49	0.76	27.59	11.89	15.70	1.001	2378-TCDD	AN
320		3 Peaks						
37Cl-TCDD								
328	26:48		25.25	25.25		1.000	37Cl-TCDD	CLS
328-330		1 Peak						
13C12-TCDD		0.65-0.89						
332-334	26:37	0.79	266.79	118.11	148.68	0.993	13C12-1234-TCDD	RS1
	26:48	0.77	280.42	122.38	158.04	1.000	13C12-2378-TCDD	IS1
332-334		2 Peaks						

---------- Above: TCDD / PeCDF Follows ----------

PeCDF		1.32-1.78						
340-342	29:55	1.59	146.31	90.20	56.61	1.000	12378-PeCDF	AN
	30:35	1.54	152.61	92.47	60.14	1.022	23478-PeCDF	AN
340-342		2 Peaks						
13C12-PeCDF		1.32-1.78						
352-354	29:55	1.50	314.82	188.81	126.01	1.000	13C12-PeCDF 123	IS2
	30:35	1.48	304.37	181.41	122.96	1.022	13C12-PeCDF 234	SUR1
352-354		2 Peaks						

---------- Above: PeCDF / PeCDD Follows ----------

PeCDD		1.32-1.78						
356-358	30:54	1.51	94.03	56.61	37.42	1.000	12378-PeCDD	AN
356-358		1 Peak						
13C12-PeCDD		1.32-1.78						
368-370	30:54	1.54	172.97	104.79	68.18	1.000	13C12-PeCDD 123	IS3
368-370		1 Peak						

---------- Above: PeCDD / HxCDF Follows ----------

Compound/ M_Z....	..RT.	OK Ratio	Total.Area...	Area.Peak.1..	Area.Peak.2..	Rel.RT	Compound.Name..	ID..
HxCDF		1.05-1.43						
374-376	33:17	1.26	151.57	84.49	67.08	0.997	123478-HxCDF	AN
	33:24	1.20	164.49	89.88	74.61	1.001	123678-HxCDF	AN
	33:54	1.23	150.91	83.33	67.58	1.016	234678-HxCDF	AN
	34:43	1.23	123.81	68.30	55.51	1.040	123789-HxCDF	AN
374-376		4 Peaks						
13C12-HxCDF		0.43-0.59						
384-386	33:16	0.49	307.56	101.40	206.16	0.997	13C12-HxCDF 478	SUR2
	33:23	0.50	325.32	108.47	216.85	1.000	13C12-HxCDF 678	IS4
	33:52	0.51	300.40	100.90	199.50	1.015	13C12-HxCDF 234	ALT2
	34:42	0.50	221.47	73.79	147.68	1.040	13C12-HxCDF 789	ALT1
384-386		4 Peaks						

---------- Above: HxCDF / HxCDD Follows ----------

HxCDD		1.05-1.43						
390-392	34:00	1.22	108.92	59.91	49.01	0.998	123478-HxCDD	AN
	34:05	1.24	106.51	58.92	47.59	1.000	123678-HxCDD	AN
	34:25	1.24	110.01	60.93	49.08	1.010	123789-HxCDD	AN
390-392		3 Peaks						
13C12-HxCDD		1.05-1.43						
402-404	33:59	1.20	198.11	108.07	90.04	0.997	13C12-HxCDD 478	SUR3
	34:05	1.22	205.79	112.94	92.85	1.000	13C12-HxCDD 678	IS5
	34:24	1.21	227.63	124.84	102.79	1.009	13C12-HxCDD 789	RS2
402-404		3 Peaks						

---------- Above: HxCDD / HpCDF Follows ----------

HpCDF		0.88-1.20						
408-410	36:24	1.03	123.21	62.38	60.83	1.001	1234678-HpCDF	AN
	38:02	1.01	101.77	51.06	50.71	1.045	1234789-HpCDF	AN
408-410		2 Peaks						
13C12-HpCDF		0.37-0.51						
418-420	36:23	0.42	218.59	64.52	154.07	1.000	13C12-HpCDF 678	IS6
	38:01	0.42	172.64	51.33	121.31	1.045	13C12-HpCDF 789	SUR4
418-420		2 Peaks						

---------- Above: HpCDF / HpCDD Follows ----------

HpCDD		0.88-1.20						
424-426	37:30	1.07	81.10	41.95	39.15	1.001	1234678-HpCDD	AN
424-426		1 Peak						
13C12-HpCDD		0.88-1.20						
436-438	37:29	0.97	182.49	90.06	92.43	1.000	13C12-HpCDD 678	IS7
436-438		1 Peak						

---------- Above: HpCDD / Octa-CDD and CDF Follows ----

Compound/ M_Z....	..RT.	OK	Ratio	Total.Area...	Area.Peak.1..	Area.Peak.2..	Rel.RT	Compound.Name..	ID..
OCDF			0.76-1.02						
442-444	41:37		0.89	161.35	75.88	85.47	1.006	OCDF	AN
442-444			1 Peak						
OCDD			0.76-1.02						
458-460	41:23		0.81	131.38	58.75	72.63	1.000	OCDD	AN
458-460			1 Peak						
13C12-OCDD			0.76-1.02						
470-472	41:22		0.83	271.56	123.07	148.49	1.000	13C12-OCDD	IS8
470			1 Peak						

Column Description.....

M_Z - Nominal Ion Mass(es)
..RT. - Retention Time (mm:ss)
Rat.1 - Ratio of M/M+2 Ions
OK - RO=Ratio Outside Limits
Rel.RT - Relative Retention Time

*** End of Report ***