

APPENDIX G

Section 18

Outfall 002 – March 20, 2011

Test America Analytical Laboratory Report

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project: Routine Outfall 002 2010
Routine Outfall 002

Sampled: 03/20/11-03/22/11
Received: 03/20/11
Issued: 04/15/11 15:36

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 3 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 4°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: Results that fall between the MDL and RL are 'J' flagged.

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: WATER, 1613B, Dioxins/Furans with Totals

Some analytes in this sample have an ion abundance ratio that is outside of criteria. The analytes are considered as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio. Analytical results are reported with a "Q" flag.

Per client request, pretreatment was performed and perchlorate was reanalyzed; both results are included.

LABORATORY ID

IUC2140-01
IUC2140-02

CLIENT ID

Outfall 002 (Grab)
Trip Blanks

MATRIX

Water
Water

TestAmerica Irvine

Debby Wilson
Project Manager

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
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Attention: Bronwyn Kelly

Project ID: Routine Outfall 002 2010
Routine Outfall 002
Report Number: IUC2140

Sampled: 03/20/11-03/22/11
Received: 03/20/11

LABORATORY ID

IUC2140-03
IUC2140-04

CLIENT ID

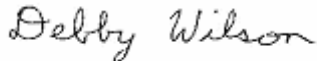
Outfall 002 (Composite)
Trip Blank

MATRIX

Water
Water

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.

Reviewed By:



TestAmerica Irvine

Debby Wilson
Project Manager

MWH-Pasadena/Boeing
 618 Michillinda Avenue, Suite 200
 Arcadia, CA 91007
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Project ID: Routine Outfall 002 2010
 Routine Outfall 002
 Report Number: IUC2140

Sampled: 03/20/11-03/22/11
 Received: 03/20/11

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-01 (Outfall 002 (Grab) - Water)					Sampled: 03/20/11				
Reporting Units: ug/l									
1,2-Dichloroethane	EPA 624	11C3362	0.28	0.50	ND	1	YKP	03/27/11	
1,1-Dichloroethene	EPA 624	11C3362	0.42	2.0	ND	1	YKP	03/27/11	
Trichloroethene	EPA 624	11C3362	0.26	2.0	ND	1	YKP	03/27/11	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					90 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					98 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					97 %				
Sample ID: IUC2140-02 (Trip Blanks - Water)					Sampled: 03/20/11				
Reporting Units: ug/l									
1,2-Dichloroethane	EPA 624	11C3362	0.28	0.50	ND	1	YKP	03/27/11	
1,1-Dichloroethene	EPA 624	11C3362	0.42	2.0	ND	1	YKP	03/27/11	
Trichloroethene	EPA 624	11C3362	0.26	2.0	ND	1	YKP	03/27/11	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					89 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					99 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					95 %				

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Sampled: 03/20/11-03/22/11
 Received: 03/20/11

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: ug/l									
Bis(2-ethylhexyl)phthalate	EPA 625	11C3070	1.60	4.72	ND	0.943	LB	03/25/11	
2,4-Dinitrotoluene	EPA 625	11C3070	0.189	4.72	ND	0.943	LB	03/25/11	
N-Nitrosodimethylamine	EPA 625	11C3070	0.0943	4.72	ND	0.943	LB	03/25/11	
Pentachlorophenol	EPA 625	11C3070	0.0943	4.72	ND	0.943	LB	03/25/11	
2,4,6-Trichlorophenol	EPA 625	11C3070	0.0943	5.66	ND	0.943	LB	03/25/11	
<i>Surrogate: 2,4,6-Tribromophenol (40-120%)</i>					83 %				
<i>Surrogate: 2-Fluorobiphenyl (50-120%)</i>					76 %				
<i>Surrogate: 2-Fluorophenol (30-120%)</i>					62 %				
<i>Surrogate: Nitrobenzene-d5 (45-120%)</i>					73 %				
<i>Surrogate: Phenol-d6 (35-120%)</i>					69 %				
<i>Surrogate: Terphenyl-d14 (50-125%)</i>					84 %				

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 Report Number: IUC2140

Sampled: 03/20/11-03/22/11
 Received: 03/20/11

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water) - cont.					Sampled: 03/20/11				
Reporting Units: ug/l									
alpha-BHC	EPA 608	11C2988	0.0024	0.0094	ND	0.943	CN	03/24/11	C
<i>Surrogate: Decachlorobiphenyl (45-120%)</i>					85 %				
<i>Surrogate: Tetrachloro-m-xylene (35-115%)</i>					71 %				

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Report Number: IUC2140

Sampled: 03/20/11-03/22/11
Received: 03/20/11

HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-01 (Outfall 002 (Grab) - Water)					Sampled: 03/20/11				
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	11C3551	1.3	4.8	ND	1	DA	03/28/11	

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 Report Number: IUC2140

Sampled: 03/20/11-03/22/11
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METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: mg/l									
Iron	EPA 200.7	11C3037	0.015	0.040	5.4	1	LL	03/23/11	
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: ug/l									
Mercury	EPA 245.1	11C2939	0.10	0.20	ND	1	DB	03/23/11	
Cadmium	EPA 200.8	11C2899	0.10	1.0	0.11	1	RDC	03/22/11	Ja
Zinc	EPA 200.7	11C3037	6.00	20.0	30.4	1	LL	03/23/11	
Copper	EPA 200.8	11C2899	0.50	2.0	6.0	1	RDC	03/22/11	
Lead	EPA 200.8	11C2899	0.20	1.0	3.0	1	RDC	03/22/11	
Selenium	EPA 200.8	11C2899	0.50	2.0	ND	1	RDC	03/22/11	

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 Report Number: IUC2140

Sampled: 03/20/11-03/22/11
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DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water) - cont.					Sampled: 03/20/11				
Reporting Units: mg/l									
Iron	EPA 200.7-Diss	11C3474	0.015	0.040	0.058	1	DP	03/26/11	
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: ug/l									
Mercury	EPA 245.1-Diss	11C3083	0.10	0.20	ND	1	DB	03/23/11	
Cadmium	EPA 200.8-Diss	11C3506	0.10	1.0	ND	1	RDC	03/28/11	
Zinc	EPA 200.7-Diss	11C3474	6.00	20.0	7.18	1	DP	03/26/11	B, Ja
Copper	EPA 200.8-Diss	11C3506	0.50	2.0	2.1	1	RDC	03/28/11	
Lead	EPA 200.8-Diss	11C3506	0.20	1.0	ND	1	RDC	03/28/11	
Selenium	EPA 200.8-Diss	11C3506	0.50	2.0	ND	1	RDC	03/28/11	

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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water) - cont.					Sampled: 03/20/11				
Reporting Units: mg/l									
Ammonia-N (Distilled)	SM4500NH3-C	11C2967	0.500	0.500	ND	1	TMK	03/22/11	
Biochemical Oxygen Demand	SM5210B	11C2910	0.50	2.0	2.9	1	XL	03/27/11	
Chloride	EPA 300.0	11C2745	0.30	0.50	8.6	1	NN	03/22/11	
Nitrate-N	EPA 300.0	11C2745	0.060	0.11	0.30	1	NN	03/22/11	
Nitrite-N	EPA 300.0	11C2745	0.090	0.15	ND	1	NN	03/22/11	
Nitrate/Nitrite-N	EPA 300.0	11C2745	0.15	0.26	0.30	1	NN	03/22/11	
Sulfate	EPA 300.0	11C2745	0.30	0.50	37	1	NN	03/22/11	
Surfactants (MBAS)	SM5540-C	11C2931	0.050	0.10	ND	1	EL	03/22/11	
Total Dissolved Solids	SM2540C	11C2823	1.0	10	180	1	MC	03/22/11	
Total Suspended Solids	SM 2540D	11C2979	1.0	10	63	1	DC	03/22/11	

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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-01 (Outfall 002 (Grab) - Water)					Sampled: 03/20/11				
Reporting Units: ml/l									
Total Settleable Solids	SM2540F	11C2743	0.10	0.10	ND	1	RRZ	03/21/11	
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: NTU									
Turbidity	SM2130B	11C2881	0.20	5.0	130	5	RRZ	03/22/11	
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	11C3191	0.90	4.0	ND	1	mn	03/24/11	
Total Cyanide	SM4500CN-E	11C3437	2.2	5.0	ND	1	SLA	03/25/11	
Sample ID: IUC2140-03RE1 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	11D1346	0.90	4.0	ND	1	mn	04/12/11	
Sample ID: IUC2140-01 (Outfall 002 (Grab) - Water)					Sampled: 03/20/11				
Reporting Units: umhos/cm @ 25C									
Specific Conductance	SM2510B	11C2667	1.0	1.0	580	1	MC	03/21/11	

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Routine Outfall 002
Report Number: IUC2140

Sampled: 03/20/11-03/22/11
Received: 03/20/11

8676

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: pCi/L									
Uranium, Total	8676	8676	0.02	1	0.634	1	TAC	03/29/11	Jb
Sample ID: IUC2140-04 (Trip Blank - Water)					Sampled: 03/22/11				
Reporting Units: pCi/L									
Uranium, Total	8676	8676	0.02	1	ND	1	TAC	03/29/11	U

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Project ID: Routine Outfall 002 2010
 Routine Outfall 002
 Report Number: IUC2140

Sampled: 03/20/11-03/22/11
 Received: 03/20/11

900

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: pCi/L									
Gross Alpha	900	8676	0.41	3	2.64	1	LS	03/31/11	Jb
Gross Beta	900	8676	1.02	4	7.4	1	LS	03/31/11	
Sample ID: IUC2140-04 (Trip Blank - Water)					Sampled: 03/22/11				
Reporting Units: pCi/L									
Gross Alpha	900	8676	0.349	3	-0.008	1	LS	03/31/11	U
Gross Beta	900	8676	0.76	4	-0.138	1	LS	03/31/11	U

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Sampled: 03/20/11-03/22/11
 Received: 03/20/11

901.1

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: pCi/L									
Cesium-137	901.1	8676	2.01	20	ND	1	LS	03/29/11	U
Potassium-40	901.1	8676	22.6	25	ND	1	LS	03/29/11	U
Sample ID: IUC2140-04 (Trip Blank - Water)					Sampled: 03/22/11				
Reporting Units: pCi/L									
Cesium-137	901.1	8676	1.78	20	ND	1	LS	03/30/11	U
Potassium-40	901.1	8676	25.6	25	ND	1	LS	03/30/11	U

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903.1

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: pCi/L									
Radium-226	903.1	8676	0.676	1	0.193	1	TM	04/05/11	U
Sample ID: IUC2140-04 (Trip Blank - Water)					Sampled: 03/22/11				
Reporting Units: pCi/L									
Radium-226	903.1	8676	0.642	1	0.067	1	TM	04/05/11	U

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904

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: pCi/L									
Radium-228	904	8676	0.469	1	-0.02	1	LD	04/07/11	U
Sample ID: IUC2140-04 (Trip Blank - Water)					Sampled: 03/22/11				
Reporting Units: pCi/L									
Radium-228	904	8676	0.486	1	-0.021	1	LD	04/07/11	U

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905

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: pCi/L									
Strontium-90	905	8676	0.701	2	0.101	1	EMB	04/01/11	U
Sample ID: IUC2140-04 (Trip Blank - Water)					Sampled: 03/22/11				
Reporting Units: pCi/L									
Strontium-90	905	8676	0.812	2	-0.169	1	EMB	04/01/11	U

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906

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)					Sampled: 03/20/11				
Reporting Units: pCi/L									
Tritium	906	8676	164	500	-54.7	1	WL	03/30/11	U

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EPA-5 1613Bx

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water) - cont.					Sampled: 03/20/11				
Reporting Units: ug/L									
1,2,3,4,6,7,8-HpCDD	EPA-5 1613B	1083190	0.0000029	0.00005	9.7e-005	0.96	MO	03/25/11	
1,2,3,4,6,7,8-HpCDF	EPA-5 1613B	1083190	0.0000017	0.00005	2.1e-005	0.96	MO	03/25/11	J
1,2,3,4,7,8,9-HpCDF	EPA-5 1613B	1083190	0.0000025	0.00005	ND	0.96	MO	03/25/11	
1,2,3,4,7,8-HxCDD	EPA-5 1613B	1083190	0.0000001	0.00005	2.2e-006	0.96	MO	03/25/11	J, Q
1,2,3,4,7,8-HxCDF	EPA-5 1613B	1083190	0.00000047	0.00005	8.7e-007	0.96	MO	03/25/11	J
1,2,3,6,7,8-HxCDD	EPA-5 1613B	1083190	0.00000092	0.00005	3.2e-006	0.96	MO	03/25/11	J
1,2,3,6,7,8-HxCDF	EPA-5 1613B	1083190	0.00000042	0.00005	ND	0.96	MO	03/25/11	
1,2,3,7,8,9-HxCDD	EPA-5 1613B	1083190	0.00000084	0.00005	4.3e-006	0.96	MO	03/25/11	J, Q
1,2,3,7,8,9-HxCDF	EPA-5 1613B	1083190	0.00000058	0.00005	ND	0.96	MO	03/25/11	
1,2,3,7,8-PeCDD	EPA-5 1613B	1083190	0.0000001	0.00005	ND	0.96	MO	03/25/11	
1,2,3,7,8-PeCDF	EPA-5 1613B	1083190	0.0000001	0.00005	ND	0.96	MO	03/25/11	
2,3,4,6,7,8-HxCDF	EPA-5 1613B	1083190	0.00000042	0.00005	7.4e-007	0.96	MO	03/25/11	J, Q
2,3,4,7,8-PeCDF	EPA-5 1613B	1083190	0.0000011	0.00005	ND	0.96	MO	03/25/11	
2,3,7,8-TCDD	EPA-5 1613B	1083190	0.00000066	0.00001	ND	0.96	MO	03/25/11	
2,3,7,8-TCDF	EPA-5 1613B	1083190	0.00000099	0.00001	ND	0.96	MO	03/25/11	
OCDD	EPA-5 1613B	1083190	0.0000098	0.0001	0.0013	0.96	MO	03/25/11	Ba
OCDF	EPA-5 1613B	1083190	0.0000045	0.0001	5.1e-005	0.96	MO	03/25/11	J
Total HpCDD	EPA-5 1613B	1083190	0.0000029	0.00005	0.00021	0.96	MO	03/25/11	
Total HpCDF	EPA-5 1613B	1083190	0.0000002	0.00005	5.1e-005	0.96	MO	03/25/11	J
Total HxCDD	EPA-5 1613B	1083190	0.00000091	0.00005	3e-005	0.96	MO	03/25/11	J, Q
Total HxCDF	EPA-5 1613B	1083190	0.00000047	0.00005	1.4e-005	0.96	MO	03/25/11	J, Q
Total PeCDD	EPA-5 1613B	1083190	0.0000001	0.00005	ND	0.96	MO	03/25/11	
Total PeCDF	EPA-5 1613B	1083190	0.0000001	0.00005	ND	0.96	MO	03/25/11	
Total TCDD	EPA-5 1613B	1083190	0.00000066	0.00001	1.2e-006	0.96	MO	03/25/11	J
Total TCDF	EPA-5 1613B	1083190	0.00000099	0.00001	2.7e-006	0.96	MO	03/25/11	J, Q

Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%)	53 %
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%)	53 %
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%)	50 %
Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%)	53 %
Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%)	57 %
Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%)	60 %
Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%)	62 %
Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%)	57 %
Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%)	63 %
Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%)	55 %
Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%)	61 %
Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%)	55 %
Surrogate: 13C-2,3,7,8-TCDD (25-164%)	59 %
Surrogate: 13C-2,3,7,8-TCDF (24-169%)	62 %
Surrogate: 13C-OCDD (17-157%)	54 %
Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%)	84 %

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Project ID: Routine Outfall 002 2010
Routine Outfall 002
Report Number: IUC2140

Sampled: 03/20/11-03/22/11
Received: 03/20/11

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 002 (Grab) (IUC2140-01) - Water					
SM2540F	2	03/20/2011 09:50	03/20/2011 16:40	03/21/2011 08:05	03/21/2011 08:05
Sample ID: Outfall 002 (Composite) (IUC2140-03) - Water					
EPA 300.0	2	03/20/2011 16:41	03/20/2011 16:40	03/21/2011 23:15	03/22/2011 02:26
Filtration	1	03/20/2011 16:41	03/20/2011 16:40	03/21/2011 23:30	03/21/2011 23:30
SM2130B	2	03/20/2011 16:41	03/20/2011 16:40	03/22/2011 11:00	03/22/2011 11:00
SM5210B	2	03/20/2011 16:41	03/20/2011 16:40	03/22/2011 11:00	03/27/2011 12:30
SM5540-C	2	03/20/2011 16:41	03/20/2011 16:40	03/22/2011 11:50	03/22/2011 12:59

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 Routine Outfall 002
 Report Number: IUC2140

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 Received: 03/20/11

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11C3362 Extracted: 03/27/11											
Blank Analyzed: 03/27/2011 (11C3362-BLK1)											
1,2-Dichloroethane	ND	0.50	0.28	ug/l							
1,1-Dichloroethene	ND	2.0	0.42	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Surrogate: 4-Bromofluorobenzene	22.0			ug/l	25.0		88	80-120			
Surrogate: Dibromofluoromethane	23.2			ug/l	25.0		93	80-120			
Surrogate: Toluene-d8	24.4			ug/l	25.0		97	80-120			
LCS Analyzed: 03/27/2011 (11C3362-BS1)											
1,2-Dichloroethane	23.1	0.50	0.28	ug/l	25.0		92	60-140			
1,1-Dichloroethene	21.6	2.0	0.42	ug/l	25.0		86	70-125			
Trichloroethene	22.8	2.0	0.26	ug/l	25.0		91	70-125			
Surrogate: 4-Bromofluorobenzene	23.7			ug/l	25.0		95	80-120			
Surrogate: Dibromofluoromethane	24.7			ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	24.0			ug/l	25.0		96	80-120			
Matrix Spike Analyzed: 03/27/2011 (11C3362-MS1)						Source: IUC2140-01					
1,2-Dichloroethane	24.1	0.50	0.28	ug/l	25.0	ND	96	60-140			
1,1-Dichloroethene	21.9	2.0	0.42	ug/l	25.0	ND	88	60-130			
Trichloroethene	24.1	2.0	0.26	ug/l	25.0	ND	96	65-125			
Surrogate: 4-Bromofluorobenzene	23.7			ug/l	25.0		95	80-120			
Surrogate: Dibromofluoromethane	25.6			ug/l	25.0		102	80-120			
Surrogate: Toluene-d8	24.6			ug/l	25.0		98	80-120			
Matrix Spike Dup Analyzed: 03/27/2011 (11C3362-MSD1)						Source: IUC2140-01					
1,2-Dichloroethane	23.7	0.50	0.28	ug/l	25.0	ND	95	60-140	2	20	
1,1-Dichloroethene	21.8	2.0	0.42	ug/l	25.0	ND	87	60-130	0.6	20	
Trichloroethene	23.8	2.0	0.26	ug/l	25.0	ND	95	65-125	1	20	
Surrogate: 4-Bromofluorobenzene	23.6			ug/l	25.0		95	80-120			
Surrogate: Dibromofluoromethane	25.6			ug/l	25.0		102	80-120			
Surrogate: Toluene-d8	24.2			ug/l	25.0		97	80-120			

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METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11C3070 Extracted: 03/23/11											
Blank Analyzed: 03/25/2011 (11C3070-BLK1)											
Bis(2-ethylhexyl)phthalate	ND	5.00	1.70	ug/l							
2,4-Dinitrotoluene	ND	5.00	0.200	ug/l							
N-Nitrosodimethylamine	ND	5.00	0.100	ug/l							
Pentachlorophenol	ND	5.00	0.100	ug/l							
2,4,6-Trichlorophenol	ND	6.00	0.100	ug/l							
Surrogate: 2,4,6-Tribromophenol	15.1			ug/l	20.0		75	40-120			
Surrogate: 2-Fluorobiphenyl	7.92			ug/l	10.0		79	50-120			
Surrogate: 2-Fluorophenol	15.1			ug/l	20.0		76	30-120			
Surrogate: Nitrobenzene-d5	8.22			ug/l	10.0		82	45-120			
Surrogate: Phenol-d6	16.3			ug/l	20.0		81	35-120			
Surrogate: Terphenyl-d14	9.64			ug/l	10.0		96	50-125			
LCS Analyzed: 03/25/2011 (11C3070-BS1)											
Bis(2-ethylhexyl)phthalate	8.60	5.00	1.70	ug/l	10.0		86	65-130			
2,4-Dinitrotoluene	8.64	5.00	0.200	ug/l	10.0		86	65-120			
N-Nitrosodimethylamine	7.72	5.00	0.100	ug/l	10.0		77	45-120			
Pentachlorophenol	6.24	5.00	0.100	ug/l	10.0		62	24-121			
2,4,6-Trichlorophenol	8.04	6.00	0.100	ug/l	10.0		80	55-120			
Surrogate: 2,4,6-Tribromophenol	16.7			ug/l	20.0		84	40-120			
Surrogate: 2-Fluorobiphenyl	7.78			ug/l	10.0		78	50-120			
Surrogate: 2-Fluorophenol	13.0			ug/l	20.0		65	30-120			
Surrogate: Nitrobenzene-d5	7.26			ug/l	10.0		73	45-120			
Surrogate: Phenol-d6	14.5			ug/l	20.0		73	35-120			
Surrogate: Terphenyl-d14	8.72			ug/l	10.0		87	50-125			
LCS Dup Analyzed: 03/25/2011 (11C3070-BSD1)											
Bis(2-ethylhexyl)phthalate	8.74	5.00	1.70	ug/l	10.0		87	65-130	2	20	
2,4-Dinitrotoluene	9.02	5.00	0.200	ug/l	10.0		90	65-120	4	20	
N-Nitrosodimethylamine	7.70	5.00	0.100	ug/l	10.0		77	45-120	0.3	20	
Pentachlorophenol	6.20	5.00	0.100	ug/l	10.0		62	24-121	0.6	25	
2,4,6-Trichlorophenol	8.02	6.00	0.100	ug/l	10.0		80	55-120	0.2	30	
Surrogate: 2,4,6-Tribromophenol	16.9			ug/l	20.0		84	40-120			
Surrogate: 2-Fluorobiphenyl	7.90			ug/l	10.0		79	50-120			
Surrogate: 2-Fluorophenol	13.1			ug/l	20.0		66	30-120			
Surrogate: Nitrobenzene-d5	7.72			ug/l	10.0		77	45-120			
Surrogate: Phenol-d6	15.4			ug/l	20.0		77	35-120			

MNR1

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Routine Outfall 002
Report Number: IUC2140

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Received: 03/20/11

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11C3070 Extracted: 03/23/11											
LCS Dup Analyzed: 03/25/2011 (11C3070-BSD1)											
Surrogate: Terphenyl-d14	8.78			ug/l	10.0		88	50-125			

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METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11C2988 Extracted: 03/23/11											
Blank Analyzed: 03/23/2011 (11C2988-BLK1)											
alpha-BHC	ND	0.010	0.0025	ug/l							
Surrogate: Decachlorobiphenyl	0.433			ug/l	0.500		87	45-120			
Surrogate: Tetrachloro-m-xylene	0.371			ug/l	0.500		74	35-115			
LCS Analyzed: 03/23/2011 (11C2988-BS1)											
alpha-BHC	0.398	0.010	0.0025	ug/l	0.500		80	45-115			MNR1
Surrogate: Decachlorobiphenyl	0.446			ug/l	0.500		89	45-120			
Surrogate: Tetrachloro-m-xylene	0.383			ug/l	0.500		77	35-115			
LCS Dup Analyzed: 03/23/2011 (11C2988-BSD1)											
alpha-BHC	0.398	0.010	0.0025	ug/l	0.500		80	45-115	0.1	30	
Surrogate: Decachlorobiphenyl	0.441			ug/l	0.500		88	45-120			
Surrogate: Tetrachloro-m-xylene	0.384			ug/l	0.500		77	35-115			

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METHOD BLANK/QC DATA

HEXANE EXTRACTABLE MATERIAL

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 11C3551 Extracted: 03/28/11</u>											
Blank Analyzed: 03/28/2011 (11C3551-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
LCS Analyzed: 03/28/2011 (11C3551-BS1)											
Hexane Extractable Material (Oil & Grease)	18.7	5.0	1.4	mg/l	20.0		94	78-114			MNR1
LCS Dup Analyzed: 03/28/2011 (11C3551-BSD1)											
Hexane Extractable Material (Oil & Grease)	19.1	5.0	1.4	mg/l	20.0		96	78-114	2	11	

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11C2899 Extracted: 03/22/11											
Blank Analyzed: 03/22/2011 (11C2899-BLK1)											
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Selenium	ND	2.0	0.50	ug/l							
LCS Analyzed: 03/22/2011 (11C2899-BS1)											
Cadmium	85.3	1.0	0.10	ug/l	80.0		107	85-115			
Copper	82.8	2.0	0.50	ug/l	80.0		104	85-115			
Lead	79.6	1.0	0.20	ug/l	80.0		100	85-115			
Selenium	82.8	2.0	0.50	ug/l	80.0		104	85-115			
Matrix Spike Analyzed: 03/22/2011 (11C2899-MS1) Source: IUC2134-02											
Cadmium	77.7	1.0	0.10	ug/l	80.0	ND	97	70-130			
Copper	85.0	2.0	0.50	ug/l	80.0	4.75	100	70-130			
Lead	73.0	1.0	0.20	ug/l	80.0	1.35	90	70-130			
Selenium	75.4	2.0	0.50	ug/l	80.0	ND	94	70-130			
Matrix Spike Analyzed: 03/22/2011 (11C2899-MS2) Source: IUC1965-02											
Cadmium	77.9	1.0	0.10	ug/l	80.0	ND	97	70-130			
Copper	84.2	2.0	0.50	ug/l	80.0	6.68	97	70-130			
Lead	70.4	1.0	0.20	ug/l	80.0	0.795	87	70-130			
Selenium	80.3	2.0	0.50	ug/l	80.0	2.49	97	70-130			
Matrix Spike Dup Analyzed: 03/22/2011 (11C2899-MSD1) Source: IUC2134-02											
Cadmium	78.2	1.0	0.10	ug/l	80.0	ND	98	70-130	0.6	20	
Copper	86.2	2.0	0.50	ug/l	80.0	4.75	102	70-130	1	20	
Lead	72.3	1.0	0.20	ug/l	80.0	1.35	89	70-130	0.9	20	
Selenium	76.2	2.0	0.50	ug/l	80.0	ND	95	70-130	1	20	

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 11C2939 Extracted: 03/22/11</u>											
Blank Analyzed: 03/23/2011 (11C2939-BLK1)											
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 03/23/2011 (11C2939-BS1)											
Mercury	7.89	0.20	0.10	ug/l	8.00		99	85-115			
Matrix Spike Analyzed: 03/23/2011 (11C2939-MS1)											
						Source: IUC2224-01					
Mercury	7.87	0.20	0.10	ug/l	8.00	ND	98	70-130			
Matrix Spike Dup Analyzed: 03/23/2011 (11C2939-MSD1)											
						Source: IUC2224-01					
Mercury	7.86	0.20	0.10	ug/l	8.00	ND	98	70-130	0.2	20	
<u>Batch: 11C3037 Extracted: 03/23/11</u>											
Blank Analyzed: 03/23/2011 (11C3037-BLK1)											
Iron	ND	0.040	0.015	mg/l							
Zinc	ND	20.0	6.00	ug/l							
LCS Analyzed: 03/23/2011 (11C3037-BS1)											
Iron	0.562	0.040	0.015	mg/l	0.500		112	85-115			
Zinc	524	20.0	6.00	ug/l	500		105	85-115			
Matrix Spike Analyzed: 03/23/2011 (11C3037-MS1)											
						Source: IUC2108-02					
Iron	0.559	0.040	0.015	mg/l	0.500	ND	112	70-130			
Zinc	509	20.0	6.00	ug/l	500	ND	102	70-130			
Matrix Spike Analyzed: 03/23/2011 (11C3037-MS2)											
						Source: IUC1923-02					
Iron	0.558	0.040	0.015	mg/l	0.500	ND	112	70-130			
Zinc	515	20.0	6.00	ug/l	500	ND	103	70-130			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11C3037 Extracted: 03/23/11											
Matrix Spike Dup Analyzed: 03/23/2011 (11C3037-MSD1)						Source: IUC2108-02					
Iron	0.567	0.040	0.015	mg/l	0.500	ND	113	70-130	1	20	
Zinc	522	20.0	6.00	ug/l	500	ND	104	70-130	3	20	

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 11C3083 Extracted: 03/23/11</u>											
Blank Analyzed: 03/23/2011 (11C3083-BLK1)											
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 03/23/2011 (11C3083-BS1)											
Mercury	7.87	0.20	0.10	ug/l	8.00		98	85-115			
Matrix Spike Analyzed: 03/23/2011 (11C3083-MS1)											
						Source: IUC2139-03					
Mercury	7.77	0.20	0.10	ug/l	8.00	ND	97	70-130			
Matrix Spike Dup Analyzed: 03/23/2011 (11C3083-MSD1)											
						Source: IUC2139-03					
Mercury	7.76	0.20	0.10	ug/l	8.00	ND	97	70-130	0.2	20	
<u>Batch: 11C3474 Extracted: 03/25/11</u>											
Blank Analyzed: 03/26/2011 (11C3474-BLK1)											
Iron	ND	0.040	0.015	mg/l							
Zinc	11.1	20.0	6.00	ug/l							Ja
LCS Analyzed: 03/26/2011 (11C3474-BS1)											
Iron	0.530	0.040	0.015	mg/l	0.500		106	85-115			
Zinc	505	20.0	6.00	ug/l	500		101	85-115			
Matrix Spike Analyzed: 03/26/2011 (11C3474-MS1)											
						Source: IUC2140-03					
Iron	0.577	0.040	0.015	mg/l	0.500	0.0583	104	70-130			
Zinc	509	20.0	6.00	ug/l	500	7.18	100	70-130			
Matrix Spike Dup Analyzed: 03/26/2011 (11C3474-MSD1)											
						Source: IUC2140-03					
Iron	0.594	0.040	0.015	mg/l	0.500	0.0583	107	70-130	3	20	
Zinc	531	20.0	6.00	ug/l	500	7.18	105	70-130	4	20	

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DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11C3506 Extracted: 03/26/11											
Blank Analyzed: 03/28/2011 (11C3506-BLK1)											
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Selenium	ND	2.0	0.50	ug/l							
LCS Analyzed: 03/28/2011 (11C3506-BS1)											
Cadmium	79.3	1.0	0.10	ug/l	80.0		99	85-115			
Copper	84.1	2.0	0.50	ug/l	80.0		105	85-115			
Lead	78.6	1.0	0.20	ug/l	80.0		98	85-115			
Selenium	79.7	2.0	0.50	ug/l	80.0		100	85-115			
Matrix Spike Analyzed: 03/28/2011 (11C3506-MS1) Source: IUC2142-02											
Cadmium	77.2	1.0	0.10	ug/l	80.0	ND	96	70-130			
Copper	83.9	2.0	0.50	ug/l	80.0	1.96	102	70-130			
Lead	76.8	1.0	0.20	ug/l	80.0	0.555	95	70-130			
Selenium	74.2	2.0	0.50	ug/l	80.0	ND	93	70-130			
Matrix Spike Analyzed: 03/28/2011 (11C3506-MS2) Source: IUC2141-02											
Cadmium	77.0	1.0	0.10	ug/l	80.0	ND	96	70-130			
Copper	83.9	2.0	0.50	ug/l	80.0	2.04	102	70-130			
Lead	76.2	1.0	0.20	ug/l	80.0	ND	95	70-130			
Selenium	73.3	2.0	0.50	ug/l	80.0	ND	92	70-130			
Matrix Spike Dup Analyzed: 03/28/2011 (11C3506-MSD1) Source: IUC2142-02											
Cadmium	78.2	1.0	0.10	ug/l	80.0	ND	98	70-130	1	20	
Copper	84.8	2.0	0.50	ug/l	80.0	1.96	104	70-130	1	20	
Lead	76.6	1.0	0.20	ug/l	80.0	0.555	95	70-130	0.3	20	
Selenium	73.5	2.0	0.50	ug/l	80.0	ND	92	70-130	1	20	

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11C2667 Extracted: 03/21/11											
Blank Analyzed: 03/21/2011 (11C2667-BLK1)											
Specific Conductance	ND	1.0	1.0	hos/cm @ 2							
LCS Analyzed: 03/21/2011 (11C2667-BS1)											
Specific Conductance	1410	1.0	1.0	hos/cm @ 2	1410		100	90-110			
Duplicate Analyzed: 03/21/2011 (11C2667-DUP1)											
						Source: IUC2135-01					
Specific Conductance	15200	2.0	2.0	hos/cm @ 2		15200			0.1	5	
Batch: 11C2745 Extracted: 03/21/11											
Blank Analyzed: 03/21/2011 (11C2745-BLK1)											
Chloride	ND	0.50	0.30	mg/l							
Nitrate-N	ND	0.11	0.060	mg/l							
Nitrite-N	ND	0.15	0.090	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.30	mg/l							
LCS Analyzed: 03/21/2011 (11C2745-BS1)											
Chloride	4.85	0.50	0.30	mg/l	5.00		97	90-110			
Nitrate-N	1.17	0.11	0.060	mg/l	1.13		104	90-110			
Nitrite-N	1.45	0.15	0.090	mg/l	1.52		95	90-110			
Sulfate	9.49	0.50	0.30	mg/l	10.0		95	90-110			
Matrix Spike Analyzed: 03/21/2011 (11C2745-MS1)											
						Source: IUC2093-01					
Chloride	458	25	15	mg/l	50.0	418	80	80-120			MHA
Nitrate-N	12.6	5.5	3.0	mg/l	11.3	ND	112	80-120			
Nitrite-N	20.0	7.5	4.5	mg/l	15.2	ND	132	80-120			MI
Sulfate	101	25	15	mg/l	100	7.45	93	80-120			

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 11C2745 Extracted: 03/21/11</u>											
Matrix Spike Analyzed: 03/21/2011 (11C2745-MS2)						Source: IUC2198-02					
Chloride	153	5.0	3.0	mg/l	50.0	109	88	80-120			
Nitrate-N	31.2	1.1	0.60	mg/l	11.3	20.5	95	80-120			
Nitrite-N	16.0	1.5	0.90	mg/l	15.2	ND	105	80-120			
Sulfate	131	5.0	3.0	mg/l	100	34.2	97	80-120			
Matrix Spike Dup Analyzed: 03/21/2011 (11C2745-MSD1)						Source: IUC2093-01					
Chloride	477	25	15	mg/l	50.0	418	119	80-120	4	20	MHA
Nitrate-N	11.2	5.5	3.0	mg/l	11.3	ND	99	80-120	12	20	
Nitrite-N	19.3	7.5	4.5	mg/l	15.2	ND	127	80-120	4	20	MI
Sulfate	111	25	15	mg/l	100	7.45	103	80-120	10	20	
<u>Batch: 11C2823 Extracted: 03/22/11</u>											
Blank Analyzed: 03/22/2011 (11C2823-BLK1)											
Total Dissolved Solids	ND	10	1.0	mg/l							
LCS Analyzed: 03/22/2011 (11C2823-BS1)											
Total Dissolved Solids	998	10	1.0	mg/l	1000		100	90-110			
Duplicate Analyzed: 03/22/2011 (11C2823-DUP1)						Source: IUC2198-02					
Total Dissolved Solids	509	10	1.0	mg/l		513			0.8	10	
<u>Batch: 11C2881 Extracted: 03/22/11</u>											
Blank Analyzed: 03/22/2011 (11C2881-BLK1)											
Turbidity	ND	1.0	0.040	NTU							

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 11C2881 Extracted: 03/22/11</u>											
Duplicate Analyzed: 03/22/2011 (11C2881-DUP1)						Source: IUC2139-03					
Turbidity	29.9	1.0	0.040	NTU		29.9			0	20	
Duplicate Analyzed: 03/22/2011 (11C2881-DUP2)						Source: IUC2220-12					
Turbidity	0.280	1.0	0.040	NTU		0.270			4	20	Ja
<u>Batch: 11C2910 Extracted: 03/22/11</u>											
Blank Analyzed: 03/27/2011 (11C2910-BLK1)											
Biochemical Oxygen Demand	ND	2.0	0.50	mg/l							
LCS Analyzed: 03/27/2011 (11C2910-BS1)											
Biochemical Oxygen Demand	198	100	25	mg/l	198		100	85-115			
LCS Dup Analyzed: 03/27/2011 (11C2910-BSD1)											
Biochemical Oxygen Demand	206	100	25	mg/l	198		104	85-115	3	20	
<u>Batch: 11C2931 Extracted: 03/22/11</u>											
Blank Analyzed: 03/22/2011 (11C2931-BLK1)											
Surfactants (MBAS)	ND	0.10	0.050	mg/l							
LCS Analyzed: 03/22/2011 (11C2931-BS1)											
Surfactants (MBAS)	0.250	0.10	0.050	mg/l	0.250		100	90-110			
Matrix Spike Analyzed: 03/22/2011 (11C2931-MS1)						Source: IUC2139-03					
Surfactants (MBAS)	0.244	0.10	0.050	mg/l	0.250	ND	98	50-125			

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11C2931 Extracted: 03/22/11											
Matrix Spike Dup Analyzed: 03/22/2011 (11C2931-MSD1)						Source: IUC2139-03					
Surfactants (MBAS)	0.262	0.10	0.050	mg/l	0.250	ND	105	50-125	7	20	
Batch: 11C2967 Extracted: 03/22/11											
Blank Analyzed: 03/22/2011 (11C2967-BLK1)											
Ammonia-N (Distilled)	ND	0.500	0.500	mg/l							
LCS Analyzed: 03/22/2011 (11C2967-BS1)											
Ammonia-N (Distilled)	9.80	0.500	0.500	mg/l	10.0		98	80-115			
Matrix Spike Analyzed: 03/22/2011 (11C2967-MS1)						Source: IUC2139-03					
Ammonia-N (Distilled)	9.80	0.500	0.500	mg/l	10.0	ND	98	70-120			
Matrix Spike Dup Analyzed: 03/22/2011 (11C2967-MSD1)						Source: IUC2139-03					
Ammonia-N (Distilled)	9.80	0.500	0.500	mg/l	10.0	ND	98	70-120	0	15	
Batch: 11C2979 Extracted: 03/22/11											
Blank Analyzed: 03/22/2011 (11C2979-BLK1)											
Total Suspended Solids	ND	10	1.0	mg/l							
LCS Analyzed: 03/22/2011 (11C2979-BS1)											
Total Suspended Solids	1060	10	1.0	mg/l	1000		106	85-115			
Duplicate Analyzed: 03/22/2011 (11C2979-DUP1)						Source: IUC2181-03					
Total Suspended Solids	57.0	10	1.0	mg/l		57.0			0	10	

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 11C3191 Extracted: 03/24/11</u>											
Blank Analyzed: 03/24/2011 (11C3191-BLK1)											
Perchlorate	ND	4.0	0.90	ug/l							
LCS Analyzed: 03/24/2011 (11C3191-BS1)											
Perchlorate	27.1	4.0	0.90	ug/l	25.0		108	85-115			
Matrix Spike Analyzed: 03/24/2011 (11C3191-MS1)											
						Source: IUC2279-06					
Perchlorate	26.8	4.0	0.90	ug/l	25.0	ND	107	80-120			
Matrix Spike Dup Analyzed: 03/24/2011 (11C3191-MSD1)											
						Source: IUC2279-06					
Perchlorate	27.9	4.0	0.90	ug/l	25.0	ND	112	80-120	4	20	
<u>Batch: 11C3437 Extracted: 03/25/11</u>											
Blank Analyzed: 03/25/2011 (11C3437-BLK1)											
Total Cyanide	ND	5.0	2.2	ug/l							
LCS Analyzed: 03/25/2011 (11C3437-BS1)											
Total Cyanide	194	5.0	2.2	ug/l	196		99	90-110			
Matrix Spike Analyzed: 03/25/2011 (11C3437-MS1)											
						Source: IUC2139-03					
Total Cyanide	199	5.0	2.2	ug/l	196	ND	101	70-115			
Matrix Spike Dup Analyzed: 03/25/2011 (11C3437-MSD1)											
						Source: IUC2139-03					
Total Cyanide	201	5.0	2.2	ug/l	196	ND	102	70-115	0.9	15	
<u>Batch: 11D1346 Extracted: 04/12/11</u>											
Blank Analyzed: 04/12/2011 (11D1346-BLK1)											
Perchlorate	ND	4.0	0.90	ug/l							

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11D1346 Extracted: 04/12/11											
LCS Analyzed: 04/12/2011 (11D1346-BS1)											
Perchlorate	28.2	4.0	0.90	ug/l	25.0		113	85-115			
Matrix Spike Analyzed: 04/12/2011 (11D1346-MS1)											
Perchlorate	29.9	4.0	0.90	ug/l	25.0	ND	120	80-120			
Matrix Spike Dup Analyzed: 04/12/2011 (11D1346-MSD1)											
Perchlorate	28.2	4.0	0.90	ug/l	25.0	ND	113	80-120	6	20	

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METHOD BLANK/QC DATA

8676

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8676 Extracted: 03/29/11											
LCS Analyzed: 03/29/2011 (S103143-02)											
Uranium, Total	55.3	1	0.205	pCi/L	56.5		98	80-120			
Blank Analyzed: 03/29/2011 (S103143-03)											
Uranium, Total	ND	1	0.02	pCi/L				-			U
Duplicate Analyzed: 03/29/2011 (S103143-04)											
Uranium, Total	0.292	1	0.02	pCi/L				-	9		Jb

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900

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8676 Extracted: 03/31/11											
LCS Analyzed: 03/31/2011 (S103143-02)											
Gross Alpha	122	3	1.21	pCi/L	101		121	70-130			
Gross Beta	83.8	4	3.06	pCi/L	87.1		96	70-130			
Blank Analyzed: 03/31/2011 (S103143-03)											
Gross Alpha	0.261	3	1.85	pCi/L				-			U
Gross Beta	-0.333	4	2.4	pCi/L				-			U
Duplicate Analyzed: 03/31/2011 (S103143-04)											
Gross Alpha	1.94	3	0.434	pCi/L				-	15		Jb
Gross Beta	6.74	4	0.831	pCi/L				-	8		

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901.1

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8676 Extracted: 03/24/11											
LCS Analyzed: 03/31/2011 (S103143-02)						Source:					
Cobalt-60	123	10	2.5	pCi/L	124		99	80-120			
Cesium-137	118	20	3.18	pCi/L	110		107	80-120			
Blank Analyzed: 03/31/2011 (S103143-03)						Source:					
Cesium-137	ND	20	2.34	pCi/L				-			U
Potassium-40	ND	25	47.4	pCi/L				-			U
Duplicate Analyzed: 03/31/2011 (S103143-04)						Source:					
Cesium-134	ND	20	3.68	pCi/L				-	0		U
Cesium-137	ND	20	1.17	pCi/L				-	0		U
Potassium-40	ND	25	15.8	pCi/L				-	0		U

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903.1

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8676 Extracted: 04/05/11											
LCS Analyzed: 04/05/2011 (S103143-02)											
Radium-226	49	1	0.859	pCi/L	55.7		88	80-120			
Blank Analyzed: 04/05/2011 (S103143-03)											
Radium-226	0.031	1	0.8	pCi/L				-			U
Duplicate Analyzed: 04/05/2011 (S103143-04)											
Radium-226	0.283	1	0.711	pCi/L				-	0		U

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METHOD BLANK/QC DATA

904

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8676 Extracted: 04/07/11											
LCS Analyzed: 04/07/2011 (S103143-02)											
Radium-228	3.92	1	0.432	pCi/L	5.01		78	60-140			
Blank Analyzed: 04/07/2011 (S103143-03)											
Radium-228	-0.153	1	0.434	pCi/L				-			U
Duplicate Analyzed: 04/07/2011 (S103143-04)											
Radium-228	0.235	1	0.402	pCi/L				-	0		U

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METHOD BLANK/QC DATA

905

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8676 Extracted: 04/01/11											
LCS Analyzed: 04/01/2011 (S103143-02)											
Strontium-90	19.7	2	0.576	pCi/L	17.4		113	80-120			
Blank Analyzed: 04/01/2011 (S103143-03)											
Strontium-90	0.045	2	0.468	pCi/L				-			U
Duplicate Analyzed: 04/01/2011 (S103143-04)											
Strontium-90	0.078	2	0.717	pCi/L				-	0		U

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Project ID: Routine Outfall 002 2010
 Routine Outfall 002
 Report Number: IUC2140

Sampled: 03/20/11-03/22/11
 Received: 03/20/11

METHOD BLANK/QC DATA

906

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8676 Extracted: 03/30/11											
LCS Analyzed: 03/30/2011 (S103143-02)											
Tritium	2150	500	166	pCi/L	2350		91	80-120			
Blank Analyzed: 03/30/2011 (S103143-03)											
Tritium	-30.1	500	163	pCi/L							U
Duplicate Analyzed: 03/30/2011 (S103143-04)											
Tritium	-10.9	500	168	pCi/L					0		U

TestAmerica Irvine

Debby Wilson
 Project Manager

MWH-Pasadena/Boeing
 618 Michillinda Avenue, Suite 200
 Arcadia, CA 91007
 Attention: Bronwyn Kelly

Project ID: Routine Outfall 002 2010
 Routine Outfall 002
 Report Number: IUC2140

Sampled: 03/20/11-03/22/11
 Received: 03/20/11

METHOD BLANK/QC DATA

EPA-5 1613Bx

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 1083190 Extracted: 03/24/11											
Blank Analyzed: 03/25/2011 (G1C240000190B)						Source:					
1,2,3,4,6,7,8-HpCDD	ND	0.00005	0.0000013	ug/L				-			
1,2,3,4,6,7,8-HpCDF	ND	0.00005	0.00000066	ug/L				-			
1,2,3,4,7,8,9-HpCDF	ND	0.00005	0.00000096	ug/L				-			
1,2,3,4,7,8-HxCDD	ND	0.00005	0.00000068	ug/L				-			
1,2,3,4,7,8-HxCDF	ND	0.00005	0.00000062	ug/L				-			
1,2,3,6,7,8-HxCDD	ND	0.00005	0.00000065	ug/L				-			
1,2,3,6,7,8-HxCDF	ND	0.00005	0.00000033	ug/L				-			
1,2,3,7,8,9-HxCDD	ND	0.00005	0.00000058	ug/L				-			
1,2,3,7,8,9-HxCDF	ND	0.00005	0.00000043	ug/L				-			
1,2,3,7,8-PeCDD	ND	0.00005	0.00000091	ug/L				-			
1,2,3,7,8-PeCDF	ND	0.00005	0.00000087	ug/L				-			
2,3,4,6,7,8-HxCDF	ND	0.00005	0.00000032	ug/L				-			
2,3,4,7,8-PeCDF	ND	0.00005	0.0000009	ug/L				-			
2,3,7,8-TCDD	ND	0.00001	0.00000052	ug/L				-			
2,3,7,8-TCDF	ND	0.00001	0.00000012	ug/L				-			
OCDD	2.2e-006	0.0001	0.00000019	ug/L				-			J
OCDF	ND	0.0001	0.00000021	ug/L				-			
Total HpCDD	ND	0.00005	0.00000013	ug/L				-			
Total HpCDF	ND	0.00005	0.00000066	ug/L				-			
Total HxCDD	ND	0.00005	0.00000058	ug/L				-			
Total HxCDF	ND	0.00005	0.00000032	ug/L				-			
Total PeCDD	ND	0.00005	0.00000091	ug/L				-			
Total PeCDF	ND	0.00005	0.00000087	ug/L				-			
Total TCDD	ND	0.00001	0.00000052	ug/L				-			
Total TCDF	ND	0.00001	0.00000012	ug/L				-			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.0012			ug/L	0.002		61	23-140			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.0011			ug/L	0.002		57	28-143			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.001			ug/L	0.002		52	26-138			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.0011			ug/L	0.002		55	32-141			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.0011			ug/L	0.002		55	26-152			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.0013			ug/L	0.002		64	28-130			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.0013			ug/L	0.002		65	26-123			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.0012			ug/L	0.002		61	29-147			
Surrogate: 13C-1,2,3,7,8-PeCDD	0.0013			ug/L	0.002		65	25-181			
Surrogate: 13C-1,2,3,7,8-PeCDF	0.0011			ug/L	0.002		53	24-185			

TestAmerica Irvine

Debby Wilson
 Project Manager

MWH-Pasadena/Boeing
 618 Michillinda Avenue, Suite 200
 Arcadia, CA 91007
 Attention: Bronwyn Kelly

Project ID: Routine Outfall 002 2010
 Routine Outfall 002
 Report Number: IUC2140

Sampled: 03/20/11-03/22/11
 Received: 03/20/11

METHOD BLANK/QC DATA

EPA-5 1613Bx

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 1083190 Extracted: 03/24/11											
Blank Analyzed: 03/25/2011 (G1C240000190B)						Source:					
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.0013			ug/L	0.002		65	28-136			
Surrogate: 13C-2,3,4,7,8-PeCDF	0.0011			ug/L	0.002		56	21-178			
Surrogate: 13C-2,3,7,8-TCDD	0.0011			ug/L	0.002		53	25-164			
Surrogate: 13C-2,3,7,8-TCDF	0.0012			ug/L	0.002		58	24-169			
Surrogate: 13C-OCDD	0.0024			ug/L	0.004		61	17-157			
Surrogate: 37Cl4-2,3,7,8-TCDD	0.00066			ug/L	0.0008		82	35-197			
LCS Analyzed: 03/25/2011 (G1C240000190C)						Source:					
1,2,3,4,6,7,8-HpCDD	0.00107	0.00005	0.0000086	ug/L	0.001		107	70-140			
1,2,3,4,6,7,8-HpCDF	0.00109	0.00005	0.0000018	ug/L	0.001		109	82-122			
1,2,3,4,7,8,9-HpCDF	0.00114	0.00005	0.0000027	ug/L	0.001		114	78-138			
1,2,3,4,7,8-HxCDD	0.00109	0.00005	0.00000078	ug/L	0.001		109	70-164			
1,2,3,4,7,8-HxCDF	0.00107	0.00005	0.0000053	ug/L	0.001		107	72-134			
1,2,3,6,7,8-HxCDD	0.0011	0.00005	0.00000071	ug/L	0.001		110	76-134			
1,2,3,6,7,8-HxCDF	0.0011	0.00005	0.0000048	ug/L	0.001		110	84-130			
1,2,3,7,8,9-HxCDD	0.00121	0.00005	0.00000065	ug/L	0.001		121	64-162			
1,2,3,7,8,9-HxCDF	0.00111	0.00005	0.0000064	ug/L	0.001		111	78-130			
1,2,3,7,8-PeCDD	0.000988	0.00005	0.0000025	ug/L	0.001		99	70-142			
1,2,3,7,8-PeCDF	0.00112	0.00005	0.0000034	ug/L	0.001		112	80-134			
2,3,4,6,7,8-HxCDF	0.0011	0.00005	0.0000047	ug/L	0.001		110	70-156			
2,3,4,7,8-PeCDF	0.00109	0.00005	0.0000036	ug/L	0.001		109	68-160			
2,3,7,8-TCDD	0.000219	0.00001	0.0000014	ug/L	0.0002		110	67-158			
2,3,7,8-TCDF	0.000263	0.00001	0.0000015	ug/L	0.0002		132	75-158			
OCDD	0.00207	0.0001	0.000014	ug/L	0.002		103	78-144			Ba
OCDF	0.00204	0.0001	0.000011	ug/L	0.002		102	63-170			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.000957			ug/L	0.002		48	26-166			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.000967			ug/L	0.002		48	21-158			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.000872			ug/L	0.002		44	20-186			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.000944			ug/L	0.002		47	21-193			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.00102			ug/L	0.002		51	19-202			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.00111			ug/L	0.002		56	25-163			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.00109			ug/L	0.002		55	21-159			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.00104			ug/L	0.002		52	17-205			
Surrogate: 13C-1,2,3,7,8-PeCDD	0.00111			ug/L	0.002		56	21-227			
Surrogate: 13C-1,2,3,7,8-PeCDF	0.00095			ug/L	0.002		48	21-192			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.0011			ug/L	0.002		55	22-176			

TestAmerica Irvine

Debby Wilson
 Project Manager

MWH-Pasadena/Boeing
 618 Michillinda Avenue, Suite 200
 Arcadia, CA 91007
 Attention: Bronwyn Kelly

Project ID: Routine Outfall 002 2010
 Routine Outfall 002
 Report Number: IUC2140

Sampled: 03/20/11-03/22/11
 Received: 03/20/11

METHOD BLANK/QC DATA

EPA-5 1613Bx

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 1083190 Extracted: 03/24/11											
LCS Analyzed: 03/25/2011 (G1C240000190C)											
Surrogate: 13C-2,3,4,7,8-PeCDF	0.000997			ug/L	0.002		50	13-328			
Surrogate: 13C-2,3,7,8-TCDD	0.000983			ug/L	0.002		49	20-175			
Surrogate: 13C-2,3,7,8-TCDF	0.00103			ug/L	0.002		51	22-152			
Surrogate: 13C-OCDD	0.00197			ug/L	0.004		49	13-199			
Surrogate: 37C14-2,3,7,8-TCDD	0.000667			ug/L	0.0008		83	31-191			

TestAmerica Irvine

Debby Wilson
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Routine Outfall 002 2010
Routine Outfall 002
Report Number: IUC2140

Sampled: 03/20/11-03/22/11
Received: 03/20/11

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IUC2140-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	0.48	4.8	15
IUC2140-01	624-(601list)	1,1-Dichloroethene	ug/l	0	2.0	6
IUC2140-01	624-(601list)	1,2-Dichloroethane	ug/l	0	0.50	0.5
IUC2140-01	624-(601list)	Trichloroethene	ug/l	0	2.0	5
IUC2140-01	Settleable Solids - SM2540F	Total Settleable Solids	ml/l	0	0.10	0.3

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IUC2140-02	624-(601list)	1,1-Dichloroethene	ug/l	0	2.0	6
IUC2140-02	624-(601list)	1,2-Dichloroethane	ug/l	0	0.50	0.5
IUC2140-02	624-(601list)	Trichloroethene	ug/l	0	2.0	5

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IUC2140-03	608-Pest Boeing 001/002 Q (LL)	alpha-BHC	ug/l	0.0016	0.0094	0.03
IUC2140-03	625-Boeing 001/002 Q-LL	2,4,6-Trichlorophenol	ug/l	0	5.66	13
IUC2140-03	625-Boeing 001/002 Q-LL	2,4-Dinitrotoluene	ug/l	0	4.72	18
IUC2140-03	625-Boeing 001/002 Q-LL	Bis(2-ethylhexyl)phthalate	ug/l	0.19	4.72	4
IUC2140-03	625-Boeing 001/002 Q-LL	N-Nitrosodimethylamine	ug/l	0	4.72	16
IUC2140-03	625-Boeing 001/002 Q-LL	Pentachlorophenol	ug/l	0	4.72	16.5
IUC2140-03	Ammonia-N, Titr 4500NH3-C (w/di	Ammonia-N (Distilled)	mg/l	0	0.500	10.1
IUC2140-03	BOD - SM5210B	Biochemical Oxygen Demand	mg/l	2.94	2.0	30
IUC2140-03	Cadmium-200.8	Cadmium	ug/l	0.11	1.0	3.1
IUC2140-03	Chloride - 300.0	Chloride	mg/l	8.63	0.50	150
IUC2140-03	Copper-200.8	Copper	ug/l	5.99	2.0	14
IUC2140-03	Cyanide, Total-4500CN-E (5ppb)	Total Cyanide	ug/l	0.38	5.0	8.5
IUC2140-03	Iron-200.7	Iron	mg/l	5.38	0.040	0.3
IUC2140-03	Lead-200.8	Lead	ug/l	3.03	1.0	5.2
IUC2140-03	MBAS - SM5540C	Surfactants (MBAS)	mg/l	0.030	0.10	0.5
IUC2140-03	Mercury - 245.1	Mercury	ug/l	0	0.20	0.1
IUC2140-03	Nitrate-N, 300.0	Nitrate-N	mg/l	0.30	0.11	8

TestAmerica Irvine

Debby Wilson
Project Manager

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Project ID: Routine Outfall 002 2010
 Routine Outfall 002
 Report Number: IUC2140

Sampled: 03/20/11-03/22/11
 Received: 03/20/11

IUC2140-03	Nitrite-N, 300.0	Nitrite-N	mg/l	0	0.15	1
IUC2140-03	Nitrogen, NO3+NO2 -N EPA 300.0	Nitrate/Nitrite-N	mg/l	0.30	0.26	8
IUC2140-03	Perchlorate 314.0 - Default	Perchlorate	ug/l	0	4.0	6
IUC2140-03	Selenium-200.8	Selenium	ug/l	0.17	2.0	5
IUC2140-03	Sulfate-300.0	Sulfate	mg/l	37	0.50	300
IUC2140-03	TDS - SM2540C	Total Dissolved Solids	mg/l	182	10	950
IUC2140-03	TSS - SM2540D	Total Suspended Solids	mg/l	63	10	45
IUC2140-03	Zinc-200.7	Zinc	ug/l	30	20.0	119

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IUC2140-03RE1	Perchlorate 314.0 - Default	Perchlorate	ug/l	0	4.0	6

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
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TestAmerica Irvine

Debby Wilson
 Project Manager

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Routine Outfall 002 2010
Routine Outfall 002
Report Number: IUC2140

Sampled: 03/20/11-03/22/11
Received: 03/20/11

DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- Ba** Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- C** Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- J** Estimated result. Result is less than the reporting limit.
- Ja** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- Jb** The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.
- M1** The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- MHA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- Q** Estimated maximum possible concentration (EMPC).
- U** The RESULT is less than the MDA (Minimum Detectable Activity). If the MDA is blank, the ERROR is used as the limit.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

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Project Manager

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 618 Michillinda Avenue, Suite 200
 Arcadia, CA 91007
 Attention: Bronwyn Kelly

Project ID: Routine Outfall 002 2010
 Routine Outfall 002
 Report Number: IUC2140

Sampled: 03/20/11-03/22/11
 Received: 03/20/11

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EDD + Level 4	Water	N/A	N/A
EPA 1664A	Water	X	X
EPA 200.7-Diss	Water	X	N/A
EPA 200.7	Water	X	N/A
EPA 200.8-Diss	Water	X	N/A
EPA 200.8	Water	X	N/A
EPA 245.1-Diss	Water	X	N/A
EPA 245.1	Water	X	N/A
EPA 300.0	Water	X	N/A
EPA 314.0	Water	X	N/A
EPA 608	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
Filtration	Water	N/A	N/A
SM 2540D	Water	X	X
SM2130B	Water	X	X
SM2510B	Water	X	N/A
SM2540C	Water	X	N/A
SM2540F	Water	X	X
SM4500CN-E	Water	X	N/A
SM4500NH3-C	Water	X	X
SM5210B	Water	X	X
SM5540-C	Water	X	N/A

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Irvine

Debby Wilson
 Project Manager

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Routine Outfall 002 2010
Routine Outfall 002
Report Number: IUC2140

Sampled: 03/20/11-03/22/11
Received: 03/20/11

Eberline Services - SUB

2030 Wright Avenue - Richmond, CA 94804

Analysis Performed: Gamma Spec
Samples: IUC2140-03, IUC2140-04

Analysis Performed: Gross Alpha
Samples: IUC2140-03, IUC2140-04

Analysis Performed: Gross Beta
Samples: IUC2140-03, IUC2140-04

Analysis Performed: Level 4 Data Package
Samples: IUC2140-03

Analysis Performed: Radium, Combined
Samples: IUC2140-03, IUC2140-04

Analysis Performed: Strontium 90
Samples: IUC2140-03, IUC2140-04

Analysis Performed: Tritium
Samples: IUC2140-03

Analysis Performed: Uranium, Combined
Samples: IUC2140-03, IUC2140-04

Method Performed: 8676
Samples: IUC2140-03, IUC2140-04

Method Performed: 900
Samples: IUC2140-03, IUC2140-04

Method Performed: 901.1
Samples: IUC2140-03, IUC2140-04

Method Performed: 903.1
Samples: IUC2140-03, IUC2140-04

Method Performed: 904
Samples: IUC2140-03, IUC2140-04

Method Performed: 905
Samples: IUC2140-03, IUC2140-04

Method Performed: 906
Samples: IUC2140-03

TestAmerica Irvine

Debby Wilson
Project Manager

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Routine Outfall 002 2010
Routine Outfall 002
Report Number: IUC2140

Sampled: 03/20/11-03/22/11
Received: 03/20/11

TestAmerica West Sacramento *NELAC Cert #1119CA, Nevada Cert #CA44*

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B
Samples: IUC2140-03

TestAmerica Irvine

Debby Wilson
Project Manager

IUC2140

Client Name/Address: MVH-Arcadia 618 Michilinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Debby Wilson		Project: Boeing-SSFL NPDES Routine Outfall 002 GRAB		Project Manager: Bronwyn Kelly Phone Number: (626) 568-6691 Fax Number: (626) 568-6515		ANALYSIS REQUIRED 1,1-DCE, 1,2-DCA, TCE (624) <input checked="" type="checkbox"/> Oil & Grease (1664-HEM) <input type="checkbox"/> Settleable Solids <input type="checkbox"/> Conductivity <input type="checkbox"/>		Field readings: (Log in and include in report Temp and pH) Temp °F = 50.0 pH = 7.7 DO = 8.14 mg/L Time of readings =			
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	1,1-DCE, 1,2-DCA, TCE (624)	Oil & Grease (1664-HEM)	Settleable Solids	Conductivity	Comments
Outfall 002	W	VOAs	5	3-20-11 09:50	HCl	1A, 1B, 1C, 1D, 1E	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Outfall 002	W	1L Amber	2		HCl	2A, 2B	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Outfall 002	W	1L Poly	1		None	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Outfall 002	W	500 mL Poly	2		None	4A, 4B	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Trip Blanks	W	VOAs	3	3-20-11 09:50	HCl	5A, 5B, 5C	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

These Samples are the Grab Portion of Outfall 002 for this storm event. Composite samples will follow and are to be added to this work order.

Relinquished By <i>Pin Bui</i> Date/Time: 3-20-11 13:15	Received By <i>plgwm</i> Date/Time: 3-20-11 13:15
Relinquished By <i>plgwm</i> Date/Time: 3-20-11 1640	Received By <i>[Signature]</i> Date/Time: 3-20-11 1640
Relinquished By Date/Time:	Received By <i>[Signature]</i> Date/Time:

Turn-around time: (Check)
 24 Hour: 72 Hour: 5 Day:
 48 Hour: 5 Day: Normal:
 Sample Integrity: (Check)
 Intact: On Ice:
 Data Requirements: (Check)
 All Level IV: NPDES Level IV:

Client Name/Address:
 MWH-Arcadia
 618 Michillinda Ave, Suite 200
 Arcadia, CA 91007

Test America Contact: Debby Wilson

Project:
 Boeing-SSFL NPDES
 Routine Outfall 002
 COMPOSITE - HIGH

Project Manager: Bronwyn Kelly
 Phone Number:
 (626) 588-6691

Sampler: **Richard Barakat**
 Fax Number:
 (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Preservative	Bottle #
Outfall 002	W	1L Poly	1	HNO ₃	6A
Outfall 002 Dup	W	1L Poly	1	HNO ₃	6B
Outfall 002	W	1L Amber	2	None	7A, 7B
Outfall 002	W	1L Poly	1	None	8
Outfall 002	W	500 mL Poly	2	None	9A, 9B
Outfall 002	W	500 mL Poly	2	None	10A, 10B
Outfall 002	W	500 mL Poly	1	None	11
Outfall 002	W	500 mL Poly	2	None	12A, 12B
Outfall 002	W	500 mL Poly	1	H ₂ SO ₄	13
Outfall 002	W	1L Amber	2	None	14A, 14B
Outfall 002	W	1L Amber	2	None	15A, 15B

Project: Boeing-SSFL NPDES
 Routine Outfall 002
 COMPOSITE - HIGH

Project Manager: Bronwyn Kelly
 Phone Number:
 (626) 588-6691

Sampler: **Richard Barakat**
 Fax Number:
 (626) 568-6515

Project: Boeing-SSFL NPDES
 Routine Outfall 002
 COMPOSITE - HIGH

Project Manager: Bronwyn Kelly
 Phone Number:
 (626) 588-6691

Sampler: **Richard Barakat**
 Fax Number:
 (626) 568-6515

ANALYSIS REQUIRED										
Total Recoverable Metals: Cu, Pb, Hg, Cd, Se, Zn, Fe, Mn										
TCDD (and all congeners)										
BOD ₅ (20 degrees C)										
Surfactants (MBAS)										
Cl ⁻ , SO ₄ ²⁻ , NO ₃ ⁻ , NO ₂ ⁻ , Perchlorate										
Nitrate-N, Nitrite-N										
Turbidity, TDS, TSS										
Ammonia-N (350.2)										
Alpha BHC (608)										
2,4,6 TCP, 2,4 Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs 625)										

COC Page 2 of 3 and Page 3 of 3 are the composite samples for Outfall 002 for this storm event.
 These must be added to the same work order for COC Page 1 of 3 for Outfall 002 for the same event.

Relinquished By: **Debby Wilson** Date/Time: 3-27-2011 15:00
 Received By: **Richard Barakat** Date/Time: 3/27/11 15:00

Relinquished By: **Richard Barakat** Date/Time: 3-27-11 15:00
 Received By: **Richard Barakat** Date/Time: 3/27/11 15:00

Relinquished By: **Richard Barakat** Date/Time: 3/27/11 15:00
 Received By: **Richard Barakat** Date/Time: 3/27/11 15:00

Turn-around time: (Check)
 24 Hour: 72 Hour: 10 Day:
 48 Hour: 5 Day: Normal:


Sample Integrity: (Check) 2.4
 Intact: On Ice:

Data Requirements: (Check)
 No Level IV: All Level IV: NPDES Level IV:

0.011
 3/27/11
 8:15

IUC2140

CHAIN OF CUSTODY FORM

Client Name/Address: MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007						Project: Boeing-SSFL NPDES Routine Outfall 002 COMPOSITE - HIGH											
Test America Contact: Debby Wilson						ANALYSIS REQUIRED											
Project Manager: Bronwyn Kelly						Phone Number: (626) 568-6691											
Sampler: RICK DANAGA						Fax Number: (626) 568-6515											
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Dissolved Metals: Cu, Pb, Hg, Cd, Se, Zn, Fe, Mn				Cyanide						
Outfall 002	W	1L Poly	1	3-20-2011 18:41	None	16											
Outfall 002	W	2.5 Gal Cube 500 mL Amber	1	3-20-2011	None	17A					X						
Outfall 002	W	1 Gal Cube	1		None	18											
Outfall 002	W	500 mL Poly	1	3-20-2011 18:41	NaOH	19					X						
COC Page 2 of 3 and Page 3 of 3 are the composite samples for Outfall 002 for this storm event. These must be added to the same work order for COC Page 1 of 3 for Outfall 002 for the same event.																	
Relinquished By						Received By											
						Date/Time: 3-20-2011 15:00											
Relinquished By						Date/Time: 3-20-2011 15:00											
Relinquished By						Date/Time: 3-20-2011 15:00											
Sample integrity: (Check)						Intact: <input type="checkbox"/> On ice: <input type="checkbox"/>											
Data Requirements: (Check)						No Level IV: <input type="checkbox"/> All Level IV: <input checked="" type="checkbox"/> NPDES Level IV: <input checked="" type="checkbox"/>											

Filler within 24hrs of receipt at lab
Unfiltered and unpreserved analysis
Only test if first or second only events of the year

Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)

Turn-around time: (Check)
24 Hour: ___ 72 Hour: ___ 10 Day: ___
48 Hour: ___ 5 Day: ___ Normal: ___

Sample integrity: (Check)
Intact: ___ On ice: ___

Data Requirements: (Check)
No Level IV: ___ All Level IV: ___ NPDES Level IV:

March 29, 2011

TestAmerica Project Number: G1C230577

PO/Contract: IUC2140

Debby Wilson
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817

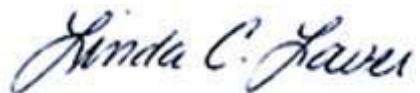
Dear Ms. Wilson,

This report contains the analytical results for the sample received under chain of custody by TestAmerica on March 23, 2011. This sample is associated with your MWH-Boeing project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,



Linda C. Laver
Project Manager

Table of Contents

TestAmerica West Sacramento Project Number G1C230577

Case Narrative

Quality Assurance Program

Sample Description Information

Chain of Custody Documentation

WATER, 1613B, Dioxins/Furans with Totals

Sample: 1

 Sample Data Sheets

 Method Blank Report

 Laboratory QC Report

Level IV Data Package

Case Narrative

TestAmerica West Sacramento Project Number G1C230577

WATER, 1613B, Dioxins/Furans with Totals

Sample: 1

Some analytes in this sample have an ion abundance ratio that is outside of criteria. The analytes are considered as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio. Analytical results are reported with a "Q" flag.

There are no other anomalies associated with this project.

TestAmerica Laboratories West Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	New York*	11666
Arizona	AZ0708	Oregon*	CA 200005
Arkansas	88-0691	Pennsylvania	68-1272
California*	01119CA	South Carolina	87014
Colorado	NA	Texas	T104704399-08-TX
Connecticut	PH-0691	Utah*	QUAN1
Florida*	E87570	Virginia	00178
Georgia	960	Washington	C1281
Hawaii	NA	West Virginia	9930C, 334
Illinois	200060	Wisconsin	998204680
Kansas*	E-10375	NFESC	NA
Louisiana*	30612	USACE	NA
Michigan	9947	USDA Foreign Plant	37-82605
Nevada	CA44	USDA Foreign Soil	P330-09-00055
New Jersey*	CA005	US Fish & Wildlife	LE148388-0
New Mexico	NA	Guam	09-014r

*NELAP accredited. A more detailed parameter list is available upon request. Updated 3/25/2009

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

Sample Summary

TestAmerica West Sacramento Project Number G1C230577

<u>WO#</u>	<u>Sample #</u>	<u>Client Sample ID</u>	<u>Sampling Date</u>	<u>Received Date</u>
MF3R8	1	IUC2140-03	3/20/2011 04:41 PM	3/23/2011 09:05 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Subcontract Order - TestAmerica Irvine (IUC2140)

Please enter the following code into the Job PO Number field for automated UDZ transfer files: **SUB IUC2140**

SENDING LABORATORY:

TestAmerica Irvine
 17461 Derian Avenue, Suite 100
 Irvine, CA 92614
 Phone: (949) 261-1022
 Fax: (949) 260-3297
 Project Manager: Debby Wilson
 Client: MWH-Pasadena/Boeing

RECEIVING LABORATORY:

TestAmerica West Sacramento
 880 Riverside Parkway
 West Sacramento, CA 95605
 Phone : (916) 373-5600
 Fax: (916) 372-1059
 Project Location: California
 Receipt Temperature: 2 °C Ice: (Y) / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
----------	-------	-----	---------	----------------	-------	----------

Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water)

Sampled: 03/20/11 16:41

1613-Dioxin-OUT	pg/l	03/28/11	03/27/11 16:41	\$625.00	25%	J flags, 17 congeners, no TEQ, ug/L, sub=West Sac
-----------------	------	----------	----------------	----------	-----	---

Containers Supplied:

1 L Amber (C) 1 L Amber (D)

Olga Omelas 3/22/11 17:00
 Released By Date/Time

Feder 3/22/11 17:00
 Received By Date/Time

 Released By Date/Time

[Signature] 3-23-11 11:05
 Received By Date/Time

CLIENT TAL irvine PM LL LOG # 69851

LOT#(QUANTIMS ID) Q10230577 QUOTE# 85239 LOCATION W22C, D

DATE RECEIVED 3-23-11 TIME RECEIVED 9:05 Checked (✓)

DELIVERED BY FEDEX ON TRAC OTHER

GOLDENSTATE UPS EZ PARCEL

TAL COURIER TAL SF CLIENT

SHIPPING CONTAINER(S) TAL CLIENT N/A

CUSTODY SEAL STATUS INTACT BROKEN N/A

CUSTODY SEAL #(S) NA

COC #(S) NA

TEMPERATURE BLANK Observed: NA Corrected: NA

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 22.2 Average 2 Corrected Average 2

LABORATORY THERMOMETER ID:

IR UNIT: #4 #5 OTHER

By Bj 3-23-11
Initials Date

=====
 pH MEASURED YES ANOMALY N/A

LABELLED BY.....

LABELS CHECKED BY.....

PEER REVIEW NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING

WETCHEM N/A

VOA-ENCORES N/A

METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL N/A

COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES N/A

CLOUSEAU TEMPERATURE EXCEEDED (2 °C - 6 °C)*1 N/A

WET ICE BLUE ICE GEL PACK NO COOLING AGENTS USED PM NOTIFIED

Initials Bj Date 23 March 11

Notes _____

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

Lot

ID:

GIL230577

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
VOAh*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
AGB	2																			
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
___AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
___CGJ																				
500CGJ																				
250CGJ																				
125CGJ																				
PJ																				
PJn																				
500PJ																				
500PJn																				
500PJna																				
500PJzn/na																				
250PJ																				
250PJn																				
250PJna																				
250PJzn/na																				
Acetate Tube																				
___"CT																				
Encore																				
Folder/filter																				
PUF																				
Petri/Filter																				
XAD Trap																				
Ziploc																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

h = hydrochloric acid s = sulfuric acid na = sodium hydroxide n = nitric acid zn = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

**WATER, 1613B,
Dioxins/Furans with Totals**

TestAmerica Irvine
Sample ID: IUC2140-03
Trace Level Organic Compounds
EPA-5 1613B

Lot - Sample #....:	G1C230577 - 001	Work Order #....:	MF3R81AA	Matrix....:	WATER
Date Sampled....:	03/20/11	Date Received....:	03/23/11	Dilution Factor:	0.96
Prep Date....:	03/24/11	Analysis Date....:	03/25/11		
Prep Batch #:	1083190	Instrument ID....:	4D5		
Initial Wgt/Vol :	1036.26 mL	Analyst ID....:	Mark Onishi		

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND	0.000010	0.0000066	ug/L
Total TCDD	0.0000012 J	0.000010	0.0000066	ug/L
1,2,3,7,8-PeCDD	ND	0.000050	0.0000010	ug/L
Total PeCDD	ND	0.000050	0.0000010	ug/L
1,2,3,4,7,8-HxCDD	0.0000022 J Q	0.000050	0.0000010	ug/L
1,2,3,6,7,8-HxCDD	0.0000032 J	0.000050	0.0000092	ug/L
1,2,3,7,8,9-HxCDD	0.0000043 J Q	0.000050	0.0000084	ug/L
Total HxCDD	0.000030 J Q	0.000050	0.0000091	ug/L
1,2,3,4,6,7,8-HpCDD	0.000097	0.000050	0.0000029	ug/L
Total HpCDD	0.00021	0.000050	0.0000029	ug/L
OCDD	0.0013 B	0.00010	0.0000098	ug/L
2,3,7,8-TCDF	ND	0.000010	0.0000099	ug/L
Total TCDF	0.0000027 J Q	0.000010	0.0000099	ug/L
1,2,3,7,8-PeCDF	ND	0.000050	0.0000010	ug/L
2,3,4,7,8-PeCDF	ND	0.000050	0.0000011	ug/L
Total PeCDF	ND	0.000050	0.0000010	ug/L
1,2,3,4,7,8-HxCDF	0.0000087 J	0.000050	0.0000047	ug/L
1,2,3,6,7,8-HxCDF	ND	0.000050	0.0000042	ug/L
2,3,4,6,7,8-HxCDF	0.0000074 J Q	0.000050	0.0000042	ug/L
1,2,3,7,8,9-HxCDF	ND	0.000050	0.0000058	ug/L
Total HxCDF	0.000014 J Q	0.000050	0.0000047	ug/L
1,2,3,4,6,7,8-HpCDF	0.000021 J	0.000050	0.0000017	ug/L
1,2,3,4,7,8,9-HpCDF	ND	0.000050	0.0000025	ug/L
Total HpCDF	0.000051 J	0.000050	0.0000020	ug/L
OCDF	0.000051 J	0.00010	0.0000045	ug/L

TestAmerica Irvine
Sample ID: IUC2140-03
Trace Level Organic Compounds
EPA-5 1613B

Lot - Sample #....: G1C230577 - 001	Work Order #....: MF3R81AA	Matrix....: WATER
Date Sampled....: 03/20/11	Date Received....: 03/23/11	Dilution Factor: 0.96
Prep Date....: 03/24/11	Analysis Date....: 03/25/11	
Prep Batch #: 1083190	Instrument ID....: 4D5	
Initial Wgt/Vol : 1036.26 mL	Analyst ID....: Mark Onishi	

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C-2,3,7,8-TCDD	59	25 - 164
13C-1,2,3,7,8-PeCDD	63	25 - 181
13C-1,2,3,4,7,8-HxCDD	53	32 - 141
13C-1,2,3,6,7,8-HxCDD	60	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	53	23 - 140
13C-OCDD	54	17 - 157
13C-2,3,7,8-TCDF	62	24 - 169
13C-1,2,3,7,8-PeCDF	55	24 - 185
13C-2,3,4,7,8-PeCDF	55	21 - 178
13C-1,2,3,6,7,8-HxCDF	62	26 - 123
13C-2,3,4,6,7,8-HxCDF	61	28 - 136
13C-1,2,3,7,8,9-HxCDF	57	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	53	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	50	26 - 138
13C-1,2,3,4,7,8-HxCDF	57	26 - 152

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
37Cl4-2,3,7,8-TCDD	84	35 - 197

QUALIFIERS

- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J Estimated Result.
- Q Estimated maximum possible concentration (EMPC).

QC DATA ASSOCIATION SUMMARY

G1C230577

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	EPA-5 1613B		1083190	

Method Blank Report
Trace Level Organic Compounds
EPA-5 1613B

Lot - Sample #....: G1C240000 - 190B	Work Order #....: MF4TE1AA	Matrix....: WATER
Date Sampled....: 03/21/11	Date Received....: 03/23/11	Dilution Factor: 1
Prep Date....: 03/24/11	Analysis Date....: 03/25/11	
Prep Batch #: 1083190	Instrument ID....: 4D5	
Initial Wgt/Vol : 1000 mL	Analyst ID....: Mark Onishi	

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND	0.000010	0.00000052	ug/L
Total TCDD	ND	0.000010	0.00000052	ug/L
1,2,3,7,8-PeCDD	ND	0.000050	0.00000091	ug/L
Total PeCDD	ND	0.000050	0.00000091	ug/L
1,2,3,4,7,8-HxCDD	ND	0.000050	0.00000068	ug/L
1,2,3,6,7,8-HxCDD	ND	0.000050	0.00000065	ug/L
1,2,3,7,8,9-HxCDD	ND	0.000050	0.00000058	ug/L
Total HxCDD	ND	0.000050	0.00000058	ug/L
1,2,3,4,6,7,8-HpCDD	ND	0.000050	0.00000013	ug/L
Total HpCDD	ND	0.000050	0.00000013	ug/L
OCDD	0.0000022 J	0.000010	0.00000019	ug/L
2,3,7,8-TCDF	ND	0.000010	0.00000012	ug/L
Total TCDF	ND	0.000010	0.00000012	ug/L
1,2,3,7,8-PeCDF	ND	0.000050	0.00000087	ug/L
2,3,4,7,8-PeCDF	ND	0.000050	0.00000090	ug/L
Total PeCDF	ND	0.000050	0.00000087	ug/L
1,2,3,4,7,8-HxCDF	ND	0.000050	0.00000062	ug/L
1,2,3,6,7,8-HxCDF	ND	0.000050	0.00000033	ug/L
2,3,4,6,7,8-HxCDF	ND	0.000050	0.00000032	ug/L
1,2,3,7,8,9-HxCDF	ND	0.000050	0.00000043	ug/L
Total HxCDF	ND	0.000050	0.00000032	ug/L
1,2,3,4,6,7,8-HpCDF	ND	0.000050	0.00000066	ug/L
1,2,3,4,7,8,9-HpCDF	ND	0.000050	0.00000096	ug/L
Total HpCDF	ND	0.000050	0.00000066	ug/L
OCDF	ND	0.000010	0.00000021	ug/L

Method Blank Report
Trace Level Organic Compounds
EPA-5 1613B

Lot - Sample #....: G1C240000 - 190B
Date Sampled....: 03/21/11
Prep Date....: 03/24/11
Prep Batch #: 1083190
Initial Wgt/Vol : 1000 mL

Work Order #....: MF4TE1AA
Date Received....: 03/23/11
Analysis Date....: 03/25/11
Instrument ID....: 4D5
Analyst ID....: Mark Onishi

Matrix....: WATER
Dilution Factor: 1

<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C-2,3,7,8-TCDD	53	25 - 164
13C-1,2,3,7,8-PeCDD	65	25 - 181
13C-1,2,3,4,7,8-HxCDD	55	32 - 141
13C-1,2,3,6,7,8-HxCDD	64	28 - 130
13C-1,2,3,4,6,7,8-HpCDD	61	23 - 140
13C-OCDD	61	17 - 157
13C-2,3,7,8-TCDF	58	24 - 169
13C-1,2,3,7,8-PeCDF	53	24 - 185
13C-2,3,4,7,8-PeCDF	56	21 - 178
13C-1,2,3,6,7,8-HxCDF	65	26 - 123
13C-2,3,4,6,7,8-HxCDF	65	28 - 136
13C-1,2,3,7,8,9-HxCDF	61	29 - 147
13C-1,2,3,4,6,7,8-HpCDF	57	28 - 143
13C-1,2,3,4,7,8,9-HpCDF	52	26 - 138
13C-1,2,3,4,7,8-HxCDF	55	26 - 152

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
37Cl4-2,3,7,8-TCDD	82	35 - 197

QUALIFIERS

J Estimated Result.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...: G1C230577	Work Order # ...: MF4TE1AC-LCS	Matrix : WATER
LCS Lot-Sample# : G1C240000 - 190		
Prep Date : 03/24/11	Analysis Date ..: 03/25/11	
Prep Batch # ...: 1083190		
Dilution Factor : 1		
Analyst ID.....: Mark Onishi	Instrument ID.: 4D5	Method.....: EPA-5 1613B
Initial Wgt/Vol: 1000 mL		

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2,3,7,8-TCDD	0.000200	0.000219	ug/L	110	(67 - 158)
1,2,3,7,8-PeCDD	0.00100	0.000988	ug/L	99	(70 - 142)
1,2,3,4,7,8-HxCDD	0.00100	0.00109	ug/L	109	(70 - 164)
1,2,3,6,7,8-HxCDD	0.00100	0.00110	ug/L	110	(76 - 134)
1,2,3,7,8,9-HxCDD	0.00100	0.00121	ug/L	121	(64 - 162)
1,2,3,4,6,7,8-HpCDD	0.00100	0.00107	ug/L	107	(70 - 140)
OCDD	0.00200	0.00207	ug/L	103 B	(78 - 144)
2,3,7,8-TCDF	0.000200	0.000263	ug/L	132	(75 - 158)
1,2,3,7,8-PeCDF	0.00100	0.00112	ug/L	112	(80 - 134)
2,3,4,7,8-PeCDF	0.00100	0.00109	ug/L	109	(68 - 160)
1,2,3,4,7,8-HxCDF	0.00100	0.00107	ug/L	107	(72 - 134)
1,2,3,6,7,8-HxCDF	0.00100	0.00110	ug/L	110	(84 - 130)
2,3,4,6,7,8-HxCDF	0.00100	0.00110	ug/L	110	(70 - 156)
1,2,3,7,8,9-HxCDF	0.00100	0.00111	ug/L	111	(78 - 130)
1,2,3,4,6,7,8-HpCDF	0.00100	0.00109	ug/L	109	(82 - 122)
1,2,3,4,7,8,9-HpCDF	0.00100	0.00114	ug/L	114	(78 - 138)
OCDF	0.00200	0.00204	ug/L	102	(63 - 170)

<u>INTERNAL STANDARD</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C-2,3,7,8-TCDD	49	(20 - 175)
13C-1,2,3,7,8-PeCDD	56	(21 - 227)
13C-1,2,3,4,7,8-HxCDD	47	(21 - 193)
13C-1,2,3,6,7,8-HxCDD	56	(25 - 163)
13C-1,2,3,4,6,7,8-HpCDD	48	(26 - 166)
13C-OCDD	49	(13 - 199)
13C-2,3,7,8-TCDF	51	(22 - 152)
13C-1,2,3,7,8-PeCDF	48	(21 - 192)
13C-2,3,4,7,8-PeCDF	50	(13 - 328)
13C-1,2,3,6,7,8-HxCDF	55	(21 - 159)
13C-2,3,4,6,7,8-HxCDF	55	(22 - 176)
13C-1,2,3,7,8,9-HxCDF	52	(17 - 205)
13C-1,2,3,4,6,7,8-HpCDF	48	(21 - 158)
13C-1,2,3,4,7,8,9-HpCDF	44	(20 - 186)
13C-1,2,3,4,7,8-HxCDF	51	(19 - 202)

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
37Cl4-2,3,7,8-TCDD	83	(31 - 191)

LABORATORY CONTROL SAMPLE DATA REPORT
Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

**WATER, 1613B,
Dioxins/Furans with Totals**

Raw Data Package

Raw Sample Data
DB-5 Column

Run text: MF3R8-1-AA Sample text: MF3R8-1-AA :G1C230577-1
 Run #13 Filename: 24MR114D5 S: 42 I: 1 Results: 24MR114D51613MEO
 Acquired: 25-MAR-11 16:48:33 Processed: 25-MAR-11 18:35:53
 Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5
 Factor 1:1600.000 Factor 2:20.000 Sample size: 1.04 L ✓

3/29/11
ME

Name	Resp	RA	RT	RRF	Conc	EDL	Rec	M
13C-1,2,3,4-TCDD	161325500	0.78 y	19:39	-	81.770	-	-	n
13C-2,3,7,8-TCDF	110650200	0.77 y	19:04	1.10	1198.299	1.195	62.1	n
2,3,7,8-TCDF	41094	1.05 n	19:08	0.78	0.922	0.994	-	n
Total TCDF	228942	1.19 n	17:12	0.78	5.126 2.703 JQ	0.994	-	n
13C-2,3,7,8-TCDD	91542700	0.78 y	19:52	0.97	1130.480	2.480	58.6	n
2,3,7,8-TCDD	*	* n	NotFnd	0.87	*	0.657	-	n
Total TCDD	134160	3.81 n	16:26	0.87	3.260 1.206 J	0.657	-	n
37Cl-2,3,7,8-TCDD	77105200	1.00 y	19:53	1.43	646.963	0.374	83.8	n
13C-1,2,3,7,8-PeCDF	92861300	1.58 y	24:50	1.04	1069.211	1.492	55.4	n
1,2,3,7,8-PeCDF	*	* n	NotFnd	0.96	*	1.040	-	n
13C-2,3,4,7,8-PeCDF	90849700	1.51 y	26:20	1.02	1065.585	1.520	55.2	n
2,3,4,7,8-PeCDF	*	* n	NotFnd	0.96	*	1.117	-	n
Total F2 PeCDF	*	* n	NotFnd	0.96	*	1.078	-	n
Total F1 PeCDF	41098	0.50 n	15:34	0.96	0.902	0.890 1.040 ✓	-	n
13C-1,2,3,7,8-PeCDD	70841200	1.52 y	27:10	0.70	1211.488	0.765	62.8	n
1,2,3,7,8-PeCDD	39790	1.55 y	27:14	1.04	see chro. 1.040 JQ	0.975	-	n
Total PeCDD	139898	3.22 n	23:15	1.04	3.658 1.040 JQ	0.975	-	n
13C-1,2,3,7,8,9-HxCDD	104290900	1.30 y	33:11	-	74.258	-	-	n
13C-1,2,3,4,7,8-HxCDF	51682100	0.52 y	32:03	0.87	1098.553	12.768	56.9	n
1,2,3,4,7,8-HxCDF	26877	1.22 y	32:04	1.15	0.874 JQ	0.473	-	n
13C-1,2,3,6,7,8-HxCDF	76292300	0.50 y	32:10	1.18	1194.397	9.404	61.9	n
1,2,3,6,7,8-HxCDF	17654	0.53 n	32:10	1.07	0.416	0.425	-	n
13C-2,3,4,6,7,8-HxCDF	66118200	0.47 y	32:42	1.03	1184.050	10.757	61.3	n
2,3,4,6,7,8-HxCDF	28042	0.78 n	32:43	1.10	0.747 JQ	0.421	-	n
13C-1,2,3,7,8,9-HxCDF	53650800	0.49 y	33:21	0.90	1097.331	12.286	56.9	n
1,2,3,7,8,9-HxCDF	11576	0.75 n	33:25	1.08	0.386	0.576	-	n
Total HxCDF	539174	0.82 n	30:46	1.10	15.356 13.933 JQ ✓	0.466	-	n
13C-1,2,3,4,7,8-HxCDD	36893400	1.25 y	32:51	0.66	1028.102	0.867	53.3	n
1,2,3,4,7,8-HxCDD	43831	1.53 n	32:51	1.06	2.154 JQ	1.011	-	y
13C-1,2,3,6,7,8-HxCDD	59698500	1.28 y	32:55	0.95	1163.263	0.606	60.3	n
1,2,3,6,7,8-HxCDD	102566	1.25 y	32:56	1.05	3.169 J	0.923	-	y
1,2,3,7,8,9-HxCDD	128275	1.63 n	33:12	1.20	4.268 J	0.839	-	y
Total HxCDD	832741	1.27 y	31:32	1.10	29.816 JQ	0.914	-	y
13C-1,2,3,4,6,7,8-HpCDF	50386900	0.44 y	34:41	0.91	1020.335	20.100	52.9	n
1,2,3,4,6,7,8-HpCDF	735368	1.11 y	34:42	1.32	21.268 J	1.688	-	n
13C-1,2,3,4,7,8,9-HpCDF	43229500	0.43 y	35:49	0.83	963.157	22.115	49.9	n
1,2,3,4,7,8,9-HpCDF	*	* n	NotFnd	1.24	*	2.480	-	n
Total HpCDF	1653929	1.11 y	34:42	1.29	50.715 J	2.044	-	n

13C-1,2,3,4,6,7,8-HpCDD	50874900	1.02	y	35:29	0.91	1030.283	7.738	53.4	n
1,2,3,4,6,7,8-HpCDD	2598930	1.01	y	35:30	1.01	97.274	2.869	-	n
Total HpCDD	5674450	2.17	n	34:41	1.01	212.386 211.208	2.869	-	n
13C-OCDD	68144700	0.80	y	37:59	0.60	2097.084	17.742	54.3	n
OCDF	1143444	0.84	y	38:07	1.27	50.858	4.508	-	y
OCDD	25532000	0.87	y	38:00	1.13	1280.828	9.795	-	n

Run text: MF3R8-1-AA Sample text: MF3R8-1-AA :G1C230577-1
 Run #13 Filename: 24MR114D5 S: 42 I: 1 Results: 24MR114D51613
 Acquired: 25-MAR-11 16:48:33 Processed: 25-MAR-11 18:35:53
 Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5
 Factor 1:1600.000 Factor 2:20.000 Sample size: 1.036 L

Name	Resp	RA	RT	RRF	Conc	EDL	Rec	M
13C-1,2,3,4-TCDD	161325500	0.78 y	19:39	-	81.770	-	-	n
13C-2,3,7,8-TCDF	110650200	0.77 y	19:04	1.10	1198.299	1.195	62.1	n
2,3,7,8-TCDF	41094	1.05 n	19:08	0.78	0.922	0.994	-	n
Total TCDF	228942	1.19 n	17:12	0.78	5.136 <i>2.703 JQ</i>	0.994	-	n
13C-2,3,7,8-TCDD	91542700	0.78 y	19:52	0.97	1130.480	2.480	58.6	n
2,3,7,8-TCDD	*	* n	NotFnd	0.87	*	0.657	-	n
Total TCDD	134160	3.81 n	16:26	0.87	3.260 <i>1.206</i>	0.657	-	n
37Cl-2,3,7,8-TCDD	77105200	1.00 y	19:53	1.43	646.963	0.374	83.8	n
13C-1,2,3,7,8-PeCDF	92861300	1.58 y	24:50	1.04	1069.211	1.492	55.4	n
1,2,3,7,8-PeCDF	*	* n	NotFnd	0.96	*	1.040	-	n
13C-2,3,4,7,8-PeCDF	90849700	1.51 y	26:20	1.02	1065.585	1.520	55.2	n
2,3,4,7,8-PeCDF	*	* n	NotFnd	0.96	*	1.117	-	n
Total F2 PeCDF	*	* n	NotFnd	0.96	*	1.078	-	n
Total F1 PeCDF	41098	0.50 n	15:34	0.96	0.902	0.890 1.046	-	n
13C-1,2,3,7,8-PeCDD	70841200	1.52 y	27:10	0.70	1211.488	0.765	62.8	n
1,2,3,7,8-PeCDD	39790	1.55 y	27:14	1.04	1.040 <i>see chro.</i>	0.775	-	n
Total PeCDD	139898	3.22 n	23:15	1.04	3.658 <i>1.040 n</i>	0.975	-	n
13C-1,2,3,7,8,9-HxCDD	104290900	1.30 y	33:11	-	74.258	-	-	n
13C-1,2,3,4,7,8-HxCDF	51682100	0.52 y	32:03	0.87	1098.553	12.768	56.9	n
1,2,3,4,7,8-HxCDF	26877	1.22 y	32:04	1.15	0.874 <i>see chro.</i>	0.473	-	n
13C-1,2,3,6,7,8-HxCDF	76292300	0.50 y	32:10	1.18	1194.397	9.404	61.9	n
1,2,3,6,7,8-HxCDF	17654	0.53 n	32:10	1.07	0.416	0.425	-	n
13C-2,3,4,6,7,8-HxCDF	66118200	0.47 y	32:42	1.03	1184.050	10.757	61.3	n
2,3,4,6,7,8-HxCDF	28042	0.78 n	32:43	1.10	0.747 <i>JQ</i>	0.421	-	n
13C-1,2,3,7,8,9-HxCDF	53650800	0.49 y	33:21	0.90	1097.331	12.286	56.9	n
1,2,3,7,8,9-HxCDF	11576	0.75 n	33:25	1.08	0.386	0.576	-	n
Total HxCDF	539174	0.82 n	30:46	1.10	15.356 <i>13.838 JQ</i>	0.466	-	n
13C-1,2,3,4,7,8-HxCDD	36893400	1.25 y	32:51	0.66	1028.102	0.867	53.3	n
1,2,3,4,7,8-HxCDD	54087	0.46 n	32:51	1.06	2.658	1.011	-	n
13C-1,2,3,6,7,8-HxCDD	59698500	1.28 y	32:55	0.95	1163.263	0.606	60.3	n
1,2,3,6,7,8-HxCDD	102895	0.87 n	32:56	1.05	3.180	0.923	-	n
1,2,3,7,8,9-HxCDD	131029	1.60 n	33:12	1.20	4.360	0.839	-	n
Total HxCDD	886687	1.27 y	31:32	1.10	31.893	0.914	-	n
13C-1,2,3,4,6,7,8-HpCDF	50386900	0.44 y	34:41	0.91	1020.335	20.100	52.9	n
1,2,3,4,6,7,8-HpCDF	735368	1.11 y	34:42	1.32	21.268 <i>J</i>	1.688	-	n
13C-1,2,3,4,7,8,9-HpCDF	43229500	0.43 y	35:49	0.83	963.157	22.115	49.9	n
1,2,3,4,7,8,9-HpCDF	*	* n	NotFnd	1.24	*	2.480	-	n
Total HpCDF	1653929	1.11 y	34:42	1.29	50.715 <i>J</i>	2.044	-	n

13C-1,2,3,4,6,7,8-HpCDD	50874900	1.02	y	35:29	0.91	1030.283	7.738	53.4	n
1,2,3,4,6,7,8-HpCDD	2598930	1.01	y	35:30	1.01	97.274	2.869	-	n
Total HpCDD	5674450	2.17	n	34:41	1.01	212.386 211.708	2.869	-	n
13C-OCDD	68144700	0.80	y	37:59	0.60	2097.084	17.742	54.3	n
OCDF	977094	0.86	y	38:07	1.27	43.459	4.508	-	n
OCDD	25532000	0.87	y	38:00	1.13	1280.828	9.795	-	n

Run Text: MF3R8-1-AA

Sample text: MF3R8-1-AA :G1C230577-1

Name: Total TCDF F:1 Mass: 303.902 305.899 Mod? no #Hom:5
 Run: 13 File: 24MR114D5 S:42 Acq:25-MAR-11 16:48:33
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D5

Amount: 5.323 of which 0.955 named and 4.367 unnamed
 Conc: 5.136 of which 0.922 named and 4.214 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
<i>Rest < S:N</i>	1	17:12	1.194 n	0.413	12418 10397	2.284 1.173	n	n
	2	17:27	0.916 n	<u>2.703</u>	62376 68073	14.566 7.126	y	n
	3	18:39	0.861 y	0.793	16361 19004	2.929 1.883	n	n
2,3,7,8-TCDF	4	19:08	1.052 n	0.922	24418 23217	3.991 1.942	y	n
	5	19:35	1.268 n	0.305	9737 7679	2.206 1.009	n	n

Run Text: MF3R8-1-AA

Sample text: MF3R8-1-AA :G1C230577-1

Name: Total TCDD F:1 Mass: 319.897 321.894 Mod? no #Hom:8
 Run: 13 File: 24MR114D5 S:42 Acq:25-MAR-11 16:48:33
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D5

Amount: 3.378 of which * named and 3.378 unnamed
 Conc: 3.260 of which * named and 3.260 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
<i>Rest < S:N see chcs</i>	1	16:26	3.808 n	0.091	8034 2110	2.777 0.859	n	n
	2	16:32	0.292 n	0.080	1432 4900	0.698 1.902	n	n
	3	17:42	0.695 y	<u>1.206</u>	20351 29275	6.352 8.696	y	n
	4	18:39	0.705 y	0.529	9004 12779	2.839 3.107	n	n
	5	19:04	2.034 n	0.443	20970 10310	5.762 2.120	y	n

6	20:31	0.514	n	0.117	2088	1.067	n	n
					4060	1.529	n	n
7	21:11	1.316	n	0.230	7035	1.933	n	n
					5346	1.994	n	n
8	22:21	1.055	n	0.564	13837	4.245	y	n
					13116	4.764	y	n

Totals Results TestAmerica West Sacramento

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Run Text: MF3R8-1-AA

Sample text: MF3R8-1-AA :G1C230577-1

Name: Total F2 PeCDF F:2 Mass: 339.860 341.857 Mod? no #Hom:0
 Run: 13 File: 24MR114D5 S:42 Acq:25-MAR-11 16:48:33
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D5

Amount:	* of which	* named and	* unnamed
Conc:	* of which	* named and	* unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
	1	NotF7	*	n	*	*	n	n
					*	*	n	n

Run Text: MF3R8-1-AA

Sample text: MF3R8-1-AA :G1C230577-1

Name: Total F1 PeCDF F:1 Mass: 339.860 341.857 Mod? no #Hom:9
 Run: 13 File: 24MR114D5 S:42 Acq:25-MAR-11 16:48:33
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D7

Amount: 0.935 of which * named and 0.935 unnamed
 Conc: 0.902 of which * named and 0.902 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
	1	15:34	0.499 n	0.154	4274 8564	13.448 1.805		y n n n
	2	15:56	0.012 n	0.005	134 10724	0.352 1.270		n n n n
	3	17:18	0.266 n	0.089	2462 9264	8.564 1.372		y n n n
	4	17:26	0.211 n	0.042	1153 5472	4.100 1.079		y n n n
	5	19:20	0.261 n	0.100	2768 10618	6.759 1.636		y n n n
	6	21:12	0.278 n	0.071	1968 7083	7.702 1.396		y n n n
	7	21:17	0.468 n	0.120	3312 7083	13.088 1.396		y n n n
	8	21:23	0.172 n	0.032	889 5174	3.262 0.920		y n n n
	9	21:29	2.044 n	0.290	10575 5174	32.227 0.920		y n n n

Run Text: MF3R8-1-AA

Sample text: MF3R8-1-AA :G1C230577-1

Name: Total PeCDD F:2 Mass: 355.855 357.852 Mod? no #Hom:8
 Run: 13 File: 24MR114D5 S:42 Acq:25-MAR-11 16:48:33
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D7

Amount: 3.791 of which 1.078 named and 2.713 unnamed
 Conc: 3.658 of which 1.040 named and 2.618 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
	1	23:15	3.220 n	0.184	8897 2763	1.184 10.107		n n y n
	2	23:26	0.404 n	0.161	3745 9266	0.957 28.587		n n y n

1,2,3,7,8-PeCDD	3	23:32	1.399	y	0.192	4276 3056	0.839 5.880	n y	n n
	4	24:24	1.458	y	1.030	23362 16021	2.653 26.483	n y	n n
	5	24:48	0.502	n	0.243	5656 11275	1.275 27.872	n y	n n
	6	24:53	2.923	n	0.516	22635 7743	2.590 23.663	n y	n n
	7	27:14	1.550	y	1.040	24189 15601	<u>2.418</u> 24.544	n y	n n
	8	28:33	1.002	n	0.291	6770 6755	1.607 12.834	n y	n n

Run Text: MF3R8-1-AA

Sample text: MF3R8-1-AA :G1C230577-1

Name: Total HxCDF F:3 Mass: 373.821 375.818 Mod? no #Hom:10
 Run: 13 File: 24MR114D5 S:42 Acq:25-MAR-11 16:48:33
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D5

Amount: 15.913 of which 2.511 named and 13.402 unnamed
 Conc: 15.356 of which 2.423 named and 12.933 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
	1	30:46	0.816 n	1.436	27975 34289	8.887 16.277	y	n
	2	30:58	1.169 y	5.676	107619 92079	26.186 41.808	y	n
	3	31:23	1.064 y	0.352	6387 6004	2.406 3.837	n	n
	4	31:37	1.231 y	5.105	99099 80524	26.897 48.927	y	n
1,2,3,4,7,8-HxCDF	5	32:04	1.219 y	0.874	14764 12113	5.112 9.241	y	n
1,2,3,6,7,8-HxCDF	6	32:10	0.529 n	0.416 <i>m</i>	9773 18463	2.826 6.949	n	n
	7	32:16	0.676 n	0.231	4500 6660	2.183 5.457	n	n
	8	32:34	0.688 n	0.132	2574 3740	1.204 3.831	n	n
2,3,4,6,7,8-HxCDF	9	32:43	0.779 n	0.747	15523 19918	5.669 8.296	y	n
1,2,3,7,8,9-HxCDF	10	33:25	0.753 n	0.386 <i>n</i>	6408 8513	2.214 4.882	n	n

13.838

m see cho
↓

Run Text: MF3R8-1-AA

Sample text: MF3R8-1-AA :G1C230577-1

Name: Total HxCDD F:3 Mass: 389.816 391.813 Mod? no #Hom:7
 Run: 13 File: 24MR114D5 S:42 Acq:25-MAR-11 16:48:33
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D5

Amount: 33.050 of which 10.567 named and 22.483 unnamed
 Conc: 31.893 of which 10.198 named and 21.696 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
	1	31:32	1.275 y	9.524	147267 115532	47.089 18.529	y	n

See 7A

Run Text: MF3R8-1-AA

Sample text: MF3R8-1-AA :G1C230577-1

Name: Total HxCDD F:3 Mass: 389.816 391.813 Mod? yes #Hom:5
 Run: 13 File: 24MR114D5 S:42 Acq:25-MAR-11 16:48:33
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D5

7A

Amount: 30.897 of which 9.940 named and 20.958 unnamed
 Conc: 29.816 of which 9.592 named and 20.224 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
	1	31:32	1.275 y	9.524	147267 115532	47.089 18.529	y	n
	2	32:19	1.113 y	10.701	155556 139714	50.985 21.678	y	n
1,2,3,4,7,8-HxCDD	3	32:51	1.530 n	2.154	29941 19567	12.021 4.194	y	n
1,2,3,6,7,8-HxCDD	4	32:56	1.249 y	3.169	56960 45606	15.486 8.452	y	n
1,2,3,7,8,9-HxCDD	5	33:12	1.634 n	4.268	93576 57266	25.362 8.260	y	n

	<i>intest.</i>	2	32:04	2.379	n	1.099	32206	9.824	y	n
							13540	3.376	y	n
	<i>intest</i>	3	32:09	3.447	n	0.172	15814	7.336	y	n
							4588	1.235	n	n
		4	32:19	1.113	y	10.701	155556	50.985	y	n
							139714	21.678	y	n
1,2,3,4,7,8-HxCDD		5	32:51	0.459	n	2.658	29941	12.021	y	n
							65192	8.223	y	n
1,2,3,6,7,8-HxCDD		6	32:56	0.874	n	3.180	56960	15.486	y	n
							65192	8.223	y	n
1,2,3,7,8,9-HxCDD		7	33:12	1.600	n	4.360	93576	25.362	y	n
							58495	7.978	y	n

Totals Results TestAmerica West Sacramento

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Run Text: MF3R8-1-AA

Sample text: MF3R8-1-AA :G1C230577-1

Name: Total HpCDF F:4 Mass: 407.782 409.779 Mod? no #Hom:2
 Run: 13 File: 24MR114D5 S:42 Acq:25-MAR-11 16:48:33
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D7

Amount: 52.554 of which 22.040 named and 30.515 unnamed
 Conc: 50.715 of which 21.268 named and 29.447 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
1,2,3,4,6,7,8-HpCDF	1	34:42	1.111	y 21.268	386986	30.936	y	n
					348382	52.135	y	n
	2	35:00	0.908	y 29.447	437014	37.603	y	n
					481547	68.885	y	n

Run Text: MF3R8-1-AA

Sample text: MF3R8-1-AA :G1C230577-1

Name: Total HpCDD F:4 Mass: 423.777 425.774 Mod? no #Hom:3
 Run: 13 File: 24MR114D5 S:42 Acq:25-MAR-11 16:48:33
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D7

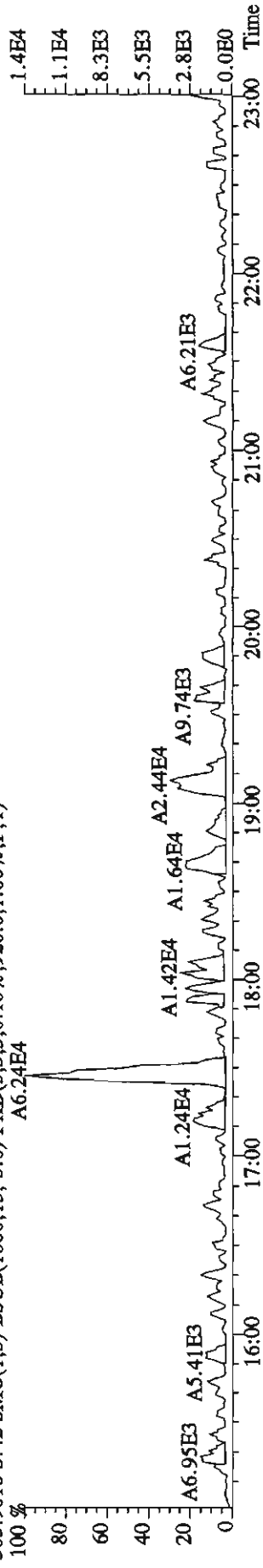
Amount: 220.087 of which 100.801 named and 119.286 unnamed
 Conc: 212.386 of which 97.274 named and 115.112 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
	1	34:41	2.172 n	0.577	19275 8873	2.177 1.770	n	n
	2	34:56	0.998 y	114.434	1527080 1530340	112.448 167.697	y	n
1,2,3,4,6,7,8-HpCDD	3	35:30	1.012 y	97.274	1307240 1291690	87.440 134.637	y	n

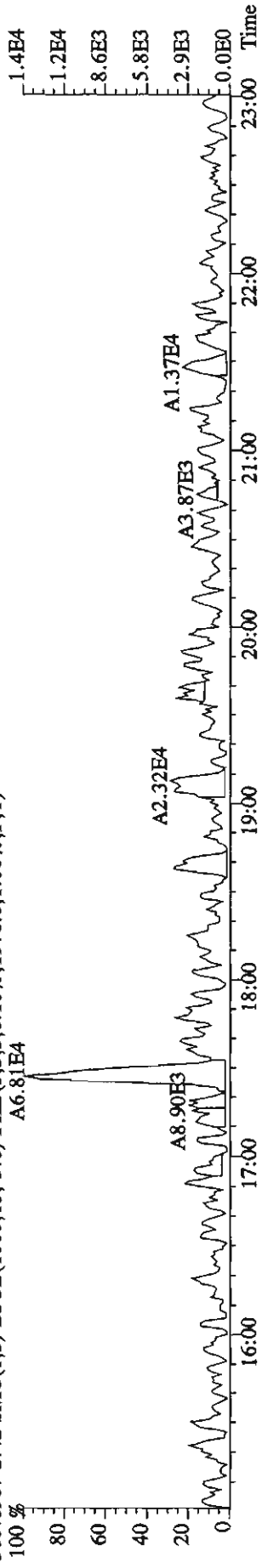
211.708

File:2-AMR114D5 #1-530 Acq:25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#42 Text:MF3R8-1-AA :G1C230577-1
Exp:DIOXINRES

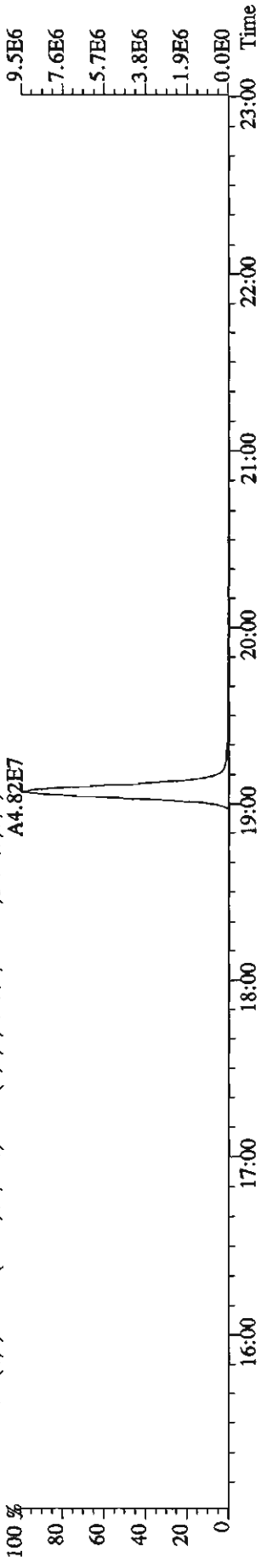
303.9016 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,920.0,1.00%,F,T)
100 %



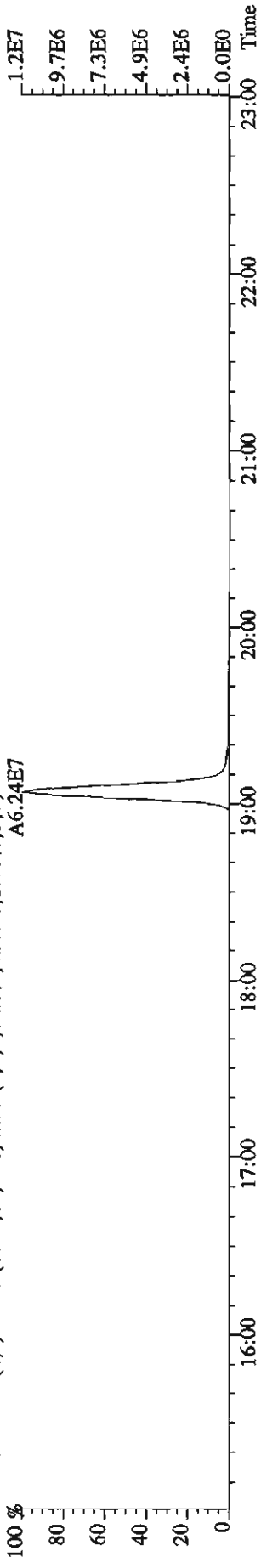
305.8987 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1976.0,1.00%,F,T)
100 %



315.9419 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3232.0,1.00%,F,T)
100 %



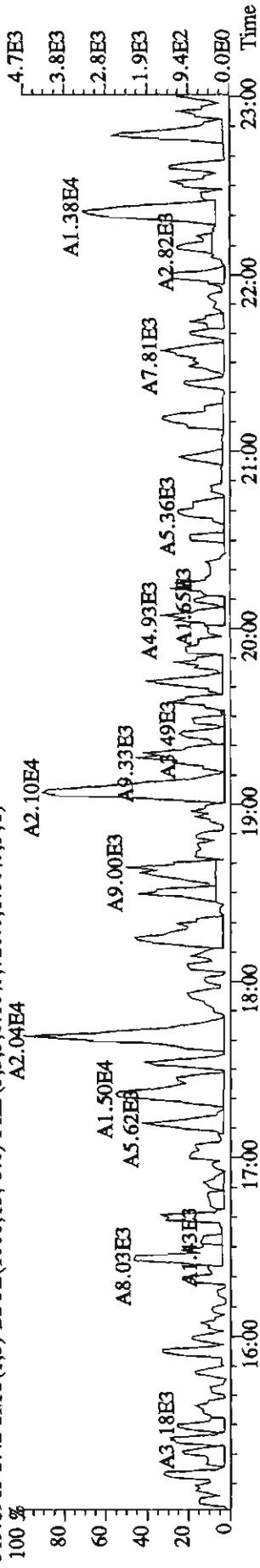
317.9389 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4140.0,1.00%,F,T)
100 %



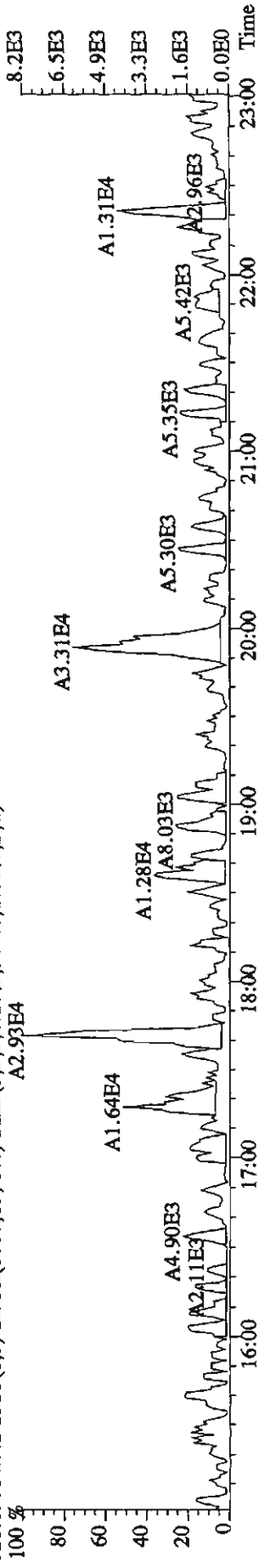
File:24MR114D5 #1-530 Acq:25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE

Sample#42 Text:MF3R8-1-AA :G1C230577-1

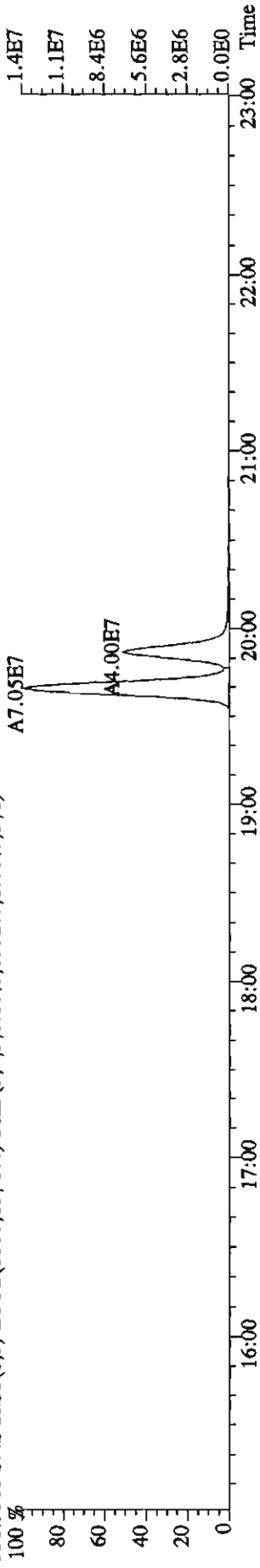
319.8965 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,720.0,1.00%,F,T)



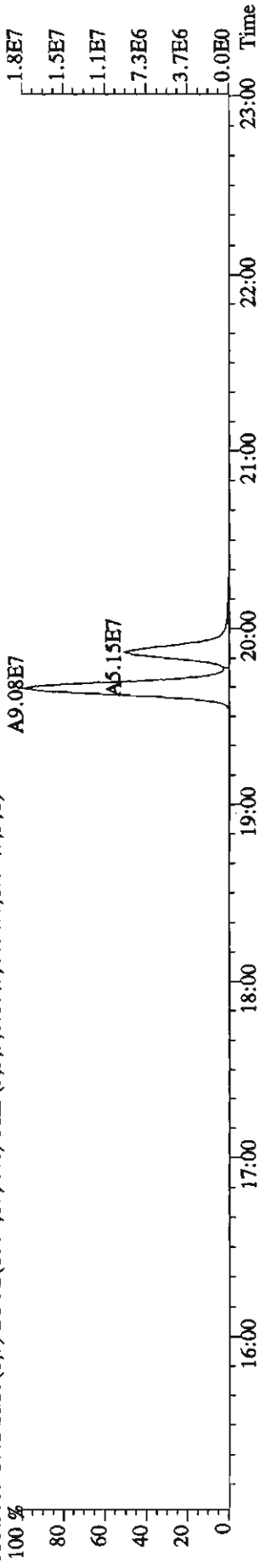
321.8936 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,904.0,1.00%,F,T)



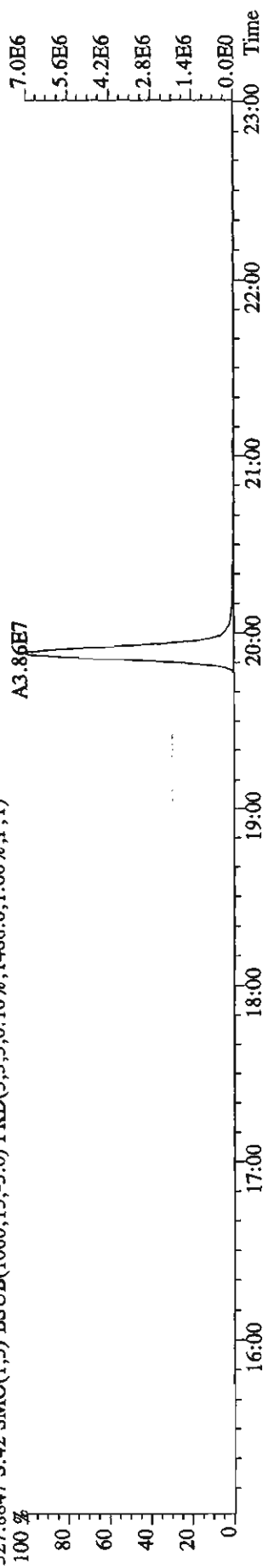
331.9368 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8932.0,1.00%,F,T)



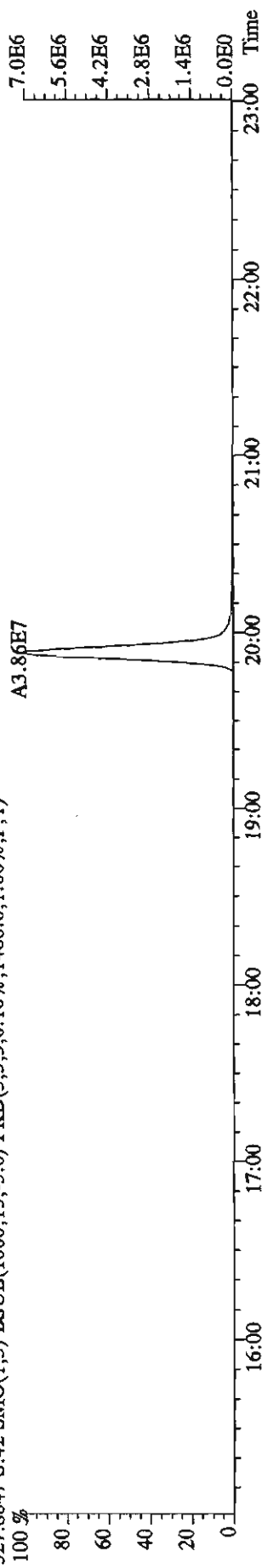
333.9339 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4484.0,1.00%,F,T)



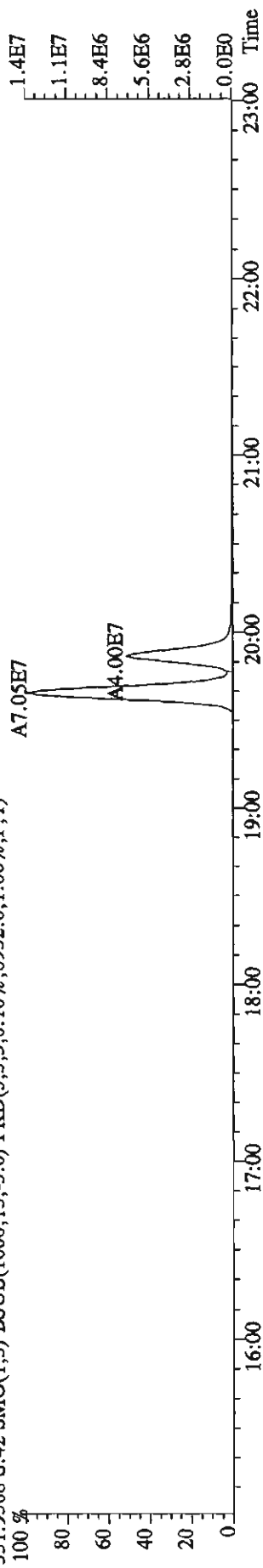
File:24MR114D5 #1-530 Acq:25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#42 Text:MF3R8-1-AA :G1C230577-1 Exp:DIOXINRES
327.8847 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1488.0,1.00%,F,T)



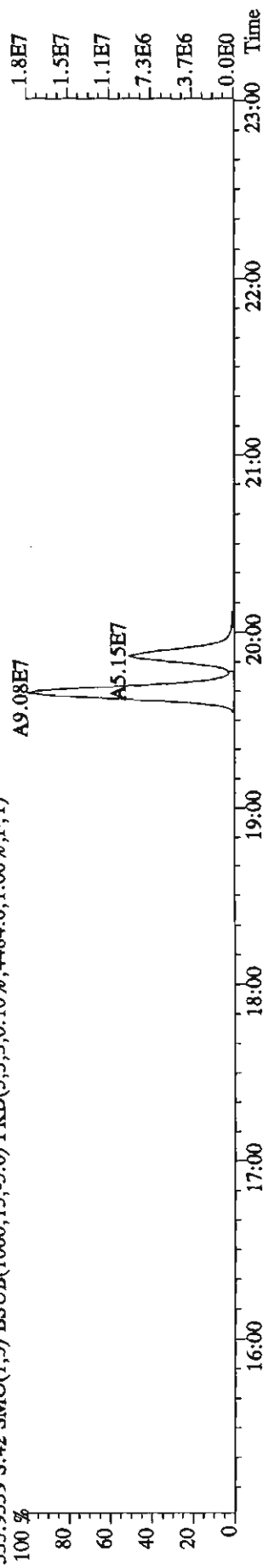
327.8847 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1488.0,1.00%,F,T)



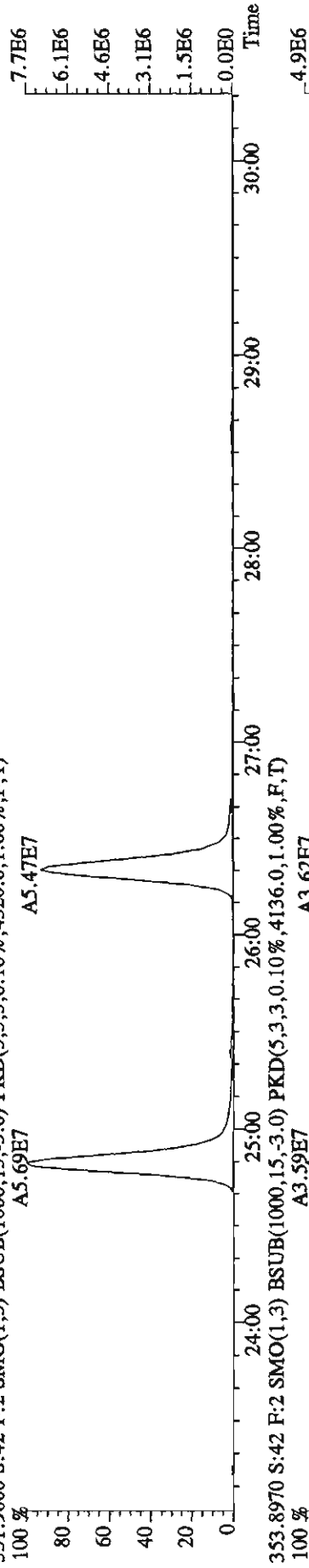
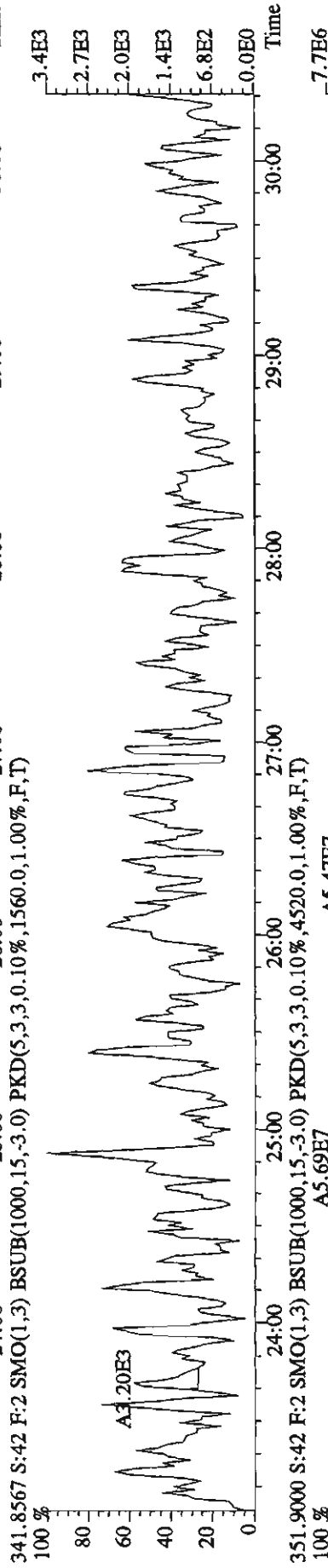
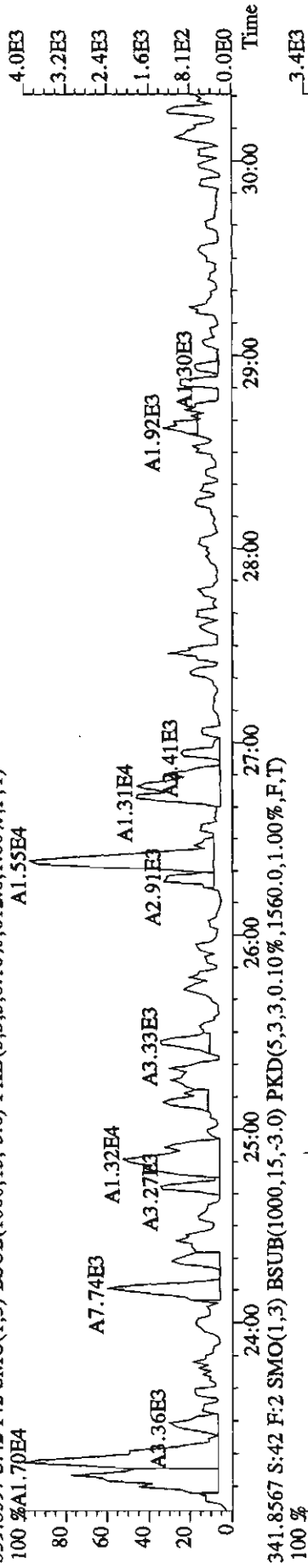
331.9368 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8932.0,1.00%,F,T)



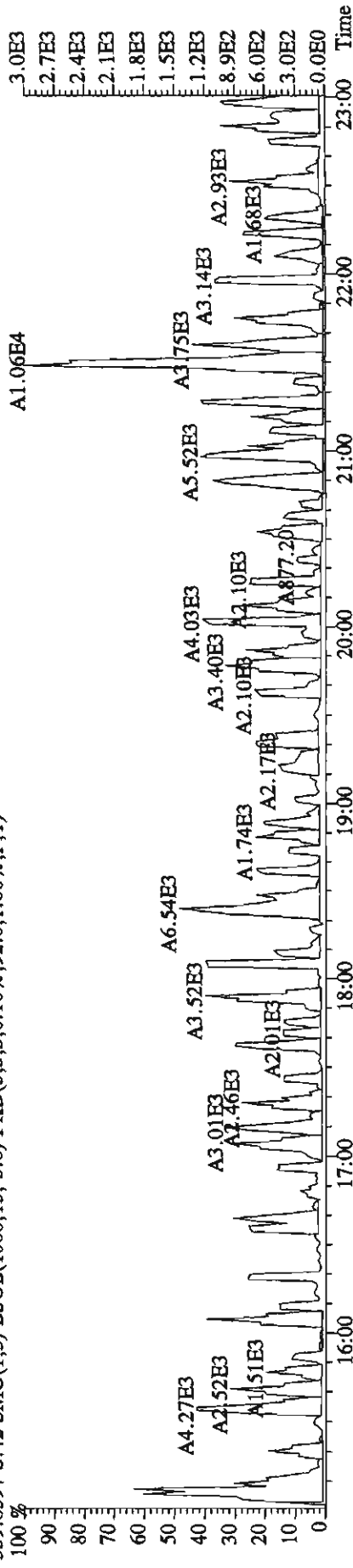
333.9339 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4484.0,1.00%,F,T)



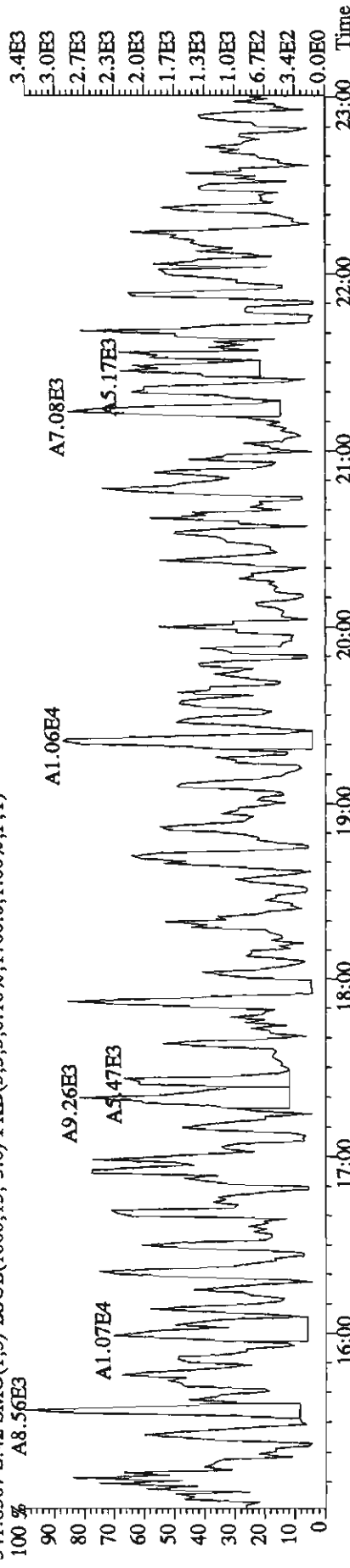
File:24MR114D5 #1-470 Acq:25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#42 Text:MF3R8-1-AA :G1C230577-1 Exp:DIOXINRES
 339.8597 S:42 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,612.0,1.00%,F,T)
 100 %A1.70E4



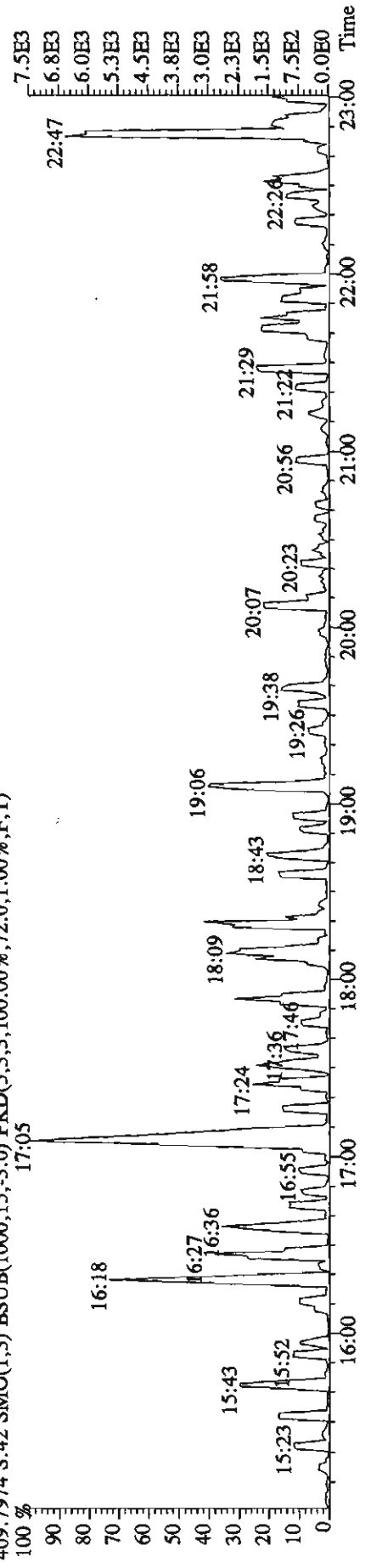
File: 24MR114D5 #1-530 Acq: 25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#42 Text: MF3R8-1-AA : G1C230577-1 Exp: DIOXINRES
 339,8597 S:42 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,92.0,1.00%,F,T)



341.8567 S:42 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1700.0,1.00%,F,T)

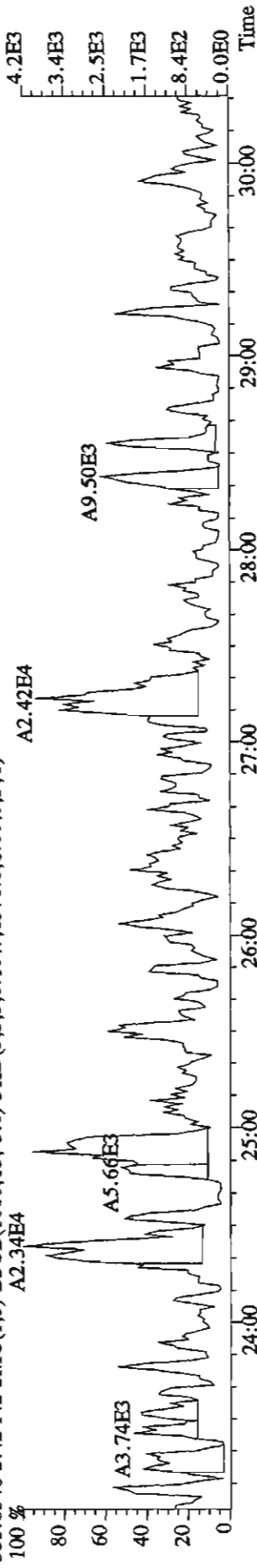


409.7974 S:42 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,72.0,1.00%,F,T)

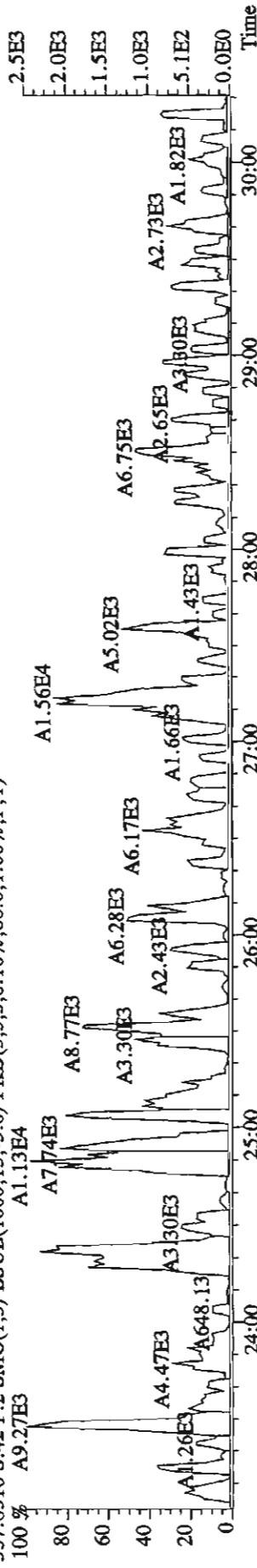


File: 24MR114D5 #1-470 Acq: 25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#42 Text: MF3R8-1-AA : GIC230577-1 Exp: DIOXINES

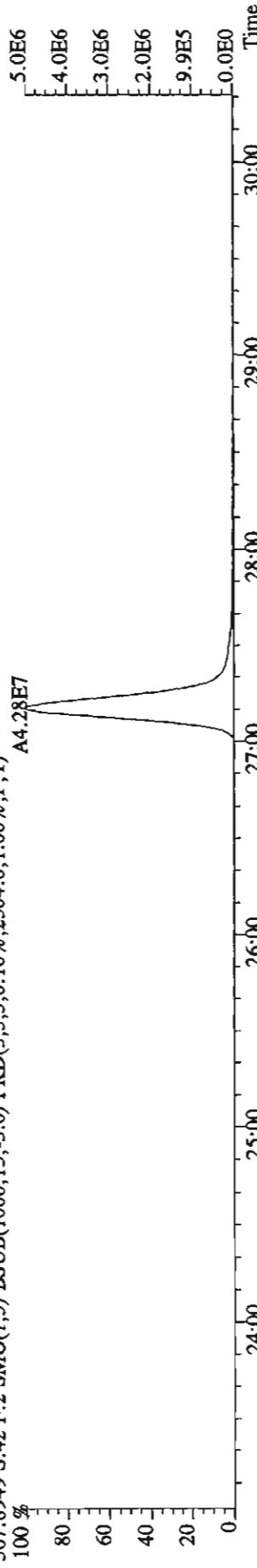
355.8546 S: 42 F: 2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1376.0,1.00%,F,T)



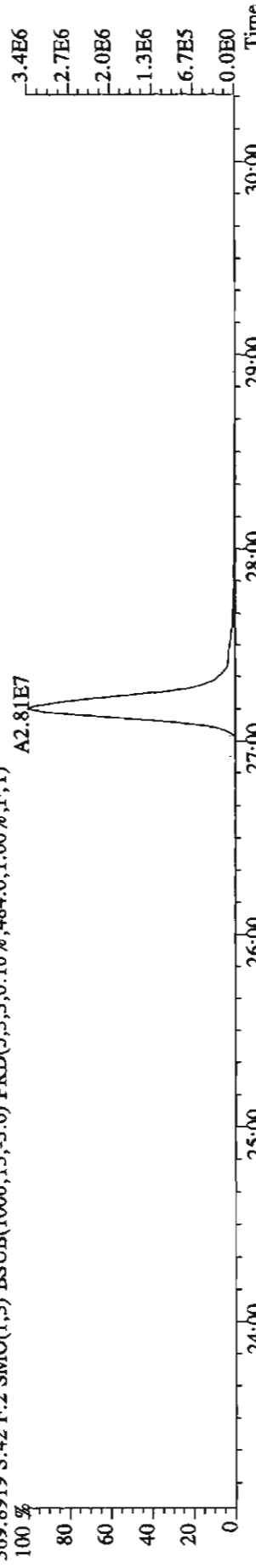
357.8516 S: 42 F: 2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,88.0,1.00%,F,T)



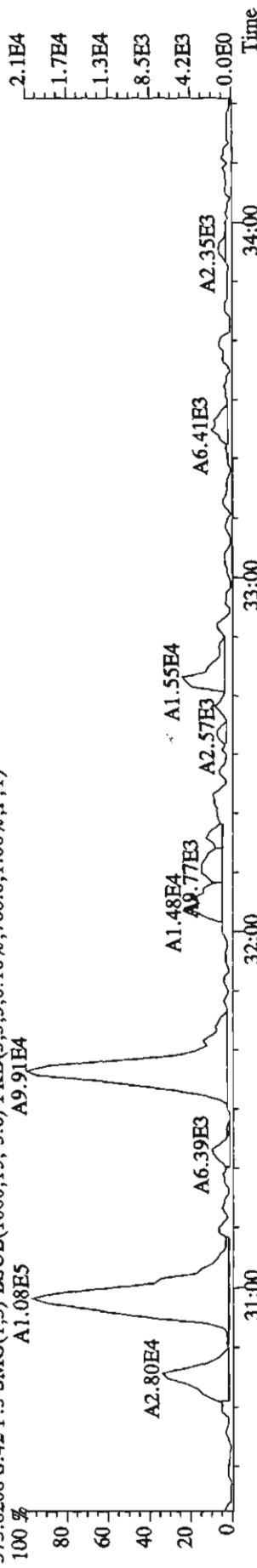
367.8949 S: 42 F: 2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2504.0,1.00%,F,T)



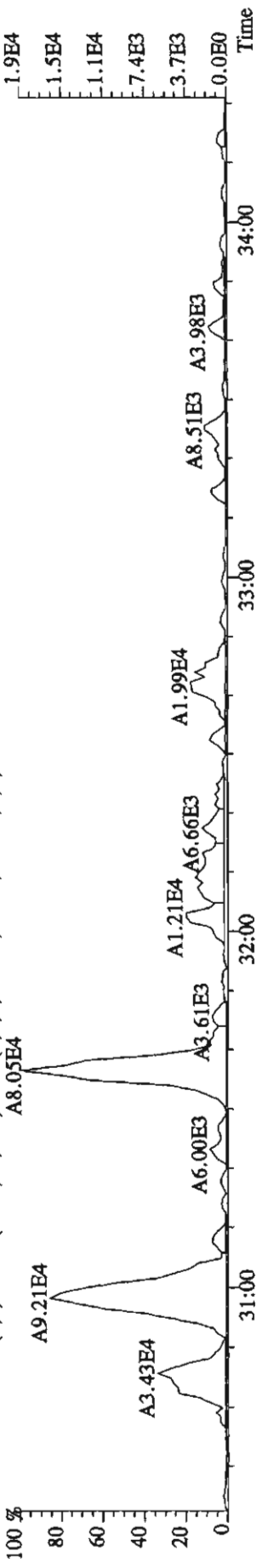
369.8919 S: 42 F: 2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,484.0,1.00%,F,T)



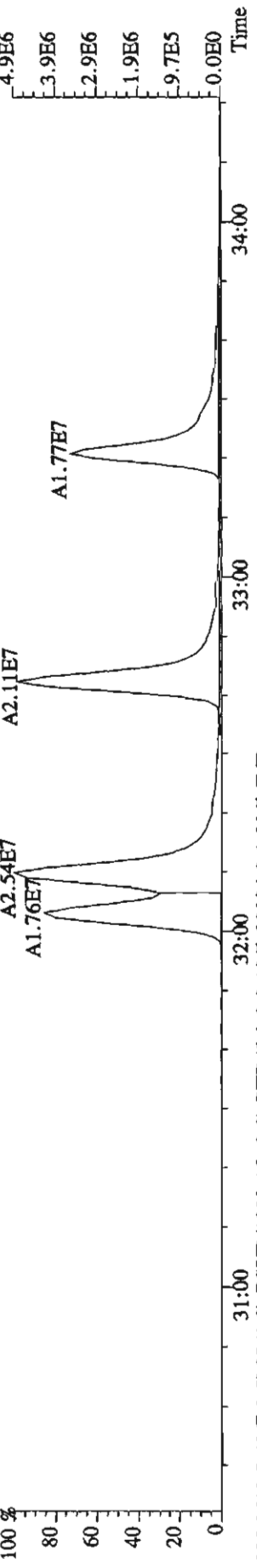
File: 24MR114D5 #1-287 Acq: 25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#42 Text: MF3R8-1-AA : G1C230577-1 Exp: DIOXINRES
 373.8208 S:42 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,768.0,1.00%,F,T)



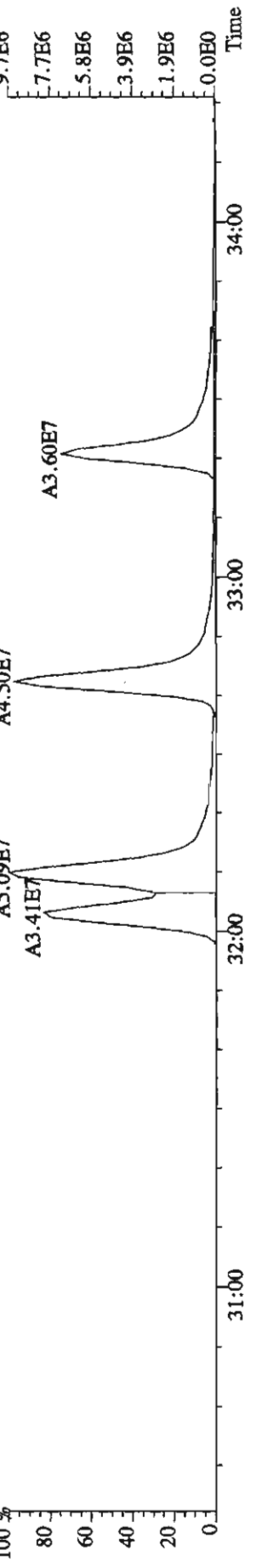
375.8178 S:42 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,376.0,1.00%,F,T)



383.8639 S:42 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,13828.0,1.00%,F,T)



385.8610 S:42 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,22004.0,1.00%,F,T)

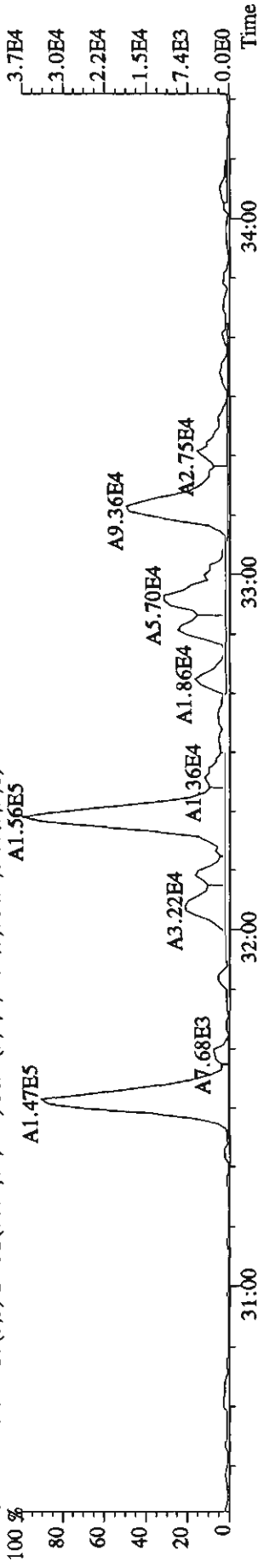


File: 24MR114D5 #1-287 Acq: 25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaB

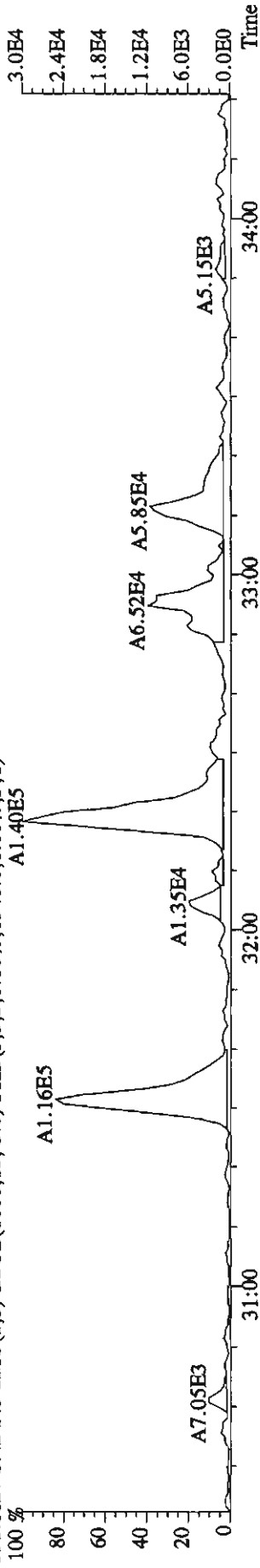
Sample#42 Text: MF3R8-1-AA : GIC230577-1

Exp: DIOXINRES

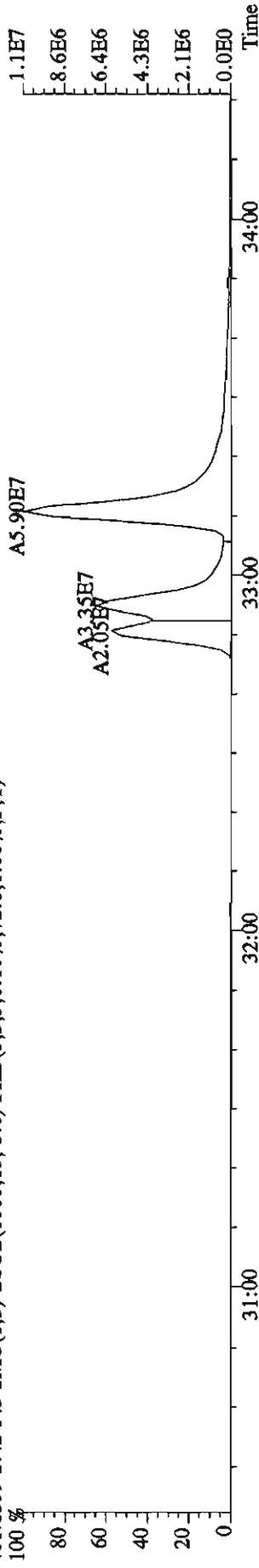
389.8157 S:42 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,712.0,1.00%,F,T)



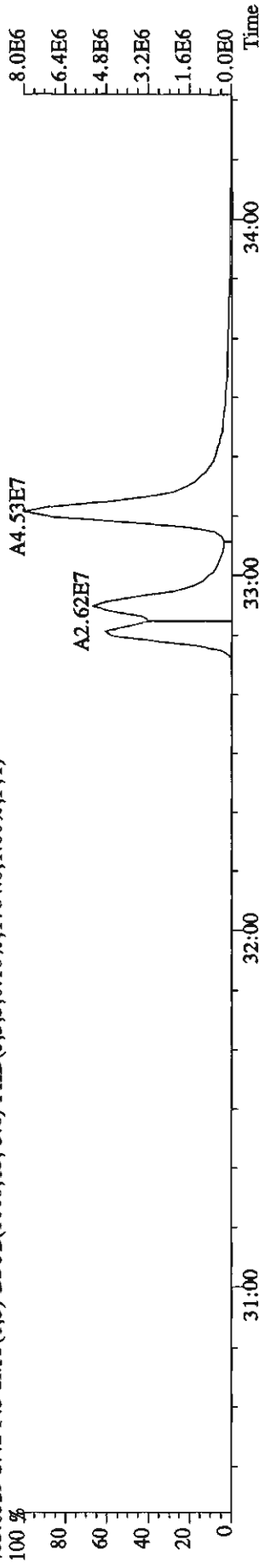
391.8127 S:42 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1340.0,1.00%,F,T)



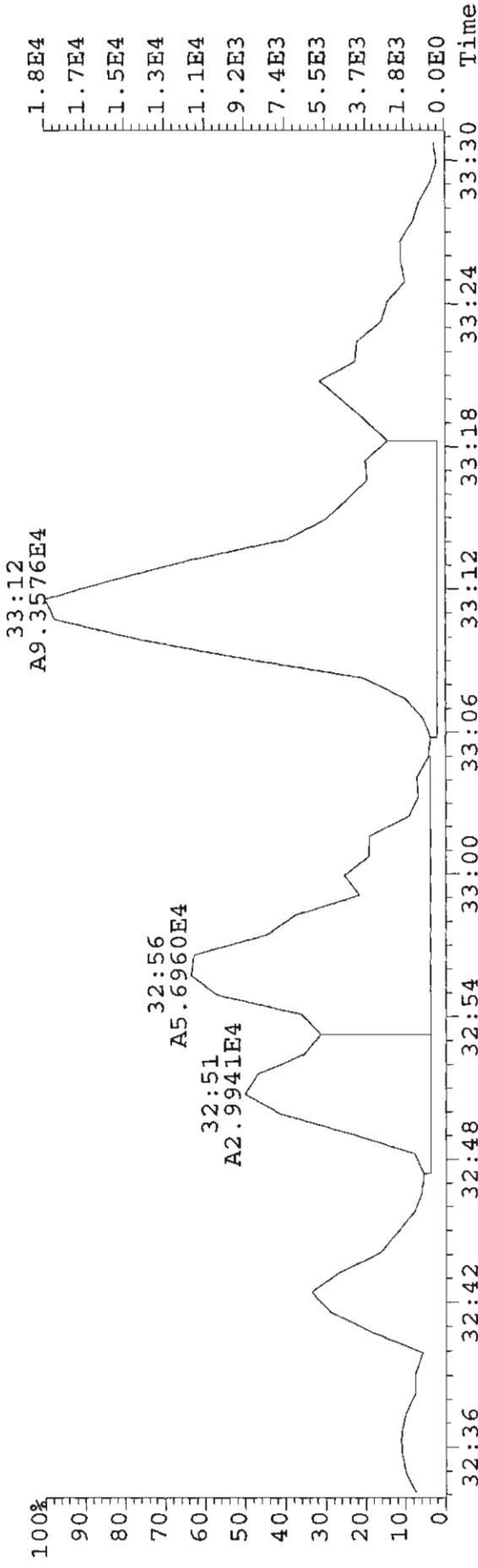
401.8559 S:42 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,72.0,1.00%,F,T)



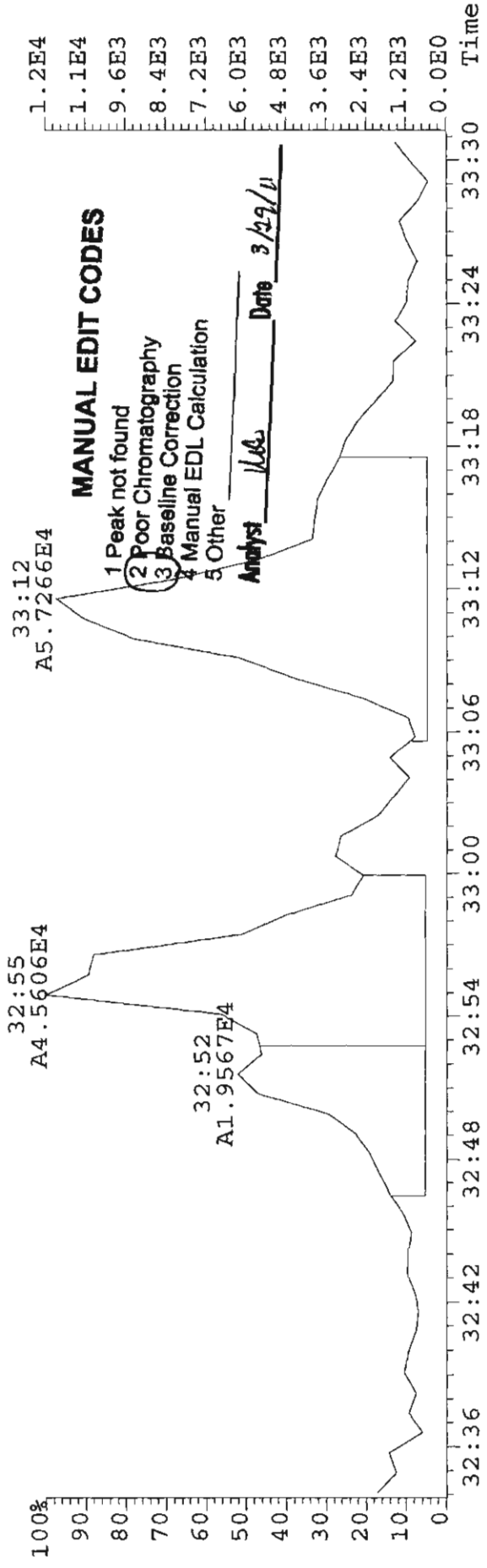
403.8529 S:42 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1784.0,1.00%,F,T)



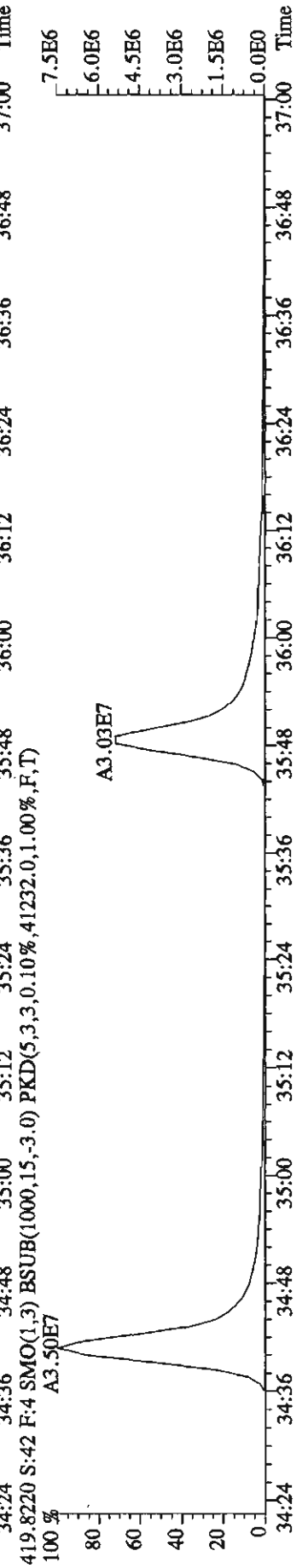
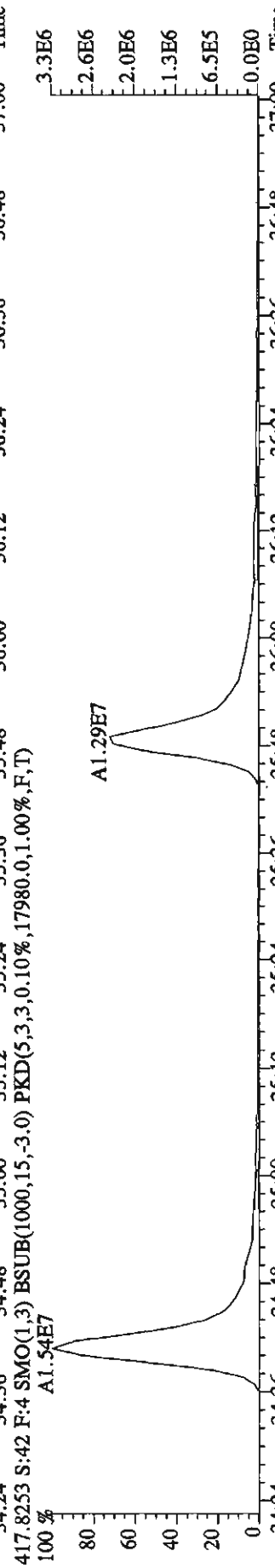
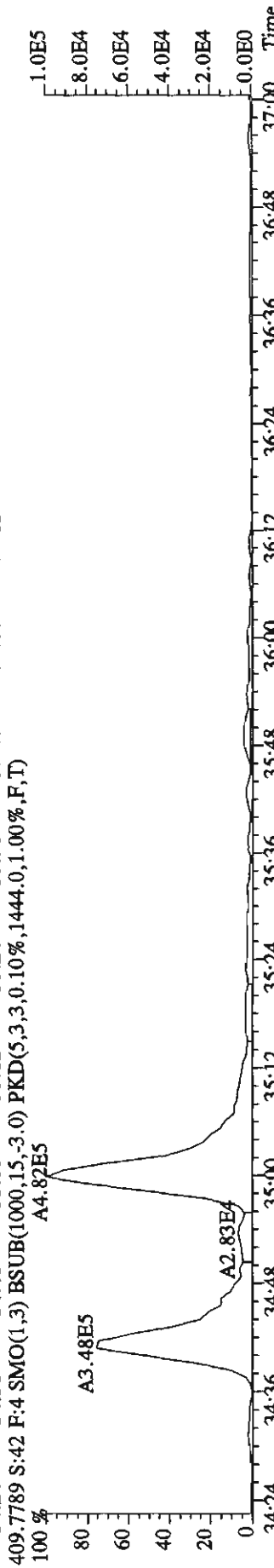
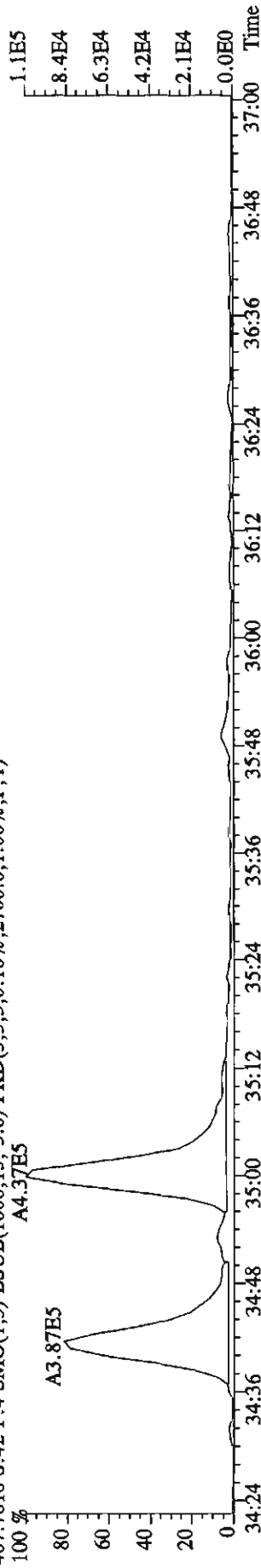
File: 24MR114D5 #1-287 Acq: 25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#42 Text: MF3R8-1-AA : G1C230577-1 Exp: DIOXINRES
 389.8157 S:42 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,712.0,1.00%,F,T)



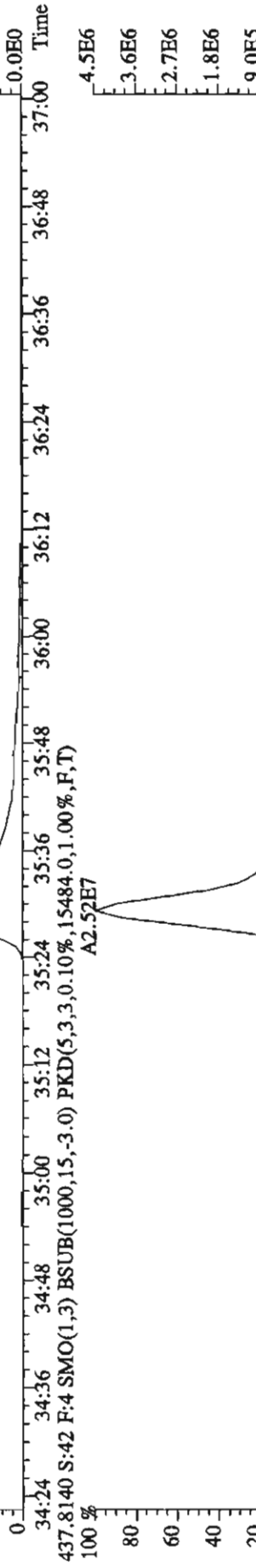
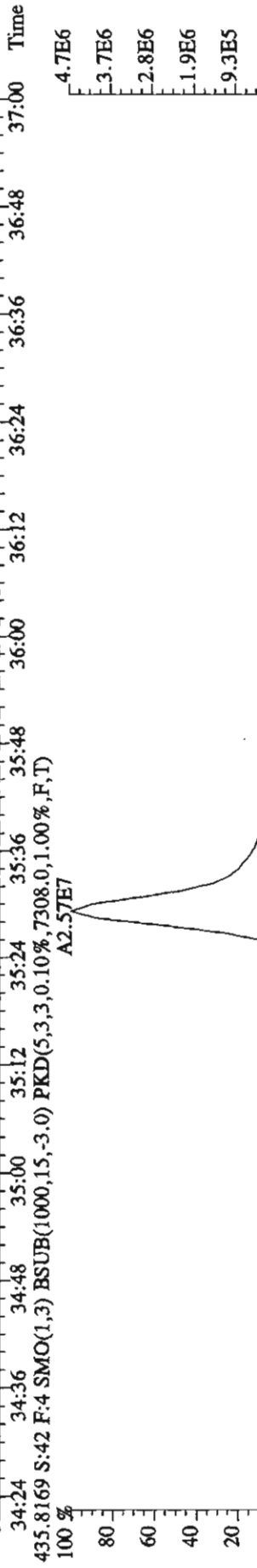
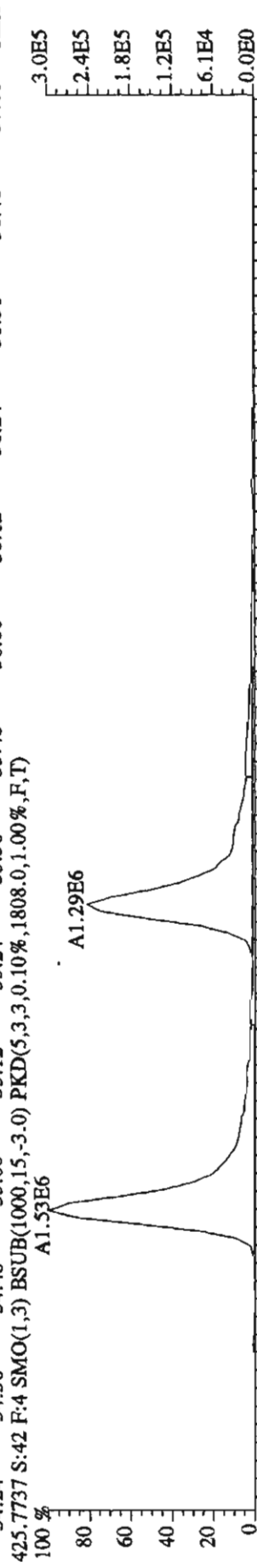
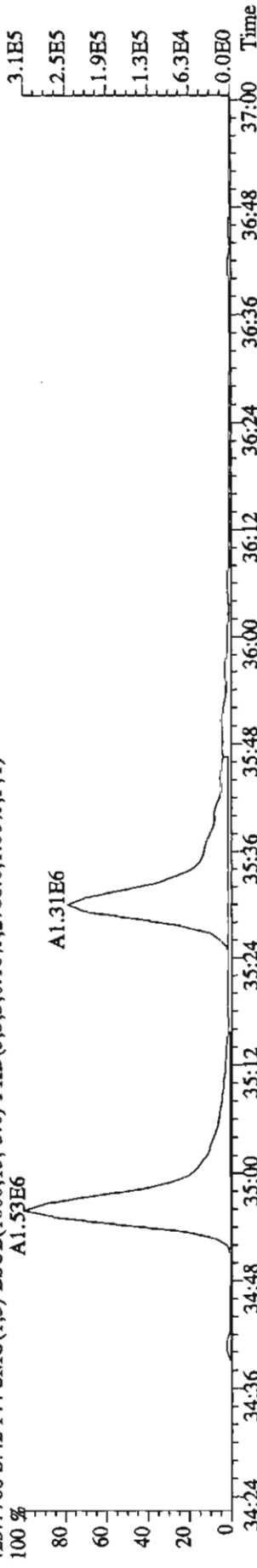
391.8127 S:42 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1340.0,1.00%,F,T)



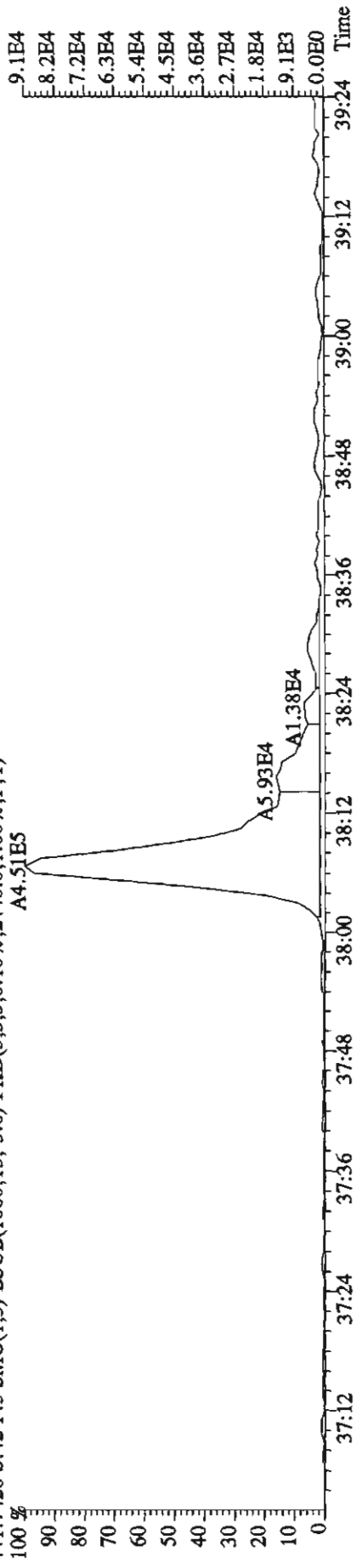
File: 24MR114D5 #1-200 Acq: 25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#42 Text: MF3R8-1-AA :G1C230577-1 Exp: DIOXINRES
 407.7818 S:42 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1444.0,1.00%,F,T)



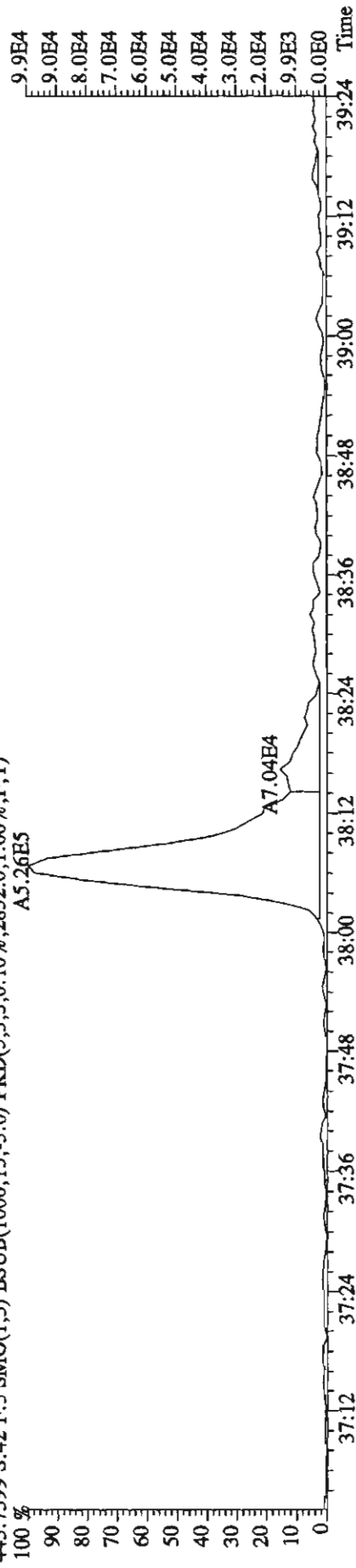
File: 24MR114D5 #1-200 Acq: 25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaB
Sample#42 Text: MF3R8-1-AA : G1C230577-1 Exp: DIOXINRES
423.7766 S: 42 F: 4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2788.0,1.00%,F,T)



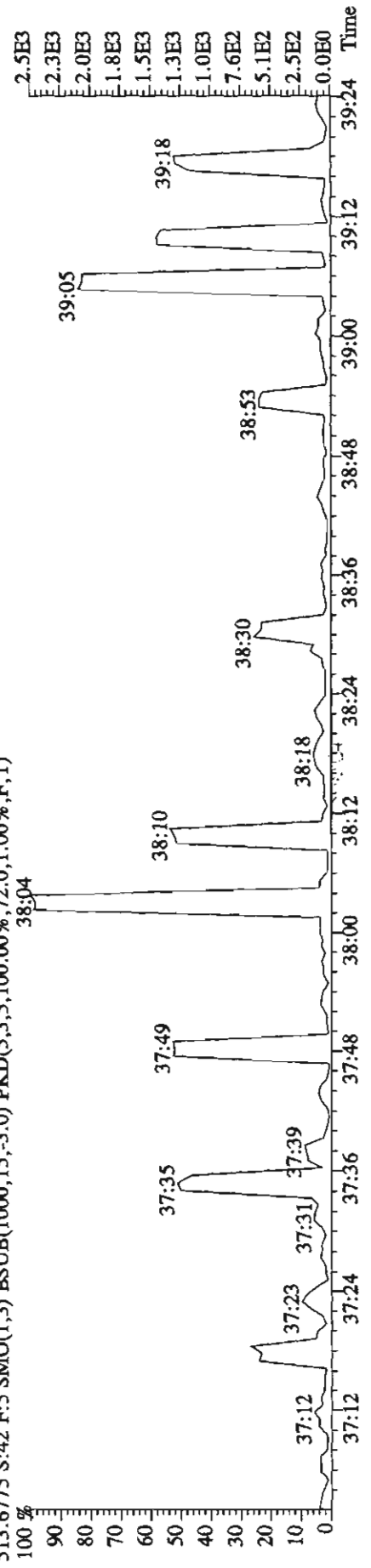
File: 24MR114D5 #1-192 Acq: 25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#42 Text: MF3R8-1-AA : G1C230577-1 Exp: DIOXINRES
 441.7428 S: 42 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2440.0,1.00%,F,T)
 A4.51E5



443.7399 S: 42 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2832.0,1.00%,F,T)
 A5.26E5

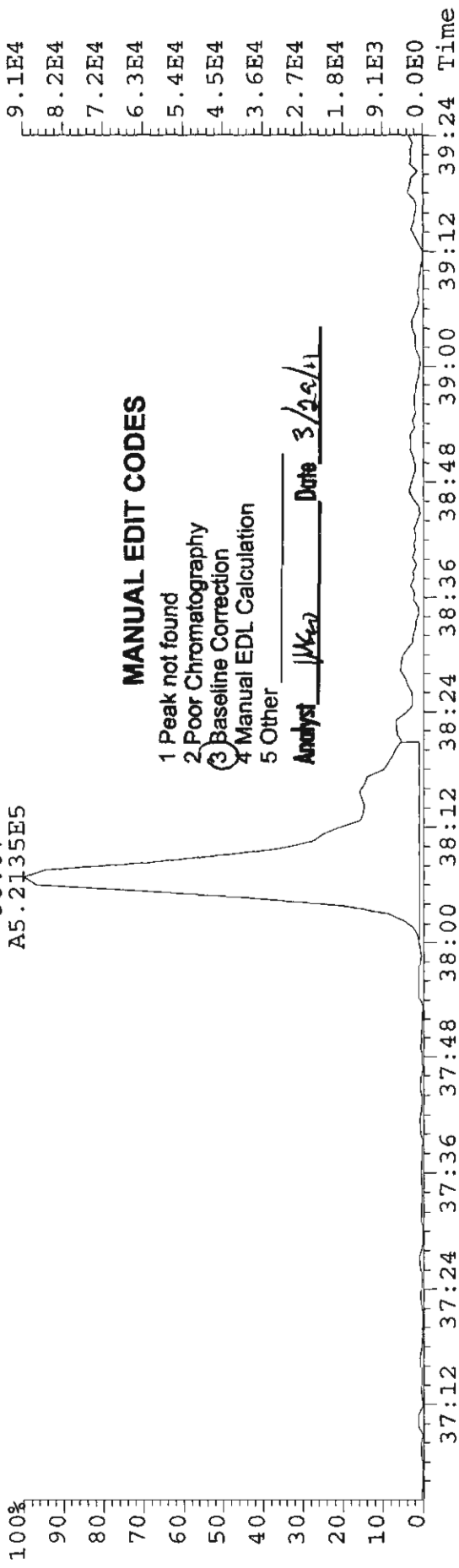


513.6775 S: 42 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,5,100.00%,72.0,1.00%,F,T)
 38.04



File: 24MR114D5 #1-192 Acq: 25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#42 Text: MF3R8-1-AA : G1C230577-1 Exp: DIOXINRES
441.7428 S: 42 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2440.0,1.00%,F,T)

38:07
A5.2135E5



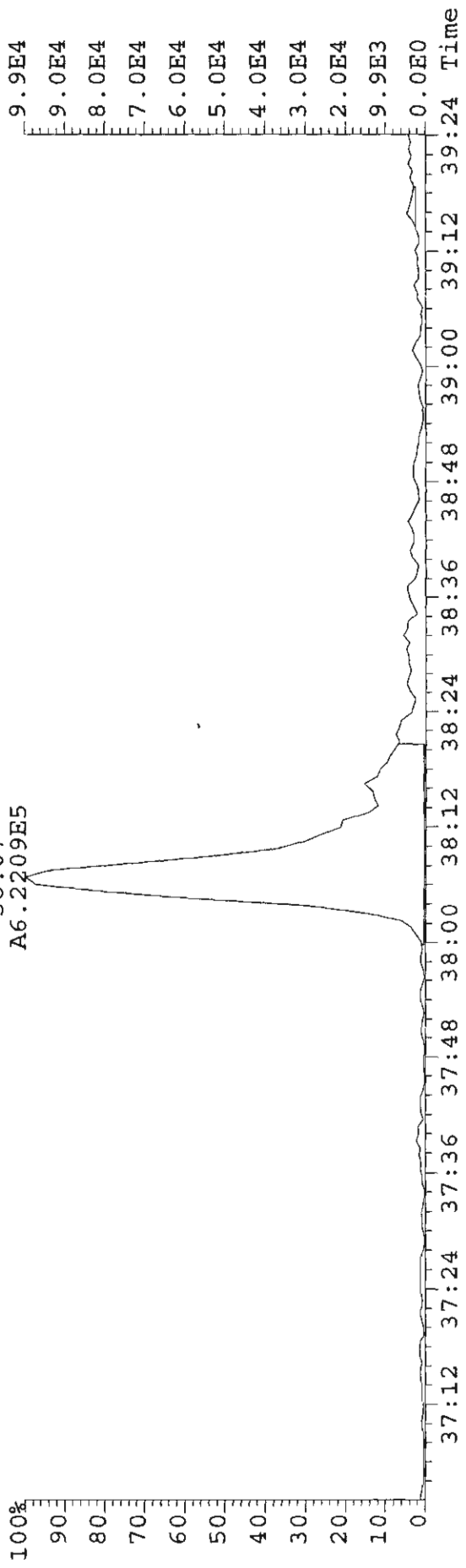
MANUAL EDIT CODES

- 1 Peak not found
- 2 Poor Chromatography
- 3 Baseline Correction
- 4 Manual EDL Calculation
- 5 Other

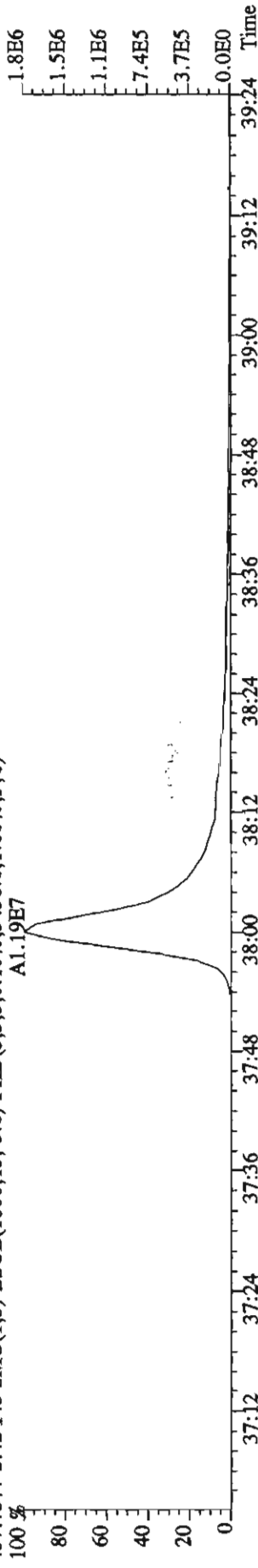
Analyst JKK Date 3/25/11

443.7399 S: 42 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2832.0,1.00%,F,T)

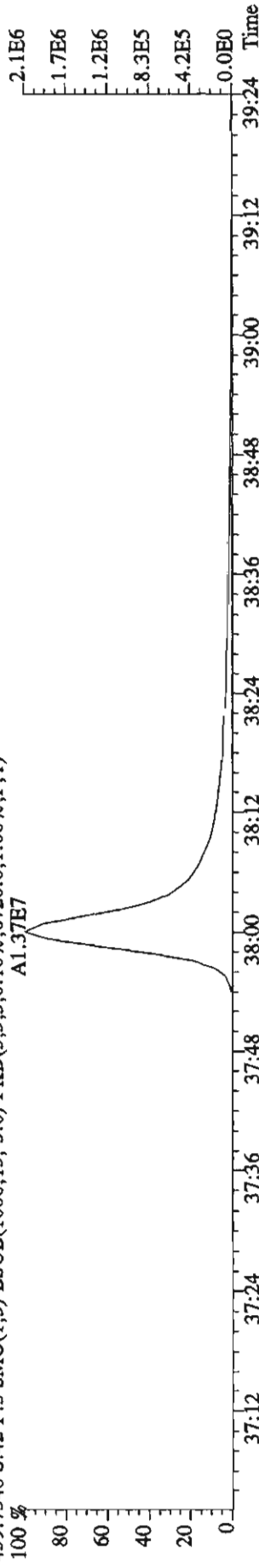
38:07
A6.2209E5



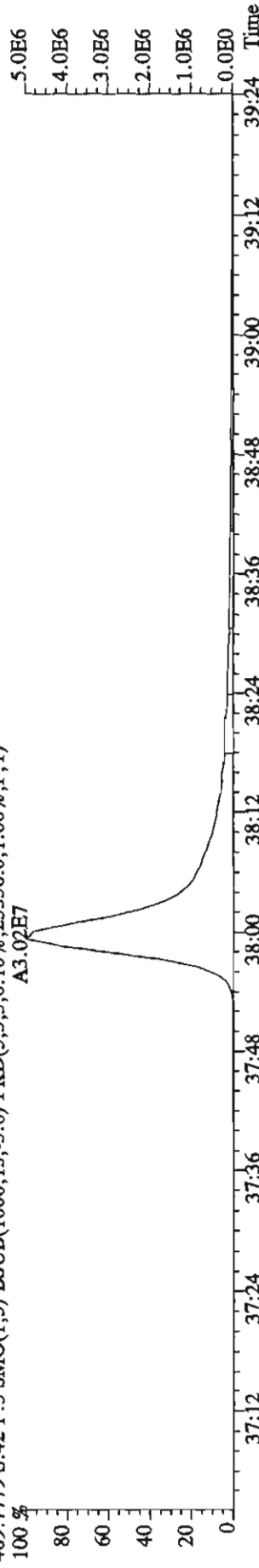
File: 24MR114D5 #1-192 Acq: 25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
Sample#42 Text: MF3R8-1-AA :G1C230577-1 Exp: DJOXINRES
457.7377 S:42 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3436.0,1.00%,F,T)
A1.19E7



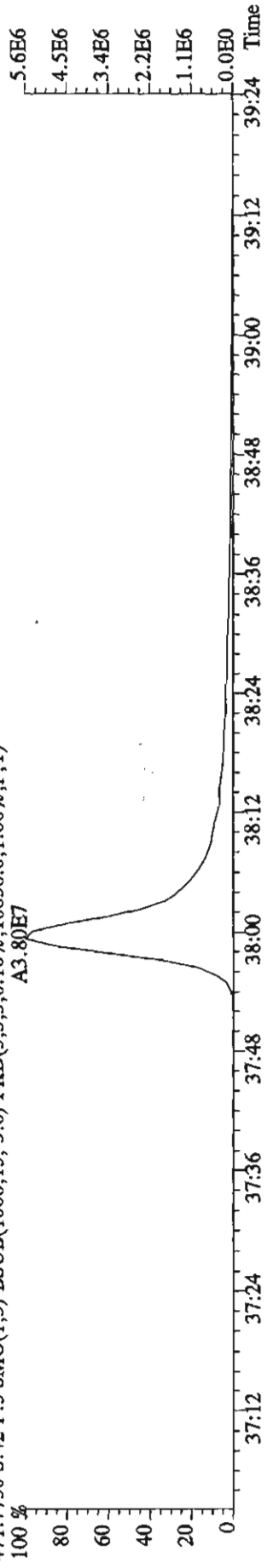
459.7348 S:42 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6720.0,1.00%,F,T)
A1.37E7



469.7779 S:42 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,23536.0,1.00%,F,T)
A3.02E7



471.7750 S:42 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,10856.0,1.00%,F,T)
A3.80E7

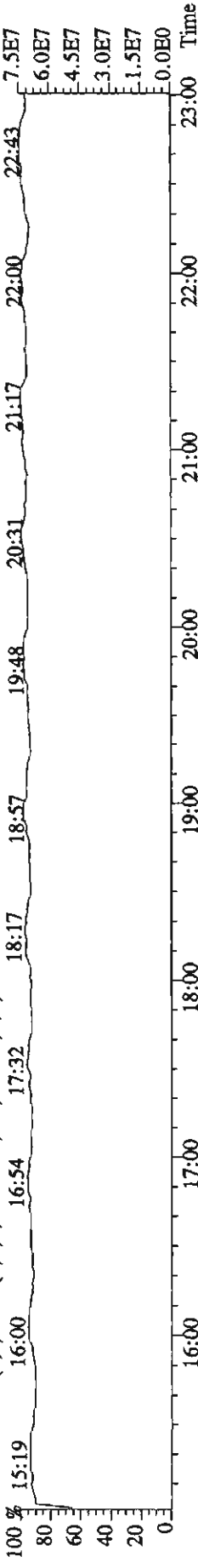


File:24MR114D5 #1-530 Acq:25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE

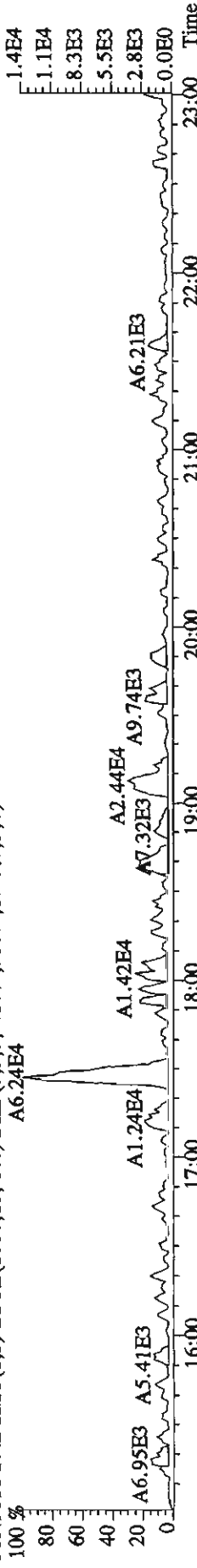
Sample#42 Text:MF3R8-1-AA G1C230577-1

Exp:DIOXINRES

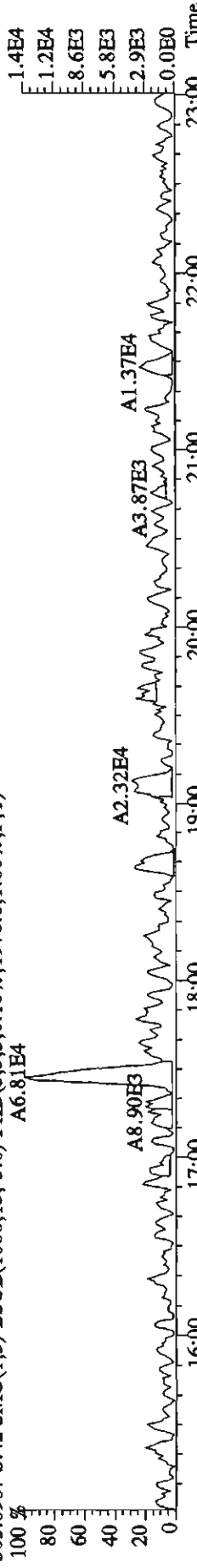
292.9825 S:42 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



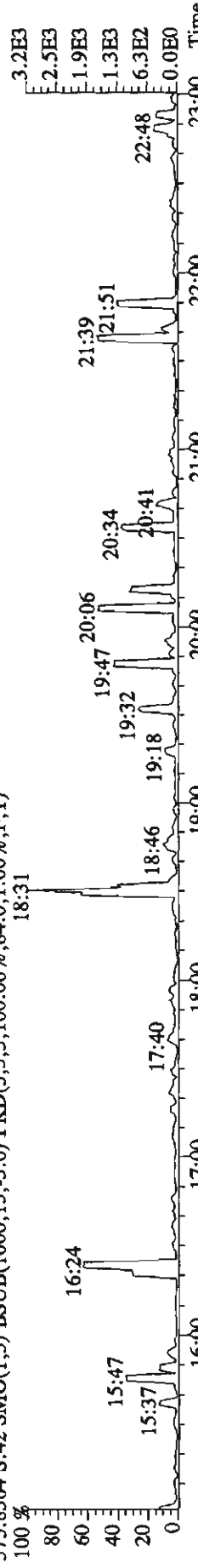
303.9016 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,920.0,1.00%,F,T)



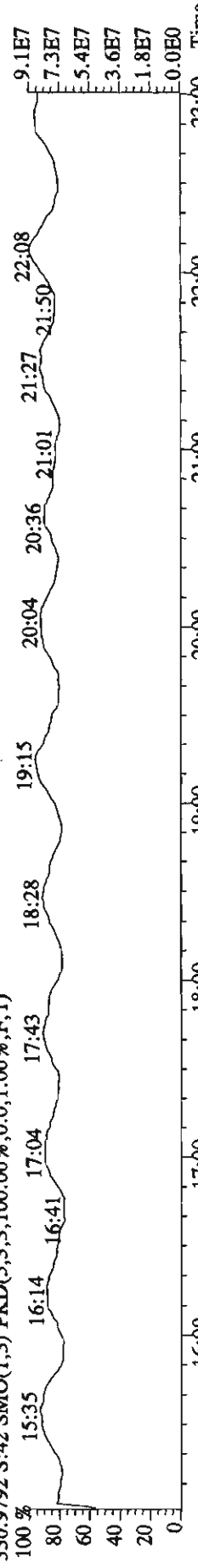
305.8987 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1976.0,1.00%,F,T)



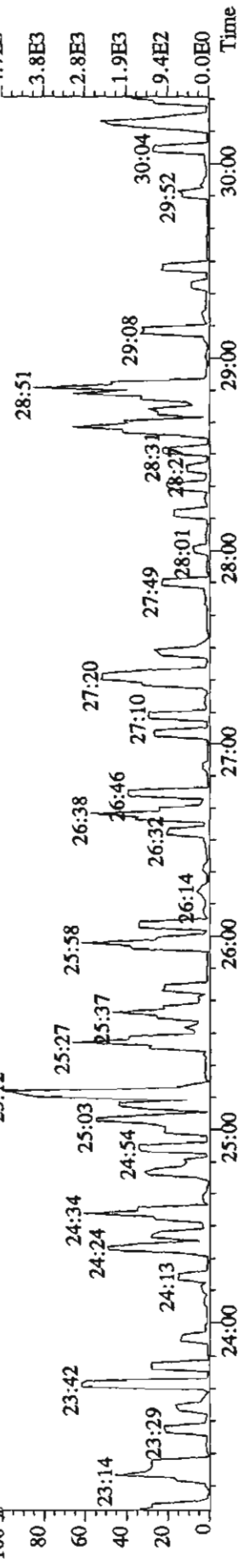
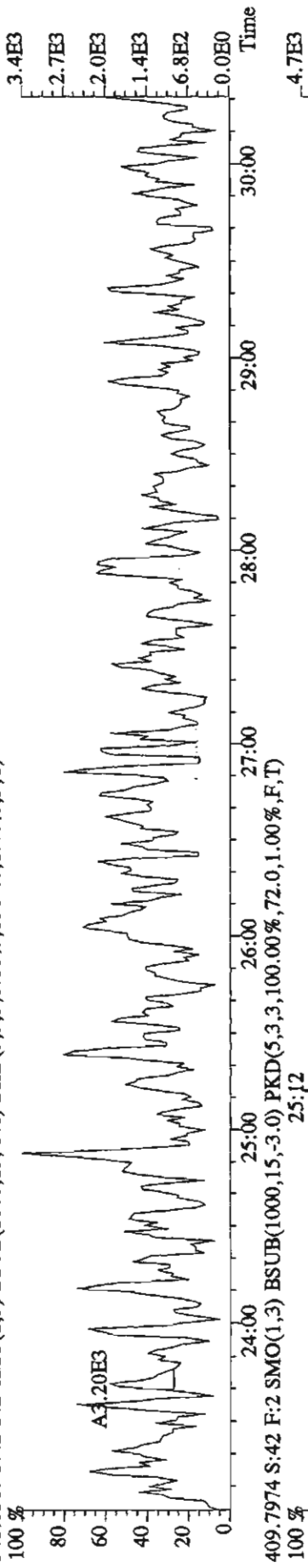
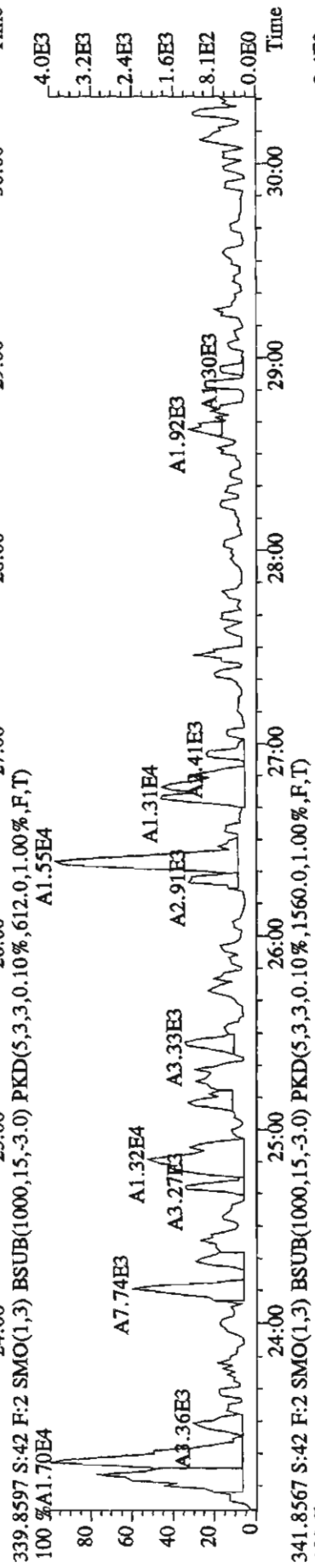
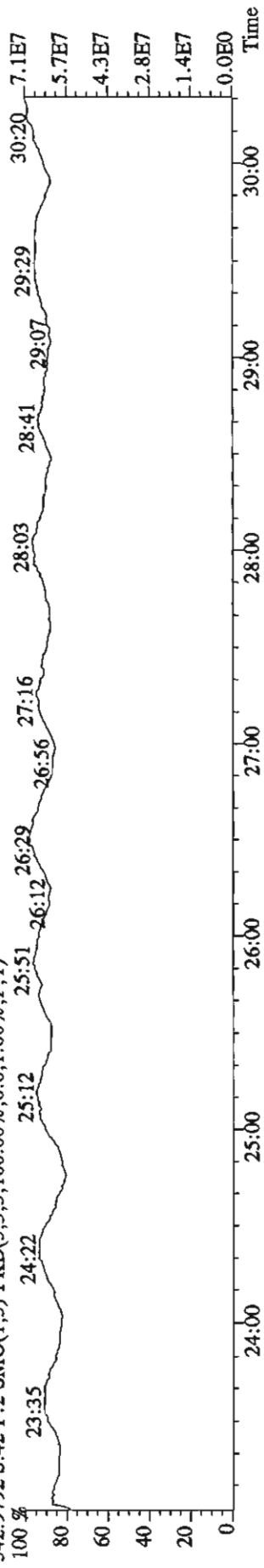
375.8364 S:42 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,84.0,1.00%,F,T)



330.9792 S:42 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



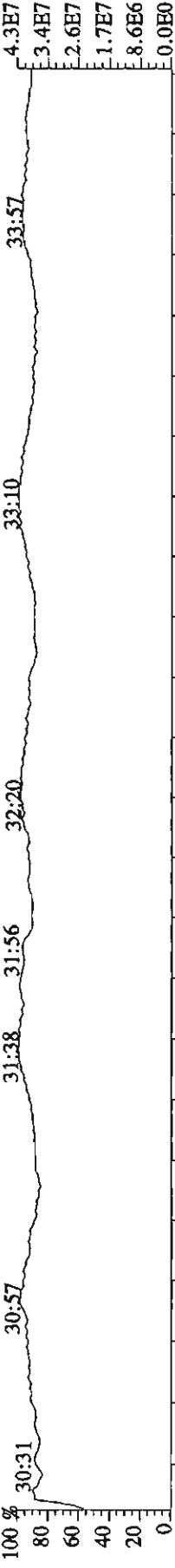
File:24MR114D5 #1-470 Acq:25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#42 Text:MF3R8-1-AA :GIC230577-1 Exp:DIOXINRES
 342.9792 S:42 F:2 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)
 100 %



File:24MR114D5 #1-287 Acq:25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaB
Sample#42 Text:MF3R8-1-AA :G1C230577-1 Exp:DIOXINRES

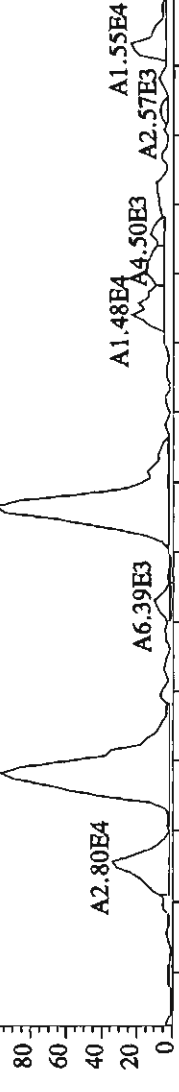
392.9760 S:42 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 % 30:57 31:38 31:56 32:20 33:10 33:57



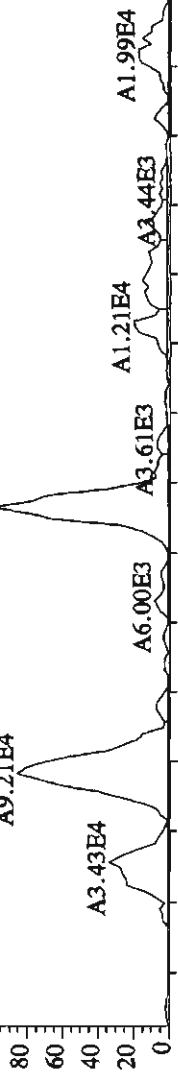
373.8208 S:42 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,768.0,1.00%,F,T)

100 % A1.08E5 A9.91E4



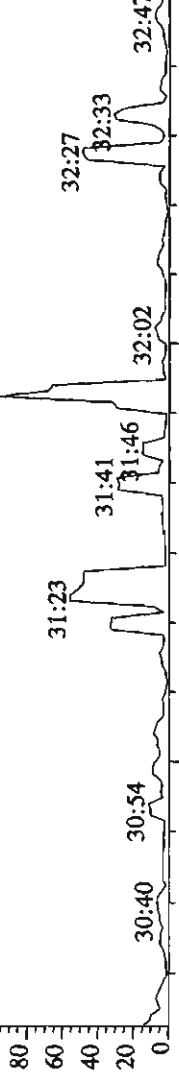
375.8178 S:42 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,376.0,1.00%,F,T)

100 % A9.21E4 A8.05E4



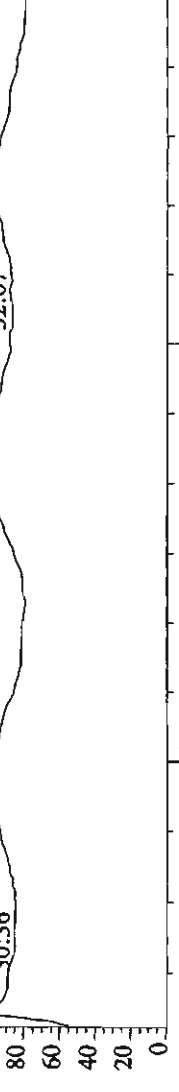
445.7555 S:42 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,104.0,1.00%,F,T)

100 % 31:52



380.9760 S:42 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

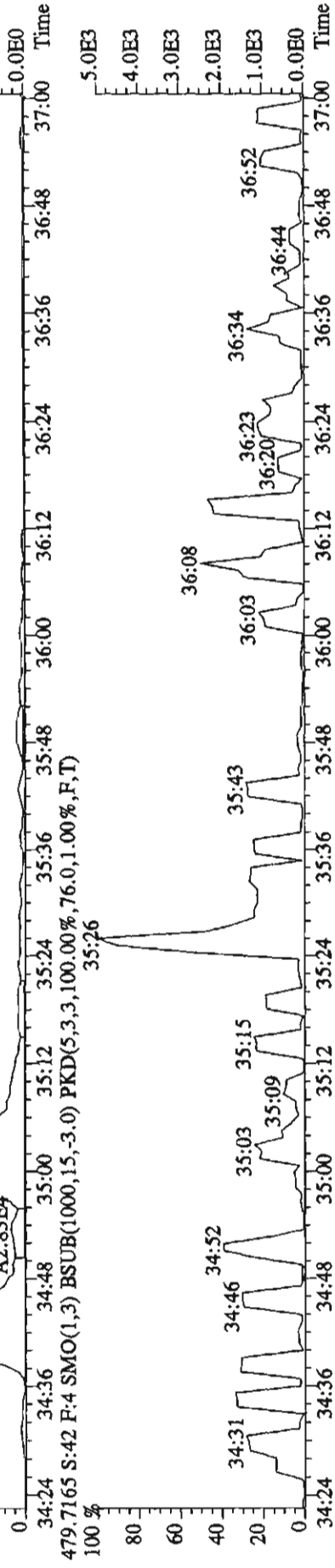
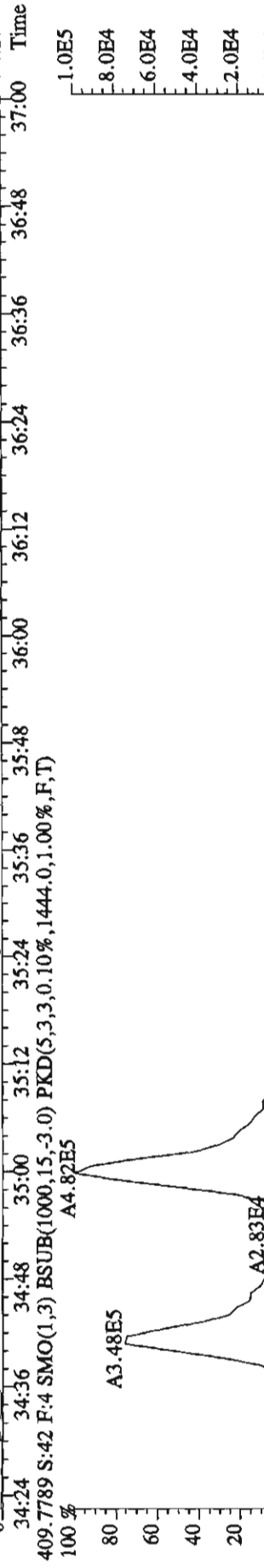
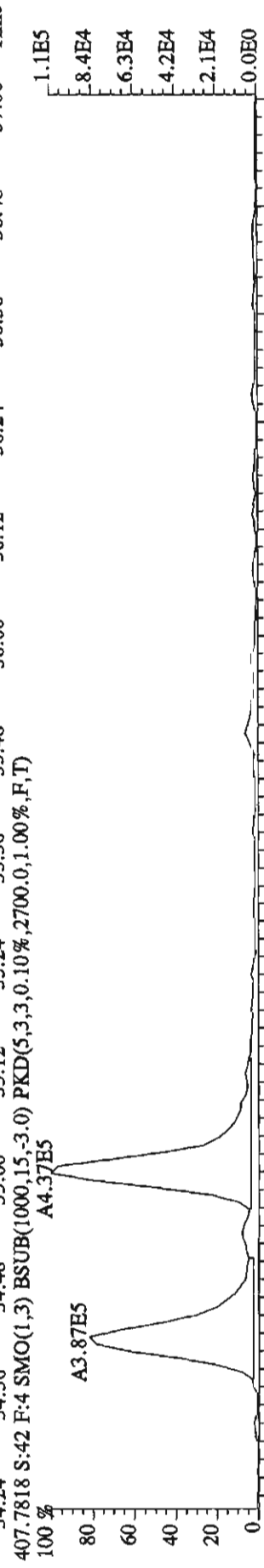
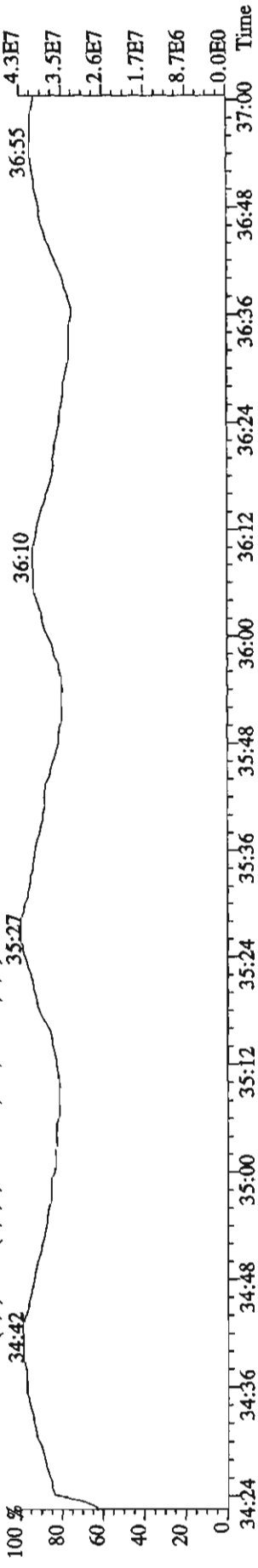
100 % 30:36 30:56 31:42



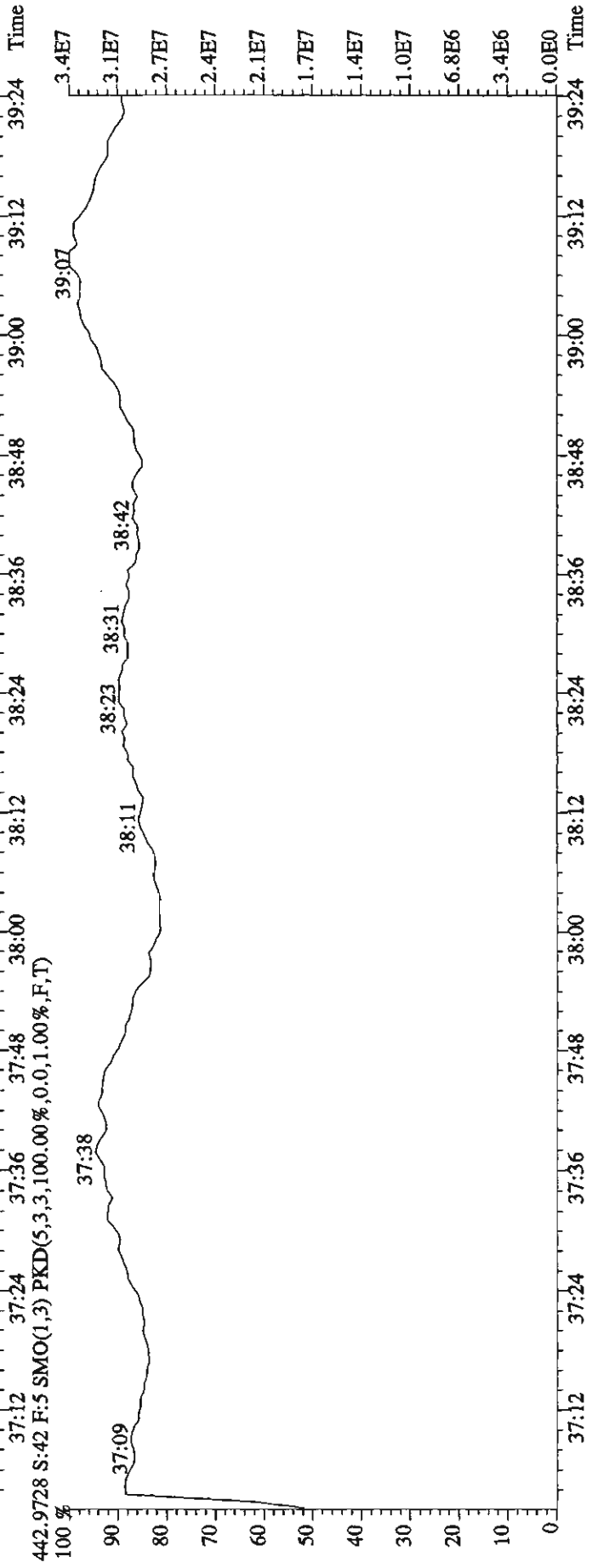
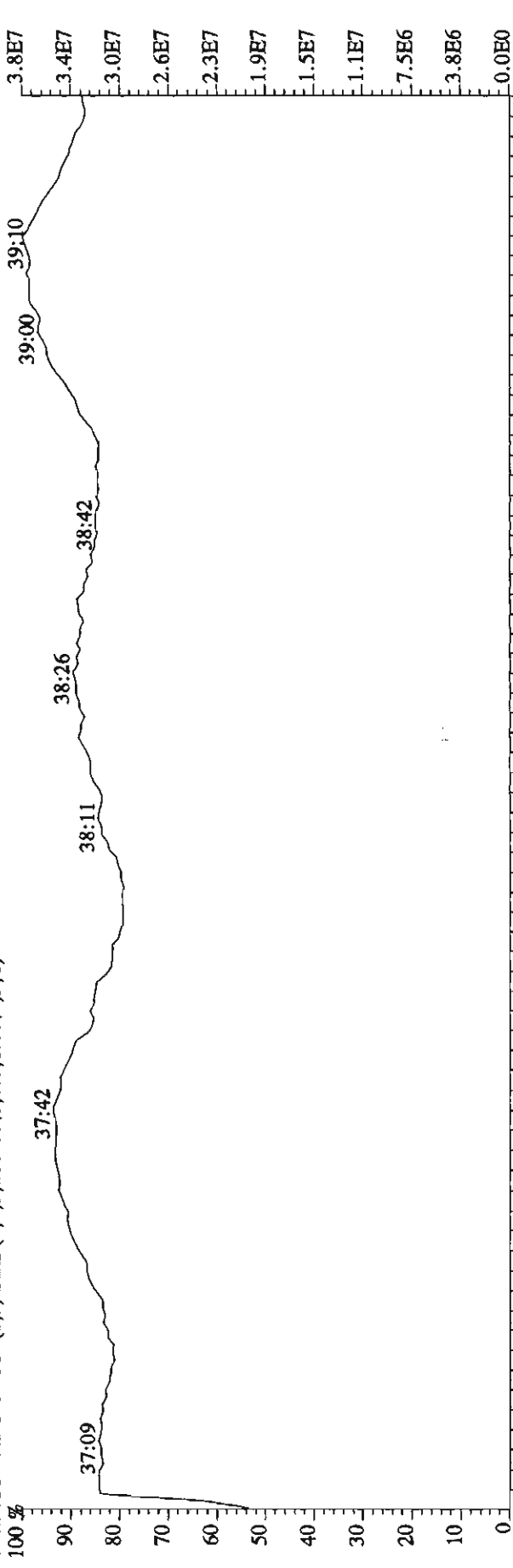
File: 24MR114D5 #1-200 Acq: 25-MAR-2011 16:48:33 GC EI + Voltage SIR Autospec-UltimaE

Sample#42 Text: MF3R8-1-AA : GIC230577-1 Exp: DIOXINRES

430.9728 S: 42 F: 4 SMO(1,3) PKD(5,3,3,0.10%,2700,0,1.00%,F,T)



File: 24MR114D5 #1-192 Acq: 25-MAR-2011 16:48:33 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#42 Text: MF3R8-1-AA : G1C230577-1 Exp: DIOXINRES
 454.9728 S: 42 F: 5 SMO(1,3) PKD(5,3,3,100.00%,0,0,1.00%,F,T)



Standards Data
DB-5 Column

*Includes Initial and Continuing Calibrations
(as applicable):*

runlog

standard raw data

statistical summary

ms tune data

Daily Calibration Checklist Dioxin Methods

Method ID 1613B

Associated ICAL ^{to CPSM} ~~1613~~ 16130222114D5

Column ID DB5

Instrument ID 4D5

STD ID ST0324B

STD Solution 10DXN505

Analyzed by AS

Date Analyzed 03-25-11

Std. Pkg. By AS

Date Std. Pkg. Assembled 03-28-11

Std. Pkg. Reviewed By YB

Date Std. Pkg. Reviewed 3/28/11

DAILY STANDARD PACKAGE	INITIATED	REVIEWED
Standard, CPSM, and Solvent Blank present?	✓	✓
Copy of log-file and Beginning Static Resolution present?	✓	✓
CPSM blow up present?	✓	✓
Curve Summary present?	✓	✓
Summary of Method criteria present or documented below?	✓	✓
Daily standard within method specified limits?	✓	✓
Analyte retention times correct?	✓	✓
Isotopic ratios within limits?	✓	✓
CPSM valley ≤ method specified limits?*	✓	✓
Are chromatographic windows correct?	✓	✓
Samples analyzed within 12 hrs of daily standard?	✓	✓
Manual reintegration's checked and hardcopies included?	NA	NA
Ending Standard present?	NA	NA
Ending Static Resolutions present	✓	✓
Absolute retention times for 13C12-1,2,3,4-TCDD and 13C12-1,2,3,7,8,9-HxCDD are within +/- 15 seconds of the retention times in the Initial Calibration? (required for all 1613B samples)	✓ ①	✓ ①

COMMENTS:

① ICAL Abs. Rs RTs: 19:50 & 33:17

* Method 8290/TO9/M0023A: (beginning) ≤ 20% from curve RRFs for native analytes, ≤ 30% from curve RRFs for labeled compounds.

Method 8290/TO9/M0023A: (ending) ≤ 25% from curve RRFs for native analytes, ≤ 35% from curve RRFs for labeled compounds.

Method 23: See Method 23 Daily Standard Criteria, Table 5.

Method 1613B: See, Method 1613B or Method 1613B Tetras Daily Standard Criteria,

** Method 23/0023A CPSM Criteria: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the smallest peak of the triplet

Method 1613B/8290/TO9 CPSM Criteria: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the 2378 peak.

Run text: ST0324B Sample text: ST0324B :CS3 10DXN505
 Run #7 Filename: 24MR114D5 S: 30 I: 1 Results: 24MR114D51613
 Acquired: 25-MAR-11 07:54:12 Processed: 25-MAR-11 14:19:18
 Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5
 Factor 1: 20.000 Factor 2: 1.000 Sample size: 1.000000

Name	Resp	RA	RT	RRF	Conc	EDL	Rec	M
13C-1,2,3,4-TCDD	155999900	0.79 y	19:39	-	81.94	-	-	n
13C-2,3,7,8-TCDF	191847000	0.78 y	19:04	1.10	111.32	0.06	111.3	n
2,3,7,8-TCDF	17828130	0.74 y	19:05	0.78	11.95	0.03	-	n
Total TCDF	18217722	0.50 n	17:12	0.78	12.21	0.03	-	n
13C-2,3,7,8-TCDD	157322000	0.77 y	19:52	0.97	104.10	0.14	104.1	n
2,3,7,8-TCDD	13622190	0.75 y	19:53	0.87	9.98	0.03	-	n
Total TCDD	13706736	0.63 n	18:38	0.87	10.04	0.03	-	n
37Cl-2,3,7,8-TCDD	21231400	1.00 y	19:54	1.43	9.55	0.00	95.5	n
13C-1,2,3,7,8-PeCDF	167618200	1.56 y	24:50	1.04	103.41	0.13	103.4	n
1,2,3,7,8-PeCDF	79758600	1.56 y	24:52	0.96	49.62	0.06	-	n
13C-2,3,4,7,8-PeCDF	165092200	1.52 y	26:20	1.02	103.75	0.13	103.8	n
2,3,4,7,8-PeCDF	76493400	1.55 y	26:22	0.96	48.48	0.07	-	n
Total F2 PeCDF	159491808	1.20 n	23:15	0.96	100.13	0.07	-	n
Total F1 PeCDF	40090	0.05 n	15:17	0.96	0.03	0.02	-	n
13C-1,2,3,7,8-PeCDD	126038100	1.55 y	27:11	0.70	115.49	0.08	115.5	n
1,2,3,7,8-PeCDD	58287000	1.49 y	27:12	1.04	44.39	0.08	-	n
Total PeCDD	58460649	2.05 n	24:50	1.04	44.52	0.08	-	n
13C-1,2,3,7,8,9-HxCDD	104962900	1.27 y	33:11	-	77.45	-	-	n
13C-1,2,3,4,7,8-HxCDF	99870700	0.50 y	32:03	0.87	109.29	0.77	109.3	n
1,2,3,4,7,8-HxCDF	55541800	1.13 y	32:04	1.15	48.42	0.33	-	n
13C-1,2,3,6,7,8-HxCDF	134123400	0.50 y	32:10	1.18	108.10	0.57	108.1	n
1,2,3,6,7,8-HxCDF	71729200	1.13 y	32:11	1.07	49.84	0.31	-	n
13C-2,3,4,6,7,8-HxCDF	118336400	0.51 y	32:42	1.03	109.10	0.65	109.1	n
2,3,4,6,7,8-HxCDF	62074000	1.06 y	32:43	1.10	47.87	0.31	-	n
13C-1,2,3,7,8,9-HxCDF	101520900	0.49 y	33:21	0.90	106.90	0.74	106.9	n
1,2,3,7,8,9-HxCDF	51030200	1.13 y	33:22	1.08	46.61	0.39	-	n
Total HxCDF	240555145	1.33 y	30:58	1.10	192.89	0.33	-	n
13C-1,2,3,4,7,8-HxCDD	70412600	1.28 y	32:51	0.66	101.02	0.04	101.0	n
1,2,3,4,7,8-HxCDD	36788900	1.25 y	32:52	1.06	49.08	0.02	-	n
13C-1,2,3,6,7,8-HxCDD	106558500	1.30 y	32:55	0.95	106.89	0.03	106.9	n
1,2,3,6,7,8-HxCDD	55625000	1.27 y	32:56	1.05	49.90	0.02	-	n
1,2,3,7,8,9-HxCDD	54022500	1.24 y	33:12	1.20	50.84	0.02	-	n
Total HxCDD	147435169	1.14 y	32:19	1.10	150.83	0.02	-	n
13C-1,2,3,4,6,7,8-HpCDF	95936400	0.44 y	34:41	0.91	100.01	0.73	100.0	n
1,2,3,4,6,7,8-HpCDF	63929700	1.05 y	34:42	1.32	50.32	0.41	-	n
13C-1,2,3,4,7,8,9-HpCDF	85995500	0.44 y	35:49	0.83	98.64	0.80	98.6	n
1,2,3,4,7,8,9-HpCDF	53072500	1.06 y	35:49	1.24	49.59	0.59	-	n
Total HpCDF	118603267	1.05 y	34:42	1.29	101.27	0.49	-	n

13C-1,2,3,4,6,7,8-HpCDD	98506700	1.03	y	35:29	0.91	102.70	0.50	102.7	n
1,2,3,4,6,7,8-HpCDD	46821100	0.98	y	35:30	1.01	46.89	0.25	-	n
Total HpCDD	47372800	1.08	y	34:56	1.01	47.45	0.25	-	n
13C-OCDD	139067400	0.86	y	37:59	0.60	220.32	0.87	110.2	n
OCDF	78694000	0.93	y	38:07	1.27	88.86	0.30	-	n
OCDD	71108000	0.90	y	38:00	1.13	90.57	0.41	-	n

data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
24MR114D5	1	CP0324	DB-5 CPSM 3732-12				1.00000	
24MR114D5	2	ST0324	CS3 10DXN505				1.00000	
24MR114D5	3	MFOA3-1-AA	G1C210000-291 (430-1MB)	20	8290/SOLID	27	10.00000	g
24MR114D5	4	MFOA3-1-AC	G1C210000-291 (430-1LCS)	20	8290/SOLID		10.00000	g
24MR114D5	5	MFNCC-1-AA	G1C150487-1 RI	20	8290/SOLID	21	9.98000	g
24MR114D5	6	MFXPP-1-AA	G1C210430-1	20	8290/SOLID	27	10.09000	g
24MR114D5	7	MFXPW-1-AA	G1C210432-1	20	8290/SOLID		10.24000	g
24MR114D5	8	MFXP1-1-AA	G1C210432-2	20	8290/SOLID		9.98000	g
24MR114D5	9	MFN8C-1-AA	C1C160410-1	20	8290/WATER		0.89281	L
24MR114D5	10	MFN8C-1-AC	C1C160410-1MS	20	8290/WATER		0.93572	L
24MR114D5	11	MFN8C-1-AD	C1C160410-1MSD	20	8290/WATER		0.88137	L
24MR114D5	12	MF3FN-1-AE	G1C230462-1LCS	20	8290/SOLID	29	10.00000	g
24MR114D5	13	MF3FN-1-AF	G1C230462-1DCS	20	8290/SOLID		10.00000	g
24MR114D5	14	MF3FN-1-AD	G1C230462-1MB	20	8290/SOLID		10.00000	g
24MR114D5	15	ST0324A	CS3 10DXN505				1.00000	
24MR114D5	16	CP0324A	DB-5 CPSM 3732-12				1.00000	
24MR114D5	17	SB0324	Solvent Blank C-14				1.00000	
24MR114D5	18	MF2T3-1-AA	G1C230462-1	20	8290/SOLID	29	15.22000	g
24MR114D5	19	MF2T3-1-AD	G1C230462-1MS	20	8290/SOLID		15.98000	g
24MR114D5	20	MF2T3-1-AE	G1C230462-1MSD	20	8290/SOLID		15.92000	g
24MR114D5	21	MF2VG-1-AA	G1C230462-2	20	8290/SOLID		15.41000	g
24MR114D5	22	MF2V0-1-AA	G1C230462-3	20	8290/SOLID		15.48000	g
24MR114D5	23	MF2V2-1-AA	G1C230462-4	20	8290/SOLID		15.94000	g
24MR114D5	24	MF2V3-1-AA	G1C230462-5	20	8290/SOLID		15.40000	g
24MR114D5	25	MF2V7-1-AA	G1C230462-6	20	8290/SOLID		1.04000	g
24MR114D5	26	MF2V7-1-AD	G1C230462-6X	20	8290/SOLID		1.06000	g
24MR114D5	27	MF2V8-1-AA	G1C230462-7	20	8290/SOLID		15.16000	g
24MR114D5	28	MF2V9-1-AA	G1C230462-8	20	8290/SOLID		15.88000	g
24MR114D5	29	SB0324A	Solvent Blank C-14				1.00000	
24MR114D5	30	ST0324B	CS3 10DXN505				1.00000	
24MR114D5	31	CP0324B	DB-5 CPSM 3732-12				1.00000	
24MR114D5	32	SB0324B	Solvent Blank C-14				1.00000	
24MR114D5	33	MF2WA-1-AA	G1C230462-9	20	8290/SOLID	29	15.04000	g
24MR114D5	34	MF25X-1-AA	G1C230462-10	20	8290/SOLID		15.05000	g
24MR114D5	35	MF26C-1-AA	G1C230462-11	20	8290/SOLID		15.85000	g
24MR114D5	36	MFA7D-1-AC	G1C080456-5	20	8290/SOLID		0.03003	g
24MR114D5	37	MFA7F-1-AC	G1C080456-6	20	8290/SOLID		0.02008	g
24MR114D5	38	MF3K8-1-AA	G1C230550-1	20	1613B/WATER	30	1.02214	L
24MR114D5	39	MF3NN-1-AA	G1C230563-1	20	1613B/WATER		1.03334	L
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24MR114D5	41	MF3QW-1-AA	G1C230575-1	20	1613B/WATER		1.03173	L
24MR114D5	42	MF3R8-1-AA	G1C230577-1	20	1613B/WATER		1.03626	L
24MR114D5	43	MF4TE-1-AC	G1C240000-190 (550-1LCS)	20	1613B/WATER		1.00000	L
24MR114D5	44	MF4TE-1-AA	G1C240000-190 (550-1MB)	20	1613B/WATER		1.00000	L
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24MR114D5	48	MF513-1-AC	G1C220469-1LCS	20	1613B/SOLID		10.00000	g
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24MR114D5	50	MF06E-1-AC	G1C220469-2	20	1613B/SOLID		1.28000	g
24MR114D5	51	MF075-1-AC	G1C220469-3	20	1613B/SOLID		1.06000	g
24MR114D5	52	MF30H-1-AA	G1C230588-1	20	1613B/WATER	30	1.03548	L
24MR114D5	53	MF30J-1-AA	G1C230589-1	20	1613B/WATER		1.02932	L

24MR114D5	54	MF451-1-AA	G1C240483-1	20	1613B/WATER	1.03520	L
24MR114D5	55	MF00R-1-AA	G1C220446-1	20	1613B/WATER	0.99523	L
24MR114D5	56	MFV67-1-AA	G1C180564-1	20	1613B/WATER	0.99034	L
24MR114D5	57	MFWGP-1-AA	G1C180626-1	20	1613B/WATER	1.04512	L
24MR114D5	58	MF596-1-AC	G1C240000-484 (565-1LCS)	20	1613B/WATER	1.00000	L
24MR114D5	59	MF596-1-AA	G1C240000-484 (565-1MB)	20	1613B/WATER	1.00000	L
24MR114D5	60					1.00000	
24MR114D5	61					1.00000	
24MR114D5	62					1.00000	
24MR114D5	63					1.00000	
24MR114D5	64					1.00000	
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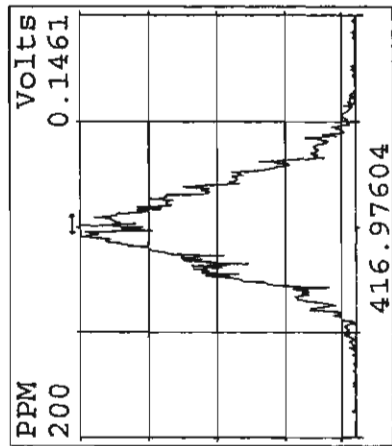
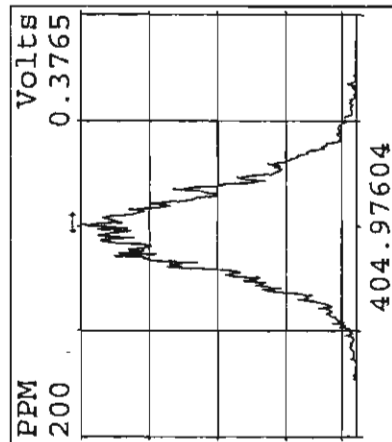
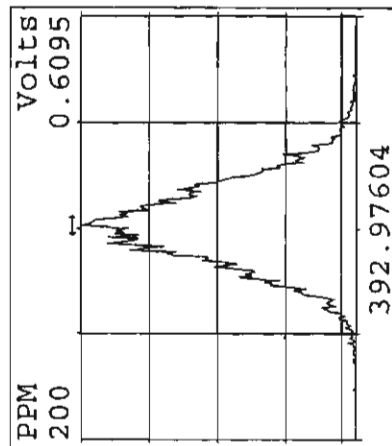
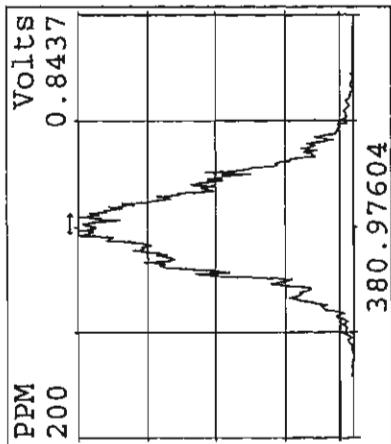
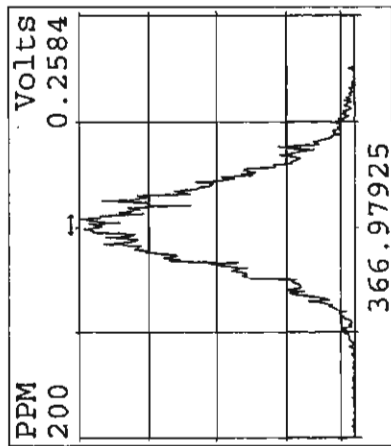
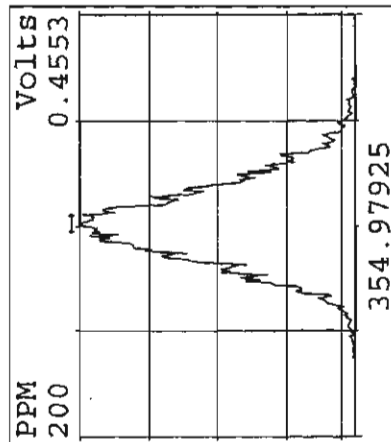
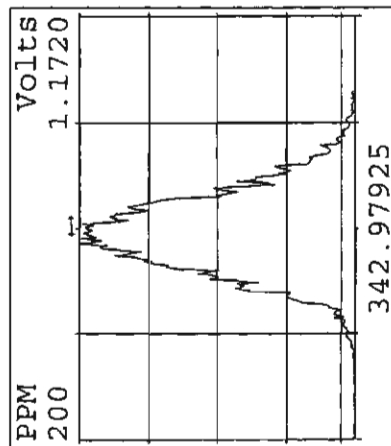
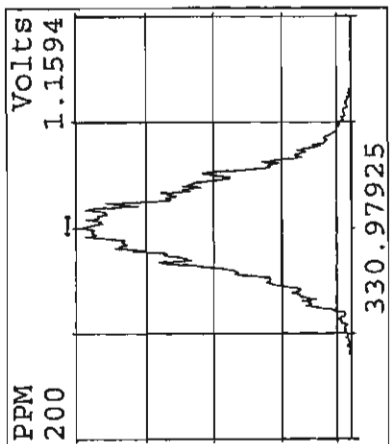
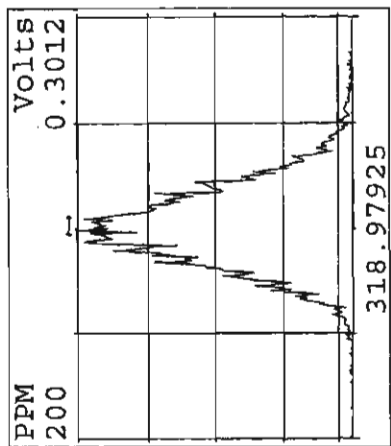
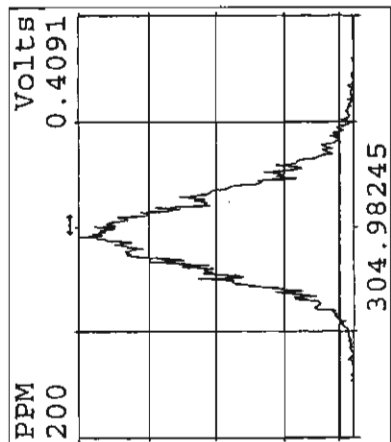
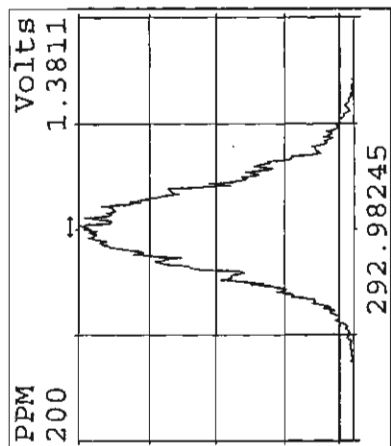
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24MR114D5	4	MF0A3-1-AC	G1C210000-291 (430-1LCS)	20	8290/SOLID		10.00000	g
24MR114D5	5	MFNCC-1-AA	G1C150487-1 RI	20	8290/SOLID	21	9.98000	g
24MR114D5	6	MFXPP-1-AA	G1C210430-1	20	8290/SOLID	27	10.09000	g
24MR114D5	7	MFXPW-1-AA	G1C210432-1	20	8290/SOLID		10.24000	g
24MR114D5	8	MFXP1-1-AA	G1C210432-2	20	8290/SOLID		9.98000	g
24MR114D5	9	MFN8C-1-AA	C1C160410-1	20	8290/WATER		0.89281	L
24MR114D5	10	MFN8C-1-AC	C1C160410-1MS	20	8290/WATER		0.93572	L
24MR114D5	11	MFN8C-1-AD	C1C160410-1MSD	20	8290/WATER		0.88137	L
24MR114D5	12	MF3FN-1-AE	G1C230462-1LCS	20	8290/SOLID	29	10.00000	g
24MR114D5	13	MF3FN-1-AF	G1C230462-1DCS	20	8290/SOLID		10.00000	g
24MR114D5	14	MF3FN-1-AD	G1C230462-1MB	20	8290/SOLID		10.00000	g
24MR114D5	15	ST0324A	CS3 10DXN505				1.00000	
24MR114D5	16	CP0324A	DB-5 CPSM 3732-12				1.00000	
24MR114D5	17	SB0324	Solvent Blank C-14				1.00000	
24MR114D5	18	MF2T3-1-AA	G1C230462-1	20	8290/SOLID	29	15.22000	g
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24MR114D5	25	MF2V7-1-AA	G1C230462-6	20	8290/SOLID		1.04000	g
24MR114D5	26	MF2V7-1-AD	G1C230462-6X	20	8290/SOLID		1.06000	g
24MR114D5	27	MF2V8-1-AA	G1C230462-7	20	8290/SOLID		15.16000	g
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24MR114D5	32	SB0324B	Solvent Blank C-14				1.00000	
24MR114D5	33	MF2WA-1-AA	G1C230462-9	20	8290/SOLID	29	15.04000	g
24MR114D5	34	MF25X-1-AA	G1C230462-10	20	8290/SOLID		15.05000	g
24MR114D5	35	MF26C-1-AA	G1C230462-11	20	8290/SOLID		15.85000	g
24MR114D5	36	MFA7D-1-AC	G1C080456-5	20	8290/SOLID		0.03003	g
24MR114D5	37	MFA7F-1-AC	G1C080456-6	20	8290/SOLID		0.02008	g
24MR114D5	38	MF3K8-1-AA	G1C230550-1	20	1613B/WATER	30	1.02214	L
24MR114D5	39	MF3NN-1-AA	G1C230563-1	20	1613B/WATER		1.03334	L
24MR114D5	40	MF3PT-1-AA	G1C230570-1	20	1613B/WATER		1.03191	L
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24MR114D5	43	MF4TE-1-AC	G1C240000-190 (550-1LCS)	20	1613B/WATER		1.00000	L
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24MR114D5	49	MF046-1-AC	G1C220469-1	20	1613B/SOLID		1.18000	g
24MR114D5	50	MF06E-1-AC	G1C220469-2	20	1613B/SOLID		1.28000	g
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24MR114D5	52	MF30H-1-AA	G1C230588-1	20	1613B/WATER	30	1.03548	L
24MR114D5	53	MF30J-1-AA	G1C230589-1	20	1613B/WATER		1.02932	L

24MR114D5	54	MF451-1-AA	G1C240483-1	20	1613B/WATER	1.03520	L
24MR114D5	55	MF00R-1-AA	G1C220446-1	20	1613B/WATER	0.99523	L
24MR114D5	56	MFV67-1-AA	G1C180564-1	20	1613B/WATER	0.99034	L
24MR114D5	57	MFWGP-1-AA	G1C180626-1	20	1613B/WATER	1.04512	L
24MR114D5	58	MF596-1-AC	G1C240000-484 (565-1LCS)	20	1613B/WATER	1.00000	L
24MR114D5	59	MF596-1-AA	G1C240000-484 (565-1MB)	20	1613B/WATER	1.00000	L
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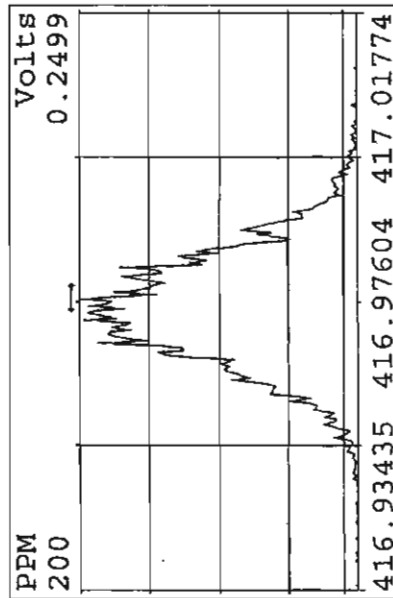
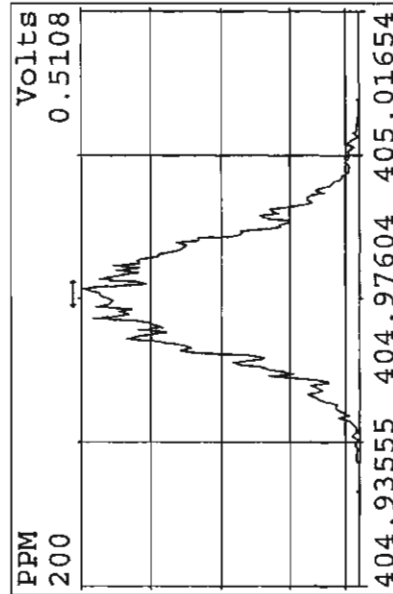
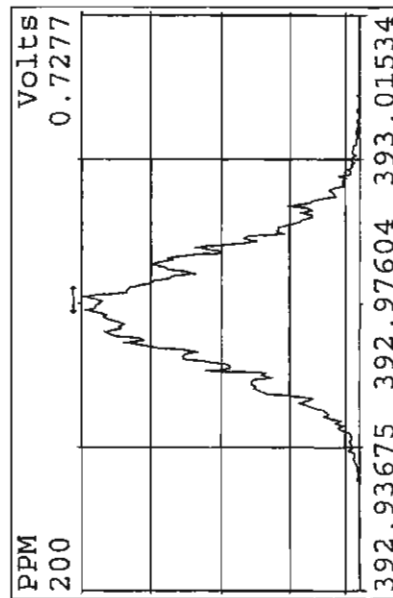
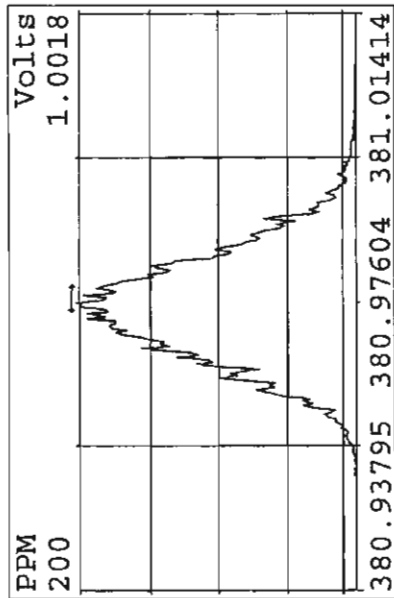
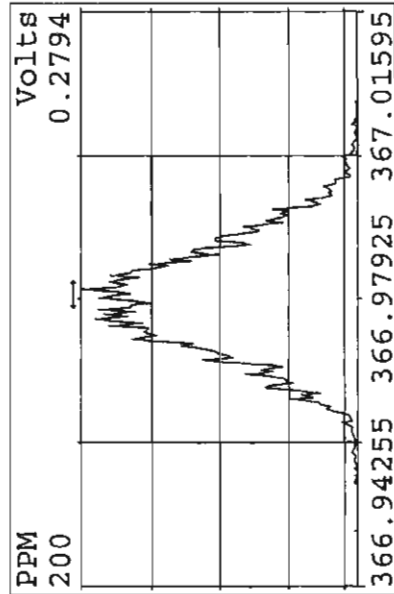
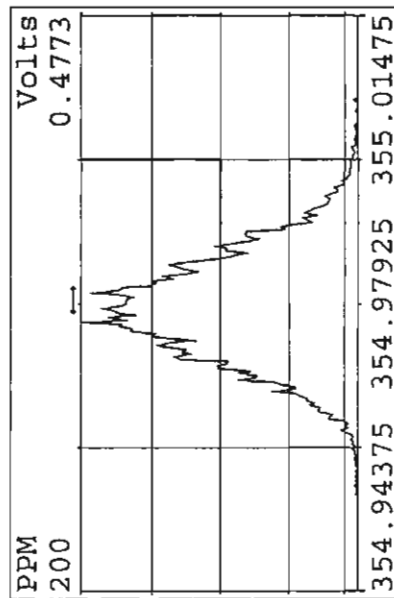
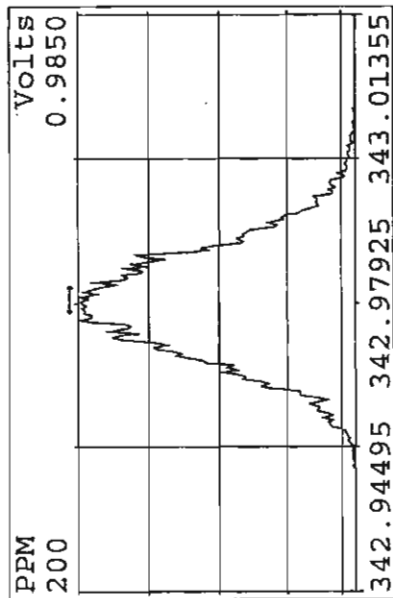
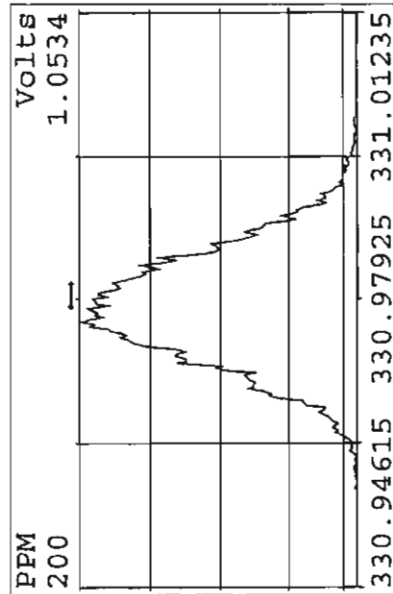
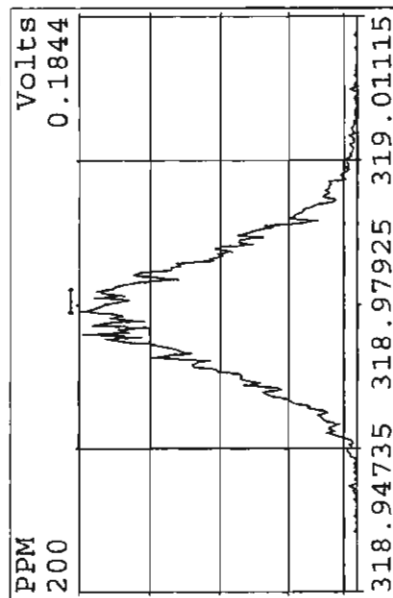
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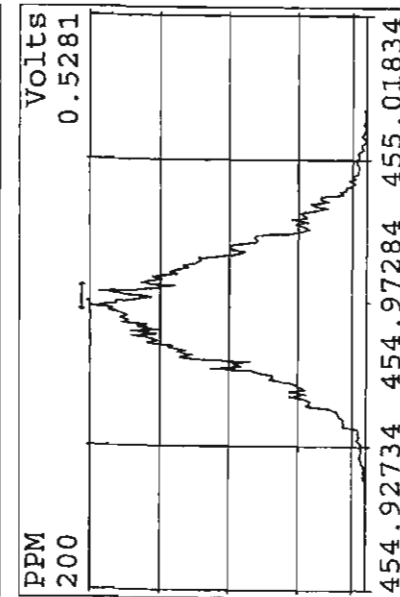
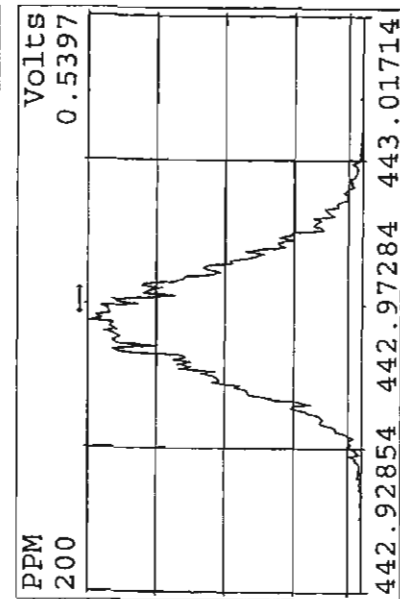
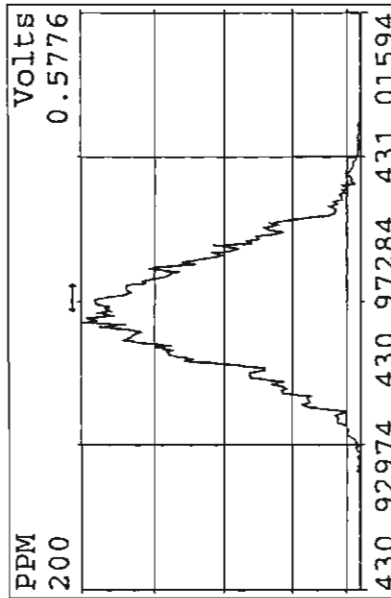
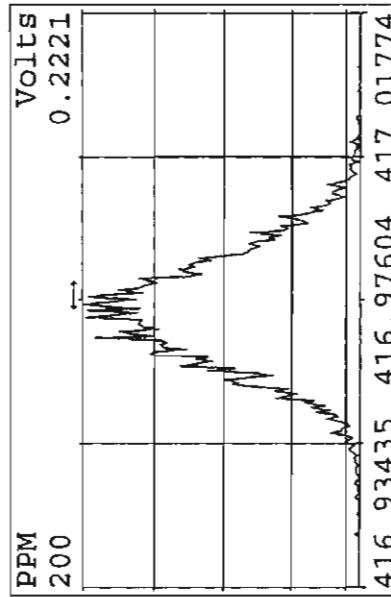
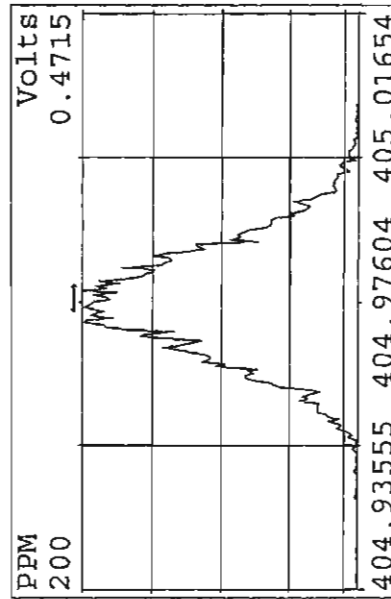
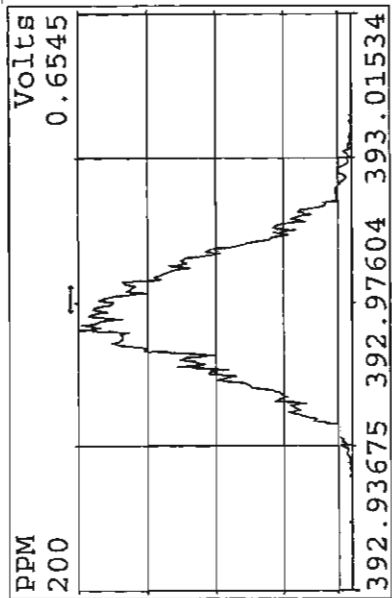
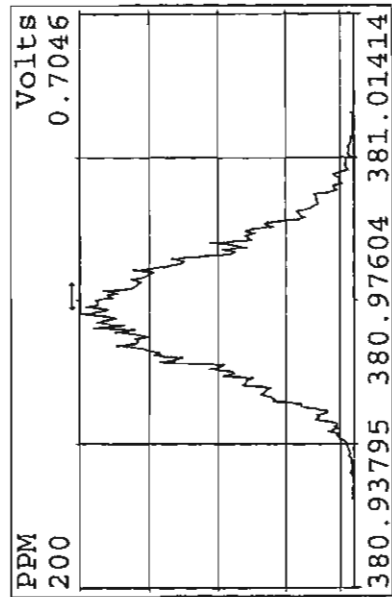
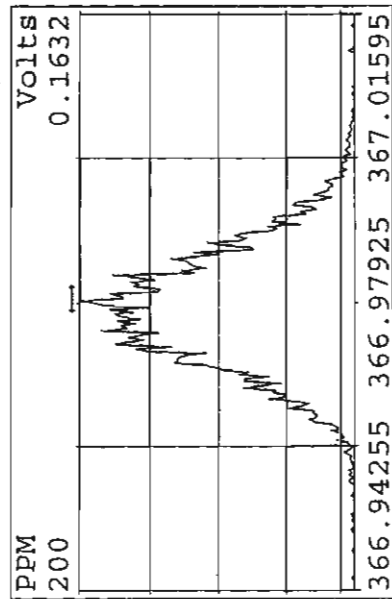
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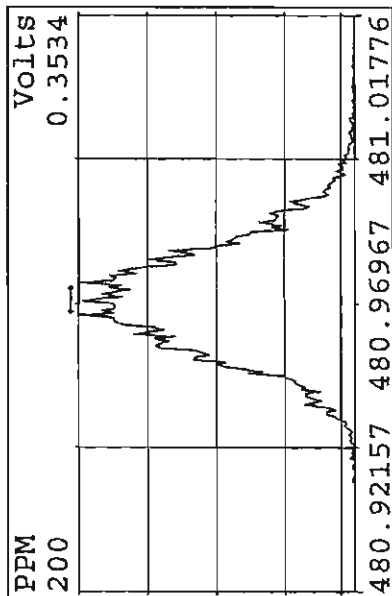
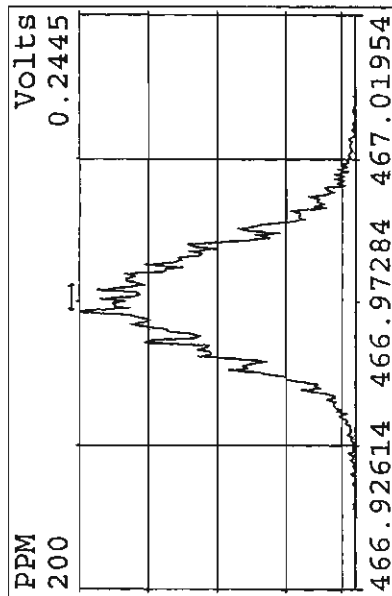
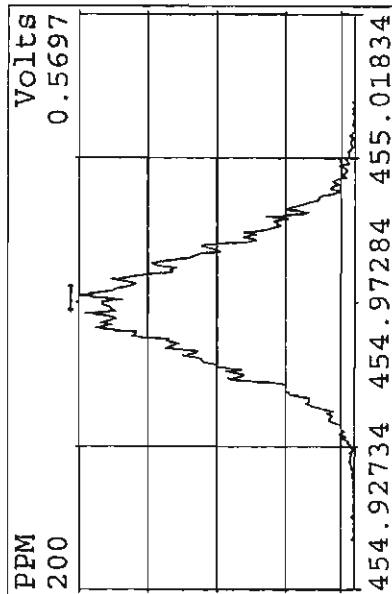
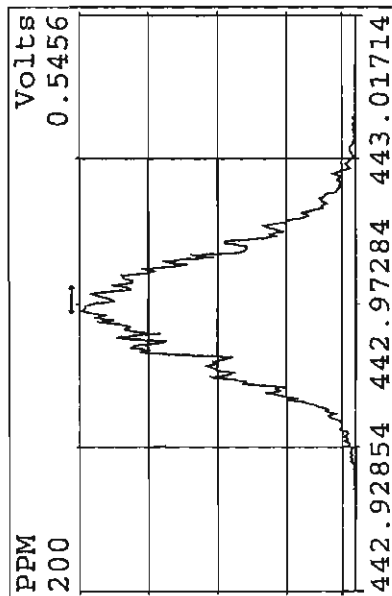
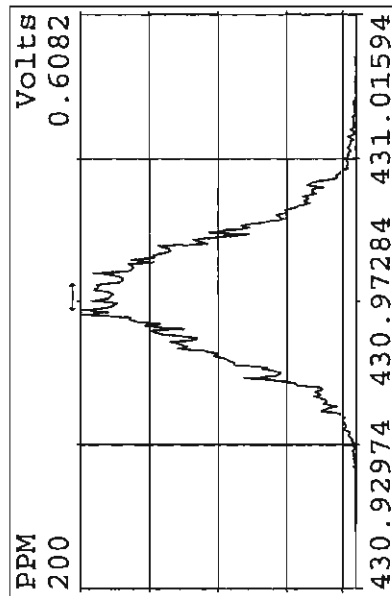
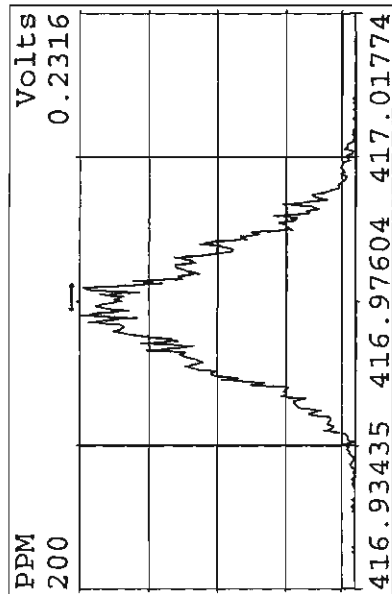
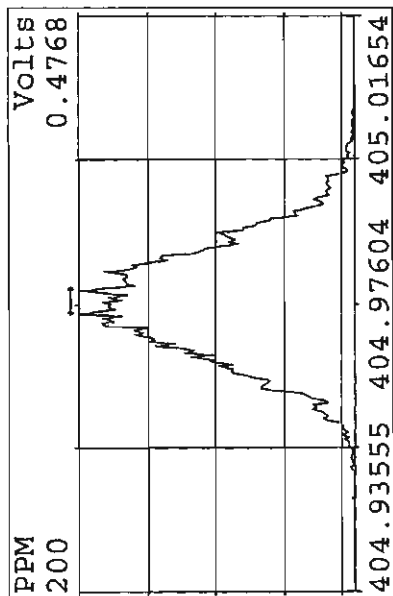
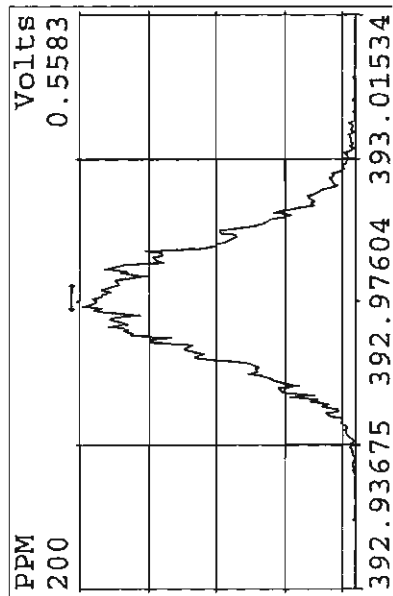
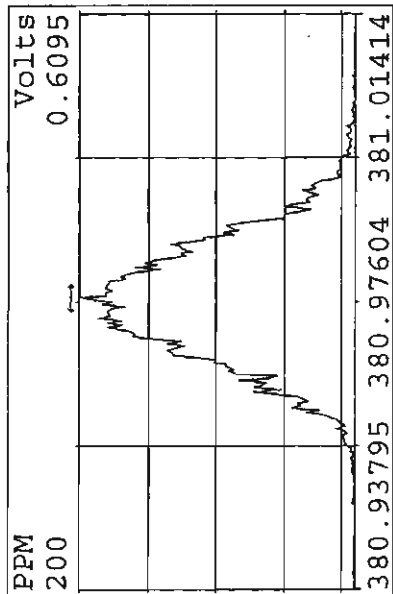
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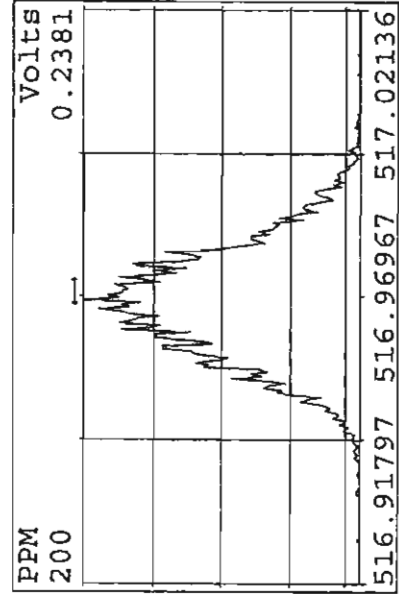
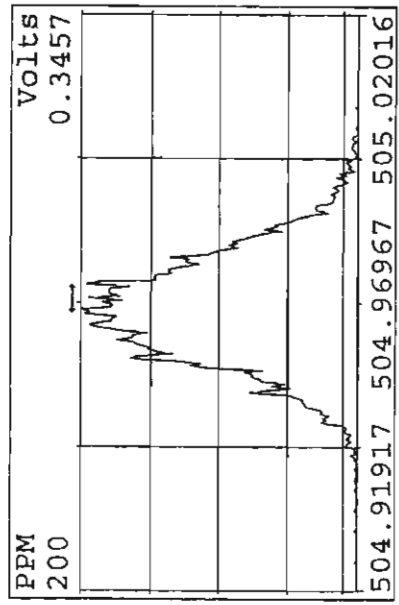
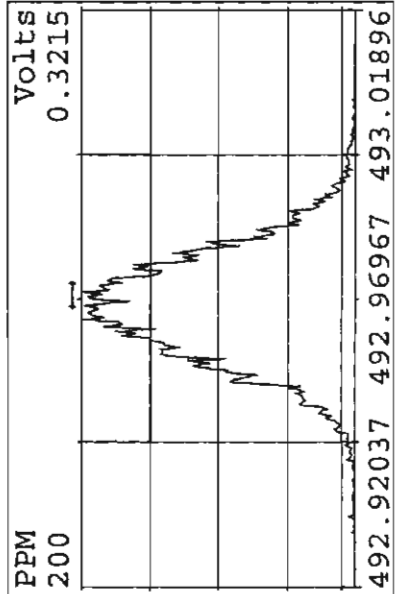
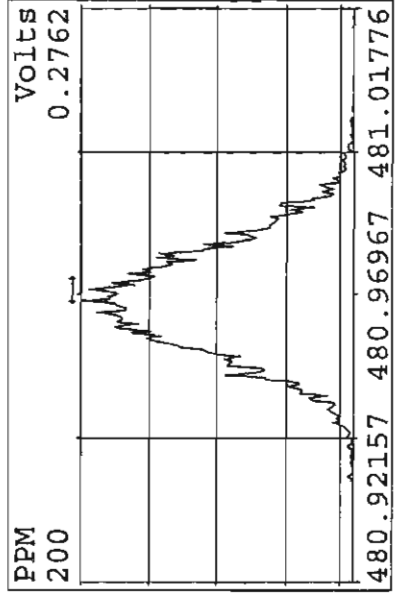
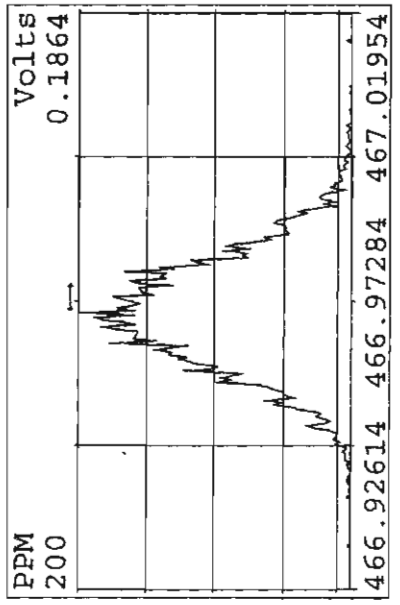
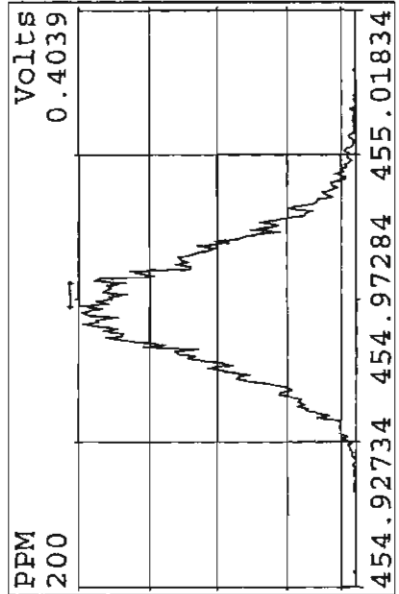
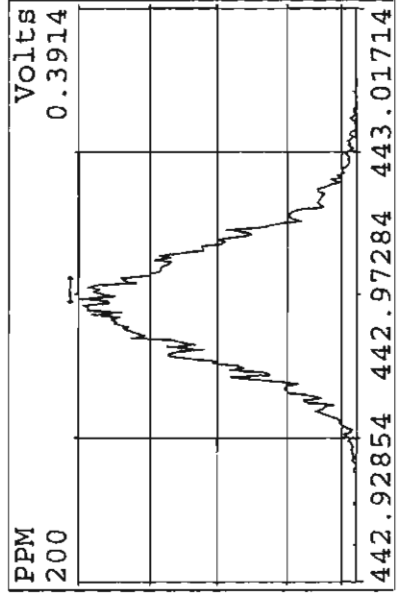
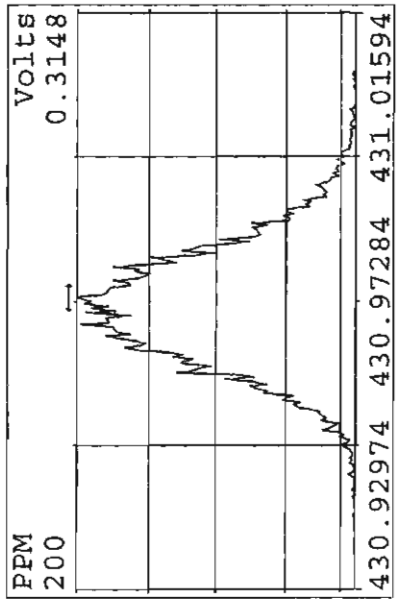
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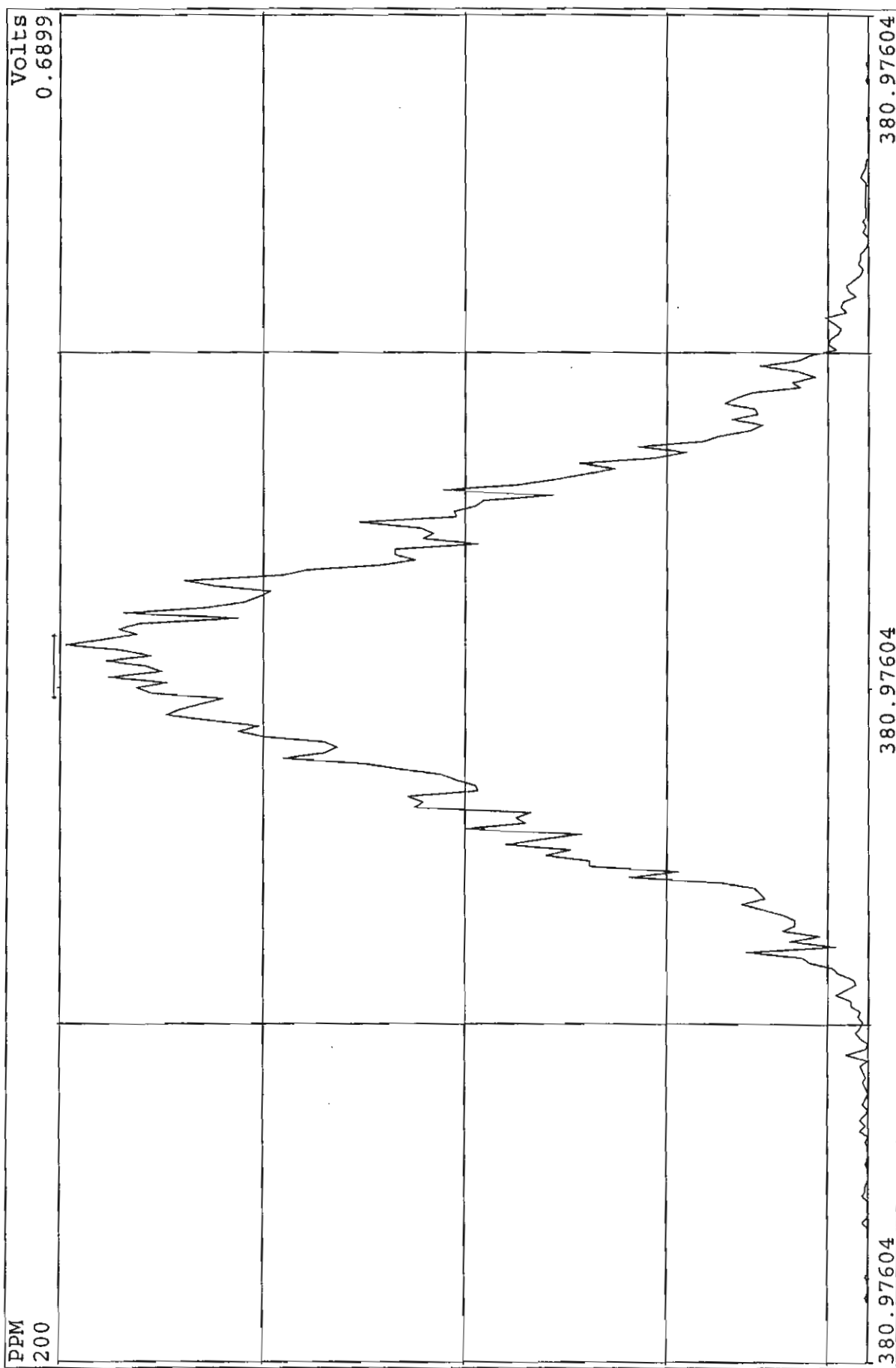
Peak Locate Examination:24-MAR-2011:10:22 File:24MR114D5
Experiment:DIOXINRES Function:4 Reference:PFK



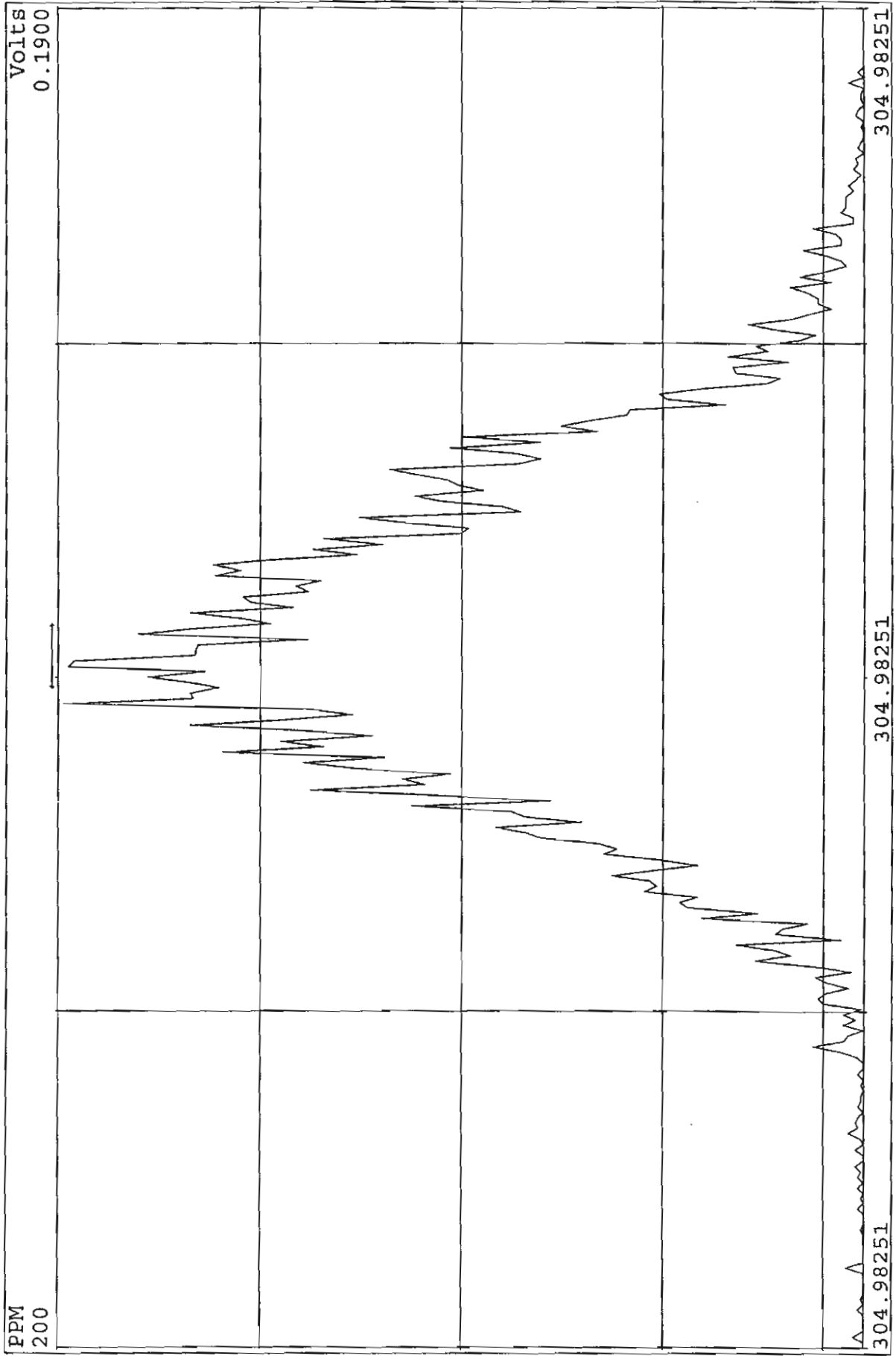
Peak Locate Examination:24-MAR-2011:10:22 File:24MR114D5
Experiment:DIOXINRES Function:5 Reference:PFK



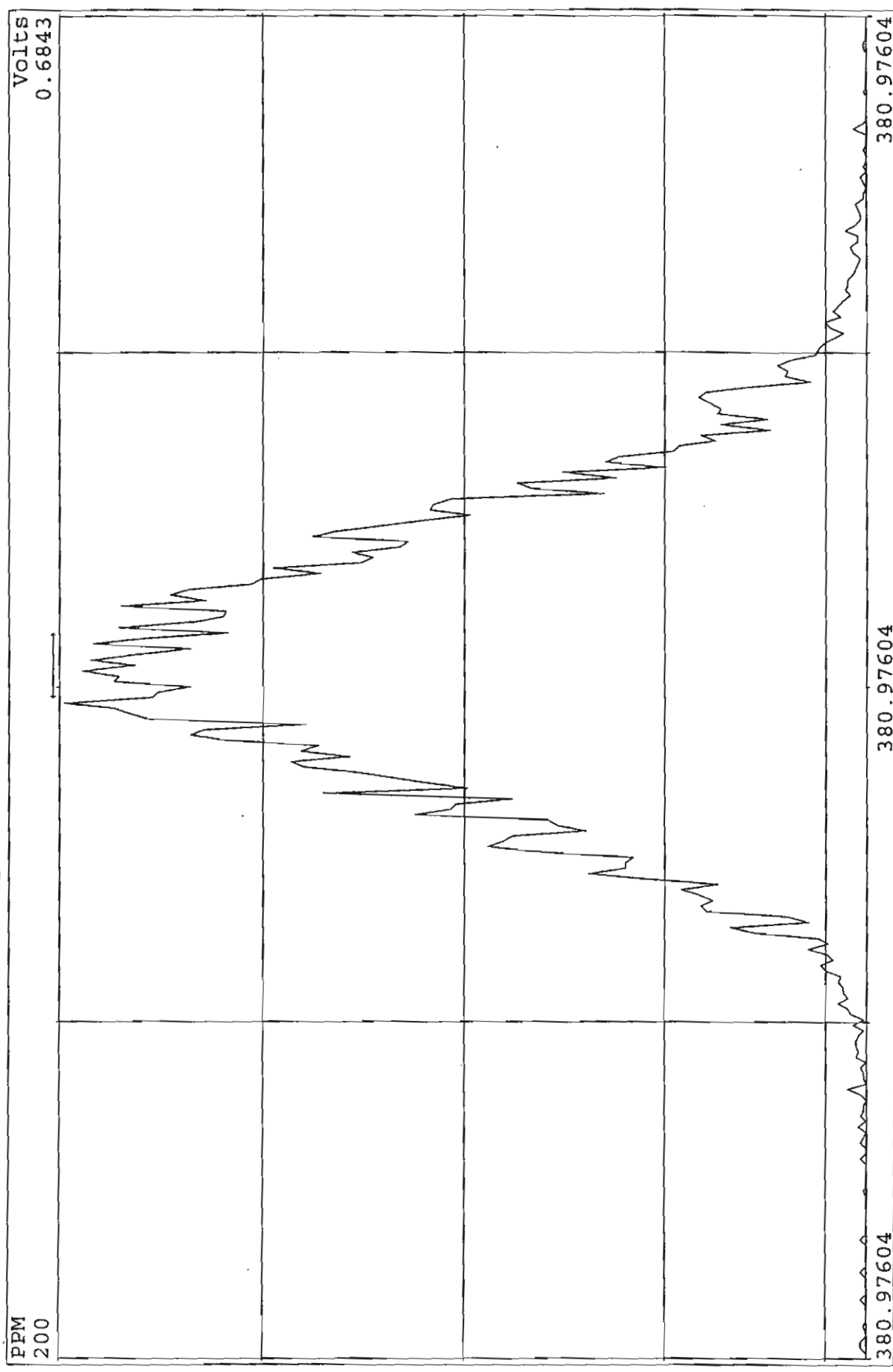
SIRLM Examination: 24-MAR-2011: 20:43 File: 24MR114D5
Experiment: DIOXINRES Function: 6



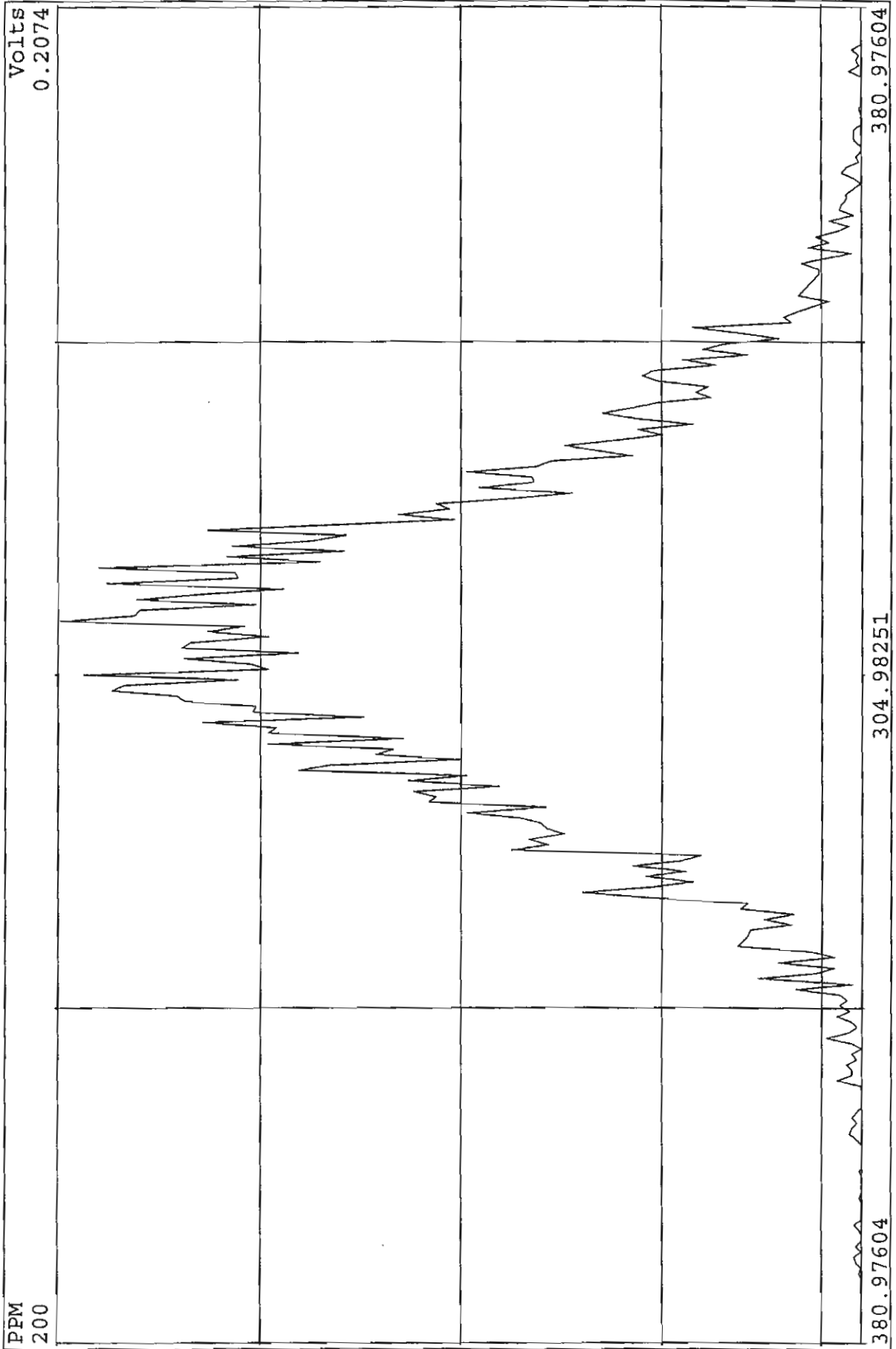
SIRIM Examination: 24-MAR-2011:20:44 File: 24MR114D5
Experiment: DIOXINRES Function: 7



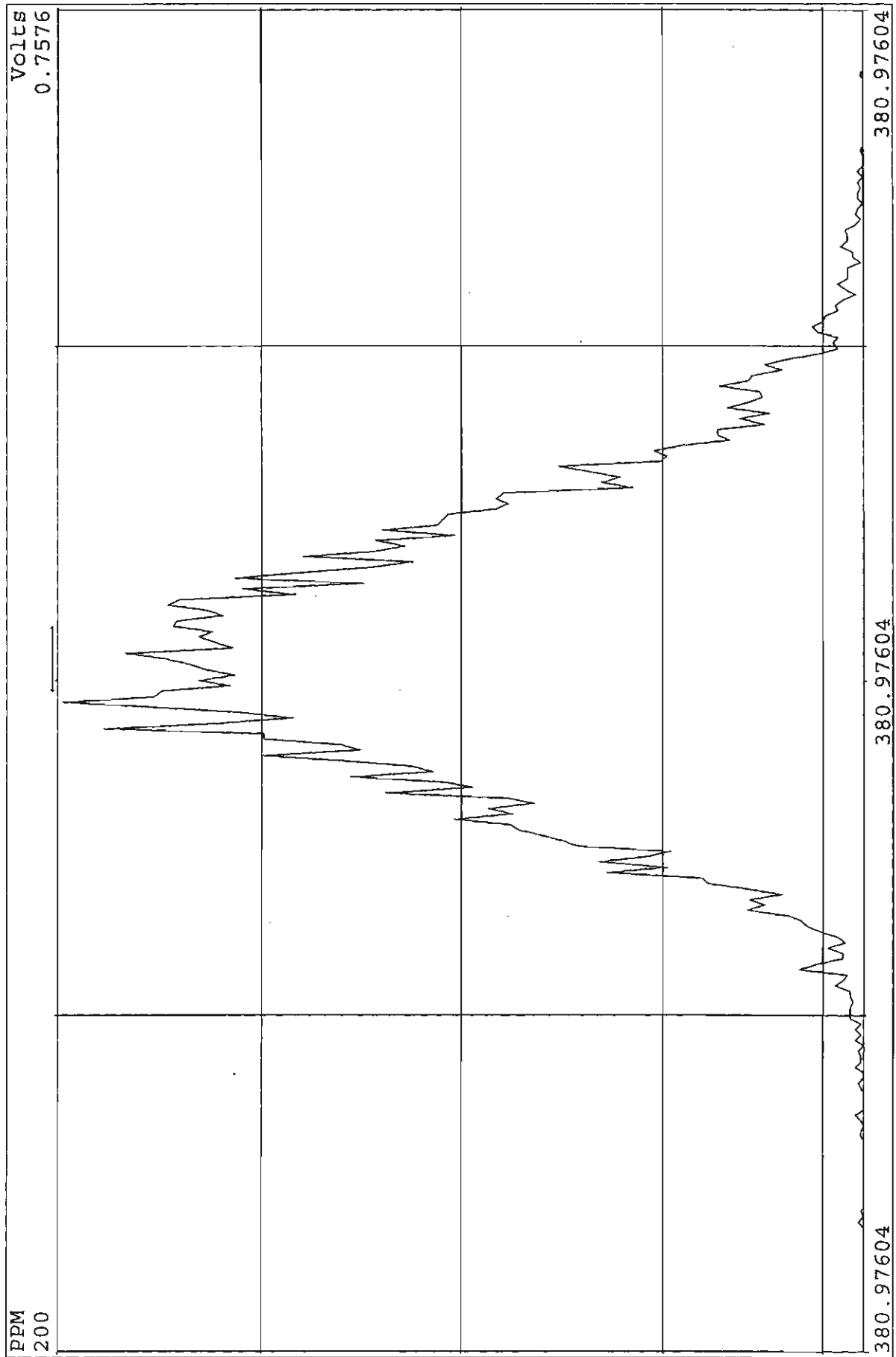
SIRLM Examination:24-MAR-2011:21:27 File:24MR114D5
Experiment:DIOXINRES Function:6



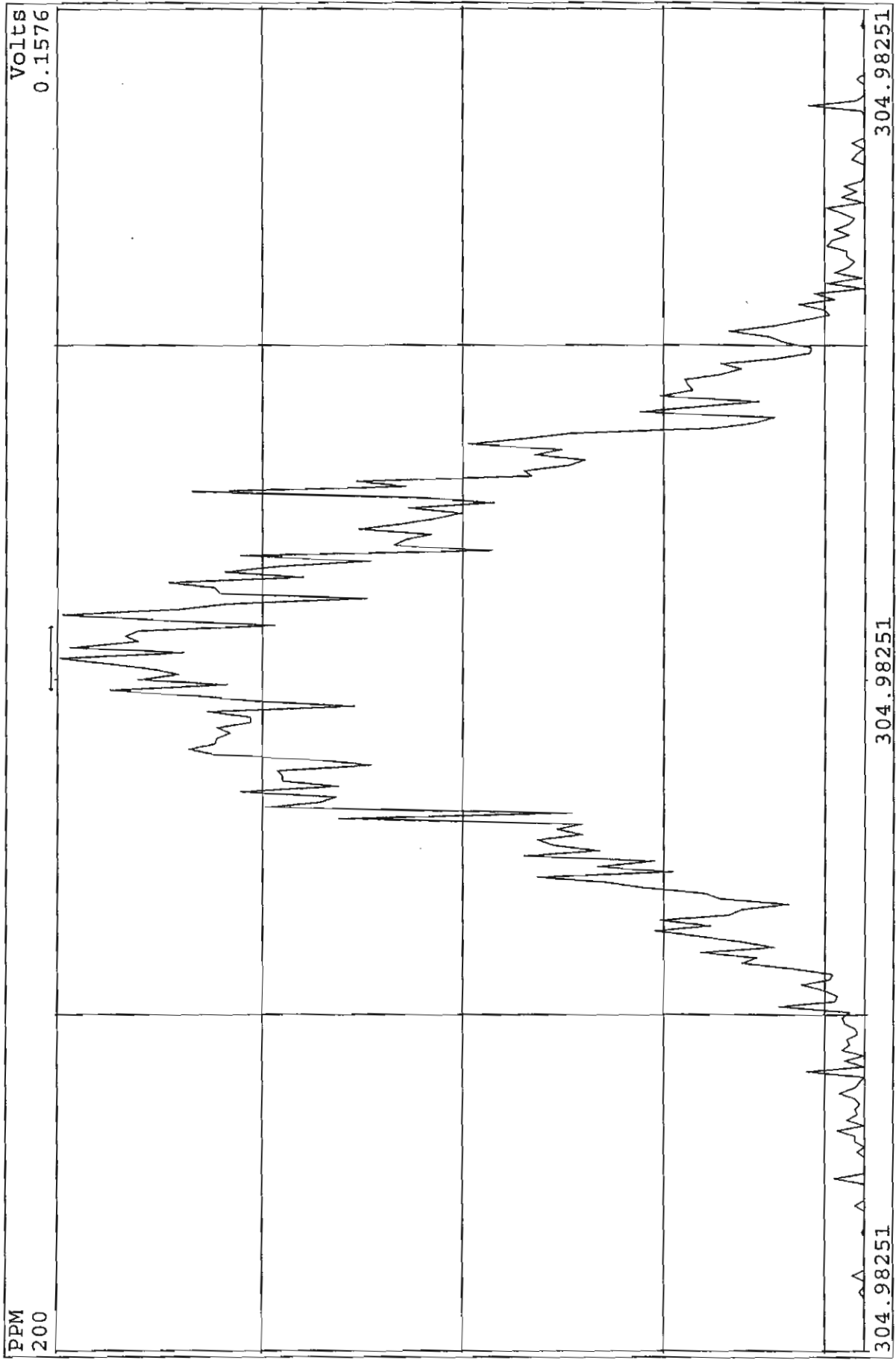
SIRLM Examination: 24-MAR-2011: 21:29 File: 24MR114D5
Experiment: DIOXINRES Function: 7



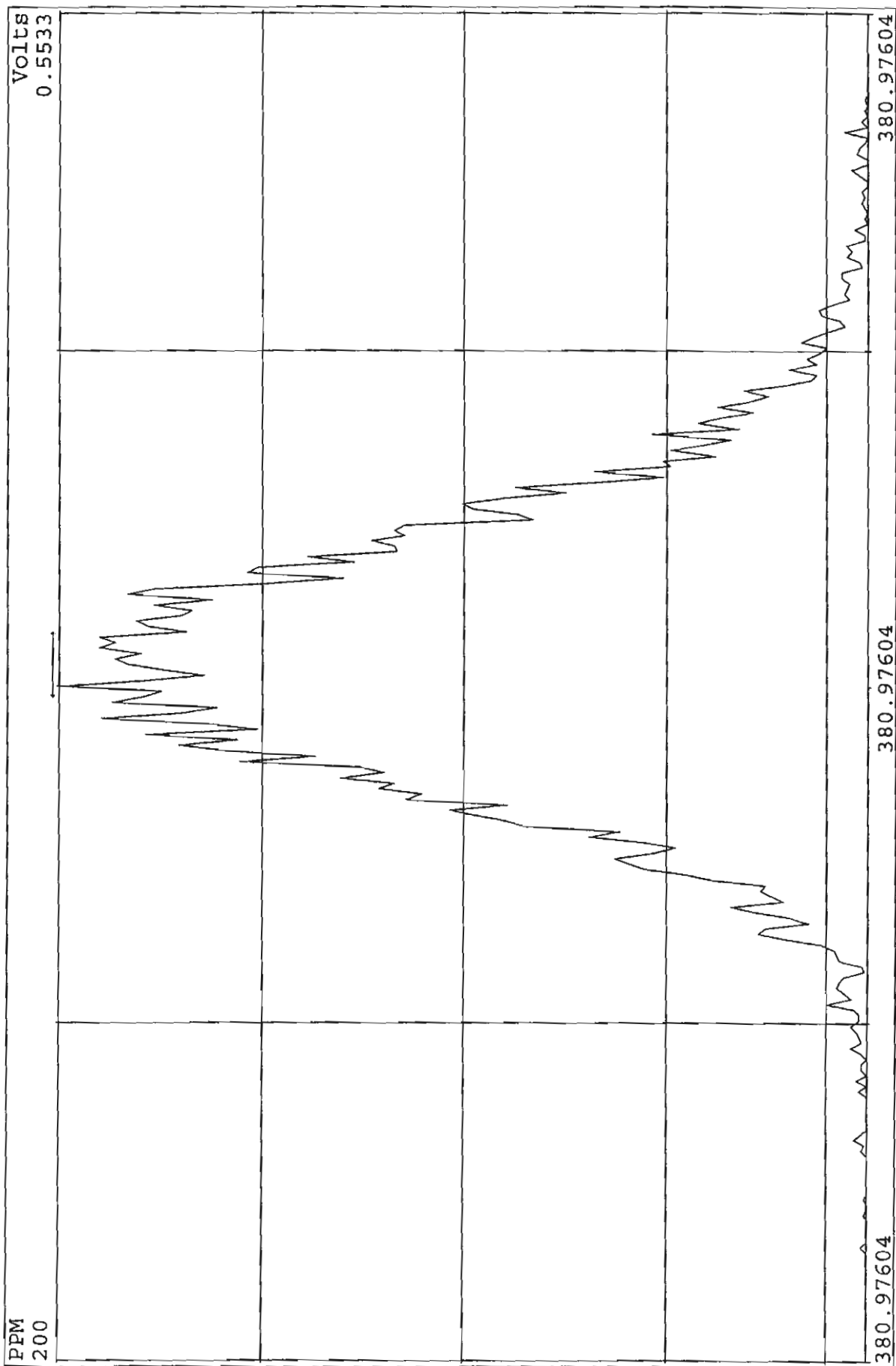
SIRLM Examination: 25-MAR-2011:07:50 File: 24MR114D5
Experiment: DIOXINRES Function: 6



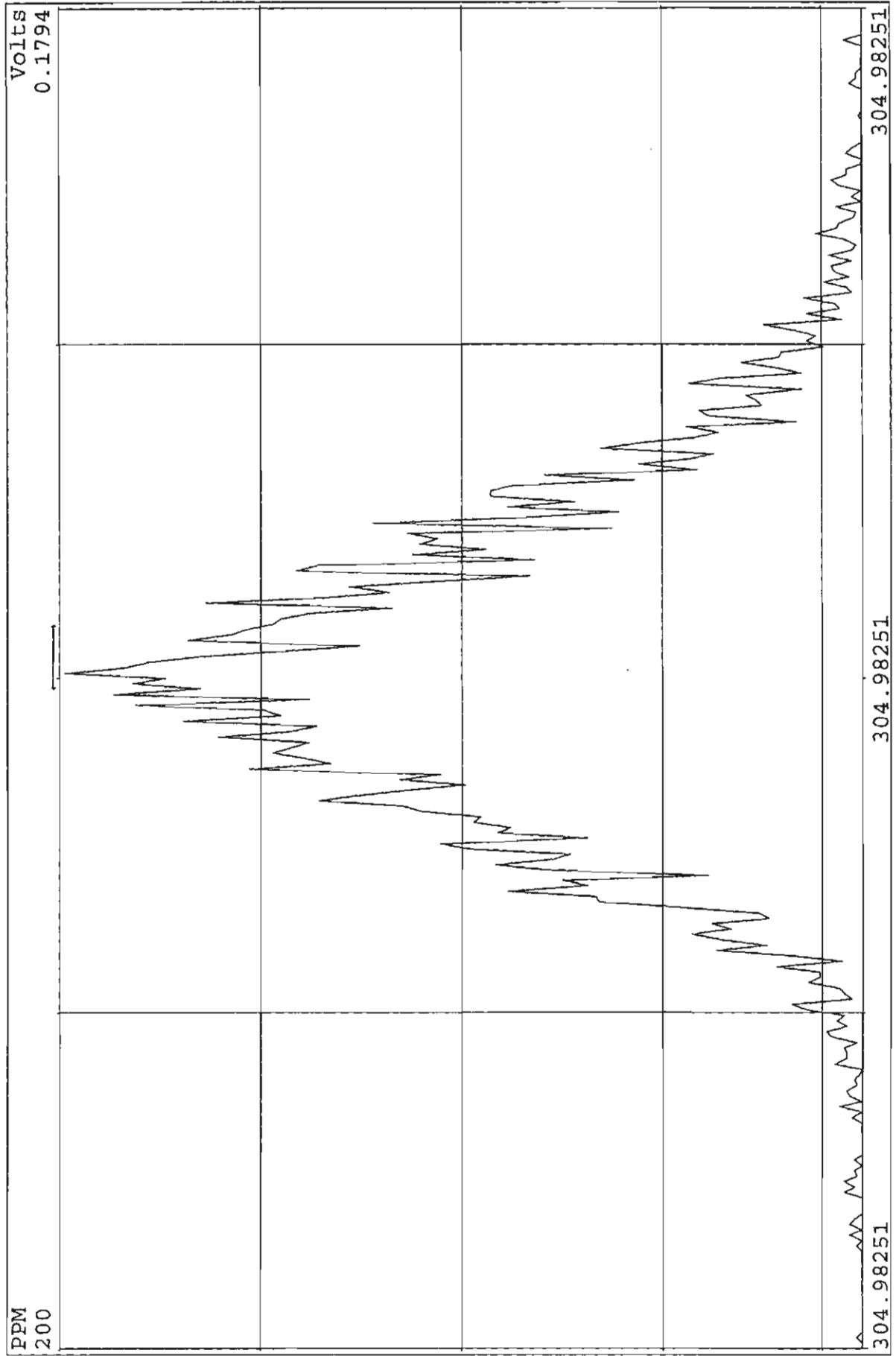
SIRLM Examination: 25-MAR-2011: 07:51 File: 24MR114D5
Experiment: DIOXINRES Function: 7



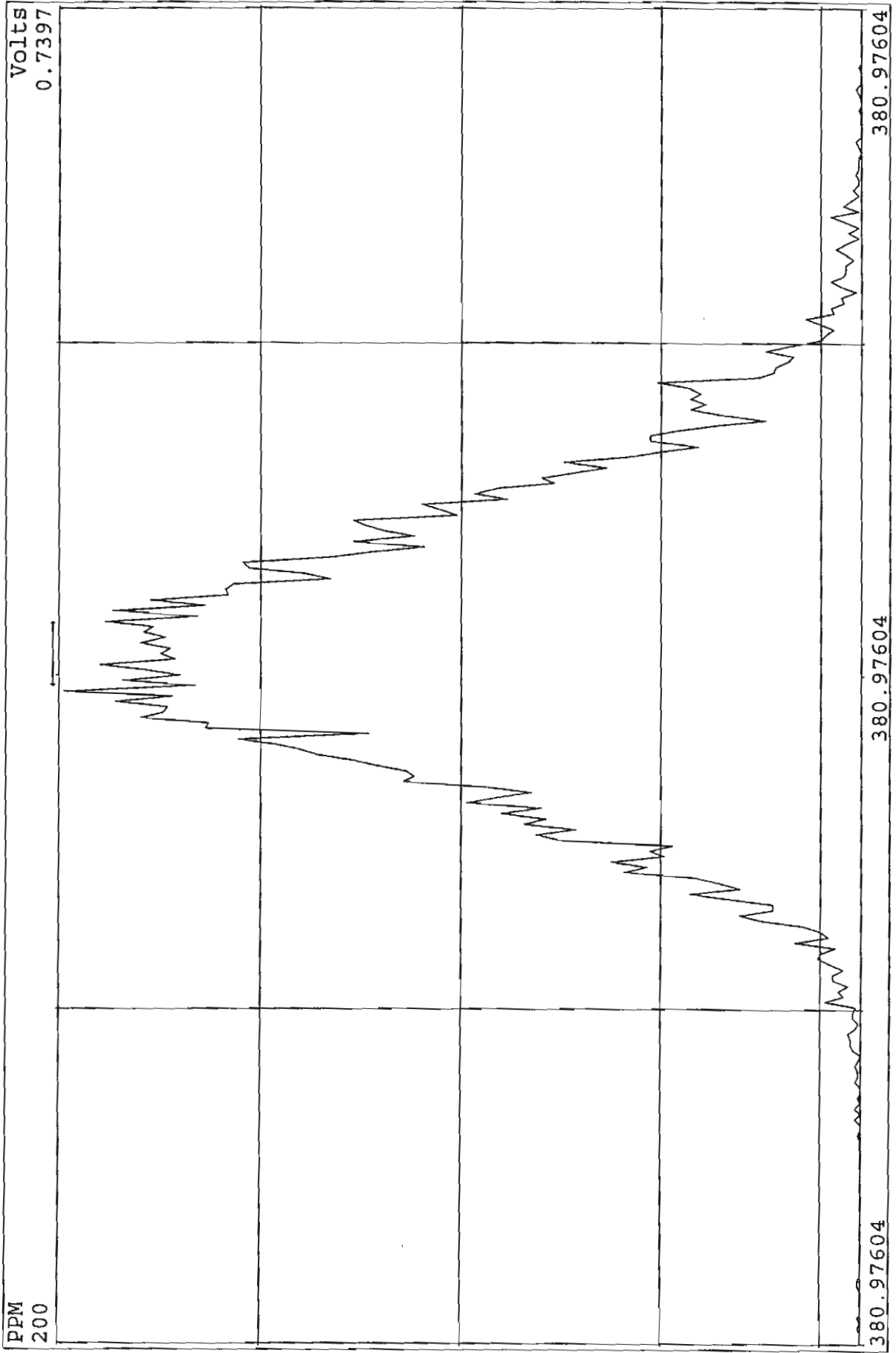
SIRLM Examination: 25-MAR-2011:08:35 File: 24MR114D5
Experiment: DIOXINRES Function: 6



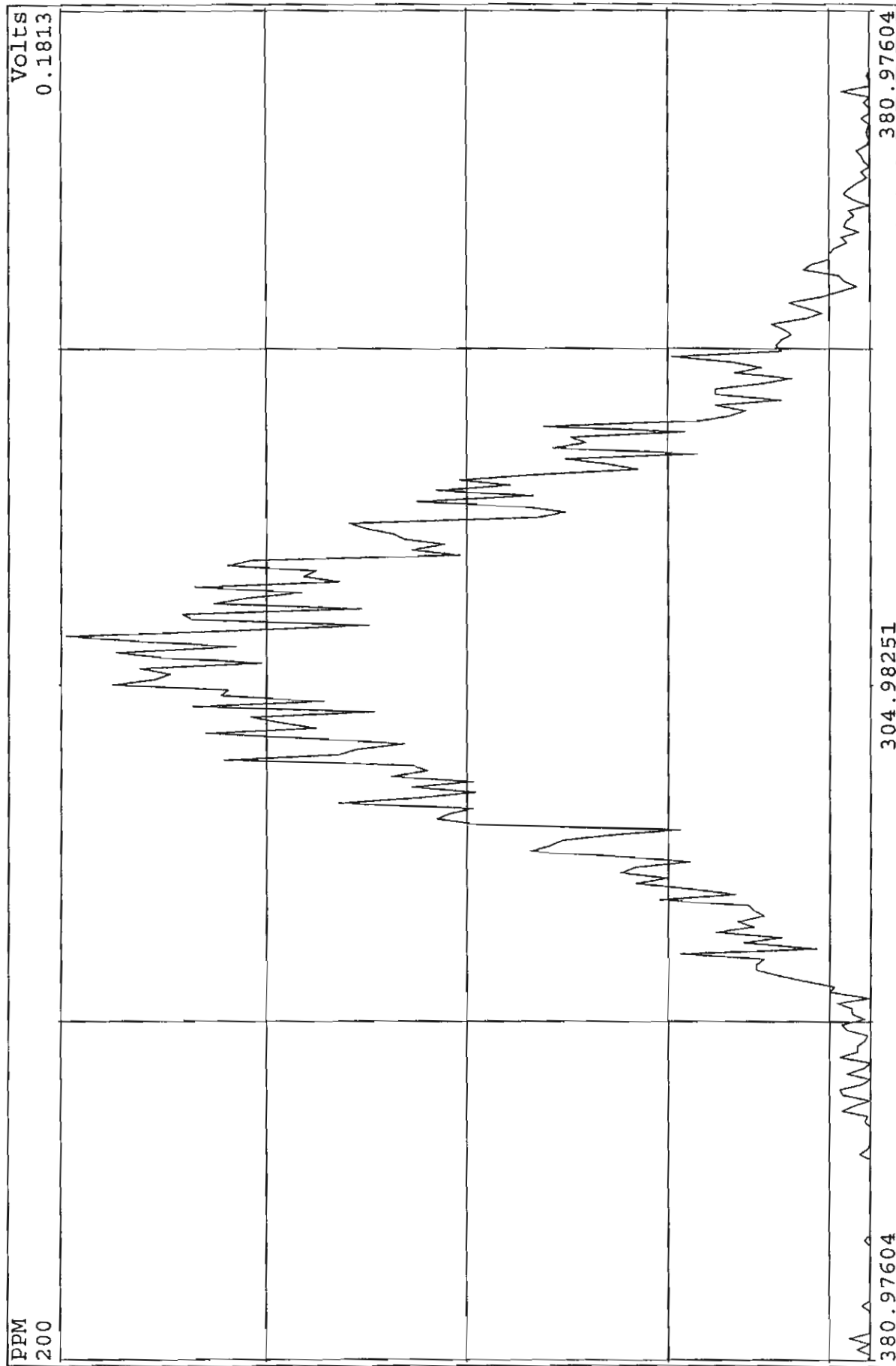
SIRLM Examination: 25-MAR-2011: 08:35 File: 24MR114D5
Experiment: DIOXINRES Function: 7



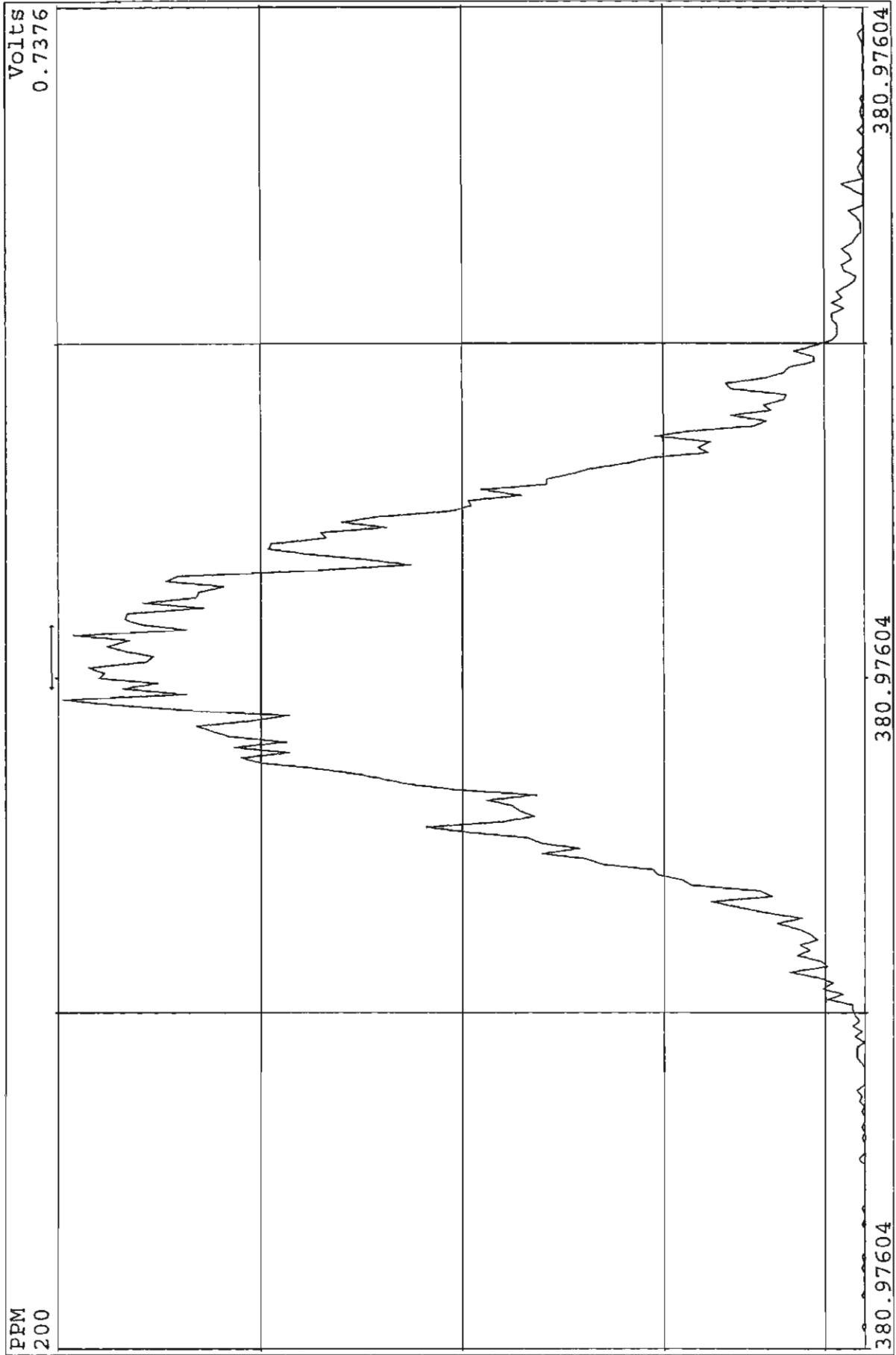
SIRLM Examination: 25-MAR-2011: 18:58 File: 24MR114D5
Experiment: DIOXINRES Function: 6



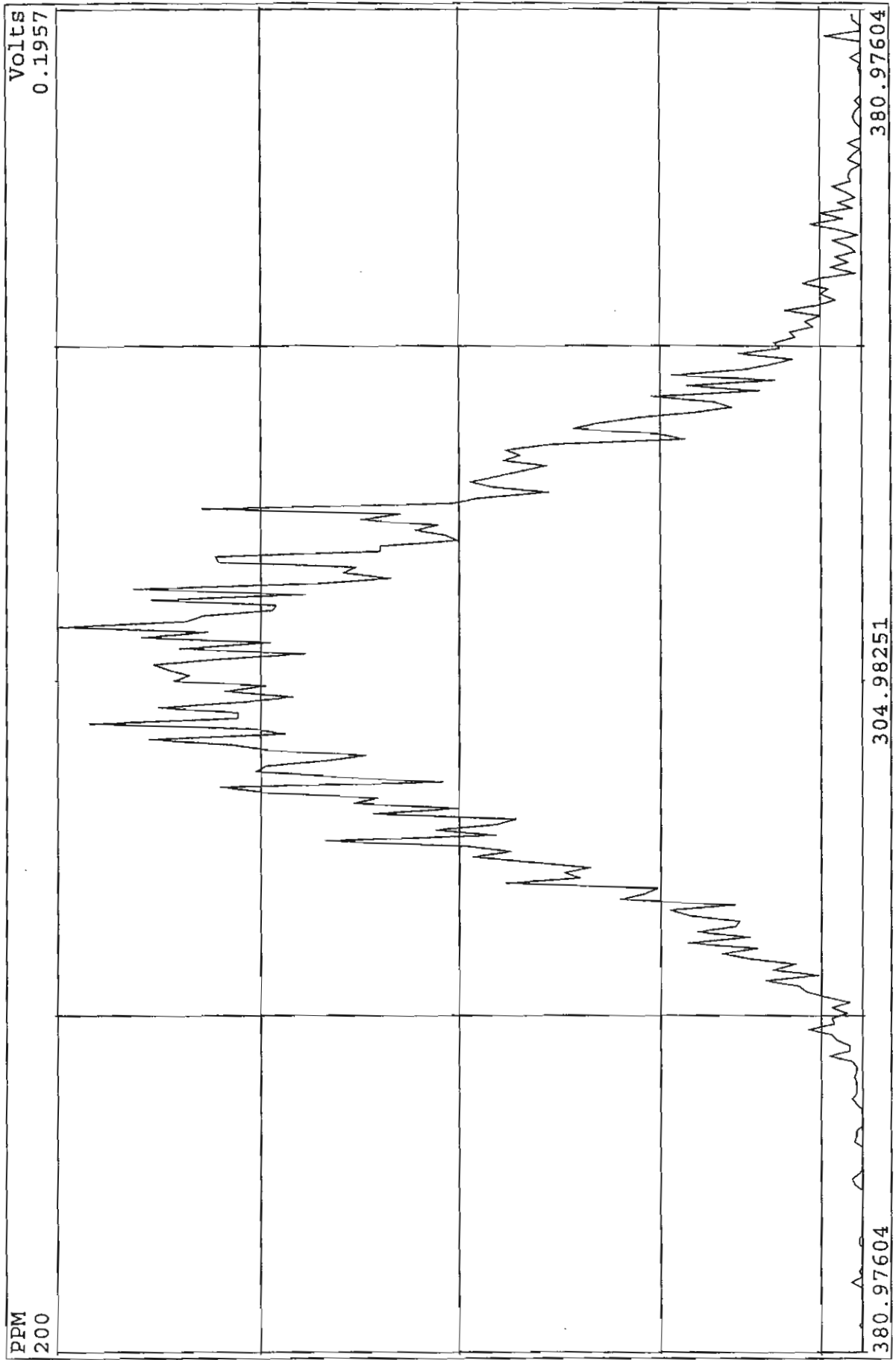
SIRLM Examination:25-MAR-2011:18:59 File:24MR114D5
Experiment:DIOXINRES Function:7



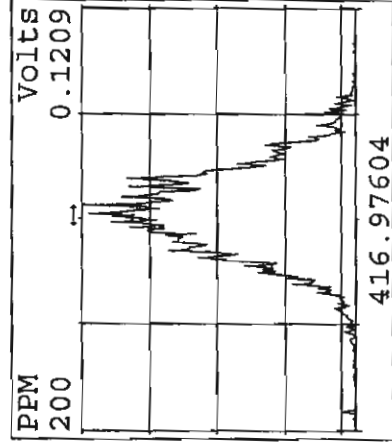
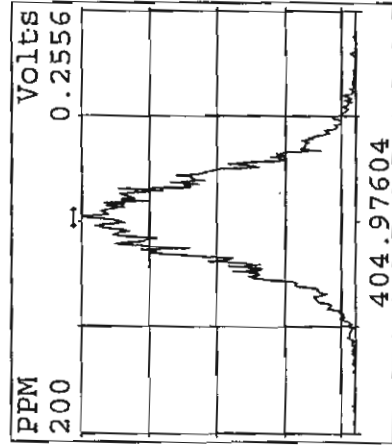
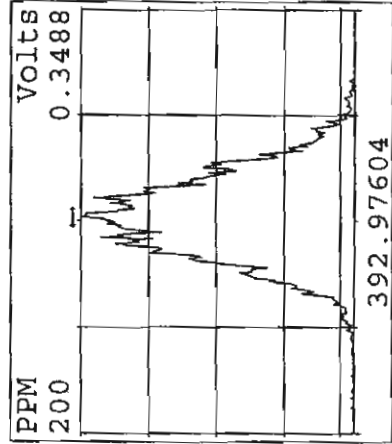
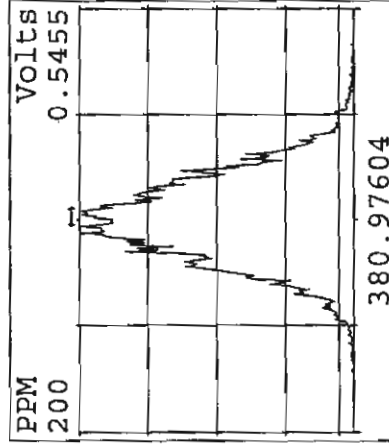
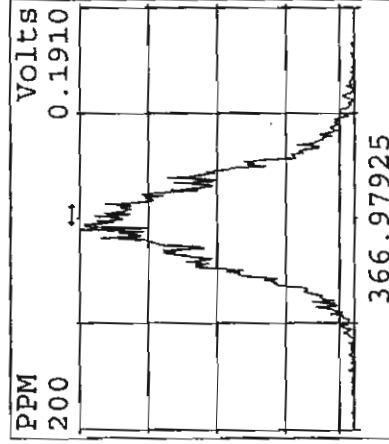
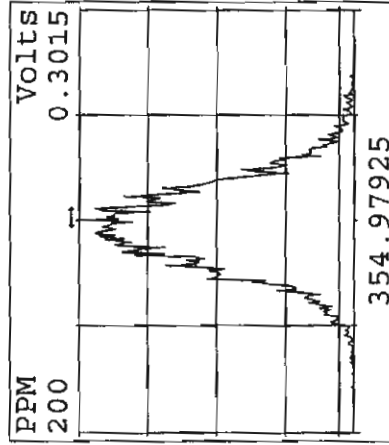
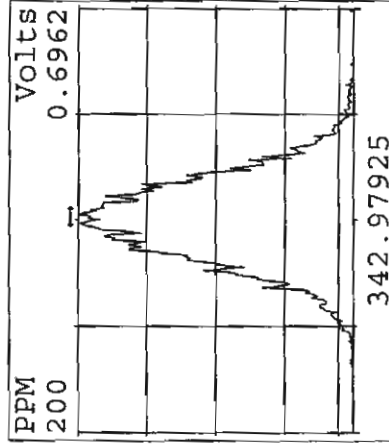
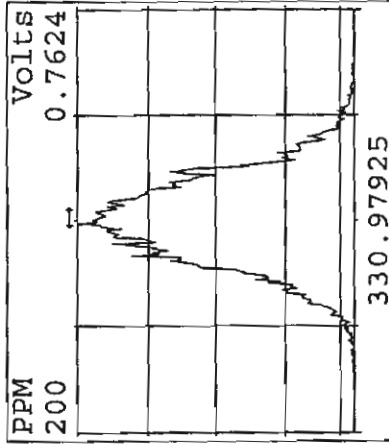
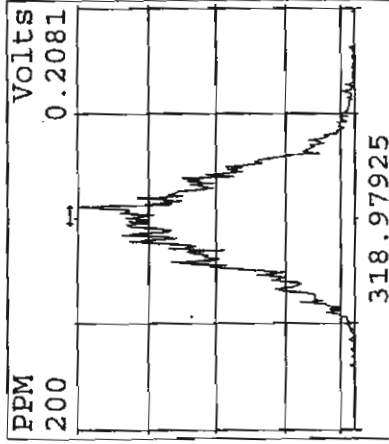
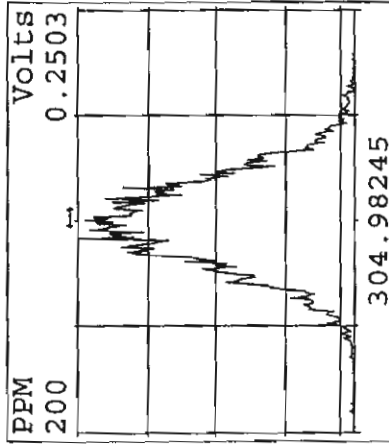
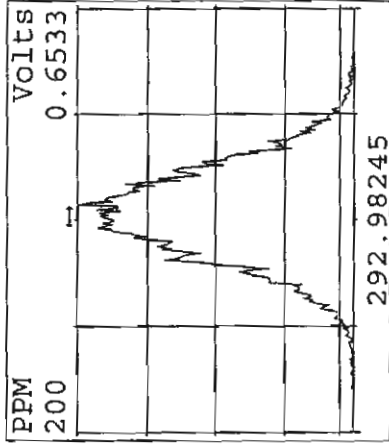
SIRLM Examination: 25-MAR-2011:19:43 File: 24MR114D5
Experiment: DIOXINRES Function: 6



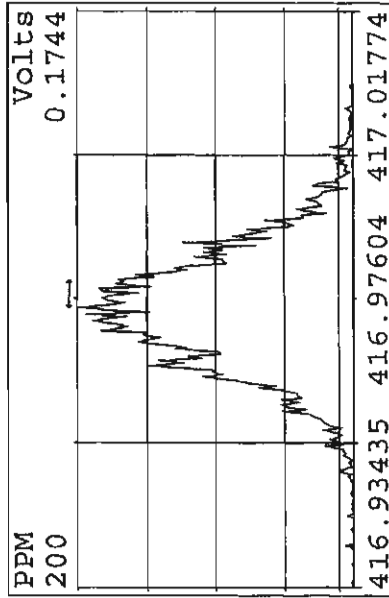
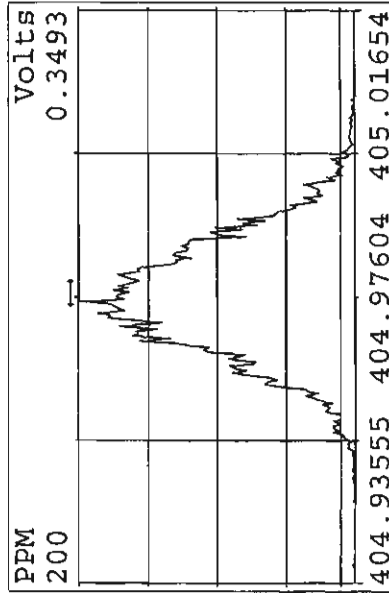
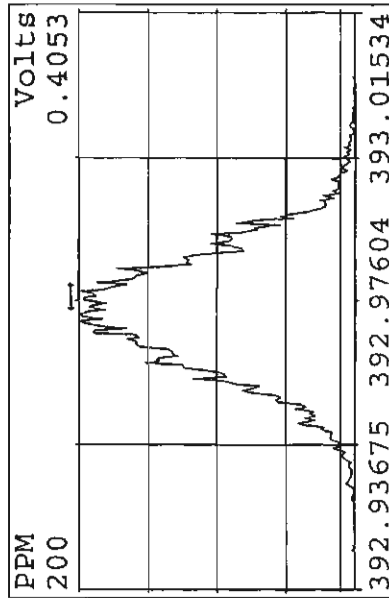
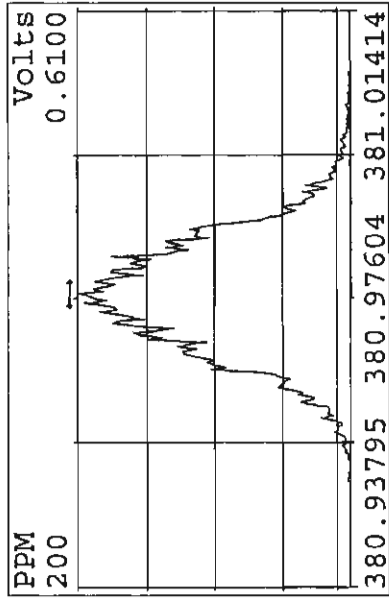
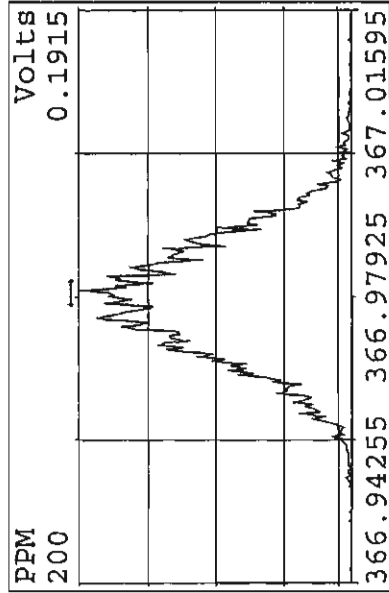
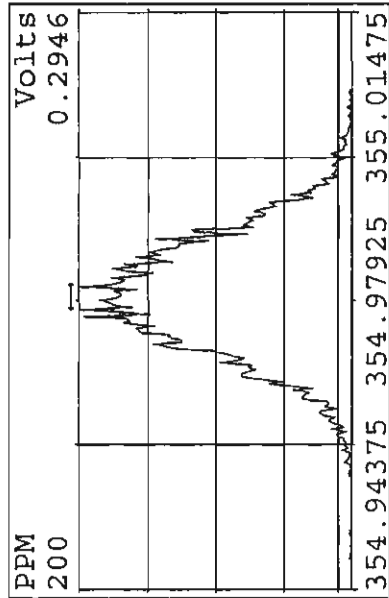
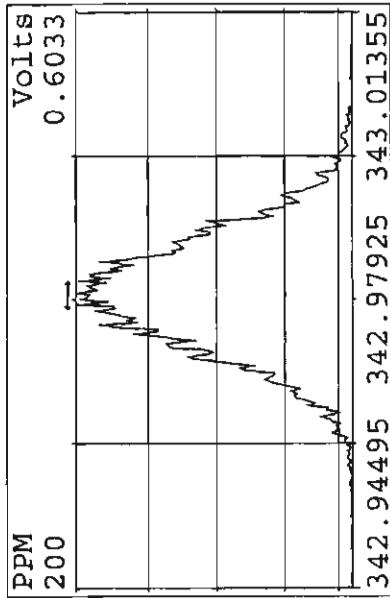
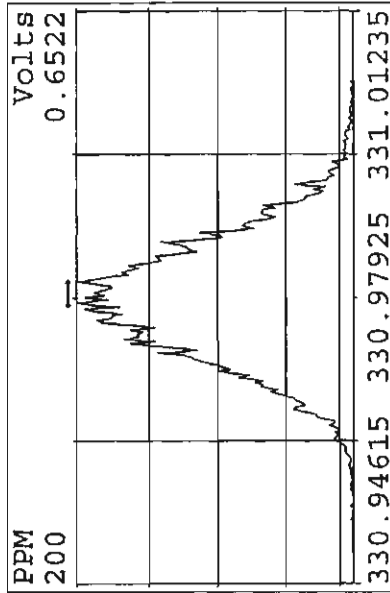
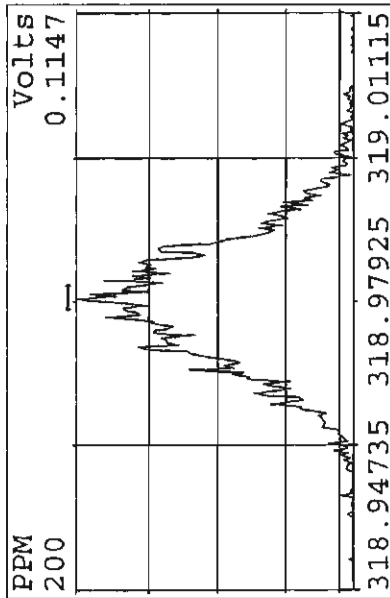
SIRLM Examination: 25-MAR-2011:19:44 File: 24MR114D5
Experiment: DIOXINRES Function: 7



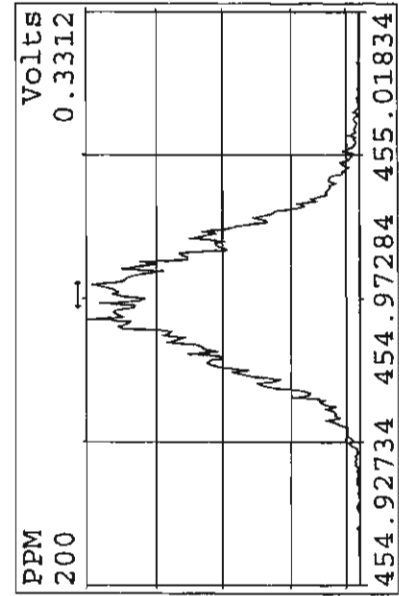
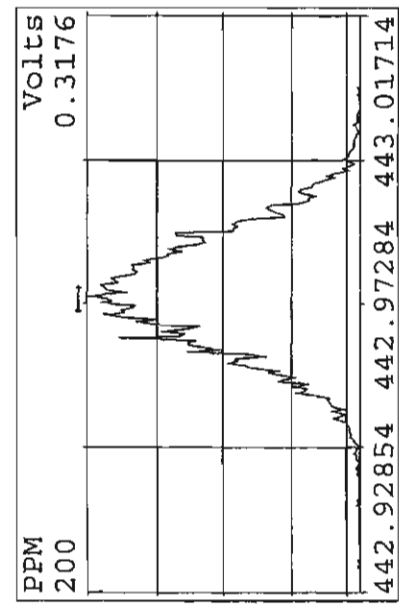
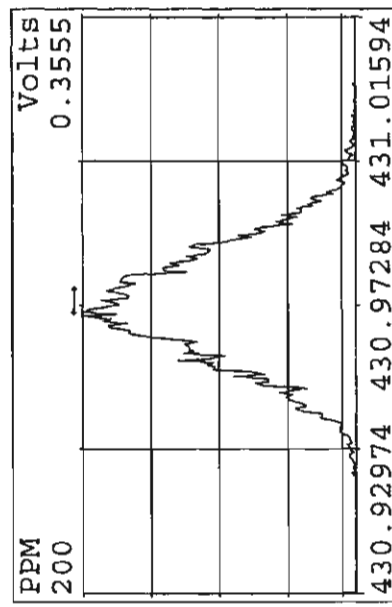
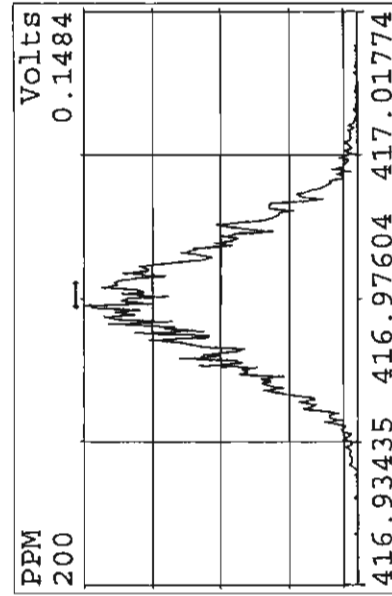
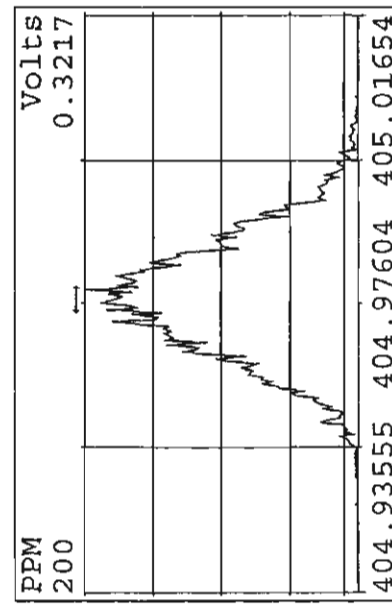
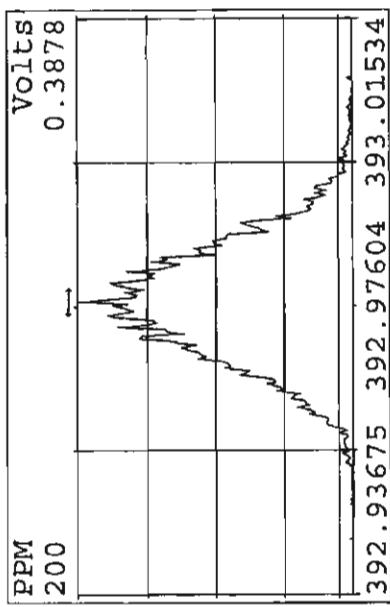
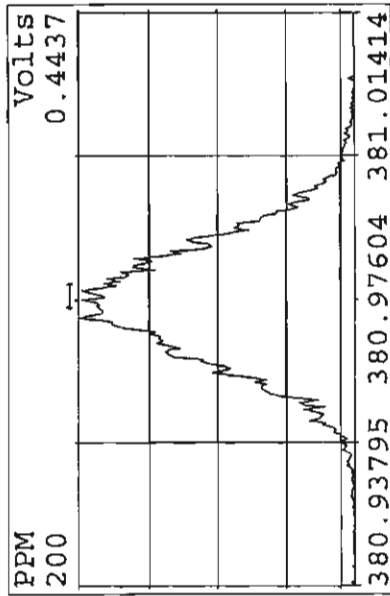
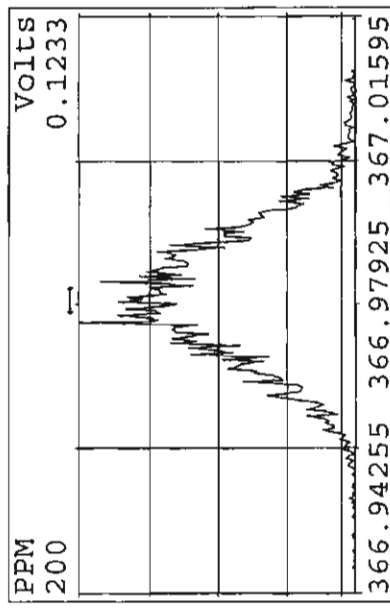
Peak Locate Examination:26-MAR-2011:07:29 File:RESCHECK4D5
Experiment:DIOXINRES Function:1 Reference:PFK



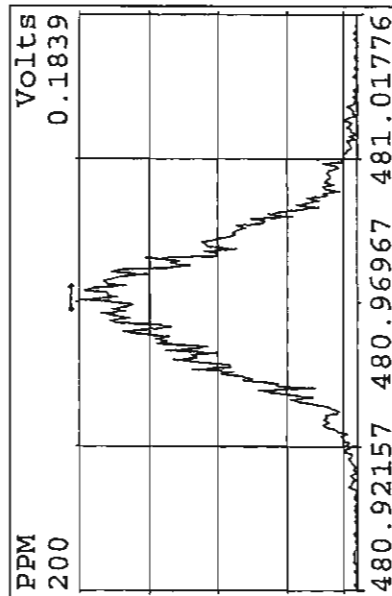
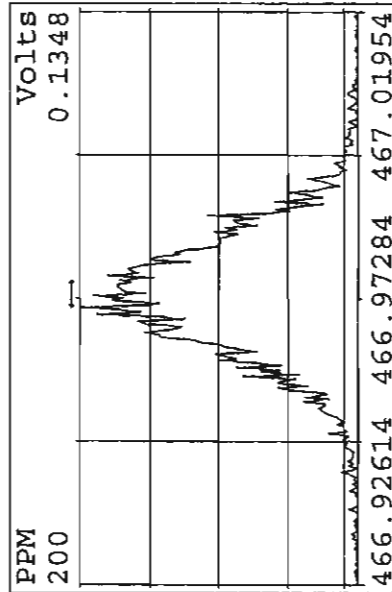
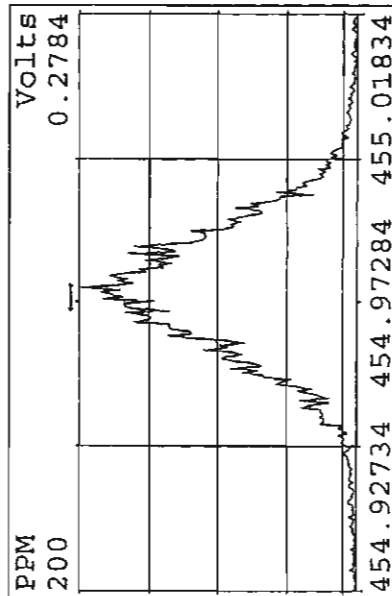
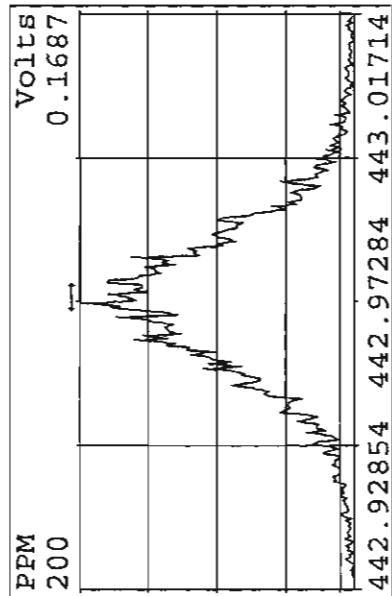
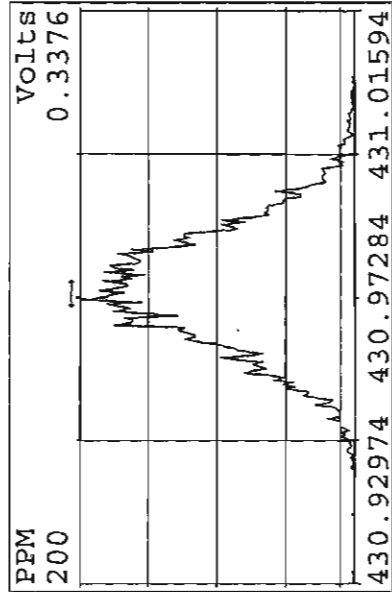
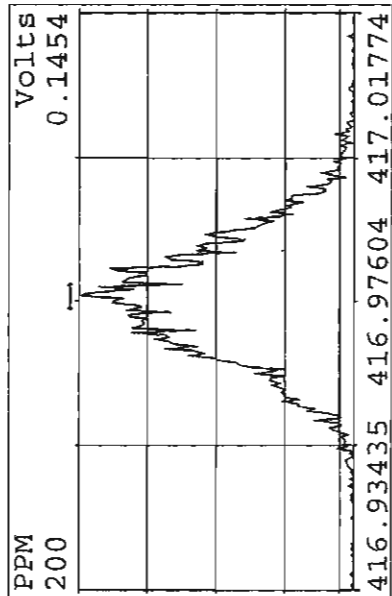
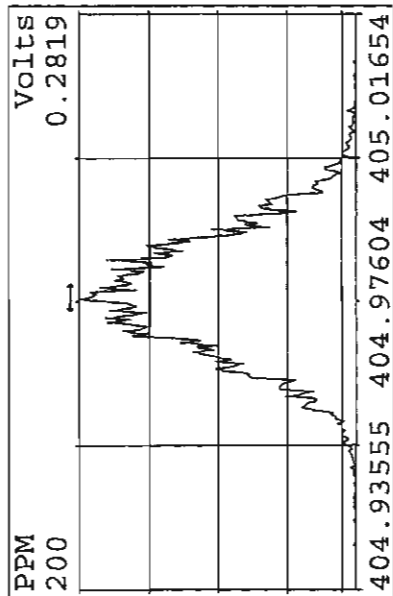
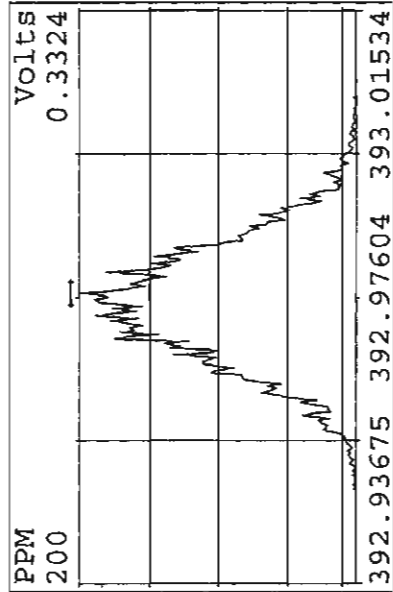
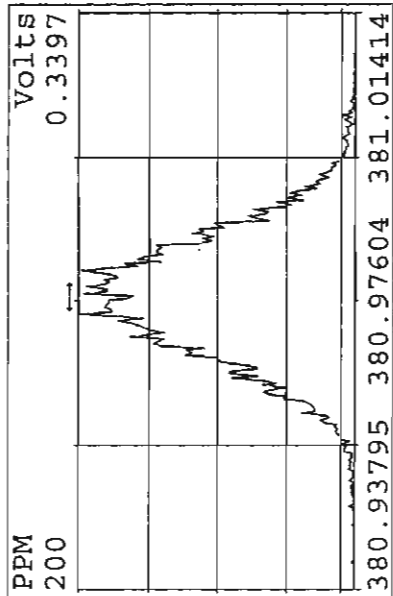
Peak Locate Examination:26-MAR-2011:07:30 File:RESCHECK4D5
Experiment:DIOXINRES Function:2 Reference:PFK



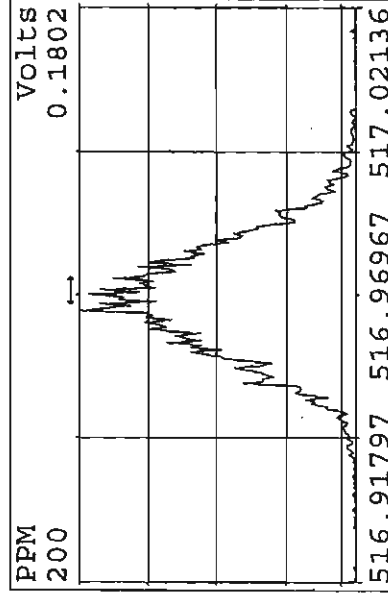
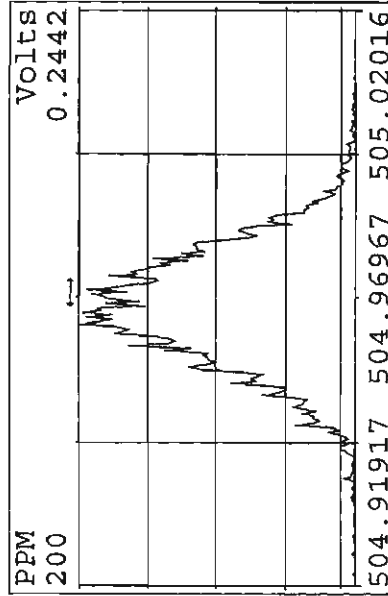
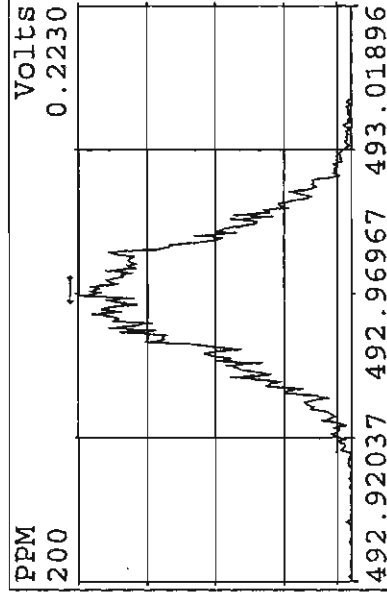
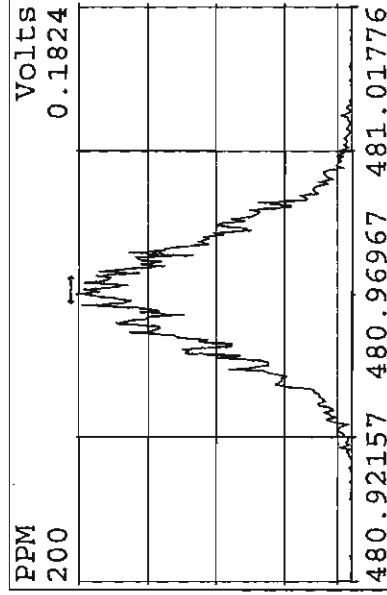
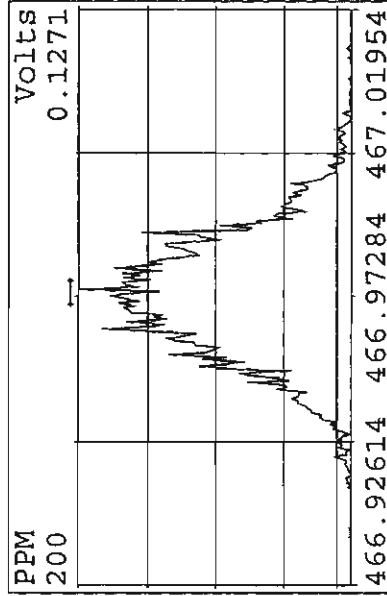
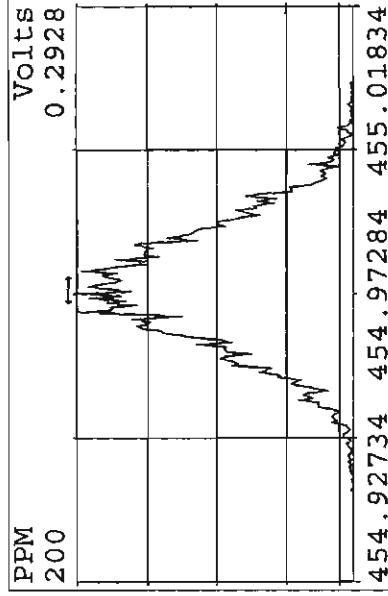
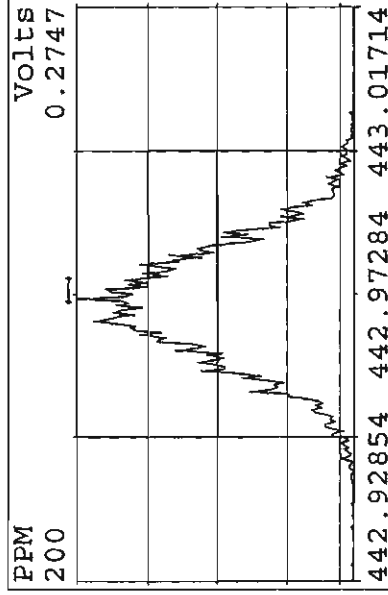
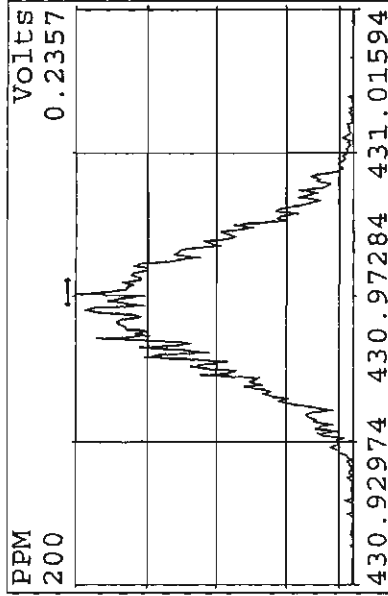
Peak Locate Examination:26-MAR-2011:07:30 File:RESCHECK4D5
Experiment:DIOXINRES Function:3 Reference:PFK



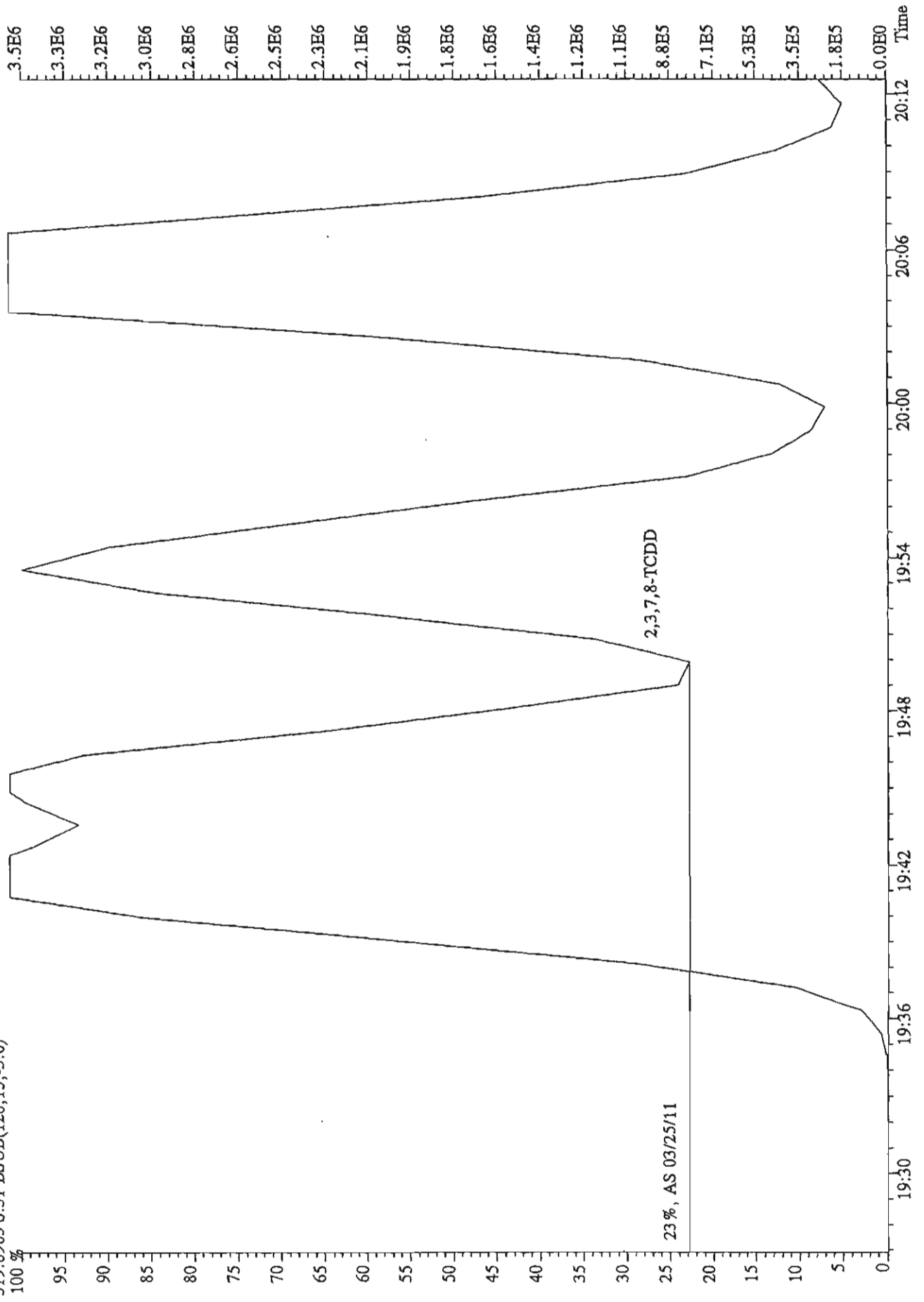
Peak Locate Examination:26-MAR-2011:07:31 File:RESCHECK4D5
Experiment:DIOXINRES Function:4 Reference:PFK



Peak Locate Examination:26-MAR-2011:07:32 File:RESCHECK4D5
Experiment:DIOXINRES Function:5 Reference:PFK



File:24MR114D5 #1-530 Acq:25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#31 Text:CP0324B ;DB-5 CPSM 3732-12
319.8965 S:31 BSUB(128,15,-3.0) Exp:DIOXINRES



Run:	24MR114D5	Analyte:	1613	Cal:	16130222114D5														
ST0222	: CS-0.2 11DXN025 AS	ST0222A	: CS-1 10DXN503 AS	ST0222B	: CS-2 10DXN504 AS														
ST0222C	: CS-3 10DXN505 AS	ST0222D	: CS-4 10DXN506 AS	ST0222E	: CS-5 10DXN507 AS														
						22FE11A4D522FE11A4D522FE11A4D522FE11A4D522FE11A4D522FE11A4D5													
	Name	Mean	S. D.	%RSD	S2	RRF1	S3	RRF2	S4	RRF3	S5	RRF4	S6	RRF5	S7	RRF6			
13C-1,2,3,4-TCDD		-	-	- %	-	-	-	-	-	-	-	-	-	-	-	-			
13C-2,3,7,8-TCDF		1.105	0.049	4.48 %	1.12	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.05	1.05	1.03	1.03			
2,3,7,8-TCDF		0.777	0.054	6.93 %	0.86	0.80	0.80	0.80	0.80	0.80	0.70	0.70	0.74	0.74	0.76	0.76			
Total TCDF		0.777	0.054	6.93 %	0.86	0.80	0.80	0.80	0.80	0.80	0.70	0.70	0.74	0.74	0.76	0.76			
13C-2,3,7,8-TCDD		0.969	0.023	2.34 %	0.96	0.98	0.98	0.98	0.98	0.99	1.00	1.00	0.94	0.94	0.95	0.95			
2,3,7,8-TCDD		0.868	0.030	3.42 %	0.88	0.85	0.85	0.85	0.91	0.91	0.82	0.82	0.87	0.87	0.87	0.87			
Total TCDD		0.868	0.030	3.42 %	0.88	0.85	0.85	0.85	0.91	0.91	0.82	0.82	0.87	0.87	0.87	0.87			
37Cl-2,3,7,8-TCDD		1.426	0.159	11.2 %	1.74	1.44	1.44	1.44	1.38	1.38	1.37	1.37	1.30	1.30	1.32	1.32			
13C-1,2,3,7,8-PeCDF		1.039	0.028	2.72 %	1.01	1.05	1.05	1.05	1.02	1.02	1.09	1.09	1.01	1.01	1.05	1.05			
1,2,3,7,8-PeCDF		0.959	0.040	4.22 %	0.97	0.90	0.90	0.97	0.97	0.97	0.93	0.93	0.99	0.99	1.00	1.00			
13C-2,3,4,7,8-PeCDF		1.020	0.046	4.47 %	1.03	1.03	1.03	1.03	1.01	1.01	1.08	1.08	0.96	0.96	1.06	1.06			
2,3,4,7,8-PeCDF		0.956	0.036	3.79 %	0.97	0.93	0.93	0.93	0.98	0.98	0.90	0.90	1.00	1.00	0.96	0.96			
Total F2 PeCDF		0.957	0.036	3.77 %	0.97	0.91	0.91	0.91	0.97	0.97	0.91	0.91	1.00	1.00	0.98	0.98			
Total F1 PeCDF		0.957	0.036	3.77 %	0.97	0.91	0.91	0.91	0.97	0.97	0.91	0.91	1.00	1.00	0.98	0.98			
13C-1,2,3,7,8-PeCDD		0.700	0.022	3.13 %	0.74	0.70	0.70	0.70	0.70	0.70	0.69	0.69	0.67	0.67	0.70	0.70			
1,2,3,7,8-PeCDD		1.042	0.035	3.31 %	1.06	0.99	0.99	0.99	1.05	1.05	1.01	1.01	1.07	1.07	1.07	1.07			
Total PeCDD		1.042	0.035	3.31 %	1.06	0.99	0.99	0.99	1.05	1.05	1.01	1.01	1.07	1.07	1.07	1.07			
13C-1,2,3,7,8,9-HxCDD		-	-	- %	-	-	-	-	-	-	-	-	-	-	-	-			
13C-1,2,3,4,7,8-HxCDF		0.871	0.066	7.60 %	0.79	0.82	0.82	0.82	0.87	0.87	0.98	0.98	0.88	0.88	0.88	0.88			
1,2,3,4,7,8-HxCDF		1.149	0.052	4.51 %	1.22	1.09	1.09	1.09	1.18	1.18	1.09	1.09	1.14	1.14	1.17	1.17			
13C-1,2,3,6,7,8-HxCDF		1.182	0.043	3.63 %	1.12	1.19	1.19	1.19	1.19	1.19	1.25	1.25	1.18	1.18	1.16	1.16			
1,2,3,6,7,8-HxCDF		1.073	0.022	2.09 %	1.08	1.04	1.04	1.04	1.10	1.10	1.05	1.05	1.09	1.09	1.08	1.08			
13C-2,3,4,6,7,8-HxCDF		1.033	0.029	2.79 %	1.00	1.05	1.05	1.05	1.02	1.02	1.08	1.08	1.02	1.02	1.04	1.04			
2,3,4,6,7,8-HxCDF		1.096	0.044	3.98 %	1.10	1.03	1.03	1.03	1.16	1.16	1.06	1.06	1.11	1.11	1.11	1.11			
13C-1,2,3,7,8,9-HxCDF		0.905	0.041	4.53 %	0.84	0.91	0.91	0.91	0.90	0.90	0.97	0.97	0.91	0.91	0.91	0.91			
1,2,3,7,8,9-HxCDF		1.078	0.085	7.84 %	1.22	0.99	0.99	0.99	1.12	1.12	1.01	1.01	1.06	1.06	1.08	1.08			

Total HxCDF	1.096	0.044	4.01 %	1.15	1.04	1.14	1.05	1.10	1.11
13C-1,2,3,4,7,8-HxCDD	0.664	0.042	6.31 %	0.61	0.62	0.67	0.72	0.66	0.70
1,2,3,4,7,8-HxCDD	1.065	0.030	2.80 %	1.09	1.05	1.08	1.01	1.09	1.07
13C-1,2,3,6,7,8-HxCDD	0.950	0.033	3.51 %	0.95	0.98	0.93	1.00	0.92	0.92
1,2,3,6,7,8-HxCDD	1.046	0.028	2.68 %	1.08	1.01	1.05	1.02	1.06	1.07
1,2,3,7,8,9-HxCDD	1.201	0.034	2.83 %	1.23	1.16	1.23	1.16	1.23	1.20
Total HxCDD	1.103	0.029	2.65 %	1.13	1.07	1.12	1.06	1.12	1.11
13C-1,2,3,4,6,7,8-HpCDF	0.914	0.040	4.40 %	0.85	0.91	0.93	0.98	0.90	0.91
1,2,3,4,6,7,8-HpCDF	1.324	0.021	1.60 %	1.34	1.29	1.34	1.30	1.33	1.34
13C-1,2,3,4,7,8,9-HpCDF	0.831	0.054	6.45 %	0.76	0.80	0.81	0.91	0.84	0.86
1,2,3,4,7,8,9-HpCDF	1.245	0.060	4.81 %	1.33	1.19	1.30	1.18	1.24	1.22
Total HpCDF	1.286	0.038	2.94 %	1.34	1.24	1.32	1.25	1.29	1.28
13C-1,2,3,4,6,7,8-HpCDD	0.914	0.047	5.18 %	0.85	0.91	0.92	0.99	0.89	0.92
1,2,3,4,6,7,8-HpCDD	1.014	0.060	5.93 %	1.09	0.92	0.99	1.00	1.05	1.04
Total HpCDD	1.014	0.060	5.93 %	1.09	0.92	0.99	1.00	1.05	1.04
13C-OCDD	0.601	0.034	5.65 %	0.55	0.60	0.59	0.64	0.59	0.64
OCDF	1.274	0.084	6.59 %	1.19	1.17	1.31	1.25	1.36	1.36
OCDD	1.129	0.067	5.97 %	1.24	1.05	1.13	1.07	1.15	1.14

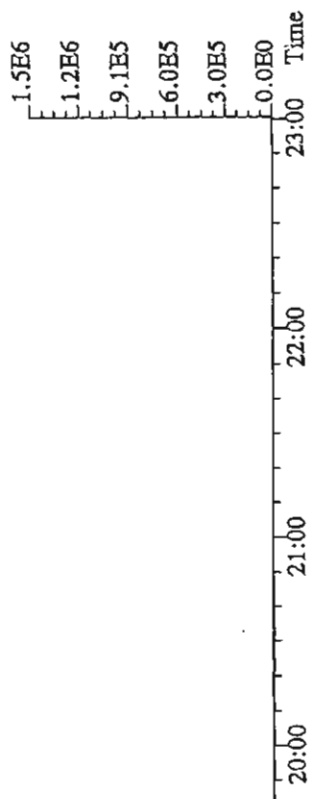
Compound	OPR %	VER ng/mL CS3	VER ng/mL CS2	VER ng/mL CS4	Field Samples ng/mL
1613B Acceptance Criteria					
13C-2,3,7,8-TCDF	22-152	71-140	71-140	71-140	24-169
2,3,7,8-TCDF	75 - 158	8.4 - 12.0	1.68 - 2.40	33.6 - 48	
13C-2,3,7,8-TCDD	20 - 175	82 - 121	82 - 121	82 - 121	25 - 164
2,3,7,8-TCDD	67 - 158	7.8 - 12.9	1.56 - 2.58	31.2 - 51.6	
37Cl4-2,3,7,8-TCDD	31 - 191	7.9 - 12.7	1.58 - 2.54	31.6 - 50.8	3.5 - 19.7
13C-1,2,3,7,8-PeCDF	21 - 192	76 - 130	76 - 130	76 - 130	24 - 185
1,2,3,7,8-PeCDF	80 - 134	41 - 60	8.20 - 12.0	164 - 240	
13C-2,3,4,7,8-PeCDF	13 - 328	77 - 130	77 - 130	77 - 130	21 - 178
2,3,4,7,8-PeCDF	68 - 160	41 - 61	8.20 - 12.2	164 - 244	
13C-1,2,3,7,8-PeCDD	21 - 227	62 - 160	62 - 160	62 - 160	25 - 181
1,2,3,7,8-PeCDD	70 - 142	39 - 65	7.80 - 13.0	156 - 260	
13C-1,2,3,4,7,8-HxCDF	19 - 202	76 - 131	76 - 131	76 - 131	26 - 152
1,2,3,4,7,8-HxCDF	72 - 134	45 - 56	9.00 - 11.2	180 - 224	
13C-1,2,3,6,7,8-HxCDF	21 - 159	70 - 143	70 - 143	70 - 143	26 - 123
1,2,3,6,7,8-HxCDF	84 - 130	44 - 57	8.80 - 11.4	176 - 228	
13C-2,3,4,6,7,8-HxCDF	22 - 176	73 - 137	73 - 137	73 - 137	28 - 136
2,3,4,6,7,8-HxCDF	70 - 156	44 - 57	8.80 - 11.4	176 - 228	
13C-1,2,3,7,8,9-HxCDF	17 - 205	74 - 135	74 - 135	74 - 135	29 - 147
1,2,3,7,8,9-HxCDF	78 - 130	45 - 56	9.00 - 11.2	180 - 224	
13C-1,2,3,4,7,8-HxCDD	21 - 193	85 - 117	85 - 117	85 - 117	32 - 141
1,2,3,4,7,8-HxCDD	70 - 164	39 - 64	7.80 - 12.8	156 - 256	
13C-1,2,3,6,7,8-HxCDD	25 - 163	85 - 118	85 - 118	85 - 118	28 - 130
1,2,3,6,7,8-HxCDD	76 - 134	39 - 64	7.80 - 12.8	156 - 256	
1,2,3,7,8,9-HxCDD	64 - 162	41 - 61	8.20 - 12.2	164 - 244	
13C-1,2,3,4,6,7,8-HpCDF	21 - 158	78 - 129	78 - 129	78 - 129	28 - 143
1,2,3,4,6,7,8-HpCDF	82 - 122	45 - 55	9.00 - 11.0	180 - 220	
13C-1,2,3,4,7,8,9-HpCDF	20 - 186	77 - 129	77 - 129	77 - 129	26 - 138
1,2,3,4,7,8,9-HpCDF	78 - 138	43 - 58	8.60 - 11.6	172 - 232	
13C-1,2,3,4,6,7,8-HpCDD	26 - 166	72 - 138	72 - 138	72 - 138	23 - 140
1,2,3,4,6,7,8-HpCDD	70 - 140	43 - 58	8.60 - 11.6	172 - 232	
13C-OCDD	26 - 397	96 - 415	96 - 415	96 - 415	34 - 313
OCDF	63 - 170	63 - 159	12.60 - 31.8	252 - 636	
OCDD	78 - 144	79 - 126	15.80 - 25.2	316 - 504	

1613B Acceptance Criteria for Tetras Only Analysis

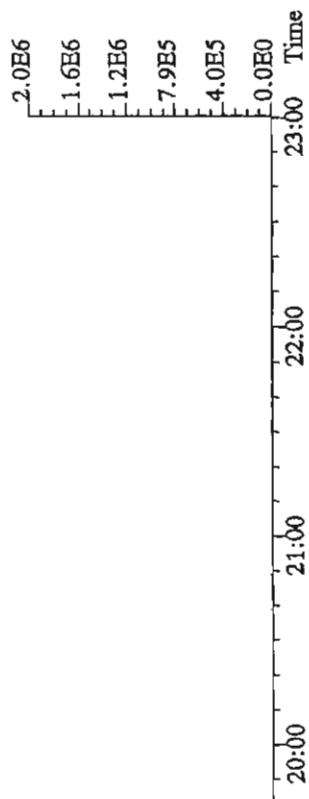
13C-2,3,7,8-TCDF	26 - 126	76 - 131	76 - 131	76 - 131	29 - 140
2,3,7,8-TCDF	80 - 147	8.6 - 11.6	1.72 - 2.32	34.4 - 46.4	
13C-2,3,7,8-TCDD	25 - 141	85 - 117	85 - 117	85 - 117	31 - 137
2,3,7,8-TCDD	73 - 146	8.2 - 12.3	1.64 - 2.46	32.8 - 49.2	
37Cl4-2,3,7,8-TCDD	37 - 158	8.3 - 12.1	1.66 - 2.42	33.2 - 48.4	4.2 - 16.4

File: 24MR114D5 #1-530 Acq: 25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaB
Sample#30 Text: ST0324B : CS3 10DXN505 Exp: DIOXINRES

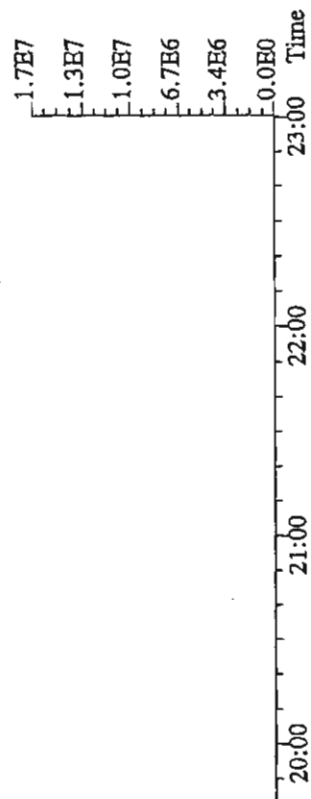
303.9016 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,904.0,1.00%,F,T)
A7.61E6



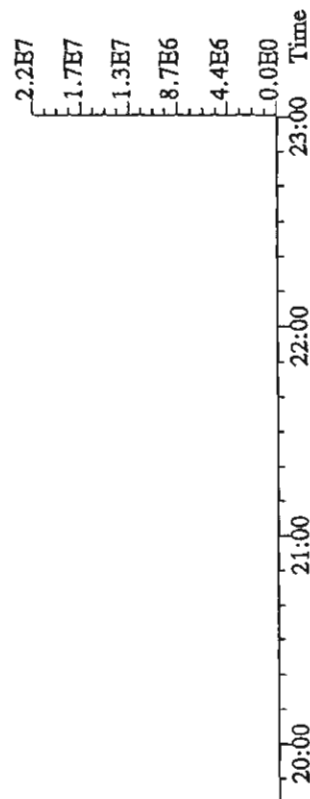
305.8987 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2296.0,1.00%,F,T)
A1.02E7



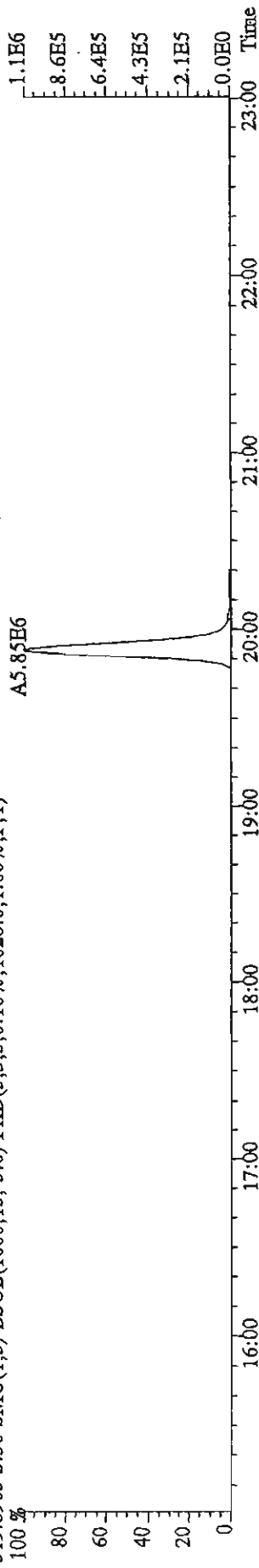
315.9419 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3496.0,1.00%,F,T)
A8.41E7



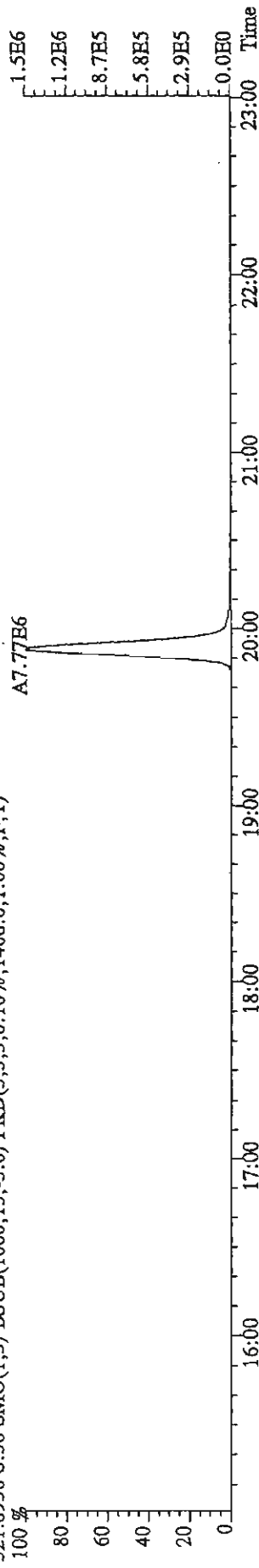
317.9389 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3084.0,1.00%,F,T)
A1.08E8



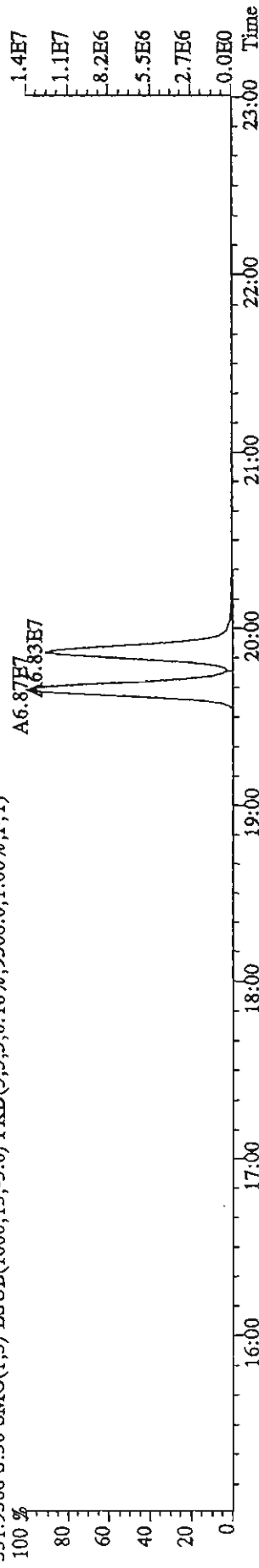
File:24MR114D5 #1-530 Acq:25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaB
Sample#30 Text:ST0324B :CS3 10DXN505 Exp:DIOXINRES
319.8965 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1028.0,1.00%,F,T)



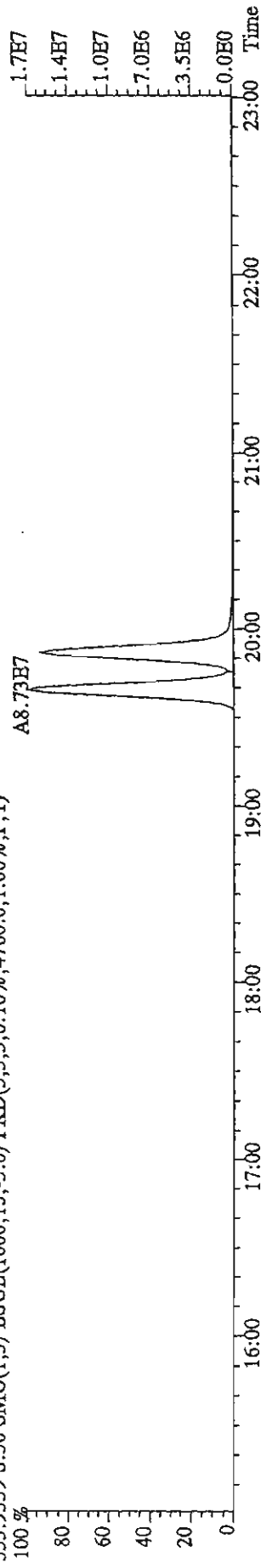
321.8936 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1408.0,1.00%,F,T)



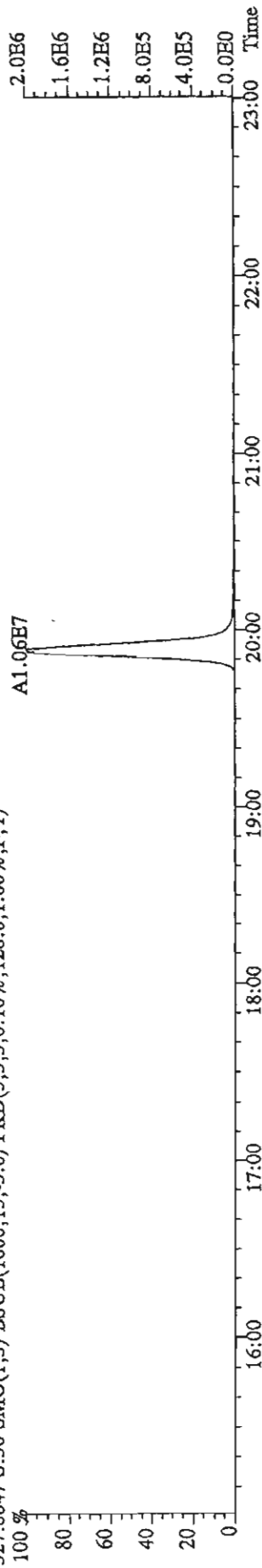
331.9368 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,9308.0,1.00%,F,T)



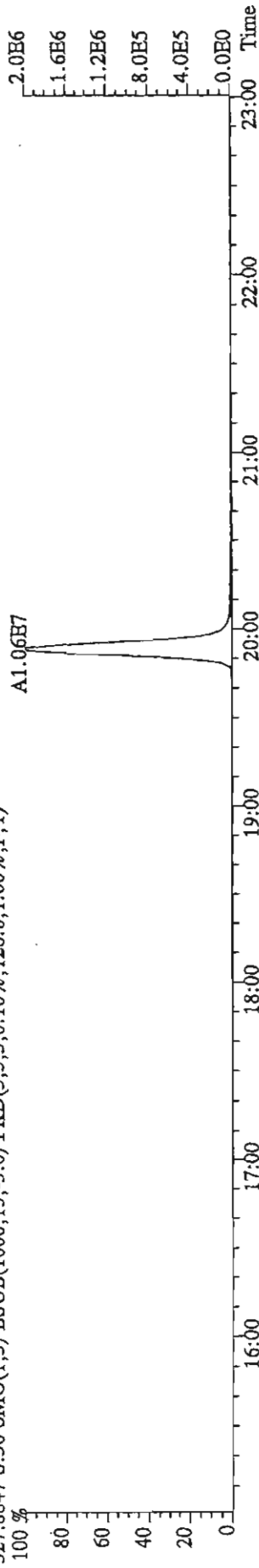
333.9339 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,4760.0,1.00%,F,T)



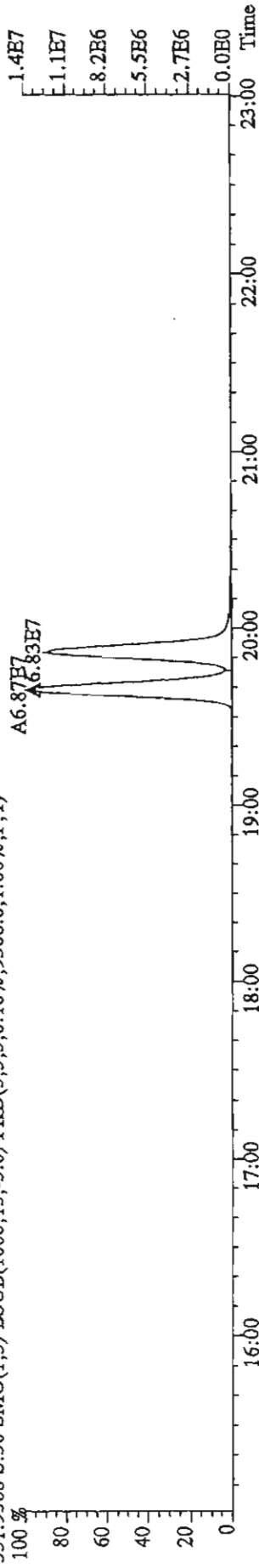
File: 24MR114D5 #1-530 Acq: 25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#30 Text: ST0324B :CS3 10DXN505 Exp: DIOXINRES
327.8847 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,128.0,1.00%,F,T)



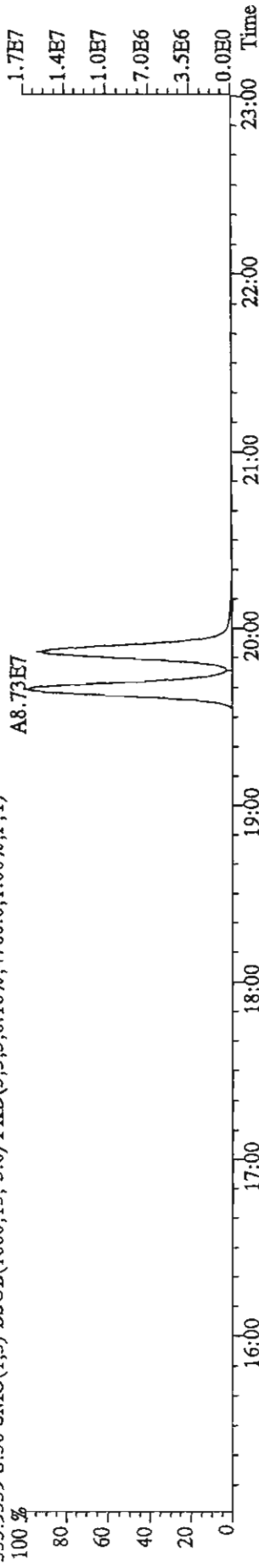
327.8847 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,128.0,1.00%,F,T)



331.9368 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9308.0,1.00%,F,T)

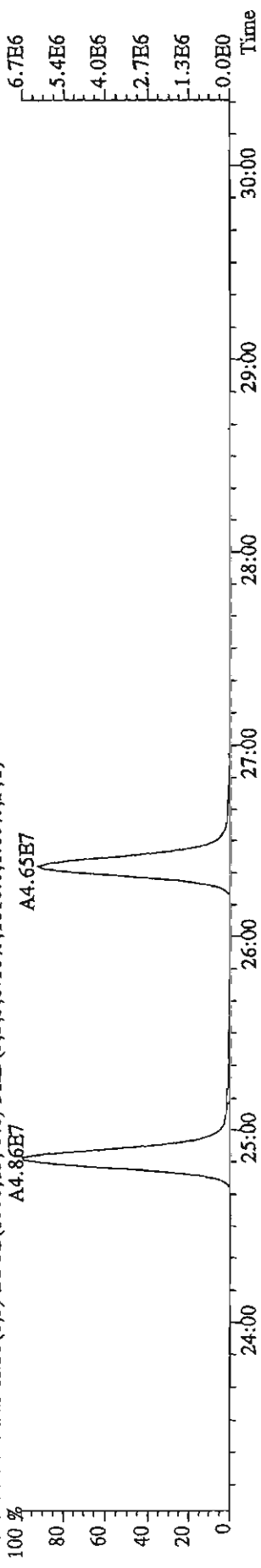


333.9339 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4760.0,1.00%,F,T)

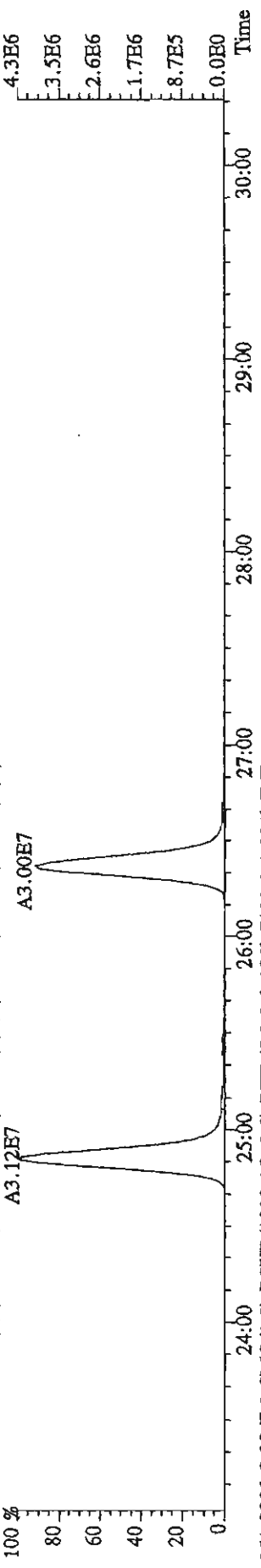


File:24MR114D5 #1-470 Acq:25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE

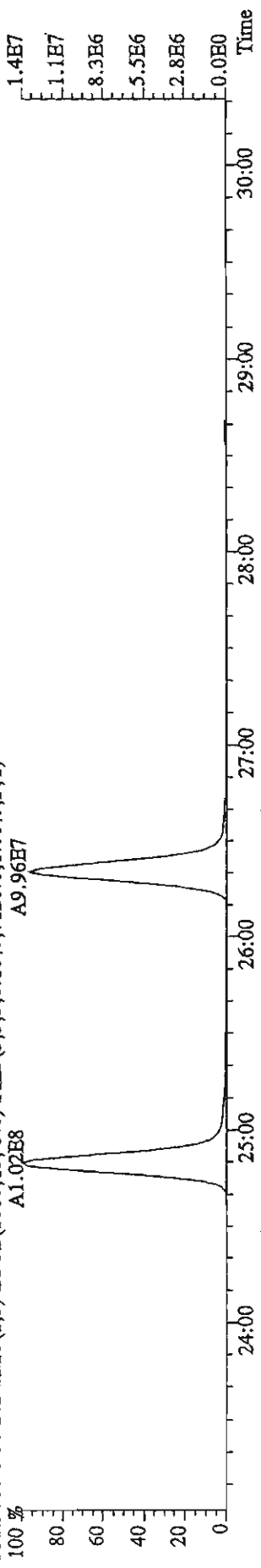
Sample#30 Text:ST0324B :CS3 10DXN505 Exp:DIOXINRES
339.8597 S:30 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1616.0,1.00%,F,T)



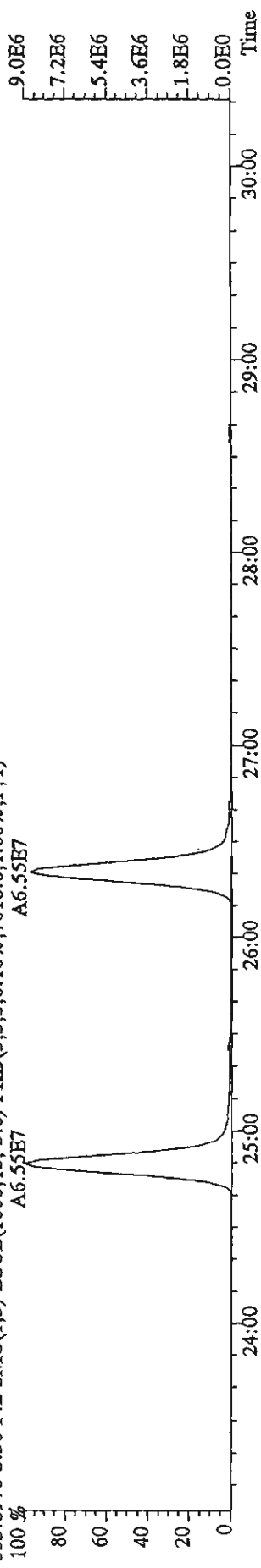
341.8567 S:30 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3060.0,1.00%,F,T)



351.9000 S:30 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,7120.0,1.00%,F,T)



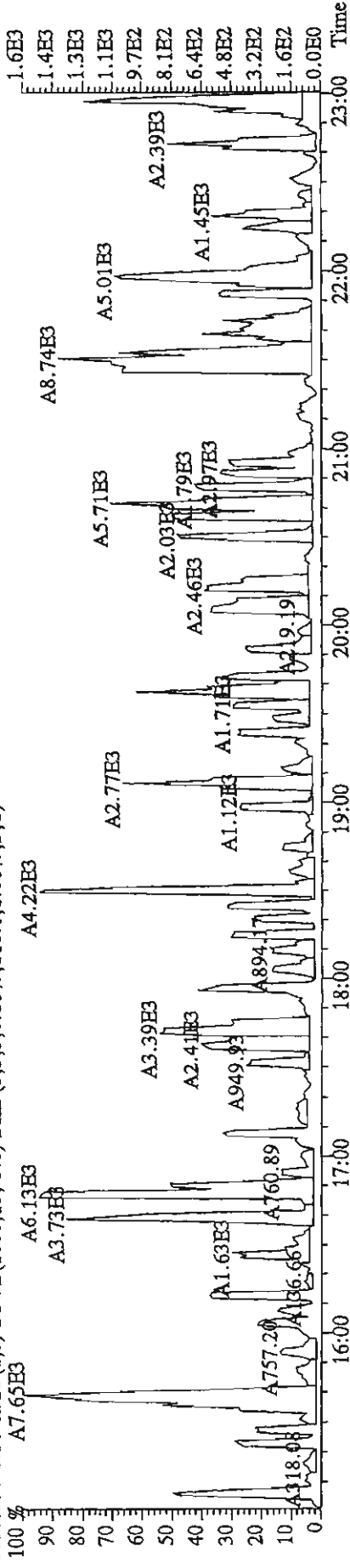
353.8970 S:30 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,7016.0,1.00%,F,T)



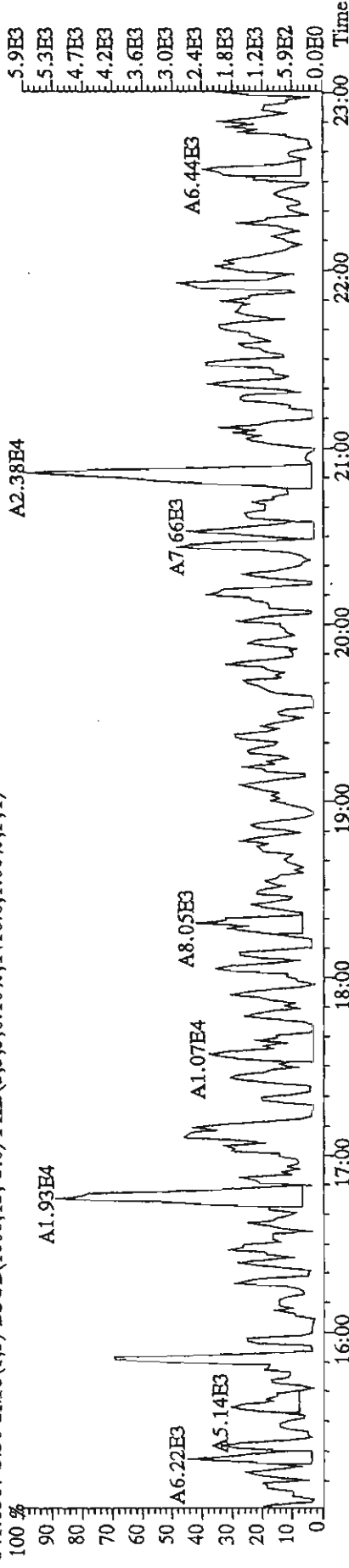
File:24MR114D5 #1-530 Acq:25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE

Sample#30 Text:ST0324B :CS3 10DXN505 Exp:DIOXINRES

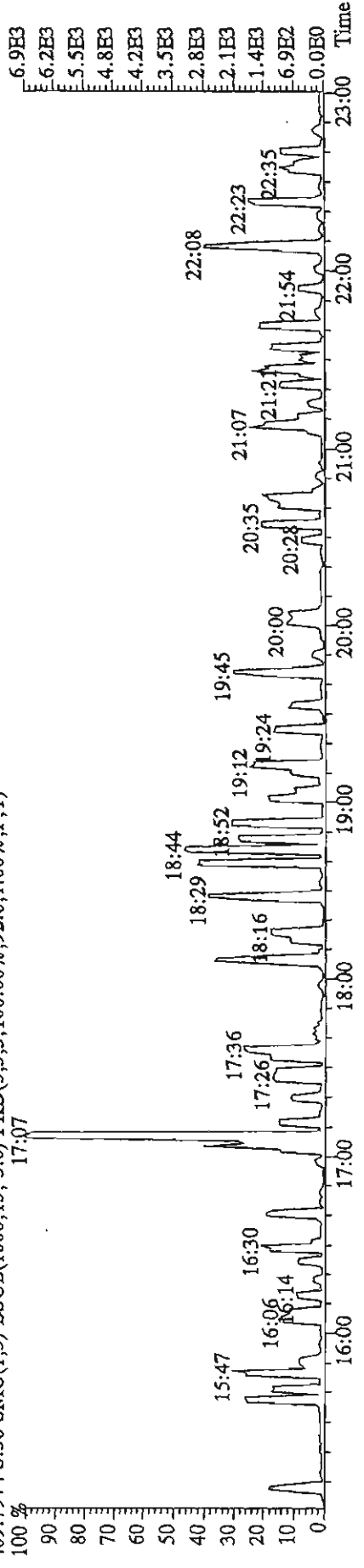
339.8597 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,116.0,1.00%,F,T)



341.8567 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1416.0,1.00%,F,T)



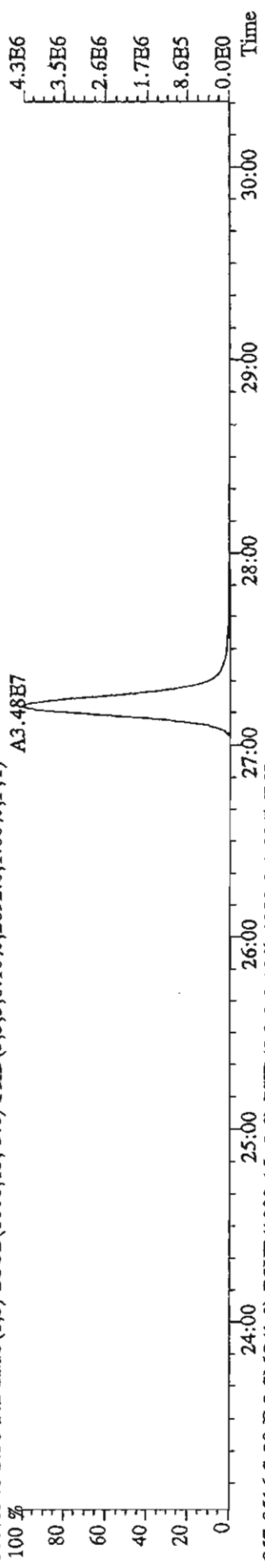
409.7974 S:30 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,92.0,1.00%,F,T)



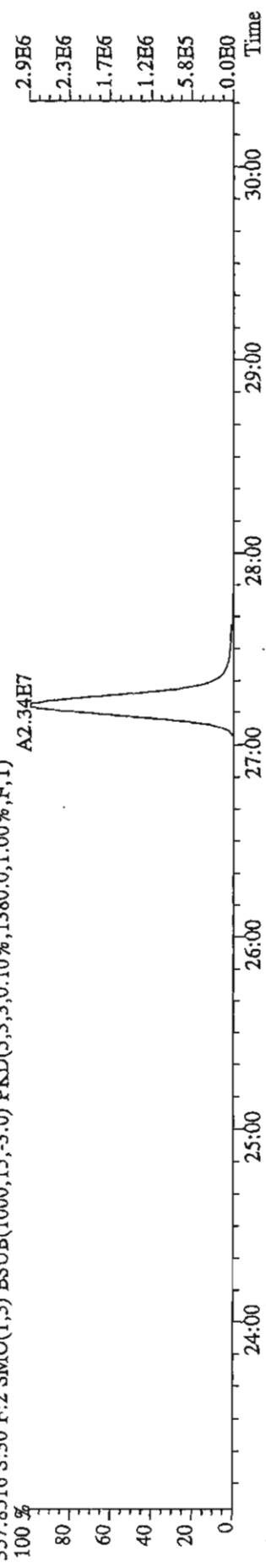
File: 24MR114D5 #1-470 Acq: 25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE

Sample#30 Text: ST0324B :CS3 10DXN505 Exp: DIOXINRES

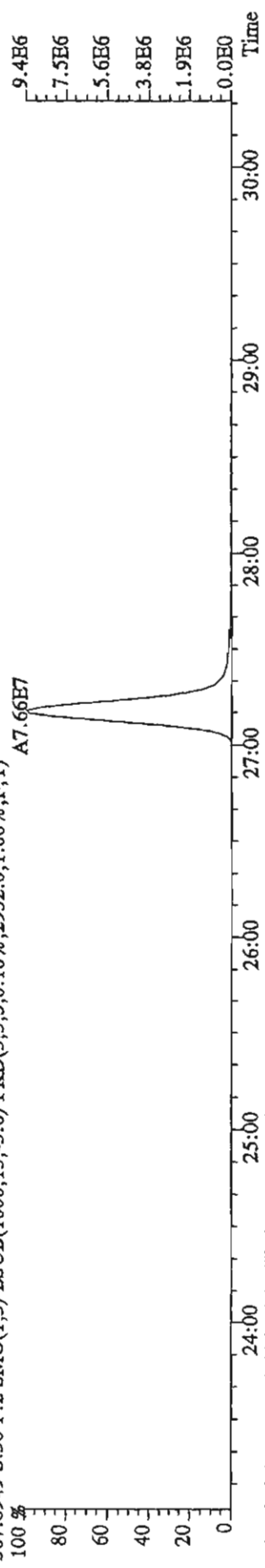
355.8546 S:30 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2692.0,1.00%,F,T)



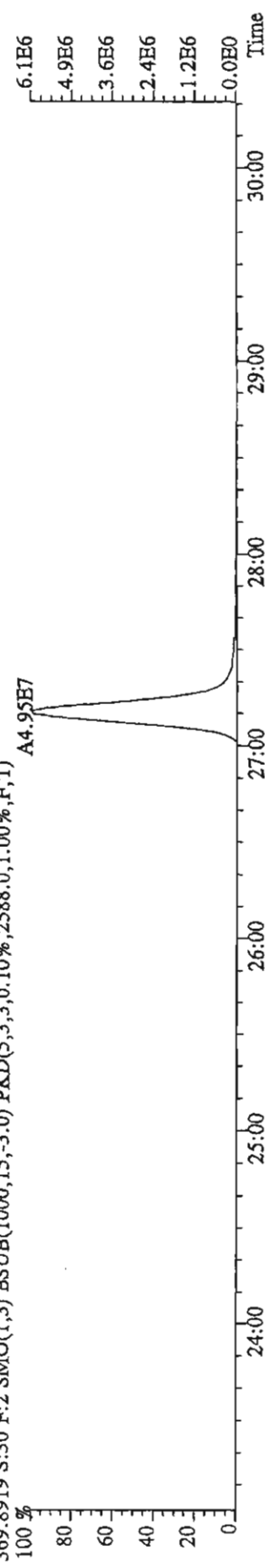
357.8516 S:30 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1380.0,1.00%,F,T)



367.8949 S:30 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2932.0,1.00%,F,T)



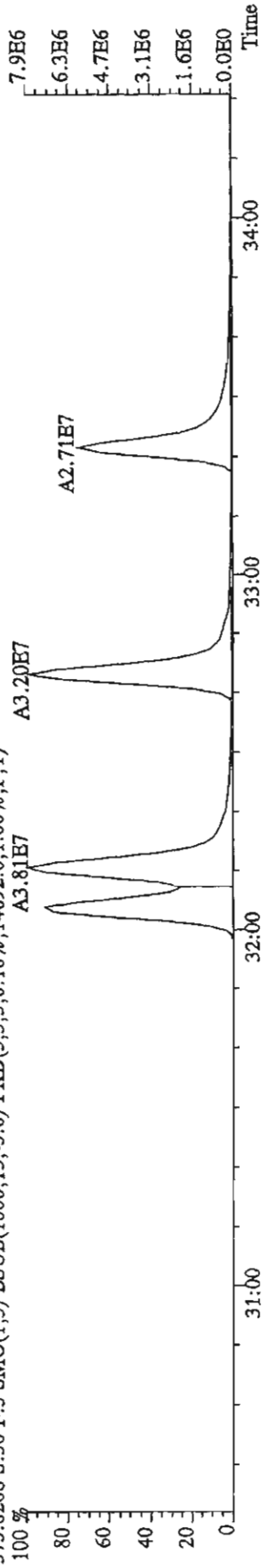
369.8919 S:30 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2588.0,1.00%,F,T)



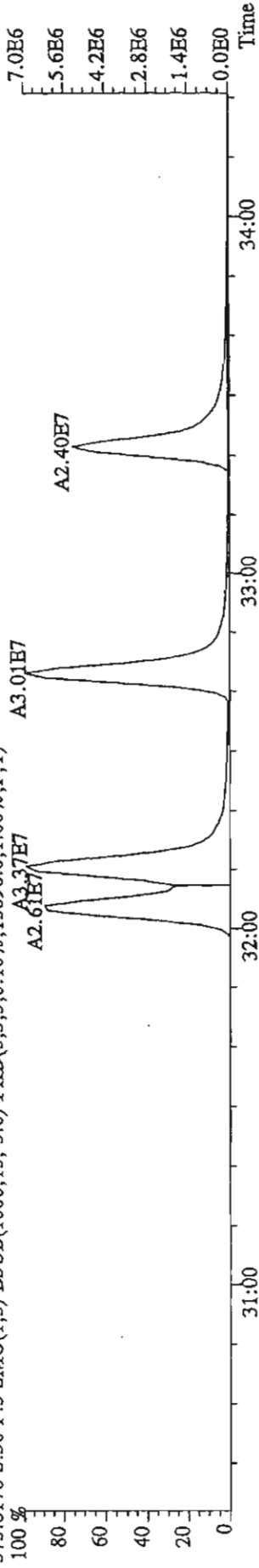
File:24MR114D5 #1-287 Acq:25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE

Sample#30 Text:ST0324B :CS3 10DXN505

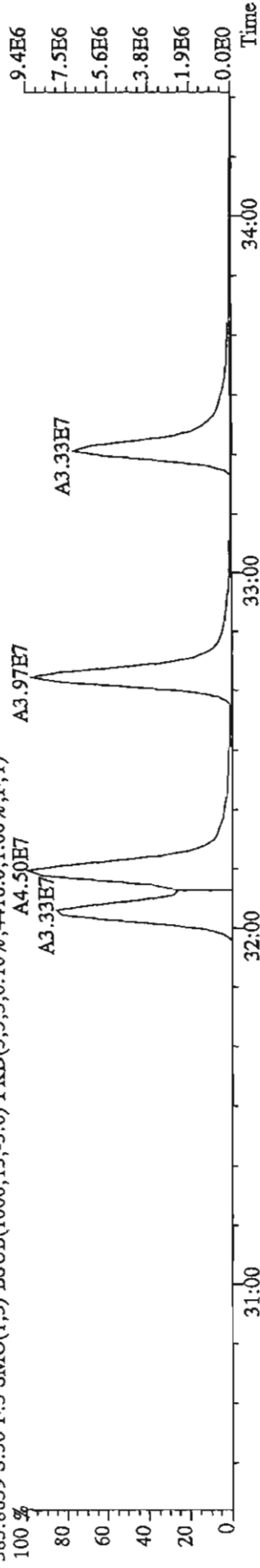
373.8208 S:30 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,14692.0,1.00%,F,T)



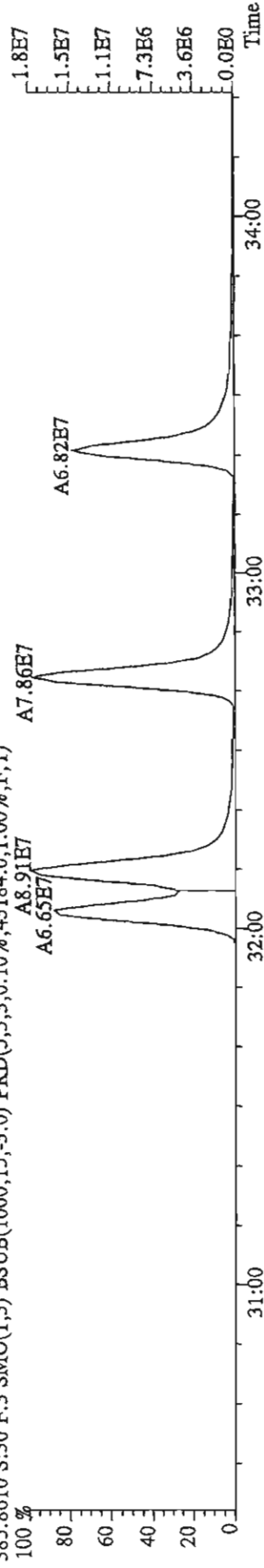
375.8178 S:30 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,15896.0,1.00%,F,T)



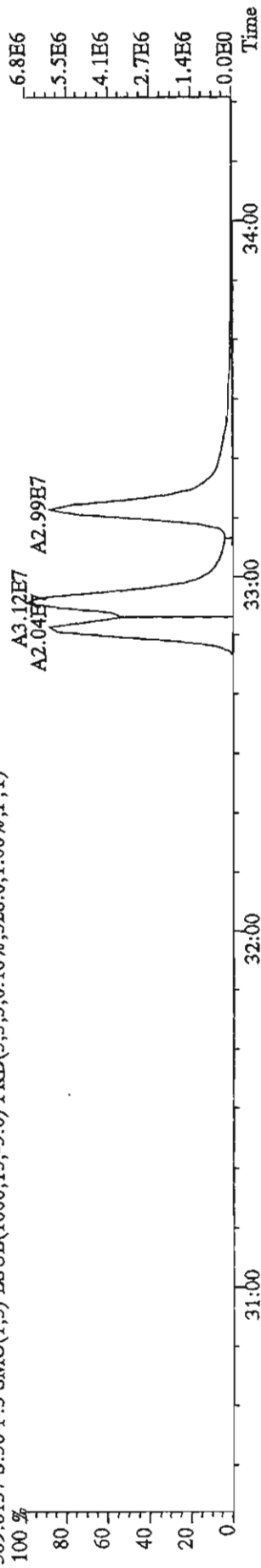
383.8639 S:30 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4416.0,1.00%,F,T)



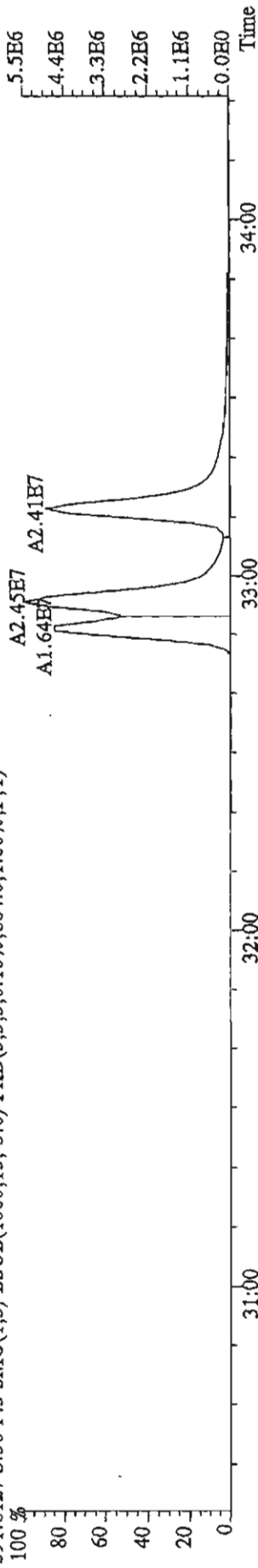
385.8610 S:30 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,43184.0,1.00%,F,T)



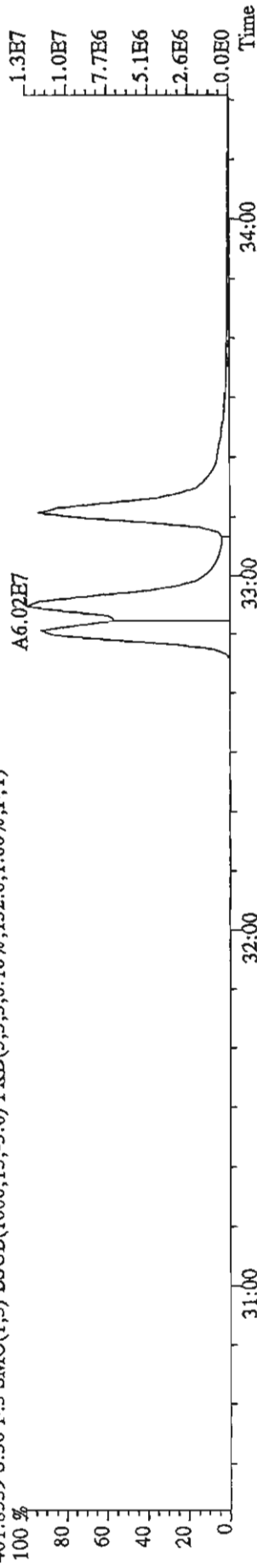
File: 24MR114D5 #1-287 Acq: 25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#30 Text: ST0324B :CS3 10DXN505 Exp: DIOXINRES
 389.8157 S:30 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,528.0,1.00%,F,T)



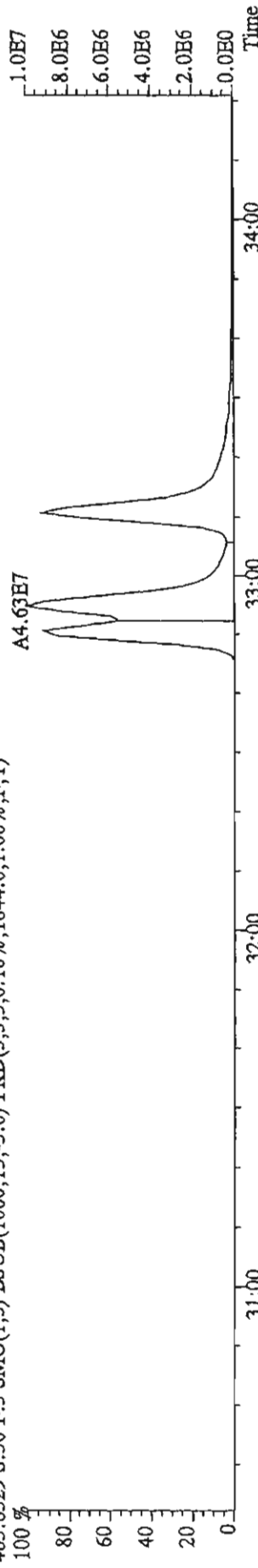
391.8127 S:30 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,884.0,1.00%,F,T)



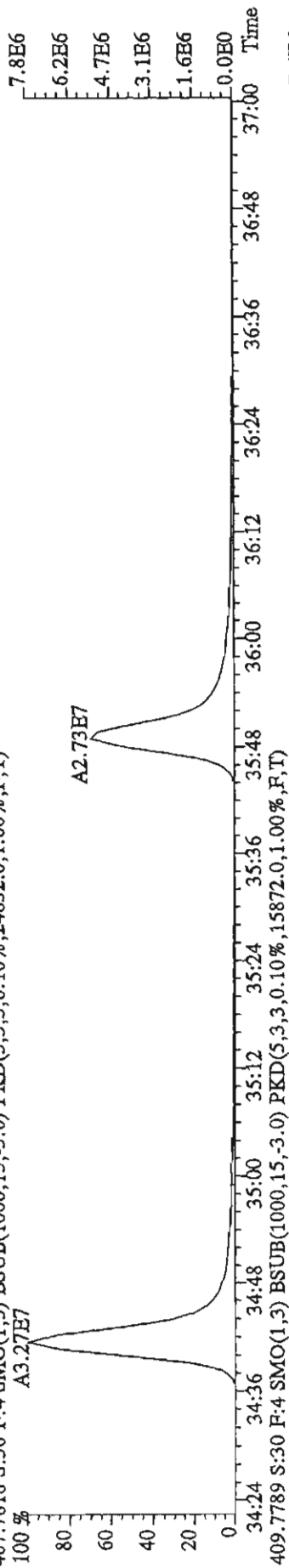
401.8559 S:30 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,132.0,1.00%,F,T)



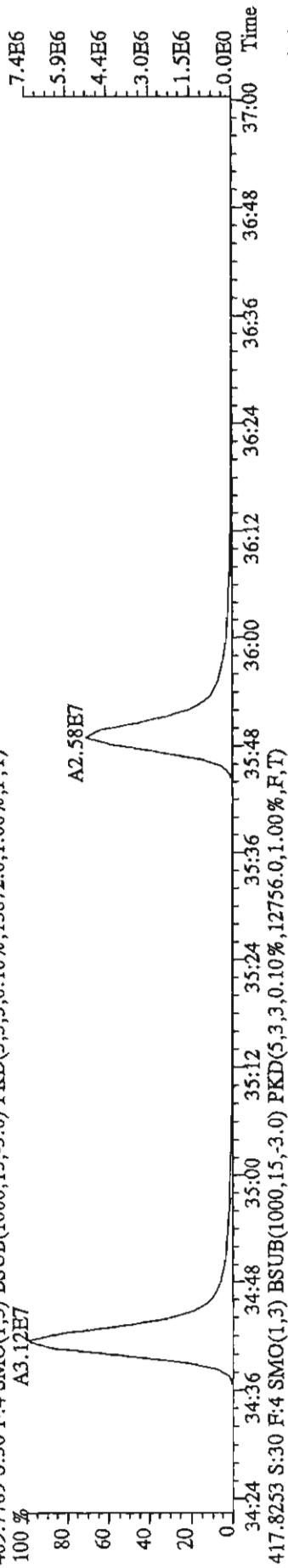
403.8529 S:30 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1844.0,1.00%,F,T)



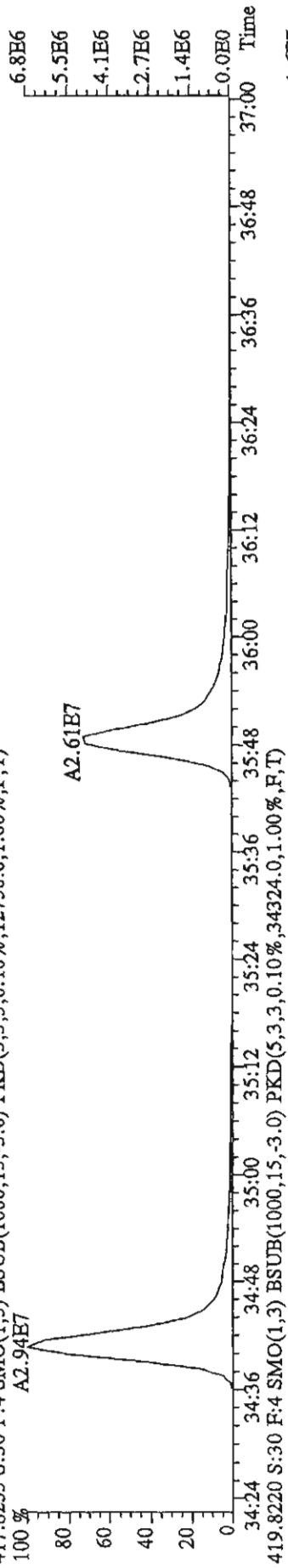
File: 24MR114D5 #1-200 Acq: 25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE
 Sampler#30 Text: ST0324B : CS3 10DXN505 Exp: DIOXINRES
 407.7818 S:30 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,24832.0,1.00%,F,T)
 A3.27E7



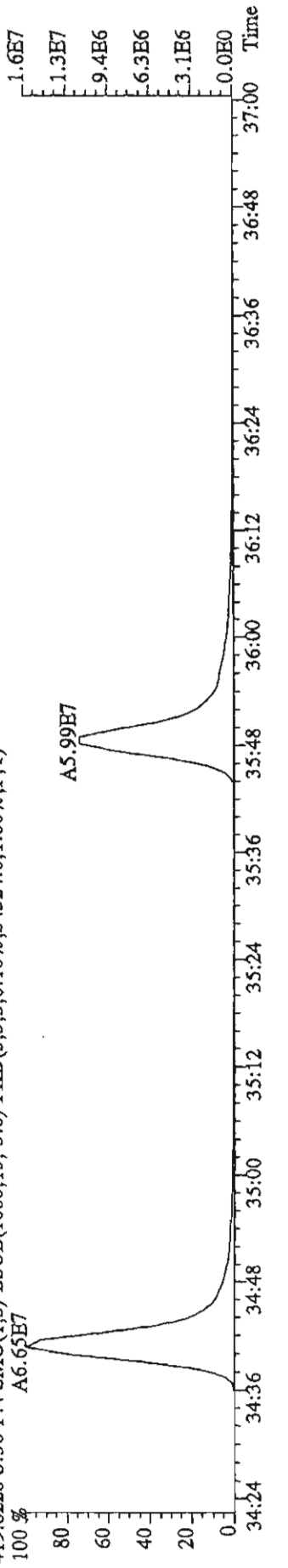
409.7789 S:30 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,15872.0,1.00%,F,T)
 A3.12E7



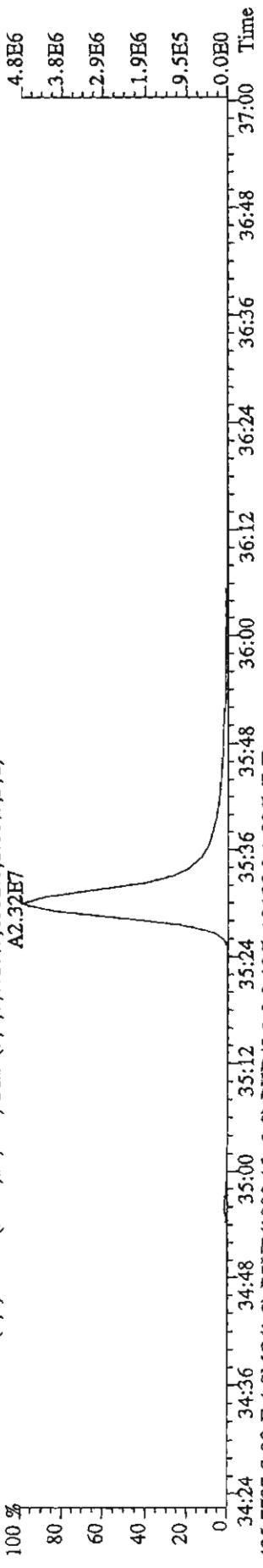
417.8253 S:30 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,12756.0,1.00%,F,T)
 A2.94E7



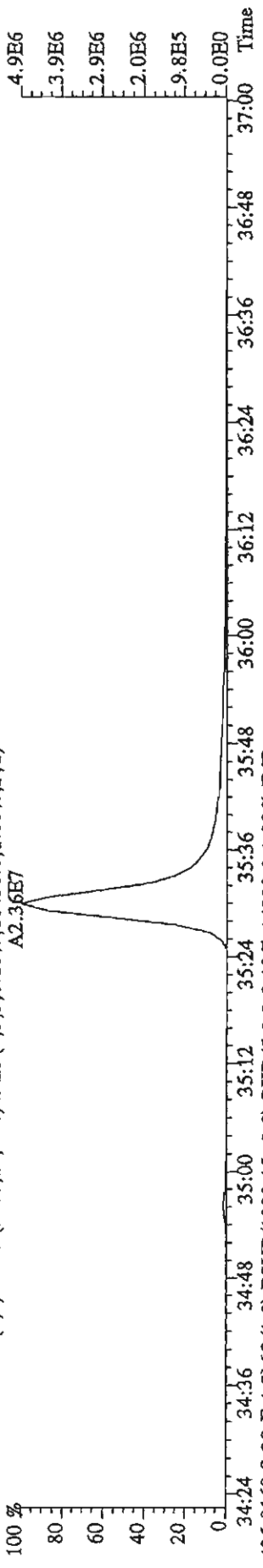
419.8220 S:30 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,34324.0,1.00%,F,T)
 A6.65E7



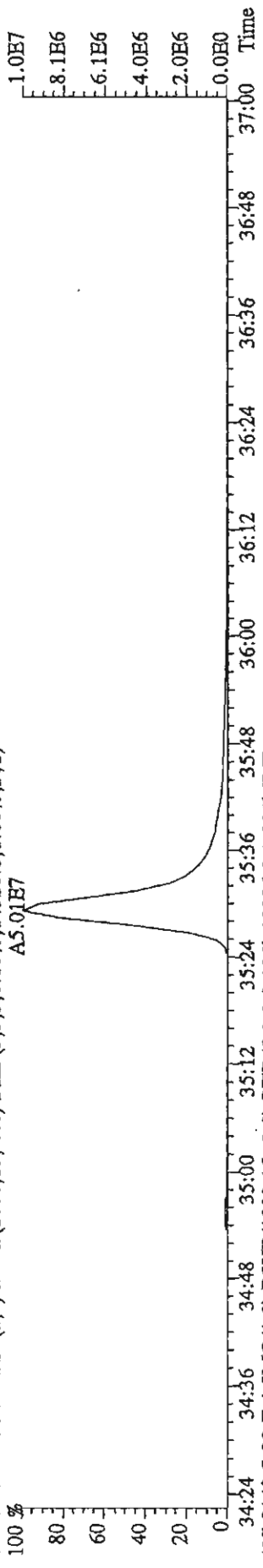
File: 24MRI14D5 #1-200 Acq: 25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaH
 Sample#30 Text: ST0324B : CS3 10DXN505 Exp: DIOXINRES
 423.7766 S:30 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6552.0,1.00%,F,T)
 A2.32E7



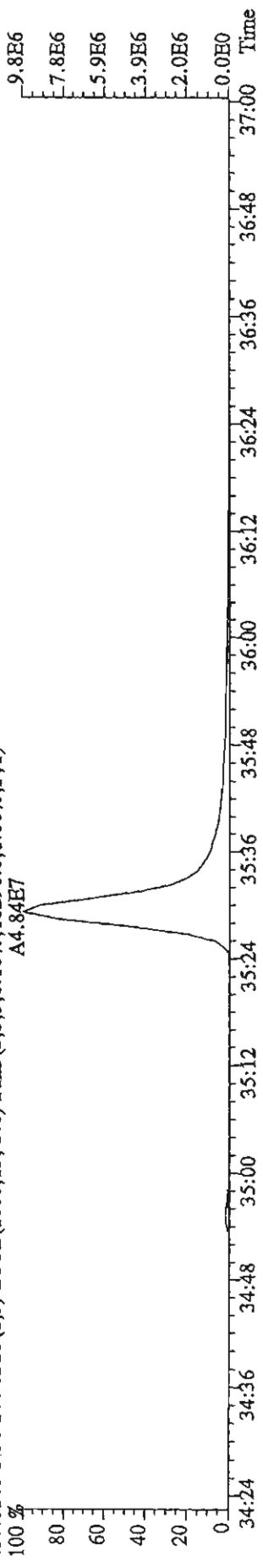
425.7737 S:30 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,10456.0,1.00%,F,T)
 A2.36E7



435.8169 S:30 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,14320.0,1.00%,F,T)
 A5.01E7

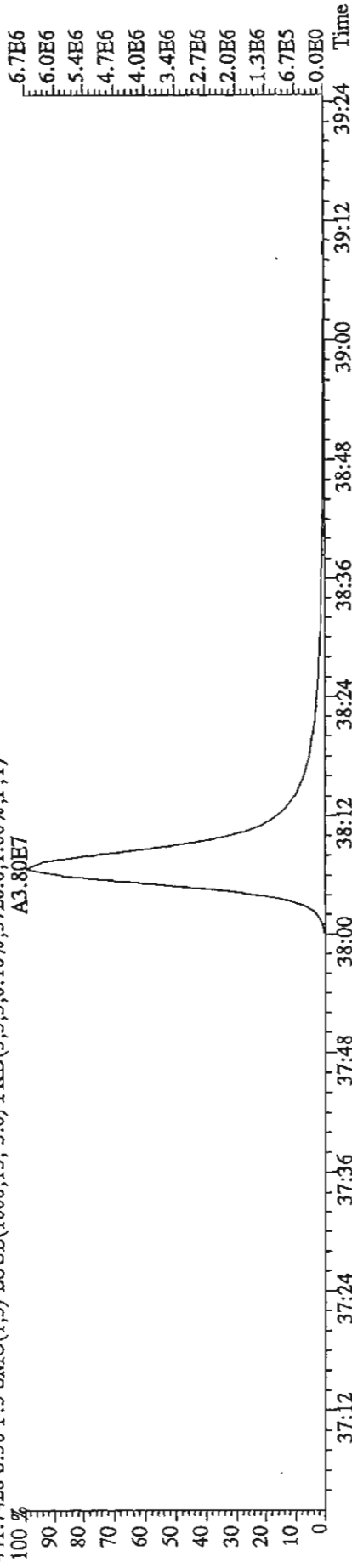


437.8140 S:30 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,18296.0,1.00%,F,T)
 A4.84E7

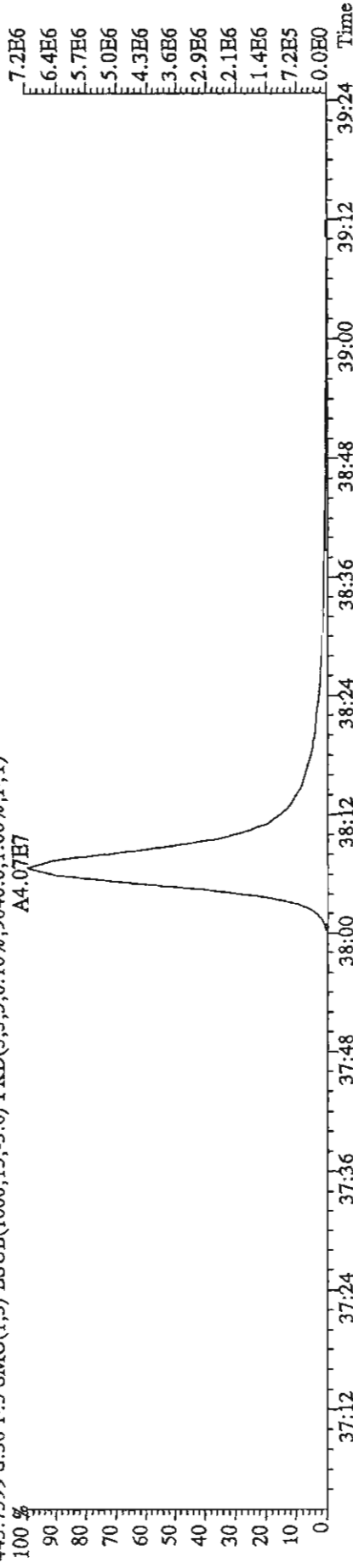


File:24MR114D5 #1-193 Acq:25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE

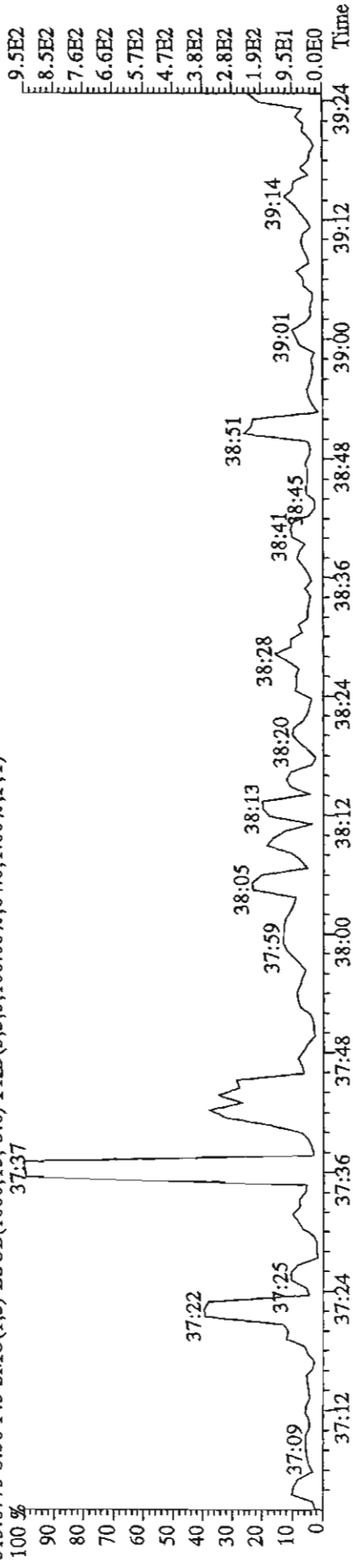
Sample#30 Text:ST0324B :CS3 10DXN505 Exp:DIOXINRES
441.7428 S:30 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5720.0,1.00%,F,T)
A3.80E7



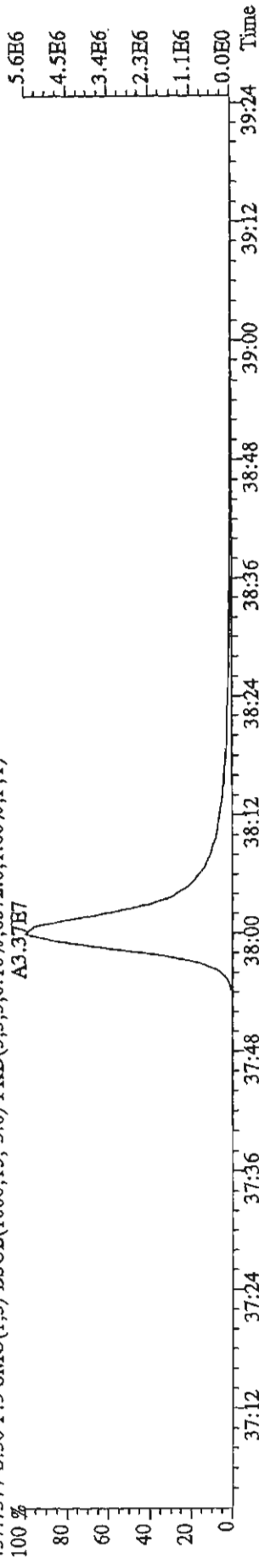
443.7399 S:30 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9040.0,1.00%,F,T)
A4.07E7



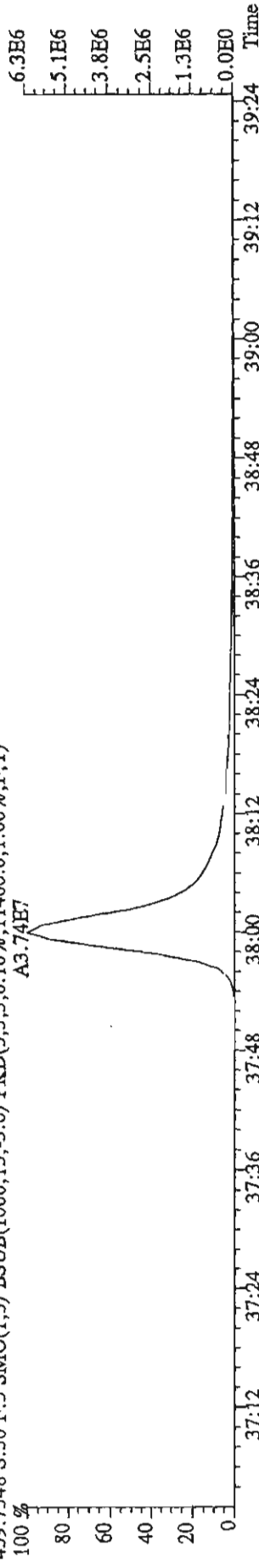
513.6775 S:30 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,5,100.00%,64.0,1.00%,F,T)



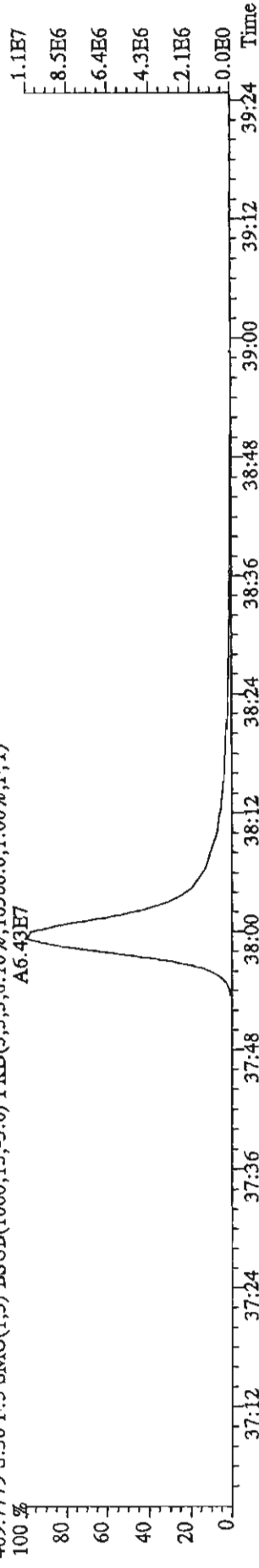
File: 24MR114D5 #1-193 Acq: 25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#30 Text: ST0324B : CS3 10DXN505 Exp: DIOXINRES
 457.7377 S:30 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6572.0,1.00%,F,T)
 A3.37E7



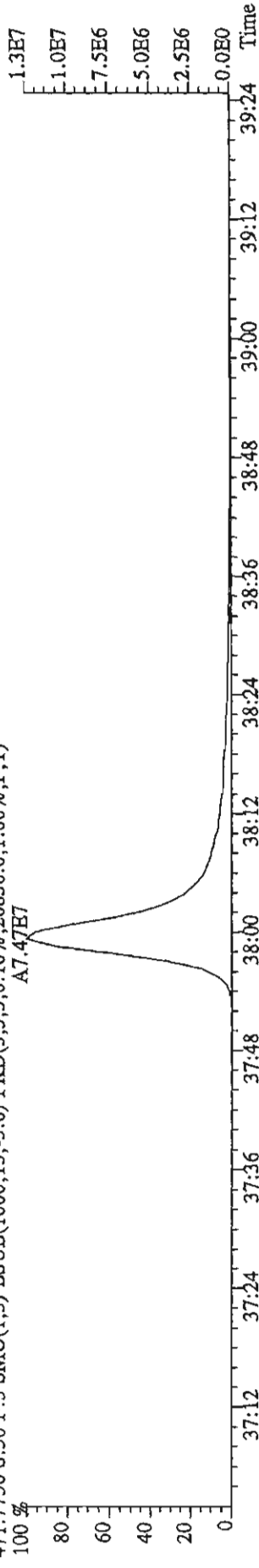
459.7348 S:30 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,11400.0,1.00%,F,T)
 A3.74E7



469.7779 S:30 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,16368.0,1.00%,F,T)
 A6.43E7



471.7750 S:30 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,20836.0,1.00%,F,T)
 A7.47E7

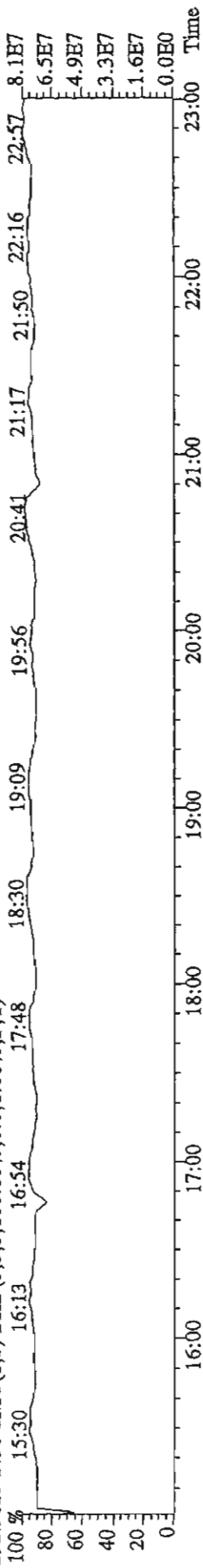


File:24MR114DS #1-530 Acq:25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE

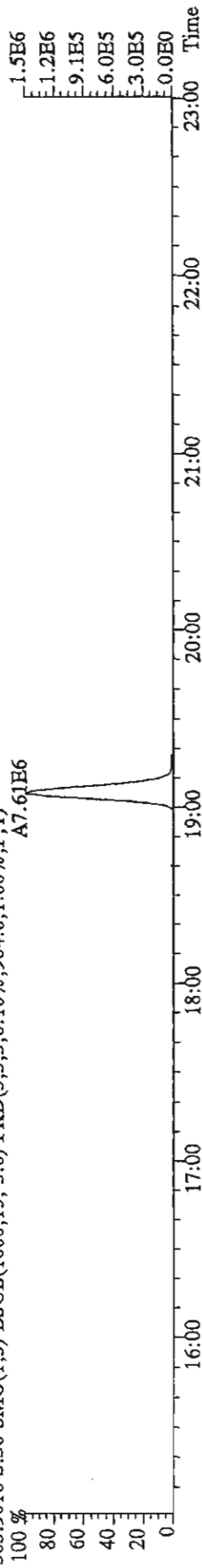
Sample#30 Text:ST0324B :CS3 10DXN505

Exp:DIOXINRES

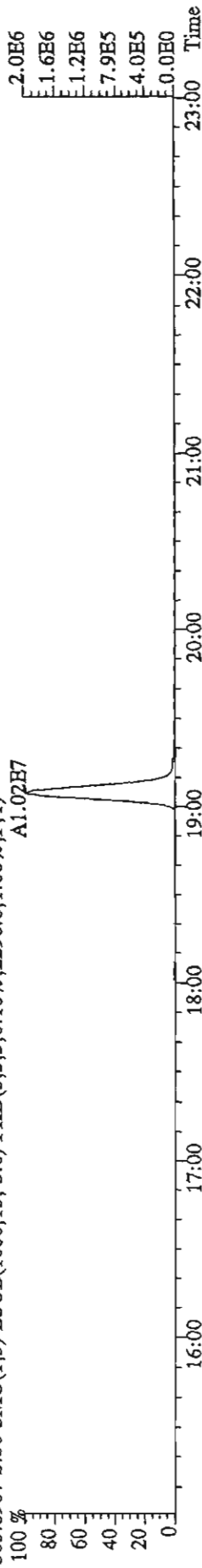
292.9825 S:30 SMO(1,3) PKD(5,3,5,100.00%,0,0,1.00%,F,T)



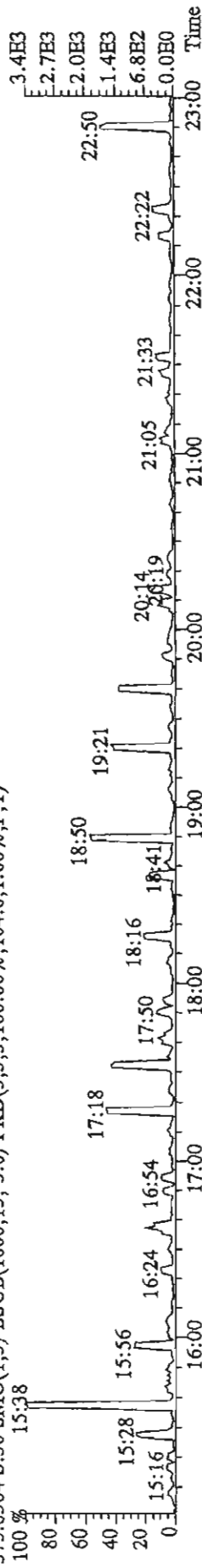
303.9016 S:30 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,904,0,1.00%,F,T)



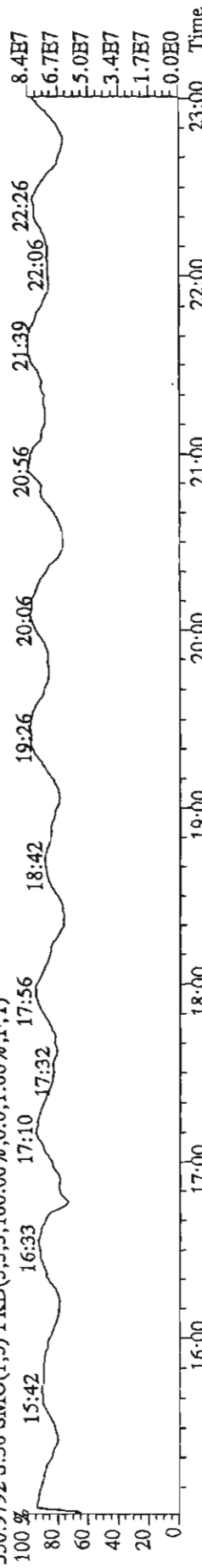
305.8987 S:30 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,2296,0,1.00%,F,T)



375.8364 S:30 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,104,0,1.00%,F,T)



330.9792 S:30 SMO(1,3) PKD(5,3,3,100.00%,0,0,1.00%,F,T)

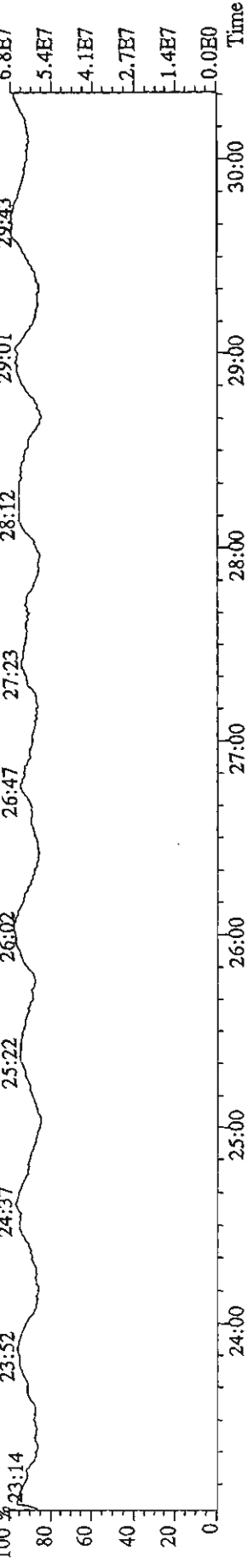


File:24MR114D5 #1-470 Acq:25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE

Sample#30 Text:ST0324B :CS3 10DXN505 Exp:DIOXINRES

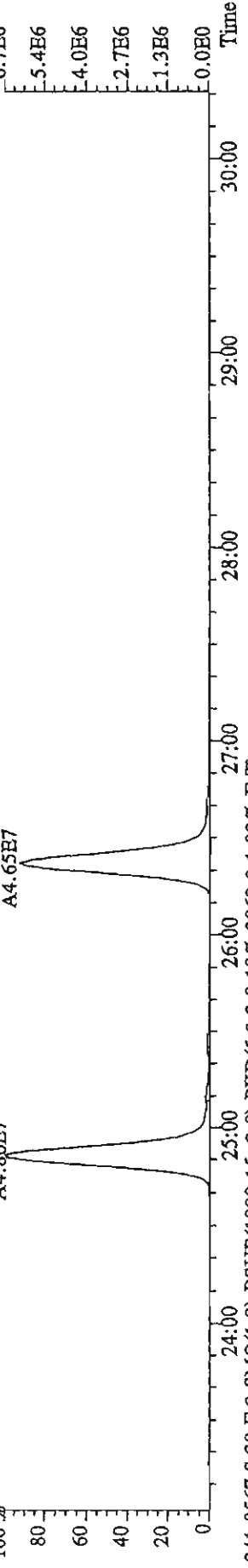
342.9792 S:30 F:2 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 % 23:14 23:52 24:37 25:22 26:02 26:47 27:23 28:12 29:01 29:43



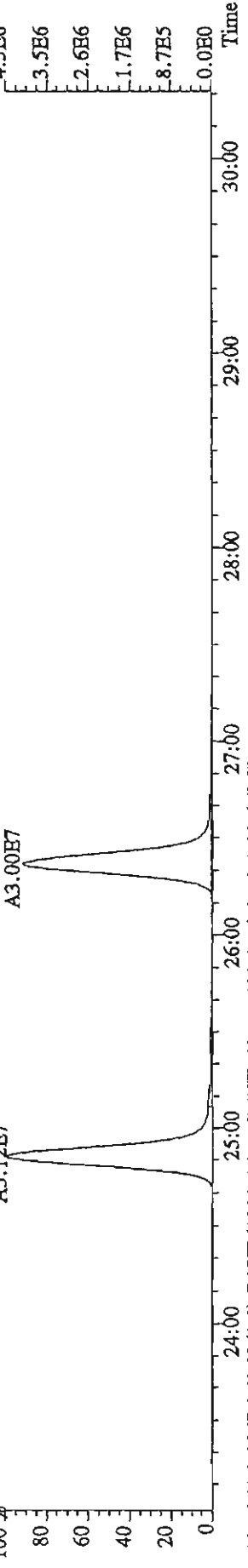
339.8597 S:30 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1616.0,1.00%,F,T)

100 % A4.86E7 A4.65E7



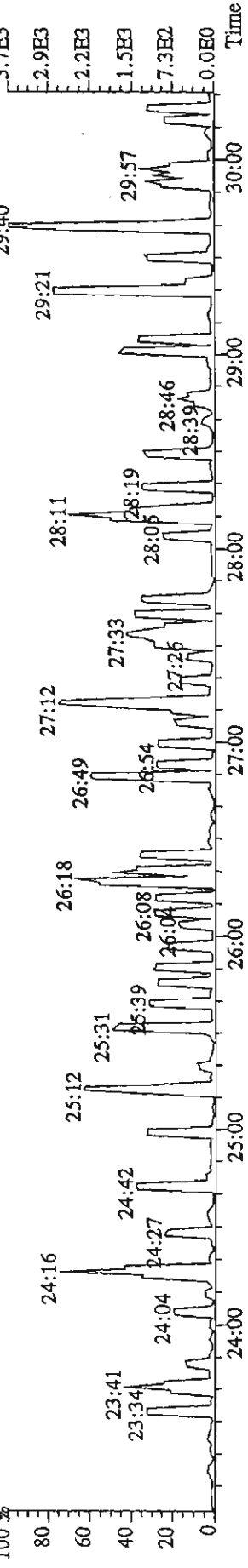
341.8567 S:30 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3060.0,1.00%,F,T)

100 % A3.12E7 A3.00E7

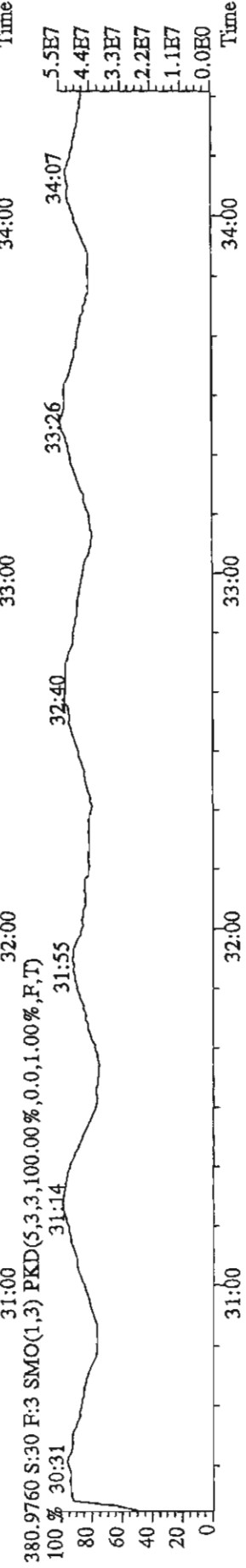
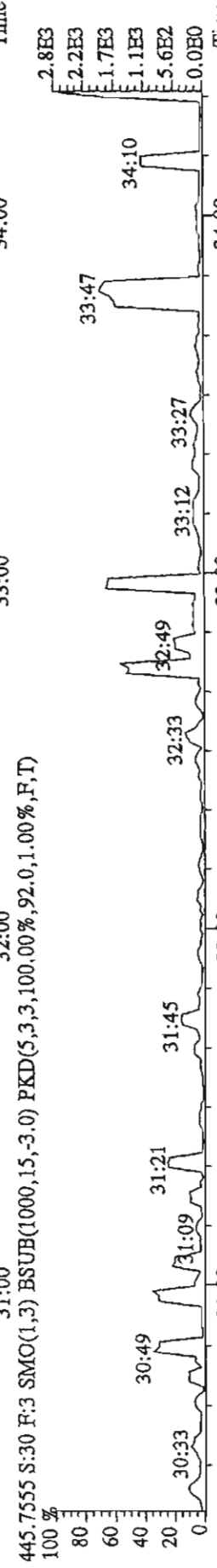
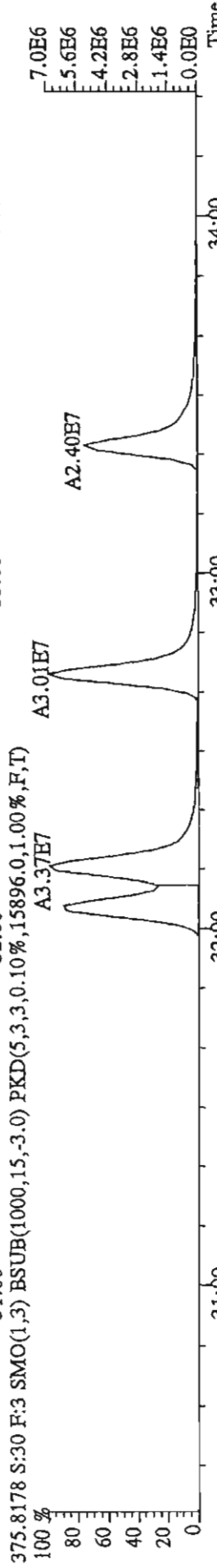
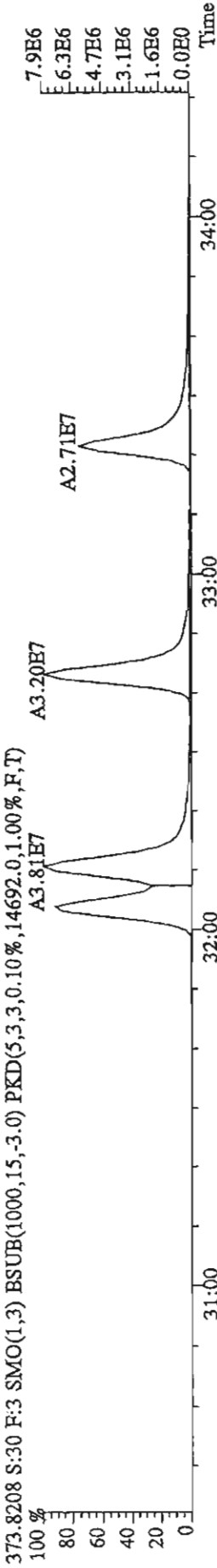
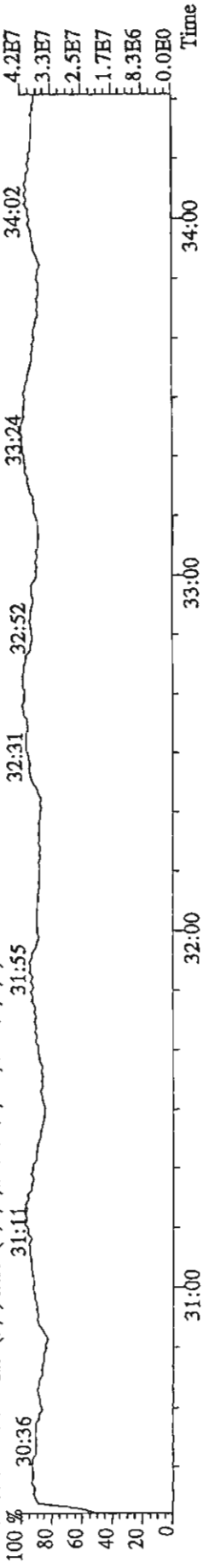


409.7974 S:30 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,84.0,1.00%,F,T)

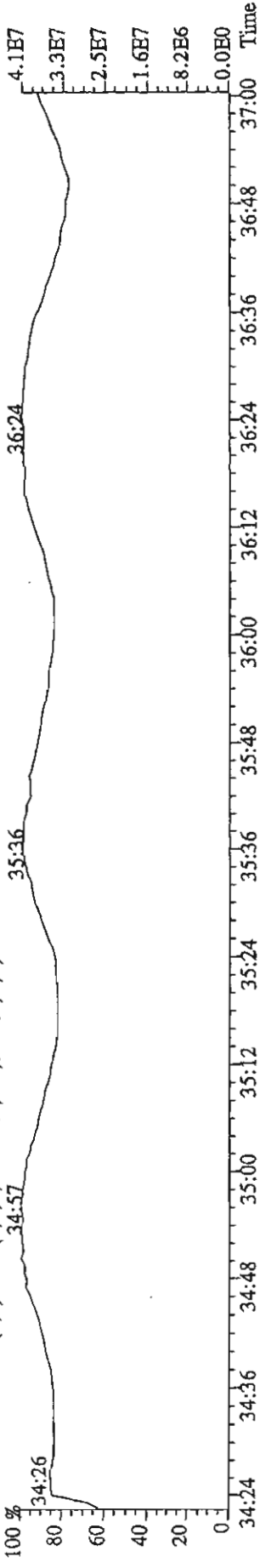
100 %



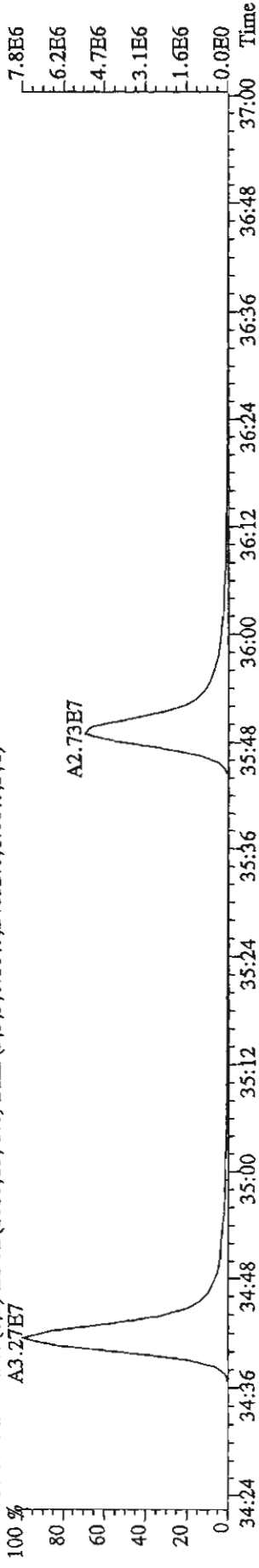
File:24MR114D5 #1-287 Acq:25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#30 Text:ST0324B :CS3 10DXN505 Exp:DIOXINES
 392.9760 S:30 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)
 100 %



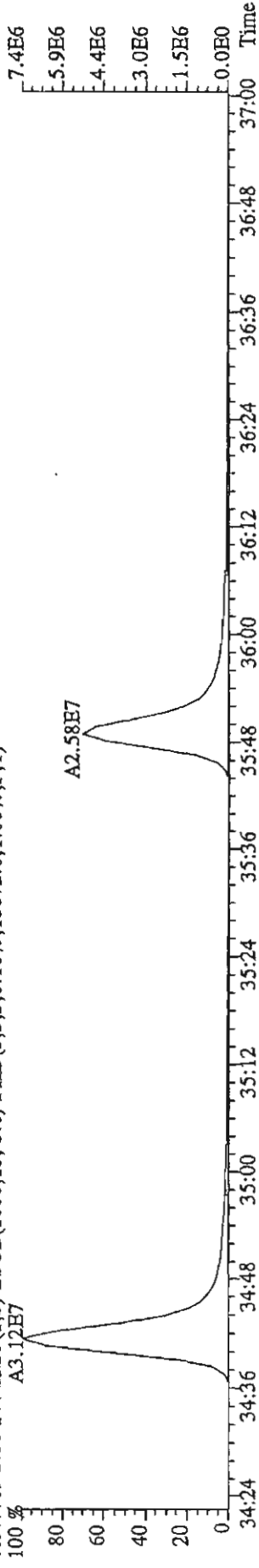
File: 24MR114D5 #1-200 Acq: 25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#30 Text: ST0324B : CS3 10DXN505 Exp: DIOXINRES
 430.9728 S:30 F:4 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)
 100 %



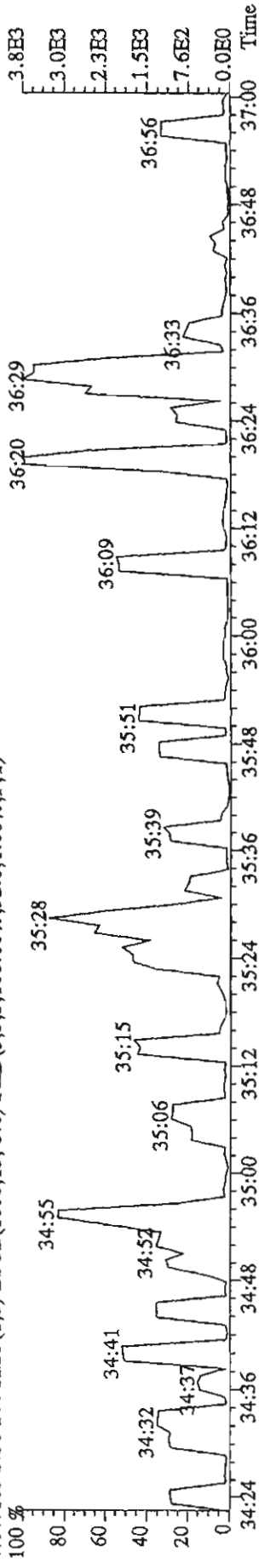
407.7818 S:30 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,24832.0,1.00%,F,T)
 100 %



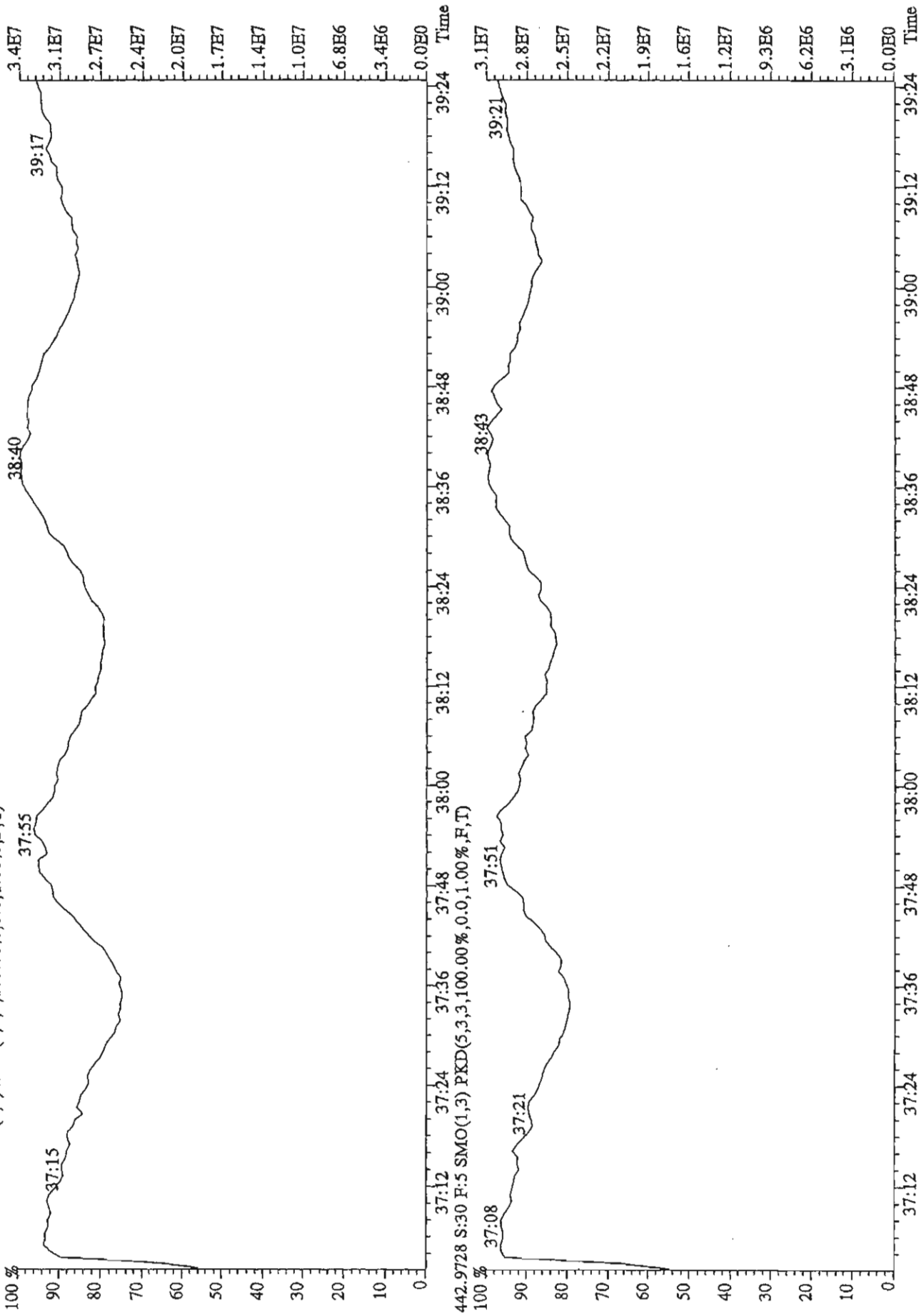
409.7789 S:30 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,15872.0,1.00%,F,T)
 100 %



479.7165 S:30 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,92.0,1.00%,F,T)
 100 %



File: 24MR114D5 #1-193 Acq: 25-MAR-2011 07:54:12 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#30 Text: ST0324B :CS3 10DXN505 Exp: DIOXINRES
 454.9728 S:30 F:5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

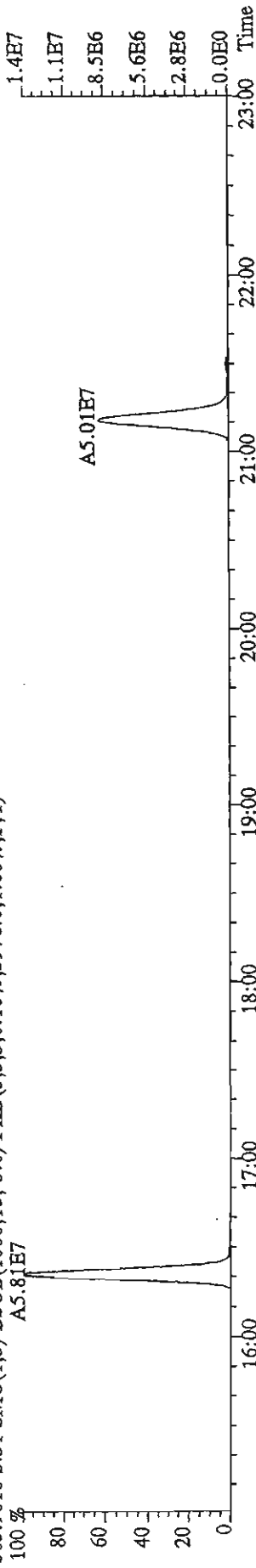


File: 24MR114D5 #1-530 Acq: 25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE

Sample#31 Text: CP0324B :DB-5 CP5M 3732-12 Exp: DIOXINRES

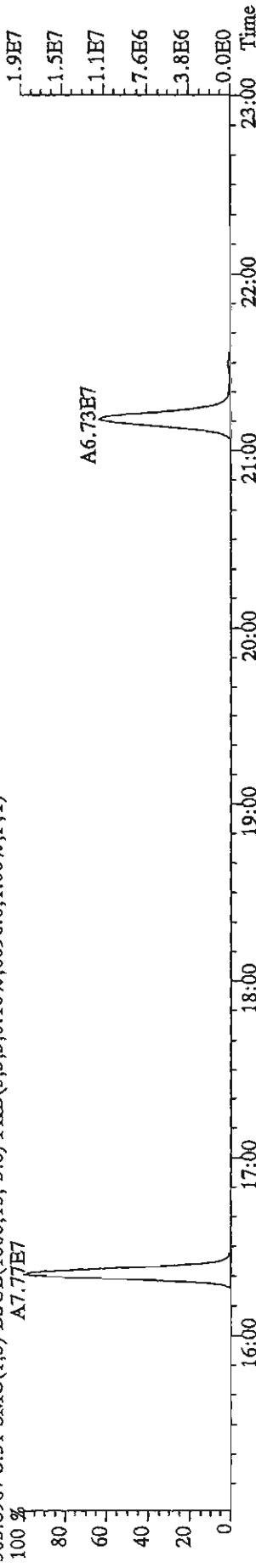
303.9016 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6096.0,1.00%,F,T)

100% A5.81E7



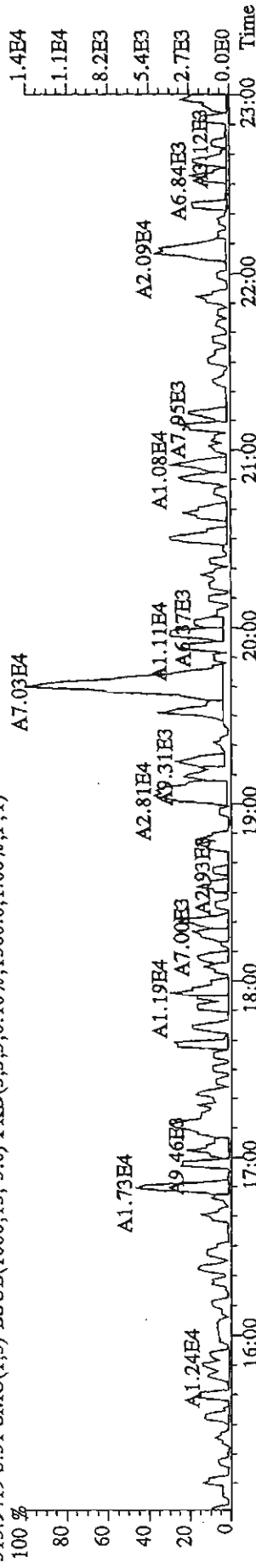
305.8987 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6096.0,1.00%,F,T)

100% A7.77E7



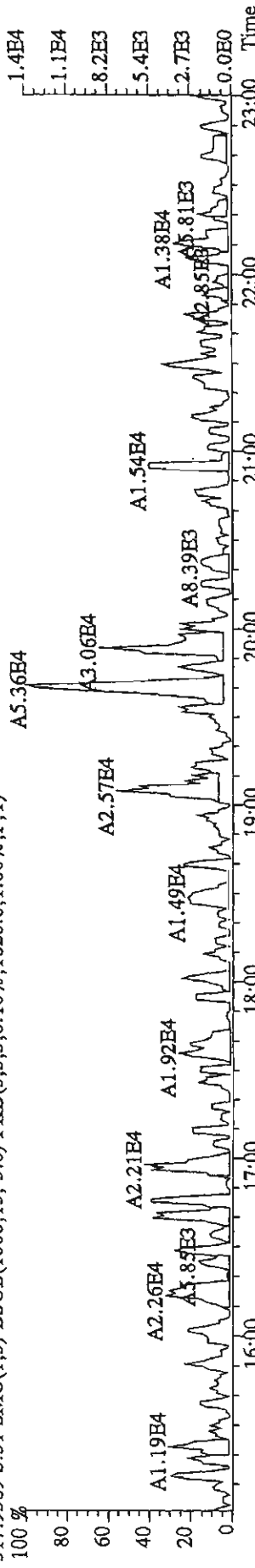
315.9419 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1560.0,1.00%,F,T)

100%



317.9389 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1620.0,1.00%,F,T)

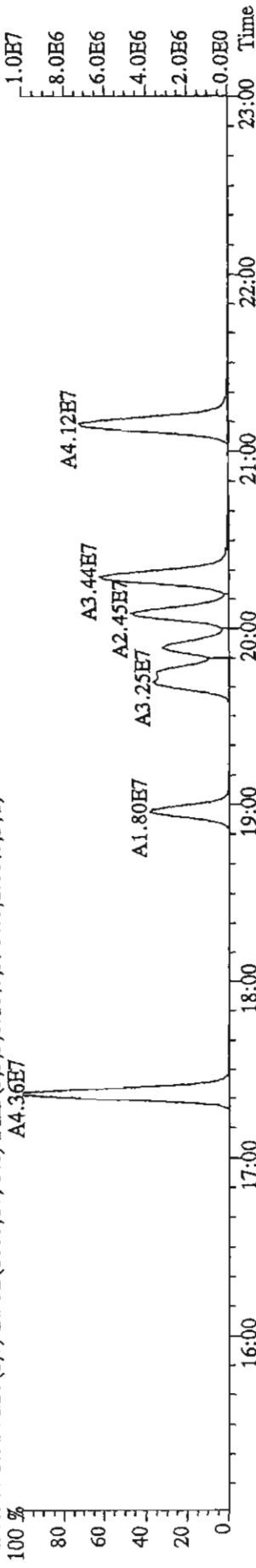
100%



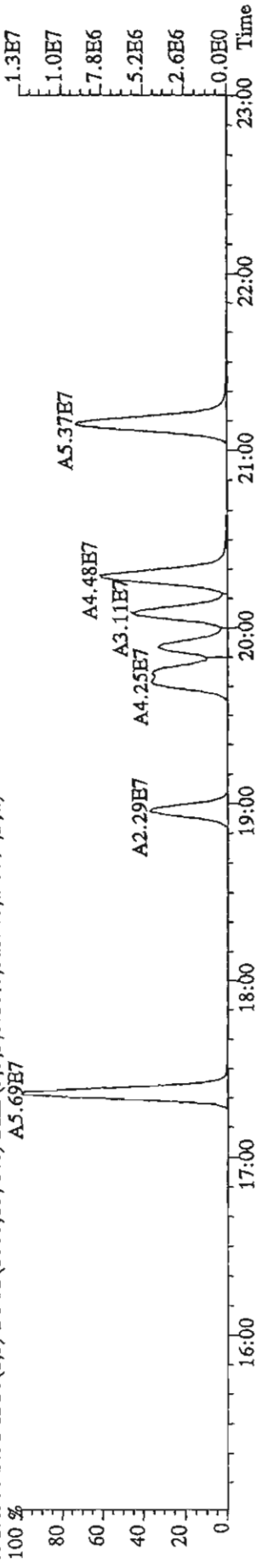
File: 24MR114D5 #1-530 Acq: 25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaB

Sample#31 Text: CP0324B :DB-5 CPSM 3732-12 Exp: DIOXINRES

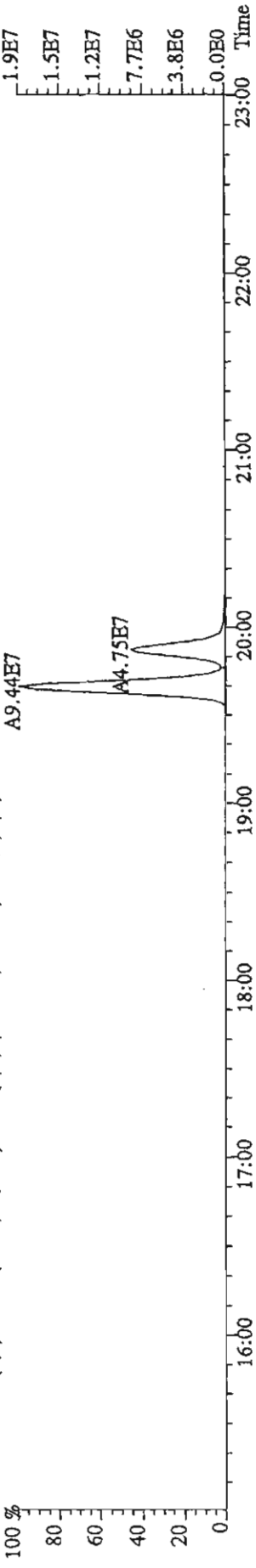
319.8965 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3964.0,1.00%,F,T)



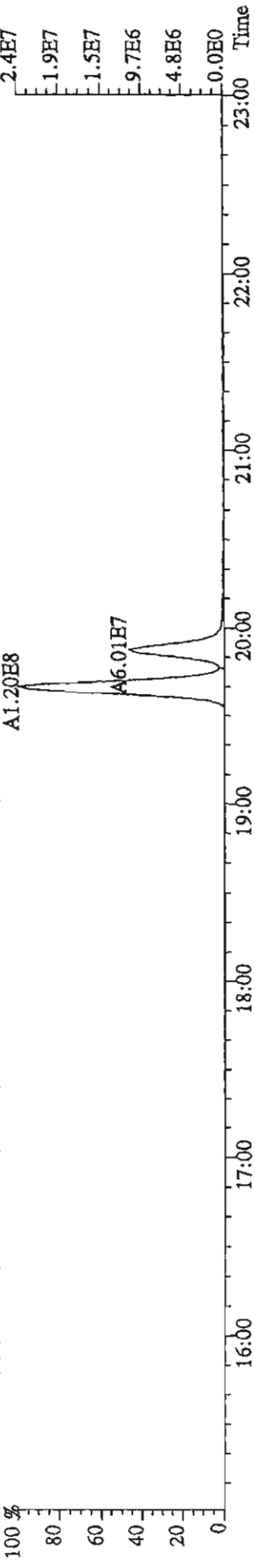
321.8936 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5132.0,1.00%,F,T)



331.9368 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8984.0,1.00%,F,T)



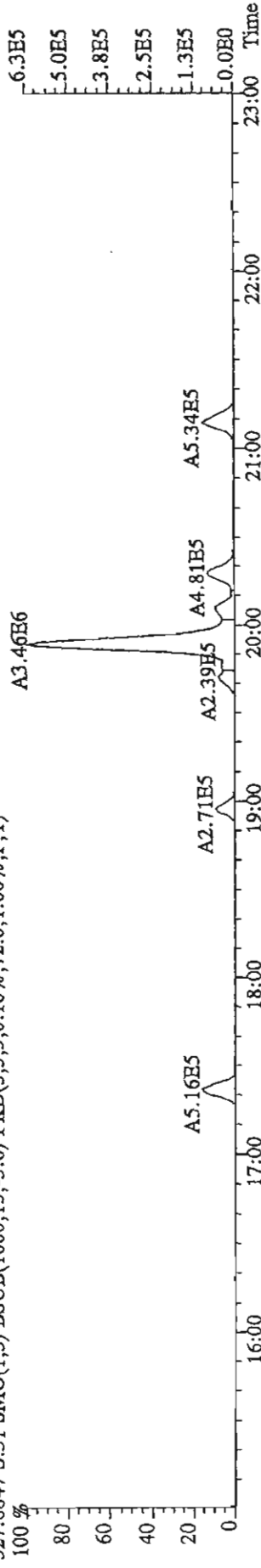
333.9339 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3716.0,1.00%,F,T)



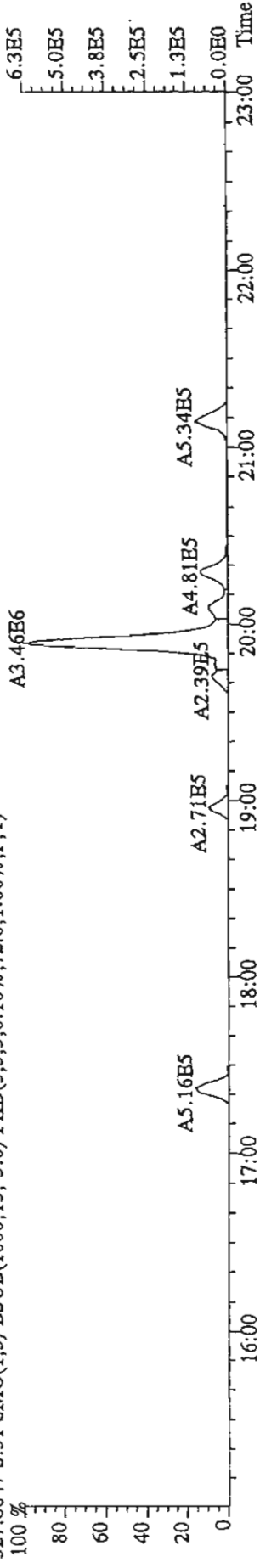
File: 24MR114D5 #1-530 Acq: 25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE

Sample#31 Text: CP0324B :DB-5 CPSM 3732-12 Exp: DIOXINRES

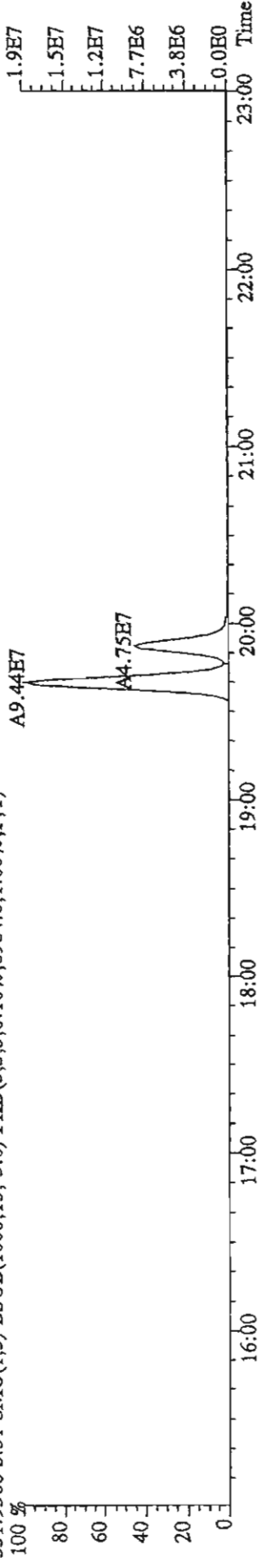
327.8847 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,72.0,1.00%,F,T)



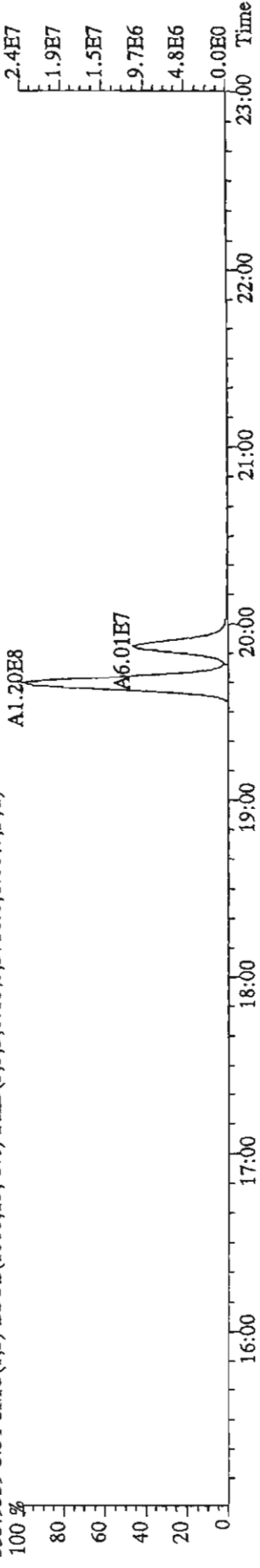
327.8847 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,72.0,1.00%,F,T)



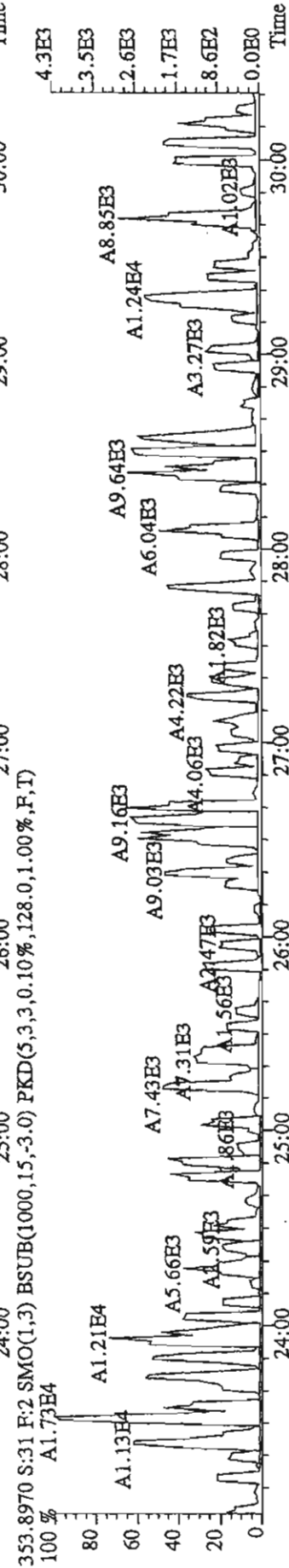
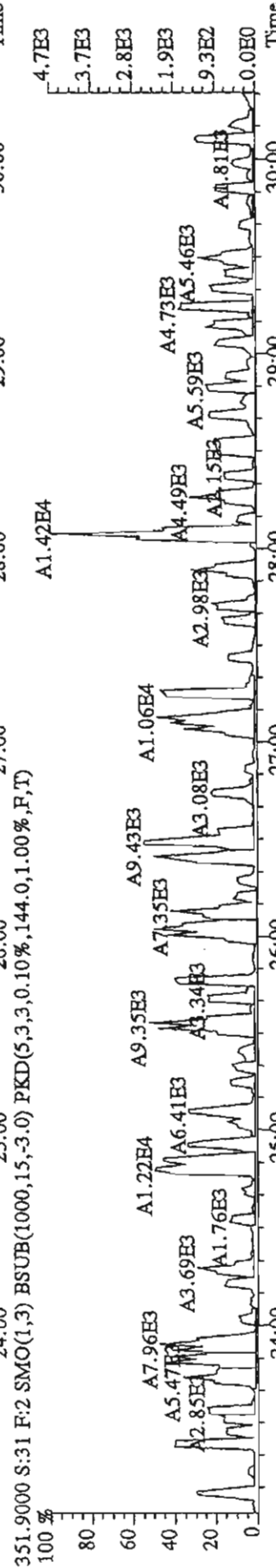
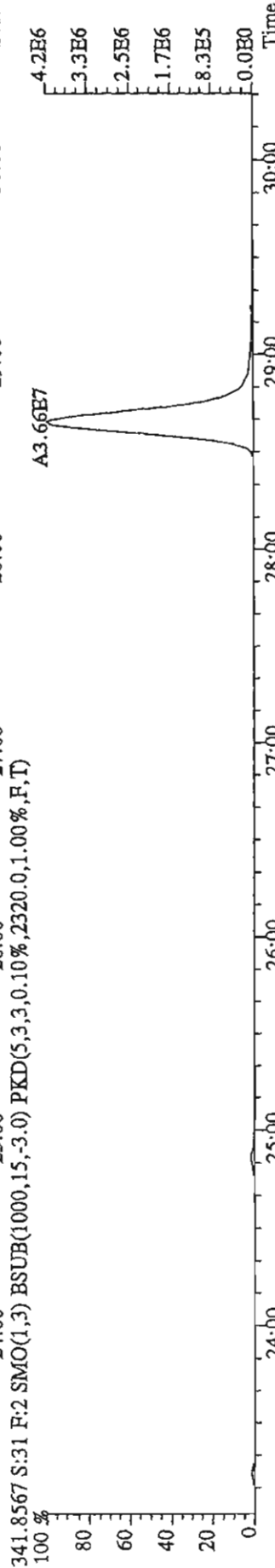
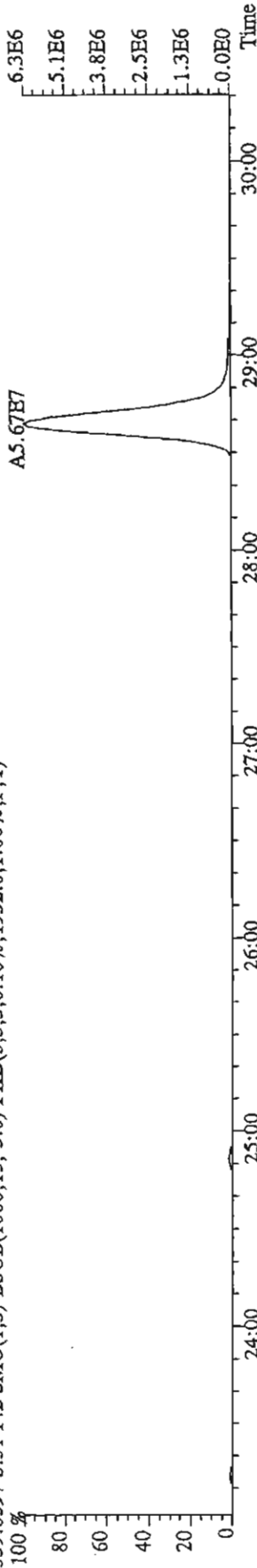
331.9368 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8984.0,1.00%,F,T)



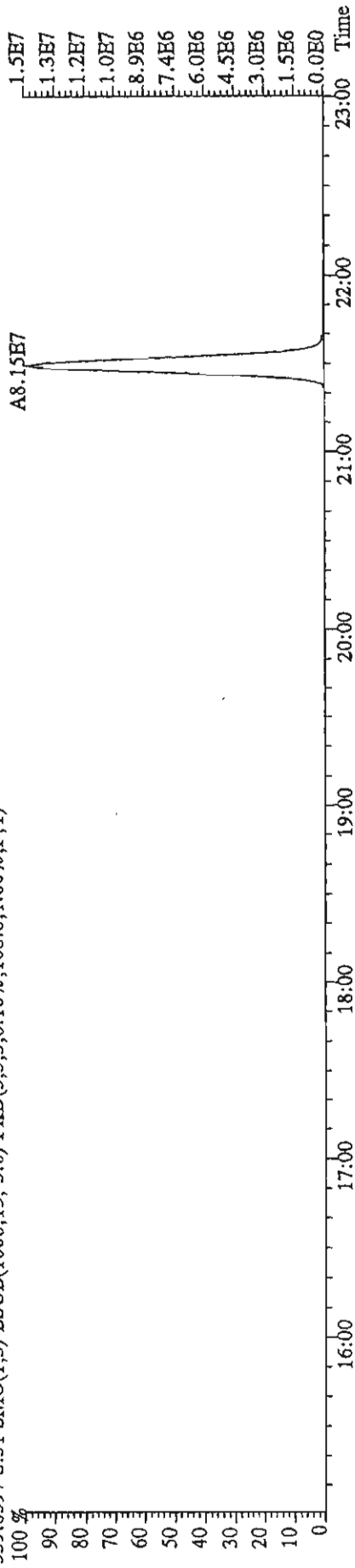
333.9339 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3716.0,1.00%,F,T)



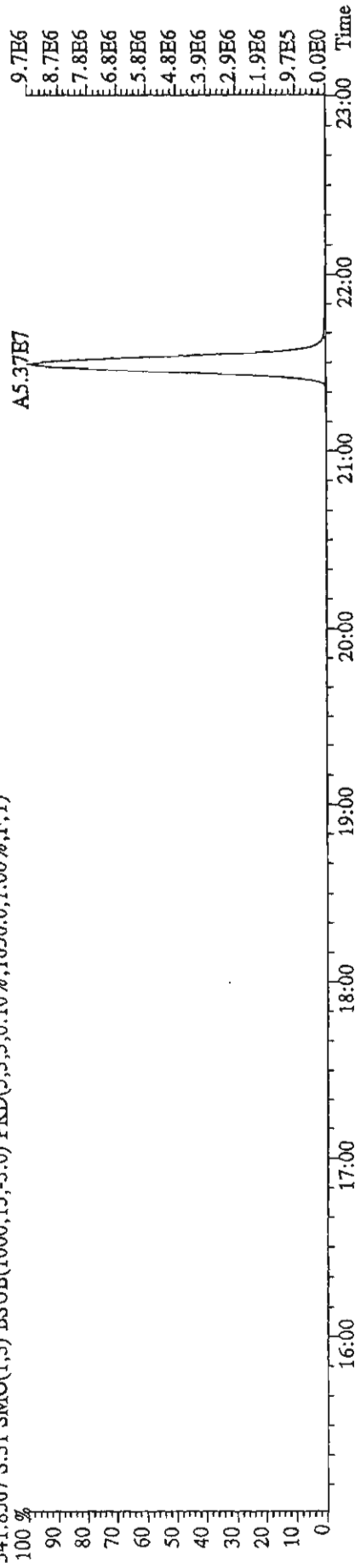
File: 24MR114D5 #1-470 Acq: 25-MAR-2011 08:38:42 GC EI + Voltage SIR Autospec-UltimaE
 Sample#31 Text: CP0324B :DB-5 CPSM 3732-12 Exp: DIOXINRES
 339.8597 S:31 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1932.0,1.00%,F,T)



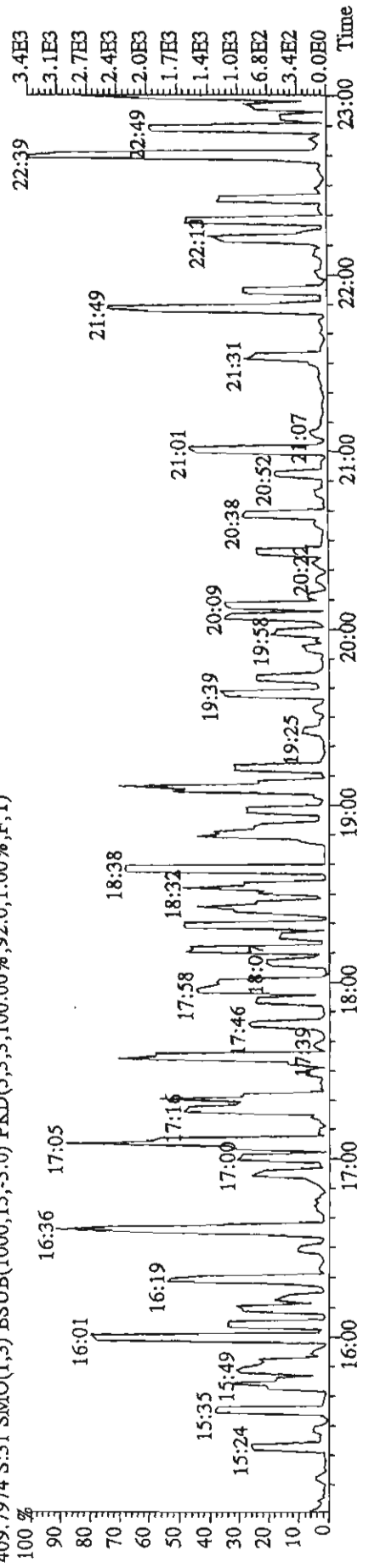
File: 24MR114D5 #1-530 Acq: 25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#31 Text: CP0324B :DB-5 CP5M 3732-12 Exp: DIOXINRES
 339.8597 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,108.0,1.00%,F,T)



341.8567 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1656.0,1.00%,F,T)

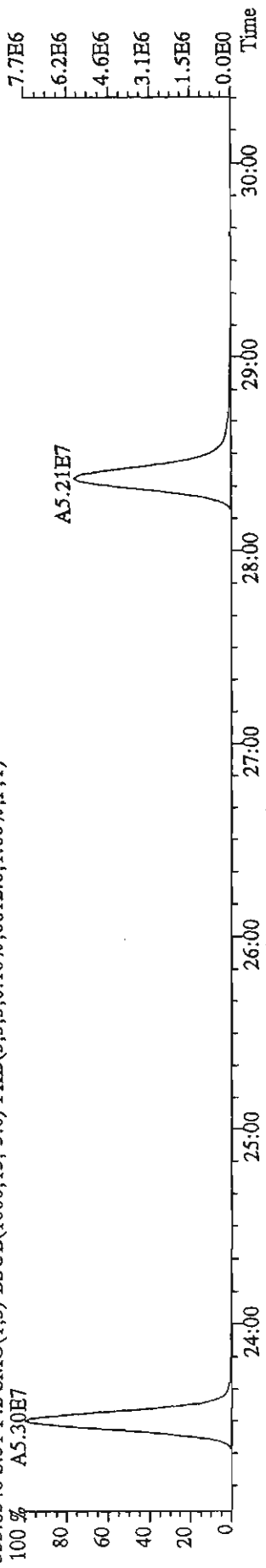


409.7974 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,92.0,1.00%,F,T)

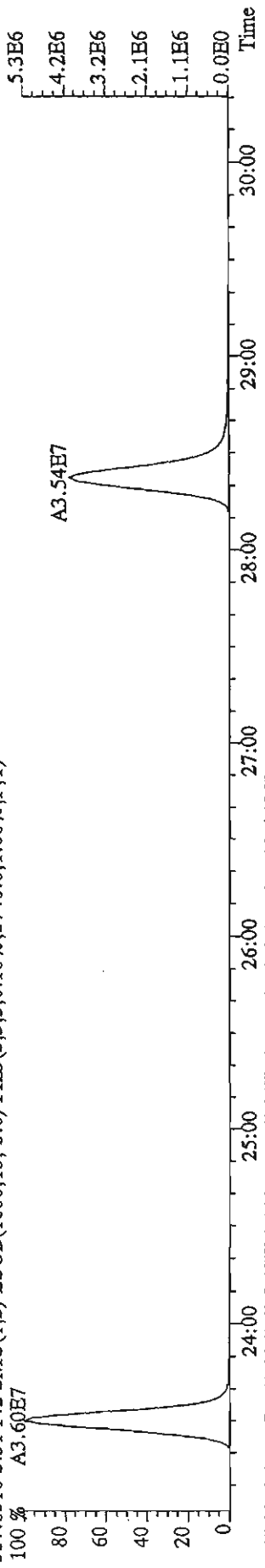


File:24MR114D5 #1-470 Acq:25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE

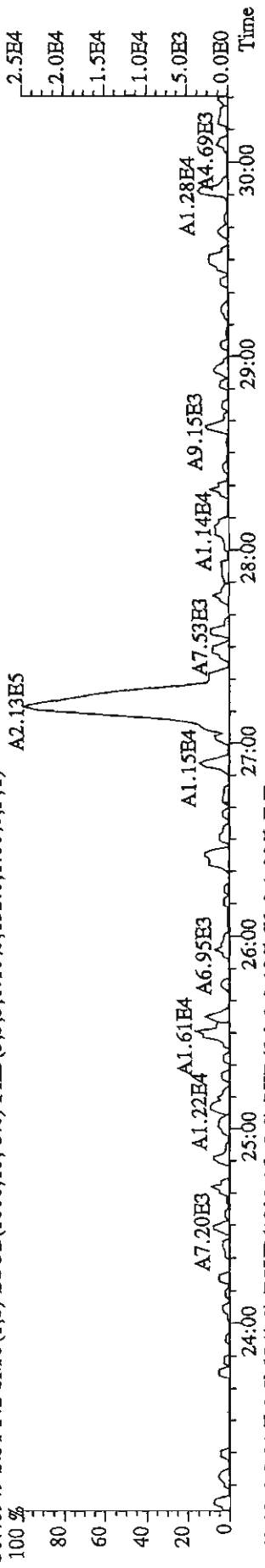
Sample#31 Text:CP0324B :DB-5 CPSM 3732-12 Exp:DIOXINRES
355.8546 S:31 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,6612.0,1.00%,F,T)



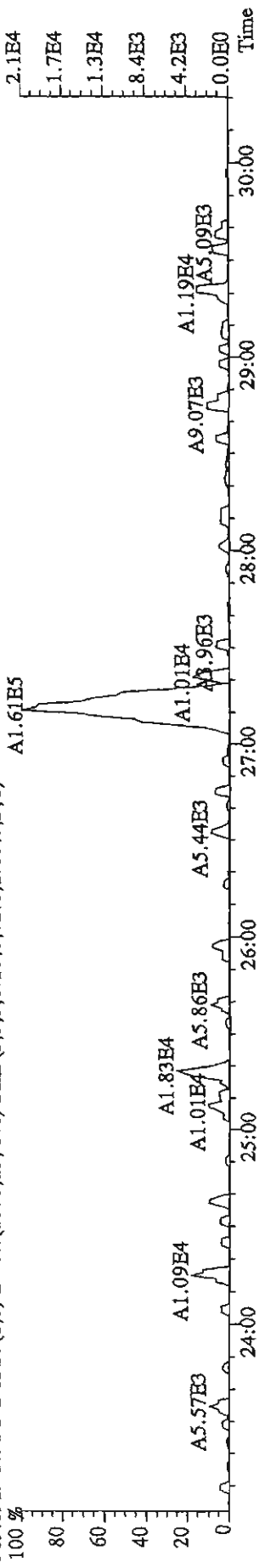
357.8516 S:31 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,5740.0,1.00%,F,T)



367.8949 S:31 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,132.0,1.00%,F,T)

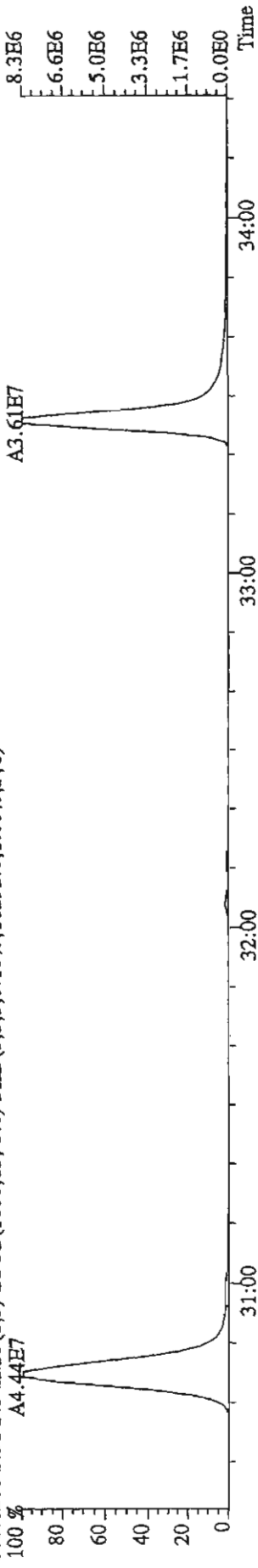


369.8919 S:31 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,72.0,1.00%,F,T)

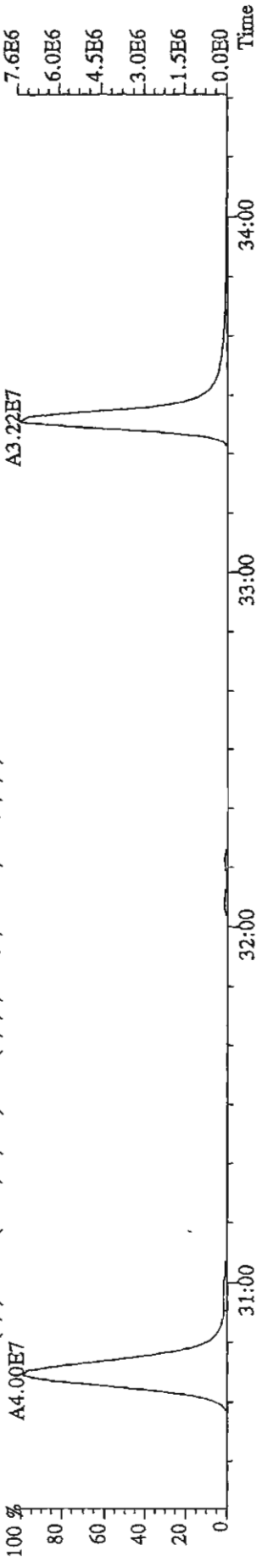


File: 24MR114D5 #1-287 Acq: 25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#31 Text: CP0324B ;DB-5 CPSM 3732-12 Exp: DIOXINRES

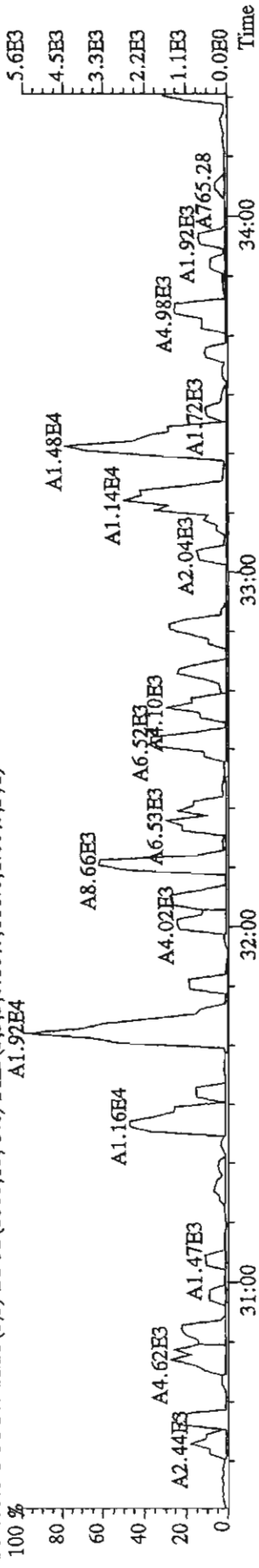
373.8208 S:31 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,16292.0,1.00%,F,T)
 100 %



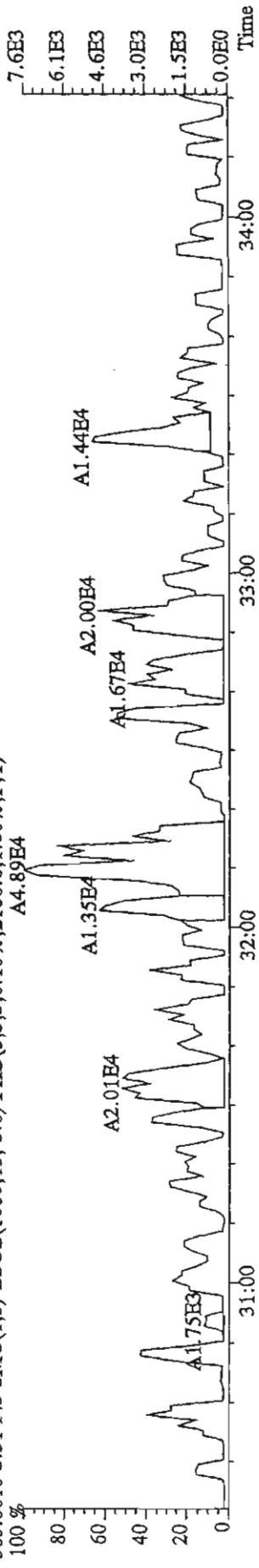
375.8178 S:31 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6696.0,1.00%,F,T)
 100 %



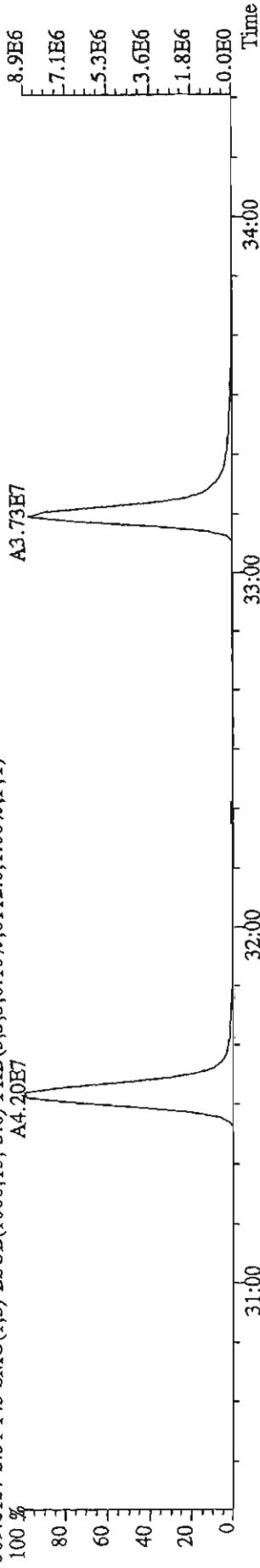
383.8639 S:31 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,116.0,1.00%,F,T)
 100 %



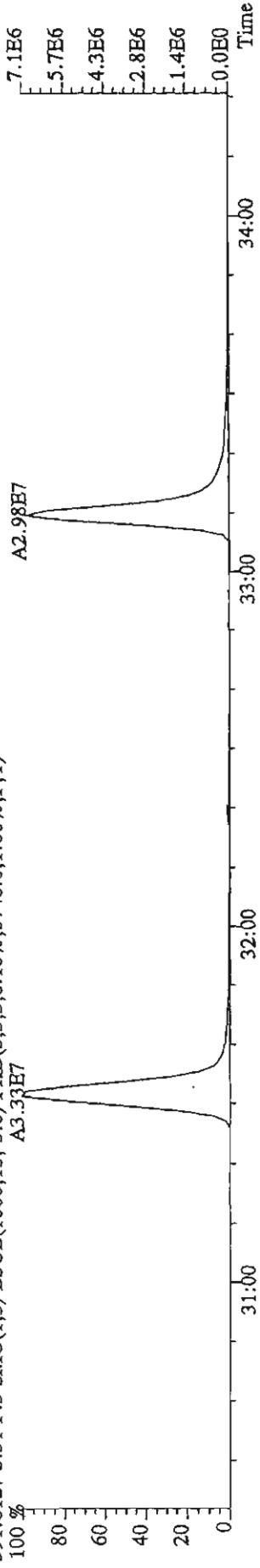
385.8610 S:31 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2188.0,1.00%,F,T)
 100 %



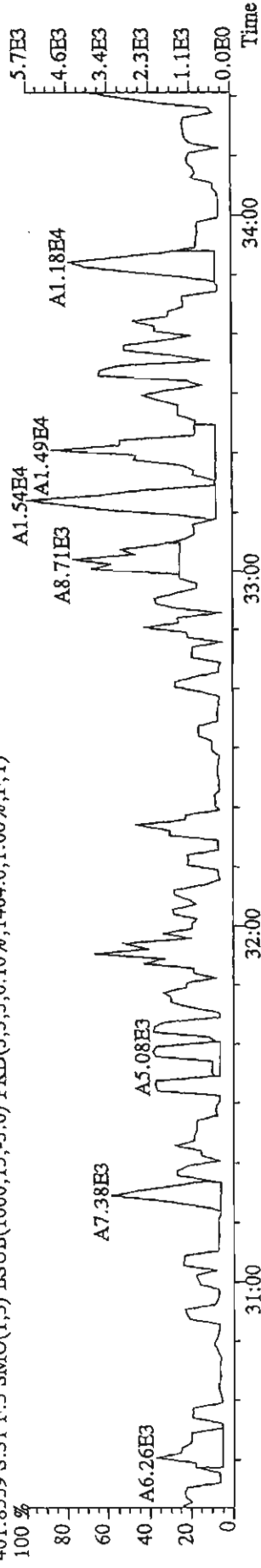
File: 24MR114D5 #1-287 Acq: 25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#31 Text: CP0324B :DB-5 CPSM 3732-12 Exp: DIOXINRES
 389.8157 S:31 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,8112.0,1.00%,F,T)



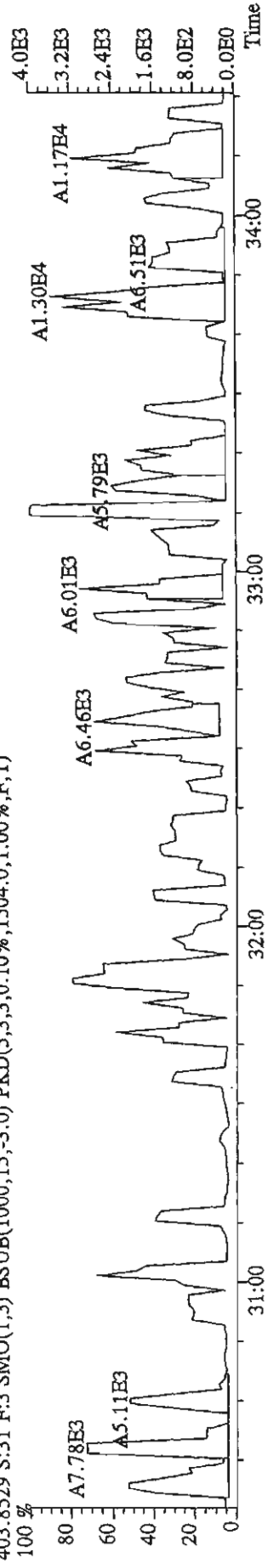
391.8127 S:31 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,5748.0,1.00%,F,T)



401.8559 S:31 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1464.0,1.00%,F,T)



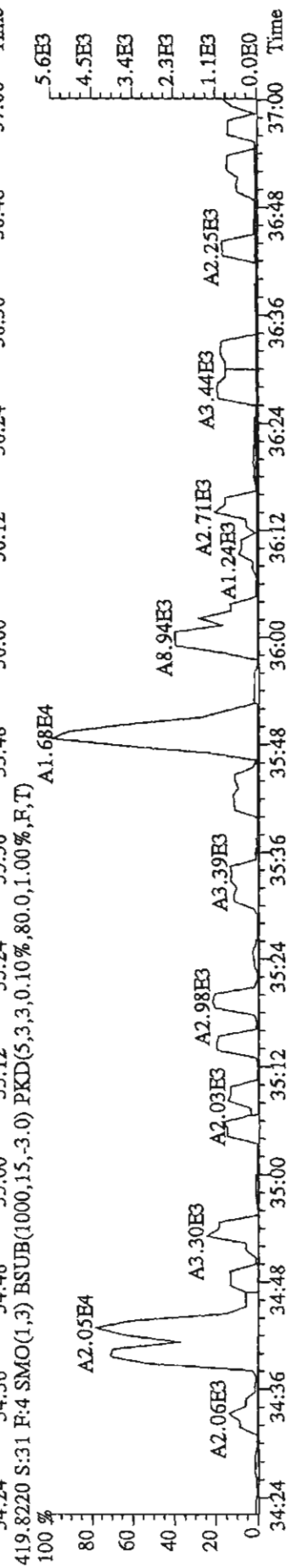
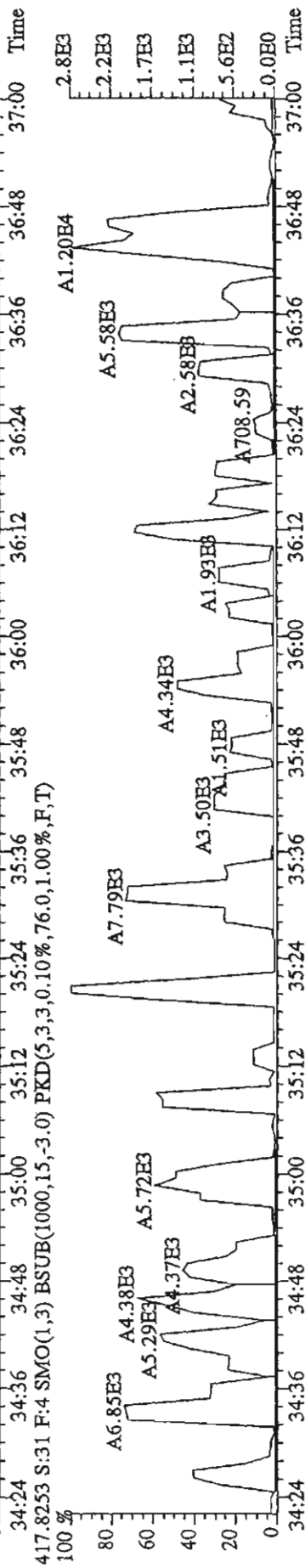
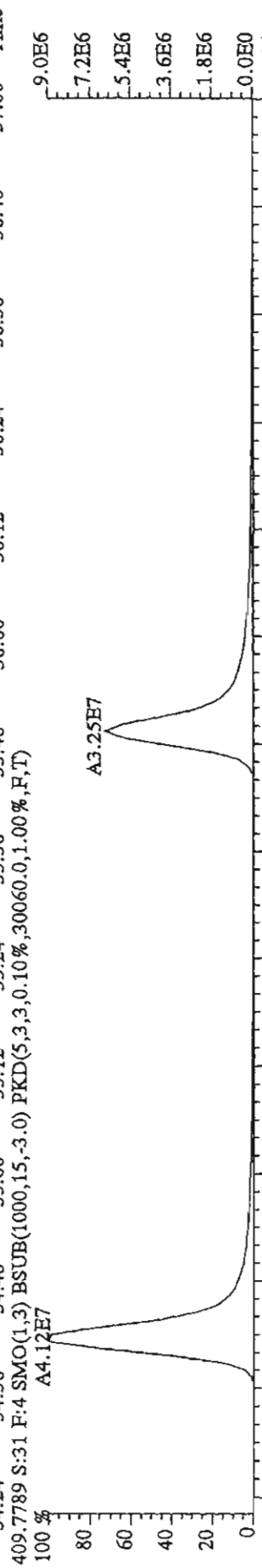
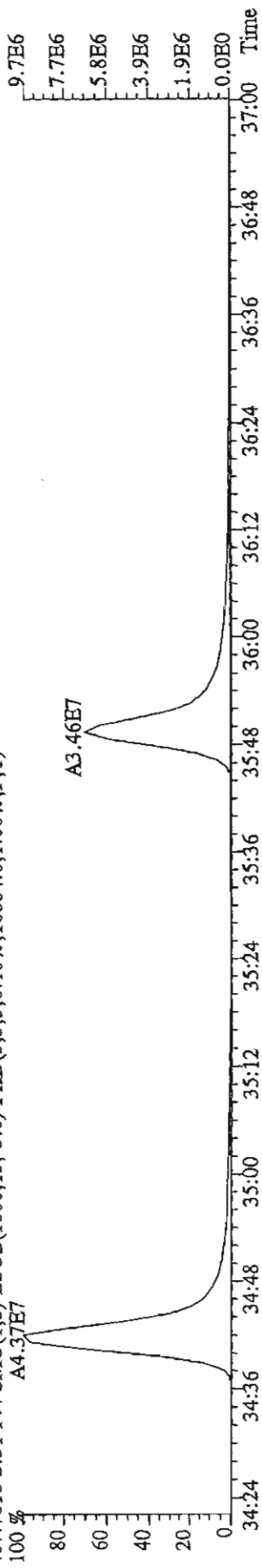
403.8529 S:31 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1504.0,1.00%,F,T)



File:24MR114D5 #1-200 Acq:25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE

Sample#31 Text:CF0324B :DB-5 CPSM 3732-12 Exp:DIOXINRES

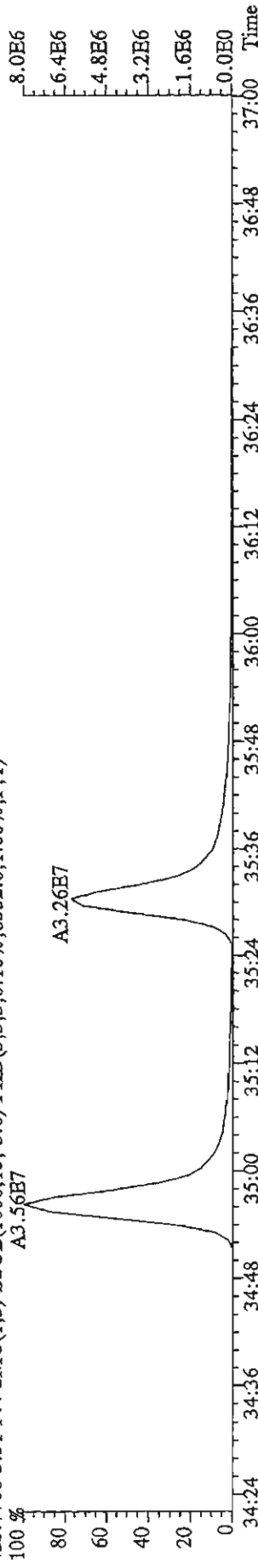
407.7818 S:31 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,16804.0,1.00%,F,T)



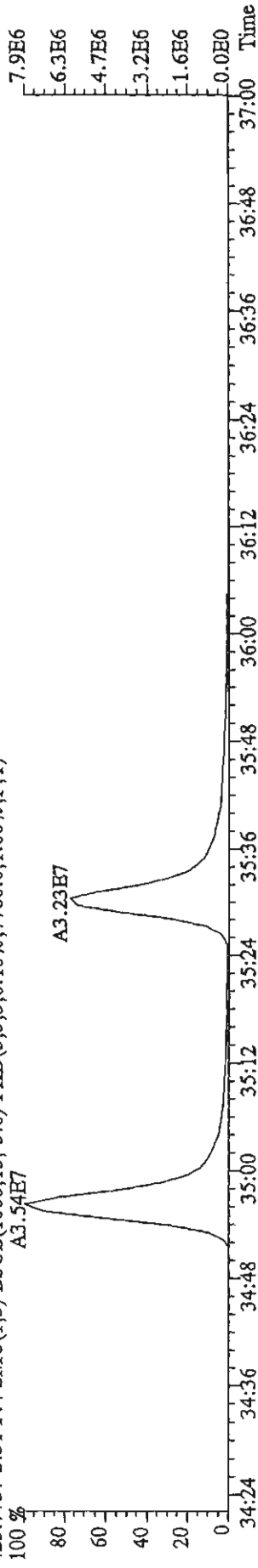
File: 24MR114D5 #1-200 Acq: 25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE

Sample#31 Text: CP0324B :DB-5 CP5M 3732-12 Exp: DIOXINRES

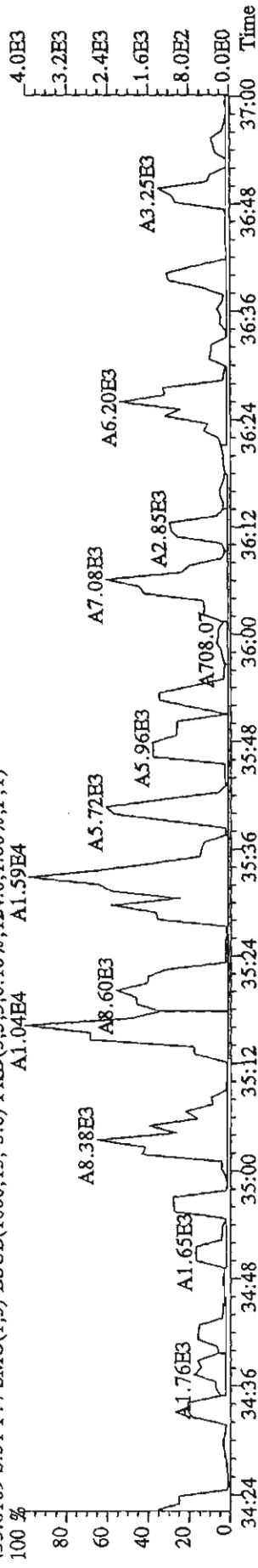
423.7766 S:31 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6352.0,1.00%,F,T)



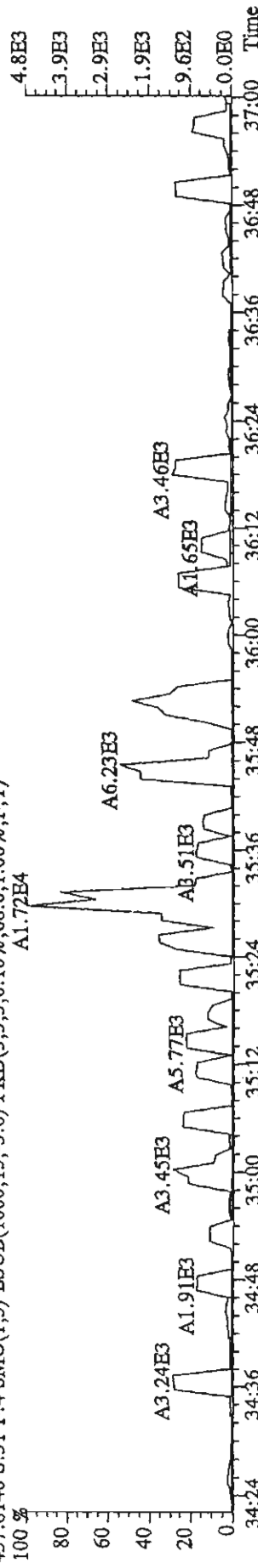
425.7737 S:31 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,7780.0,1.00%,F,T)



435.8169 S:31 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,124.0,1.00%,F,T)



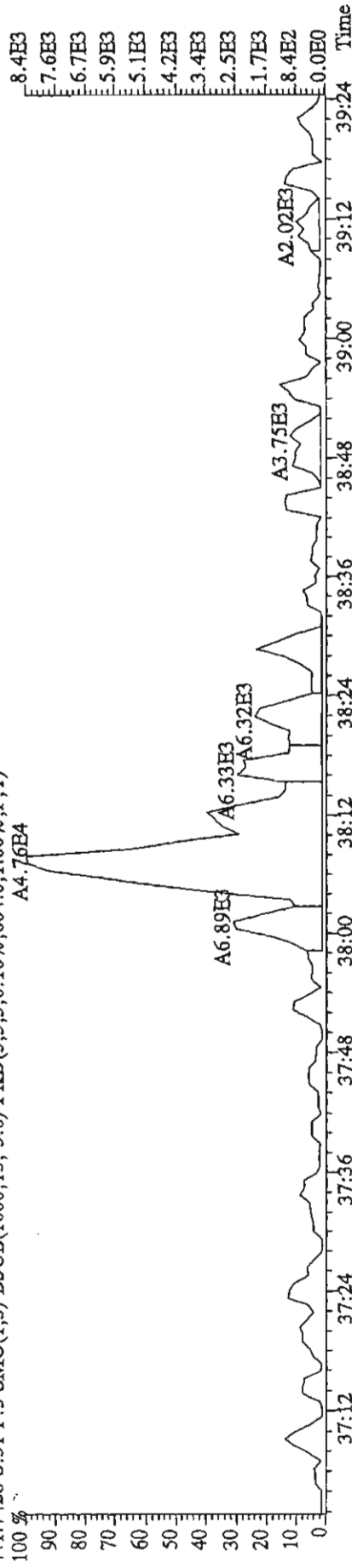
437.8140 S:31 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,68.0,1.00%,F,T)



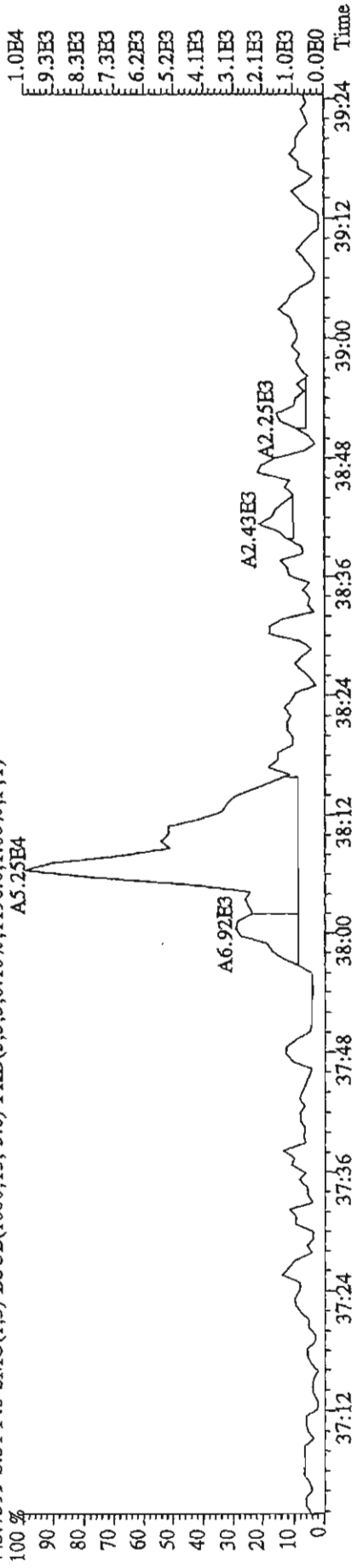
File: 24MR114D5 #1-193 Acq: 25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE

Sample#31 Text: CP0324B :DB-5 CFSM 3732-12 Exp: DIOXINRES

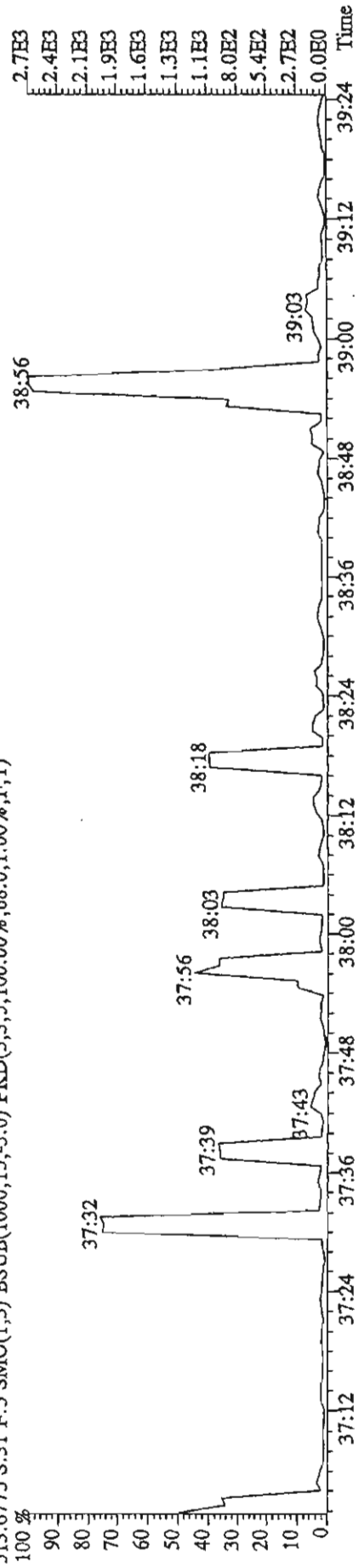
441.7428 S:31 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,604.0,1.00%,F,T)



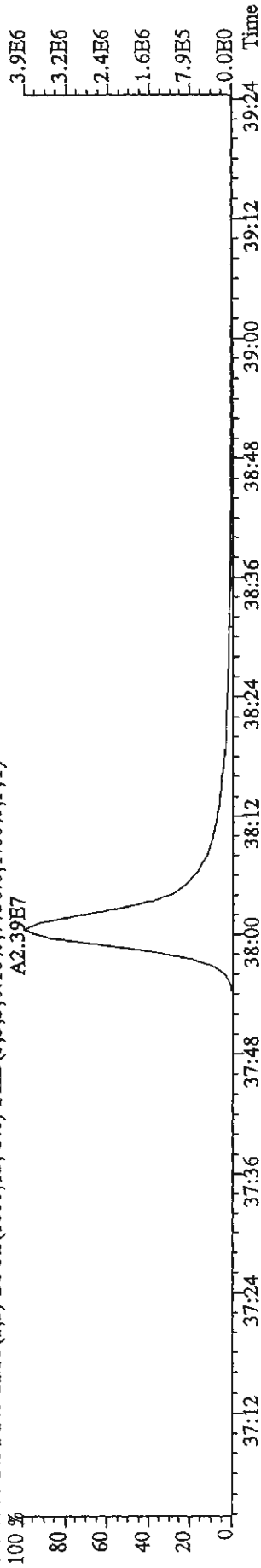
443.7399 S:31 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1196.0,1.00%,F,T)



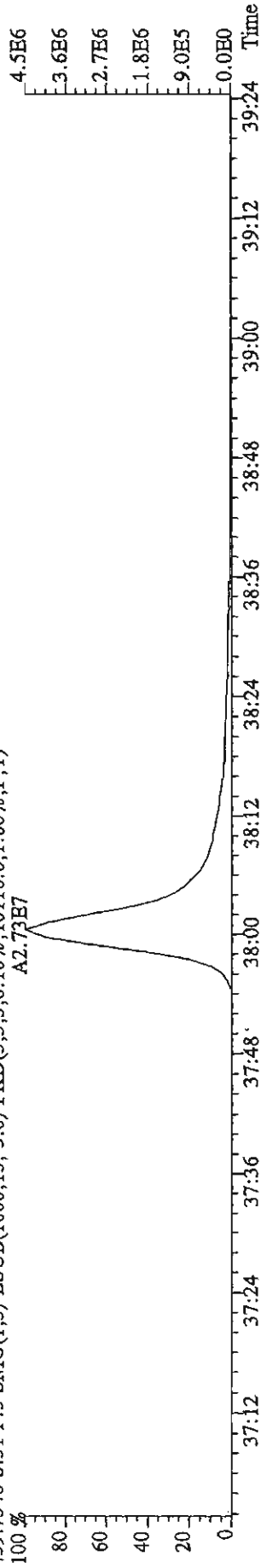
513.6775 S:31 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,5,100.00%,68.0,1.00%,F,T)



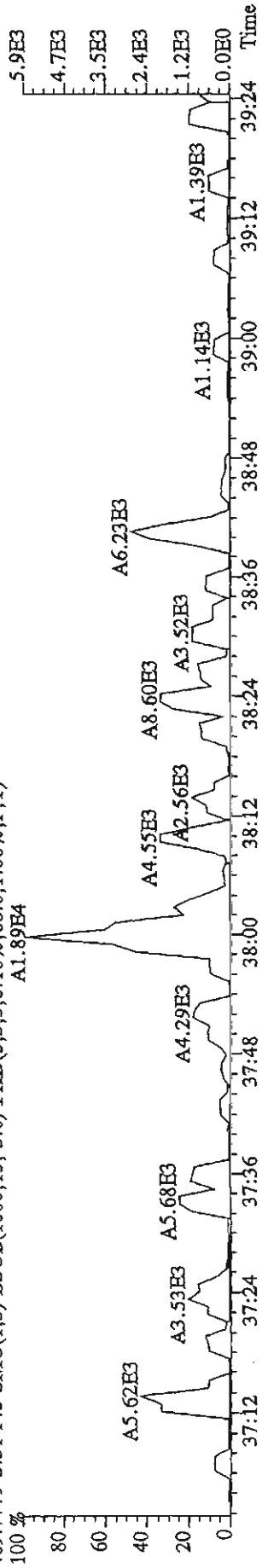
File: 24MR114D5 #1-193 Acq: 25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaB
Sample#31 Text: CP0324B : DB-5 CFSM 3732-12 Exp: DIOXINRES
457.7377 S:31 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,7736.0,1.00%,F,T)
A2.39E7



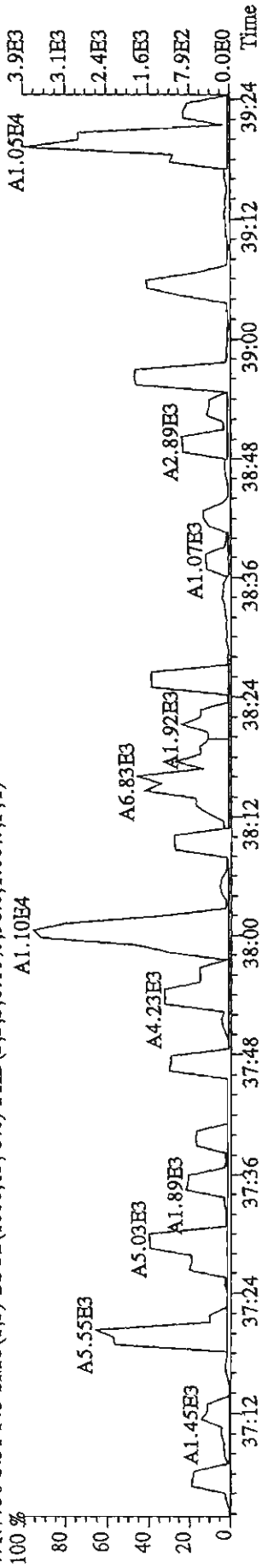
459.7348 S:31 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,10116.0,1.00%,F,T)
A2.73E7



469.7779 S:31 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,68.0,1.00%,F,T)
A1.89E4



471.7750 S:31 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,96.0,1.00%,F,T)
A1.10E4

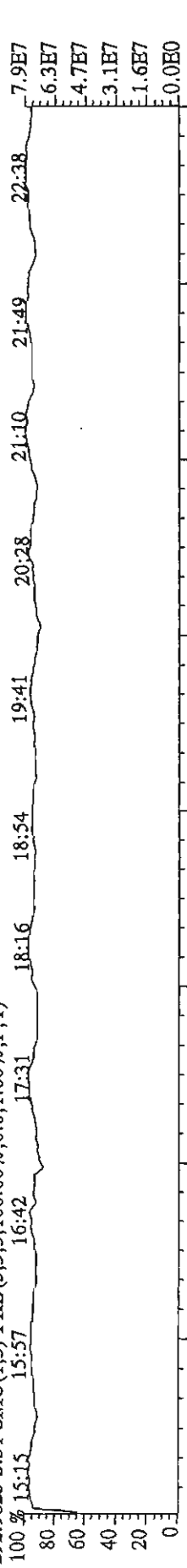


File:24MR114D5 #1-530 Acq:25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaB

Sample#31 Text:CP0324B :DB-5 CP3M 3732-12 Exp:D\OXINRES

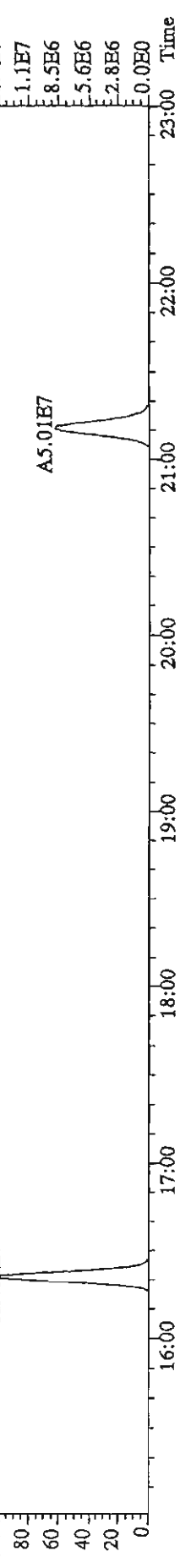
292.9825 S:31 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)

100% 15:15 15:57 16:42 17:31 18:16 18:54 19:41 20:28 21:10 21:49 22:38 23:38



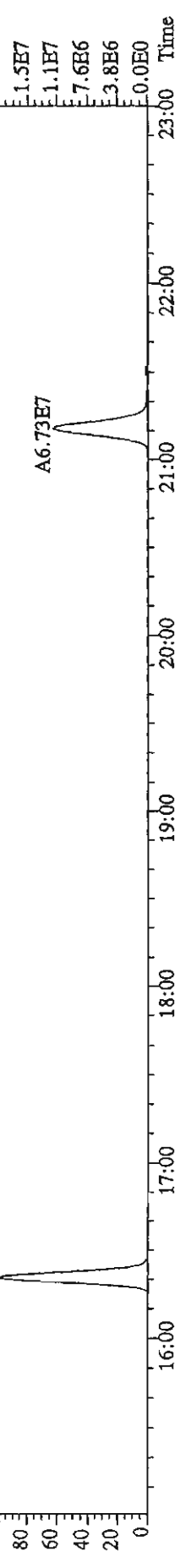
303.9016 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3976.0,1.00%,F,T)

100% 16:00 17:00 18:00 19:00



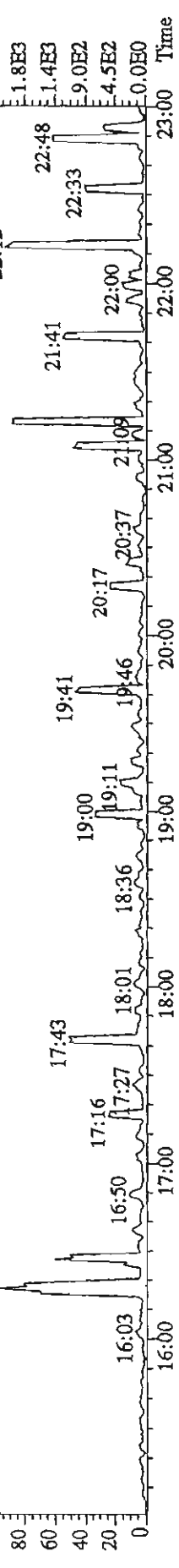
305.8987 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6096.0,1.00%,F,T)

100% 16:00 17:00 18:00 19:00



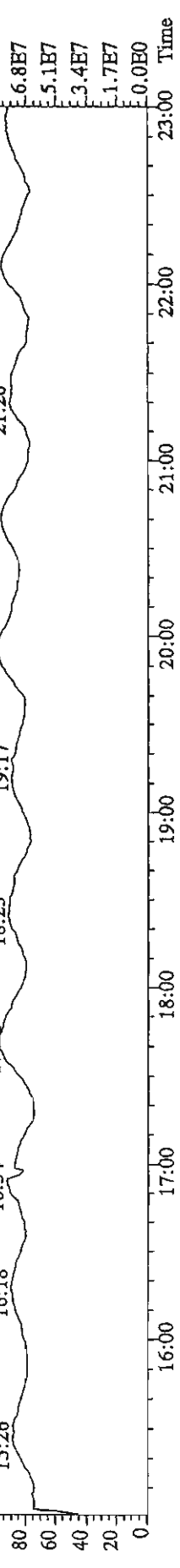
375.8364 S:31 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,92.0,1.00%,F,T)

100% 16:00 17:00 18:00 19:00



330.9792 S:31 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100% 15:26 16:18 16:54 17:41 18:25 19:17 19:56 20:40 21:20 22:06 23:00

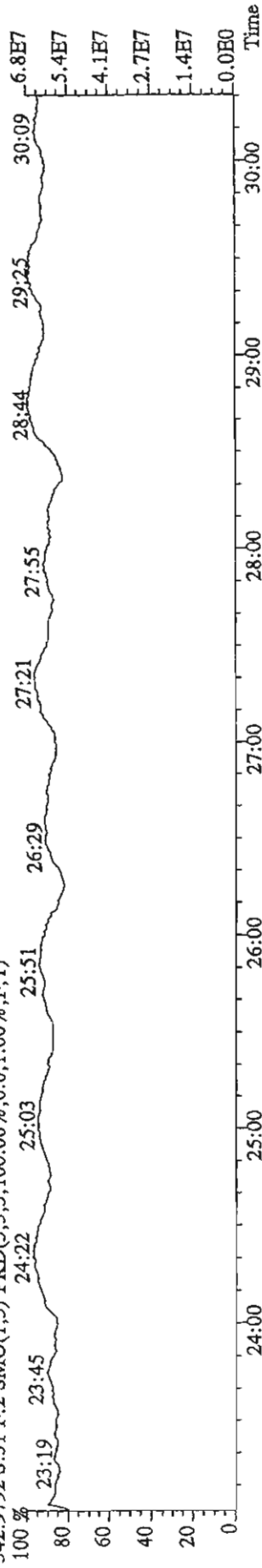


File:24MR114D5 #1-470 Acq:25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE

Sample#31 Text:CP0324B :DB-5 CPSM 3732-12 Exp:DIOXINRES

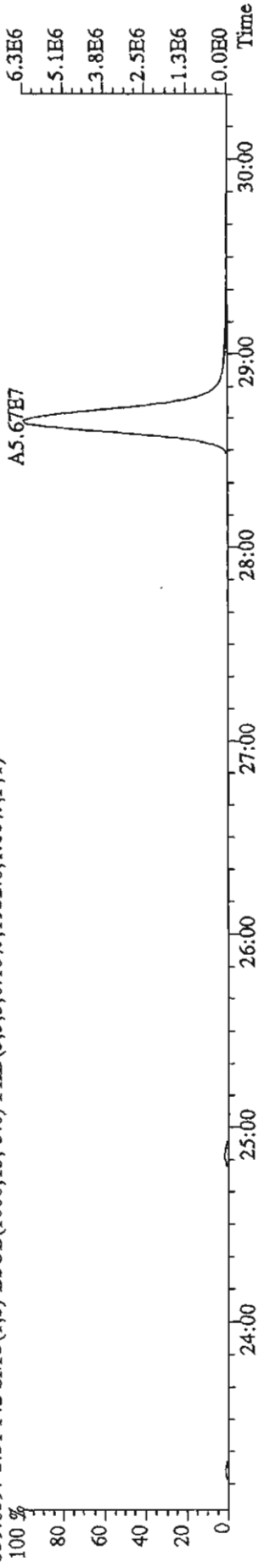
342.9792 S:31 F:2 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 %



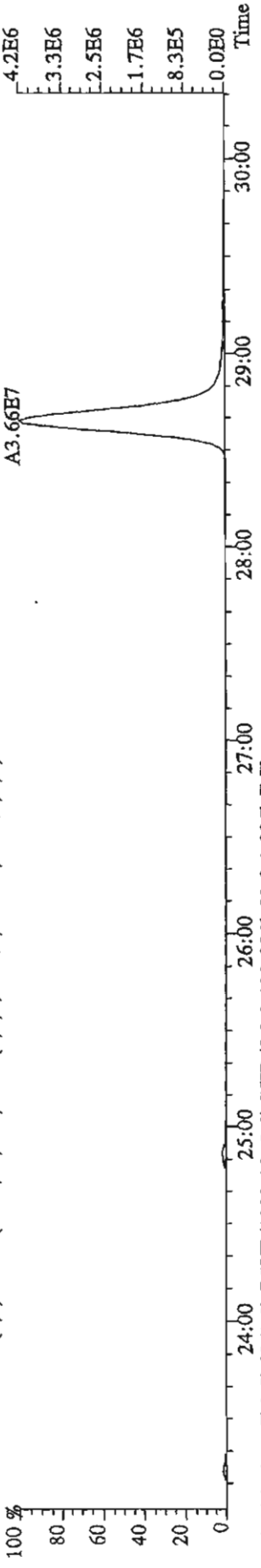
339.8597 S:31 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1.932,0,1.00%,F,T)

100 %



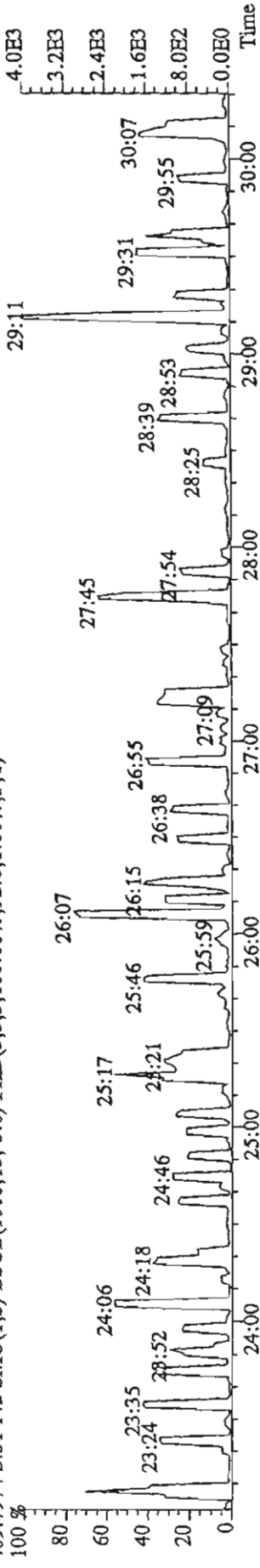
341.8567 S:31 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2.320,0,1.00%,F,T)

100 %



409.7974 S:31 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,92.0,1.00%,F,T)

100 %

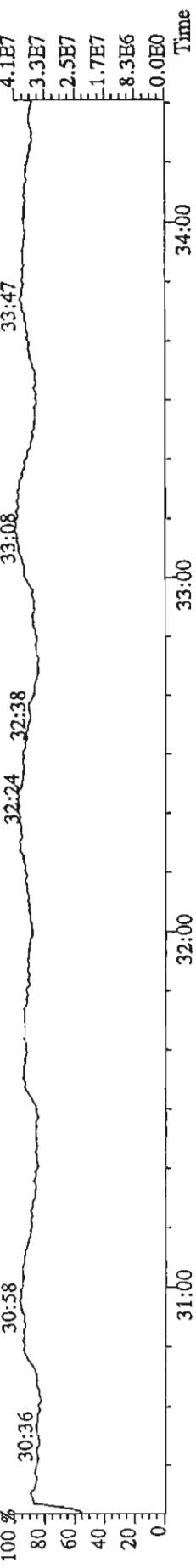


File:24MR114D5 #1-287 Acq:25-MAR-2011 08:38:42 GC EI + Voltage SIR Autospec-UltimaE

Sample#31 Text:CP0324B :DB-5 CFSM 3732-12 Exp:DIOXINRES

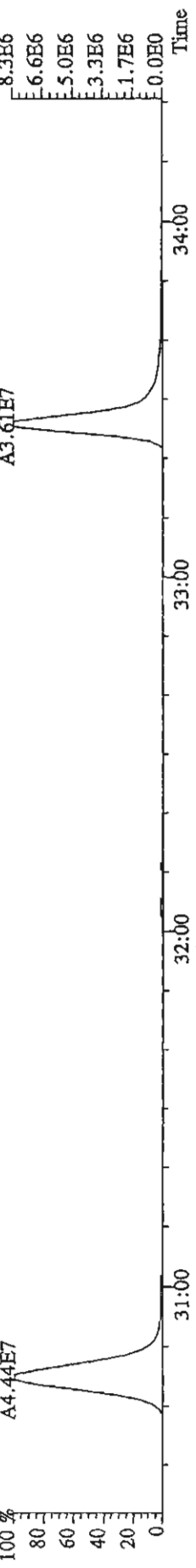
392.9760 S:31 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 %



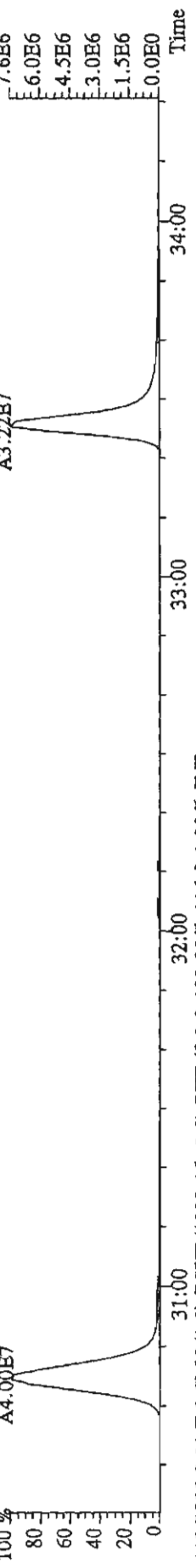
373.8208 S:31 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,16292.0,1.00%,F,T)

100 %



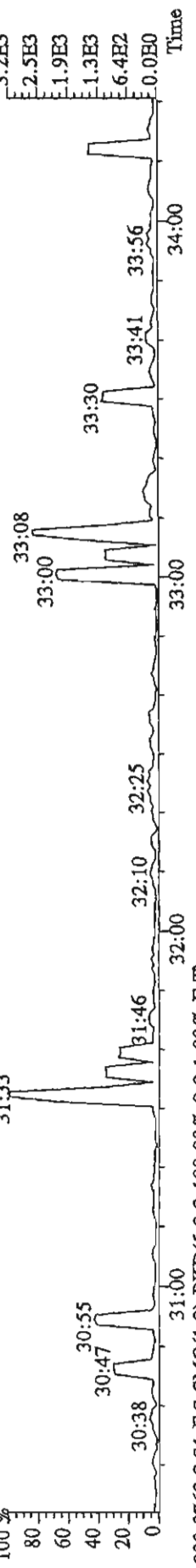
375.8178 S:31 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,6696.0,1.00%,F,T)

100 %



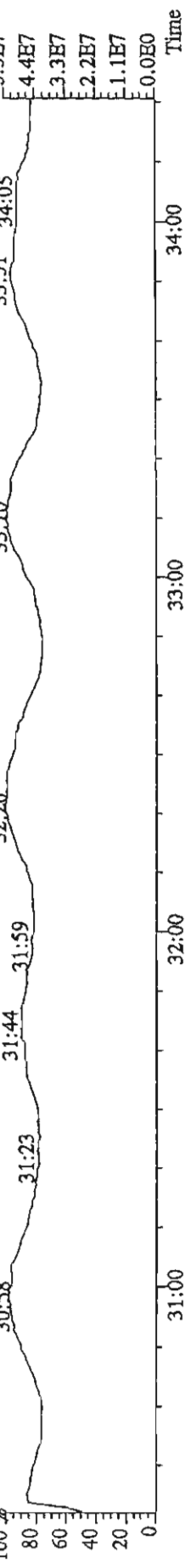
445.7555 S:31 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,116.0,1.00%,F,T)

100 %



380.9760 S:31 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 %

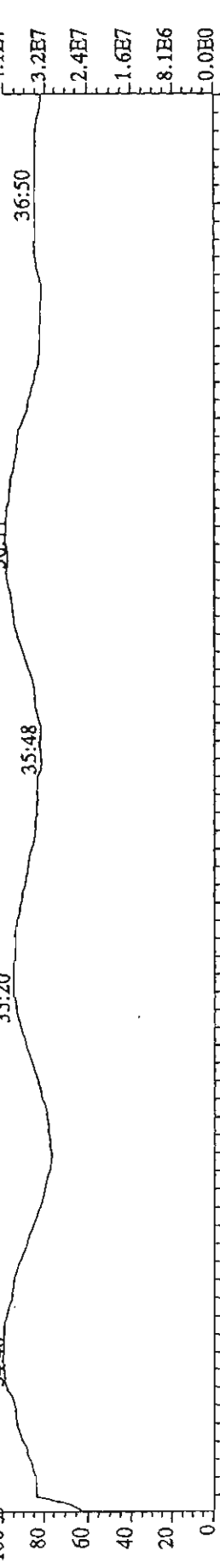


File: 24MR114D5 #1-200 Acq: 25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE

Sample#31 Text: CP0324B :DB-5 CPSM 3732-12 Exp: DIOXINRES

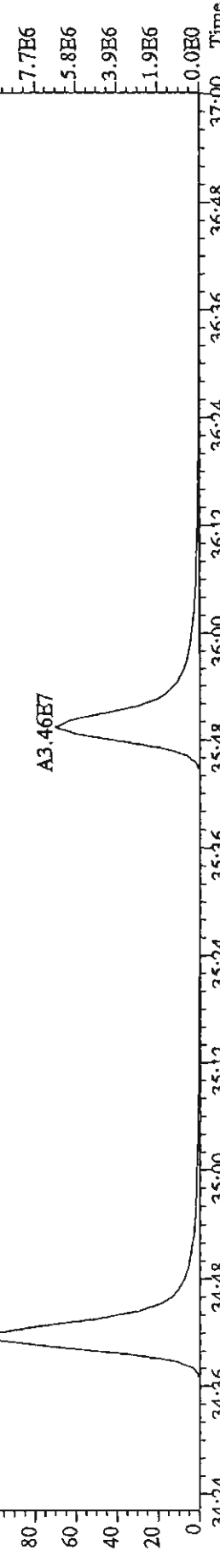
430.9728 S:31 F:4 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 % 34:40 35:20 36:11 36:50 37:00 Time



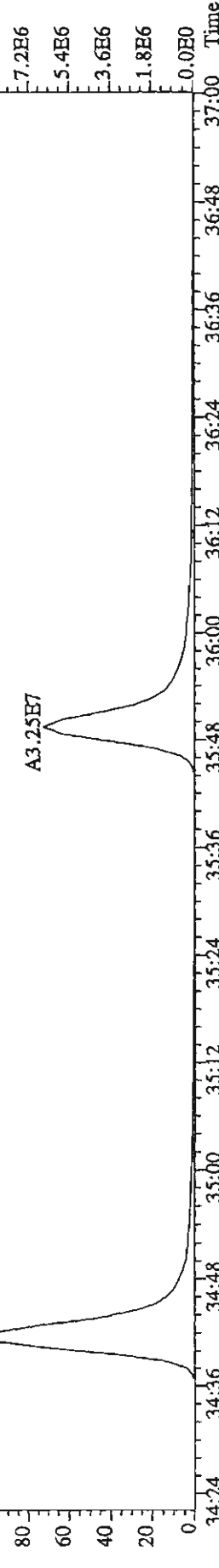
407.7818 S:31 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,16804.0,1.00%,F,T)

100 % A4.37E7 A3.46E7 37:00 Time



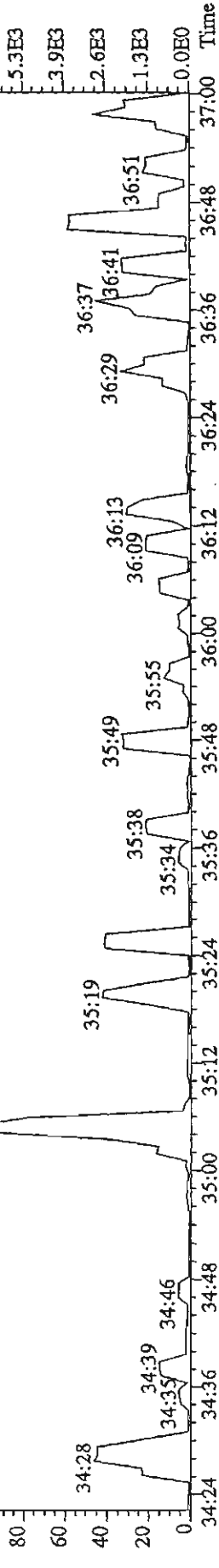
409.7789 S:31 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,30060.0,1.00%,F,T)

100 % A4.12E7 A3.25E7 37:00 Time



479.7165 S:31 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,104.0,1.00%,F,T)

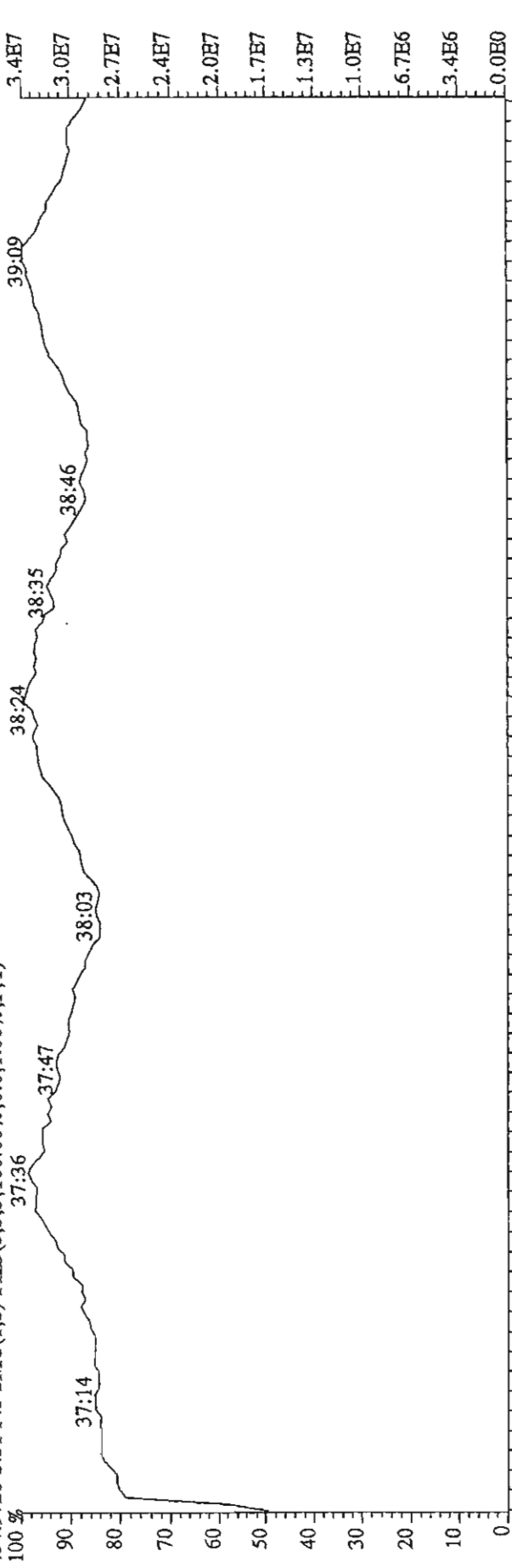
100 % 35:05 35:19 35:38 35:34 35:55 36:09 36:13 36:29 36:37 36:41 36:51 37:00 Time



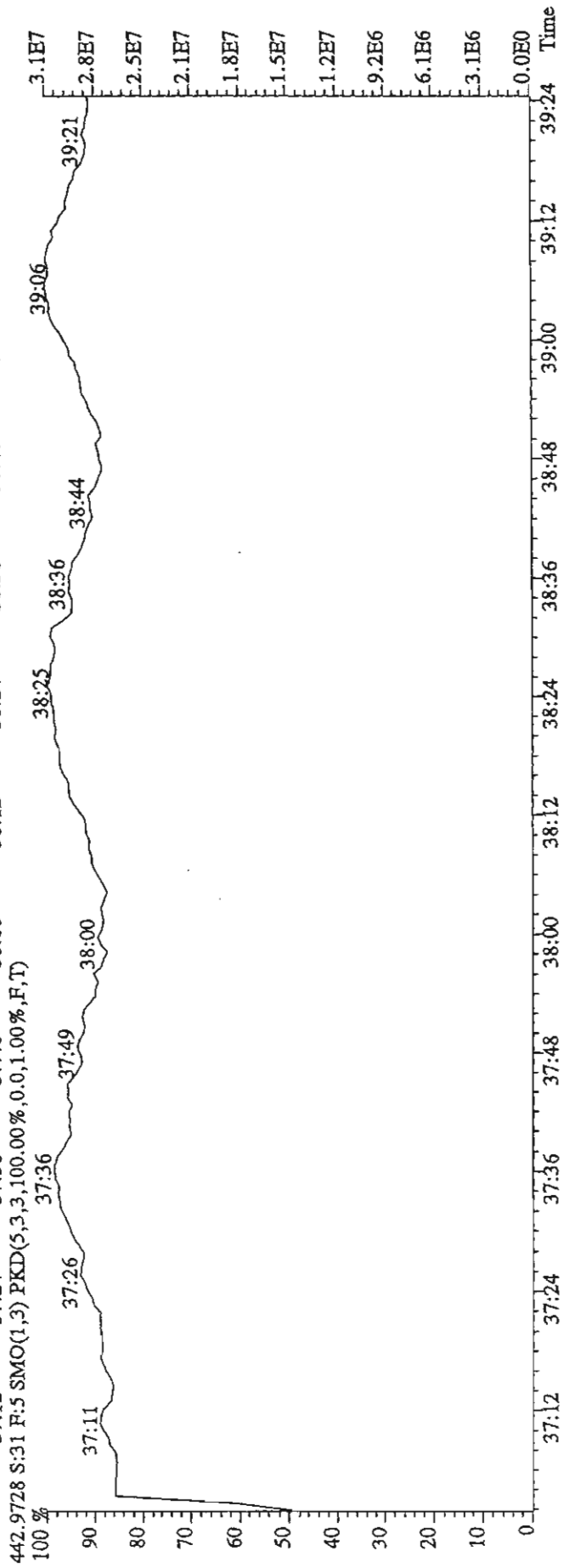
File:24MR114D5 #1-193 Acq:25-MAR-2011 08:38:42 GC EI+ Voltage SIR Autospec-UltimaE

Sample#31 Text:CP0324B :DB-5 CFSM 3732-12 Exp:DIOXINRES

454.9728 S:31 F:5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



442.9728 S:31 F:5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

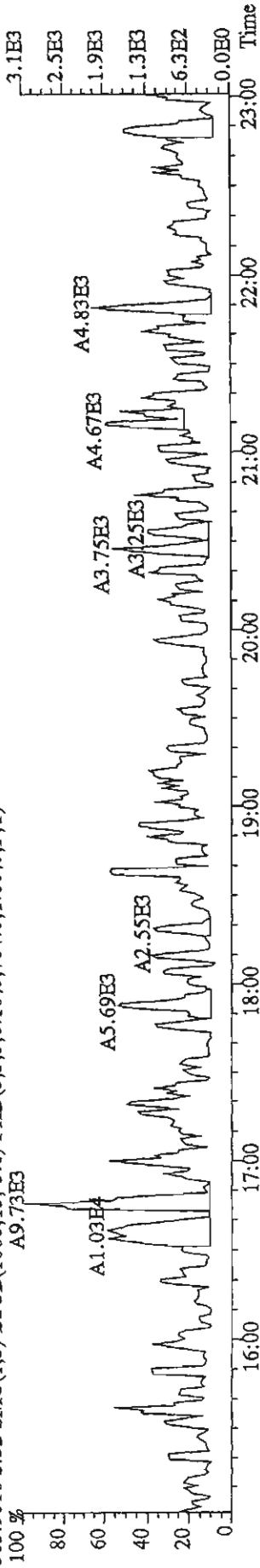


File: 24MR114D5 #1-530 Acq: 25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaE

Sample#32 Text: SB0324B : Solvent Blank C-14 Exp: DIOXINRES

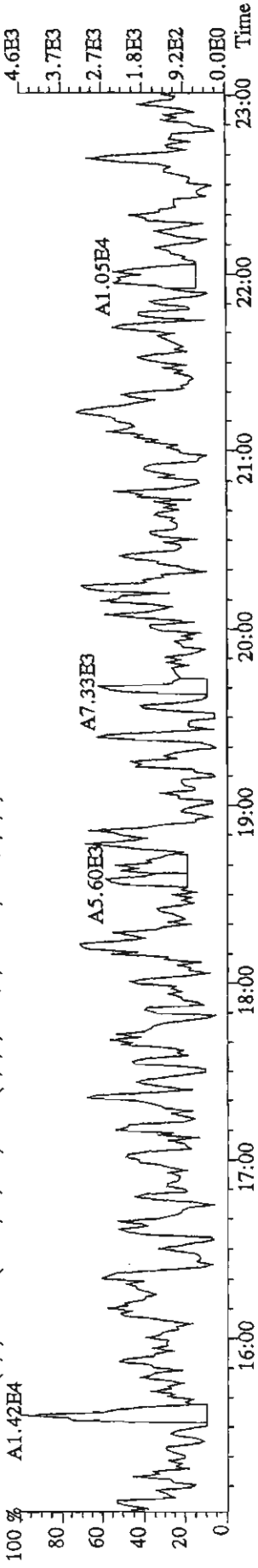
303.9016 S: 32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,704.0,1.00%,F,T)

100 % A9.73E3



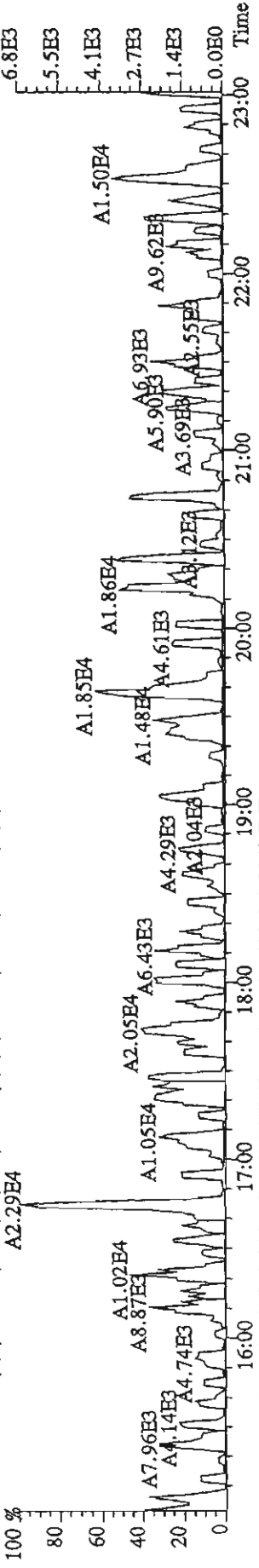
305.8987 S: 32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1860.0,1.00%,F,T)

100 % A1.42E4



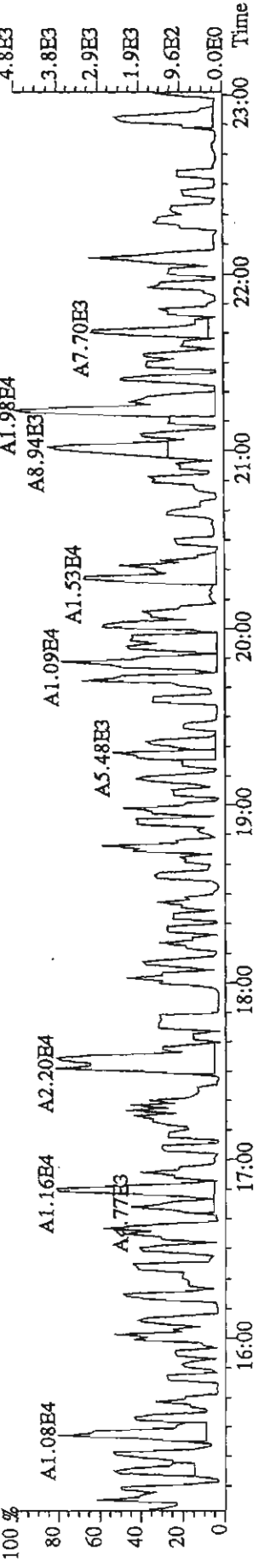
315.9419 S: 32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,100.0,1.00%,F,T)

100 % A2.29E4



317.9389 S: 32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1692.0,1.00%,F,T)

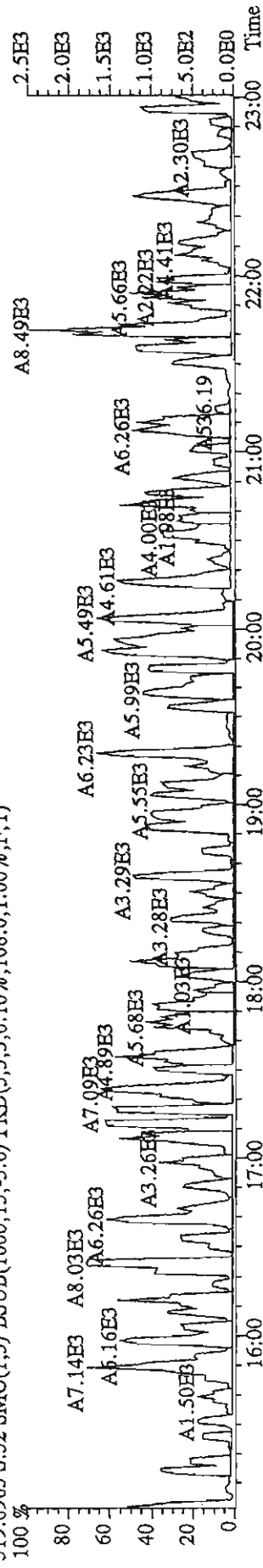
100 %



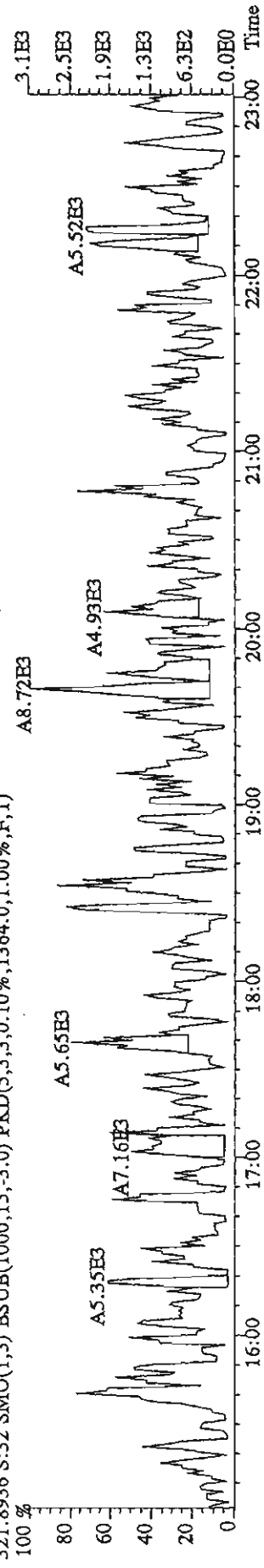
File:24MR114D5 #1-530 Acq:25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaB

Sample#32 Text:SB0324B :Solvent Blank C-14 Exp:DIOXINRES

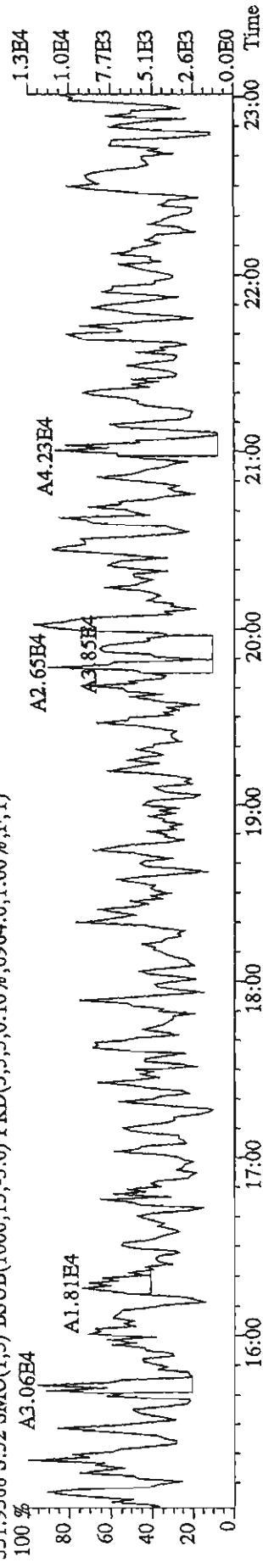
319.8965 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,108.0,1.00%,F,T)



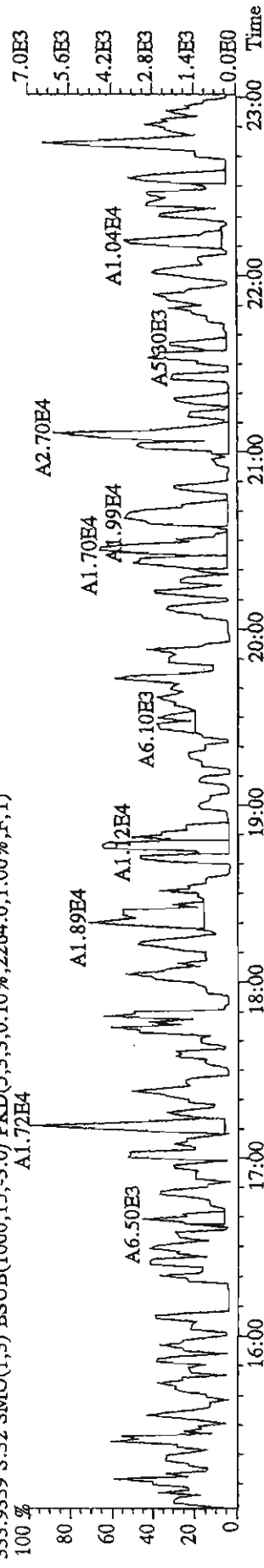
321.8936 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1364.0,1.00%,F,T)



331.9368 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6964.0,1.00%,F,T)



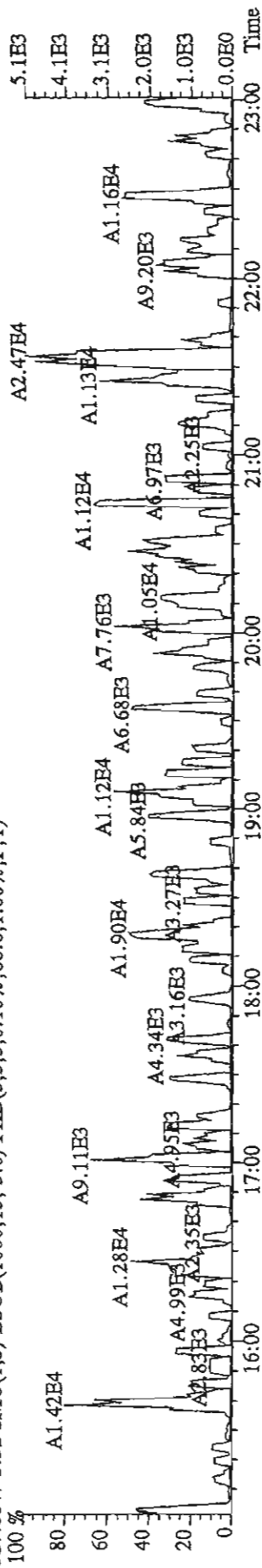
333.9339 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2264.0,1.00%,F,T)



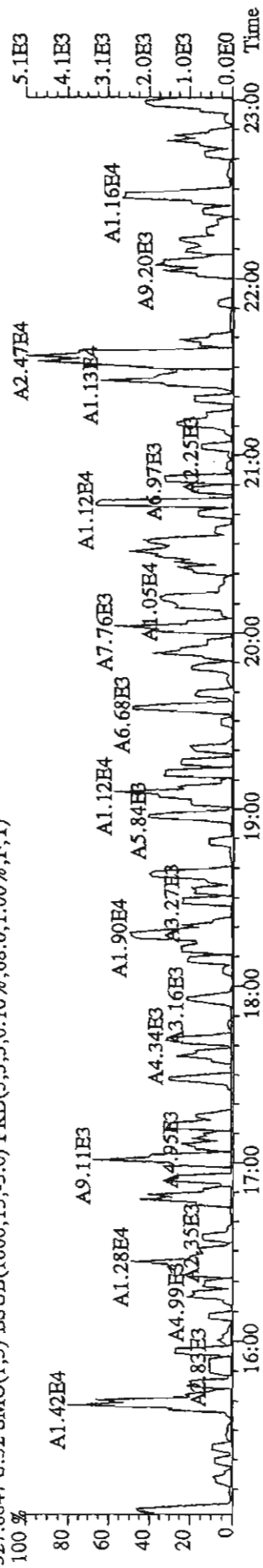
File:24MR114D5 #1-530 Acq:25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaE

Sample#32 Text:SB0324B :Solvent Blank C-14 Exp:DIOXINRES

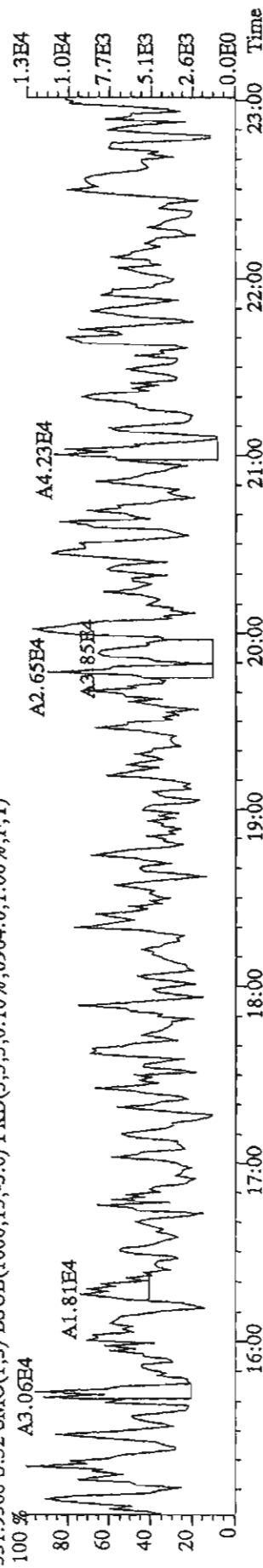
327.8847 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,68.0,1.00%,F,T)



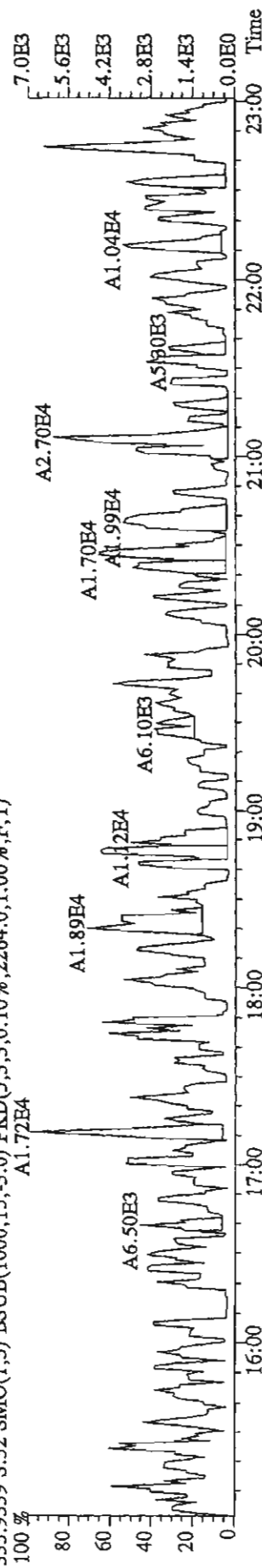
327.8847 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,68.0,1.00%,F,T)



331.9368 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,69.64,0.1,0.00%,F,T)



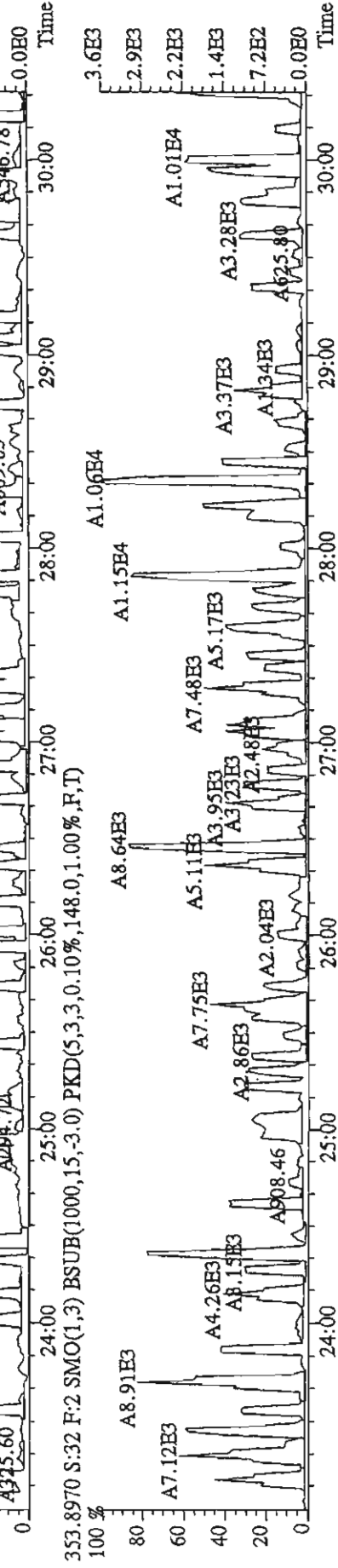
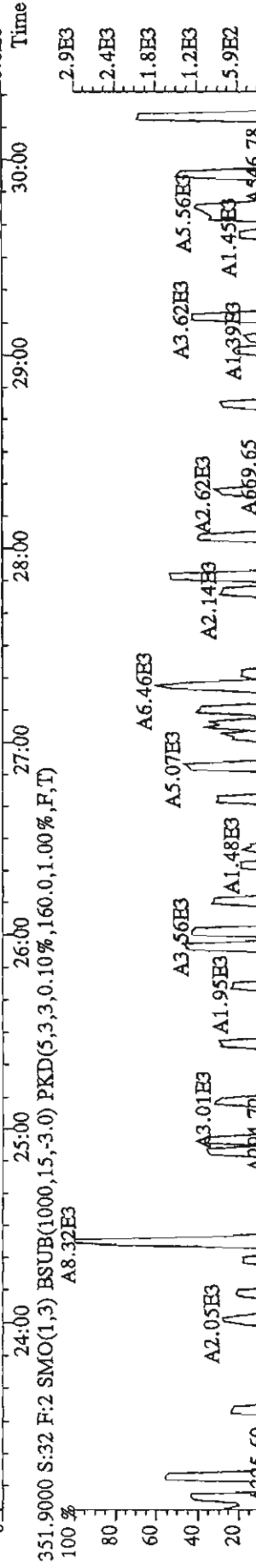
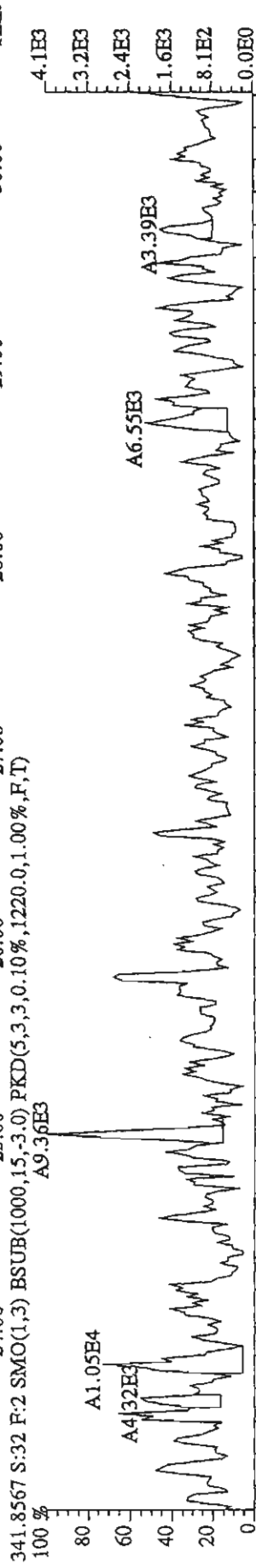
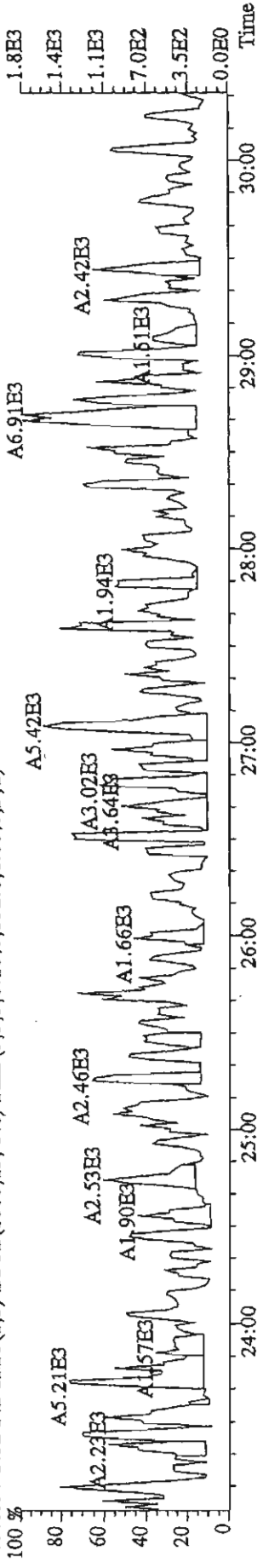
333.9339 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,22.64,0.1,0.00%,F,T)



File:24MR114D5 #1-470 Acq:25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaE

Sample#32 Text:SB0324B :Solvent Blank C-14 Exp:DIOXINRES

339.8597 S:32 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,532.0,1.00%,F,T)

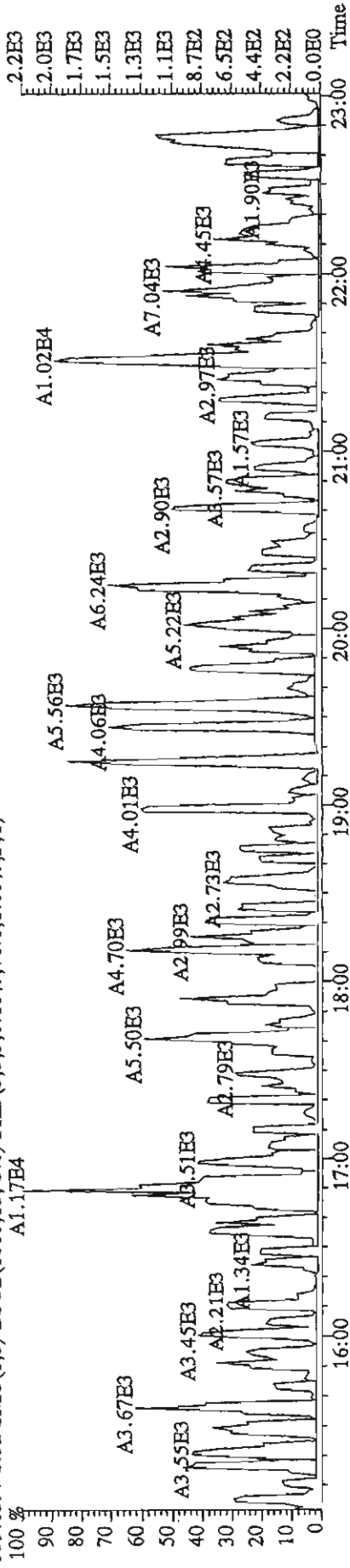


File: 24MR114D5 #1-530 Acq: 25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaE

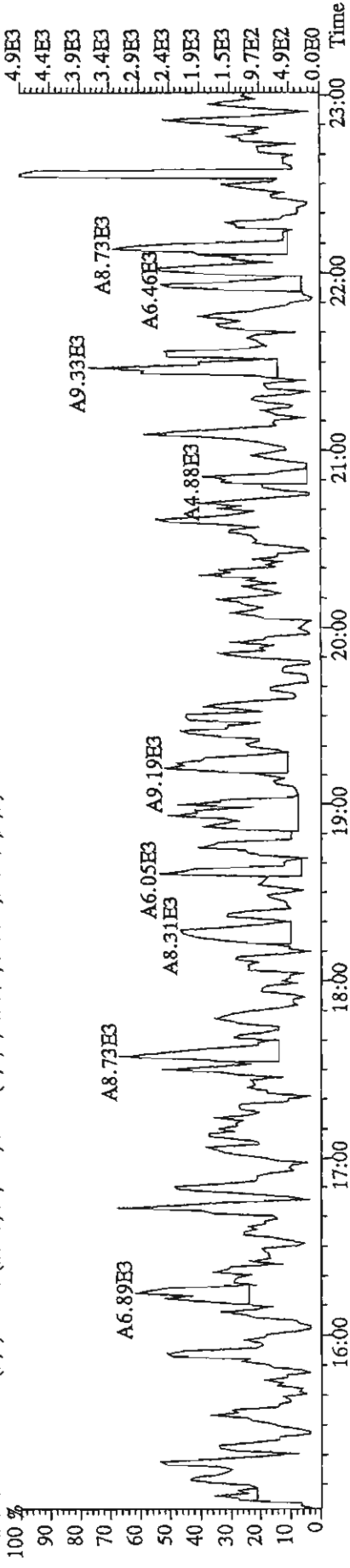
Sample#32 Text: SB0324B : Solvent Blank C-14 Exp: DIOXINRES

339.8597 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,76.0,1.00%,F,T)

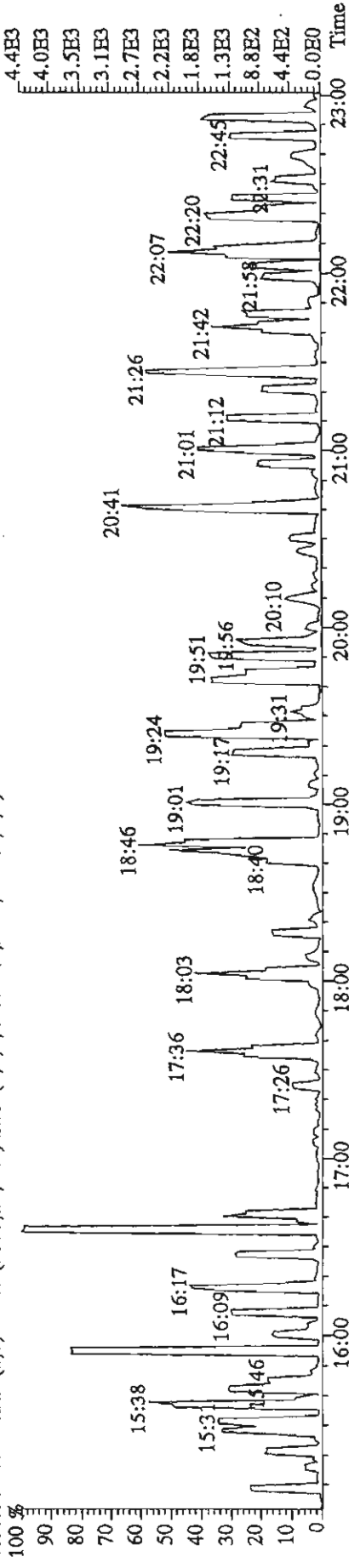
100% A1.17E4



341.8567 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1384.0,1.00%,F,T)



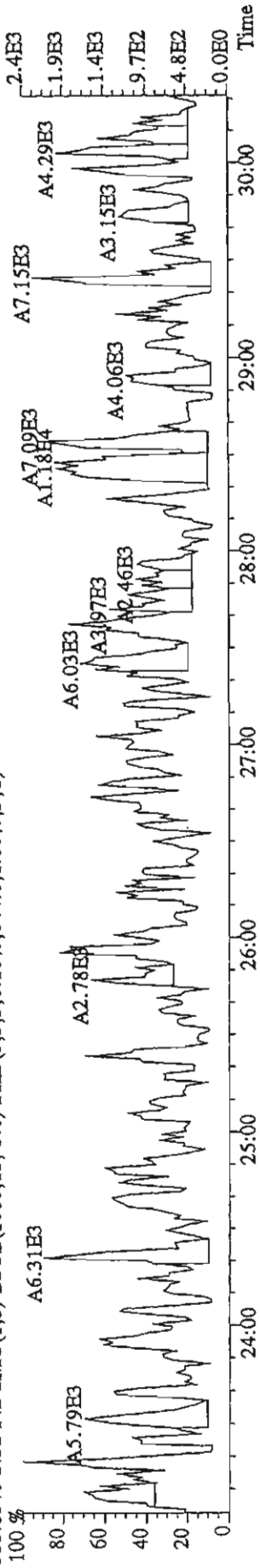
409.7974 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,96.0,1.00%,F,T)



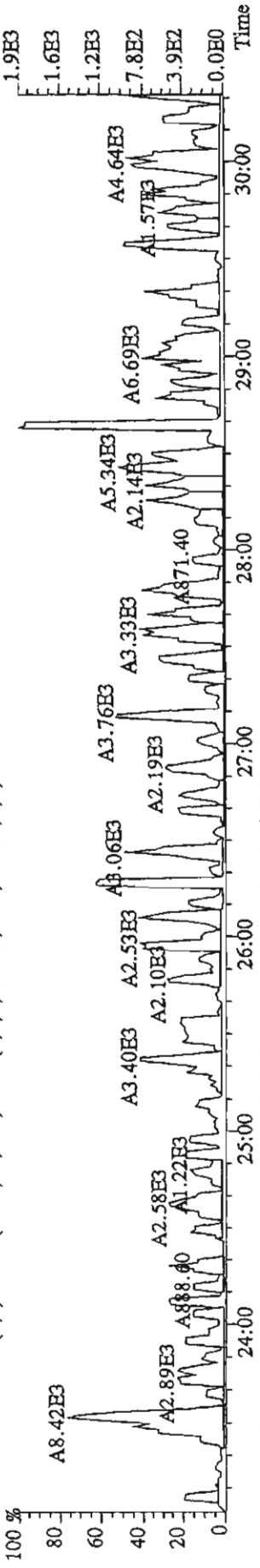
File:24MR114D5 #1-470 Acq:25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaE

Sample#32 Text:SB0324B :Solvent Blank C-14 Exp:DIOXINRES

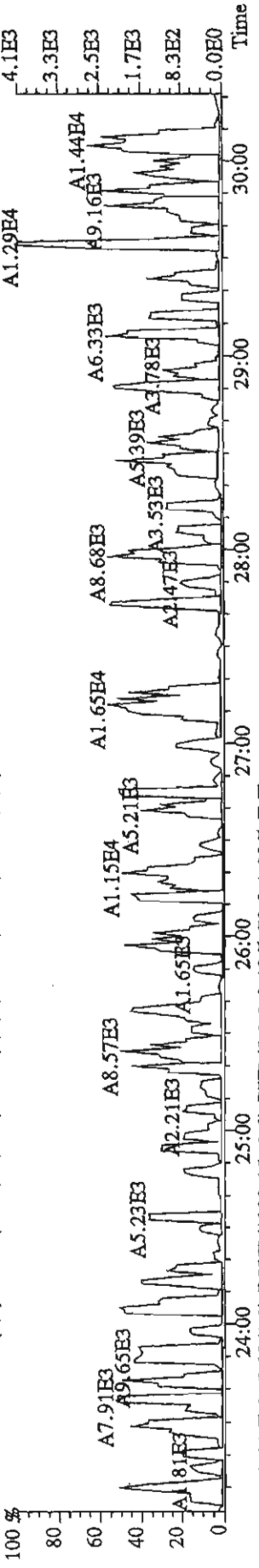
355.8546 S:32 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,844.0,1.00%,F,T)



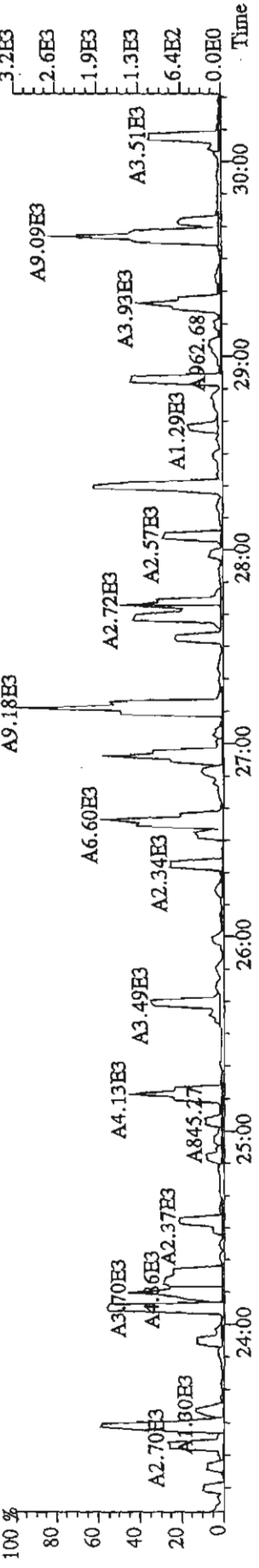
357.8516 S:32 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,80.0,1.00%,F,T)



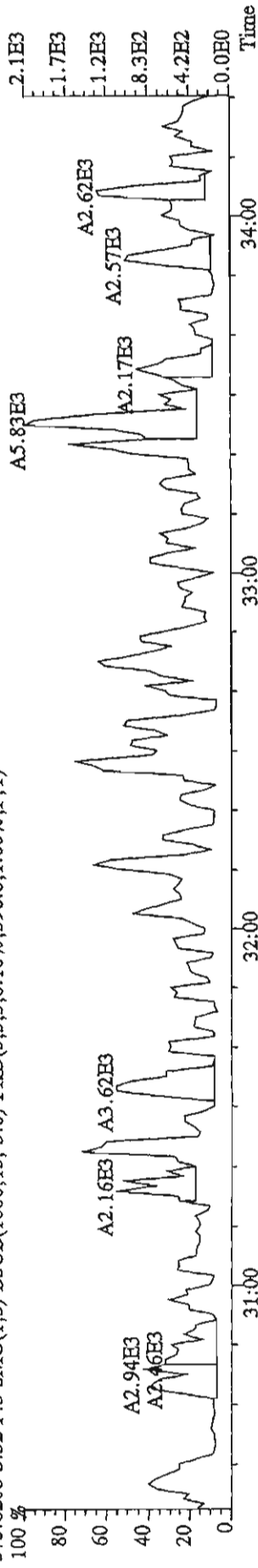
367.8949 S:32 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,116.0,1.00%,F,T)



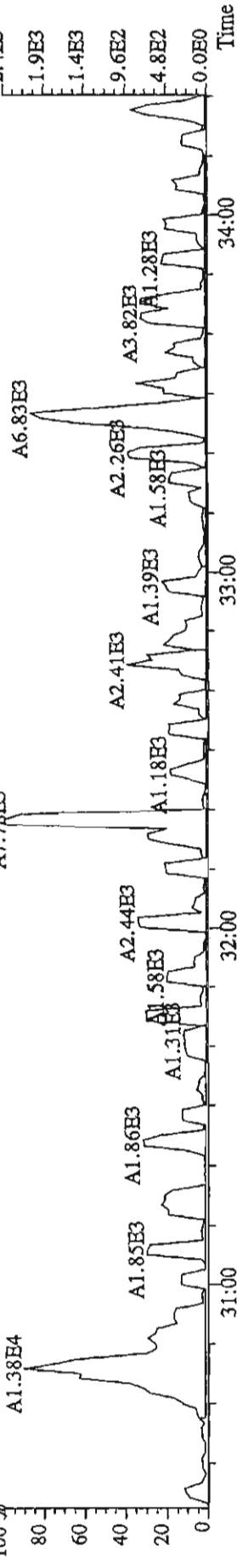
369.8919 S:32 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,72.0,1.00%,F,T)



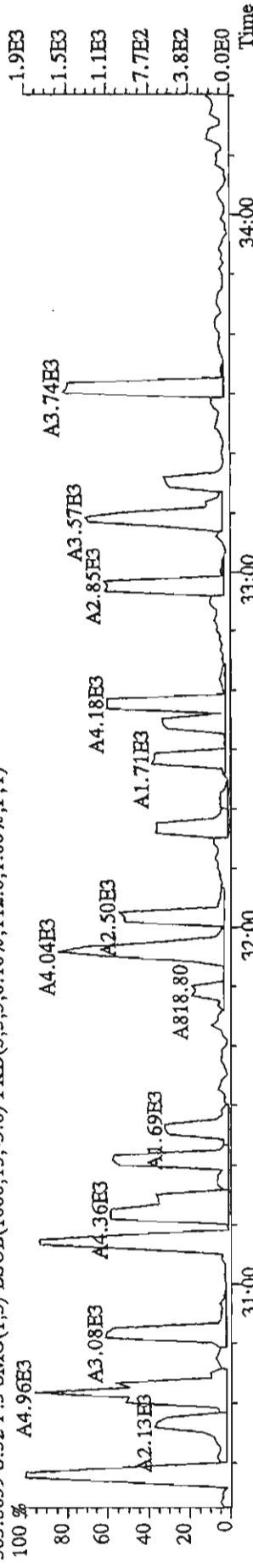
File:24MR114D5 #1-286 Acq:25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#32 Text:SB0324B :Solvent Blank C-14 Exp:DIOXINRES
 373.8208 S:32 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,596.0,1.00%,F,T)



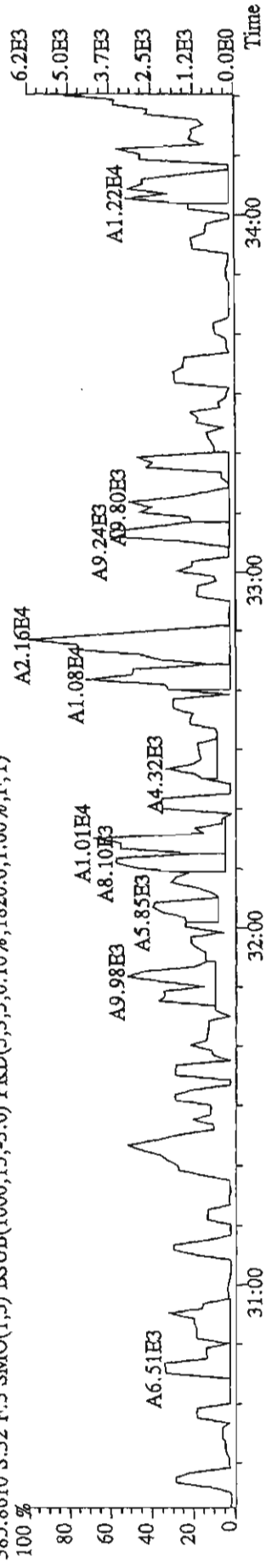
375.8178 S:32 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,68.0,1.00%,F,T)



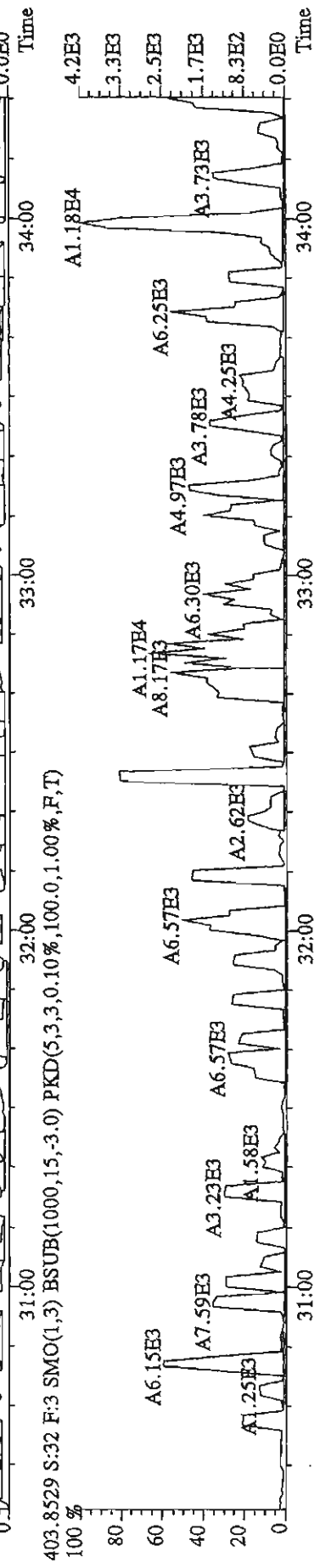
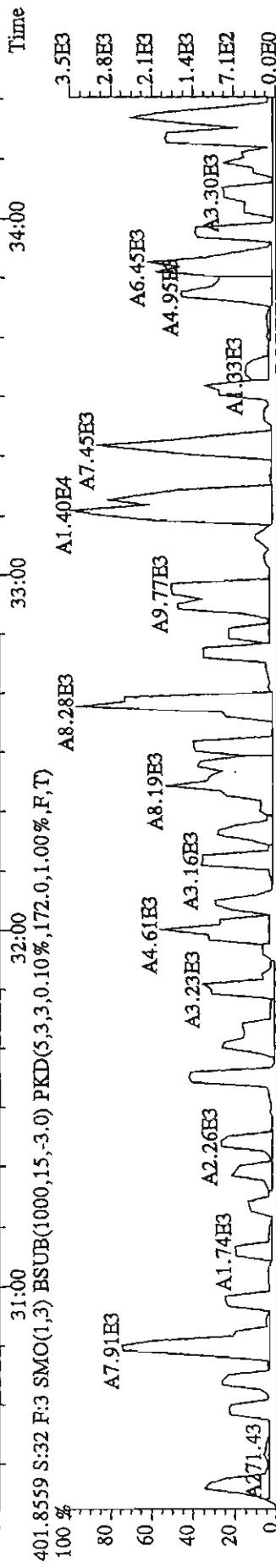
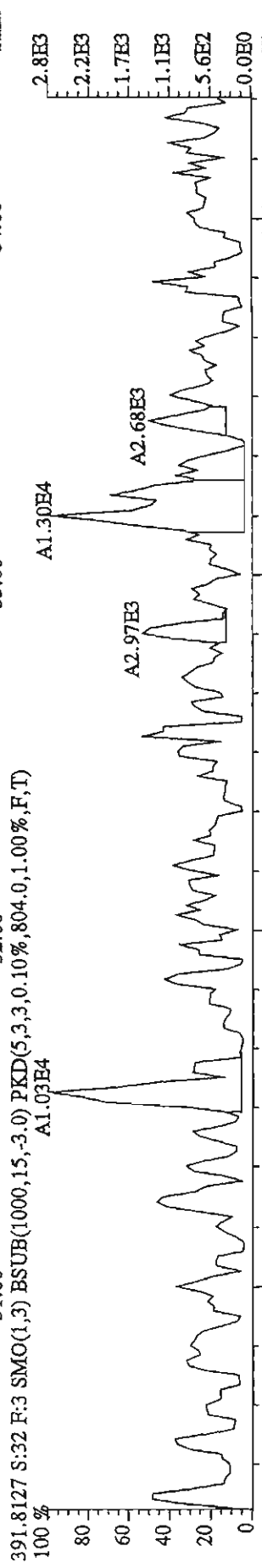
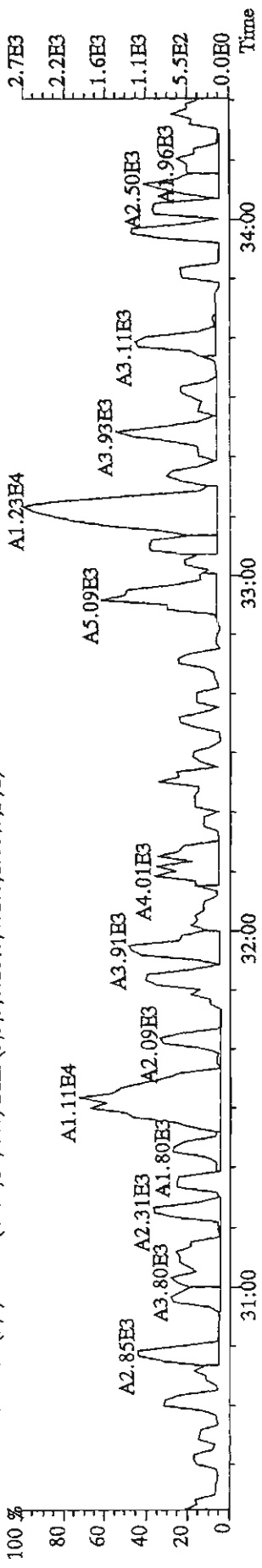
383.8639 S:32 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,112.0,1.00%,F,T)



385.8610 S:32 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1820.0,1.00%,F,T)

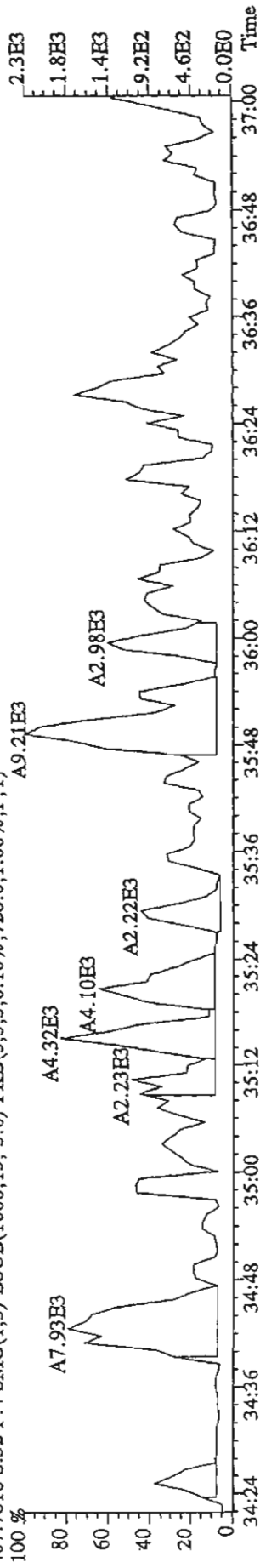


File: 24MR114D5 #1-286 Acq: 25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#32 Text: SB0324B : Solvent Blank C-14 Exp: DIOXINRES
 389.8157 S:32 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,472.0,1.00%,F,T)

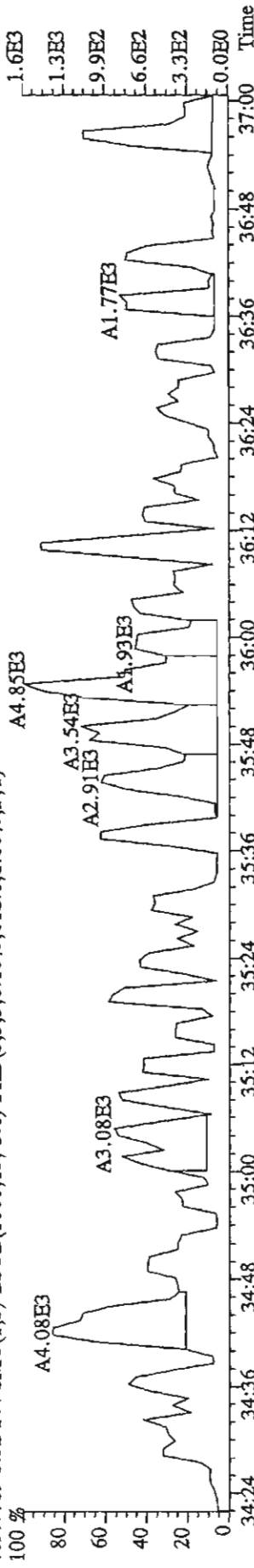


File:24MR114D5 #1-201 Acq:25-MAR-2011 09:23:17 GC BI+ Voltage SIR Autospec-UltimaB
Sample#32 Text:SE0324B :Solvent Blank C-14 Exp:DIOXINRES

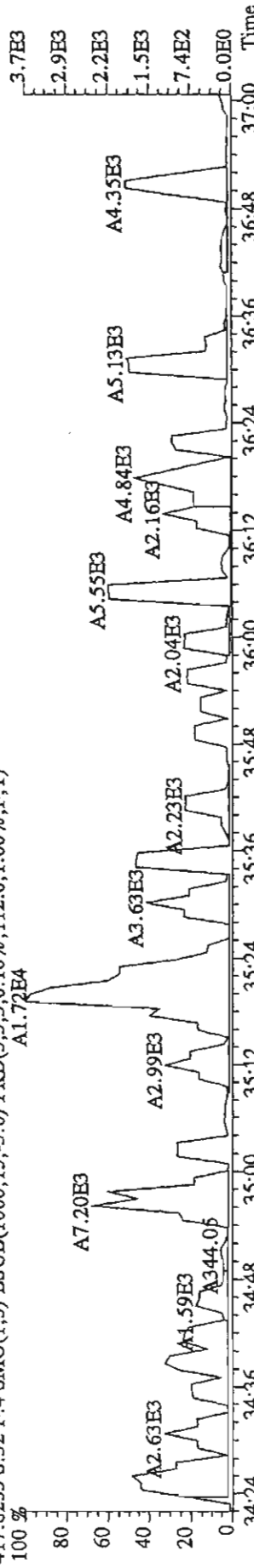
407.7818 S:32 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,728.0,1.00%,F,T)



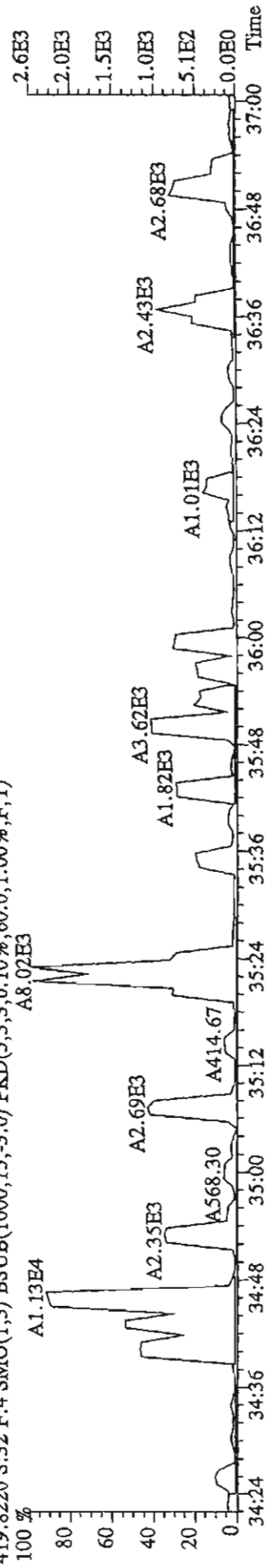
409.7789 S:32 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,612.0,1.00%,F,T)



417.8253 S:32 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,112.0,1.00%,F,T)



419.8220 S:32 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,60.0,1.00%,F,T)



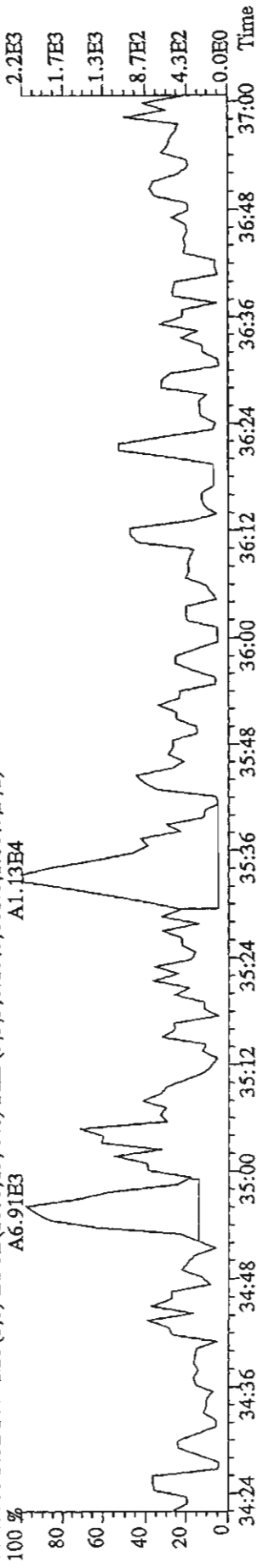
File:24MR114D5 #1-201 Acq:25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaE

Sample#32 Text:SB0324B :Solvent Blank C-14 Exp:DIOXINRES

423.7766 S:32 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,688.0,1.00%,F,T)

A1.13E4

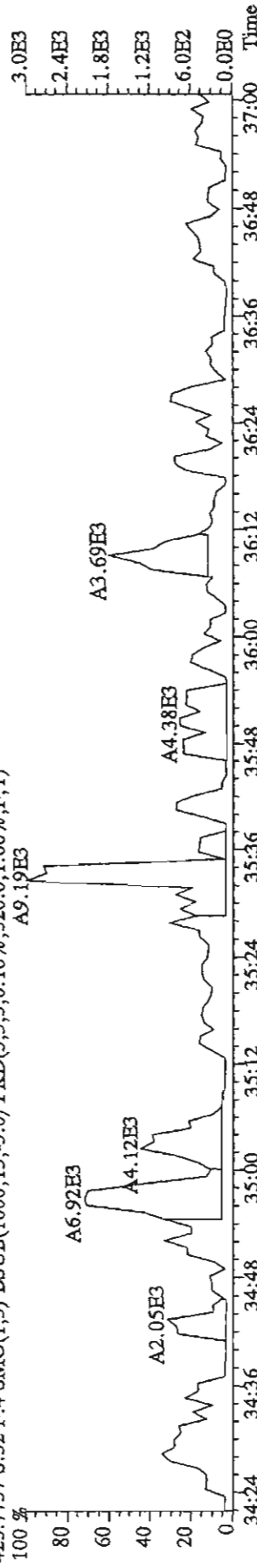
A6.91E3



425.7737 S:32 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,520.0,1.00%,F,T)

A9.19E3

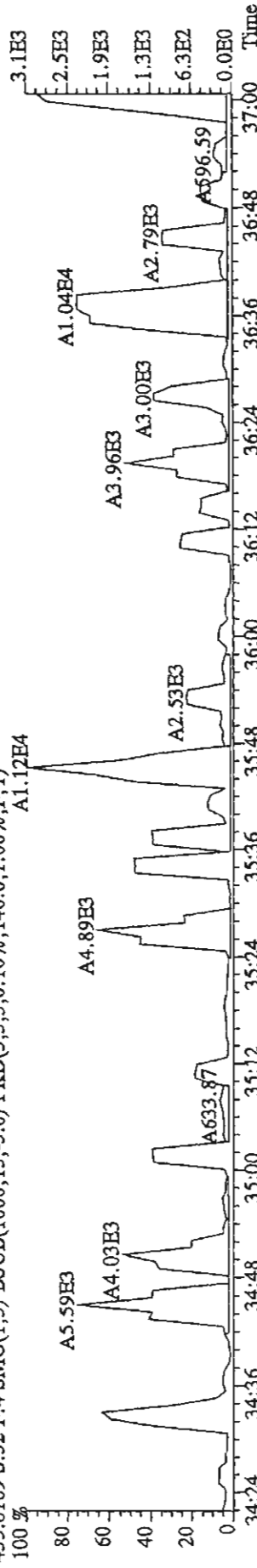
A6.92E3



435.8169 S:32 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,140.0,1.00%,F,T)

A1.12E4

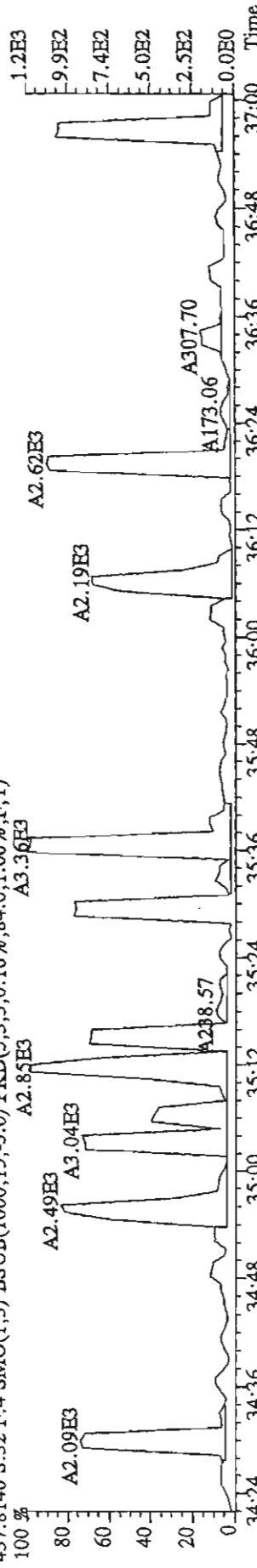
A5.59E3



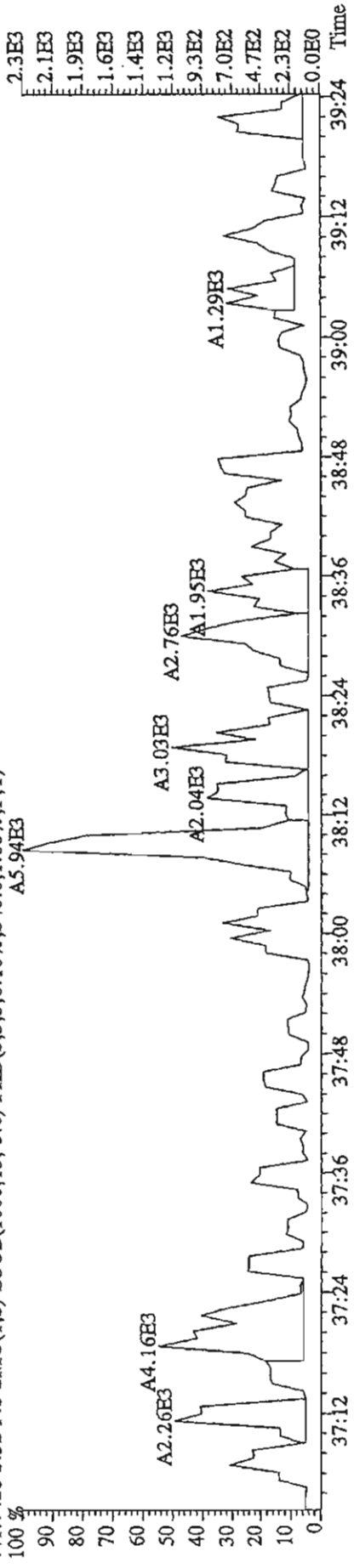
437.8140 S:32 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,84.0,1.00%,F,T)

A3.36E3

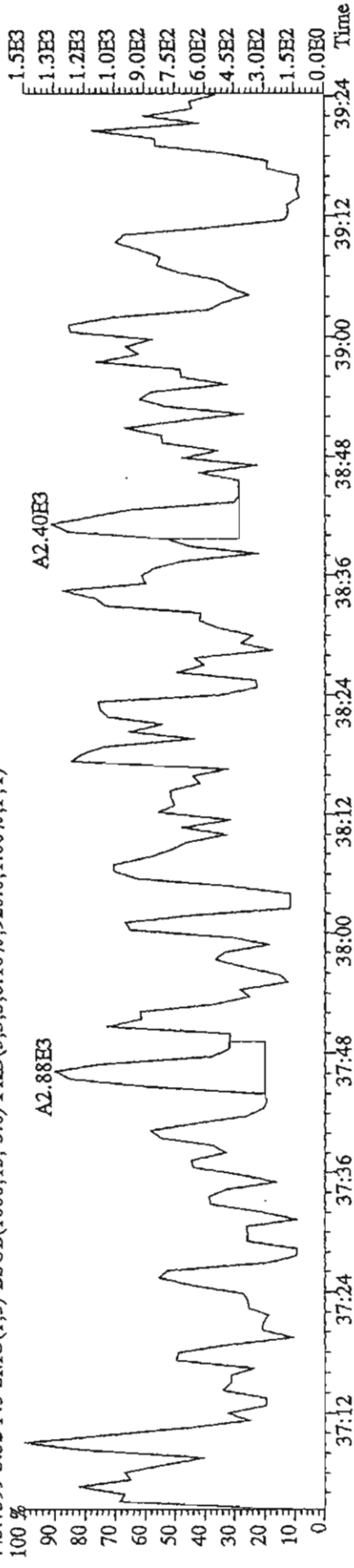
A2.85E3



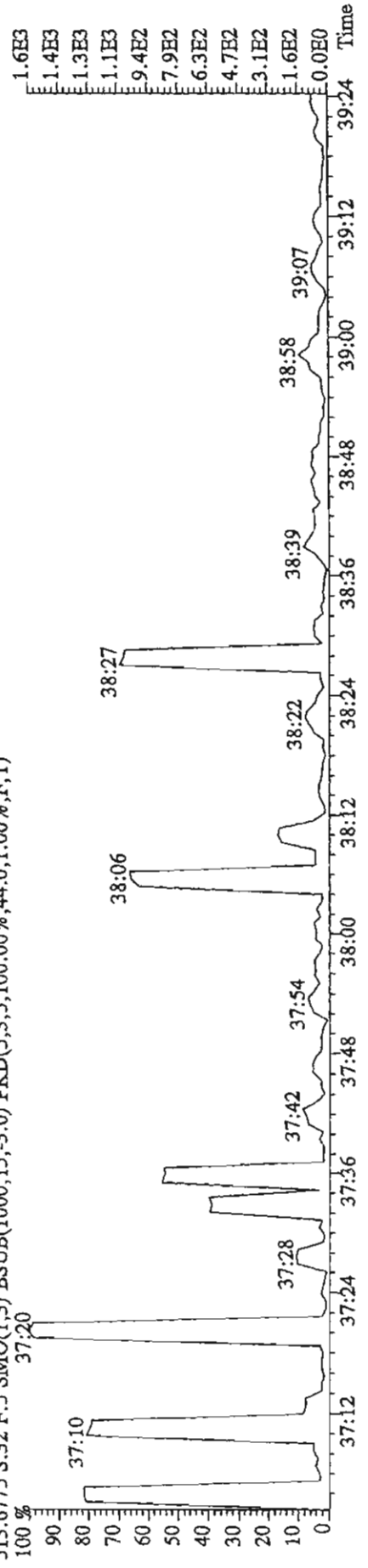
File: 24MR114D5 #1-192 Acq: 25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaB
 Sample#32 Text: SB0324B Solvent Blank C-14 Exp: DIOXINRES
 441.7428 S: 32 F: 5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,340,0,1,00%,F,T)
 A5.94E3



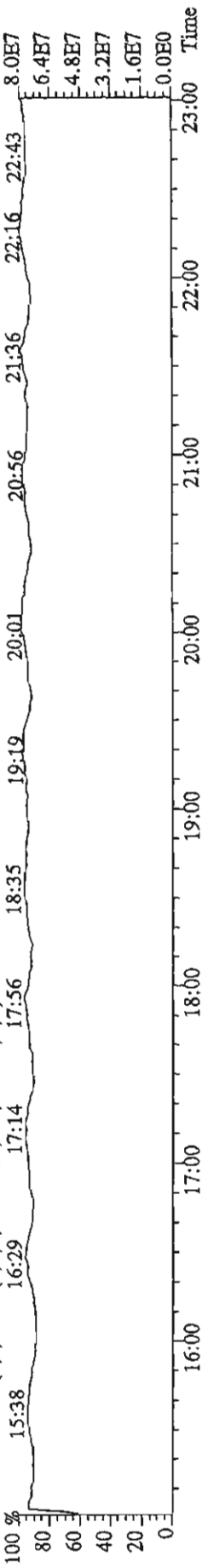
443.7399 S: 32 F: 5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,920,0,1,00%,F,T)



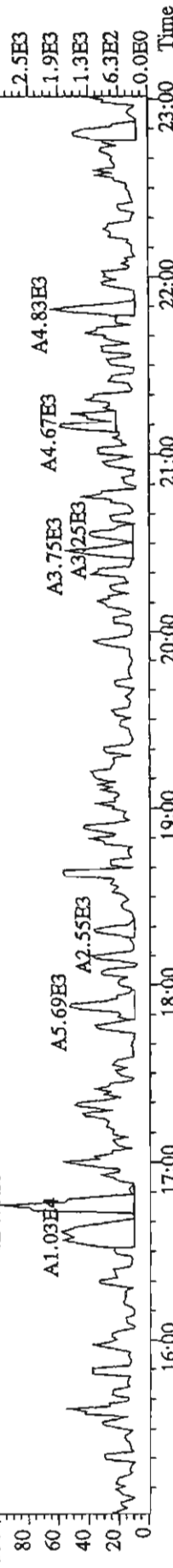
513.6775 S: 32 F: 5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,5,100,00%,44,0,1,00%,F,T)



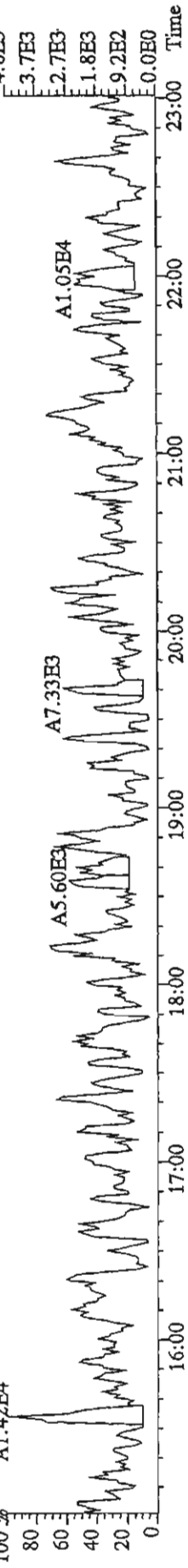
File: 24MR114D5 #1-530 Acq: 25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#32 Text: SB0324B Solvent Blank C-14 Exp: DIOXINRES
 292.9825 S:32 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



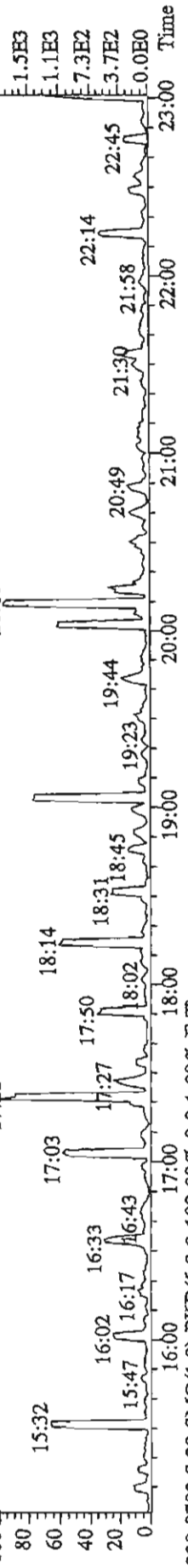
303.9016 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,704.0,1.00%,F,T)



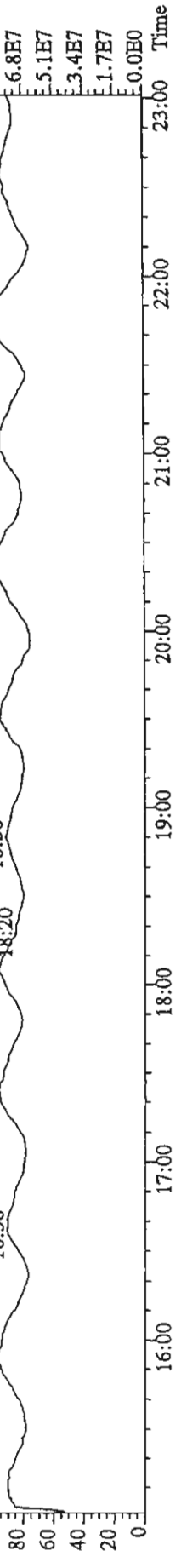
305.8987 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1860.0,1.00%,F,T)



375.8364 S:32 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,80.0,1.00%,F,T)



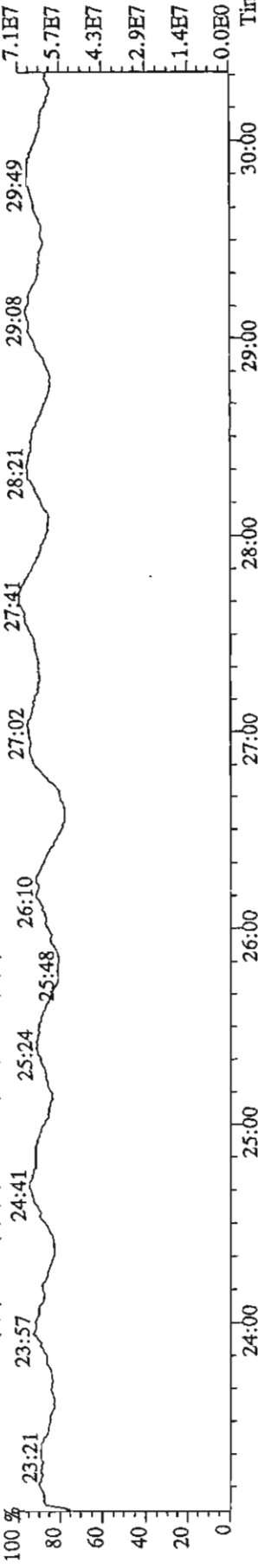
330.9792 S:32 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



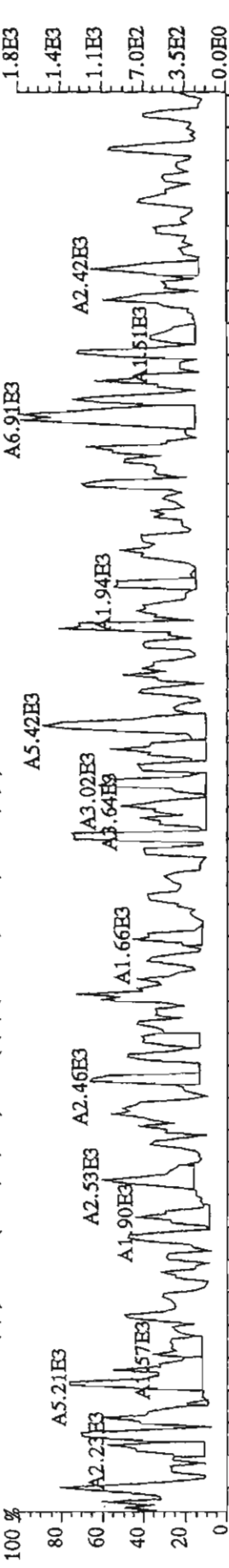
File:24MR114D5 #1-470 Acq:25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaE

Sample#32 Text:SB0324B :Solvent Blank C-14 Exp:DIOXINRES

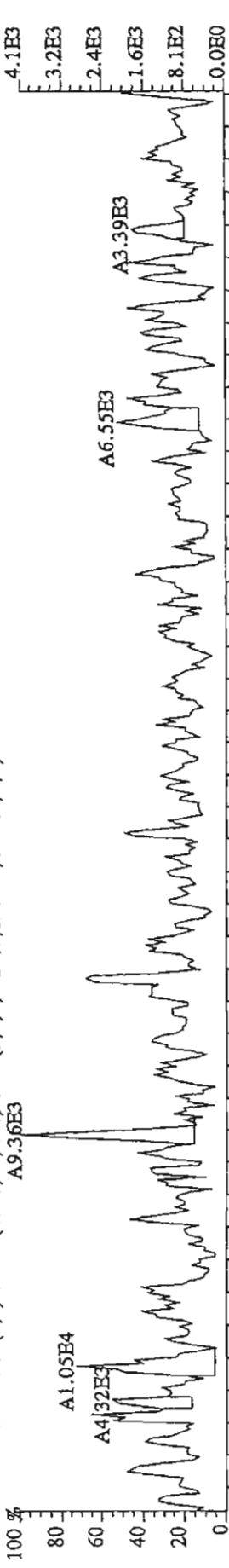
342.9792 S:32 F:2 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



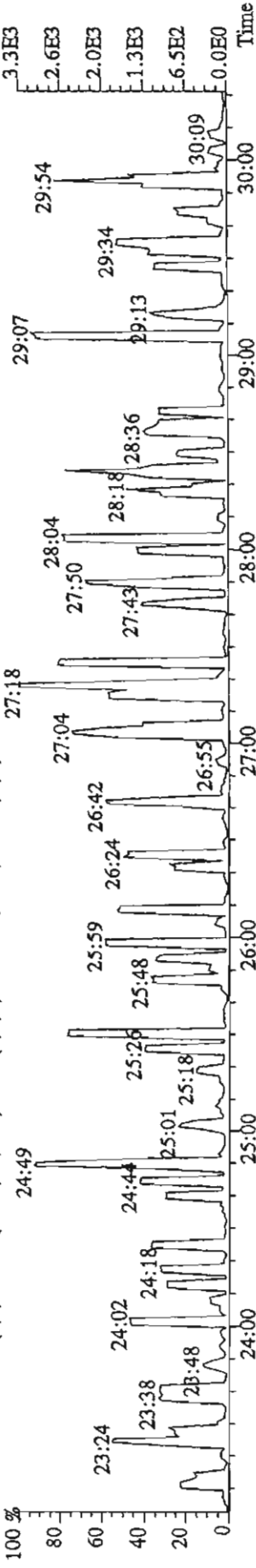
339.8597 S:32 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,532.0,1.00%,F,T)



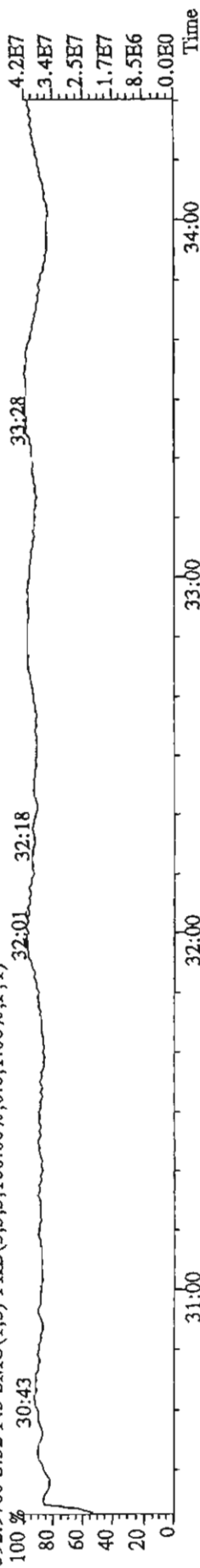
341.8567 S:32 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1220.0,1.00%,F,T)



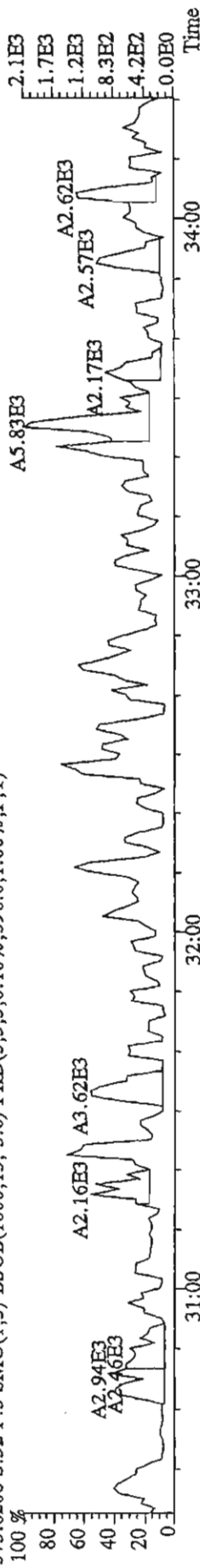
409.7974 S:32 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,84.0,1.00%,F,T)



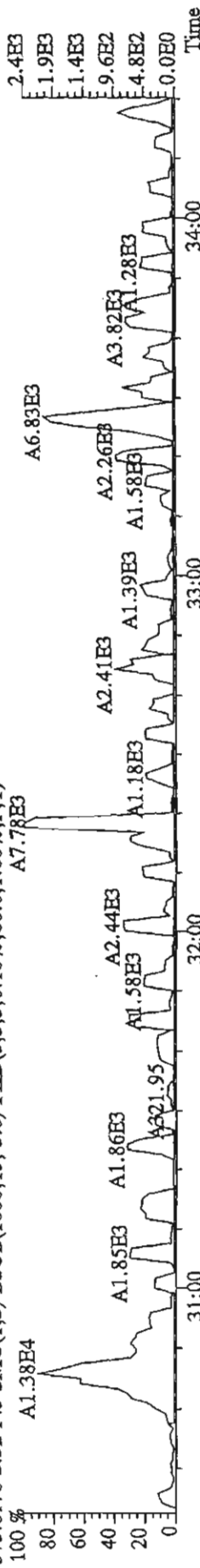
File: 24MR114D5 #1-286 Acq: 25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaB
 Sample#32 Text: SB0324B :Solvent Blank C-14 Exp: DIOXINRES
 392.9760 S:32 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



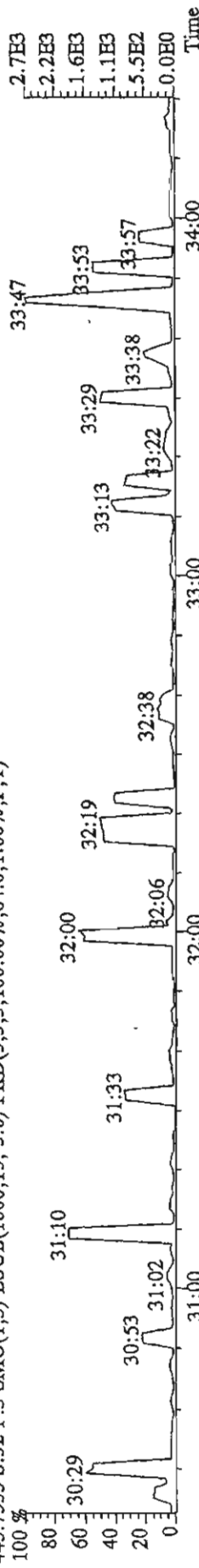
373.8208 S:32 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,596.0,1.00%,F,T)



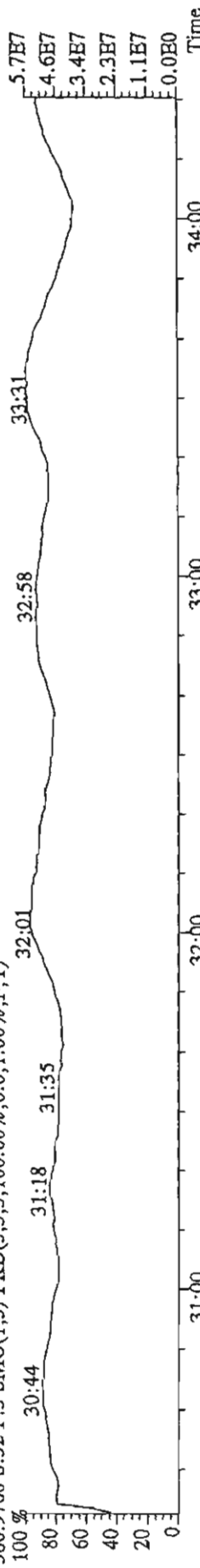
375.8178 S:32 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,68.0,1.00%,F,T)



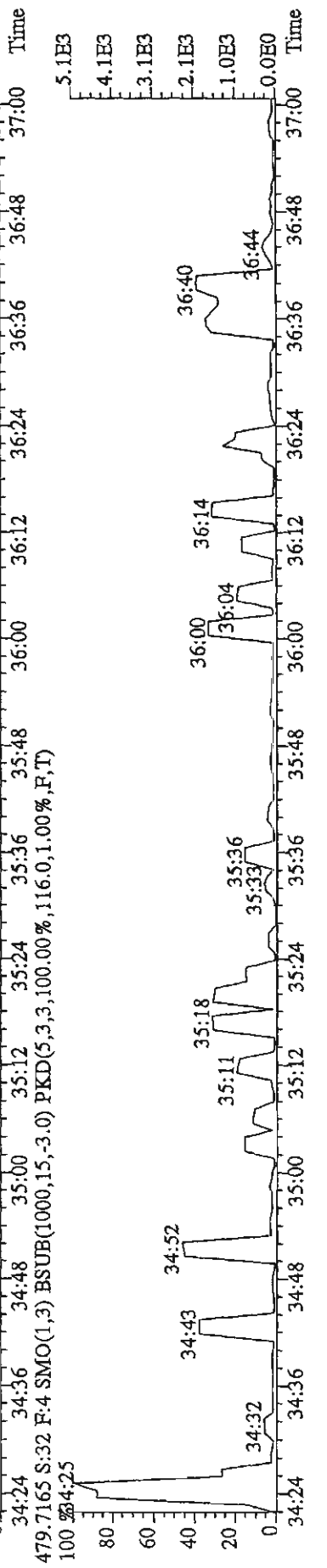
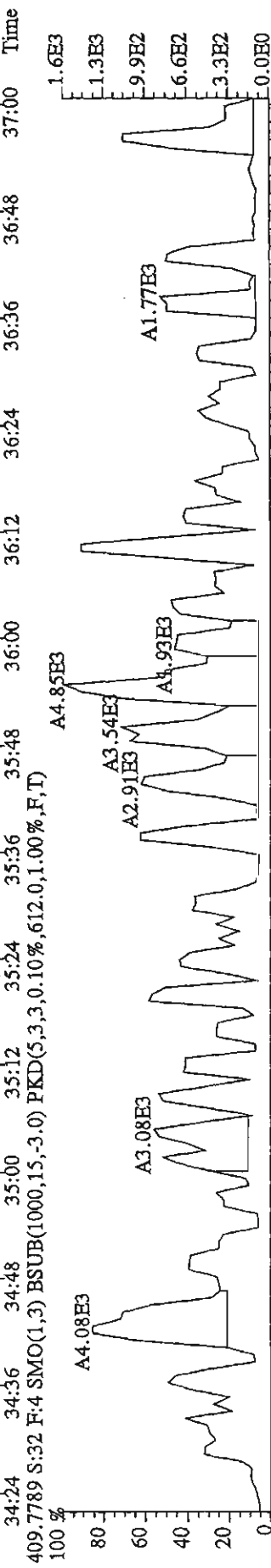
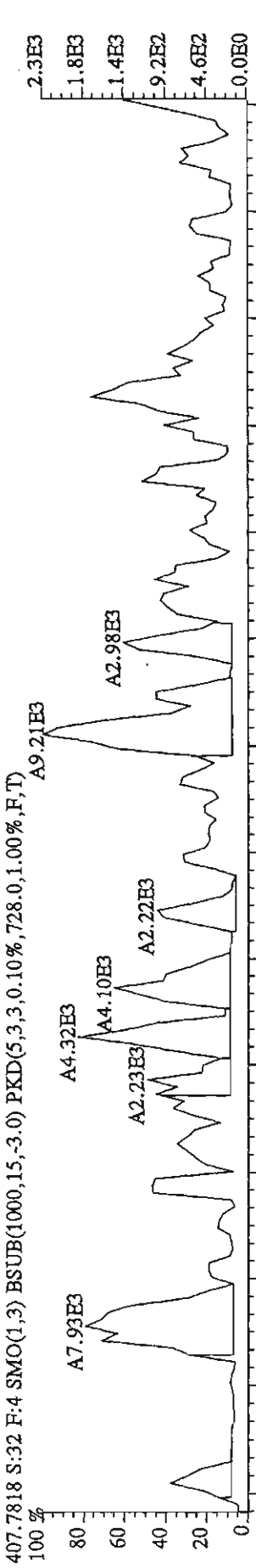
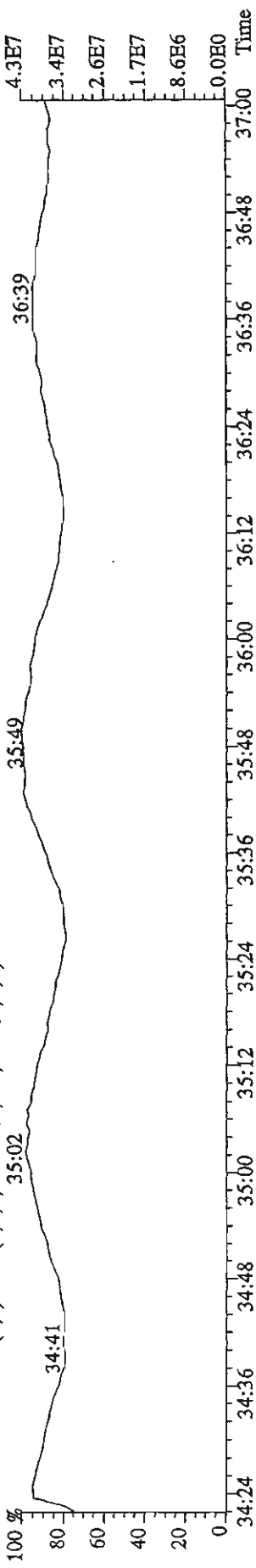
445.7555 S:32 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,84.0,1.00%,F,T)



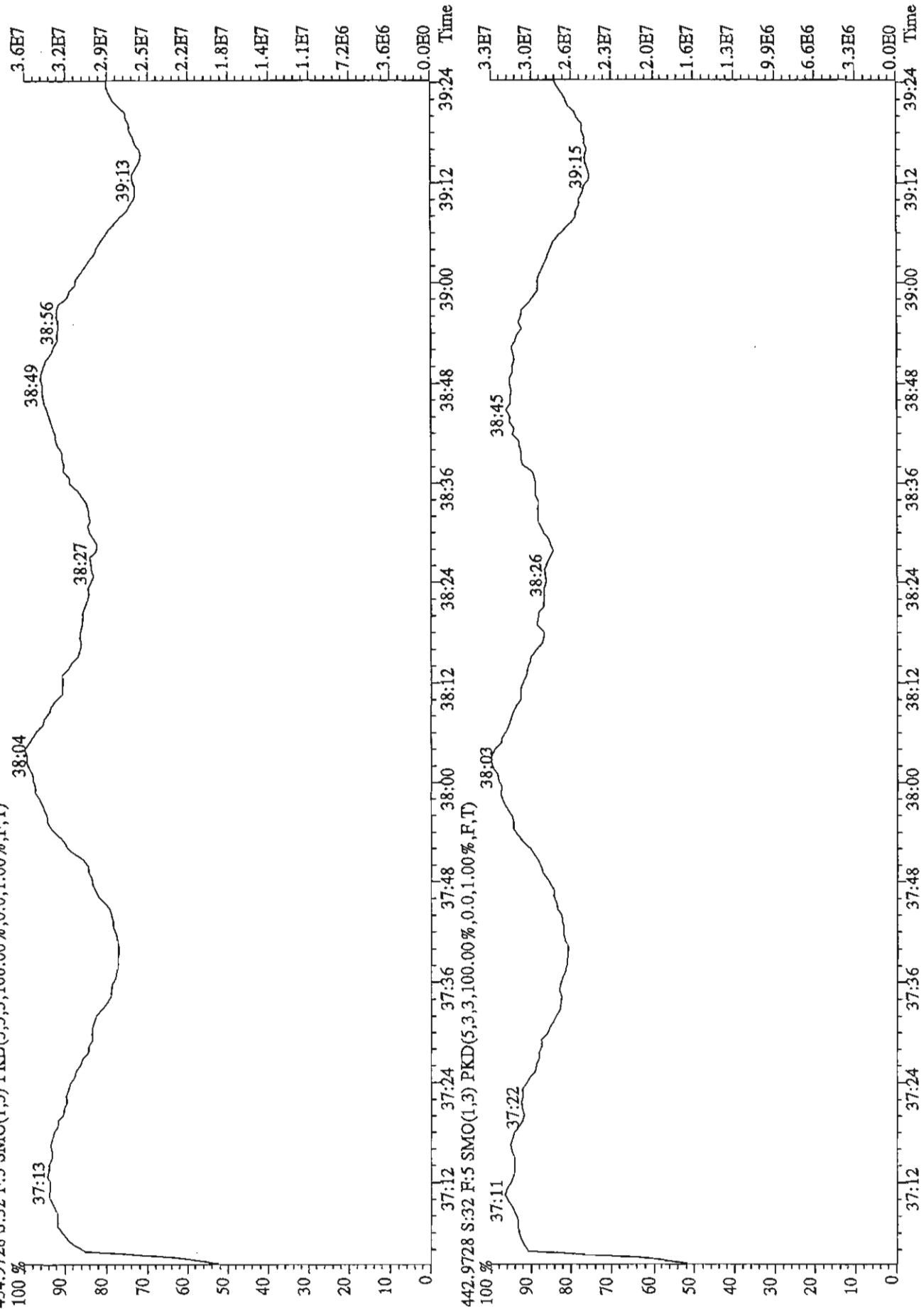
380.9760 S:32 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



File:24MR114D5 #1-201 Acq:25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#32 Text:SB0324B ;Solvent Blank C-14 Exp:DIOXINRES
 430.9728 S:32 F:4 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)
 100 % 35:02



File:24MR114D5 #1-192 Acq:25-MAR-2011 09:23:17 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#32 Text:SB0324B ;Solvent Blank C-14 Exp:DIOXINRES
 454.9728 S:32 F:5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



3.6E7
3.2E7
2.9E7
2.5E7
2.2E7
1.8E7
1.4E7
1.1E7
7.2E6
3.6E6
0.0E0
Time

3.3E7
3.0E7
2.6E7
2.3E7
2.0E7
1.6E7
1.3E7
9.9E6
6.6E6
3.3E6
0.0E0
Time

Test America - West Sacramento

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Initial Calibration Checklist
Dioxin Methods

ICAL ID (8290, 1613, T09, 23, 0023A, Tetras) 0222114D5

Method ID 8290, 1613B, T09, 23, 0023A, Tetras Date Scanned _____

Column ID DB5 _____

Instrument ID 4D5 _____

STD ID's ST0222 → ST0222E

11DxN025
STD Solution (10DxN) 503, 504, 505, 506, 507

GC Program OCDD _____

Multiplier Setting 4-10 _____

Analyzed By AS _____

Date Analyzed 02-22-11 _____

Prepared By AS _____

Date Prepared 02-23-11 _____

Reviewed By M.G. _____

Date Reviewed 2/23/11 _____

Curve summary present?	✓	✓
Hardcopies of chromatograms for CS1-CS5 present?	✓	✓
Copy of log-file present?	✓	✓
Static resolution check present?	✓	✓
Target file RT's correct?	✓	✓
%RSD within method-specified limits?*	✓	✓
Signal-to-noise criteria met?	✓	✓
Isotopic ratios within limits?	✓	✓
High point free of saturation?	✓	✓
Are chromatographic windows correct?	✓	✓
Manual reintegration's checked and hardcopies included?	✓	✓

COMMENTS:

CS3 RTs for 13C-1,2,3,4-TCDD → 19:50
2 13C-1,2,3,7,8,9-HxCDD → 33:17
MT'S: CS02: 1234678-HpCDF, 1234789-HpCDF, 1234678-HpCDF

*Method 8290/T09/M0023A: %RSD ≤ 20% for natives, ≤ 30% for labeled compounds; S/N ≥ 10
Method 1613B: %RSD ≤ 20% natives, ≤ 30% labeled compounds; S/N ≥ 10
Method 23: %RSD ≤ values specified in Table 5, Method 23; S/N ≥ 2.5

Run: 22FE11A4D5 Analyte: 1613 Cal: 16130222114D5

ST0222 :CS-0.2 11DXN025 AS ST0222A :CS-1 10DXN503 AS ST0222B :CS-2 10DXN504 AS
 ST0222C :CS-3 10DXN505 AS ST0222D :CS-4 10DXN506 AS ST0222E :CS-5 10DXN507 AS

22FE11A4D522FE11A4D522FE11A4D522FE11A4D522FE11A4D522FE11A4D5

Name	Mean	S. D.	%RSD	S2	RRF1	S3	RRF2	S4	RRF3	S5	RRF4	S6	RRF5	S7	RRF6
13C-1,2,3,4-TCDD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13C-2,3,7,8-TCDF	1.105	0.049	4.48	1.12	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.05	1.05	1.03	1.03
2,3,7,8-TCDF	0.777	0.054	6.93	0.86	0.80	0.80	0.80	0.80	0.80	0.70	0.70	0.74	0.74	0.76	0.76
Total TCDF	0.777	0.054	6.93	0.86	0.80	0.80	0.80	0.80	0.80	0.70	0.70	0.74	0.74	0.76	0.76
13C-2,3,7,8-TCDD	0.969	0.023	2.34	0.96	0.96	0.96	0.96	0.99	0.99	1.00	1.00	0.94	0.94	0.95	0.95
2,3,7,8-TCDD	0.868	0.030	3.42	0.88	0.85	0.85	0.85	0.91	0.91	0.82	0.82	0.87	0.87	0.87	0.87
Total TCDD	0.868	0.030	3.42	0.88	0.85	0.85	0.85	0.91	0.91	0.82	0.82	0.87	0.87	0.87	0.87
37Cl-2,3,7,8-TCDD	1.426	0.159	11.2	1.74	1.44	1.44	1.44	1.38	1.38	1.37	1.37	1.30	1.30	1.32	1.32
13C-1,2,3,7,8-PeCDF	1.039	0.028	2.72	1.01	1.05	1.05	1.05	1.02	1.02	1.09	1.09	1.01	1.01	1.05	1.05
1,2,3,7,8-PeCDF	0.959	0.040	4.22	0.97	0.90	0.90	0.90	0.97	0.97	0.93	0.93	0.99	0.99	1.00	1.00
13C-2,3,4,7,8-PeCDF	1.020	0.046	4.47	1.03	0.98	0.98	0.98	1.01	1.01	1.08	1.08	0.96	0.96	1.06	1.06
2,3,4,7,8-PeCDF	0.956	0.036	3.79	0.97	0.93	0.93	0.93	0.98	0.98	0.90	0.90	1.00	1.00	0.96	0.96
Total F2 PeCDF	0.957	0.036	3.77	0.97	0.93	0.93	0.93	0.97	0.97	0.91	0.91	1.00	1.00	0.98	0.98
Total F1 PeCDF	0.957	0.036	3.77	0.97	0.97	0.97	0.97	0.97	0.97	0.91	0.91	1.00	1.00	0.98	0.98
13C-1,2,3,7,8-PeCDD	0.700	0.022	3.13	0.74	0.70	0.70	0.70	0.70	0.70	0.69	0.69	0.67	0.67	0.70	0.70
1,2,3,7,8-PeCDD	1.042	0.035	3.31	1.06	0.99	0.99	0.99	1.05	1.05	1.01	1.01	1.07	1.07	1.07	1.07
Total PeCDD	1.042	0.035	3.31	1.06	0.99	0.99	0.99	1.05	1.05	1.01	1.01	1.07	1.07	1.07	1.07
13C-1,2,3,7,8,9-HxCDD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13C-1,2,3,4,7,8-HxCDF	0.871	0.066	7.60	0.79	0.82	0.82	0.82	0.87	0.87	0.98	0.98	0.88	0.88	0.88	0.88
1,2,3,4,7,8-HxCDF	1.149	0.052	4.51	1.22	1.09	1.09	1.09	1.18	1.18	1.09	1.09	1.14	1.14	1.17	1.17
13C-1,2,3,6,7,8-HxCDF	1.182	0.043	3.63	1.12	1.19	1.19	1.19	1.19	1.19	1.25	1.25	1.18	1.18	1.16	1.16
1,2,3,6,7,8-HxCDF	1.073	0.022	2.09	1.08	1.04	1.04	1.04	1.10	1.10	1.05	1.05	1.09	1.09	1.08	1.08
13C-2,3,4,6,7,8-HxCDF	1.033	0.029	2.79	1.00	1.05	1.05	1.05	1.02	1.02	1.08	1.08	1.02	1.02	1.04	1.04
2,3,4,6,7,8-HxCDF	1.096	0.044	3.98	1.10	1.03	1.03	1.03	1.16	1.16	1.06	1.06	1.11	1.11	1.11	1.11
13C-1,2,3,7,8,9-HxCDF	0.905	0.041	4.53	0.84	0.91	0.91	0.91	0.90	0.90	0.97	0.97	0.91	0.91	0.91	0.91
1,2,3,7,8,9-HxCDF	1.078	0.085	7.84	1.22	0.99	0.99	0.99	1.12	1.12	1.01	1.01	1.06	1.06	1.08	1.08

	1.096	0.044	4.01	1.15	1.04	1.14	1.05	1.10	1.11
Total HxCDF									
13C-1,2,3,4,7,8-HxCDD	0.664	0.042	6.31	0.61	0.62	0.67	0.72	0.66	0.70
1,2,3,4,7,8-HxCDD	1.065	0.030	2.80	1.09	1.05	1.08	1.01	1.09	1.07
13C-1,2,3,6,7,8-HxCDD	0.950	0.033	3.51	0.95	0.98	0.93	1.00	0.92	0.92
1,2,3,6,7,8-HxCDD	1.046	0.028	2.68	1.08	1.01	1.05	1.02	1.06	1.07
1,2,3,7,8,9-HxCDD	1.201	0.034	2.83	1.23	1.16	1.23	1.16	1.23	1.20
Total HxCDD	1.103	0.029	2.65	1.13	1.07	1.12	1.06	1.12	1.11
3C-1,2,3,4,6,7,8-HpCDF	0.914	0.040	4.40	0.85	0.91	0.93	0.98	0.90	0.91
1,2,3,4,6,7,8-HpCDF	1.324	0.021	1.60	1.34	1.29	1.34	1.30	1.33	1.34
3C-1,2,3,4,7,8,9-HpCDF	0.831	0.054	6.45	0.76	0.80	0.81	0.91	0.84	0.86
1,2,3,4,7,8,9-HpCDF	1.245	0.060	4.81	1.33	1.19	1.30	1.18	1.24	1.22
Total HpCDF	1.286	0.038	2.94	1.34	1.24	1.32	1.25	1.29	1.28
3C-1,2,3,4,6,7,8-HpCDD	0.914	0.047	5.18	0.85	0.91	0.92	0.99	0.89	0.92
1,2,3,4,6,7,8-HpCDD	1.014	0.060	5.93	1.09	0.92	0.99	1.00	1.05	1.04
Total HpCDD	1.014	0.060	5.93	1.09	0.92	0.99	1.00	1.05	1.04
13C-OCDD	0.601	0.034	5.65	0.55	0.60	0.59	0.64	0.59	0.64
OCDF	1.274	0.084	6.59	1.19	1.17	1.31	1.25	1.36	1.36
OCDD	1.129	0.067	5.97	1.24	1.05	1.13	1.07	1.15	1.14

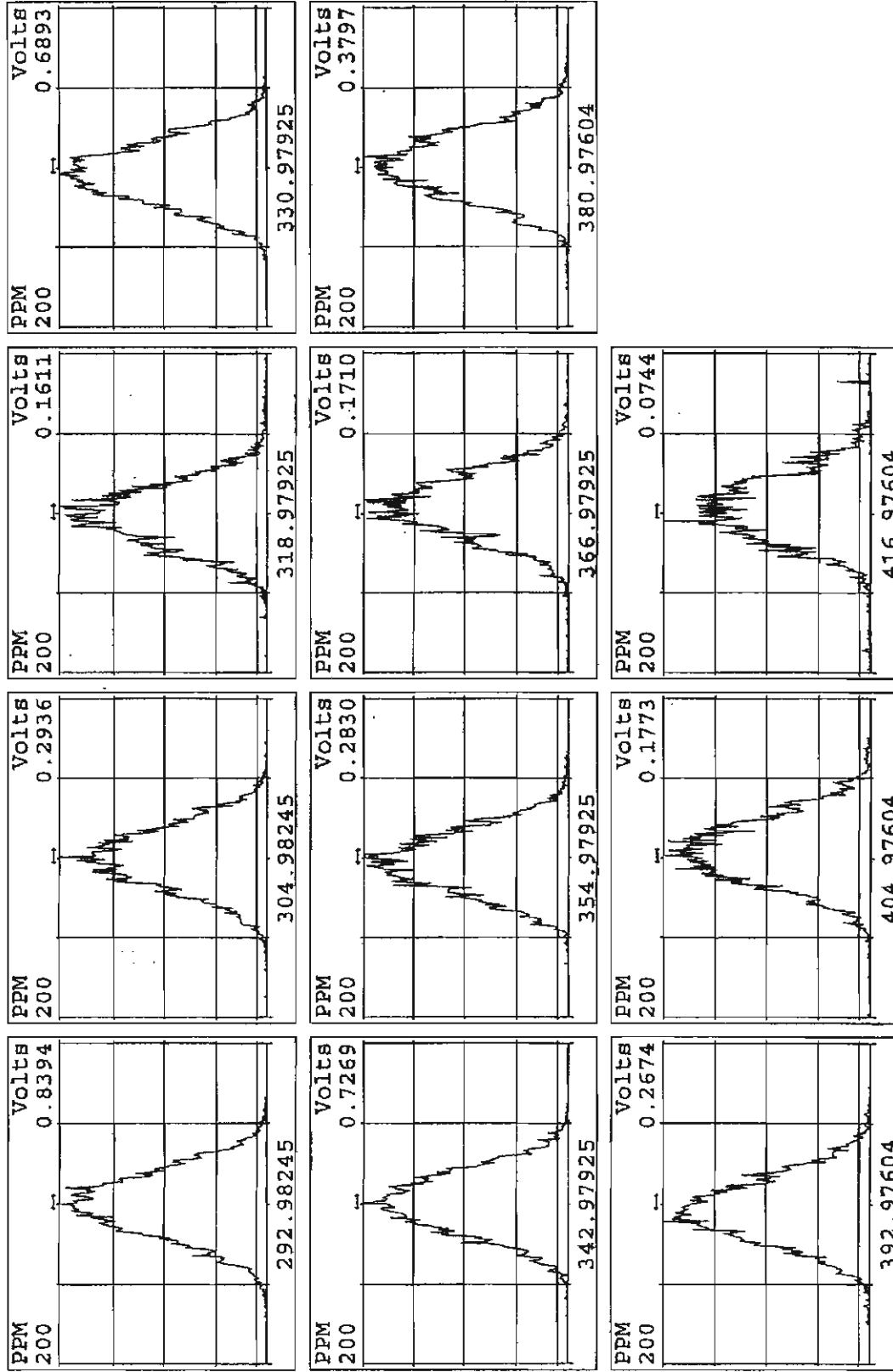
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22FE11A4D5	3	ST0222A	CS-1 10DXN503 AS				1.00000	
22FE11A4D5	4	ST0222B	CS-2 10DXN504 AS				1.00000	
22FE11A4D5	5	ST0222C	CS-3 10DXN505 AS				1.00000	
22FE11A4D5	6	ST0222D	CS-4 10DXN506 AS				1.00000	
22FE11A4D5	7	ST0222E	CS-5 10DXN507 AS				1.00000	
22FE11A4D5	8	SB0222	Solvent Blank C-14 AS				1.00000	
22FE11A4D5	9	ST0222F	2nd Source 10DXN511 AS				1.00000	
22FE11A4D5	10						1.00000	
22FE11A4D5	11						1.00000	
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log file reviewed
2-22-11 am

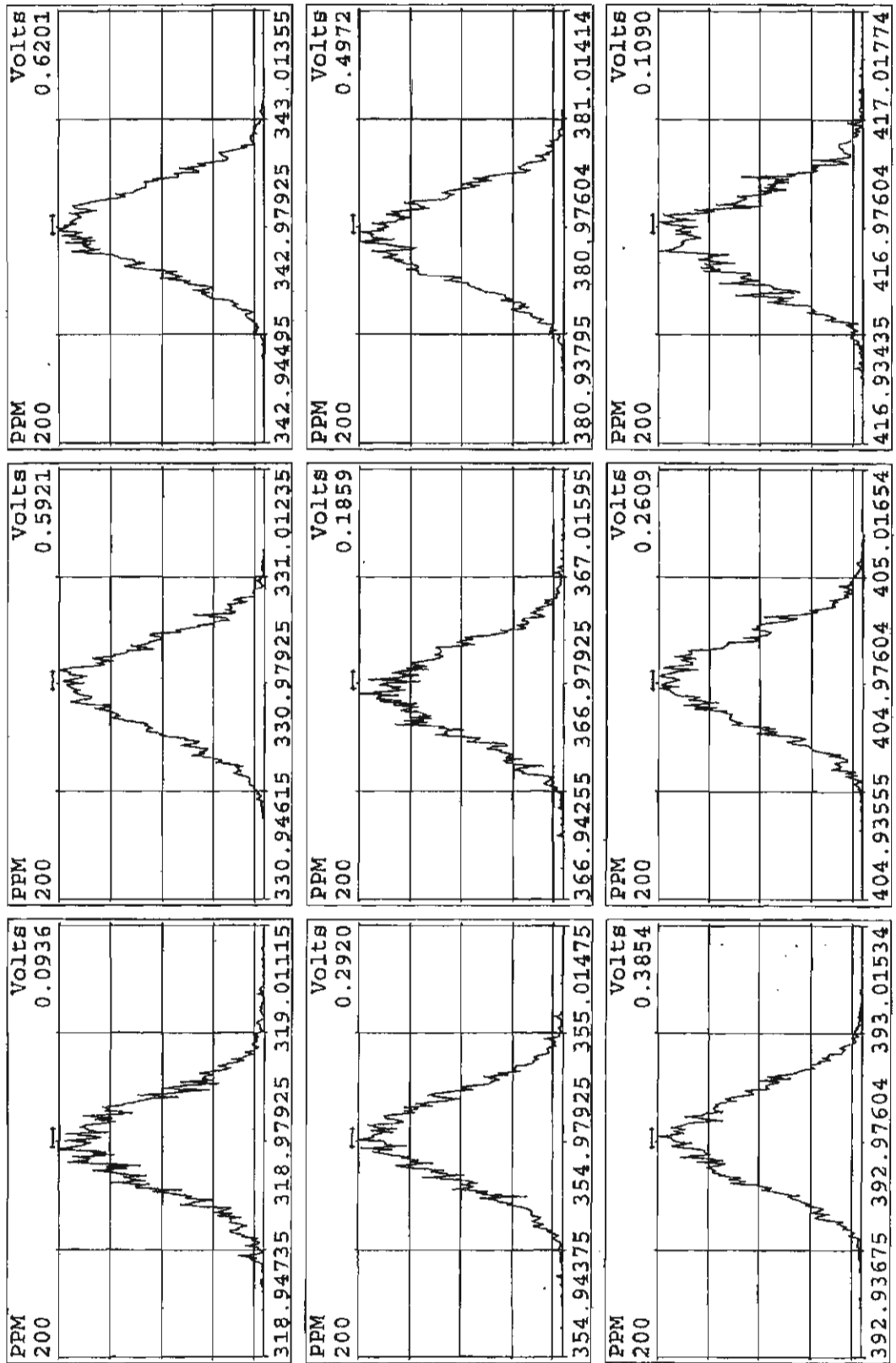
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22FE11A4D5	3	ST0222A	CS-1 10DXN503 AS				1.00000	
22FE11A4D5	4	ST0222B	CS-2 10DXN504 AS				1.00000	
22FE11A4D5	5	ST0222C	CS-3 10DXN505 AS				1.00000	
22FE11A4D5	6	ST0222D	CS-4 10DXN506 AS				1.00000	
22FE11A4D5	7	ST0222E	CS-5 10DXN507 AS				1.00000	
22FE11A4D5	8	SB0222	Solvent Blank C-14 AS				1.00000	
22FE11A4D5	9	ST0222F	2nd Source 10DXN511 AS				1.00000	
22FE11A4D5	10						1.00000	
22FE11A4D5	11						1.00000	
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log file reviewed
2-22-11 am

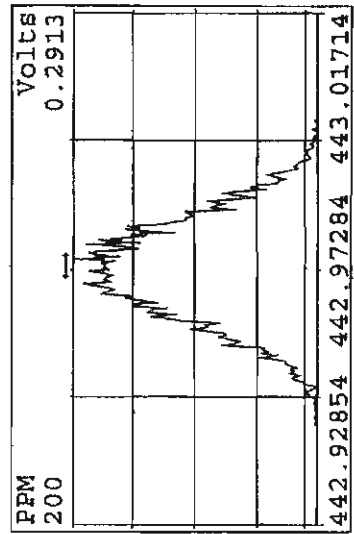
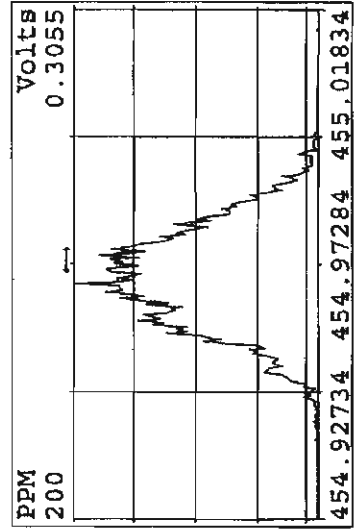
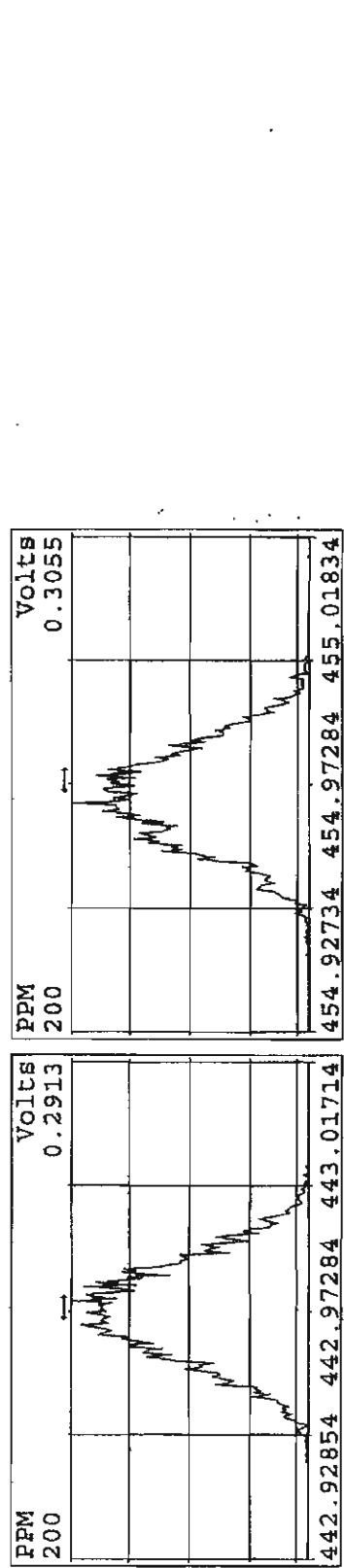
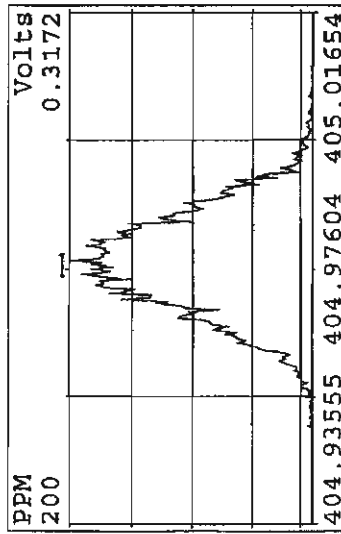
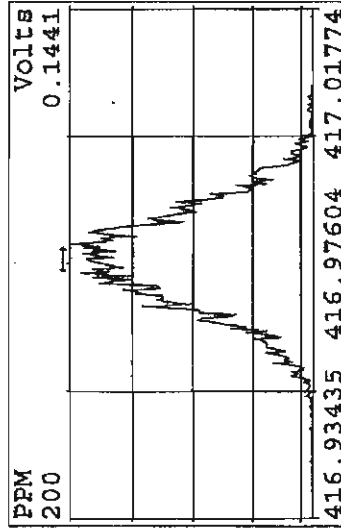
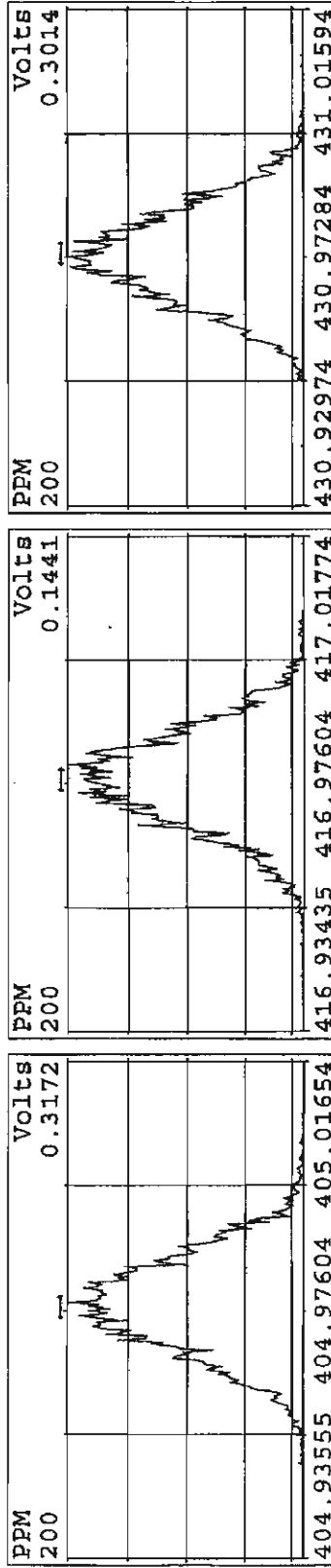
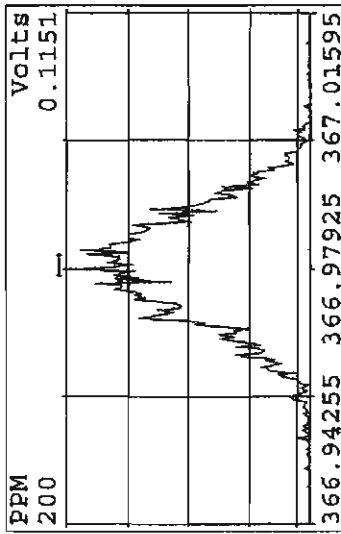
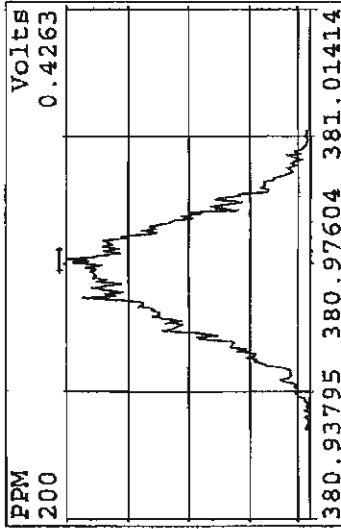
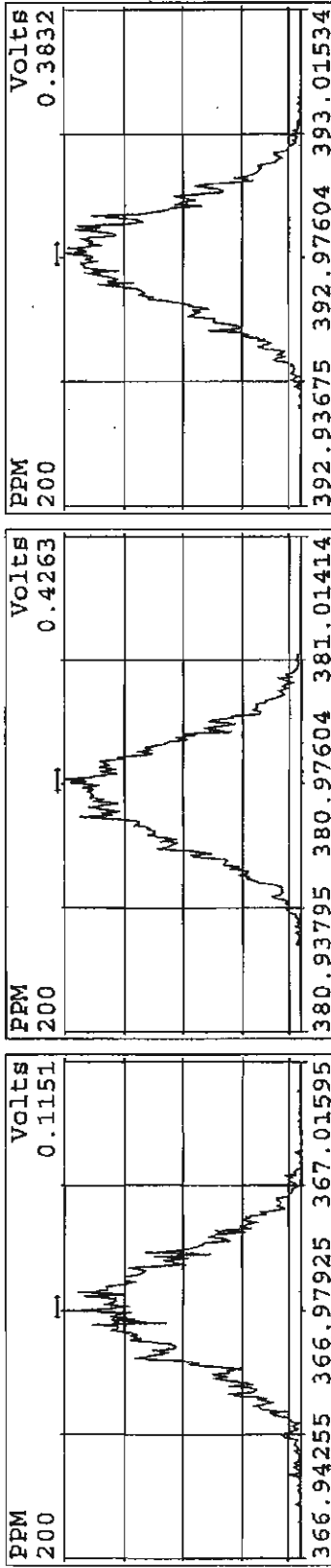
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Experiment:DIOXINRES Function:1 Reference:PFK



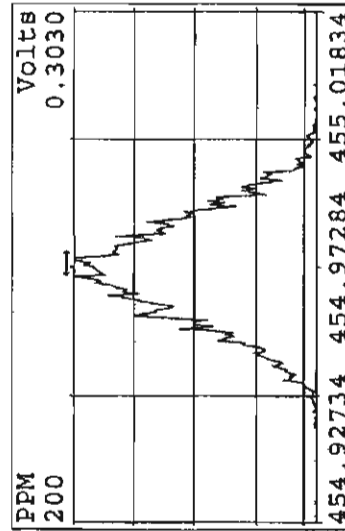
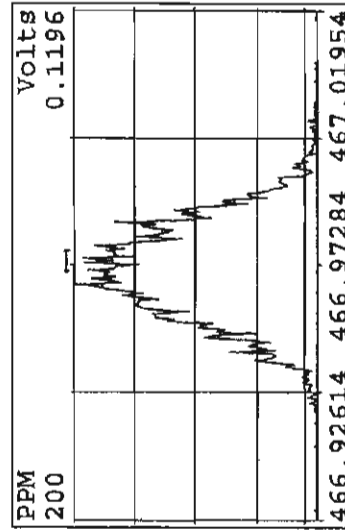
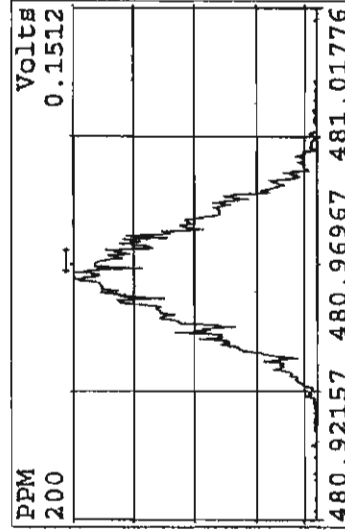
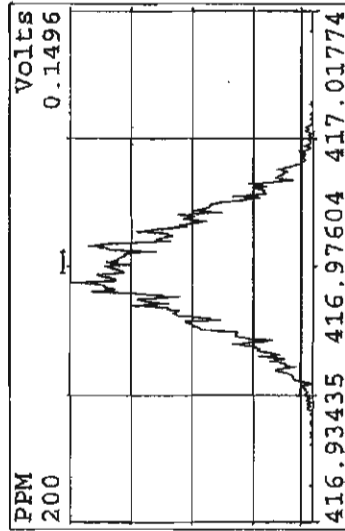
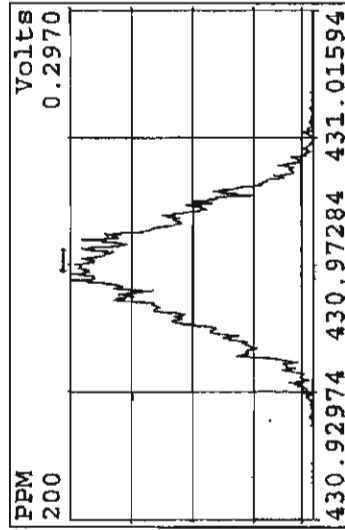
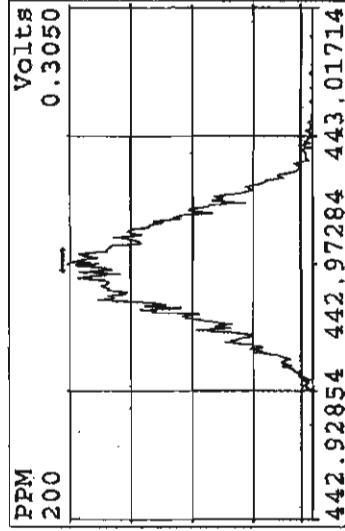
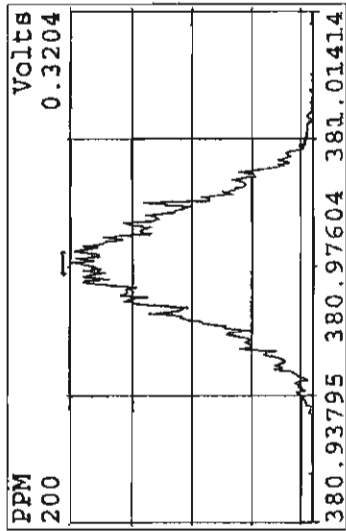
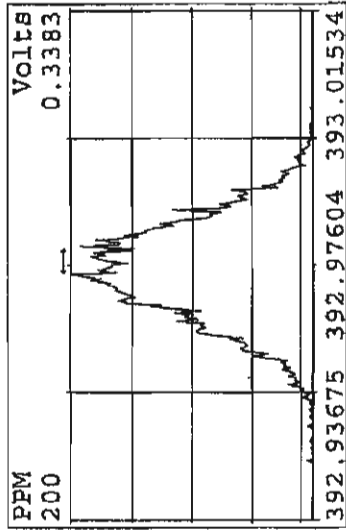
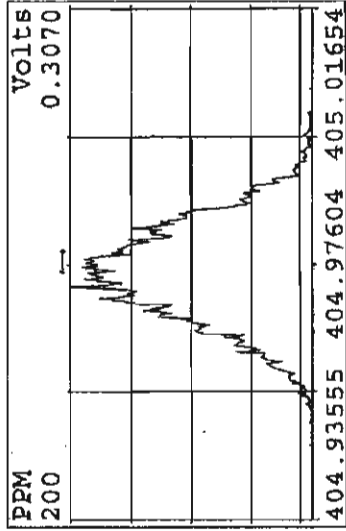
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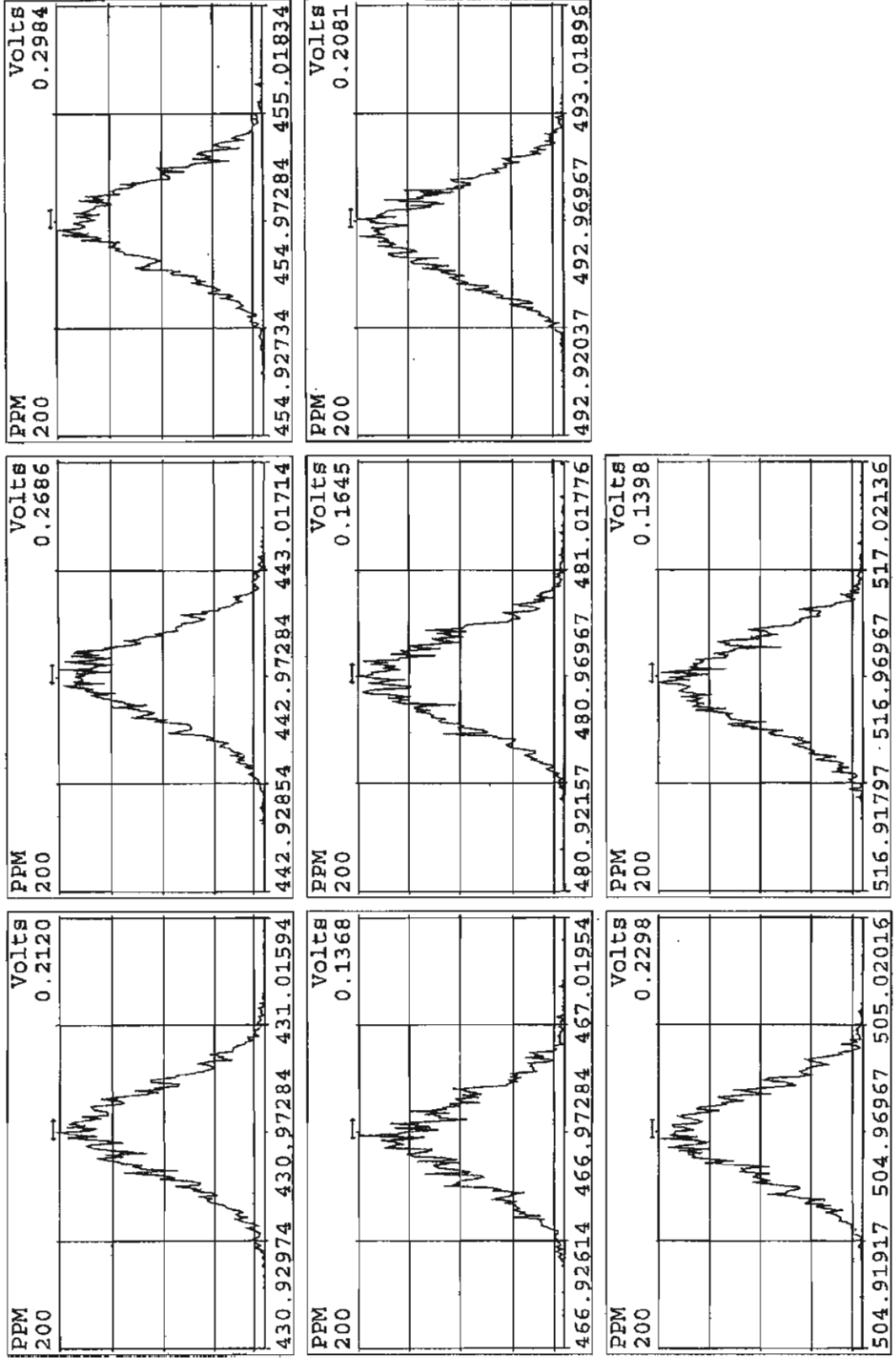
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 Experiment: DIOXINRES Function: 3 Reference: PFX



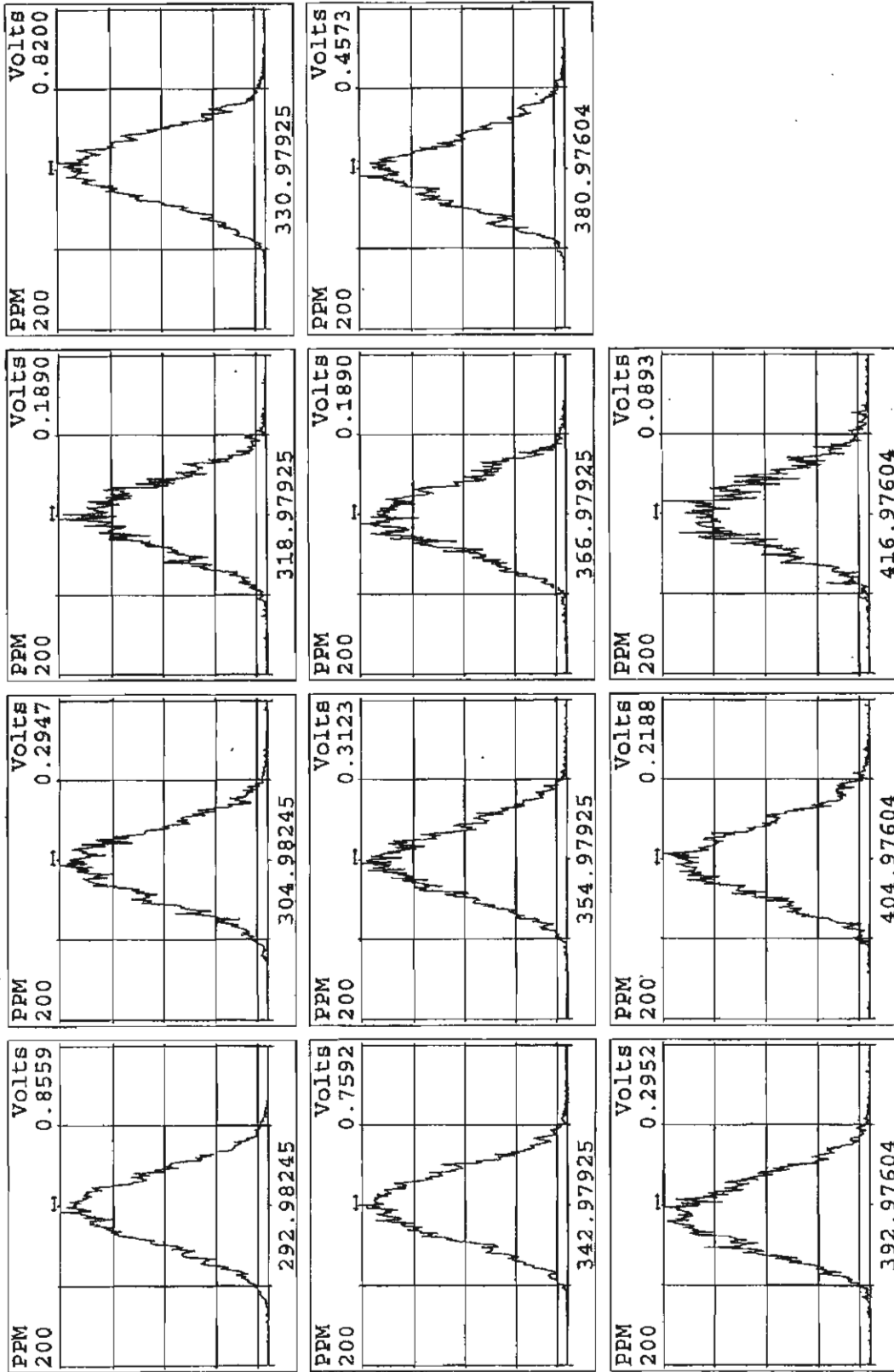
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Experiment: DIOXINRES Function: 4 Reference: PFK



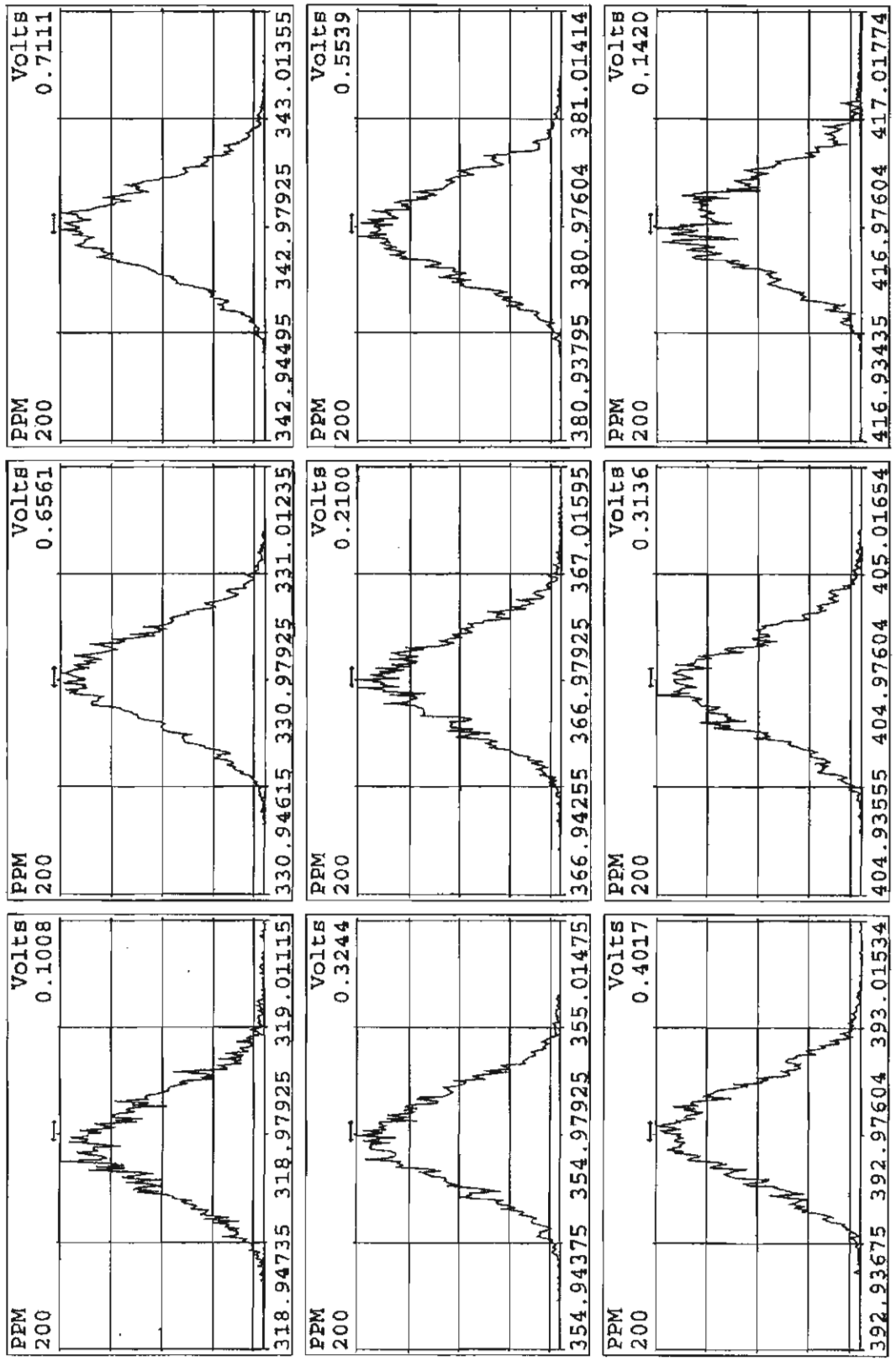
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Experiment: DIOXINRES Function: 5 Reference: PFK



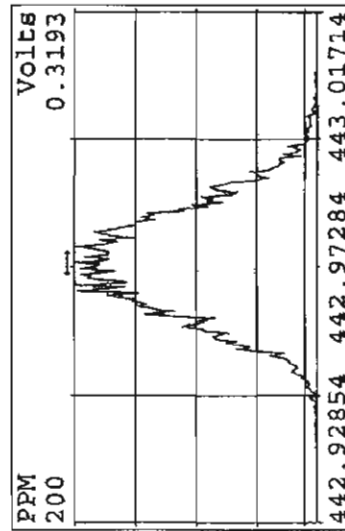
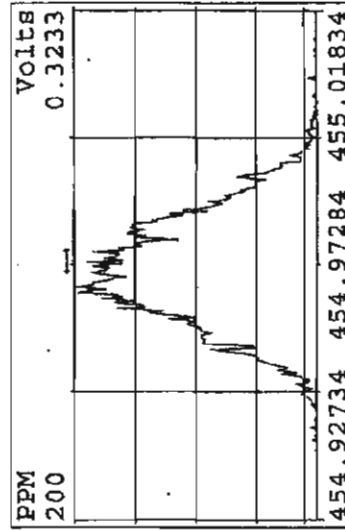
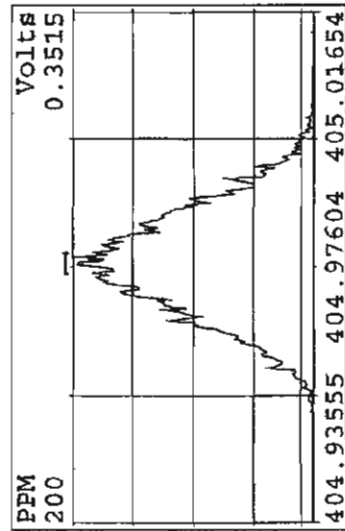
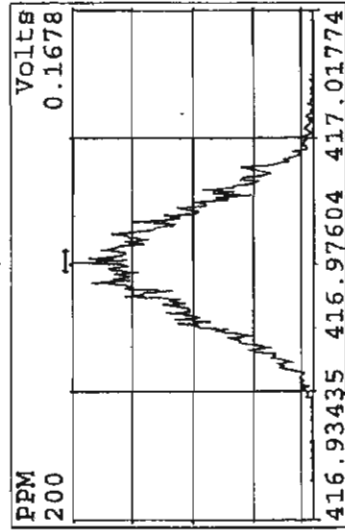
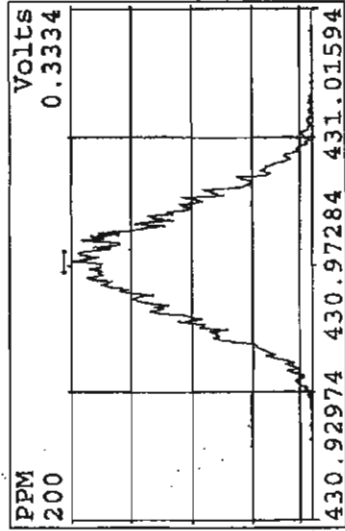
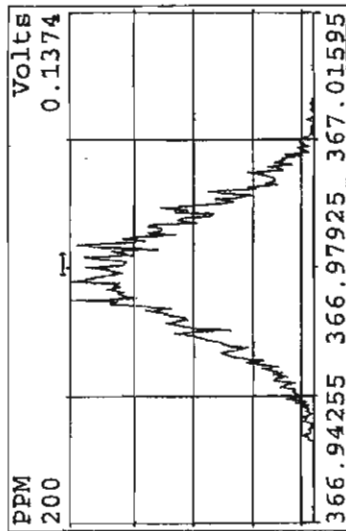
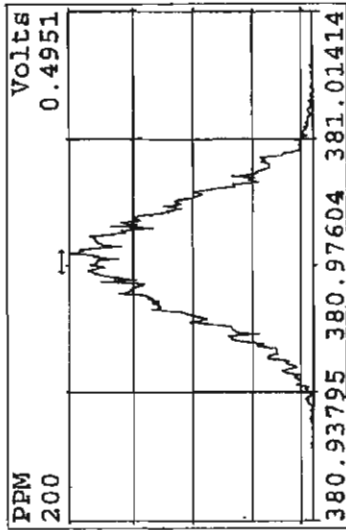
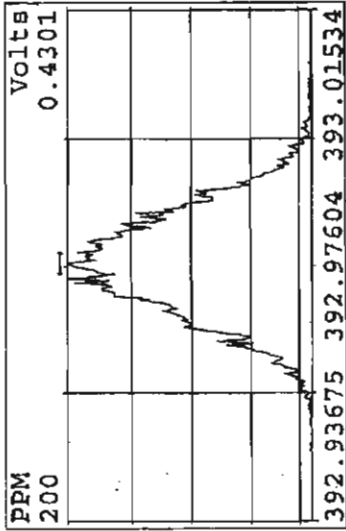
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Experiment: DIOXINRES Function: 1 Reference: PFK



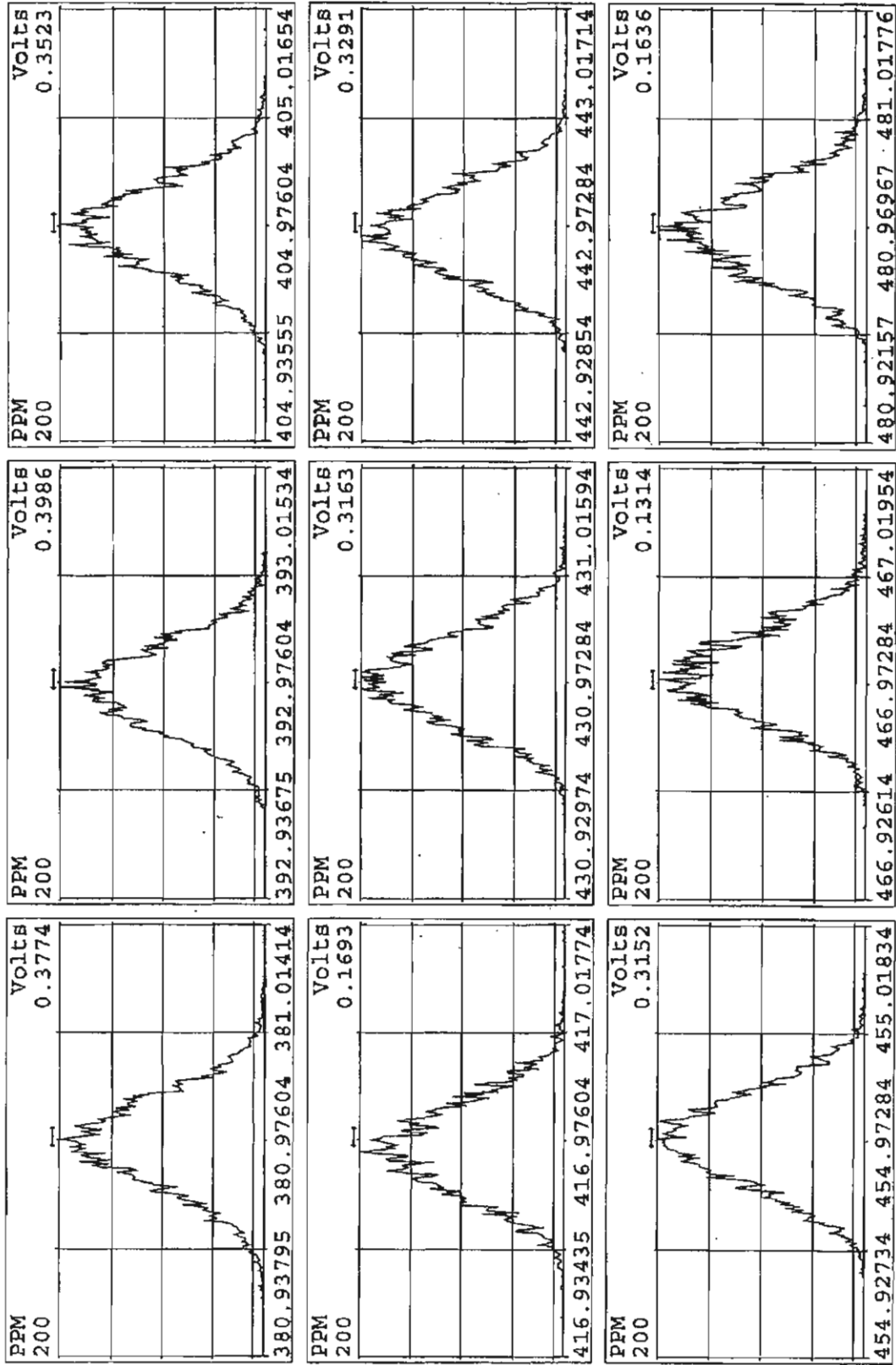
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 Experiment: DIOXINRES Function: 2 Reference: PFK



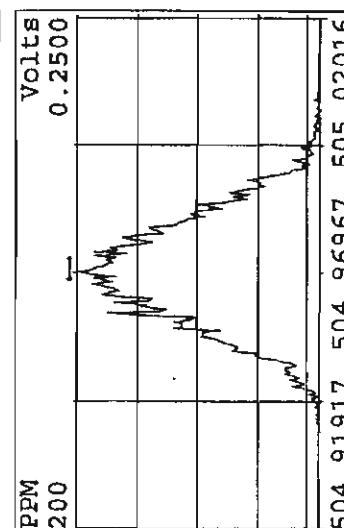
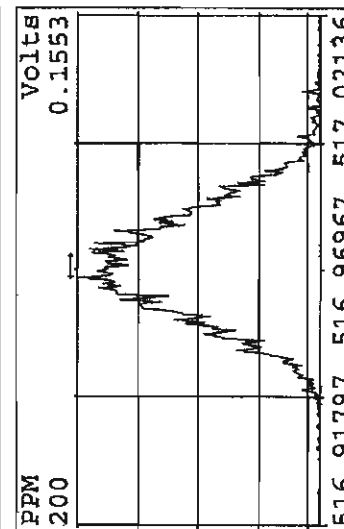
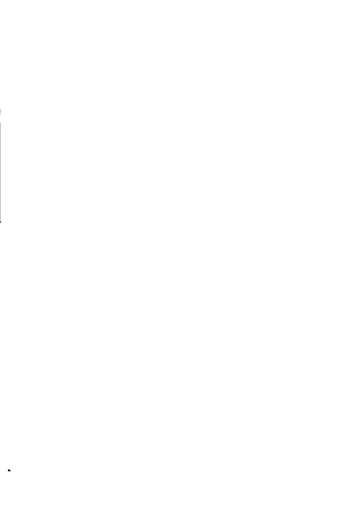
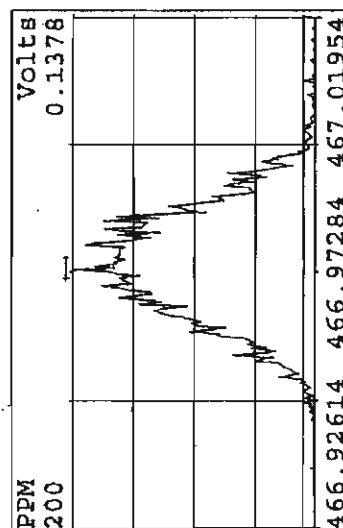
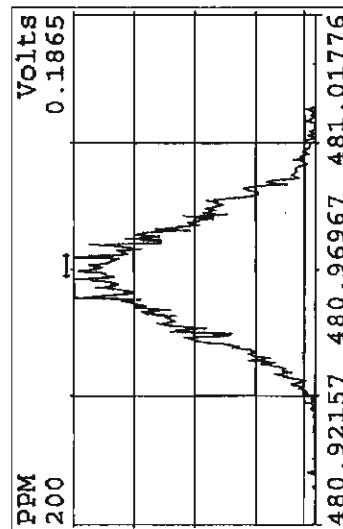
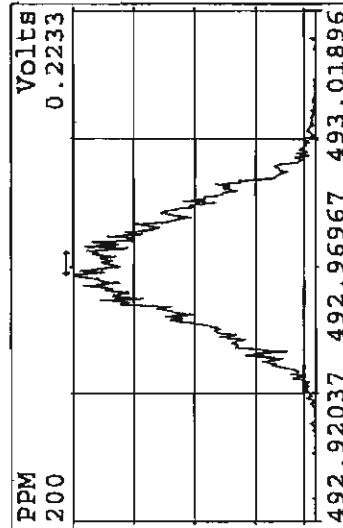
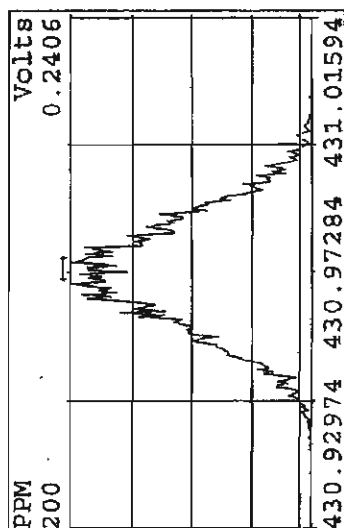
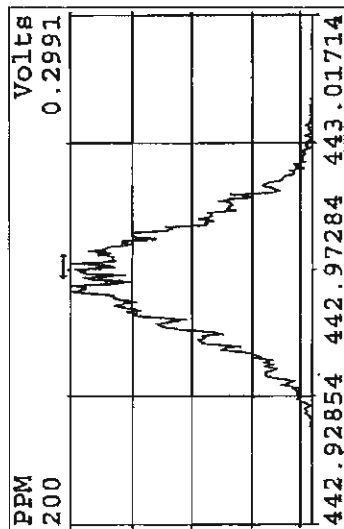
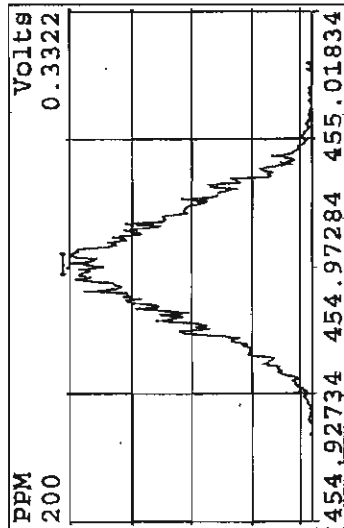
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Experiment: DIOXINRES Function: 3 Reference: PFK



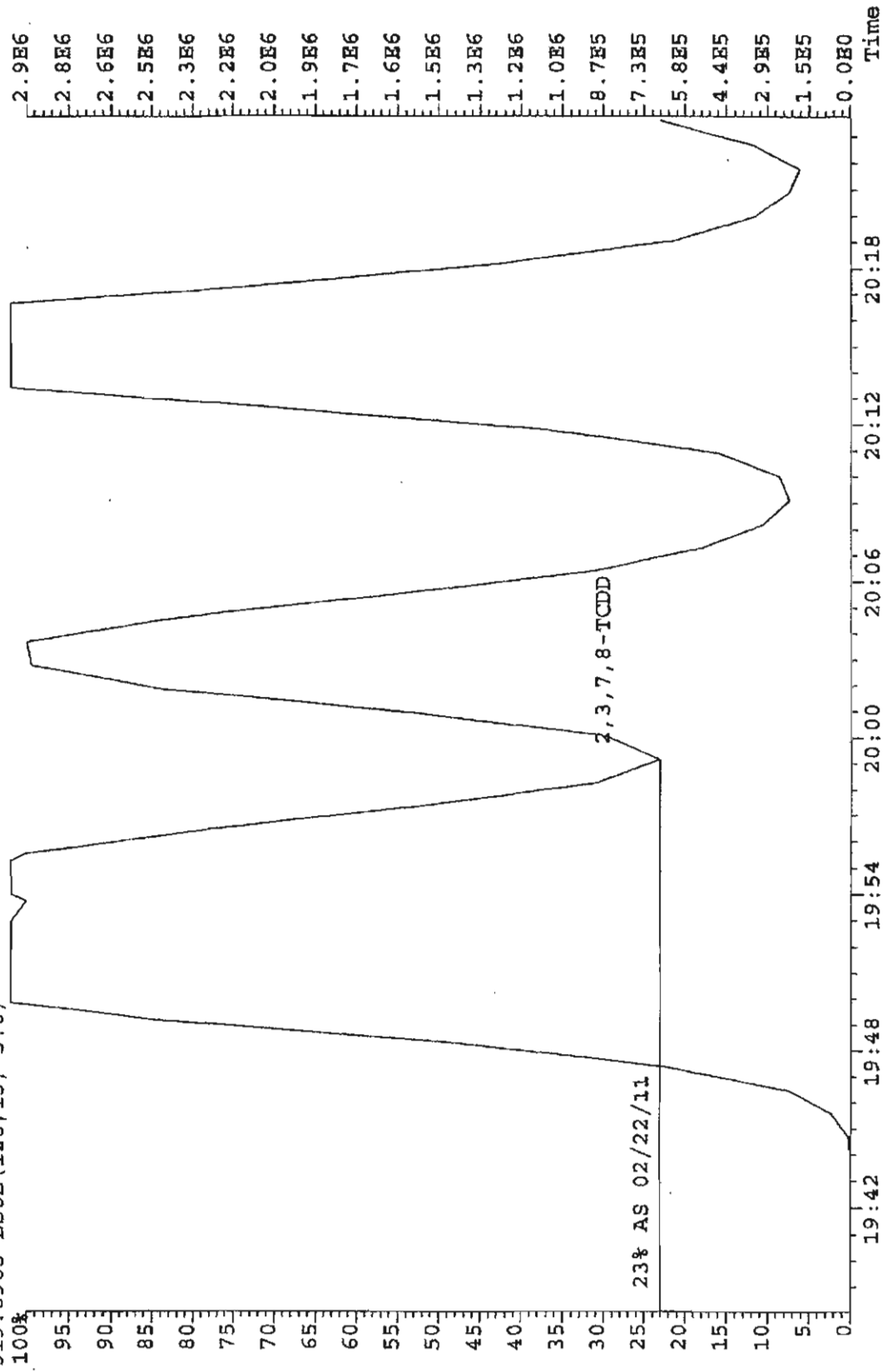
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Experiment: DIOXINRES Function: 4 Reference: PFK



Peak Locate Examination: 22-FEB-2011: 19:52 File: RESCHK22FE11A4D5
 Experiment: DIOXINRES Function: 5 Reference: PFK



File: 22FE11A4D5 #1-530 Acq: 22-FEB-2011 12:53:08 GC EI+ Voltage SIR Autospec-UltimaE
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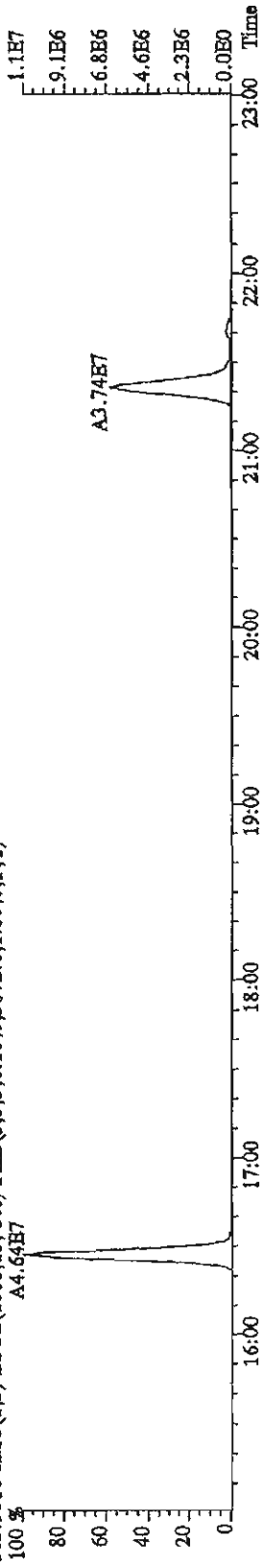


File:22FBI1A4D5 #1-530 Acq:22-FEB-2011 12:53:08 GC EI+ Voltage SIR Autospec-UltimaB

Sample#1 Tex:CP0222 :DB-5 CPSM 3732-08 AS Exp:DIOXINRES

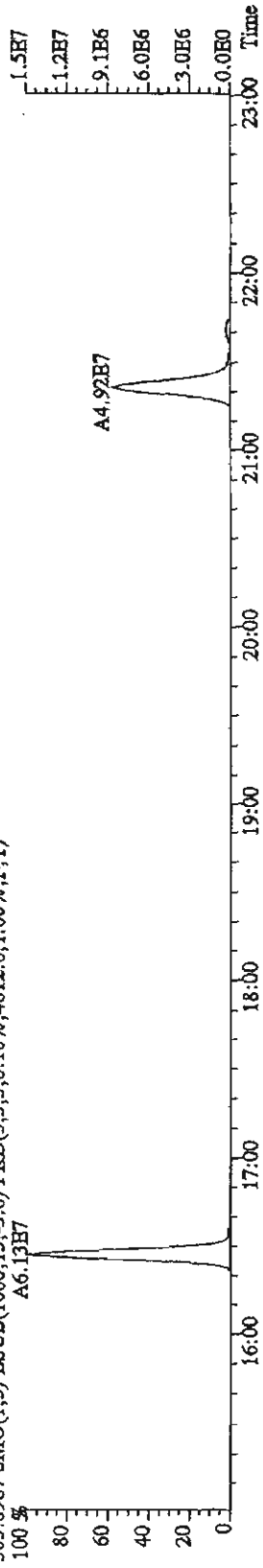
303.9016 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4612.0,1.00%,F,T)

100 % A4.64E7



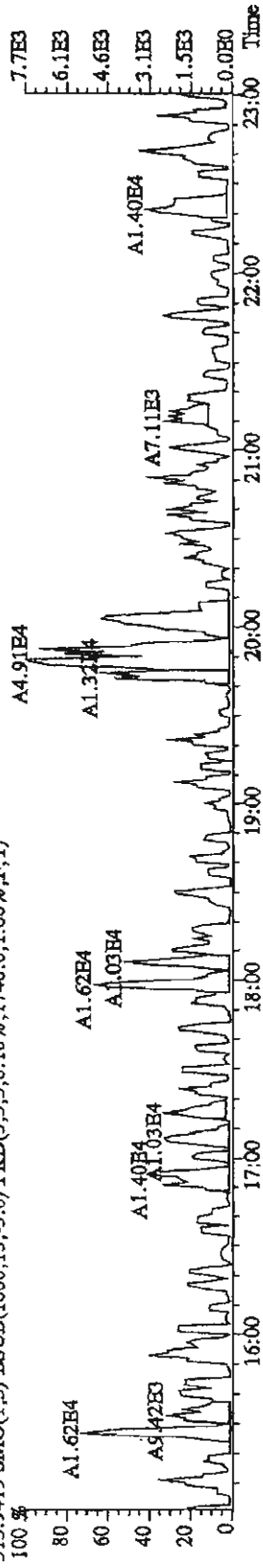
305.8987 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1740.0,1.00%,F,T)

100 % A6.13E7



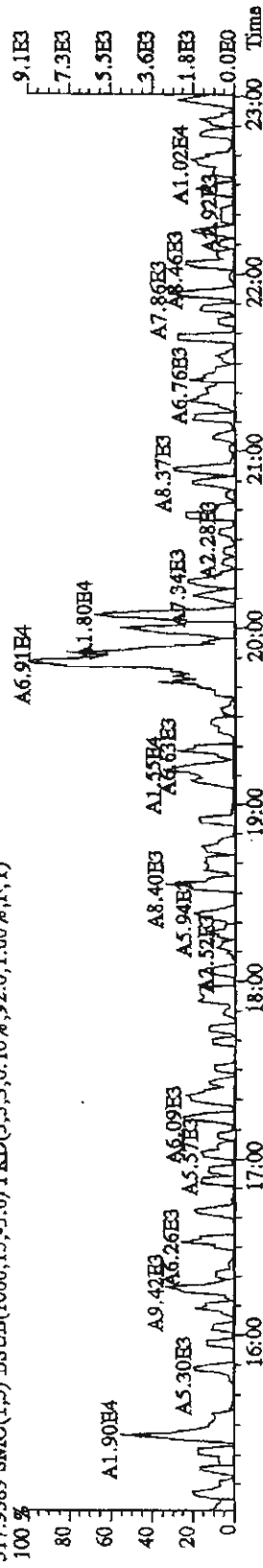
315.9419 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1740.0,1.00%,F,T)

100 %



317.9389 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,92.0,1.00%,F,T)

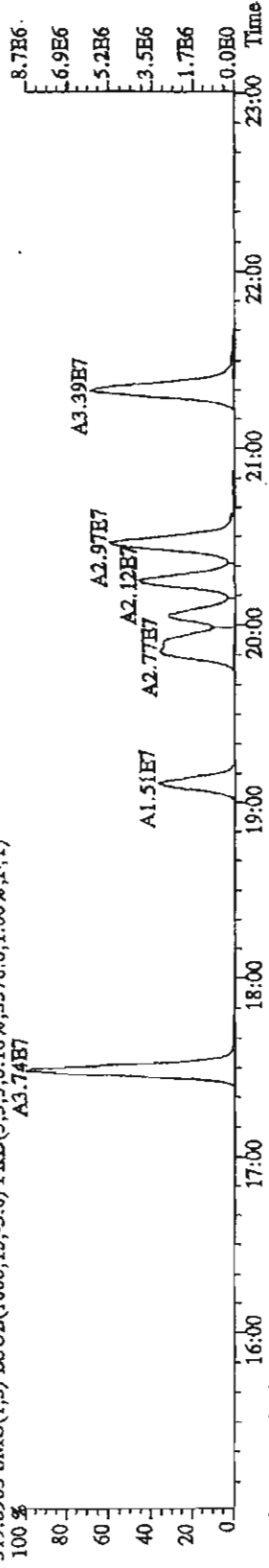
100 %



File:22FE11A4D5 #1-530 Acq:22-FEB-2011 12:53:08 GC EI+ Voltage SIR Autospec-UltimaE

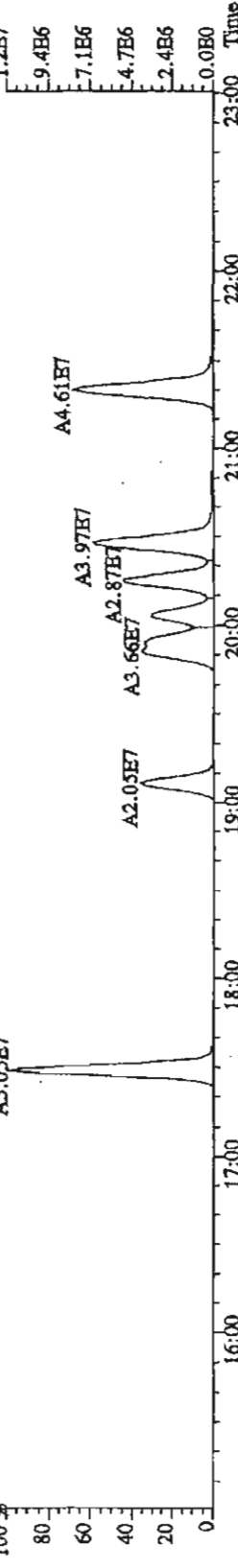
Sample#1 Text:CP0222 :DB-5 CFSM 3732-08 AS Exp:DIOXINRBS

319.8965 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3576.0,1.00%,F,T)



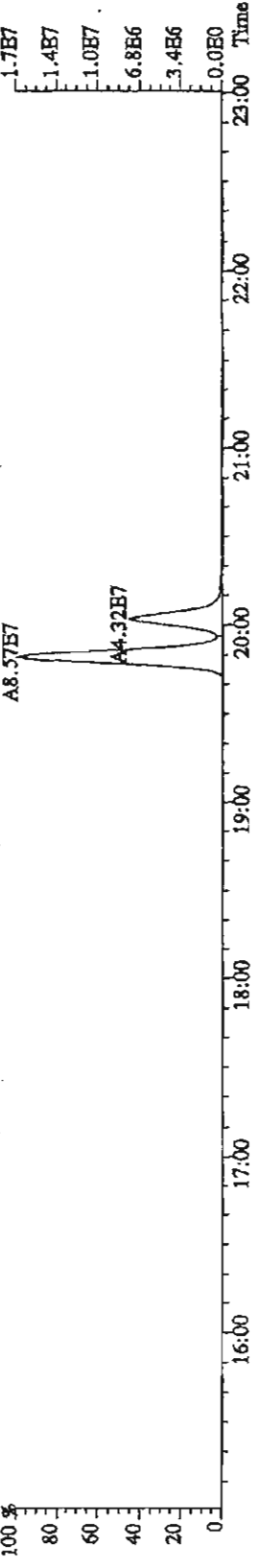
321.8936 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3908.0,1.00%,F,T)

A5.05E7



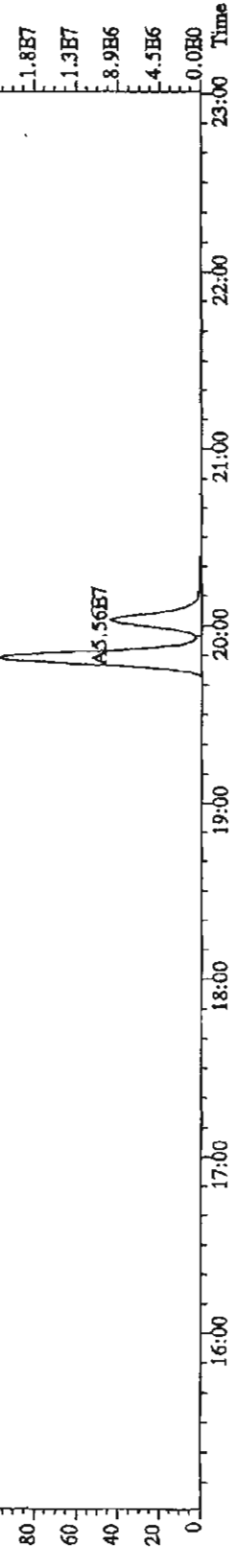
331.9368 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8428.0,1.00%,F,T)

A8.57E7



333.9339 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2644.0,1.00%,F,T)

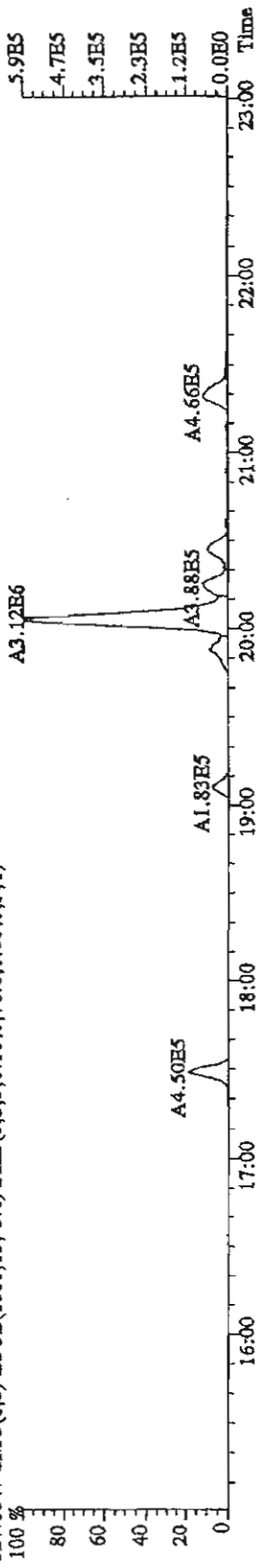
A1.11E8



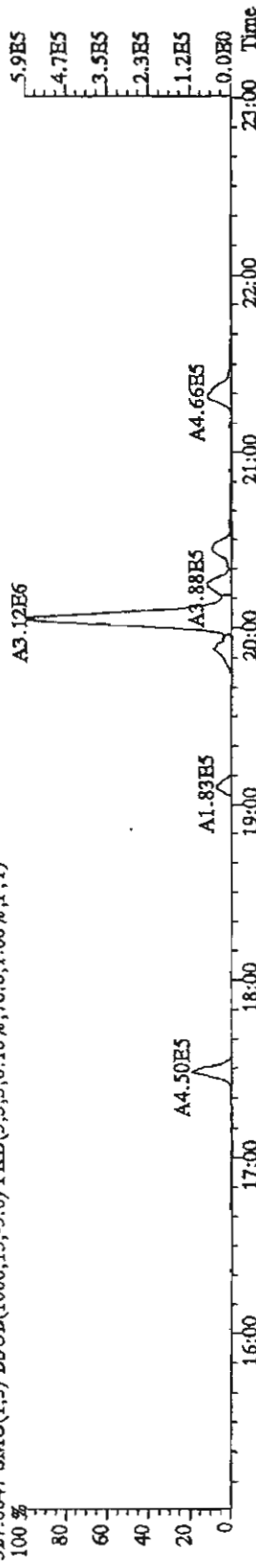
File: 22FB11A4D5 #1-530 Acq: 22-FRB-2011 12:53:08 GC EI+ Voltage SIR Autospec-UltimaE

Sample#1 Text: CF0222 :DB-5 CFSM 3732-08 AS Exp: DIOXINRES

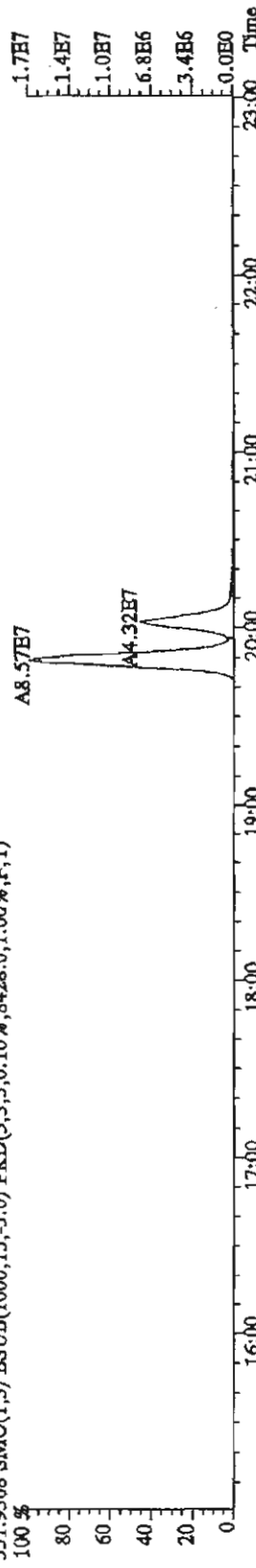
327.8847 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,76.0,1.00%,F,T)



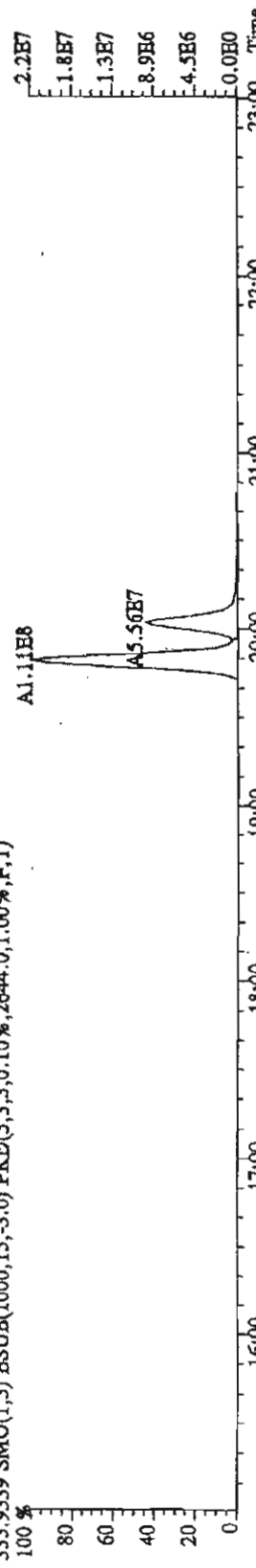
327.8847 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,76.0,1.00%,F,T)



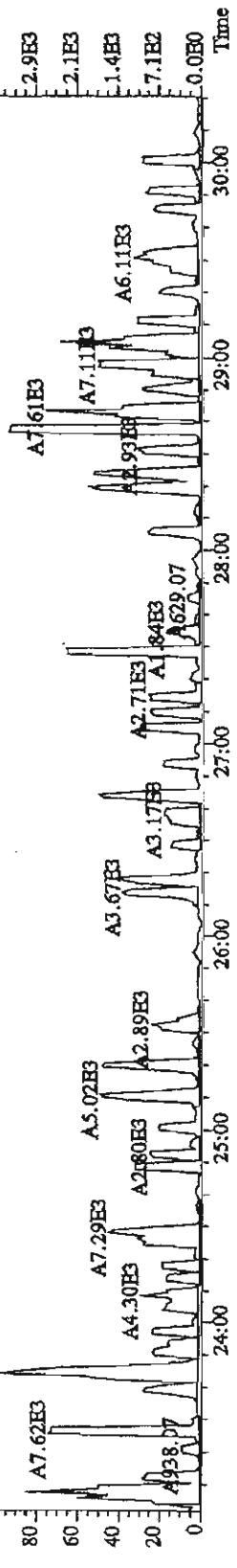
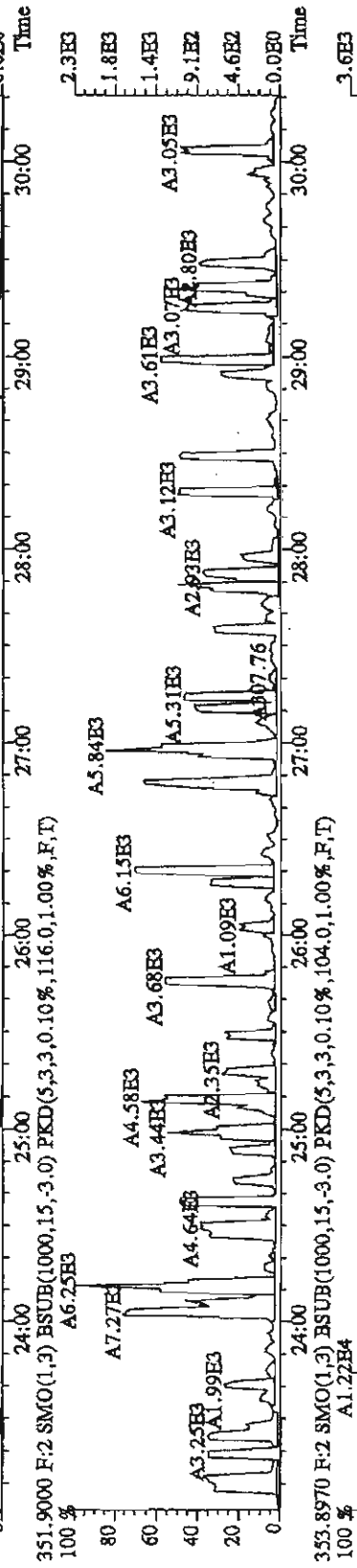
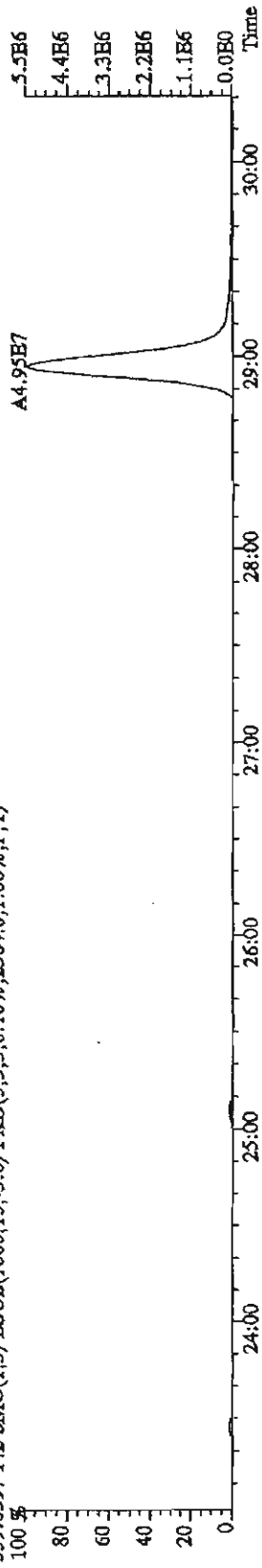
331.9368 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8428.0,1.00%,F,T)



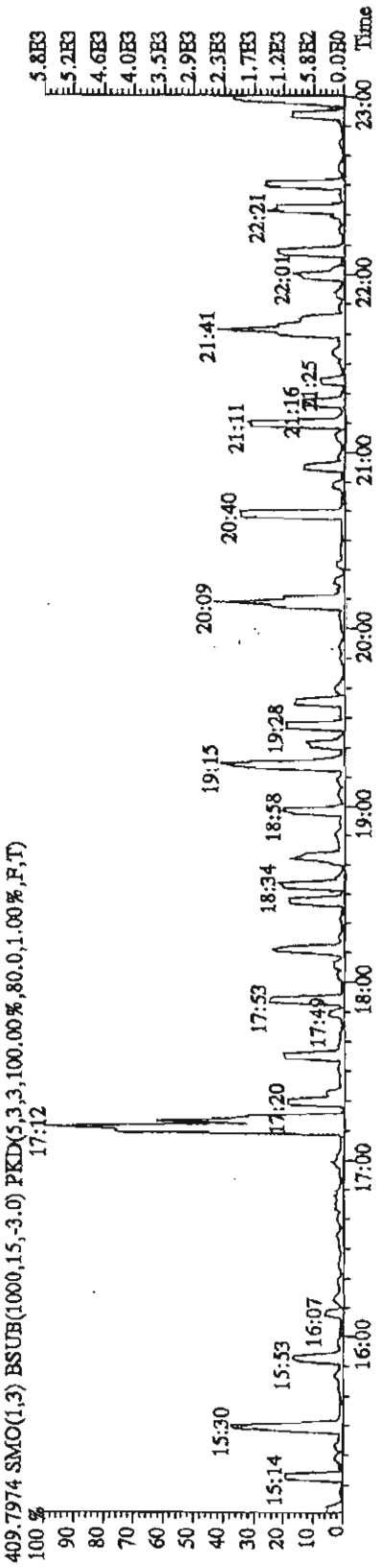
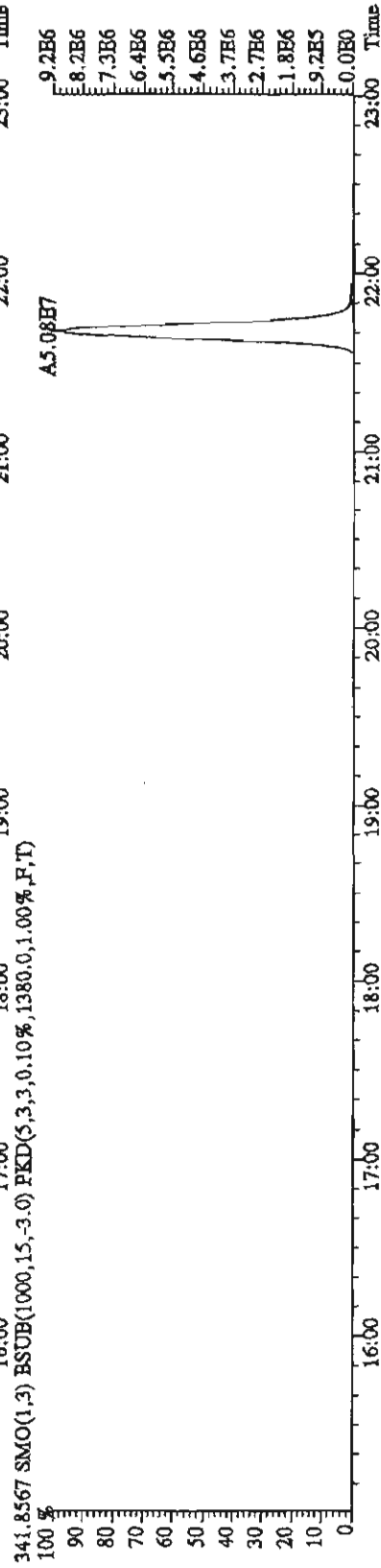
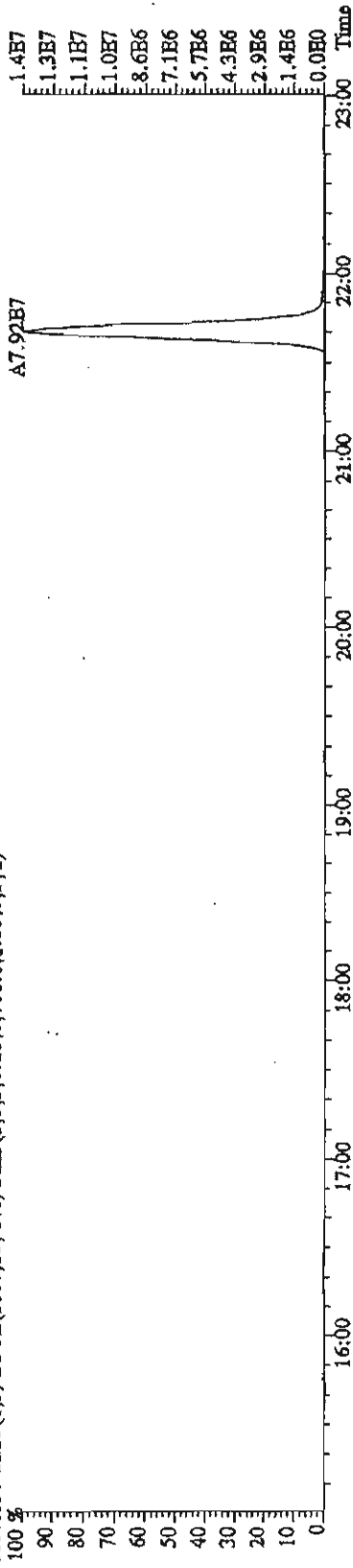
333.9339 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2644.0,1.00%,F,T)



File: 22FEB11A4D5 #1-470 Acq: 22-FEB-2011 12:53:08 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#1 Text: CP022 :DB-5 CPSM 3732-08 AS Exp: DIOXINRES
 339.8597 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2304,0,1.00%,F,T)



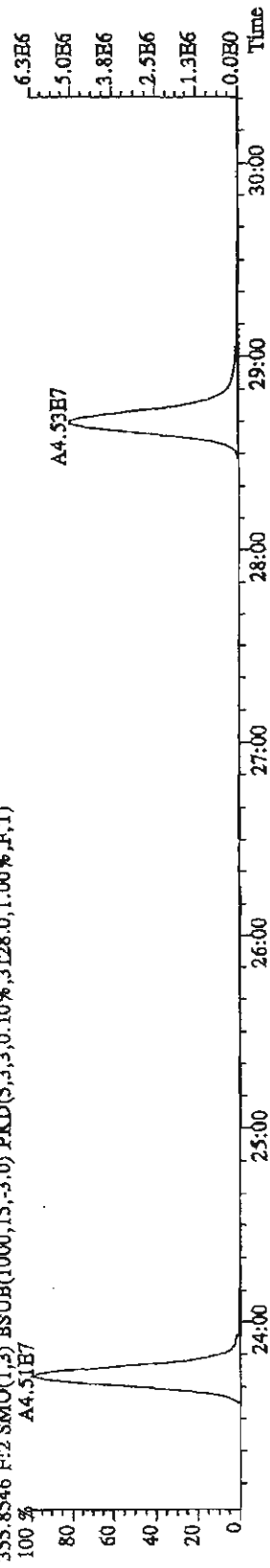
File: 22FE11A4D5 #1-530 Acq: 22-FEB-2011 12:53:08 GC HI+ Voltage SIR Autospec-UltimaE
 Sample#1 Text: CP0222 :DB-5 CP5M 3732-08 AS Exp: DIOXINRES
 339.8597 SMO(1.3) BSVB(1000,15,-3.0) PKD(5,3,3,0.10%,708.0,1.00%,F,T)



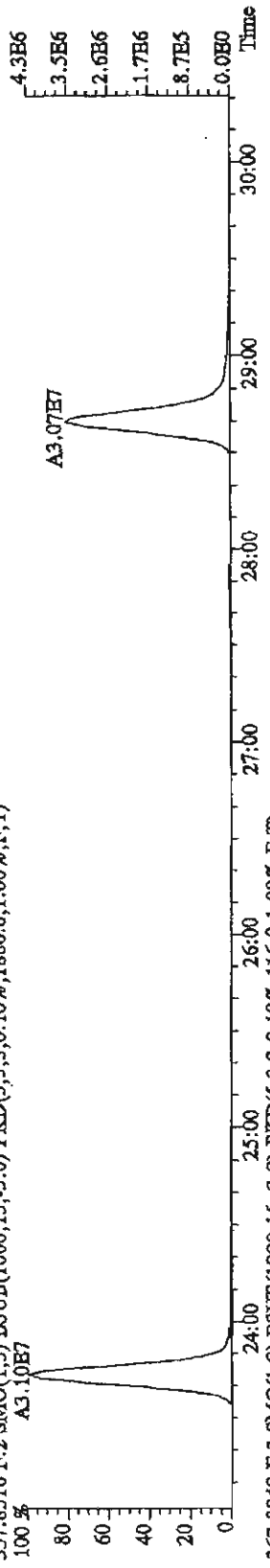
File: 22FE11A4D5 #1-470 Acq: 22-FEB-2011 12:53:08 GC EI+ Voltage SIR Autospec-UltimaE

Sample#1 Text: CP0222 ;DB-5 CP5M.3732-08 AS Exp: DIOXINRES

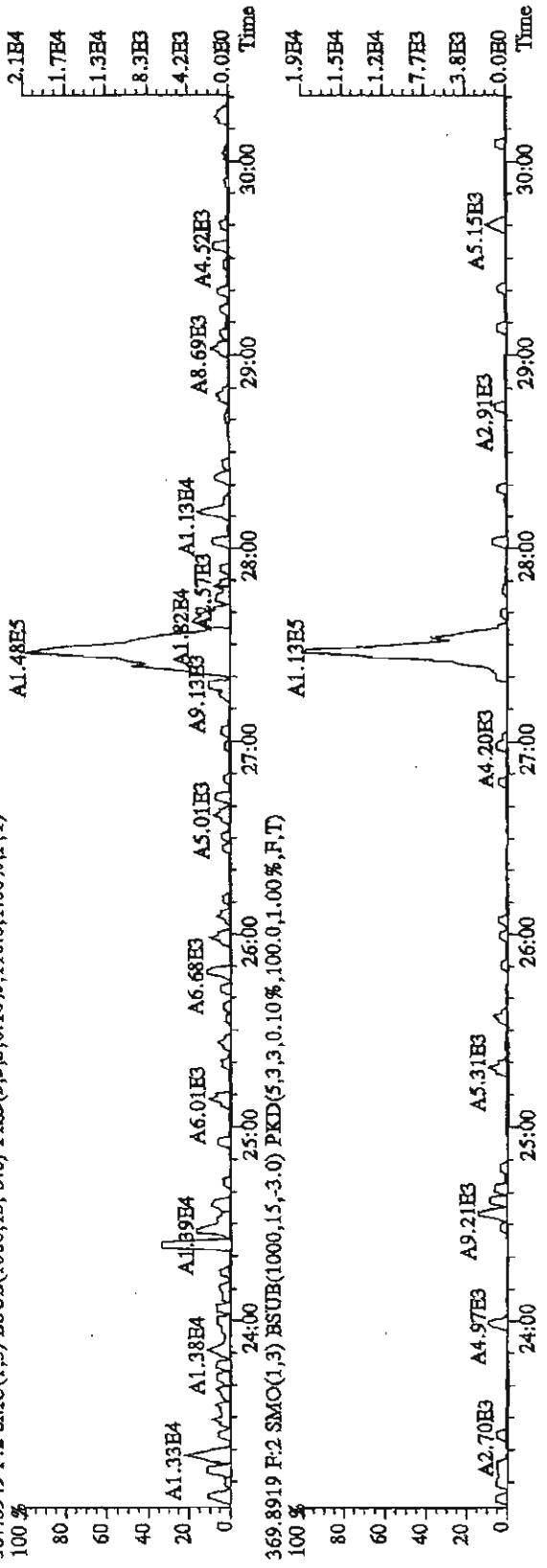
355.8546 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1880.0,1.00%,F,T)



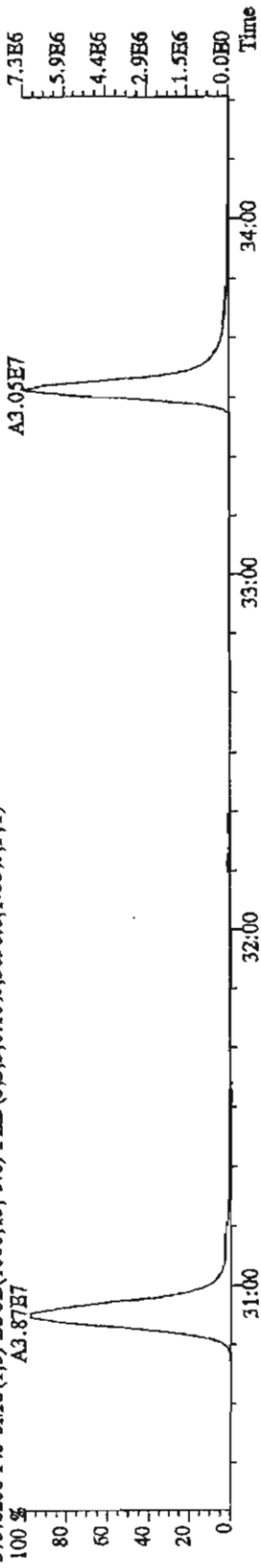
367.8949 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,116.0,1.00%,F,T)



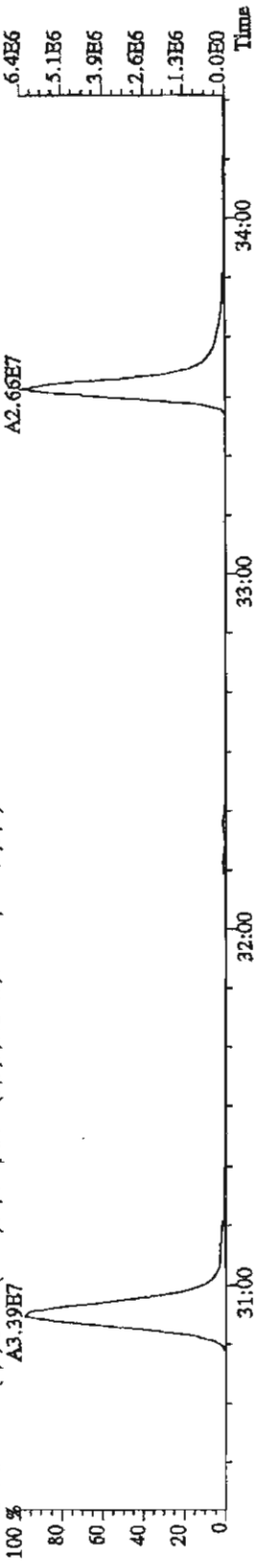
369.8919 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,100.0,1.00%,F,T)



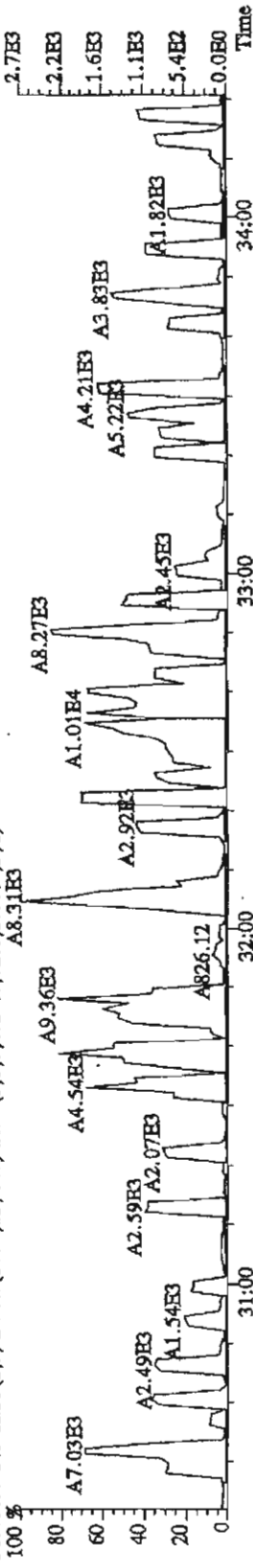
File: 22HE11A4D5 #1-287 Acq: 22-FEB-2011 12:53:08 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#1 Text: CPO222 :DB-5 CFSM 3732-08 AS Exp: DIOXINRBS
 373.8208 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3696.0,1.00%,F,T)



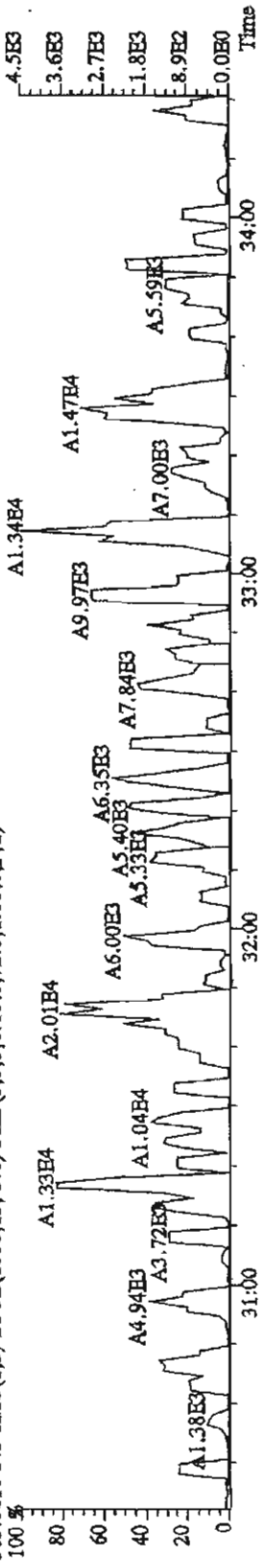
375.8178 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4672.0,1.00%,F,T)



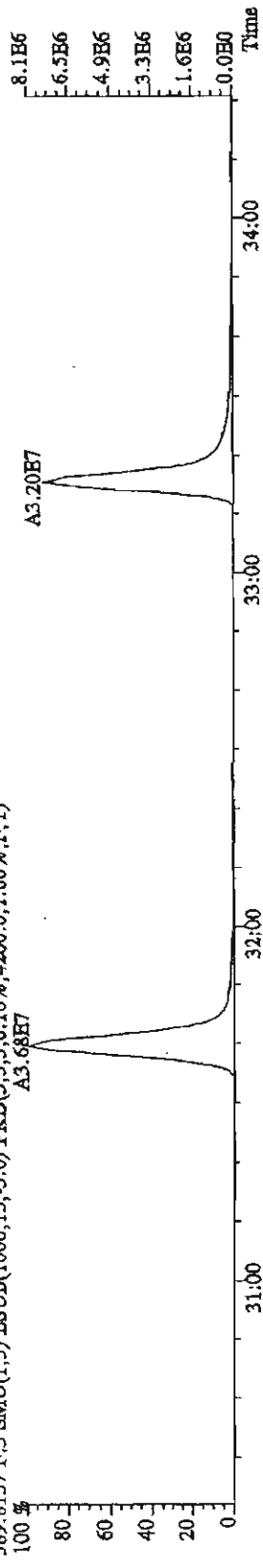
383.8639 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,72.0,1.00%,F,T)



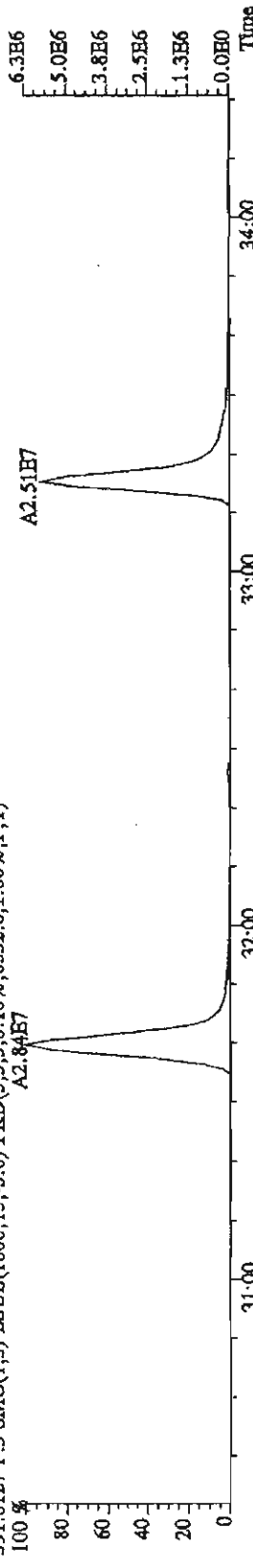
385.8610 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,72.0,1.00%,F,T)



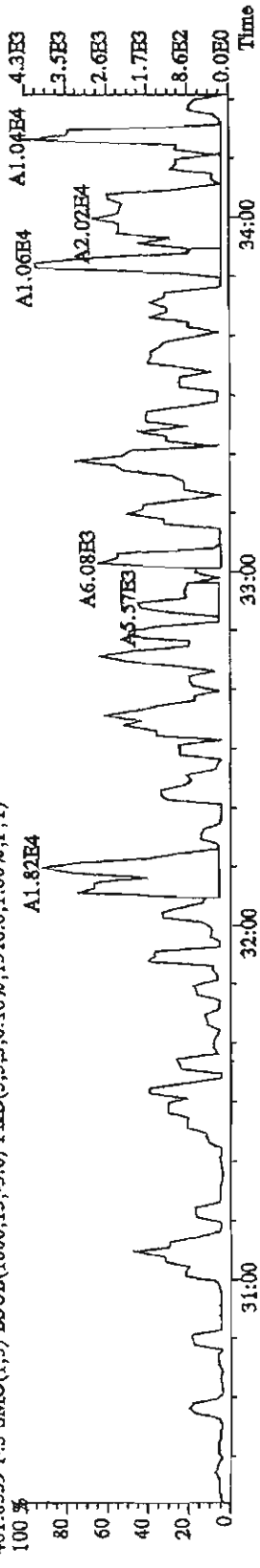
File: 22FEB11A4D5 #1-287 Acq: 22-FEB-2011 12:53:08 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#1 Text: CP0222 :DB-5 CRSM 3732-08 AS Exp: DIOXINRS
 389.8157 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,4200,0,1.00%,F,T)
 A3.68E7



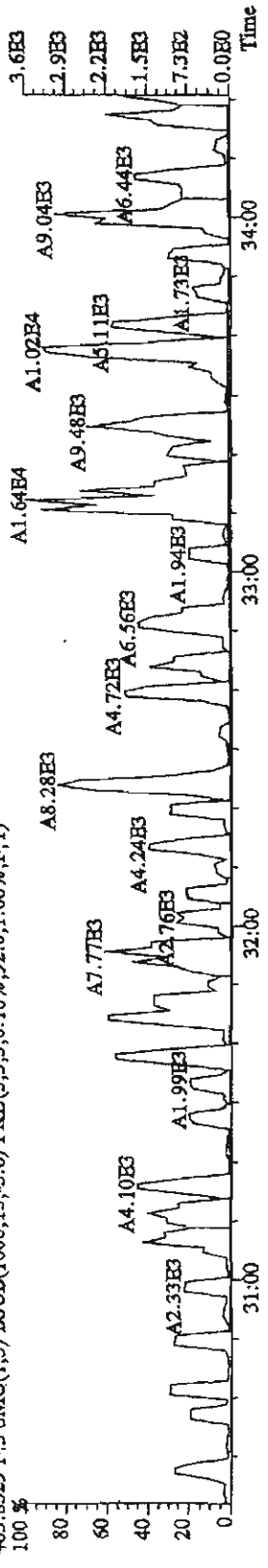
391.8127 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,6532,0,1.00%,F,T)
 A2.84E7



401.8559 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1316,0,1.00%,F,T)
 A1.82E4



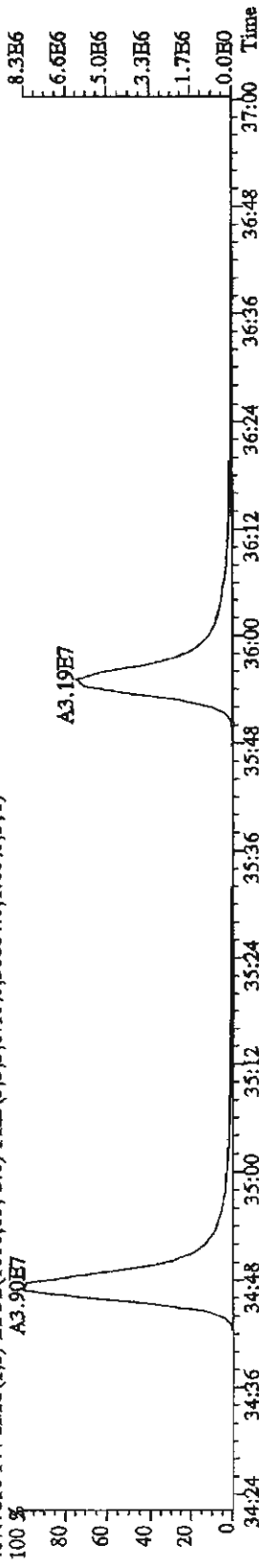
403.8529 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,92,0,1.00%,F,T)



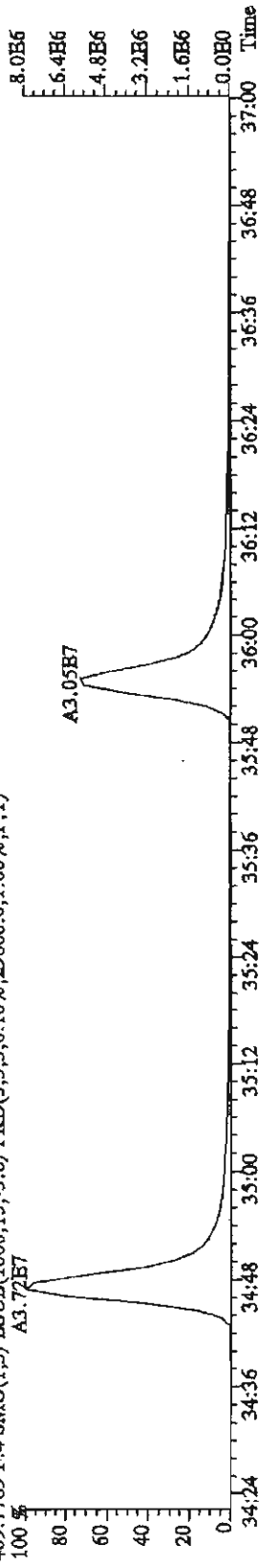
File: 22FE11A4D5 #1-200 Acq: 22-FEB-2011 12:43:08 GC EI+ Voltage: SIR Autospec-UltimaE

Sample#1 Text: CP0222 : DB-5 CP8M 3732-08 AS Exp: DIOXINRES

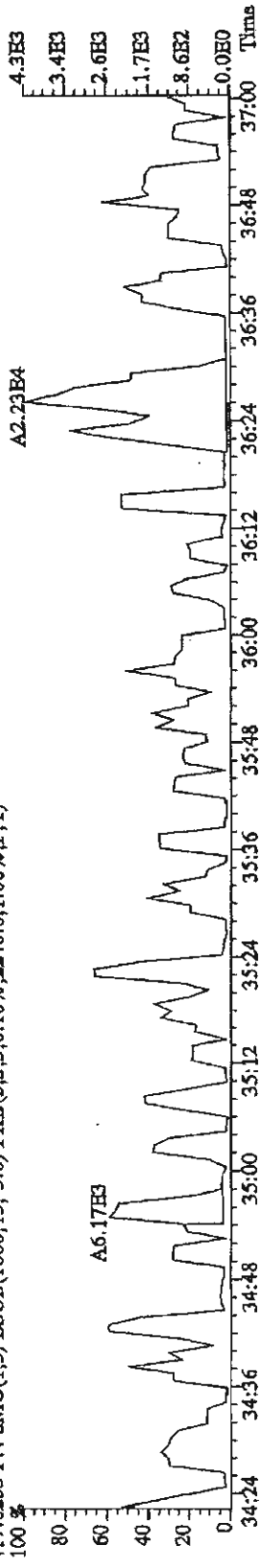
407.7818 F:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,29668.0,1.00%,F,T)



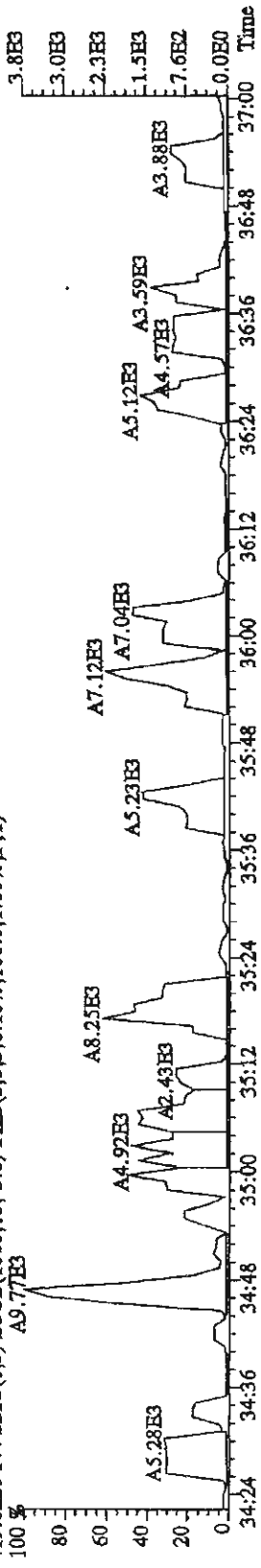
409.7789 F:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,29668.0,1.00%,F,T)



417.8253 F:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2240.0,1.00%,F,T)

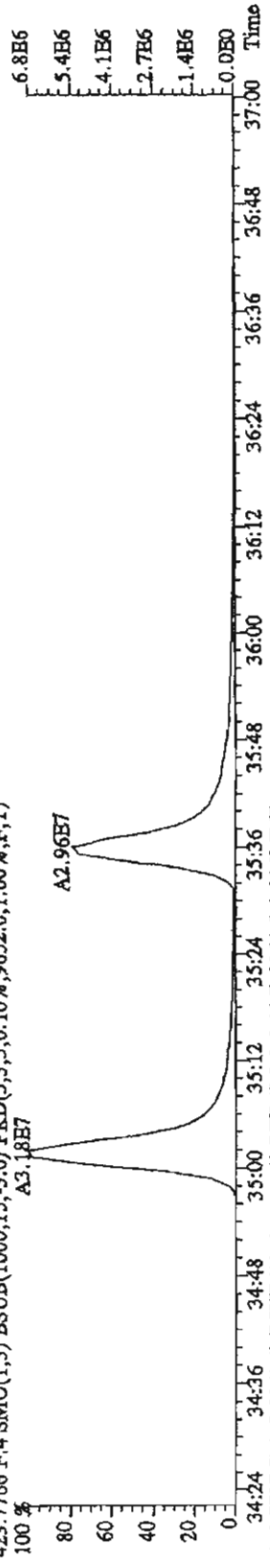


419.8220 F:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,100.0,1.00%,F,T)

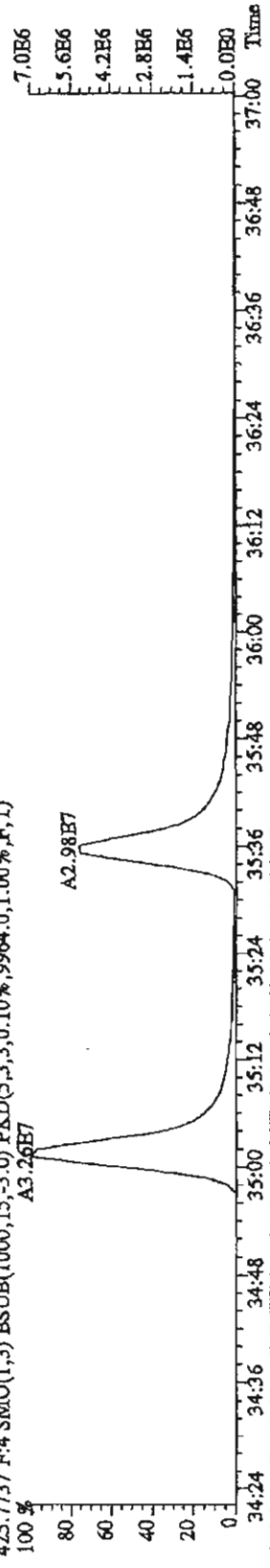


File: 22FEB11A4D5 #1-200 Acq: 22-FEB-2011 12:53:08 GC EI+ Voltage SIR Autospec-UltimaE

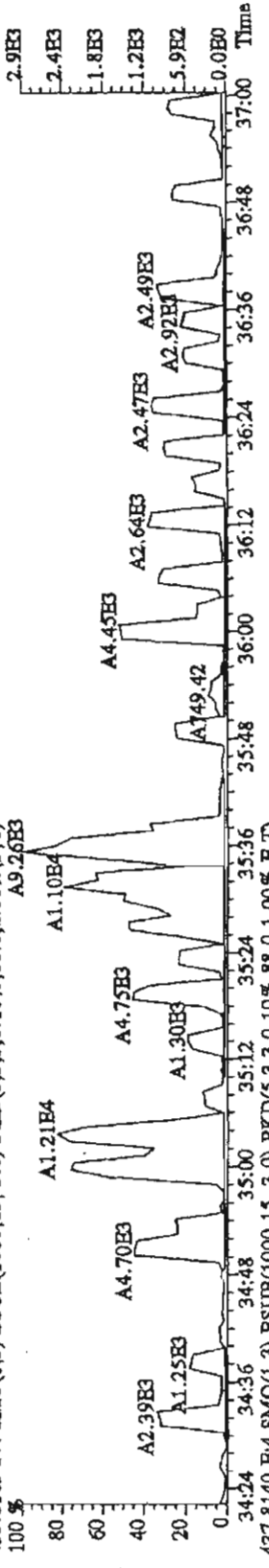
Sample#1 Text: CP0222 : DB-5 CFSM 3732-08 AS Exp: DIOXINRES
423.7766 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9652.0,1.00%,F,T)
A3.18E7



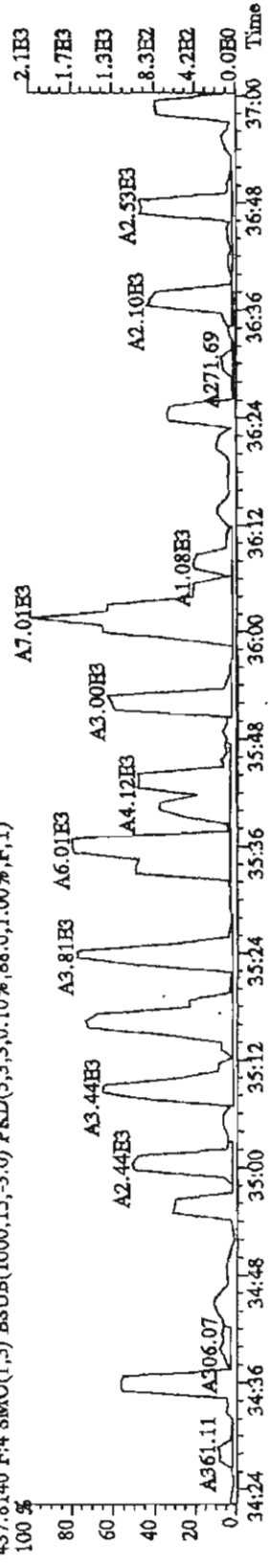
425.7737 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9964.0,1.00%,F,T)
A3.26E7



435.8169 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,88.0,1.00%,F,T)
A9.26E3



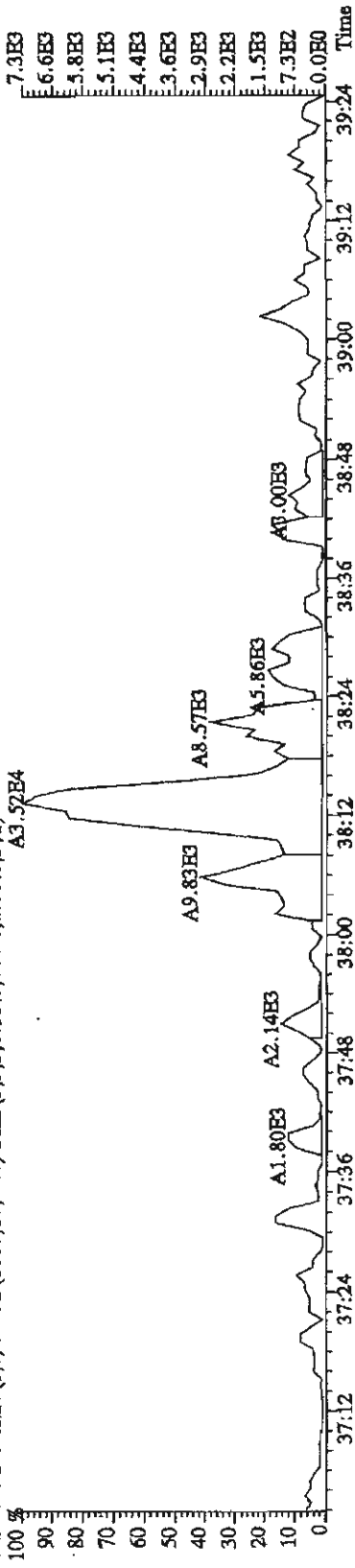
437.8140 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,88.0,1.00%,F,T)



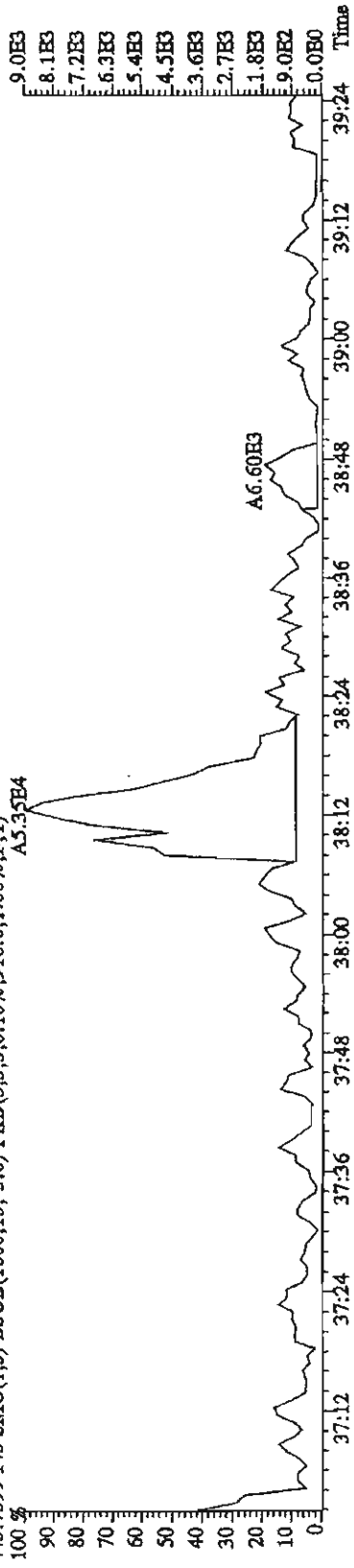
File: 22FE11A4D5 #1-193 Acq: 22-FEB-2011 12:53:08 GC EI+ Voltage SIR Autospec-UltimaB

Sample#1 Text: CP0222 :DB-5 CPSM 3732-08 AS Exp: DIOXINES

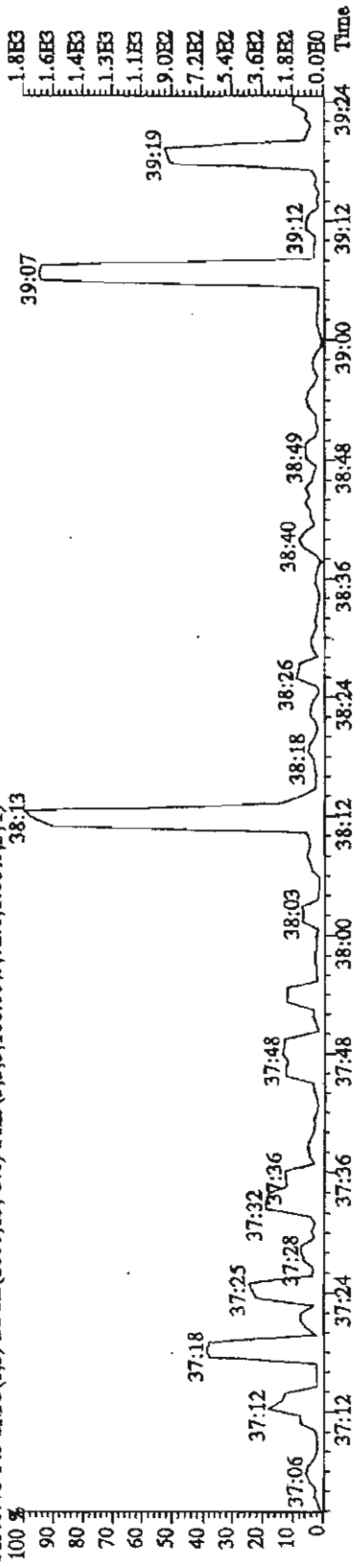
441.7428 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,564.0,1.00%,F,T)



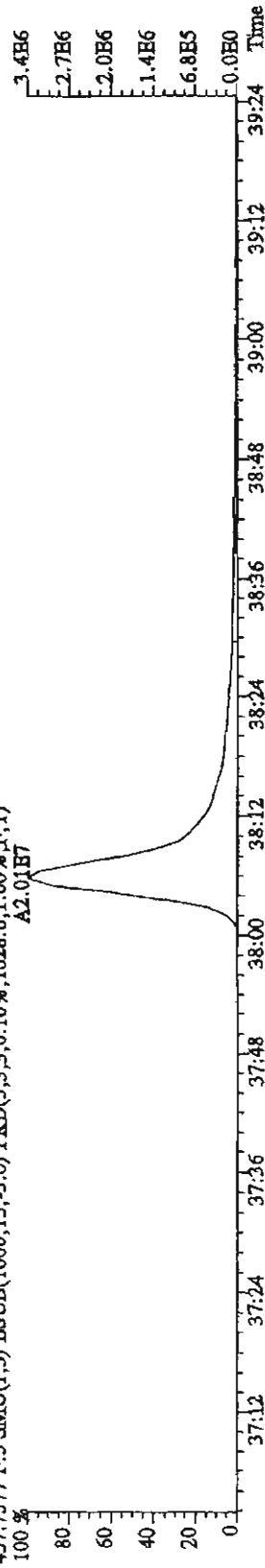
443.7399 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,916.0,1.00%,F,T)



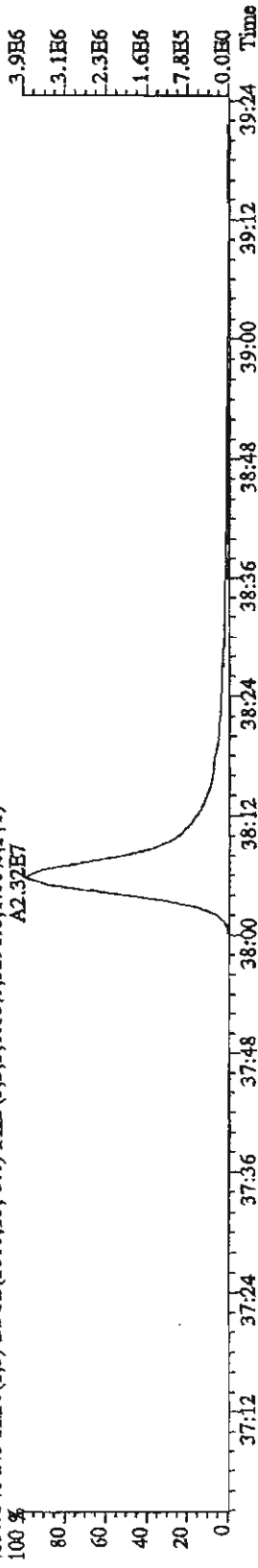
513.6775 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,5,100.00%,72.0,1.00%,F,T)



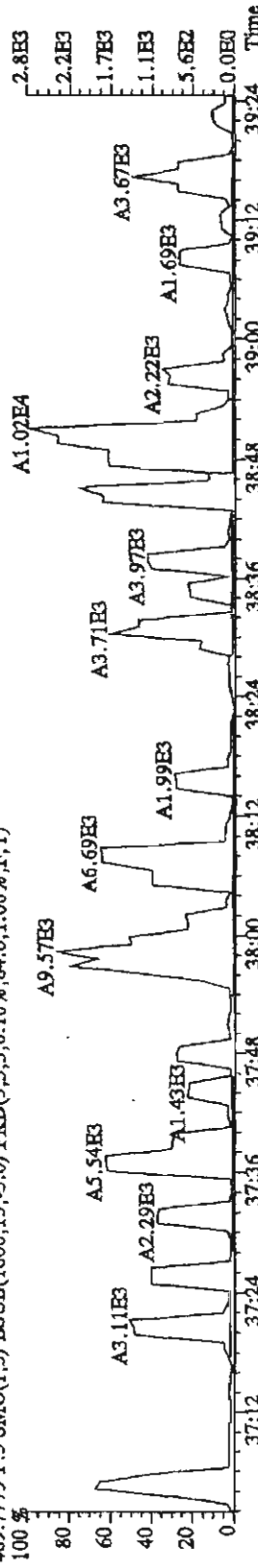
File: 22\FB11A4D5 #1-193 Acq: 22-FBB-2011 12:53:08 GC HI+ Voltage SIR Autospec-UltimaB
 Sample#1 Text: CP0222 :DB-5 CPSM 3732-08 AS Exp: DIOXINRES
 457.7377 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1028.0,1.00%,F,T)
 A2.01E7



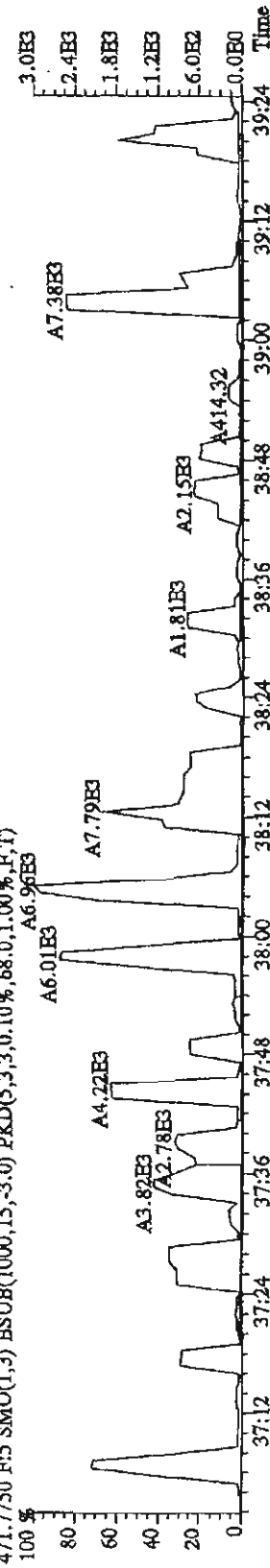
459.7348 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9296.0,1.00%,F,T)
 A2.32E7



469.7779 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,84.0,1.00%,F,T)



471.7750 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,68.0,1.00%,F,T)
 A6.96E3



File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 12:53:08 GC HI+ Voltage SIR Autospec-UltimaE

Sample#1 Text: CP0222 :DB-5 CPSM 3732-08 AS

Exp: DIOXINES

292.9825 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)

15:53 16:33 16:58 17:50

20:28 20:53 21:39 22:10

5.5E7

4.4E7

3.3E7

2.2E7

1.1E7

0.0E0

23:00 Time

303.9016 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,3072.0,1.00%,F,T)

A4.64E7

A3.74E7

1.1E7

9.1E6

6.8E6

4.6E6

2.3E6

0.0E0

23:00 Time

305.8987 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,4612.0,1.00%,F,T)

A6.13E7

A4.92E7

1.5E7

1.2E7

9.1E6

6.0E6

3.0E6

0.0E0

23:00 Time

375.8364 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,104.0,1.00%,F,T)

17:55

18:28

19:26

20:01

20:12

20:42

20:57

21:15

21:21

22:03

22:29

0.0E0

23:00 Time

330.9792 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

15:56

16:05

16:25

16:59

17:04

17:14

17:32

17:55

18:00

18:28

19:26

20:01

20:12

20:42

20:57

21:15

21:21

22:03

22:29

2.4E3

1.9E3

1.4E3

9.6E2

4.8E2

0.0E0

23:00 Time

330.9792 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

15:56

16:05

16:25

16:59

17:04

17:14

17:32

17:55

18:00

18:28

19:26

20:01

20:12

20:42

20:57

21:15

21:21

22:03

22:29

5.9E7

4.7E7

3.5E7

2.4E7

1.2E7

0.0E0

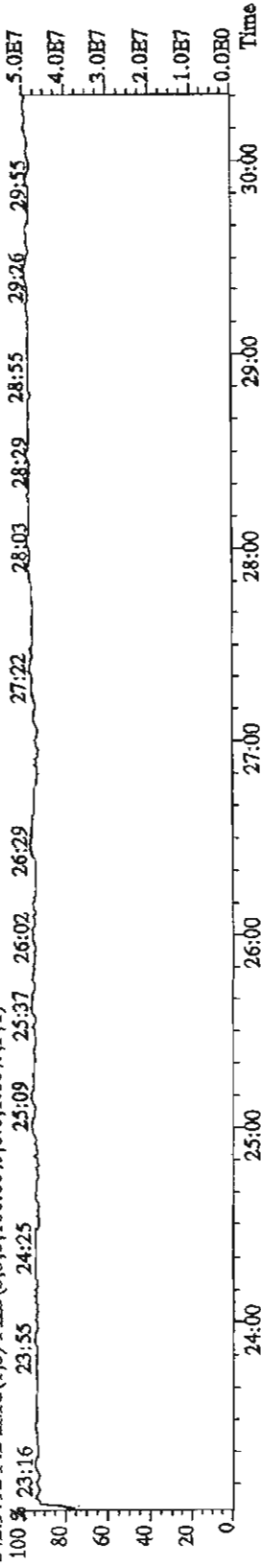
23:00 Time

File: 22FEB11A4D5 #1-470 Acq: 22-FEB-2011 12:53:08 GC HI+ Voltage SIR Autospec-UltimaB

Sample#1 Text: CP0222 :DB-5 CPSM 3732-08 AS Exp: DIOXINRES

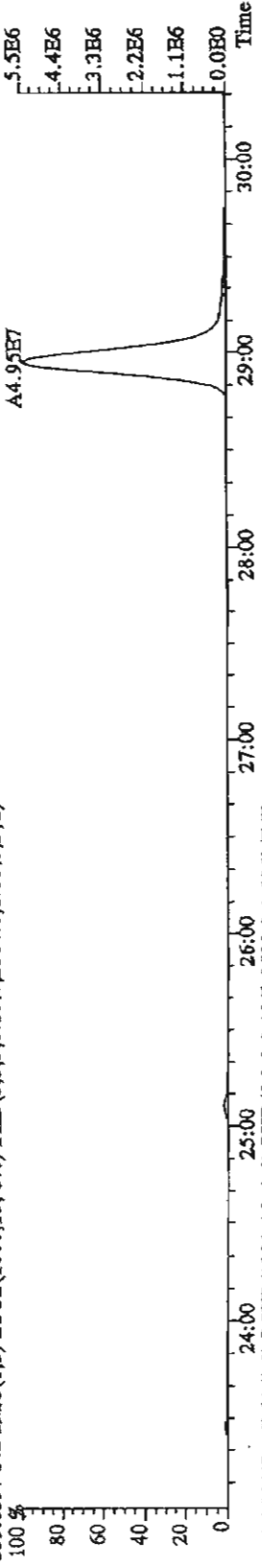
342.9792 F:2 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100% 23:16 23:55 24:25 25:09 25:37 26:02 26:29



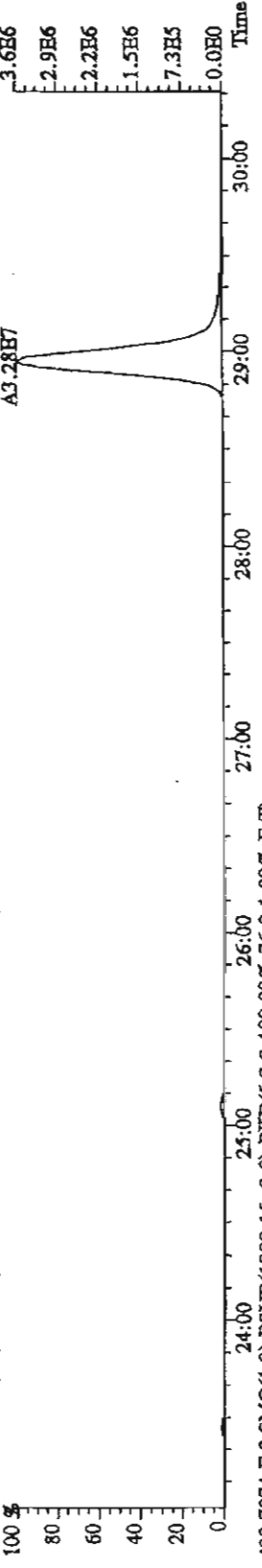
339.8597 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2304.0,1.00%,F,T)

100% 24:00 25:00 26:00



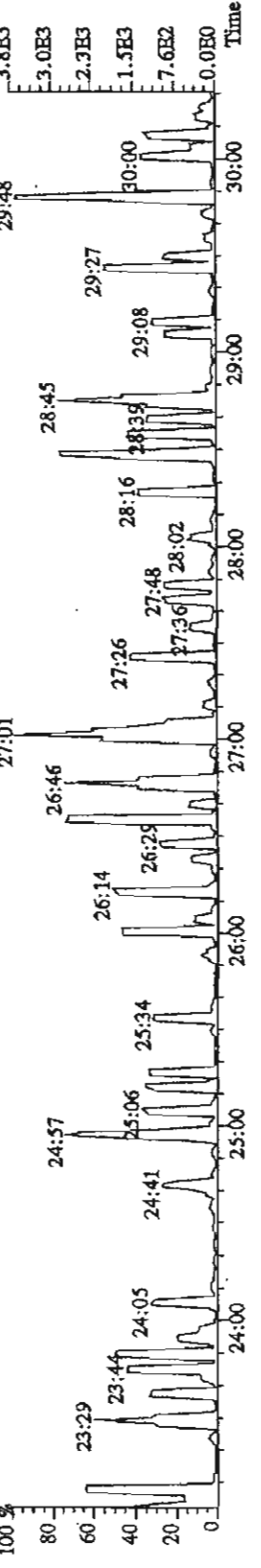
341.8567 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2520.0,1.00%,F,T)

100% 24:00 25:00 26:00



409.7974 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,76.0,1.00%,F,T)

100% 24:00 25:00 26:00 27:00

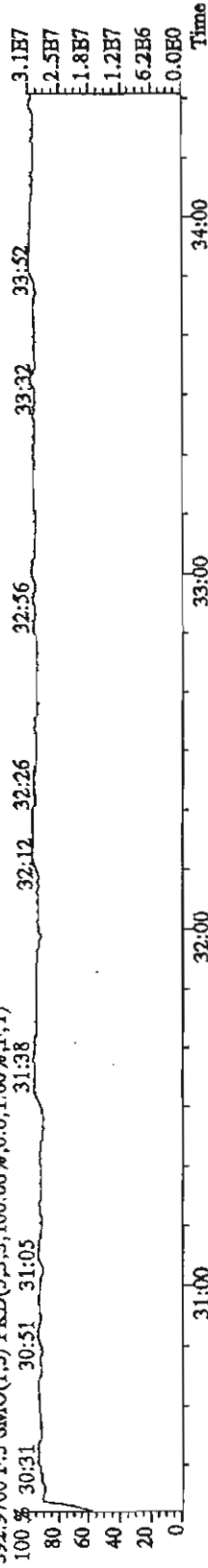


File: 22FE11A4D5 #1-287 Acq: 22-FEB-2011 12:53:08 GC EI+ Voltage SIR Autospec-UltimaE

Sample#1 Text: CP0222 :DB-5 CFSM 3732-08 AS Exp: DIOXINRES

392.9760 F:3 SMO(1.3) PKD(5.3,3,100.00%,0.0,1.00%,F,T)

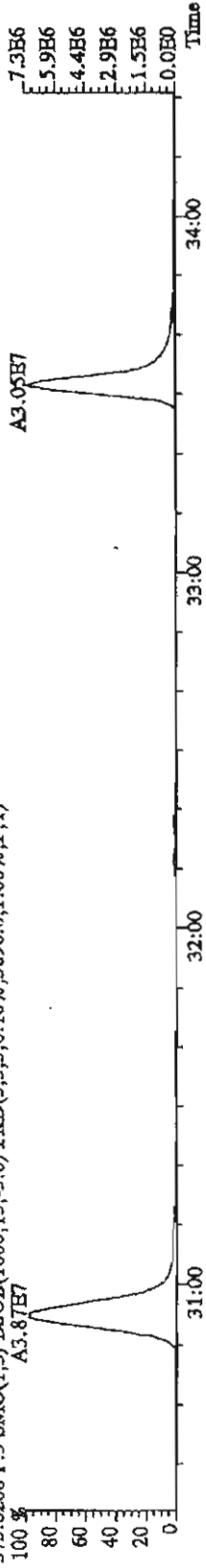
100% 30:31 30:51 31:05 31:38



373.8208 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5.3,3,0.10%,3696.0,1.00%,F,T)

100% 31:00

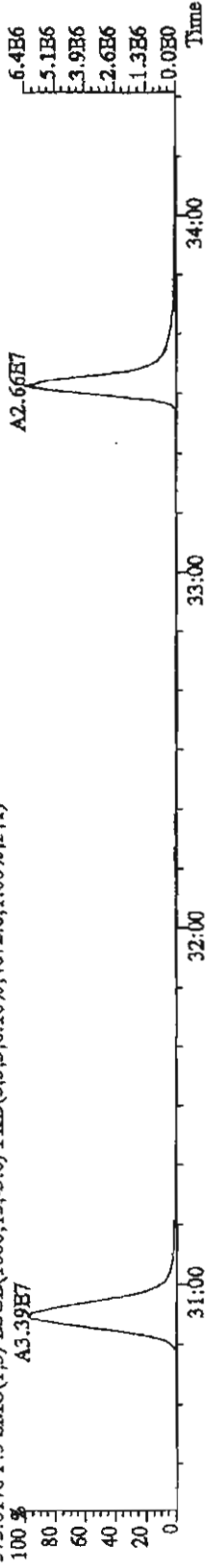
A3.87E7



375.8178 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5.3,3,0.10%,4672.0,1.00%,F,T)

100% 31:00

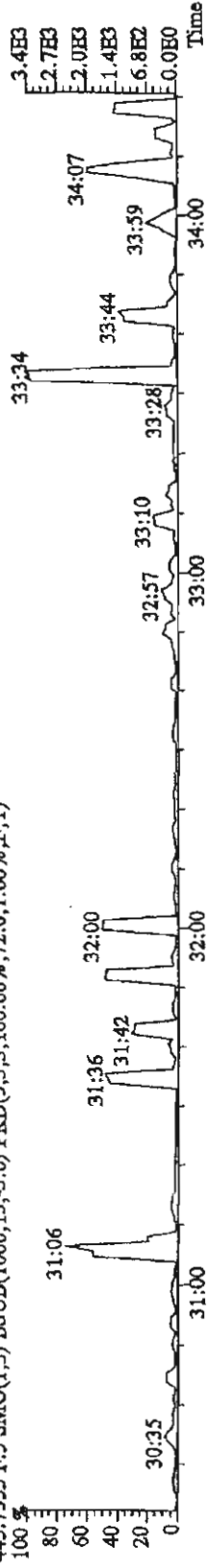
A3.39E7



445.7555 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5.3,3,100.00%,72.0,1.00%,F,T)

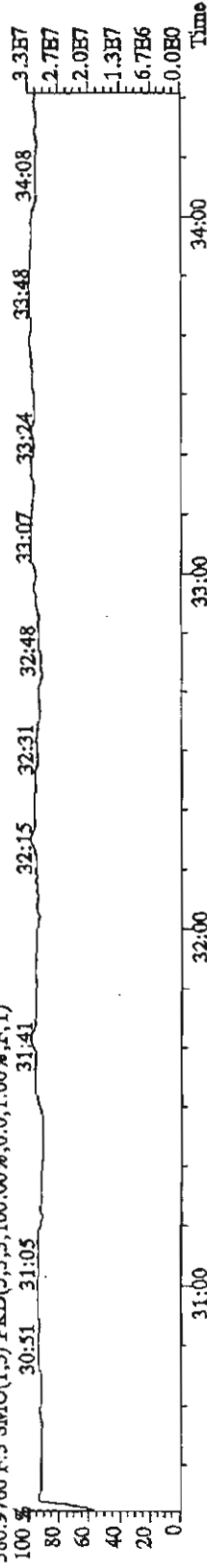
100% 31:00

31:06 31:36 31:42 32:00 32:57 33:10 33:28 33:44 33:59 34:07 34:24



380.9760 F:3 SMO(1.3) PKD(5.3,3,100.00%,0.0,1.00%,F,T)

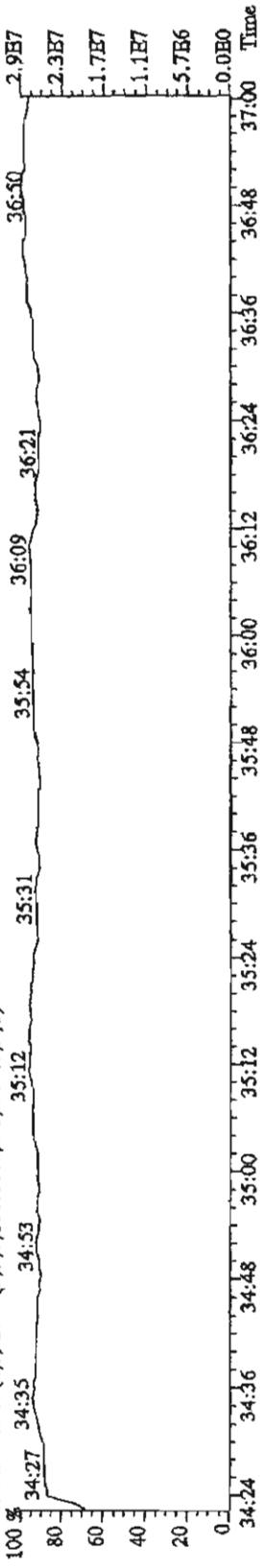
100% 30:51 31:05 31:41



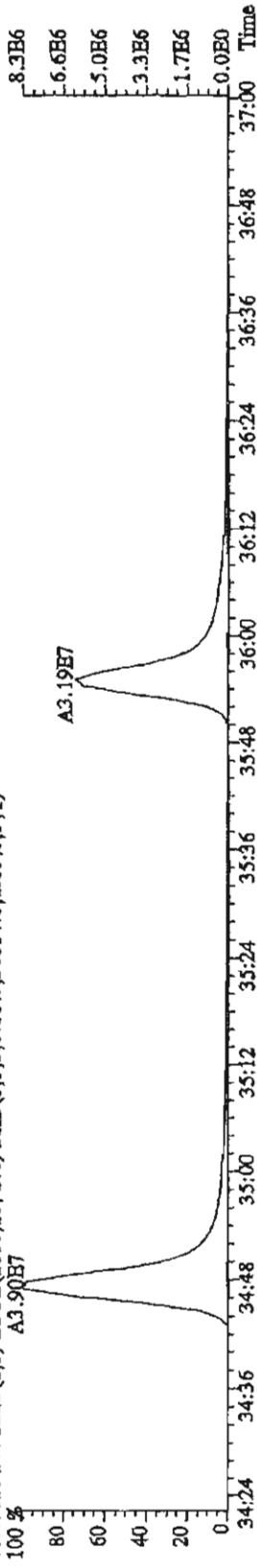
File: 22FEB11A4D5 #1-200 Acq: 22-FEB-2011 12:53:08 GC EI+ Voltage SIR Autospec-UltimaB

Sample#1 Text: CPO222 :DB-5 CP5M 3732-08 AS

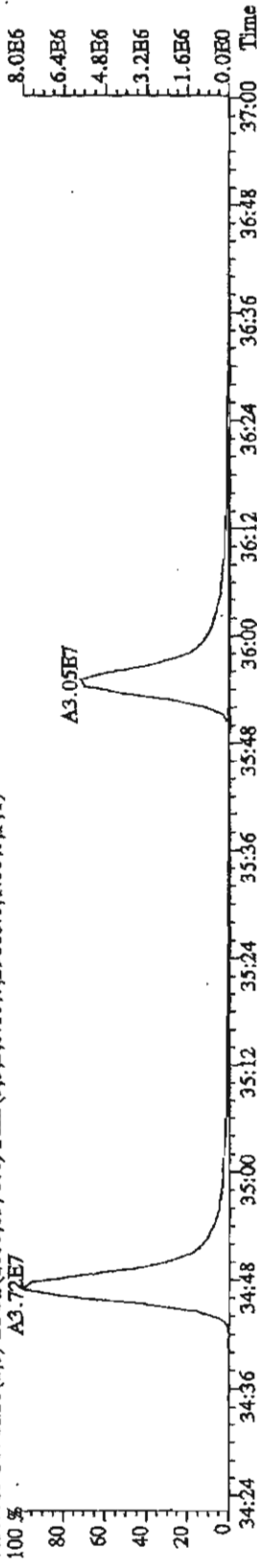
430.9728 F:4 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T) Exp: DIOXINRRS



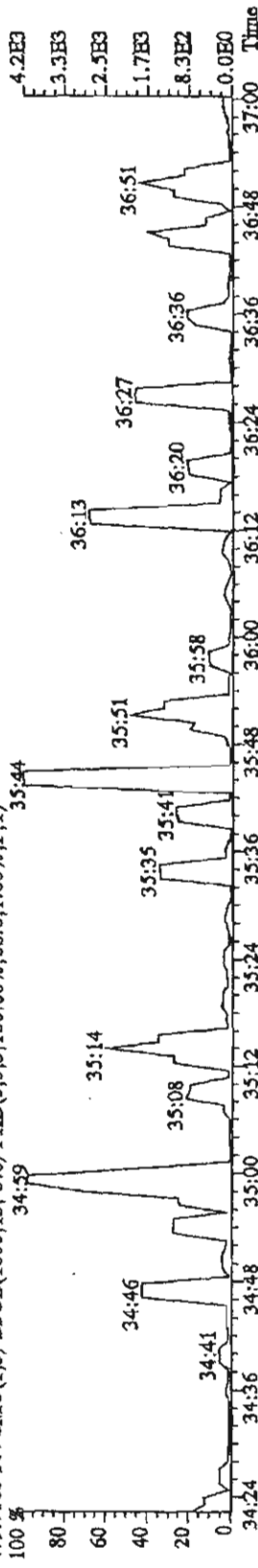
407.7818 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,30884.0,1.00%,F,T)



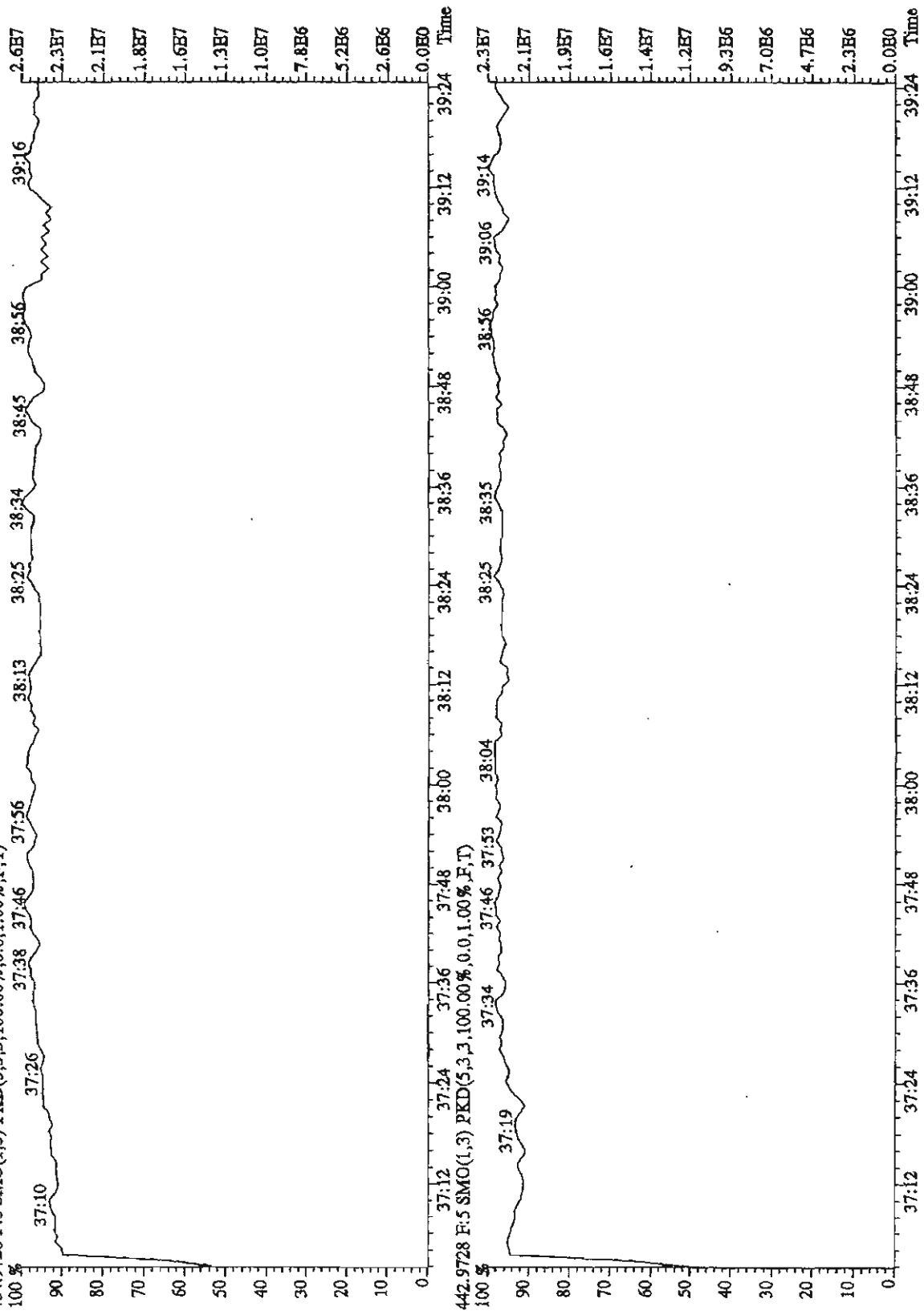
409.7789 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,29668.0,1.00%,F,T)



479.7165 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,68.0,1.00%,F,T)



File: 22FEB11A4D5 #1-193 Acq: 22-FEB-2011 12:53:08 GC EI + Voltage SIR Autospec-UltraB
 Sample#1 Text: CP0222 : DB-5 CPSM 3732-08 AS Exp: DIOXINRES
 454.9728 F:5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



Run #1 Filename 22FEB11A4D5 S: 2 I: 1
 Acquired: 22-FEB-11 13:37:42 Processed: 22-FEB-11 16:07:00
 Run: 15SB098D2 Analyte: 1613 Cal: 16130222114D5

Comments:

Sample text: ST0222 :CS-0.2 11DXN025 AS

Name	Resp	RA	RT	RRF		Mod?
13C-1,2,3,4-TCDD	171527100	0.79 y	19:50	-	100.00	n
13C-2,3,7,8-TCDF	192860200	0.78 y	19:14	1.1244	100.00	n
2,3,7,8-TCDF	165667	0.81 y	19:15	0.8590	0.10	n
Total TCDF	-	- n	-	0.8590	0.10	n
13C-2,3,7,8-TCDD	164155500	0.77 y	20:02	0.9570	100.00	n
2,3,7,8-TCDD	144398	0.78 y	20:06	0.8796	0.10	n
Total TCDD	-	- n	-	0.8796	0.10	n
37Cl-2,3,7,8-TCDD	297766	1.00 y	20:03	1.7360	0.10	n
13C-1,2,3,7,8-PeCDF	173992100	1.61 y	25:04	1.0144	100.00	n
1,2,3,7,8-PeCDF	842363	1.57 y	25:06	0.9683	0.50	n
13C-2,3,4,7,8-PeCDF	177279200	1.58 y	26:37	1.0335	100.00	n
2,3,4,7,8-PeCDF	857582	1.55 y	26:38	0.9675	0.50	n
Total F2 PeCDF	-	- n	-	0.9679	0.50	n
Total F1 PeCDF	-	- n	-	0.9679	1.00	n
13C-1,2,3,7,8-PeCDD	126086500	1.53 y	27:27	0.7351	100.00	n
1,2,3,7,8-PeCDD	668454	1.45 y	27:29	1.0603	0.50	n
Total PeCDD	-	- n	-	1.0603	0.50	n
13C-1,2,3,7,8,9-HxCDD	132249800	1.31 y	33:17	-	100.00	n
13C-1,2,3,4,7,8-HxCDF	104846300	0.50 y	32:10	0.7928	100.00	n
1,2,3,4,7,8-HxCDF	639753	1.07 y	32:11	1.2204	0.50	n
13C-1,2,3,6,7,8-HxCDF	148094400	0.50 y	32:17	1.1198	100.00	n
1,2,3,6,7,8-HxCDF	797620	1.26 y	32:18	1.0772	0.50	n
13C-2,3,4,6,7,8-HxCDF	131594500	0.50 y	32:48	0.9950	100.00	n
2,3,4,6,7,8-HxCDF	724479	1.09 y	32:49	1.1011	0.50	n
13C-1,2,3,7,8,9-HxCDF	110698000	0.50 y	33:27	0.8370	100.00	n
1,2,3,7,8,9-HxCDF	675136	1.27 y	33:27	1.2198	0.50	n
Total HxCDF	-	- n	-	1.1457	2.00	n
13C-1,2,3,4,7,8-HxCDD	81300900	1.25 y	32:57	0.6148	100.00	n
1,2,3,4,7,8-HxCDD	444569	1.21 y	32:58	1.0936	0.50	n
13C-1,2,3,6,7,8-HxCDD	125151800	1.28 y	33:01	0.9463	100.00	n
1,2,3,6,7,8-HxCDD	674562	1.23 y	33:02	1.0780	0.50	n
1,2,3,7,8,9-HxCDD	637165	1.15 y	33:18	1.2345	0.50	n
Total HxCDD	-	- n	-	1.1343	1.50	n
13C-1,2,3,4,6,7,8-HpCDF	112885000	0.44 y	34:47	0.8536	100.00	n
1,2,3,4,6,7,8-HpCDF	757506	1.18 y	34:47	1.3421	0.50	y ✓
13C-1,2,3,4,7,8,9-HpCDF	100637700	0.43 y	35:54	0.7610	100.00	n
1,2,3,4,7,8,9-HpCDF	671288	1.14 y	35:55	1.3341	0.50	y ✓
Total HpCDF	-	- n	-	1.3383	1.00	n

13C-1,2,3,4,6,7,8-HpCDD	112363800	1.04	y	35:35	0.8496	100.00	n
1,2,3,4,6,7,8-HpCDD	612236	0.91	y	35:36	1.0897	0.50	y✓
Total HpCDD	-	-	n	-	1.0897	0.50	n
13C-OCDD	145235300	0.88	y	38:05	0.5491	200.00	n
OCDF	865117	0.96	y	38:13	1.1913	1.00	n
OCDD	900111	1.02	y	38:06	1.2395	1.00	n

Run #1 Filename 22FE11A4D5 S: 2 I: 1
 Acquired: 22-FEB-11 13:37:42 Processed: 22-FEB-11 16:07:00
 Run: 15SB098D2 Analyte: 1613 Cal: 16130222114D5

Comments:

Sample text: ST0222 :CS-0.2 11DXN025 AS

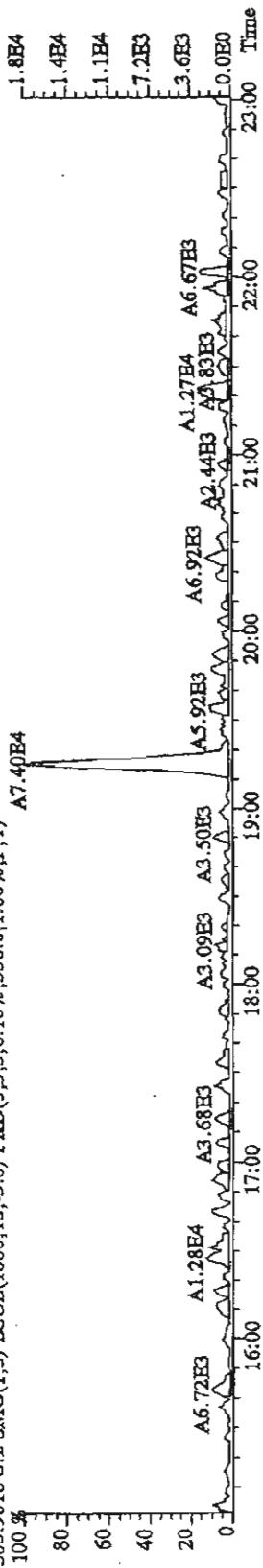
Name	Resp	RA	RT	RRF		Mod?
13C-1,2,3,4-TCDD	171527100	0.79 y	19:50	-	100.00	n
13C-2,3,7,8-TCDF	192860200	0.78 y	19:14	1.1244	100.00	n
2,3,7,8-TCDF	165667	0.81 y	19:15	0.8590	0.10	n
Total TCDF	-	- n	-	0.8590	0.10	n
13C-2,3,7,8-TCDD	164155500	0.77 y	20:02	0.9570	100.00	n
2,3,7,8-TCDD	144398	0.78 y	20:06	0.8796	0.10	n
Total TCDD	-	- n	-	0.8796	0.10	n
37Cl-2,3,7,8-TCDD	297766	1.00 y	20:03	1.7360	0.10	n
13C-1,2,3,7,8-PeCDF	173992100	1.61 y	25:04	1.0144	100.00	n
1,2,3,7,8-PeCDF	842363	1.57 y	25:06	0.9683	0.50	n
13C-2,3,4,7,8-PeCDF	177279200	1.58 y	26:37	1.0335	100.00	n
2,3,4,7,8-PeCDF	857582	1.55 y	26:38	0.9675	0.50	n
Total F2 PeCDF	-	- n	-	0.9679	0.50	n
Total F1 PeCDF	-	- n	-	0.9679	1.00	n
13C-1,2,3,7,8-PeCDD	126086500	1.53 y	27:27	0.7351	100.00	n
1,2,3,7,8-PeCDD	668454	1.45 y	27:29	1.0603	0.50	n
Total PeCDD	-	- n	-	1.0603	0.50	n
13C-1,2,3,7,8,9-HxCDD	132249800	1.31 y	33:17	-	100.00	n
13C-1,2,3,4,7,8-HxCDF	104846300	0.50 y	32:10	0.7928	100.00	n
1,2,3,4,7,8-HxCDF	639753	1.07 y	32:11	1.2204	0.50	n
13C-1,2,3,6,7,8-HxCDF	148094400	0.50 y	32:17	1.1198	100.00	n
1,2,3,6,7,8-HxCDF	797620	1.26 y	32:18	1.0772	0.50	n
13C-2,3,4,6,7,8-HxCDF	131594500	0.50 y	32:48	0.9950	100.00	n
2,3,4,6,7,8-HxCDF	724479	1.09 y	32:49	1.1011	0.50	n
13C-1,2,3,7,8,9-HxCDF	110698000	0.50 y	33:27	0.8370	100.00	n
1,2,3,7,8,9-HxCDF	675136	1.27 y	33:27	1.2198	0.50	n
Total HxCDF	-	- n	-	1.1457	2.00	n
13C-1,2,3,4,7,8-HxCDD	81300900	1.25 y	32:57	0.6148	100.00	n
1,2,3,4,7,8-HxCDD	444569	1.21 y	32:58	1.0936	0.50	n
13C-1,2,3,6,7,8-HxCDD	125151800	1.28 y	33:01	0.9463	100.00	n
1,2,3,6,7,8-HxCDD	674562	1.23 y	33:02	1.0780	0.50	n
1,2,3,7,8,9-HxCDD	637165	1.15 y	33:18	1.2345	0.50	n
Total HxCDD	-	- n	-	1.1343	1.50	n
13C-1,2,3,4,6,7,8-HpCDF	112885000	0.44 y	34:47	0.8536	100.00	n
1,2,3,4,6,7,8-HpCDF	708753	1.30 (n)	34:47	1.2557	0.50	n
13C-1,2,3,4,7,8,9-HpCDF	100637700	0.43 y	35:54	0.7610	100.00	n
1,2,3,4,7,8,9-HpCDF	641168	1.25 (n)	35:55	1.2742	0.50	n
Total HpCDF	-	- n	-	1.2644	1.00	n

13C-1,2,3,4,6,7,8-HpCDD	112363800	1.04	y	35:35	0.8496	100.00	n
1,2,3,4,6,7,8-HpCDD	547456	0.87	n	35:36	0.9744	0.50	n
Total HpCDD	-	-	n	-	0.9744	0.50	n
13C-OCDD	145235300	0.88	y	38:05	0.5491	200.00	n
OCDF	865117	0.96	y	38:13	1.1913	1.00	n
OCDD	900111	1.02	y	38:06	1.2395	1.00	n

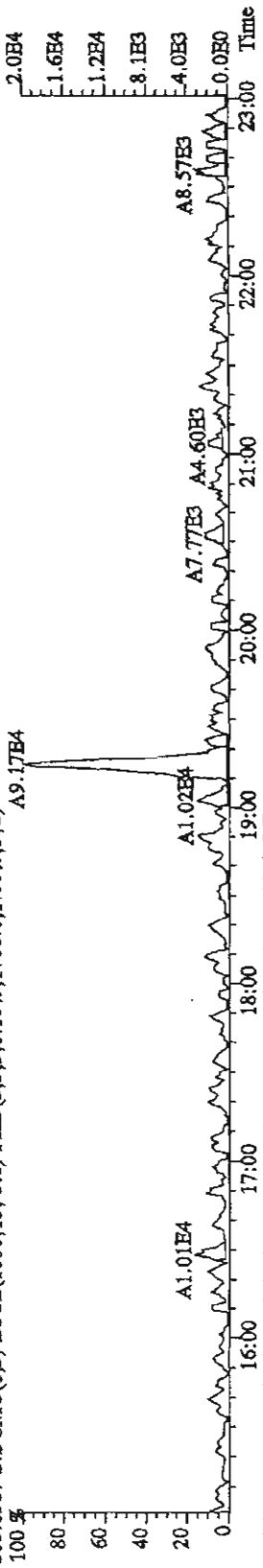
File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 13:37:42 GC HI+ Voltage SIR Autospec-UltimaB

Sample#2 Text: ST0222 :CS-0.211DXN025 AS Exp: DIOXINRES

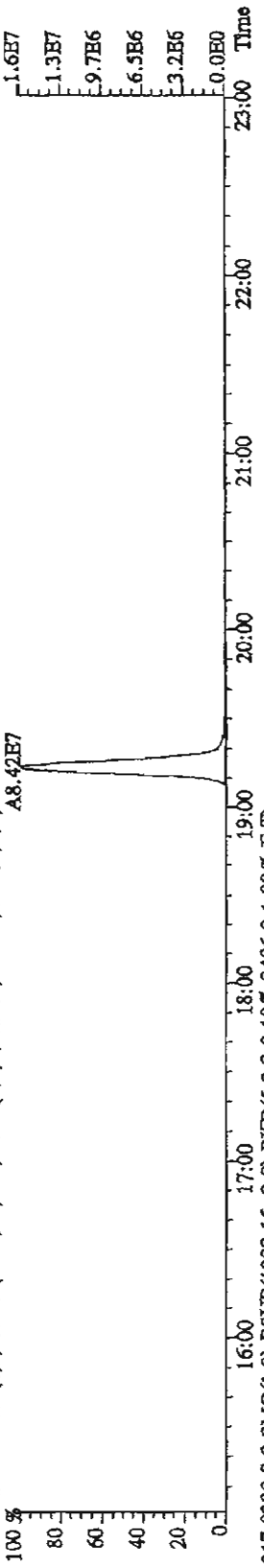
303.9016 S:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1708.0,1.00%,F,T)



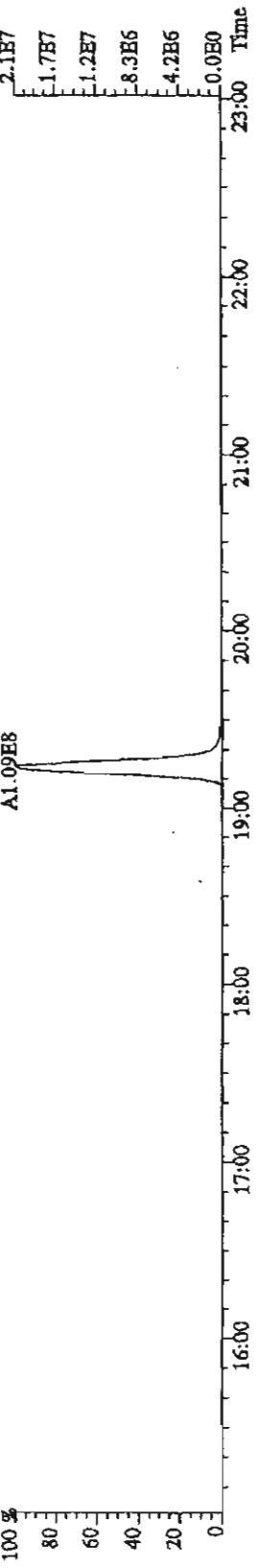
305.8987 S:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1708.0,1.00%,F,T)



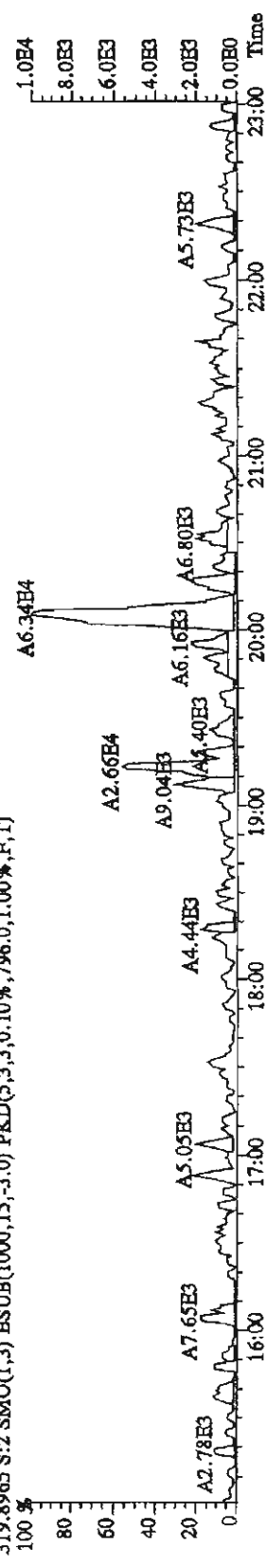
315.9419 S:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,3068.0,1.00%,F,T)



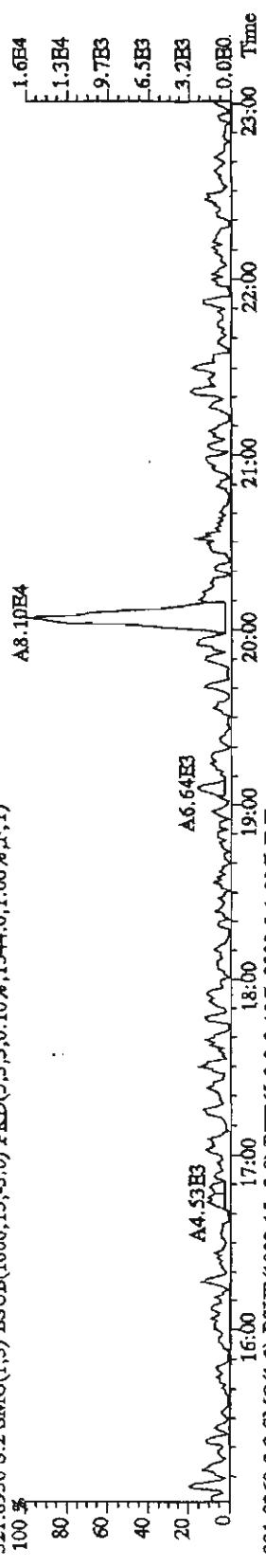
317.9389 S:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,3496.0,1.00%,F,T)



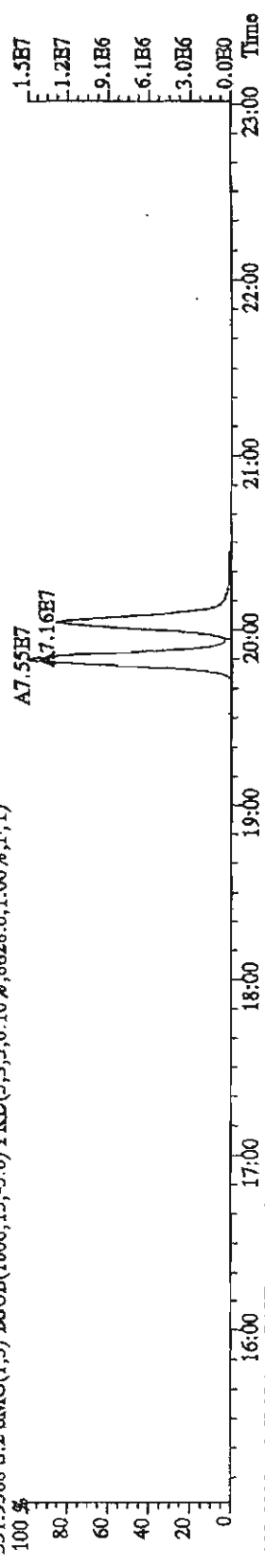
File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 13:37:42 GC HI+ Voltage SIR Autospec-UltraB
 Sample#2 Text: ST0222 :CS-0.2 11DXN025 AS Exp: DIOXINRES
 319.8965 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,796.0,1.00%,F,T)



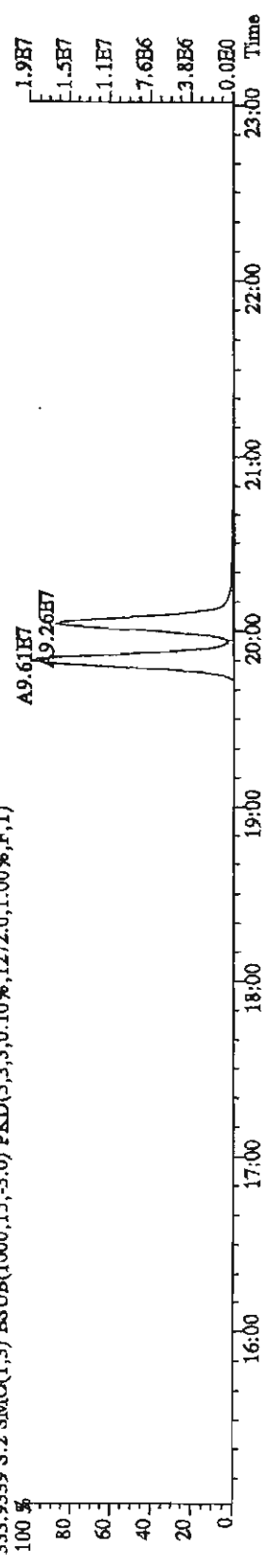
321.8936 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1544.0,1.00%,F,T)



331.9368 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8828.0,1.00%,F,T)

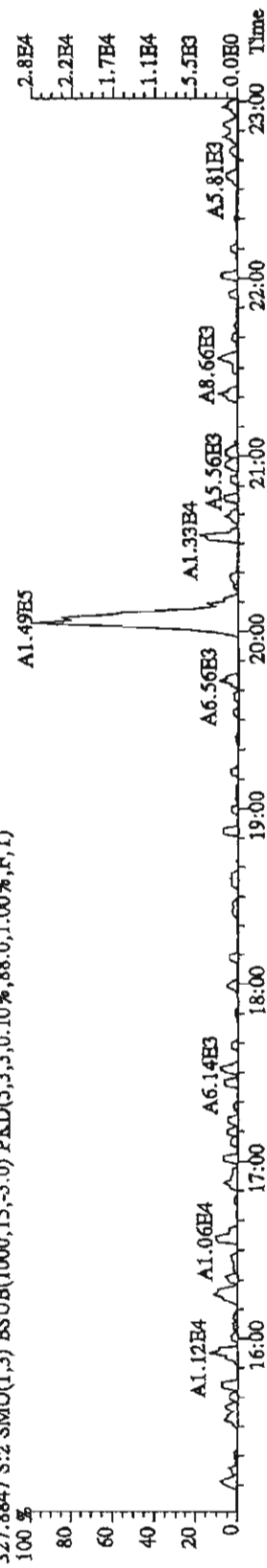


333.9339 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1272.0,1.00%,F,T)

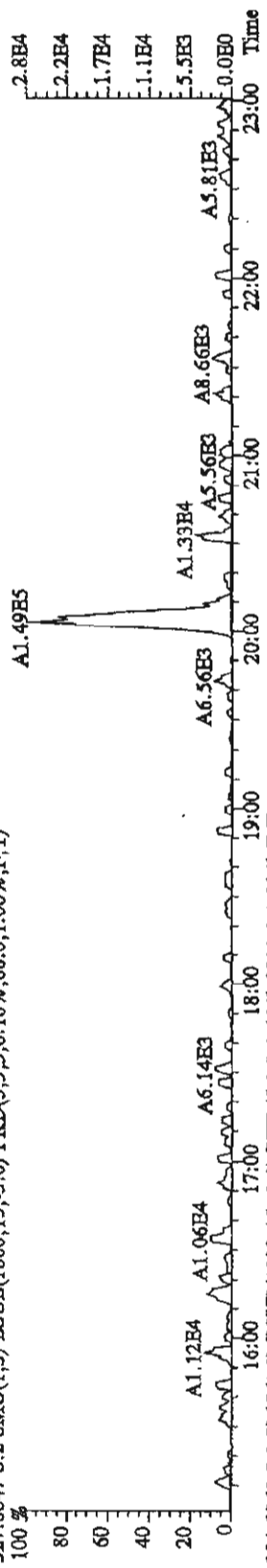


File: 22FE11A4D5 #1-530 Acq: 22-FEB-2011 13:37:42 GC EI+ Voltage SIR Autospec-UltimaE

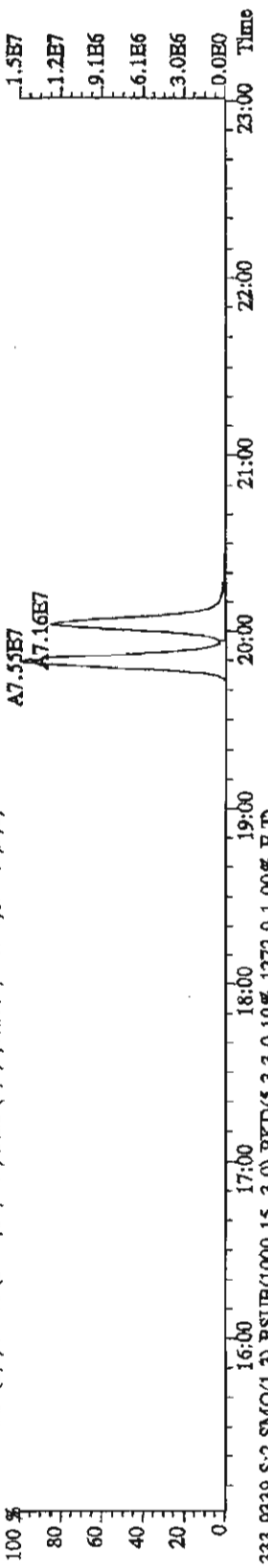
Sample #2 Text: STV222 :CS-0.2 11DXN025 AS Exp: DIOXINRES
327.8847 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,88.0,1.00%,F,T)



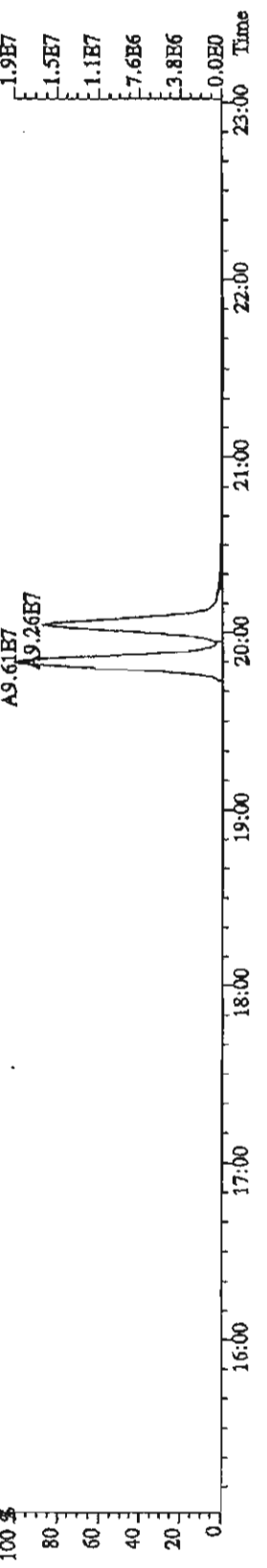
327.8847 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,88.0,1.00%,F,T)



331.9368 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8828.0,1.00%,F,T)



333.9339 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1272.0,1.00%,F,T)

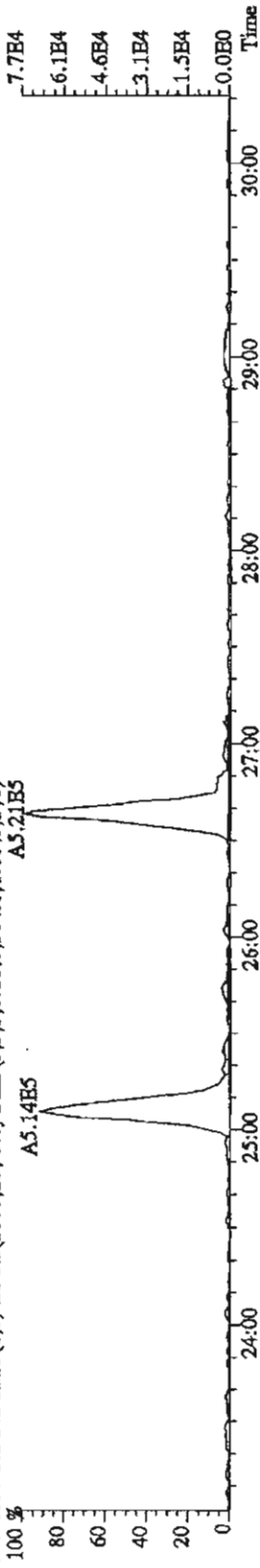


File:22FB11A4D5 #1-470 Acq:22-FEB-2011 13:37:42 GC EI+ Voltage SIR Autospec-UltimaE

Sample#2 Text:ST0222 :CS-0.2 11DXN025 AS Exp:DIOXINRES

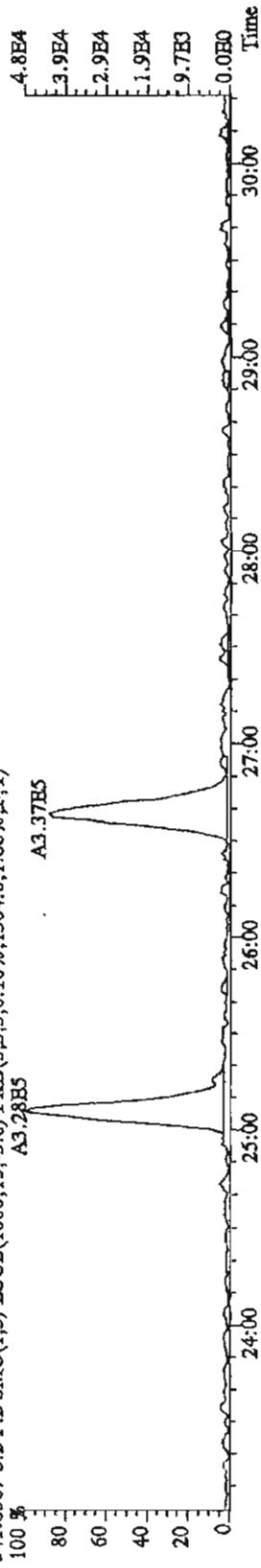
339.8597 S:2 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,904.0,1.00%,F,T)

100% A5.14E5 A5.21E5



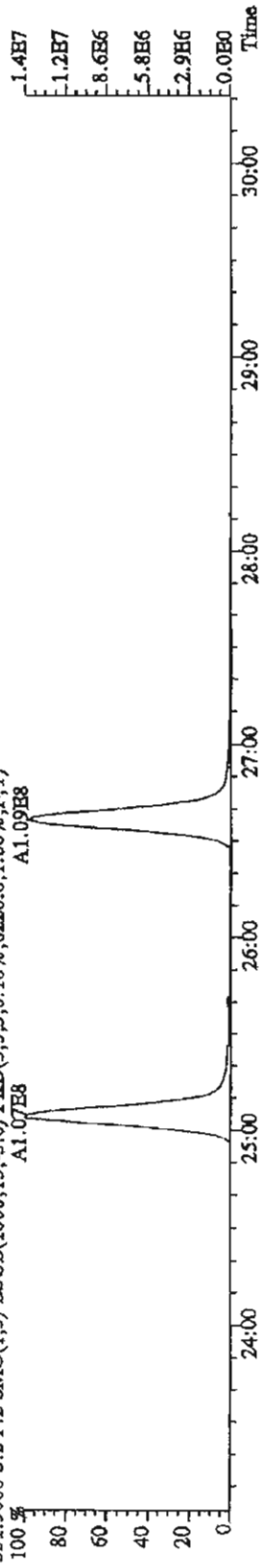
341.8567 S:2 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1304.0,1.00%,F,T)

100% A3.28E5 A3.37E5



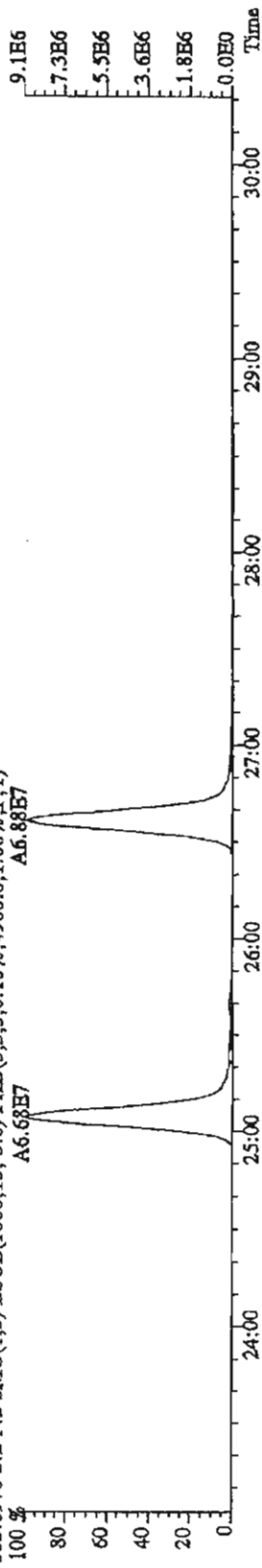
351.9000 S:2 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8220.0,1.00%,F,T)

100% A1.07E8 A1.09E8

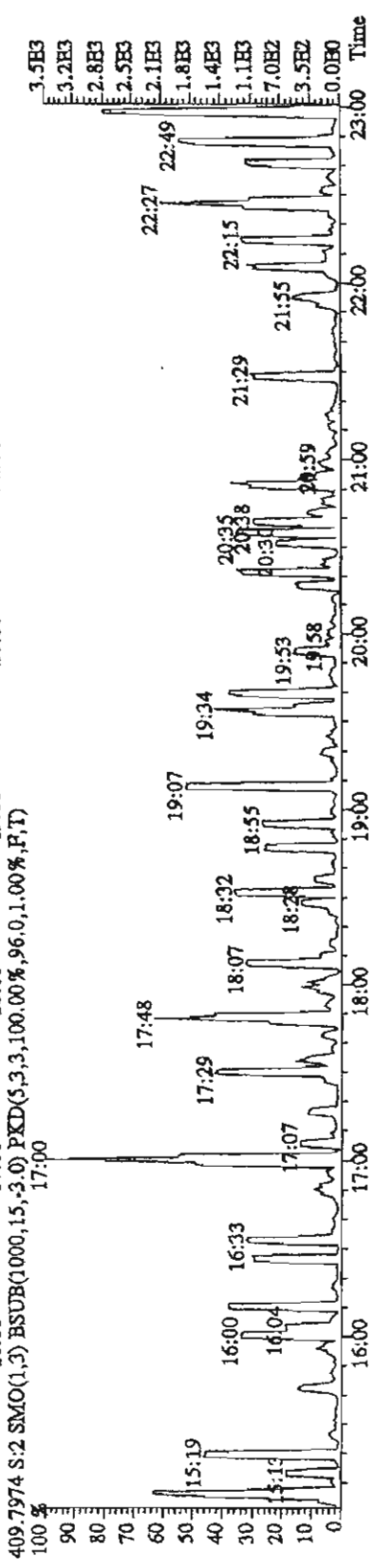
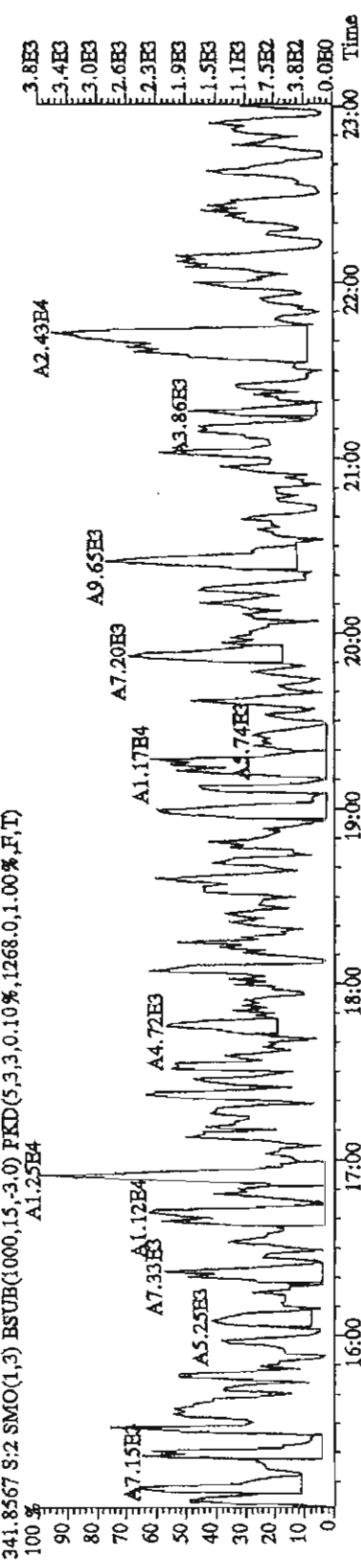
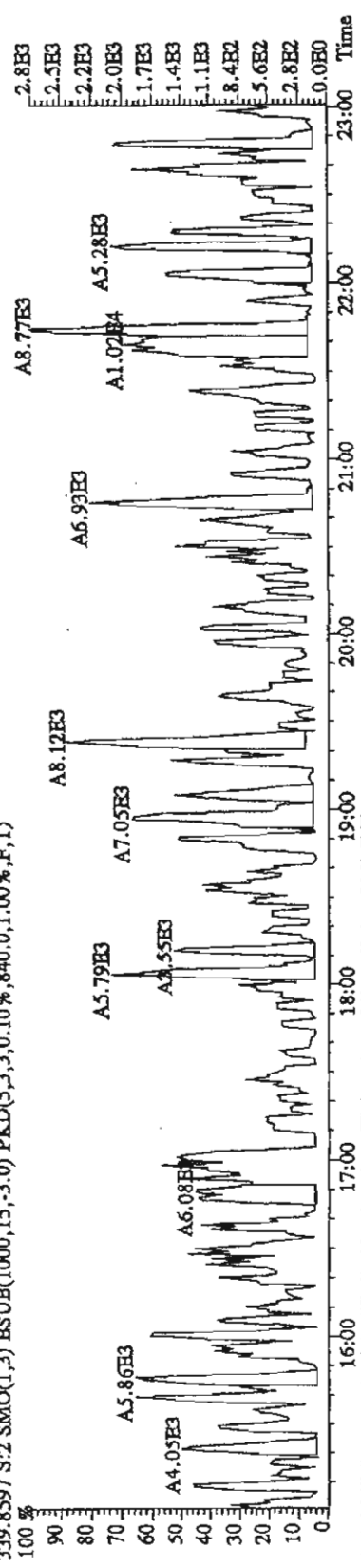


353.8970 S:2 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4908.0,1.00%,F,T)

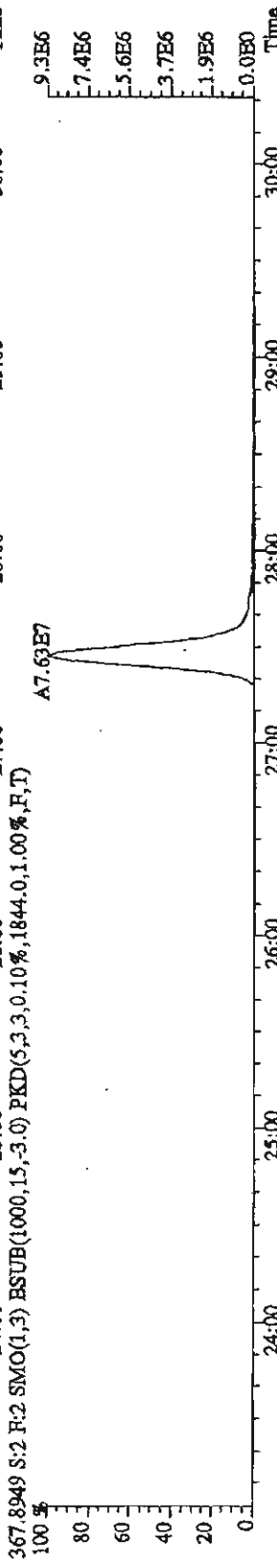
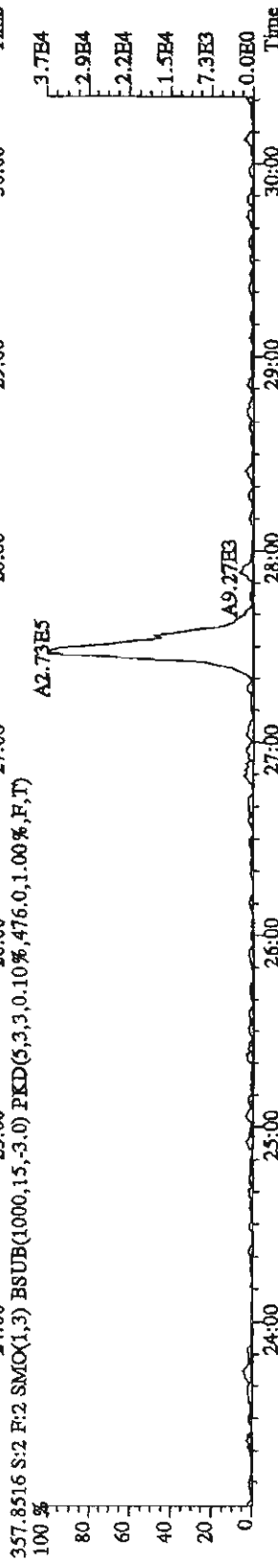
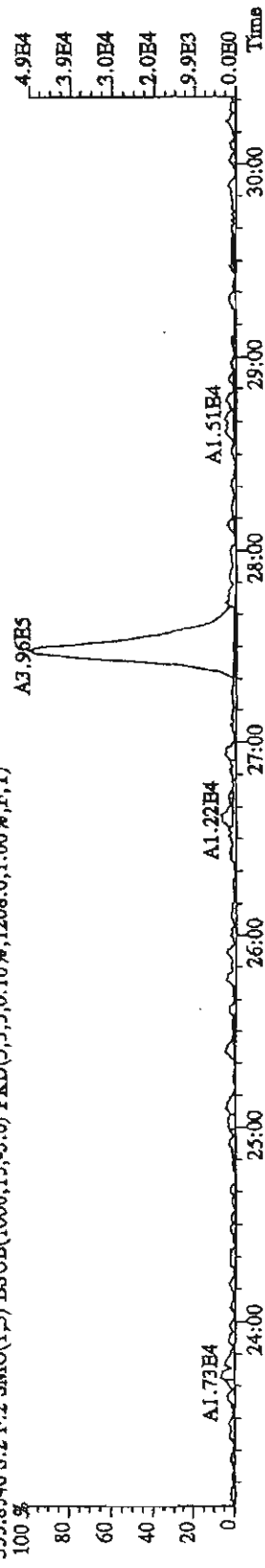
100% A6.68E7 A6.88E7



File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 13:37:42 GC EI + Voltage SIR Autospec-UltimaB
 Sample#2 Text: ST0222 :CS-0.2 11DXN025 AS Exp: DIOXINRES
 339.8597 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,840.0,1.00%,F,T)



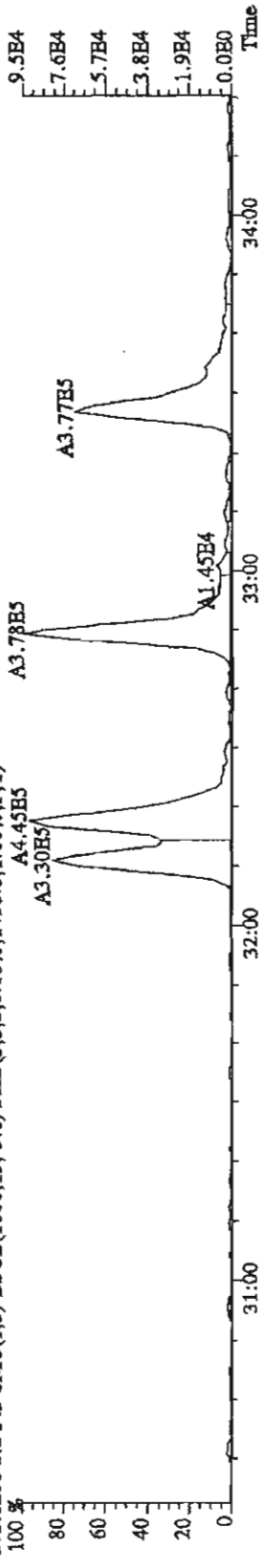
File: 22FEB11A4D5 #1-470 Acq: 22-FEB-2011 13:37:42 GC BI+ Voltage SIR Autospec-UltimaB
 Sample#2 Text: ST0222 :CS-0.2 11DXN025 AS Exp: DJOXINRES
 355.8546 S:2 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,0.10%,1208.0,1.00%,F,T)



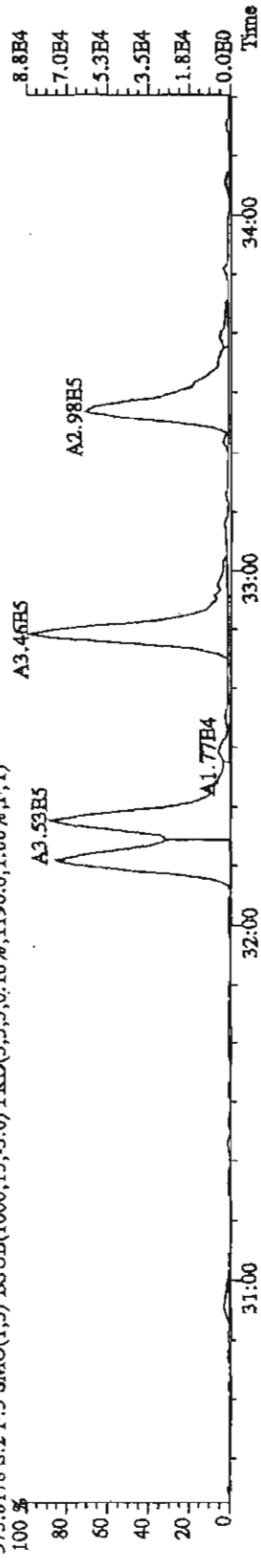
File:22FB11A4D5 #1-286 Acq:22-FEB-2011 13:37:42 GC EI+ Voltage SIR Autospec-UltimaB

Sample#2 Text:ST0222 :CS-0.2 11DXN025 AS Exp:DIOXINRES

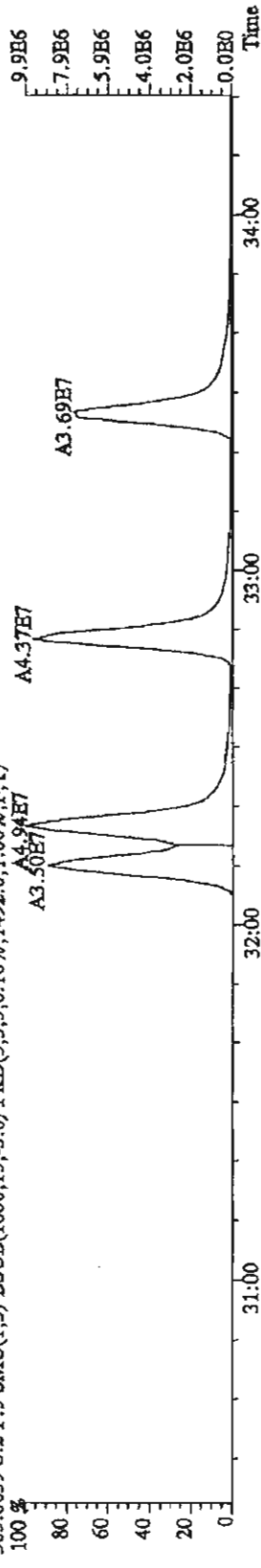
373.8208 S:2 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1.00%,F,T)



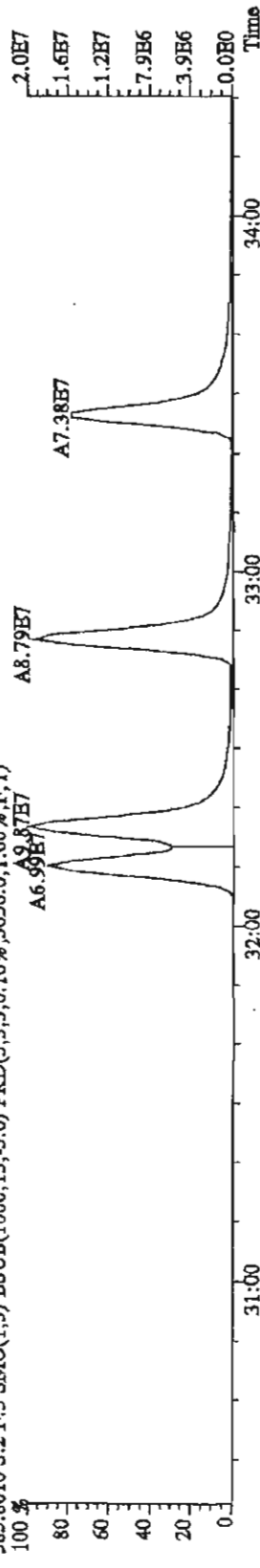
375.8178 S:2 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1.196,0.1,0.00%,F,T)



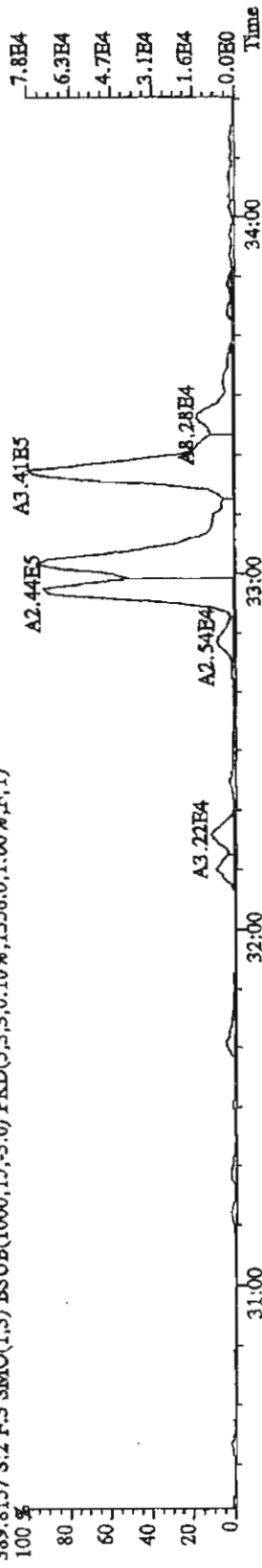
383.8639 S:2 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1.492,0.1,0.00%,F,T)



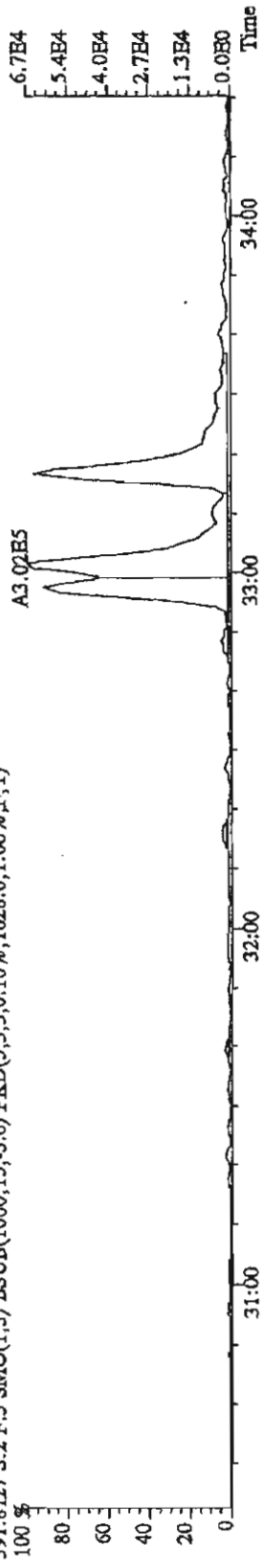
385.8610 S:2 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3.056,0.1,0.00%,F,T)



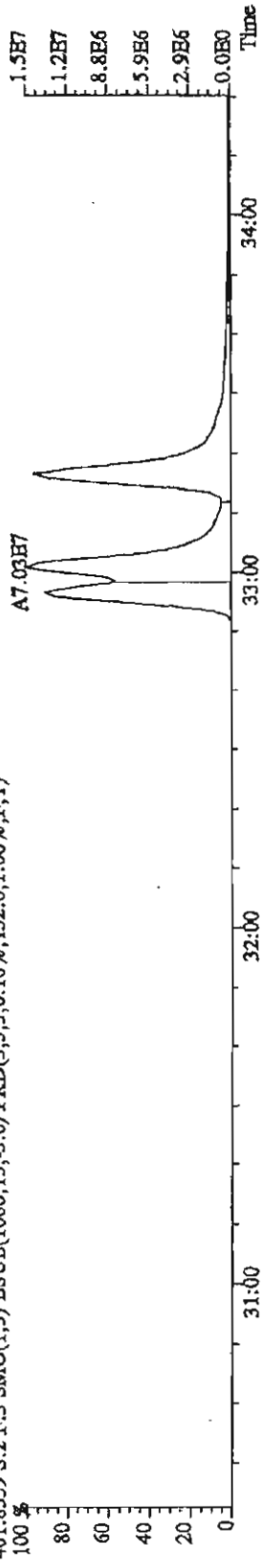
File: 22FEB11A4D5 #1-286 Acq: 22-FEB-2011 13:37:42 GC HI+ Voltage SIR Autospec-UltimaE
 Sample #2 Text: ST0222 : CS-0.2 11DXN025 AS Exp: DIOXINRES
 389.8157 S:2 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1356.0,1.00%,F,T)



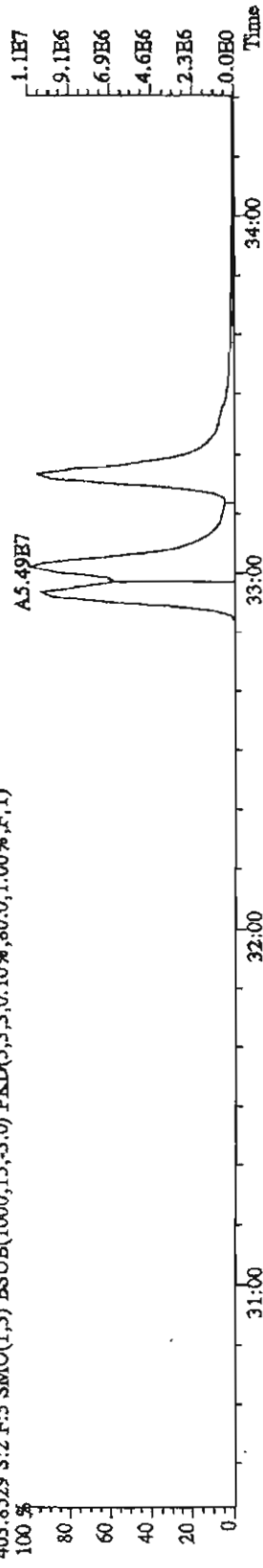
391.8127 S:2 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1628.0,1.00%,F,T)



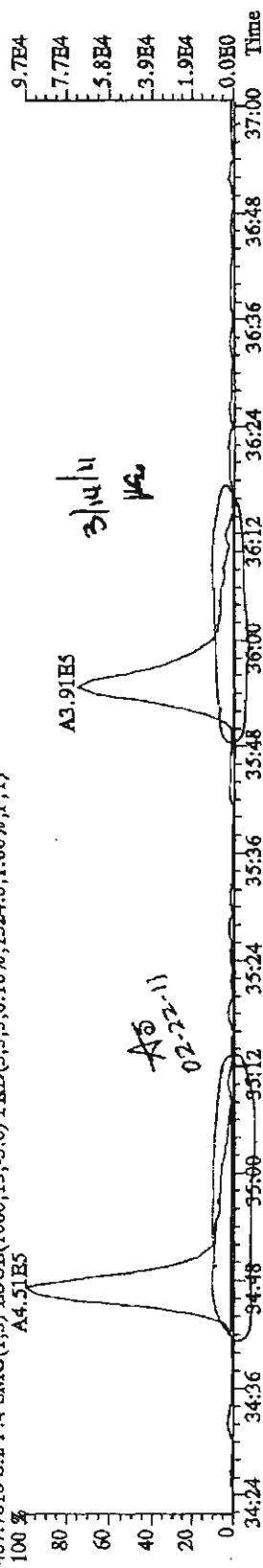
401.8559 S:2 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,132.0,1.00%,F,T)



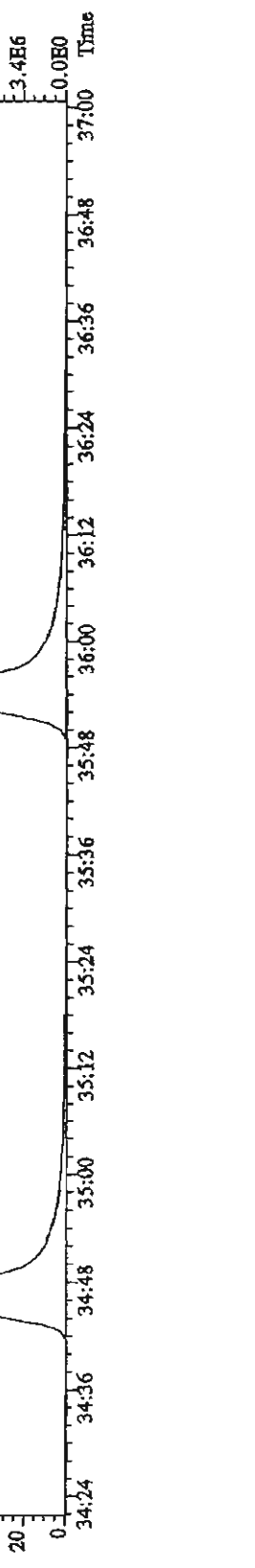
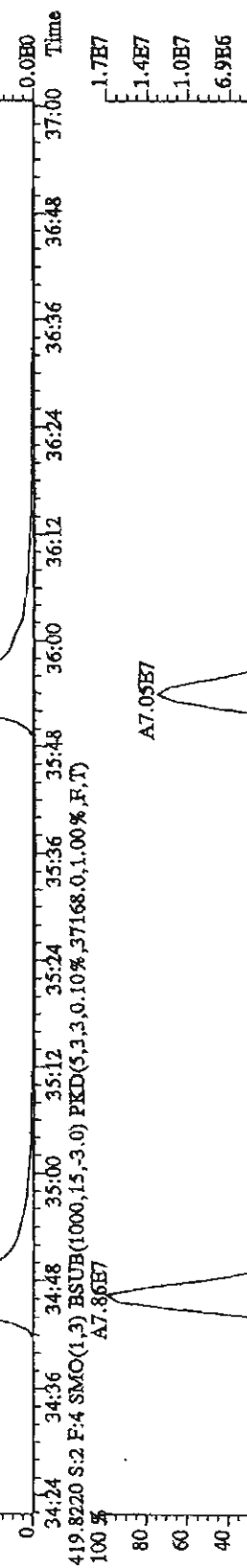
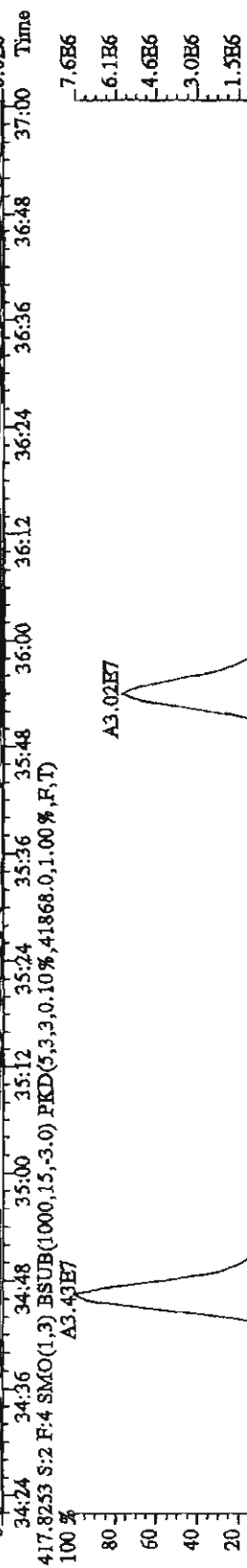
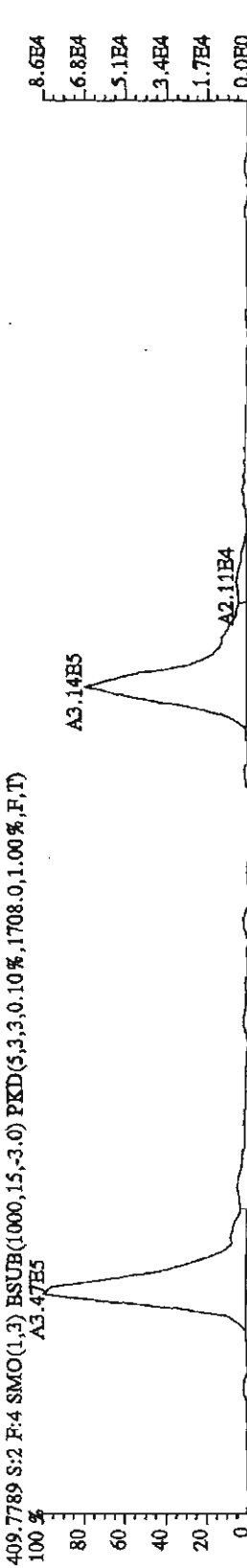
403.8529 S:2 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,80.0,1.00%,F,T)



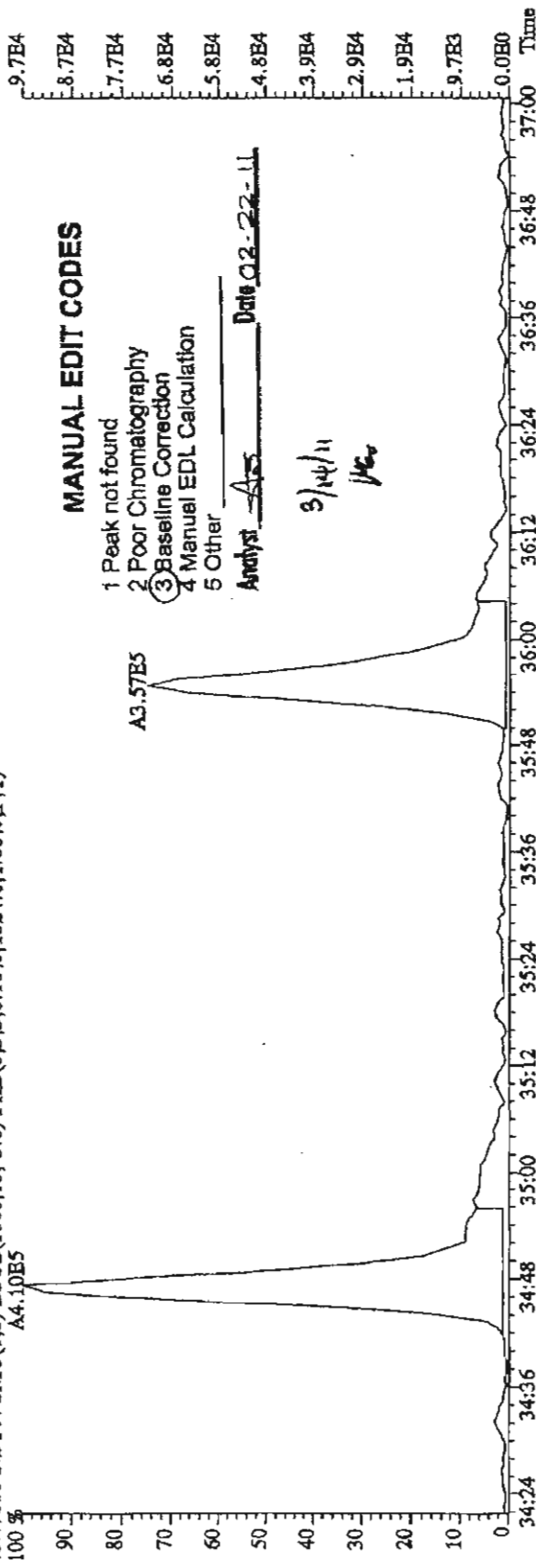
File: 22FEB11A4D5 #1-201 Acq: 22-FEB-2011 13:37:42 GC HI+ Voltage SIR Autospec-UltimaB
 Sample# 2 Text: ST0222 : CS-0.2 11DXN025 AS Exp: DIOXINES
 407.7818 S:2 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1524.0,1.00%,F,T)
 A4.51E5



AS
02-22-11



File: 22FE11A4D5 #1-201 Acq: 22-FEB-2011 13:37:42 GC HI+ Voltage SIR Autospec-UltimaE
 Sample#2 Text: ST0222 :CS-0.2 11DXN025 AS Exp: DIOXINRES
 407.7818 S:2 P:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,0.10%,1524.0,1.00%,R,T)
 A4.10E5

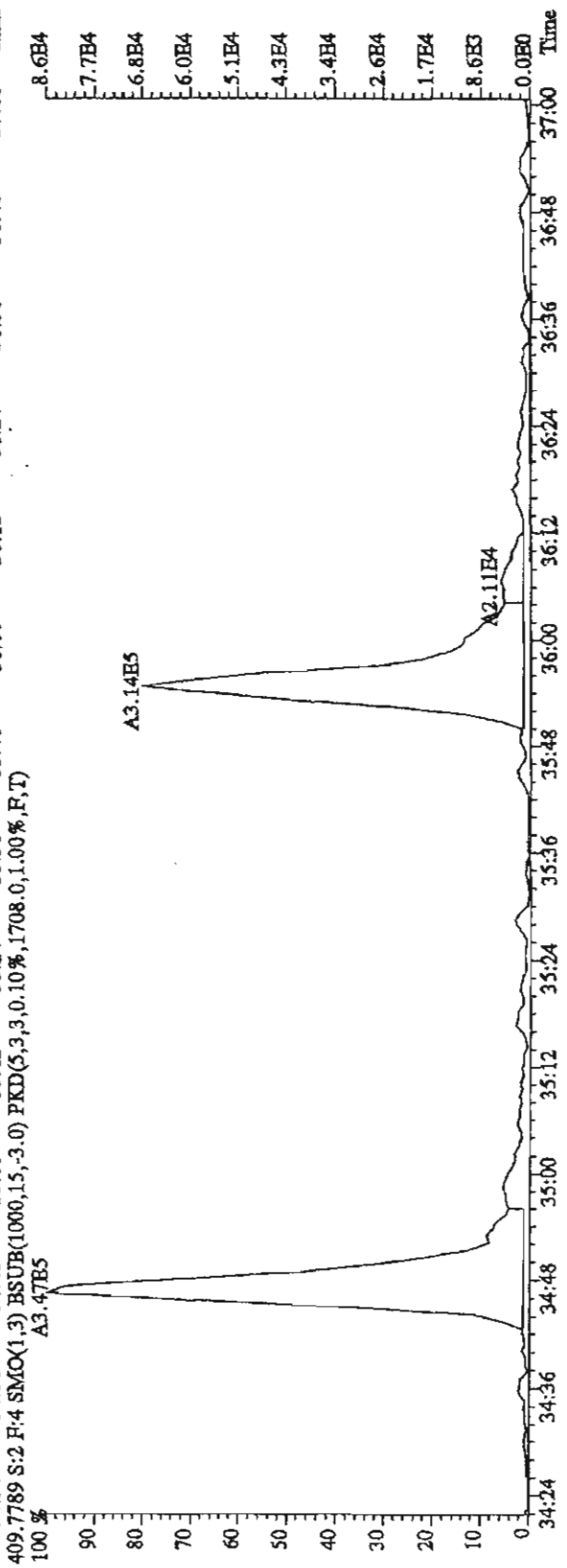


MANUAL EDIT CODES

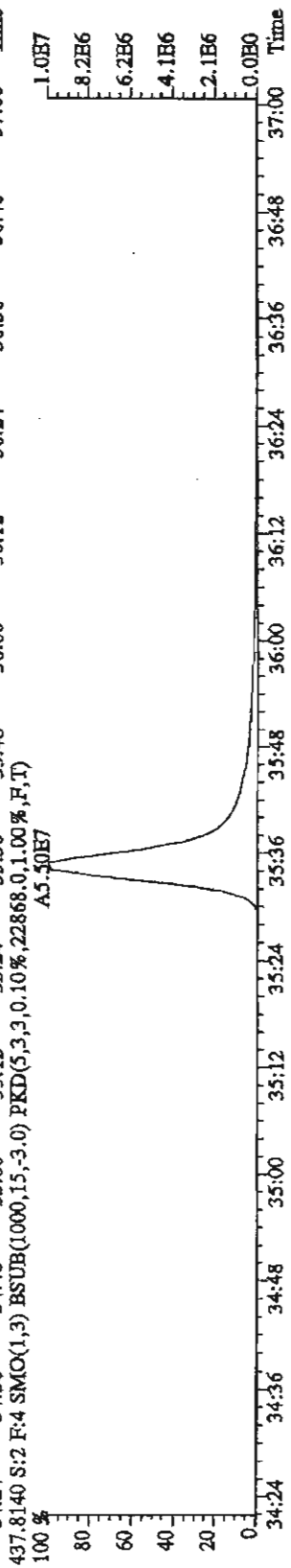
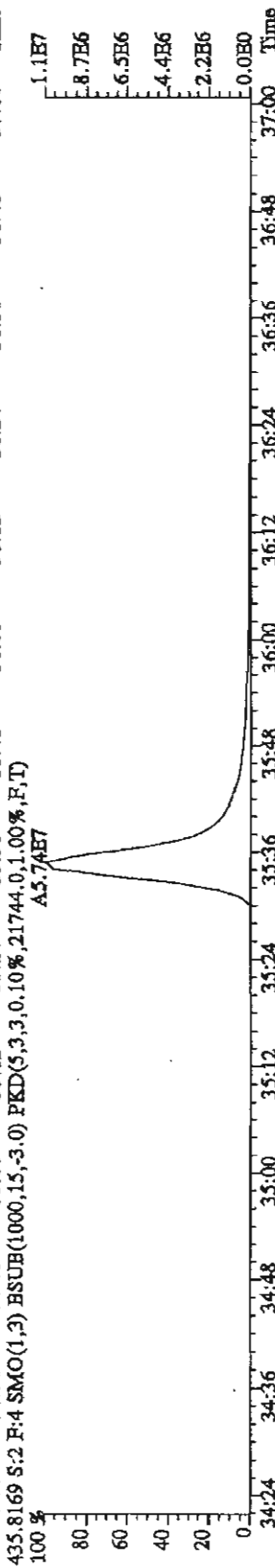
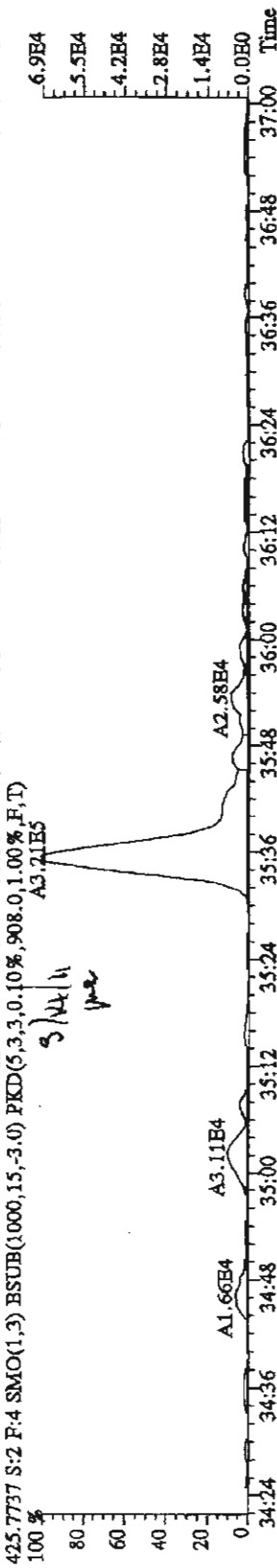
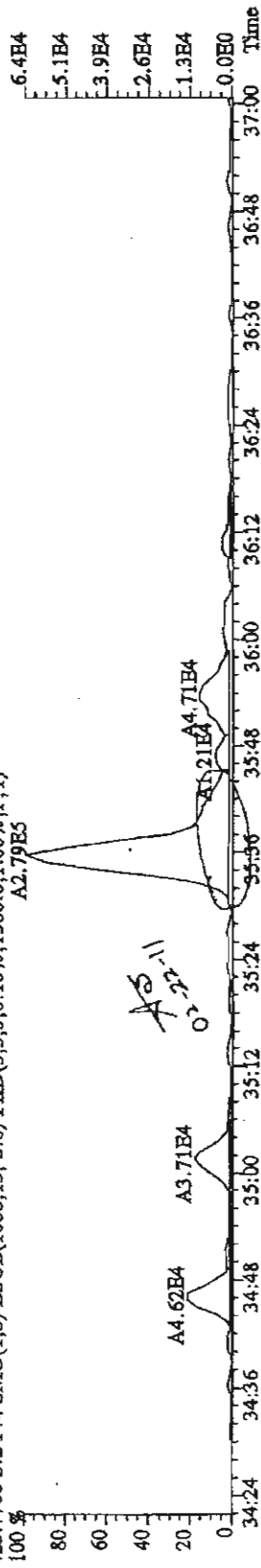
- 1 Peak not found
- 2 Poor Chromatography
- 3 Baseline Correction
- 4 Manual EDL Calculation
- 5 Other

Analyst AS Date 02-22-11

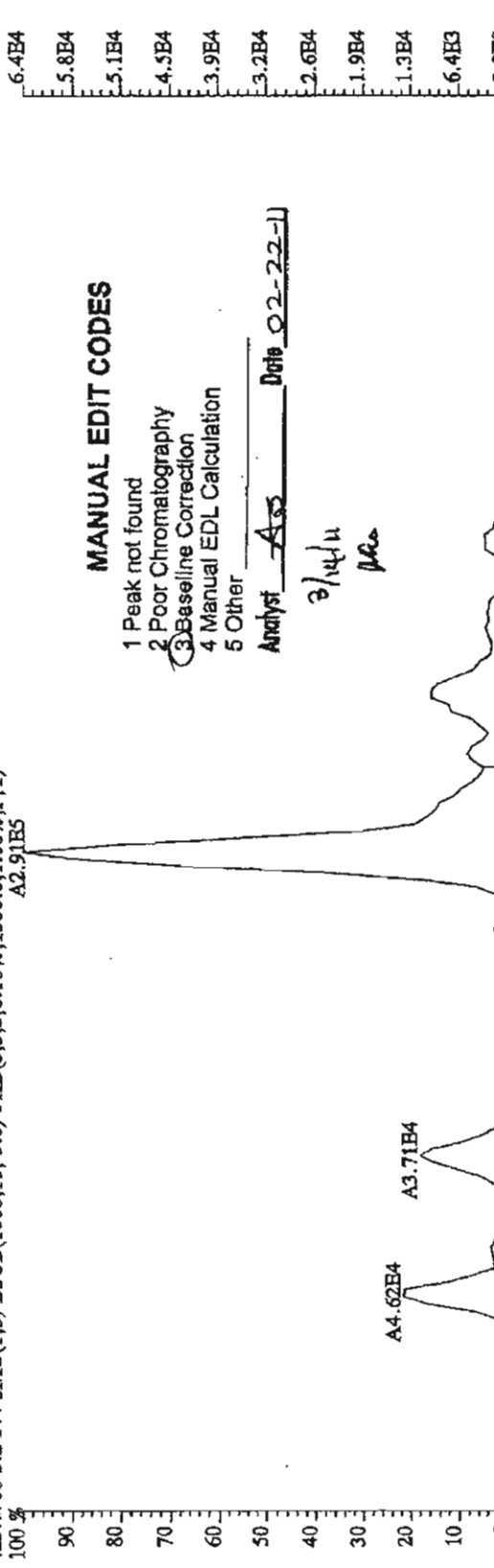
3/14/11
JW



File: 22FB11A4D5 #1-201 Acq: 22-FHB-2011.13:37:42 GC HI + Voltage SIR Autospec-UltimaB
 Sample#2 Text: ST0222 :CS-0.2 IIDXN025 AS Exp: DIOXINRES
 423.7766 S:2 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1580,0.1,0.0%,F,T)
 A2.79E5



File: 22.FE11A4D5 #1-201 Acq: 22-FEB-2011 13:37:42 GC EI+ Voltage SIR Autospec-UltimaB
 Sample#2 Text: ST0222 : CS-0.2 11DXN025 AS Exp: DIOXINRES
 423.7766 S:2 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1580.0,1.00%,F,T)
 A2.91E5

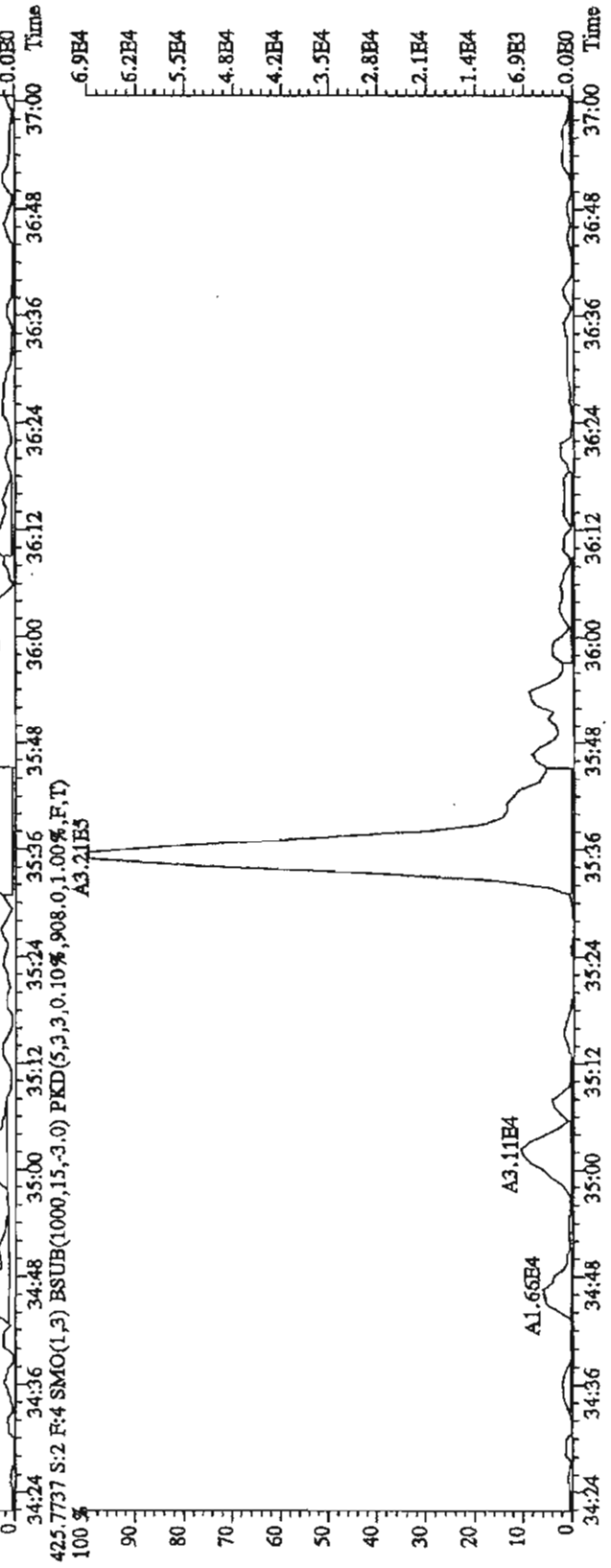


MANUAL EDIT CODES

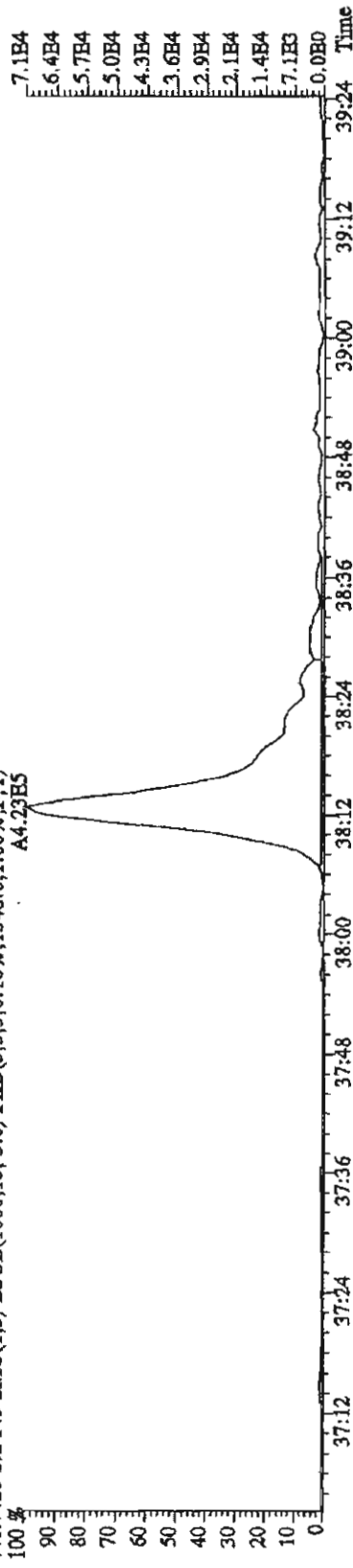
- 1 Peak not found
- 2 Poor Chromatography
- 3 Baseline Correction
- 4 Manual EDL Calculation
- 5 Other

Analyst ASS Date 02-22-11

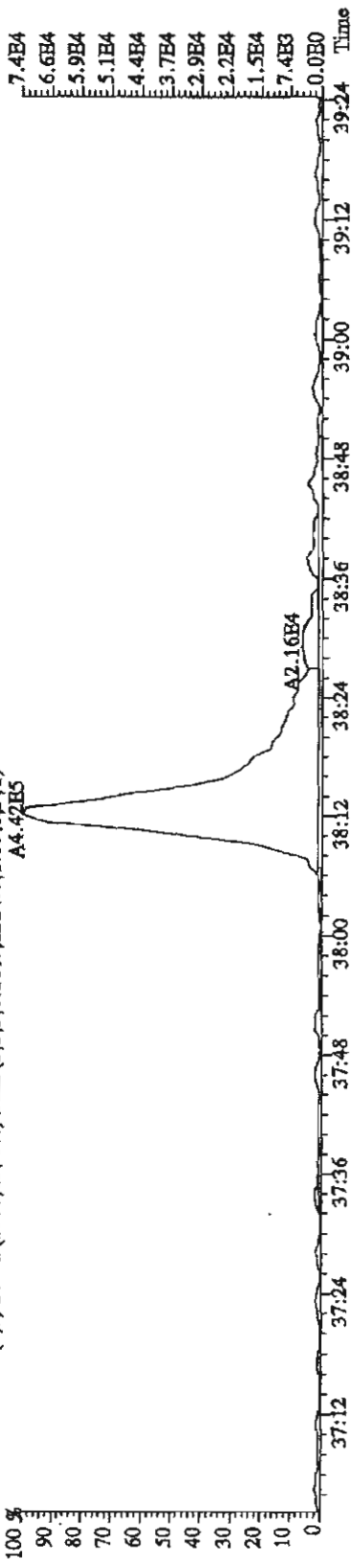
2/14/11
MAC



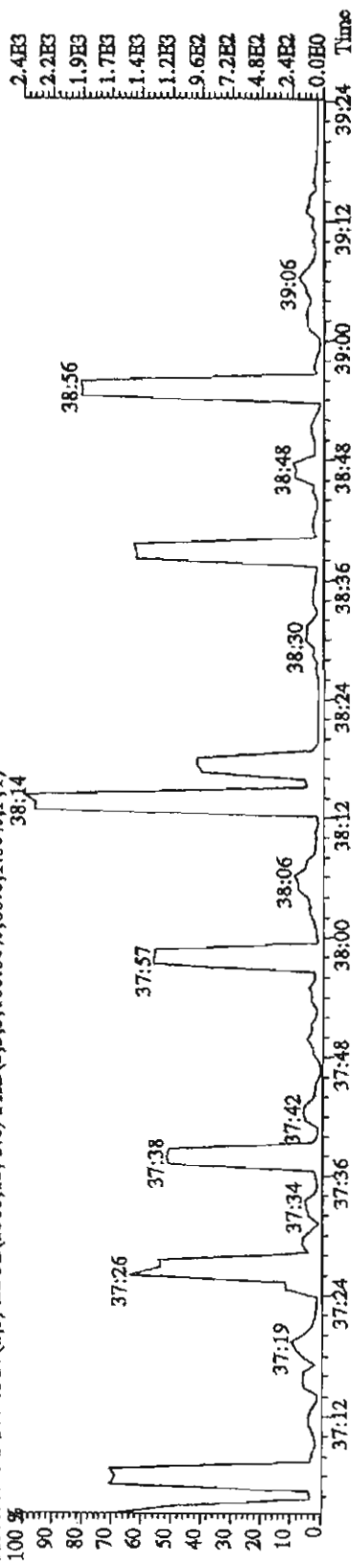
File:22FBI1A4D5 #1-192 Acq:22-FEB-2011 13:37:42 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#2 Text:ST0222 :CS-0.2 11DXN025 AS Exp:DIOXINRES
 441.7428 S:2 F:5 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1348,0,1.00%,F,T)
 A4.23E5



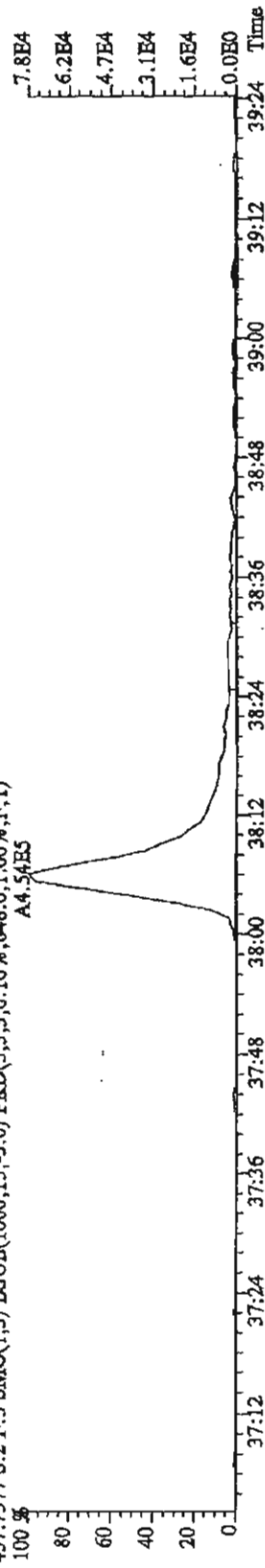
443.7399 S:2 F:5 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1224,0,1.00%,F,T)
 A4.42E5



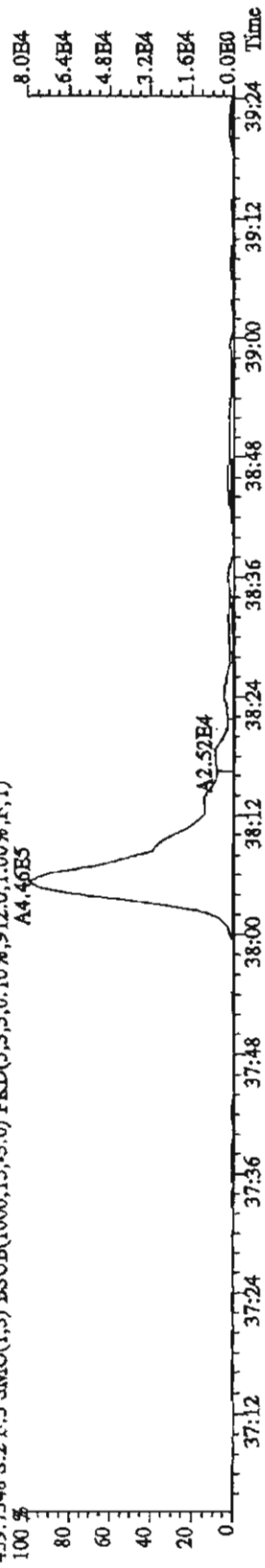
513.6775 S:2 F:5 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,5,100.00%,80.0,1.00%,F,T)
 38:14



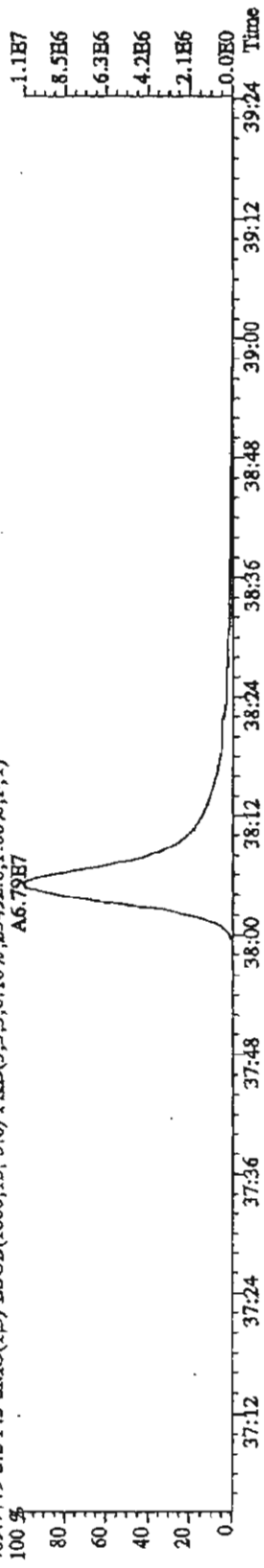
File: 22FEB11A4D5 #1-192 Acq: 22-FEB-2011 13:37:42 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#2 Text: ST0222 : CS-0.2 11DXN025 AS Exp: DIOXINRES
 457.7377 S: 2 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,648.0,1.00%,F,T)
 A4.54E5



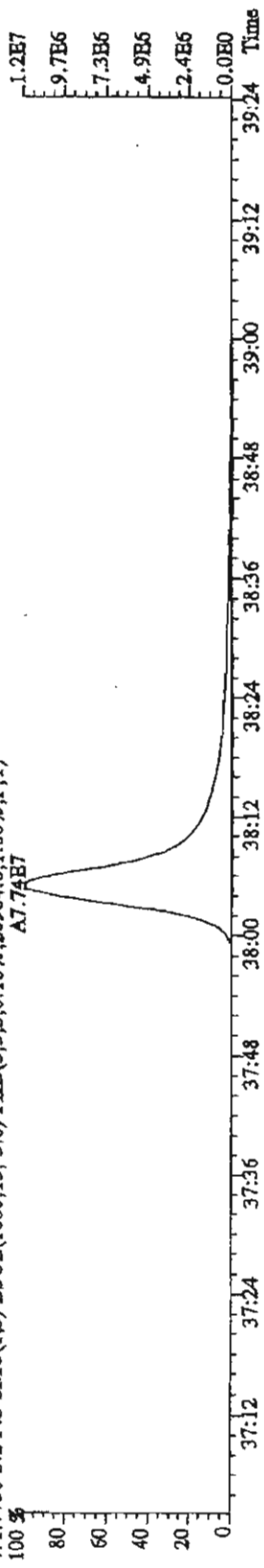
459.7348 S: 2 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,912.0,1.00%,F,T)
 A4.46E5



469.7779 S: 2 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,25492.0,1.00%,F,T)
 A6.79E7



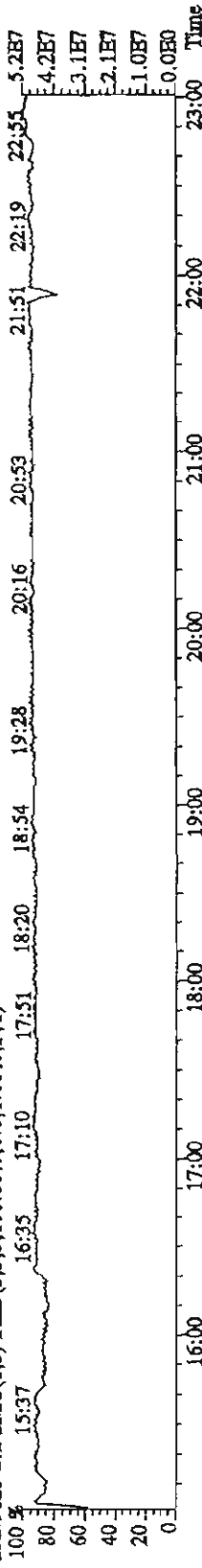
471.7750 S: 2 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,20904.0,1.00%,F,T)
 A7.74E7



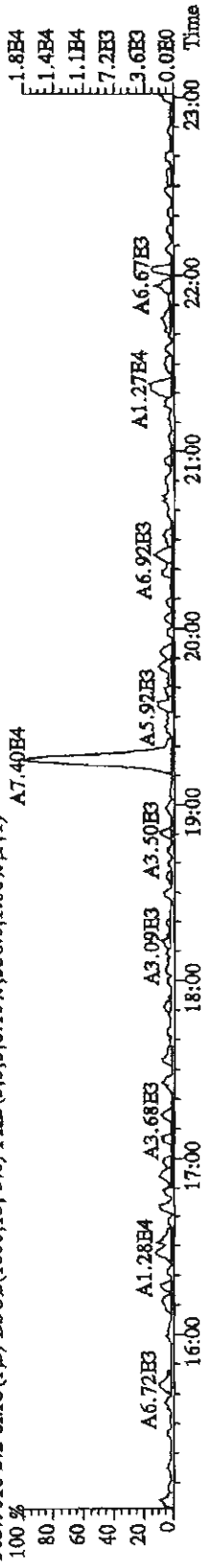
File: 22FBI1A4D5 #1-530 Acq: 22-FEB-2011 13:37:42 GC EI+ Voltage SIR Autospec-UltimaE

Sample#2 Text: ST0222 :CS-0.2 11DXN025 AS Exp: DIOXINRES

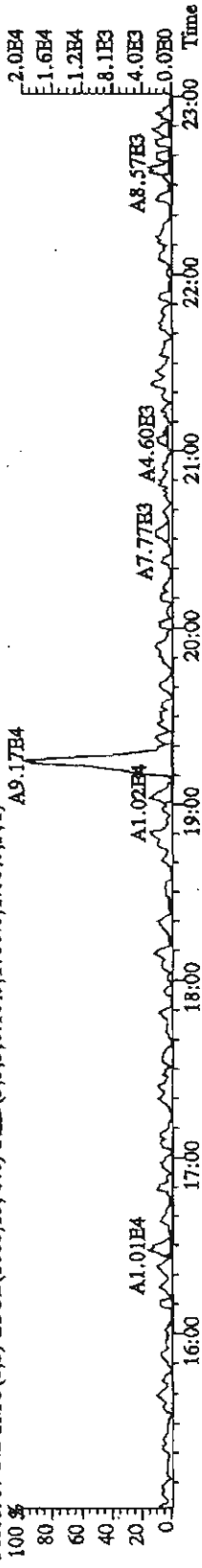
292.9825 S:2 SMO(1,3) PKD(5,3,5,100.00%,0,0,1.00%,F,T)



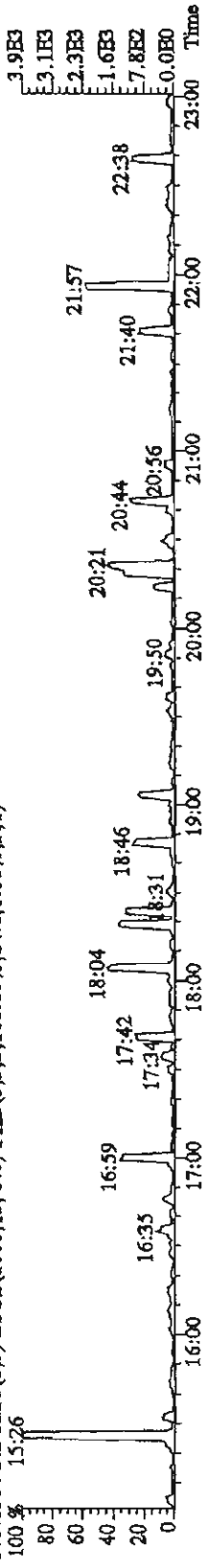
303.9016 S:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,536.0,1.00%,F,T)



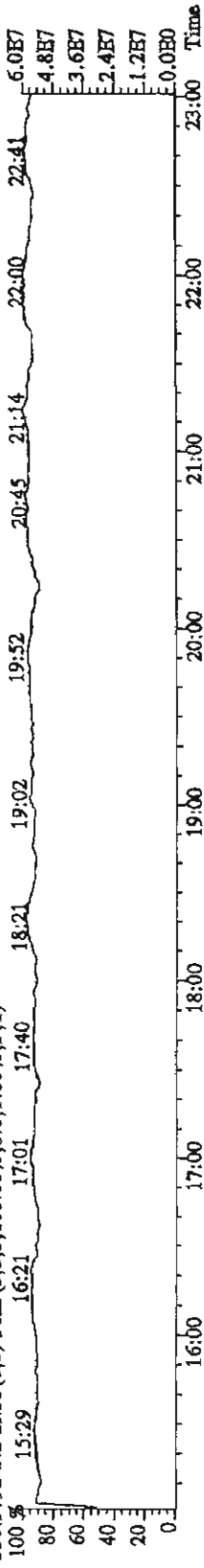
305.8987 S:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1708.0,1.00%,F,T)



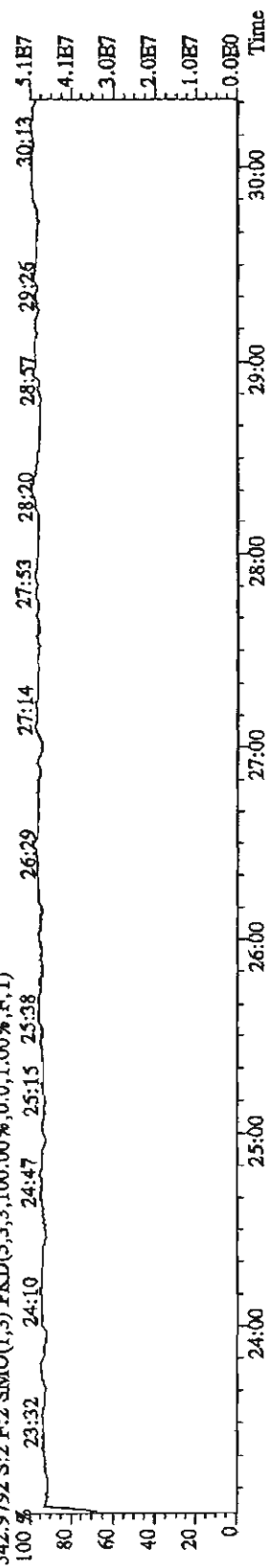
375.8364 S:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,84.0,1.00%,F,T)



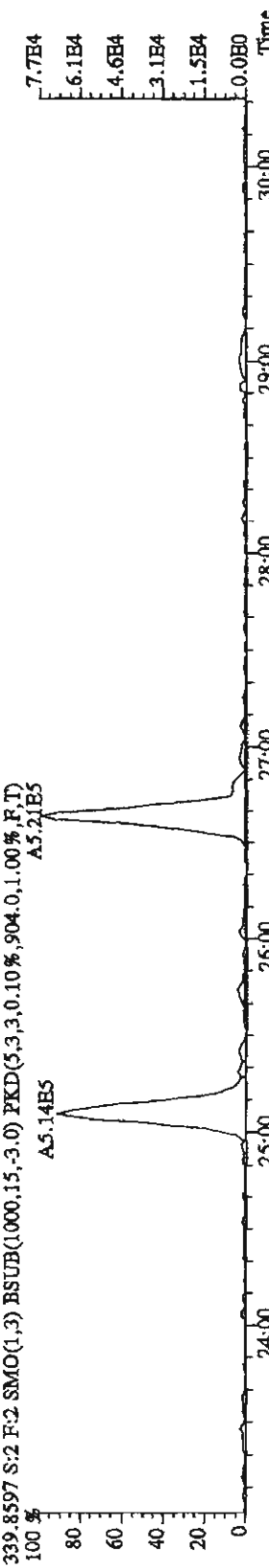
330.9792 S:2 SMO(1,3) PKD(5,3,3,100.00%,0,0,1.00%,F,T)



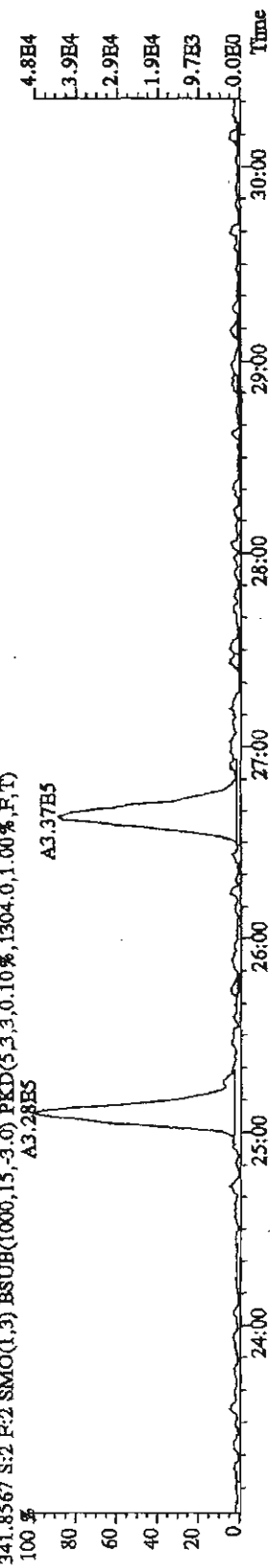
File: 22FEB11A4D5 #1-470 Acq: 22-FEB-2011 13:37:42 GC EI+ Voltage SIR Autospec-UltimaB
 Sample#2 Text: ST0222 : CS-0.2.11DXN025 AS Exp: DIOXINRES
 342.9792 S: 2 F: 2 SMO(1,3) PKD(5,3,3,100.00%,0,0,1.00%,F,T)
 100 % 23:32 24:10 24:47 25:15 25:38 26:29 27:14 27:53 28:20 28:57 29:26 30:13



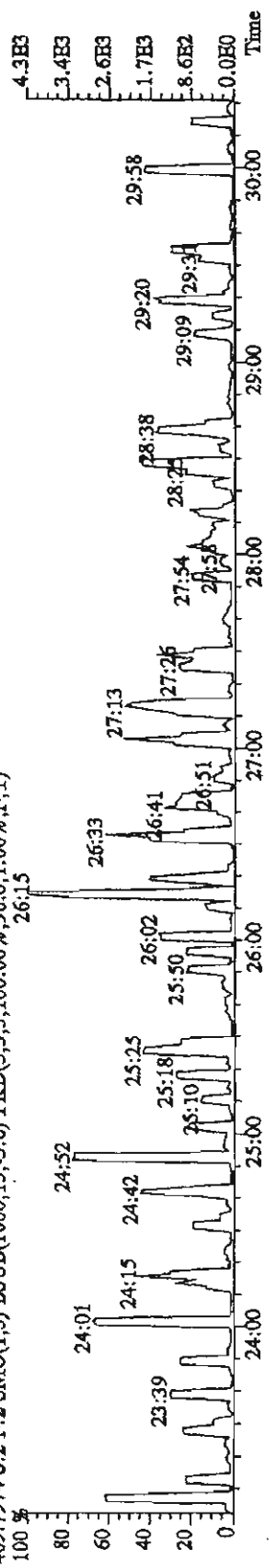
339.8597 S: 2 F: 2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,904,0,1.00%,F,T)
 100 % A5.14E5 A5.21E5



341.8567 S: 2 F: 2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1304,0,1.00%,F,T)
 100 % A3.28E5 A3.37E5



409.7974 S: 2 F: 2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,96,0,1.00%,F,T)
 100 % 26:15

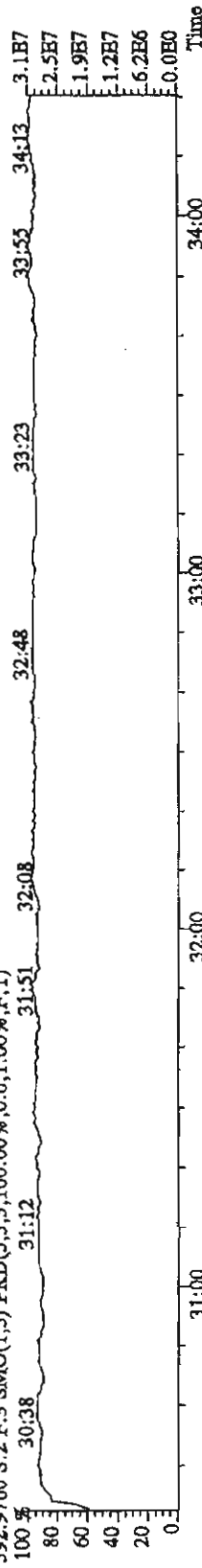


File: 22FEB11A4D5 #1-286 Acq: 22-FEB-2011 13:37:42 GC EI+ Voltage SIR Autospec-UltimaB

Sample#2 Text: ST0222 CS-0.2 11DXN025 AS Exp: DIOXINES

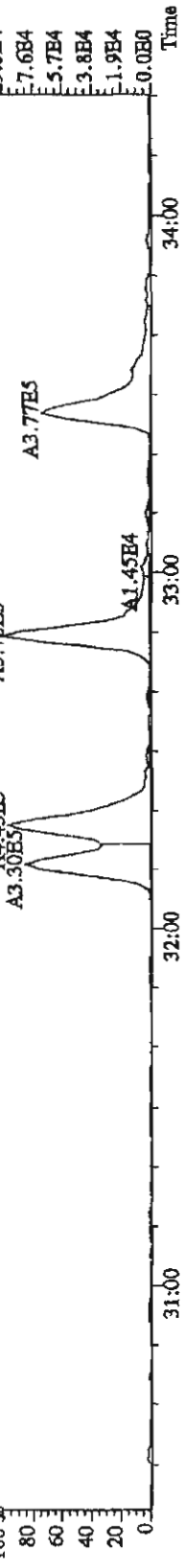
392.9760 S:2 F:3 SMO(1.3) PKD(5.3,3.0,0.0,1.00%,F,T)

100% 30:38 31:12 31:51 32:08 32:48 33:23 33:55 34:13



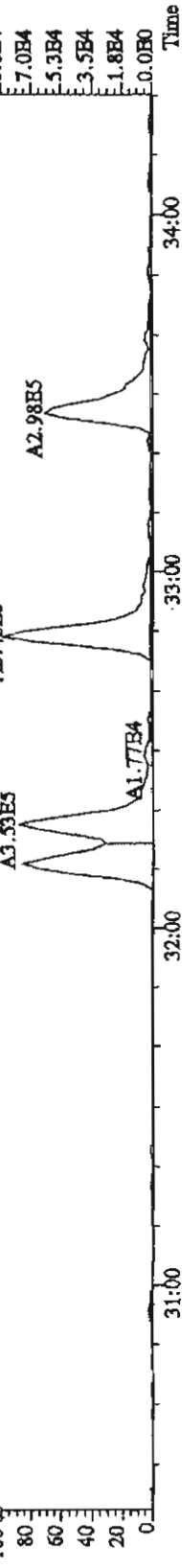
373.8208 S:2 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5.3,3.0,10%,1496.0,1.00%,F,T)

100% 31:00 32:00



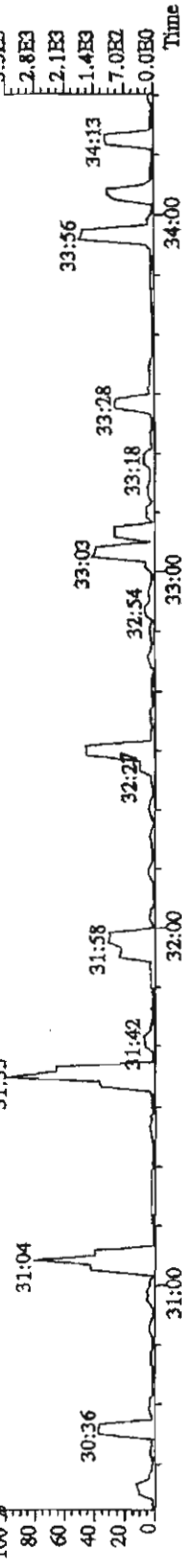
375.8178 S:2 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5.3,3.0,10%,1196.0,1.00%,F,T)

100% 31:00 32:00



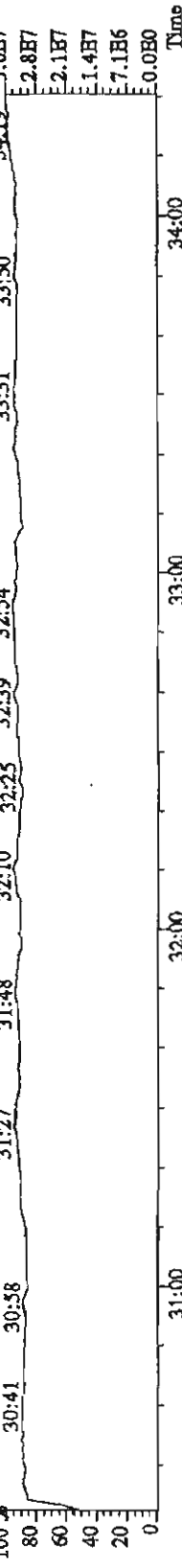
445.7555 S:2 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5.3,3.0,100.00%,84.0,1.00%,F,T)

100% 31:00 32:00



380.9760 S:2 F:3 SMO(1.3) PKD(5.3,3.0,100.00%,0.0,1.00%,F,T)

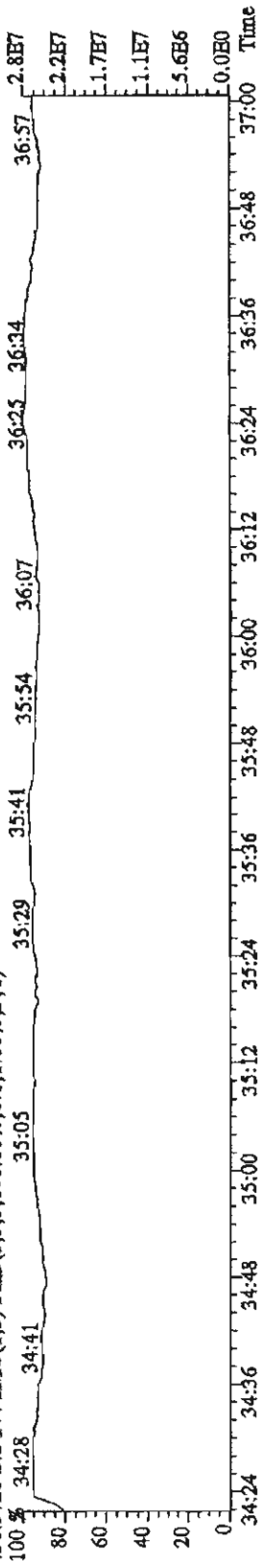
100% 30:41 30:58 31:27 31:48 32:00 32:25 32:39 32:54 33:10 33:31 33:50 34:19



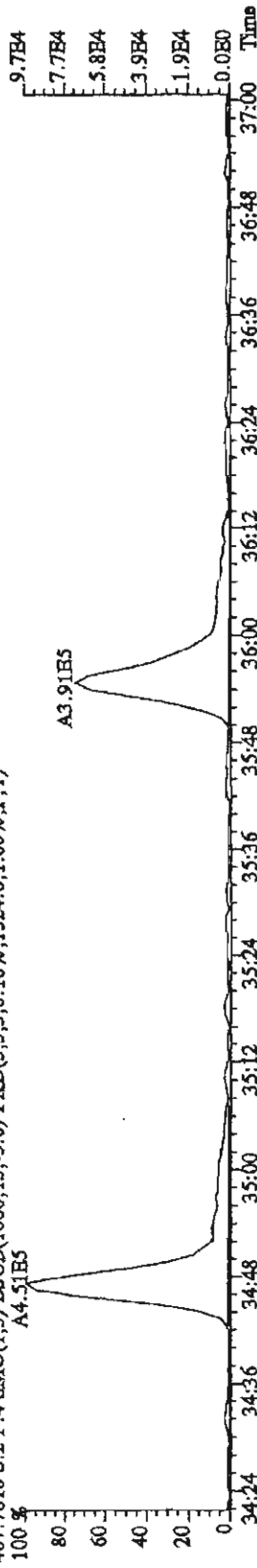
File: 22FEB11A4D5 #1-201 Acq: 22-FEB-2011 13:37:42 GC EI+ Voltage SIR AutoSpec-UltimaB

Sample#2 Text: ST0222 :CS-0.2 11DXN025 AS Exp: DIOXINRES

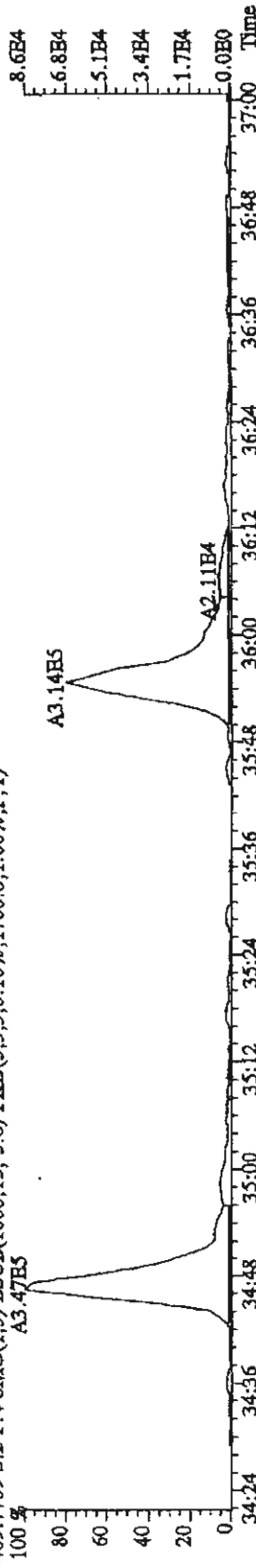
430.9728 S: 2 F: 4 SMO(1,3) PKD(5.3,3,100.00%,0.0,1.00%,F,T)



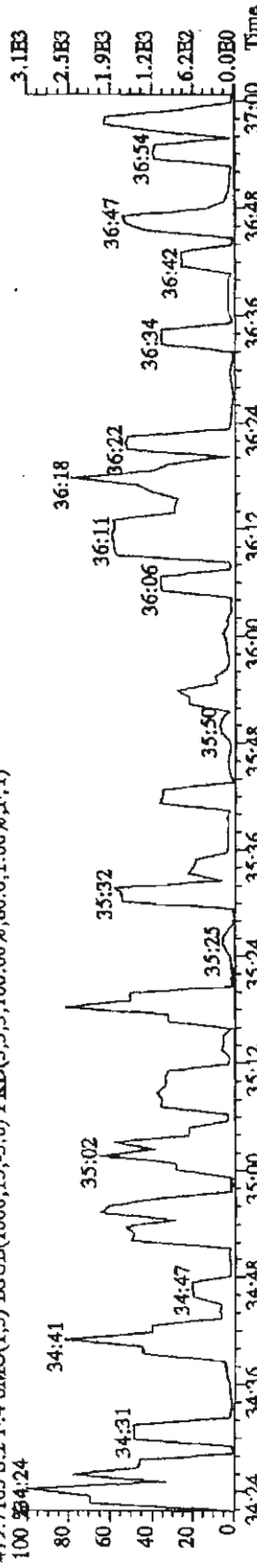
407.7818 S: 2 F: 4 SMO(1,3) BSUB(1000,1.5,-3.0) PKD(5.3,3,0.10%,1524.0,1.00%,F,T)



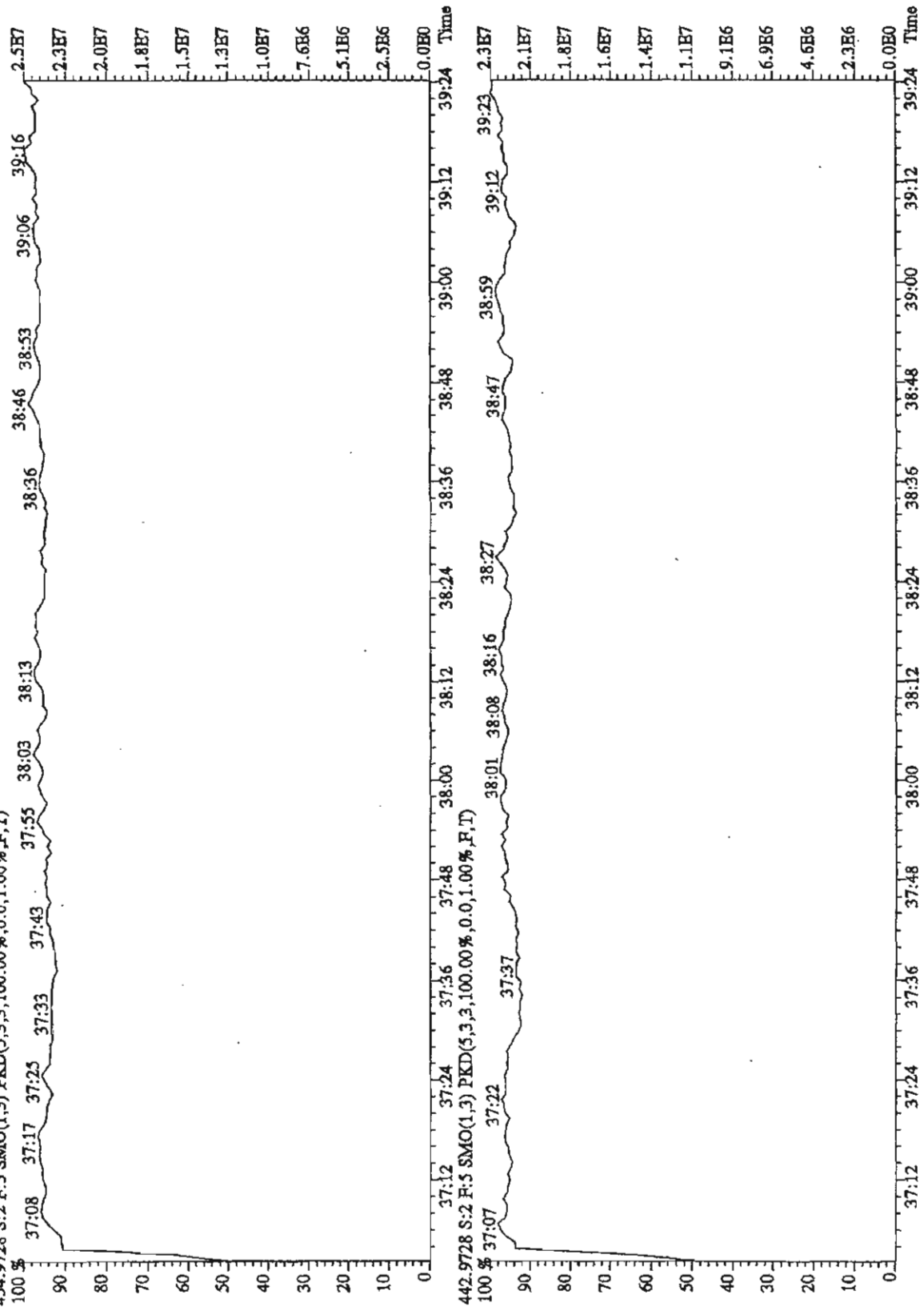
409.7789 S: 2 F: 4 SMO(1,3) BSUB(1000,1.5,-3.0) PKD(5.3,3,0.10%,1708.0,1.00%,F,T)



479.7165 S: 2 F: 4 SMO(1,3) BSUB(1000,1.5,-3.0) PKD(5.3,3,100.00%,80.0,1.00%,F,T)



File: 22FE11A4D5 #1-192 Acq: 22-FEB-2011 13:37:42 GC EI+ Voltage SIR Autospec-UltimaB
 Sample#2 Text: ST0222 : CS-0.2 11DXN025 AS Exp: DIOXINRES
 454.9728 S: 2 F: 5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



Run #2 Filename 22FE11A4D5 S: 3 I: 1
 Acquired: 22-FEB-11 14:22:11 Processed: 22-FEB-11 16:07:01
 Run: 15SE098D2 Analyte: 1613 Cal: 16130222114D5

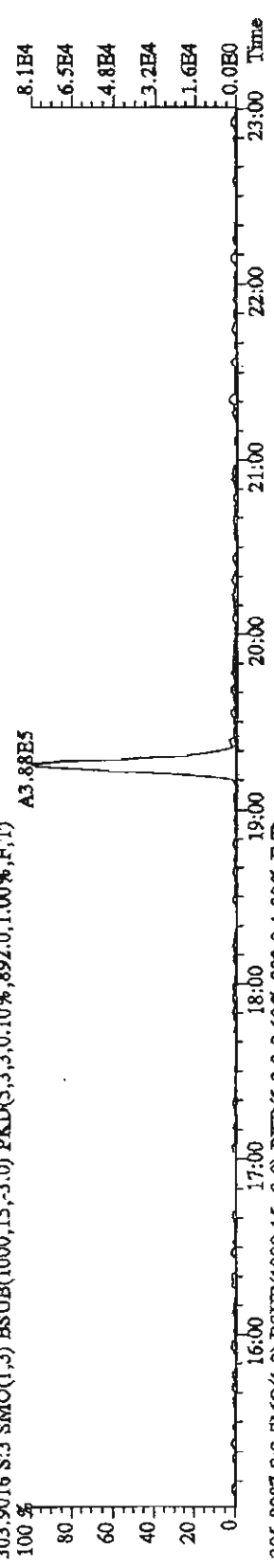
Comments:

Sample text: ST0222A :CS-1 10DXN503 AS

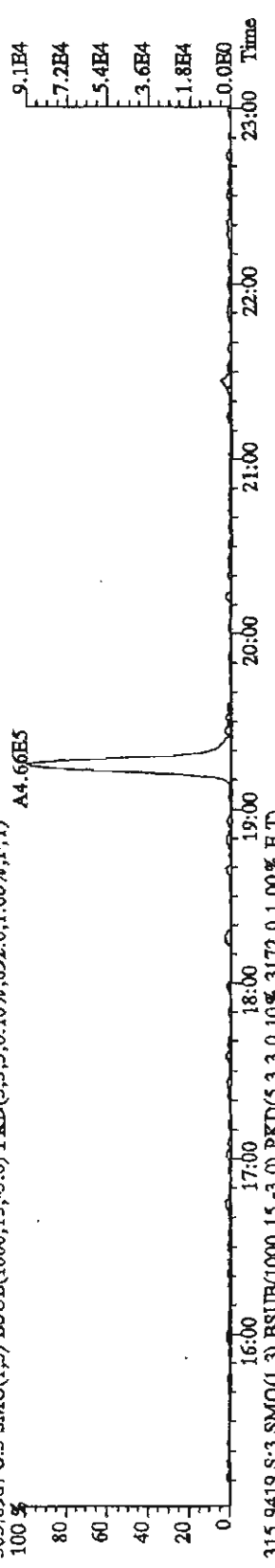
Name	Resp	RA	RT	RRF		Mod?
13C-1,2,3,4-TCDD	187394100	0.77 y	19:50	-	100.00	n
13C-2,3,7,8-TCDF	213833500	0.77 y	19:14	1.1411	100.00	n
2,3,7,8-TCDF	853997	0.83 y	19:16	0.7987	0.50	n
Total TCDF	-	- n	-	0.7987	0.50	n
13C-2,3,7,8-TCDD	183081100	0.76 y	20:03	0.9770	100.00	n
2,3,7,8-TCDD	775144	0.82 y	20:04	0.8468	0.50	n
Total TCDD	-	- n	-	0.8468	0.50	n
37Cl-2,3,7,8-TCDD	1348538	1.00 y	20:04	1.4393	0.50	n
13C-1,2,3,7,8-PeCDF	195876200	1.60 y	25:05	1.0453	100.00	n
1,2,3,7,8-PeCDF	4389470	1.62 y	25:07	0.8964	2.50	n
13C-2,3,4,7,8-PeCDF	182812500	1.57 y	26:36	0.9756	100.00	n
2,3,4,7,8-PeCDF	4233200	1.45 y	26:38	0.9262	2.50	n
Total F2 PeCDF	-	- n	-	0.9108	2.50	n
Total F1 PeCDF	-	- n	-	0.9108	5.00	n
13C-1,2,3,7,8-PeCDD	131784000	1.58 y	27:27	0.7032	100.00	n
1,2,3,7,8-PeCDD	3254700	1.39 y	27:30	0.9879	2.50	n
Total PeCDD	-	- n	-	0.9879	2.50	n
13C-1,2,3,7,8,9-HxCDD	132324100	1.26 y	33:17	-	100.00	n
13C-1,2,3,4,7,8-HxCDF	108037400	0.49 y	32:10	0.8165	100.00	n
1,2,3,4,7,8-HxCDF	2941540	1.15 y	32:11	1.0891	2.50	n
13C-1,2,3,6,7,8-HxCDF	157846300	0.51 y	32:17	1.1929	100.00	n
1,2,3,6,7,8-HxCDF	4122100	1.13 y	32:17	1.0446	2.50	n
13C-2,3,4,6,7,8-HxCDF	139545500	0.51 y	32:48	1.0546	100.00	n
2,3,4,6,7,8-HxCDF	3606480	1.15 y	32:49	1.0338	2.50	n
13C-1,2,3,7,8,9-HxCDF	120615900	0.46 y	33:27	0.9115	100.00	n
1,2,3,7,8,9-HxCDF	2970510	1.25 y	33:27	0.9851	2.50	n
Total HxCDF	-	- n	-	1.0372	10.00	n
13C-1,2,3,4,7,8-HxCDD	82040300	1.28 y	32:57	0.6200	100.00	n
1,2,3,4,7,8-HxCDD	2152042	1.23 y	32:57	1.0493	2.50	n
13C-1,2,3,6,7,8-HxCDD	129785900	1.28 y	33:01	0.9808	100.00	n
1,2,3,6,7,8-HxCDD	3275550	1.23 y	33:02	1.0095	2.50	n
1,2,3,7,8,9-HxCDD	3071710	1.27 y	33:17	1.1601	2.50	n
Total HxCDD	-	- n	-	1.0700	7.50	n
13C-1,2,3,4,6,7,8-HpCDF	120215200	0.43 y	34:46	0.9085	100.00	n
1,2,3,4,6,7,8-HpCDF	3884660	1.08 y	34:47	1.2926	2.50	n
13C-1,2,3,4,7,8,9-HpCDF	105922700	0.44 y	35:54	0.8005	100.00	n
1,2,3,4,7,8,9-HpCDF	3152290	1.04 y	35:55	1.1904	2.50	n
Total HpCDF	-	- n	-	1.2447	5.00	n
13C-1,2,3,4,6,7,8-HpCDD	119893700	1.05 y	35:35	0.9061	100.00	n
1,2,3,4,6,7,8-HpCDD	2742820	0.91 y	35:36	0.9151	2.50	n

Total HpCDD	-	-	n	-	0.9151	2.50	n
13C-OCDD	158471700	0.89	y	38:05	0.5988	200.00	n
OCDF	4627780	0.85	y	38:13	1.1681	5.00	n
OCDD	4143980	0.93	y	38:06	1.0460	5.00	n

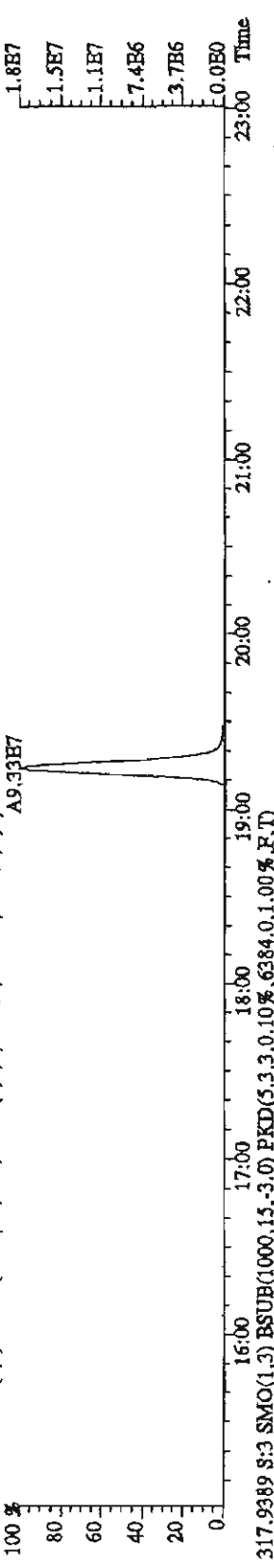
File:22FEB11A4D5 #1-530 Acq:22-FEB-2011 14:22:11 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 Text:ST0222A :CS-1.10DXN503 AS Exp:DOXINRES
 303.9016 S:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,892.0,1.00%,F,T)



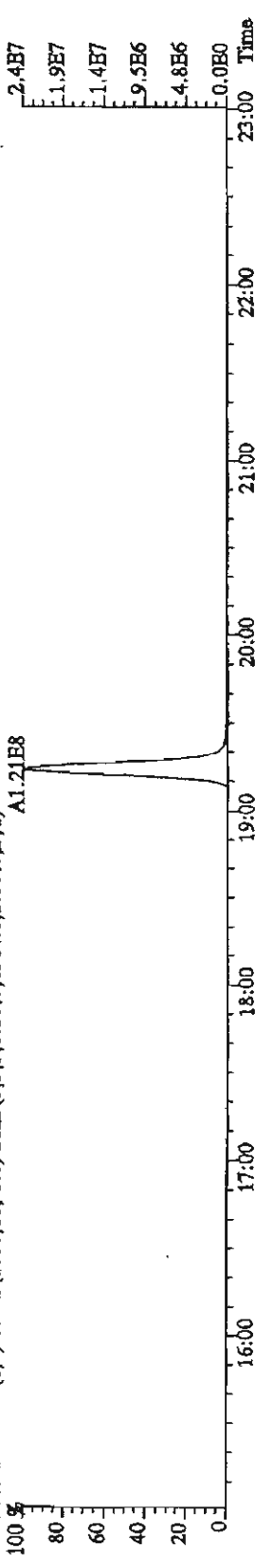
305.8987 S:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,892.0,1.00%,F,T)



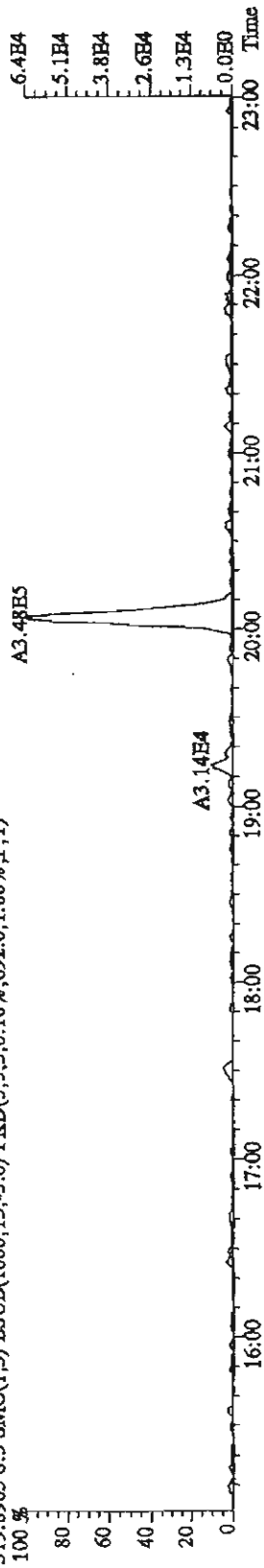
315.9419 S:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3172.0,1.00%,F,T)



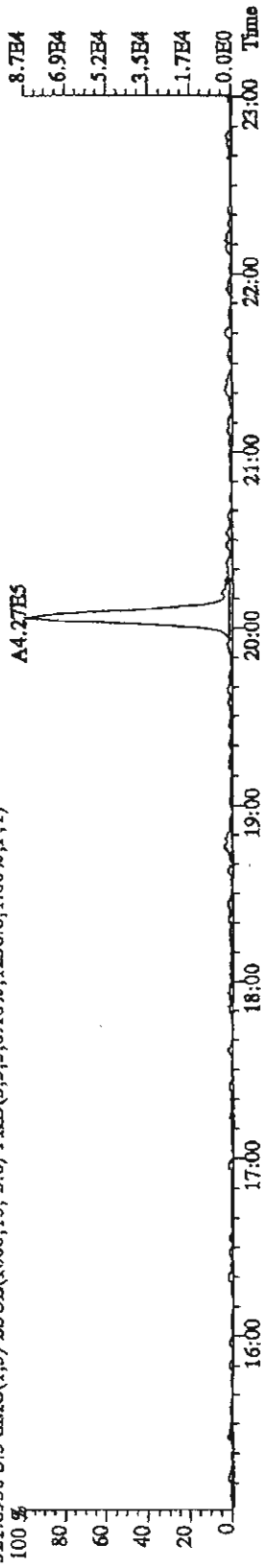
317.9389 S:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6384.0,1.00%,F,T)



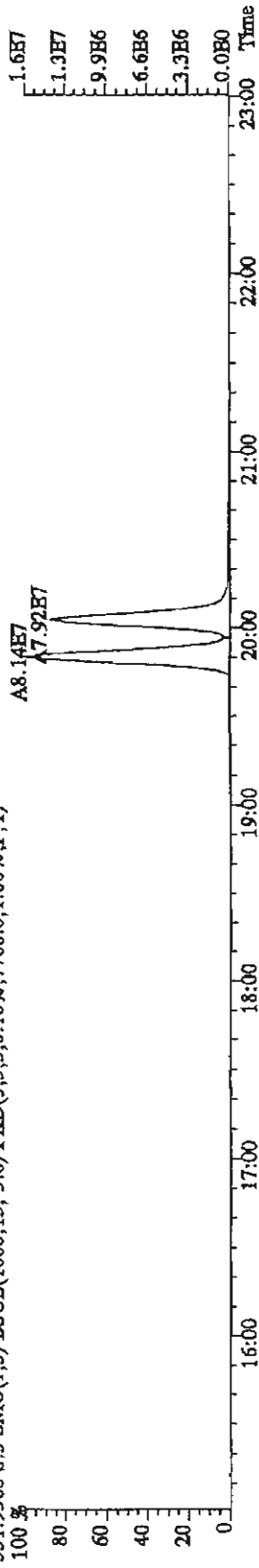
File: 22FE11A4D5 #1-530 Acq: 22-FEB-2011 14:22:11 GC EI+ Voltage: SIR Autospec-UltimeE
 Sample#3 Text: ST0222A :CS-1 10DXN503 AS Exp: DIOXINRBS
 319.8965 S:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1236.0,1.00%,F,T)



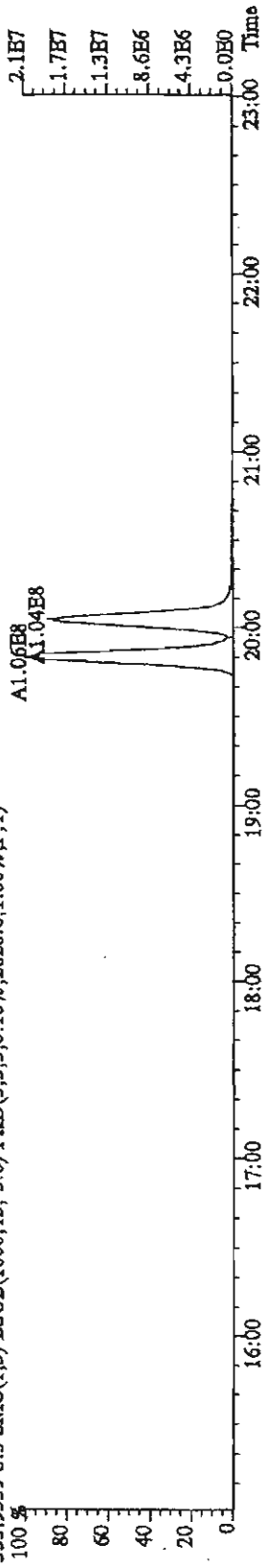
321.8936 S:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1236.0,1.00%,F,T)



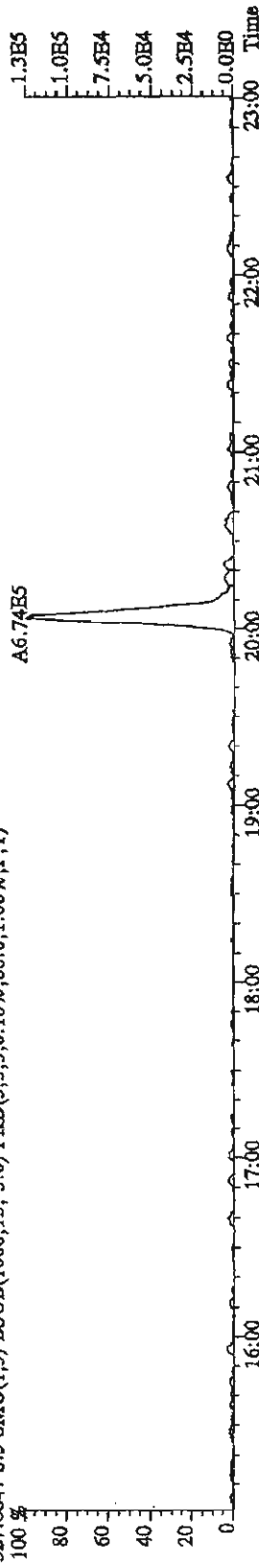
331.9368 S:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,7708.0,1.00%,F,T)



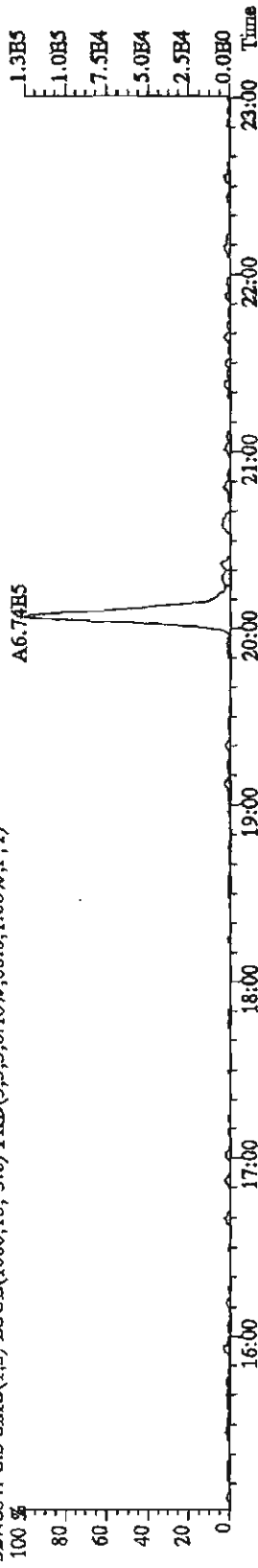
333.9339 S:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2628.0,1.00%,F,T)



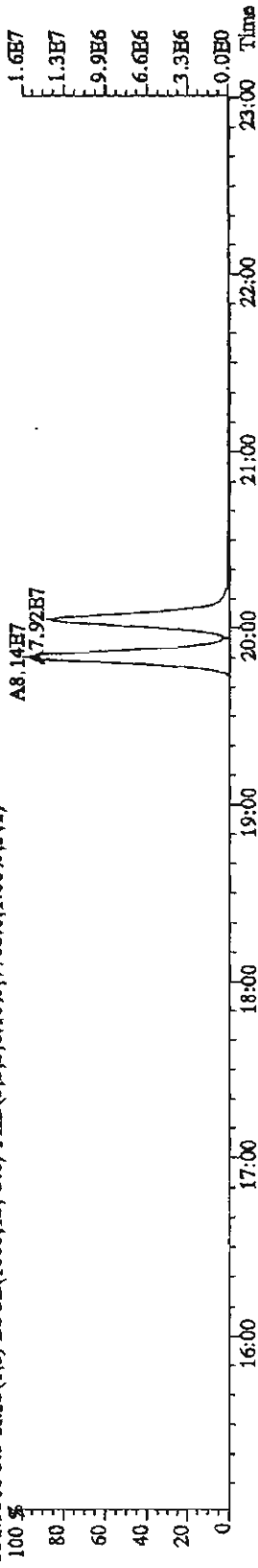
File: 22FBI1A4D5 #1-530 Acq: 22-FEB-2011 14:22:11 GC HI + Voltage SIR_Auhspec-UltimaE
 Sample#3 Text: ST0222A :CS-1 10DXN503 AS Exp: DIOXINRES
 327.8847 S:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,88.0,1.00%,F,T)



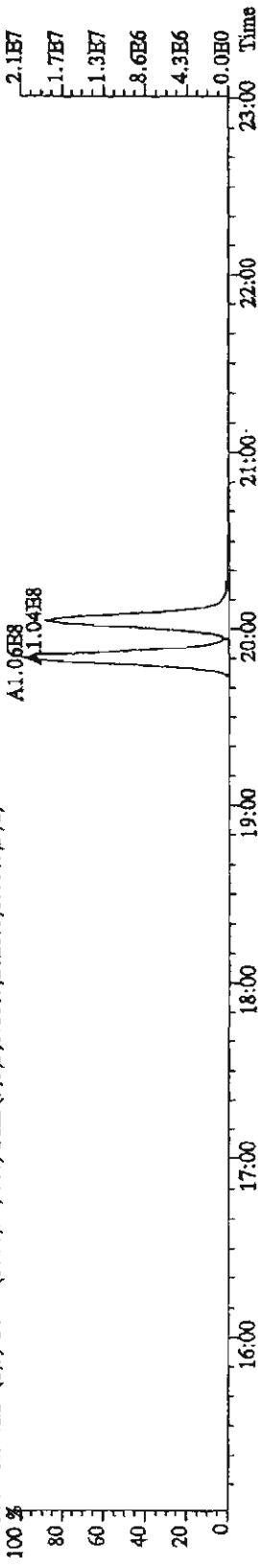
327.8847 S:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,88.0,1.00%,F,T)



331.9368 S:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,7708.0,1.00%,F,T)



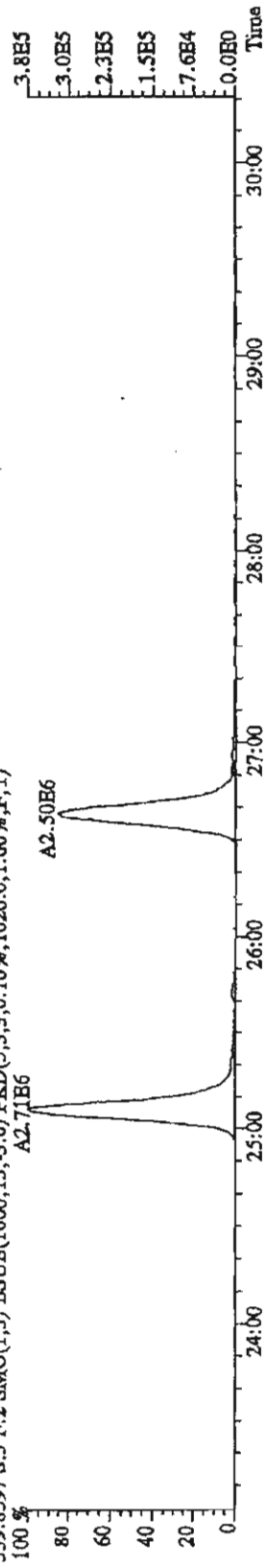
333.9339 S:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,2628.0,1.00%,F,T)



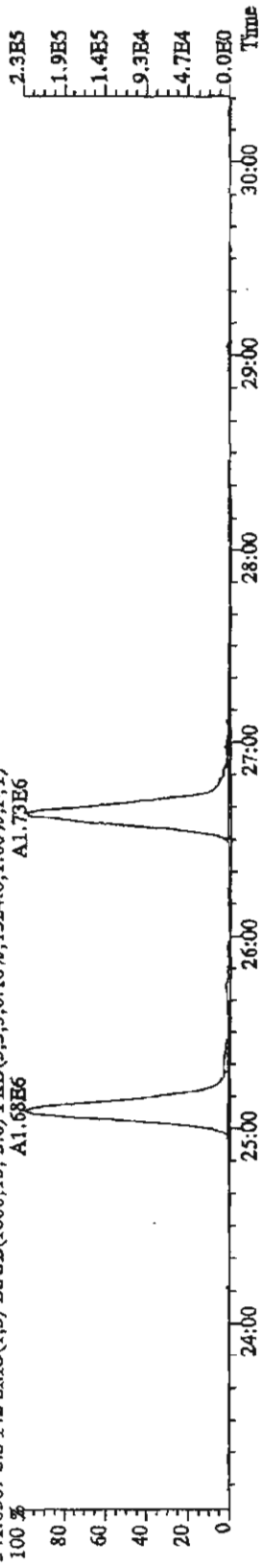
File:22FEB11A4D5 #1-470 Acq:22-FEB-2011 14:22:11 GC EI + Voltage SIR Autospec-UltimaB

Sample#3 Text:ST0222A :CS-1 10DXN503 AS Exp:DIOXINRES

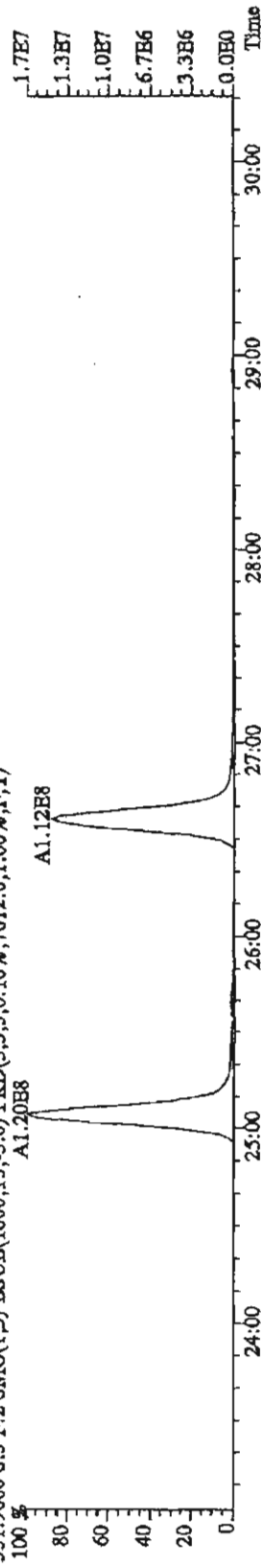
339.8597 S:3 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1020.0,1.00%,F,T)



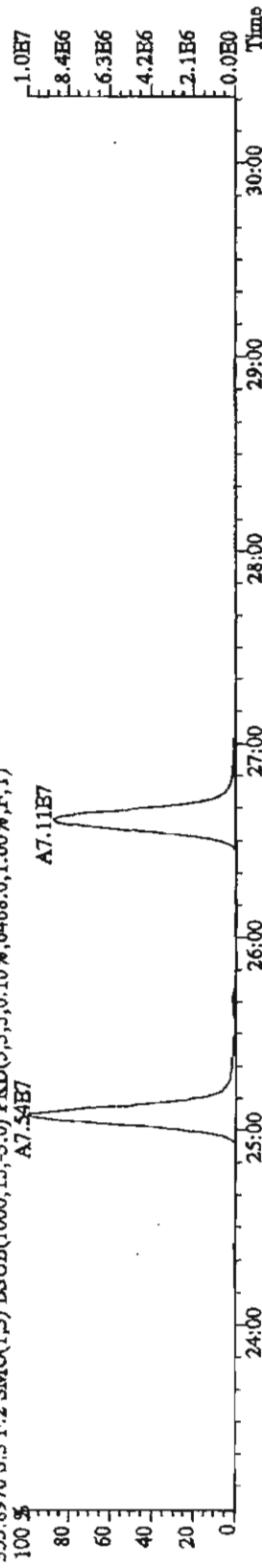
341.8567 S:3 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1524.0,1.00%,F,T)



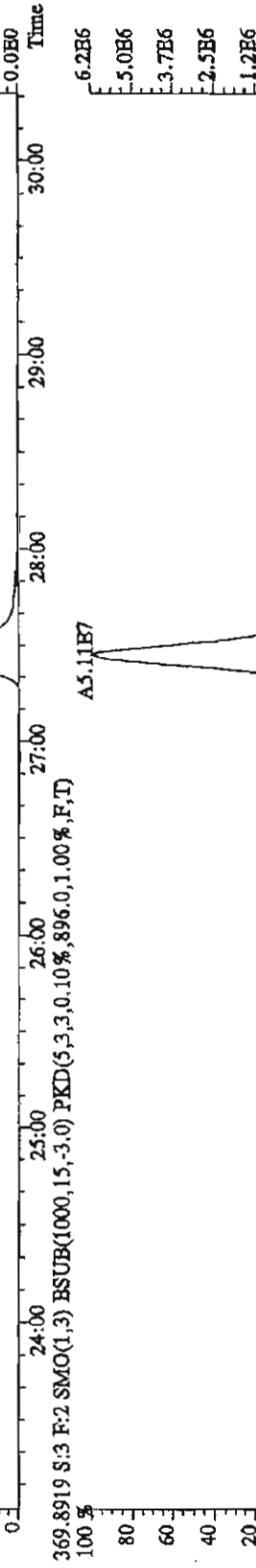
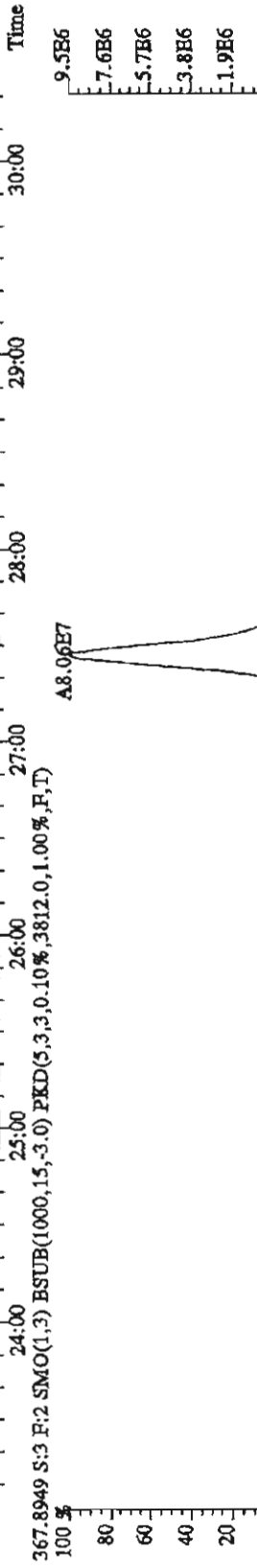
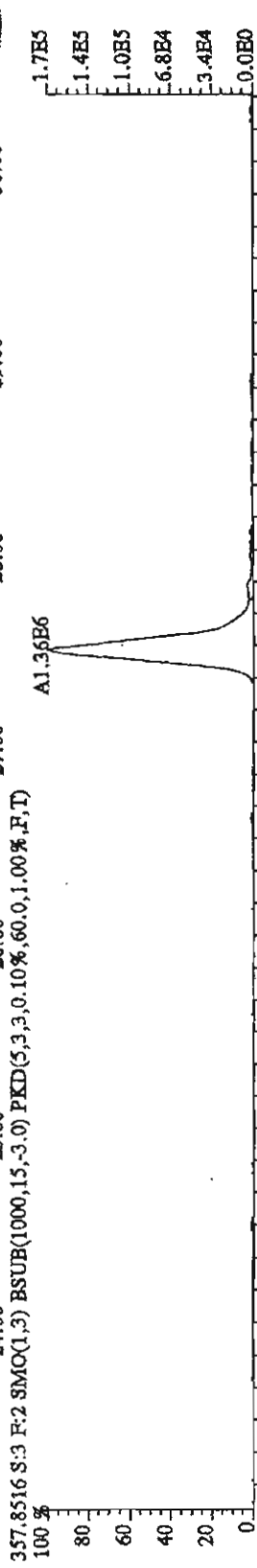
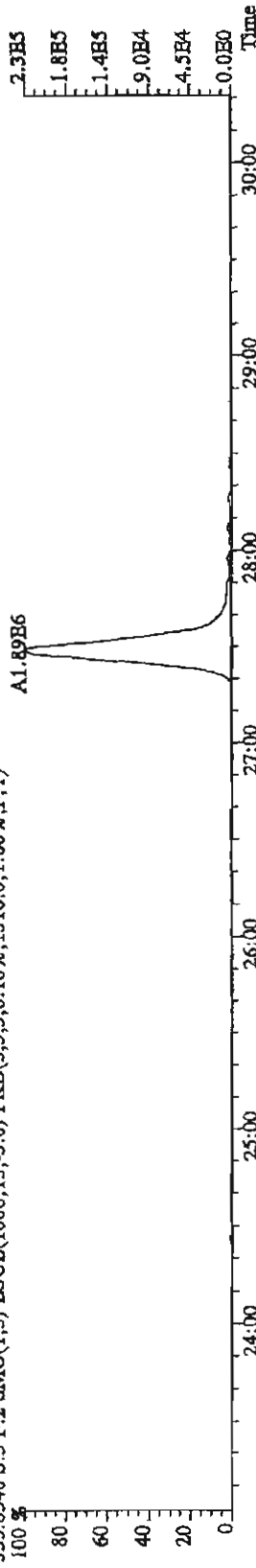
351.9000 S:3 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,7612.0,1.00%,F,T)



353.8970 S:3 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,6468.0,1.00%,F,T)



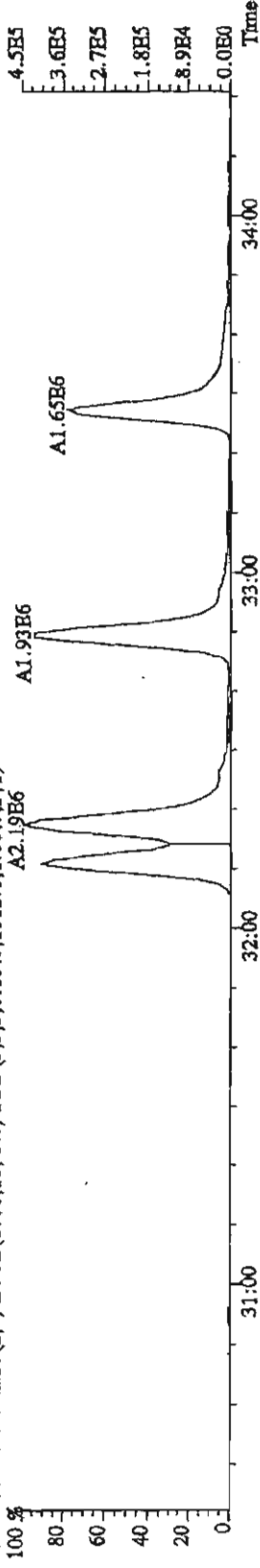
File: 22FE11A4D5 #1-470 Acq: 22-FEB-2011 14:22:11 GC HI+ Voltage SIR Autospec-UltimaB
 Sample#3 Text: ST0222A :CS-1 10DXN503 AS Exp: DIOXINRES
 355.8546 S:3 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1316.0,1.00%,F,T)



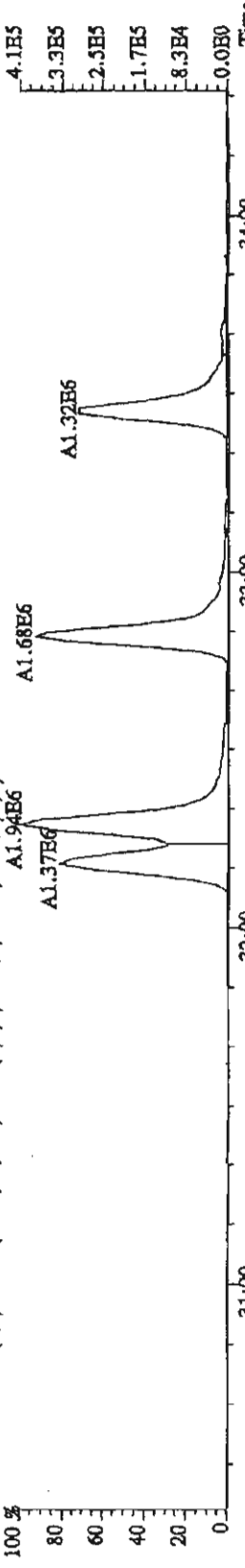
File:22FEB11A4D5 #1-287 Acq:22-FEB-2011 14:22:11 GC EI+ Voltage SIR Autospec-UltimaB

Sample#3 Text:ST0222A :CS-1 10DXN503 AS Exp:DIOXINRES

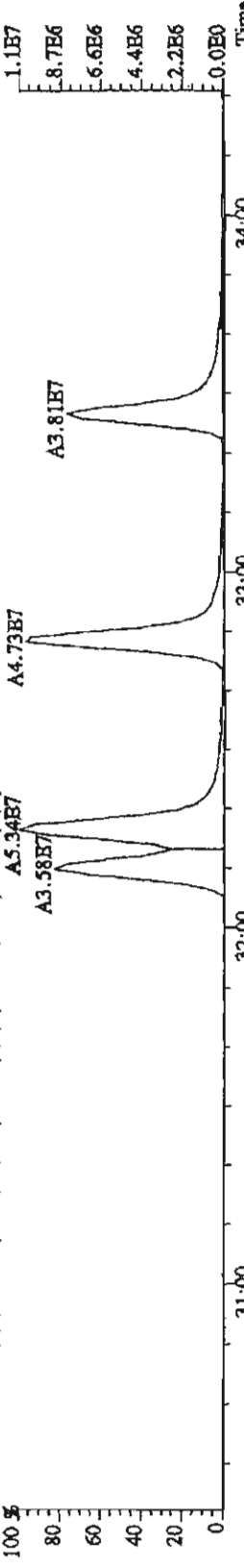
373.8208 S:3 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1012.0,1.00%,F,T)



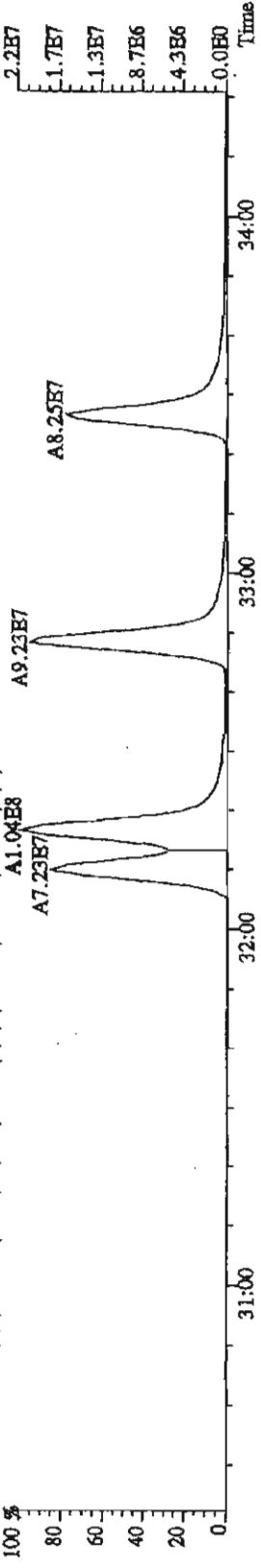
375.8178 S:3 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,996.0,1.00%,F,T)



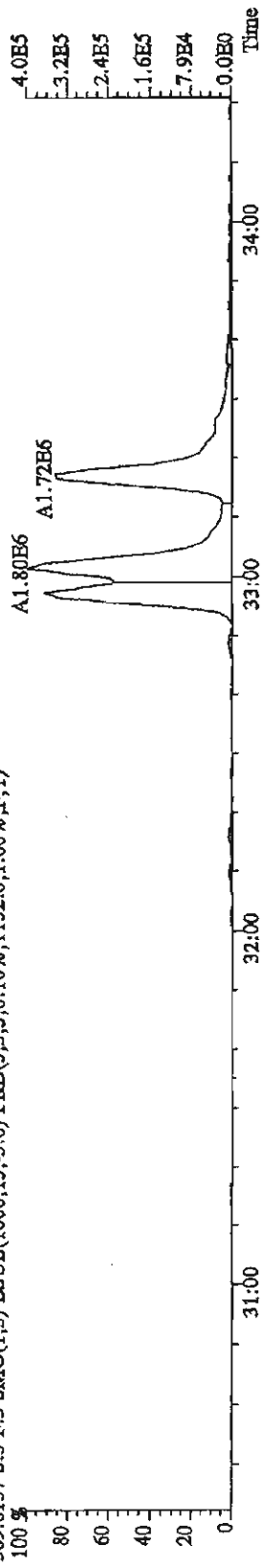
383.8639 S:3 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,72.0,1.00%,F,T)



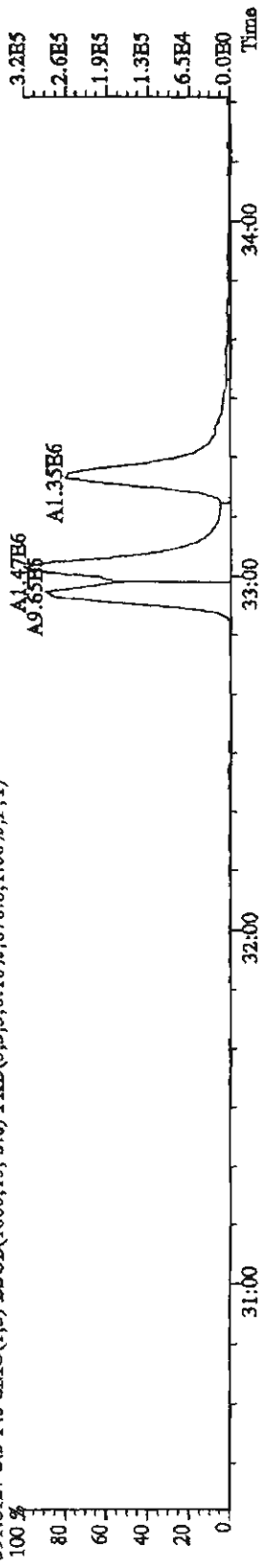
385.8610 S:3 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1768.0,1.00%,F,T)



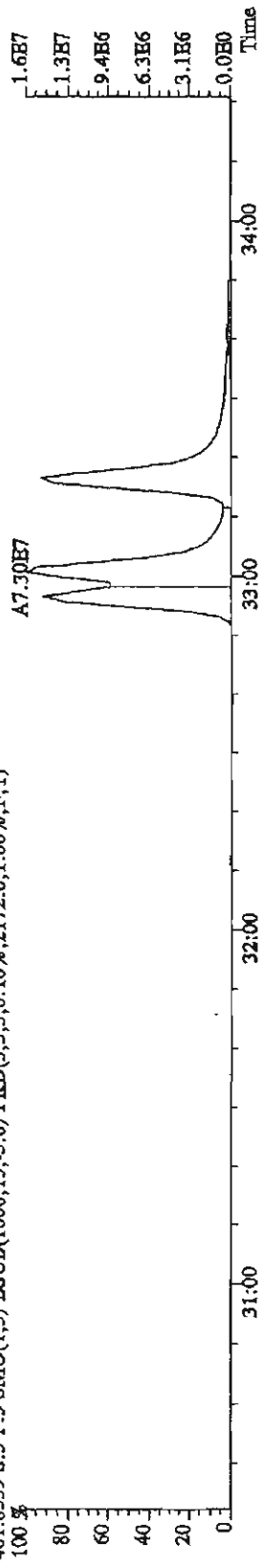
File: 22FBI1A4D5 #1-287 Acq: 22-FEB-2011 14:22:11 GC HI+ Voltage SIR AutoSpec-UltimaR
 Sample#3 Text: ST0222A :CS-1 10DXN503 AS Exp: DIOXINRES
 389.8157 S:3 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,0,10%,1152.0,1.00%,F,T)



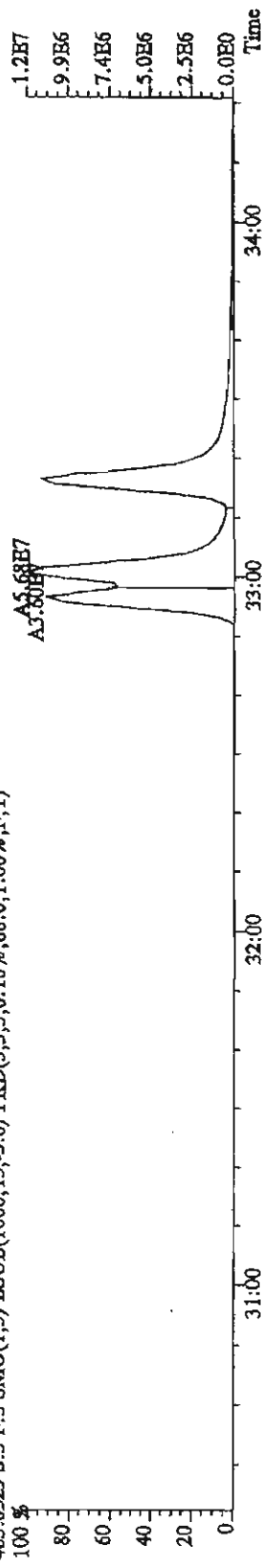
391.8127 S:3 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,0,10%,676.0,1.00%,F,T)



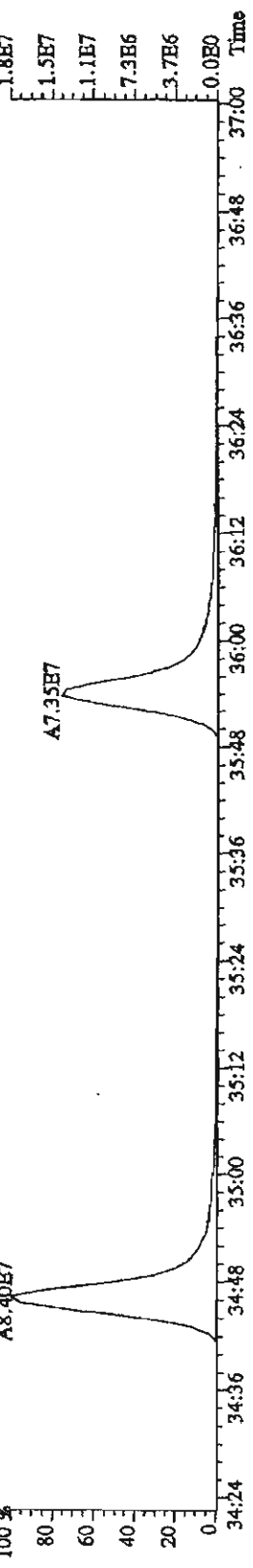
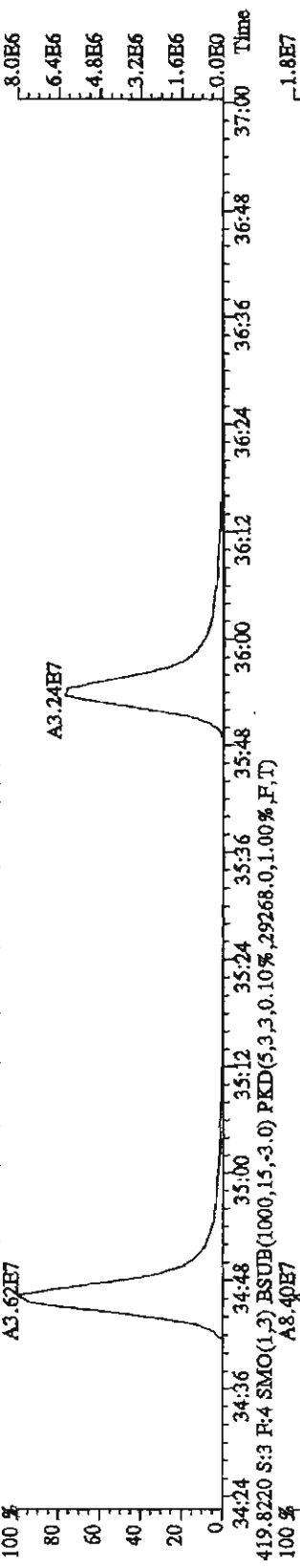
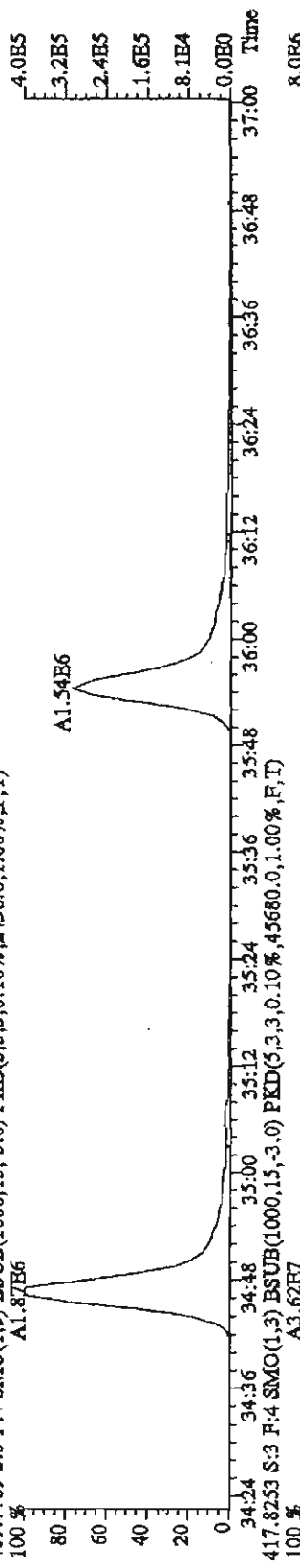
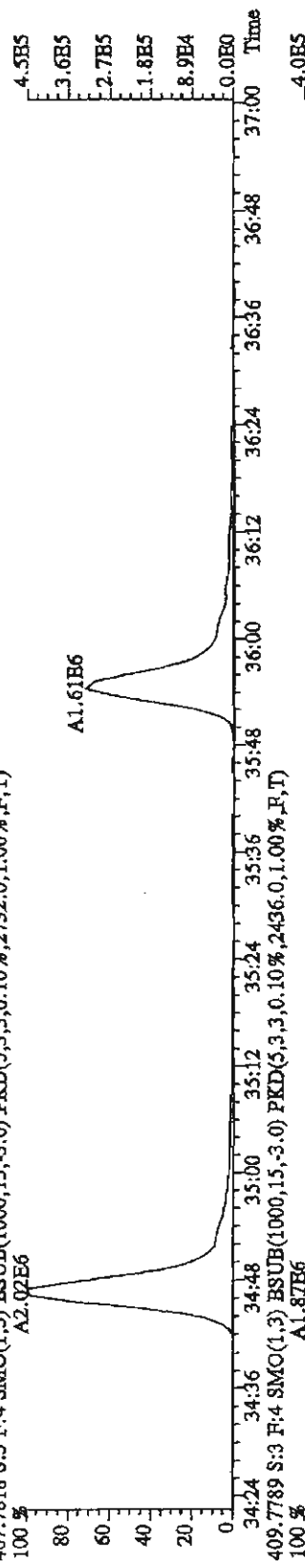
401.8559 S:3 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,0,10%,2172.0,1.00%,F,T)



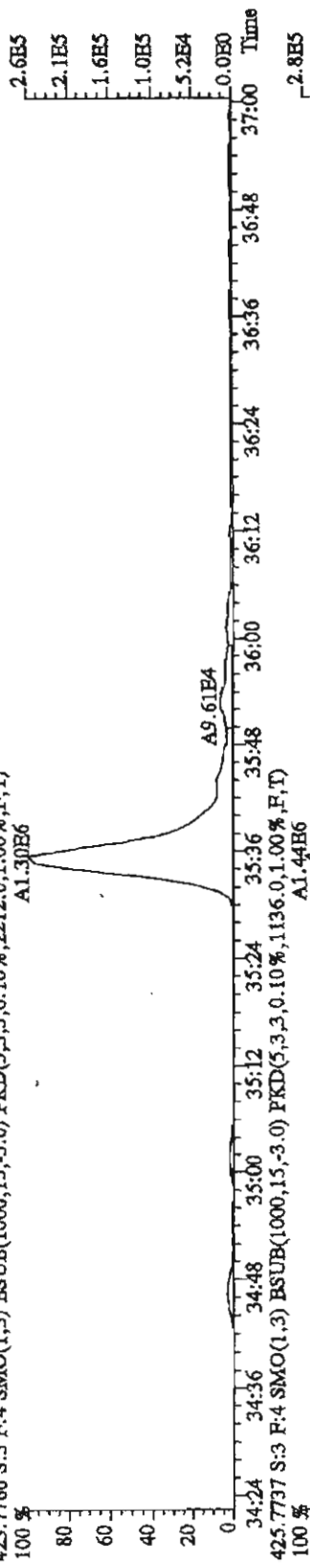
403.8529 S:3 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,0,10%,88.0,1.00%,F,T)



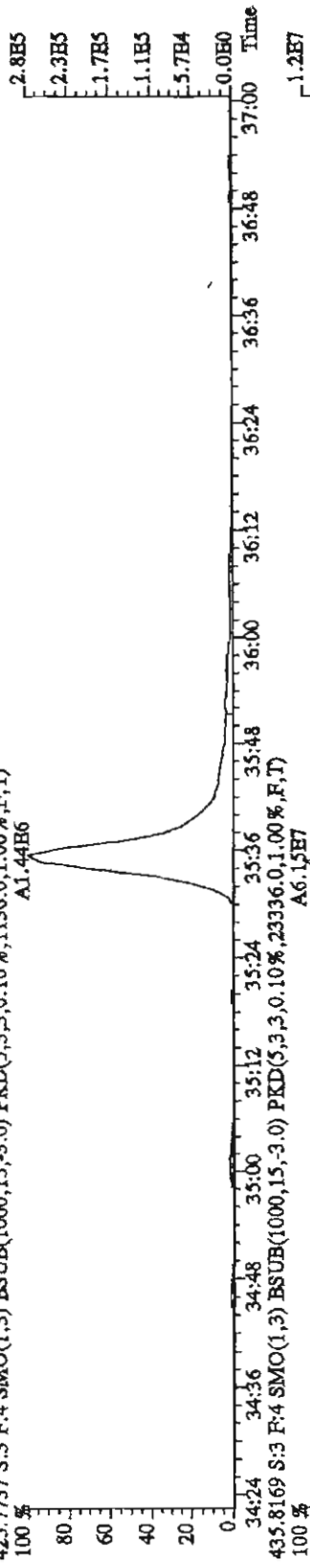
File: 22FB11A4D5 #1-200 Acq: 22-FBB-2011 14:22:11 GC EI+ Voltage SIR Autospec-UltimaB
 Sample#3 Text: ST0222A :CS-1 10DXN503 AS Exp: DIOXINRES
 407.7818 S:3 F:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,2732.0,1.00%,F,T)
 A2.02E6



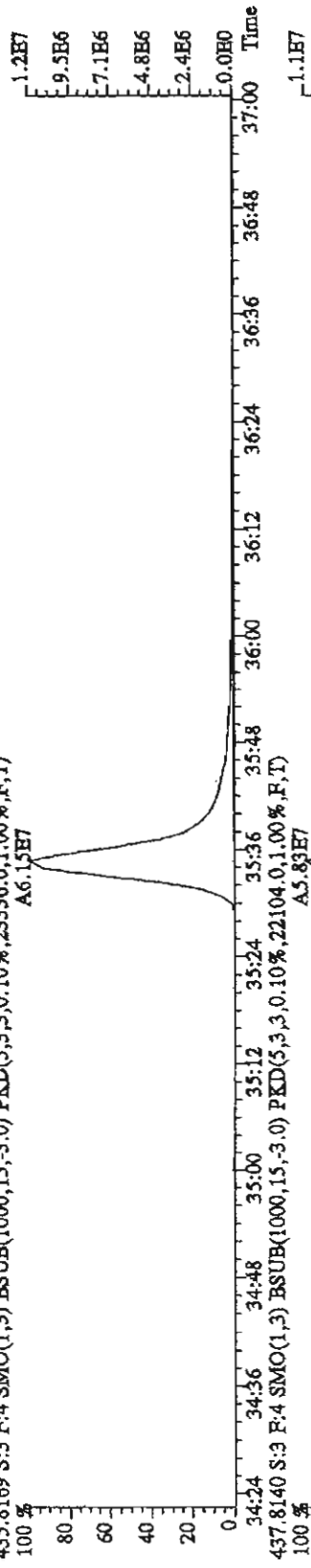
File: 22FEB11A4D5 #1-200 Acq: 22-FEB-2011 14:22:11 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 Text: ST0222A :CS-1 10DXN503 AS Exp: DIOXINES
 423.7766 S:3 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2212,0.1,0.0%,F,T)
 A1.30E6



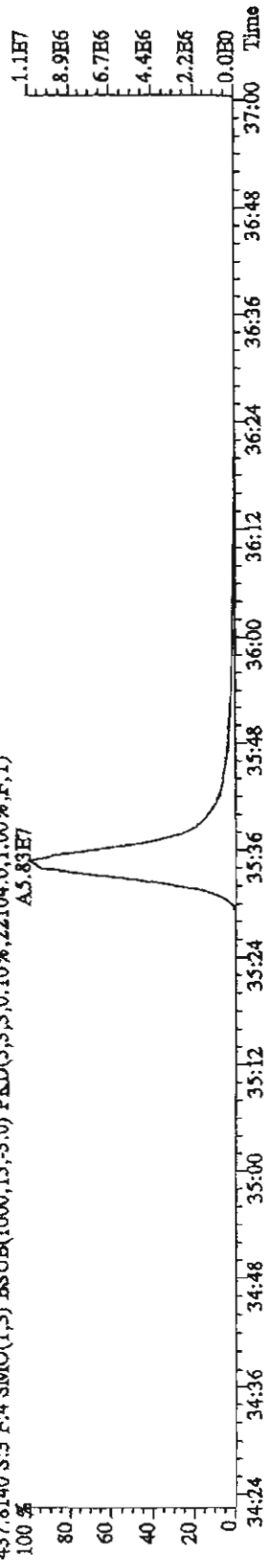
425.7737 S:3 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1136,0.1,0.0%,F,T)
 A1.44E6



435.8169 S:3 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,23336,0.1,0.0%,F,T)
 A6.15E7



437.8140 S:3 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,22104,0.1,0.0%,F,T)
 A5.83E7



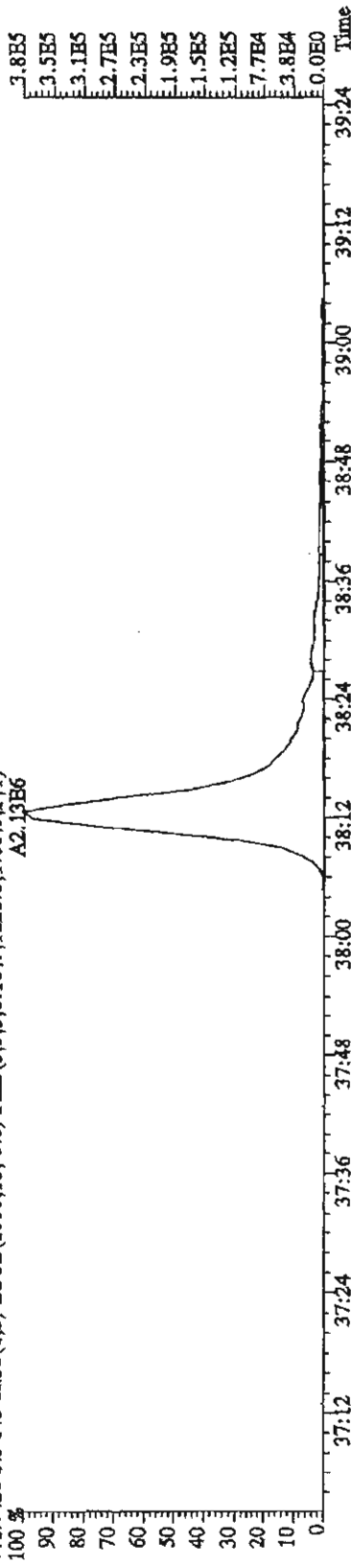
437.8140 S:3 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,22104,0.1,0.0%,F,T)
 A1.1E7

File: 22FB11A4D5 #1-193 Acq: 22-FEB-2011 14:22:11 GC EI+ Voltage SIR Autospec-UltimaB

Sample#3 Text: ST0222A : CS-1 10DXN503 AS Exp: DIOXINRES

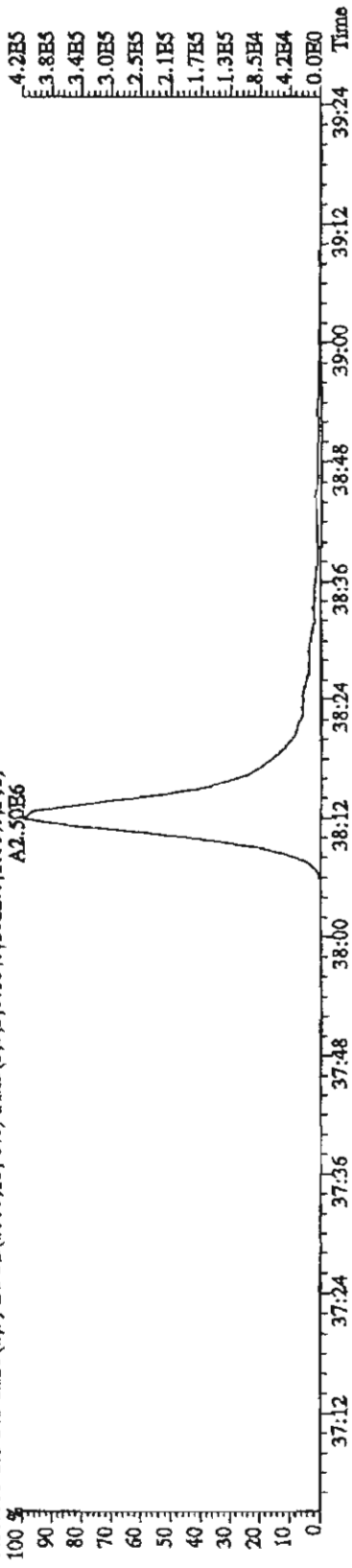
441.7428 S:3 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1612.0,1.00%,F,T)

A2.13B6



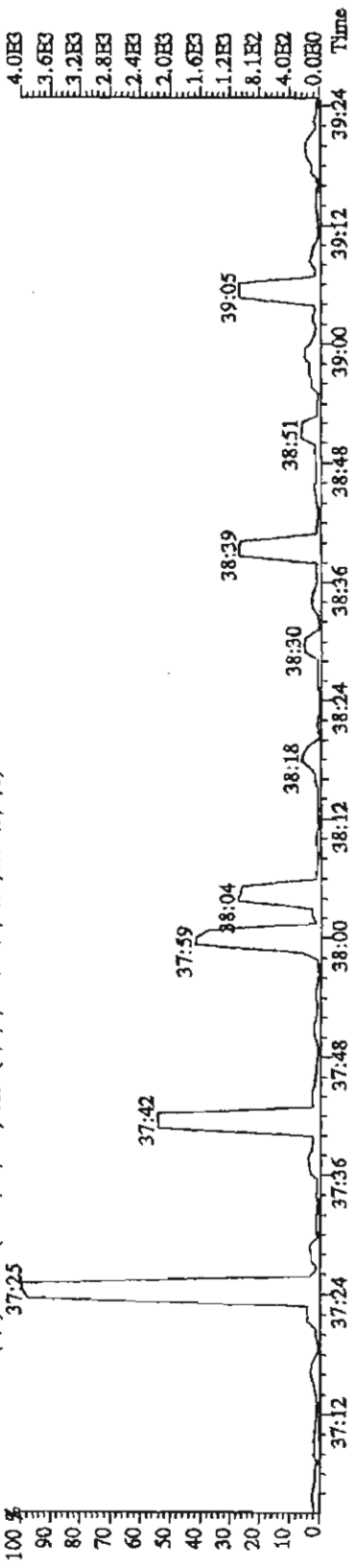
443.7399 S:3 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1612.0,1.00%,F,T)

A2.50B6

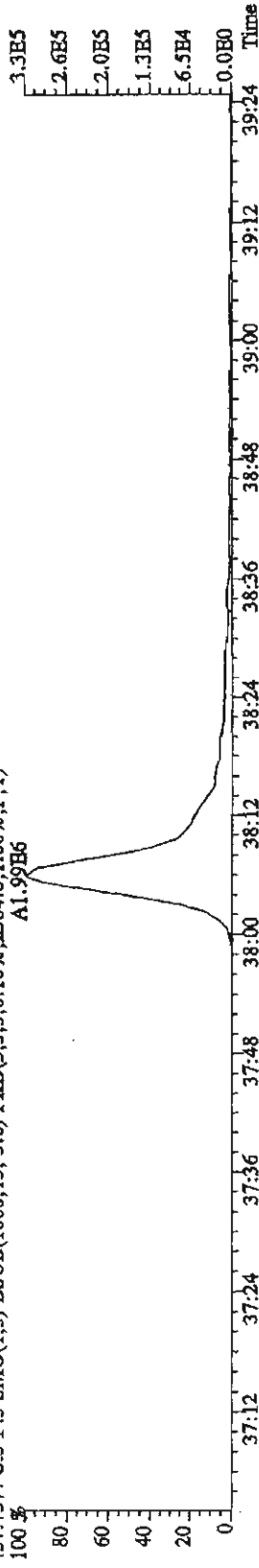


513.6775 S:3 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,5,100.00%,68.0,1.00%,F,T)

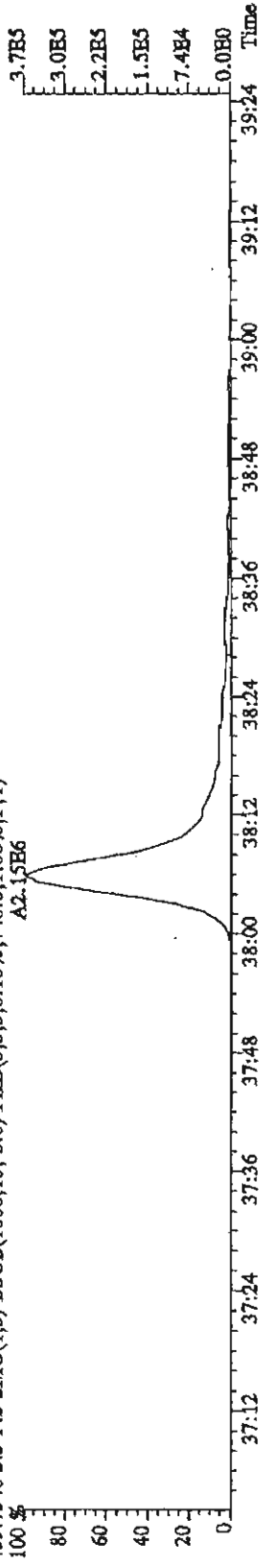
37:25



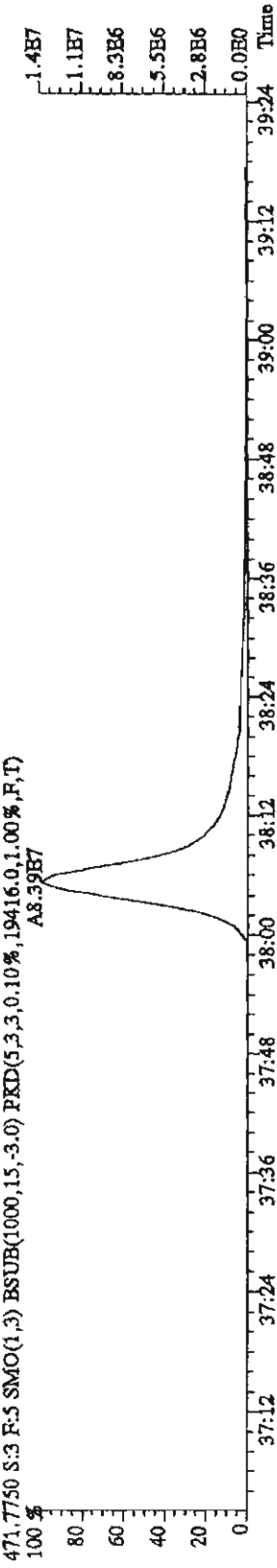
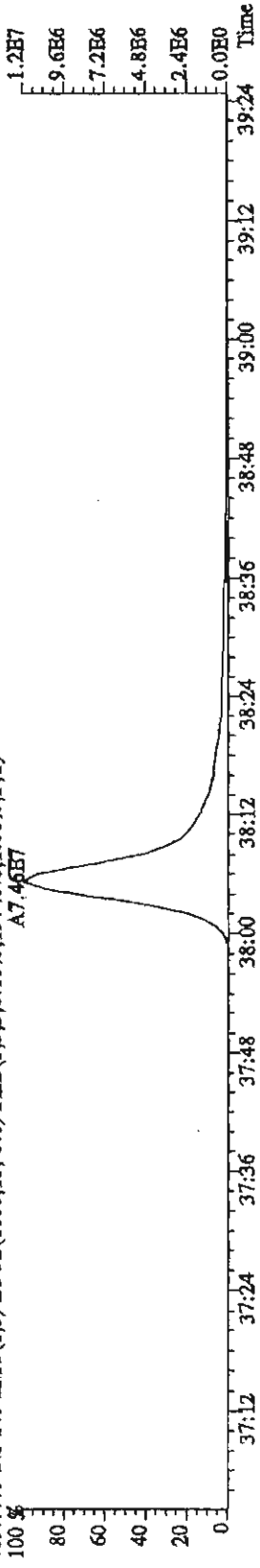
File: 22EB11A4D5 #1-193 Acq: 22-FHB-2011_14:22:11 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#3 Text: ST0222A :CS-1 IODXN503 AS Exp: DIOXINRES
 457.7377 S:3 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,740.0,1.00%,R,T)
 A1.59B6



469.7779 S:3 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,19740.0,1.00%,R,T)
 A7.46B7



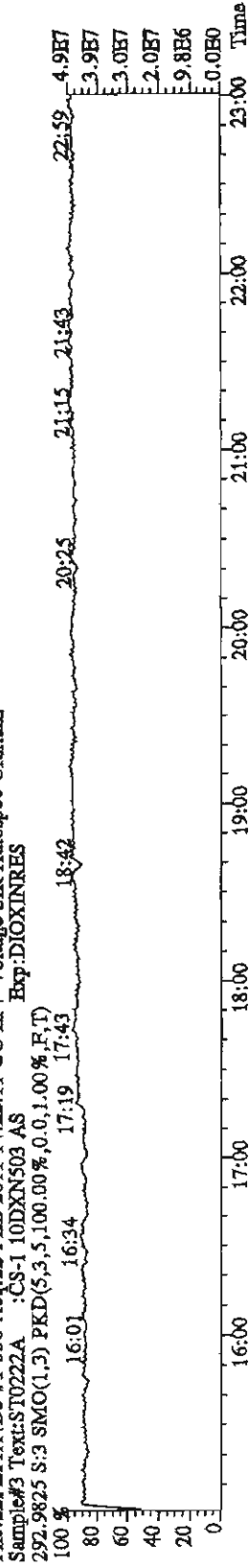
471.7750 S:3 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,19416.0,1.00%,R,T)
 A8.39B7



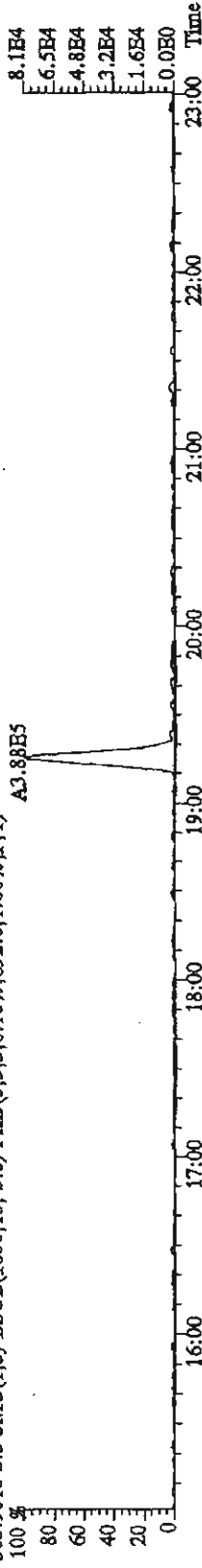
File: 22FBI1A4D5 #1-530 Acq: 22-FEB-2011 14:22:11 GC EI + Voltage SIR Autospec-UltimaB

Sample#3 Text: ST0222A : CS-1 10DXN503 AS

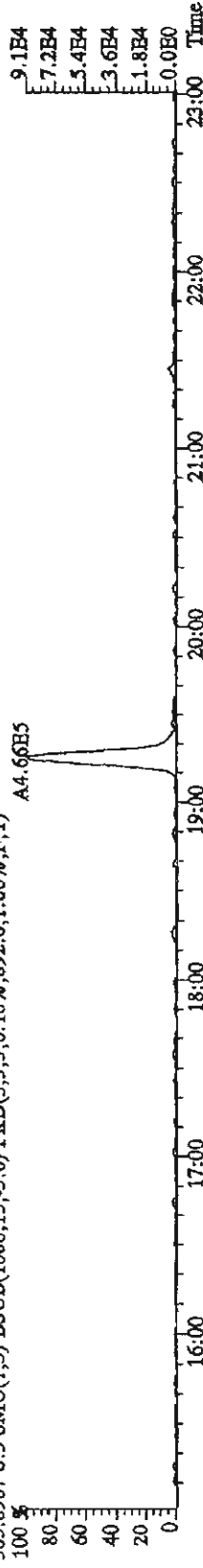
292.9825 S:3 SMO(1.3) PKD(5.3, 5.100.00%, 0.0, 1.00%, F, T)



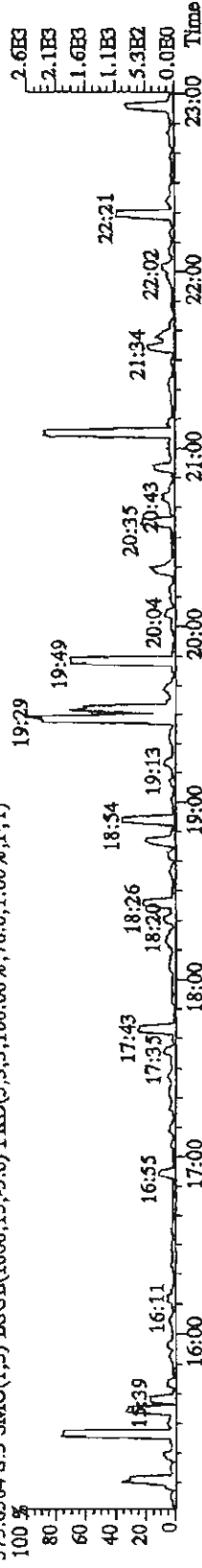
303.9016 S:3 SMO(1.3) BSUB(1000, 15, -3.0) PKD(5.3, 3.0, 10%, 892.0, 1.00%, F, T)



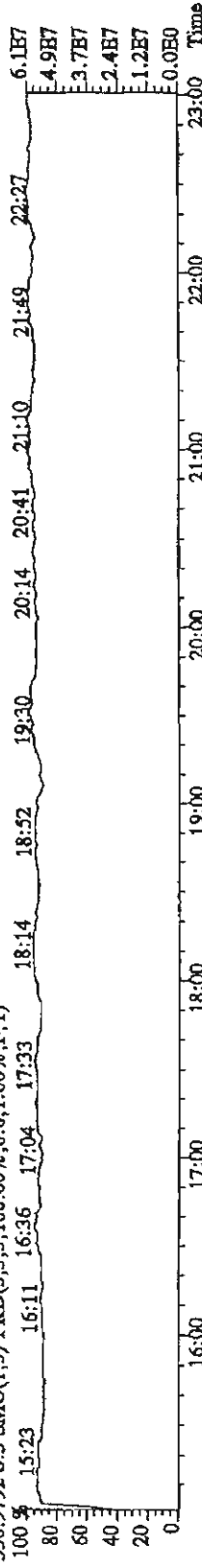
305.8987 S:3 SMO(1.3) BSUB(1000, 15, -3.0) PKD(5.3, 3.0, 10%, 892.0, 1.00%, F, T)



375.8364 S:3 SMO(1.3) BSUB(1000, 15, -3.0) PKD(5.3, 3.100.00%, 76.0, 1.00%, F, T)



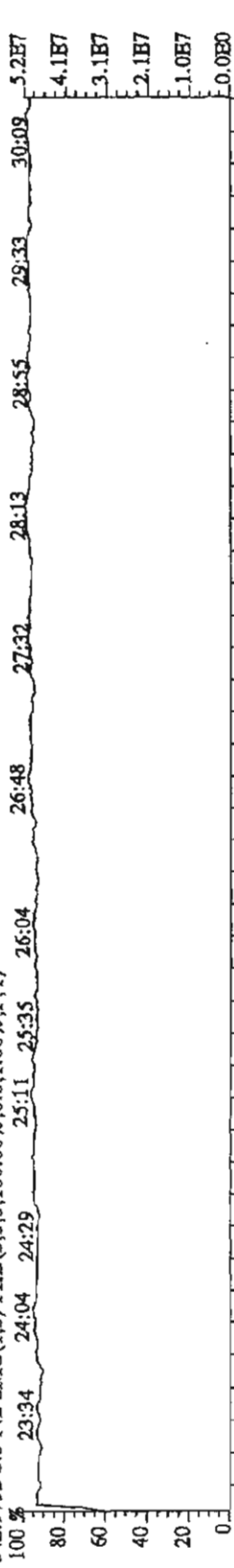
330.9792 S:3 SMO(1.3) PKD(5.3, 3.100.00%, 0.0, 1.00%, F, T)



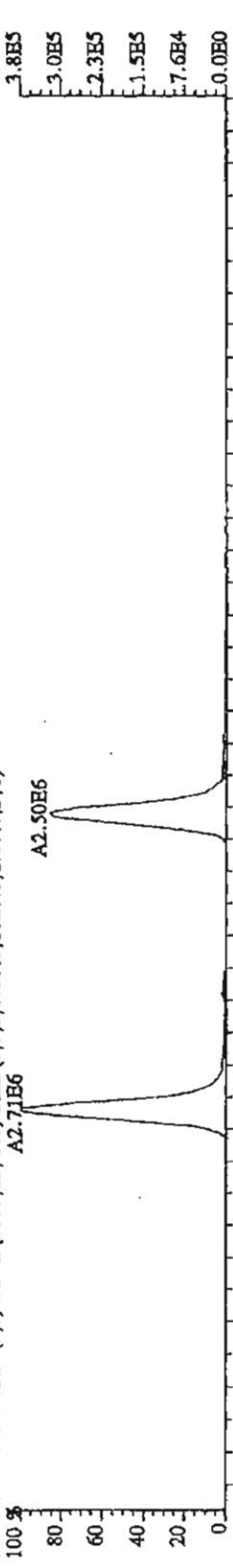
File: 22FEB11A4D5 #1-470 Acq: 22-FEB-2011 14:22:11 GC EI+ Voltage SIR Autospec-UltimaE

Sample#3 Text: ST0222A : CS-1 10DXN503 AS Exp: DIOXINRES

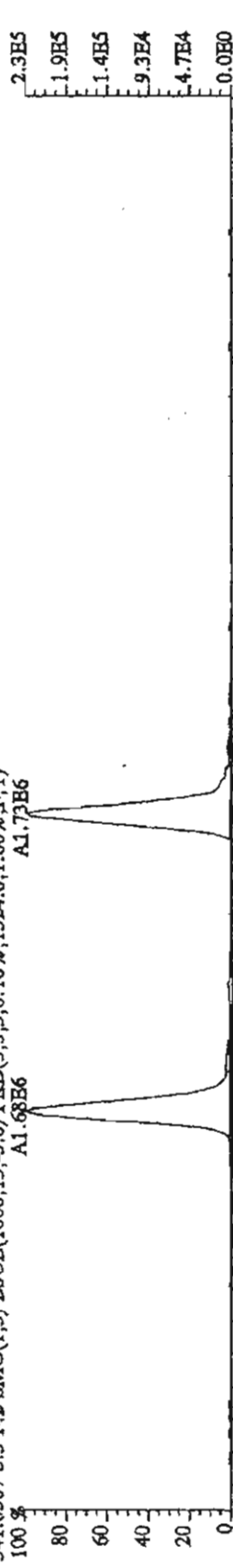
342.9792 S:3 F:2 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



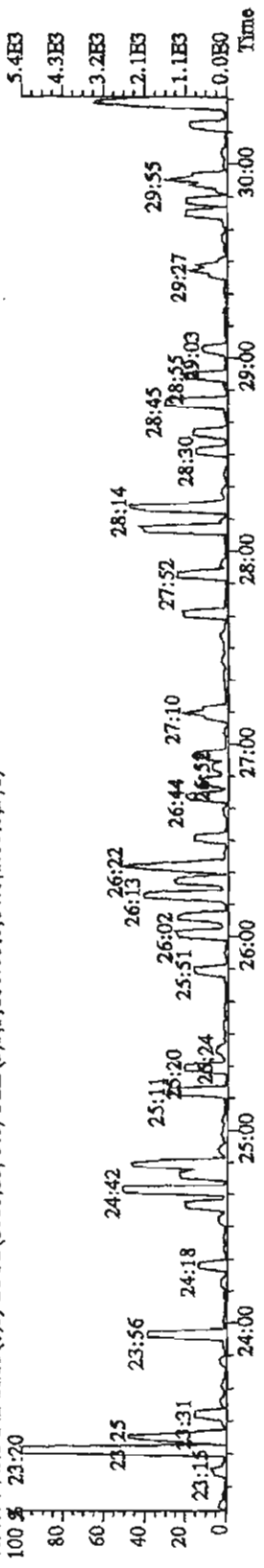
339.8597 S:3 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1020.0,1.00%,F,T)



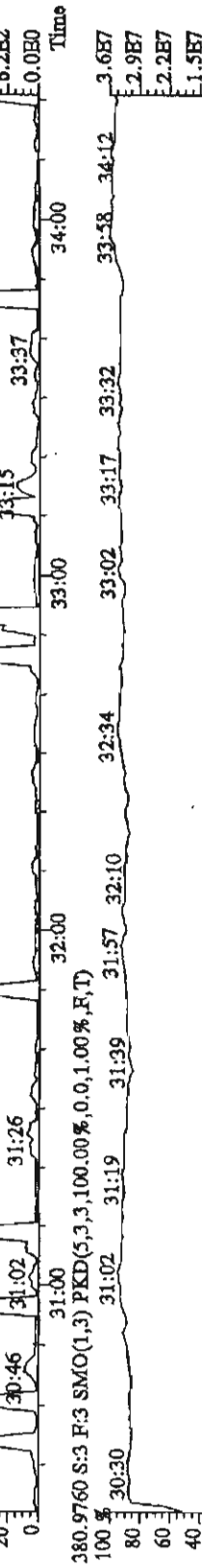
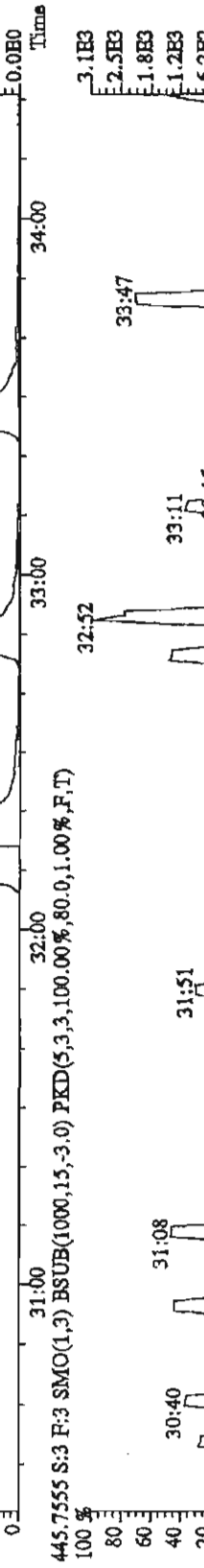
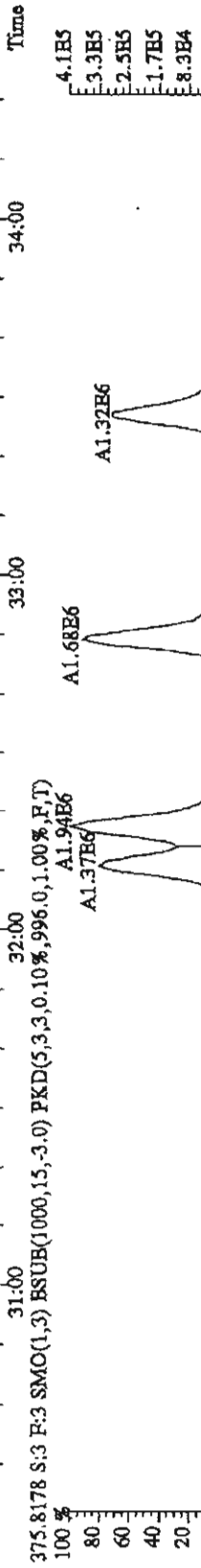
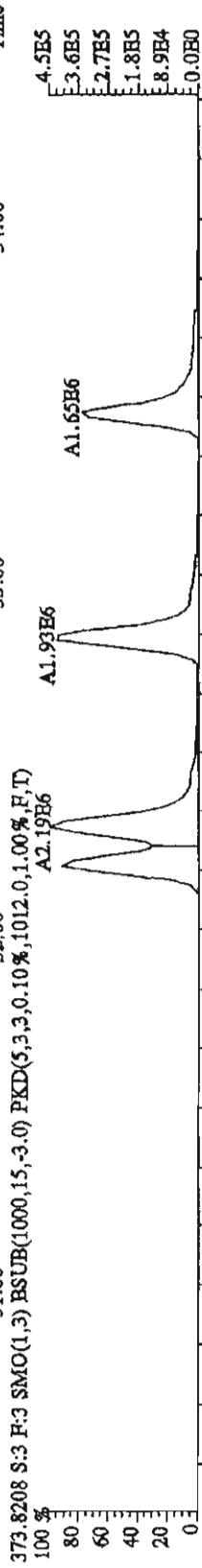
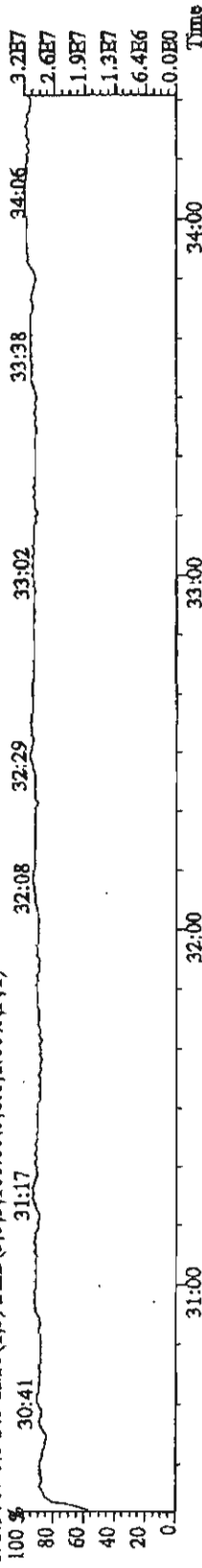
341.8567 S:3 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1524.0,1.00%,F,T)



409.7974 S:3 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,84.0,1.00%,F,T)



File: 22FB11A4D5 #1-287 Acq: 22-FEB-2011 14:22:11 GC EI+ Voltage SIR AutoSpec-UltimaB
 Sample#3 Text: ST0222A :CS-1 10DXN503 AS Exp: DIOXINRES
 392.9760 S:3 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

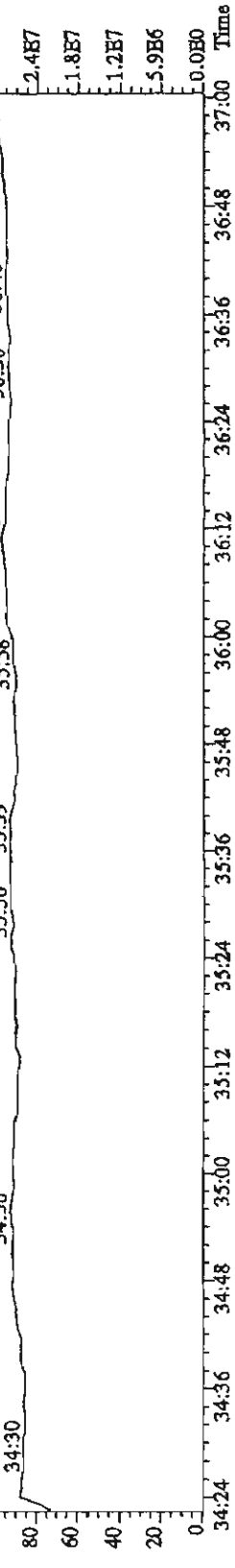


File: 22FE11A4D5 #1-200 Acq: 22-FEB-2011 14:22:11 GC EI+ Voltage SIR Autospec-UltimaE

Sample#3 Text: ST0222A CS-1 10DXN503 AS

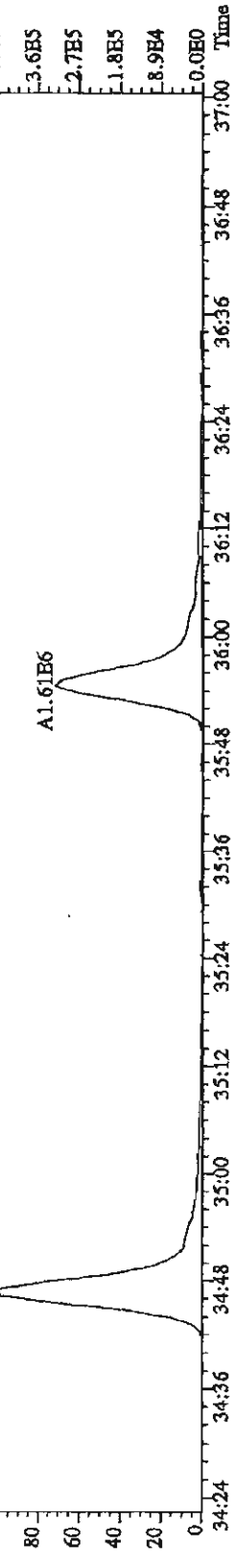
430.9728 S:3 F:4 SMO(1.3) PKD(5,3,3,100.00%,0.0,1.00%,F,T) Exp: DIOXINRES

100% 34:30 34:56 35:30 35:39 36:11 36:30 36:40 36:48 36:56 37:00 Time



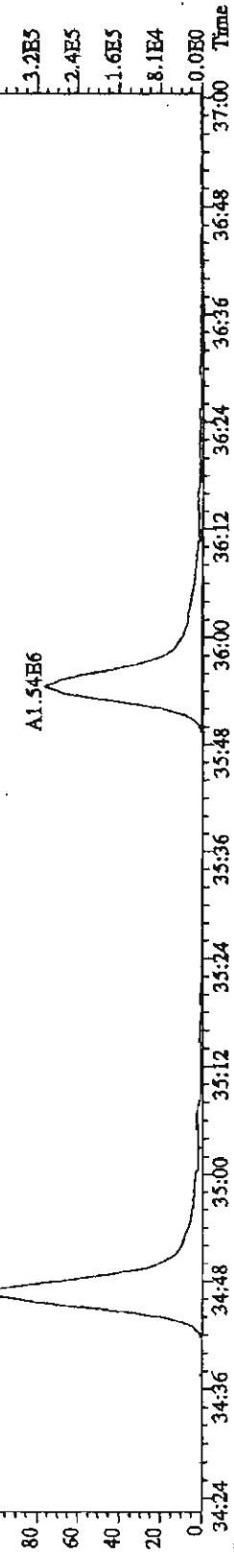
407.7818 S:3 F:4 SMO(1.3) ESUB(1000,15,-3.0) PKD(5,3,3,0.10%,2732.0,1.00%,F,T)

100% 34:24 34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 36:56 37:00 Time



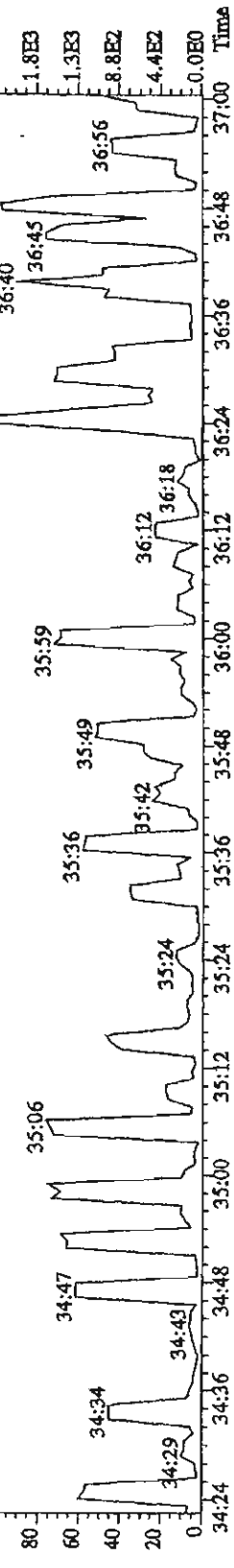
409.7789 S:3 F:4 SMO(1.3) ESUB(1000,15,-3.0) PKD(5,3,3,0.10%,2436.0,1.00%,F,T)

100% 34:24 34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 36:56 37:00 Time



479.7165 S:3 F:4 SMO(1.3) ESUB(1000,15,-3.0) PKD(5,3,3,100.00%,120.0,1.00%,F,T)

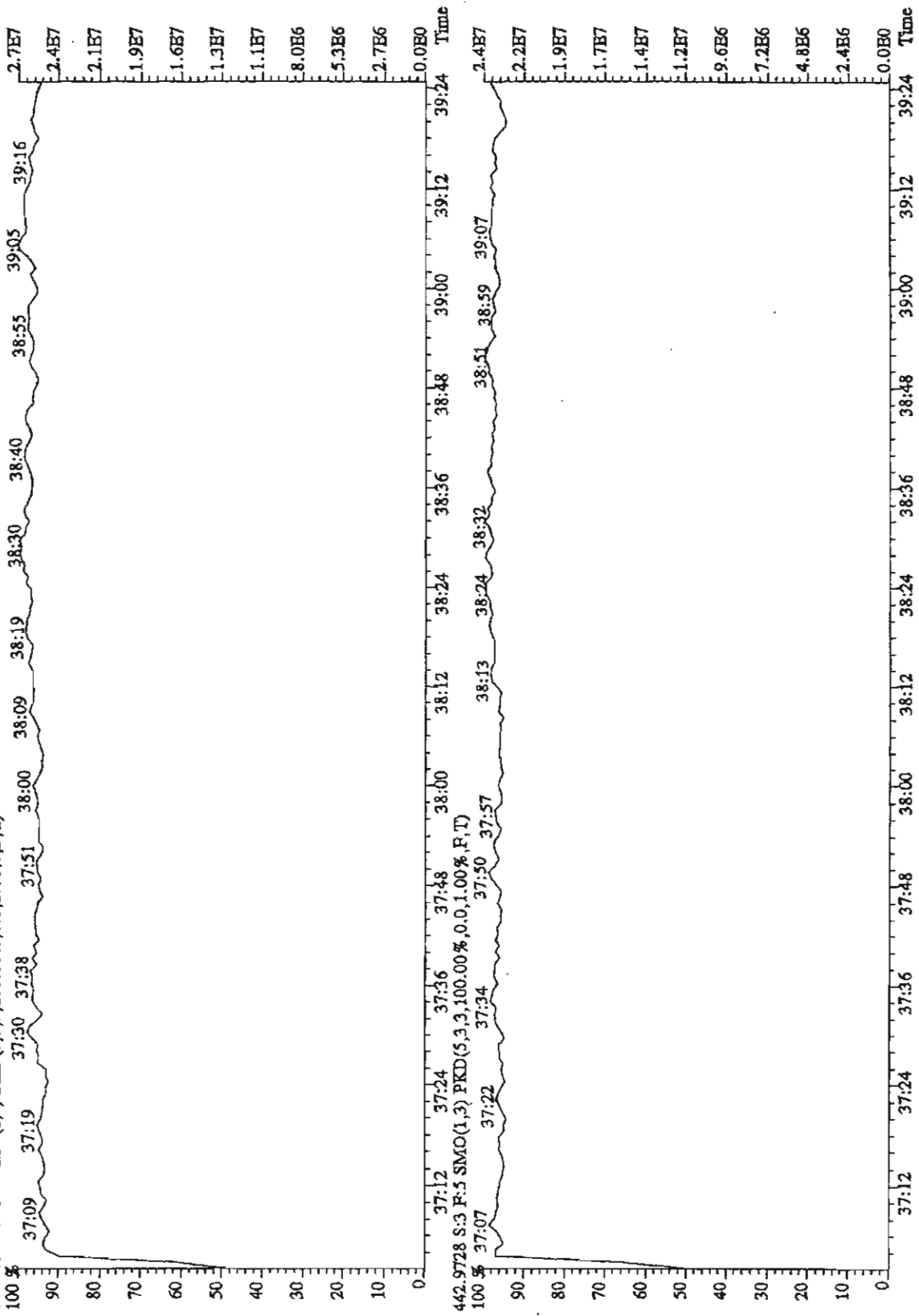
100% 34:24 34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 36:56 37:00 Time



File: 22FEB11A4D5 #1-193 Acq: 22-FEB-2011 14:22:11 GC EL+ Voltage SIR Autospec-UltimaB

Sample#3 Text: ST0222A :CS-1 10DXN503 AS

454.9728 S:3 F:5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T) Exp: DIOXINRBS



Run #3 Filename 22FEB11A4D5 S: 4 I: 1
 Acquired: 22-FEB-11 15:06:45 Processed: 22-FEB-11 16:07:02
 Run: 15SB098D2 Analyte: 1613 Cal: 16130222114D5

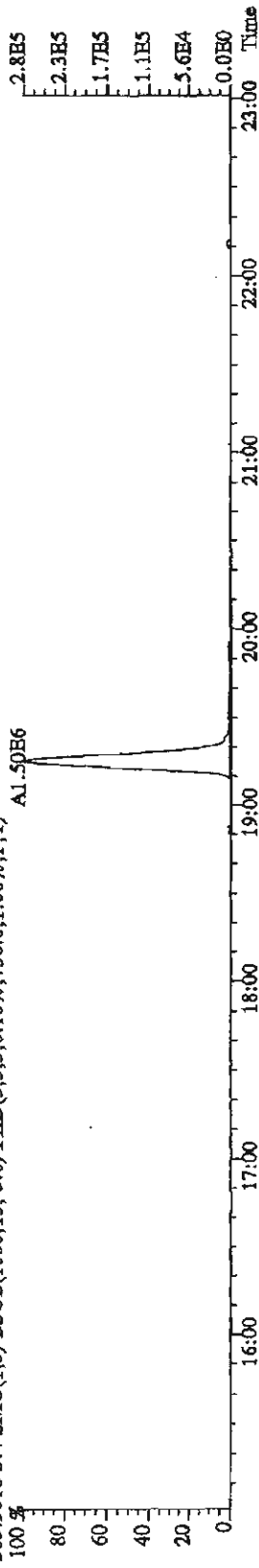
Comments:

Sample text: ST0222B :CS-2 10DXN504 AS

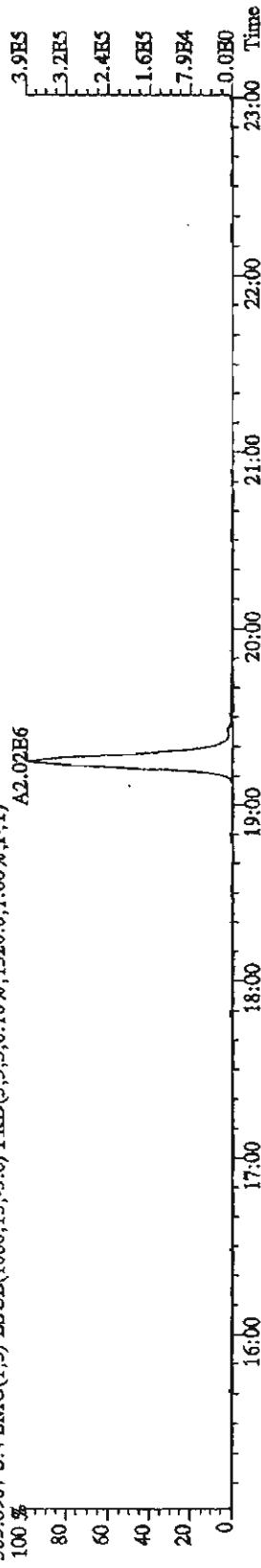
Name	Resp	RA	RT	RRF		Mod?
13C-1,2,3,4-TCDD	193759500	0.78 y	19:50	-	100.00	n
13C-2,3,7,8-TCDF	220070800	0.77 y	19:14	1.1358	100.00	n
2,3,7,8-TCDF	3520850	0.74 y	19:15	0.7999	2.00	n
Total TCDF	-	- n	-	0.7999	2.00	n
13C-2,3,7,8-TCDD	191097700	0.78 y	20:03	0.9863	100.00	n
2,3,7,8-TCDD	3477940	0.73 y	20:04	0.9100	2.00	n
Total TCDD	-	- n	-	0.9100	2.00	n
37Cl-2,3,7,8-TCDD	5348620	1.00 y	20:04	1.3802	2.00	n
13C-1,2,3,7,8-PeCDF	198094600	1.61 y	25:04	1.0224	100.00	n
1,2,3,7,8-PeCDF	19136150	1.54 y	25:06	0.9660	10.00	n
13C-2,3,4,7,8-PeCDF	195329900	1.60 y	26:37	1.0081	100.00	n
2,3,4,7,8-PeCDF	19221160	1.53 y	26:38	0.9840	10.00	n
Total F2 PeCDF	-	- n	-	0.9750	10.00	n
Total F1 PeCDF	-	- n	-	0.9750	20.00	n
13C-1,2,3,7,8-PeCDD	135428900	1.56 y	27:27	0.6990	100.00	n
1,2,3,7,8-PeCDD	14196020	1.43 y	27:29	1.0482	10.00	n
Total PeCDD	-	- n	-	1.0482	10.00	n
13C-1,2,3,7,8,9-HxCDD	134074900	1.26 y	33:17	-	100.00	n
13C-1,2,3,4,7,8-HxCDF	116287100	0.51 y	32:10	0.8673	100.00	n
1,2,3,4,7,8-HxCDF	13689350	1.15 y	32:11	1.1772	10.00	n
13C-1,2,3,6,7,8-HxCDF	159431800	0.52 y	32:17	1.1891	100.00	n
1,2,3,6,7,8-HxCDF	17538560	1.12 y	32:18	1.1001	10.00	n
13C-2,3,4,6,7,8-HxCDF	136599200	0.54 y	32:48	1.0188	100.00	n
2,3,4,6,7,8-HxCDF	15841760	1.15 y	32:49	1.1597	10.00	n
13C-1,2,3,7,8,9-HxCDF	120546600	0.54 y	33:27	0.8991	100.00	n
1,2,3,7,8,9-HxCDF	13531690	1.12 y	33:27	1.1225	10.00	n
Total HxCDF	-	- n	-	1.1373	40.00	n
13C-1,2,3,4,7,8-HxCDD	89598900	1.28 y	32:56	0.6683	100.00	n
1,2,3,4,7,8-HxCDD	9664210	1.22 y	32:57	1.0786	10.00	n
13C-1,2,3,6,7,8-HxCDD	124932000	1.31 y	33:01	0.9318	100.00	n
1,2,3,6,7,8-HxCDD	13104470	1.29 y	33:02	1.0489	10.00	n
1,2,3,7,8,9-HxCDD	13148610	1.28 y	33:17	1.2258	10.00	n
Total HxCDD	-	- n	-	1.1161	30.00	n
13C-1,2,3,4,6,7,8-HpCDF	124132600	0.45 y	34:47	0.9258	100.00	n
1,2,3,4,6,7,8-HpCDF	16588770	1.09 y	34:47	1.3364	10.00	n
13C-1,2,3,4,7,8,9-HpCDF	108224000	0.44 y	35:54	0.8072	100.00	n
1,2,3,4,7,8,9-HpCDF	14037670	1.11 y	35:55	1.2971	10.00	n
Total HpCDF	-	- n	-	1.3181	20.00	n
13C-1,2,3,4,6,7,8-HpCDD	122845800	1.06 y	35:35	0.9162	100.00	n
1,2,3,4,6,7,8-HpCDD	12185840	0.96 y	35:36	0.9920	10.00	n

Total HpCDD	-	-	n	-	0.9920	10.00	n
13C-OCDD	158033000	0.85	y	38:05	0.5893	200.00	n
OCDF	20718560	0.92	y	38:12	1.3110	20.00	n
OCDD	17935170	0.89	y	38:05	1.1349	20.00	n

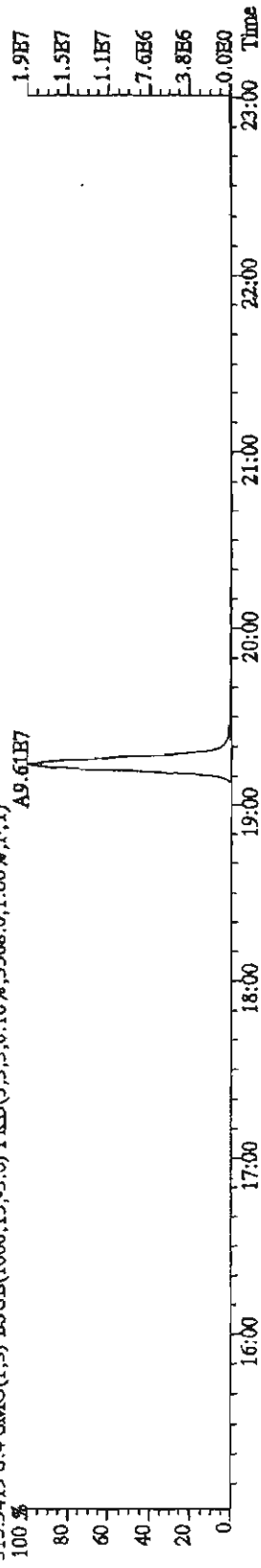
File: 22FBI1A4D5 #1-530 Acq: 22-FEB-2011 15:06:45 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#4 Text: ST0222B : CS-2 10DXN504 AS Exp: DIOXINRES
 303.9016 S:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,736.0,1.00%,F,T)



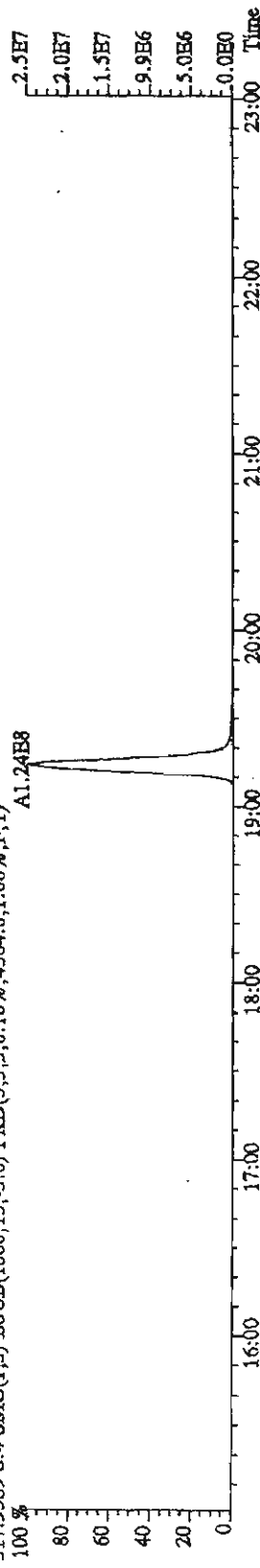
305.8987 S:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1320.0,1.00%,F,T)



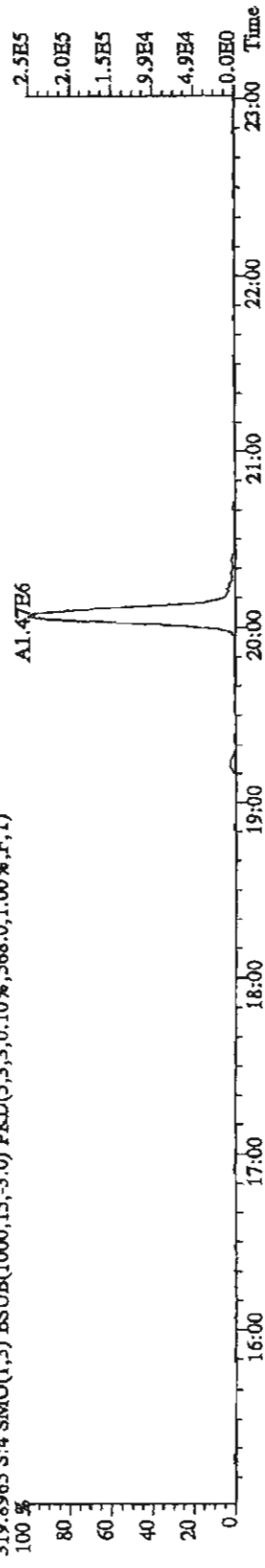
315.9419 S:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3568.0,1.00%,F,T)



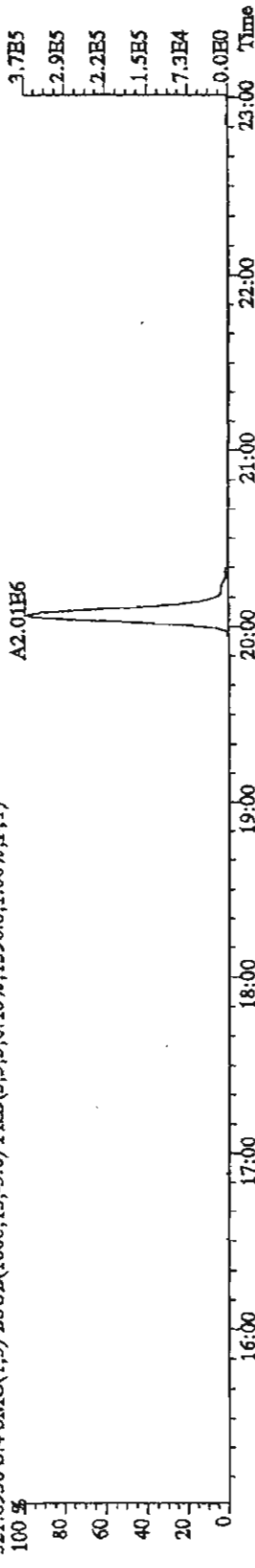
317.9389 S:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4564.0,1.00%,F,T)



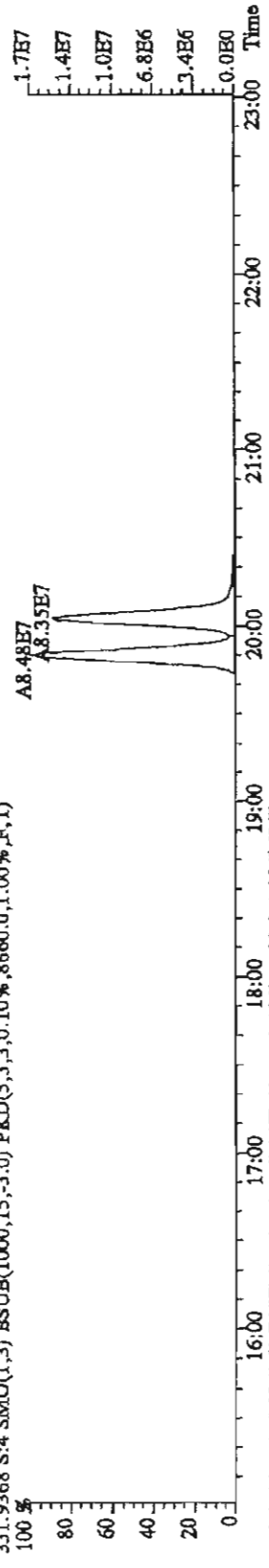
File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 15:06:45 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#4 Text: ST0222B :CS-2 10DXN504 AS Exp: DIOXINRES
 319.8965 S:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1396.0,1.00%,F,T)



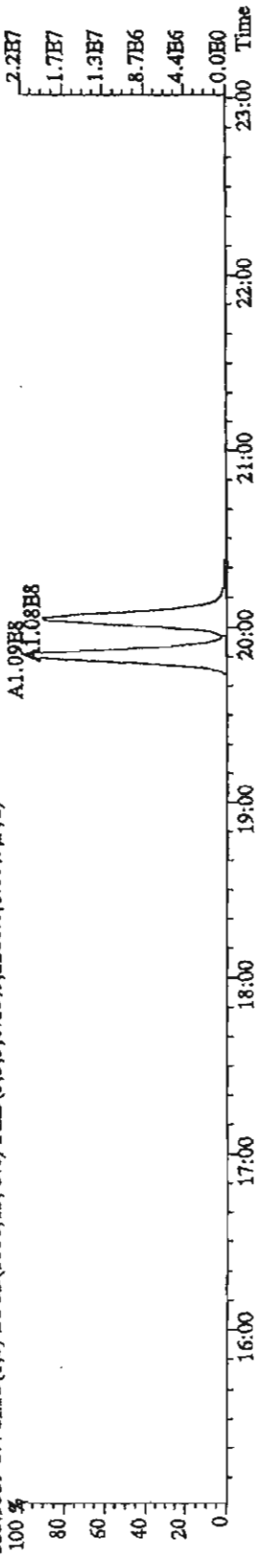
321.8936 S:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1396.0,1.00%,F,T)



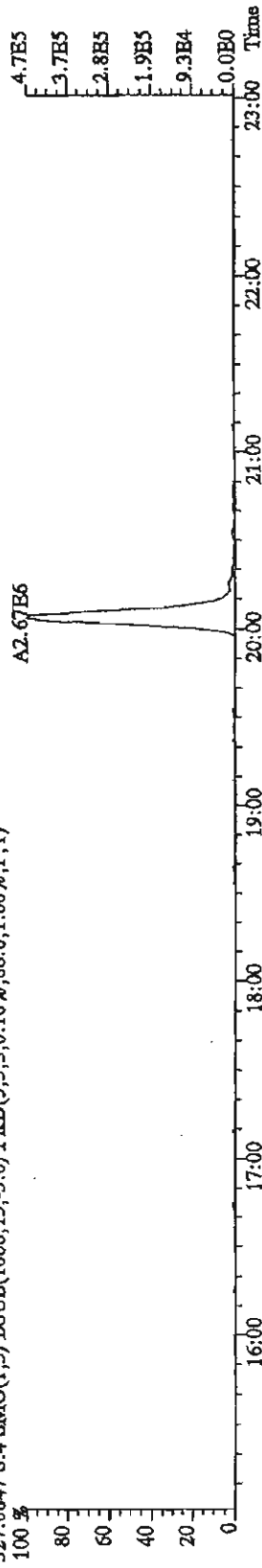
331.9368 S:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,8660.0,1.00%,F,T)



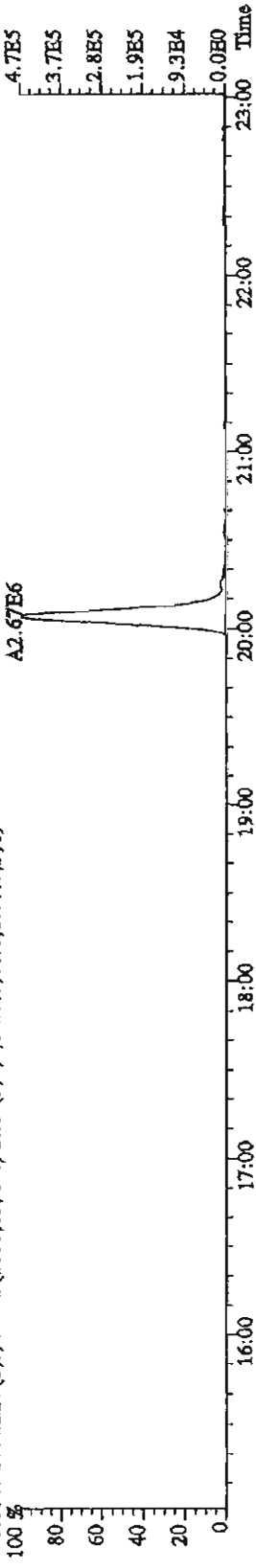
333.9339 S:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2288.0,1.00%,F,T)



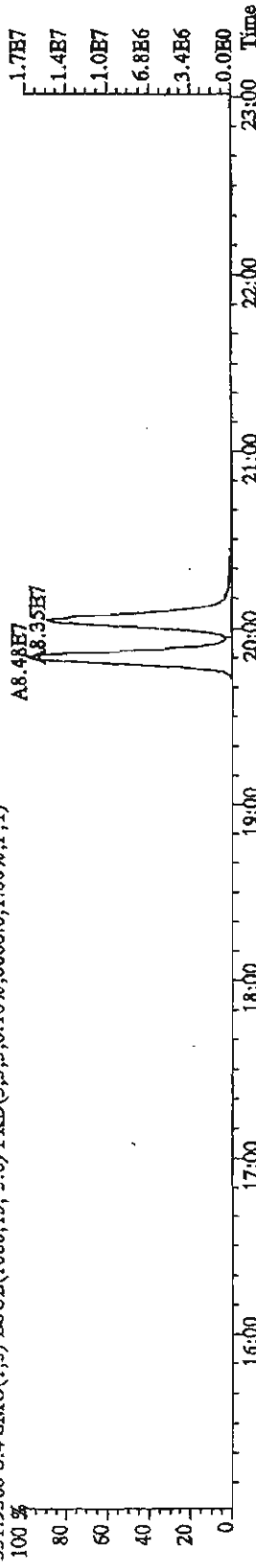
File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 15:06:45 GC EI+ Voltage SIR Autospec-UltimaE
 Sample #4 Text: ST0222B : CS-2 10DXN304 AS Exp: DIOXINRES
 327.8847 S: 4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,88.0,1.00%,F,T)



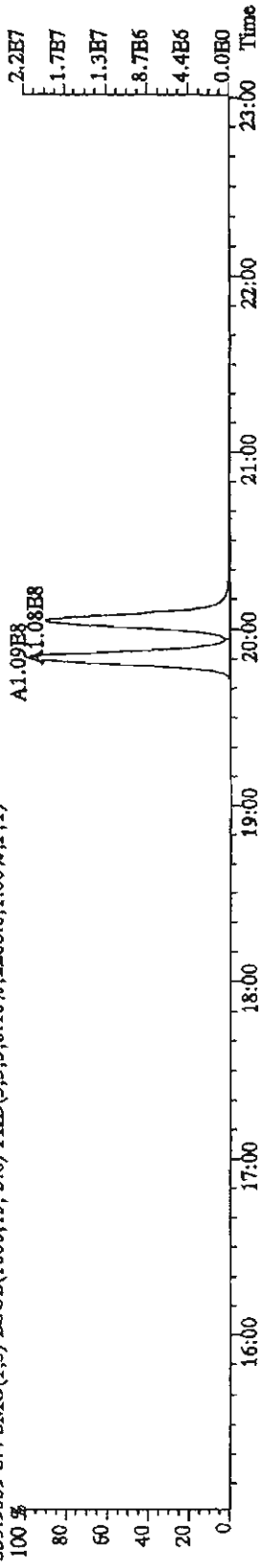
327.8847 S: 4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,88.0,1.00%,F,T)



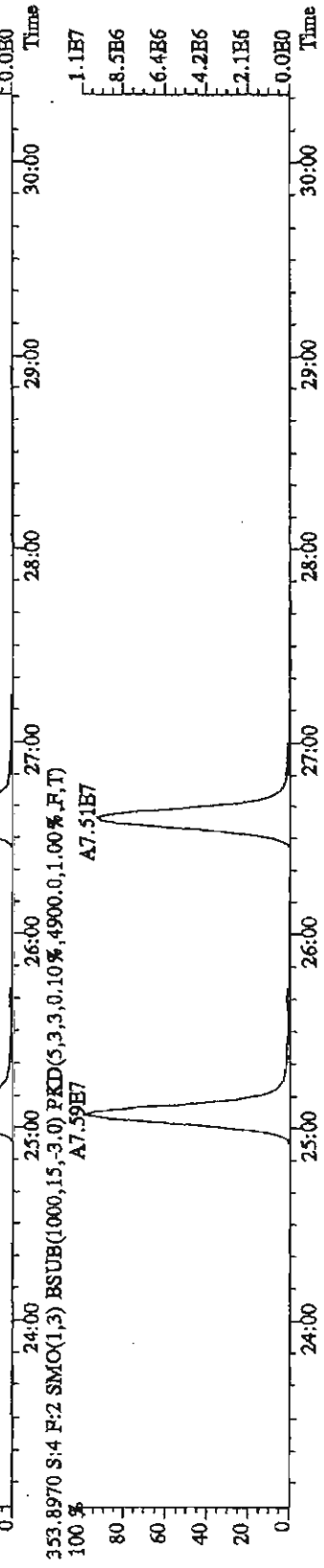
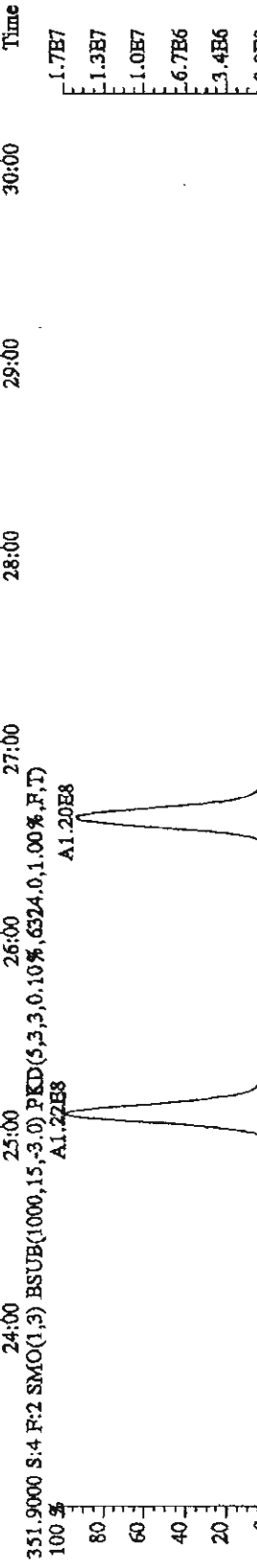
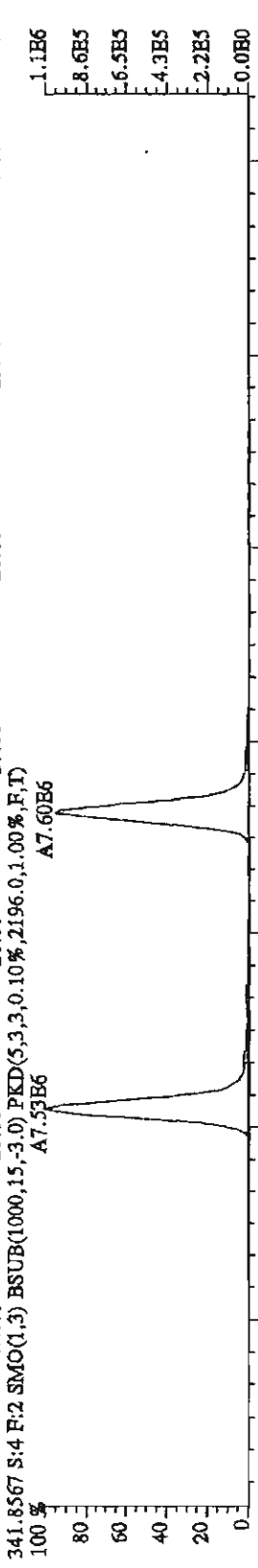
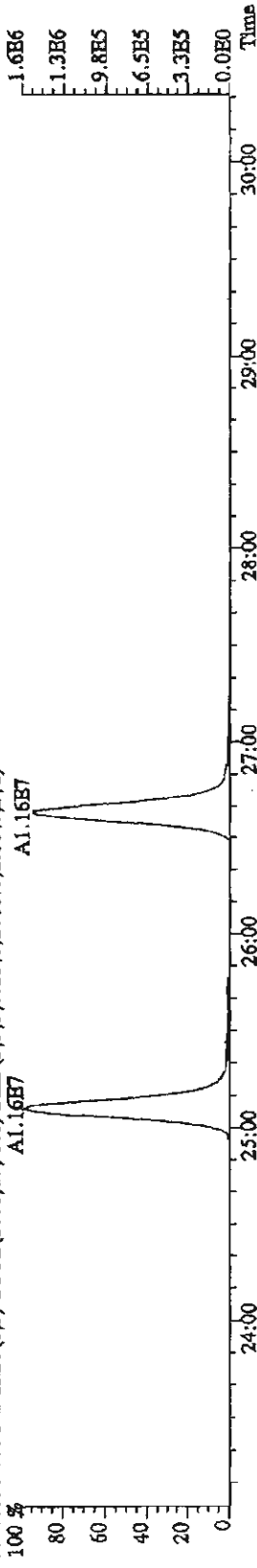
331.9368 S: 4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,8660.0,1.00%,F,T)



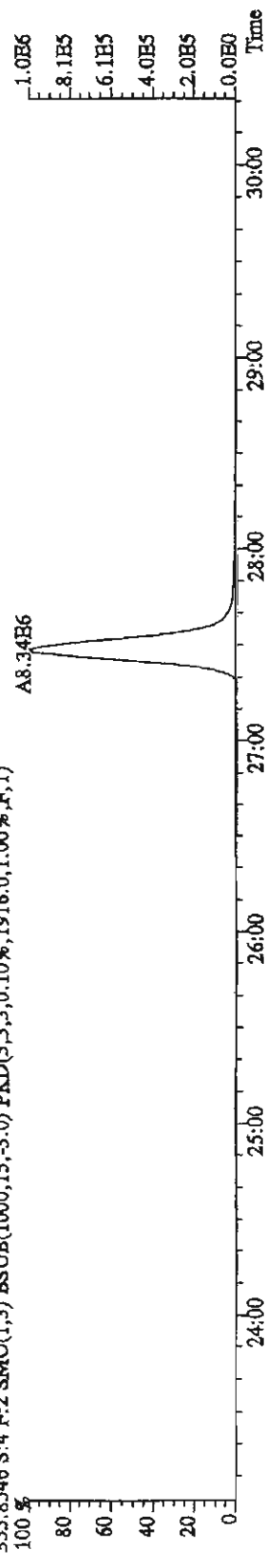
333.9339 S: 4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2288.0,1.00%,F,T)



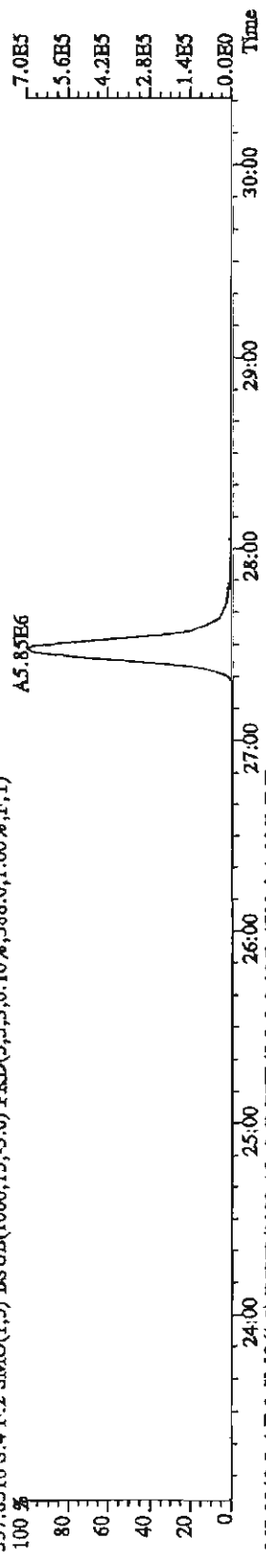
File: 22FB11A4D5 #1-470 Acq: 22-FBB-2011 15:06:45 GC HI+ Voltage SIR Autospec-UltimaE
 Sample#4 Text: ST022B :CS-2 10DXNS04 AS Exp: DIOXINRES
 339.8597 S:4 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2196.0,1.00%,F,T)
 100%



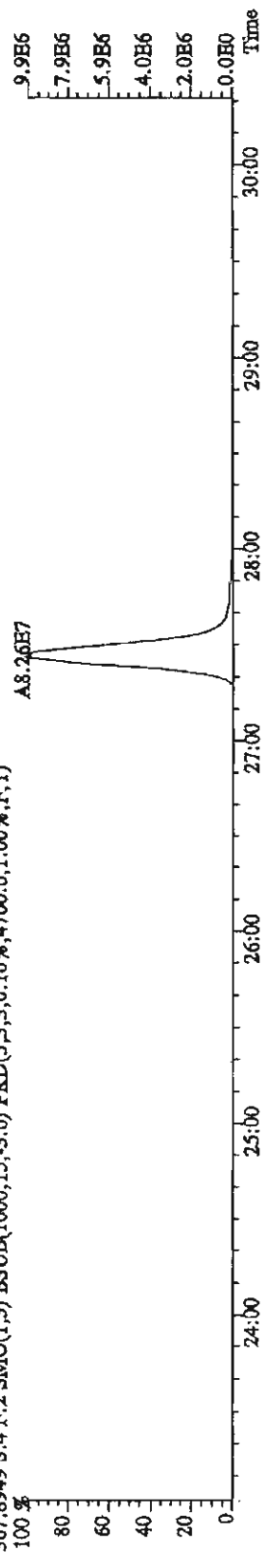
File: 22FE11A4D5 #1-470 Acq: 22-FEB-2011 15:06:45 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text: ST022B :CS-2,10DXN504 AS Exp: DIOXINRES
355.8546 S:4 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1916.0,1.00%,F,T)



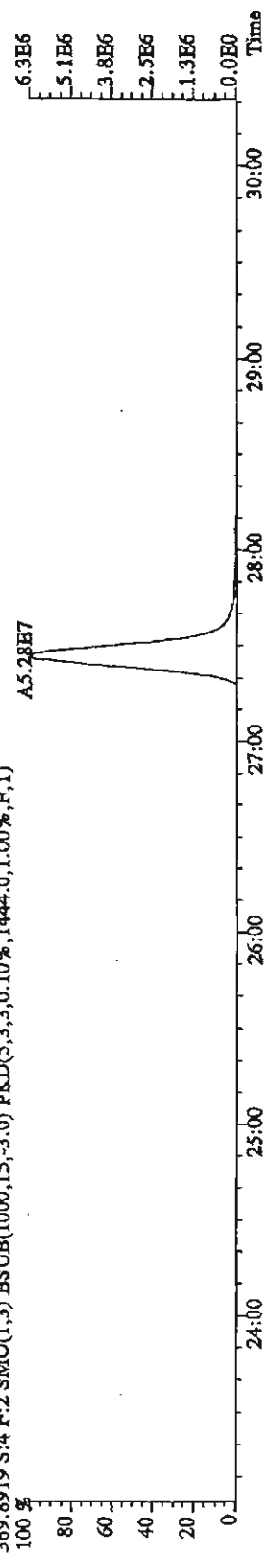
357.8516 S:4 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,588.0,1.00%,F,T)



367.8949 S:4 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4700.0,1.00%,F,T)



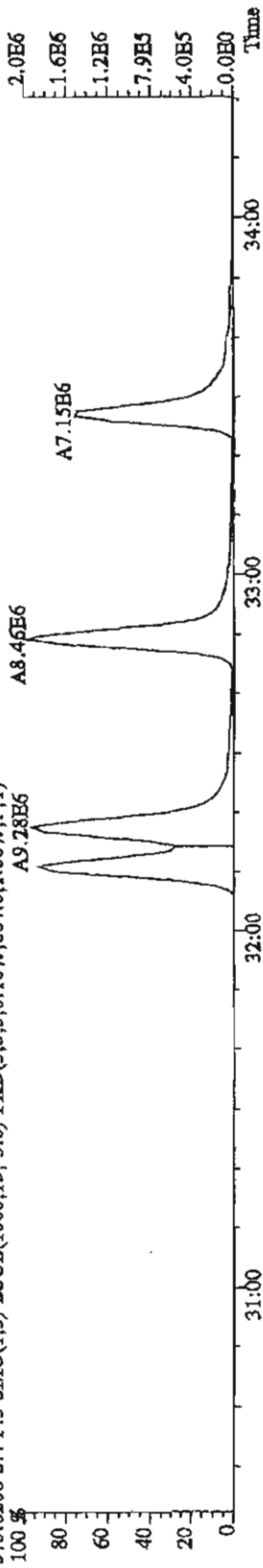
369.8919 S:4 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1444.0,1.00%,F,T)



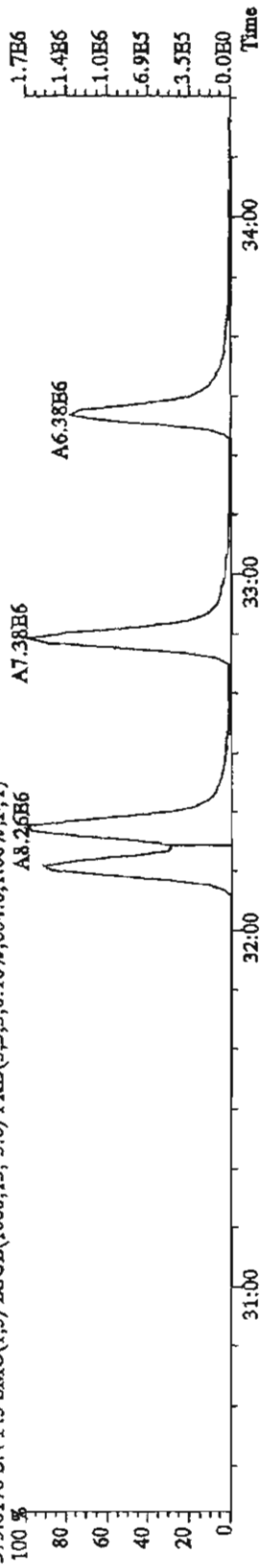
File: 22FB11A4D5 #1-286 Acq: 22-FBB-2011 15:06:45 GC EI+ Voltage SIR Autospec-UltimaR

Sample#4 Text: STU222B :CS-2 10DXN504 AS Exp: DIOXINES

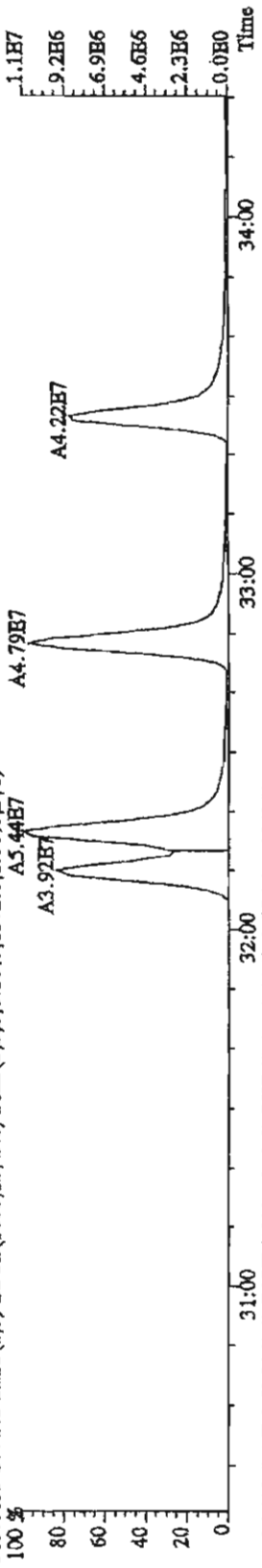
373.8208 S:4 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,884,0,1.00%,F,T)



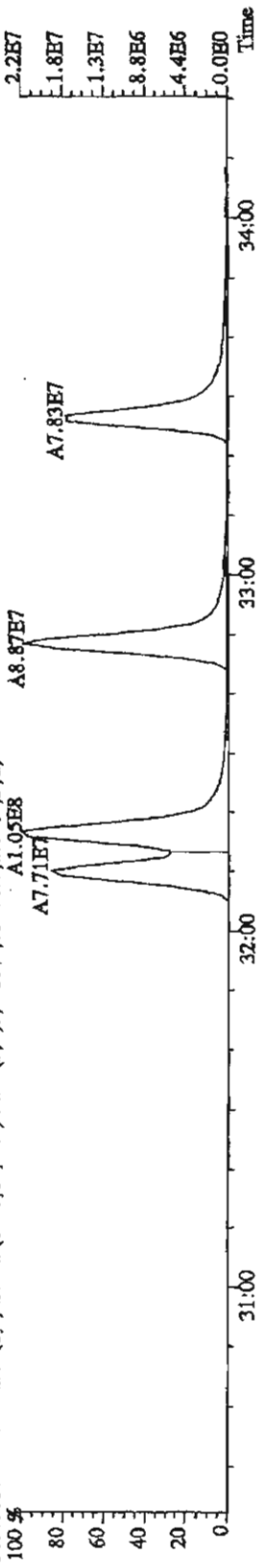
375.8178 S:4 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,604,0,1.00%,F,T)



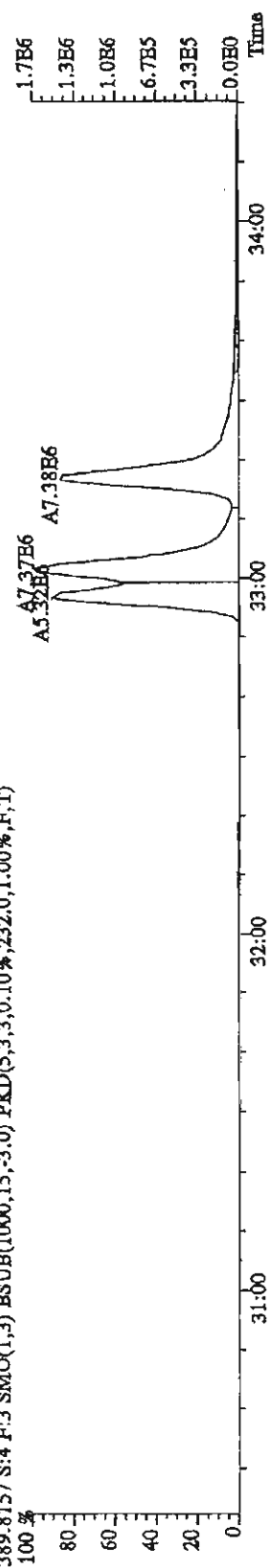
383.8639 S:4 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1572,0,1.00%,F,T)



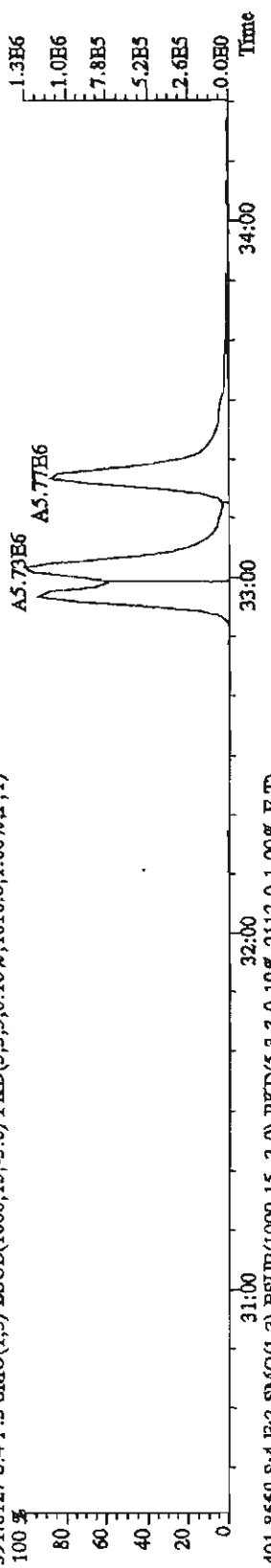
385.8610 S:4 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,73776,0,1.00%,F,T)



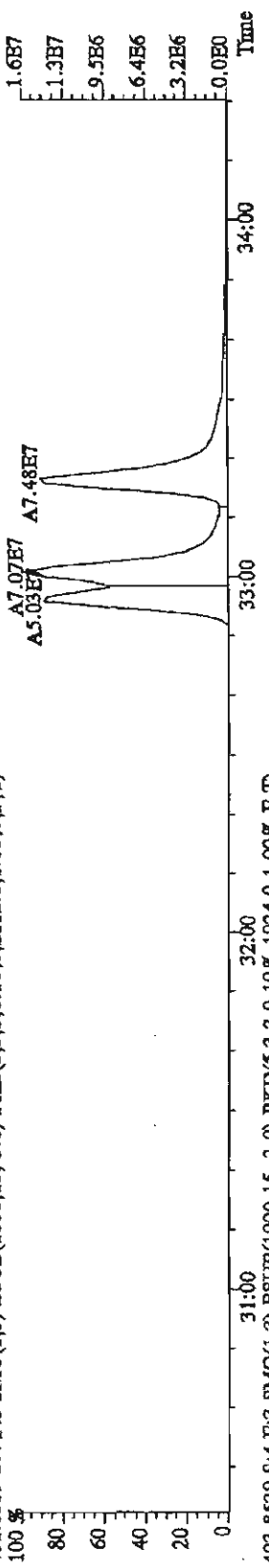
File: 22FEB11A4D5 #1-286 Acq: 22-FEB-2011 15:06:45 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#4 Text: ST0222B :CS-2 10DXN504 AS Exp: DIOXINRES
 389.8157 S:4 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,232.0,1.00%,F,T)



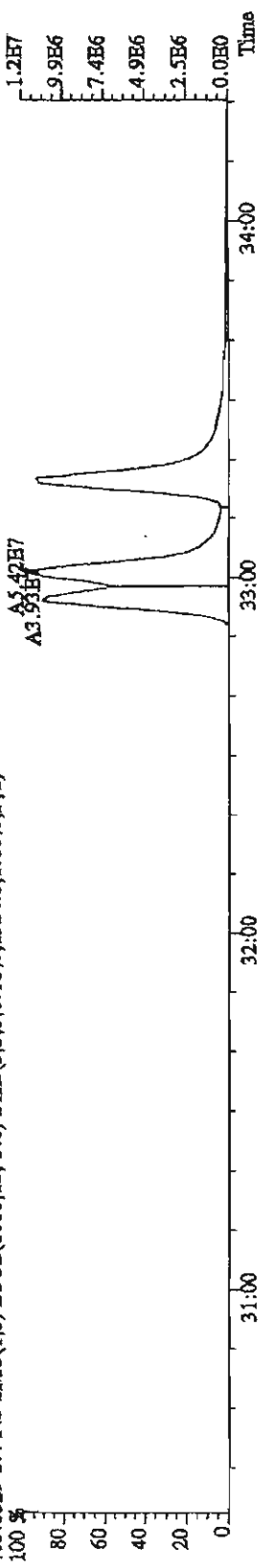
391.8127 S:4 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1016.0,1.00%,F,T)



401.8559 S:4 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,2112.0,1.00%,F,T)



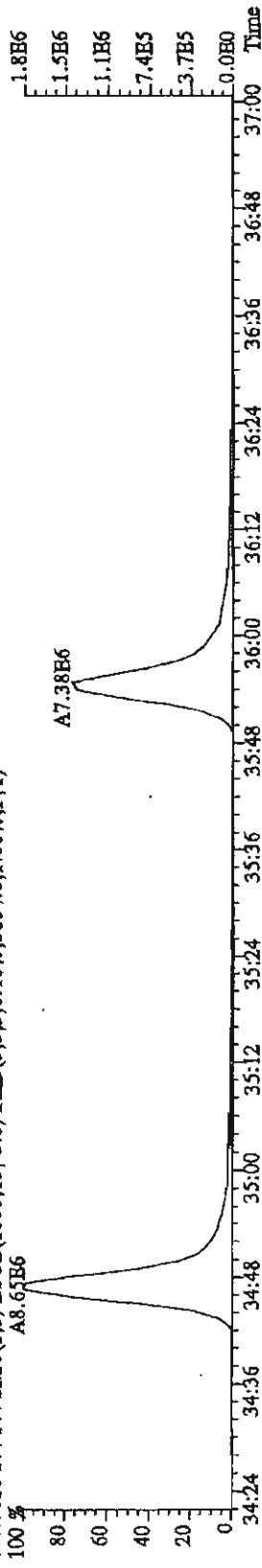
403.8529 S:4 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1924.0,1.00%,F,T)



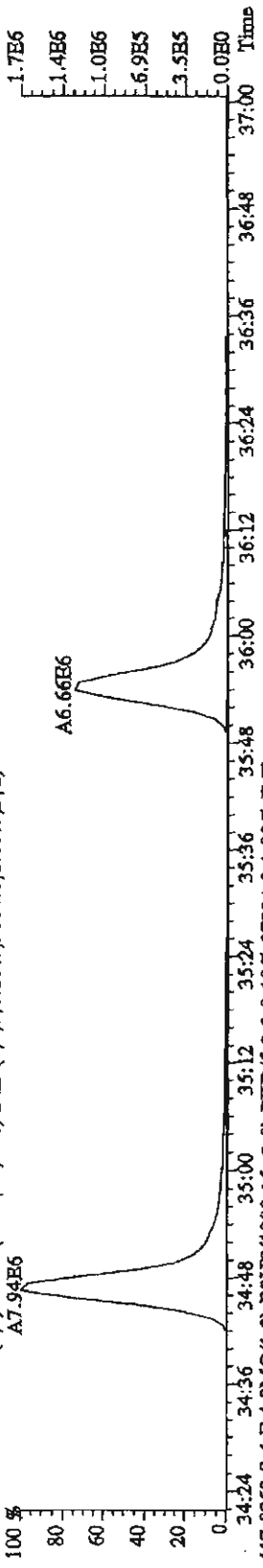
File: 22FBI1A4D5 #1-201 Acq: 22-FEB-2011 15:06:45 GC EI+ Voltage SIR Autospec-UltimaB

Sample#4 Text: ST0222B :CS-2 10DXN504 AS Exp: DIOXINRES

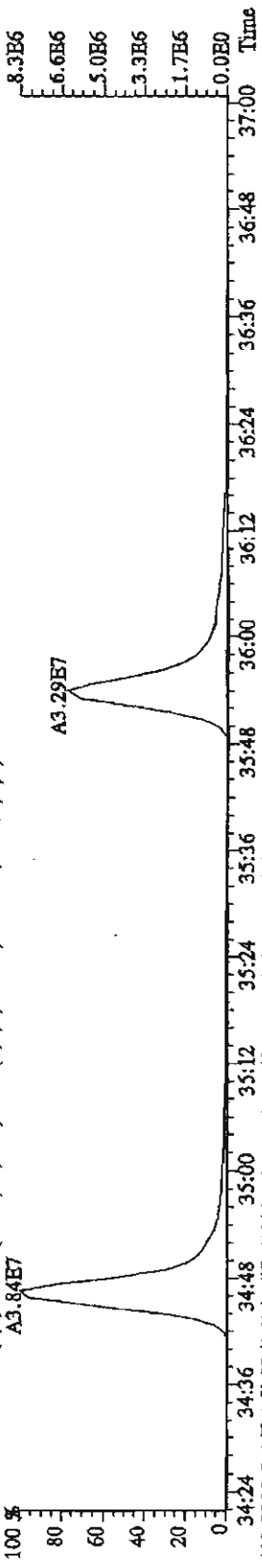
407.7818 S:4 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5604.0,1.00%,F,T)



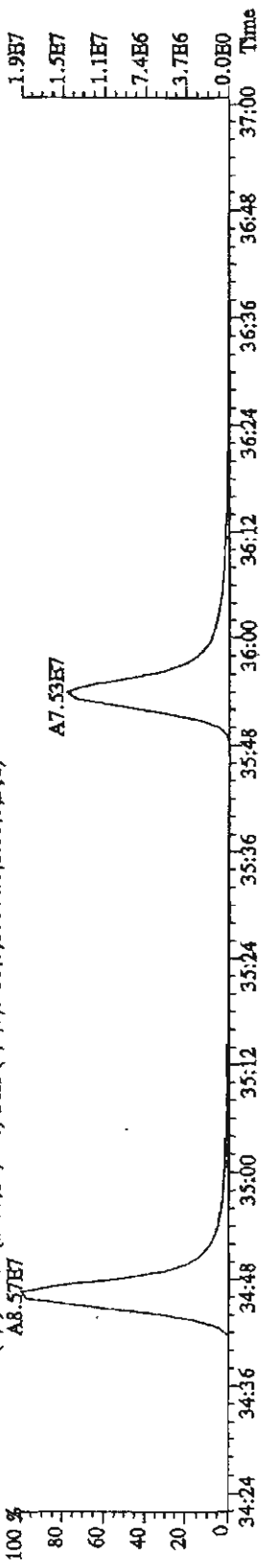
409.7789 S:4 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9684.0,1.00%,F,T)



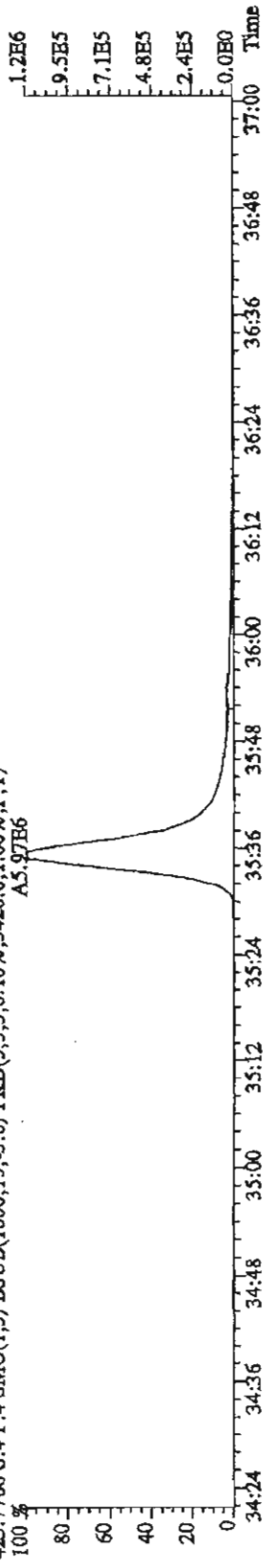
417.8253 S:4 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,27324.0,1.00%,F,T)



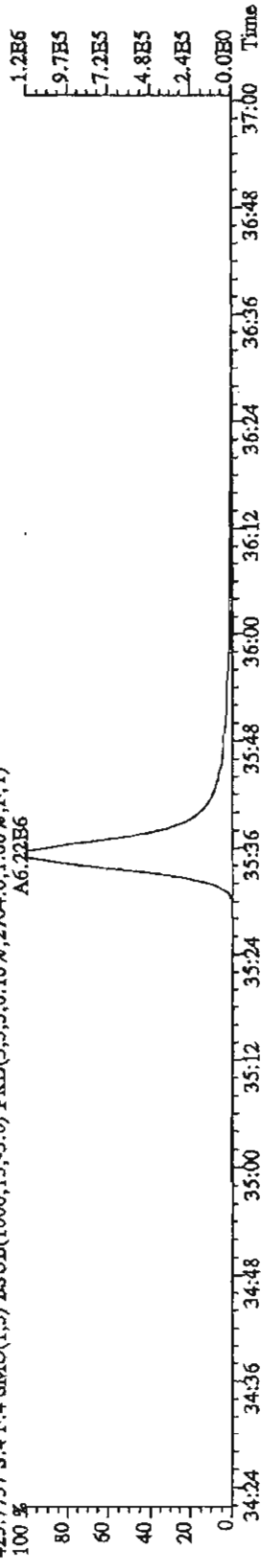
419.8220 S:4 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,66644.0,1.00%,F,T)



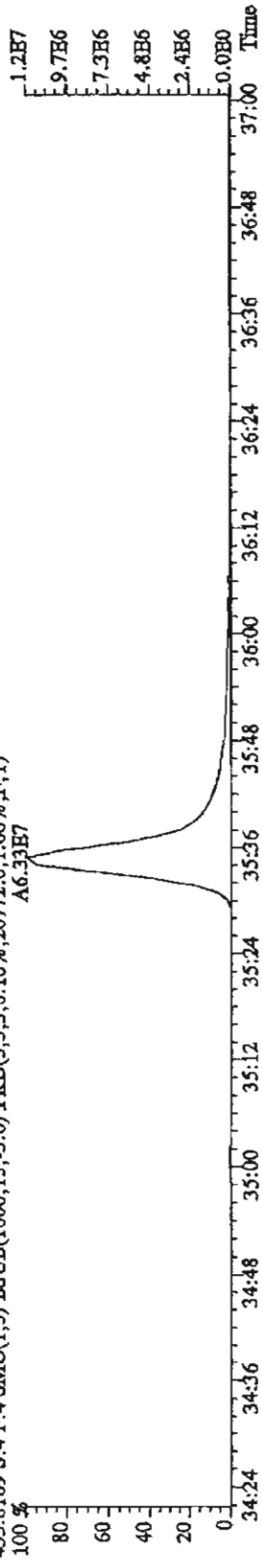
File: 22FB11A4D5 #1-201 Acq: 22-FBB-2011 15:06:45 GC HI+ Voltage SIR Autopec-UltimaE
 Sample#4 Text: ST0222B :CS-2 10DXN504 AS Exp: DIOXINRES
 423.7766 S:4 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2704,0.1,0.0%,F,I)
 A5.97E6



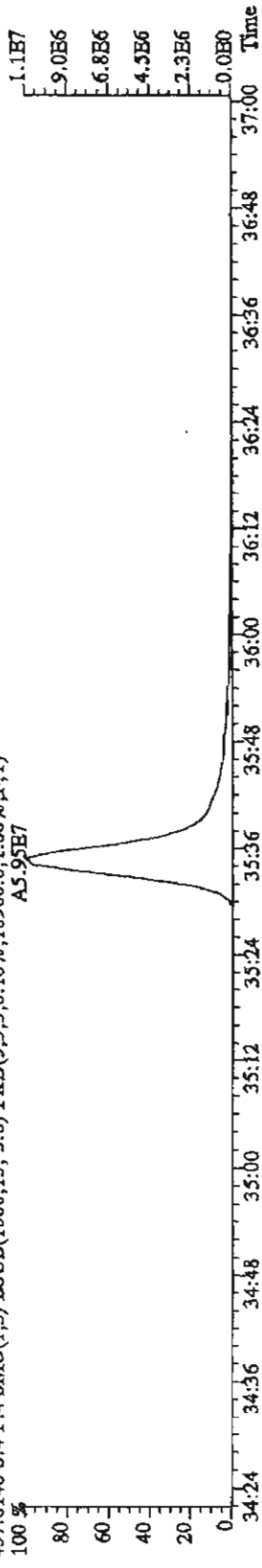
423.7737 S:4 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2704,0.1,0.0%,F,I)
 A6.22E6



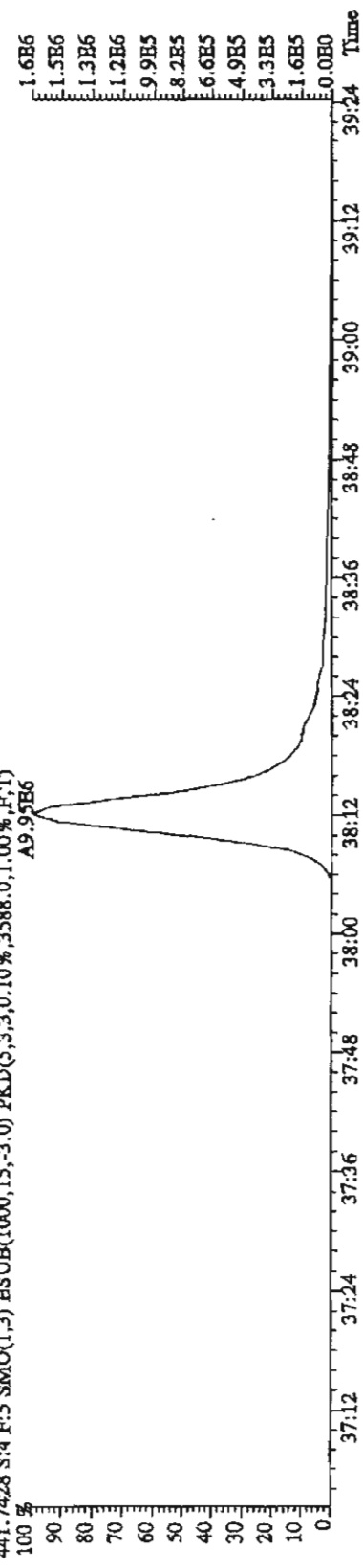
435.8169 S:4 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,20772,0.1,0.0%,F,I)
 A6.33E7



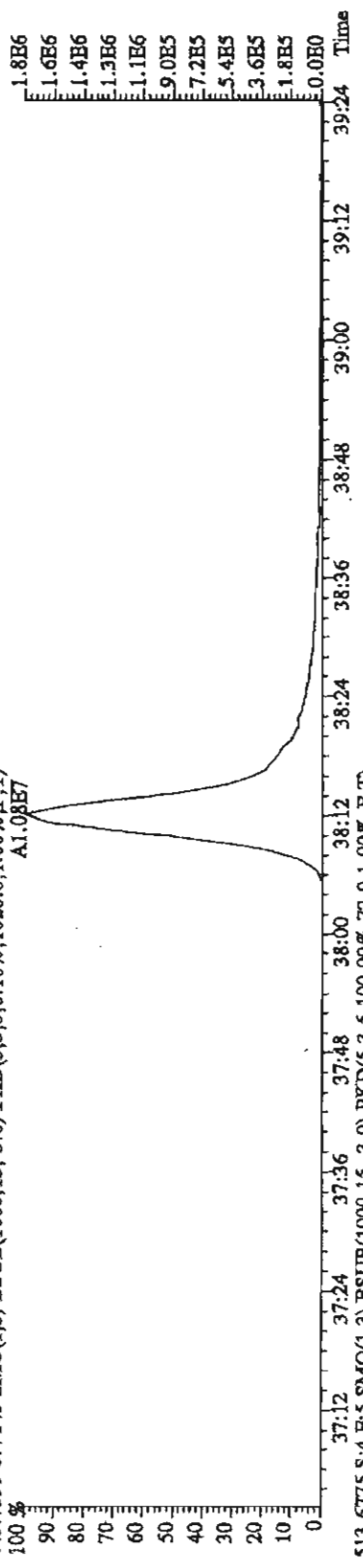
437.8140 S:4 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,18960,0.1,0.0%,F,I)
 A5.95E7



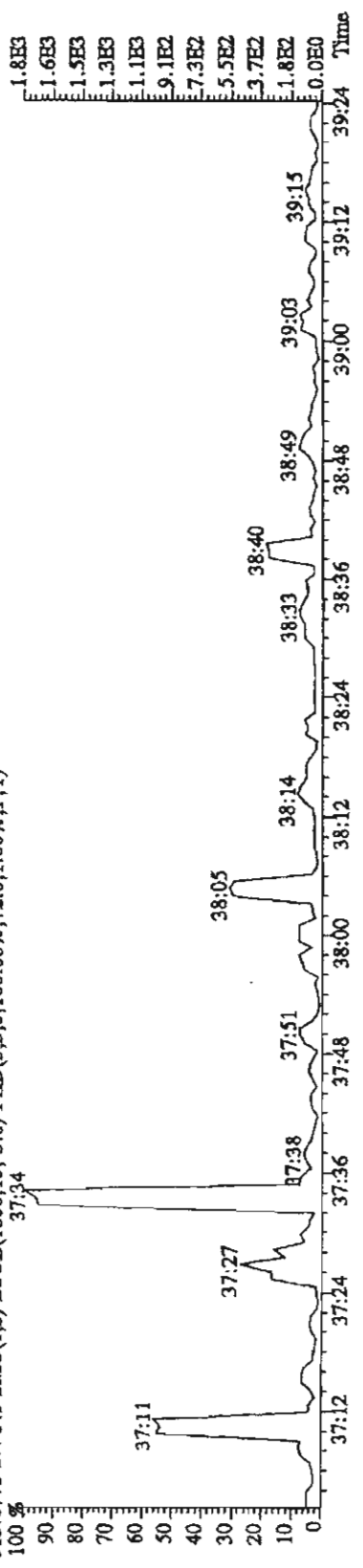
File: 22FB11A4D5 #1-192 Acq: 22-FEB-2011 15:06:45 GC EI+ Voltage SIR Autospec-UltimaR
 Sample#4 Text: ST0222B iCS-2.10DXN504 AS Exp: DIOXINRES
 441.7428 S:4 F:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,0,10% 3588.0,1.00% F,T)
 A9.95E6



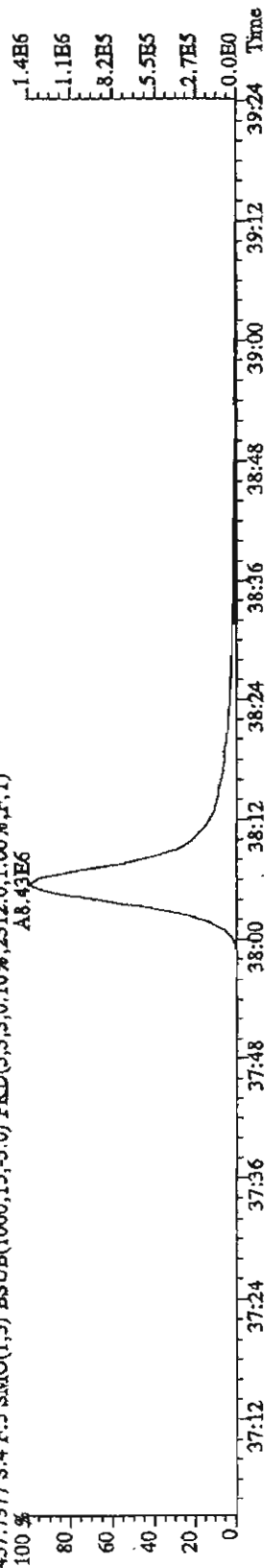
443.7399 S:4 F:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,0,10%,1028.0,1.00% F,T)
 A1.08E7



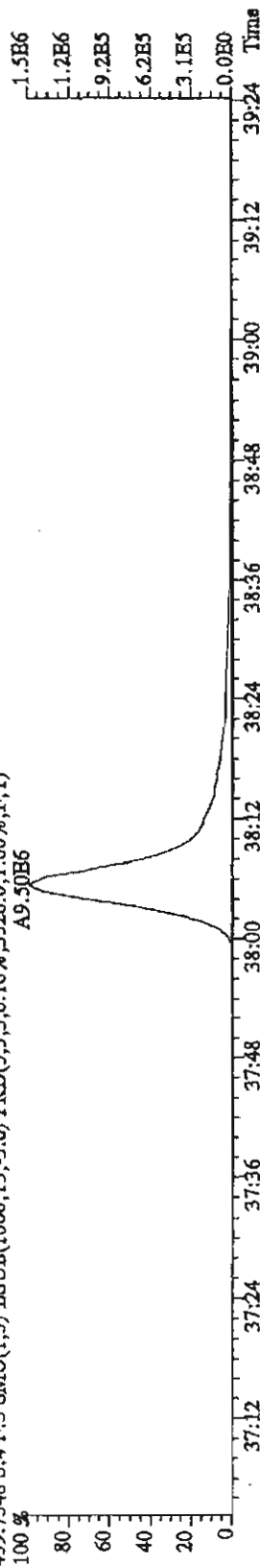
513.6775 S:4 F:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,5,100.00%,72.0,1.00% F,T)



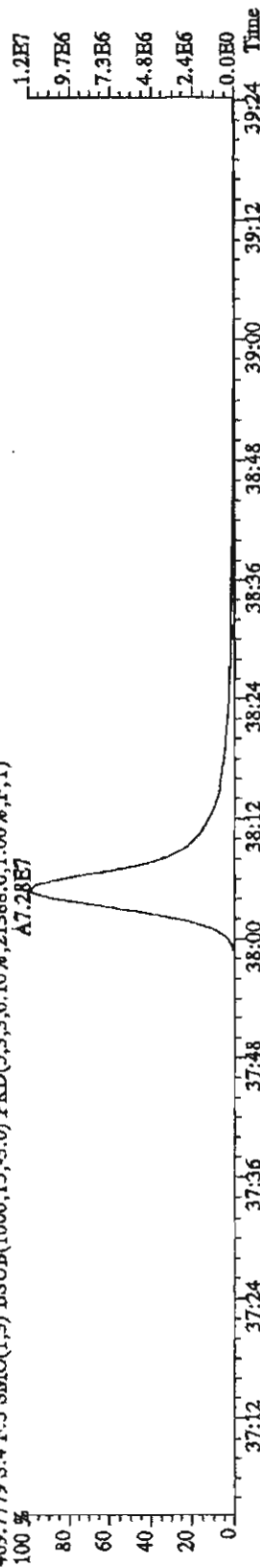
File: 22FBI1A4D5 #1-192 Acq: 22-FHB-2011 15:06:45 GC EI+ Voltage SIR_Autospec-UktimaB
 Sample#4 Text: ST0222B :CS-2 10DXN304 AS Exp: DIOXINRES
 457.7377 S:4 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10% F,T) A8.43E6



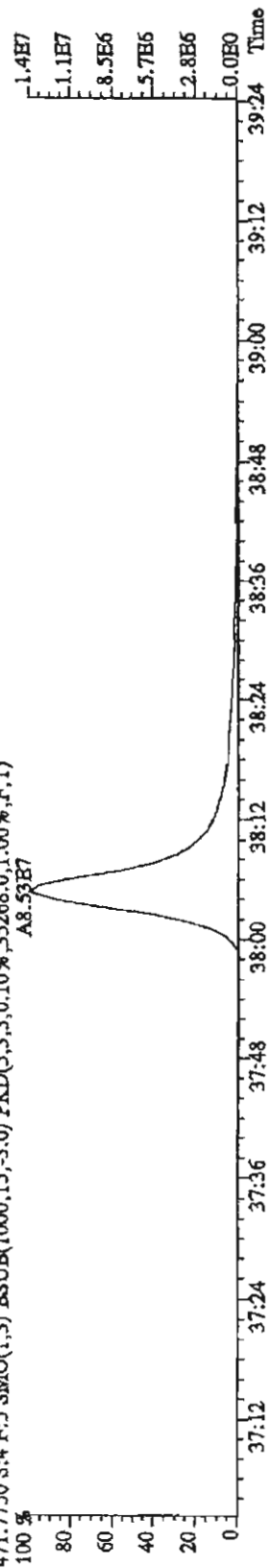
459.7348 S:4 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10% F,T) A9.50E6



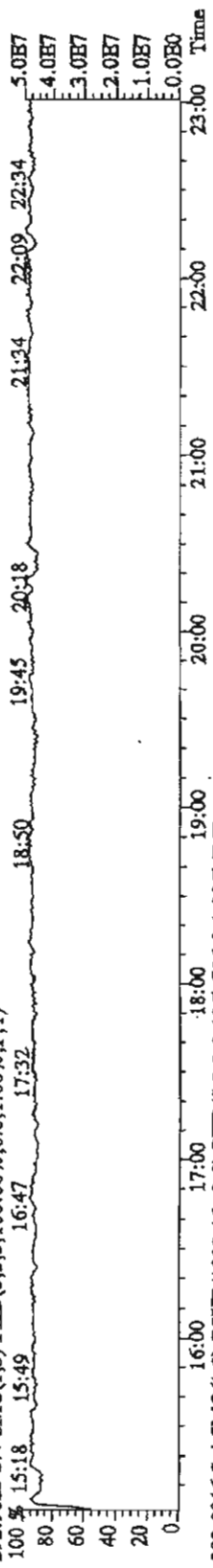
469.7779 S:4 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10% F,T) A7.28E7



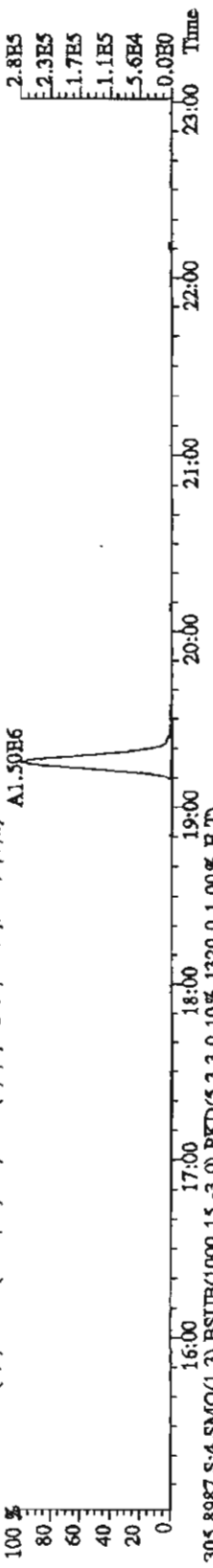
471.7750 S:4 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10% F,T) A8.53E7



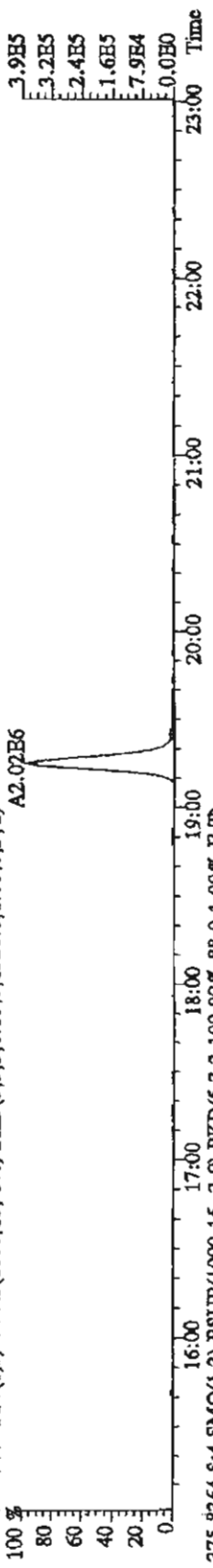
File: 22FB11A4D5 #1-530 Acq: 22-FEB-2011 15:06:45 GC EI+ Voltage SIR Autospec-UltimaB
 Sample #4 Text: ST0222B : CS-2 10DXN504 AS
 292.9825 S:4 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T) Exp: DIOXINRES
 100 % 15:18 15:49 16:47 17:32 18:50 19:45 20:18 21:34 22:09 22:34



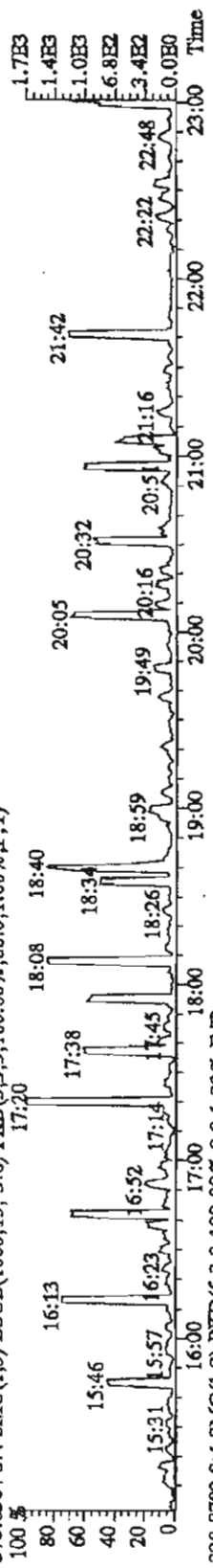
303.9016 S:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,736.0,1.00%,F,T)
 100 % 16:00 17:00 18:00 19:00



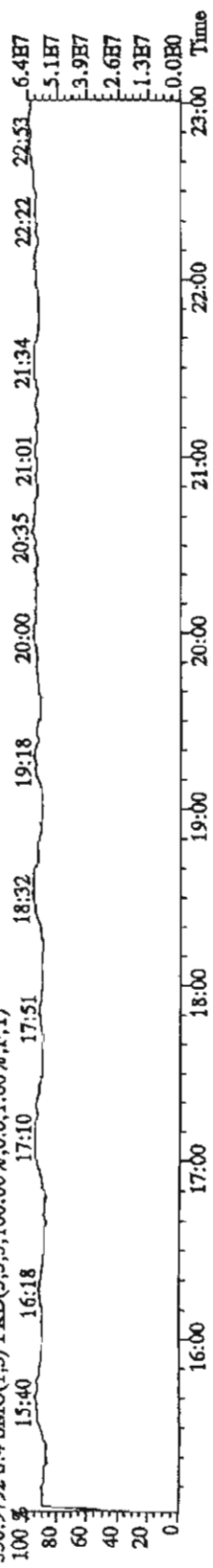
305.8987 S:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1320.0,1.00%,F,T)
 100 % 16:00 17:00 18:00 19:00



375.8364 S:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,88.0,1.00%,F,T)
 100 % 16:00 17:00 18:00 19:00



330.9792 S:4 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)
 100 % 15:40 16:18 17:10 17:51 18:32 19:18 19:45 20:35 21:01 21:34 22:22 22:53

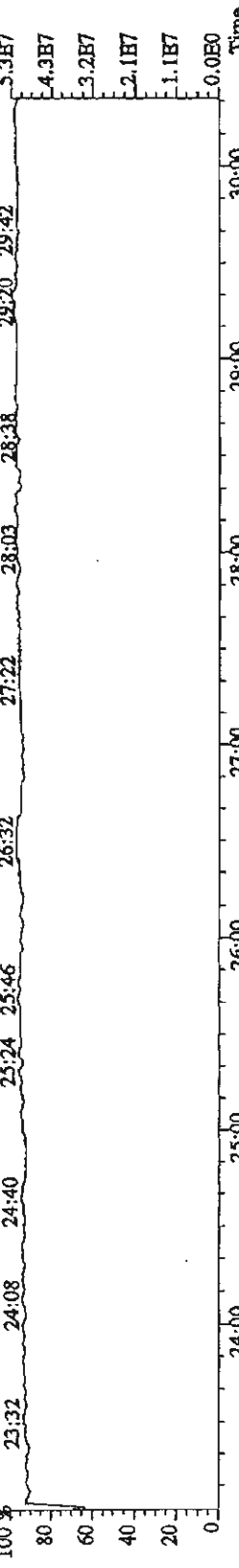


File: 22FBI1A4D5 #1-470 Acq: 22-FEB-2011 15:06:45 GC EI+ Voltage SIR Autospec-UltimaE

Sample#4 Text: ST0222B :CS-2 10DXN504 AS Exp: DIOXINRES

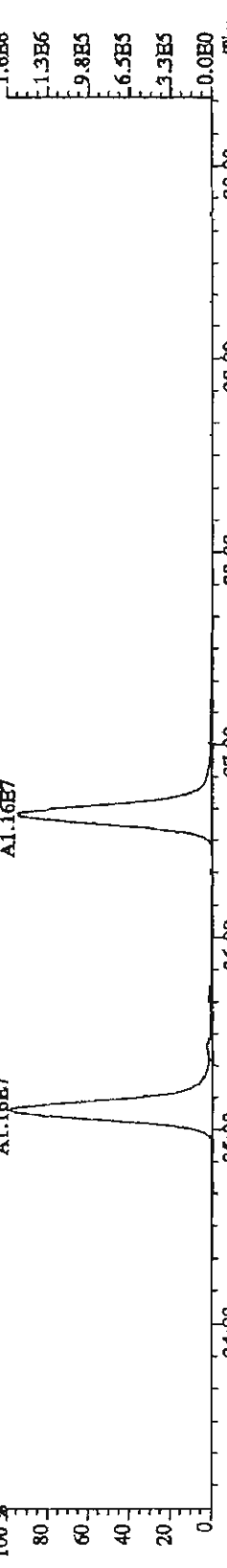
342.9792 S:4 F:2 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100% 23:32 24:08 24:40 25:24 25:46 26:32 27:22 28:03 28:38 29:20 29:42 5.3E7



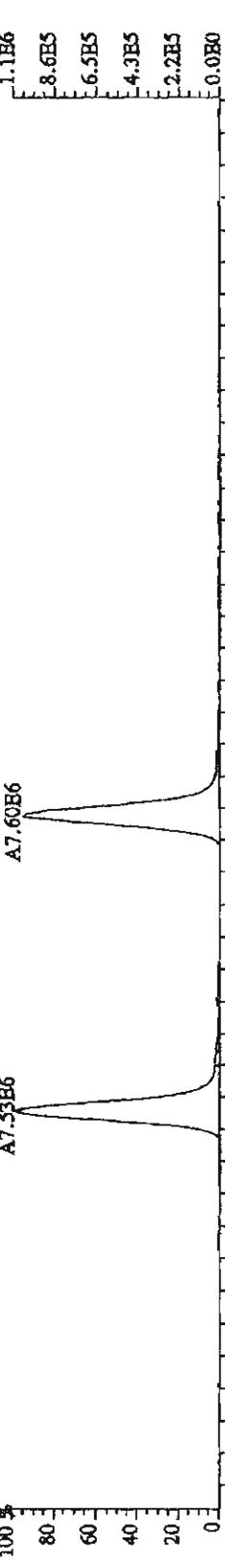
339.8597 S:4 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2000.0,1.00%,F,T)

100% 1.6E6



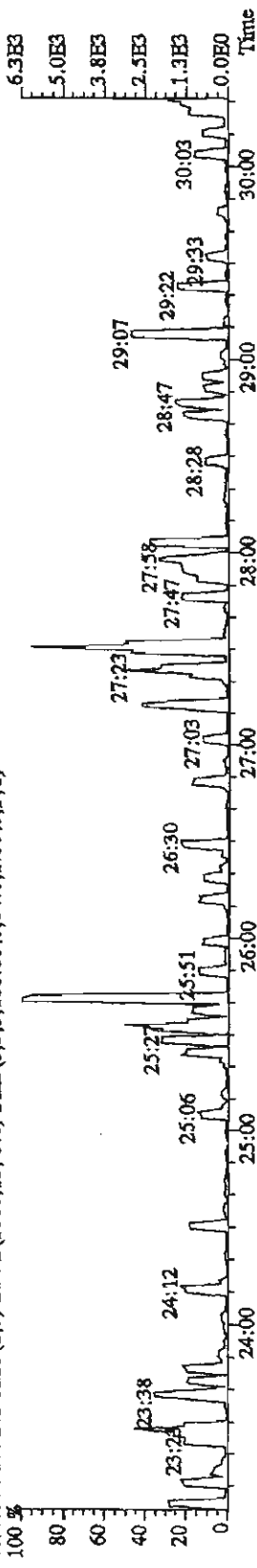
341.8567 S:4 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2196.0,1.00%,F,T)

100% 1.1E6



409.7974 S:4 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,84.0,1.00%,F,T)

100% 6.3E3

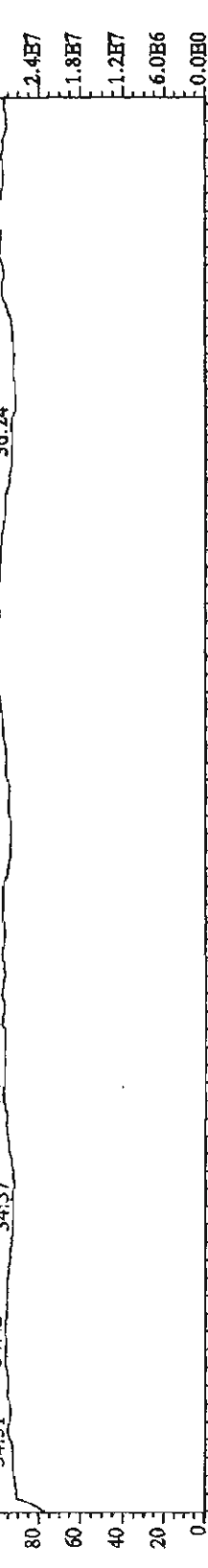


File: 22FEB11A4D5 #1-201 Acq: 22-FEB-2011 15:06:45 GC HI+ Voltage SIR Autospec-UltimaE

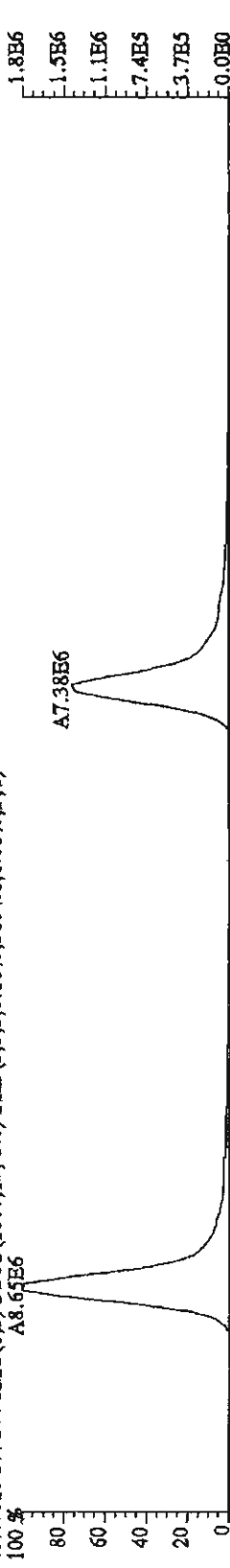
Sample #4 Text: ST0222B : CS-2.10DXN504 AS Exp: DIOXINRES

430.9728 S: 4 F: 4 SMO(1.3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

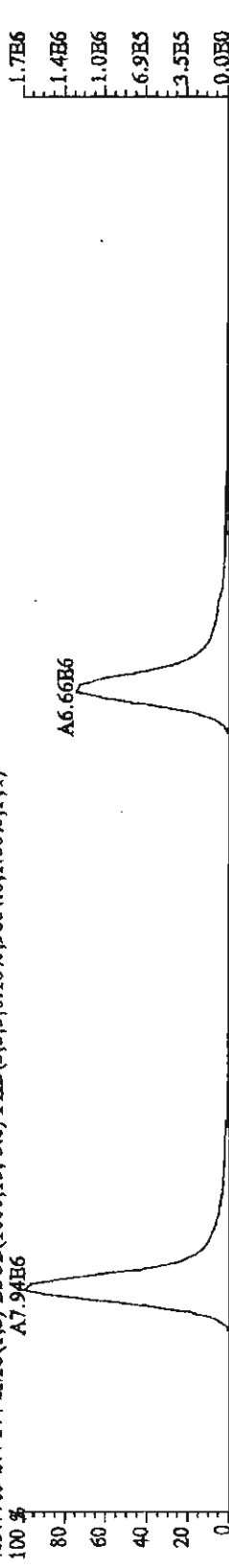
100 % 34:31 34:42 34:57 35:09 35:25 35:59 36:24 36:48 37:00



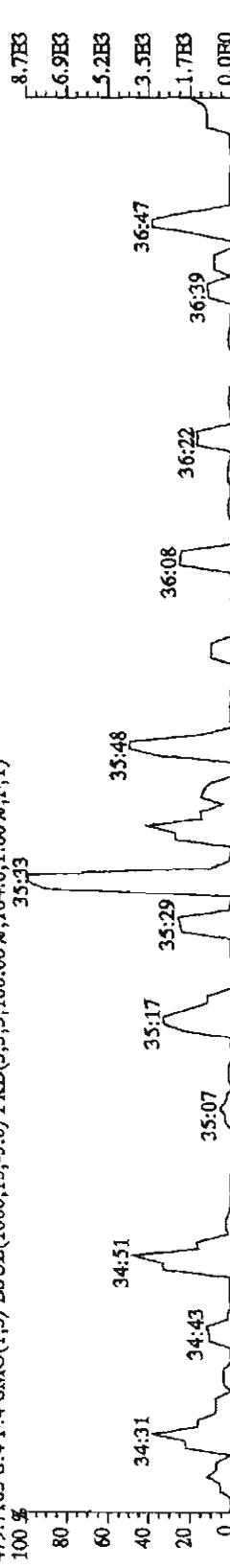
407.7818 S: 4 F: 4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5604.0,1.00%,F,T)



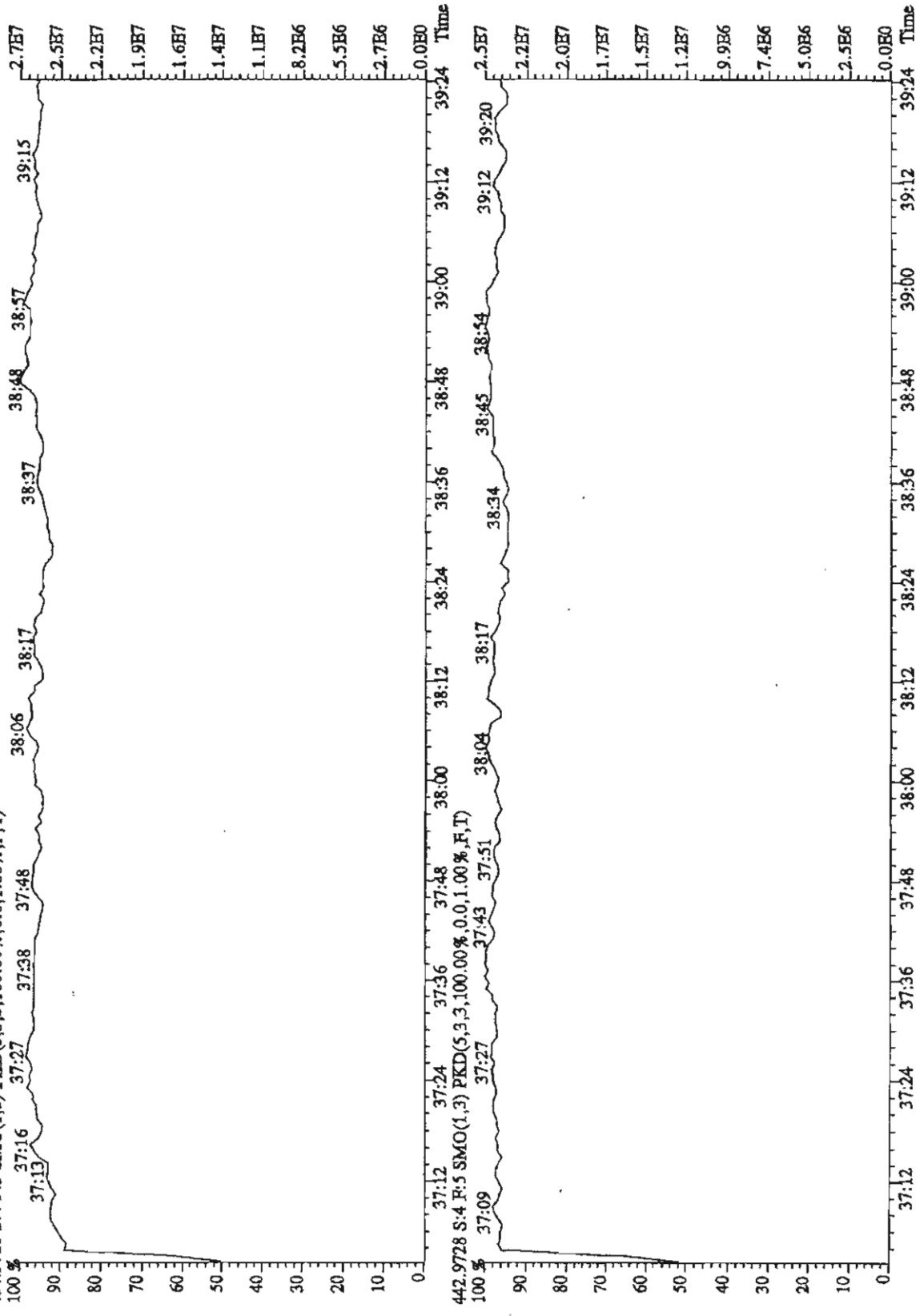
409.7789 S: 4 F: 4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9684.0,1.00%,F,T)



479.7165 S: 4 F: 4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,104.0,1.00%,F,T)



File: 22FEB11A4D5 #1-192 Acq: 22-FEB-2011 15:06:45 GC EI+ Voltage SIR, Autospec-UltimaE
 Sample#4 Text: ST0222B :CS-2 10DXN504 AS Exp: DIOXINRES
 454.9728 S:4 F:5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,I)



Run #4 Filename 22FB11A4D5 S: 5 I: 1
 Acquired: 22-FEB-11 15:51:15 Processed: 22-FEB-11 16:33:00
 Run: 15SB098D2 Analyte: 1613 Cal: 16130222114D5

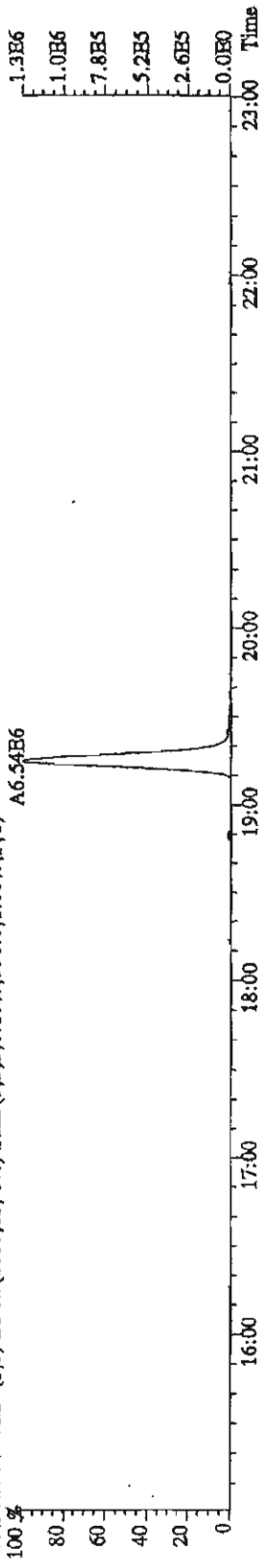
Comments:

Sample text: ST0222C :CS-3 10DXN505 AS

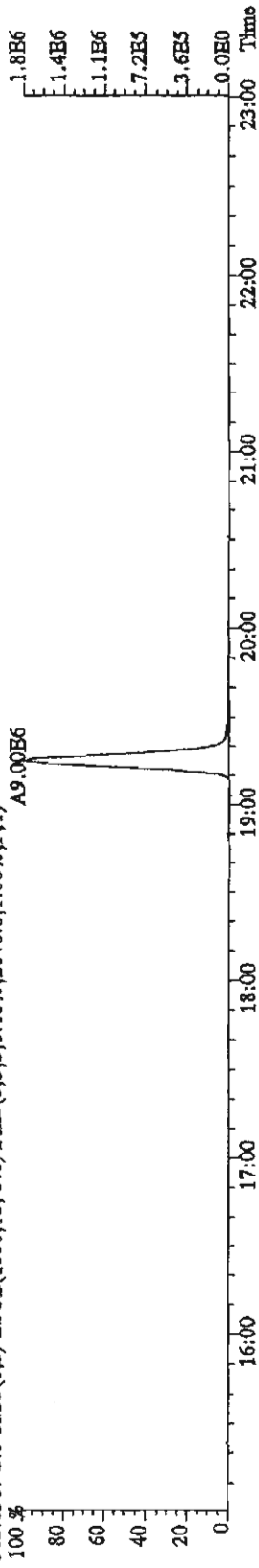
Name	Resp	RA	RT	RRF		Mod?
13C-1,2,3,4-TCDD	193315392	0.78 y	19:50	-	100.00	n
13C-2,3,7,8-TCDF	221010264	0.78 y	19:14	1.1433	100.00	n
2,3,7,8-TCDF	15547722	0.73 y	19:15	0.7035	10.00	n
Total TCDF	-	- n	-	0.7035	10.00	n
13C-2,3,7,8-TCDD	193187856	0.76 y	20:03	0.9993	100.00	n
2,3,7,8-TCDD	15905109	0.72 y	20:05	0.8233	10.00	n
Total TCDD	-	- n	-	0.8233	10.00	n
37Cl-2,3,7,8-TCDD	26528752	1.00 y	20:04	1.3723	10.00	n
13C-1,2,3,7,8-PeCDF	209849216	1.62 y	25:05	1.0855	100.00	n
1,2,3,7,8-PeCDF	97258536	1.52 y	25:06	0.9269	50.00	n
13C-2,3,4,7,8-PeCDF	208543320	1.61 y	26:36	1.0788	100.00	n
2,3,4,7,8-PeCDF	93910416	1.52 y	26:38	0.9006	50.00	n
Total F2 PeCDF	-	- n	-	0.9138	50.00	n
Total F1 PeCDF	-	- n	-	0.9138	100.00	n
13C-1,2,3,7,8-PeCDD	133727536	1.54 y	27:28	0.6918	100.00	n
1,2,3,7,8-PeCDD	67652584	1.46 y	27:29	1.0118	50.00	n
Total PeCDD	-	- n	-	1.0118	50.00	n
13C-1,2,3,7,8,9-HxCDD	130045716	1.29 y	33:17	-	100.00	n
13C-1,2,3,4,7,8-HxCDF	127845356	0.50 y	32:10	0.9831	100.00	n
1,2,3,4,7,8-HxCDF	69674962	1.13 y	32:11	1.0900	50.00	n
13C-1,2,3,6,7,8-HxCDF	162669508	0.50 y	32:16	1.2509	100.00	n
1,2,3,6,7,8-HxCDF	85169192	1.15 y	32:17	1.0471	50.00	n
13C-2,3,4,6,7,8-HxCDF	139921080	0.53 y	32:48	1.0759	100.00	n
2,3,4,6,7,8-HxCDF	74251640	1.08 y	32:49	1.0613	50.00	n
13C-1,2,3,7,8,9-HxCDF	125570636	0.52 y	33:27	0.9656	100.00	n
1,2,3,7,8,9-HxCDF	63468808	1.15 y	33:27	1.0109	50.00	n
Total HxCDF	-	- n	-	1.0524	200.00	n
13C-1,2,3,4,7,8-HxCDD	93602452	1.27 y	32:57	0.7198	100.00	n
1,2,3,4,7,8-HxCDD	47416150	1.24 y	32:57	1.0131	50.00	n
13C-1,2,3,6,7,8-HxCDD	129986612	1.29 y	33:01	0.9995	100.00	n
1,2,3,6,7,8-HxCDD	65996788	1.27 y	33:02	1.0154	50.00	n
1,2,3,7,8,9-HxCDD	64849892	1.27 y	33:17	1.1602	50.00	n
Total HxCDD	-	- n	-	1.0630	150.00	n
13C-1,2,3,4,6,7,8-HpCDF	127250988	0.44 y	34:46	0.9785	100.00	n
1,2,3,4,6,7,8-HpCDF	82899476	1.04 y	34:46	1.3029	50.00	n
13C-1,2,3,4,7,8,9-HpCDF	118864944	0.44 y	35:54	0.9140	100.00	n
1,2,3,4,7,8,9-HpCDF	70344324	1.04 y	35:55	1.1836	50.00	n
Total HpCDF	-	- n	-	1.2453	100.00	n

13C-1,2,3,4,6,7,8-HpCDD	129275344	1.03	y	35:35	0.9941	100.00	n
1,2,3,4,6,7,8-HpCDD	64455522	0.99	y	35:35	0.9972	50.00	n
Total HpCDD	-	-	n	-	0.9972	50.00	n
13C-OCDD	165541584	0.87	y	38:04	0.6365	200.00	n
OCDF	103348584	0.90	y	38:12	1.2486	100.00	n
OCDD	88734636	0.91	y	38:05	1.0721	100.00	n

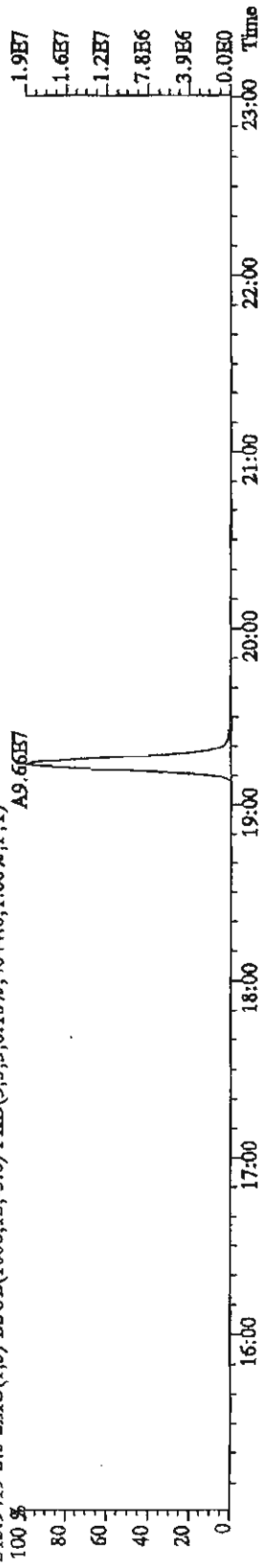
File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 15:51:15 GC EI+ Voltage SIR, Autospec-UltimaB
Sample#5 Text: ST0222C :CS-3 10DXN505 AS Exp: DIOXINRES
303.9016 S:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2040,0,1,00%,F,T)
100%



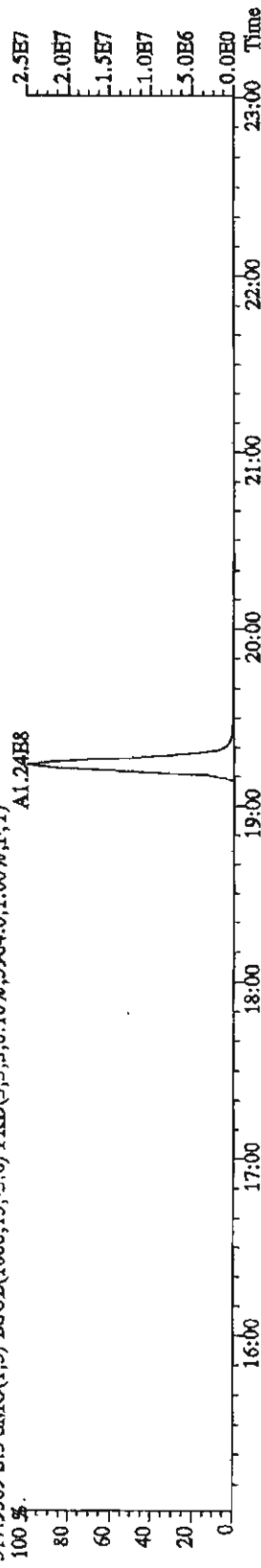
305.8987 S:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2040,0,1,00%,F,T)
100%



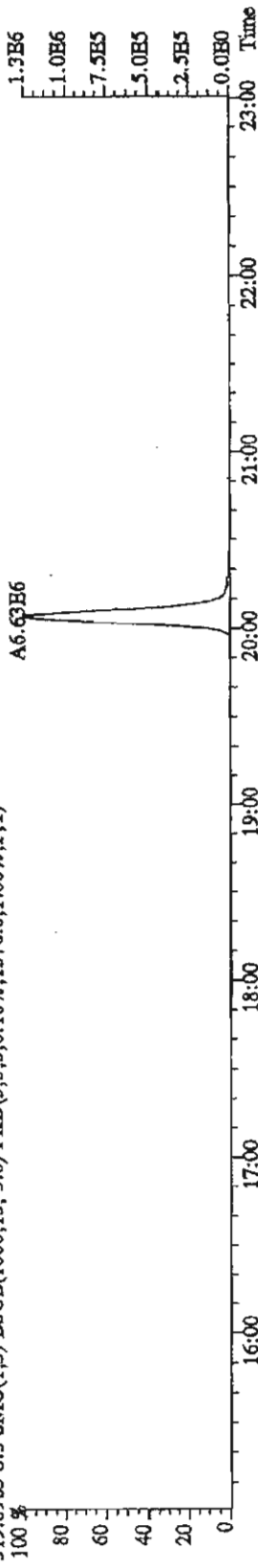
315.9419 S:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,4044,0,1,00%,F,T)
100%



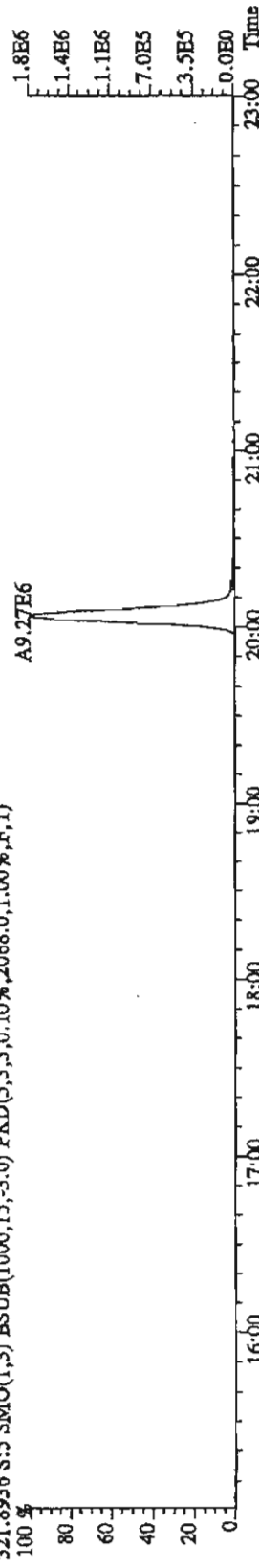
317.9389 S:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,3964,0,1,00%,F,T)
100%



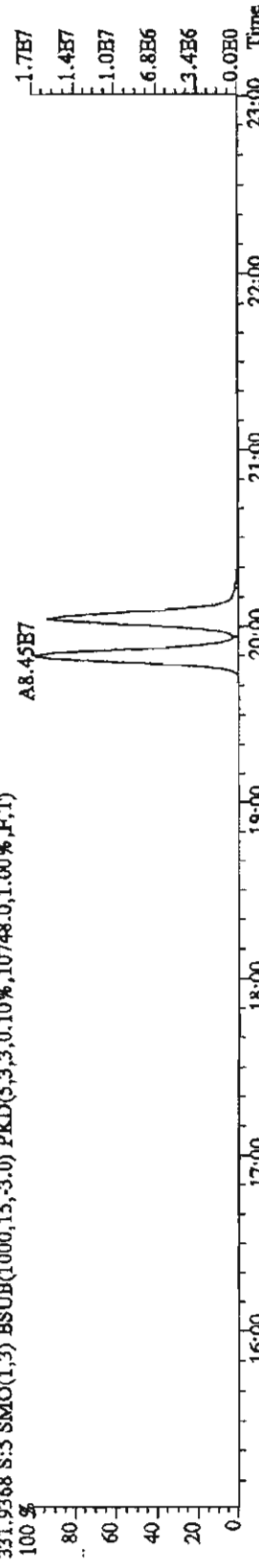
File: 22FB11A4D5 #1-530 Acq: 22-FEB-2011 15:51:15 GC EI + Voltage SIR Autospec-UltimaB
 Sample#5 Text: ST0222C :CS-3 10DXN505 AS Exp: DIOXINRES
 319.8965 S:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1576.0,1.00%,F,T)



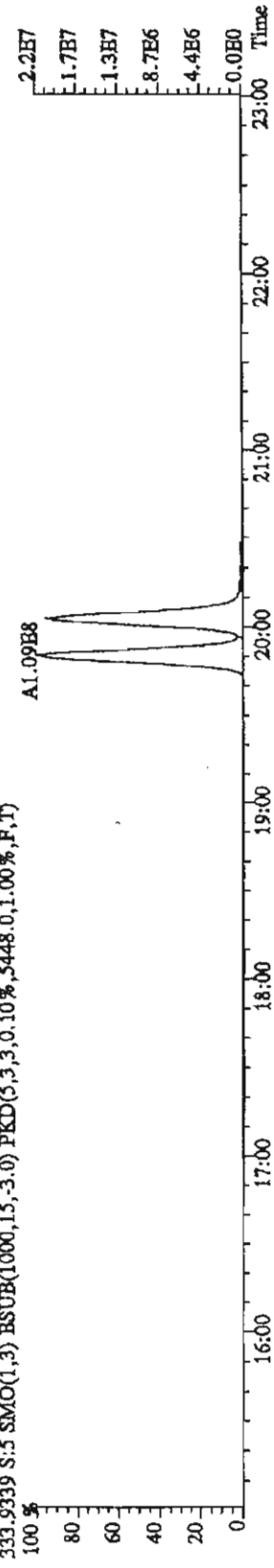
321.8936 S:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2068.0,1.00%,F,T)



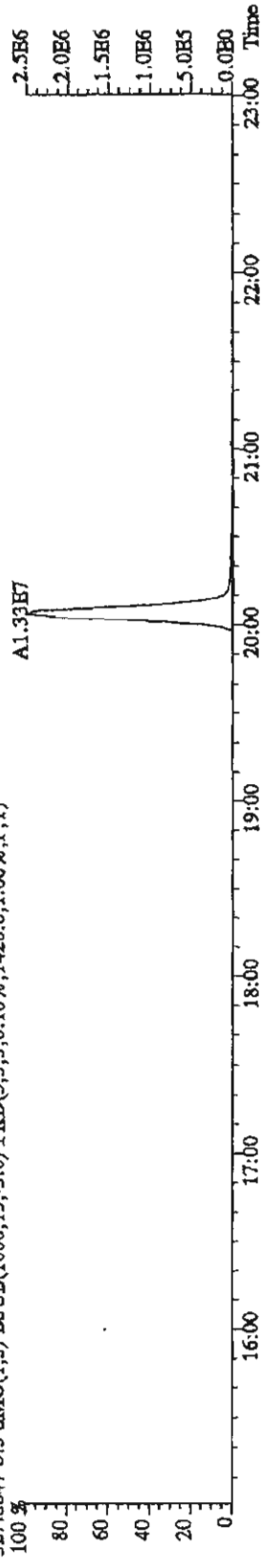
331.9368 S:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,10748.0,1.00%,F,T)



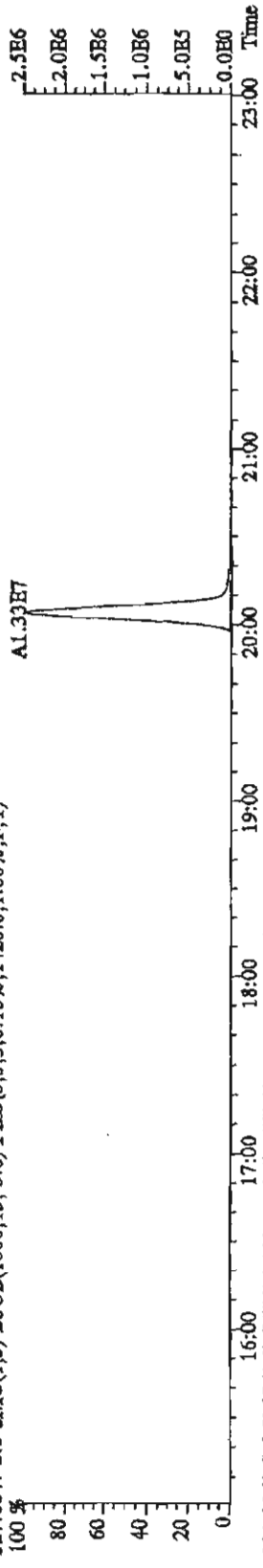
333.9339 S:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,5448.0,1.00%,F,T)



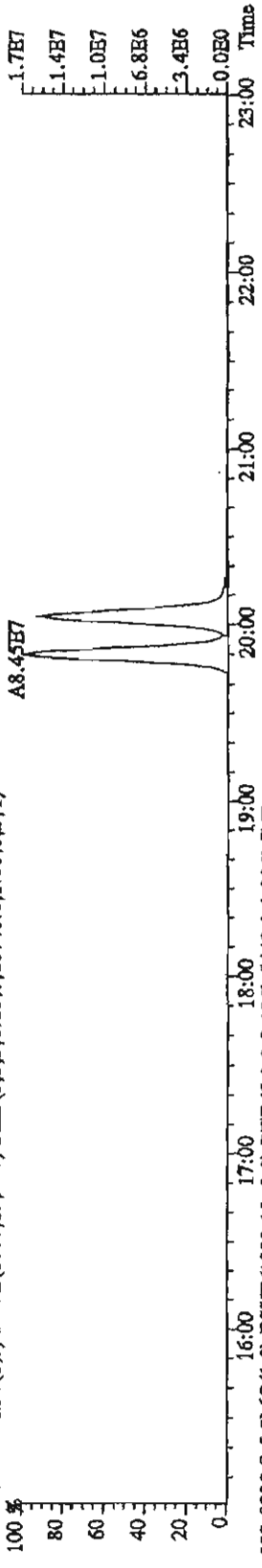
File: 22FEB11A4D5 #1.530 Acq: 22-FEB-2011 15:51:15 GC HI+ Voltage SIR, Autospec-UltimaB
 Sample#5 Text: ST0222C :CS-3 10DXN505 AS Exp: DIOXINRES
 327.8847 S:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1420,0,1,00%,F,T)



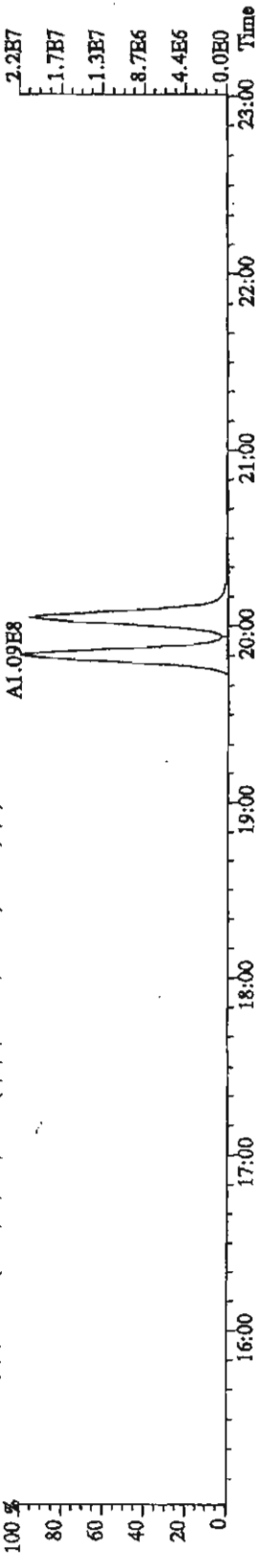
327.8847 S:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1420,0,1,00%,F,T)



331.9368 S:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,10748,0,1,00%,F,T)



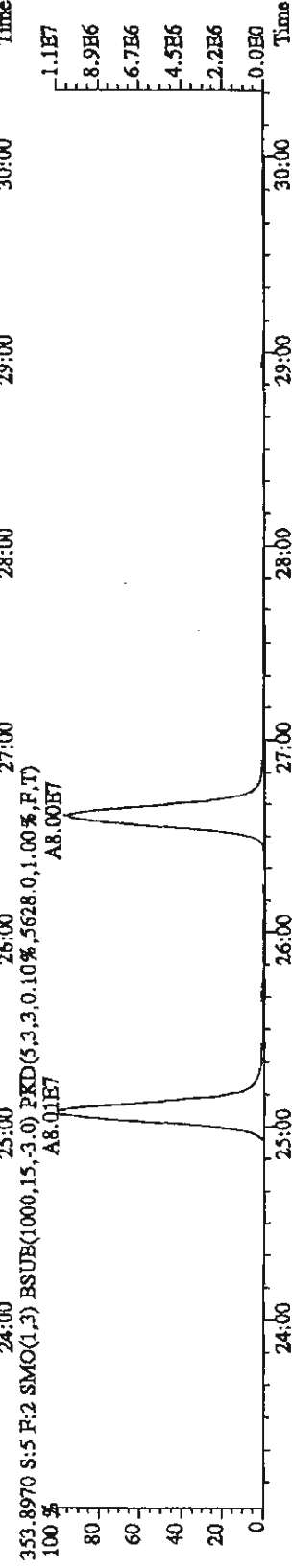
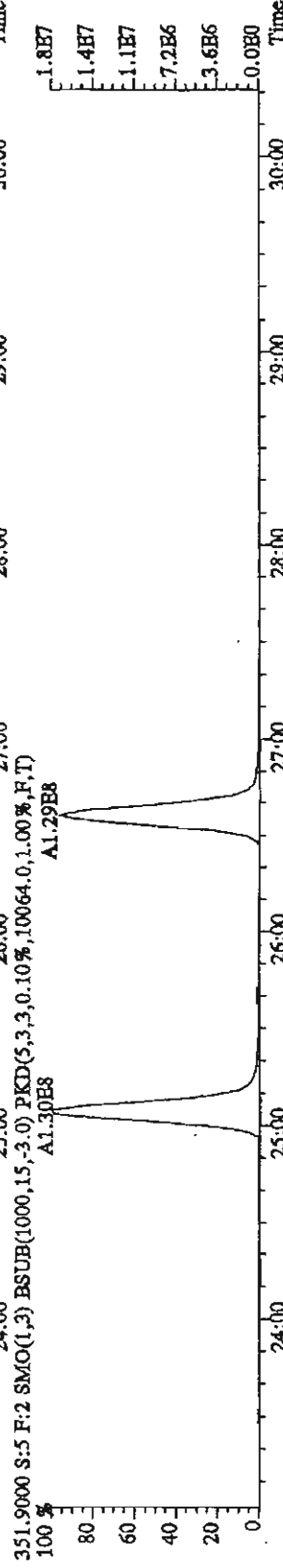
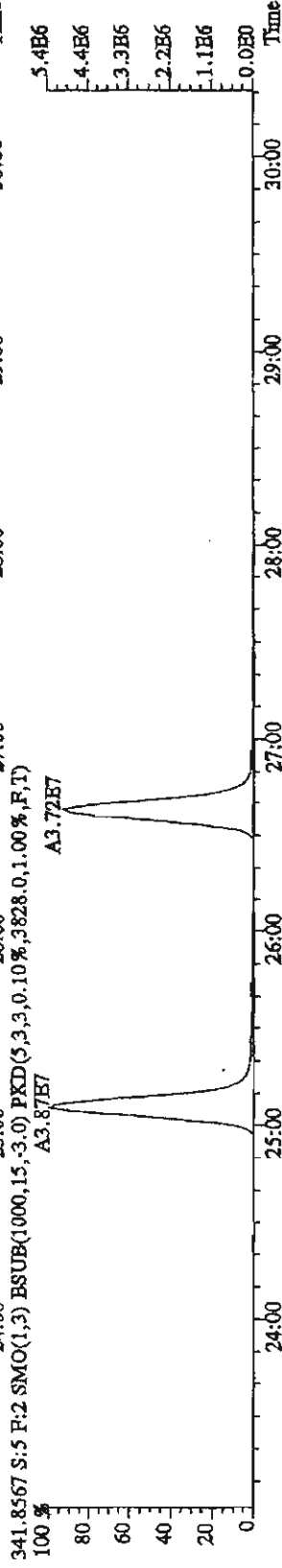
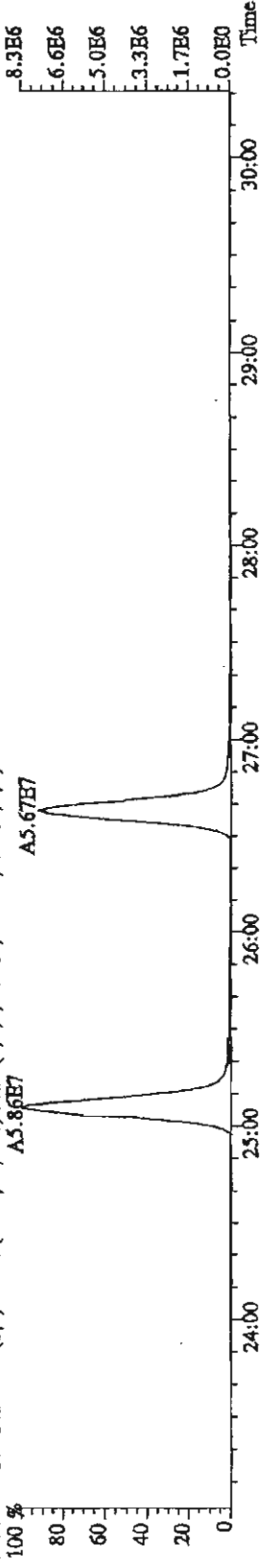
333.9339 S:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,5448,0,1,00%,F,T)



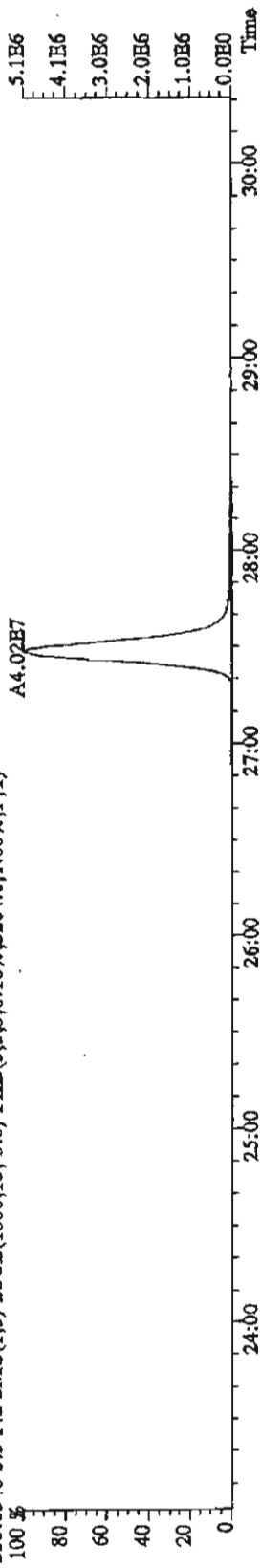
File:22FE11A4D5 #1-470 Acq:22-FEB-2011 15:51:15 GC EI+ Voltage SIR Autospec-UltimateE

Sample#5 Text:ST022C :CS-3 10DXN505 AS Exp:DIOXINRES

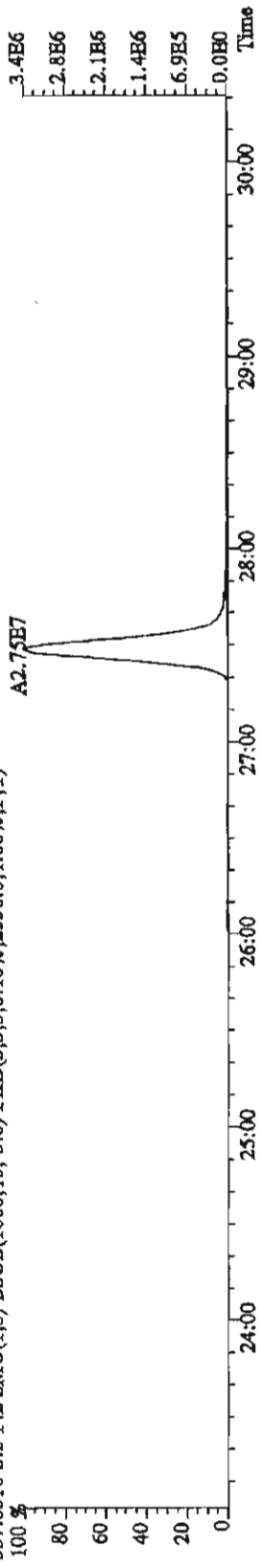
339.8597 S:5 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2952.0,1.00%,F,T)



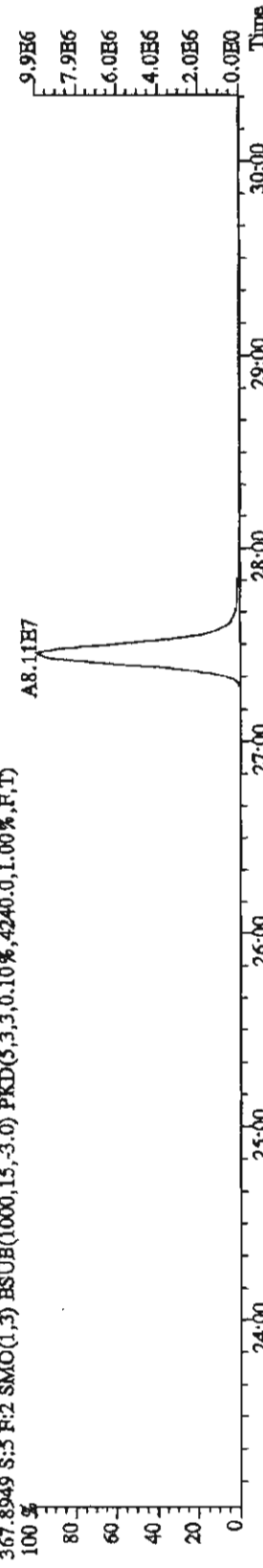
File:22FEB11A4D5 #1-470 Acq:22-FEB-2011 15:51:15 GC BI+ Voltage SIR Autospec-UltimaB
Sample#5 Text:ST0222C :CS-3 10DXN505 AS Exp:DIOXINRES
355.8546 S:5 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,2536.0,1.00%,F,T)



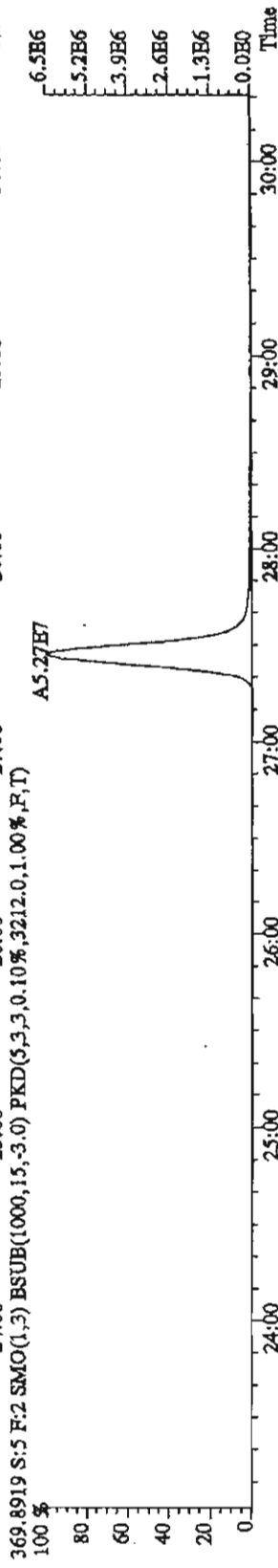
357.8516 S:5 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,2536.0,1.00%,F,T)



367.8949 S:5 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,4240.0,1.00%,F,T)



369.8919 S:5 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,3212.0,1.00%,F,T)

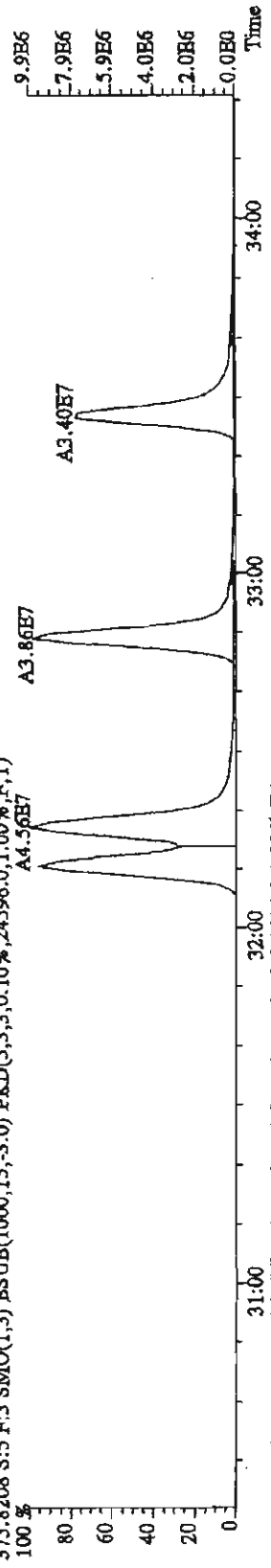


369.8919 S:5 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,3212.0,1.00%,F,T)

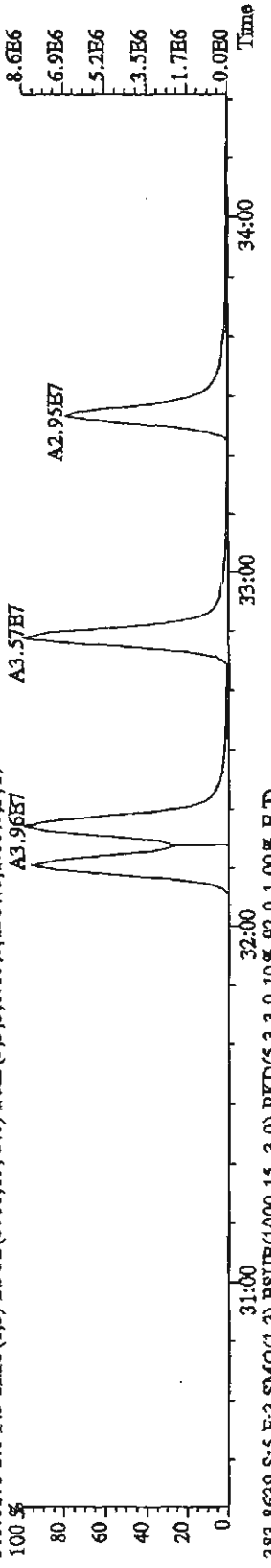
File: 22FEB11A4D5 #1-287 Acq: 22-FEB-2011 15:51:15 GC EI+ Voltage SIR Autospec-UltimaE

Sample#5 Text: ST0222C ; CS-3 10DXN505 AS Exp: DIOXINRBS

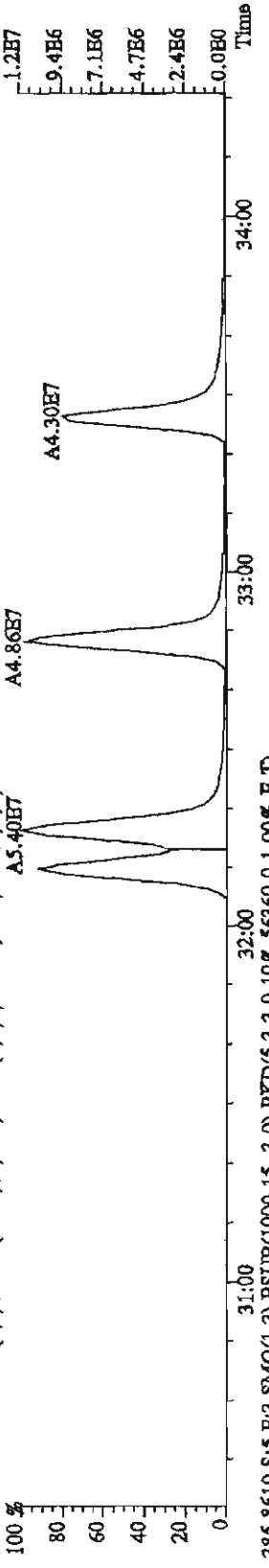
373.8208 S:5 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1.504,0,1.00%,F,T)



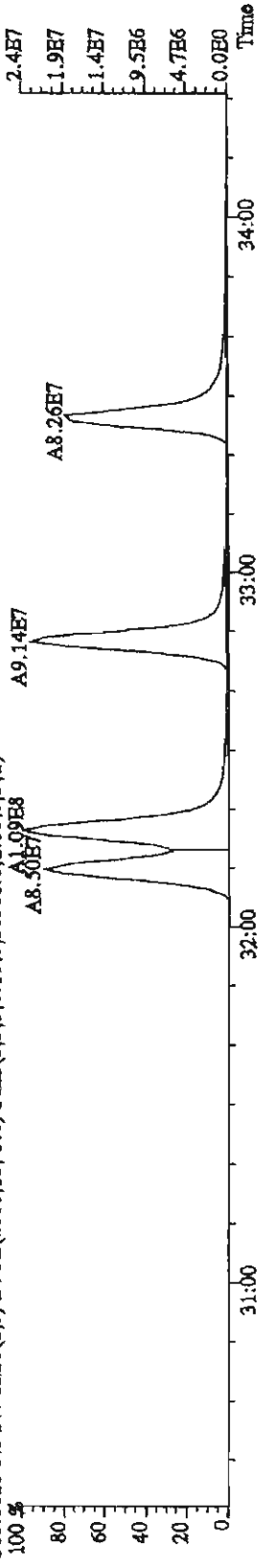
375.8178 S:5 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1.504,0,1.00%,F,T)



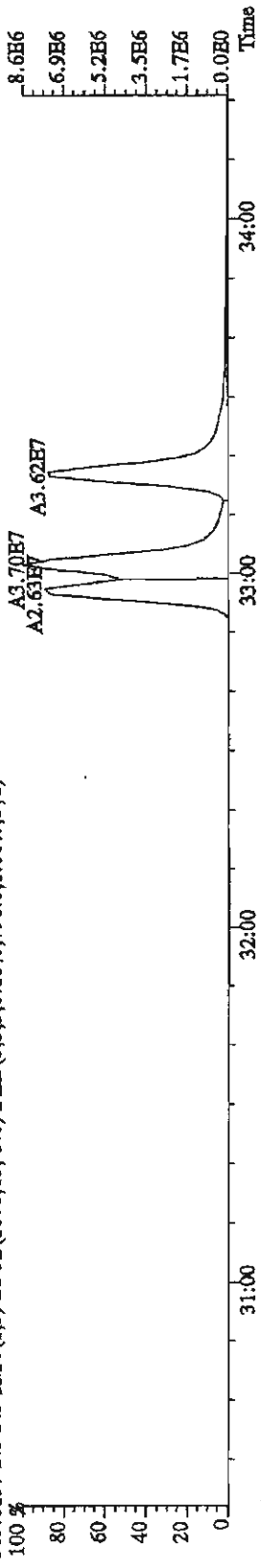
383.8639 S:5 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,92.0,1.00%,F,T)



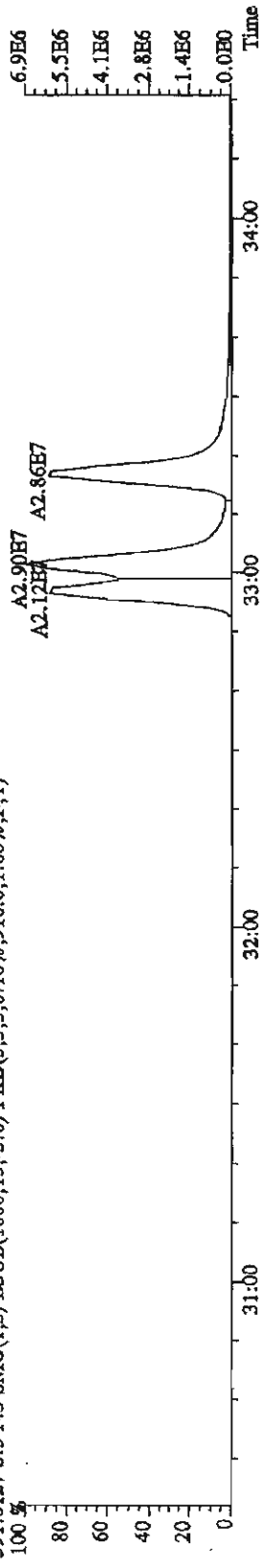
385.8610 S:5 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,56360,0,1.00%,F,T)



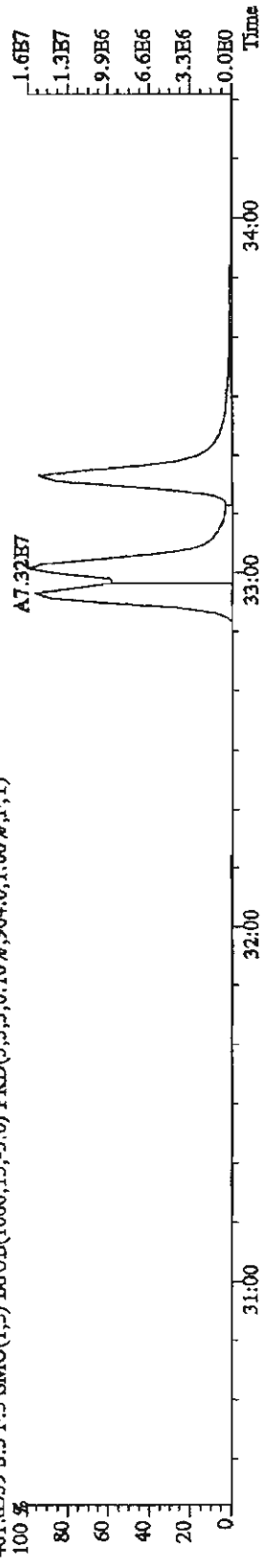
File: 22FEH11A4D5 #1-287 Acq: 22-FEB-2011 15:51:15 GC BI+ Voltage SIR Autospec-UltimaB
Sample#5 Text: ST0222C : CS-3 10DXN505 AS Exp: DIOXINRES
389.8157 S:5 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,796.0,1.00%,F,T)



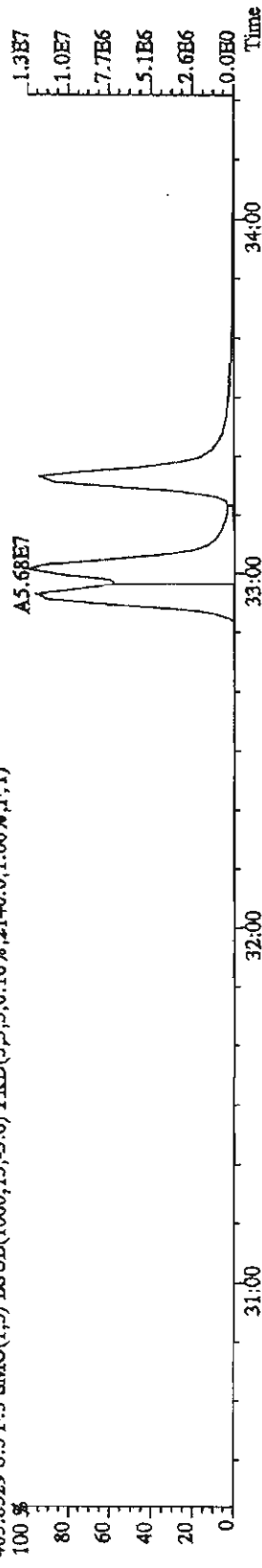
391.8127 S:5 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,916.0,1.00%,F,T)



401.8559 S:5 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,964.0,1.00%,F,T)



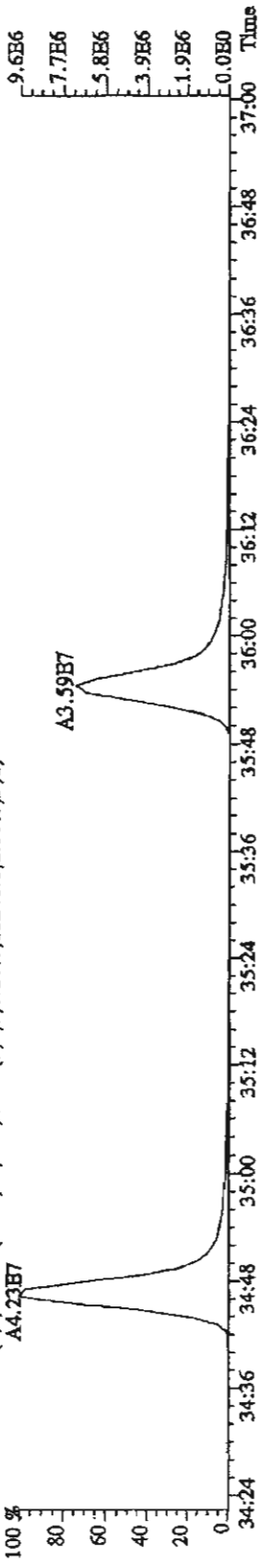
403.8529 S:5 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2140.0,1.00%,F,T)



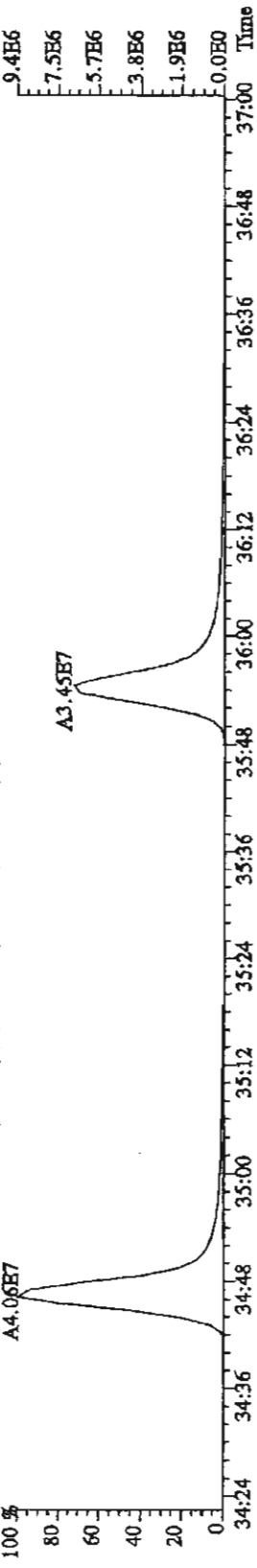
File:22FEB11A4D5 #1-200 Acq:22-FEB-2011 15:51:15 GC HI+ Voltage SIR, Autospec-UltimaB

Sample#5 Text:ST0222C :CS-3 10DXN505 AS Exp:DIOXINRES

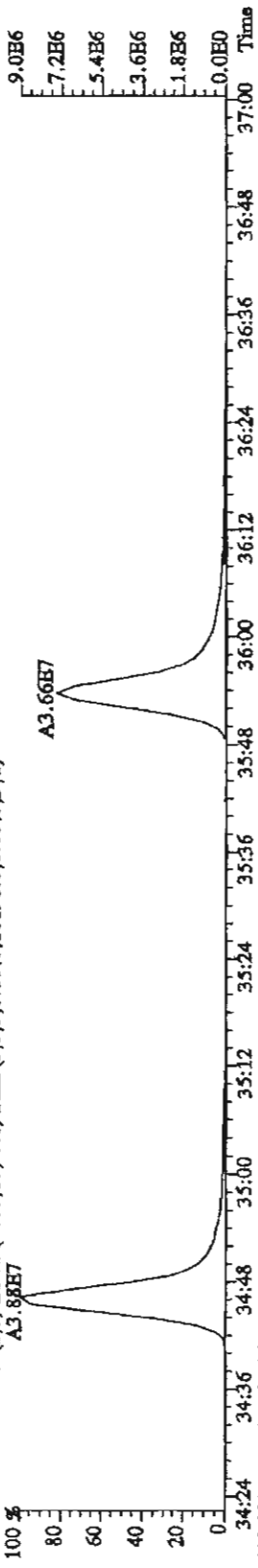
407.7818 S:5 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,11240.0,1.00%,F,T)



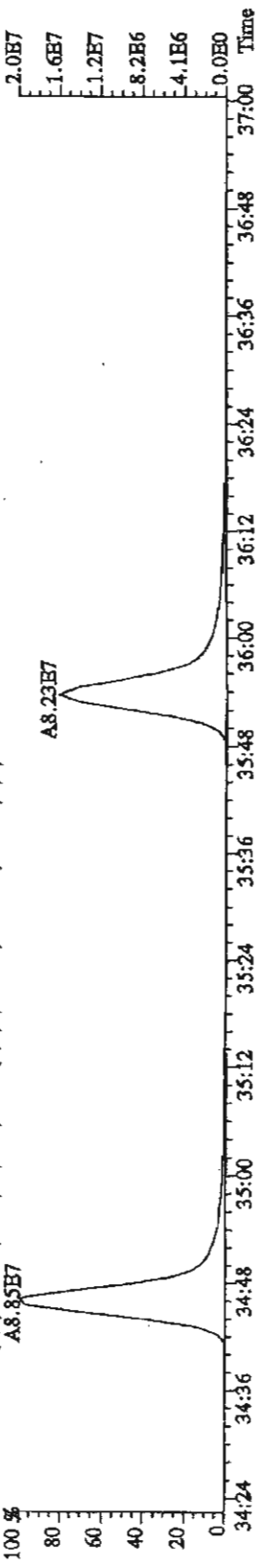
409.7789 S:5 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,22160.0,1.00%,F,T)



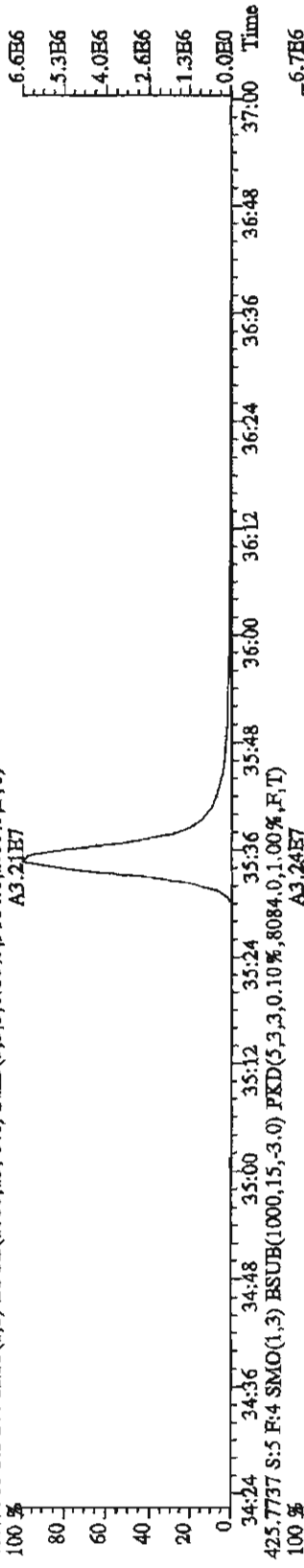
417.8253 S:5 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,10196.0,1.00%,F,T)



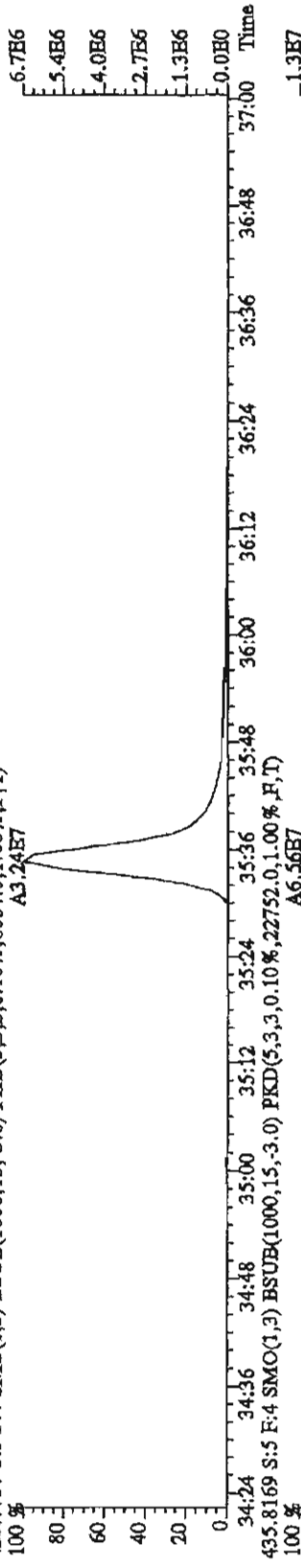
419.8220 S:5 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,39116.0,1.00%,F,T)



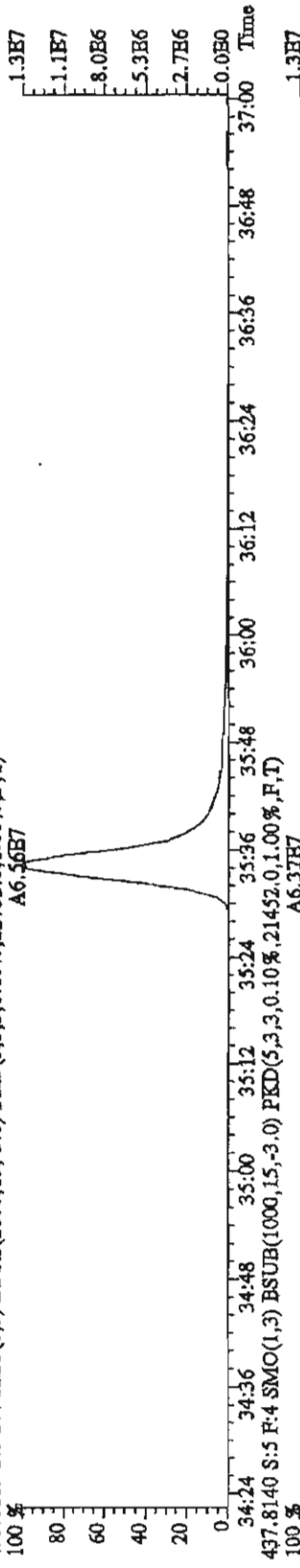
File: 22FEB11A4D5 #1-200 Acq: 22-FEB-2011 15:51:15 GC EL+ Voltage SIR Autospec-UltimaB
Sample#5 Text: ST022C :CS-3 10DXN505 AS Exp: DIOXINRES
423.7766 S:5 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9184.0,1.00%,F,T)
A3.21E7



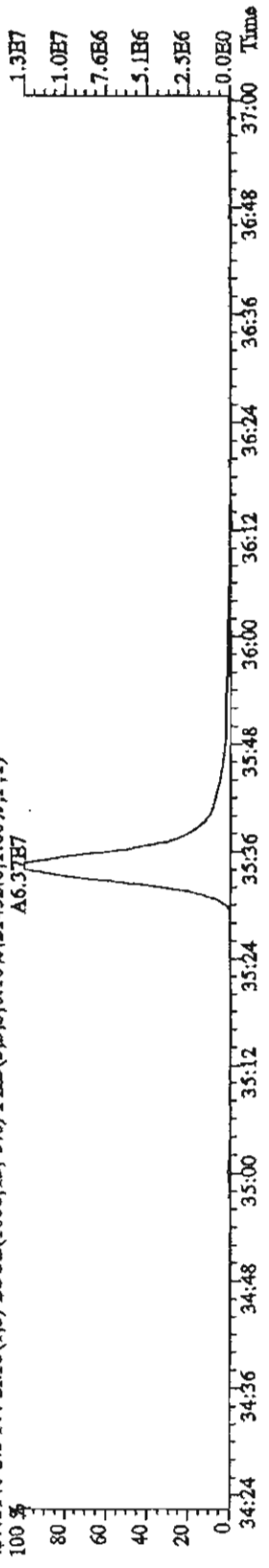
425.7737 S:5 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8084.0,1.00%,F,T)
A3.24E7



435.8169 S:5 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,22752.0,1.00%,F,T)
A6.56E7

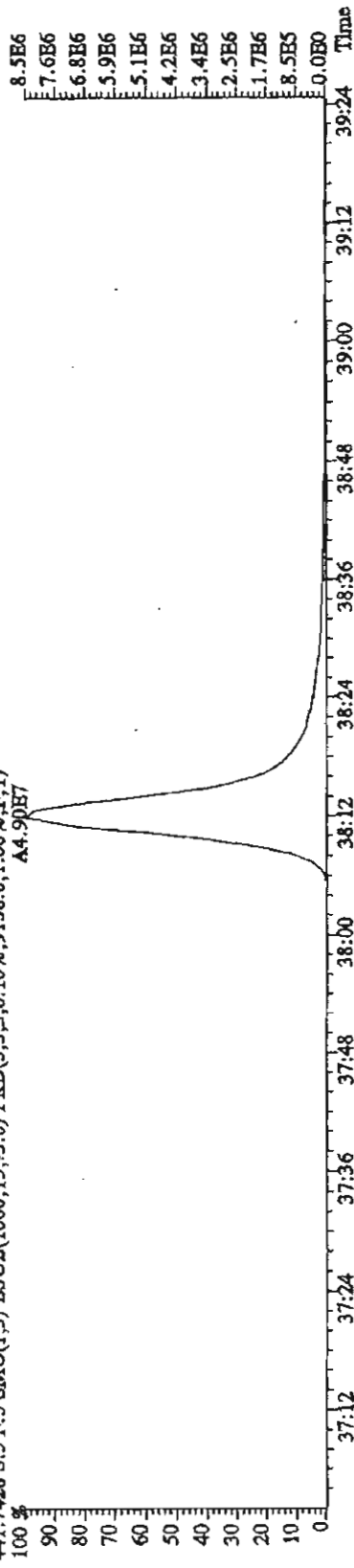


437.8140 S:5 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,21452.0,1.00%,F,T)
A6.37E7

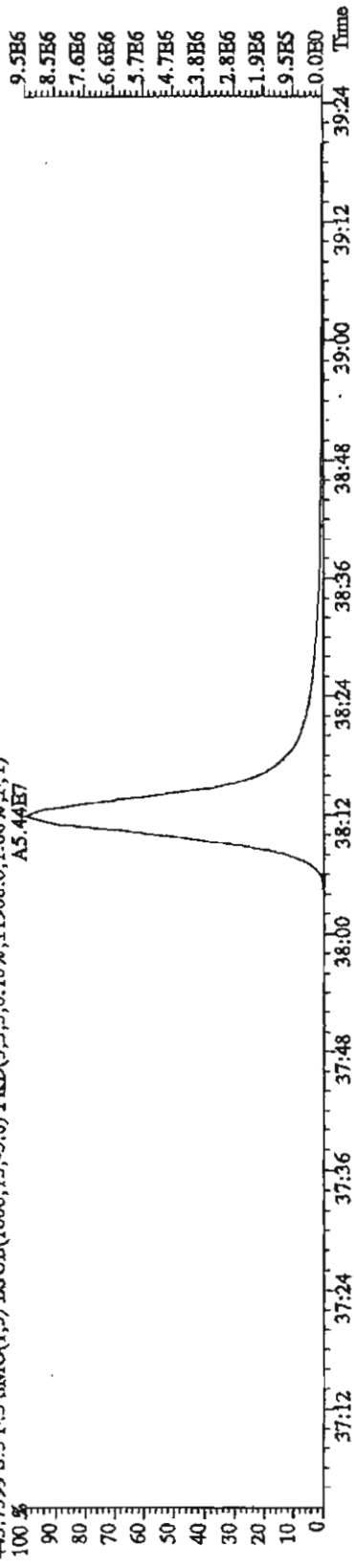


File:22FEB11A4D5 #1-193 Acq:22-FEB-2011 15:51:15 GC EI+ Voltage SIR Autospec-UltimaE

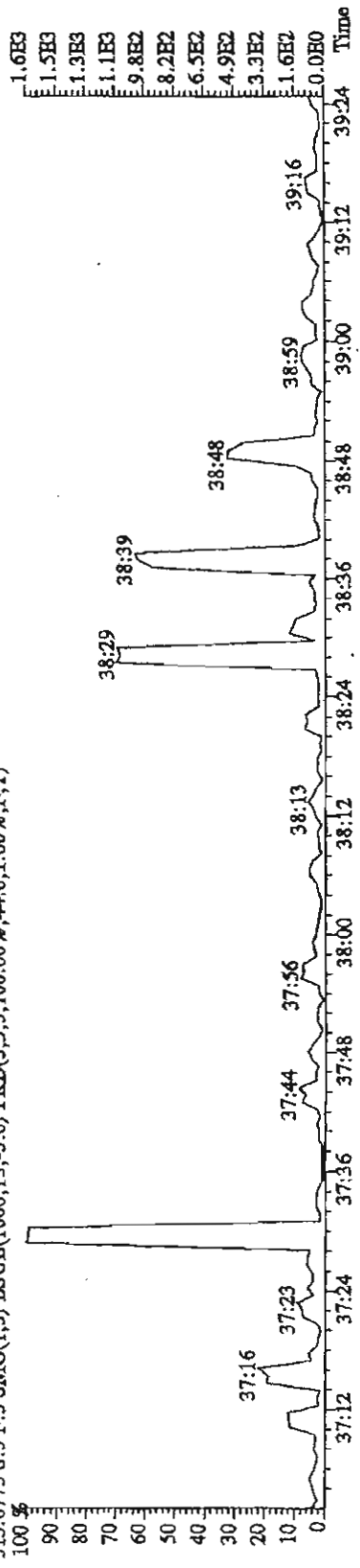
Sample#5 Text:ST0222C :CS-3 IODXIN505 AS Exp:DIOXINRES
441.7428 S:5 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9136.0,1.00%,F,T)
A4:90E7



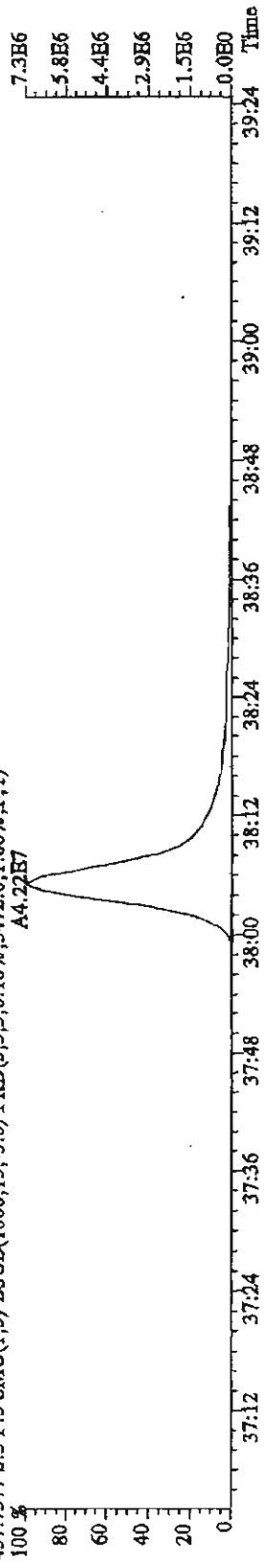
443.7399 S:5 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,11908.0,1.00%,F,T)
A5:44E7



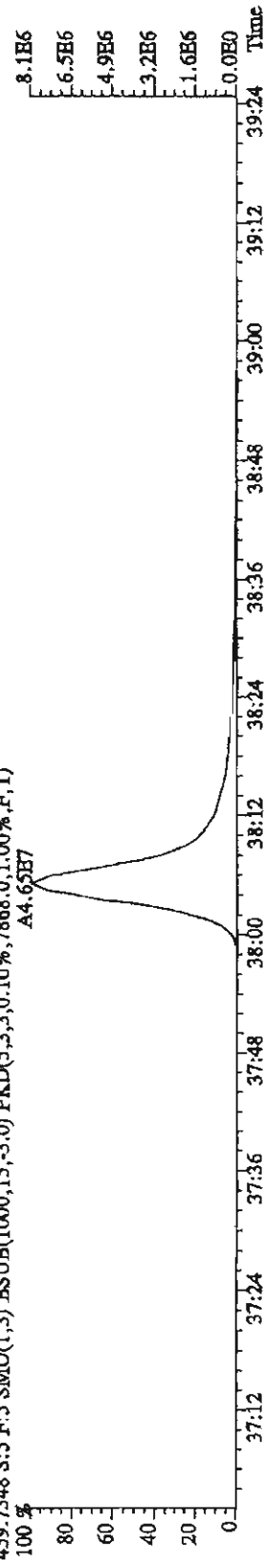
513.6775 S:5 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,5,100.00%,44.0,1.00%,F,T)



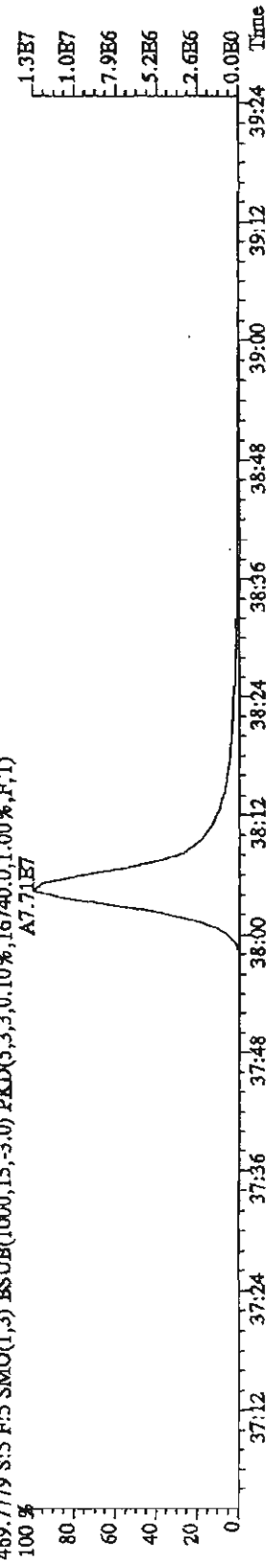
File: 22FB11A4D5 #1-193 Acq: 22-FBB-2011 15:51:15 GC EI+ Voltage SIR Autospec-UtkmaH
 Sample# 2 Text: ST0222C CS-3 10DXN505 AS Exp: DIOXINRES
 457.7377 S:5 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5472.0,1.00%,F,T)
 A4.22E7



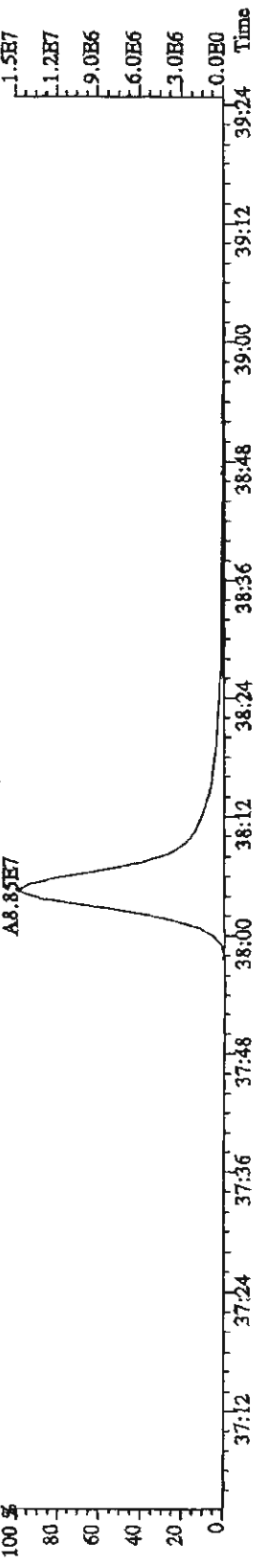
459.7348 S:5 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,7868.0,1.00%,F,T)
 A4.65E7



469.7779 S:5 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,16740.0,1.00%,F,T)
 A7.71E7



471.7750 S:5 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,18912.0,1.00%,F,T)
 A8.85E7

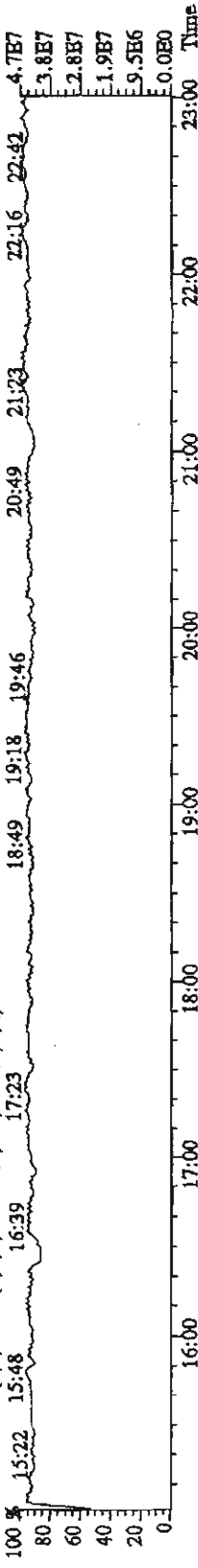


File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 15:51:15 GC EI+ Voltage SIR Autospec-UltimaE

Sample#5 Test: STV222C : CS-3 10DXN505 AS Exp: DIOXINRES

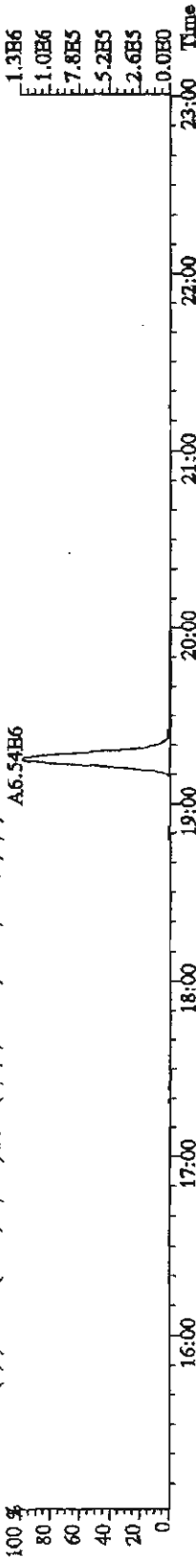
292.9825 S: 5 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)

100 % 15:22 15:48 16:39 17:23 18:49 19:18 19:46 20:49 21:23 22:16 22:42



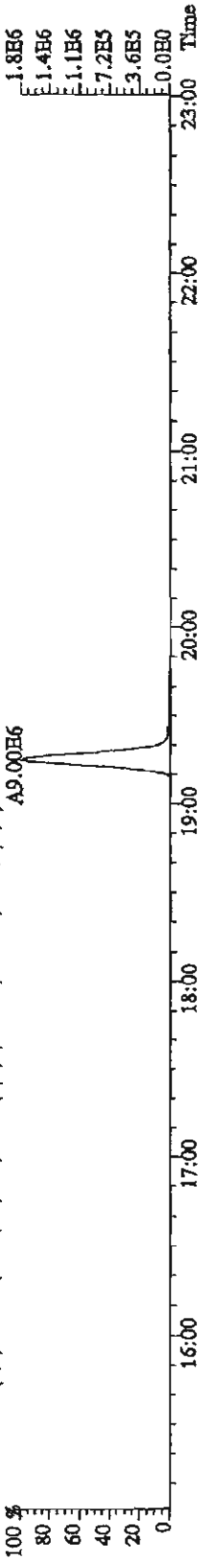
303.9016 S: 5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,936.0,1.00%,F,T)

100 %



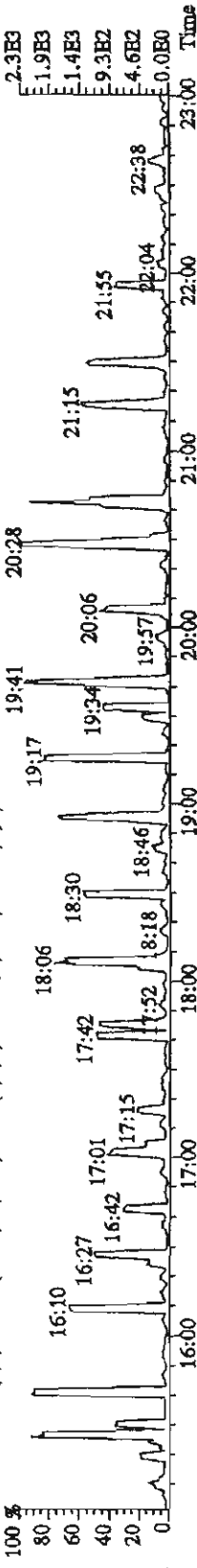
305.8987 S: 5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,2040.0,1.00%,F,T)

100 %



375.8364 S: 5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,80.0,1.00%,F,T)

100 %

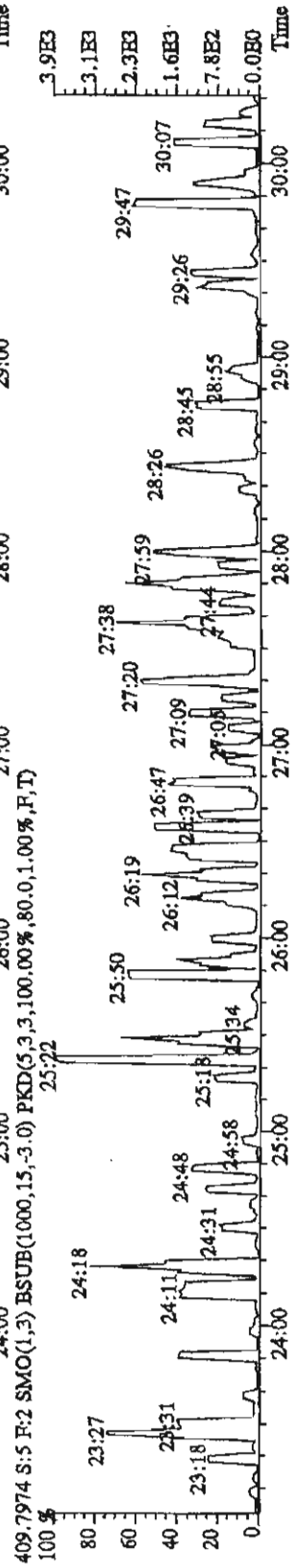
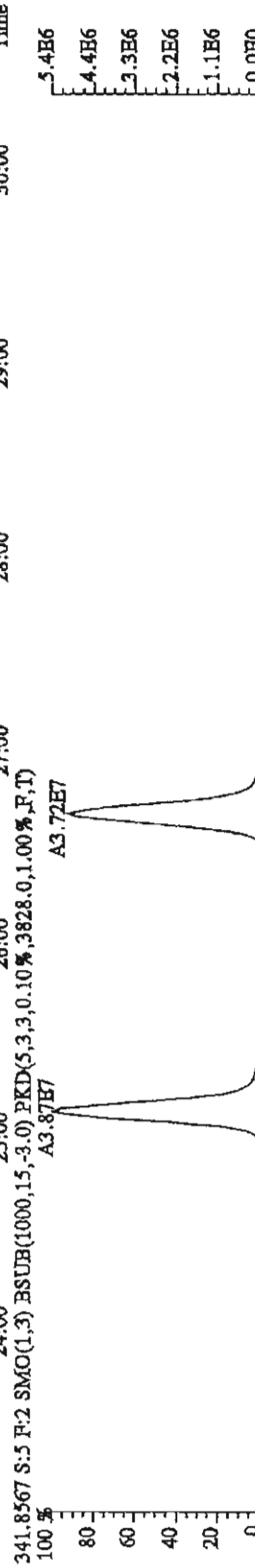
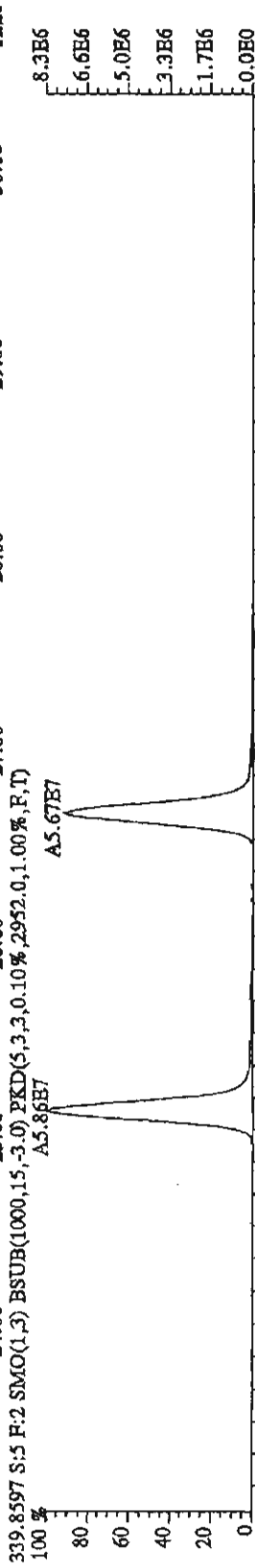
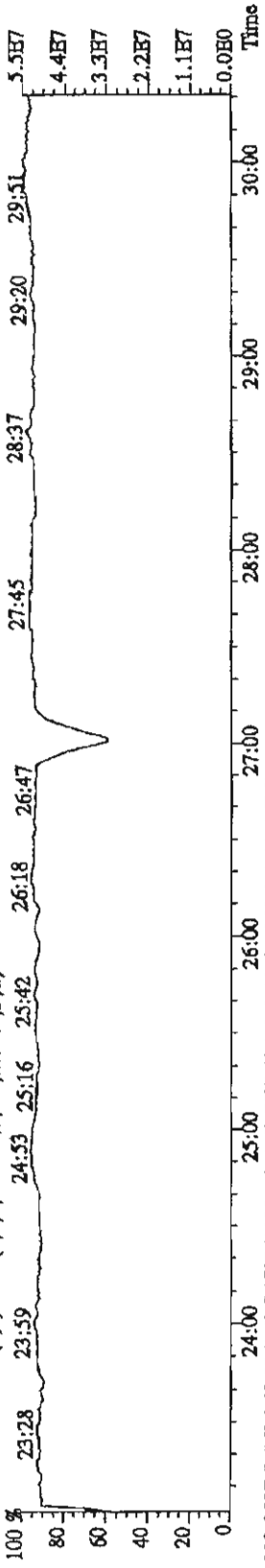


330.9792 S: 5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 %



File: 22FB11A4D5 #1-470 Acq: 22-FEB-2011 15:51:15 GC EL+ Voltage SIR Autospec-UltimaE
 Sample#5 Text: ST0222C :CS-3 10DXN505 AS Exp: DIOXINRES
 342.9792 S:5 F:2 SMO(1.3) PKD(5.3,3,100.00%,0.0,1.00%,F,T)

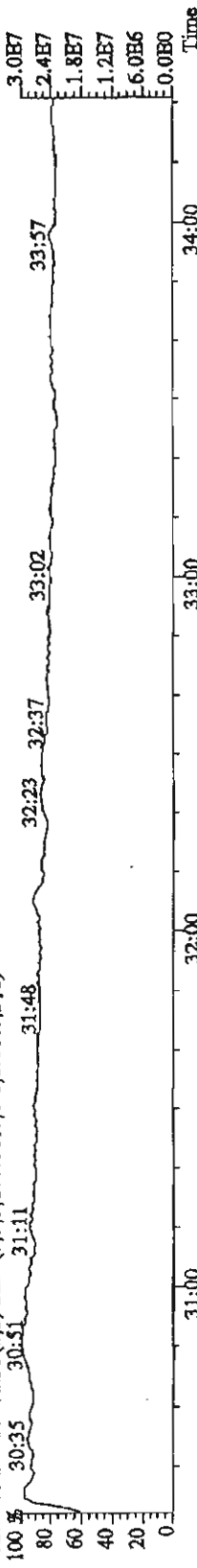


File: 22FEB11A4D5 #1-287 Acq: 22-FEB-2011 15:51:15 GC EI+ Voltage SIR Autospec-UltimaB

Sample#5 Text: ST0222C : CS-3 10DXN505 AS Exp: DIOXINRES

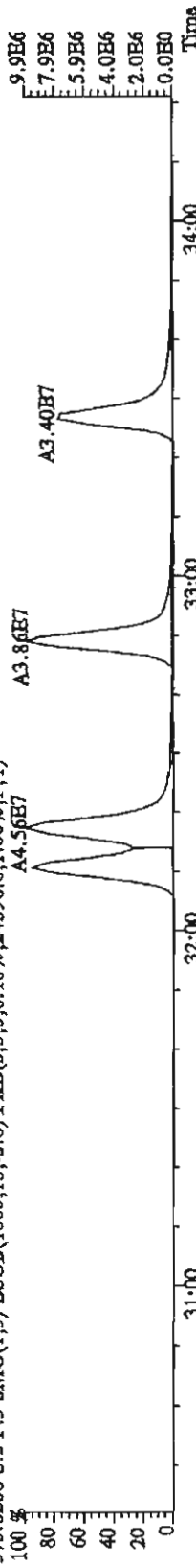
392.9760 S:5 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 % 30:35 30:51 31:11 31:48 32:23 32:37 33:02 33:57



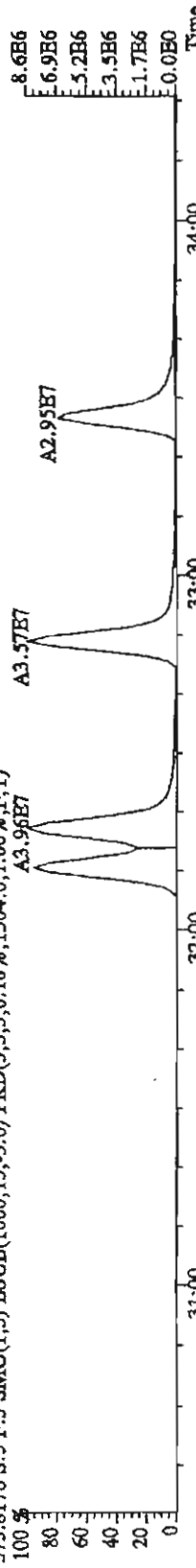
373.8208 S:5 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,24596.0,1.00%,F,T)

100 % A4.56E7



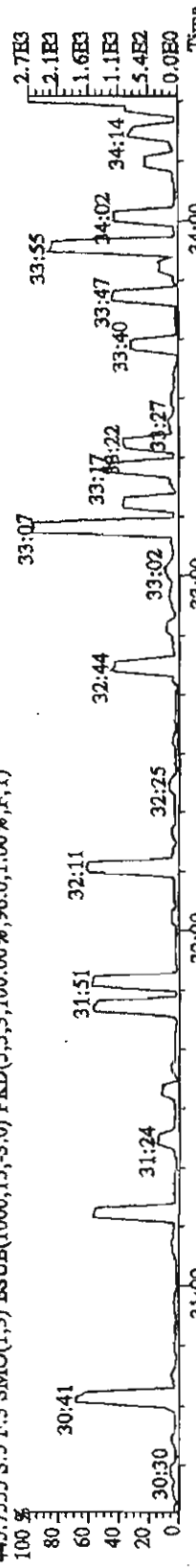
375.8178 S:5 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1504.0,1.00%,F,T)

100 % A3.96E7



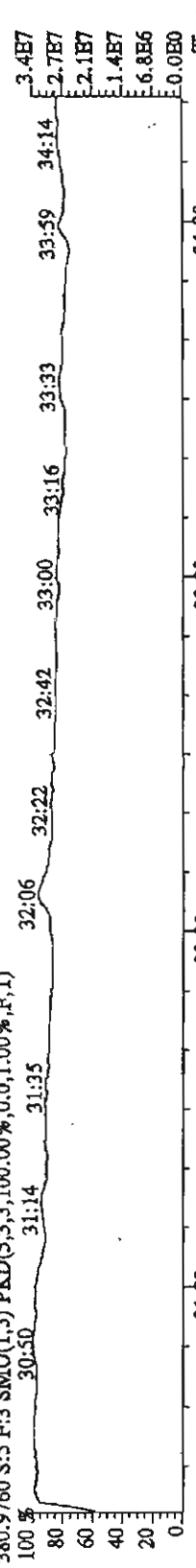
445.7555 S:5 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,96.0,1.00%,F,T)

100 %



380.9760 S:5 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 %

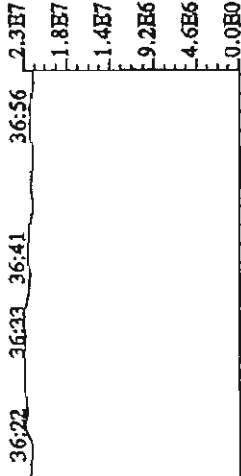


File:22FB11A4D5 #1-200 Acq:22-FEB-2011 15:51:15 GC BI+ Voltage SIR Autospec-UltimaB

Sample#5 Text:ST0222C :CS-3 10DXN505 AS Exp:DIOXINRES

430.9728 S:5 F:4 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 % 34:27 34:36 34:45 34:58 35:07 35:24 35:39



34:24 34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 36:56

407.7818 S:5 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,11240.0,1.00%,F,T)

100 % 34:27 34:36 34:45 34:58 35:07 35:24 35:39



34:24 34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00

409.7789 S:5 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,22160.0,1.00%,F,T)

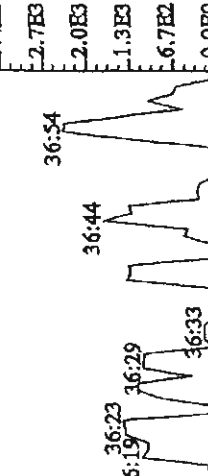
100 % 34:27 34:36 34:45 34:58 35:07 35:24 35:39



34:24 34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00

479.7165 S:5 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,80.0,1.00%,F,T)

100 % 34:27 34:36 34:45 34:58 35:07 35:24 35:39



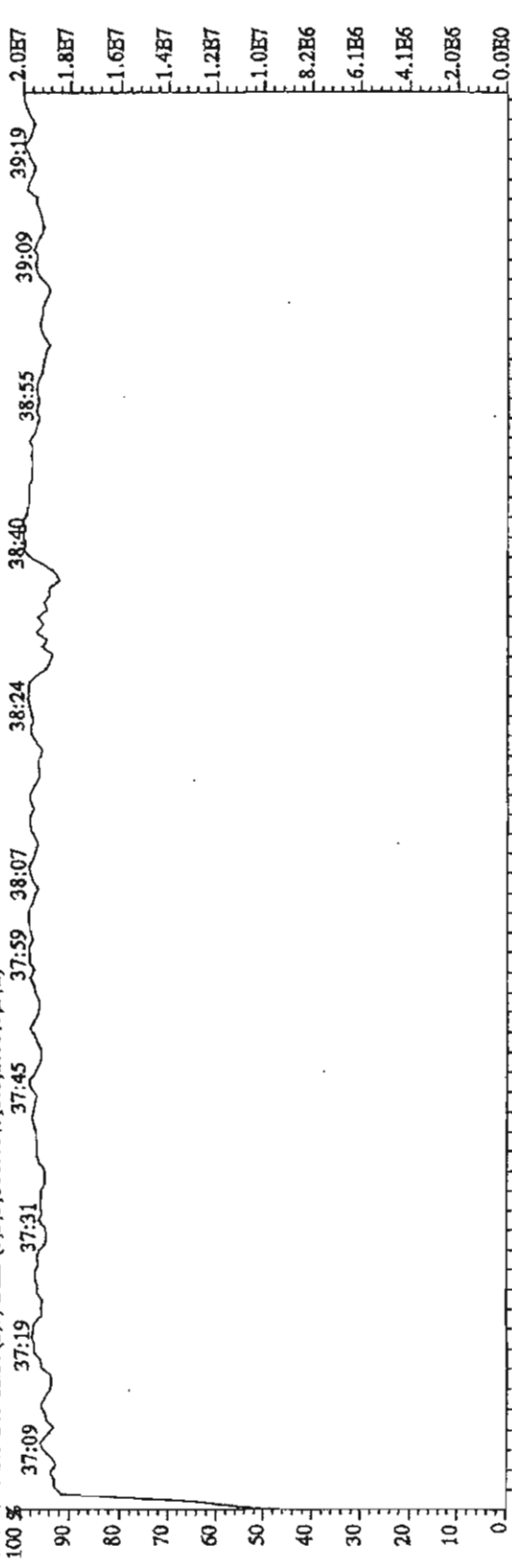
34:24 34:36 34:48 35:00 35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00

34:32 34:47 34:53 35:01 35:19 35:38 35:52 36:08 36:23 36:29 36:44 36:54

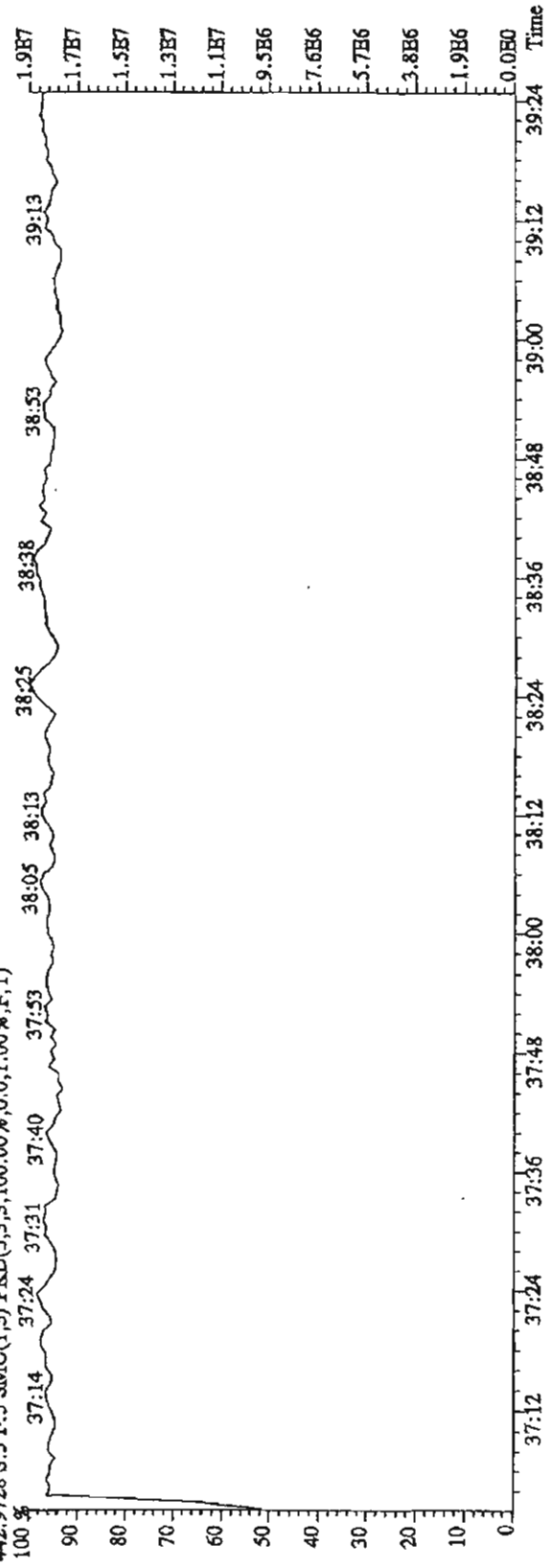
File: 22FEB11A4D5 #1-193 Acq: 22-FEB-2011 15:51:15 GC EI+ Voltage SIR Autospec-Ultima3

Sample#5 Text: ST022C :CS-3 10DXN505 AS B9: DIOXINRES

454.9728 S: 5 F: 5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



442.9728 S: 5 F: 5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



Run #5 Filename 22FEB11A4D5 S: 6 I: 1
 Acquired: 22-FEB-11 16:35:50 Processed: 22-FEB-11 17:15:22
 Run: 22FEB11A4D5 Analyte: 1613 Cal: 16130222114D5

Comments:

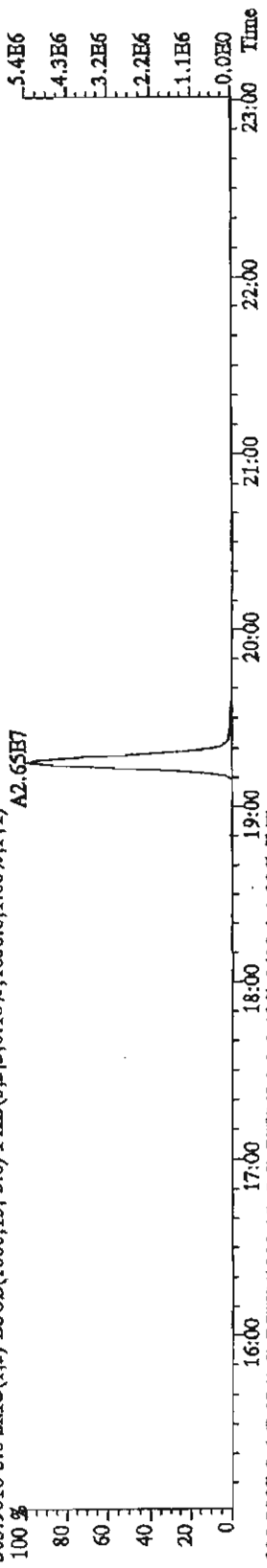
Sample text: ST0222D :CS-4 10DXN506 AS

Name	Resp	RA	RT	RRF		Mod?
13C-1,2,3,4-TCDD	195502688	0.77 y	19:50	-	100.00	n
13C-2,3,7,8-TCDF	205421384	0.77 y	19:14	1.0507	100.00	n
2,3,7,8-TCDF	61152174	0.76 y	19:15	0.7442	40.00	n
Total TCDF	-	- n	-	0.7442	40.00	n
13C-2,3,7,8-TCDD	183415272	0.77 y	20:03	0.9382	100.00	n
2,3,7,8-TCDD	63971860	0.74 y	20:04	0.8720	40.00	n
Total TCDD	-	- n	-	0.8720	40.00	n
37C1-2,3,7,8-TCDD	102008896	1.00 y	20:04	1.3044	40.00	n
13C-1,2,3,7,8-PeCDF	198026904	1.61 y	25:05	1.0129	100.00	n
1,2,3,7,8-PeCDF	394057472	1.51 y	25:06	0.9950	200.00	n
13C-2,3,4,7,8-PeCDF	188554344	1.58 y	26:37	0.9645	100.00	n
2,3,4,7,8-PeCDF	376011200	1.50 y	26:38	0.9971	200.00	n
Total F2 PeCDF	-	- n	-	0.9960	200.00	n
Total F1 PeCDF	-	- n	-	0.9960	400.00	n
13C-1,2,3,7,8-PeCDD	130408952	1.57 y	27:27	0.6670	100.00	n
1,2,3,7,8-PeCDD	279831280	1.47 y	27:29	1.0729	200.00	n
Total PeCDD	-	- n	-	1.0729	200.00	n
13C-1,2,3,7,8,9-HxCDD	135186880	1.31 y	33:16	-	100.00	n
13C-1,2,3,4,7,8-HxCDF	119039392	0.50 y	32:10	0.8806	100.00	n
1,2,3,4,7,8-HxCDF	272559816	1.13 y	32:11	1.1448	200.00	n
13C-1,2,3,6,7,8-HxCDF	159304624	0.51 y	32:17	1.1784	100.00	n
1,2,3,6,7,8-HxCDF	346190320	1.15 y	32:18	1.0866	200.00	n
13C-2,3,4,6,7,8-HxCDF	137832548	0.53 y	32:48	1.0196	100.00	n
2,3,4,6,7,8-HxCDF	305269664	1.21 y	32:49	1.1074	200.00	n
13C-1,2,3,7,8,9-HxCDF	122421380	0.53 y	33:27	0.9056	100.00	n
1,2,3,7,8,9-HxCDF	258482280	1.16 y	33:27	1.0557	200.00	n
Total HxCDF	-	- n	-	1.0978	800.00	n
13C-1,2,3,4,7,8-HxCDD	89495000	1.30 y	32:57	0.6620	100.00	n
1,2,3,4,7,8-HxCDD	194580960	1.25 y	32:57	1.0871	200.00	n
13C-1,2,3,6,7,8-HxCDD	124472924	1.30 y	33:01	0.9207	100.00	n
1,2,3,6,7,8-HxCDD	262970384	1.28 y	33:02	1.0563	200.00	n
1,2,3,7,8,9-HxCDD	262629616	1.27 y	33:17	1.2274	200.00	n
Total HxCDD	-	- n	-	1.1219	600.00	n
13C-1,2,3,4,6,7,8-HpCDF	122133148	0.45 y	34:47	0.9034	100.00	n
1,2,3,4,6,7,8-HpCDF	325395488	1.05 y	34:47	1.3321	200.00	n
13C-1,2,3,4,7,8,9-HpCDF	113323816	0.45 y	35:54	0.8383	100.00	n
1,2,3,4,7,8,9-HpCDF	280724240	1.06 y	35:55	1.2386	200.00	n
Total HpCDF	-	- n	-	1.2871	400.00	n

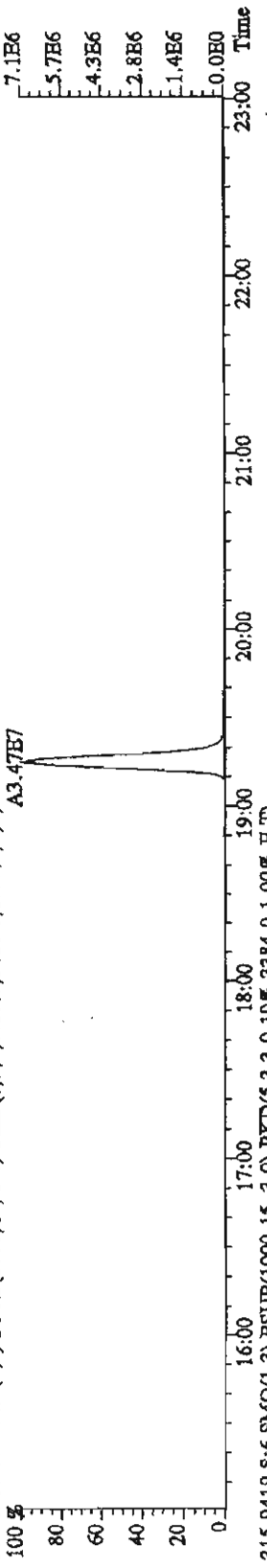
13C-1,2,3,4,6,7,8-HpCDD	120658704	1.05	y	35:35	0.8925	100.00	n
1,2,3,4,6,7,8-HpCDD	252589952	1.00	y	35:35	1.0467	200.00	n
Total HpCDD	-	-	n	-	1.0467	200.00	n
13C-OCDD	160408760	0.86	y	38:05	0.5933	200.00	n
OCDF	437187744	0.90	y	38:12	1.3627	400.00	n
OCDD	368021168	0.91	y	38:05	1.1471	400.00	n

File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 16:35:50 GC EI+ Voltage SIR_Autospec-UltimaE
Sample#6 Text: ST0222D :CS-4 10DXNS06 AS Exp: DIOXINRES

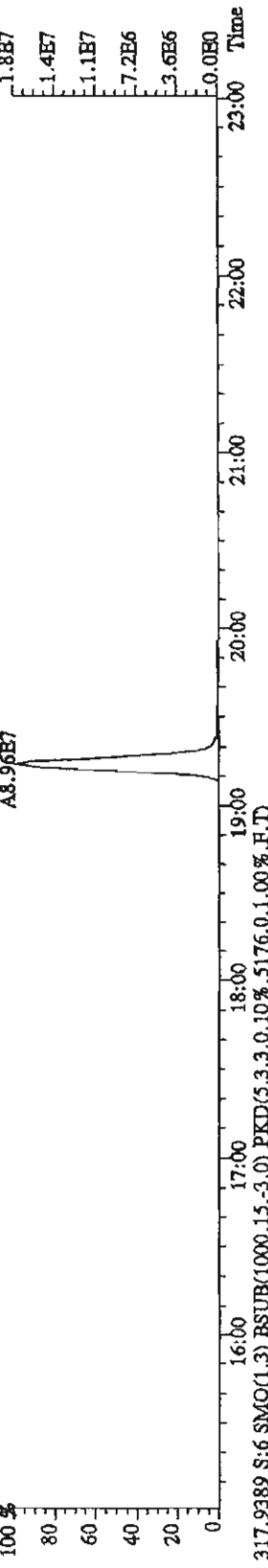
303.9016 S:6 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,3428,0,1,00%,F,T)



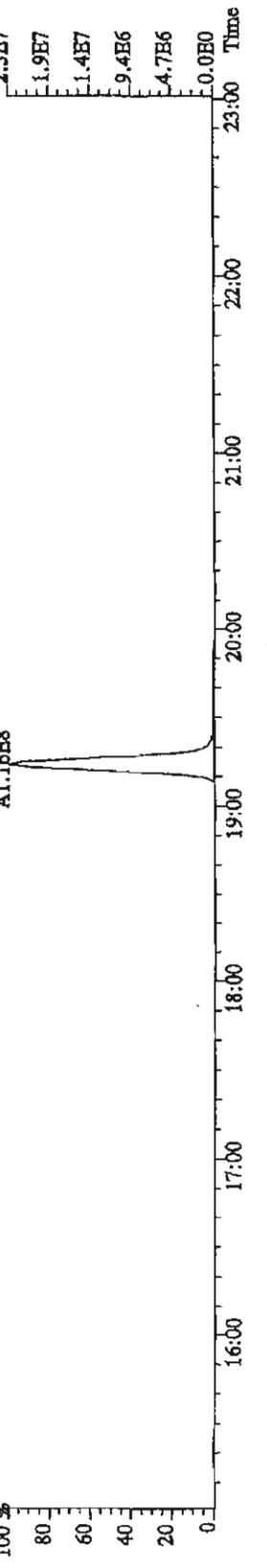
305.8987 S:6 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,3428,0,1,00%,F,T)



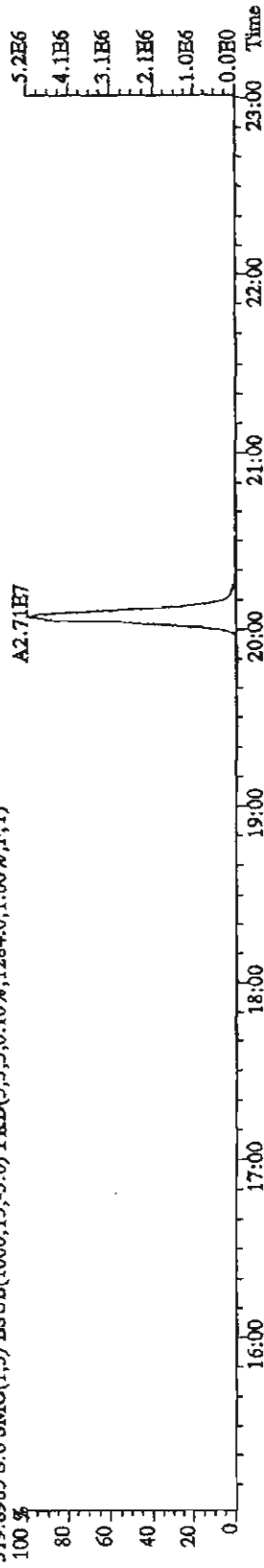
315.9419 S:6 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,3384,0,1,00%,F,T)



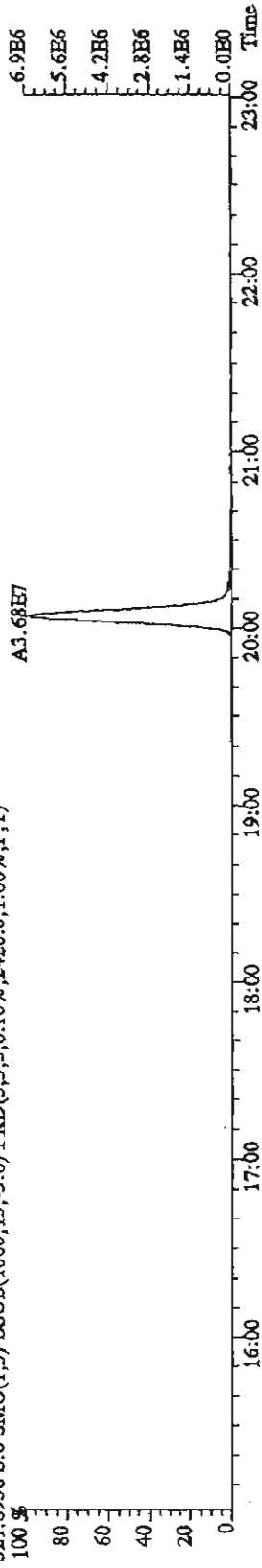
317.9389 S:6 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,5176,0,1,00%,F,T)



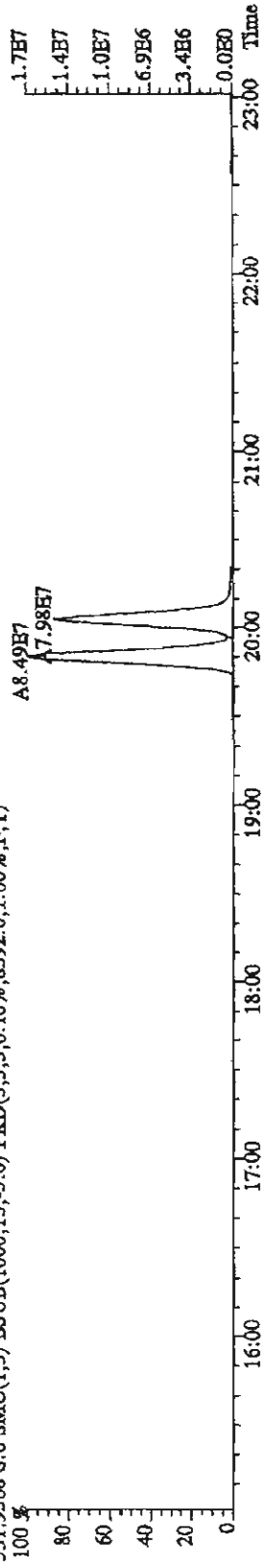
File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 16:35:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 Text: ST0222D :CS-4.10DXN506 AS Exp: DIOXINRES
 319.8965 S:6 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1284,0,1,00%,F,T)



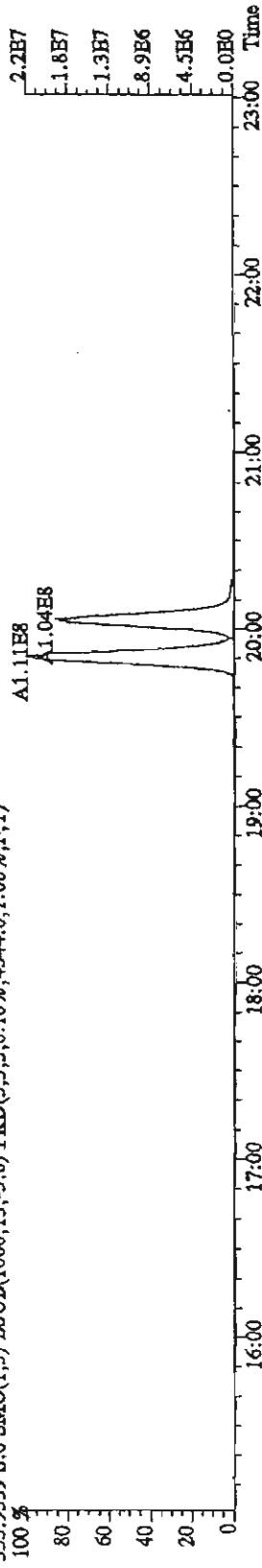
321.8936 S:6 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2420,0,1,00%,F,T)



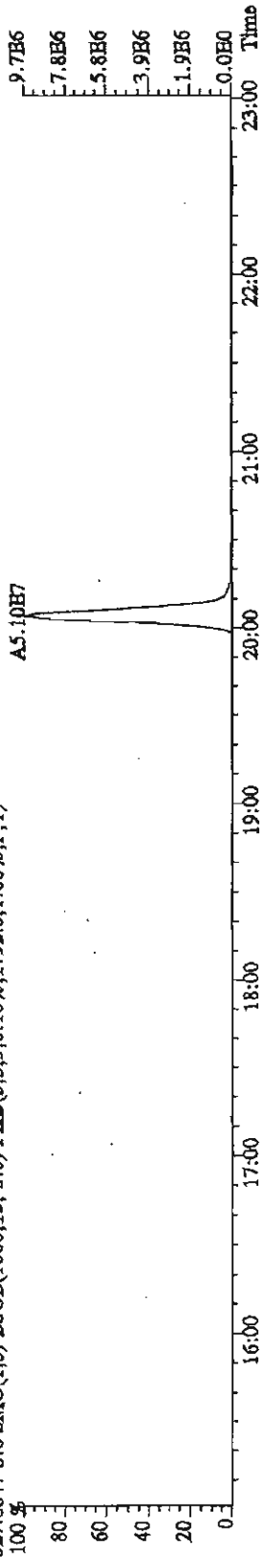
331.9368 S:6 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,8392,0,1,00%,F,T)



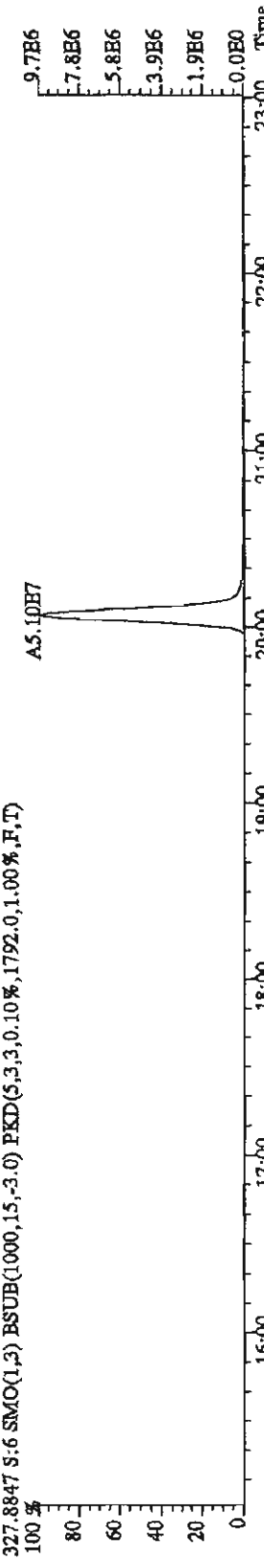
333.9339 S:6 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,4544,0,1,00%,F,T)



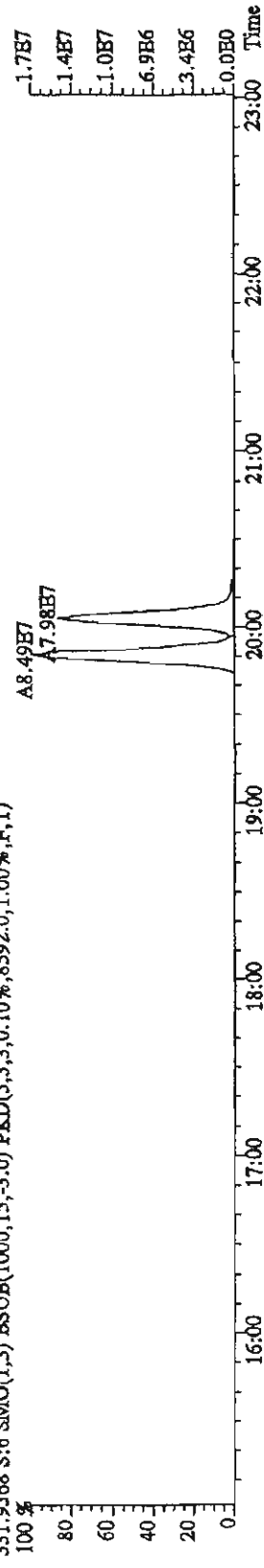
File: 22FE11A4D5 #1-530 Acq: 22-FEB-2011 16:35:50 GC BI+ Voltage SIR Autospec-UltimaE
 Sample#6 Text: ST0222D ; CS-4 10DXN506 AS Exp: DIOXINRES
 327.8847 S:6 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1.792.0,1.00%,F,T)



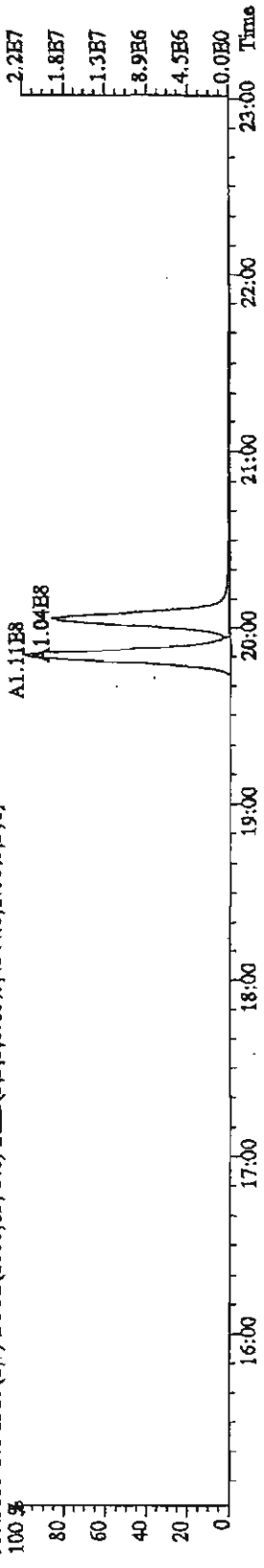
327.8847 S:6 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1.792.0,1.00%,F,T)



331.9368 S:6 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8.592.0,1.00%,F,T)



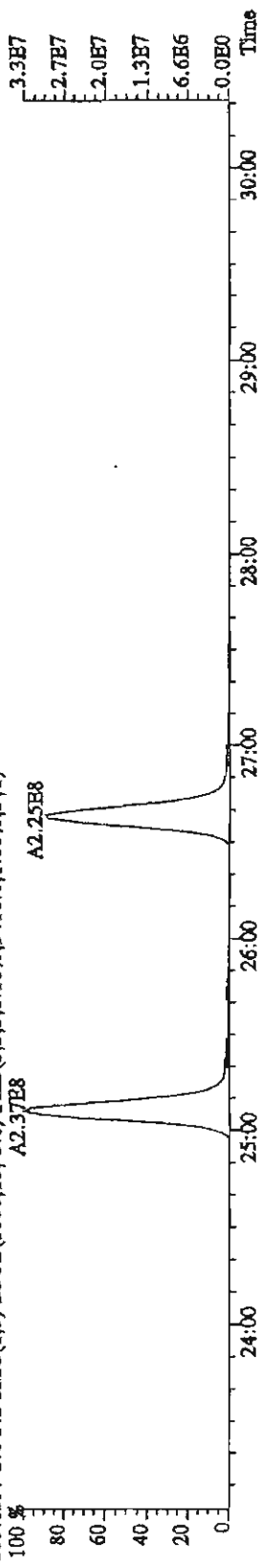
333.9339 S:6 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4.544.0,1.00%,F,T)



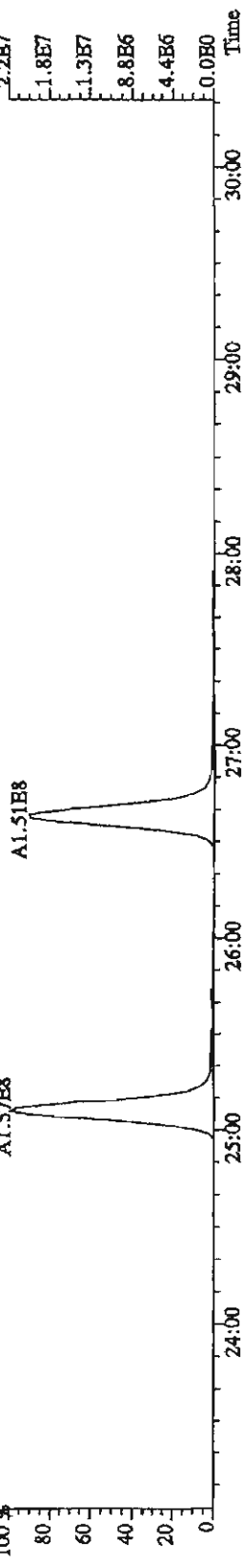
File: 22FEB11A4D5 #1-470 Acq: 22-FEB-2011 16:35:50 GC EI+ Voltage SIR Autospec-UltimaB

Sample#6 Text: ST0222D : CS-4 10DXN506 AS Exp: DIOXINRES

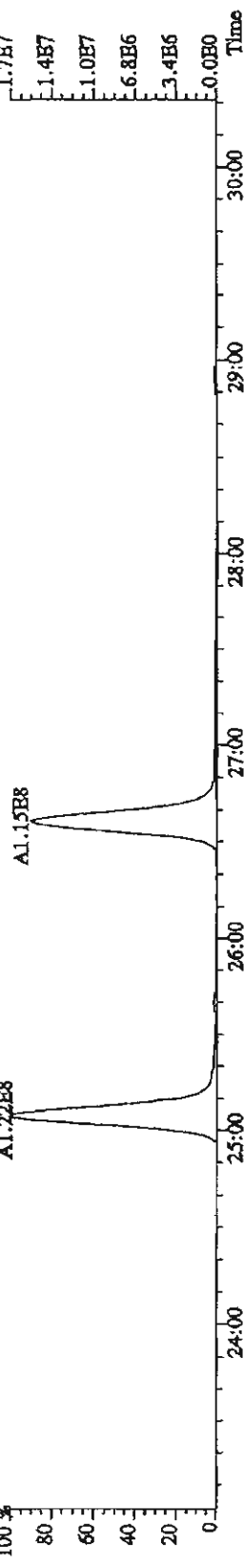
339.8597 S:6 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,9416,0,1.00%,F,T)



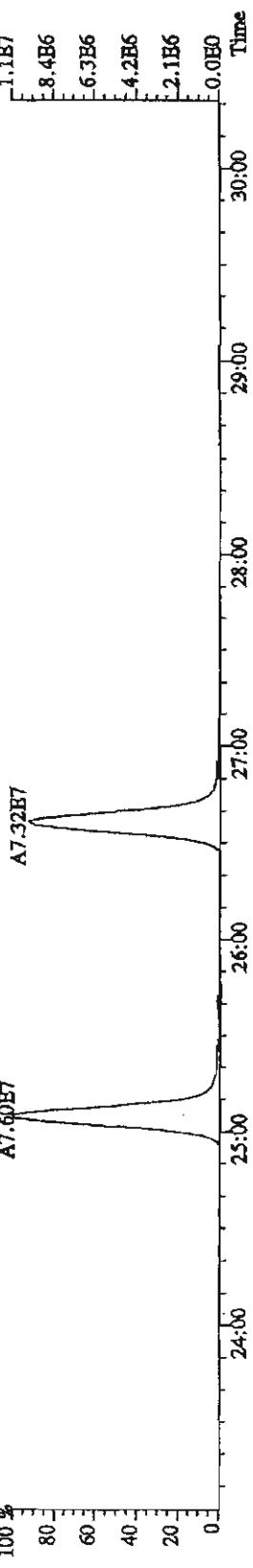
341.8567 S:6 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,7632,0,1.00%,F,T)



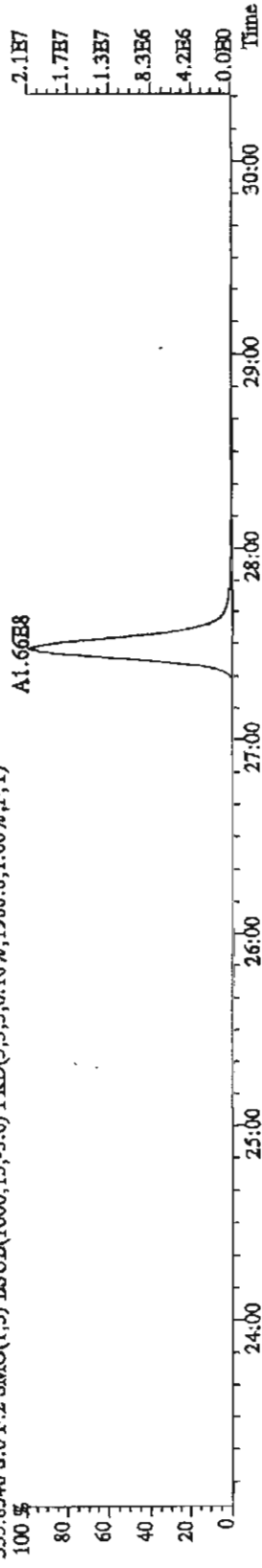
351.9000 S:6 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,12268,0,1.00%,F,T)



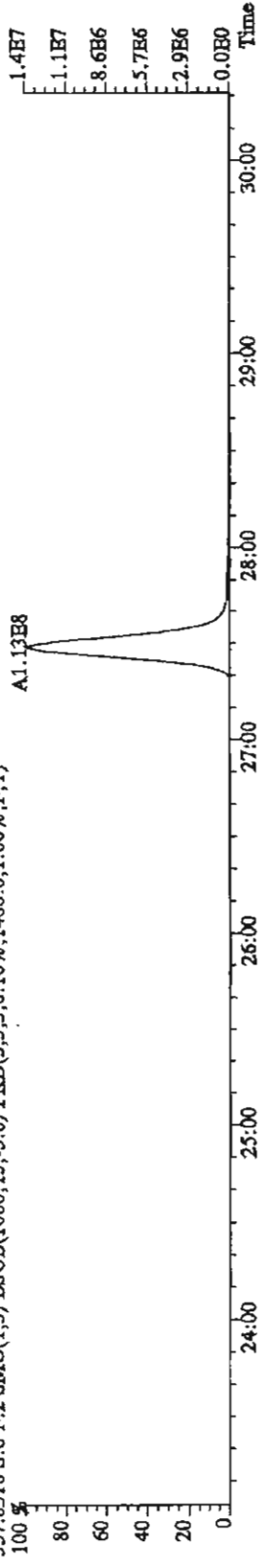
353.8970 S:6 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,5440,0,1.00%,F,T)



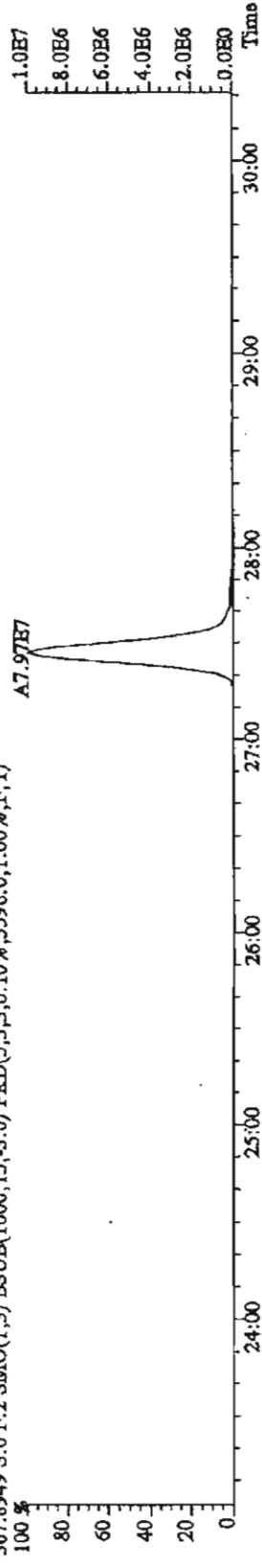
File:22HE11A4D5 #1-470 Acq:22-FEB-2011 16:35:50 GC HI+ Voltage SIR Autospec-UltimaE
 Sample#5 Text:ST0222D :CS-4 10DXN506 AS Exp:DIOXINRES
 355.8546 S:6 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1960.0,1.00%,F,T)



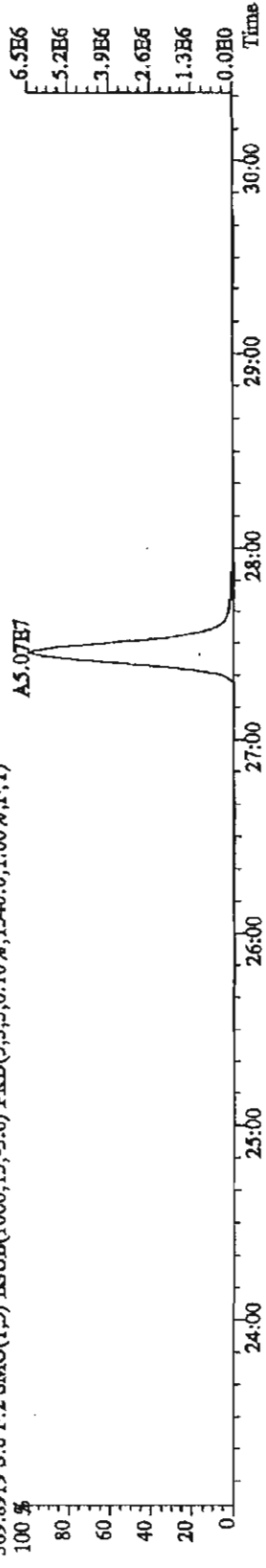
367.8949 S:6 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3396.0,1.00%,F,T)



369.8919 S:6 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1540.0,1.00%,F,T)



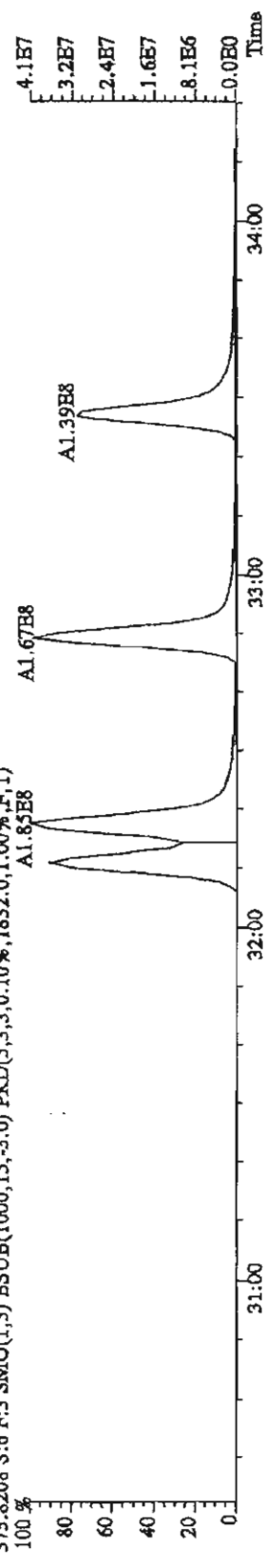
355.8546 S:6 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1960.0,1.00%,F,T)



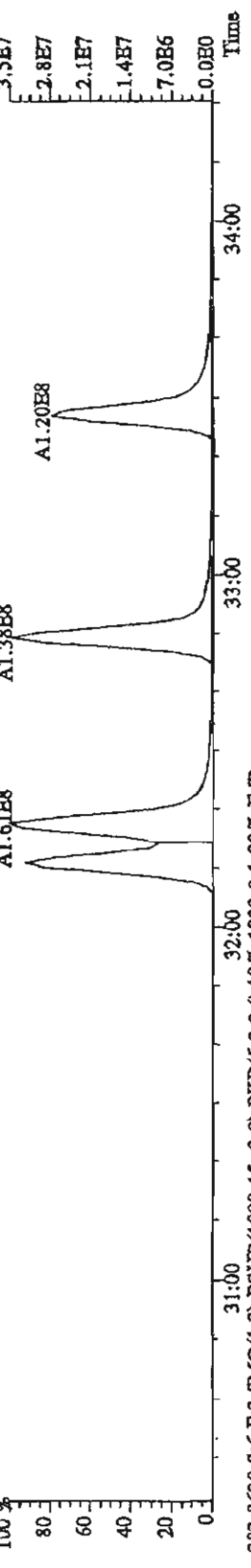
File: 22FB11A4D5 #1-286 Acq: 22-FEB-2011 16:35:50 GC EI+ Voltage SIR Autospec-UltimaE

Sample#6 Text: ST022D :CS-4 10DXN506 AS Exp: DIOXINRES

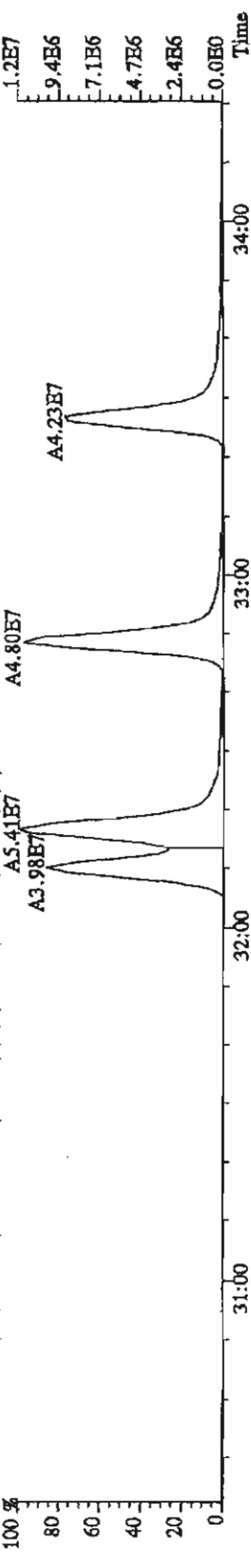
373.8208 S:6 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1832.0,1.00%,F,T)



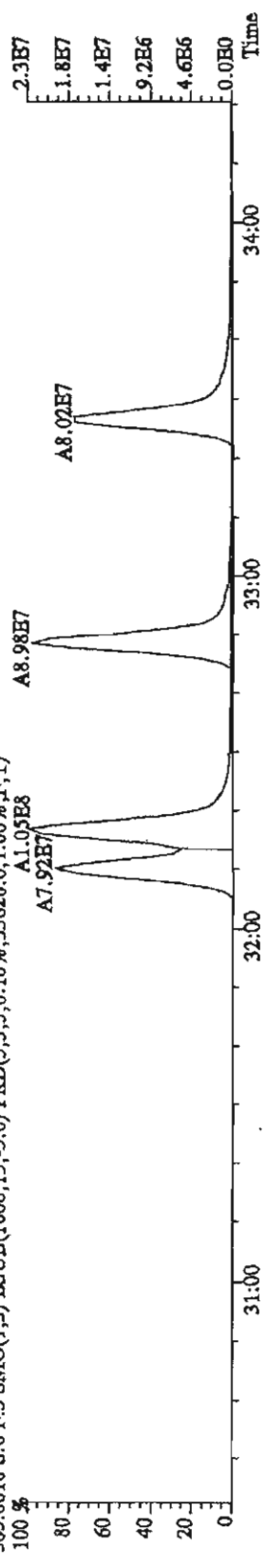
375.8178 S:6 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,79796.0,1.00%,F,T)



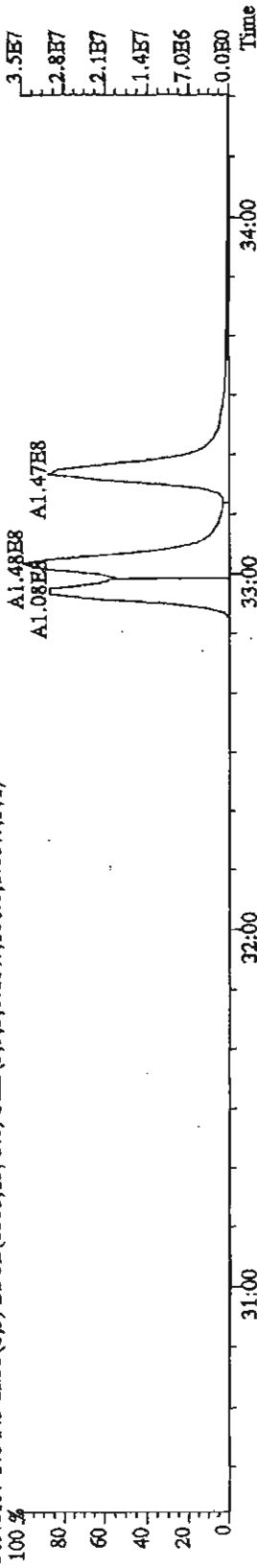
383.8639 S:6 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1032.0,1.00%,F,T)



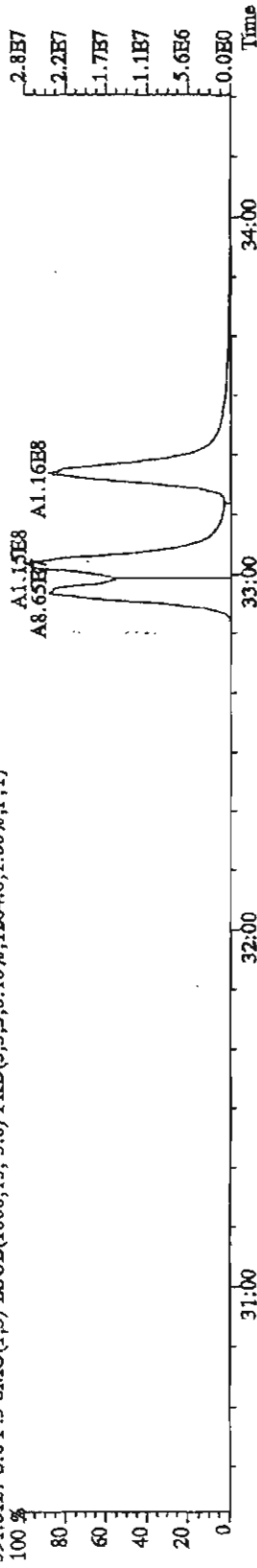
385.8610 S:6 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,53620.0,1.00%,F,T)



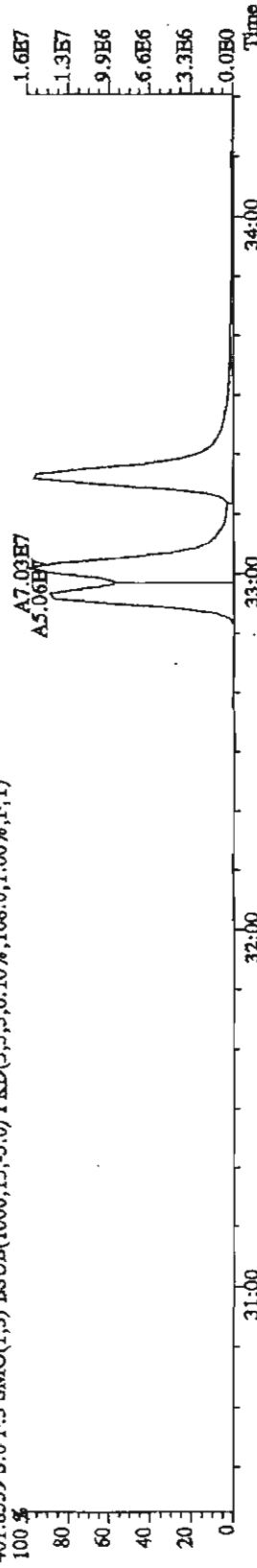
File: 22FB11A4D5 #1-286 Acq: 22-FEB-2011 16:35:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text: ST0222D :CS-4 10DXN506 AS Exp: DIOXINRES
389.8157 S:6 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,100,0,1.00%,F,T)



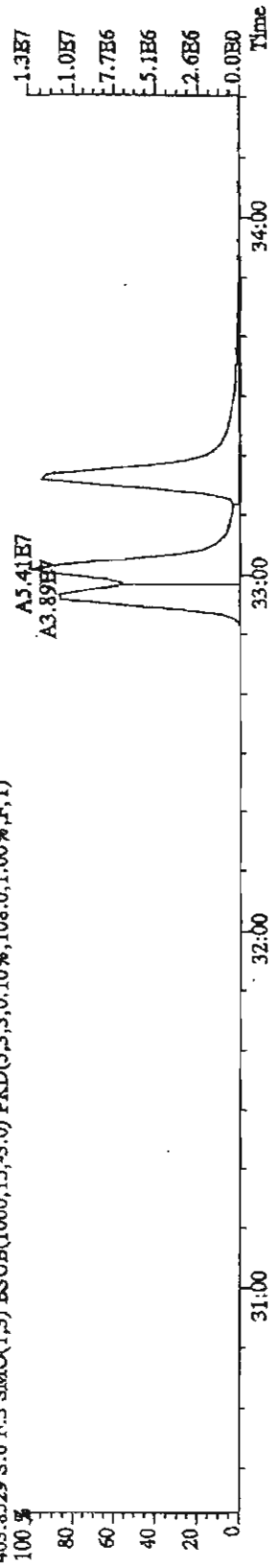
391.8127 S:6 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1264,0,1.00%,F,T)



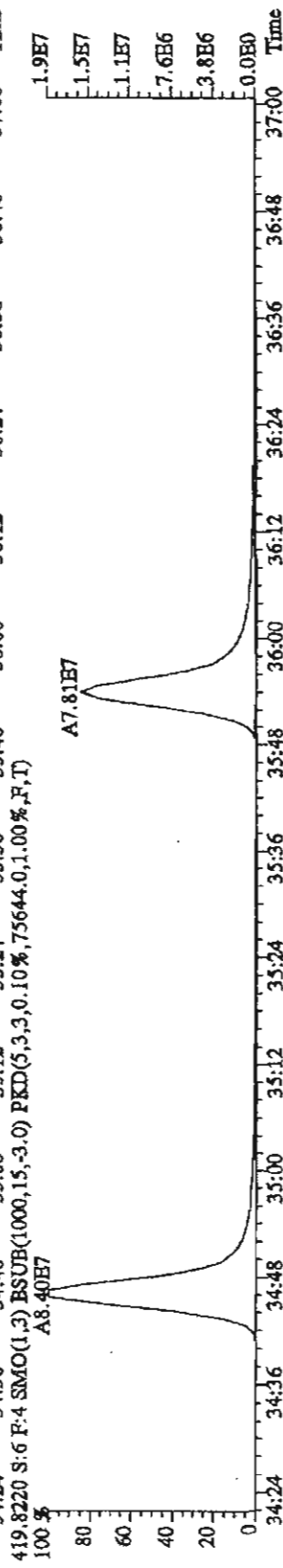
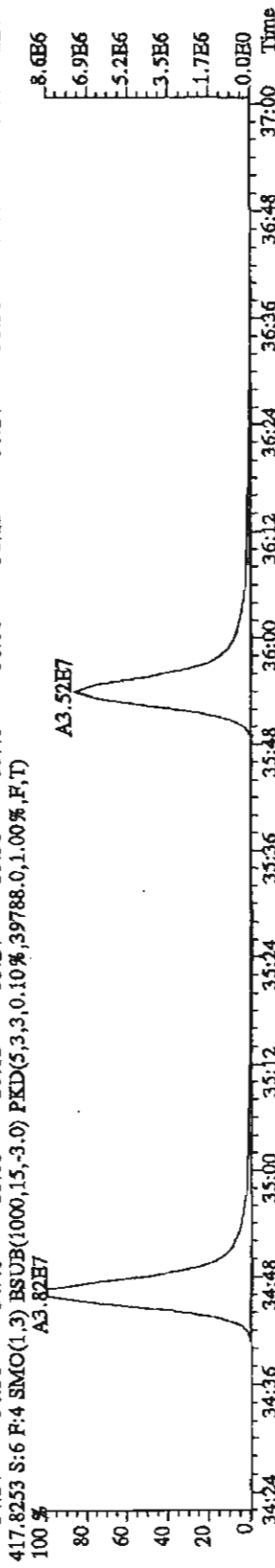
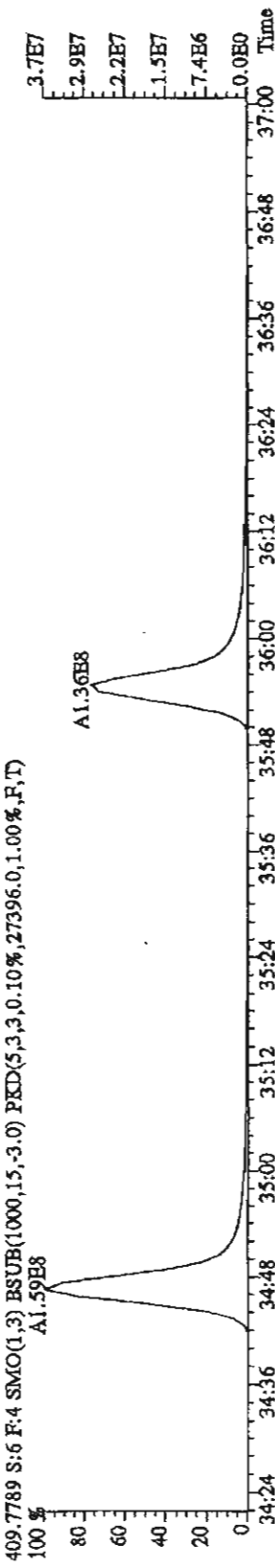
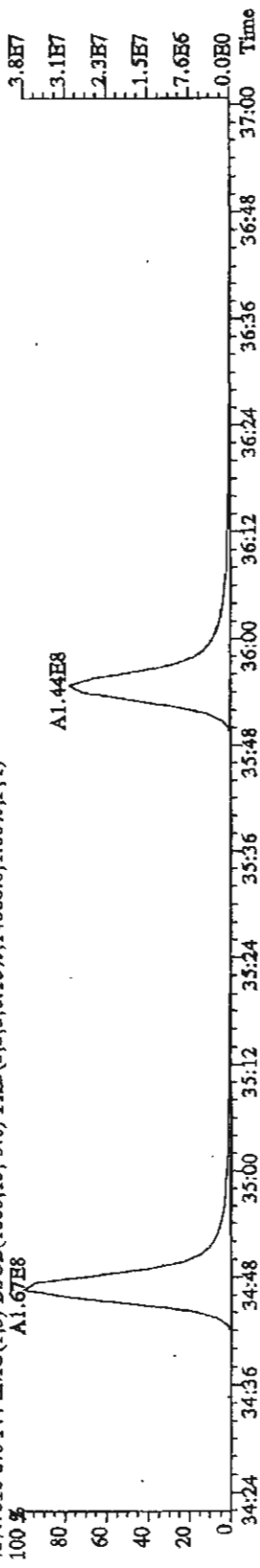
401.8559 S:6 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,108,0,1.00%,F,T)



403.8529 S:6 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,108,0,1.00%,F,T)



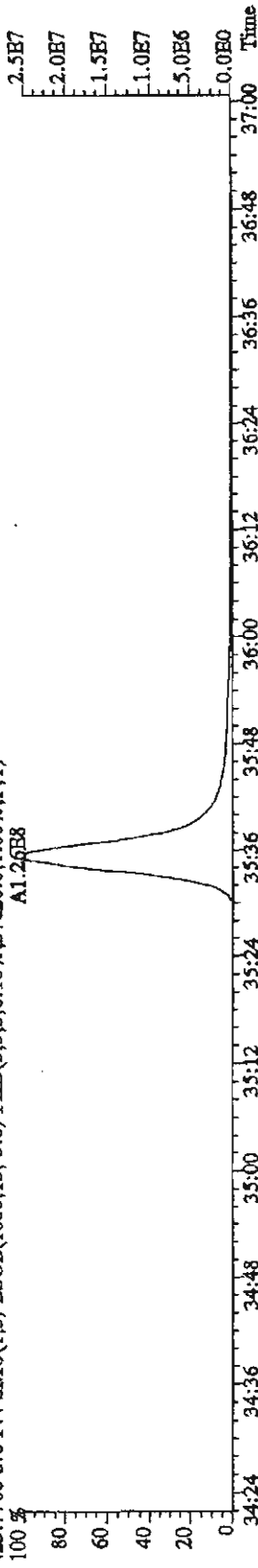
File: 22FB11A4D5 #1-201 Acq: 22-FEB-2011 16:35:50 GC EI+ Voltage SIR Autospec-UltimaB
 Sample#6 Text: ST0222D : CS-4 10DXN506 AS Exp: DIOXINRES
 407.7818 S:6 F:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1.4868,0.1,0.00%,F,T)



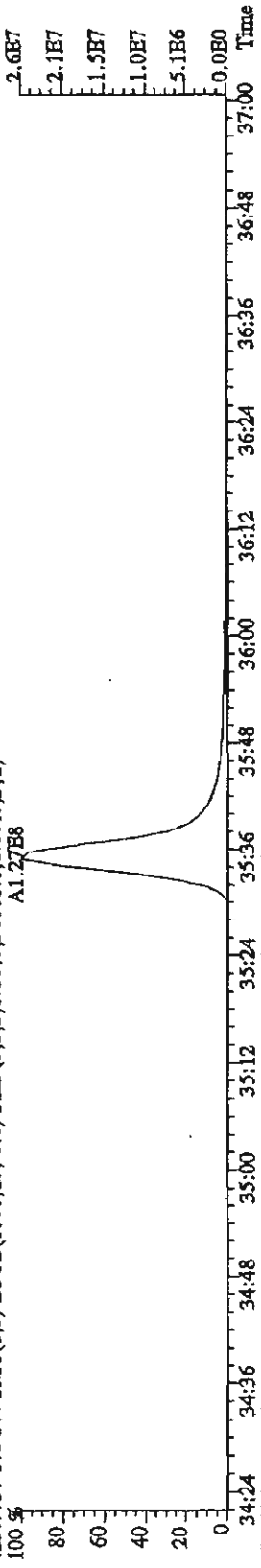
File: 22FEB11A4D5 #1-201 Acq: 22-FEB-2011 16:35:50 GC EI+ Voltage SIR Autospec-UlkimaB

Sample#6 Text: ST0222D :CS-4 10DXN506 AS Exp: DIOXINRES

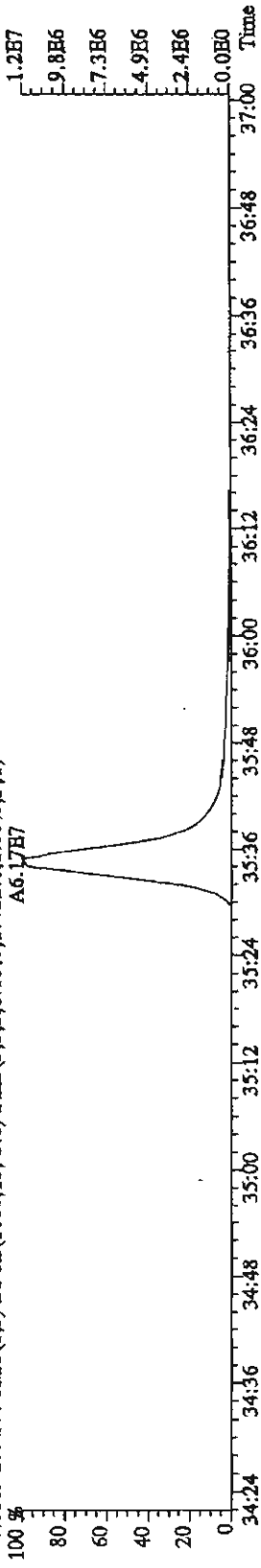
423.7766 S: 6 F: 4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,37620.0,1.00%,F,T)



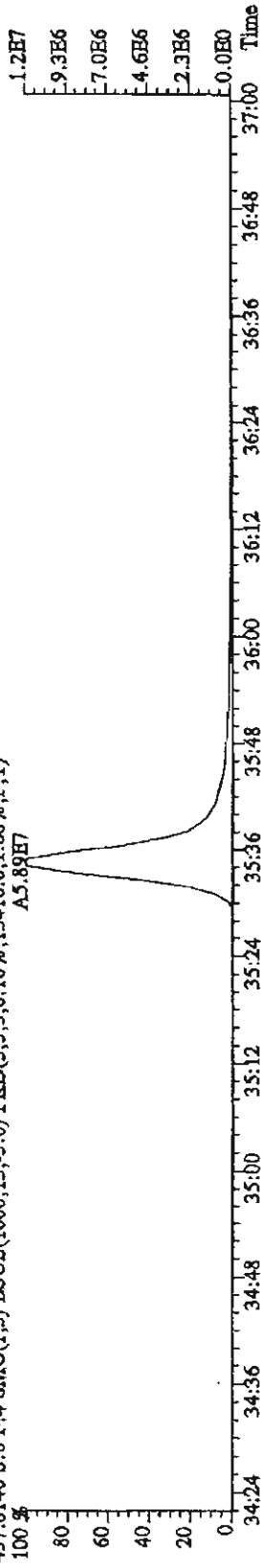
425.7737 S: 5 F: 4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,36008.0,1.00%,F,T)



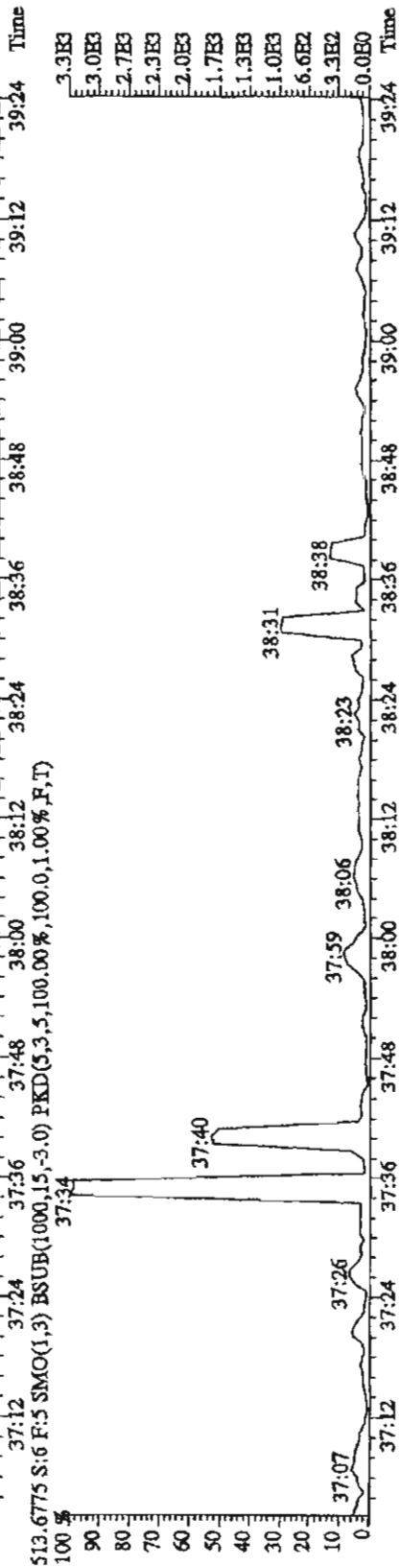
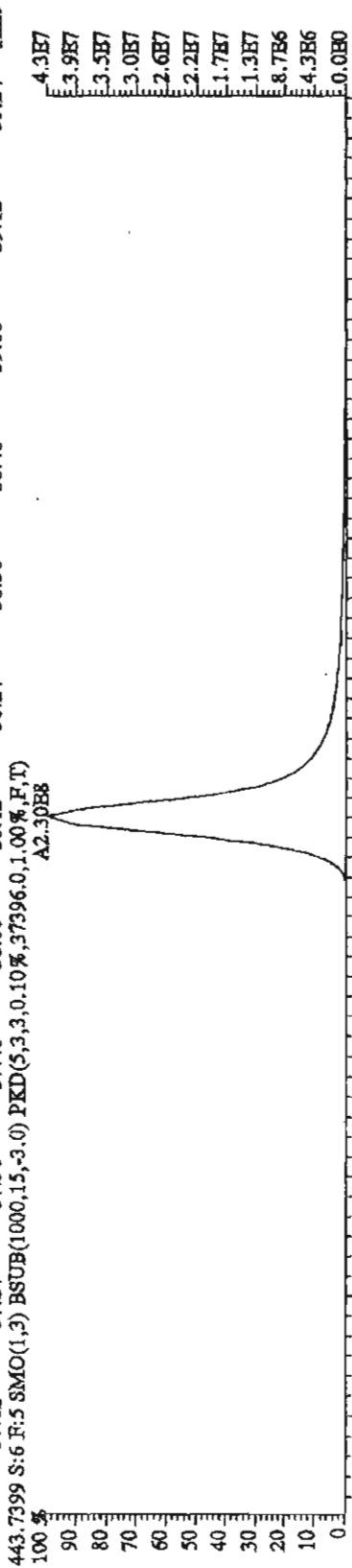
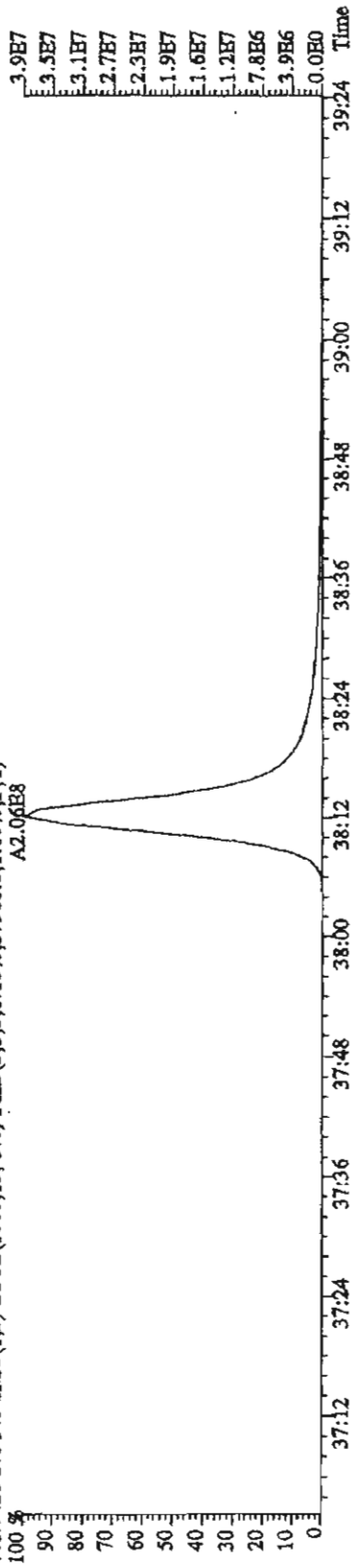
435.8169 S: 6 F: 4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,17732.0,1.00%,F,T)



437.8140 S: 6 F: 4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,15416.0,1.00%,F,T)



File: 22FE11A4D5 #1-192 Acq: 22-FEB-2011 16:35:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 Text: ST0222D : CS-4 10DXN506 AS Exp: DIOXINRES
 441.7428 S: 6 F: 5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,37960.0,1.00%,F,T)
 A2.06E8

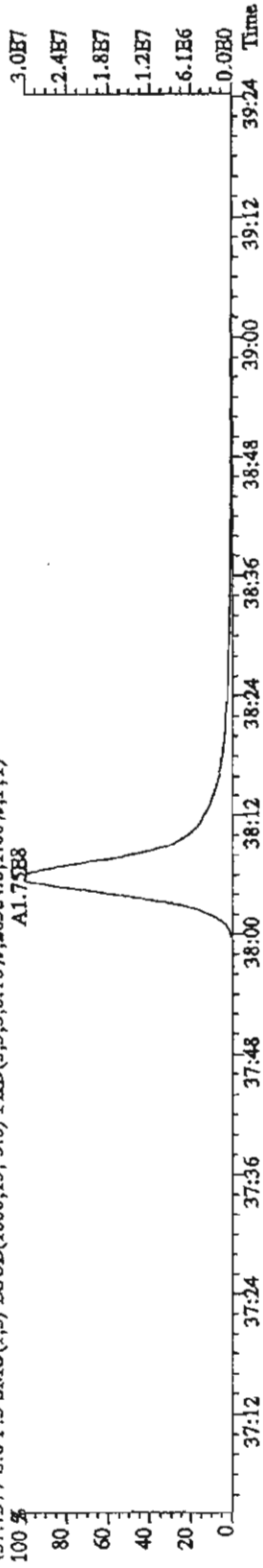


File: 22FBI1A4D5 #1-192 Acq: 22-FEB-2011 16:35:50 GC EI+ Voltage SIR AutoSpec-UltimaB

Sample#6 Text: ST0222D :CS-4 10DXNS06 AS Exp: DIOXINRES

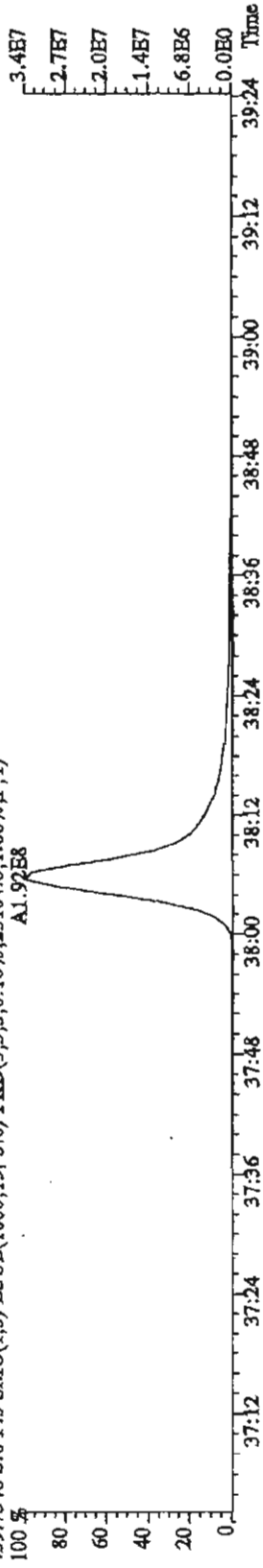
457.7377 S:6 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,0.10%,26384,0.1.00%,F,T)

A1.75B8



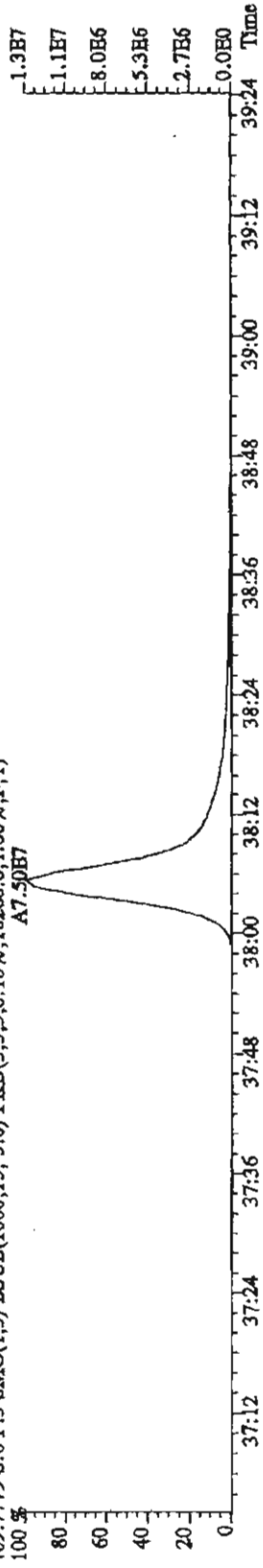
459.7348 S:6 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,0.10%,25104,0.1.00%,F,T)

A1.92B8



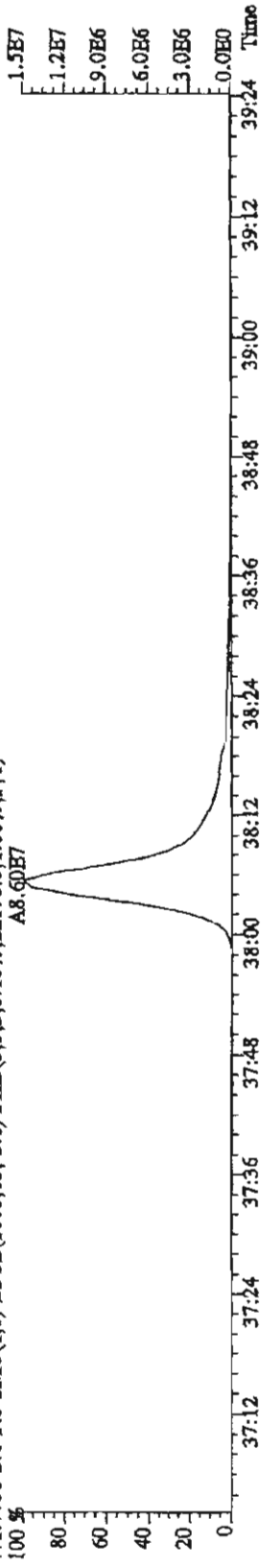
469.7779 S:6 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,0.10%,16268,0.1.00%,F,T)

A7.50B7

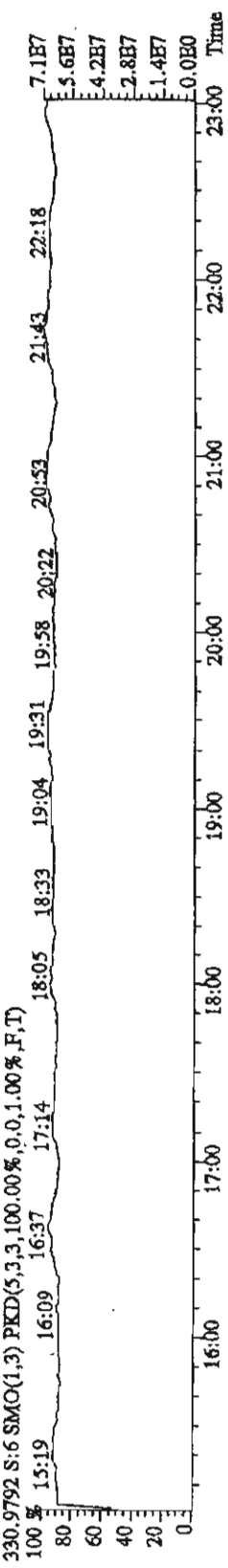
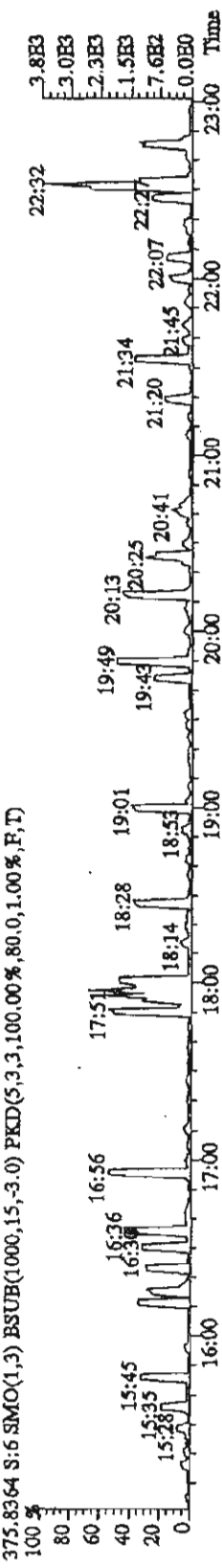
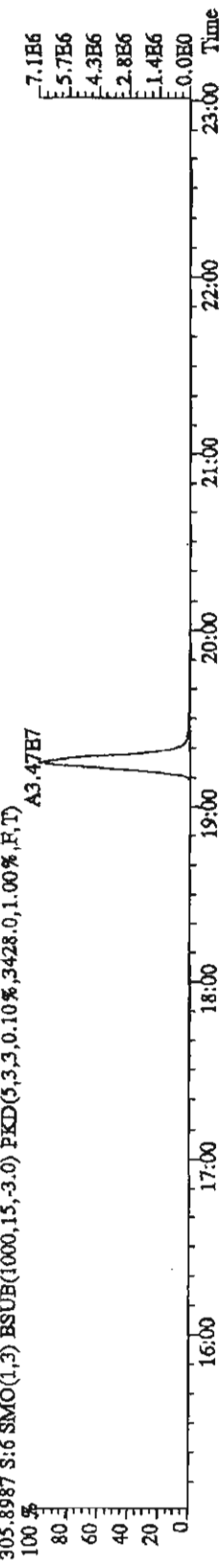
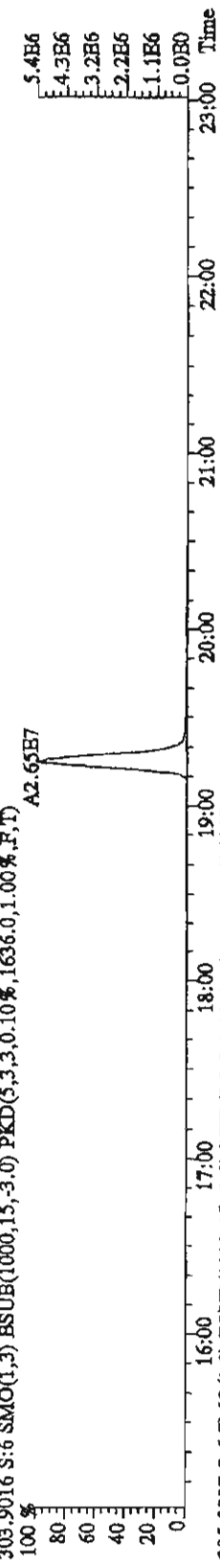
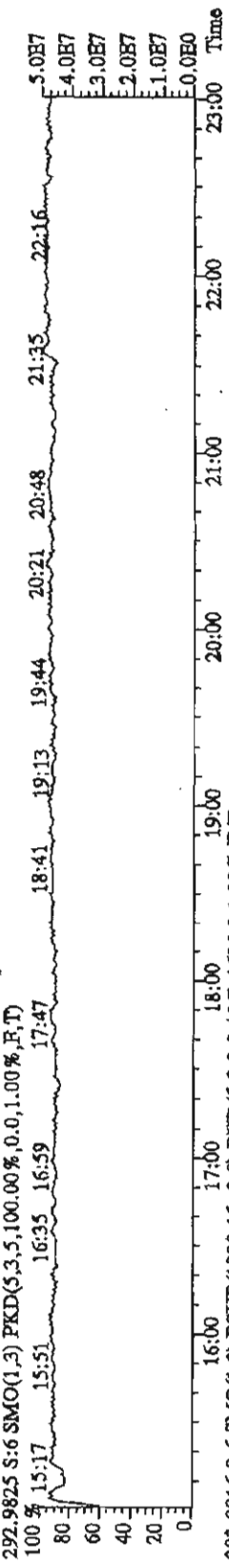


471.7750 S:6 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,0.10%,22176,0.1.00%,F,T)

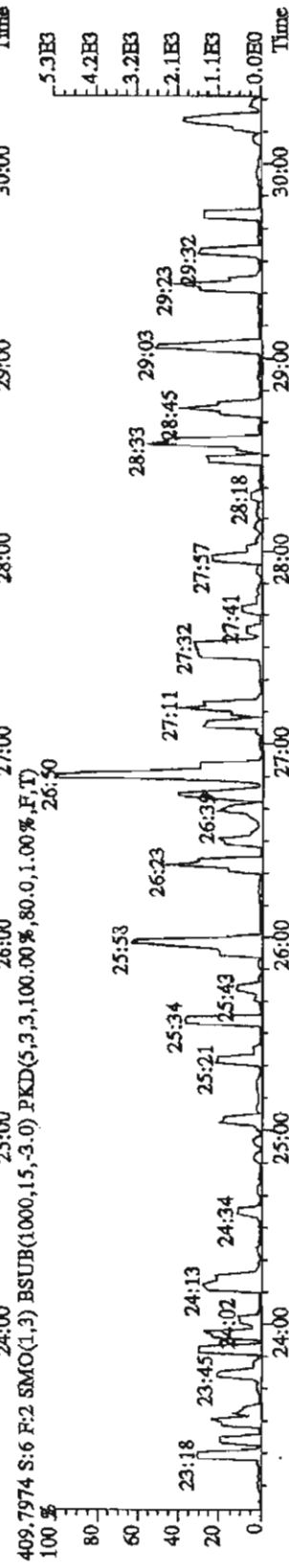
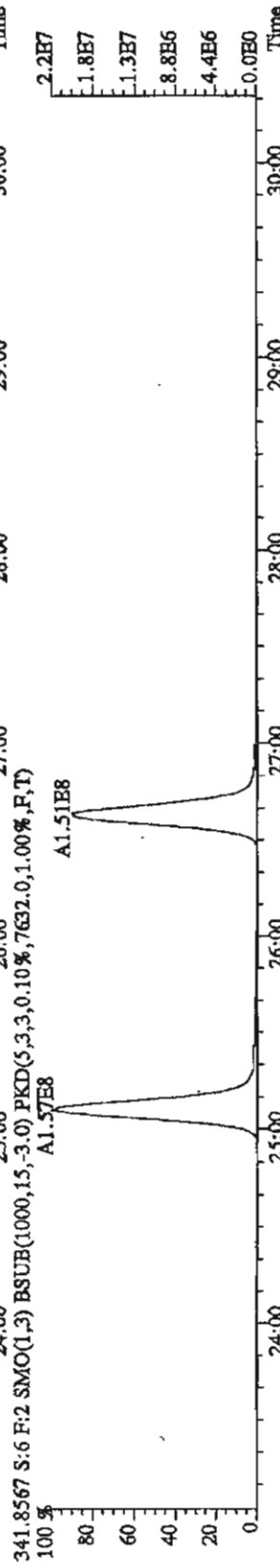
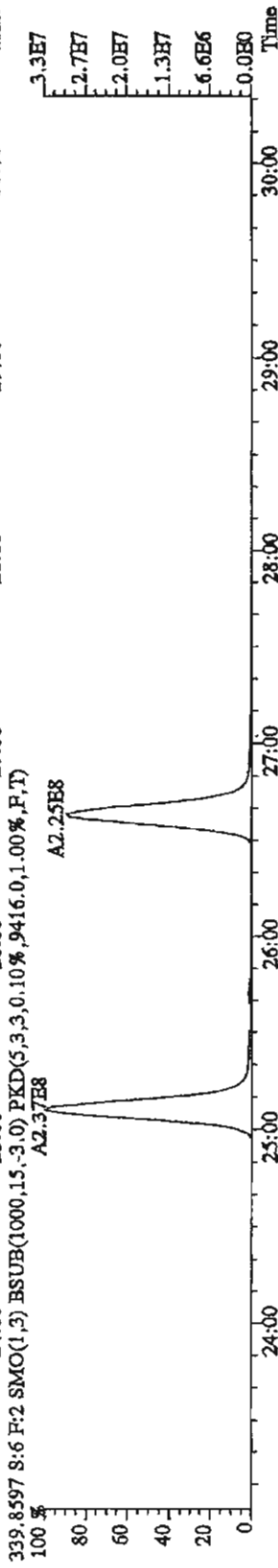
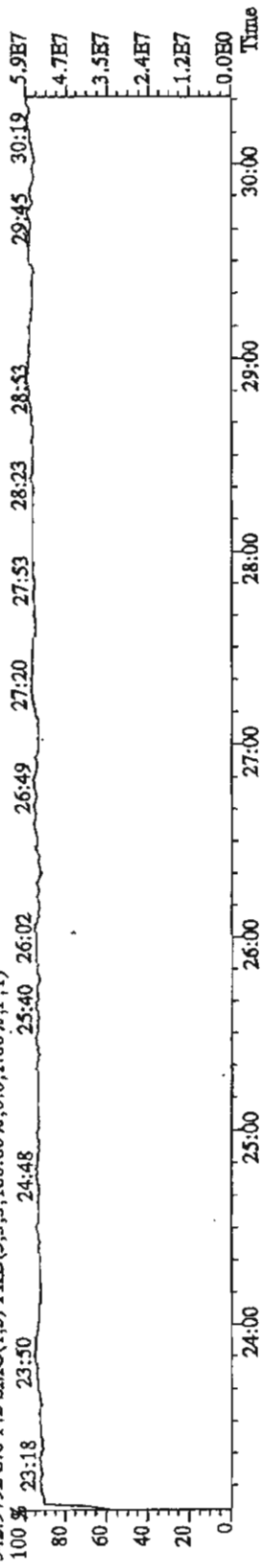
A8.60B7



File:22FEB11A4D5 #1-530 Acq:22-FEB-2011 16:35:50 GC HI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:ST0222D :CS-4 10DXN506 AS Exp:DIOXINRES

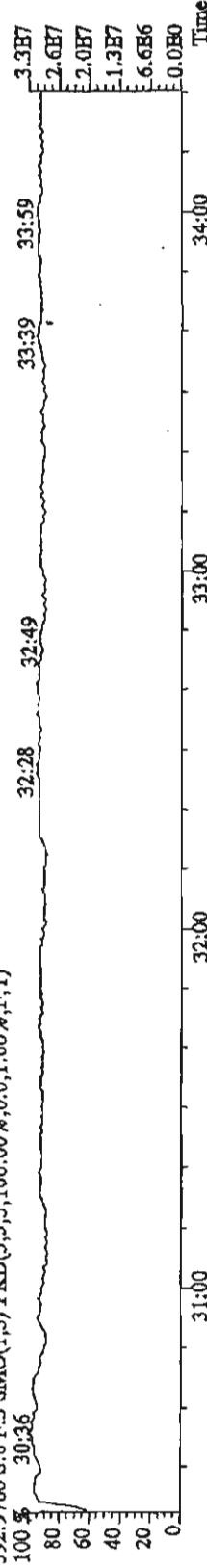


File: 22FEB11A4D5 #1-470 Acq: 22-FEB-2011 16:35:50 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text: ST0222D :CS-4 10DXN506 AS Exp: DIOXINRES
342.9792 S:6 F:2 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)
100% 23:18 23:50 24:48 25:40 26:02 26:49 27:20 27:53 28:23 28:53 29:45 30:19 5.9E7

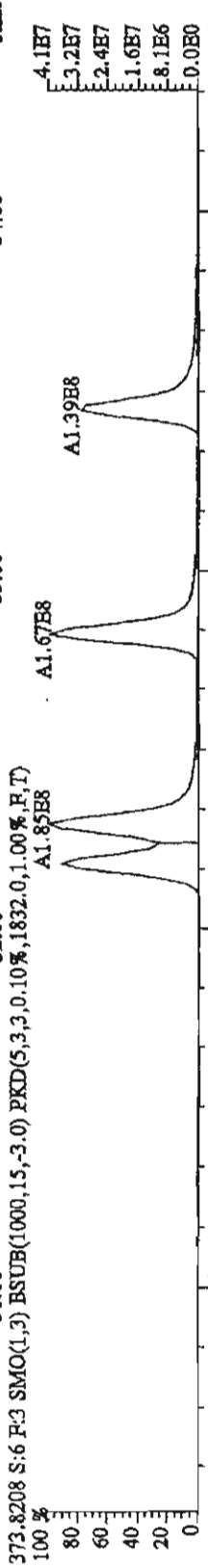


File: 22FEB11A4D5 #1-286 Acq: 22-FEB-2011 16:35:50 GC EI+ Voltage SIR Autospec-UltimaB
 Sample#6 Text: ST0222D ; CS-4 10DXN506 AS Exp: DIOXINRES

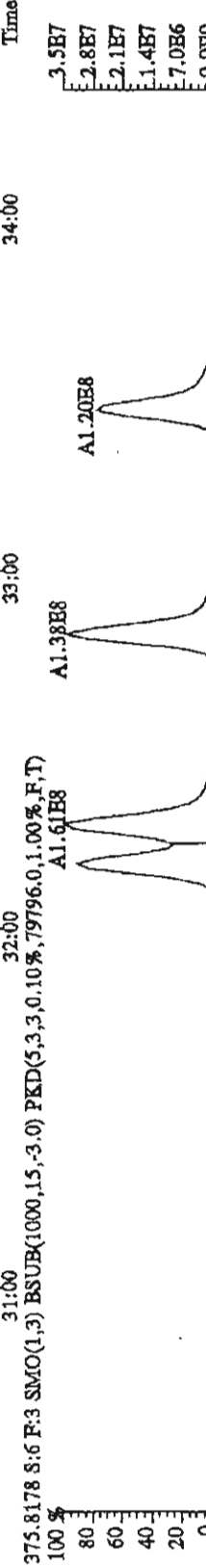
392.9760 S:6 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)
 100 % 30:36



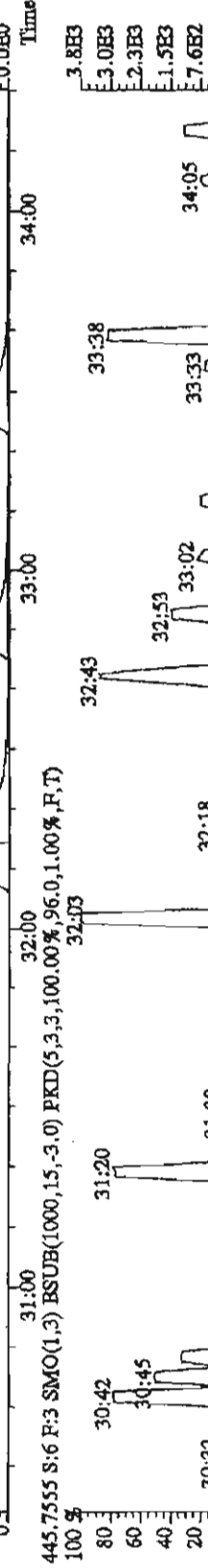
373.8208 S:6 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1832.0,1.00%,F,T)
 100 % A1.85E8



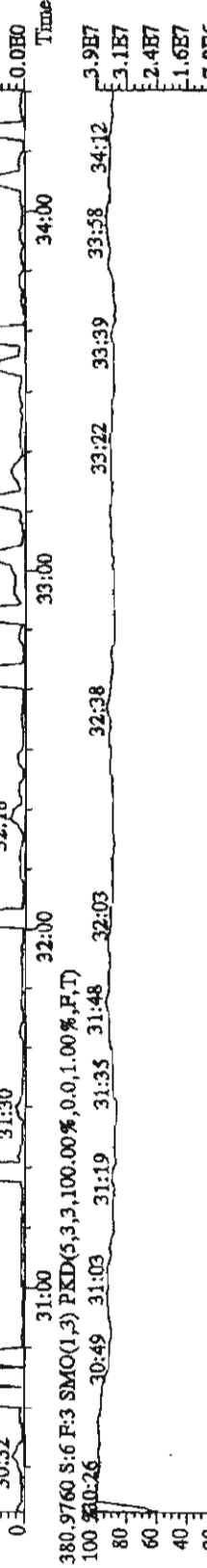
375.8178 S:6 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,79796.0,1.00%,F,T)
 100 % A1.61E8



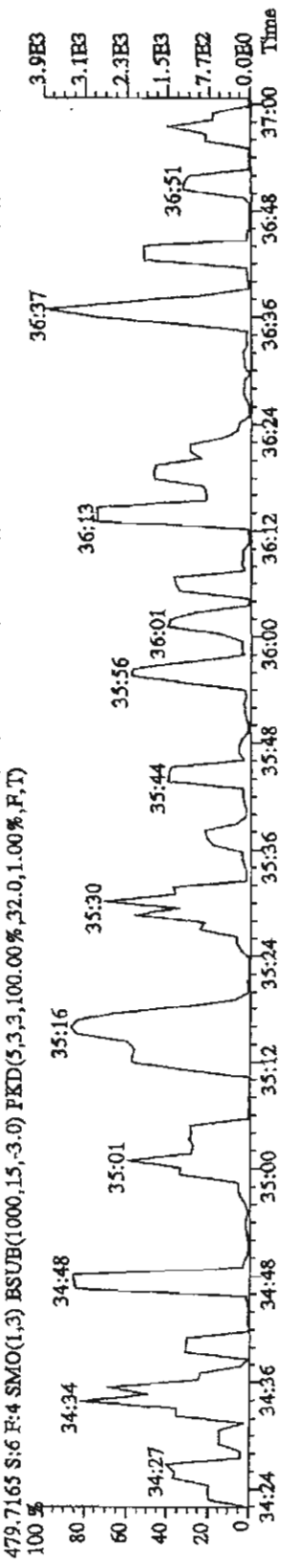
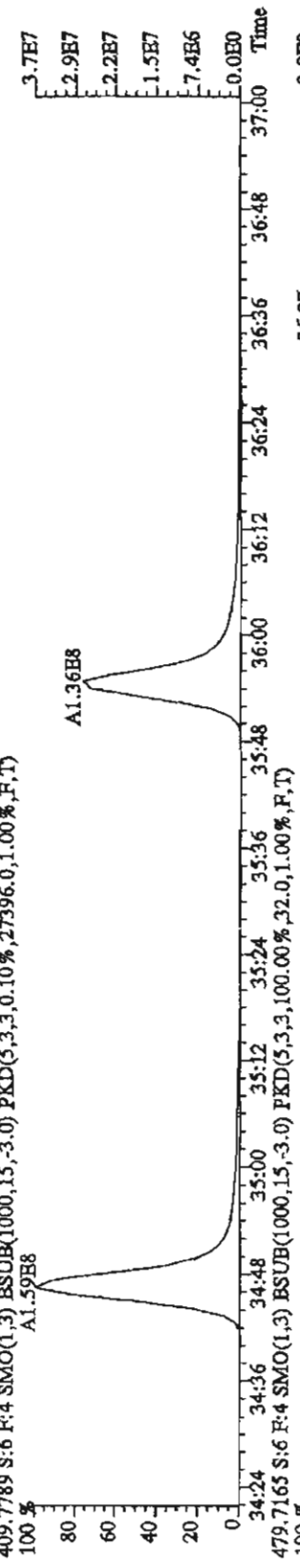
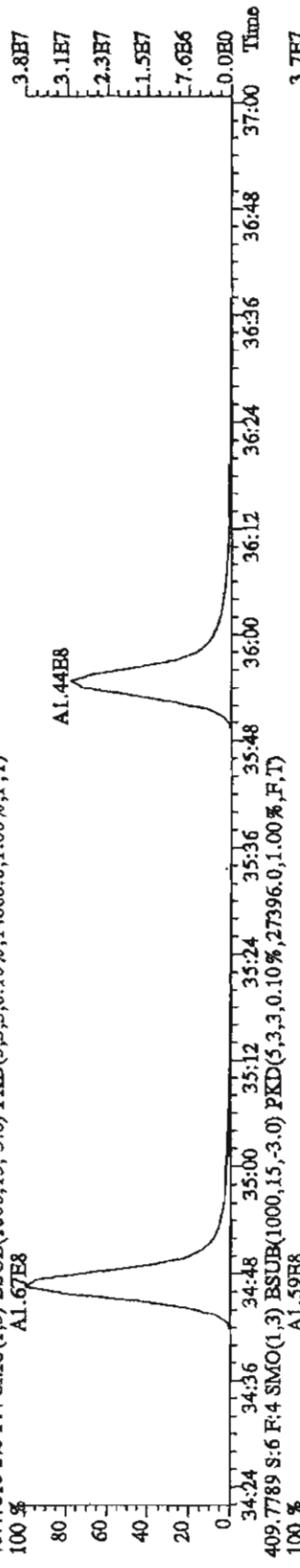
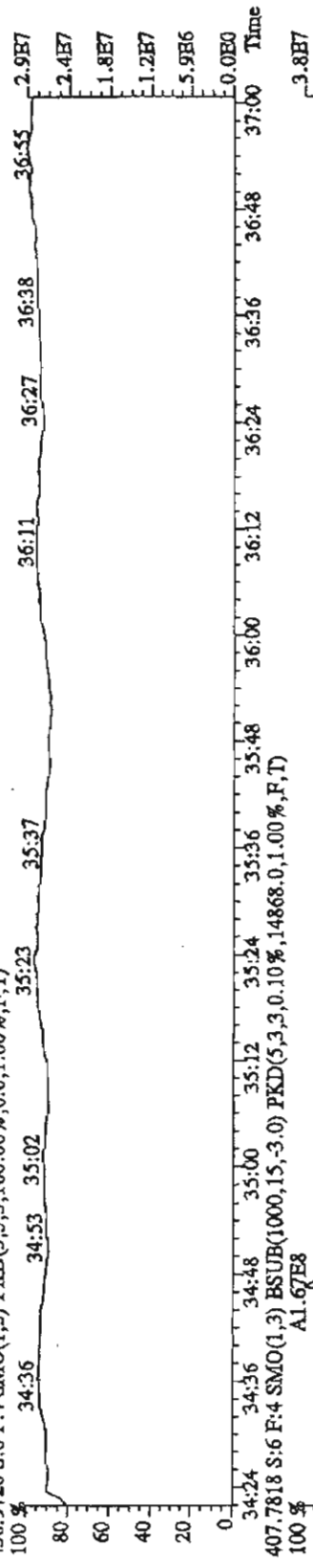
445.7555 S:6 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,96.0,1.00%,F,T)
 100 %



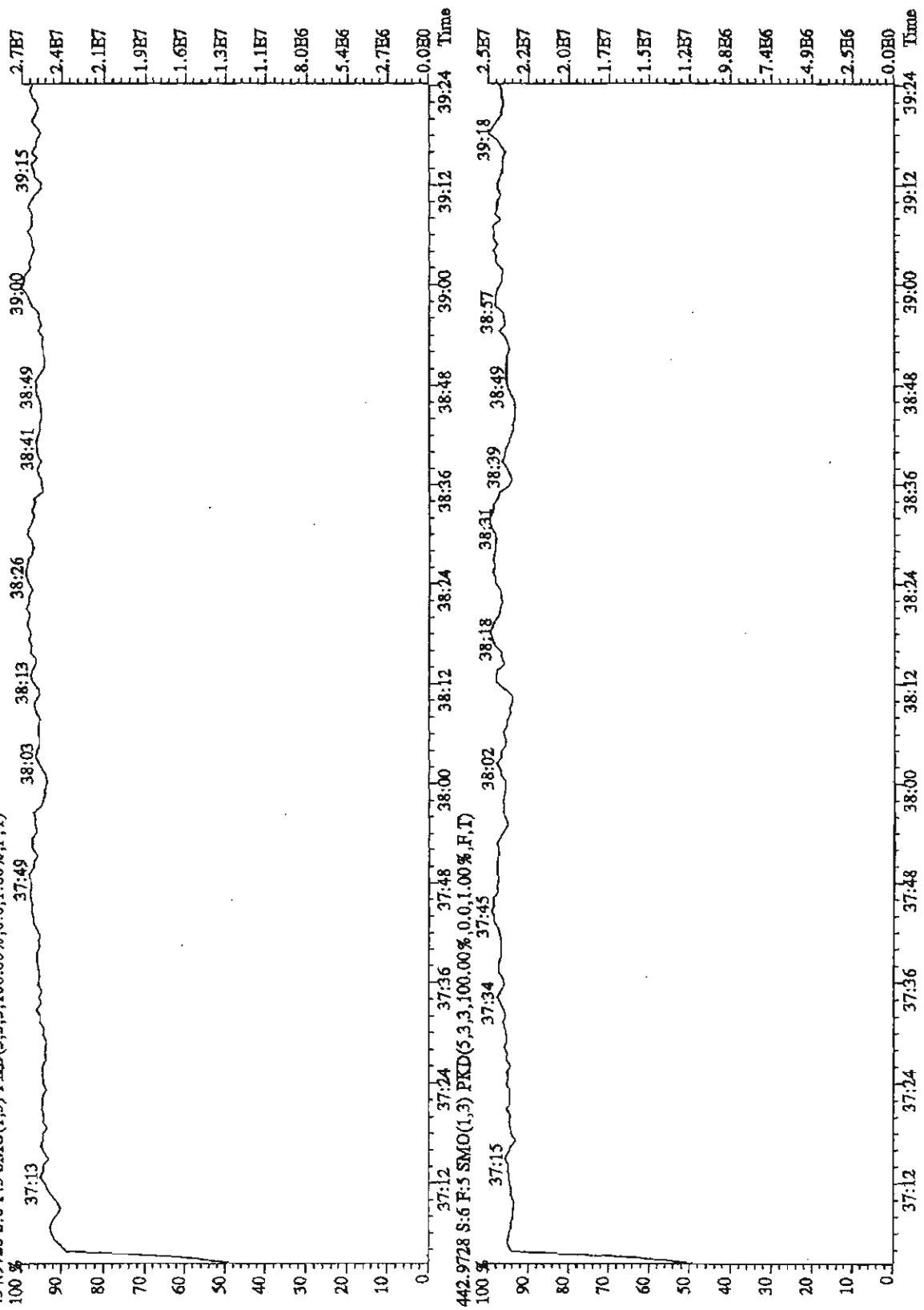
380.9760 S:6 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)
 100 %



File: 22FEB11A4D5 #1-201 Acq: 22-FEB-2011 16:35:50 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 Text: ST0222D :CS-4 10DXN506 AS Exp: DIOXINRES
 430.9728 S:6 F:4 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



File: 22FB11A4D5 #1-192 Acq: 22-FEB-2011 16:35:30 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#6 Text: ST0222D : CS-4 10DXN506 AS Exp: DIOXINRS
 454.9728 S: 6 F: 5 SMO(1,3) PKD(5,3,3,100.00%, 0.0, 1.00%, F, T)



Run #6 Filename 22FE11A4D5 S: 7 I: 1
 Acquired: 22-FEB-11 17:20:19 Processed: 22-FEB-11 18:00:58
 Run: 22FE11A4D5 Analyte: 1613 Cal: 16130222114D5

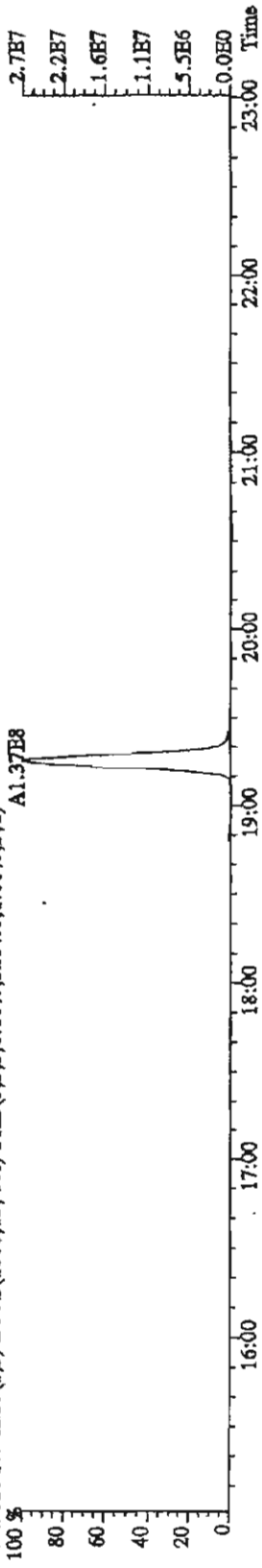
Comments:

Sample text: ST0222E :CS-5 10DXN507 AS

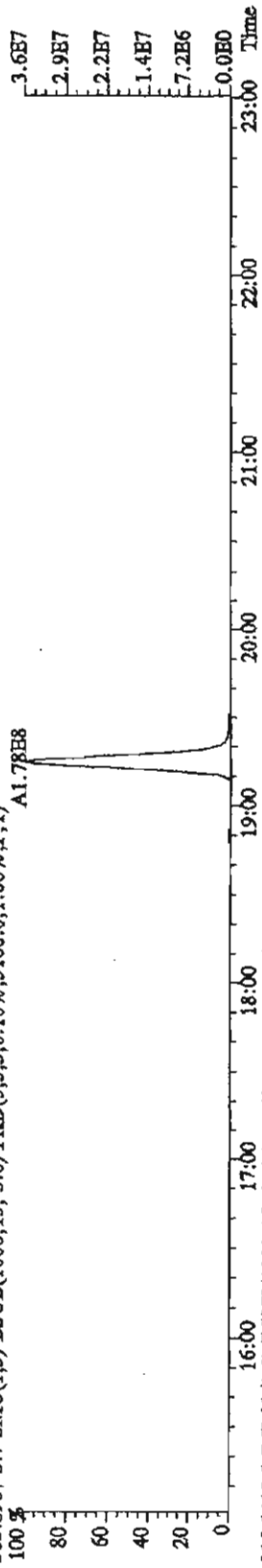
Name	Resp	RA	RT	RRF	Mod?
13C-1,2,3,4-TCDD	200834500	0.78 y	19:50	-	100.00 n
13C-2,3,7,8-TCDF	207454400	0.78 y	19:14	1.0330	100.00 n
2,3,7,8-TCDF	315090000	0.77 y	19:15	0.7594	200.00 n
Total TCDF	-	- n	-	0.7594	200.00 n
13C-2,3,7,8-TCDD	191760700	0.77 y	20:03	0.9548	100.00 n
2,3,7,8-TCDD	335131000	0.73 y	20:04	0.8738	200.00 n
Total TCDD	-	- n	-	0.8738	200.00 n
37Cl-2,3,7,8-TCDD	531280000	1.00 y	20:04	1.3227	200.00 n
13C-1,2,3,7,8-PeCDF	211630700	1.60 y	25:04	1.0538	100.00 n
1,2,3,7,8-PeCDF	2119259000	1.51 y	25:06	1.0014	1000.00 n
13C-2,3,4,7,8-PeCDF	212782100	1.62 y	26:36	1.0595	100.00 n
2,3,4,7,8-PeCDF	2041157000	1.50 y	26:38	0.9593	1000.00 n
Total F2 PeCDF	-	- n	-	0.9803	1000.00 n
Total F1 PeCDF	-	- n	-	0.9803	2000.00 n
13C-1,2,3,7,8-PeCDD	140840800	1.55 y	27:27	0.7013	100.00 n
1,2,3,7,8-PeCDD	1507203000	1.47 y	27:29	1.0701	1000.00 n
Total PeCDD	-	- n	-	1.0701	1000.00 n
13C-1,2,3,7,8,9-HxCDD	149296700	1.28 y	33:17	-	100.00 n
13C-1,2,3,4,7,8-HxCDF	131913900	0.51 y	32:10	0.8836	100.00 n
1,2,3,4,7,8-HxCDF	1543409000	1.13 y	32:11	1.1700	1000.00 n
13C-1,2,3,6,7,8-HxCDF	173393600	0.50 y	32:16	1.1614	100.00 n
1,2,3,6,7,8-HxCDF	1877543000	1.15 y	32:17	1.0828	1000.00 n
13C-2,3,4,6,7,8-HxCDF	154732500	0.49 y	32:48	1.0364	100.00 n
2,3,4,6,7,8-HxCDF	1719683000	1.14 y	32:49	1.1114	1000.00 n
13C-1,2,3,7,8,9-HxCDF	135859000	0.51 y	33:27	0.9100	100.00 n
1,2,3,7,8,9-HxCDF	1462041000	1.15 y	33:27	1.0761	1000.00 n
Total HxCDF	-	- n	-	1.1080	4000.00 n
13C-1,2,3,4,7,8-HxCDD	104469700	1.26 y	32:57	0.6997	100.00 n
1,2,3,4,7,8-HxCDD	1113359000	1.26 y	32:57	1.0657	1000.00 n
13C-1,2,3,6,7,8-HxCDD	137223500	1.27 y	33:01	0.9191	100.00 n
1,2,3,6,7,8-HxCDD	1466978000	1.29 y	33:02	1.0690	1000.00 n
1,2,3,7,8,9-HxCDD	1447308000	1.26 y	33:17	1.1976	1000.00 n
Total HxCDD	-	- n	-	1.1110	3000.00 n
13C-1,2,3,4,6,7,8-HpCDF	136371600	0.45 y	34:46	0.9134	100.00 n
1,2,3,4,6,7,8-HpCDF	1827705000	1.05 y	34:46	1.3402	1000.00 n
13C-1,2,3,4,7,8,9-HpCDF	128803000	0.45 y	35:54	0.8627	100.00 n
1,2,3,4,7,8,9-HpCDF	1576273000	1.05 y	35:55	1.2238	1000.00 n
Total HpCDF	-	- n	-	1.2837	2000.00 n
13C-1,2,3,4,6,7,8-HpCDD	138007500	1.08 y	35:34	0.9244	100.00 n
1,2,3,4,6,7,8-HpCDD	1436353000	1.00 y	35:35	1.0408	1000.00 n

Total HpCDD	-	-	n	-	1.0408	1000.00	n
13C-OCDD	191436700	0.87	y	38:05	0.6411	200.00	n
OCDF	2602560000	0.91	y	38:13	1.3595	2000.00	n
OCDD	2173440000	0.90	y	38:05	1.1353	2000.00	n

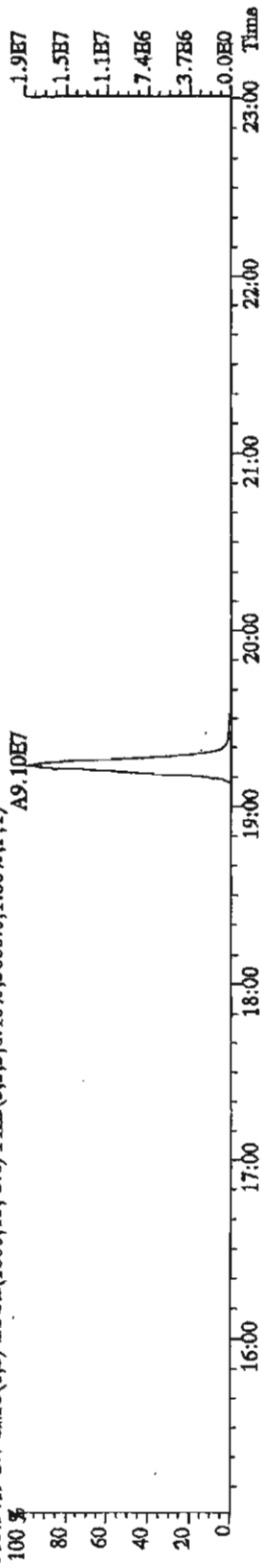
File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 17:20:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text: STUZZZE :CS-5 10DXN507 AS Exp: DIOXINRES
303.9016 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3264.0,1.00%,F,T)
100 %



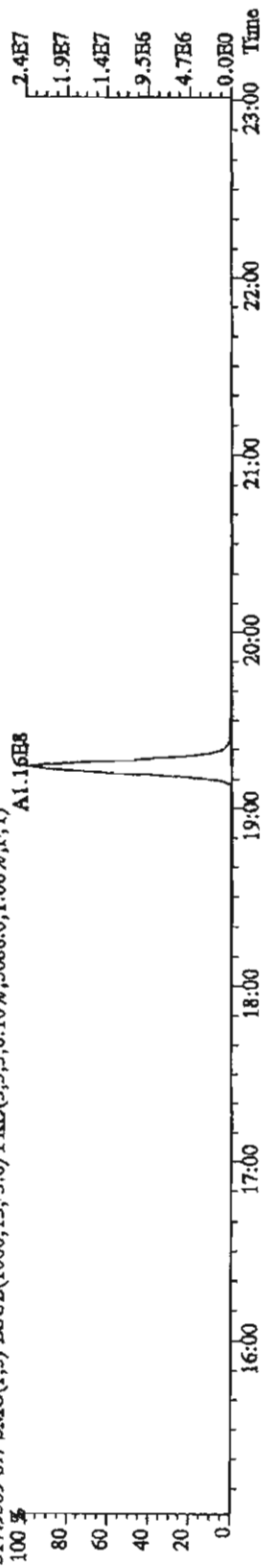
305.8987 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3188.0,1.00%,F,T)
100 %



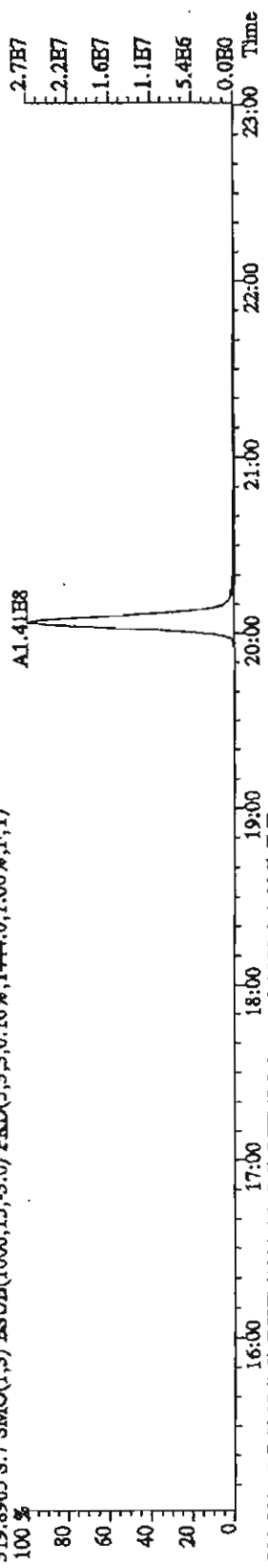
315.9419 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5660.0,1.00%,F,T)
100 %



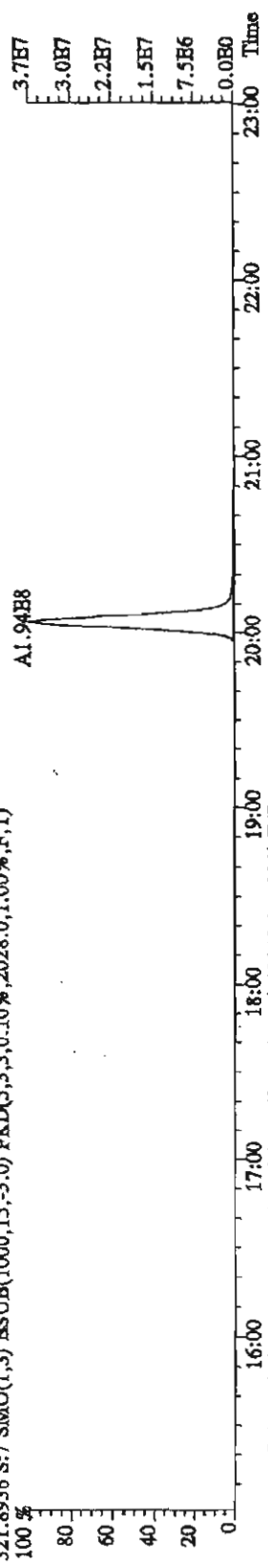
317.9389 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5688.0,1.00%,F,T)
100 %



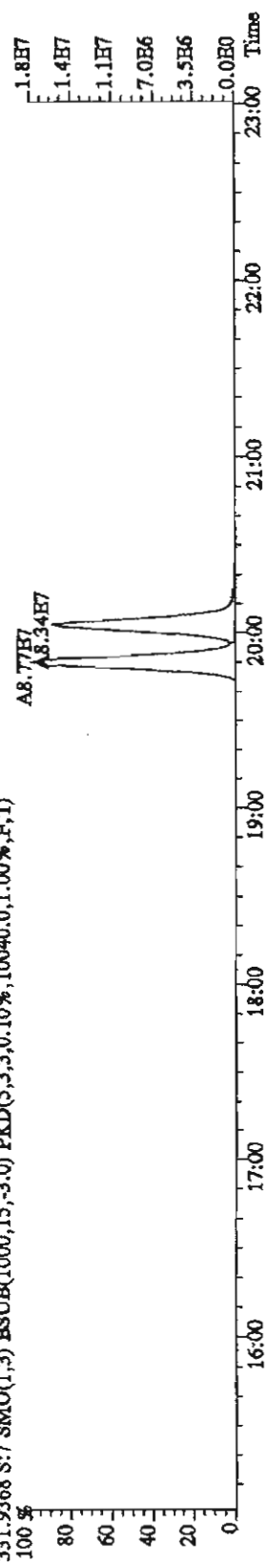
File: 22FB11A4D5 #1-530 Acq: 22-FEB-2011 17:20:19 GC HI+ Voltage SIR Autospec-UltimaE
 Sample#7 Text: ST0222E : CS-5 10DXN307 AS Exp: DIOXINRES
 319.8965 S: 7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1444,0,1,00%,F,T)



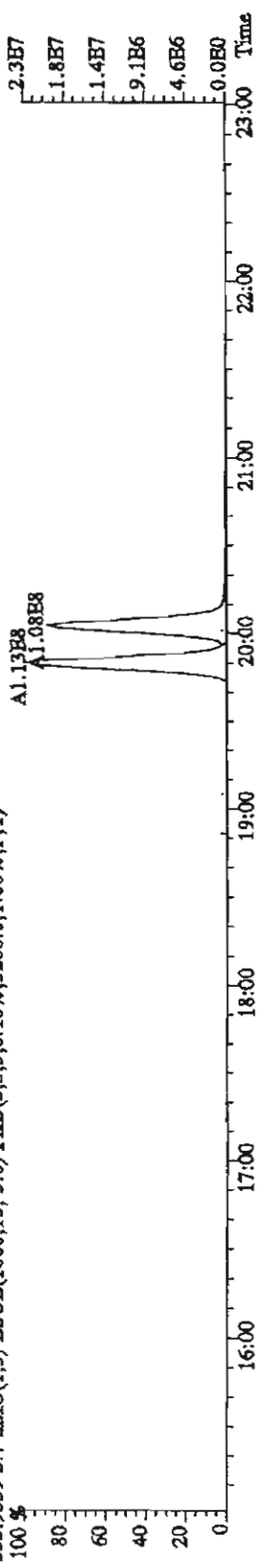
321.8936 S: 7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,2028,0,1,00%,F,T)



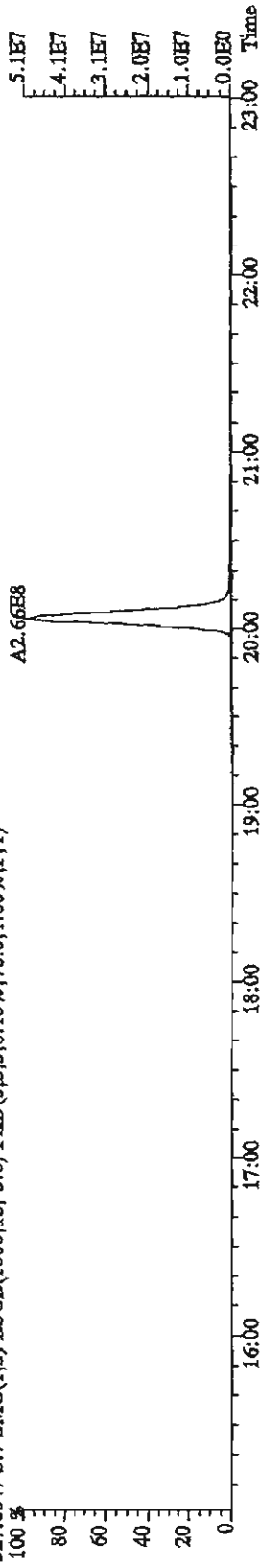
331.9368 S: 7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,10040,0,1,00%,F,T)



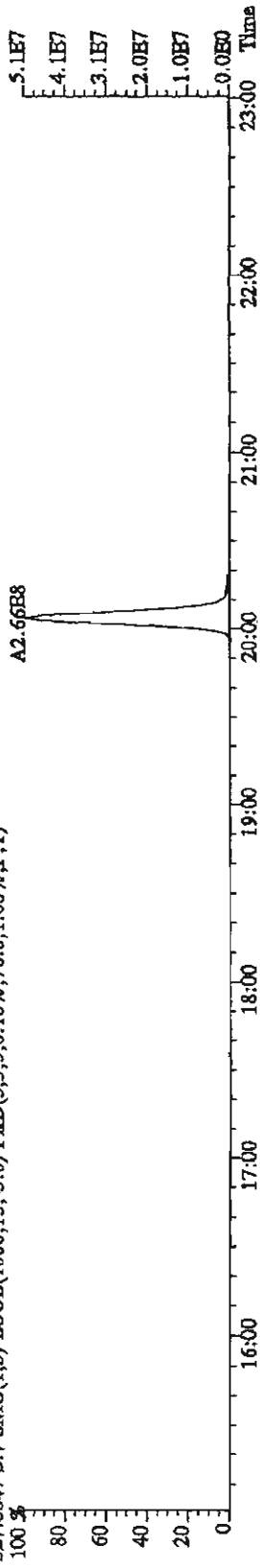
333.9339 S: 7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,3268,0,1,00%,F,T)



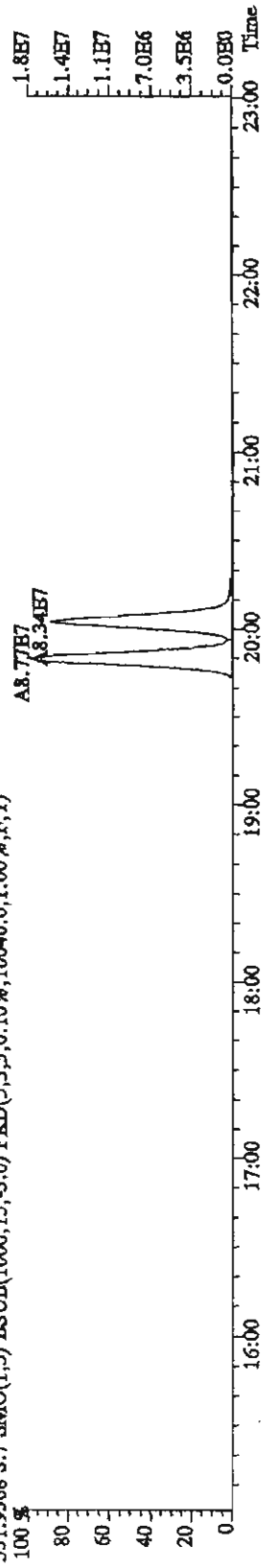
File: 22FEB11AID5 #1-530 Acq: 22-FEB-2011 17:20:19 GC EI+ Voltage: SIR Autospec-UltimaE
 Sample#7 Text: ST0222E :CS-5 10DXN507 AS Exp: DIOXINRES
 327.8847 S:7 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,76.0,1.00%,F,T)



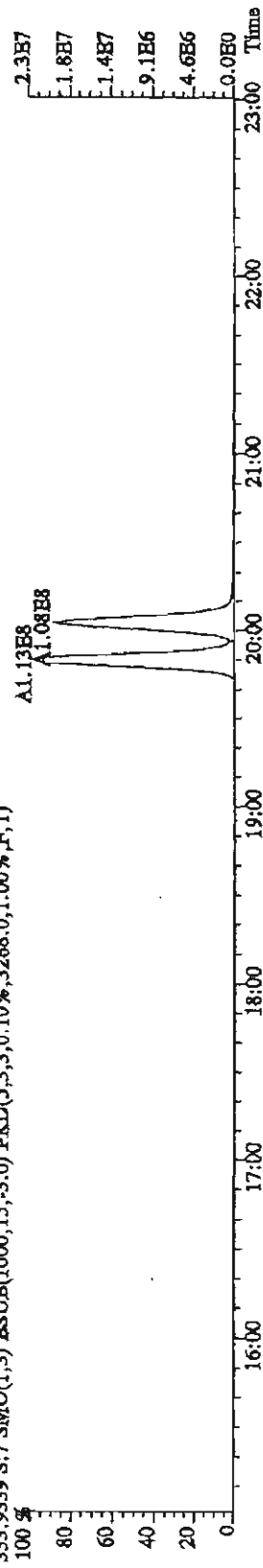
327.8847 S:7 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,76.0,1.00%,F,T)



331.9368 S:7 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,10040.0,1.00%,F,T)



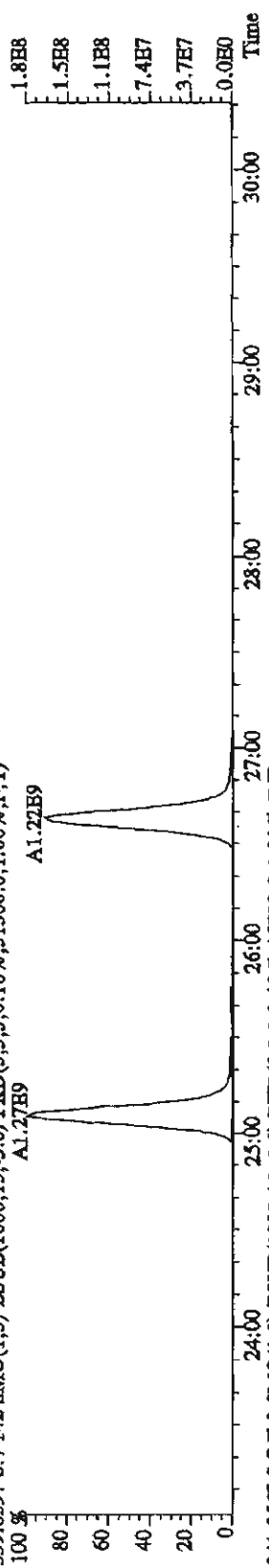
333.9339 S:7 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,3268.0,1.00%,F,T)



File:22FEB11A4D5 #1-470 Acq:22-FEB-2011 17:20:19 GC EI+ Voltage SIR Autoprec-UltimaB

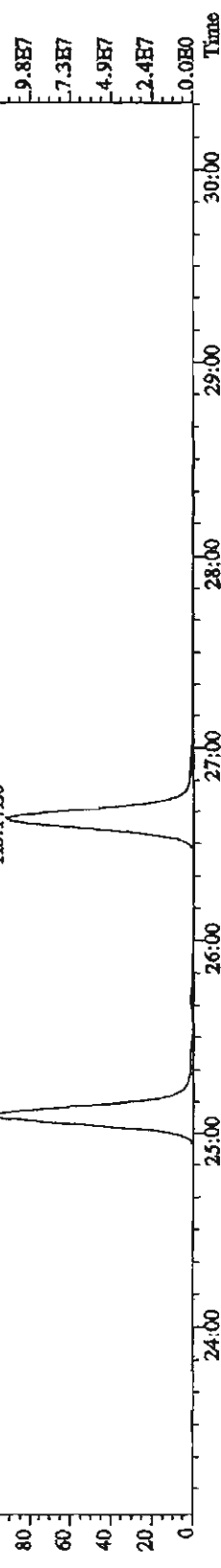
Sample#7 Text:ST0722E :CS-5 10DXIN507 AS Exp:DIOXINRES

339.8597 S:7 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,31308.0,1.00%,F,T)



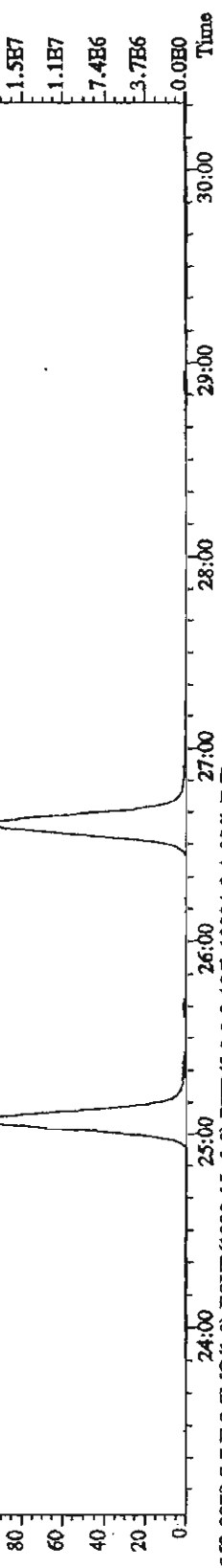
341.8567 S:7 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,15732.0,1.00%,F,T)

339.8597 S:7 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,31308.0,1.00%,F,T)



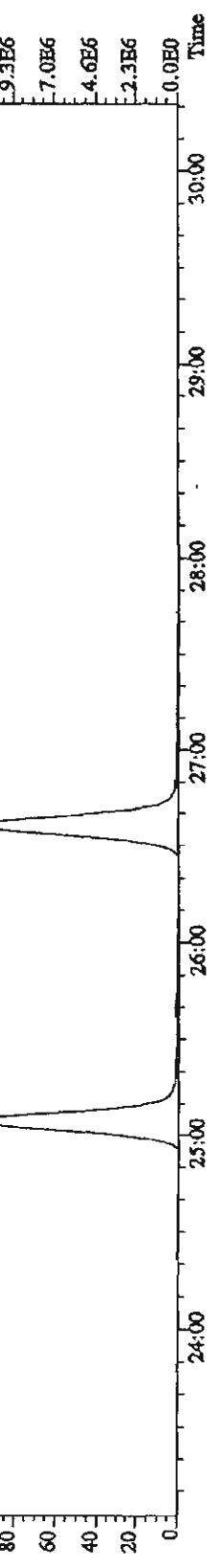
351.9000 S:7 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,12532.0,1.00%,F,T)

339.8597 S:7 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,31308.0,1.00%,F,T)

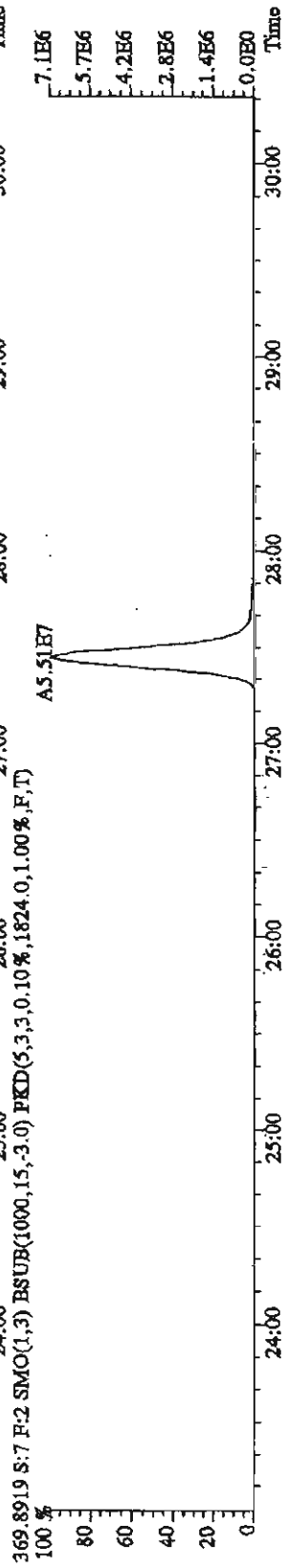
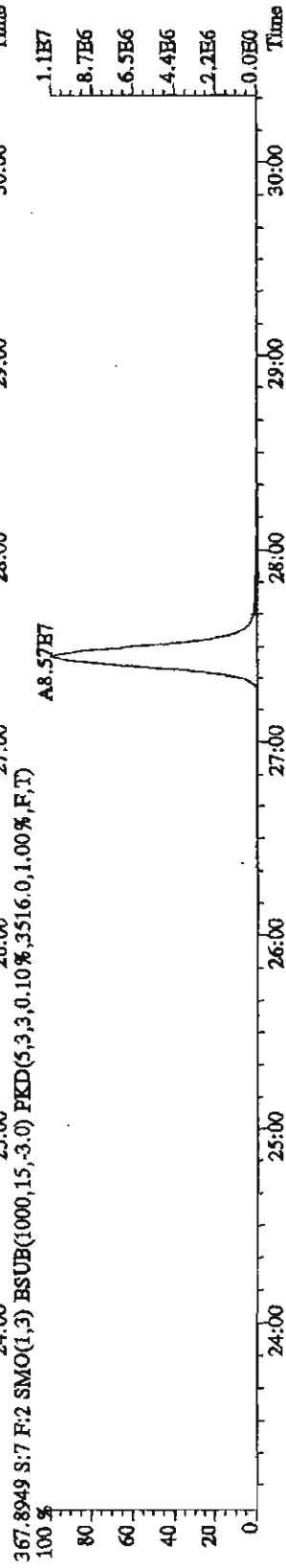
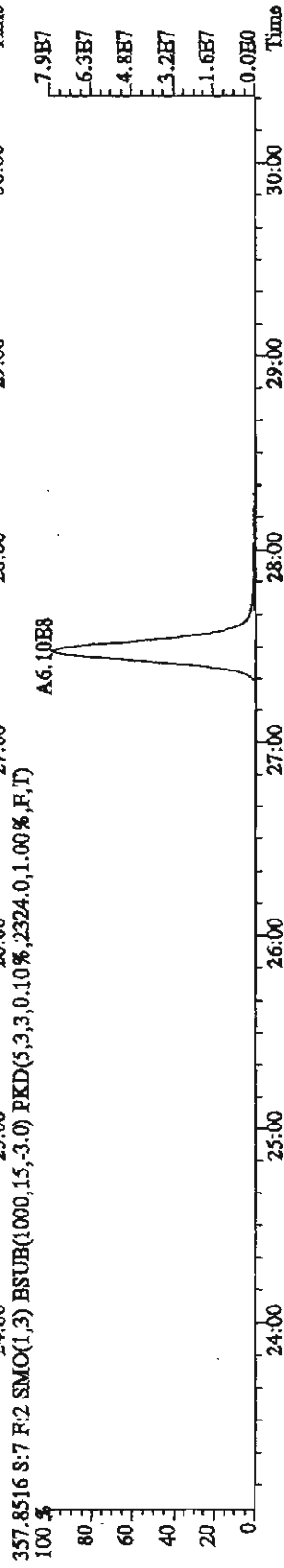
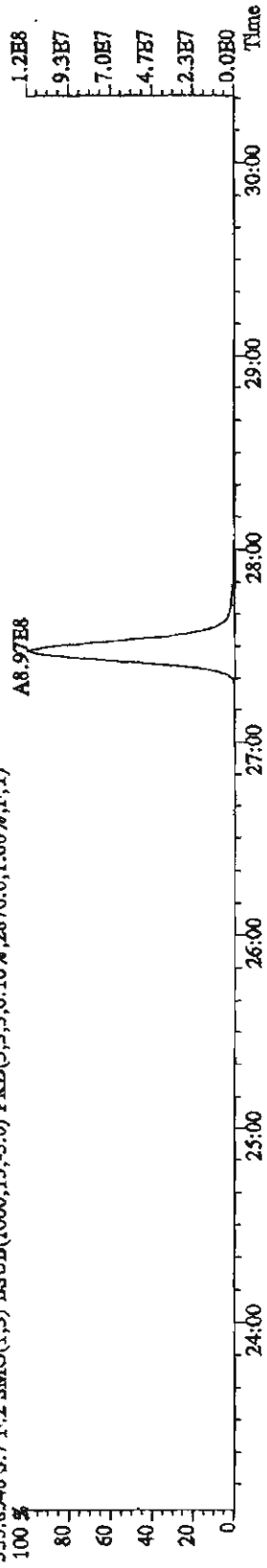


353.8970 S:7 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,10004.0,1.00%,F,T)

339.8597 S:7 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,31308.0,1.00%,F,T)

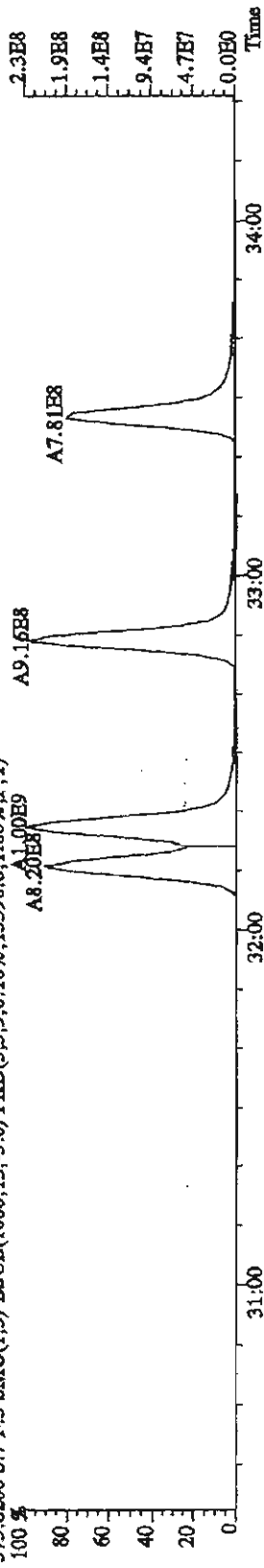


File: 22FB11A4D5 #1.470 Acq: 22-FEB-2011 17:20:19 GC HI+ Voltage SIR Autospec-UltimaE
 Sample#7 Text: ST0222H : CS-5 10DXN507 AS Exp: DIOXINRES
 355.8546 S:7 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10% ,2876.0,1.00%,F,T)

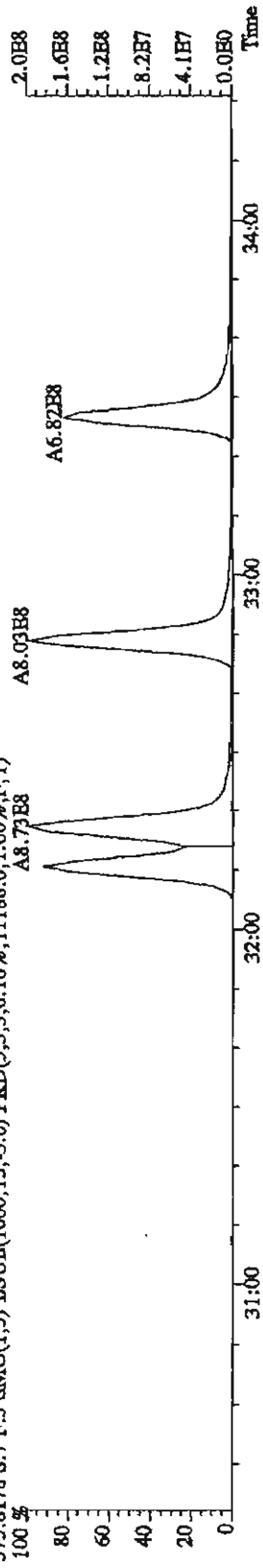


File: 22FBI1A4D5 #1-287 Acq: 22-FEB-2011 17:20:19 GC EI+ Voltage SIR Autospec-UltimaR
Sample#7 Text: STV22E : CS-5 10DXN507 AS Exp: DIOXINRES

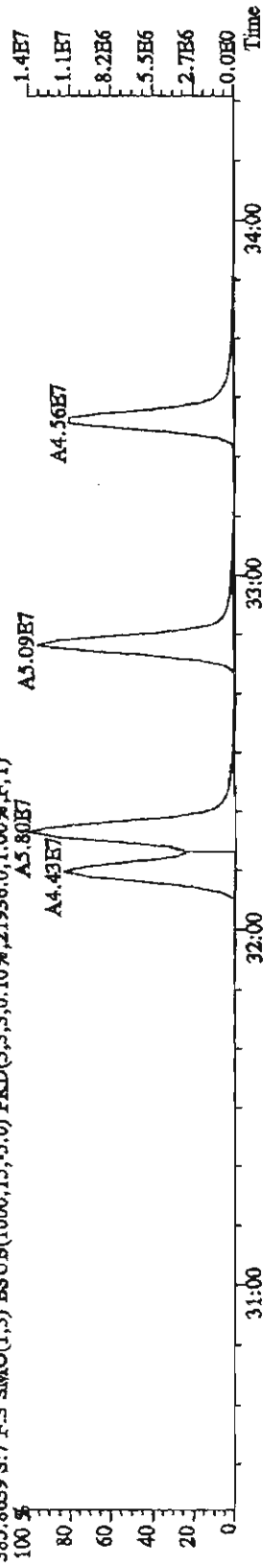
373.8208 S:7 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5.3,3.0,10%,13596.0,1.00%,F,T)
100 %



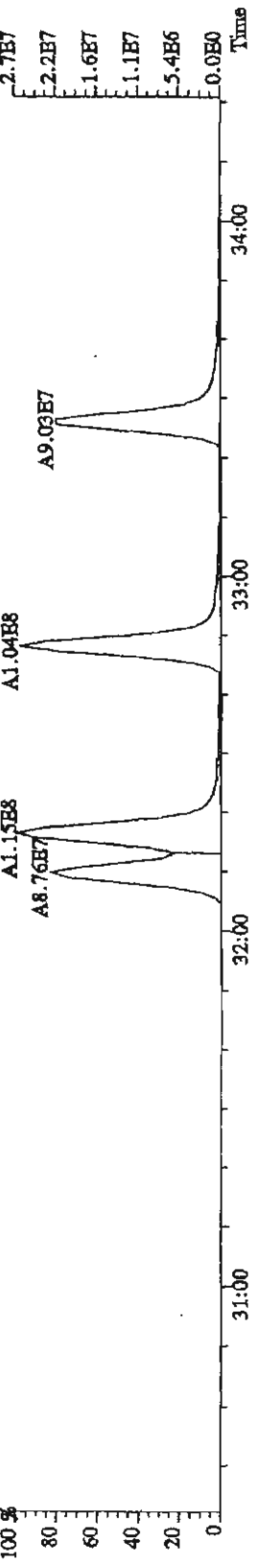
375.8178 S:7 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5.3,3.0,10%,11188.0,1.00%,F,T)
100 %



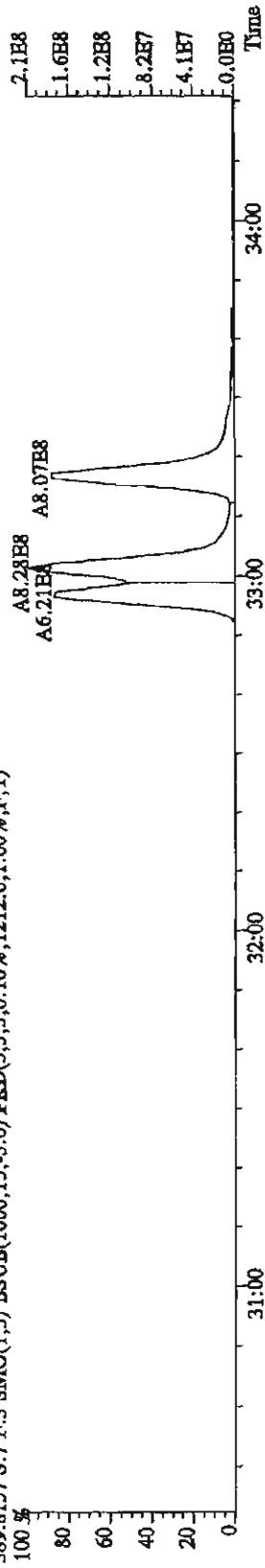
383.8639 S:7 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5.3,3.0,10%,21936.0,1.00%,F,T)
100 %



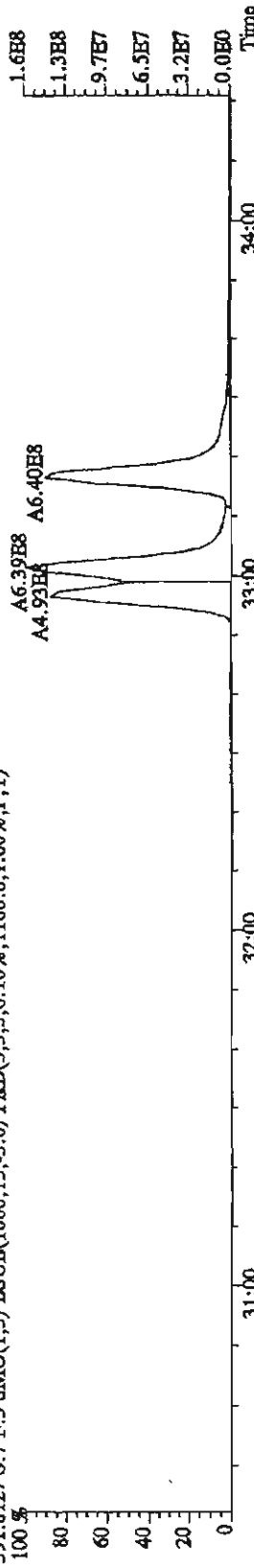
385.8610 S:7 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5.3,3.0,10%,28776.0,1.00%,F,T)
100 %



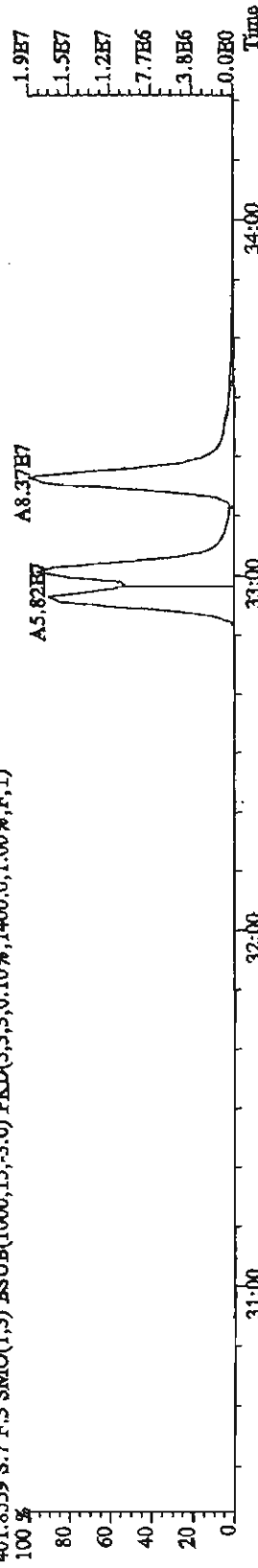
File: 22\FB11A4D5 #1-287 Acq: 22\FHB-2011 17:20:19 GC EI+ Voltage SIR Autoproc-UltimaE
 Sample #7 Text: ST0222B :CS-5 10DXN507 AS Exp: D:\OXINRES
 389.8157 S:7 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10% ,1212.0,1.00% ,F,T)
 100 %



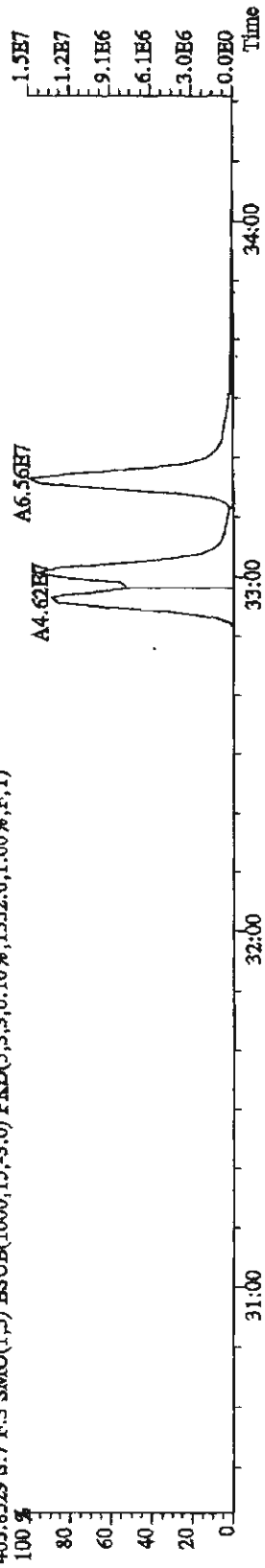
391.8127 S:7 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10% ,1160.0,1.00% ,F,T)
 100 %



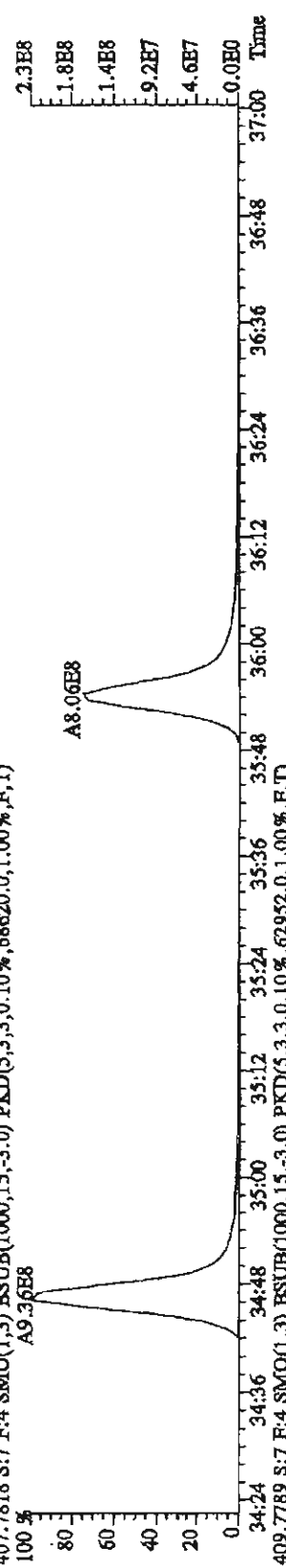
401.8559 S:7 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10% ,1400.0,1.00% ,F,T)
 100 %



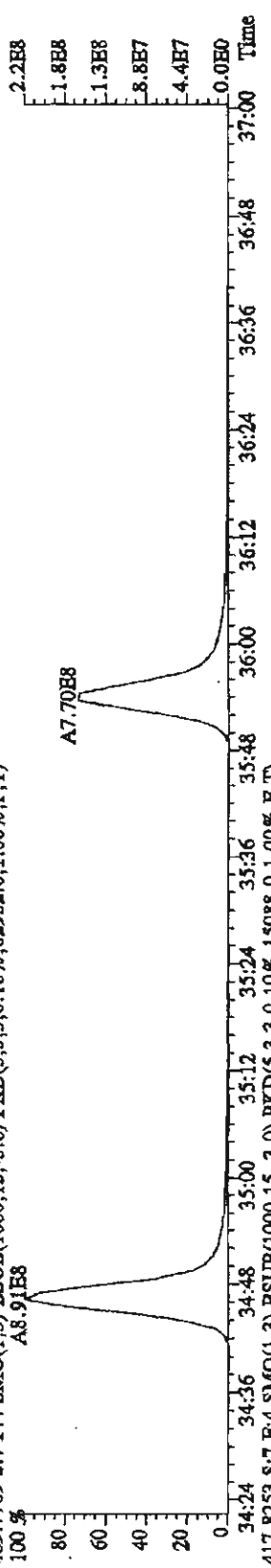
403.8529 S:7 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10% ,1552.0,1.00% ,F,T)
 100 %



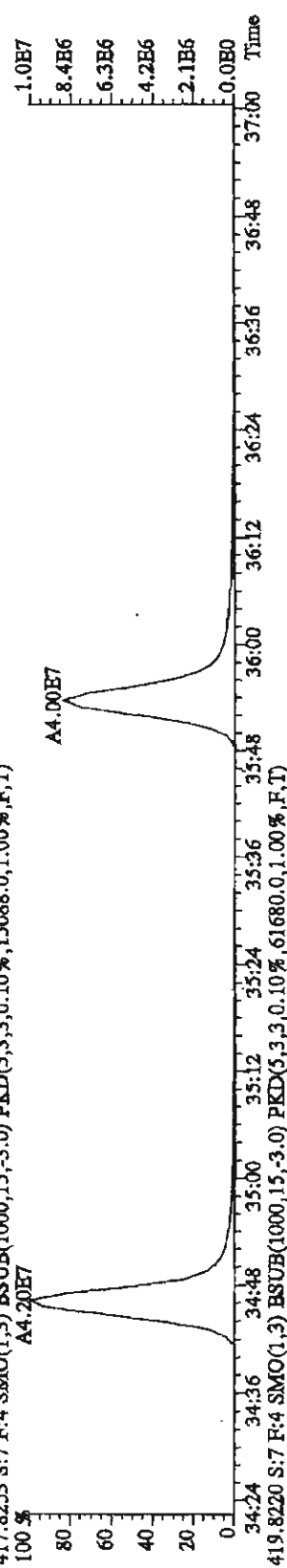
File: 22FEB11A4D5 #1-200 Acq: 22-FEB-2011 17:20:19 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#7 Text: ST0222B :CS-5 (0DXN507 AS Exp: D)OXINRES
 407.7818 S:7 F:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,68620.0,1.00%,F,T)
 100%



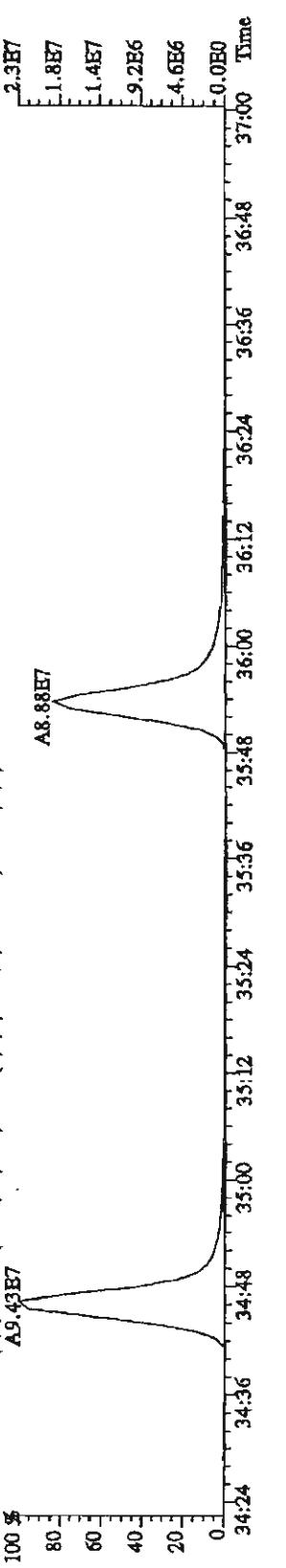
409.7789 S:7 F:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,62952.0,1.00%,F,T)
 100%



417.8253 S:7 F:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,15088.0,1.00%,F,T)
 100%



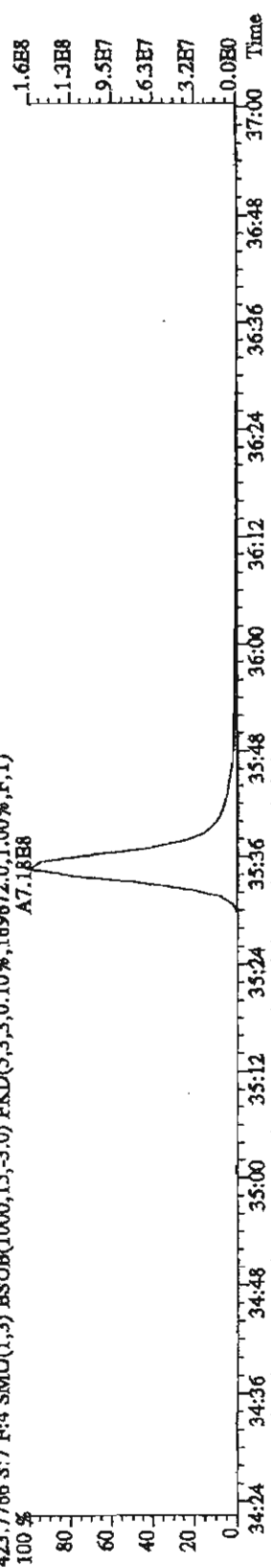
419.8220 S:7 F:4 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,61680.0,1.00%,F,T)
 100%



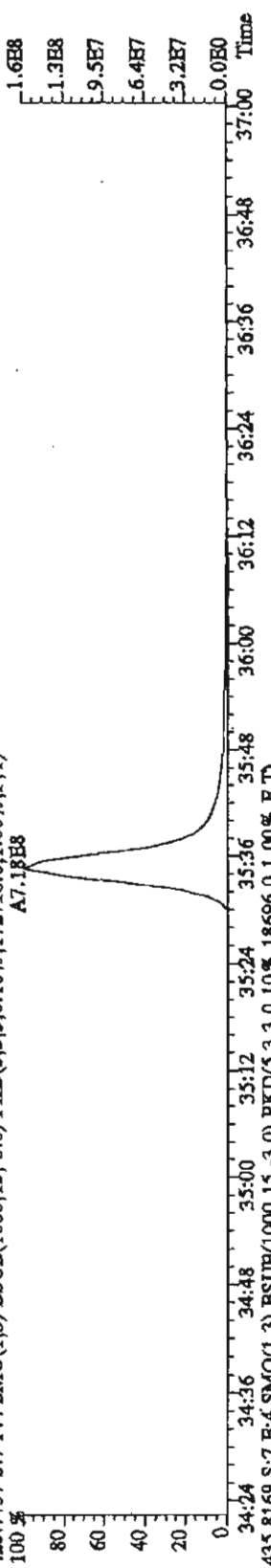
File: 22FEB11A4D5 #1-200 Acq: 22-FEB-2011 17:20:19 GC HI + Voltage SIR Autospec-UltimaB

Sample#7 Text: ST0222B : CS-5 10DXN507 AS Exp: DIOXINRES

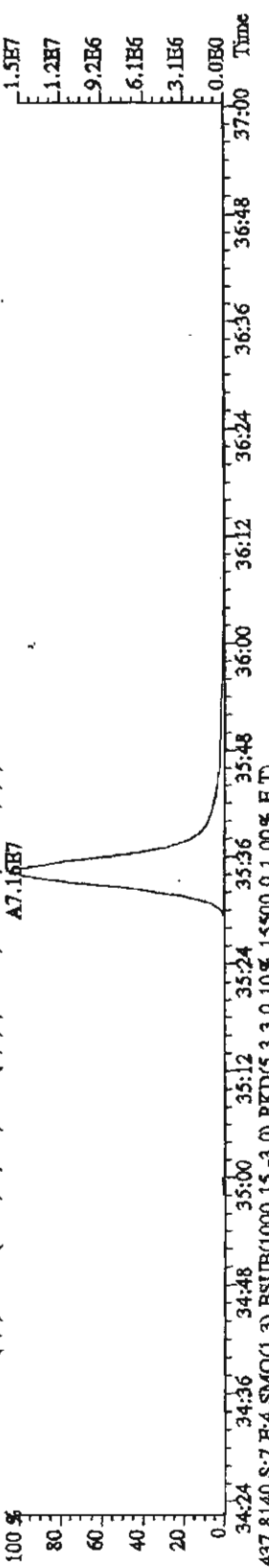
423.7737 S:7 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10% ,1.69% 72.0,1.00% ,F,T) A7.18E8



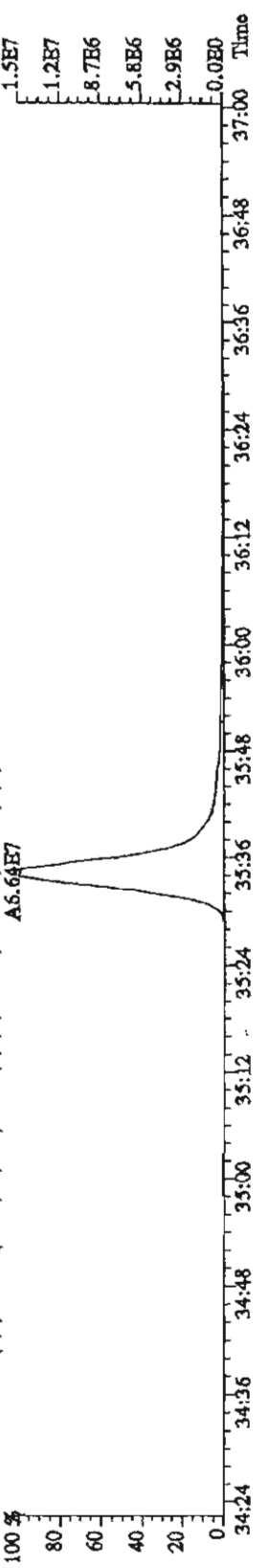
425.7737 S:7 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10% ,1.72% 16.0,1.00% ,F,T) A7.18E8



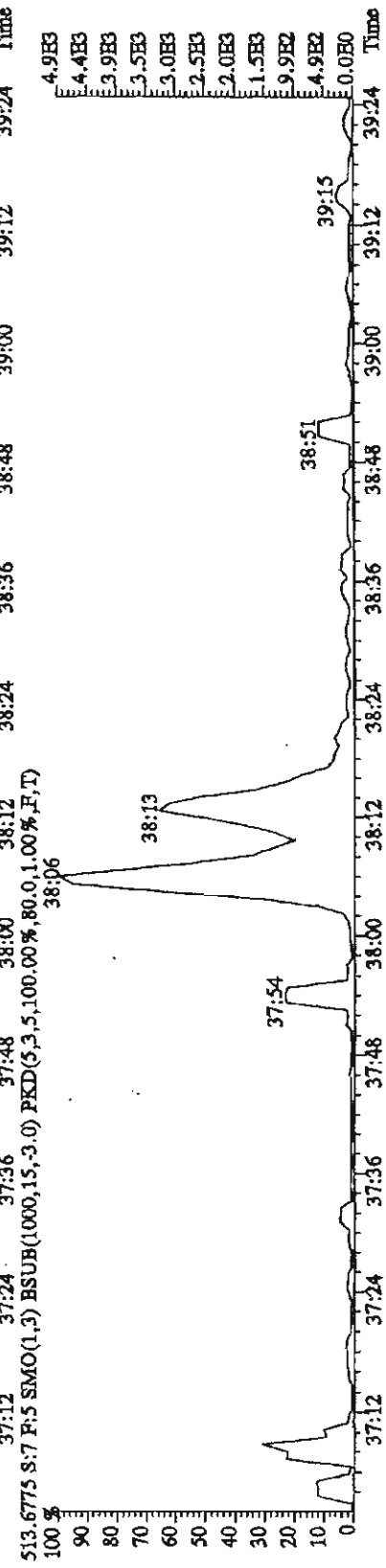
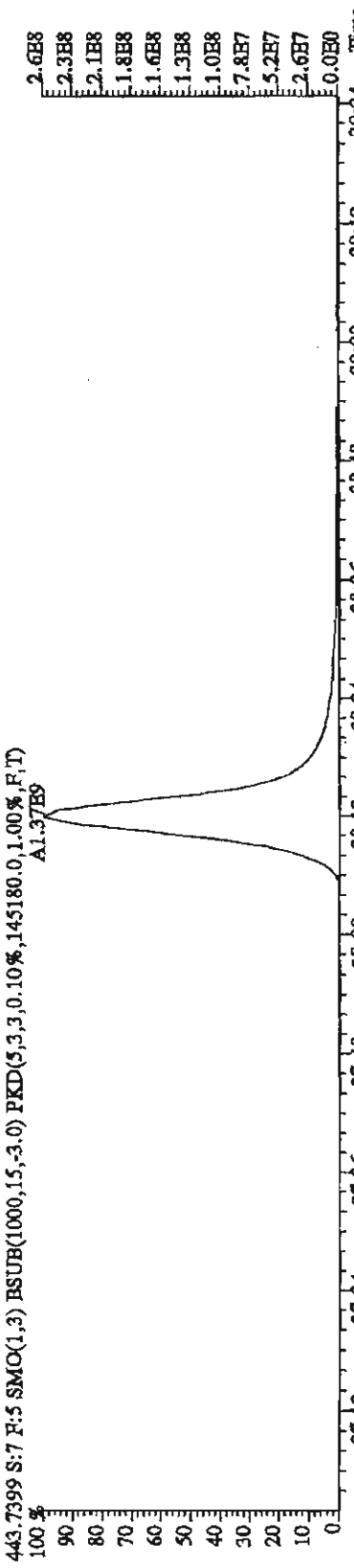
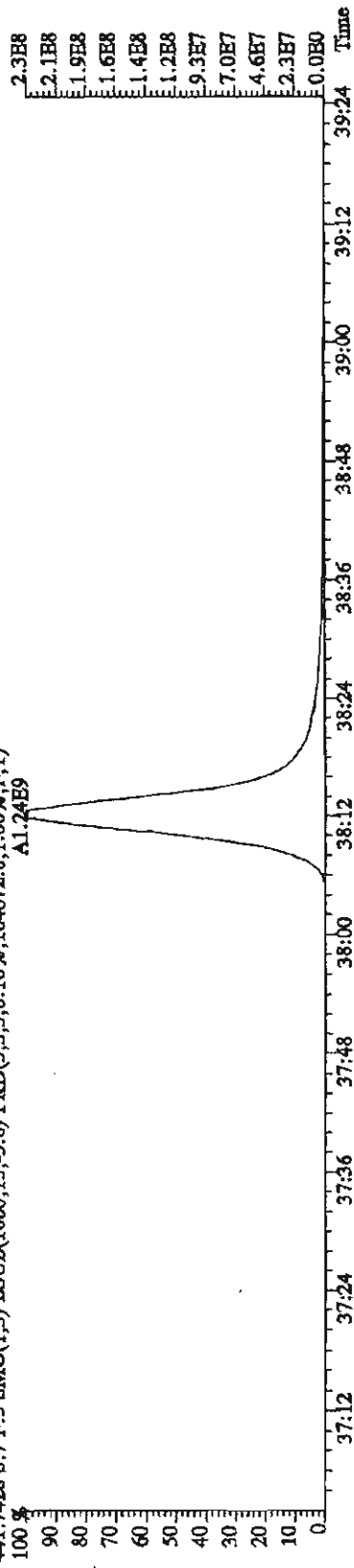
435.8169 S:7 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10% ,1.86% 96.0,1.00% ,F,T) A7.16E7



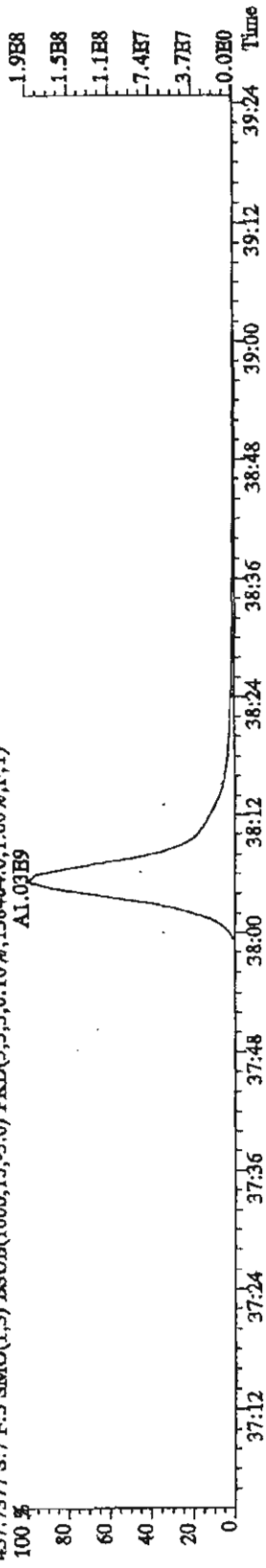
437.8140 S:7 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10% ,1.55% 0.0,1.00% ,F,T) A6.64E7



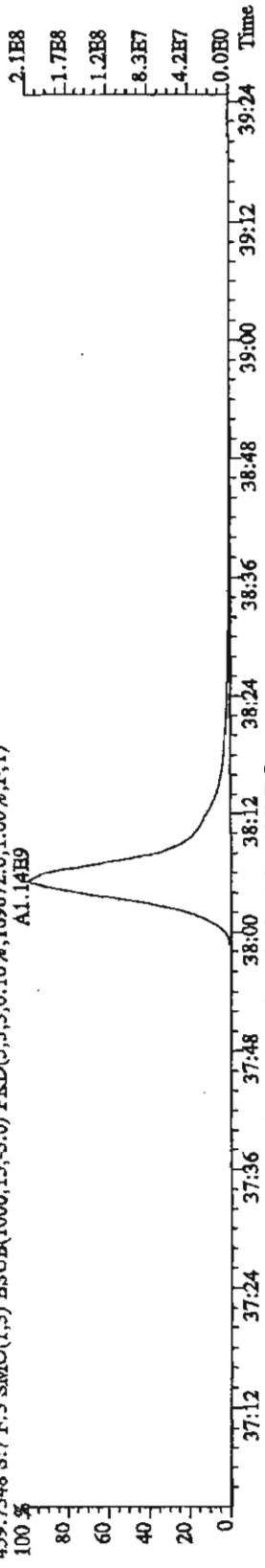
File:22FEB11A4D5 #1-193 Acq:22-FEB-2011 17:20:19 GC HI+ Voltage SIR Autospec-UltimaE
 Sample#7 Text:ST0222B :CS-5 10DXN507 AS Exp:DIOXINRBS
 441.7428 S:7 F:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,164872,0,1,00%,F,T)
 A1.24E9



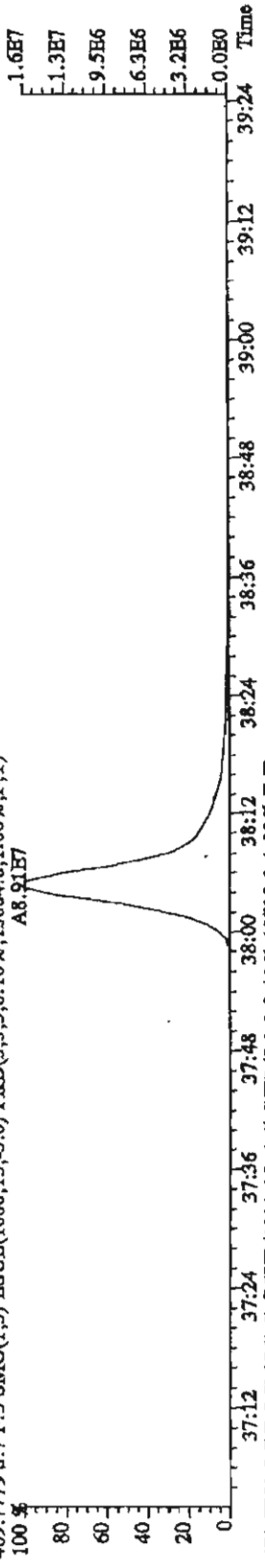
File: 22FEB11A4D5 #1-193 Acq: 22-FEB-2011 17:20:19 GC EI+ Voltage SIR Autospec-UltimaB
 Sample#7 Text: ST0222E :CS-5 10DXNS07 AS Exp: DIOXINRES
 457.7377 S:7 F:5 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%) PKD(5,3,3,0,10%,1.00%,F,T)
 A1.03E9



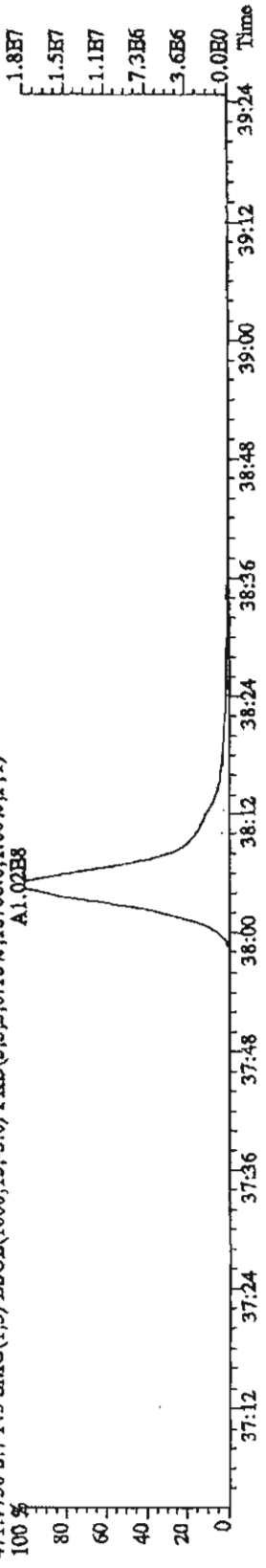
459.7348 S:7 F:5 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%) PKD(5,3,3,0,10%,1.00%,F,T)
 A1.14E9



469.7779 S:7 F:5 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%) PKD(5,3,3,0,10%,1.00%,F,T)
 A8.91E7



471.7750 S:7 F:5 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%) PKD(5,3,3,0,10%,1.00%,F,T)
 A1.02E8

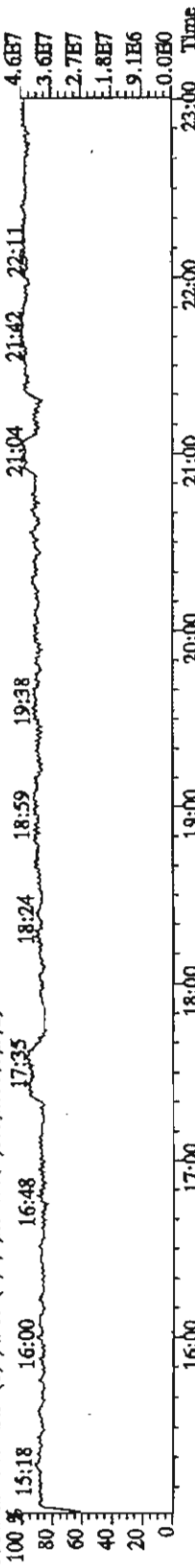


File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 17:20:19 GC HI+ Voltage SIR Autospec-UtimaB

Sample#7 Text: ST0222B : CS-5 10DXN507 AS Exp: DIOXINRES

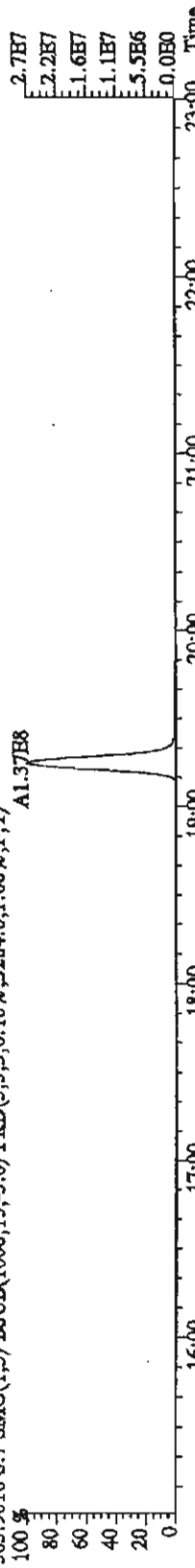
292.9825 S:7 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)

100% 15:18 16:00 16:48 17:35 18:24 18:59 19:38 21:04 21:42 22:11 4.6B7



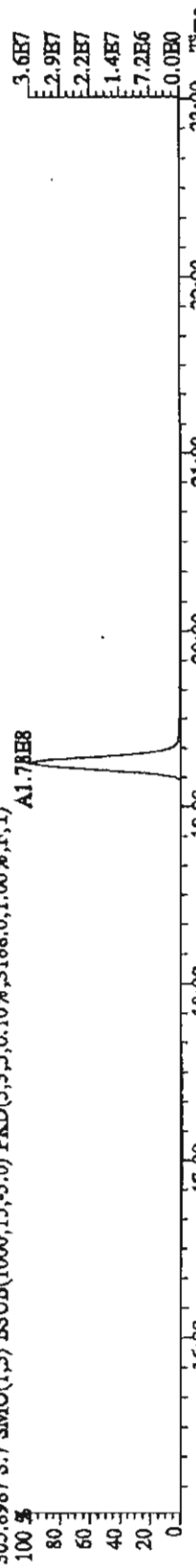
303.9016 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3264,0,1.00%,F,T)

100% 16:00 17:00 18:00 19:00 19:37 20:06 20:20 21:36 21:51 22:14 2.7B7



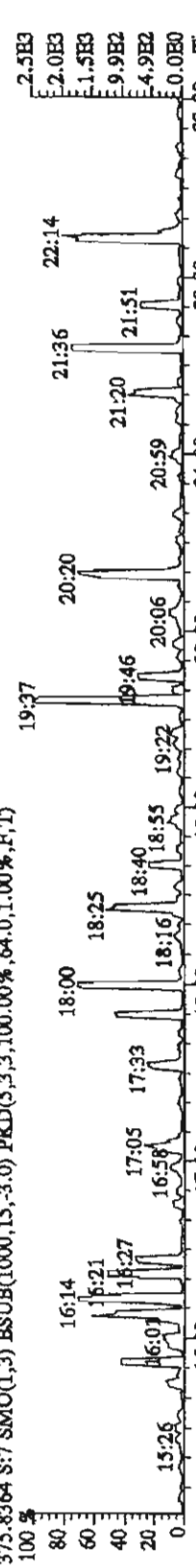
305.8987 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3188,0,1.00%,F,T)

100% 16:00 17:00 18:00 19:00 19:37 20:06 20:20 21:36 21:51 22:14 2.9B7



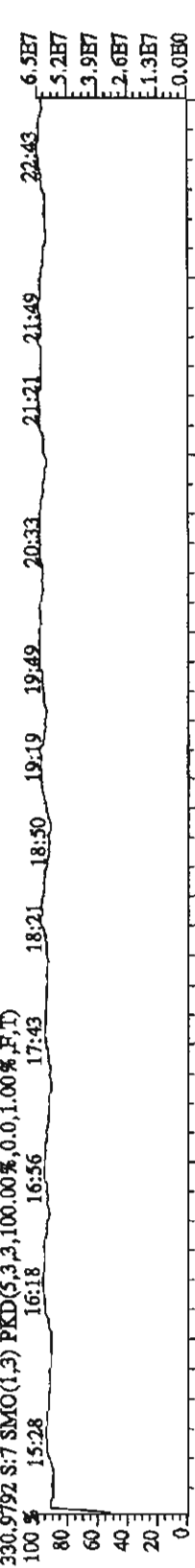
375.8364 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,64,0,1.00%,F,T)

100% 16:00 17:00 18:00 19:00 19:37 20:06 20:20 21:36 21:51 22:14 2.0B3



330.9792 S:7 SMO(1,3) PKD(5,3,100.00%,0,0,1.00%,F,T)

100% 15:28 16:18 16:56 17:43 18:21 18:50 19:19 19:49 20:33 21:21 21:49 22:43 6.5B7

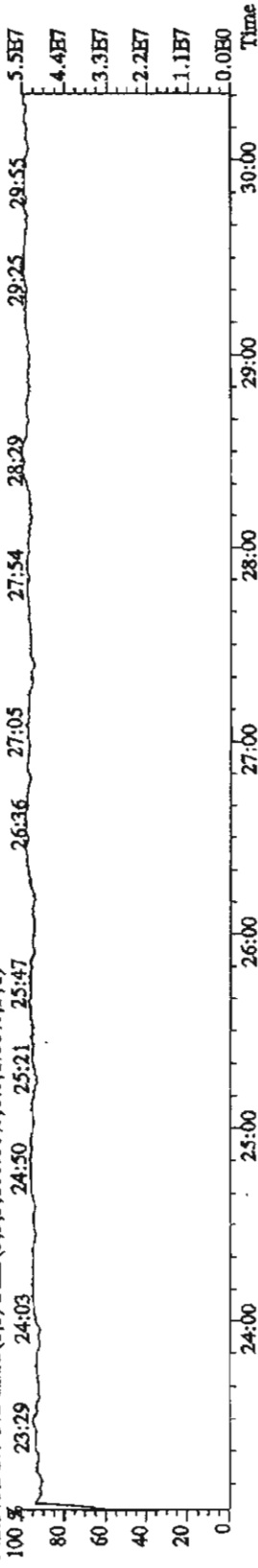


File: 22FB11A4D5 #1-470 Acq: 22-FBB-2011 17:20:19 GC HI+ Voltage SIR Autospec-UltimaB

Sample#7 Text: ST0222E :CS-5 10DXN507 AS Exp: DIOXINRES

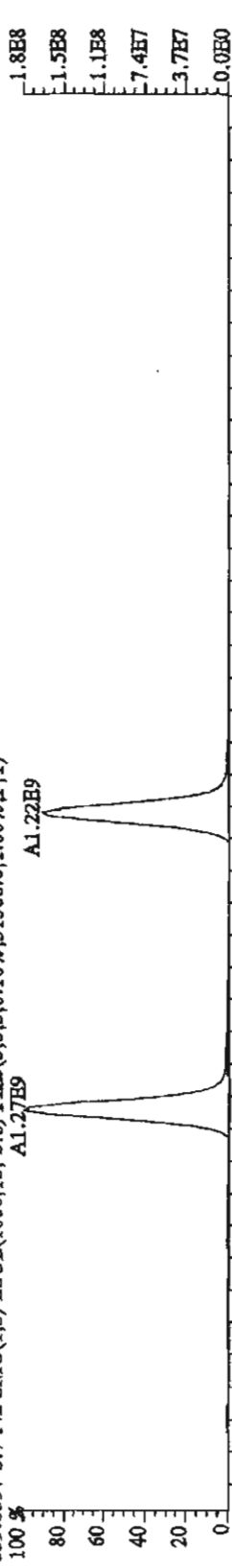
342.9792 S:7 F:2 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100% 23:29 24:03 24:50 25:21 25:47 26:36 27:05 27:54 28:29 29:25 29:55 5.5E7



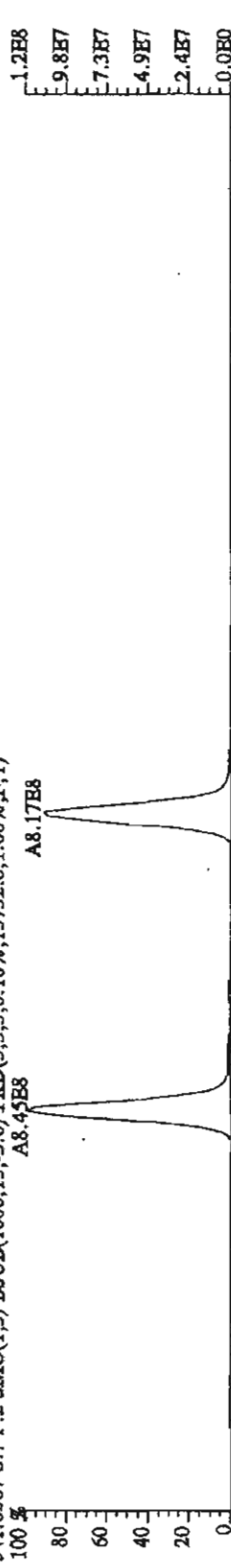
339.8597 S:7 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,31308.0,1.00%,F,T)

100% 1.8E8 1.5E8 1.1E8 7.4E7 3.7E7 0.0E0



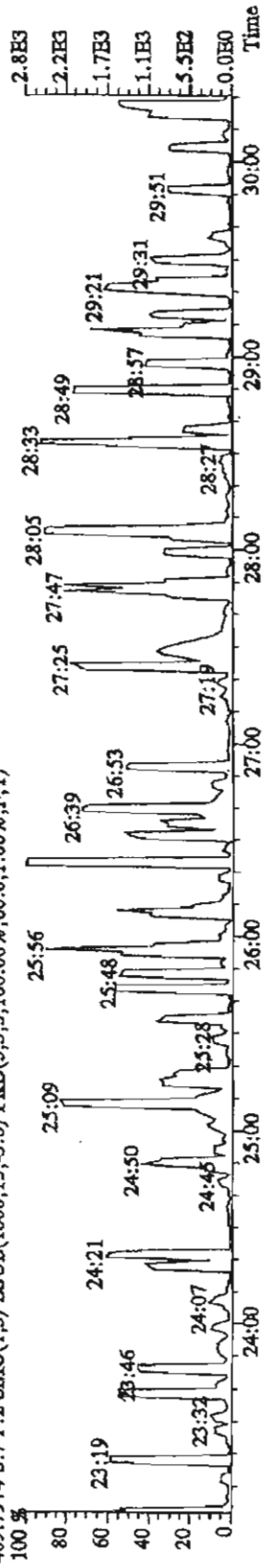
341.8567 S:7 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,15732.0,1.00%,F,T)

100% 1.2E8 9.8E7 7.3E7 4.9E7 2.4E7 0.0E0



409.7974 S:7 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,60.0,1.00%,F,T)

100% 2.8E3 2.2E3 1.7E3 1.1E3 5.5E2 0.0E0

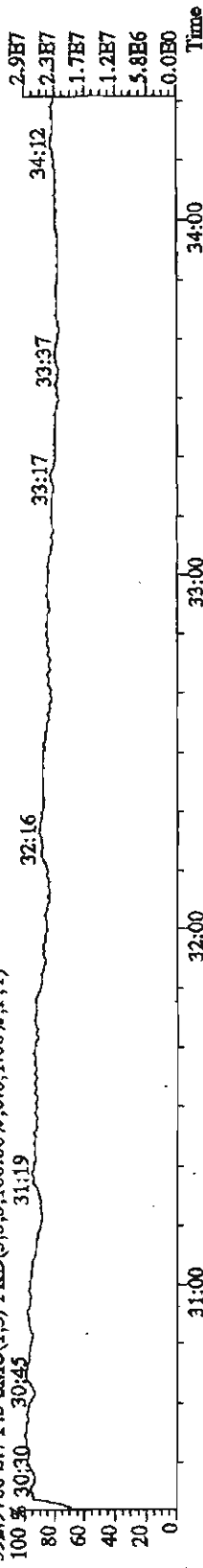


File: 22FEB11A4D5 #1-287 Acq: 22-FEB-2011 17:20:19 GC RI+ Voltage SIR Autospec-UltimaE

Sample#7 Text: S70222B :CS-5 10DXN507 AS Exp: DIOXINRES

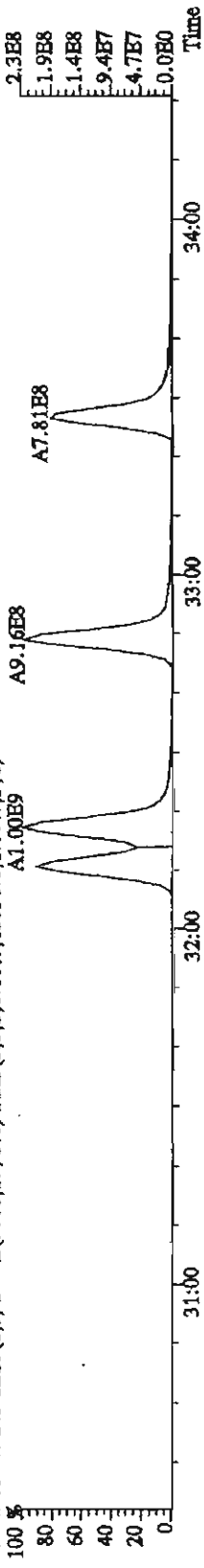
392.9760 S:7 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100% 30:30 30:45 31:19 32:16 33:17 33:37 34:12



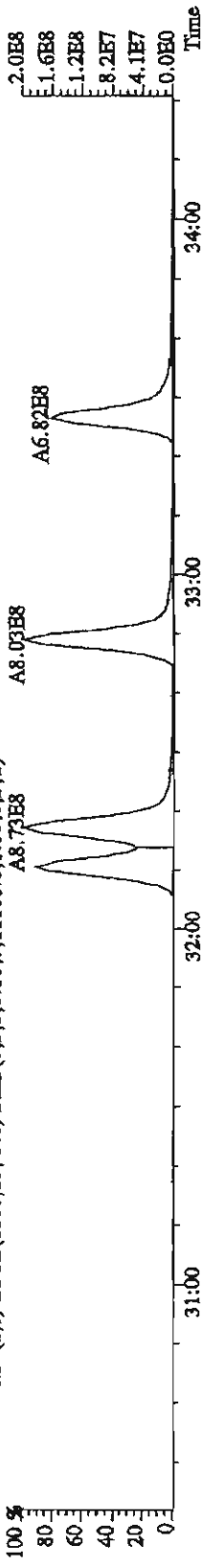
373.8208 S:7 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,13596.0,1.00%,F,T)

100% A1.00E9

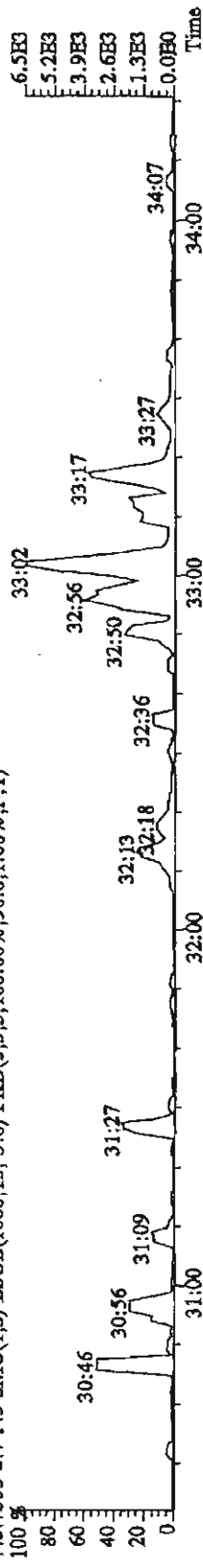


375.8178 S:7 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,11188.0,1.00%,F,T)

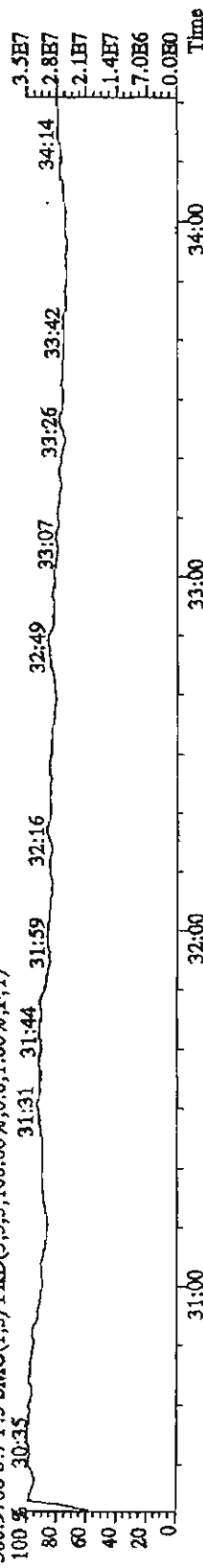
100% A8.73E8



445.7555 S:7 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,96.0,1.00%,F,T)



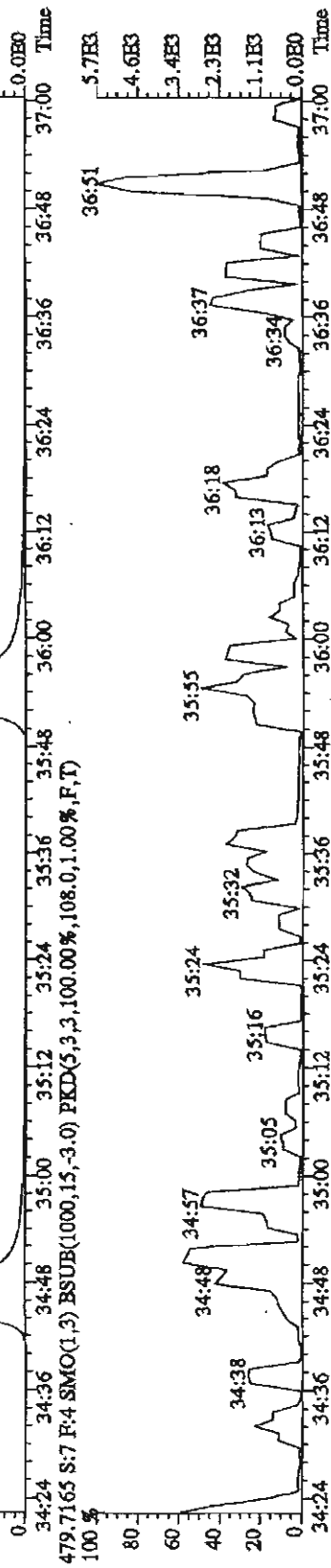
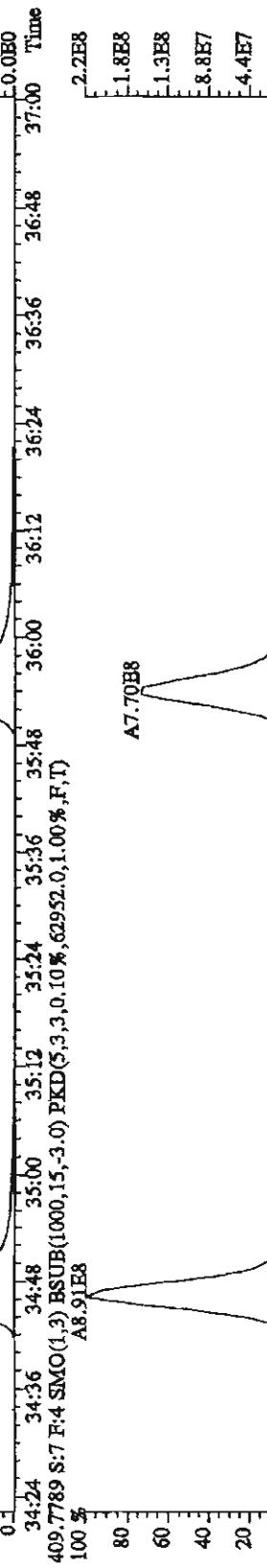
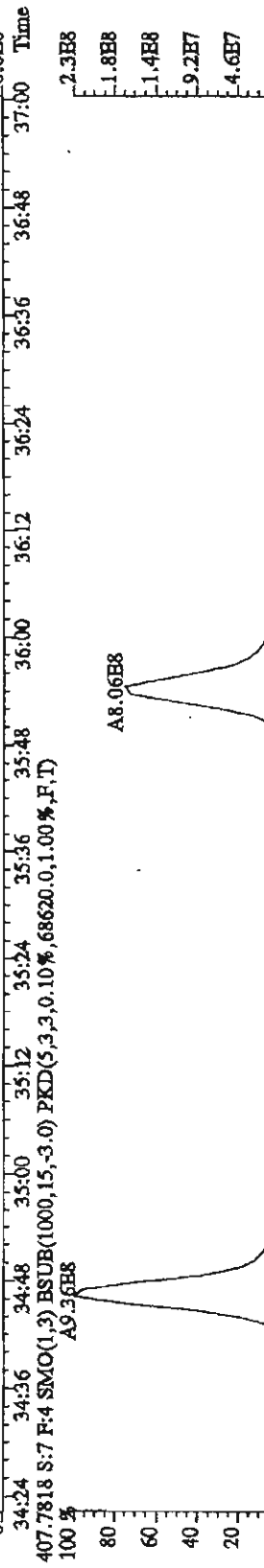
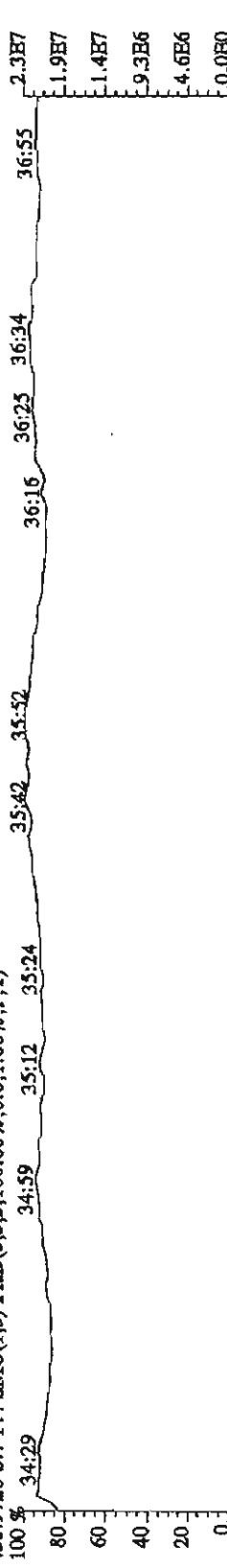
380.9760 S:7 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



File: 22HE11A4D5 #1-200 Acq: 22-FEB-2011 17:20:19 GC HI+ Voltage SIR Autospec-UltimaB

Sample#7 Text: ST0222H : CS-5 10DXN507 AS

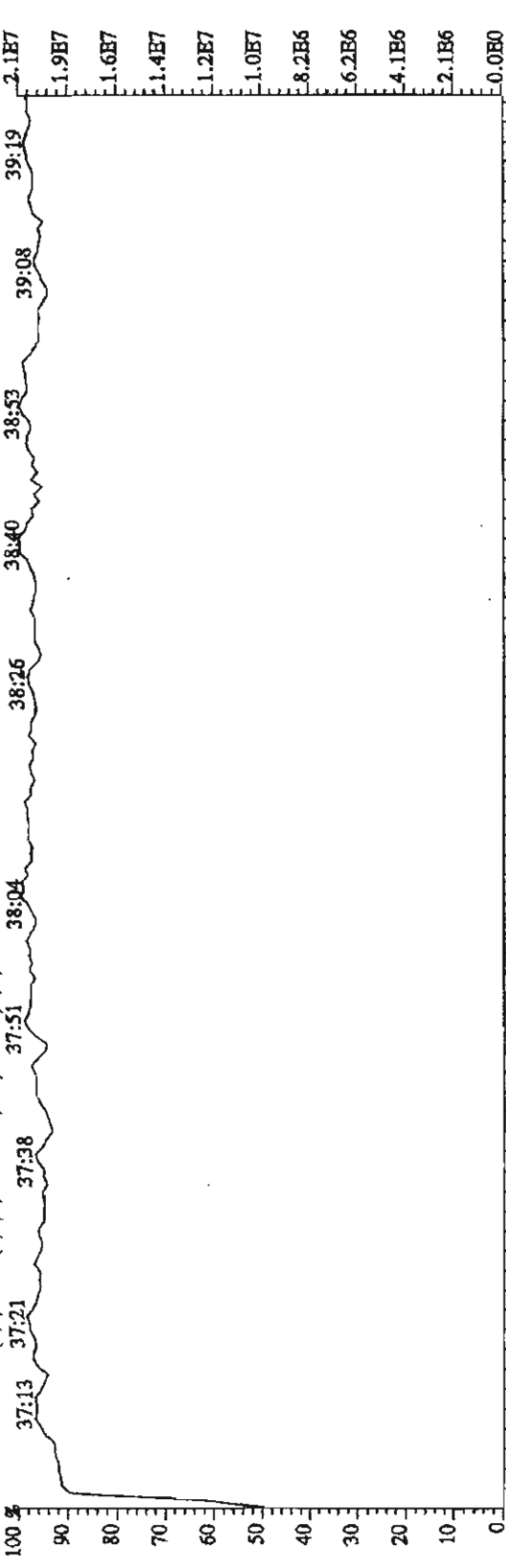
430.9728 S:7 F:4 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T) Exp: DIOXINRES



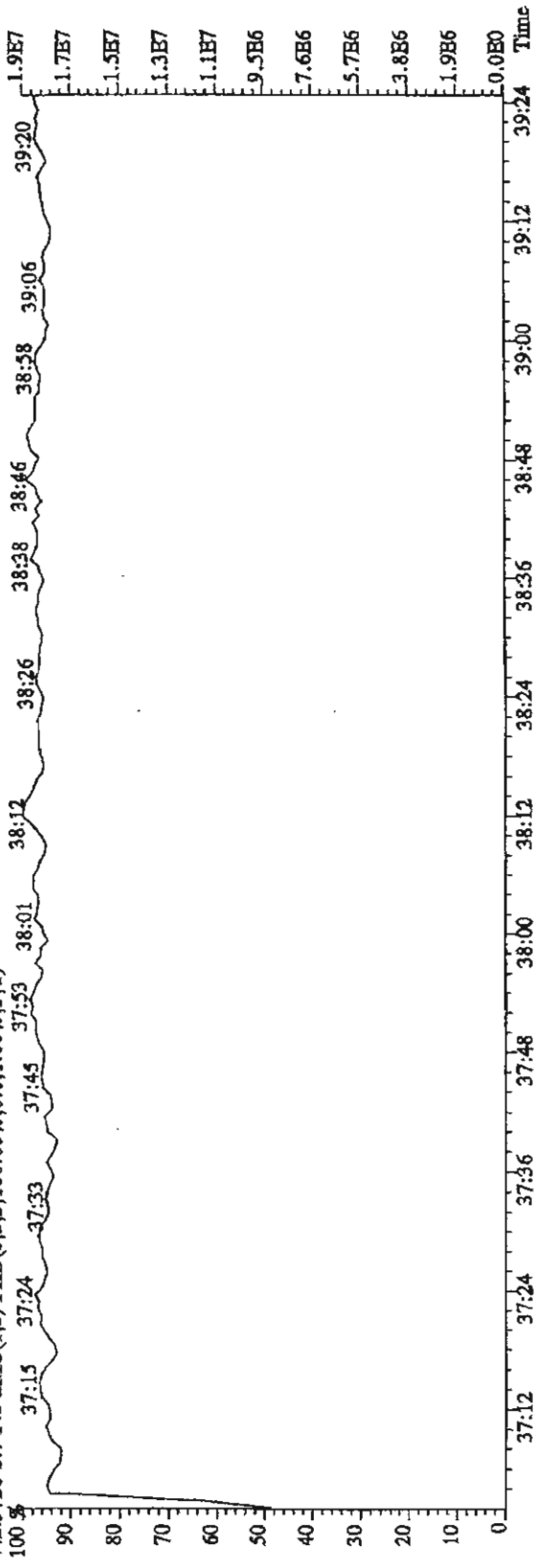
File: 22FBI1A4D5 #1-193 Acq: 22-FEB-2011 17:20:19 GC EI + Voltage SIR, Autospec-UltimaB

Sample#7 Text: ST0222E :CS-5 10DXN507 AS Exp: DIOXINRES

454.9728 S: 7 F: 5 SMO(1.3) PKD(5.3, 3.100.00%, 0.0, 1.00%, F, T)



442.9728 S: 7 F: 5 SMO(1.3) PKD(5.3, 3.100.00%, 0.0, 1.00%, F, T)



Quantitation Summary

TestAmerica West Sacramento

Run text: ST0222F Sample text: ST0222F :2nd Source 10DXN511 AS
 Run #7 Filename: 22FE11A4D5 S: 9 I: 1 Results: 22FE11A4D51613
 Acquired: 22-FEB-11 18:49:28 Processed: 22-FEB-11 19:33:15
 Run: 22FE11A4D5 Analyte: 1613 Cal: 16130222114D5
 Factor 1: 800.000 Factor 2: 20.000 Sample size: 1.000000

AS
02-23-11

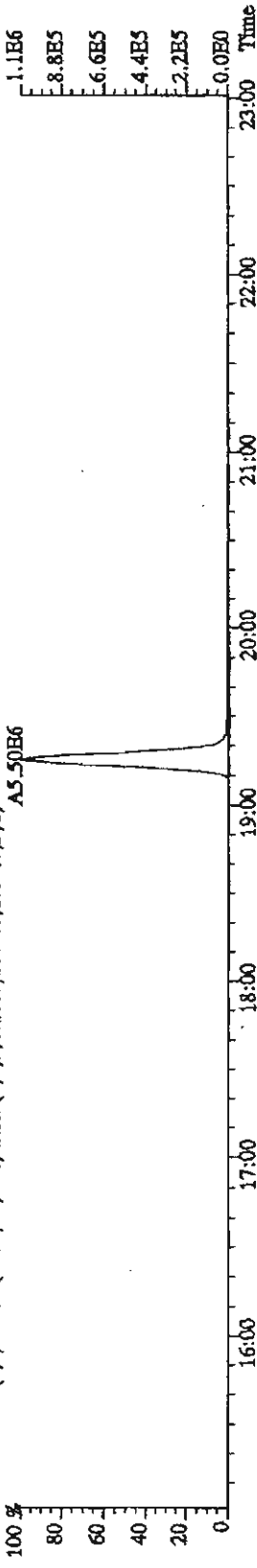
Name	Resp	RA	RT	RRF	Conc	EDL	Rec	M
13C-1,2,3,4-TCDD	170075200	0.77 y	19:50	-	89.33	-	-	n
13C-2,3,7,8-TCDF	183568700	0.78 y	19:14	1.10	1954.08	1.47	97.7	n
2,3,7,8-TCDF	12704100	0.76 y	19:15	0.78	178.03	0.95	-	n
Total TCDF	12872308	0.48 n	18:50	0.78	180.39	0.95	-	n
13C-2,3,7,8-TCDD	171106600	0.76 y	20:03	0.97	2077.00	2.30	103.8	n
2,3,7,8-TCDD	13937850	0.71 y	20:04	0.87	187.78	0.68	-	n
Total TCDD	13959811	3.90 n	19:13	0.87	188.08	0.68	-	n
37Cl-2,3,7,8-TCDD	44991200	1.00 y	20:04	1.43	371.07	0.68	92.8	n
13C-1,2,3,7,8-PeCDF	179187800	1.61 y	25:05	1.04	2028.00	2.61	101.4	n
1,2,3,7,8-PeCDF	43868700	1.52 y	25:06	0.96	510.58	1.53	-	n
13C-2,3,4,7,8-PeCDF	170043700	1.59 y	26:36	1.02	1960.45	2.65	98.0	n
2,3,4,7,8-PeCDF	41347600	1.51 y	26:38	0.96	508.81	1.69	-	n
Total F2 PeCDF	86914429	1.72 y	23:30	0.96	1039.70	1.61	-	n
Total F1 PeCDF	105587	0.68 n	17:03	0.96	1.26	1.44	-	n
13C-1,2,3,7,8-PeCDD	112245100	1.53 y	27:27	0.70	1886.82	1.08	94.3	n
1,2,3,7,8-PeCDD	29294900	1.48 y	27:29	1.04	501.00	2.65	-	n
Total PeCDD	29937806	0.77 n	24:59	1.04	512.00	2.65	-	n
13C-1,2,3,7,8,9-HxCDD	115422100	1.29 y	33:16	-	85.16	-	-	n
13C-1,2,3,4,7,8-HxCDF	113648100	0.51 y	32:10	0.87	2261.88	1.41	113.1	n
1,2,3,4,7,8-HxCDF	32994700	1.14 y	32:11	1.15	505.53	2.27	-	n
13C-1,2,3,6,7,8-HxCDF	145812400	0.51 y	32:17	1.18	2137.41	1.04	106.9	n
1,2,3,6,7,8-HxCDF	39221200	1.13 y	32:18	1.07	501.34	2.11	-	n
13C-2,3,4,6,7,8-HxCDF	130263000	0.50 y	32:48	1.03	2184.22	1.19	109.2	n
2,3,4,6,7,8-HxCDF	34561100	1.10 y	32:49	1.10	484.25	2.09	-	n
13C-1,2,3,7,8,9-HxCDF	112519000	0.51 y	33:26	0.90	2154.83	1.36	107.7	n
1,2,3,7,8,9-HxCDF	30227000	1.12 y	33:27	1.08	498.24	2.64	-	n
Total HxCDF	137301925	1.14 y	32:11	1.10	1993.69	2.26	-	n
13C-1,2,3,4,7,8-HxCDD	80964700	1.29 y	32:56	0.66	2112.56	2.29	105.6	n
1,2,3,4,7,8-HxCDD	21923230	1.26 y	32:57	1.06	508.70	0.88	-	n
13C-1,2,3,6,7,8-HxCDD	108324300	1.30 y	33:01	0.95	1976.36	1.60	98.8	n
1,2,3,6,7,8-HxCDD	27923500	1.29 y	33:02	1.05	492.78	0.81	-	n
1,2,3,7,8,9-HxCDD	28498800	1.28 y	33:17	1.20	501.47	0.73	-	n
Total HxCDD	78373750	2.89 n	32:10	1.10	1503.49	0.80	-	n
13C-1,2,3,4,6,7,8-HpCDF	115424400	0.44 y	34:46	0.91	2188.51	24.39	109.4	n
1,2,3,4,6,7,8-HpCDF	37059500	1.04 y	34:47	1.32	484.86	3.43	-	n
13C-1,2,3,4,7,8,9-HpCDF	104055100	0.44 y	35:54	0.83	2170.73	26.84	108.5	n
1,2,3,4,7,8,9-HpCDF	30775600	1.06 y	35:55	1.24	475.28	4.69	-	n
Total HpCDF	67835100	1.04 y	34:47	1.29	960.14	4.01	-	n

13C-1,2,3,4,6,7,8-HpCDD	115875200	1.05 y	35:34	0.91	2197.20		11.70	109.9	n
1,2,3,4,6,7,8-HpCDD	29936700	1.00 y	35:35	1.01	509.78	102 %	2.92	-	n
Total HpCDD	30076902	0.94 y	35:01	1.01	512.17		2.92	-	n
13C-OCDD	144436400	0.85 y	38:05	0.60	4161.85		4.54	104.0	n
OCDF	46404500	0.92 y	38:12	1.27	1009.09	100.9 %	3.68	-	n
OCDD	39832800	0.93 y	38:05	1.13	976.95	97.7 %	2.86	-	n

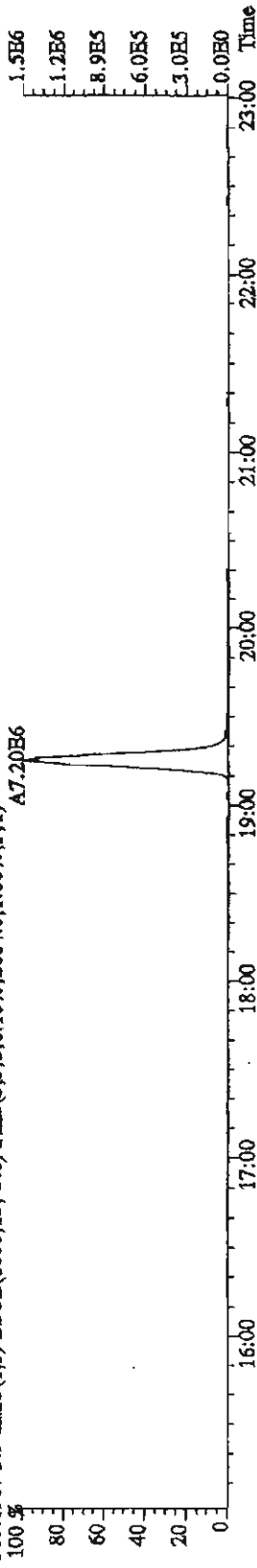
File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 18:49:28 GC EI+ Voltage SIR Autospec-UltimaE

Sample#9 Text: ST0222F 2nd Source 10DXN511 AS Exp: DIOXINRES

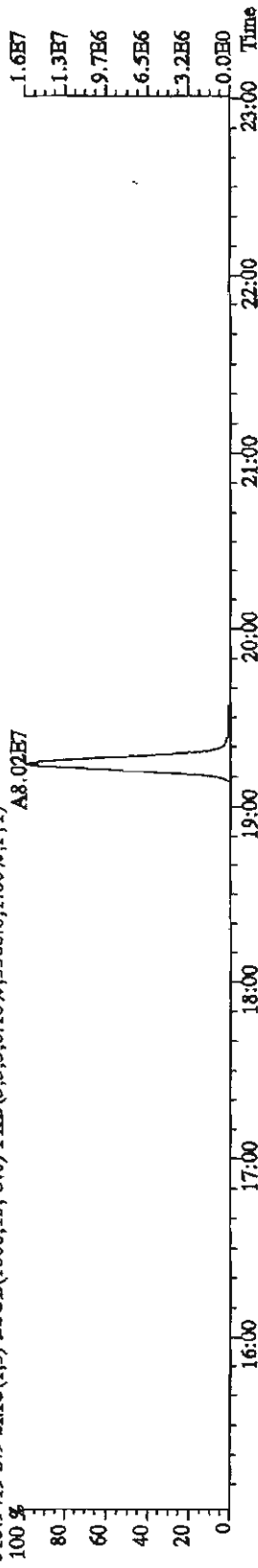
303.9016 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10% ,1888.0,1.00% ,F,T)



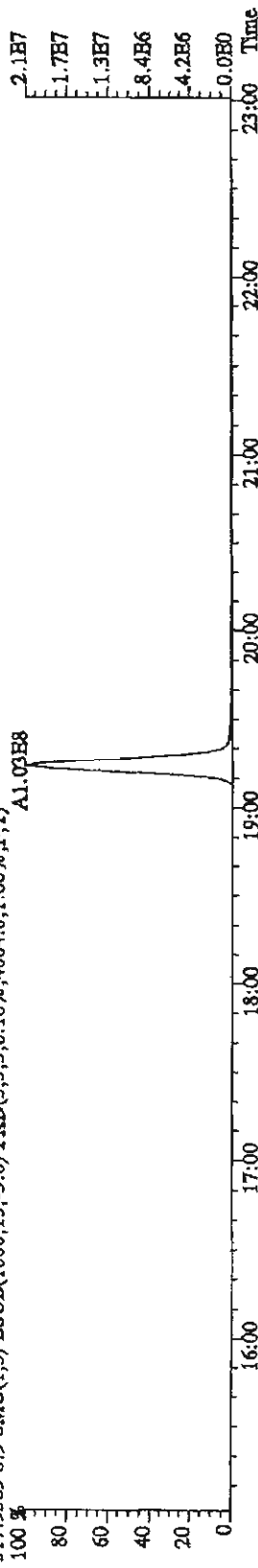
305.8987 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10% ,2684.0,1.00% ,F,T)



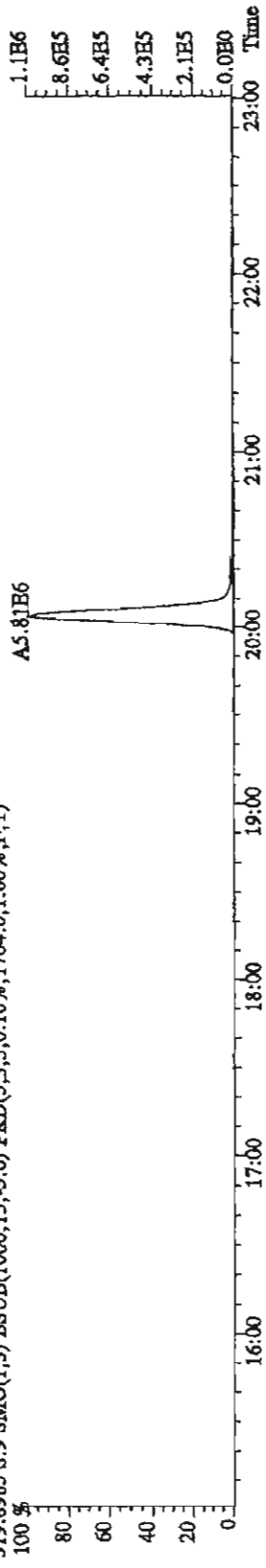
315.9419 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10% ,5368.0,1.00% ,F,T)



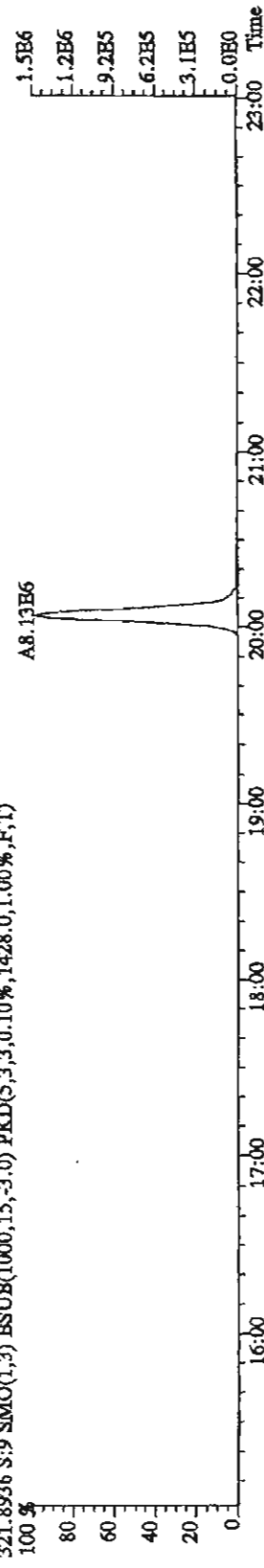
317.9389 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10% ,4084.0,1.00% ,F,T)



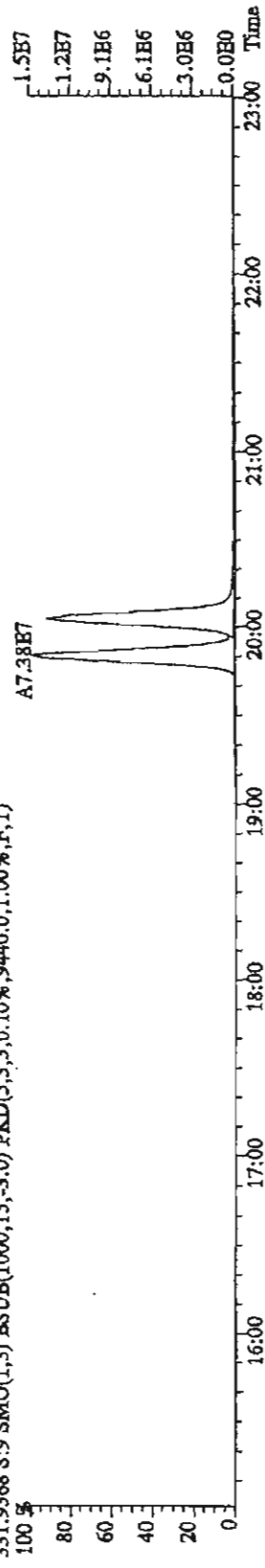
File: 22FB11A4D5 #1-530 Acq: 22-FEB-2011 18:49:28 GC HI+ Voltage SIR Autospec-UltimaE
 Sample#9 Text: ST0222P 2nd Source 10DXN511 AS Exp: DIOXINRES
 319.8965 S:9 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1704.0,1.00%,F,T)
 100 %



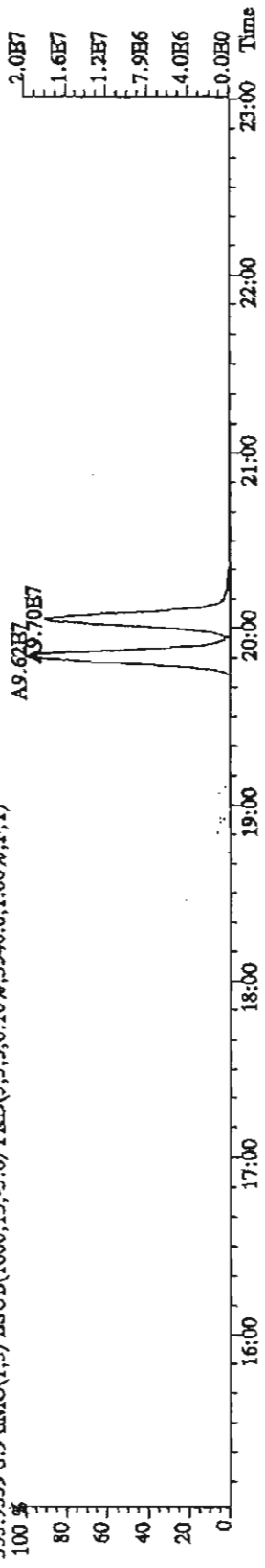
321.8936 S:9 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1428.0,1.00%,F,T)
 100 %



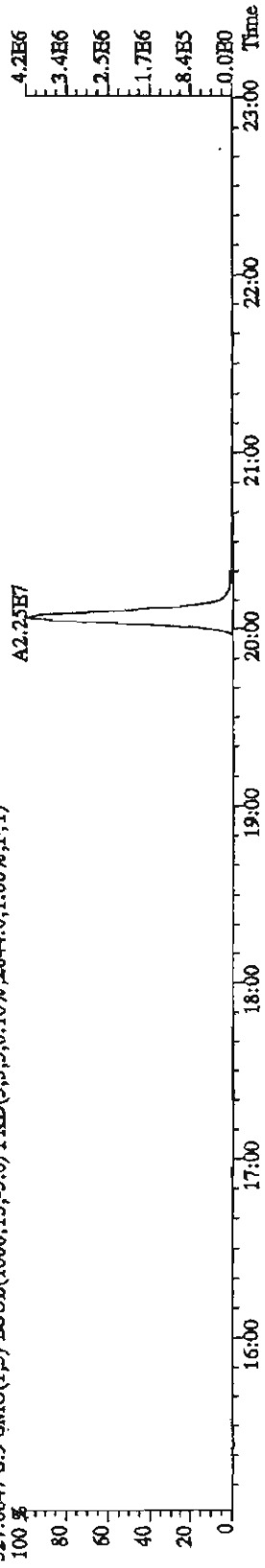
331.9368 S:9 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,9440.0,1.00%,F,T)
 100 %



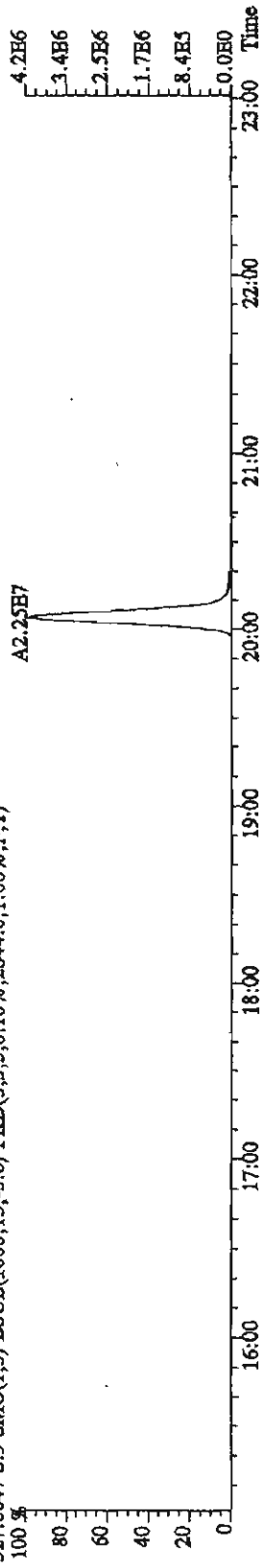
333.9339 S:9 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,3540.0,1.00%,F,T)
 100 %



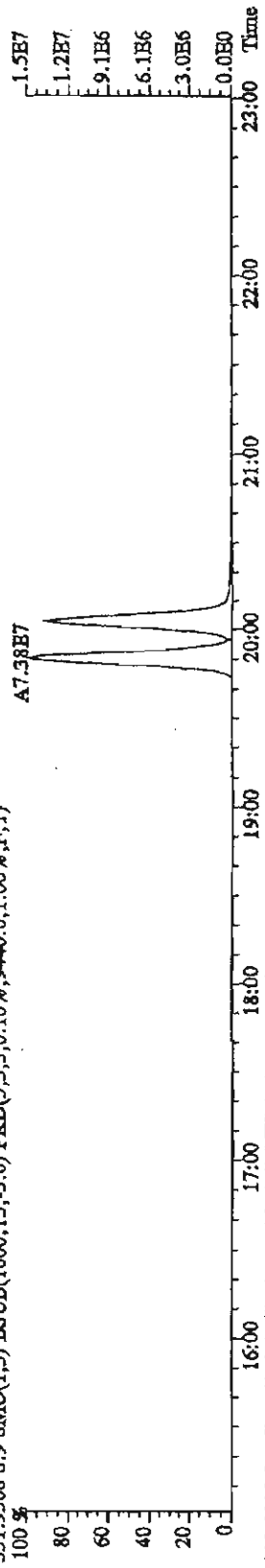
File: 22\FB11A4D5 #1-530 Acq: 22-FEB-2011 18:49:28 GC HI + Voltage SIR Autospec-UltimaE
 Sample#9 Text: ST0222F 2nd Source 10DXN511 AS Exp: DIOXINRES
 327.8847 S:9 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,0,10%,2844,0,1,00%,F,T)



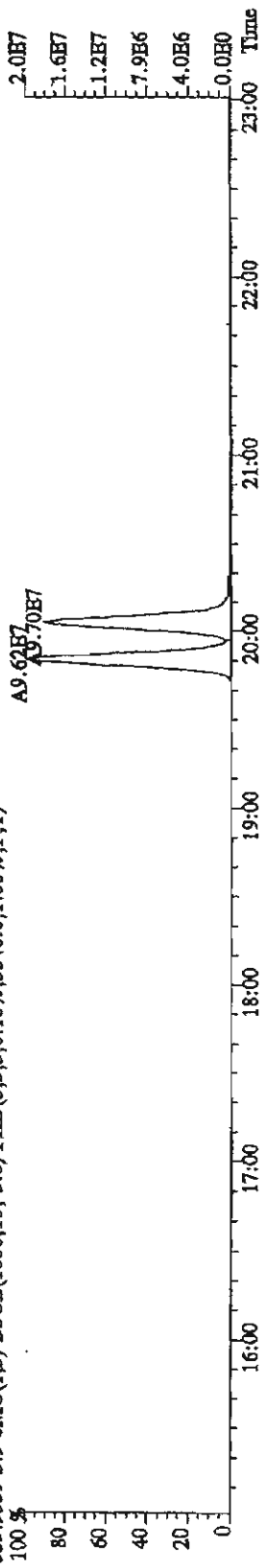
331.9368 S:9 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,0,10%,9440,0,1,00%,F,T)



333.9339 S:9 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,0,10%,3540,0,1,00%,F,T)



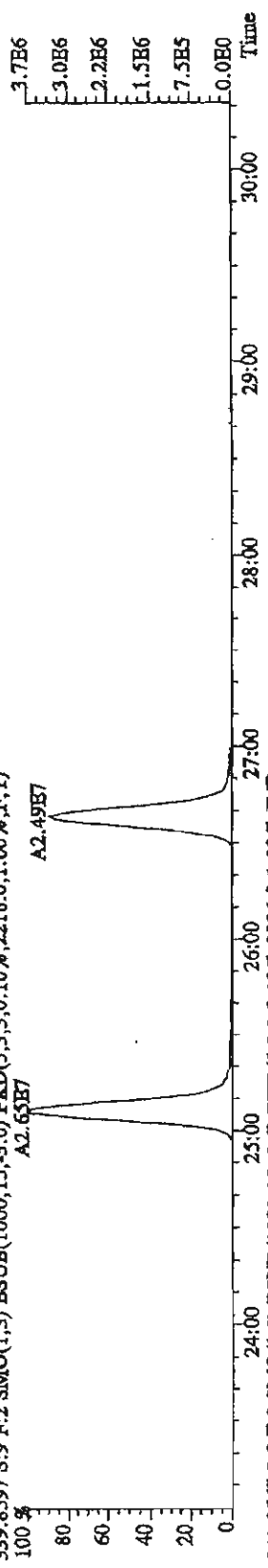
333.9339 S:9 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,0,10%,3540,0,1,00%,F,T)



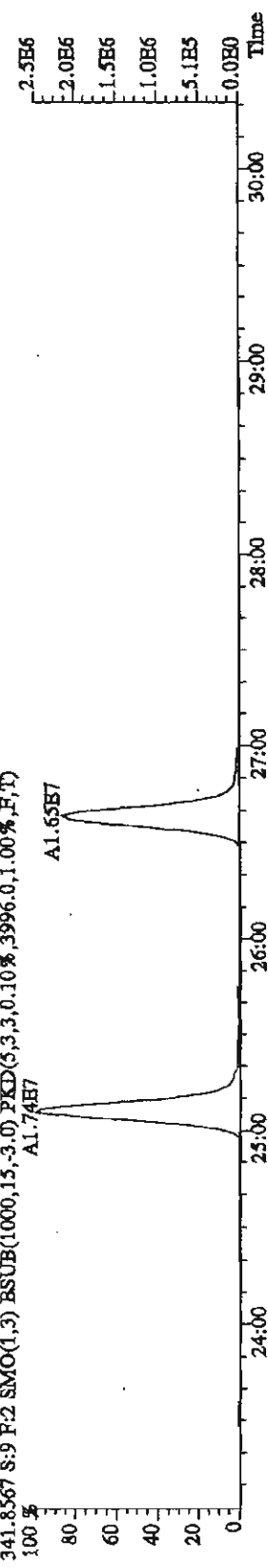
File: 22FEB11A4D5 #1-470 Acq: 22-FEB-2011 18:49:28 GC EI+ Voltage STR Autospec-UltimaE

Sample#9 Text: ST0222F : 2nd Source 10DXN511 AS Exp: DIOXINRES

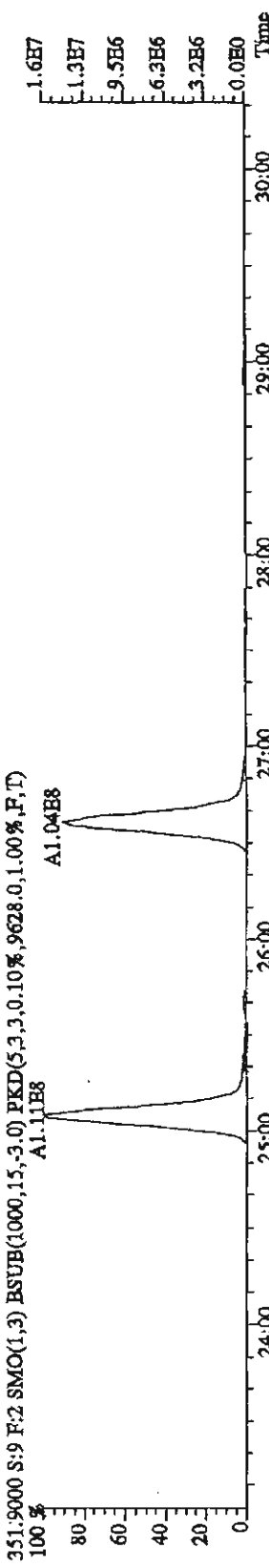
339.8597 S:9 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2216.0,1.00%,F,T)



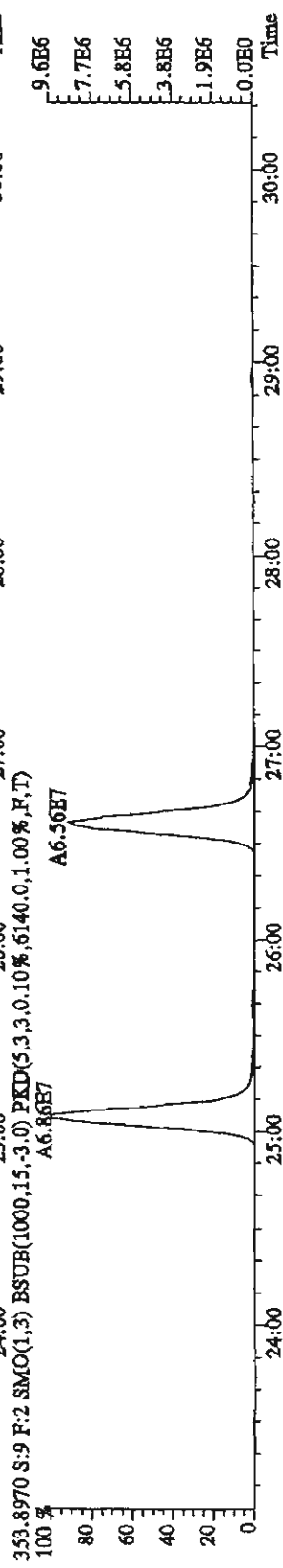
341.8567 S:9 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3996.0,1.00%,F,T)



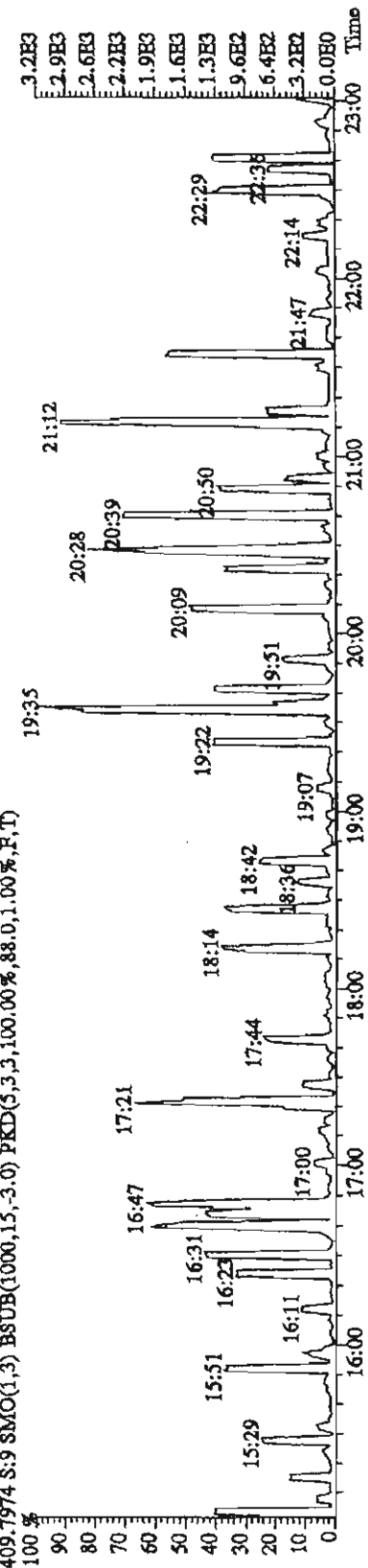
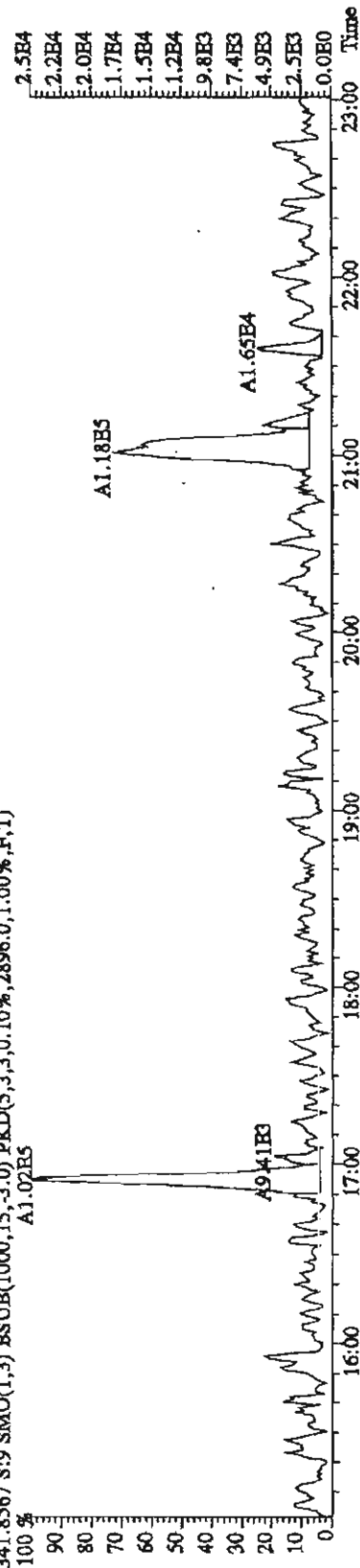
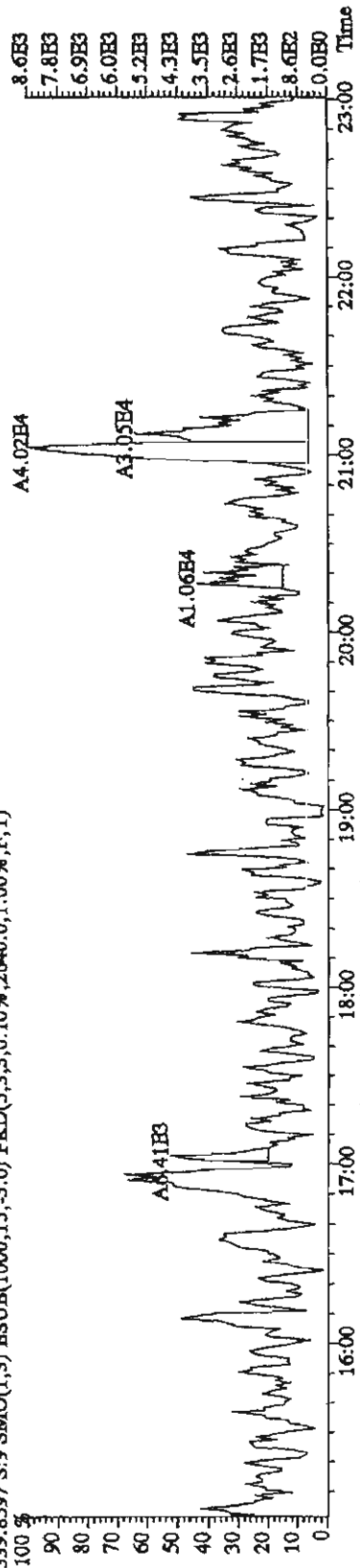
351.9000 S:9 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9628.0,1.00%,F,T)



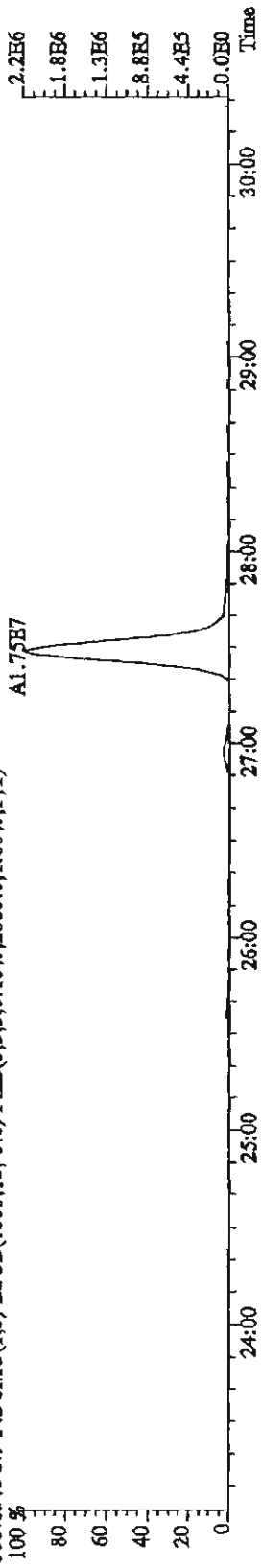
353.8970 S:9 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6140.0,1.00%,F,T)



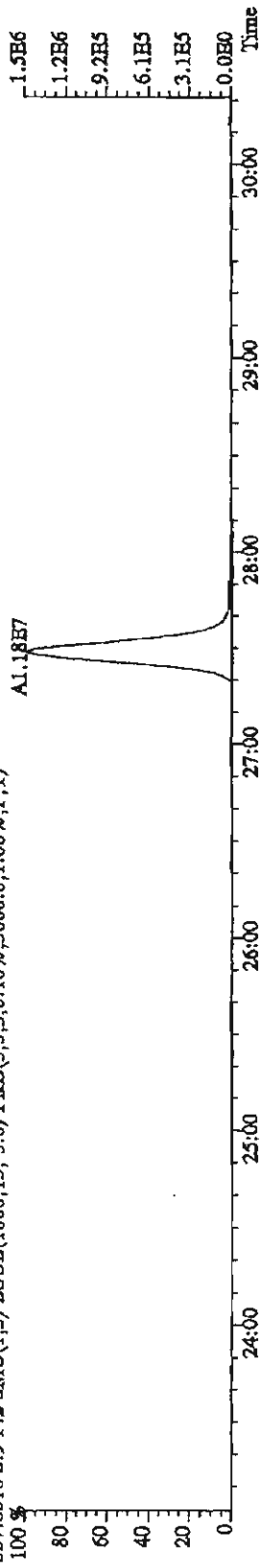
File: 22FEB11A4D5 #1-530 Acq: 22-FEB-2011 18:49:28 GC HI + Voltage SIR AutoSpec-UltimaE
 Sample#9 Text: S10222F : 2nd Source 10DXN511 AS Exp: DIOXINRES
 339.8597 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2640.0,1.00%,F,T)



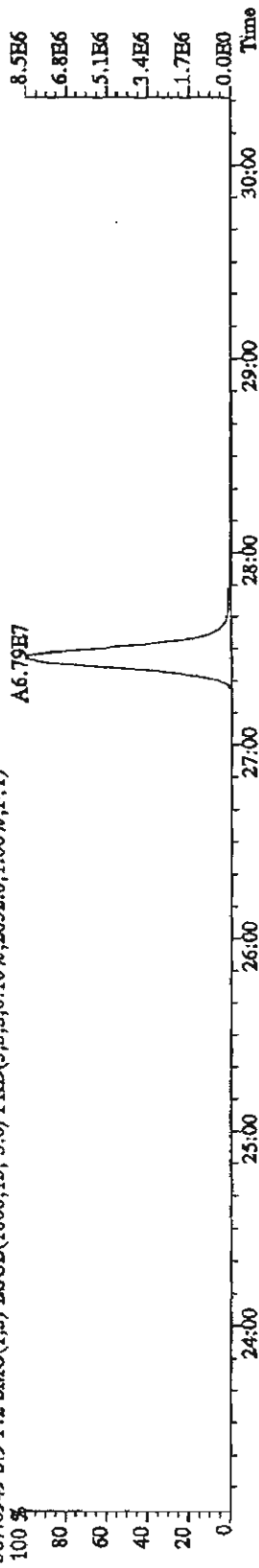
File:22FEB11A4D5 #1-470 Acq:22-FEB-2011 18:49:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:ST0222F 2nd Source 1GDKN511 AS Exp:DIOXINRES
355.8546 S:9 F:2 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2880.0,1.00%,F,T)



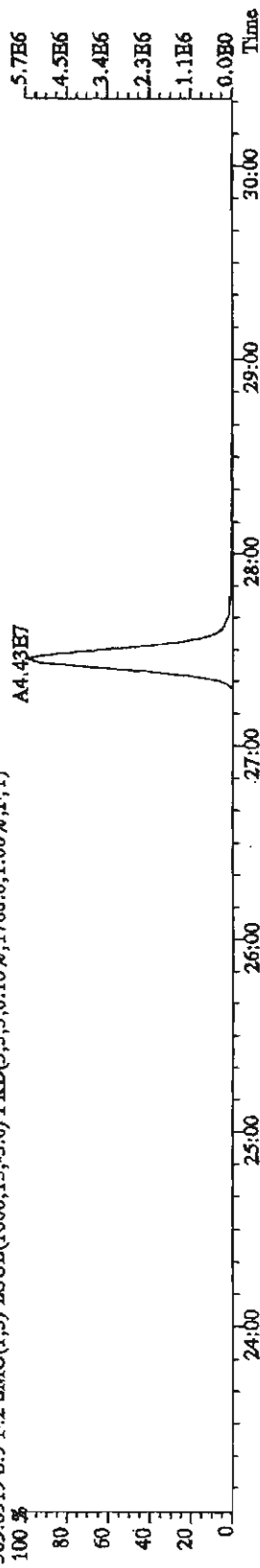
357.8516 S:9 F:2 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3660.0,1.00%,F,T)



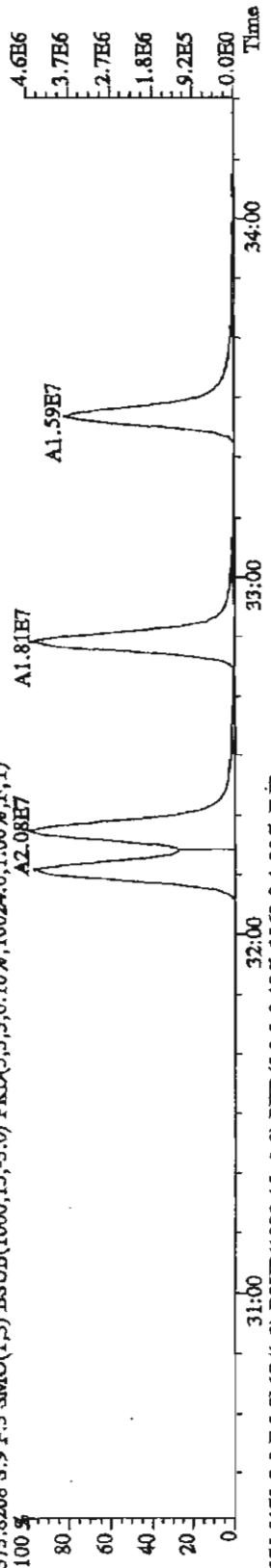
367.8949 S:9 F:2 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2652.0,1.00%,F,T)



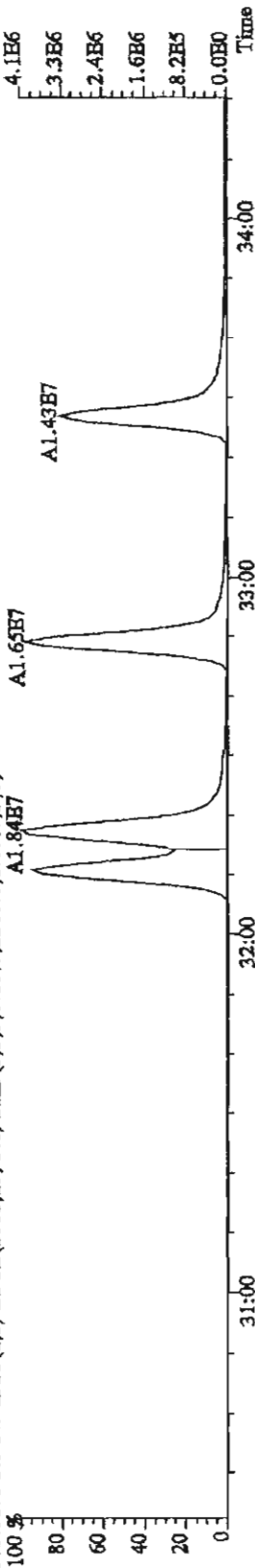
369.8919 S:9 F:2 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1768.0,1.00%,F,T)



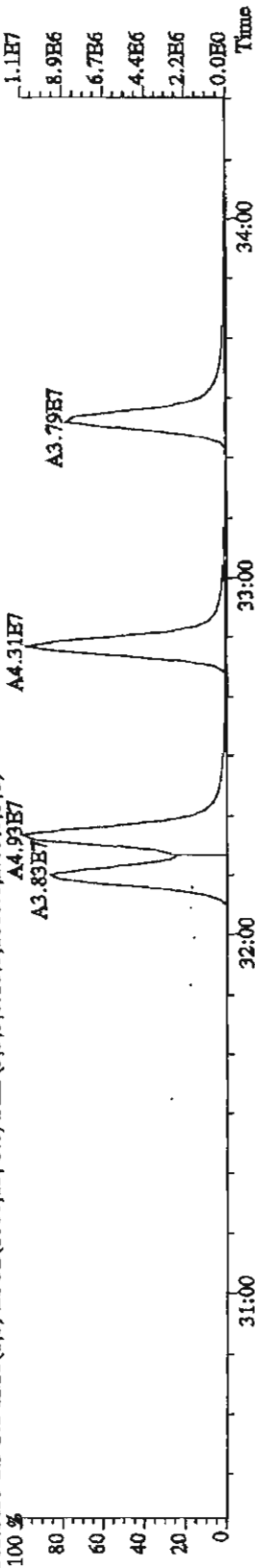
File: 22FE11A4D5 #1-286 Acq: 22-FEB-2011 18:49:28 GC EI+ Voltage SIR Autospec-UltimaE
 Sample #9 Text: ST0222F : 2nd Source 10DXN511 AS Exp: DIOXINRES
 373.8208 S:9 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,10024,0,1.00%,F,T)
 100%



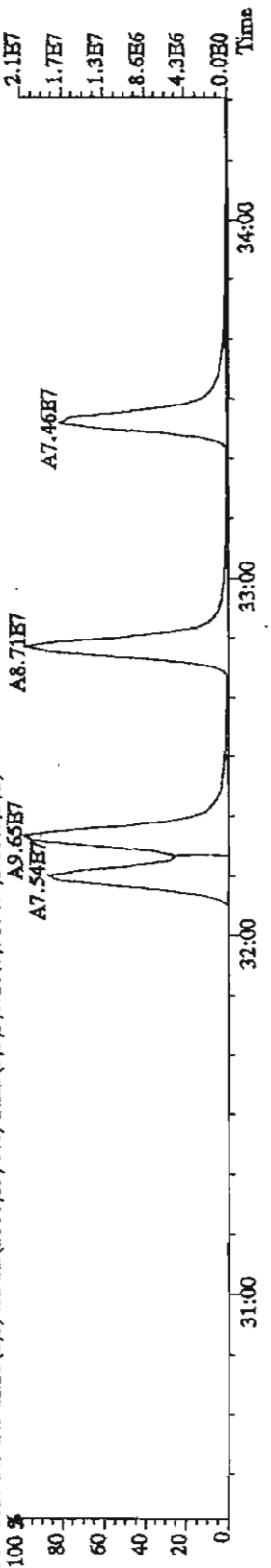
375.8178 S:9 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,2260,0,1.00%,F,T)
 100%



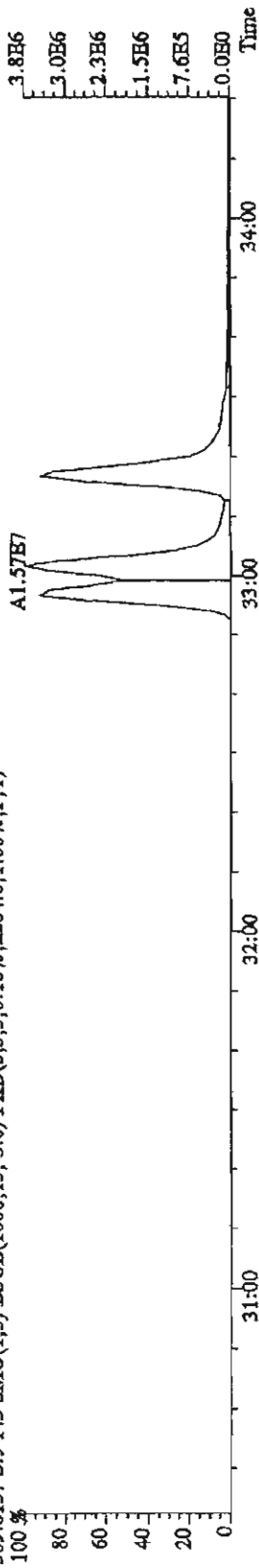
383.8639 S:9 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,1888,0,1.00%,F,T)
 100%



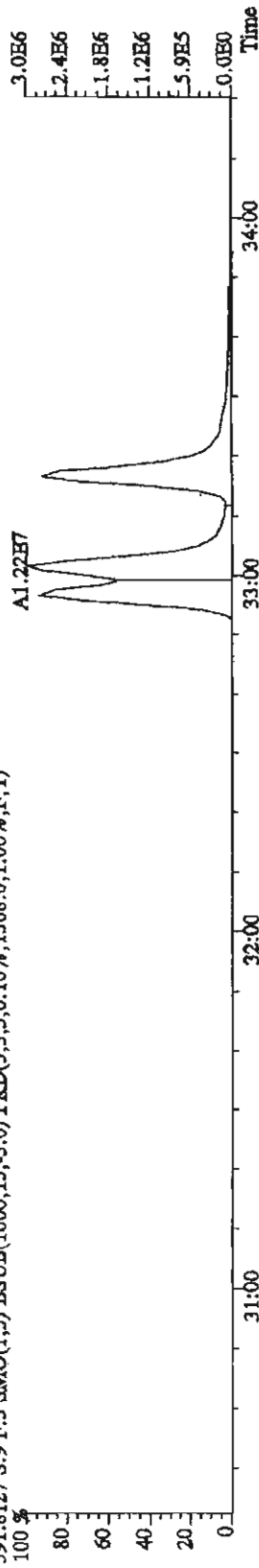
385.8610 S:9 F:3 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,3104,0,1.00%,F,T)
 100%



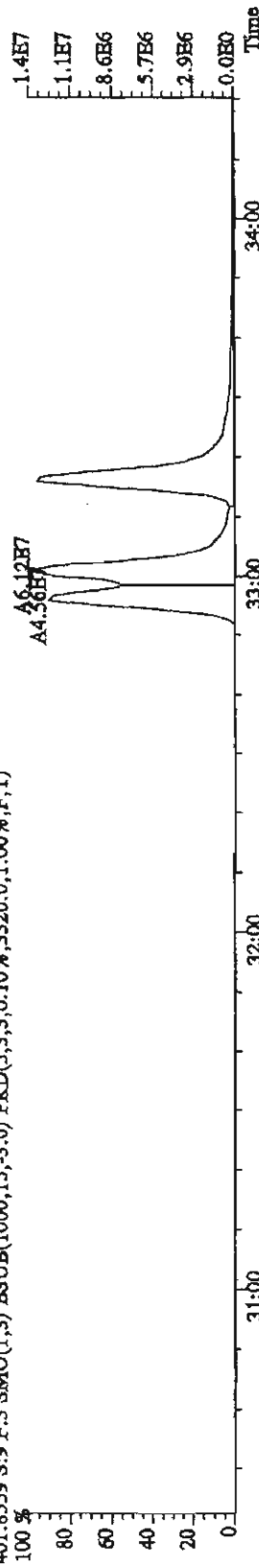
File: 22FB11A4D5 #1-286 Acq: 22-FHB-2011 18:49:28 GC HI+ Voltage SIR_Autospec-UltimaB
 Sample#9 Text: ST0222F : 2nd Source 10DXN511 AS Exp: DIOXINRES
 389.8157 S: 9 F: 3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2204,0,1.00%,F,T)



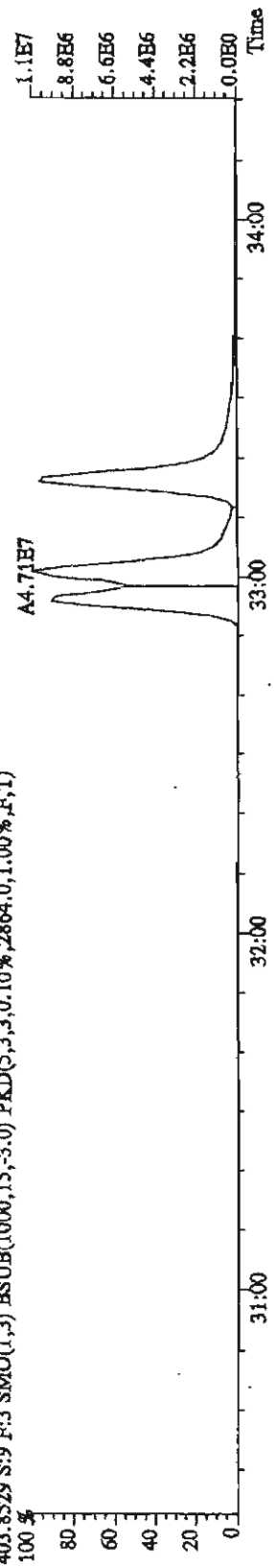
391.8127 S: 9 F: 3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1368,0,1.00%,F,T)



401.8559 S: 9 F: 3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3320,0,1.00%,F,T)

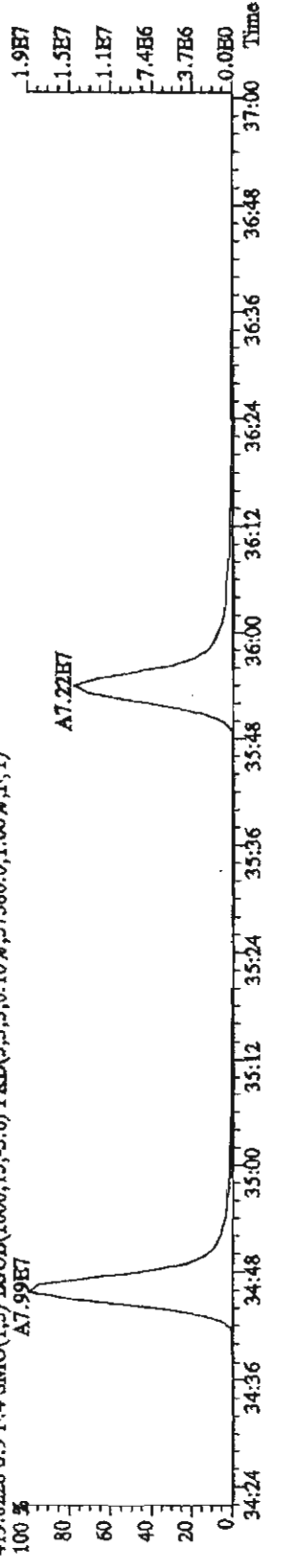
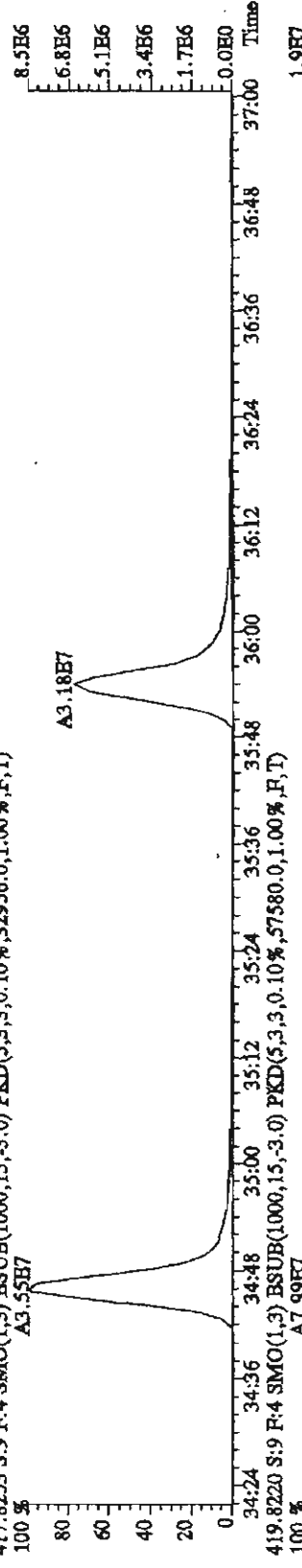
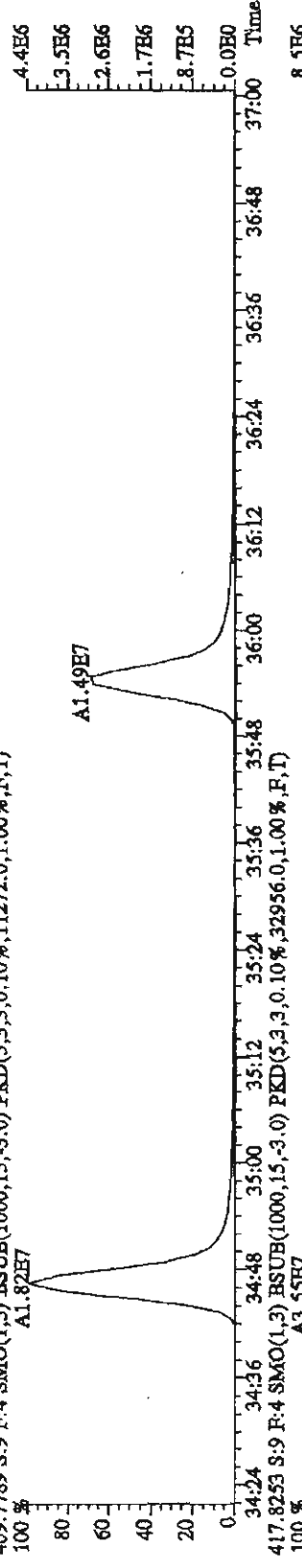
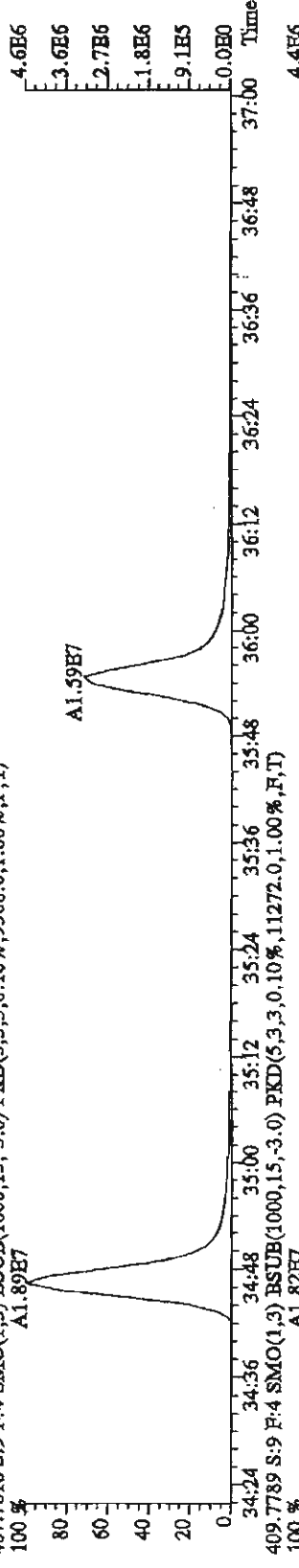


403.8529 S: 9 F: 3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2864,0,1.00%,F,T)

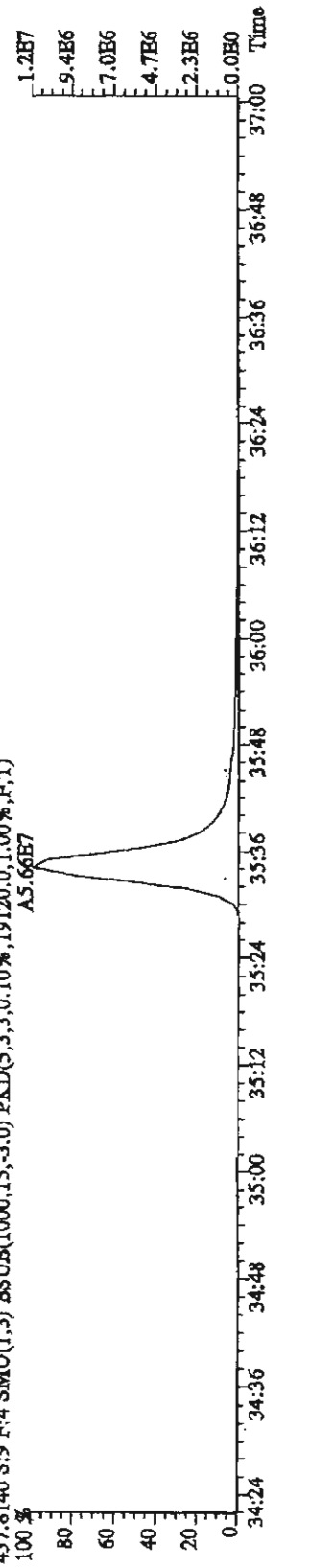
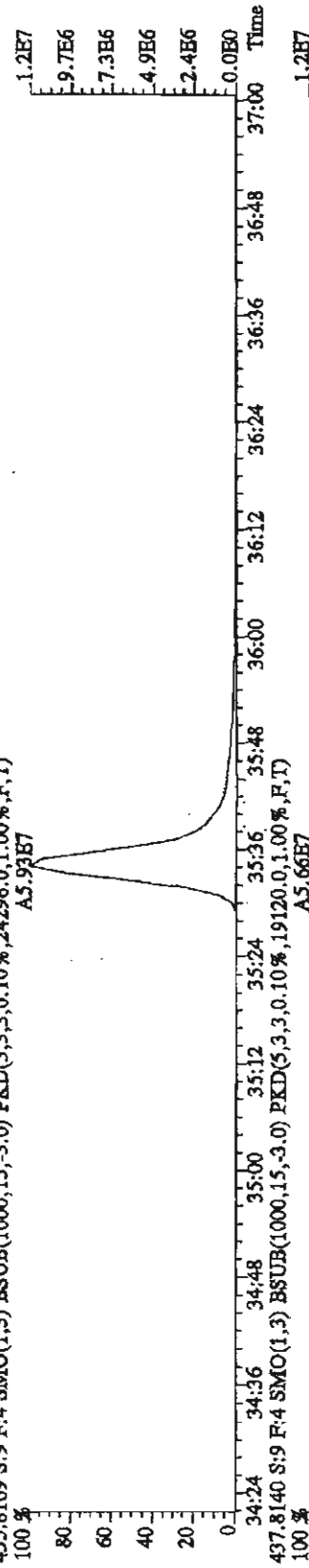
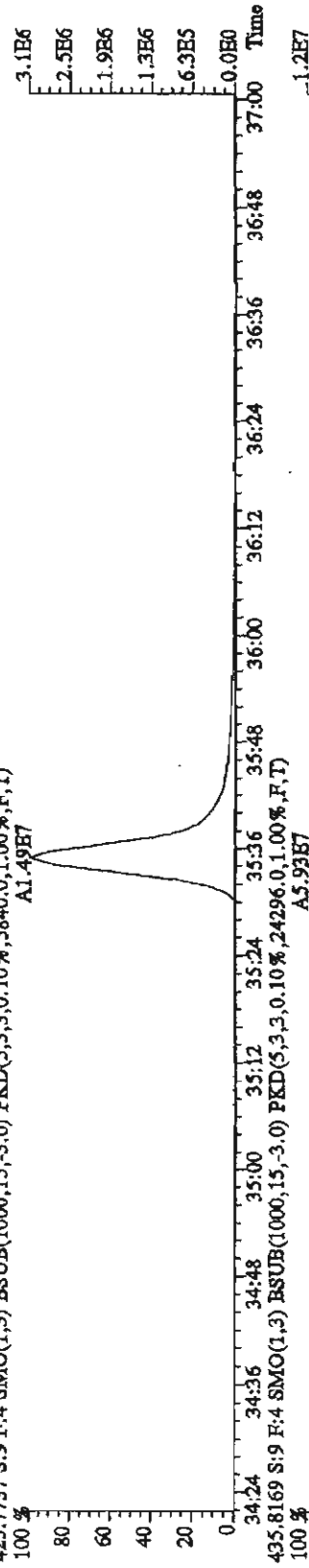
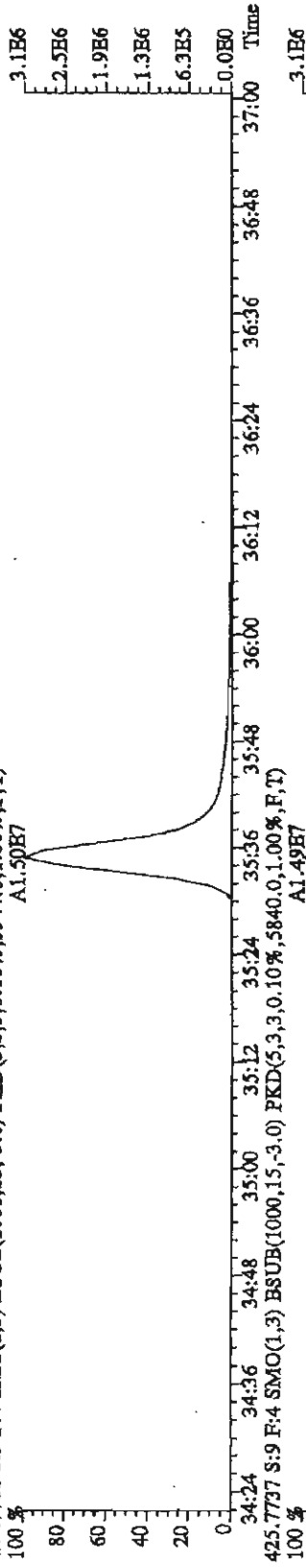


403.8529 S: 9 F: 3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2864,0,1.00%,F,T)

File:22FE11A4D5 #1-201 Acq:22-FEB-2011 18:49:28 GC FI+ Voltage SIR Atmospec-UltimaB
 Sample#9 Text:STU222R ;2nd Source 10DXN311 AS Exp:DIOXINRES
 407.7818 S:9 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,9308,0,1,00%,F,T)



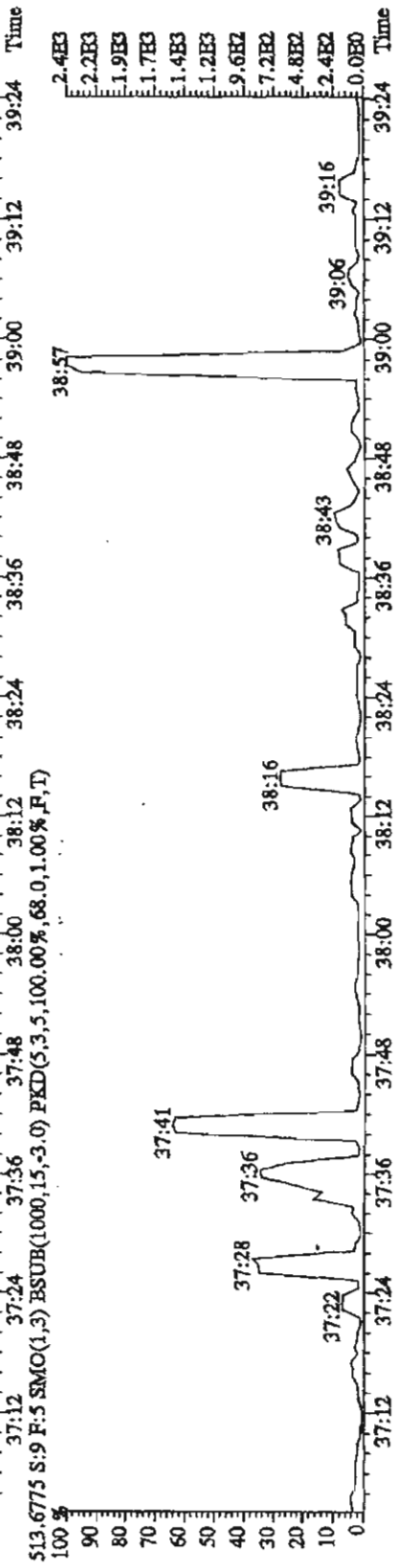
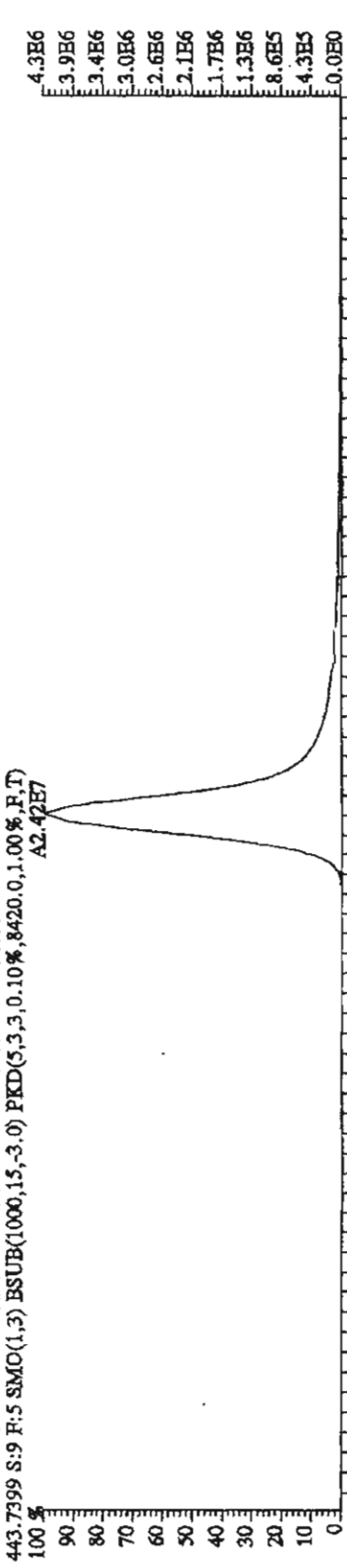
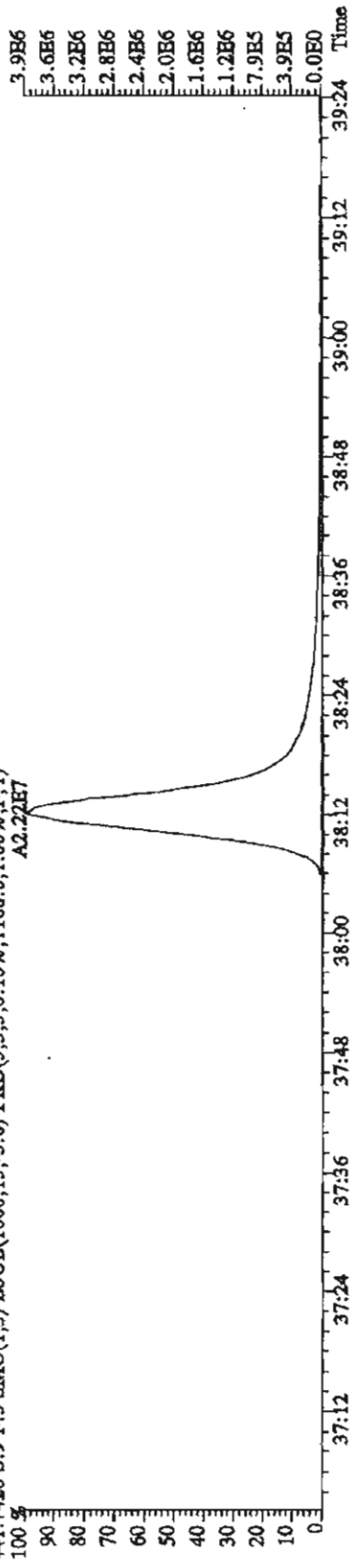
File: 22FEB11A4D5 #1-201 Acq: 22-FEB-2011 18:49:28 GC EI+ Voltage SIR Autospec-UltraB
 Sample#9 Text: ST0222F : 2nd Source 10DXN511 AS Exp: DIOXINRES
 423.7766 S: 9 F: 4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,5944,0.1,0.0%,F,T)
 A1.50E7



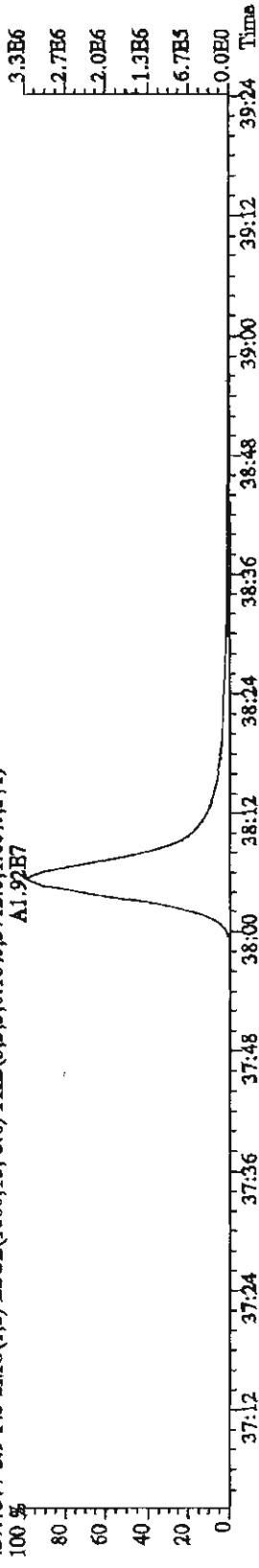
File:22FE11A4D5 #1-192 Acq:22-FEB-2011 18:49:28 GC HI+ Voltage SIR Autospec-UltimaE

Sample#9 Text:S70222P 2nd Source 10DXN511 AS Exp:DIOXINRS

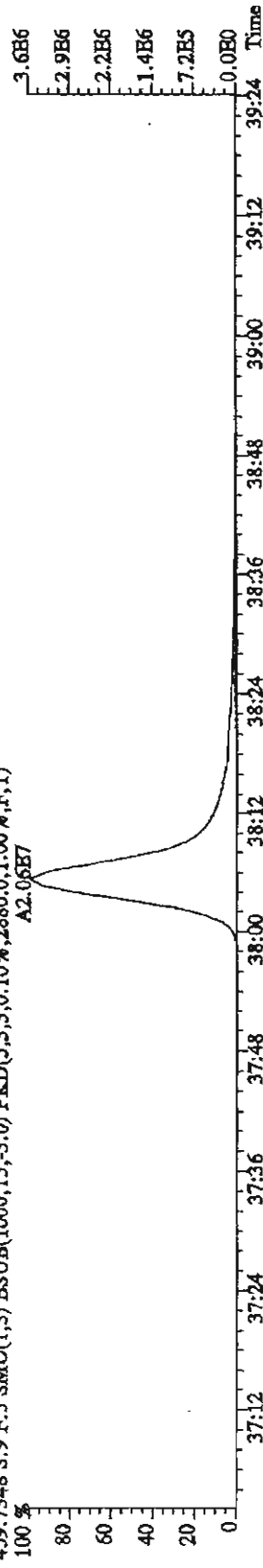
441.7428 S:9 F:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1168.0,1.00%,F,T)
A2.22E7



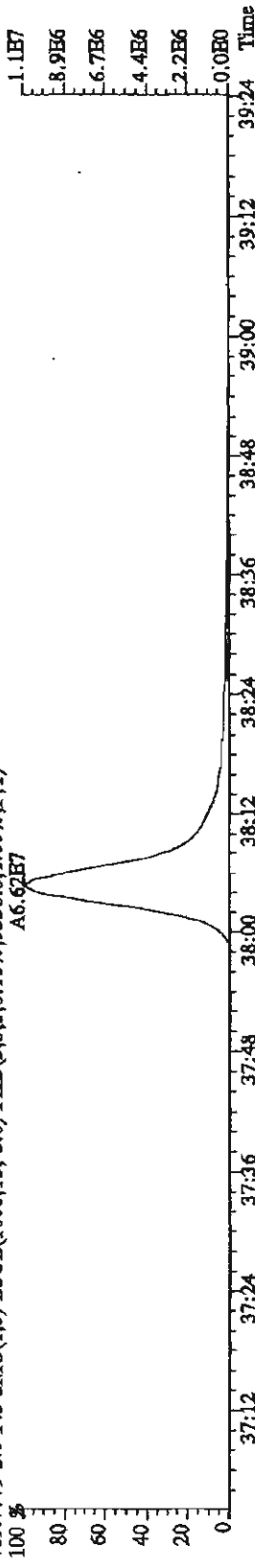
File:22RB11A4D5 #1.192 Acq:22-FEB-2011 18:49:28 GC EI+ Voltage STR Autospec-UltimaB
 Sample#9 Text:ST0222F 2nd Source 10DXN511 AS Eq:DIOXINRES
 457.7377 S:9 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3712.0,1.00%,F,T)
 A1.92E7



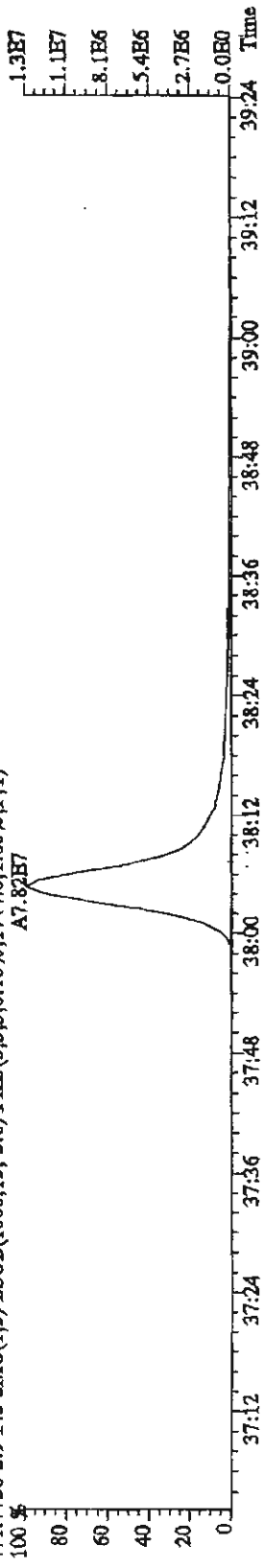
459.7348 S:9 F:5 SMD(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2880.0,1.00%,F,T)
 A2.06E7



469.7779 S:9 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9336.0,1.00%,F,T)
 A6.62E7



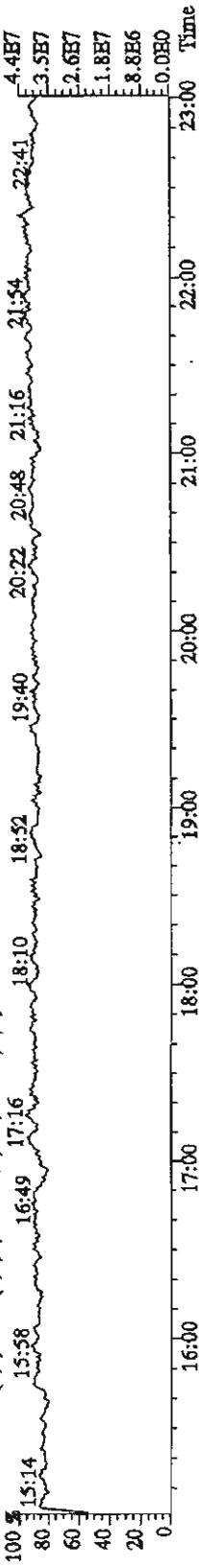
471.7750 S:9 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1744.0,1.00%,F,T)
 A7.82E7



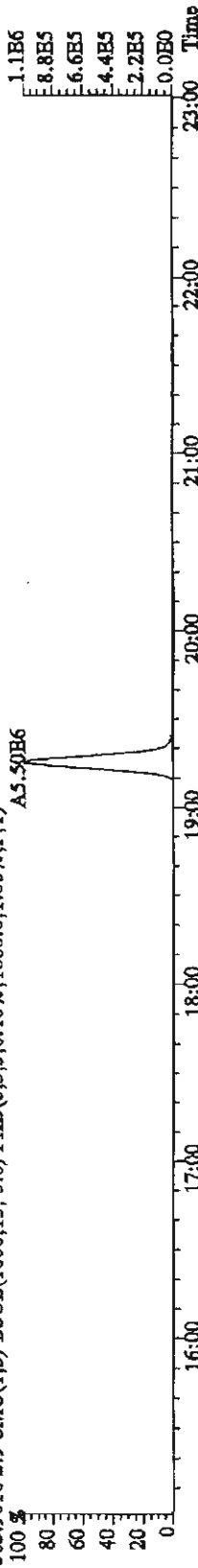
File: 22FB11A4D5 #1-530 Acq: 22-FBB-2011 18:49:28 GC EI+ Voltage SIR Autospec-UltimaE

Sample #9 Text: ST0222F : 2nd Source 10DXN511 AS Exp: DIOXINRES

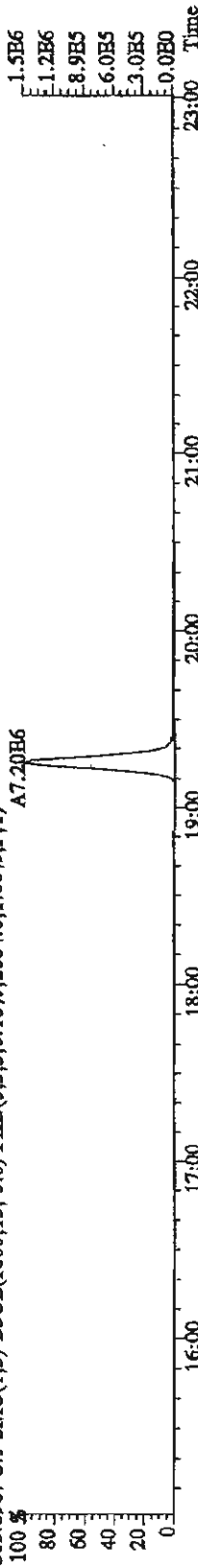
292.9825 S:9 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



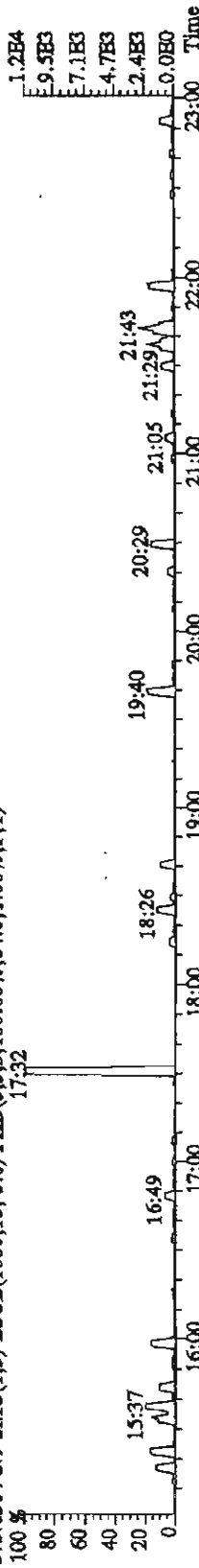
303.9016 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1888.0,1.00%,F,T)



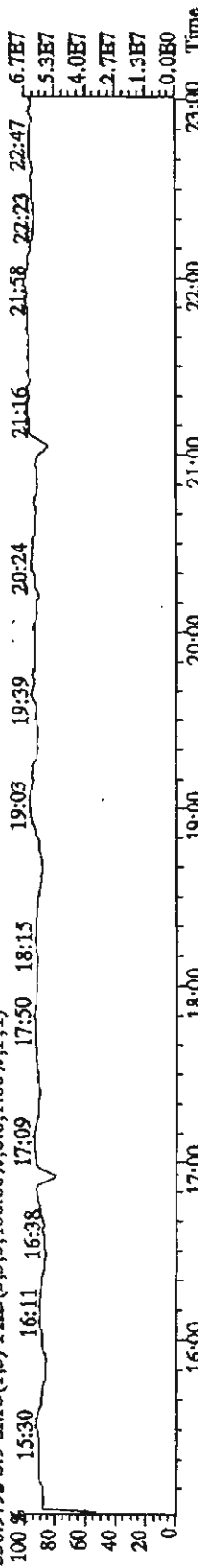
305.8987 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2684.0,1.00%,F,T)



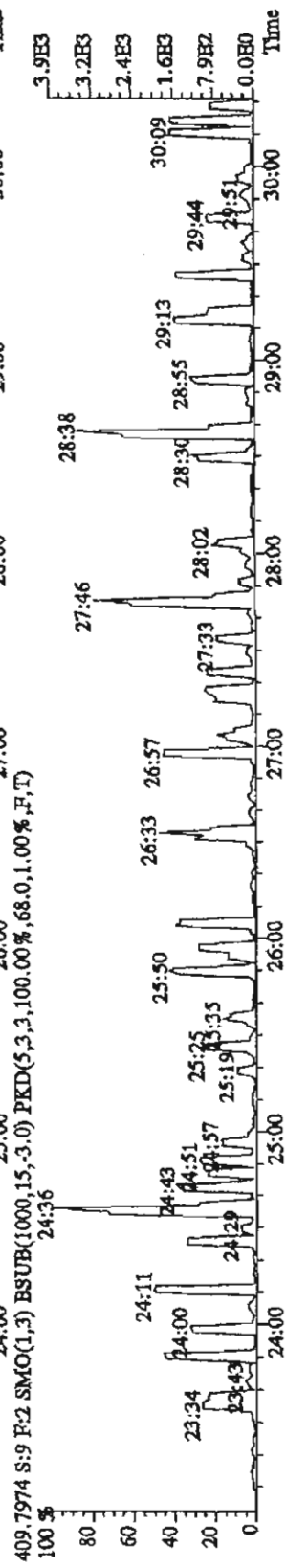
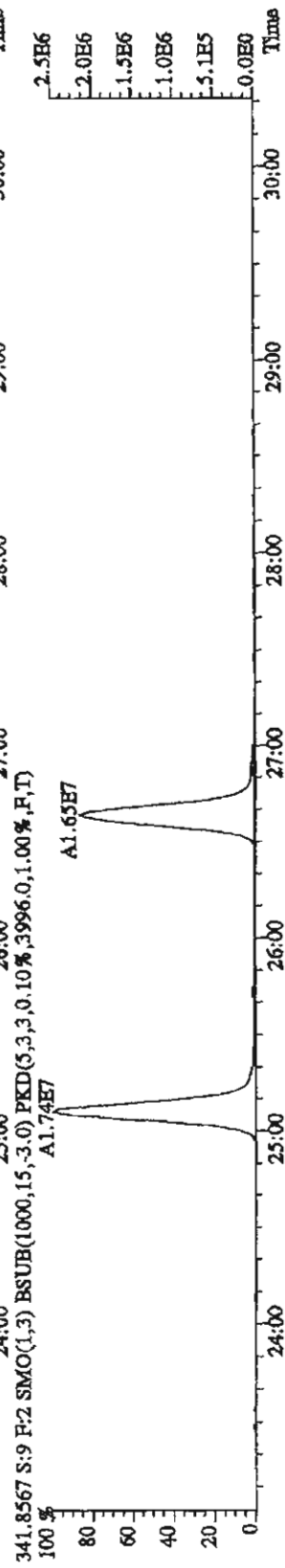
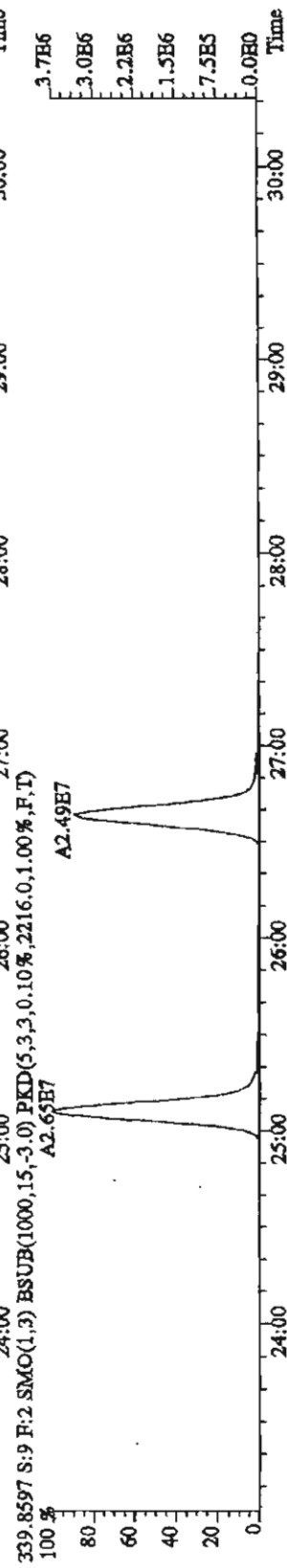
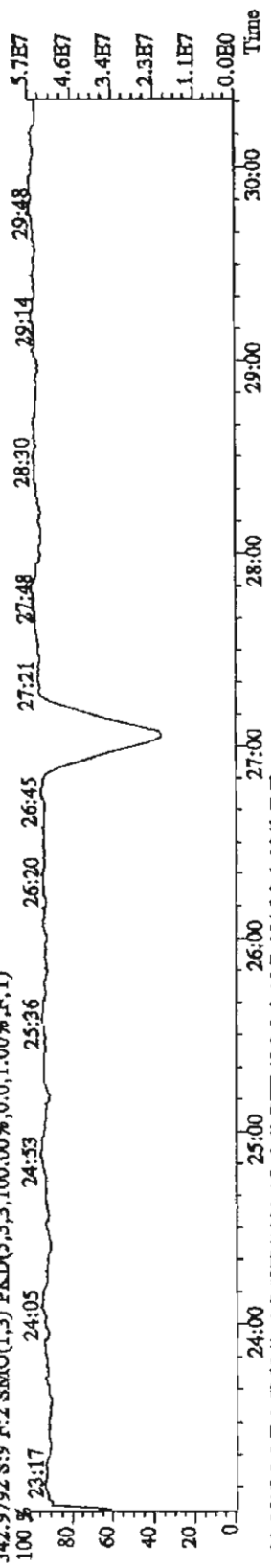
375.8364 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,84.0,1.00%,F,T)



330.9792 S:9 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



File:22FEH1A4D5 #1-470 Acq:22-FEB-2011 18:49:28 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#9 Text:STV222F 2nd Source 10DXN511 AS Exp:DIOXINRES
 342.9792 S:9 F:2 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)
 100 %

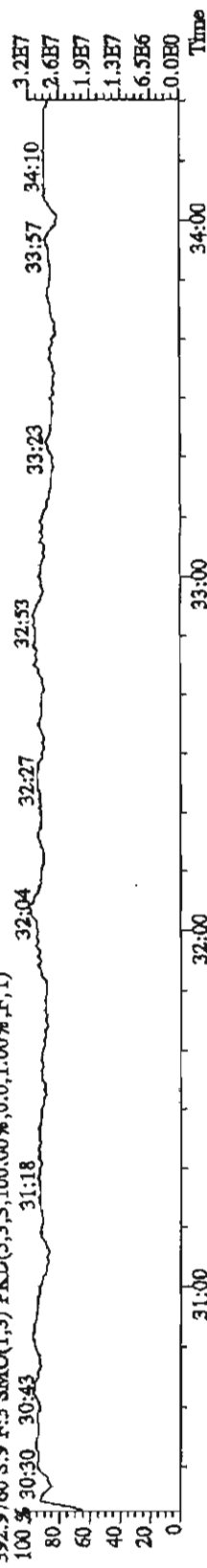


File: 22FEB11A4D5 #1-286 Acq: 22-FEB-2011 18:49:28 GC HI + Voltage SIR Autospec-UltimaB

Sample #9 Tex: ST0222F 2nd Source 10DXN511 AS Exp: DIOXINRES

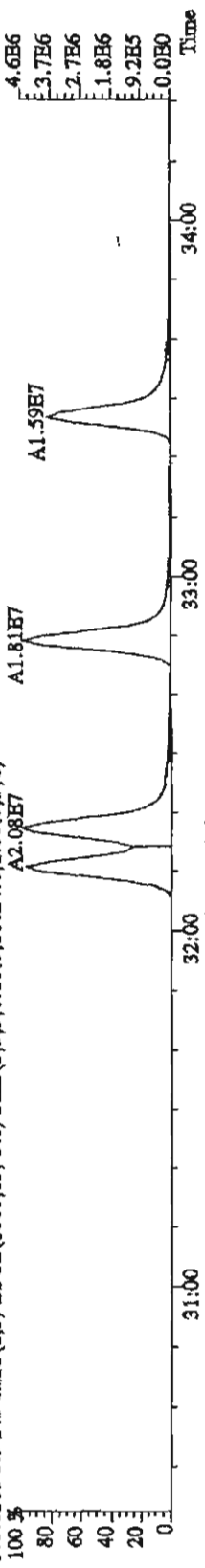
392.9760 S:9 F:3 SMO(1.3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 % 30:30 30:43 31:18 32:04 32:27 32:53 33:23 33:57 34:10



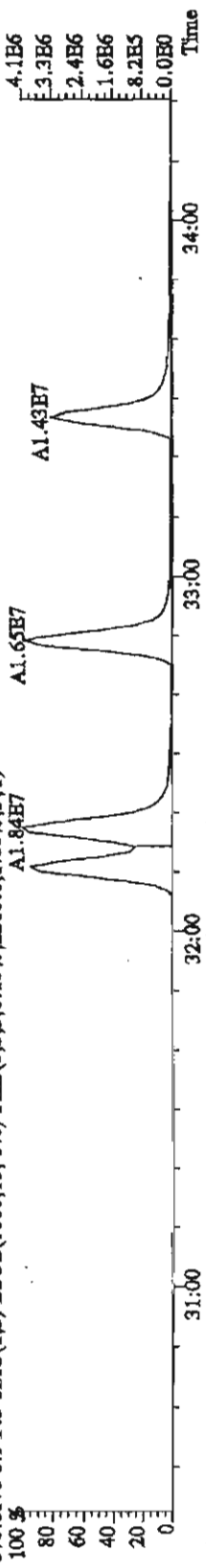
373.8208 S:9 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1.0024,0.1,0.0%,F,T)

100 % A2.08E7



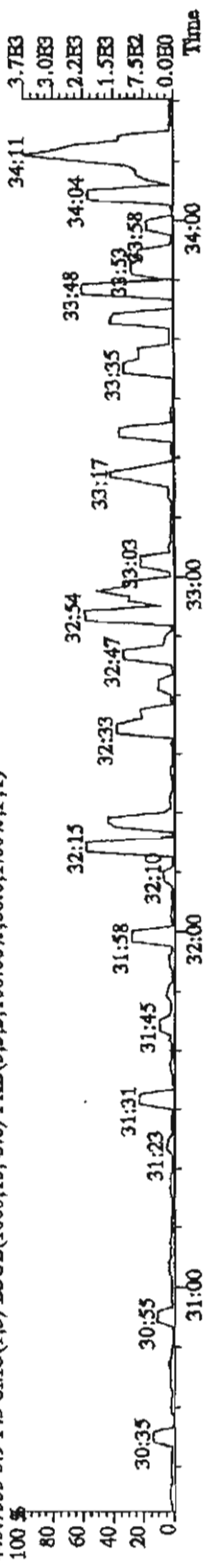
375.8178 S:9 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2260.0,1.00%,F,T)

100 % A1.84E7



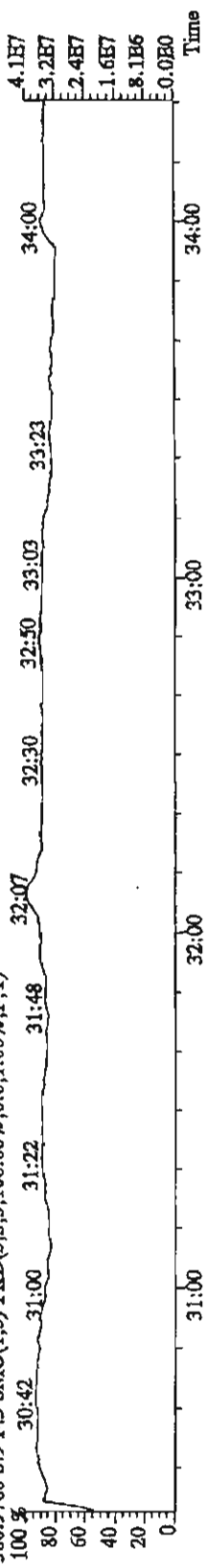
445.7555 S:9 F:3 SMO(1.3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,88.0,1.00%,F,T)

100 %



380.9760 S:9 F:3 SMO(1.3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

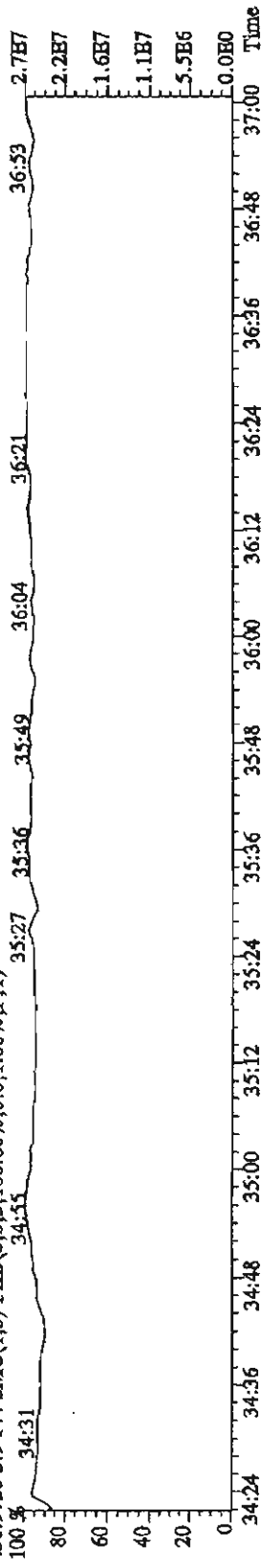
100 %



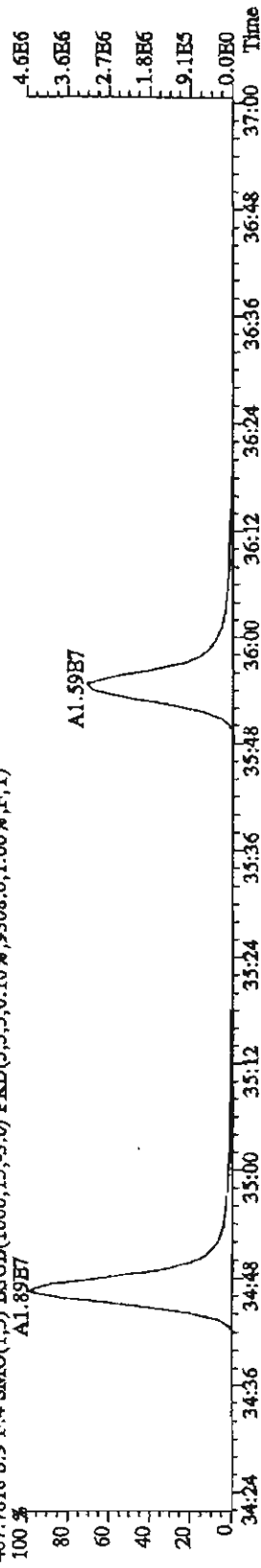
File:22FEB11A4D5 #1-201 Acq:22-FEB-2011 18:49:28 GC EI+ Voltage:519 Autospec-UltimaB

Sample#9 Text:ST0222F :2nd Source 10DXN511 AS Exp:DIOXINRES

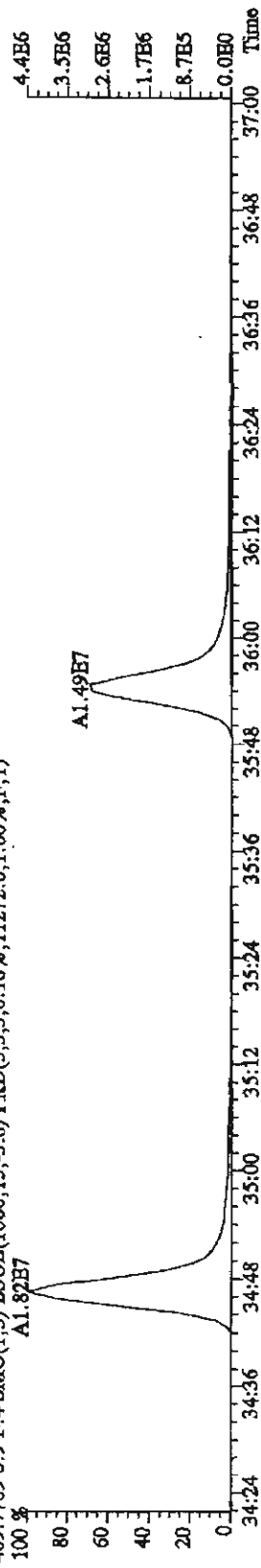
430.9728 S:9 F:4 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



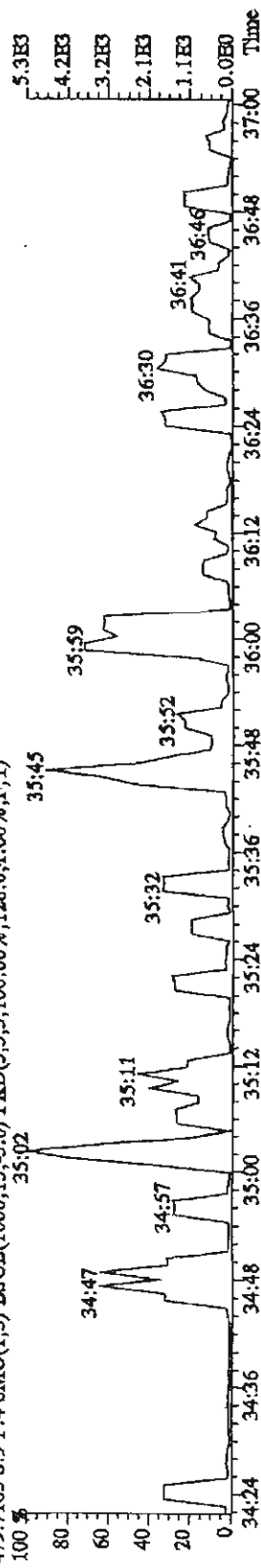
407.7818 S:9 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,9308,0,1.00%,F,T)



409.7789 S:9 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,11272,0,1.00%,F,T)



479.7165 S:9 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,128,0,1.00%,F,T)

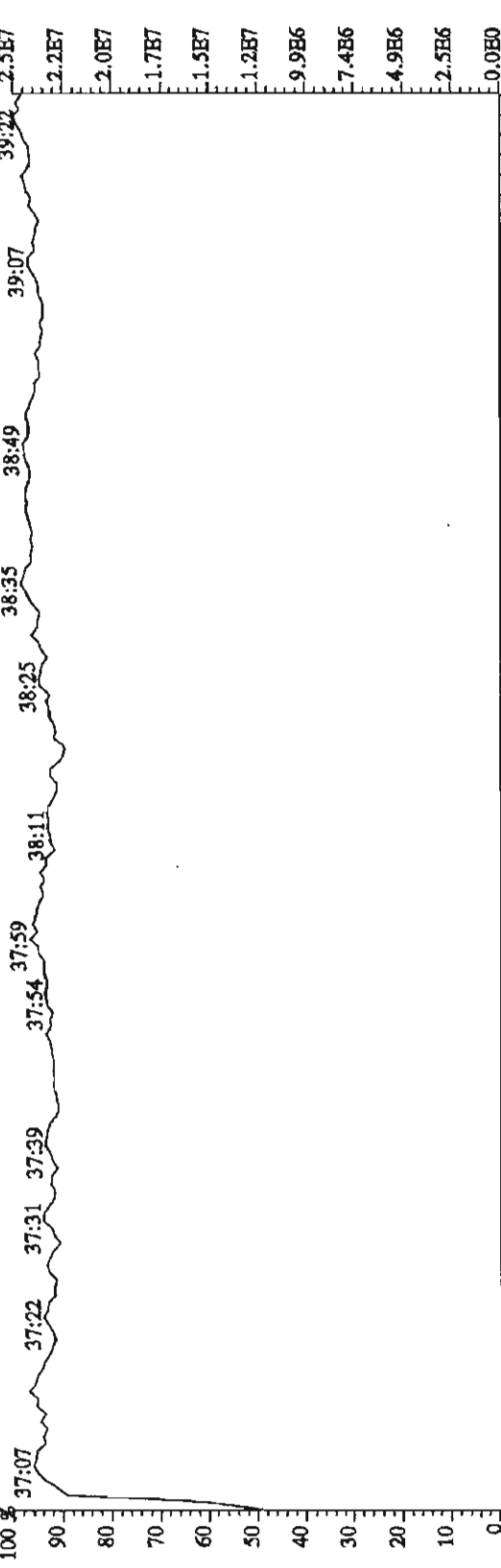


File:22FB11A4D5 #1-192 Acq:22-FBB-2011 18:49:28 GC EI+ Voltage SIR Antospec-UltimaE

Sample#9 Text:ST0222F :2nd Source 10DXN511 AS Exp:DIOXINRBS

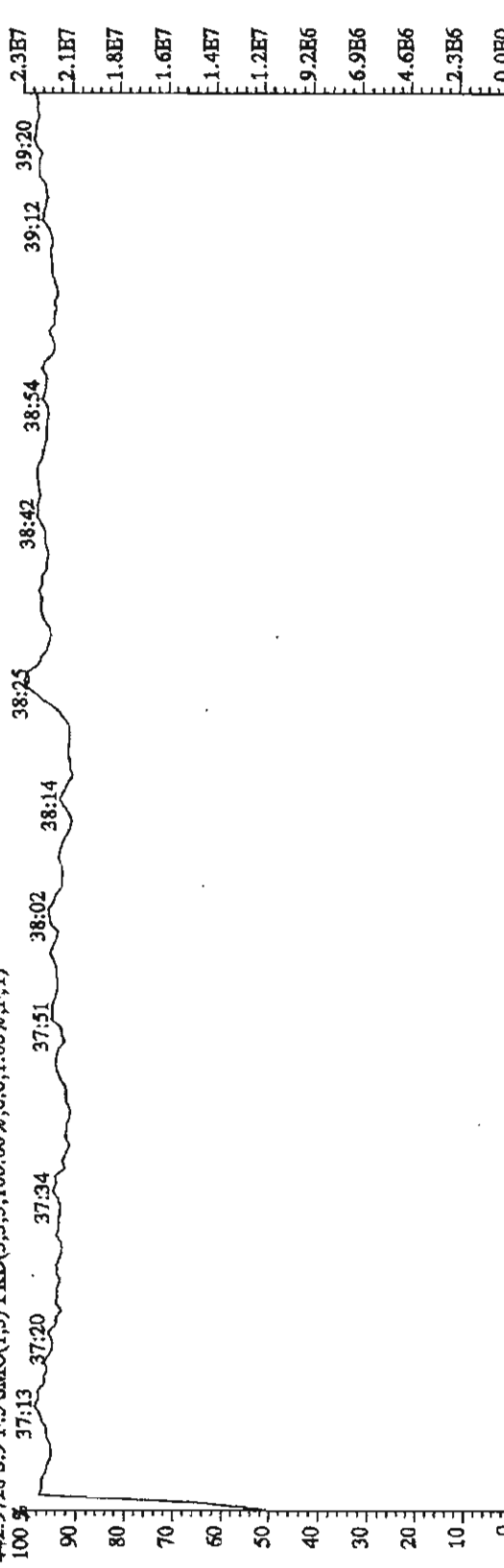
454.9728 S:9 F:5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 %



442.9728 S:9 F:5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

100 %



Raw QC Data

Includes (as applicable):

method blanks

laboratory control samples

matrix spikes/matrix spike duplicates

Run text: MF4TE-1-AA Sample text: MF4TE-1-AA :G1C240000-190 (550-1MB)
 Run #15 Filename: 24MR114D5 S: 44 I: 1 Results: 24MR114D51613
 Acquired: 25-MAR-11 18:17:31 Processed: 25-MAR-11 19:35:48
 Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5
 Factor 1:1600.000 Factor 2:20.000 Sample size: 1.00 L

3/28/14
 MGO

Name	Resp	RA	RT	RRF	Conc	EDL	Rec	M
13C-1,2,3,4-TCDD	148155500	0.79 y	19:39	-	77.817	-	-	n
13C-2,3,7,8-TCDF	95281100	0.78 y	19:04	1.10	1164.324	1.290	58.2	n
2,3,7,8-TCDF	20279	0.95 n	19:05	0.78	0.547	1.194	-	n
Total TCDF	41651	1.82 n	17:13	0.78	1.125	1.194	-	n
13C-2,3,7,8-TCDD	76441200	0.76 y	19:52	0.97	1065.174	2.684	53.3	n
2,3,7,8-TCDD	13119	0.27 n	19:54	0.87	0.306	0.521	-	n
Total TCDD	209691	0.84 y	16:06	0.87	6.324 <i>1.224</i>	0.521	-	n
37Cl-2,3,7,8-TCDD	69384200	1.00 y	19:53	1.43	656.917	0.674	82.1	n
13C-1,2,3,7,8-PeCDF	82166800	1.56 y	24:50	1.04	1067.527	2.071	53.4	n
1,2,3,7,8-PeCDF	*	* n	NotFnd	0.96	*	0.868	-	n
13C-2,3,4,7,8-PeCDF	84027000	1.53 y	26:20	1.02	1112.084	2.110	55.6	n
2,3,4,7,8-PeCDF	*	* n	NotFnd	0.96	*	0.898	-	n
Total F2 PeCDF	9727	0.90 n	24:40	0.96	0.245	0.803	-	n
Total F1 PeCDF	25401	0.24 n	20:00	0.96	0.839	0.972	-	n
						<i>0.868</i>		
13C-1,2,3,7,8-PeCDD	66889800	1.54 y	27:11	0.70	1290.765	1.627	64.5	n
1,2,3,7,8-PeCDD	*	* n	NotFnd	1.04	*	0.914	-	n
Total PeCDD	36546	0.79 n	23:11	1.04	1.049	0.914	-	n
13C-1,2,3,7,8,9-HxCDD	98760400	1.29 y	33:11	-	72.870	-	-	n
13C-1,2,3,4,7,8-HxCDF	47647500	0.49 y	32:03	0.87	1108.290	9.536	55.4	n
1,2,3,4,7,8-HxCDF	16995	0.76 n	32:05	1.15	0.621 <i>m</i>	0.364	-	n
13C-1,2,3,6,7,8-HxCDF	76160900	0.50 y	32:10	1.18	1304.765	7.023	65.2	n
1,2,3,6,7,8-HxCDF	9491	0.48 n	32:10	1.07	0.232	0.334 <i>m</i>	-	n
13C-2,3,4,6,7,8-HxCDF	66595200	0.54 y	32:42	1.03	1305.041	8.034	65.3	n
2,3,4,6,7,8-HxCDF	7240	0.56 n	32:43	1.10	0.198	0.319 <i>m</i>	-	n
13C-1,2,3,7,8,9-HxCDF	54146900	0.53 y	33:21	0.90	1211.902	9.176	60.6	n
1,2,3,7,8,9-HxCDF	9148	0.86 n	33:22	1.08	0.313	0.431 <i>m</i>	-	n
Total HxCDF	76678	1.21 y	31:03	1.10	2.974	0.357	-	n
						<i>0.319 m</i>		
13C-1,2,3,4,7,8-HxCDD	36080500	1.26 y	32:51	0.66	1100.252	0.813	55.0	n
1,2,3,4,7,8-HxCDD	15986	1.59 n	32:56	1.06 <i>rt</i>	0.832	0.678	-	n
13C-1,2,3,6,7,8-HxCDD	60441400	1.30 y	32:55	0.95	1288.788	0.569	64.4	n
1,2,3,6,7,8-HxCDD	15986	1.59 n	32:56	1.05	0.506	0.649	-	n
1,2,3,7,8,9-HxCDD	6410	0.41 n	33:12	1.20	0.221	0.578	-	n
Total HxCDD	71046	4.74 n	32:08	1.10	2.555	0.630	-	n
						<i>0.578 m</i>		
13C-1,2,3,4,6,7,8-HpCDF	50977100	0.42 y	34:41	0.91	1129.621	25.212	56.5	n
1,2,3,4,6,7,8-HpCDF	9636	0.42 n	34:45	1.32	0.285	0.665	-	n
13C-1,2,3,4,7,8,9-HpCDF	42839400	0.44 y	35:49	0.83	1044.462	27.739	52.2	n
1,2,3,4,7,8,9-HpCDF	6703	1.99 n	36:03	1.24	0.251	0.960	-	n
Total HpCDF	48839	5.91 n	34:39	1.29	1.614	0.797	-	n
						<i>0.665 m</i>		

13C-1,2,3,4,6,7,8-HpCDD	54713700	1.03	y	35:30	0.91	1212.499	6.151	60.6	n
1,2,3,4,6,7,8-HpCDD	*	*	n	NotEnd	1.01	*	1.331	-	n
Total HpCDD	32923	2.67	n	34:41	1.01	1.187	1.331	-	n
13C-OCDD	71907200	0.87	y	38:00	0.60	2421.523	13.826	60.5	n
OCDF	11915	0.38	n	38:08	1.27	<u>0.520</u>	2.085 <i>n</i>	-	n
OCDD	45782	0.89	y	38:01	1.13	2.255	1.921	-	n

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Run Text: MF4TE-1-AA

Sample text: MF4TE-1-AA :G1C240000-190 (5)

Name: Total TCDF F:1 Mass: 303.902 305.899 Mod? no #Hom:3
Run: 15 File: 24MR114D5 S:44 Acq:25-MAR-11 18:17:31
Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D

Amount: 1.125 of which 0.547 named and 0.577 unnamed
Conc: 1.125 of which 0.547 named and 0.577 unnamed

Table with 9 columns: Name, #, R.T., Ratio, Conc., Area, S/N, >?, Mod?. Contains 3 rows of data for peaks at 17:13, 18:41, and 19:05.

Run Text: MF4TE-1-AA

Sample text: MF4TE-1-AA :G1C240000-190 (5)

Name: Total TCDD F:1 Mass: 319.897 321.894 Mod? no #Hom:16
Run: 15 File: 24MR114D5 S:44 Acq:25-MAR-11 18:17:31
Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D

Amount: 6.324 of which 0.396 named and 5.928 unnamed
Conc: 6.324 of which 0.396 named and 5.928 unnamed

Table with 9 columns: Name, #, R.T., Ratio, Conc., Area, S/N, >?, Mod?. Contains 7 rows of data for peaks at 16:06, 16:33, 16:45, 17:00, 17:22, 17:41, and 18:02.

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2,3,7,8-TCDD	8	18:28	0.608	n	0.261	3770 6202	17.178 1.766	y n	n n
	9	18:50	1.117	n	0.277	5801 5195	16.601 1.888	y n	n n
	10	19:11	0.594	n	0.271	3911 6581	14.488 1.790	y n	n n
	11	19:17	1.056	n	0.351	6949 6581	19.576 1.790	y n	n n
	12	19:42	0.887	n	0.397	6592 7431	13.981 2.697	y n	n n
	13	19:54	0.268	n	0.396	5707 21294	18.461 6.784	y y	n n
	14	20:58	0.704	y	0.312	4273 6070	12.736 2.197	y n	n n
	15	21:04	0.786	y	0.327	4772 6070	16.418 2.197	y n	n n
	16	21:54	1.655	n	0.145	4499 2718	17.355 0.948	y n	n n

Totals Results

TestAmerica West Sacramento

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Run Text: MF4TE-1-AA

Sample text: MF4TE-1-AA :G1C240000-190 (5)

Name: Total F2 PeCDF

F:2 Mass: 339.860 341.857 Mod? no #Hom:1

Run: 15 File: 24MR114D5 S:44 Acq:25-MAR-11 18:17:31

Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D

Amount: 0.245 of which * named and 0.245 unnamed
 Conc: 0.245 of which * named and 0.245 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?	
	1	24:40	0.896	n	0.245	5913 6602	6.630 1.218	y n	n n

Run Text: MF4TE-1-AA

Sample text: MF4TE-1-AA :G1C240000-190 (5)

Name: Total F1 PeCDF

F:1 Mass: 339.860 341.857 Mod? no #Hom:6

Run: 15 File: 24MR114D5 S:44 Acq:25-MAR-11 18:17:31

Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D

Amount: 0.639 of which * named and 0.639 unnamed
 Conc: 0.639 of which * named and 0.639 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
	1	20:00	0.240 n	0.075	1812 7556	6.552 1.416	y n	n n
	2	20:07	0.337 n	0.106	2562 7601	4.999 1.626	y n	n n
	3	20:29	0.256 n	0.090	2168 8470	7.961 1.526	y n	n n
	4	21:05	0.637 n	0.193	4671 7335	17.597 1.511	y n	n n
	5	22:04	0.342 n	0.075	1811 5298	6.664 1.345	y n	n n
	6	22:42	0.509 n	0.100	2415 4743	6.881 1.137	y n	n n

Run Text: MF4TE-1-AA

Sample text: MF4TE-1-AA :G1C240000-190 (5)

Name: Total PeCDD

F:2 Mass: 355.855 357.852 Mod? no #Hom:8

Run: 15 File: 24MR114D5 S:44 Acq:25-MAR-11 18:17:31

Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D

Amount: 1.049 of which * named and 1.049 unnamed
 Conc: 1.049 of which * named and 1.049 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
	1	23:11	0.785 n	0.186	3945 5024	1.317 20.976	n y	n n
	2	24:52	2.738 n	0.090	3384 1236	1.079 5.766	n y	n n
	3	25:45	1.084 n	0.197	4175 3852	1.224 13.067	n y	n n
	4	25:54	2.819 n	0.133	5138 1823	1.336 5.387	n y	n n
	5	26:01	1.710 y	0.218	4791 2801	1.454 8.439	n y	n n

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6	26:13	5.968	n	0.057	4609	1.325	n	n
					772	3.723	y	n
7	29:25	2.397	n	0.140	4595	1.158	n	n
					1917	5.166	y	n
8	30:07	12.67	n	0.027	4665	1.245	n	n
					368	1.604	n	n

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Run Text: MF4TE-1-AA Sample text: MF4TE-1-AA :G1C240000-190 (57)

Name: Total HxCDF F:3 Mass: 373.821 375.818 Mod? no #Hom:10
 Run: 15 File: 24MR114D5 S:44 Acq:25-MAR-11 18:17:31
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D7

Amount: 2.374 of which 1.365 named and 1.009 unnamed
 Conc: 2.374 of which 1.365 named and 1.009 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
	1	31:03	1.214	y 0.243	4462	2.014	n	n
					3675	11.543	y	n
	2	31:57	0.739	n 0.096	1782	0.784	n	n
					2412	8.998	y	n
1,2,3,4,7,8-HxCDF	3	32:05	0.756	n 0.621 <i>m</i>	9408	2.943	n	n
					12439	33.684	y	n
1,2,3,6,7,8-HxCDF	4	32:10	0.484	n 0.232 <i>m</i>	5254	1.929	n	n
					10850	31.377	y	n
	5	32:14	0.320	n 0.187	3474	1.771	n	n
					10850	31.377	y	n
2,3,4,6,7,8-HxCDF	6	32:43	0.561	n 0.198 <i>m</i>	4008	1.979	n	n
					7148	24.637	y	n
	7	32:48	1.095	y 0.214	3751	1.875	n	n
					3427	11.141	y	n
	8	33:10	1.992	n 0.098	2922	1.396	n	n
					1467	6.027	y	n
1,2,3,7,8,9-HxCDF	9	33:22	0.855	n 0.313 <i>m</i>	5064	2.004	n	n
					5921	20.222	y	n
	10	34:01	1.433	n 0.170	3651	1.850	n	n
					2548	7.959	y	n

See
 chs

Run Text: MF4TE-1-AA

Sample text: MF4TE-1-AA :G1C240000-190 (5)

Name: Total HxCDD F:3 Mass: 389.816 391.813 Mod? no #Hom:6
 Run: 15 File: 24MR114D5 S:44 Acq:25-MAR-11 18:17:31
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D

Amount: 2.555 of which 0.727 named and 1.828 unnamed
 Conc: 2.555 of which 0.727 named and 1.828 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
<i>All wise</i>	1	32:08	4.740 n	0.570	32108	12.538	y	n
					6773	2.680	n	n
	2	32:42	3.791 n	0.607	27350	8.934	y	n
					7215	2.267	n	n
1,2,3,6,7,8-HxCDD	3	32:56	1.588 n	0.506	11332	5.096	y	n
					7137	2.142	n	n
	4	33:00	0.577 n	0.280	4121	3.002	y	n
					7137	2.142	n	n
1,2,3,7,8,9-HxCDD	5	33:12	0.406 n	0.221	3548	2.919	n	n
					8736	2.266	n	n
	6	33:21	4.853 n	0.371	21388	8.465	y	n
					4408	2.072	n	n

Run Text: MF4TE-1-AA

Sample text: MF4TE-1-AA :G1C240000-190 (5)

Name: Total HpCDF F:4 Mass: 407.782 409.779 Mod? no #Hom:5
 Run: 15 File: 24MR114D5 S:44 Acq:25-MAR-11 18:17:31
 Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D

Amount: 1.614 of which 0.537 named and 1.077 unnamed
 Conc: 1.614 of which 0.537 named and 1.077 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
	1	34:39	5.906 n	0.797 <i>CO</i>	69621	19.058	y	n
					11788	4.073	y	n
1,2,3,4,6,7,8-HpCDF	2	34:45	0.417 n	0.285	4912	<u>1.382</u>	n	n
					11788	4.073	y	n
	3	34:54	0.631 n	0.210	3231	<u>1.267</u>	n	n
					5120	2.827	n	n
	4	35:14	1.775 n	0.070	1840	<u>1.079</u>	n	n
					1037	0.664	n	n
1,2,3,4,7,8,9-HpCDF	5	36:03	1.993 n	0.251	6549	<u>2.529</u>	n	n
					3286	1.532	n	n

Run Text: MF4TE-1-AA

Sample text: MF4TE-1-AA :G1C240000-190 (5)

Name: Total HpCDD

F:4 Mass: 423.777 425.774 Mod? no #Hom:2

Run: 15 File: 24MR114D5 S:44 Acq:25-MAR-11 18:17:31

Tables: Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5 Results: 24MR114D

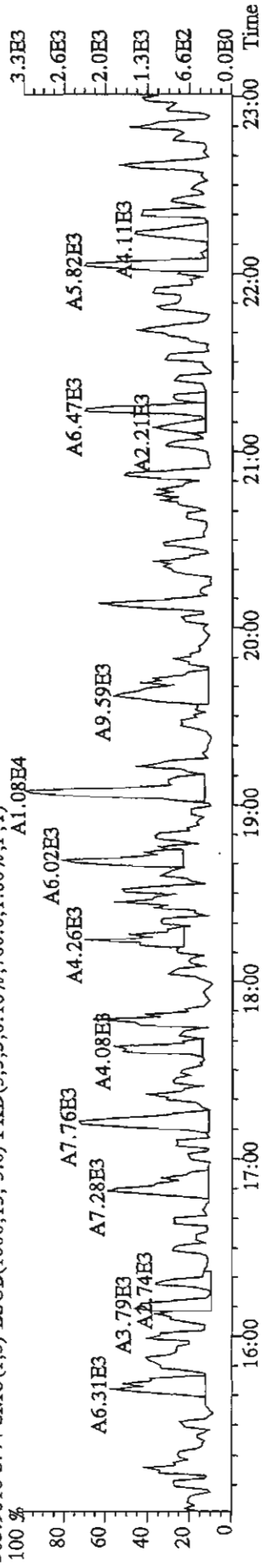
Amount: 1.187 of which * named and 1.187 unnamed
 Conc: 1.187 of which * named and 1.187 unnamed

Name	#	R.T.	Ratio	Conc.	Area	S/N	>?	Mod?
	1	34:41	2.669 n	0.665	24151 9050	4.734 3.500	y	n
	2	35:49	2.747 n	0.522	19475 7089	3.902 3.820	y	n

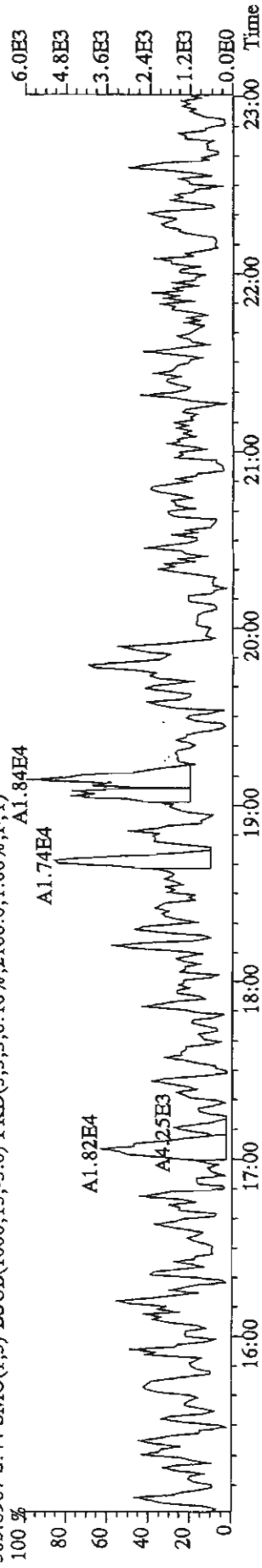
File: 24MR114D5 #1-530 Acq: 25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE

Sample#44 Text: MF4TE-1-AA : G1C240000-190 (550-1MB) Exp: DIOXINRES

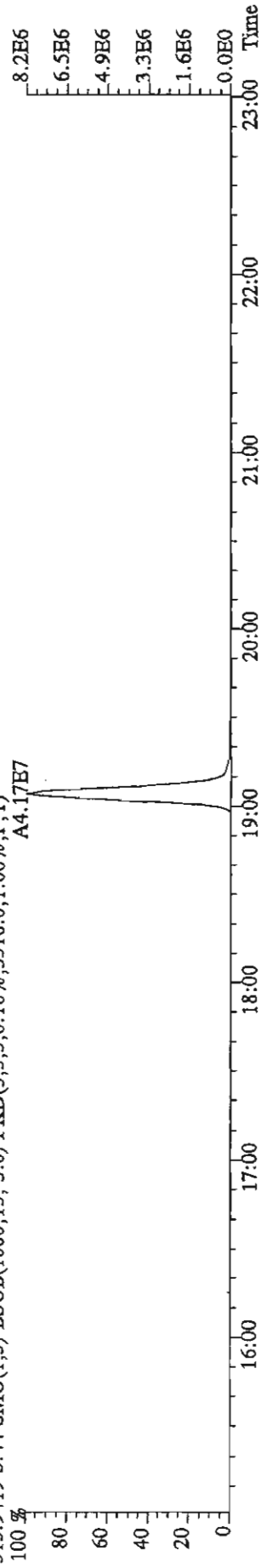
303.9016 S: 44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,780.0,1.00%,F,T)



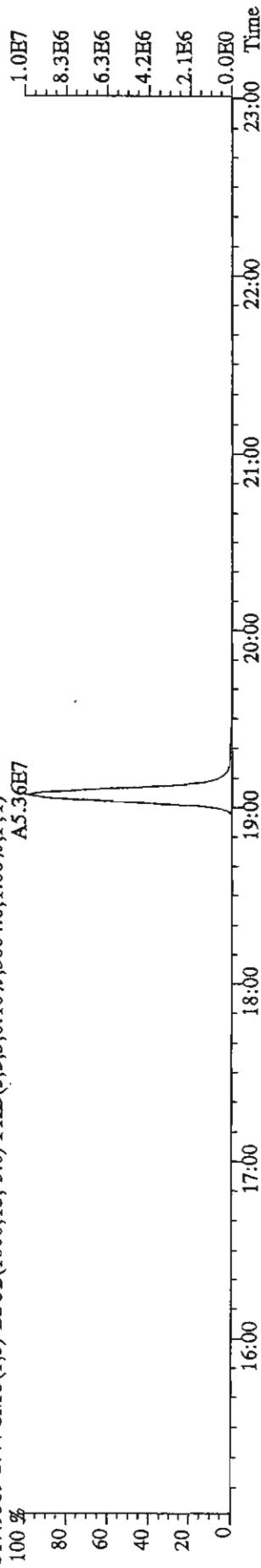
305.8987 S: 44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2100.0,1.00%,F,T)



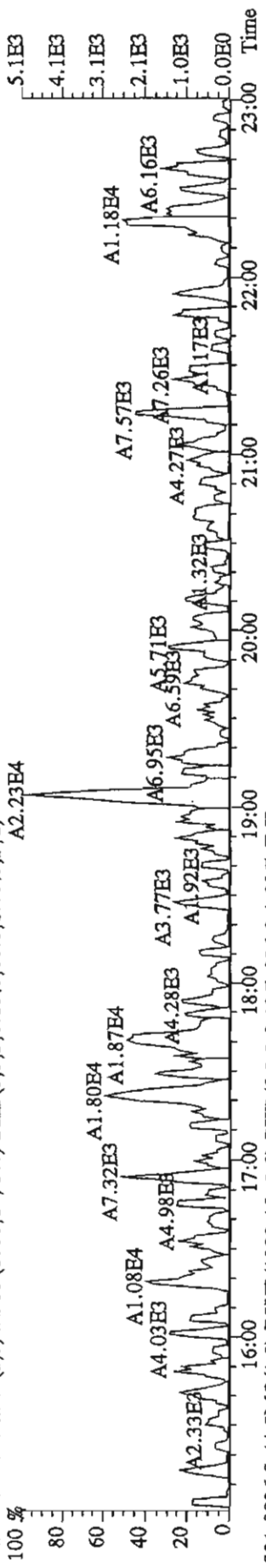
315.9419 S: 44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3316.0,1.00%,F,T)



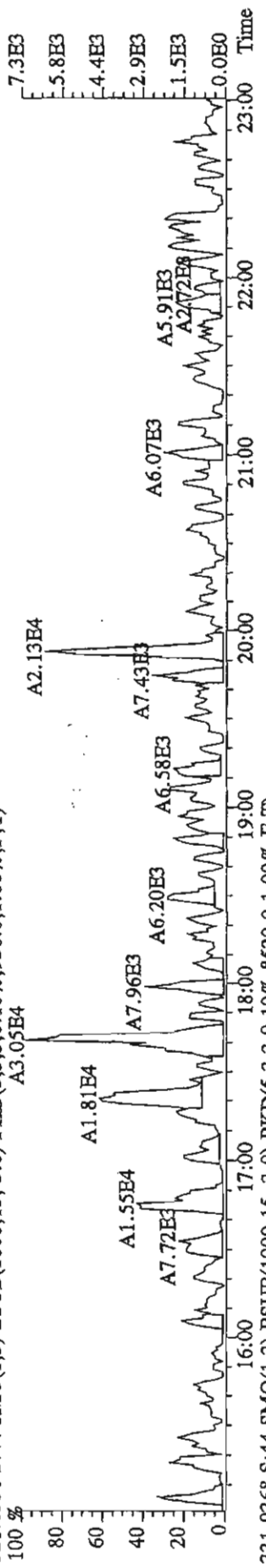
317.9389 S: 44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3804.0,1.00%,F,T)



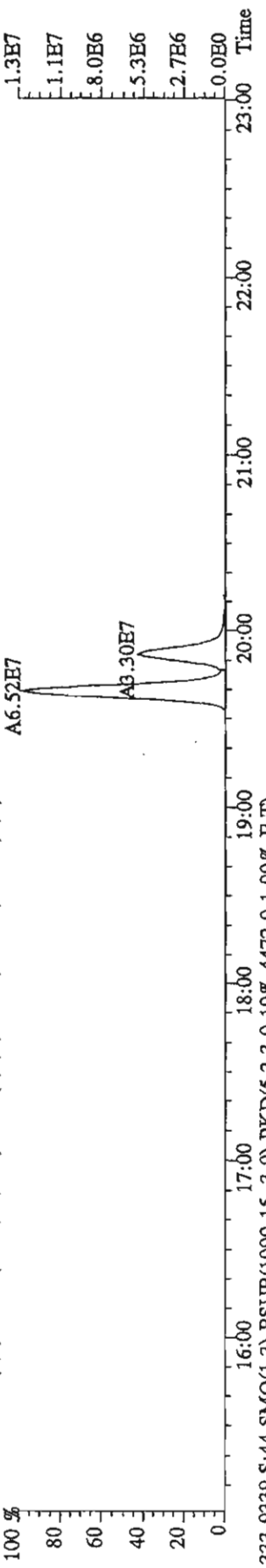
File: 24MR114D5 #1-530 Acq: 25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#44 Text: MF4TE-1-AA : G1C240000-190 (550-1MB) Exp: DIOXINRES
 319.8965 S:44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,80.0,1.00%,F,T)



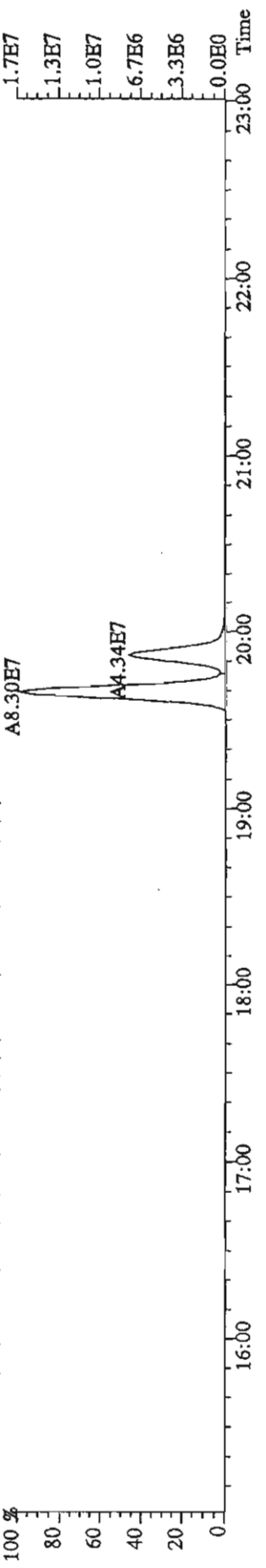
321.8936 S:44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,936.0,1.00%,F,T)



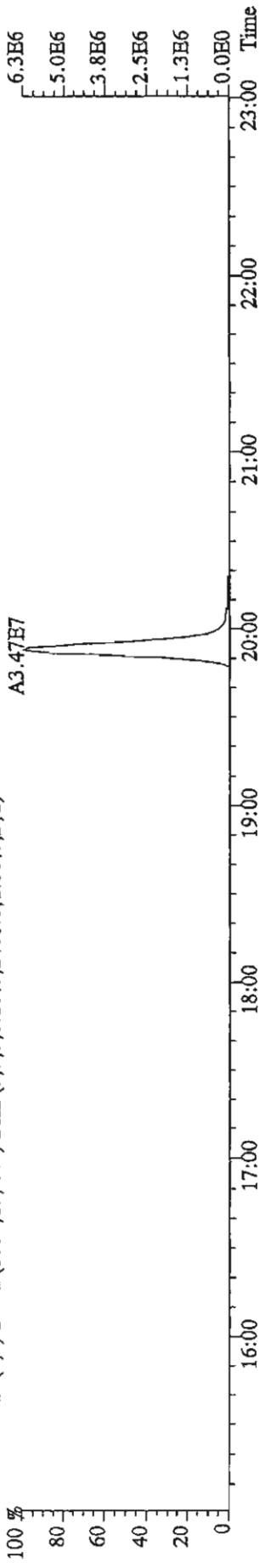
331.9368 S:44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8520.0,1.00%,F,T)



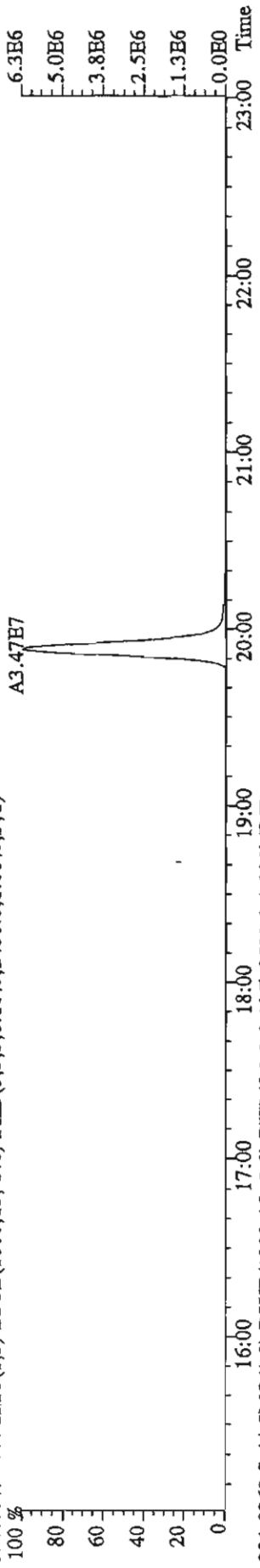
333.9339 S:44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4472.0,1.00%,F,T)



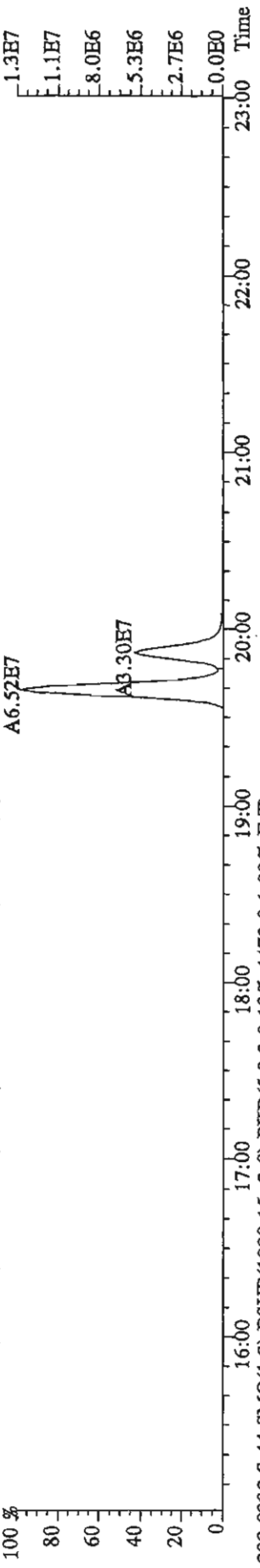
File:24MR114D5 #1-530 Acq:25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#44 Text:MF4TB-1-AA :G1C240000-190 (550-IMB) Exp:DIOXINRES
327.8847 S:44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,2400.0,1.00%,F,T)



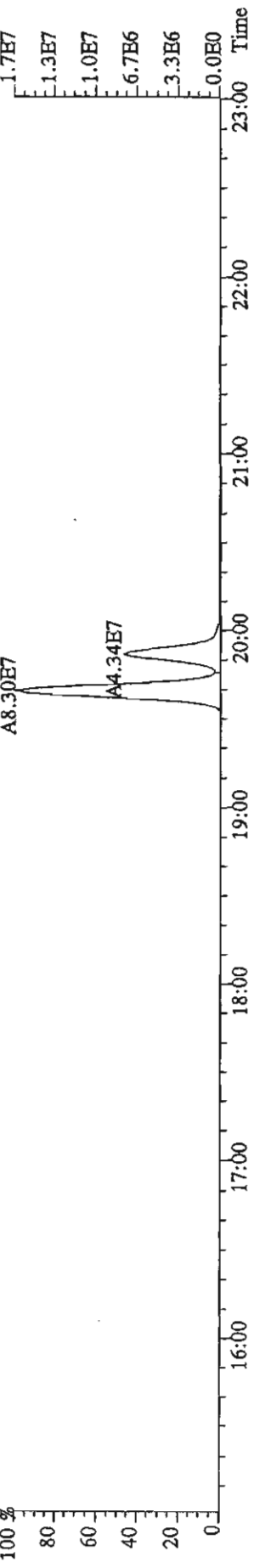
327.8847 S:44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,2400.0,1.00%,F,T)



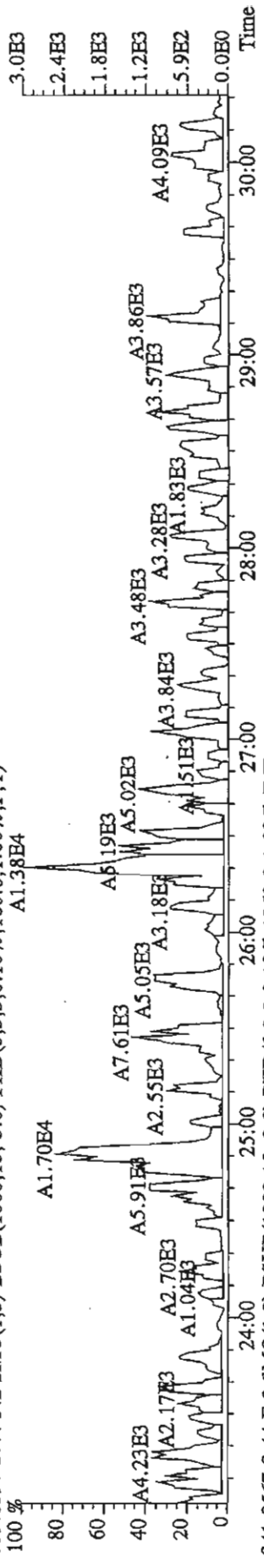
331.9368 S:44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,8520.0,1.00%,F,T)



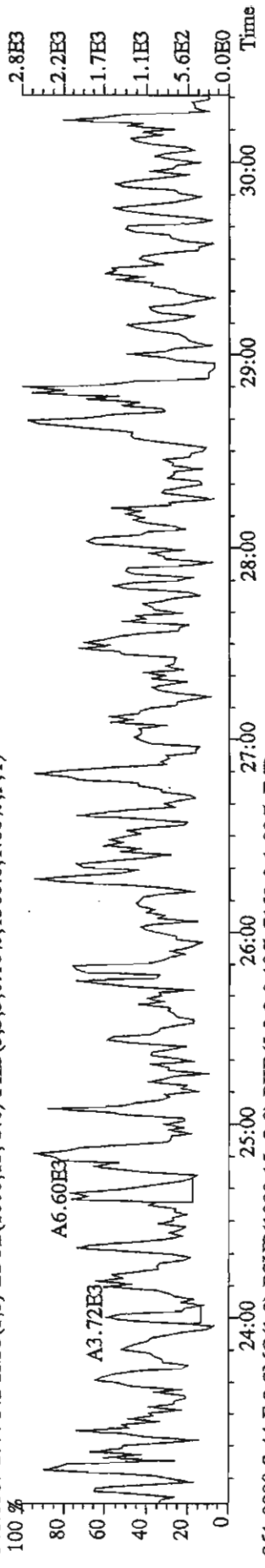
333.9339 S:44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,4472.0,1.00%,F,T)



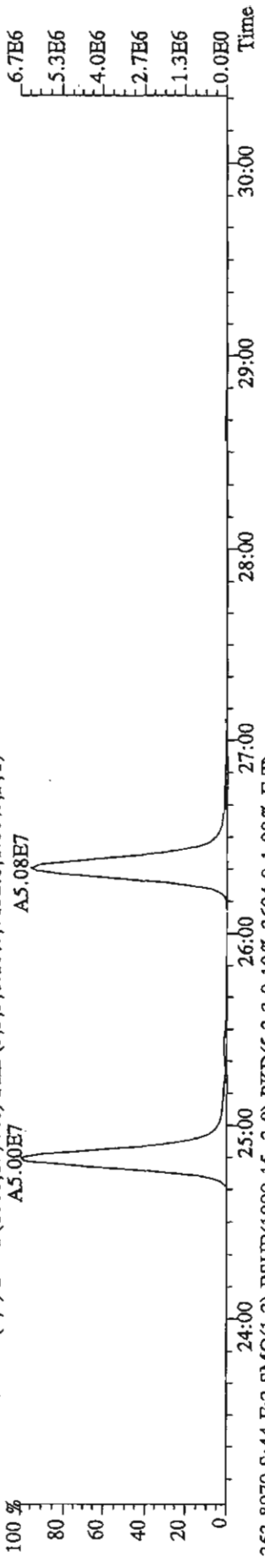
File:24MR114D5 #1-470 Acq:25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#44 Text:MP4TE-1-AA :G1C240000-190 (550-IMB) Exp:DIOXINRES
 339.8597 S:44 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1.60,0.1,0.0%,F,T)
 A1.38E4



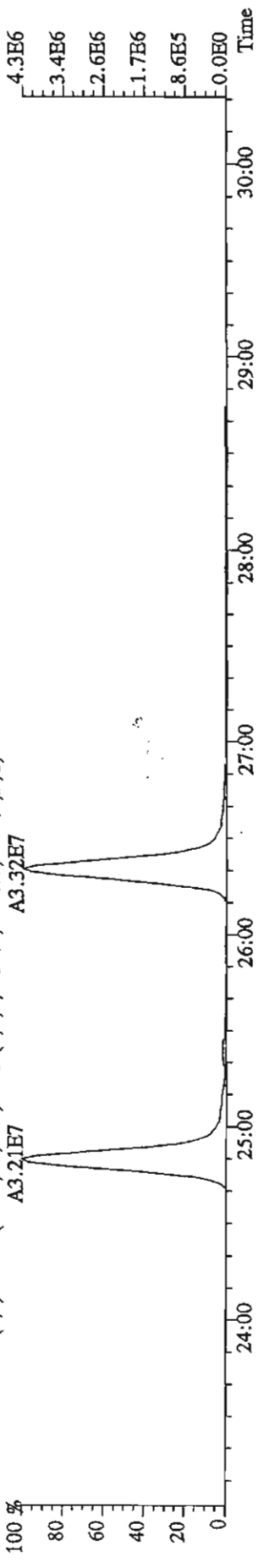
341.8567 S:44 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1.36,0.1,0.0%,F,T)



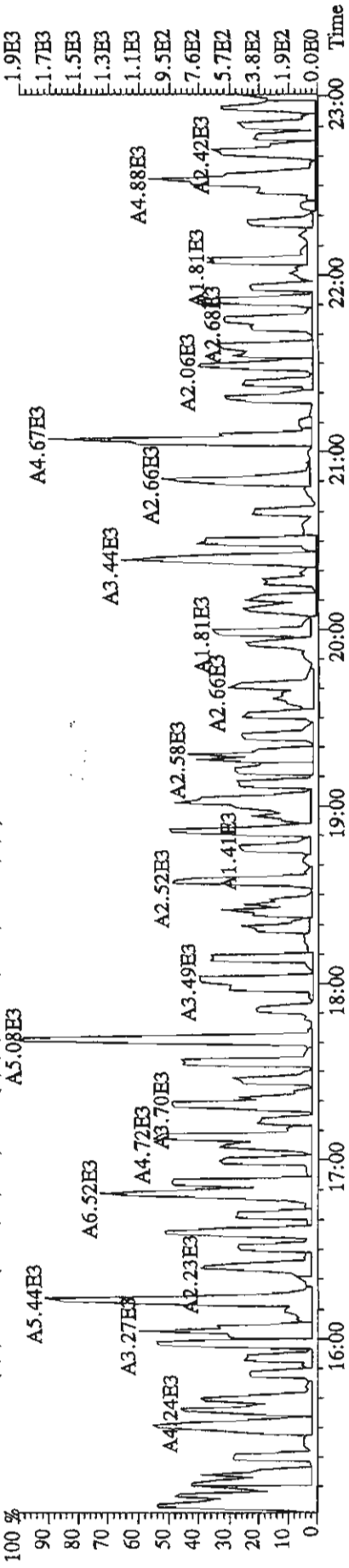
351.9000 S:44 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,7.15,2.0,1.0,0%,F,T)



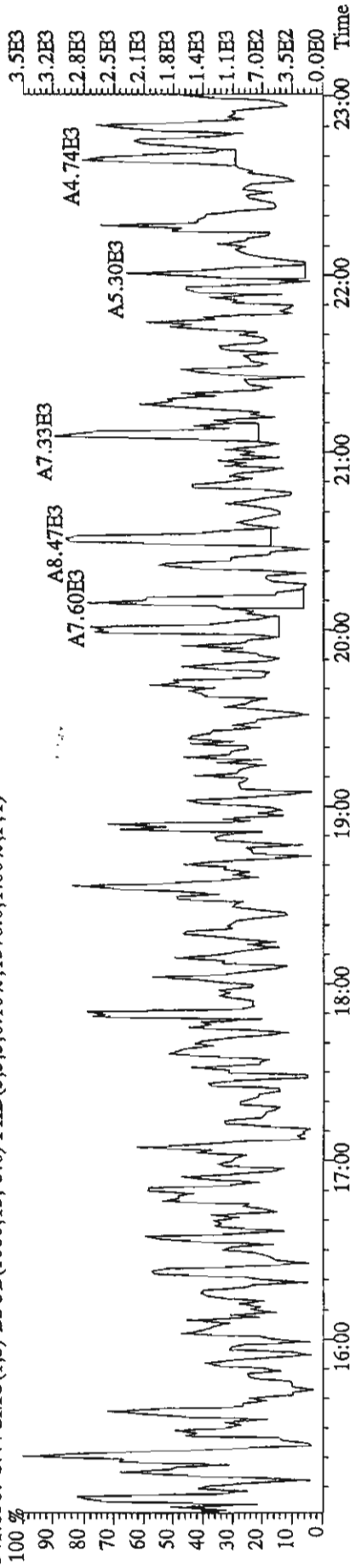
353.8970 S:44 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3.60,4.0,1.0,0%,F,T)



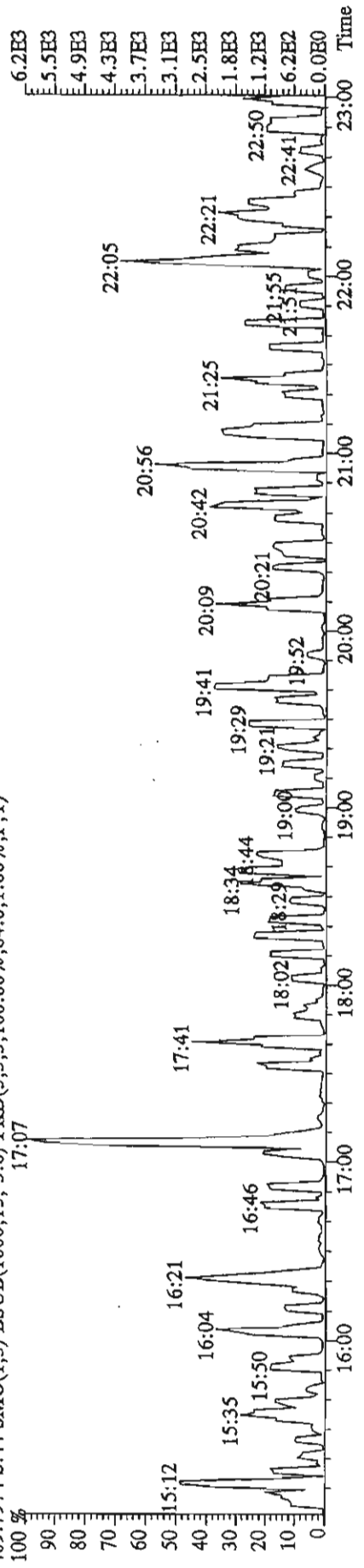
File: 24MRI14D5 #1-530 Acq: 25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#44 Text: MF4TE-1-AA :G1C240000-190 (550-1MB) Exp: DIOXINRES
 339.8597 S:44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,96.0,1.00%,F,T)



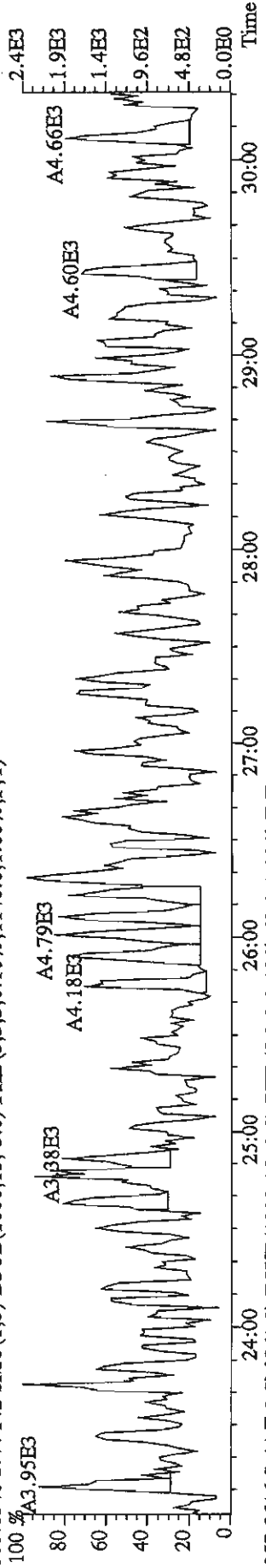
341.8567 S:44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1576.0,1.00%,F,T)



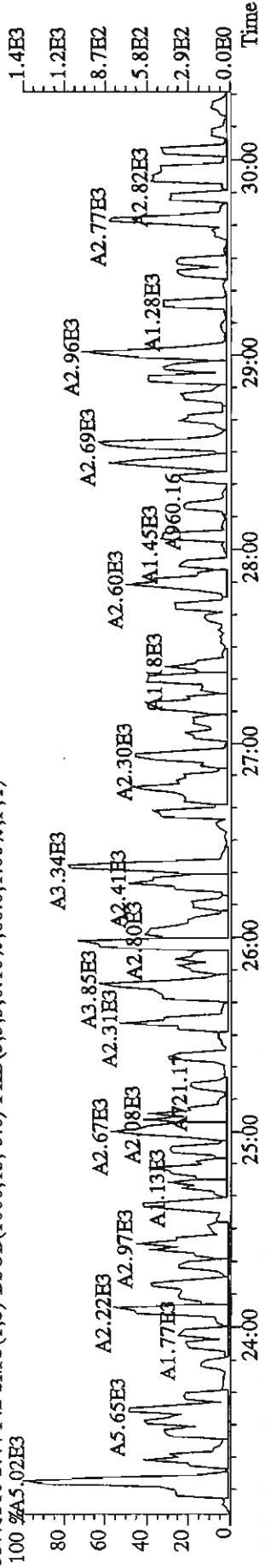
409.7974 S:44 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,84.0,1.00%,F,T)



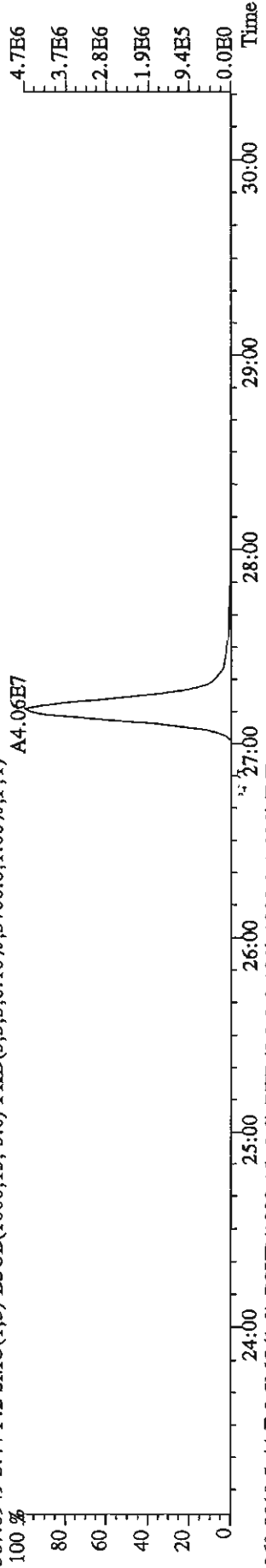
File: 2AMR114D5 #1-470 Acq: 25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#44 Text: MF4TE-1-AA :GIC240000-190 (550-1MB) Exp: DIOXINRES
 355.8546 S:44 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1148,0,1.00%,F,T)



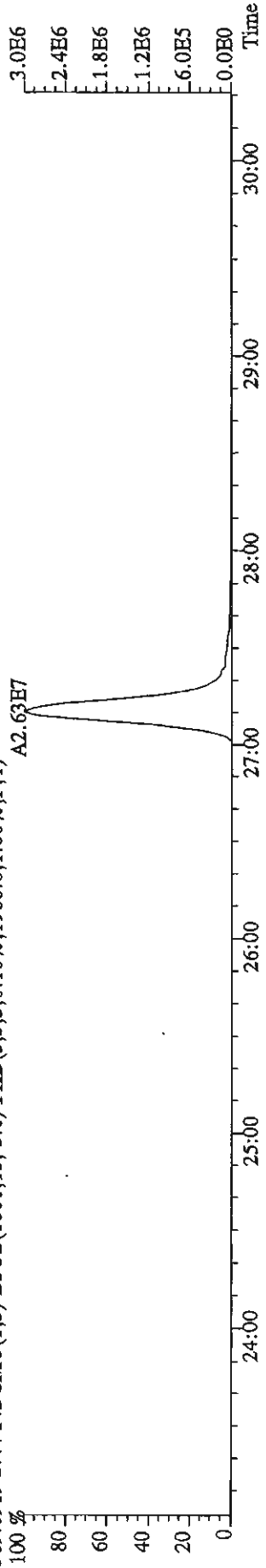
357.8516 S:44 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,68,0,1.00%,F,T)



367.8949 S:44 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3700,0,1.00%,F,T)



369.8919 S:44 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1988,0,1.00%,F,T)

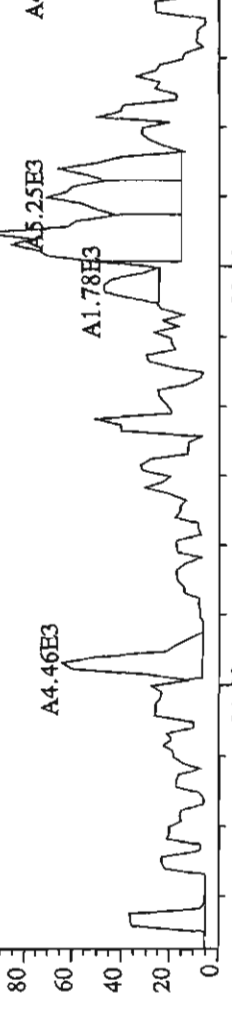


File: 24MR114D5 #1-287 Acq: 25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaB

Sample#44 Text: MF4TB-1-AA : GIC240000-190 (550-1MB) Exp: DIOXINRES

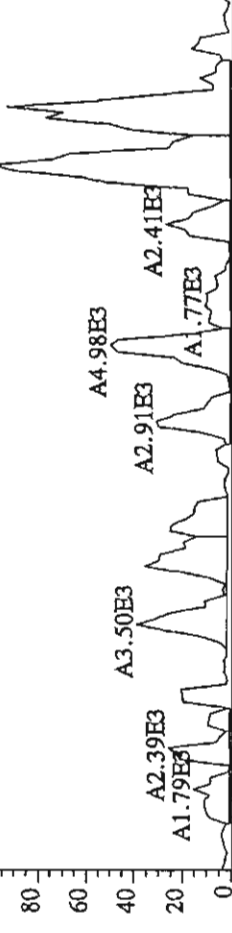
373.8208 S: 44 F: 3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,732.0,1.00%,F,T)

A9.41E3 A4.46E3 A1.78E3 A5.25E3 A4.01E3 A2.92E3 A3.65E3



375.8178 S: 44 F: 3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,84.0,1.00%,F,T)

A1.24E4 A7.15E3 A3.42E3 A5.92E3 A2.83E3 A1.46E3 A2.10E3



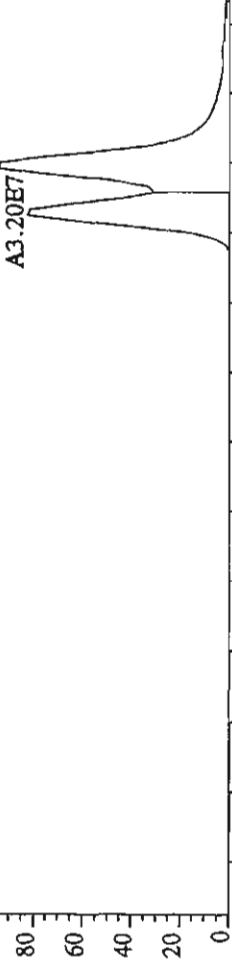
383.8639 S: 44 F: 3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2776.0,1.00%,F,T)

A2.55E7 A1.57E7 A2.33E7 A1.88E7



385.8610 S: 44 F: 3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,21944.0,1.00%,F,T)

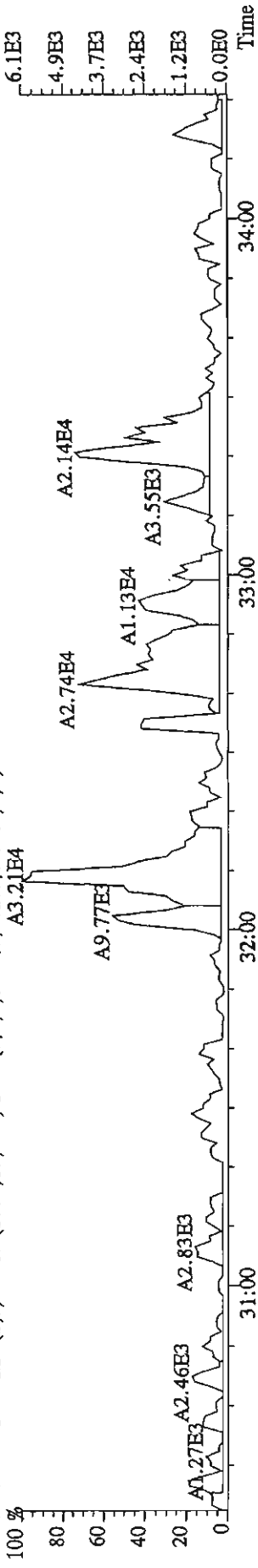
A3.20E7 A5.06E7 A4.33E7 A3.53E7



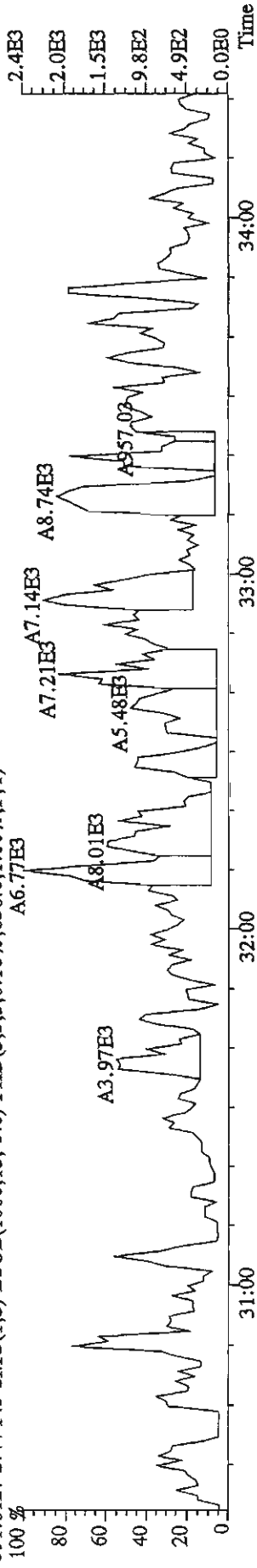
File:24MR114D5 #1-287 Acq:25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaB

Sample#44 Text:MF4TE-1-AA :G1C240000-190 (550-1MB) Exp:DIOXINRES

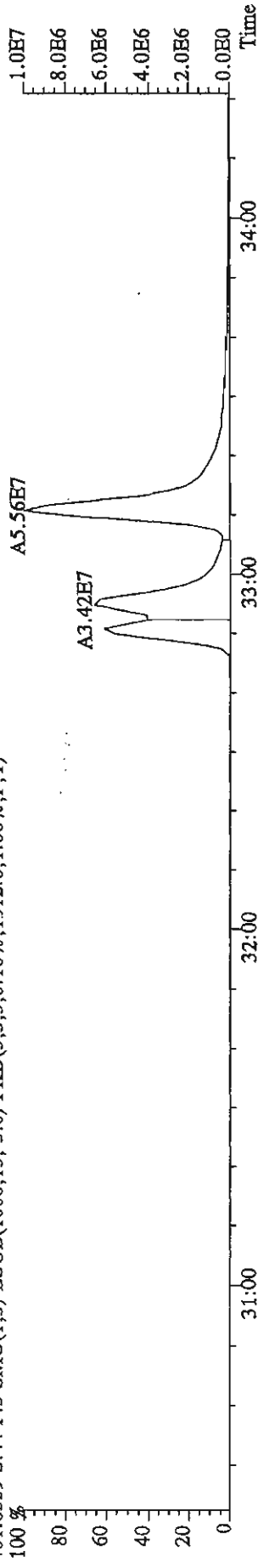
389.8157 S:44 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,472.0,1.00%,F,T)



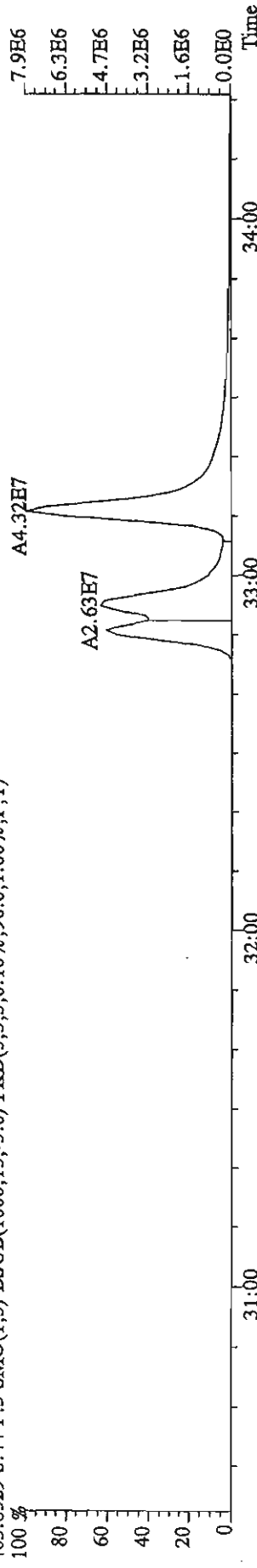
391.8127 S:44 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,836.0,1.00%,F,T)



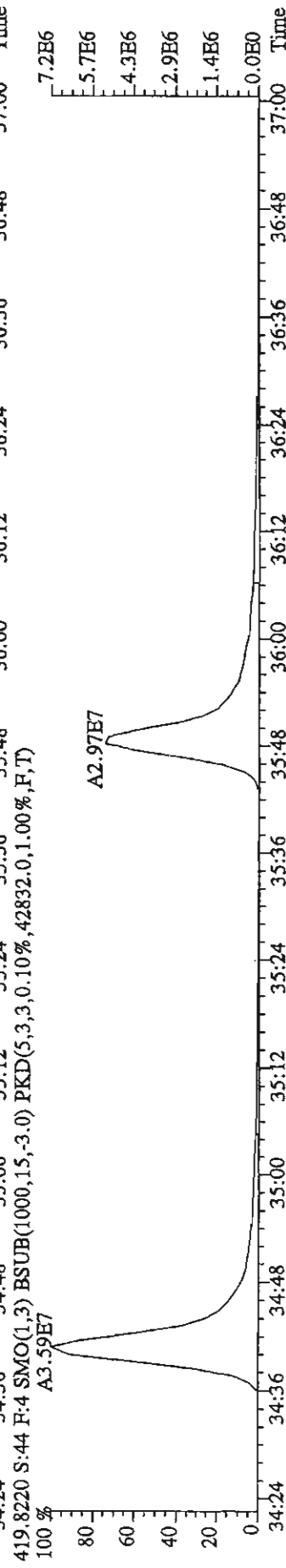
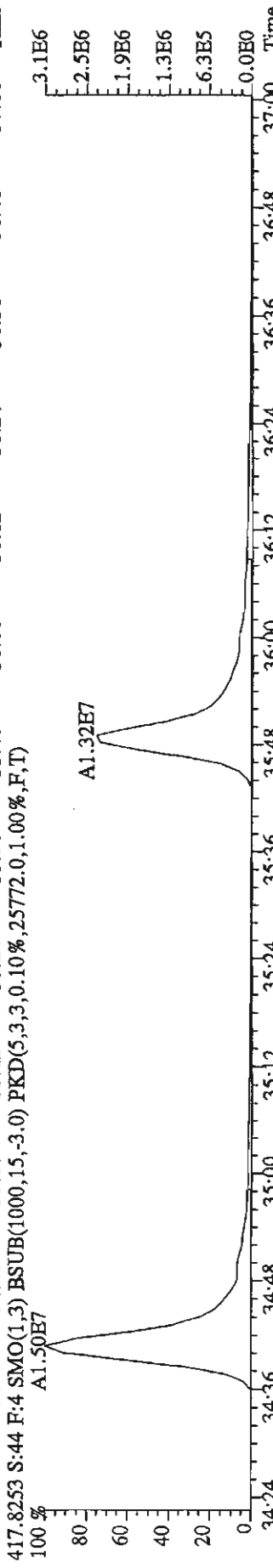
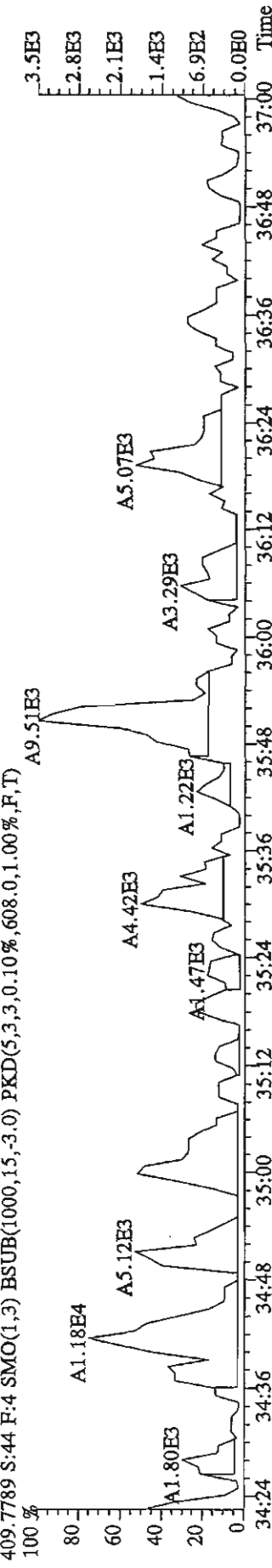
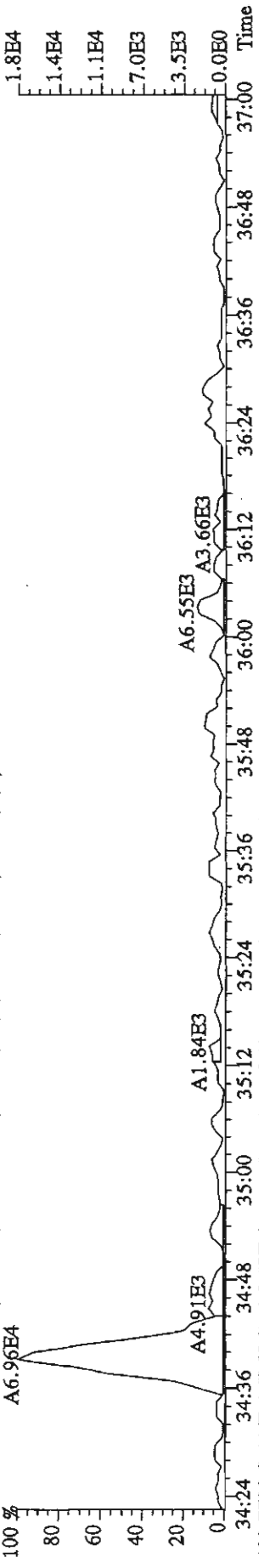
401.8559 S:44 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,1512.0,1.00%,F,T)



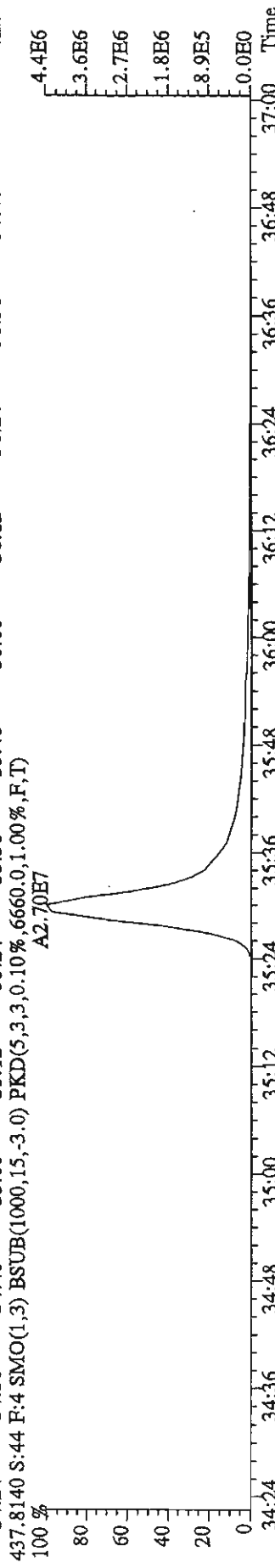
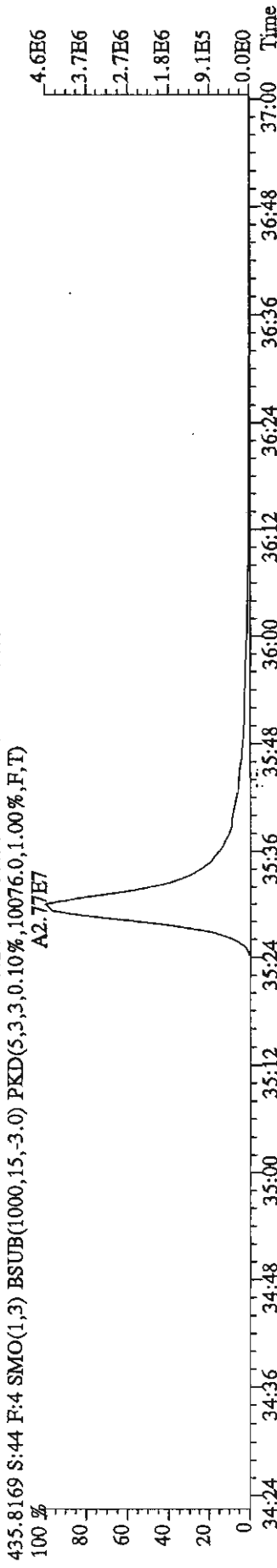
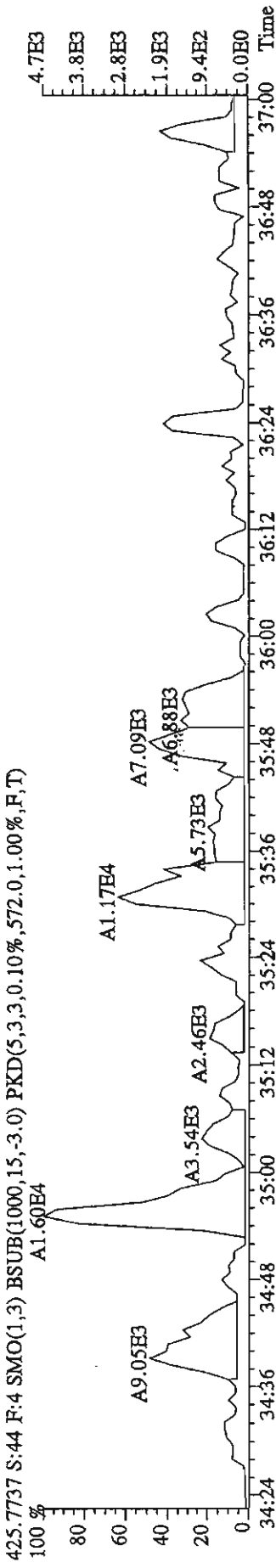
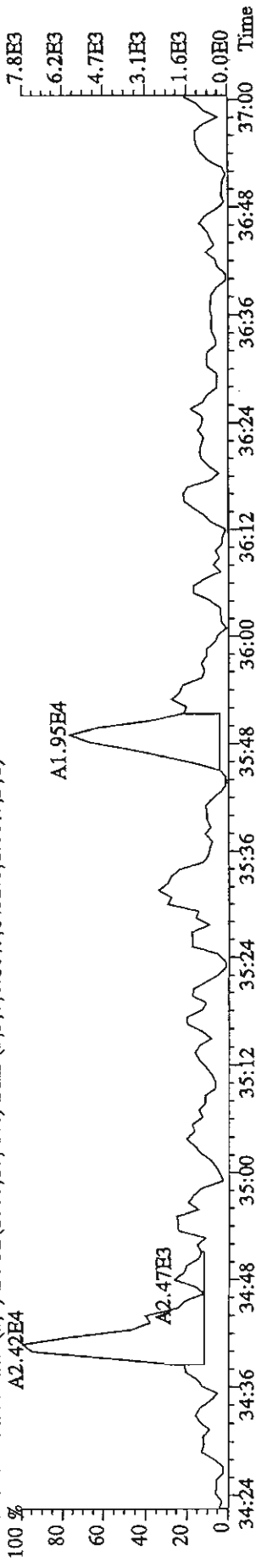
403.8529 S:44 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,96.0,1.00%,F,T)



File:24MR114D5 #1-200 Acq:25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#44 Text:MF4TE-1-AA :G1C240000-190 (550-1MB) Exp:DIOXINRBS
 407.7818 S:44 F:4 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,916.0,1.00%,F,T)



File: 24MR114D5 #1-200 Acq: 25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#44 Text: MP4TE-1-AA : G1C240000-190 (S50-1MB) Exp: DIOXINRES
 423.7766 S: 44 F: 4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1452.0,1.00%,F,T)

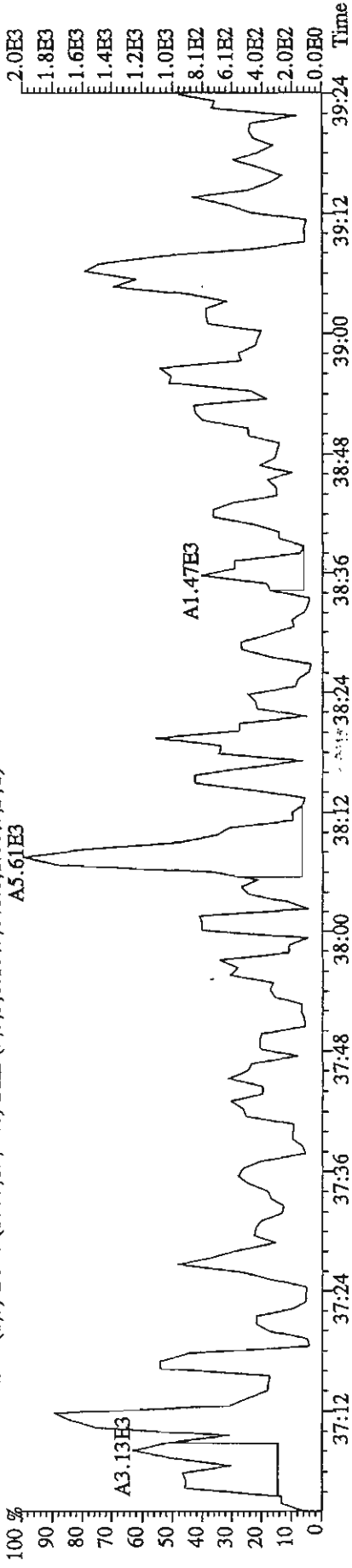


File:2AMR114D5 #1-192 Acq:25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE

Sample#44 Text:MF4TE-1-AA :G1C240000-190 (550-1MB) Exp:DIOXINRES

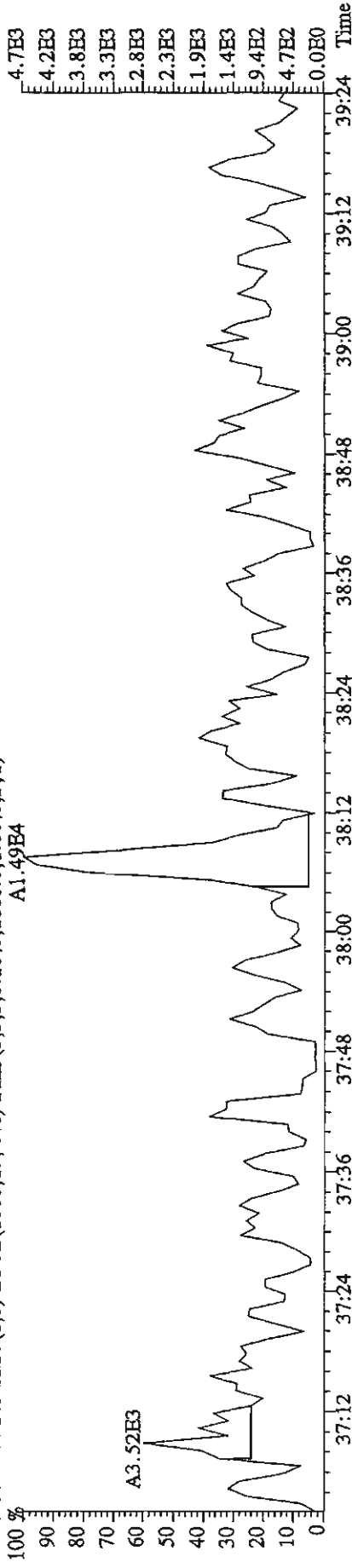
441.7428 S:44 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,648.0,1.00%,F,T)

A5.61E3



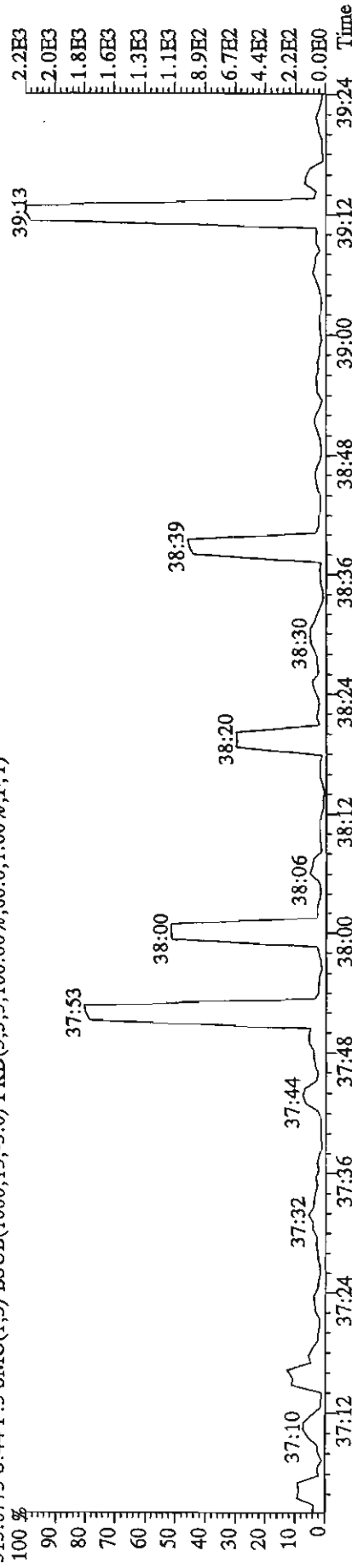
443.7399 S:44 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1668.0,1.00%,F,T)

A1.49E4



513.6775 S:44 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,5,100.00%,60.0,1.00%,F,T)

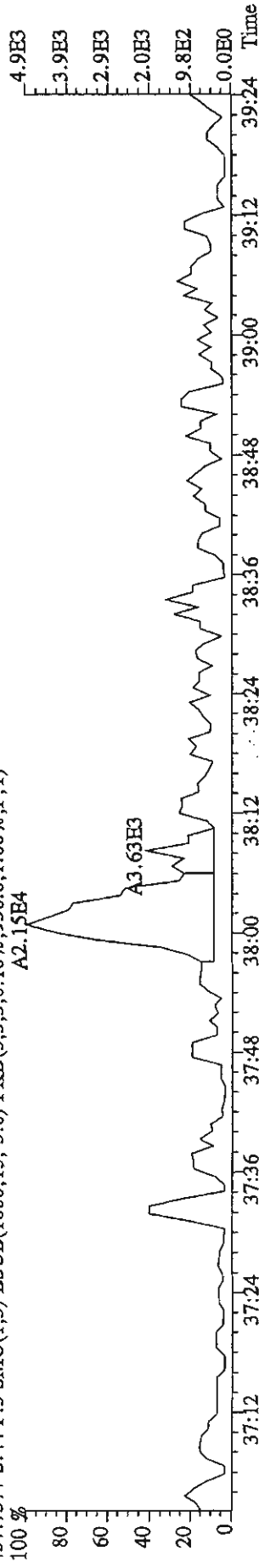
A1.49E4



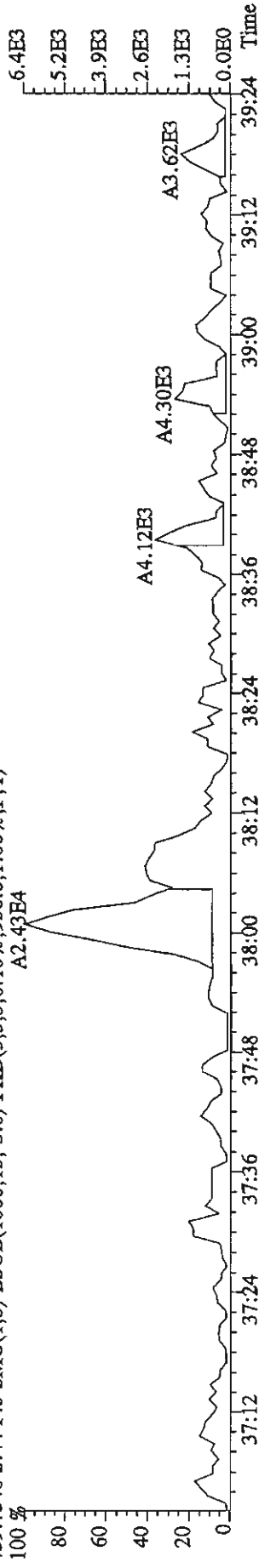
File: 24MR114D5 #1-192 Acq: 25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE

Sample#44 Text: MF4TE-1-AA : G1C240000-190 (550-1MB) Exp: DIOXINES

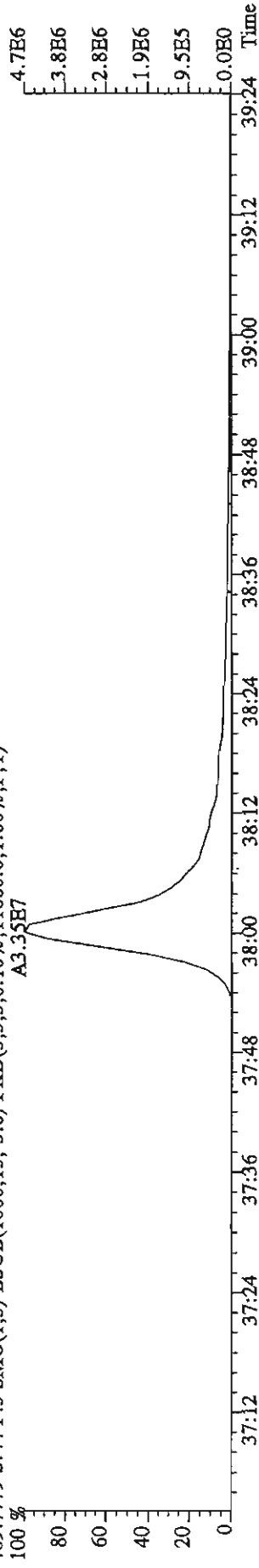
457.7377 S: 44 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,936.0,1.00%,F,T)



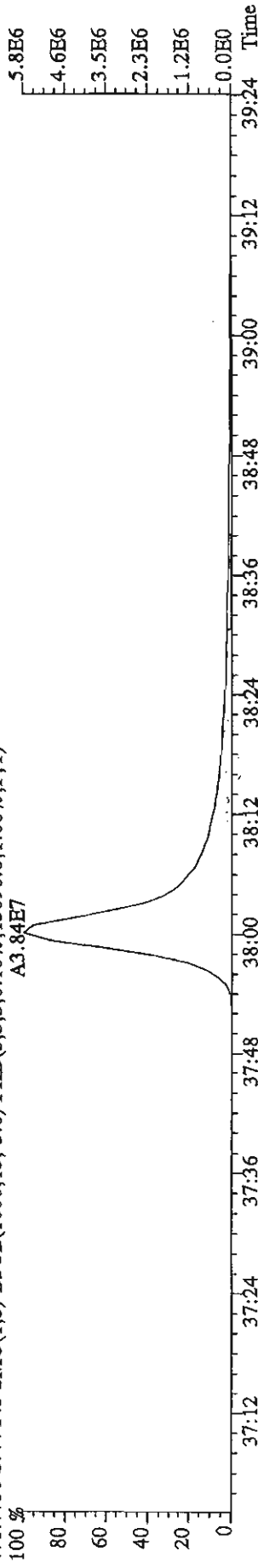
459.7348 S: 44 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,956.0,1.00%,F,T)



469.7779 S: 44 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,11660.0,1.00%,F,T)

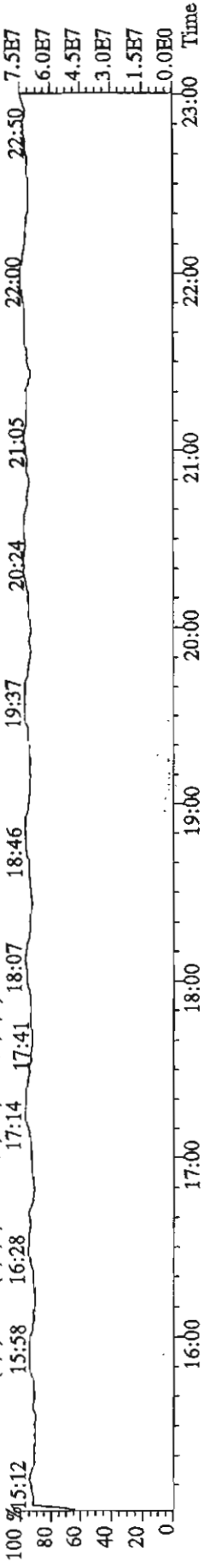


471.7750 S: 44 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,13096.0,1.00%,F,T)

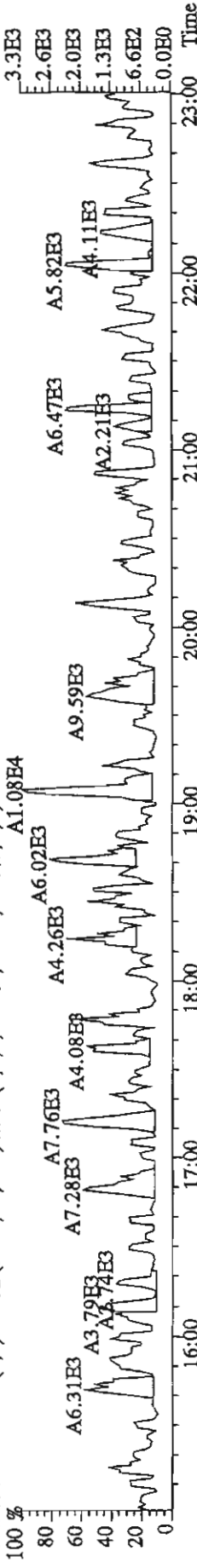


File: 24MR114D5 #1-530 Acq: 25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#44 Text: MF4TE-1-AA : GIC240000-190 (550-1MB) Exp: DIOXINRES

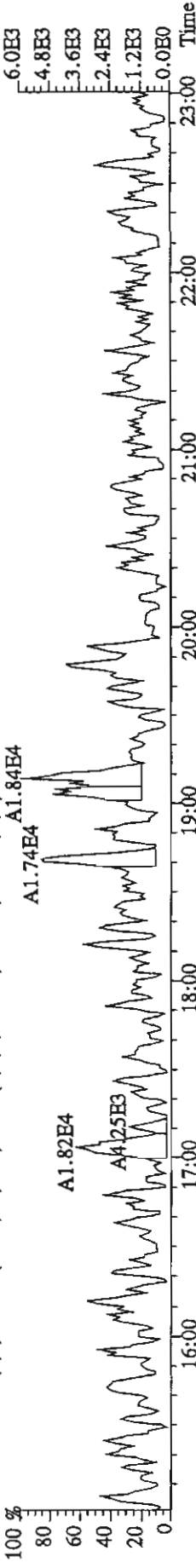
292.9825 S: 44 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



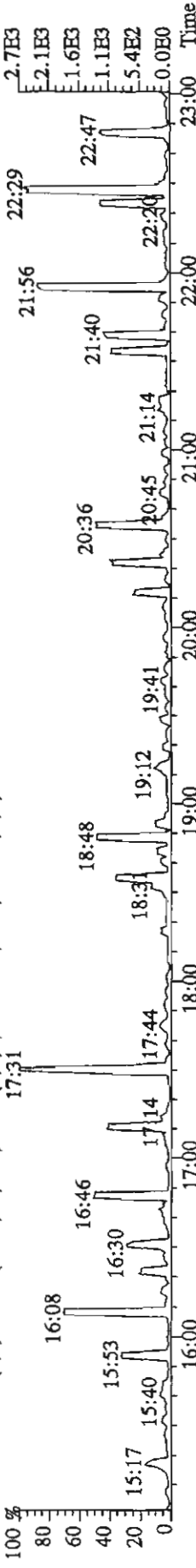
303.9016 S: 44 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,780.0,1.00%,F,T)



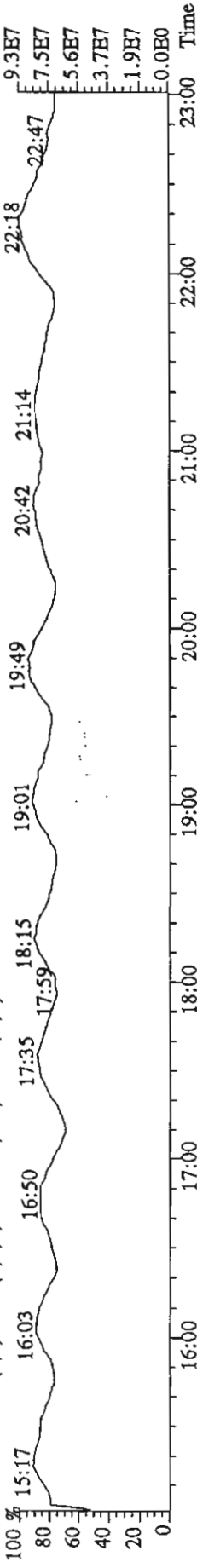
305.8987 S: 44 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,2100.0,1.00%,F,T)



375.8364 S: 44 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,88.0,1.00%,F,T)

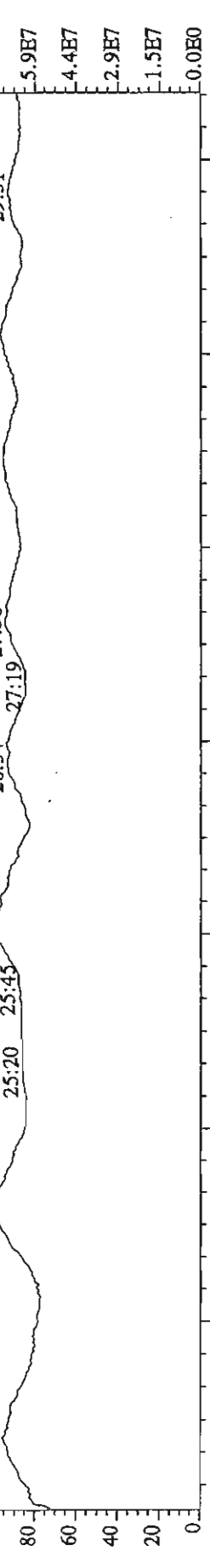


330.9792 S: 44 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

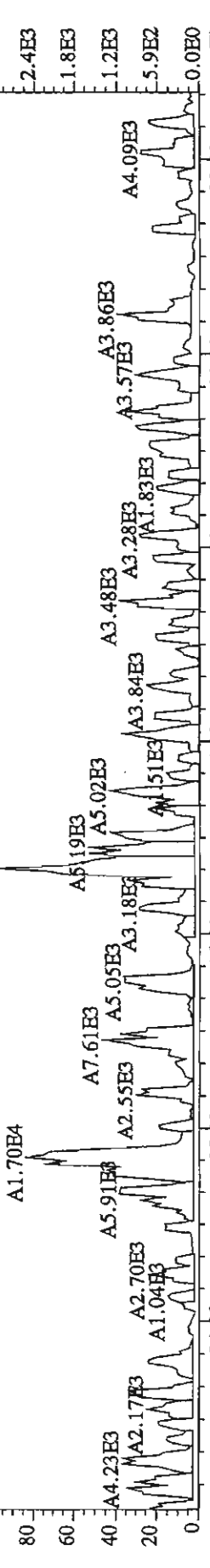


File:24MR114D5 #1-470 Acq:25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#44 Text:MF4TE-1-AA :GIC240000-190 (550-1MB) Exp:DIOXINRES

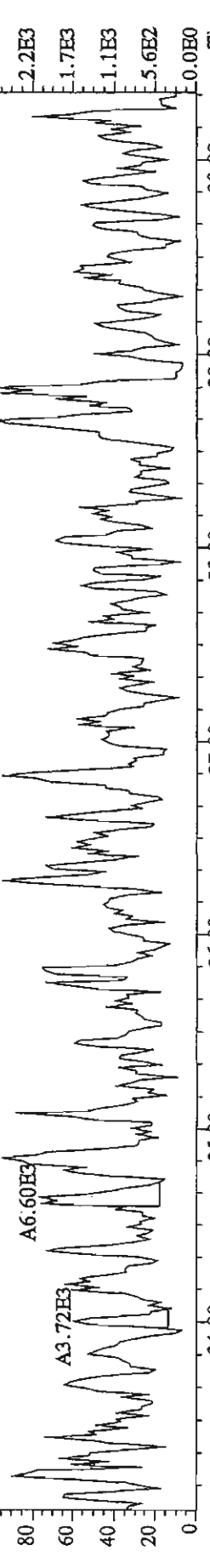
342.9792 S:44 F:2 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)
 100% 23:25 24:36 25:20 25:45 26:05 26:54 27:19 27:36 28:28 29:06 29:51 7.3E7
 5.9E7
 4.4E7
 2.9E7
 1.5E7
 0.0E0



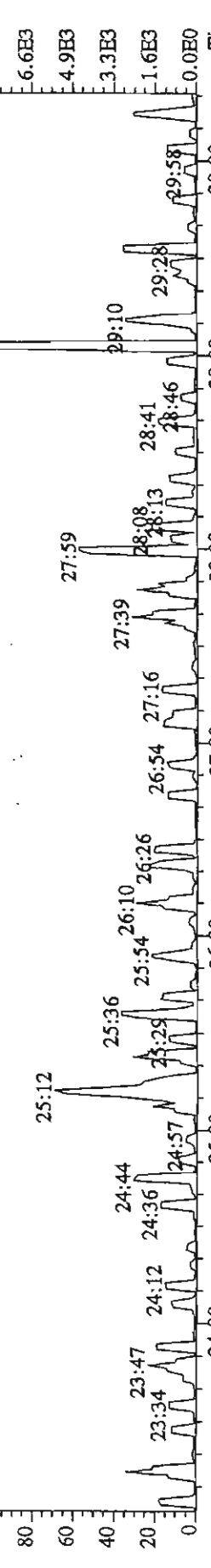
339.8597 S:44 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,160.0,1.00%,F,T)
 100% A1.38E4



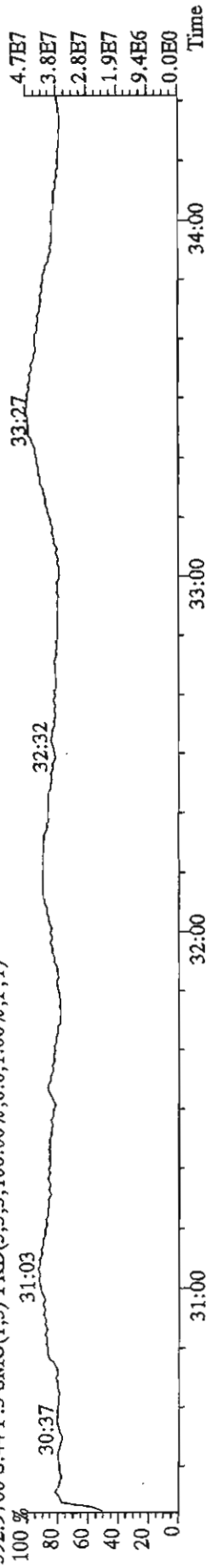
341.8567 S:44 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,1360.0,1.00%,F,T)
 100%



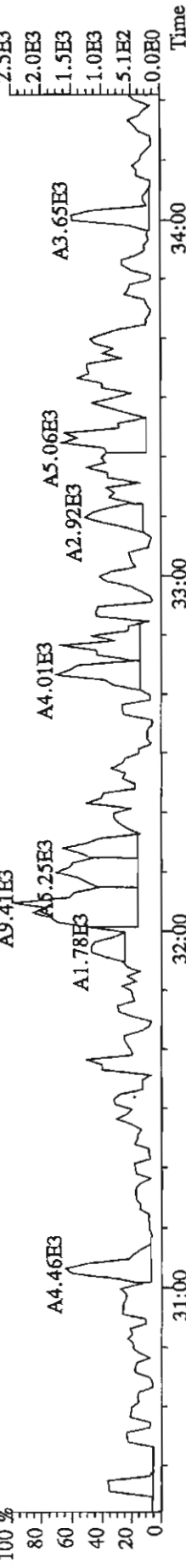
409.7974 S:44 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,80.0,1.00%,F,T)
 100%



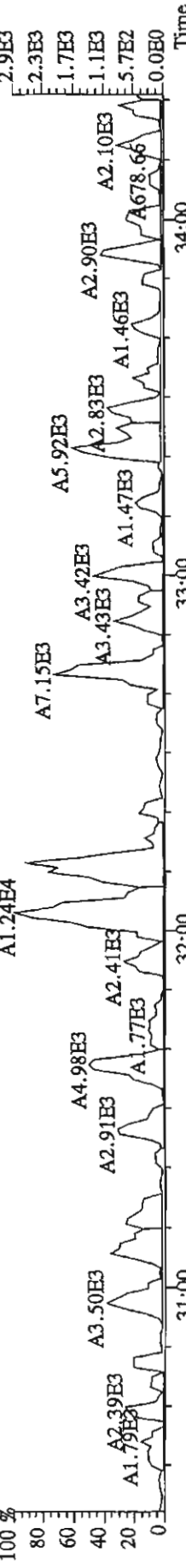
File: 24MR114D5 #1-287 Acq: 25-MAR-2011 18:17:31 GC HI+ Voltage SIR Autospec-UltimaE
 Sample#44 Text: MF4TE-1-AA : G1C240000-190 (550-1MB) Exp: DIOXINRES
 392.9760 S:44 F:3 SMO(1,3) PKD(5,3,3,100.00%,0,0,1.00%,F,T)



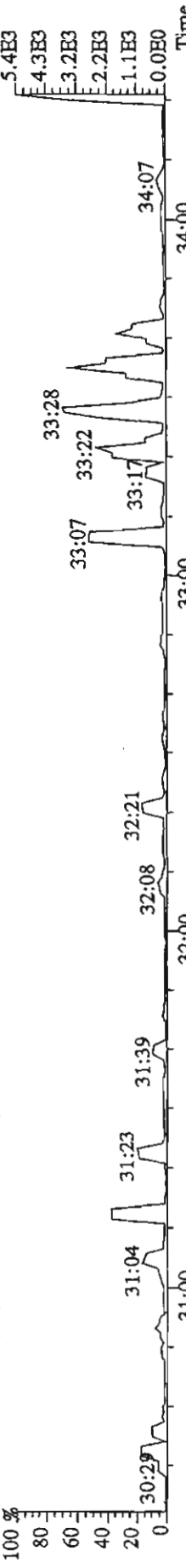
373.8208 S:44 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,732.0,1.00%,F,T)



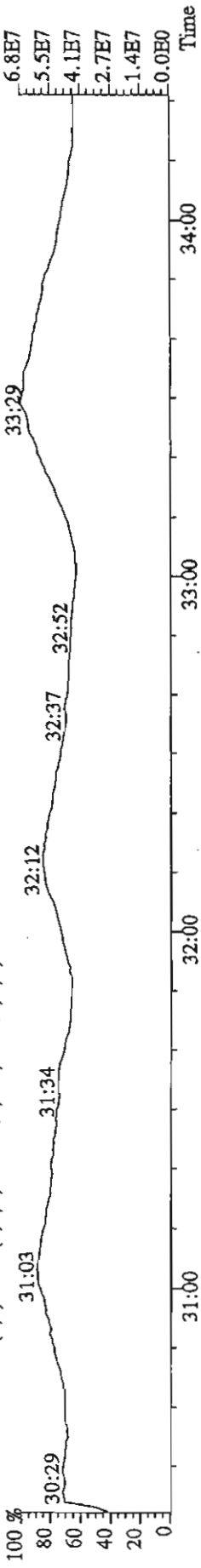
375.8178 S:44 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,84.0,1.00%,F,T)



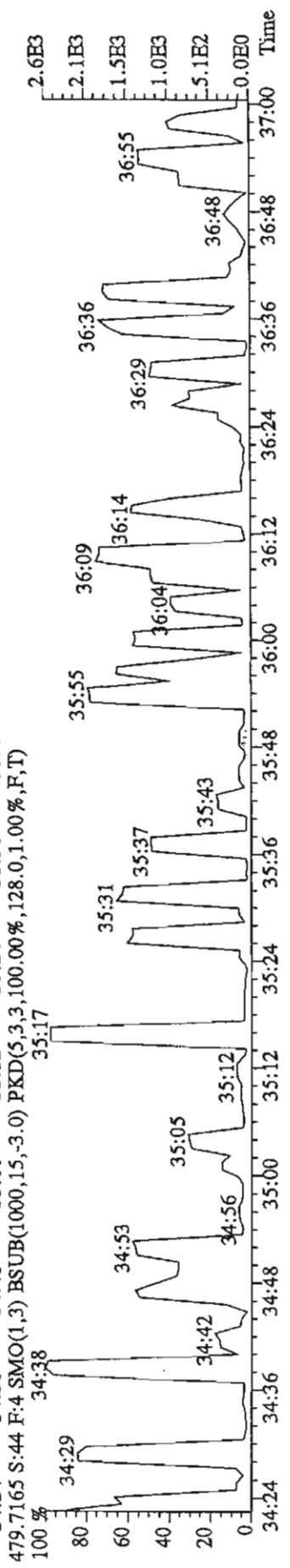
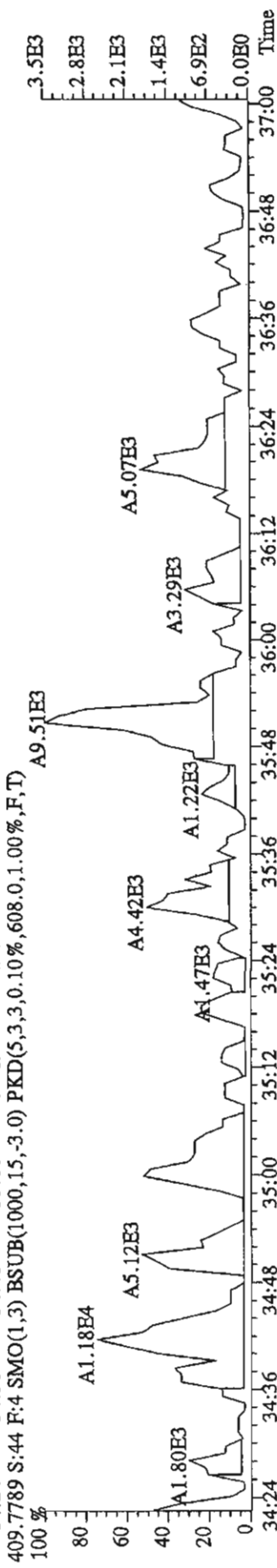
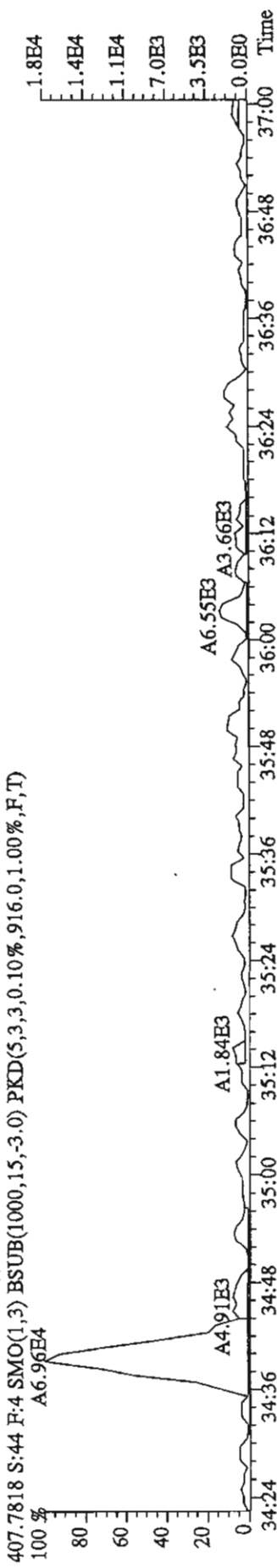
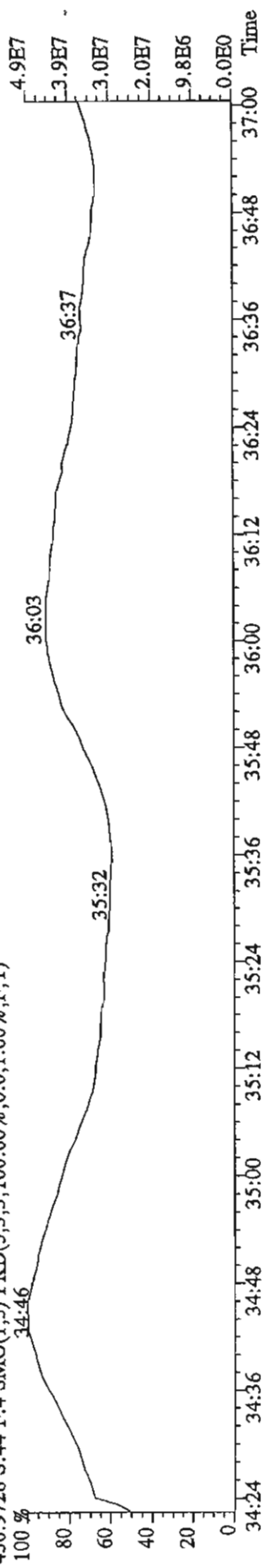
445.7555 S:44 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,112.0,1.00%,F,T)



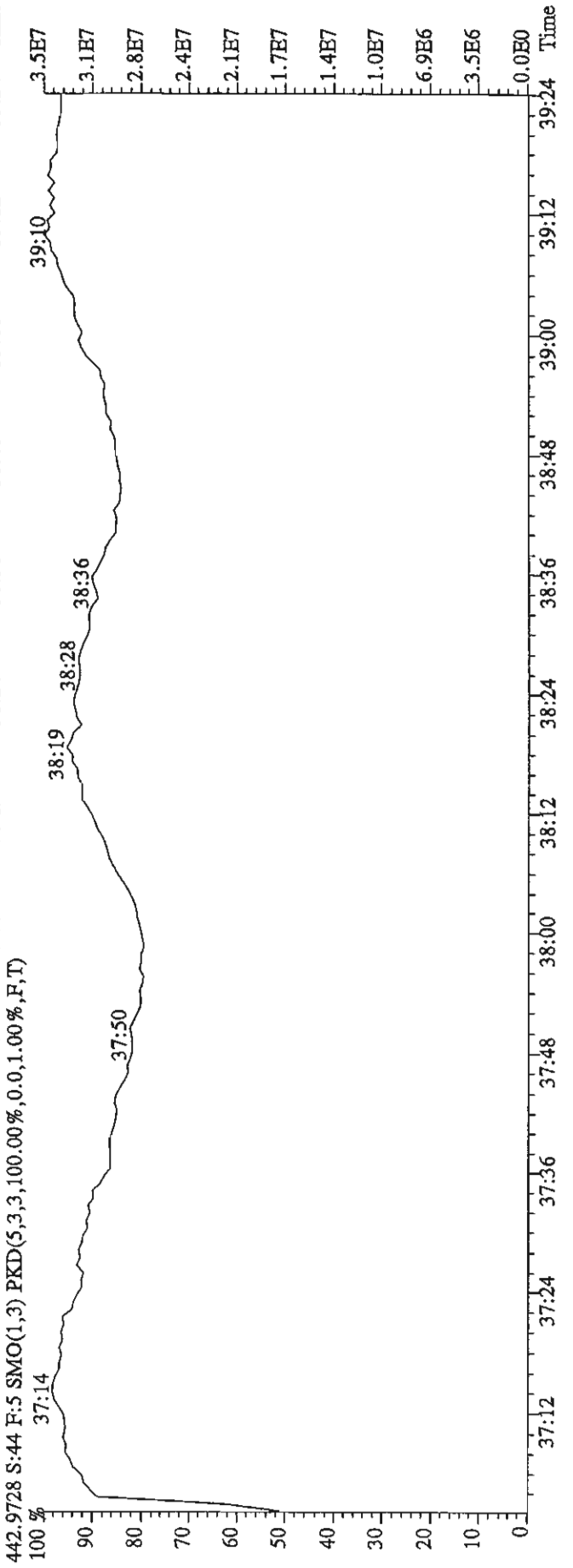
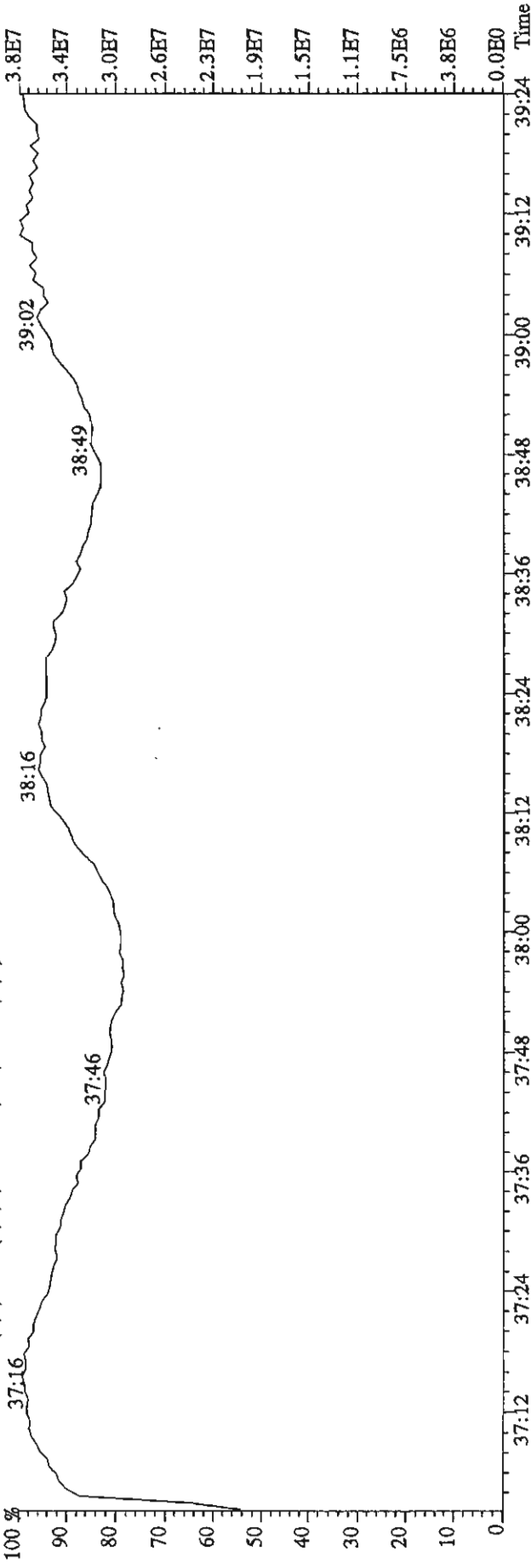
380.9760 S:44 F:3 SMO(1,3) PKD(5,3,3,100.00%,0,0,1.00%,F,T)



File:24MR114D5 #1-200 Acq:25-MAR-2011 18:17:31 GC.EI+ Voltage SIR Autospec-UltimaE
 Sample#44 Text:MF4TE-1-AA :G1C240000-190 (550-1MB) Exp:DIOXINRES
 430.9728 S:44 F:4 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



File: 24MR114D5 #1-192 Acq: 25-MAR-2011 18:17:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#44 Text: MF4TE-1-AA : G1C240000-190 (550-1MB) Exp: DIOXINRES
454.9728 S: 44 F: 5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



Run text: MF4TE-1-AC Sample text: MF4TE-1-AC :G1C240000-190 (550-1LC)
 Run #14 Filename: 24MR114D5 S: 43 I: 1 Results: 24MR114D51613
 Acquired: 25-MAR-11 17:33:01 Processed: 25-MAR-11 18:35:54
 Run: 24MR114D5 Analyte: 1613 Cal: 16130222114D5
 Factor 1:1600.000 Factor 2:20.000 Sample size: 1.000 L

~~AO~~
03-28-11

Name	Resp	RA	RT	RRF	Conc	EDL	Rec	M
13C-1,2,3,4-TCDD	155880400	0.80 y	19:39	-	81.875	-	-	n
13C-2,3,7,8-TCDF	88276300	0.78 y	19:04	1.10	1025.268	1.218	51.3	n
2,3,7,8-TCDF	9033710	0.79 y	19:05	0.78	263.250 ✓	1.494	-	n
Total TCDF	9250717	0.85 y	18:03	0.78	269.574	1.494	-	n
13C-2,3,7,8-TCDD	74206100	0.77 y	19:52	0.97	982.786	2.518	49.1	n
2,3,7,8-TCDD	7061650	0.75 y	19:53	0.87	219.375 ✓	1.439	-	n
Total TCDD	7235726	0.46 n	17:22	0.87	224.783	1.439	-	n
37Cl-2,3,7,8-TCDD	74159400	1.00 y	19:54	1.43	667.333	0.697	83.4	n
13C-1,2,3,7,8-PeCDF	76959100	1.59 y	24:50	1.04	950.318	1.663	47.5	n
1,2,3,7,8-PeCDF	41211500	1.57 y	24:51	0.96	1116.794 ✓	3.399	-	n
13C-2,3,4,7,8-PeCDF	79231400	1.54 y	26:20	1.02	996.649	1.694	49.8	n
2,3,4,7,8-PeCDF	41194100	1.53 y	26:22	0.96	1087.937 ✓	3.568	-	n
Total F2 PeCDF	83249357	1.26 n	23:18	0.96	2227.304	3.485	-	n
Total F1 PeCDF	42470	0.29 n	15:16	0.96	1.136	0.885	-	n
13C-1,2,3,7,8-PeCDD	60685400	1.55 y	27:11	0.70	1113.007	1.656	55.7	n
1,2,3,7,8-PeCDD	31231100	1.48 y	27:12	1.04	987.907 ✓	2.510	-	n
Total PeCDD	31627256	3.43 n	24:51	1.04	1000.439	2.510	-	n
13C-1,2,3,7,8,9-HxCDD	104191500	1.28 y	33:11	-	76.877	-	-	n
13C-1,2,3,4,7,8-HxCDF	46061300	0.51 y	32:03	0.87	1015.547	10.808	50.8	n
1,2,3,4,7,8-HxCDF	28307500	1.11 y	32:04	1.15	1070.124 ✓	5.320	-	n
13C-1,2,3,6,7,8-HxCDF	67236600	0.49 y	32:10	1.18	1091.834	7.960	54.6	n
1,2,3,6,7,8-HxCDF	39747300	1.18 y	32:11	1.07	1101.813 ✓	4.812	-	n
13C-2,3,4,6,7,8-HxCDF	59094500	0.53 y	32:42	1.03	1097.688	9.106	54.9	n
2,3,4,6,7,8-HxCDF	35679400	1.21 y	32:43	1.10	1101.985 ✓	4.740	-	n
13C-1,2,3,7,8,9-HxCDF	48930700	0.54 y	33:21	0.90	1038.068	10.400	51.9	n
1,2,3,7,8,9-HxCDF	29170300	1.24 y	33:22	1.08	1105.670 ✓	6.435	-	n
Total HxCDF	132904500	1.11 y	32:04	1.10	4379.592	5.255	-	n
13C-1,2,3,4,7,8-HxCDD	32674900	1.29 y	32:51	0.66	944.462	0.906	47.2	n
1,2,3,4,7,8-HxCDD	18888040	1.27 y	32:52	1.06	1085.987 ✓	0.784	-	n
13C-1,2,3,6,7,8-HxCDD	55106400	1.31 y	32:55	0.95	1113.780	0.634	55.7	n
1,2,3,6,7,8-HxCDD	31709800	1.28 y	32:56	1.05	1100.025 ✓	0.708	-	n
1,2,3,7,8,9-HxCDD	31823400	1.24 y	33:12	1.20	1207.494 ✓	0.646	-	n
Total HxCDD	82534343	1.27 y	32:52	1.10	3398.180	0.704	-	n
13C-1,2,3,4,6,7,8-HpCDF	46034800	0.43 y	34:41	0.91	966.928	17.938	48.3	n
1,2,3,4,6,7,8-HpCDF	33367200	1.06 y	34:42	1.32	1094.582 ✓	18.011	-	n
13C-1,2,3,4,7,8,9-HpCDF	37750900	0.41 y	35:48	0.83	872.423	19.736	43.6	n
1,2,3,4,7,8,9-HpCDF	26772600	1.05 y	35:49	1.24	1139.636 ✓	26.542	-	n
Total HpCDF	60139800	1.06 y	34:42	1.29	2234.218	21.762	-	n

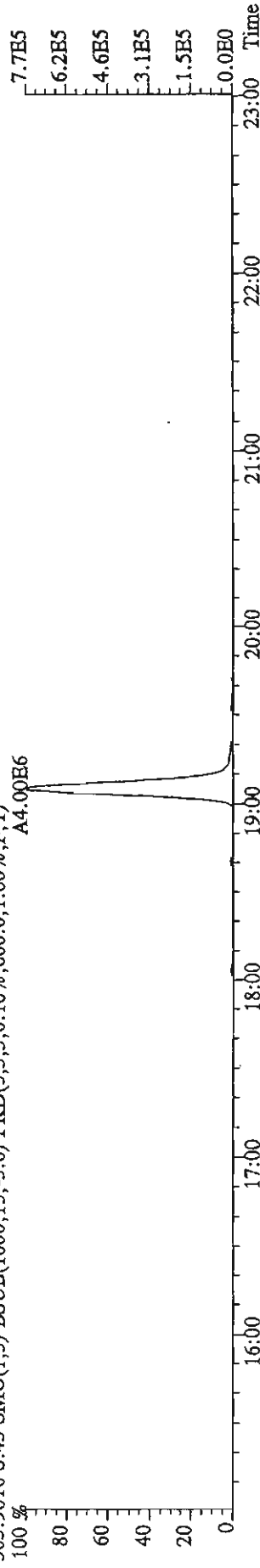
13C-1,2,3,4,6,7,8-HpCDD	45553400	0.96	y	35:29	0.91	956.878	9.118	47.8	n
1,2,3,4,6,7,8-HpCDD	24770800	0.98	y	35:30	1.01	1072.983 ✓	8.555	-	n
Total HpCDD	24937262	1.18	y	34:56	1.01	1080.193	8.555	-	n
13C-OCDD	61627200	0.84	y	37:59	0.60	1967.157	20.949	49.2	n
OCDF	40052200	0.91	y	38:07	1.27	2041.260 ✓	10.873	-	n
OCDD	35995600	0.90	y	38:00	1.13	2069.110 ✓	14.165	-	n

Fig:24MR114D5 #1-530 Acq:25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE

Sample#43 Text:MF4TE-1-AC :G1C240000-190 (550-1LCS) Exp:DIOXINRES

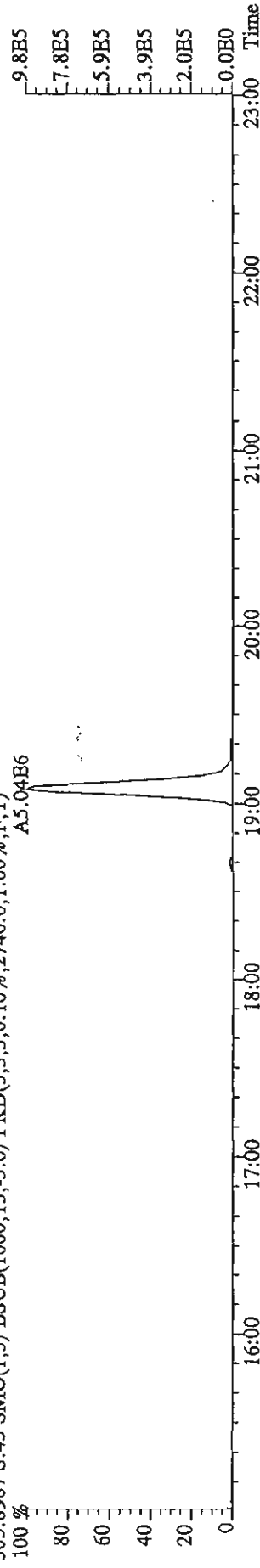
303.9016 S:43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,600.0,1.00%,F,T)

A4.00E6



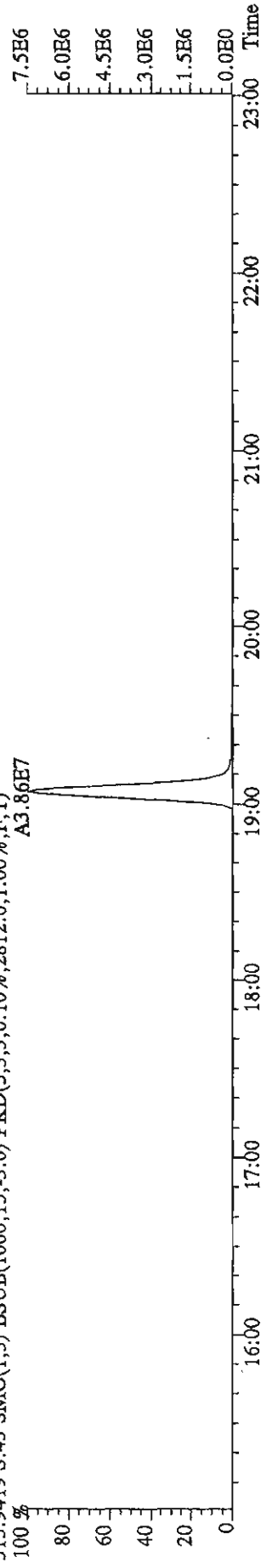
305.8987 S:43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2740.0,1.00%,F,T)

A5.04E6



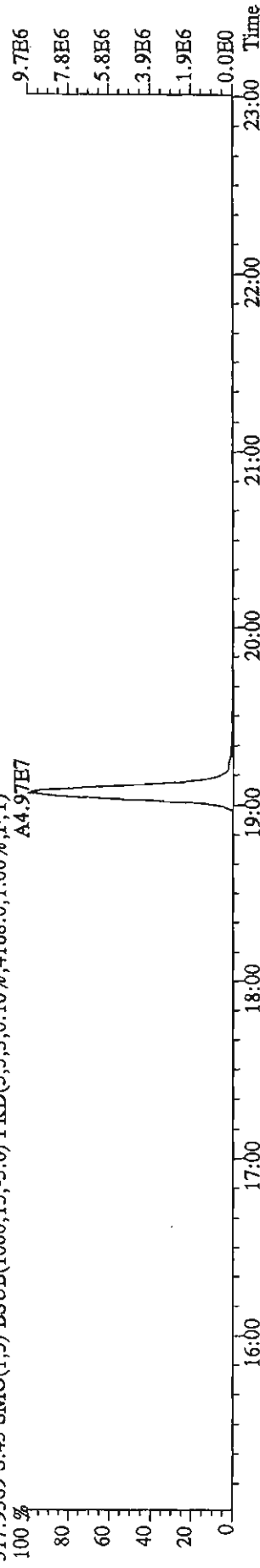
315.9419 S:43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2812.0,1.00%,F,T)

A3.86E7

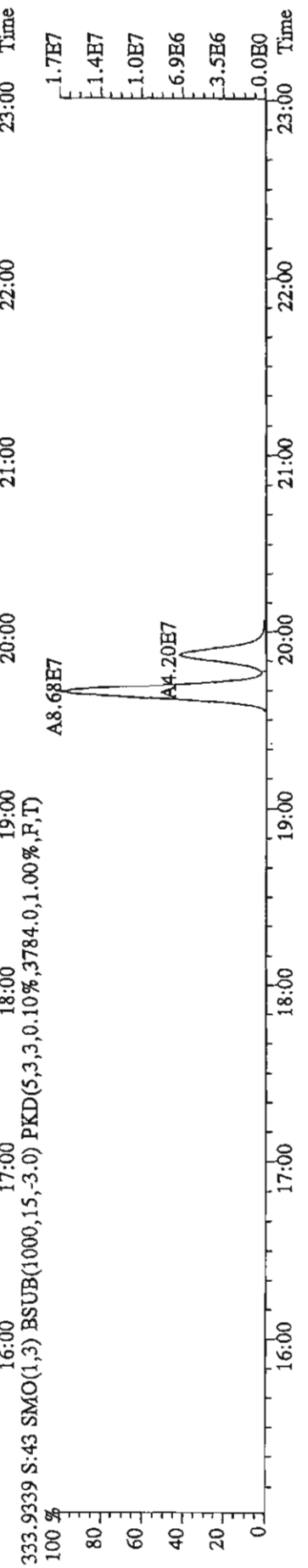
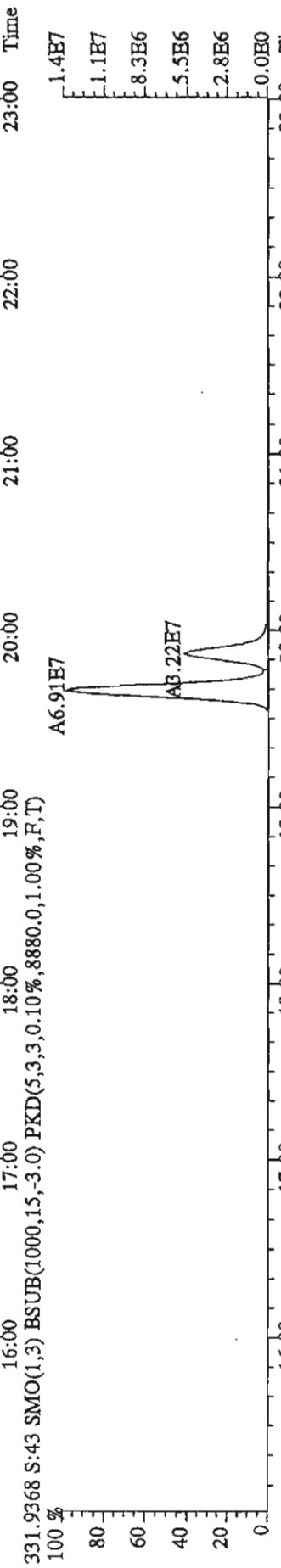
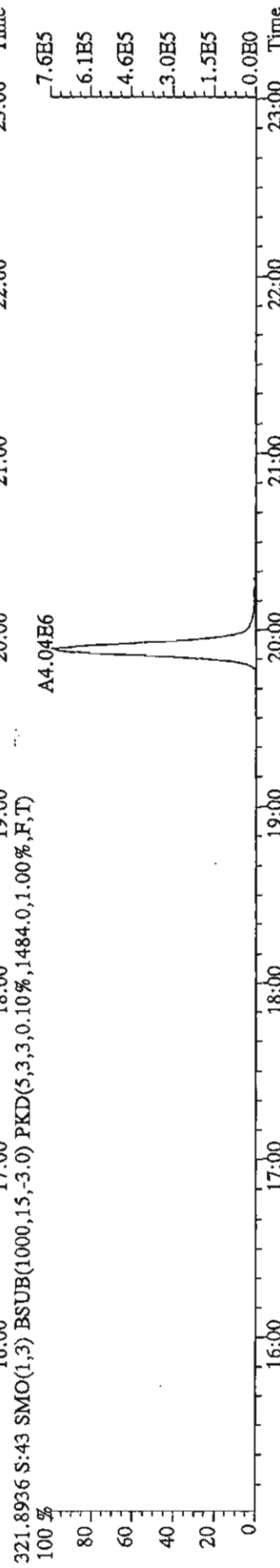
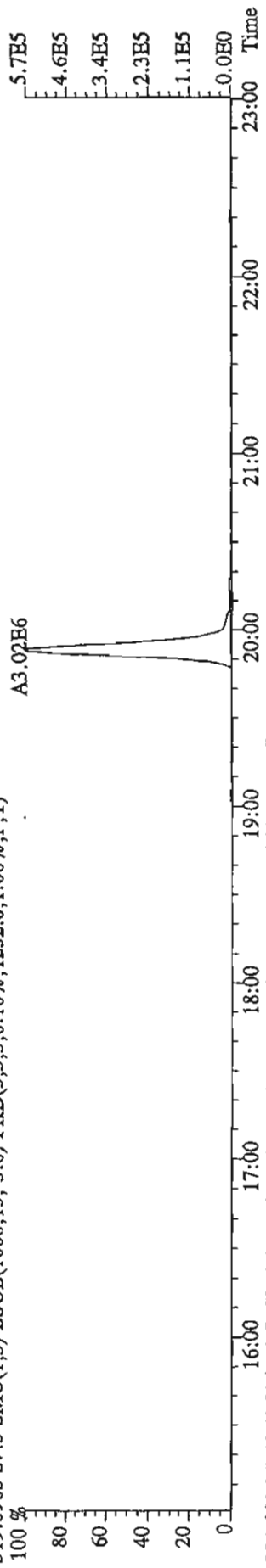


317.9389 S:43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4168.0,1.00%,F,T)

A4.97E7



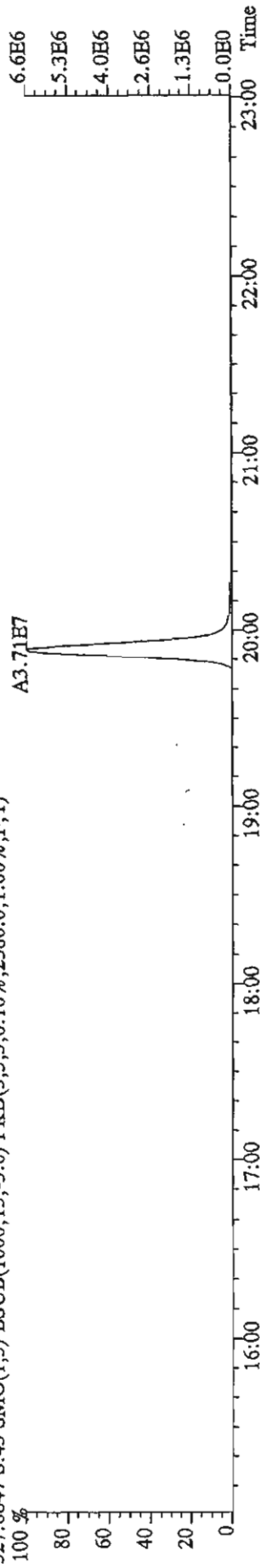
File: 24MR114D5 #1-530 Acq: 25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#43 Text: MF4TE-1-AC : G1C240000-190 (550-1LCS) Exp: DIOXINRES
 319.8965 S: 43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1252.0,1.00%,F,T)



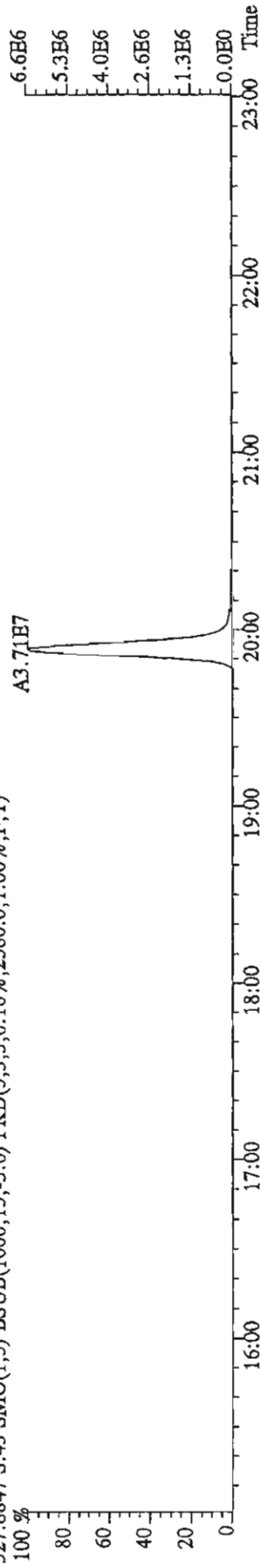
File:24MR114D5 #1-530 Acq:25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE

Sample#43 Text:MF4TE-1-AC :G1C240000-190 (550-1LCS) Exp:DIOXINRES

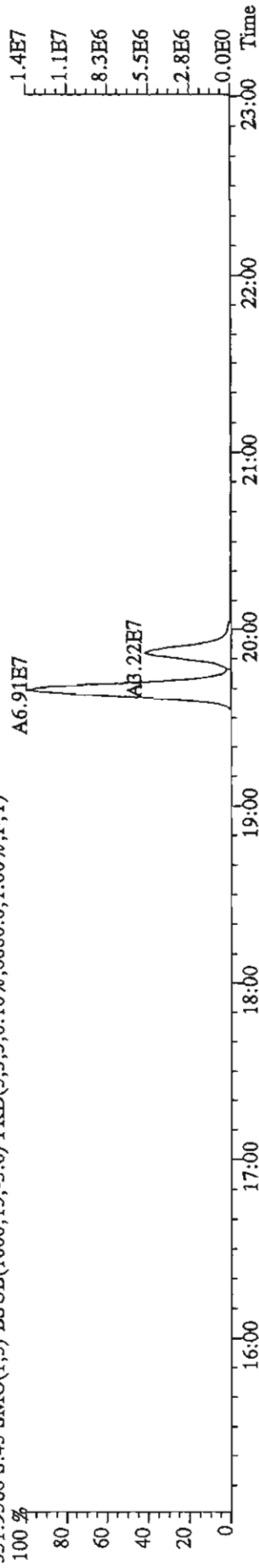
327.8847 S:43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2580.0,1.00%,F,T)



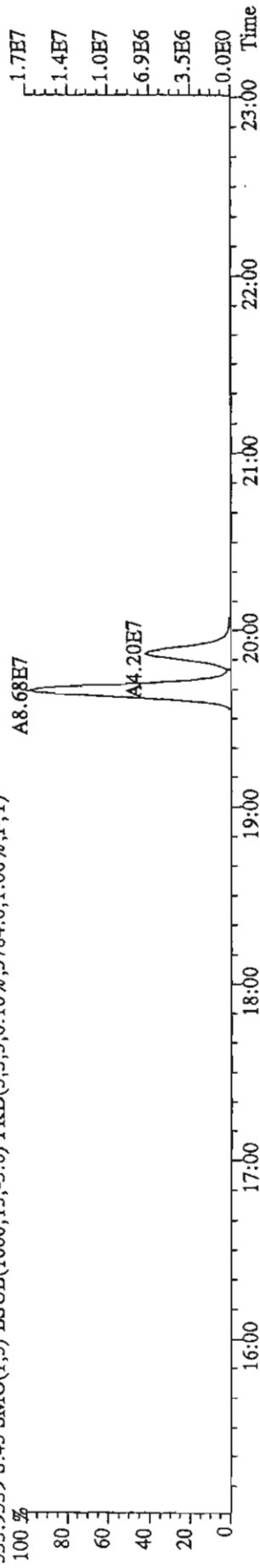
327.8847 S:43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2580.0,1.00%,F,T)



331.9368 S:43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8880.0,1.00%,F,T)

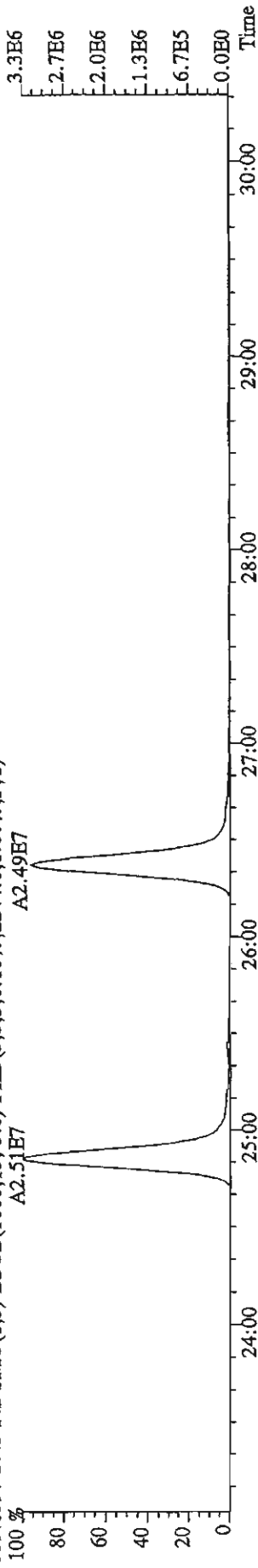


333.9339 S:43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3784.0,1.00%,F,T)

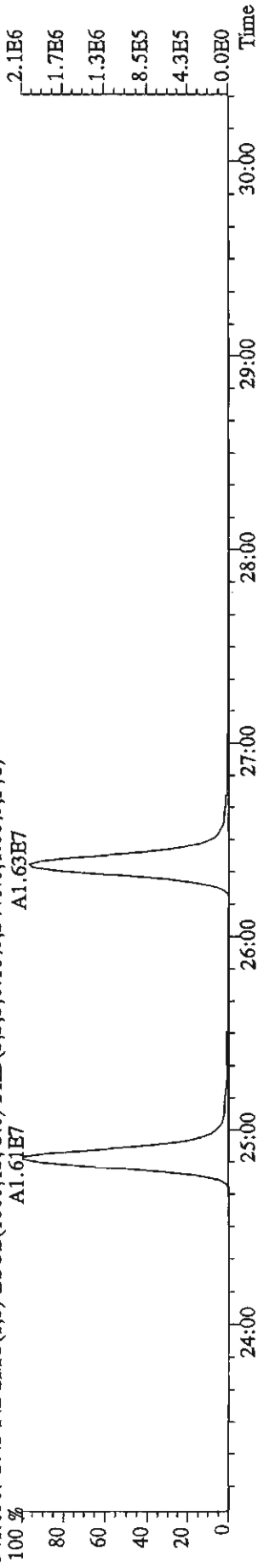


File:24MR114D5 #1-470 Acq:25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE

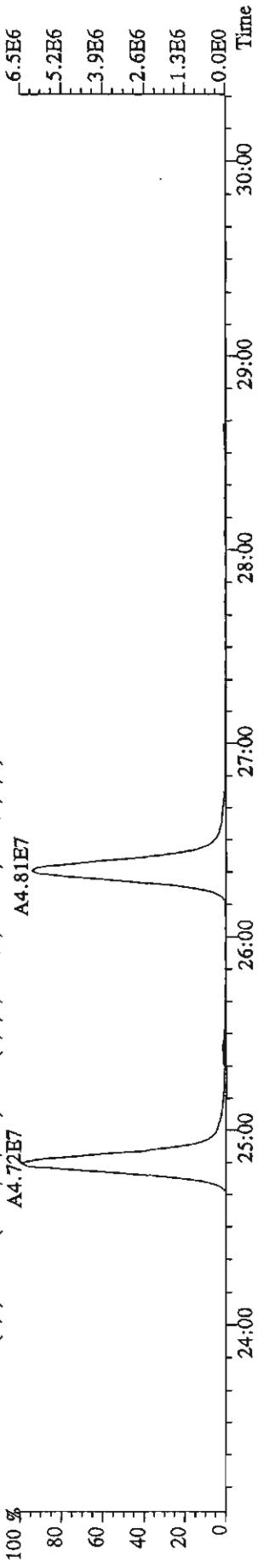
Sample#43 Text:MF4TE-1-AC :G1C240000-190 (550-1LCS) Exp:DIOXINRHS
339.8597 S:43 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2244.0,1.00%,F,T)



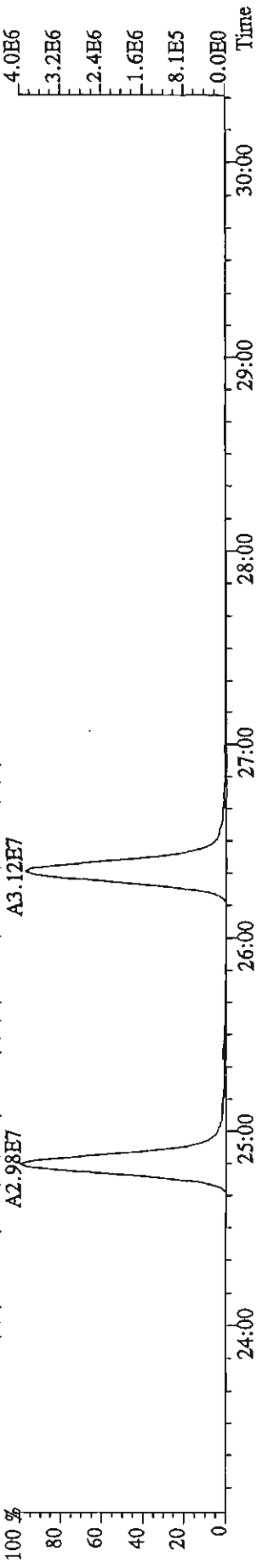
341.8567 S:43 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3440.0,1.00%,F,T)



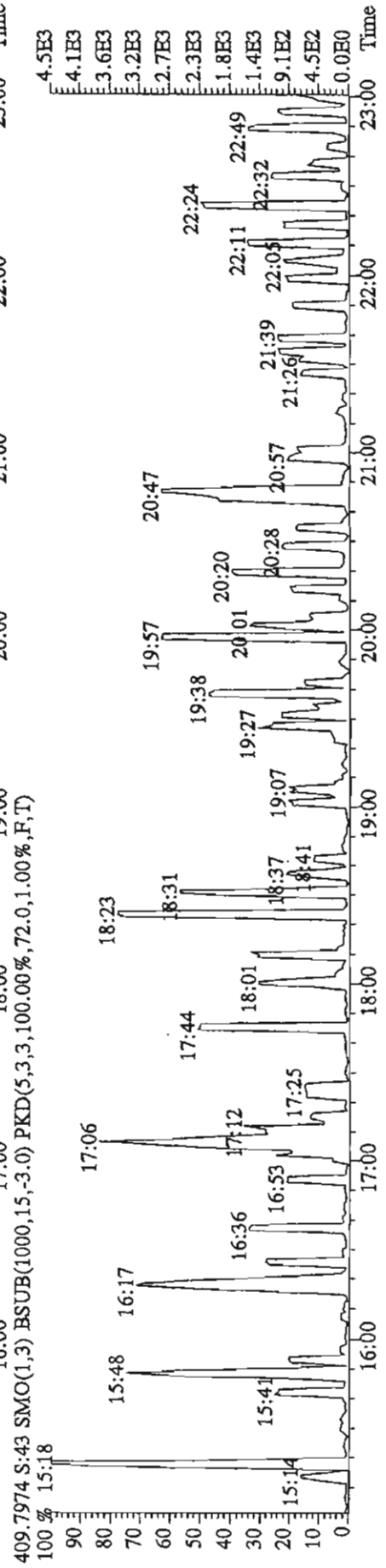
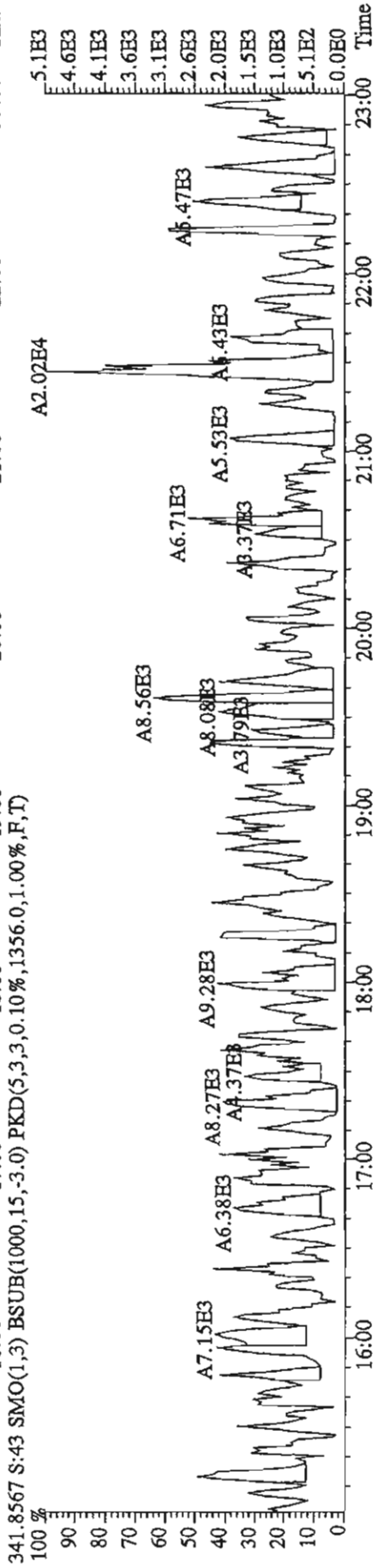
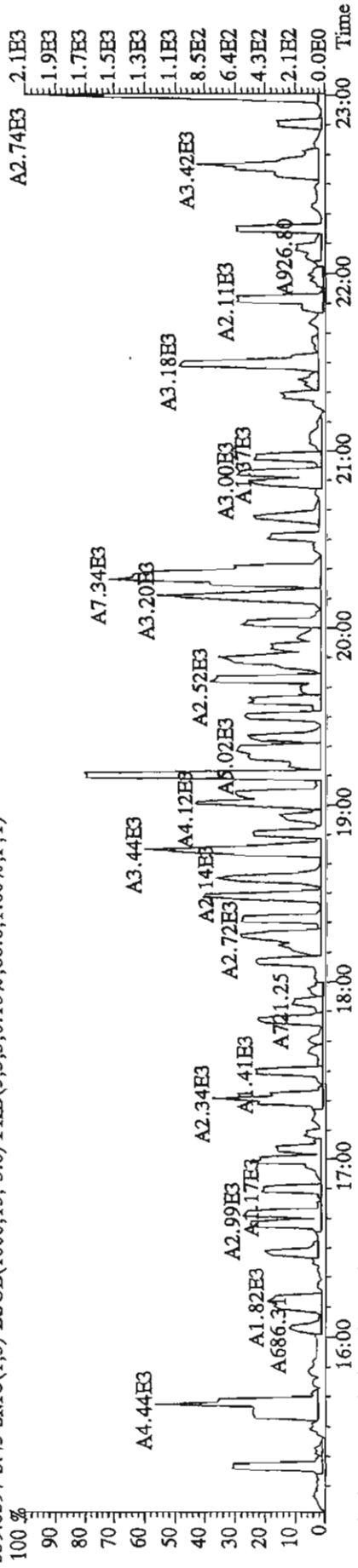
351.9000 S:43 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4180.0,1.00%,F,T)



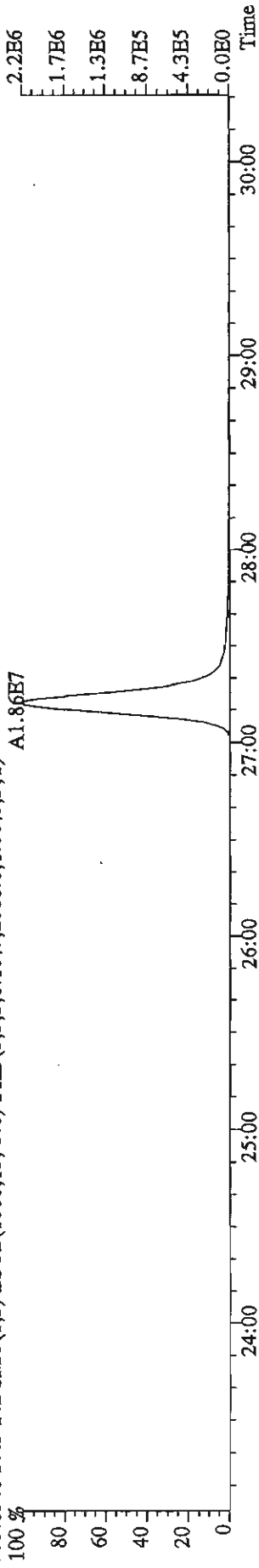
353.8970 S:43 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4796.0,1.00%,F,T)



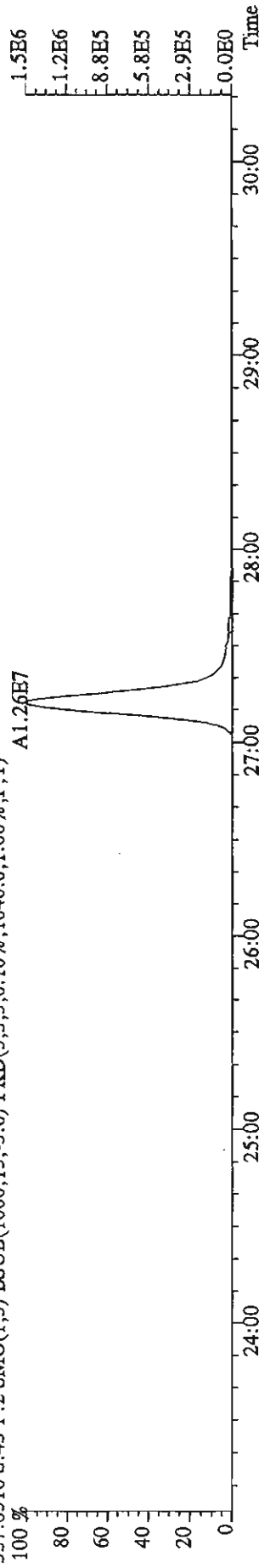
File:24MR114D5 #1-530 Acq:25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#43 Text:MF4TB-1-AC :G1C240000-190 (550-1LCS) Exp:DIOXINRES
 339.8597 S:43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,88.0,1.00%,F,T)



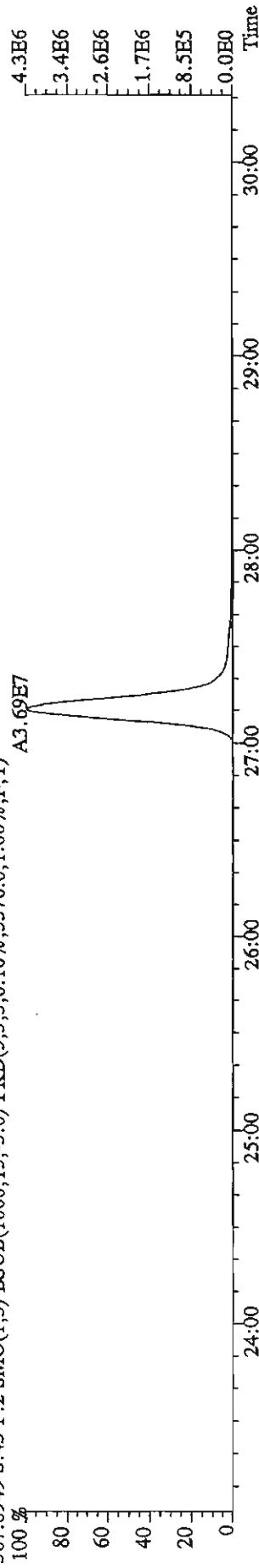
File: 24MR114D5 #1-470 Acq: 25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#43 Text: MF4TE-1-AC : G1C240000-190 (550-1LCS) Exp: DIOXINRES
355.8546 S: 43 F: 2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2068.0,1.00%,F,T)



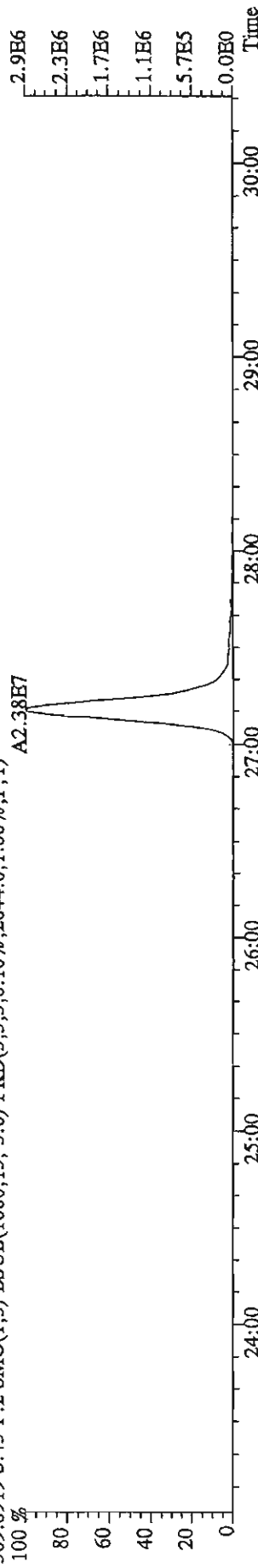
357.8516 S: 43 F: 2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1040.0,1.00%,F,T)



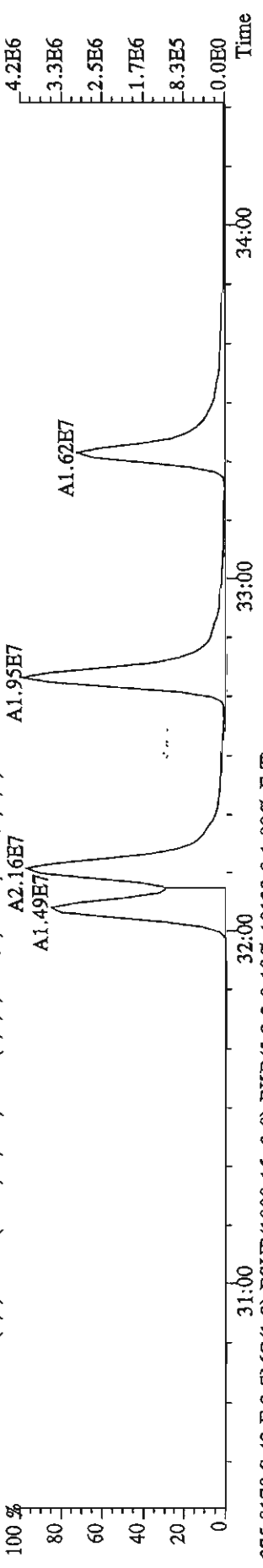
367.8949 S: 43 F: 2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3376.0,1.00%,F,T)



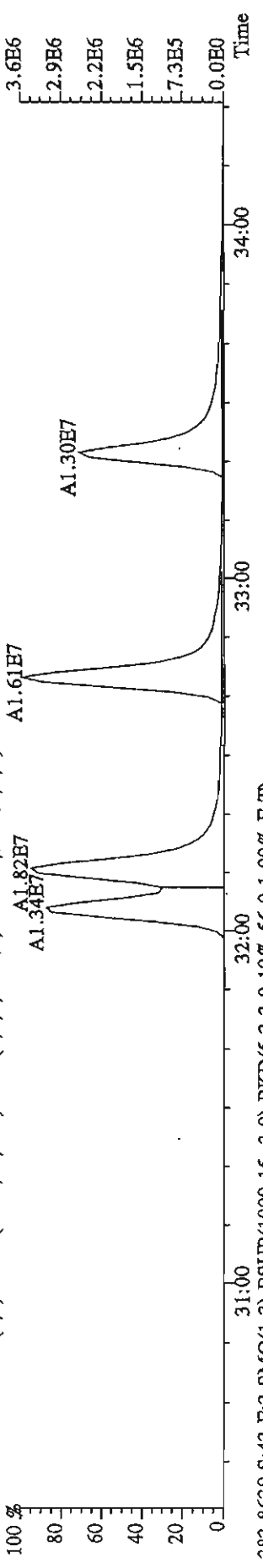
369.8919 S: 43 F: 2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2644.0,1.00%,F,T)



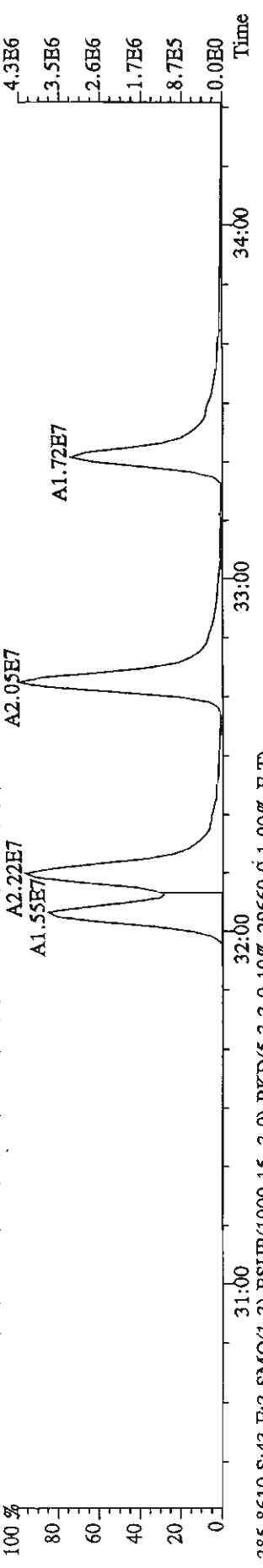
File:24MR114D5 #1-287 Acq:25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#43 Text:MF4TE-1-AC :G1C240000-190 (550-ILCS) Exp:DIOXINRES
375.8208 S:43 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,920.0,1.00%,F,T)



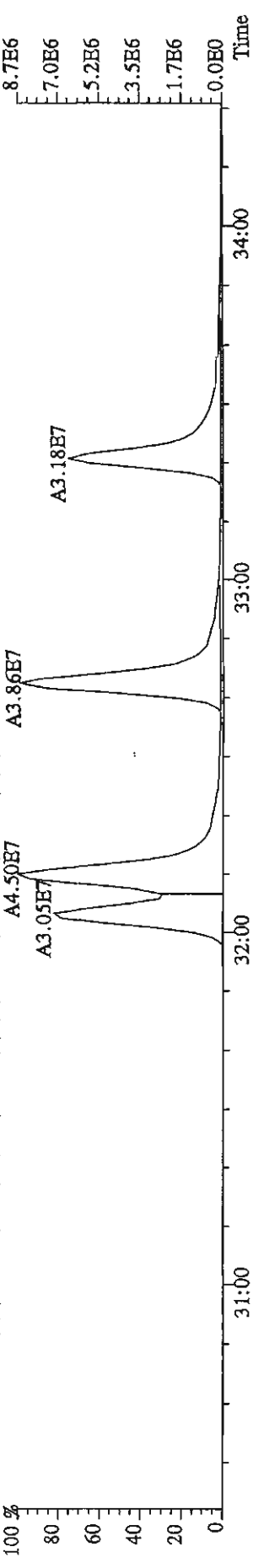
375.8178 S:43 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,10132.0,1.00%,F,T)



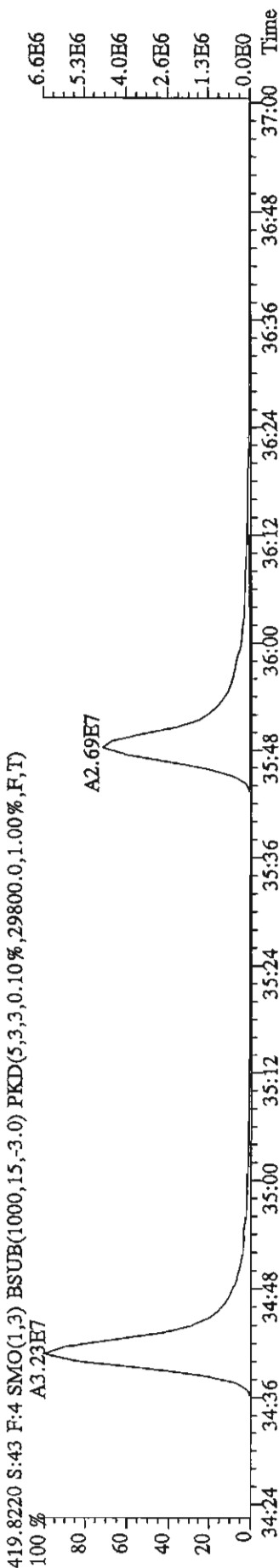
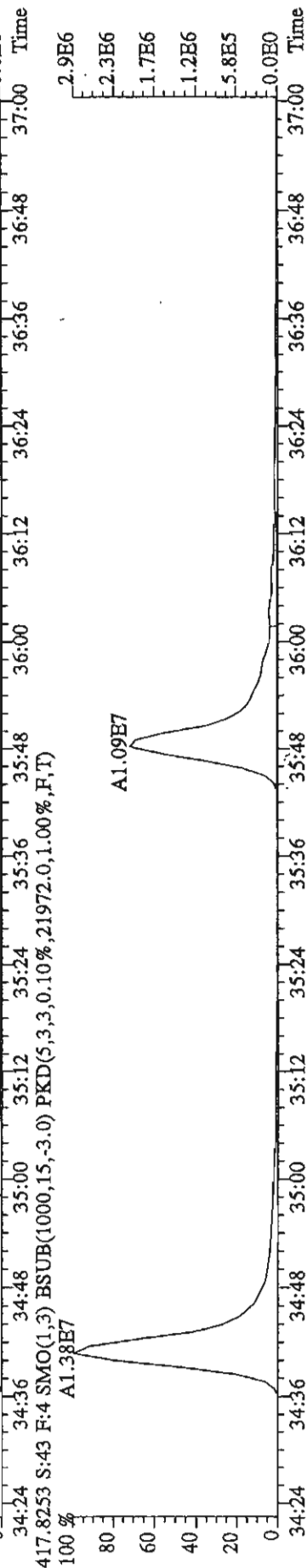
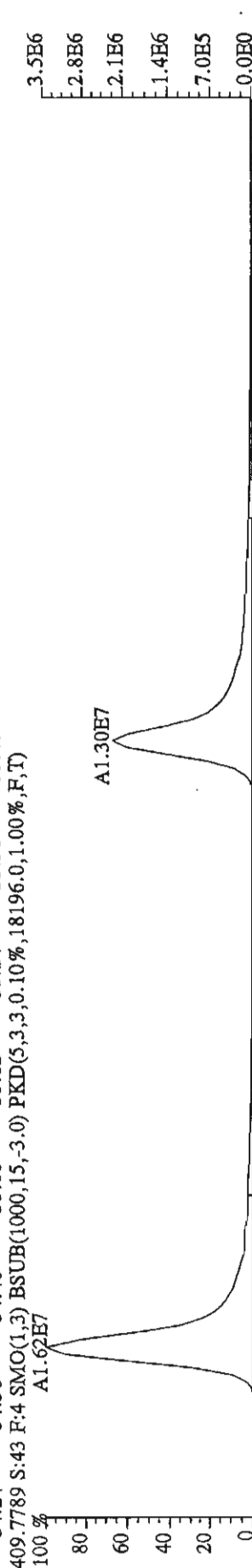
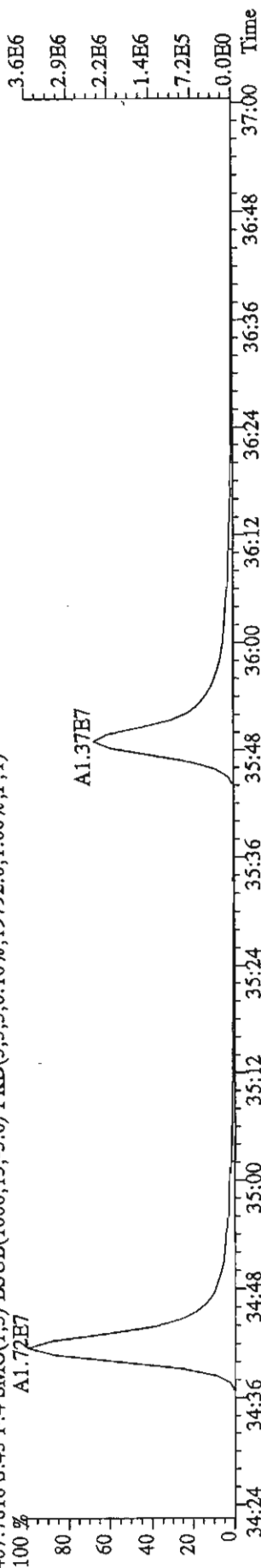
383.8639 S:43 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,56.0,1.00%,F,T)



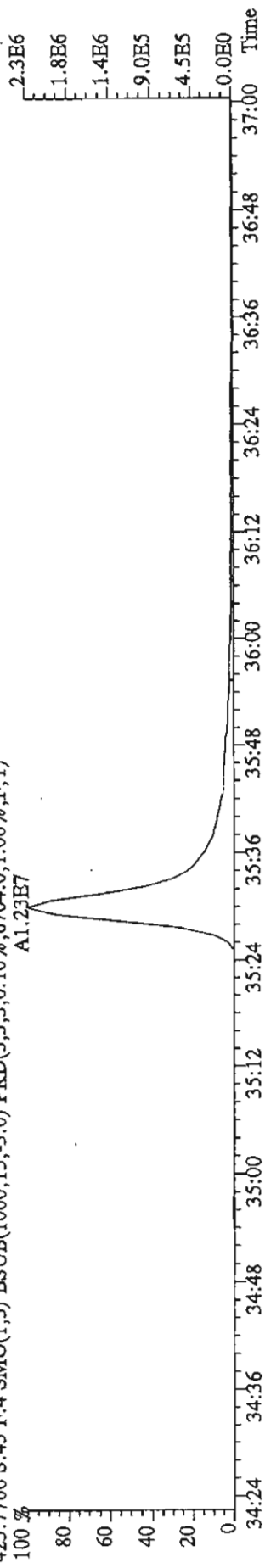
385.8610 S:43 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,29660.0,1.00%,F,T)



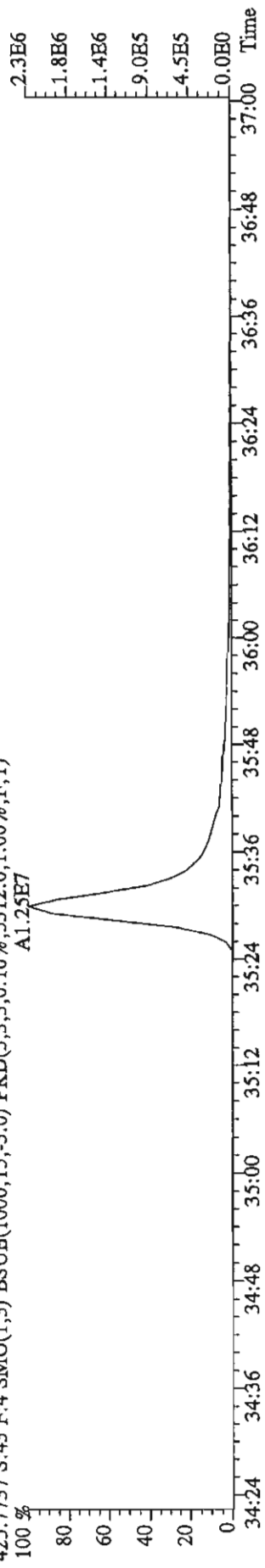
File:24MR114D5 #1-200 Acq:25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#43 Text:ME4TE-1-AC :G1C240000-190 (550-1LCS) Exp:DIOXINRES
 407.7818 S:43 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,19792.0,1.00%,F,T)



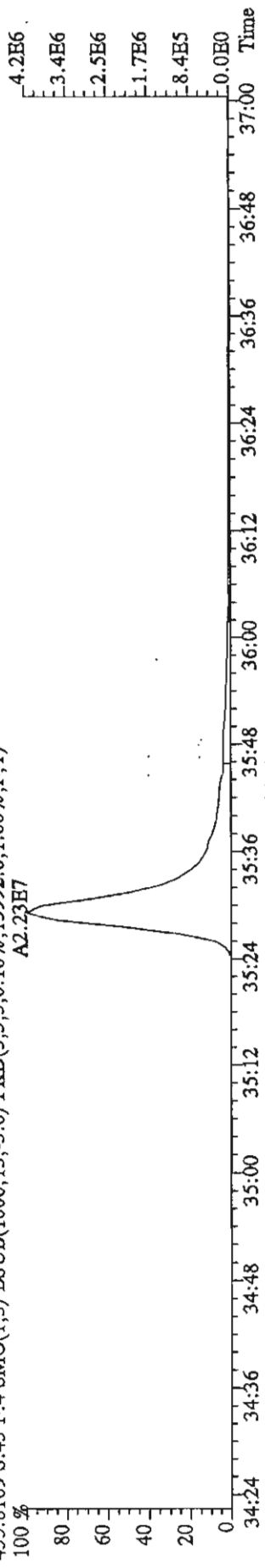
File: 24MR114D5 #1-200 Acq: 25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#43 Text: MF4TE-1-AC : G1C240000-190 (550-1LCS) Exp: DIOXINRES
 423.7766 S: 43 F: 4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,6704,0,1.00%,F,T)
 A1.23E7



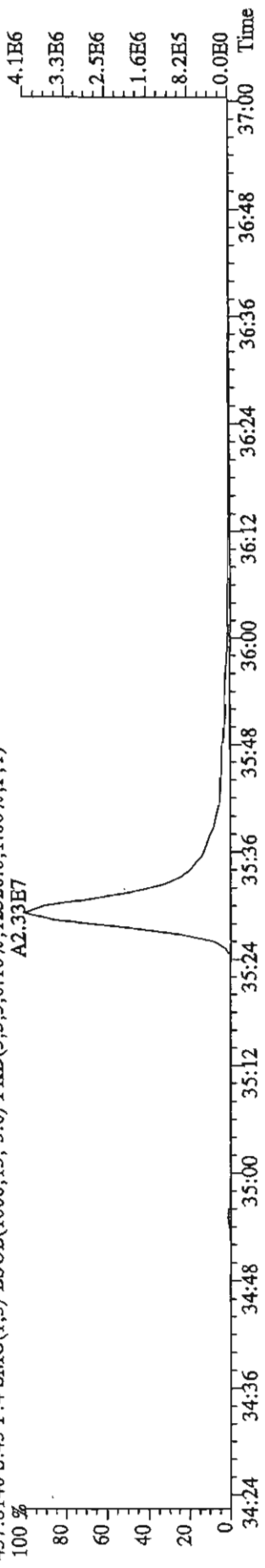
425.7737 S: 43 F: 4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,5312,0,1.00%,F,T)
 A1.25E7



435.8169 S: 43 F: 4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,13992,0,1.00%,F,T)
 A2.23E7



437.8140 S: 43 F: 4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0,10%,12320,0,1.00%,F,T)
 A2.33E7

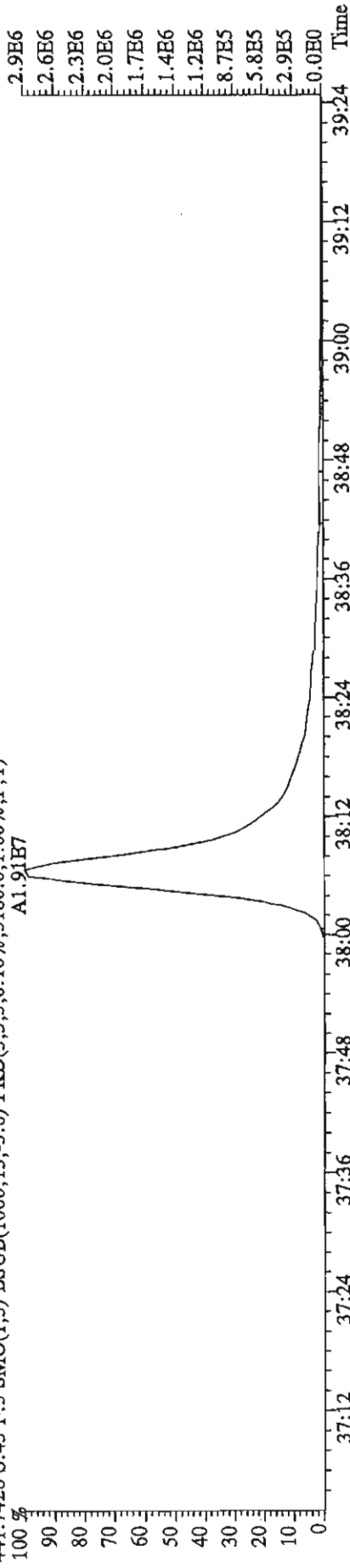


File: 24MR114D5 #1-193 Acq: 25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaB

Sample#43 Text: ME4TE-1-AC :G1C240000-190 (550-1LCS) Exp: DIOXINRES

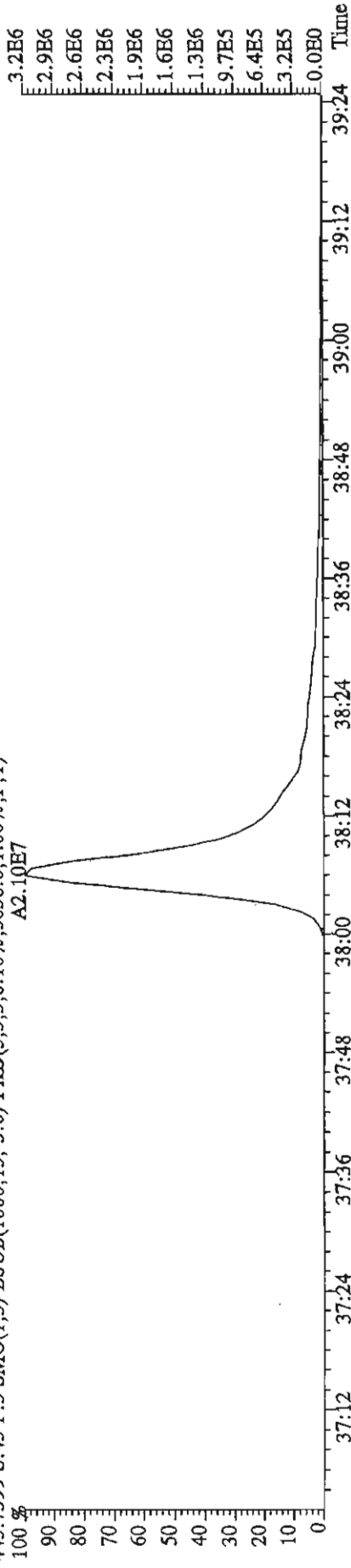
441.7428 S: 43 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5180.0,1.00%,F,T)

A1.91E7

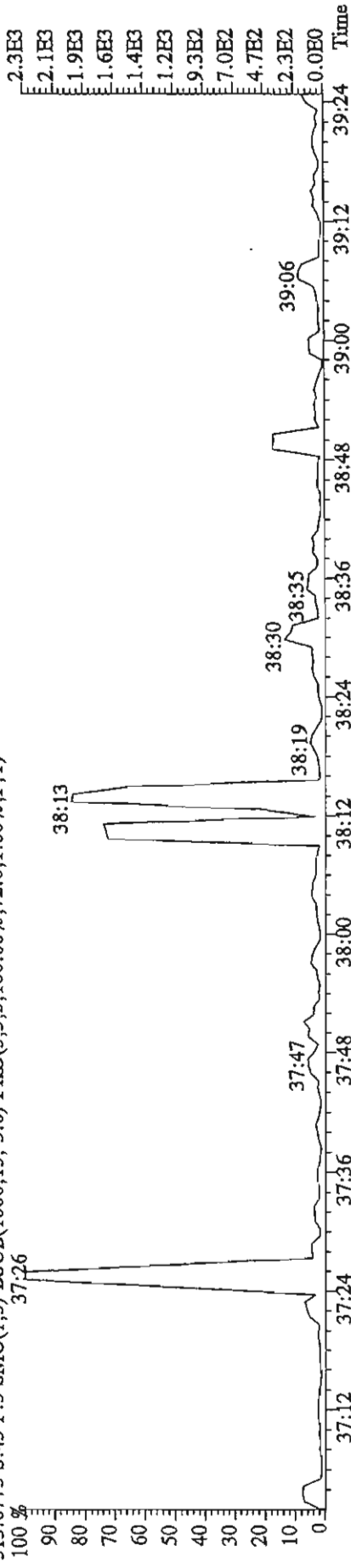


443.7399 S: 43 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5836.0,1.00%,F,T)

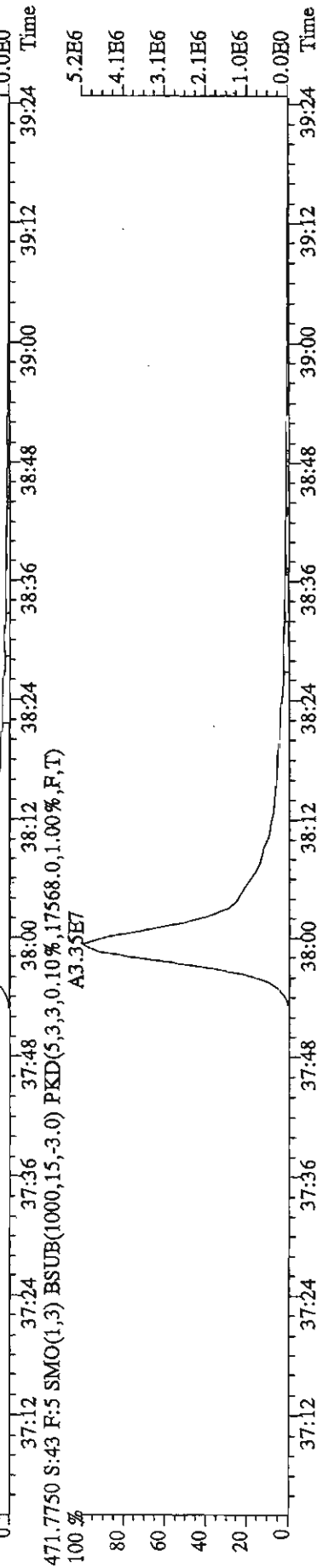
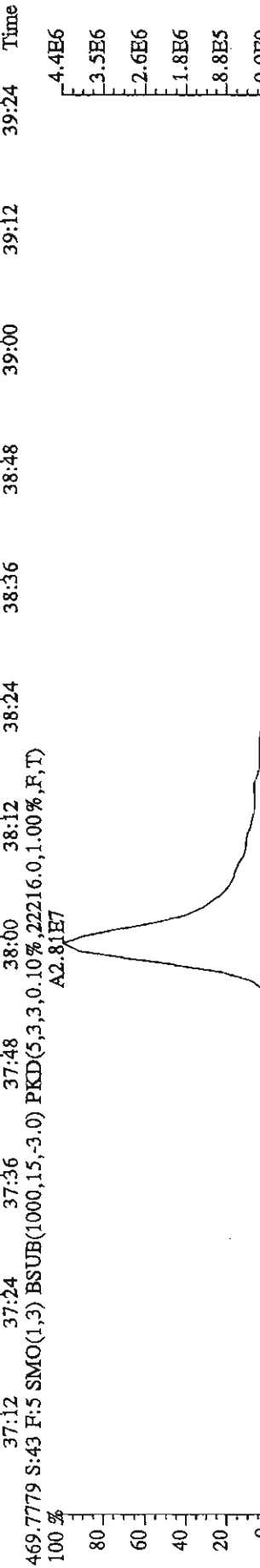
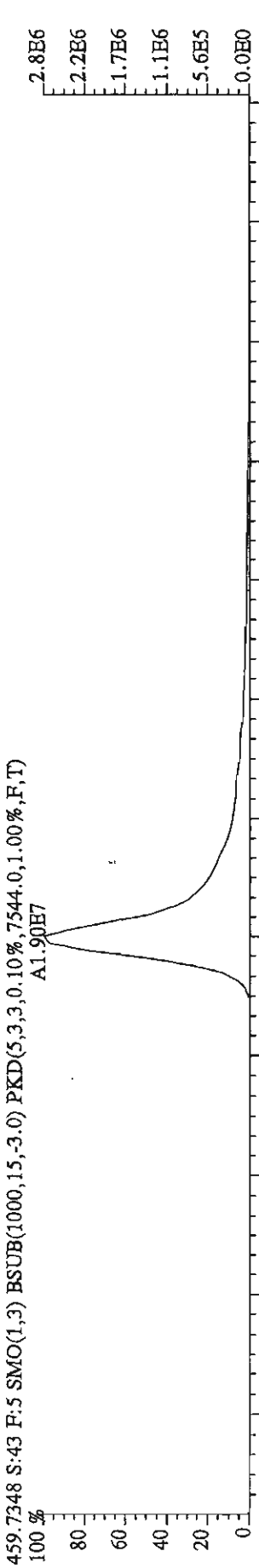
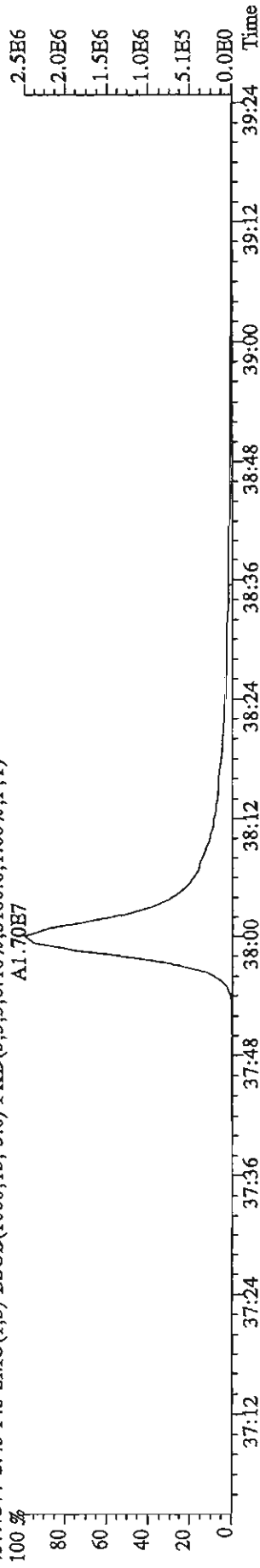
A2.10E7



513.6775 S: 43 F: 5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,5,100.00%,72.0,1.00%,F,T)



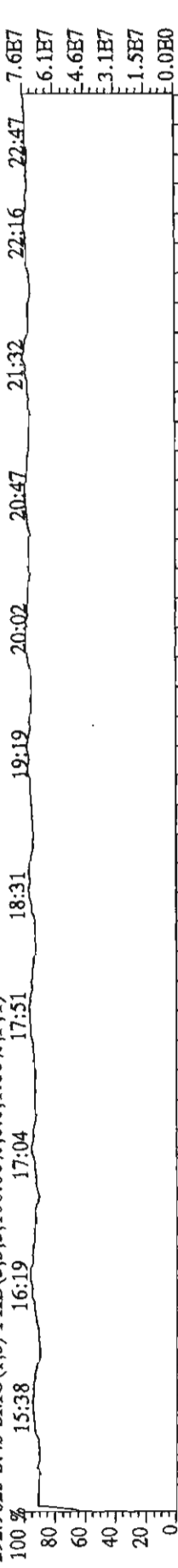
File:24MR114D5 #1-193 Acq:25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#43 Text:MF4TE-1-AC :GIC240000-190 (550-11CS) Exp:DIOXINRES
 457.7377 S:43 F:5 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0,10%,5180.0,1.00%,F,T)
 A1.70E7



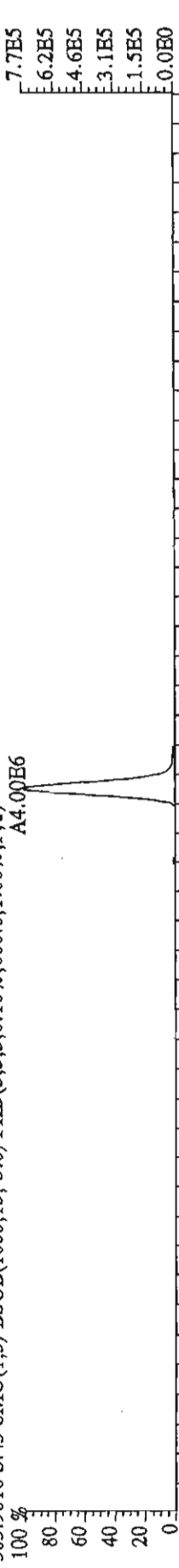
File:24MR114D5 #1-530 Acq:25-MAR-2011 17:33:01 GC HI+ Voltage SIR Autospec-UltimaE

Sample#43 Text:MP4TE-1-AC :GIC240000-190 (550-ILCS) Exp:DIOXINRES

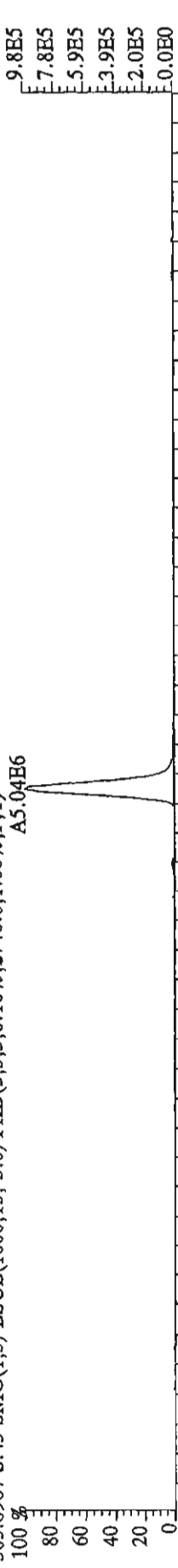
292.9825 S:43 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



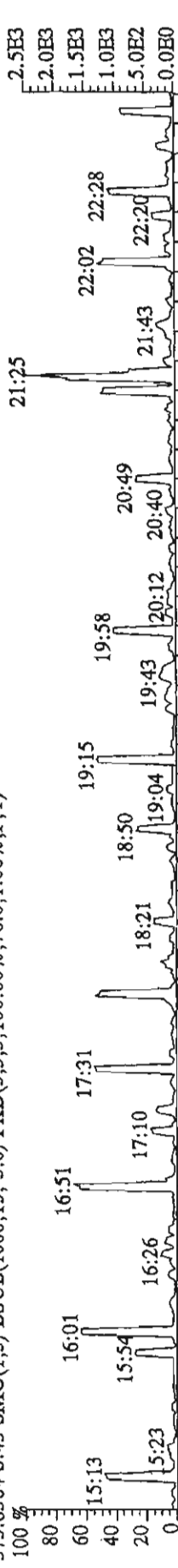
303.9016 S:43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,600.0,1.00%,F,T)



305.8987 S:43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2740.0,1.00%,F,T)



375.8364 S:43 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,76.0,1.00%,F,T)

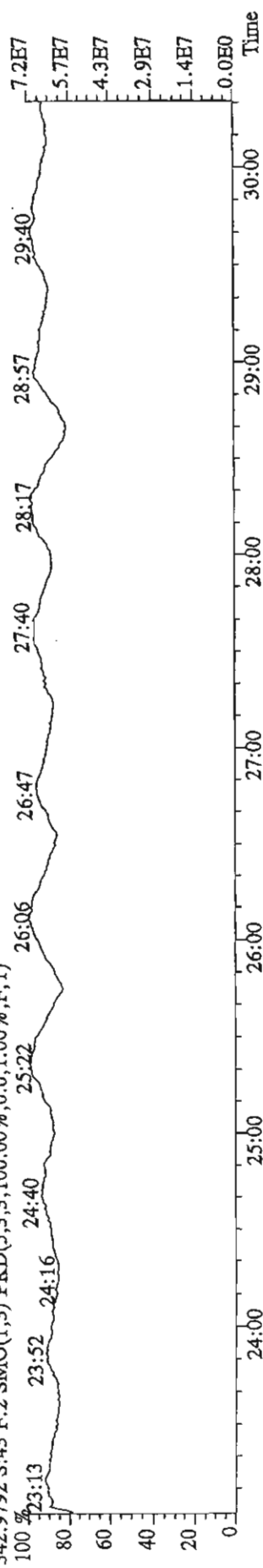


330.9792 S:43 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)

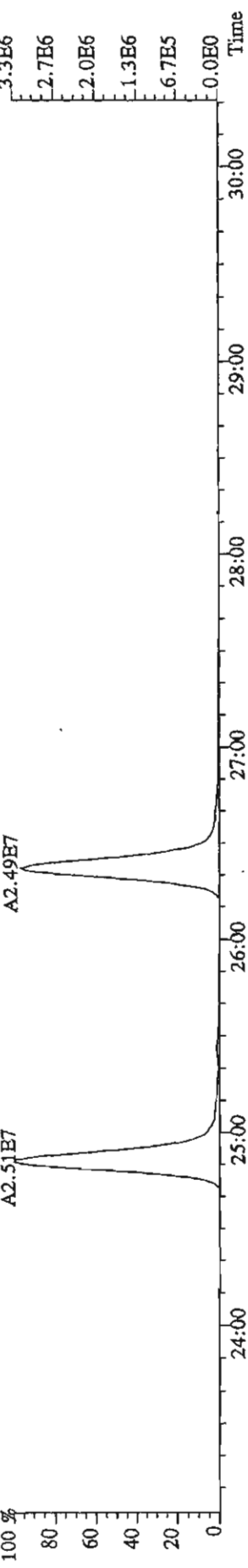


File:24MR114D5 #1-470 Acq:25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#43 Text:MF4TE-1-AC :G1C240000-190 (530-ILCS) Exp:DIOXINRES

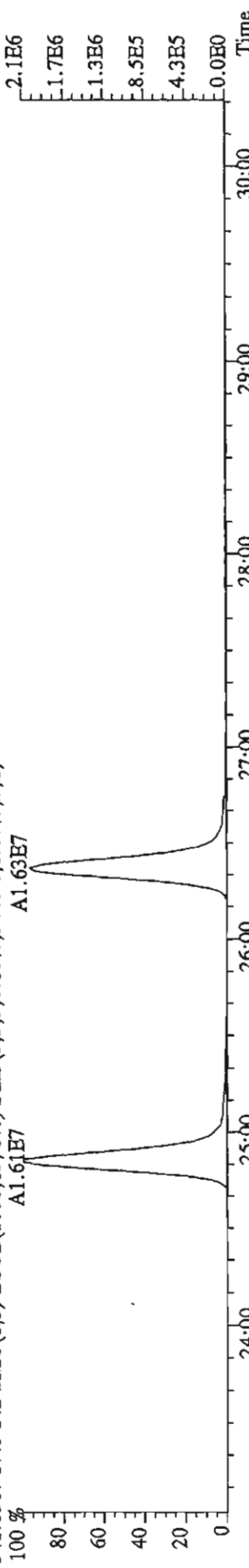
342.9792 S:43 F:2 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



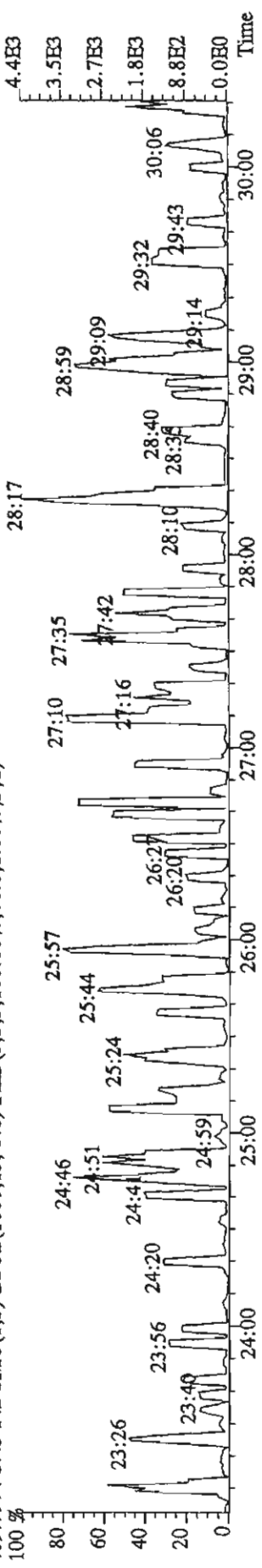
339.8597 S:43 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,2244.0,1.00%,F,T)



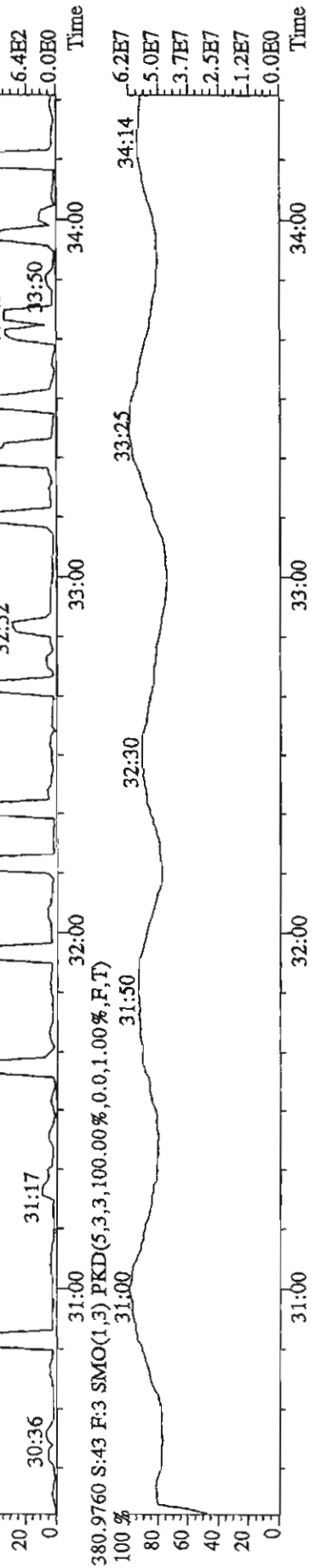
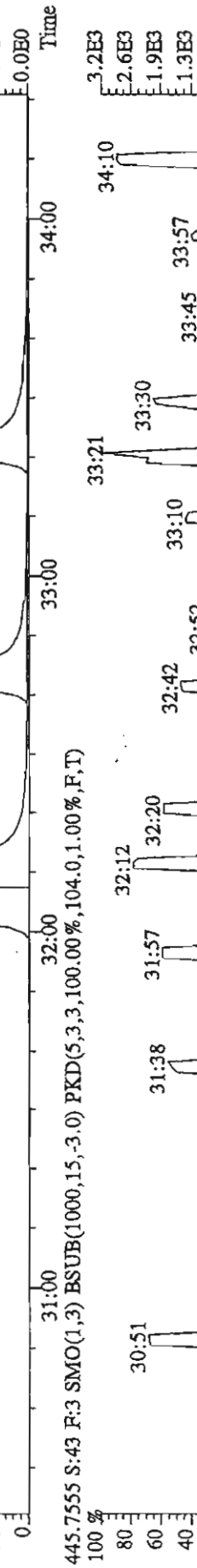
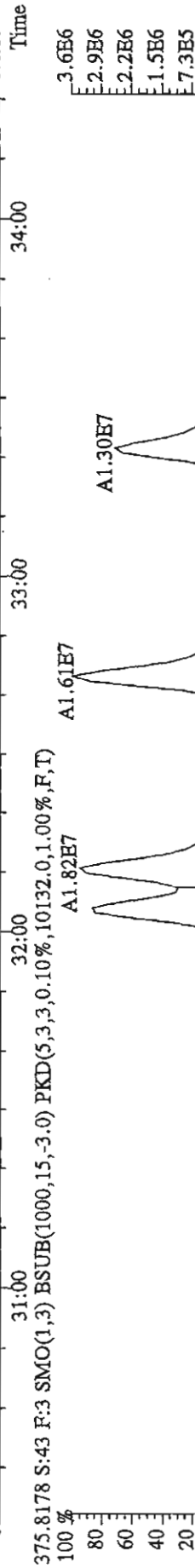
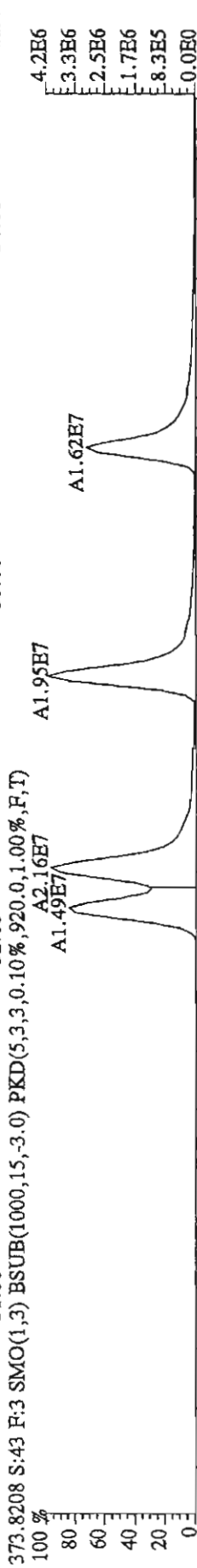
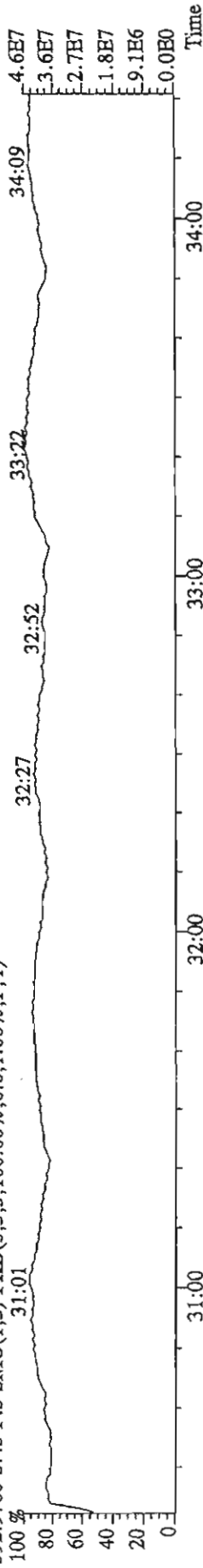
341.8567 S:43 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,0.10%,3440.0,1.00%,F,T)



409.7974 S:43 F:2 SMO(1,3) BSUB(1000,15,-3,0) PKD(5,3,3,100.00%,76.0,1.00%,F,T)



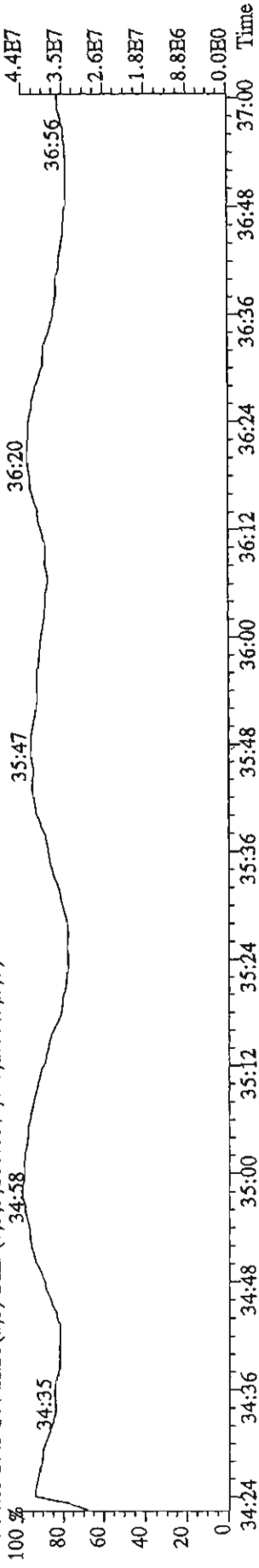
File: 24MR114D5 #1-287 Acq: 25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#43 Text: MF4TE-1-AC :G1C240000-190 (550-1LCS) Exp: DIOXINRES
 392.9760 S:43 F:3 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



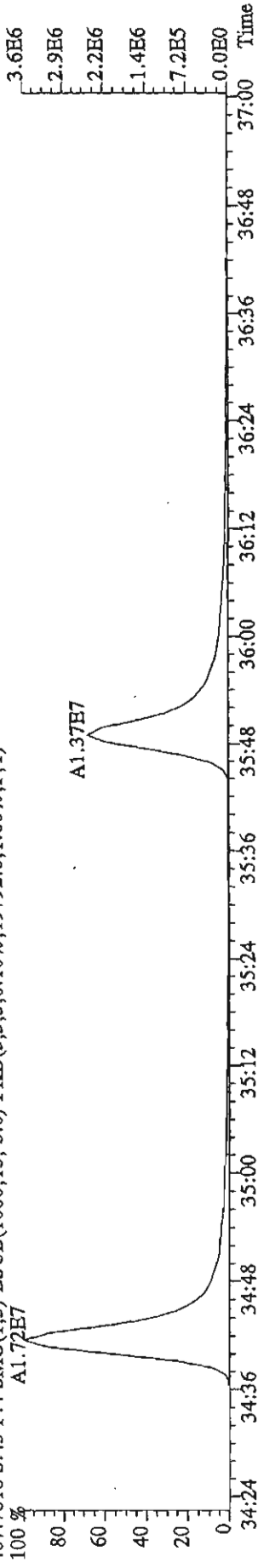
File: 24MR114D5 #1-200 Acq: 25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaB

Sample#43 Text: MF4TB-1-AC : G1C240000-190 (550-ILCS) Exp: DIOXINRES

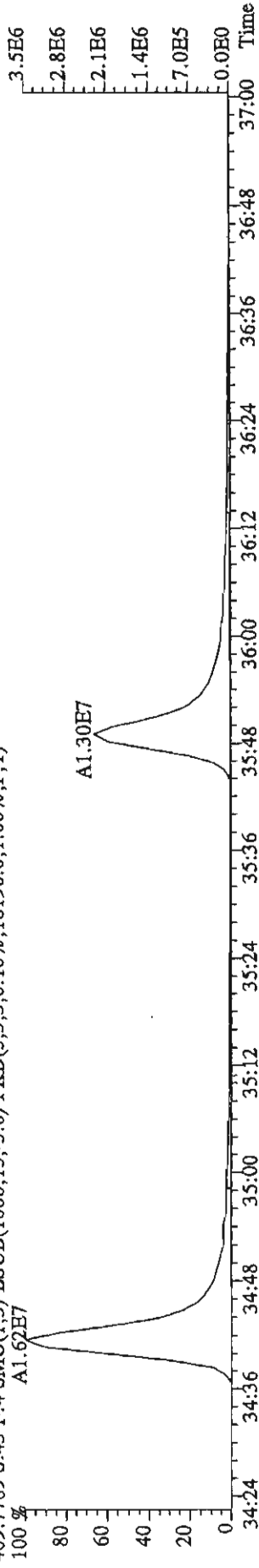
430.9728 S: 43 F: 4 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



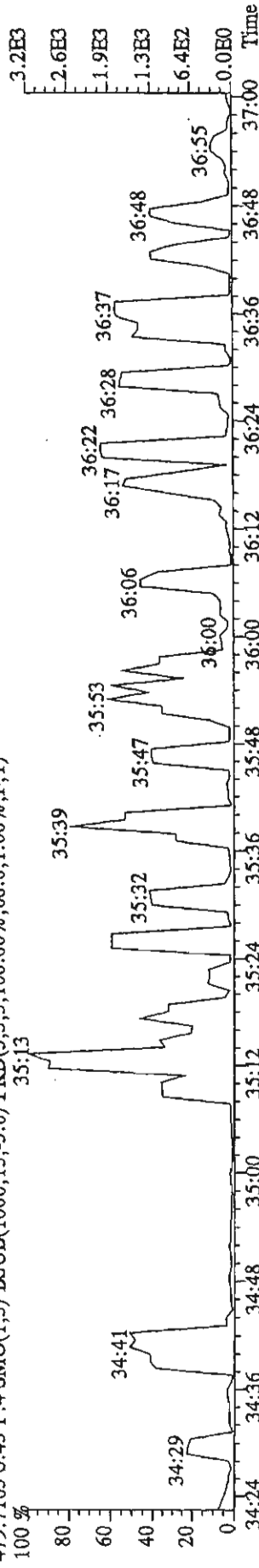
407.7818 S: 43 F: 4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,19792.0,1.00%,F,T)



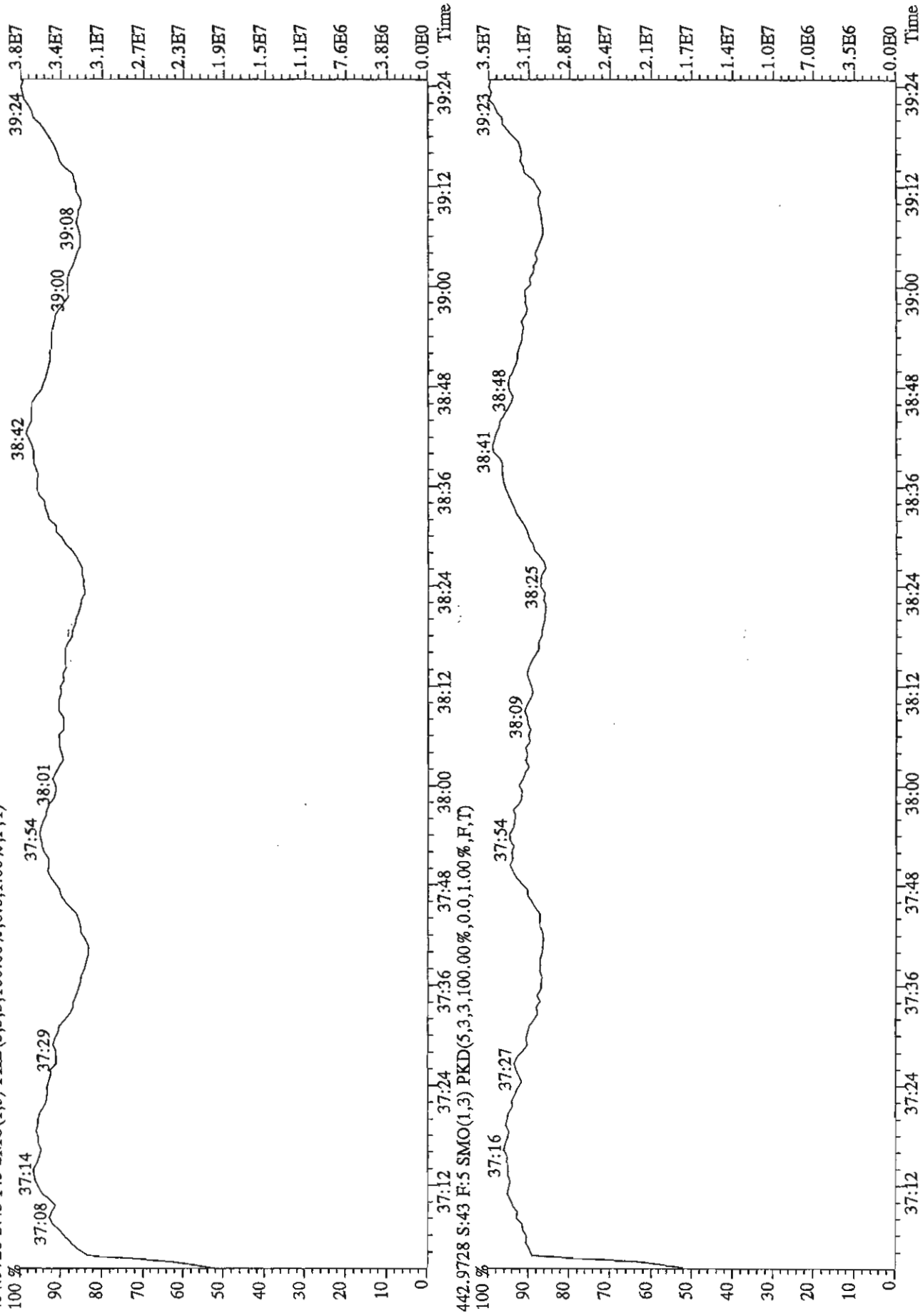
409.7789 S: 43 F: 4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,18196.0,1.00%,F,T)



479.7165 S: 43 F: 4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,68.0,1.00%,F,T)



File: 24MR114D5 #1-193 Acq: 25-MAR-2011 17:33:01 GC EI+ Voltage SIR Autospec-UltimaE
 Sample#43 Text: MF4TE-1-AC : G1C240000-190 (550-1LCS) Exp: DIOXINRES
 454.9728 S: 43 F: 5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



Sample Extraction/Preparation Log
Copies and Checklists

**Data Checklist
HRGCMS/LRGCMS Analyses**

Batch #: 1083190 Method ID: Dioxins/Furans, HRGC/HRMS (1613B)

Data Analyst: MC **DB-5**
 Date initiated: 5/29/11
 Reviewer: M. J. [unclear]
 Date reviewed: 3/29/2011

DB-225
NA
↓

QA/QC verification:

	<u>Initiated</u> DB-5	<u>Reviewed</u> DB-5	<u>Initiated</u> DB-225 (High Res Only)	<u>Reviewed</u> DB-225 (High Res Only)
-Daily standard package(s) present?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>NA</u>	
-Method Blank present?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-LCS/DCS copy present and meets native recovery criteria?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-Internal standard recoveries within limits?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-Ion ratios within + 15% of theoretical values?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-Other QC (Dup,MS,SD) within specs?*	<u>NA</u>	<u>NA</u>		

Sample Analysis:

	<u>Initiated</u> DB-5	<u>Reviewed</u> DB-5	<u>Initiated</u> DB-225 (High Res Only)	<u>Reviewed</u> DB-225 (High Res Only)
-Correct sample aliquot used?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-All raw data present?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-Standard target DL's used? If RL's are used specify: _____	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-DL's below TDL / LCL (please circle)?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-All positives reported at levels greater than method blank DL's?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-Correct RRF's used for method?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-Internal standard amounts correct for method?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-Target analytes are not saturated?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-Dilution/splitting of extract taken into account?	<u>NA</u>	<u>NA</u>		
-Have dilution calculations been verified?	<u>NA</u>	<u>NA</u>		
-Has a manual calculation for the sequence(s) been verified?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-Are retention times (RT) correct?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
-Manual integrations checked?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

Comments: (Use other side if necessary)

* Recovery limits:

NCASI 551:	40-120%***
Method 8290:	40-135%***
Method 1613:	25-150%***
Method 23:	40-130%*** (Cl4-Cl6), 25-130%(Cl7-8), 70-130%(surr.)
PCBs:	25-150%***
Method 8280:	40-120%***
DFLM01.0:	25-150%***
Method 1614	25-150%***

**RPD limits:

50%
20%
50%
50%
50%

*** Lower recoveries are acceptable if I.S. S/N ≥10:1 and DL's are <LCL for target analytes.

**TestAmerica West Sacramento
High Resolution Prep Log
Dioxin/Furan WW Extraction**

Batch: 1083190
MS Run #: _____
Prep Date: 3/24/2011

Internal COC:	
Delivered to Inst.:	3/25/11
Inst Receipt:	

Box # 30

Method: F8 1613B
Matrix: 1 WATER
Extraction: DB EXTRACTION: Soxhlet and Sep Funnel
QC: 01 STANDARD TEST SET
SAC: F8 - 1 - DB - 01
Soxhlet time on: 1400
Soxhlet time off: 1800

Shared QC Batch: SAME
Shares QC With: 1083190
1083251

Prep Reagents		
Reagent	Supplier	Lot #
DCM	Baker	545581
Toluene	Baker	142 N161
Hexane	Baker	141E31
H2SO4	Baker	NA
20% DCM:Hexane	NA	13090-97D
65% DCM:Hexane	NA	3030-98F
1:1 DCM:Cyclohexane	NA	NA
75:20:5	NA	NA
DCM:Hexane:Benzene	NA	NA
Silica Gel	Machida	4022-16E
Acid Alumina	NA	NA
5% Carbon:Silica Gel	NA	NA

Extraction Table

Sample ID	Suff	Work Order	Extraction Hold Time Expires	Sample size	Bottle + Sample Weight	Empty Bottle Weight	Final Volume		Analysis Hold Time Expires	Sox Ext ID	AQ Ext ID	RB ID	Rotovap ID
							20uL	Other					
G1C230550 - 1		MF3K81AA	3/20/2012	1022.14	1515.7	492.56	✓		3/23/2012	C3 NA	NA	NA	6
G1C2305563 - 1		MF3NN1AA	3/20/2012	1033.34	1529.4	496.06	✓		3/23/2012	C4 8U	NA	NA	3
G1C2305570 - 1		MF3PT1AA	3/19/2012	1031.91	1527.2	495.29	✓		3/23/2012	C5 95	NA	NA	7
G1C2305575 - 1		MF3QW1AA	3/19/2012	1031.73	1526.5	494.99	✓		3/23/2012	C6 14	NA	NA	9
G1C2305577 - 1		MF3RB1AA	3/19/2012	1036.26	1527.4	491.10	✓		3/23/2012	D1 38	NA	NA	7
G1C2305588 - 1		MF30H1AA	3/19/2012	1035.48	1534.2	498.72	✓	8/25/11	3/23/2012	D2 18	NA	17	7
G1C2305589 - 1		MF30J1AA	3/19/2012	1079.37	1570.5	491.18	✓		3/23/2012	D3 10	NA	NA	6
G1C240000 - 190	B	MF4TE1AA	3/20/2012	1000.0	NA	NA	✓		3/23/2012	C139	NA	15	3
G1C240000 - 190	C	MF4TE1AC	3/20/2012	1000.0	NA	NA	✓		3/23/2012	C239	NA	11	7

* See attached sheet for sample volumes recorded from scale

Comments/NCMs:

	ID	Spike Exp. Date:	Spiked By:	Witnessed By:	Date:
Internal Standard All Samples	M/11DAN060	3/12/12	BF	CFR	3/24/11
Spike Mix LCS/LCSD/MS/MS	SD/LCSDAN587	11/24/11	BF	CFR	3/24/11
Cleanup Standard All Samples	1.0ml 11DAN061	7/19/11	J	T.L.	3/25/11
Recovery Standard All Samples	20 μl 10DAN508	9/2/11	J	CFR	3/25/11

	Liq Extraction Analyst/Date	Soxhlet Extraction Analyst/Date	IFB Analyst/Date	D2 Analyst/Date
	BF 3/24/11	BF 3/24/11	BF 3/24/11	—

	Split/Archive Analyst/Date	Option C Analyst/Date
	—	—

	Analyst/Date
	3/25/11

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 3/25/11
Time: 12:08:30

LEV	LEV
1	2
Y	Y
Y	Y
-	-

Blank
Check
MS/MSD

Weights/Volumes
Spike & Surrogate Worksheet
Vial contains correct volume
Labels, greenbars, worksheets
computer batch: correct & all match
Anomalies to Extraction Method

Expanded Deliverable
COC Completed
Bench Sheet Copied
Package Submitted to AnalyticalGroup
Bench Sheet Copied per COC

Extractionist: 403613 Brent Ginn

PREP DATE: 3/24/11 9:00
COMP DATE: 3/25/11 15:00

Concentrationist: 006625 Elizabeth Nguyen

* QC BATCH: 1083190 *
* *****

Reviewer/Date: NGUYENE / 3/25/11

Dioxins/Furans, HRGC/HRMS (1613B)
EXTRACTION: Soxhlet and Sep Funnel

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/PIN WT/VOL	PH'S ADJ1	ADJ2	EXTRACTION VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
3/20/12	3/28/11	G1C230550-001 MF3K8-1-AA	DR	DB	F8	WATER	1022.14mL 20.00uL	NA	NA	DCM/TOL	300.0 C-14	20.0	1.0ML IS11DXN060
COMMENTS:													
3/20/12	3/28/11	G1C230563-001 MF3NN-1-AA	DR	DB	F8	WATER	1033.34mL 20.00uL	NA	NA	DCM/TOL	300.0 C-14	20.0	1.0ML IS11DXN060
COMMENTS:													
3/19/12	3/28/11	G1C230570-001 MF3PT-1-AA	DR	DB	F8	WATER	1031.91mL 20.00uL	NA	NA	DCM/TOL	300.0 C-14	20.0	1.0ML IS11DXN060
COMMENTS:													
3/19/12	3/28/11	G1C230575-001 MF3QW-1-AA	DR	DB	F8	WATER	1031.73mL 20.00uL	NA	NA	DCM/TOL	300.0 C-14	20.0	1.0ML IS11DXN060
COMMENTS:													
3/19/12	3/28/11	G1C230577-001 MF3R8-1-AA	DR	DB	F8	WATER	1036.26mL 20.00uL	NA	NA	DCM/TOL	300.0 C-14	20.0	1.0ML IS11DXN060
COMMENTS:													
3/19/12	3/28/11	G1C230588-001 MF30H-1-AA	DR	DB	F8	WATER	1035.48mL 20.00uL	NA	NA	DCM/TOL	300.0 C-14	20.0	1.0ML IS11DXN060
COMMENTS:													
3/19/12	3/28/11	G1C230589-001 MF30J-1-AA	DR	DB	F8	WATER	1029.32mL 20.00uL	NA	NA	DCM/TOL	300.0 C-14	20.0	1.0ML IS11DXN060
COMMENTS:													

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 3/25/11
Time: 12:08:30

* QC BATCH: 1083190 *
* PREP DATE: 3/24/11 9:00
* COMP DATE: 3/25/11 15:00

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT MTH	MATRIX	INIT/FIN WT/VOL	PH'S ADJ1	INIT	ADJ2	EXTRACTION	SOLVENTS VOL EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
3/20/12	0/00/00	G1C240000-190 MF4TE-1-AAAB		DB	F8 WATER	1000.0mL 20.00uL	NA	NA	NA	DCM/TOL	300.0 C-14	20.0	1.0ML IS11DXN060
3/20/12	0/00/00	G1C240000-190 MF4TE-1-ACC		DB	F8 WATER	1000.0mL 20.00uL	NA	NA	NA	DCM/TOL	300.0 C-14	20.0	50UL NS10DXN587 1.0ML IS11DXN060

COMMENTS:

COMMENTS:

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 9

Preparation Data Review Checklist

Prep Batch(es) 1083190

Test: 1613BL

Prep Date: 3/24/11

Holding Times: 3/19/12 NCM: Y N

A. Spike Witness/Batch setup	Spike Witness	Reviewer
1. Holding times checked? NCMs filed as appropriate	✓	✓
2. QAS checked for QC instructions (LCS, LCSD, MS, MSD, etc)	✓	✓
3. Amount of samples in hood match amount of samples on bench sheet. Sample IDS match.	✓	NA
4. Worksheets have been checked for required spiking compounds	✓	✓
5. Spiking volumes are correctly documented	✓	✓
6. Std ID numbers on spike labels match numbers on bench sheet	✓	NA
7. Expiration dates have been checked	✓	✓
8. Calibration expiration dates on pipettors have been checked	✓	NA
9. Spiker and spike witness have signed and dated bench sheet	✓	✓
B. Weights and Volumes		
1. Recorded weights are in anticipated range	NA	✓
2. Balance upload or raw data for weights is included	NA	✓
3. Weights and volumes have been transcribed correctly to LIMS.	NA	✓
4. Weights are not targeted to meet exact weights.	NA	✓
5. Each weight or volume measurement is a unique record (no dittos or line downs)	NA	✓
C. Standards and Reagents		
1. Lot numbers for all reagents, including clean up stages, are recorded.	NA	✓
2. Are dates and analysts for cleanups recorded?	NA	✓
3. Are correct IDs used for standards? Are expiration dates to day/month/year, when listed?	NA	✓
D. Documentation		
1. Are all nonconformances documented appropriately?	NA	NA
2. QuantIMs entry correct, including dates and times.	NA	✓
3. Are all fields completed?	NA	✓

Spike witness: CFR

Date: 3/24/11

2nd Level Reviewer: ME

Date: 3/25/11

Comments:



EBERLINE SERVICES

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www.eberlineservices.com

April 13, 2011

Ms. Debby Wilson
Test America Irvine
17461 Derian Ave., Ste. 100
Irvine, CA 92614

**Reference: Test America-Irvine IUC2140
Eberline Analytical Report S103138-8676
Sample Delivery Group 8676**

Dear Ms. Wilson:

Enclosed is a Level IV CLP-like data package (on CD) for two water samples received under Test America Job No. IUC2140. The samples were received on March 23, 2011.

Please call me, if you have any questions concerning the enclosed report.

Sincerely,

N. Joseph Verville
Client Services Manager

NJV/ljb

Enclosure: Level IV CLP-like Data Package CD

1.0 General Comments

Sample delivery group 8676 consists of the analytical results and supporting documentation for two water samples. Sample ID's and reference dates/times are given in the Sample Summary section of the Summary Data report. The samples were received as stated on the chain-of-custody document. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist. No holding times were exceeded.

Tritium and gamma analyses were performed on the sample as received i.e. the sample was not filtered. The analytical volumes for all other analyses were subjected to a full nitric acid/hydrofluoric acid dissolution, and analyses were performed on the dissolution volumes.

2.0 Quality Control

Sample IUC2140-03 and IUC2140-04 (Trip Blank) were analyzed in a common prep batch with other outfall samples from this project. The QC samples from that common prep batch were assigned to SDG 8681 and are also reported herein. Quality Control Samples consisted of laboratory control samples (LCS), method blanks, duplicate analyses and matrix spike analyses. Included in the data package are copies of the Eberline Analytical radiometrics data sheets. The radiometrics data sheets for the QC LCS and QC blank samples indicate Eberline Analytical's standard QC aliquot of 1.0 sample; results for those QC types are calculated as pCi/sample. The QC LCS and QC blank sample results reported in the Summary Data Section have been divided by the appropriate method specific aliquot (see the Lab Method Summaries for specific aliquots) in order to make the results comparable to the field sample results. All QC sample results were within required control limits.

3.0 Method Errors

The error for each result is an estimate of the significant random uncertainties incurred in the measurement process. These are propagated to each final result. They include the counting (Poisson) uncertainty, as well as those intrinsic errors due to carrier or tracer standardization, aliquoting, counter efficiencies, weights, or volumes. The following method errors were propagated to the count error to calculate the 2σ error (Total):

Analysis	Method Error
Gross alpha	20.6%
Gross beta	11.0%
Tritium	10.0%
Sr-90	10.4%
Ra-226	16.4%
Ra-228	10.4%
Uranium, Total	
Gamma Spec.	7.0%

4.0 Analysis Notes

- 4.1 **Gross Alpha/Gross Beta Analysis** – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.2 **Tritium Analysis** – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.3 **Strontium-90 Analysis** – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.4 **Radium-226 Analysis** – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.5 **Radium-228 Analysis** - No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.6 **Total Uranium Analysis** - No problems were encountered during the processing of the samples. All quality control sample results were within required control limits.
- 4.7 **Gamma Spectroscopy** – No problems were encountered during the processing of the samples. All quality control sample results were within required control limits. The gamma spectroscopy planchets were counted for sufficient time to meet the required Cs-137 detection limit of 20 pCi/L. As a consequence of keying to the Cs-137 RDL, the detection limits for K-40 were not achieved for the sample.

5.0 Case Narrative Certification Statement

"I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data obtained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."



N. Joseph Verville
Client Services Manager

4/13/11

Date

EBERLINE ANALYTICAL
SDG 8676

SDG 8676
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUC2140

S U M M A R Y D A T A S E C T I O N

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LB

Prepared by

N. Joseph Verville

Reviewed by

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-TOC
Version 3.06
Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

SDG 8676
Contact N. Joseph Verville

REPORT GUIDE

Client Test America, Inc.
Contract IUC2140

ABOUT THE DATA SUMMARY SECTION

The Data Summary Section of a Data Package has all data, in several useful orders, necessary for first level, routine review of the data package for a Sample Delivery Group (SDG). This section follows the Data Package Narrative, which has an overview of the data package and a discussion of special problems. It is followed by the Raw Data Section, which has full details.

The Data Summary Section has several groups of reports:

SAMPLE SUMMARIES

The Sample and QC Summary Reports show all samples, including QC samples, reported in one SDG. These reports cross-reference client and lab sample identifiers.

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches (lab groupings reflecting how work was organized) relevant to the reported SDG with information necessary to check the completeness and consistency of the SDG.

WORK SUMMARY

The Work Summary Report shows all samples and work done on them relevant to the reported SDG.

METHOD BLANKS

The Method Blank Reports, one for each Method Blank relevant to the SDG, show all results and primary supporting information for the blanks.

LAB CONTROL SAMPLES

The Lab Control Sample Reports, one for each Lab Control Sample relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DUPLICATES

REPORT GUIDES

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SUMMARY DATA SECTION

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Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

SDG 8676
Contact N. Joseph Verville

GUIDE , c o n t .

Client Test America, Inc.
Contract IUC2140

ABOUT THE DATA SUMMARY SECTION

The Duplicate Reports, one for each Duplicate and Original sample pair relevant to the SDG, show all results, differences and primary supporting information for these QC samples.

MATRIX SPIKES

The Matrix Spike Reports, one for each Spiked and Original sample pair relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DATA SHEETS

The Data Sheet Reports, one for each client sample in the SDG, show all results and primary supporting information for these samples.

METHOD SUMMARIES

The Method Summary Reports, one for each test used in the SDG, show all results, QC and method performance data for one analyte on one or two pages. (A test is a short code for the method used to do certain work to the client's specification.)

REPORT GUIDES

The Report Guides, one for each of the above groups of reports, have documentation on how to read the associated reports.

REPORT GUIDES

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SUMMARY DATA SECTION

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Lab id EAS
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EBERLINE ANALYTICAL

SDG 8676

LAB SAMPLE SUMMARY

SDG 8676
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUC2140

LAB SAMPLE ID	CLIENT SAMPLE ID	LOCATION	MATRIX	LEVEL	SAS NO	CHAIN OF CUSTODY	COLLECTED
S103138-01	IUC2140-03	Boeing - SSFL	WATER			IUC2140	03/20/11 16:41
S103138-02	IUC2140-04 (TRIP-BLANK)	Boeing - SSFL	WATER			IUC2140	03/22/11 12:50
S103143-02	Lab Control Sample		WATER				
S103143-03	Method Blank		WATER				
S103143-04	Duplicate (S103143-01)	Boeing - SSFL	WATER				03/20/11 21:35

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LS
 Version 3.06
 Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

SDG 8676
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUC2140

QC SUMMARY

QC BATCH	CHAIN OF CUSTODY	CLIENT SAMPLE ID	MATRIX	% MOIST	SAMPLE AMOUNT	BASIS AMOUNT	DAYS SINCE RECEIVED	LAB COLL	LAB SAMPLE ID	DEPARTMENT SAMPLE ID
8676	IUC2140	IUC2140-03	WATER		4.35 L		03/23/11	3	S103138-01	8676-001
		IUC2140-04 (TRIP-BLANK)	WATER		10.0 L		03/23/11	1	S103138-02	8676-002
8681		Method Blank	WATER						S103143-03	8681-003
		Lab Control Sample	WATER						S103143-02	8681-002
		Duplicate (S103143-01)	WATER		10.0 L		03/23/11	3	S103143-04	8681-004

QC SUMMARY

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SUMMARY DATA SECTION

Page 4

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-QS
 Version 3.06
 Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

SDG 8676
 Contact N. Joseph Verville

PREP BATCH SUMMARY

Client Test America, Inc.
 Contract IUC2140

TEST	MATRIX	METHOD	PREPARATION ERROR		PLANCHETS ANALYZED				QUALI-	
			BATCH	2σ %	CLIENT	MORE	RE	BLANK		LCS
Beta Counting										
AC	WATER	Radium-228 in Water	7281-071	10.4	2		1	1	1/0/1	
SR	WATER	Strontium-90 in Water	7281-071	10.4	2		1	1	1/0/1	
Gas Proportional Counting										
80A	WATER	Gross Alpha in Water	7281-071	20.6	2		1	1	1/0/1	
80B	WATER	Gross Beta in Water	7281-071	11.0	2		1	1	1/0/1	
Gamma Spectroscopy										
GAM	WATER	Gamma Emitters in Water	7281-071	7.0	2		1	1	1/0/1	
Kinetic Phosphorimetry, ug										
U_T	WATER	Uranium, Total	7281-071		2		1	1	1/0/1	
Liquid Scintillation Counting										
H	WATER	Tritium in Water	7281-071	10.0	1		1	1	1/0/1	
Radon Counting										
RA	WATER	Radium-226 in Water	7281-071	16.4	2		1	1	1/0/1	

Blank, LCS, Duplicate and Spike planchets are those in the same preparation batch as some Client sample.
 In counts like 'a/b/c', 'a' = QC planchets, 'b' = Originals in this SDG, 'c' = Originals in other SDGs.

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-PBS
 Version 3.06
 Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

LAB WORK SUMMARY

SDG 8676

Contact N. Joseph Verville

Client Test America, Inc.

Contract IUC2140

LAB SAMPLE	CLIENT SAMPLE ID									
COLLECTED	LOCATION	MATRIX		SUF-						
RECEIVED	CUSTODY	SAS no	PLANCHET	TEST	FIX	ANALYZED	REVIEWED	BY	METHOD	
S103138-01	IUC2140-03		8676-001	80A/80		03/31/11	04/01/11	KWP	Gross Alpha in Water	
03/20/11	Boeing - SSFL	WATER	8676-001	80B/80		03/31/11	04/01/11	KWP	Gross Beta in Water	
03/23/11	IUC2140		8676-001	AC		04/07/11	04/12/11	BW	Radium-228 in Water	
			8676-001	GAM		03/29/11	04/06/11	MWT	Gamma Emitters in Water	
			8676-001	H		03/30/11	04/06/11	BW	Tritium in Water	
			8676-001	RA		04/05/11	04/06/11	BW	Radium-226 in Water	
			8676-001	SR		04/01/11	04/08/11	KWP	Strontium-90 in Water	
			8676-001	U_T		03/29/11	03/29/11	BW	Uranium, Total	
S103138-02	IUC2140-04 (TRIP-BLANK)		8676-002	80A/80		03/31/11	04/01/11	KWP	Gross Alpha in Water	
03/22/11	Boeing - SSFL	WATER	8676-002	80B/80		03/31/11	04/01/11	KWP	Gross Beta in Water	
03/23/11	IUC2140		8676-002	AC		04/07/11	04/12/11	BW	Radium-228 in Water	
			8676-002	GAM		03/30/11	04/06/11	MWT	Gamma Emitters in Water	
			8676-002	RA		04/05/11	04/06/11	BW	Radium-226 in Water	
			8676-002	SR		04/01/11	04/08/11	KWP	Strontium-90 in Water	
			8676-002	U_T		03/29/11	03/29/11	BW	Uranium, Total	
S103143-02	Lab Control Sample		8681-002	80A/80		03/31/11	04/01/11	MWT	Gross Alpha in Water	
		WATER	8681-002	80B/80		03/31/11	04/01/11	MWT	Gross Beta in Water	
			8681-002	AC		04/07/11	04/08/11	MWT	Radium-228 in Water	
			8681-002	GAM		03/31/11	04/04/11	MWT	Gamma Emitters in Water	
			8681-002	H		03/30/11	04/04/11	BW	Tritium in Water	
			8681-002	RA		04/05/11	04/06/11	BW	Radium-226 in Water	
			8681-002	SR		04/01/11	04/08/11	MWT	Strontium-90 in Water	
			8681-002	U_T		03/29/11	03/29/11	BW	Uranium, Total	
S103143-03	Method Blank		8681-003	80A/80		03/31/11	04/01/11	MWT	Gross Alpha in Water	
		WATER	8681-003	80B/80		03/31/11	04/01/11	MWT	Gross Beta in Water	
			8681-003	AC		04/07/11	04/08/11	MWT	Radium-228 in Water	
			8681-003	GAM		03/31/11	04/04/11	MWT	Gamma Emitters in Water	
			8681-003	H		03/30/11	04/04/11	BW	Tritium in Water	
			8681-003	RA		04/05/11	04/06/11	BW	Radium-226 in Water	
			8681-003	SR		04/01/11	04/08/11	MWT	Strontium-90 in Water	
			8681-003	U_T		03/29/11	03/29/11	BW	Uranium, Total	

WORK SUMMARY

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SUMMARY DATA SECTION

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Lab id EAS

Protocol TA

Version Ver 1.0

Form DVD-LWS

Version 3.06

Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

WORK SUMMARY, cont.

SDG 8676
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUC2140

LAB SAMPLE	CLIENT SAMPLE ID					SUP-				
COLLECTED	LOCATION		MATRIX		TEST	FIX	ANALYZED	REVIEWED	BY	METHOD
RECEIVED	CUSTODY	SAS no		PLANCHET						
S103143-04	Duplicate (S103143-01)			8681-004	80A/80		03/31/11	04/01/11	MWT	Gross Alpha in Water
03/20/11	Boeing - SSFL		WATER	8681-004	80B/80		03/31/11	04/01/11	MWT	Gross Beta in Water
03/23/11				8681-004	AC		04/07/11	04/08/11	MWT	Radium-228 in Water
				8681-004	GAM		03/31/11	04/04/11	MWT	Gamma Emitters in Water
				8681-004	H		03/30/11	04/04/11	BW	Tritium in Water
				8681-004	RA		04/05/11	04/06/11	BW	Radium-226 in Water
				8681-004	SR		04/01/11	04/08/11	MWT	Strontium-90 in Water
				8681-004	U_T		03/29/11	03/29/11	BW	Uranium, Total

COUNTS OF TESTS BY SAMPLE TYPE

TEST	SAS no	METHOD	REFERENCE	CLIENT	MORE	RE	BLANK	LCS	DUP SPIKE	TOTAL
80A/80		Gross Alpha in Water	900.0		2		1	1	1	5
80B/80		Gross Beta in Water	900.0		2		1	1	1	5
AC		Radium-228 in Water	904.0		2		1	1	1	5
GAM		Gamma Emitters in Water	901.1		2		1	1	1	5
H		Tritium in Water	906.0		1		1	1	1	4
RA		Radium-226 in Water	903.1		2		1	1	1	5
SR		Strontium-90 in Water	905.0		2		1	1	1	5
U_T		Uranium, Total	D5174		2		1	1	1	5
TOTALS					15		8	8	8	39

WORK SUMMARY

Page 2

SUMMARY DATA SECTION

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Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LWS
 Version 3.06
 Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

8681-003

Method Blank

METHOD BLANK

SDG <u>8676</u>	Client <u>Test America, Inc.</u>
Contact <u>N. Joseph Verville</u>	Contract <u>IUC2140</u>
Lab sample id <u>S103143-03</u>	Client sample id <u>Method Blank</u>
Dept sample id <u>8681-003</u>	Material/Matrix <u>WATER</u>

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	12587461	0.261	0.90	1.85	3.00	U	80A
Gross Beta	12587472	-0.333	1.4	2.40	4.00	U	80B
Tritium	10028178	-30.1	95	163	500	U	H
Radium-226	13982633	0.031	0.43	0.800	1.00	U	RA
Radium-228	15262201	-0.153	0.16	0.434	1.00	U	AC
Strontium-90	10098972	0.045	0.24	0.468	2.00	U	SR
Uranium, Total		0	0.009	0.020	1.00	U	U_T
Potassium-40	13966002	U		<u>47.4</u>	25.0	U	GAM
Cesium-137	10045973	U		2.34	20.0	U	GAM

QC-BLANK #77925

Lab id <u>EAS</u>
Protocol <u>TA</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>04/13/11</u>

METHOD BLANKS

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EBERLINE ANALYTICAL

SDG 8676

8681-004

IUC2187-03

DUPLICATE

SDG <u>8676</u> Contact <u>N. Joseph Verville</u> DUPLICATE Lab sample id <u>S103143-04</u> Dept sample id <u>8681-004</u>	ORIGINAL Lab sample id <u>S103143-01</u> Dept sample id <u>8681-001</u> Received <u>03/23/11</u>	Client <u>Test America, Inc.</u> Contract <u>IUC2140</u> Client sample id <u>IUC2187-03</u> Location/Matrix <u>Boeing - SSFL</u> <u>WATER</u> Collected/Volume <u>03/20/11 21:35</u> <u>10.0 L</u> Chain of custody id <u>IUC2187</u>
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ANALYTE	DUPLICATE	2σ ERR	MDA	RDL	QUALI-	TEST	ORIGINAL	2σ ERR	MDA	QUALI-	RPD	3σ	DER
	pCi/L	(COUNT)	pCi/L	pCi/L	FIERS		pCi/L	(COUNT)	pCi/L	FIERS	%	TOT	σ
Gross Alpha	1.94	0.48	0.434	3.00	J	80A	2.26	0.46	0.276	J	15	65	0.7
Gross Beta	6.74	0.70	0.831	4.00		80B	6.22	0.70	0.866		8	33	0.7
Tritium	-10.9	99	168	500	U	H	-77.2	96	167	U	-		1.0
Radium-226	0.283	0.42	0.711	1.00	U	RA	0.350	0.34	0.544	U	-		0.2
Radium-228	0.235	0.38	0.402	1.00	U	AC	0.229	0.32	0.420	U	-		0
Strontium-90	0.078	0.32	0.717	2.00	U	SR	-0.018	0.26	0.625	U	-		0.5
Uranium, Total	0.292	0.034	0.020	1.00	J	U_T	0.321	0.18	0.020	J	9	90	0.3
Potassium-40	U		15.8	25.0	U	GAM	U		58.4	U	-		1.4
Cesium-134	U		3.68	20.0	U	GAM	U			J	0	213	0
Cesium-137	U		1.17	20.0	U	GAM	U		3.25	U	-		1.2

QC-DUP#1 77926

Lab id <u>EAS</u>
Protocol <u>TA</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DUP</u>
Version <u>3.06</u>
Report date <u>04/13/11</u>

E B E R L I N E A N A L Y T I C A L
SDG 8676

8676-001

IUC2140-03

D A T A S H E E T

SDG <u>8676</u>	Client <u>Test America, Inc.</u>
Contact <u>N. Joseph Verville</u>	Contract <u>IUC2140</u>
Lab sample id <u>S103138-01</u>	Client sample id <u>IUC2140-03</u>
Dept sample id <u>8676-001</u>	Location/Matrix <u>Boeing - SSFL</u> <u>WATER</u>
Received <u>03/23/11</u>	Collected/Volume <u>03/20/11 16:41</u> <u>4.35 L</u>
	Chain of custody id <u>IUC2140</u>

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	12587461	2.64	0.60	0.410	3.00	J	80A
Gross Beta	12587472	7.40	0.80	1.02	4.00		80B
Tritium	10028178	-54.7	96	164	500	U	H
Radium-226	13982633	0.193	0.39	0.676	1.00	U	RA
Radium-228	15262201	-0.020	0.12	0.469	1.00	U	AC
Strontium-90	10098972	0.101	0.32	0.701	2.00	U	SR
Uranium, Total		0.634	0.074	0.020	1.00	J	U_T
Potassium-40	13966002	U		22.6	25.0	U	GAM
Cesium-137	10045973	U		2.01	20.0	U	GAM

Lab id <u>EAS</u>
Protocol <u>TA</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>04/13/11</u>

E B E R L I N E A N A L Y T I C A L
SDG 8676

8676-002

IUC2140-04 (TRIP-BLANK)

D A T A S H E E T

SDG <u>8676</u>	Client <u>Test America, Inc.</u>
Contact <u>N. Joseph Verville</u>	Contract <u>IUC2140</u>
Lab sample id <u>S103138-02</u>	Client sample id <u>IUC2140-04 (TRIP-BLANK)</u>
Dept sample id <u>8676-002</u>	Location/Matrix <u>Boeing - SSFL</u> <u>WATER</u>
Received <u>03/23/11</u>	Collected/Volume <u>03/22/11 12:50</u> <u>10.0 L</u>
	Chain of custody id <u>IUC2140</u>

ANALYTE	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	12587461	-0.008	0.16	0.349	3.00	U	80A
Gross Beta	12587472	-0.138	0.44	0.760	4.00	U	80B
Radium-226	13982633	0.067	0.35	0.642	1.00	U	RA
Radium-228	15262201	-0.021	0.20	0.486	1.00	U	AC
Strontium-90	10098972	-0.169	0.31	0.812	2.00	U	SR
Uranium, Total		0	0.009	0.020	1.00	U	U_T
Potassium-40	13966002	U		<u>25.6</u>	25.0	U	GAM
Cesium-137	10045973	U		1.78	20.0	U	GAM

Lab id <u>EAS</u>
Protocol <u>TA</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>04/13/11</u>

EBERLINE ANALYTICAL

SDG 8676

LAB METHOD SUMMARY

RADIUM-228 IN WATER
BETA COUNTING

Test AC Matrix WATER
SDG 8676
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUC2140

RESULTS

LAB	RAW	SUF-		
SAMPLE ID	TEST FIX	PLANCHET	CLIENT SAMPLE ID	Radium-228

Preparation batch 7281-071

S103138-01	8676-001	IUC2140-03	U
S103138-02	8676-002	IUC2140-04 (TRIP-BLANK)	U
S103143-02	8681-002	Lab Control Sample	ok
S103143-03	8681-003	Method Blank	U
S103143-04	8681-004	Duplicate (S103143-01)	- U

Nominal values and limits from method RDLs (pCi/L) 1.00

METHOD PERFORMANCE

LAB	RAW	SUF-		MDA	ALIQ	PREP	DILU-	YIELD	EFF	COUNT	FWHM	DRIFT	DAYS		ANAL-	
SAMPLE ID	TEST FIX	CLIENT SAMPLE ID		pCi/L	L	FAC	TION	%	%	min	keV	KeV	HELD	PREPARED	YZED	DETECTOR

Preparation batch 7281-071 2σ prep error 10.4 % Reference Lab Notebook No. 7281 pg. 71

S103138-01	IUC2140-03	0.469	1.80	85	150	18	04/07/11	04/07	GRB-217
S103138-02	IUC2140-04 (TRIP-BLANK)	0.486	1.80	85	150	16	04/07/11	04/07	GRB-220
S103143-02	Lab Control Sample	0.432	1.80	80	150		04/07/11	04/07	GRB-230
S103143-03	Method Blank	0.434	1.80	89	150		04/07/11	04/07	GRB-231
S103143-04	Duplicate (S103143-01)	0.402	1.80	88	150	18	04/07/11	04/07	GRB-232

Nominal values and limits from method 1.00 1.80 30-105 50 180

PROCEDURES REFERENCE 904.0
DWP-894 Sequential Separation of Actinium-228 and Radium-226 in Drinking Water (>1 Liter Aliquot), rev 5

AVERAGES ± 2 SD MDA 0.445 ± 0.066
FOR 5 SAMPLES YIELD 85 ± 7

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

LAB METHOD SUMMARY

STRONTIUM-90 IN WATER
BETA COUNTING

Test SR Matrix WATER
SDG 8676
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUC2140

RESULTS

LAB	RAW	SUF-		
SAMPLE ID	TEST FIX	PLANCHET	CLIENT SAMPLE ID	Strontium-90

Preparation batch 7281-071

S103138-01		8676-001	IUC2140-03	U
S103138-02		8676-002	IUC2140-04 (TRIP-BLANK)	U
S103143-02		8681-002	Lab Control Sample	ok
S103143-03		8681-003	Method Blank	U
S103143-04		8681-004	Duplicate (S103143-01)	- U

Nominal values and limits from method RDLs (pCi/L) 2.00

METHOD PERFORMANCE

LAB	RAW	SUF-	MDA	ALIQ	PREP	DILU-	YIELD	EPF	COUNT	FWHM	DRIFT	DAYS	ANAL-
SAMPLE ID	TEST FIX	CLIENT SAMPLE ID	pCi/L	L	FAC	TION	%	%	min	keV	KeV	HELD PREPARED	YZED DETECTOR

Preparation batch 7281-071 2σ prep error 10.4 % Reference Lab Notebook No. 7281 pg. 71

S103138-01		IUC2140-03	0.701	0.500			82	50				12 04/01/11 04/01	GRB-227
S103138-02		IUC2140-04 (TRIP-BLANK)	0.812	0.500			72	50				10 04/01/11 04/01	GRB-223
S103143-02		Lab Control Sample	0.576	0.500			94	50				04/01/11 04/01	GRB-232
S103143-03		Method Blank	0.468	0.500			85	100				04/01/11 04/01	GRB-231
S103143-04		Duplicate (S103143-01)	0.717	0.500			83	50				12 04/01/11 04/01	GRB-204

Nominal values and limits from method 2.00 0.500 30-105 50 180

PROCEDURES REFERENCE 905.0
DWP-380 Strontium in Drinking Water, rev 8

AVERAGES ± 2 SD MDA 0.655 ± 0.268
FOR 5 SAMPLES YIELD 83 ± 16

METHOD SUMMARIES

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SUMMARY DATA SECTION

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Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

LAB METHOD SUMMARY

GROSS ALPHA IN WATER
GAS PROPORTIONAL COUNTING

Test 80A Matrix WATER
SDG 8676
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUC2140

RESULTS

LAB	RAW	SUF-			
SAMPLE ID	TEST FIX	PLANCHET	CLIENT SAMPLE ID	Gross Alpha	
Preparation batch 7281-071					
S103138-01	80	8676-001	IUC2140-03	2.64	J
S103138-02	80	8676-002	IUC2140-04 (TRIP-BLANK)	U	
S103143-02	80	8681-002	Lab Control Sample	ok	
S103143-03	80	8681-003	Method Blank	U	
S103143-04	80	8681-004	Duplicate (S103143-01)	ok	J
Nominal values and limits from method			RDLs (pCi/L)	3.00	

METHOD PERFORMANCE

LAB	RAW	SUF-	MDA	ALIQ	PREP	DILU-	RESID	EFF	COUNT	FWHM	DRIFT	DAYS	ANAL-
SAMPLE ID	TEST FIX	CLIENT SAMPLE ID	pCi/L	L	FAC	TION	mg	%	min	keV	KeV	HELD PREPARED	YZED DETECTOR
Preparation batch 7281-071 2σ prep error 20.6 % Reference Lab Notebook No. 7281 pg. 71													
S103138-01	80	IUC2140-03	0.410	0.300			62	400	11	03/31/11	03/31	GRB-103	
S103138-02	80	IUC2140-04 (TRIP-BLANK)	0.349	0.300			1	400	9	03/31/11	03/31	GRB-104	
S103143-02	80	Lab Control Sample	1.21	0.100			60	400		03/31/11	03/31	GRB-103	
S103143-03	80	Method Blank	1.85	0.100			60	400		03/31/11	03/31	GRB-104	
S103143-04	80	Duplicate (S103143-01)	0.434	0.300			26	400	11	03/31/11	03/31	GRB-109	
Nominal values and limits from method			3.00	0.100			0-200	100			180		

PROCEDURES REFERENCE 900.0
DWP-121 Gross Alpha and Gross Beta in Drinking Water, rev 10

AVERAGES ± 2 SD MDA 0.851 ± 1.32
FOR 5 SAMPLES RESIDUE 42 ± 55

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

LAB METHOD SUMMARY

GROSS BETA IN WATER

GAS PROPORTIONAL COUNTING

Test 80B Matrix WATER
 SDG 8676
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUC2140

RESULTS

LAB	RAW	SUF-			
SAMPLE ID	TEST FIX	PLANCHET	CLIENT SAMPLE ID		Gross Beta
Preparation batch 7281-071					
S103138-01	80	8676-001	IUC2140-03		7.40
S103138-02	80	8676-002	IUC2140-04 (TRIP-BLANK)		U
S103143-02	80	8681-002	Lab Control Sample		ok
S103143-03	80	8681-003	Method Blank		U
S103143-04	80	8681-004	Duplicate (S103143-01)		ok

Nominal values and limits from method RDLs (pCi/L) 4.00

METHOD PERFORMANCE

LAB	RAW	SUF-	MDA	ALIQ	PREP	DILU-	RESID	EPF	COUNT	FWHM	DRIFT	DAYS	ANAL-		
SAMPLE ID	TEST FIX	CLIENT SAMPLE ID	pCi/L	L	FAC	TION	mg	%	min	keV	KeV	HELD PREPARED	YZED	DETECTOR	
Preparation batch 7281-071 2σ prep error 11.0 % Reference Lab Notebook No. 7281 pg. 71															
S103138-01	80	IUC2140-03	1.02	0.300			62	400				11	03/31/11	03/31	GRB-103
S103138-02	80	IUC2140-04 (TRIP-BLANK)	0.760	0.300			1	400				9	03/31/11	03/31	GRB-104
S103143-02	80	Lab Control Sample	3.06	0.100			60	400					03/31/11	03/31	GRB-103
S103143-03	80	Method Blank	2.40	0.100			60	400					03/31/11	03/31	GRB-104
S103143-04	80	Duplicate (S103143-01)	0.831	0.300			26	400				11	03/31/11	03/31	GRB-109

Nominal values and limits from method 4.00 : 0.100 0-200 100 180

PROCEDURES REFERENCE 900.0
 DWP-121 Gross Alpha and Gross Beta in Drinking Water,
 rev 10

AVERAGES ± 2 SD MDA 1.61 ± 2.10
 FOR 5 SAMPLES RESIDUE 42 ± 55

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

LAB METHOD SUMMARY

GAMMA EMITTERS IN WATER
GAMMA SPECTROSCOPY

Test GAM Matrix WATER
SDG 8676
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUC2140

RESULTS

LAB	RAW	SUF-			
SAMPLE ID	TEST FIX	PLANCHET	CLIENT SAMPLE ID	Cobalt-60	Cesium-137
Preparation batch 7281-071					
S103138-01		8676-001	IUC2140-03		U
S103138-02		8676-002	IUC2140-04 (TRIP-BLANK)		U
S103143-02		8681-002	Lab Control Sample	ok	ok
S103143-03		8681-003	Method Blank		U
S103143-04		8681-004	Duplicate (S103143-01)		- U

Nominal values and limits from method RDLs (pCi/L) 10.0 20.0

METHOD PERFORMANCE

LAB	RAW	SUF-	MDA	ALIQ	PREP	DILU-	YIELD	EFF	COUNT	FWHM	DRIFT	DAYS	ANAL-		
SAMPLE ID	TEST FIX	CLIENT SAMPLE ID	pCi/L	L	FAC	TION	%	%	min	keV	KeV	HELD PREPARED	YZED	DETECTOR	
Preparation batch 7281-071 2σ prep error 7.0 % Reference Lab Notebook No. 7281 pg. 71															
S103138-01		IUC2140-03	2.00						421			9	03/24/11	03/29	MB,01,00
S103138-02		IUC2140-04 (TRIP-BLANK)	2.00						400			8	03/24/11	03/30	01,03,00
S103143-02		Lab Control Sample	2.00						401				03/24/11	03/31	MB,08,00
S103143-03		Method Blank	2.00						621				03/24/11	03/31	MB,05,00
S103143-04		Duplicate (S103143-01)	2.00						596			11	03/24/11	03/31	MB,08,00

Nominal values and limits from method 6.00 2.00 400 180

PROCEDURES REFERENCE 901.1
DWP-100 Preparation of Drinking Water Samples for Gamma Spectroscopy, rev 5

METHOD SUMMARIES

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Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

LAB METHOD SUMMARY

URANIUM, TOTAL

KINETIC PHOSPHORIMETRY, UG

Test U T Matrix WATER
 SDG 8676
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUC2140

RESULTS

LAB	RAW	SUF-		Uranium,
SAMPLE ID	TEST FIX	PLANCHET	CLIENT SAMPLE ID	Total
Preparation batch 7281-071				
S103138-01		8676-001	IUC2140-03	0.634 J
S103138-02		8676-002	IUC2140-04 (TRIP-BLANK)	U
S103143-02		8681-002	Lab Control Sample	ok
S103143-03		8681-003	Method Blank	U
S103143-04		8681-004	Duplicate (S103143-01)	ok J

Nominal values and limits from method RDLs (pCi/L) 1.00

METHOD PERFORMANCE

LAB	RAW	SUF-	MDA	ALIQ	PREP	DILU-	YIELD	EPF	COUNT	FWHM	DRIFT	DAYS	ANAL-
SAMPLE ID	TEST FIX	CLIENT SAMPLE ID	pCi/L	L	FAC	TION	%	%	min	keV	KeV	HELD PREPARED	YZED DETECTOR
Preparation batch 7281-071			2σ prep error		Reference Lab Notebook No. 7281 pg. 71								
S103138-01		IUC2140-03	0.020	0.0200								9 03/29/11	03/29 KPA-001
S103138-02		IUC2140-04 (TRIP-BLANK)	0.020	0.0200								7 03/29/11	03/29 KPA-001
S103143-02		Lab Control Sample	0.205	0.0200								03/29/11	03/29 KPA-001
S103143-03		Method Blank	0.020	0.0200								03/29/11	03/29 KPA-001
S103143-04		Duplicate (S103143-01)	0.020	0.0200								9 03/29/11	03/29 KPA-001

Nominal values and limits from method 1.00 0.0200 180

PROCEDURES REFERENCE D5174

AVERAGES ± 2 SD MDA 0.057 ± 0.165
 FOR 5 SAMPLES YIELD _____ ± _____

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

LAB METHOD SUMMARY

TRITIUM IN WATER

LIQUID SCINTILLATION COUNTING

Test H Matrix WATER
 SDG 8676
 Contact N. Joseph Verville

Client Test America, Inc.
 Contract IUC2140

RESULTS

LAB	RAW	SUF-		
SAMPLE ID	TEST FIX	PLANCHET	CLIENT SAMPLE ID	Tritium
Preparation batch 7281-071				
S103138-01		8676-001	IUC2140-03	U
S103143-02		8681-002	Lab Control Sample	ok
S103143-03		8681-003	Method Blank	U
S103143-04		8681-004	Duplicate (S103143-01)	- U

Nominal values and limits from method RDLs (pCi/L) 500

METHOD PERFORMANCE

LAB	RAW	SUF-	MDA	ALIQ	PREP	DILU-	YIELD	EPF	COUNT	FWHM	DRIFT	DAYS	ANAL-	
SAMPLE ID	TEST FIX	CLIENT SAMPLE ID	pCi/L	L	FAC	TION	%	%	min	keV	KeV	HELD PREPARED	YZED	DETECTOR
Preparation batch 7281-071 2σ prep error 10.0 % Reference Lab Notebook No. 7281 pg. 71														
S103138-01		IUC2140-03	164	0.0100			100		150		10	03/30/11	03/30	LSC-004
S103143-02		Lab Control Sample	166	0.100			10		150			03/30/11	03/30	LSC-004
S103143-03		Method Blank	163	0.100			10		150			03/30/11	03/30	LSC-004
S103143-04		Duplicate (S103143-01)	168	0.0100			100		150		10	03/30/11	03/30	LSC-004

Nominal values and limits from method 500 0.0100 100 180

PROCEDURES REFERENCE 906.0
 DWP-212 Tritium in Drinking Water by Distillation, rev 8

AVERAGES ± 2 SD MDA 165 ± 4.43
 FOR 4 SAMPLES YIELD 55 ± 104

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 04/13/11

EBERLINE ANALYTICAL

SDG 8676

LAB METHOD SUMMARY

RADIUM-226 IN WATER
RADON COUNTING

Test RA Matrix WATER
SDG 8676
Contact N. Joseph Verville

Client Test America, Inc.
Contract IUC2140

RESULTS

LAB	RAW	SUF-		
SAMPLE ID	TEST FIX	PLANCHET	CLIENT SAMPLE ID	Radium-226
Preparation batch 7281-071				
S103138-01		8676-001	IUC2140-03	U
S103138-02		8676-002	IUC2140-04 (TRIP-BLANK)	U
S103143-02		8681-002	Lab Control Sample	ok
S103143-03		8681-003	Method Blank	U
S103143-04		8681-004	Duplicate (S103143-01)	- U

Nominal values and limits from method RDLs (pCi/L) 1.00

METHOD PERFORMANCE

LAB	RAW	SUF-	MDA	ALIQ	PREP	DILU-	YIELD	EFF	COUNT	FWHM	DRIFT	DAYS	ANAL-
SAMPLE ID	TEST FIX	CLIENT SAMPLE ID	pCi/L	L	FAC	TION	%	%	min	keV	KeV	HELD PREPARED	YZED DETECTOR
Preparation batch 7281-071 2σ prep error 16.4 % Reference Lab Notebook No. 7281 pg. 71													
S103138-01		IUC2140-03	0.676	0.100			100		<u>90</u>			16 04/05/11 04/05	RN-013
S103138-02		IUC2140-04 (TRIP-BLANK)	0.642	0.100			100		<u>90</u>			14 04/05/11 04/05	RN-014
S103143-02		Lab Control Sample	0.859	0.100			100		<u>90</u>			04/05/11 04/05	RN-009
S103143-03		Method Blank	0.800	0.100			100		<u>90</u>			04/05/11 04/05	RN-010
S103143-04		Duplicate (S103143-01)	0.711	0.100			100		<u>90</u>			16 04/05/11 04/05	RN-015

Nominal values and limits from method 1.00 0.100 100 180

PROCEDURES REFERENCE 903.1
DWP-881A Ra-226 Screening in Drinking Water, rev 6

AVERAGES ± 2 SD MDA 0.738 ± 0.180
FOR 5 SAMPLES YIELD 100 ± 0

Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 04/13/11

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REPORT GUIDE

Client Test America, Inc.
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SAMPLE SUMMARY

The Sample and QC Summary Reports show all samples, including QC samples, reported in one Sample Delivery Group (SDG).

The Sample Summary Report fully identifies client samples and gives the corresponding lab sample identification. The QC Summary Report shows at the sample level how the lab organized the samples into batches and generated QC samples. The Preparation Batch and Method Summary Reports show this at the analysis level.

The following notes apply to these reports:

- * LAB SAMPLE ID is the lab's primary identification for a sample.
- * DEPARTMENT SAMPLE ID is an alternate lab id, for example one assigned by a radiochemistry department in a lab.
- * CLIENT SAMPLE ID is the client's primary identification for a sample. It includes any sample preparation done by the client that is necessary to identify the sample.
- * QC BATCH is a lab assigned code that groups samples to be processed and QCed together. These samples should have similar matrices.

QC BATCH is not necessarily the same as SDG, which reflects samples received and reported together.

- * All Lab Control Samples, Method Blanks, Duplicates and Matrix Spikes are shown that QC any of the samples. Due to possible reanalyses, not all results for all these QC samples may be relevant to the SDG. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

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SUMMARY DATA SECTION

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Lab id EAS
Protocol TA
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 04/13/11

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PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches in one Sample Delivery Group (SDG) with information necessary to check the completeness and consistency of the SDG.

The following notes apply to this report:

- * The preparation batches are shown in the same order as the Method Summary Reports are printed.
- * Only analyses of planchets relevant to the SDG are included.
- * Each preparation batch should have at least one Method Blank and LCS in it to validate client sample results.
- * The QUALIFIERS shown are all qualifiers other than U, J, B, L and H that occur on any analysis in the preparation batch. The Method Summary Report has these qualifiers on a per sample basis.

These qualifiers should be reviewed as follows:

- X Some data has been manually entered or modified. Transcription errors are possible.
- P One or more results are 'preliminary'. The data is not ready for final reporting.
- 2 There were two or more results for one analyte on one planchet imported at one time. The results in DVD may not be the same as on the raw data sheets.

Other lab defined qualifiers may occur. In general, these should be addressed in the SDG narrative.

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-RG
 Version 3.06
 Report date 04/13/11

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WORK SUMMARY

The Work Summary Report shows all samples, including QC samples, and all relevant analyses in one Sample Delivery Group (SDG). This report is often useful as supporting documentation for an invoice.

The following notes apply to this report:

- * TEST is a code for the method used to measure associated analytes. Results and related information for each analyte are on the Data Sheet Report. In special cases, a test code used in the summary data section is not the same as in associated raw data. In this case, both codes are shown on the Work Summary.
- * SUFFIX is the lab's code to distinguish multiple analyses (recounts, reworks, reanalyses) of a fraction of the sample. The suffix indicates which result is being reported. An empty suffix normally identifies the first attempt to analyze the sample.
- * The LAB SAMPLE ID, TEST and SUFFIX uniquely identify all supporting data for a result. The Method Summary Report for each TEST has method performance data, such as yield, for each lab sample id and suffix and procedures used in the method.
- * PLANCHET is an alternate lab identifier for work done for one test. It, combined with the TEST and SUFFIX, may be the best link to raw data.
- * For QC samples, only analyses that directly QC some regular sample are shown. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.
- * The SAS (Special Analytical Services) Number is a client or lab assigned code that reflects special processing for samples, such as rapid turn around. Counts of tests done are lists by SAS number since it is likely to affect prices.

Lab id EAS
 Protocol TA
 Version Ver 1.0
 Form DVD-RG
 Version 3.06
 Report date 04/13/11

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DATA SHEET

The Data Sheet Report shows all results and primary supporting information for one client sample or Method Blank. This report corresponds to both the CLP Inorganics and Organics Data Sheet.

The following notes apply to this report:

- * TEST is a code for the method used to measure an analyte. If the TEST is empty, no data is available; the analyte was not analyzed for.
- * The LAB SAMPLE ID and TEST uniquely identify work within the Summary Data Section of a Data Package. The Work Summary and Method Summary Reports further identify raw data that underlies this work.

The Method Summary Report for each TEST has method performance data, such as yield, for each Lab Sample ID and a list of procedures used in the method.

- * ERRORS can be labeled TOTAL or COUNT. TOTAL implies a preparation (non-counting method) error has been added, as square root of sum of squares, to the counting error denoted by COUNT. The preparation errors, which may vary by preparation batch, are shown on the Method Summary Report.
- * A RESULT can be 'N.R.' (Not Reported). This means the lab did this work but chooses not to report it now, possibly because it was reported at another time.
- * When reporting a Method Blank, a RESULT can be 'N.A.' (Not Applicable). This means there is no reported client sample work in the same preparation batch as the Blank's result. This is likely to occur when the Method Blank is associated with reanalyses of selected work for a few samples in the SDG.

The following qualifiers are defined by the DVD system:

- U The RESULT is less than the MDA (Minimum Detectable Activity). If the MDA is blank, the ERROR is used as the limit.

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SUMMARY DATA SECTION

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Lab id EAS
 Protocol TA
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DATA SHEET

- J The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.
- B A Method Blank associated with this sample had a result without a U flag and, after correcting for possibly different aliquots, that result is greater than or equal to the MDA for this sample.
- Normally, B is not assigned if U is. When method blank subtraction is shown on this report, B flags are assigned based on the unsubtracted values while U's are assigned based on the subtracted ones. Both flags can be assigned in this case.
- For each sample result, all Method Blank results in the same preparation batch are compared. The Method Summary Report documents this and other QC relationships.
- L Some Lab Control Sample that QC's this sample had a low recovery. The lab can disable assignment of this qualifier.
- H Similar to 'L' except the recovery was high.
- P The RESULT is 'preliminary'.
- X Some data necessary to compute the RESULT, ERROR or MDA was manually entered or modified.
- 2 There were two or more results available for this analyte. The reported result may not be the same as in the raw data.
- Other qualifiers are lab defined. Definitions should be in the SDG narrative.

The following values are underlined to indicate possible problems:

- * An MDA is underlined if it is bigger than its RDL.
- * An ERROR is underlined if the 1.645 sigma counting error is bigger than both the MDA and the RESULT, implying that the MDA

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DATA SHEET

may not be a good estimate of the 'real' minimum detectable activity.

- * A negative RESULT is underlined if it is less than the negative of its 2 sigma counting ERROR.
- * When reporting a Method Blank, a RESULT is underlined if greater than its MDA. If the MDA is blank, the 2 sigma counting error is used in the comparison.

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Protocol TA
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LAB CONTROL SAMPLE

The Lab Control Sample Report shows all results, recoveries and primary supporting information for one Lab Control Sample.

The following notes apply to this report:

- * All fields in common with the Data Sheet Report have similar usage. Refer to its Report Guide for details.
- * An amount ADDED is the lab's value for the actual amount spiked into this sample with its ERROR an estimate of the error of this amount.

An amount added is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

- * REC (Recovery) is RESULT divided by ADDED expressed as a percent.
- * The first, computed limits for the recovery reflect:
 1. The error of RESULT, including that introduced by rounding the result prior to printing.

If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.
 2. The error of ADDED.
 3. A lab specified, per analyte bias. The bias changes the center of the computed limits.
- * The second limits are protocol defined upper and lower QC limits for the recovery.
- * The recovery is underlined if it is outside either of these ranges.

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DUPLICATE

The Duplicate Report shows all results, differences and primary supporting information for one Duplicate and associated Original sample.

The following notes apply to this report:

- * All fields in common with the Data Sheet Report have similar usage. This applies both to the Duplicate and Original sample data. Refer to the Data Sheet Report Guide for details.

If the Duplicate has data for a TEST and the lab did not do this test to the Original, the Original's RESULTS are underlined.

- * The RPD (Relative Percent Difference) is the absolute value of the difference of the RESULTS divided by their average expressed as a percent.

If both RESULTS are less than their MDAs, no RPD is computed and a '-' is printed.

For an analyte, if the lab did work for both samples but has data for only one, the MDA from the sample with data is used as the other's result in the RPD.

- * The first, computed limit is the sum, as square root of sum of squares, of the errors of the results divided by the average result as a percent, hence the relative error of the difference rather than the error of the relative difference. The errors include those introduced by rounding the RESULTS prior to printing.

If this limit is labeled TOT, it includes the preparation error in the RESULTS. If labeled CNT, it does not.

This value reported for this limit is at most 999.

- * The second limit for the RPD is the larger of:

1. A fixed percentage specified in the protocol.

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2. A protocol factor (typically 2) times the average MDA as a percent of the average result. This limit applies when the results are close to the MDAs.

- * The RPD is underlined if it is greater than either limit.
- * If specified by the lab, the second limit column is replaced by the Difference Error Ratio (DER), which is the absolute value of the difference of the results divided by the quadratic sum of their one sigma errors, the same errors as used in the first limit.

Except for differences due to rounding, the DER is the same as the RPD divided by the first RPD limit with the limit scaled to 1 sigma.

- * The DER is underlined if it is greater than the sigma factor, typically 2 or 3, shown in the header for the first RPD limit.

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MATRIX SPIKE

The Matrix Spike Report shows all results, recoveries and primary supporting information for one Matrix Spike and associated Original sample.

The following notes apply to this report:

- * All fields in common with the Data Sheet Report have similar usage. This applies both to the Spiked and Original sample data. Refer to the Data Sheet Report Guide for details.

If the Spike has data for a TEST and the lab did not do this test to the Original, the Original's RESULTS are underlined.

- * An amount ADDED is the lab's value for the actual amount spiked into the Spike sample with its ERROR an estimate of the error of this amount.

An amount is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

- * REC (Recovery) is the Spike RESULT minus the Original RESULT divided by ADDED expressed as a percent.

- * The first, computed limits for the recovery reflect:

1. The errors of the two RESULTS, including those introduced by rounding them prior to printing.

If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.

2. The error of ADDED.

3. A lab specified, per analyte bias. The bias changes the center of the computed limits.

- * The second limits are protocol defined upper and lower QC limits for the recovery.

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Lab id EAS
Protocol TA
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MATRIX SPIKE

These limits are left blank if the Original RESULT is more than a protocol defined factor (typically 4) times ADDED. This is a way of accounting for that when the spike is small compared to the amount in the original sample, the recovery is unreliable.

- * The recovery is underlined (out of spec) if it is outside either of these ranges.

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Lab id EAS
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METHOD SUMMARY

The Method Summary Report has two tables. One shows up to five results measured using one method. The other has performance data for the method. There is one report for each TEST, as used on the Data Sheet Report.

The following notes apply to this report:

- * Each table is subdivided into sections, one for each preparation batch. A preparation batch is a group of aliquots prepared at roughly the same time in one work area of the lab using the same method.

There should be Lab Control Sample and Method Blank results in each preparation batch since this close correspondence makes the QC meaningful. Depending on lab policy, Duplicates need not occur in each batch since they QC sample dependencies such as matrix effects.

- * The RAW TEST column shows the test code used in the raw data to identify a particular analysis if it is different than the test code in the header of the report. This occurs in special cases due to method specific details about how the lab labels work.

The Lab Sample or Planchet ID combined with the (Raw) Test Code and Suffix uniquely identify the raw data for each analysis.

- * If a result is less than both its MDA and RDL, it is replaced by just 'U' on this report. If it is greater than or equal to the RDL but less than the MDA, the result is shown with a 'U' flag.

The J and X flags are as on the data sheet.

- * Non-U results for Method Blanks are underlined to indicate possible contamination of other samples in the preparation batch. The Method Blank Report has supporting data.
- * Lab Control Sample and Matrix Spike results are shown as: ok, No data, LOW or HIGH, with the last two underlined. 'No data' means no amount ADDED was specified. 'LOW' and 'HIGH'

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correspond to when the recovery is underlined on the Lab Control Sample or Matrix Spike Report. See these reports for supporting data.

- * Duplicate sample results are shown as: ok; No data, or OUT, with the last two underlined. 'No data' means there was no original sample data found for this duplicate. 'OUT' corresponds to when the RPD is underlined on the Duplicate Report. See this report for supporting data.
 - * If the MDA column is labeled 'MAX MDA', there was more than one result measured by the reported method and the MDA shown is the largest MDA. If not all these results have the same RDL, the MAX MDA reflects only those results with RDL equal to the smallest one.
- MDAs are underlined if greater than the printed RDL.
- * Aliquots are underlined if less than the nominal value specified for the method.
 - * Preparation factors are underlined if greater than the nominal value specified for the method.
 - * Dilution factors are underlined if greater than the nominal value specified for the method.
 - * Residues are underlined if outside the range specified for the method. Residues are not printed if yields are.
 - * Yields, which may be gravimetric, radiometric or some type of recovery depending on the method, are underlined if outside the range specified for the method.
 - * Efficiencies are underlined if outside the range specified for the method. Efficiencies are detector and geometry dependent so this test is only approximate.
 - * Count times are underlined if less than the nominal value

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SUMMARY DATA SECTION

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Lab id EAS
 Protocol TA
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METHOD SUMMARY

specified for the method.

- * Resolutions (as FWHM; Full Width at Half Max) are underlined if greater than the method specified limit.
- * Tracer drifts are underlined if their absolute values are greater than the method specified limit. Tracer drifts are not printed if percent moistures are.
- * Days Held are underlined if greater than the holding time specified in the protocol.
- * Analysis dates are underlined if before their planchet's preparation date or, if a limit is specified, too far after it.

For some methods, ratios as percentages and error estimates for them are computed for pairs of results. A ratio column header like '1+3' means the ratio of the first result column and the third result column.

Ratios are not computed for Lab Control Sample, Method Blank or Matrix Spike results since their matrices are not necessarily similar to client samples'.

The error estimate for a ratio of results from one planchet reflects only counting errors since other errors should be correlated. For a ratio involving different planchets, if QC limits are computed based on total errors, the error for the ratio allows for the preparation errors for the planchets.

The ratio is underlined (out of spec) if the absolute value of its difference from the nominal value is greater than its error estimate. If no nominal value is specified, this test is not done.

For Gross Alpha or Gross Beta results, there may be a column showing the sum of other Alpha or Beta emitters. This sum includes all relevant results in the DVD database, whether reported or not. Results in the sum are weighted by a particles/decay value specified by the lab for each relevant analyte. Results less than their MDA are not included.

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Lab id EAS
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METHOD SUMMARY

No sums are computed for Lab Control, Method Blank or Matrix Spike samples since their various planchets may not be physically related.

If a ratio of total isotopic to Gross Alpha or Beta is shown, the error for the ratio reflects both the error in the Gross result and the sum, as square root of sum of squares, of the errors in the isotopic results.

For total elemental uranium or thorium results, there may be a column showing the total weight computed from associated isotopic results. Ignoring results less than their MDAs, this is a weighted sum of the isotopic results. The weights depend on the molecular weight and half-life of each isotope so as to convert activities (decays) to weight (atoms).

If a ratio of total computed to measured elemental uranium or thorium is shown, the error for the ratio reflects the errors in all the measurements.

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SUMMARY DATA SECTION

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Lab id EAS
Protocol TA
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Subcontract Order - TestAmerica Irvine (IUC2140)

8676

SENDING LABORATORY:

TestAmerica Irvine
 17461 Derian Avenue, Suite 100
 Irvine, CA 92614
 Phone: (949) 261-1022
 Fax: (949) 260-3297
 Project Manager: Debby Wilson

RECEIVING LABORATORY:

Eberline Services
 2030 Wright Avenue
 Richmond, CA 94804
 Phone : (510) 235-2633
 Fax: (510) 235-0438
 Project Location: California
 Receipt Temperature: _____ °C

Ice: Y N

Analysis	Units	Due	Expires	Comments
----------	-------	-----	---------	----------

Sample ID: IUC2140-03 (Outfall 002 (Composite) - Water) **Sampled: 03/20/11 16:41**

Gamma Spec-O	mg/kg	03/28/11	03/19/12 16:41	jflags; Cs 137 + K 40; do not filter
Gross Alpha-O	pCi/L	03/28/11	09/16/11 16:41	jflags; do not filter
Gross Beta-O	pCi/L	03/28/11	09/16/11 16:41	jflags; do not filter
Level 4 Data Package - Out	N/A	03/28/11	04/17/11 16:41	
Radium, Combined-O	pCi/L	03/28/11	03/19/12 16:41	jflags; do not filter
Strontium 90-O	pCi/L	03/28/11	03/19/12 16:41	jflags; do not filter
Tritium-O	pCi/L	03/28/11	03/19/12 16:41	jflags; do not filter
Uranium, Combined-O	pCi/L	03/28/11	03/19/12 16:41	jflags; do not filter

Containers Supplied:

1 gal Poly (T) 500 mL Amber (U)

Sample ID: IUC2140-04 (Trip Blank - Water) **Sampled: 03/22/11 12:50**

Gamma Spec-O	mg/kg	03/28/11	03/21/12 12:50	jflags; Cs 137 + K 40; do not filter
Gross Alpha-O	pCi/L	03/28/11	09/18/11 12:50	jflags; do not filter
Gross Beta-O	pCi/L	03/28/11	09/18/11 12:50	jflags; do not filter
Radium, Combined-O	pCi/L	03/28/11	03/21/12 12:50	jflags; do not filter
Strontium 90-O	pCi/L	03/28/11	03/21/12 12:50	jflags; do not filter
Uranium, Combined-O	pCi/L	03/28/11	03/21/12 12:50	jflags; do not filter

Containers Supplied:

2.5 gal Poly (A)

	3/22/11 17:00		3/22/11 17:00
Released By	Date/Time	Received By	Date/Time
	3/23/11 09:30		3/23/11 09:30
Released By	Date/Time	Received By	Date/Time



RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

Client: TEST AMERICA City IRVINE State CA
 Date/Time received 03/23/11 0930 CoC No. 1UC2140
 Container I.D. No. 16 CHEST Requested TAT (Days) STD P.O. Received Yes [] No []

INSPECTION

1. Custody seals on shipping container intact? Yes No [] N/A
2. Custody seals on shipping container dated & signed? Yes No [] N/A []
3. Custody seals on sample containers intact? Yes [] No [] N/A
4. Custody seals on sample containers dated & signed? Yes [] No [] N/A
5. Packing material is: Wet Dry
6. Number of samples in shipping container: 2 Sample Matrix W
7. Number of containers per sample: _____ (Or see CoC X)
8. Samples are in correct container Yes No []
9. Paperwork agrees with samples? Yes No []
10. Samples have: Tape [] Hazard labels [] Rad labels [] Appropriate sample labels
11. Samples are: In good condition Leaking [] Broken Container [] Missing []
12. Samples are: Preserved Not preserved pH < 2 / N/A Preservative HNO3
13. Describe any anomalies:

14. Was P.M. notified of any anomalies? Yes [] No [] Date _____

15. Inspected by [Signature] Date: 03/23/11 Time: 1030

Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe	Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	wipe
<u>As shipped</u>	<u>< 60</u>						

Ion Chamber Ser. No. _____ Calibration date _____
 Alpha Meter Ser. No. _____ Calibration date _____
 Beta/Gamma Meter Ser. No. 100482 Calibration date 24 SEP 10

APPENDIX G

Section 19

Outfall 006 – March 20 & 21, 2011

MEC^X Data Validation Report



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IUC2184

Prepared by

MEC^x, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
 Contract Task Order: 1261.100D.00
 Sample Delivery Group: IUC2184
 Project Manager: B. Kelly
 Matrix: Water
 QC Level: IV
 No. of Samples: 1
 No. of Reanalyses/Dilutions: 0
 Laboratory: TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 006	IUC2184-03	G1C230563-001, S103142-01	Water	3/21/2011 17:35	200.7, 200.7 (diss), 245.1, 245.1 (Diss), 314.0, 525.2, 1613B, 900.0 MOD, 901.1 MOD, 903.0 MOD, 904 MOD, 905 MOD, 906.0 MOD, ASTM 5174, SM2340B, SM2340B (diss), SM2540D

II. Sample Management

No anomalies were observed regarding sample management. The samples were received above the temperature limit at Eberline; however, due to the nonvolatile nature of the analytes, no qualifications were required. The samples in this SDG were received at the remaining laboratories within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact upon receipt at Eberline and TestAmerica-West Sacramento. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: L. Calvin

Date Reviewed: April 10, 2011

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0)*, *USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review (8/02)*.

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
 - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was analyzed prior to the initial calibration sequence and at the beginning of each analytical sequence. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.
 - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.
- Calibration: Calibration criteria were met.
 - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs $\leq 20\%$ for the 15 native compounds (calibration by isotope dilution) and $\leq 35\%$ for the two native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.
 - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.
- Blanks: The method blank had a detect between the EDL and the reporting limit for OCDD; however, the method blank concentration was insufficient to qualify the associated sample result for OCDD.

- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613, and RPDs were within the laboratory control limit of ≤50%.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The labeled standard recoveries in the sample were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.
- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating a representative number of reportable sample results. Individual isomers reported as EMPCs were qualified as estimated nondetects, “UJ,” at the level of the EMPC. Totals including EMPCs were qualified as estimated, “J.” Any detects reported between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, “J,” and coded with “DNQ,” in order to comply with the NPDES permit. Nondetects are valid to the EDL.

B. EPA METHODS 200.7 and 245.1—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: April 11, 2011

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Methods 200.7, 245.1, and SM2340B*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: Analytical holding times, six months for ICP metals and 28 days for mercury, were met.
- Tuning: Not applicable to these analyses.
- Calibration: The dissolved silver ICV was recovered above the control limit; however, silver was not detected in the sample. Mercury initial calibration r^2 values were ≥ 0.995 and

all initial and continuing calibration recoveries were within 90-110% for the ICP metals and 85-115% for mercury. CRDL/CRI recoveries were within the control limits of 70-130%.

- Blanks: Method blanks and CCBs had no applicable detects.
- Interference Check Samples: Recoveries were within 80-120%.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. All CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

C. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks

Date Reviewed: April 19, 2011

The samples listed in Table 1 for these analyses were validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM Method D-5174, and the National Functional Guidelines for Inorganic Data Review (10/04)*.

- **Holding Times:** The tritium sample was analyzed within 180 days of collection. The remaining aliquots were prepared within the five-day analytical holding time for unpreserved samples.
- **Calibration:** The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

The gross alpha detector efficiency was less than 20%; therefore, gross alpha detected in the sample was qualified as estimated, "J." The remaining detector efficiencies were $\geq 20\%$.

The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. All chemical yields were at least 40% and were considered acceptable. The gamma spectroscopy analytes were determined at the maximum photopeak energy. The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis.

- **Blanks:** There were no analytes detected in the method blanks.
- **Blank Spikes and Laboratory Control Samples:** The strontium recovery was nominally above the control limit; however, strontium was not detected in the sample. The remaining recoveries were within laboratory-established control limits.
- **Laboratory Duplicates:** No laboratory duplicate analyses were performed on the sample in this SDG.
- **Matrix Spike/Matrix Spike Duplicate:** No MS/MSD analyses were performed for the sample in this SDG. Method accuracy was evaluated based on the LCS results.
- **Sample Result Verification:** An EPA Level IV review was performed for the sample in this data package. The sample results and MDAs reported on the sample result form were verified against the raw data and no calculation or transcription errors were noted. Any detects between the MDA and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDA. Total uranium, normally reported in aqueous units, was converted to pCi/L using the conversion factor of 0.67 for naturally occurring uranium.

A notation in the preparation log indicated that a portion of the aliquots were filtered and that the filtrate was dissolved and added back to the aliquot.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

D. EPA METHOD 525.2—Semivolatile Organic Compounds (SVOCs)

Reviewed By: P. Meeks

Date Reviewed: April 11, 2011

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0)*, *EPA Method 525.2*, and the *National Functional Guidelines for Organic Data Review (10/99)*.

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted within 24 hours of collection and analyzed within 30 days of extraction.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The sample was analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria were met. The initial calibration average RRFs were ≥ 0.05 and %RSD $\leq 30\%$. The continuing calibration RRFs were ≥ 0.05 and recoveries were within the method QC limits of 70-130%.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: The recoveries and RPDs were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy and precision were evaluated based on the LCS/LCSD results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC

data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
- Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the method control limits established by the continuing calibration standards of $\pm 30\%$.
- Compound Identification: Compound identification was verified. The laboratory analyzed for chlorpyrifos and diazinon by Method 525.2. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified. The reporting limits were supported by the low point of the initial calibration and the laboratory MDLs. Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this analysis.
- System Performance: Review of the raw data indicated no problems with system performance.

E. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: April 11, 2011

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Methods 314.0 and SM2540D*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: Analytical holding times, seven days from collection for TSS and 28 days from collection for perchlorate, were met.
- Calibration: Calibration criteria were met. Perchlorate initial calibration r^2 values were ≥ 0.995 and all initial and continuing calibration recoveries were within 90-110%. Perchlorate IPC-MS and ICCS were within 80-120% and 75-125%, respectively. The balance calibration logs were acceptable.
- Blanks: Method blanks and CCBs had no detects.

- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Sample Result Verification: The perchlorate chromatogram was reviewed and found to be acceptable. Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms IUC2184

Analysis Method 900

Sample Name	Outfall 006 (Comp)	Matrix Type:	WATER	Validation Level:	IV			
Lab Sample Name:	IUC2184-03	Sample Date:	3/21/2011 5:35:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha	12587461	2.03	3	0.423	pCi/L	Jb	J	C, DNQ
Gross Beta	12587472	10.9	4	0.856	pCi/L			

Analysis Method 901.1

Sample Name	Outfall 006 (Comp)	Matrix Type:	WATER	Validation Level:	IV			
Lab Sample Name:	IUC2184-03	Sample Date:	3/21/2011 5:35:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium-137	10045973	ND	20	1.61	pCi/L	U	U	
Potassium-40	13966002	ND	25	22.1	pCi/L	U	U	

Analysis Method 903.1

Sample Name	Outfall 006 (Comp)	Matrix Type:	WATER	Validation Level:	IV			
Lab Sample Name:	IUC2184-03	Sample Date:	3/21/2011 5:35:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-226	13982633	0.673	1	0.813	pCi/L	U	U	

Analysis Method 904

Sample Name	Outfall 006 (Comp)	Matrix Type:	WATER	Validation Level:	IV			
Lab Sample Name:	IUC2184-03	Sample Date:	3/21/2011 5:35:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-228	15262201	-0.058	1	0.593	pCi/L	U	U	

Analysis Method 905

Sample Name	Outfall 006 (Comp)	Matrix Type:	WATER	Validation Level:	IV			
Lab Sample Name:	IUC2184-03	Sample Date:	3/21/2011 5:35:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium-90	10098972	-0.24	2	0.725	pCi/L	U	U	

Analysis Method 906

Sample Name Outfall 006 (Comp) **Matrix Type:** WATER **Validation Level:** IV
Lab Sample Name: IUC2184-03 **Sample Date:** 3/21/2011 5:35:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028178	-86.9	500	168	pCi/L	U	U	

Analysis Method ASTM 5174-91

Sample Name Outfall 006 (Comp) **Matrix Type:** WATER **Validation Level:** IV
Lab Sample Name: IUC2184-03 **Sample Date:** 3/21/2011 5:35:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Uranium, Total	NA	0.354	1	0.02	pCi/L	Jb	J	DNQ

Analysis Method EPA 200.7

Sample Name Outfall 006 (Comp) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: IUC2184-03 **Sample Date:** 3/21/2011 5:35:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	7429-90-5	3900	50	40	ug/l			
Arsenic	7440-38-2	ND	10	7.0	ug/l		U	
Beryllium	7440-41-7	ND	2.0	0.90	ug/l		U	
Boron	7440-42-8	0.025	0.050	0.020	mg/l	J	J	DNQ
Calcium	7440-70-2	18	0.10	0.050	mg/l			
Chromium	7440-47-3	5.2	5.0	2.0	ug/l			
Iron	7439-89-6	3.3	0.040	0.015	mg/l			
Magnesium	7439-95-4	2.4	0.020	0.012	mg/l			
Nickel	7440-02-0	3.3	10	2.0	ug/l	J	J	DNQ
Silver	7440-22-4	ND	10	6.0	ug/l	C	U	
Vanadium	7440-62-2	8.2	10	3.0	ug/l	J	J	DNQ
Zinc	7440-66-6	15	20	6.0	ug/l	J	J	DNQ

Analysis Method EPA 200.7-Diss

Sample Name Outfall 006 (Comp) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: IUC2184-03 **Sample Date:** 3/21/2011 5:35:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	7429-90-5	55	50	40	ug/l			
Arsenic	7440-38-2	ND	10	7.0	ug/l		U	
Beryllium	7440-41-7	ND	2.0	0.90	ug/l		U	
Boron	7440-42-8	0.028	0.050	0.020	mg/l	J	J	DNQ
Calcium	7440-70-2	16	0.10	0.050	mg/l			
Chromium	7440-47-3	ND	5.0	2.0	ug/l		U	
Iron	7439-89-6	0.037	0.040	0.015	mg/l	J	J	DNQ
Magnesium	7439-95-4	1.5	0.020	0.012	mg/l			
Nickel	7440-02-0	ND	10	2.0	ug/l		U	
Silver	7440-22-4	ND	10	6.0	ug/l		U	
Vanadium	7440-62-2	ND	10	3.0	ug/l		U	
Zinc	7440-66-6	ND	20	6.0	ug/l		U	

Analysis Method EPA 245.1

Sample Name Outfall 006 (Comp) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: IUC2184-03 **Sample Date:** 3/21/2011 5:35:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.20	0.10	ug/l		U	

Analysis Method EPA 245.1-Diss

Sample Name Outfall 006 (Comp) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: IUC2184-03 **Sample Date:** 3/21/2011 5:35:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.20	0.10	ug/l		U	

Analysis Method EPA 314.0

Sample Name Outfall 006 (Comp) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: IUC2184-03 **Sample Date:** 3/21/2011 5:35:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Perchlorate	14797-73-0	ND	4.0	0.90	ug/l		U	

Analysis Method EPA 525.2

Sample Name	Outfall 006 (Comp)	Matrix Type:	Water	Validation Level:	IV			
Lab Sample Name:	IUC2184-03	Sample Date:	3/21/2011 5:35:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Chlorpyrifos	2921-88-2	ND	1.0	0.010	ug/l		U	
Diazinon	333-41-5	ND	0.25	0.10	ug/l		U	

Analysis Method EPA-5 1613B

Sample Name	Outfall 006 (Comp)	Matrix Type:	WATER	Validation Level:	IV			
Lab Sample Name:	IUC2184-03	Sample Date:	3/21/2011 5:35:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822-46-9	5.1e-005	0.00005	0.0000038	ug/L			
1,2,3,4,6,7,8-HpCDF	67562-39-4	ND	5.7e-005	0.0000044	ug/L	Q	UJ	*III
1,2,3,4,7,8,9-HpCDF	55673-89-7	ND	0.00005	0.0000065	ug/L		U	
1,2,3,4,7,8-HxCDD	39227-28-6	ND	0.00005	0.0000017	ug/L		U	
1,2,3,4,7,8-HxCDF	70648-26-9	ND	0.00005	0.0000017	ug/L	J, Q	UJ	*III
1,2,3,6,7,8-HxCDD	57653-85-7	ND	0.00005	0.0000016	ug/L		U	
1,2,3,6,7,8-HxCDF	57117-44-9	ND	0.00005	0.0000016	ug/L	J, Q	UJ	*III
1,2,3,7,8,9-HxCDD	19408-74-3	2.5e-006	0.00005	0.0000014	ug/L	J	J	DNQ
1,2,3,7,8,9-HxCDF	72918-21-9	ND	0.00005	0.0000022	ug/L		U	
1,2,3,7,8-PeCDD	40321-76-4	ND	0.00005	0.0000012	ug/L		U	
1,2,3,7,8-PeCDF	57117-41-6	ND	0.00005	0.0000018	ug/L		U	
2,3,4,6,7,8-HxCDF	60851-34-5	1.3e-006	0.00005	0.0000016	ug/L	J	J	DNQ
2,3,4,7,8-PeCDF	57117-31-4	ND	0.00005	0.0000019	ug/L		U	
2,3,7,8-TCDD	1746-01-6	ND	0.00001	0.0000013	ug/L		U	
2,3,7,8-TCDF	51207-31-9	ND	0.00001	0.0000016	ug/L		U	
OCDD	3268-87-9	0.00059	0.0001	0.0000093	ug/L	B		
OCDF	39001-02-0	ND	0.0001	0.0000038	ug/L	J, Q	UJ	*III
Total HpCDD	37871-00-4	0.00012	0.00005	0.0000038	ug/L			
Total HpCDF	38998-75-3	8.8e-005	0.00005	0.0000044	ug/L	J, Q	J	DNQ, *III
Total HxCDD	34465-46-8	1.5e-005	0.00005	0.0000014	ug/L	J, Q	J	DNQ, *III
Total HxCDF	55684-94-1	3.4e-005	0.00005	0.0000016	ug/L	J, Q	J	DNQ, *III
Total PeCDD	36088-22-9	ND	0.00005	0.0000012	ug/L		U	
Total PeCDF	30402-15-4	ND	0.00005	0.0000018	ug/L		U	
Total TCDD	41903-57-5	ND	0.00001	0.0000013	ug/L		U	
Total TCDF	55722-27-5	ND	0.00001	0.0000016	ug/L		U	

Analysis Method SM 2540D

Sample Name	Outfall 006 (Comp)	Matrix Type:	Water	Validation Level:	IV			
Lab Sample Name:	IUC2184-03	Sample Date:	3/21/2011 5:35:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Suspended Solids	TSS	37	10	1.0	mg/l			

Analysis Method SM2340B

Sample Name	Outfall 006 (Comp)	Matrix Type:	Water	Validation Level:	IV			
Lab Sample Name:	IUC2184-03	Sample Date:	3/21/2011 5:35:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness (as CaCO3)	NA	54	0.33	0.17	mg/l			

Analysis Method SM2340B-Diss

Sample Name	Outfall 006 (Comp)	Matrix Type:	Water	Validation Level:	IV			
Lab Sample Name:	IUC2184-03	Sample Date:	3/21/2011 5:35:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness as CaCO3	NA	47	0.33	0.17	mg/l			
