TSD File Inventory Index

Date June 18, 2004

Initial C M Geneva

Facility Name	St. JOHN'S Hospital
Facility Identification Number	ILD 984841643

A.1 General Correspondence		**B.2 Permit Docket (B.1.2)**	
A.2 Part A / Interim Status		1 Correspondence	
1 Correspondence		2 All Other Permitting Documents (Not Part of the ARA)	
2 Notification and Acknowledgment		**C.1 Compliance - (Inspection Reports)**	
3 Part A Application and Amendments		**C.2 Compliance/Enforcement** C.2	1
4 Financial Insurance (Sudden, Non Sudden)		1 Land Disposal Restriction Notifications	
5 Change Under Interim Status Requests		2 Import/Export Notifications	
6 Annual and Biennial Reports		**C.3 FOIA Exemptions - Non-Releasable Documents**	
A.3 Groundwater Monitoring		**D.1 Corrective Action/Facility Assessment**	
1 Correspondence		1 RFA Correspondence	
2 Reports		2 Background Reports, Supporting Docs and Studies	
A.4 Closure/Post Closure		3 State Prelim. Investigation Memos	
1 Correspondence		4 RFA Reports	
2 Closure/Post Closure Plans, Certificates, etc		**D. 2 Corrective Action/Facility Investigation**	
A.5 Ambient Air Monitoring		1 RFI Correspondence	
1 Correspondence		2 RFI Workplan	
2 Reports		3 RFI Program Reports and Oversight	
B.1 Administrative Record		4 RFI Draft /Final Report	

Total -1

5 RFI QAPP		7 Lab data Soil Sampling/Groundwater	
6 RFI QAPP Correspondence		8 Progress Reports	
7 Lab Data, Soil-Sampling/Groundwater		**D.5 Corrective Action/Enforcement**	
8 RFI Progress Reports		1 Administrative Record 3008(h) Order	
9 Interim Measures Correspondence		.2 Other Non-AR Documents	
10 Interim Measures Workplan and Reports		**D.6 Environmental Indicator Determinations**	
D.3 Corrective Action/Remediation Study		.1 Forms/Checklists	
1 CMS Correspondence		**E. Boilers and Industrial Furnaces (BIF)**	
.2 Interim Measures		.1 Correspondence	
.3 CMS Workplan		.2 Reports	
.4 CMS Draft/Final Report		**F Imagery/Special Studies** (Videos, photos, disks, maps, blueprints, drawings, and other special materials.)	
.5 Stabilization		**G.1 Risk Assessment**	
.6 CMS Progress Reports		.1 Human/Ecological Assessment	
.7 Lab Data, Soil-Sampling/Groundwater		.2 Compliance and Enforcement	
D.4 Corrective Action Remediation Implementation		.3 Enforcement Confidential	
.1 CMI Correspondence		.4 Ecological - Administrative Record	
.2 CMI Workplan		.5 Permitting	
3 CMI Program Reports and Oversight		.6 Corrective Action Remediation Study	
4 CMI Draft/Final Reports		.7 Corrective Action/Remediation Implementation	
.5 CMI QAPP		.8 Endangered Species Act	
6 CMI Correspondence		.9 Environmental Justice	

Note Transmittal Letter to Be Included with Reports
Comments _____

ILD 984 841 073

WASTE MANAGEMENT PLAN
ST. JOHN'S HOSPITAL
SPRINGFIELD, ILLINOIS

RECEIVED
SEP 1 1 2003
By

Prepared For:

ST. JOHN'S HOSPITAL
800 East Carpenter
Springfield, Illinois 62769

JANUARY 2003

MANAGEMENT APPROVAL

This Waste Management Plan is approved by the administration of St. John's Hospital and will be implemented as herein described.

Signature: Dennis Jarman Date: 9-29-03

Name: DENNIS JARMAN

Title: SUPERVISOR PLANT OPERATIONS

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WASTE MANAGEMENT PLAN
ST. JOHN'S HOSPITAL
SPRINGFIELD, ILLINOIS

POLICY

The administration and staff of St. John's Hospital in keeping with our Franciscan tradition of reverence and respect for the natural world, our core value of stewardship of all resources, current governmental and regulatory standards regarding environmental protection and worker safety, and sound business practices, is committed to sensible and effective waste management throughout our campus and in all aspects of our operation.

PURPOSE

This Plan was prepared in accordance with Title 35 of the Illinois Administrative Code (IAC) Part 229 Subpart K to achieve significant reductions in the waste stream and reduce the volume of waste to be incinerated by focusing on each of the objectives listed below:

- Reducing generated waste through prudent and cost-effective management of the purchasing, supply and distribution functions including reviewing the types of materials to be used prior to purchasing for determination of waste handling and incineration capabilities;

- Minimizing generation of potentially infectious medical waste or "red bag waste" through conscientious source separation;

- Minimizing use of hazardous materials and, where such materials must be employed, assuring that the least hazardous are used, and that such materials are handled and disposed of in accordance with federal and state regulations;

- Reusing materials that can be safely reused, and safely and efficiently disposing of materials that cannot be reused;

- Recycling any and all commodities for which local markets can be established;

- Educating staff and patients in safe and environmentally sound handling and disposal of all wastes; and

- Taking a proactive leadership role in the community in dealing with waste management issues.

The Waste Management Plan shall be updated every five years to coincide with either the issuance or renewal of the facility's CAAPP permit and made available for public review during normal business hours.

WASTE MANAGEMENT GOALS

Table 1 shows a four-year history of the amount and type of waste that was generated, incinerated, and compacted at St. John's Hospital. The major focus for reducing generated waste is the following:

- The initial step to reduce the amount of waste being generated is to involve the Purchasing Department to work in cooperation with user departments to reduce packaging materials by receiving items in bulk or to be able to return packaging material to the supplier for reuse. For example, St. John's Hospital currently sends empty computer printer ink cartridges back to the supplier for reuse.

- Mercury reduction efforts have been underway for the past several years and have resulted in a reduction in the amount of mercury entering the waste stream. All spent mercury-containing fluorescent lamps are being recycled and replaced with more environmental friendly fluorescent lamps. St. John's Hospital continues to reduce and eliminate the use of mercury-containing products, equipment and other items.

Table 1. Amount of Generated Waste and Recycled Material.
St. John's Hospital
Springfield, Illinois

1999	Total Waste (lbs.)	Compacted Waste[1] (lbs.)	Incinerated Waste[2] (lbs.)	Red Bag Waste[3] (lbs.)	Recycled Material						Adjusted Patient Days	Index[4]
					Total (lbs.)	Paper (lbs.)	Glass (lbs.)	Aluminum (lbs.)	Cardboard (lbs.)	Tin (lbs.)		
January	273,600	61,929	211,671	0	49,965	7,753	828	238	40,809	337	11,468	23.86
February	265,738	75,120	187,651	2,967	36,514	2,091	0	119	33,630	674	11,202	23.72
March	293,306	113,176	168,247	11,883	54,659	16,852	678	278	35,057	1,794	12,585	23.31
April	278,141	82,592	195,549	0	41,415	6,161	545	240	32,542	1,927	11,262	24.70
May	258,848	69,204	189,644	0	41,871	5,870	706	105	33,327	1,863	10,984	23.57
June	256,186	62,583	193,603	0	68,685	34,291	0	182	32,776	1,436	10,735	23.86
July	255,587	72,570	183,017	0	37,006	1,959	756	215	32,076	2,000	12,105	21.11
August	261,274	55,308	205,966	0	32,135	3,154	0	95	28,065	821	10,152	25.74
September	266,994	74,971	192,023	0	30,470	-3,224	0	187	33,180	327	10,799	24.72
October	262,722	78,792	183,930	0	47,481	13,463	0	214	32,301	1,503	10,944	24.01
November	257,794	67,419	190,375	0	57,345	26,902	736	148	28,266	1,293	10,862	23.73
December	281,850	76,469	205,381	0	29,510	-4,460	0	177	32,116	1,677	10,595	26.60
Total	3,212,040	890,133	2,307,057	14,850	527,056	110,812	4,249	2,198	394,145	15,652	133,693	24.03

Notes:

[1] Compacted waste includes general trash, also known as white bag waste.
[2] Incinerated waste includes red bag waste and white bag waste.
[3] Red bag waste was hauled off-site for disposal in accordance with federal and state regulations.
[4] Index is based on pounds of waste per adjusted patient days.

Table 1 (Continued). Amount of Generated Waste and Recycled Material.
St. John's Hospital
Springfield, Illinois

2000	Total Waste (lbs.)	Compacted Waste[1] (lbs.)	Incinerated Waste[2] (lbs.)	Red Bag Waste[3] (lbs.)	Amount of Recycled Material						Adjusted Patient Days	Index[4]
					Total (lbs.)	Paper (lbs.)	Glass (lbs.)	Aluminum (lbs.)	Cardboard (lbs.)	Tin (lbs.)		
January	295,499	81,576	213,923	0	30,406	No Data Available.	0	126	28,094	2,186	15,604	18.94
February	274,694	84,367	190,327	0	27,579		0	169	25,430	1,980	13,788	19.92
March	289,368	84,971	204,397	0	30,014		0	196	28,246	1,572	14,838	19.50
April	282,795	79,235	203,560	0	27,386		511	0	24,806	2,069	14,673	19.27
May	276,479	84,617	191,862	0	27,895		0	169	25,725	2,001	14,742	18.75
June	257,667	60,232	197,435	0	28,677		0	101	26,515	2,061	14,761	17.46
July	271,358	72,000	199,358	0	27,929		0	114	26,080	1,735	14,905	18.21
August	295,549	130,866	164,683	0	47,147	18,160	0	93	27,300	1,594	15,731	18.79
September	264,891	182,562	82,329	0	41,930	18,100	656	97	21,489	1,588	14,420	18.37
October	269,457	176,903	92,554	0	46,481	20,560	0	96	24,200	1,625	14,929	18.05
November	261,824	162,988	98,836	0	44,270	21,300	0	0	22,219	751	14,160	18.49
December	259,441	173,394	86,047	0	51,296	20,160	0	200	29,900	1,036	13,771	18.84
Total	3,299,022	1,373,711	1,925,311	0	431,010	98,280	1,167	1,361	310,004	20,198	176,322	18.71

Notes:

[1] Compacted waste includes general trash, also known as white bag waste.
[2] Incinerated waste includes red bag waste and white bag waste.
[3] Red bag waste was hauled off-site for disposal in accordance with federal and state regulations.
[4] Index is based on pounds of waste per adjusted patient days.

Table 1 (Continued). Amount of Generated Waste and Recycled Material.
St. John's Hospital
Springfield, Illinois

2001	Total Waste (lbs.)	Compacted Waste[1] (lbs.)	Incinerated Waste[2] (lbs.)	Red Bag Waste[3] (lbs.)	Amount of Recycled Material						Adjusted Patient Days	Index[4]
					Total (lbs.)	Paper (lbs.)	Glass (lbs.)	Aluminum (lbs.)	Cardboard (lbs.)	Tin (lbs.)		
January	324,064	230,933	93,131	0	45,824	19,790	0	165	25,152	717	15,392	21.05
February	273,876	139,162	134,714	0	44,880	24,510	0	0	18,566	1,804	14,107	19.41
March	302,612	166,021	136,591	0	48,005	22,810	0	0	25,195	0	15,811	19.14
April	272,308	153,644	118,664	0	51,335	30,140	0	208	20,331	656	14,202	19.17
May	274,239	116,839	157,400	0	42,008	22,205	0	88	19,715	0	14,004	19.58
June	287,936	132,987	154,949	0	42,360	21,740	806	0	19,501	313	14,486	19.88
July	296,912	159,405	114,870	22,637	45,105	26,795	0	88	18,222	0	13,955	21.28
August	275,640	143,802	131,838	0	46,740	29,125	0	0	17,615	0	13,892	19.84
September	236,368	121,668	114,700	0	56,650	39,955	0	244	16,451	0	13,735	17.21
October	300,093	168,922	131,171	0	39,329	15,790	0	0	23,539	0	14,809	20.26
November	260,927	133,356	120,444	7,127	49,757	31,030	0	79	18,648	0	13,131	19.87
December	230,924	57,907	173,017	0	45,918	26,305	0	94	19,519	0	12,859	17.96
Total	3,335,899	1,724,646	1,581,489	29,764	557,911	310,195	806	966	242,454	3,490	170,383	19.58

Notes:

[1] Compacted waste includes general trash, also known as white bag waste.
[2] Incinerated waste includes red bag waste and white bag waste.
[3] Red bag waste was hauled off-site for disposal in accordance with federal and state regulations.
[4] Index is based on pounds of waste per adjusted patient days.

Table 1 (Continued). Amount of Generated Waste and Recycled Material.
St. John's Hospital
Springfield, Illinois

2002	Total Waste (lbs.)	Compacted Waste[1] (lbs.)	Incinerated Waste[2] (lbs.)	Red Bag Waste[3] (lbs.)	Amount of Recycled Material						Adjusted Patient Days	Index[4]
					Total (lbs.)	Paper (lbs.)	Glass (lbs.)	Aluminum (lbs.)	Cardboard (lbs.)	Tin (lbs.)		
January	281,685	92,367	189,318	0	44,838	23,635	0	96	21,107	0	14,746	19.10
February	240,704	89,253	151,451	0	37,865	19,427	649	193	17,596	0	13,660	17.62
March	257,941	71,427	186,514	0	38,889	18,935	0	87	19,867	0	14,632	17.63
April	259,887	98,177	161,710	0	31,295	13,500[5]	0	104	17,691	0	13,506	19.24
May	246,497	108,688	137,809	0	28,691	11,000[5]	0	0	17,691	0	13,215	18.65
June	248,851	112,827	136,024	0	35,950	13,000[5]	0	449	22,501	0	12,886	19.31
July	267,986	115,821	152,165	0	43,559	17,500[5]	0	58	26,059	0	13,983	19.17
August	262,720	99,321	163,399	0	45,357	18,800[5]	891	68	25,608	0	13,505	19.45
September	251,618	139,217	89,125	23,276	41,770	18,060[5]	0	0	23,710	0	12,801	19.66
October	288,802	237,557	0	51,245	36,349	16,000[5]	0	0	20,349	0	13,933	20.73
November	266,348	220,594	0	45,754	27,959	14,000[5]	0	0	13,959	0	12,828	20.76
December	Data not available at this time.											
Total	2,873,039	1,385,249	1,367,515	120,275	412,522	183,857	1,540	1,055	226,138	0	149,695	19.19

Notes:

[1] Compacted waste includes general trash, also known as white bag waste.
[2] Incinerated waste includes red bag waste and white bag waste.
[3] Red bag waste was hauled off-site for disposal in accordance with federal and state regulations.
[4] Index is based on pounds of waste per adjusted patient days.
[5] The weight of paper recycled was estimated.

- St. John's Hospital also continues efforts to educate staff and place into operations a system that will promote the proper identification and disposal of red bag waste. It is important to reduce the amount of special handling of red bag waste and also reduce the amount that needs to be incinerated. When the incinerator is shutdown for maintenance or repair for more than three days, the hospital must package and haul red bag waste off-site in accordance with federal and state regulations. This adds a cost of $0.25 per pound of waste, which is roughly five times the cost of incineration. St. John's Hospital continues to look at environmental products for the reduction and safe disposal of red bag waste within waste handling and incinerator capabilities.

- St. John's Hospital continues to encourage and educate staff on the opportunities for the proper recycling of materials. Table 1 shows a four-year history of the amount of materials recycled at the hospital. St. John's Hospital has reduced the amount of paper types used (not shown in Table 1) and increased the amount recycled.

- New initiatives are being developed to reduce the overall volume of waste being generated.

Listed below are various environmental stewardship incentives to reduce waste generation:

- Print Shop survey and subsequent award;
- Mercury survey and action plan;
- Mercury thermometer exchange for employees;
- Mercury thermometer exchange for public in cooperation with the City of Springfield;
- Capture and recycle silver from X-Ray;
- Create an internal network system with all department directives, guides and information to reduce paper usage;
- Eliminate time cards;
- Eliminate printed memos by implementing electronic memos;
- Use of china cups and plastic tumblers to reduce use of Styrofoam;

- Recycle tin can containers in Food Production;
- Roll napkins;
- Use of cardboard box bailer and forklift to move bales;
- Recycle aluminum cans;
- Work with individual departments on glass and plastic collection for recycling;
- Use of an employee orientation video to educate on waste management policies and practices; and
- Sale of reusable mugs/cups.

ROLES AND RESPONSIBILITIES

Department managers are charged with the responsibility of ensuring that staff is educated on the proper segregation and handling of waste, including recyclables. The Housekeeping Department is charged with delivering solid waste to the incinerator and/or compactor, and to collect recyclable material to be hauled off-site. The Maintenance and Construction Department is charged with record keeping and disposal of hazardous waste offsite, including red bag waste when the incinerator is shutdown. The Supervisor of Plant Operations in the Maintenance and Construction Department is responsible for the record keeping and reporting of the incinerator operation, maintenance, repair, and shutdown activities and the development and implementation of this Plan.

St. John's Hospital has established the Environmental Stewardship Committee with strong administrative participation to assist the hospital in meeting the waste management challenge. The committee meets monthly to review waste management issues (i.e., waste reduction and recycling) and to coordinate educational and public relations efforts aimed at increasing employee awareness of safe and sensible management of hospital resources. Under the Housekeeping Department, the Recycling Coordinator is a member of this committee and helps in the development and follows through of environmental stewardship initiatives. The Purchasing Department is represented on the committee and is charged with negotiating all hospital purchases with sound environmental and waste disposal costs in mind.

A Patient Care Products Committee is also assisting the hospital in meeting the waste management challenge. This committee reviews equipment and supplies needed for hospital use and costs associated with these products. The Director of Maintenance and Construction is a member of this committee and is responsible for reviewing the disposal requirements for the materials associated with new equipment and supplies to insure disposal of wastes associated with new products do not exceed hospital waste handling and incinerator capabilities. The Purchasing Department is also represented on this committee.

COMMUNICATION AND TRAINING

Staff education starts with general orientation and continues through department orientation. These orientations inform staff of issues such as the proper identification and disposal of wastes, identification and disposal of recyclable materials, and handling and recycling of confidential information once the information is rendered unreadable. Every new employee views an instructional video on environmental stewardship in the hospital. St. John's Hospital is currently considering the use of a computer online competency tool called "NetLearning" to educated staff on waste management.

Other programs are conducted throughout the year to provide opportunities for employee awareness and education. An in-house newsletter, The *Three R's New and Used News* is published quarterly to keep employees abreast of in-house local and national news regarding waste management. Whenever possible, incentives may be used to help provide a positive enthusiastic response to these programs.

EXISTING POLICIES AND PRACTICES

It is the policy of St. John's Hospital to prevent hazards to patients, employees and the public. The following policies and practices are in place and will be used in conjunction with this Plan:

- Hazardous Materials and Waste Management Plan, Administrative Directive No. 15-8451-2;

- Hazard Communication Program, Administrative Directive No. 15-8451-3;

- Hazardous Materials and Waste Handling Program, Maintenance and Construction Departmental Directive No. 8411-2; and

- Employee Right-To-Know Program (Hazardous Materials), Maintenance and Construction Departmental Directive No. 8411-3.

These directives are reviewed by departmental managers on an ongoing basis and as required by federal and state regulations.

WASTE MANAGEMENT TRACKING SYSTEM

Systems have been developed to track the amount of waste and recyclable material that is being generated at St. John's Hospital. The Recycling Coordinator and the Supervisor of Plant Operations are responsible for tracking these quantities on a monthly basis, and comparing these quantities annually to show the success of the efforts for implementing various waste management programs. Some comparative baseline of institution activity such as adjusted patient days will be used as a benchmark (see Table 1). Goals for quantifiable reductions in volumes of waste will be established.

WASTE MANAGEMENT PROGRESS REPORT

In accordance with 35 IAC Part 229.176(g), St. John's Hospital shall submit a Waste Management Progress Report to the Illinois Environmental Protection Agency annually, along with the Annual Emissions Report required by 35 IAC Part 201.302 and Part 254. The progress report shall include the following elements:

- A description of progress made during the previous calendar year toward meeting the goals established in the Waste Management Plan,

- A summary of the waste management practices that were implemented, and

- Any amendments to the Waste Management Plan along with a brief explanation of the need for the amendments.

The Waste Management Progress Reports, along with the Waste Management Plan, shall be made available for public review during normal business hours.

St. John's Hospital
800 E. Carpenter Street
Springfield, Illinois 62769
217 / 544-6464

October 9, 2003

U.S. Environmental Protection Agency
Attn: Waste, Pesticides & Toxic Division
77 W. Jackson Boulevard (D-8J)
Chicago, Illinois 60604-3511

RE: CAAP Permit
St. John's Hospital
Springfield, Illinois

In accordance with the provisions of the above permit, enclosed is Waste Management Plan dated January 3, 2003, and Custom Stack Analysis Report dated September 3 & 4, 2003.

Please feel free to contact me if you have any questions or require additional information.

Sincerely,

Dennis Jarman

Dennis Jarman
Supervisor, Plant Operations/
Maintenance & Construction

DJ:cjb

Enclosures

10-9-03 Jarman-USEPA

RECEIVED
OCT 14 2003
Waste Management Branch
Waste, Pesticides and Toxics Division
U.S. EPA - Region 5

St. Johns Hospital
800 East Carpenter Street
Springfield, IL. 62769

Report

Performed Velocity, Temperature, Moisture, Particulate, Sulfur Dioxide, Nitric Acid, Opacity, Dioxin/Furans, Hydrochloric Acid, Carbon Monoxide and Metals Emissions Testing

Sampling performed on the Incinerator Outlet

Springfield, IL.

Test Date: 09/03/03-09/04/03

IL ID 984 841643

St. Johns Hospital
800 East Carpenter Street
Springfield, IL. 62769

Report

Performed Velocity, Temperature, Moisture, Particulate, Sulfur Dioxide, Nitric Acid, Opacity, Dioxin/furans, Hydrochloric Acid,Carbon Monoxide and Metals Emissions Testing

Sampling performed on the Incinerator Outlet

Springfield, IL.

Test Date: 09/03/03-09/04/03

James K. Gray

James K. Gray
Custom Stack Analysis, LLC.

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EXECUTIVE SUMMARY

Custom Stack Analysis, LLC. conducted emissions sampling using USEPA Methods 1-5, 6, 7E, 9, 10, 23, 26A and 29. Testing was conducted on the incinerator outlet. This testing was conducted on September 3rd and 4th, 2003 for velocity, temperature, moisture, particulate, sulfur dioxide, nitrogen oxide, opacity, carbon monoxide, dioxin/furans, hydrochloric acid, cadmium, lead and mercury emissions determination. The testing was conducted for compliance purposes. The Custom Stack Analysis, LLC. test crew consisted of Mr. James Gray, Mr. Jeff Pittman, Mr. Jeremy Davis, Mr. Tom Graber and Mr. Robert Fickle. The testing procedures were coordinated by Mr. Dennis Jarman of St. John's Hospital, Mr. Al Anderson of Anderson Masonry Refractory Specialist, Inc. and Mr. Cabot Thunem. All testing procedures were witnessed by Mr. Kenneth Erewele of the Illinois Environmental Protection Agency.

The following source is a medical waste incinerator with a rated capacity of 1000 lbs/hr. The gases from the incinerator are cooled down to 400 degrees Fahrenheit by a heat recovery boiler. The gases then pass through a fabric filter baghouse and out a 20 inch diameter stack.

A description of the testing protocol is included on pages 5-12. All testing calculations are located on pages 20-31. Appendix 1 includes field test data. Appendix 2 contains laboratory data from Custom Stack Analysis, LLC. and Data Analysis Technologies, Inc. Appendix 3 contains calibration data for equipment used on test day. Appendix 4 contains monitoring data for carbon monoxide and nitrogen oxide. Appendix 5 contains process data from St. John's Hospital. Test results are located on pages 2-4.

TEST RESULTS

(HCL/Particulate/CO/NO_x/SO_2)

9/03/03-09/04/03
Incinerator Outlet

	Run #1	Run #2	Run #3	AVG
Stack Gas Velocity (ft/sec)	36.27	34.3	35.18	
Standard Cubic feet an hour	174,886	158,310	167,331	
Actual Cubic feet per minute	4,744	4,486	4,601	
Moisture %	8.95 %	12.98 %	10.09 %	10.67 %
Isokinicity %	103.97 %	101.54 %	98.12 %	101.21%
Carbon Dioxide %	6.8 %	6.4 %	6.4 %	6.5 %
Oxygen %	11.2 %	11.8 %	11.8 %	11.6 %
Nitrogen %	82.0 %	81.8 %	81.8 %	81.9 %
HCL (ppm corrected to 7% O_2)	5.5	3.5	13.7	7.6
HCL(lbs/hr)	.06	.03	.14	.08
Carbon Monoxide (lbs/hr)	.009	.007	.011	.009
Carbon Monoxide (PPM)	1.0	.96	1.33	1.10
Nitrogen Oxide (lbs/hr)	1.83	1.59	1.45	1.62
Nitrogen Oxide (PPM)	125.3	128.19	134.9	129.5
Sulfur Dioxide (lbs/hr)	.49	.42	.51	.47
Sulfur Dioxide (PPM)	24.4	24.5	28.2	25.7

Custom Stack Analysis, LLC. P. O. Box 3750 14614 Cenfield St. N.E. Alliance, Ohio 44601 Phone: 330-525-5119 Fax: 330-525-7908 E-mail: stacks@customstackanalysis.com

TEST RESULTS

Metals/Particulate
09/03/03-09/04/03

	Run #1	Run #2	Run #3	AVG
Stack Gas Velocity (ft/sec)	37.54	34.22	34.71	
Standard cubic feet an hour	179,202	161,257	161,701	
Actual cubic feet per minute	4,911	4,476	4,540	
Moisture %	8.83 %	10.35 %	9.90 %	9.69 %
Isokinicity %	97.33 %	98.85 %	100.62 %	98.93 %
Carbon Dioxide %	6.8 %	6.4 %	6.4 %	6.5 %
Oxygen %	11.2 %	11.8 %	11.8 %	11.6 %
Nitrogen %	82.0 %	81.8 %	81.8 %	81.9 %
Particulate (lbs/hr)	.03	.03	.03	.03
Particulate (grains/dscf corrected to 7% O_2)	.0018	.0018	.0022	.0019
Opacity %	0 %	0 %	0 %	0 %
Cadmium (lbs/hr)	3.7356 E-06	1.4728 E-06	2.8937 E-06	2.7007 E-06
(CS, #/scf)	2.0846 E-11	9.1335 E-12	1.7895 E-11	1.5958 E-11
(C' ' S, grn/scf)	1.4559 E-07	6.3790 E-08	1.2498 E-07	1.1145 E-07
(C12, gr/scf) corrected to 12% CO_2	2.5692 E-07	1.1961 E-07	2.3434 E-07	2.0362 E-07
(07, gr/scf) corrected to 7% O_2	2.0863 E-07	9.7437 E-08	1.9091 E-07	1.6566 E-07
mg/dscm @ 7% 02	.0005	.0002	.0004	.0004
Lead (lbs/hr)	4.1921 E-05	4.7622 E-05	1.8327 E-05	3.5957 E-05
(CS, #/scf)	2.3393 E-10	2.9532 E-10	1.1334 E-10	2.1420 E-10
(C' ' S, grn/scf)	1.6338 E-06	2.0625 E-06	7.9156 E-07	1.4960 E-06
(C12, gr/scf) corrected to 12% CO_2	2.8832 E-06	3.8672 E-06	1.4842 E-06	2.7449 E-06
(07, gr/scf) corrected to 7% O_2	2.3413 E-06	3.1505 E-06	1.2091 E-06	2.2336 E-06
mg/dscm @ 7% 02	.0054	.0072	.0028	.0051
Mercury (lbs/hr)	5.0638 E-05	4.3694 E-05	1.9291 E-05	3.7874 E-05
(CS, #/scf)	2.8257 E-10	2.7097 E-10	1.1930 E-10	2.2428 E-10
(C' ' S, grn/scf)	1.9735 E-06	1.8924 E-06	8.3322 E-07	1.5664 E-06
(C12, gr/scf) corrected to 12% CO_2	3.4827 E-06	3.5483 E-06	1.5623 E-06	2.8644 E-06
(07, gr/scf) corrected to 7% O_2	2.8281 E-06	2.8906 E-06	1.2727 E-06	2.3305 E-06
mg/dscm @ 7% 02	.0065	.0066	.0029	.0053

TEST RESULTS

Dioxin/Furan
09/03/03-09/04/03

	Run #1	Run #2	Run #3	AVG
Stack Gas Velocity (ft/sec)	37.03	36.82	36.22	
Standard cubic feet an hour	172,891	174,267	170,037	
Standard cubic feet per minute	4,843	4,816	4,737	
Moisture %	10.69%	9.97%	9.54%	10.07%
Isokinicity %	100.54%	102.04%	100.28%	100.95%
Carbon Dioxide %	6.8%	6.4%	6.4%	6.5%
Oxygen %	11.6%	11.8%	11.8%	11.7%
Nitrogen %	81.6%	81.8%	81.8%	81.7%
DIOXINS ng / dscm @ 7% 02				
2378-TCDD =	0.0000	0.0000	0.0000	0.0000
12378-PeCDD =	0.0000	0.0000	0.0230	0.0077
123478 -HxCDD =	0.0264	0.0151	0.0247	0.0221
123678-HxCDD =	0.0748	0.0457	0.0719	0.0641
123789-HxCDD =	0.0626	0.0315	0.0548	0.0496
1234678-HpCDD =	0.5587	0.3458	0.5824	0.4956
OCDD =	1.2793	0.8089	1.3937	1.1606
Total TCDD =	1.7841	1.4234	1.9790	1.7288
Total PeCDD =	1.3225	0.0932	1.4169	0.9442
Total HxCDD =	1.2928	0.8244	1.2923	1.1365
Total HpCDD =	1.1471	0.7626	1.2170	1.0422
FURANS ng / dscm @ 7% 02				
2378-TCDF =	0.0445	0.0257	0.0484	0.0395
12378-PeCDF =	0.0764	0.0374	0.0774	0.0637
23478-PeCDF=	0.1644	0.0982	0.1631	0.1419
123478-HxCDF =	0.4130	0.2223	0.4317	0.3557
123678-HxCDF =	0.1995	0.1050	0.2028	0.1691
234678-HxCDF =	0.3860	0.2025	0.3970	0.3285
123789-HxCDF =	0.0275	0.0144	0.0186	0.0202
1234678-HpCDF =	0.6990	0.4446	0.6635	0.6024
1234789-HpCDF =	0.2275	0.1392	0.1828	0.1832
OCDF	0.9177	0.5650	0.8229	0.7685
Total TCDF =	3.1039	2.1983	3.5060	2.9361
Total PeCDF =	2.2051	1.5036	2.4890	2.0659
Total HxCDF =	2.2213	1.1115	2.1529	1.8286
Total HpCDF =	1.6842	1.0405	1.5125	1.4124

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METHOD 1

Sample and velocity traverses for stationary sources.

To aid in the representative measurement of pollutant emissions and/ or total volumetric flow rate from a stationary source, a measurement site where the effluent stream is flowing in a known direction is selected, and the cross-section of the stack is divided into a number of equal areas. A traverse point is then located within each of these equal areas.

METHOD 2

Determination of stack gas velocity and volumetric flow rate.

The average gas velocity in a stack is determined from the gas density and from measurement of the average velocity head with a Type S (Stausscheibe or reverse type) pitot tube.

METHOD 3

Gas analysis for the determination of dry molecular weight.

This method is applicable for determining carbon dioxide and oxygen concentrations and dry molecular weight of a sample from a gas stream of a fossil-fuel combustion process.

METHOD 4

Determination of moisture content in stack gases.

A gas sample is extracted at a constant rate from the source. It is determined either volumetrically or gravimetrically.

METHOD 6 TESTING DESCRIPTION

The gases were drawn through a glass probe connected to the impinger train where it first passed through a midget bubbler containing 15 ml of 80% isopropyl alcohol. A wad of glass wool was packed in the top of the bubbler to collect any acid mist carryover. The gases then passed through two midget impingers, each containing 15 ml of 3% hydrogen peroxide solution followed by an empty midget impinger to collect the carryover from the preceeding impingers. The midget bubbler and impingers were contained in an ice bath to condense acid and water vapor. After leaving the dry trap the gases passed through a "Drierite" column containing about 500 grams of "Drierite" via rubber hose to remove the remaining water vapor. The dry gas was transmitted to the module through a "polyflow" tubing. In the module the gas was moved through the system by a leakless air pump connected to the rotometer to measure the gas flow rate and a Rockwell type "S" dry test meter to measure the gas volume. The dry test meter was equipped with a thermometer located in the top half of the gas meter to measure the temperature of the meter. The gas from the meter was discharged to the atmosphere.

Class "A" burreftes and pipets were used for the titration in the lab analysis of the contents of the impinger.

METHOD 7E TESTING DESCRIPTION

A gas sample is continuously extracted from the stack, and a portion of the sample is conveyed to an instrumental analyzer for determination of NO_x gas concentration using a chemiluminescence analyzer. The gases pass through a heated sampling probe and filter to prevent condensation. The gases then pass through a calibration valve to a heated sampling line. After the heated sampling line is a Universal Analyzers Model 530 air cooled single sample thermoelectric water condenser with a perostolic pump for moisture removal. The sample is then passed through to a Thermo Environmental Instruments Model 42C chemiluminescence analyzer where the gases are analyzed for NO_x concentrations. Before the testing procedures commence the analyzer is left to warm up for a 90 minute period. It is then calibrated according to Method 6C specifications. The span of the monitoring system shall be selected such that the pollutant gas concentration equivalent to the emission standard is not less than 30 percent of the span. Three calibration gases are selected. The High-Range gas concentrations shall be equivalent to 80 to 100 percent of the span. Mid-Range concentrations shall be equivalent to 40 to 60 percent of the span. The Zero-Gas concentrations of less than 0.25 percent of the span. Before the first run an analyzer calibration error check is conducted. If the zero, mid, or high cal gases expected concentrations differ by more than +-2% of the span then the procedure needs to be repeated until acceptable results are obtained. After the analyzer calibration check all three calibration gases are introduced to the sampling calibration valve and recorded. If any of the readings of the analyzer cal to the bias cal differs by more than +- 5% then the calibration shall be considered invalid. At the conclusion of each of the test runs the zero gas and an upscale gas closest to the concentrations are introduced to the calibration valve assembly. If either the zero or upscale value exceeds +-3% of the span, then the run is considered invalid.

METHOD 10 TESTING DESCRIPTION

A gas sample is continuously extracted from the stack, and a portion of the sample is conveyed to an instrumental analyzer for determination of CO gas concentration using a Luft-type nondispersive infrared analyzer. The gases pass through a heated sampling probe and filter to prevent condensation. The gases then pass through a calibration valve to a heated sampling line. After the heated sampling line is a Universal Analyzers Model 530 air cooled single sample thermoelectric water condenser with a perostolic pump for moisture removal. The sample is then passed through an ascarite tube to a Thermo Environmental Instruments Model 48C Luft-type analyzer where the gases are analyzed for CO concentrations. Before the testing procedures commence the analyzer is left to warm up for a 90 minute period. It is then calibrated according to Method 10 specifications. The span concentration shall not exceed 1.5 times the applicable source performance standard. Known concentrations of CO in nitrogen for instrument span along with gases approximately 60% and 30% of span. A purified grade of N_2 for Zero. Before the first run all calibration gases are introduced to the sampling calibration valve and recorded. At the conclusion of each of the test runs the zero gas and the span gas are introduced to the calibration valve assembly.

METHOD 23 TESTING DESCRIPTION

Polychlorinated dibenzo-p-dioxins (PSDD's) and polychlorinated dibenzofurans (PCDF's) samples were collected following EPA Method 23. Each point was sampled for 20 minutes for a total of a 240 minute test. Three 240 minute test repetitions were performed. The equipment used for testing consisted of a Burrell Model B orsat analyzer and a Alliance Pollution Control Stack Train Sampler (EPA type). A type "S" pitot and a heated sampling probe was used with the sampling train. All equipment was calibrated in the laboratory prior to the test. The sampling nozzle and the pitot tubes were measured on the day of the test. All calibrations can be found in the appendix. The gases are passed through a heated glass probe and a heated glass four inch filter holder containing Gelman Type A-E fiberglass filter media. The gases leaving the filter pass through a cooling condenser to an XAD-2 sorbent trap. The condenser and the XAD-2 trap are kept below 68 degrees F by a pump circulating water. Once the gases pass through the trap they are collected in a series of four impingers packed in ice. The first, second, and fourth impingers were the modified Greenburg-Smith type and the third one was a standard Greenburg-Smith type. The first impinger is left empty. The second and third impinger contained 100 ml of distilled water. The fourth impinger is left empty. After leaving the fourth impinger the gases pass through a "Drierite" column containing about 500 grams of calcium sulfate (CaSO4) desicant to remove any remaining water vapor. The dry gas then passed through the hose portion of the umbilical cord to an Alliance Pollution Control "Stack sampler" module. In the module the gas was moved through the system by a leakless air pump to a Rockwell 175-S dry test meter. The dry test meter exhausted to a calibrated orifice to measure the flow rate of the gases passing through the sampling apparatus. A type "S" pitot tube was attached to the sheath of the heated probe and nozzle. The orifice pressure taps and the pitot tube were connected to a Dwyer dual 10 inch combination inclined-well type manometer. One half of the manometer measured the orifice differential pressure (^H) and the other half measured the flue gas velocity head (^P). The temperature of the flue gas was measured by a type "K" thermocouple connected to a Marlin digital temperature controller. The C02 and 02 levels were determined using a Burrell "Indurstrial" Model B orsat analyzer .

METHOD 26A TESTING DESCRIPTION

Samples were collected following EPA Method 26A. Each point was sampled for 5 minutes for a total of a 60 minute test. Three 60 minute tests were performed. The equipment used for testing consisted of a Burrell Model B orsat analyzer and a Custom Stack Analysis Sampling Apparatus (EPA type). A type "S" pitot and a heated sampling probe was used with the sampling train. All equipment was calibrated in the laboratory prior to the test. The sampling nozzle and the pitot tubes were measured on the day of the test. All calibrations can be found in the appendix. The gases are passed through a heated pyrex probe and a heated glass four inch filter holder containing Pallflex TX40HI45 filter media. The gases leaving the filter were collected in a series of six impingers packed in ice. The first, second and third impinger shall be of the Greensburg-Smith design with a standard tip. The first two impingers contained 100 ml of 0.1 N H_2SO_4. The next impinger contained 100 ml of 0.1 N NaoH and the last impinger was left empty. After passing through the fourth impinger the gases pass through a "Drierite" column containing about 500 grams of calcium sulfate (CaSO4) desicant to remove the remaining water vapor. The dry gas then passed through the hose portion of the umbilical cord to a Custom Stack Analysis Model #3000 stack sampling module. In the module the gas was moved through the system by a leakless air pump to a Rockwell 175-S dry test meter. The dry test meter exhausted to a calibrated orifice to measure the flow rate of the gases passing through the sampling apparatus. A type "S" pitot tube was attached to the sheath of the heated probe and nozzle. The orifice pressure taps and the pitot tube were connected to a Dwyer dual 10 inch combination inclined-well type manometer. One half of the manometer measured the orifice differential pressure (^H) and the other half measured the flue gas velocity head (^P). The temperature of the flue gas was measured by a type "K" thermocouple connected to a Marlin Digital Temperature Indicator. The CO_2 and 0_2 levels were determined using a Burrell "Industrial Model B orsat analyzer.

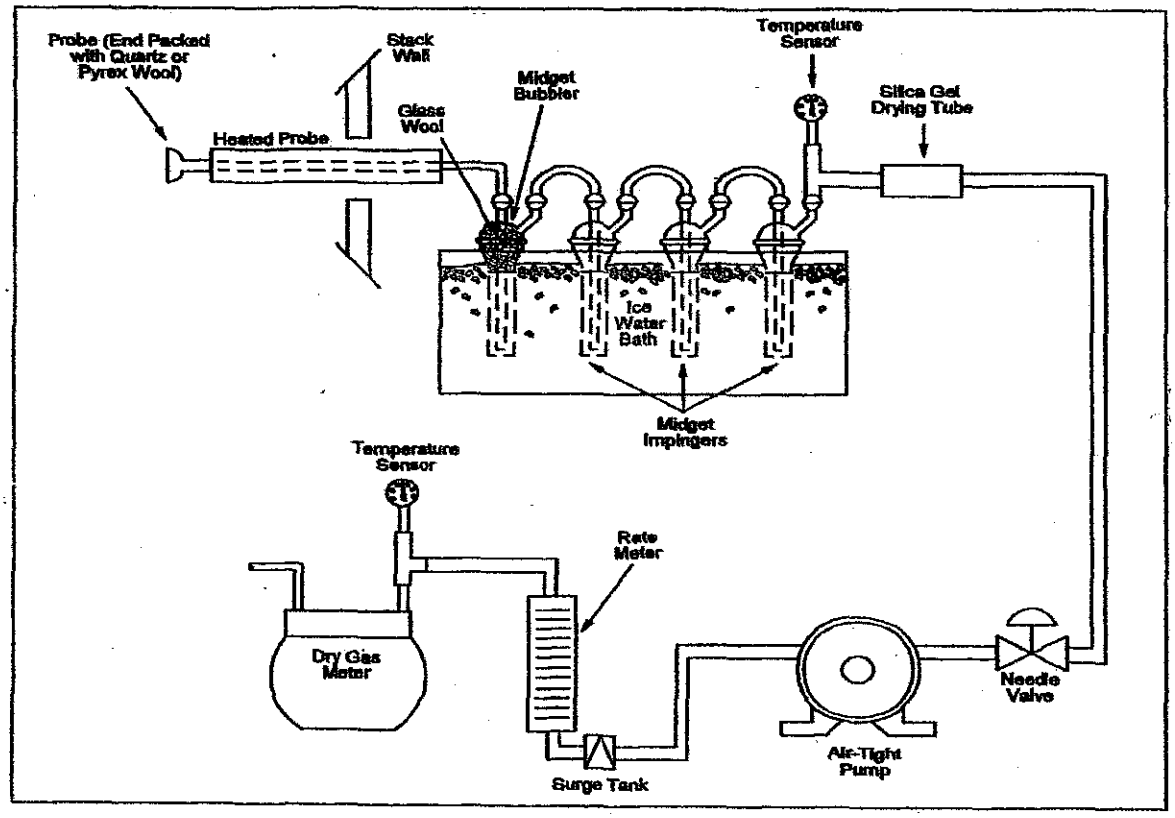
METHOD 29 TESTING DESCRIPTION

Samples were collected following EPA Method 29. Their was a total of 12 traverse points. Each point was sampled for 10 minutes for a total of a 120 minute test. Three 60 minute test repetitions were performed. The equipment used for testing consisted of a Burrell Model B orsat analyzer and a Alliance Pollution Control Stack Train Sampler (EPA type). A type "S" pitot and a heated sampling probe was used with the sampling train. All equipment was calibrated in the laboratory prior to the test. The sampling nozzle and the pitot tubes were measured on the day of the test. All calibrations can be found in the appendix. The gases are passed through a heated pyrex probe and a heated glass four inch filter holder containing Gelman Type A-E fiberglass filter media. The gases leaving the filter were collected in a series of six impingers packed in ice. The first, second, fourth, fifth, and sixth impingers were the modified Greenburg-Smith type and the third one was a standard Greenburg-Smith type. The first impinger is left empty. The second and third impinger contained 100 ml each of HNO_3 / H_2O_2. The gases then pass through the fourth impinger which is left empty. After leaving the fourth impinger the gases passed through a fifth and sixth impinger containing 100 ml each of acidified KMnO4. They then pass through a "Drierite" column containing about 500 grams of calcium sulfate (CaSO4) desicant to remove any remaining water vapor. The dry gas then passed through the hose portion of the umbilical cord to an Alliance Pollution Control "Stack Sampler" module. In the module the gas was moved through the system by a leakless air pump to a Rockwell 175-S dry test meter. The dry test meter exhausted to a calibrated orifice to measure the flow rate of the gases passing through the sampling apparatus. A type "S" pitot tube was attached to the sheath of the heated probe and nozzle. The orifice pressure taps and the pitot tube were connected to a Dwyer dual 10 inch combination inclined-well type manometer. One half of the manometer measured the orifice differential pressure (^H) and the other half measured the flue gas velocity head (^P). The temperature of the flue gas was measured by a type "K" thermocouple connected to a Marlin digital temperature controller. The CO_2 and O_2 levels were collected into teddlar bags and brought back to the laboratory for orsat analysis. Sampling train recovery was conducted as follows: Container No. 1 contained the filter. Container No. 3 contained the probe nozzle, probe fitting, probe liner, and front half of the filter holder with 100 ml of 0.1 N HNO_3. Container No. 4 consisted of impingers 1 through 3, connecting glassware and back half of filter holder being rinsed with 100 ml of 0.1 N HNO_3. Container No. 5A was the fourth impinger being rinsed with 100 ml of 0.1 N HNO_3. Container No. 5B consisted of the fifth and sixth impinger with acidified $KmnO_4$ being rinsed three times with a total of 100 ml of acidified $KmnO_4$. They are then rinsed with 100 ml of water. Container No.

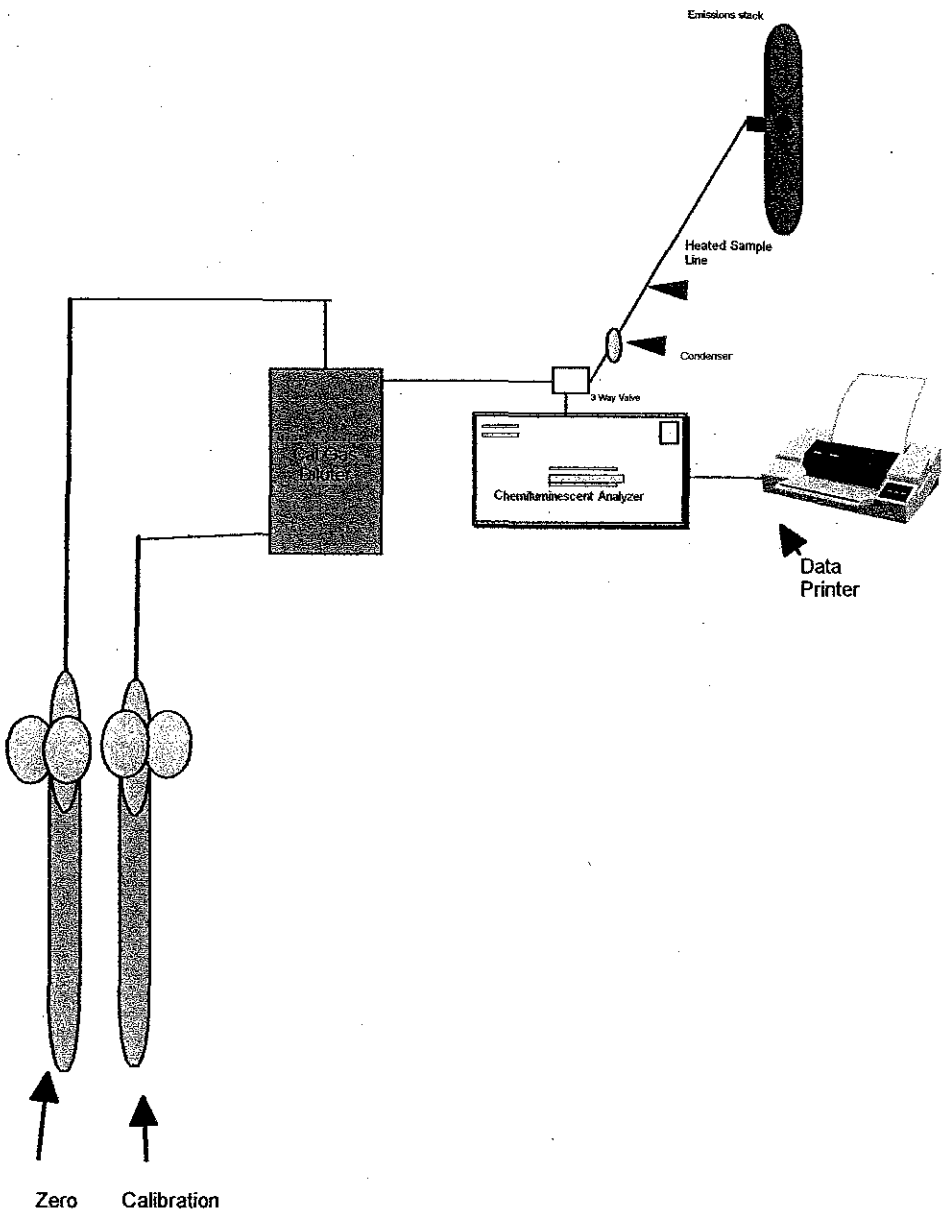
METHOD 29 TESTING DESCRIPTION CONT.

5C was the fifth and sixth impinger being rinsed with 25ml of 8 N HCL to remove any remaining deposits. The container is initially filled with 200 ml of water. Container No. 6 contains the spent calcium sulfate. Container No. 8A contained 300 ml of 0.1 N Nitric acid solution used in the sample recovery. Container No. 8B contained 100 ml of distilled water used in the sample recovery. Container No. 9 contained 200 ml of fresh $Hn03/H_2O_2$ solution that was used in the impingers. Container No. 10 contained 100 ml of fresh acidified potassium permanganate solution. Container No. 11 contained 200 ml of distilled water plus 25 ml of 8N HCL. Container No. 12 contained 3 unused blank filters from the same lot as the sampling filters.

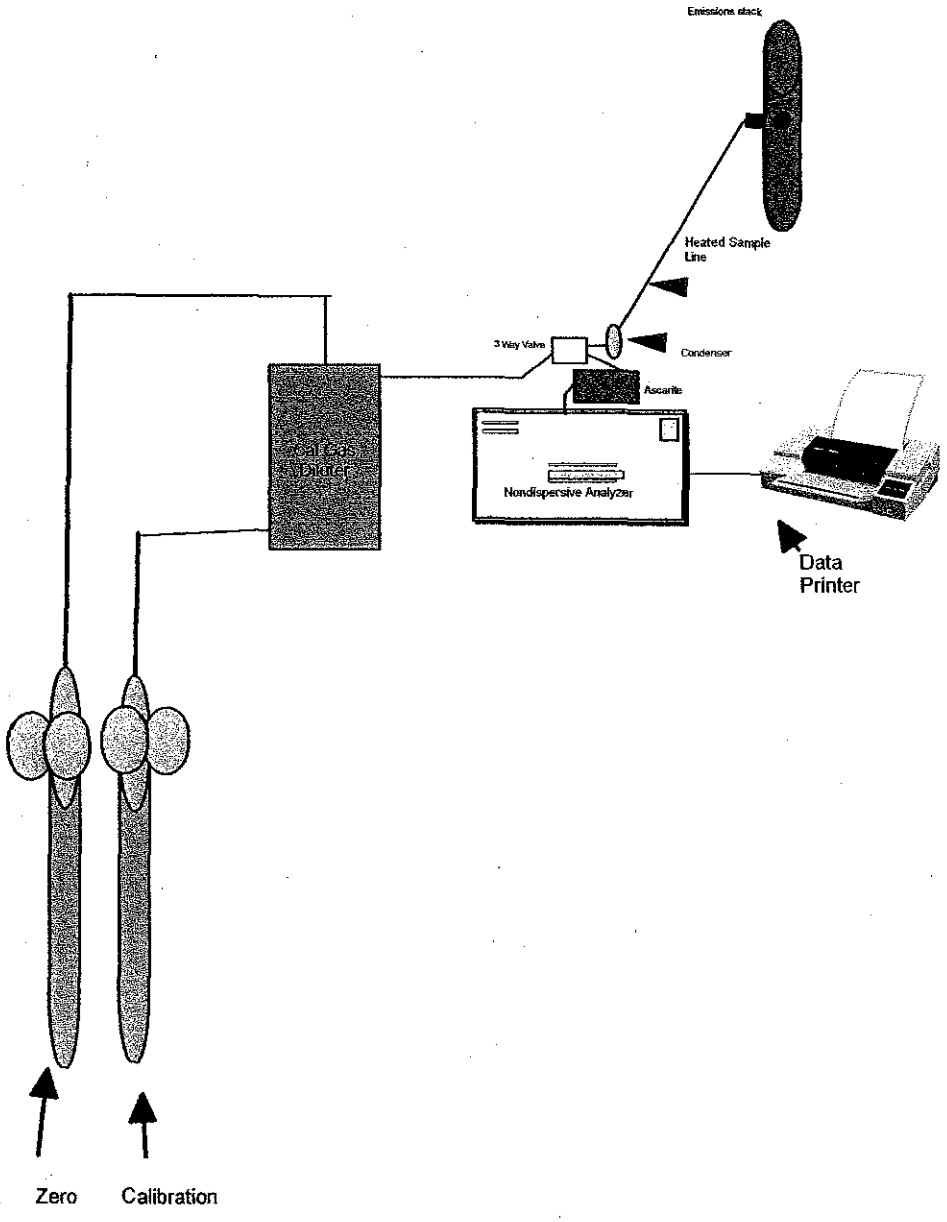
Method 6 Sampling Train



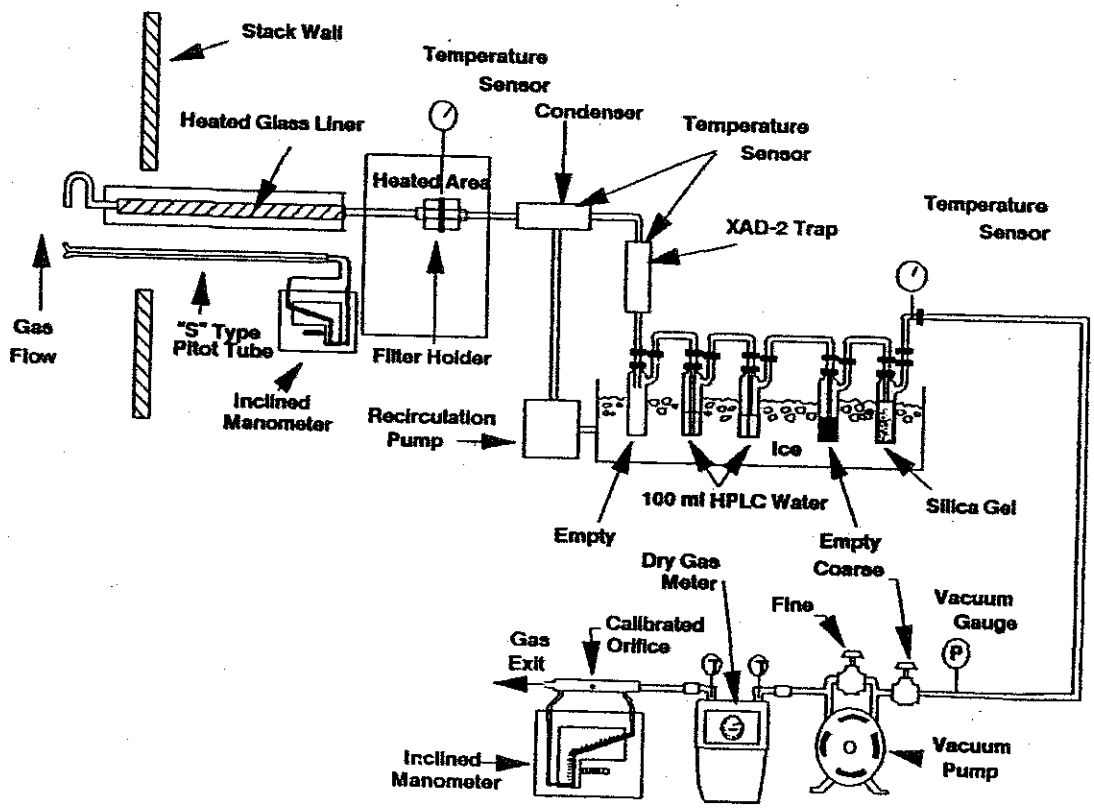
7E Sampling System

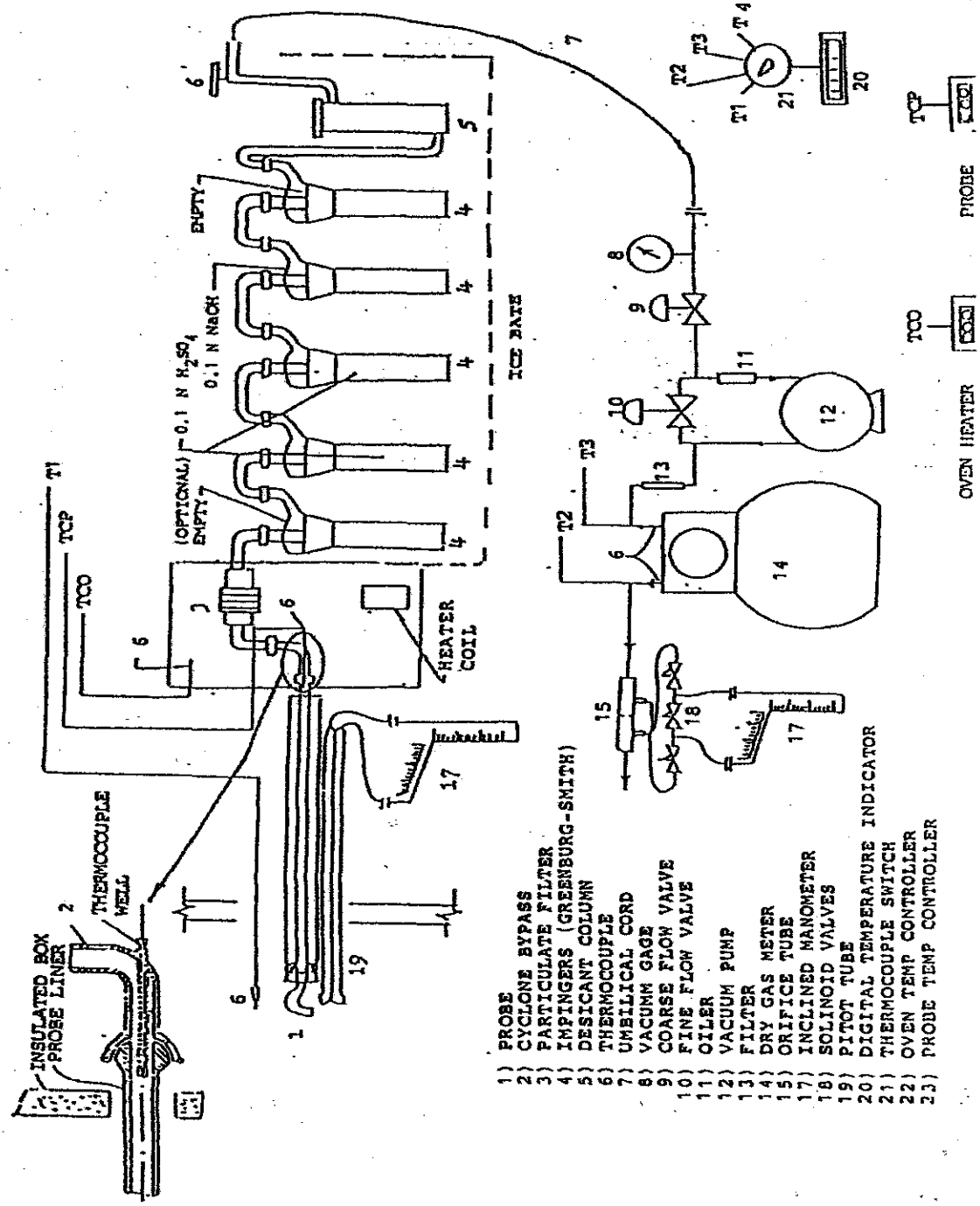


10 Sampling System

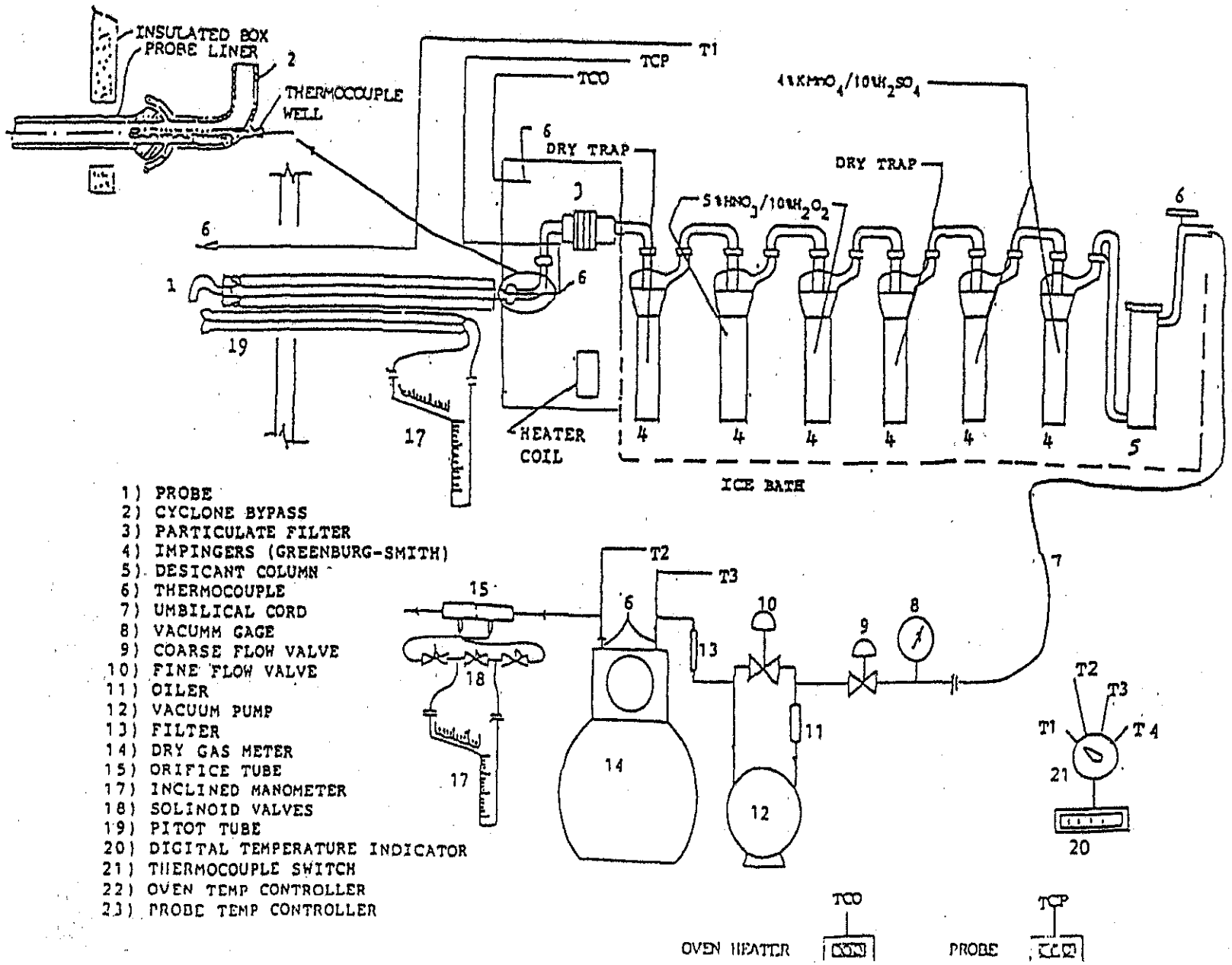


23 Sampling System





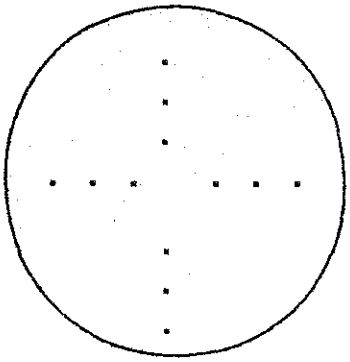
METHOD 26A SAMPLING APPARATUS



1) PROBE
2) CYCLONE BYPASS
3) PARTICULATE FILTER
4) IMPINGERS (GREENBURG-SMITH)
5) DESICANT COLUMN
6) THERMOCOUPLE
7) UMBILICAL CORD
8) VACUMM GAGE
9) COARSE FLOW VALVE
10) FINE FLOW VALVE
11) OILER
12) VACUUM PUMP
13) FILTER
14) DRY GAS METER
15) ORIFICE TUBE
17) INCLINED MANOMETER
18) SOLINOID VALVES
19) PITOT TUBE
20) DIGITAL TEMPERATURE INDICATOR
21) THERMOCOUPLE SWITCH
22) OVEN TEMP CONTROLLER
23) PROBE TEMP CONTROLLER

METHOD 29 SAMPLING APPARATUS

Location Of Sampling Points



Traverse Locations

Location	Outlet		
Upstream		6'	
Downstream		4'	
Stack Diameter		20	inches
Sample Point #			
	1	.8	inches
	2	2.9	
	3	5.9	
	4	14.1	
	5	17.1	
	6	19.1	

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CALCULATIONS

Outlet Part/Metals

		RUN #1	RUN #2	RUN #3	
1.	**Vm (std)**	95.20	72.43	73.93	=

$$\frac{VM * 17.64 * PBAR + \frac{\wedge H}{13.6}}{Tm} * Y$$

			RUN #1	RUN #2	RUN #3
Vm (std)	= Volume of gas collected, corrected to standard conditions, cuft.	=	95.20	72.43	73.93
Vm	= Volume of gas sampled at meter box, cuft.	=	101.40	76.28	78.85
17.64	= Standard temperature, 528 Rankine / std pressure, 29.92.	=	17.64	17.64	17.64
Tm	= Average dry gas meter temperature, + 460 Rankine.	=	554	550	557
Pbar	= Barometric pressure, inches of mercury (Hg)	=	29.44	29.56	29.56
^H	= Average pressure differential across orifice.	=	2.6	1.45	1.51
13.6	= Specific gravity of mercury.	=	13.6	13.6	13.6
Y	= Calibration factor of meter box.	=	1	1	1

		RUN #1	RUN #2	RUN #3	
2.	**Vw (std)**	9.22	8.36	8.12	=

$$Vlc * \frac{P\ H20}{Mh20} * \frac{R\ Tstd}{Pstd} = K2 * Vlc$$

			RUN #1	RUN #2	RUN #3
Vlc	= Volume of water and silica colected.	=	195.8	177.7	172.6
P H20	= Density of water, 0.002201 lb/ml.	=	0.002201	0.002201	0.002201
M H20	= Molecular weight of water, 18.01 lb/lb-mole.	=	18.01	18.01	18.01
R	= Ideal gas constant, 21.85 in. hg - ft3/R-lb-mole.	=	21.85	21.85	21.85
Tstd	= Standard absolute temperature, 528 R.	=	528	528	528
Pstd	= Standard absolute pressure, 29.92 in. Hg.	=	29.92	29.92	29.92
K2	= 0.0471 ft3 / ml.	=	0.0471	0.0471	0.0471

		RUN #1	RUN #2	RUN #3	
3.	**Bws**	0.0883	0.1035	0.0990	=

$$\frac{Vw(std)}{Vm(std) + Vw(std)}$$

			RUN #1	RUN #2	RUN #3
Bws	= Water vapor in the gas stream, proportion.	=	0.0883	0.1035	0.0990
Vw(std)	= Volume of water vapor in the gas sample, scf.	=	9.23	8.37	8.13
Vm(std)	= Volume of gas sampled at meter box, scf.	=	95.20	72.43	73.93

		RUN #1	RUN #2	RUN #3		
4.	**Md**	29.54	29.50	29.50	=	0.44 (%CO2) + 0.32 (%O2) + 0.28 (%N2) + %CO)

			RUN #1	RUN #2	RUN #3
Md	= Dry molecular weight, lb / lb-mole.	=	29.54	29.50	29.50
0.44	= Molecular weight of CO2 divided by 100.	=	0.44	0.44	0.44
0.32	= Molecular weight of O2 divided by 100.	=	0.32	0.32	0.32
0.28	= Molecular weight of N2 or CO divided by 100.	=	0.28	0.28	0.28

Co2, O2, N2, and CO are in percent by volume, dry basis.

		RUN #1	RUN #2	RUN #3		
5.	**Ms**	28.52	28.30	28.36	=	Md * (1-Bws) + M H20 * (Bws)

			RUN #1	RUN #2	RUN #3
Ms	= Molecular weight of gas , wet basis, lb /lb-mole.	=	28.52	28.30	28.36
M H20	= Molecular weight of water, 18 lb / lb-mole.	=	18	18	18

		RUN #1	RUN #2	RUN #3		
6.	**Vs**	37.54	34.22	34.71	=	$85.49 * Cp\sqrt{\wedge p}\sqrt{\frac{Ts + 460}{Ps * Ms}}$

			RUN #1	RUN #2	RUN #3
Vs	= Average stack gas velocity, ft / sec.	=	37.55	34.22	34.71
85.49	= Pitot tube constant, ft / sec.	=	85.49	85.49	85.49
Cp	= Pitot tube coefficient, dimensionless.	=	0.84	0.84	0.84
^P	= Velocity head of stack gas, avg. sq rt.	=	0.5418	0.493	0.4964
Ts	= Temperature of stack gas, + 460 (Rankine).	=	783	783	796
Ps	= Absolute stack gas pressure, barometric + static.	=	29.49	29.61	29.61
Ms	= Molecular weight of stack gas, wet basis.	=	28.52	28.30	28.36

		RUN #1	RUN #2	RUN #3		
7.	**ACFM**	4911	4476	4540	=	Stack Area * 60 * Vs

			RUN #1	RUN #2	RUN #3
Vs	= Average stack gas velocity, ft / sec.	=	37.55	34.22	34.71

		RUN #1	RUN #2	RUN #3		
8.	**Isokinicity**	97.3	98.9	100.6	=	$\frac{K4 * Ts * Vm(std)}{Ps * Vs * An * Min * (1-Bws)}$

			RUN #1	RUN #2	RUN #3
K4	= 0.09450 for English units.	=	0.0945	0.0945	0.0945
Ts	= Stack temperature + 460 R.	=	783	783	796
Vm(std)	= Volume of gas collected, scf.	=	95.20	72.43	73.93
Ps	= Stack pressure, inches Hg.	=	29.49	29.61	29.61
Vs	= Stack velocity, ft / sec.	=	37.55	34.22	34.71
An	= Area of the sampling nozzle, cuft.	=	0.0005	0.0004	0.0004
Min.	= Minutes of test	=	120	120	120
Bws	= Water vapor in the gas stream, proportion.	=	0.0883	0.1036	0.0991

		RUN #1	RUN #2	RUN #3		
9.	**Lbs/Hr**	0.03	0.03	0.03	=	$2.205 * E-6 \frac{Mn}{Vm\ std} * scfh$

			RUN #1	RUN #2	RUN #3
2.205 * E-6	= Conversion from mg to lbs.	=	2.205 * E-6	2.205 * E-6	2.205 * E-6
Mn	= Weight gain of filter and wash minus blank.	=	7.65	5.45	6.95
scfh	= Standard stack volumetric flow rate.	=	179202	161257	161701
Vm std	= Volume of air sampled at stp.	=	95.20	72.43	73.93

		RUN #1	RUN #2	RUN #3		
10.	**Gr/Dscf**	0.0012	0.0012	0.0014	=	$0.0154 \frac{Mn}{Vmstd}$

			RUN #1	RUN #2	RUN #3
0.0154	= Conversion to grains from mg.	=	0.0154	0.0154	0.0154
Vm std	= Volume of air sampled at stp.	=	95.20	72.43	73.93
Mn	= Weight gain of filter and wash minus blank.	=	7.65	5.45	6.95

		RUN #1	RUN #2	RUN #3		
11.	SCFH	179202	161257	161701	=	$3600 * (1 - Bws) * Vs * A \frac{Tstd}{Ts} * \frac{Ps}{Pstd}$

				RUN #1	RUN #2	RUN #3
3600	=	Seconds per hour.	=	3600	3600	3600
Bws	=	Water vapor in the gas stream, proportion.	=	0.0883	0.1035	0.0990
A	=	Area of stack in sq ft.	=	2.18	2.18	2.18
Tstd	=	Standard absolute temperature, 528 R.	=	528	528	528
Pstd	=	Standard absolute pressure, 29.92 in. Hg.	=	29.92	29.92	29.92
Ts	=	Temperature of stack gas, + 460 (Rankine).		783	783	796
Ps	=	Absolute stack gas pressure, barometric + static.		29.44	29.56	29.56
Vs	=	Average stack gas velocity, ft / sec.		37.55	34.22	34.71

Custom Stack Analysis, LLC.
Method 6

TEST NO 1A FACILITY ST. John's Hospital DATE 9/3/03
LOCATION Incinerator outlet BY Jim Gray

Vm	Tm	ROTOMETER	TIME
671.28	80	3	0 7:25
671.54	81	3	5
671.76	81	3	10
672.01	81	3	15
672.25	82	3	20 7:45
Vm .97	avg 81		

Pb 29.44

$Vm_{std} = K_1\ Y(Vm)(Pb)/(Tm)$

$Vm_{std} = 17.64\ (1.003)(.97)(29.44)/(460 + 81)$ (541) $= .9339$

	1st TITRATION	2nd TITRATION	3rd TITRATION	AVERAGE	V_b TITRATION
Vt	.8	.8	.8	.8	.1

$Cso_2 = K_2(Vt - Vb)(N)(Vsoln)/(Vm_{std})(Va)$

$= 70.61X10^{-6}(.8 - .1)(.01)(100)/(.9339)(20)$ (18.678)

$= 2.64$ lb/f^3DSTP

SO_2 PPM $= (Cso_2)(6.037 \times 10^{-6}) = 15.98$

SO_2 LB/HR $= (Cso_2)($ 174886 f^3/Hr DSTP*$) = .46$

SO_2 LB/TON $= SO_2$ LB/HR / TONS/HR+ =

*FROM METHOD 1-4 CALCULATION "Q"
+FROM PROCESS WEIGHT SHEET

7% O_2

15.98 × 13.9 / 20.9 − 11.2 = 22.9 ppm @ 7% O_2

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Custom Stack Analysis, LLC.
Method 6

TEST NO 1 B FACILITY ST. John's Hospital DATE 9/3/03
LOCATION Incinerator outlet BY Jim Gray

Vm	Tm	ROTOMETER	TIME
679.82	80	3.	0 8:00
680.04	80	3	5
680.30	81	3	10
680.55	81	3	15
680.80	81	3	20 8:20
Vm .98	avg 81		

Pb 29.44

$Vm_{std} = K_1\ Y(Vm)(Pb)/(Tm)$

Vm_{std} = 17.64 (1.003)(.98)(29.44)/(460 + 81) = .9435 (541)

	1st TITRATION	2nd TITRATION	3rd TITRATION	AVERAGE	V_b TITRATION
Vt	.9	.9	.9	.9	.1

$Cso_2 = K_2(Vt - Vb)(N)(Vsoln)/(Vm_{std})(Va)$ 18.07

$= 70.61X10^{-6}(.9 - .1)(.01)(100)/(.9435)(20)$

= 2.99 lb/f^3DSTP

SO_2 PPM = $(Cso_2)(6.037 \times 10^{-6})$ = 18.07

SO_2 LB/HR = (Cso_2)(174886 f^3/Hr DSTP*) = .52

SO_2 LB/TON = SO_2 LB/HR / TONS/HR+ =

*FROM METHOD 1-4 CALCULATION "Q"
+FROM PROCESS WEIGHT SHEET

7% O_2

18.07 * 13.9 / 20.9 - 11.2 = 25.9 ppm @ 7% O_2

Custom Stack Analysis, LLC.
Method 6

TEST NO 2A FACILITY ST. John's Hospital DATE 9/4/03
LOCATION Incinerator Outlet BY Jim Gray

Vm	Tm	ROTOMETER	TIME
695.22	80	3	0 8:30
695.49	81	3	5
695.75	81	3	10
696.02	82	3	15
696.28	82	3	20 8:50
Vm 1.06	avg 81		

Pb 29.56

$Vm_{std} = K_1\ Y(Vm)(Pb)/(Tm)$

Vm_{std} = 17.64 (1.003)(1.06)(29.56)/(460 + 81) = 1.02 (541)

	1st TITRATION	2nd TITRATION	3rd TITRATION	AVERAGE	V_b TITRATION
Vt	.8	.8	.8	.8	.1

$Cso_2 = K_2(Vt - Vb)(N)(Vsoln)/(Vm_{std})(Va)$

$= 70.61X10^{-6}(.8 - .1)(.01)(100)/(1.02)(20)$ (20.4)

$= 2.42$ lb/f³DSTP

SO_2 PPM = $(Cso_2)(6.037 \times 10^{-6})$ = 14.63

SO_2 LB/HR = (Cso_2)(158310 f³/Hr DSTP*) = .38

SO_2 LB/TON = SO_2 LB/HR / TONS/HR+ =

*FROM METHOD 1-4 CALCULATION "Q"
+FROM PROCESS WEIGHT SHEET

7% O2

14.63 * 13.9 / 20.9 - 11.8 = 22.3 ppm @ 7% O2

Custom Stack Analysis, LLC.
Method 6

TEST NO 2B FACILITY St. John's Hospital DATE 9/4/03
LOCATION Incinerator outlet BY Jim Gray

Vm	Tm	ROTOMETER	TIME
708.21	82	3	0 9:00
708.47	82	3	5
708.72	82	3	10
708.98	83	3	15
709.22	83	3	20 9:20
Vm 1.01	avg 82		

Pb 29.56

$Vm_{std} = K_1 Y(Vm)(Pb)/(Tm)$

Vm_{std} = 17.64 (1.003)(1.01)(29.56)/(460 + 82) = .9745 (542)

	1st TITRATION	2nd TITRATION	3rd TITRATION	AVERAGE	V_b TITRATION
Vt	.9	.9	.9	.9	.1

$Cso_2 = K_2(Vt - Vb)(N)(Vsoln)/(Vm_{std})(Va)$

= 70.61×10^{-6}(.9 - .1)(.01)(100)/(.9745)(20) (19.49)

= 2.90 lb/f^3DSTP

SO_2 PPM = $(Cso_2)(6.037 \times 10^{-6})$ = 17.49

SO_2 LB/HR = (Cso_2)(158310 f^3/Hr DSTP*) = .46

SO_2 LB/TON = SO_2 LB/HR / TONS/HR+ = _____

*FROM METHOD 1-4 CALCULATION "Q"

+FROM PROCESS WEIGHT SHEET

7% O2

17.49 * 13.9 / 20.9 - 11.8 = 26.7 ppm @ 7% O2

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Custom Stack Analysis, LLC.
Method 6

TEST NO 3A FACILITY ST. John's Hospital DATE 9/4/03
LOCATION Incinerator outlet BY Jim Gray

Vm	Tm	ROTOMETER	TIME
716.45	81	3	0 1:50
716.72	82	3	5
716.96	82	3	10
717.22	83	3	15
717.47	83	3	20 2:10
Vm 1.02	avg 82		

Pb 29.56

$Vm_{std} = K_1 Y(Vm)(Pb)/(Tm)$

Vm_{std} = 17.64 (1.003)(1.02)(29.56)/(460 + 82) = .9842

	1st TITRATION	2nd TITRATION	3rd TITRATION	AVERAGE	V_b TITRATION
Vt	1.0	1.0	1.0	1.0	.1

$Cso_2 = K_2(Vt - Vb)(N)(Vsoln)/(Vm_{std})(Va)$ 19.684

$= 70.61X10^{-6}$(1.0 - .1)(.01)(100)/(.9842)(20)

= 3.22 lb/f^3DSTP

SO_2 PPM = $(Cso_2)(6.037 \times 10^{-6})$ = 19.49

SO_2 LB/HR = (Cso_2)(167331 f^3/Hr DSTP*) = .154

SO_2 LB/TON = SO_2 LB/HR / TONS/HR+ = _____

*FROM METHOD 1-4 CALCULATION "Q"
+FROM PROCESS WEIGHT SHEET

7% O2

19.49 ~~x~~ 13.9 / 20.9 - 11.8 = 29.8 ppm @ 7% O2

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Custom Stack Analysis, LLC.
Method 6

TEST NO 3B FACILITY ST. John's Hospital DATE 9/4/03
LOCATION Incinerator outlet BY Jim Gray

Vm	Tm	ROTOMETER	TIME
725.12	83	3	0 2:20
725.38	83	3	5
725.65	83	3	10
725.89	83	3	15
726.14	84	3	20 2:50
Vm 1.02	avg 83		

Pb 29.56

$Vm_{std} = K_1\ Y(Vm)(Pb)/(Tm)$

Vm_{std} = 17.64 (1.003)(1.02)(29.56)/(460 + 83) = .9824

543

	1st TITRATION	2nd TITRATION	3rd TITRATION	AVERAGE	V_b TITRATION
Vt	.9	.9	.9	.9	.1

$Cso_2 = K_2(Vt - Vb)(N)(Vsoln)/(Vm_{std})(Va)$ 19.65

$= 70.61X10^{-6}$(.9 - .1)(.01)(100)/(.9824)(20)

= 2.87 lb/f^3DSTP

SO_2 PPM = $(Cso_2)(6.037 \times 10^{-6})$ = 17.35

SO_2 LB/HR = (Cso_2)(16733 f^3/Hr DSTP*) = .48

SO_2 LB/TON = SO_2 LB/HR / TONS/HR+ = _____

*FROM METHOD 1-4 CALCULATION "Q"
+FROM PROCESS WEIGHT SHEET

7% O2

17.35 × 13.9 / 20.9 - 11.8 = 26.5 ppm @ 7% O2

Custom Stack Analysis, LLC.
Method 10

PLANT ST. John's Hospital DATE 9-3-03/9/4/03 BY Jim Gray
LOCATION Incinerator outlet BAG _____ STACK _____
NDIR UNIT T.E MOD.48 RECORDER _____ RANGE 0-100 FLOW _____
SPAN GAS VALUES, CO IN N_2 1) _____ 2) _____ 3) _____ 4) _____
...See Appendix 4 monitoring Data.....

	ZERO	SPAN 1	SPAN 2	SPAN 3
INITIAL CALIBRATION				
FINAL CALIBRATION				

	TRIAL 1	TRIAL 2	TRIAL 3
TEST 1			
TEST 2			
TEST 3			

CO_{stack} = CO_{ndir} (1 - (CO_2%/100)) CORRECTED FOR CO_2 IN FLUE GAS
TEST 1, _____ (1 - (_____ / 100)) = _____ PPM
TEST 2, _____ (1 - (_____ / 100)) = _____
TEST 3, _____ (1 - (_____ / 100)) = _____
TEST 4, _____ (1 - (_____ / 100)) = _____

O_7 (CO CORRECTED TO 7% O_2)= CO_{stack} X (20.9 - 7)/(20.9 - O_2)
TEST 1, .7 X 13.9 /20.9 - 11.2 = 1.0 PPM @ 7% O_2
TEST 2, .63 X 13.9 /20.9 - 11.8 = .96
TEST 3, .87 X 13.9 /20.9 - 11.8 = 1.33
TEST 4, _____ X 13.9 /20.9 - _____ = _____

CARBON MONOXIDE MASS CONCENTRATION CALCULATION

CO_L =Qs X %V X D_{CO}

CO_L = POUNDS PER HOUR CARBON MONOXIDE
Qs = GAS FLOW, F^3/HR (FROM M-5 TEST)
%V = DECIMAL PERCENTAGE OF CO_{stack} (V/V)
D_{CO} = DENSITY OF CO, LB/F^3 = 0.0724

TEST 1 .7 x .174886 x 10^{-6} x 0.0724 = .009 LB/HR
TEST 2 .63 x .158310 x 10^{-6} x 0.0724 = .007 LB/HR
TEST 3 .87 x .167331 x 10^{-6} x 0.0724 = .011 LB/HR
TEST 4 _____ x _____ x 10^{-6} x 0.0724 = _____ LB/HR

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CALCULATIONS

NOX

		RUN #1	RUN #2	RUN #3		
1.	**Lbs/Hr**	1.83	1.59	1.45	=	1.194 * SCFH * PPM * 10^-7

				RUN #1	RUN #2	RUN #3
scfh	=	Standard stack volumetric flow rate.	=	174886	158310	137331
PPM	=	PPM corrected	=	87.456978	83.920766	88.346199

		RUN #1	RUN #2	RUN #3		
2	**PPM Corr.**	87.456978	83.920766	88.346199	=	$Cgas = (C - Co)\frac{Cma}{Cm - Co}$

				RUN #1	RUN #2	RUN #3
Co	=	Average of initial and final system calibration bias check responses for the zero gas, ppm.	=	0.05	0	0
C	=	Effluent gas concentration, dry basis, ppm.	=	86.3	82.52	87.44
Cm	=	Average of initial and final system calibration bias check responses for the upscale gas, ppm.	=	52.93	52.725	53.07
Cma	=	Actual concentration of the upscale calibration gas, ppm.	=	53.62	53.62	53.62

1

Custom Stack Analysis, LLC.
Method 23

TEST NO. 1 PLANT St. John's Hospital DATE 9-3-03
LOCATION Incinerator Outlet BY [illegible]
BAROMETER(P_B) 29.44 AMBIENT TEMP 85 ASSUMED MOISTURE "Y" .998
MODULE NO. 002 PROBE NO. 2P-3 FILTER NO. HEATER NO. 3 NOZZLE DIA. .336

	TEST POINT	METER VOLUME (Vm)	METER TEMP (Tm) IN	METER TEMP (Tm) OUT	COND TEMP °F		FILTER HEATER TEMP °F	PROBE TEMP °F	STACK TEMP °F (Ts)	STACK PRESS. (Ps)	VACUUM "Hg	ORIFICE "H_2O (ΔH) (Pm)	VEL HEAD (ΔP)	TIME	
3:45	start	853.4	80	77	68	68	254	257	313	.62	9.0	X	X	0	
	1	871.87	91	79	44	67	249	257	318		8.5	2.3	.25	20	
	2	885.84	93	84	36	50	249	254	321		9.0	2.4	.27	40	
	3	902.92	91	83	35	59	249	257	324		9.5	2.5	.28	1:00	
	4	921.27	90	83	34	50	249	256	325		11.0	2.9	.33	1:20	
	5	940.43	90	83	35	48	249	253	320		10.0	2.5	.28	1:40	
5:49	6	956.94	88	83	35	47	248	257	339		11.5	3.0	.33	2:00	5:46
	start	956.94	87	83	36	48	250	253	338.		12.0	X	X		
	1	975.37	88	82	37	50	249	256	335		12.0	3.0	.33	2:20	
	2	993.78	87	82	36	58	249	258	333		12.0	2.9	.33	2:40	
	3	011.43	87	81	38	60	249	257	319		11.0	2.6	.29	3:00	
	4	025.62	89	81	39	61	249	254	315		7.5	1.7	.19	3:20	
	5	040.88	88	86	35	67	249	256	321		9.0	2.0	.22	3:40	
	6	058.70	83	80	35	64	249	254	316		8.5	2.8	.32	4:00	7:48
	(Vm) 205.30														
	AVERAGE		85		****		******		324	MAX		2.6			

INTEGRATED GAS SAMPLE				AVG	N_2= 81.6
CO_2	6.8	6.8	6.8	6.8	
O_2	11.6	11.6	11.6	11.6	
CO					

CONDENSATE COLLECTED	FINAL	INITIAL	TOTAL
DRIERITE	969.9	952.9	17
IMPINGER	680.4	200	480.4
GRAND TOTAL			497.4

MINUTES

FILTER WT	PROBE WASH WT	IMPINGER CATCH
GROSS		
TARE		
NET		

LEAK RATE @ 13 "Hg= 0
STACK AREA (As) 2.18 ft²
AVG SQ RT ΔP .5321

CALCULATIONS FOR POLYCHLORINATED DIBENZO-p-DIOXINS

DATA INPUT

Pb,In Hg	Barometer	29.44
VM,ft3	Meter Volume	205.30
ΔH,In H2O	Orifice Differential	2.6
PG,In H20	Stack Static Pressure	.62
Tm,F	Meter Temperture	85
Ts,F	Stack Temperture	324
CP	Pitot Coefficient	.84
√ΔP,In H20	Average Square Root Of Delta P	.5321
% CO2	Carbon Dioxide	6.8
% O2	Oxygen	11.6
% N	Nitrogen	81.6
VCL,Ml	Volume Of Condensate	497.4
AS,ft2	Stack Area	2.18
O,Min	Test Time	240
DN,In	Diameter Of Nozzle	.336

Mn, ANALYTE WEIGHT - NANOGRAMS (ng), (ENTRY FOR EACH ANALYTE)

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.63
PSA,In Hg	Absolute Stack Pressure	29.49
MD	Molecular Weight Dry Gas	29.55
MS	Molecular Weight @ Stack Conditions	28.32
VMSTP,ft3	VM Standard Temp.& Press. Dry	%195.54
VWSTP,ft3	VM Standard Temp.& Press. Wet	23.41
BWO,%	Moisture	10.69
I.%	Isokeinetic Variation	100.54
VS,ft/Sec	Stack Velocity	37.03
QA,ASCFM	Stack Gas Flow (Actual)	4843
QS,ft3/HR	Stack Gas Flow (Dry STP)	172891
VMSTP,M3	VM Standard Temp.& Press. Dry	5.54E+00

Mn/VMSTP,M3 = ng ANALYTE PER CUBIC METER OF DRY FLU GAS

ANALYTE	ng/M3 @ 7% O2
2378-TCDD =	0.0000
12378-PeCDD =	0.0000
123478-HxCDD =	0.0264
123678-HxCDD =	0.0748
123789-HxCDD =	0.0626
1234678-HpCDD =	0.5587
OCDD =	1.2793
Total TCDD =	1.7841
Total PeCDD =	1.3225
Total HxCDD =	1.2928
Total HpCDD =	1.1471

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/03/03
TEST 1

CALCULATIONS FOR POLYCHLORINATED DIBENZOFURANS

DATA INPUT

Pb,In Hg	Barometer	29.44
VM,ft3	Meter Volume	205.30
ΔH,In H2O	Orifice Differential	2.6
PG,In H20	Stack Static Pressure	.62
Tm,F	Meter Temperture	85
Ts,F	Stack Temperture	324
CP	Pitot Coefficient	.84
√ΔP,In H20	Average Square Root Of Delta P	.5321
% CO2	Carbon Dioxide	6.8
% O2	Oxygen	11.6
% N	Nitrogen	81.6
VCL,Ml	Volume Of Condensate	497.4
AS,ft2	Stack Area	2.18
O,Min	Test Time	240
DN,In	Diameter Of Nozzle	.336

Mn, ANALYTE WEIGHT - NANOGRAMS (ng), (ENTRY FOR EACH ANALYTE)

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.63
PSA,In Hg	Absolute Stack Pressure	29.49
MD	Molecular Weight Dry Gas	29.55
MS	Molecular Weight @ Stack Conditions	28.32
VMSTP,ft3	VM Standard Temp.& Press. Dry	%195.54
VWSTP,ft3	VM Standard Temp.& Press. Wet	23.41
BWO,%	Moisture	10.69
I.%	Isokeinetic Variation	100.54
VS,ft/Sec	Stack Velocity	37.03
QA,ASCFM	Stack Gas Flow (Actual)	4843
QS,ft3/HR	Stack Gas Flow (Dry STP)	172891
VMSTP,M3	VM Standard Temp.& Press. Dry	5.54E+00

Mn/VMSTP,M3 = ng ANALYTE PER CUBIC METER OF DRY FLU GAS

ANALYTE	ng/M3 @ 7% O2
2378-TCDF =	0.0445
12378-PeCDF =	0.0764
23478-PeCDF =	0.1644
123478-HxCDF =	0.4130
123678-HxCDF =	0.1995
234678-HxCDF =	0.3860
123789-HxCDF =	0.0275
1234678-HpCDF =	0.6990
1234789-HpCDF =	0.2275
OCDF =	0.9177
Total TCDF =	3.1039
Total PeCDF =	2.2051
Total HxCDF =	2.2213
Total HpCDF =	1.6842

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/03/03
TEST 1

Custom Stack Analysis, LLC.
Method 23

TEST NO. 2 PLANT St. John's Hospital DATE 9/4/03
LOCATION Incinerator Outlet BY [illegible]
BAROMETER(P_B) 29.56 AMBIENT TEMP 80 ASSUMED MOISTURE "Y" .998
MODULE NO. 062 PROBE NO. 3P-1 FILTER NO. HEATER NO. 4 NOZZLE DIA. .314

	TEST POINT	METER VOLUME (Vm) ft³	METER TEMP (Tm) IN 2	OUT 3	COND TEMP 4 °F 5		FILTER HEATER TEMP °F	PROBE TEMP °F	STACK TEMP (Ts) °F	STACK PRESS. (Ps)	VACUUM "Hg	ORIFICE "H_2O (ΔH) (Pm)	VEL. HEAD (ΔP)	TIME	
8:28	start	062.515	78	70	60	55	249	256	309	.62	4.0	X	X	0	
	1	076.68	85	73	40	60	249	252	311		5.0	1.8	.27	20	
	2	091.28	86	76	36	51	249	256	320		5.0	1.8	.26	40	
	3	107.13	86	78	35	50	250	256	319		6.0	2.1	.31	1:00	
	4	120.73	86	78	32	43	250	255	315		4.0	1.5	.22	1:20	
	5	136.43	86	78	33	45	250	252	323		5.5	2.0	.30	1:40	
	6	151.81	87	79	37	49	251	252	325		5.0	2.0	.29	2:00	10:28
10:32	start	151.81	83	79	39	43	251	253	327			X	X		
	1	167.63	87	79	34	42	250	254	329		5.0	2.1	.30	2:20	
	2	183.67	87	79	35	45	250	257	331		6.5	2.2	.32	2:40	
	3	199.07	86	79	35	40	249	254	332		6.0	2.0	.29	3:00	
	4	214.28	87	79	38	47	250	255	333		6.0	2.0	.29	3:20	
	5	230.98	86	79	39	48	249	257	331		6.0	1.9	.28	3:40	
	6	244.01	87	79	32	32	251	255	323		6.0	1.8	.26	4:00	12:32
	(Vm)	181.495													
	AVERAGE		81.5		****		******		323	MAX		1.93			

INTEGRATED GAS SAMPLE				AVG	N_2= 81.8
CO_2	6.4	6.4	6.4	6.4	
O_2	11.8	11.8	11.8	11.8	
CO					

CONDENSATE COLLECTED	FINAL	INITIAL	TOTAL
DRIERITE	982.8	967.2	15.6
IMPINGER	595.2	200	395.2
GRAND TOTAL			410.8

MINUTES

FILTER WT	PROBE WASH WT	IMPINGER CATCH
GROSS		
TARE		
NET		

LEAK RATE @ 11 "Hg= .004
STACK AREA (As) 2.18 ft²
AVG SQ RT ΔP 0.5309

CALCULATIONS FOR POLYCHLORINATED DIBENZO-p-DIOXINS

DATA INPUT

Pb,In Hg	Barometer	29.56
VM,ft3	Meter Volume	181.495
ΔH,In H2O	Orifice Differential	1.93
PG,In H20	Stack Static Pressure	.62
Tm,F	Meter Temperture	81.5
Ts,F	Stack Temperture	323
CP	Pitot Coefficient	.84
√ΔP,In H20	Average Square Root Of Delta P	.5309
% CO2	Carbon Dioxide	6.4
% O2	Oxygen	11.8
% N	Nitrogen	81.8
VCL,Ml	Volume Of Condensate	410.8
AS,ft2	Stack Area	2.18
O,Min	Test Time	240
DN,In	Diameter Of Nozzle	.314

Mn, ANALYTE WEIGHT - NANOGRAMS (ng), (ENTRY FOR EACH ANALYTE)

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.70
PSA,In Hg	Absolute Stack Pressure	29.61
MD	Molecular Weight Dry Gas	29.50
MS	Molecular Weight @ Stack Conditions	28.35
VMSTP,ft3	VM Standard Temp.& Press. Dry	%174.69
VWSTP,ft3	VM Standard Temp.& Press. Wet	19.34
BWO,%	Moisture	9.97
I.%	Isokeinetic Variation	102.04
VS,ft/Sec	Stack Velocity	36.82
QA,ASCFM	Stack Gas Flow (Actual)	4816
QS,ft3/HR	Stack Gas Flow (Dry STP)	174267
VMSTP,M3	VM Standard Temp.& Press. Dry	4.95E+00

Mn/VMSTP,M3 = ng ANALYTE PER CUBIC METER OF DRY FLU GAS

ANALYTE	ng/M3 @ 7% O2
2378-TCDD =	0.0000
12378-PeCDD =	0.0000
123478-HxCDD =	0.0151
123678-HxCDD =	0.0457
123789-HxCDD =	0.0315
1234678-HpCDD =	0.3458
OCDD =	0.8089
Total TCDD =	1.4234
Total PeCDD =	0.0932
Total HxCDD =	0.8244
Total HpCDD =	0.7626

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/04/03
TEST 2

CALCULATIONS FOR POLYCHLORINATED DIBENZOFURANS

DATA INPUT

Pb,In Hg	Barometer	29.56
VM,ft3	Meter Volume	181.495
ΔH,In H2O	Orifice Differential	1.93
PG,In H20	Stack Static Pressure	.62
Tm,F	Meter Temperture	81.5
Ts,F	Stack Temperture	323
CP	Pitot Coefficient	.84
√ΔP,In H20	Average Square Root Of Delta P	.5309
% CO2	Carbon Dioxide	6.4
% O2	Oxygen	11.8
% N	Nitrogen	81.8
VCL,Ml	Volume Of Condensate	410.8
AS,ft2	Stack Area	2.18
O,Min	Test Time	240
DN,In	Diameter Of Nozzle	.314

Mn, ANALYTE WEIGHT - NANOGRAMS (ng), (ENTRY FOR EACH ANALYTE)

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.70
PSA,In Hg	Absolute Stack Pressure	29.61
MD	Molecular Weight Dry Gas	29.50
MS	Molecular Weight @ Stack Conditions	28.35
VMSTP,ft3	VM Standard Temp.& Press. Dry	%174.69
VWSTP,ft3	VM Standard Temp.& Press. Wet	19.34
BWO,%	Moisture	9.97
I.%	Isokeinetic Variation	102.04
VS,ft/Sec	Stack Velocity	36.82
QA,ASCFM	Stack Gas Flow (Actual)	4816
QS,ft3/HR	Stack Gas Flow (Dry STP)	174267
VMSTP,M3	VM Standard Temp.& Press. Dry	4.95E+00

Mn/VMSTP,M3 = ng ANALYTE PER CUBIC METER OF DRY FLU GAS

ANALYTE	ng/M3 @ 7% O2
2378-TCDF =	0.0257
12378-PeCDF =	0.0374
23478-PeCDF =	0.0982
123478-HxCDF =	0.2223
123678-HxCDF =	0.1050
234678-HxCDF =	0.2025
123789-HxCDF =	0.0144
1234678-HpCDF =	0.4446
1234789-HpCDF =	0.1392
OCDF =	0.5650
Total TCDF =	2.1983
Total PeCDF =	1.5036
Total HxCDF =	1.1115
Total HpCDF =	1.0405

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/04/03
TEST 2

Custom Stack Analysis, LLC.
Method 23

TEST NO. 63 PLANT St. John's Hospital DATE 9-4-03
LOCATION Incinerator Outlet BY [illegible]
BAROMETER(P_B) 29.56 AMBIENT TEMP 85 ASSUMED MOISTURE "Y" .998
MODULE NO. 002 PROBE NO. 3P-2 FILTER NO. HEATER NO. 5 NOZZLE DIA. 331

	TEST POINT	METER VOLUME (Vm)	METER TEMP (Tm) IN 2	OUT 3	COND TEMP 4 °F	5	FILTER HEATER TEMP °F	PROBE TEMP °F	STACK TEMP 1 °F (Ts)	STACK PRESS. (Ps)	VACUUM "Hg	ORIFICE "H_2O (ΔH) (Pm)	VEL HEAD (ΔP)	TIME	
1:51	Start	248.92	85	78	55	43	249	256	315	.62	5.5	—	—	0	
	1	262.71	86	80	59	44	251	256	316		6.0	1.5	.18	20	
	2	277.85	88	80	38	37	252	255	323		7.0	2.0	.24	40	
	3	293.55	89	80	38	35	248	257	328		7.0	2.0	.25	60	
	4	309.28	88	82	39	38	249	255	333		7.0	2.3	.28	1:20	
	5	324.98	88	81	37	31	249	257	334		7.0	2.4	.29	1:40	
	6	341.19	89	81	37	28	249	257	335		7.5	2.3	.27	2:00	3:52
3:58	Start	341.19	85	80	39	29	249	253	339		8.0	—	—		
	1	358.89	88	80	37	35	249	257	339		8.0	2.5	.3	2:20	
	2	375.68	92	81	42	41	249	254	340		8.5	2.5	.3	2:40	
	3	392.52	88	80	37	32	249	254	342		8.0	2.4	.29	3:00	
	4	409.42	88	80	37	38	249	256	342		8.0	2.3	.29	3:20	
	5	426.64	87	80	40	42	249	254	338		8.5	2.5	.3	3:40	
	6	442.805	86	79	45	46	249	258	340		8.0	2.2	.27	4:00	5:58
	(Vm)	193.93													
	AVERAGE		83		****		******		333	MAX		2.84			

INTEGRATED GAS SAMPLE				AVG	N_2= 81.8
CO_2	6.4	6.4	6.4	6.4	
O_2	11.8	11.8	11.8	11.8	
CO					

CONDENSATE COLLECTED	FINAL	INITIAL	TOTAL
DRIERITE	957.7	943.2	14.5
IMPINGER	602.5	200	402.5
GRAND TOTAL			417.0

MINUTES

FILTER WT	PROBE WASH WT	IMPINGER CATCH
GROSS		
TARE		
NET		

LEAK RATE @ 11.0 "Hg= 0
STACK AREA (As) 2.18 ft^2
AVG SQ RT ΔP 0.5193

CALCULATIONS FOR POLYCHLORINATED DIBENZO-p-DIOXINS

DATA INPUT

Pb,In Hg	Barometer	29.56
VM,ft3	Meter Volume	193.93
ΔH,In H2O	Orifice Differential	2.24
PG,In H20	Stack Static Pressure	.62
Tm,F	Meter Temperture	83
Ts,F	Stack Temperture	333
CP	Pitot Coefficient	.84
√ΔP,In H20	Average Square Root Of Delta P	.5193
% CO2	Carbon Dioxide	6.4
% O2	Oxygen	11.8
% N	Nitrogen	81.8
VCL,Ml	Volume Of Condensate	417
AS,ft2	Stack Area	2.18
0,Min	Test Time	240
DN,In	Diameter Of Nozzle	.331

Mn, ANALYTE WEIGHT - NANOGRAMS (ng), (ENTRY FOR EACH ANALYTE)

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.72
PSA,In Hg	Absolute Stack Pressure	29.61
MD	Molecular Weight Dry Gas	29.50
MS	Molecular Weight @ Stack Conditions	28.40
VMSTP,ft3	VM Standard Temp.& Press. Dry	%186.14
VWSTP,ft3	VM Standard Temp.& Press. Wet	19.63
BWO,%	Moisture	9.54
I.%	Isokeinetic Variation	100.28
VS,ft/Sec	Stack Velocity	36.22
QA,ASCFM	Stack Gas Flow (Actual)	4737
QS,ft3/HR	Stack Gas Flow (Dry STP)	170037
VMSTP,M3	VM Standard Temp.& Press. Dry	5.27E+00

Mn/VMSTP,M3 = ng ANALYTE PER CUBIC METER OF DRY FLU GAS

ANALYTE	ng/M3 @ 7% O2
2378-TCDD =	0.0000
12378-PeCDD =	0.0230
123478-HxCDD =	0.0247
123678-HxCDD =	0.0719
123789-HxCDD =	0.0548
1234678-HpCDD =	0.5824
OCDD =	1.3937
Total TCDD =	1.9790
Total PeCDD =	1.4169
Total HxCDD =	1.2923
Total HpCDD =	1.2170

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/04/03
TEST 3

CALCULATIONS FOR POLYCHLORINATED DIBENZOFURANS

DATA INPUT

Pb,In Hg	Barometer	29.56
VM,ft3	Meter Volume	193.93
ΔH,In H2O	Orifice Differential	2.24
PG,In H20	Stack Static Pressure	.62
Tm,F	Meter Temperture	83
Ts,F	Stack Temperture	333
CP	Pitot Coefficient	.84
√ΔP,In H20	Average Square Root Of Delta P	.5193
% CO2	Carbon Dioxide	6.4
% O2	Oxygen	11.8
% N	Nitrogen	81.8
VCL,Ml	Volume Of Condensate	417
AS,ft2	Stack Area	2.18
O,Min	Test Time	240
DN,In	Diameter Of Nozzle	.331

Mn, ANALYTE WEIGHT - NANOGRAMS (ng), (ENTRY FOR EACH ANALYTE)

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.72
PSA,In Hg	Absolute Stack Pressure	29.61
MD	Molecular Weight Dry Gas	29.50
MS	Molecular Weight @ Stack Conditions	28.40
VMSTP,ft3	VM Standard Temp.& Press. Dry	%186.14
VWSTP,ft3	VM Standard Temp.& Press. Wet	19.63
BWO,%	Moisture	9.54
I.%	Isokeinetic Variation	100.28
VS,ft/Sec	Stack Velocity	36.22
QA,ASCFM	Stack Gas Flow (Actual)	4737
QS,ft3/HR	Stack Gas Flow (Dry STP)	170037
VMSTP,M3	VM Standard Temp.& Press. Dry	5.27E+00

Mn/VMSTP,M3 = ng ANALYTE PER CUBIC METER OF DRY FLU GAS

ANALYTE	ng/M3 @ 7% O2
2378-TCDF =	0.0484
12378-PeCDF =	0.0774
23478-PeCDF =	0.1631
123478-HxCDF =	0.4317
123678-HxCDF =	0.2028
234678-HxCDF =	0.3970
123789-HxCDF =	0.0186
1234678-HpCDF =	0.6635
1234789-HpCDF =	0.1828
OCDF =	0.8229
Total TCDF =	3.5060
Total PeCDF =	2.4890
Total HxCDF =	2.1529
Total HpCDF =	1.5125

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/04/03
TEST 3

Custom Stack Analysis, LLC.
Method 26A

TEST NO. 1 PLANT St. John's Hospital DATE 9-3-03

LOCATION Incinerator Outlet BY [illegible]

BAROMETER (P_B) 29.44 AMBIENT TEMP 85 ASSUMED MOISTURE "Y" 1.00

MOUDULE NO. 003 PROBE NO. 3P-2 FILTER NO. HEATER NO. 4 NOZZLE DIA. .314

	TEST POINT	METER VOLUME (Vm)	METER TEMP (Tm) IN 2	OUT 3	COND TEMP °F 4	FILTER HEATER TEMP°F	PROBE TEMP °F	STACK TEMP 1 °F (Ts)	STACK PRESS. (Ps)	VACUUM "Hg	ORIFICE "H_2O (ΔH) (Pm)	VEL HEAD (ΔP)	TIME	
7:24	start	429.71	98	94	67	249	250	313	.62	5.0	X	X	0	
	1	433.51	100	93	60	259	256	315		5.0	2.2	.25	5	
	2	436.71	101	93	58	257	257	316		6.0	2.2	.25	10	
	3	440.51	101	93	56	260	255	317		6.5	2.5	.28	15	
	4	444.73	100	93	55	257	257	319		7.0	2.7	.30	20	
	5	449.01	100	93	55	258	247	314		7.0	2.6	.29	25	
	6	453.22	100	93	55	258	250	310		7.5	2.7	.31	30	7:55
7:57	start	453.22	98	93	56	258	246	308		7.0	X	X		
	1	457.42	99	96	56	258	247	311		7.0	2.6	.29	35	
	2	461.52	100	92	56	259	253	313		6.5	1.7	.24	40	
	3	465.265	100	92	57	258	256	313		5.0	2.0	.28	45	
	4	469.24	101	92	57	258	255	313		5.5	2.2	.30	50	
	5	472.93	100	93	57	259	257	314		5.5	2.1	.29	55	
	6	476.45	101	92	59	258	255	314		4.5	1.8	.25	1:00	8:26
	(Vm)	47.74												
	AVERAGE		96		****	******		314	MAX		2.3		60	

INTEGRATED GAS SAMPLE				AVG	N_2= 82
CO_2	6.8	6.8	6.8	6.8	
O_2	11.2	11.2	11.2	11.2	
CO					

CONDENSATE COLLECTED	FINAL	INITIAL	TOTAL
DRIERITE	959.0	950.0	9
IMPINGER	484.3	400	84.3
GRAND TOTAL			93.3

MINUTES

FILTER WT	PROBE WASH WT	IMPINGER CATCH	GRAND TOTAL
GROSS		HCl WT. 7.29	LEAK RATE @ 12"Hg= 0
TARE		Cl_2 WT. —	STACK AREA (As) 2.18 ft²
NET			AVG SQ RT ΔP .5263

TOTAL PARTICULAT WT (Mn) Mg

HYDROCHLORIC ACID EMISSION TEST*

DATA INPUT

Pb,In Hg	Barometer	29.44
VM,ft3	Meter Volume	47.74
DH,In H2O	Orifice Differential	2.3
PG,In H20	Stack Static Pressure	.62
Tm,F	Meter Temperture	96
Ts,F	Stack Temperture	314
CP	Pitot Coefficient	0.84
Ö DP,In H20	Average Square Root Of Delta P	.5263
% CO2	Carbon Dioxide	6.8
% O2	Oxygen	11.2
% N	Nitrogen	82
VCL,Ml	Volume Of Condensate	93.3
AS,ft2	Stack Area	2.18
DN,In	Diameter of Nozzle	.314
0,Min	Test Time	60
MN,Mg	Total HCL Catch Weight	7.29

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.61
PSA,In Hg	Absolute Stack Pressure	29.49
MD	Molecular Weight Dry Gas	29.54
MS	Molecular Weight @ Stack Conditions	28.5
VMSTP,ft3	VM Standard Temp.& Press. Dry	44.66
VWSTP,ft3	VM Standard Temp.& Press. Wet	4.39
BWO,%	Moisture	8.95
I,%	Isokeinetic Variation	103.97
VS,ft/Sec	Stack Velocity	36.27
QA,ASCFM	Stack Gas Flow (Actual)	4,744
QS,ft3/HR	Stack Gas Flow (Dry STP)	174,886
L,#/Hr	Emission Rate	0.06
Cs,#/ft2	HCL Concentration	3.60E-07
HCL ppm	HCL Emission PPM By Volume	3
HCL ppm	HCL Emission PPM By Volume @ 7% O2	5.5

* From Method 5 Test

ST JOHN'S HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/03/03
TEST 1

Custom Stack Analysis, LLC.
Method 26A

TEST NO. 2 PLANT St. John's Hospital DATE 9/4/03

LOCATION Incinerator Outlet BY [illegible]

BAROMETER (P_B) 29.86 AMBIENT TEMP 80 ASSUMED MOISTURE "Y" 1.00

MOUDULE NO. 003 PROBE NO. 2P-1 FILTER NO. HEATER NO. 3 NOZZLE DIA. .302

	TEST POINT	METER VOLUME (Vm)	METER TEMP (Tm) IN 2	METER TEMP (Tm) OUT 3	COND TEMP 4 °F	FILTER HEATER TEMP °F	PROBE TEMP °F	STACK TEMP 1 °F (Ts)	STACK PRESS. (Ps)	VACUUM "Hg	ORIFICE "H_2O (ΔH) (Pm)	VEL HEAD (ΔP)	TIME	
8:28	Start	478.985	87	77	50	248	248	299	.62	2.5	X	X	0	
	1	482.28	90	78	50	249	248	310		2.5	1.6	.25	5	
	2	485.45	91	75	51	248	248	311		2.5	1.4	.22	10	
	3	488.65	91	79	52	249	248	310		3.0	1.6	.26	15	
	4	491.71	91	80	54	248	248	311		2.5	1.3	.21	20	
	5	494.88	92	80	56	248	248	312		3.0	1.5	.25	25	
9:00	6	498.08	93	80	56	249	249	307		3.6	1.6	.26	30	9:58
	Start	498.08	91	81	58	249	248	311		3.0	X	X		
	1	501.28	93	81	59	249	248	307		3.0	1.5	.25	35	
	2	504.73	92	81	60	249	249	307		3.5	1.7	.28	40	
	3	507.94	93	82	60	251	251	311		2.5	1.3	.22	45	
	4	510.92	93	82	61	248	248	316		2.5	1.6	.26	50	
	5	514.06	93	83	60	250	248	318		2.5	1.4	.24	55	
	6	517.165	93	83	60	249	250	316		2.5	1.4	.23	60	9:36
	(Vm) 38.18													
	AVERAGE		86		****	******		316	MAX		1.5		60 MINUTES	

INTEGRATED GAS SAMPLE				AVG	N_2= 81.8
CO_2	6.4	6.4	6.4	6.4	
O_2	11.8	11.8	11.8	11.8	
CO					

CONDENSATE COLLECTED	FINAL	INITIAL	TOTAL
DRIERITE	964.6	954.1	10.5
IMPINGER	505.2	400	105.2
GRAND TOTAL			115.7

FILTER WT	PROBE WASH WT	IMPINGER CATCH	
GROSS		HCl WT. 3.60	LEAK RATE @ 5.0 "Hg= 0
TARE		Cl_2 WT.	STACK AREA (As) 2.18 f^2
NET			AVG SQ RT ΔP .4937

TOTAL PARTICULAT WT (Mn) Mg

HYDROCHLORIC ACID EMISSION TEST

DATA INPUT

Pb,In Hg	Barometer	29.56
VM,ft3	Meter Volume	38.18
DH,In H2O	Orifice Differential	1.5
PG,In H20	Stack Static Pressure	.62
Tm,F	Meter Temperture	86
Ts,F	Stack Temperture	316
CP	Pitot Coefficient	0.84
ÖDP,In H20	Average Square Root Of Delta P	.4937
% CO2	Carbon Dioxide	6.4
% O2	Oxygen	11.8
% N	Nitrogen	81.8
VCL,Ml	Volume Of Condensate	115.7
AS,ft2	Stack Area	2.18
DN,In	Diameter of Nozzle	.302
0,Min	Test Time	60
MN,Mg	Total HCL Catch Weight	3.60

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.67
PSA,In Hg	Absolute Stack Pressure	29.61
MD	Molecular Weight Dry Gas	29.5
MS	Molecular Weight @ Stack Conditions	28.
VMSTP,ft3	VM Standard Temp.& Press. Dry	36.52
VWSTP,ft3	VM Standard Temp.& Press. Wet	5.45
BWO,%	Moisture	12.98
I,%	Isokeinetic Variation	101.54
VS,ft/Sec	Stack Velocity	34.3
QA,ASCFM	Stack Gas Flow (Actual)	4,486
QS,ft3/HR	Stack Gas Flow (Dry STP)	158,310
L,#/Hr	Emission Rate	0.03
Cs,#/ft2	HCL Concentration	2.17E-07
HCL ppm	HCL Emission PPM By Volume	2
HCL ppm	HCL Emission PPM By Volume @ 7% O2	3.5

* From Method 5 Test

ST JOHN'S HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/04/03
TEST 2

Custom Stack Analysis, LLC.
Method 26A

TEST NO. 3 PLANT St. John's Hospital DATE 9-4-03

LOCATION Incinerator Outlet BY [illegible]

BAROMETER (P_B) 29.56 AMBIENT TEMP 85 ASSUMED MOISTURE "Y" 1.00

MOUDULE NO. 003 PROBE NO. 2P-1 FILTER NO. HEATER NO. 5 NOZZLE DIA. .302

	TEST POINT	METER VOLUME (Vm)	METER TEMP (Tm) IN 2	OUT 3	COND TEMP °F 4	FILTER HEATER TEMP °F	PROBE TEMP °F	STACK TEMP 1 °F (Ts)	STACK PRESS. (Ps)	VACUUM "Hg	ORIFICE "H_2O (ΔH) (Pm)	VEL HEAD (ΔP)	TIME	
1:51	start	594.56	96	90	67	250	256	300	.62	3.0	X	X	0	
	1	597.63	100	89	66	269	253	315		3.0	1.4	.23	5	
	2	600.71	101	89	65	259	258	316		3.0	1.4	.24	10	
	3	604.18	100	90	64	263	254	317		4.0	1.7	.28	15	
	4	607.18	100	90	64	263	256	318		4.0	1.8	.30	20	
	5	610.97	101	90	68	261	253	316		4.0	1.6	.26	25	
	6	614.28	103	91	68	262	255	315		4.0	1.5	.25	30	2:22
2:30	start	614.28	96	91	65	262	253	316		3.5	X	X		
	1	617.73	101	91	66	263	256	322		3.5	1.5	.24	35	
	2	620.99	101	91	56	262	256	323		4.0	1.7	.27	40	
	3	624.32	101	91	53	263	254	325		4.0	1.7	.28	45	
	4	627.52	101	91	53	262	253	326		3.5	1.5	.25	50	
	5	630.85	102	92	52	263	255	327		3.5	1.5	.24	55	
	6	634.19	102	92	52	261	252	328		4.0	1.7	.27	1:00	3:00
	(Vm)	39.64												
	AVERAGE		95		****	******		318	MAX		1.58			

INTEGRATED GAS SAMPLE				AVG	N_2= 81.8
CO_2	6.4	6.4	6.4	6.4	
O_2	11.8	11.8	11.8	11.8	
CO					

CONDENSATE COLLECTED	FINAL	INITIAL	TOTAL
DRIERITE	985.6	974.0	11.6
IMPINGER	477.3	400	77.3
GRAND TOTAL			88.9

MINUTES

FILTER WT	PROBE WASH WT	IMPINGER CATCH	
GROSS		HCl WT. 14.35	LEAK RATE @7.0 "Hg= .005
TARE		Cl_2 WT. —	STACK AREA (As) 2.18 f^2
NET			AVG SQ RT ΔP 0.5087

TOTAL PARTICULAT WT (Mn) Mg

HYDROCHLORIC ACID EMISSION TEST*

DATA INPUT

Pb,In Hg	Barometer	29.56
VM,ft3	Meter Volume	39.64
DH,In H2O	Orifice Differential	1.58
PG,In H20	Stack Static Pressure	.62
Tm,F	Meter Temperture	95
Ts,F	Stack Temperture	318
CP	Pitot Coefficient	0.84
ÖDP,In H20	Average Square Root Of Delta P	.5087
% CO2	Carbon Dioxide	6.4
% O2	Oxygen	11.8
% N	Nitrogen	81.8
VCL,Ml	Volume Of Condensate	88.9
AS,ft2	Stack Area	2.18
DN,In	Diameter of Nozzle	.302
0,Min	Test Time	60
MN,Mg	Total HCL Catch Weight	14.35

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.68
PSA,In Hg	Absolute Stack Pressure	29.61
MD	Molecular Weight Dry Gas	29.5
MS	Molecular Weight @ Stack Conditions	28.34
VMSTP,ft3	VM Standard Temp.& Press. Dry	37.3
VWSTP,ft3	VM Standard Temp.& Press. Wet	4.18
BWO,%	Moisture	10.09
I,%	Isokeinetic Variation	98.12
VS,ft/Sec	Stack Velocity	35.18
QA,ASCFM	Stack Gas Flow (Actual)	4,601
QS,ft3/HR	Stack Gas Flow (Dry STP)	167,331
L,#/Hr	Emission Rate	0.14
Cs,#/ft2	HCL Concentration	8.48E-07
HCL ppm	HCL Emission PPM By Volume	8
HCL ppm	HCL Emission PPM By Volume @ 7% O2	13.7

* From Method 5 Test

ST JOHN'S HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/04/03
TEST 3

Custom Stack Analysis, LLC.
Method 29

TEST NO. 1 PLANT St. John's Hospital DATE 9/3/03

LOCATION Incinerator Outlet BY [illegible]

BAROMETER (P_B) 29.44 AMBIENT TEMP 85 ASSUMED MOISTURE "Y" 1.00

MOUDULE NO. 003 PROBE NO. 3P-1 FILTER NO. 162 HEATER NO. 7 NOZZLE DIA. .331

TEST POINT	METER VOLUME (Vm)	METER TEMP (Tm) IN	METER TEMP (Tm) OUT	COND TEMP °F	FILTER HEATER TEMP °F	PROBE TEMP °F	STACK TEMP °F (Ts)	STACK PRESS. (Ps)	VACUUM "Hg	ORIFICE "H_2O (ΔH) (Pm)	VEL HEAD (ΔP)	TIME
3:45 Start	322.86	86	81	54	253	254	328	.62	1.0	—	—	0
1	330.06	101	82	61	259	258	323		2.0	2.2	.25	10
2	338.56	102	85	57	258	257	323		2.0	2.5	.28	20
3	347.86	101	87	56	258	253	313		2.0	2.9	.33	30
4	356.06	102	88	58	258	256	318		2.0	2.5	.28	40
5	365.36	101	90	62	259	254	320		2.0	2.9	.33	50
6	373.66	102	91	64	258	253	324		2.0	2.5	.28	60
Start	373.66	99	91	61	258	256	325		2.0	—	—	
1	382.86	103	91	60	259	253	322		2.0	2.5	.28	70
2	390.96	102	92	59	258	255	327		2.0	2.9	.33	80
3	399.26	102	93	58	258	252	328		2.0	2.5	.28	90
4	407.56	102	93	57	258	258	327		2.0	2.5	.28	100
5	415.96	102	93	57	258	254	323		2.0	2.5	.28	110
6	424.26	102	93	57	259	257	322		2.0	2.9	.33	120 5:46
(Vm) 101.4												
AVERAGE		94		****	******	****	323		MAX	2.60		120 MINUTES

INTEGRATED GAS SAMPLE				AVG	N_2 = 82
CO_2	6.8	6.8	6.8	6.8	
O_2	11.2	11.2	11.2	11.2	
CO					

CONDENSATE COLLECTED	FINAL	INITIAL	TOTAL
DRIERITE	972.7	960.4	12.3
IMPINGER	583.5	400	183.5
GRAND TOTAL			195.8

FILTER WT	PROBE WASH WT	HEAVY METALS WT-mg	
GROSS 822.4	114181.1	As —	Ni —
TARE 821.9	114173.8	Be —	Hg .0122
NET 0.5	7.3	Cd .0009	
		Cr —	
		Pb .0101	

LEAK RATE @ 12 "Hg = 0	
STACK AREA (As) 2.18 ft²	
AVG SQ RT ΔP .5418	

E.P.A. METHOD 5

DATA INPUT

Pb,In Hg	Barometer	29.44
VM,ft3	Meter Volume	101.4
ΔH,In H2O	Orifice Differential	2.60
PG,In H20	Stack Static Pressure	.62
Tm,F	Meter Temperture	94
Ts,F	Stack Temperture	323
CP	Pitot Coefficient	.84
√ΔP,In H20	Average Square Root Of Delta P	.5418
% CO2	Carbon Dioxide	6.8
% O2	Oxygen	11.2
% N	Nitrogen	82
VCL,Ml	Volume Of Condensate	195.8
AS,ft2	Stack Area	2.18
MN,Mg	Total Particulate Catch Weight	7.65
O,Min	Test Time	120
DN,In	Diameter Of Nozzle	.331

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.63
PSA,In Hg	Absolute Stack Pressure	29.49
MD	Molecular Weight Dry Gas	29.54
MS	Molecular Weight @ Stack Conditions	28.52
VMSTP,ft3	VM Standard Temp.& Press. Dry	95.20
VWSTP,ft3	VM Standard Temp.& Press. Wet	9.22
BWO,%	Moisture	8.83
I.%	Isokeinetic Variation	97.33
VS,ft/Sec	Stack Velocity	37.54
QA,ASCFM	Stack Gas Flow (Actual)	4911
QS,ft3/HR	Stack Gas Flow (Dry STP)	179202
L,#/Hr	Emission Rate	0.03
CS,#/SCF	Particulate Emission	1.771877E-07
C''S,Grn/SCF	Particulate Emission	0.0012
C12,GR/SCF	C''S Corrected to 12% CO_2	0.0022
C12,mg/M3	C''S Corrected to 12% CO_2	4.9981
O7,GR/SCF	C''S Corrected to 7% O_2	0.0018
O7,mg/M3	C''S Corrected to 7% O_2	4.0586

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/03/03
TEST 1

Gas Volumes Method 29

DATA INPUT

Pb,In Hg	Barometer	29.44
VM,ft3	Meter Volume	101.4
ΔH,In H2O	Orifice Differential	2.60
PG,In H20	Stack Static Pressure	.62
Tm,F	Meter Temperture	94
Ts,F	Stack Temperture	323
CP	Pitot Coefficient	.84
√ΔP,In H20	Average Square Root Of Delta P	.5418
% CO2	Carbon Dioxide	6.8
% O2	Oxygen	11.2
% N	Nitrogen	82
VCL,Ml	Volume Of Condensate	195.8
AS,ft2	Stack Area	2.18
O,Min	Test Time	120
DN,In	Diameter Of Nozzle	.331

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.63
PSA,In Hg	Absolute Stack Pressure	29.49
MD	Molecular Weight Dry Gas	29.54
MS	Molecular Weight @ Stack Conditions	28.52
VMSTP,ft3	VM Standard Temp.& Press. Dry	95.20
VWSTP,ft3	VM Standard Temp.& Press. Wet	9.22
BWO,%	Moisture	8.83
I.%	Isokeinetic Variation	97.33
VS,ft/Sec	Stack Velocity	37.54
QA,ASCFM	Stack Gas Flow (Actual)	4911
QS,ft3/HR	Stack Gas Flow (Dry STP)	179202

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/03/03
TEST 1

CHEMICAL EMISSIONS

CADMIUM

L,#/Hr	Emission Rate ----------	3.735564E-06
CS,#/SCF	Emission Rate	2.084561E-11
C''S,Grn/SCF	Emission Rate ----------	1.455884E-07
C12,GR/SCF	C''S Corrected to 12% CO_2 ----------	2.569206E-07
O7,GR/SCF	C''S Corrected to 7% O_2	2.086266E-07

LEAD

L,#/Hr	Emission Rate ----------	4.192133E-05
CS,#/SCF	Emission Rate	2.33934E-10
C''S,Grn/SCF	Emission Rate ----------	1.633825E-06
C12,GR/SCF	C''S Corrected to 12% CO_2 ----------	2.88322E-06
O7,GR/SCF	C''S Corrected to 7% O_2	2.341254E-06

MERCURY

L,#/Hr	Emission Rate ----------	5.063765E-05
CS,#/SCF	Emission Rate	2.825738E-10
C''S,Grn/SCF	Emission Rate ----------	1.973531E-06
C12,GR/SCF	C''S Corrected to 12% CO_2 ----------	3.482702E-06
O7,GR/SCF	C''S Corrected to 7% O_2	2.82805E-06

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/03/03
TEST 1

Custom Stack Analysis, LLC.
Method 29

TEST NO. 2 PLANT St. John's Hospital DATE 9/4/03

LOCATION Incinerator Outlet BY [illegible]

BAROMETER (P_B) 29.56 AMBIENT TEMP 86 ASSUMED MOISTURE "Y" 1.00

MODULE NO. 003 PROBE NO. 2P-1 FILTER NO. 103 HEATER NO. 8 NOZZLE DIA. .302

	TEST POINT	METER VOLUME (Vm)	METER TEMP (Tm) IN	METER TEMP (Tm) OUT	COND TEMP °F	FILTER HEATER TEMP°F	PROBE TEMP °F	STACK TEMP °F(Ts)	STACK PRESS. (Ps)	VACUUM "Hg	ORIFICE "H_2O (ΔH) (Pm)	VEL HEAD (ΔP)	TIME	
9:44	start	517.20	90	83	67	240	249	300	.62	1.0	X	X	0	
	1	523.28	93	83	65	243	246	318		1.0	1.4	.23	10	
	2	530.35	95	84	66	248	245	320		1.0	1.7	.28	20	
	3	536.87	94	95	57	249	248	323		1.0	1.5	.25	30	
	4	543.12	95	84	54	249	249	325		1.0	1.4	.24	40	
	5	549.21	95	85	53	249	249	324		1.0	1.3	.22	50	
	6	555.665	95	86	54	249	248	323		1.0	1.6	.26	1:06	10:45
10:48	start	555.665	95	86	57	249	246	324		1.0	X	X		
	1	562.34	96	86	55	249	248	327		1.0	1.5	.25	1:10	
	2	568.74	97	86	55	249	247	328		1.0	1.6	.26	1:20	
	3	574.98	96	87	56	249	250	330		1.0	1.4	.24	1:30	
	4	581.145	96	87	57	250	247	331		1.0	1.4	.23	1:40	
	5	587.28	97	87	57	249	249	331		1.0	1.3	.22	1:50	
	6	593.475	98	88	58	250	249	330		1.0	1.4	.24	2:00	11:48
	(Vm) 76.275													
	AVERAGE		90		****	******	****	323		MAX	1.45			

INTEGRATED GAS SAMPLE				AVG	N_2=81.8
CO_2	6.4	6.4	6.4	6.4	
O_2	11.8	11.8	11.8	11.8	
CO					

CONDENSATE COLLECTED	FINAL	INITIAL	TOTAL
DRIERITE	970.5	959.9	10.6
IMPINGER	567.1	400	167.1
GRAND TOTAL			177.7

MINUTES

FILTER WT	PROBE WASH WT	HEAVY METALS WT-mg		GRAND TOTAL
GROSS 818.4	114342.4	As —	Ni —	LEAK RATE @ 4.0 "Hg= 0
TARE 818.1	114337.1	Be —	Hg .0089	STACK AREA (As) 2.18 ft²
NET 0.3	5.3	Cd .0003		AVG SQ RT ΔP 0.4930
		Cr —		
		Pb .0097		

E.P.A. METHOD 5

DATA INPUT

Pb,In Hg	Barometer	29.56
VM,ft3	Meter Volume	76.275
ΔH,In H2O	Orifice Differential	1.45
PG,In H20	Stack Static Pressure	.62
Tm,F	Meter Temperture	90
Ts,F	Stack Temperture	323
CP	Pitot Coefficient	.84
√ΔP,In H20	Average Square Root Of Delta P	.4930
% CO2	Carbon Dioxide	6.4
% O2	Oxygen	11.8
% N	Nitrogen	81.8
VCL,Ml	Volume Of Condensate	177.7
AS,ft2	Stack Area	2.18
MN,Mg	Total Particulate Catch Weight	5.45
O,Min	Test Time	120
DN,In	Diameter Of Nozzle	.302

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.67
PSA,In Hg	Absolute Stack Pressure	29.61
MD	Molecular Weight Dry Gas	29.50
MS	Molecular Weight @ Stack Conditions	28.31
VMSTP,ft3	VM Standard Temp.& Press. Dry	72.43
VWSTP,ft3	VM Standard Temp.& Press. Wet	8.36
BWO,%	Moisture	10.35
I.%	Isokeinetic Variation	98.85
VS,ft/Sec	Stack Velocity	34.22
QA,ASCFM	Stack Gas Flow (Actual)	4476
QS,ft3/HR	Stack Gas Flow (Dry STP)	161257
L,#/Hr	Emission Rate	0.03
CS,#/SCF	Particulate Emission	1.659256E-07
C''S,Grn/SCF	Particulate Emission	0.0012
C12,GR/SCF	C''S Corrected to 12% CO_2	0.0022
C12,mg/M3	C''S Corrected to 12% CO_2	4.9730
O7,GR/SCF	C''S Corrected to 7% O_2	0.0018
O7,mg/M3	C''S Corrected to 7% O_2	4.0512

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/04/03
TEST 2

Gas Volumes Method 29

DATA INPUT

Pb,In Hg	Barometer	29.56
VM,ft3	Meter Volume	76.275
ΔH,In H2O	Orifice Differential	1.45
PG,In H2O	Stack Static Pressure	.62
Tm,F	Meter Temperture	90
Ts,F	Stack Temperture	323
CP	Pitot Coefficient	.84
√ΔP,In H2O	Average Square Root Of Delta P	.4930
% CO2	Carbon Dioxide	6.4
% O2	Oxygen	11.8
% N	Nitrogen	81.8
VCL,Ml	Volume Of Condensate	177.7
AS,ft2	Stack Area	2.18
O,Min	Test Time	120
DN,In	Diameter Of Nozzle	.302

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.67
PSA,In Hg	Absolute Stack Pressure	29.61
MD	Molecular Weight Dry Gas	29.50
MS	Molecular Weight @ Stack Conditions	28.31
VMSTP,ft3	VM Standard Temp.& Press. Dry	72.43
VWSTP,ft3	VM Standard Temp.& Press. Wet	8.36
BWO,%	Moisture	10.35
I.%	Isokeinetic Variation	98.85
VS,ft/Sec	Stack Velocity	34.22
QA,ASCFM	Stack Gas Flow (Actual)	4476
QS,ft3/HR	Stack Gas Flow (Dry STP)	161257

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/04/03
TEST 2

CHEMICAL EMISSIONS

CADMIUM

L,#/Hr	Emission Rate ----------	1.472841E-06
CS,#/SCF	Emission Rate	9.133518E-12
C''S,Grn/SCF	Emission Rate ----------	6.378965E-08
C12,GR/SCF	C''S Corrected to 12% CO_2 ----------	1.196056E-07
O7,GR/SCF	C''S Corrected to 7% O_2	9.743694E-08

LEAD

L,#/Hr	Emission Rate ----------	4.762186E-05
CS,#/SCF	Emission Rate	2.953171E-10
C''S,Grn/SCF	Emission Rate ----------	2.062532E-06
C12,GR/SCF	C''S Corrected to 12% CO_2 ----------	3.867247E-06
O7,GR/SCF	C''S Corrected to 7% O_2	3.150461E-06

MERCURY

L,#/Hr	Emission Rate ----------	4.369428E-05
CS,#/SCF	Emission Rate	2.70961E-10
C''S,Grn/SCF	Emission Rate ----------	1.892426E-06
C12,GR/SCF	C''S Corrected to 12% CO_2 ----------	3.548299E-06
O7,GR/SCF	C''S Corrected to 7% O_2	2.890629E-06

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/04/03
TEST 2

Custom Stack Analysis, LLC.
Method 29

TEST NO. 3 PLANT St. John's Hospital DATE 9-4-03

LOCATION Incinerator Outlet BY Jeff Pottman

BAROMETER (P_B) 29.56 AMBIENT TEMP 85 ASSUMED MOISTURE "Y" 1.00

MODULE NO. 003 PROBE NO. 2P-1 FILTER NO. 16 HEATER NO. 9 NOZZLE DIA. .302

	TEST POINT	METER VOLUME (Vm)	METER TEMP (Tm) IN	METER TEMP (Tm) OUT	COND TEMP °F	FILTER HEATER TEMP °F	PROBE TEMP °F	STACK TEMP °F (Ts)	STACK PRESS. (Ps)	VACUUM "Hg	ORIFICE "H_2O (ΔH) (Pm)	VEL HEAD (ΔP)	TIME θ	
3:56	Start	635.46	99	91	67	261	257	332	.62	1.0	X	X	0	
	1	642.26	104	91	57	252	252	334		.5	1.5	.25	10	
	2	648.98	103	92	53	251	254	337		1.0	1.4	.23	20	
	3	655.64	103	93	52	251	252	335		1.0	1.6	.26	30	
	4	662.01	103	93	52	251	251	337		1.0	1.5	.25	40	
	5	668.27	98	93	53	252	254	338		1.0	1.4	.22	50	
	6	674.815	104	93	53	252	253	335		1.0	1.6	2.6	1:00	4:56
4:57	Start	674.815	100	93	53	252	254	334		1.0	X	X		
	1	681.38	102	96	55	251	254	335		1.0	1.5	.25	1:10	
	2	687.83	103	93	56	251	255	339		1.0	1.5	2.4	1:20	
	3	694.79	102	93	59	252	256	340		1.0	1.7	2.7	1:30	
	4	701.32	103	92	62	251	252	336		1.0	1.5	.24	1:40	
	5	707.94	102	93	66	251	251	336		1.0	1.6	.26	1:50	
	6	714.31	102	92	66	252	254	337		1.0	1.4	.23	2:00	5:57
	(Vm) 78.85													
	AVERAGE		97		****	******	****	336		MAX	1.51			

INTEGRATED GAS SAMPLE				AVG	N_2=81.8
CO_2	6.4	6.4	6.4	6.4	
O_2	11.8	11.8	11.8	11.8	
CO					

CONDENSATE COLLECTED	FINAL	INITIAL	TOTAL	MINUTES
DRIERITE	982.5	970.8	11.7	
IMPINGER	560.9	400	160.9	
GRAND TOTAL			172.6	

FILTER WT	PROBE WASH WT	HEAVY METALS WT-mg		
GROSS 825.3	113363.7	As —	Ni —	LEAK RATE @ 5.0 "Hg= 0
TARE 824.7	113357.2	Be —	Hg .0040	STACK AREA (As) 2.18 ft²
NET 0.6	6.5	Cd .0006N		AVG SQ RT ΔP .4964
		Cr —		
		Pb .0038		

E.P.A. METHOD 5

DATA INPUT

Pb,In Hg	Barometer	29.56
VM,ft3	Meter Volume	78.85
ΔH,In H2O	Orifice Differential	1.51
PG,In H2O	Stack Static Pressure	.62
Tm,F	Meter Temperture	97
Ts,F	Stack Temperture	336
CP	Pitot Coefficient	.84
√ΔP,In H2O	Average Square Root Of Delta P	.4964
% CO2	Carbon Dioxide	6.4
% O2	Oxygen	11.8
% N	Nitrogen	81.8
VCL,Ml	Volume Of Condensate	172.6
AS,ft2	Stack Area	2.18
MN,Mg	Total Particulate Catch Weight	6.95
O,Min	Test Time	120
DN,In	Diameter Of Nozzle	.302

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.67
PSA,In Hg	Absolute Stack Pressure	29.61
MD	Molecular Weight Dry Gas	29.50
MS	Molecular Weight @ Stack Conditions	28.36
VMSTP,ft3	VM Standard Temp.& Press. Dry	73.93
VWSTP,ft3	VM Standard Temp.& Press. Wet	8.12
BWO,%	Moisture	9.90
I.%	Isokeinetic Variation	100.62
VS,ft/Sec	Stack Velocity	34.71
QA,ASCFM	Stack Gas Flow (Actual)	4540
QS,ft3/HR	Stack Gas Flow (Dry STP)	161701
L,#/Hr	Emission Rate	0.03
CS,#/SCF	Particulate Emission	2.072882E-07
C''S,Grn/SCF	Particulate Emission	0.0014
C12,GR/SCF	C''S Corrected to 12% CO_2	0.0027
C12,mg/M3	C''S Corrected to 12% CO_2	6.2126
O7,GR/SCF	C''S Corrected to 7% O_2	0.0022
O7,mg/M3	C''S Corrected to 7% O_2	5.0611

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/04/03
TEST 3

Gas Volumes Method 29

DATA INPUT

Pb,In Hg	Barometer	29.56
VM,ft3	Meter Volume	78.85
ΔH,In H2O	Orifice Differential	1.51
PG,In H2O	Stack Static Pressure	.62
Tm,F	Meter Temperture	97
Ts,F	Stack Temperture	336
CP	Pitot Coefficient	.84
√ΔP,In H2O	Average Square Root Of Delta P	.4964
% CO2	Carbon Dioxide	6.4
% O2	Oxygen	11.8
% N	Nitrogen	81.8
VCL,Ml	Volume Of Condensate	172.6
AS,ft2	Stack Area	2.18
O,Min	Test Time	120
DN,In	Diameter Of Nozzle	.302

RESULTS

Pma,In Hg	Absolute Meter Pressure	29.67
PSA,In Hg	Absolute Stack Pressure	29.61
MD	Molecular Weight Dry Gas	29.50
MS	Molecular Weight @ Stack Conditions	28.36
VMSTP,ft3	VM Standard Temp.& Press. Dry	73.93
VWSTP,ft3	VM Standard Temp.& Press. Wet	8.12
BWO,%	Moisture	9.90
I.%	Isokeinetic Variation	100.62
VS,ft/Sec	Stack Velocity	34.71
QA,ASCFM	Stack Gas Flow (Actual)	4540
QS,ft3/HR	Stack Gas Flow (Dry STP)	161701

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/04/03
TEST 3

CHEMICAL EMISSIONS

CADMIUM

L,#/Hr	Emission Rate ----------	2.893706E-06
CS,#/SCF	Emission Rate	1.789539E-11
C''S,Grn/SCF	Emission Rate ----------	1.249837E-07
C12,GR/SCF	C''S Corrected to 12% CO_2 ----------	2.343444E-07
O7,GR/SCF	C''S Corrected to 7% O_2	1.909091E-07

LEAD

L,#/Hr	Emission Rate ----------	1.83268E-05
CS,#/SCF	Emission Rate	1.133375E-10
C''S,Grn/SCF	Emission Rate ----------	7.915632E-07
C12,GR/SCF	C''S Corrected to 12% CO_2 ----------	1.484181E-06
O7,GR/SCF	C''S Corrected to 7% O_2	1.209091E-06

MERCURY'

L,#/Hr	Emission Rate ----------	1.929137E-05
CS,#/SCF	Emission Rate	1.193026E-10
C''S,Grn/SCF	Emission Rate ----------	8.332244E-07
C12,GR/SCF	C''S Corrected to 12% CO_2 ----------	1.562296E-06
O7,GR/SCF	C''S Corrected to 7% O_2	1.272727E-06

ST JOHNS HOSPITAL
SPRINGFIELD IL
INCINERATOR OUTLET
09/04/03
TEST 3

mg/dscm @ 7% Oxygen Calculations

dscf of sample x .02832 = dscm

mg of sample x (20.9 - 7) / (20.9 - O2) = mg @ 7% O2

mg @ 7% O2 / dscm = mg/dscm % 7% O2

RUN #1

DSCF =	95.2
Oxygen % =	11.2
DSCM =	2.70

Cadmium mg =	0.0009
mg @ 7% O2 =	0.0013
mg/dscm @ 7% 02 =	0.0005
Lead mg =	0.0101
mg @ 7% O2 =	0.0145
mg/dscm @ 7% 02 =	0.0054
Mercury mg =	0.0122
mg @ 7% O2 =	0.0175
mg/dscm @ 7% 02 =	0.0065

RUN #2

DSCF =	72.43
Oxygen % =	11.8
DSCM =	2.05

Cadmium mg =	0.0003
mg @ 7% O2 =	0.0005
mg/dscm @ 7% 02 =	0.0002
Lead mg =	0.0097
mg @ 7% O2 =	0.0148
mg/dscm @ 7% 02 =	0.0072
Mercury mg =	0.0089
mg @ 7% O2 =	0.0136
mg/dscm @ 7% 02 =	0.0066

RUN #3

DSCF =	73.93
Oxygen % =	11.8
DSCM =	2.09

Cadmium mg =	0.0006
mg @ 7% O2 =	0.0009
mg/dscm @ 7% 02 =	0.0004
Lead mg =	0.0038
mg @ 7% O2 =	0.0058
mg/dscm @ 7% 02 =	0.0028
Mercury mg =	0.004
mg @ 7% O2 =	0.0061
mg/dscm @ 7% 02 =	0.0029

EPA
VISIBLE EMISSION OBSERVATION FORM 1

Form Number			0	0	1	Page 1	Of 4
Continued on VEO Form Number							

Method Used (Circle One): (Method 9) 203A 203B Other: _____

Company Name	St. John's Hospital
Facility Name	
Street Address	800 E Carpenter St
City	Springfield
State	IL
Zip	62769-0001/08

Process	Unit #	Operating Mode
Incinerator Outlet		
Control Equipment		**Operating Mode**

Describe Emission Point: TALL yellow brick stack

	Start	End
Height of Emiss. Pt.	120'	120'
Height of Emiss. Pt. Rel. to Observer	100	100'
Distance to Emiss. Pt.		
Direction to Emiss. Pt. (Degrees)	7° E	7° E
Vertical Angle to Obs. Pt.	45°	45°
Direction to Obs. Pt. (Degrees)	26° W	26° W
Distance and Direction to Observation Point from Emission Point		

Describe Emissions: Start Clear End

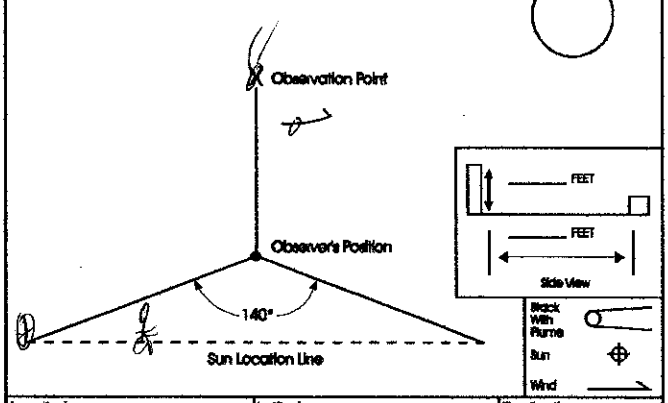
Emission Color: Start Clear End

Water Droplet Plume: Attached ☐ Detached ☐ None ☒

	Start	End
Describe Plume Background	blue sky	blue sky
Background Color	blue sky	blue sky
Sky Conditions	Clear	clear
Wind Speed	5 mph	5 mph
Wind Direction	E	E
Ambient Temp.	80	80
Wet Bulb Temp.		
RH Percent		

Source Layout Sketch

Draw North Arrow ☐ TN ☐ MN



Longitude	Latitude	Declination

Additional Information:

Observation Date	Time Zone	Start Time	End Time
9/3/03	Central	4:40	5:10

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
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11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print)	Robert E Fickel
Observer's Signature	Robert E Fickel
Date	9/3/03
Organization	Custom Stack Analysts
Certified By	Whitlow
Date	

VEOF1.1

EPA
VISIBLE EMISSION OBSERVATION FORM 1

Form Number			0	0	1	Page 2	Of 4
Continued on VEO Form Number							

Method Used (Circle One): Method 9 | 203A | 203B | Other: _____

Company Name: St John's Hospital		
Facility Name:		
Street Address: 800 E Carpenter St		
City: Springfield	State: IL	Zip: 62769-0001 US

Process: Incinerator outlet	Unit #:	Operating Mode:
Control Equipment:		Operating Mode:

Describe Emission Point: TALL yellow brick stack

Height of Emiss. Pt. Start 120' End 120'	Height of Emiss. Pt. Rel. to Observer Start 100 End 100
Distance to Emiss. Pt. Start End	Direction to Emiss. Pt. (Degrees) Start 2° E End 2° E

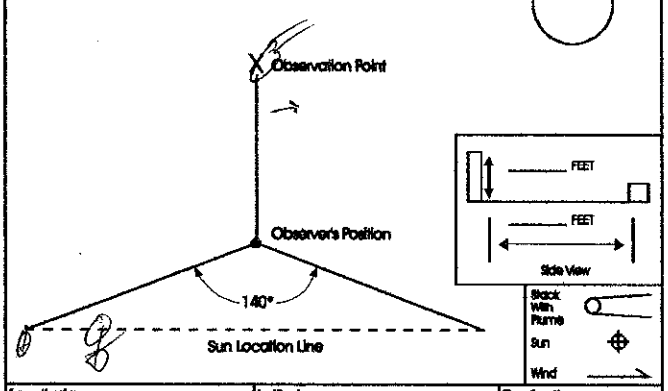
Vertical Angle to Obs. Pt. Start 45° End 45°	Direction to Obs. Pt. (Degrees) Start 26° W End 26° W
Distance and Direction to Observation Point from Emission Point Start	End

Describe Emissions Start clear	End clear
Emission Color Start clear End clear	Water Droplet Plume Attached ☐ Detached ☐ None ☑

Describe Plume Background Start blue sky	End blue sky
Background Color Start blue sky End blue sky	Sky Conditions Start clear End clear
Wind Speed Start 5 mph End 5 mph	Wind Direction Start E End E
Ambient Temp. Start 80° End 70°	Wet Bulb Temp. / RH Percent

Source Layout Sketch

Draw North Arrow ☐ TN ☐ MN



Longitude	Latitude	Declination

Additional Information:

Observation Date	Time Zone	Start Time	End Time
9/3/03	Central	5:10	5:40

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print): Robert E Fickel	
Observer's Signature: Robert E Fickel	Date: 9/3/03
Organization: Custom Stack Analysis	
Certified By: Whitlow	Date:

VEOF1.1

EPA
VISIBLE EMISSION OBSERVATION FORM 1

Form Number			0	0	1	Page 3	Of 4
Continued on VEO Form Number							

Method Used (Circle One): Method 9 (circled) | 203A | 203B | Other: _____

Company Name	St John's Hospital
Facility Name	
Street Address	800 E Carpenter St
City	Springfield
State	IL
Zip	62769-0001

Process	Incinerator Outlet	Unit #	Operating Mode
Control Equipment			Operating Mode

Describe Emission Point: TALL yellow brick stack

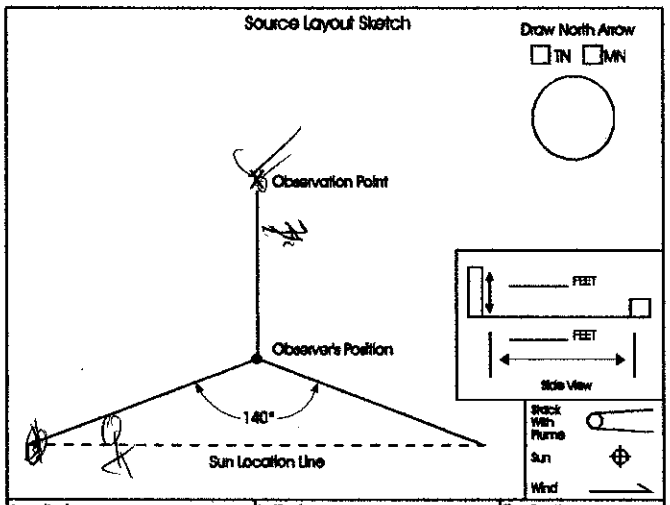
Height of Emiss. Pt.	Start 120' End 120'	Height of Emiss. Pt. Rel. to Observer	Start 100' End 100'
Distance to Emiss. Pt.	Start End	Direction to Emiss. Pt. (Degrees)	Start 270°E End 270°E

Vertical Angle to Obs. Pt.	Start 45° End 45°	Direction to Obs. Pt. (Degrees)	Start 26°W End 26°W
Distance and Direction to Observation Point from Emission Point	Start		End

Describe Emissions	Start clear		End clear
Emission Color	Start clear End clear	Water Droplet Plume	Attached ☐ Detached ☐ None ☒

Describe Plume Background	Start blue sky		End blue sky
Background Color	Start blue sky End blue sky	Sky Conditions	Start clear End clear
Wind Speed	Start 5 mph End 5 mph	Wind Direction	Start E End E
Ambient Temp.	Start 70 End 70	Wet Bulb Temp.	RH Percent

Source Layout Sketch



Longitude	Latitude	Declination

Additional Information:

Observation Date	Time Zone	Start Time	End Time
9/3/03	Central	5:40	6:10

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print)	Robert E Fickel
Observer's Signature	Robert E Fickel
Date	9/3/03
Organization	Custom Stack Analysis
Certified By	Whitlow
Date	

VEOF1.1

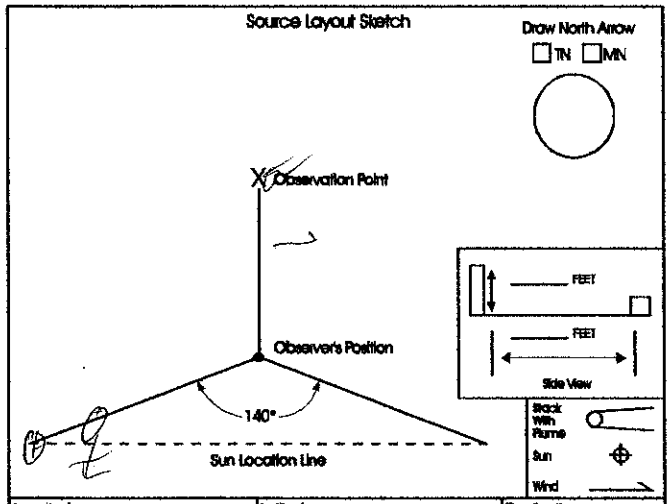
EPA
VISIBLE EMISSION OBSERVATION FORM 1

Form Number			0	0	1	Page 4	Of 4
Continued on VEO Form Number							

Method Used (Circle One): (Method 9) 203A 203B Other: _____

Company Name	St John's Hospital
Facility Name	
Street Address	800 E Carpenter St
City	Springfield
State	IL
Zip	62769-0001
Process	Incinerator outlet
Unit #	
Operating Mode	
Control Equipment	
Operating Mode	
Describe Emission Point	TALL yellow brick stack
Height of Emiss. Pt. Start	120'
Height of Emiss. Pt. End	120'
Height of Emiss. Pt. Rel. to Observer Start	100'
Height of Emiss. Pt. Rel. to Observer End	100'
Distance to Emiss. Pt. Start	
Distance to Emiss. Pt. End	
Direction to Emiss. Pt. (Degrees) Start	70 E
Direction to Emiss. Pt. (Degrees) End	70 E
Vertical Angle to Obs. Pt. Start	45°
Vertical Angle to Obs. Pt. End	45°
Direction to Obs. Pt. (Degrees) Start	260 W
Direction to Obs. Pt. (Degrees) End	260 W
Distance and Direction to Observation Point from Emission Point Start	
Distance and Direction to Observation Point from Emission Point End	
Describe Emissions Start	clear
Describe Emissions End	clear
Emission Color Start	clear
Emission Color End	clear
Water Droplet Plume	Attached ☐ Detached ☐ None ☒
Describe Plume Background Start	blue sky
Describe Plume Background End	blue sky
Background Color Start	blue sky
Background Color End	blue sky
Sky Conditions Start	clear
Sky Conditions End	clear
Wind Speed Start	5 mph
Wind Speed End	5 mph
Wind Direction Start	E
Wind Direction End	E
Ambient Temp. Start	70
Ambient Temp. End	70
Wet Bulb Temp.	
RH Percent	

Source Layout Sketch



Longitude	Latitude	Declination

Additional Information

Observation Date	Time Zone	Start Time	End Time
9/3/03	Central	6:40	6:40

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print)	Robert E Fickel
Observer's Signature	Robert E Fickel
Date	9/3/03
Organization	Custom Stack Analysis
Certified By	Whitlow
Date	

VEOF1.1

EPA
VISIBLE EMISSION OBSERVATION FORM 1

Form Number	Page	Of
0 0 2	1	4

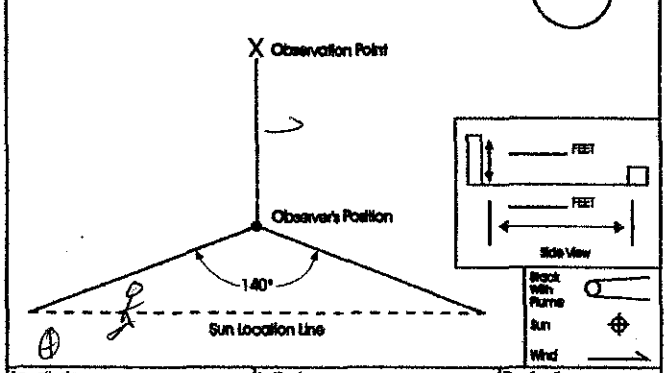
Continued on VEO Form Number

Method Used (Circle One): Method 9 (circled) 203A 203B Other:

Company Name	St John's Hospital
Facility Name	
Street Address	800 E Carpenter St
City	Springfield
State	IL
Zip	62769-0001 US
Process	Incinerator outlet
Unit #	
Operating Mode	
Control Equipment	
Operating Mode	
Describe Emission Point	Tall yellow brick stack
Height of Emiss. Pt. Start	120
Height of Emiss. Pt. End	120'
Height of Emiss. Pt. Rel. to Observer Start	120'
Height of Emiss. Pt. Rel. to Observer End	120'
Distance to Emiss. Pt. Start	
Distance to Emiss. Pt. End	
Direction to Emiss. Pt. (Degrees) Start	27° W
Direction to Emiss. Pt. (Degrees) End	20° W
Vertical Angle to Obs. Pt. Start	45°
Vertical Angle to Obs. Pt. End	45°
Direction to Obs. Pt. (Degrees) Start	90° W
Direction to Obs. Pt. (Degrees) End	7° E
Distance and Direction to Observation Point from Emission Point Start	
Distance and Direction to Observation Point from Emission Point End	
Describe Emissions Start	Clear
Describe Emissions End	clear
Emission Color Start	clear
Emission Color End	clear
Water Droplet Plume	Attached ☐ Detached ☐ None ☑
Describe Plume Background Start	blue sky
Describe Plume Background End	blue sky
Background Color Start	blue sky
Background Color End	blue sky
Sky Conditions Start	Sunny
Sky Conditions End	Sunny
Wind Speed Start	5 mph
Wind Speed End	5 mp
Wind Direction Start	W
Wind Direction End	W
Ambient Temp. Start	75
Ambient Temp. End	78°
Wet Bulb Temp.	
RH Percent	

Source Layout Sketch

Draw North Arrow ☐ TN ☐ MN



Longitude	Latitude	Declination

Additional Information

Observation Date	Time Zone	Start Time	End Time
9/4/03	Central	10:06	10:30

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
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18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print)	Robert E Fickel
Observer's Signature	Robert E Fickel
Date	9/4/03
Organization	Custom Stack Analysis
Certified By	Whitlow
Date	

VEOF1.1

EPA
VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One): (Method 9) 203A 203B Other: _____

Form Number	0 0 2	Page 2	Of 4
Continued on VEO Form Number			

Company Name	St John's Hospital
Facility Name	
Street Address	800 E Carpenter St
City	Springfield
State	IL
Zip	62769-0001

Process	Incinerator outlet	Unit #	Operating Mode
Control Equipment			Operating Mode

Describe Emission Point: Tall yellow brick stack

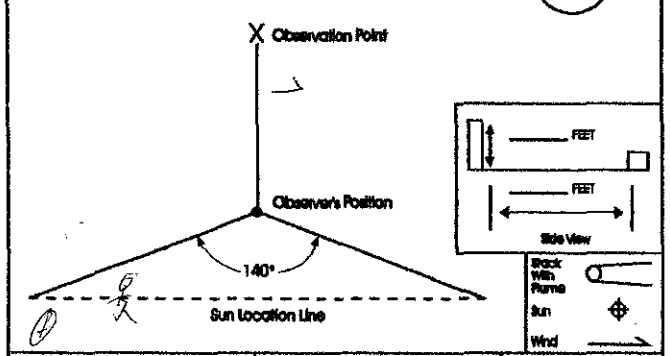
Height of Emiss. Pt.	Start 120' End 120'	Height of Emiss. Pt. Rel. to Observer	Start 120' End 120'
Distance to Emiss. Pt.	Start End	Direction to Emiss. Pt. (Degrees)	Start 270 W End 270 W
Vertical Angle to Obs. Pt.	Start 45° End 45°	Direction to Obs. Pt. (Degrees)	Start 90 E End 90 E
Distance and Direction to Observation Point from Emission Point	Start		End

Describe Emissions	Start clear		End clear
Emission Color	Start clear End clear	Water Droplet Plume	Attached ☐ Detached ☐ None ☑

Describe Plume Background	Start blue sky		End blue sky
Background Color	Start blue sky End blue sky	Sky Conditions	Start Sunny End Sunny
Wind Speed	Start 5 mph End 5 mph	Wind Direction	Start W End W
Ambient Temp.	Start 78° End 78°	Wet Bulb Temp.	RH Percent

Source Layout Sketch

Draw North Arrow ☐ TN ☐ MN



Longitude	Latitude	Declination

Additional Information:

Observation Date	Time Zone	Start Time	End Time
9/4/03	Central	10:30	11:00

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
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21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observers Name (Print)	Robert E Fickel		
Observers Signature	Robert E Fickel	Date	9/4/03
Organization	Custom Stack Analysis		
Certified By	Whitlow	Date	

VEOF1.1

EPA
VISIBLE EMISSION OBSERVATION FORM 1

Form Number			0	0	2	Page 3	Of 4
Continued on VEO Form Number							

Method Used (Circle One): (Method 9) 203A 203B Other: _____

Company Name: St John's Hospital		
Facility Name:		
Street Address: 800 E Carpenter St		
City: Springfield	State: IL	Zip: 62769-0001

Process: Incinerator Ash	Unit #:	Operating Mode:
Control Equipment:		Operating Mode:

Describe Emission Point: Tall yellow brick stack

Height of Emiss. Pt. Start 120' End 120'	Height of Emiss. Pt. Rel. to Observer Start 120' End 120'
Distance to Emiss. Pt. Start End	Direction to Emiss. Pt. (Degrees) Start 27° W End 27° W

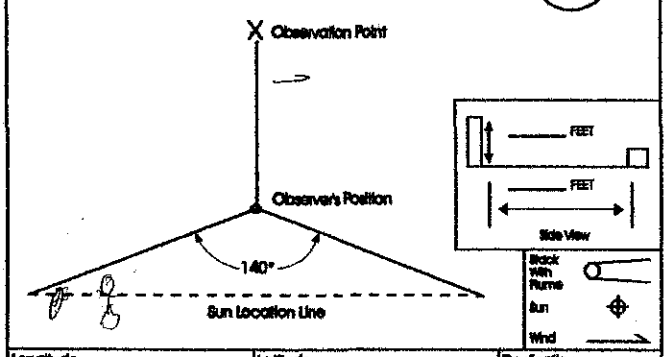
Vertical Angle to Obs. Pt. Start 45° End 45°	Direction to Obs. Pt. (Degrees) Start 96° End 96°
Distance and Direction to Observation Point from Emission Point Start	End

Describe Emissions Start Clear	End clear
Emission Color Start Clear End clear	Water Droplet Plume Attached ☐ Detached ☐ None ☑

Describe Plume Background Start blue sky		End blue sky	
Background Color Start blue sky End blue sky		Sky Conditions Start Sunny End Sunny	
Wind Speed Start 5 mph End 6 mph		Wind Direction Start W End W	
Ambient Temp. Start 78 End 78		Wet Bulb Temp.	RH Percent

Source Layout Sketch

Draw North Arrow ☐ TN ☐ MN



Longitude	Latitude	Declination

Additional Information:

Observation Date	Time Zone	Start Time	End Time
9/4/03	Central	11:00	11:30

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print): Robert E Field	
Observer's Signature: Robert E Field	Date: 9/4/03
Organization: Custom Stack Analysis	
Certified By: Whitten	Date:

VEOF1.1

EPA
VISIBLE EMISSION OBSERVATION FORM 1

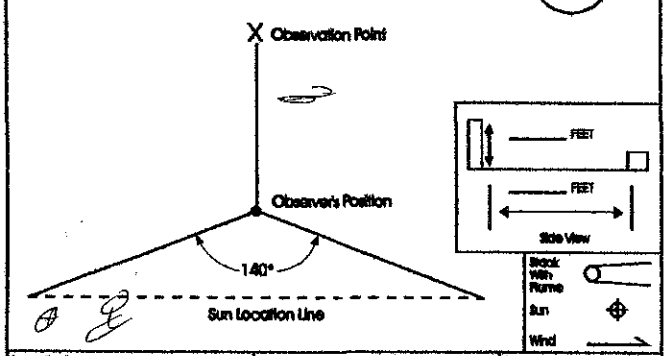
Form Number			0	0	2	Page 4	Of 4
Continued on VEO Form Number							

Method Used (Circle One): Method 9 | 203A | 203B | Other: _____

Company Name	St John's Hospital
Facility Name	
Street Address	800 E Carpenter St
City	Springfield
State	IL
Zip	62769-0001
Process	Incinerator Ash
Unit #	
Operating Mode	
Control Equipment	
Operating Mode	
Describe Emission Point	
Height of Emiss. Pt. Start	120'
Height of Emiss. Pt. End	120'
Height of Emiss. Pt. Rel. to Observer Start	120'
Height of Emiss. Pt. Rel. to Observer End	120'
Distance to Emiss. Pt. Start	
Distance to Emiss. Pt. End	
Direction to Emiss. Pt. (Degrees) Start	27° W
Direction to Emiss. Pt. (Degrees) End	27° W
Vertical Angle to Obs. Pt. Start	45°
Vertical Angle to Obs. Pt. End	45°
Direction to Obs. Pt. (Degrees) Start	90° E
Direction to Obs. Pt. (Degrees) End	90° E
Distance and Direction to Observation Point from Emission Point Start	
Distance and Direction to Observation Point from Emission Point End	
Describe Emissions Start	Clear
Describe Emissions End	clear
Emission Color Start	Clear
Emission Color End	clear
Water Droplet Plume	Attached ☐ Detached ☐ None ☒
Describe Plume Background Start	blue sky
Describe Plume Background End	blue sky
Background Color Start	blue sky
Background Color End	blue sky
Sky Conditions Start	Sunny
Sky Conditions End	Sunny
Wind Speed Start	5 mph
Wind Speed End	5 mph
Wind Direction Start	W
Wind Direction End	W
Ambient Temp. Start	78°
Ambient Temp. End	78°
Wet Bulb Temp.	
RH Percent	

Source Layout Sketch

Draw North Arrow ☐ TN ☐ MN



Longitude	Latitude	Declination

Additional Information

Observation Date	Time Zone	Start Time	End Time
9/4/03	Central	11:40	12:00

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print)	Robert E Field
Observer's Signature	Robert E Field
Date	9/4/03
Organization	Custom Stack Analysis
Certified By	Whitlow
Date	

VEOF1.1

EPA
VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)			
(Method 9)	203A	203B	Other:

Company Name		
ST John's Hospital		
Facility Name		
Street Address: 800E Carpenter St		
City: Springfield	State: IL	Zip: 62769-0001

Process	Unit #	Operating Mode
Incinerator Outlet		
Control Equipment		Operating Mode

Describe Emission Point: TALL yellow brick stack

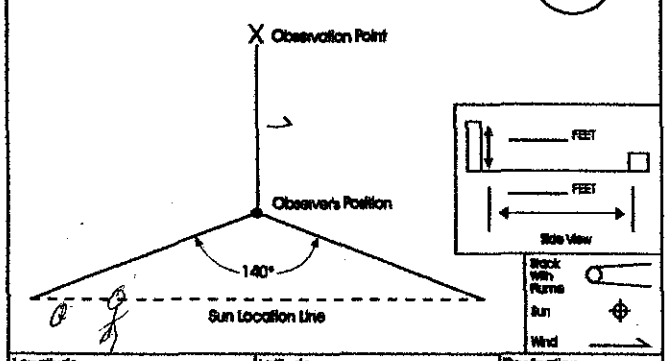
Height of Emiss. Pt. Start 120' End 120'	Height of Emiss. Pt. Rel. to Observer Start 100' End 100'
Distance to Emiss. Pt. Start End	Direction to Emiss. Pt. (Degrees) Start 70 E End 70 E
Vertical Angle to Obs. Pt. Start 45° End 45°	Direction to Obs. Pt. (Degrees) Start 26° W End 26° W
Distance and Direction to Observation Point from Emission Point Start	End

Describe Emissions Start clear	End clear
Emission Color Start Clear End clear	Water Droplet Plume Attached ☐ Detached ☐ None ☑

Describe Plume Background Start blue skys	End blue skys
Background Color Start blue sky End blue sky	Sky Conditions Start Sunny End Sunny
Wind Speed Start 5 mph End 5 mph	Wind Direction Start SE End SE
Ambient Temp. Start 78 End 75	Wet Bulb Temp. / RH Percent

Source Layout Sketch

Draw North Arrow ☐ TN ☐ MN



Longitude	Latitude	Declination

Additional Information

Form Number	Page	Of
003	1	4

Continued on VEO Form Number

Observation Date	Time Zone	Start Time	End Time
9/9/03	Central	4:00	4:30

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
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13	0	0	0	0	
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17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	
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23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print): Robert E Eckel	
Observer's Signature: Robert E Eckel	Date: 9/9/03
Organization: Custom Stack Analysis	
Certified By: L. Hollow	Date

VEOF1.1

EPA
VISIBLE EMISSION OBSERVATION FORM 1

Form Number			0	0	3	Page 2	Of 4
Continued on VEO Form Number							

Method Used (Circle One): (Method 9) 203A 203B Other: _____

Company Name	St Johns Hospital
Facility Name	
Street Address	800 E Carpenter St
City	Springfield
State	IL
Zip	62769-0001

Process	Unit #	Operating Mode
Facilitywater Outlet		
Control Equipment		Operating Mode

Describe Emission Point: Tall yellow brick stack

	Start	End
Height of Emiss. Pt.	120'	120'
Height of Emiss. Pt. Rel. to Observer	100'	100'
Distance to Emiss. Pt.		
Direction to Emiss. Pt. (Degrees)	7°E	7°E
Vertical Angle to Obs. Pt.	45°	45°
Direction to Obs. Pt. (Degrees)	26°W	26°W
Distance and Direction to Observation Point from Emission Point		

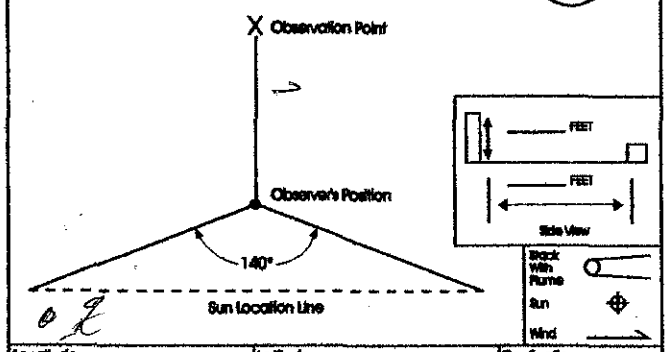
	Start	End
Describe Emissions	Clear	clear
Emission Color	Clear	clear

Water Droplet Plume: Attached ☐ Detached ☐ None ☒

	Start	End
Describe Plume Background	Hushy	Hushy
Background Color	Blue sky	Hushy
Sky Conditions	Sunny	Sunny
Wind Speed	5 mph	5 mph
Wind Direction	SE	SE
Ambient Temp.	75°	75°
Wet Bulb Temp.		
RH Percent		

Source Layout Sketch

Draw North Arrow ☐ TN ☐ MN



Longitude	Latitude	Declination

Additional Information

Observation Date	Time Zone	Start Time	End Time
9/4/03	Central	4:36	5:00

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
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9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print)	Robert E Field
Observer's Signature	Robert E Field
Date	9/4/03
Organization	Custom Stack Analysis
Certified By	[illegible]
Date	

VEOF1.1

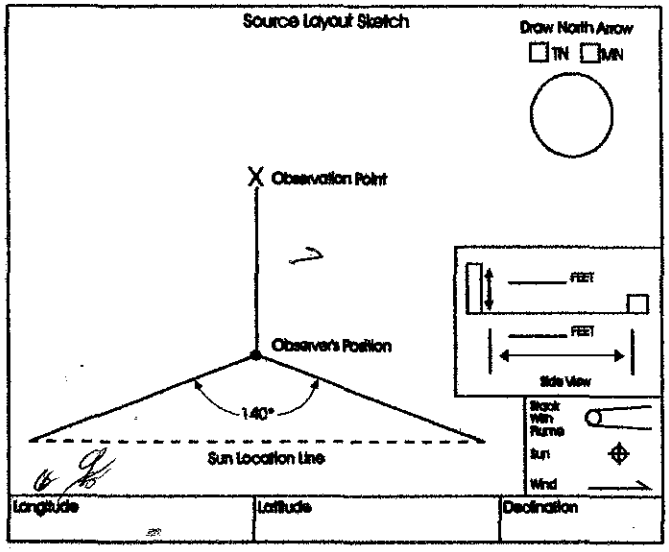
EPA
VISIBLE EMISSION OBSERVATION FORM 1

Form Number			0	0	3	Page 3	Of 4
Continued on VEO Form Number							

Method Used (Circle One): Method 9 | 203A | 203B | Other: _____

Company Name	St John's Hospital
Facility Name	
Street Address	800 E Carpenter St
City	Springfield
State	IL
Zip	62769-0001
Process	Incinerator Outlet
Unit #	
Operating Mode	
Control Equipment	
Operating Mode	
Describe Emission Point	THE yellow brick stack
Height of Emiss. Pt. Start	120'
Height of Emiss. Pt. End	126'
Height of Emiss. Pt. Rel. to Observer Start	100
Height of Emiss. Pt. Rel. to Observer End	100'
Distance to Emiss. Pt. Start	
Distance to Emiss. Pt. End	
Direction to Emiss. Pt. (Degrees) Start	7° E
Direction to Emiss. Pt. (Degrees) End	7° E
Vertical Angle to Obs. Pt. Start	45°
Vertical Angle to Obs. Pt. End	45°
Direction to Obs. Pt. (Degrees) Start	26° W
Direction to Obs. Pt. (Degrees) End	26° W
Distance and Direction to Observation Point from Emission Point Start	
Distance and Direction to Observation Point from Emission Point End	
Describe Emissions Start	clear
Describe Emissions End	clear
Emission Color Start	clear
Emission Color End	clear
Water Droplet Plume	Attached ☐ Detached ☐ None ☐
Describe Plume Background Start	blue sky
Describe Plume Background End	bluish
Background Color Start	bluish
Background Color End	bluish
Sky Conditions Start	sunny
Sky Conditions End	sunny
Wind Speed Start	5 mph
Wind Speed End	5 mph
Wind Direction Start	SE
Wind Direction End	SE
Ambient Temp. Start	75
Ambient Temp. End	75
Wet Bulb Temp.	
RH Percent	

Source Layout Sketch



Longitude	Latitude	Declination

Additional Information

Observation Date	Time Zone	Start Time	End Time
9/4/03	Central	8:00	5:30

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
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25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print)	Robert E Fickel
Observer's Signature	Robert E Fickel
Date	9/4/03
Organization	Custom Stack Analysis
Certified By	[illegible]
Date	

VEOF1.1

EPA
VISIBLE EMISSION OBSERVATION FORM 1

Form Number			0	0	3	Page 4	Of 4
Continued on VEO Form Number							

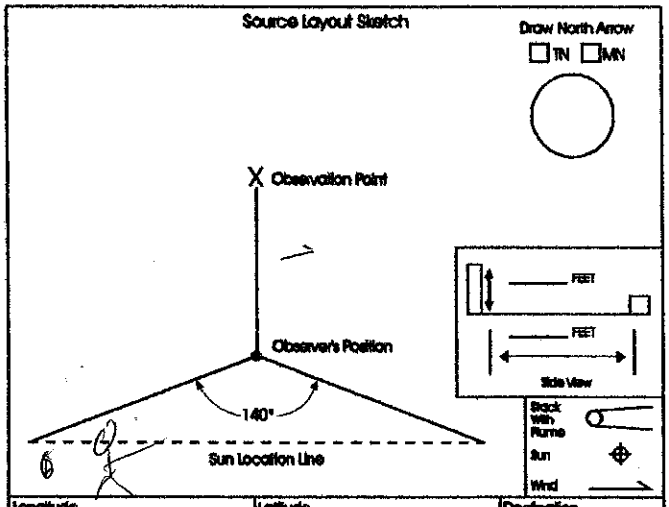
Method Used (Circle One): Method 9 | 203A | 203B | Other: _____

Company Name	St John's Hospital
Facility Name	
Street Address	800 E Carpenter St
City	Springfield
State	IL
Zip	62769-0001 US

Process	Incinerator Outlet	Unit #	Operating Mode
Control Equipment			Operating Mode

Describe Emission Point	TALL yellow brick stack
Height of Emiss. Pt.	Start 120' End 120'
Height of Emiss. Pt. Rel. to Observer	Start 100' End 100'
Distance to Emiss. Pt.	Start End
Direction to Emiss. Pt. (Degrees)	Start 7° E End 7° E
Vertical Angle to Obs. Pt.	Start 45° End 45°
Direction to Obs. Pt. (Degrees)	Start 26° W End 26° W
Distance and Direction to Observation Point from Emission Point	Start End
Describe Emissions	Start clear End clear
Emission Color	Start clear End clear
Water Droplet Plume	Attached ☐ Detached ☐ None ☐
Describe Plume Background	Start blue sky End blue sky
Background Color	Start blue sky End blue sky
Sky Conditions	Start sunny End clear
Wind Speed	Start 5 mph End 5 mph
Wind Direction	Start SE End SE
Ambient Temp.	Start 70 End 70°
Wet Bulb Temp.	
RH Percent	

Source Layout Sketch



Longitude	Latitude	Declination

Additional Information

Observation Date	Time Zone	Start Time	End Time
9/4/03	Central	5:30	6:00

Min \ Sec	0	15	30	45	Comments
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2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
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13	0	0	0	0	
14	0	0	0	0	
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23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print)	Robert E Fickel
Observer's Signature	Robert E Fickel
Date	9/4/03
Organization	Custom Stack Analysis
Certified By	Whitlow
Date	

VEOF1.1

2

Data/Analysis Technologies, Inc.

HCl Analysis

Method 26

DAT Projects # 0903023

Date:	September 25, 2003
Client:	Custom Stack Analysis, Inc.
Client Project	St. John's Hospital
Client Contact:	Jim Gray

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Email: datlab@infinet.com
7715 Corporate Blvd.
Plain City, OH 43026
800-733-8644/Fax 614-873-0810
"Keeping Your Business in Mind"

HCl Analysis

Method 26

DAT Projects # 0903023

Date:	September 25, 2003
Client:	Custom Stack Analysis, Inc.
Client Project	St. John's Hospital
Client Contact:	Jim Gray

Report Approved for Release by:

Ronald K. Mitchum, Ph.D
President, *DAT*, Inc.

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Hydrogen Chloride Analysis
Method 26

Narrative

Four acid catches were received for chloride analysis by Method 26. The samples were received in good condition. The samples and corresponding laboratory IDs can be found in the Sample Summary Sheet at the beginning of this data package.

Method

USEPA's Office of Air Quality Planning & Standards, Method 26 was used for the analysis.

1 ml of the sample was aliquoted for analysis.

Calibration Curve

The calibration curve for chloride consists of 5 points ranging from 0.5 ug/mL to 20.0 ug/mL. The curve was linear with an r^2 value exceeding 0.995.

Quality Control

Blank

The water blanks contained no chloride contamination at detection limits of 0.01 total ug and 0.03 total ug respectively.

Spikes

A laboratory spike and spike duplicate were analyzed with the sample set. The spikes were made by fortifying 1 mL of water with 5 ug of chloride.

Report prepared by:

Theresa Schwope

Theresa Schwope, Chemist

DATA SUMMARY

Data Analysis Technologies, Inc.
7715 Corporate Boulevard
Plain City, OH 43064

Data Summary

Method 26

Client: Custom Stack
Client Project: St. Johns Hospital
DAT Project: 0903023

Client ID	Laboratory ID	Q	HCl Total ug
Run 1	0903023-13		7340
Run 2	0903023-14		3650
Run 3	0903023-15		14400
Blank	0903023-16	J	53.2

J = Value below lowest calibrator

QC SUMMARY

Data Analysis Technologies, Inc.
7715 Corporate Boulevard
Plain City, OH 43064

QC Summary

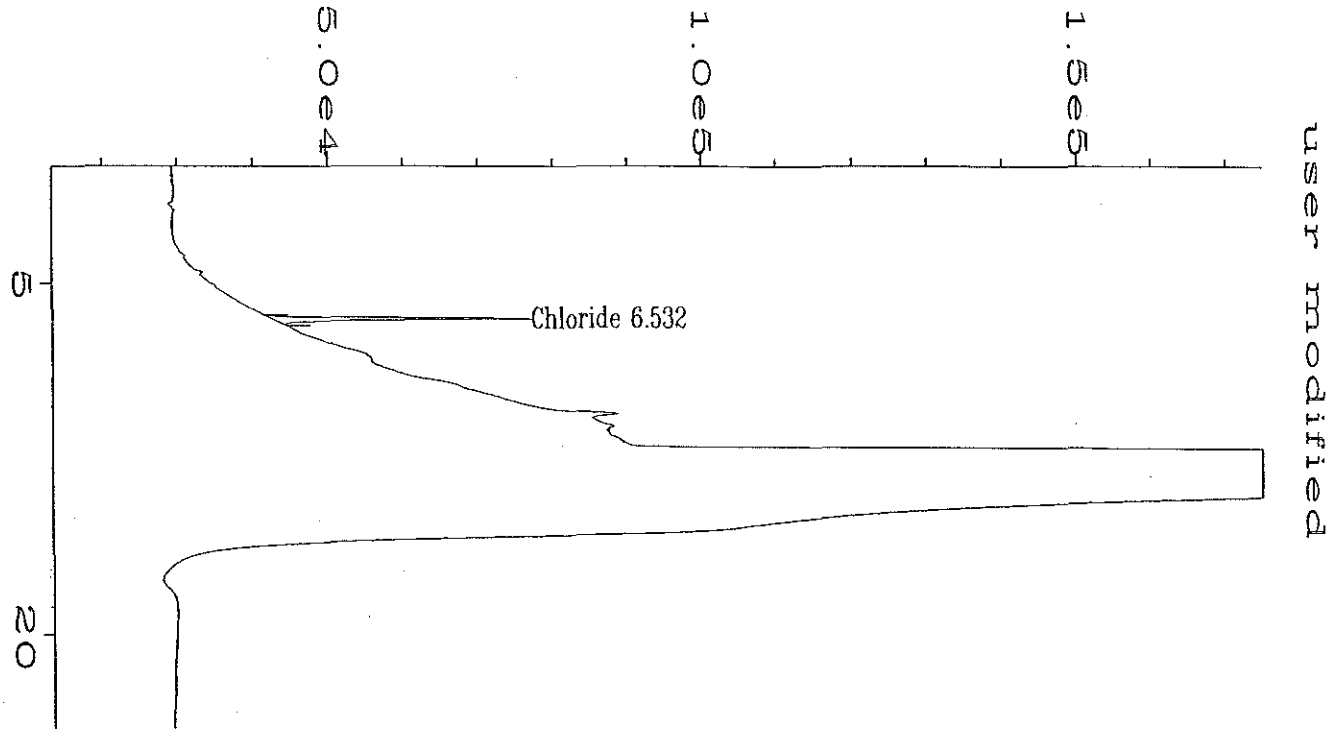
Method 26

Client: Custom Stack
Client Project: St Johns Hospital
DAT Project: 0903023

Client ID	Laboratory ID	Analyte		ug/ml	% Rec
Blank	0903023-BK7	chloride	ND	0.06	
Blank	0903023-BK32	chloride	ND	0.06	
Laboratory Spike	0903023-LS	chloride		5.84	117
Laboratory Spike Duplicate	0903023-LSD	chloride		5.80	116
Second Source QC	0903023-QC	chloride		9.67	96.7

ND = Not detected at the detection limit shown.

SAMPLE DATA



==========

External Standard Report

==========

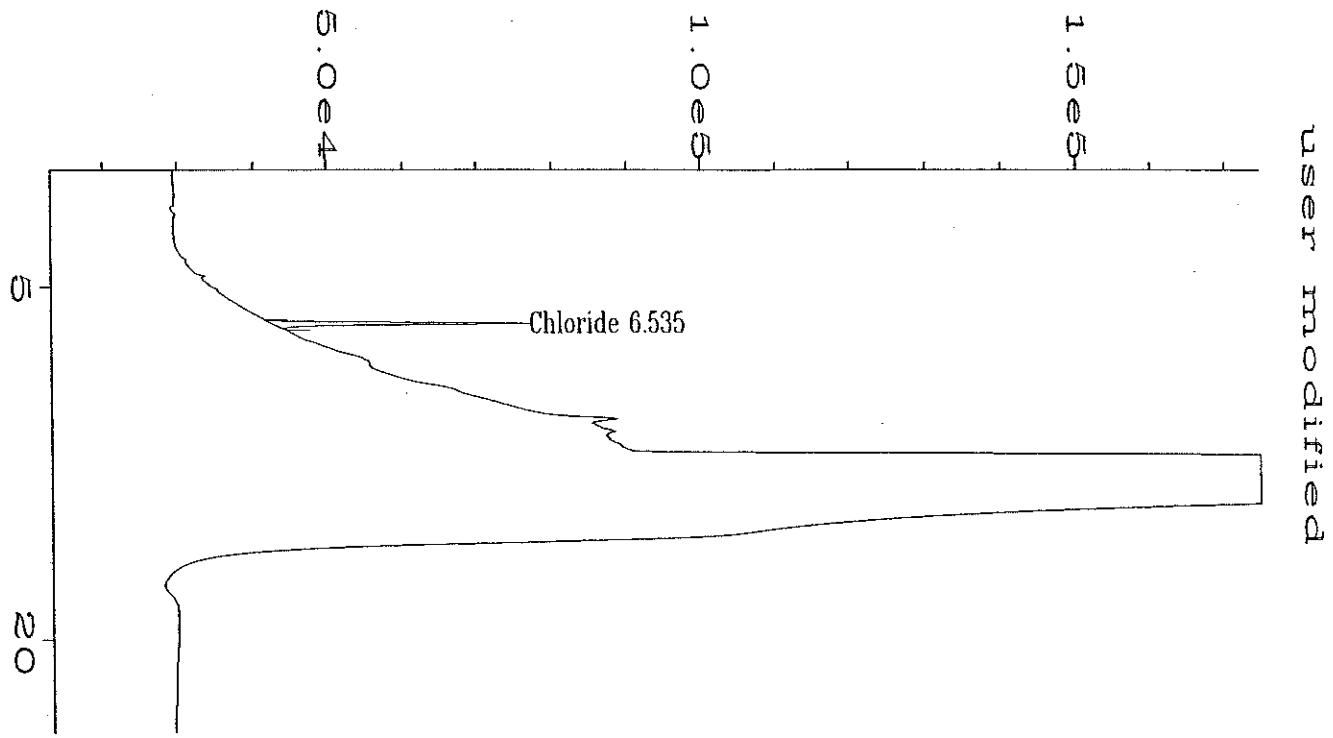
Data File Name	: C:\HPCHEM\1\DATA\0903018\038R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 38
Sample Name	: 0903023-13	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 12 Sep 03 10:18 PM	Instrument Method:	0903018.MTH
Report Created on:	15 Sep 03 12:10 PM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\038R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.532	249498	MM	0.120	1	7.150	Chloride

User Modified

==========



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External Standard Report

==========

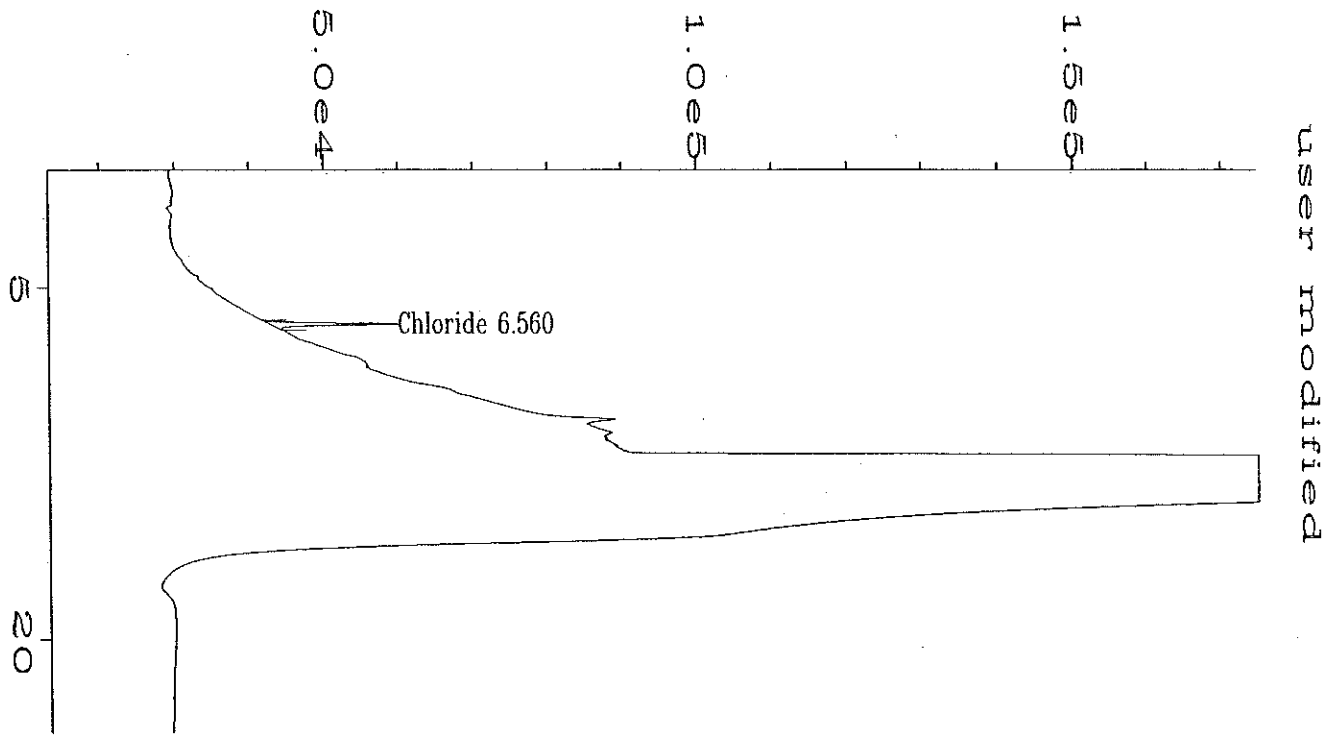
Data File Name	: C:\HPCHEM\1\DATA\0903018\038R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 38
Sample Name	: 0903023-13	Injection Number	: 2
Run Time Bar Code	:	Sequence Line	: 1
Acquired on	: 12 Sep 03 10:44 PM	Instrument Method	: 0903018.MTH
Report Created on	: 15 Sep 03 12:11 PM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\038R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.535	248838	MM	0.120	1	7.131	Chloride

User Modified

==========



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External Standard Report

==========

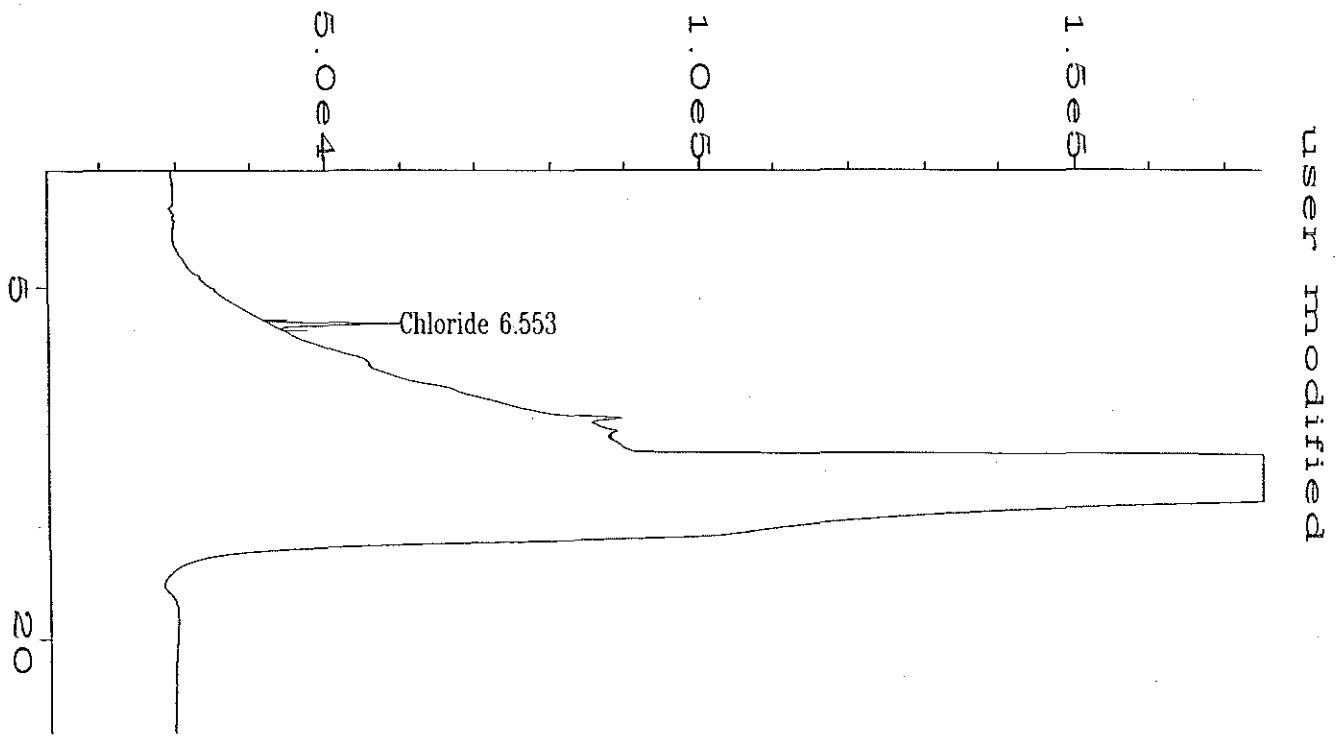
Data File Name	: C:\HPCHEM\1\DATA\0903018\039R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 39
Sample Name	: 0903023-14	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 12 Sep 03 11:09 PM	Instrument Method	: 0903018.MTH
Report Created on	: 15 Sep 03 12:12 PM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\039R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.560	120957	MM	0.116	1	3.561	Chloride

User Modified

==========



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External Standard Report

==========

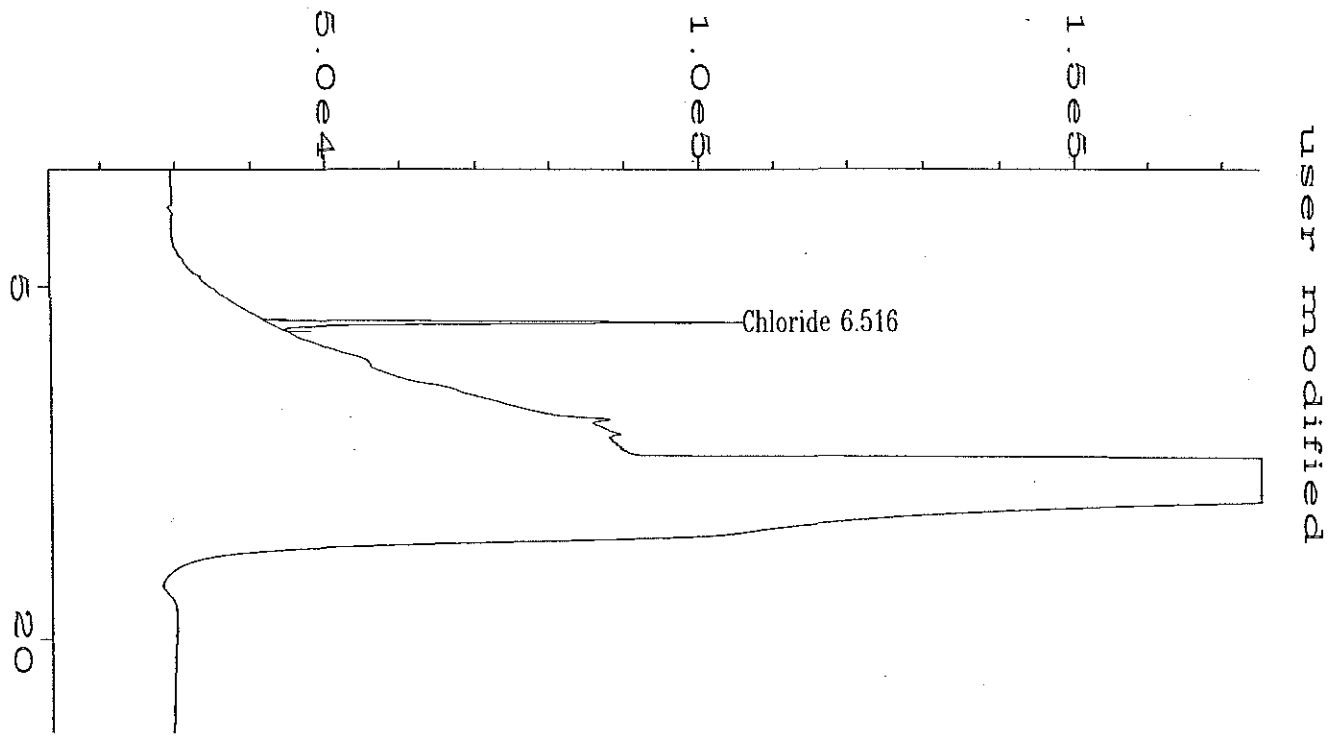
Data File Name	: C:\HPCHEM\1\DATA\0903018\039R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 39
Sample Name	: 0903023-14	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 12 Sep 03 11:35 PM	Instrument Method:	0903018.MTH
Report Created on:	15 Sep 03 12:12 PM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\039R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.553	120331	MM	0.116	1	3.543	Chloride

User Modified

==========



==========

External Standard Report

==========

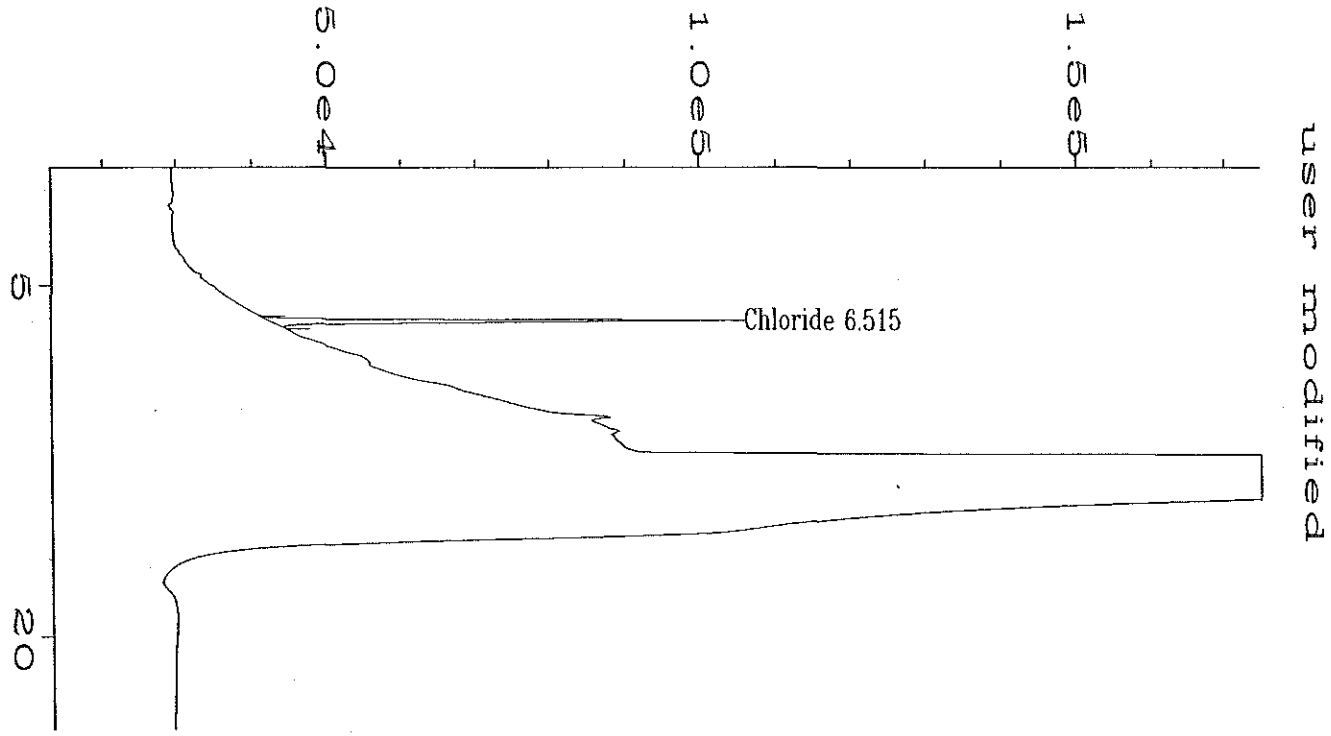
Data File Name	: C:\HPCHEM\1\DATA\0903018\040R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 40
Sample Name	: 0903023-15	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 13 Sep 03 00:00 AM	Instrument Method	: 0903018.MTH
Report Created on	: 15 Sep 03 12:13 PM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\040R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.516	493052	MM	0.129	1	13.950	Chloride

User Modified

==========



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External Standard Report

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Data File Name	: C:\HPCHEM\1\DATA\0903018\040R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 40
Sample Name	: 0903023-15	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 13 Sep 03 00:26 AM	Instrument Method	: 0903018.MTH
Report Created on	: 15 Sep 03 12:13 PM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\040R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.515	494332	MM	0.129	1	13.985	Chloride

User Modified

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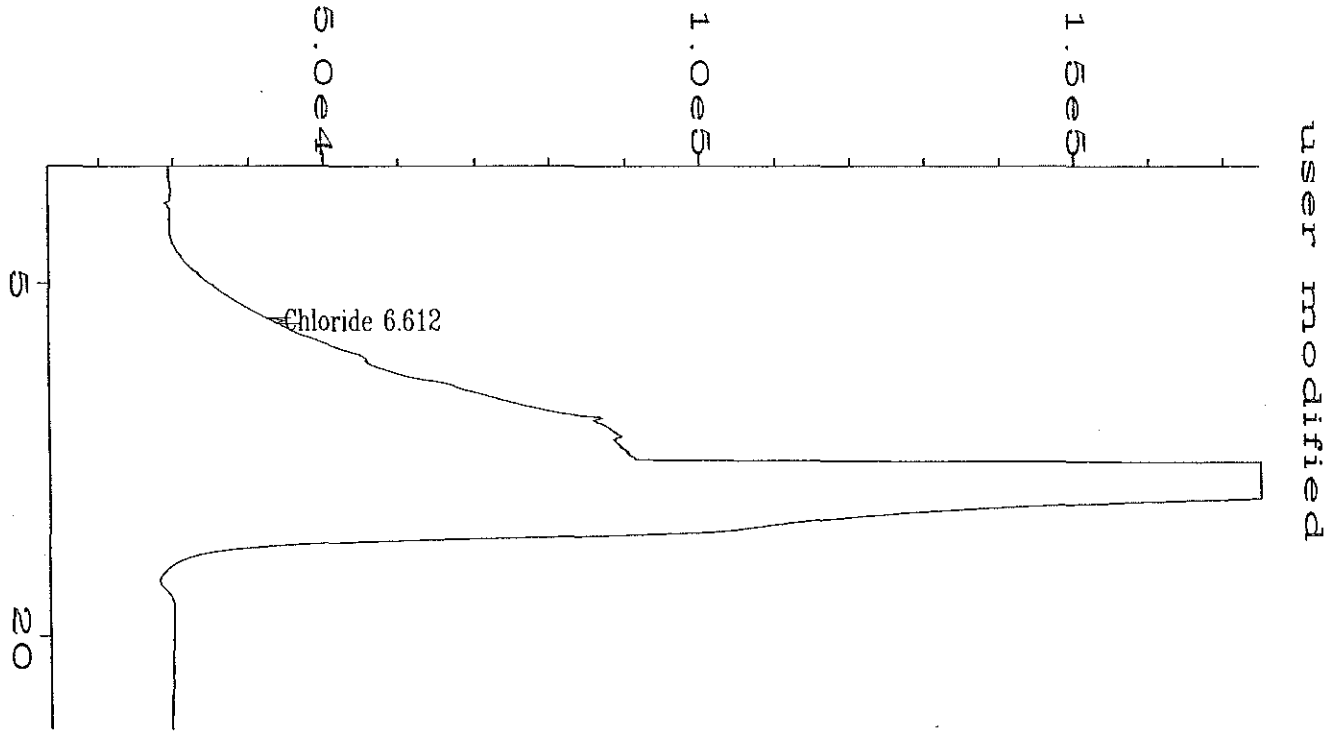

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External Standard Report

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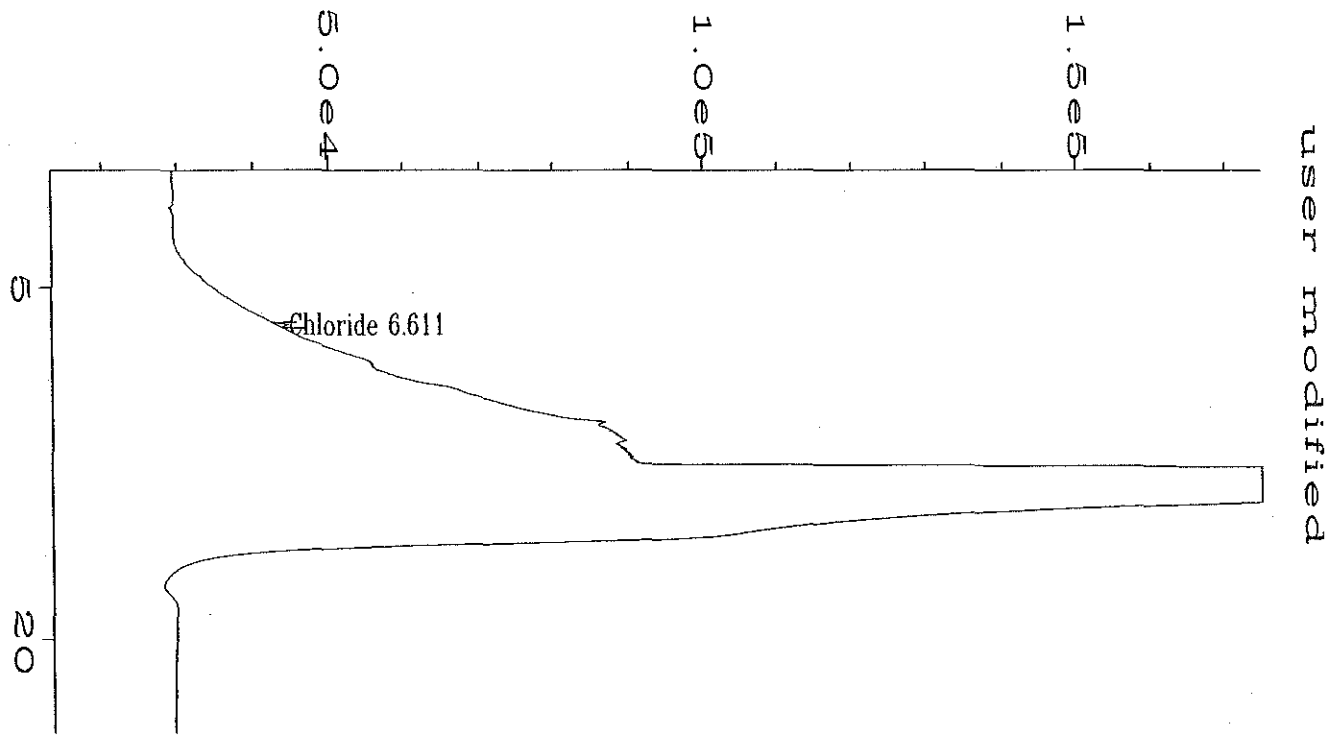
Data File Name	: C:\HPCHEM\1\DATA\0903018\041R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 41
Sample Name	: 0903023-16	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 13 Sep 03 00:52 AM	Instrument Method:	0903018.MTH
Report Created on:	15 Sep 03 12:14 PM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\041R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.612	10665	MM	0.105	1	0.471	Chloride

User Modified

==========



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External Standard Report

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Data File Name	: C:\HPCHEM\1\DATA\0903018\041R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 41
Sample Name	: 0903023-16	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 13 Sep 03 01:17 AM	Instrument Method	: 0903018.MTH
Report Created on	: 15 Sep 03 12:14 PM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\041R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.611	10044	MM	0.105	1	0.444	Chloride

User Modified

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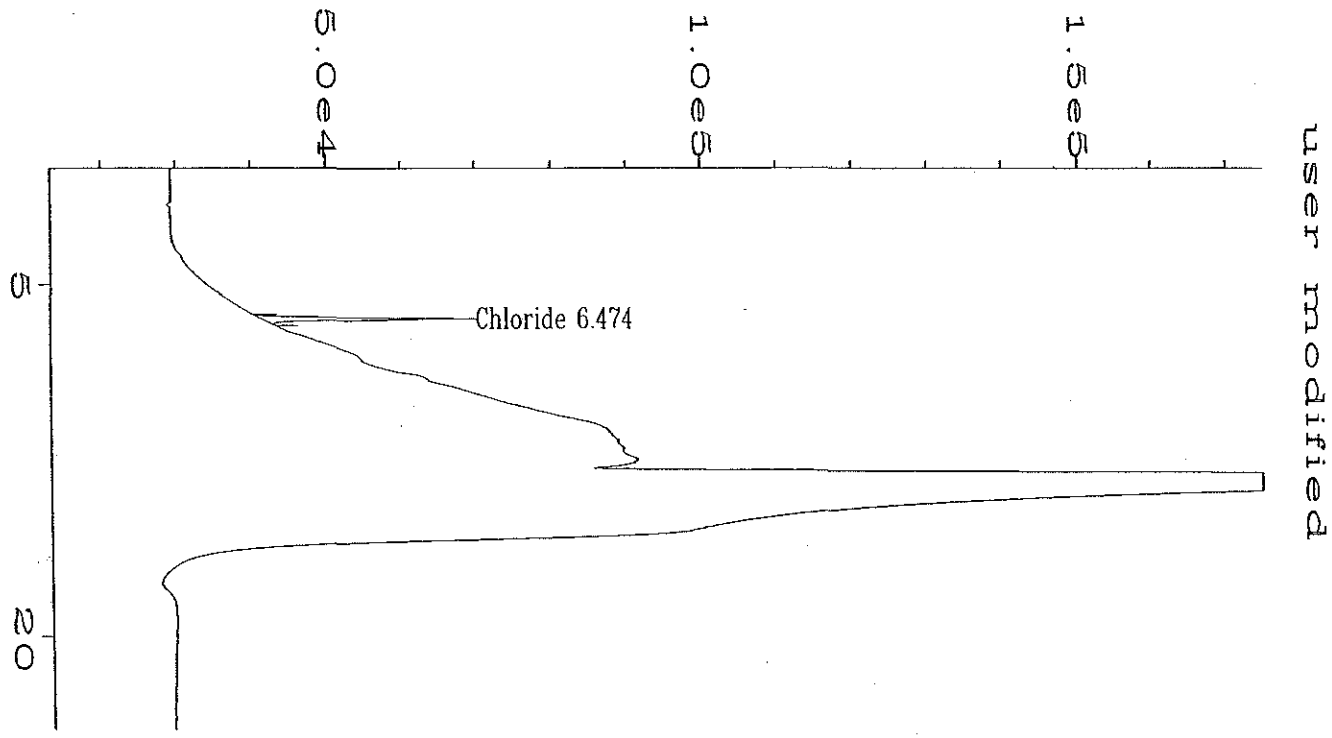
LABORATORY SPIKE/MATRIX SPIKE



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External Standard Report

==========

Data File Name	: C:\HPCHEM\1\DATA\0903018\100R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 100
Sample Name	: 0903018-LS	Injection Number	: 1
Run Time Bar Code	:	Sequence Line	: 1
Acquired on	: 16 Sep 03 10:12 PM	Instrument Method	: 0903018.MTH
Report Created on	: 17 Sep 03 12:05 PM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 SEP 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\100R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.474	208484	MM	0.120	1	6.005	Chloride

User Modified

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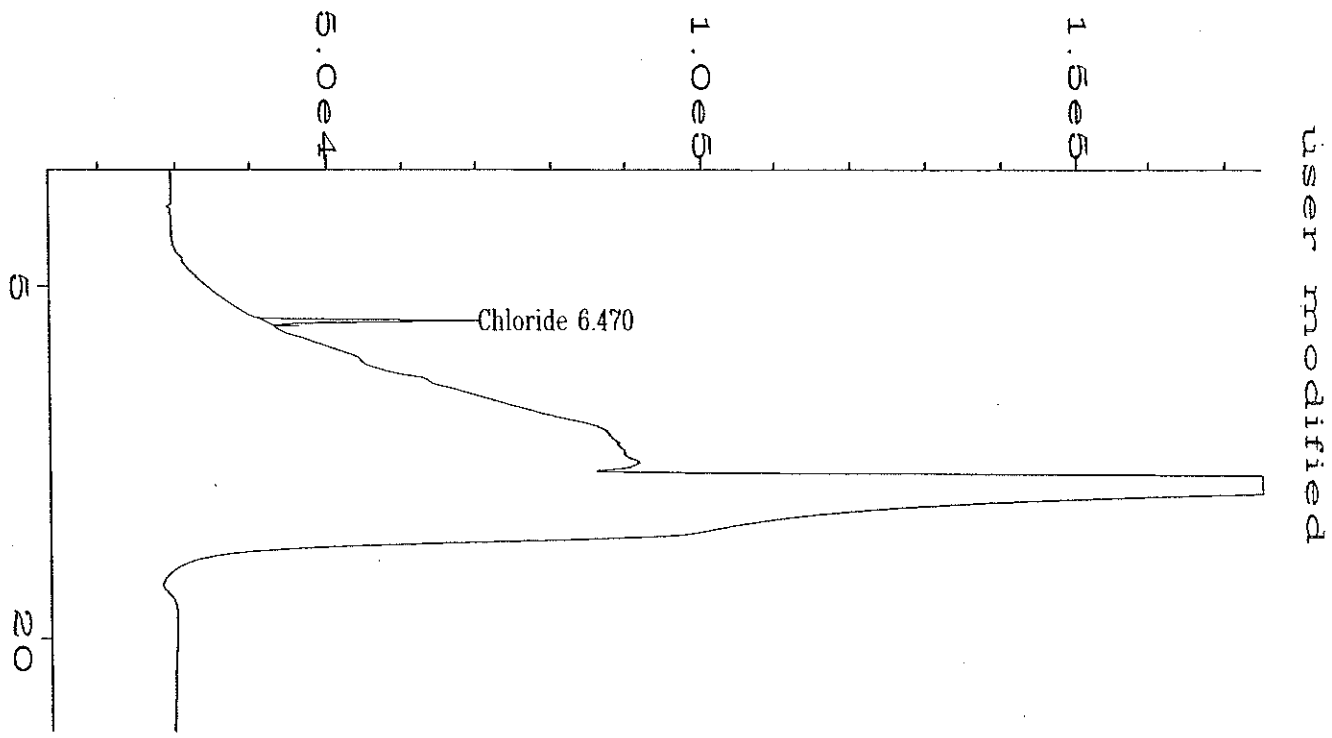

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External Standard Report

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Data File Name	: C:\HPCHEM\1\DATA\0903018\100R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 100
Sample Name	: 0903018-LS	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 16 Sep 03 10:37 PM	Instrument Method:	0903018.MTH
Report Created on:	17 Sep 03 12:06 PM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 SEP 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\100R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.470	196744	MM	0.116	1	5.677	Chloride

User Modified

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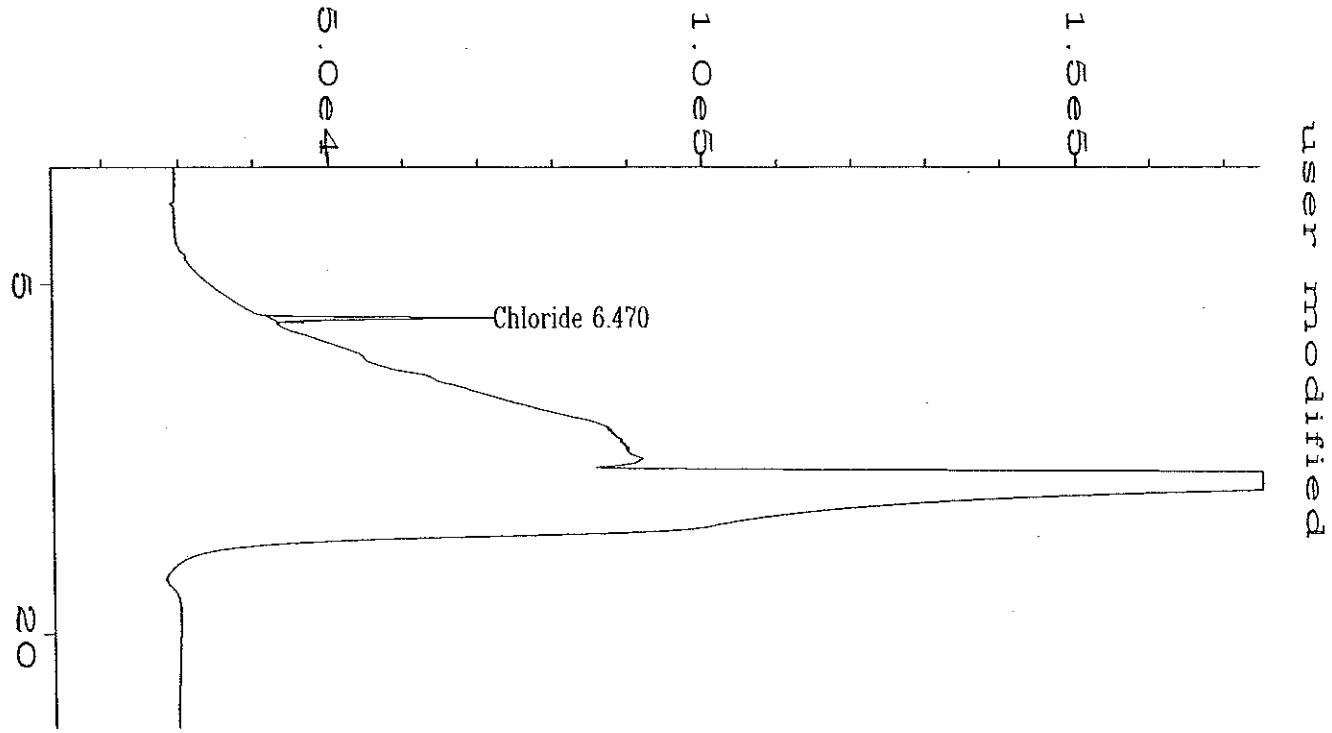

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External Standard Report

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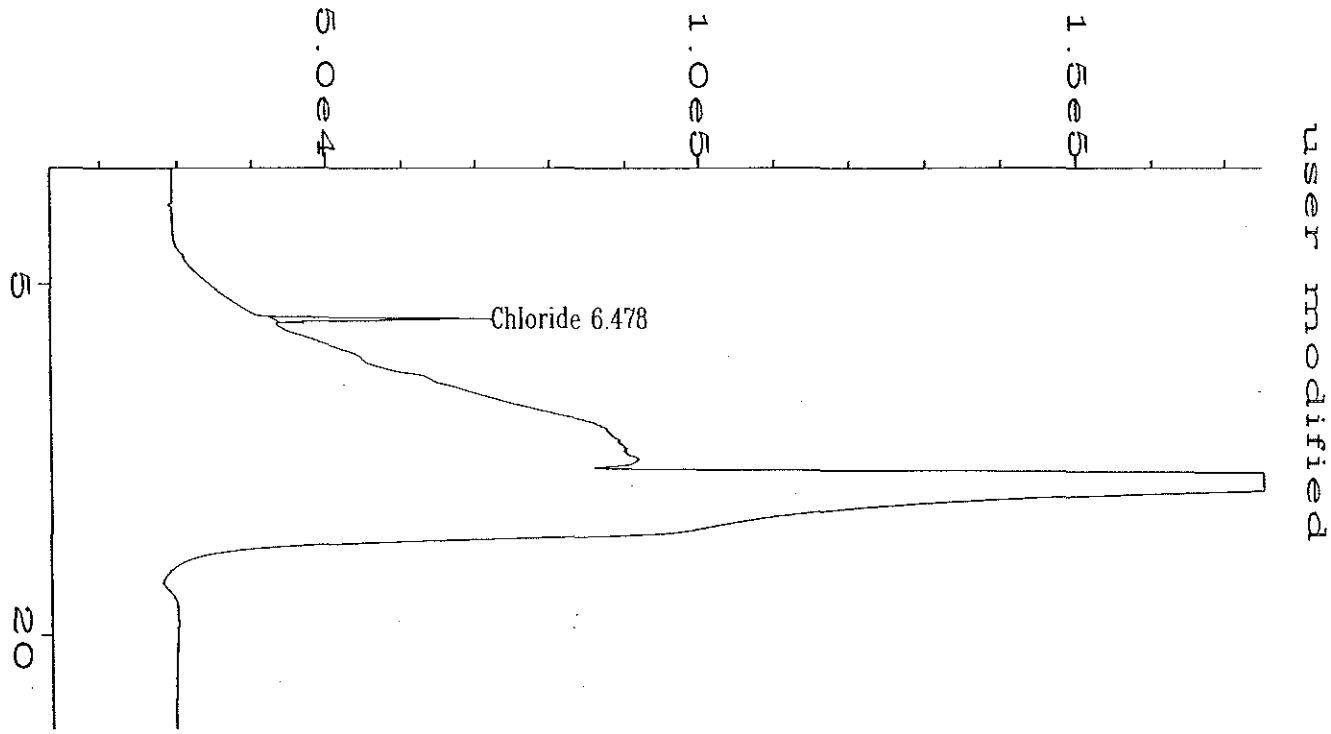
Data File Name	: C:\HPCHEM\1\DATA\0903018\101R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 101
Sample Name	: 0903018-LSD	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 16 Sep 03 11:03 PM	Instrument Method	: 0903018.MTH
Report Created on	: 17 Sep 03 12:07 PM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 SEP 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\101R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.470	206026	MM	0.115	1	5.936	Chloride

User Modified

==========



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External Standard Report

==========

Data File Name	: C:\HPCHEM\1\DATA\0903018\101R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 101
Sample Name	: 0903018-LSD	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 16 Sep 03 11:28 PM	Instrument Method:	0903018.MTH
Report Created on:	17 Sep 03 12:07 PM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 SEP 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\101R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.478	196123	MM	0.111	1	5.660	Chloride

User Modified

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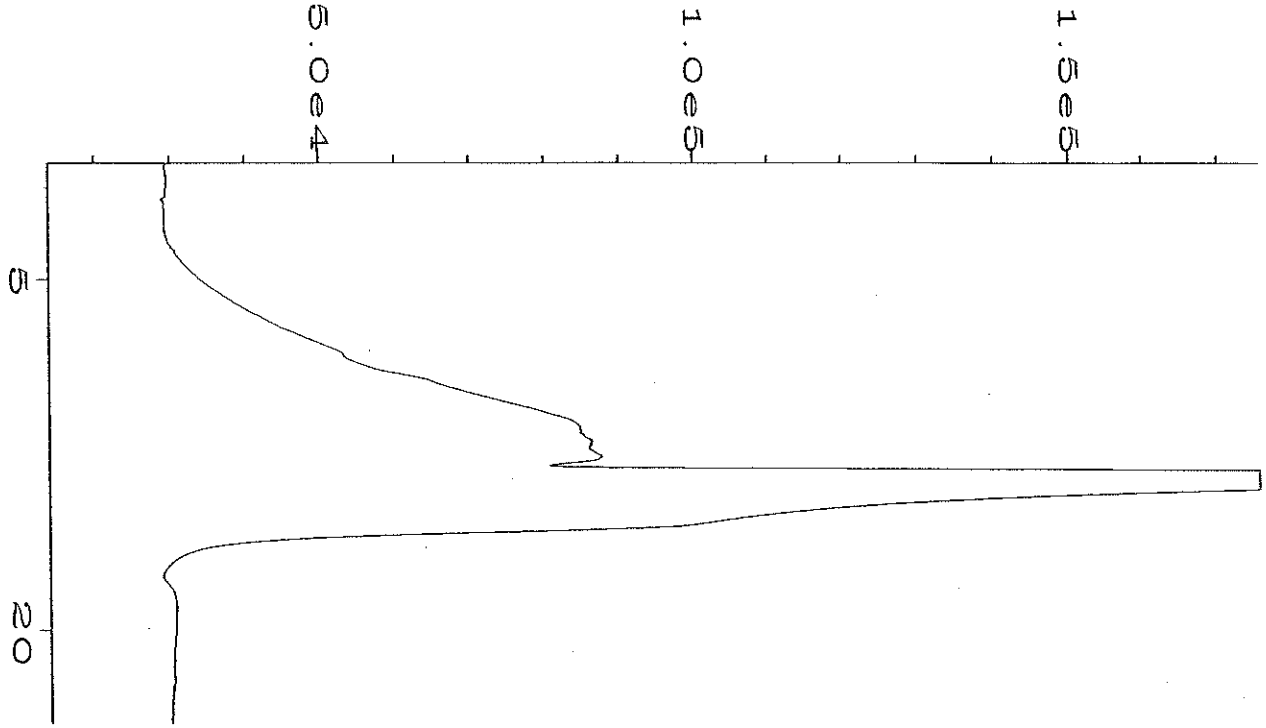
BLANK DATA



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External Standard Report

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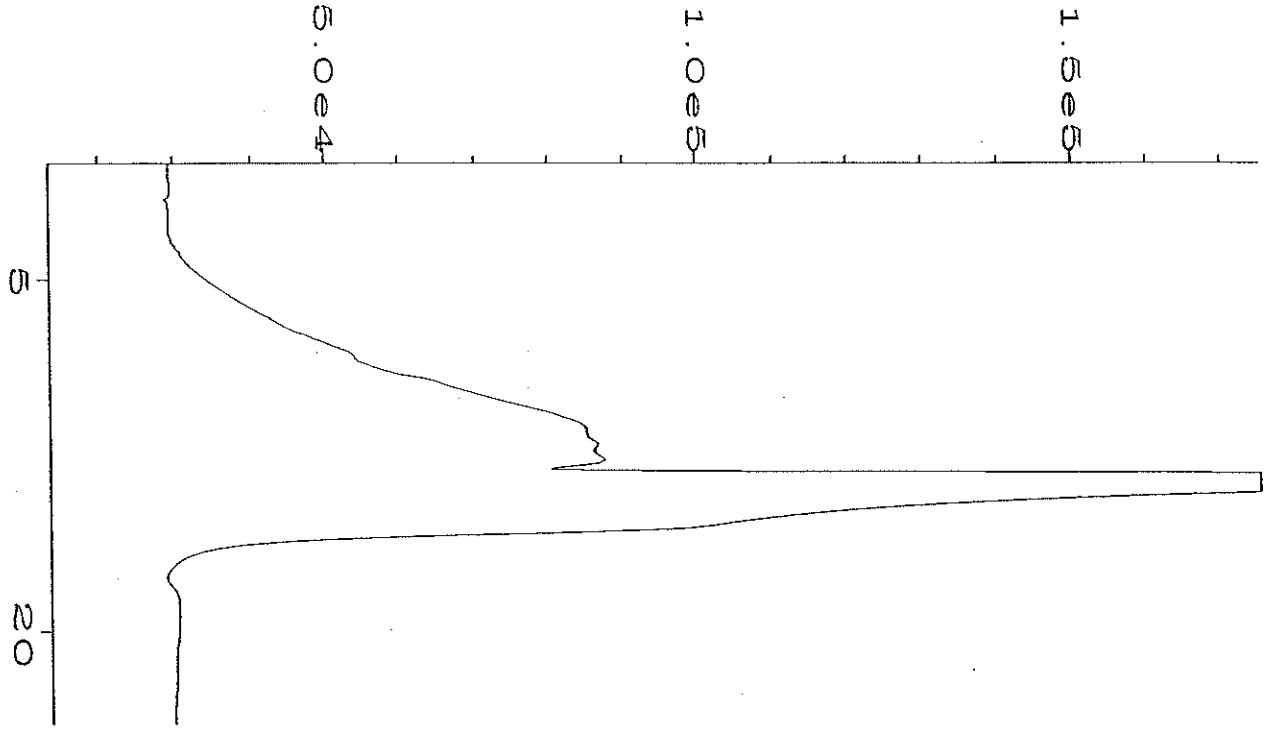
Data File Name	: C:\HPCHEM\1\DATA\0903018\007R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 7
Sample Name	: INST BLANK	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 11 Sep 03 07:55 PM	Instrument Method:	0903018.MTH
Report Created on:	12 Sep 03 11:48 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\007R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.592	* not found *			1		Chloride

Not all calibrated peaks were found

==========



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External Standard Report

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Data File Name : C:\HPCHEM\1\DATA\0903018\007R0102.D

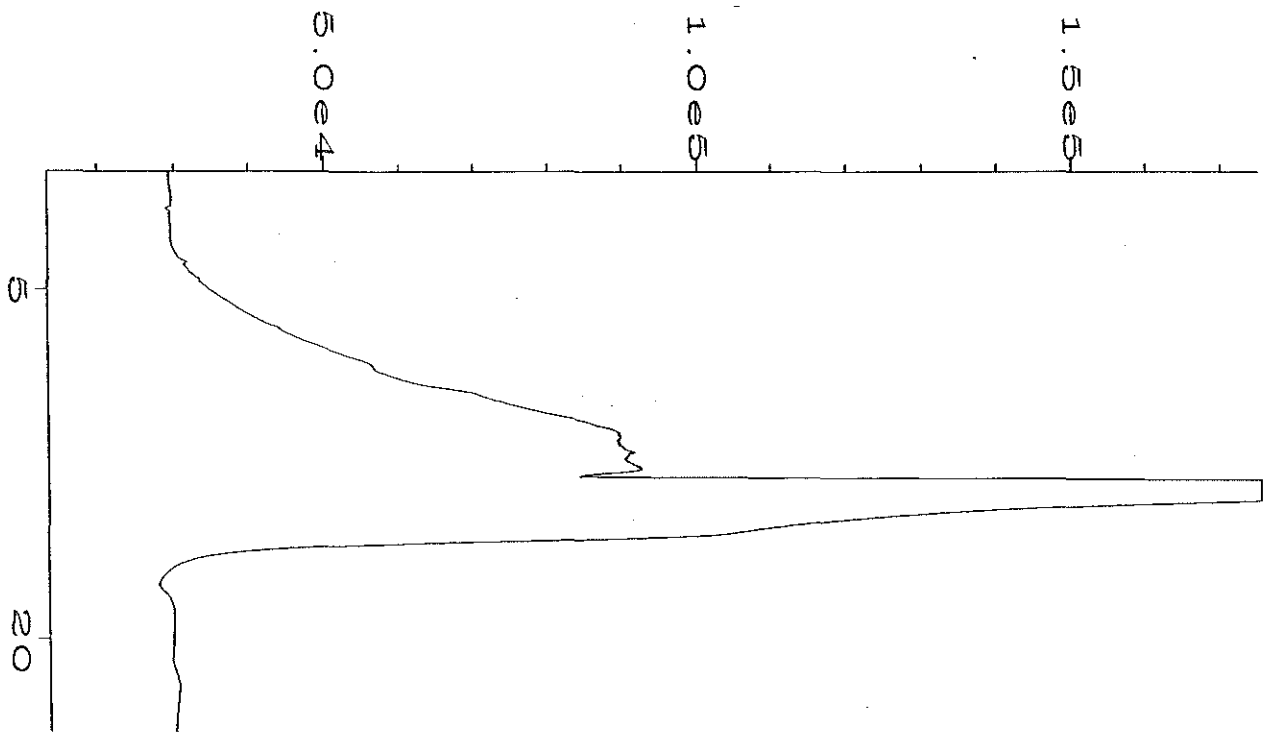
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 7
Sample Name	: INST BLANK	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 11 Sep 03 08:21 PM	Instrument Method	: 0903018.MTH
Report Created on	: 12 Sep 03 11:48 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\007R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.592	* not found *			1		Chloride

Not all calibrated peaks were found

==========



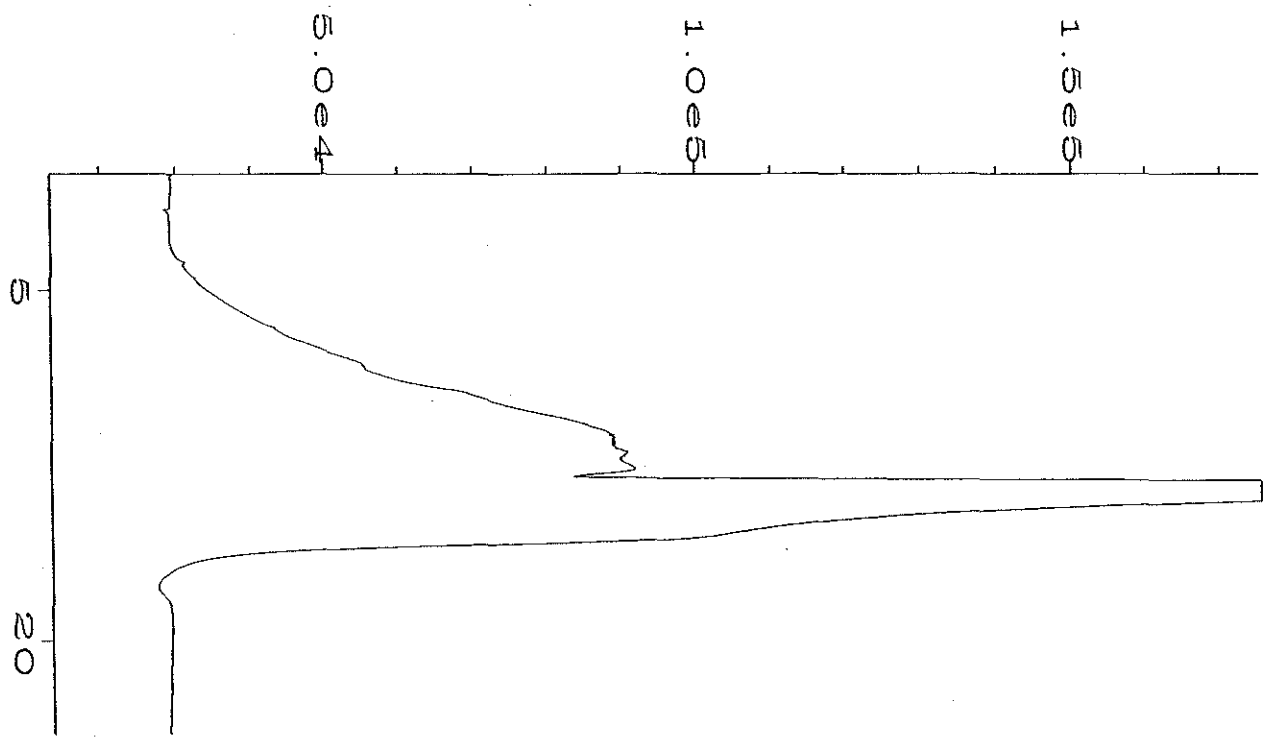
External Standard Report

Data File Name	: C:\HPCHEM\1\DATA\0903018\032R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 32
Sample Name	: INST BLANK	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 12 Sep 03 05:12 PM	Instrument Method:	0903018.MTH
Report Created on:	15 Sep 03 11:11 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\032R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.592	* not found *			1		Chloride

Not all calibrated peaks were found



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External Standard Report

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Data File Name	: C:\HPCHEM\1\DATA\0903018\032R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 32
Sample Name	: INST BLANK	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 12 Sep 03 05:37 PM	Instrument Method:	0903018.MTH
Report Created on:	15 Sep 03 11:11 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\032R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.592	* not found *			1		Chloride

Not all calibrated peaks were found

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CALIBRATIONS

Sample Table

Vial Num.	Sample Name	Sample Amount	Multiplier	ISTD Amount
1	TEST			
2	Cl 0.5 ug/mL			
3	Cl 1 ug/mL			
4	Cl 5 ug/mL			
5	Cl 10 ug/mL			
6	Cl 20 ug/mL			
7	INST BLANK			
8	CL QC 10 ug/mL			
9	0903014-7			
10	0903014-9			
11	0903014-9 DUP			
12	0903014-11			
13	0903014-13			
14	0903014-15			
15	0903014-17			
16	0903014-20			
17	0903014-23			
18	0903014-28			
19	CONCAL 5 ug/mL			
20	INST BLANK			
[illegible]	0903018-1			
[illegible]	0903018-3			
23	0903018-5			
24	0903018-7			
25	0903018-9			
26	0903018-11			
27	0903018-14			
28	0903018-16			
29	0903018-18			
30	0903018-20			
31	CONCAL 5 ug/mL			
32	INST BLANK			
33	0903018-22			
34	0903018-24			
35	0903018-26			
36	0903018-27			
37	0903018-29			
38	0903023-13			
39	0903023-14			
40	0903023-15			
41	0903023-16			
42	0903018-14 10X			
43	CONCAL 5 ug/mL			
44	INST BLANK			
45	0903018-14 100X			
46	0903018-16 10X			
	0903018-16 100X			
[illegible]	0903018-18 10X			
49	0903018-18 100X			
50	0903018-2			
51	0903018-4			
52	0903018-4 DUP			

Sample Table

Vial Num.	Sample Name	Sample Amount	Multiplier	ISTD Amount
53	0903018-6			
54	0903018-8			
55	CONCAL 5 ug/mL			
56	INST BLANK			
57	0903018-10			
58	0903018-12			
59	0903018-15			
60	0903018-17			
61	0903018-19			
62	0903018-21			
63	0903018-23			
64	0903018-25			
65	0903018-28			
66	0903018-30			
67	CONCAL 5 ug/mL			
68	TEST			
69	CONCAL 5 ug/mL			
70	INST BLANK			
71	CL QC 10 ug/mL			
72	0903018-18 100X			
[illegible]	0903018-20 10X			
	0903018-20 100X			
75	0903018-18 1000X			
76	09/18-18 10000X			
77	0903018-22 100X			
78	0903018-24 100X			
79	0903018-LS			
80	0903018-LSD			
81	0903018-7 MS			
82	CONCAL 5 ug/mL			
83	INST BLANK			
84	0903018-7 MSD			
85	0903018-29 10X			
86	0903018-2 10X			
87	0903018-4 10X			
88	0903018-4 DUP 10			
89	0903018-6 10X			
90	0903018-10 10X			
91	0903018-12 10X			
92	0903018-17 100X			
93	0903018-19 10X			
94	CONCAL 5 ug/mL			
95	INST BLANK			
96	0903018-21 100X			
97	0903018-23 100X			
98	0903018-25 100X			
	0903018-30			
[illegible]	0903018-LS			
101	0903018-LSD			
102	0903018-7 MS			
103	0903018-7 MSD			
104	09/18-22 10000X			

Sample Table

Vial Num.	Sample Name	Sample Amount	Multiplier	ISTD Amount
105	09/18-24 10000X			
106	CONCAL 5 ug/mL			
107	INST BLANK			
108	0903014-8			
109	0903014-10			
110	0903014-12			
111	0903014-14			
112	0903014-16			
113	0903014-18			
114	0903014-21			
115	0903014-24			
116	0903018-13			
117	0903014-12 MS			
118	CONCAL 5 ug/mL			
119	INST BLANK			
120	0903014-12 MSD			
121	0903018-17 100X			
122	0903018-23 1000X			
123	0903014-8			
124	0903014-10			
125	0903014-12			
	0903014-14			
127	0903014-16			
128	0903014-18			
129	0903014-21			
130	CONCAL 5 ug/mL			
131	INST BLANK			
132	0903014-24			
133	0903014-12 MS			
134	0903014-12 MSD			
135	CONCAL 5 ug/mL			
136	TEST			
137	CONCAL 5 ug/mL			
138	INST BLANK			

Method: C:\HPCHEM\1\METHODS\0903018.MTH

Integration Events

Events:	Value:	Time:
Initial Area Reject	0	INITIAL
Initial Peak Width	0.300	INITIAL
Shoulder Detection	OFF	INITIAL
Initial Threshold	-2	INITIAL

Calibration Table

Pk#	RT	Lvl	ug/mL	Amt/Area	Ref Istd I#	Name
1	6.592	1	0.5	3.0956e-005	1	Chloride
		2	0.5	2.8759e-005		
		3	1.0	3.2558e-005		
		4	1.0	2.9861e-005		
		5	5.0	3.072e-005		
		6	5.0	3.0667e-005		
		7	10.0	2.8711e-005		
		8	10.0	2.8448e-005		
		9	20.0	2.8265e-005		
		10	20.0	2.786e-005		

Calibration Settings

Title:

Reference window:	10.000 %
Non-reference window:	10.000 %
Units of amount:	ug/mL
Multiplier:	1.0
RF uncal peaks:	0.0
ISTD# to adjust uncal peaks:	0
Sample Amount:	0.0

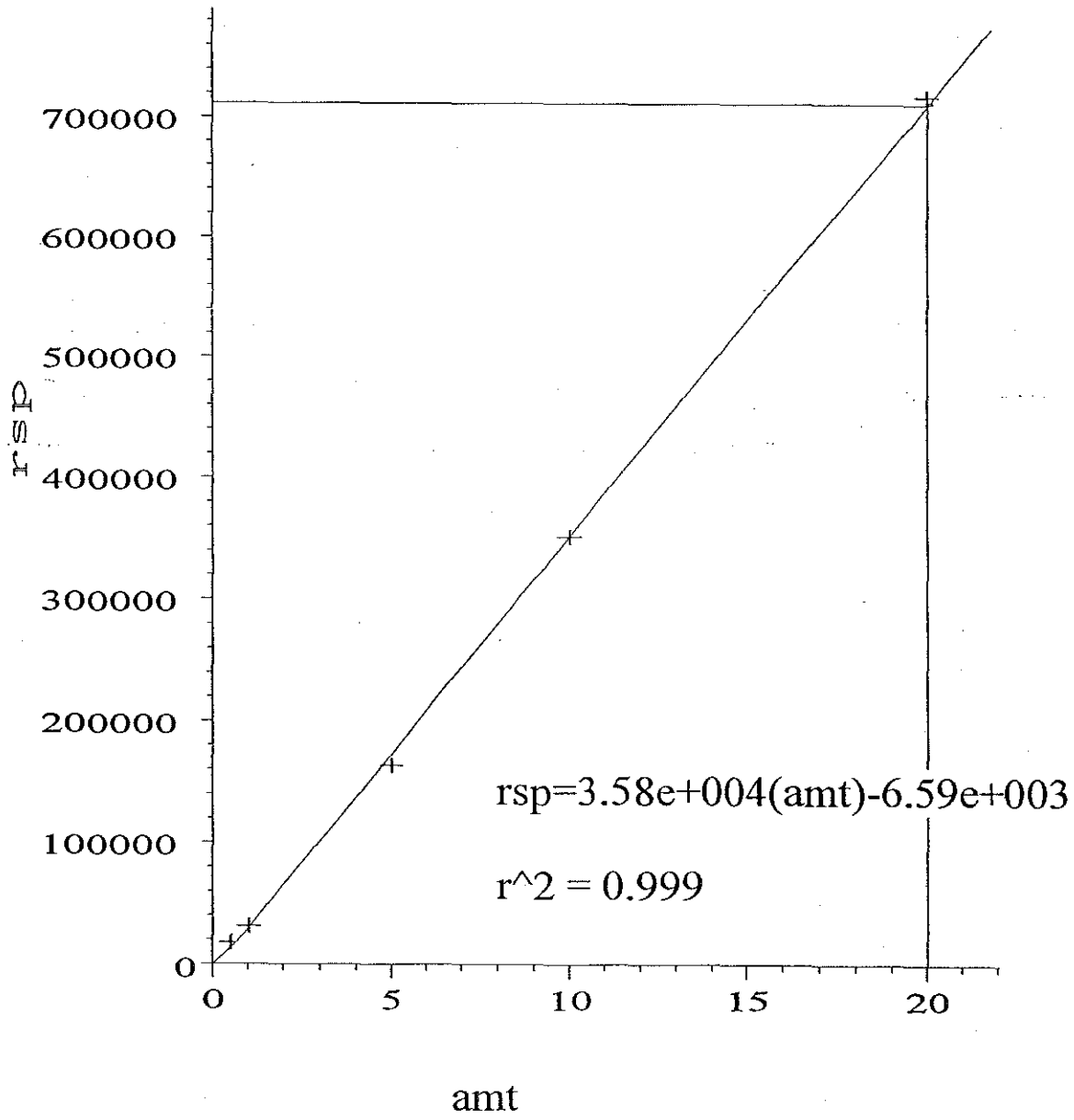
Sample ISTD Information

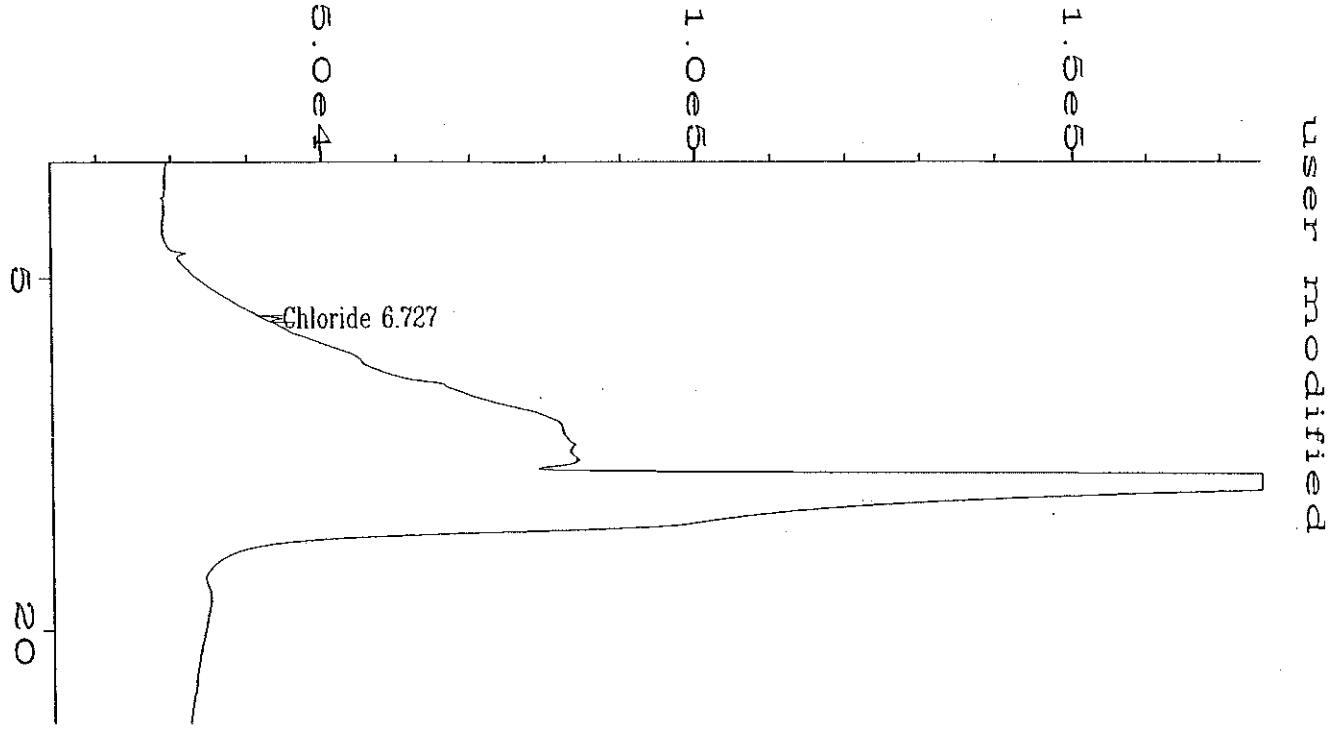
No Sample ISTD Amounts

Multilevel Information

Fit: Linear
Origin: Force

Chloride


700000
600000
500000
400000
300000
200000
100000
0
rsp
0
5
10
15
20
amt
rsp=3.58e+004(amt)-6.59e+003
r^2 = 0.999



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External Standard Report

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Data File Name	: C:\HPCHEM\1\DATA\0903018\002R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 2
Sample Name	: Cl 0.5 ug/mL	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 11 Sep 03 03:40 PM	Instrument Method:	0903018.MTH
Report Created on:	12 Sep 03 11:43 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\002R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.727	16524	MM	0.111	1	0.645	Chloride

User Modified

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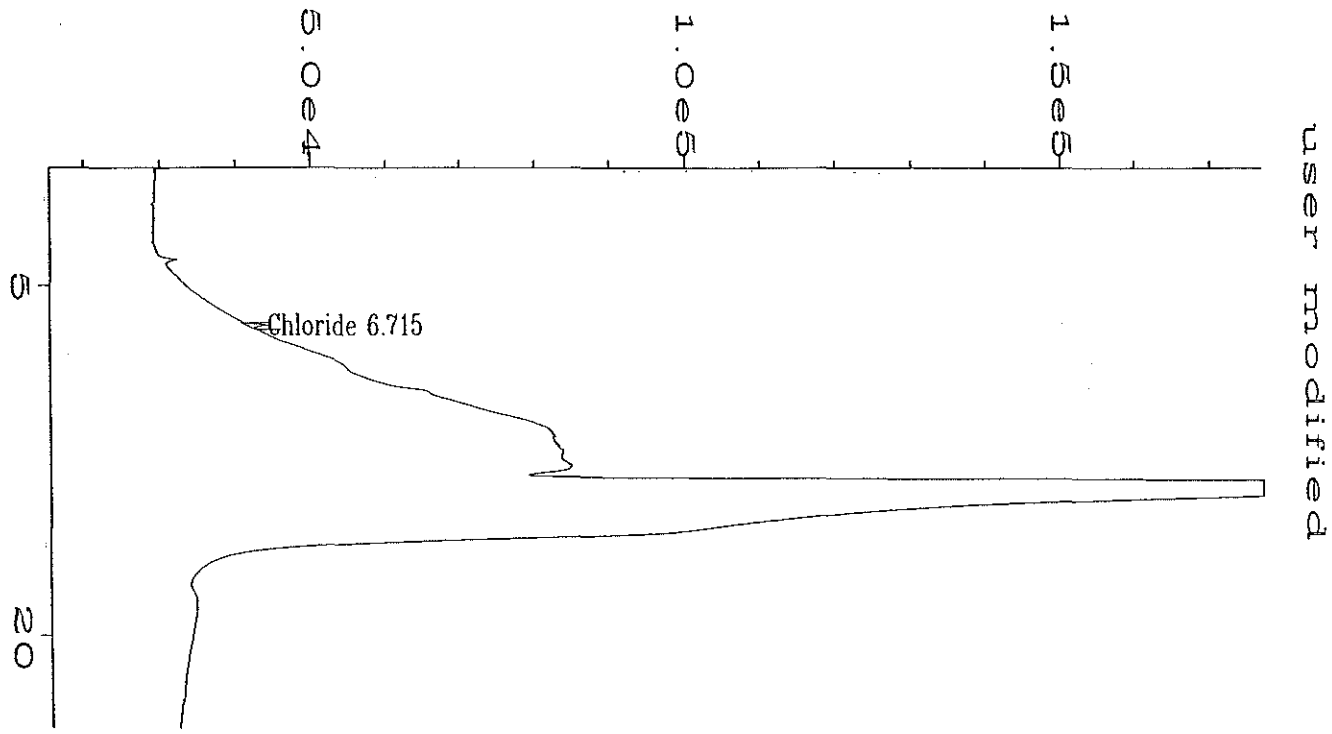

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External Standard Report

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Data File Name	: C:\HPCHEM\1\DATA\0903018\002R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 2
Sample Name	: Cl 0.5 ug/mL	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 11 Sep 03 04:05 PM	Instrument Method:	0903018.MTH
Report Created on:	12 Sep 03 11:44 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\002R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.715	17741	MM	0.116	1	0.679	Chloride

User Modified

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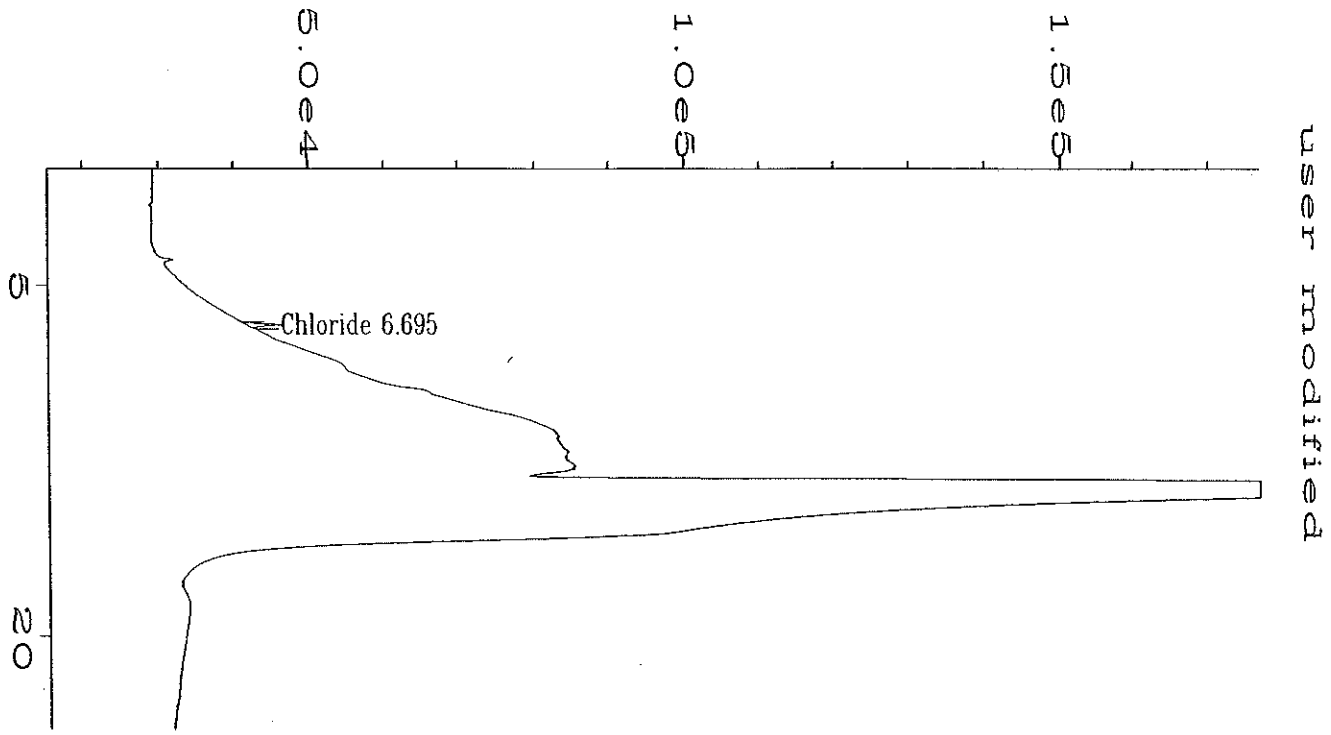

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External Standard Report

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Data File Name	: C:\HPCHEM\1\DATA\0903018\003R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 3
Sample Name	: Cl 1 ug/mL	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 11 Sep 03 04:31 PM	Instrument Method:	0903018.MTH
Report Created on:	12 Sep 03 11:44 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\003R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.695	31309	MM	0.114	1	1.058	Chloride

User Modified

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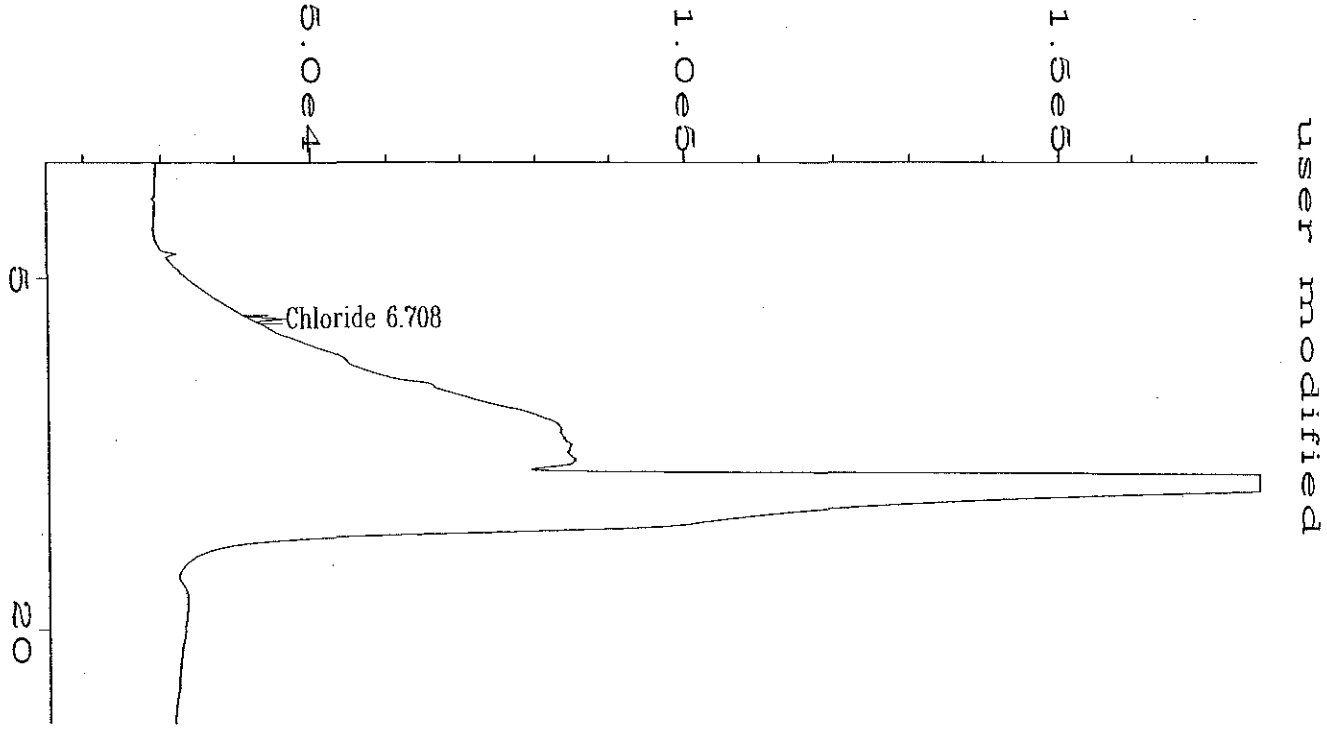

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External Standard Report

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Data File Name	: C:\HPCHEM\1\DATA\0903018\003R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 3
Sample Name	: Cl 1 ug/mL	Injection Number	: 2
Run Time Bar Code	:	Sequence Line	: 1
Acquired on	: 11 Sep 03 04:56 PM	Instrument Method	: 0903018.MTH
Report Created on	: 12 Sep 03 11:44 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\003R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.708	32562	MM	0.113	1	1.093	Chloride

User Modified

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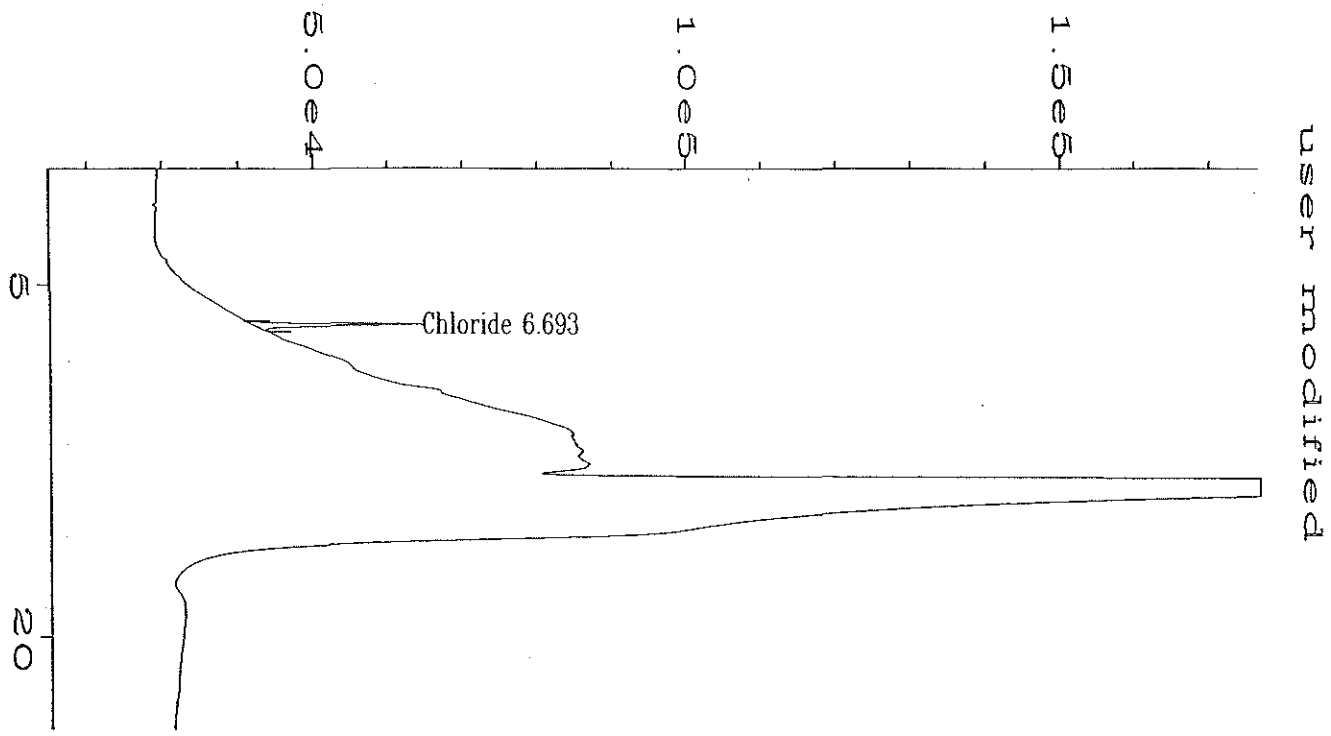

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External Standard Report

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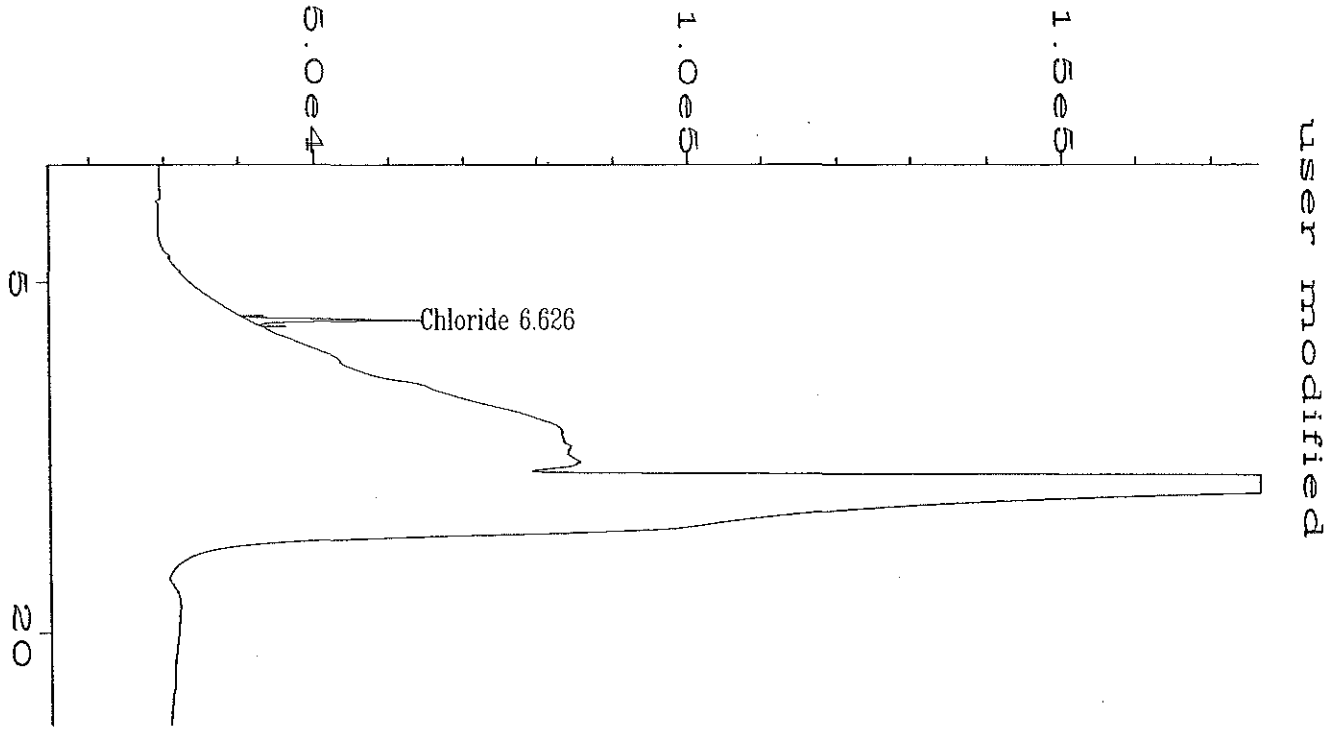
Data File Name	: C:\HPCHEM\1\DATA\0903018\004R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 4
Sample Name	: Cl 5 ug/mL	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 11 Sep 03 05:22 PM	Instrument Method:	0903018.MTH
Report Created on:	12 Sep 03 11:45 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\004R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.693	164323	MM	0.120	1	4.772	Chloride

User Modified

==========



==========

External Standard Report

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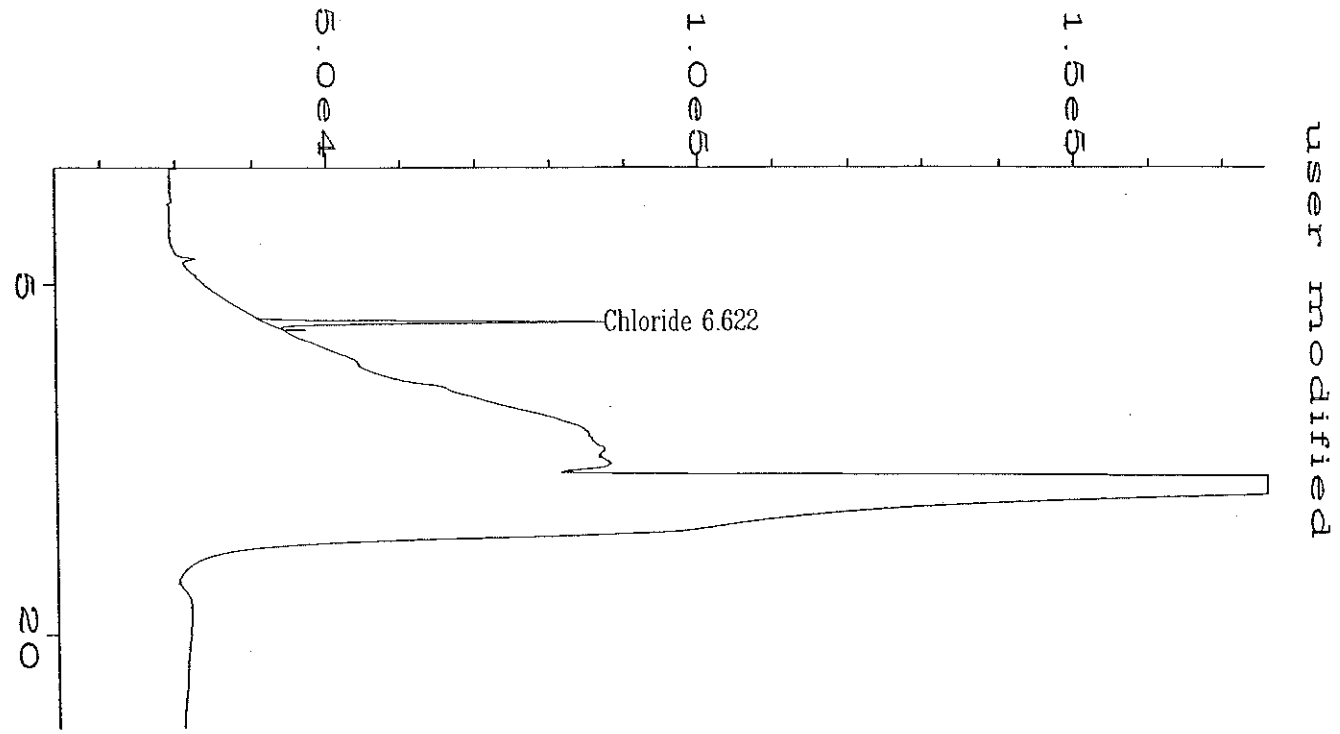
Data File Name	: C:\HPCHEM\1\DATA\0903018\004R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 4
Sample Name	: Cl 5 ug/mL	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 11 Sep 03 05:47 PM	Instrument Method:	0903018.MTH
Report Created on:	12 Sep 03 11:45 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\004R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.626	166157	MM	0.120	1	4.823	Chloride

User Modified

==========



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External Standard Report

==========

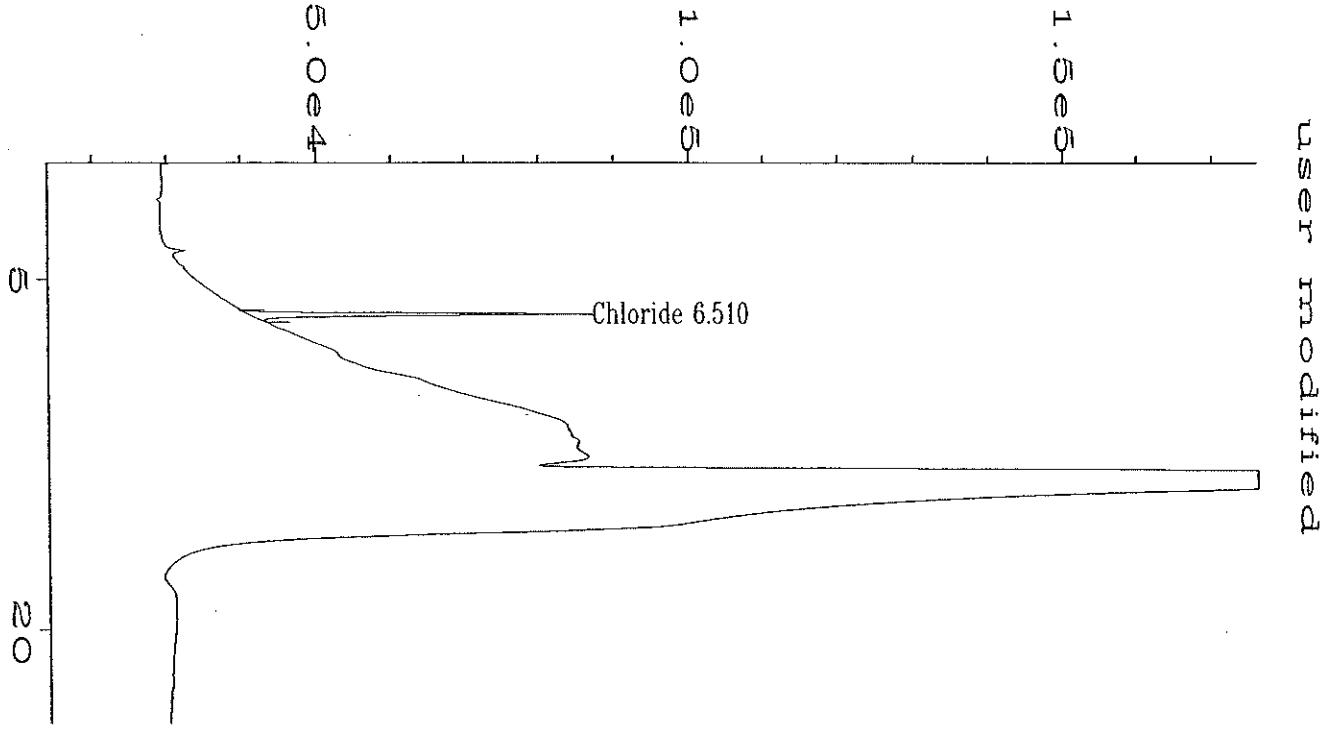
Data File Name	: C:\HPCHEM\1\DATA\0903018\005R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 5
Sample Name	: Cl 10 ug/mL	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 11 Sep 03 06:13 PM	Instrument Method:	0903018.MTH
Report Created on:	12 Sep 03 11:46 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\005R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.622	348105	MM	0.127	1	9.903	Chloride

User Modified

==========



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External Standard Report

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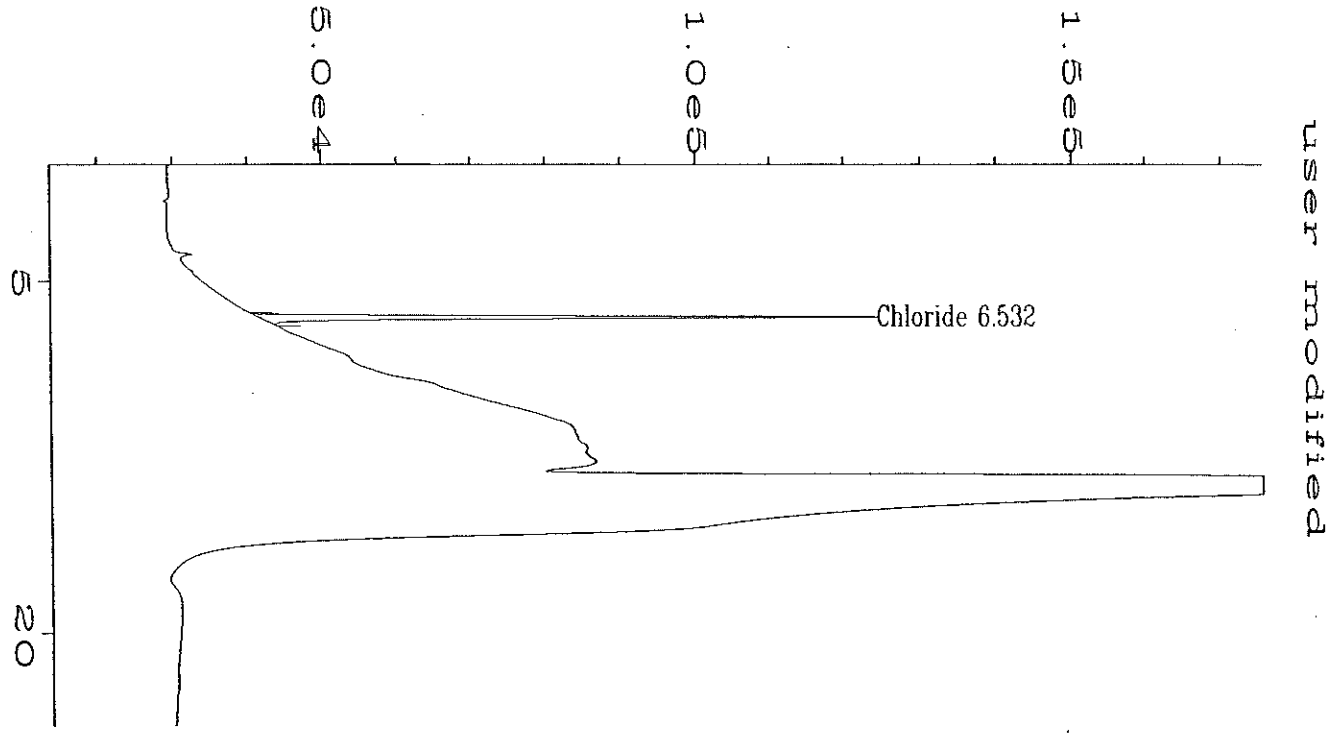
Data File Name	: C:\HPCHEM\1\DATA\0903018\005R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 5
Sample Name	: Cl 10 ug/mL	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 11 Sep 03 06:38 PM	Instrument Method:	0903018.MTH
Report Created on:	12 Sep 03 11:46 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\005R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.510	353923	MM	0.127	1	10.065	Chloride

User Modified

==========



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External Standard Report

==========

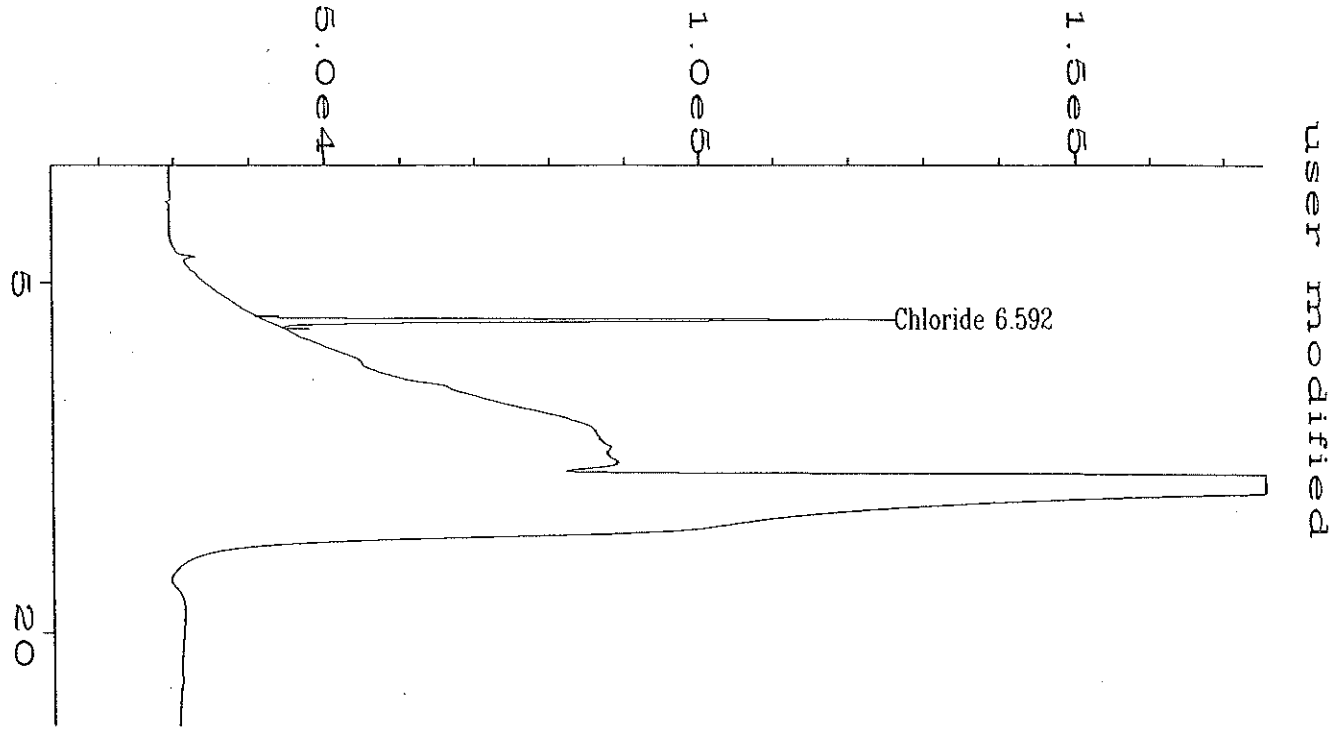
Data File Name	: C:\HPCHEM\1\DATA\0903018\006R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 6
Sample Name	: Cl 20 ug/mL	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 11 Sep 03 07:04 PM	Instrument Method:	0903018.MTH
Report Created on:	12 Sep 03 11:47 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\006R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.532	709454	MM	0.142	1	19.991	Chloride

User Modified

==========



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External Standard Report

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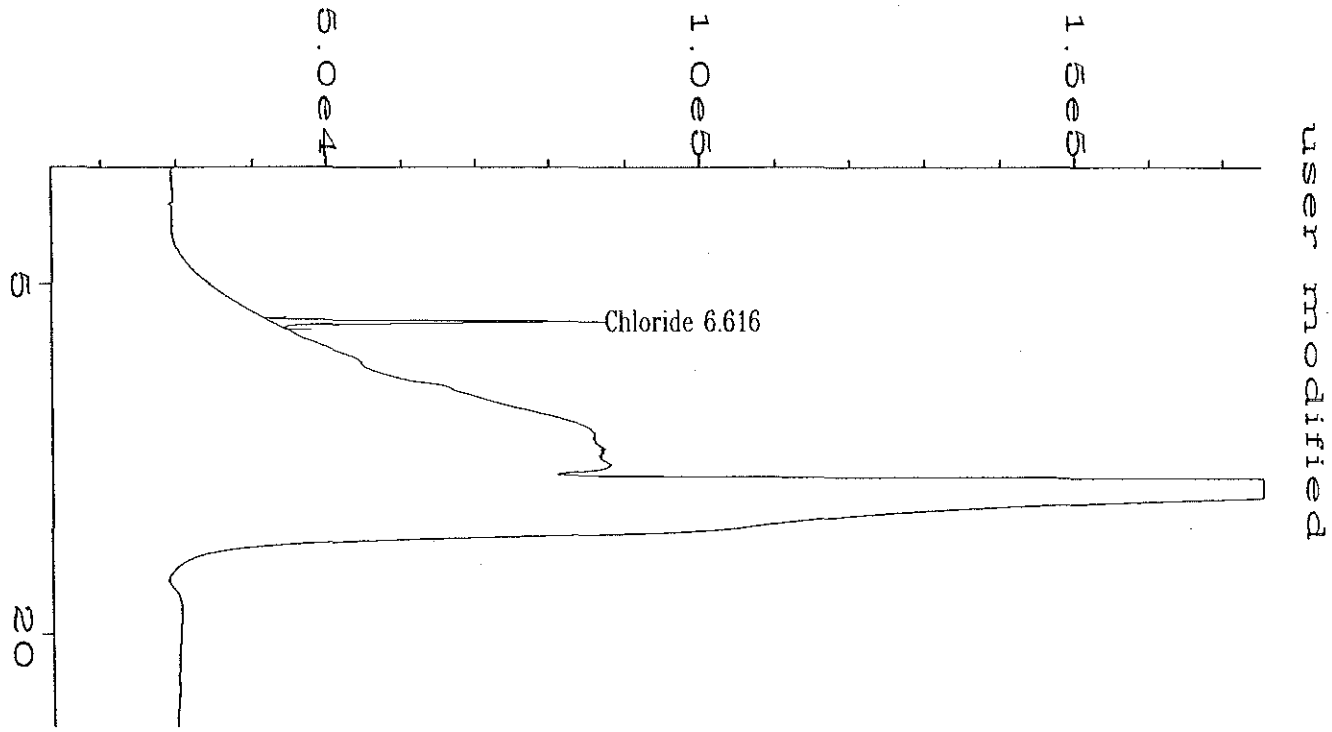
Data File Name	: C:\HPCHEM\1\DATA\0903018\006R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 6
Sample Name	: Cl 20 ug/mL	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 11 Sep 03 07:30 PM	Instrument Method:	0903018.MTH
Report Created on:	12 Sep 03 11:47 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\006R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.592	711181	MM	0.141	1	20.039	Chloride

User Modified

==========



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External Standard Report

==========

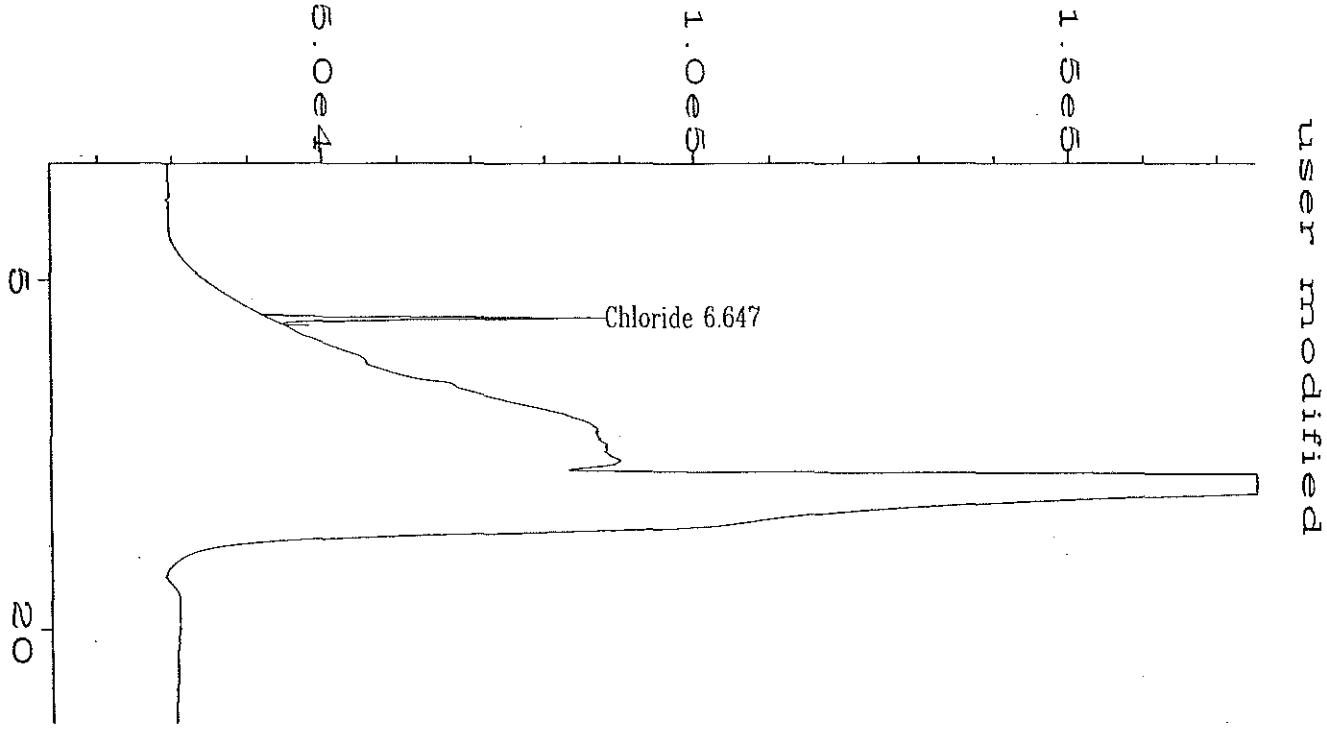
Data File Name	: C:\HPCHEM\1\DATA\0903018\008R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 8
Sample Name	: CL QC 10 ug/mL	Injection Number	: 1
Run Time Bar Code	:	Sequence Line	: 1
Acquired on	: 11 Sep 03 08:46 PM	Instrument Method	: 0903018.MTH
Report Created on	: 12 Sep 03 11:49 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\008R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.616	339279	MM	0.126	1	9.656	Chloride

User Modified

==========



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External Standard Report

==========

Data File Name	: C:\HPCHEM\1\DATA\0903018\008R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 8
Sample Name	: CL QC 10 ug/mL	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 11 Sep 03 09:12 PM	Instrument Method:	0903018.MTH
Report Created on:	12 Sep 03 11:49 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\008R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.647	340042	MM	0.125	1	9.678	Chloride

User Modified

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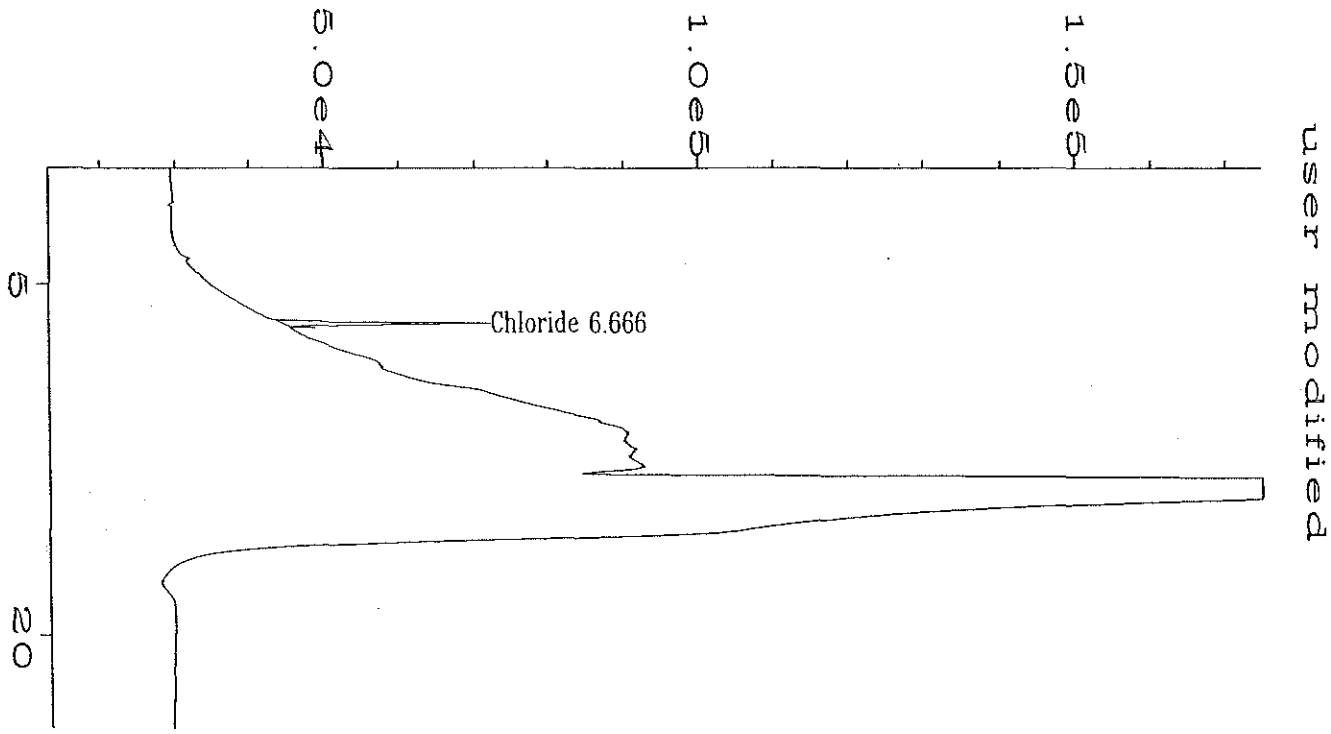


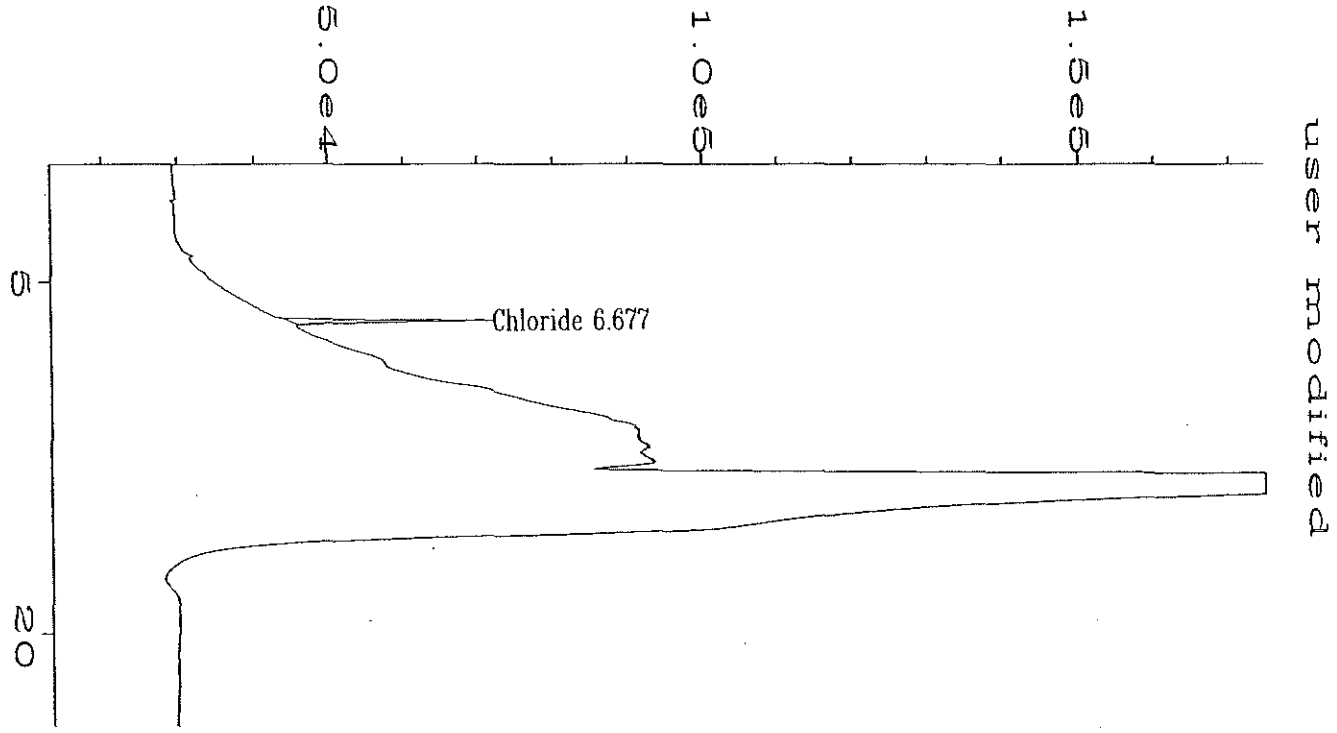
External Standard Report

Data File Name	: C:\HPCHEM\1\DATA\0903018\031R0101.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 31
Sample Name	: CONCAL 5 ug/mL	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 12 Sep 03 04:21 PM	Instrument Method:	0903018.MTH
Report Created on:	15 Sep 03 11:10 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\031R0101.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.666	192126	MM	0.114	1	5.548	Chloride

User Modified



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External Standard Report

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Data File Name	: C:\HPCHEM\1\DATA\0903018\031R0102.D		
Operator	: BTD	Page Number	: 1
Instrument	: DIONEX	Vial Number	: 31
Sample Name	: CONCAL 5 ug/mL	Injection Number	: 2
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 12 Sep 03 04:46 PM	Instrument Method:	0903018.MTH
Report Created on:	15 Sep 03 11:10 AM	Analysis Method	: 0903018.MTH
Last Recalib on	: 12 Sep 03 11:42 AM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in C:\HPCHEM\1\DATA\0903018\031R0102.D

Ret Time	Area	Type	Width	Ref#	ug/mL	Name
6.677	183825	MM	0.112	1	5.316	Chloride

User Modified

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DOCUMENTATION

DAT®

Data/Analysis Technologies, Inc.

"Analytical Laboratories and Consultants"

SERIAL NO. 25196

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

7715 CORPORATE BLVD.
PLAIN CITY, OHIO 43064
614-873-0710 800-733-8644
FAX 614-873-0810

PROJECT REFERENCE: St. John's Hospital
PROJECT NO.:
P.O. NUMBER:
PROJECT LOC. (State): IL
SAMPLER(S) NAME: James Gray
PHONE: 330-525-5119
FAX: 330-525-7908
CLIENT NAME: Custom Stack Analysis, LLC.
CLIENT PROJECT MANAGER: James Gray
CLIENT ADDRESS (CITY, STATE, ZIP): P.O. Box 3750 Alliance, OH 44601

PAGE 1 OF 1

☐ STANDARD REPORT DELIVERY
☒ EXPEDITED REPORT DELIVERY (SURCHARGE)

DATE DUE:

REQUIRED ANALYSIS: HCL

SAMPLE DATE	SAMPLE TIME	DAT NO.	SAMPLE IDENTIFICATION	MATRIX TYPE: AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (Oil, Solvent, etc.)	NUMBER OF CONTAINERS SUBMITTED						REMARKS
9-3-03	7:24pm		Run #1 - Container #1	X				.1NH2SO4	250ml					Diluted to 1000ml DW
9-4-03	8:28am		Run #2 - Container #1	X				.1NH2SO4	250ml					Diluted to 1000ml DW
9-4-03	1:51pm		Run #3 - Container #1	X				.1NH2SO4	250ml					Diluted to 1000ml DW
			Blank - .1NH2SO4											

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME
[signature]	9-8-03	4:20pm						
RECEIVED BY (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY (SIGNATURE)**	**DATE**	**TIME**

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	DAT LOG NO.	LABORATORY REMARKS:
			☐ YES ☐ NO			

DAT Labs Inc.
Sample Receipt Report

Client: CUSTOM STATE ANALYSIS
Custodian Initial: KBB Date: 9-9-03

The client has been contacted.
_____ Yes _____ No

Upon receipt of samples, check if any of the following discrepancies have been noted.

	Discrepancy Type	*Specify applicable client ID or "all"*
	COC and samples do not match	
	No unique sample identifications	
	Samples received outside of the required temp criteria. **Receipt Temp:** AMBIENT	
	No preservation type was noted	
	No date of collection stated	
	No time of collection stated	
	The sample collector was not named	
	Sample containers were not appropriate	
	Sample labels were destroyed or unreadable	
	Samples were received outside of holding time	
	There was not enough sample to perform the requested analysis.	
	Samples showed sign of damage or contamination.	
	Aqueous samples for volatile analysis: Headspace? Y N If Y (es), details:	
	Sample pH acidic basic neutral Please describe any outliers or nonconformances below.	

Details: _____

Sample pH for nonvolatile aqueous samples and presence or absence of headspace (Y or N) for aqueous samples shall be recorded at time of sample log-in.
Under no circumstances shall VOA vials be opened at time of sample receipt.

Other Discrepancies:

Sample ID	**Discrepancy**

☒ *Upon receipt, the samples met all of DAT's acceptance criteria.* *DAT Project #* 0903023

FRMSRR081501

247 SAMPLE RECEIVING

7715 Corporate Blvd. Plain City,OH 43064.

1 of 4

Project Number: 0903023

Date Received:	9/9/03	**Carrier:**	FedEx
Client Name:	Custom Stack Analysis	**Analysis:**	HCl, Metals, Dioxins & Fur
Tracking number:	838889333219/3220	**Package Temp:**	ambient
Custody Seals ?:	No	**COC:** ☑	"X" = client provided COC

Sample Information

Client ID:	Laboratory ID	Date	Matrix:	Container:	Comment:
Run #1 Container #1	0903023-1	9/3/03	Air (filter)	petri dish	
Run #1 Container #2	0903023-2	9/3/03	Acetone	100 ml plastic	
Run #1 Container #3	0903023-3	9/3/03	Toluene	100 ml plastic	
Run #1 XAD	0903023-4	9/3/03	XAD	XAD glass trap	
Run #2 Container #1	0903023-5	9/4/03	Air (filter)	petri dish	
Run #2 Container #2	0903023-6	9/4/03	Acetone	100 ml plastic	
Run #2 Container #3	0903023-7	9/4/03	Toluene	100 ml plastic	
Run #2 XAD	0903023-8	9/4/03	XAD	XAD glass trap	
Run #3 Container #1	0903023-9	9/4/03	Air (filter)	petri dish	
Run #3 Container #2	0903023-10	9/4/03	Acetone	100 ml plastic	

KDS

Laboratory Receiving Initials

0903023

9/9/03 2:35:16 PM

247 SAMPLE RECEIVING

7715 Corporate Blvd. Plain City,OH 43064.

2 of 4

Project Number: 0903023

Client ID:	Laboratory ID	Date	Matrix:	Container:	Comment:
Run #3 Container #3	0903023-11	9/4/03	Toluene	100 ml plastic	
Run #3 XAD	0903023-12	9/4/03	XAD	XAD glass trap	
Run #1 Container #3	0903023-13	9/3/03	H2SO4	250 ml plastic	
Run #2 Container #3	0903023-14	9/4/03	H2SO4	250 ml plastic	
Run #3 Container #3	0903023-15	9/4/03	H2SO4	250 ml plastic	
Blank 0.1N H2SO4	0903023-16	9/4/03	H2SO4	100 ml plastic	
Run #1 Container 1	0903023-17	9/3/03	Air (filter)	petri dish	
un #1 Container 3	0903023-18	9/3/03	HNO3	250 ml plastic	
Run #1 Container 4	0903023-19	9/3/03	HNO3	500 ml plastic	
Run #1 Container 5A	0903023-20	9/3/03	HNO3	250 ml plastic	
Run #1 Container 5B	0903023-21	9/3/03	KMnO4	1L clear wm	
Run #1 Container 5C	0903023-22	9/3/03	0.8N HCl	500 ml clear wm	
Run #2 Container 1	0903023-23	9/4/03	Air (filter)	petri dish	
Run #2 Container 3	0903023-24	9/4/03	HNO3	250 ml plastic	
Run #2 Container 4	0903023-25	9/4/03	HNO3	500 ml plastic	

KAS

Laboratory Receiving Initials

0903023

9/9/03 2:35:16 PM

247 SAMPLE RECEIVING

7715 Corporate Blvd. Plain City,OH 43064

3 of 4

Project Number: 0903023

Client ID:	Laboratory ID	Date	Matrix:	Container:	Comment:
Run #2 Container 5A	0903023-26	9/4/03	HNO3	250 ml plastic	
Run #2 Container 5B	0903023-27	9/4/03	KMnO4	1L clear wm	
Run #2 Container 5C	0903023-28	9/4/03	0.8N HCl	500 ml clear wm	
Run #3 Container 1	0903023-29	9/4/03	Air (filter)	petri dish	
Run #3 Container 3	0903023-30	9/4/03	HNO3	250 ml plastic	
Run #3 Container 4	0903023-31	9/4/03	HNO3	500 ml plastic	
Run #3 Container 5A	0903023-32	9/4/03	HNO3	250 ml plastic	
Run #3 Container 5B	0903023-33	9/4/03	KMnO4	1L clear wm	
Run #3 Container 5C	0903023-34	9/4/03	0.8N HCl	500 ml clear wm	
Container 7 Blank	0903023-35	9/4/03	Acetone	100 ml plastic	
Container 8A Blank	0903023-36	9/4/03	HNO3	500 ml plastic	
Container 8B Blank	0903023-37	9/4/03	Water	100 ml plastic	
Container 9 Blank	0903023-38	9/4/03	HNO3/H2O2	250 ml plastic	
Container 10 Blank	0903023-39	9/4/03	KMnO4	500 ml clear wm	
Container 11 Blank	0903023-40	9/4/03	0.8N HCl	500 ml clear wm	

KBS

Laboratory Receiving Initials

0903023

9/9/03 2:35:17 PM

247 SAMPLE RECEIVING

7715 Corporate Blvd. Plain City,OH 43064.

4 of 4

Project Number: 0903023

Client ID:	Laboratory ID	Date	Matrix:	Container:	Comment:
Container 12 Blank	0903023-41	9/4/03	Air (filter)	petri dishe	

KDS

Laboratory Receiving Initials

0903023

9/9/03 2:35:17 PM

DAT Labs, Inc. Extraction Form

Project # 0903023

Sample: SOLIDS (LIQUID) AIR

Analysis: HCl by M-26

Prepared By: BTD

Date: 9/11/03

Spike Witness:

Solvent Manufac:

Solvent Lot #

tion	Solvent	Volume mls	Reps
Soxhlet	Hexane		
Sep Funnel	Methanol		
Sonication	Methylene Chloride		
Cont. Ext	ACN		
Vial	Ethyl Acetate		
SPE Distill	IPA		
Other	Toluene		
X No Extract	Water		
Other (Describe)			

SURROGATE ID	VOL mls / ul	CONC
SL-		
SL-		
SL-		

LS/MS ID	VOL mls / (ul)	CONC
BCNB 342506	50	100 ng/ml
SL-		
SL-		

INT STD ID	VOL mls / ul	CONC
SL-		
SL-		
SL-		

COMMENTS

PLE ID	TOTAL SAMPLE AMNT (mL)	SAMPLE AMNT EXTRACTED	TOTAL EXTRACT VOL (ADD ALL REPS)	FINAL EXTRACT VOL mls / ul	SURR INIT	SPK INIT	IS INIT
-13	250						
-14	240						
-15	250						
-16	113						

If extract was split for additional analyses, please note the aliquot volume for this analysis and at what point the extract was spiked.

QUOT VOLUME: _____ mls ul (Circle one)

ract was spiked: Before After the split. (Circle one)

Additional samples may be listed on the back of this page.

00199

DAT, Inc

Data Reduction Table

Cl by Methods 26A

Project Number: 0903023

Lab ID.:	Run 1 ug/mL	Run 2 ug/mL	Dilution	Chloride Average ug/mL	Volume mLs	Total ug Cl	Total ug HCl	DL ug	%R(%RPD)
0903023-13	7.150	7.131	1.0	7.14	1000	7141	**7343**	56.6	
0903023-14	3.561	3.543	1.0	3.55	1000	3552	**3653**	56.6	
0903023-15	13.950	13.985	1.0	13.97	1000	13968	**14364**	56.6	
0903023-16	0.471	0.444	1.0	0.46	113	52	**53.2**	6.4	
0903023-BK7	0.055	0.055	1.0	0.06	1	0.055	**0.057**	0.057	ND
0903023-BK32	0.055	0.055	1.0	0.06	1	0.055	**0.057**	0.057	ND
0903023-LS	6.005	5.677		5.84					117%
0903023-LSD	5.936	5.66		5.80					116%
Second Source QC	9.656	9.678		9.67					96.7%

59

100

FedEx Express *USA Airbill*

FedEx Tracking Number 8388 8933 3219

Recipient's Copy

RECIPIENT: PEEL HERE

NO POUCH NEEDED.
See back for peel and stick application instructions.

1 From This portion can be removed for Recipient's records.

Date 9-8-03 FedEx Tracking Number 838889333219

Sender's Name James Gray Phone 330 525-5119

Company CUSTOM STACK ANALYSIS

Address 14614 CENFIELD ST NE

Dept./Floor/Suite/Room

City ALLIANCE State OH ZIP 44601-9418

2 Your Internal Billing Reference

3 To

Recipient's Name Ron Mitchum Phone 800 733-8644

Company Data Analysis

Address 7715 Corporate Blvd.

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Dept./Floor/Suite/Room

City Plain City State OH ZIP 43064

8388 8933 3219

0236784921

4a Express Package Service *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx Priority Overnight — Next business morning
- [x] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [x] Other

6 Special Handling Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check
- [ ] Obtain Recip. Acct. No.

[redacted]

Total Packages	Total Weight		Total Charges
1	316	[redacted]	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1.800. Go. FedEx® 800.463.3339.

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60

100 **FedEx** Express *USA Airbill* FedEx Tracking Number 8388 8933 3220

0215 **Recipient's Copy**

1 From This portion can be removed for Recipient's records.

Date 9-9-03 FedEx Tracking Number 838889333220

Sender's Name James Clay Phone 330 525-5119

Company CUSTOM STACK ANALYSIS

Address 14614 CENFIELD ST NE Dept./Floor/Suite/Room

City ALLIANCE State OH ZIP 44601-9418

RECIPIENT: PEEL HERE

NO POUCH NEEDED. See back for peel and stick application instructions.

2 Your Internal Billing Reference

3 To Recipient's Name Ron Mitchun Phone 800 733-8644

Company Data Analysis

Address To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address 1715 Corporate Blvd Dept./Floor/Suite/Room

City Plain City State OH ZIP 43064

8388 8933 3220

0236784921

4a Express Package Service *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- ☐ FedEx Priority Overnight — Next business morning
- ☒ FedEx Standard Overnight — Next business afternoon
- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations
- ☐ FedEx 2Day — Second business day
- ☐ FedEx Express Saver — Third business day

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- ☐ FedEx 1Day Freight* — Next business day
- ☐ FedEx 2Day Freight — Second business day
- ☐ FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging * Declared value limit $500

- ☐ FedEx Envelope*
- ☐ FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- ☒ Other

6 Special Handling Include FedEx address in Section 3.

- ☐ SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- ☐ HOLD Weekday at FedEx Location — Not available for FedEx First Overnight
- ☐ HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- ☒ No
- ☐ Yes — As per attached Shipper's Declaration
- ☐ Yes — Shipper's Declaration not required
- ☐ Dry Ice — Dry Ice, UN 1845 ____ x ____ kg

Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.

☐ Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. ☐

- ☒ Sender — Acct. No. in Section 1 will be billed.
- ☐ Recipient
- ☐ Third Party
- ☐ Credit Card
- ☐ Cash/Check

Total Packages	Total Weight	Total Charges
1	8 lb	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1.800. Go. FedEx® 800.463.3339.

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Align bottom of Airbill Pouch here. Part # 150454 Rev. 4/00

Data/Analysis Technologies, Inc.

Cadmium, Lead and Mercury
Method 29

DAT Project # 0903023

Date:	July 25, 2003
Client:	Custom Stack Analysis, Inc.
Client Project:	St John's Hospital
Contact:	Jim Gray

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Cadmium, Lead and Mercury

Method 29

DAT Project # 0903023

Date:	July 25, 2003
Client:	Custom Stack Analysis, Inc.
Client Project:	St John's Hospital
Contact:	Jim Gray

Report Approved for Release by:

Ronald K. Mitchum, Ph.D
President, *DAT*, Inc.

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Inorganic Metals
Project # 0903023

Narrative

Four train samples were received on September 9, 2003 for the analysis of cadmium, lead and mercury by Method 29. The samples were received in good condition. The samples along with their corresponding laboratory identifications are listed on the Sample Receiving Sheet in the documentation section of this data package.

Digestion

The samples were digested using Method 29 protocol.

ICP Analysis

The digestates were analyzed by ICP with a Perkin Elmer Optima 2000 DV Spectrometer. Each sample was analyzed in duplicate. The final results reflect the average of the two analyses. Results were corrected for interelement interferences.

Quality Control

There was no preparation blank contamination.

Laboratory spike recoveries were within QC limits and post digestion spikes were within QC limits.

Report prepared by:

Theresa Schwope

Theresa Schwope, Chemist

DATA SUMMARY

Data Analysis Technologies

Mercury by Method 29 Data Summary

Project Number: 0903023
Client: Custom Stack Analysis
Site: St. John's Hospital

Prep Date: 9/11/03
Analysis Date: 9/13/03

Client ID	DAT ID	Hg Total ug	Q	Dup Result Total ug
Run 1				
Run 1-Front Half	0903023-1,18	1.37		1.36
Run 1-Back Half	0903023-19	6.97		
Run 1-5a	0903023-20	0.54		
Run 1-5b	0903023-21	0.22	ND	
Run 1-5c/5b Filter	0903023-22	2.87		
Run 2				
Run 2-Front Half	0903023-5,24	0.40		
Run 2-Back Half	0903023-25	6.76		
Run 2-5a	0903023-26	0.56		
Run 2-5b	0903023-27	0.20	ND	
Run 2-5c/5b Filter	0903023-28	1.33		
Run 3				
Run 3-Front Half	0903023-9,30	0.22		
Run 3-Back Half	0903023-31	3.01		
Run 3-5a	0903023-32	0.23		
Run 3-5b	0903023-33	0.21	ND	
Run-3-5b Filter	0903023-34	0.74		
Blank Run				
Front Half	0903023-36,41	0.03		
Back Half	0903023-38	0.10	ND	
H2O	0903023-37	0.01	ND	
KMNO4	0903023-39	0.05	ND	
HCl	0903023-40	0.15	ND	

ND = Not detected at the detection limit shown

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7715 Corporate Boulevard

Plain City, OH 43064

Sample Analysis Certificate

Method 29 Inorganic Metals

Client:	Custom Stack Analysis, Inc	**Project #:**	0903023
Client Run/Test No.	Run # 1		
Site:	St. John's Hospital	**Lab Sample ID:**	
			0903023-1,18
Sample Date:	5/13/03		0903023-19
Preparation Date:	6/2/03		
Analysis Date:	6/4/03	**Matrix:**	Air

	Filter/Front Half		Back Half	
Analyte:	**Total ug**	**Q**	**Total ug**	**Q**
Cadmium	1.01		0.54	
Lead	6.96		4.98	

ND = Not detected at the detection limit shown.

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Sample Analysis Certificate

Method 29 Inorganic Metals

Client:	Custom Stack Analysis, Inc	**Project #:**	0903023
Client Run/Test No.	Run # 1		
Site:	St. John's Hospital	**Lab Sample ID:**	0903023-1,18 Dup
Sample Date:	5/13/03		
Preparation Date:	6/2/03		
Analysis Date:	6/4/03	**Matrix:**	Air

Filter/Front Half

Analyte:	**Total ug**	**Q**
Cadmium	1.15	
Lead	7.53	

ND = Not detected at the detection limit shown.

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Sample Analysis Certificate

Method 29 Inorganic Metals

Client:	Custom Stack Analysis	**Project #:**	0903023
Client Run/Test No.	Run # 2		
Site:	St. John's Hospital	**Lab Sample ID:**	
			0903023-5,24
Sample Date:	5/14/03		0903023-25
Preparation Date:	6/2/03		
Analysis Date:	6/4/03	**Matrix:**	Air

	Filter/Front Half		Back Half	
Analyte:	**Total ug**	**Q**	**Total ug**	**Q**
Cadmium	0.42		0.52	
Lead	7.03		4.53	

ND = Not detected at the detection limit shown.

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Sample Analysis Certificate

Method 29 Inorganic Metals

Client:	Custom Stack Analysis	**Project #:**	0903023
Client Run/Test No.	Run # 3		
Site:	St. John's Hospital	**Lab Sample ID:**	
			0903023-9,30
Sample Date:	5/15/03		0903023-31
Preparation Date:	6/2/03		
Analysis Date:	6/4/03	**Matrix:**	Air

	Filter/Front Half		Back Half	
Analyte:	**Total ug**	**Q**	**Total ug**	**Q**
Cadmium	0.25		0.24	
Lead	4.62		1.01	

ND = Not detected at the detection limit shown.

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Sample Analysis Certificate

Method 29 Inorganic Metals

Client:	Custom Stack Analysis	**Project #:**	0903023
Client Run/Test No.	Blank Run		
Site:	St. John's Hospital	**Lab Sample ID:**	
			0903023-36,41
Sample Date:	5/15/03		0903023-38
Preparation Date:	6/2/03		
Analysis Date:	6/4/03	**Matrix:**	Air

	Filter/Front Half		Back Half	
Analyte:	**Total ug**	**Q**	**Total ug**	**Q**
Cadmium	0.20	ND	0.20	ND
Lead	0.60	ND	0.57	

ND = Not detected at the detection limit shown.

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Sample Analysis Certificate

Method 29 Inorganic Metals

Client:	Custom Stack Analysis	**Project #:**	0903023
Client Run/Test No.	H20 Blank		
Site:	St. John's Hospital	**Lab Sample ID:**	0903023-37
Sample Date:	2/18/03		
Preparation Date:	6/2/03		
Analysis Date:	6/4/03	**Matrix:**	Air

	H20	
Analyte:	**Total ug**	**Q**
Cadmium	0.20	ND
Lead	0.60	ND

ND = Not detected at the detection limit shown.

QC SUMMARY

Data Analysis Technologies

Mercury by Method 29 Data Summary

Project Number: 0903023
Client: Custom Stack Analysis
Site: St. John's Hospital

Prep Date: 9/11/03
Analysis Date: 9/13/03

QC Summary		Hg ug/L	% Rec	%RPD
Front Method Blank	0903023-MB Front	0.05 ND		
Back Method Blank	0903023-MB Back	0.05 ND		
Laboratory Spike	0903023-LS	10.2	102	
Matrix Spike	0903023-21 MS	10.30	103	
	0903023-21 MSD	10.18	102	1.17
Duplicate Results	0903023-1,18	3.43		
	0903023-1,18 Dup	3.39		0.97

ND = Not detected at the detection limit shown.

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Sample Analysis Certificate

Method 29 Inorganic Metals

Client:	Custom Stack Analysis, Inc	**Project #:**	0903023
Client Run/Test No.	Prep Blank		
Site:	St. John's Hospital	**Lab Sample ID:**	
			0903023-MBF
Sample Date:			0903023-MBB
Preparation Date:	6/2/03		
Analysis Date:	6/4/03	**Matrix:**	Air

	Prep Blank		Back Half	
Analyte:	**Total ug**	**Q**	**Total ug**	**Q**
Cadmium	0.20	ND	0.20	ND
Lead	0.60	ND	0.60	ND

ND = Not detected at the detection limit shown.
100 mls laboratory water digested for the prep blank.

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LCS SUMMARY

Method 29 Inorganic Metals

Client: Custom Stack Analysis
Sample ID Laboratory Spike

Project #: 0903023

LS Front

Analyte	Spike Found	Spike Added	%Rec	QC Limits
Cadmium	425	500	85.0	62-129
Lead	455	500	91.0	70-115

LS Back

Analyte	Spike Found	Spike Added	%Rec
Cadmium	448	500	89.6
Lead	444	500	88.8

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POST SPIKE SUMMARY

Method 29 Inorganic Metals

Client: Custom Stack Analysis
Sample ID 0903023-5,24 spk

Project #: 0903023

Analyte	Amount Found	Sample Amt	Amt spiked	%Rec	QC Limits
Cadmium	491	4.23	500	97.4	70-118
Lead	530	70.3	500	92.0	63-146

SAMPLE DATA

Analytical Sequence

Method : 0903023

Seq.	Loc.		Sample ID
1	1		Std Blk
2	2		Std1
3	3		Std2
4	4		Std3
5	5		Std4
6	4	QC	High Standard 2
7	6	QC	ICV/CCV
8	1	QC	ICB/CCB
9	7		ICSA
10	8		ICSAB
11	9		0903023-MB front
12	10		0903023-LS front
13	11		0903023-MB back
14	12		0903023-LS back
15	13		0903023-36,41
16	14		0903023-38
17	6	QC	ICV/CCV
18	1	QC	ICB/CCB
19	15		0903023-1,18
20	16		0903023-1,18 PDD
21	17		0903023-19
22	18		0903023-5,24
23	19		0903023-5,24 PDS
24	20		0903023-25
25	21		0903023-9,30
26	22		0903023-9,30 SD
27	23		0903023-31
28	24		0903023-31 PDS
29	25		PQL check
30	6	QC	ICV/CCV
31	1	QC	ICB/CCB
32	26		0903014-MB
33	27		0903014-LS
34	28		0903014-29
35	29		0903014-2
36	30		0903014-4
37	31		0903014-6
38	32		0903014-6 PDS
39	33		0903014-25
40	34		0903014-26
41	35		0903014-27
42	36		0903014-27 PDD
43	6	QC	ICV/CCV
44	1	QC	ICB/CCB
45	7		ICSA
46	8		ICSAB

Seq. No. 1 AS Loc: 1 Date: 2003/09/15 12:35:27
Sample ID: Std Blk

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		[0.00] µg/L			864.6	2003/09/15 12:35:21
		[0.00] µg/L		927.5	927.5	2003/09/15 12:35:27
	Mean:	[0.00]			896.1	
	SD:	44.42 µg/L				
	%RSD:	4.96				
Pb1						
		[0.00] µg/L		195.6	195.6	2003/09/15 12:36:21
		[0.00] µg/L		205.0	205.0	2003/09/15 12:36:37
	Mean:	[0.00]			200.3	
	SD:	6.63 µg/L				
	%RSD:	3.31				

Seq. No. 3 AS Loc: 3 Date: 2003/09/15 12:43:14
Sample ID: Std2

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		[250] µg/L		54,355.6	53,459.6	2003/09/15 12:43:07
		[250] µg/L		53,930.8	53,034.8	2003/09/15 12:43:14
	Mean:	[250]			53,247.2	
	SD:	300.38 µg/L				
	%RSD:	0.56				
Pb1						
		[500] µg/L		6,333.2	6,132.9	2003/09/15 12:44:08
		[500] µg/L		6,357.4	6,157.1	2003/09/15 12:44:24
	Mean:	[500]			6,145.0	
	SD:	17.10 µg/L				
	%RSD:	0.28				

Seq. No. 4 AS Loc: 4 Date: 2003/09/15 12:46:41
Sample ID: Std3

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		[2500] µg/L		547,200.6	546,304.5	2003/09/15 12:46:35
		[2500] µg/L		541,259.7	540,363.6	2003/09/15 12:46:41
	Mean:	[2500]			543,334.1	
	SD:	4,200.87 µg/L				
	%RSD:	0.77				
Pb1						
		[5000] µg/L		62,867.0	62,666.7	2003/09/15 12:47:01
		[5000] µg/L		62,490.3	62,290.0	2003/09/15 12:47:18
	Mean:	[5000]			62,478.4	
	SD:	266.33 µg/L				
	%RSD:	0.43				

Seq. No. 5 AS Loc: 5 Date: 2003/09/15 12:49:34
Sample ID: Std4

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		[25] µg/L		6,625.2	5,729.1	2003/09/15 12:49:28
		[25] µg/L		6,479.3	5,583.3	2003/09/15 12:49:34
	Mean:	[25]			5,656.2	
	SD:	103.14 µg/L				
	%RSD:	1.82				
Pb1						
		[50] µg/L		827.1	626.8	2003/09/15 12:50:18
		[50] µg/L		808.7	608.5	2003/09/15 12:50:34
	Mean:	[50]			617.6	
	SD:	12.96 µg/L				
	%RSD:	2.10				

Seq. No.	6	AS Loc:	4	Date:	2003/09/15 14:25:51		
Sample ID:	High Standard 2						
Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time	
Cd1		2003/09/15 14:27:43 All analytes passed QC.					
		2284 µg/L	2284 µg/L	497,267.5	496,371.4	2003/09/15 14:25:45	
		2273 µg/L	2273 µg/L	494,770.2	493,874.1	2003/09/15 14:25:51	
	Mean:	2279	2279 µg/L		495,122.8		
	SD:	8.1 µg/L					
	%RSD:	0.36					
	2003/09/15 14:27:41 QC value within limits for Cd1 Recovery = 91.14%						
Pb1		2003/09/15 14:27:43 All analytes passed QC.					
		4827 µg/L	4827 µg/L	60,502.1	60,301.8	2003/09/15 14:26:46	
		4794 µg/L	4794 µg/L	60,095.7	59,895.4	2003/09/15 14:27:02	
	Mean:	4810	4810 µg/L		60,098.6		
	SD:	23.0 µg/L					
	%RSD:	0.48					
	2003/09/15 14:27:41 QC value within limits for Pb1 Recovery = 96.21%						

Seq. No.	7	AS Loc:	6	Date:	2003/09/15 14:30:28		
Sample ID:	ICV/CCV						
Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time	
Cd1		2003/09/15 14:32:18 All analytes passed QC.					
		1165 µg/L	1165 µg/L	254,127.1	253,231.1	2003/09/15 14:30:22	
		1162 µg/L	1162 µg/L	253,387.2	252,491.2	2003/09/15 14:30:28	
	Mean:	1164	1164 µg/L		252,861.1		
	SD:	2.4 µg/L					
	%RSD:	0.21					
	2003/09/15 14:32:16 QC value within limits for Cd1 Recovery = 93.10%						
Pb1		2003/09/15 14:32:18 All analytes passed QC.					
		2401 µg/L	2401 µg/L	30,199.9	29,999.6	2003/09/15 14:31:23	
		2411 µg/L	2411 µg/L	30,322.6	30,122.3	2003/09/15 14:31:39	
	Mean:	2406	2406 µg/L		30,061.0		
	SD:	6.9 µg/L					
	%RSD:	0.29					
	2003/09/15 14:32:16 QC value within limits for Pb1 Recovery = 96.24%						

Seq. No. 8 AS Loc: 1 Date: 2003/09/15 14:35:05
Sample ID: ICB/CCB

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1		2003/09/15 14:36:56 QC Failed. Continue with analysis.				
		0.2042 µg/L	0.2042 µg/L	940.4	44.4	2003/09/15 14:34:59
		0.3037 µg/L	0.3037 µg/L	962.0	66.0	2003/09/15 14:35:05
	Mean:	0.2539	0.2539 µg/L		55.2	
	SD:	0.07034 µg/L				
	%RSD:	27.70				
	2003/09/15 14:36:54 QC value within limits for Cd1 Recovery = Not calculated					
Pb1		2003/09/15 14:36:56 QC Failed. Continue with analysis.				
		1.419 µg/L	1.419 µg/L	218.0	17.7	2003/09/15 14:36:00
		3.941 µg/L	3.941 µg/L	249.5	49.2	2003/09/15 14:36:16
	Mean:	2.680	2.680 µg/L		33.5	
	SD:	1.7832 µg/L				
	%RSD:	66.54				
	2003/09/15 14:36:54 QC value within limits for Pb1 Recovery = Not calculated					

Seq. No. 9 AS Loc: 7 Date: 2003/09/15 14:39:36
Sample ID: ICSA

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		4.251 µg/L	4.251 µg/L	1,819.8	923.8	2003/09/15 14:39:30
		3.958 µg/L	3.958 µg/L	1,756.0	860.0	2003/09/15 14:39:36
	Mean:	4.104	4.104 µg/L		891.9	
	SD:	0.2076 µg/L	0.2076 µg/L			
	%RSD:	5.06				
Pb1						
		4.394 µg/L	4.394 µg/L	255.2	54.9	2003/09/15 14:40:32
		4.607 µg/L	4.607 µg/L	257.9	57.6	2003/09/15 14:40:49
	Mean:	4.501	4.501 µg/L		56.2	
	SD:	0.1508 µg/L	0.1508 µg/L			
	%RSD:	3.35				

Seq. No. 10 AS Loc: 8 Date: 2003/09/15 14:44:09
ıple ID: ICSAB

ılyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		1057 µg/L	1057 µg/L	230,667.7	229,771.7	2003/09/15 14:44:03
		1047 µg/L	1047 µg/L	228,484.7	227,588.6	2003/09/15 14:44:09
	Mean:	1052	1052 µg/L		228,680.1	
	SD:	7.1 µg/L	7.1 µg/L			
	%RSD:	0.68				
Pb1						
		1067 µg/L	1067 µg/L	13,528.4	13,328.1	2003/09/15 14:45:03
		1074 µg/L	1074 µg/L	13,616.4	13,416.1	2003/09/15 14:45:19
	Mean:	1070	1070 µg/L		13,372.1	
	SD:	5.0 µg/L	5.0 µg/L			
	%RSD:	0.47				

Seq. No. 11 AS Loc: 9 Date: 2003/09/15 14:50:16
Sample ID: 0903023-MB front

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		1.164 µg/L	1.164 µg/L	1,149.0	252.9	2003/09/15 14:50:10
		1.007 µg/L	1.007 µg/L	1,114.9	218.9	2003/09/15 14:50:16
	Mean:	1.086	1.086 µg/L		235.9	
	SD:	0.1108 µg/L	0.1108 µg/L			
	%RSD:	10.20				
Pb1						
		5.247 µg/L	5.247 µg/L	265.9	65.6	2003/09/15 14:51:10
		5.072 µg/L	5.072 µg/L	263.7	63.4	2003/09/15 14:51:26
	Mean:	5.160	5.160 µg/L		64.5	
	SD:	0.1239 µg/L	0.1239 µg/L			
	%RSD:	2.40				

Seq. No. 12 AS Loc: 10 Date: 2003/09/15 14:54:48
ple ID: 0903023-LS front

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		421.8 µg/L	421.8 µg/L	92,553.6	91,657.5	2003/09/15 14:54:42
		428.3 µg/L	428.3 µg/L	93,955.9	93,059.8	2003/09/15 14:54:48
	Mean:	425.0	425.0 µg/L		92,358.7	
	SD:	4.56 µg/L	4.56 µg/L			
	%RSD:	1.07				
Pb1						
		455.2 µg/L	455.2 µg/L	5,887.9	5,687.6	2003/09/15 14:55:43
		455.4 µg/L	455.4 µg/L	5,889.9	5,689.6	2003/09/15 14:56:00
	Mean:	455.3	455.3 µg/L		5,688.6	
	SD:	0.11 µg/L	0.11 µg/L			
	%RSD:	0.02				

Seq. No. 13 AS Loc: 11 Date: 2003/09/15 14:59:24
Sample ID: 0903023-MB back

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		0.4715 µg/L	0.4715 µg/L	998.5	102.4	2003/09/15 14:59:18
		0.0908 µg/L	0.0908 µg/L	915.8	19.7	2003/09/15 14:59:24
	Mean:	0.2811	0.2811 µg/L		61.1	
	SD:	0.26918 µg/L	0.26918 µg/L			
	%RSD:	95.75				
Pb1						
		5.286 µg/L	5.286 µg/L	266.3	66.0	2003/09/15 15:00:17
		6.489 µg/L	6.489 µg/L	281.4	81.1	2003/09/15 15:00:33
	Mean:	5.887	5.887 µg/L		73.6	
	SD:	0.8512 µg/L	0.8512 µg/L			
	%RSD:	14.46				

Seq. No. 14 AS Loc: 12 Date: 2003/09/15 15:03:59
Sample ID: 0903023-LS back

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		446.6 µg/L	446.6 µg/L	97,934.2	97,038.1	2003/09/15 15:03:53
		449.8 µg/L	449.8 µg/L	98,627.3	97,731.3	2003/09/15 15:03:59
	Mean:	448.2	448.2 µg/L		97,384.7	
	SD:	2.26 µg/L	2.26 µg/L			
	%RSD:	0.50				
Pb1						
		444.1 µg/L	444.1 µg/L	5,748.9	5,548.7	2003/09/15 15:04:53
		443.6 µg/L	443.6 µg/L	5,742.5	5,542.2	2003/09/15 15:05:09
	Mean:	443.9	443.9 µg/L		5,545.4	
	SD:	0.36 µg/L	0.36 µg/L			
	%RSD:	0.08				

Seq. No. 15 AS Loc: 13 Date: 2003/09/15 15:08:32
Sample ID: 0903023-36,41

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		-2.642 µg/L	-2.642 µg/L	322.0	-574.1	2003/09/15 15:08:26
		-1.715 µg/L	-1.715 µg/L	523.5	-372.6	2003/09/15 15:08:32
	Mean:	-2.178	-2.178 µg/L		-473.3	
	SD:	0.6558 µg/L	0.6558 µg/L			
	%RSD:	30.10				
Pb1						
		0.4048 µg/L	0.4048 µg/L	205.4	5.1	2003/09/15 15:09:26
		4.987 µg/L	4.987 µg/L	262.6	62.3	2003/09/15 15:09:42
	Mean:	2.696	2.696 µg/L		33.7	
	SD:	3.2404 µg/L	3.2404 µg/L			
	%RSD:	120.19				

Seq. No.	16	AS Loc:	14	Date:	2003/09/15 15:13:07		
ıple ID:	0903023-38						
.lyte		Conc (Calib)	Conc (Sample)		Net Intensity	Corr. Intensity	Time
Cd1							
		0.2828 µg/L	0.2828 µg/L		957.5	61.5	2003/09/15 15:13:01
		0.8058 µg/L	0.8058 µg/L		1,071.1	175.1	2003/09/15 15:13:07
	Mean:	0.5443	0.5443 µg/L			118.3	
	SD:	0.36978 µg/L	0.36978 µg/L				
	%RSD:	67.94					
Pb1							
		7.522 µg/L	7.522 µg/L		294.3	94.0	2003/09/15 15:14:01
		6.969 µg/L	6.969 µg/L		287.4	87.1	2003/09/15 15:14:17
	Mean:	7.245	7.245 µg/L			90.5	
	SD:	0.3906 µg/L	0.3906 µg/L				
	%RSD:	5.39					

Seq. No.	17	AS Loc:	6	Date:	2003/09/15 15:17:43		
Sample ID:	ICV/CCV						
Analyte		Conc (Calib)	Conc (Sample)		Net Intensity	Corr. Intensity	Time
Cd1		2003/09/15 15:19:32 All analytes passed QC.					
		1211 µg/L	1211 µg/L		263,999.3	263,103.3	2003/09/15 15:17:36
		1228 µg/L	1228 µg/L		267,812.2	266,916.2	2003/09/15 15:17:43
	Mean:	1220	1220 µg/L			265,009.7	
	SD:	12.4 µg/L					
	%RSD:	1.02					
	2003/09/15 15:19:30 QC value within limits for Cd1 Recovery = 97.57%						
Pb1		2003/09/15 15:19:32 All analytes passed QC.					
		2399 µg/L	2399 µg/L		30,177.1	29,976.8	2003/09/15 15:18:36
		2405 µg/L	2405 µg/L		30,248.6	30,048.3	2003/09/15 15:18:52
	Mean:	2402	2402 µg/L			30,012.6	
	SD:	4.0 µg/L					
	%RSD:	0.17					
	2003/09/15 15:19:30 QC value within limits for Pb1 Recovery = 96.09%						

Seq. No. 18 AS Loc: 1 Date: 2003/09/15 15:22:18
Sample ID: ICB/CCB

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1		2003/09/15 15:24:07 All analytes passed QC.				
		-0.4476 µg/L	-0.4476 µg/L	798.8	-97.2	2003/09/15 15:22:12
		-0.5540 µg/L	-0.5540 µg/L	775.7	-120.4	2003/09/15 15:22:18
	Mean:	-0.5008	-0.5008 µg/L		-108.8	
	SD:	0.07525 µg/L				
	%RSD:	15.03				
	2003/09/15 15:24:05 QC value within limits for Cd1 Recovery = Not calculated					
Pb1		2003/09/15 15:24:07 All analytes passed QC.				
		0.6152 µg/L	0.6152 µg/L	208.0	7.7	2003/09/15 15:23:11
		2.745 µg/L	2.745 µg/L	234.6	34.3	2003/09/15 15:23:27
	Mean:	1.680	1.680 µg/L		21.0	
	SD:	1.5057 µg/L				
	%RSD:	89.63				
	2003/09/15 15:24:05 QC value within limits for Pb1 Recovery = Not calculated					

Seq. No. 19 AS Loc: 77 Date: 2003/09/15 15:26:54
Sample ID: 0903023-37

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		-0.4892 µg/L	-0.4892 µg/L	789.8	-106.3	2003/09/15 15:26:48
		-0.3064 µg/L	-0.3064 µg/L	829.5	-66.6	2003/09/15 15:26:54
	Mean:	-0.3978	-0.3978 µg/L		-86.4	
	SD:	0.12929 µg/L	0.12929 µg/L			
	%RSD:	32.50				
Pb1						
		-0.1124 µg/L	-0.1124 µg/L	198.9	-1.4	2003/09/15 15:27:48
		0.4705 µg/L	0.4705 µg/L	206.2	5.9	2003/09/15 15:28:04
	Mean:	0.1790	0.1790 µg/L		2.2	
	SD:	0.41212 µg/L	0.41212 µg/L			
	%RSD:	230.19				

Seq. No. 20 AS Loc: 15 Date: 2003/09/15 15:31:27
Sample ID: 0903023-1,18

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		9.856 µg/L	9.856 µg/L	3,037.7	2,141.7	2003/09/15 15:31:21
		10.30 µg/L	10.30 µg/L	3,133.4	2,237.3	2003/09/15 15:31:27
	Mean:	10.08	10.08 µg/L		2,189.5	
	SD:	0.311 µg/L	0.311 µg/L			
	%RSD:	3.09				
Pb1						
		69.21 µg/L	69.21 µg/L	1,064.9	864.6	2003/09/15 15:32:20
		70.01 µg/L	70.01 µg/L	1,075.0	874.7	2003/09/15 15:32:37
	Mean:	69.61	69.61 µg/L		869.7	
	SD:	0.568 µg/L	0.568 µg/L			
	%RSD:	0.82				

Seq. No. 21 AS Loc: 16 Date: 2003/09/15 15:35:56
Sample ID: 0903023-1,18 PDD

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		11.66 µg/L 14%.0	11.66 µg/L	3,429.2	2,533.2	2003/09/15 15:35:50
		11.39 µg/L	11.39 µg/L	3,370.9	2,474.8	2003/09/15 15:35:56
	Mean:	11.52	11.52 µg/L		2,504.0	
	SD:	0.190 µg/L	0.190 µg/L			
	%RSD:	1.65				
Pb1						
		74.43 µg/L	74.43 µg/L	1,130.2	929.9	2003/09/15 15:36:50
		76.20 µg/L 8%.0	76.20 µg/L	1,152.3	952.0	2003/09/15 15:37:06
	Mean:	75.31	75.31 µg/L		941.0	
	SD:	1.247 µg/L	1.247 µg/L			
	%RSD:	1.66				

Seq. No. 22 AS Loc: 17 Date: 2003/09/15 15:40:33
nple ID: 0903023-19

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		6.054 µg/L	6.054 µg/L	2,211.6	1,315.5	2003/09/15 15:40:27
		5.980 µg/L	5.980 µg/L	2,195.5	1,299.5	2003/09/15 15:40:33
	Mean:	6.017	6.017 µg/L		1,307.5	
	SD:	0.0522 µg/L	0.0522 µg/L			
	%RSD:	0.87				
Pb1						
		56.13 µg/L	56.13 µg/L	901.5	701.2	2003/09/15 15:41:23
		54.62 µg/L	54.62 µg/L	882.7	682.4	2003/09/15 15:41:39
	Mean:	55.37	55.37 µg/L		691.8	
	SD:	1.067 µg/L	1.067 µg/L			
	%RSD:	1.93				

Seq. No. 23 AS Loc: 18 Date: 2003/09/15 15:44:58
Sample ID: 0903023-5,24

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		4.316 µg/L	4.316 µg/L	1,833.8	937.8	2003/09/15 15:44:52
		4.151 µg/L	4.151 µg/L	1,798.0	901.9	2003/09/15 15:44:58
	Mean:	4.233	4.233 µg/L		919.8	
	SD:	0.1166 µg/L	0.1166 µg/L			
	%RSD:	2.75				
Pb1						
		70.51 µg/L	70.51 µg/L	1,081.2	880.9	2003/09/15 15:45:51
		70.02 µg/L	70.02 µg/L	1,075.1	874.8	2003/09/15 15:46:07
	Mean:	70.26	70.26 µg/L		877.8	
	SD:	0.345 µg/L	0.345 µg/L			
	%RSD:	0.49				

Seq. No. 24 AS Loc: 19 Date: 2003/09/15 15:49:25
Sample ID: 0903023-5,24 PDS

Analyte		Conc (Calib)		Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1							
		497.3 µg/L		497.3 µg/L	108,955.4	108,059.4	2003/09/15 15:49:19
		484.9 µg/L	97.3%	484.9 µg/L	106,251.2	105,355.2	2003/09/15 15:49:25
	Mean:	491.1		491.1 µg/L		106,707.3	
	SD:	8.80 µg/L		8.80 µg/L			
	%RSD:	1.79					
Pb1							
		529.2 µg/L		529.2 µg/L	6,811.5	6,611.3	2003/09/15 15:50:21
		531.4 µg/L	92.0%	531.4 µg/L	6,839.2	6,638.9	2003/09/15 15:50:37
	Mean:	530.3		530.3 µg/L		6,625.1	
	SD:	1.57 µg/L		1.57 µg/L			
	%RSD:	0.30					

Seq. No. 25 AS Loc: 20 Date: 2003/09/15 15:54:02
Sample ID: 0903023-25

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		5.816 µg/L	5.816 µg/L	2,159.8	1,263.7	2003/09/15 15:53:56
		5.673 µg/L	5.673 µg/L	2,128.7	1,232.6	2003/09/15 15:54:02
	Mean:	5.744	5.744 µg/L		1,248.2	
	SD:	0.1011 µg/L	0.1011 µg/L			
	%RSD:	1.76				
Pb1						
		51.09 µg/L	51.09 µg/L	838.6	638.3	2003/09/15 15:54:55
		48.95 µg/L	48.95 µg/L	811.8	611.5	2003/09/15 15:55:11
	Mean:	50.02	50.02 µg/L		624.9	
	SD:	1.517 µg/L	1.517 µg/L			
	%RSD:	3.03				

Seq. No. 26 AS Loc: 21 Date: 2003/09/15 15:58:31
ıple ID: 0903023-9,30

ılyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		2.710 µg/L	2.710 µg/L	1,484.9	588.8	2003/09/15 15:58:25
		2.376 µg/L	2.376 µg/L	1,412.3	516.3	2003/09/15 15:58:31
	Mean:	2.543	2.543 µg/L		552.6	
	SD:	0.2361 µg/L	0.2361 µg/L			
	%RSD:	9.28				
Pb1						
		46.22 µg/L	46.22 µg/L	777.7	577.4	2003/09/15 15:59:25
		46.21 µg/L	46.21 µg/L	777.7	577.4	2003/09/15 15:59:43
	Mean:	46.21	46.21 µg/L		577.4	
	SD:	0.003 µg/L	0.003 µg/L			
	%RSD:	0.01				

Seq. No. 27 AS Loc: 22 Date: 2003/09/15 16:03:08
Sample ID: 0903023-9,30 SD (250X ≠ DL)

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		-0.2104 µg/L	-0.2104 µg/L	850.3	-45.7	2003/09/15 16:03:01
		-0.8198 µg/L	-0.8198 µg/L	717.9	-178.1	2003/09/15 16:03:08
	Mean:	-0.5151	-0.5151 µg/L		-111.9	
	SD:	0.43091 µg/L	0.43091 µg/L			
	%RSD:	83.65				
Pb1						
		20.92 µg/L	20.92 µg/L	461.7	261.4	2003/09/15 16:04:01
		20.12 µg/L	20.12 µg/L	451.6	251.3	2003/09/15 16:04:17
	Mean:	20.52	20.52 µg/L		256.3	
	SD:	0.568 µg/L	0.568 µg/L			
	%RSD:	2.77				

Seq. No. 28 AS Loc: 23 Date: 2003/09/15 16:07:42
Sample ID: 0903023-31

Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
		2.714 µg/L	2.714 µg/L	1,485.8	589.7	2003/09/15 16:07:36
		2.595 µg/L	2.595 µg/L	1,459.9	563.8	2003/09/15 16:07:42
	Mean:	2.654	2.654 µg/L		576.8	
	SD:	0.0843 µg/L	0.0843 µg/L			
	%RSD:	3.18				
Pb1						
		12.36 µg/L	12.36 µg/L	354.8	154.5	2003/09/15 16:08:38
		10.08 µg/L	10.08 µg/L	326.2	126.0	2003/09/15 16:08:54
	Mean:	11.22	11.22 µg/L		140.2	
	SD:	1.613 µg/L	1.613 µg/L			
	%RSD:	14.38				

Seq. No. 29 AS Loc: 24 Date: 2003/09/15 16:12:16
Sample ID: 0903023-31 PDS

Analyte		Conc (Calib)		Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1							
		512.3 µg/L		512.3 µg/L	112,205.9	111,309.8	2003/09/15 16:12:10
		509.4 µg/L	101.6 %	509.4 µg/L	111,584.5	110,688.4	2003/09/15 16:12:16
	Mean:	510.8		510.8 µg/L		110,999.1	
	SD:	2.02 µg/L		2.02 µg/L			
	%RSD:	0.40					
Pb1							
		499.2 µg/L		499.2 µg/L	6,436.5	6,236.2	2003/09/15 16:13:10
		503.7 µg/L	98 %	503.7 µg/L	6,492.8	6,292.5	2003/09/15 16:13:26
	Mean:	501.4		501.4 µg/L		6,264.4	
	SD:	3.19 µg/L		3.19 µg/L			
	%RSD:	0.64					

Seq. No.	30	AS Loc:	25	Date:	2003/09/15 16:16:52	
Sample ID:	PQL check					
Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1						
	=2	2.219 µg/L	2.219 µg/L	1,378.2	482.1	2003/09/15 16:16:46
		1.365 µg/L	1.365 µg/L	1,192.6	296.5	2003/09/15 16:16:52
	Mean:	1.792	90% 1.792 µg/L		389.3	
	SD:	0.6039 µg/L	0.6039 µg/L			
	%RSD:	33.71				
Pb1						
	=5	6.745 µg/L	6.745 µg/L	284.6	84.3	2003/09/15 16:17:45
		4.242 µg/L	4.242 µg/L	253.3	53.0	2003/09/15 16:18:01
	Mean:	5.493	110% 5.493 µg/L		68.6	
	SD:	1.7697 µg/L	1.7697 µg/L			
	%RSD:	32.22				

Seq. No.	31	AS Loc:	6	Date:	2003/09/15 16:21:27	
Sample ID:	ICV/CCV					
Analyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1		2003/09/15 16:23:17 All analytes passed QC.				
		1193 µg/L	1193 µg/L	260,172.7	259,276.7	2003/09/15 16:21:21
		1198 µg/L	1198 µg/L	261,166.3	260,270.3	2003/09/15 16:21:27
	Mean:	1196	1196 µg/L		259,773.5	
	SD:	3.2 µg/L				
	%RSD:	0.27				
	2003/09/15 16:23:15 QC value within limits for Cd1 Recovery = 95.64%					
Pb1		2003/09/15 16:23:17 All analytes passed QC.				
		2396 µg/L	2396 µg/L	30,129.4	29,929.1	2003/09/15 16:22:21
		2408 µg/L	2408 µg/L	30,287.3	30,087.0	2003/09/15 16:22:37
	Mean:	2402	2402 µg/L		30,008.1	
	SD:	8.9 µg/L				
	%RSD:	0.37				
	2003/09/15 16:23:15 QC value within limits for Pb1 Recovery = 96.07%					

Seq. No. 32 AS Loc: 1 Date: 2003/09/15 16:57:02
ıple ID: ICB/CCB

.alyte		Conc (Calib)	Conc (Sample)	Net Intensity	Corr. Intensity	Time
Cd1		2003/09/15 16:58:52 All analytes passed QC.				
		0.0665 µg/L	0.0665 µg/L	910.5	14.5	2003/09/15 16:56:56
		-0.1032 µg/L	-0.1032 µg/L	873.6	-22.4	2003/09/15 16:57:02
	Mean:	-0.0183	-0.0183 µg/L		-4.0	
	SD:	0.12003 µg/L				
	%RSD:	655.01				
	2003/09/15 16:58:50 QC value within limits for Cd1 Recovery = Not calculated					
Pb1		2003/09/15 16:58:52 All analytes passed QC.				
		1.118 µg/L	1.118 µg/L	214.3	14.0	2003/09/15 16:57:56
		3.686 µg/L	3.686 µg/L	246.3	46.0	2003/09/15 16:58:12
	Mean:	2.402	2.402 µg/L		30.0	
	SD:	1.8155 µg/L				
	%RSD:	75.59				
	2003/09/15 16:58:50 QC value within limits for Pb1 Recovery = Not calculated					

Analyzed 9/15/03
PDS=Post Digestion Spike
D=Post Digestion Duplicate
=Serial Dilution (5x)

Sample Information Detail Report
Document Name: 0903023

File Description
Custom Stack(0903023) and project 0903014 (total Cr)

Parameters Common To All Samples

Batch ID	0903023
Analyst Name	Smm
Volume Units	L
Weight Units	µg

Parameters That Vary With All Samples

	A/S Location	Sample ID	Aliquot Volume	Diluted To Vol.
001	7	ICSA		
002	8	ICSAB		
003	9	0903023-MB front		
004	10	0903023-LS front		
005	11	0903023-MB back		
006	12	0903023-LS back		
007	13	0903023-36,41		
008	14	0903023-38		
009	15	0903023-1,18		
010	16	0903023-1,18 PDD		
011	17	0903023-19		
012	18	0903023-5,24		
013	19	0903023-5,24 PDS		
014	20	0903023-25		
015	21	0903023-9,30		
016	22	0903023-9,30 SD		
017	23	0903023-31		
018	24	0903023-31 PDS		
019	25	PQL check		
020	26	0903014-MB		
021	27	0903014-LS		
022	28	0903014-29		
023	29	0903014-2		
024	30	0903014-4		
025	31	0903014-6		
026	32	0903014-6 PDS		
027	33	0903014-25		
028	34	0903014-26		
029	35	0903014-27		
030	36	0903014-27 PDD		
031	7	ICSA		
032	8	ICSAB		

	Matrix Check Sample	Analyze QCs Before
001		2,1
002		
003		
004		
005		
006		
007		
008		
009		2,1
010		
011		
012		

RAW

Cd1	Lin Thru 0	Peak Area	Axial	None	No
Cd2	Lin Thru 0	Peak Area	Axial	None	No
Cr2	Lin Thru 0	Peak Area	Axial	None	No
Cr1	Lin Thru 0	Peak Area	Axial	None	No
Fe	Lin Thru 0	Peak Area	Radial	None	No
K1	Lin Thru 0	Peak Area	Radial	None	No
Mg1	Lin Thru 0	Peak Area	Radial	None	No
Mn1	Lin Thru 0	Peak Area	Axial	None	No
Pb1	Lin Thru 0	Peak Area	Axial	None	No
Pb2	Lin Thru 0	Peak Area	Axial	None	No

Sequence No.: 1
Sample ID: Std Blk
Analyst:
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/15/03 12:33:27 PM

Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: Std Blk

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Al1	-4345.2	-4345.2	[0.00]	µg/L	12:34:14
1	Fe	4756.4	4756.4	[0.00]	µg/L	12:34:26
1	K1	3378.6	3378.6	[0.00]	µg/L	12:34:41
1	Mg1	3357.1	3357.1	[0.00]	µg/L	12:34:54
1	Ca	-2376.7	-2376.7	[0.00]	µg/L	12:35:11
1	Cd1	864.6	864.6	[0.00]	µg/L	12:35:21
1	Cd2	-1343.2	-1343.2	[0.00]	µg/L	12:35:33
1	Cr2	38.9	38.9	[0.00]	µg/L	12:35:47
1	Cr1	721.3	721.3	[0.00]	µg/L	12:35:59
1	Mn1	5070.5	5070.5	[0.00]	µg/L	12:36:11
1	Pb1	195.6	195.6	[0.00]	µg/L	12:36:21
1	Pb2	8404.3	8404.3	[0.00]	µg/L	12:36:56
2	Al1	-6085.7	-6085.7	[0.00]	µg/L	12:34:20
2	Fe	4357.1	4357.1	[0.00]	µg/L	12:34:31
2	K1	4803.2	4803.2	[0.00]	µg/L	12:34:45
2	Mg1	3232.2	3232.2	[0.00]	µg/L	12:34:58
2	Ca	-2091.8	-2091.8	[0.00]	µg/L	12:35:15
2	Cd1	927.5	927.5	[0.00]	µg/L	12:35:27
2	Cd2	-1284.5	-1284.5	[0.00]	µg/L	12:35:39
2	Cr2	-43.3	-43.3	[0.00]	µg/L	12:35:53
2	Cr1	848.1	848.1	[0.00]	µg/L	12:36:04
2	Mn1	5192.3	5192.3	[0.00]	µg/L	12:36:16
2	Pb1	205.0	205.0	[0.00]	µg/L	12:36:37
2	Pb2	8251.9	8251.9	[0.00]	µg/L	12:37:06

Mean Data: Std Blk

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Al1	-5215.4	1230.69	23.60%	[0.00]	µg/L
Ca	-2234.3	201.45	9.02%	[0.00]	µg/L
Cd1	896.1	44.42	4.96%	[0.00]	µg/L
Cd2	-1313.8	41.53	3.16%	[0.00]	µg/L
Cr2	-2.2	58.16	>999.9%	[0.00]	µg/L
Cr1	784.7	89.62	11.42%	[0.00]	µg/L
Fe	4556.8	282.39	6.20%	[0.00]	µg/L
K1	4090.9	1007.37	24.62%	[0.00]	µg/L
Mg1	3294.7	88.28	2.68%	[0.00]	µg/L
Mn1	5131.4	86.10	1.68%	[0.00]	µg/L
Pb1	200.3	6.63	3.31%	[0.00]	µg/L
Pb2	8328.1	107.75	1.29%	[0.00]	µg/L

Sequence No.: 2
Sample ID: Std1
Analyst:
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 9/15/03 12:38:00 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: Std1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Al1	606612.3	611827.8	[10000]	µg/L	12:38:50
1	Fe	200855.4	196298.6	[5000]	µg/L	12:39:00
1	K1	694268.0	690177.1	[25000]	µg/L	12:39:15
1	Mg1	125476.3	122181.7	[25000]	µg/L	12:39:28
1	Ca	4643903.2	4646137.5	[25000]	µg/L	12:39:44
1	Cr2	302233.6	302235.7	[1000]	µg/L	12:39:55
1	Cr1	280016.4	279231.7	[1000]	µg/L	12:40:07
1	Mn1	5752214.8	5747083.4	[2500]	µg/L	12:40:19
2	Al1	608843.6	614059.0	[10000]	µg/L	12:38:54
2	Fe	191807.6	187250.8	[5000]	µg/L	12:39:06
2	K1	701607.2	697516.3	[25000]	µg/L	12:39:19
2	Mg1	128892.5	125597.8	[25000]	µg/L	12:39:32
2	Ca	4446429.3	4448663.5	[25000]	µg/L	12:39:48
2	Cr2	299507.2	299509.4	[1000]	µg/L	12:40:01
2	Cr1	283190.6	282405.9	[1000]	µg/L	12:40:12
2	Mn1	5909360.6	5904229.2	[2500]	µg/L	12:40:23

Mean Data: Std1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Al1	612943.4	1577.71	0.26%	[10000]	µg/L
Ca	4547400.5	139635.17	3.07%	[25000]	µg/L
Cr2	300872.6	1927.83	0.64%	[1000]	µg/L
Cr1	280818.8	2244.53	0.80%	[1000]	µg/L
Fe	191774.7	6397.74	3.34%	[5000]	µg/L
K1	693846.7	5189.61	0.75%	[25000]	µg/L
Mg1	123889.8	2415.61	1.95%	[25000]	µg/L
Mn1	5825656.3	111118.91	1.91%	[2500]	µg/L

Sequence No.: 3
Sample ID: Std2
Analyst:
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 9/15/03 12:41:12 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: Std2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Al1	53680.1	58895.5	[1000]	µg/L	12:42:02
1	Fe	24131.1	19574.3	[500]	µg/L	12:42:13
1	K1	74017.3	69926.4	[2500]	µg/L	12:42:27
1	Mg1	14357.9	11063.2	[2500]	µg/L	12:42:40
1	Ca	461988.2	464222.5	[2500]	µg/L	12:42:57
1	Cd1	54355.6	53459.6	[250]	µg/L	12:43:07
1	Cd2	42006.6	43320.4	[250]	µg/L	12:43:20
1	Cr2	30435.2	30437.4	[100]	µg/L	12:43:34
1	Cr1	26812.0	26027.3	[100]	µg/L	12:43:46
1	Mn1	584614.2	579482.8	[250]	µg/L	12:43:58
1	Pb1	6333.2	6132.9	[500]	µg/L	12:44:08
1	Pb2	38636.9	30308.8	[500]	µg/L	12:44:43
2	Al1	53993.9	59209.3	[1000]	µg/L	12:42:07

2	Fe	22443.4	17886.7	[500]	µg/L	12:42:18
2	K1	74622.3	70531.4	[2500]	µg/L	12:42:32
2	Mg1	15742.7	12448.1	[2500]	µg/L	12:42:45
2	Ca	457105.8	459340.1	[2500]	µg/L	12:43:01
2	Cd1	53930.8	53034.8	[250]	µg/L	12:43:14
2	Cd2	41229.0	42542.8	[250]	µg/L	12:43:26
2	Cr2	30044.7	30046.8	[100]	µg/L	12:43:40
2	Cr1	26976.8	26192.1	[100]	µg/L	12:43:51
2	Mn1	589187.7	584056.3	[250]	µg/L	12:44:02
2	Pb1	6357.4	6157.1	[500]	µg/L	12:44:24
2	Pb2	38624.7	30296.6	[500]	µg/L	12:44:54

Mean Data: Std2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Al1	59052.4	221.88	0.38%	[1000]	µg/L
Ca	461781.3	3452.37	0.75%	[2500]	µg/L
Cd1	53247.2	300.38	0.56%	[250]	µg/L
Cd2	42931.6	549.86	1.28%	[250]	µg/L
Cr2	30242.1	276.16	0.91%	[100]	µg/L
Cr1	26109.7	116.58	0.45%	[100]	µg/L
Fe	18730.5	1193.32	6.37%	[500]	µg/L
K1	70228.9	427.77	0.61%	[2500]	µg/L
Mg1	11755.6	979.23	8.33%	[2500]	µg/L
Mn1	581769.5	3233.96	0.56%	[250]	µg/L
Pb1	6145.0	17.10	0.28%	[500]	µg/L
Pb2	30302.7	8.62	0.03%	[500]	µg/L

Sequence No.: 4 **Autosampler Location:** 4
Sample ID: Std3 **Date Collected:** 9/15/03 12:45:48 PM
Analyst:
Nebulizer Back Pressure: 132.0 kPa **Nebulizer Flow:** 0.80 L/min
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type:** Original

Replicate Data: Std3

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Cd1	547200.6	546304.5	[2500]	µg/L	12:46:35
1	Cd2	432804.4	434118.3	[2500]	µg/L	12:46:48
1	Pb1	62867.0	62666.7	[5000]	µg/L	12:47:01
1	Pb2	299357.2	291029.1	[5000]	µg/L	12:47:37
2	Cd1	541259.7	540363.6	[2500]	µg/L	12:46:41
2	Cd2	434627.9	435941.7	[2500]	µg/L	12:46:54
2	Pb1	62490.3	62290.0	[5000]	µg/L	12:47:18
2	Pb2	300770.1	292442.0	[5000]	µg/L	12:47:46

Mean Data: Std3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Cd1	543334.1	4200.87	0.77%	[2500]	µg/L
Cd2	435030.0	1289.38	0.30%	[2500]	µg/L
Pb1	62478.4	266.33	0.43%	[5000]	µg/L
Pb2	291735.6	999.03	0.34%	[5000]	µg/L

Sequence No.: 5 **Autosampler Location:** 5
Sample ID: Std4 **Date Collected:** 9/15/03 12:48:41 PM
Analyst:
Nebulizer Back Pressure: 133.0 kPa **Nebulizer Flow:** 0.80 L/min
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type:** Original

Replicate Data: Std4

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Cd1	6625.2	5729.1	[25]	µg/L	12:49:28
1	Cd2	3151.1	4465.0	[25]	µg/L	12:49:41
1	Cr2	2936.4	2938.6	[10]	µg/L	12:49:54
1	Cr1	3416.6	2631.9	[10]	µg/L	12:50:06
1	Pb1	827.1	626.8	[50]	µg/L	12:50:18
1	Pb2	11077.4	2749.3	[50]	µg/L	12:50:52
2	Cd1	6479.3	5583.3	[25]	µg/L	12:49:34
2	Cd2	3073.7	4387.5	[25]	µg/L	12:49:47
2	Cr2	2847.8	2850.0	[10]	µg/L	12:49:59
2	Cr1	3582.5	2797.8	[10]	µg/L	12:50:11
2	Pb1	808.7	608.5	[50]	µg/L	12:50:34
2	Pb2	11059.6	2731.6	[50]	µg/L	12:51:03

Mean Data: Std4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Cd1	5656.2	103.14	1.82%	[25]	µg/L
Cd2	4426.2	54.75	1.24%	[25]	µg/L
Cr2	2894.3	62.69	2.17%	[10]	µg/L
Cr1	2714.9	117.35	4.32%	[10]	µg/L
Pb1	617.6	12.96	2.10%	[50]	µg/L
Pb2	2740.5	12.58	0.46%	[50]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Al1	2	Lin Thru 0	0.0	61.27	0.00000	0.999993	
Ca	2	Lin Thru 0	0.0	181.9	0.00000	0.999999	
Cd1	3	Lin Thru 0	0.0	217.3	0.00000	0.999998	
Cd2	3	Lin Thru 0	0.0	174.0	0.00000	0.999999	
Cr2	3	Lin Thru 0	0.0	300.9	0.00000	1.000000	
Cr1	3	Lin Thru 0	0.0	280.6	0.00000	0.999976	
Fe	2	Lin Thru 0	0.0	38.35	0.00000	0.999997	
K1	2	Lin Thru 0	0.0	27.76	0.00000	0.999999	
Mg1	2	Lin Thru 0	0.0	4.953	0.00000	0.999987	
Mn1	2	Lin Thru 0	0.0	2330	0.00000	1.000000	
Pb1	3	Lin Thru 0	0.0	12.49	0.00000	0.999999	
Pb2	3	Lin Thru 0	0.0	58.37	0.00000	0.999992	

Analytical Sequence
Method: 0903023

Seq.	Loc.	ID	Status
1	1	Std Blk	Applied
2	2	Std1	Applied
3	3	Std2	Applied
4	4	Std3	Applied
5	5	Std4	Applied

Analysis Begun

Start Time: 9/15/03 2:23:51 PM
Logged In Analyst: Administrator
Spectrometer Model: Optima 2000 DV

Plasma On Time: 9/15/03 9:37:19 AM
Technique: ICP Continuous
Autosampler Model: AS-90plus

Sample Information File: D:\pe\Administrator\Sample Information\0903023.sif
Results Data Set: 0903023
Results Library: D:\pe\Administrator\Results\results2003.mdb

Sequence No.: 1
Sample ID: High Standard 2
Analyst:
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 9/15/03 2:23:51 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: High Standard 2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	-4774.6	440.8	7.194	µg/L	7.194	µg/L	14:24:41
1	Fe	4837.4	280.7	7.320	µg/L	7.320	µg/L	14:24:52
1	K1	1446.2	-2644.7	-95.28	µg/L	-95.28	µg/L	14:25:06
1	Mg1	3005.5	-289.2	-58.38	µg/L	-58.38	µg/L	14:25:19
1	Ca	905.8	3140.1	17.26	µg/L	17.26	µg/L	14:25:35
1	Cd1	497267.5	496371.4	2284	µg/L	2284	µg/L	14:25:45
1	Cd2	407858.6	409172.4	2352	µg/L	2352	µg/L	14:25:58
1	Cr2	-180.9	-178.7	-0.5940	µg/L	-0.5940	µg/L	14:26:11
1	Cr1	1272.3	487.6	1.738	µg/L	1.738	µg/L	14:26:23
1	Mn1	5379.9	248.5	0.1067	µg/L	0.1067	µg/L	14:26:34
1	Pb1	60502.1	60301.8	4827	µg/L	4827	µg/L	14:26:46
1	Pb2	298351.9	290023.8	4969	µg/L	4969	µg/L	14:27:21
2	Al1	-5081.3	134.1	2.188	µg/L	2.188	µg/L	14:24:46
2	Fe	4612.8	56.0	1.460	µg/L	1.460	µg/L	14:24:56
2	K1	5701.2	1610.3	58.01	µg/L	58.01	µg/L	14:25:10
2	Mg1	2794.1	-500.6	-101.1	µg/L	-101.1	µg/L	14:25:23
2	Ca	2530.6	4764.9	26.19	µg/L	26.19	µg/L	14:25:39
2	Cd1	494770.2	493874.1	2273	µg/L	2273	µg/L	14:25:51
2	Cd2	405668.7	406982.5	2339	µg/L	2339	µg/L	14:26:04
2	Cr2	-93.3	-91.1	-0.3029	µg/L	-0.3029	µg/L	14:26:16
2	Cr1	1161.1	376.4	1.341	µg/L	1.341	µg/L	14:26:28
2	Mn1	5532.5	401.1	0.1721	µg/L	0.1721	µg/L	14:26:40
2	Pb1	60095.7	59895.4	4794	µg/L	4794	µg/L	14:27:02
2	Pb2	299433.0	291104.9	4987	µg/L	4987	µg/L	14:27:31

Mean Data: High Standard 2

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	287.5	4.691	µg/L	3.5397	4.691	µg/L	3.5397	75.45%
Ca	3952.5	21.73	µg/L	6.315	21.73	µg/L	6.315	29.07%
Cd1	495122.8	2279	µg/L	8.1	2279	µg/L	8.1	0.36%
QC value within limits for Cd1		Recovery = 91.14%						
Cd2	408077.4	2345	µg/L	8.9	2345	µg/L	8.9	0.38%
QC value within limits for Cd2		Recovery = 93.82%						
Cr2	-134.9	-0.4484	µg/L	0.20583	-0.4484	µg/L	0.20583	45.90%
Cr1	432.0	1.539	µg/L	0.2801	1.539	µg/L	0.2801	18.20%
Fe	168.3	4.390	µg/L	4.1432	4.390	µg/L	4.1432	94.38%
K1	-517.2	-18.63	µg/L	108.395	-18.63	µg/L	108.395	581.75%
Mg1	-394.9	-79.72	µg/L	30.178	-79.72	µg/L	30.178	37.86%
Mn1	324.8	0.1394	µg/L	0.04629	0.1394	µg/L	0.04629	33.21%
Pb1	60098.6	4810	µg/L	23.0	4810	µg/L	23.0	0.48%
QC value within limits for Pb1		Recovery = 96.21%						
Pb2	290564.4	4978	µg/L	13.1	4978	µg/L	13.1	0.26%
QC value within limits for Pb2		Recovery = 99.56%						

All analytes passed QC.

Sequence No.: 2
Sample ID: ICV/CCV
Analyst:
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 9/15/03 2:28:26 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: ICV/CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	303361.3	308576.7	5036	µg/L	5036	µg/L	14:29:17
1	Fe	93501.6	88944.9	2320	µg/L	2320	µg/L	14:29:28
1	K1	359109.7	355018.8	12790	µg/L	12790	µg/L	14:29:43
1	Mg1	63314.1	60019.4	12120	µg/L	12120	µg/L	14:29:56
1	Ca	2084972.1	2087206.3	11470	µg/L	11470	µg/L	14:30:13
1	Cd1	254127.1	253231.1	1165	µg/L	1165	µg/L	14:30:22
1	Cd2	194622.1	195935.9	1126	µg/L	1126	µg/L	14:30:35
1	Cr2	144042.7	144044.9	478.7	µg/L	478.7	µg/L	14:30:48
1	Cr1	140739.7	139955.0	498.7	µg/L	498.7	µg/L	14:31:01
1	Mn1	2862333.7	2857202.3	1226	µg/L	1226	µg/L	14:31:13
1	Pb1	30199.9	29999.6	2401	µg/L	2401	µg/L	14:31:23
1	Pb2	162460.0	154131.9	2641	µg/L	2641	µg/L	14:31:57
2	Al1	298905.9	304121.3	4963	µg/L	4963	µg/L	14:29:22
2	Fe	93296.9	88740.2	2314	µg/L	2314	µg/L	14:29:34
2	K1	367991.0	363900.1	13110	µg/L	13110	µg/L	14:29:47
2	Mg1	63602.8	60308.2	12180	µg/L	12180	µg/L	14:30:00
2	Ca	2171523.7	2173758.0	11950	µg/L	11950	µg/L	14:30:16
2	Cd1	253387.2	252491.2	1162	µg/L	1162	µg/L	14:30:28
2	Cd2	197685.0	198998.9	1144	µg/L	1144	µg/L	14:30:41
2	Cr2	144885.5	144887.7	481.5	µg/L	481.5	µg/L	14:30:54
2	Cr1	134946.9	134162.3	478.1	µg/L	478.1	µg/L	14:31:06
2	Mn1	2817840.4	2812709.0	1207	µg/L	1207	µg/L	14:31:17
2	Pb1	30322.6	30122.3	2411	µg/L	2411	µg/L	14:31:39
2	Pb2	163863.4	155535.3	2665	µg/L	2665	µg/L	14:32:07

Mean Data: ICV/CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	306349.0	5000	µg/L	51.4	5000	µg/L	51.4	1.03%
QC value within limits for Al1 Recovery = 100.00%								
Ca	2130482.2	11710	µg/L	336.4	11710	µg/L	336.4	2.87%
QC value within limits for Ca Recovery = 93.69%								
Cd1	252861.1	1164	µg/L	2.4	1164	µg/L	2.4	0.21%
QC value within limits for Cd1 Recovery = 93.10%								
Cd2	197467.4	1135	µg/L	12.4	1135	µg/L	12.4	1.10%
QC value within limits for Cd2 Recovery = 90.79%								
Cr2	144466.3	480.1	µg/L	1.98	480.1	µg/L	1.98	0.41%
QC value within limits for Cr2 Recovery = 96.03%								
Cr1	137058.6	488.4	µg/L	14.60	488.4	µg/L	14.60	2.99%
QC value within limits for Cr1 Recovery = 97.68%								
Fe	88842.5	2317	µg/L	3.8	2317	µg/L	3.8	0.16%
QC value within limits for Fe Recovery = 92.67%								
K1	359459.4	12950	µg/L	226.2	12950	µg/L	226.2	1.75%
QC value within limits for K1 Recovery = 103.60%								
Mg1	60163.8	12150	µg/L	41.2	12150	µg/L	41.2	0.34%
QC value within limits for Mg1 Recovery = 97.17%								
Mn1	2834955.7	1217	µg/L	13.5	1217	µg/L	13.5	1.11%
QC value within limits for Mn1 Recovery = 97.33%								
Pb1	30061.0	2406	µg/L	6.9	2406	µg/L	6.9	0.29%
QC value within limits for Pb1 Recovery = 96.24%								
Pb2	154833.6	2653	µg/L	17.0	2653	µg/L	17.0	0.64%
QC value within limits for Pb2 Recovery = 106.11%								

All analytes passed QC.

Sequence No.: 3
Sample ID: ICB/CCB
Analyst:
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:

Autosampler Location: 1
Date Collected: 9/15/03 2:33:02 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:

Dilution: Data Type: Original

Replicate Data: ICB/CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Al1	-4651.9	563.5	9.197	µg/L	9.197	µg/L	14:33:52
1	Fe	4663.7	106.9	2.789	µg/L	2.789	µg/L	14:34:04
1	K1	4588.5	497.6	17.93	µg/L	17.93	µg/L	14:34:17
1	Mg1	2981.8	-312.9	-63.17	µg/L	-63.17	µg/L	14:34:31
1	Ca	-1206.6	1027.6	5.649	µg/L	5.649	µg/L	14:34:49
1	Cd1	940.4	44.4	0.2042	µg/L	0.2042	µg/L	14:34:59
1	Cd2	-1357.8	-43.9	-0.2525	µg/L	-0.2525	µg/L	14:35:11
1	Cr2	8.4	10.6	0.0351	µg/L	0.0351	µg/L	14:35:25
1	Cr1	1007.5	222.9	0.7942	µg/L	0.7942	µg/L	14:35:37
1	Mn1	5449.6	318.2	0.1365	µg/L	0.1365	µg/L	14:35:49
1	Pb1	218.0	17.7	1.419	µg/L	1.419	µg/L	14:36:00
1	Pb2	9255.8	927.7	15.89	µg/L	15.89	µg/L	14:36:35
2	Al1	-5510.8	-295.3	-4.820	µg/L	-4.820	µg/L	14:33:58
2	Fe	5236.8	680.0	17.73	µg/L	17.73	µg/L	14:34:08
2	K1	5232.6	1141.7	41.13	µg/L	41.13	µg/L	14:34:22
2	Mg1	3051.9	-242.8	-49.02	µg/L	-49.02	µg/L	14:34:37
2	Ca	-1048.0	1186.3	6.521	µg/L	6.521	µg/L	14:34:53
2	Cd1	962.0	66.0	0.3037	µg/L	0.3037	µg/L	14:35:05
2	Cd2	-1252.4	61.4	0.3530	µg/L	0.3530	µg/L	14:35:17
2	Cr2	84.2	86.4	0.2870	µg/L	0.2870	µg/L	14:35:31
2	Cr1	1100.4	315.7	1.125	µg/L	1.125	µg/L	14:35:43
2	Mn1	5817.4	686.0	0.2944	µg/L	0.2944	µg/L	14:35:55
2	Pb1	249.5	49.2	3.941	µg/L	3.941	µg/L	14:36:16
2	Pb2	9298.9	970.9	16.63	µg/L	16.63	µg/L	14:36:45

Mean Data: ICB/CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	134.1	2.188	µg/L	9.9113	2.188	µg/L	9.9113	452.89%
QC value within limits for Al1 Recovery = Not calculated								
Ca	1107.0	6.085	µg/L	0.6167	6.085	µg/L	0.6167	10.14%
QC value within limits for Ca Recovery = Not calculated								
Cd1	55.2	0.2539	µg/L	0.07034	0.2539	µg/L	0.07034	27.70%
QC value within limits for Cd1 Recovery = Not calculated								
Cd2	8.7	0.0503	µg/L	0.42820	0.0503	µg/L	0.42820	852.11%
QC value within limits for Cd2 Recovery = Not calculated								
Cr2	48.5	0.1611	µg/L	0.17814	0.1611	µg/L	0.17814	110.59%
QC value within limits for Cr2 Recovery = Not calculated								
Cr1	269.3	0.9596	µg/L	0.23405	0.9596	µg/L	0.23405	24.39%
QC value within limits for Cr1 Recovery = Not calculated								
Fe	393.5	10.26	µg/L	10.568	10.26	µg/L	10.568	102.99%
QC value within limits for Fe Recovery = Not calculated								
K1	819.7	29.53	µg/L	16.409	29.53	µg/L	16.409	55.57%
QC value within limits for K1 Recovery = Not calculated								
Mg1	-277.9	-56.10	µg/L	10.006	-56.10	µg/L	10.006	17.84%
QC value less than the lower limit for Mg1 Recovery = Not calculated								
Mn1	502.1	0.2155	µg/L	0.11162	0.2155	µg/L	0.11162	51.80%
QC value within limits for Mn1 Recovery = Not calculated								
Pb1	33.5	2.680	µg/L	1.7832	2.680	µg/L	1.7832	66.54%
QC value within limits for Pb1 Recovery = Not calculated								
Pb2	949.3	16.26	µg/L	0.523	16.26	µg/L	0.523	3.21%
QC value within limits for Pb2 Recovery = Not calculated								

QC Failed. Continue with analysis.

Sequence No.: 4 Autosampler Location: 7
Sample ID: ICSA Date Collected: 9/15/03 2:37:39 PM
Analyst: Smm
Nebulizer Back Pressure: 132.0 kPa Nebulizer Flow: 0.80 L/min

Sample Wt:
Dilution:
Sample Prep Volume:
Data Type: Original

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	7912154.0	7917369.4	129200	µg/L	129200	µg/L	14:38:31
1	Fe	4199697.4	4195140.7	109400	µg/L	109400	µg/L	14:38:41
1	K1	5622.9	1532.0	55.19	µg/L	55.19	µg/L	14:38:56
1	Mg1	586531.0	583236.3	117800	µg/L	117800	µg/L	14:39:09
1	Ca	Saturated4	Saturated4					14:39:25
Saturated within auto integration window (code 4)								
1	Cd1	1819.8	923.8	4.251	µg/L	4.251	µg/L	14:39:30
1	Cd2	2806.4	4120.2	23.68	µg/L	23.68	µg/L	14:39:43
1	Cr2	4540.5	4542.7	15.10	µg/L	15.10	µg/L	14:39:56
1	Cr1	1939.4	1154.7	4.115	µg/L	4.115	µg/L	14:40:09
1	Mn1	14191.2	9059.8	3.888	µg/L	3.888	µg/L	14:40:20
1	Pb1	255.2	54.9	4.394	µg/L	4.394	µg/L	14:40:32
1	Pb2	26933.9	18605.8	318.8	µg/L	318.8	µg/L	14:41:07
2	Al1	7733210.6	7738426.1	126300	µg/L	126300	µg/L	14:38:35
2	Fe	4111157.0	4106600.2	107100	µg/L	107100	µg/L	14:38:46
2	K1	4842.4	751.5	27.07	µg/L	27.07	µg/L	14:39:00
2	Mg1	569156.6	565862.0	114200	µg/L	114200	µg/L	14:39:13
2	Ca	Saturated4	Saturated4					14:39:27
Saturated within auto integration window (code 4)								
2	Cd1	1756.0	860.0	3.958	µg/L	3.958	µg/L	14:39:36
2	Cd2	2689.3	4003.1	23.01	µg/L	23.01	µg/L	14:39:49
2	Cr2	4562.1	4564.3	15.17	µg/L	15.17	µg/L	14:40:02
2	Cr1	1959.2	1174.5	4.185	µg/L	4.185	µg/L	14:40:14
2	Mn1	13820.7	8689.3	3.729	µg/L	3.729	µg/L	14:40:26
2	Pb1	257.9	57.6	4.607	µg/L	4.607	µg/L	14:40:49
2	Pb2	26838.3	18510.2	317.1	µg/L	317.1	µg/L	14:41:17

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	7827897.7	127800	µg/L	2065.1	127800	µg/L	2065.1	1.62%
Ca	Saturated4							
Saturated within auto integration window (code 4)								
Cd1	891.9	4.104	µg/L	0.2076	4.104	µg/L	0.2076	5.06%
Cd2	4061.6	23.34	µg/L	0.476	23.34	µg/L	0.476	2.04%
Cr2	4553.5	15.13	µg/L	0.051	15.13	µg/L	0.051	0.34%
Cr1	1164.6	4.150	µg/L	0.0500	4.150	µg/L	0.0500	1.21%
Fe	4150870.4	108200	µg/L	1632.7	108200	µg/L	1632.7	1.51%
K1	1141.7	41.13	µg/L	19.883	41.13	µg/L	19.883	48.34%
Mg1	574549.1	116000	µg/L	2480.4	116000	µg/L	2480.4	2.14%
Mn1	8874.5	3.808	µg/L	0.1124	3.808	µg/L	0.1124	2.95%
Pb1	56.2	4.501	µg/L	0.1508	4.501	µg/L	0.1508	3.35%
Pb2	18558.0	317.9	µg/L	1.16	317.9	µg/L	1.16	0.36%
Pb Average		161.2	µg/L	221.64	161.2	µg/L	221.64	137.47%

Sequence No.: 5
Sample ID: ICSAB
Analyst: Smm
Nebulizer Back Pressure: 131.0 kPa
Sample Wt:
Dilution:
Autosampler Location: 8
Date Collected: 9/15/03 2:42:13 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	7547603.5	7552818.9	123300	µg/L	123300	µg/L	14:43:04

1	Fe	4433218.2	4428661.4	115500	µg/L	115500 µg/L	14:43:15
1	K1	35681.9	31591.0	1138	µg/L	1138 µg/L	14:43:29
1	Mg1	588571.5	585276.8	118200	µg/L	118200 µg/L	14:43:42
1	Ca	Saturated4	Saturated4				14:43:58
Saturated within auto integration window (code 4)							
1	Cd1	230667.7	229771.7	1057	µg/L	1057 µg/L	14:44:03
1	Cd2	176111.3	177425.1	1020	µg/L	1020 µg/L	14:44:16
1	Cr2	325727.8	325729.9	1083	µg/L	1083 µg/L	14:44:30
1	Cr1	326504.3	325719.6	1161	µg/L	1161 µg/L	14:44:41
1	Mn1	2502064.2	2496932.9	1072	µg/L	1072 µg/L	14:44:53
1	Pb1	13528.4	13328.1	1067	µg/L	1067 µg/L	14:45:03
1	Pb2	97419.8	89091.7	1526	µg/L	1526 µg/L	14:45:38
2	Al1	7557602.7	7562818.2	123400	µg/L	123400 µg/L	14:43:09
2	Fe	4241035.8	4236479.1	110500	µg/L	110500 µg/L	14:43:20
2	K1	38727.0	34636.1	1248	µg/L	1248 µg/L	14:43:33
2	Mg1	561986.4	558691.7	112800	µg/L	112800 µg/L	14:43:46
2	Ca	Saturated4	Saturated4				14:44:00
Saturated within auto integration window (code 4)							
2	Cd1	228484.7	227588.6	1047	µg/L	1047 µg/L	14:44:09
2	Cd2	176606.5	177920.3	1023	µg/L	1023 µg/L	14:44:22
2	Cr2	325397.9	325400.0	1081	µg/L	1081 µg/L	14:44:35
2	Cr1	323939.0	323154.3	1152	µg/L	1152 µg/L	14:44:46
2	Mn1	2533373.4	2528242.0	1085	µg/L	1085 µg/L	14:44:58
2	Pb1	13616.4	13416.1	1074	µg/L	1074 µg/L	14:45:19
2	Pb2	97340.2	89012.2	1525	µg/L	1525 µg/L	14:45:48

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	7557818.6	123300	µg/L	115.4	123300	µg/L	115.4	0.09%
Ca	Saturated4							
Saturated within auto integration window (code 4)								
Cd1	228680.1	1052	µg/L	7.1	1052	µg/L	7.1	0.68%
Cd2	177672.7	1021	µg/L	2.0	1021	µg/L	2.0	0.20%
Cr2	325565.0	1082	µg/L	0.8	1082	µg/L	0.8	0.07%
Cr1	324437.0	1156	µg/L	6.5	1156	µg/L	6.5	0.56%
Fe	4332570.2	113000	µg/L	3543.9	113000	µg/L	3543.9	3.14%
K1	33113.6	1193	µg/L	77.6	1193	µg/L	77.6	6.50%
Mg1	571984.3	115500	µg/L	3795.3	115500	µg/L	3795.3	3.29%
Mn1	2512587.4	1078	µg/L	9.5	1078	µg/L	9.5	0.88%
Pb1	13372.1	1070	µg/L	5.0	1070	µg/L	5.0	0.47%
Pb2	89051.9	1526	µg/L	1.0	1526	µg/L	1.0	0.06%
Pb Average		1298	µg/L	322.0	1298	µg/L	322.0	24.81%

Analysis Begun

Start Time: 9/15/03 2:48:14 PM
Logged In Analyst: Administrator
Spectrometer Model: Optima 2000 DV

Plasma On Time: 9/15/03 9:37:19 AM
Technique: ICP Continuous
Autosampler Model: AS-90plus

Sample Information File: D:\pe\Administrator\Sample Information\0903023.sif
Results Data Set: 0903023
Results Library: D:\pe\Administrator\Results\results2003.mdb

Sequence No.: 6
Sample ID: 0903023-MB front
Analyst: Smm
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 9/15/03 2:48:14 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-MB front

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	12440.5	17656.0	288.2	µg/L	288.2	µg/L	14:49:04
1	Fe	12771.6	8214.9	214.2	µg/L	214.2	µg/L	14:49:15
1	K1	7848.3	3757.4	135.4	µg/L	135.4	µg/L	14:49:28
1	Mg1	4373.9	1079.2	217.9	µg/L	217.9	µg/L	14:49:42
1	Ca	78120.6	80354.9	441.7	µg/L	441.7	µg/L	14:50:00
1	Cd1	1149.0	252.9	1.164	µg/L	1.164	µg/L	14:50:10
1	Cd2	-1599.7	-285.8	-1.643	µg/L	-1.643	µg/L	14:50:22
1	Cr2	596.3	598.5	1.989	µg/L	1.989	µg/L	14:50:36
1	Cr1	1704.0	919.3	3.276	µg/L	3.276	µg/L	14:50:48
1	Mn1	10547.8	5416.4	2.324	µg/L	2.324	µg/L	14:51:00
1	Pb1	265.9	65.6	5.247	µg/L	5.247	µg/L	14:51:10
1	Pb2	8712.1	384.0	6.580	µg/L	6.580	µg/L	14:51:44
2	Al1	8391.8	13607.2	222.1	µg/L	222.1	µg/L	14:49:09
2	Fe	23056.7	18499.9	482.4	µg/L	482.4	µg/L	14:49:19
2	K1	4666.8	575.9	20.75	µg/L	20.75	µg/L	14:49:34
2	Mg1	3631.3	336.6	67.96	µg/L	67.96	µg/L	14:49:48
2	Ca	77020.8	79255.1	435.6	µg/L	435.6	µg/L	14:50:04
2	Cd1	1114.9	218.9	1.007	µg/L	1.007	µg/L	14:50:16
2	Cd2	-1679.4	-365.6	-2.101	µg/L	-2.101	µg/L	14:50:29
2	Cr2	609.1	611.3	2.032	µg/L	2.032	µg/L	14:50:41
2	Cr1	1472.1	687.4	2.450	µg/L	2.450	µg/L	14:50:53
2	Mn1	11350.0	6218.6	2.669	µg/L	2.669	µg/L	14:51:04
2	Pb1	263.7	63.4	5.072	µg/L	5.072	µg/L	14:51:26
2	Pb2	8734.3	406.2	6.959	µg/L	6.959	µg/L	14:51:54

Mean Data: 0903023-MB front

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	15631.6	255.1	µg/L	46.72	255.1	µg/L	46.72	18.31%
Ca	79805.0	438.7	µg/L	4.27	438.7	µg/L	4.27	0.97%
Cd1	235.9	1.086	µg/L	0.1108	1.086	µg/L	0.1108	10.20%
Cd2	-325.7	-1.872	µg/L	0.3241	-1.872	µg/L	0.3241	17.31%
Cr2	604.9	2.010	µg/L	0.0301	2.010	µg/L	0.0301	1.50%
Cr1	803.4	2.863	µg/L	0.5844	2.863	µg/L	0.5844	20.41%
Fe	13357.4	348.3	µg/L	189.66	348.3	µg/L	189.66	54.45%
K1	2166.7	78.06	µg/L	81.047	78.06	µg/L	81.047	103.83%
Mg1	707.9	142.9	µg/L	106.01	142.9	µg/L	106.01	74.17%
Mn1	5817.5	2.497	µg/L	0.2434	2.497	µg/L	0.2434	9.75%
Pb1	64.5	5.160	µg/L	0.1239	5.160	µg/L	0.1239	2.40%
Pb2	395.1	6.769	µg/L	0.2684	6.769	µg/L	0.2684	3.97%
Pb Average		5.965	µg/L	1.1382	5.965	µg/L	1.1382	19.08%

Sequence No.: 7
Sample ID: 0903023-LS front
Analyst: Smm
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 9/15/03 2:52:48 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-LS front

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	31809.8	37025.2	604.3	µg/L	604.3	µg/L	14:53:38
1	Fe	24131.1	19574.3	510.5	µg/L	510.5	µg/L	14:53:48
1	K1	18622.8	14531.9	523.5	µg/L	523.5	µg/L	14:54:03
1	Mg1	5467.7	2173.1	438.7	µg/L	438.7	µg/L	14:54:16
1	Ca	134143.8	136378.1	749.6	µg/L	749.6	µg/L	14:54:33
1	Cd1	92553.6	91657.5	421.8	µg/L	421.8	µg/L	14:54:42
1	Cd2	74643.4	75957.2	436.6	µg/L	436.6	µg/L	14:54:55
1	Cr2	136289.1	136291.3	453.0	µg/L	453.0	µg/L	14:55:09
1	Cr1	128536.1	127751.4	455.2	µg/L	455.2	µg/L	14:55:21

1	Mn1	1091157.6	1086026.2	466.1 µg/L	466.1 µg/L	14:55:33
1	Pb1	5887.9	5687.6	455.2 µg/L	455.2 µg/L	14:55:43
1	Pb2	36033.1	27705.0	474.7 µg/L	474.7 µg/L	14:56:18
2	Al1	32116.5	37332.0	609.3 µg/L	609.3 µg/L	14:53:42
2	Fe	25480.3	20923.6	545.7 µg/L	545.7 µg/L	14:53:54
2	K1	22194.5	18103.6	652.2 µg/L	652.2 µg/L	14:54:07
2	Mg1	5804.0	2509.3	506.6 µg/L	506.6 µg/L	14:54:20
2	Ca	133791.5	136025.8	747.7 µg/L	747.7 µg/L	14:54:37
2	Cd1	93955.9	93059.8	428.3 µg/L	428.3 µg/L	14:54:48
2	Cd2	74388.5	75702.3	435.1 µg/L	435.1 µg/L	14:55:01
2	Cr2	138619.2	138621.4	460.7 µg/L	460.7 µg/L	14:55:14
2	Cr1	123975.3	123190.6	439.0 µg/L	439.0 µg/L	14:55:26
2	Mn1	1085833.5	1080702.1	463.8 µg/L	463.8 µg/L	14:55:38
2	Pb1	5889.9	5689.6	455.4 µg/L	455.4 µg/L	14:56:00
2	Pb2	36111.8	27783.7	476.0 µg/L	476.0 µg/L	14:56:28

Mean Data: 0903023-LS front

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	37178.6	606.8	µg/L	3.54	606.8	µg/L	3.54	0.58%
Ca	136201.9	748.7	µg/L	1.37	748.7	µg/L	1.37	0.18%
Cd1	92358.7	425.0	µg/L	4.56	425.0	µg/L	4.56	1.07%
Cd2	75829.8	435.8	µg/L	1.04	435.8	µg/L	1.04	0.24%
Cr2	137456.4	456.8	µg/L	5.48	456.8	µg/L	5.48	1.20%
Cr1	125471.0	447.1	µg/L	11.49	447.1	µg/L	11.49	2.57%
Fe	20248.9	528.1	µg/L	24.88	528.1	µg/L	24.88	4.71%
K1	16317.8	587.9	µg/L	90.99	587.9	µg/L	90.99	15.48%
Mg1	2341.2	472.7	µg/L	48.00	472.7	µg/L	48.00	10.16%
Mn1	1083364.1	464.9	µg/L	1.62	464.9	µg/L	1.62	0.35%
Pb1	5688.6	455.3	µg/L	0.11	455.3	µg/L	0.11	0.02%
Pb2	27744.4	475.3	µg/L	0.95	475.3	µg/L	0.95	0.20%
Pb Average		465.3	µg/L	14.15	465.3	µg/L	14.15	3.04%

Sequence No.: 8
Sample ID: 0903023-MB back
Analyst: Smm
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 9/15/03 2:57:22 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-MB back

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	-3179.6	2035.8	33.23	µg/L	33.23	µg/L	14:58:12
1	Fe	6279.5	1722.7	44.93	µg/L	44.93	µg/L	14:58:23
1	K1	3808.0	-282.9	-10.19	µg/L	-10.19	µg/L	14:58:36
1	Mg1	3176.7	-118.0	-23.82	µg/L	-23.82	µg/L	14:58:50
1	Ca	4060.0	6294.2	34.60	µg/L	34.60	µg/L	14:59:08
1	Cd1	998.5	102.4	0.4715	µg/L	0.4715	µg/L	14:59:18
1	Cd2	-1441.2	-127.4	-0.7323	µg/L	-0.7323	µg/L	14:59:30
1	Cr2	119.3	121.4	0.4036	µg/L	0.4036	µg/L	14:59:44
1	Cr1	1284.1	499.4	1.780	µg/L	1.780	µg/L	14:59:56
1	Mn1	6881.2	1749.8	0.7509	µg/L	0.7509	µg/L	15:00:07
1	Pb1	266.3	66.0	5.286	µg/L	5.286	µg/L	15:00:17
1	Pb2	9233.7	905.6	15.51	µg/L	15.51	µg/L	15:00:52
2	Al1	-4368.0	847.4	13.83	µg/L	13.83	µg/L	14:58:17
2	Fe	5215.9	659.1	17.19	µg/L	17.19	µg/L	14:58:27
2	K1	6813.9	2723.0	98.10	µg/L	98.10	µg/L	14:58:41
2	Mg1	2903.3	-391.4	-79.02	µg/L	-79.02	µg/L	14:58:56
2	Ca	4632.4	6866.7	37.75	µg/L	37.75	µg/L	14:59:12
2	Cd1	915.8	19.7	0.0908	µg/L	0.0908	µg/L	14:59:24
2	Cd2	-1394.6	-80.8	-0.4644	µg/L	-0.4644	µg/L	14:59:36
2	Cr2	174.6	176.8	0.5875	µg/L	0.5875	µg/L	14:59:49

2	Cr1	1294.2	509.5	1.816 µg/L	1.816 µg/L	15:00:00
2	Mn1	6943.4	1812.0	0.7776 µg/L	0.7776 µg/L	15:00:12
2	Pb1	281.4	81.1	6.489 µg/L	6.489 µg/L	15:00:33
2	Pb2	9255.0	927.0	15.88 µg/L	15.88 µg/L	15:01:02

Mean Data: 0903023-MB back

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	1441.6	23.53	µg/L	13.714	23.53	µg/L	13.714	58.29%
Ca	6580.5	36.17	µg/L	2.225	36.17	µg/L	2.225	6.15%
Cd1	61.1	0.2811	µg/L	0.26918	0.2811	µg/L	0.26918	95.75%
Cd2	-104.1	-0.5984	µg/L	0.18946	-0.5984	µg/L	0.18946	31.66%
Cr2	149.1	0.4956	µg/L	0.13007	0.4956	µg/L	0.13007	26.25%
Cr1	504.5	1.798	µg/L	0.0255	1.798	µg/L	0.0255	1.42%
Fe	1190.9	31.06	µg/L	19.612	31.06	µg/L	19.612	63.15%
K1	1220.0	43.95	µg/L	76.575	43.95	µg/L	76.575	174.21%
Mg1	-254.7	-51.42	µg/L	39.035	-51.42	µg/L	39.035	75.92%
Mn1	1780.9	0.7643	µg/L	0.01886	0.7643	µg/L	0.01886	2.47%
Pb1	73.6	5.887	µg/L	0.8512	5.887	µg/L	0.8512	14.46%
Pb2	916.3	15.70	µg/L	0.259	15.70	µg/L	0.259	1.65%
Pb Average		10.79	µg/L	6.937	10.79	µg/L	6.937	64.28%

Sequence No.: 9
Sample ID: 0903023-LS back
Analyst: Smm
Nebulizer Back Pressure: 131.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 12
Date Collected: 9/15/03 3:01:56 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-LS back

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	24034.7	29250.2	477.4	µg/L	477.4	µg/L	15:02:46
1	Fe	22248.8	17692.1	461.4	µg/L	461.4	µg/L	15:02:57
1	K1	17080.7	12989.8	468.0	µg/L	468.0	µg/L	15:03:10
1	Mg1	5421.4	2126.7	429.4	µg/L	429.4	µg/L	15:03:24
1	Ca	82085.2	84319.5	463.5	µg/L	463.5	µg/L	15:03:43
1	Cd1	97934.2	97038.1	446.6	µg/L	446.6	µg/L	15:03:53
1	Cd2	74098.0	75411.9	433.4	µg/L	433.4	µg/L	15:04:05
1	Cr2	137034.1	137036.3	455.4	µg/L	455.4	µg/L	15:04:19
1	Cr1	122002.3	121217.6	432.0	µg/L	432.0	µg/L	15:04:32
1	Mn1	1075053.9	1069922.5	459.1	µg/L	459.1	µg/L	15:04:43
1	Pb1	5748.9	5548.7	444.1	µg/L	444.1	µg/L	15:04:53
1	Pb2	36025.9	27697.8	474.5	µg/L	474.5	µg/L	15:05:28
2	Al1	25798.0	31013.4	506.2	µg/L	506.2	µg/L	15:02:51
2	Fe	23680.7	19124.0	498.7	µg/L	498.7	µg/L	15:03:01
2	K1	17334.6	13243.7	477.1	µg/L	477.1	µg/L	15:03:16
2	Mg1	5546.2	2251.5	454.6	µg/L	454.6	µg/L	15:03:30
2	Ca	83180.6	85414.9	469.5	µg/L	469.5	µg/L	15:03:47
2	Cd1	98627.3	97731.3	449.8	µg/L	449.8	µg/L	15:03:59
2	Cd2	73220.6	74534.4	428.4	µg/L	428.4	µg/L	15:04:11
2	Cr2	137860.5	137862.7	458.2	µg/L	458.2	µg/L	15:04:25
2	Cr1	123555.3	122770.6	437.5	µg/L	437.5	µg/L	15:04:37
2	Mn1	1067630.3	1062498.9	456.0	µg/L	456.0	µg/L	15:04:48
2	Pb1	5742.5	5542.2	443.6	µg/L	443.6	µg/L	15:05:09
2	Pb2	35367.9	27039.8	463.3	µg/L	463.3	µg/L	15:05:38

Mean Data: 0903023-LS back

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	30131.8	491.8	µg/L	20.35	491.8	µg/L	20.35	4.14%
Ca	84867.2	466.5	µg/L	4.26	466.5	µg/L	4.26	0.91%

Cd1	97384.7	448.2 µg/L	2.26	448.2 µg/L	2.26	0.50%
Cd2	74973.1	430.9 µg/L	3.57	430.9 µg/L	3.57	0.83%
Cr2	137449.5	456.8 µg/L	1.94	456.8 µg/L	1.94	0.43%
Cr1	121994.1	434.7 µg/L	3.91	434.7 µg/L	3.91	0.90%
Fe	18408.0	480.0 µg/L	26.40	480.0 µg/L	26.40	5.50%
K1	13116.7	472.6 µg/L	6.47	472.6 µg/L	6.47	1.37%
Mg1	2189.1	442.0 µg/L	17.82	442.0 µg/L	17.82	4.03%
Mn1	1066210.7	457.6 µg/L	2.25	457.6 µg/L	2.25	0.49%
Pb1	5545.4	443.9 µg/L	0.36	443.9 µg/L	0.36	0.08%
Pb2	27368.8	468.9 µg/L	7.97	468.9 µg/L	7.97	1.70%
Pb Average		456.4 µg/L	17.70	456.4 µg/L	17.70	3.88%

Sequence No.: 10
Sample ID: 0903023-36,41
Analyst: Smm
Nebulizer Back Pressure: 131.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 9/15/03 3:06:32 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-36,41

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	669145.7	674361.1	11010	µg/L	11010	µg/L	15:07:23
1	Fe	20501.1	15944.3	415.8	µg/L	415.8	µg/L	15:07:33
1	K1	95409.8	91318.9	3290	µg/L	3290	µg/L	15:07:47
1	Mg1	30762.9	27468.2	5546	µg/L	5546	µg/L	15:08:00
1	Ca	2738762.0	2740996.3	15070	µg/L	15070	µg/L	15:08:16
1	Cd1	322.0	-574.1	-2.642	µg/L	-2.642	µg/L	15:08:26
1	Cd2	-352.8	961.0	5.523	µg/L	5.523	µg/L	15:08:39
1	Cr2	4788.0	4790.1	15.92	µg/L	15.92	µg/L	15:08:52
1	Cr1	5715.4	4930.7	17.57	µg/L	17.57	µg/L	15:09:04
1	Mn1	48862.4	43731.0	18.77	µg/L	18.77	µg/L	15:09:16
1	Pb1	205.4	5.1	0.4048	µg/L	0.4048	µg/L	15:09:26
1	Pb2	8795.5	467.5	8.009	µg/L	8.009	µg/L	15:10:00
2	Al1	698345.9	703561.3	11480	µg/L	11480	µg/L	15:07:28
2	Fe	21104.3	16547.5	431.5	µg/L	431.5	µg/L	15:07:38
2	K1	94472.6	90381.7	3256	µg/L	3256	µg/L	15:07:51
2	Mg1	32342.7	29048.0	5865	µg/L	5865	µg/L	15:08:04
2	Ca	2575798.9	2578033.2	14170	µg/L	14170	µg/L	15:08:20
2	Cd1	523.5	-372.6	-1.715	µg/L	-1.715	µg/L	15:08:32
2	Cd2	-271.8	1042.0	5.989	µg/L	5.989	µg/L	15:08:45
2	Cr2	5005.9	5008.1	16.64	µg/L	16.64	µg/L	15:08:57
2	Cr1	5679.9	4895.3	17.44	µg/L	17.44	µg/L	15:09:09
2	Mn1	47990.0	42858.6	18.39	µg/L	18.39	µg/L	15:09:20
2	Pb1	262.6	62.3	4.987	µg/L	4.987	µg/L	15:09:42
2	Pb2	8654.2	326.1	5.587	µg/L	5.587	µg/L	15:10:10

Mean Data: 0903023-36,41

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	688961.2	11240	µg/L	337.0	11240	µg/L	337.0	3.00%
Ca	2659514.8	14620	µg/L	633.4	14620	µg/L	633.4	4.33%
Cd1	-473.3	-2.178	µg/L	0.6558	-2.178	µg/L	0.6558	30.10%
Cd2	1001.5	5.756	µg/L	0.3292	5.756	µg/L	0.3292	5.72%
Cr2	4899.1	16.28	µg/L	0.512	16.28	µg/L	0.512	3.15%
Cr1	4913.0	17.51	µg/L	0.089	17.51	µg/L	0.089	0.51%
Fe	16245.9	423.7	µg/L	11.12	423.7	µg/L	11.12	2.63%
K1	90850.3	3273	µg/L	23.9	3273	µg/L	23.9	0.73%
Mg1	28258.1	5705	µg/L	225.5	5705	µg/L	225.5	3.95%
Mn1	43294.8	18.58	µg/L	0.265	18.58	µg/L	0.265	1.42%
Pb1	33.7	2.696	µg/L	3.2404	2.696	µg/L	3.2404	120.19%
Pb2	396.8	6.798	µg/L	1.7120	6.798	µg/L	1.7120	25.18%
Pb Average		4.747	µg/L	2.9005	4.747	µg/L	2.9005	61.10%

Sequence No.: 11
Sample ID: 0903023-38
Analyst: Smm
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 9/15/03 3:11:05 PM

Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-38

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	-1216.6	3998.8	65.26	µg/L	65.26	µg/L	15:11:56
1	Fe	6074.7	1518.0	39.59	µg/L	39.59	µg/L	15:12:06
1	K1	8746.3	4655.4	167.7	µg/L	167.7	µg/L	15:12:20
1	Mg1	3802.5	507.8	102.5	µg/L	102.5	µg/L	15:12:34
1	Ca	84784.0	87018.3	478.3	µg/L	478.3	µg/L	15:12:52
1	Cd1	957.5	61.5	0.2828	µg/L	0.2828	µg/L	15:13:01
1	Cd2	-1707.1	-393.3	-2.261	µg/L	-2.261	µg/L	15:13:14
1	Cr2	1033.2	1035.4	3.441	µg/L	3.441	µg/L	15:13:27
1	Cr1	2086.9	1302.2	4.640	µg/L	4.640	µg/L	15:13:39
1	Mn1	78515.7	73384.3	31.49	µg/L	31.49	µg/L	15:13:51
1	Pb1	294.3	94.0	7.522	µg/L	7.522	µg/L	15:14:01
1	Pb2	8624.6	296.5	5.079	µg/L	5.079	µg/L	15:14:35
2	Al1	-441.9	4773.5	77.91	µg/L	77.91	µg/L	15:12:00
2	Fe	6330.4	1773.7	46.25	µg/L	46.25	µg/L	15:12:11
2	K1	9175.7	5084.8	183.2	µg/L	183.2	µg/L	15:12:25
2	Mg1	3176.7	-118.0	-23.82	µg/L	-23.82	µg/L	15:12:39
2	Ca	81845.0	84079.2	462.2	µg/L	462.2	µg/L	15:12:56
2	Cd1	1071.1	175.1	0.8058	µg/L	0.8058	µg/L	15:13:07
2	Cd2	-1760.4	-446.6	-2.567	µg/L	-2.567	µg/L	15:13:20
2	Cr2	797.6	799.8	2.658	µg/L	2.658	µg/L	15:13:32
2	Cr1	1987.5	1202.9	4.286	µg/L	4.286	µg/L	15:13:44
2	Mn1	77101.1	71969.7	30.89	µg/L	30.89	µg/L	15:13:55
2	Pb1	287.4	87.1	6.969	µg/L	6.969	µg/L	15:14:17
2	Pb2	8594.8	266.7	4.570	µg/L	4.570	µg/L	15:14:45

Mean Data: 0903023-38

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	4386.2	71.59	µg/L	8.940	71.59	µg/L	8.940	12.49%
Ca	85548.8	470.2	µg/L	11.42	470.2	µg/L	11.42	2.43%
Cd1	118.3	0.5443	µg/L	0.36978	0.5443	µg/L	0.36978	67.94%
Cd2	-419.9	-2.414	µg/L	0.2163	-2.414	µg/L	0.2163	8.96%
Cr2	917.6	3.050	µg/L	0.5538	3.050	µg/L	0.5538	18.16%
Cr1	1252.5	4.463	µg/L	0.2504	4.463	µg/L	0.2504	5.61%
Fe	1645.8	42.92	µg/L	4.715	42.92	µg/L	4.715	10.98%
K1	4870.1	175.5	µg/L	10.94	175.5	µg/L	10.94	6.23%
Mg1	194.9	39.36	µg/L	89.339	39.36	µg/L	89.339	227.00%
Mn1	72677.0	31.19	µg/L	0.429	31.19	µg/L	0.429	1.38%
Pb1	90.5	7.245	µg/L	0.3906	7.245	µg/L	0.3906	5.39%
Pb2	281.6	4.825	µg/L	0.3603	4.825	µg/L	0.3603	7.47%
Pb Average		6.035	µg/L	1.7118	6.035	µg/L	1.7118	28.37%

Sequence No.: 12
Sample ID: ICV/CCV
Analyst:
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 9/15/03 3:15:40 PM

Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: ICV/CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Al1	298560.6	303776.0	4958	µg/L	4958	µg/L	15:16:31
1	Fe	94585.2	90028.4	2348	µg/L	2348	µg/L	15:16:42
1	K1	363657.7	359566.8	12950	µg/L	12950	µg/L	15:16:55
1	Mg1	63235.6	59940.9	12100	µg/L	12100	µg/L	15:17:09
1	Ca	2293766.6	2296000.8	12620	µg/L	12620	µg/L	15:17:27
1	Cd1	263999.3	263103.3	1211	µg/L	1211	µg/L	15:17:36
1	Cd2	197896.3	199210.1	1145	µg/L	1145	µg/L	15:17:49
1	Cr2	142576.0	142578.1	473.9	µg/L	473.9	µg/L	15:18:03
1	Cr1	137842.5	137057.8	488.4	µg/L	488.4	µg/L	15:18:14
1	Mn1	2903397.0	2898265.6	1244	µg/L	1244	µg/L	15:18:26
1	Pb1	30177.1	29976.8	2399	µg/L	2399	µg/L	15:18:36
1	Pb2	162548.2	154220.1	2642	µg/L	2642	µg/L	15:19:11
2	Al1	301421.0	306636.5	5005	µg/L	5005	µg/L	15:16:36
2	Fe	91149.8	86593.1	2258	µg/L	2258	µg/L	15:16:46
2	K1	357645.9	353555.0	12740	µg/L	12740	µg/L	15:17:00
2	Mg1	64244.0	60949.3	12310	µg/L	12310	µg/L	15:17:15
2	Ca	2080616.5	2082850.7	11450	µg/L	11450	µg/L	15:17:31
2	Cd1	267812.2	266916.2	1228	µg/L	1228	µg/L	15:17:43
2	Cd2	202170.1	203483.9	1170	µg/L	1170	µg/L	15:17:55
2	Cr2	144604.1	144606.3	480.6	µg/L	480.6	µg/L	15:18:08
2	Cr1	138164.7	137380.0	489.6	µg/L	489.6	µg/L	15:18:19
2	Mn1	2848717.9	2843586.5	1220	µg/L	1220	µg/L	15:18:31
2	Pb1	30248.6	30048.3	2405	µg/L	2405	µg/L	15:18:52
2	Pb2	160716.4	152388.3	2611	µg/L	2611	µg/L	15:19:21

Mean Data: ICV/CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	305206.3	4981	µg/L	33.0	4981	µg/L	33.0	0.66%
QC value within limits for Al1 Recovery = 99.62%								
Ca	2189425.8	12030	µg/L	828.5	12030	µg/L	828.5	6.88%
QC value within limits for Ca Recovery = 96.28%								
Cd1	265009.7	1220	µg/L	12.4	1220	µg/L	12.4	1.02%
QC value within limits for Cd1 Recovery = 97.57%								
Cd2	201347.0	1157	µg/L	17.4	1157	µg/L	17.4	1.50%
QC value within limits for Cd2 Recovery = 92.58%								
Cr2	143592.2	477.2	µg/L	4.77	477.2	µg/L	4.77	1.00%
QC value within limits for Cr2 Recovery = 95.45%								
Cr1	137218.9	489.0	µg/L	0.81	489.0	µg/L	0.81	0.17%
QC value within limits for Cr1 Recovery = 97.80%								
Fe	88310.7	2303	µg/L	63.3	2303	µg/L	63.3	2.75%
QC value within limits for Fe Recovery = 92.12%								
K1	356560.9	12850	µg/L	153.1	12850	µg/L	153.1	1.19%
QC value within limits for K1 Recovery = 102.77%								
Mg1	60445.1	12200	µg/L	144.0	12200	µg/L	144.0	1.18%
QC value within limits for Mg1 Recovery = 97.63%								
Mn1	2870926.0	1232	µg/L	16.6	1232	µg/L	16.6	1.35%
QC value within limits for Mn1 Recovery = 98.56%								
Pb1	30012.6	2402	µg/L	4.0	2402	µg/L	4.0	0.17%
QC value within limits for Pb1 Recovery = 96.09%								
Pb2	153304.2	2626	µg/L	22.2	2626	µg/L	22.2	0.84%
QC value within limits for Pb2 Recovery = 105.06%								

All analytes passed QC.

Sequence No.: 13
Sample ID: ICB/CCB
Analyst:
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/15/03 3:20:16 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: ICB/CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Al1	-4529.2	686.2	11.20	µg/L	11.20	µg/L	15:21:06
1	Fe	4807.4	250.6	6.536	µg/L	6.536	µg/L	15:21:17
1	K1	6169.8	2078.9	74.90	µg/L	74.90	µg/L	15:21:30
1	Mg1	3239.5	-55.1	-11.13	µg/L	-11.13	µg/L	15:21:44
1	Ca	-1731.7	502.6	2.763	µg/L	2.763	µg/L	15:22:02
1	Cd1	798.8	-97.2	-0.4476	µg/L	-0.4476	µg/L	15:22:12
1	Cd2	-1352.1	-38.2	-0.2198	µg/L	-0.2198	µg/L	15:22:24
1	Cr2	3.2	5.4	0.0179	µg/L	0.0179	µg/L	15:22:38
1	Cr1	1227.7	443.0	1.579	µg/L	1.579	µg/L	15:22:49
1	Mn1	5188.5	57.1	0.0245	µg/L	0.0245	µg/L	15:23:01
1	Pb1	208.0	7.7	0.6152	µg/L	0.6152	µg/L	15:23:11
1	Pb2	8677.0	348.9	5.977	µg/L	5.977	µg/L	15:23:46
2	Al1	-5778.9	-563.5	-9.197	µg/L	-9.197	µg/L	15:21:11
2	Fe	5072.2	515.5	13.44	µg/L	13.44	µg/L	15:21:21
2	K1	2090.3	-2000.6	-72.07	µg/L	-72.07	µg/L	15:21:35
2	Mg1	3318.0	23.3	4.713	µg/L	4.713	µg/L	15:21:49
2	Ca	-1749.1	485.2	2.667	µg/L	2.667	µg/L	15:22:06
2	Cd1	775.7	-120.4	-0.5540	µg/L	-0.5540	µg/L	15:22:18
2	Cd2	-1285.0	28.8	0.1658	µg/L	0.1658	µg/L	15:22:30
2	Cr2	-58.3	-56.1	-0.1864	µg/L	-0.1864	µg/L	15:22:43
2	Cr1	1078.4	293.7	1.047	µg/L	1.047	µg/L	15:22:54
2	Mn1	4956.8	-174.6	-0.0749	µg/L	-0.0749	µg/L	15:23:06
2	Pb1	234.6	34.3	2.745	µg/L	2.745	µg/L	15:23:27
2	Pb2	8759.1	431.0	7.384	µg/L	7.384	µg/L	15:23:56

Mean Data: ICB/CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	61.3	1.001	µg/L	14.4221	1.001	µg/L	14.4221	>999.9%
QC value within limits for Al1 Recovery = Not calculated								
Ca	493.9	2.715	µg/L	0.0675	2.715	µg/L	0.0675	2.48%
QC value within limits for Ca Recovery = Not calculated								
Cd1	-108.8	-0.5008	µg/L	0.07525	-0.5008	µg/L	0.07525	15.03%
QC value within limits for Cd1 Recovery = Not calculated								
Cd2	-4.7	-0.0270	µg/L	0.27267	-0.0270	µg/L	0.27267	>999.9%
QC value within limits for Cd2 Recovery = Not calculated								
Cr2	-25.3	-0.0842	µg/L	0.14451	-0.0842	µg/L	0.14451	171.55%
QC value within limits for Cr2 Recovery = Not calculated								
Cr1	368.4	1.313	µg/L	0.3762	1.313	µg/L	0.3762	28.66%
QC value within limits for Cr1 Recovery = Not calculated								
Fe	383.0	9.989	µg/L	4.8836	9.989	µg/L	4.8836	48.89%
QC value within limits for Fe Recovery = Not calculated								
K1	39.2	1.411	µg/L	103.9226	1.411	µg/L	103.9226	>999.9%
QC value within limits for K1 Recovery = Not calculated								
Mg1	-15.9	-3.210	µg/L	11.2052	-3.210	µg/L	11.2052	349.02%
QC value within limits for Mg1 Recovery = Not calculated								
Mn1	-58.7	-0.0252	µg/L	0.07031	-0.0252	µg/L	0.07031	279.06%
QC value within limits for Mn1 Recovery = Not calculated								
Pb1	21.0	1.680	µg/L	1.5057	1.680	µg/L	1.5057	89.63%
QC value within limits for Pb1 Recovery = Not calculated								
Pb2	389.9	6.680	µg/L	0.9950	6.680	µg/L	0.9950	14.89%
QC value within limits for Pb2 Recovery = Not calculated								

All analytes passed QC.

Sequence No.: 14
Sample ID: 0903023-37
Analyst: Smm
Nebulizer Back Pressure: 132.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 77
Date Collected: 9/15/03 3:24:50 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-37

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	-5594.9	-379.5	-6.193	µg/L	-6.193	µg/L	15:25:42
1	Fe	5042.2	485.4	12.66	µg/L	12.66	µg/L	15:25:52
1	K1	5017.9	927.0	33.40	µg/L	33.40	µg/L	15:26:06
1	Mg1	3739.7	445.0	89.85	µg/L	89.85	µg/L	15:26:21
1	Ca	47333.2	49567.4	272.5	µg/L	272.5	µg/L	15:26:38
1	Cd1	789.8	-106.3	-0.4892	µg/L	-0.4892	µg/L	15:26:48
1	Cd2	-1107.2	206.6	1.188	µg/L	1.188	µg/L	15:27:00
1	Cr2	-104.4	-102.2	-0.3398	µg/L	-0.3398	µg/L	15:27:14
1	Cr1	812.6	27.9	0.0996	µg/L	0.0996	µg/L	15:27:26
1	Mn1	8417.0	3285.6	1.410	µg/L	1.410	µg/L	15:27:38
1	Pb1	198.9	-1.4	-0.1124	µg/L	-0.1124	µg/L	15:27:48
1	Pb2	8427.5	99.4	1.703	µg/L	1.703	µg/L	15:28:22
2	Al1	-5633.4	-418.0	-6.822	µg/L	-6.822	µg/L	15:25:46
2	Fe	4408.0	-148.7	-3.879	µg/L	-3.879	µg/L	15:25:56
2	K1	2812.8	-1278.1	-46.05	µg/L	-46.05	µg/L	15:26:12
2	Mg1	3552.0	257.4	51.96	µg/L	51.96	µg/L	15:26:26
2	Ca	43595.5	45829.8	251.9	µg/L	251.9	µg/L	15:26:42
2	Cd1	829.5	-66.6	-0.3064	µg/L	-0.3064	µg/L	15:26:54
2	Cd2	-1267.9	45.9	0.2639	µg/L	0.2639	µg/L	15:27:06
2	Cr2	-111.9	-109.7	-0.3647	µg/L	-0.3647	µg/L	15:27:19
2	Cr1	798.1	13.4	0.0478	µg/L	0.0478	µg/L	15:27:31
2	Mn1	9282.0	4150.6	1.781	µg/L	1.781	µg/L	15:27:42
2	Pb1	206.2	5.9	0.4705	µg/L	0.4705	µg/L	15:28:04
2	Pb2	8625.5	297.4	5.096	µg/L	5.096	µg/L	15:28:32

Mean Data: 0903023-37

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	-398.7	-6.508	µg/L	0.4448	-6.508	µg/L	0.4448	6.83%
Ca	47698.6	262.2	µg/L	14.53	262.2	µg/L	14.53	5.54%
Cd1	-86.4	-0.3978	µg/L	0.12929	-0.3978	µg/L	0.12929	32.50%
Cd2	126.3	0.7258	µg/L	0.65315	0.7258	µg/L	0.65315	89.99%
Cr2	-106.0	-0.3523	µg/L	0.01763	-0.3523	µg/L	0.01763	5.01%
Cr1	20.7	0.0737	µg/L	0.03656	0.0737	µg/L	0.03656	49.60%
Fe	168.3	4.390	µg/L	11.6937	4.390	µg/L	11.6937	266.37%
K1	-175.5	-6.324	µg/L	56.1755	-6.324	µg/L	56.1755	888.23%
Mg1	351.2	70.90	µg/L	26.791	70.90	µg/L	26.791	37.78%
Mn1	3718.1	1.596	µg/L	0.2625	1.596	µg/L	0.2625	16.45%
Pb1	2.2	0.1790	µg/L	0.41212	0.1790	µg/L	0.41212	230.19%
Pb2	198.4	3.399	µg/L	2.3988	3.399	µg/L	2.3988	70.56%
Pb Average		1.789	µg/L	2.2771	1.789	µg/L	2.2771	127.27%

Sequence No.: 15
Sample ID: 0903023-1,18
Analyst: Smm
Nebulizer Back Pressure: 131.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 9/15/03 3:29:28 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-1,18

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	3752413.2	3757628.7	61330	µg/L	61330	µg/L	15:30:19
1	Fe	90066.3	85509.6	2230	µg/L	2230	µg/L	15:30:30
1	K1	676154.3	672063.4	24210	µg/L	24210	µg/L	15:30:43
1	Mg1	333840.5	330545.8	66740	µg/L	66740	µg/L	15:30:57
1	Ca	Saturated4	Saturated4					15:31:16
	Saturated within auto integration window (code 4)							
1	Cd1	3037.7	2141.7	9.856	µg/L	9.856	µg/L	15:31:21

1	Cd2	772.9	2086.7	11.99 µg/L	11.99 µg/L	15:31:33
1	Cr2	43408.5	43410.7	144.3 µg/L	144.3 µg/L	15:31:47
1	Cr1	47854.5	47069.8	167.7 µg/L	167.7 µg/L	15:31:59
1	Mn1	272867.0	267735.6	114.9 µg/L	114.9 µg/L	15:32:10
1	Pb1	1064.9	864.6	69.21 µg/L	69.21 µg/L	15:32:20
1	Pb2	25692.0	17363.9	297.5 µg/L	297.5 µg/L	15:32:55
2	Al1	3833595.5	3838810.9	62650 µg/L	62650 µg/L	15:30:24
2	Fe	90720.4	86163.7	2247 µg/L	2247 µg/L	15:30:34
2	K1	664209.0	660118.1	23780 µg/L	23780 µg/L	15:30:49
2	Mg1	332416.5	329121.9	66450 µg/L	66450 µg/L	15:31:04
2	Ca	Saturated4	Saturated4			15:31:18
Saturated within auto integration window (code 4)						
2	Cd1	3133.4	2237.3	10.30 µg/L	10.30 µg/L	15:31:27
2	Cd2	634.5	1948.4	11.20 µg/L	11.20 µg/L	15:31:39
2	Cr2	43720.9	43723.0	145.3 µg/L	145.3 µg/L	15:31:52
2	Cr1	46638.1	45853.4	163.4 µg/L	163.4 µg/L	15:32:04
2	Mn1	280967.8	275836.4	118.4 µg/L	118.4 µg/L	15:32:15
2	Pb1	1075.0	874.7	70.01 µg/L	70.01 µg/L	15:32:37
2	Pb2	25626.0	17297.9	296.4 µg/L	296.4 µg/L	15:33:05

Mean Data: 0903023-1,18

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	3798219.8	61990	µg/L	936.9	61990	µg/L	936.9	1.51%
Ca	Saturated4							
Saturated within auto integration window (code 4)								
Cd1	2189.5	10.08	µg/L	0.311	10.08	µg/L	0.311	3.09%
Cd2	2017.5	11.60	µg/L	0.562	11.60	µg/L	0.562	4.85%
Cr2	43566.9	144.8	µg/L	0.73	144.8	µg/L	0.73	0.51%
Cr1	46461.6	165.6	µg/L	3.06	165.6	µg/L	3.06	1.85%
Fe	85836.6	2238	µg/L	12.1	2238	µg/L	12.1	0.54%
K1	666090.7	24000	µg/L	304.3	24000	µg/L	304.3	1.27%
Mg1	329833.8	66590	µg/L	203.3	66590	µg/L	203.3	0.31%
Mn1	271786.0	116.6	µg/L	2.46	116.6	µg/L	2.46	2.11%
Pb1	869.7	69.61	µg/L	0.568	69.61	µg/L	0.568	0.82%
Pb2	17330.9	296.9	µg/L	0.80	296.9	µg/L	0.80	0.27%
Pb Average		183.3	µg/L	160.73	183.3	µg/L	160.73	87.71%

Sequence No.: 16
Sample ID: 0903023-1,18 PDD
Analyst: Smm
Nebulizer Back Pressure: 134.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 9/15/03 3:34:00 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-1,18 PDD

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	4084910.1	4090125.6	66750	µg/L	66750	µg/L	15:34:52
1	Fe	98020.5	93463.7	2437	µg/L	2437	µg/L	15:35:03
1	K1	719818.2	715727.3	25790	µg/L	25790	µg/L	15:35:16
1	Mg1	348039.9	344745.2	69600	µg/L	69600	µg/L	15:35:29
1	Ca	Saturated4	Saturated4					15:35:46
Saturated within auto integration window (code 4)								
1	Cd1	3429.2	2533.2	11.66	µg/L	11.66	µg/L	15:35:50
1	Cd2	820.3	2134.2	12.27	µg/L	12.27	µg/L	15:36:03
1	Cr2	47308.9	47311.1	157.2	µg/L	157.2	µg/L	15:36:17
1	Cr1	50570.1	49785.4	177.4	µg/L	177.4	µg/L	15:36:28
1	Mn1	283446.2	278314.8	119.4	µg/L	119.4	µg/L	15:36:40
1	Pb1	1130.2	929.9	74.43	µg/L	74.43	µg/L	15:36:50
1	Pb2	26107.7	17779.6	304.6	µg/L	304.6	µg/L	15:37:24
2	Al1	4025305.6	4030521.0	65780	µg/L	65780	µg/L	15:34:57
2	Fe	93480.7	88924.0	2319	µg/L	2319	µg/L	15:35:07

2	K1	721321.2	717230.3	25840 µg/L	25840 µg/L	15:35:20
2	Mg1	354427.7	351133.0	70890 µg/L	70890 µg/L	15:35:33
2	Ca	Saturated4	Saturated4			15:35:47
Saturated within auto integration window (code 4)						
2	Cd1	3370.9	2474.8	11.39 µg/L	11.39 µg/L	15:35:56
2	Cd2	755.0	2068.9	11.89 µg/L	11.89 µg/L	15:36:09
2	Cr2	47114.3	47116.5	156.6 µg/L	156.6 µg/L	15:36:22
2	Cr1	49949.8	49165.1	175.2 µg/L	175.2 µg/L	15:36:33
2	Mn1	278907.2	273775.8	117.5 µg/L	117.5 µg/L	15:36:44
2	Pb1	1152.3	952.0	76.20 µg/L	76.20 µg/L	15:37:06
2	Pb2	26050.0	17721.9	303.6 µg/L	303.6 µg/L	15:37:36

Mean Data: 0903023-1,18 PDD

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	4060323.3	66270	µg/L	687.9	66270	µg/L	687.9	1.04%
Ca	Saturated4							
Saturated within auto integration window (code 4)								
Cd1	2504.0	11.52	µg/L	0.190	11.52	µg/L	0.190	1.65%
Cd2	2101.5	12.08	µg/L	0.265	12.08	µg/L	0.265	2.20%
Cr2	47213.8	156.9	µg/L	0.46	156.9	µg/L	0.46	0.29%
Cr1	49475.2	176.3	µg/L	1.56	176.3	µg/L	1.56	0.89%
Fe	91193.9	2378	µg/L	83.7	2378	µg/L	83.7	3.52%
K1	716478.8	25810	µg/L	38.3	25810	µg/L	38.3	0.15%
Mg1	347939.1	70250	µg/L	911.9	70250	µg/L	911.9	1.30%
Mn1	276045.3	118.5	µg/L	1.38	118.5	µg/L	1.38	1.16%
Pb1	941.0	75.31	µg/L	1.247	75.31	µg/L	1.247	1.66%
Pb2	17750.7	304.1	µg/L	0.70	304.1	µg/L	0.70	0.23%
Pb Average		189.7	µg/L	161.78	189.7	µg/L	161.78	85.28%

Duplicate Check: 0903023-1,18 PDD

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Al1	61990	66270	687.862	µg/L	6.7
Fe	2238	2378	83.713	µg/L	6.1
K1	24000	25810	38.287	µg/L	7.3
Mg1	66590	70250	911.923	µg/L	5.3
Ca			0.000	µg/L	Not calculated
Cd1	10.08	11.52	0.190	µg/L	13.4
Cd2	11.60	12.08	0.265	µg/L	4.1
Cr2	144.8	156.9	0.457	µg/L	8.0
Cr1	165.6	176.3	1.563	µg/L	6.3
Mn1	116.6	118.5	1.377	µg/L	1.6
Pb1	69.61	75.31	1.247	µg/L	7.9
Pb2	296.9	304.1	0.699	µg/L	2.4

Sequence No.: 17
Sample ID: 0903023-19
Analyst: Smm
Nebulizer Back Pressure: 137.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 17
Date Collected: 9/15/03 3:38:31 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-19

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	7333.1	12548.6	204.8	µg/L	204.8	µg/L	15:39:21
1	Fe	13630.5	9073.7	236.6	µg/L	236.6	µg/L	15:39:32
1	K1	35838.6	31747.7	1144	µg/L	1144	µg/L	15:39:46
1	Mg1	2871.5	-423.2	-85.44	µg/L	-85.44	µg/L	15:40:00
1	Ca	221321.7	223556.0	1229	µg/L	1229	µg/L	15:40:17
1	Cd1	2211.6	1315.5	6.054	µg/L	6.054	µg/L	15:40:27

1	Cd2	-964.8	349.0	2.006	µg/L	2.006 µg/L	15:40:40
1	Cr2	2494.8	2497.0	8.299	µg/L	8.299 µg/L	15:40:53
1	Cr1	2963.8	2179.1	7.765	µg/L	7.765 µg/L	15:41:06
1	Mn1	Saturated4	Saturated4				15:41:18
Saturated within auto integration window (code 4)							
1	Pb1	901.5	701.2	56.13	µg/L	56.13 µg/L	15:41:23
1	Pb2	15265.1	6937.0	118.8	µg/L	118.8 µg/L	15:41:57
2	Al1	7678.4	12893.8	210.4	µg/L	210.4 µg/L	15:39:26
2	Fe	13231.1	8674.3	226.2	µg/L	226.2 µg/L	15:39:37
2	K1	39839.7	35748.8	1288	µg/L	1288 µg/L	15:39:51
2	Mg1	3246.8	-47.9	-9.664	µg/L	-9.664 µg/L	15:40:05
2	Ca	235812.0	238046.3	1308	µg/L	1308 µg/L	15:40:21
2	Cd1	2195.5	1299.5	5.980	µg/L	5.980 µg/L	15:40:33
2	Cd2	-863.0	450.8	2.591	µg/L	2.591 µg/L	15:40:46
2	Cr2	2420.1	2422.3	8.050	µg/L	8.050 µg/L	15:40:59
2	Cr1	2896.7	2112.0	7.526	µg/L	7.526 µg/L	15:41:11
2	Mn1	Saturated4	Saturated4				15:41:20
Saturated within auto integration window (code 4)							
2	Pb1	882.7	682.4	54.62	µg/L	54.62 µg/L	15:41:39
2	Pb2	15261.6	6933.5	118.8	µg/L	118.8 µg/L	15:42:07

Mean Data: 0903023-19

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	12721.2	207.6	µg/L	3.98	207.6	µg/L	3.98	1.92%
Ca	230801.1	1269	µg/L	56.3	1269	µg/L	56.3	4.44%
Cd1	1307.5	6.017	µg/L	0.0522	6.017	µg/L	0.0522	0.87%
Cd2	399.9	2.299	µg/L	0.4137	2.299	µg/L	0.4137	18.00%
Cr2	2459.6	8.175	µg/L	0.1757	8.175	µg/L	0.1757	2.15%
Cr1	2145.6	7.646	µg/L	0.1691	7.646	µg/L	0.1691	2.21%
Fe	8874.0	231.4	µg/L	7.36	231.4	µg/L	7.36	3.18%
K1	33748.2	1216	µg/L	101.9	1216	µg/L	101.9	8.38%
Mg1	-235.5	-47.55	µg/L	53.581	-47.55	µg/L	53.581	112.68%
Mn1	Saturated4							
Saturated within auto integration window (code 4)								
Pb1	691.8	55.37	µg/L	1.067	55.37	µg/L	1.067	1.93%
Pb2	6935.3	118.8	µg/L	0.04	118.8	µg/L	0.04	0.04%
Pb Average		87.09	µg/L	44.863	87.09	µg/L	44.863	51.51%

Sequence No.: 18 **Autosampler Location: 18**
Sample ID: 0903023-5,24 **Date Collected: 9/15/03 3:43:01 PM**
Analyst: Smm
Nebulizer Back Pressure: 136.0 kPa **Nebulizer Flow: 0.80 L/min**
Sample Wt: **Sample Prep Volume:**
Dilution: **Data Type: Original**

Replicate Data: 0903023-5,24

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	4401941.0	4407156.5	71930	µg/L	71930	µg/L	15:43:51
1	Fe	68625.6	64068.9	1671	µg/L	1671	µg/L	15:44:01
1	K1	732310.4	728219.5	26240	µg/L	26240	µg/L	15:44:15
1	Mg1	356860.0	353565.3	71380	µg/L	71380	µg/L	15:44:29
1	Ca	Saturated4	Saturated4					15:44:47
Saturated within auto integration window (code 4)								
1	Cd1	1833.8	937.8	4.316	µg/L	4.316	µg/L	15:44:52
1	Cd2	52.9	1366.7	7.855	µg/L	7.855	µg/L	15:45:04
1	Cr2	49316.6	49318.7	163.9	µg/L	163.9	µg/L	15:45:18
1	Cr1	54063.8	53279.1	189.9	µg/L	189.9	µg/L	15:45:29
1	Mn1	178098.6	172967.2	74.23	µg/L	74.23	µg/L	15:45:41
1	Pb1	1081.2	880.9	70.51	µg/L	70.51	µg/L	15:45:51
1	Pb2	27591.5	19263.4	330.0	µg/L	330.0	µg/L	15:46:26
2	Al1	4412592.3	4417807.7	72100	µg/L	72100	µg/L	15:43:56

2	Fe	68136.1	63579.4	1658	µg/L	1658	µg/L	15:44:06
2	K1	694092.5	690001.6	24860	µg/L	24860	µg/L	15:44:20
2	Mg1	358743.9	355449.2	71760	µg/L	71760	µg/L	15:44:34
2	Ca	Saturated4	Saturated4					15:44:48
Saturated within auto integration window (code 4)								
2	Cd1	1798.0	901.9	4.151	µg/L	4.151	µg/L	15:44:58
2	Cd2	-12.6	1301.2	7.479	µg/L	7.479	µg/L	15:45:10
2	Cr2	48563.8	48566.0	161.4	µg/L	161.4	µg/L	15:45:23
2	Cr1	54931.6	54146.9	193.0	µg/L	193.0	µg/L	15:45:34
2	Mn1	180577.1	175445.7	75.29	µg/L	75.29	µg/L	15:45:46
2	Pb1	1075.1	874.8	70.02	µg/L	70.02	µg/L	15:46:07
2	Pb2	27441.9	19113.8	327.5	µg/L	327.5	µg/L	15:46:36

Mean Data: 0903023-5,24

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	4412482.1	72010	µg/L	122.9	72010	µg/L	122.9	0.17%
Ca	Saturated4							
Saturated within auto integration window (code 4)								
Cd1	919.8	4.233	µg/L	0.1166	4.233	µg/L	0.1166	2.75%
Cd2	1333.9	7.667	µg/L	0.2662	7.667	µg/L	0.2662	3.47%
Cr2	48942.4	162.7	µg/L	1.77	162.7	µg/L	1.77	1.09%
Cr1	53713.0	191.4	µg/L	2.19	191.4	µg/L	2.19	1.14%
Fe	63824.1	1664	µg/L	9.0	1664	µg/L	9.0	0.54%
K1	709110.5	25550	µg/L	973.6	25550	µg/L	973.6	3.81%
Mg1	354507.3	71570	µg/L	268.9	71570	µg/L	268.9	0.38%
Mn1	174206.4	74.76	µg/L	0.752	74.76	µg/L	0.752	1.01%
Pb1	877.8	70.26	µg/L	0.345	70.26	µg/L	0.345	0.49%
Pb2	19188.6	328.7	µg/L	1.81	328.7	µg/L	1.81	0.55%
Pb Average		199.5	µg/L	182.78	199.5	µg/L	182.78	91.62%

Sequence No.: 19
Sample ID: 0903023-5,24 PDS
Analyst: Smm
Nebulizer Back Pressure: 143.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 19
Date Collected: 9/15/03 3:47:30 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-5,24 PDS

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	4354928.0	4360143.4	71160	µg/L	71160	µg/L	15:48:19
1	Fe	69679.1	65122.3	1698	µg/L	1698	µg/L	15:48:30
1	K1	722355.5	718264.7	25880	µg/L	25880	µg/L	15:48:44
1	Mg1	364310.9	361016.2	72890	µg/L	72890	µg/L	15:48:58
1	Ca	Saturated4	Saturated4					15:49:14
Saturated within auto integration window (code 4)								
1	Cd1	108955.4	108059.4	497.3	µg/L	497.3	µg/L	15:49:19
1	Cd2	74723.6	76037.4	437.0	µg/L	437.0	µg/L	15:49:32
1	Cr2	189641.5	189643.7	630.3	µg/L	630.3	µg/L	15:49:45
1	Cr1	205351.9	204567.2	729.0	µg/L	729.0	µg/L	15:49:58
1	Mn1	168301.4	163170.0	70.02	µg/L	70.02	µg/L	15:50:09
1	Pb1	6811.5	6611.3	529.2	µg/L	529.2	µg/L	15:50:21
1	Pb2	62774.1	54446.0	932.8	µg/L	932.8	µg/L	15:50:55
2	Al1	4437927.8	4443143.2	72510	µg/L	72510	µg/L	15:48:24
2	Fe	70078.5	65521.7	1709	µg/L	1709	µg/L	15:48:34
2	K1	708789.8	704698.9	25390	µg/L	25390	µg/L	15:48:49
2	Mg1	364607.7	361313.1	72950	µg/L	72950	µg/L	15:49:02
2	Ca	Saturated4	Saturated4					15:49:16
Saturated within auto integration window (code 4)								
2	Cd1	106251.2	105355.2	484.9	µg/L	484.9	µg/L	15:49:25
2	Cd2	75367.5	76681.3	440.7	µg/L	440.7	µg/L	15:49:38
2	Cr2	188707.0	188709.2	627.2	µg/L	627.2	µg/L	15:49:50

2	Cr1	215163.5	214378.8	763.9 µg/L	763.9 µg/L	15:50:03
2	Mn1	180210.7	175079.3	75.13 µg/L	75.13 µg/L	15:50:15
2	Pb1	6839.2	6638.9	531.4 µg/L	531.4 µg/L	15:50:37
2	Pb2	62151.6	53823.5	922.1 µg/L	922.1 µg/L	15:51:05

Mean Data: 0903023-5,24 PDS

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	4401643.3	71840	µg/L	957.9	71840	µg/L	957.9	1.33%
Ca	Saturated4							
Saturated within auto integration window (code 4)								
Cd1	106707.3	491.1	µg/L	8.80	491.1	µg/L	8.80	1.79%
Cd2	76359.4	438.9	µg/L	2.62	438.9	µg/L	2.62	0.60%
Cr2	189176.4	628.7	µg/L	2.20	628.7	µg/L	2.20	0.35%
Cr1	209473.0	746.5	µg/L	24.72	746.5	µg/L	24.72	3.31%
Fe	65322.0	1703	µg/L	7.4	1703	µg/L	7.4	0.43%
K1	711481.8	25630	µg/L	345.6	25630	µg/L	345.6	1.35%
Mg1	361164.6	72920	µg/L	42.4	72920	µg/L	42.4	0.06%
Mn1	169124.6	72.58	µg/L	3.614	72.58	µg/L	3.614	4.98%
Pb1	6625.1	530.3	µg/L	1.57	530.3	µg/L	1.57	0.30%
Pb2	54134.7	927.5	µg/L	7.54	927.5	µg/L	7.54	0.81%
Pb Average		728.9	µg/L	280.85	728.9	µg/L	280.85	38.53%

Recovery Check: 0903023-5,24 PDS

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al1	72510	71840	957.853	µg/L	-35.4
Fe	2164	1703	7.364	µg/L	7.8
K1	26050	25630	345.583	µg/L	17.1
Mg1	72070	72920	42.376	µg/L	268.8
Cd1	504.2	491.1	8.800	µg/L	97.4
Cd2	507.7	438.9	2.617	µg/L	86.2
Cr2	662.7	628.7	2.196	µg/L	93.2
Cr1	691.4	746.5	24.723	µg/L	111.0
Mn1	574.8	72.58	3.614	µg/L	-0.4
Pb1	570.3	530.3	1.565	µg/L	92.0
Pb2	828.7	927.5	7.541	µg/L	119.7

Sequence No.: 20
Sample ID: 0903023-25
Analyst: Smm
Nebulizer Back Pressure: 144.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 20
Date Collected: 9/15/03 3:52:00 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-25

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	3897.8	9113.3	148.7	µg/L	148.7	µg/L	15:52:50
1	Fe	11227.7	6671.0	174.0	µg/L	174.0	µg/L	15:53:00
1	K1	10639.5	6548.6	235.9	µg/L	235.9	µg/L	15:53:14
1	Mg1	4131.5	836.8	168.9	µg/L	168.9	µg/L	15:53:28
1	Ca	105823.3	108057.6	594.0	µg/L	594.0	µg/L	15:53:46
1	Cd1	2159.8	1263.7	5.816	µg/L	5.816	µg/L	15:53:56
1	Cd2	-864.7	449.1	2.581	µg/L	2.581	µg/L	15:54:08
1	Cr2	1940.8	1943.0	6.458	µg/L	6.458	µg/L	15:54:22
1	Cr1	2996.6	2211.9	7.882	µg/L	7.882	µg/L	15:54:34
1	Mn1	40249.8	35118.4	15.07	µg/L	15.07	µg/L	15:54:45
1	Pb1	838.6	638.3	51.09	µg/L	51.09	µg/L	15:54:55
1	Pb2	11279.8	2951.7	50.57	µg/L	50.57	µg/L	15:55:30
2	Al1	2379.9	7595.4	124.0	µg/L	124.0	µg/L	15:52:54
2	Fe	10798.3	6241.5	162.8	µg/L	162.8	µg/L	15:53:05

2	K1	10503.1	6412.2	231.0	µg/L	231.0 µg/L	15:53:20
2	Mg1	3403.4	108.8	21.96	µg/L	21.96 µg/L	15:53:34
2	Ca	107916.9	110151.2	605.5	µg/L	605.5 µg/L	15:53:50
2	Cd1	2128.7	1232.6	5.673	µg/L	5.673 µg/L	15:54:02
2	Cd2	-877.2	436.6	2.509	µg/L	2.509 µg/L	15:54:14
2	Cr2	1959.2	1961.4	6.519	µg/L	6.519 µg/L	15:54:27
2	Cr1	3005.2	2220.5	7.913	µg/L	7.913 µg/L	15:54:38
2	Mn1	40494.5	35363.1	15.18	µg/L	15.18 µg/L	15:54:50
2	Pb1	811.8	611.5	48.95	µg/L	48.95 µg/L	15:55:11
2	Pb2	11311.1	2983.0	51.11	µg/L	51.11 µg/L	15:55:40

Mean Data: 0903023-25

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	8354.3	136.3	µg/L	17.52	136.3	µg/L	17.52	12.85%
Ca	109104.4	599.7	µg/L	8.14	599.7	µg/L	8.14	1.36%
Cd1	1248.2	5.744	µg/L	0.1011	5.744	µg/L	0.1011	1.76%
Cd2	442.9	2.545	µg/L	0.0507	2.545	µg/L	0.0507	1.99%
Cr2	1952.2	6.488	µg/L	0.0432	6.488	µg/L	0.0432	0.67%
Cr1	2216.2	7.898	µg/L	0.0217	7.898	µg/L	0.0217	0.27%
Fe	6456.3	168.4	µg/L	7.92	168.4	µg/L	7.92	4.70%
K1	6480.4	233.5	µg/L	3.47	233.5	µg/L	3.47	1.49%
Mg1	472.8	95.45	µg/L	103.932	95.45	µg/L	103.932	108.88%
Mn1	35240.7	15.12	µg/L	0.074	15.12	µg/L	0.074	0.49%
Pb1	624.9	50.02	µg/L	1.517	50.02	µg/L	1.517	3.03%
Pb2	2967.3	50.84	µg/L	0.379	50.84	µg/L	0.379	0.75%
Pb Average		50.43	µg/L	0.577	50.43	µg/L	0.577	1.15%

Sequence No.: 21
Sample ID: 0903023-9,30
Analyst: Smm
Nebulizer Back Pressure: 143.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 21
Date Collected: 9/15/03 3:56:34 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-9,30

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	1984259.6	1989475.0	32470	µg/L	32470	µg/L	15:57:24
1	Fe	66877.9	62321.2	1625	µg/L	1625	µg/L	15:57:34
1	K1	709941.7	705850.8	25430	µg/L	25430	µg/L	15:57:49
1	Mg1	253295.5	250000.8	50470	µg/L	50470	µg/L	15:58:02
1	Ca	Saturated4	Saturated4					15:58:20
Saturated within auto integration window (code 4)								
1	Cd1	1484.9	588.8	2.710	µg/L	2.710	µg/L	15:58:25
1	Cd2	-303.9	1009.9	5.804	µg/L	5.804	µg/L	15:58:38
1	Cr2	44379.4	44381.6	147.5	µg/L	147.5	µg/L	15:58:52
1	Cr1	49719.9	48935.3	174.4	µg/L	174.4	µg/L	15:59:04
1	Mn1	184627.9	179496.5	77.03	µg/L	77.03	µg/L	15:59:15
1	Pb1	777.7	577.4	46.22	µg/L	46.22	µg/L	15:59:25
1	Pb2	20994.6	12666.5	217.0	µg/L	217.0	µg/L	16:00:01
2	Al1	1914187.8	1919403.3	31330	µg/L	31330	µg/L	15:57:28
2	Fe	68595.6	64038.8	1670	µg/L	1670	µg/L	15:57:39
2	K1	726337.7	722246.9	26020	µg/L	26020	µg/L	15:57:54
2	Mg1	242629.8	239335.1	48320	µg/L	48320	µg/L	15:58:08
2	Ca	Saturated4	Saturated4					15:58:22
Saturated within auto integration window (code 4)								
2	Cd1	1412.3	516.3	2.376	µg/L	2.376	µg/L	15:58:31
2	Cd2	-422.7	891.1	5.122	µg/L	5.122	µg/L	15:58:44
2	Cr2	43941.8	43944.0	146.0	µg/L	146.0	µg/L	15:58:57
2	Cr1	48860.2	48075.5	171.3	µg/L	171.3	µg/L	15:59:09
2	Mn1	188127.6	182996.2	78.53	µg/L	78.53	µg/L	15:59:20
2	Pb1	777.7	577.4	46.21	µg/L	46.21	µg/L	15:59:43

2	Pb2	20573.7	12245.6	209.8 µg/L		209.8 µg/L	16:00:11

Mean Data: 0903023-9,30

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	1954439.1	31900	µg/L	808.7	31900	µg/L	808.7	2.54%
Ca	Saturated4							
Saturated within auto integration window (code 4)								
Cd1	552.6	2.543	µg/L	0.2361	2.543	µg/L	0.2361	9.28%
Cd2	950.5	5.463	µg/L	0.4825	5.463	µg/L	0.4825	8.83%
Cr2	44162.8	146.8	µg/L	1.03	146.8	µg/L	1.03	0.70%
Cr1	48505.4	172.8	µg/L	2.17	172.8	µg/L	2.17	1.25%
Fe	63180.0	1648	µg/L	31.7	1648	µg/L	31.7	1.92%
K1	714048.8	25720	µg/L	417.7	25720	µg/L	417.7	1.62%
Mg1	244668.0	49400	µg/L	1522.6	49400	µg/L	1522.6	3.08%
Mn1	181246.3	77.78	µg/L	1.062	77.78	µg/L	1.062	1.37%
Pb1	577.4	46.21	µg/L	0.003	46.21	µg/L	0.003	0.01%
Pb2	12456.1	213.4	µg/L	5.10	213.4	µg/L	5.10	2.39%
Pb Average		129.8	µg/L	118.22	129.8	µg/L	118.22	91.07%

Sequence No.: 22
Sample ID: 0903023-9,30 SD
Analyst: Smm
Nebulizer Back Pressure: 143.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 22
Date Collected: 9/15/03 4:01:06 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-9,30 SD

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	385479.4	390694.8	6376	µg/L	6376	µg/L	16:01:56
1	Fe	17668.9	13112.2	341.9	µg/L	341.9	µg/L	16:02:08
1	K1	156250.3	152159.4	5482	µg/L	5482	µg/L	16:02:21
1	Mg1	49935.4	46640.7	9417	µg/L	9417	µg/L	16:02:34
1	Ca	6315285.3	6317519.6	34730	µg/L	34730	µg/L	16:02:52
1	Cd1	850.3	-45.7	-0.2104	µg/L	-0.2104	µg/L	16:03:01
1	Cd2	-1039.4	274.4	1.577	µg/L	1.577	µg/L	16:03:14
1	Cr2	9290.6	9292.8	30.88	µg/L	30.88	µg/L	16:03:28
1	Cr1	9076.0	8291.3	29.55	µg/L	29.55	µg/L	16:03:39
1	Mn1	40702.9	35571.5	15.27	µg/L	15.27	µg/L	16:03:51
1	Pb1	461.7	261.4	20.92	µg/L	20.92	µg/L	16:04:01
1	Pb2	11907.5	3579.4	61.32	µg/L	61.32	µg/L	16:04:35
2	Al1	393009.1	398224.5	6499	µg/L	6499	µg/L	16:02:02
2	Fe	18527.8	13971.0	364.3	µg/L	364.3	µg/L	16:02:12
2	K1	146510.1	142419.2	5131	µg/L	5131	µg/L	16:02:25
2	Mg1	52093.5	48798.8	9852	µg/L	9852	µg/L	16:02:39
2	Ca	6771421.3	6773655.6	37230	µg/L	37230	µg/L	16:02:56
2	Cd1	717.9	-178.1	-0.8198	µg/L	-0.8198	µg/L	16:03:08
2	Cd2	-995.0	318.8	1.832	µg/L	1.832	µg/L	16:03:20
2	Cr2	9033.2	9035.3	30.03	µg/L	30.03	µg/L	16:03:33
2	Cr1	9239.2	8454.5	30.13	µg/L	30.13	µg/L	16:03:44
2	Mn1	41860.2	36728.8	15.76	µg/L	15.76	µg/L	16:03:56
2	Pb1	451.6	251.3	20.12	µg/L	20.12	µg/L	16:04:17
2	Pb2	11809.8	3481.7	59.65	µg/L	59.65	µg/L	16:04:45

Mean Data: 0903023-9,30 SD

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	394459.7	6438	µg/L	86.9	6438	µg/L	86.9	1.35%
Ca	6545587.6	35980	µg/L	1772.9	35980	µg/L	1772.9	4.93%
Cd1	-111.9	-0.5151	µg/L	0.43091	-0.5151	µg/L	0.43091	83.65%
Cd2	296.6	1.705	µg/L	0.1802	1.705	µg/L	0.1802	10.57%

Cr2	9164.1	30.46 µg/L	0.605	30.46 µg/L	0.605	1.99%
Cr1	8372.9	29.84 µg/L	0.411	29.84 µg/L	0.411	1.38%
Fe	13541.6	353.1 µg/L	15.84	353.1 µg/L	15.84	4.48%
K1	147289.3	5306 µg/L	248.1	5306 µg/L	248.1	4.68%
Mg1	47719.8	9634 µg/L	308.1	9634 µg/L	308.1	3.20%
Mn1	36150.1	15.51 µg/L	0.351	15.51 µg/L	0.351	2.26%
Pb1	256.3	20.52 µg/L	0.568	20.52 µg/L	0.568	2.77%
Pb2	3530.6	60.49 µg/L	1.183	60.49 µg/L	1.183	1.96%
Pb Average		40.50 µg/L	28.263	40.50 µg/L	28.263	69.78%

Dilution Check: 0903023-9,30 SD

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Al1	6380	6438	86.896	µg/L	0.9
Fe	329.5	353.1	15.837	µg/L	7.2
K1	5145	5306	248.127	µg/L	3.1
Mg1	9879	9634	308.095	µg/L	2.5
Ca		35980	1772.922	µg/L	Not calculated
Cd1	0.5086	-0.5151	0.431	µg/L	201.3
Cd2	1.093	1.705	0.180	µg/L	56.0
Cr2	29.36	30.46	0.605	µg/L	3.8
Cr1	34.57	29.84	0.411	µg/L	13.7
Mn1	15.56	15.51	0.351	µg/L	0.3
Pb1	9.243	20.52	0.568	µg/L	122.0
Pb2	42.68	60.49	1.183	µg/L	41.7

Sequence No.: 23
Sample ID: 0903023-31
Analyst: Smm
Nebulizer Back Pressure: 143.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 23
Date Collected: 9/15/03 4:05:40 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-31

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Al1	3468.4	8683.8	141.7	µg/L	141.7	µg/L	16:06:30
1	Fe	11453.3	6896.6	179.9	µg/L	179.9	µg/L	16:06:40
1	K1	12142.4	8051.5	290.1	µg/L	290.1	µg/L	16:06:56
1	Mg1	4131.5	836.8	168.9	µg/L	168.9	µg/L	16:07:09
1	Ca	152765.8	155000.1	852.0	µg/L	852.0	µg/L	16:07:27
1	Cd1	1485.8	589.7	2.714	µg/L	2.714	µg/L	16:07:36
1	Cd2	-1212.0	101.8	0.5853	µg/L	0.5853	µg/L	16:07:49
1	Cr2	2566.2	2568.3	8.536	µg/L	8.536	µg/L	16:08:02
1	Cr1	3263.5	2478.9	8.833	µg/L	8.833	µg/L	16:08:15
1	Mn1	56336.6	51205.2	21.97	µg/L	21.97	µg/L	16:08:28
1	Pb1	354.8	154.5	12.36	µg/L	12.36	µg/L	16:08:38
1	Pb2	8856.2	528.1	9.048	µg/L	9.048	µg/L	16:09:13
2	Al1	3077.5	8293.0	135.3	µg/L	135.3	µg/L	16:06:35
2	Fe	11084.0	6527.3	170.2	µg/L	170.2	µg/L	16:06:47
2	K1	14543.4	10452.5	376.6	µg/L	376.6	µg/L	16:07:00
2	Mg1	3881.0	586.3	118.4	µg/L	118.4	µg/L	16:07:14
2	Ca	145621.1	147855.4	812.7	µg/L	812.7	µg/L	16:07:31
2	Cd1	1459.9	563.8	2.595	µg/L	2.595	µg/L	16:07:42
2	Cd2	-1307.4	6.4	0.0369	µg/L	0.0369	µg/L	16:07:55
2	Cr2	2450.2	2452.4	8.150	µg/L	8.150	µg/L	16:08:08
2	Cr1	3455.2	2670.5	9.516	µg/L	9.516	µg/L	16:08:21
2	Mn1	53303.2	48171.8	20.67	µg/L	20.67	µg/L	16:08:33
2	Pb1	326.2	126.0	10.08	µg/L	10.08	µg/L	16:08:54
2	Pb2	8844.1	516.0	8.840	µg/L	8.840	µg/L	16:09:23

Mean Data: 0903023-31

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	8488.4	138.5	µg/L	4.51	138.5	µg/L	4.51	3.26%
Ca	151427.7	832.4	µg/L	27.77	832.4	µg/L	27.77	3.34%
Cd1	576.8	2.654	µg/L	0.0843	2.654	µg/L	0.0843	3.18%
Cd2	54.1	0.3111	µg/L	0.38776	0.3111	µg/L	0.38776	124.64%
Cr2	2510.4	8.343	µg/L	0.2725	8.343	µg/L	0.2725	3.27%
Cr1	2574.7	9.175	µg/L	0.4830	9.175	µg/L	0.4830	5.26%
Fe	6711.9	175.0	µg/L	6.81	175.0	µg/L	6.81	3.89%
K1	9252.0	333.3	µg/L	61.16	333.3	µg/L	61.16	18.35%
Mg1	711.6	143.7	µg/L	35.76	143.7	µg/L	35.76	24.89%
Mn1	49688.5	21.32	µg/L	0.920	21.32	µg/L	0.920	4.32%
Pb1	140.2	11.22	µg/L	1.613	11.22	µg/L	1.613	14.38%
Pb2	522.1	8.944	µg/L	0.1472	8.944	µg/L	0.1472	1.65%
Pb Average		10.08	µg/L	1.611	10.08	µg/L	1.611	15.98%

Sequence No.: 24
Sample ID: 0903023-31 PDS
Analyst: Smm
Nebulizer Back Pressure: 143.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 24
Date Collected: 9/15/03 4:10:17 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903023-31 PDS

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	1643.8	6859.2	111.9	µg/L	111.9	µg/L	16:11:07
1	Fe	11431.5	6874.7	179.3	µg/L	179.3	µg/L	16:11:18
1	K1	13255.1	9164.2	330.2	µg/L	330.2	µg/L	16:11:31
1	Mg1	3763.4	468.8	94.64	µg/L	94.64	µg/L	16:11:44
1	Ca	159664.0	161898.3	889.9	µg/L	889.9	µg/L	16:12:01
1	Cd1	112205.9	111309.8	512.3	µg/L	512.3	µg/L	16:12:10
1	Cd2	85306.4	86620.2	497.8	µg/L	497.8	µg/L	16:12:23
1	Cr2	152623.3	152625.5	507.3	µg/L	507.3	µg/L	16:12:37
1	Cr1	131391.9	130607.2	465.4	µg/L	465.4	µg/L	16:12:48
1	Mn1	55812.4	50681.0	21.75	µg/L	21.75	µg/L	16:13:00
1	Pb1	6436.5	6236.2	499.2	µg/L	499.2	µg/L	16:13:10
1	Pb2	39479.0	31150.9	533.7	µg/L	533.7	µg/L	16:13:44
2	Al1	2809.4	8024.8	131.0	µg/L	131.0	µg/L	16:11:12
2	Fe	12260.3	7703.5	200.9	µg/L	200.9	µg/L	16:11:22
2	K1	10893.3	6802.4	245.1	µg/L	245.1	µg/L	16:11:36
2	Mg1	3700.6	405.9	81.96	µg/L	81.96	µg/L	16:11:49
2	Ca	150514.6	152748.9	839.6	µg/L	839.6	µg/L	16:12:05
2	Cd1	111584.5	110688.4	509.4	µg/L	509.4	µg/L	16:12:16
2	Cd2	84357.9	85671.7	492.4	µg/L	492.4	µg/L	16:12:29
2	Cr2	157517.8	157519.9	523.5	µg/L	523.5	µg/L	16:12:42
2	Cr1	128884.6	128099.9	456.5	µg/L	456.5	µg/L	16:12:53
2	Mn1	55659.9	50528.5	21.68	µg/L	21.68	µg/L	16:13:04
2	Pb1	6492.8	6292.5	503.7	µg/L	503.7	µg/L	16:13:26
2	Pb2	39125.4	30797.3	527.6	µg/L	527.6	µg/L	16:13:54

Mean Data: 0903023-31 PDS

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	7442.0	121.5	µg/L	13.45	121.5	µg/L	13.45	11.07%
Ca	157323.6	864.8	µg/L	35.56	864.8	µg/L	35.56	4.11%
Cd1	110999.1	510.8	µg/L	2.02	510.8	µg/L	2.02	0.40%
Cd2	86145.9	495.1	µg/L	3.85	495.1	µg/L	3.85	0.78%
Cr2	155072.7	515.4	µg/L	11.50	515.4	µg/L	11.50	2.23%
Cr1	129353.5	461.0	µg/L	6.32	461.0	µg/L	6.32	1.37%
Fe	7289.1	190.1	µg/L	15.28	190.1	µg/L	15.28	8.04%
K1	7983.3	287.6	µg/L	60.17	287.6	µg/L	60.17	20.92%
Mg1	437.3	88.30	µg/L	8.967	88.30	µg/L	8.967	10.16%

Mn1	50604.8	21.72 µg/L	0.046	21.72 µg/L	0.046	0.21%
Pb1	6264.4	501.4 µg/L	3.19	501.4 µg/L	3.19	0.64%
Pb2	30974.1	530.7 µg/L	4.28	530.7 µg/L	4.28	0.81%
Pb Average		516.0 µg/L	20.69	516.0 µg/L	20.69	4.01%

Recovery Check: 0903023-31 PDS

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al1	638.5	121.5	13.451	µg/L	-3.4
Fe	675.0	190.1	15.283	µg/L	3.0
K1	833.3	287.6	60.166	µg/L	-9.1
Mg1	643.7	88.30	8.967	µg/L	-11.1
Ca	1332	864.8	35.562	µg/L	6.5
Cd1	502.7	510.8	2.022	µg/L	101.6
Cd2	500.3	495.1	3.855	µg/L	99.0
Cr2	508.3	515.4	11.502	µg/L	101.4
Cr1	509.2	461.0	6.318	µg/L	90.4
Mn1	521.3	21.72	0.046	µg/L	0.1
Pb1	511.2	501.4	3.187	µg/L	98.0
Pb2	508.9	530.7	4.284	µg/L	104.3

Sequence No.: 25
Sample ID: PQL check
Analyst: Smm
Nebulizer Back Pressure: 143.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 25
Date Collected: 9/15/03 4:14:49 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: PQL check

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Al1	-2934.3	2281.2	37.23	µg/L	37.23	µg/L	16:15:40
1	Fe	5951.9	1395.2	36.38	µg/L	36.38	µg/L	16:15:50
1	K1	4412.9	322.1	11.60	µg/L	11.60	µg/L	16:16:03
1	Mg1	5170.9	1876.2	378.8	µg/L	378.8	µg/L	16:16:18
1	Ca	14651.7	16885.9	92.82	µg/L	92.82	µg/L	16:16:36
1	Cd1	1378.2	482.1	2.219	µg/L	2.219	µg/L	16:16:46
1	Cd2	-1038.8	275.0	1.580	µg/L	1.580	µg/L	16:16:58
1	Cr2	1161.2	1163.4	3.867	µg/L	3.867	µg/L	16:17:12
1	Cr1	2325.9	1541.2	5.492	µg/L	5.492	µg/L	16:17:24
1	Mn1	7697.8	2566.4	1.101	µg/L	1.101	µg/L	16:17:35
1	Pb1	284.6	84.3	6.745	µg/L	6.745	µg/L	16:17:45
1	Pb2	9709.6	1381.5	23.67	µg/L	23.67	µg/L	16:18:20
2	Al1	-2773.0	2442.4	39.86	µg/L	39.86	µg/L	16:15:44
2	Fe	6104.8	1548.0	40.37	µg/L	40.37	µg/L	16:15:54
2	K1	8023.8	3932.9	141.7	µg/L	141.7	µg/L	16:16:10
2	Mg1	5116.1	1821.5	367.7	µg/L	367.7	µg/L	16:16:24
2	Ca	15482.4	17716.7	97.39	µg/L	97.39	µg/L	16:16:40
2	Cd1	1192.6	296.5	1.365	µg/L	1.365	µg/L	16:16:52
2	Cd2	-1020.5	293.3	1.686	µg/L	1.686	µg/L	16:17:04
2	Cr2	1147.6	1149.7	3.821	µg/L	3.821	µg/L	16:17:17
2	Cr1	2329.6	1545.0	5.505	µg/L	5.505	µg/L	16:17:28
2	Mn1	7784.4	2653.0	1.139	µg/L	1.139	µg/L	16:17:40
2	Pb1	253.3	53.0	4.242	µg/L	4.242	µg/L	16:18:01
2	Pb2	9448.4	1120.3	19.19	µg/L	19.19	µg/L	16:18:30

Mean Data: PQL check

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Al1	2361.8	38.55	µg/L	1.861	38.55	µg/L	1.861	4.83%
Ca	17301.3	95.10	µg/L	3.229	95.10	µg/L	3.229	3.40%
Cd1	389.3	1.792	µg/L	0.6039	1.792	µg/L	0.6039	33.71%

Cd2	284.2	1.633 µg/L	0.0745	1.633 µg/L	0.0745	4.56%
Cr2	1156.6	3.844 µg/L	0.0321	3.844 µg/L	0.0321	0.83%
Cr1	1543.1	5.499 µg/L	0.0094	5.499 µg/L	0.0094	0.17%
Fe	1471.6	38.38 µg/L	2.818	38.38 µg/L	2.818	7.34%
K1	2127.5	76.65 µg/L	91.986	76.65 µg/L	91.986	120.01%
Mg1	1848.8	373.3 µg/L	7.82	373.3 µg/L	7.82	2.09%
Mn1	2609.7	1.120 µg/L	0.0263	1.120 µg/L	0.0263	2.35%
Pb1	68.6	5.493 µg/L	1.7697	5.493 µg/L	1.7697	32.22%
Pb2	1250.9	21.43 µg/L	3.164	21.43 µg/L	3.164	14.76%
Pb Average		13.46 µg/L	11.270	13.46 µg/L	11.270	83.71%

Sequence No.: 26
Sample ID: ICV/CCV
Analyst:
Nebulizer Back Pressure: 143.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 9/15/03 4:19:25 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: ICV/CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	292480.4	297695.8	4859	µg/L	4859	µg/L	16:20:16
1	Fe	103797.5	99240.7	2588	µg/L	2588	µg/L	16:20:26
1	K1	370879.4	366788.5	13210	µg/L	13210	µg/L	16:20:40
1	Mg1	63759.5	60464.8	12210	µg/L	12210	µg/L	16:20:54
1	Ca	2118968.5	2121202.8	11660	µg/L	11660	µg/L	16:21:12
1	Cd1	260172.7	259276.7	1193	µg/L	1193	µg/L	16:21:21
1	Cd2	198543.3	199857.1	1149	µg/L	1149	µg/L	16:21:34
1	Cr2	147328.8	147331.0	489.7	µg/L	489.7	µg/L	16:21:48
1	Cr1	131079.4	130294.7	464.3	µg/L	464.3	µg/L	16:21:59
1	Mn1	2820384.8	2815253.4	1208	µg/L	1208	µg/L	16:22:11
1	Pb1	30129.4	29929.1	2396	µg/L	2396	µg/L	16:22:21
1	Pb2	160527.9	152199.8	2608	µg/L	2608	µg/L	16:22:56
2	Al1	290992.4	296207.8	4834	µg/L	4834	µg/L	16:20:20
2	Fe	103777.5	99220.8	2588	µg/L	2588	µg/L	16:20:30
2	K1	358719.4	354628.5	12780	µg/L	12780	µg/L	16:20:45
2	Mg1	61359.0	58064.3	11720	µg/L	11720	µg/L	16:20:58
2	Ca	2214260.4	2216494.7	12180	µg/L	12180	µg/L	16:21:16
2	Cd1	261166.3	260270.3	1198	µg/L	1198	µg/L	16:21:27
2	Cd2	196952.3	198266.1	1140	µg/L	1140	µg/L	16:21:40
2	Cr2	144682.6	144684.7	480.9	µg/L	480.9	µg/L	16:21:53
2	Cr1	134570.5	133785.8	476.7	µg/L	476.7	µg/L	16:22:04
2	Mn1	2770310.6	2765179.2	1187	µg/L	1187	µg/L	16:22:15
2	Pb1	30287.3	30087.0	2408	µg/L	2408	µg/L	16:22:37
2	Pb2	159967.3	151639.2	2598	µg/L	2598	µg/L	16:23:06

Mean Data: ICV/CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	296951.8	4846	µg/L	17.2	4846	µg/L	17.2	0.35%
QC value within limits for Al1 Recovery = 96.93%								
Ca	2168848.7	11920	µg/L	370.4	11920	µg/L	370.4	3.11%
QC value within limits for Ca Recovery = 95.37%								
Cd1	259773.5	1196	µg/L	3.2	1196	µg/L	3.2	0.27%
QC value within limits for Cd1 Recovery = 95.64%								
Cd2	199061.6	1144	µg/L	6.5	1144	µg/L	6.5	0.57%
QC value within limits for Cd2 Recovery = 91.53%								
Cr2	146007.9	485.3	µg/L	6.22	485.3	µg/L	6.22	1.28%
QC value within limits for Cr2 Recovery = 97.05%								
Cr1	132040.2	470.5	µg/L	8.80	470.5	µg/L	8.80	1.87%
QC value within limits for Cr1 Recovery = 94.11%								
Fe	99230.8	2588	µg/L	0.4	2588	µg/L	0.4	0.01%
QC value within limits for Fe Recovery = 103.51%								

K1	360708.5	13000 µg/L	309.8	13000 µg/L	309.8	2.38%
QC value within limits for K1	Recovery = 103.96%					
Mg1	59264.6	11970 µg/L	342.7	11970 µg/L	342.7	2.86%
QC value within limits for Mg1	Recovery = 95.72%					
Mn1	2790216.3	1197 µg/L	15.2	1197 µg/L	15.2	1.27%
QC value within limits for Mn1	Recovery = 95.79%					
Pb1	30008.1	2402 µg/L	8.9	2402 µg/L	8.9	0.37%
QC value within limits for Pb1	Recovery = 96.07%					
Pb2	151919.5	2603 µg/L	6.8	2603 µg/L	6.8	0.26%
QC value within limits for Pb2	Recovery = 104.11%					

All analytes passed QC.

Sequence No.: 27
Sample ID: ICB/CCB
Analyst:
Nebulizer Back Pressure: 143.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/15/03 4:24:01 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Analysis Begun

Start Time: 9/15/03 4:55:01 PM
Logged In Analyst: Administrator
Spectrometer Model: Optima 2000 DV

Plasma On Time: 9/15/03 9:37:19 AM
Technique: ICP Continuous
Autosampler Model: AS-90plus

Sample Information File: D:\pe\Administrator\Sample Information\0903023.sif
Results Data Set: 0903023
Results Library: D:\pe\Administrator\Results\results2003.mdb

Sequence No.: 27
Sample ID: ICB/CCB
Analyst:
Nebulizer Back Pressure: 142.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/15/03 4:55:01 PM
Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: ICB/CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	-5978.7	-763.3	-12.46	µg/L	-12.46	µg/L	16:55:47
1	Fe	3927.7	-629.1	-16.41	µg/L	-16.41	µg/L	16:55:58
1	K1	6481.7	2390.8	86.13	µg/L	86.13	µg/L	16:56:12
1	Mg1	3098.2	-196.4	-39.66	µg/L	-39.66	µg/L	16:56:26
1	Ca	-2280.7	-46.4	-0.2552	µg/L	-0.2552	µg/L	16:56:45
1	Cd1	910.5	14.5	0.0665	µg/L	0.0665	µg/L	16:56:56
1	Cd2	-1358.3	-44.5	-0.2556	µg/L	-0.2556	µg/L	16:57:08
1	Cr2	-21.1	-18.9	-0.0629	µg/L	-0.0629	µg/L	16:57:22
1	Cr1	922.7	138.0	0.4917	µg/L	0.4917	µg/L	16:57:34
1	Mn1	5668.6	537.2	0.2305	µg/L	0.2305	µg/L	16:57:45
1	Pb1	214.3	14.0	1.118	µg/L	1.118	µg/L	16:57:56
1	Pb2	8994.9	666.8	11.42	µg/L	11.42	µg/L	16:58:30
2	Al1	-5778.9	-563.5	-9.197	µg/L	-9.197	µg/L	16:55:53
2	Fe	4612.8	56.0	1.460	µg/L	1.460	µg/L	16:56:03
2	K1	4022.7	-68.2	-2.457	µg/L	-2.457	µg/L	16:56:17
2	Mg1	3028.1	-266.5	-53.81	µg/L	-53.81	µg/L	16:56:31
2	Ca	-2055.2	179.1	0.9846	µg/L	0.9846	µg/L	16:56:50
2	Cd1	873.6	-22.4	-0.1032	µg/L	-0.1032	µg/L	16:57:02
2	Cd2	-1421.7	-107.9	-0.6200	µg/L	-0.6200	µg/L	16:57:15
2	Cr2	-24.9	-22.8	-0.0757	µg/L	-0.0757	µg/L	16:57:27
2	Cr1	1081.6	296.9	1.058	µg/L	1.058	µg/L	16:57:39
2	Mn1	5105.6	-25.8	-0.0111	µg/L	-0.0111	µg/L	16:57:50
2	Pb1	246.3	46.0	3.686	µg/L	3.686	µg/L	16:58:12

2	Pb2	9043.1	715.0	12.25 µg/L	12.25 µg/L	16:58:41

Mean Data: ICB/CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Al1	-663.4	-10.83	µg/L	2.305	-10.83	µg/L	2.305	21.29%
QC value within limits for Al1 Recovery = Not calculated								
Ca	66.3	0.3647	µg/L	0.87664	0.3647	µg/L	0.87664	240.38%
QC value within limits for Ca Recovery = Not calculated								
Cd1	-4.0	-0.0183	µg/L	0.12003	-0.0183	µg/L	0.12003	655.01%
QC value within limits for Cd1 Recovery = Not calculated								
Cd2	-76.2	-0.4378	µg/L	0.25760	-0.4378	µg/L	0.25760	58.84%
QC value within limits for Cd2 Recovery = Not calculated								
Cr2	-20.8	-0.0693	µg/L	0.00899	-0.0693	µg/L	0.00899	12.98%
QC value within limits for Cr2 Recovery = Not calculated								
Cr1	217.5	0.7749	µg/L	0.40052	0.7749	µg/L	0.40052	51.68%
QC value within limits for Cr1 Recovery = Not calculated								
Fe	-286.5	-7.473	µg/L	12.6332	-7.473	µg/L	12.6332	169.06%
QC value within limits for Fe Recovery = Not calculated								
K1	1161.3	41.84	µg/L	62.643	41.84	µg/L	62.643	149.73%
QC value within limits for K1 Recovery = Not calculated								
Mg1	-231.5	-46.74	µg/L	10.006	-46.74	µg/L	10.006	21.41%
QC value within limits for Mg1 Recovery = Not calculated								
Mn1	255.7	0.1097	µg/L	0.17084	0.1097	µg/L	0.17084	155.67%
QC value within limits for Mn1 Recovery = Not calculated								
Pb1	30.0	2.402	µg/L	1.8155	2.402	µg/L	1.8155	75.59%
QC value within limits for Pb1 Recovery = Not calculated								
Pb2	690.9	11.84	µg/L	0.584	11.84	µg/L	0.584	4.93%
QC value within limits for Pb2 Recovery = Not calculated								

All analytes passed QC.

Analysis Begun

Start Time: 9/15/03 4:59:23 PM
Logged In Analyst: Administrator
Spectrometer Model: Optima 2000 DV

Plasma On Time: 9/15/03 9:37:19 AM
Technique: ICP Continuous
Autosampler Model: AS-90plus

Sample Information File: D:\pe\Administrator\Sample Information\0903023.sif
Results Data Set: 0903023
Results Library: D:\pe\Administrator\Results\results2003.mdb

Sequence No.: 28
Sample ID: 0903014-MB
Analyst: Smm
Nebulizer Back Pressure: 142.0 kPa
Sample Wt:
Dilution:

Autosampler Location: 26
Date Collected: 9/15/03 4:59:23 PM

Nebulizer Flow: 0.80 L/min
Sample Prep Volume:
Data Type: Original

Replicate Data: 0903014-MB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Al1	-5633.4	-418.0	-6.822	µg/L	-6.822	µg/L	17:00:13
1	Fe	8272.8	3716.0	96.91	µg/L	96.91	µg/L	17:00:25
1	Mg1	3850.0	555.3	112.1	µg/L	112.1	µg/L	17:00:36
1	Ca	-2572.8	-338.5	-1.861	µg/L	-1.861	µg/L	17:00:52
1	Cr2	90.2	92.4	0.3070	µg/L	0.3070	µg/L	17:01:03
1	Cr1	1021.5	236.8	0.8438	µg/L	0.8438	µg/L	17:01:15
2	Al1	-5388.1	-172.6	-2.817	µg/L	-2.817	µg/L	17:00:19
2	Fe	8242.7	3685.9	96.12	µg/L	96.12	µg/L	17:00:29
2	Mg1	3169.4	-125.2	-25.28	µg/L	-25.28	µg/L	17:00:40
2	Ca	-3362.3	-1128.0	-6.200	µg/L	-6.200	µg/L	17:00:56
2	Cr2	-36.9	-34.7	-0.1154	µg/L	-0.1154	µg/L	17:01:08

Method Name: 0903023

Inst: Symbol, Wavelength, Name, and Function

Description : basic elements

Element	Wavelength nm	Name	Function
Al	396.153	Al1	Analyte
Ca	317.933	Ca	Analyte
Cd	228.801	Cd1	Analyte
Cd	226.502	Cd2	Analyte
Cr	267.716	Cr2	Analyte
Cr	357.868	Cr1	Analyte
Fe	259.939	Fe	Analyte
K	766.486	K1	Analyte
Mg	279.077	Mg1	Analyte
Mn	257.612	Mn1	Analyte
Pb	220.355	Pb1	Analyte
Pb	405.783	Pb2	Analyte

Inst: Spectrometer, Read Time, Replicates

Read Delay Time (sec) : 25

Replicates : 2
Read Time : Manual
Measure by: Element

F'n	Analyte	Integration Time	Read Time
A	Al1	0.002	0.200
A	Ca	0.010	0.100
A	Cd1	0.100	2.000
A	Cd2	0.100	2.000
A	Cr2	0.050	1.000
A	Cr1	0.050	1.000
A	Fe	0.002	0.100
A	K1	0.002	0.100
A	Mg1	0.005	0.200
A	Mn1	0.005	0.250
A	Pb1	0.600	12.000
A	Pb2	0.150	6.000

Survey and Auto Integration Spectral Windows

Element	Wavelength (nm)	Survey Lower	Survey Upper	Auto Lower	Auto Upper
Al	396.153	395.972	396.334	395.972	396.334
Ca	317.933	317.788	318.078	317.788	318.078
Cd	228.801	228.699	228.905	228.699	228.905
Cd	226.502	226.400	226.604	226.400	226.604
Cr	267.716	267.599	267.833	267.599	267.833
Cr	357.868	357.704	358.034	357.704	358.034

Fe	259.939	259.821	260.057	259.821	260.057
K	766.486	766.172	766.808	766.172	766.808
Mg	279.077	278.950	279.204	278.950	279.204
Mn	257.612	257.495	257.725	257.495	257.725
Pb	220.355	220.255	220.451	220.255	220.451
Pb	405.783	405.602	405.960	405.602	405.960

Sampler: Plasma Parameters

Source Equilibration Delay : 15 sec
Plasma Aerosol Type : Wet
Nebulizer Start-up Conditions: Instant

Plasma Params: Variable

F'n	Analyte	Plas L/min	Aux L/min	Neb L/min	Power Watts	View Dist	Plasma View
A	Al1	15	0.2	0.8	1400	15.0	Radial
A	Ca	15	0.2	0.8	1400	15.0	Axial
A	Cd1	15	0.2	0.8	1400	15.0	Axial
A	Cd2	15	0.2	0.8	1400	15.0	Axial
A	Cr2	15	0.2	0.8	1400	15.0	Axial
A	Cr1	15	0.2	0.8	1400	15.0	Axial
A	Fe	15	0.2	0.8	1400	15.0	Radial
A	K1	15	0.2	0.8	1400	15.0	Radial
A	Mg1	15	0.2	0.8	1400	15.0	Radial
A	Mn1	15	0.2	0.8	1400	15.0	Axial
A	Pb1	15	0.2	0.8	1400	15.0	Axial
A	Pb2	15	0.2	0.8	1400	15.0	Axial

Sampler: Peristatic Pump Parameters

Sample Flow Rate : 1.60 mL/min
Sample Flush Time(sec) : 10

Sampler: Wash Parameters

Wash Frequency : Between Samples
Wash Location : 0
Wash Rate(mL/min) : 2.50
Wash Time (sec) : 35

Process: Peak Algorithms and Points/Peak

F'n	Analyte	Peak Algorithm	Pts/Peak
A	Al1	Peak Area	5
A	Ca	Peak Area	4

Method Name: 0903023

A	Cd1	Peak Area	4
A	Cd2	Peak Area	4
A	Cr2	Peak Area	3
A	Cr1	Peak Area	3
A	Fe	Peak Area	3
A	K1	Peak Area	7
A	Mg1	Peak Area	4
A	Mn1	Peak Area	4
A	Pb1	Peak Area	3
A	Pb2	Peak Area	4

Process: Spectral Overlap and Background Correction

F'n	Analyte	Overlap Correction	Background Correction	BGC1	BGC2
A	Al1	None	2-Point	-0.051	0.054
A	Ca	None	2-Point	-0.058	0.041
A	Cd1	None	2-Point	-0.017	0.021
A	Cd2	None	2-Point	-0.020	0.021
A	Cr2	None	2-Point	-0.028	0.034
A	Cr1	None	2-Point	-0.040	0.034
A	Fe	None	2-Point	-0.030	0.029
A	K1	None	2-Point	-0.148	0.148
A	Mg1	None	2-Point	-0.033	0.030
A	Mn1	None	2-Point	-0.029	0.050
A	Pb1	None	2-Point	-0.016	0.014
A	Pb2	None	2-Point	-0.067	0.073

IEC Table : None MSF Table : None

Process: Assign Internal Standards

Do Calib Blanks contain internal standards: No
Report apparent concentrations for internal standards: No

Analyte	Internal Standard	Conc	Units
Al1			
Ca			
Cd1			
Cd2			
Cr2			
Cr1			
Fe			
K1			
Mg1			
Mn1			
Pb1			
Pb2			

Calib: Blank and Standard IDs and Autosampler Locations

ID	A/S Location

Method Name: 0903023

Calib Blank	1	Std Blk	1

		ID	A/S Location
Calib Std	1	Std1	2
Calib Std	2	Std2	3
Calib Std	3	Std3	4
Calib Std	4	Std4	5

Calib: Calibration Standard Units and Concentrations

Analyte	Calib Units	Std1	Std2	Std3	Std4
Al1	µg/L	10000	1000		
Ca	µg/L	25000	2500		
Cd1	µg/L		250	2500	25
Cd2	µg/L		250	2500	25
Cr2	µg/L	1000	100		10
Cr1	µg/L	1000	100		10
Fe	µg/L	5000	500		
K1	µg/L	25000	2500		
Mg1	µg/L	25000	2500		
Mn1	µg/L	2500	250		
Pb1	µg/L		500	5000	50
Pb2	µg/L		500	5000	50

Calib: Calibration and Reagent Blank Usage

F'n	Element	Use Calib Blank	Subtract Reagent
A	Al1	Std Blk	n/a
A	Ca	Std Blk	n/a
A	Cd1	Std Blk	n/a
A	Cd2	Std Blk	n/a
A	Cr2	Std Blk	n/a
A	Cr1	Std Blk	n/a
A	Fe	Std Blk	n/a
A	K1	Std Blk	n/a
A	Mg1	Std Blk	n/a
A	Mn1	Std Blk	n/a
A	Pb1	Std Blk	n/a
A	Pb2	Std Blk	n/a

Calib: Calibration Equation and Sample Units

F'n	Element	Calibration Equation	Sample Units	Max Decimal	Max Signif.

				Places	Figures
A	Al1	Lin Thru 0	µg/L	4	4
A	Ca	Lin Thru 0	µg/L	4	4
A	Cd1	Lin Thru 0	µg/L	4	4
A	Cd2	Lin Thru 0	µg/L	4	4
A	Cr2	Lin Thru 0	µg/L	4	4
A	Cr1	Lin Thru 0	µg/L	4	4
A	Fe	Lin Thru 0	µg/L	4	4
A	K1	Lin Thru 0	µg/L	4	4
A	Mg1	Lin Thru 0	µg/L	4	4
A	Mn1	Lin Thru 0	µg/L	4	4
A	Pb1	Lin Thru 0	µg/L	4	4
A	Pb2	Lin Thru 0	µg/L	4	4

Calib: Initial Calibration Options

When opening this method manually :

Use the calibrations curves in memory.

When using this method in a multimethod sequence:

* Start by constructing new calibration curves.
  Start using the existing calibration curve set.
  Start using the stored calibration curve set:

Calib : Multi Line Calibration

Seq.	Elem	Action	Analytes	Low	High	Units
1	Cd	Always Report	Cd2	0.00	2500.00	µg/L
2	Cd	Always Report	Cd1	0.00	2500.00	µg/L
1	Cr	Always Report	Cr2	0.00	1000.00	µg/L
2	Cr	Always Report	Cr1	0.00	1000.00	µg/L
1	Pb	Average & Report	Pb2	0.00	5000.00	µg/L
2	Pb	Average & Report	Pb1	0.00	5000.00	µg/L

Analyte Concentrations Added to Recovery Check Samples

Concentration Units: Sample

Analyte	Conc Units	Recovery Set1	Recovery Set2	Recovery Set3	Recovery Set4	Recovery Set5	Recovery Set6
Al1	µg/L	500	1000				
Ca	µg/L	500	1000				
Cd1	µg/L	500	1000				
Cd2	µg/L	500	1000				
Cr2	µg/L	500	1000				
Cr1	µg/L	500	1000				
Fe	µg/L	500	1000				
K1	µg/L	500	1000				

Mg1	µg/L	500	1000
Mn1	µg/L	500	1000
Pb1	µg/L	500	1000
Pb2	µg/L	500	1000

QC Sample Definition

QC	Sample ID	A/S Loc	Count as Sample	Subtract Reagent
QC 1	ICB/CCB	1	No	No
QC 2	ICV/CCV	6	No	No
QC 3	High Standard 1	2	No	No
QC 4	High Standard 2	4	No	No

QC Samples: Concentrations and Limits

QC 1: ICB/CCB Concentration Units: Calibration

Analyte	Units	Conc	Lower Limit	Upper Limit
Al1	µg/L	0.000	-50.00	50.00
Ca	µg/L	0.000	-50.00	50.00
Cd1	µg/L	0.000	-5.00	5.00
Cd2	µg/L	0.000	-5.00	5.00
Cr2	µg/L	0.000	-5.00	5.00
Cr1	µg/L	0.000	-5.00	5.00
Fe	µg/L	0.000	-50.00	50.00
K1	µg/L	0.000	-50.00	50.00
Mg1	µg/L	0.000	-50.00	50.00
Mn1	µg/L	0.000	-5.00	5.00
Pb1	µg/L	0.000	-10.00	10.00
Pb2	µg/L	0.000	-20.00	20.00

QC 2: ICV/CCV Concentration Units: Calibration

Analyte	Units	Conc	Lower Limit	Upper Limit
Al1	µg/L	5000	4500.0	5500.0
Ca	µg/L	12500	11250.0	13750.0
Cd1	µg/L	1250	1125.0	1375.0
Cd2	µg/L	1250	1125.0	1375.0
Cr2	µg/L	500	450.0	550.0
Cr1	µg/L	500	450.0	550.0
Fe	µg/L	2500	2250.0	2750.0
K1	µg/L	12500	11250.0	13750.0
Mg1	µg/L	12500	11250.0	13750.0
Mn1	µg/L	1250	1125.0	1375.0
Pb1	µg/L	2500	2250.0	2750.0
Pb2	µg/L	2500	2250.0	2750.0

QC 3: High Standard 1 Concentration Units: Calibration

Analyte	Units	Conc	Lower Limit	Upper Limit
Al1	µg/L	10000	9000.0	11000.0
Ca	µg/L	25000	22500.0	27500.0
Cr2	µg/L	1000	900.0	1100.0
Cr1	µg/L	1000	900.0	1100.0
Fe	µg/L	5000	4500.0	5500.0
K1	µg/L	25000	22500.0	27500.0
Mg1	µg/L	25000	22500.0	27500.0
Mn1	µg/L	2500	2250.0	2750.0

QC 4: High Standard 2 Concentration Units: Calibration

Analyte	Units	Conc	Lower Limit	Upper Limit
Cd1	µg/L	2500	2250.0	2750.0
Cd2	µg/L	2500	2250.0	2750.0
Pb1	µg/L	5000	4500.0	5500.0
Pb2	µg/L	5000	4500.0	5500.0

Schedule for QC Analyses

ID	QC Sample	After InitCal	After Recal	Periodic	Freq	AtEnd
QC1	ICB/CCB	No	No	No	1	No
QC2	ICV/CCV	No	No	No	1	No
QC3	High Standard 1	No	No	No	1	No
QC4	High Standard 2	Yes	No	No	1	No

Periodic timing of Analyses

Frequency : Same for all QC's : 10

Failure Actions for After-Calibration QC's

QC	Sample ID	Times to Retry QC	When All Tries Fail	Additional Message
QC1	(Not Scheduled)			
QC2	(Not Scheduled)			
QC3	(Not Scheduled)			
QC4	High Standard 2	0	Continue	

Failure Actions for Periodic QC's

Times to When All Additional

Method Name: 0903023

QC	Sample ID	Retry QC	Tries Fail	Message
QC1	(Not Scheduled)			
QC2	(Not Scheduled)			
QC3	(Not Scheduled)			
QC4	(Not Scheduled)			

Failure Action for At-End QC's

QC	Sample ID	Times to Retry QC	When All Tries Fail	Additional Message
QC1	(Not Scheduled)			
QC2	(Not Scheduled)			
QC3	(Not Scheduled)			
QC4	(Not Scheduled)			

Maximum Retries After QC Failure

After a group of standards or unknowns has been reanalyzed 1 times, then Stop

---

Options :

Include in Results Display and Printed Log:

Headers:
* Analysis Header
* Method Header (Expanded)
* Sample Header (Start each sample on a new page)

Sample Data Items:
* Auto Integration Report
* Replicate Data
* Means and Statistics
* Analysis List
* Calibration Summary
* Matrix Test Reports

Save with Results
* Spectral Data
* Copy of Method

Remarks

Seq. No. 1 AS Loc: Date: 9/13/03
Sample ID: Sample

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0005	0.0022	83.5782	0.0005	4.1789	09:28:04
Mean:			0.0005					
SD:								
%RSD:								

Seq. No. 2 AS Loc: Date: 9/13/03
Sample ID: Sample

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0914	0.3431	83.5837	0.0914	4.1792	09:31:07
Mean:			0.0914					
SD:								
%RSD:								

Seq. No. 3 AS Loc: 8 Date: 9/13/03
Sample ID: Calib Blank

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0004	0.0031	83.5824	0.0004	4.1791	09:34:28
			0.0003	0.0003	83.5794	0.0003	4.1790	09:35:03
Auto-zero performed.								
Mean:			0.0003					
SD:			0.00007					
%RSD:			22.13					

Seq. No. 4 AS Loc: 1 Date: 9/13/03
Sample ID: ICAL 20

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.3355	1.3079	83.5834	0.3358	4.1792	09:37:14
			0.3351	1.3050	83.5765	0.3354	4.1788	09:37:48
[Hg] Standard number 1 applied. [20.00]								
Correlation Coefficient: 1.00000		Slope: 0.01676						
Mean:			0.3353					
SD:			0.00031					
%RSD:			0.09					

Seq. No. 5 AS Loc: 2 Date: 9/13/03
Sample ID: ICAL 10

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.1752	0.6777	83.5835	0.1755	4.1792	09:39:58
			0.1732	0.6807	83.5813	0.1736	4.1790	09:40:32
[Hg] Standard number 2 applied. [10.00]								
Correlation Coefficient: 0.99879		Slope: 0.01690						
Mean:			0.1742					
SD:			0.00139					
%RSD:			0.80					

Seq. No. 6 AS Loc: 3 Date: 9/13/03
Sample ID: ICAL 5.0

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0918	0.3573	83.5874	0.0922	4.1794	09:42:42

Hg		0.0923	0.3571	83.5867	0.0926	4.1793	09:43:16

[Hg] Standard number 3 applied. [5.000]
rrelation Coefficient: 0.99867 Slope: 0.01698

an:	0.0921
SD:	0.00032
%RSD:	0.34

Seq. No. 7 AS Loc: 4 Date: 9/13/03
Sample ID: ICAL 2.0

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0350	0.1370	83.5927	0.0354	4.1796	09:45:26
			0.0353	0.1355	83.5935	0.0357	4.1797	09:46:01

[Hg] Standard number 4 applied. [2.000]
Correlation Coefficient: 0.99916 Slope: 0.01698

Mean:	0.0352
SD:	0.00020
%RSD:	0.57

Seq. No. 8 AS Loc: 5 Date: 9/13/03
Sample ID: ICAL 1.0

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0177	0.0688	83.6079	0.0180	4.1804	09:48:13
			0.0178	0.0686	83.6111	0.0181	4.1806	09:48:47

[Hg] Standard number 5 applied. [1.000]
Correlation Coefficient: 0.99934 Slope: 0.01698

Mean:	0.0177
SD:	0.00004
RSD:	0.25

Seq. No. 9 AS Loc: 6 Date: 9/13/03
Sample ID: ICAL 0.5

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0089	0.0358	83.6232	0.0092	4.1812	09:50:59
			0.0091	0.0368	83.6264	0.0095	4.1813	09:51:33

[Hg] Standard number 6 applied. [0.5000]
Correlation Coefficient: 0.99944 Slope: 0.01698

Mean:	0.0090
SD:	0.00017
%RSD:	1.92

Seq. No. 10 AS Loc: 7 Date: 9/13/03
Sample ID: ICAL 0.2

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg			0.0032	0.0133	83.6368	0.0036	4.1819	09:53:47
			0.0033	0.0138	83.6398	0.0036	4.1820	09:54:21

[Hg] Standard number 7 applied. [0.2000]
Correlation Coefficient: 0.99950 Slope: 0.01698

Mean:	0.0032
SD:	0.00002
%RSD:	0.69

Seq. No. 11 AS Loc: 106 Date: 9/13/03
Sample ID: ICV/CCV

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	2.131µg/L	2.131µg/L	0.0362	0.1421	83.6537	0.0365	4.1827	09:57:24
	2.090µg/L	2.090µg/L	0.0355	0.1417	83.6537	0.0358	4.1827	09:57:58
QC value within specified limits.								
Mean:	2.111µg/L	2.111µg/L	0.0358					
SD:	0.0287µg/L	0.0287µg/L	0.00049					
%RSD:	1.36		1.36					

Seq. No. 12 AS Loc: 8 Date: 9/13/03
Sample ID: ICB/CCB

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.0022µg/L	-0.0022µg/L	-0.0000	0.0010	83.6648	0.0003	4.1832	10:00:10
	-0.0025µg/L	-0.0025µg/L	-0.0000	0.0008	83.6669	0.0003	4.1833	10:00:45
QC value within specified limits.								
Mean:	-0.0024µg/L	-0.0024µg/L	-0.0000					
SD:	0.0002µg/L	0.0002µg/L	0.00000					
%RSD:	10.08		10.08					

Seq. No. 13 AS Loc: 105 Date: 9/13/03
Sample ID: ICV/CCV High

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	10.30µg/L	10.30µg/L	0.1750	0.7149	83.6740	0.1753	4.1837	10:02:59
	10.47µg/L	10.47µg/L	0.1778	0.7181	83.6703	0.1781	4.1835	10:03:35
QC value within specified limits.								
Mean:	10.38µg/L	10.38µg/L	0.1764					
SD:	0.1155µg/L	0.1155µg/L	0.00196					
%RSD:	1.11		1.11					

Seq. No. 14 AS Loc: 9 Date: 9/13/03
Sample ID: 0903023-MB front

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.0007µg/L	-0.0007µg/L	-0.0000	0.0009	83.6781	0.0003	4.1839	10:05:43
	0.0005µg/L	0.0005µg/L	0.0000	0.0014	83.6793	0.0003	4.1840	10:06:17
Mean:	-0.0001µg/L	-0.0001µg/L	-0.0000					
SD:	0.0008µg/L	0.0008µg/L	0.00001					
%RSD:	837.83		837.83					

Seq. No. 15 AS Loc: 10 Date: 9/13/03
Sample ID: 0903023-MB back

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.0090µg/L	-0.0090µg/L	-0.0002	0.0008	83.6794	0.0002	4.1840	10:08:25
	-0.0088µg/L	-0.0088µg/L	-0.0001	0.0007	83.6794	0.0002	4.1840	10:08:59
Mean:	-0.0089µg/L	-0.0089µg/L	-0.0002					
SD:	0.0002µg/L	0.0002µg/L	0.00000					
%RSD:	2.06		2.06					

Seq. No. 16 AS Loc: 11 Date: 9/13/03
Sample ID: 0903023-LS front

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	5.863µg/L	5.863µg/L	0.0996	0.3886	83.6834	0.0999	4.1842	10:11:09

Hg	5.929µg/L	5.929µg/L	0.1007	0.3898	83.6803	0.1010	4.1840	10:11:43
Mean:	5.896µg/L	5.896µg/L	0.1001					
SD:	0.0463µg/L	0.0463µg/L	0.00079					
%RSD:	0.78		0.78					

Seq. No. 17 AS Loc: 12 Date: 9/13/03
Sample ID: 0903023-LS back

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	10.10µg/L	10.10µg/L	0.1716	0.6805	83.6834	0.1720	4.1842	10:13:53
	10.21µg/L	10.21µg/L	0.1734	0.6868	83.6811	0.1738	4.1840	10:14:28
Mean:	10.16µg/L	10.16µg/L	0.1725					
SD:	0.0748µg/L	0.0748µg/L	0.00127					
%RSD:	0.74		0.74					

Seq. No. 18 1,18 AS Loc: 13 Date: 9/13/03
Sample ID: 0903023-~~17-18~~ 9/13/03

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	3.431µg/L	3.431µg/L	0.0583	0.2317	83.6834	0.0586	4.1842	10:16:38
	3.422µg/L	3.422µg/L	0.0581	0.2287	83.6823	0.0585	4.1841	10:17:13
Mean:	3.426µg/L	3.426µg/L	0.0582					
SD:	0.0063µg/L	0.0063µg/L	0.00011					
%RSD:	0.18		0.18					

Seq. No. 19 1,18 dup AS Loc: 14 Date: 9/13/03
Sample ID: 0903023-~~17-18~~ dup 9/13/03

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
g	3.375µg/L	3.375µg/L	0.0573	0.2278	83.6851	0.0577	4.1842	10:19:25
	3.411µg/L	3.411µg/L	0.0579	0.2255	83.6844	0.0583	4.1842	10:19:59

The difference between locations 13 and 14 for [Hg] is 1.0 percent.

Mean:	3.393µg/L	3.393µg/L	0.0576
SD:	0.0254µg/L	0.0254µg/L	0.00043
%RSD:	0.75		0.00

Seq. No. 20 AS Loc: 15 Date: 9/13/03
Sample ID: 0903023-19

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	1.728µg/L	1.728µg/L	0.0293	0.1221	83.6862	0.0297	4.1843	10:22:11
	1.756µg/L	1.756µg/L	0.0298	0.1212	83.6844	0.0302	4.1842	10:22:47
Mean:	1.742µg/L	1.742µg/L	0.0296					
SD:	0.0197µg/L	0.0197µg/L	0.00033					
%RSD:	1.13		1.13					

Seq. No. 21 AS Loc: 16 Date: 9/13/03
Sample ID: 0903023-20

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	1.346µg/L	1.346µg/L	0.0229	0.0905	83.6883	0.0232	4.1844	10:25:01
	1.346µg/L	1.346µg/L	0.0229	0.0894	83.6864	0.0232	4.1843	10:25:35
Mean:	1.346µg/L	1.346µg/L	0.0229					
SD:	0.0001µg/L	0.0001µg/L	0.00000					
%RSD:	0.01		0.01					

Seq. No.	22	AS Loc:	17	Date:	9/13/03			
ple ID:	0903023-21							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.0055µg/L	0.0055µg/L	0.0001	0.0019	83.6905	0.0004	4.1845	10:27:48
	0.0058µg/L	0.0058µg/L	0.0001	0.0019	83.6895	0.0004	4.1845	10:28:22
Mean:	0.0057µg/L	0.0057µg/L	0.0001					
SD:	0.0003µg/L	0.0003µg/L	0.00000					
%RSD:	4.43		4.43					

Seq. No.	23	AS Loc:	18	Date:	9/13/03			
Sample ID:	0903023-21 ms							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	10.19µg/L	10.19µg/L	0.1732	0.7066	83.6884	0.1735	4.1844	10:30:29
	10.41µg/L	10.41µg/L	0.1769	0.7023	83.6864	0.1772	4.1843	10:31:03
The measured recovery for locations 17 and 18 for [Hg] is 103.0 percent.								
Mean:	10.30µg/L	10.30µg/L	0.1750					
SD:	0.1557µg/L	0.1557µg/L	0.00264					
%RSD:	1.51		0.00					

Seq. No.	24	AS Loc:	106	Date:	9/13/03			
Sample ID:	ICV/CCV							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	2.094µg/L	2.094µg/L	0.0356	0.1451	83.6903	0.0359	4.1845	10:33:13
	2.100µg/L	2.100µg/L	0.0357	0.1447	83.6892	0.0360	4.1845	10:33:48
QC value within specified limits.								
an:	2.097µg/L	2.097µg/L	0.0356					
SD:	0.0038µg/L	0.0038µg/L	0.00006					
%RSD:	0.18		0.18					

Seq. No.	25	AS Loc:	8	Date:	9/13/03			
Sample ID:	ICB/CCB							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.0001µg/L	0.0001µg/L	0.0000	0.0024	83.6914	0.0003	4.1846	10:36:00
	-0.0019µg/L	-0.0019µg/L	-0.0000	0.0014	83.6894	0.0003	4.1845	10:36:35
QC value within specified limits.								
Mean:	-0.0009µg/L	-0.0009µg/L	-0.0000					
SD:	0.0014µg/L	0.0014µg/L	0.00002					
%RSD:	156.09		156.09					

Seq. No.	26	AS Loc:	19	Date:	9/13/03			
Sample ID:	0903023-21 msd							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	10.13µg/L	10.13µg/L	0.1720	0.7056	83.6942	0.1724	4.1847	10:38:49
	10.23µg/L	10.23µg/L	0.1737	0.7034	83.6884	0.1740	4.1844	10:39:24
The difference between locations 18 and 19 for [Hg] is 1.2 percent.								
The measured recovery for locations 17 and 19 for [Hg] is 101.7 percent.								
Mean:	10.18	10.18	0.1729					
SD:	0.0687	0.0687	0.00117					
%RSD:	0.67		0.00					

Seq. No.	27	AS Loc:	20	Date:	9/13/03			
Sample ID:	0903023-22							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.9559µg/L	0.9559µg/L	0.0162	0.0713	83.6884	0.0166	4.1844	10:41:32
	0.9553µg/L	0.9553µg/L	0.0162	0.0715	83.6886	0.0166	4.1844	10:42:06
Mean:	0.9556µg/L	0.9556µg/L	0.0162					
SD:	0.0005µg/L	0.0005µg/L	0.00001					
%RSD:	0.05		0.05					

Seq. No.	28 5,24	AS Loc:	21	Date:	9/13/03			
Sample ID:	0903023-~~23 24~~							
Elem	SampleConc 5-- 9/13/03	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.9871µg/L	0.9871µg/L	0.0168	0.0682	83.6881	0.0171	4.1844	10:44:14
	1.006µg/L	1.006µg/L	0.0171	0.0682	83.6875	0.0174	4.1844	10:44:49
Mean:	0.9966µg/L	0.9966µg/L	0.0169					
SD:	0.0134µg/L	0.0134µg/L	0.00023					
%RSD:	1.34		1.34					

Seq. No.	29	AS Loc:	22	Date:	9/13/03			
Sample ID:	0903023-25							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	1.595µg/L	1.595µg/L	0.0271	0.1123	83.6865	0.0274	4.1843	10:46:58
	1.624µg/L	1.624µg/L	0.0276	0.1129	83.6856	0.0279	4.1843	10:47:32
Mean:	1.609µg/L	1.609µg/L	0.0273					
SD:	0.0203µg/L	0.0203µg/L	0.00035					
SD:	1.26		1.26					

Seq. No.	30	AS Loc:	23	Date:	9/13/03			
Sample ID:	0903023-26							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	1.387µg/L	1.387µg/L	0.0236	0.0969	83.6862	0.0239	4.1843	10:49:41
	1.405µg/L	1.405µg/L	0.0239	0.0983	83.6852	0.0242	4.1842	10:50:17
Mean:	1.396µg/L	1.396µg/L	0.0237					
SD:	0.0130µg/L	0.0130µg/L	0.00022					
%RSD:	0.93		0.93					

Seq. No.	31	AS Loc:	24	Date:	9/13/03			
Sample ID:	0903023-26 ms							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	11.40µg/L	11.40µg/L	0.1936	0.7970	83.6851	0.1939	4.1842	10:52:26
	11.55µg/L	11.55µg/L	0.1962	0.7912	83.6813	0.1965	4.1841	10:53:00
The measured recovery for locations 23 and 24 for [Hg] is 100.8 percent.								
Mean:	11.47µg/L	11.47µg/L	0.1949					
SD:	0.1061µg/L	0.1061µg/L	0.00180					
%RSD:	0.92		0.00					

Seq. No.	32	AS Loc:	25	Date:	9/13/03			
Sample ID:	0903023-26 msd							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	11.40µg/L	11.40µg/L	0.1937	0.8006	83.6813	0.1940	4.1841	10:55:10
	11.43µg/L	11.43µg/L	0.1941	0.7968	83.6783	0.1945	4.1839	10:55:45
The difference between locations 24 and 25 for [Hg] is 0.5 percent.								

Hg
The measured recovery for locations 23 and 25 for [Hg] is 100.2 percent.

n:	11.42	11.42	0.1939
SD:	0.0183	0.0183	0.00031
%RSD:	0.16		0.00

Seq. No. 33 AS Loc: 26 Date: 9/13/03
Sample ID: 0903023-27

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.0098µg/L	-0.0098µg/L	-0.0002	0.0004	83.6823	0.0002	4.1841	10:57:55
	-0.0094µg/L	-0.0094µg/L	-0.0002	0.0005	83.6831	0.0002	4.1842	10:58:30
Mean:	-0.0096µg/L	-0.0096µg/L	-0.0002					
SD:	0.0003µg/L	0.0003µg/L	0.00000					
%RSD:	2.84		2.84					

Seq. No. 34 AS Loc: 27 Date: 9/13/03
Sample ID: 0903023-28

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.4444µg/L	0.4444µg/L	0.0075	0.0371	83.6825	0.0079	4.1841	11:00:41
	0.4433µg/L	0.4433µg/L	0.0075	0.0368	83.6820	0.0079	4.1841	11:01:15
Mean:	0.4439µg/L	0.4439µg/L	0.0075					
SD:	0.0008µg/L	0.0008µg/L	0.00001					
%RSD:	0.19		0.19					

Seq. No. 35 AS Loc: 28 Date: 9/13/03
Sample ID: 0903023-28 dup

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.4817µg/L	0.4817µg/L	0.0082	0.0377	83.6804	0.0085	4.1840	11:03:27
	0.4910µg/L	0.4910µg/L	0.0083	0.0382	83.6804	0.0087	4.1840	11:04:02

The difference between locations 27 and 28 for [Hg] is 9.1 percent.

Mean:	0.4864µg/L	0.4864µg/L	0.0083
SD:	0.0066µg/L	0.0066µg/L	0.00011
%RSD:	1.35		0.00

Seq. No. 36 AS Loc: 106 Date: 9/13/03
Sample ID: ICV/CCV

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	2.148µg/L	2.148µg/L	0.0365	0.1497	83.6789	0.0368	4.1839	11:06:14
	2.138µg/L	2.138µg/L	0.0363	0.1482	83.6752	0.0366	4.1838	11:06:49

QC value within specified limits.

Mean:	2.143µg/L	2.143µg/L	0.0364
SD:	0.0073µg/L	0.0073µg/L	0.00012
%RSD:	0.34		0.34

Seq. No. 37 AS Loc: 8 Date: 9/13/03
Sample ID: ICB/CCB

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.0020µg/L	0.0020µg/L	0.0000	0.0019	83.6752	0.0004	4.1838	11:09:01
	0.0007µg/L	0.0007µg/L	0.0000	0.0015	83.6743	0.0003	4.1837	11:09:35

QC value within specified limits.

Mean:	0.0013µg/L	0.0013µg/L	0.0000
SD:	0.0009µg/L	0.0009µg/L	0.00002
%RSD:	70.18		70.18

Seq. No.	38 9,30	AS Loc:	29	Date:	9/13/03			
Sample ID:	0903023-~~29 30~~							
Elem	SampleConc 9/13/03	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.5416µg/L	0.5416µg/L	0.0092	0.0378	83.6761	0.0095	4.1838	11:11:50
	0.5426µg/L	0.5426µg/L	0.0092	0.0383	83.6772	0.0096	4.1839	11:12:24
Mean:	0.5421µg/L	0.5421µg/L	0.0092					
SD:	0.0007µg/L	0.0007µg/L	0.00001					
%RSD:	0.13		0.13					

Seq. No.	39	AS Loc:	30	Date:	9/13/03			
Sample ID:	0903023-31							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.7329µg/L	0.7329µg/L	0.0124	0.0582	83.6761	0.0128	4.1838	11:14:37
	0.7341µg/L	0.7341µg/L	0.0125	0.0569	83.6751	0.0128	4.1837	11:15:12
Mean:	0.7335µg/L	0.7335µg/L	0.0125					
SD:	0.0009µg/L	0.0009µg/L	0.00001					
%RSD:	0.12		0.12					

Seq. No.	40	AS Loc:	31	Date:	9/13/03			
Sample ID:	0903023-31 ms							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	6.749µg/L	6.749µg/L	0.1146	0.5239	83.6719	0.1150	4.1836	11:17:25
	6.805µg/L	6.805µg/L	0.1156	0.5230	83.6679	0.1159	4.1834	11:17:59
The measured recovery for locations 30 and 31 for [Hg] is 60.4 percent.								
Mean:	6.777µg/L	6.777µg/L	0.1151					
SD:	0.0391µg/L	0.0391µg/L	0.00066					
%RSD:	0.58		0.00					

Seq. No.	41	AS Loc:	32	Date:	9/13/03			
Sample ID:	0903023-31 msd							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	6.998µg/L	6.998µg/L	0.1189	0.5378	83.6700	0.1192	4.1835	11:20:09
	7.014µg/L	7.014µg/L	0.1191	0.5365	83.6669	0.1195	4.1833	11:20:43
The difference between locations 31 and 32 for [Hg] is 3.3 percent.								
Mean:	7.006µg/L	7.006µg/L	0.1190					
SD:	0.0115µg/L	0.0115µg/L	0.00020					
%RSD:	0.16		0.00					

Seq. No.	42	AS Loc:	33	Date:	9/13/03			
Sample ID:	0903023-32							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.5600µg/L	0.5600µg/L	0.0095	0.0397	83.6691	0.0098	4.1834	11:22:50
	0.5663µg/L	0.5663µg/L	0.0096	0.0397	83.6698	0.0100	4.1835	11:23:25
Mean:	0.5632µg/L	0.5632µg/L	0.0096					
SD:	0.0045µg/L	0.0045µg/L	0.00008					
%RSD:	0.80		0.80					

Seq. No.	43	AS Loc:	34	Date:	9/13/03			
Sample ID:	0903023-33							
Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.0069µg/L	-0.0069µg/L	-0.0001	0.0012	83.6689	0.0002	4.1834	11:25:31
	-0.0057µg/L	-0.0057µg/L	-0.0001	0.0013	83.6679	0.0002	4.1834	11:26:05

Mean:	-0.0063µg/L	-0.0063µg/L	-0.0001
SD:	0.0009µg/L	0.0009µg/L	0.00002
SD:	14.23		14.23

Seq. No. 44 AS Loc: 35 Date: 9/13/03
Sample ID: 0903023-34

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.2472µg/L	0.2472µg/L	0.0042	0.0213	83.6649	0.0045	4.1832	11:28:12
	0.2486µg/L	0.2486µg/L	0.0042	0.0212	83.6669	0.0046	4.1833	11:28:46
Mean:	0.2479µg/L	0.2479µg/L	0.0042					
SD:	0.0010µg/L	0.0010µg/L	0.00002					
%RSD:	0.40		0.40					

Seq. No. 45 AS Loc: 36 Date: 9/13/03
Sample ID: 0903023-34 ser dil

S 9/13/03

DATA NOT USED.

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.1824µg/L	0.1824µg/L	0.0031	0.0152	83.6649	0.0034	4.1833	11:30:54
	0.1826µg/L	0.1826µg/L	0.0031	0.0159	83.6639	0.0034	4.1832	11:31:28
Mean:	0.1825µg/L	0.1825µg/L	0.0031					
SD:	0.0001µg/L	0.0001µg/L	0.00000					
%RSD:	0.06		0.06					

sample < 50x MDL

Seq. No. 46 AS Loc: 37 Date: 9/13/03
Sample ID: 0903023-36 41

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.0692µg/L	0.0692µg/L	0.0012	0.0070	83.6630	0.0015	4.1831	11:33:36
	0.0656µg/L	0.0656µg/L	0.0011	0.0057	83.6618	0.0014	4.1831	11:34:11
Mean:	0.0674µg/L	0.0674µg/L	0.0011					
SD:	0.0025µg/L	0.0025µg/L	0.00004					
%RSD:	3.74		3.74					

Seq. No. 47 AS Loc: 38 Date: 9/13/03
Sample ID: 0903023-37

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.0022µg/L	0.0022µg/L	0.0000	0.0014	83.6630	0.0004	4.1831	11:36:19
	0.0055µg/L	0.0055µg/L	0.0001	0.0019	83.6628	0.0004	4.1831	11:36:55
Mean:	0.0039µg/L	0.0039µg/L	0.0001					
SD:	0.0023µg/L	0.0023µg/L	0.00004					
%RSD:	59.56		59.56					

Seq. No. 48 AS Loc: 106 Date: 9/13/03
Sample ID: ICV/CCV

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	2.134µg/L	2.134µg/L	0.0362	0.1492	83.6599	0.0366	4.1830	11:39:05
	2.148µg/L	2.148µg/L	0.0365	0.1507	83.6575	0.0368	4.1829	11:39:40

QC value within specified limits.

Mean:	2.141µg/L	2.141µg/L	0.0364
SD:	0.0100µg/L	0.0100µg/L	0.00017
%RSD:	0.47		0.47

Seq. No. 49 AS Loc: 8 Date: 9/13/03
ple ID: ICB/CCB

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.0019µg/L	0.0019µg/L	0.0000	0.0011	83.6551	0.0004	4.1828	11:41:53
	0.0057µg/L	0.0057µg/L	0.0001	0.0021	83.6569	0.0004	4.1828	11:42:28
QC value within specified limits.								
Mean:	0.0038µg/L	0.0038µg/L	0.0001					
SD:	0.0026µg/L	0.0026µg/L	0.00004					
%RSD:	69.40		69.40					

Seq. No. 50 AS Loc: 39 Date: 9/13/03
Sample ID: 0903023-38

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.0024µg/L	0.0024µg/L	0.0000	0.0011	83.6545	0.0004	4.1827	11:44:38
	0.0067µg/L	0.0067µg/L	0.0001	0.0021	83.6567	0.0004	4.1828	11:45:13
Mean:	0.0045µg/L	0.0045µg/L	0.0001					
SD:	0.0030µg/L	0.0030µg/L	0.00005					
%RSD:	67.08		67.08					

Seq. No. 51 AS Loc: 40 Date: 9/13/03
Sample ID: 0903023-39

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.0063µg/L	-0.0063µg/L	-0.0001	0.0013	83.6569	0.0002	4.1828	11:47:23
	-0.0076µg/L	-0.0076µg/L	-0.0001	0.0022	83.6548	0.0002	4.1827	11:47:58
Mean:	-0.0069µg/L	-0.0069µg/L	-0.0001					
SD:	0.0009µg/L	0.0009µg/L	0.00001					
%RSD:	12.68		12.68					

Seq. No. 52 AS Loc: 41 Date: 9/13/03
Sample ID: 0903023-40

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.0344µg/L	0.0344µg/L	0.0006	0.0044	83.6496	0.0009	4.1825	11:50:07
	0.0338µg/L	0.0338µg/L	0.0006	0.0040	83.6489	0.0009	4.1825	11:50:42
Mean:	0.0341µg/L	0.0341µg/L	0.0006					
SD:	0.0004µg/L	0.0004µg/L	0.00001					
%RSD:	1.19		1.19					

Seq. No. 53 AS Loc: 42 Date: 9/13/03
Sample ID: Filtration Blank 9/12/03

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	-0.0148µg/L	-0.0148µg/L	-0.0003	0.0004	83.6456	0.0001	4.1823	11:52:53
	-0.0110µg/L	-0.0110µg/L	-0.0002	0.0015	83.6448	0.0001	4.1822	11:53:28
Mean:	-0.0129µg/L	-0.0129µg/L	-0.0002					
SD:	0.0027µg/L	0.0027µg/L	0.00005					
%RSD:	20.55		20.55					

Seq. No. 54 AS Loc: 43 Date: 9/13/03
Sample ID: PQL Check

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.0589µg/L	0.0589µg/L	0.0010	0.0056	83.6423	0.0013	4.1821	11:55:45
	0.0683µg/L	0.0683µg/L	0.0012	0.0049	83.6416	0.0015	4.1821	11:56:19

Mean:	0.0636µg/L	0.0636µg/L	0.0011
SD:	0.0066µg/L	0.0066µg/L	0.00011
%D:	10.41		10.41

Seq. No. 55 AS Loc: 44 Date: 9/13/03
Sample ID: 0903023-31 respk S-- 9/13/03

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	5.329µg/L use original data	5.329µg/L	0.0905	0.4350	83.6429	0.0908	4.1822	11:57:38
	5.242µg/L	5.242µg/L	0.0890	0.4158	83.6393	0.0894	4.1820	11:58:14
Mean:	5.285µg/L matrix prob.	5.285µg/L	0.0898					
SD:	0.0619µg/L	0.0619µg/L	0.00105					
%RSD:	1.17 No further dilution recommended.		1.17					

Seq. No. 56 AS Loc: 45 Date: 9/13/03
Sample ID: 0903023-34 ser dil

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.2443µg/L disregard.	0.2443µg/L	0.0041	0.0194	83.6424	0.0045	4.1821	11:59:37
	0.2493µg/L	0.2493µg/L	0.0042	0.0188	83.6407	0.0046	4.1820	12:00:12
Mean:	0.2468µg/L S-- 9/13/03	0.2468µg/L	0.0042					
SD:	0.0035µg/L	0.0035µg/L	0.00006					
%RSD:	1.41		1.41					

Seq. No. 57 AS Loc: 106 Date: 9/13/03
Sample ID: ICV/CCV

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	2.143µg/L	2.143µg/L	0.0364	0.1492	83.6415	0.0367	4.1821	12:02:08
	2.172µg/L	2.172µg/L	0.0369	0.1505	83.6398	0.0372	4.1820	12:02:43
QC value within specified limits.								
Mean:	2.158µg/L	2.158µg/L	0.0366					
SD:	0.0205µg/L	0.0205µg/L	0.00035					
%RSD:	0.95		0.95					

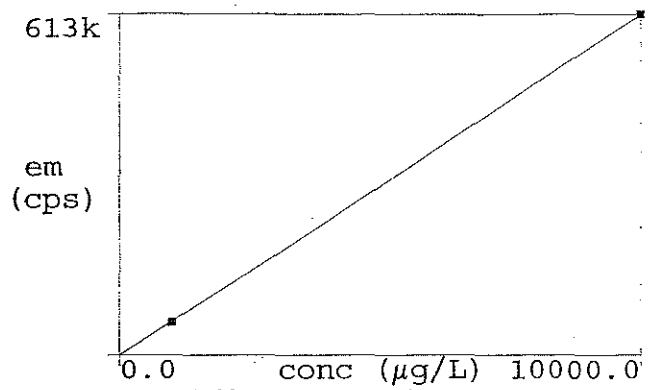
Seq. No. 58 AS Loc: 8 Date: 9/13/03
Sample ID: ICB/CCB

Elem	SampleConc	StndConc	Blank Corr Signal	Pk Area	BG Area	Pk Ht	BG Ht	Time
Hg	0.0022µg/L	0.0022µg/L	0.0000	0.0018	83.6376	0.0004	4.1819	12:04:55
	0.0020µg/L	0.0020µg/L	0.0000	0.0018	83.6376	0.0004	4.1819	12:05:29
Mean:	0.0021µg/L	0.0021µg/L	0.0000					
SD:	0.0001µg/L	0.0001µg/L	0.00000					
%RSD:	6.37		6.37					

CALIBRATIONS

Method: 0903023
Result: 0903023

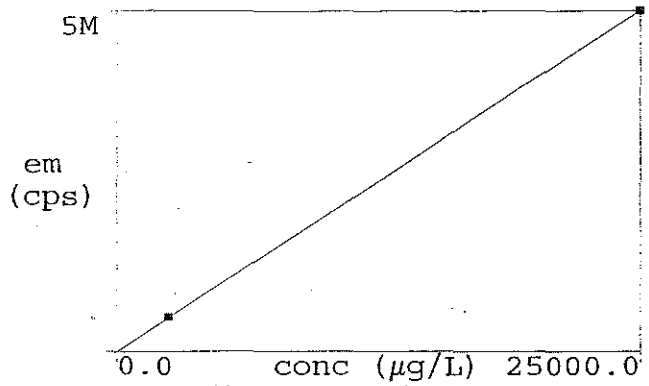
Al1



Calib Eq'n: Lin Thru 0
Corr. Coeff.: 0.999993

1

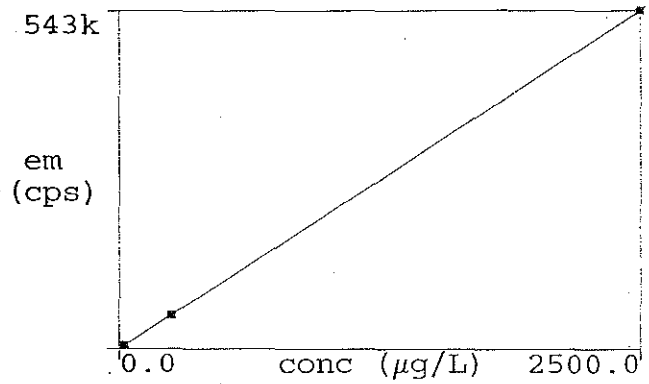
Ca



Calib Eq'n: Lin Thru 0
Corr. Coeff.: 0.999999

2

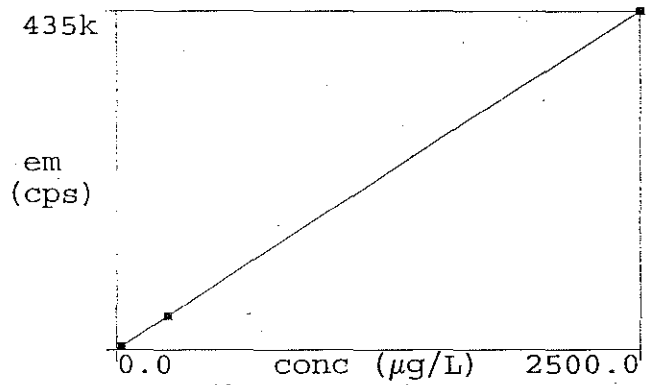
Cd1



Calib Eq'n: Lin Thru 0
Corr. Coeff.: 0.999998

3

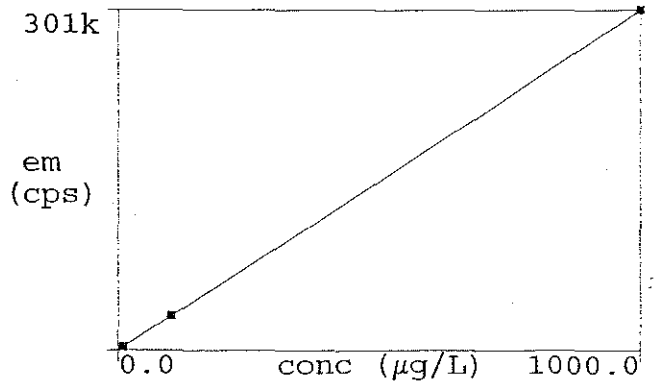
Cd2



Calib Eq'n: Lin Thru 0
Corr. Coeff.: 0.999999

4

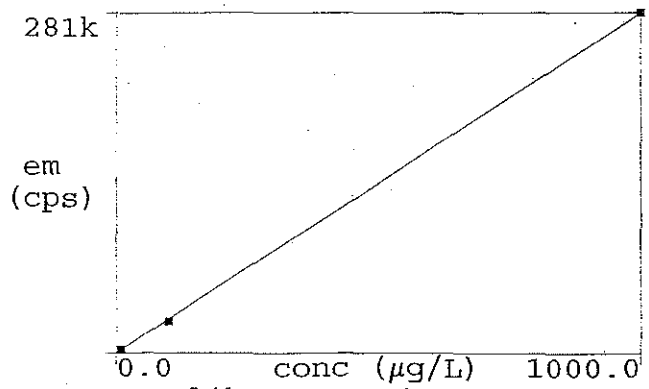
Cr2



Calib Eq'n: Lin Thru 0
Corr. Coeff.: 1.000000

5

Cr1

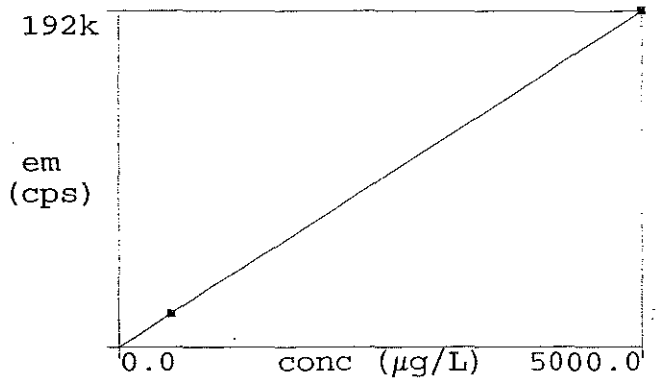


Calib Eq'n: Lin Thru 0
Corr. Coeff.: 0.999976

6

Method: 0903023
Result: 0903023

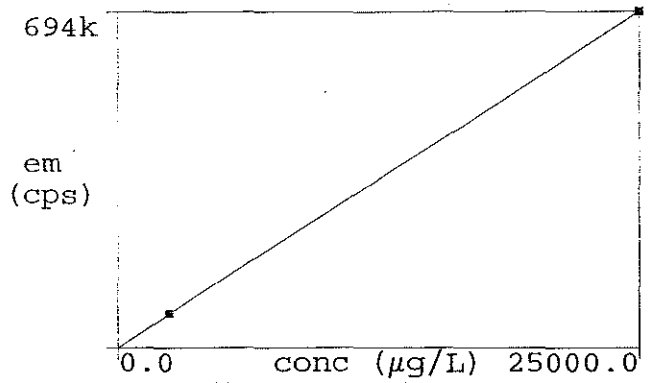
Fe



Calib Eq'n: Lin Thru 0
Corr. Coeff.: 0.999997

7

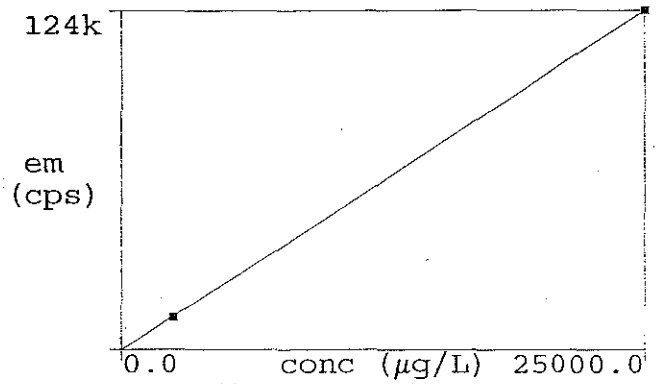
K1



Calib Eq'n: Lin Thru 0
Corr. Coeff.: 0.999999

8

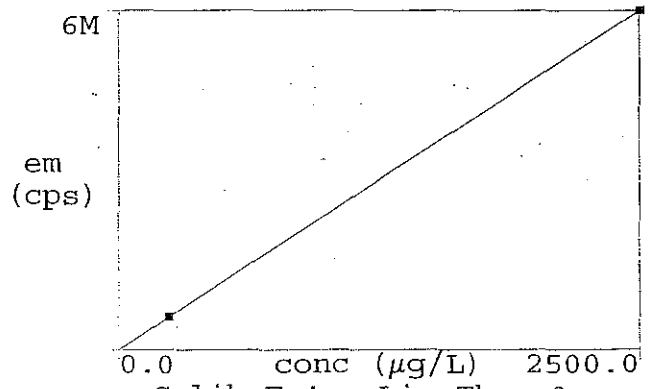
Mg1



Calib Eq'n: Lin Thru 0
Corr. Coeff.: 0.999987

9

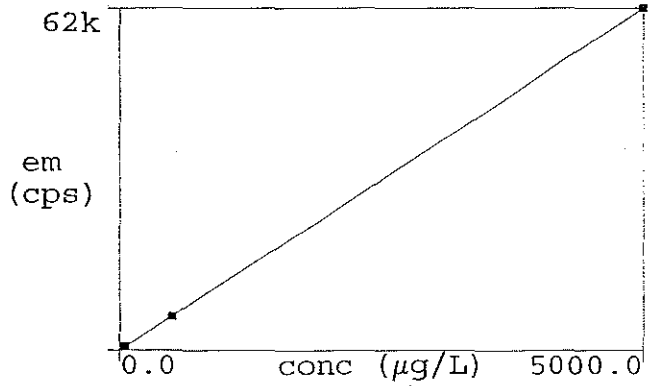
Mn1



Calib Eq'n: Lin Thru 0
Corr. Coeff.: 1.000000

10

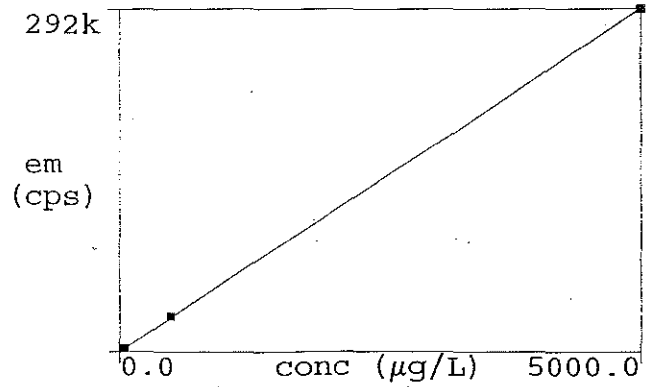
Pb1



Calib Eq'n: Lin Thru 0
Corr. Coeff.: 0.999999

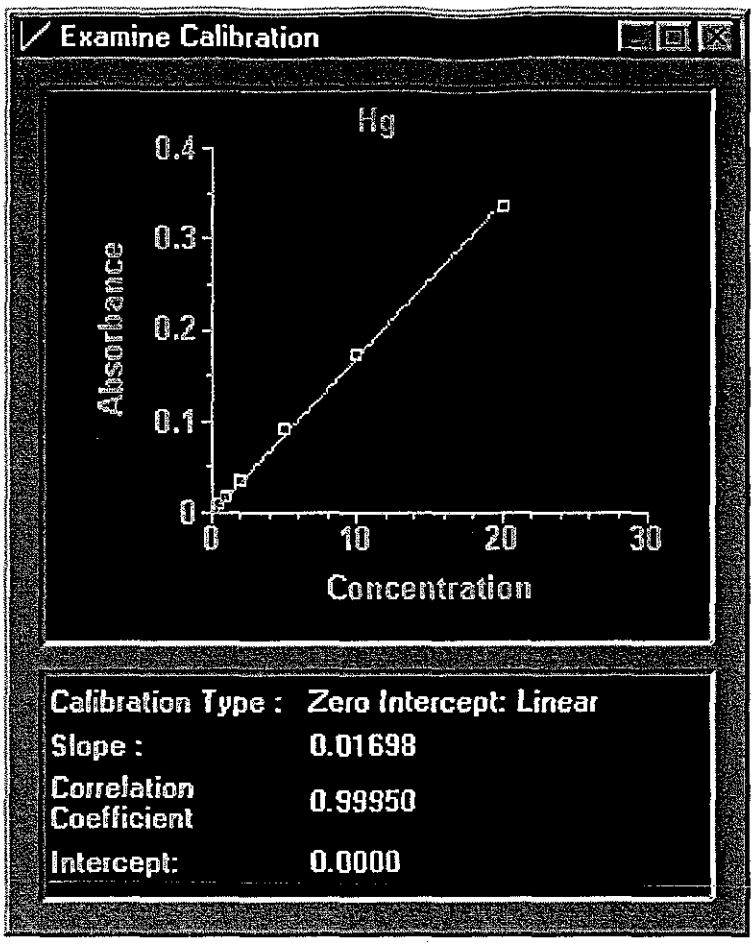
11

Pb2



Calib Eq'n: Lin Thru 0
Corr. Coeff.: 0.999992

12


Examine Calibration
Hg
Absorbance
0.4
0.3
0.2
0.1
0
0
10
20
30
Concentration
Calibration Type : Zero Intercept: Linear
Slope : 0.01698
Correlation Coefficient 0.99950
Intercept: 0.0000

Identification

Method Name: Primary Mercury
Technique: FIAS-MHS>
Method Desc: Primary Mercury

Element: Hg
Instrument Model: FIMS

Remarks:

Instrument

Wavelength (nm): 253.7
Slit Width: 0.7

Read Time (sec): 20.0
Read Delay (sec): 0.0
BOC Time (sec): 2

Signal Type: AA
Signal Measurement: Peak Height
Smoothing (pts): 19

Modified Spectrometer Settings: No

Lamp Current: Value in Align lamps

Calibration

Equations, Units, and Replicates:

Element	Calibration Equation	Calibration Units	Sample Units	Max Decimal Places	Max Significant Figures
Hg	Linear, Zero Intercept	µg/L	µg/L	4	4

Replicates: Fixed

	ID	Conc. (µg/L)	A/S Loc
Calib. Blank	Calib Blank	----------	8
Calib.Std. 1	ICAL 20	20.000	1
Calib.Std. 2	ICAL 10	10.000	2
Calib.Std. 3	ICAL 5.0	5.000	3
Calib.Std. 4	ICAL 2.0	2.000	4
Calib.Std. 5	ICAL 1.0	1.000	5
Calib.Std. 6	ICAL 0.5	0.500	6
Calib.Std. 7	ICAL 0.2	0.200	7

Autosampler Setup
Tray Type: Tray B

Wash
Frequency: Between All Samples
Cycles: 2
1 to 2

Location of Wash Solution: 0

FIAS

Operation

Use Preconcentration? No

Sample Volume (µL): 500

Flow Injection Program

Step	Time (sec)	Pump 1 Speed	Pump 2 Speed	Valve Position	Read Step	Remotes 2	3	4	5	6	7	8	9	10
Prefill	15	120		Fill										
1	10	120		Fill										
2	20	120		Inject	X									

Steps to Repeat: 1 to 2 **Number of repeats:** 0

Checks

Check correlation coefficient? .....Yes

Recalibrate instrument periodically? .....No

Analyze standards at end of run? .....No

Check Precision? .....Yes

Reanalyze samples beyond calibration range? ....No

Perform matrix check calculations? .....Yes

Quality Control

QC Samples: Descriptions and Concentrations

	QC 1	QC 2	QC 3
QC Sample ID	ICV/CCV	ICB/CCB	ICV/CCV High
Autosampler Loc	106	8	105
Count as a Sample	No	No	No
Test as a Group	No	No	No
..... No	No	No	
Concentration	2.000	0.000	10.000
Lower Conc Limit	1.800	-0.050	9.000
Upper Conc Limit	2.200	0.050	11.000

Concentration Units: Sample (µg/L)

Schedule for Analyzing QC Samples

	QC 1	QC 1	QC 1
QC Sample ID	ICV/CCV	ICB/CCB	ICV/CCV High
After Initial Calib.	Yes	Yes	No
After Recalibration	No	No	No
Periodically	Yes	Yes	No
Frequency	10	10	10
At End	Yes	Yes	Yes

Periodic Timing of Analyses

Count: Samples

Frequency: Same for all QC's, 10

Interrupt sample to analyze QC: No

Failure Actions for After-Calibration QC's

	QC 1	QC 2	QC 3
QC Sample ID			
Times to Retry QC	None	None	None
When All Tries Fail	Alarm & Pause	Print Message	Print Message
Optional Message			

Failure Actions for Periodic QC's

	QC 1	QC%2d	QC 2
			QC 3QC Sa I
Times to Retry QC	None	None	None
When All Tries Fail	Alarm & Pause	Print Message	Print Message
Optional Message			

Failure Actions for At-End QC's

	QC 1	QC 2	QC 3
QC Sample ID	ICV/CCV	ICB/CCB	ICV/CCV High
Times to Retry QC	None	None	None
When All Tries Fail	Alarm & Pause	Print Message	Print Message
Optional Message			

Maximum Retries After QC Failure

Maximum allowed reanalyses: 1 **Action when maximum exceeded:** Alarm & Pause

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Options

Results Display - Modified Settings: No

Printed Log - Modified Settings: Yes

Peaks to Save: All Replicates for Each Sample

Autosampler Loading List

Sample Information File: 0903023.SIF
Methods: Primary Mercury

Location	Elements	Solution
0	Hg	Wash Solution
1	Hg	ICAL 20: 20.000 µg/L
2	Hg	ICAL 10: 10.000 µg/L
3	Hg	ICAL 5.0: 5.000 µg/L
4	Hg	ICAL 2.0: 2.000 µg/L
5	Hg	ICAL 1.0: 1.000 µg/L
6	Hg	ICAL 0.5: 0.500 µg/L
7	Hg	ICAL 0.2: 0.200 µg/L
8	Hg	Calib Blank
	Hg	ICB/CCB: 0.0000 µg/L
9	Hg	Sample: 0903023-MB front
10	Hg	Sample: 0903023-MB back
11	Hg	Sample: 0903023-LS front
12	Hg	Sample: 0903023-LS back
13	Hg	Sample: 0903023-17 18
14	Hg	Sample: 0903023-17 18 dup
15	Hg	Sample: 0903023-19
16	Hg	Sample: 0903023-20
17	Hg	Sample: 0903023-21
18	Hg	Sample: 0903023-21 ms
19	Hg	Sample: 0903023-21 msd
20	Hg	Sample: 0903023-22
21	Hg	Sample: 0903023-23 24
22	Hg	Sample: 0903023-25
23	Hg	Sample: 0903023-26
24	Hg	Sample: 0903023-26 ms
25	Hg	Sample: 0903023-26 msd
26	Hg	Sample: 0903023-27
27	Hg	Sample: 0903023-28
28	Hg	Sample: 0903023-28 dup
29	Hg	Sample: 0903023-29 30
30	Hg	Sample: 0903023-31
31	Hg	Sample: 0903023-31 ms
32	Hg	Sample: 0903023-31 msd
33	Hg	Sample: 0903023-32
34	Hg	Sample: 0903023-33
35	Hg	Sample: 0903023-34
36	Hg	Sample: 0903023-34 ser dil
37	Hg	Sample: 0903023-36 41
38	Hg	Sample: 0903023-37
39	Hg	Sample: 0903023-38
40	Hg	Sample: 0903023-39
41	Hg	Sample: 0903023-40
42	Hg	Sample: Filtration Blank 9/12/03
43	Hg	Sample: PQL Check
44	Hg	Sample: 0903023-31 respk
45	Hg	Sample: 0903023-34 ser dil
105	Hg	ICV/CCV High: 10.0000 µg/L
106	Hg	ICV/CCV: 2.0000 µg/L

DOCUMENTATION

DAT®

Data/Analysis Technologies, Inc.

"Analytical Laboratories and Consultants"

SERIAL NO. 25198

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

7715 CORPORATE BLVD.
PLAIN CITY, OHIO 43064
614-873-0710 800-733-8644
FAX 614-873-0810

PROJECT REFERENCE: ST. John's Hospital
PROJECT NO.:
P.O. NUMBER:
PROJECT LOC. (State): IL
SAMPLER(S) NAME: James Gray
PHONE: 330-525-5119
FAX: 330-525-7908
CLIENT NAME: Custom Stack Analysis
CLIENT PROJECT MANAGER: James Gray
CLIENT ADDRESS (CITY, STATE, ZIP): P.O. Box 3750 Alliance, OH 44601

PAGE 1 OF 2

☐ STANDARD REPORT DELIVERY
☒ EXPEDITED REPORT DELIVERY (SURCHARGE)

DATE DUE:

REQUIRED ANALYSIS: Cd, Pb, Hg

SAMPLE DATE	SAMPLE TIME	DAT NO.	SAMPLE IDENTIFICATION	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (oil, solvent, etc.)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
9-3-03	3:15pm		Run #1 - Container #1		X			Filter	
			Run #1 - Container #3	X				.1N HNO3 / Probe Wash	
			Run #1 - Container #4	X				.1N HNO3 Impingers 1,2 + 3	
			Run #1 - Container #5A	X				.1N HNO3 Impinger #4	
			Run #1 - Container #5B	X				KMNO4 Permanganate Impingers	
			Run #1 - Container #5C	X				.8N HCL Permanganate Impingers	
9-4-03	7:14am		Run #2 - Container #2		X			Filter	
			Run #2 - Container #3	X				.1N HNO3 / Probe Wash	
			Run #2 - Container #4	X				.1N HNO3 Impingers 1,2 + 3	
			Run #2 - Container #5A	X				.1N HNO3 Impinger #4	
			Run #2 - Container #5B	X				KMNO4 Permanganate Impingers	
			Run #2 - Container #5C	X				8N HCL Permanganate Impingers	
9-4-03	3:26pm		Run #3 - Container #1		X			Filter	

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME
[signature]	9-9-03	4:00						

RECEIVED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	DAT LOG NO.	LABORATORY REMARKS:
			☐ YES ☐ NO			

DAT®
Data/Analysis Technologies, Inc.
"Analytical Laboratories and Consultants"

SERIAL № 25198

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

7715 CORPORATE BLVD.
PLAIN CITY, OHIO 43064
614-873-0710 800-733-8644
FAX 614-873-0810

PROJECT REFERENCE: ST. John's Hospital
PROJECT NO.:
P.O. NUMBER:
PROJECT LOC. (State): IL
SAMPLER(S) NAME: James Gray
PHONE: 330-525-5119
FAX: 330-525-7908
CLIENT NAME: Custom Stack Analysis
CLIENT PROJECT MANAGER: James Gray
CLIENT ADDRESS (CITY, STATE, ZIP): P.O. Box 3750 Alliance, OH 44601

REQUIRED ANALYSIS — PAGE 2 OF 2

☐ STANDARD REPORT DELIVERY
☒ EXPEDITED REPORT DELIVERY (SURCHARGE)

DATE DUE:

SAMPLE DATE	SAMPLE TIME	DAT NO.	SAMPLE IDENTIFICATION	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (oil, solvent, etc.)	NUMBER OF CONTAINERS SUBMITTED	Cd	Pb	Hg				REMARKS
			Run #3 - Container #3	X				1NHNO3 / Probe Wash							
			Run #3 - Container #4	X				1NHNO3 Impingers 1,2+3							
			Run #3 - Container #5A	X				1NHNO3 Impinger #4							
			Run #3 - Container #5B	X				KMNO4 Permanganate Impingers							
			Run #3 - Container #5C	X				8NHCL Permanganate Impingers							
			Container #7 Blank	X				100ml Acetone							
			Container #8A Blank	X				300ml 1NHNO3							
			Container #8B Blank	X				100ml Distilled Water							
			Container #9 Blank	X				200ml 5% - 10%							
			Container #10 Blank	X				100ml KMNO4							
			Container #11 Blank	X				200ml 8NHCL							
			Container #12 Blank		X			Filters							

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME
[signature]	9-8-03	4:00						
RECEIVED BY (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY (SIGNATURE)**	**DATE**	**TIME**

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	DAT LOG NO.	LABORATORY REMARKS:
			☐ YES ☐ NO			

DAT SAMPLE RECEIVING

7715 Corporate Blvd. Plain City,OH 43064.

1 of 4

Project Number: 0903023

Date Received:	9/9/03	Carrier:	FedEx
Client Name:	Custom Stack Analysis	Analysis:	HCl, Metals, Dioxins & Fur
Tracking number:	838889333219/3220	Package Temp:	ambient
Custody Seals ?	No	COC: ☑	"X" = client provided COC

Sample Information

Client ID:	Laboratory ID	Date	Matrix:	Container:	Comment:
Run #1 Container #1	0903023-1	9/3/03	Air (filter)	petri dish	
Run #1 Container #2	0903023-2	9/3/03	Acetone	100 ml plastic	
Run #1 Container #3	0903023-3	9/3/03	Toluene	100 ml plastic	
Run #1 XAD	0903023-4	9/3/03	XAD	XAD glass trap	
Run #2 Container #1	0903023-5	9/4/03	Air (filter)	petri dish	
Run #2 Container #2	0903023-6	9/4/03	Acetone	100 ml plastic	
Run #2 Container #3	0903023-7	9/4/03	Toluene	100 ml plastic	
Run #2 XAD	0903023-8	9/4/03	XAD	XAD glass trap	
Run #3 Container #1	0903023-9	9/4/03	Air (filter)	petri dish	
Run #3 Container #2	0903023-10	9/4/03	Acetone	100 ml plastic	

KDS

Laboratory Receiving Initials

0903023

9/9/03 2:35:16 PM

247 SAMPLE RECEIVING

7715 Corporate Blvd. Plain City,OH 43064.

2 of 4

Project Number: 0903023

Client ID:	Laboratory ID	Date	Matrix:	Container:	Comment:
Run #3 Container #3	0903023-11	9/4/03	Toluene	100 ml plastic	
Run #3 XAD	0903023-12	9/4/03	XAD	XAD glass trap	
Run #1 Container #3	0903023-13	9/3/03	H2SO4	250 ml plastic	
Run #2 Container #3	0903023-14	9/4/03	H2SO4	250 ml plastic	
Run #3 Container #3	0903023-15	9/4/03	H2SO4	250 ml plastic	
Blank 0.1N H2SO4	0903023-16	9/4/03	H2SO4	100 ml plastic	
Run #1 Container 1	0903023-17	9/3/03	Air (filter)	petri dish	
Run #1 Container 3	0903023-18	9/3/03	HNO3	250 ml plastic	
Run #1 Container 4	0903023-19	9/3/03	HNO3	500 ml plastic	
Run #1 Container 5A	0903023-20	9/3/03	HNO3	250 ml plastic	
Run #1 Container 5B	0903023-21	9/3/03	KMnO4	1L clear wm	
Run #1 Container 5C	0903023-22	9/3/03	0.8N HCl	500 ml clear wm	
Run #2 Container 1	0903023-23	9/4/03	Air (filter)	petri dish	
Run #2 Container 3	0903023-24	9/4/03	HNO3	250 ml plastic	
Run #2 Container 4	0903023-25	9/4/03	HNO3	500 ml plastic	

KAS

Laboratory Receiving Initials

0903023

9/9/03 2:35:16 PM

247 SAMPLE RECEIVING

7715 Corporate Blvd. Plain City,OH 43064

3 of 4

Project Number: 0903023

Client ID:	Laboratory ID	Date	Matrix:	Container:	Comment:
Run #2 Container 5A	0903023-26	9/4/03	HNO3	250 ml plastic	
Run #2 Container 5B	0903023-27	9/4/03	KMnO4	1L clear wm	
Run #2 Container 5C	0903023-28	9/4/03	0.8N HCl	500 ml clear wm	
Run #3 Container 1	0903023-29	9/4/03	Air (filter)	petri dish	
Run #3 Container 3	0903023-30	9/4/03	HNO3	250 ml plastic	
Run #3 Container 4	0903023-31	9/4/03	HNO3	500 ml plastic	
Run #3 Container 5A	0903023-32	9/4/03	HNO3	250 ml plastic	
un #3 Container 5B	0903023-33	9/4/03	KMnO4	1L clear wm	
Run #3 Container 5C	0903023-34	9/4/03	0.8N HCl	500 ml clear wm	
Container 7 Blank	0903023-35	9/4/03	Acetone	100 ml plastic	
Container 8A Blank	0903023-36	9/4/03	HNO3	500 ml plastic	
Container 8B Blank	0903023-37	9/4/03	Water	100 ml plastic	
Container 9 Blank	0903023-38	9/4/03	HNO3/H2O2	250 ml plastic	
Container 10 Blank	0903023-39	9/4/03	KMnO4	500 ml clear wm	
Container 11 Blank	0903023-40	9/4/03	0.8N HCl	500 ml clear wm	

KBS

Laboratory Receiving Initials

0903023

9/9/03 2:35:17 PM

247 SAMPLE RECEIVING

7715 Corporate Blvd. Plain City,OH 43064.

4 of 4

Project Number: 0903023

Client ID:	Laboratory ID	Date	Matrix:	Container:	Comment:
Container 12 Blank	0903023-41	9/4/03	Air (filter)	petri dishe	

KBS

Laboratory Receiving Initials

0903023

9/9/03 2:35:17 PM

DAT LABS
Method 29 (modified)
EXTRACTION & PREP

DAT PROJECT# 03023
Client: Custom Stack
Date: 9/11/03
Run# 1

ANALYTES
IEP | Cd, Pb
CVAA | Hg

BENCH CHEMIST: S - -
WITNESS:
NB 339791

1 — Filter
Label 0903023-1
Dry Wt: ____
Tare: ____
Digest with Conc. HF (4ml) & Conc HNO3 (6ml)

2 — Acetone Rinse
Label N/A
Volume ____ ml
Tare: ____
Final: ____
~~Dessicate to dryness and redissolve in 10ml con HNO3~~

3 — HNO3 Rinse
Label 0903023-18
Volume 100 ml
Reduce volume to 20 ml on hotplate

Digest With Conc. HF (4ml) and Conc. HNO3 (6ml)
Label: -18

Combine digestates
Front Half Digestate
Dilute to 100 mls
Label -1, 18
Vol 100 Ml

For Metals
Label ____
Volume 80 ml
(Post digest spike on one FH and one BH)

For Hg
Label ____
Volume 20 ml
Aliquot 10 ml
Final Vol. 40 ml (+dup)
(No spike required)

4 — Back Half
Label 0903023-19
Volume 400 ml

For Metals
Label ____
Volume 360 ml
Reduce volume to 20 ml on hotplate
Hotplate dig with 30ml, 50% HNO3 and 10 ml, 3% H2O2
Dilute to 100 mls
Label ____

For Hg
Label ____
Volume 40 ml
Sample
Label ____
Aliquot 4 ml
Final Vol 40 ml

5A — 0.1 N HNO3
Label 0903023-20
Volume 100 ml
Aliquot 10 ml
Final Vol 40 ml

5B — Hg Impingers
KMnO4
Label 0903023-21
Volume 430 ml
Filter
Digest solids 8 N HCl 24 Hrs
Filter → Combine
Discard Solids
Volume 430 ml
Aliquot 4 ml
Final Vol 40 ml
(+ms/msd)

5C — HCL
Label 0903023-2[illegible]
Volume 235 ml
Combine
Vol. 300 ml
Aliquot 4 m[illegible]
Final Vol 40 [illegible]

QC Samples (Hg only)
MS/MSD: -21
Duplicates: -17, 18

Comments: See Sheet for spikes

FRMM29060602

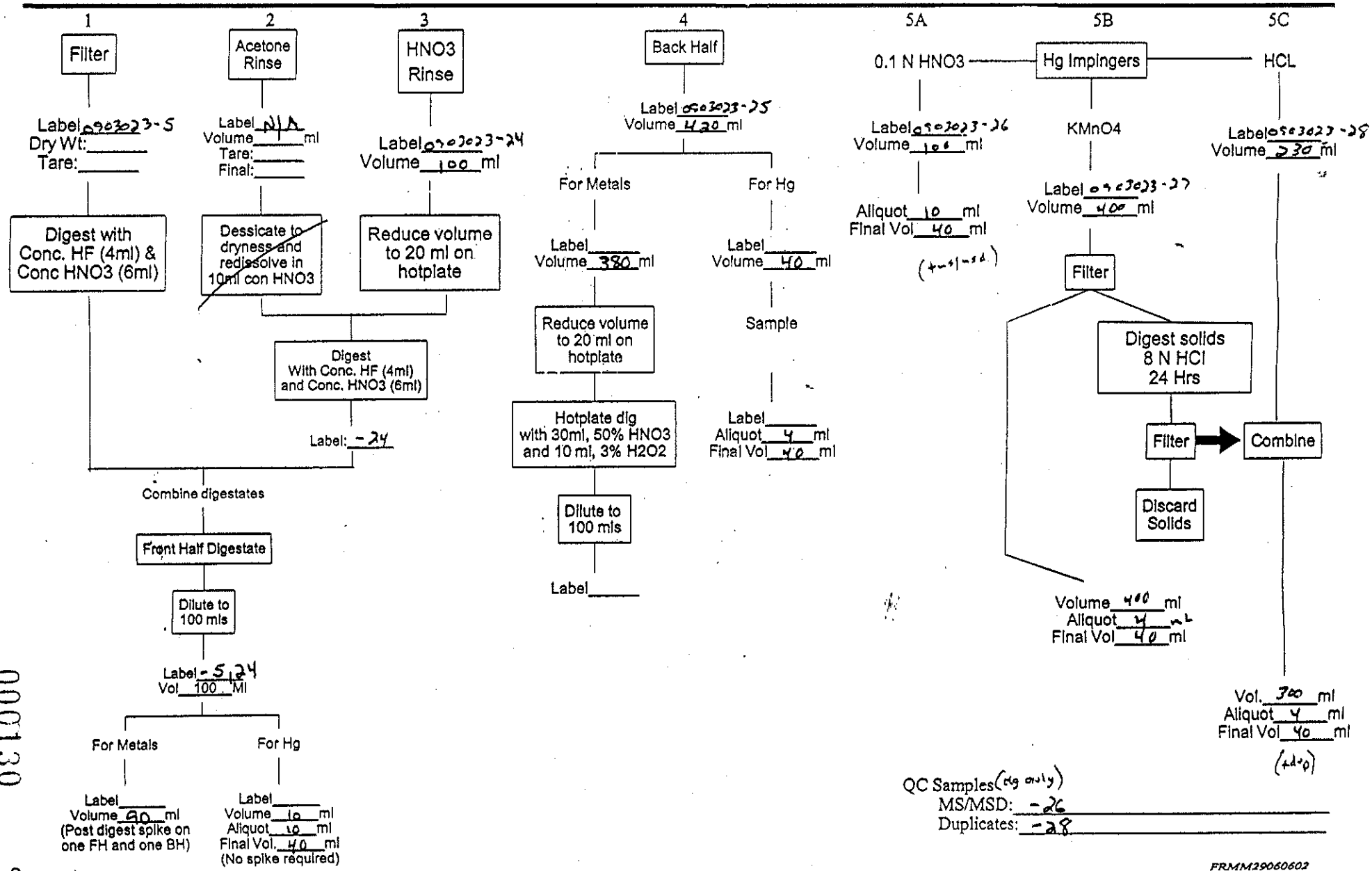
000129

DAT LABS
Method 29 (modified)
EXTRACTION & PREP

DAT PROJECT# 0903023
Client: Custom Stack
Date: 9/11/03
Run# 2

ANALYTES
ICP: Cd Pb
CVAA: Hg

BENCHCHEMIST: S --
WITNESS:
NB 339291



QC Samples (Hg only)
MS/MSD: -26
Duplicates: -28

Comments:

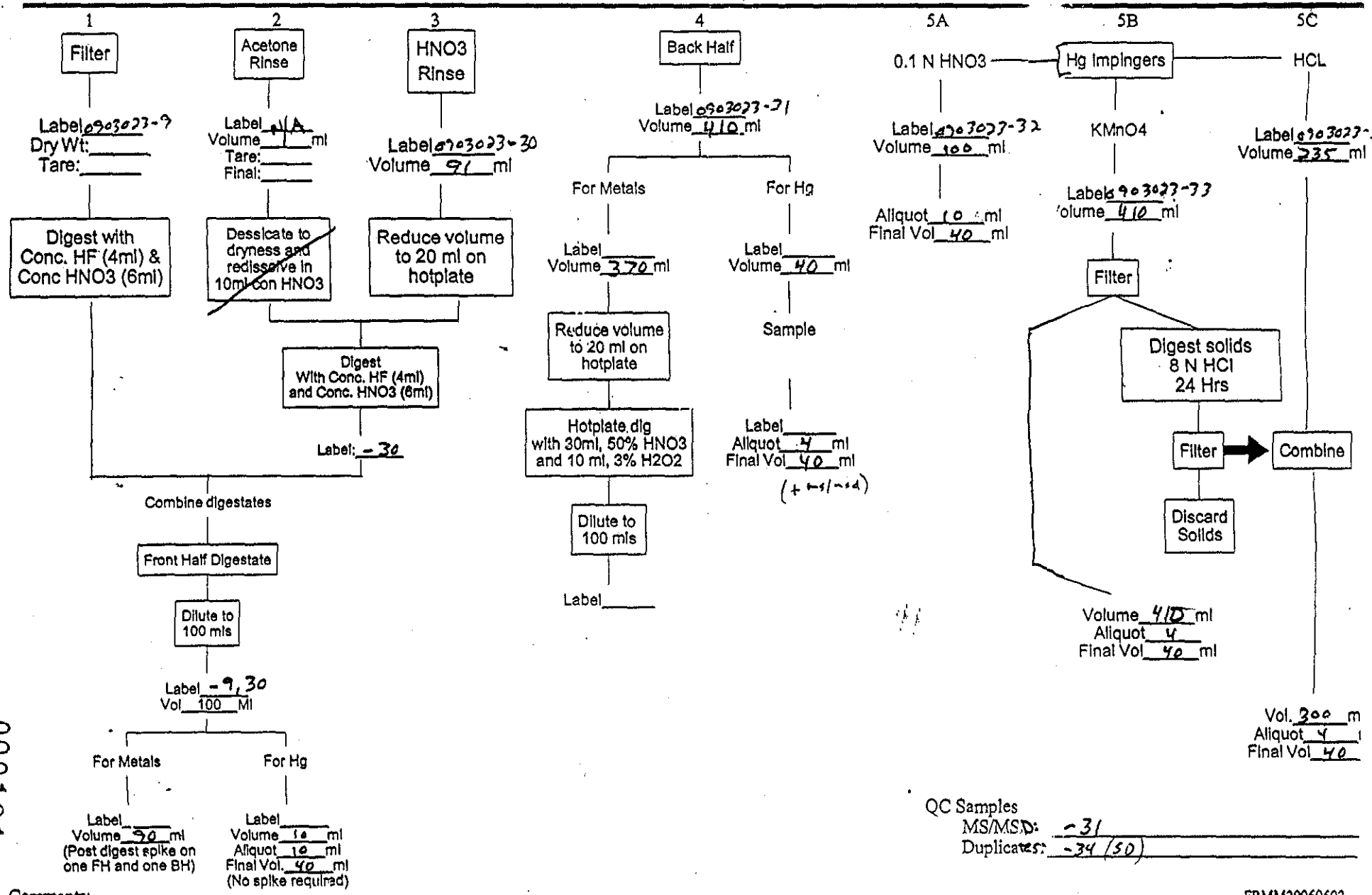
FRMM29060602

DAT LABS
Method 29 (modified)
EXTRACTION & PREP

DAT PROJECT# 0.03023
Client: Custom Stock
Date: 9/11/03
Run# 3

ANALYTES
ICP: Cd, Pb
CVA λ: Hg

BENCH CHEMIST: S. -
WITNESS:
NB 339791



QC Samples
MS/MSD: -31
Duplicates: -34 (50)

Comments:

FRMM29060602

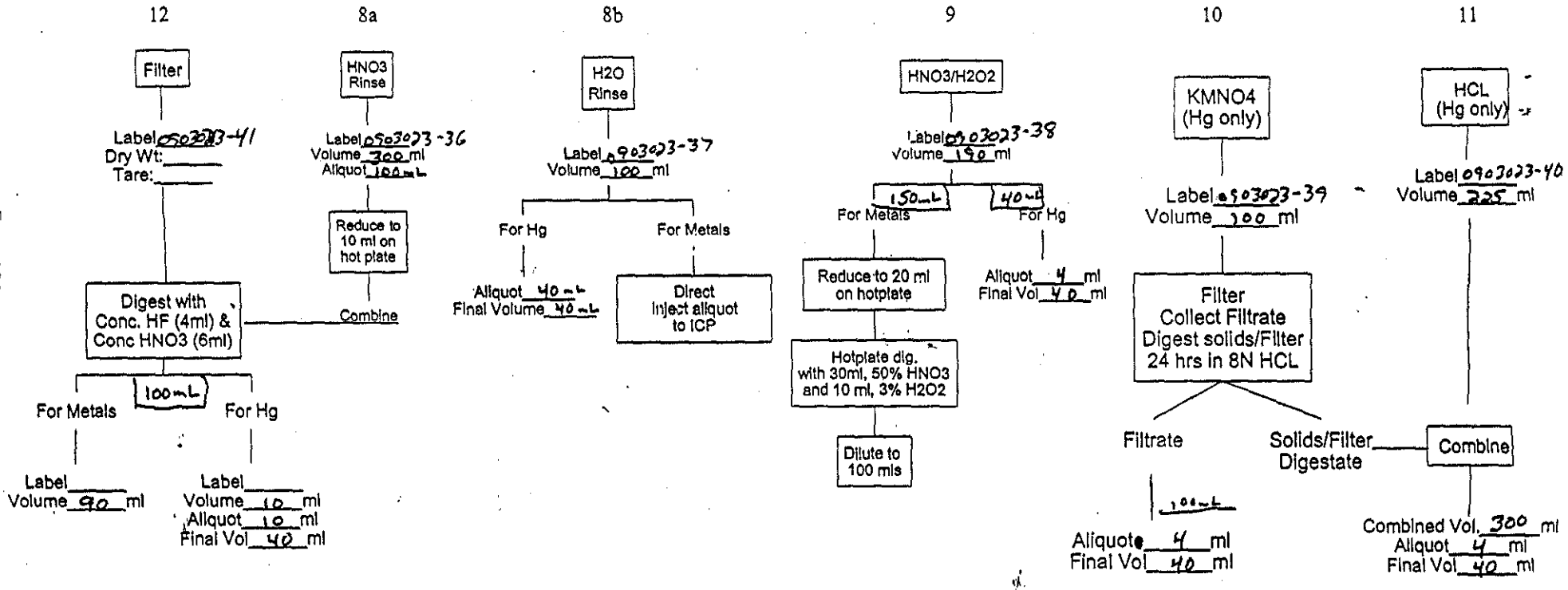
000131

DAT LABS
Method 29 modified
EXTRACTION & PREP

DAT PROJECT# 0903023
Client: Custom Stock
Date: 9/11/02
Run # BLANKS

ANALYTES
ICP | Cd Pb
CVAA | Hg

BENCH CHEMIST: S - -
WITNESS:
NB 339791



QC Samples
MS/MSD: None
Duplicates:

Comments:

FRMM23A081001

000132

SPIKE TABLE FOR METALS DIGESTIONS

Mercury Digestions:

Method 29

Front Half LS/LSD: 40 uL of 1000 ug/mL Stock Solution to Final Volume of 100 mL. Conc: 400 ug/L

Back Half LS/LSD/MS/MSD: 40 uL of 10 ug/mL (made fresh from Stock) to Final Volume of 40 mL. Conc: 10 ug/L

7470A/7471A

LS/LSD/MS/MSD: 40 uL of 10 ug/mL (made fresh from Stock) to Final Volume of 40 mL. Conc: 10 ug/L

OTHER

ICP Digestions:

Method 29*

Front and Back Half LS/LSD: 50 uL of 1000 ppm Stock Standard Mix to Final Volume of 100 mL. Conc: 500 ug/L
Post Digestion Spikes: 25 uL of 1000 ppm Stock Standard Mix into 50 mL of Digested Sample. Conc: 500 ug/L

Method 3005/3010 (Aqueous)*

LS/LSD/MS/MSD: 50 uL of 1000 ppm Stock Standard Mix to Final Volume of 100 mL. Conc: 500 ug/L

Method 3050B (Solids)

LS/LSD/MS/MSD: 100 uL of CLP Type Stock Standard Mix (multi level) to Final Volume of 100 mL.

Concentrations:
- 5 mg/L for Ca, Mg, K, Na
- 2 mg/L for Al, Ba
- 1 mg/L for As, Fe, Pb, Sb, Se, Tl
- 0.5 mg/L for Cd, Co, Mn, Ni, V, Zn
- 0.25 mg/L for Ag, Cu
- 0.2 mg/L for Cr
- 0.05 mg/L for Be

OTHER

* If target analytes include those with typically high concentrations (ie. Ca, Mg, Fe, K, Na) these methods may be spiked at solid sample levels. See digestion form for each project for type of spike used.

Metals Digestions
Acids, Reagents and Standards

ACIDS

HCL	JT Baker Lot# X30023
HF	GFS Lot# L028206
HNO3	JT Baker Lot# Y03024
H2SO4	JT Baker Lot# V034030
Other	_____
	_____
	_____

REAGENTS

KMNO4	GFS Lot# L137297
K2S2O8	EM Science Lot# 41244223
NACL	EM Science Lot# 42343302
Hydrox Sulf	GFS Lot# L137842
Other	H2O2- JT Baker Lot V35A11
	_____
	_____

STANDARDS

ICP CAL	PS-54-03, PS-54-04, PS-54-05 (Stock solutions)
ICP 2nd Source	PS-54-10, PS-54-11, PS-54-12 (Stock solutions)
Hg CAL	PS-58-6 (Stock Solution)
Hg 2nd Source	PS-56-3 (Stock Solution)
Other	_____
	_____
	_____
	_____

MISCELLANEOUS

Other	Tin Chloride (Hg reductant) – Acros Organics Lot# AO15658601
	_____
	_____
	_____
	_____

39

100 **FedEx** Express *USA Airbill* FedEx Tracking Number 8388 8933 3219

0216 **Recipient's Copy**

1 From This portion can be removed for Recipient's records.

Date 9-8-03 FedEx Tracking Number 838889333219

Sender's Name James Gray Phone 330 525-5119

Company CUSTOM STACK ANALYSIS

Address 14614 CENFIELD ST NE

Dept./Floor/Suite/Room

City ALLIANCE State OH ZIP 44601-9418

2 Your Internal Billing Reference

3 To

Recipient's Name Ron Mitchum Phone 800 733-8644

Company Data Analysis

Address 7715 Corporate Blvd.

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Dept./Floor/Suite/Room

City Plain City State OH ZIP 43064

RECIPIENT: PEEL HERE

NO POUCH NEEDED.

See back for peel and stick application instructions.

4a Express Package Service *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx Priority Overnight — Next business morning
- [x] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [x] Other

6 Special Handling Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.

- [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Charges
1	3 lb.	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1.800.Go.FedEx® 800.463.3339.

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447

8388 8933 3219

0236784921

60

100

FedEx Express *USA Airbill*

FedEx Tracking Number 8388 8933 3220

0215

Recipient's Copy

1 From This portion can be removed for Recipient's records.

Date 9-9-03 FedEx Tracking Number 838889333220

Sender's Name James Clay Phone 330 525-5119

Company CUSTOM STACK ANALYSIS

Address 14614 CENFIELD ST NE

Dept./Floor/Suite/Room

City ALLIANCE State OH ZIP 44601-9418

RECIPIENT: PEEL HERE

2 Your Internal Billing Reference

3 To

Recipient's Name Ron Mitchun Phone 800 733-8644

Company Data Analysis

Address

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address 1715 Corporate Blvd

Dept./Floor/Suite/Room

City Plain City State OH ZIP 43064

8388 8933 3220

0236784921

NO POUCH NEEDED.
See back for peel and stick application instructions.

4a Express Package Service *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- ☐ FedEx Priority Overnight — Next business morning
- ☒ FedEx Standard Overnight — Next business afternoon
- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations
- ☐ FedEx 2Day — Second business day
- ☐ FedEx Express Saver — Third business day

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- ☐ FedEx 1Day Freight* — Next business day
- ☐ FedEx 2Day Freight — Second business day
- ☐ FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging * Declared value limit $500

- ☐ FedEx Envelope*
- ☐ FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- ☒ Other

6 Special Handling Include FedEx address in Section 3.

- ☐ SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- ☐ HOLD Weekday at FedEx Location — Not available for FedEx First Overnight
- ☐ HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- ☒ No
- ☐ Yes — As per attached Shipper's Declaration
- ☐ Yes — Shipper's Declaration not required
- ☐ Dry Ice — Dry Ice, UN 1845 ____ x ____ kg

Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.

☐ Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- ☒ Sender — Acct. No. in Section 1 will be billed.
- ☐ Recipient
- ☐ Third Party
- ☐ Credit Card
- ☐ Cash/Check
- ☐ Obtain Recip. Acct. No.

Total Packages	Total Weight	Total Charges
1	8 lb	

Credit Card Auth.

Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1.800.Go.FedEx® 800.463.3339.

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447

Align bottom of Airbill Pouch here.
Part # 150454 Rev. 4/00

Data/Analysis Technologies, Inc.

DIOXINS AND FURANS
Method 23/8290

DAT Project # 0903023

Date:	September 25, 2003
Client:	Custom Stack Analysis
Client Project:	St. John's Hospital
Client Contact:	Jim Gray

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DIOXINS AND FURANS

Method 23/8290

DAT Project # 0903023

Date:	September 25, 2003
Client:	Custom Stack Analysis
Client Project:	St. John's Hospital
Client Contact:	Jim Gray

Report Approved for Release by:

Ronald K. Mitchum, Ph.D
President, *DAT*, Inc.

NELAP/LELAP Certification 03027
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Dioxins and Furans
Project # 0903023

Narrative

Three sample trains were received on September 9, 2003 for dioxins and furans analysis by Method 23/8290. The samples were received in good condition. The sample IDs along with the corresponding laboratory IDs are listed on the DAT Sample Receiving Sheet in the documentation section of the data package.

Results

The results are appended in the attached summary tables, which follows the narrative. The results for 2,3,7,8-TCDF were taken from the confirmation column.

Quality Control

Quality control met criteria for the method.

Report prepared by:

Theresa Schwope

Theresa Schwope, Chemist

DATA SUMMARY

Data Analysis Technologies, Inc. 7715 Corporate Blvd. Plain City OH 43064

Method 23 / 8290 PCDD/PCDF Analysis

Client:	Custom Stack Environmental	**Client Sample:**	Run #1
Client Project:	St. John's Hospital	**Date Sampled:**	9/3/03
		Date Received:	9/9/03
Lab Project #:	0903023	**Date Ext:**	9/11/03
Lab Sample ID:	0903023-2	**Date Anal:**	9/17/03
Sample Size	NA g / ml	**Moisture**	NA
GC-Column	DB-5	**Solids**	NA
Dilution Factor	1	**Analyst:**	CSM

Analytes	Conc. (pg)	DL	Ratio	RT	Flag
2,3,7,8-TCDD	ND	4.16			____
1,2,3,7,8-PeCDD	ND	11.9			____
1,2,3,4,7,8-HxCDD	97.7	8.93	1.18	39:18:00	____
1,2,3,6,7,8-HxCDD	277	9.19	1.36	39:24:00	____
1,2,3,7,8,9-HxCDD	232	8.78	1.19	39:47:00	____
1,2,3,4,6,7,8-HpCDD	2070	16.6	1.05	42:57:00	____
1,2,3,4,6,7,8,9-OCDD	4740	44.2	0.87	46:08:00	____
2,3,7,8-TCDF	165	2.97	0.73	26:28:00	____
1,2,3,7,8-PeCDF	283	22.7	1.71	33:02:00	____
2,3,4,7,8-PeCDF	609	22.8	1.56	33:59:00	____
1,2,3,4,7,8-HxCDF	1530	14.9	1.30	38:16:00	____
1,2,3,6,7,8-HxCDF	739	15.1	1.29	38:26:00	____
2,3,4,6,7,8-HxCDF	1430	17.4	1.31	39:09:00	____
1,2,3,7,8,9-HxCDF	102	19.5	1.13	40:07:00	____
1,2,3,4,6,7,8-HpCDF	2590	20.2	1.05	41:57:00	____
1,2,3,4,7,8,9-HpCDF	843	36.0	1.07	43:24:00	____
1,2,3,4,6,7,8,9-OCDF	3400	49.0	0.91	46:18:00	____

Totals	Conc. (pg)	DL	Number	Flag
Total TCDD	6610	4.16	8	____
Total PECDD	4900	11.9	5	____
Total HxCDD	4790	8.96	7	____
Total HpCDD	4250	16.6	2	____
Total TCDF	11500	2.93	20	____
Total PeCDF	8170	22.6	12	____
Total HxCDF	8230	16.5	11	____
Total HpCDF	6240	25.8	4	____

Data Analysis Technologies, Inc. 7715 Corporate Blvd. Plain City OH 43064

Method 23/8290 PCDD/PCDF Analysis

Client: Custom Stack Environmental **Client Sample:** Run #1

Lab Project #: 0903023
Lab Sample ID: 0903023-2

Internal Standards	Conc. (pg)	% Recovery	QC Limits	Ratio	RT	Flag
$^{13}C_{12}$-2,3,7,8-TCDF	2962	74.1	40-135	0.77	28:28:00	____
$^{13}C_{12}$-2,3,7,8-TCDD	3015	75.4	40-135	0.78	29:16:00	____
$^{13}C_{12}$-1,2,3,7,8-PeCDF	2726	68.1	40-135	1.58	33:01:00	____
$^{13}C_{12}$-1,2,3,7,8-PeCDD	2819	70.5	40-135	1.56	34:27:00	____
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	2821	70.5	40-135	0.46	38:25:00	____
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	2975	74.4	40-135	1.31	39:24:00	____
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	2875	71.9	25-135	0.40	41:56:00	____
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	3095	77.4	25-135	1.06	42:57:00	____
$^{13}C_{12}$-OCDD	6969	87.1	25-135	0.86	46:07:00	____

Surrogate Standards (Type B)	Conc. (pg)	% Recovery	QC Limits	Ratio	RT	Flag
$^{37}Cl_4$-2,3,7,8-TCDD	4272	107	40-135	1.00	29:17:00	____
$^{13}C_{12}$-2,3,4,7,8-PeCDF	4769	119	40-135	1.60	33:58:00	____
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	4444	111	40-135	0.47	38:17:00	____
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	4152	104	40-135	1.29	39:17:00	____
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	4222	106	25-135	0.41	43:24:00	____

Alternate Standards (Type B)	Conc. (pg)	% Recovery	QC Limits	Ratio	RT	Flag
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	5029	101	40-135		40:05:00	____

Recovery Standards		Ratio		Flag
$^{13}C_{12}$-1,2,3,4-TCDD	22.7	0.79	29:04:00	____
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	21.6	1.26	39:48:00	____

ND = Not detected at the detection limit shown.

Data Analysis Technologies, Inc. 7715 Corporate Blvd. Plain City OH 43064

Method 23 / 8290 PCDD/PCDF Analysis

Client:	Custom Stack Environmental	**Client Sample:**	Run #2
Client Project:	St. John's Hospital	**Date Sampled:**	9/4/03
		Date Received:	9/9/03
Lab Project #:	0903023	**Date Ext:**	9/11/03
Lab Sample ID:	0903023-6	**Date Anal:**	9/17/03
Sample Size	NA g / ml	**Moisture**	NA
GC-Column	DB-5	**Solids**	NA
Dilution Factor	1	**Analyst:**	CSM

Analytes	Conc. (pg)	DL	Ratio	RT	Flag
2,3,7,8-TCDD	ND	2.61			____
1,2,3,7,8-PeCDD	ND	7.58			____
1,2,3,4,7,8-HxCDD	48.8	5.05	1.27	39:18:00	____
1,2,3,6,7,8-HxCDD	148	5.20	1.15	39:25:00	____
1,2,3,7,8,9-HxCDD	102	4.97	1.30	39:48:00	____
1,2,3,4,6,7,8-HpCDD	1120	13.4	1.06	42:58:00	____
1,2,3,4,6,7,8,9-OCDD	2620	50.2	0.90	46:08:00	____
2,3,7,8-TCDF	83.3	4.54	0.83	26:27:00	____
1,2,3,7,8-PeCDF	121	11.8	1.49	33:02:00	____
2,3,4,7,8-PeCDF	318	11.9	1.68	33:59:00	____
1,2,3,4,7,8-HxCDF	720	8.03	1.26	38:16:00	____
1,2,3,6,7,8-HxCDF	340	8.13	1.28	38:26:00	____
2,3,4,6,7,8-HxCDF	656	9.36	1.26	39:08:00	____
1,2,3,7,8,9-HxCDF	46.8	10.5	1.42	40:06:00	____
1,2,3,4,6,7,8-HpCDF	1440	14.8	1.00	41:57:00	____
1,2,3,4,7,8,9-HpCDF	451	26.3	1.18	43:24:00	____
1,2,3,4,6,7,8,9-OCDF	1830	55.9	0.85	46:18:00	____

Totals	Conc. (pg)	DL	Number	Flag
Total TCDD	4610	2.61	10	____
Total PECDD	3020	7.57	5	____
Total HxCDD	2670	5.07	6	____
Total HpCDD	2470	13.4	2	____
Total TCDF	7120	4.47	23	____
Total PeCDF	4870	11.8	14	____
Total HxCDF	3600	8.90	10	____
Total HpCDF	3370	18.9	4	____

Data Analysis Technologies, Inc. 7715 Corporate Blvd. Plain City OH 43064

Method 23/8290 PCDD/PCDF Analysis

Client: Custom Stack Environmental **Client Sample:** Run #2

Lab Project #: 0903023
Lab Sample ID: 0903023-6

Internal Standards	Conc. (pg)	% Recovery	QC Limits	Ratio	RT	Flag
$^{13}C_{12}$-2,3,7,8-TCDF	3286	82.2	40-135	0.80	28:28:00	____
$^{13}C_{12}$-2,3,7,8-TCDD	3357	83.9	40-135	0.80	29:15:00	____
$^{13}C_{12}$-1,2,3,7,8-PeCDF	3170	79.3	40-135	1.56	33:01:00	____
$^{13}C_{12}$-1,2,3,7,8-PeCDD	3379	84.5	40-135	1.65	34:26:00	____
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	3109	77.7	40-135	0.48	38:25:00	____
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	3327	83.2	40-135	1.25	39:24:00	____
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	2832	70.8	25-135	0.42	41:56:00	____
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	2821	70.5	25-135	1.03	42:57:00	____
$^{13}C_{12}$-OCDD	4921	61.5	25-135	0.85	46:07:00	____

Surrogate Standards (Type B)	Conc. (pg)	% Recovery	QC Limits	Ratio	RT	Flag
$^{37}Cl_4$-2,3,7,8-TCDD	4563	114	40-135	1.00	29:17:00	____
$^{13}C_{12}$-2,3,4,7,8-PeCDF	5195	130	40-135	1.61	33:58:00	____
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	4687	117	40-135	0.50	38:16:00	____
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	4229	106	40-135	1.27	39:17:00	____
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	4161	104	25-135	0.42	43:24:00	____

Alternate Standards (Type B)	Conc. (pg)	% Recovery	QC Limits	Ratio	RT	Flag
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	4548	91.0	40-135		40:05:00	____

Recovery Standards		Ratio		Flag
$^{13}C_{12}$-1,2,3,4-TCDD	24.9	0.79	29:03:00	____
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	25.5	1.25	39:48:00	____

ND = Not detected at the detection limit shown.

Data Analysis Technologies, Inc. 7715 Corporate Blvd. Plain City OH 43064

Method 23 / 8290 PCDD/PCDF Analysis

Client:	Custom Stack Environmental	**Client Sample:**	Run #3
Client Project:	St. John's Hospital	**Date Sampled:**	9/4/03
		Date Received:	9/9/03
Lab Project #:	0903023	**Date Ext:**	9/11/03
Lab Sample ID:	0903023-10	**Date Anal:**	9/17/03
Sample Size	NA g / ml	**Moisture**	NA
GC-Column	DB-5	**Solids**	NA
Dilution Factor	1	**Analyst:**	CSM

Analytes	Conc. (pg)	DL	Ratio	RT	Flag
2,3,7,8-TCDD	ND	4.25			____
1,2,3,7,8-PeCDD	79.4	7.31	1.76	34:26:00	____
1,2,3,4,7,8-HxCDD	85.3	7.04	1.33	39:16:00	____
1,2,3,6,7,8-HxCDD	248	7.25	1.28	39:23:00	____
1,2,3,7,8,9-HxCDD	189	6.93	1.37	39:47:00	____
1,2,3,4,6,7,8-HpCDD	2010	12.9	1.07	42:56:00	____
1,2,3,4,6,7,8,9-OCDD	4810	57.3	0.84	46:07:00	____
2,3,7,8-TCDF	167	6.02	0.87	26:27:00	____
1,2,3,7,8-PeCDF	267	20.4	1.72	33:00:00	____
2,3,4,7,8-PeCDF	563	20.4	1.70	33:58:00	____
1,2,3,4,7,8-HxCDF	1490	10.5	1.25	38:14:00	____
1,2,3,6,7,8-HxCDF	700	10.7	1.19	38:25:00	____
2,3,4,6,7,8-HxCDF	1370	12.3	1.29	39:07:00	____
1,2,3,7,8,9-HxCDF	64.1	13.8	1.27	40:04:00	____
1,2,3,4,6,7,8-HpCDF	2290	21.0	0.95	41:56:00	____
1,2,3,4,7,8,9-HpCDF	631	37.5	1.05	43:24:00	____
1,2,3,4,6,7,8,9-OCDF	2840	55.4	0.79	46:16:00	____

Totals	Conc. (pg)	DL	Number	Flag
Total TCDD	6830	4.25	10	____
Total PECDD	4890	7.31	6	____
Total HxCDD	4460	7.07	6	____
Total HpCDD	4200	12.9	2	____
Total TCDF	12100	5.93	22	____
Total PeCDF	8590	20.2	15	____
Total HxCDF	7430	11.7	11	____
Total HpCDF	5220	26.9	4	____

Data Analysis Technologies, Inc. 7715 Corporate Blvd. Plain City OH 43064

Method 23/8290 PCDD/PCDF Analysis

Client: Custom Stack Environmental **Client Sample:** Run #3

Lab Project #: 0903023
Lab Sample ID: 0903023-10

Internal Standards	Conc. (pg)	% Recovery	QC Limits	Ratio	RT	Flag
$^{13}C_{12}$-2,3,7,8-TCDF	2811	70.3	40-135	0.78	28:27:00	____
$^{13}C_{12}$-2,3,7,8-TCDD	2937	73.4	40-135	0.79	29:14:00	____
$^{13}C_{12}$-1,2,3,7,8-PeCDF	2530	63.2	40-135	1.60	32:59:00	____
$^{13}C_{12}$-1,2,3,7,8-PeCDD	2793	69.8	40-135	1.63	34:25:00	____
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	2656	66.4	40-135	0.48	38:24:00	____
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	3026	75.6	40-135	1.28	39:22:00	____
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	2247	56.2	25-135	0.40	41:55:00	____
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	2452	61.3	25-135	1.05	42:56:00	____
$^{13}C_{12}$-OCDD	4564	57.1	25-135	0.88	46:07:00	____

Surrogate Standards (Type B)	Conc. (pg)	% Recovery	QC Limits	Ratio	RT	Flag
$^{37}Cl_4$-2,3,7,8-TCDD	4231	106	40-135	1.00	29:15:00	____
$^{13}C_{12}$-2,3,4,7,8-PeCDF	4746	119	40-135	1.57	33:56:00	____
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	4359	109	40-135	0.46	38:14:00	____
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	3803	95.1	40-135	1.29	39:16:00	____
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	3551	88.8	25-135	0.38	43:23:00	____

Alternate Standards (Type B)	Conc. (pg)	% Recovery	QC Limits	Ratio	RT	Flag
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	4450	89.0	40-135		40:04:00	____

Recovery Standards		Ratio	Flag
$^{13}C_{12}$-1,2,3,4-TCDD	25.4	0.79	29:02:00 ____
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	24.1	1.25	39:46:00 ____

ND = Not detected at the detection limit shown.

QC SUMMARY

Data Analysis Technologies, Inc. 7715 Corporate Blvd. Plain City OH 43064

Method 23 / 8290 PCDD/PCDF Analysis

Client:	Custom Stack Environmental	**Client Sample:**	Method Blank
Client Project:	St. John's Hospital	**Date Sampled:**	
		Date Received:	
Lab Project #:	0903023	**Date Ext:**	9/11/03
Lab Sample ID:	0903023-MB	**Date Anal:**	9/16/03
Sample Size	NA g / ml	**Moisture**	NA
GC-Column	DB-5	**Solids**	NA
Dilution Factor	1	**Analyst:**	CSM

Analytes	Conc. (pg)	DL	Ratio	RT	Flag
2,3,7,8-TCDD	ND	2.12			___
1,2,3,7,8-PeCDD	ND	5.75			___
1,2,3,4,7,8-HxCDD	ND	3.58			___
1,2,3,6,7,8-HxCDD	ND	3.69			___
1,2,3,7,8,9-HxCDD	ND	3.53			___
1,2,3,4,6,7,8-HpCDD	ND	12.3			___
1,2,3,4,6,7,8,9-OCDD	ND	51.4			___
2,3,7,8-TCDF	ND	2.24			___
1,2,3,7,8-PeCDF	ND	5.10			___
2,3,4,7,8-PeCDF	ND	5.11			___
1,2,3,4,7,8-HxCDF	ND	4.53			___
1,2,3,6,7,8-HxCDF	ND	4.58			___
2,3,4,6,7,8-HxCDF	ND	5.28			___
1,2,3,7,8,9-HxCDF	ND	5.94			___
1,2,3,4,6,7,8-HpCDF	ND	13.0			___
1,2,3,4,7,8,9-HpCDF	ND	23.2			___
1,2,3,4,6,7,8,9-OCDF	ND	58.7			___

Totals	Conc. (pg)	DL	Number	Flag
Total TCDD	ND	2.11	0	___
Total PECDD	ND	5.75	0	___
Total HxCDD	ND	3.60	0	___
Total HpCDD	ND	12.3	0	___
Total TCDF	ND	2.07	0	___
Total PeCDF	ND	5.06	0	___
Total HxCDF	ND	5.02	0	___
Total HpCDF	ND	16.7	0	___

Data Analysis Technologies, Inc. 7715 Corporate Blvd. Plain City OH 43064

Method 23/8290 PCDD/PCDF Analysis

Client: Custom Stack Environmental **Client Sample:** Method Blank

Lab Project #: 0903023
Lab Sample ID: 0903023-MB

Internal Standards	Conc. (pg)	% Recovery	QC Limits	Ratio	RT	Flag
$^{13}C_{12}$-2,3,7,8-TCDF	3046	76.1	40-135	0.78	28:28:00	____
$^{13}C_{12}$-2,3,7,8-TCDD	3087	77.2	40-135	0.79	29:16:00	____
$^{13}C_{12}$-1,2,3,7,8-PeCDF	2860	71.5	40-135	1.59	33:02:00	____
$^{13}C_{12}$-1,2,3,7,8-PeCDD	2945	73.6	40-135	1.62	34:27:00	____
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	3170	79.2	40-135	0.51	38:25:00	____
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	3164	79.1	40-135	1.25	39:23:00	____
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	2697	67.4	25-135	0.42	41:55:00	____
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	2454	61.4	25-135	1.04	42:57:00	____
$^{13}C_{12}$-OCDD	4099	51.2	25-135	0.89	46:08:00	____

Surrogate Standards (Type B)	Conc. (pg)	% Recovery	QC Limits	Ratio	RT	Flag
$^{37}Cl_4$-2,3,7,8-TCDD	5189	130	40-135	1.00	29:18:00	____
$^{13}C_{12}$-2,3,4,7,8-PeCDF	5698	142	40-135	1.58	33:58:00	____
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	5154	129	40-135	0.49	38:16:00	____
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	4649	116	40-135	1.25	39:16:00	____
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	3969	99.2	25-135	0.37	43:24:00	____

Alternate Standards (Type B)	Conc. (pg)	% Recovery	QC Limits	Ratio	RT	Flag
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	4456	89.1	40-135		40:06:00	____

Recovery Standards		Ratio	Flag
$^{13}C_{12}$-1,2,3,4-TCDD	30.2	0.79	29:04:00 ____
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	26.4	1.27	39:47:00 ____

ND = Not detected at the detection limit shown.

SAMPLE DATA

Run #6 Filename 0903023A S: 9 I: 1 Acquired: 17-SEP-03 00:02:33 Processed: 17-SEP-03 11:04:20
Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: Version: V3.6 9-SEP-2002 14:02:21
Sample text: 0903023-2 Comments:

	Typ	Name	#Hom	Resp	RA		RT	Conc	4066.69 Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDD	1	2.0e+05	0.46	n	29:18	22.647	22.65	4.16	-	y
2	nati	1,2,3,7,8-PeCDD	1	4.7e+05	2.21	n	34:28	74.904	37.45	11.94	-	n
3	nati	1,2,3,4,7,8-HxCDD	1	5.1e+05	1.18	y	39:18	97.711	9.77	8.93	-	y
4	nati	1,2,3,6,7,8-HxCDD	1	1.5e+06	1.36	y	39:24	276.665	27.67	9.19	-	n
5	nati	1,2,3,7,8,9,-HxCDD	1	1.3e+06	1.19	y	39:47	231.754	23.18	8.78	-	n
6	nati	1,2,3,4,6,7,8-HpCDD	1	1.0e+07	1.05	y	42:57	2065.899	20.66	16.55	-	n
7	nati	1,2,3,4,6,7,8,9-OCDD	1	1.2e+07	0.87	y	46:08	4736.105	4.74	44.22	-	n
8	nati	2,3,7,8-TCDF	1	5.1e+07	0.76	y	~~28:31~~	~~1534.692~~	1534.69	9.62	-	n
9	nati	1,2,3,7,8-PeCDF	1	2.4e+06	1.71	y	33:02	283.060	283.06	22.74	-	n
10	nati	2,3,4,7,8-PeCDF	1	5.6e+06	1.56	y	33:59	609.261	304.63	22.81	-	n
11	nati	1,2,3,4,4,8-HxCDF	1	1.1e+07	1.30	y	38:16	1532.952	1532.95	14.91	-	n
12	nati	1,2,3,6,7,8-HxCDF	1	5.1e+06	1.29	y	38:26	738.757	73.88	15.08	-	n
13	nati	2,3,4,6,7,8-HxCDF	1	8.9e+06	1.31	y	39:09	1433.878	143.39	17.37	-	n
14	nati	1,2,3,7,8,9-HxCDF	1	5.7e+05	1.13	y	40:07	102.159	10.22	19.53	-	y
15	nati	1,2,3,4,6,7,8-HpCDF	1	2.4e+07	1.05	y	41:57	2593.888	25.94	20.17	-	n
16	nati	1,2,3,4,7,8,9-HpCDF	1	3.4e+06	1.07	y	43:24	843.167	8.43	35.97	-	y
17	nati	1,2,3,4,6,7,8,9-OCDF	1	8.6e+06	0.91	y	46:18	3401.852	3.40	49.02	-	n
18	nati	Total TCDD	8	2.3e+08	0.77	y	26:32	6608.246	0.00	4.16	-	y
19	nati	Total PeCDD	5	4.6e+07	1.57	y	32:06	4898.996	0.00	11.93	-	n
20	nati	Total HxCDD	7	3.0e+07	1.10	y	37:35	4793.742	0.00	8.96	-	y
21	nati	Total HpCDD	2	2.2e+07	1.01	y	42:13	4251.474	0.00	16.55	-	n
22	nati	Total TCDF	18	3.1e+08	0.76	y	25:05	~~13018.572~~	0.00	9.06	-	y
23	nati	Total PeCDF	12	7.6e+07	1.62	y	30:41	8165.832	0.00	22.56	-	y
24	nati	Total HxCDF	11	5.4e+07	1.29	y	36:46	8225.111	0.00	16.52	-	y
25	nati	Total HpCDF	4	4.1e+07	1.05	y	41:57	6235.549	0.00	25.84	-	y
26	IS	13C12-2,3,7,8-TCDF	1	5.1e+07	0.77	y	28:28	2962.198	0.00	4.66	74.1	n
27	IS	13C12-2,3,7,8-TCDD	1	4.0e+07	0.78	y	29:16	3015.105	0.00	9.07	75.4	n
28	IS	13C12-1,2,3,7,8-PeCDF	1	3.8e+07	1.58	y	33:01	2725.629	0.00	2.68	68.1	n
29	IS	13C12-1,2,3,7,8-PeCDD	1	2.9e+07	1.56	y	34:27	2818.941	0.00	3.25	70.5	n
30	IS	13C12-1,2,3,6,7,8-HxCDF	1	2.8e+07	0.46	y	38:25	2820.653	0.00	3.28	70.5	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	1	2.3e+07	1.31	y	39:24	2975.354	0.00	6.84	74.4	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	1	1.6e+07	0.40	y	41:56	2875.097	0.00	10.37	71.9	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	1	1.5e+07	1.06	y	42:57	3095.417	0.00	5.91	77.4	n
34	IS	13C12-OCDD	1	1.3e+07	0.86	y	46:07	6969.141	0.00	40.43	87.1	n
35	Suro	37C12-2,3,7,8-TCDD	1	8.2e+07	1.00	y	29:17	4271.541	0.00	5.99	106.8	n
36	Suro	13C12-2,3,4,7,8-PeCDF	1	4.1e+07	1.60	y	33:58	4768.909	0.00	4.45	119.2	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	1	2.8e+07	0.47	y	38:17	4444.353	0.00	5.91	111.1	n
38	Suro	13C12-1,2,3,4,7,8-HxCDD	1	2.3e+07	1.29	y	39:17	4151.792	0.00	10.93	103.8	n
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	1	1.0e+07	0.41	y	43:24	4221.802	0.00	29.82	105.5	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	1	2.5e+07	0.46	y	40:05	5029.438	0.00	7.96	100.6	n
41	RS	13C12-1,2,3,4-TCDD	1	1.2e+08	0.79	y	29:04	22.703	0.00	-	-	n
42	RS	13C12-1,2,3,7,8,9-HxCDD	1	7.7e+07	1.26	y	39:48	21.576	0.00	-	-	n

Run #8 Filename 0903023D S: 2 I: 1 Acquired: 19-SEP-03 15:08:44 Processed: 22-SEP-03 08:24:26
Run: tcdf06a Analyte: 0903023C Cal: tcdf06a Results: 0903023C Version: V3.6 9-SEP-2002 14:02:21
Sample text: 0903023-2 Comments:

	Typ	Name	#Hom	Resp	RA		RT	Conc	11473. Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDF	1	1.1e+06	0.73	y	26:28	165.253	165.25	2.97	-	y
2	nati	Total TCDF	20	1.6e+08	0.76	y	20:04	11473.437	11473.	2.93	-	y
3	IS	13C12-2,3,7,8-TCDF	1	2.8e+07	0.77	y	26:25	14.762	0.00	-	-	n

Ent: 2 Name: Total TCDF F:1 Mass: 303.902 305.899 Mod? yes #Hom:20

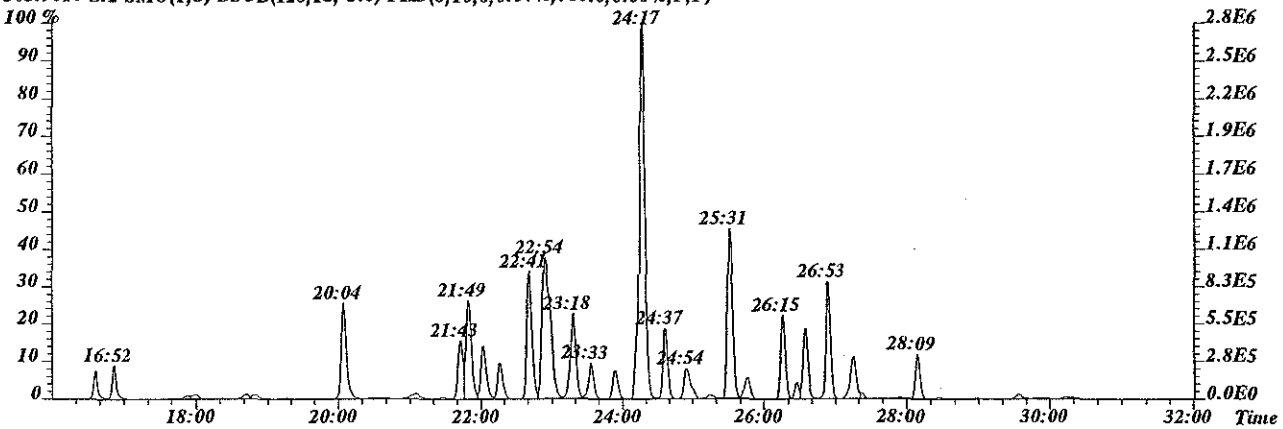
Run: 8 File: 0903023D S:2 Acq:19-SEP-03 15:08:44 Proc:22-SEP-03 08:24:26
bles: Run: tcdf06a Analyte: 0903023C Cal: tcdf06a Results: 0903023C
rsion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-2

Amount: 11473. of which 165.25 named and 11308. unnamed
Conc: 11473. of which 165.25 named and 11308. unnamed
Tox #1: 11473. Tox #2: 0.00 Tox #3: 0.00

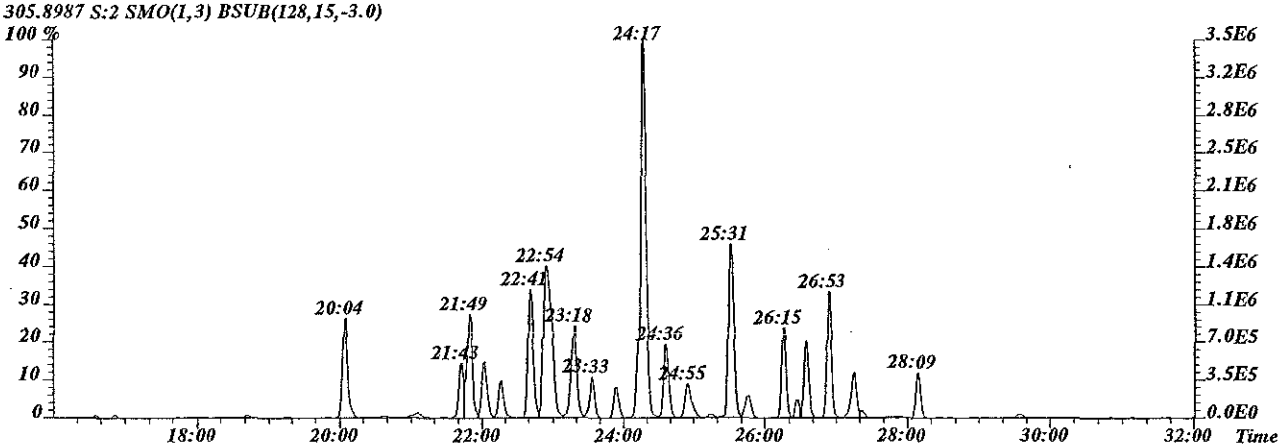
Name	#	RT	Respnse	RA		Conc	Area	Height	S/N	Mod?	
	1	20:04	7.8e+06	0.76	y	628.32					
			7.8e+06				3.4e+06	7.0e+05	8.9e+02	y	n
							4.4e+06	9.2e+05	2.3e+03	y	n
	2	21:49	8.9e+06	0.73	y	682.74					
			8.9e+06				3.8e+06	7.2e+05	9.2e+02	y	n
							5.1e+06	9.5e+05	2.4e+03	y	n
	3	22:02	4.8e+06	0.77	y	460.16					
			4.8e+06				2.1e+06	3.9e+05	4.9e+02	y	n
							2.7e+06	5.2e+05	1.3e+03	y	n
	4	22:16	2.9e+06	0.77	y	330.27					
			2.9e+06				1.3e+06	2.6e+05	3.3e+02	y	n
							1.7e+06	3.4e+05	8.5e+02	y	n
	5	22:41	1.0e+07	0.78	y	751.52					
			1.0e+07				4.6e+06	9.4e+05	1.2e+03	y	n
							5.8e+06	1.2e+06	2.9e+03	y	n
	6	22:54	1.9e+07	0.73	y	1083.67					
			1.9e+07				8.1e+06	1.0e+06	1.3e+03	y	n
							1.1e+07	1.4e+06	3.5e+03	y	n
	7	23:18	8.5e+06	0.73	y	663.18					
			8.5e+06				3.6e+06	6.2e+05	7.9e+02	y	n
							4.9e+06	8.5e+05	2.1e+03	y	n
	8	23:33	3.2e+06	0.72	y	350.77					
			3.2e+06				1.3e+06	2.6e+05	3.3e+02	y	n
							1.9e+06	3.7e+05	9.3e+02	y	n
	9	23:54	2.4e+06	0.74	y	282.59					
			2.4e+06				1.0e+06	2.1e+05	2.7e+02	y	n
							1.4e+06	2.8e+05	6.9e+02	y	n
	10	24:17	3.5e+07	0.79	y	1533.36					
			3.5e+07				1.5e+07	2.8e+06	3.5e+03	y	n
							2.0e+07	3.5e+06	8.7e+03	y	n
	11	24:37	5.8e+06	0.70	y	520.81					
			5.8e+06				2.4e+06	5.2e+05	6.6e+02	y	n
							3.4e+06	6.7e+05	1.7e+03	y	n
	12	24:54	3.5e+06	0.72	y	371.19					
			3.5e+06				1.5e+06	2.2e+05	2.8e+02	y	n
							2.0e+06	3.1e+05	7.7e+02	y	n
	13	25:31	1.4e+07	0.75	y	900.42					
			1.4e+07				6.0e+06	1.3e+06	1.6e+03	y	n
							8.0e+06	1.6e+06	4.0e+03	y	n
	14	25:47	2.0e+06	0.72	y	248.38					
			2.0e+06				8.3e+05	1.5e+05	1.9e+02	y	n
							1.2e+06	2.0e+05	5.0e+02	y	n
	15	26:15	6.2e+06	0.74	y	544.71					
			6.2e+06				2.7e+06	6.1e+05	7.8e+02	y	n
							3.6e+06	8.3e+05	2.1e+03	y	n
2,3,7,8-TCDF	16	26:28	1.1e+06	0.73	y	165.25					
			1.1e+06				4.8e+05	1.1e+05	1.5e+02	y	y
							6.6e+05	1.7e+05	4.1e+02	y	y
	17	26:35	5.4e+06	0.76	y	498.30					

5.4e+06	2.3e+06	5.2e+05	6.6e+02	y	n
	3.1e+06	7.1e+05	1.8e+03	y	n

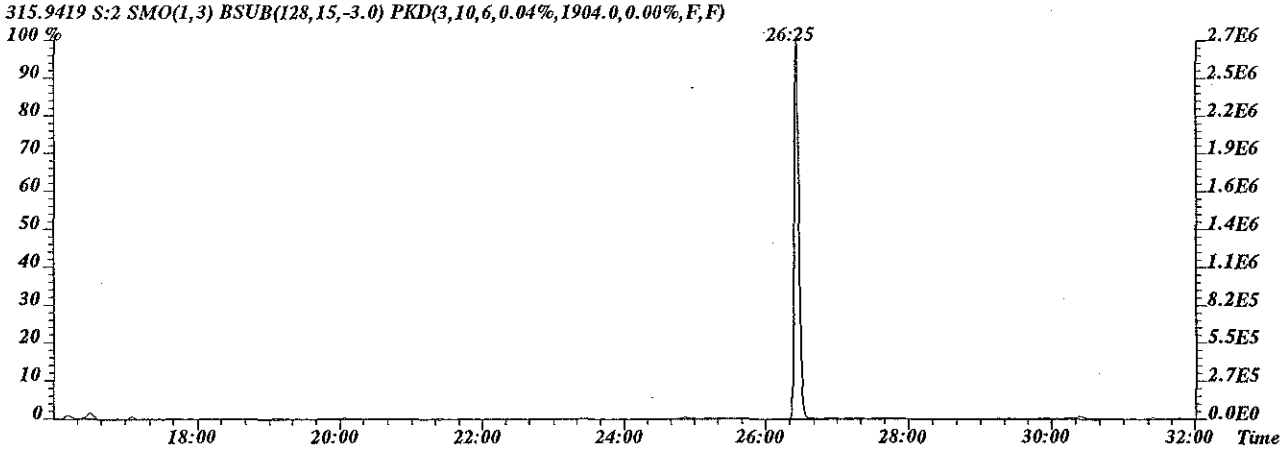
File:0903023D #1-937 Acq:19-SEP-2003 15:08:44 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 TCDF CONF Text:0903023-2 Exp:TCDF
303.9016 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,786.0,0.00%,F,F)



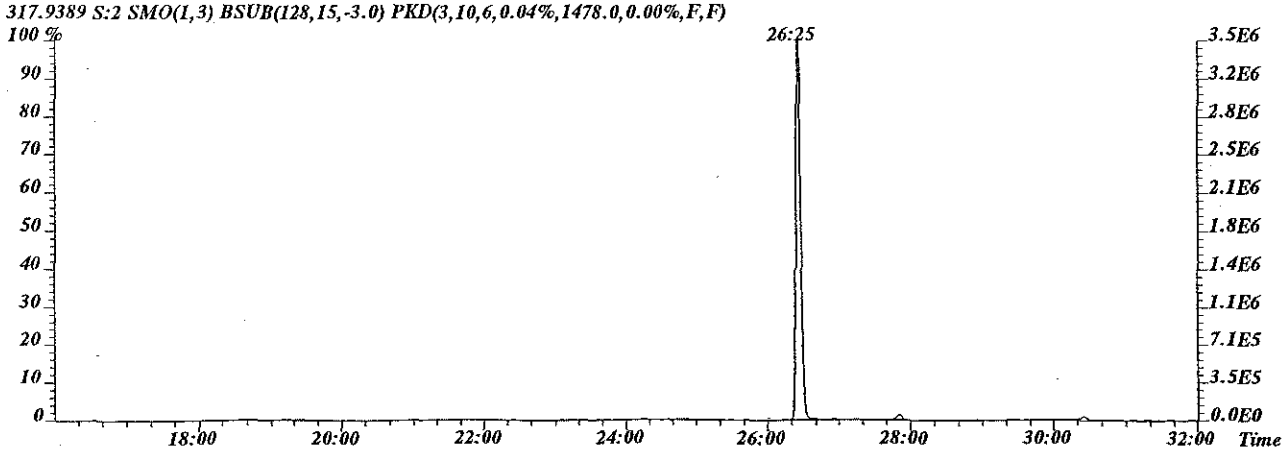
305.8987 S:2 SMO(1,3) BSUB(128,15,-3.0)



315.9419 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1904.0,0.00%,F,F)



317.9389 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1478.0,0.00%,F,F)



Ent: 18 Name: Total TCDD F:1 Mass: 319.897 321.984 Mod? yes #Hom:8

n: 6 File: 0903023A S:9 Acq:17-SEP-03 00:02:33 Proc:17-SEP-03 11:04:20
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results:
Version: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-2

Amount: 6608.25 of which * named and 6608.25 unnamed
Conc: 6608.25 of which * named and 6608.25 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA		Conc	Area	Height	S/N	Mod?	
	1	26:32	1.4e+08	0.77	y	2955.35					
			1.4e+08				6.3e+07	1.4e+07	1.1e+04	y	n
							8.1e+07	1.8e+07	1.1e+04	y	n
	2	26:55	6.2e+07	0.78	y	1844.69					
			6.2e+07				2.7e+07	6.0e+06	4.9e+03	y	n
							3.5e+07	7.8e+06	5.1e+03	y	n
	3	27:16	2.2e+06	0.78	y	194.31					
			2.2e+06				9.4e+05	2.1e+05	1.7e+02	y	n
							1.2e+06	2.9e+05	1.9e+02	y	n
	4	27:58	1.2e+07	0.77	y	696.78					
			1.2e+07				5.4e+06	1.1e+06	8.7e+02	y	n
							7.0e+06	1.4e+06	9.2e+02	y	n
	5	28:42	1.9e+06	0.79	y	174.34					
			1.9e+06				8.3e+05	1.8e+05	1.5e+02	y	n
							1.1e+06	2.5e+05	1.6e+02	y	n
	6	29:04	4.2e+06	0.73	y	327.00					
			4.2e+06				1.8e+06	3.9e+05	3.2e+02	y	n
							2.4e+06	4.8e+05	3.1e+02	y	n
	7	29:10	5.0e+06	0.76	y	370.58					
			5.0e+06				2.2e+06	5.2e+05	4.2e+02	y	y
							2.8e+06	6.4e+05	4.2e+02	y	n
	8	29:39	4.1e+05	0.72	y	45.21					
			4.1e+05				1.7e+05	3.5e+04	2.8e+01	y	n
							2.4e+05	5.6e+04	3.7e+01	y	n

Ent: 19 Name: Total PeCDD F:2 Mass: 355.855 357.852 Mod? no #Hom:5

Run: 6 File: 0903023A S:9 Acq:17-SEP-03 00:02:33 Proc:17-SEP-03 11:04:20
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results:
rsion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-2

Amount: 4899.00 of which * named and 4899.00 unnamed
Conc: 4899.00 of which * named and 4899.00 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?	
	1	32:06	2.2e+07	1.57 y	2115.97					
			2.2e+07			1.3e+07	3.0e+06	1.0e+03	y	n
						8.6e+06	2.0e+06	7.4e+02	y	n
	2	33:00	1.5e+07	1.58 y	1578.31					
			1.5e+07			9.0e+06	2.2e+06	7.6e+02	y	n
						5.7e+06	1.4e+06	5.2e+02	y	n
	3	33:25	5.9e+06	1.68 y	773.61					
			5.9e+06			3.7e+06	8.4e+05	2.9e+02	y	n
						2.2e+06	5.3e+05	2.0e+02	y	n
	4	33:46	5.9e+05	1.61 y	94.69					
			5.9e+05			3.7e+05	6.2e+04	2.1e+01	y	n
						2.3e+05	4.4e+04	1.6e+01	y	n
	5	34:02	2.3e+06	1.71 y	336.41					
			2.3e+06			1.4e+06	3.3e+05	1.1e+02	y	n
						8.4e+05	1.9e+05	7.3e+01	y	n

Ent: 20 Name: Total HxCDD F:3 Mass: 389.816 391.813 Mod? yes #Hom:7

Run: 6 File: 0903023A S:9 Acq:17-SEP-03 00:02:33 Proc:17-SEP-03 11:04:20
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results:
rsion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-2

Amount: 4793.74 of which 606.13 named and 4187.61 unnamed
Conc: 4793.74 of which 606.13 named and 4187.61 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?
	1	37:35	2.0e+06	1.10 y	397.68				
			2.0e+06			1.1e+06	2.6e+05	1.3e+02 y	n
						9.7e+05	2.6e+05	1.1e+02 y	n
	2	38:15	1.9e+07	1.28 y	2745.47				
			1.9e+07			1.1e+07	2.8e+06	1.4e+03 y	n
						8.4e+06	2.4e+06	1.0e+03 y	n
	3	38:33	5.4e+06	1.22 y	962.17				
			5.4e+06			2.9e+06	7.2e+05	3.5e+02 y	n
						2.4e+06	6.7e+05	2.8e+02 y	n
	4	38:47	4.0e+05	1.11 y	82.28				
			4.0e+05			2.1e+05	5.2e+04	2.6e+01 y	n
						1.9e+05	5.2e+04	2.2e+01 y	n
1,2,3,4,7,8-HxCDD	5	39:18	5.1e+05	1.18 y	97.71				
			5.1e+05			2.7e+05	9.0e+04	4.4e+01 y	y
						2.3e+05	6.7e+04	2.8e+01 y	n
1,2,3,6,7,8-HxCDD	6	39:24	1.5e+06	1.36 y	276.67				
			1.5e+06			8.5e+05	2.4e+05	1.2e+02 y	n
						6.2e+05	1.9e+05	8.0e+01 y	n
1,2,3,7,8,9,-HxCDD	7	39:47	1.3e+06	1.19 y	231.75				
			1.3e+06			6.8e+05	1.4e+05	6.8e+01 y	n
						5.7e+05	1.4e+05	6.1e+01 y	n

:t: 21 Name: Total HpCDD F:4 Mass: 423.777 425.774 Mod? no #Hom:2

Run: 6 File: 0903023A S:9 Acq:17-SEP-03 00:02:33 Proc:17-SEP-03 11:04:20
Tables: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results:
Version: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-2

Amount: 4251.47 of which 2065.90 named and 2185.57 unnamed
Conc: 4251.47 of which 2065.90 named and 2185.57 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?
	1	42:13	1.1e+07	1.01 y	2185.57				
			1.1e+07			5.7e+06	1.9e+06	1.5e+03 y	n
						5.6e+06	1.9e+06	6.0e+02 y	n
1,2,3,4,6,7,8-HpCDD2		42:57	1.0e+07	1.05 y	2065.90				
			1.0e+07			5.3e+06	1.6e+06	1.3e+03 y	n
						5.1e+06	1.6e+06	5.1e+02 y	n

Ent: 22 Name: Total TCDF F:1 Mass: 303.902 305.899 Mod? yes #Hom:18

Run: 6 File: 0903023A S:9 Acq:17-SEP-03 00:02:33 Proc:17-SEP-03 11:04:20
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results:
rsion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-2

Amount: 13018. of which 1534.69 named and 11483. unnamed
Conc: 13018. of which 1534.69 named and 11483. unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA		Conc	Area	Height	S/N		Mod?
	1	25:05	1.4e+07	0.76	y	703.37					
			1.4e+07				6.0e+06	1.3e+06	3.7e+02	y	n
							7.9e+06	1.7e+06	4.4e+02	y	n
	2	25:38	9.6e+06	0.73	y	544.74					
			9.6e+06				4.0e+06	8.3e+05	2.4e+02	y	n
							5.5e+06	1.1e+06	2.8e+02	y	n
	3	25:53	1.3e+07	0.71	y	666.92					
			1.3e+07				5.3e+06	1.1e+06	3.3e+02	y	n
							7.5e+06	1.6e+06	4.1e+02	y	n
	4	26:16	2.4e+07	0.77	y	1017.96					
			2.4e+07				1.1e+07	2.3e+06	6.6e+02	y	n
							1.4e+07	2.8e+06	7.3e+02	y	n
	5	26:23	1.9e+07	0.78	y	871.54					
			1.9e+07				8.4e+06	1.5e+06	4.2e+02	y	n
							1.1e+07	1.8e+06	4.6e+02	y	n
	6	26:38	2.5e+07	0.72	y	1045.59					
			2.5e+07				1.1e+07	1.4e+06	4.0e+02	y	n
							1.5e+07	1.8e+06	4.7e+02	y	n
	7	26:50	1.3e+06	0.69	y	107.98					
			1.3e+06				5.2e+05	1.3e+05	3.7e+01	y	y
							7.5e+05	1.7e+05	4.3e+01	y	y
	8	26:58	1.1e+07	0.87	y	584.41					
			1.1e+07				4.9e+06	1.1e+06	3.1e+02	y	y
							5.6e+06	1.5e+06	3.8e+02	y	y
	9	27:04	1.1e+07	0.68	y	607.39					
			1.1e+07				4.5e+06	1.1e+06	3.1e+02	y	n
							6.7e+06	1.4e+06	3.5e+02	y	n
	10	27:21	1.7e+07	0.77	y	818.67					
			1.7e+07				7.6e+06	1.6e+06	4.6e+02	y	n
							9.8e+06	2.0e+06	5.2e+02	y	n
	11	27:37	3.2e+07	0.76	y	1215.43					
			3.2e+07				1.4e+07	2.2e+06	6.3e+02	y	n
							1.8e+07	2.9e+06	7.4e+02	y	n
	12	27:48	5.3e+07	0.79	y	1637.40					
			5.3e+07				2.3e+07	4.9e+06	1.4e+03	y	n
							3.0e+07	6.2e+06	1.6e+03	y	n
	13	28:02	4.9e+06	0.76	y	334.19					
			4.9e+06				2.1e+06	5.0e+05	1.4e+02	y	n
							2.8e+06	6.9e+05	1.8e+02	y	n
	14	28:18	6.6e+06	0.77	y	414.63					
			6.6e+06				2.9e+06	4.8e+05	1.4e+02	y	n
							3.7e+06	6.4e+05	1.6e+02	y	n
2,3,7,8-TCDF	15	28:31	5.1e+07	0.76	y	1534.69					
			5.1e+07				2.2e+07	4.7e+06	1.4e+03	y	n
							2.9e+07	6.3e+06	1.6e+03	y	n
	16	28:59	5.6e+06	0.71	y	367.62					
			5.6e+06				2.3e+06	5.7e+05	1.6e+02	y	n
							3.3e+06	8.1e+05	2.1e+02	y	n
	17	29:13	7.3e+06	0.72	y	447.93					

7.3e+06	3.1e+06	6.5e+05	1.9e+02	y	n
	4.2e+06	9.4e+05	2.4e+02	y	n

Ent: 23 Name: Total PeCDF F:2 Mass: 339.860 341.857 Mod? yes #Hom:12

Run: 6 File: 0903023A S:9 Acq:17-SEP-03 00:02:33 Proc:17-SEP-03 11:04:20
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results:
rsion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-2

Amount: 8165.83 of which 892.32 named and 7273.51 unnamed
Conc: 8165.83 of which 892.32 named and 7273.51 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA		Conc	Area	Height	S/N	Mod?	
	1	30:41	1.2e+07	1.62	y	1281.40					
			1.2e+07				7.4e+06	1.9e+06	2.1e+02	y	y
							4.6e+06	1.2e+06	2.3e+02	y	y
	2	31:58	2.1e+07	1.62	y	2038.89					
			2.1e+07				1.3e+07	2.6e+06	2.8e+02	y	n
							7.9e+06	1.7e+06	3.0e+02	y	n
	3	32:22	7.3e+05	1.63	y	90.86					
			7.3e+05				4.5e+05	1.0e+05	1.1e+01	y	n
							2.8e+05	7.8e+04	1.4e+01	y	y
	4	32:27	6.5e+05	1.36	y	81.09					
			6.5e+05				3.8e+05	1.0e+05	1.1e+01	y	n
							2.8e+05	6.5e+04	1.2e+01	y	n
	5	32:35	8.7e+06	1.68	y	966.68					
			8.7e+06				5.5e+06	1.4e+06	1.4e+02	y	y
							3.2e+06	8.6e+05	1.6e+02	y	y
	6	32:40	1.0e+07	1.70	y	1116.45					
			1.0e+07				6.5e+06	1.4e+06	1.5e+02	y	n
							3.8e+06	8.5e+05	1.6e+02	y	n
1,2,3,7,8-PeCDF	7	33:02	2.4e+06	1.71	y	283.06					
			2.4e+06				1.5e+06	3.6e+05	3.8e+01	y	n
							8.9e+05	2.1e+05	3.8e+01	y	n
	8	33:15	2.2e+06	1.63	y	264.44					
			2.2e+06				1.4e+06	3.1e+05	3.3e+01	y	n
							8.3e+05	1.8e+05	3.3e+01	y	y
	9	33:25	4.1e+06	1.62	y	482.05					
			4.1e+06				2.5e+06	5.2e+05	5.6e+01	y	n
							1.6e+06	3.0e+05	5.5e+01	y	n
2,3,4,7,8-PeCDF	10	33:59	5.6e+06	1.56	y	609.26					
			5.6e+06				3.4e+06	7.8e+05	8.3e+01	y	n
							2.2e+06	4.8e+05	8.9e+01	y	n
	11	34:11	7.8e+06	1.70	y	878.43					
			7.8e+06				4.9e+06	1.0e+06	1.1e+02	y	n
							2.9e+06	6.2e+05	1.1e+02	y	n
	12	35:23	5.9e+05	1.50	y	73.24					
			5.9e+05				3.5e+05	7.9e+04	8.5e+00	y	n
							2.4e+05	4.1e+04	7.5e+00	y	n

Ent: 24 Name: Total HxCDF F:3 Mass: 373.821 375.818 Mod? yes #Hom:11

Run: 6 File: 0903023A S:9 Acq:17-SEP-03 00:02:33 Proc:17-SEP-03 11:04:20
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results:
rsion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-2

Amount: 8225.11 of which 3807.75 named and 4417.36 unnamed
Conc: 8225.11 of which 3807.75 named and 4417.36 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA		Conc	Area	Height	S/N	Mod?	
	1	36:46	7.3e+06	1.29	y	1124.83					
			7.3e+06				4.1e+06	9.7e+05	2.2e+02	y	n
							3.2e+06	7.6e+05	1.7e+02	y	n
	2	37:01	1.3e+07	1.28	y	2006.33					
			1.3e+07				7.3e+06	1.7e+06	3.9e+02	y	n
							5.7e+06	1.3e+06	3.0e+02	y	n
	3	37:16	9.0e+05	1.24	y	137.83					
			9.0e+05				5.0e+05	1.1e+05	2.5e+01	y	n
							4.0e+05	8.7e+04	1.9e+01	y	n
	4	37:29	1.7e+06	1.19	y	265.36					
			1.7e+06				9.4e+05	2.3e+05	5.2e+01	y	n
							7.9e+05	2.3e+05	5.2e+01	y	n
1,2,3,4,4,8-HxCDF	5	38:16	1.1e+07	1.30	y	1532.95					
			1.1e+07				6.2e+06	1.4e+06	3.1e+02	y	n
							4.8e+06	1.1e+06	2.4e+02	y	n
1,2,3,6,7,8-HxCDF	6	38:26	5.1e+06	1.29	y	738.76					
			5.1e+06				2.9e+06	8.4e+05	1.9e+02	y	n
							2.2e+06	6.9e+05	1.6e+02	y	n
	7	38:35	1.8e+06	1.11	y	284.23					
			1.8e+06				9.7e+05	2.7e+05	6.2e+01	y	n
							8.7e+05	2.4e+05	5.4e+01	y	n
	8	38:51	2.3e+06	1.26	y	346.68					
			2.3e+06				1.3e+06	2.0e+05	4.5e+01	y	n
							1.0e+06	1.8e+05	3.9e+01	y	n
3,4,6,7,8-HxCDF	9	39:09	8.9e+06	1.31	y	1433.88					
			8.9e+06				5.1e+06	1.2e+06	2.7e+02	y	n
							3.9e+06	8.8e+05	2.0e+02	y	n
1,2,3,7,8,9-HxCDF	10	40:07	5.7e+05	1.13	y	102.16					
			5.7e+05				3.0e+05	6.7e+04	1.5e+01	y	n
							2.7e+05	6.6e+04	1.5e+01	y	y
	11	40:12	1.6e+06	1.35	y	252.12					
			1.6e+06				9.4e+05	3.0e+05	6.7e+01	y	n
							7.0e+05	2.1e+05	4.8e+01	y	y

Ent: 25 Name: Total HpCDF F:4 Mass: 407.782 409.779 Mod? yes #Hom:4

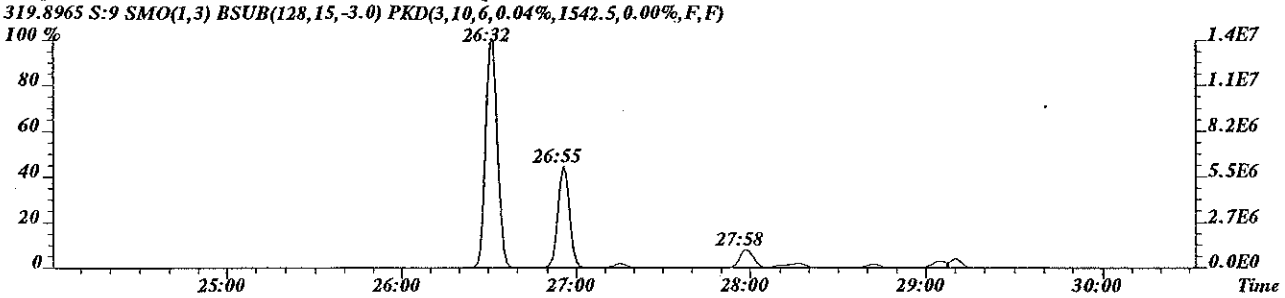
Run: 6 File: 0903023A S:9 Acq:17-SEP-03 00:02:33 Proc:17-SEP-03 11:04:20
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results:
rsion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-2

Amount: 6235.55 of which 3437.05 named and 2798.49 unnamed
Conc: 6235.55 of which 3437.05 named and 2798.49 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

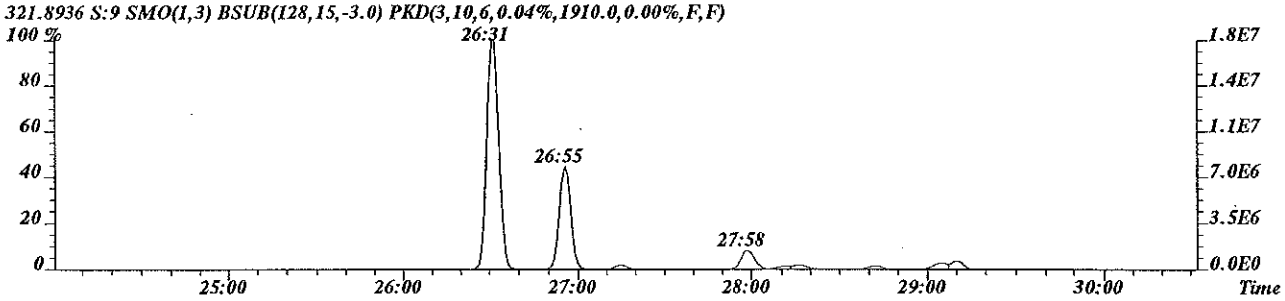
Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?	
1,2,3,4,6,7,8-HpCDF1		41:57	2.4e+07	1.05	y 2593.89					
			2.4e+07			1.2e+07	3.9e+06	7.0e+02	y	n
						1.2e+07	3.6e+06	9.8e+02	y	n
	2	42:12	7.3e+06	1.07	y 1476.50					
			7.3e+06			3.7e+06	1.2e+06	2.2e+02	y	y
						3.5e+06	1.2e+06	3.3e+02	y	y
	3	42:20	6.3e+06	1.12	y 1321.99					
			6.3e+06			3.3e+06	1.1e+06	1.9e+02	y	y
						3.0e+06	1.0e+06	2.7e+02	y	y
1,2,3,4,7,8,9-HpCDF4		43:24	3.4e+06	1.07	y 843.17					
			3.4e+06			1.8e+06	5.5e+05	9.7e+01	y	n
						1.7e+06	4.9e+05	1.3e+02	y	y

File:0903023A #1-429 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
Sample#9 File Text:M23 Text:0903023-2 Exp:8290

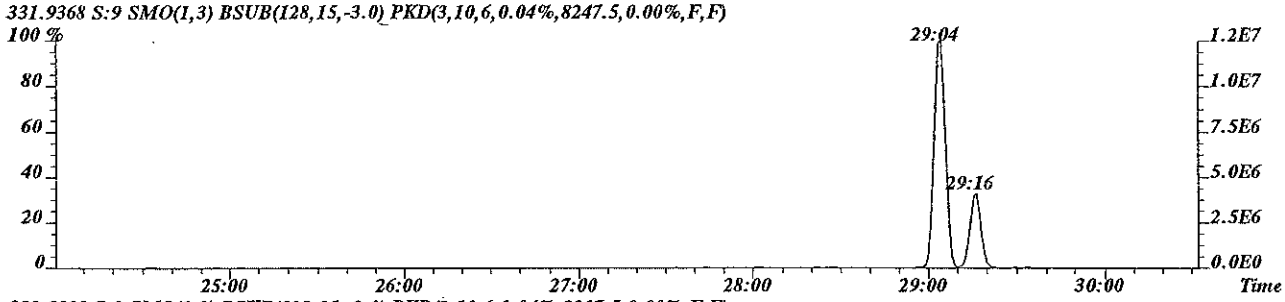
319.8965 S:9 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1542.5,0.00%,F,F)



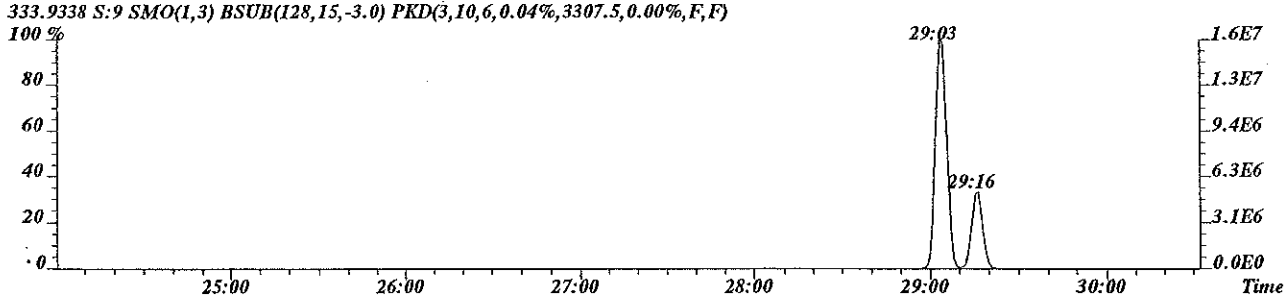
321.8936 S:9 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1910.0,0.00%,F,F)



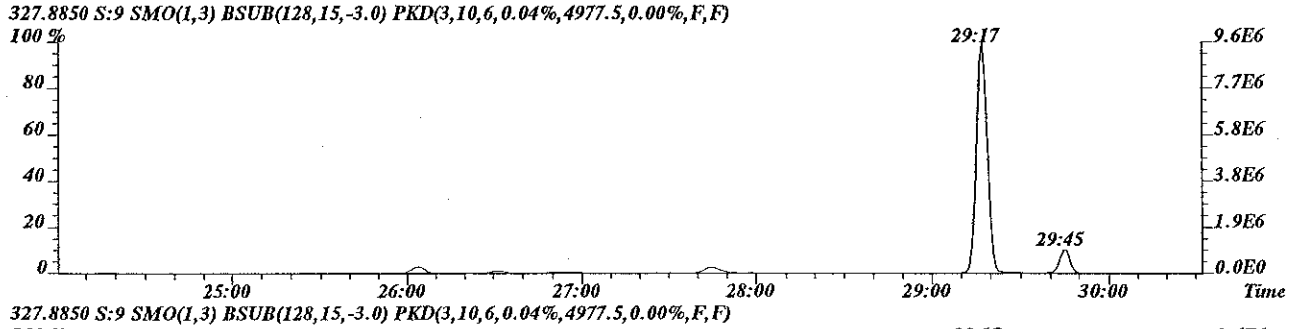
331.9368 S:9 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,8247.5,0.00%,F,F)



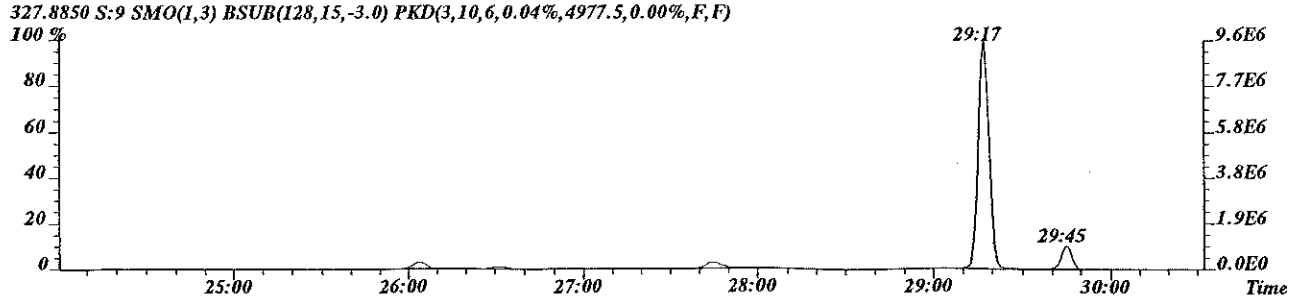
333.9338 S:9 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3307.5,0.00%,F,F)



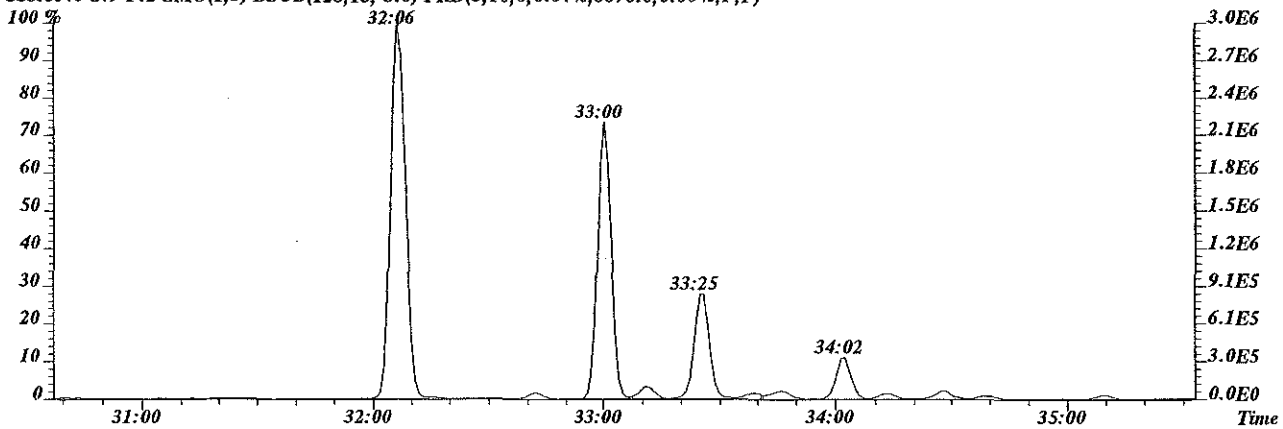
327.8850 S:9 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4977.5,0.00%,F,F)



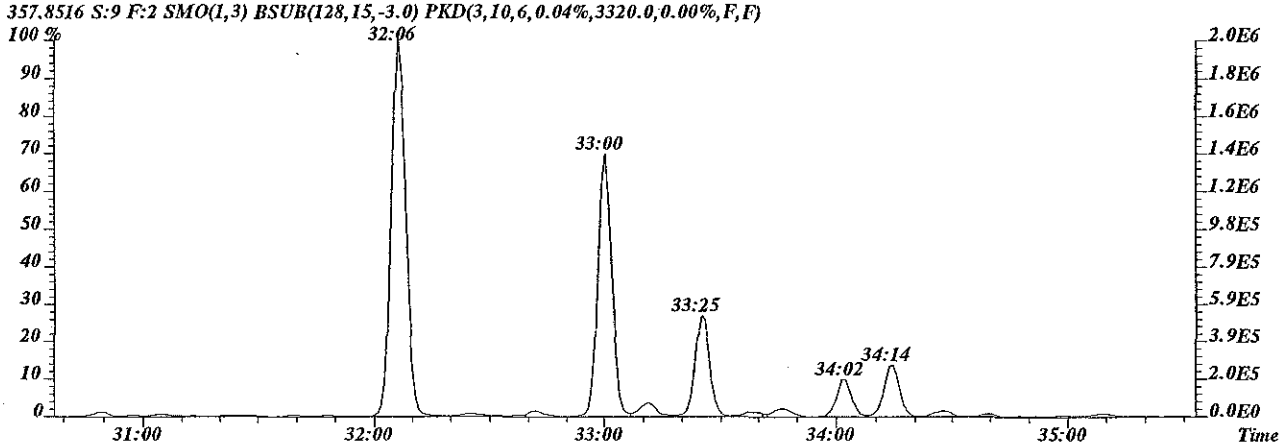
327.8850 S:9 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4977.5,0.00%,F,F)



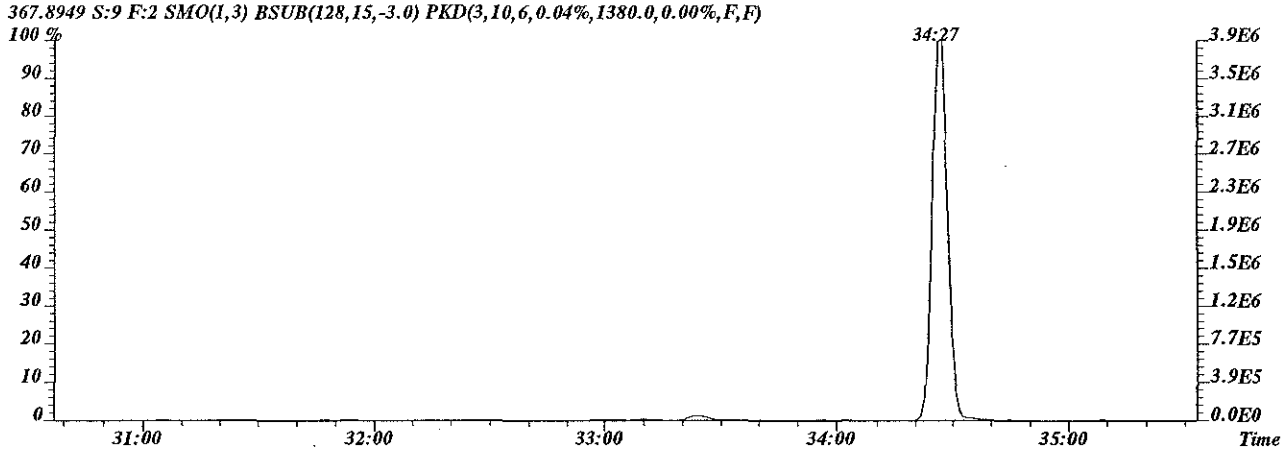
File:0903023A #1-324 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
Sample#9 File Text:M23 Text:0903023-2 Exp:8290
355.8546 S:9 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3670.0,0.00%,F,F)



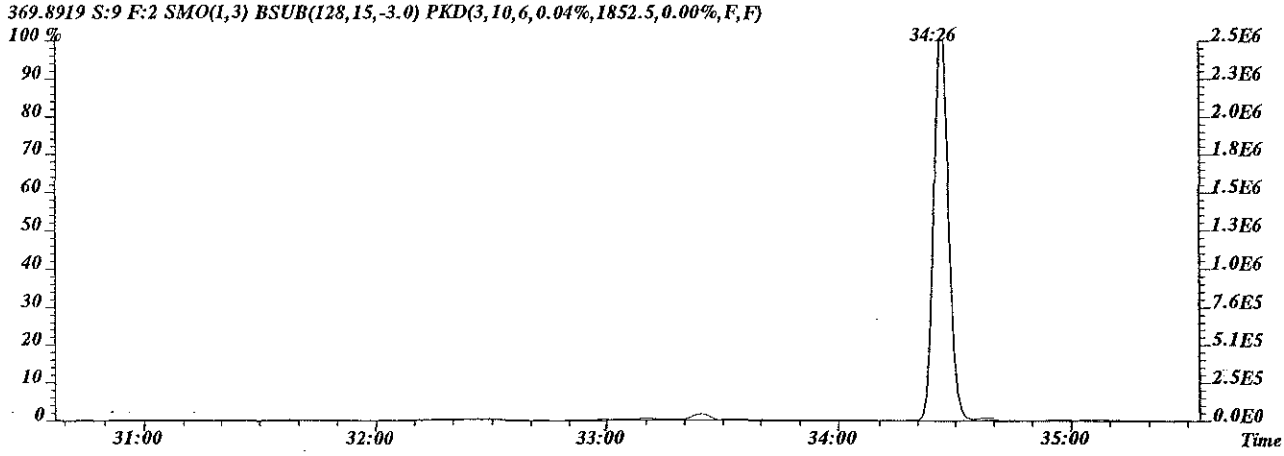
357.8516 S:9 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3320.0,0.00%,F,F)



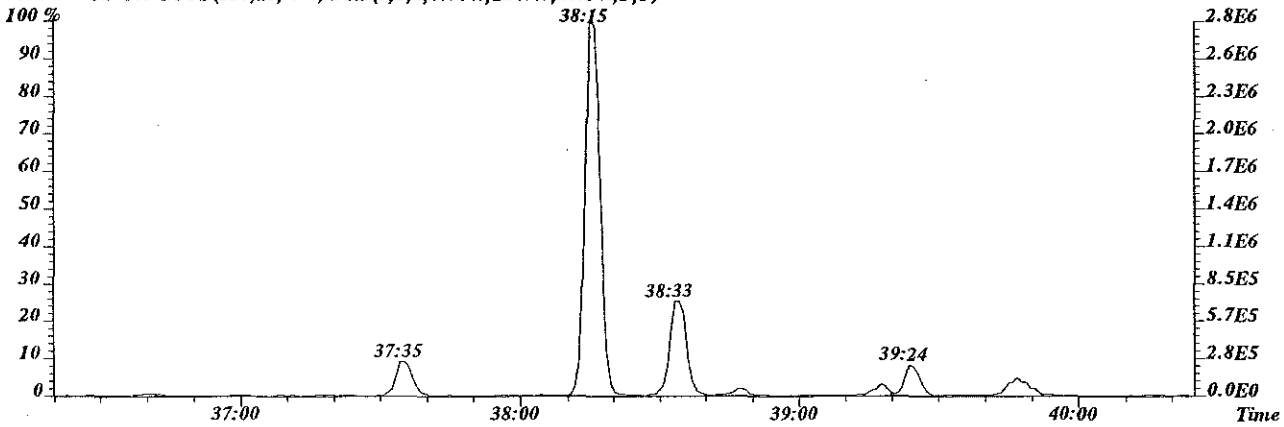
367.8949 S:9 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1380.0,0.00%,F,F)



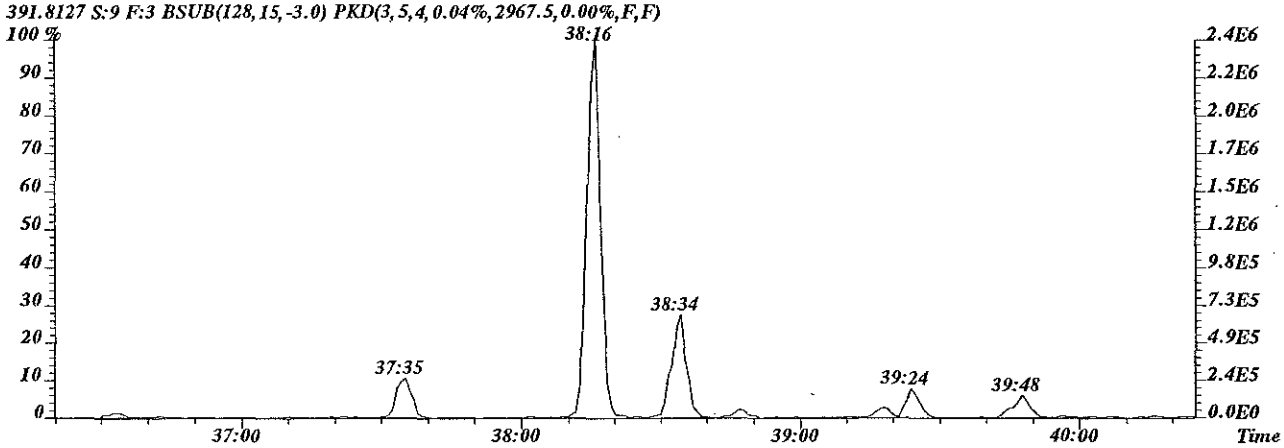
369.8919 S:9 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1852.5,0.00%,F,F)



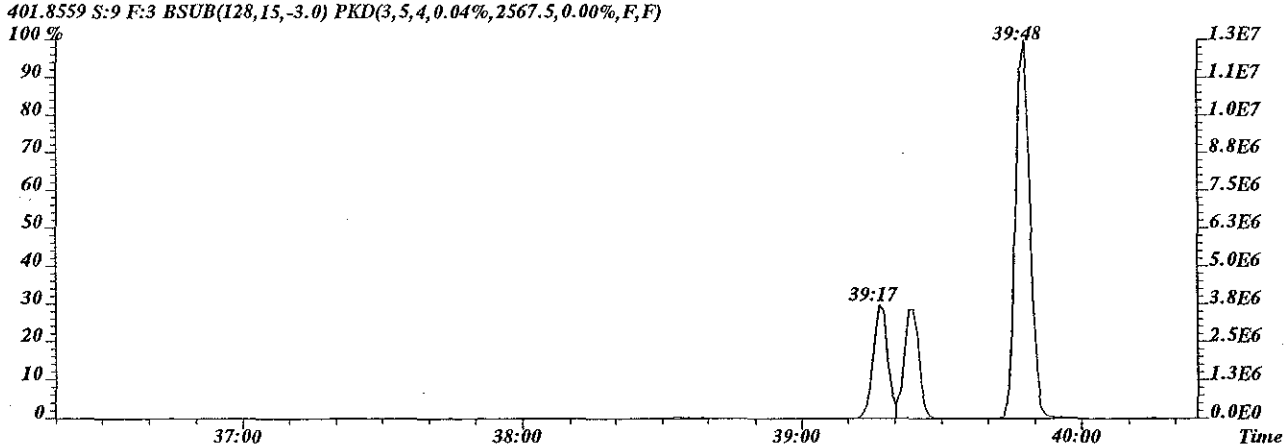
File:0903023A #1-278 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
Sample#9 File Text:M23 Text:0903023-2 Exp:8290
389.8156 S:9 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2547.5,0.00%,F,F)



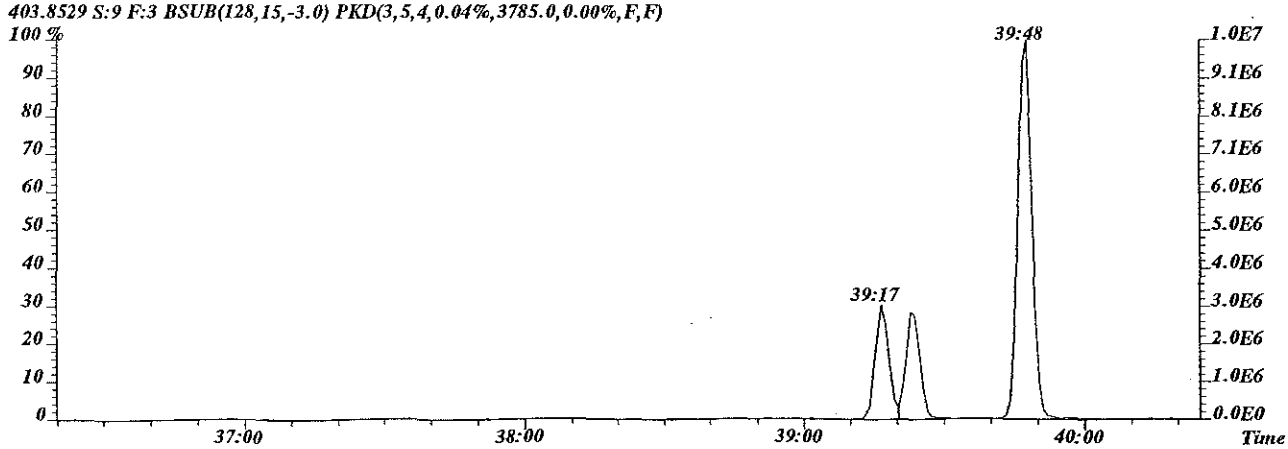
391.8127 S:9 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2967.5,0.00%,F,F)



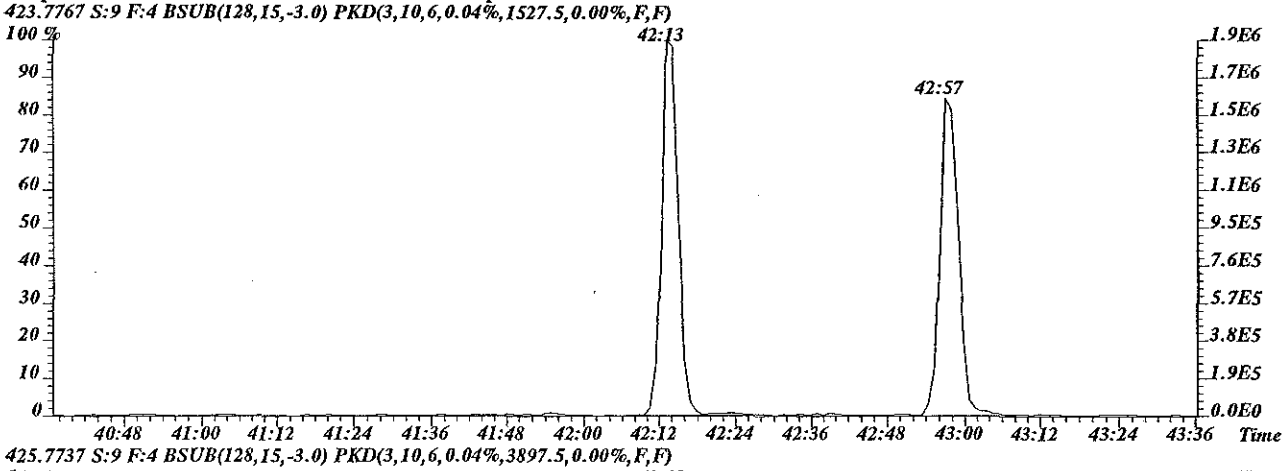
401.8559 S:9 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2567.5,0.00%,F,F)



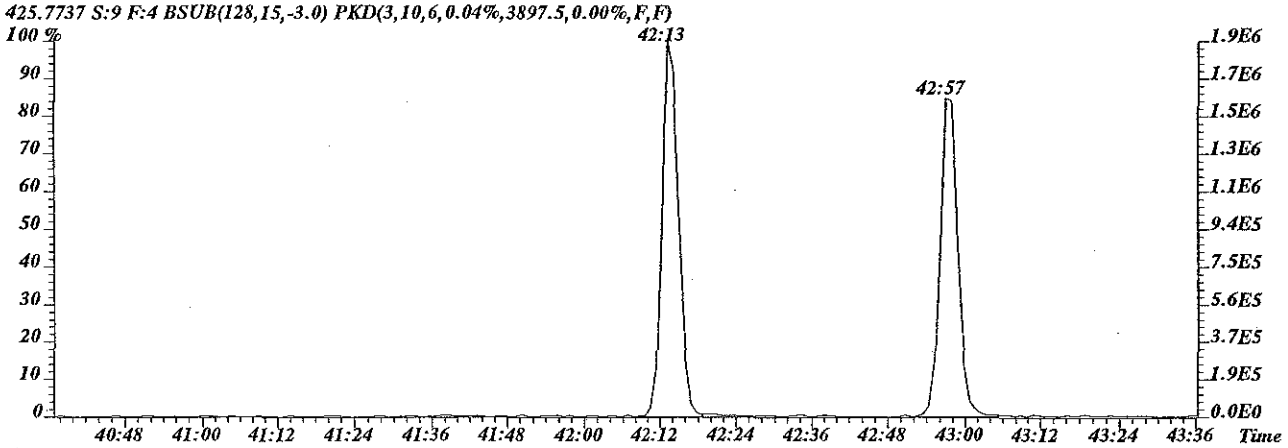
403.8529 S:9 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3785.0,0.00%,F,F)



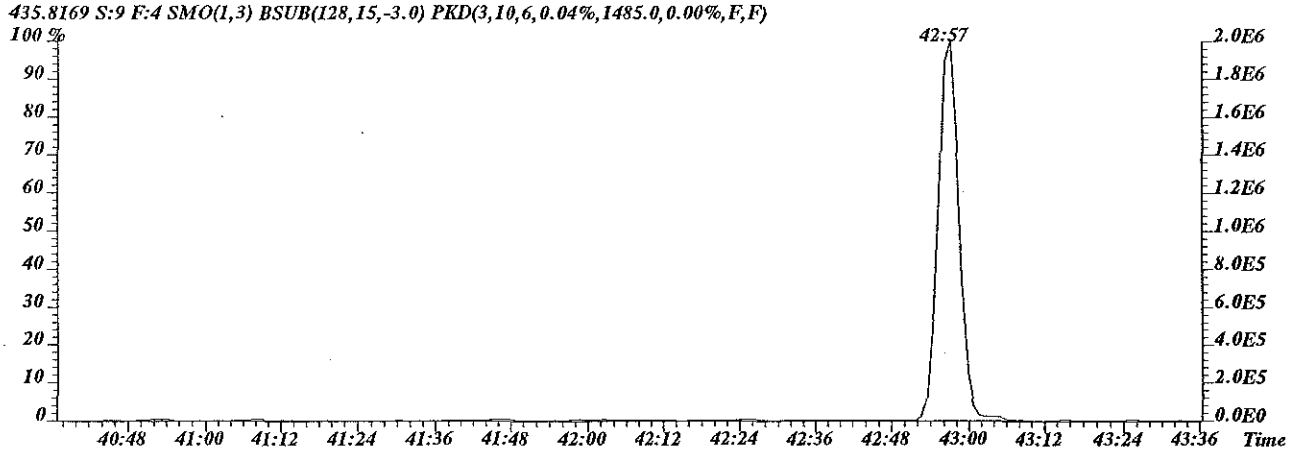
File:0903023A #1-197 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
Sample#9 File Text:M23 Text:0903023-2 Exp:8290
423.7767 S:9 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1527.5,0.00%,F,F)



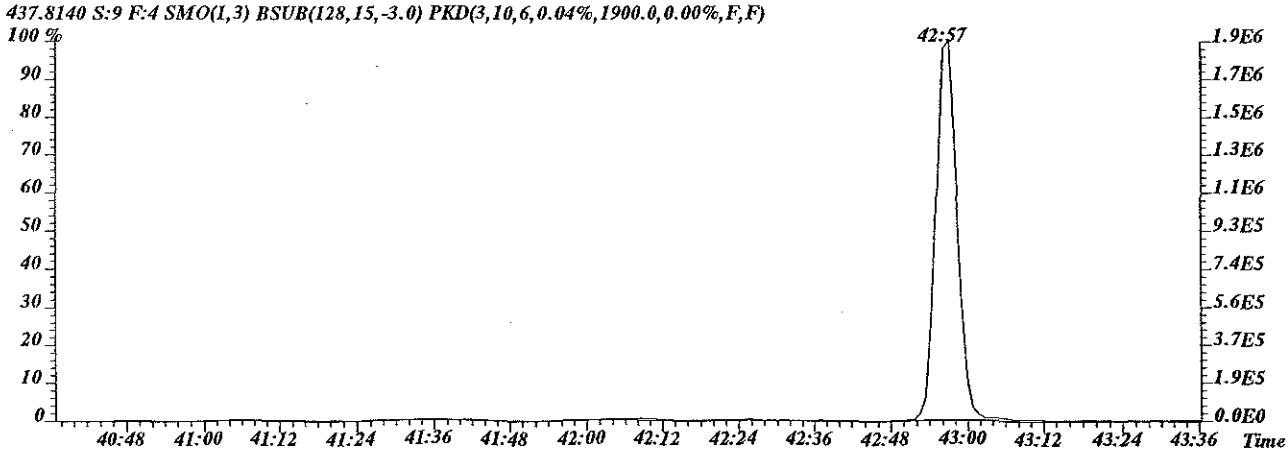
425.7737 S:9 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3897.5,0.00%,F,F)



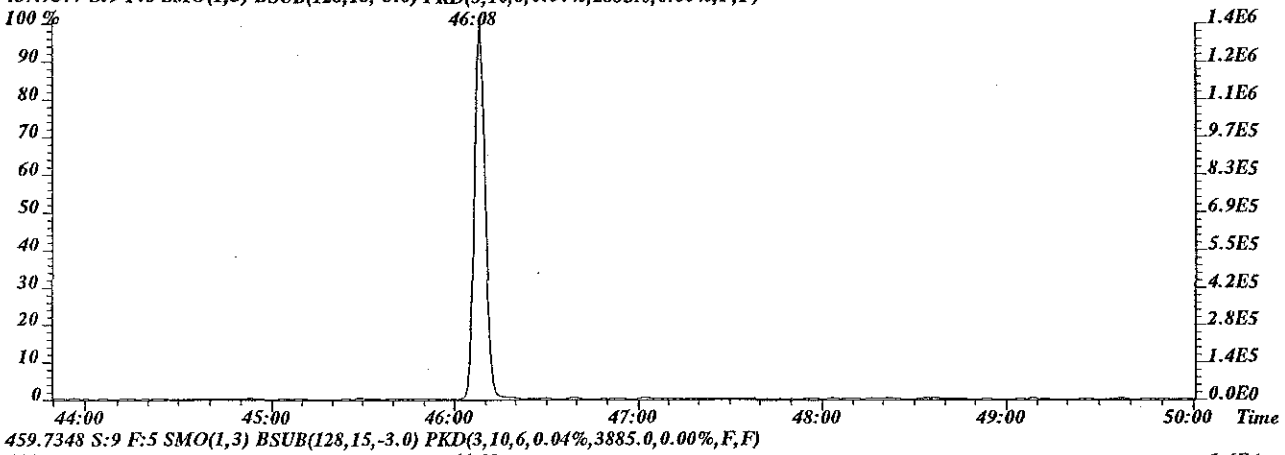
435.8169 S:9 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1485.0,0.00%,F,F)



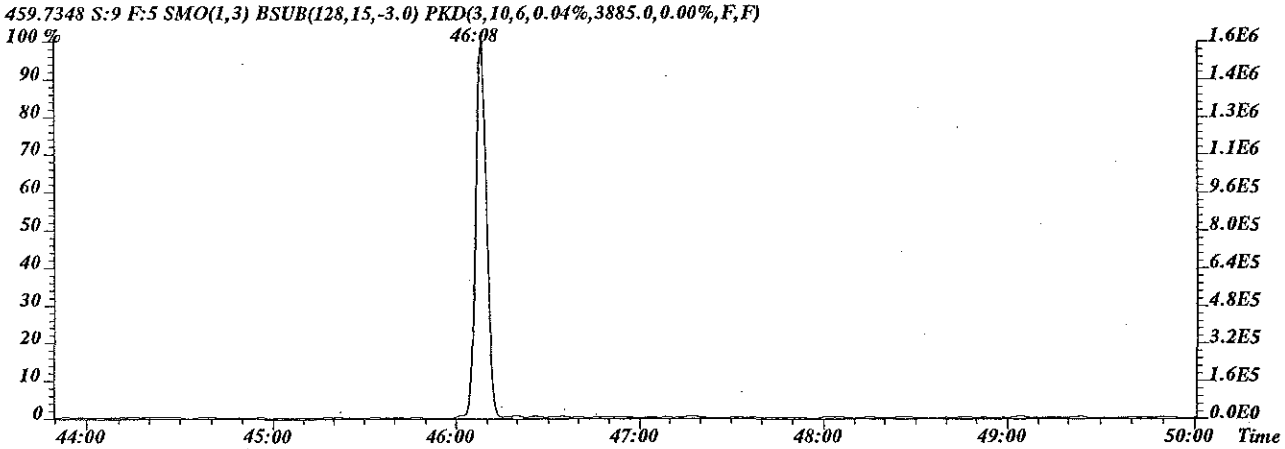
437.8140 S:9 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1900.0,0.00%,F,F)



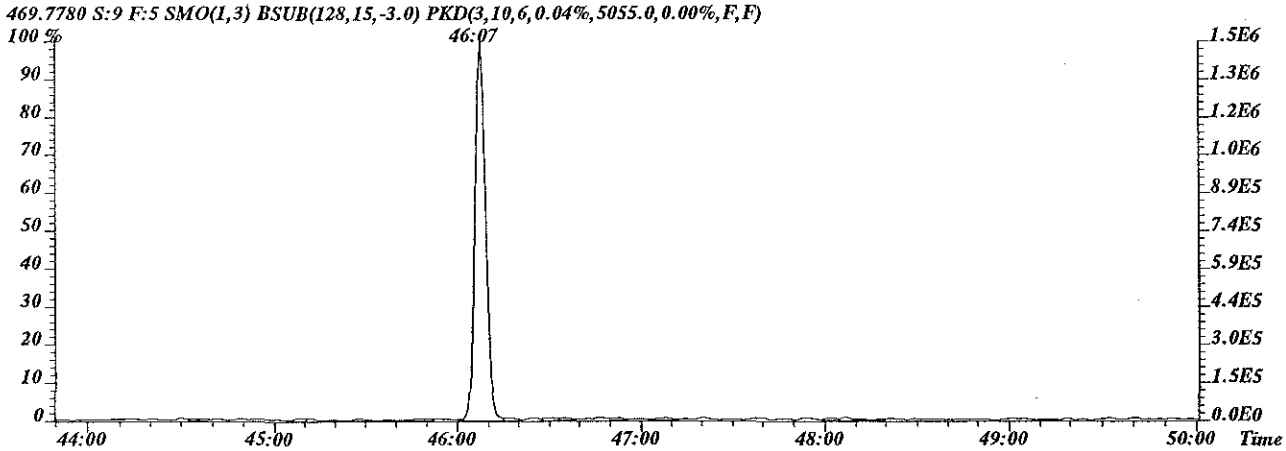
File:0903023A #1-446 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
Sample#9 File Text:M23 Text:0903023-2 Exp:8290
457.7377 S:9 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2335.0,0.00%,F,F)



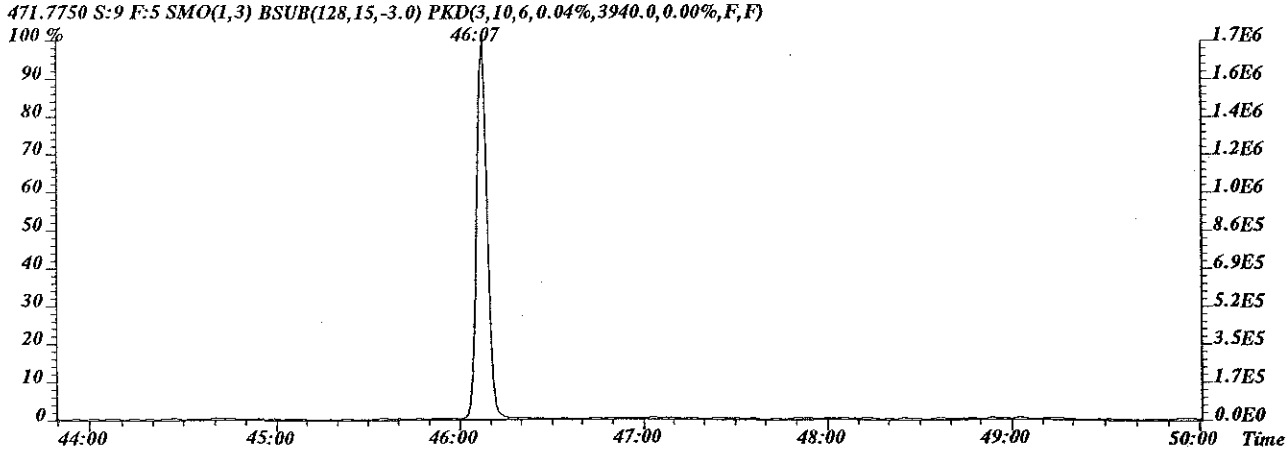
459.7348 S:9 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3885.0,0.00%,F,F)



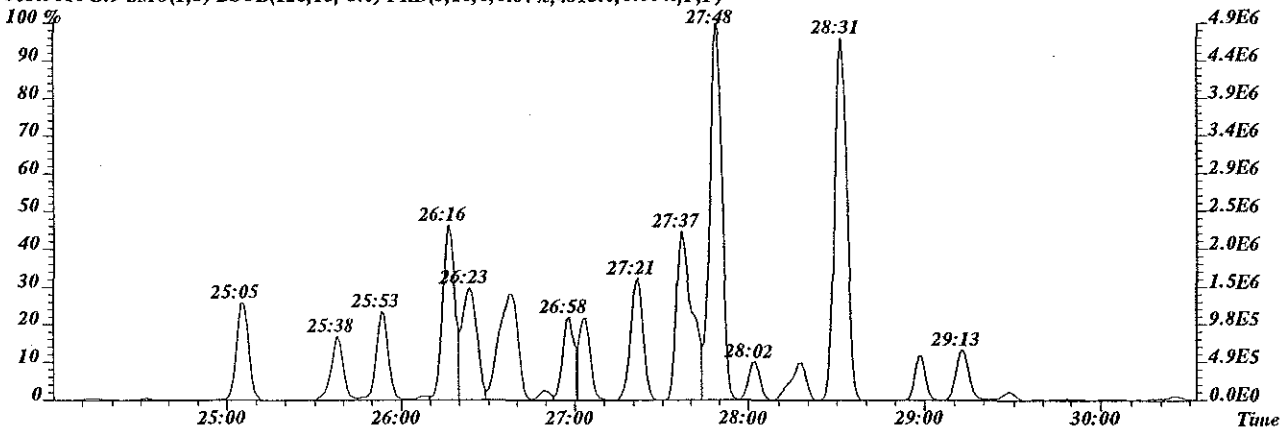
469.7780 S:9 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5055.0,0.00%,F,F)



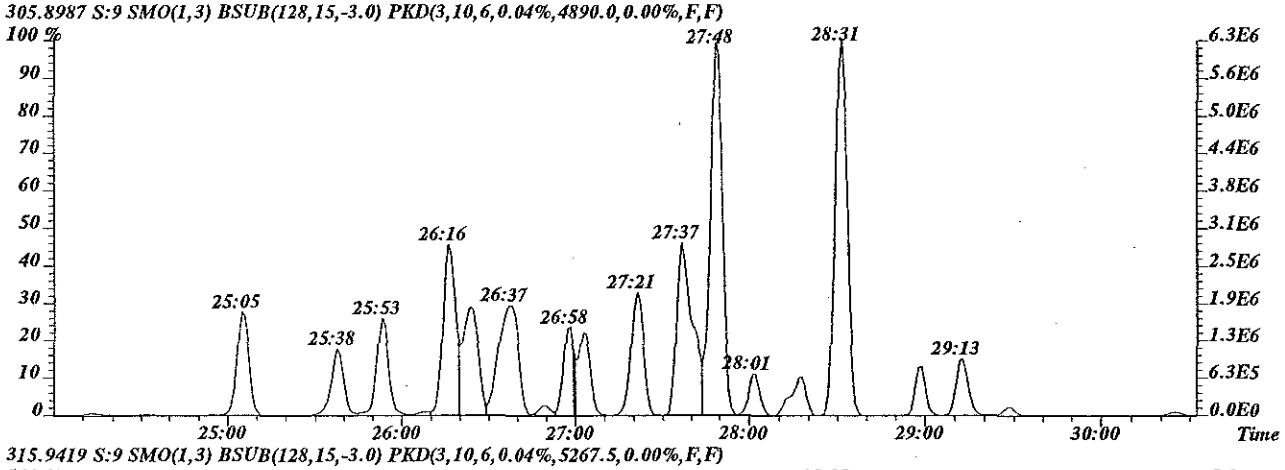
471.7750 S:9 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3940.0,0.00%,F,F)



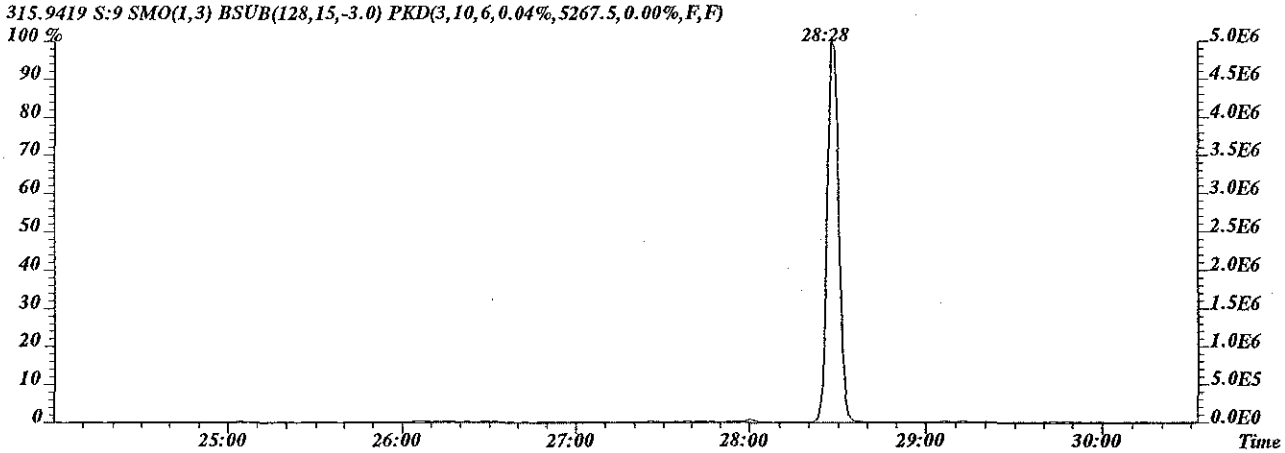
File:0903023A #1-429 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
Sample#9 File Text:M23 Text:0903023-2 Exp:8290
303.9016 S:9 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4315.0,0.00%,F,F)



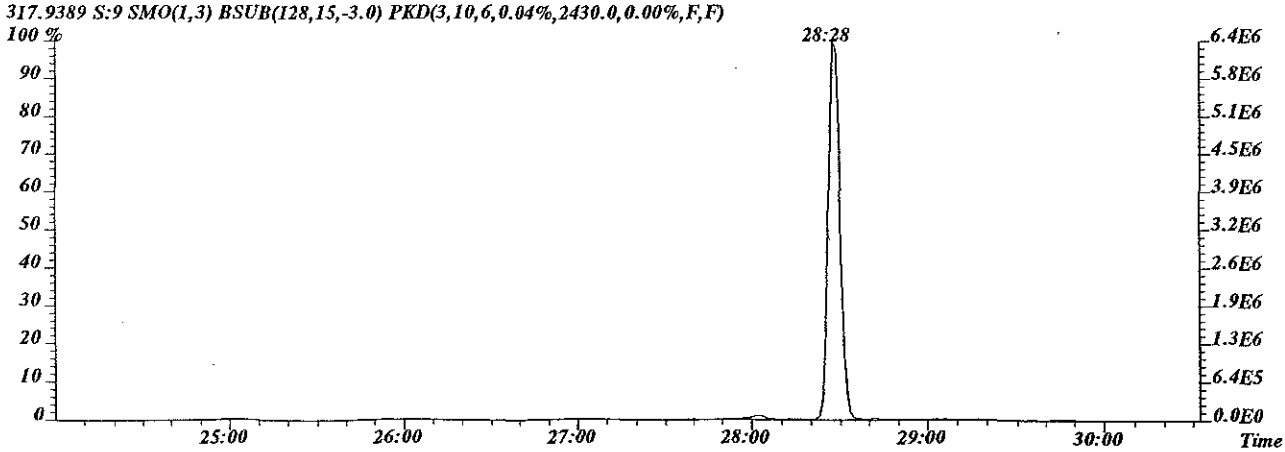
305.8987 S:9 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4890.0,0.00%,F,F)



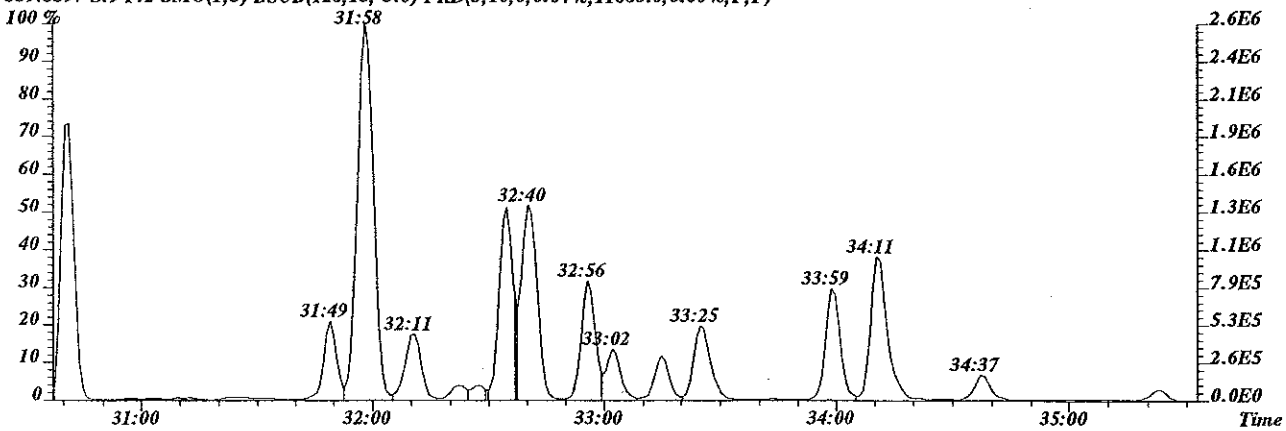
315.9419 S:9 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5267.5,0.00%,F,F)



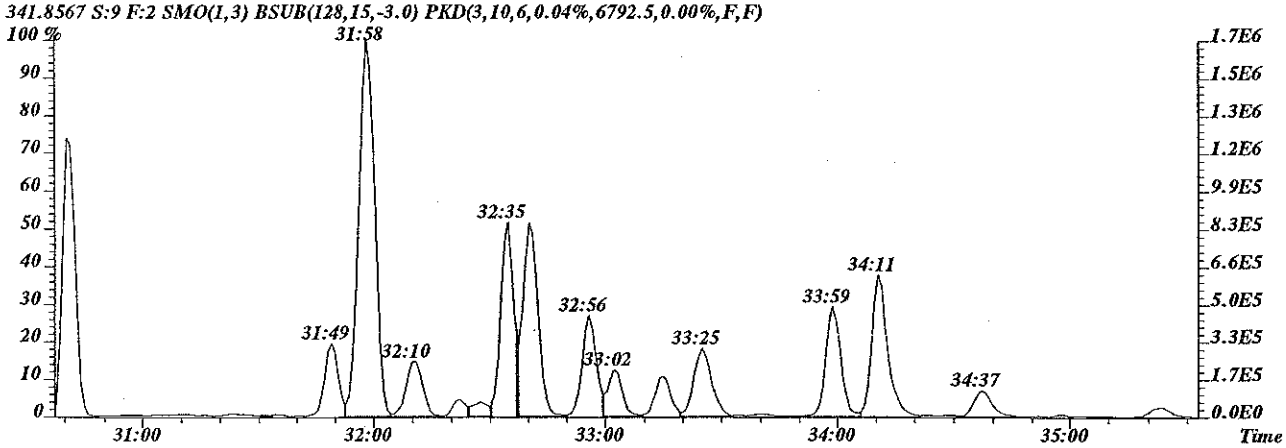
317.9389 S:9 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2430.0,0.00%,F,F)



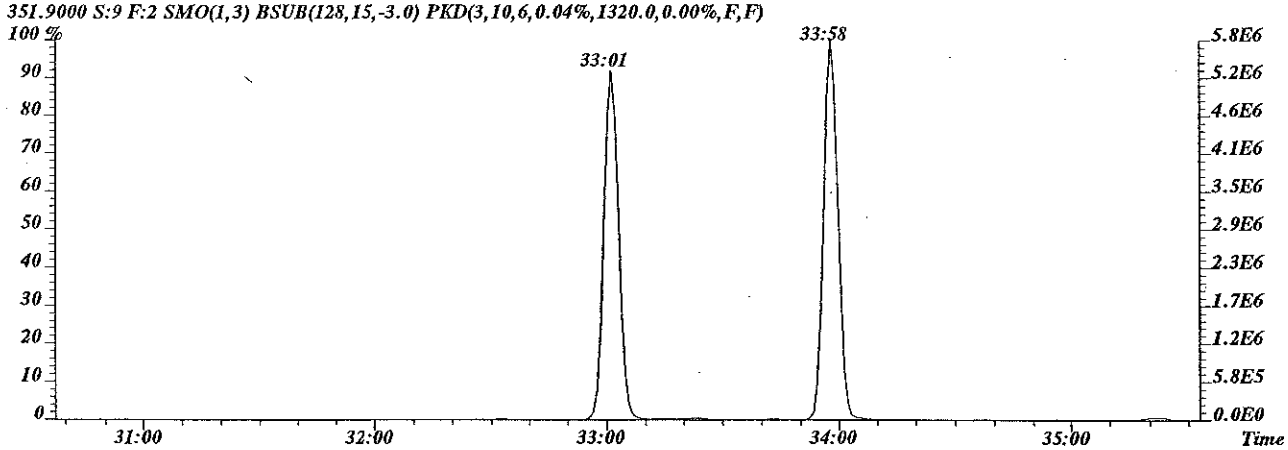
File:0903023A #1-324 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
Sample#9 File Text:M23 Text:0903023-2 Exp:8290
339.8597 S:9 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,11685.0,0.00%,F,F)



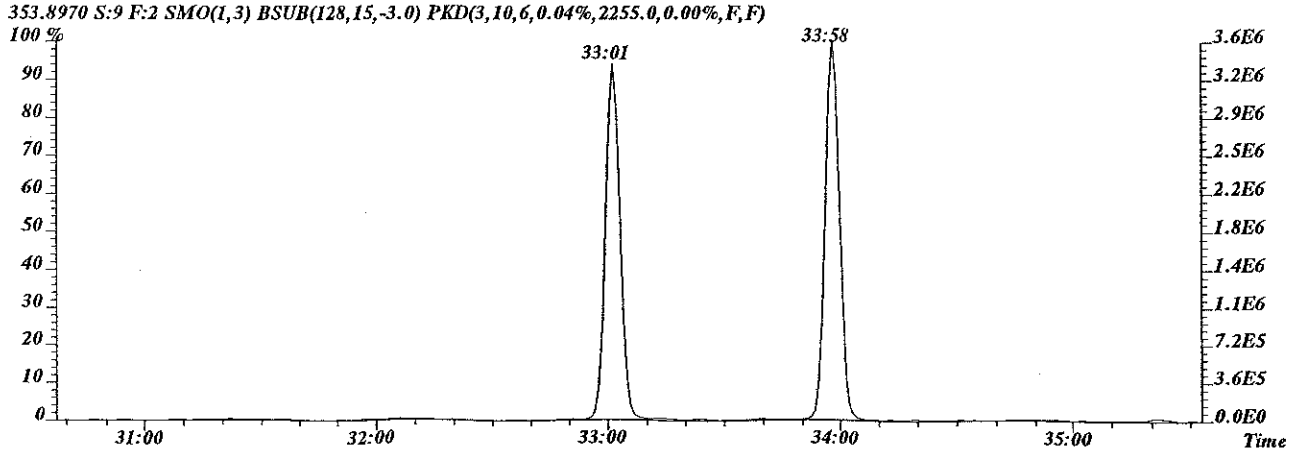
341.8567 S:9 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6792.5,0.00%,F,F)



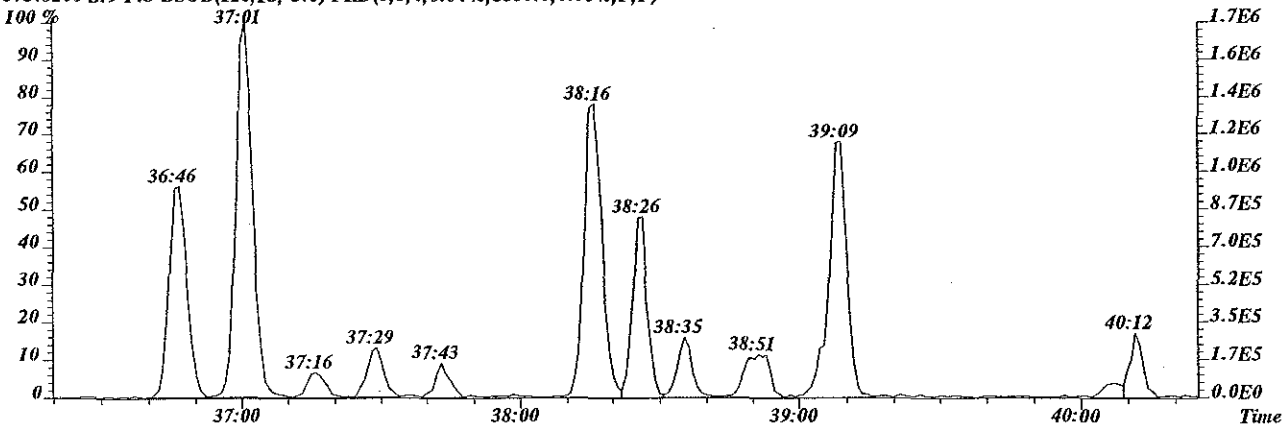
351.9000 S:9 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1320.0,0.00%,F,F)



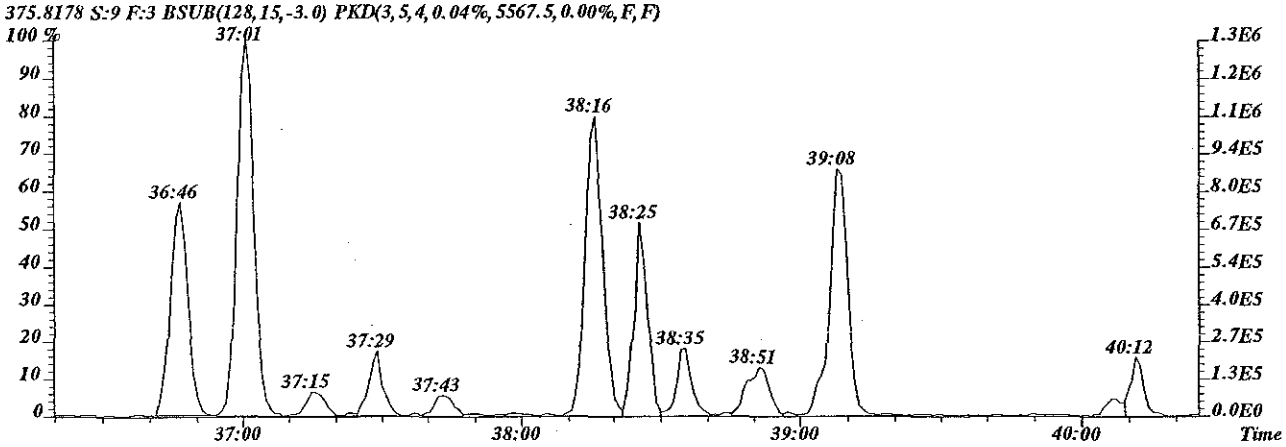
353.8970 S:9 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2255.0,0.00%,F,F)



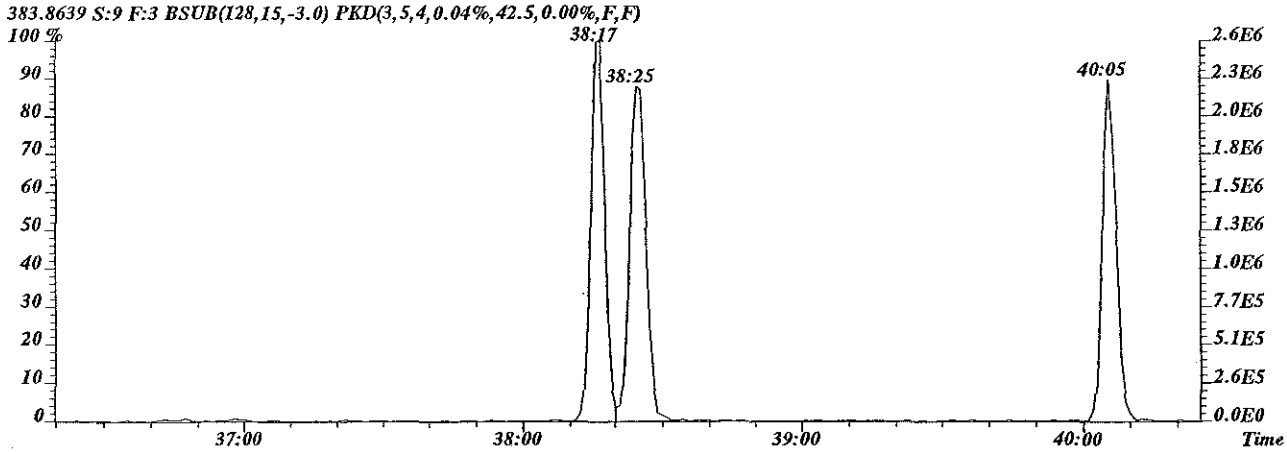
File:0903023A #1-278 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
Sample#9 File Text:M23 Text:0903023-2 Exp:8290
373.8208 S:9 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,5530.0,0.00%,F,F)



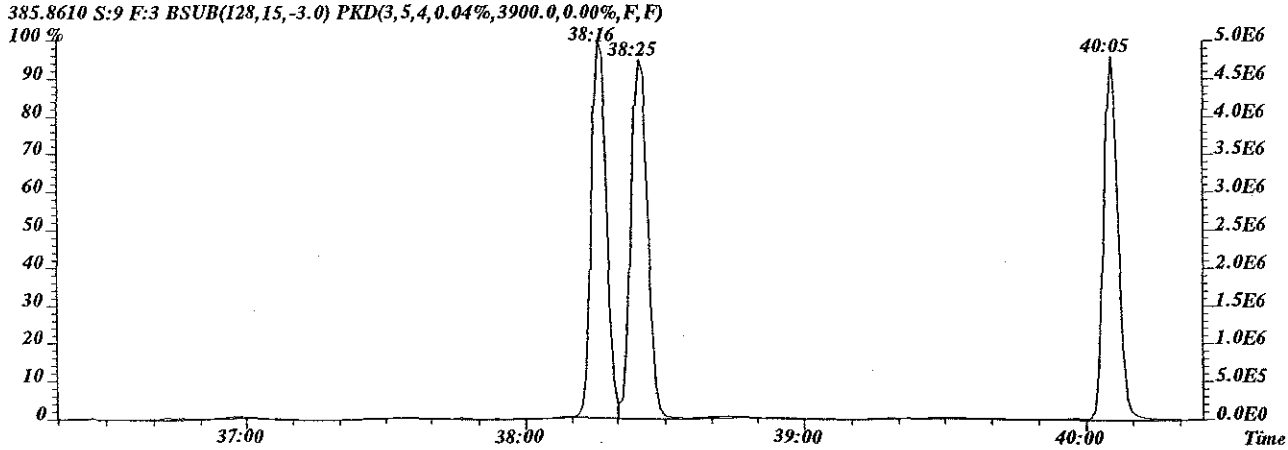
375.8178 S:9 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,5567.5,0.00%,F,F)



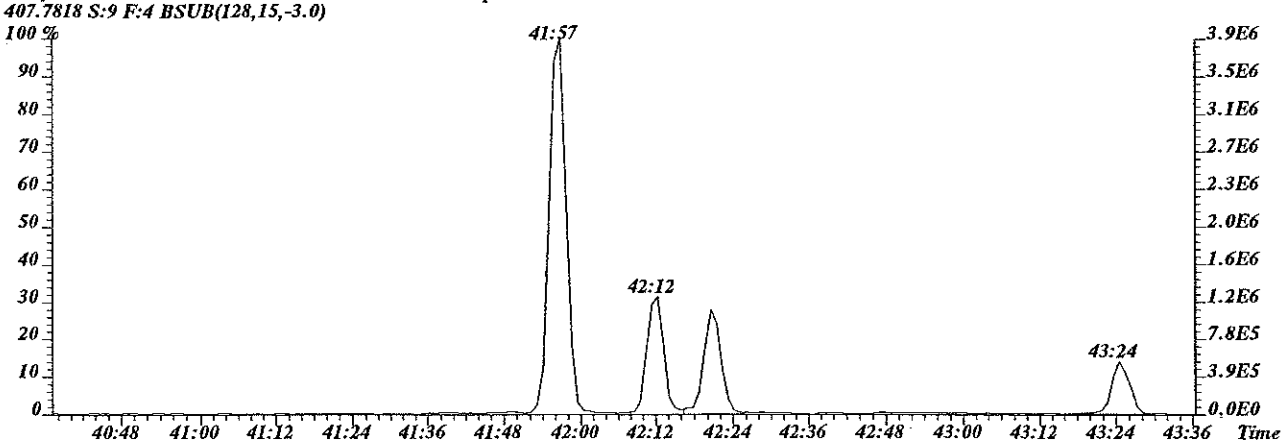
383.8639 S:9 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,42.5,0.00%,F,F)



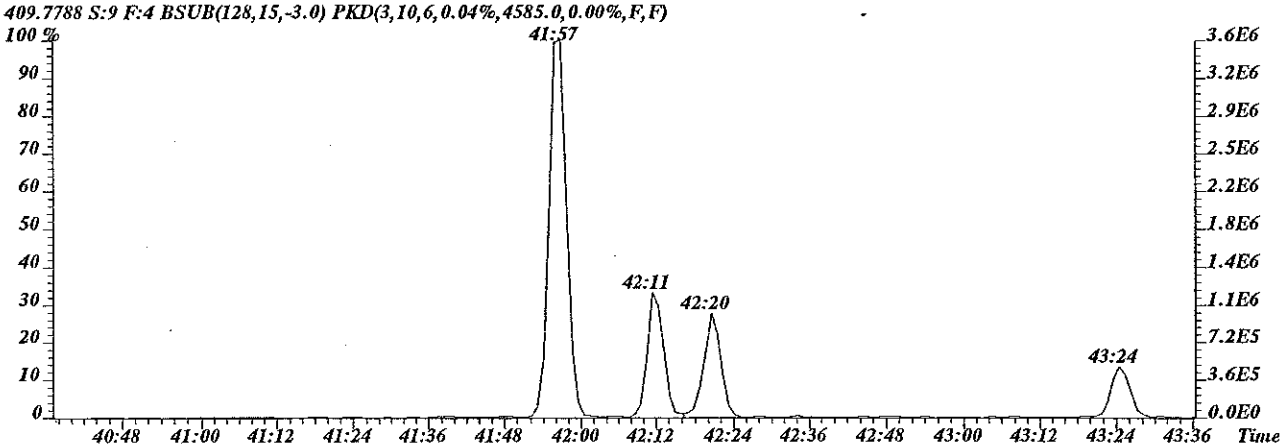
385.8610 S:9 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3900.0,0.00%,F,F)



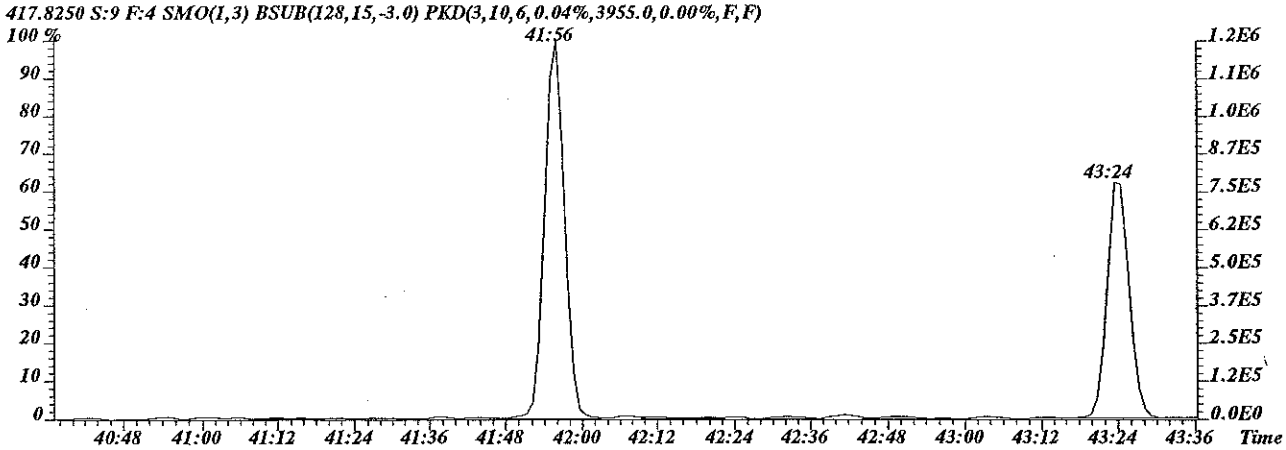
File:0903023A #1-197 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
Sample#9 File Text:M23 Text:0903023-2 Exp:8290
407.7818 S:9 F:4 BSUB(128,15,-3.0)



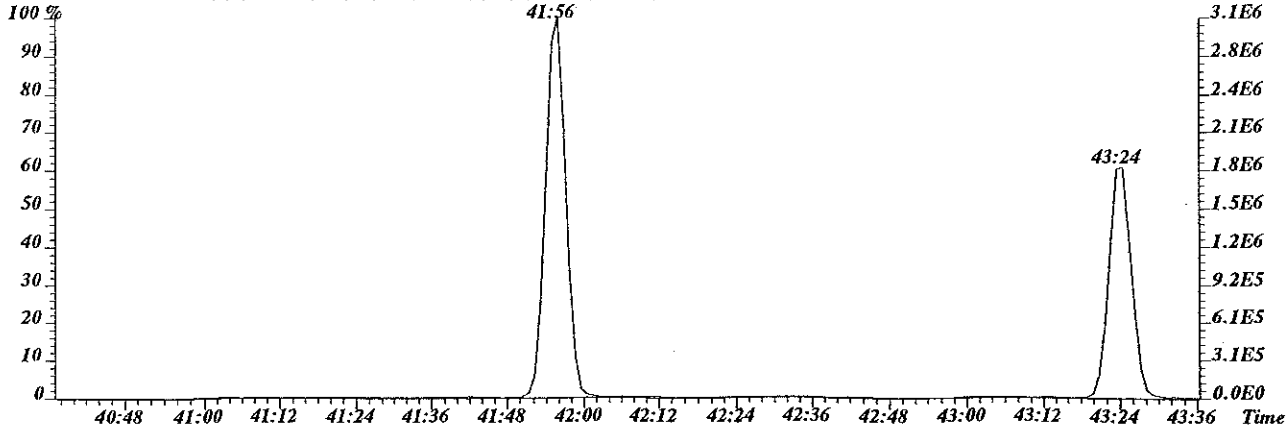
409.7788 S:9 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4585.0,0.00%,F,F)



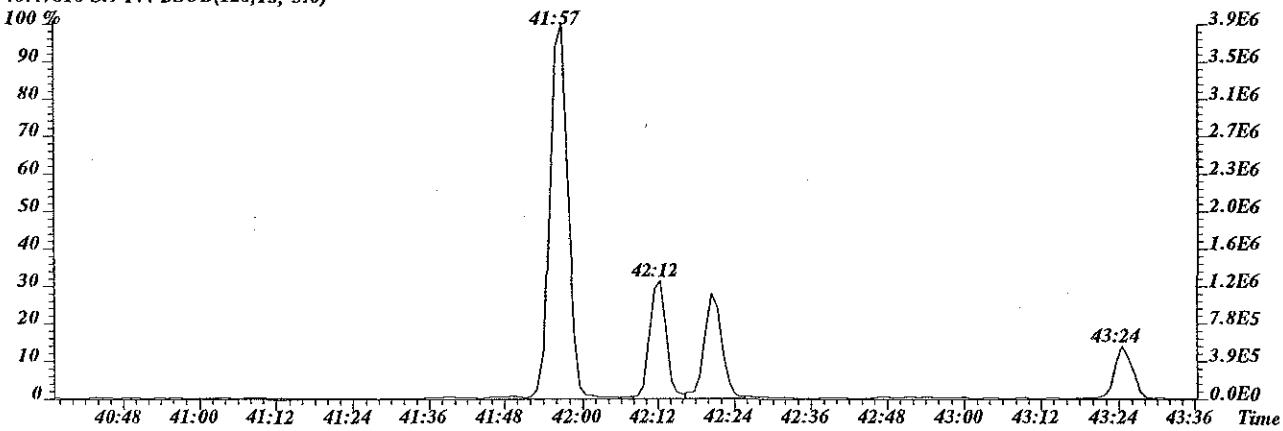
417.8250 S:9 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3955.0,0.00%,F,F)



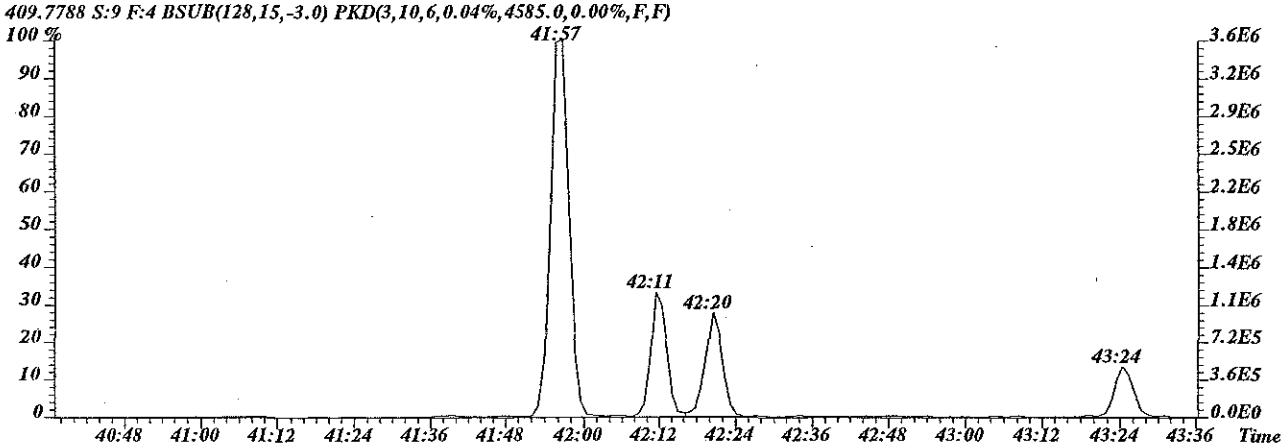
419.8220 S:9 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2915.0,0.00%,F,F)



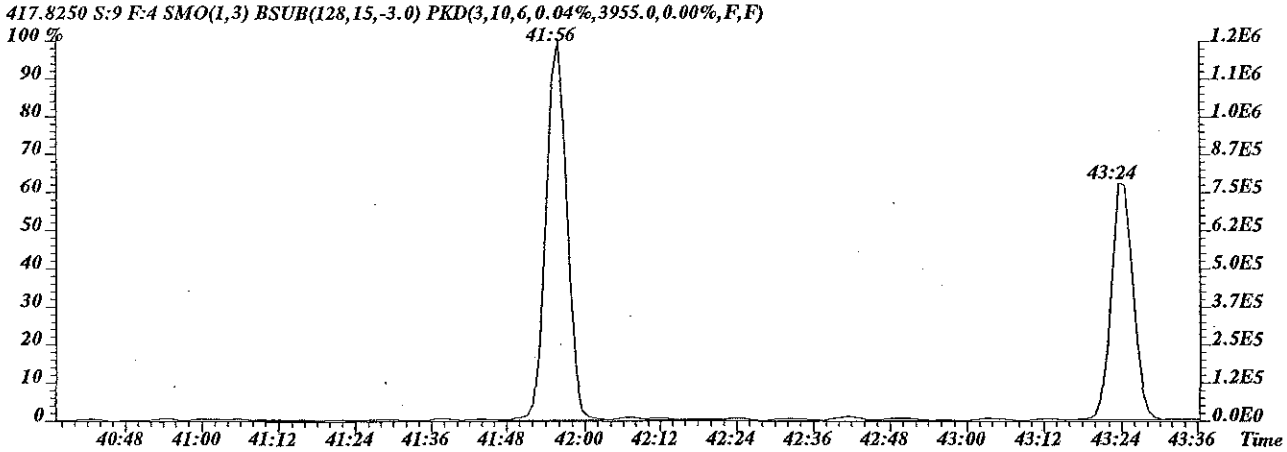
File:0903023A #1-197 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
Sample#9 File Text:M23 Text:0903023-2 Exp:8290
407.7818 S:9 F:4 BSUB(128,15,-3.0)



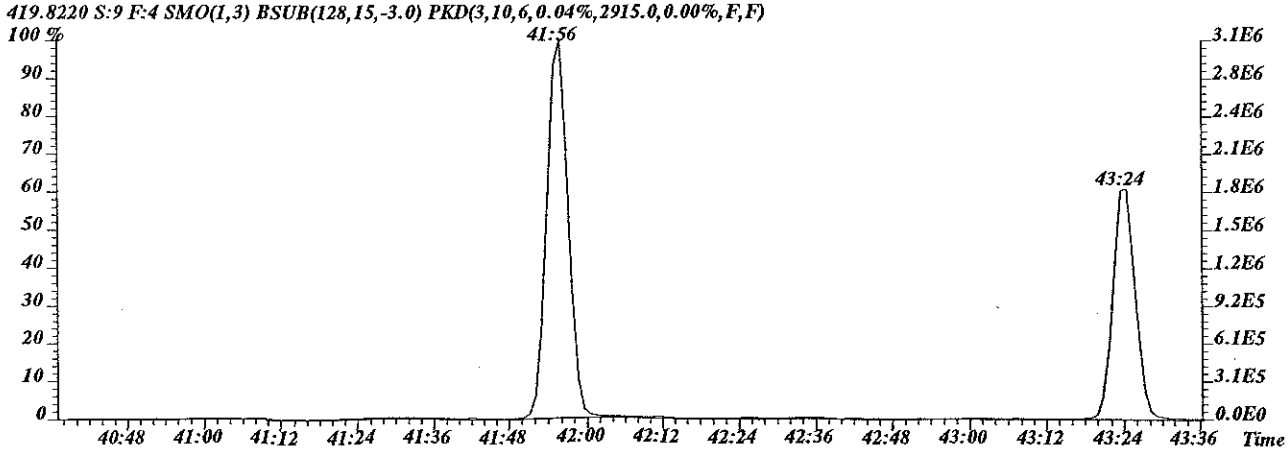
409.7788 S:9 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4585.0,0.00%,F,F)



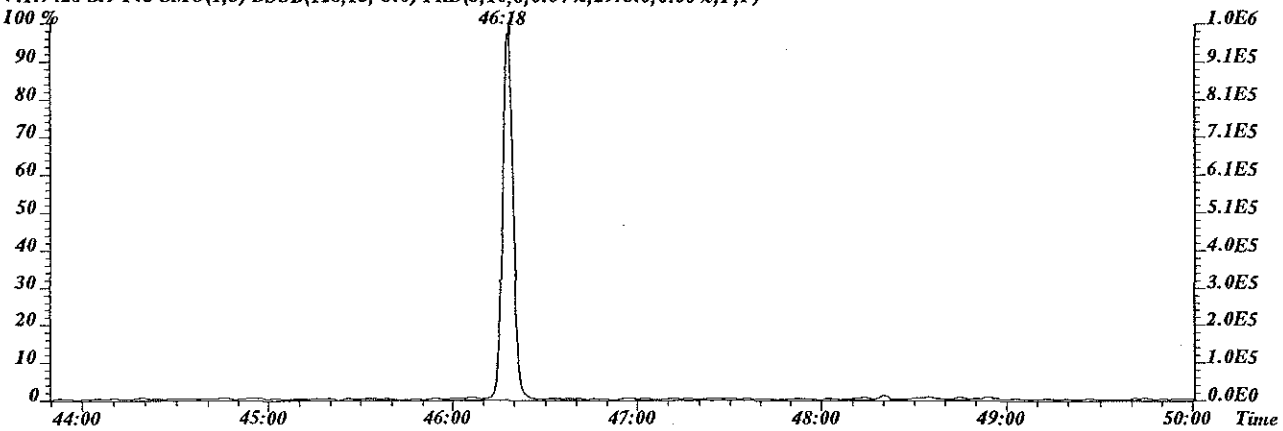
417.8250 S:9 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3955.0,0.00%,F,F)



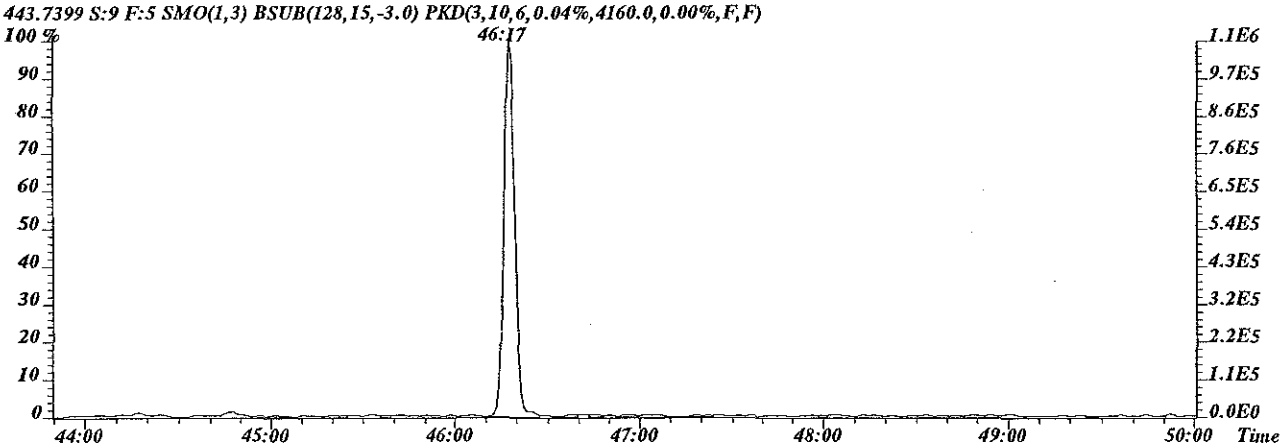
419.8220 S:9 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2915.0,0.00%,F,F)



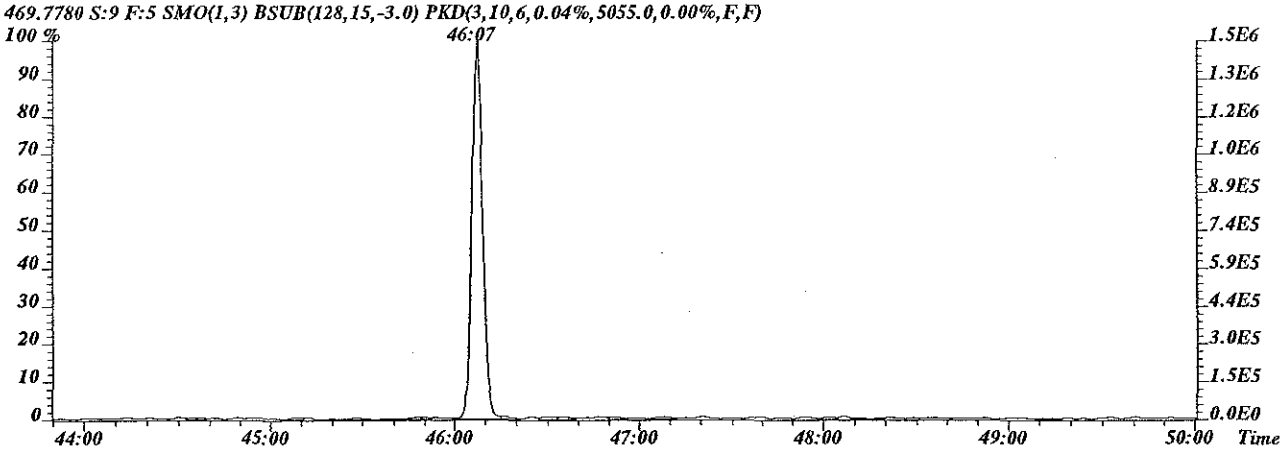
File:0903023A #1-446 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
Sample#9 File Text:M23 Text:0903023-2 Exp:8290
441.7428 S:9 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2975.0,0.00%,F,F)



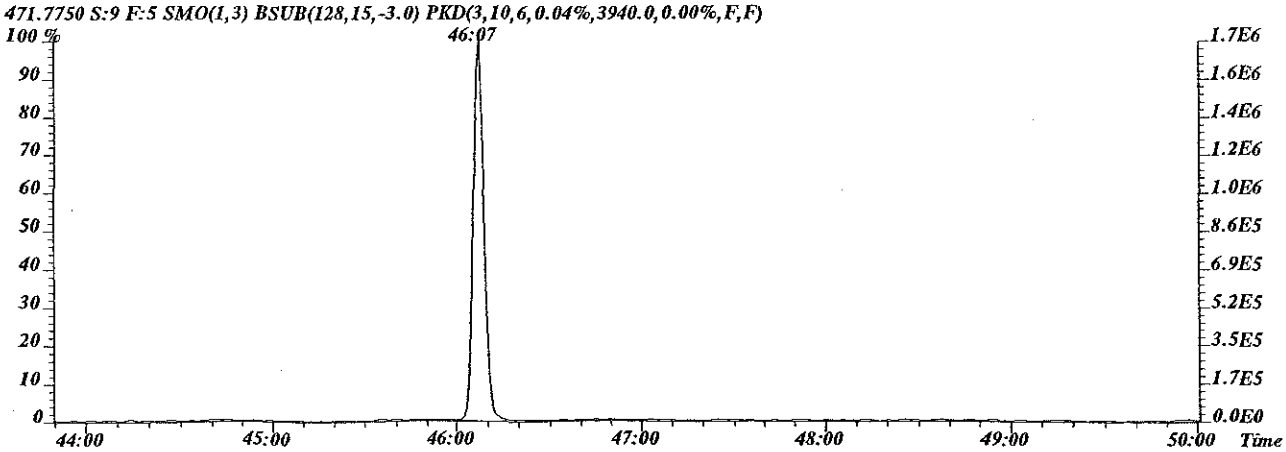
443.7399 S:9 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4160.0,0.00%,F,F)



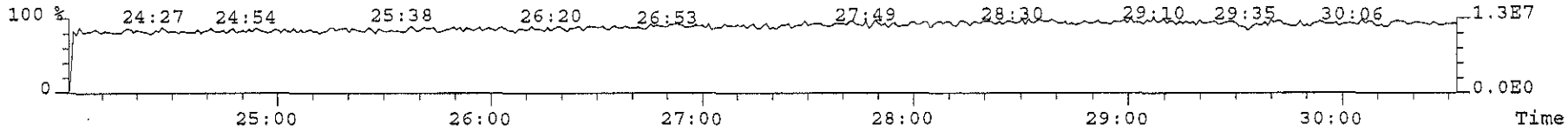
469.7780 S:9 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5055.0,0.00%,F,F)



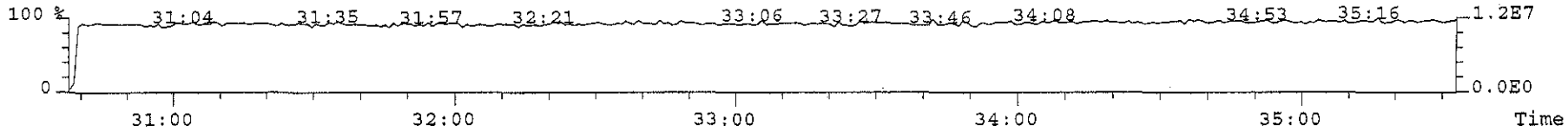
471.7750 S:9 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3940.0,0.00%,F,F)



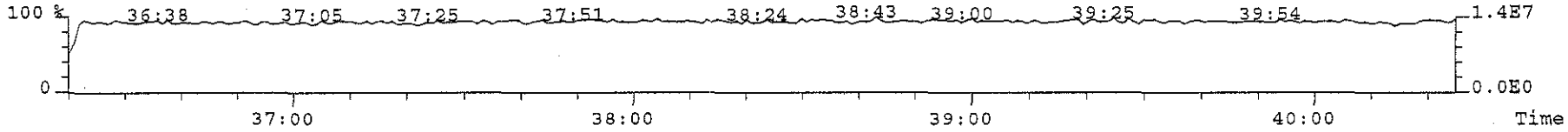
File:0903023A #1-429 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:9 Exp:8290
Sample Text:0903023-2 File Text:M23



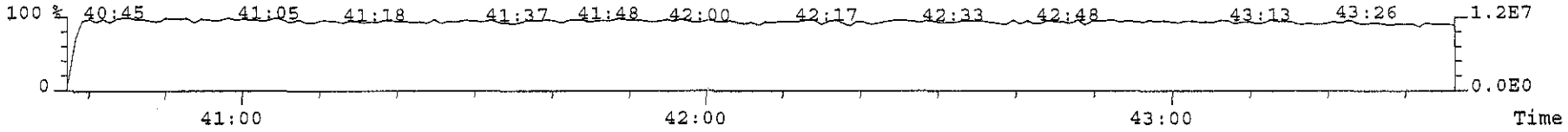
File:0903023A #1-324 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:9 F:2 Exp:8290
Sample Text:0903023-2 File Text:M23



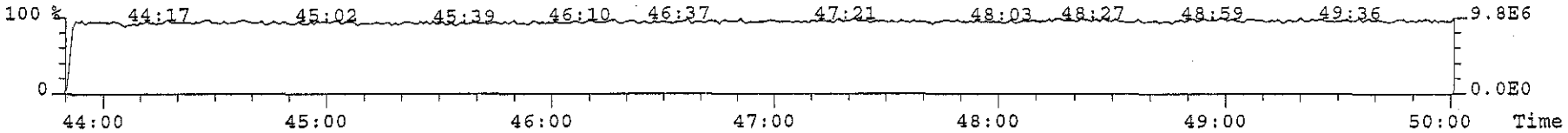
File:0903023A #1-278 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:9 F:3 Exp:8290
Sample Text:0903023-2 File Text:M23



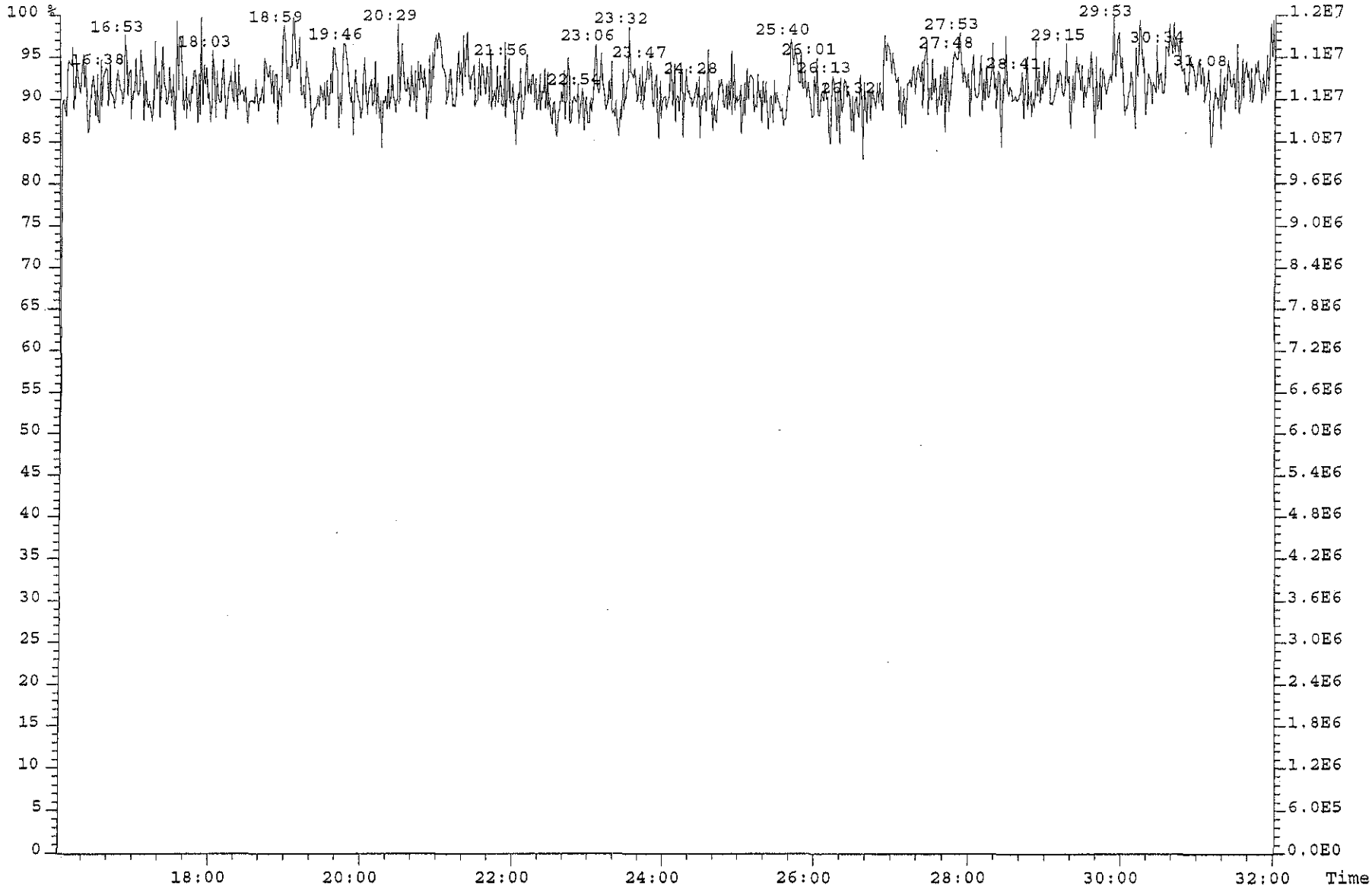
File:0903023A #1-197 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:9 F:4 Exp:8290
Sample Text:0903023-2 File Text:M23



File:0903023A #1-446 Acq:17-SEP-2003 00:02:33 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:9 F:5 Exp:8290
Sample Text:0903023-2 File Text:M23



File:0903023D #1-937 Acq:19-SEP-2003 15:08:44 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:2 Exp:TCDF
Sample Text:0903023-2 File Text:M23 TCDF CONF



Run #7 Filename 0903023A S: 10 I: 1 Acquired: 17-SEP-03 00:58:30 Processed: 17-SEP-03 11:14:45
Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A Version: V3.6 9-SEP-2002 14:02:21
Sample text: 0903023-6 Comments:

	Typ	Name	#Hom	Resp	RA		RT	Conc	2264.95 Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDD	1	1.3e+05	0.58	n	29:17	12.502	12.50	2.61	-	y
2	nati	1,2,3,7,8-PeCDD	1	2.9e+05	1.11	n	34:28	36.559	18.28	7.58	-	y
3	nati	1,2,3,4,7,8-HxCDD	1	3.3e+05	1.27	y	39:18	48.843	4.88	5.05	-	n
4	nati	1,2,3,6,7,8-HxCDD	1	9.8e+05	1.15	y	39:25	148.028	14.80	5.20	-	n
5	nati	1,2,3,7,8,9,-HxCDD	1	6.9e+05	1.30	y	39:48	102.336	10.23	4.97	-	y
6	nati	1,2,3,4,6,7,8-HpCDD	1	4.9e+06	1.06	y	42:58	1123.880 9/14/03	11.24	13.39	-	n
7	nati	1,2,3,4,6,7,8,9-OCDD	1	4.4e+06	0.90	y	46:08	2615.466	2.62	50.23	-	n
8	nati	2,3,7,8-TCDF	1	3.4e+07	0.73	y	28:31	~~1064.914~~	1064.91	3.89	-	n
9	nati	1,2,3,7,8-PeCDF	1	1.3e+06	1.49	y	33:02	121.183	121.18	11.84	-	n
10	nati	2,3,4,7,8-PeCDF	1	3.5e+06	1.68	y	33:59	317.679	158.84	11.88	-	n
11	nati	1,2,3,4,4,8-HxCDF	1	6.8e+06	1.26	y	38:16	720.454	720.45	8.03	-	n
12	nati	1,2,3,6,7,8-HxCDF	1	3.1e+06	1.28	y	38:26	340.303	34.03	8.13	-	n
13	nati	2,3,4,6,7,8-HxCDF	1	5.3e+06	1.26	y	39:08	655.780	65.58	9.36	-	n
14	nati	1,2,3,7,8,9-HxCDF	1	3.4e+05	1.42	y	40:06	46.821	4.68	10.53	-	n
15	nati	1,2,3,4,6,7,8-HpCDF	1	1.2e+07	1.00	y	41:57	1437.689	14.38	14.76	-	n
16	nati	1,2,3,4,7,8,9-HpCDF	1	1.8e+06	1.18	y	43:24	451.116	4.51	26.31	-	n
17	nati	1,2,3,4,6,7,8,9-OCDF	1	3.0e+06	0.85	y	46:18	1828.143	1.83	55.87	-	n
18	nati	Total TCDD	10	1.5e+08	0.76	y	26:31	4606.917	0.00	2.61	-	y
19	nati	Total PeCDD	5	3.2e+07	1.61	y	32:06	3016.958	0.00	7.57	-	n
20	nati	Total HxCDD	6	2.0e+07	1.13	y	37:34	2670.203	0.00	5.07	-	y
21	nati	Total HpCDD	2	1.1e+07	1.03	y	42:14	2468.565 9/14/03	0.00	13.39	-	n
22	nati	Total TCDF	16	1.8e+08	0.73	y	25:05	~~7553.135~~	0.00	3.66	-	y
23	nati	Total PeCDF	14	5.4e+07	1.77	y	30:40	4864.964	0.00	11.75	-	y
24	nati	Total HxCDF	10	3.1e+07	1.17	y	36:46	3603.781	0.00	8.90	-	n
25	nati	Total HpCDF	4	2.1e+07	1.00	y	41:57	3367.960	0.00	18.91	-	y
26	IS	13C12-2,3,7,8-TCDF	1	6.1e+07	0.80	y	28:28	3286.109	0.00	4.17	82.2	n
27	IS	13C12-2,3,7,8-TCDD	1	4.8e+07	0.80	y	29:15	3356.925	0.00	8.34	83.9	n
28	IS	13C12-1,2,3,7,8-PeCDF	1	4.8e+07	1.56	y	33:01	3170.489	0.00	2.07	79.3	n
29	IS	13C12-1,2,3,7,8-PeCDD	1	3.8e+07	1.65	y	34:26	3378.895	0.00	2.02	84.5	n
30	IS	13C12-1,2,3,6,7,8-HxCDF	1	3.6e+07	0.48	y	38:25	3108.858	0.00	2.05	77.7	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	1	3.0e+07	1.25	y	39:24	3326.818	0.00	7.64	83.2	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	1	1.8e+07	0.42	y	41:56	2831.918	0.00	10.08	70.8	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	1	1.6e+07	1.03	y	42:57	2821.347	0.00	5.42	70.5	n
34	IS	13C12-OCDD	1	1.1e+07	0.85	y	46:07	4920.864	0.00	26.28	61.5	n
35	Suro	37C12-2,3,7,8-TCDD	1	1.1e+08	1.00	y	29:17	4563.045	0.00	3.57	114.1	n
36	Suro	13C12-2,3,4,7,8-PeCDF	1	5.7e+07	1.61	y	33:58	5195.330	0.00	2.95	129.9	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	1	3.9e+07	0.50	y	38:16	4687.410	0.00	3.16	117.2	n
38	Suro	13C12-1,2,3,4,7,8-HxCDD	1	3.1e+07	1.27	y	39:17	4229.038	0.00	10.61	105.7	n
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	1	1.2e+07	0.42	y	43:24	4161.106	0.00	29.50	104.0	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	1	2.9e+07	0.47	y	40:05	4548.094	0.00	4.27	91.0	n
41	RS	13C12-1,2,3,4-TCDD	1	1.3e+08	0.79	y	29:03	24.860	0.00	-	-	n
42	RS	13C12-1,2,3,7,8,9-HxCDD	1	9.2e+07	1.25	y	39:48	25.549	0.00	-	-	n

Run #9 Filename 0903023D S: 3 I: 1 Acquired: 19-SEP-03 16:10:29 Processed: 22-SEP-03 08:33:49
Run: tcdf06a Analyte: 0903023C Cal: tcdf06a Results: 0903023C Version: V3.6 9-SEP-2002 14:02:21
Sample text: 0903023-6 Comments:

	Typ	Name	#Hom	Resp	RA		RT	Conc	7118.44 Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDF	1	6.9e+05	0.83	y	26:27	83.259	83.26	4.54	-	y
2	nati	Total TCDF	23	1.1e+08	0.81	y	20:05	7118.443	7118.44	4.47	-	y
3	IS	13C12-2,3,7,8-TCDF	1	3.9e+07	0.79	y	26:26	20.553	0.00	-	-	n

Ent: 2 Name: Total TCDF F:1 Mass: 303.902 305.899 Mod? yes #Hom:23

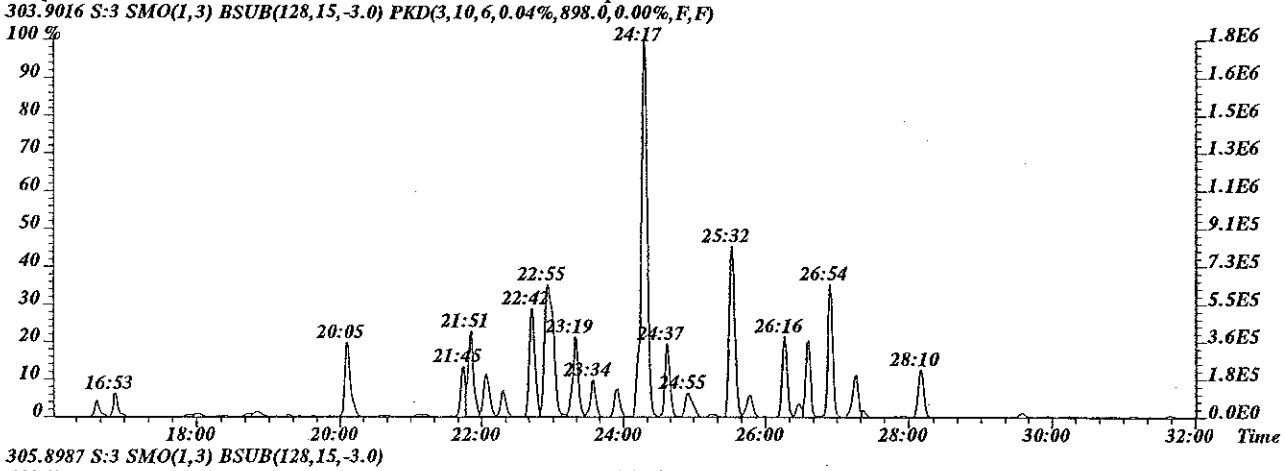
Run: 9 File: 0903023D S:3 Acq:19-SEP-03 16:10:29 Proc:22-SEP-03 08:33:49
bles: Run: tcdf06a Analyte: 0903023C Cal: tcdf06a Results: 0903023C
ersion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-6

Amount: 7118.44 of which 83.26 named and 7035.18 unnamed
Conc: 7118.44 of which 83.26 named and 7035.18 unnamed
Tox #1: 7118.44 Tox #2: 0.00 Tox #3: 0.00

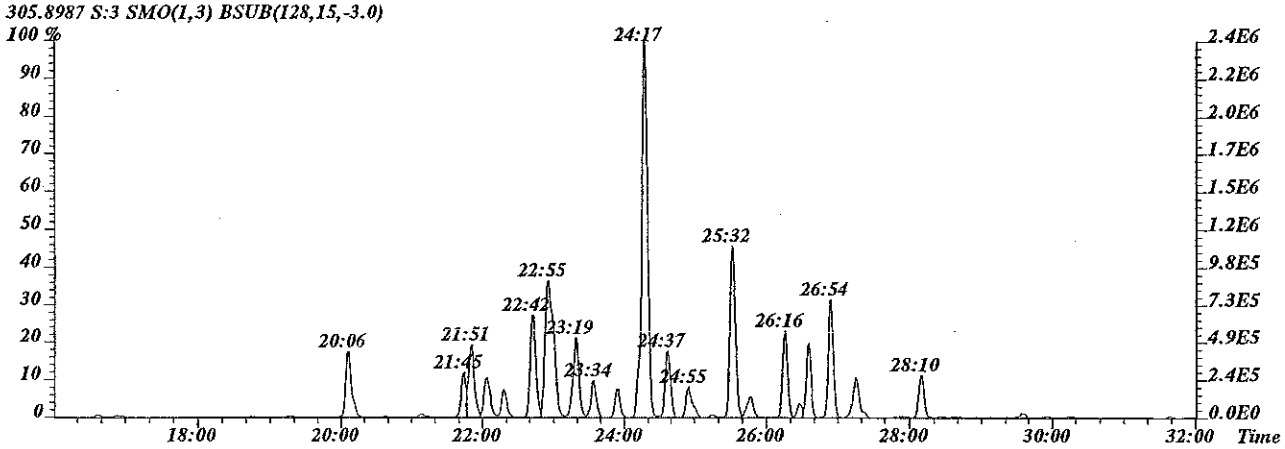
Name	#	RT	Respnse	RA		Conc	Area	Height	S/N	Mod?	
	1	20:05	4.3e+06	0.81	y	343.57					
			4.3e+06				1.9e+06	3.6e+05	4.0e+02	y	n
							2.4e+06	4.3e+05	2.7e+02	y	n
	2	21:07	1.9e+05	0.66	y	25.15					
			1.9e+05				7.5e+04	1.2e+04	1.4e+01	y	n
							1.1e+05	2.1e+04	1.4e+01	y	n
	3	21:45	2.2e+06	0.80	y	212.53					
			2.2e+06				9.9e+05	2.4e+05	2.7e+02	y	n
							1.2e+06	2.9e+05	1.9e+02	y	n
	4	21:51	4.8e+06	0.83	y	368.79					
			4.8e+06				2.2e+06	4.1e+05	4.6e+02	y	n
							2.6e+06	4.7e+05	3.0e+02	y	n
	5	22:03	2.7e+06	0.78	y	247.87					
			2.7e+06				1.2e+06	2.1e+05	2.3e+02	y	n
							1.5e+06	2.6e+05	1.7e+02	y	n
	6	22:17	1.6e+06	0.68	y	165.09					
			1.6e+06				6.5e+05	1.3e+05	1.4e+02	y	n
							9.6e+05	1.8e+05	1.2e+02	y	n
	7	22:42	6.3e+06	0.79	y	441.11					
			6.3e+06				2.8e+06	5.2e+05	5.8e+02	y	n
							3.5e+06	6.6e+05	4.3e+02	y	n
	8	22:55	1.3e+07	0.74	y	688.90					
			1.3e+07				5.4e+06	6.4e+05	7.1e+02	y	n
							7.2e+06	8.9e+05	5.7e+02	y	n
	9	23:19	5.3e+06	0.72	y	393.90					
			5.3e+06				2.2e+06	3.9e+05	4.3e+02	y	n
							3.1e+06	5.2e+05	3.3e+02	y	n
	10	23:34	2.2e+06	0.75	y	208.60					
			2.2e+06				9.3e+05	1.8e+05	2.0e+02	y	n
							1.2e+06	2.4e+05	1.5e+02	y	n
	11	24:17	2.5e+07	0.77	y	1032.38					
			2.5e+07				1.1e+07	1.8e+06	2.0e+03	y	n
							1.4e+07	2.4e+06	1.6e+03	y	n
	12	24:37	4.0e+06	0.76	y	322.81					
			4.0e+06				1.7e+06	3.5e+05	3.9e+02	y	n
							2.3e+06	4.3e+05	2.8e+02	y	n
	13	24:55	2.1e+06	0.69	y	203.24					
			2.1e+06				8.6e+05	1.1e+05	1.3e+02	y	n
							1.2e+06	2.0e+05	1.3e+02	y	n
	14	25:32	9.8e+06	0.77	y	588.68					
			9.8e+06				4.3e+06	8.2e+05	9.2e+02	y	n
							5.5e+06	1.1e+06	7.2e+02	y	n
	15	25:47	1.4e+06	0.76	y	147.50					
			1.4e+06				6.0e+05	1.0e+05	1.1e+02	y	n
							8.0e+05	1.4e+05	8.7e+01	y	n
	16	26:16	4.3e+06	0.70	y	340.69					
			4.3e+06				1.8e+06	3.9e+05	4.3e+02	y	n
							2.5e+06	5.6e+05	3.6e+02	y	n
2,3,7,8-TCDF	17	26:27	6.9e+05	0.83	y	83.26					

6.9e+05	3.1e+05	6.5e+04	7.2e+01	y	y
	3.8e+05	8.8e+04	5.7e+01	y	y

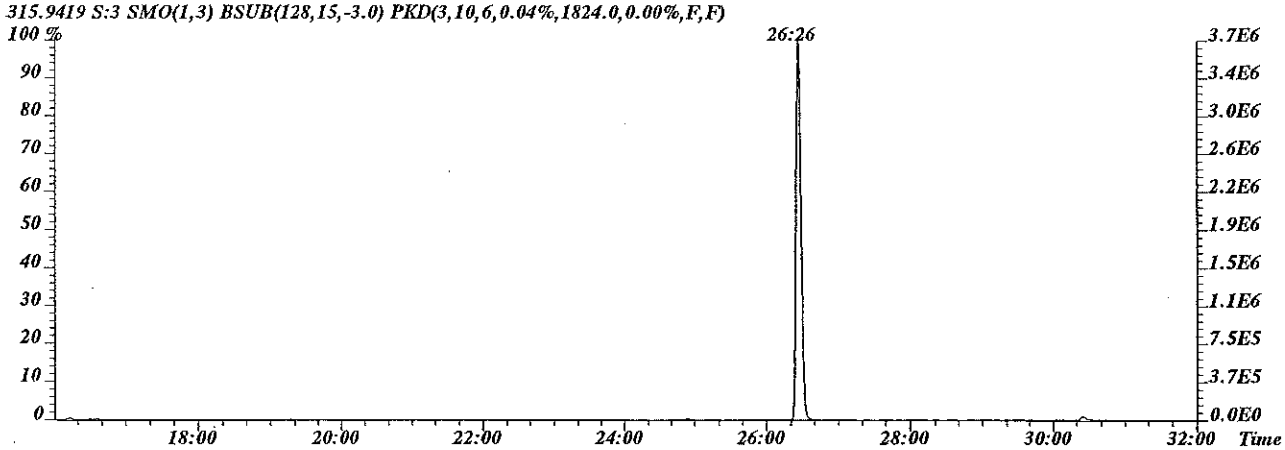
File:0903023D #1-937 Acq:19-SEP-2003 16:10:29 GC EI+ Voltage SIR 70S
Sample#3 File Text:M23 TCDF CONF Text:0903023-6 Exp:TCDF
303.9016 S:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,898.0,0.00%,F,F)



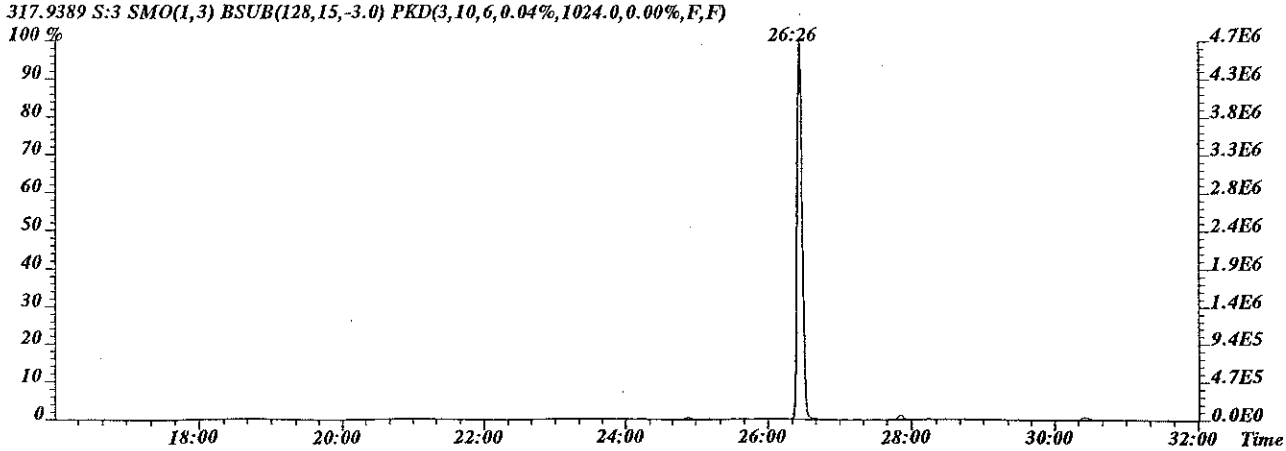
305.8987 S:3 SMO(1,3) BSUB(128,15,-3.0)



315.9419 S:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1824.0,0.00%,F,F)



317.9389 S:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1024.0,0.00%,F,F)



Ent: 18 Name: Total TCDD F:1 Mass: 319.897 321.984 Mod? yes #Hom:10

In: 7 File: 0903023A S:10 Acq:17-SEP-03 00:58:30 Proc:17-SEP-03 11:14:45
Tables: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
Version: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-6

Amount: 4606.92 of which * named and 4606.92 unnamed
Conc: 4606.92 of which * named and 4606.92 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA		Conc	Area	Height	S/N	Mod?	
	1	26:31	9.5e+07	0.76	y	2099.44					
			9.5e+07				4.1e+07	9.2e+06	7.7e+03	y	n
							5.4e+07	1.2e+07	1.3e+04	y	n
	2	26:55	3.9e+07	0.77	y	1247.95					
			3.9e+07				1.7e+07	4.0e+06	3.3e+03	y	n
							2.2e+07	5.1e+06	5.4e+03	y	n
	3	27:15	1.5e+06	0.71	y	123.78					
			1.5e+06				6.3e+05	1.5e+05	1.3e+02	y	n
							9.0e+05	2.1e+05	2.2e+02	y	n
	4	27:59	7.4e+06	0.78	y	426.29					
			7.4e+06				3.2e+06	6.2e+05	5.1e+02	y	n
							4.2e+06	8.3e+05	8.8e+02	y	n
	5	28:16	1.6e+06	0.83	y	129.63					
			1.6e+06				7.3e+05	1.4e+05	1.2e+02	y	n
							8.8e+05	1.6e+05	1.7e+02	y	n
	6	28:41	1.2e+06	0.75	y	98.13					
			1.2e+06				5.0e+05	1.1e+05	9.4e+01	y	n
							6.7e+05	1.5e+05	1.6e+02	y	n
	7	29:04	2.8e+06	0.79	y	201.78					
			2.8e+06				1.2e+06	2.3e+05	1.9e+02	y	n
							1.5e+06	3.0e+05	3.2e+02	y	n
	8	29:10	3.0e+06	0.77	y	217.13					
			3.0e+06				1.3e+06	2.9e+05	2.4e+02	y	n
							1.7e+06	3.9e+05	4.1e+02	y	n
	9	29:27	3.8e+05	0.67	y	35.27					
			3.8e+05				1.5e+05	4.0e+04	3.3e+01	y	y
							2.3e+05	5.0e+04	5.3e+01	y	n
	10	29:40	3.0e+05	0.75	y	27.52					
			3.0e+05				1.3e+05	2.4e+04	2.0e+01	y	n
							1.7e+05	3.6e+04	3.8e+01	y	n

Ent: 19 Name: Total PeCDD F:2 Mass: 355.855 357.852 Mod? no #Hom:5

Run: 7 File: 0903023A S:10 Acq:17-SEP-03 00:58:30 Proc:17-SEP-03 11:14:45
Tables: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
Version: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-6

Amount: 3016.96 of which * named and 3016.96 unnamed
Conc: 3016.96 of which * named and 3016.96 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?
	1	32:06	1.6e+07	1.61 y	1398.57				
			1.6e+07			1.0e+07	2.3e+06	1.2e+03	y n
						6.3e+06	1.5e+06	5.6e+02	y n
	2	32:42	2.6e+05	1.55 y	32.47				
			2.6e+05			1.6e+05	3.4e+04	1.7e+01	y n
						1.0e+05	2.0e+04	7.5e+00	y n
	3	33:00	1.0e+07	1.63 y	969.50				
			1.0e+07			6.4e+06	1.6e+06	7.9e+02	y n
						3.9e+06	9.2e+05	3.5e+02	y n
	4	33:25	4.0e+06	1.63 y	439.24				
			4.0e+06			2.5e+06	5.9e+05	3.0e+02	y n
						1.5e+06	3.6e+05	1.4e+02	y n
	5	34:02	1.5e+06	1.53 y	177.18				
			1.5e+06			9.0e+05	2.1e+05	1.0e+02	y n
						5.9e+05	1.3e+05	5.0e+01	y n

Ent: 20 Name: Total HxCDD F:3 Mass: 389.816 391.813 Mod? yes #Hom:6

Run: 7 File: 0903023A S:10 Acq:17-SEP-03 00:58:30 Proc:17-SEP-03 11:14:45
Tables: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
Version: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-6

Amount: 2670.20 of which 299.21 named and 2371.00 unnamed
Conc: 2670.20 of which 299.21 named and 2371.00 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?
	1	37:34	1.4e+06	1.13 y	205.38				
			1.4e+06			7.2e+05	1.9e+05	9.9e+01	y n
						6.4e+05	1.7e+05	1.1e+02	y n
	2	38:16	1.3e+07	1.24 y	1662.70				
			1.3e+07			7.5e+06	2.1e+06	1.1e+03	y n
						6.0e+06	1.7e+06	1.1e+03	y n
	3	38:33	3.5e+06	1.23 y	502.91				
			3.5e+06			1.9e+06	4.6e+05	2.4e+02	y n
						1.6e+06	3.7e+05	2.4e+02	y n
1,2,3,4,7,8-HxCDD	4	39:18	3.3e+05	1.27 y	48.84				
			3.3e+05			1.8e+05	4.7e+04	2.5e+01	y n
						1.4e+05	4.0e+04	2.6e+01	y n
1,2,3,6,7,8-HxCDD	5	39:25	9.8e+05	1.15 y	148.03				
			9.8e+05			5.2e+05	1.8e+05	9.4e+01	y n
						4.6e+05	1.2e+05	8.3e+01	y n
1,2,3,7,8,9,-HxCDD	6	39:48	6.9e+05	1.30 y	102.34				
			6.9e+05			3.9e+05	7.4e+04	3.9e+01	y n
						3.0e+05	6.2e+04	4.1e+01	y y

Ent: 21 Name: Total HpCDD F:4 Mass: 423.777 425.774 Mod? no #Hom:2

Run: 7 File: 0903023A S:10 Acq:17-SEP-03 00:58:30 Proc:17-SEP-03 11:14:45
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
rsion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-6

Amount: 2468.57 of which 1123.88 named and 1344.68 unnamed
Conc: 2468.57 of which 1123.88 named and 1344.68 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?	
	1	42:14	6.2e+06	1.03	y 1344.68					
			6.2e+06			3.1e+06	1.1e+06	4.0e+02	y	n
						3.1e+06	1.0e+06	1.0e+03	y	n
1,2,3,4,6,7,8-HpCDD2		42:58	4.9e+06	1.06	y 1123.88					
			4.9e+06			2.5e+06	8.0e+05	2.9e+02	y	n
						2.4e+06	7.3e+05	7.2e+02	y	n

Ent: 22 Name: Total TCDF F:1 Mass: 303.902 305.899 Mod? yes #Hom:16

Run: 7 File: 0903023A S:10 Acq:17-SEP-03 00:58:30 Proc:17-SEP-03 11:14:45
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
rsion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-6

Amount: 7553.14 of which 1064.91 named and 6488.22 unnamed
Conc: 7553.14 of which 1064.91 named and 6488.22 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA		Conc	Area	Height	S/N		Mod?
	1	25:05	8.2e+06	0.73	y	420.72					
			8.2e+06				3.5e+06	7.9e+05	3.8e+02	y	n
							4.7e+06	1.1e+06	6.7e+02	y	y
	2	25:38	5.5e+06	0.74	y	313.35					
			5.5e+06				2.3e+06	4.9e+05	2.4e+02	y	n
							3.2e+06	6.6e+05	4.2e+02	y	y
	3	25:53	8.3e+06	0.71	y	424.65					
			8.3e+06				3.4e+06	7.9e+05	3.8e+02	y	n
							4.8e+06	1.1e+06	6.8e+02	y	y
	4	26:16	1.4e+07	0.72	y	620.13					
			1.4e+07				5.9e+06	1.2e+06	6.0e+02	y	n
							8.2e+06	1.7e+06	1.1e+03	y	y
	5	26:23	1.1e+07	0.68	y	525.87					
			1.1e+07				4.5e+06	8.1e+05	3.9e+02	y	n
							6.6e+06	1.2e+06	7.5e+02	y	y
	6	26:38	1.5e+07	0.69	y	643.25					
			1.5e+07				6.0e+06	7.7e+05	3.7e+02	y	n
							8.8e+06	1.1e+06	7.2e+02	y	y
	7	26:49	6.2e+05	0.67	y	46.89					
			6.2e+05				2.5e+05	6.7e+04	3.2e+01	y	y
							3.7e+05	8.9e+04	5.6e+01	y	y
	8	27:03	6.2e+06	0.70	y	343.40					
			6.2e+06				2.6e+06	6.0e+05	2.9e+02	y	n
							3.7e+06	8.3e+05	5.3e+02	y	y
	9	27:21	1.0e+07	0.69	y	497.26					
			1.0e+07				4.2e+06	9.2e+05	4.4e+02	y	n
							6.1e+06	1.3e+06	8.1e+02	y	n
	10	27:37	2.0e+07	0.72	y	798.17					
			2.0e+07				8.6e+06	1.4e+06	6.7e+02	y	n
							1.2e+07	1.9e+06	1.2e+03	y	n
	11	27:48	3.4e+07	0.74	y	1101.03					
			3.4e+07				1.4e+07	3.1e+06	1.5e+03	y	n
							1.9e+07	4.2e+06	2.6e+03	y	n
	12	28:17	3.6e+06	0.67	y	221.73					
			3.6e+06				1.4e+06	2.7e+05	1.3e+02	y	n
							2.1e+06	3.6e+05	2.3e+02	y	n
2,3,7,8-TCDF	13	28:31	3.4e+07	0.73	y	1064.91					
			3.4e+07				1.4e+07	3.1e+06	1.5e+03	y	n
							1.9e+07	4.2e+06	2.6e+03	y	n
	14	28:58	3.2e+06	0.81	y	204.09					
			3.2e+06				1.5e+06	3.6e+05	1.7e+02	y	n
							1.8e+06	4.3e+05	2.7e+02	y	n
	15	29:13	4.5e+06	0.71	y	268.57					
			4.5e+06				1.9e+06	4.2e+05	2.0e+02	y	n
							2.7e+06	5.8e+05	3.7e+02	y	n
	16	29:28	8.0e+05	0.75	y	59.09					
			8.0e+05				3.4e+05	6.8e+04	3.3e+01	y	n
							4.5e+05	9.5e+04	6.0e+01	y	n

Ent: 23 Name: Total PeCDF F:2 Mass: 339.860 341.857 Mod? yes #Hom:14

Run: 7 File: 0903023A S:10 Acq:17-SEP-03 00:58:30 Proc:17-SEP-03 11:14:45
ables: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
ersion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-6

Amount: 4864.96 of which 438.86 named and 4426.10 unnamed
Conc: 4864.96 of which 438.86 named and 4426.10 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?	
	1	30:40	7.2e+06	1.77 y	650.40					
			7.2e+06			4.6e+06	1.3e+06	2.6e+02	y	y
						2.6e+06	7.2e+05	1.5e+02	y	y
	2	31:49	2.2e+06	1.41 y	208.11					
			2.2e+06			1.3e+06	3.0e+05	6.0e+01	y	y
						9.0e+05	2.1e+05	4.3e+01	y	n
	3	31:58	1.3e+07	1.65 y	1110.72					
			1.3e+07			8.1e+06	1.7e+06	3.3e+02	y	n
						4.9e+06	1.0e+06	2.0e+02	y	n
	4	32:10	2.2e+06	1.62 y	211.93					
			2.2e+06			1.4e+06	2.8e+05	5.6e+01	y	n
						8.4e+05	1.9e+05	3.9e+01	y	n
	5	32:22	5.3e+05	1.53 y	51.64					
			5.3e+05			3.2e+05	7.1e+04	1.4e+01	y	n
						2.1e+05	4.6e+04	9.4e+00	y	n
	6	32:35	6.2e+06	1.56 y	566.60					
			6.2e+06			3.8e+06	8.9e+05	1.8e+02	y	y
						2.4e+06	5.5e+05	1.1e+02	y	n
	7	32:40	7.1e+06	1.60 y	639.93					
			7.1e+06			4.3e+06	9.8e+05	1.9e+02	y	n
						2.7e+06	5.9e+05	1.2e+02	y	n
1,2,3,7,8-PeCDF	8	33:02	1.3e+06	1.49 y	121.18					
			1.3e+06			7.5e+05	1.7e+05	3.4e+01	y	n
						5.0e+05	1.1e+05	2.2e+01	y	n
	9	33:15	1.3e+06	1.50 y	121.68					
			1.3e+06			7.5e+05	1.6e+05	3.2e+01	y	n
						5.0e+05	1.0e+05	2.0e+01	y	n
	10	33:25	2.6e+06	1.67 y	251.31					
			2.6e+06			1.6e+06	3.3e+05	6.5e+01	y	n
						9.9e+05	2.0e+05	4.0e+01	y	n
2,3,4,7,8-PeCDF	11	33:59	3.5e+06	1.68 y	317.68					
			3.5e+06			2.2e+06	4.8e+05	9.5e+01	y	n
						1.3e+06	3.0e+05	6.0e+01	y	n
	12	34:11	5.2e+06	1.72 y	478.55					
			5.2e+06			3.3e+06	6.7e+05	1.3e+02	y	n
						1.9e+06	3.6e+05	7.3e+01	y	n
	13	34:38	9.3e+05	1.45 y	90.49					
			9.3e+05			5.5e+05	1.1e+05	2.2e+01	y	n
						3.8e+05	8.0e+04	1.6e+01	y	n
	14	35:23	4.6e+05	1.59 y	44.76					
			4.6e+05			2.8e+05	5.3e+04	1.1e+01	y	n
						1.8e+05	3.4e+04	6.9e+00	y	n

Ent: 24 Name: Total HxCDF F:3 Mass: 373.821 375.818 Mod? no #Hom:10

Run: 7 File: 0903023A S:10 Acq:17-SEP-03 00:58:30 Proc:17-SEP-03 11:14:45
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
rsion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-6

Amount: 3603.78 of which 1763.36 named and 1840.42 unnamed
Conc: 3603.78 of which 1763.36 named and 1840.42 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?
	1	36:46	4.7e+06	1.17 y	554.47				
			4.7e+06			2.5e+06	5.6e+05	1.3e+02	y n
						2.2e+06	5.0e+05	2.0e+02	y n
	2	37:00	7.5e+06	1.26 y	881.37				
			7.5e+06			4.2e+06	8.7e+05	2.1e+02	y n
						3.3e+06	7.2e+05	2.9e+02	y n
	3	37:16	5.7e+05	1.31 y	67.33				
			5.7e+05			3.2e+05	7.8e+04	1.9e+01	y n
						2.5e+05	6.0e+04	2.4e+01	y n
	4	37:30	1.2e+06	1.26 y	137.39				
			1.2e+06			6.5e+05	1.4e+05	3.3e+01	y n
						5.2e+05	1.1e+05	4.3e+01	y n
	5	37:44	5.7e+05	1.32 y	67.27				
			5.7e+05			3.2e+05	7.1e+04	1.7e+01	y n
						2.5e+05	5.9e+04	2.4e+01	y n
1,2,3,4,4,8-HxCDF	6	38:16	6.8e+06	1.26 y	720.45				
			6.8e+06			3.8e+06	8.1e+05	2.0e+02	y n
						3.0e+06	6.4e+05	2.6e+02	y n
1,2,3,6,7,8-HxCDF	7	38:26	3.1e+06	1.28 y	340.30				
			3.1e+06			1.7e+06	4.7e+05	1.1e+02	y n
						1.4e+06	3.7e+05	1.5e+02	y n
	8	38:35	1.1e+06	1.31 y	132.60				
			1.1e+06			6.4e+05	1.7e+05	4.1e+01	y n
						4.9e+05	1.3e+05	5.3e+01	y n
3,4,6,7,8-HxCDF	9	39:08	5.3e+06	1.26 y	655.78				
			5.3e+06			3.0e+06	6.7e+05	1.6e+02	y n
						2.4e+06	6.0e+05	2.4e+02	y n
1,2,3,7,8,9-HxCDF	10	40:06	3.4e+05	1.42 y	46.82				
			3.4e+05			2.0e+05	5.2e+04	1.3e+01	y n
						1.4e+05	4.1e+04	1.6e+01	y n

Ent: 25 Name: Total HpCDF F:4 Mass: 407.782 409.779 Mod? yes #Hom:4

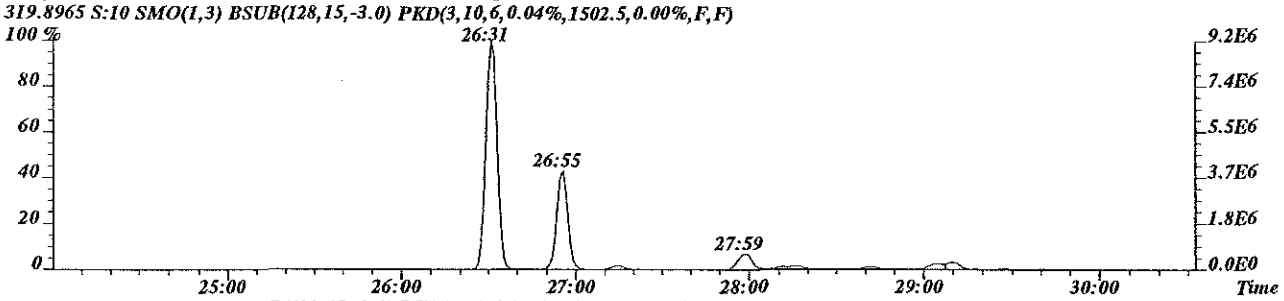
Run: 7 File: 0903023A S:10 Acq:17-SEP-03 00:58:30 Proc:17-SEP-03 11:14:45
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
ersion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-6

Amount: 3367.96 of which 1888.81 named and 1479.15 unnamed
Conc: 3367.96 of which 1888.81 named and 1479.15 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

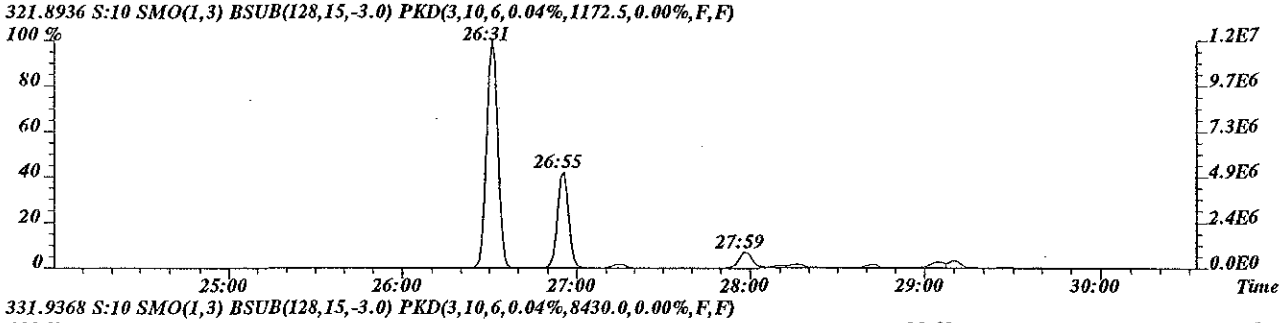
Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?	
1,2,3,4,6,7,8-HpCDF1		41:57	1.2e+07	1.00 y	1437.69					
			1.2e+07			6.0e+06	2.0e+06	3.3e+02	y	n
						6.0e+06	1.9e+06	1.1e+03	y	n
	2	42:12	4.0e+06	1.01 y	788.08					
			4.0e+06			2.0e+06	6.7e+05	1.1e+02	y	y
						2.0e+06	6.8e+05	3.8e+02	y	y
	3	42:20	3.4e+06	1.08 y	691.08					
			3.4e+06			1.8e+06	5.9e+05	9.6e+01	y	n
						1.7e+06	5.6e+05	3.1e+02	y	n
1,2,3,4,7,8,9-HpCDF4		43:24	1.8e+06	1.18 y	451.12					
			1.8e+06			9.7e+05	2.7e+05	4.5e+01	y	n
						8.2e+05	2.1e+05	1.2e+02	y	n

File:0903023A #1-429 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
Sample#10 File Text:M23 Text:0903023-6 Exp:8290

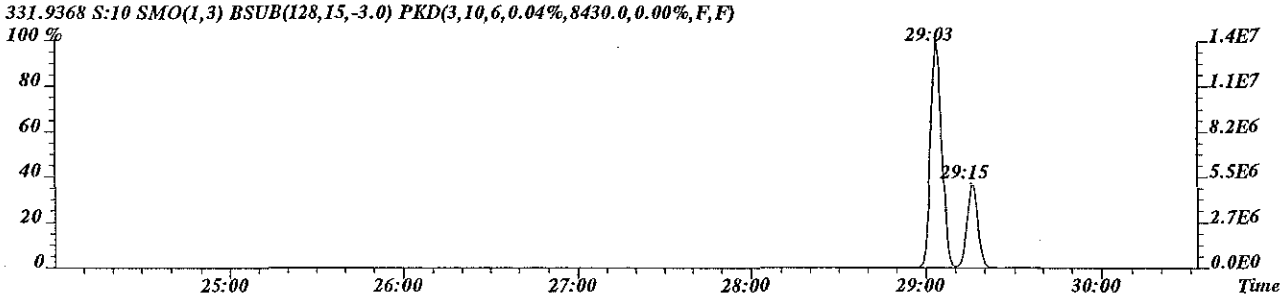
319.8965 S:10 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1502.5,0.00%,F,F)



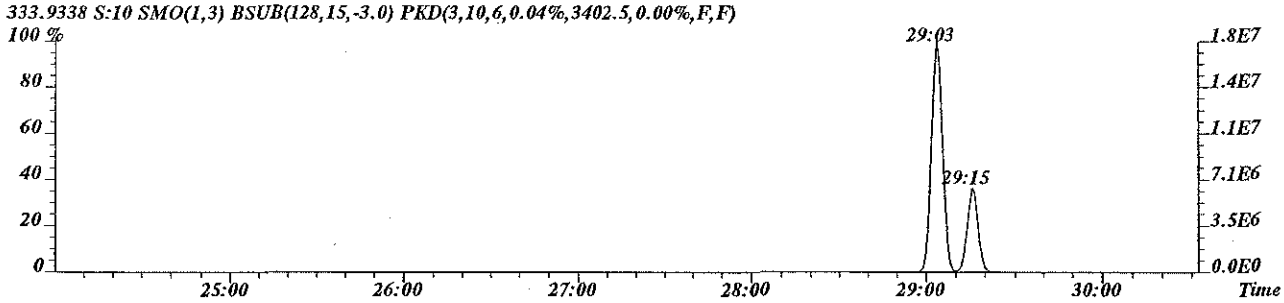
321.8936 S:10 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1172.5,0.00%,F,F)



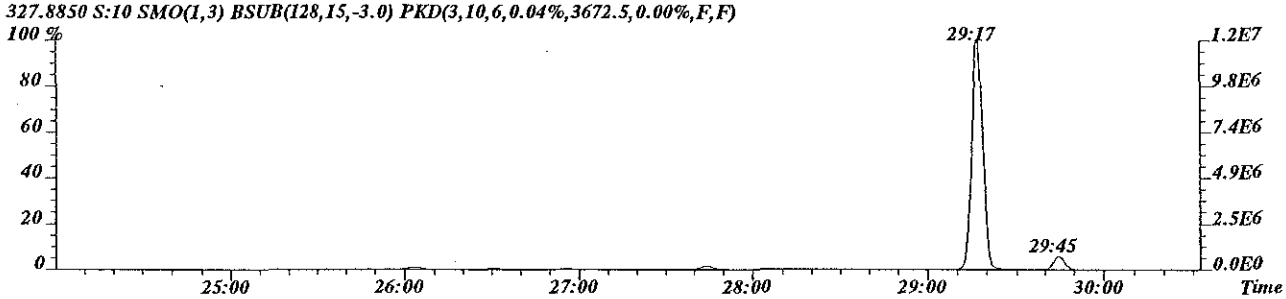
331.9368 S:10 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,8430.0,0.00%,F,F)



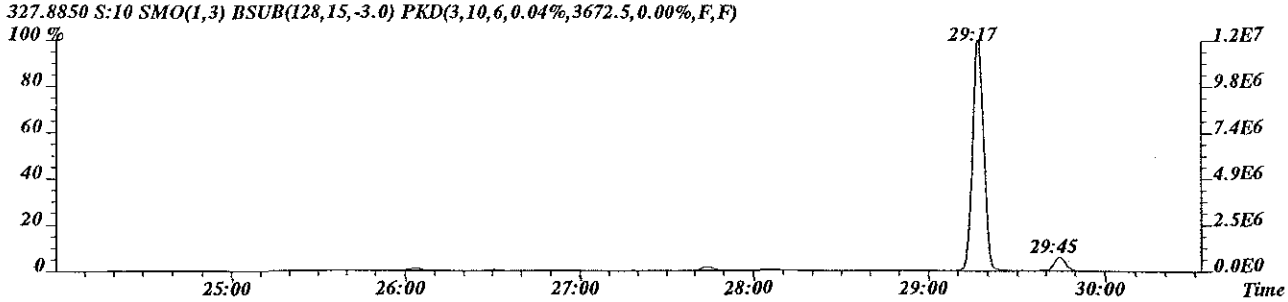
333.9338 S:10 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3402.5,0.00%,F,F)



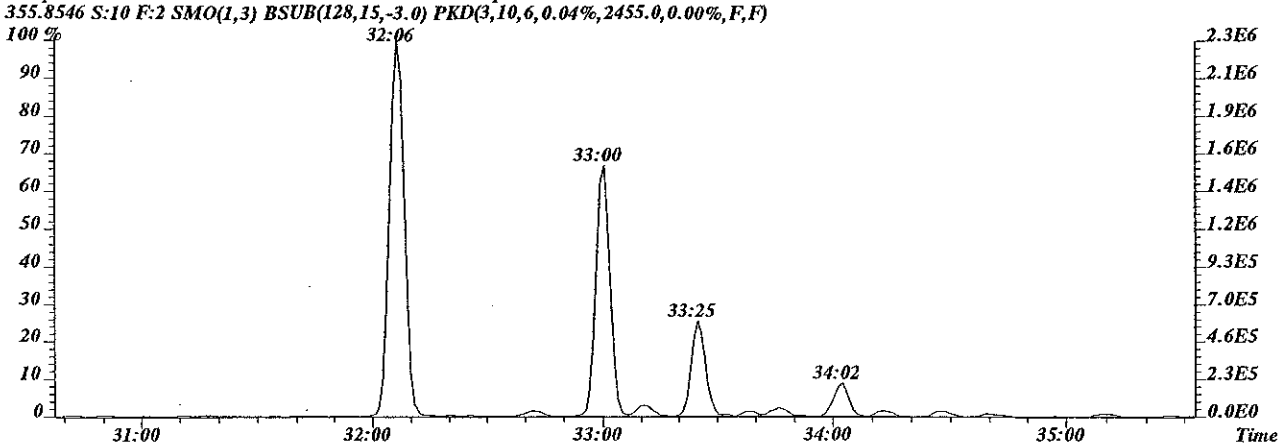
327.8850 S:10 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3672.5,0.00%,F,F)



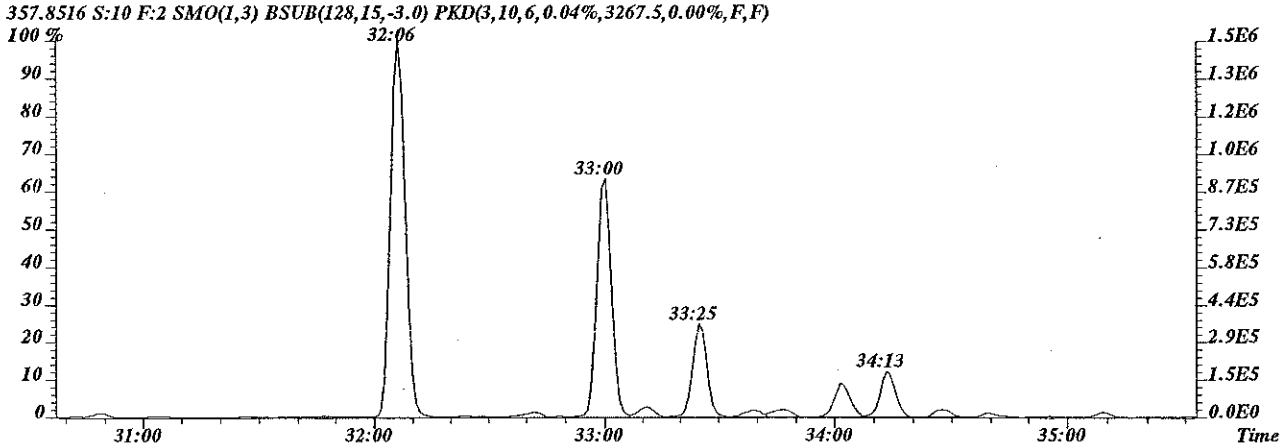
327.8850 S:10 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3672.5,0.00%,F,F)



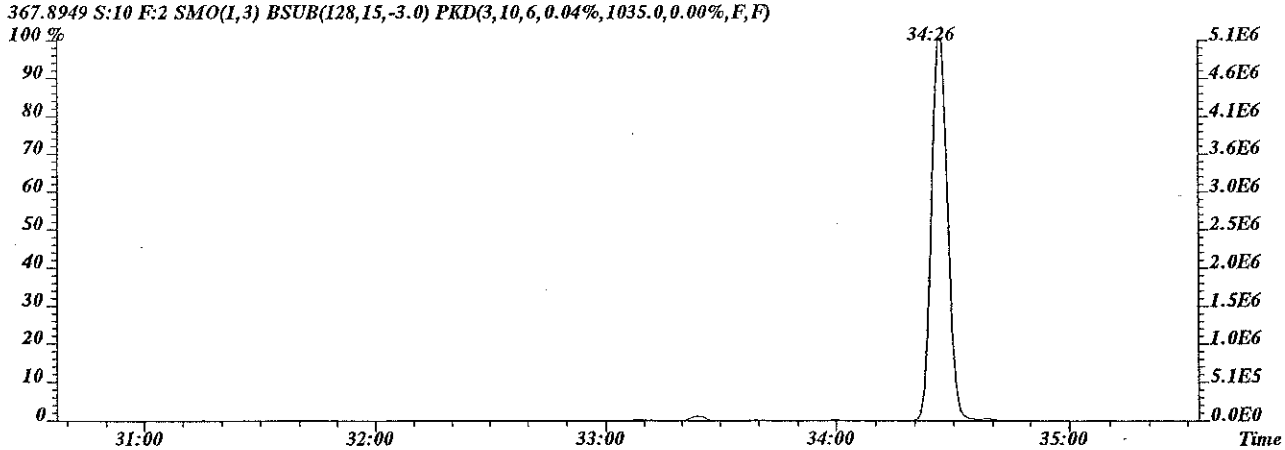
File:0903023A #1-324 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
Sample#10 File Text:M23 Text:0903023-6 Exp:8290
355.8546 S:10 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2455.0,0.00%,F,F)



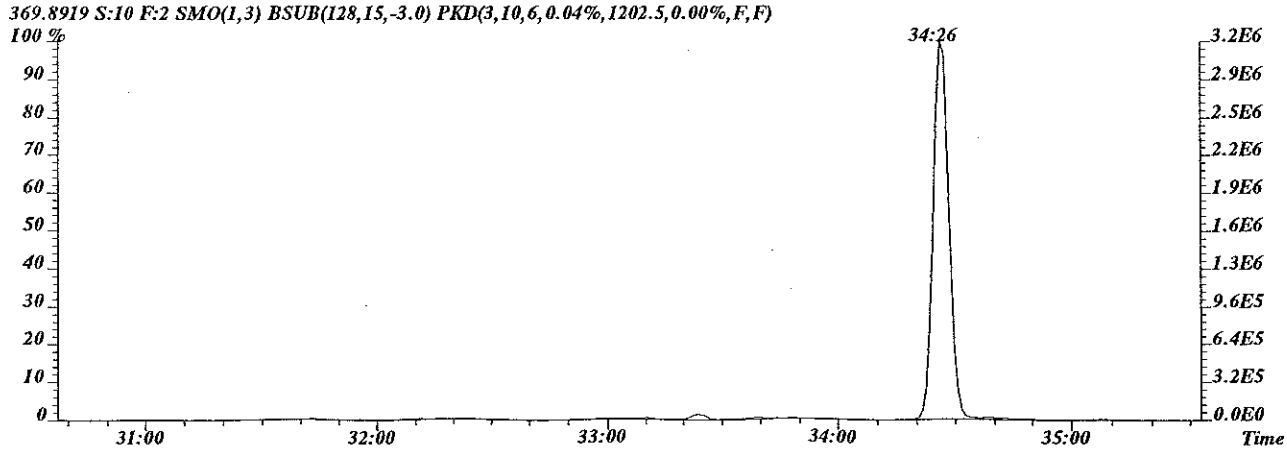
357.8516 S:10 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3267.5,0.00%,F,F)



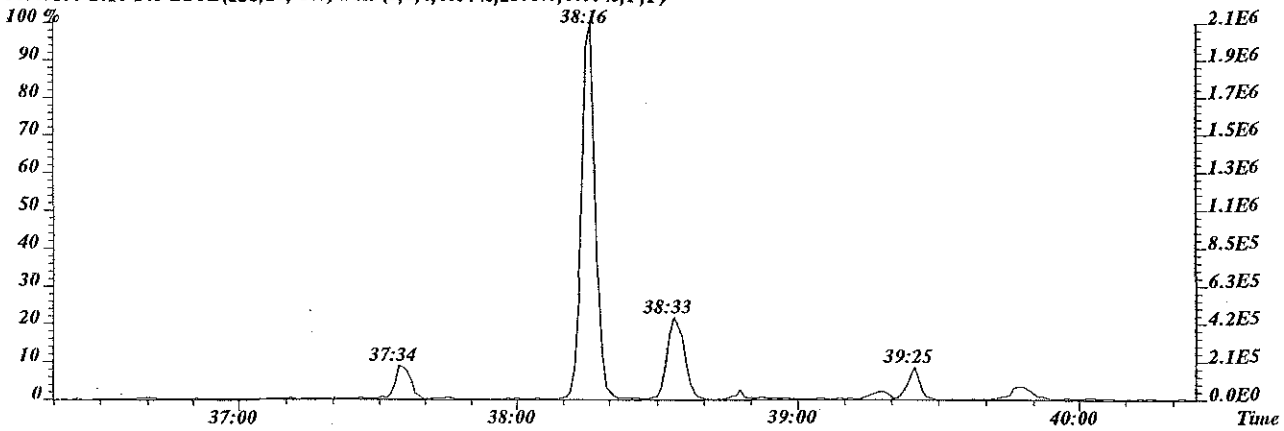
367.8949 S:10 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1035.0,0.00%,F,F)



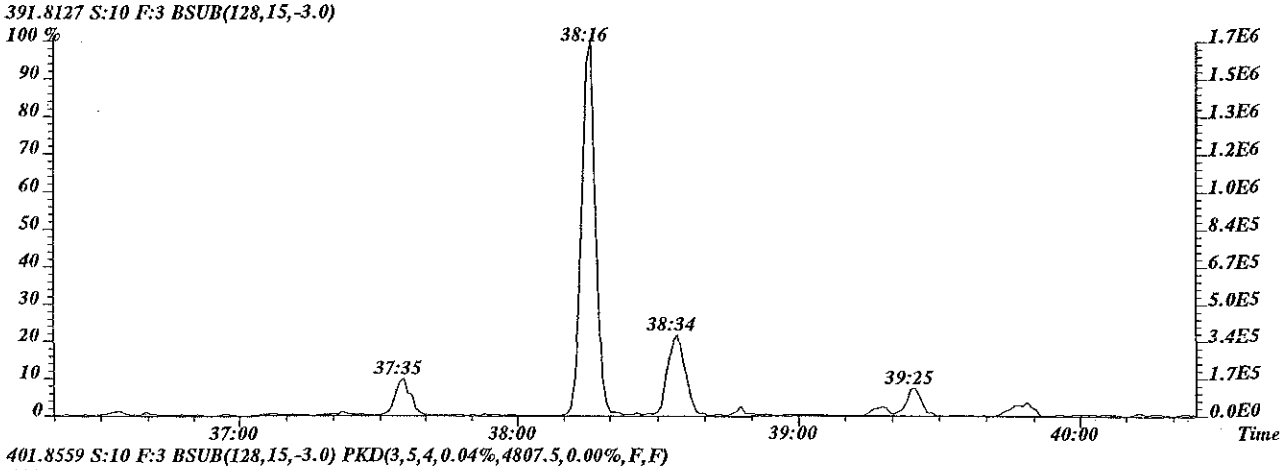
369.8919 S:10 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1202.5,0.00%,F,F)



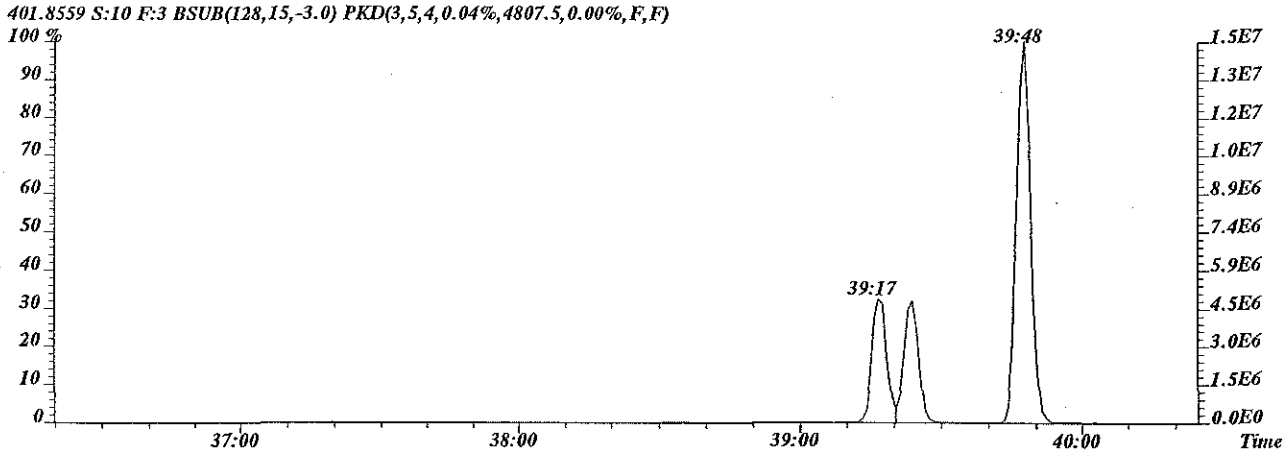
File:0903023A #1-278 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
Sample#10 File Text:M23 Text:0903023-6 Exp:8290
389.8156 S:10 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2375.0,0.00%,F,F)



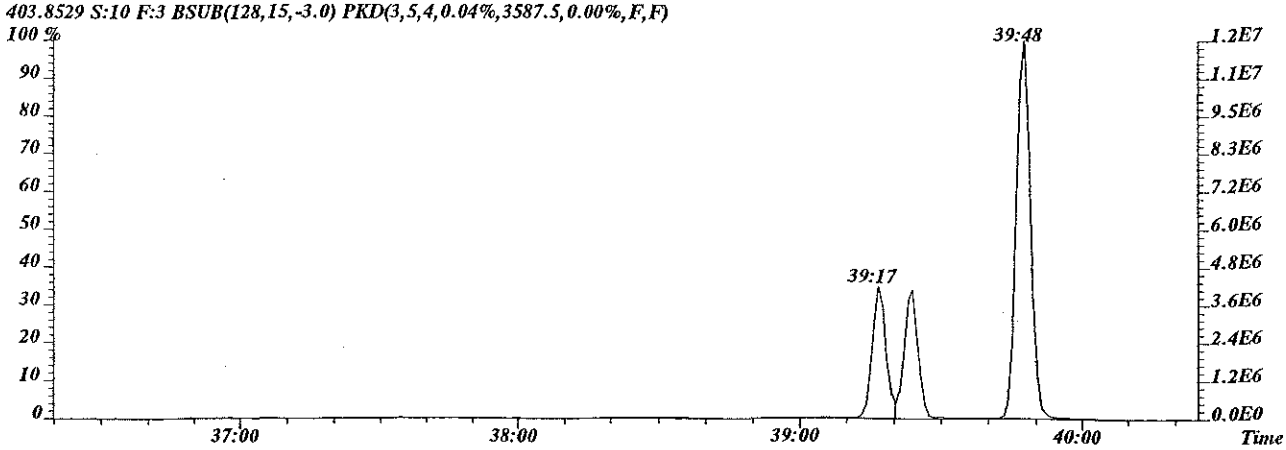
391.8127 S:10 F:3 BSUB(128,15,-3.0)



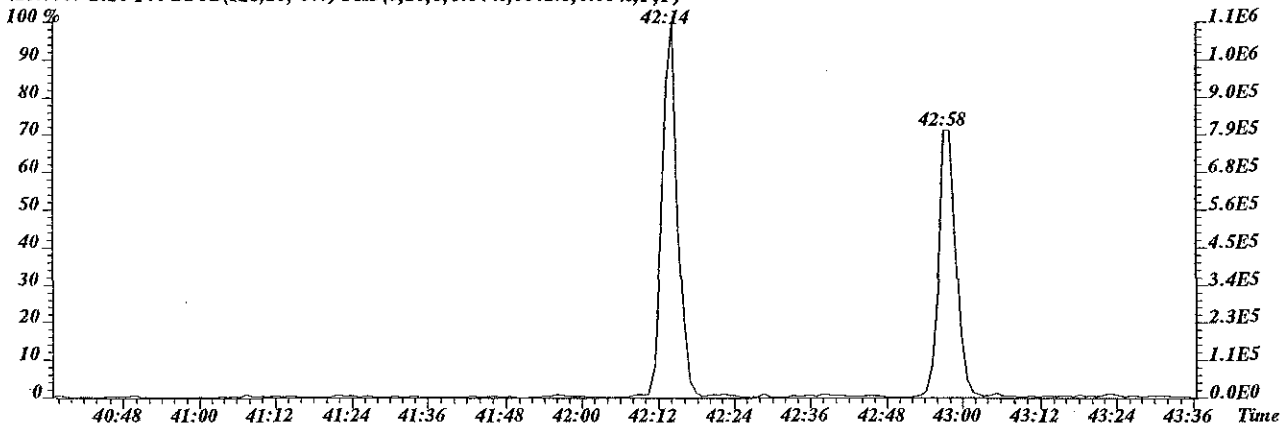
401.8559 S:10 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,4807.5,0.00%,F,F)



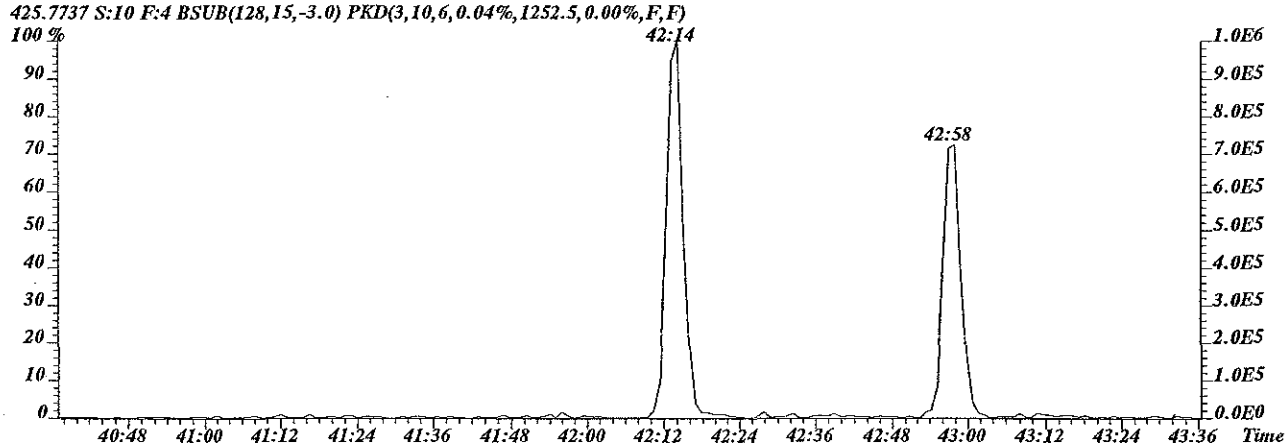
403.8529 S:10 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3587.5,0.00%,F,F)



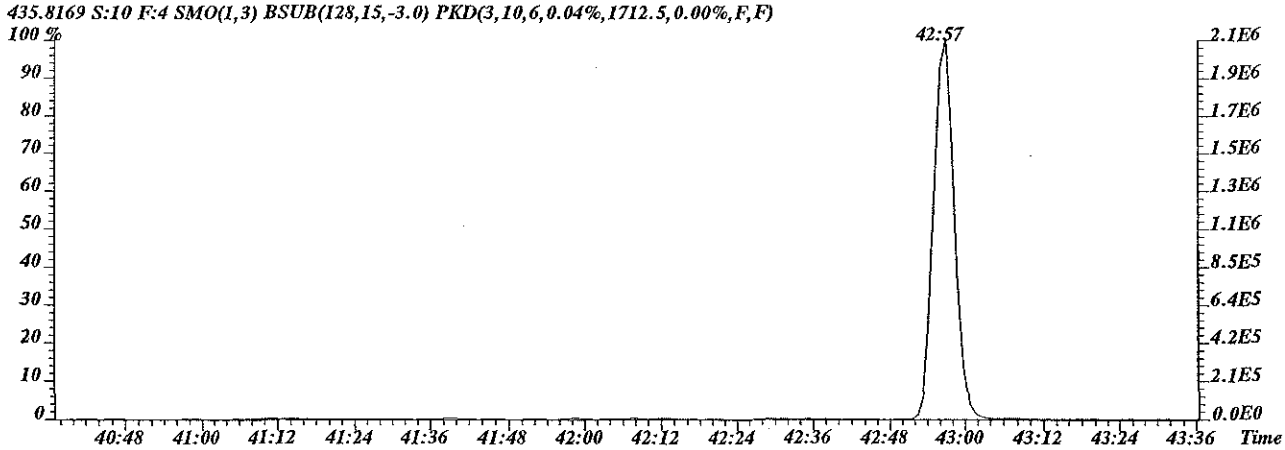
File:0903023A #1-197 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
Sample#10 File Text:M23 Text:0903023-6 Exp:8290
423.7767 S:10 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3502.5,0.00%,F,F)



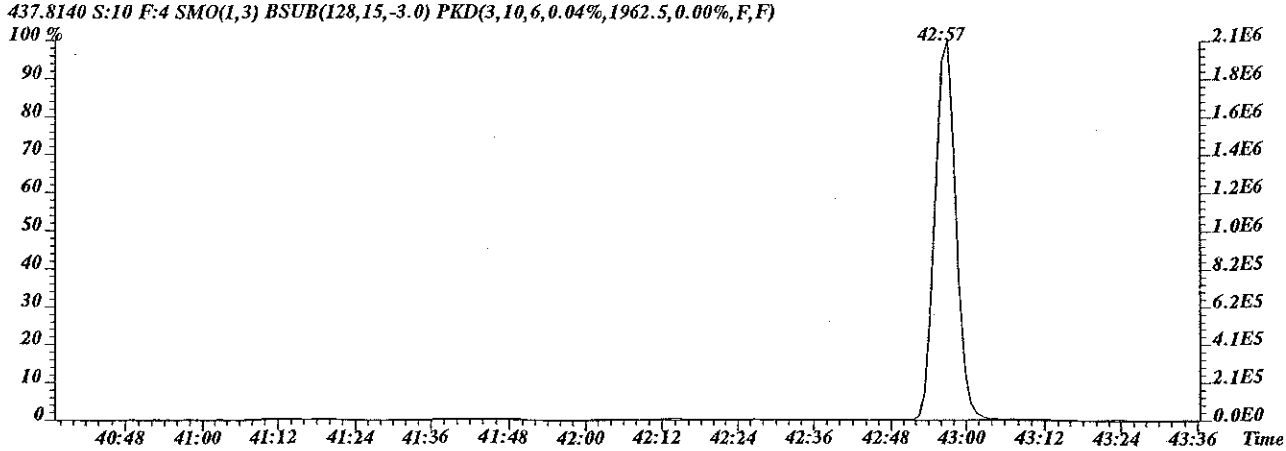
425.7737 S:10 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1252.5,0.00%,F,F)



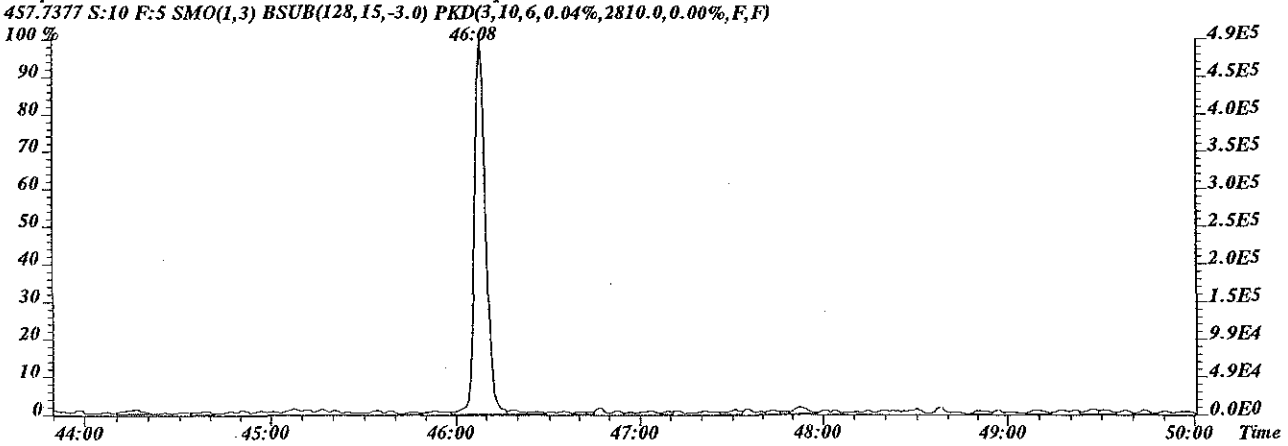
435.8169 S:10 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1712.5,0.00%,F,F)



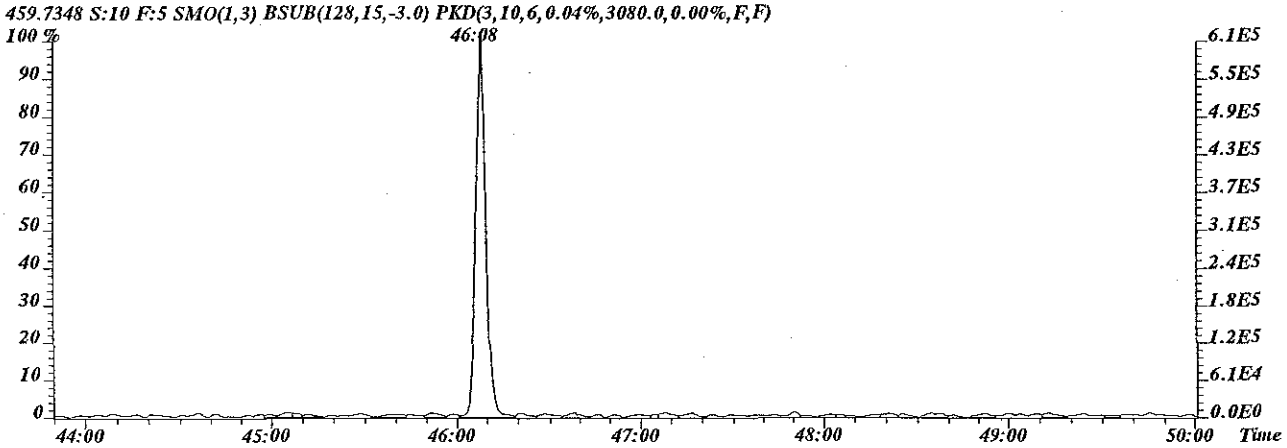
437.8140 S:10 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1962.5,0.00%,F,F)



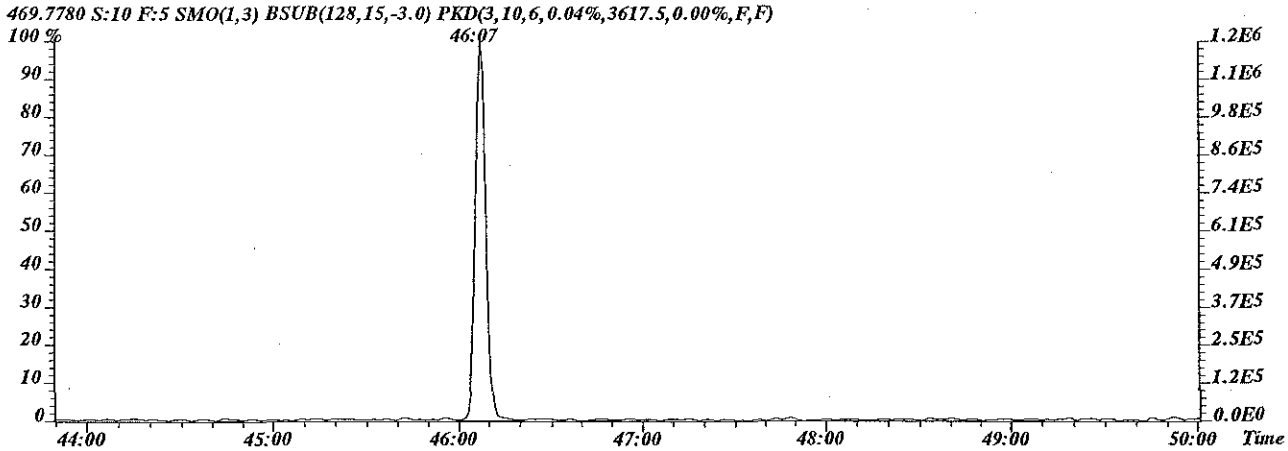
File:0903023A #1-446 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
Sample#10 File Text:M23 Text:0903023-6 Exp:8290
457.7377 S:10 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2810.0,0.00%,F,F)



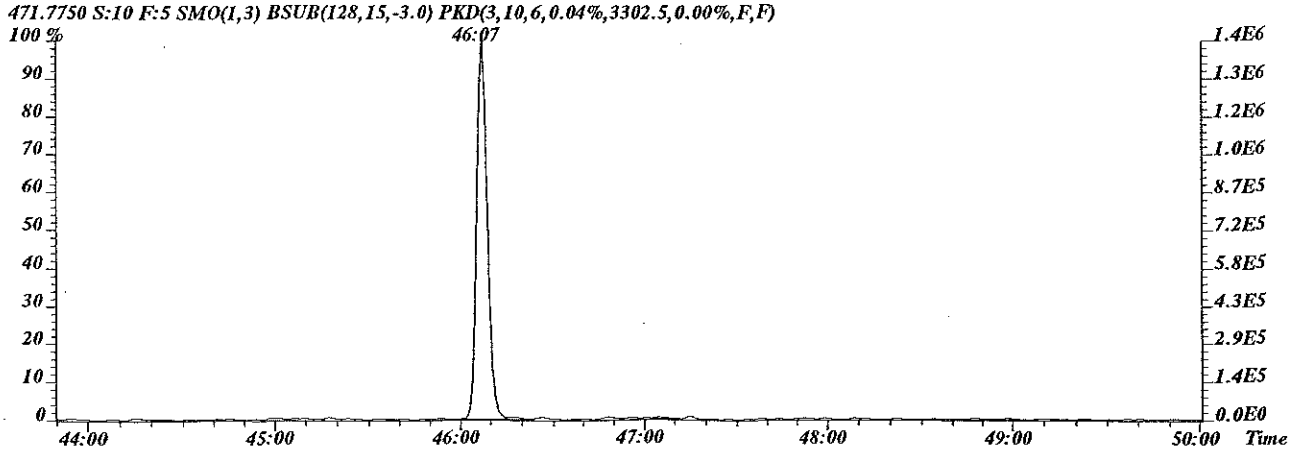
459.7348 S:10 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3080.0,0.00%,F,F)



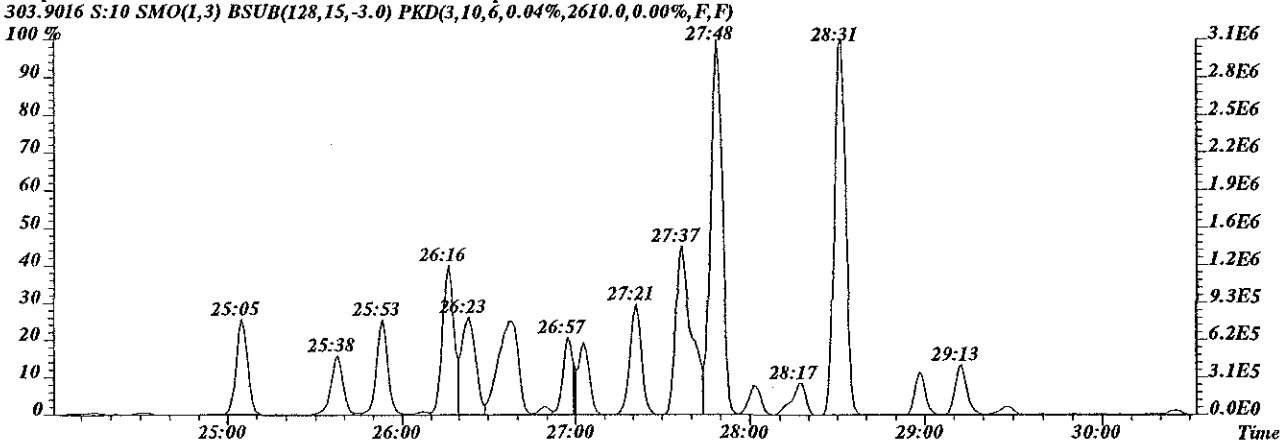
469.7780 S:10 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3617.5,0.00%,F,F)



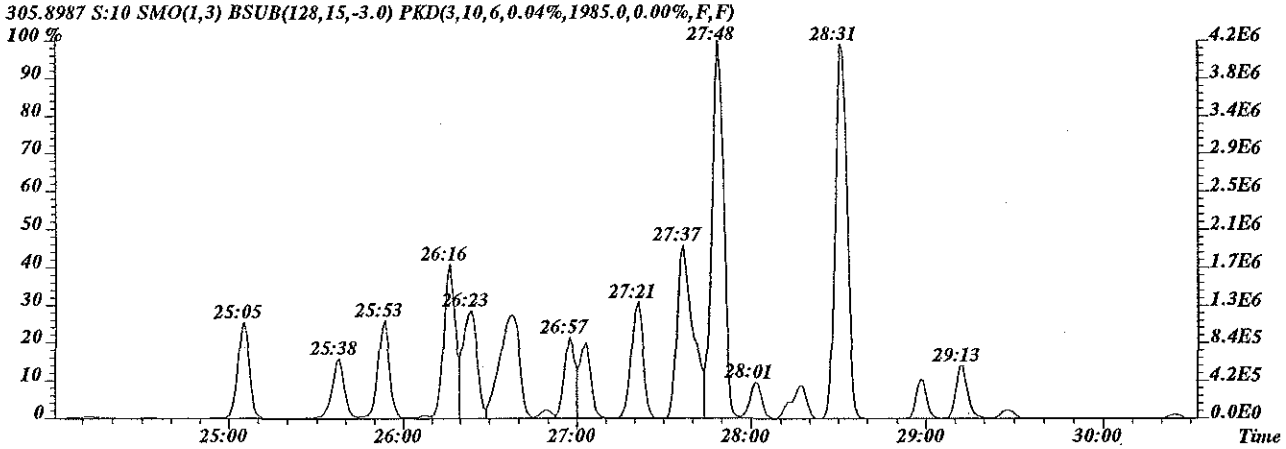
471.7750 S:10 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3302.5,0.00%,F,F)



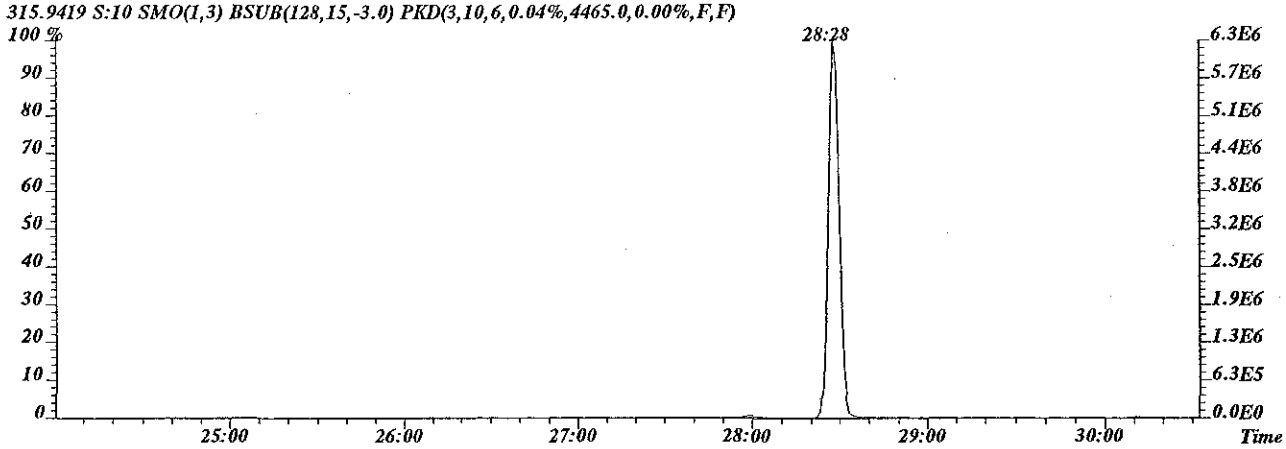
File:0903023A #1-429 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
Sample#10 File Text:M23 Text:0903023-6 Exp:8290
303.9016 S:10 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2610.0,0.00%,F,F)



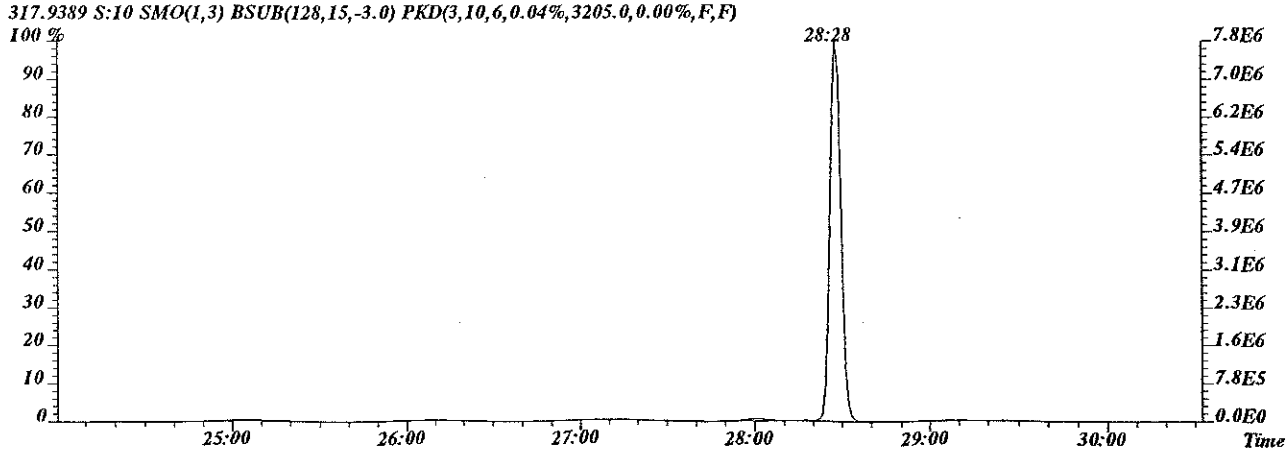
305.8987 S:10 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1985.0,0.00%,F,F)



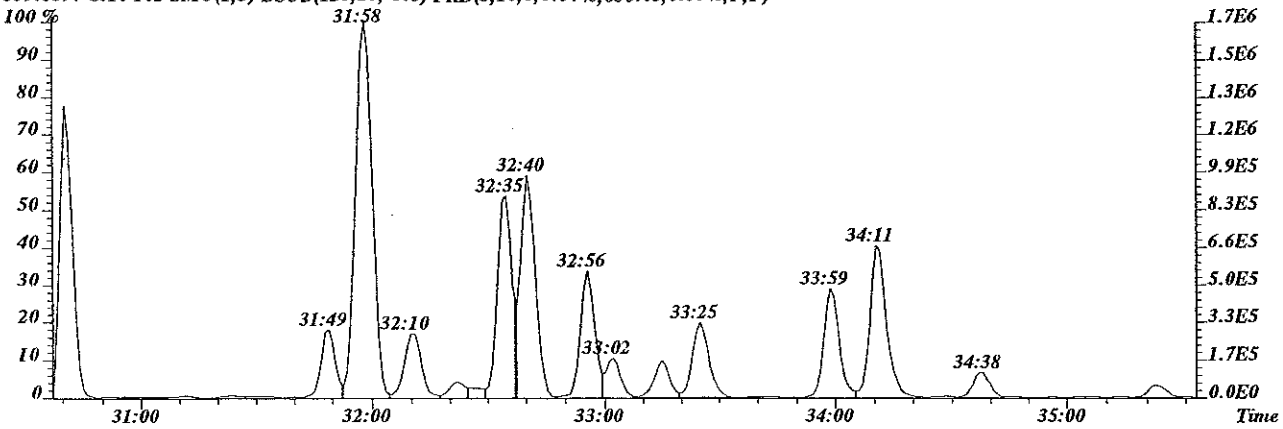
315.9419 S:10 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4465.0,0.00%,F,F)



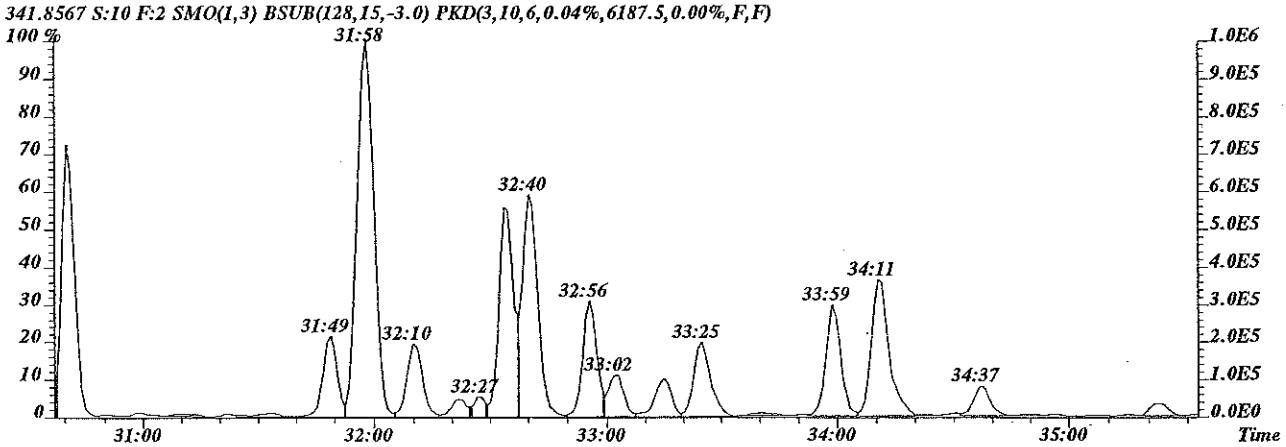
317.9389 S:10 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3205.0,0.00%,F,F)



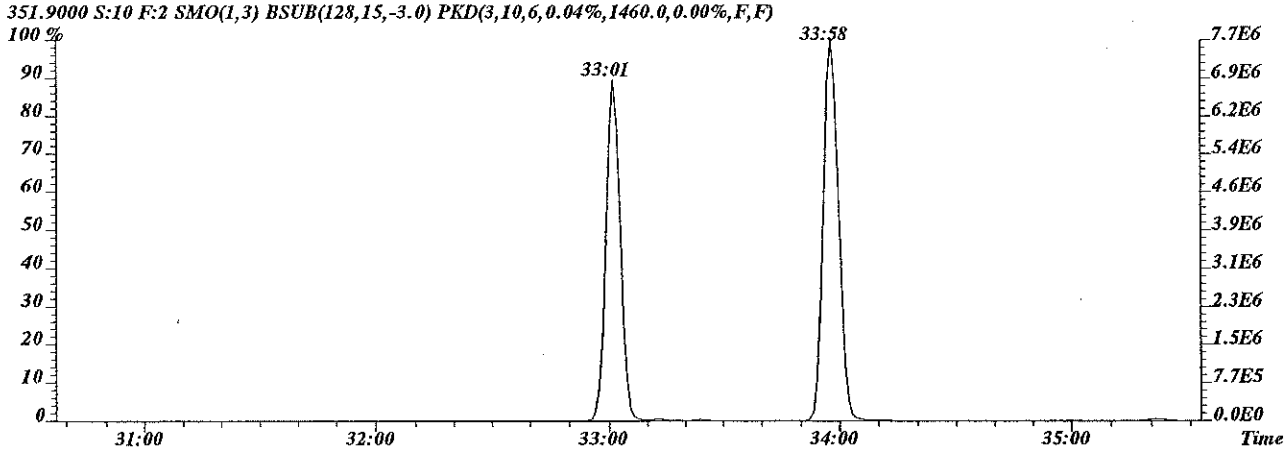
File:0903023A #1-324 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
Sample#10 File Text:M23 Text:0903023-6 Exp:8290
339.8597 S:10 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6307.5,0.00%,F,F)



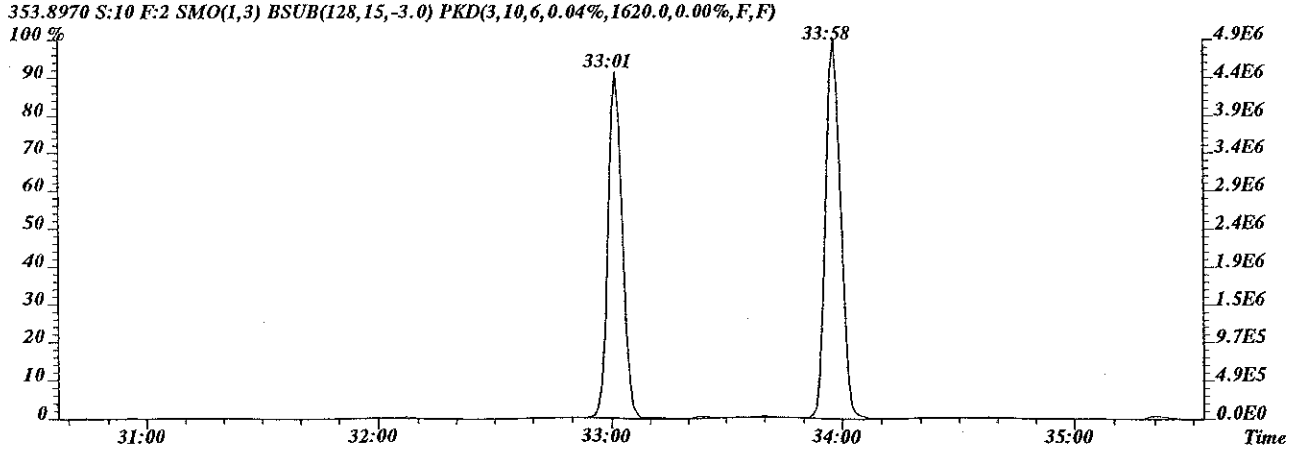
341.8567 S:10 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6187.5,0.00%,F,F)



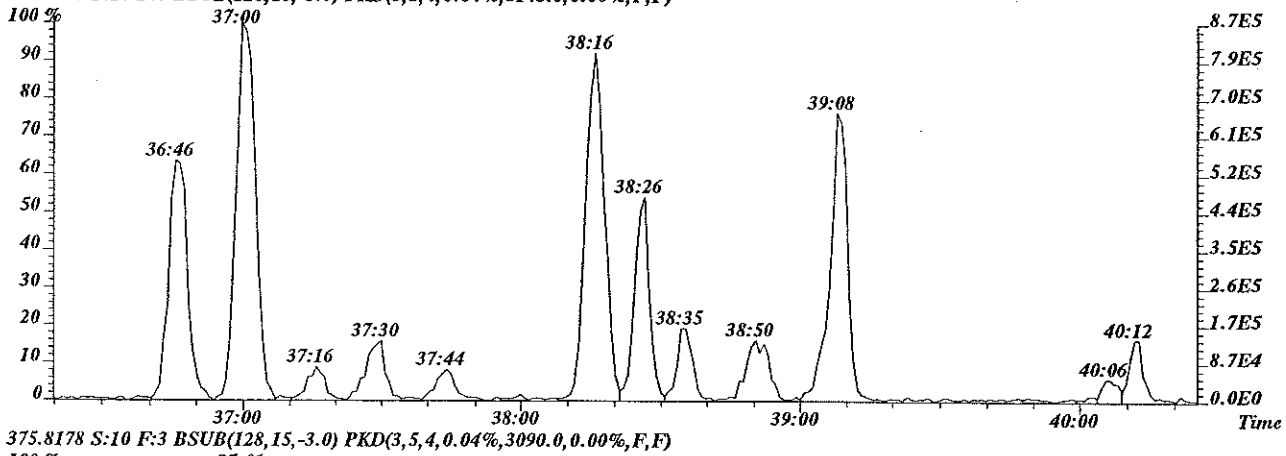
351.9000 S:10 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1460.0,0.00%,F,F)



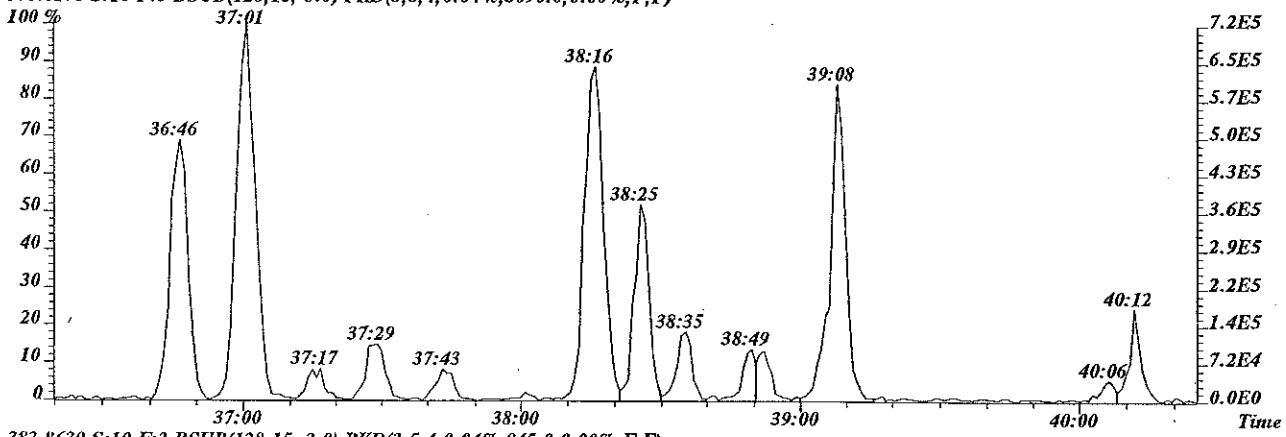
353.8970 S:10 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1620.0,0.00%,F,F)



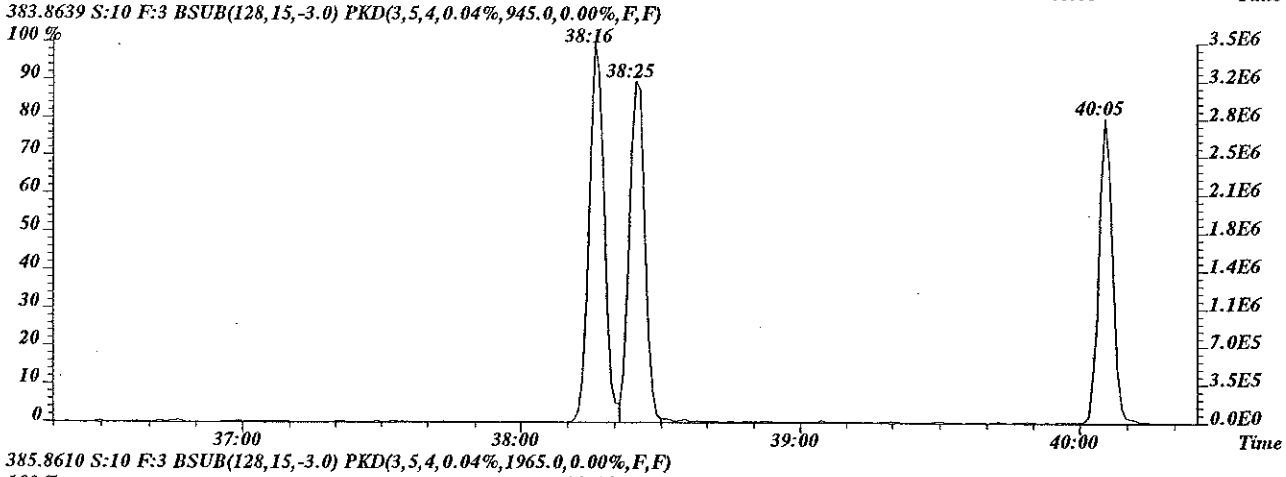
File:0903023A #1-278 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
Sample#10 File Text:M23 Text:0903023-6 Exp:8290
373.8208 S:10 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,5145.0,0.00%,F,F)



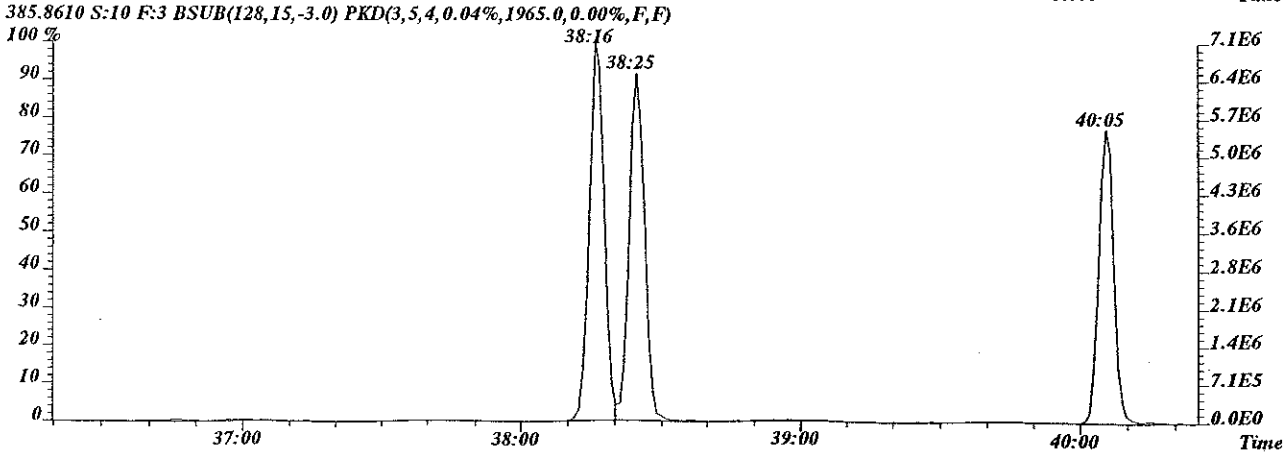
375.8178 S:10 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3090.0,0.00%,F,F)



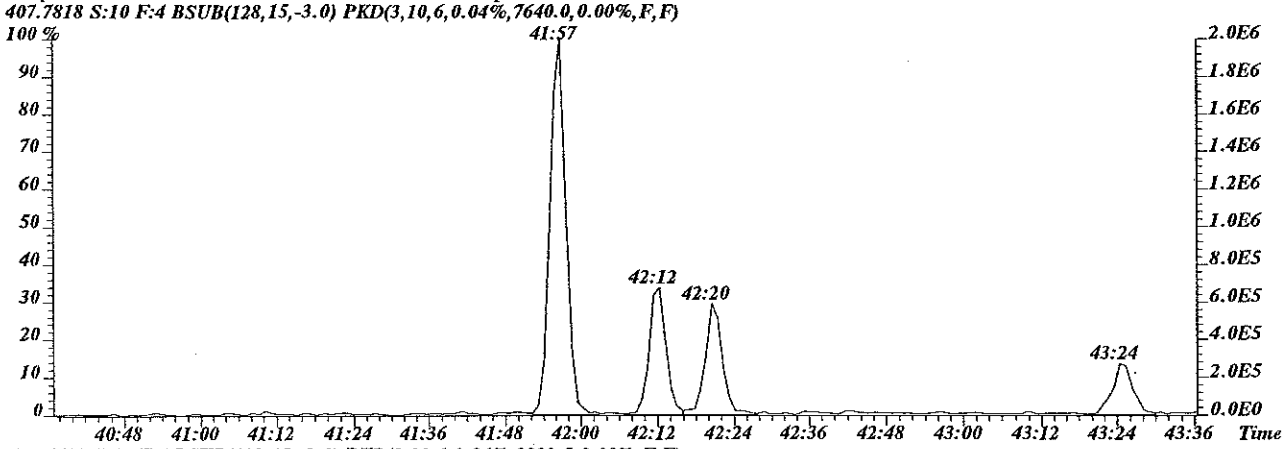
383.8639 S:10 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,945.0,0.00%,F,F)



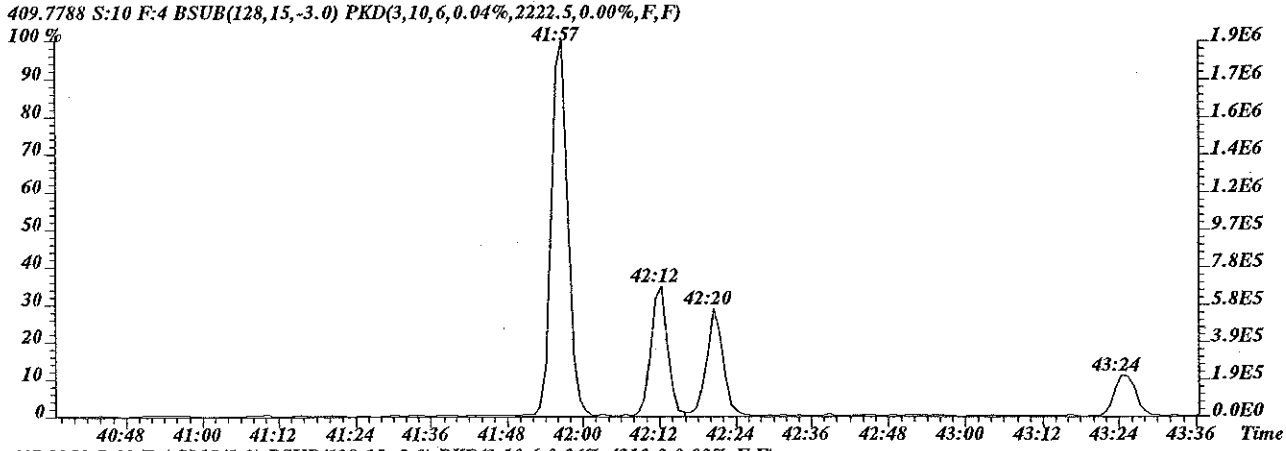
385.8610 S:10 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1965.0,0.00%,F,F)



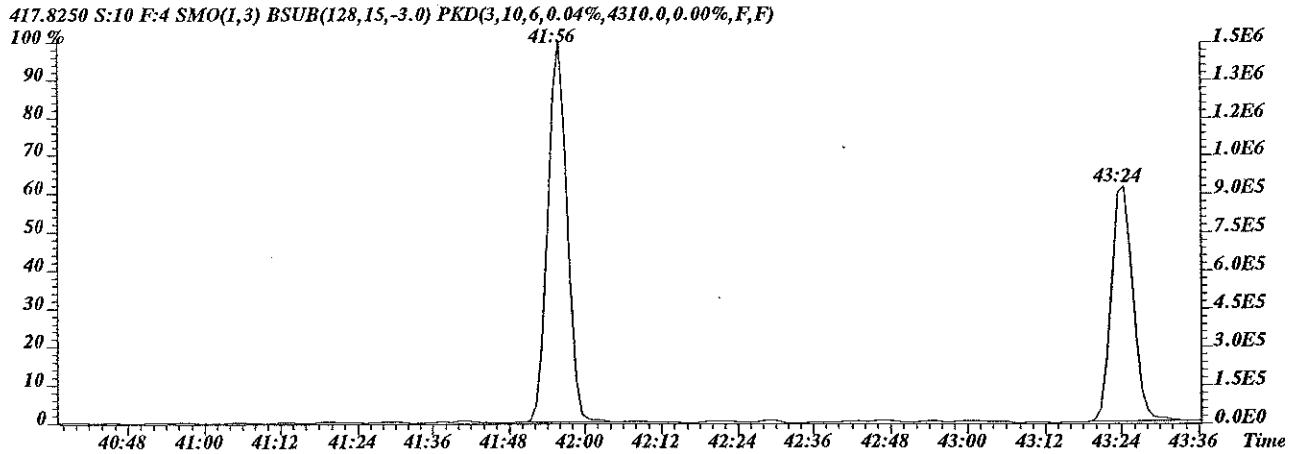
File:0903023A #1-197 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
Sample#10 File Text:M23 Text:0903023-6 Exp:8290
407.7818 S:10 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,7640.0,0.00%,F,F)



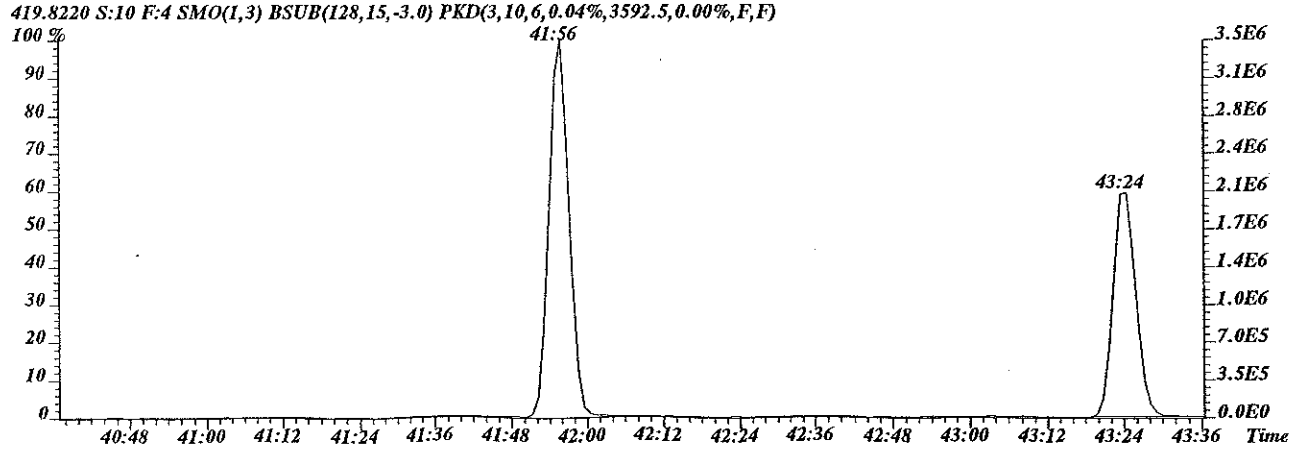
409.7788 S:10 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2222.5,0.00%,F,F)



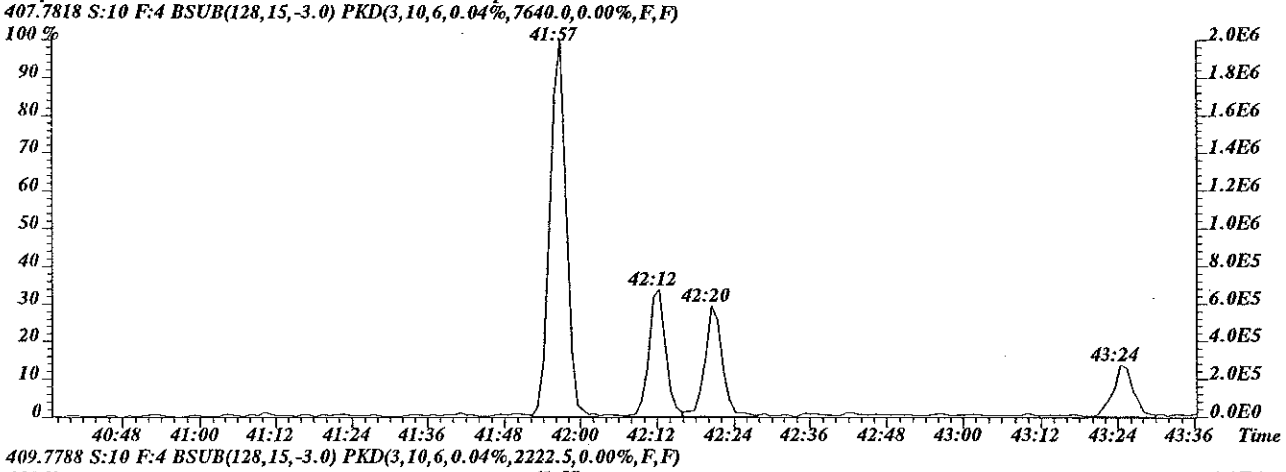
417.8250 S:10 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4310.0,0.00%,F,F)



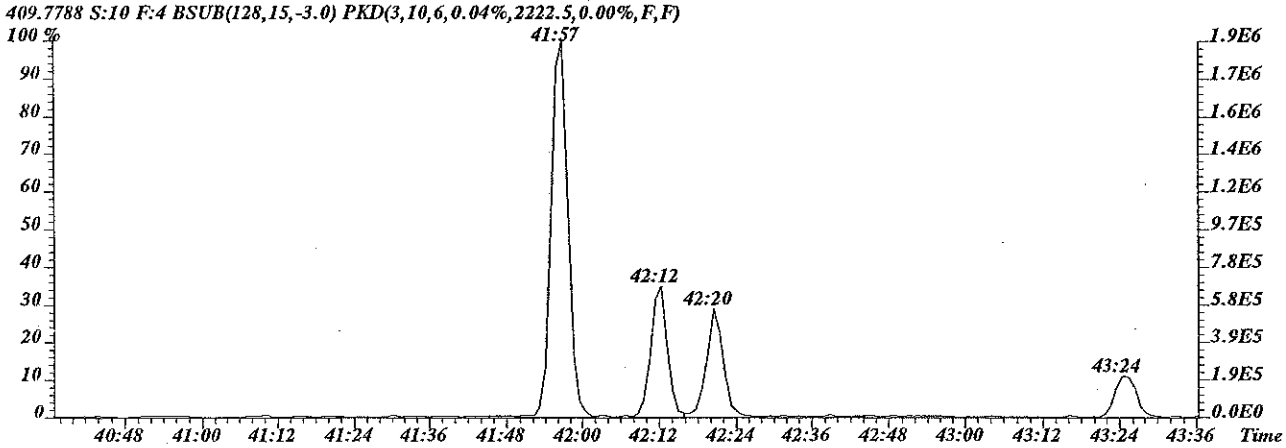
419.8220 S:10 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3592.5,0.00%,F,F)



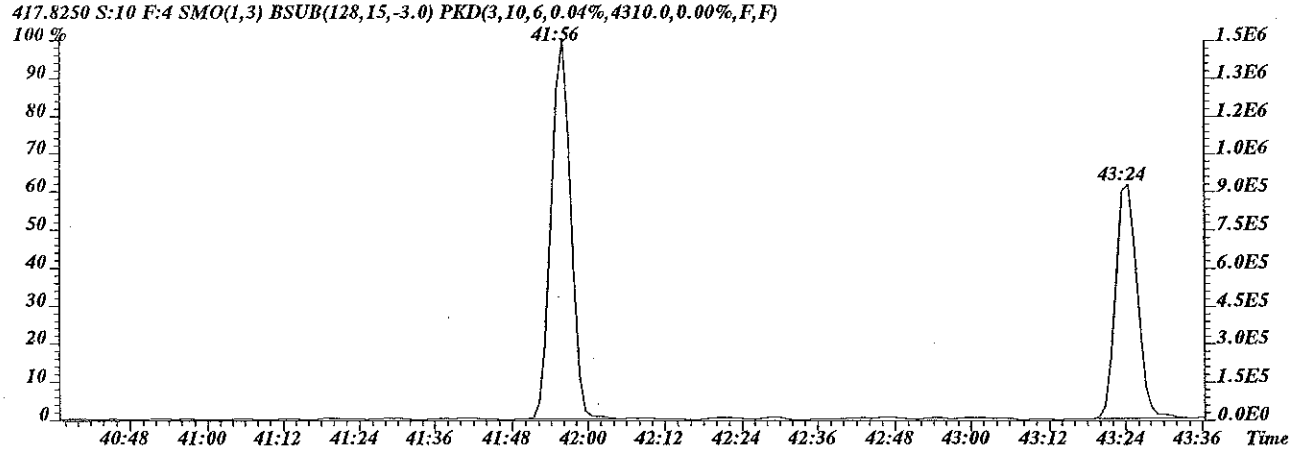
File:0903023A #1-197 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
Sample#10 File Text:M23 Text:0903023-6 Exp:8290
407.7818 S:10 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,7640.0,0.00%,F,F)



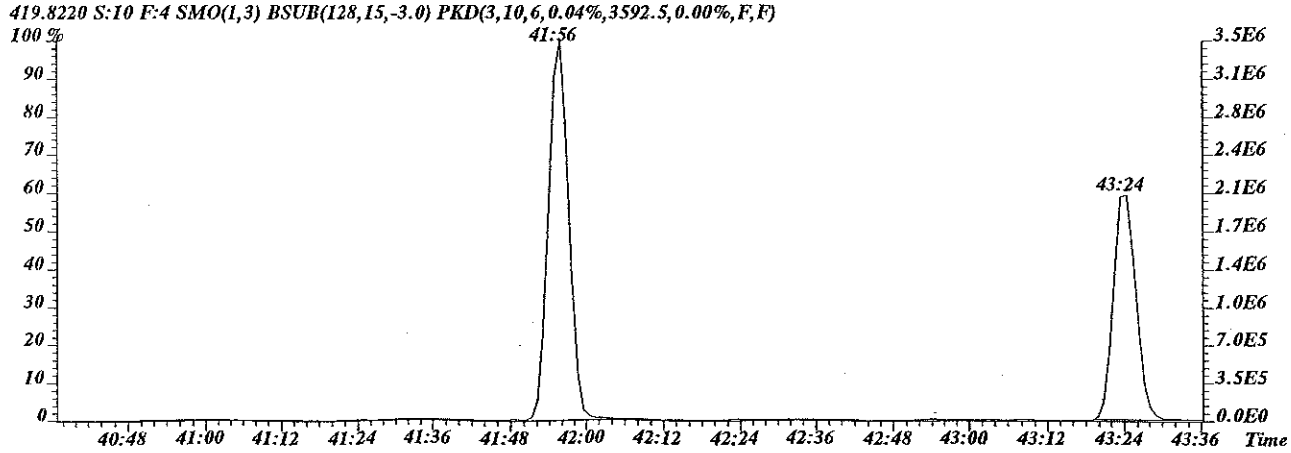
409.7788 S:10 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2222.5,0.00%,F,F)



417.8250 S:10 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4310.0,0.00%,F,F)

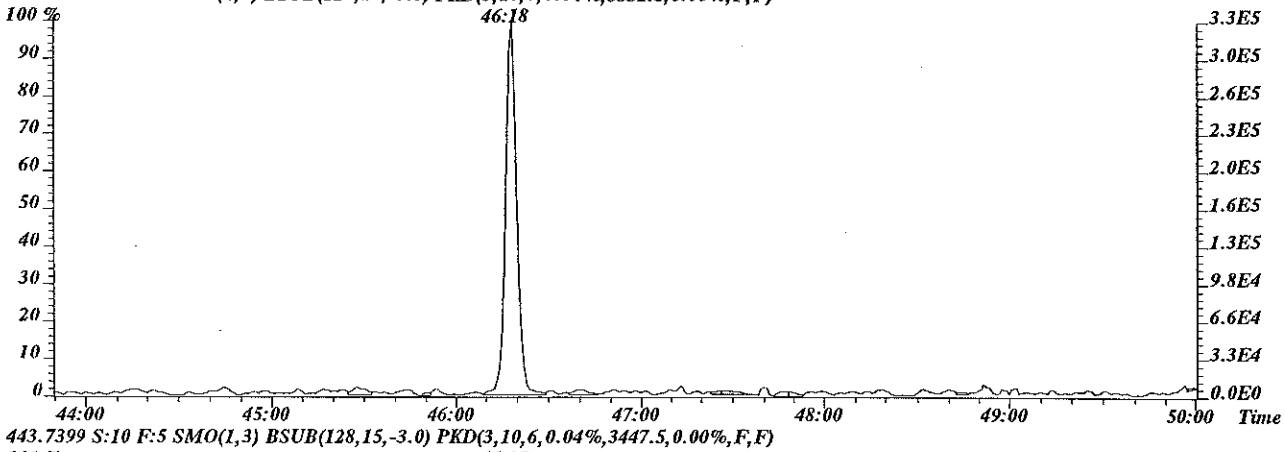


419.8220 S:10 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3592.5,0.00%,F,F)

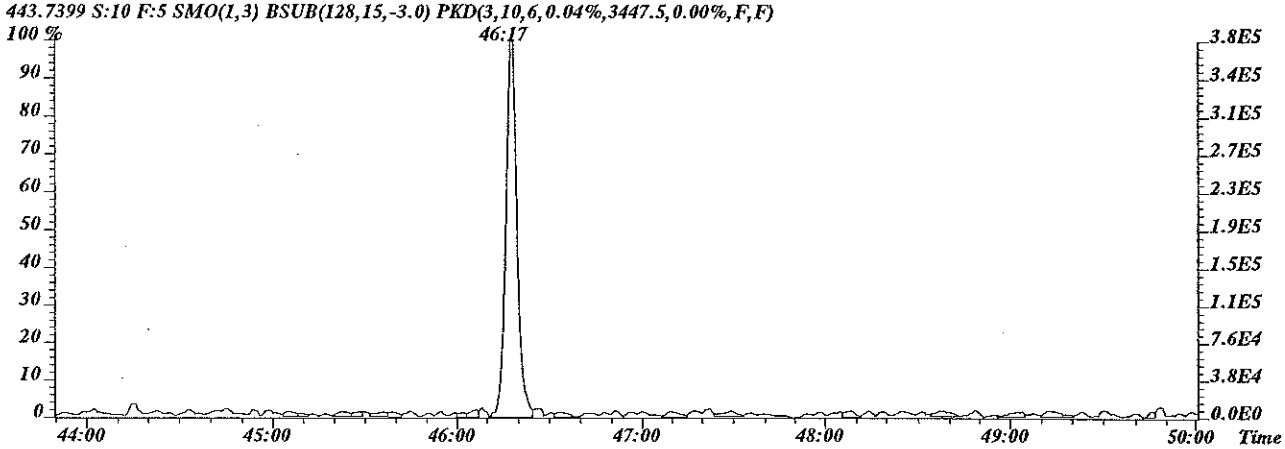


File:0903023A #1-446 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
Sample#10 File Text:M23 Text:0903023-6 Exp:8290

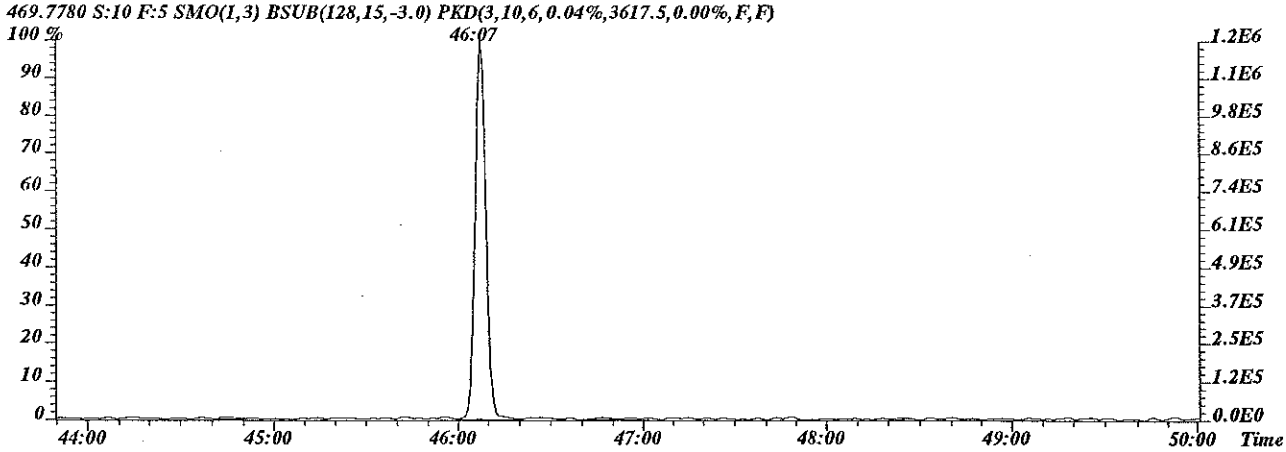
441.7428 S:10 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3332.5,0.00%,F,F)



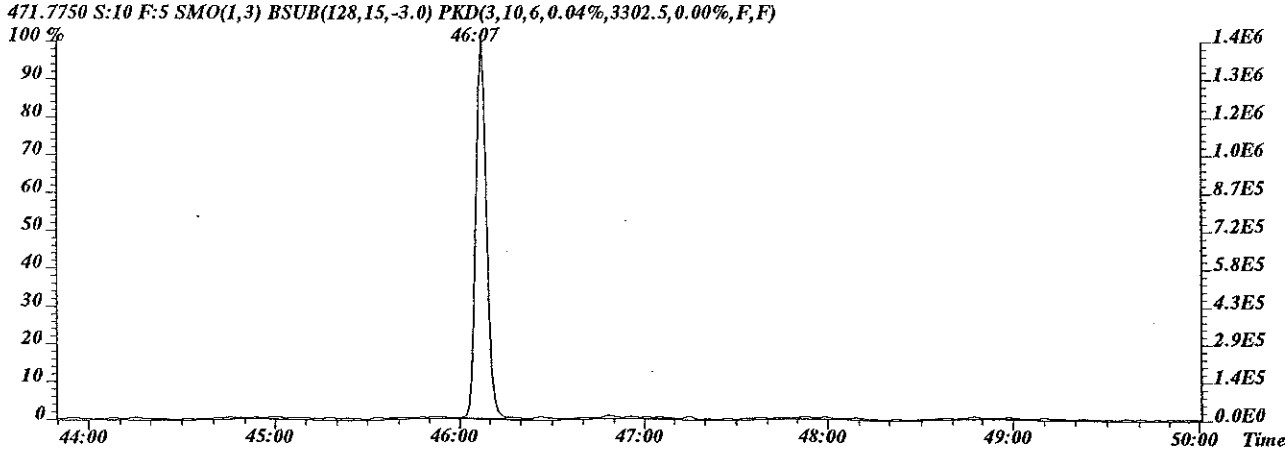
443.7399 S:10 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3447.5,0.00%,F,F)



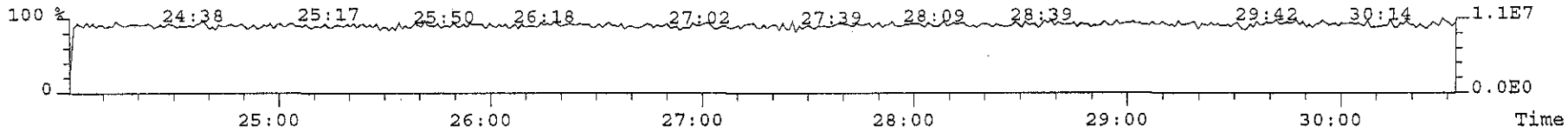
469.7780 S:10 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3617.5,0.00%,F,F)



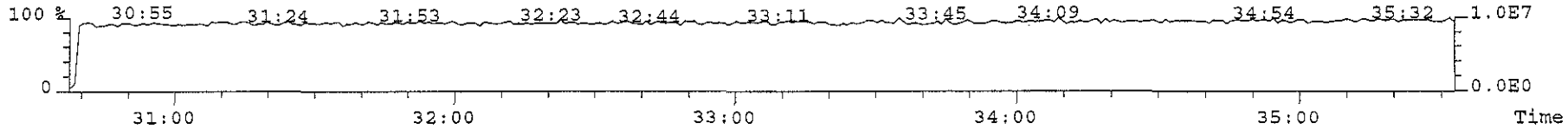
471.7750 S:10 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3302.5,0.00%,F,F)



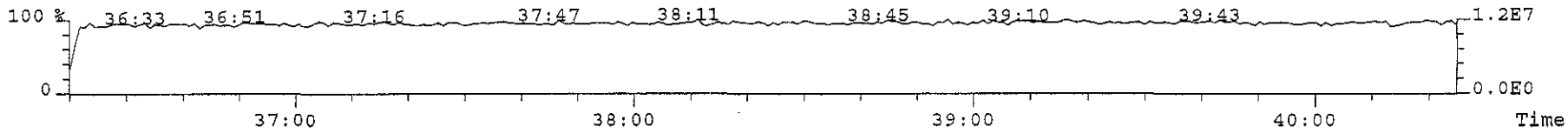
File:0903023A #1-429 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:10 Exp:8290
Sample Text:0903023-6 File Text:M23



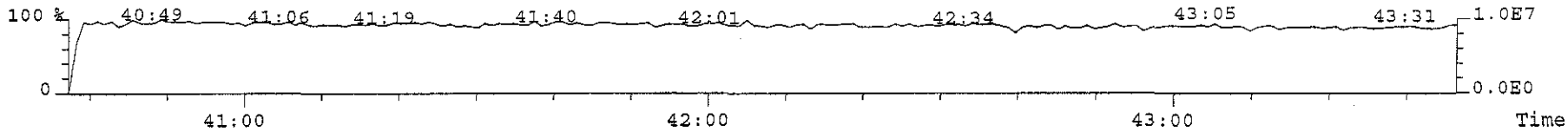
File:0903023A #1-324 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:10 F:2 Exp:8290
Sample Text:0903023-6 File Text:M23



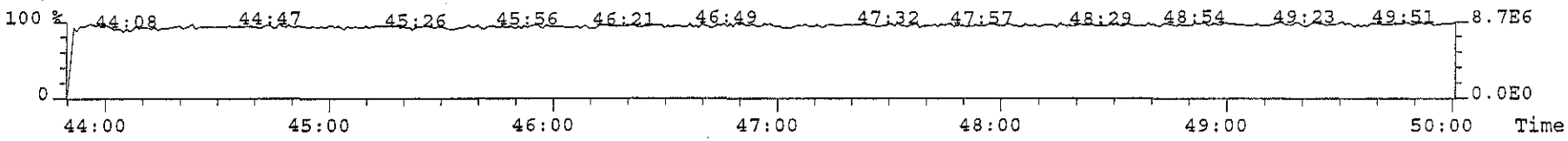
File:0903023A #1-278 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:10 F:3 Exp:8290
Sample Text:0903023-6 File Text:M23



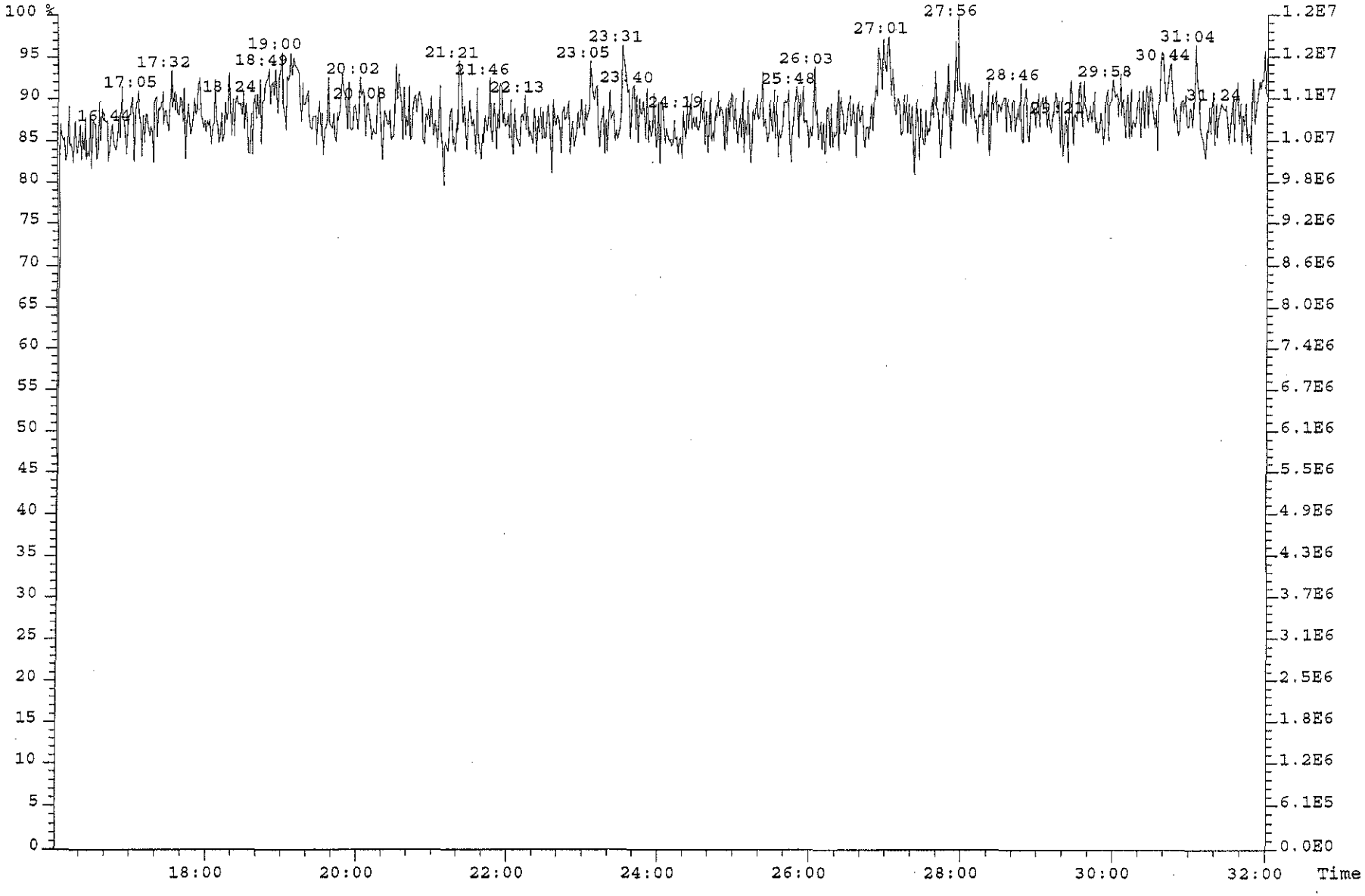
File:0903023A #1-197 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:10 F:4 Exp:8290
Sample Text:0903023-6 File Text:M23



File:0903023A #1-446 Acq:17-SEP-2003 00:58:30 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:10 F:5 Exp:8290
Sample Text:0903023-6 File Text:M23



File:0903023D #1-937 Acq:19-SEP-2003 16:10:29 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:3 Exp:TCDF
Sample Text:0903023-6 File Text:M23 TCDF CONF



Run #13 Filename 0903023B S: 4 I: 1 Acquired: 17-SEP-03 13:37:57 Processed: 17-SEP-03 14:50:11
Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A Version: V3.6 9-SEP-2002 14:02:21
Sample text: 0903023-10 Comments:

	Typ	Name	#Hom	Resp	RA		RT	Conc	3872.72 Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDD	1	2.2e+05	0.57	n	29:14	23.155	23.15	4.25	-	y
2	nati	1,2,3,7,8-PeCDD	1	5.5e+05	1.76	y	34:26	79.409	39.70	7.31	-	y
3	nati	1,2,3,4,7,8-HxCDD	1	5.0e+05	1.33	y	39:16	85.300	8.53	7.04	-	n
4	nati	1,2,3,6,7,8-HxCDD	1	1.5e+06	1.28	y	39:23	248.155	24.82	7.25	-	n
5	nati	1,2,3,7,8,9,-HxCDD	1	1.1e+06	1.37	y	39:47	188.552	18.86	6.93	-	n
6	nati	1,2,3,4,6,7,8-HpCDD	1	8.8e+06	1.07	y	42:56	2007.713	20.08	12.88	-	n
7	nati	1,2,3,4,6,7,8,9-OCDD	1	9.0e+06	0.84	y	46:07	4805.404	4.81	57.32	-	n
8	nati	2,3,7,8-TCDF	1	4.9e+07	0.79	y	~~28:30~~	~~1447.190~~	1447.19	9.07	-	n
9	nati	1,2,3,7,8-PeCDF	1	2.3e+06	1.72	y	33:00	267.419	267.42	20.35	-	n
10	nati	2,3,4,7,8-PeCDF	1	5.4e+06	1.70	y	33:58	563.492	281.75	20.42	-	n
11	nati	1,2,3,4,4,8-HxCDF	1	1.1e+07	1.25	y	38:14	1491.344	1491.34	10.53	-	n
12	nati	1,2,3,6,7,8-HxCDF	1	5.1e+06	1.19	y	38:25	700.011	70.00	10.65	-	n
13	nati	2,3,4,6,7,8-HxCDF	1	9.0e+06	1.29	y	39:07	1366.481	136.65	12.27	-	n
14	nati	1,2,3,7,8,9-HxCDF	1	3.8e+05	1.27	y	40:04	64.148	6.41	13.80	-	n
15	nati	1,2,3,4,6,7,8-HpCDF	1	1.7e+07	0.95	y	41:56	2286.524	22.87	21.01	-	y
16	nati	1,2,3,4,7,8,9-HpCDF	1	2.0e+06	1.05	y	43:24	630.874	6.31	37.46	-	y
17	nati	1,2,3,4,6,7,8,9-OCDF	1	4.8e+06	0.79	y	46:16	2840.267	2.84	55.40	-	n
18	nati	Total TCDD	10	2.6e+08	0.76	y	26:29	6834.111	0.00	4.25	-	y
19	nati	Total PeCDD	6	5.0e+07	1.57	y	32:04	4893.611	0.00	7.31	-	y
20	nati	Total HxCDD	6	3.2e+07	1.20	y	37:33	4457.437	0.00	7.07	-	n
21	nati	Total HpCDD	2	1.9e+07	1.10	y	42:12	4201.316	0.00	12.88	-	n
22	nati	Total TCDF	15	2.8e+08	0.79	y	~~25:03~~	~~10838.914~~	0.00	8.51	-	y
23	nati	Total PeCDF	15	8.1e+07	1.68	y	30:40	8586.013	0.00	20.19	-	y
24	nati	Total HxCDF	11	5.2e+07	1.28	y	36:44	7428.326	0.00	11.66	-	n
25	nati	Total HpCDF	4	2.9e+07	0.95	y	41:56	5221.518	0.00	26.92	-	y
26	IS	13C12-2,3,7,8-TCDF	1	5.4e+07	0.78	y	28:27	2810.555	0.00	3.85	70.3	n
27	IS	13C12-2,3,7,8-TCDD	1	4.3e+07	0.79	y	29:14	2937.360	0.00	9.64	73.4	n
28	IS	13C12-1,2,3,7,8-PeCDF	1	3.9e+07	1.60	y	32:59	2529.506	0.00	2.77	63.2	n
29	IS	13C12-1,2,3,7,8-PeCDD	1	3.2e+07	1.63	y	34:25	2793.125	0.00	2.32	69.8	n
30	IS	13C12-1,2,3,6,7,8-HxCDF	1	2.9e+07	0.48	y	38:24	2656.183	0.00	2.57	66.4	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	1	2.6e+07	1.28	y	39:22	3025.641	0.00	7.26	75.6	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	1	1.4e+07	0.40	y	41:55	2246.646	0.00	9.46	56.2	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	1	1.3e+07	1.05	y	42:56	2452.358	0.00	7.31	61.3	n
34	IS	13C12-OCDD	1	9.3e+06	0.88	y	46:07	4564.136	0.00	32.04	57.1	n
35	Suro	37C12-2,3,7,8-TCDD	1	8.9e+07	1.00	y	29:15	4230.773	0.00	3.33	105.8	n
36	Suro	13C12-2,3,4,7,8-PeCDF	1	4.2e+07	1.57	y	33:56	4745.615	0.00	5.00	118.6	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	1	2.9e+07	0.46	y	38:14	4359.178	0.00	4.61	109.0	n
38	Suro	13C12-1,2,3,4,7,8-HxCDD	1	2.4e+07	1.29	y	39:16	3803.022	0.00	10.76	95.1	n
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	1	7.6e+06	0.38	y	43:23	3551.300	0.00	34.30	88.8	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	1	2.3e+07	0.47	y	40:04	4449.603	0.00	6.21	89.0	n
41	RS	13C12-1,2,3,4-TCDD	1	1.4e+08	0.79	y	29:02	25.399	0.00	-	-	n
42	RS	13C12-1,2,3,7,8,9-HxCDD	1	8.6e+07	1.25	y	39:46	24.117	0.00	-	-	n

Run #10 Filename 0903023D S: 4 I: 1 Acquired: 19-SEP-03 17:12:13 Processed: 22-SEP-03 08:36:30
Run: tcdf06a Analyte: 0903023C Cal: tcdf06a Results: 0903023C Version: V3.6 9-SEP-2002 14:02:21
Sample text: 0903023-10 Comments:

	Typ	Name	#Hom	Resp	RA		RT	Conc	12118. Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDF	1	1.1e+06	0.87	y	26:27	166.766	166.77	6.02	-	y
2	nati	Total TCDF	22	1.7e+08	0.79	y	20:06	12118.398	12118.	5.93	-	y
3	IS	13C12-2,3,7,8-TCDF	1	2.8e+07	0.76	y	26:25	14.762	0.00	-	-	n

Ent: 2 Name: Total TCDF F:1 Mass: 303.902 305.899 Mod? yes #Hom:22

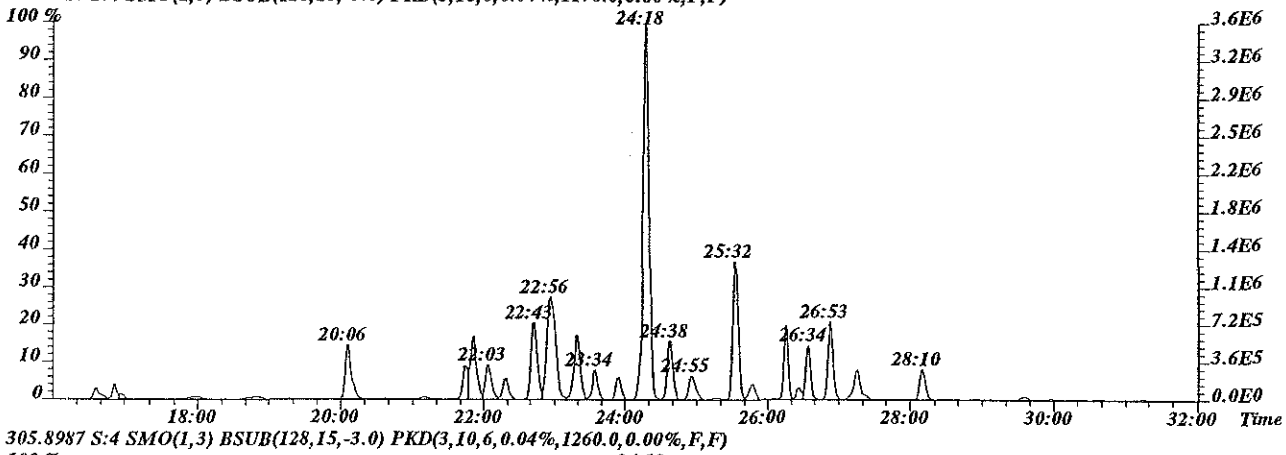
Run: 10 File: 0903023D S:4 Acq:19-SEP-03 17:12:13 Proc:22-SEP-03 08:36:30
ıbles: Run: tcdf06a Analyte: 0903023C Cal: tcdf06a Results: 0903023C
ersion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-10

Amount: 12118. of which 166.77 named and 11951. unnamed
Conc: 12118. of which 166.77 named and 11951. unnamed
Tox #1: 12118. Tox #2: 0.00 Tox #3: 0.00

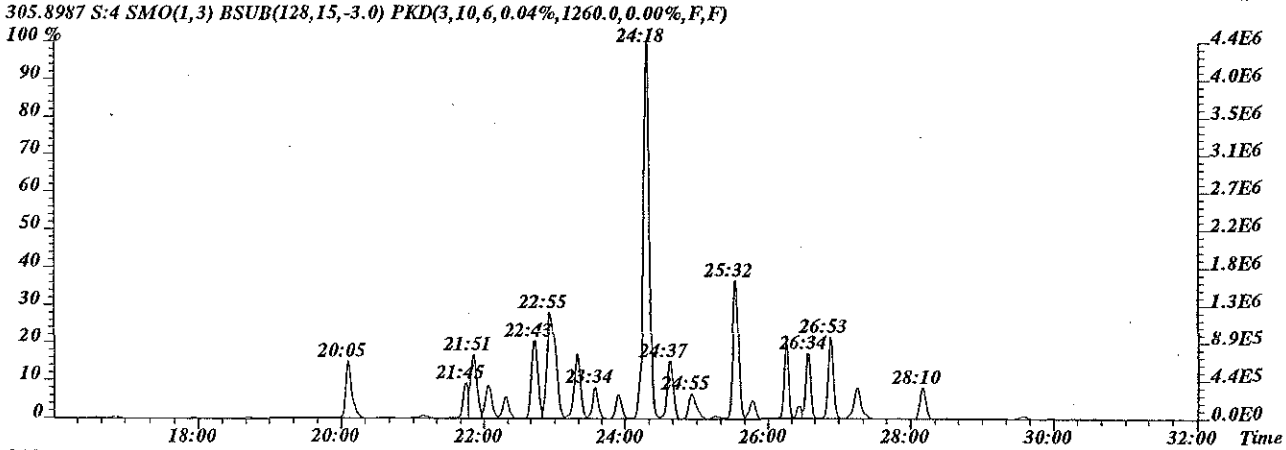
Name	#	RT	Respnse	RA		Conc	Area	Height	S/N	Mod?	
	1	20:06	6.8e+06	0.79	y	578.61					
			6.8e+06				3.0e+06	5.2e+05	4.4e+02	y	n
							3.8e+06	6.6e+05	5.2e+02	y	n
	2	21:10	4.3e+05	0.78	y	72.30					
			4.3e+05				1.9e+05	2.2e+04	1.9e+01	y	n
							2.4e+05	3.1e+04	2.5e+01	y	n
	3	21:45	3.3e+06	0.78	y	356.83					
			3.3e+06				1.4e+06	3.2e+05	2.7e+02	y	n
							1.8e+06	4.1e+05	3.2e+02	y	n
	4	21:51	8.4e+06	0.81	y	660.69					
			8.4e+06				3.8e+06	6.0e+05	5.1e+02	y	n
							4.7e+06	7.4e+05	5.9e+02	y	n
	5	22:03	4.4e+06	0.81	y	433.32					
			4.4e+06				2.0e+06	3.3e+05	2.8e+02	y	n
							2.4e+06	3.8e+05	3.0e+02	y	n
	6	22:18	2.5e+06	0.81	y	298.20					
			2.5e+06				1.1e+06	2.0e+05	1.7e+02	y	n
							1.4e+06	2.4e+05	1.9e+02	y	n
	7	22:43	9.5e+06	0.79	y	710.74					
			9.5e+06				4.2e+06	7.3e+05	6.2e+02	y	n
							5.3e+06	9.0e+05	7.2e+02	y	n
	8	22:56	1.8e+07	0.81	y	1055.39					
			1.8e+07				8.2e+06	9.8e+05	8.3e+02	y	n
							1.0e+07	1.2e+06	9.8e+02	y	n
	9	23:20	8.6e+06	0.82	y	666.76					
			8.6e+06				3.8e+06	6.2e+05	5.2e+02	y	n
							4.7e+06	7.5e+05	5.9e+02	y	n
	10	23:34	3.5e+06	0.72	y	369.63					
			3.5e+06				1.5e+06	2.8e+05	2.4e+02	y	n
							2.0e+06	3.7e+05	2.9e+02	y	n
	11	23:55	2.6e+06	0.74	y	304.47					
			2.6e+06				1.1e+06	2.1e+05	1.8e+02	y	n
							1.5e+06	2.7e+05	2.2e+02	y	n
	12	24:18	4.5e+07	0.80	y	1768.95					
			4.5e+07				2.0e+07	3.6e+06	3.0e+03	y	n
							2.5e+07	4.4e+06	3.5e+03	y	n
	13	24:38	6.6e+06	0.79	y	563.74					
			6.6e+06				2.9e+06	5.6e+05	4.7e+02	y	n
							3.7e+06	6.7e+05	5.3e+02	y	n
	14	24:55	3.7e+06	0.74	y	385.52					
			3.7e+06				1.6e+06	2.3e+05	1.9e+02	y	n
							2.1e+06	2.9e+05	2.3e+02	y	n
	15	25:32	1.5e+07	0.80	y	940.05					
			1.5e+07				6.7e+06	1.3e+06	1.1e+03	y	n
							8.3e+06	1.6e+06	1.3e+03	y	n
	16	25:46	2.1e+06	0.72	y	260.80					
			2.1e+06				8.9e+05	1.5e+05	1.3e+02	y	n
							1.2e+06	2.2e+05	1.7e+02	y	n
	17	26:15	6.7e+06	0.79	y	571.20					

6.7e+06	3.0e+06	7.0e+05	5.9e+02	y	n
	3.7e+06	8.8e+05	7.0e+02	y	n

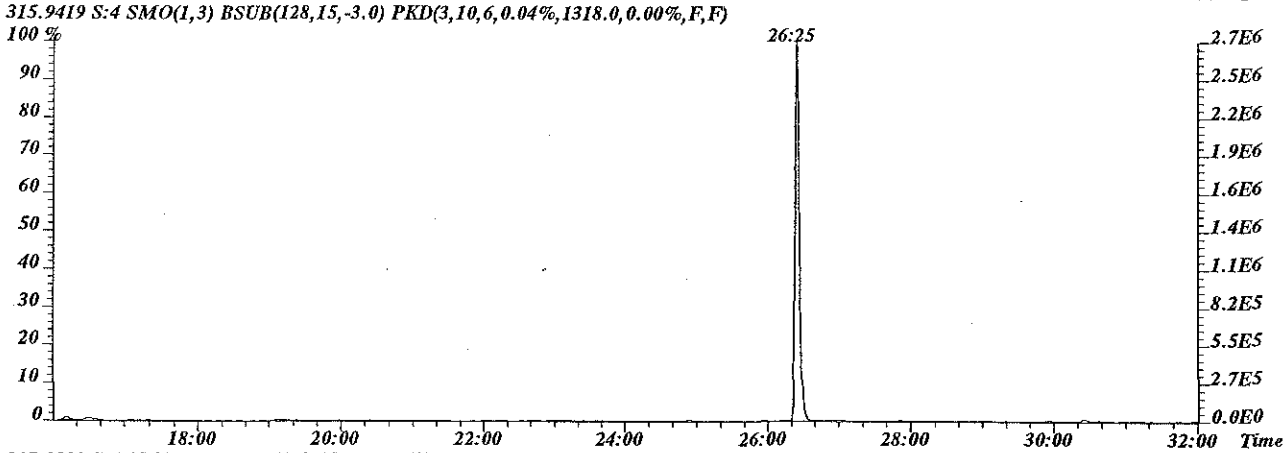
File:0903023D #1-937 Acq:19-SEP-2003 17:12:13 GC EI+ Voltage SIR 70S
Sample#4 File Text:M23 TCDF CONF Text:0903023-10 Exp:TCDF
303.9016 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1176.0,0.00%,F,F)



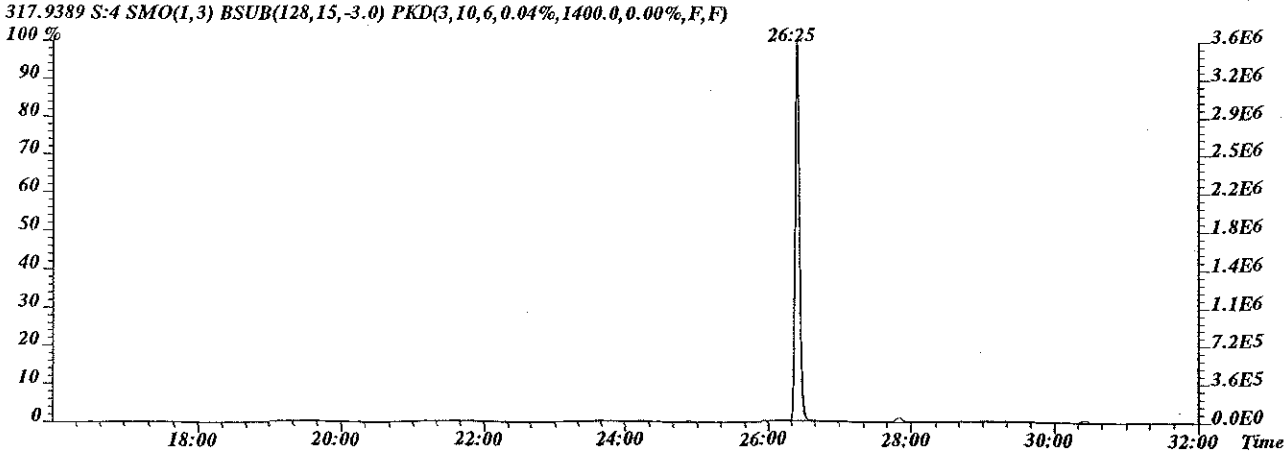
305.8987 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1260.0,0.00%,F,F)



315.9419 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1318.0,0.00%,F,F)



317.9389 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1400.0,0.00%,F,F)



Ent: 18 Name: Total TCDD F:1 Mass: 319.897 321.984 Mod? yes #Hom:10

un: 13 File: 0903023B S:4 Acq:17-SEP-03 13:37:57 Proc:17-SEP-03 14:50:11
ables: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
Version: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-10

Amount: 6834.11 of which * named and 6834.11 unnamed
Conc: 6834.11 of which * named and 6834.11 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA		Conc	Area	Height	S/N	Mod?	
	1	26:29	1.6e+08	0.76	y	2984.67					
			1.6e+08				6.9e+07	1.5e+07	8.0e+03	y	n
							9.1e+07	2.1e+07	1.7e+04	y	n
	2	26:54	6.8e+07	0.77	y	1849.24					
			6.8e+07				2.9e+07	6.8e+06	3.5e+03	y	n
							3.8e+07	8.9e+06	7.5e+03	y	n
	3	27:14	2.5e+06	0.81	y	206.53					
			2.5e+06				1.1e+06	2.7e+05	1.4e+02	y	n
							1.4e+06	3.4e+05	2.9e+02	y	n
	4	27:57	1.4e+07	0.72	y	709.41					
			1.4e+07				5.8e+06	1.1e+06	5.9e+02	y	n
							8.2e+06	1.6e+06	1.4e+03	y	n
	5	28:10	1.6e+06	0.75	y	140.96					
			1.6e+06				6.8e+05	1.6e+05	8.5e+01	y	y
							9.1e+05	2.0e+05	1.7e+02	y	y
	6	28:41	1.9e+06	0.79	y	160.27					
			1.9e+06				8.2e+05	2.0e+05	1.0e+02	y	n
							1.0e+06	2.4e+05	2.0e+02	y	n
	7	29:03	4.2e+06	0.69	y	303.56					
			4.2e+06				1.7e+06	3.8e+05	1.9e+02	y	y
							2.5e+06	5.1e+05	4.3e+02	y	n
	8	29:08	5.6e+06	0.78	y	379.51					
			5.6e+06				2.5e+06	5.2e+05	2.7e+02	y	y
							3.2e+06	7.2e+05	6.1e+02	y	y
	9	29:26	5.6e+05	0.88	y	56.21					
			5.6e+05				2.6e+05	6.3e+04	3.3e+01	y	n
							3.0e+05	5.8e+04	5.0e+01	y	n
	10	29:37	4.3e+05	0.86	y	43.75					
			4.3e+05				2.0e+05	4.2e+04	2.2e+01	y	n
							2.3e+05	5.7e+04	4.8e+01	y	y

Ent: 19 Name: Total PeCDD F:2 Mass: 355.855 357.852 Mod? yes #Hom:6

Run: 13 File: 0903023B S:4 Acq:17-SEP-03 13:37:57 Proc:17-SEP-03 14:50:11
ıbles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
ersion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-10

Amount: 4893.61 of which 79.41 named and 4814.20 unnamed
Conc: 4893.61 of which 79.41 named and 4814.20 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?	
	1	32:04	2.4e+07	1.57 y	2092.98					
			2.4e+07			1.5e+07	3.3e+06	1.6e+03	y	n
						9.4e+06	2.1e+06	1.2e+03	y	n
	2	32:58	1.6e+07	1.52 y	1558.86					
			1.6e+07			9.7e+06	2.3e+06	1.2e+03	y	n
						6.3e+06	1.5e+06	8.7e+02	y	n
	3	33:24	6.3e+06	1.58 y	745.54					
			6.3e+06			3.8e+06	8.9e+05	4.5e+02	y	n
						2.4e+06	5.5e+05	3.1e+02	y	n
	4	33:44	6.1e+05	1.53 y	88.55					
			6.1e+05			3.7e+05	7.1e+04	3.5e+01	y	n
						2.4e+05	4.2e+04	2.4e+01	y	n
	5	34:00	2.5e+06	1.57 y	328.28					
			2.5e+06			1.5e+06	3.5e+05	1.7e+02	y	n
						9.6e+05	2.2e+05	1.2e+02	y	n
1,2,3,7,8-PeCDD	6	34:26	5.5e+05	1.76 y	79.41					
			5.5e+05			3.5e+05	7.4e+04	3.7e+01	y	y
						2.0e+05	4.5e+04	2.5e+01	y	y

Ent: 20 Name: Total HxCDD F:3 Mass: 389.816 391.813 Mod? no #Hom:6

Run: 13 File: 0903023B S:4 Acq:17-SEP-03 13:37:57 Proc:17-SEP-03 14:50:11
ıbles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
ersion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-10

Amount: 4457.44 of which 522.01 named and 3935.43 unnamed
Conc: 4457.44 of which 522.01 named and 3935.43 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?	
	1	37:33	2.2e+06	1.20 y	386.29					
			2.2e+06			1.2e+06	3.3e+05	1.9e+02	y	n
						1.0e+06	2.5e+05	1.0e+02	y	n
	2	38:14	2.1e+07	1.28 y	2650.26					
			2.1e+07			1.2e+07	3.1e+06	1.8e+03	y	n
						9.1e+06	2.6e+06	1.0e+03	y	n
	3	38:33	5.6e+06	1.31 y	898.88					
			5.6e+06			3.2e+06	8.5e+05	4.8e+02	y	n
						2.4e+06	5.7e+05	2.3e+02	y	n
1,2,3,4,7,8-HxCDD	4	39:16	5.0e+05	1.33 y	85.30					
			5.0e+05			2.9e+05	8.4e+04	4.8e+01	y	n
						2.1e+05	5.8e+04	2.3e+01	y	n
1,2,3,6,7,8-HxCDD	5	39:23	1.5e+06	1.28 y	248.16					
			1.5e+06			8.3e+05	2.7e+05	1.6e+02	y	n
						6.5e+05	1.7e+05	7.1e+01	y	n
1,2,3,7,8,9,-HxCDD	6	39:47	1.1e+06	1.37 y	188.55					
			1.1e+06			6.6e+05	1.4e+05	8.0e+01	y	n
						4.8e+05	1.0e+05	4.1e+01	y	n

Ent: 21 Name: Total HpCDD F:4 Mass: 423.777 425.774 Mod? no #Hom:2

ın: 13 File: 0903023B S:4 Acq:17-SEP-03 13:37:57 Proc:17-SEP-03 14:50:11
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
ersion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-10

Amount: 4201.32 of which 2007.71 named and 2193.60 unnamed
Conc: 4201.32 of which 2007.71 named and 2193.60 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?	
	1	42:12	1.0e+07	1.10 y	2193.60					
			1.0e+07			5.2e+06	1.7e+06	1.4e+03	y	n
						4.8e+06	1.6e+06	9.0e+02	y	n
1,2,3,4,6,7,8-HpCDD2		42:56	8.8e+06	1.07 y	2007.71					
			8.8e+06			4.5e+06	1.5e+06	1.3e+03	y	n
						4.3e+06	1.3e+06	7.3e+02	y	n

Ent: 22 Name: Total TCDF F:1 Mass: 303.902 305.899 Mod? yes #Hom:15

Run: 13 File: 0903023B S:4 Acq:17-SEP-03 13:37:57 Proc:17-SEP-03 14:50:11
ıbles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
ersion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-10

Amount: 10838. of which 1447.19 named and 9391.72 unnamed
Conc: 10838. of which 1447.19 named and 9391.72 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA		Conc	Area	Height	S/N	Mod?	
	1	25:03	1.4e+07	0.79	y	672.50					
			1.4e+07				6.2e+06	1.4e+06	3.2e+02	y	n
							7.9e+06	1.7e+06	5.4e+02	y	n
	2	25:37	9.2e+06	0.74	y	498.50					
			9.2e+06				3.9e+06	7.9e+05	1.8e+02	y	n
							5.3e+06	1.1e+06	3.4e+02	y	n
	3	25:51	1.3e+07	0.76	y	631.70					
			1.3e+07				5.6e+06	1.3e+06	2.9e+02	y	n
							7.3e+06	1.6e+06	5.1e+02	y	n
	4	26:14	2.4e+07	0.78	y	964.28					
			2.4e+07				1.1e+07	2.3e+06	5.2e+02	y	n
							1.4e+07	2.8e+06	8.7e+02	y	n
	5	26:22	1.9e+07	0.76	y	831.38					
			1.9e+07				8.4e+06	1.5e+06	3.4e+02	y	n
							1.1e+07	1.9e+06	6.0e+02	y	n
	6	26:36	2.4e+07	0.76	y	964.67					
			2.4e+07				1.1e+07	1.3e+06	3.0e+02	y	n
							1.4e+07	1.8e+06	5.5e+02	y	n
	7	26:48	1.1e+06	0.77	y	89.01					
			1.1e+06				4.8e+05	1.2e+05	2.6e+01	y	y
							6.3e+05	1.5e+05	4.5e+01	y	y
	8	26:56	1.1e+07	0.86	y	558.65					
			1.1e+07				5.0e+06	1.1e+06	2.4e+02	y	n
							5.8e+06	1.4e+06	4.4e+02	y	n
	9	27:19	1.7e+07	0.73	y	769.86					
			1.7e+07				7.3e+06	1.5e+06	3.4e+02	y	n
							1.0e+07	2.0e+06	6.1e+02	y	n
	10	27:35	3.1e+07	0.78	y	1126.08					
			3.1e+07				1.4e+07	2.2e+06	5.0e+02	y	n
							1.8e+07	2.8e+06	8.6e+02	y	n
	11	27:47	5.1e+07	0.77	y	1525.89					
			5.1e+07				2.2e+07	4.7e+06	1.1e+03	y	n
							2.9e+07	6.0e+06	1.9e+03	y	n
	12	28:00	4.9e+06	0.68	y	311.98					
			4.9e+06				2.0e+06	4.9e+05	1.1e+02	y	n
							2.9e+06	6.6e+05	2.1e+02	y	n
2,3,7,8-TCDF	13	28:30	4.9e+07	0.79	y	1447.19					
			4.9e+07				2.1e+07	4.7e+06	1.1e+03	y	n
							2.7e+07	5.9e+06	1.8e+03	y	n
	14	29:11	6.9e+06	0.76	y	403.13					
			6.9e+06				3.0e+06	7.0e+05	1.6e+02	y	n
							3.9e+06	9.2e+05	2.9e+02	y	n
	15	30:23	5.2e+05	0.87	y	44.08					
			5.2e+05				2.4e+05	4.9e+04	1.1e+01	y	y
							2.8e+05	5.9e+04	1.8e+01	y	n

Ent: 23 Name: Total PeCDF F:2 Mass: 339.860 341.857 Mod? yes #Hom:15

Run: 13 File: 0903023B S:4 Acq:17-SEP-03 13:37:57 Proc:17-SEP-03 14:50:11
bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
rsion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-10

Amount: 8586.01 of which 830.91 named and 7755.10 unnamed
Conc: 8586.01 of which 830.91 named and 7755.10 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA		Conc	Area	Height	S/N		Mod?
	1	30:40	6.5e+06	1.68	y	719.45					
			6.5e+06				4.1e+06	1.4e+06	1.6e+02	y	y
							2.4e+06	8.1e+05	1.7e+02	y	y
	2	31:48	3.5e+06	1.61	y	402.91					
			3.5e+06				2.2e+06	5.4e+05	6.1e+01	y	y
							1.3e+06	3.4e+05	7.3e+01	y	n
	3	31:56	2.1e+07	1.58	y	1960.23					
			2.1e+07				1.3e+07	2.6e+06	3.0e+02	y	y
							8.0e+06	1.7e+06	3.5e+02	y	n
	4	32:09	3.2e+06	1.56	y	369.14					
			3.2e+06				2.0e+06	4.6e+05	5.2e+01	y	n
							1.3e+06	2.8e+05	5.9e+01	y	n
	5	32:21	7.0e+05	1.57	y	83.55					
			7.0e+05				4.3e+05	9.9e+04	1.1e+01	y	n
							2.7e+05	6.5e+04	1.4e+01	y	n
	6	32:33	8.5e+06	1.58	y	916.85					
			8.5e+06				5.2e+06	1.3e+06	1.5e+02	y	y
							3.3e+06	8.3e+05	1.8e+02	y	y
	7	32:39	1.0e+07	1.66	y	1066.32					
			1.0e+07				6.3e+06	1.3e+06	1.5e+02	y	n
							3.8e+06	8.1e+05	1.7e+02	y	n
	8	32:54	4.8e+06	1.65	y	540.11					
			4.8e+06				3.0e+06	7.0e+05	7.9e+01	y	n
							1.8e+06	4.4e+05	9.3e+01	y	y
',3,7,8-PeCDF	9	33:00	2.3e+06	1.72	y	267.42					
			2.3e+06				1.5e+06	3.5e+05	4.0e+01	y	n
							8.6e+05	1.9e+05	4.1e+01	y	n
	10	33:13	1.9e+06	1.53	y	222.37					
			1.9e+06				1.1e+06	2.5e+05	2.9e+01	y	n
							7.5e+05	1.6e+05	3.4e+01	y	n
	11	33:23	3.9e+06	1.71	y	445.30					
			3.9e+06				2.5e+06	5.1e+05	5.8e+01	y	n
							1.4e+06	2.8e+05	6.0e+01	y	n
2,3,4,7,8-PeCDF	12	33:58	5.4e+06	1.70	y	563.49					
			5.4e+06				3.4e+06	7.1e+05	8.1e+01	y	n
							2.0e+06	4.2e+05	9.0e+01	y	n
	13	34:10	7.5e+06	1.67	y	811.74					
			7.5e+06				4.7e+06	9.9e+05	1.1e+02	y	n
							2.8e+06	5.7e+05	1.2e+02	y	n
	14	34:36	1.3e+06	1.44	y	149.12					
			1.3e+06				7.4e+05	1.6e+05	1.8e+01	y	n
							5.1e+05	1.1e+05	2.2e+01	y	n
	15	35:21	5.7e+05	1.43	y	68.02					
			5.7e+05				3.3e+05	6.9e+04	7.8e+00	y	n
							2.3e+05	5.0e+04	1.1e+01	y	n

Ent: 24 Name: Total HxCDF F:3 Mass: 373.821 375.818 Mod? no #Hom:11

Run: 13 File: 0903023B S:4 Acq:17-SEP-03 13:37:57 Proc:17-SEP-03 14:50:11
:bles: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
ersion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-10

Amount: 7428.33 of which 3621.98 named and 3806.34 unnamed
Conc: 7428.33 of which 3621.98 named and 3806.34 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?
	1	36:44	6.8e+06	1.28 y	989.92				
			6.8e+06			3.8e+06	9.1e+05	2.1e+02	y n
						3.0e+06	6.8e+05	2.4e+02	y n
	2	36:59	1.2e+07	1.15 y	1734.70				
			1.2e+07			6.4e+06	1.4e+06	3.4e+02	y n
						5.5e+06	1.2e+06	4.4e+02	y n
	3	37:26	1.5e+06	1.28 y	226.07				
			1.5e+06			8.7e+05	2.3e+05	5.4e+01	y n
						6.8e+05	1.7e+05	5.9e+01	y n
	4	37:41	7.1e+05	1.28 y	103.97				
			7.1e+05			4.0e+05	1.1e+05	2.5e+01	y n
						3.1e+05	7.1e+04	2.5e+01	y n
1,2,3,4,4,8-HxCDF	5	38:14	1.1e+07	1.25 y	1491.34				
			1.1e+07			6.3e+06	1.5e+06	3.5e+02	y n
						5.0e+06	1.1e+06	3.9e+02	y n
1,2,3,6,7,8-HxCDF	6	38:25	5.1e+06	1.19 y	700.01				
			5.1e+06			2.8e+06	7.5e+05	1.7e+02	y n
						2.3e+06	6.4e+05	2.3e+02	y n
	7	38:33	1.6e+06	1.13 y	228.62				
			1.6e+06			8.3e+05	2.2e+05	5.1e+01	y n
						7.3e+05	1.8e+05	6.3e+01	y n
	8	38:49	2.1e+06	1.25 y	308.16				
			2.1e+06			1.2e+06	2.0e+05	4.7e+01	y n
						9.4e+05	1.7e+05	6.1e+01	y n
),4,6,7,8-HxCDF	9	39:07	9.0e+06	1.29 y	1366.48				
			9.0e+06			5.0e+06	1.3e+06	3.0e+02	y n
						3.9e+06	9.3e+05	3.3e+02	y n
1,2,3,7,8,9-HxCDF	10	40:04	3.8e+05	1.27 y	64.15				
			3.8e+05			2.1e+05	5.6e+04	1.3e+01	y n
						1.7e+05	4.6e+04	1.6e+01	y n
	11	40:11	1.5e+06	1.19 y	214.91				
			1.5e+06			8.0e+05	2.3e+05	5.3e+01	y n
						6.7e+05	1.9e+05	6.7e+01	y n

Ent: 25 Name: Total HpCDF F:4 Mass: 407.782 409.779 Mod? yes #Hom:4

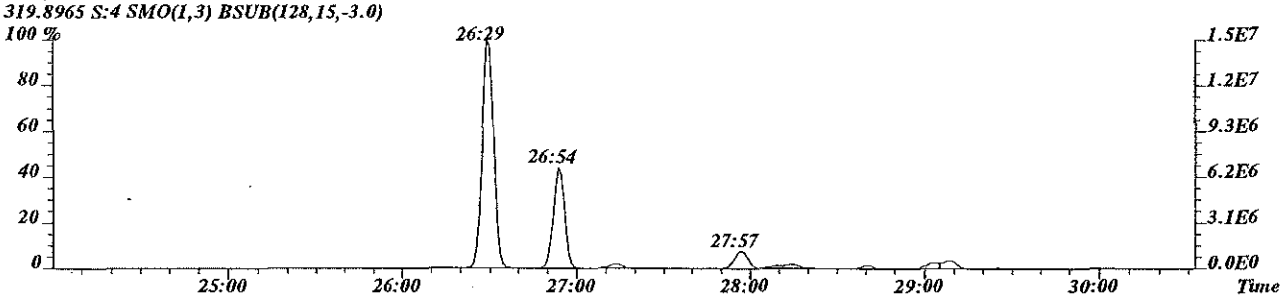
Run: 13 File: 0903023B S:4 Acq:17-SEP-03 13:37:57 Proc:17-SEP-03 14:50:11
ables: Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A
ersion: V3.6 9-SEP-2002 14:02:21 Sample text: 0903023-10

Amount: 5221.52 of which 2917.40 named and 2304.12 unnamed
Conc: 5221.52 of which 2917.40 named and 2304.12 unnamed
Tox #1: 0.00 Tox #2: 0.00 Tox #3: 0.00

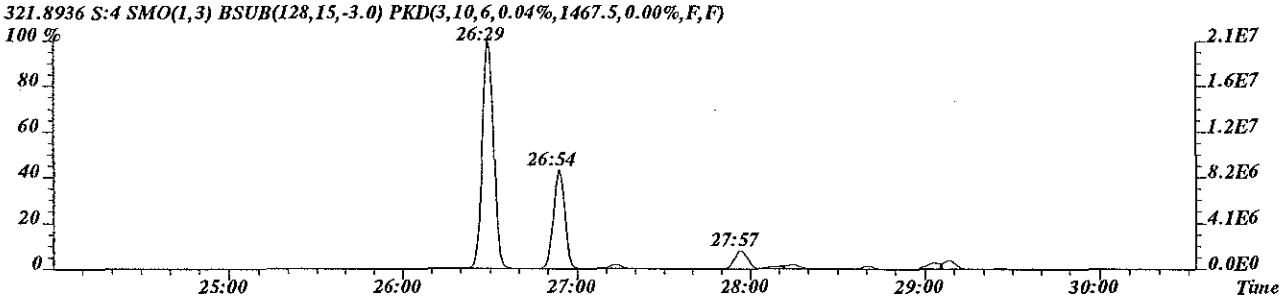
Name	#	RT	Respnse	RA	Conc	Area	Height	S/N	Mod?	
1,2,3,4,6,7,8-HpCDF1		41:56	1.7e+07	0.95	y 2286.52					
			1.7e+07			8.4e+06	2.9e+06	5.2e+02	y	y
						8.8e+06	2.9e+06	9.2e+02	y	n
	2	42:11	5.1e+06	0.94	y 1241.78					
			5.1e+06			2.5e+06	8.5e+05	1.5e+02	y	y
						2.6e+06	8.9e+05	2.9e+02	y	n
	3	42:20	4.2e+06	1.03	y 1062.34					
			4.2e+06			2.2e+06	7.6e+05	1.4e+02	y	y
						2.1e+06	6.3e+05	2.0e+02	y	n
1,2,3,4,7,8,9-HpCDF4		43:24	2.0e+06	1.05	y 630.87					
			2.0e+06			1.0e+06	2.9e+05	5.3e+01	y	n
						1.0e+06	2.9e+05	9.5e+01	y	y

File:0903023B #1-429 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
Sample#4 File Text:M23 Text:0903023-10 Exp:8290

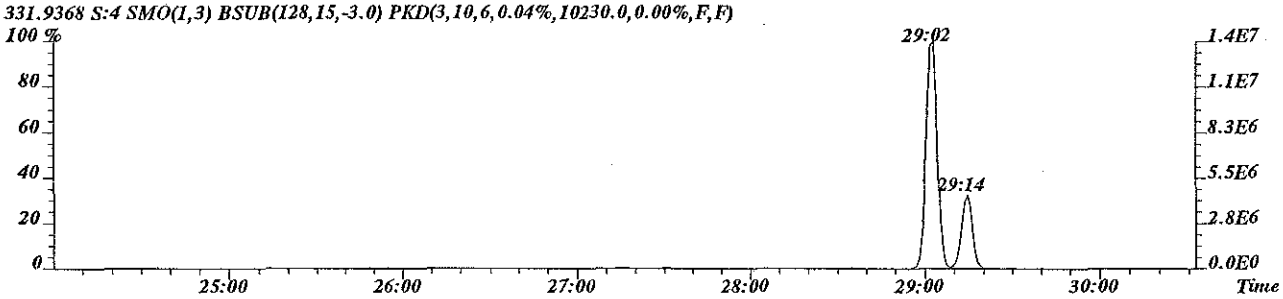
319.8965 S:4 SMO(1,3) BSUB(128,15,-3.0)



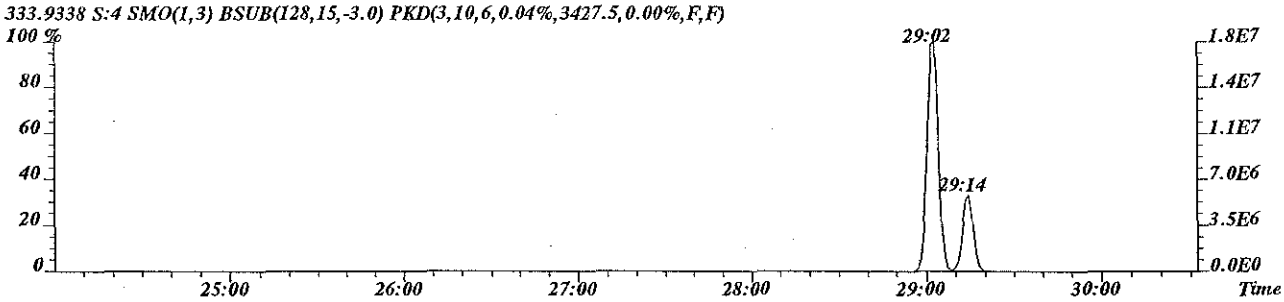
321.8936 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1467.5,0.00%,F,F)



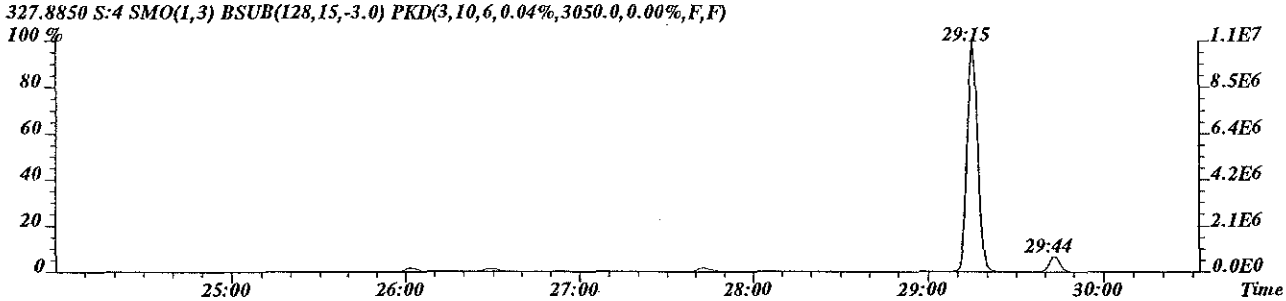
331.9368 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,10230.0,0.00%,F,F)



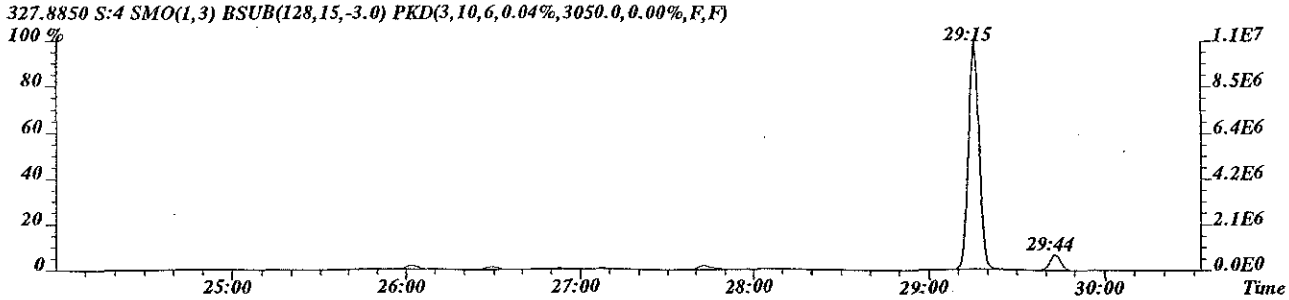
333.9338 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3427.5,0.00%,F,F)



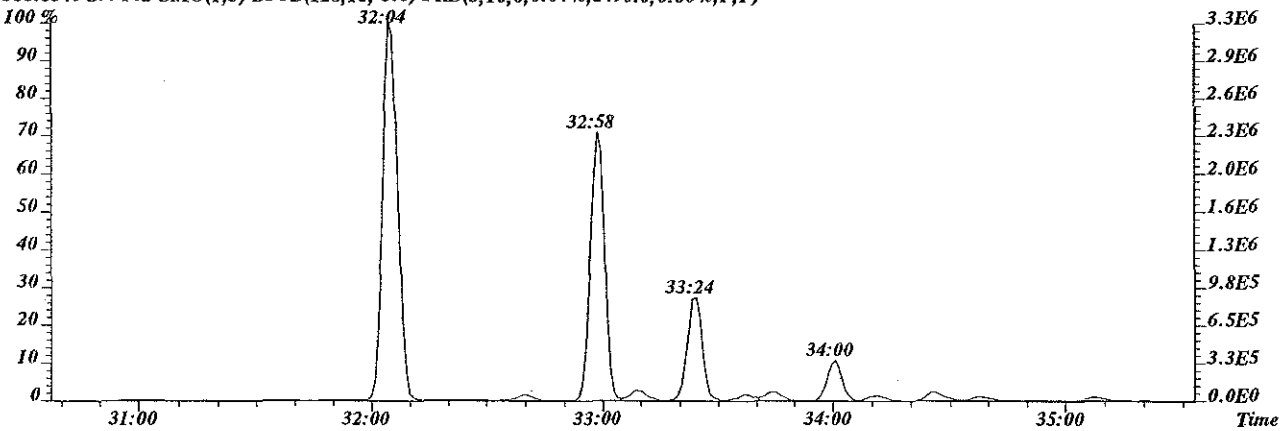
327.8850 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3050.0,0.00%,F,F)



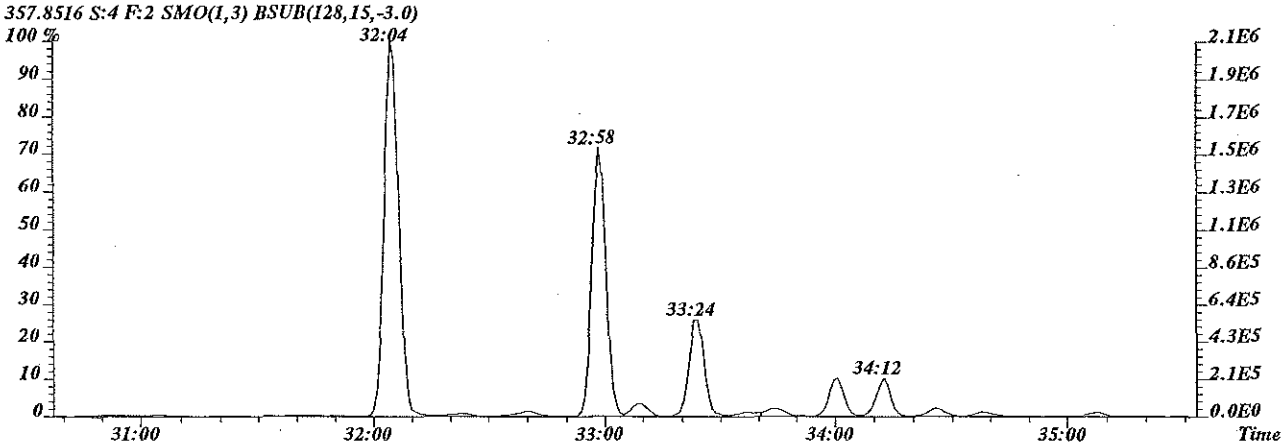
327.8850 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3050.0,0.00%,F,F)



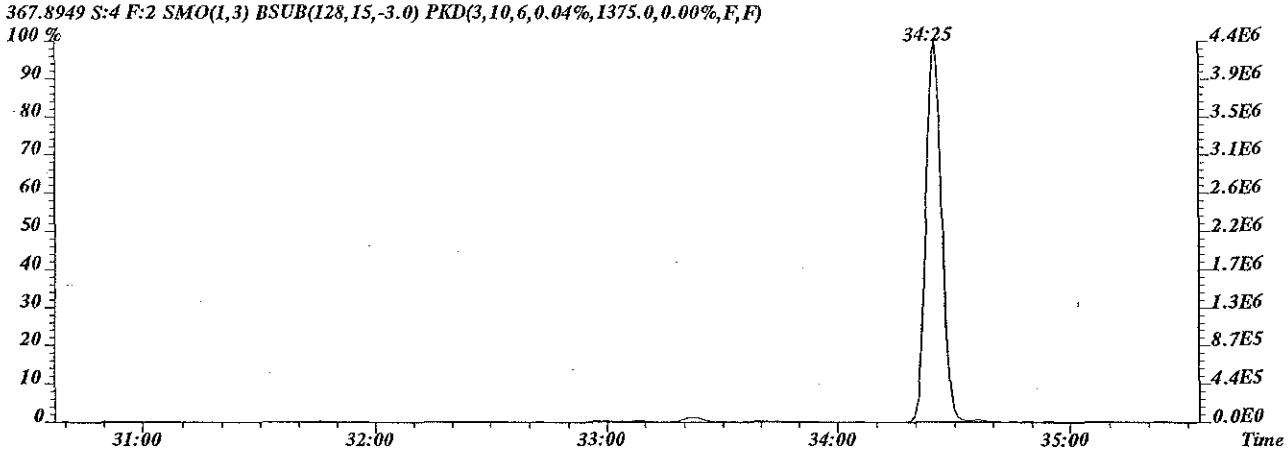
File:0903023B #1-324 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
Sample#4 File Text:M23 Text:0903023-10 Exp:8290
355.8546 S:4 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2490.0,0.00%,F,F)



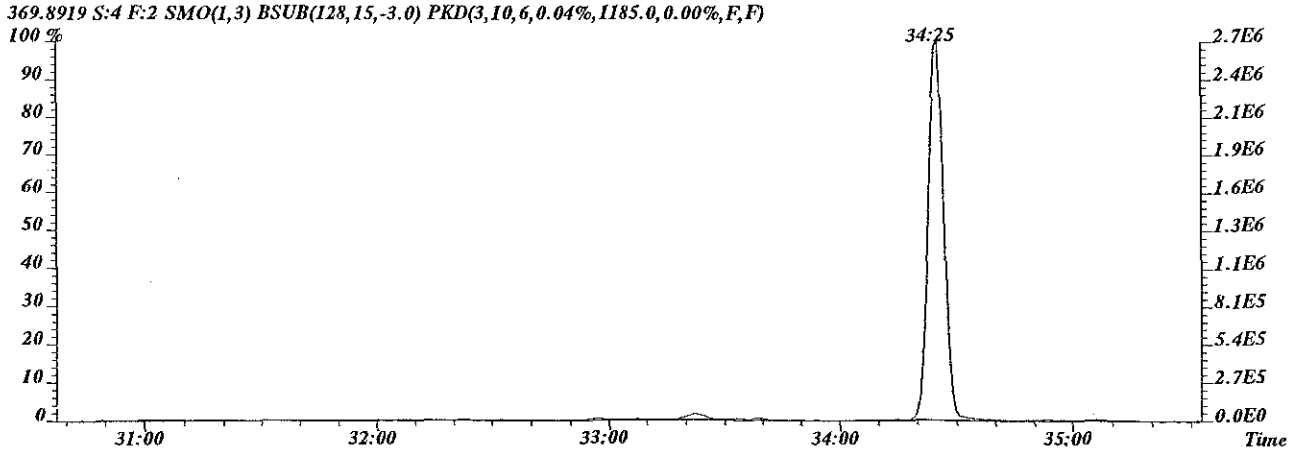
357.8516 S:4 F:2 SMO(1,3) BSUB(128,15,-3.0)



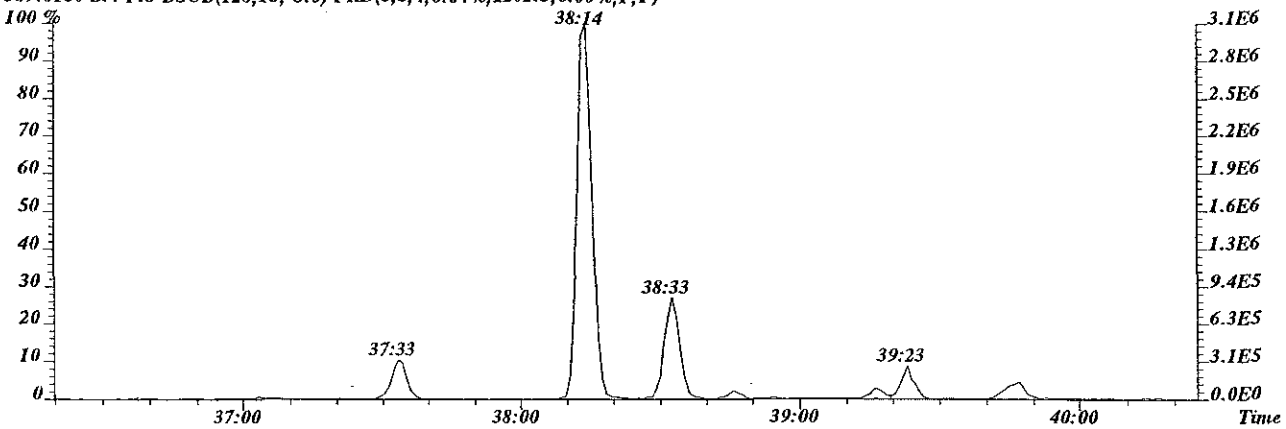
367.8949 S:4 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1375.0,0.00%,F,F)



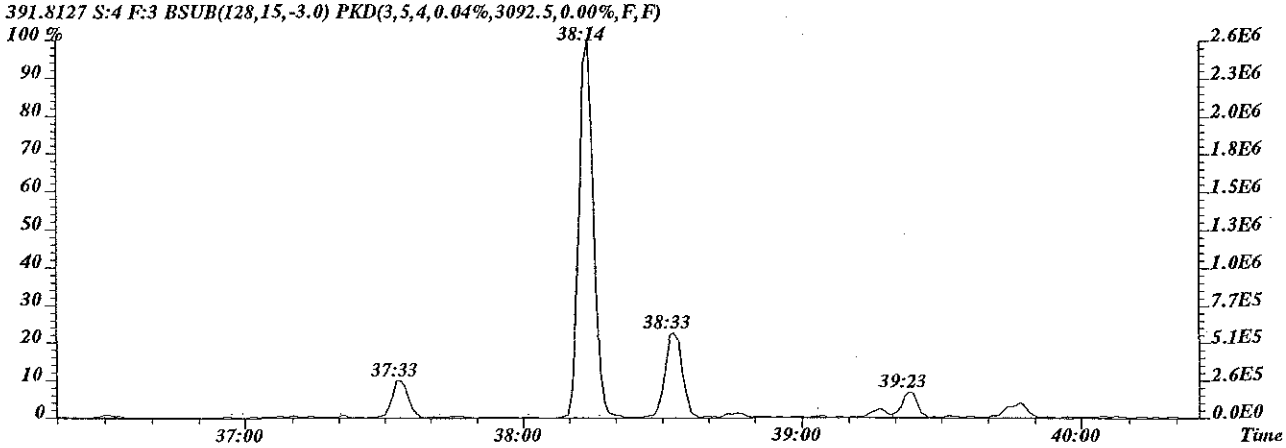
369.8919 S:4 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1185.0,0.00%,F,F)



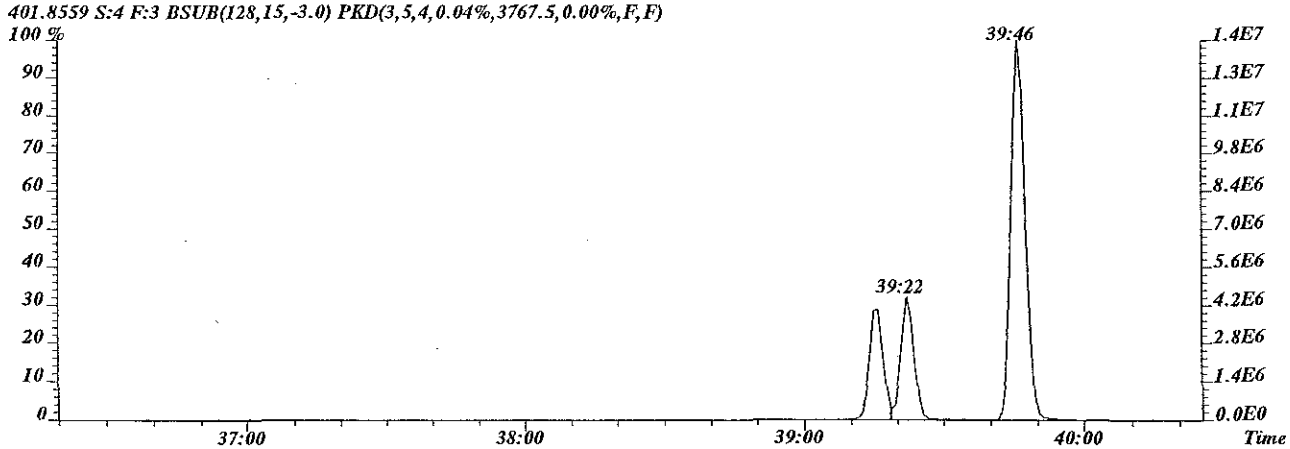
File:0903023B #1-278 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
Sample#4 File Text:M23 Text:0903023-10 Exp:8290
389.8156 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2202.5,0.00%,F,F)



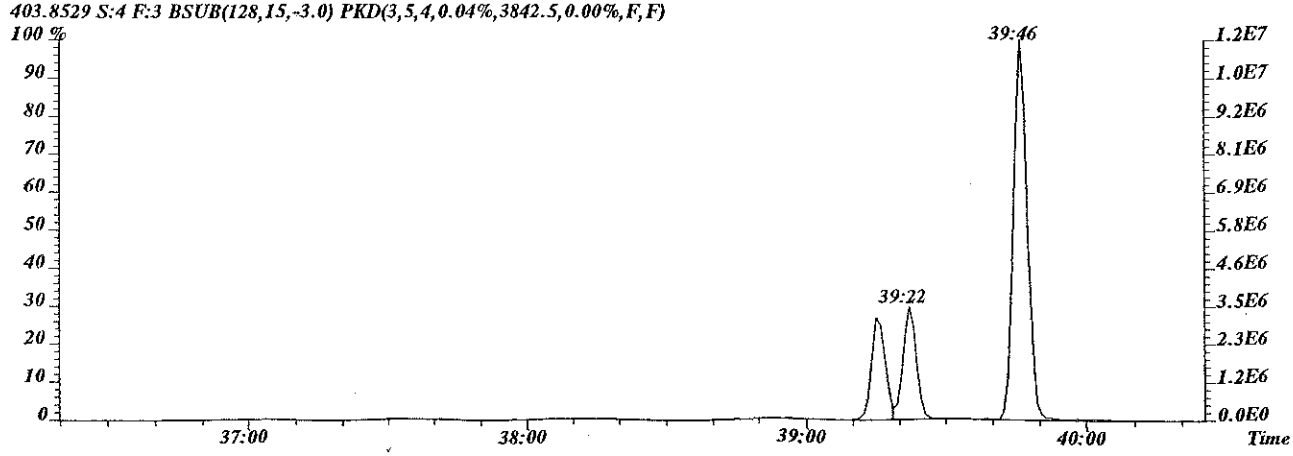
391.8127 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3092.5,0.00%,F,F)



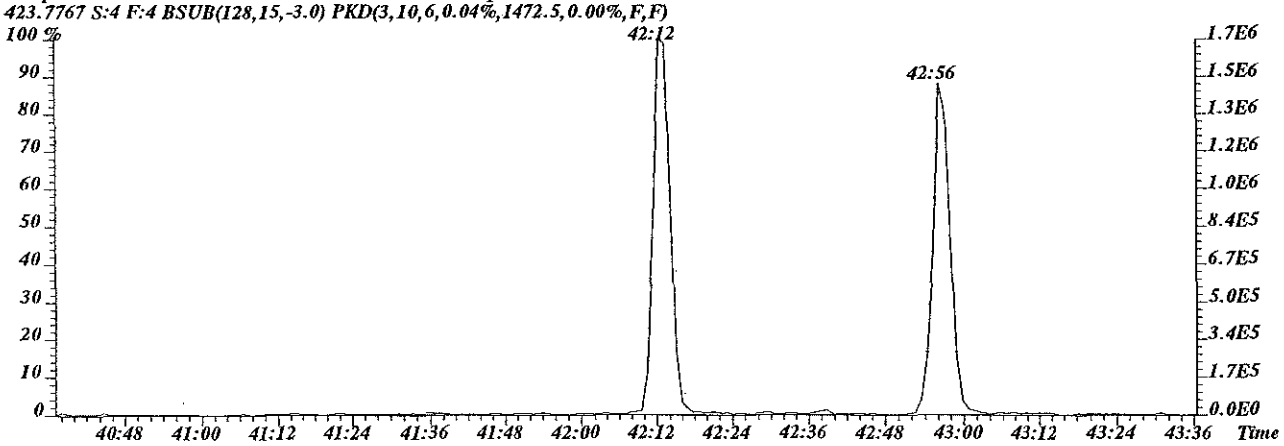
401.8559 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3767.5,0.00%,F,F)



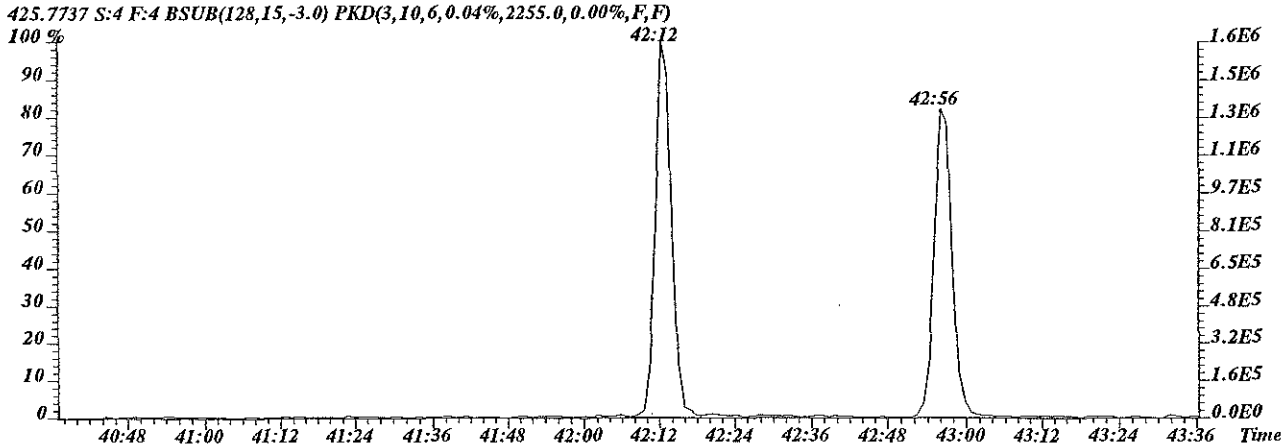
403.8529 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3842.5,0.00%,F,F)



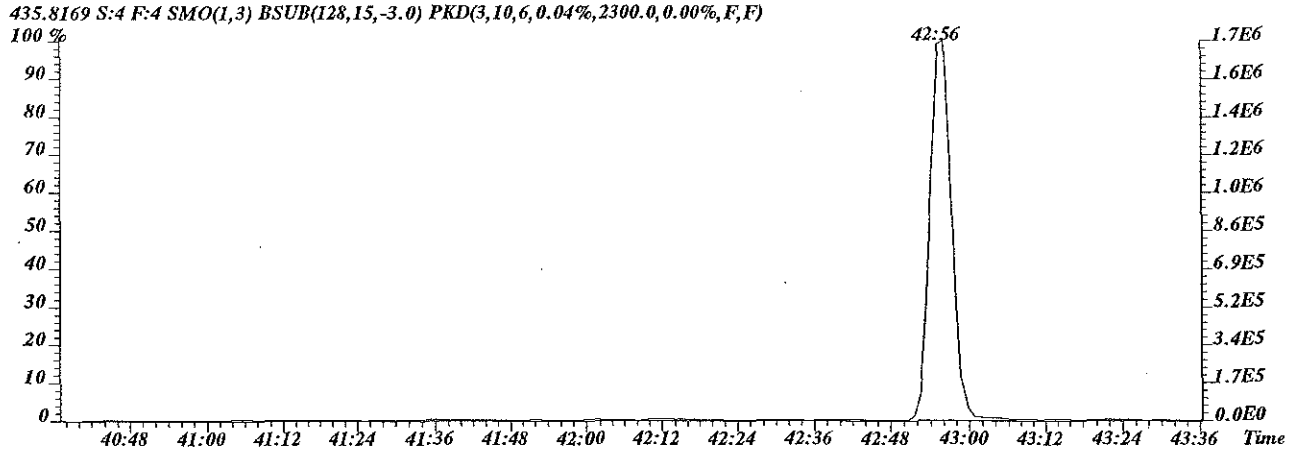
File:0903023B #1-197 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
Sample#4 File Text:M23 Text:0903023-10 Exp:8290
423.7767 S:4 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1472.5,0.00%,F,F)



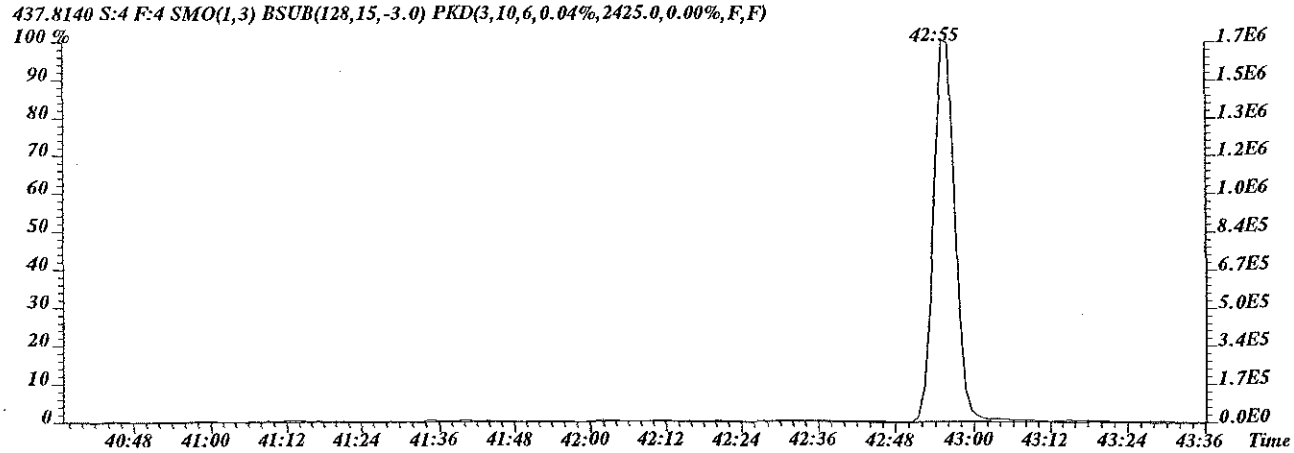
425.7737 S:4 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2255.0,0.00%,F,F)



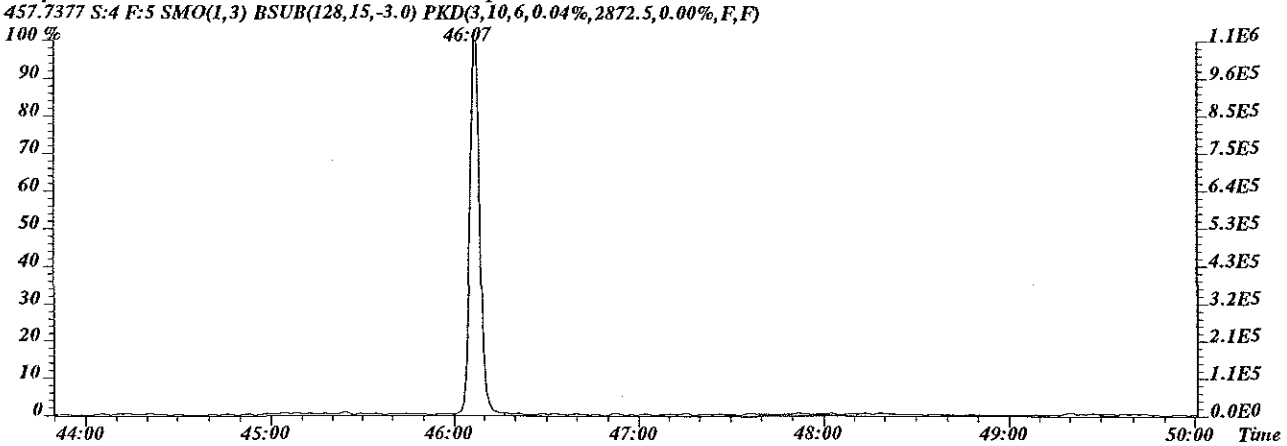
435.8169 S:4 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2300.0,0.00%,F,F)



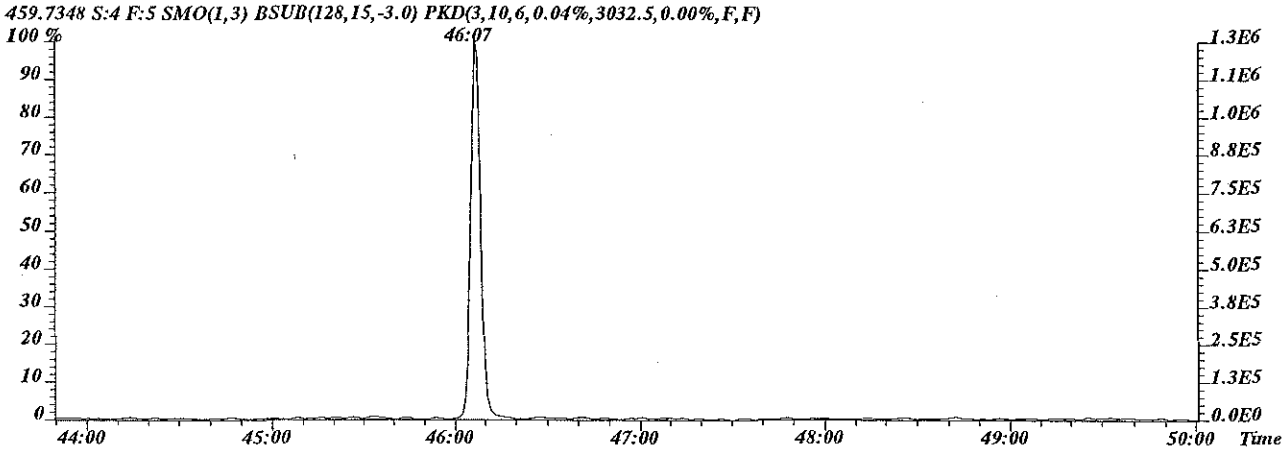
437.8140 S:4 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2425.0,0.00%,F,F)



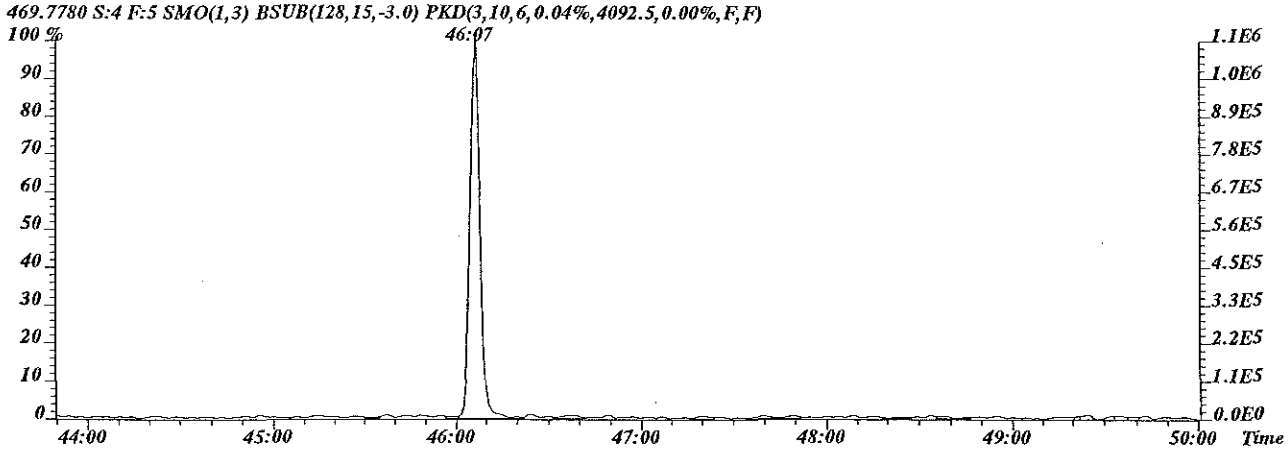
File:0903023B #1-446 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
Sample#4 File Text:M23 Text:0903023-10 Exp:8290
457.7377 S:4 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2872.5,0.00%,F,F)



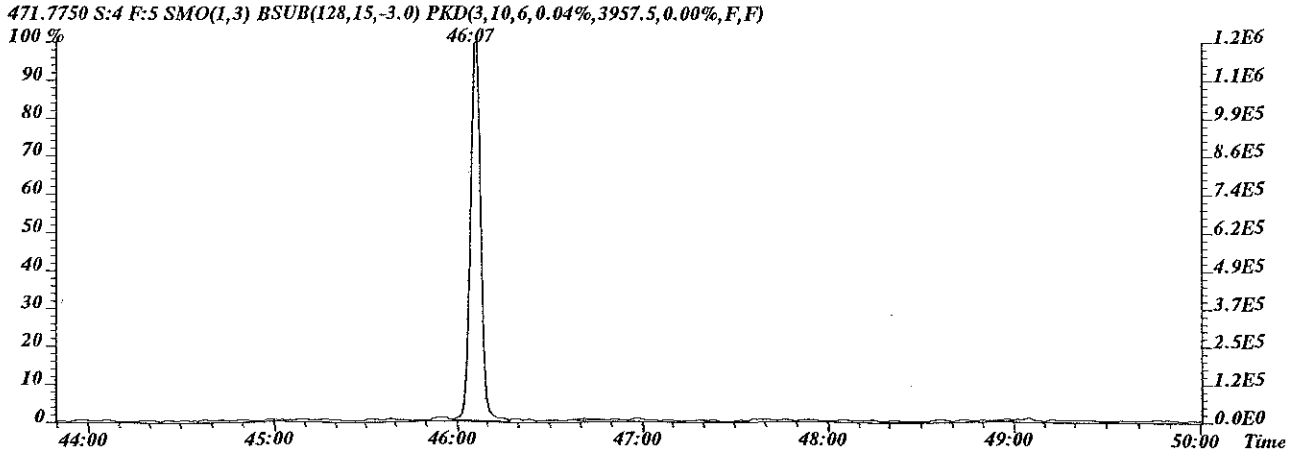
459.7348 S:4 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3032.5,0.00%,F,F)



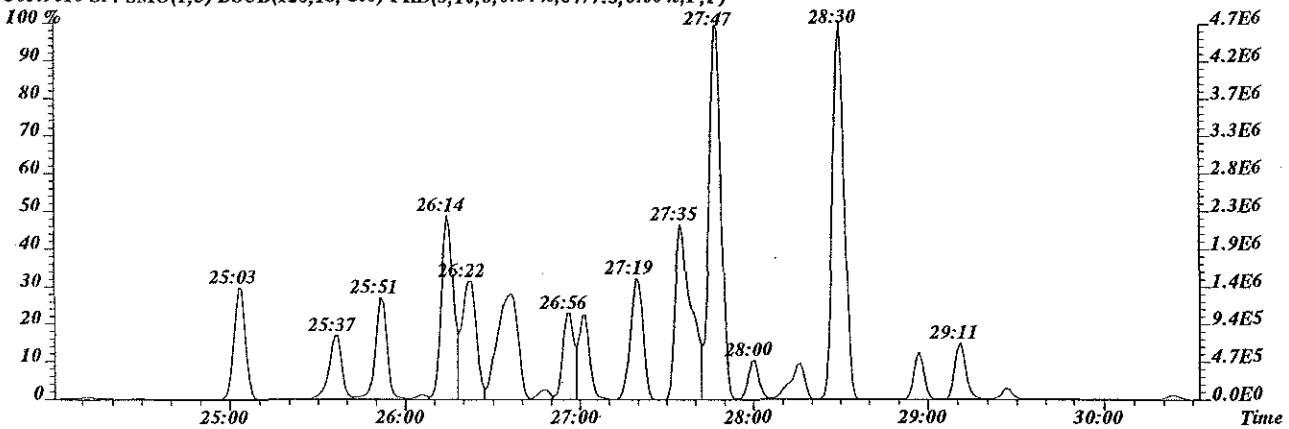
469.7780 S:4 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4092.5,0.00%,F,F)



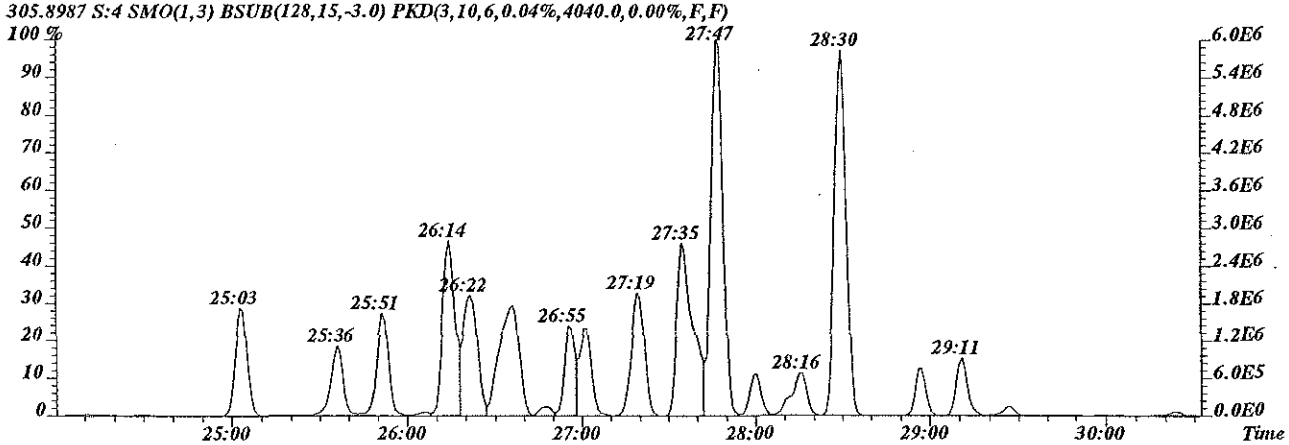
471.7750 S:4 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3957.5,0.00%,F,F)



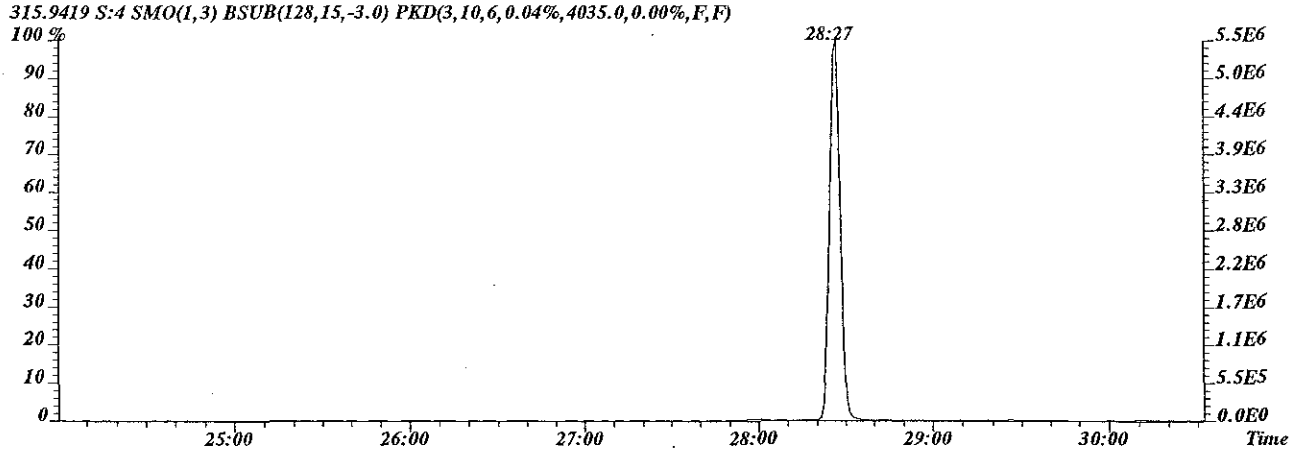
File:0903023B #1-429 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
Sample#4 File Text:M23 Text:0903023-10 Exp:8290
303.9016 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5477.5,0.00%,F,F)



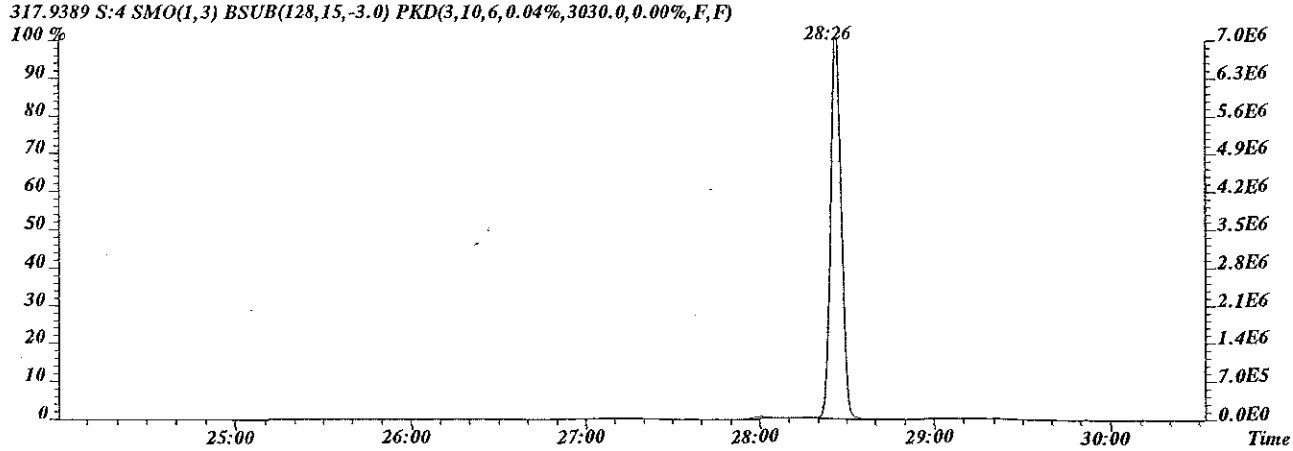
305.8987 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4040.0,0.00%,F,F)



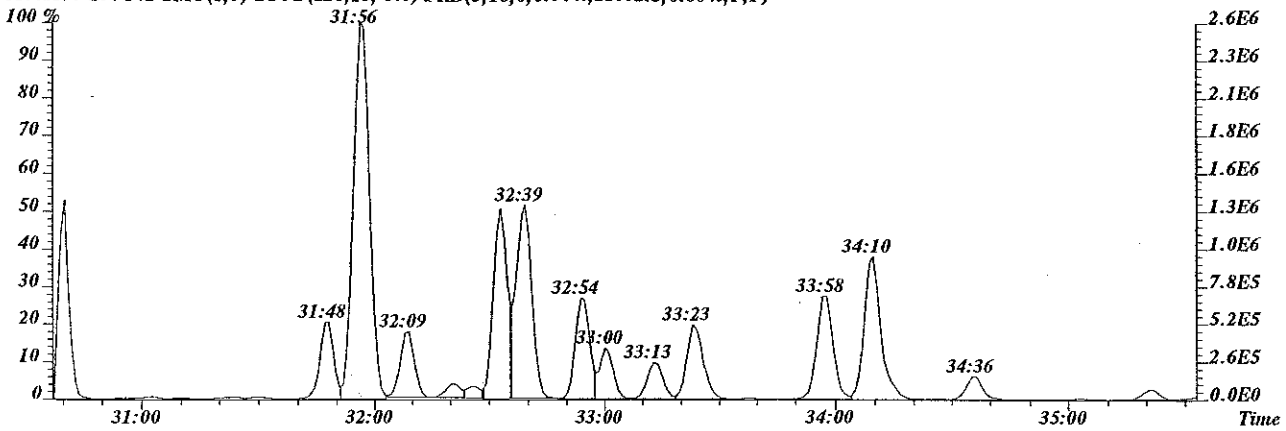
315.9419 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4035.0,0.00%,F,F)



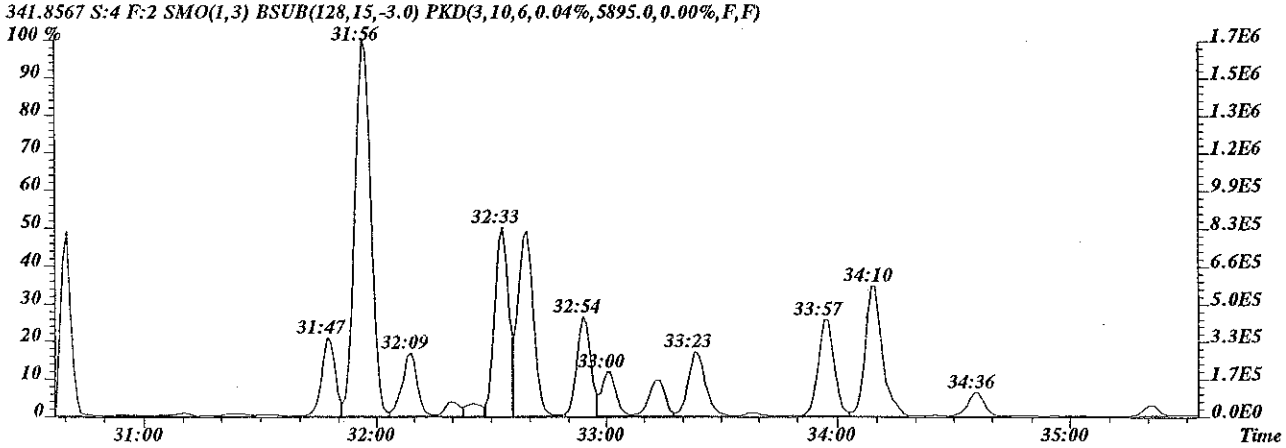
317.9389 S:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3030.0,0.00%,F,F)



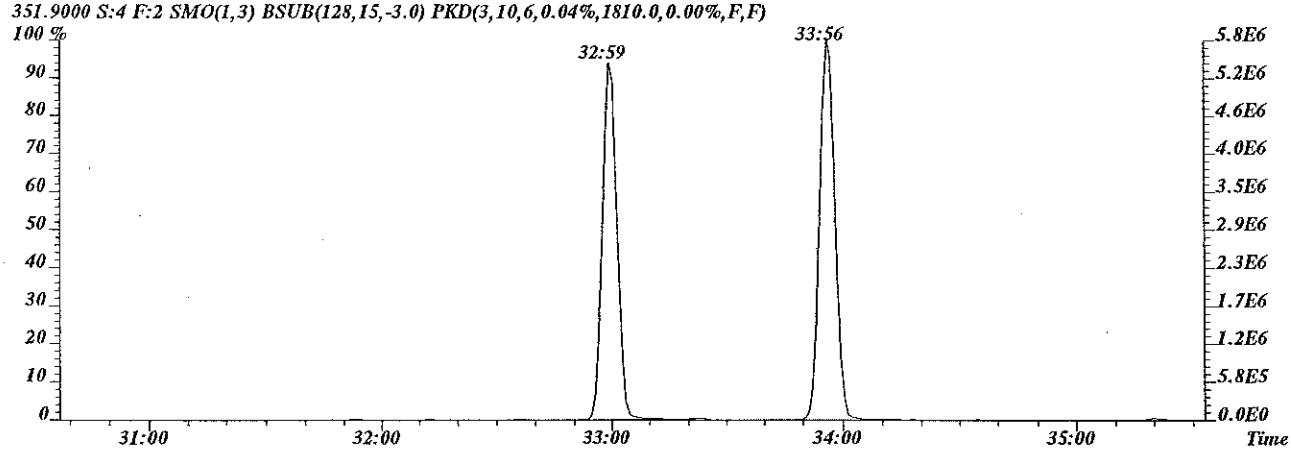
File:0903023B #1-324 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
Sample#4 File Text:M23 Text:0903023-10 Exp:8290
339.8597 S:4 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,11002.5,0.00%,F,F)



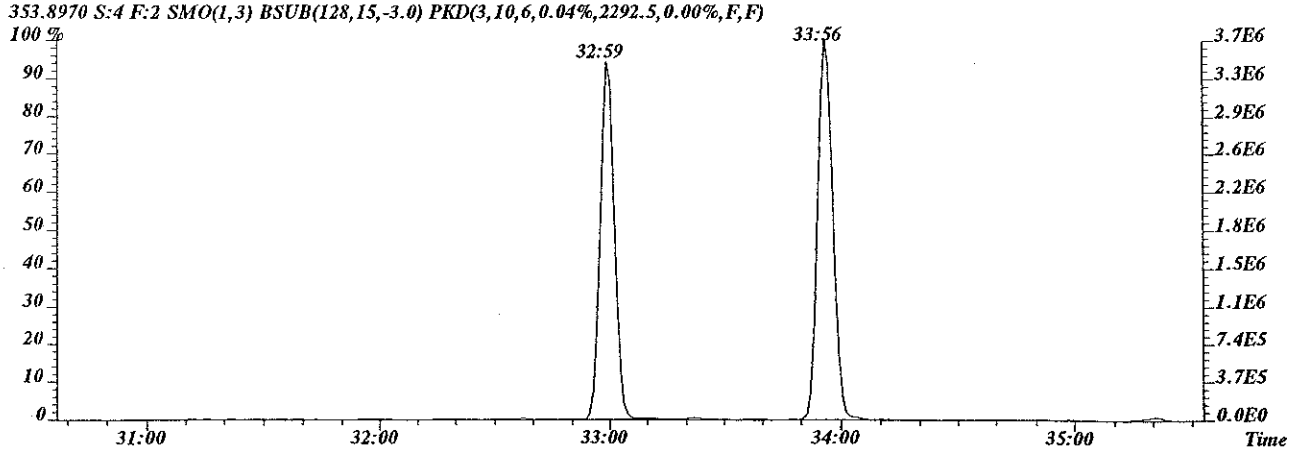
341.8567 S:4 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5895.0,0.00%,F,F)



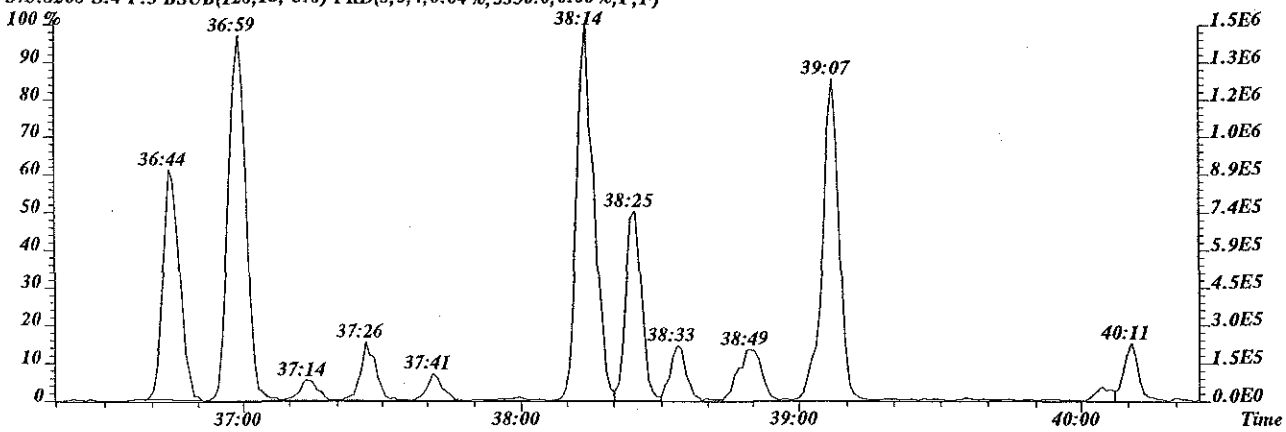
351.9000 S:4 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1810.0,0.00%,F,F)



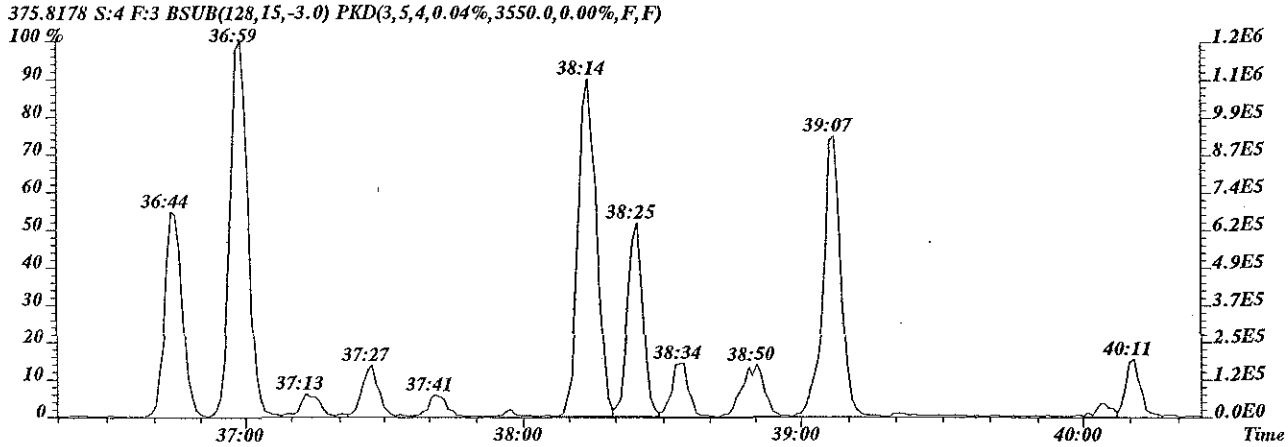
353.8970 S:4 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2292.5,0.00%,F,F)



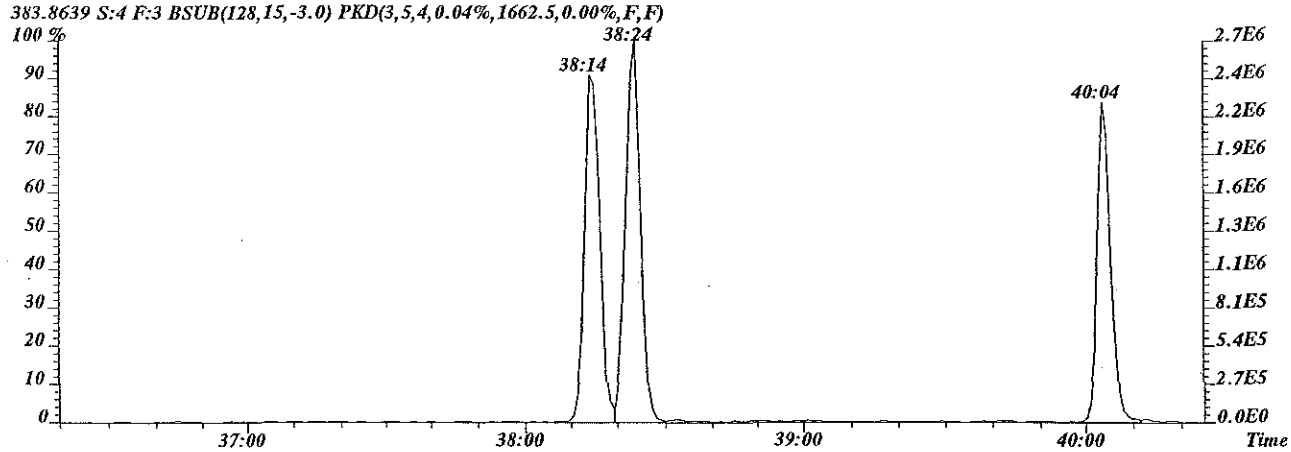
File:0903023B #1-278 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
Sample#4 File Text:M23 Text:0903023-10 Exp:8290
373.8208 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,5350.0,0.00%,F,F)



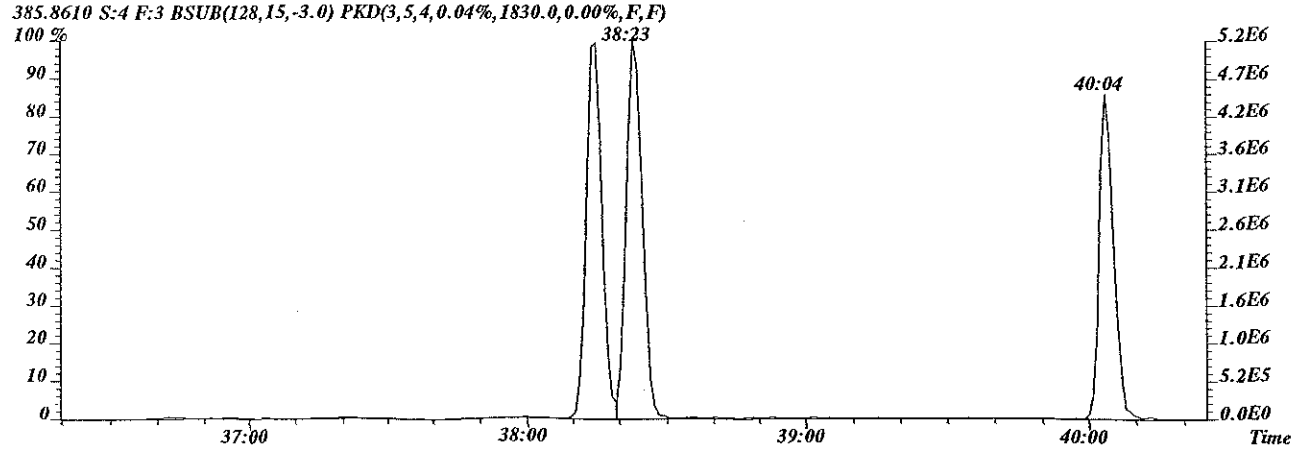
375.8178 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3550.0,0.00%,F,F)



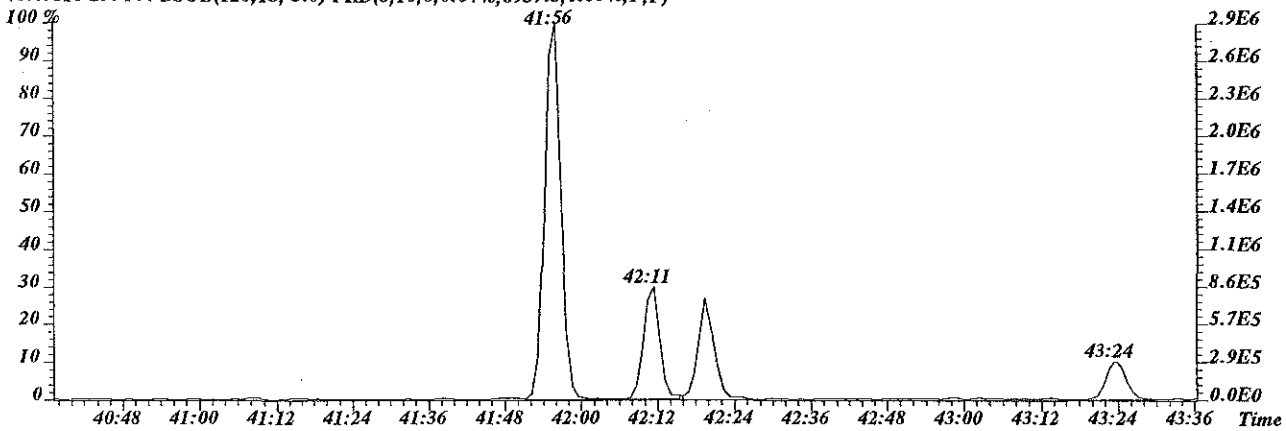
383.8639 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1662.5,0.00%,F,F)



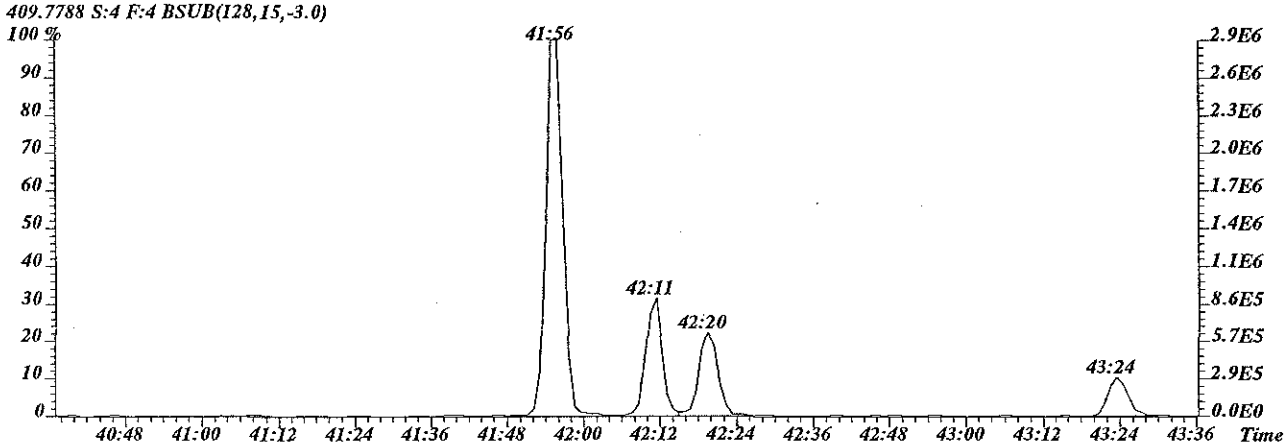
385.8610 S:4 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1830.0,0.00%,F,F)



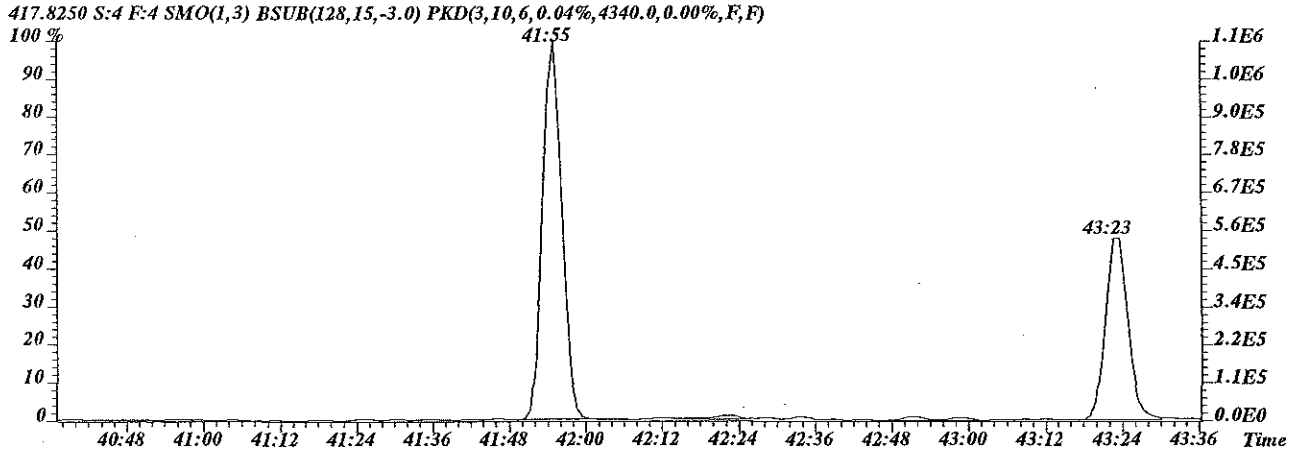
File:0903023B #1-197 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
Sample#4 File Text:M23 Text:0903023-10 Exp:8290
407.7818 S:4 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6937.5,0.00%,F,F)



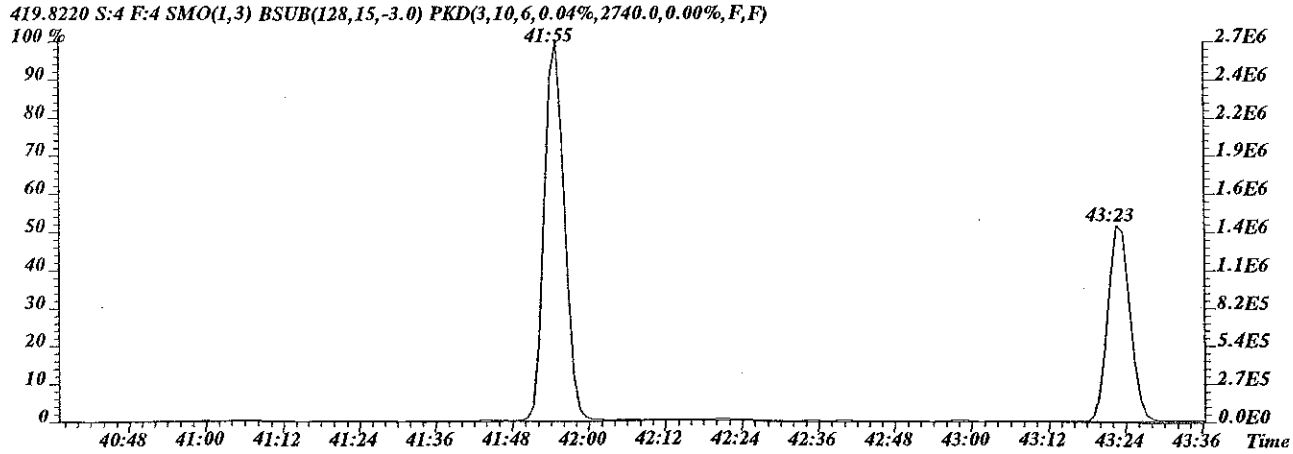
409.7788 S:4 F:4 BSUB(128,15,-3.0)



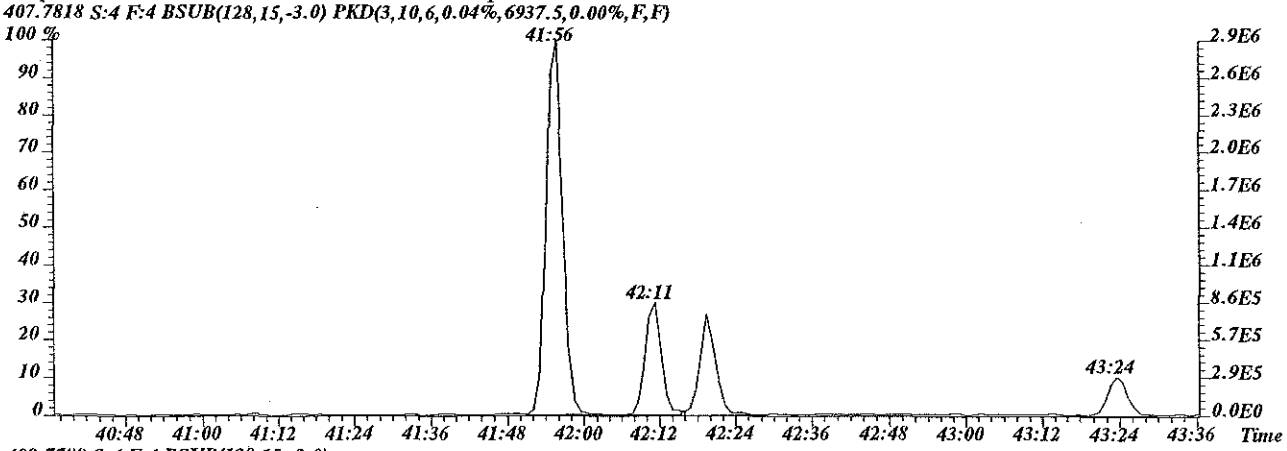
417.8250 S:4 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4340.0,0.00%,F,F)



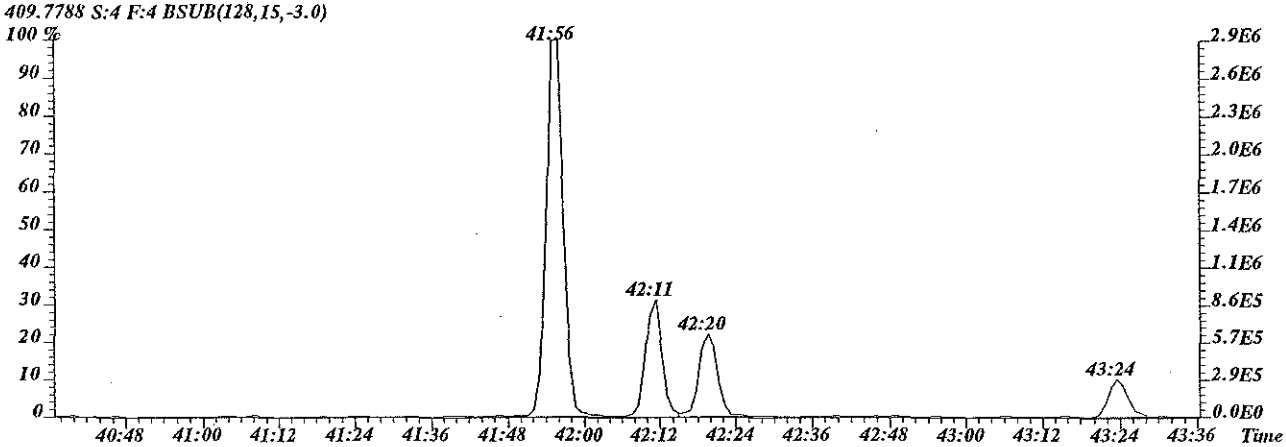
419.8220 S:4 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2740.0,0.00%,F,F)



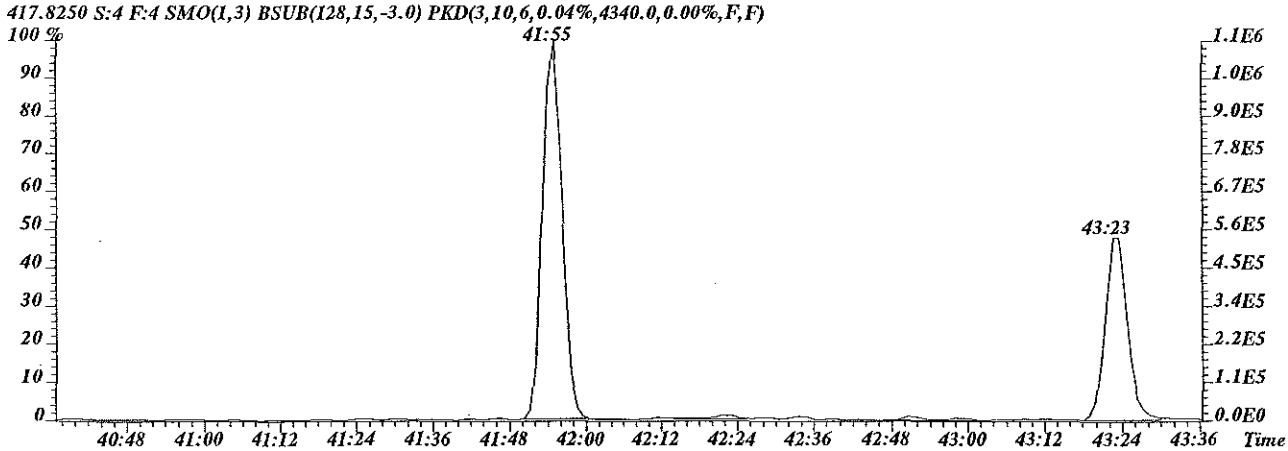
File:0903023B #1-197 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
Sample#4 File Text:M23 Text:0903023-10 Exp:8290
407.7818 S:4 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6937.5,0.00%,F,F)



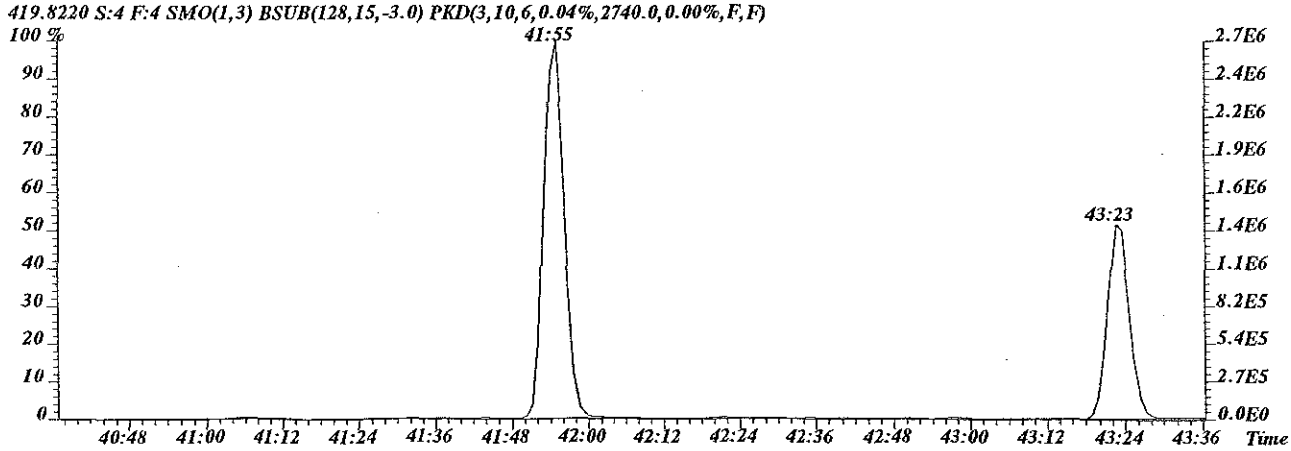
409.7788 S:4 F:4 BSUB(128,15,-3.0)



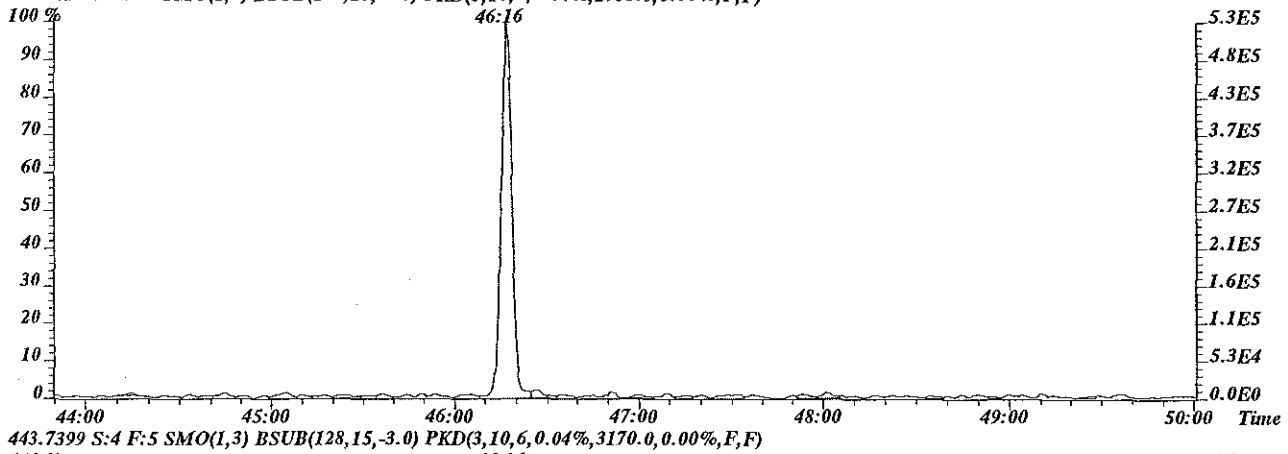
417.8250 S:4 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4340.0,0.00%,F,F)



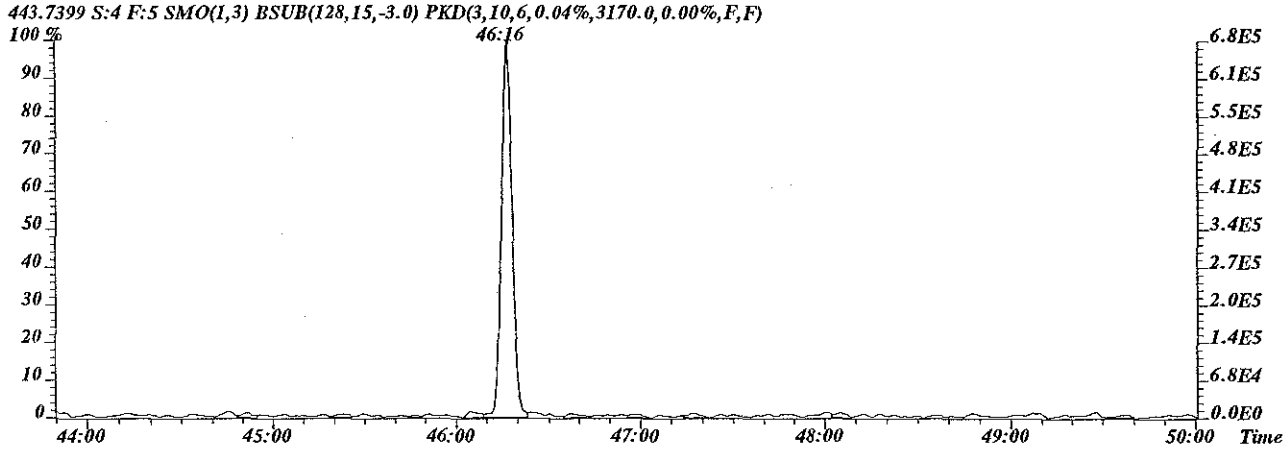
419.8220 S:4 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2740.0,0.00%,F,F)



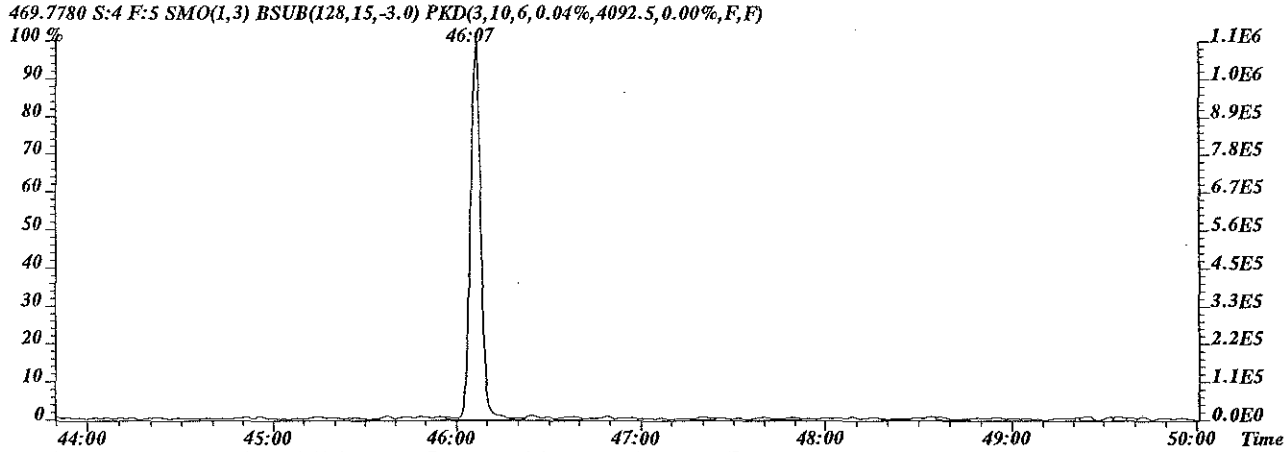
File:0903023B #1-446 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
Sample#4 File Text:M23 Text:0903023-10 Exp:8290
441.7428 S:4 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2735.0,0.00%,F,F)



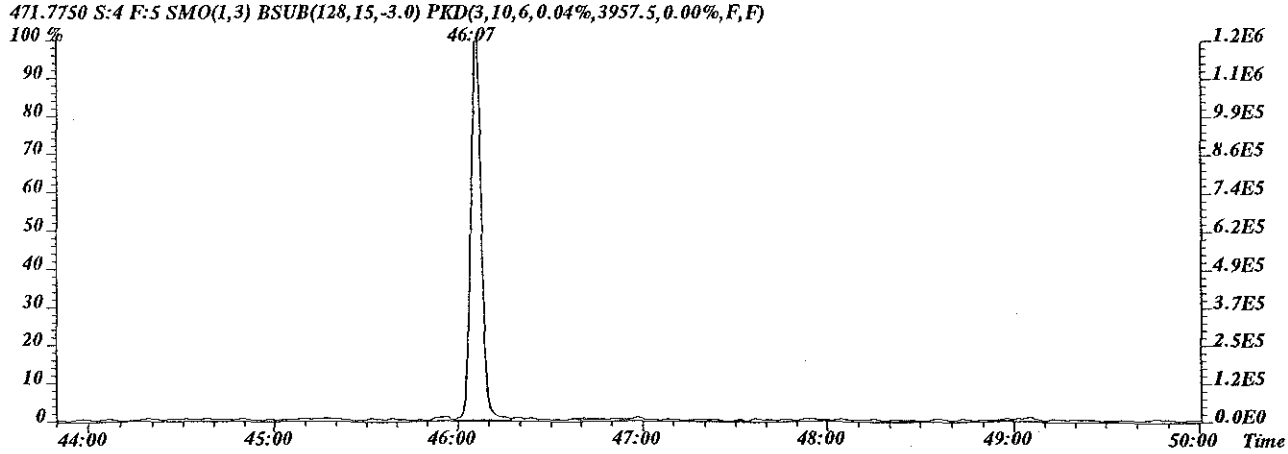
443.7399 S:4 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3170.0,0.00%,F,F)



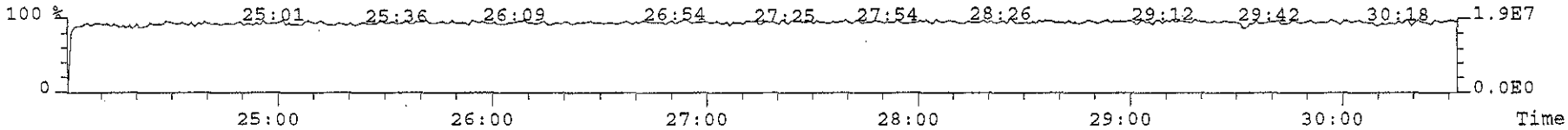
469.7780 S:4 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4092.5,0.00%,F,F)



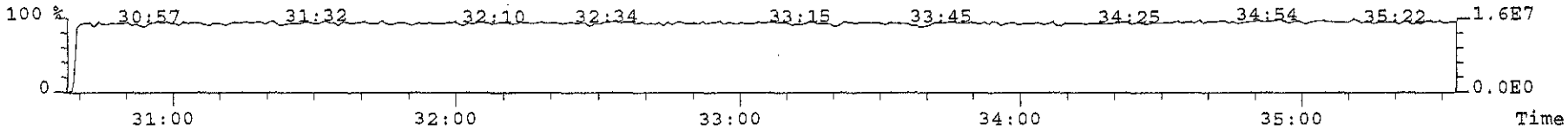
471.7750 S:4 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3957.5,0.00%,F,F)



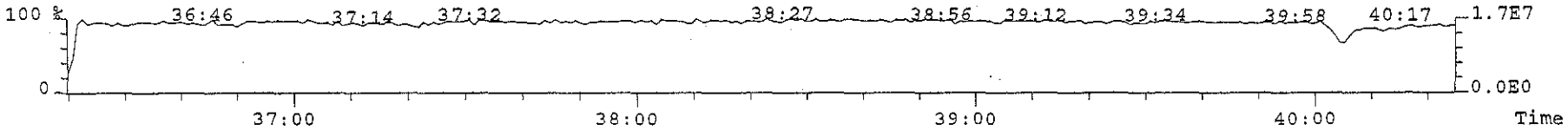
File:0903023B #1-429 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:4 Exp:8290
Sample Text:0903023-10 File Text:M23



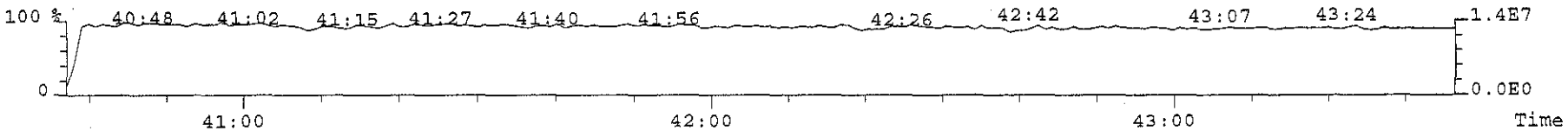
File:0903023B #1-324 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:4 F:2 Exp:8290
Sample Text:0903023-10 File Text:M23



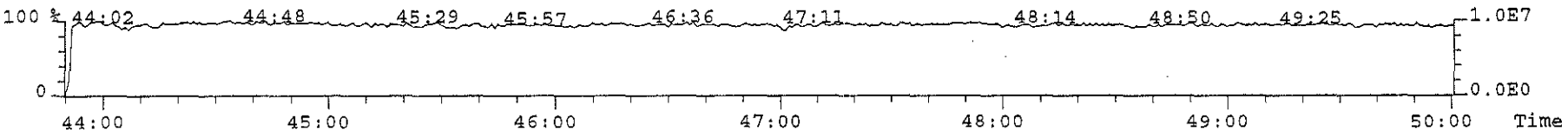
File:0903023B #1-278 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:4 F:3 Exp:8290
Sample Text:0903023-10 File Text:M23



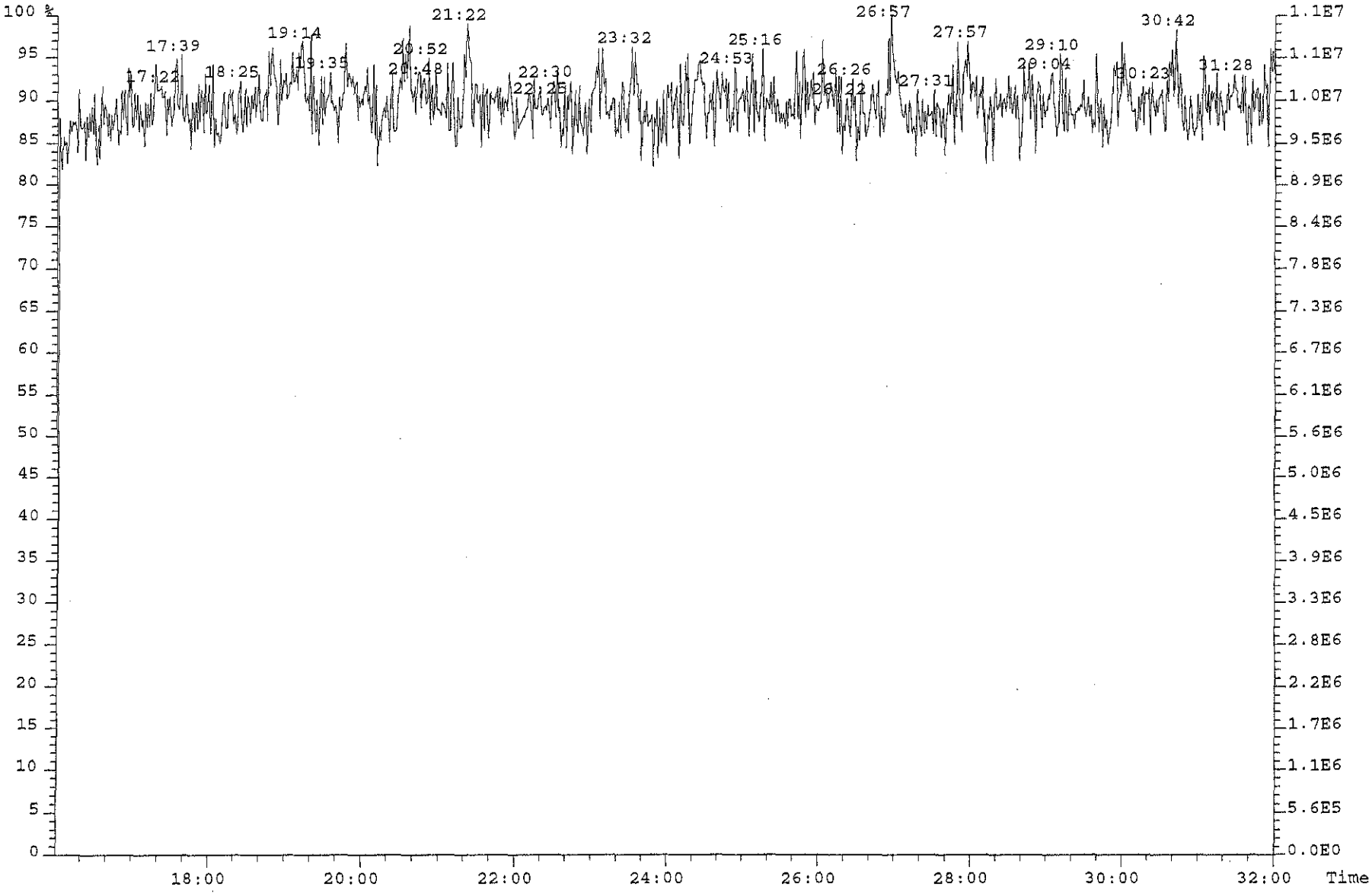
File:0903023B #1-197 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:4 F:4 Exp:8290
Sample Text:0903023-10 File Text:M23



File:0903023B #1-446 Acq:17-SEP-2003 13:37:57 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:4 F:5 Exp:8290
Sample Text:0903023-10 File Text:M23



File:0903023D #1-937 Acq:19-SEP-2003 17:12:13 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:4 Exp:TCDF
Sample Text:0903023-10 File Text:M23 TCDF CONF



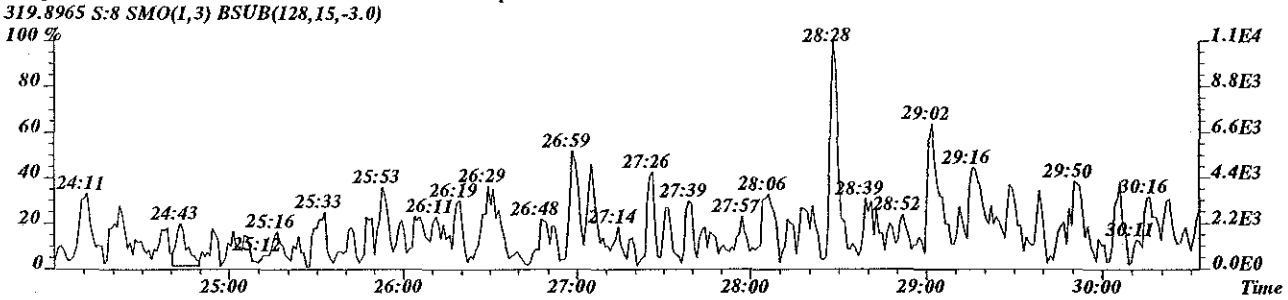
BLANK DATA

Run #10 Filename 0903023A S: 8 I: 1 Acquired: 16-SEP-03 23:06:39 Processed: 17-SEP-03 11:25:56
Run: M23A05 Analyte: Cal: M23A05 Results: 0903023A Version: V3.6 9-SEP-2002 14:02:21
Sample text: 0903023-MB Comments:

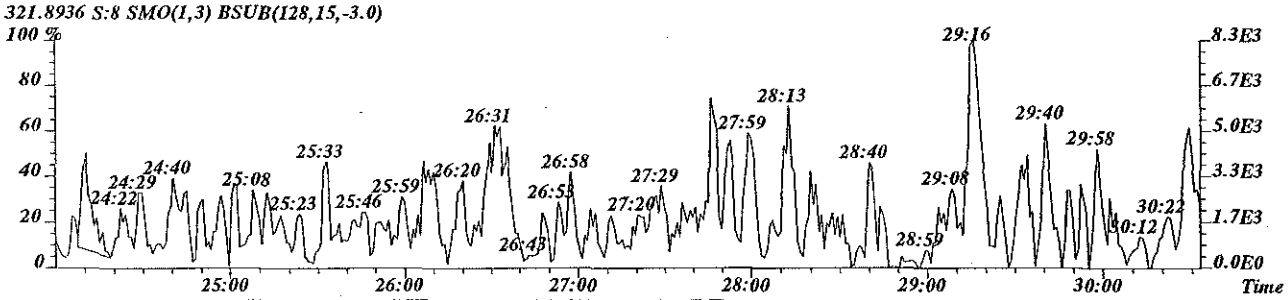
	Typ	Name	#Hom	Resp	RA		RT	Conc	0.00 Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDD	0	*	*	n	NotFnd	*	*	2.12	-	y
2	nati	1,2,3,7,8-PeCDD	0	*	*	n	NotFnd	*	*	5.75	-	n
3	nati	1,2,3,4,7,8-HxCDD	0	*	*	n	NotFnd	*	*	3.58	-	n
4	nati	1,2,3,6,7,8-HxCDD	0	*	*	n	NotFnd	*	*	3.69	-	n
5	nati	1,2,3,7,8,9,-HxCDD	0	*	*	n	NotFnd	*	*	3.53	-	n
6	nati	1,2,3,4,6,7,8-HpCDD	0	*	*	n	NotFnd	*	*	12.27	-	n
7	nati	1,2,3,4,6,7,8,9-OCDD	0	*	*	n	NotFnd	*	*	51.38	-	n
8	nati	2,3,7,8-TCDF	0	*	*	n	NotFnd	*	*	2.24	-	n
9	nati	1,2,3,7,8-PeCDF	0	*	*	n	NotFnd	*	*	5.10	-	y
10	nati	2,3,4,7,8-PeCDF	0	*	*	n	NotFnd	*	*	5.11	-	n
11	nati	1,2,3,4,4,8-HxCDF	0	*	*	n	NotFnd	*	*	4.53	-	y
12	nati	1,2,3,6,7,8-HxCDF	0	*	*	n	NotFnd	*	*	4.58	-	y
13	nati	2,3,4,6,7,8-HxCDF	0	*	*	n	NotFnd	*	*	5.28	-	n
14	nati	1,2,3,7,8,9-HxCDF	0	*	*	n	NotFnd	*	*	5.94	-	n
15	nati	1,2,3,4,6,7,8-HpCDF	0	*	*	n	NotFnd	*	*	13.01	-	n
16	nati	1,2,3,4,7,8,9-HpCDF	0	*	*	n	NotFnd	*	*	23.20	-	n
17	nati	1,2,3,4,6,7,8,9-OCDF	0	*	*	n	NotFnd	*	*	58.66	-	y
18	nati	Total TCDD	0	*	*	n	NotFnd	*	*	2.11	-	n
19	nati	Total PeCDD	0	*	*	n	NotFnd	*	*	5.75	-	n
20	nati	Total HxCDD	0	*	*	n	NotFnd	*	*	3.60	-	n
21	nati	Total HpCDD	0	*	*	n	NotFnd	*	*	12.27	-	n
22	nati	Total TCDF	0	*	*	n	NotFnd	*	*	2.07	-	n
23	nati	Total PeCDF	0	*	*	n	NotFnd	*	*	5.06	-	n
24	nati	Total HxCDF	0	*	*	n	NotFnd	*	*	5.02	-	y
25	nati	Total HpCDF	0	*	*	n	NotFnd	*	*	16.67	-	n
26	IS	13C12-2,3,7,8-TCDF	1	6.9e+07	0.78	y	28:28	3045.858	0.00	4.12	76.1	n
27	IS	13C12-2,3,7,8-TCDD	1	5.4e+07	0.79	y	29:16	3086.645	0.00	5.13	77.2	n
28	IS	13C12-1,2,3,7,8-PeCDF	1	5.2e+07	1.59	y	33:02	2860.165	0.00	1.65	71.5	n
29	IS	13C12-1,2,3,7,8-PeCDD	1	4.0e+07	1.62	y	34:27	2944.850	0.00	2.44	73.6	n
30	IS	13C12-1,2,3,6,7,8-HxCDF	1	3.8e+07	0.51	y	38:25	3169.863	0.00	3.91	79.2	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	1	2.9e+07	1.25	y	39:23	3163.631	0.00	7.30	79.1	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	1	1.8e+07	0.42	y	41:55	2696.928	0.00	10.07	67.4	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	1	1.4e+07	1.04	y	42:57	2454.406	0.00	4.03	61.4	n
34	IS	13C12-OCDD	1	9.1e+06	0.89	y	46:08	4099.096	0.00	26.74	51.2	n
35	Suro	37C12-2,3,7,8-TCDD	1	1.4e+08	1.00	y	29:18	5188.825	0.00	3.00	103.8	n
36	Suro	13C12-2,3,4,7,8-PeCDF	1	6.8e+07	1.58	y	33:58	5697.624	0.00	2.67	114.0	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	1	4.5e+07	0.49	y	38:16	5154.347	0.00	5.92	103.1	n
38	Suro	13C12-1,2,3,4,7,8-HxCDD	1	3.3e+07	1.25	y	39:16	4648.901	0.00	10.80	93.0	n
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	1	1.1e+07	0.37	y	43:24	3968.687	0.00	30.69	79.4	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	1	3.0e+07	0.47	y	40:06	4456.029	0.00	7.98	89.1	n
41	RS	13C12-1,2,3,4-TCDD	1	1.6e+08	0.79	y	29:04	30.180	0.00	-	-	n
42	RS	13C12-1,2,3,7,8,9-HxCDD	1	9.5e+07	1.27	y	39:47	26.373	0.00	-	-	n

File:0903023A #1-430 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
Sample#8 File Text:M23 Text:0903023-MB Exp:8290

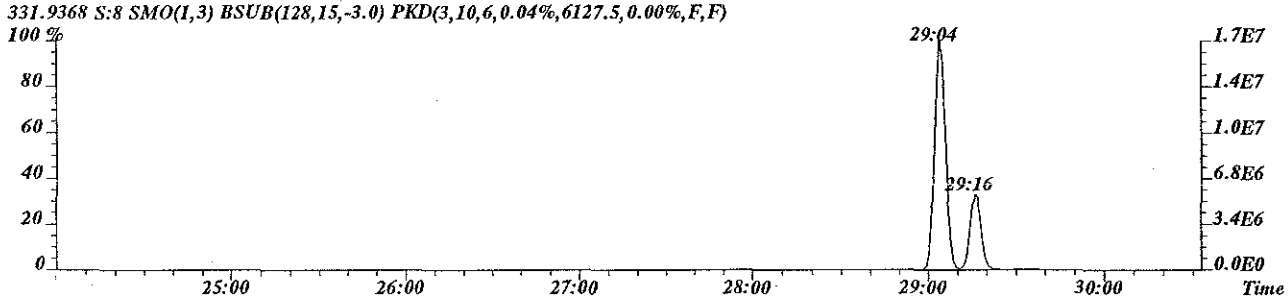
319.8965 S:8 SMO(1,3) BSUB(128,15,-3.0)



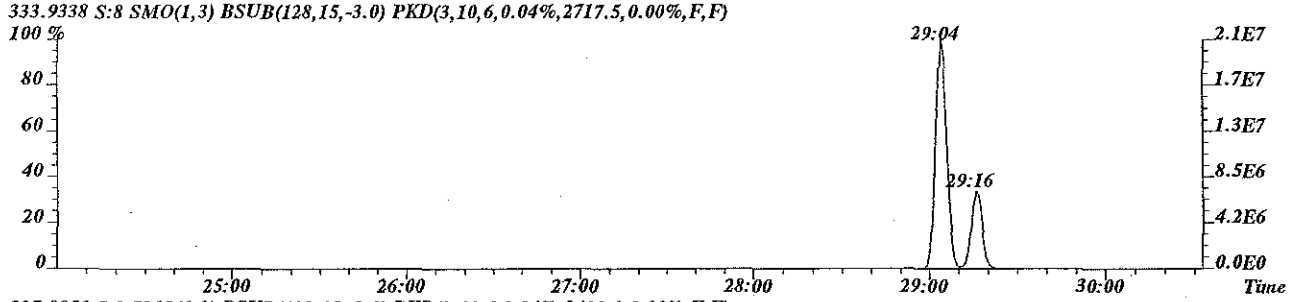
321.8936 S:8 SMO(1,3) BSUB(128,15,-3.0)



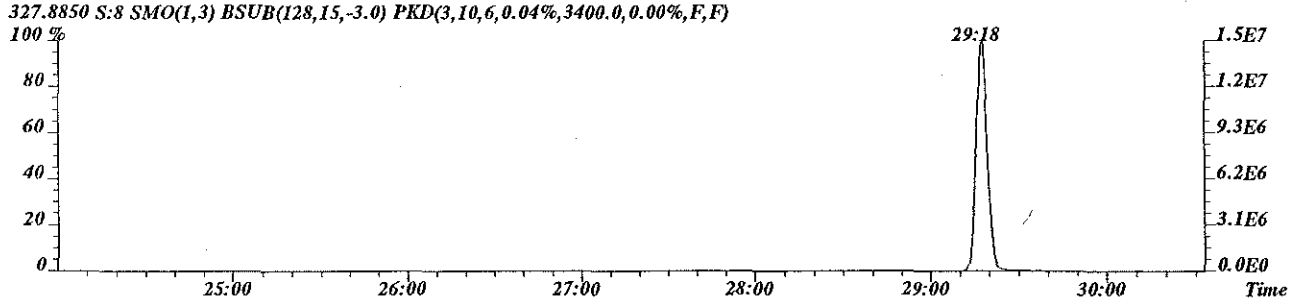
331.9368 S:8 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6127.5,0.00%,F,F)



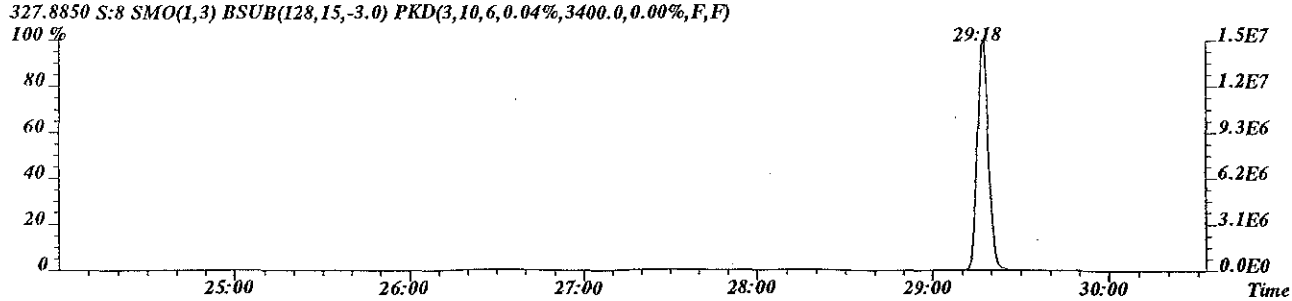
333.9338 S:8 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2717.5,0.00%,F,F)



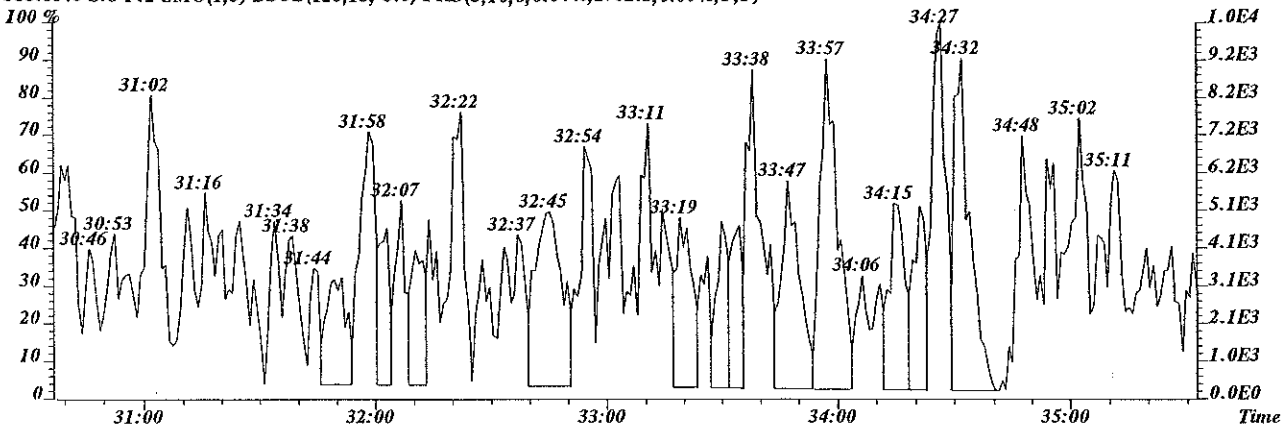
327.8850 S:8 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3400.0,0.00%,F,F)



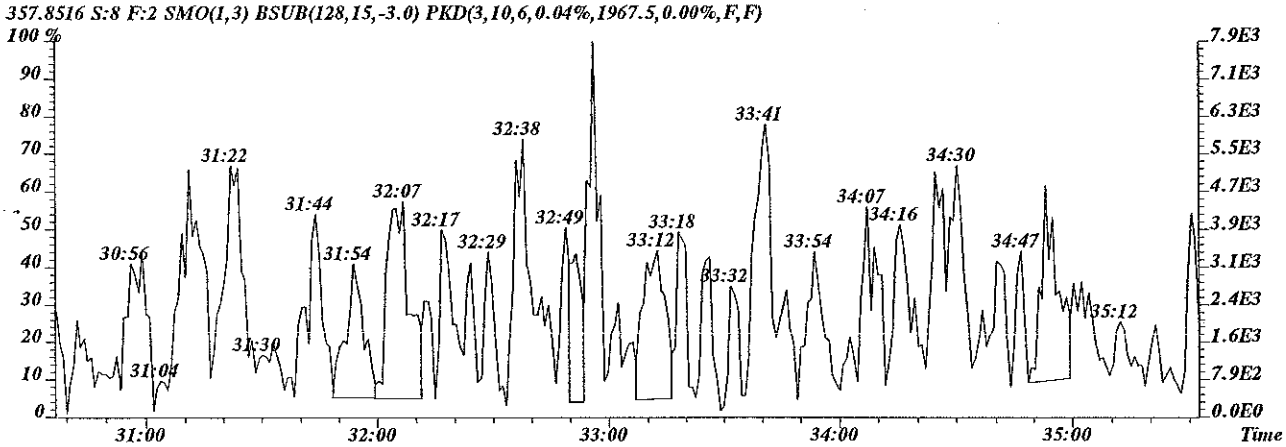
327.8850 S:8 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3400.0,0.00%,F,F)



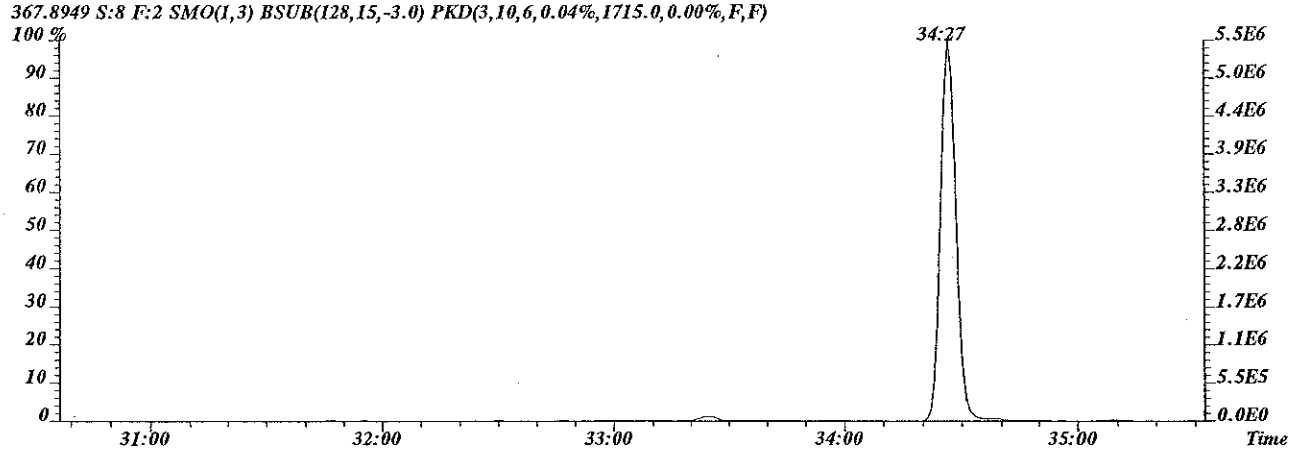
File:0903023A #1-324 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
Sample#8 File Text:M23 Text:0903023-MB Exp:8290
355.8546 S:8 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2762.5,0.00%,F,F)



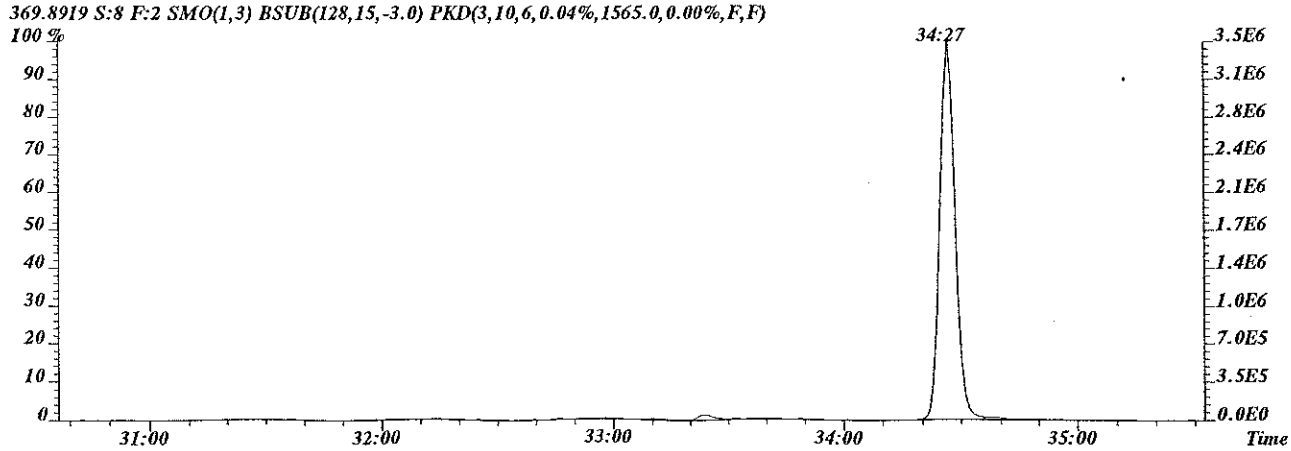
357.8516 S:8 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1967.5,0.00%,F,F)



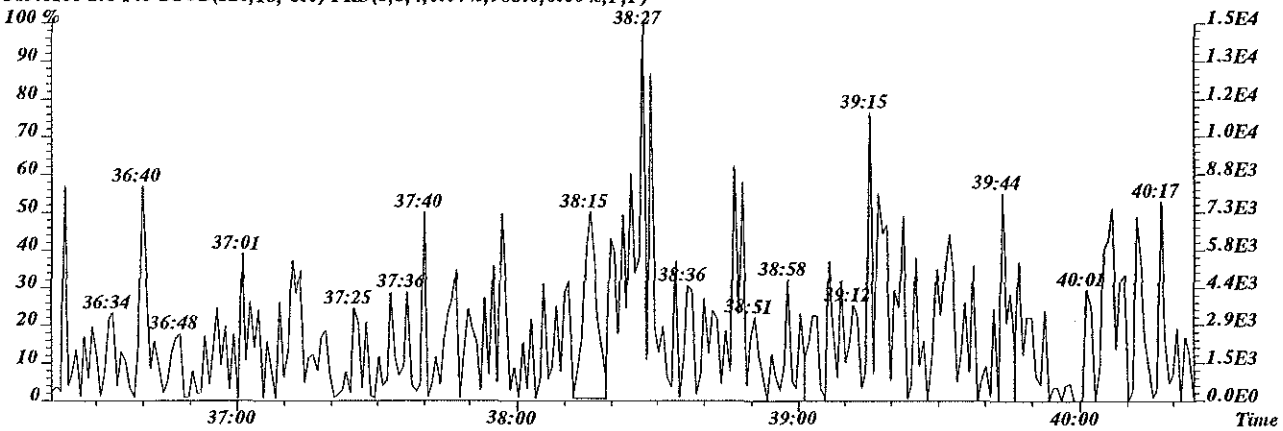
367.8949 S:8 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1715.0,0.00%,F,F)



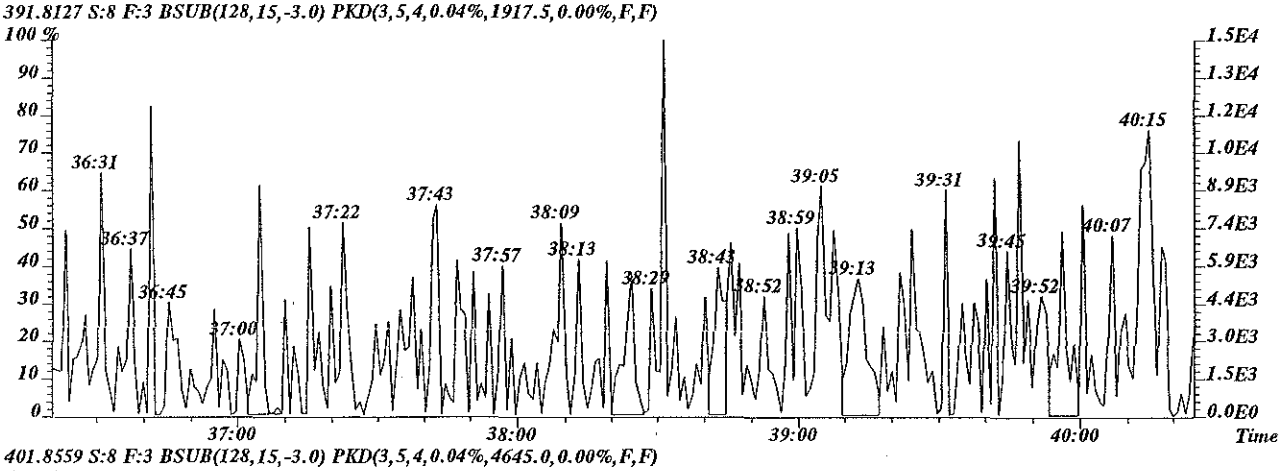
369.8919 S:8 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1565.0,0.00%,F,F)



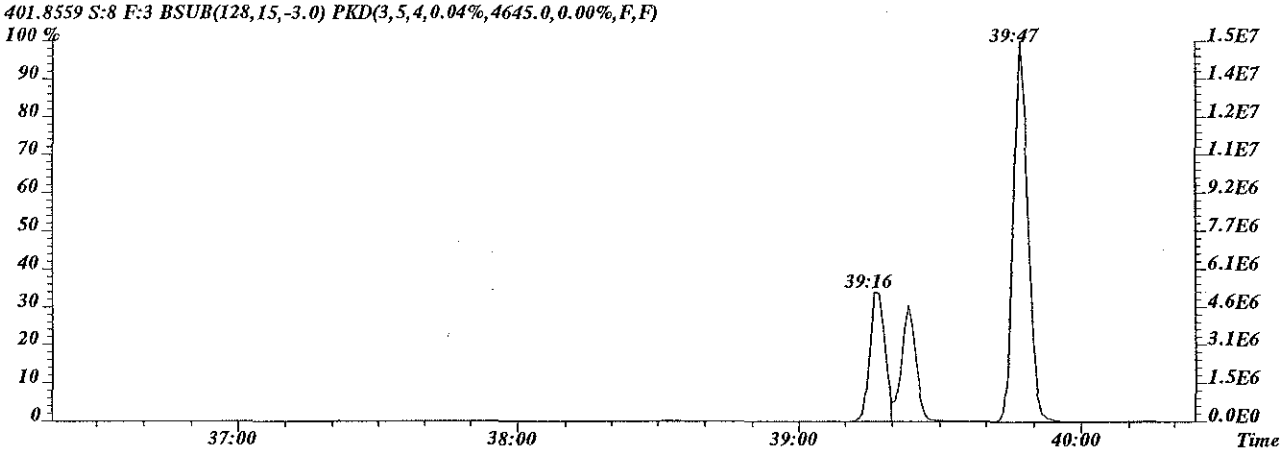
File:0903023A #1-277 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
Sample#8 File Text:M23 Text:0903023-MB Exp:8290
389.8156 S:8 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,985.0,0.00%,F,F)



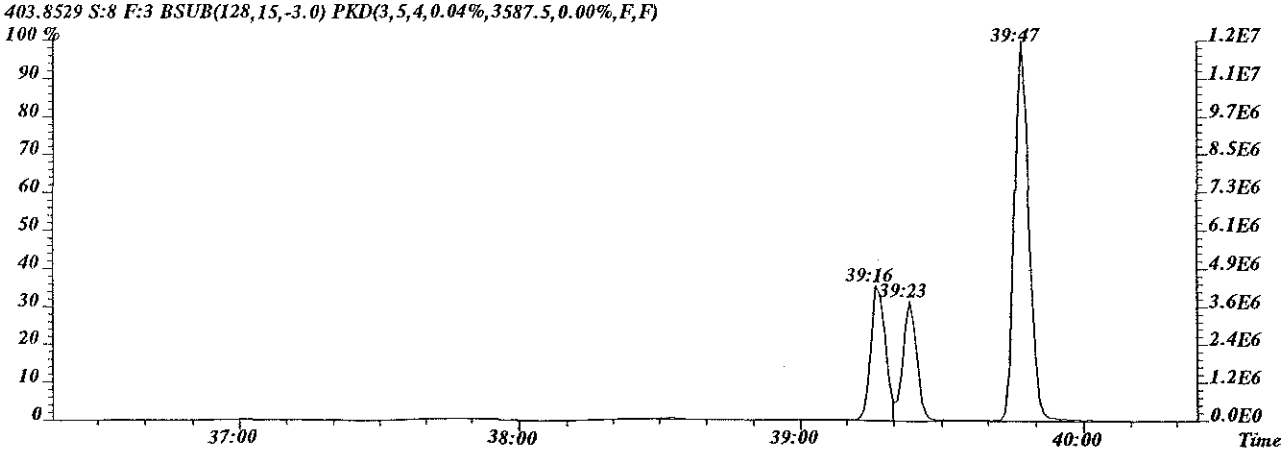
391.8127 S:8 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1917.5,0.00%,F,F)



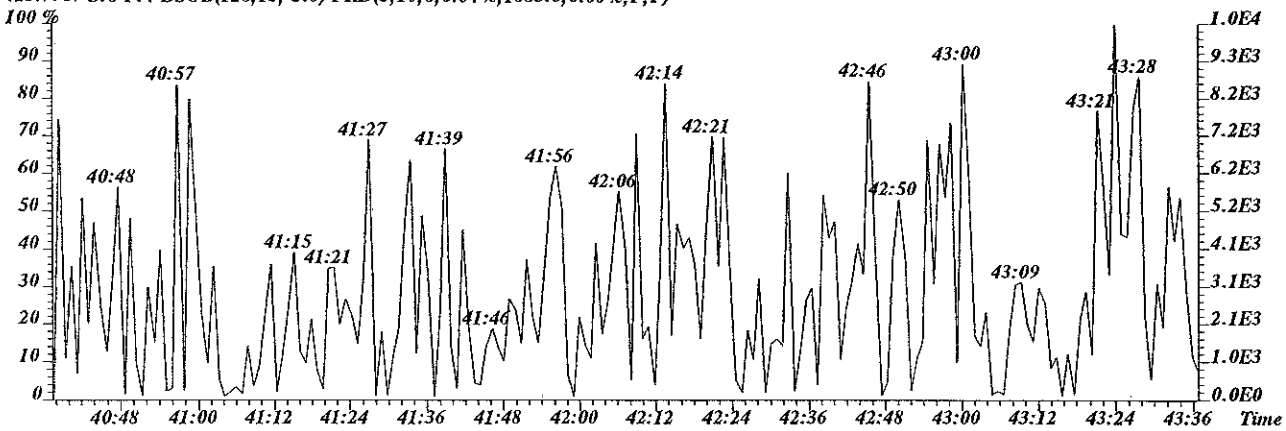
401.8559 S:8 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,4645.0,0.00%,F,F)



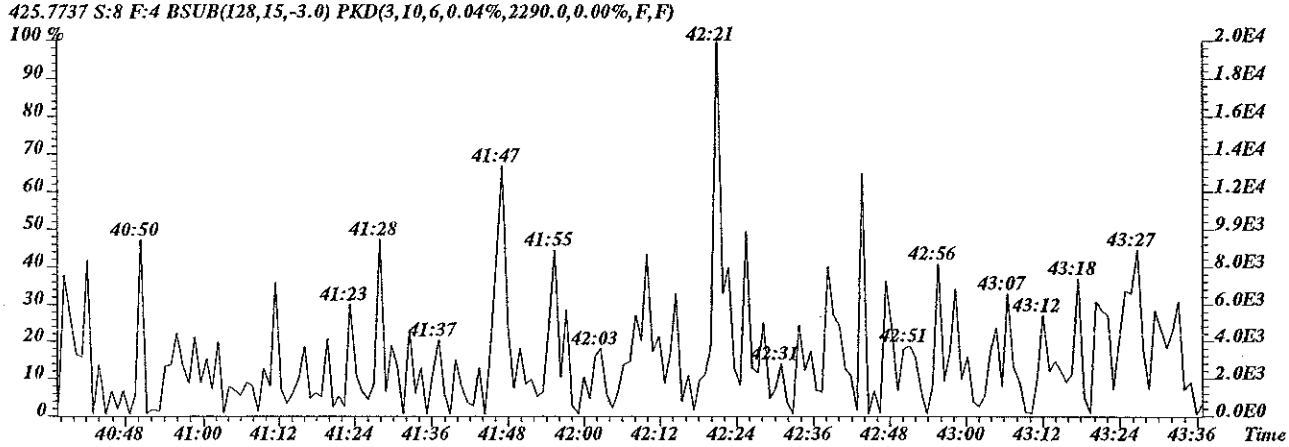
403.8529 S:8 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3587.5,0.00%,F,F)



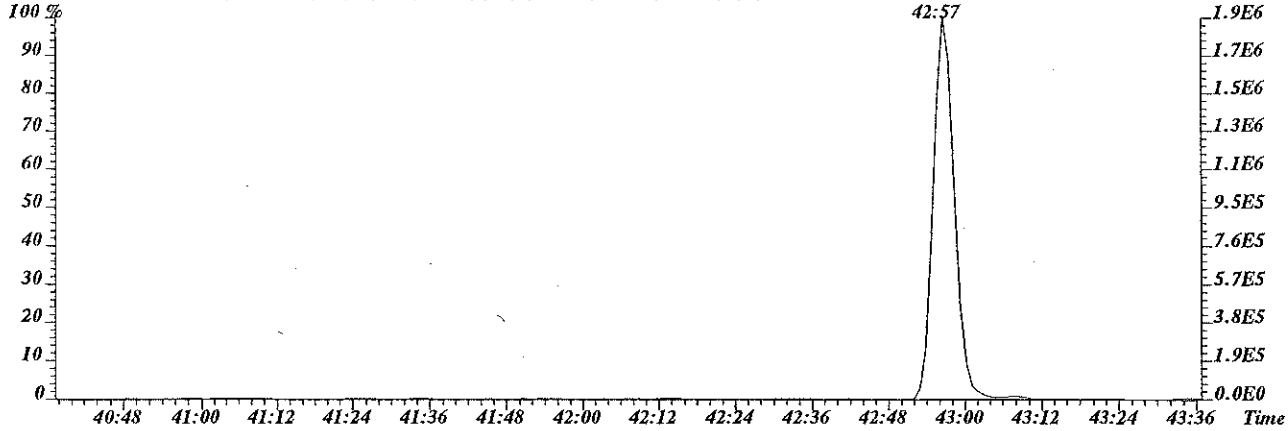
File:0903023A #1-197 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
Sample#8 File Text:M23 Text:0903023-MB Exp:8290
423.7767 S:8 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1685.0,0.00%,F,F)



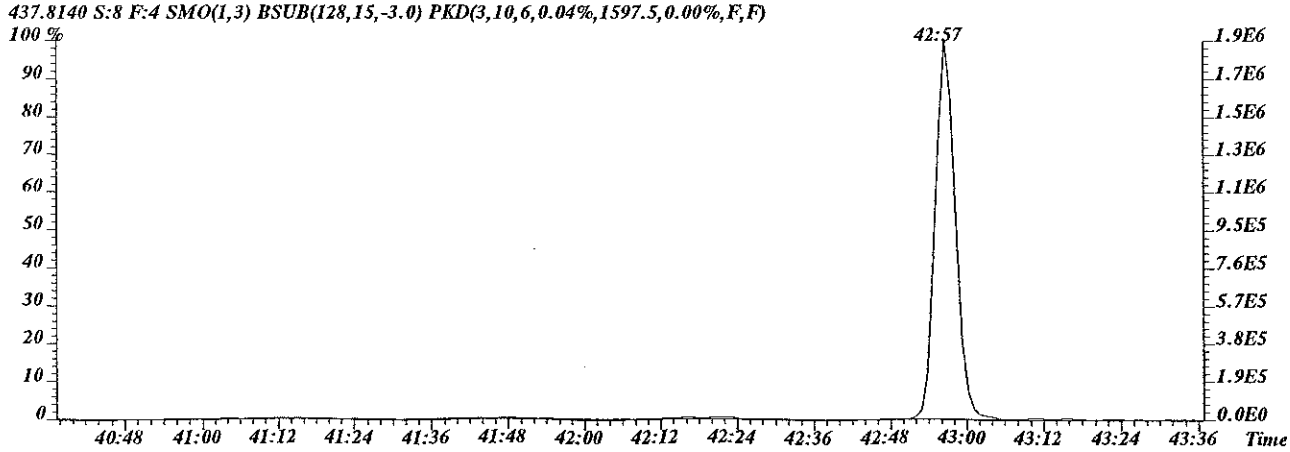
425.7737 S:8 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2290.0,0.00%,F,F)



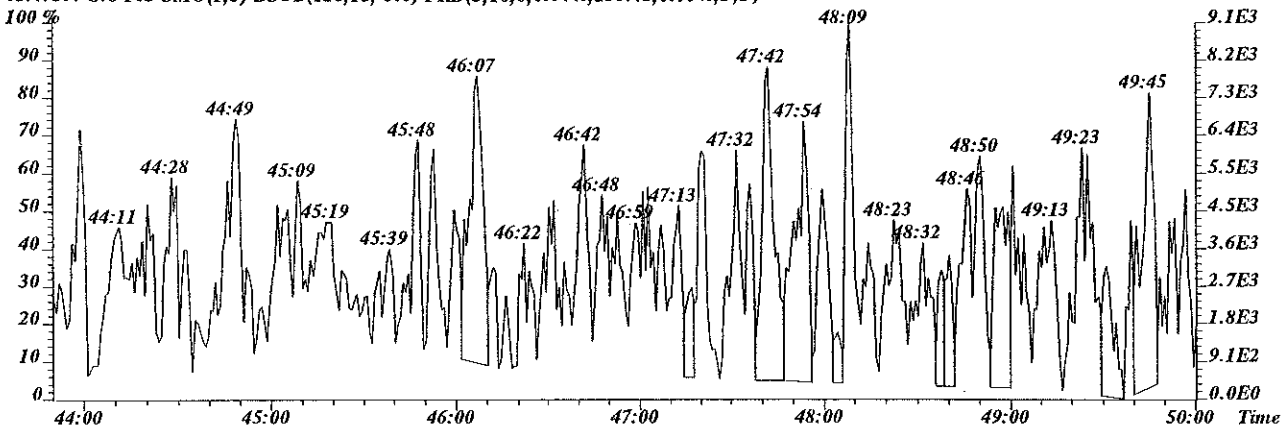
435.8169 S:8 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1202.5,0.00%,F,F)



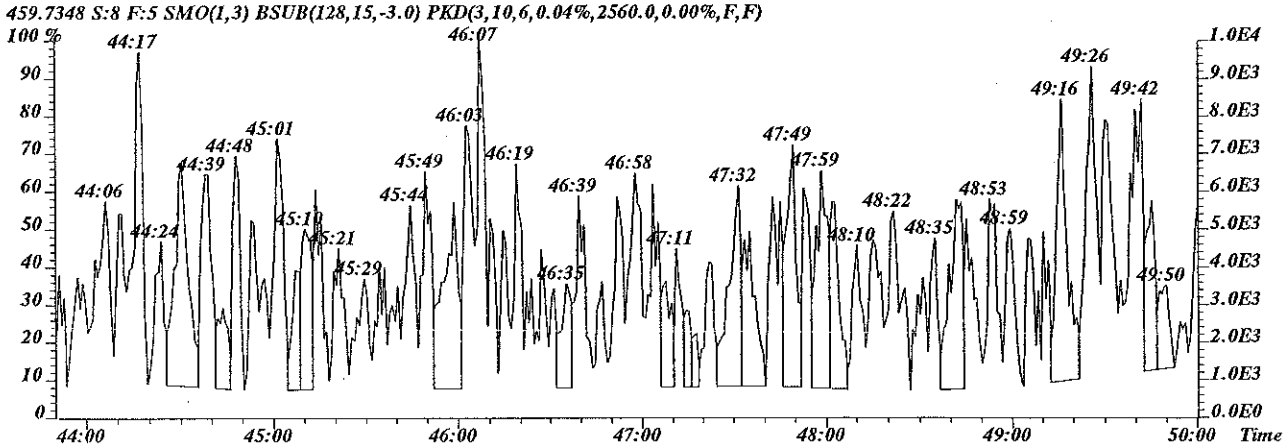
437.8140 S:8 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1597.5,0.00%,F,F)



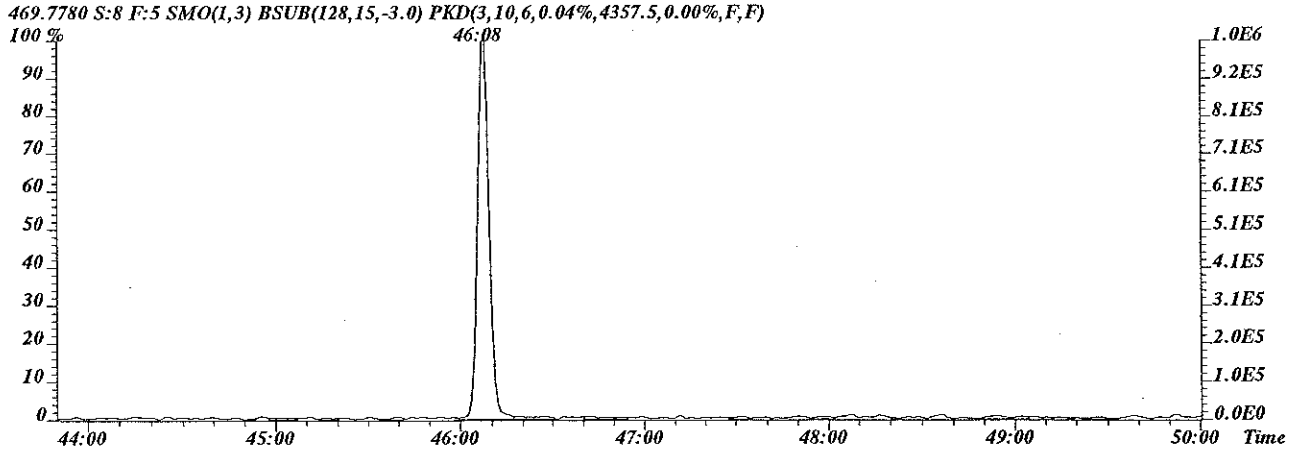
File:0903023A #1-445 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
Sample#8 File Text:M23 Text:0903023-MB Exp:8290
457.7377 S:8 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2307.5,0.00%,F,F)



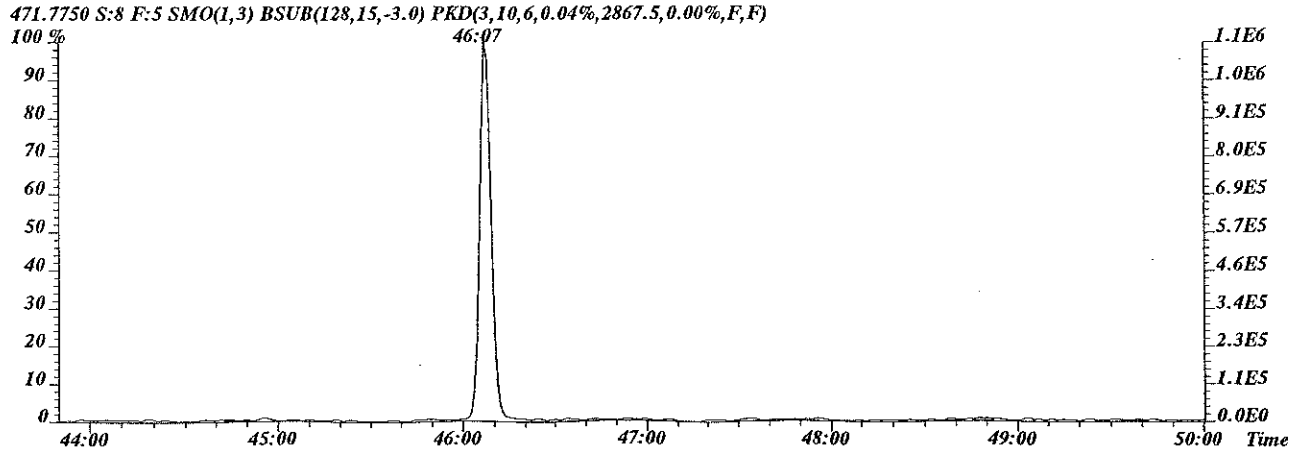
459.7348 S:8 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2560.0,0.00%,F,F)



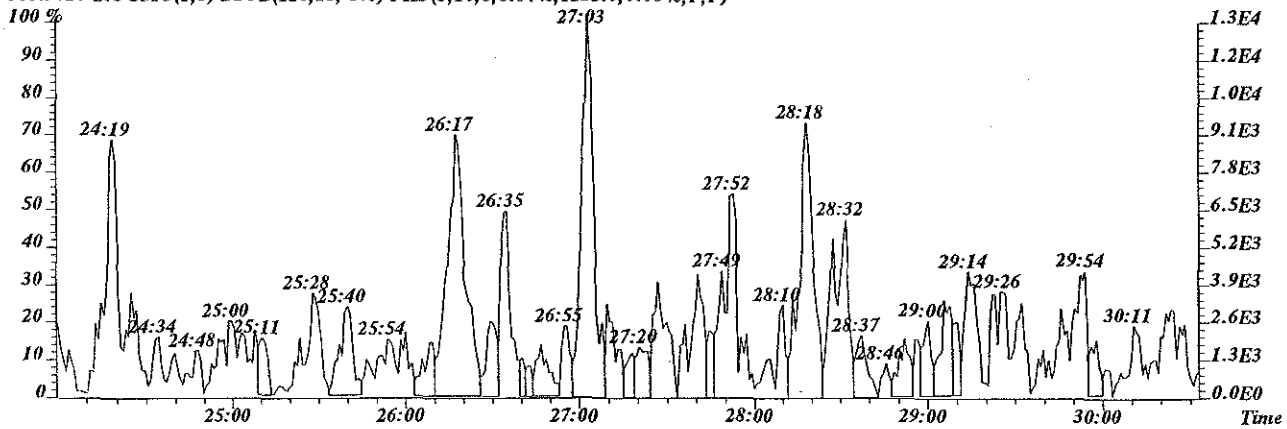
469.7780 S:8 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4357.5,0.00%,F,F)



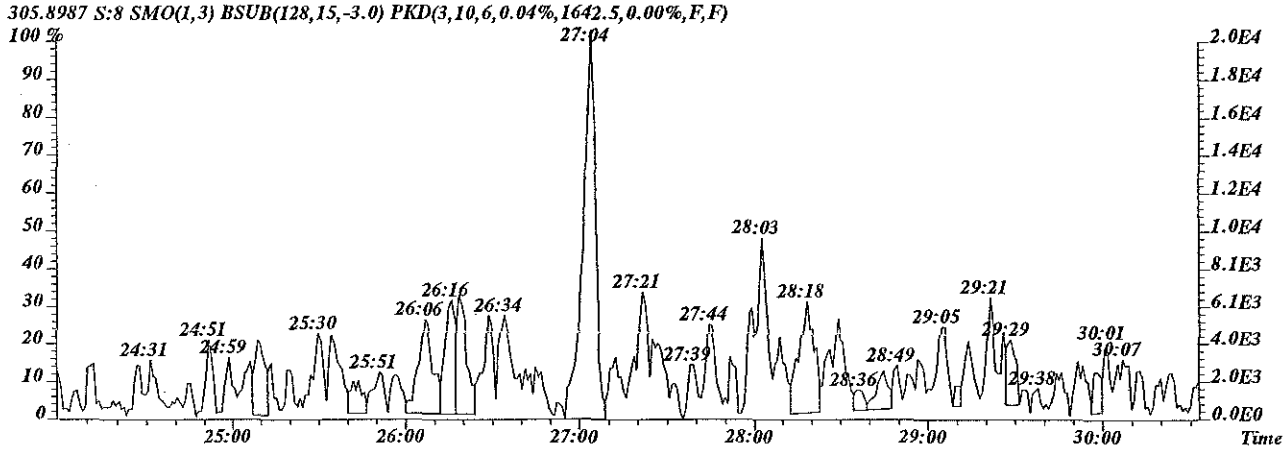
471.7750 S:8 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2867.5,0.00%,F,F)



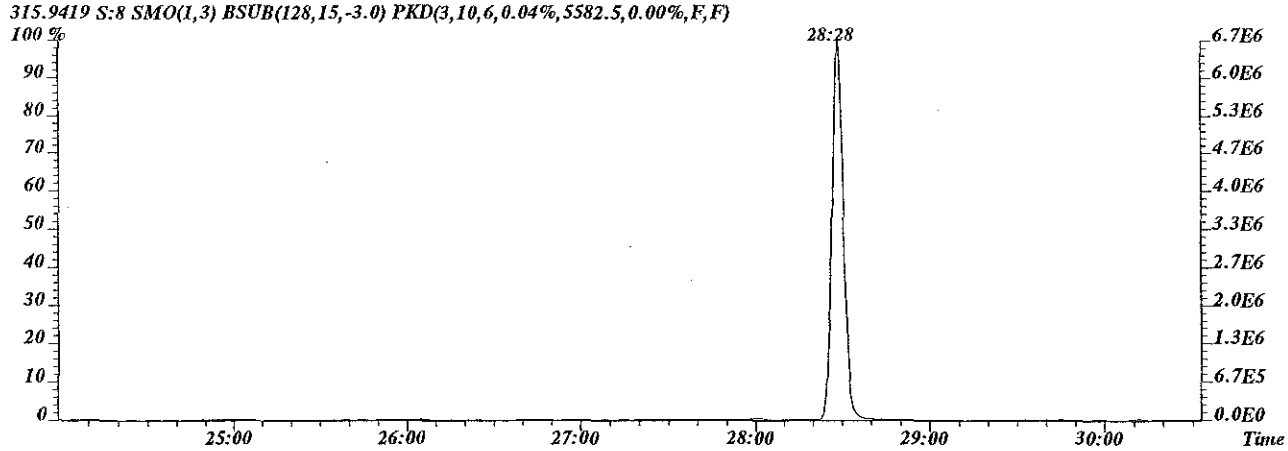
File:0903023A #1-430 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
Sample#8 File Text:M23 Text:0903023-MB Exp:8290
303.9016 S:8 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1225.0,0.00%,F,F)



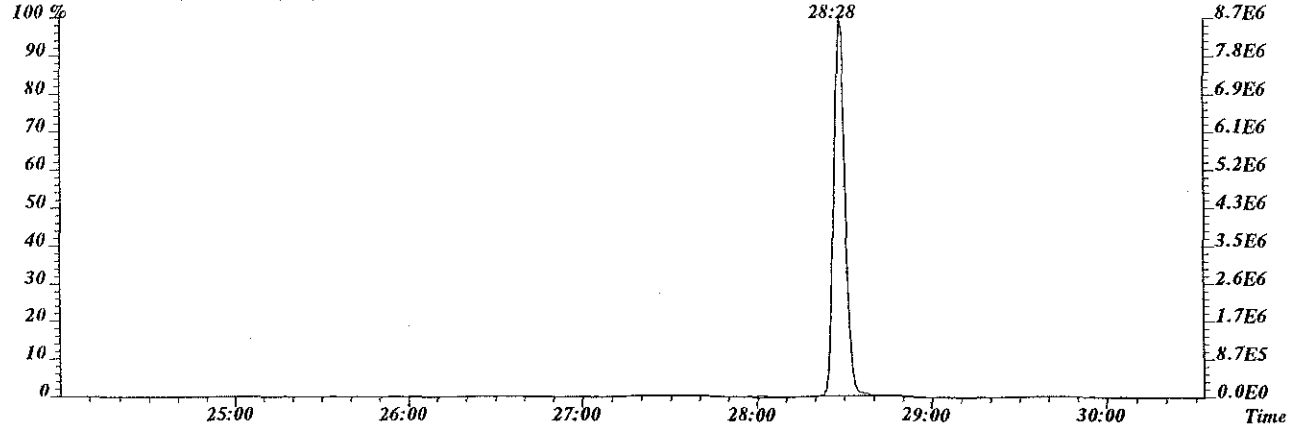
305.8987 S:8 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1642.5,0.00%,F,F)



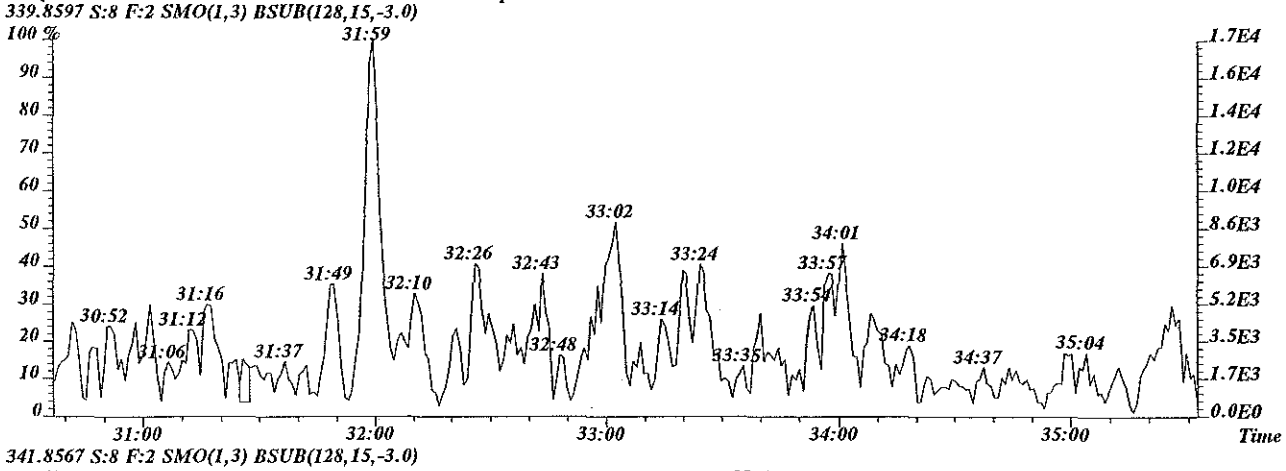
315.9419 S:8 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5582.5,0.00%,F,F)



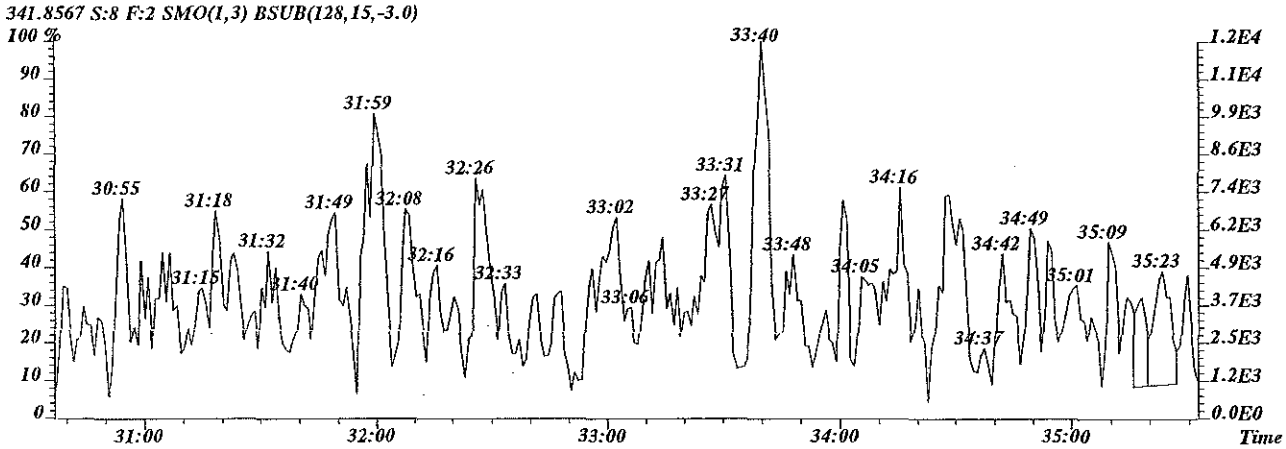
317.9389 S:8 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3617.5,0.00%,F,F)



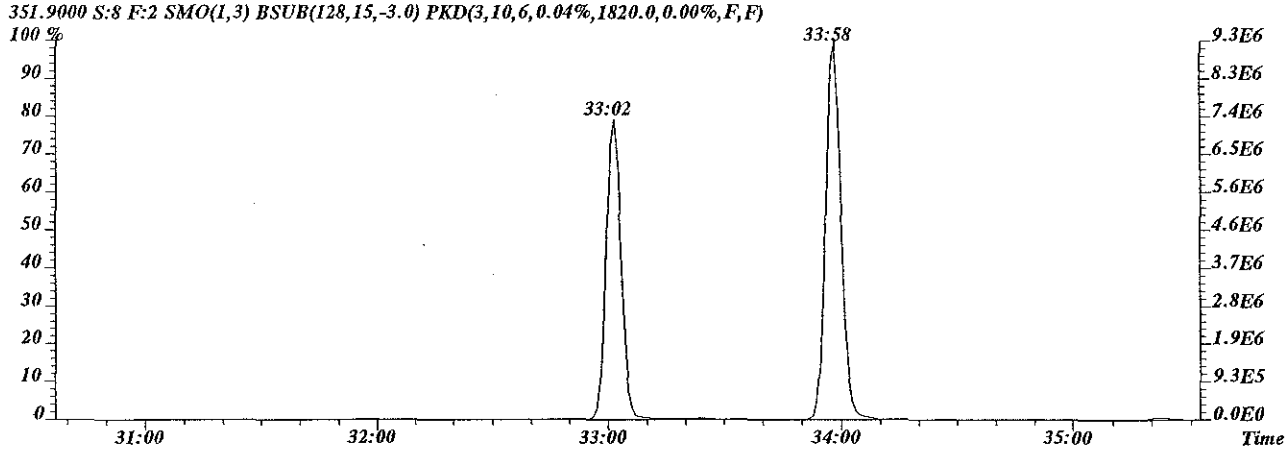
File:0903023A #1-324 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
Sample#8 File Text:M23 Text:0903023-MB Exp:8290
339.8597 S:8 F:2 SMO(1,3) BSUB(128,15,-3.0)



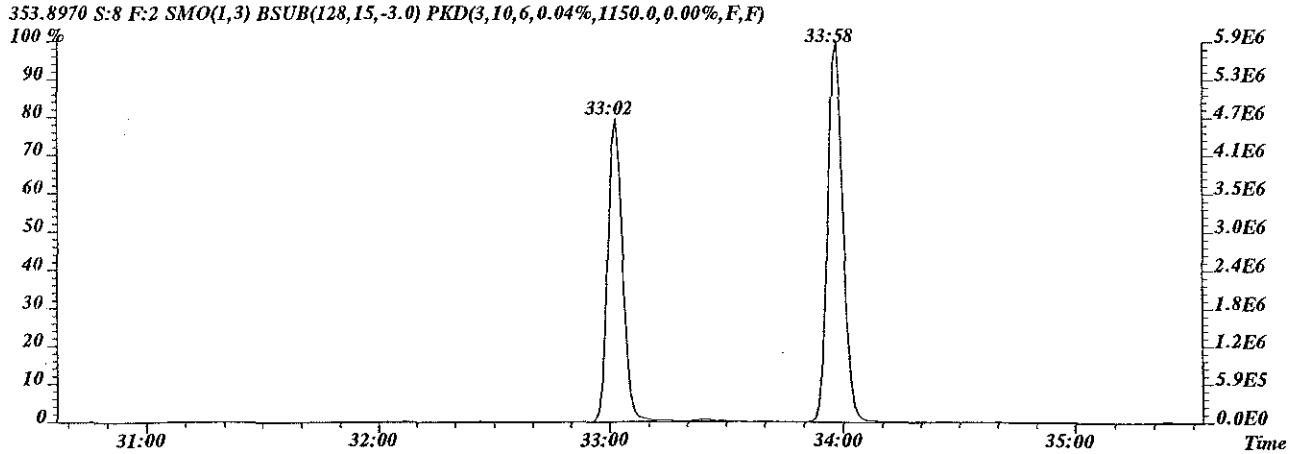
341.8567 S:8 F:2 SMO(1,3) BSUB(128,15,-3.0)



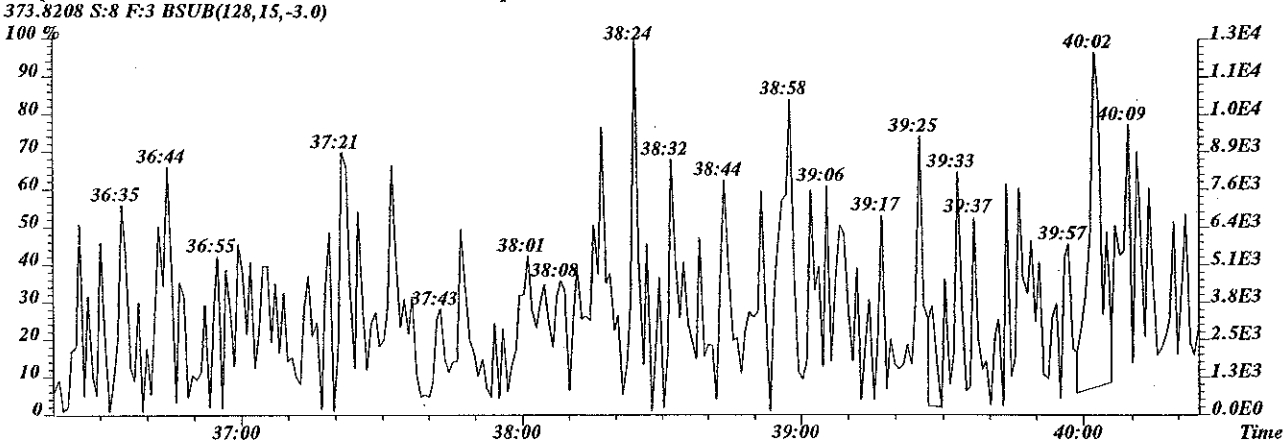
351.9000 S:8 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1820.0,0.00%,F,F)



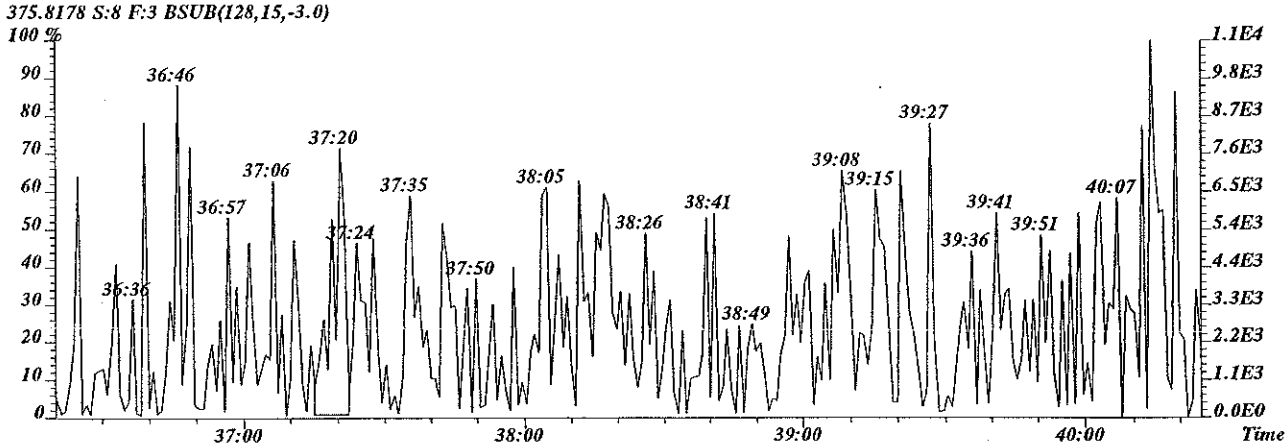
353.8970 S:8 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1150.0,0.00%,F,F)



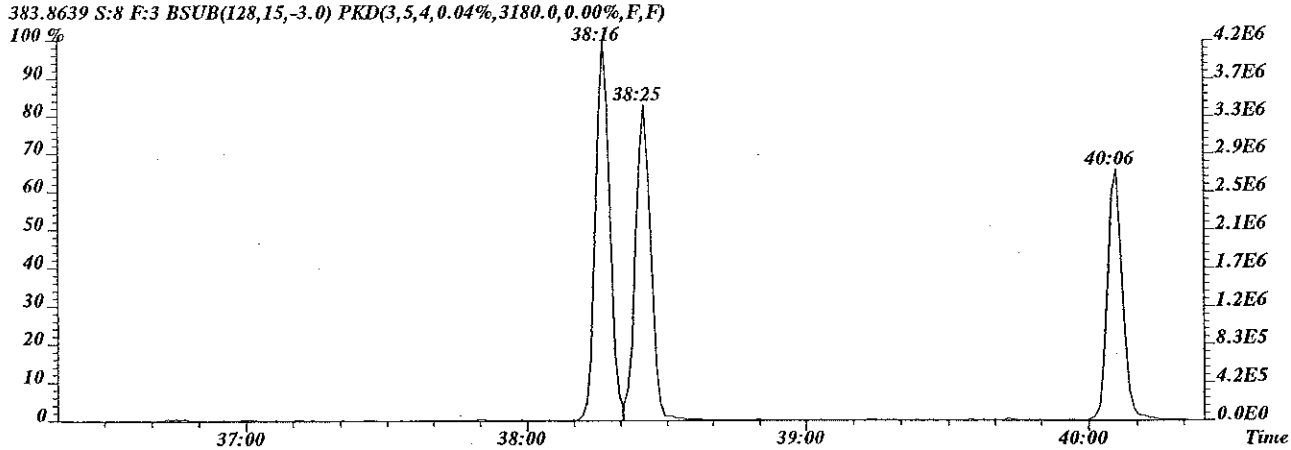
File:0903023A #1-277 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
Sample#8 File Text:M23 Text:0903023-MB Exp:8290
373.8208 S:8 F:3 BSUB(128,15,-3.0)



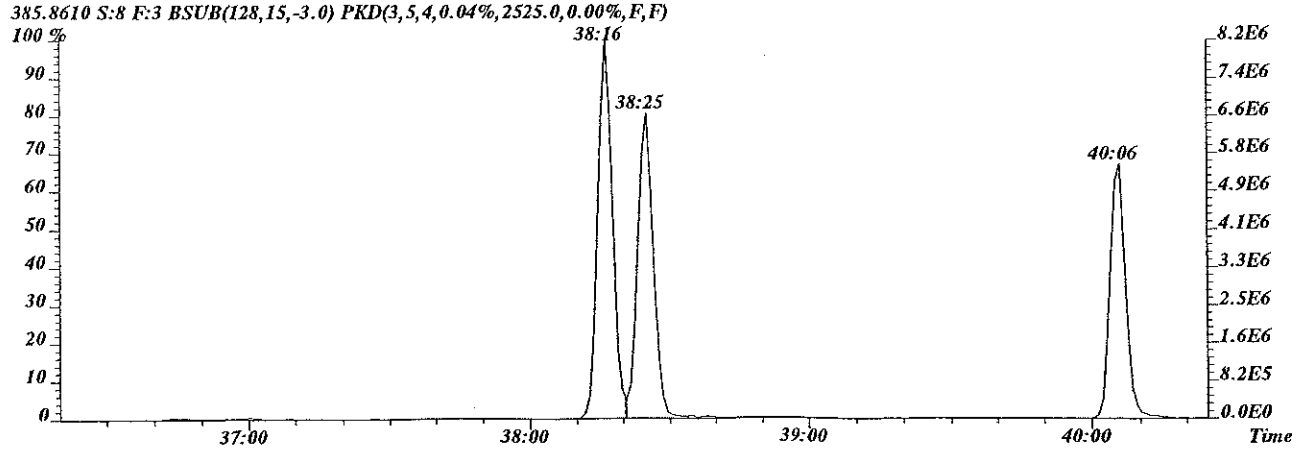
375.8178 S:8 F:3 BSUB(128,15,-3.0)



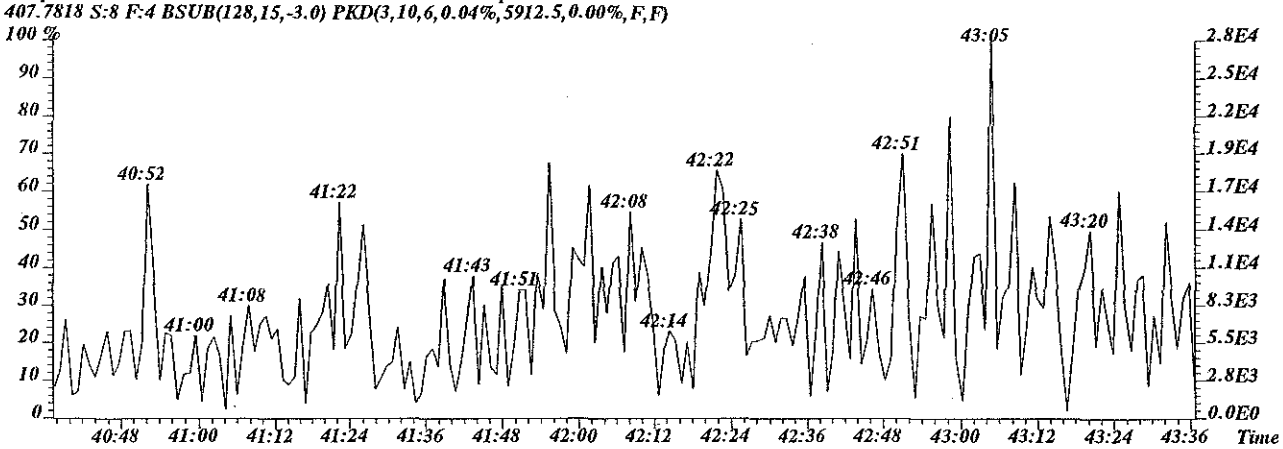
383.8639 S:8 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3180.0,0.00%,F,F)



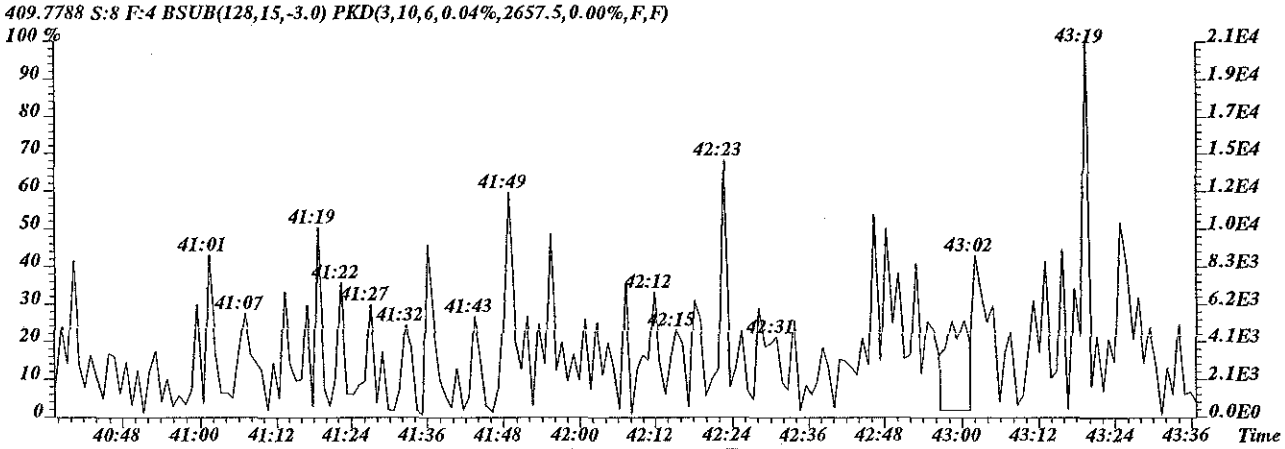
385.8610 S:8 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2525.0,0.00%,F,F)



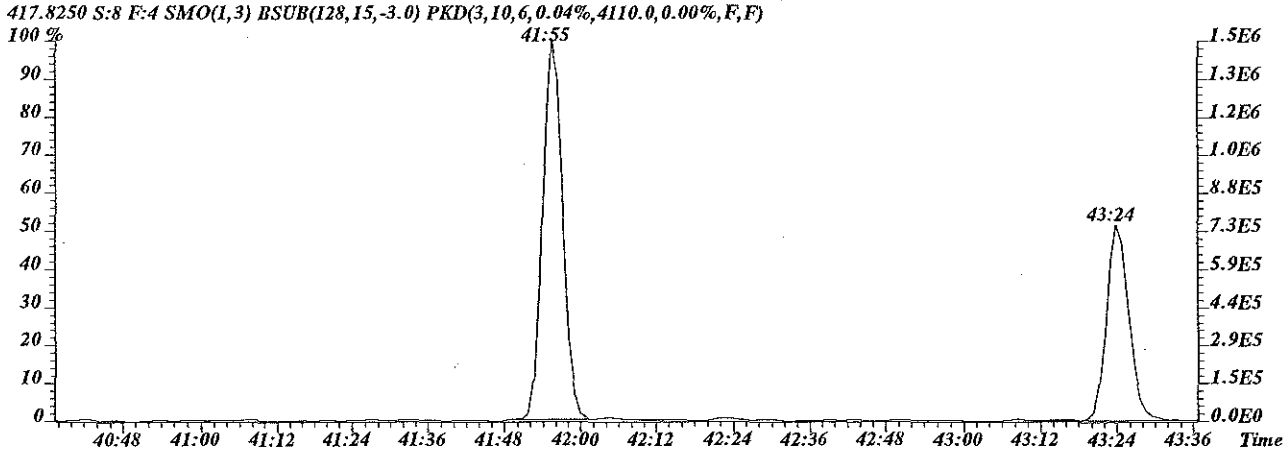
File:0903023A #1-197 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
Sample#8 File Text:M23 Text:0903023-MB Exp:8290
407.7818 S:8 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5912.5,0.00%,F,F)



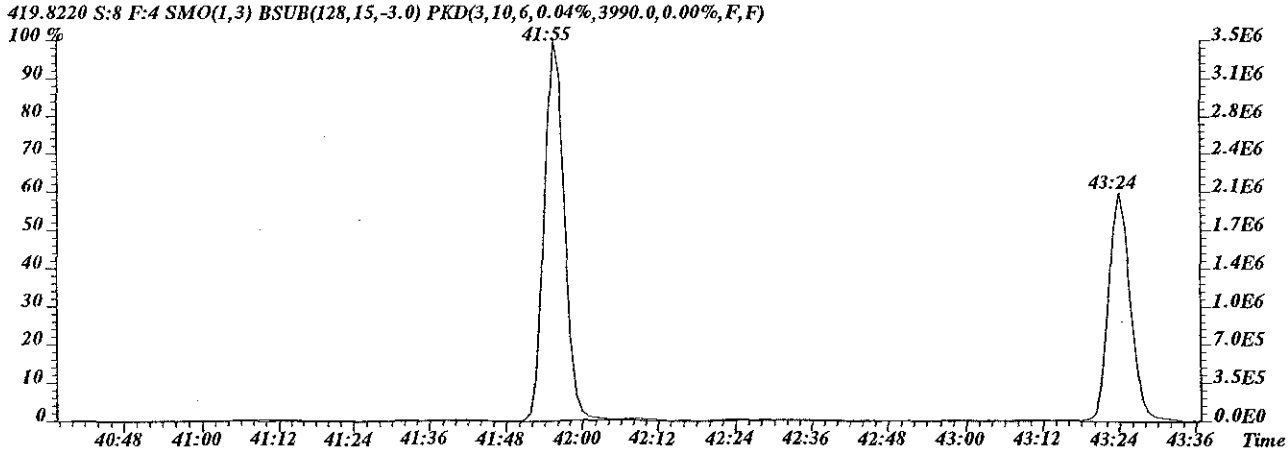
409.7788 S:8 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2657.5,0.00%,F,F)



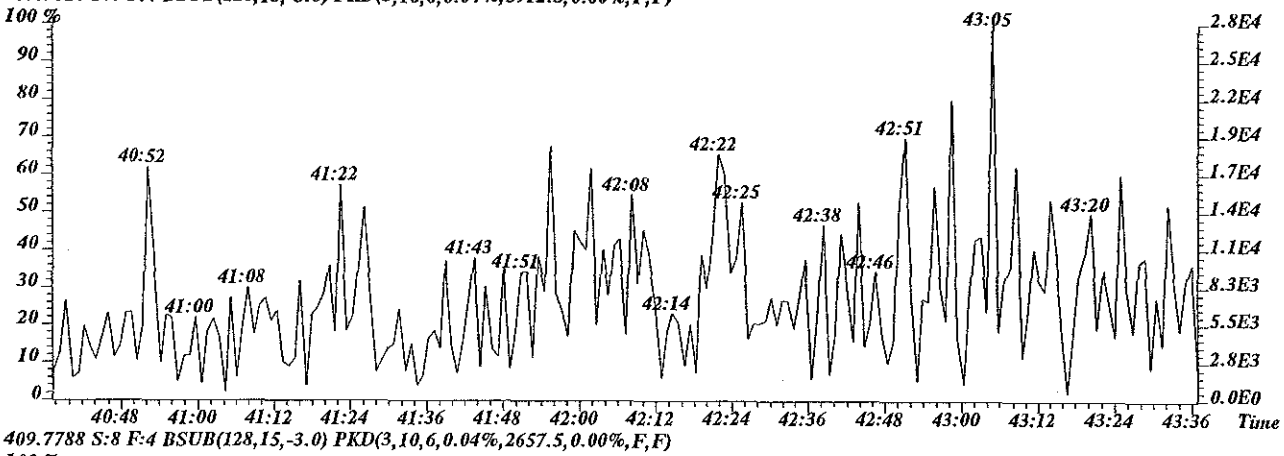
417.8250 S:8 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4110.0,0.00%,F,F)



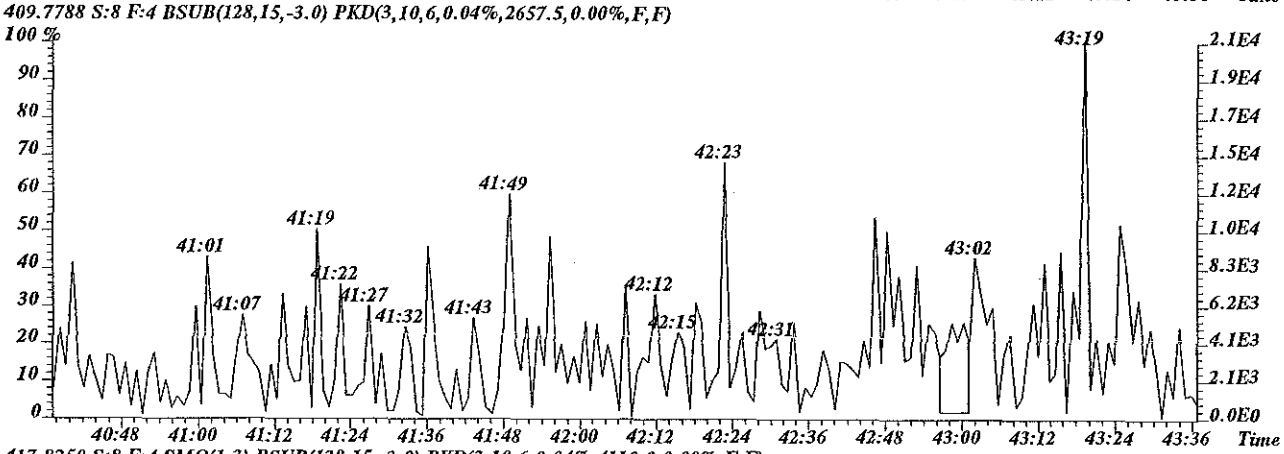
419.8220 S:8 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3990.0,0.00%,F,F)



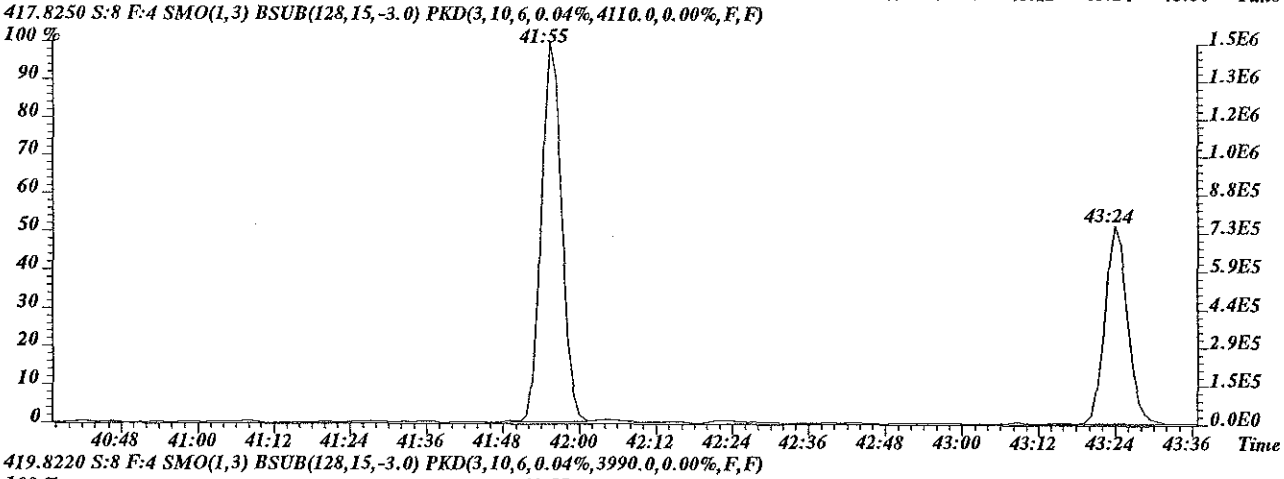
File:0903023A #1-197 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
Sample#8 File Text:M23 Text:0903023-MB Exp:8290
407.7818 S:8 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5912.5,0.00%,F,F)



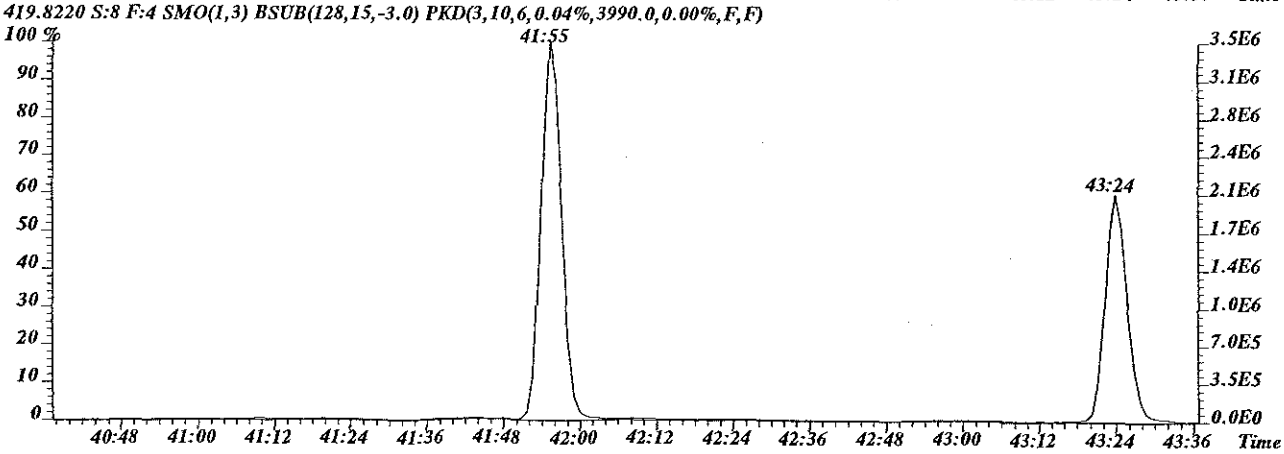
409.7788 S:8 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2657.5,0.00%,F,F)



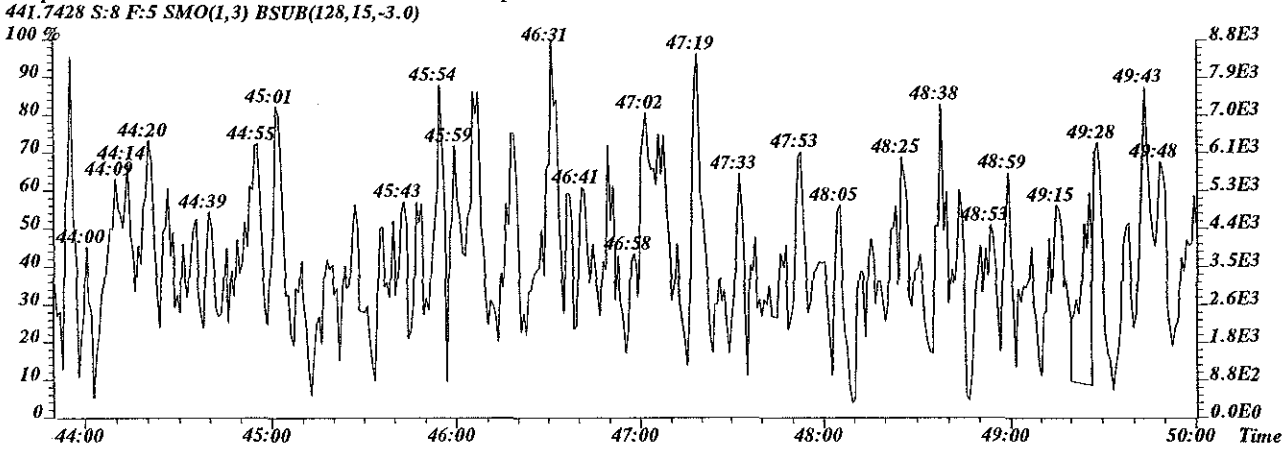
417.8250 S:8 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4110.0,0.00%,F,F)



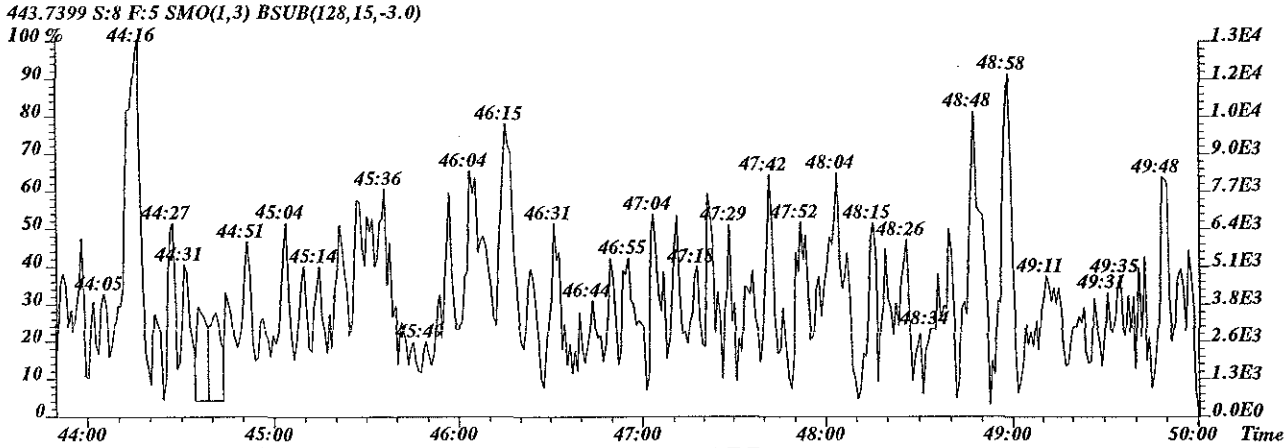
419.8220 S:8 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3990.0,0.00%,F,F)



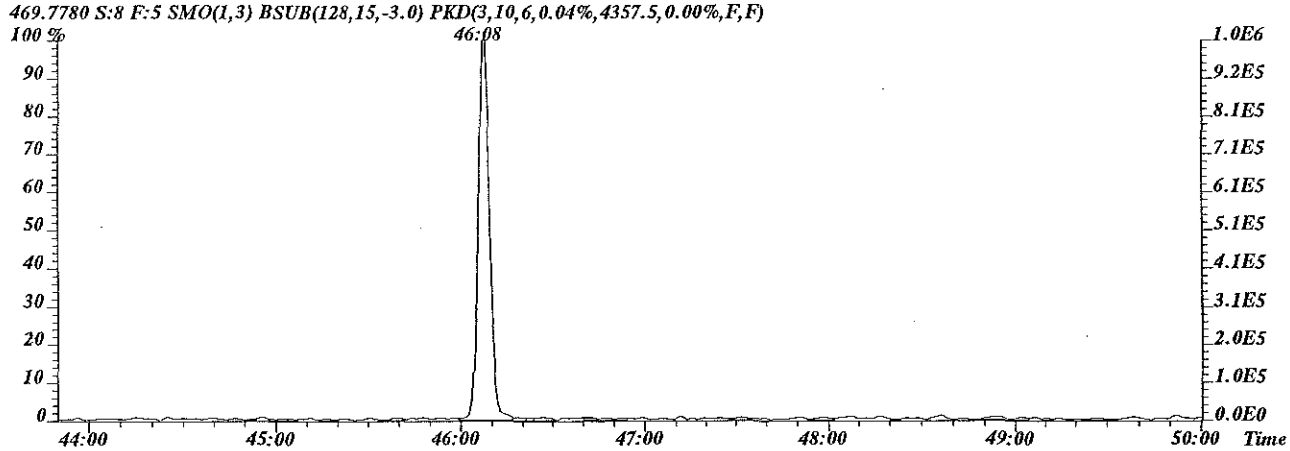
File:0903023A #1-445 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
Sample#8 File Text:M23 Text:0903023-MB Exp:8290
441.7428 S:8 F:5 SMO(1,3) BSUB(128,15,-3.0)



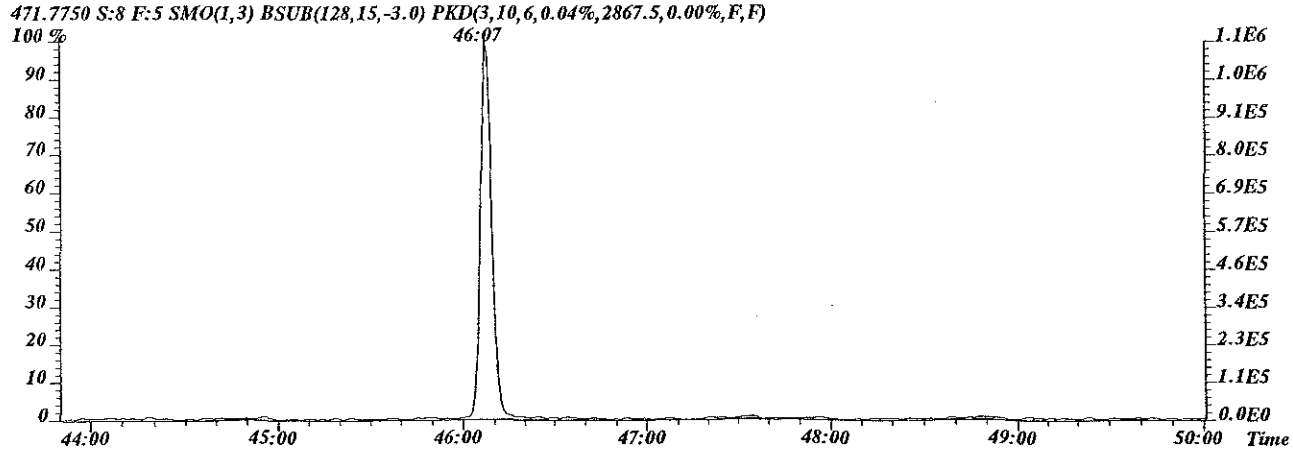
443.7399 S:8 F:5 SMO(1,3) BSUB(128,15,-3.0)



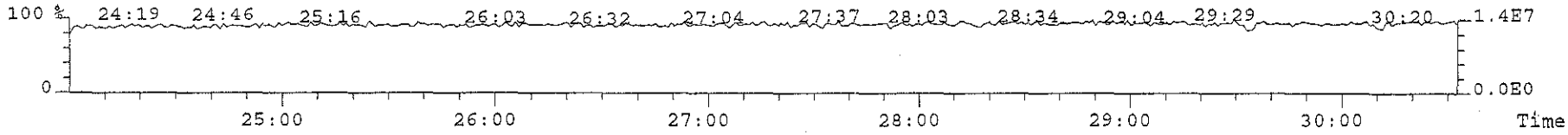
469.7780 S:8 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4357.5,0.00%,F,F)



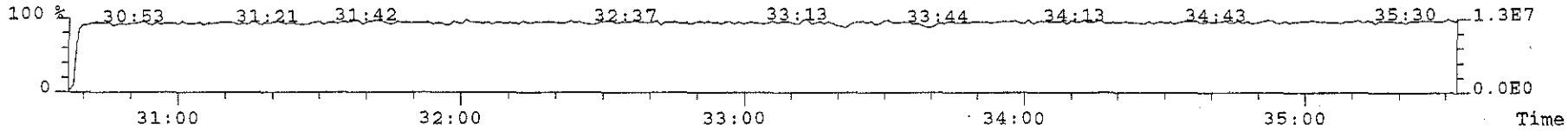
471.7750 S:8 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2867.5,0.00%,F,F)



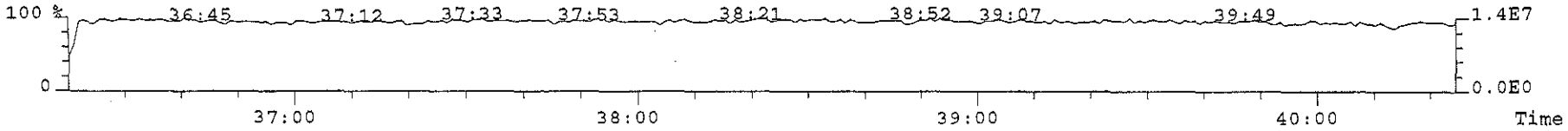
File:0903023A #1-430 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:8 Exp:8290
Sample Text:0903023-MB File Text:M23



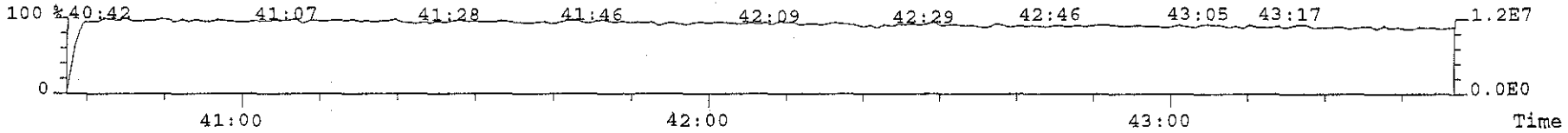
File:0903023A #1-324 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:8 F:2 Exp:8290
Sample Text:0903023-MB File Text:M23



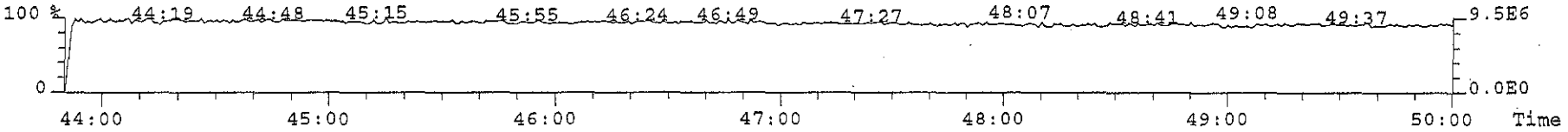
File:0903023A #1-277 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:8 F:3 Exp:8290
Sample Text:0903023-MB File Text:M23



File:0903023A #1-197 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:8 F:4 Exp:8290
Sample Text:0903023-MB File Text:M23



File:0903023A #1-445 Acq:16-SEP-2003 23:06:39 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:8 F:5 Exp:8290
Sample Text:0903023-MB File Text:M23



CALIBRATIONS

Run: M23A05 Analyte: M23A05 Cal: Results: Version: V3.6 9-SEP-2002 14:02:21

Name	Mean RRF	S. D.	%RSD	0903023A S2 RRF#1	SD	0903023A S3 RRF#2	SD	0903023A S4 RRF#3	SD	0903023A S5 RRF#4	SD	0903023A S6 RRF#5	SD
2,3,7,8-TCDD	0.8568	0.136	15.85 %	0.77	-0.6	0.66	-1.4	0.95	0.7	0.91	0.4	0.99	1.0
1,2,3,7,8-PeCDD	0.8742	0.092	10.52 %	0.82	-0.6	0.75	-1.4	0.93	0.6	0.90	0.2	0.98	1.2
1,2,3,4,7,8-HxCDD	0.9164	0.127	13.87 %	0.82	-0.7	0.75	-1.3	0.97	0.5	0.96	0.4	1.07	1.2
1,2,3,6,7,8-HxCDD	0.8904	0.102	11.48 %	0.86	-0.3	0.76	-1.3	0.88	-0.1	0.92	0.3	1.04	1.5
1,2,3,7,8,9,-HxCDD	0.9317	0.103	11.03 %	0.89	-0.4	0.79	-1.4	0.96	0.3	0.95	0.2	1.07	1.4
1,2,3,4,6,7,8-HpCDD	0.8171	0.108	13.22 %	0.72	-0.9	0.68	-1.2	0.89	0.7	0.85	0.3	0.94	1.1
1,2,3,4,6,7,8,9-OCDD	0.8427	0.134	15.86 %	0.73	-0.9	0.68	-1.2	0.94	0.7	0.89	0.3	0.99	1.1
2,3,7,8-TCDF	0.8021	0.109	13.63 %	0.73	-0.7	0.65	-1.4	0.89	0.8	0.83	0.3	0.91	1.0
1,2,3,7,8-PeCDF	0.8924	0.047	5.24 %	0.89	0.0	0.82	-1.5	0.91	0.5	0.88	-0.2	0.95	1.3
2,3,4,7,8-PeCDF	0.8894	0.050	5.64 %	0.89	0.1	0.82	-1.4	0.89	-0.1	0.89	0.0	0.96	1.4
1,2,3,4,4,8-HxCDF	1.0171	0.069	6.75 %	0.99	-0.4	0.94	-1.2	1.12	1.5	0.99	-0.3	1.04	0.4
1,2,3,6,7,8-HxCDF	1.0055	0.058	5.81 %	1.00	-0.1	0.94	-1.1	1.10	1.6	0.99	-0.3	1.00	0.0
2,3,4,6,7,8-HxCDF	0.8731	0.055	6.29 %	0.88	0.2	0.78	-1.6	0.93	1.0	0.87	-0.1	0.90	0.5
1,2,3,7,8,9-HxCDF	0.7763	0.091	11.72 %	0.82	0.5	0.62	-1.7	0.85	0.9	0.76	-0.2	0.82	0.5
1,2,3,4,6,7,8-HpCDF	1.2786	0.116	9.07 %	1.24	-0.3	1.11	-1.5	1.34	0.5	1.29	0.1	1.42	1.2
1,2,3,4,7,8,9-HpCDF	0.7171	0.140	19.52 %	0.59	-0.9	0.56	-1.1	0.76	0.3	0.78	0.5	0.89	1.3
1,2,3,4,6,7,8,9-OCDF	0.8719	0.156	17.90 %	0.71	-1.1	0.71	-1.0	0.93	0.4	0.94	0.5	1.06	1.2
Total TCDD	0.8572	0.136	15.88 %	0.77	-0.6	0.66	-1.4	0.95	0.7	0.91	0.4	0.99	1.0
Total PeCDD	0.8748	0.091	10.39 %	0.82	-0.6	0.75	-1.3	0.93	0.6	0.90	0.2	0.98	1.2
Total HxCDD	0.9128	0.109	11.98 %	0.85	-0.5	0.77	-1.3	0.94	0.2	0.94	0.3	1.06	1.4
Total HpCDD	0.8171	0.108	13.22 %	0.72	-0.9	0.68	-1.2	0.89	0.7	0.85	0.3	0.94	1.1
Total TCDF	1.0527	0.131	12.47 %	0.99	-0.5	0.86	-1.5	1.16	0.8	1.08	0.2	1.17	0.9
Total PeCDF	0.8993	0.051	5.67 %	0.90	0.1	0.82	-1.5	0.91	0.2	0.89	-0.1	0.97	1.3
Total HxCDF	0.9182	0.065	7.07 %	0.92	0.1	0.82	-1.5	1.00	1.3	0.90	-0.2	0.94	0.4
Total HpCDF	0.9980	0.125	12.55 %	0.91	-0.7	0.84	-1.3	1.05	0.4	1.03	0.3	1.16	1.3
13C12-2,3,7,8-TCDF	1.4051	0.026	1.87 %	1.41	0.2	1.40	-0.3	1.37	-1.5	1.41	0.3	1.44	1.3
13C12-2,3,7,8-TCDD	1.0843	0.037	3.41 %	1.05	-0.9	1.06	-0.5	1.06	-0.6	1.11	0.6	1.14	1.5
13C12-1,2,3,7,8-PeCDF	1.1354	0.071	6.25 %	1.08	-0.8	1.04	-1.3	1.16	0.4	1.19	0.7	1.21	1.0
13C12-1,2,3,7,8-PeCDD	0.8463	0.037	4.32 %	0.84	-0.1	0.78	-1.7	0.86	0.4	0.87	0.7	0.87	0.7
13C12-1,2,3,6,7,8-HxCDF	1.2746	0.103	8.05 %	1.21	-0.7	1.30	0.2	1.15	-1.2	1.30	0.2	1.42	1.4
13C12-1,2,3,6,7,8-HxCDD	0.9849	0.021	2.09 %	0.98	-0.4	1.02	1.6	0.96	-1.1	0.99	0.1	0.98	-0.2
13C12-1,2,3,4,6,7,8-HpCF	0.7025	0.033	4.75 %	0.67	-0.9	0.72	0.6	0.66	-1.3	0.73	0.7	0.73	0.9
3C12-1,2,3,4,6,7,8-HPCDD	0.6072	0.042	6.87 %	0.56	-1.1	0.61	0.0	0.57	-0.9	0.65	1.0	0.65	1.0
13C12-OCDD	0.2359	0.036	15.11 %	0.19	-1.4	0.24	0.2	0.21	-0.6	0.27	1.1	0.26	0.7
37C12-2,3,7,8-TCDD	1.7180	0.252	14.67 %	1.53	-0.7	1.38	-1.3	1.91	0.7	1.80	0.3	1.97	1.0
13C12-2,3,4,7,8-PeCDF	0.8825	0.047	5.38 %	0.89	0.2	0.81	-1.5	0.92	0.9	0.86	-0.4	0.92	0.8
13C12-1,2,3,4,7,8-HxCDF	0.9124	0.046	5.10 %	0.93	0.4	0.85	-1.3	0.97	1.3	0.88	-0.6	0.92	0.2
13C12-1,2,3,4,7,8-HxCDD	0.8624	0.107	12.41 %	0.81	-0.5	0.71	-1.4	0.91	0.5	0.89	0.3	0.99	1.2
13C12-1,2,3,4,7,8,9-HPCF	0.5124	0.109	21.36 %	0.39	-1.2	0.41	-0.9	0.56	0.4	0.57	0.5	0.64	1.2
13C12-1,2,3,7,8,9-HxCDF	0.6769	0.065	9.56 %	0.69	0.2	0.57	-1.7	0.74	0.9	0.68	0.0	0.71	0.6
13C12-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-	-	-	-	-	-
13C12-1,2,3,7,8,9-HxCDD	-	-	- %	-	-	-	-	-	-	-	-	-	-

Run #1 Filename 0903023A S: 2 I: 1 Acquired: 16-SEP-03 17:30:59 Processed: 17-SEP-03 08:39:11
Run: M23A05 Analyte: M23A05 Cal: M23A05 Results: Version: V3.6 9-SEP-2002 14:02:21
Sample text: CS-1 M2305 Comments:

	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?
1	nati	2,3,7,8-TCDD	0.50	2.01e+06	0.76	y	29:19	-	0.77	y	y
2	nati	1,2,3,7,8-PeCDD	2.50	8.55e+06	1.78	y	34:29	-	0.82	y	n
3	nati	1,2,3,4,7,8-HxCDD	2.50	6.47e+06	1.29	y	39:19	-	0.82	y	n
4	nati	1,2,3,6,7,8-HxCDD	2.50	6.72e+06	1.29	y	39:26	-	0.86	y	n
5	nati	1,2,3,7,8,9,-HxCDD	2.50	6.96e+06	1.26	y	39:49	-	0.89	y	n
6	nati	1,2,3,4,6,7,8-HpCDD	2.50	3.28e+06	1.03	y	42:59	-	0.72	y	y
7	nati	1,2,3,4,6,7,8,9-OCDD	5.00	2.18e+06	0.89	y	46:10	-	0.73	y	n
8	nati	2,3,7,8-TCDF	0.50	2.54e+06	0.78	y	28:31	-	0.73	y	n
9	nati	1,2,3,7,8-PeCDF	2.50	1.20e+07	1.67	y	33:04	-	0.89	y	n
10	nati	2,3,4,7,8-PeCDF	2.50	1.20e+07	1.72	y	34:01	-	0.89	y	n
11	nati	1,2,3,4,4,8-HxCDF	2.50	9.63e+06	1.30	y	38:18	-	0.99	y	n
12	nati	1,2,3,6,7,8-HxCDF	2.50	9.69e+06	1.33	y	38:27	-	1.00	y	n
13	nati	2,3,4,6,7,8-HxCDF	2.50	8.57e+06	1.25	y	39:10	-	0.88	y	n
14	nati	1,2,3,7,8,9-HxCDF	2.50	7.98e+06	1.30	y	40:07	-	0.82	y	n
15	nati	1,2,3,4,6,7,8-HpCDF	2.50	6.71e+06	1.11	y	41:58	-	1.24	y	y
16	nati	1,2,3,4,7,8,9-HpCDF	2.50	3.17e+06	1.11	y	43:26	-	0.59	y	y
17	nati	1,2,3,4,6,7,8,9-OCDF	5.00	2.11e+06	0.88	y	46:19	-	0.71	y	n
18	nati	Total TCDD	0.50	2.01e+06	0.76	y	29:19	-	0.77	y	y
19	nati	Total PeCDD	2.50	8.55e+06	1.78	y	34:29	-	0.82	y	n
20	nati	Total HxCDD	7.50	2.02e+07	1.29	y	39:19	-	0.85	y	n
21	nati	Total HpCDD	2.50	3.28e+06	1.03	y	42:59	-	0.72	y	y
22	nati	Total TCDF	0.50	2.58e+06	0.78	y	28:31	-	0.99	y	n
23	nati	Total PeCDF	5.00	2.42e+07	1.67	y	33:04	-	0.90	y	n
24	nati	Total HxCDF	10.00	3.59e+07	1.30	y	38:18	-	0.92	y	n
25	nati	Total HpCDF	5.00	9.89e+06	1.11	y	41:58	-	0.91	y	y
26	IS	13C12-2,3,7,8-TCDF	100.00	7.00e+08	0.78	y	28:30	-	1.41	y	n
27	IS	13C12-2,3,7,8-TCDD	100.00	5.22e+08	0.78	y	29:17	-	1.05	y	n
28	IS	13C12-1,2,3,7,8-PeCDF	100.00	5.37e+08	1.55	y	33:03	-	1.08	y	n
29	IS	13C12-1,2,3,7,8-PeCDD	100.00	4.19e+08	1.57	y	34:28	-	0.84	y	n
30	IS	13C12-1,2,3,6,7,8-HxCDF	100.00	3.88e+08	0.51	y	38:26	-	1.21	y	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	100.00	3.14e+08	1.24	y	39:25	-	0.98	y	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	100.00	2.16e+08	0.44	y	41:57	-	0.67	y	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	100.00	1.81e+08	1.04	y	42:58	-	0.56	y	n
34	IS	13C12-OCDD	200.00	1.20e+08	0.90	y	46:09	-	0.19	y	n
35	Suro	37C12-2,3,7,8-TCDD	0.50	4.00e+06	1.00	y	29:18	-	1.53	y	n
36	Suro	13C12-2,3,4,7,8-PeCDF	2.50	1.20e+07	1.67	y	33:60	-	0.89	y	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	2.50	9.03e+06	0.46	y	38:18	-	0.93	y	n
38	Suro	13C12-1,2,3,4,7,8-HxCDD	2.50	6.35e+06	1.23	y	39:19	-	0.81	y	n
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	2.50	2.08e+06	0.39	y	43:25	-	0.39	y	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	2.50	6.70e+06	0.49	y	40:06	-	0.69	y	n
41	RS	13C12-1,2,3,4-TCDD	100.00	4.97e+08	0.81	y	29:05	4.97e+06	-	n	n
42	RS	13C12-1,2,3,7,8,9-HxCDD	100.00	3.22e+08	1.26	y	39:49	3.22e+06	-	n	n

Run #2 Filename 0903023A S: 3 I: 1 Acquired: 16-SEP-03 18:26:57 Processed: 17-SEP-03 08:39:13
Run: M23A05 Analyte: M23A05 Cal: Results: Version: V3.6 9-SEP-2002 14:02:21
Sample text: CS-2 M2305 Comments:

	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?
1	nati	2,3,7,8-TCDD	1.00	2.56e+06	0.76	y	29:18	-	0.66	y	y
2	nati	1,2,3,7,8-PeCDD	5.00	1.07e+07	1.66	y	34:28	-	0.75	y	n
3	nati	1,2,3,4,7,8-HxCDD	5.00	7.83e+06	1.24	y	39:19	-	0.75	y	n
4	nati	1,2,3,6,7,8-HxCDD	5.00	7.88e+06	1.28	y	39:25	-	0.76	y	n
5	nati	1,2,3,7,8,9,-HxCDD	5.00	8.25e+06	1.28	y	39:50	-	0.79	y	n
6	nati	1,2,3,4,6,7,8-HpCDD	5.00	4.24e+06	0.98	y	42:58	-	0.68	y	y
7	nati	1,2,3,4,6,7,8,9-OCDD	10.00	3.39e+06	0.80	y	46:09	-	0.68	y	n
8	nati	2,3,7,8-TCDF	1.00	3.31e+06	0.76	y	28:30	-	0.65	y	n
9	nati	1,2,3,7,8-PeCDF	5.00	1.56e+07	1.67	y	33:03	-	0.82	y	n
10	nati	2,3,4,7,8-PeCDF	5.00	1.55e+07	1.64	y	33:60	-	0.82	y	n
11	nati	1,2,3,4,4,8-HxCDF	5.00	1.24e+07	1.33	y	38:18	-	0.94	y	n
12	nati	1,2,3,6,7,8-HxCDF	5.00	1.25e+07	1.33	y	38:27	-	0.94	y	n
13	nati	2,3,4,6,7,8-HxCDF	5.00	1.04e+07	1.30	y	39:09	-	0.78	y	n
14	nati	1,2,3,7,8,9-HxCDF	5.00	8.30e+06	1.41	y	40:07	-	0.62	y	n
15	nati	1,2,3,4,6,7,8-HpCDF	5.00	8.18e+06	1.02	y	41:57	-	1.11	y	y
16	nati	1,2,3,4,7,8,9-HpCDF	5.00	4.15e+06	1.15	y	43:26	-	0.56	y	y
17	nati	1,2,3,4,6,7,8,9-OCDF	10.00	3.57e+06	0.88	y	46:19	-	0.71	y	y
18	nati	Total TCDD	1.00	2.56e+06	0.76	y	29:18	-	0.66	y	y
19	nati	Total PeCDD	5.00	1.07e+07	1.66	y	34:28	-	0.75	y	n
20	nati	Total HxCDD	15.00	2.40e+07	1.24	y	39:19	-	0.77	y	n
21	nati	Total HpCDD	5.00	4.24e+06	0.98	y	42:58	-	0.68	y	y
22	nati	Total TCDF	1.00	3.31e+06	0.76	y	28:30	-	0.86	y	n
23	nati	Total PeCDF	10.00	3.11e+07	1.67	y	33:03	-	0.82	y	n
24	nati	Total HxCDF	20.00	4.37e+07	1.33	y	38:18	-	0.82	y	n
25	nati	Total HpCDF	10.00	1.23e+07	1.02	y	41:57	-	0.84	y	y
26	IS	13C12-2,3,7,8-TCDF	100.00	5.06e+08	0.78	y	28:29	-	1.40	y	n
27	IS	13C12-2,3,7,8-TCDD	100.00	3.86e+08	0.78	y	29:16	-	1.06	y	n
28	IS	13C12-1,2,3,7,8-PeCDF	100.00	3.78e+08	1.57	y	33:02	-	1.04	y	n
29	IS	13C12-1,2,3,7,8-PeCDD	100.00	2.84e+08	1.58	y	34:27	-	0.78	y	n
30	IS	13C12-1,2,3,6,7,8-HxCDF	100.00	2.66e+08	0.51	y	38:26	-	1.30	y	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	100.00	2.08e+08	1.26	y	39:24	-	1.02	y	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	100.00	1.47e+08	0.44	y	41:56	-	0.72	y	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	100.00	1.24e+08	1.06	y	42:57	-	0.61	y	n
34	IS	13C12-OCDD	200.00	1.00e+08	0.89	y	46:08	-	0.24	y	n
35	Suro	37C12-2,3,7,8-TCDD	1.00	5.32e+06	1.00	y	29:18	-	1.38	y	n
36	Suro	13C12-2,3,4,7,8-PeCDF	5.00	1.53e+07	1.63	y	33:59	-	0.81	y	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	5.00	1.13e+07	0.47	y	38:17	-	0.85	y	n
38	Suro	13C12-1,2,3,4,7,8-HxCDD	5.00	7.39e+06	1.26	y	39:18	-	0.71	y	n
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	5.00	3.03e+06	0.44	y	43:25	-	0.41	y	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	5.00	7.54e+06	0.43	n	40:06	-	0.57	y	y
41	RS	13C12-1,2,3,4-TCDD	100.00	3.62e+08	0.80	y	29:04	3.62e+06	-	n	n
42	RS	13C12-1,2,3,7,8,9-HxCDD	100.00	2.04e+08	1.26	y	39:48	2.04e+06	-	n	n

Run #3 Filename 0903023A S: 4 I: 1 Acquired: 16-SEP-03 19:22:52 Processed: 17-SEP-03 08:39:14
Run: M23A05 Analyte: M23A05 Cal: Results: Version: V3.6 9-SEP-2002 14:02:21
Sample text: CS-3 M2305 Comments:

	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?
1	nati	2,3,7,8-TCDD	5.00	5.05e+07	0.77	y	29:18	-	0.95	y	n
2	nati	1,2,3,7,8-PeCDD	25.00	2.00e+08	1.54	y	34:29	-	0.93	y	n
3	nati	1,2,3,4,7,8-HxCDD	25.00	1.69e+08	1.25	y	39:18	-	0.97	y	n
4	nati	1,2,3,6,7,8-HxCDD	25.00	1.53e+08	1.25	y	39:25	-	0.88	y	n
5	nati	1,2,3,7,8,9,-HxCDD	25.00	1.66e+08	1.25	y	39:49	-	0.96	y	n
6	nati	1,2,3,4,6,7,8-HpCDD	25.00	9.13e+07	1.04	y	42:58	-	0.89	y	n
7	nati	1,2,3,4,6,7,8,9-OCDD	50.00	7.25e+07	0.88	y	46:09	-	0.94	y	n
8	nati	2,3,7,8-TCDF	5.00	6.10e+07	0.77	y	28:30	-	0.89	y	n
9	nati	1,2,3,7,8-PeCDF	25.00	2.66e+08	1.54	y	33:03	-	0.91	y	n
10	nati	2,3,4,7,8-PeCDF	25.00	2.58e+08	1.54	y	33:59	-	0.89	y	n
11	nati	1,2,3,4,4,8-HxCDF	25.00	2.32e+08	1.25	y	38:17	-	1.12	y	n
12	nati	1,2,3,6,7,8-HxCDF	25.00	2.28e+08	1.26	y	38:26	-	1.10	y	n
13	nati	2,3,4,6,7,8-HxCDF	25.00	1.93e+08	1.24	y	39:09	-	0.93	y	n
14	nati	1,2,3,7,8,9-HxCDF	25.00	1.77e+08	1.25	y	40:07	-	0.85	y	n
15	nati	1,2,3,4,6,7,8-HpCDF	25.00	1.59e+08	1.03	y	41:57	-	1.34	y	n
16	nati	1,2,3,4,7,8,9-HpCDF	25.00	9.03e+07	1.04	y	43:25	-	0.76	y	n
17	nati	1,2,3,4,6,7,8,9-OCDF	50.00	7.24e+07	0.89	y	46:18	-	0.93	y	n
18	nati	Total TCDD	5.00	5.06e+07	0.78	y	28:02	-	0.95	y	n
19	nati	Total PeCDD	25.00	2.00e+08	1.54	y	34:29	-	0.93	y	n
20	nati	Total HxCDD	75.00	4.89e+08	1.25	y	39:18	-	0.94	y	n
21	nati	Total HpCDD	25.00	9.13e+07	1.04	y	42:58	-	0.89	y	n
22	nati	Total TCDF	5.00	6.19e+07	0.82	y	28:03	-	1.16	y	n
23	nati	Total PeCDF	50.00	5.30e+08	1.54	y	33:03	-	0.91	y	n
24	nati	Total HxCDF	100.00	8.30e+08	1.25	y	38:17	-	1.00	y	n
25	nati	Total HpCDF	50.00	2.50e+08	1.03	y	41:57	-	1.05	y	n
26	IS	13C12-2,3,7,8-TCDF	100.00	1.37e+09	0.79	y	28:29	-	1.37	y	n
27	IS	13C12-2,3,7,8-TCDD	100.00	1.07e+09	0.78	y	29:17	-	1.06	y	n
28	IS	13C12-1,2,3,7,8-PeCDF	100.00	1.17e+09	1.56	y	33:02	-	1.16	y	n
29	IS	13C12-1,2,3,7,8-PeCDD	100.00	8.64e+08	1.55	y	34:28	-	0.86	y	n
30	IS	13C12-1,2,3,6,7,8-HxCDF	100.00	8.30e+08	0.50	y	38:25	-	1.15	y	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	100.00	6.95e+08	1.26	y	39:25	-	0.96	y	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	100.00	4.77e+08	0.45	y	41:56	-	0.66	y	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	100.00	4.11e+08	1.05	y	42:57	-	0.57	y	n
34	IS	13C12-OCDD	200.00	3.10e+08	0.90	y	46:08	-	0.21	y	n
35	Suro	37C12-2,3,7,8-TCDD	5.00	1.02e+08	1.00	y	29:18	-	1.91	y	n
36	Suro	13C12-2,3,4,7,8-PeCDF	25.00	2.70e+08	1.55	y	33:59	-	0.92	y	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	25.00	2.02e+08	0.50	y	38:17	-	0.97	y	n
38	Suro	13C12-1,2,3,4,7,8-HxCDD	25.00	1.58e+08	1.25	y	39:17	-	0.91	y	n
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	25.00	6.66e+07	0.43	y	43:24	-	0.56	y	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	25.00	1.52e+08	0.50	y	40:06	-	0.74	y	n
41	RS	13C12-1,2,3,4-TCDD	100.00	1.00e+09	0.79	y	29:05	1.00e+07	-	n	n
42	RS	13C12-1,2,3,7,8,9-HxCDD	100.00	7.22e+08	1.26	y	39:48	7.22e+06	-	n	n

Run #4 Filename 0903023A S: 5 I: 1 Acquired: 16-SEP-03 20:18:49 Processed: 17-SEP-03 08:39:15
Run: M23A05 Analyte: M23A05 Cal: Results: Version: V3.6 9-SEP-2002 14:02:21
Sample text: CS-4 M2305 Comments:

	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?
1	nati	2,3,7,8-TCDD	50.00	2.16e+08	0.77	y	29:17	-	0.91	y	n
2	nati	1,2,3,7,8-PeCDD	250.00	8.36e+08	1.57	y	34:28	-	0.90	y	n
3	nati	1,2,3,4,7,8-HxCDD	250.00	6.98e+08	1.26	y	39:19	-	0.96	y	n
4	nati	1,2,3,6,7,8-HxCDD	250.00	6.66e+08	1.26	y	39:25	-	0.92	y	n
5	nati	1,2,3,7,8,9,-HxCDD	250.00	6.89e+08	1.26	y	39:49	-	0.95	y	n
6	nati	1,2,3,4,6,7,8-HpCDD	250.00	4.06e+08	1.04	y	42:58	-	0.85	y	n
7	nati	1,2,3,4,6,7,8,9-OCDD	500.00	3.57e+08	0.88	y	46:09	-	0.89	y	n
8	nati	2,3,7,8-TCDF	50.00	2.53e+08	0.75	y	28:30	-	0.83	y	n
9	nati	1,2,3,7,8-PeCDF	250.00	1.12e+09	1.55	y	33:03	-	0.88	y	n
10	nati	2,3,4,7,8-PeCDF	250.00	1.13e+09	1.55	y	33:60	-	0.89	y	n
11	nati	1,2,3,4,4,8-HxCDF	250.00	9.50e+08	1.24	y	38:18	-	0.99	y	n
12	nati	1,2,3,6,7,8-HxCDF	250.00	9.43e+08	1.25	y	38:27	-	0.99	y	n
13	nati	2,3,4,6,7,8-HxCDF	250.00	8.28e+08	1.24	y	39:09	-	0.87	y	n
14	nati	1,2,3,7,8,9-HxCDF	250.00	7.28e+08	1.24	y	40:07	-	0.76	y	n
15	nati	1,2,3,4,6,7,8-HpCDF	250.00	6.86e+08	1.03	y	41:57	-	1.29	y	n
16	nati	1,2,3,4,7,8,9-HpCDF	250.00	4.19e+08	1.04	y	43:26	-	0.78	y	n
17	nati	1,2,3,4,6,7,8,9-OCDF	500.00	3.80e+08	0.90	y	46:18	-	0.94	y	n
18	nati	Total TCDD	50.00	2.16e+08	0.77	y	29:17	-	0.91	y	n
19	nati	Total PeCDD	250.00	8.36e+08	1.57	y	34:28	-	0.90	y	n
20	nati	Total HxCDD	750.00	2.05e+09	1.26	y	39:19	-	0.94	y	n
21	nati	Total HpCDD	250.00	4.06e+08	1.04	y	42:58	-	0.85	y	n
22	nati	Total TCDF	50.00	2.57e+08	0.70	y	28:03	-	1.08	y	n
23	nati	Total PeCDF	500.00	2.28e+09	1.57	y	32:00	-	0.89	y	n
24	nati	Total HxCDF	1000.00	3.45e+09	1.24	y	38:18	-	0.90	y	n
25	nati	Total HpCDF	500.00	1.10e+09	1.03	y	41:57	-	1.03	y	n
26	IS	13C12-2,3,7,8-TCDF	100.00	6.06e+08	0.79	y	28:29	-	1.41	y	n
27	IS	13C12-2,3,7,8-TCDD	100.00	4.74e+08	0.79	y	29:17	-	1.11	y	n
28	IS	13C12-1,2,3,7,8-PeCDF	100.00	5.09e+08	1.57	y	33:02	-	1.19	y	n
29	IS	13C12-1,2,3,7,8-PeCDD	100.00	3.73e+08	1.56	y	34:27	-	0.87	y	n
30	IS	13C12-1,2,3,6,7,8-HxCDF	100.00	3.82e+08	0.50	y	38:26	-	1.30	y	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	100.00	2.90e+08	1.26	y	39:24	-	0.99	y	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	100.00	2.13e+08	0.45	y	41:56	-	0.73	y	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	100.00	1.91e+08	1.05	y	42:57	-	0.65	y	n
34	IS	13C12-OCDD	200.00	1.61e+08	0.91	y	46:09	-	0.27	y	n
35	Suro	37C12-2,3,7,8-TCDD	50.00	4.28e+08	1.00	y	29:17	-	1.80	y	n
36	Suro	13C12-2,3,4,7,8-PeCDF	250.00	1.09e+09	1.55	y	33:59	-	0.86	y	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	250.00	8.43e+08	0.50	y	38:17	-	0.88	y	n
38	Suro	13C12-1,2,3,4,7,8-HxCDD	250.00	6.47e+08	1.26	y	39:18	-	0.89	y	n
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	250.00	3.02e+08	0.44	y	43:25	-	0.57	y	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	250.00	6.49e+08	0.50	y	40:07	-	0.68	y	n
41	RS	13C12-1,2,3,4-TCDD	100.00	4.28e+08	0.80	y	29:05	4.28e+06	-	n	n
42	RS	13C12-1,2,3,7,8,9-HxCDD	100.00	2.94e+08	1.24	y	39:48	2.94e+06	-	n	n

Run #5 Filename 0903023A S: 6 I: 1 Acquired: 16-SEP-03 21:14:50 Processed: 17-SEP-03 08:39:17
Run: M23A05 Analyte: M23A05 Cal: Results: Version: V3.6 9-SEP-2002 14:02:21
Sample text: CS-5 M2305 Comments:

	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?
1	nati	2,3,7,8-TCDD	100.00	4.30e+08	0.77	y	29:18	-	0.99	y	n
2	nati	1,2,3,7,8-PeCDD	500.00	1.64e+09	1.56	y	34:28	-	0.98	y	n
3	nati	1,2,3,4,7,8-HxCDD	500.00	1.31e+09	1.25	y	39:18	-	1.07	y	n
4	nati	1,2,3,6,7,8-HxCDD	500.00	1.28e+09	1.25	y	39:25	-	1.04	y	n
5	nati	1,2,3,7,8,9,-HxCDD	500.00	1.32e+09	1.25	y	39:49	-	1.07	y	n
6	nati	1,2,3,4,6,7,8-HpCDD	500.00	7.63e+08	1.03	y	42:58	-	0.94	y	n
7	nati	1,2,3,4,6,7,8,9-OCDD	1000.00	6.43e+08	0.87	y	46:09	-	0.99	y	n
8	nati	2,3,7,8-TCDF	100.00	4.99e+08	0.79	y	28:29	-	0.91	y	n
9	nati	1,2,3,7,8-PeCDF	500.00	2.19e+09	1.56	y	33:03	-	0.95	y	n
10	nati	2,3,4,7,8-PeCDF	500.00	2.21e+09	1.55	y	33:59	-	0.96	y	n
11	nati	1,2,3,4,4,8-HxCDF	500.00	1.85e+09	1.25	y	38:18	-	1.04	y	n
12	nati	1,2,3,6,7,8-HxCDF	500.00	1.78e+09	1.24	y	38:27	-	1.00	y	n
13	nati	2,3,4,6,7,8-HxCDF	500.00	1.60e+09	1.24	y	39:08	-	0.90	y	n
14	nati	1,2,3,7,8,9-HxCDF	500.00	1.45e+09	1.25	y	40:07	-	0.82	y	n
15	nati	1,2,3,4,6,7,8-HpCDF	500.00	1.30e+09	1.03	y	41:57	-	1.42	y	n
16	nati	1,2,3,4,7,8,9-HpCDF	500.00	8.20e+08	1.03	y	43:25	-	0.89	y	n
17	nati	1,2,3,4,6,7,8,9-OCDF	1000.00	6.93e+08	0.91	y	46:19	-	1.06	y	n
18	nati	Total TCDD	100.00	4.30e+08	0.77	y	29:18	-	0.99	y	n
19	nati	Total PeCDD	500.00	1.64e+09	1.56	y	34:28	-	0.98	y	n
20	nati	Total HxCDD	1500.00	3.91e+09	1.25	y	39:18	-	1.06	y	n
21	nati	Total HpCDD	500.00	7.63e+08	1.03	y	42:58	-	0.94	y	n
22	nati	Total TCDF	100.00	5.09e+08	0.72	y	28:03	-	1.17	y	n
23	nati	Total PeCDF	1000.00	4.45e+09	1.77	y	31:60	-	0.97	y	n
24	nati	Total HxCDF	2000.00	6.69e+09	1.25	y	38:18	-	0.94	y	n
25	nati	Total HpCDF	1000.00	2.12e+09	1.03	y	41:57	-	1.16	y	n
26	IS	13C12-2,3,7,8-TCDF	100.00	5.49e+08	0.79	y	28:28	-	1.44	y	n
27	IS	13C12-2,3,7,8-TCDD	100.00	4.35e+08	0.79	y	29:16	-	1.14	y	n
28	IS	13C12-1,2,3,7,8-PeCDF	100.00	4.61e+08	1.57	y	33:02	-	1.21	y	n
29	IS	13C12-1,2,3,7,8-PeCDD	100.00	3.33e+08	1.57	y	34:27	-	0.87	y	n
30	IS	13C12-1,2,3,6,7,8-HxCDF	100.00	3.55e+08	0.49	y	38:25	-	1.42	y	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	100.00	2.46e+08	1.25	y	39:24	-	0.98	y	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	100.00	1.83e+08	0.44	y	41:56	-	0.73	y	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	100.00	1.63e+08	1.03	y	42:58	-	0.65	y	n
34	IS	13C12-OCDD	200.00	1.31e+08	0.89	y	46:08	-	0.26	y	n
35	Suro	37C12-2,3,7,8-TCDD	100.00	8.55e+08	1.00	y	29:18	-	1.97	y	n
36	Suro	13C12-2,3,4,7,8-PeCDF	500.00	2.13e+09	1.56	y	33:58	-	0.92	y	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	500.00	1.64e+09	0.50	y	38:17	-	0.92	y	n
38	Suro	13C12-1,2,3,4,7,8-HxCDD	500.00	1.22e+09	1.27	y	39:17	-	0.99	y	n
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	500.00	5.88e+08	0.44	y	43:25	-	0.64	y	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	500.00	1.27e+09	0.50	y	40:06	-	0.71	y	n
41	RS	13C12-1,2,3,4-TCDD	100.00	3.82e+08	0.79	y	29:04	3.82e+06	-	n	n
42	RS	13C12-1,2,3,7,8,9-HxCDD	100.00	2.51e+08	1.24	y	39:48	2.51e+06	-	n	n

```
===== Header Information ==================================================
Entry num: 1  Type: native      Name: 2,3,7,8-TCDD                    F: 1
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 27                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.8568     SD: 0.1358    =15.9 %
Curve Eqn: 1.384e-03xÜ2 +8.500e-01x +0.000e+00     Cor: 0.99997  SD: 0.3

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	0.5	5.000e-01	3.858e-01	0.772	-0.63	y	-0.12	y	y
2	0903023A	3	1.0	1.000e+00	6.632e-01	0.663	-1.43	y	-0.56	y	y
3	0903023A	4	5.0	5.000e+00	4.739e+00	0.948	0.67	y	1.36	y	n
4	0903023A	5	50.0	5.000e+01	4.555e+01	0.911	0.40	y	-1.23	y	n
5	0903023A	6	100.0	1.000e+02	9.903e+01	0.990	0.98	y	0.55	y	n

```
===== Header Information ==============================================
Entry num: 2  Type: native      Name: 1,2,3,7,8-PeCDD                F: 2
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==========================================
  Standard    : 29                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==========================================
RRF: Mean: 0.8742     SD: 0.0920    =10.5 %
Curve Eqn: 2.847e-04xÜ2 +8.367e-01x +0.000e+00     Cor: 0.99996  SD: 2.0

===== Calibration Run Summary =========================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.040e+00	0.816	-0.63	y	-0.03	y	n
2	0903023A	3	5.0	5.000e+00	3.748e+00	0.750	-1.35	y	-0.22	y	n
3	0903023A	4	25.0	2.500e+01	2.319e+01	0.928	0.58	y	1.06	y	n
4	0903023A	5	250.0	2.500e+02	2.240e+02	0.896	0.24	y	-1.52	y	n
5	0903023A	6	500.0	5.000e+02	4.909e+02	0.982	1.17	y	0.71	y	n

```
===== Header Information ==================================================
Entry num: 3  Type: native      Name: 1,2,3,4,7,8-HxCDD                F: 3
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 31                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.9164     SD: 0.1271    =13.9 %
Curve Eqn: 3.853e-04xÜ2 +8.758e-01x +0.000e+00     Cor: 0.99997  SD: 1.9

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.057e+00	0.823	-0.74	y	-0.07	y	n
2	0903023A	3	5.0	5.000e+00	3.766e+00	0.753	-1.28	y	-0.33	y	n
3	0903023A	4	25.0	2.500e+01	2.435e+01	0.974	0.45	y	1.18	y	n
4	0903023A	5	250.0	2.500e+02	2.403e+02	0.961	0.35	y	-1.44	y	n
5	0903023A	6	500.0	5.000e+02	5.355e+02	1.071	1.22	y	0.66	y	n

===== Header Information =====
Entry num: 4 Type: native Name: 1,2,3,6,7,8-HxCDD F: 3
Run: M23A05 Analyte: M23A05 Cal: Results:
Version: V3.6 9-SEP-2002 14:02:21

===== Calibration Parameters =====
Standard : 31 Method : rel_internal
Cal curve : quadratic Origin : force
Amount on y?: no Weighted? no Max SDs: 2.50

===== Calibration Statistics =====
RRF: Mean: 0.8904 SD: 0.1023 =11.5 %
Curve Eqn: 4.425e-04xÜ2 +8.161e-01x +0.000e+00 Cor: 0.99998 SD: 1.4

===== Calibration Run Summary =====

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.138e+00	0.855	-0.34	y	0.07	y	n
2	0903023A	3	5.0	5.000e+00	3.790e+00	0.758	-1.30	y	-0.22	y	n
3	0903023A	4	25.0	2.500e+01	2.203e+01	0.881	-0.09	y	0.98	y	n
4	0903023A	5	250.0	2.500e+02	2.295e+02	0.918	0.27	y	-1.56	y	n
5	0903023A	6	500.0	5.000e+02	5.197e+02	1.039	1.46	y	0.74	y	n

```
===== Header Information ==================================================
Entry num: 5  Type: native      Name: 1,2,3,7,8,9,-HxCDD            F: 3
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 31                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no        Weighted? no     Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.9317     SD: 0.1028    =11.0 %
Curve Eqn: 4.220e-04xÜ2 +8.583e-01x +0.000e+00     Cor: 0.99995  SD: 2.3

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.216e+00	0.886	-0.44	y	0.03	y	n
2	0903023A	3	5.0	5.000e+00	3.964e+00	0.793	-1.35	y	-0.15	y	n
3	0903023A	4	25.0	2.500e+01	2.394e+01	0.958	0.25	y	0.96	y	n
4	0903023A	5	250.0	2.500e+02	2.373e+02	0.949	0.17	y	-1.58	y	n
5	0903023A	6	500.0	5.000e+02	5.364e+02	1.073	1.37	y	0.75	y	n

```
===== Header Information ==================================================
Entry num: 6  Type: native      Name: 1,2,3,4,6,7,8-HpCDD            F: 4
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 33                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.8171     SD: 0.1080    =13.2 %
Curve Eqn: 2.842e-04xÜ2 +7.919e-01x +0.000e+00     Cor: 0.99996  SD: 1.9

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	1.812e+00	0.725	-0.86	y	-0.09	y	y
2	0903023A	3	5.0	5.000e+00	3.422e+00	0.684	-1.23	y	-0.28	y	y
3	0903023A	4	25.0	2.500e+01	2.220e+01	0.888	0.66	y	1.15	y	n
4	0903023A	5	250.0	2.500e+02	2.129e+02	0.852	0.32	y	-1.46	y	n
5	0903023A	6	500.0	5.000e+02	4.683e+02	0.937	1.11	y	0.67	y	n

```
===== Header Information ==================================================
Entry num: 7  Type: native      Name: 1,2,3,4,6,7,8,9-OCDD          F: 5
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 34                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.8427     SD: 0.1336    =15.9 %
Curve Eqn: 1.662e-04xÜ2 +8.162e-01x +0.000e+00     Cor: 0.99994  SD: 4.8

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	5.0	5.000e+00	3.634e+00	0.727	-0.87	y	-0.09	y	n
2	0903023A	3	10.0	1.000e+01	6.787e+00	0.679	-1.23	y	-0.29	y	n
3	0903023A	4	50.0	5.000e+01	4.683e+01	0.937	0.70	y	1.16	y	n
4	0903023A	5	500.0	5.000e+02	4.427e+02	0.885	0.32	y	-1.45	y	n
5	0903023A	6	1000.0	1.000e+03	9.857e+02	0.986	1.07	y	0.67	y	n

```
===== Header Information ==================================================
Entry num: 8  Type: native      Name: 2,3,7,8-TCDF                    F: 1
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 26                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no        Weighted? no     Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.8021     SD: 0.1094    =13.6 %
Curve Eqn: 1.194e-03xÜ2 +7.864e-01x +0.000e+00     Cor: 0.99995  SD: 0.4

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	0.5	5.000e-01	3.627e-01	0.725	-0.70	y	-0.08	y	n
2	0903023A	3	1.0	1.000e+00	6.535e-01	0.654	-1.36	y	-0.33	y	n
3	0903023A	4	5.0	5.000e+00	4.444e+00	0.889	0.79	y	1.18	y	n
4	0903023A	5	50.0	5.000e+01	4.172e+01	0.834	0.29	y	-1.44	y	n
5	0903023A	6	100.0	1.000e+02	9.086e+01	0.909	0.97	y	0.66	y	n

```
===== Header Information ==================================================
Entry num: 9  Type: native      Name: 1,2,3,7,8-PeCDF                F: 2
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 28                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.8924     SD: 0.0468    =5.2 %
Curve Eqn: 2.107e-04xÜ2 +8.426e-01x +0.000e+00     Cor: 0.99996  SD: 1.9

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.228e+00	0.891	-0.03	y	0.06	y	n
2	0903023A	3	5.0	5.000e+00	4.117e+00	0.823	-1.48	y	-0.05	y	n
3	0903023A	4	25.0	2.500e+01	2.285e+01	0.914	0.46	y	0.85	y	n
4	0903023A	5	250.0	2.500e+02	2.206e+02	0.883	-0.21	y	-1.63	y	n
5	0903023A	6	500.0	5.000e+02	4.755e+02	0.951	1.25	y	0.77	y	n

```
===== Header Information ==================================================
Entry num: 10 Type: native      Name: 2,3,4,7,8-PeCDF                F: 2
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 28                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.8894     SD: 0.0502    =5.6 %
Curve Eqn: 2.462e-04xÜ2 +8.350e-01x +0.000e+00     Cor: 0.99998  SD: 1.4

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.236e+00	0.894	0.10	y	0.11	y	n
2	0903023A	3	5.0	5.000e+00	4.093e+00	0.819	-1.41	y	-0.06	y	n
3	0903023A	4	25.0	2.500e+01	2.216e+01	0.886	-0.06	y	0.82	y	n
4	0903023A	5	250.0	2.500e+02	2.219e+02	0.887	-0.04	y	-1.64	y	n
5	0903023A	6	500.0	5.000e+02	4.801e+02	0.960	1.41	y	0.78	y	n

===== Header Information =====
Entry num: 11 Type: native Name: 1,2,3,4,4,8-HxCDF F: 3
Run: M23A05 Analyte: M23A05 Cal: Results:
Version: V3.6 9-SEP-2002 14:02:21

===== Calibration Parameters =====
Standard : 30 Method : rel_internal
Cal curve : linear Origin : force
Amount on y?: no Weighted? no Max SDs: 2.50

===== Calibration Statistics =====
RRF: Mean: 1.0171 SD: 0.0687 =6.8 %
Curve Eqn: 1.034e+00x +0.000e+00 Cor: 0.99970 SD: 5.5

===== Calibration Run Summary =====

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.480e+00	0.992	-0.37	y	-0.02	y	n
2	0903023A	3	5.0	5.000e+00	4.681e+00	0.936	-1.18	y	-0.09	y	n
3	0903023A	4	25.0	2.500e+01	2.799e+01	1.120	1.49	y	0.39	y	n
4	0903023A	5	250.0	2.500e+02	2.487e+02	0.995	-0.32	y	-1.76	y	n
5	0903023A	6	500.0	5.000e+02	5.215e+02	1.043	0.38	y	0.86	y	n

```
===== Header Information ==================================================
Entry num: 12 Type: native      Name: 1,2,3,6,7,8-HxCDF              F: 3
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 30                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no        Weighted? no     Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 1.0055      SD: 0.0584    =5.8 %
Curve Eqn: 9.999e-01x +0.000e+00                    Cor: 0.99995  SD: 2.2

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.495e+00	0.998	-0.13	y	0.00	y	n
2	0903023A	3	5.0	5.000e+00	4.700e+00	0.940	-1.12	y	-0.13	y	n
3	0903023A	4	25.0	2.500e+01	2.750e+01	1.100	1.62	y	1.12	y	n
4	0903023A	5	250.0	2.500e+02	2.466e+02	0.987	-0.32	y	-1.50	y	n
5	0903023A	6	500.0	5.000e+02	5.015e+02	1.003	-0.04	y	0.69	y	n

===== Header Information =====
Entry num: 13 Type: native Name: 2,3,4,6,7,8-HxCDF F: 3
Run: M23A05 Analyte: M23A05 Cal: Results:
Version: V3.6 9-SEP-2002 14:02:21

===== Calibration Parameters =====
Standard : 30 Method : rel_internal
Cal curve : linear Origin : force
Amount on y?: no Weighted? no Max SDs: 2.50

===== Calibration Statistics =====
RRF: Mean: 0.8731 SD: 0.0549 =6.3 %
Curve Eqn: 8.957e-01x +0.000e+00 Cor: 0.99979 SD: 4.0

===== Calibration Run Summary =====

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.206e+00	0.882	0.17	y	-0.01	y	n
2	0903023A	3	5.0	5.000e+00	3.921e+00	0.784	-1.62	y	-0.14	y	n
3	0903023A	4	25.0	2.500e+01	2.324e+01	0.929	1.03	y	0.21	y	n
4	0903023A	5	250.0	2.500e+02	2.167e+02	0.867	-0.11	y	-1.78	y	n
5	0903023A	6	500.0	5.000e+02	4.514e+02	0.903	0.54	y	0.88	y	n

```
===== Header Information ==================================================
Entry num: 14 Type: native      Name: 1,2,3,7,8,9-HxCDF              F: 3
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 30                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.7763     SD: 0.0910    =11.7 %
Curve Eqn: 8.076e-01x +0.000e+00                    Cor: 0.99934  SD: 6.4

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.055e+00	0.822	0.50	y	0.01	y	n
2	0903023A	3	5.0	5.000e+00	3.124e+00	0.625	-1.67	y	-0.14	y	n
3	0903023A	4	25.0	2.500e+01	2.135e+01	0.854	0.86	y	0.18	y	n
4	0903023A	5	250.0	2.500e+02	1.905e+02	0.762	-0.16	y	-1.78	y	n
5	0903023A	6	500.0	5.000e+02	4.095e+02	0.819	0.47	y	0.88	y	n

```
===== Header Information ==============================================
Entry num: 15 Type: native      Name: 1,2,3,4,6,7,8-HpCDF            F: 4
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==========================================
  Standard    : 32                      Method : rel_internal
 Cal curve    : quadratic               Origin : force
 Amount on y?: no       Weighted? no    Max SDs: 2.50

===== Calibration Statistics ==========================================
RRF: Mean: 1.2786     SD: 0.1159    =9.1 %
Curve Eqn: 4.353e-04xÜ2 +1.198e+00x +0.000e+00     Cor: 0.99994  SD: 3.4

===== Calibration Run Summary =========================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	3.103e+00	1.241	-0.32	y	0.03	y	y
2	0903023A	3	5.0	5.000e+00	5.546e+00	1.109	-1.46	y	-0.14	y	y
3	0903023A	4	25.0	2.500e+01	3.340e+01	1.336	0.50	y	0.95	y	n
4	0903023A	5	250.0	2.500e+02	3.214e+02	1.286	0.06	y	-1.59	y	n
5	0903023A	6	500.0	5.000e+02	7.105e+02	1.421	1.23	y	0.75	y	n

===== Header Information =====
Entry num: 16 Type: native Name: 1,2,3,4,7,8,9-HpCDF F: 4
Run: M23A05 Analyte: M23A05 Cal: Results:
Version: V3.6 9-SEP-2002 14:02:21

===== Calibration Parameters =====
Standard : 32 Method : rel_internal
Cal curve : quadratic Origin : force
Amount on y?: no Weighted? no Max SDs: 2.50

===== Calibration Statistics =====
RRF: Mean: 0.7171 SD: 0.1400 =19.5 %
Curve Eqn: 4.177e-04xÜ2 +6.847e-01x +0.000e+00 Cor: 0.99999 SD: 1.1

===== Calibration Run Summary =====

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	1.467e+00	0.587	-0.93	y	-0.23	y	y
2	0903023A	3	5.0	5.000e+00	2.815e+00	0.563	-1.10	y	-0.58	y	y
3	0903023A	4	25.0	2.500e+01	1.893e+01	0.757	0.29	y	1.44	y	n
4	0903023A	5	250.0	2.500e+02	1.961e+02	0.784	0.48	y	-1.14	y	n
5	0903023A	6	500.0	5.000e+02	4.473e+02	0.895	1.27	y	0.50	y	n

```
===== Header Information ==================================================
Entry num: 17 Type: native      Name: 1,2,3,4,6,7,8,9-OCDF          F: 5
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 34                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.8719     SD: 0.1561    =17.9 %
Curve Eqn: 2.198e-04xÜ2 +8.405e-01x +0.000e+00     Cor: 0.99998  SD: 3.1

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	5.0	5.000e+00	3.529e+00	0.706	-1.06	y	-0.22	y	n
2	0903023A	3	10.0	1.000e+01	7.144e+00	0.714	-1.01	y	-0.41	y	y
3	0903023A	4	50.0	5.000e+01	4.674e+01	0.935	0.40	y	1.33	y	n
4	0903023A	5	500.0	5.000e+02	4.712e+02	0.942	0.45	y	-1.29	y	n
5	0903023A	6	1000.0	1.000e+03	1.062e+03	1.062	1.22	y	0.58	y	n

===== Header Information =====

Entry num: 18 Type: native Name: Total TCDD F: 1
Run: M23A05 Analyte: M23A05 Cal: Results:
Version: V3.6 9-SEP-2002 14:02:21

===== Calibration Parameters =====

Standard : 27 Method : rel_internal
Cal curve : quadratic Origin : force
Amount on y?: no Weighted? no Max SDs: 2.50

===== Calibration Statistics =====

RRF: Mean: 0.8572 SD: 0.1361 =15.9 %
Curve Eqn: 1.372e-03xÜ2 +8.513e-01x +0.000e+00 Cor: 0.99997 SD: 0.3

===== Calibration Run Summary =====

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	0.5	5.000e-01	3.858e-01	0.772	-0.63	y	-0.12	y	y
2	0903023A	3	1.0	1.000e+00	6.632e-01	0.663	-1.43	y	-0.56	y	y
3	0903023A	4	5.0	5.000e+00	4.747e+00	0.949	0.68	y	1.36	y	n
4	0903023A	5	50.0	5.000e+01	4.558e+01	0.912	0.40	y	-1.23	y	n
5	0903023A	6	100.0	1.000e+02	9.903e+01	0.990	0.98	y	0.55	y	n

```
===== Header Information ==================================================
Entry num: 19 Type: native      Name: Total PeCDD                      F: 2
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 29                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.8748     SD: 0.0909    =10.4 %
Curve Eqn: 2.843e-04xÜ2 +8.369e-01x +0.000e+00     Cor: 0.99996  SD: 2.0

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.040e+00	0.816	-0.65	y	-0.03	y	n
2	0903023A	3	5.0	5.000e+00	3.764e+00	0.753	-1.34	y	-0.22	y	n
3	0903023A	4	25.0	2.500e+01	2.319e+01	0.928	0.58	y	1.06	y	n
4	0903023A	5	250.0	2.500e+02	2.240e+02	0.896	0.23	y	-1.53	y	n
5	0903023A	6	500.0	5.000e+02	4.909e+02	0.982	1.18	y	0.71	y	n

```
===== Header Information ==================================================
Entry num: 20 Type: native      Name: Total HxCDD                      F: 3
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 31                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.9128     SD: 0.1094    =12.0 %
Curve Eqn: 1.389e-04xÜ2 +8.501e-01x +0.000e+00     Cor: 0.99997  SD: 5.6

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	7.5	7.500e+00	6.411e+00	0.855	-0.53	y	0.00	y	n
2	0903023A	3	15.0	1.500e+01	1.152e+01	0.768	-1.33	y	-0.23	y	n
3	0903023A	4	75.0	7.500e+01	7.032e+01	0.938	0.23	y	1.04	y	n
4	0903023A	5	750.0	7.500e+02	7.071e+02	0.943	0.27	y	-1.53	y	n
5	0903023A	6	1500.0	1.500e+03	1.592e+03	1.061	1.36	y	0.72	y	n

===== Header Information =====
Entry num: 21 Type: native Name: Total HpCDD F: 4
Run: M23A05 Analyte: M23A05 Cal: Results:
Version: V3.6 9-SEP-2002 14:02:21

===== Calibration Parameters =====
Standard : 33 Method : rel_internal
Cal curve : quadratic Origin : force
Amount on y?: no Weighted? no Max SDs: 2.50

===== Calibration Statistics =====
RRF: Mean: 0.8171 SD: 0.1080 =13.2 %
Curve Eqn: 2.842e-04xÜ2 +7.919e-01x +0.000e+00 Cor: 0.99996 SD: 1.9

===== Calibration Run Summary =====

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	1.812e+00	0.725	-0.86	y	-0.09	y	y
2	0903023A	3	5.0	5.000e+00	3.422e+00	0.684	-1.23	y	-0.28	y	y
3	0903023A	4	25.0	2.500e+01	2.220e+01	0.888	0.66	y	1.15	y	n
4	0903023A	5	250.0	2.500e+02	2.129e+02	0.852	0.32	y	-1.46	y	n
5	0903023A	6	500.0	5.000e+02	4.683e+02	0.937	1.11	y	0.67	y	n

```
===== Header Information ==================================================
Entry num: 22 Type: native      Name: Total TCDF                      F: 1
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 27                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 1.0527     SD: 0.1312    =12.5 %
Curve Eqn: 1.353e-03xÜ2 +1.032e+00x +0.000e+00     Cor: 0.99995  SD: 0.5

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	0.5	5.000e-01	4.950e-01	0.990	-0.48	y	-0.04	y	n
2	0903023A	3	1.0	1.000e+00	8.572e-01	0.857	-1.49	y	-0.33	y	n
3	0903023A	4	5.0	5.000e+00	5.805e+00	1.161	0.82	y	1.15	y	n
4	0903023A	5	50.0	5.000e+01	5.423e+01	1.085	0.24	y	-1.45	y	n
5	0903023A	6	100.0	1.000e+02	1.171e+02	1.171	0.90	y	0.67	y	n

```
===== Header Information ==================================================
Entry num: 23 Type: native      Name: Total PeCDF                    F: 2
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 28                        Method : rel_internal
 Cal curve    : quadratic                 Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.8993     SD: 0.0510    =5.7 %
Curve Eqn: 1.172e-04xÜ2 +8.470e-01x +0.000e+00     Cor: 0.99997  SD: 3.3

===== Calibration Run Summary =============================================
Run File       S  Amount          x          y     RRF  #SDs  OK Curve#SDs OK Mod?

  1 0903023A  2      5.0  5.000e+00 4.513e+00  0.903  0.07  y       0.08  y    n
  2 0903023A  3     10.0  1.000e+01 8.236e+00  0.824 -1.49  y      -0.07  y    n
  3 0903023A  4     50.0  5.000e+01 4.544e+01  0.909  0.19  y       0.85  y    n
  4 0903023A  5    500.0  5.000e+02 4.474e+02  0.895 -0.09  y      -1.63  y    n
  5 0903023A  6   1000.0  1.000e+03 9.667e+02  0.967  1.32  y       0.77  y    n
```

```
===== Header Information ==================================================
Entry num: 24 Type: native      Name: Total HxCDF                      F: 3
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 30                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no        Weighted? no     Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.9182      SD: 0.0650    =7.1 %
Curve Eqn: 9.342e-01x +0.000e+00                    Cor: 0.99976  SD: 17.9

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	10.0	1.000e+01	9.235e+00	0.923	0.08	y	-0.01	y	n
2	0903023A	3	20.0	2.000e+01	1.644e+01	0.822	-1.48	y	-0.13	y	n
3	0903023A	4	100.0	1.000e+02	1.001e+02	1.001	1.27	y	0.37	y	n
4	0903023A	5	1000.0	1.000e+03	9.027e+02	0.903	-0.24	y	-1.76	y	n
5	0903023A	6	2000.0	2.000e+03	1.884e+03	0.942	0.37	y	0.86	y	n

```
===== Header Information ==================================================
Entry num: 25 Type: native      Name: Total HpCDF                    F: 4
Run: M23A05     Analyte: M23A05      Cal:          Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 32                      Method : rel_internal
 Cal curve    : quadratic               Origin : force
 Amount on y?: no       Weighted? no    Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.9980     SD: 0.1253    =12.6 %
Curve Eqn: 2.144e-04xÜ2 +9.410e-01x +0.000e+00     Cor: 0.99996  SD: 4.4

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	5.0	5.000e+00	4.569e+00	0.914	-0.67	y	-0.03	y	y
2	0903023A	3	10.0	1.000e+01	8.360e+00	0.836	-1.29	y	-0.24	y	y
3	0903023A	4	50.0	5.000e+01	5.233e+01	1.047	0.39	y	1.08	y	n
4	0903023A	5	500.0	5.000e+02	5.175e+02	1.035	0.30	y	-1.51	y	n
5	0903023A	6	1000.0	1.000e+03	1.158e+03	1.158	1.28	y	0.70	y	n

```
===== Header Information ==================================================
Entry num: 26 Type: IS          Name: 13C12-2,3,7,8-TCDF            F: 1
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 41                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 1.4051     SD: 0.0262    =1.9 %
Curve Eqn: 1.405e+00x +0.000e+00                    Cor: -        SD: 2.6

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	100.0	1.000e+02	1.409e+02	1.409	0.15	y	0.15	y	n
2	0903023A	3	100.0	1.000e+02	1.396e+02	1.396	-0.33	y	-0.33	y	n
3	0903023A	4	100.0	1.000e+02	1.367e+02	1.367	-1.45	y	-1.45	y	n
4	0903023A	5	100.0	1.000e+02	1.414e+02	1.414	0.35	y	0.35	y	n
5	0903023A	6	100.0	1.000e+02	1.439e+02	1.439	1.28	y	1.28	y	n

```
===== Header Information ==============================================
Entry num: 27 Type: IS          Name: 13C12-2,3,7,8-TCDD            F: 1
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==========================================
  Standard    : 41                      Method : rel_internal
 Cal curve    : linear                  Origin : force
 Amount on y?: no       Weighted? no    Max SDs: 2.50

===== Calibration Statistics ==========================================
RRF: Mean: 1.0843     SD: 0.0370    =3.4 %
Curve Eqn: 1.084e+00x +0.000e+00                    Cor: -        SD: 3.7

===== Calibration Run Summary =========================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	100.0	1.000e+02	1.050e+02	1.050	-0.92	y	-0.92	y	n
2	0903023A	3	100.0	1.000e+02	1.065e+02	1.065	-0.53	y	-0.53	y	n
3	0903023A	4	100.0	1.000e+02	1.062e+02	1.062	-0.61	y	-0.61	y	n
4	0903023A	5	100.0	1.000e+02	1.106e+02	1.106	0.60	y	0.60	y	n
5	0903023A	6	100.0	1.000e+02	1.139e+02	1.139	1.46	y	1.46	y	n

```
===== Header Information ==================================================
Entry num: 28 Type: IS          Name: 13C12-1,2,3,7,8-PeCDF          F: 2
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 41                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 1.1354     SD: 0.0709    =6.2 %
Curve Eqn: 1.135e+00x +0.000e+00                    Cor: -        SD: 7.1

===== Calibration Run Summary =============================================
Run File       S  Amount          x          y     RRF  #SDs  OK Curve#SDs OK Mod?

  1 0903023A  2   100.0  1.000e+02 1.080e+02  1.080 -0.78  y      -0.78  y    n
  2 0903023A  3   100.0  1.000e+02 1.042e+02  1.042 -1.31  y      -1.31  y    n
  3 0903023A  4   100.0  1.000e+02 1.161e+02  1.161  0.36  y       0.36  y    n
  4 0903023A  5   100.0  1.000e+02 1.187e+02  1.187  0.73  y       0.73  y    n
  5 0903023A  6   100.0  1.000e+02 1.207e+02  1.207  1.00  y       1.00  y    n
```

```
===== Header Information ==================================================
Entry num: 29 Type: IS          Name: 13C12-1,2,3,7,8-PeCDD          F: 2
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 41                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.8463     SD: 0.0365    =4.3 %
Curve Eqn: 8.463e-01x +0.000e+00                    Cor: -        SD: 3.7

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	100.0	1.000e+02	8.437e+01	0.844	-0.07	y	-0.07	y	n
2	0903023A	3	100.0	1.000e+02	7.843e+01	0.784	-1.70	y	-1.70	y	n
3	0903023A	4	100.0	1.000e+02	8.599e+01	0.860	0.37	y	0.37	y	n
4	0903023A	5	100.0	1.000e+02	8.710e+01	0.871	0.68	y	0.68	y	n
5	0903023A	6	100.0	1.000e+02	8.725e+01	0.872	0.72	y	0.72	y	n

```
===== Header Information ==================================================
Entry num: 30 Type: IS          Name: 13C12-1,2,3,6,7,8-HxCDF        F: 3
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 42                      Method : rel_internal
 Cal curve    : linear                  Origin : force
 Amount on y?: no       Weighted? no    Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 1.2746     SD: 0.1026    =8.1 %
Curve Eqn: 1.275e+00x +0.000e+00                    Cor: -        SD: 10.3

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	100.0	1.000e+02	1.207e+02	1.207	-0.66	y	-0.66	y	n
2	0903023A	3	100.0	1.000e+02	1.300e+02	1.300	0.25	y	0.25	y	n
3	0903023A	4	100.0	1.000e+02	1.149e+02	1.149	-1.22	y	-1.22	y	n
4	0903023A	5	100.0	1.000e+02	1.300e+02	1.300	0.24	y	0.24	y	n
5	0903023A	6	100.0	1.000e+02	1.418e+02	1.418	1.39	y	1.39	y	n

===== Header Information =====
Entry num: 31 Type: IS Name: 13C12-1,2,3,6,7,8-HxCDD F: 3
Run: M23A05 Analyte: M23A05 Cal: Results:
Version: V3.6 9-SEP-2002 14:02:21

===== Calibration Parameters =====
Standard : 42 Method : rel_internal
Cal curve : linear Origin : force
Amount on y?: no Weighted? no Max SDs: 2.50

===== Calibration Statistics =====
RRF: Mean: 0.9849 SD: 0.0206 =2.1 %
Curve Eqn: 9.849e-01x +0.000e+00 Cor: - SD: 2.1

===== Calibration Run Summary =====

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	100.0	1.000e+02	9.765e+01	0.976	-0.41	y	-0.41	y	n
2	0903023A	3	100.0	1.000e+02	1.018e+02	1.018	1.61	y	1.61	y	n
3	0903023A	4	100.0	1.000e+02	9.625e+01	0.963	-1.08	y	-1.08	y	n
4	0903023A	5	100.0	1.000e+02	9.874e+01	0.987	0.12	y	0.12	y	n
5	0903023A	6	100.0	1.000e+02	9.800e+01	0.980	-0.24	y	-0.24	y	n

```
===== Header Information ==================================================
Entry num: 32 Type: IS          Name: 13C12-1,2,3,4,6,7,8-HpCF        F: 4
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 42                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.7025     SD: 0.0334    =4.7 %
Curve Eqn: 7.025e-01x +0.000e+00                    Cor: -        SD: 3.3

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	100.0	1.000e+02	6.721e+01	0.672	-0.91	y	-0.91	y	n
2	0903023A	3	100.0	1.000e+02	7.216e+01	0.722	0.58	y	0.58	y	n
3	0903023A	4	100.0	1.000e+02	6.607e+01	0.661	-1.25	y	-1.25	y	n
4	0903023A	5	100.0	1.000e+02	7.260e+01	0.726	0.71	y	0.71	y	n
5	0903023A	6	100.0	1.000e+02	7.318e+01	0.732	0.88	y	0.88	y	n

===== Header Information =====
Entry num: 33 Type: IS Name: 13C12-1,2,3,4,6,7,8-HPCDD F: 4
Run: M23A05 Analyte: M23A05 Cal: Results:
Version: V3.6 9-SEP-2002 14:02:21

===== Calibration Parameters =====
Standard : 42 Method : rel_internal
Cal curve : linear Origin : force
Amount on y?: no Weighted? no Max SDs: 2.50

===== Calibration Statistics =====
RRF: Mean: 0.6072 SD: 0.0417 =6.9 %
Curve Eqn: 6.072e-01x +0.000e+00 Cor: - SD: 4.2

===== Calibration Run Summary =====

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	100.0	1.000e+02	5.622e+01	0.562	-1.08	y	-1.08	y	n
2	0903023A	3	100.0	1.000e+02	6.056e+01	0.606	-0.04	y	-0.04	y	n
3	0903023A	4	100.0	1.000e+02	5.697e+01	0.570	-0.90	y	-0.90	y	n
4	0903023A	5	100.0	1.000e+02	6.481e+01	0.648	0.98	y	0.98	y	n
5	0903023A	6	100.0	1.000e+02	6.502e+01	0.650	1.03	y	1.03	y	n

```
===== Header Information ==================================================
Entry num: 34 Type: IS          Name: 13C12-OCDD                      F: 5
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 42                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.2359      SD: 0.0357    =15.1 %
Curve Eqn: 2.359e-01x +0.000e+00                    Cor: -        SD: 7.1

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	200.0	2.000e+02	3.719e+01	0.186	-1.40	y	-1.40	y	n
2	0903023A	3	200.0	2.000e+02	4.892e+01	0.245	0.24	y	0.24	y	n
3	0903023A	4	200.0	2.000e+02	4.289e+01	0.214	-0.60	y	-0.60	y	n
4	0903023A	5	200.0	2.000e+02	5.481e+01	0.274	1.07	y	1.07	y	n
5	0903023A	6	200.0	2.000e+02	5.208e+01	0.260	0.69	y	0.69	y	n

```
===== Header Information ==================================================
Entry num: 35 Type: Surogate    Name: 37C12-2,3,7,8-TCDD              F: 1
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 27                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 1.7180     SD: 0.2520    =14.7 %
Curve Eqn: 1.935e+00x +0.000e+00                    Cor: 0.99909  SD: 3.6

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	0.5	5.000e-01	7.672e-01	1.534	-0.73	y	-0.05	y	n
2	0903023A	3	1.0	1.000e+00	1.378e+00	1.378	-1.35	y	-0.15	y	n
3	0903023A	4	5.0	5.000e+00	9.525e+00	1.905	0.74	y	-0.04	y	n
4	0903023A	5	50.0	5.000e+01	9.025e+01	1.805	0.35	y	-1.78	y	n
5	0903023A	6	100.0	1.000e+02	1.967e+02	1.967	0.99	y	0.89	y	n

```
===== Header Information ==================================================
Entry num: 36 Type: Surogate    Name: 13C12-2,3,4,7,8-PeCDF          F: 2
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 28                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.8825     SD: 0.0475    =5.4 %
Curve Eqn: 9.105e-01x +0.000e+00                    Cor: 0.99941  SD: 6.9

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.231e+00	0.892	0.21	y	-0.01	y	n
2	0903023A	3	5.0	5.000e+00	4.057e+00	0.811	-1.50	y	-0.07	y	n
3	0903023A	4	25.0	2.500e+01	2.312e+01	0.925	0.89	y	0.05	y	n
4	0903023A	5	250.0	2.500e+02	2.153e+02	0.861	-0.45	y	-1.79	y	n
5	0903023A	6	500.0	5.000e+02	4.614e+02	0.923	0.85	y	0.89	y	n

```
===== Header Information ==================================================
Entry num: 37 Type: Surogate    Name: 13C12-1,2,3,4,7,8-HxCDF        F: 3
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 30                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.9124     SD: 0.0465    =5.1 %
Curve Eqn: 9.133e-01x +0.000e+00                    Cor: 0.99977  SD: 4.3

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.326e+00	0.930	0.39	y	0.01	y	n
2	0903023A	3	5.0	5.000e+00	4.266e+00	0.853	-1.27	y	-0.07	y	n
3	0903023A	4	25.0	2.500e+01	2.437e+01	0.975	1.34	y	0.36	y	n
4	0903023A	5	250.0	2.500e+02	2.207e+02	0.883	-0.64	y	-1.77	y	n
5	0903023A	6	500.0	5.000e+02	4.604e+02	0.921	0.18	y	0.87	y	n

```
===== Header Information ==============================================
Entry num: 38 Type: Surogate    Name: 13C12-1,2,3,4,7,8-HxCDD        F: 3
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==========================================
  Standard    : 31                      Method : rel_internal
 Cal curve    : linear                  Origin : force
 Amount on y?: no       Weighted? no    Max SDs: 2.50

===== Calibration Statistics ==========================================
RRF: Mean: 0.8624     SD: 0.1071    =12.4 %
Curve Eqn: 9.710e-01x +0.000e+00                    Cor: 0.99862  SD: 11.3

===== Calibration Run Summary =========================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	2.019e+00	0.808	-0.51	y	-0.04	y	n
2	0903023A	3	5.0	5.000e+00	3.554e+00	0.711	-1.42	y	-0.12	y	n
3	0903023A	4	25.0	2.500e+01	2.280e+01	0.912	0.46	y	-0.13	y	n
4	0903023A	5	250.0	2.500e+02	2.227e+02	0.891	0.26	y	-1.78	y	n
5	0903023A	6	500.0	5.000e+02	4.956e+02	0.991	1.20	y	0.90	y	n

```
===== Header Information ==================================================
Entry num: 39 Type: Surogate    Name: 13C12-1,2,3,4,7,8,9-HPCF       F: 4
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 32                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.5124     SD: 0.1095    =21.4 %
Curve Eqn: 6.260e-01x +0.000e+00                    Cor: 0.99812  SD: 8.5

===== Calibration Run Summary =============================================
```

Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	9.629e-01	0.385	-1.16	y	-0.07	y	n
2	0903023A	3	5.0	5.000e+00	2.058e+00	0.412	-0.92	y	-0.13	y	n
3	0903023A	4	25.0	2.500e+01	1.396e+01	0.558	0.42	y	-0.20	y	n
4	0903023A	5	250.0	2.500e+02	1.414e+02	0.566	0.49	y	-1.77	y	n
5	0903023A	6	500.0	5.000e+02	3.206e+02	0.641	1.18	y	0.90	y	n

```
===== Header Information ==================================================
Entry num: 40 Type: Alternat    Name: 13C12-1,2,3,7,8,9-HxCDF        F: 3
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 30                        Method : rel_internal
 Cal curve    : linear                    Origin : force
 Amount on y?: no       Weighted? no      Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.6769     SD: 0.0647    =9.6 %
Curve Eqn: 7.061e-01x +0.000e+00                    Cor: 0.99971  SD: 3.7

===== Calibration Run Summary =============================================
```

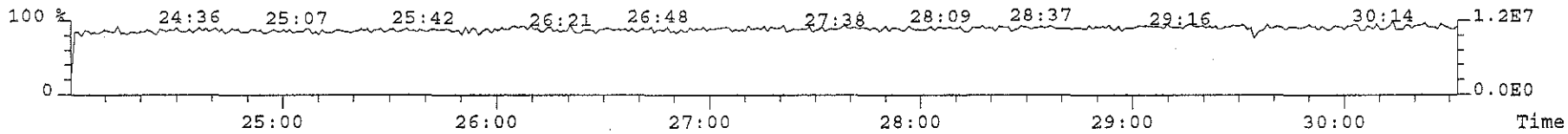
Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	2.5	2.500e+00	1.724e+00	0.690	0.20	y	-0.01	y	n
2	0903023A	3	5.0	5.000e+00	2.839e+00	0.568	-1.69	y	-0.18	y	y
3	0903023A	4	25.0	2.500e+01	1.838e+01	0.735	0.90	y	0.19	y	n
4	0903023A	5	250.0	2.500e+02	1.699e+02	0.680	0.04	y	-1.78	y	n
5	0903023A	6	500.0	5.000e+02	3.564e+02	0.713	0.55	y	0.88	y	n

```
===== Header Information ==================================================
Entry num: 41 Type: RS          Name: 13C12-1,2,3,4-TCDD              F: 1
Run: M23A05     Analyte: M23A05      Cal:          Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    :                          Method : abs_internal
 Cal curve    : linear                   Origin : force
 Amount on y?: no       Weighted? no     Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: -          SD: -         =- %
Curve Eqn: 5.348e+06x +0.000e+00                    Cor: -        SD: 26753

===== Calibration Run Summary =============================================
```

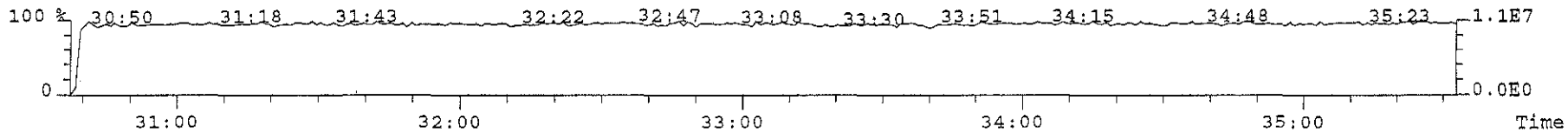
Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0903023A	2	100.0	1.000e+02	4.970e+08	-	-	n	-0.14	y	n
2	0903023A	3	100.0	1.000e+02	3.625e+08	-	-	n	-0.64	y	n
3	0903023A	4	100.0	1.000e+02	1.004e+09	-	-	n	1.75	y	n
4	0903023A	5	100.0	1.000e+02	4.283e+08	-	-	n	-0.40	y	n
5	0903023A	6	100.0	1.000e+02	3.818e+08	-	-	n	-0.57	y	n

```
===== Header Information ==================================================
Entry num: 42 Type: RS          Name: 13C12-1,2,3,7,8,9-HxCDD        F: 3
Run: M23A05     Analyte: M23A05      Cal:           Results:
Version: V3.6  9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    :                          Method : abs_internal
 Cal curve    : linear                   Origin : force
 Amount on y?: no       Weighted? no     Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: -          SD: -         =- %
Curve Eqn: 3.586e+06x +0.000e+00                    Cor: -        SD: 20806

===== Calibration Run Summary =============================================
Run File       S  Amount          x          y    RRF  #SDs  OK Curve#SDs OK Mod?

  1 0903023A  2   100.0  1.000e+02 3.219e+08      -     -  n      -0.18  y    n
  2 0903023A  3   100.0  1.000e+02 2.044e+08      -     -  n      -0.74  y    n
  3 0903023A  4   100.0  1.000e+02 7.222e+08      -     -  n       1.75  y    n
  4 0903023A  5   100.0  1.000e+02 2.941e+08      -     -  n      -0.31  y    n
  5 0903023A  6   100.0  1.000e+02 2.506e+08      -     -  n      -0.52  y    n
```

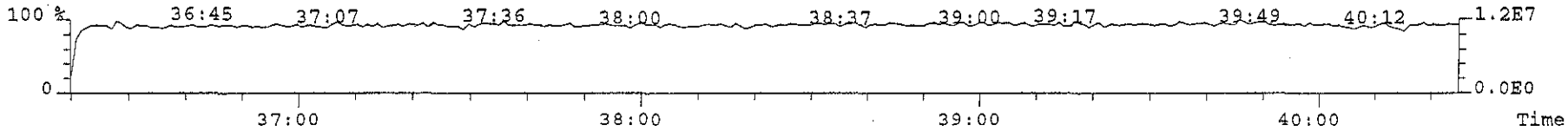
File:0903023A #1-429 Acq:16-SEP-2003 17:30:59 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:2 Exp:8290
Sample Text:CS-1 M2305 File Text:M23



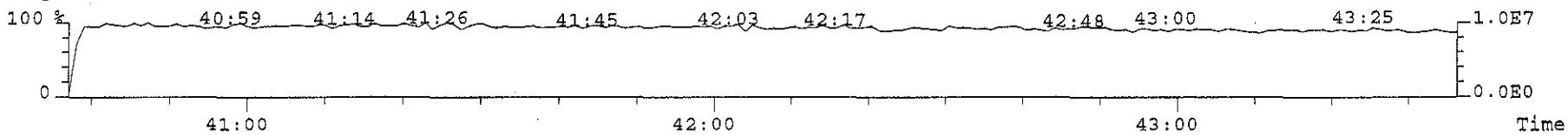
File:0903023A #1-324 Acq:16-SEP-2003 17:30:59 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:2 F:2 Exp:8290
Sample Text:CS-1 M2305 File Text:M23



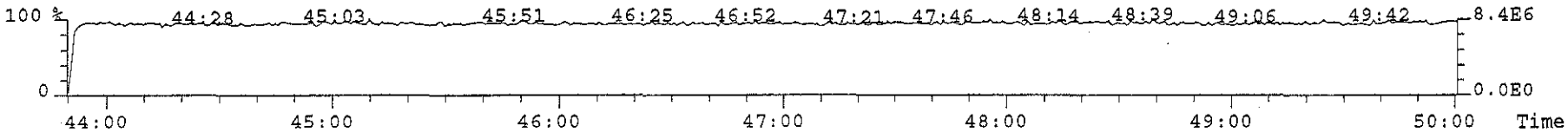
File:0903023A #1-278 Acq:16-SEP-2003 17:30:59 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:2 F:3 Exp:8290
Sample Text:CS-1 M2305 File Text:M23



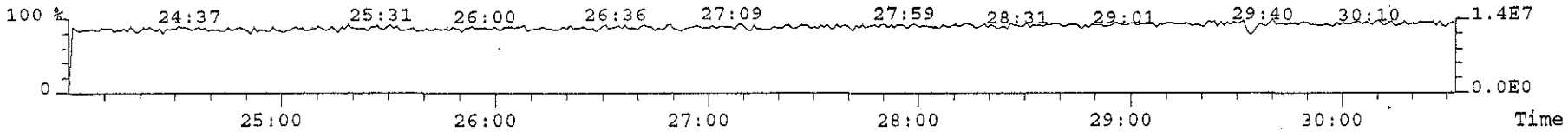
File:0903023A #1-197 Acq:16-SEP-2003 17:30:59 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:2 F:4 Exp:8290
Sample Text:CS-1 M2305 File Text:M23



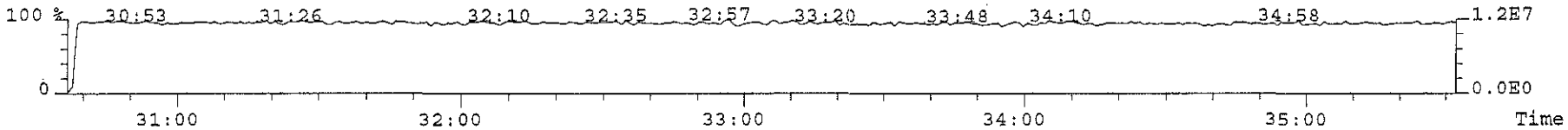
File:0903023A #1-446 Acq:16-SEP-2003 17:30:59 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:2 F:5 Exp:8290
Sample Text:CS-1 M2305 File Text:M23



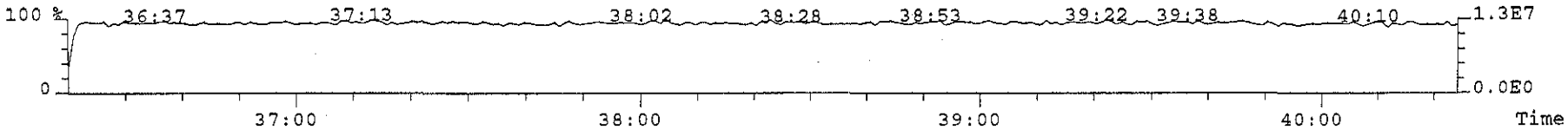
File:0903023A #1-430 Acq:16-SEP-2003 18:26:57 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:3 Exp:8290
Sample Text:CS-2 M2305 File Text:M23



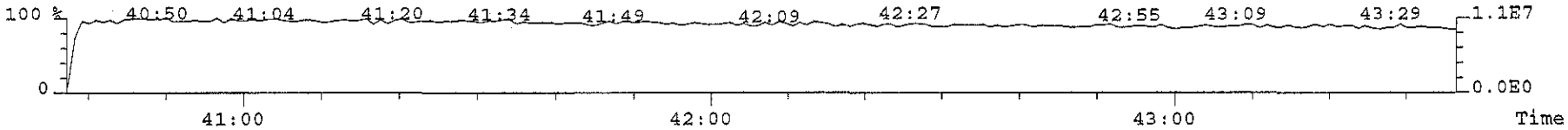
File:0903023A #1-324 Acq:16-SEP-2003 18:26:57 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:3 F:2 Exp:8290
Sample Text:CS-2 M2305 File Text:M23



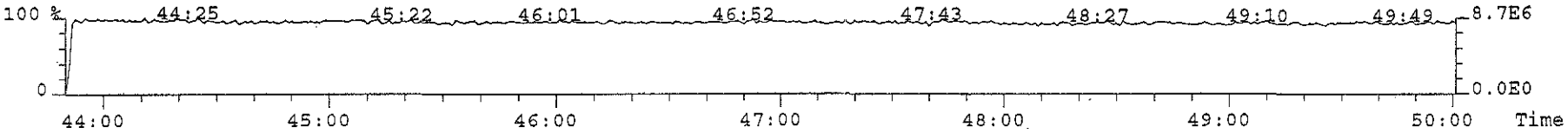
File:0903023A #1-277 Acq:16-SEP-2003 18:26:57 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:3 F:3 Exp:8290
Sample Text:CS-2 M2305 File Text:M23



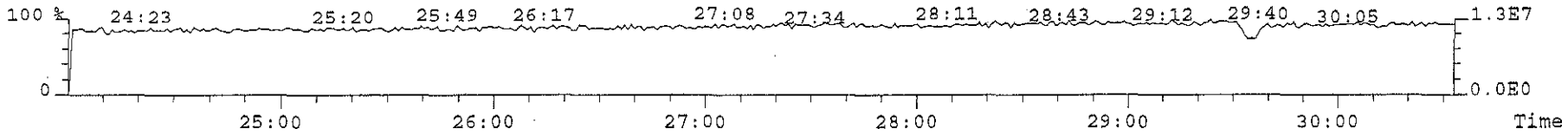
File:0903023A #1-197 Acq:16-SEP-2003 18:26:57 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:3 F:4 Exp:8290
Sample Text:CS-2 M2305 File Text:M23



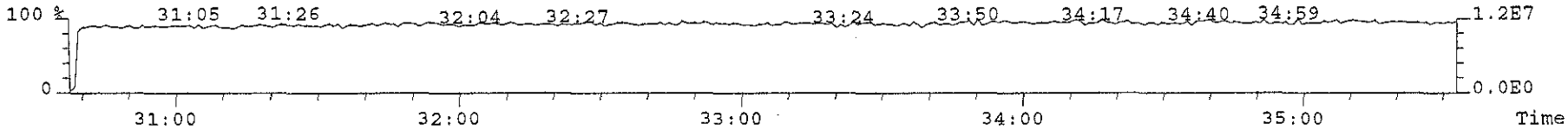
File:0903023A #1-446 Acq:16-SEP-2003 18:26:57 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:3 F:5 Exp:8290
Sample Text:CS-2 M2305 File Text:M23



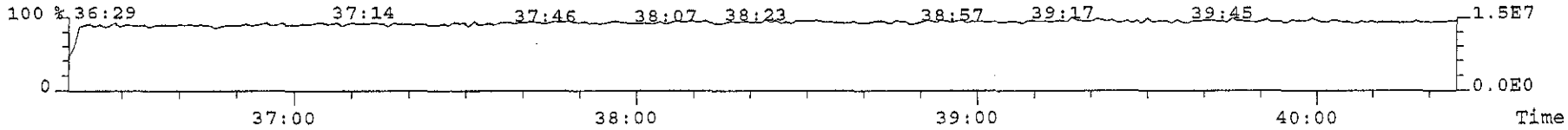
File:0903023A #1-430 Acq:16-SEP-2003 19:22:52 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:4 Exp:8290
Sample Text:CS-3 M2305 File Text:M23



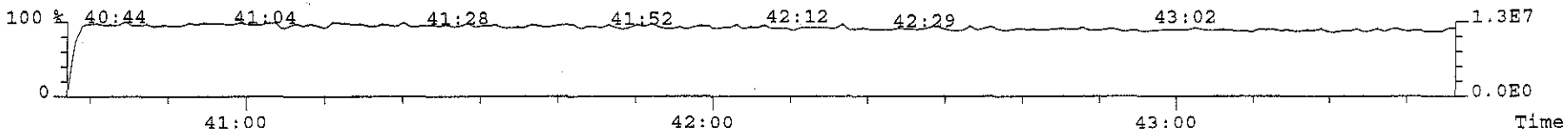
File:0903023A #1-324 Acq:16-SEP-2003 19:22:52 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:4 F:2 Exp:8290
Sample Text:CS-3 M2305 File Text:M23



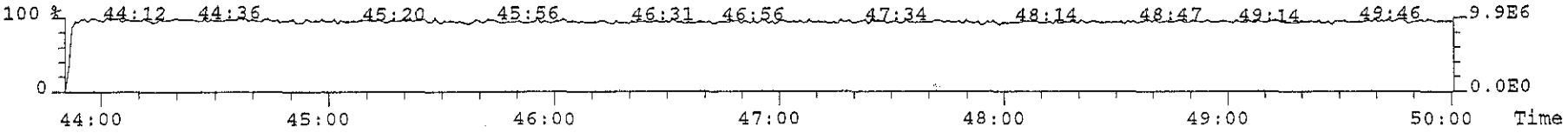
File:0903023A #1-277 Acq:16-SEP-2003 19:22:52 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:4 F:3 Exp:8290
Sample Text:CS-3 M2305 File Text:M23



File:0903023A #1-197 Acq:16-SEP-2003 19:22:52 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:4 F:4 Exp:8290
Sample Text:CS-3 M2305 File Text:M23

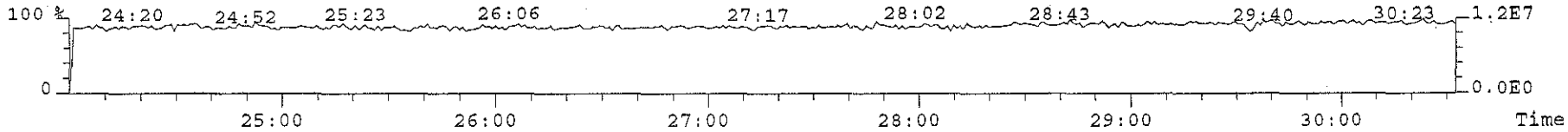


File:0903023A #1-445 Acq:16-SEP-2003 19:22:52 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:4 F:5 Exp:8290
Sample Text:CS-3 M2305 File Text:M23

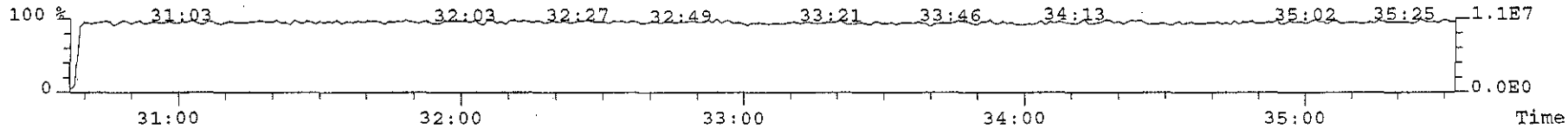


P

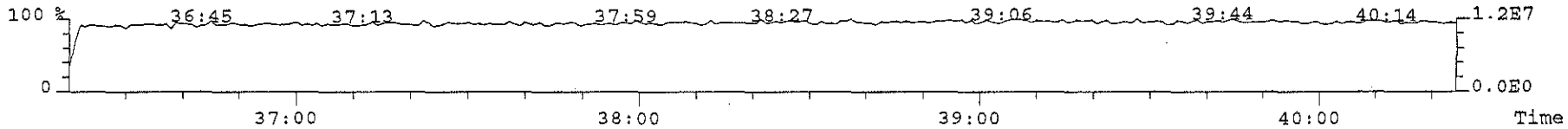
File:0903023A #1-430 Acq:16-SEP-2003 20:18:49 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:5 Exp:8290
Sample Text:CS-4 M2305 File Text:M23



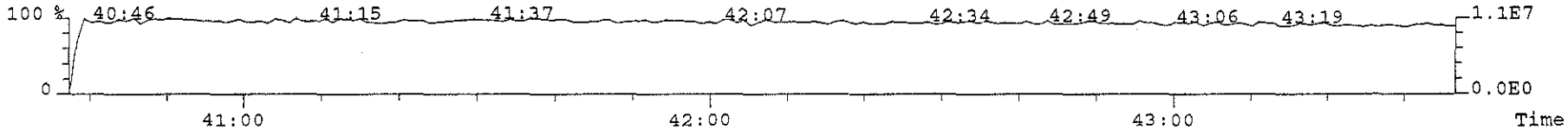
File:0903023A #1-324 Acq:16-SEP-2003 20:18:49 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:5 F:2 Exp:8290
Sample Text:CS-4 M2305 File Text:M23



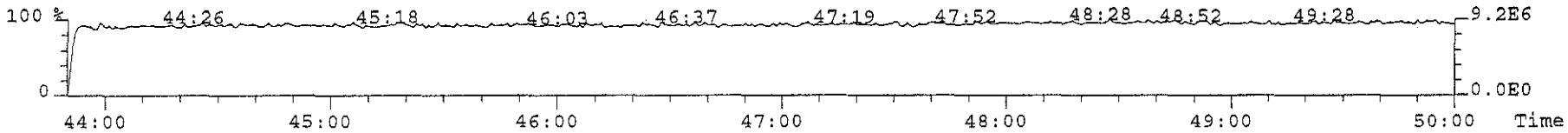
File:0903023A #1-277 Acq:16-SEP-2003 20:18:49 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:5 F:3 Exp:8290
Sample Text:CS-4 M2305 File Text:M23



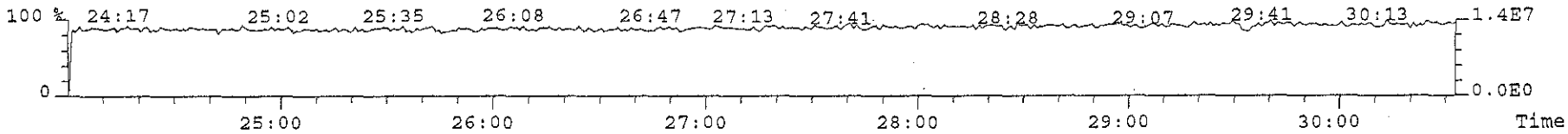
File:0903023A #1-197 Acq:16-SEP-2003 20:18:49 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:5 F:4 Exp:8290
Sample Text:CS-4 M2305 File Text:M23



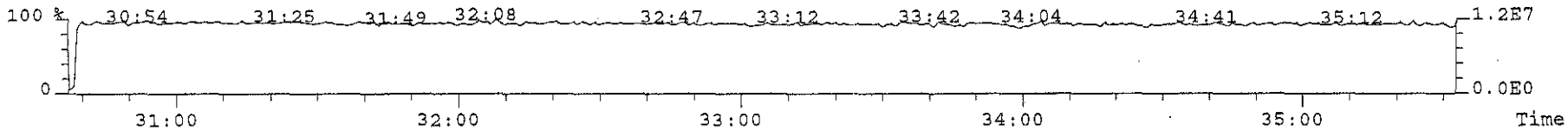
File:0903023A #1-445 Acq:16-SEP-2003 20:18:49 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:5 F:5 Exp:8290
Sample Text:CS-4 M2305 File Text:M23



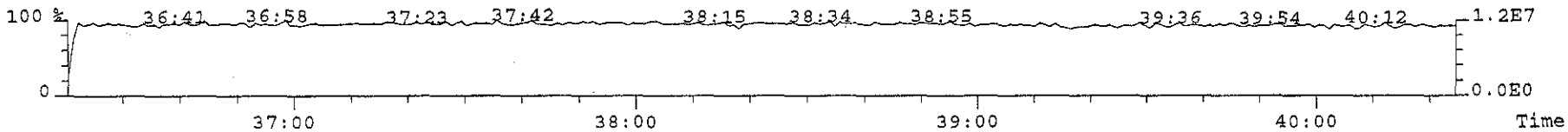
File:0903023A #1-430 Acq:16-SEP-2003 21:14:50 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:6 Exp:8290
Sample Text:CS-5 M2305 File Text:M23



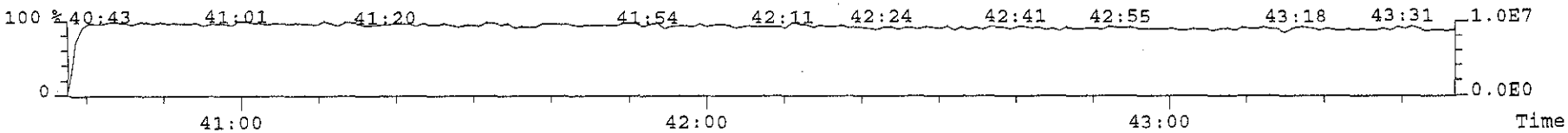
File:0903023A #1-324 Acq:16-SEP-2003 21:14:50 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:6 F:2 Exp:8290
Sample Text:CS-5 M2305 File Text:M23



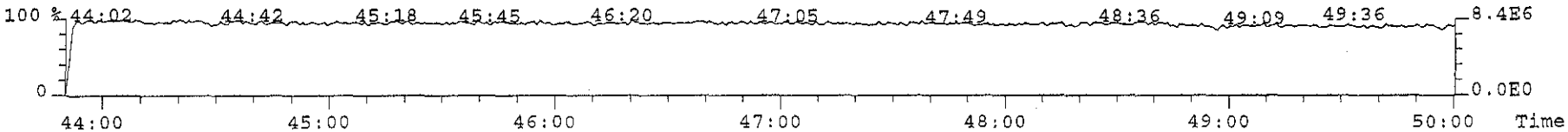
File:0903023A #1-277 Acq:16-SEP-2003 21:14:50 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:6 F:3 Exp:8290
Sample Text:CS-5 M2305 File Text:M23



File:0903023A #1-197 Acq:16-SEP-2003 21:14:50 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:6 F:4 Exp:8290
Sample Text:CS-5 M2305 File Text:M23



File:0903023A #1-445 Acq:16-SEP-2003 21:14:50 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:6 F:5 Exp:8290
Sample Text:CS-5 M2305 File Text:M23

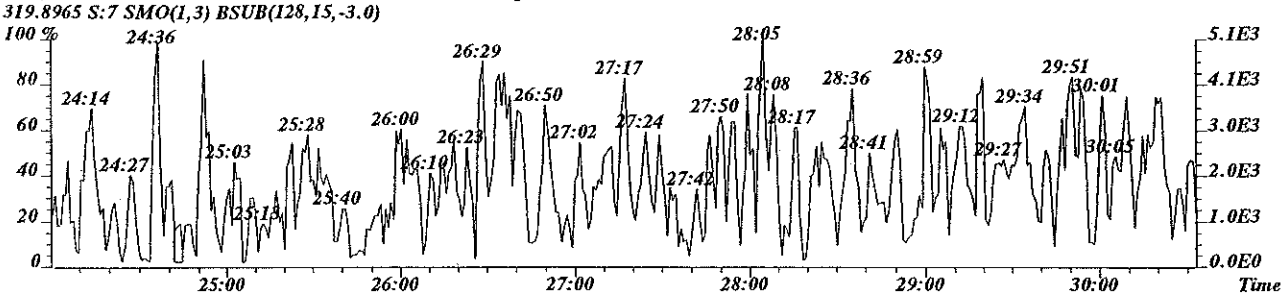


Run #8 Filename 0903023A S: 7 I: 1 Acquired: 16-SEP-03 22:10:45 Processed: 17-SEP-03 11:21:20
Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A Version: V3.6 9-SEP-2002 14:02:21
Sample text: INS.BLK. M2305 Comments:

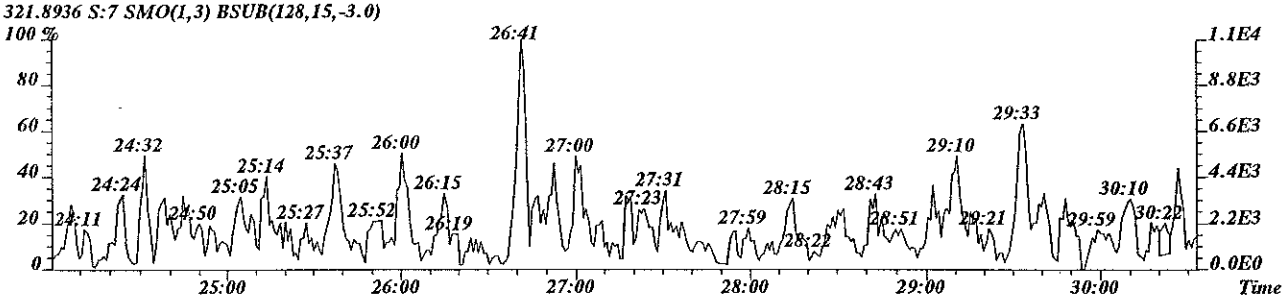
	Typ	Name	#Hom	Resp	RA		RT	Conc	0.00 Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDD	0	*	*	n	NotFnd	*	*	*	-	y
2	nati	1,2,3,7,8-PeCDD	0	*	*	n	NotFnd	*	*	*	-	n
3	nati	1,2,3,4,7,8-HxCDD	0	*	*	n	NotFnd	*	*	*	-	n
4	nati	1,2,3,6,7,8-HxCDD	0	*	*	n	NotFnd	*	*	*	-	n
5	nati	1,2,3,7,8,9,-HxCDD	0	*	*	n	NotFnd	*	*	*	-	n
6	nati	1,2,3,4,6,7,8-HpCDD	0	*	*	n	NotFnd	*	*	*	-	n
7	nati	1,2,3,4,6,7,8,9-OCDD	0	*	*	n	NotFnd	*	*	*	-	n
8	nati	2,3,7,8-TCDF	0	*	*	n	NotFnd	*	*	*	-	n
9	nati	1,2,3,7,8-PeCDF	0	*	*	n	NotFnd	*	*	*	-	n
10	nati	2,3,4,7,8-PeCDF	0	*	*	n	NotFnd	*	*	*	-	n
11	nati	1,2,3,4,4,8-HxCDF	0	*	*	n	NotFnd	*	*	*	-	n
12	nati	1,2,3,6,7,8-HxCDF	0	*	*	n	NotFnd	*	*	*	-	n
13	nati	2,3,4,6,7,8-HxCDF	0	*	*	n	NotFnd	*	*	*	-	n
14	nati	1,2,3,7,8,9-HxCDF	0	*	*	n	NotFnd	*	*	*	-	n
15	nati	1,2,3,4,6,7,8-HpCDF	0	*	*	n	NotFnd	*	*	*	-	n
16	nati	1,2,3,4,7,8,9-HpCDF	0	*	*	n	NotFnd	*	*	*	-	n
17	nati	1,2,3,4,6,7,8,9-OCDF	0	*	*	n	NotFnd	*	*	*	-	y
18	nati	Total TCDD	0	*	*	n	NotFnd	*	*	*	-	y
19	nati	Total PeCDD	0	*	*	n	NotFnd	*	*	*	-	n
20	nati	Total HxCDD	0	*	*	n	NotFnd	*	*	*	-	n
21	nati	Total HpCDD	0	*	*	n	NotFnd	*	*	*	-	n
22	nati	Total TCDF	0	*	*	n	NotFnd	*	*	*	-	n
23	nati	Total PeCDF	0	*	*	n	NotFnd	*	*	*	-	n
24	nati	Total HxCDF	0	*	*	n	NotFnd	*	*	*	-	y
25	nati	Total HpCDF	0	*	*	n	NotFnd	*	*	*	-	n
26	IS	13C12-2,3,7,8-TCDF	0	*	*	n	NotFnd	*	*	*	*	n
27	IS	13C12-2,3,7,8-TCDD	0	*	*	n	NotFnd	*	*	*	*	n
28	IS	13C12-1,2,3,7,8-PeCDF	0	*	*	n	NotFnd	*	*	*	*	n
29	IS	13C12-1,2,3,7,8-PeCDD	0	*	*	n	NotFnd	*	*	*	*	y
30	IS	13C12-1,2,3,6,7,8-HxCDF	0	*	*	n	NotFnd	*	*	*	*	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	0	*	*	n	NotFnd	*	*	*	*	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	0	*	*	n	NotFnd	*	*	*	*	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	0	*	*	n	NotFnd	*	*	*	*	n
34	IS	13C12-OCDD	0	*	*	n	NotFnd	*	*	*	*	n
35	Suro	37C12-2,3,7,8-TCDD	0	*	*	n	NotFnd	*	*	*	*	n
36	Suro	13C12-2,3,4,7,8-PeCDF	0	*	*	n	NotFnd	*	*	*	*	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	0	*	*	n	NotFnd	*	*	*	*	y
38	Suro	13C12-1,2,3,4,7,8-HxCDD	0	*	*	n	NotFnd	*	*	*	*	y
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	0	*	*	n	NotFnd	*	*	*	*	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	0	*	*	n	NotFnd	*	*	*	*	n
41	RS	13C12-1,2,3,4-TCDD	0	*	*	n	NotFnd	*	*	-	-	y
42	RS	13C12-1,2,3,7,8,9-HxCDD	0	*	*	n	NotFnd	*	*	-	-	n

File:0903023A #1-430 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:INS.BLK. M2305 Exp:8290

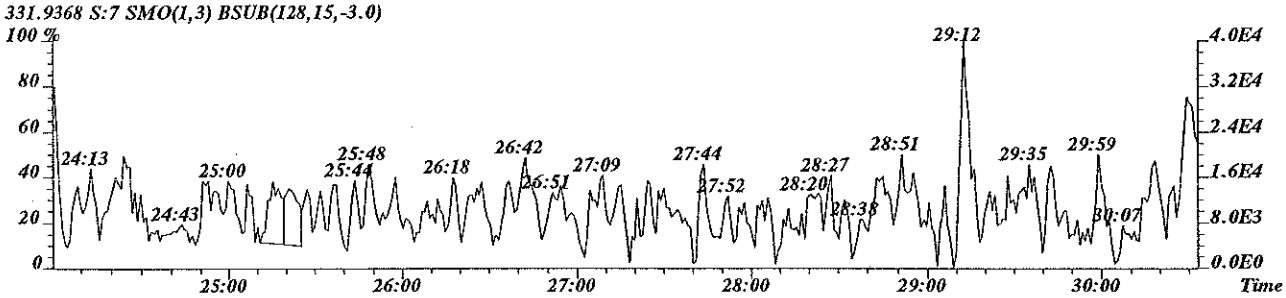
319.8965 S:7 SMO(1,3) BSUB(128,15,-3.0)



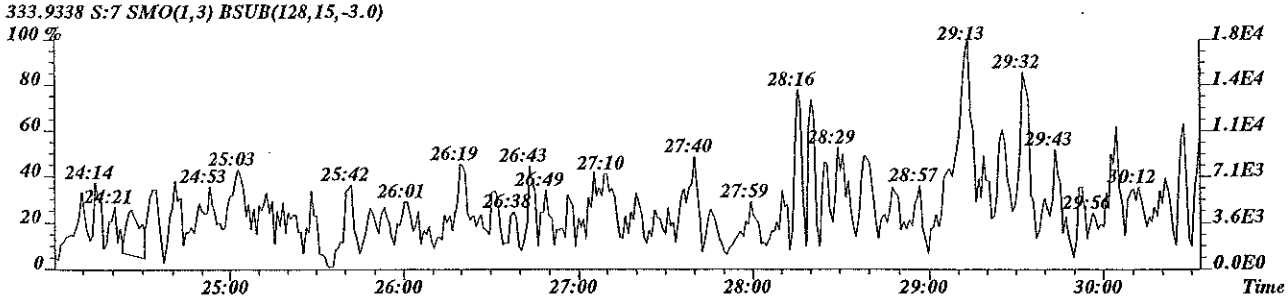
321.8936 S:7 SMO(1,3) BSUB(128,15,-3.0)



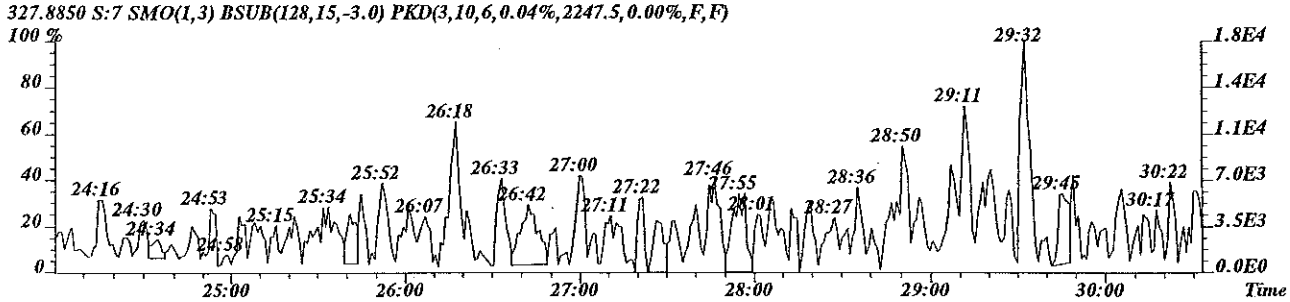
331.9368 S:7 SMO(1,3) BSUB(128,15,-3.0)



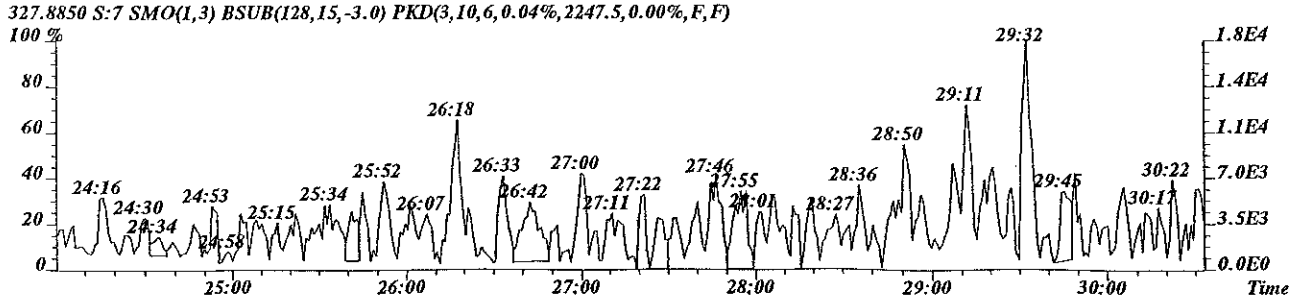
333.9338 S:7 SMO(1,3) BSUB(128,15,-3.0)



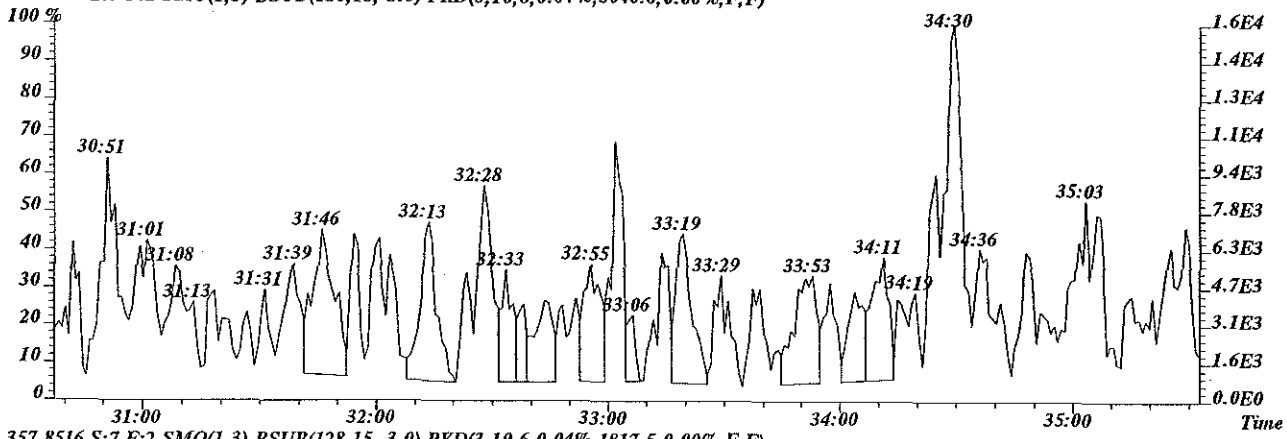
327.8850 S:7 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2247.5,0.00%,F,F)



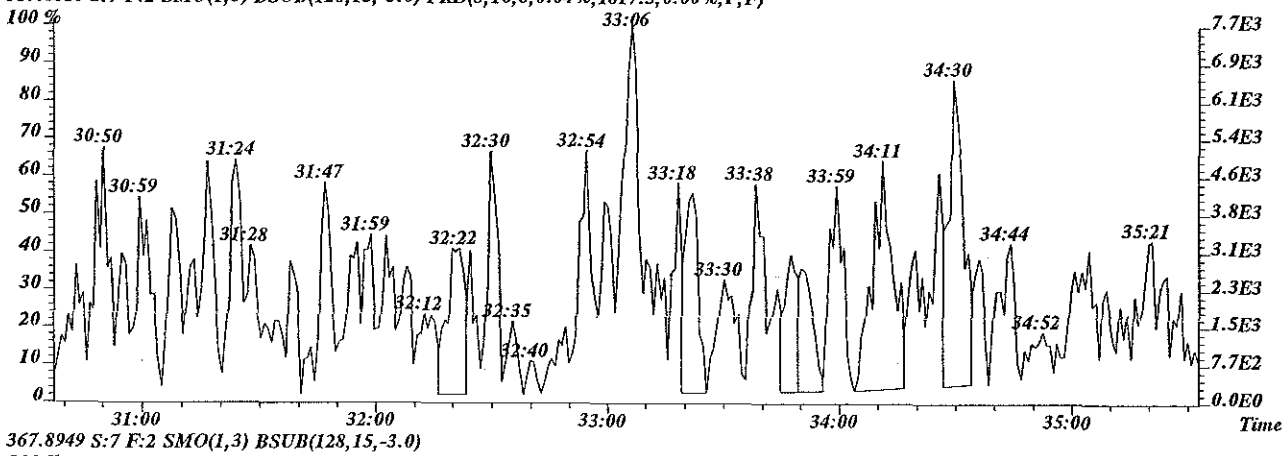
327.8850 S:7 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2247.5,0.00%,F,F)



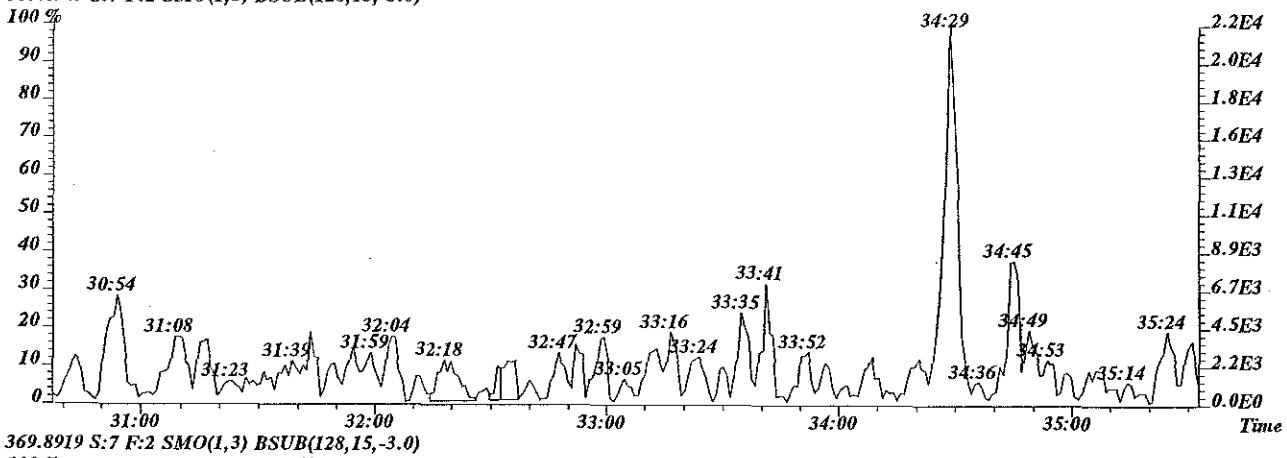
File:0903023A #1-324 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:INS.BLK. M2305 Exp:8290
355.8546 S:7 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3040.0,0.00%,F,F)



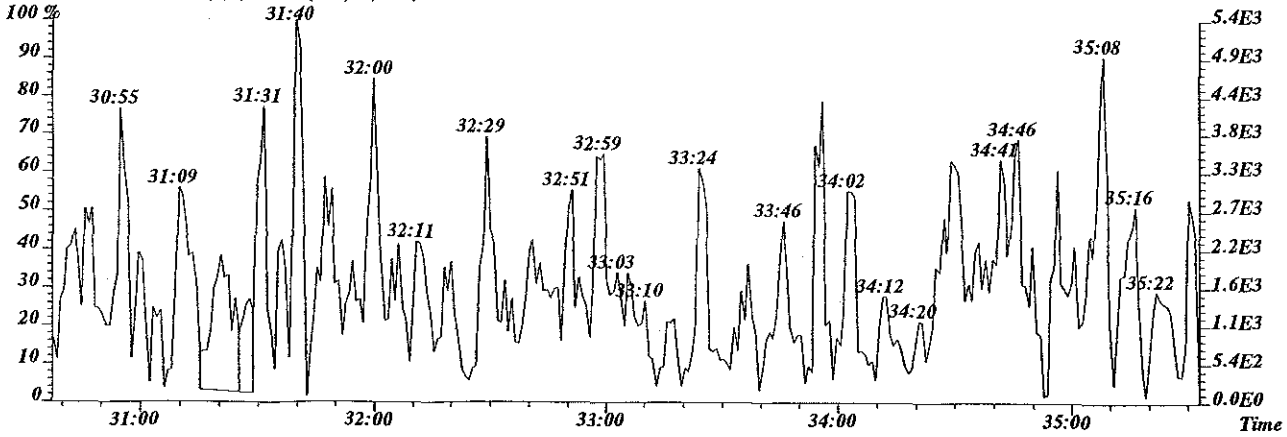
357.8516 S:7 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1817.5,0.00%,F,F)



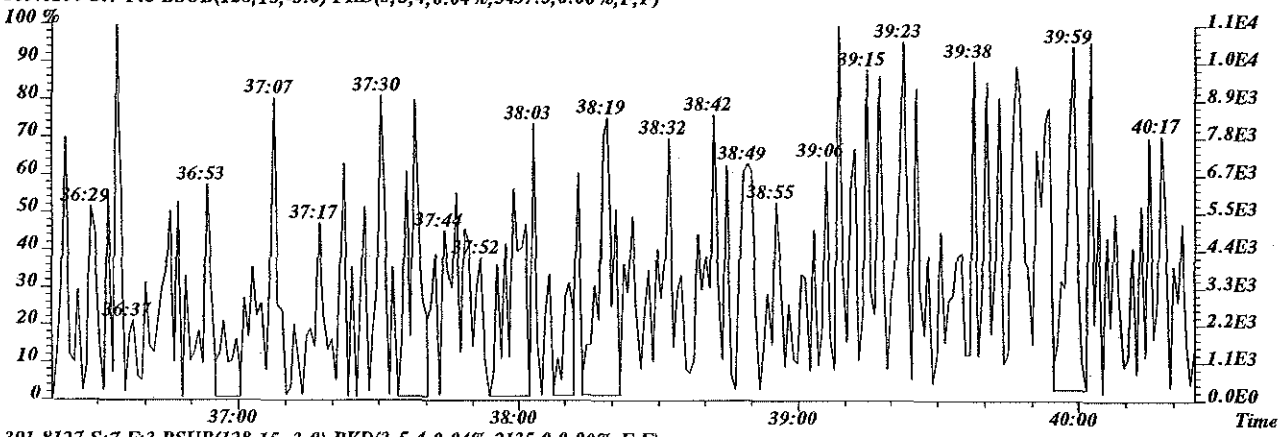
367.8949 S:7 F:2 SMO(1,3) BSUB(128,15,-3.0)



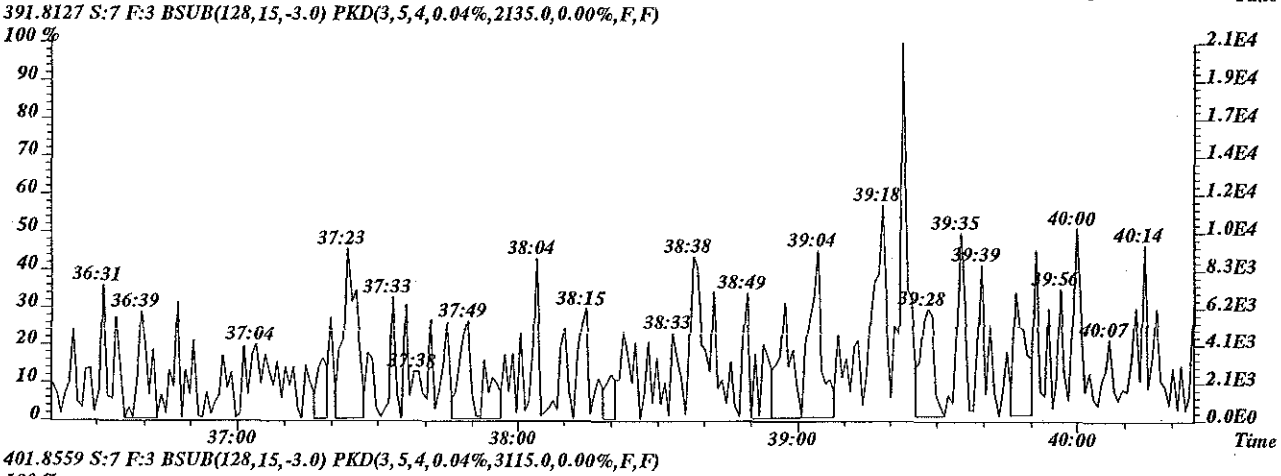
369.8919 S:7 F:2 SMO(1,3) BSUB(128,15,-3.0)



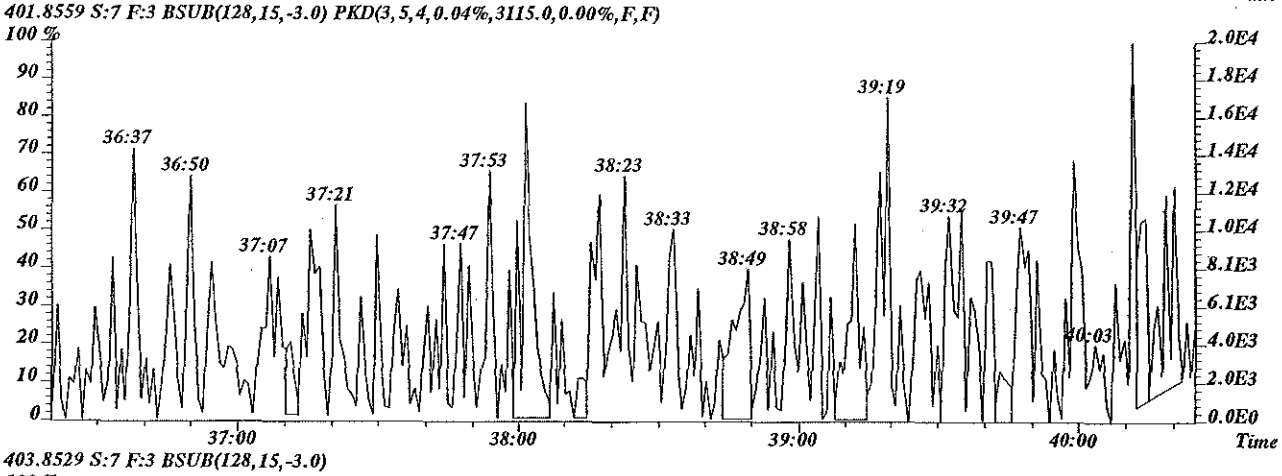
File:0903023A #1-277 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:INS.BLK. M2305 Exp:8290
389.8156 S:7 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3437.5,0.00%,F,F)



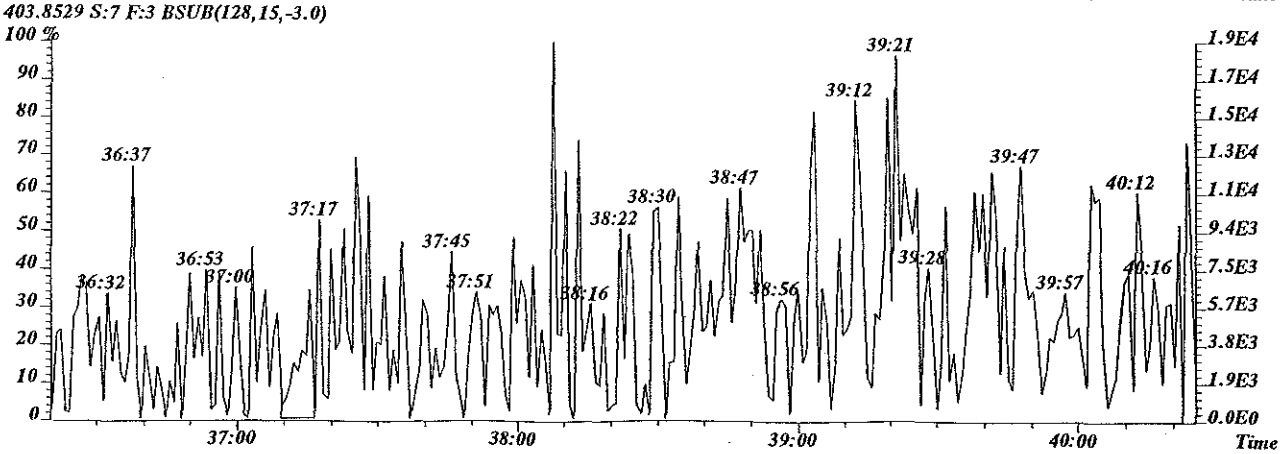
391.8127 S:7 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2135.0,0.00%,F,F)



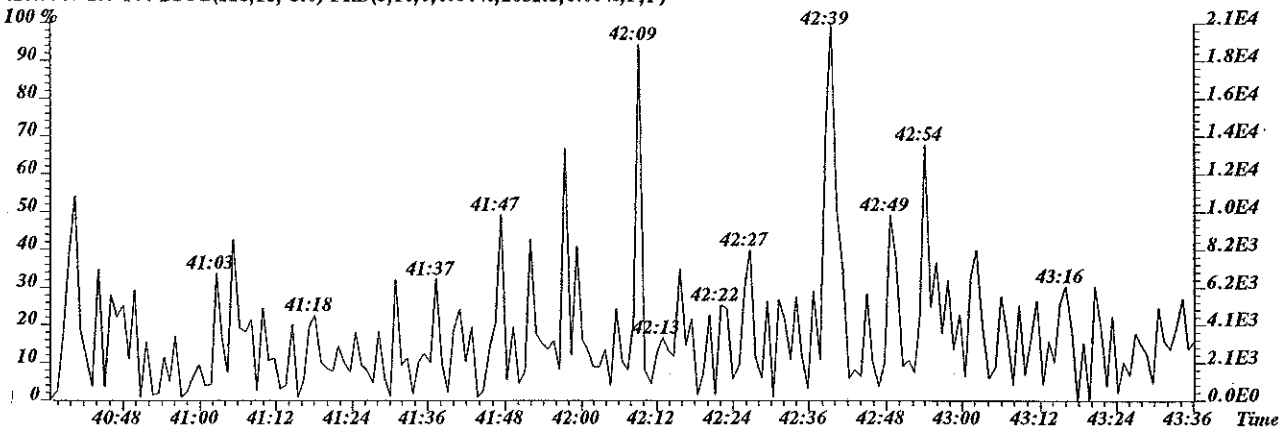
401.8559 S:7 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3115.0,0.00%,F,F)



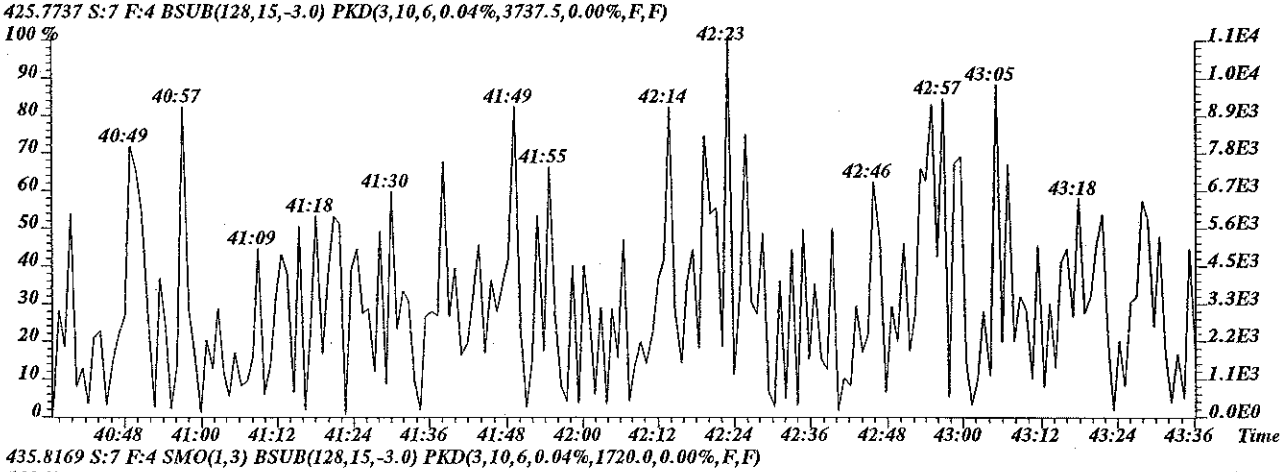
403.8529 S:7 F:3 BSUB(128,15,-3.0)



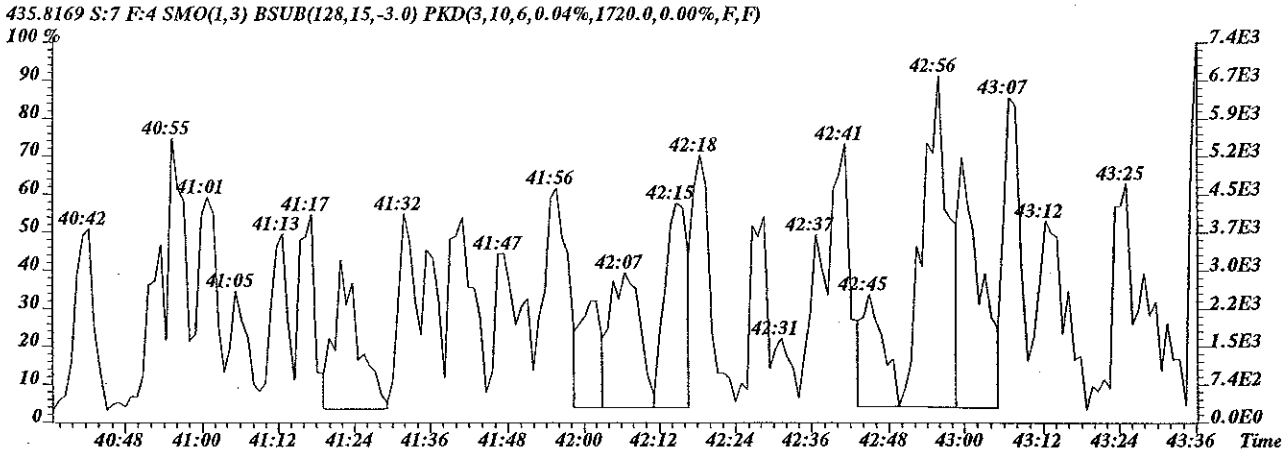
File:0903023A #1-197 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:INS.BLK. M2305 Exp:8290
423.7767 S:7 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2052.5,0.00%,F,F)



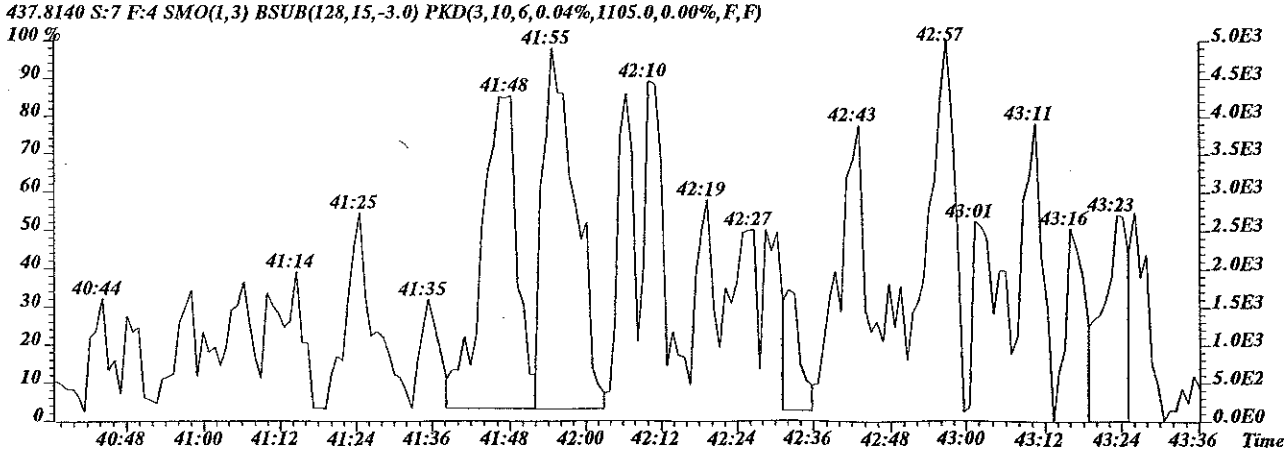
425.7737 S:7 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3737.5,0.00%,F,F)



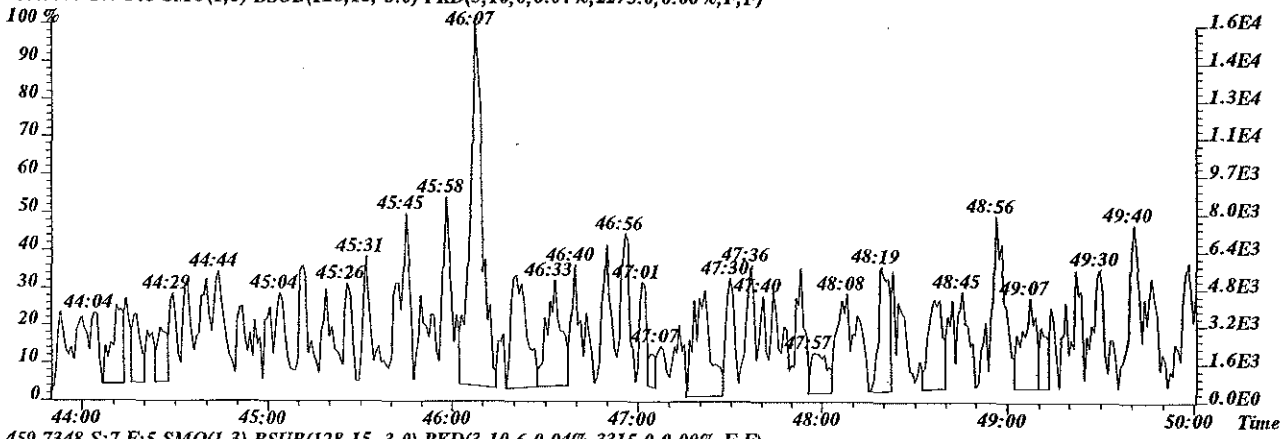
435.8169 S:7 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1720.0,0.00%,F,F)



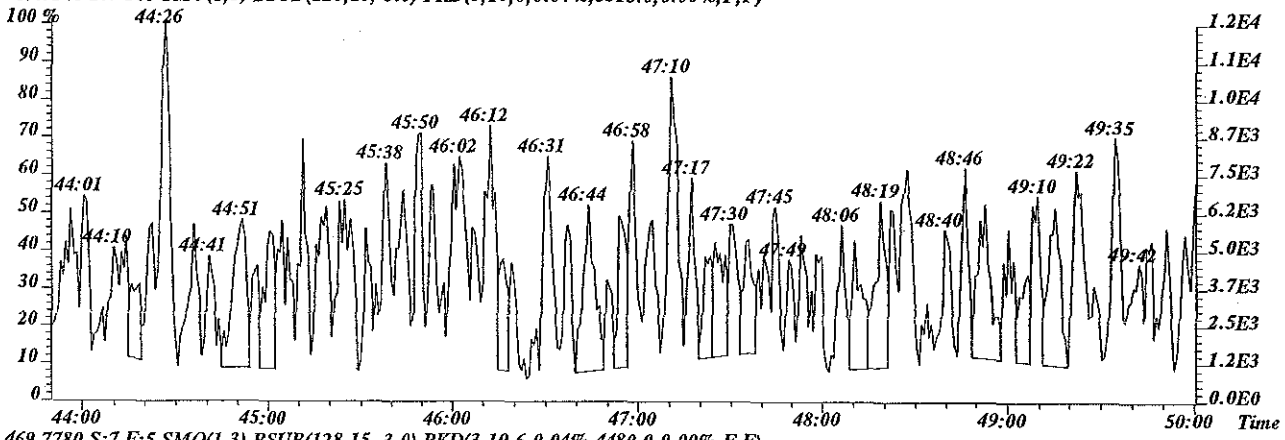
437.8140 S:7 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1105.0,0.00%,F,F)



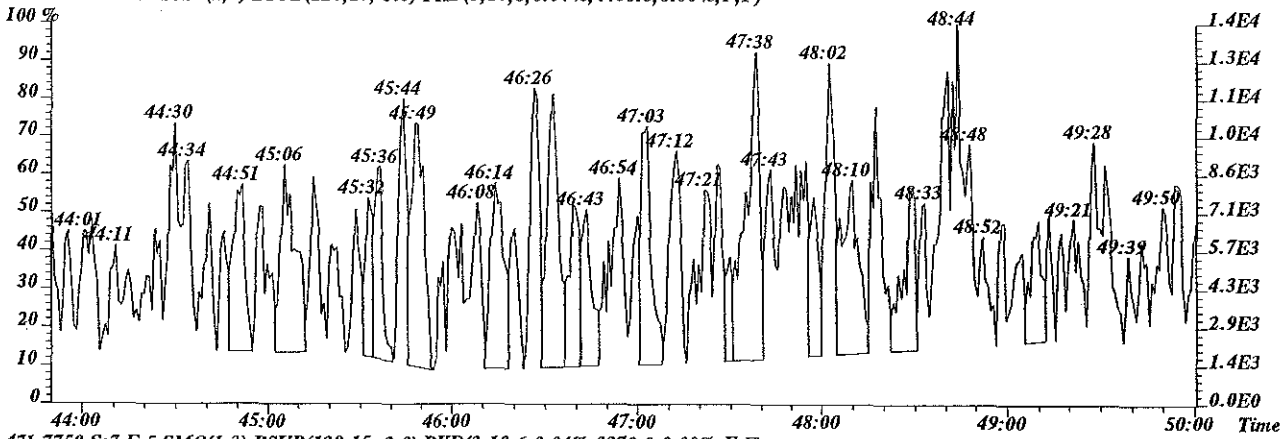
File:0903023A #1-445 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:INS.BLK. M2305 Exp:8290
457.7377 S:7 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2275.0,0.00%,F,F)



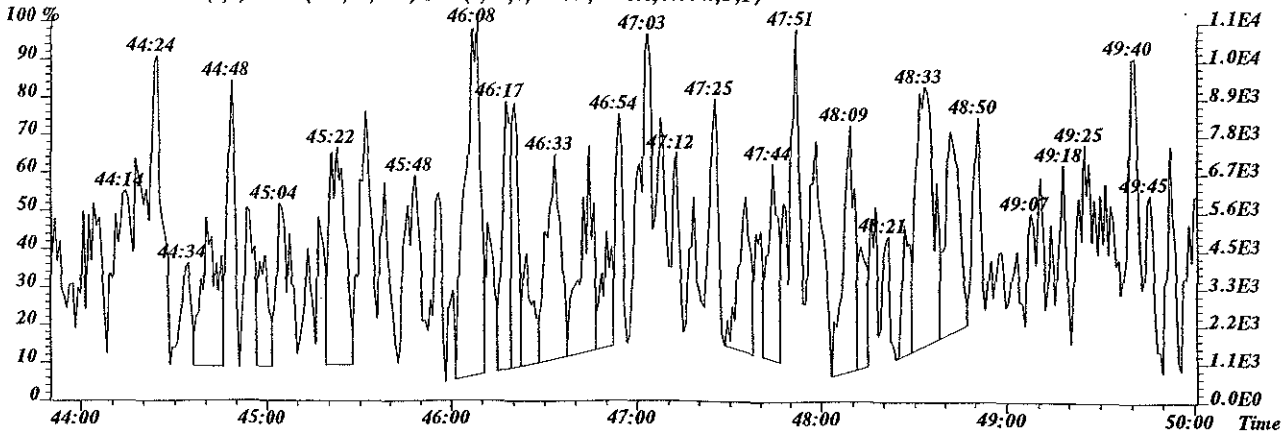
459.7348 S:7 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3315.0,0.00%,F,F)



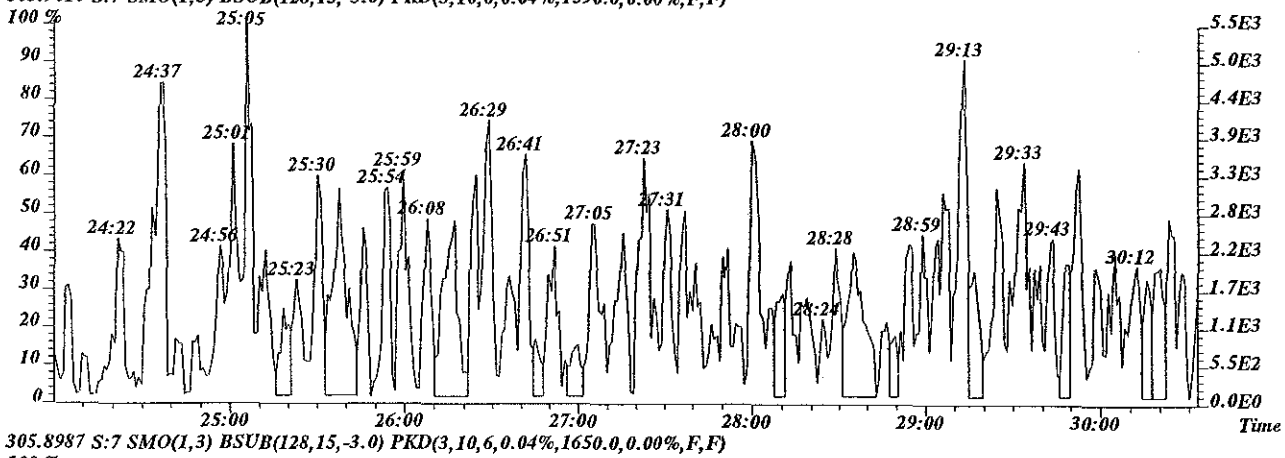
469.7780 S:7 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4480.0,0.00%,F,F)



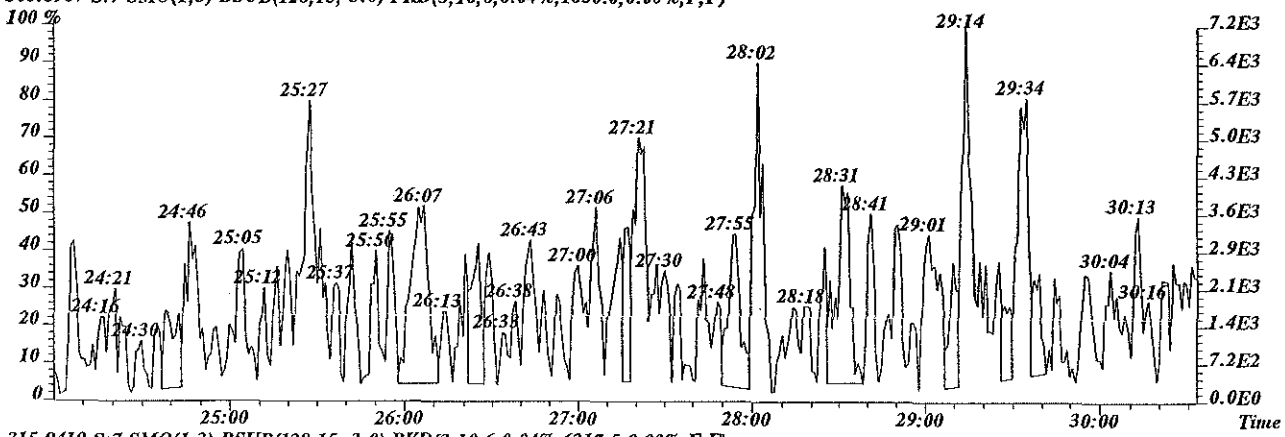
471.7750 S:7 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3370.0,0.00%,F,F)



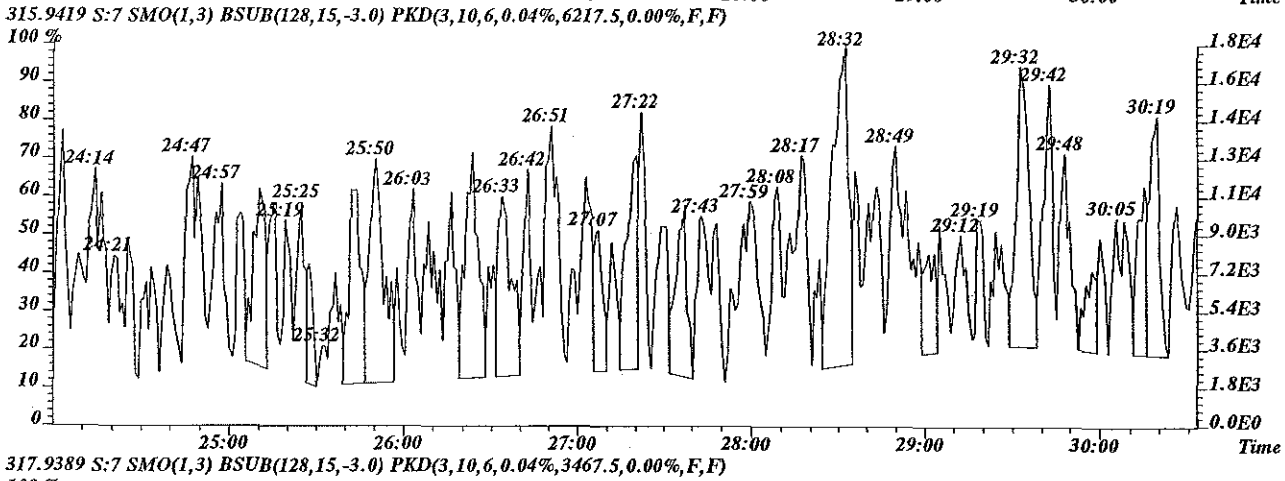
File:0903023A #1-430 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:INS.BLK. M2305 Exp:8290
303.9016 S:7 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1590.0,0.00%,F,F)



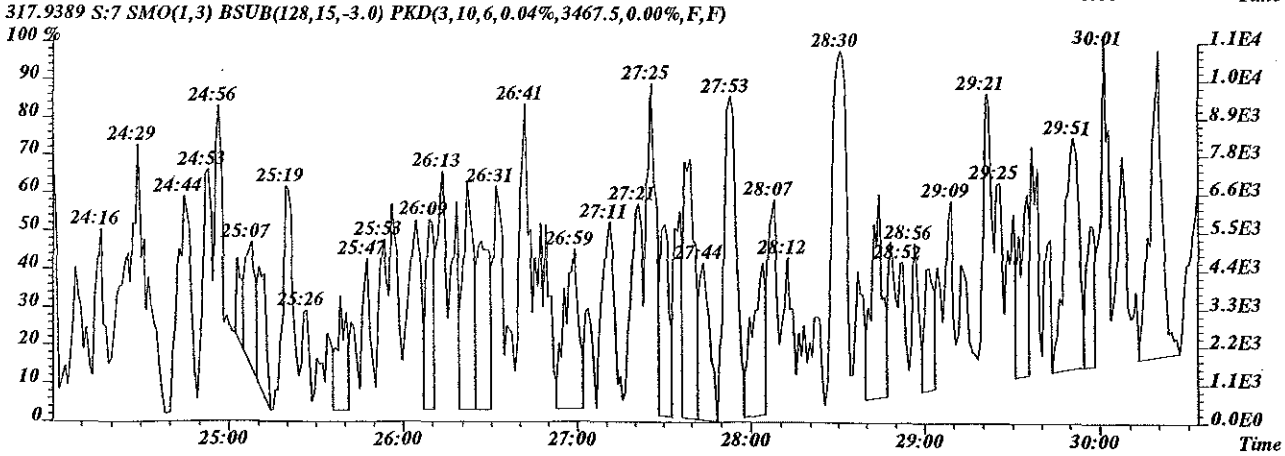
305.8987 S:7 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1650.0,0.00%,F,F)



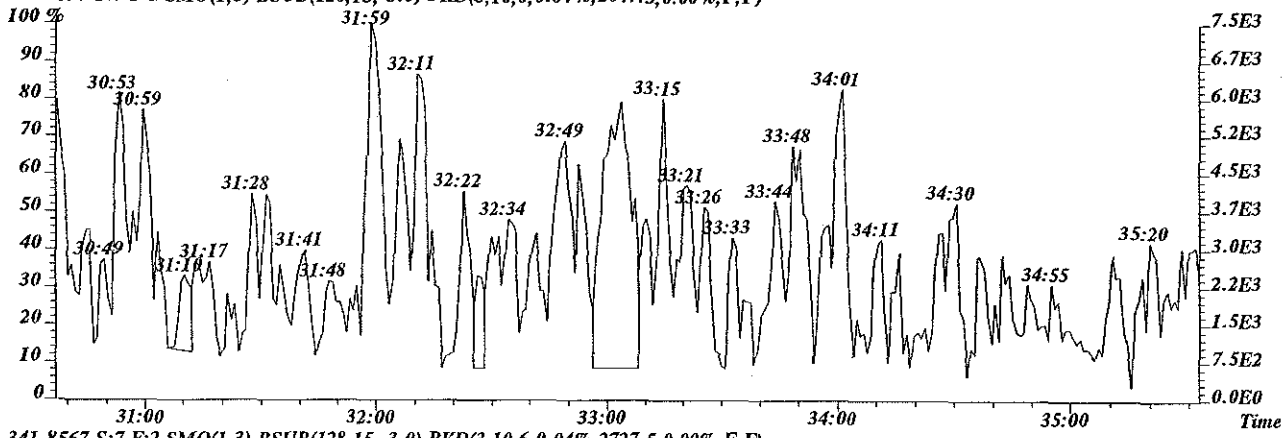
315.9419 S:7 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6217.5,0.00%,F,F)



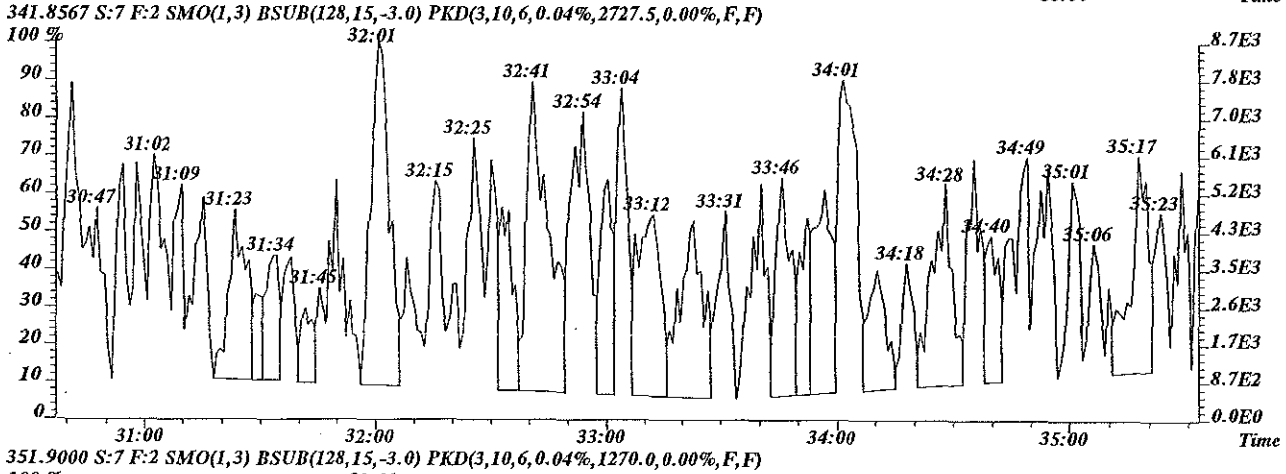
317.9389 S:7 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3467.5,0.00%,F,F)



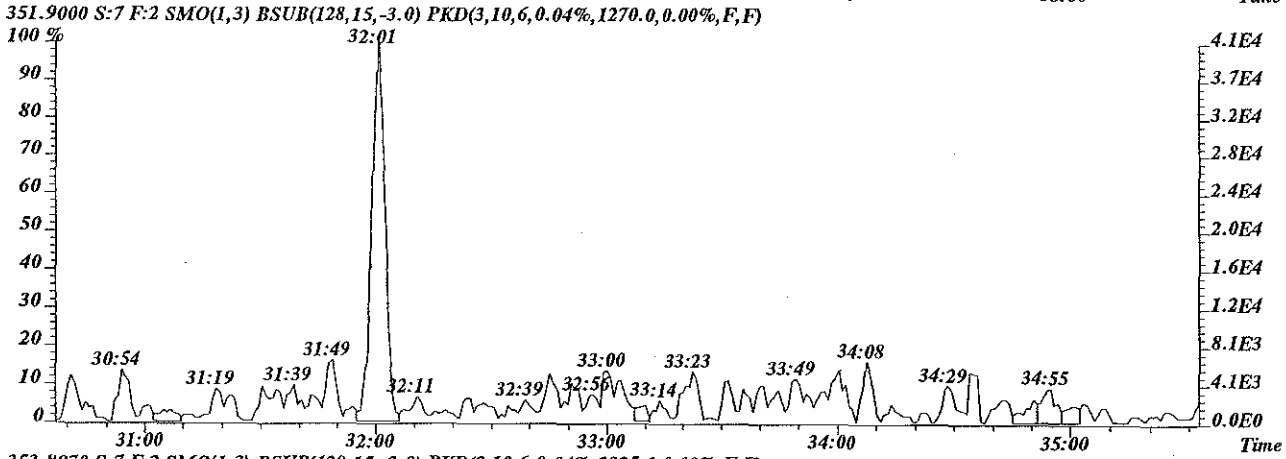
File:0903023A #1-324 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:INS.BLK. M2305 Exp:8290
339.8597 S:7 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2047.5,0.00%,F,F)



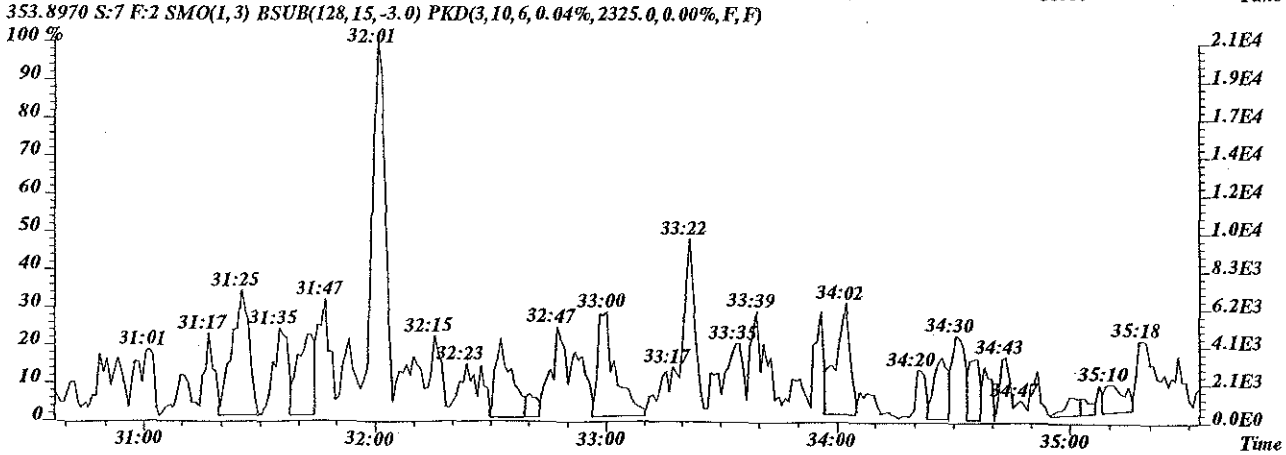
341.8567 S:7 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2727.5,0.00%,F,F)



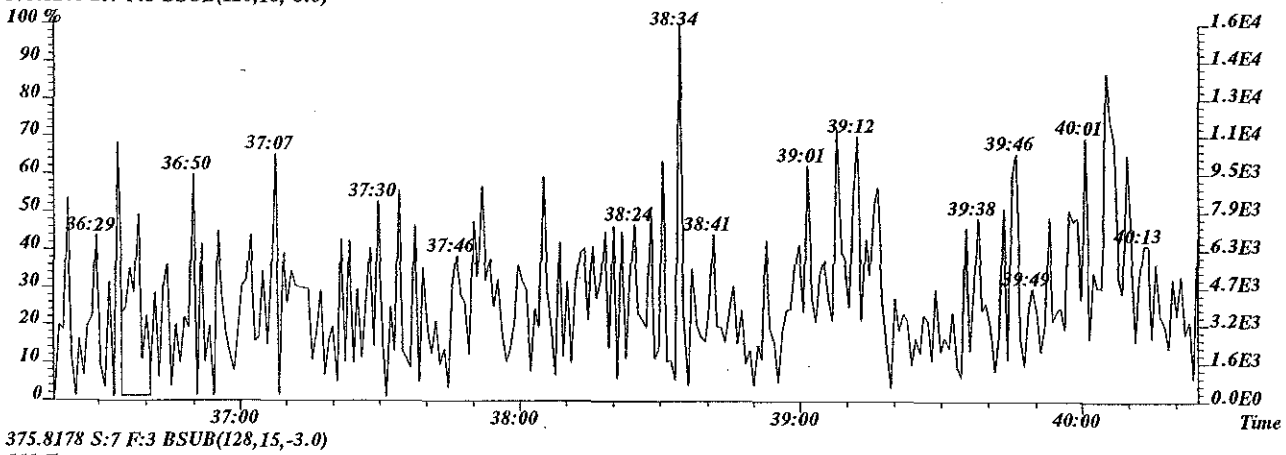
351.9000 S:7 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1270.0,0.00%,F,F)



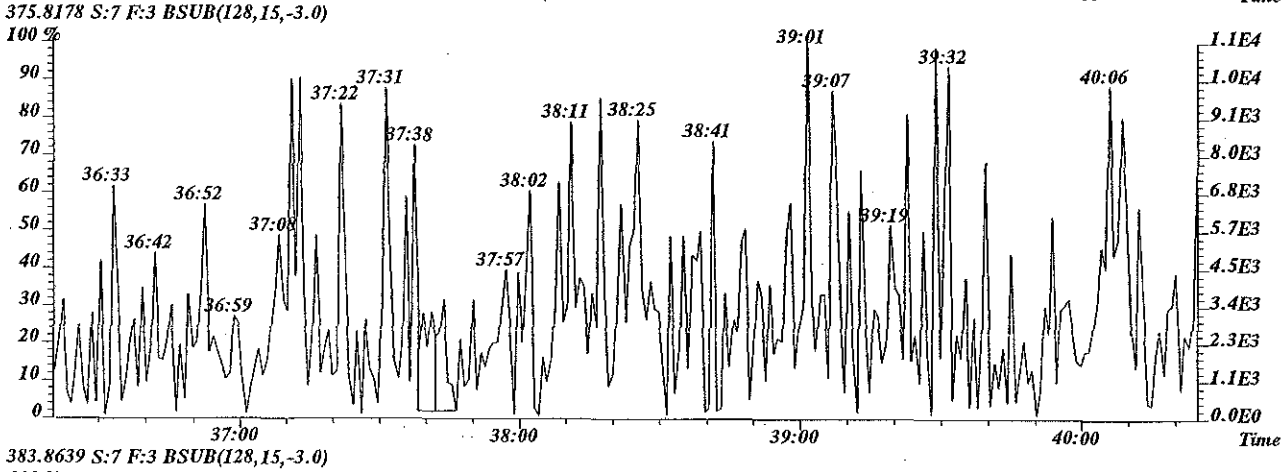
353.8970 S:7 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2325.0,0.00%,F,F)



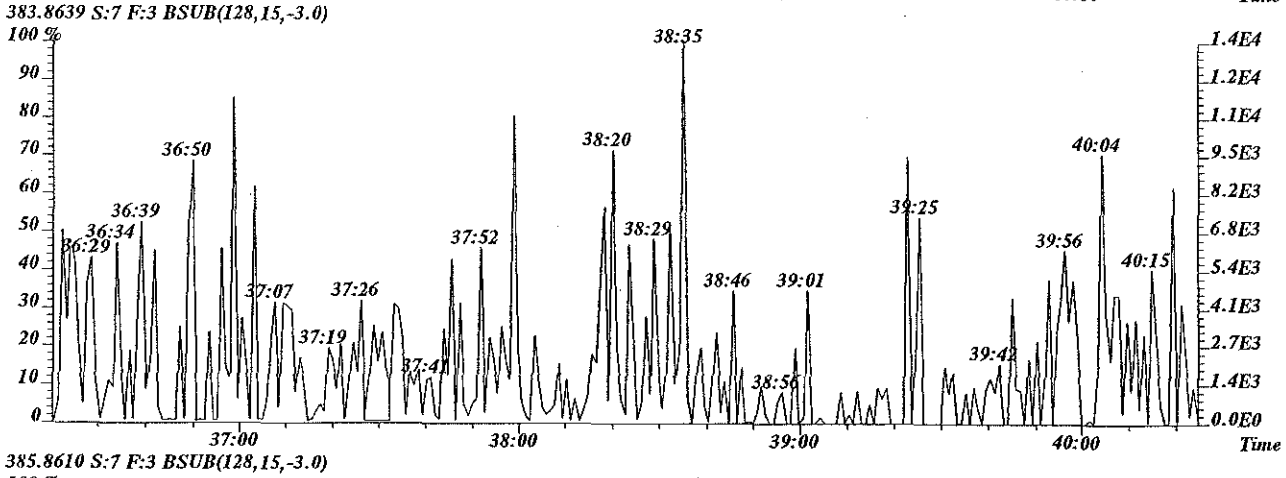
File:0903023A #1-277 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:INS.BLK. M2305 Exp:8290
373.8208 S:7 F:3 BSUB(128,15,-3.0)



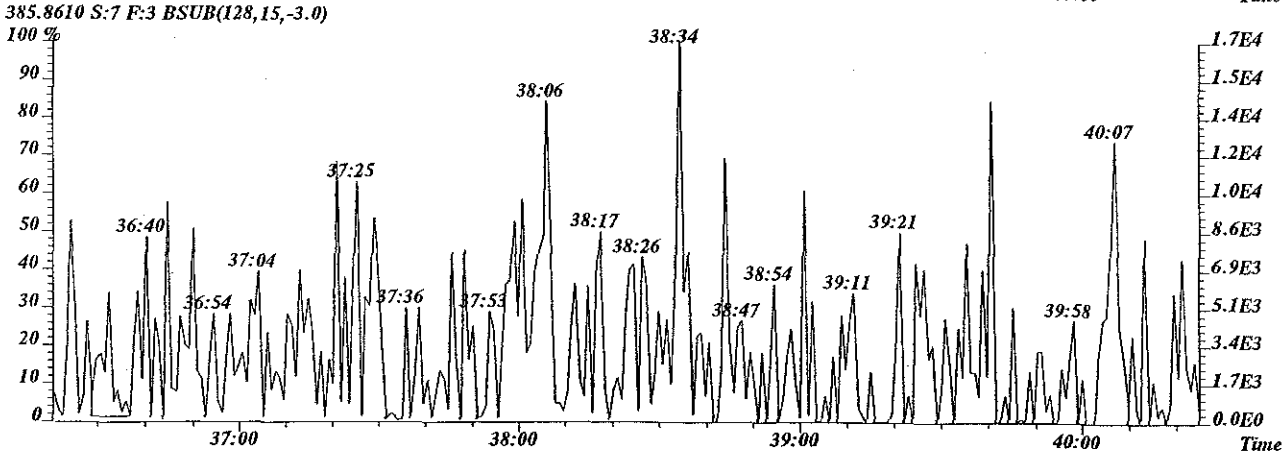
375.8178 S:7 F:3 BSUB(128,15,-3.0)



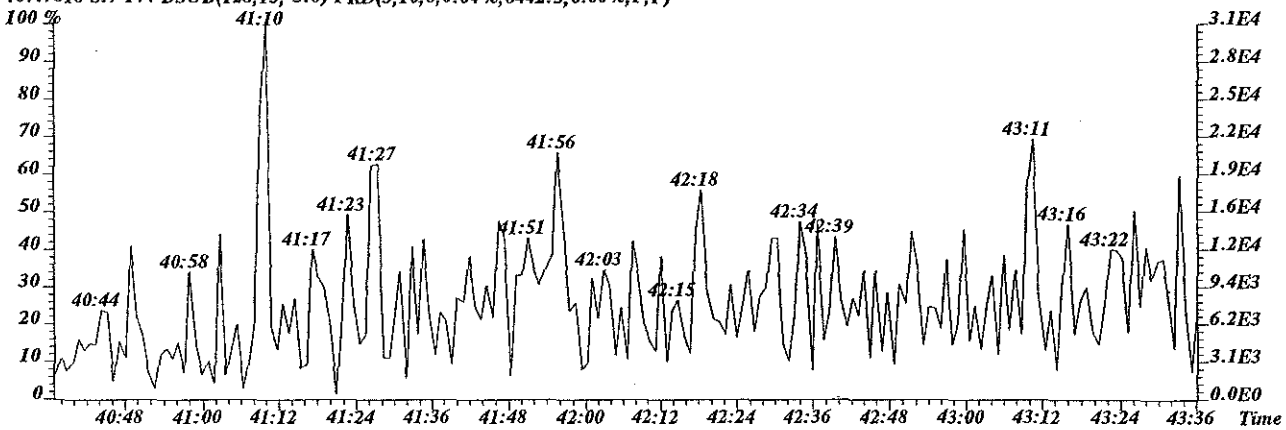
383.8639 S:7 F:3 BSUB(128,15,-3.0)



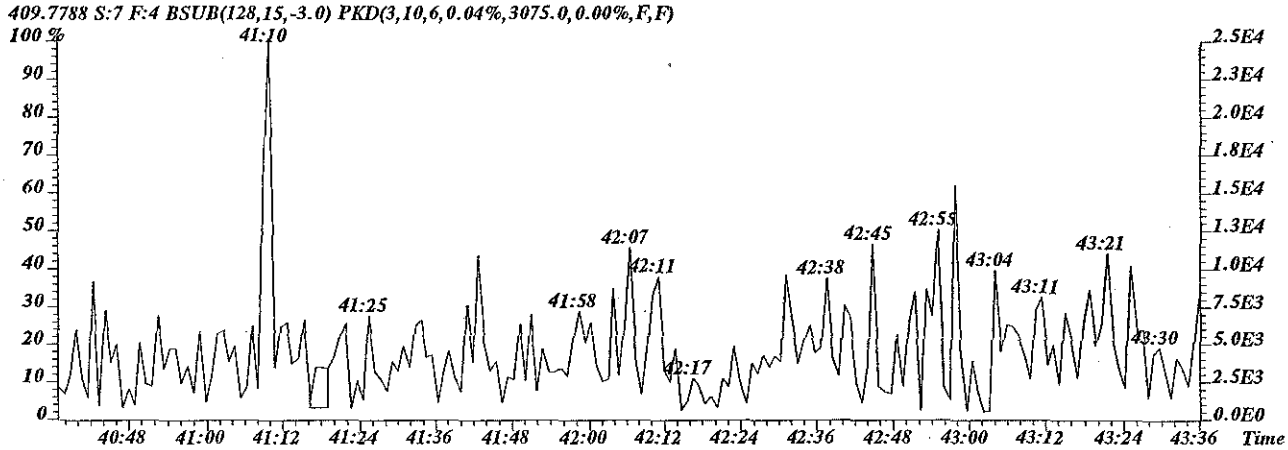
385.8610 S:7 F:3 BSUB(128,15,-3.0)



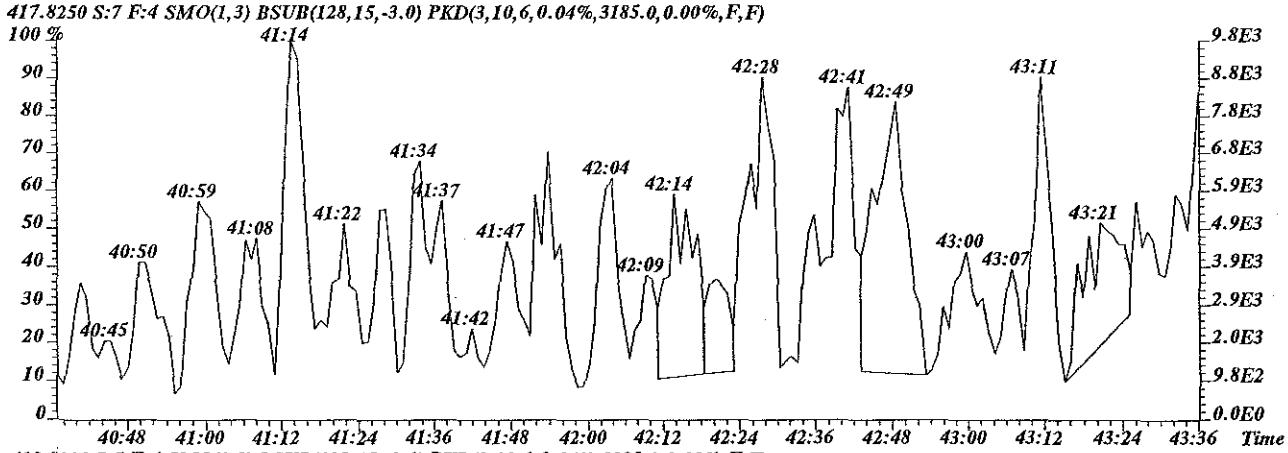
File:0903023A #1-197 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:INS.BLK. M2305 Exp:8290
407.7818 S:7 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6442.5,0.00%,F,F)



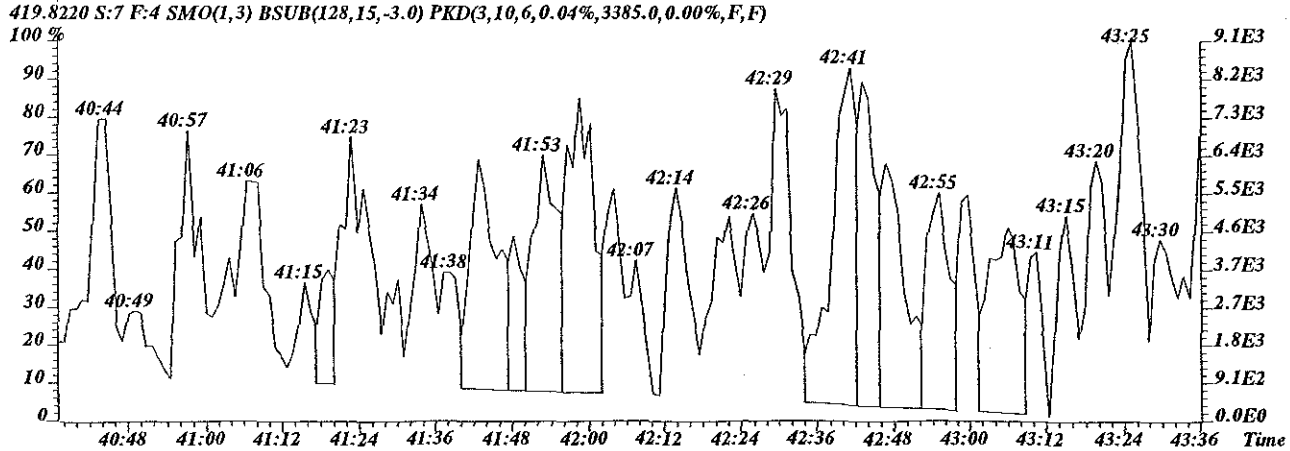
409.7788 S:7 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3075.0,0.00%,F,F)



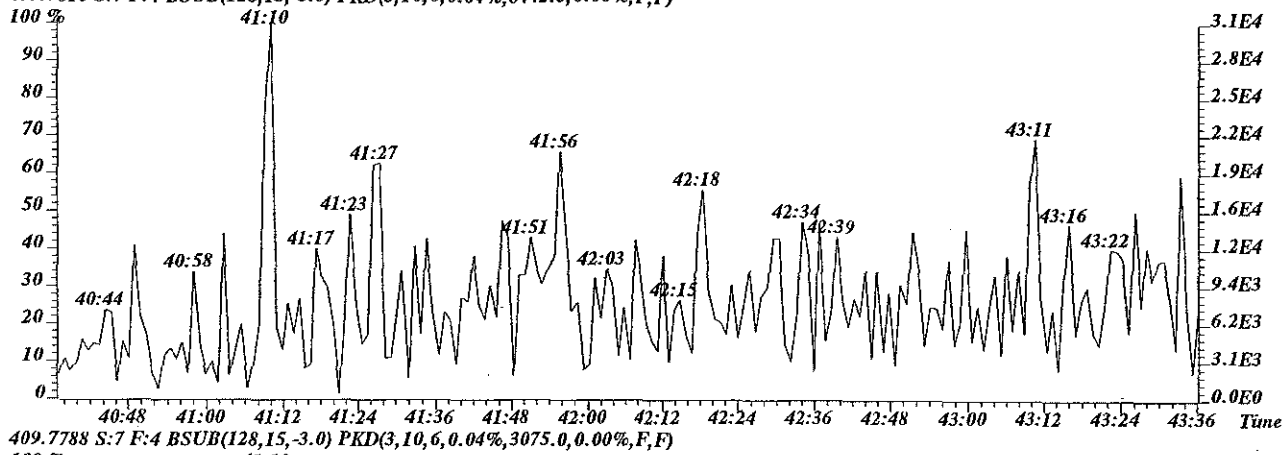
417.8250 S:7 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3185.0,0.00%,F,F)



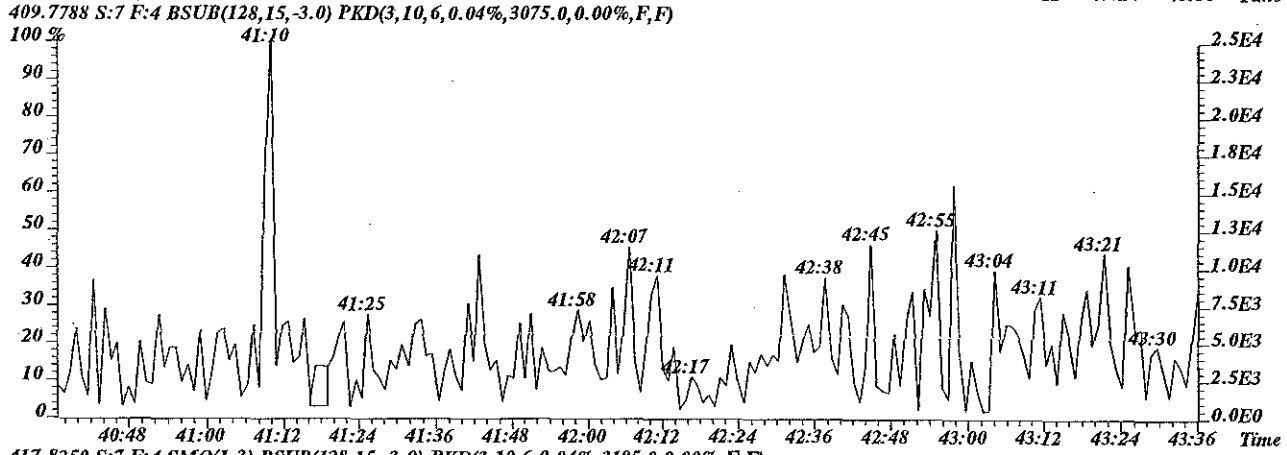
419.8220 S:7 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3385.0,0.00%,F,F)



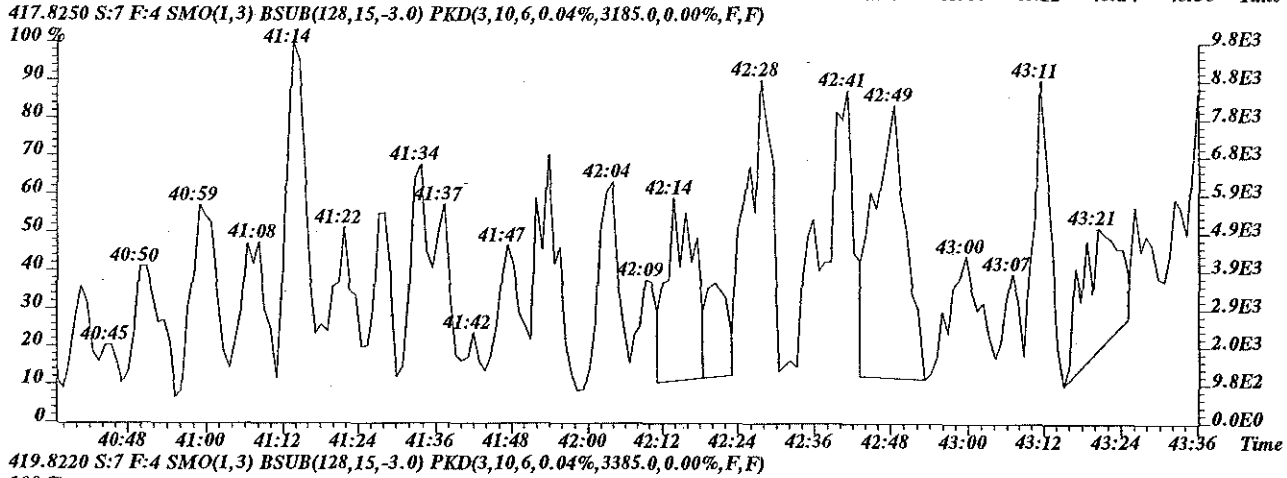
File:0903023A #1-197 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:INS.BLK. M2305 Exp:8290
407.7818 S:7 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6442.5,0.00%,F,F)



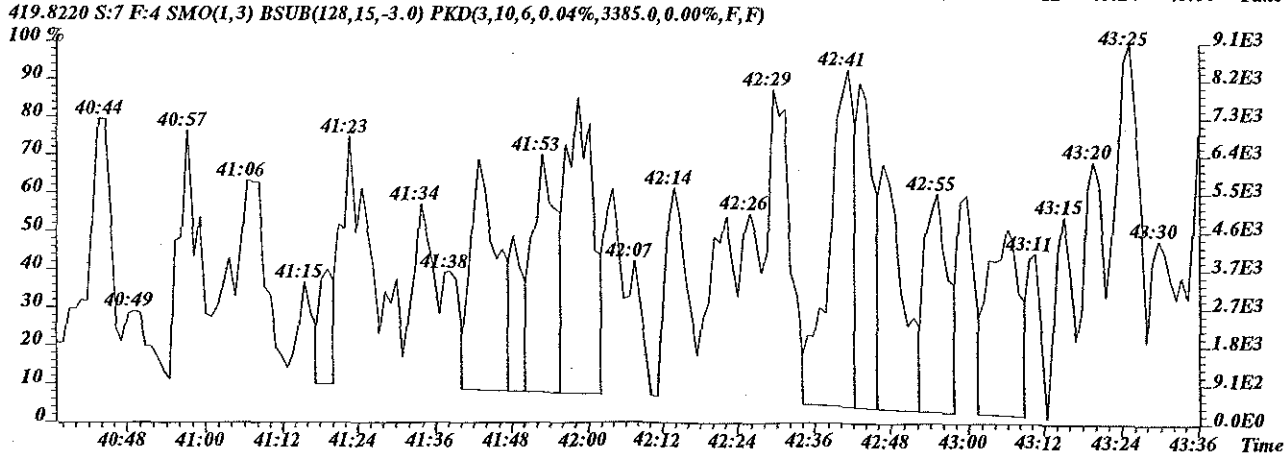
409.7788 S:7 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3075.0,0.00%,F,F)



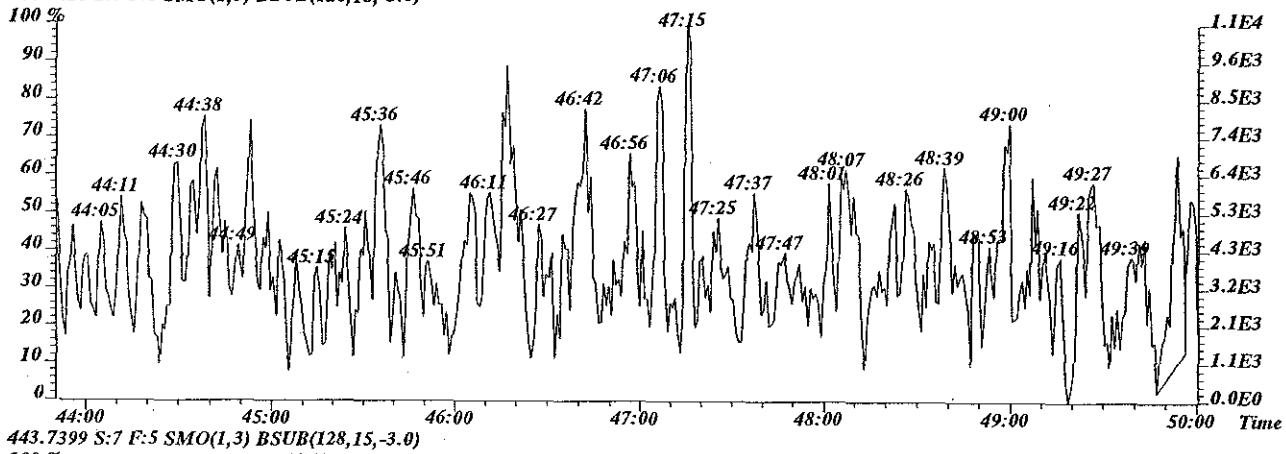
417.8250 S:7 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3185.0,0.00%,F,F)



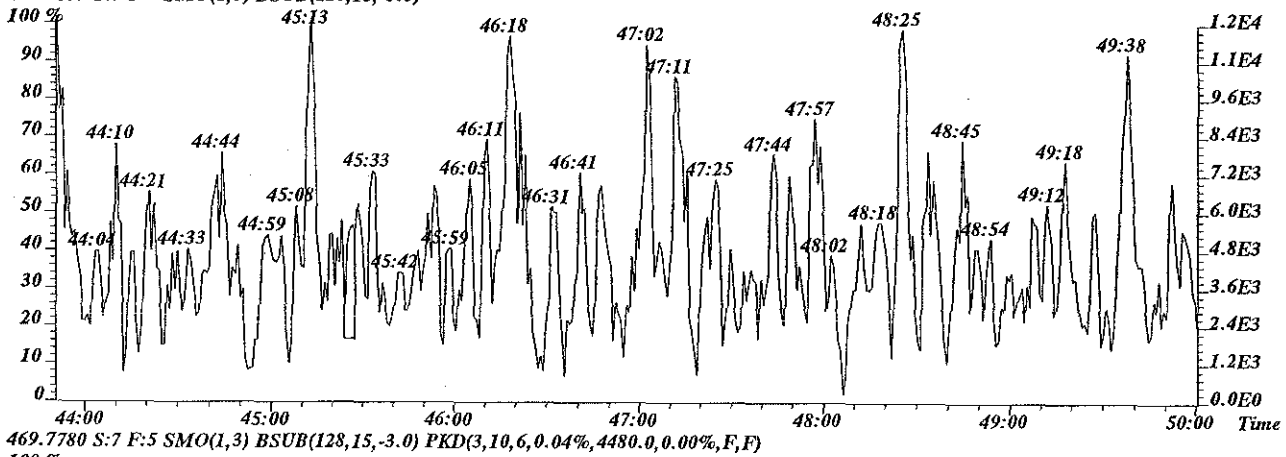
419.8220 S:7 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3385.0,0.00%,F,F)



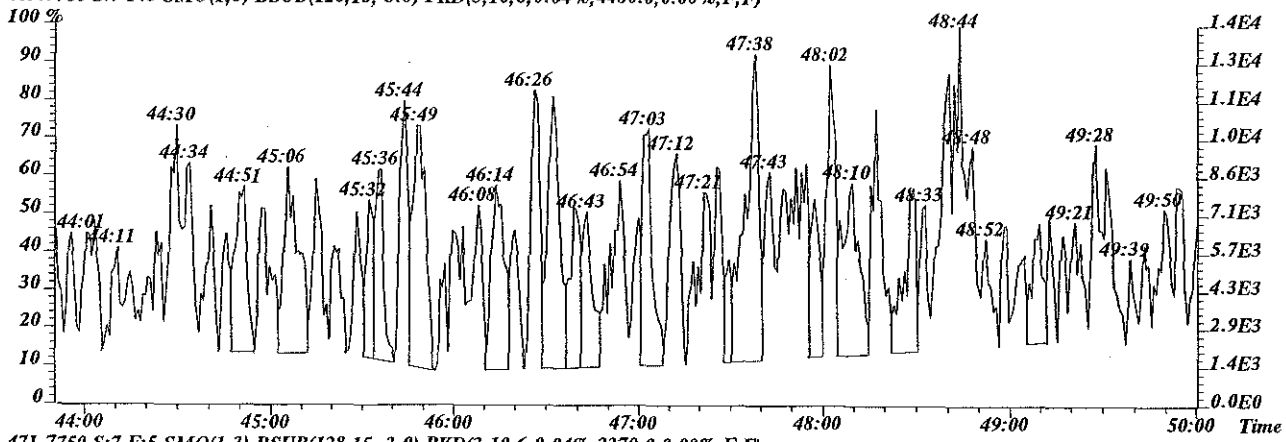
File:0903023A #1-445 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:INS.BLK. M2305 Exp:8290
441.7428 S:7 F:5 SMO(1,3) BSUB(128,15,-3.0)



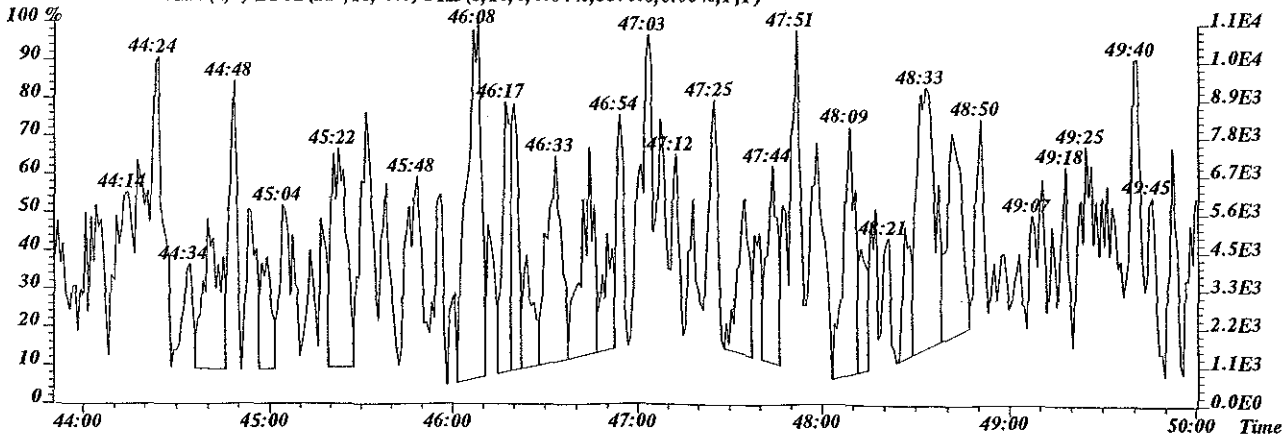
443.7399 S:7 F:5 SMO(1,3) BSUB(128,15,-3.0)



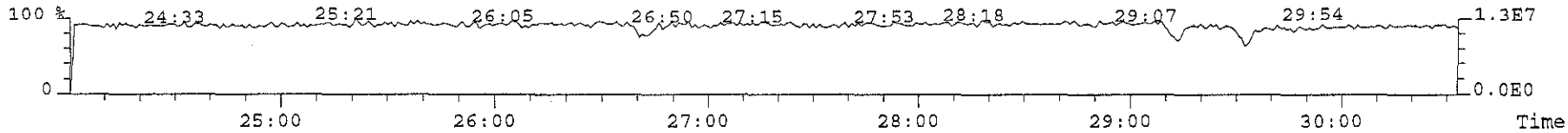
469.7780 S:7 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4480.0,0.00%,F,F)



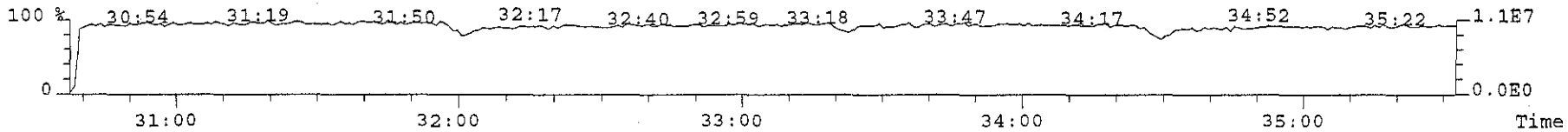
471.7750 S:7 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3370.0,0.00%,F,F)



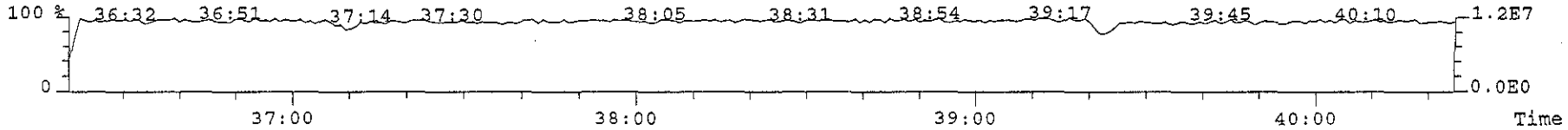
File:0903023A #1-430 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:7 Exp:8290
Sample Text:INS.BLK. M2305 File Text:M23



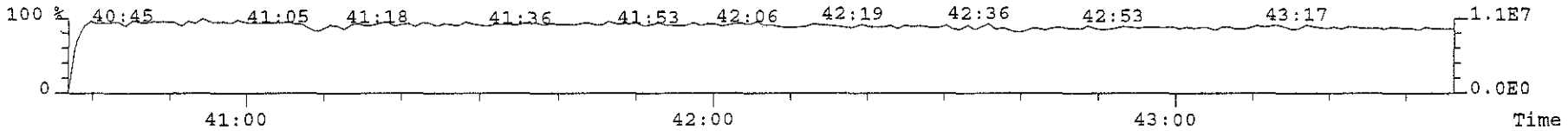
File:0903023A #1-324 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:7 F:2 Exp:8290
Sample Text:INS.BLK. M2305 File Text:M23



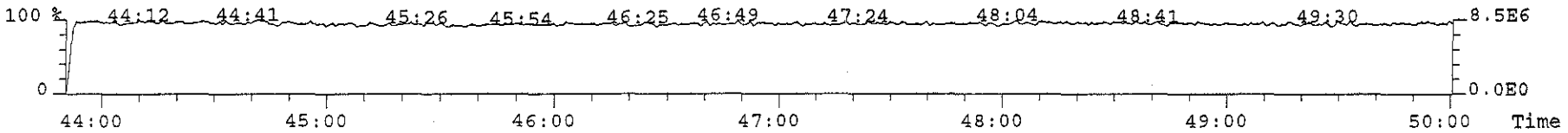
File:0903023A #1-277 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:7 F:3 Exp:8290
Sample Text:INS.BLK. M2305 File Text:M23



File:0903023A #1-197 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:7 F:4 Exp:8290
Sample Text:INS.BLK. M2305 File Text:M23



File:0903023A #1-445 Acq:16-SEP-2003 22:10:45 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:7 F:5 Exp:8290
Sample Text:INS.BLK. M2305 File Text:M23

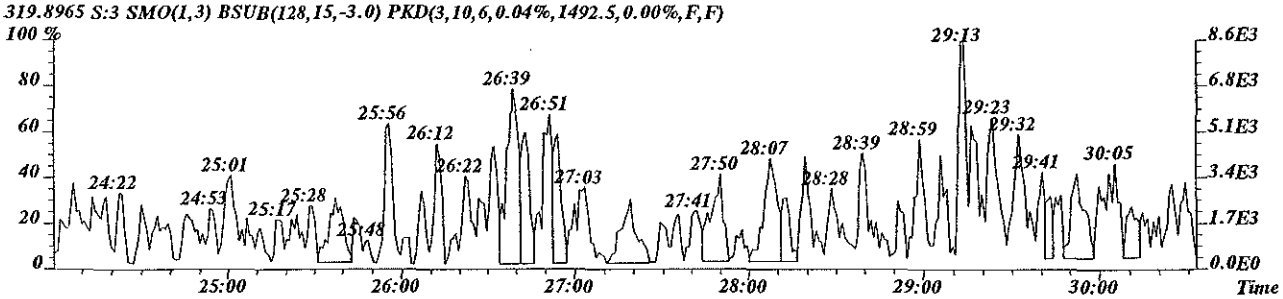


Run #12 Filename 0903023B S: 3 I: 1 Acquired: 17-SEP-03 12:42:01 Processed: 17-SEP-03 14:11:27
Run: M23A05 Analyte: 0903023A Cal: M23A05 Results: 0903023A Version: V3.6 9-SEP-2002 14:02:21
Sample text: INS.BLK. M2305B01 Comments:

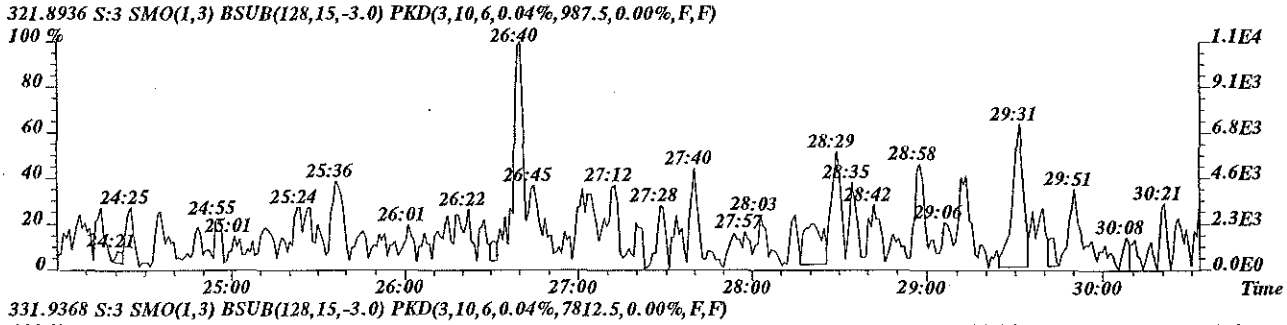
	Typ	Name	#Hom	Resp	RA		RT	Conc	0.00 Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDD	0	*	*	n	NotFnd	*	*	*	-	n
2	nati	1,2,3,7,8-PeCDD	0	*	*	n	NotFnd	*	*	*	-	y
3	nati	1,2,3,4,7,8-HxCDD	0	*	*	n	NotFnd	*	*	*	-	n
4	nati	1,2,3,6,7,8-HxCDD	0	*	*	n	NotFnd	*	*	*	-	n
5	nati	1,2,3,7,8,9,-HxCDD	0	*	*	n	NotFnd	*	*	*	-	n
6	nati	1,2,3,4,6,7,8-HpCDD	0	*	*	n	NotFnd	*	*	*	-	n
7	nati	1,2,3,4,6,7,8,9-OCDD	0	*	*	n	NotFnd	*	*	*	-	y
8	nati	2,3,7,8-TCDF	0	*	*	n	NotFnd	*	*	*	-	n
9	nati	1,2,3,7,8-PeCDF	0	*	*	n	NotFnd	*	*	*	-	n
10	nati	2,3,4,7,8-PeCDF	0	*	*	n	NotFnd	*	*	*	-	n
11	nati	1,2,3,4,4,8-HxCDF	0	*	*	n	NotFnd	*	*	*	-	n
12	nati	1,2,3,6,7,8-HxCDF	0	*	*	n	NotFnd	*	*	*	-	n
13	nati	2,3,4,6,7,8-HxCDF	0	*	*	n	NotFnd	*	*	*	-	n
14	nati	1,2,3,7,8,9-HxCDF	0	*	*	n	NotFnd	*	*	*	-	n
15	nati	1,2,3,4,6,7,8-HpCDF	0	*	*	n	NotFnd	*	*	*	-	n
16	nati	1,2,3,4,7,8,9-HpCDF	0	*	*	n	NotFnd	*	*	*	-	n
17	nati	1,2,3,4,6,7,8,9-OCDF	0	*	*	n	NotFnd	*	*	*	-	n
18	nati	Total TCDD	0	*	*	n	NotFnd	*	*	*	-	n
19	nati	Total PeCDD	0	*	*	n	NotFnd	*	*	*	-	y
20	nati	Total HxCDD	0	*	*	n	NotFnd	*	*	*	-	n
21	nati	Total HpCDD	0	*	*	n	NotFnd	*	*	*	-	n
22	nati	Total TCDF	0	*	*	n	NotFnd	*	*	*	-	n
23	nati	Total PeCDF	0	*	*	n	NotFnd	*	*	*	-	n
24	nati	Total HxCDF	0	*	*	n	NotFnd	*	*	*	-	n
25	nati	Total HpCDF	0	*	*	n	NotFnd	*	*	*	-	n
26	IS	13C12-2,3,7,8-TCDF	0	*	*	n	NotFnd	*	*	*	*	n
27	IS	13C12-2,3,7,8-TCDD	0	*	*	n	NotFnd	*	*	*	*	n
28	IS	13C12-1,2,3,7,8-PeCDF	0	*	*	n	NotFnd	*	*	*	*	n
29	IS	13C12-1,2,3,7,8-PeCDD	0	*	*	n	NotFnd	*	*	*	*	n
30	IS	13C12-1,2,3,6,7,8-HxCDF	0	*	*	n	NotFnd	*	*	*	*	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	0	*	*	n	NotFnd	*	*	*	*	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	0	*	*	n	NotFnd	*	*	*	*	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	0	*	*	n	NotFnd	*	*	*	*	n
34	IS	13C12-OCDD	0	*	*	n	NotFnd	*	*	*	*	n
35	Suro	37C12-2,3,7,8-TCDD	0	*	*	n	NotFnd	*	*	*	*	y
36	Suro	13C12-2,3,4,7,8-PeCDF	0	*	*	n	NotFnd	*	*	*	*	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	0	*	*	n	NotFnd	*	*	*	*	n
38	Suro	13C12-1,2,3,4,7,8-HxCDD	0	*	*	n	NotFnd	*	*	*	*	n
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	0	*	*	n	NotFnd	*	*	*	*	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	0	*	*	n	NotFnd	*	*	*	*	n
41	RS	13C12-1,2,3,4-TCDD	0	*	*	n	NotFnd	*	*	-	-	n
42	RS	13C12-1,2,3,7,8,9-HxCDD	0	*	*	n	NotFnd	*	*	-	-	n

File:0903023B #1-430 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
Sample#3 File Text:M23 Text:INS.BLK. M2305B01 Exp:8290

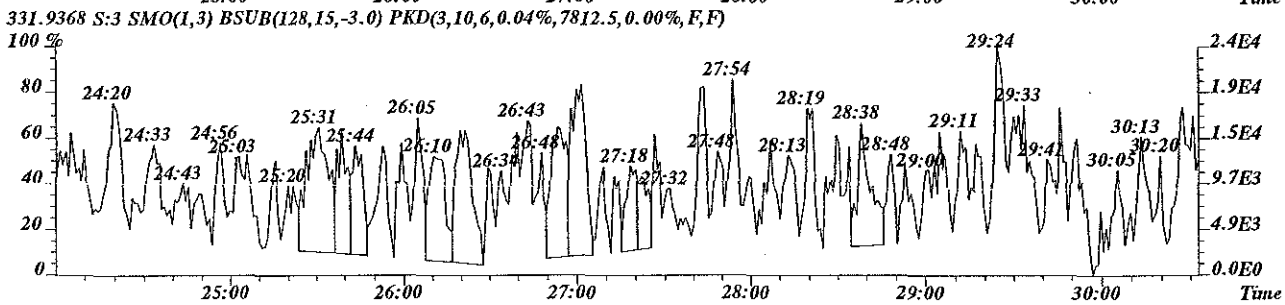
319.8965 S:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1492.5,0.00%,F,F)



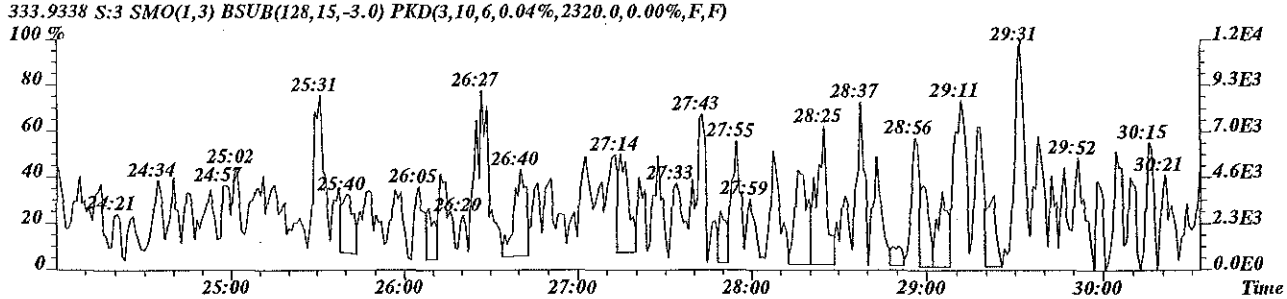
321.8936 S:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,987.5,0.00%,F,F)



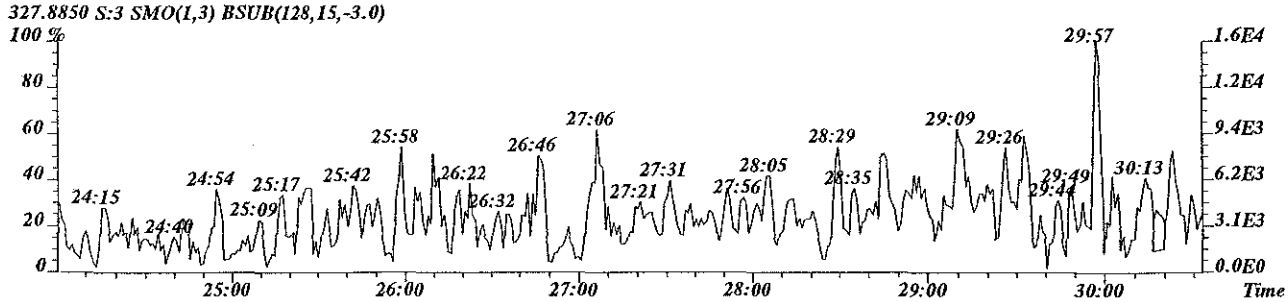
331.9368 S:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,7812.5,0.00%,F,F)



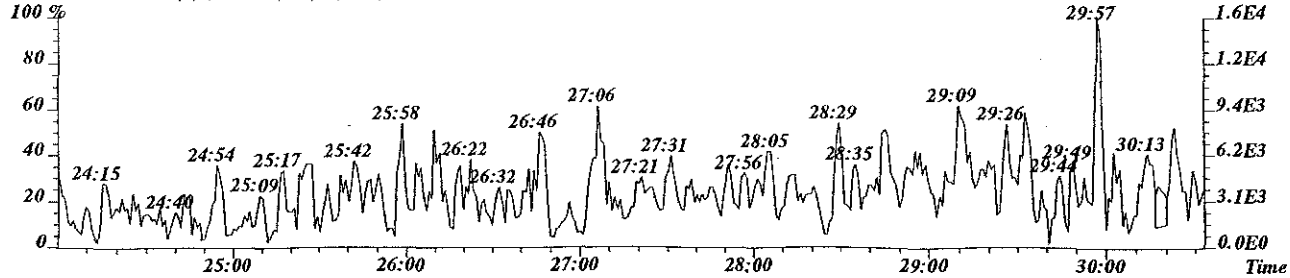
333.9338 S:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2320.0,0.00%,F,F)



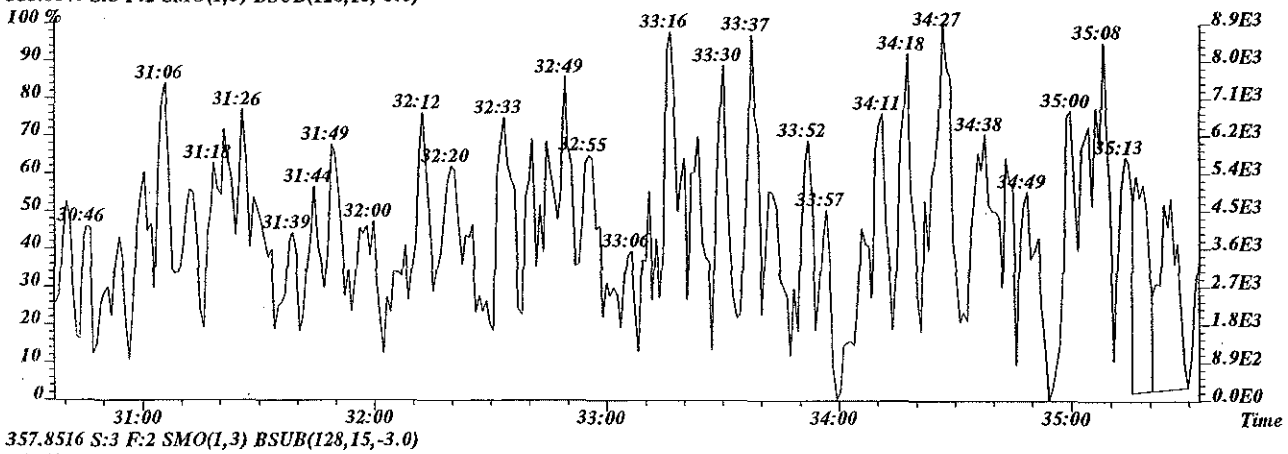
327.8850 S:3 SMO(1,3) BSUB(128,15,-3.0)



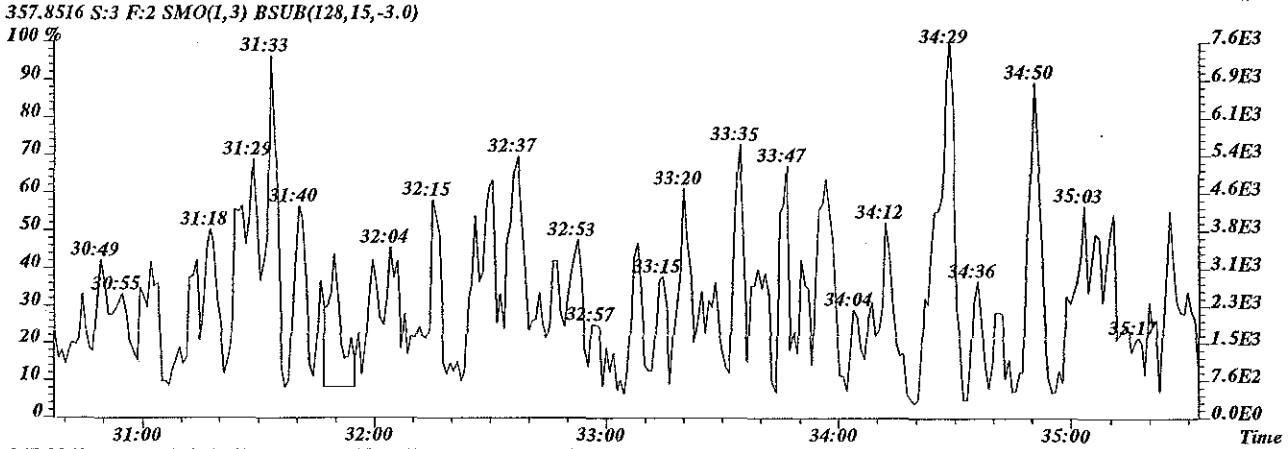
327.8850 S:3 SMO(1,3) BSUB(128,15,-3.0)



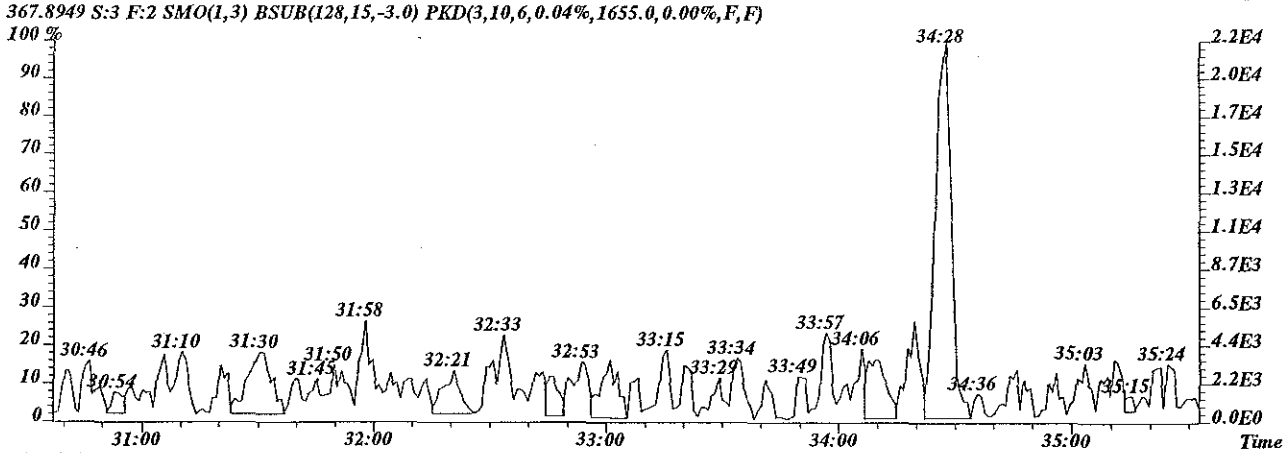
File:0903023B #1-324 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
Sample#3 File Text:M23 Text:INS.BLK. M2305B01 Exp:8290
355.8546 S:3 F:2 SMO(1,3) BSUB(128,15,-3.0)



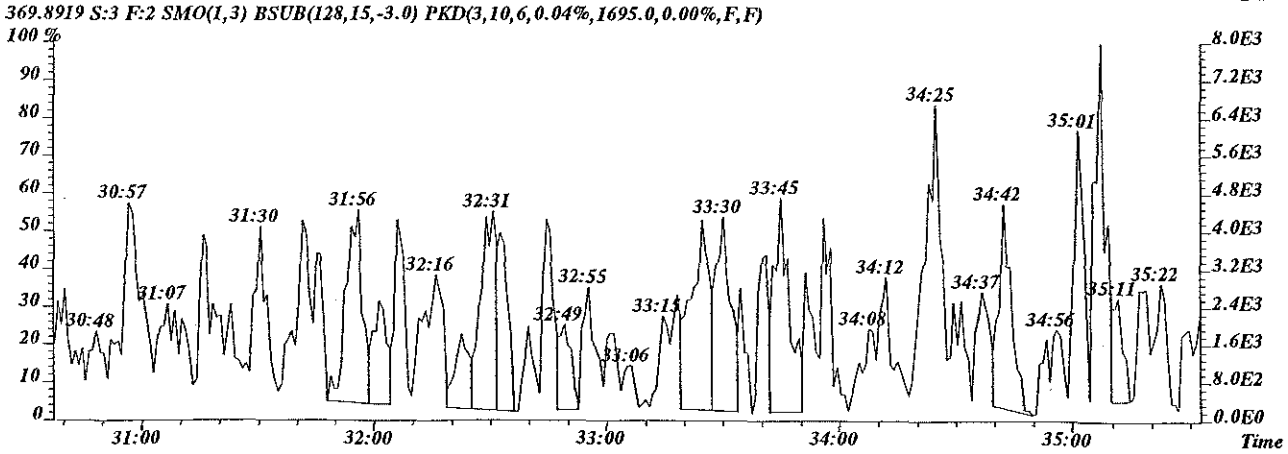
357.8516 S:3 F:2 SMO(1,3) BSUB(128,15,-3.0)



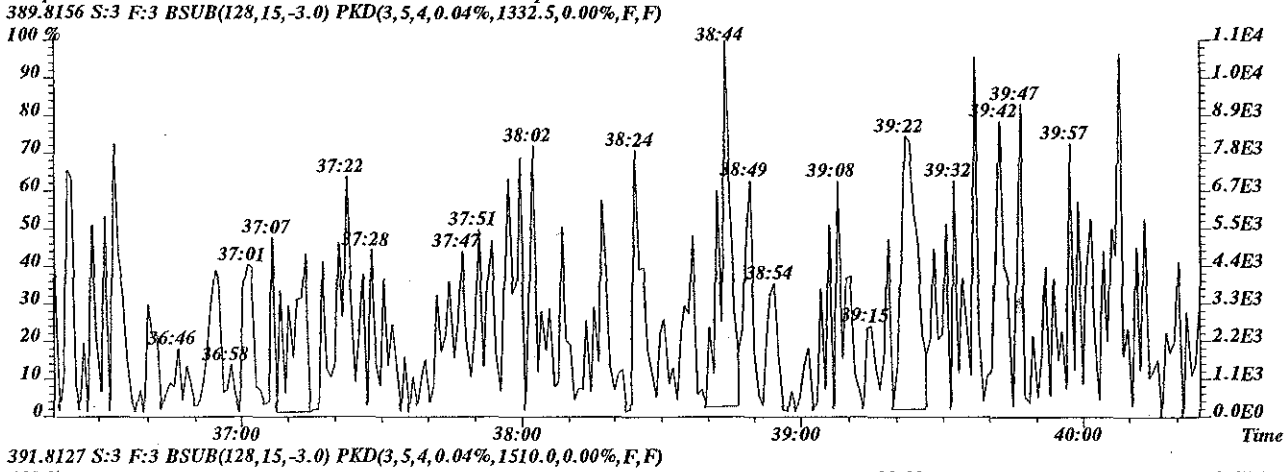
367.8949 S:3 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1655.0,0.00%,F,F)



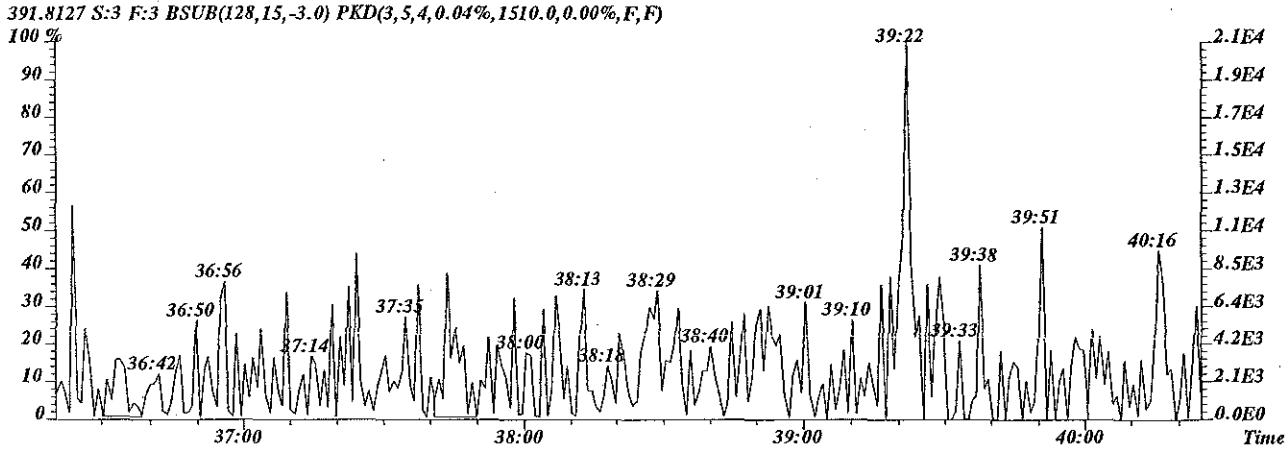
369.8919 S:3 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1695.0,0.00%,F,F)



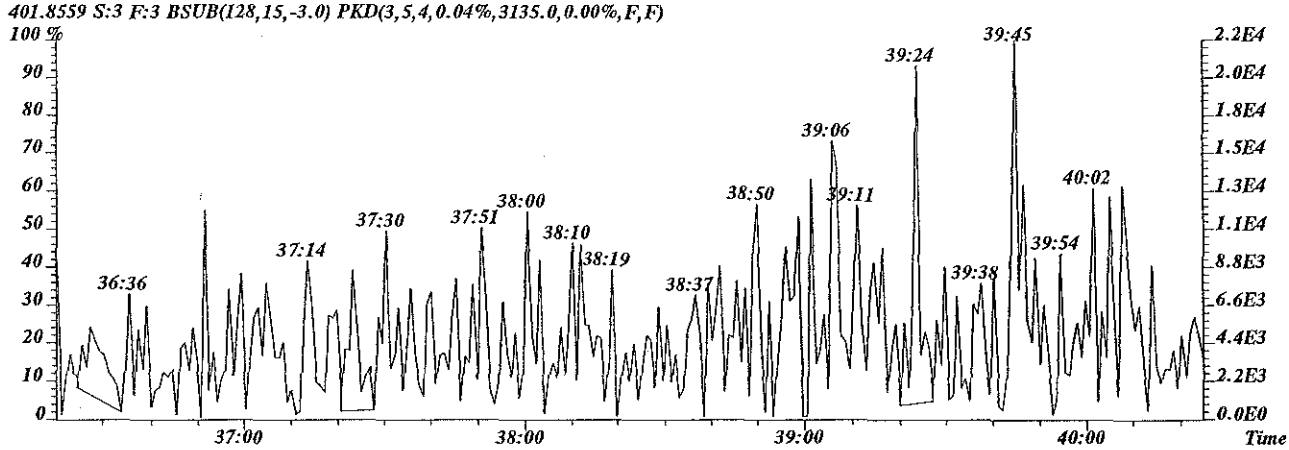
File:0903023B #1-277 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
Sample#3 File Text:M23 Text:INS.BLK. M2305B01 Exp:8290
389.8156 S:3 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1332.5,0.00%,F,F)



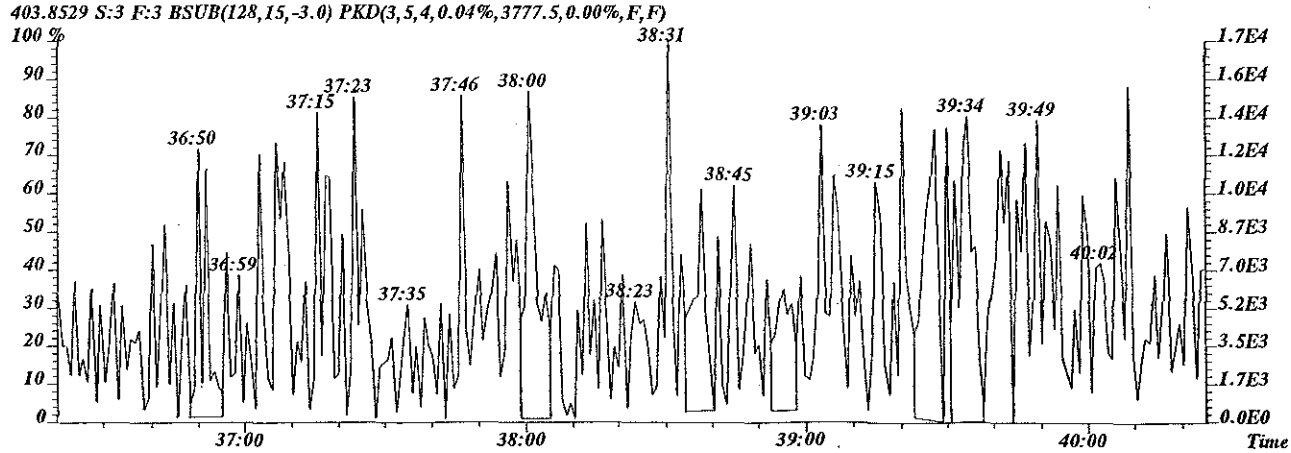
391.8127 S:3 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1510.0,0.00%,F,F)



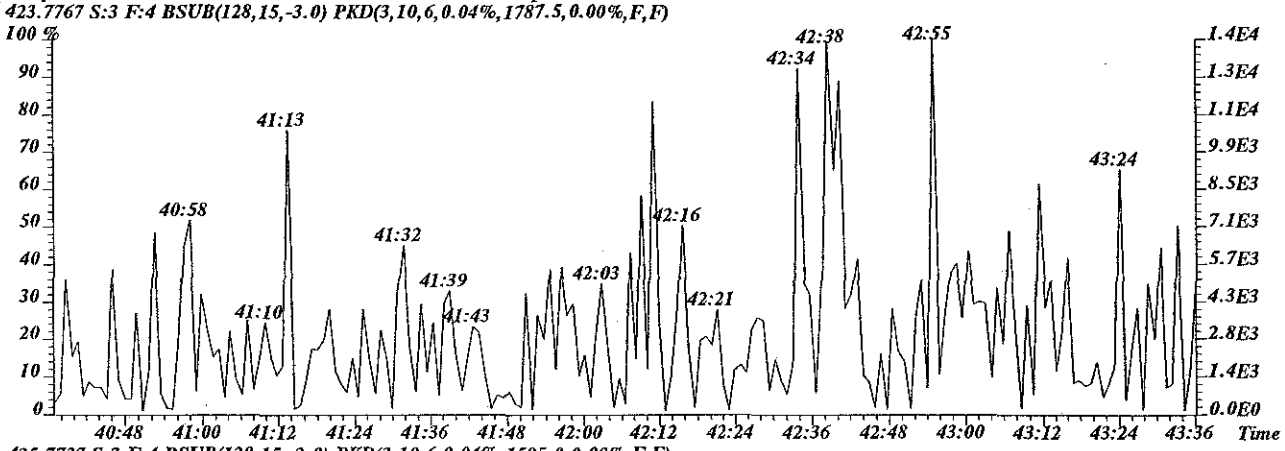
401.8559 S:3 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3135.0,0.00%,F,F)



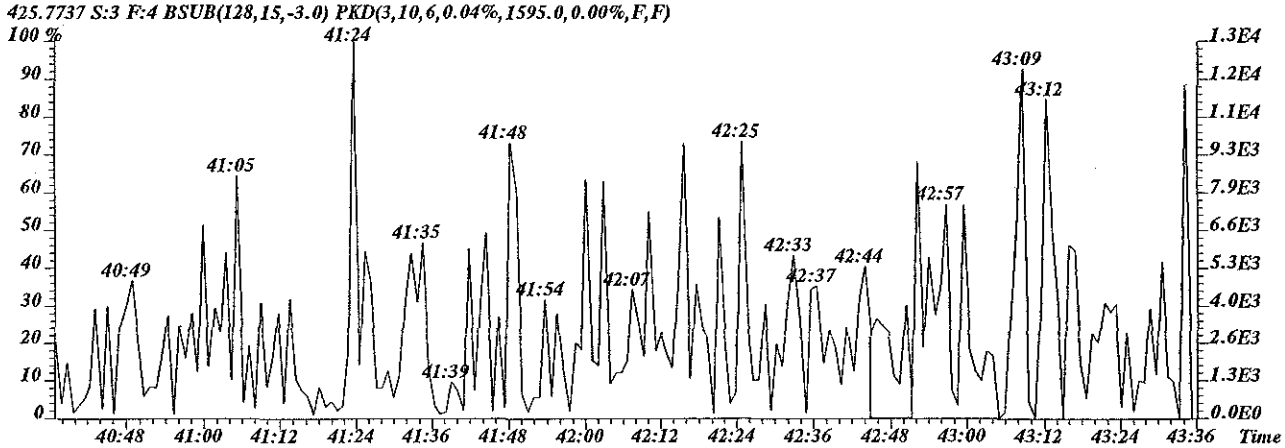
403.8529 S:3 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3777.5,0.00%,F,F)



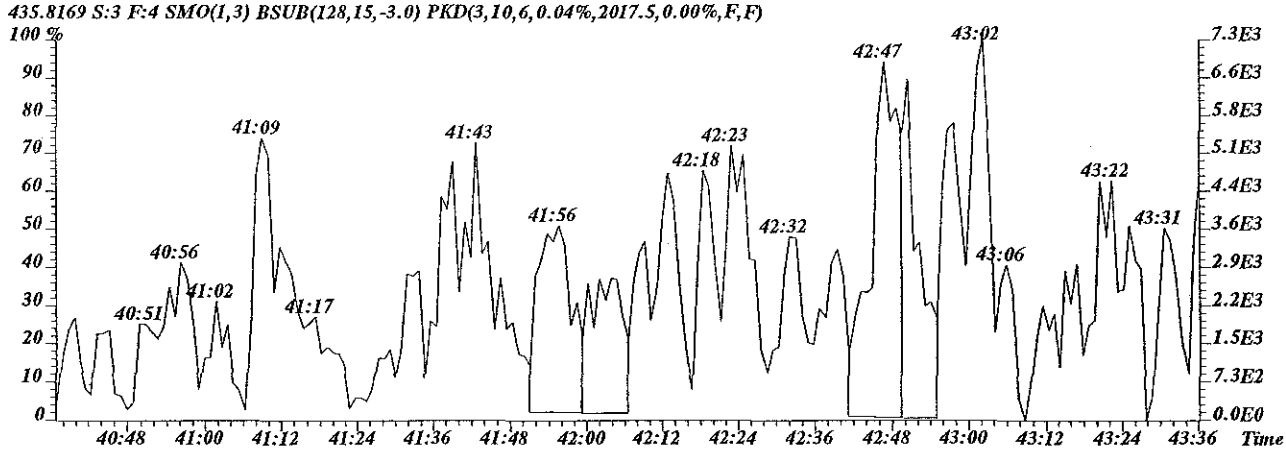
File:0903023B #1-197 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
Sample#3 File Text:M23 Text:INS.BLK. M2305B01 Exp:8290
423.7767 S:3 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1787.5,0.00%,F,F)



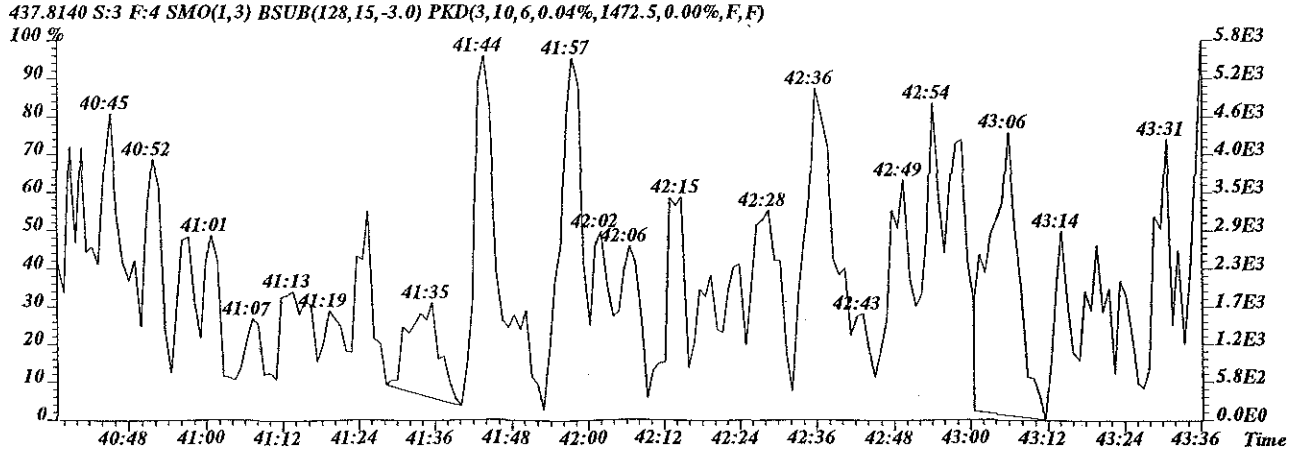
425.7737 S:3 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1595.0,0.00%,F,F)



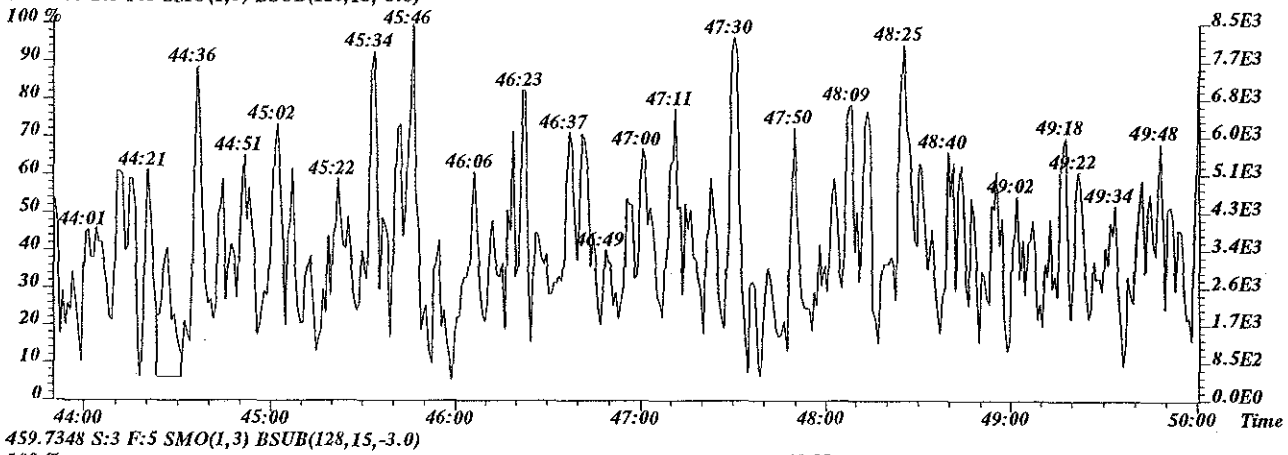
435.8169 S:3 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2017.5,0.00%,F,F)



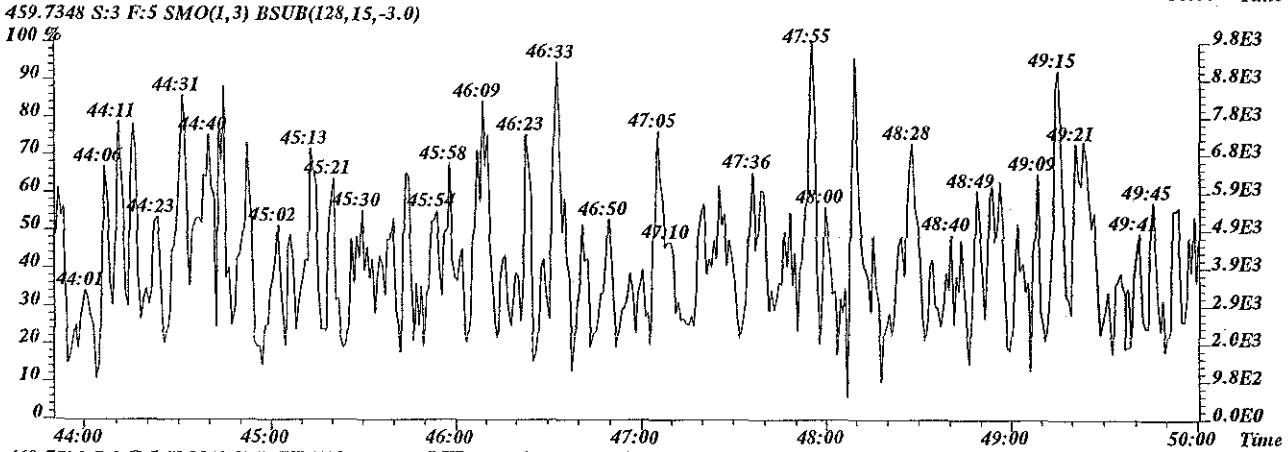
437.8140 S:3 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1472.5,0.00%,F,F)



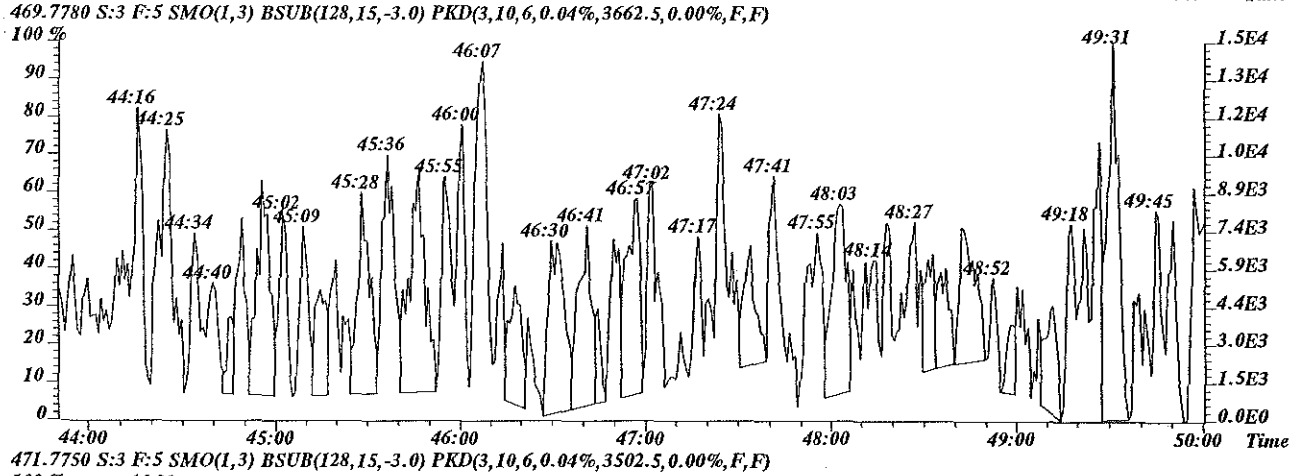
File:0903023B #1-445 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
Sample#3 File Text:M23 Text:INS.BLK. M2305B01 Exp:8290
457.7377 S:3 F:5 SMO(1,3) BSUB(128,15,-3.0)



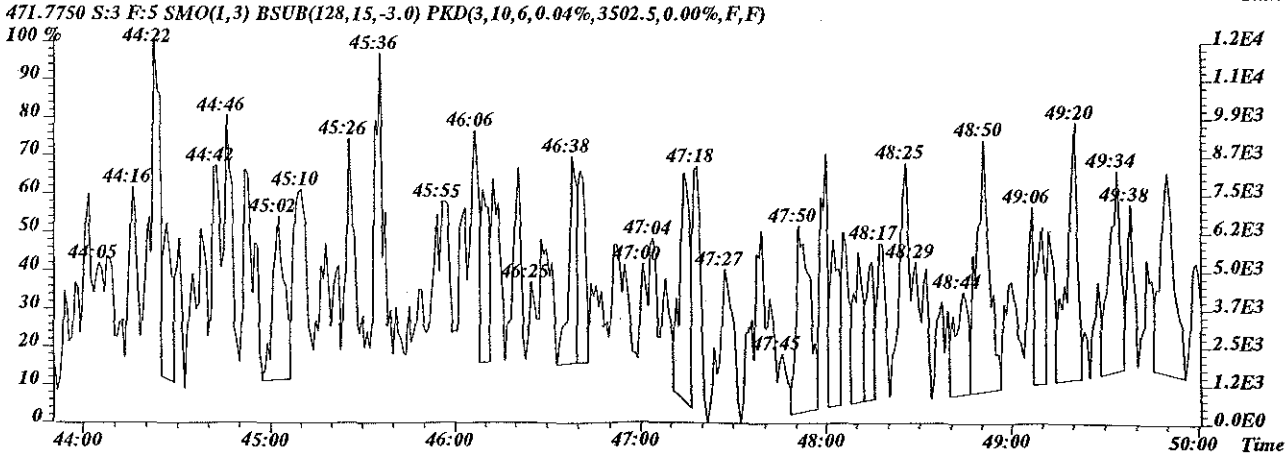
459.7348 S:3 F:5 SMO(1,3) BSUB(128,15,-3.0)



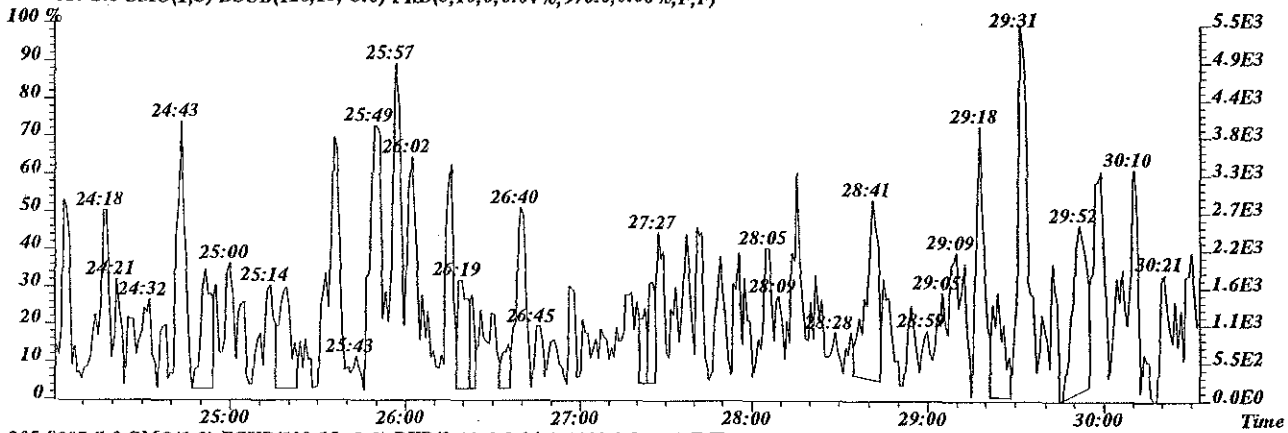
469.7780 S:3 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3662.5,0.00%,F,F)



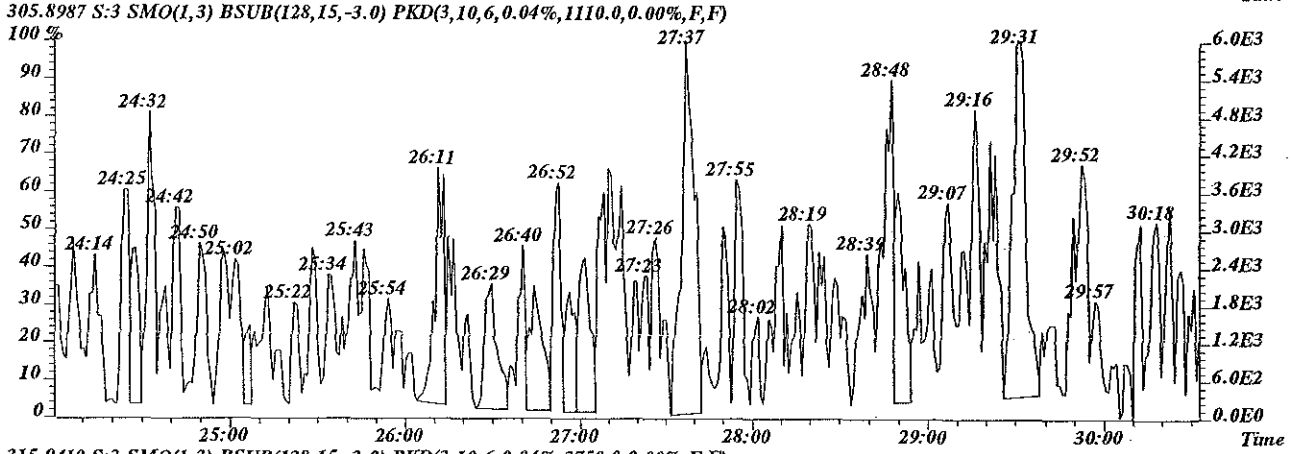
471.7750 S:3 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3502.5,0.00%,F,F)



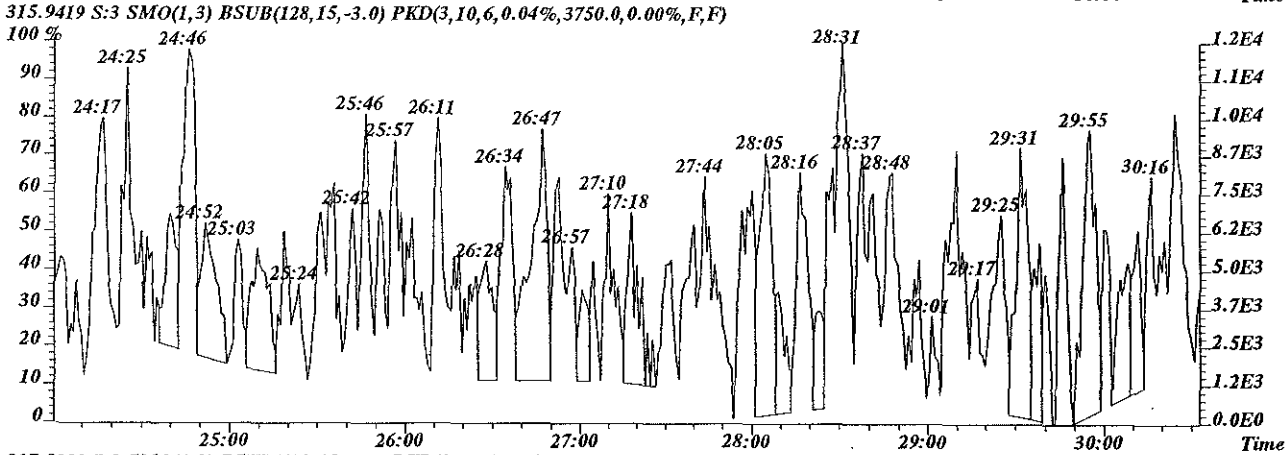
File:0903023B #1-430 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
Sample#3 File Text:M23 Text:INS.BLK. M2305B01 Exp:8290
303.9016 S:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,970.0,0.00%,F,F)



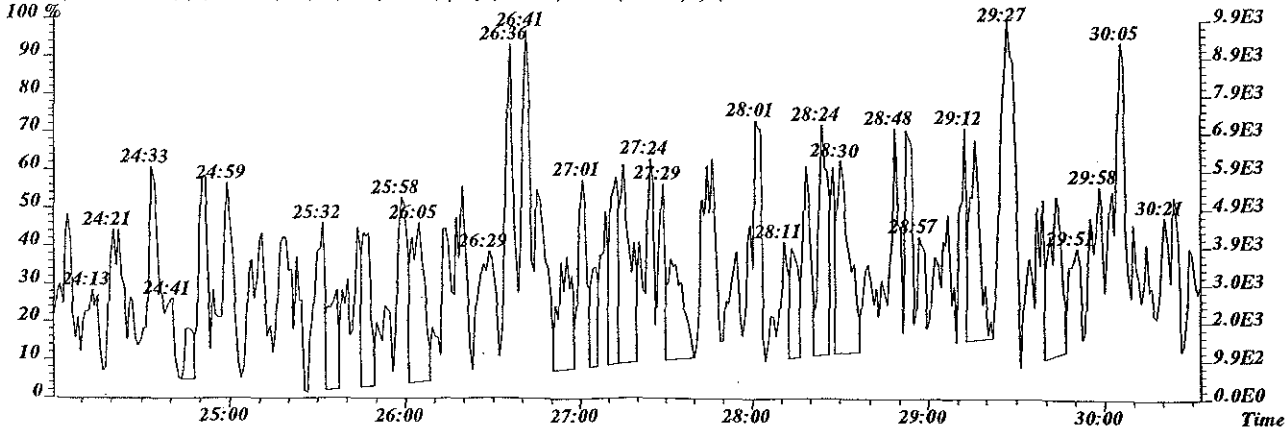
305.8987 S:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1110.0,0.00%,F,F)



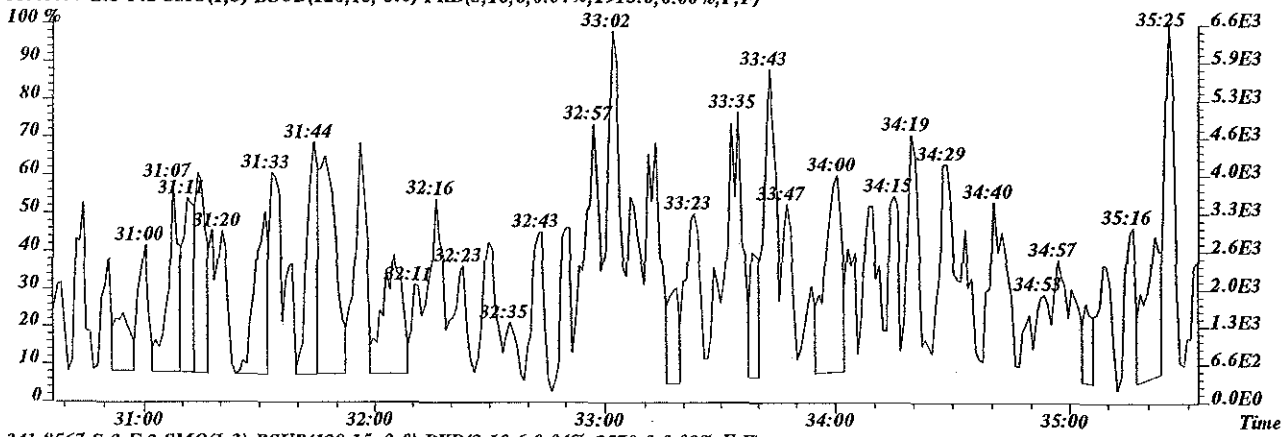
315.9419 S:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3750.0,0.00%,F,F)



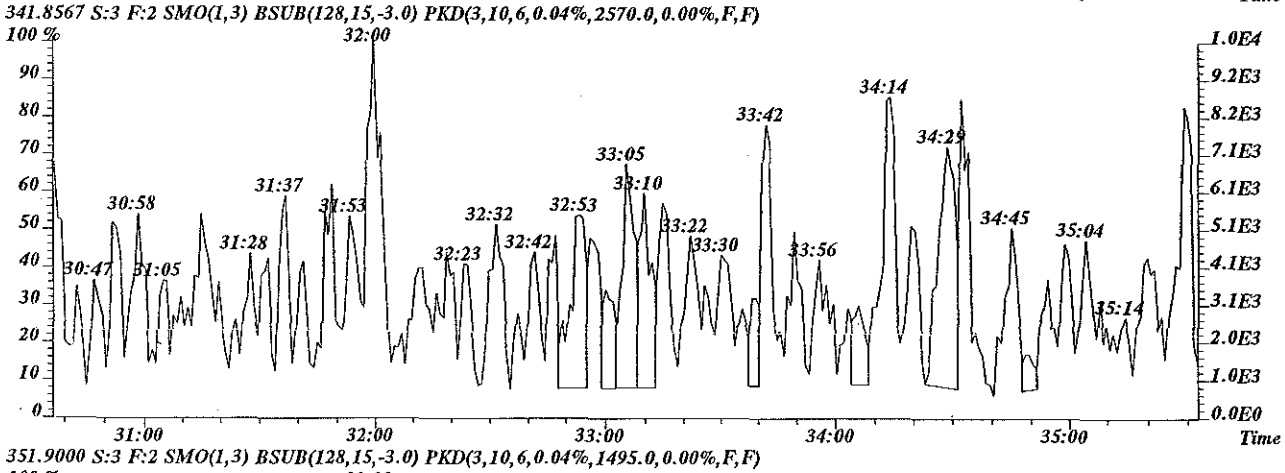
317.9389 S:3 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2902.5,0.00%,F,F)



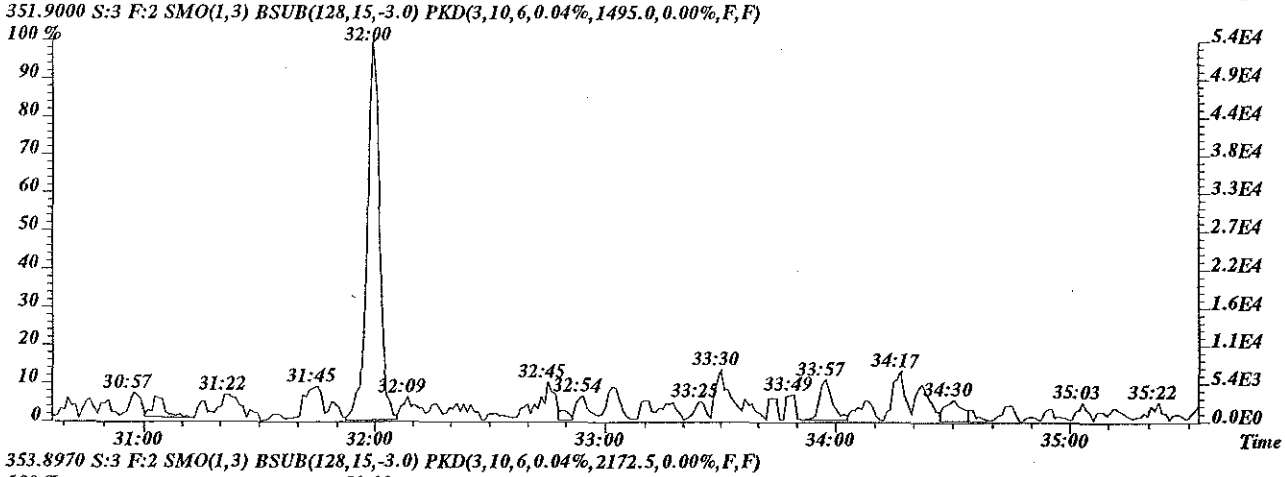
File:0903023B #1-324 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
Sample#3 File Text:M23 Text:INS.BLK. M2305B01 Exp:8290
339.8597 S:3 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1915.0,0.00%,F,F)



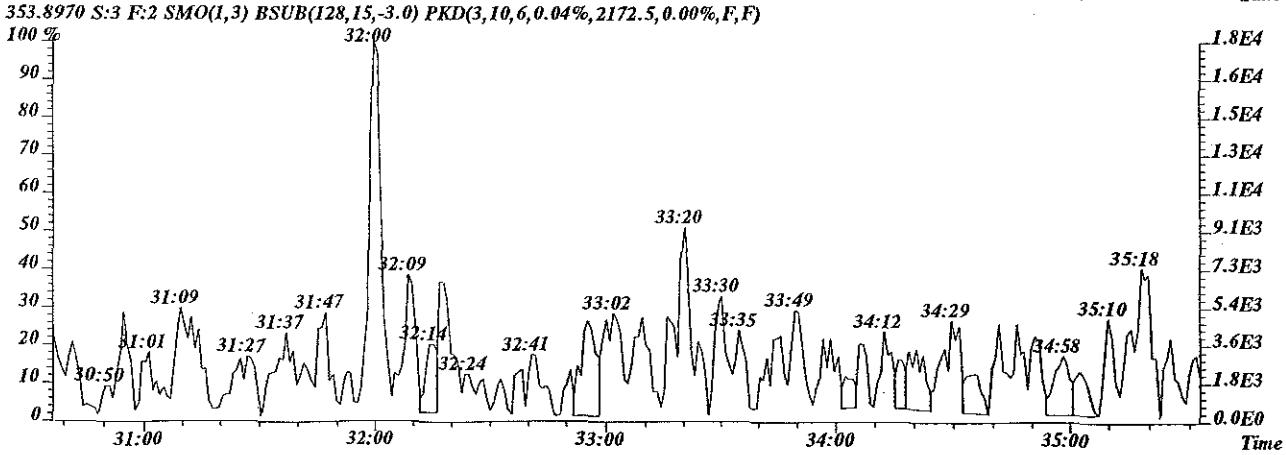
341.8567 S:3 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2570.0,0.00%,F,F)



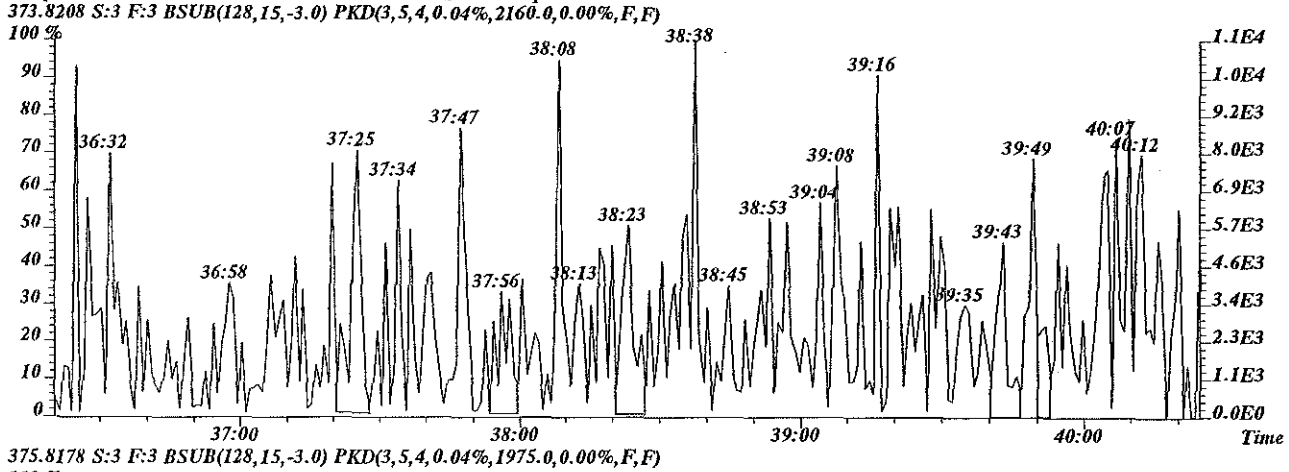
351.9000 S:3 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1495.0,0.00%,F,F)



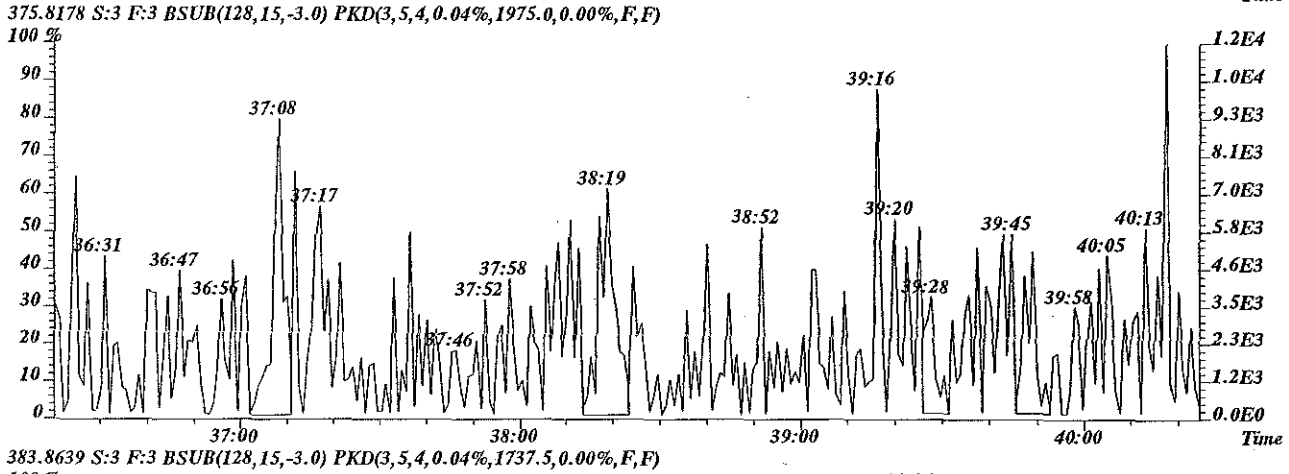
353.8970 S:3 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2172.5,0.00%,F,F)



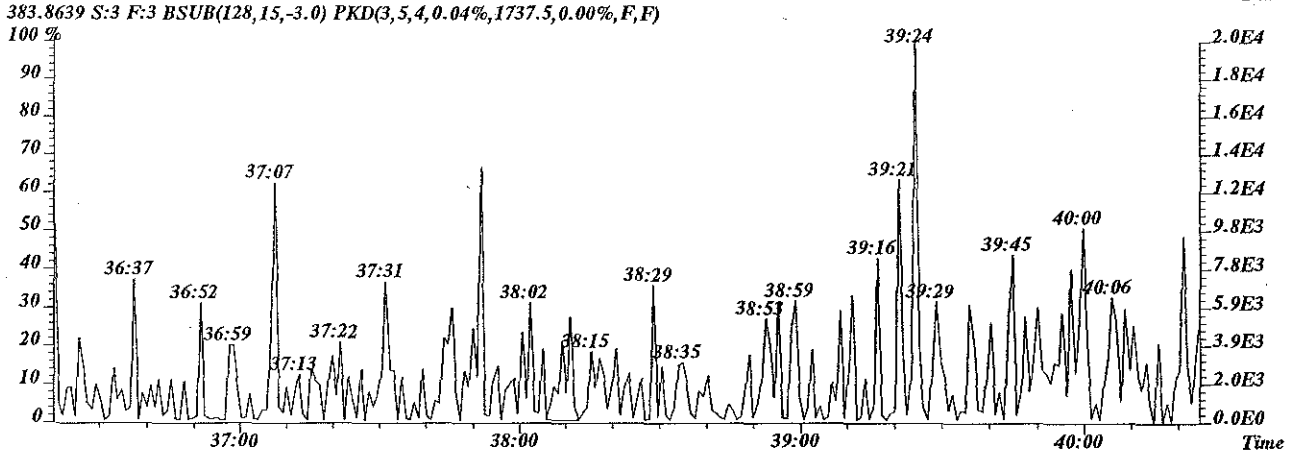
File:0903023B #1-277 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
Sample#3 File Text:M23 Text:INS.BLK. M2305B01 Exp:8290
373.8208 S:3 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2160.0,0.00%,F,F)



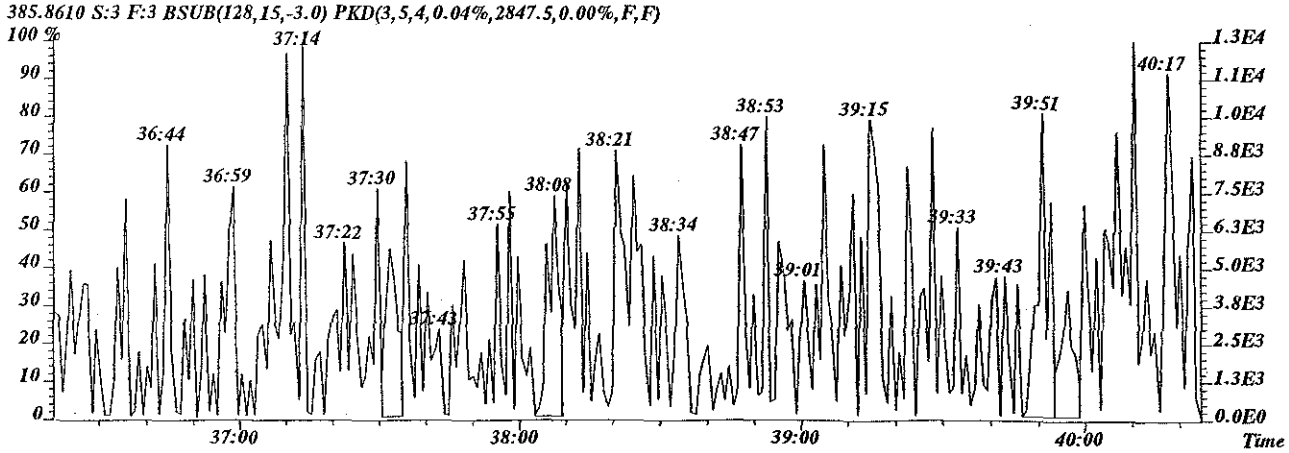
375.8178 S:3 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1975.0,0.00%,F,F)



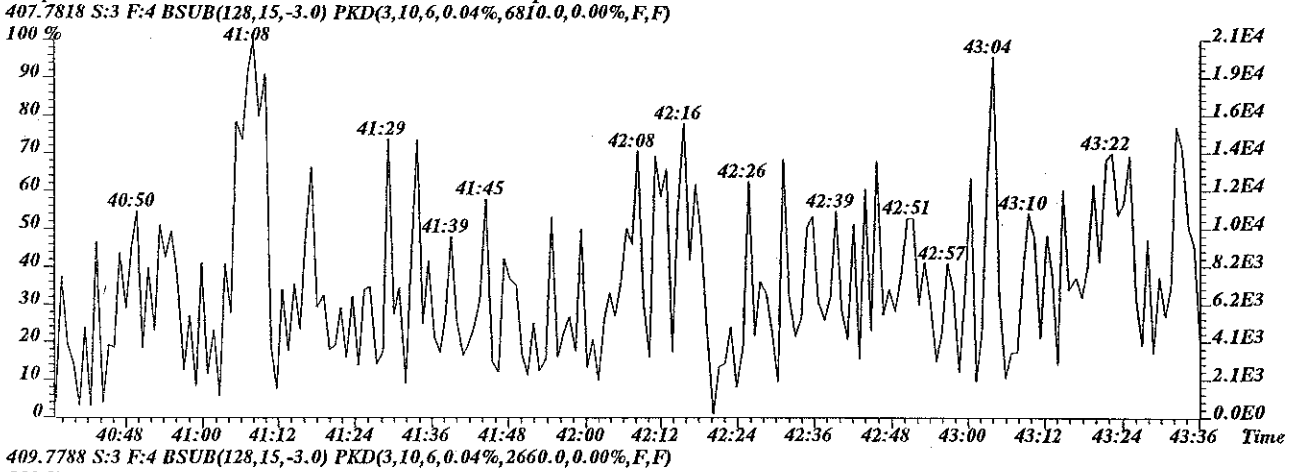
383.8639 S:3 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1737.5,0.00%,F,F)



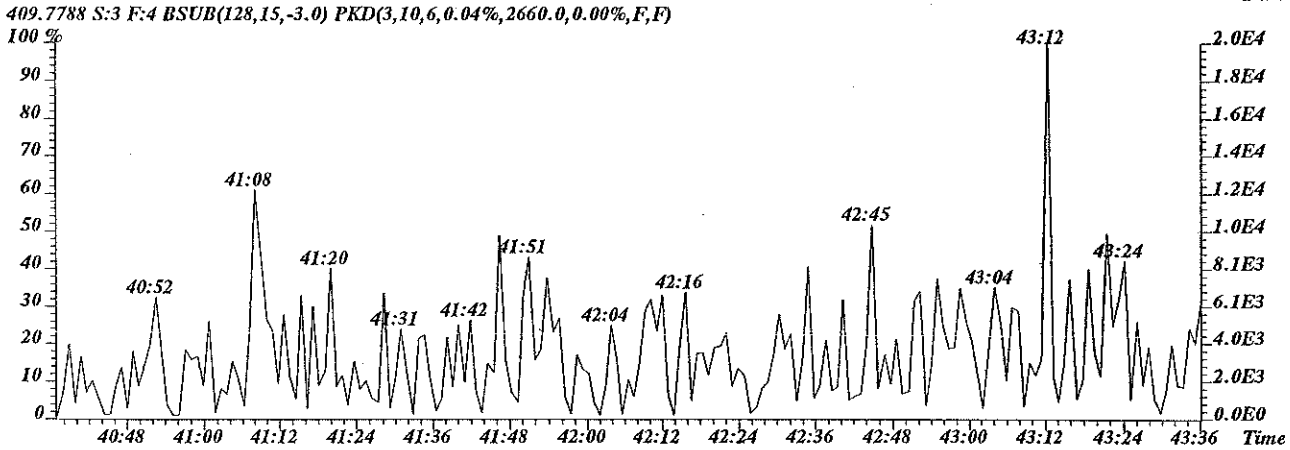
385.8610 S:3 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2847.5,0.00%,F,F)



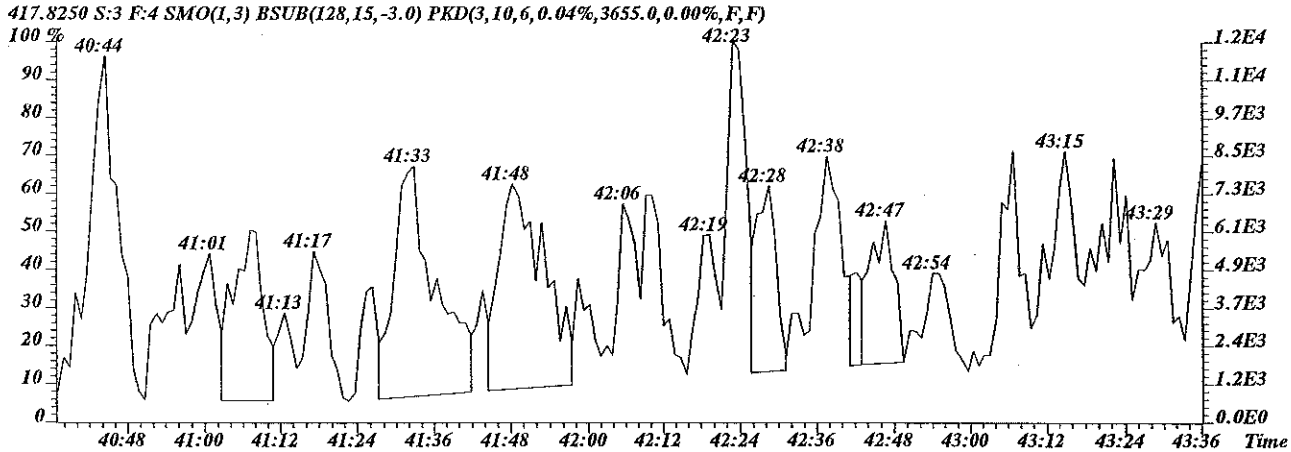
File:0903023B #1-197 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
Sample#3 File Text:M23 Text:INS.BLK. M2305B01 Exp:8290
407.7818 S:3 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6810.0,0.00%,F,F)



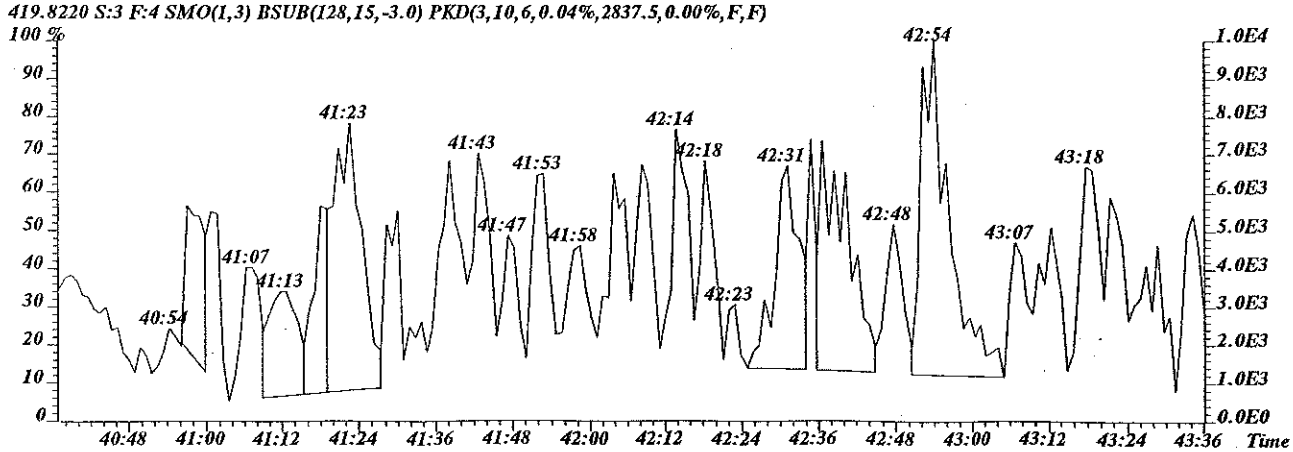
409.7788 S:3 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2660.0,0.00%,F,F)



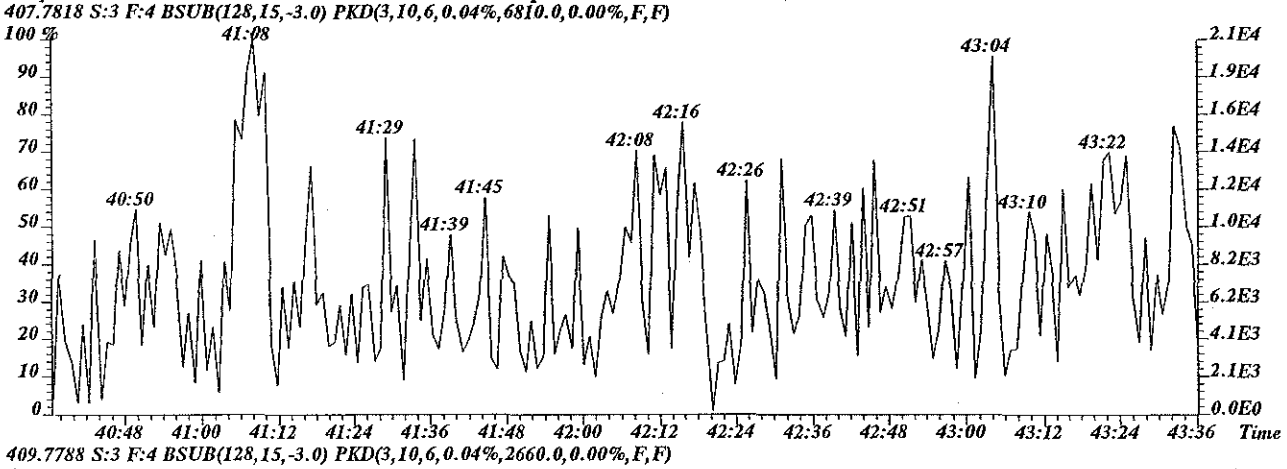
417.8250 S:3 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3655.0,0.00%,F,F)



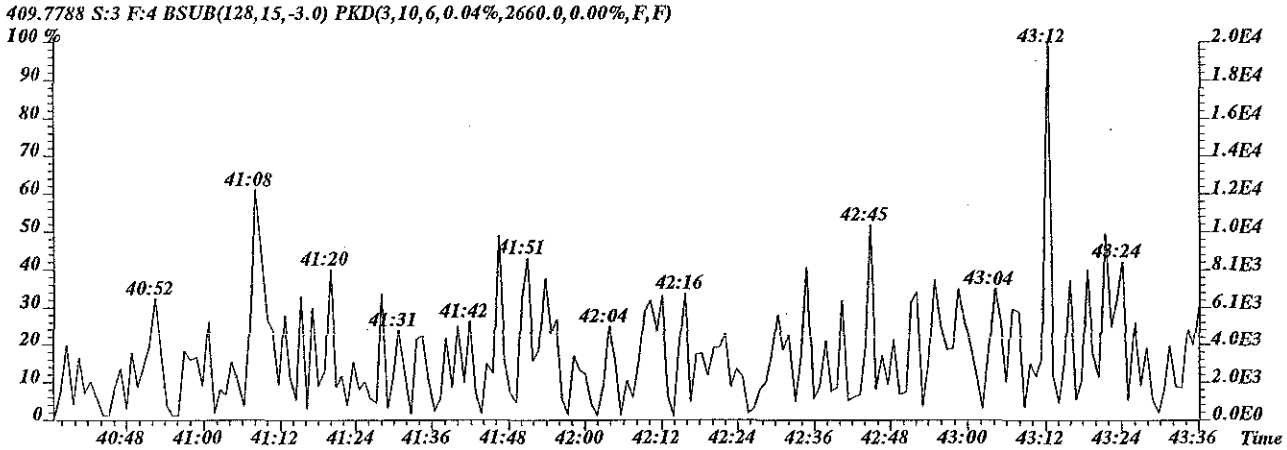
419.8220 S:3 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2837.5,0.00%,F,F)



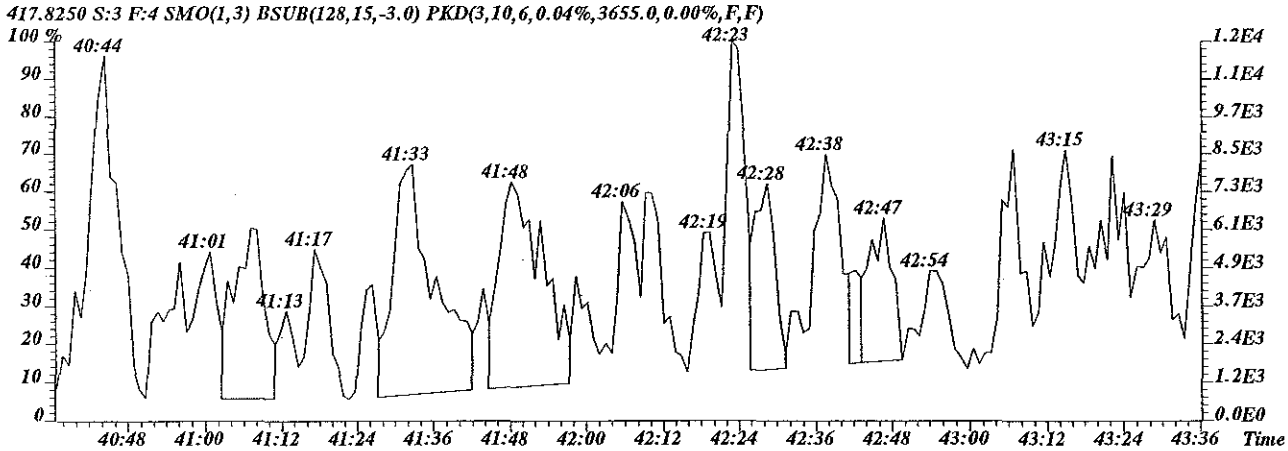
File:0903023B #1-197 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
Sample#3 File Text:M23 Text:INS.BLK. M2305B01 Exp:8290
407.7818 S:3 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6810.0,0.00%,F,F)



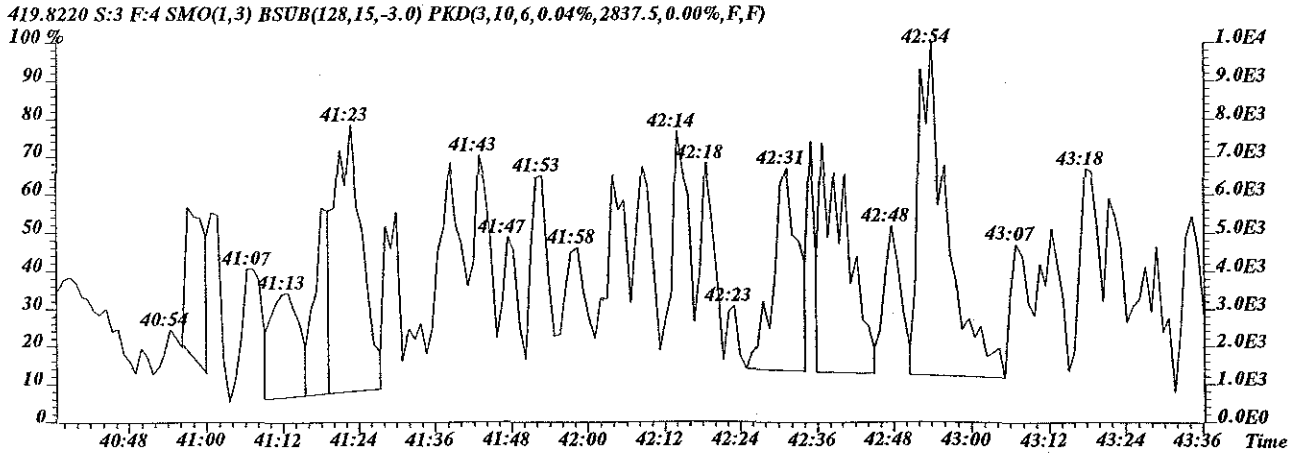
409.7788 S:3 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2660.0,0.00%,F,F)



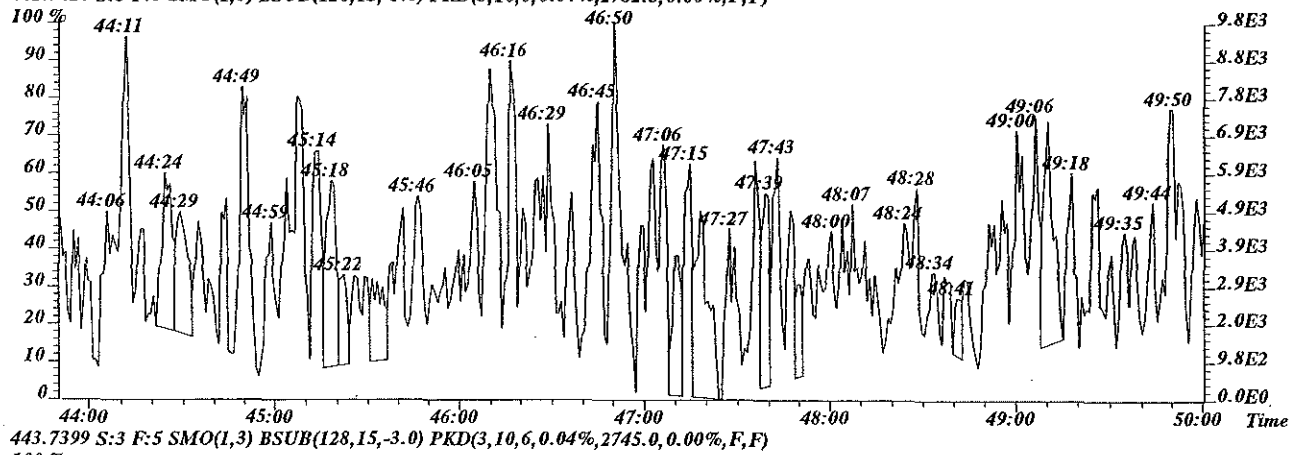
417.8250 S:3 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3655.0,0.00%,F,F)



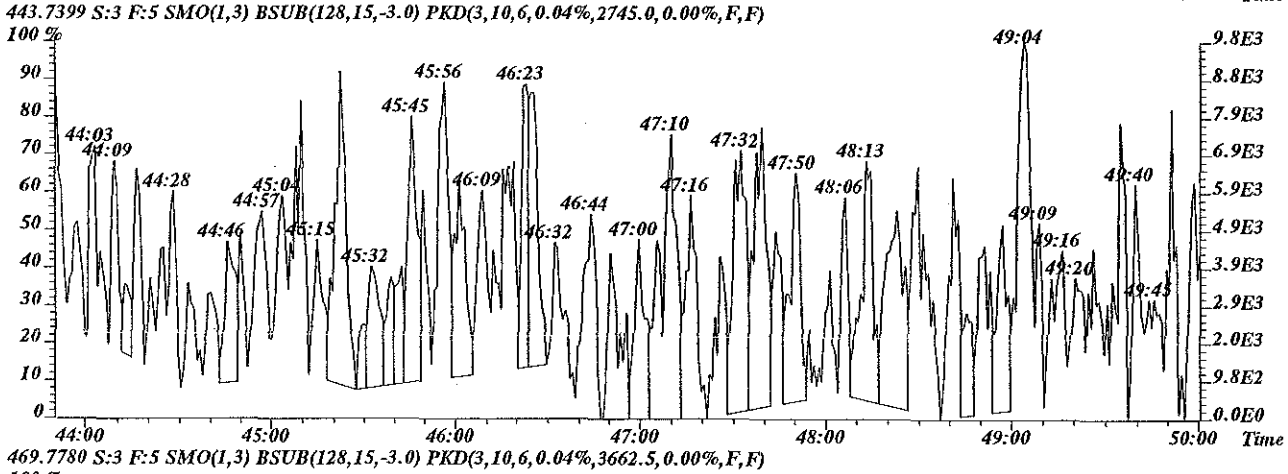
419.8220 S:3 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2837.5,0.00%,F,F)



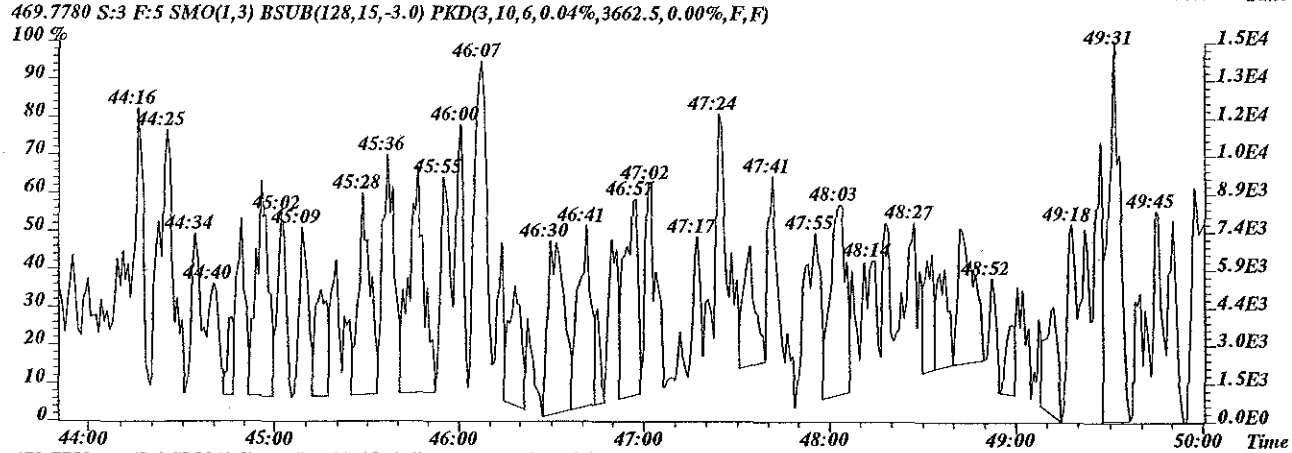
File:0903023B #1-445 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
Sample#3 File Text:M23 Text:INS.BLK. M2305B01 Exp:8290
441.7428 S:3 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2782.5,0.00%,F,F)



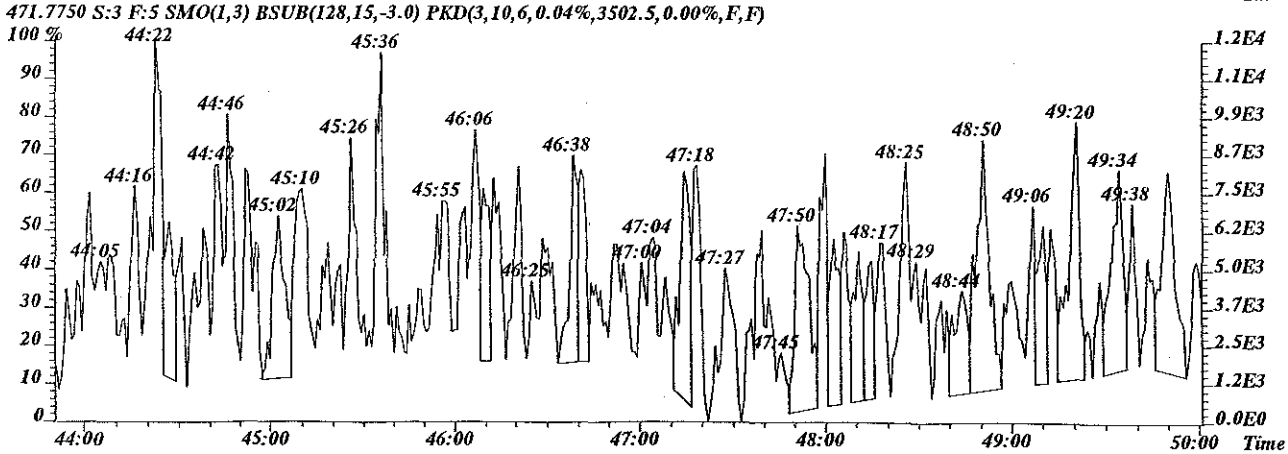
443.7399 S:3 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2745.0,0.00%,F,F)



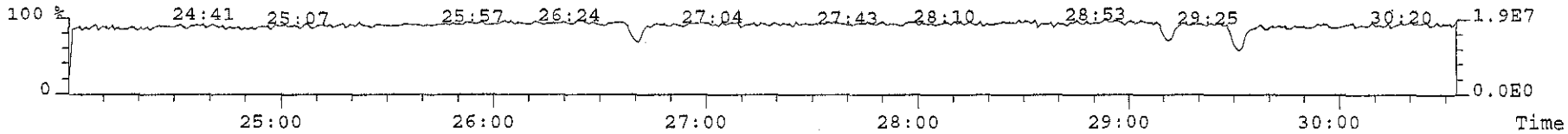
469.7780 S:3 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3662.5,0.00%,F,F)



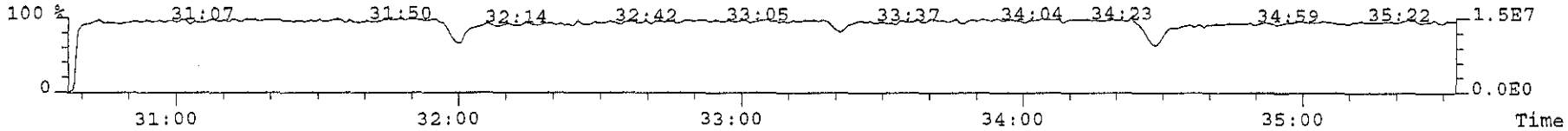
471.7750 S:3 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3502.5,0.00%,F,F)



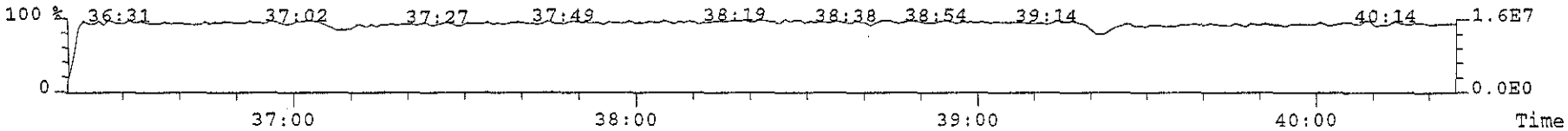
File:0903023B #1-430 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:3 Exp:8290
Sample Text:INS.BLK. M2305B01 File Text:M23



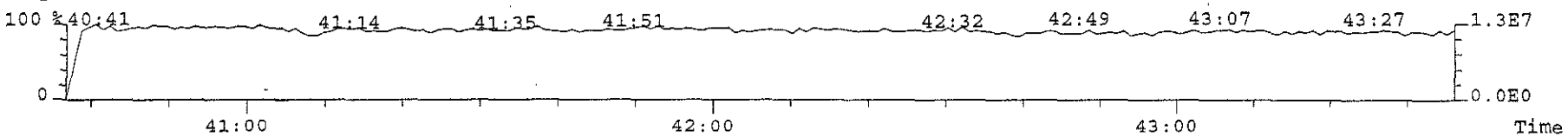
File:0903023B #1-324 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:3 F:2 Exp:8290
Sample Text:INS.BLK. M2305B01 File Text:M23



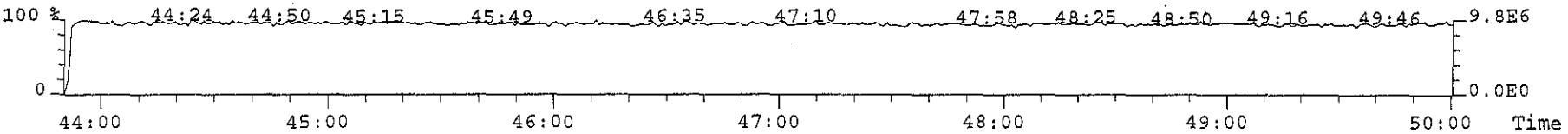
File:0903023B #1-277 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:3 F:3 Exp:8290
Sample Text:INS.BLK. M2305B01 File Text:M23



File:0903023B #1-197 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:3 F:4 Exp:8290
Sample Text:INS.BLK. M2305B01 File Text:M23



File:0903023B #1-445 Acq:17-SEP-2003 12:42:01 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:3 F:5 Exp:8290
Sample Text:INS.BLK. M2305B01 File Text:M23



Run #11 Filename 0903023B S: 2 I: 1 Acquired: 17-SEP-03 11:46:04 Processed: 17-SEP-03 12:42:19
Run: M23A05 Analyte: M23A05 Cal: M23A05 Results: 0903023A Quan : V3.6 9-SEP-2002 14:02:21
Sample text: CCAL. M2305C01 Comments: OPUS : V3.6X 31-JUL-1998 11:15:12

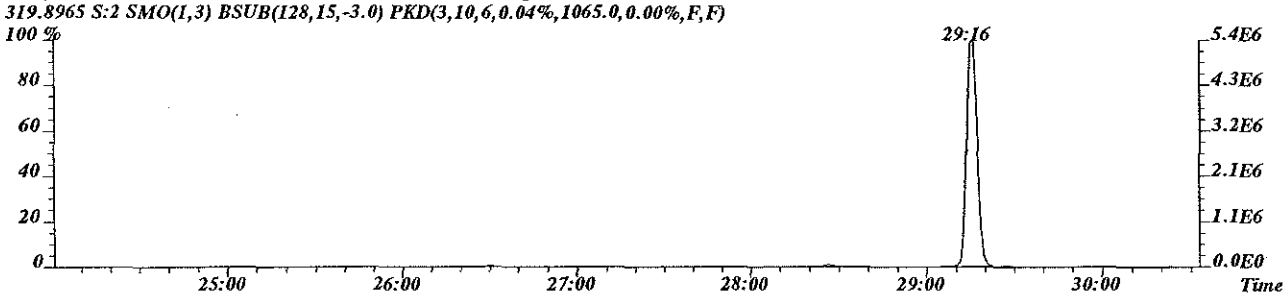
Typ	Name	Resp	RA		RT	Conc	Dev'n	Mod?
nati	2,3,7,8-TCDD	5.2e+07	0.76	y	29:16	5.33	6.7	n
nati	1,2,3,7,8-PeCDD	2.0e+08	1.57	y	34:26	27.0	4.4	n
nati	1,2,3,4,7,8-HxCDD	1.6e+08	1.26	y	39:17	27.0	4.4	n
nati	1,2,3,6,7,8-HxCDD	1.4e+08	1.24	y	39:23	25.7	-4.4	n
nati	1,2,3,7,8,9,-HxCDD	1.5e+08	1.26	y	39:47	27.1	1.1	n
nati	1,2,3,4,6,7,8-HpCDD	7.8e+07	1.00	y	42:56	25.7	0.5	n
nati	1,2,3,4,6,7,8,9-OCDD	6.6e+07	0.87	y	46:07	53.5	4.8	n
nati	2,3,7,8-TCDF	5.9e+07	0.76	y	28:28	5.24	3.5	n
nati	1,2,3,7,8-PeCDF	2.3e+08	1.54	y	33:01	24.5	-7.1	n
nati	2,3,4,7,8-PeCDF	2.3e+08	1.52	y	33:58	24.4	-7.8	n
nati	1,2,3,4,4,8-HxCDF	1.8e+08	1.17	y	38:16	23.6	-4.1	n
nati	1,2,3,6,7,8-HxCDF	1.9e+08	1.20	y	38:24	26.1	3.8	n
nati	2,3,4,6,7,8-HxCDF	1.6e+08	1.19	y	39:07	24.2	-0.9	n
nati	1,2,3,7,8,9-HxCDF	1.4e+08	1.17	y	40:04	23.3	-2.9	n
nati	1,2,3,4,6,7,8-HpCDF	1.1e+08	0.99	y	41:56	23.7	-10.5	n
nati	1,2,3,4,7,8,9-HpCDF	6.0e+07	1.00	y	43:23	22.5	-12.8	n
nati	1,2,3,4,6,7,8,9-OCDF	5.3e+07	0.82	y	46:17	41.7	-18.8	n
nati	Total TCDD	5.2e+07	0.85	y	27:58	5.34	6.8	n
nati	Total PeCDD	2.0e+08	1.57	y	34:26	27.0	4.3	n
nati	Total HxCDD	4.5e+08	1.26	y	39:17	79.8	0.4	n
nati	Total HpCDD	7.8e+07	1.00	y	42:56	25.7	0.5	n
nati	Total TCDF	6.0e+07	0.81	y	28:00	5.34	-0.4	n
nati	Total PeCDF	4.6e+08	1.52	y	31:59	49.3	-7.4	n
nati	Total HxCDF	6.7e+08	1.17	y	38:16	97.2	-0.9	n
nati	Total HpCDF	1.7e+08	0.99	y	41:56	46.2	-11.3	n
IS	13C12-2,3,7,8-TCDF	1.4e+09	0.79	y	28:27	93.0	-7.0	n
IS	13C12-2,3,7,8-TCDD	1.1e+09	0.79	y	29:14	97.6	-2.4	n
IS	13C12-1,2,3,7,8-PeCDF	1.1e+09	1.54	y	33:00	91.0	-9.0	n
IS	13C12-1,2,3,7,8-PeCDD	8.6e+08	1.56	y	34:25	94.4	-5.6	n
IS	13C12-1,2,3,6,7,8-HxCDF	7.4e+08	0.51	y	38:24	83.4	-16.6	n
IS	13C12-1,2,3,6,7,8-HxCDD	6.6e+08	1.25	y	39:22	95.9	-4.1	n
IS	3C12-1,2,3,4,6,7,8-HpCF	3.8e+08	0.44	y	41:55	78.6	-21.4	n
IS	C12-1,2,3,4,6,7,8-HPCDD	3.8e+08	1.03	y	42:56	89.5	-10.5	n
IS	13C12-OCDD	3.0e+08	0.89	y	46:06	183	-8.3	n
Suro	37C12-2,3,7,8-TCDD	1.1e+08	1.00	y	29:15	5.01	12.8	n
Suro	13C12-2,3,4,7,8-PeCDF	2.6e+08	1.54	y	33:57	25.4	4.8	n
Suro	13C12-1,2,3,4,7,8-HxCDF	1.7e+08	0.52	y	38:15	25.4	1.6	n
Suro	13C12-1,2,3,4,7,8-HxCDD	1.5e+08	1.27	y	39:16	23.9	7.7	n
Suro	3C12-1,2,3,4,7,8,9-HPCF	5.1e+07	0.43	y	43:23	21.4	4.5	n
Alte	13C12-1,2,3,7,8,9-HxCDF	1.3e+08	0.51	y	40:04	25.3	5.5	n
RS	13C12-1,2,3,4-TCDD	1.1e+09	0.80	y	29:02	202	-	n
RS	13C12-1,2,3,7,8,9-HxCDD	7.0e+08	1.26	y	39:46	194	-	n

Run #11 Filename 0903023B S: 2 I: 1 Acquired: 17-SEP-03 11:46:04 Processed: 17-SEP-03 12:42:19
Run: M23A05 Analyte: M23A05 Cal: M23A05 Results: 0903023A Version: V3.6 9-SEP-2002 14:02:21
Sample text: CCAL. M2305C01 Comments:

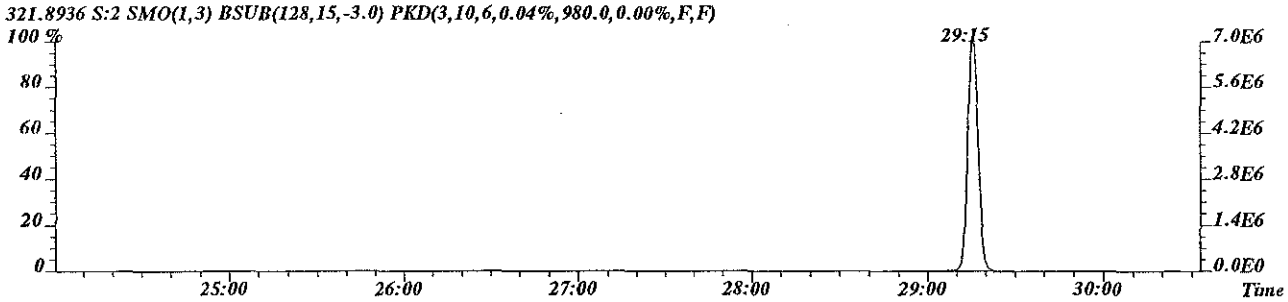
	Typ	Name	#Hom	Resp	RA		RT	Conc	100.48 Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDD	1	5.2e+07	0.76	y	29:16	5.330	5.33	0.00	-	n
2	nati	1,2,3,7,8-PeCDD	1	2.0e+08	1.57	y	34:26	27.019	13.51	0.01	-	n
3	nati	1,2,3,4,7,8-HxCDD	1	1.6e+08	1.26	y	39:17	26.987	2.70	0.00	-	n
4	nati	1,2,3,6,7,8-HxCDD	1	1.4e+08	1.24	y	39:23	25.721	2.57	0.00	-	n
5	nati	1,2,3,7,8,9,-HxCDD	1	1.5e+08	1.26	y	39:47	27.085	2.71	0.00	-	n
6	nati	1,2,3,4,6,7,8-HpCDD	1	7.8e+07	1.00	y	42:56	25.698	0.26	0.01	-	n
7	nati	1,2,3,4,6,7,8,9-OCDD	1	6.6e+07	0.87	y	46:07	53.489	0.05	0.04	-	n
8	nati	2,3,7,8-TCDF	1	5.9e+07	0.76	y	28:28	5.238	5.24	0.00	-	n
9	nati	1,2,3,7,8-PeCDF	1	2.3e+08	1.54	y	33:01	24.460	24.46	0.00	-	n
10	nati	2,3,4,7,8-PeCDF	1	2.3e+08	1.52	y	33:58	24.389	12.19	0.00	-	n
11	nati	1,2,3,4,4,8-HxCDF	1	1.8e+08	1.17	y	38:16	23.590	23.59	0.00	-	n
12	nati	1,2,3,6,7,8-HxCDF	1	1.9e+08	1.20	y	38:24	26.106	2.61	0.00	-	n
13	nati	2,3,4,6,7,8-HxCDF	1	1.6e+08	1.19	y	39:07	24.158	2.42	0.01	-	n
14	nati	1,2,3,7,8,9-HxCDF	1	1.4e+08	1.17	y	40:04	23.339	2.33	0.01	-	n
15	nati	1,2,3,4,6,7,8-HpCDF	1	1.1e+08	0.99	y	41:56	23.682	0.24	0.02	-	n
16	nati	1,2,3,4,7,8,9-HpCDF	1	6.0e+07	1.00	y	43:23	22.511	0.23	0.04	-	n
17	nati	1,2,3,4,6,7,8,9-OCDF	1	5.3e+07	0.82	y	46:17	41.681	0.04	0.05	-	n
18	nati	Total TCDD	2	5.2e+07	0.85	y	27:58	5.340	0.00	0.00	-	n
19	nati	Total PeCDD	1	2.0e+08	1.57	y	34:26	27.019	0.00	0.01	-	n
20	nati	Total HxCDD	3	4.5e+08	1.26	y	39:17	79.793	0.00	0.00	-	n
21	nati	Total HpCDD	1	7.8e+07	1.00	y	42:56	25.698	0.00	0.01	-	n
22	nati	Total TCDF	4	6.0e+07	0.81	y	28:00	5.339	0.00	0.00	-	n
23	nati	Total PeCDF	7	4.6e+08	1.52	y	31:59	49.287	0.00	0.00	-	n
24	nati	Total HxCDF	4	6.7e+08	1.17	y	38:16	97.193	0.00	0.01	-	n
25	nati	Total HpCDF	2	1.7e+08	0.99	y	41:56	46.192	0.00	0.03	-	n
26	IS	13C12-2,3,7,8-TCDF	1	1.4e+09	0.79	y	28:27	92.992	0.00	0.00	93.0	n
27	IS	13C12-2,3,7,8-TCDD	1	1.1e+09	0.79	y	29:14	97.645	0.00	0.01	97.6	n
28	IS	13C12-1,2,3,7,8-PeCDF	1	1.1e+09	1.54	y	33:00	90.991	0.00	0.00	91.0	n
29	IS	13C12-1,2,3,7,8-PeCDD	1	8.6e+08	1.56	y	34:25	94.429	0.00	0.00	94.4	n
30	IS	13C12-1,2,3,6,7,8-HxCDF	1	7.4e+08	0.51	y	38:24	83.440	0.00	0.00	83.4	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	1	6.6e+08	1.25	y	39:22	95.893	0.00	0.01	95.9	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	1	3.8e+08	0.44	y	41:55	78.602	0.00	0.02	78.6	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	1	3.8e+08	1.03	y	42:56	89.490	0.00	0.01	89.5	n
34	IS	13C12-OCDD	1	3.0e+08	0.89	y	46:06	183.409	0.00	0.04	91.7	n
35	Suro	37C12-2,3,7,8-TCDD	1	1.1e+08	1.00	y	29:15	5.008	0.00	0.00	100.2	n
36	Suro	13C12-2,3,4,7,8-PeCDF	1	2.6e+08	1.54	y	33:57	25.382	0.00	0.00	101.5	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	1	1.7e+08	0.52	y	38:15	25.377	0.00	0.00	101.5	n
38	Suro	13C12-1,2,3,4,7,8-HxCDD	1	1.5e+08	1.27	y	39:16	23.907	0.00	0.01	95.6	n
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	1	5.1e+07	0.43	y	43:23	21.381	0.00	0.04	85.5	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	1	1.3e+08	0.51	y	40:04	25.285	0.00	0.01	101.1	n
41	RS	13C12-1,2,3,4-TCDD	1	1.1e+09	0.80	y	29:02	202.035	0.00	-	-	n
42	RS	13C12-1,2,3,7,8,9-HxCDD	1	7.0e+08	1.26	y	39:46	194.035	0.00	-	-	n

File:0903023B #1-430 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 Text:CCAL. M2305C01 Exp:8290

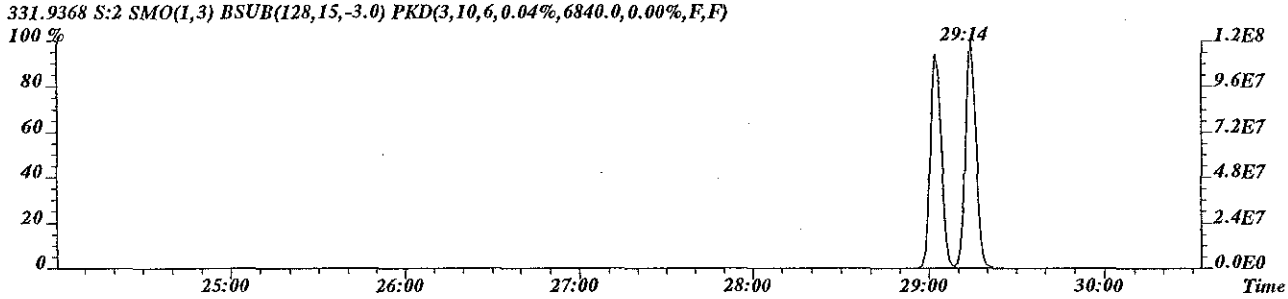
319.8965 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1065.0,0.00%,F,F)



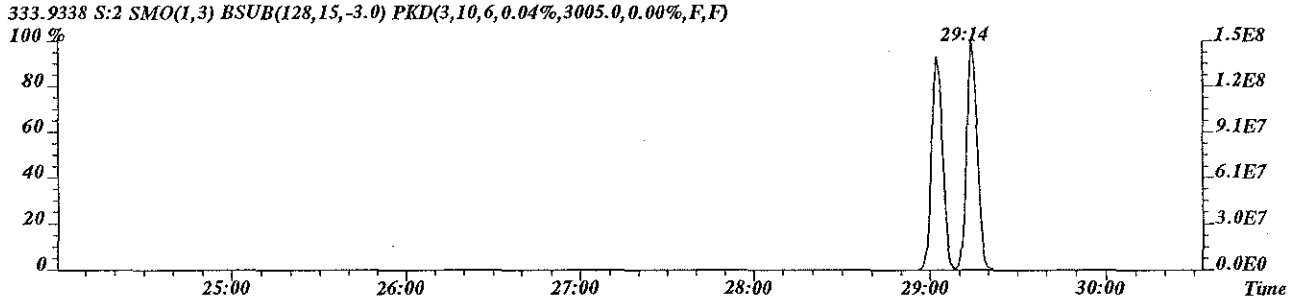
321.8936 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,980.0,0.00%,F,F)



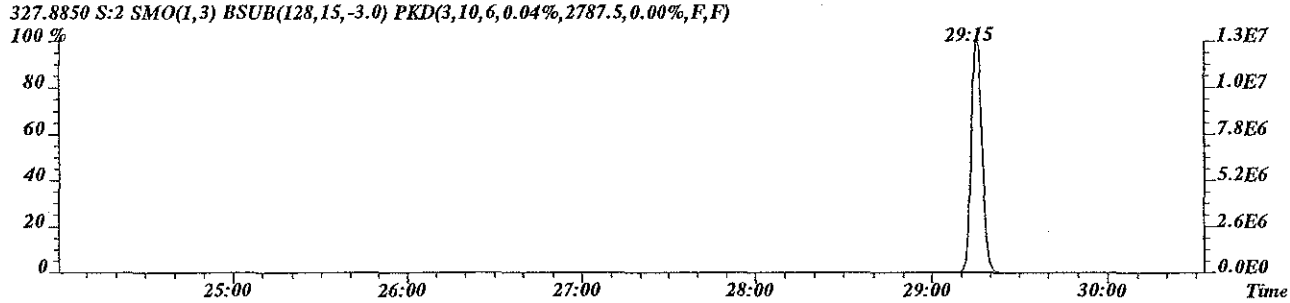
331.9368 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6840.0,0.00%,F,F)



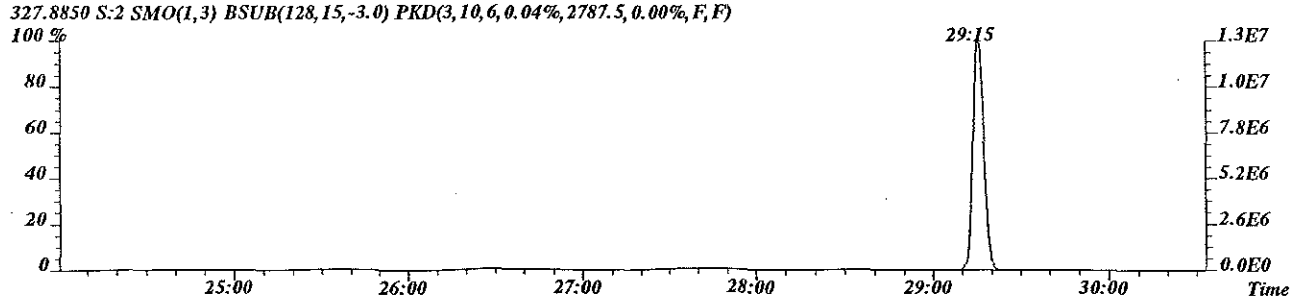
333.9338 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3005.0,0.00%,F,F)



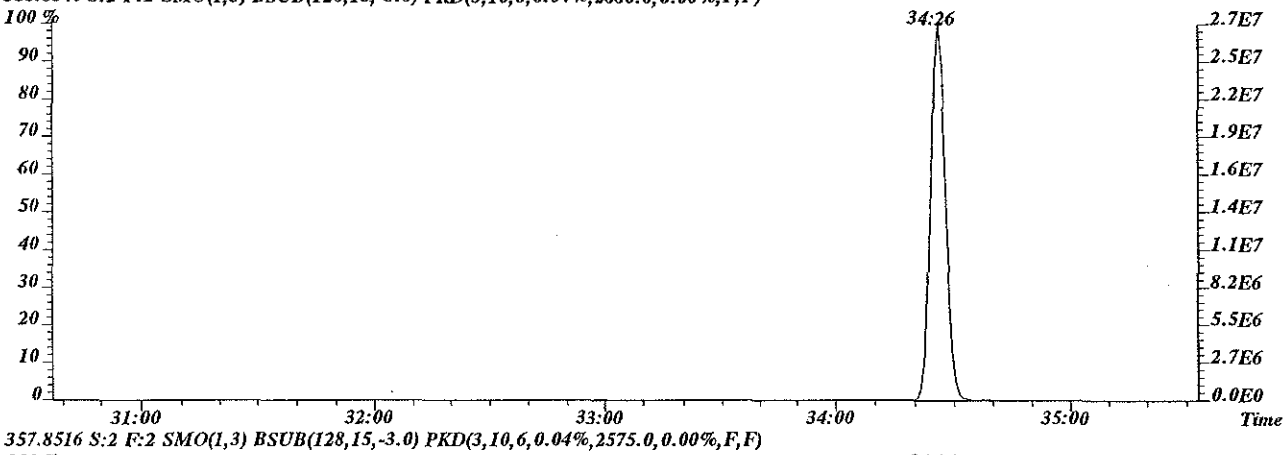
327.8850 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2787.5,0.00%,F,F)



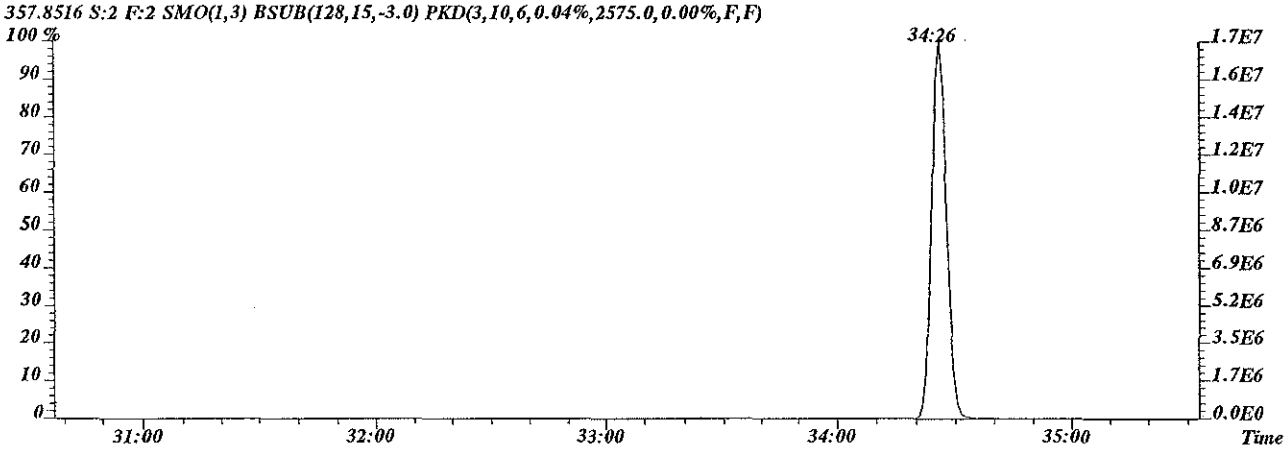
327.8850 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2787.5,0.00%,F,F)



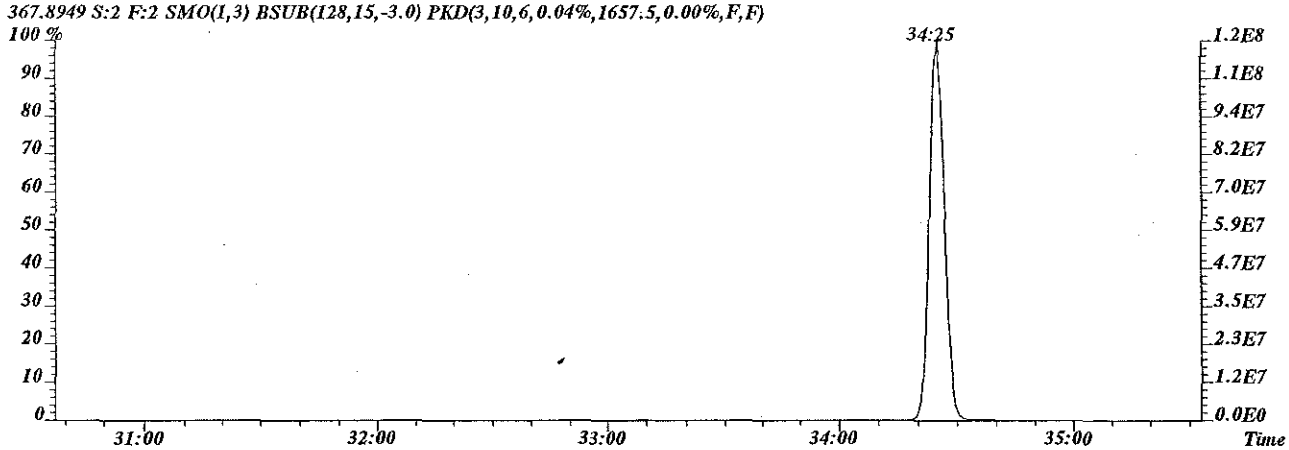
File:0903023B #1-324 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 Text:CCAL. M2305C01 Exp:8290
355.8546 S:2 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2880.0,0.00%,F,F)



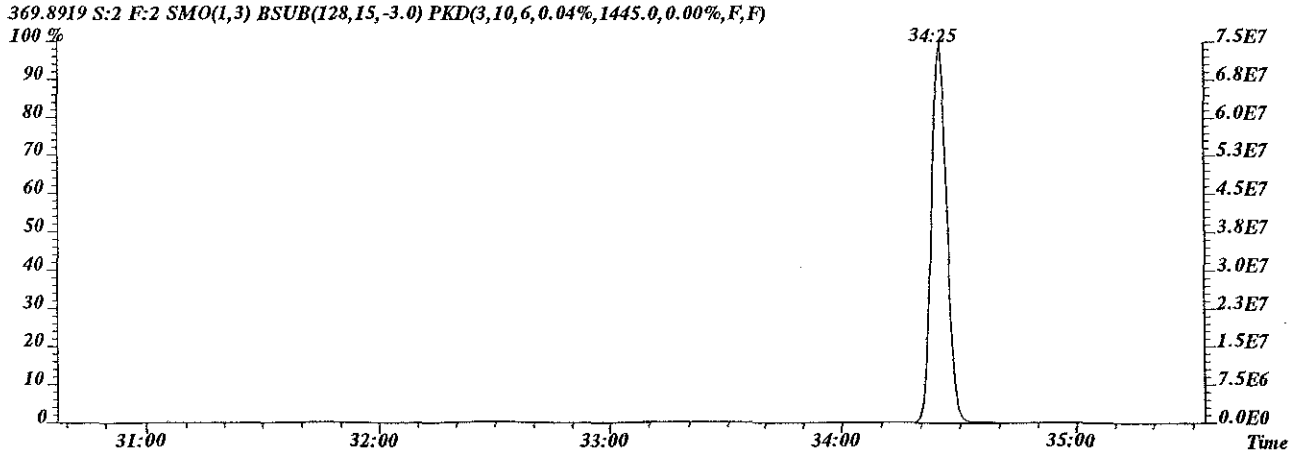
357.8516 S:2 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2575.0,0.00%,F,F)



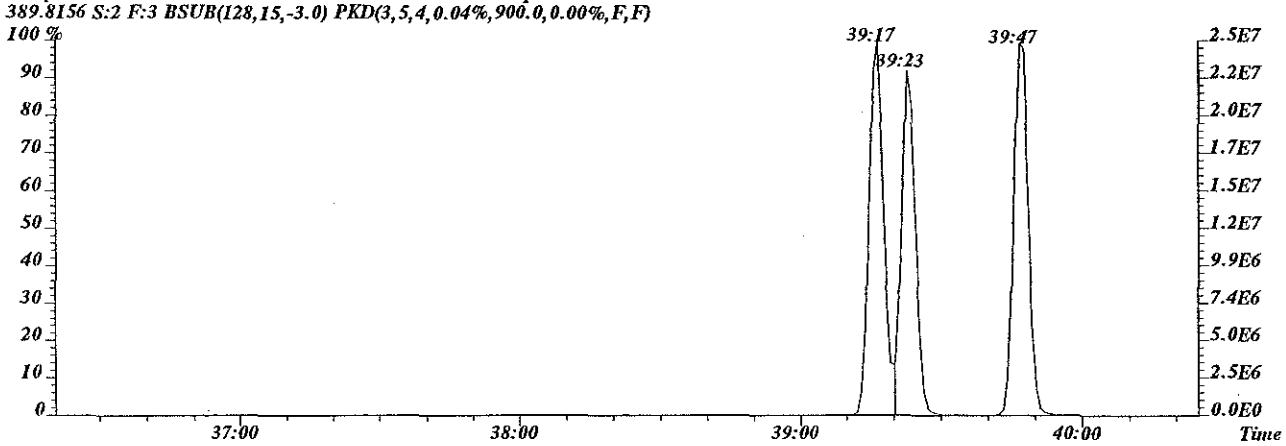
367.8949 S:2 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1657.5,0.00%,F,F)



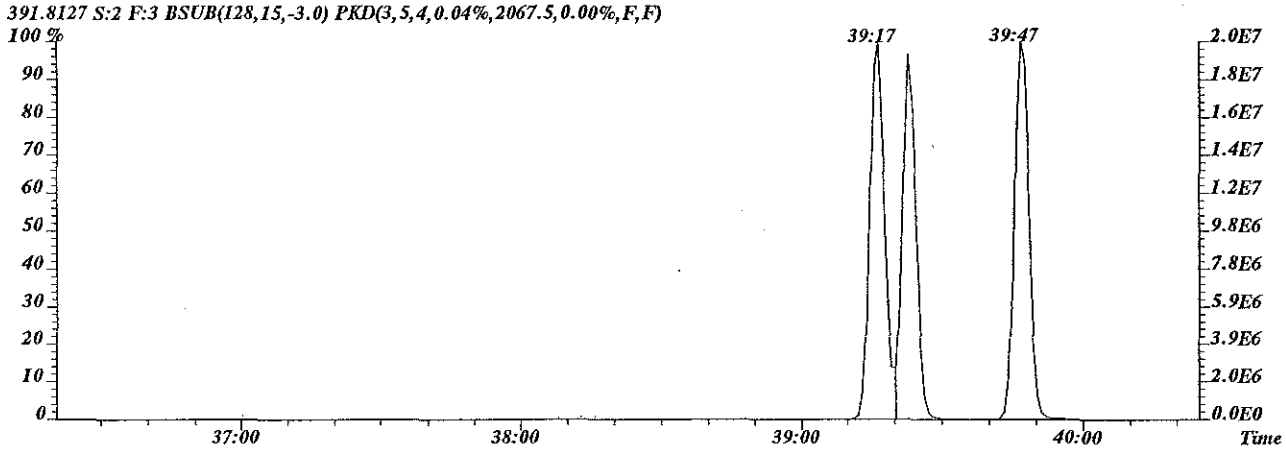
369.8919 S:2 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1445.0,0.00%,F,F)



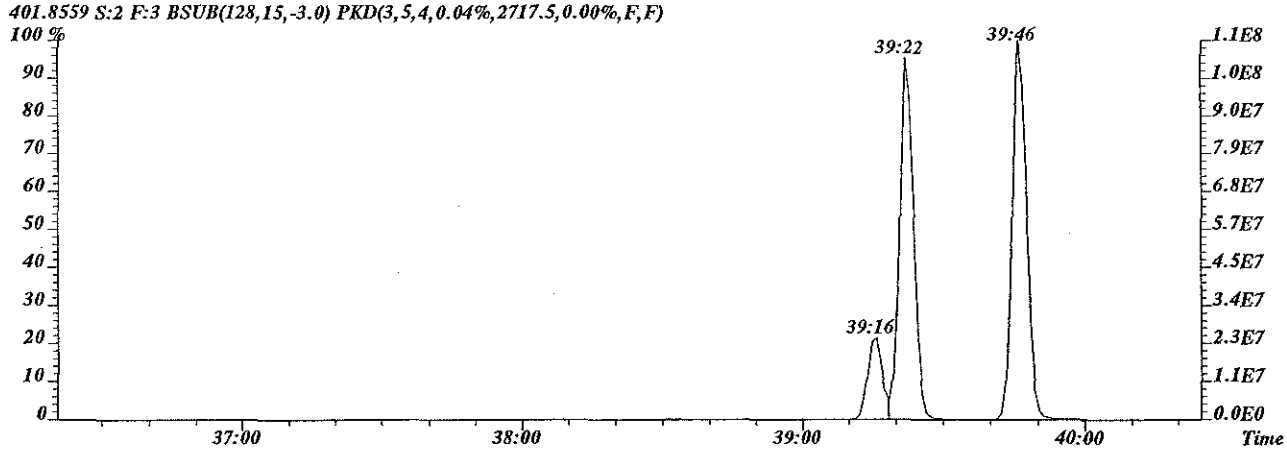
File:0903023B #1-277 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 Text:CCAL. M2305C0I Exp:8290
389.8156 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,900.0,0.00%,F,F)



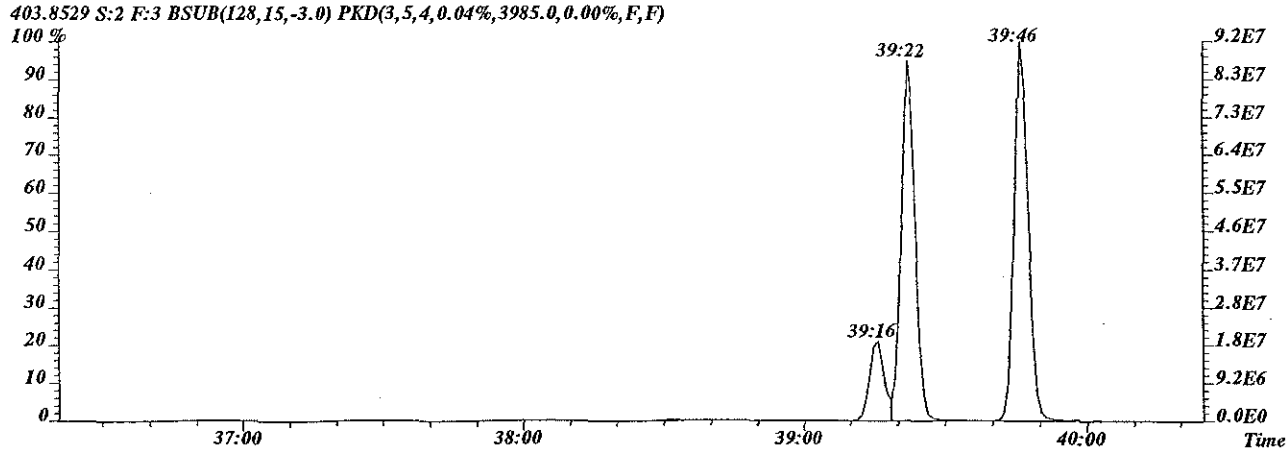
391.8127 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2067.5,0.00%,F,F)



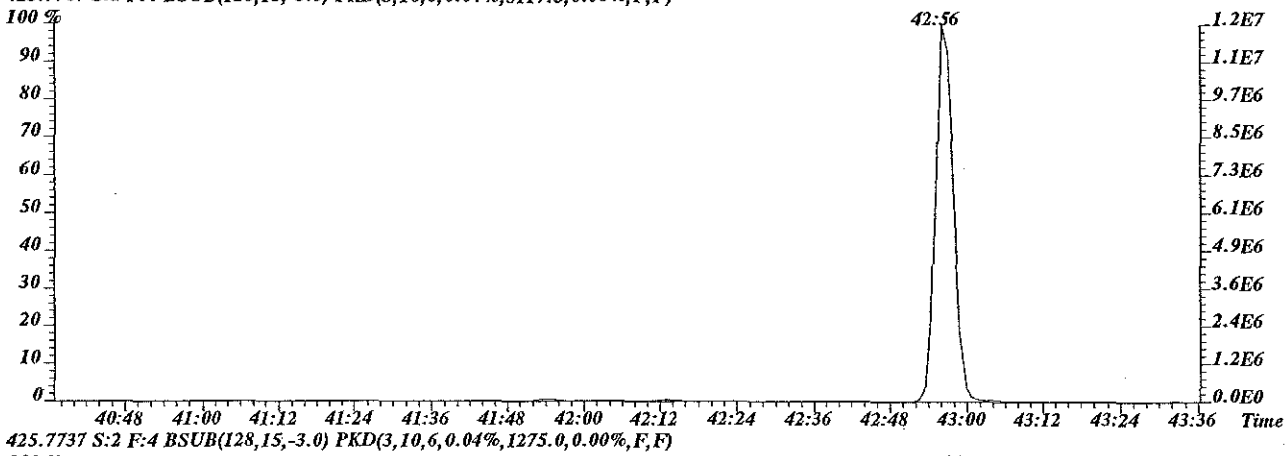
401.8559 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2717.5,0.00%,F,F)



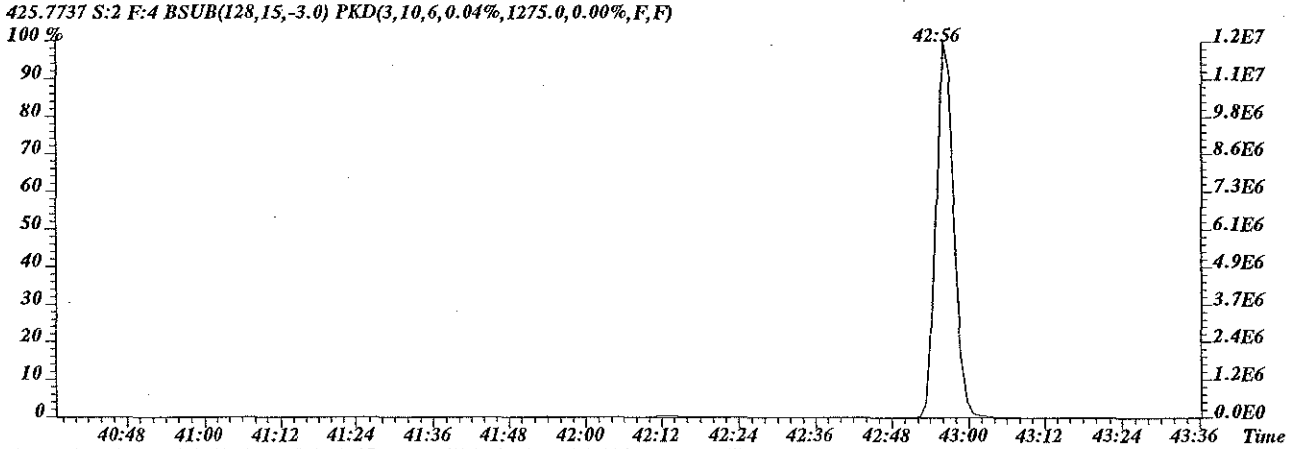
403.8529 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,3985.0,0.00%,F,F)



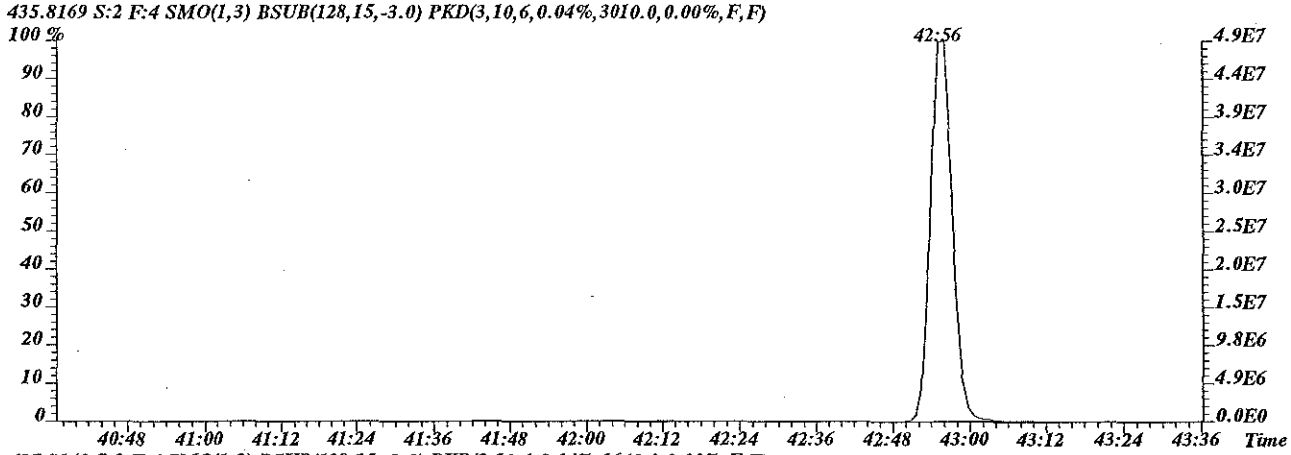
File:0903023B #1-197 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 Text:CCAL. M2305C01 Exp:8290
423.7767 S:2 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3117.5,0.00%,F,F)



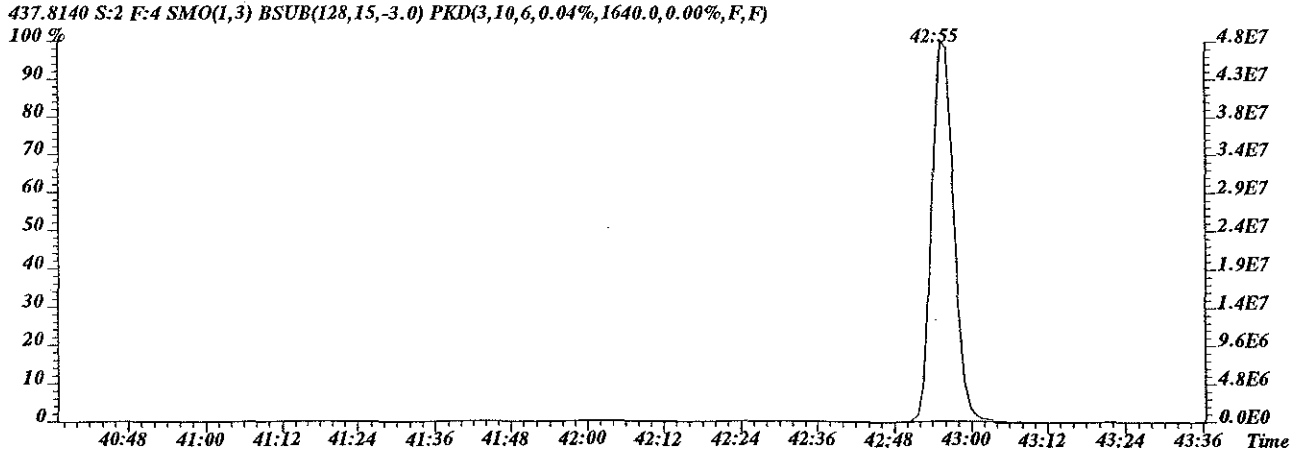
425.7737 S:2 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1275.0,0.00%,F,F)



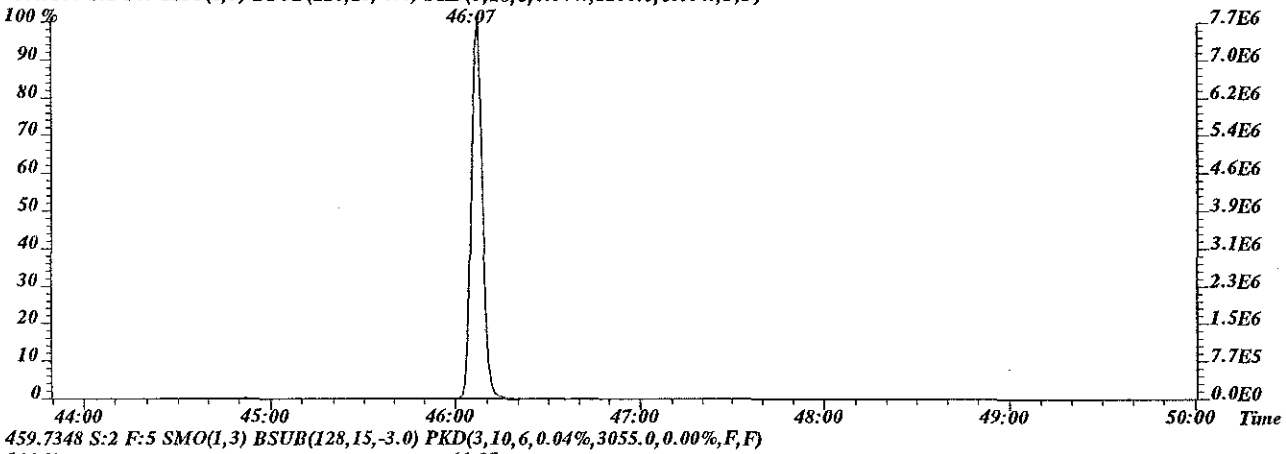
435.8169 S:2 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3010.0,0.00%,F,F)



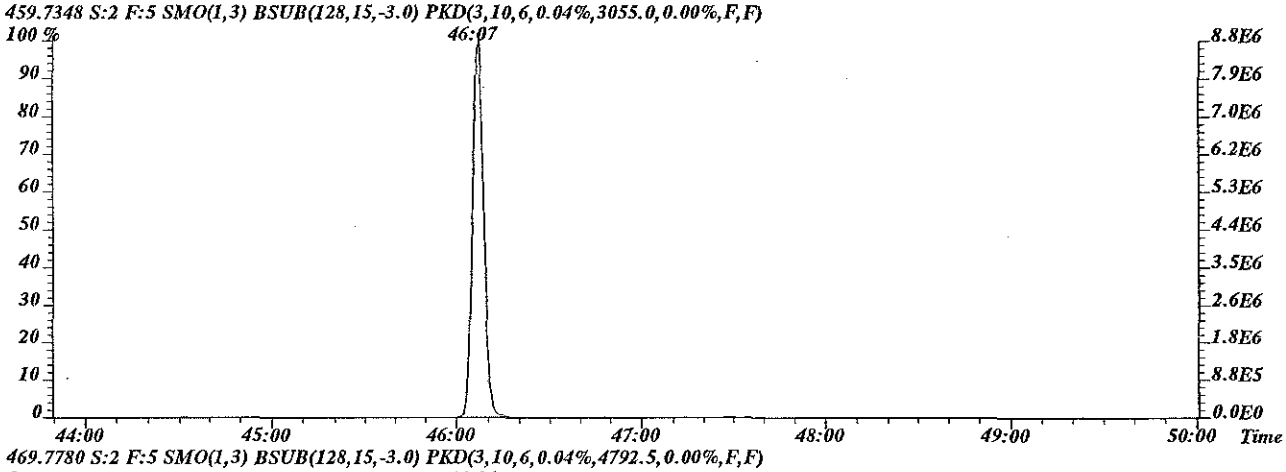
437.8140 S:2 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1640.0,0.00%,F,F)



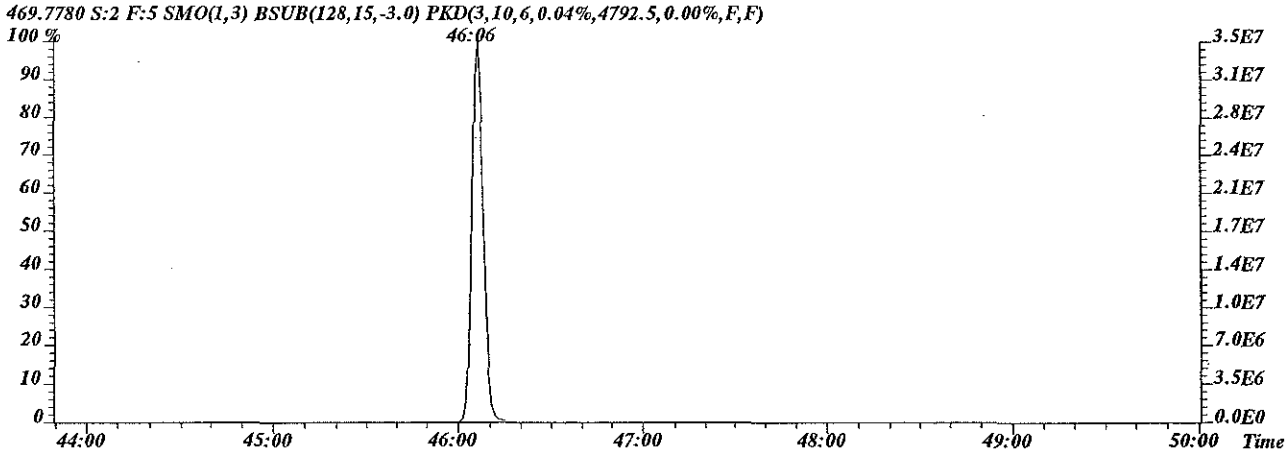
File:0903023B #1-446 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 Text:CCAL. M2305C01 Exp:8290
457.7377 S:2 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2260.0,0.00%,F,F)



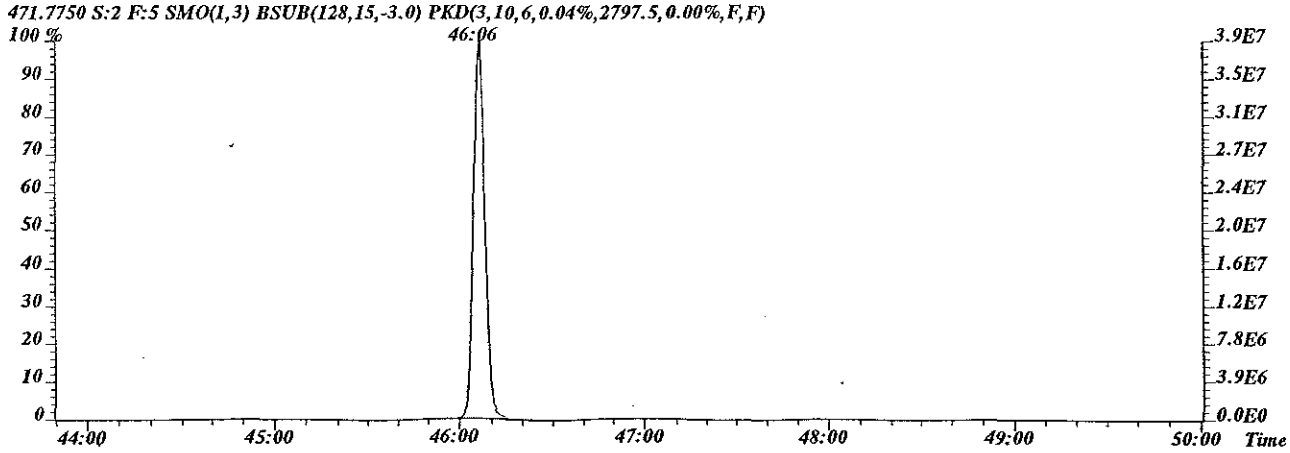
459.7348 S:2 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3055.0,0.00%,F,F)



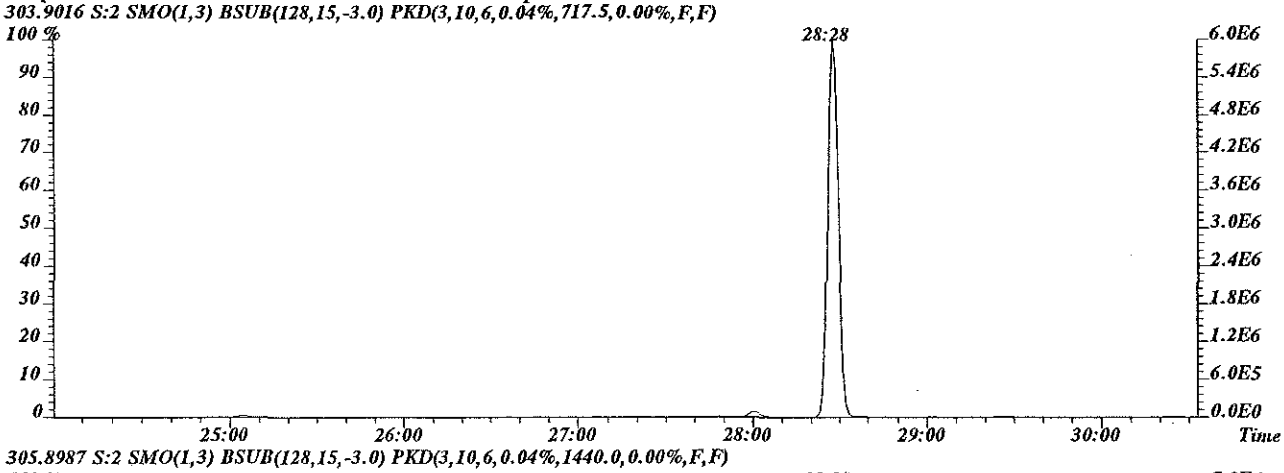
469.7780 S:2 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4792.5,0.00%,F,F)



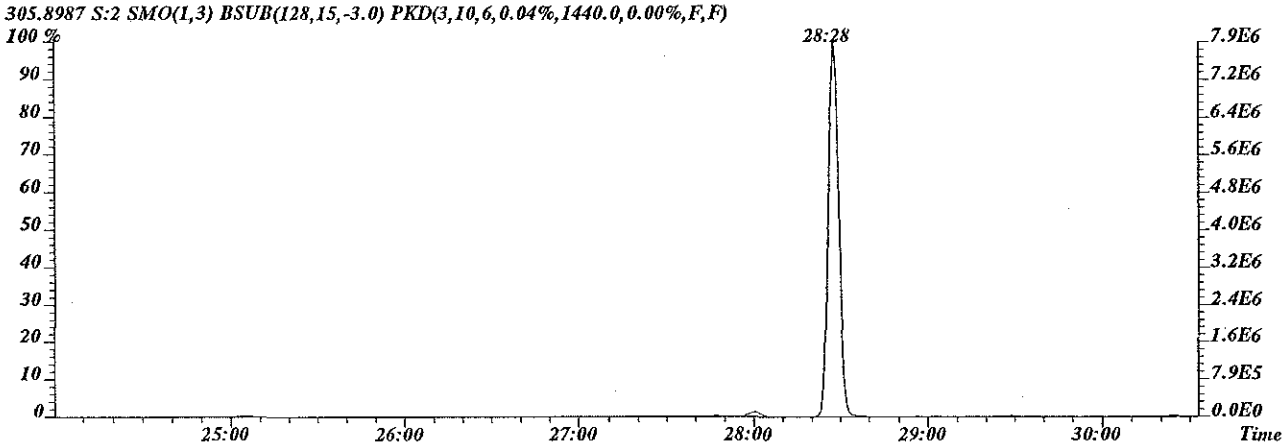
471.7750 S:2 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2797.5,0.00%,F,F)



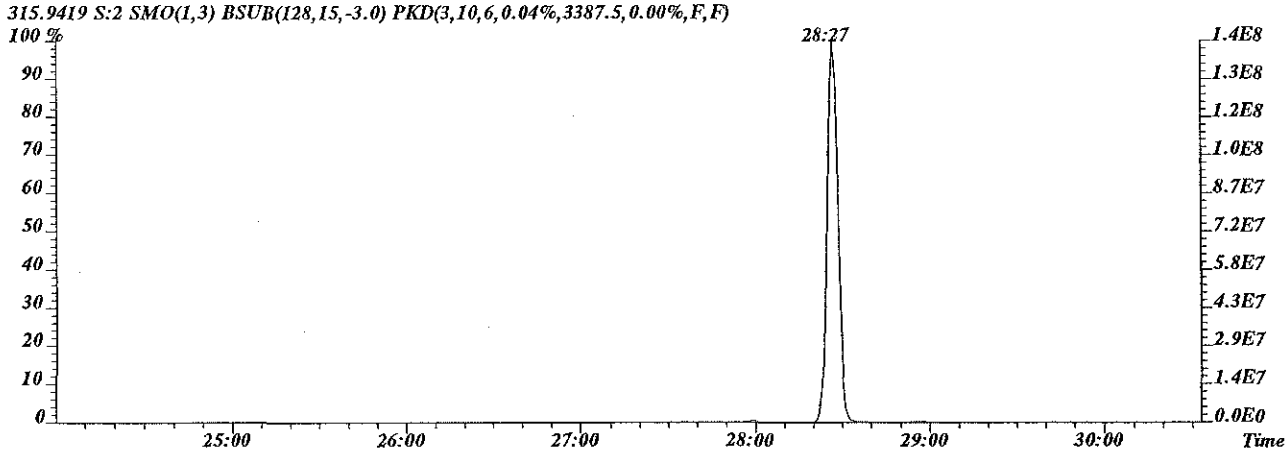
File:0903023B #1-430 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 Text:CCAL. M2305C01 Exp:8290
303.9016 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,717.5,0.00%,F,F)



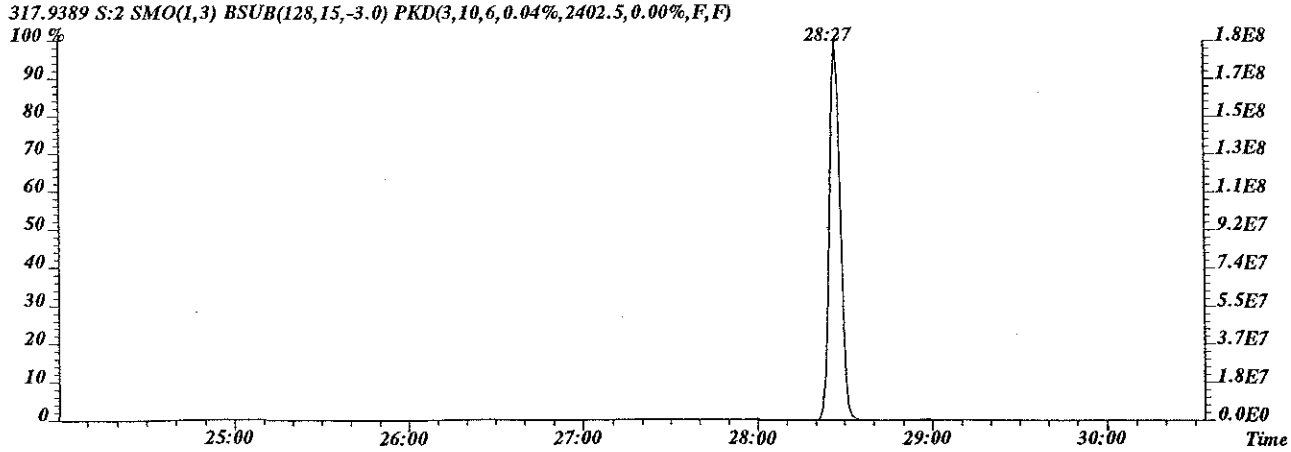
305.8987 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1440.0,0.00%,F,F)



315.9419 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3387.5,0.00%,F,F)

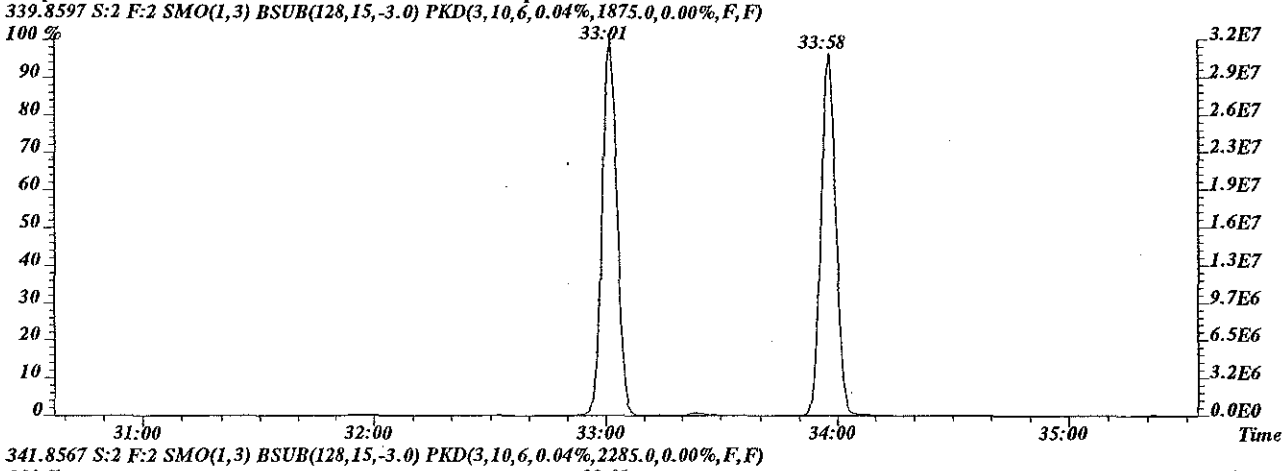


317.9389 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2402.5,0.00%,F,F)

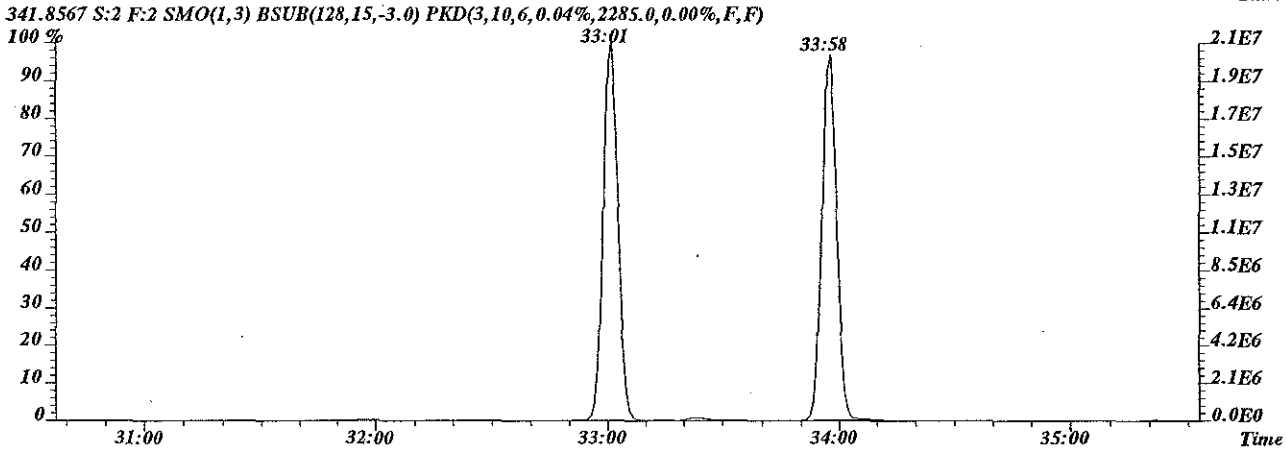


File:0903023B #1-324 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 Text:CCAL. M2305C01 Exp:8290

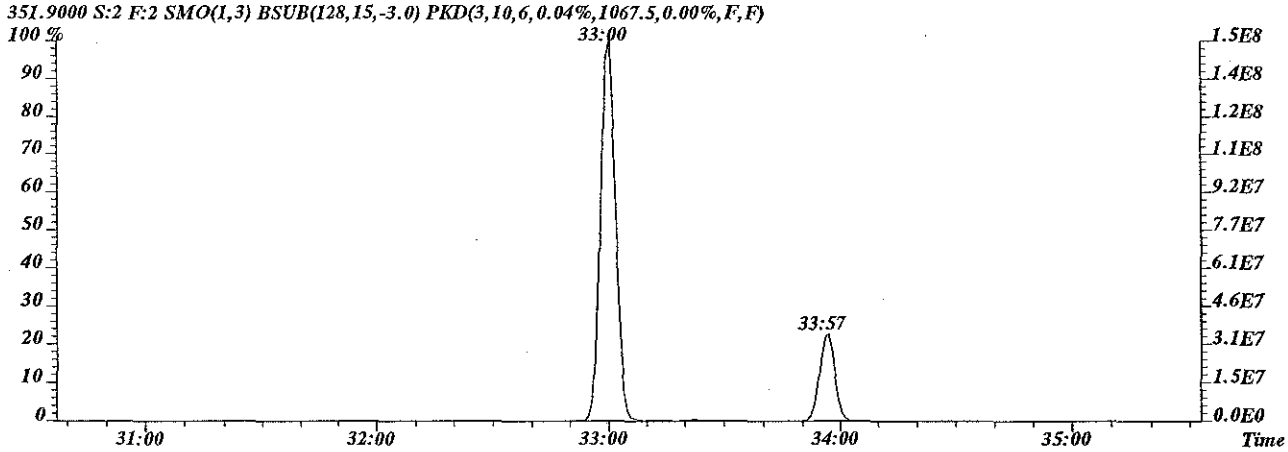
339.8597 S:2 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1875.0,0.00%,F,F)



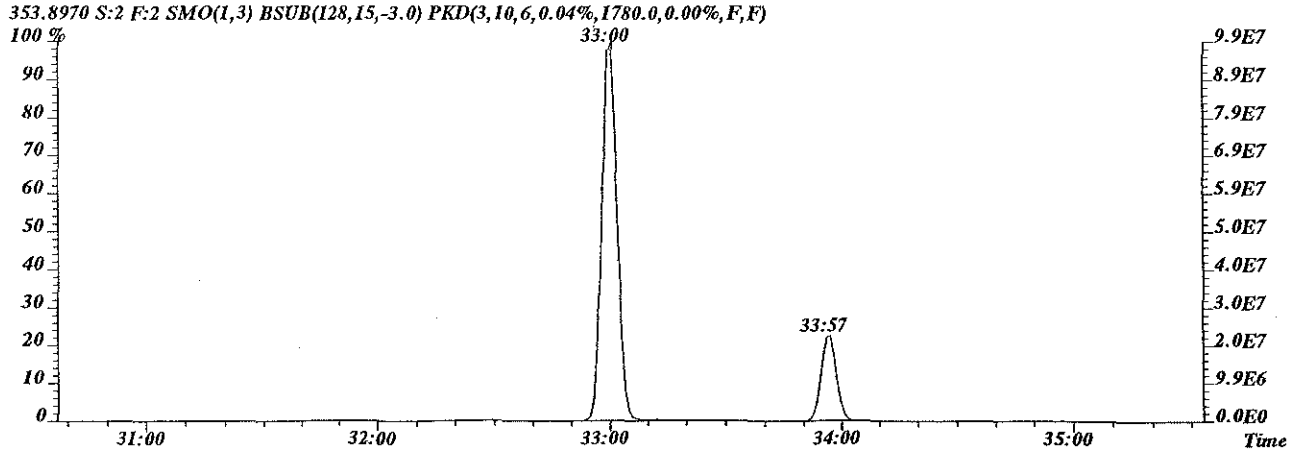
341.8567 S:2 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2285.0,0.00%,F,F)



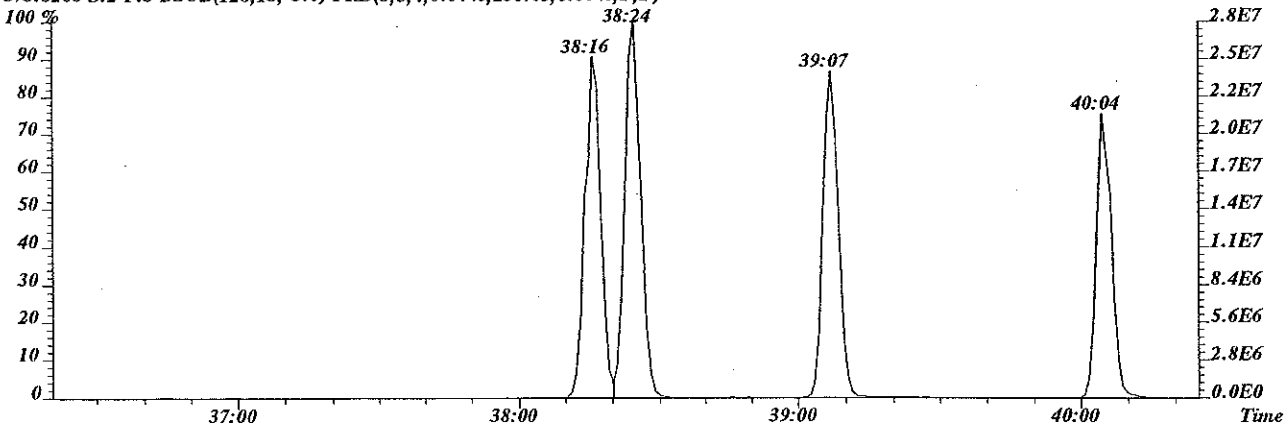
351.9000 S:2 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1067.5,0.00%,F,F)



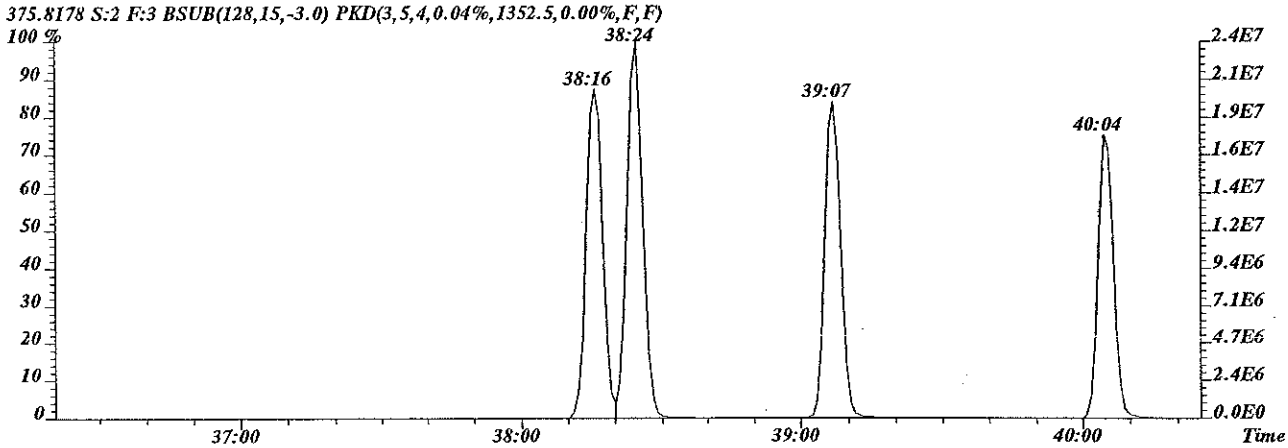
353.8970 S:2 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1780.0,0.00%,F,F)



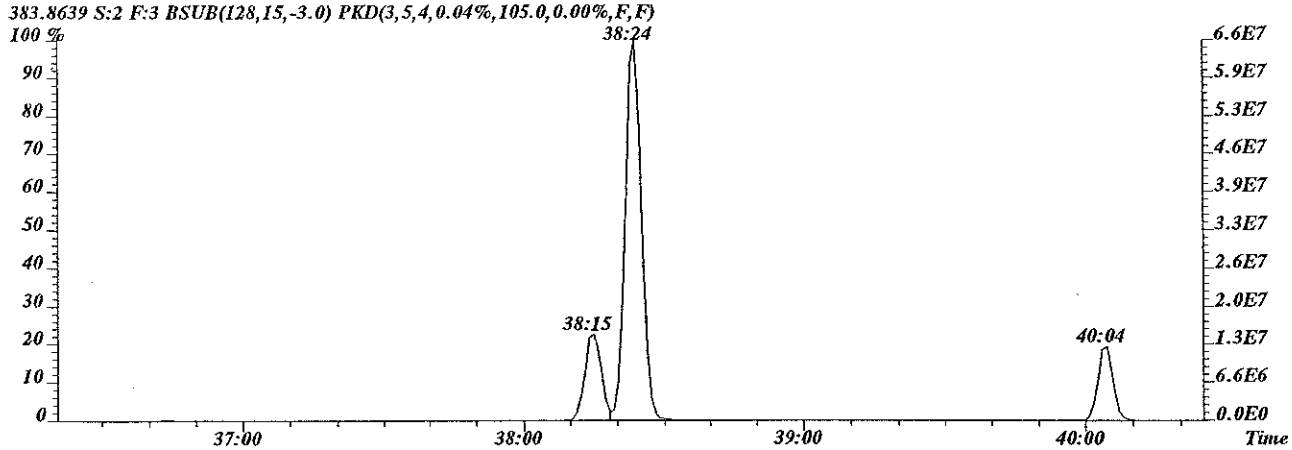
File:0903023B #1-277 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 Text:CCAL. M2305C01 Exp:8290
373.8208 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2387.5,0.00%,F,F)



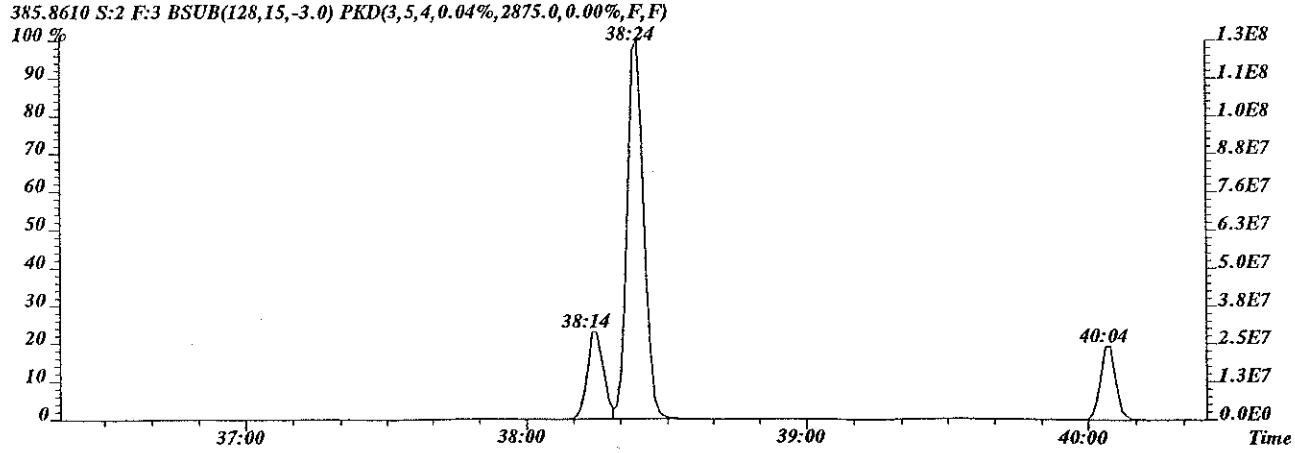
375.8178 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1352.5,0.00%,F,F)



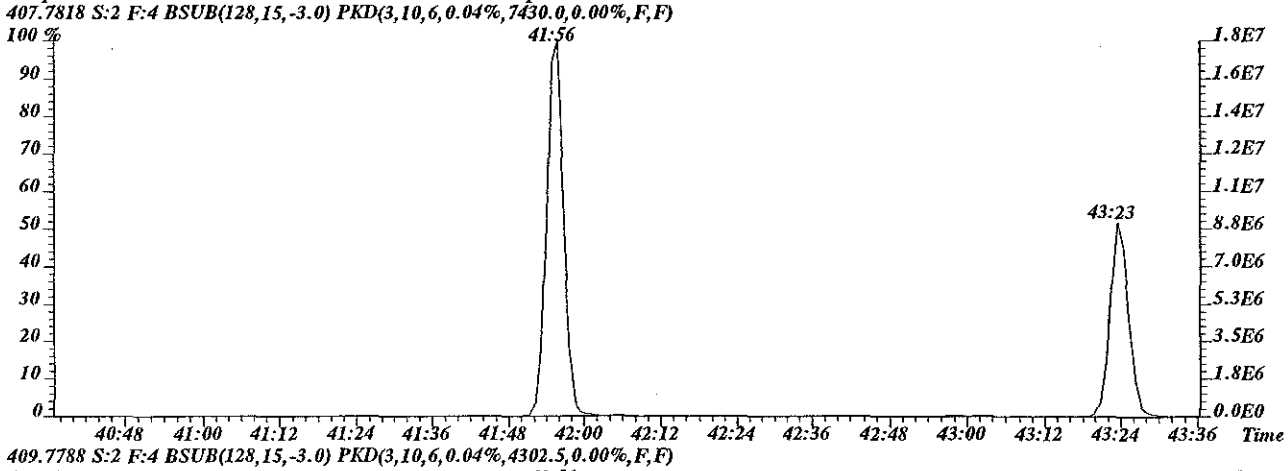
383.8639 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,105.0,0.00%,F,F)



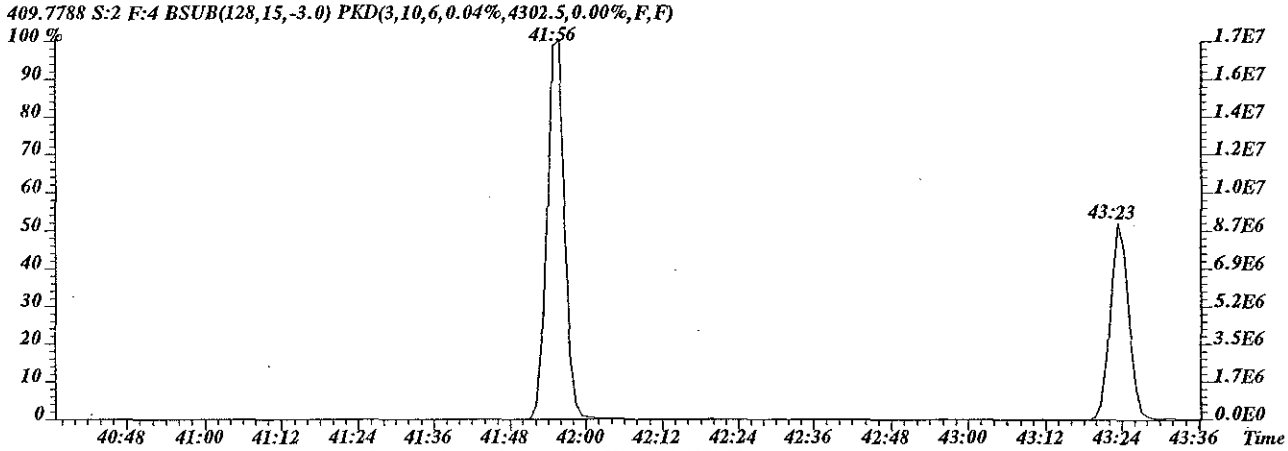
385.8610 S:2 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2875.0,0.00%,F,F)



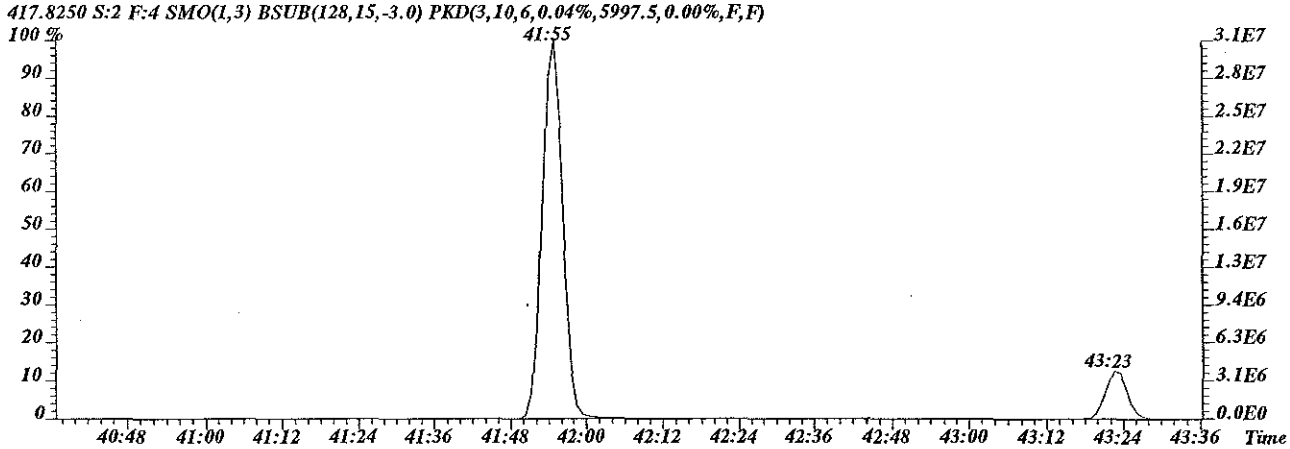
File:0903023B #1-197 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 Text:CCAL. M2305C01 Exp:8290
407.7818 S:2 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,7430.0,0.00%,F,F)



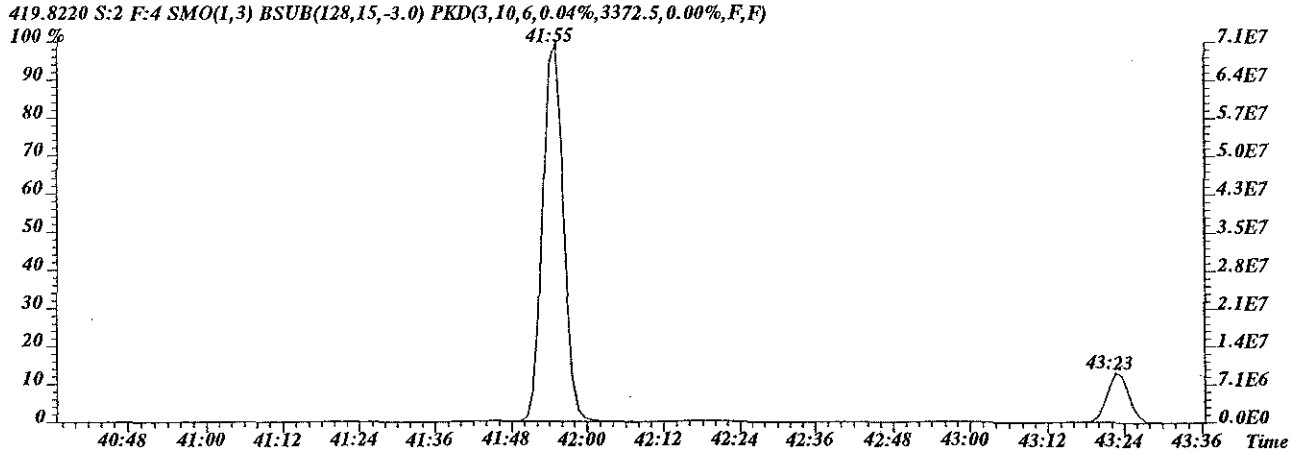
409.7788 S:2 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4302.5,0.00%,F,F)



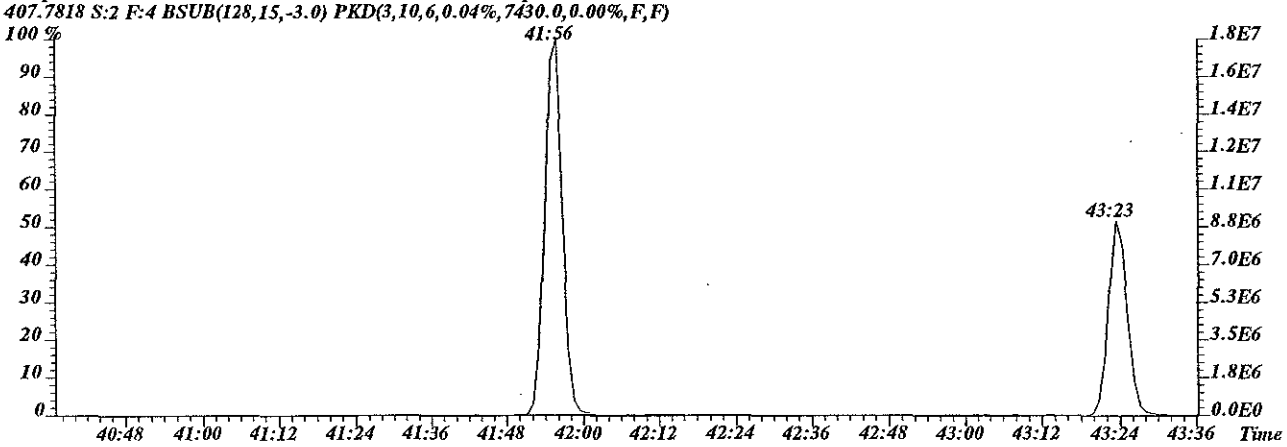
417.8250 S:2 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5997.5,0.00%,F,F)



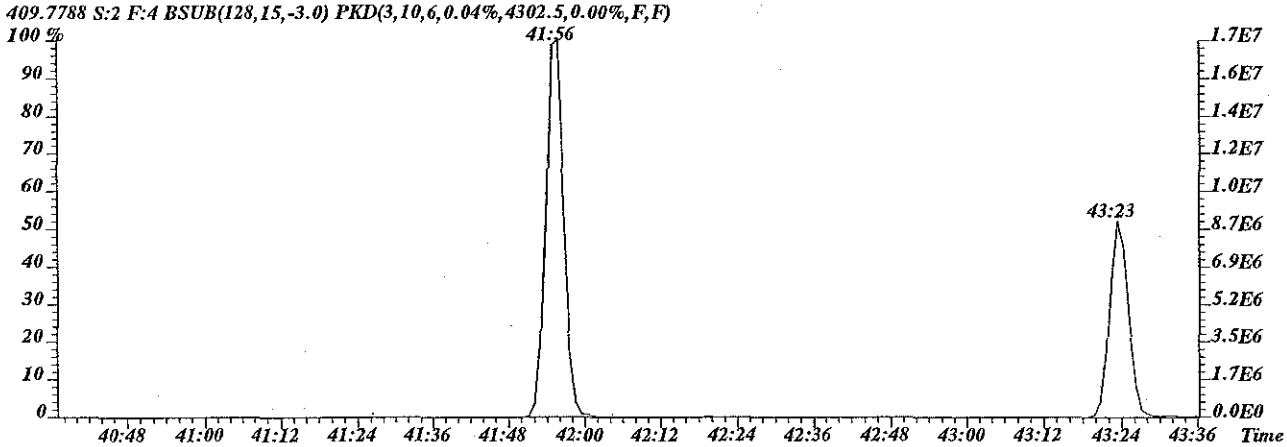
419.8220 S:2 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3372.5,0.00%,F,F)



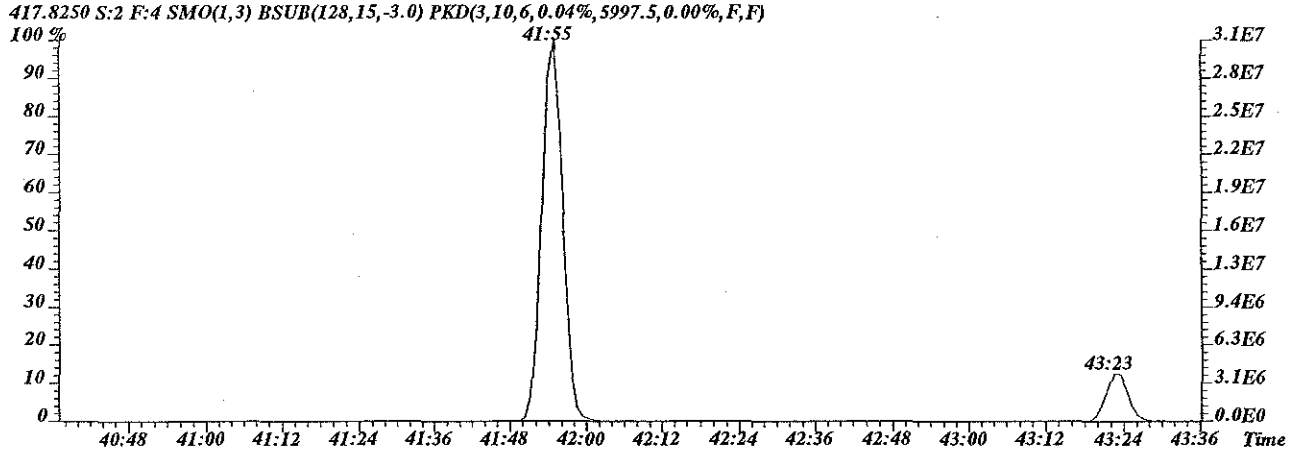
File:0903023B #1-197 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 Text:CCAL. M2305C01 Exp:8290
407.7818 S:2 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,7430.0,0.00%,F,F)



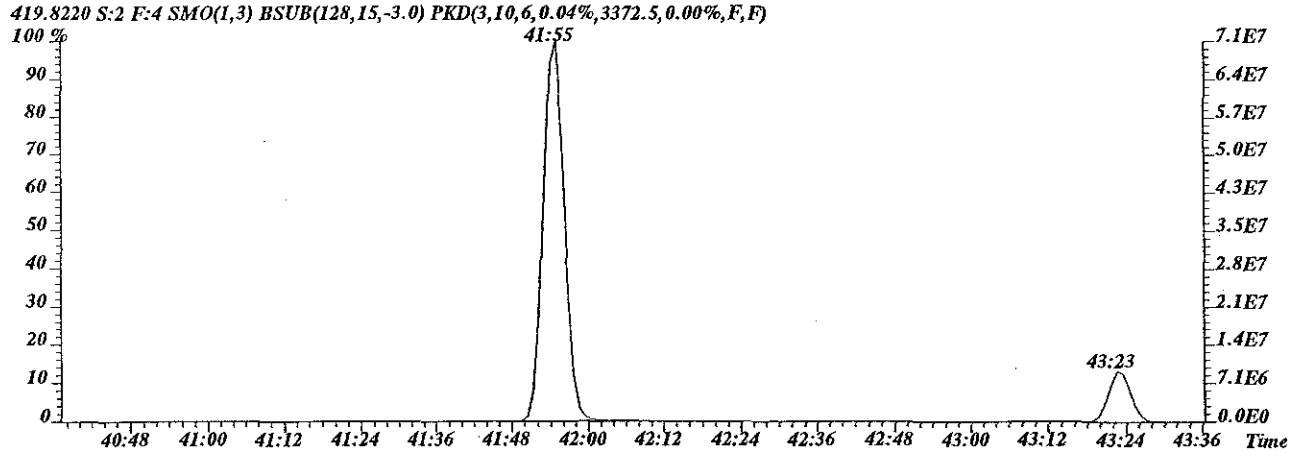
409.7788 S:2 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4302.5,0.00%,F,F)



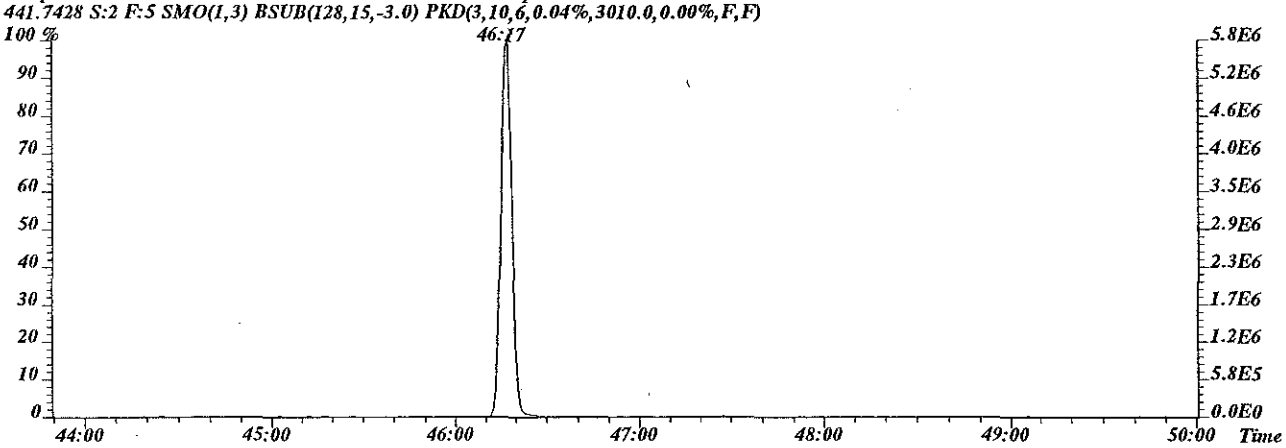
417.8250 S:2 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5997.5,0.00%,F,F)



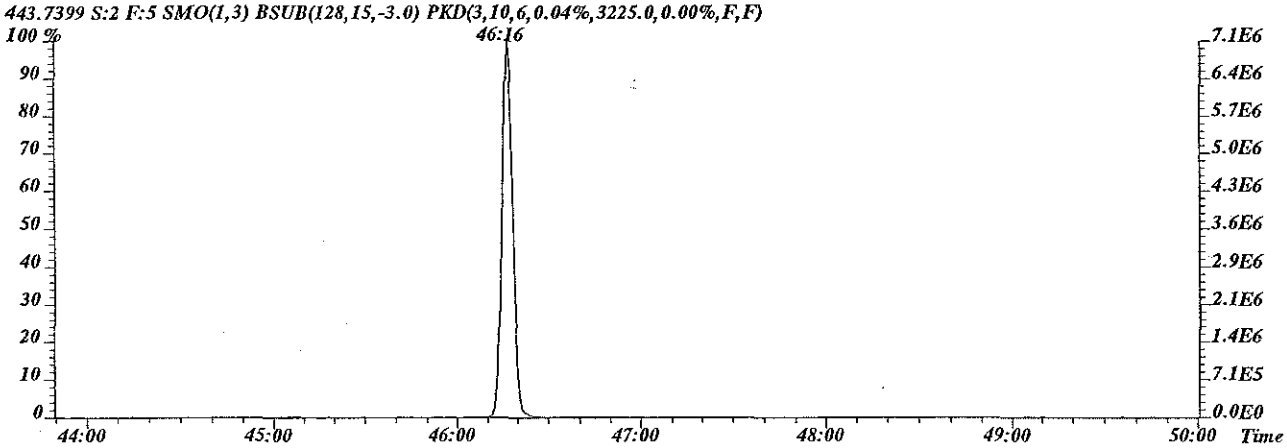
419.8220 S:2 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3372.5,0.00%,F,F)



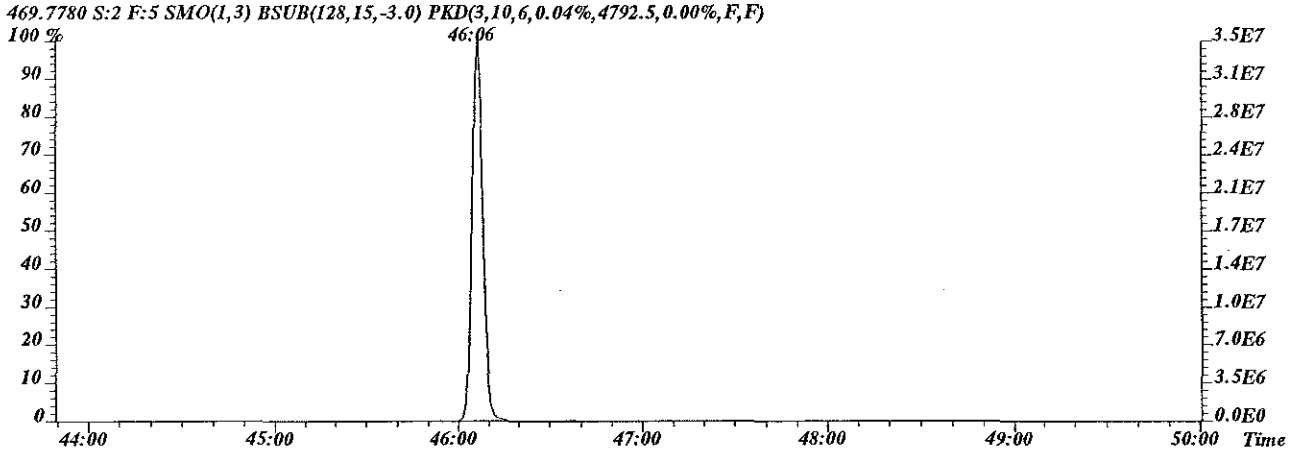
File:0903023B #1-446 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 Text:CCAL. M2305C01 Exp:8290
441.7428 S:2 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3010.0,0.00%,F,F)



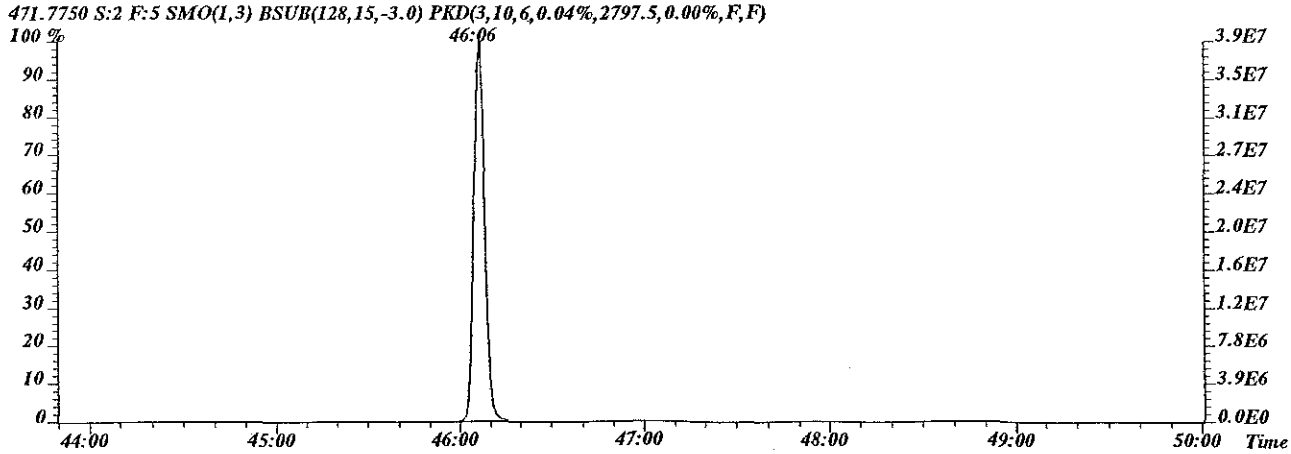
443.7399 S:2 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3225.0,0.00%,F,F)



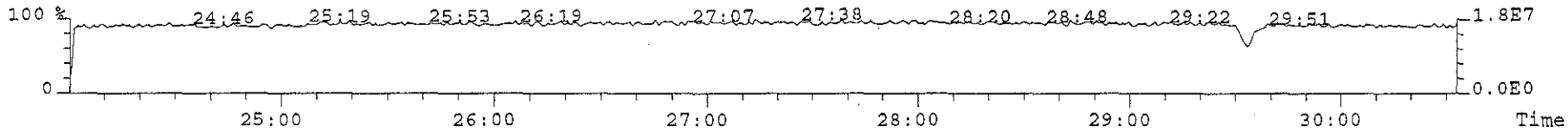
469.7780 S:2 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,4792.5,0.00%,F,F)



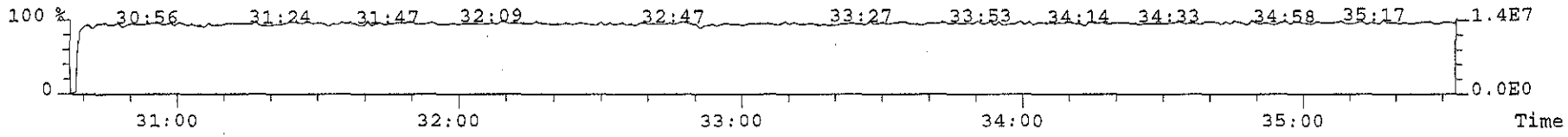
471.7750 S:2 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2797.5,0.00%,F,F)



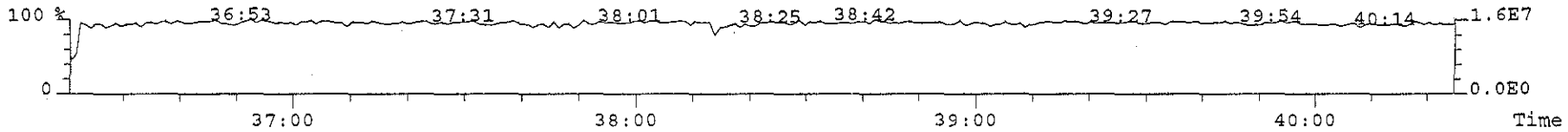
File:0903023B #1-430 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:2 Exp:8290
Sample Text:CCAL. M2305C01 File Text:M23



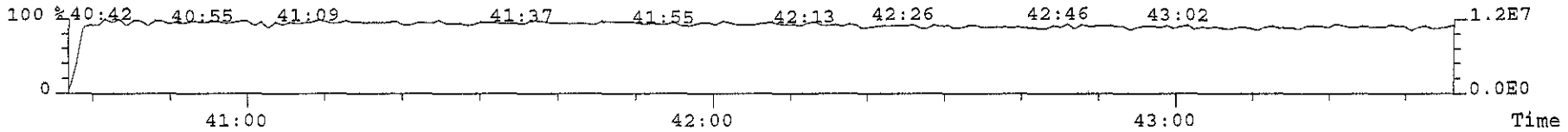
File:0903023B #1-324 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:2 F:2 Exp:8290
Sample Text:CCAL. M2305C01 File Text:M23



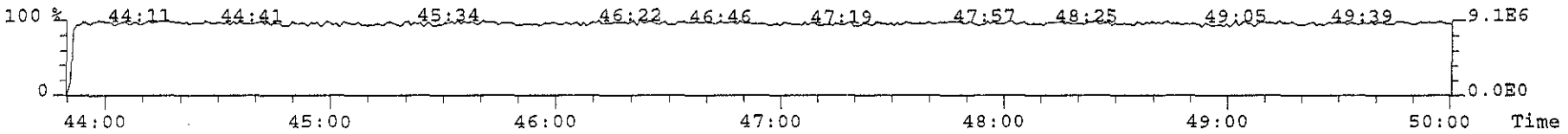
File:0903023B #1-277 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:2 F:3 Exp:8290
Sample Text:CCAL. M2305C01 File Text:M23



File:0903023B #1-197 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:2 F:4 Exp:8290
Sample Text:CCAL. M2305C01 File Text:M23



File:0903023B #1-446 Acq:17-SEP-2003 11:46:04 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:2 F:5 Exp:8290
Sample Text:CCAL. M2305C01 File Text:M23



Run #15 Filename 0903023B S: 6 I: 1 Acquired: 17-SEP-03 15:29:53 Processed: 18-SEP-03 08:27:03
Run: M23A05 Analyte: M23A05 Cal: M23A05 Results: 0903023A Quan : V3.6 9-SEP-2002 14:02:21
Sample text: CCAL. M2305C02 Comments: OPUS : V3.6X 31-JUL-1998 11:15:12

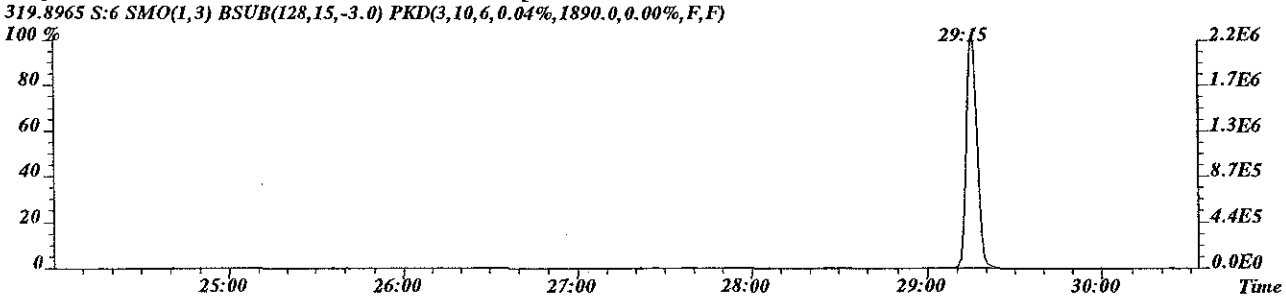
Typ	Name	Resp	RA		RT	Conc	Dev'n	Mod?
nati	2,3,7,8-TCDD	2.1e+07	0.76	y	29:15	5.01	0.3	n
nati	1,2,3,7,8-PeCDD	8.1e+07	1.54	y	34:26	25.8	-0.2	n
nati	1,2,3,4,7,8-HxCDD	6.5e+07	1.32	y	39:16	26.5	2.6	n
nati	1,2,3,6,7,8-HxCDD	5.9e+07	1.22	y	39:23	25.6	-4.7	n
nati	1,2,3,7,8,9,-HxCDD	6.4e+07	1.27	y	39:46	26.6	-0.8	n
nati	1,2,3,4,6,7,8-HpCDD	3.2e+07	1.05	y	42:56	24.9	-2.6	n
nati	1,2,3,4,6,7,8,9-OCDD	2.8e+07	0.85	y	46:07	52.1	1.9	n
nati	2,3,7,8-TCDF	2.3e+07	0.78	y	28:27	4.78	-5.7	n
nati	1,2,3,7,8-PeCDF	1.0e+08	1.54	y	33:01	24.0	-8.9	n
nati	2,3,4,7,8-PeCDF	1.0e+08	1.54	y	33:57	23.9	-9.6	n
nati	1,2,3,4,4,8-HxCDF	8.3e+07	1.22	y	38:15	25.1	1.9	n
nati	1,2,3,6,7,8-HxCDF	8.4e+07	1.25	y	38:24	26.0	3.4	n
nati	2,3,4,6,7,8-HxCDF	7.0e+07	1.21	y	39:07	24.2	-0.7	n
nati	1,2,3,7,8,9-HxCDF	5.7e+07	1.23	y	40:05	22.0	-8.3	n
nati	1,2,3,4,6,7,8-HpCDF	4.5e+07	1.11	y	41:55	22.9	-13.4	n
nati	1,2,3,4,7,8,9-HpCDF	2.4e+07	1.01	y	43:24	21.0	-18.7	n
nati	1,2,3,4,6,7,8,9-OCDF	2.3e+07	0.84	y	46:16	41.3	-19.5	n
nati	Total TCDD	2.1e+07	0.81	y	26:54	5.02	0.4	n
nati	Total PeCDD	8.2e+07	1.54	y	34:26	25.9	-0.1	n
nati	Total HxCDD	1.9e+08	1.32	y	39:16	78.7	-1.0	n
nati	Total HpCDD	3.2e+07	1.05	y	42:56	24.9	-2.6	n
nati	Total TCDF	2.3e+07	0.78	y	28:27	4.78	-11.8	n
nati	Total PeCDF	2.0e+08	1.54	y	33:01	48.1	-9.6	n
nati	Total HxCDF	2.9e+08	1.22	y	38:15	97.3	-0.5	n
nati	Total HpCDF	6.9e+07	1.11	y	41:55	43.9	-15.3	n
IS	13C12-2,3,7,8-TCDF	6.0e+08	0.78	y	28:26	92.4	-7.6	n
IS	13C12-2,3,7,8-TCDD	4.9e+08	0.78	y	29:14	97.9	-2.1	n
IS	13C12-1,2,3,7,8-PeCDF	5.0e+08	1.54	y	32:60	94.6	-5.4	n
IS	13C12-1,2,3,7,8-PeCDD	3.7e+08	1.56	y	34:25	94.8	-5.2	n
IS	13C12-1,2,3,6,7,8-HxCDF	3.2e+08	0.50	y	38:23	86.8	-13.2	n
IS	13C12-1,2,3,6,7,8-HxCDD	2.8e+08	1.25	y	39:22	96.4	-3.6	n
IS	3C12-1,2,3,4,6,7,8-HpCF	1.6e+08	0.44	y	41:55	79.9	-20.1	n
IS	C12-1,2,3,4,6,7,8-HPCDD	1.6e+08	1.04	y	42:56	90.0	-10.0	n
IS	13C12-OCDD	1.3e+08	0.89	y	46:06	190	-4.8	n
Suro	37C12-2,3,7,8-TCDD	4.5e+07	1.00	y	29:15	4.76	7.2	n
Suro	13C12-2,3,4,7,8-PeCDF	1.1e+08	1.54	y	33:57	24.7	2.0	n
Suro	13C12-1,2,3,4,7,8-HxCDF	7.7e+07	0.50	y	38:15	26.1	4.6	n
Suro	13C12-1,2,3,4,7,8-HxCDD	6.2e+07	1.27	y	39:16	23.1	3.9	n
Suro	3C12-1,2,3,4,7,8,9-HPCF	2.0e+07	0.40	y	43:23	19.9	-2.9	n
Alte	13C12-1,2,3,7,8,9-HxCDF	5.2e+07	0.51	y	40:04	23.0	-4.0	n
RS	13C12-1,2,3,4-TCDD	4.7e+08	0.78	y	29:02	87.0	-	n
RS	13C12-1,2,3,7,8,9-HxCDD	2.9e+08	1.25	y	39:46	81.1	-	n

Run #15 Filename 0903023B S: 6 I: 1 Acquired: 17-SEP-03 15:29:53 Processed: 18-SEP-03 08:27:03
Run: M23A05 Analyte: M23A05 Cal: M23A05 Results: 0903023A Version: V3.6 9-SEP-2002 14:02:21
Sample text: CCAL. M2305C02 Comments:

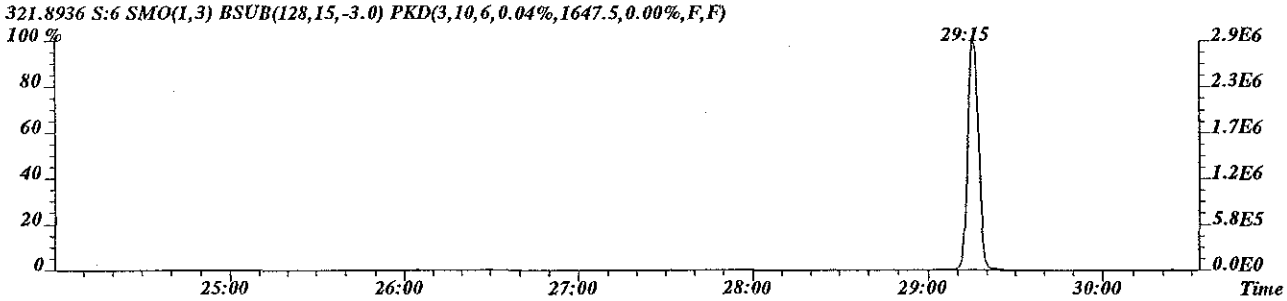
	Typ	Name	#Hom	Resp	RA		RT	Conc	99.58 Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDD	1	2.1e+07	0.76	y	29:15	5.012	5.01	0.01	-	n
2	nati	1,2,3,7,8-PeCDD	1	8.1e+07	1.54	y	34:26	25.842	12.92	0.02	-	n
3	nati	1,2,3,4,7,8-HxCDD	1	6.5e+07	1.32	y	39:16	26.526	2.65	0.01	-	n
4	nati	1,2,3,6,7,8-HxCDD	1	5.9e+07	1.22	y	39:23	25.626	2.56	0.01	-	n
5	nati	1,2,3,7,8,9,-HxCDD	1	6.4e+07	1.27	y	39:46	26.569	2.66	0.01	-	n
6	nati	1,2,3,4,6,7,8-HpCDD	1	3.2e+07	1.05	y	42:56	24.910	0.25	0.03	-	n
7	nati	1,2,3,4,6,7,8,9-OCDD	1	2.8e+07	0.85	y	46:07	52.063	0.05	0.11	-	n
8	nati	2,3,7,8-TCDF	1	2.3e+07	0.78	y	28:27	4.777	4.78	0.00	-	n
9	nati	1,2,3,7,8-PeCDF	1	1.0e+08	1.54	y	33:01	23.971	23.97	0.01	-	n
10	nati	2,3,4,7,8-PeCDF	1	1.0e+08	1.54	y	33:57	23.893	11.95	0.01	-	n
11	nati	1,2,3,4,4,8-HxCDF	1	8.3e+07	1.22	y	38:15	25.079	25.08	0.01	-	n
12	nati	1,2,3,6,7,8-HxCDF	1	8.4e+07	1.25	y	38:24	25.993	2.60	0.01	-	n
13	nati	2,3,4,6,7,8-HxCDF	1	7.0e+07	1.21	y	39:07	24.199	2.42	0.01	-	n
14	nati	1,2,3,7,8,9-HxCDF	1	5.7e+07	1.23	y	40:05	22.042	2.20	0.01	-	n
15	nati	1,2,3,4,6,7,8-HpCDF	1	4.5e+07	1.11	y	41:55	22.902	0.23	0.04	-	n
16	nati	1,2,3,4,7,8,9-HpCDF	1	2.4e+07	1.01	y	43:24	21.022	0.21	0.07	-	n
17	nati	1,2,3,4,6,7,8,9-OCDF	1	2.3e+07	0.84	y	46:16	41.310	0.04	0.10	-	n
18	nati	Total TCDD	2	2.1e+07	0.81	y	26:54	5.021	0.00	0.01	-	n
19	nati	Total PeCDD	2	8.2e+07	1.54	y	34:26	25.878	0.00	0.02	-	n
20	nati	Total HxCDD	3	1.9e+08	1.32	y	39:16	78.721	0.00	0.01	-	n
21	nati	Total HpCDD	1	3.2e+07	1.05	y	42:56	24.910	0.00	0.03	-	n
22	nati	Total TCDF	1	2.3e+07	0.78	y	28:27	4.777	0.00	0.00	-	n
23	nati	Total PeCDF	4	2.0e+08	1.54	y	33:01	48.145	0.00	0.01	-	n
24	nati	Total HxCDF	4	2.9e+08	1.22	y	38:15	97.313	0.00	0.01	-	n
25	nati	Total HpCDF	2	6.9e+07	1.11	y	41:55	43.924	0.00	0.05	-	n
26	IS	13C12-2,3,7,8-TCDF	1	6.0e+08	0.78	y	28:26	92.398	0.00	0.01	92.4	n
27	IS	13C12-2,3,7,8-TCDD	1	4.9e+08	0.78	y	29:14	97.885	0.00	0.02	97.9	n
28	IS	13C12-1,2,3,7,8-PeCDF	1	5.0e+08	1.54	y	32:60	94.559	0.00	0.01	94.6	n
29	IS	13C12-1,2,3,7,8-PeCDD	1	3.7e+08	1.56	y	34:25	94.848	0.00	0.01	94.8	n
30	IS	13C12-1,2,3,6,7,8-HxCDF	1	3.2e+08	0.50	y	38:23	86.843	0.00	0.00	86.8	n
31	IS	13C12-1,2,3,6,7,8-HxCDD	1	2.8e+08	1.25	y	39:22	96.395	0.00	0.02	96.4	n
32	IS	3C12-1,2,3,4,6,7,8-HpCF	1	1.6e+08	0.44	y	41:55	79.904	0.00	0.04	79.9	n
33	IS	C12-1,2,3,4,6,7,8-HPCDD	1	1.6e+08	1.04	y	42:56	89.981	0.00	0.02	90.0	n
34	IS	13C12-OCDD	1	1.3e+08	0.89	y	46:06	190.484	0.00	0.09	95.2	n
35	Suro	37C12-2,3,7,8-TCDD	1	4.5e+07	1.00	y	29:15	4.759	0.00	0.01	95.2	n
36	Suro	13C12-2,3,4,7,8-PeCDF	1	1.1e+08	1.54	y	33:57	24.710	0.00	0.01	98.8	n
37	Suro	13C12-1,2,3,4,7,8-HxCDF	1	7.7e+07	0.50	y	38:15	26.117	0.00	0.00	104.5	n
38	Suro	13C12-1,2,3,4,7,8-HxCDD	1	6.2e+07	1.27	y	39:16	23.083	0.00	0.02	92.3	n
39	Suro	3C12-1,2,3,4,7,8,9-HPCF	1	2.0e+07	0.40	y	43:23	19.866	0.00	0.11	79.5	n
40	Alte	13C12-1,2,3,7,8,9-HxCDF	1	5.2e+07	0.51	y	40:04	23.006	0.00	0.01	92.0	n
41	RS	13C12-1,2,3,4-TCDD	1	4.7e+08	0.78	y	29:02	86.974	0.00	-	-	n
42	RS	13C12-1,2,3,7,8,9-HxCDD	1	2.9e+08	1.25	y	39:46	81.127	0.00	-	-	n

File:0903023B #1-430 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
Sample#6 File Text:M23 Text:CCAL. M2305C02 Exp:8290

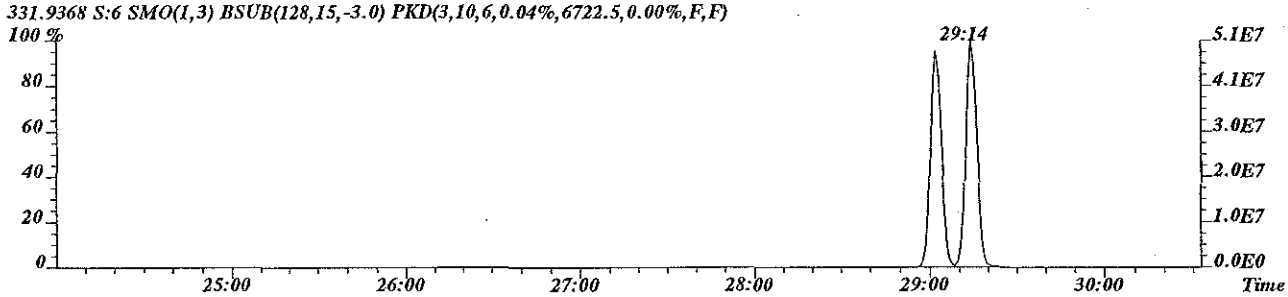
319.8965 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1890.0,0.00%,F,F)



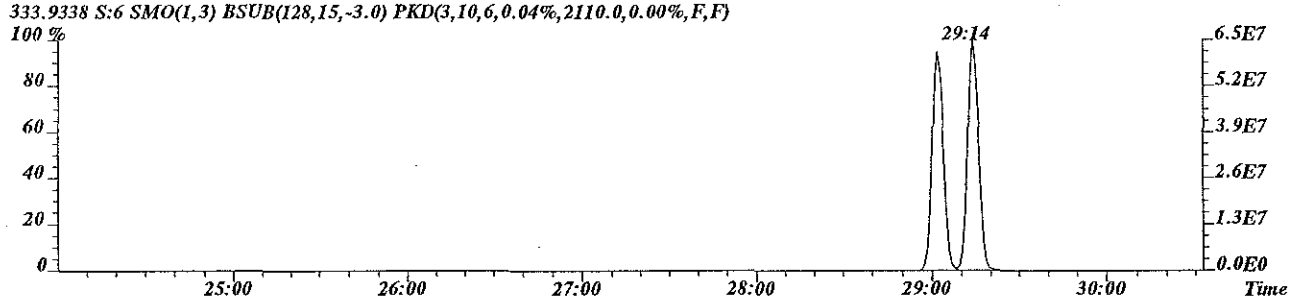
321.8936 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1647.5,0.00%,F,F)



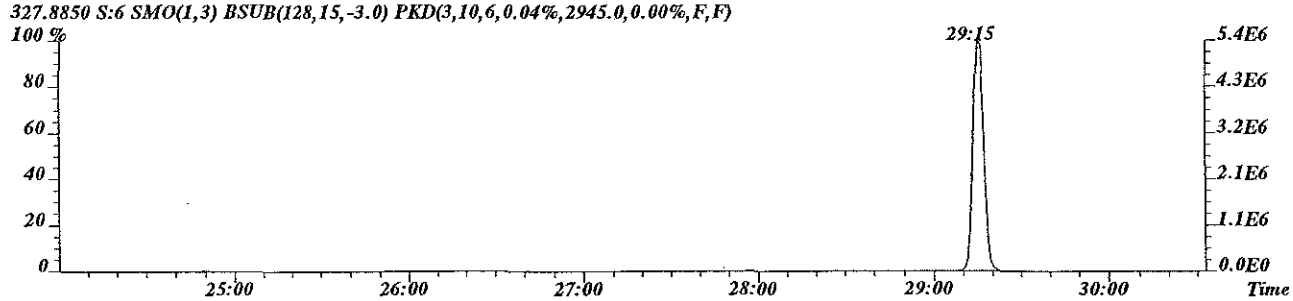
331.9368 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,6722.5,0.00%,F,F)



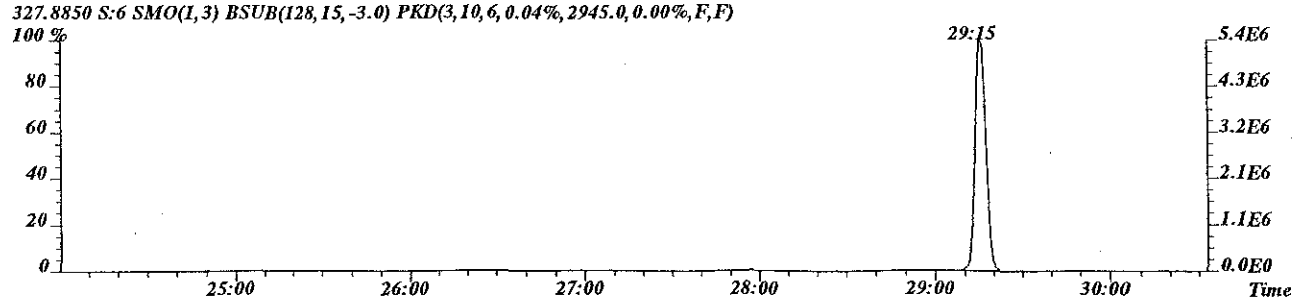
333.9338 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2110.0,0.00%,F,F)



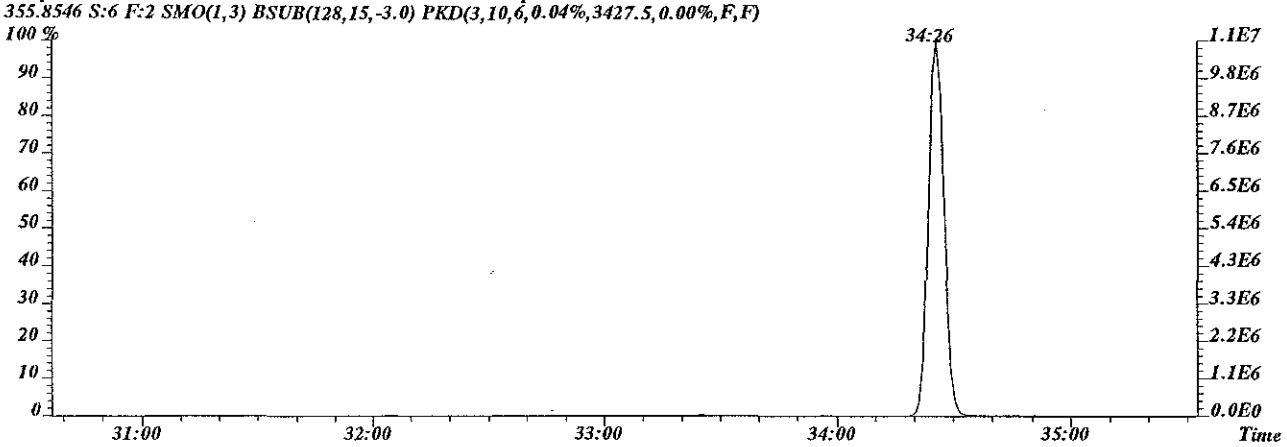
327.8850 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2945.0,0.00%,F,F)



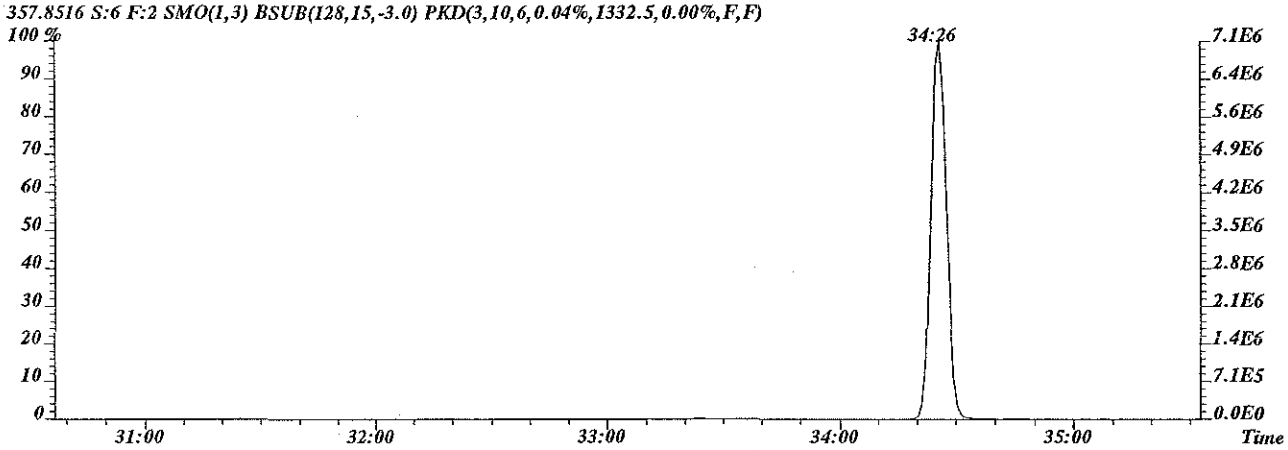
327.8850 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2945.0,0.00%,F,F)



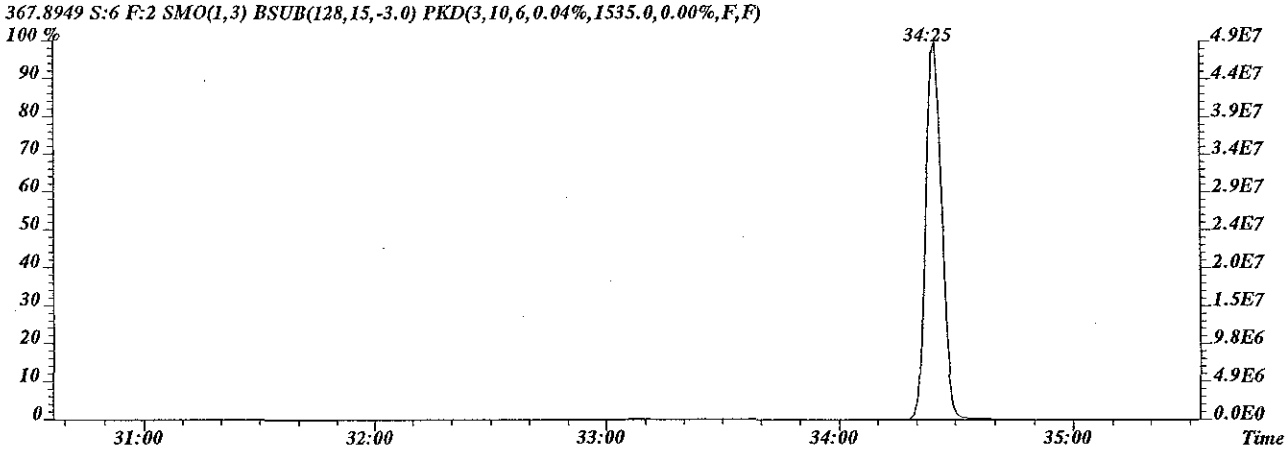
File:0903023B #1-324 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
Sample#6 File Text:M23 Text:CCAL. M2305C02 Exp:8290
355.8546 S:6 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3427.5,0.00%,F,F)



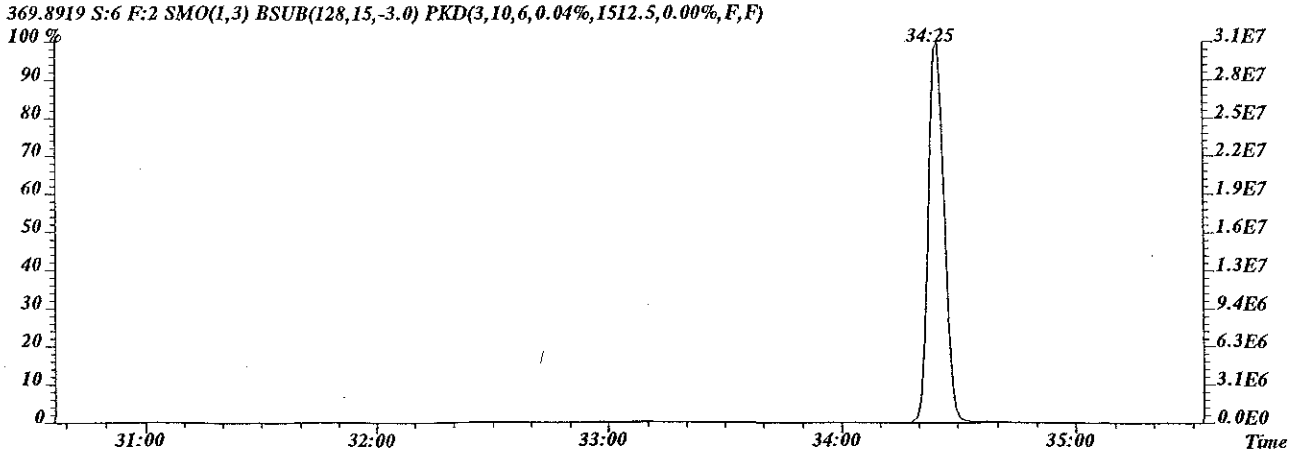
357.8516 S:6 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1332.5,0.00%,F,F)



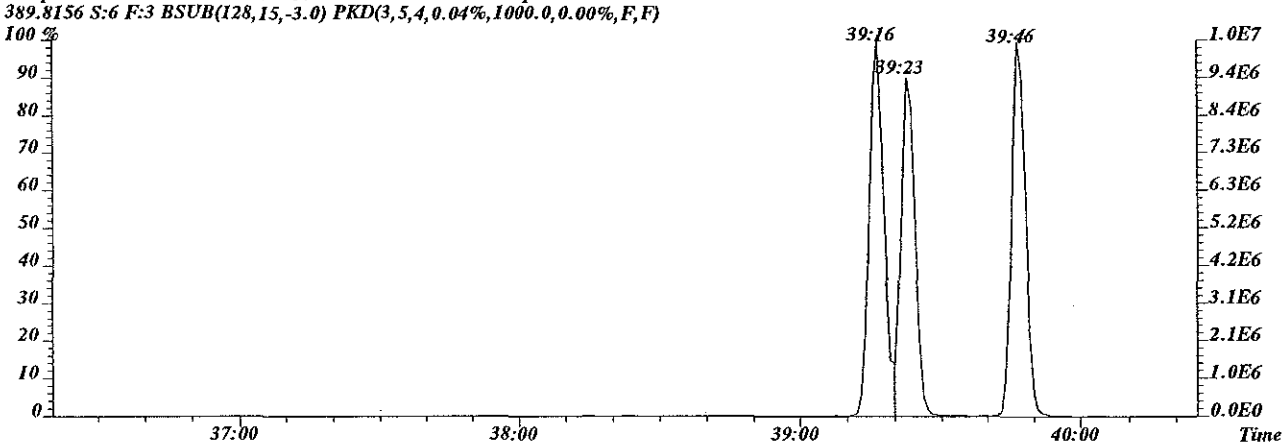
367.8949 S:6 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1535.0,0.00%,F,F)



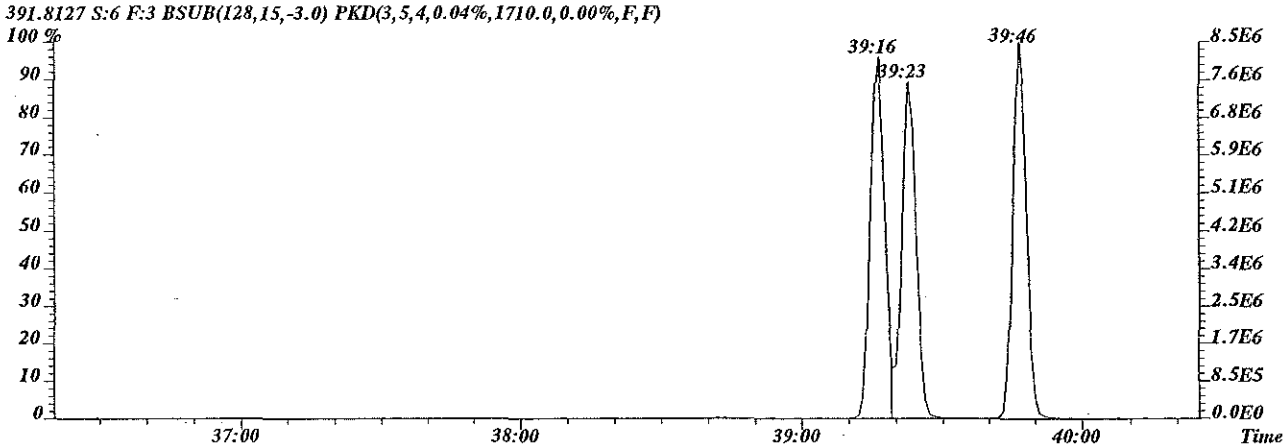
369.8919 S:6 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1512.5,0.00%,F,F)



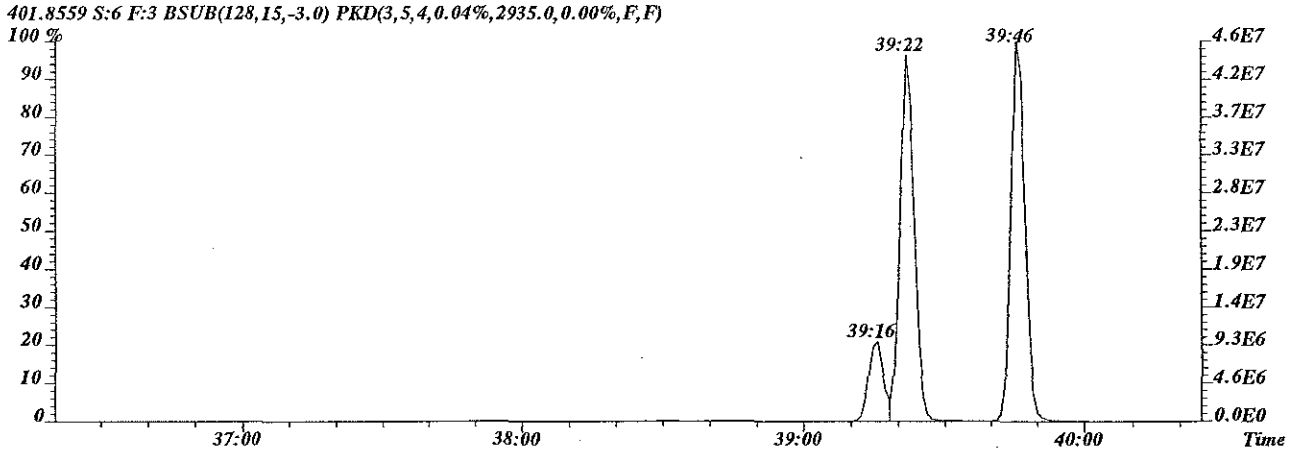
File:0903023B #1-277 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
Sample#6 File Text:M23 Text:CCAL. M2305C02 Exp:8290
389.8156 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1000.0,0.00%,F,F)



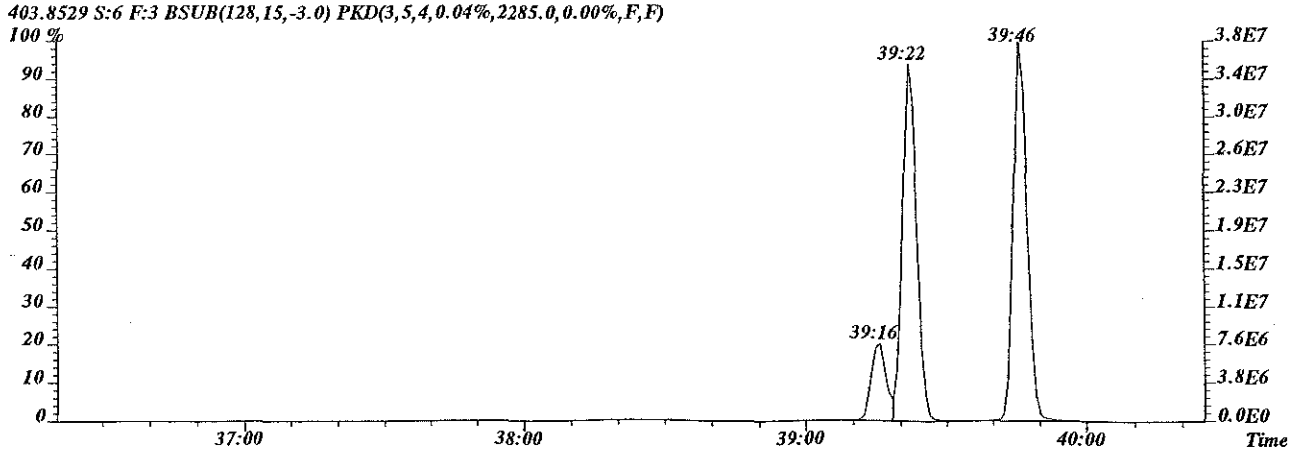
391.8127 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1710.0,0.00%,F,F)



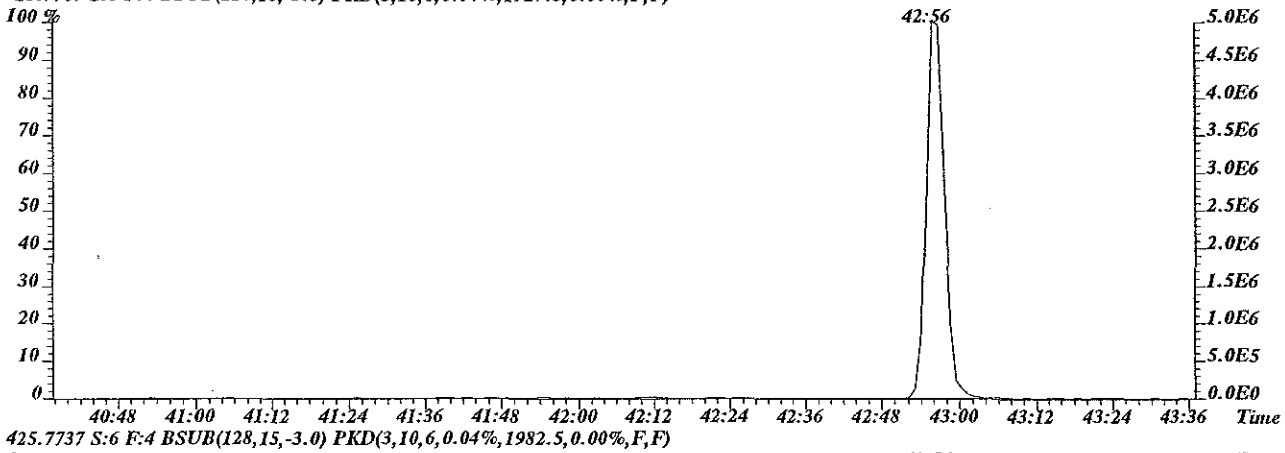
401.8559 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2935.0,0.00%,F,F)



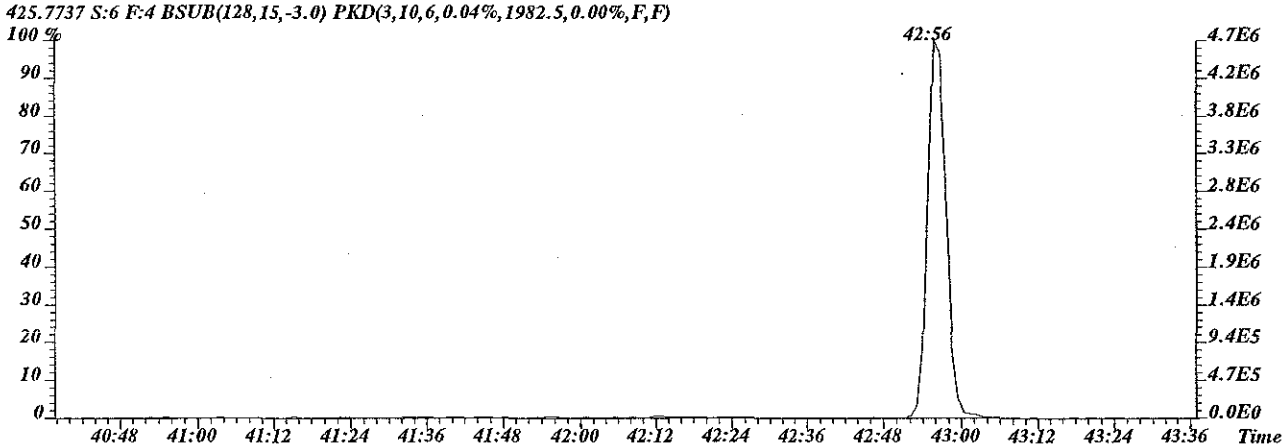
403.8529 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,2285.0,0.00%,F,F)



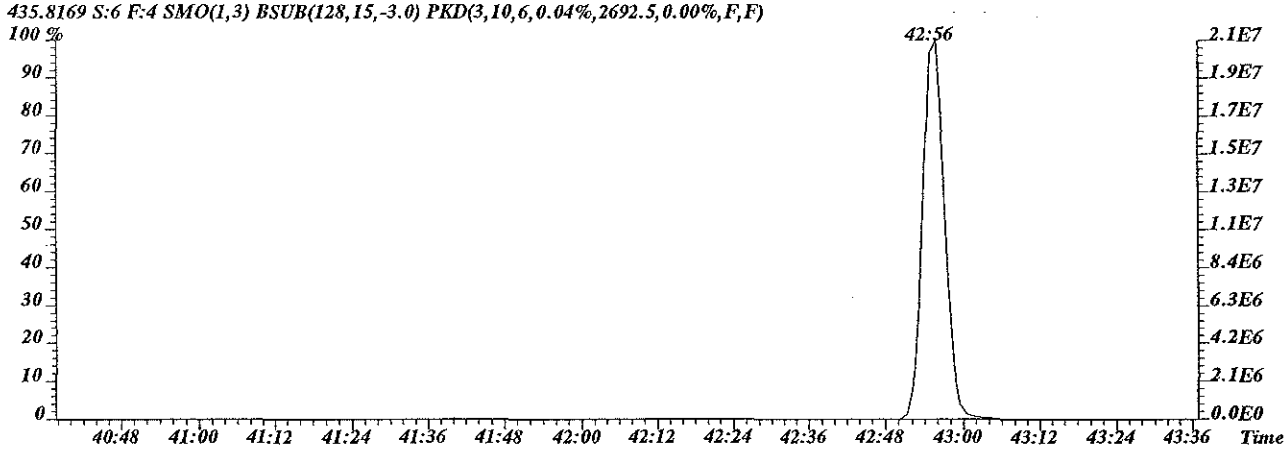
File:0903023B #1-197 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
Sample#6 File Text:M23 Text:CCAL. M2305C02 Exp:8290
423.7767 S:6 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1927.5,0.00%,F,F)



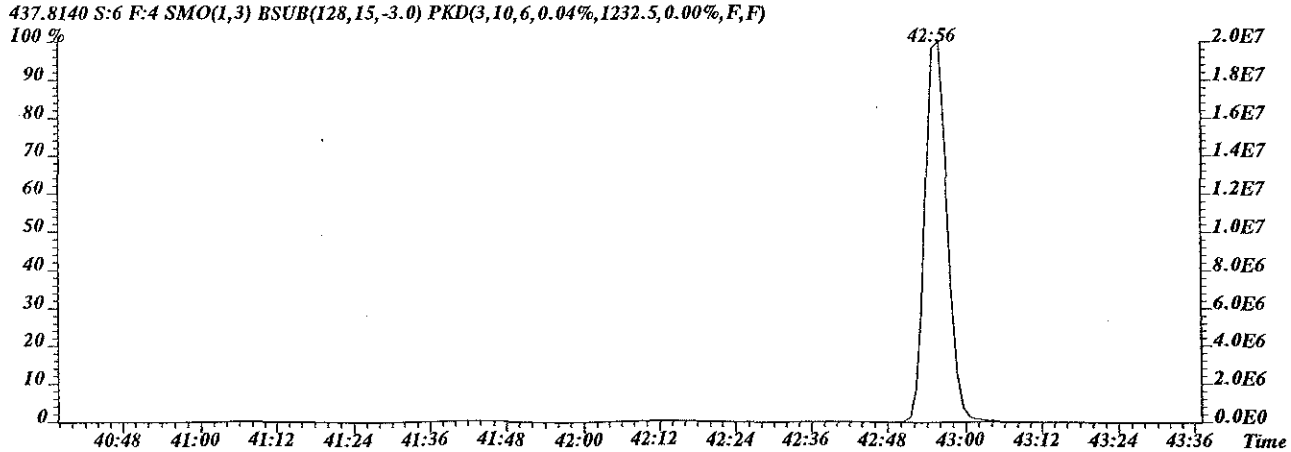
425.7737 S:6 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1982.5,0.00%,F,F)



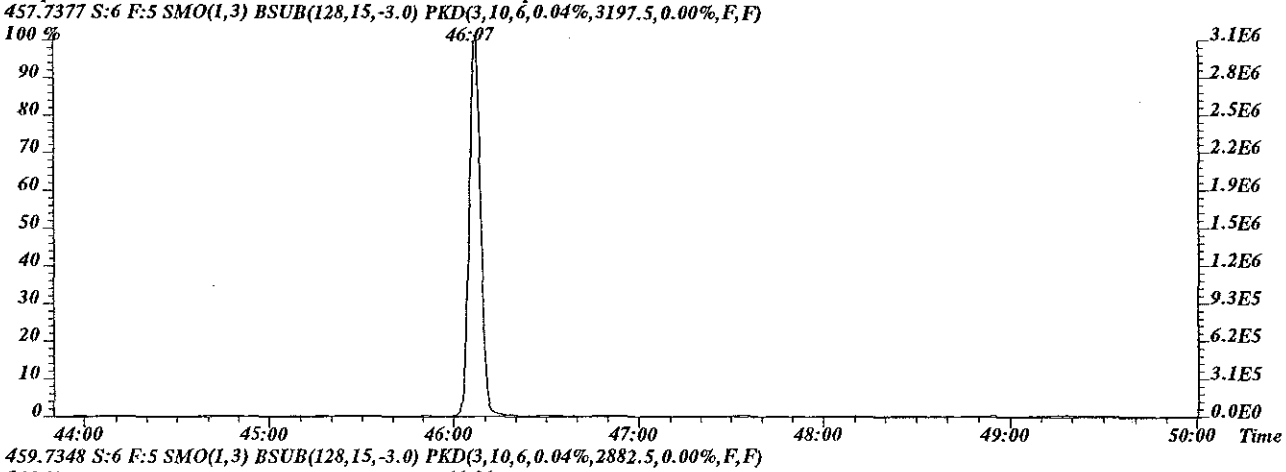
435.8169 S:6 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2692.5,0.00%,F,F)



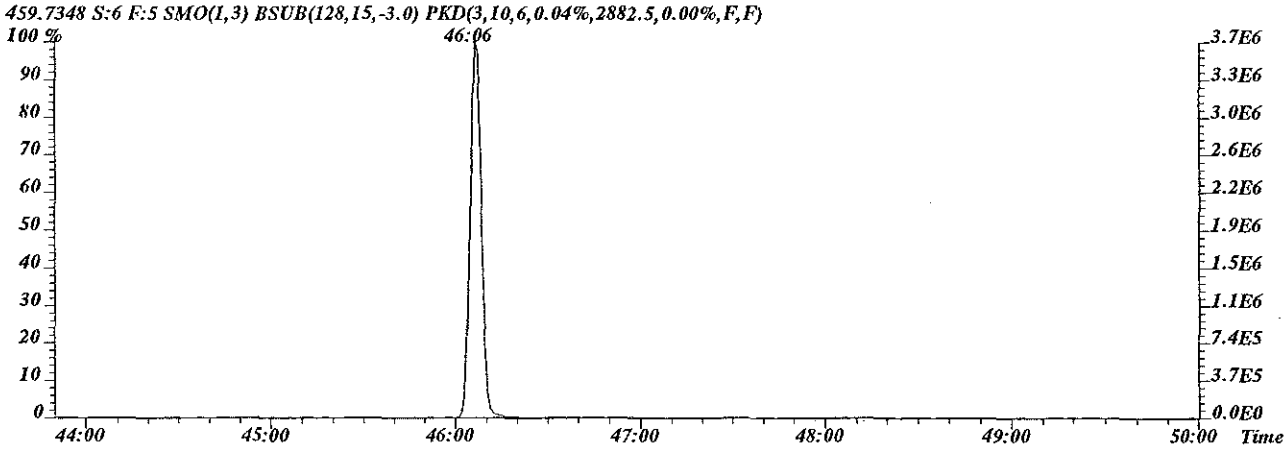
437.8140 S:6 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1232.5,0.00%,F,F)



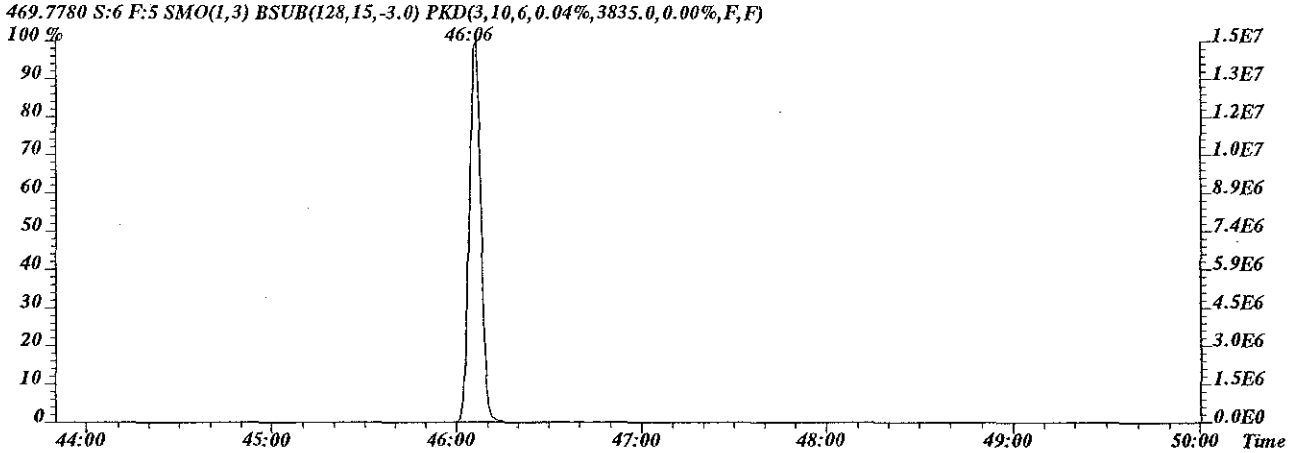
File:0903023B #1-445 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
Sample#6 File Text:M23 Text:CCAL. M2305C02 Exp:8290
457.7377 S:6 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3197.5,0.00%,F,F)



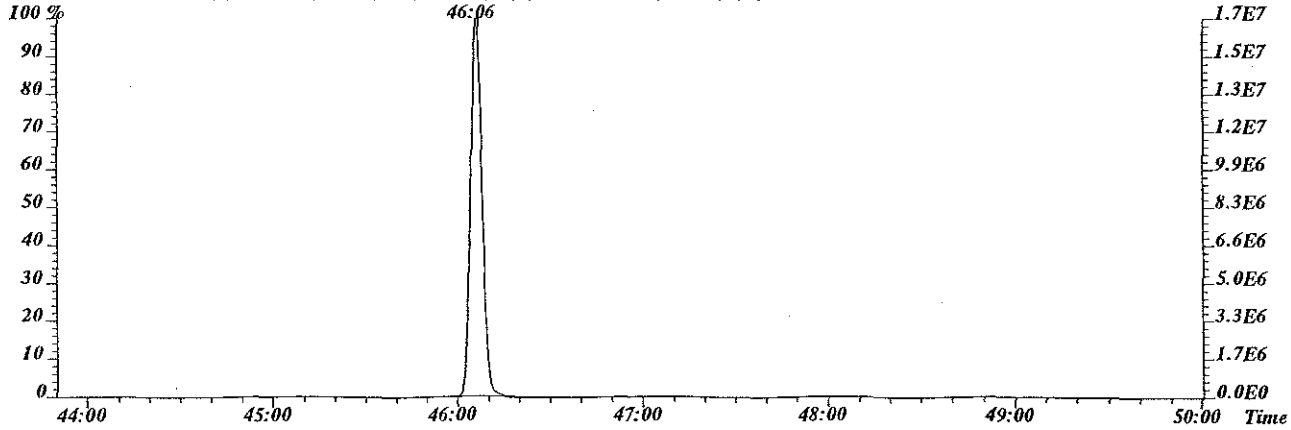
459.7348 S:6 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2882.5,0.00%,F,F)



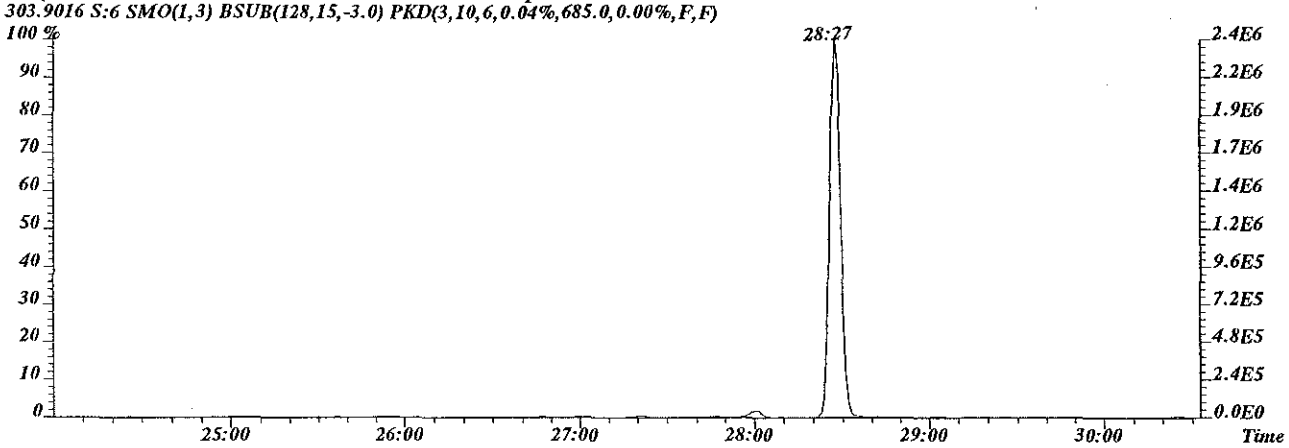
469.7780 S:6 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3835.0,0.00%,F,F)



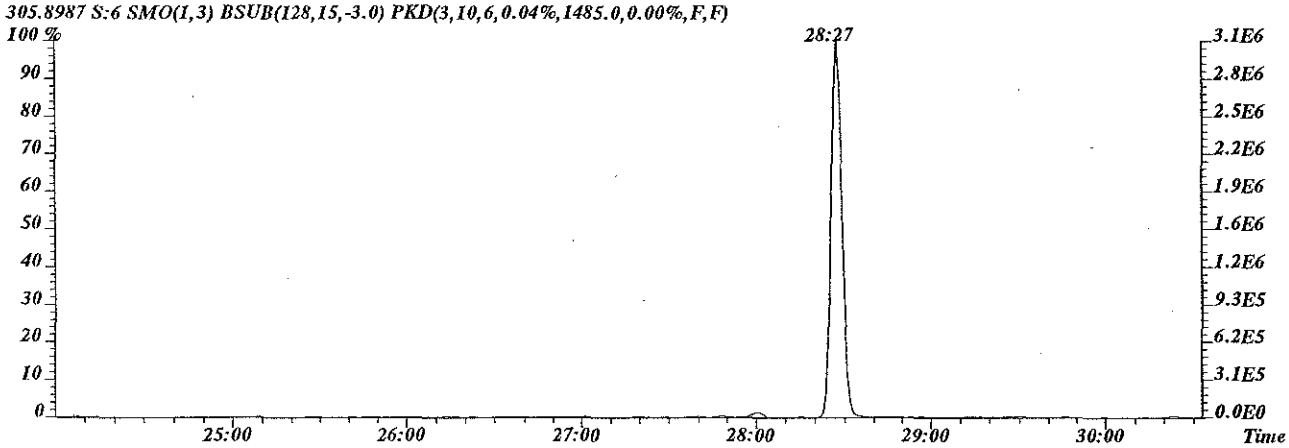
471.7750 S:6 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3817.5,0.00%,F,F)



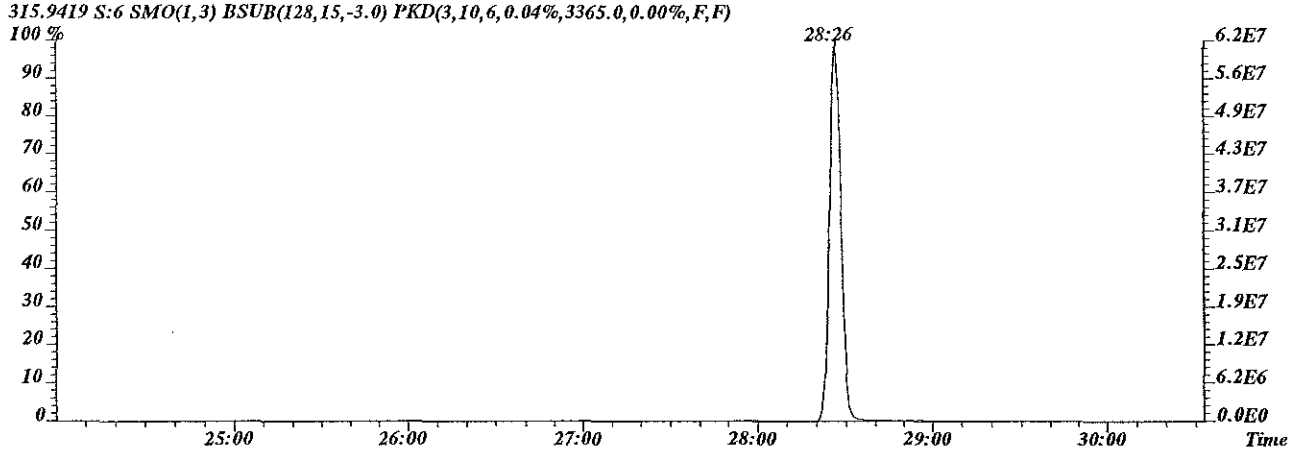
File:0903023B #1-430 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
Sample#6 File Text:M23 Text:CCAL. M2305C02 Exp:8290
303.9016 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,685.0,0.00%,F,F)



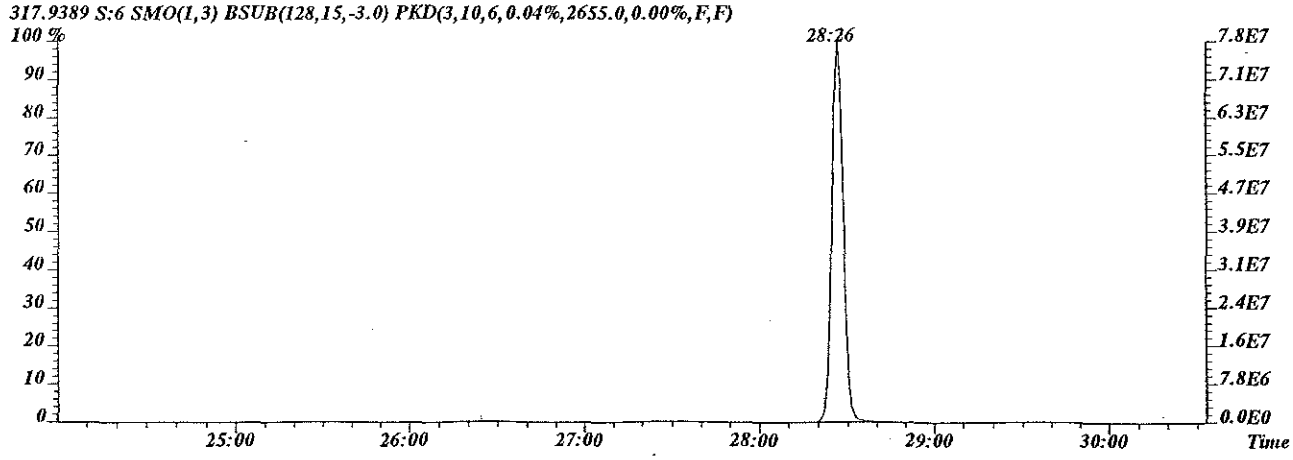
305.8987 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1485.0,0.00%,F,F)



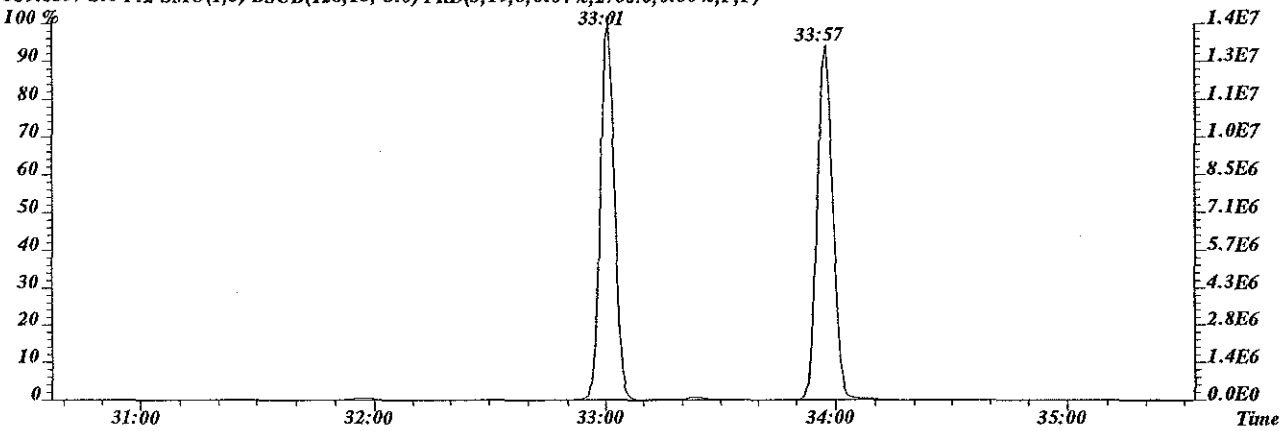
315.9419 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3365.0,0.00%,F,F)



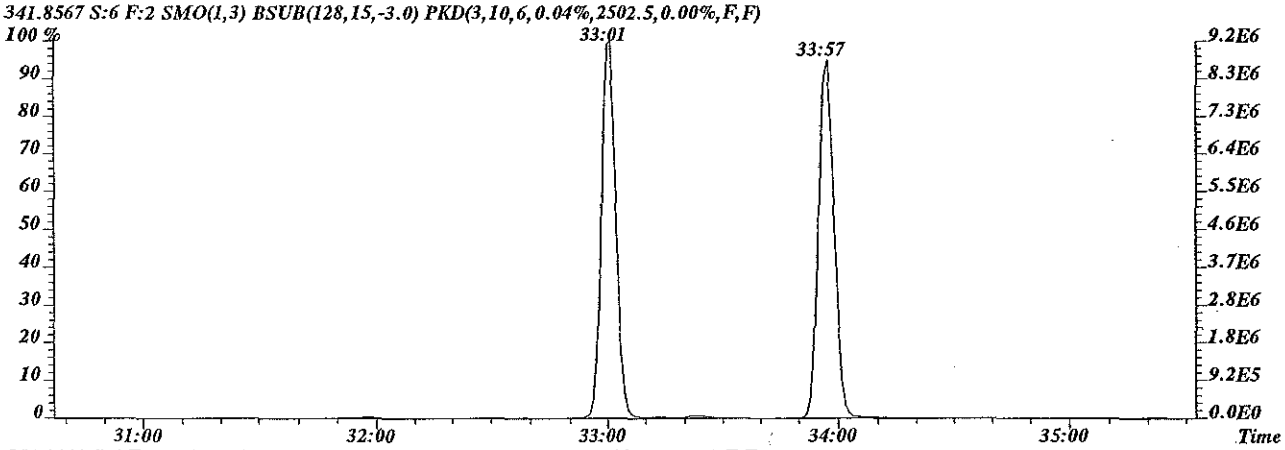
317.9389 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2655.0,0.00%,F,F)



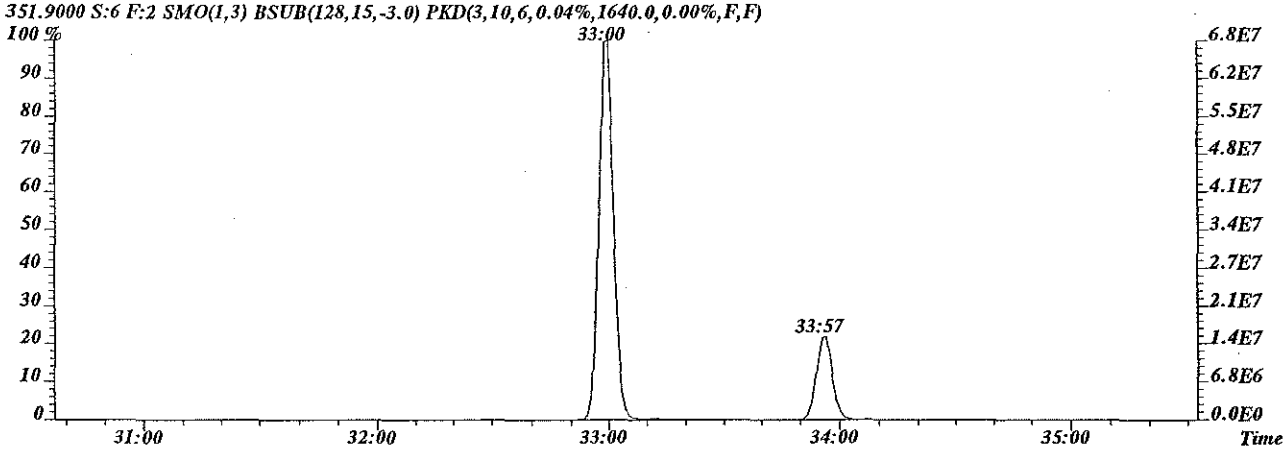
File:0903023B #1-324 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
Sample#6 File Text:M23 Text:CCAL. M2305C02 Exp:8290
339.8597 S:6 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2760.0,0.00%,F,F)



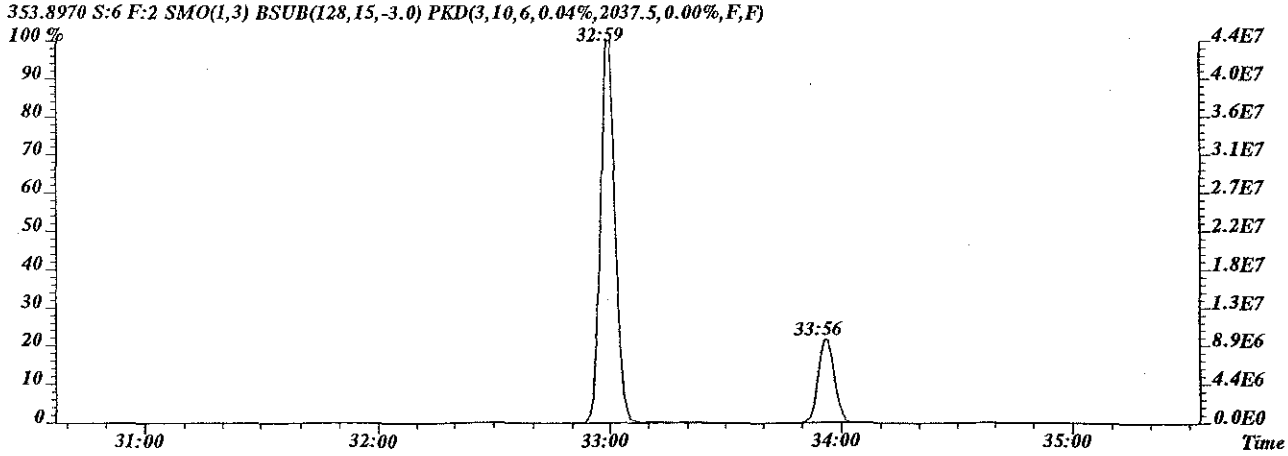
341.8567 S:6 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2502.5,0.00%,F,F)



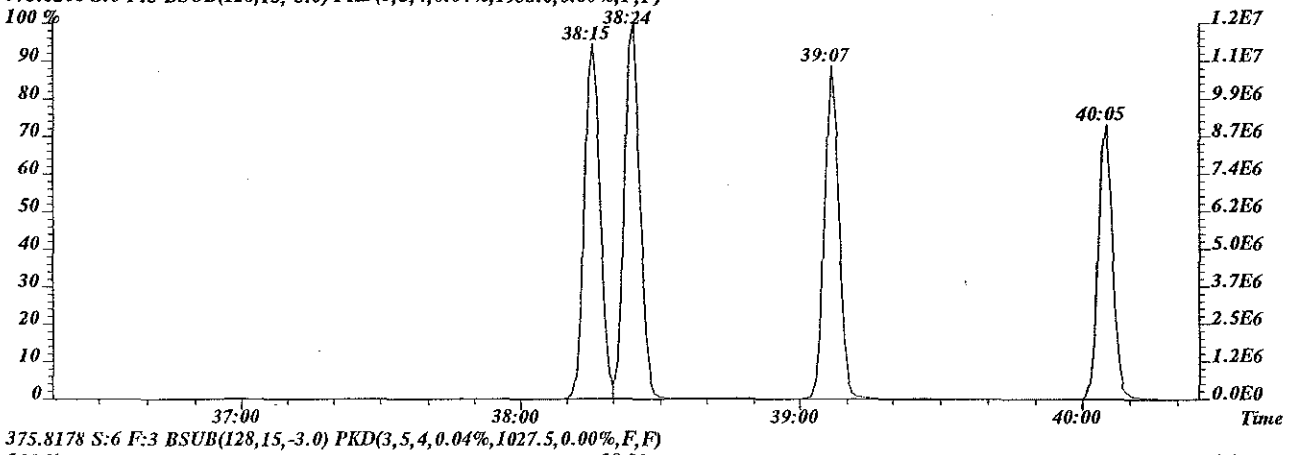
351.9000 S:6 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1640.0,0.00%,F,F)



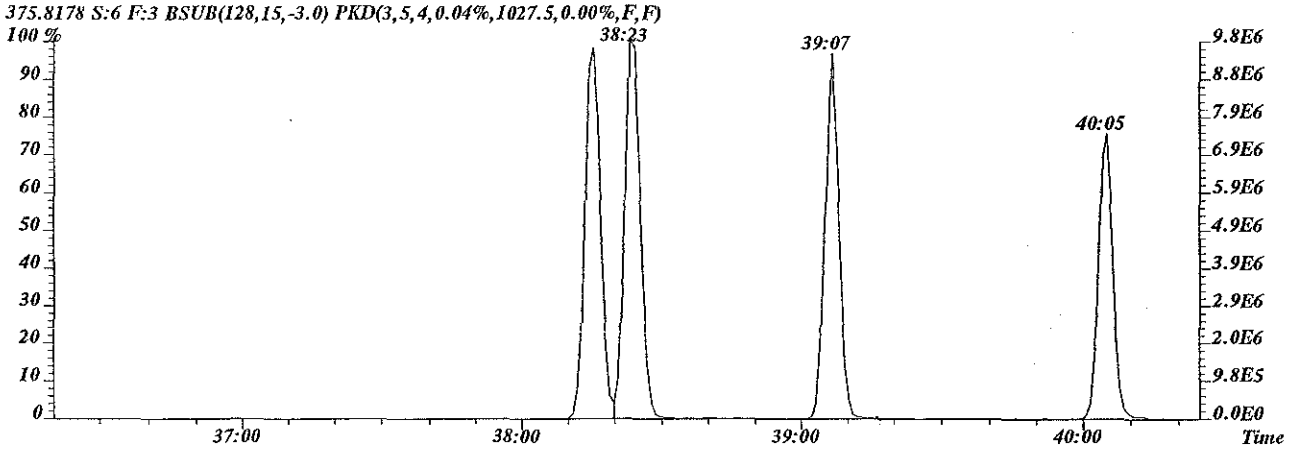
353.8970 S:6 F:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2037.5,0.00%,F,F)



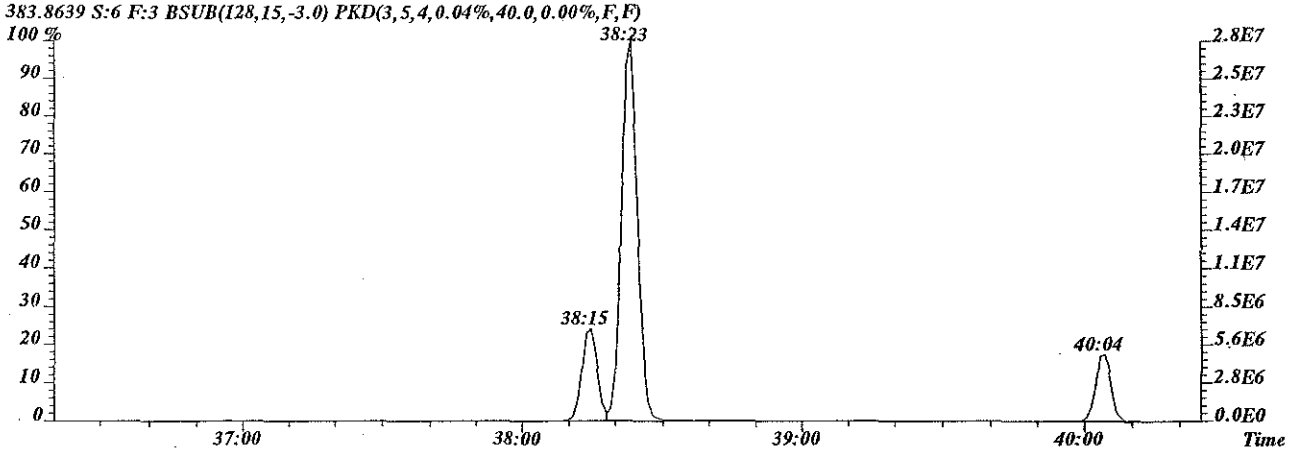
File:0903023B #1-277 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
Sample#6 File Text:M23 Text:CCAL. M2305C02 Exp:8290
373.8208 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1935.0,0.00%,F,F)



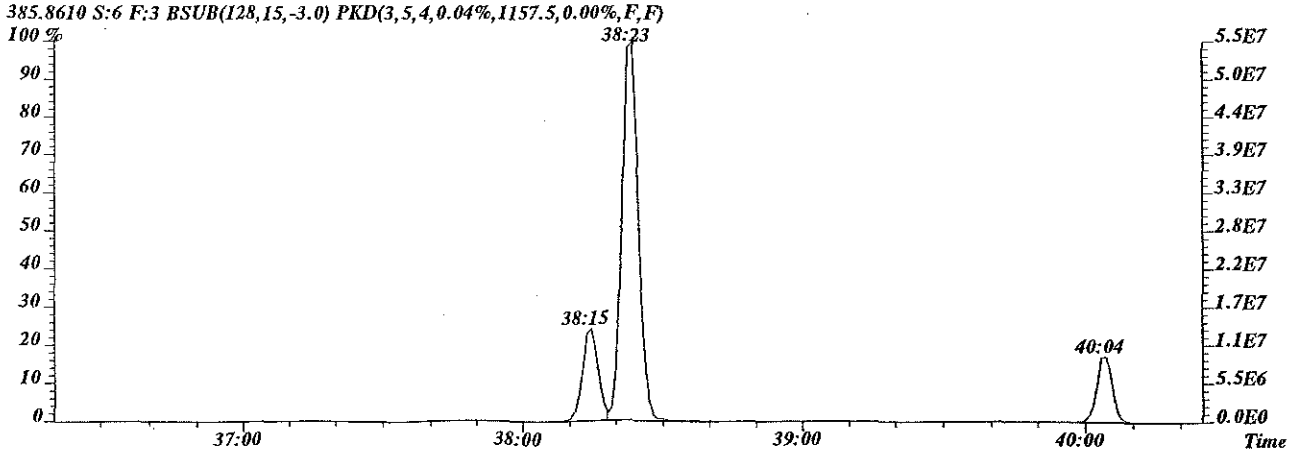
375.8178 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1027.5,0.00%,F,F)



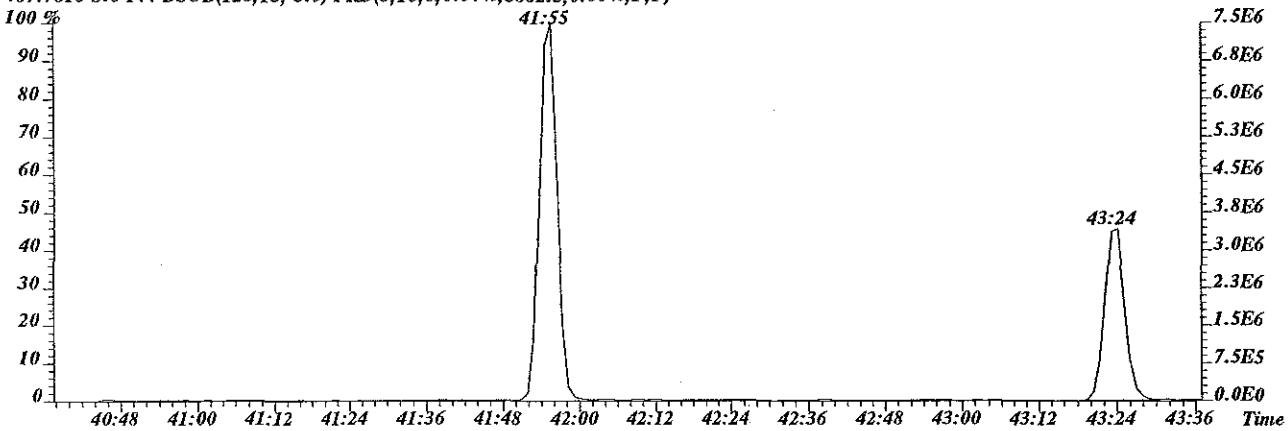
383.8639 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,40.0,0.00%,F,F)



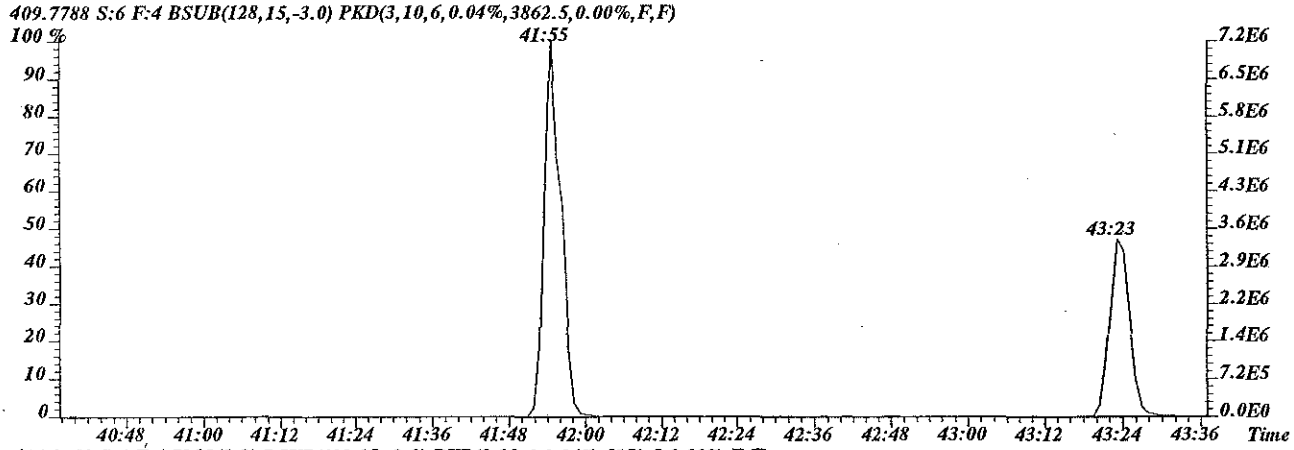
385.8610 S:6 F:3 BSUB(128,15,-3.0) PKD(3,5,4,0.04%,1157.5,0.00%,F,F)



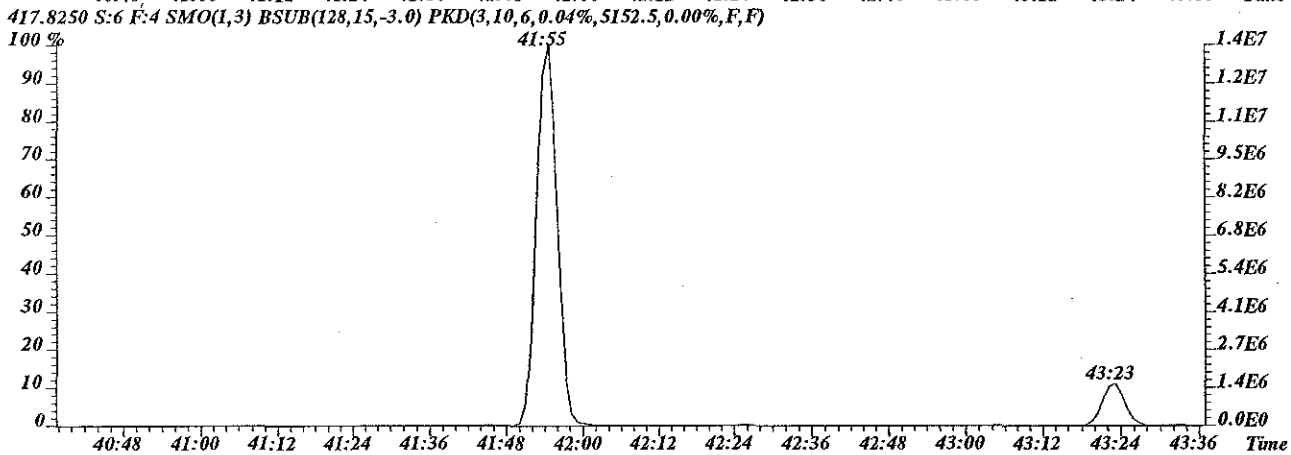
File:0903023B #1-197 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
Sample#6 File Text:M23 Text:CCAL. M2305C02 Exp:8290
407.7818 S:6 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5862.5,0.00%,F,F)



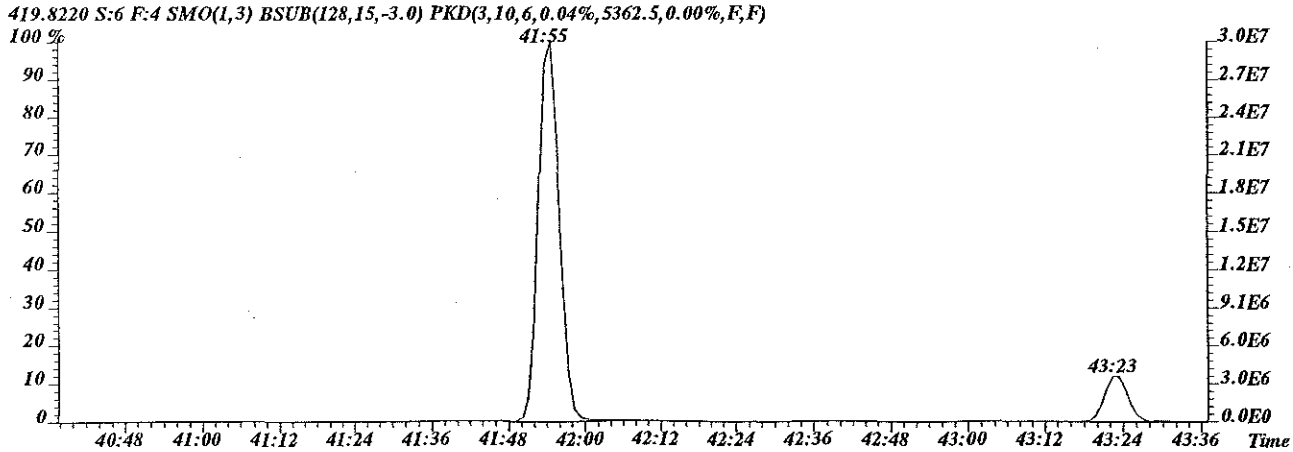
409.7788 S:6 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3862.5,0.00%,F,F)



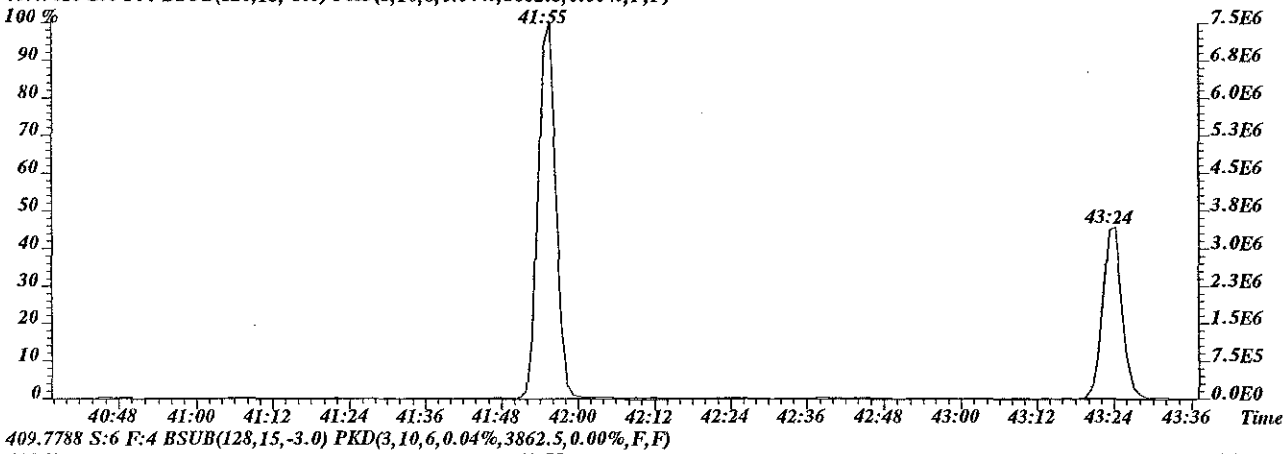
417.8250 S:6 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5152.5,0.00%,F,F)



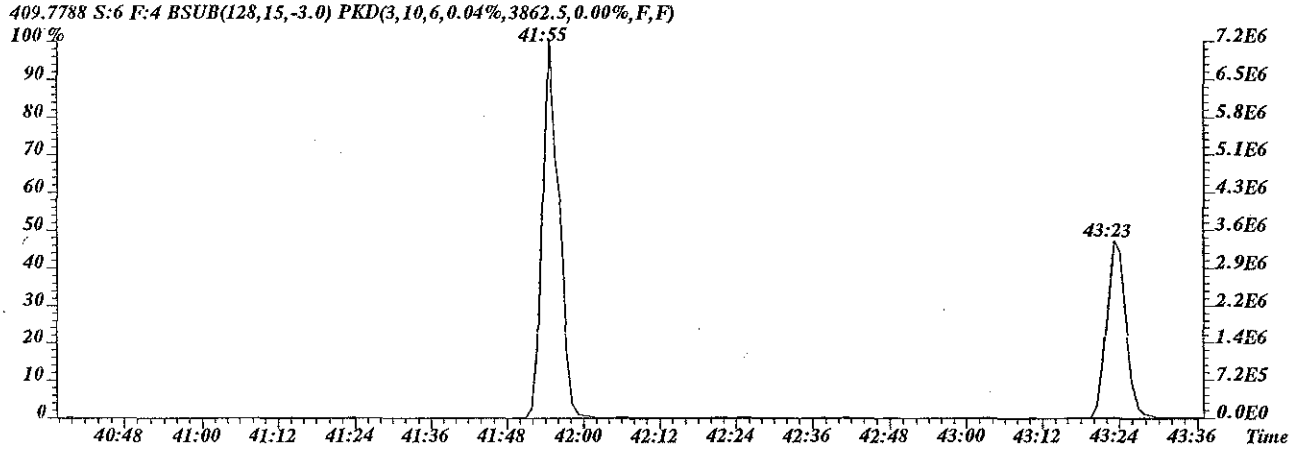
419.8220 S:6 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5362.5,0.00%,F,F)



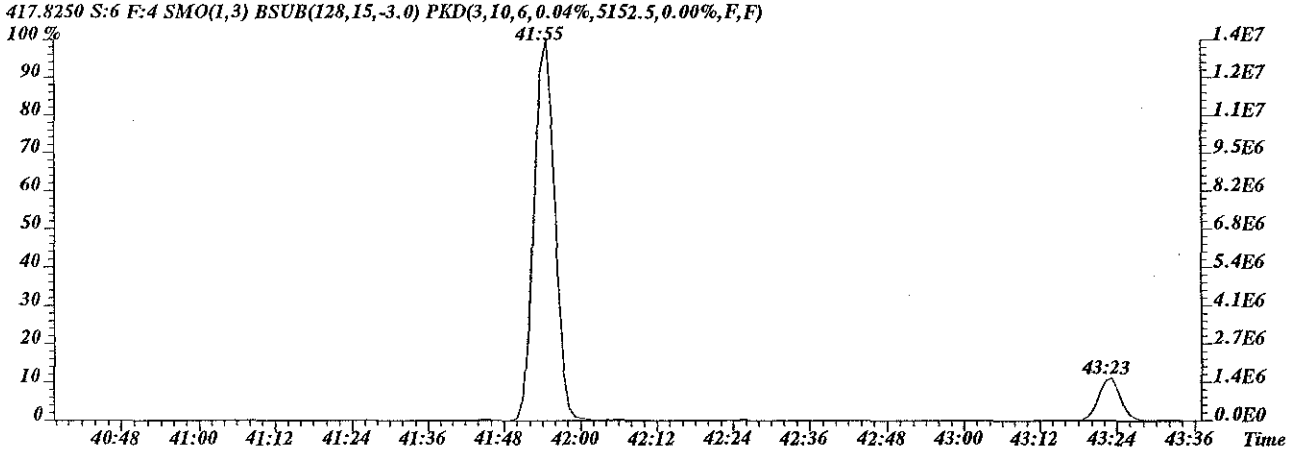
File:0903023B #1-197 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
Sample#6 File Text:M23 Text:CCAL. M2305C02 Exp:8290
407.7818 S:6 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5862.5,0.00%,F,F)



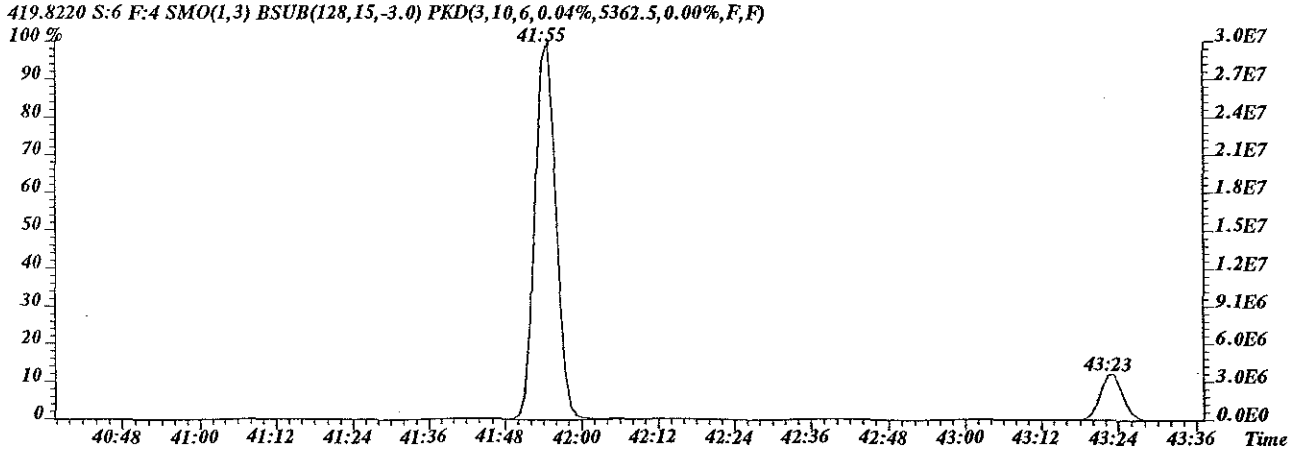
409.7788 S:6 F:4 BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3862.5,0.00%,F,F)



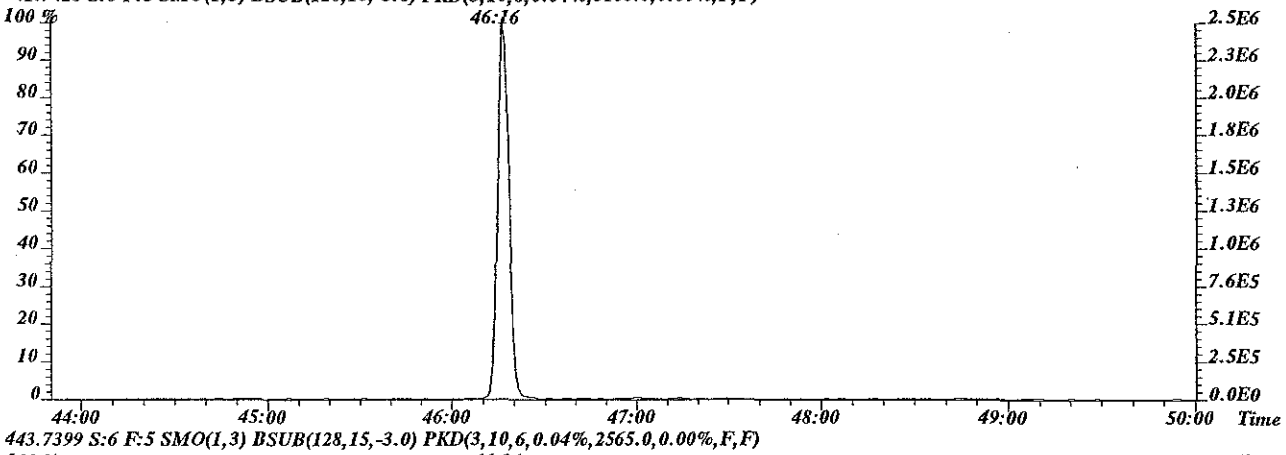
417.8250 S:6 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5152.5,0.00%,F,F)



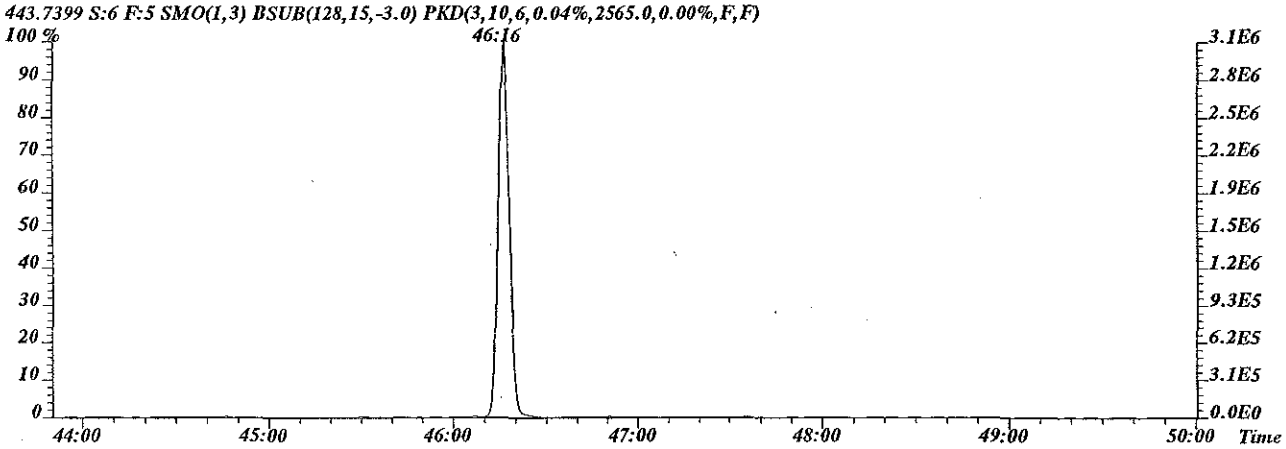
419.8220 S:6 F:4 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,5362.5,0.00%,F,F)



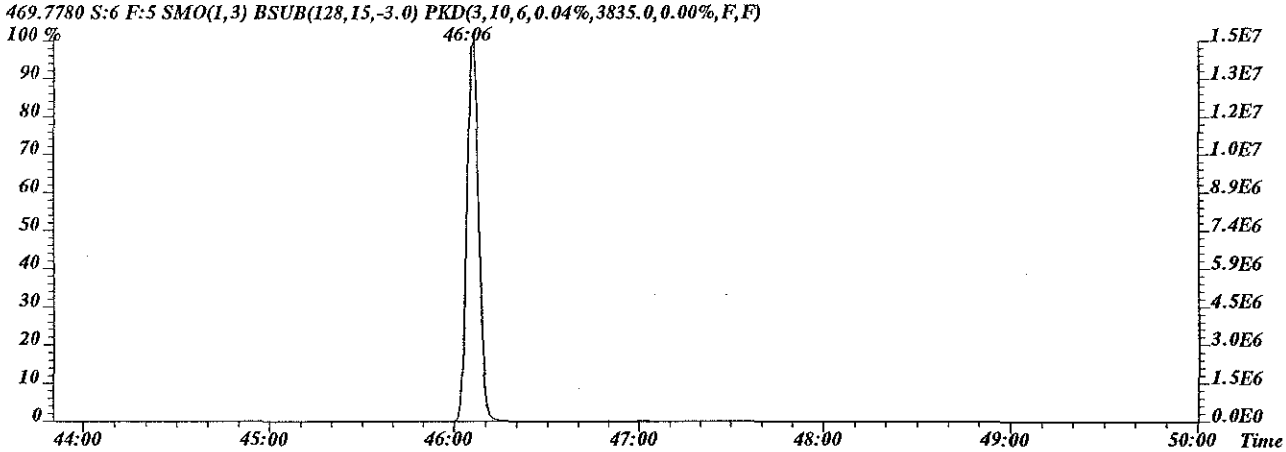
File:0903023B #1-445 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
Sample#6 File Text:M23 Text:CCAL. M2305C02 Exp:8290
441.7428 S:6 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3100.0,0.00%,F,F)



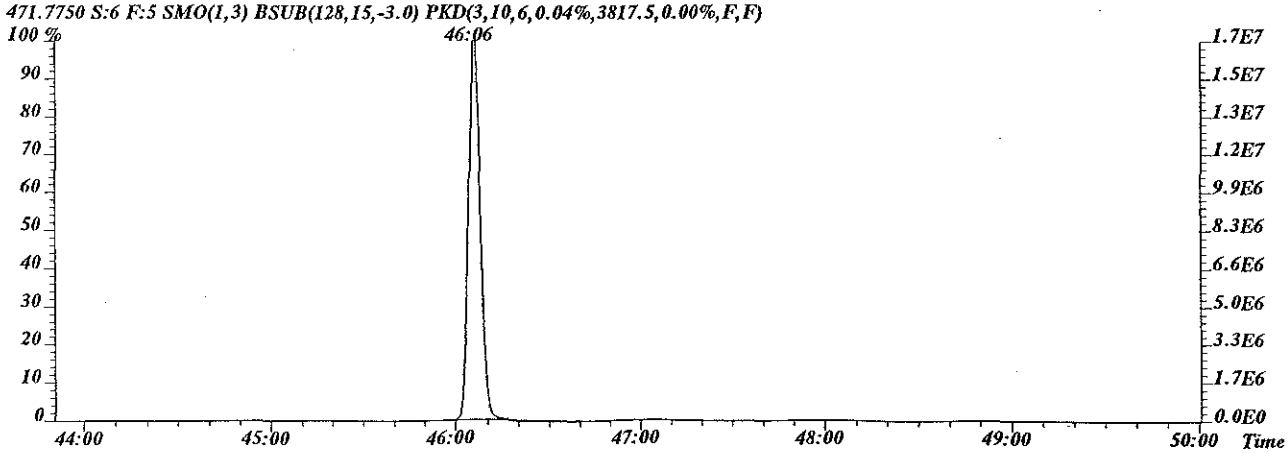
443.7399 S:6 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,2565.0,0.00%,F,F)



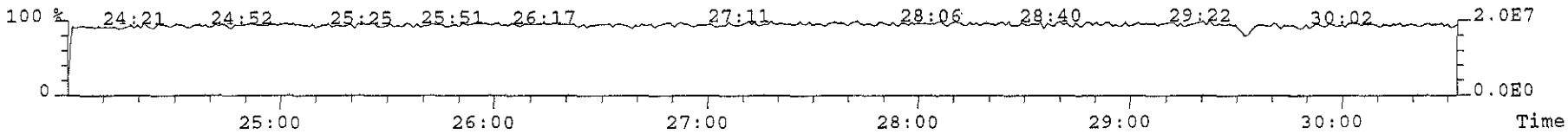
469.7780 S:6 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3835.0,0.00%,F,F)



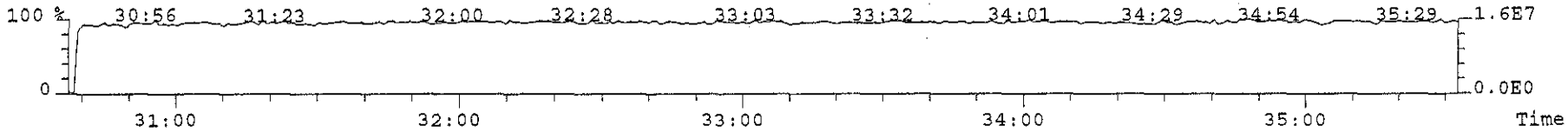
471.7750 S:6 F:5 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,3817.5,0.00%,F,F)



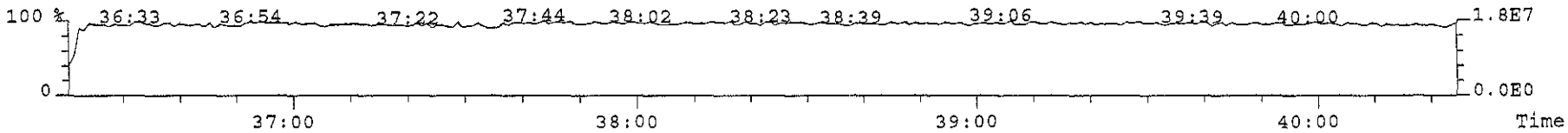
File:0903023B #1-430 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:6 Exp:8290
Sample Text:CCAL. M2305C02 File Text:M23



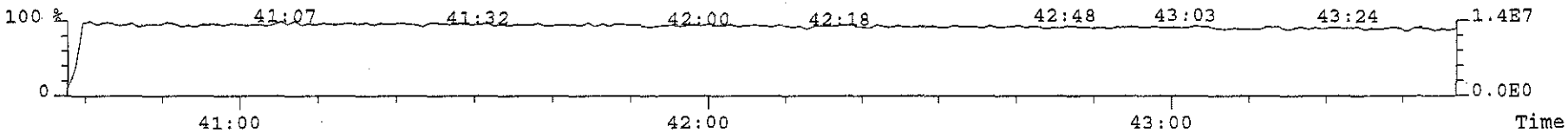
File:0903023B #1-324 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:6 F:2 Exp:8290
Sample Text:CCAL. M2305C02 File Text:M23



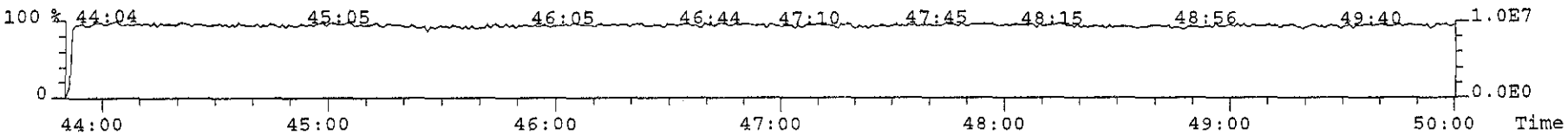
File:0903023B #1-277 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:6 F:3 Exp:8290
Sample Text:CCAL. M2305C02 File Text:M23



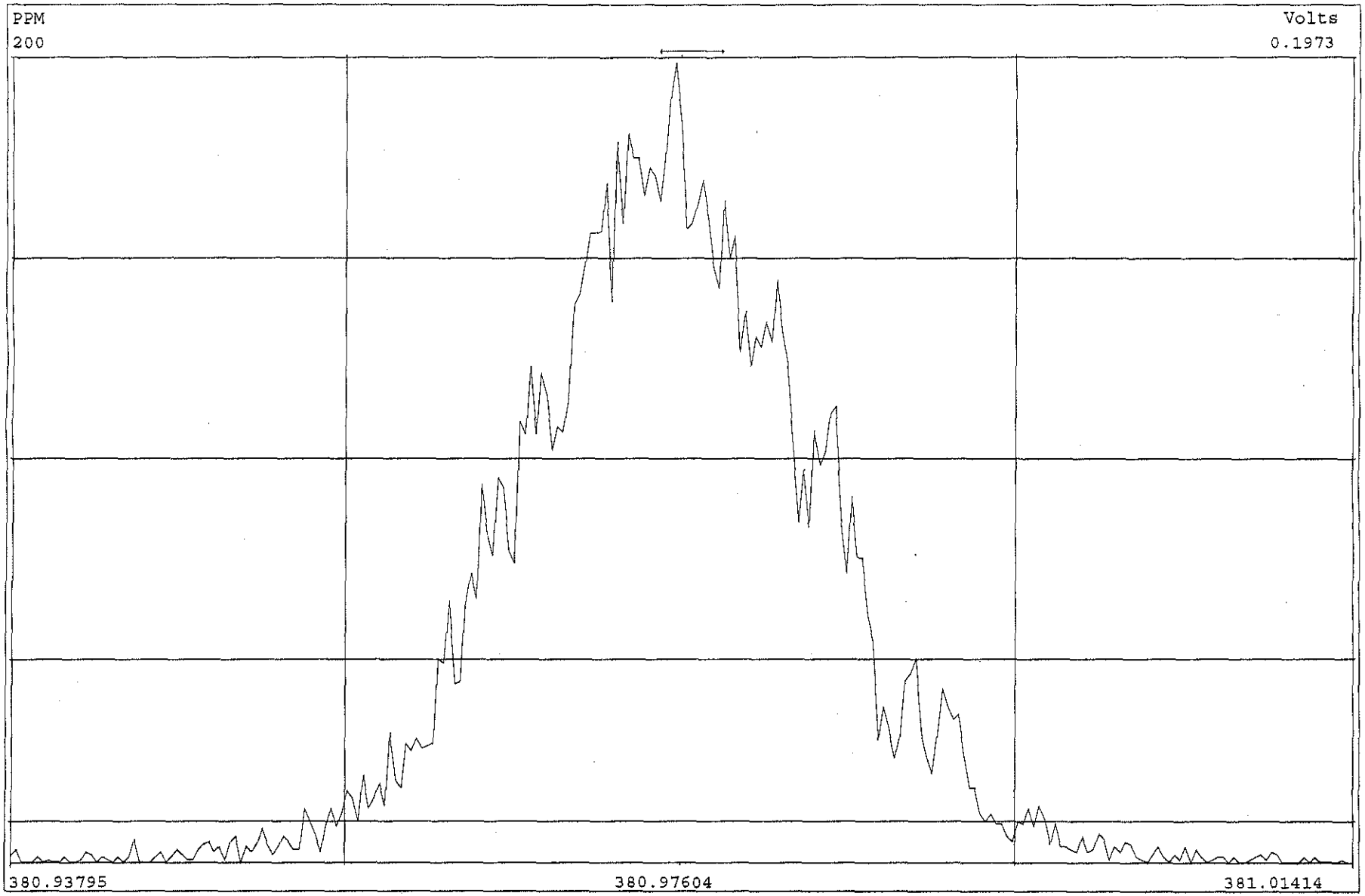
File:0903023B #1-197 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:6 F:4 Exp:8290
Sample Text:CCAL. M2305C02 File Text:M23



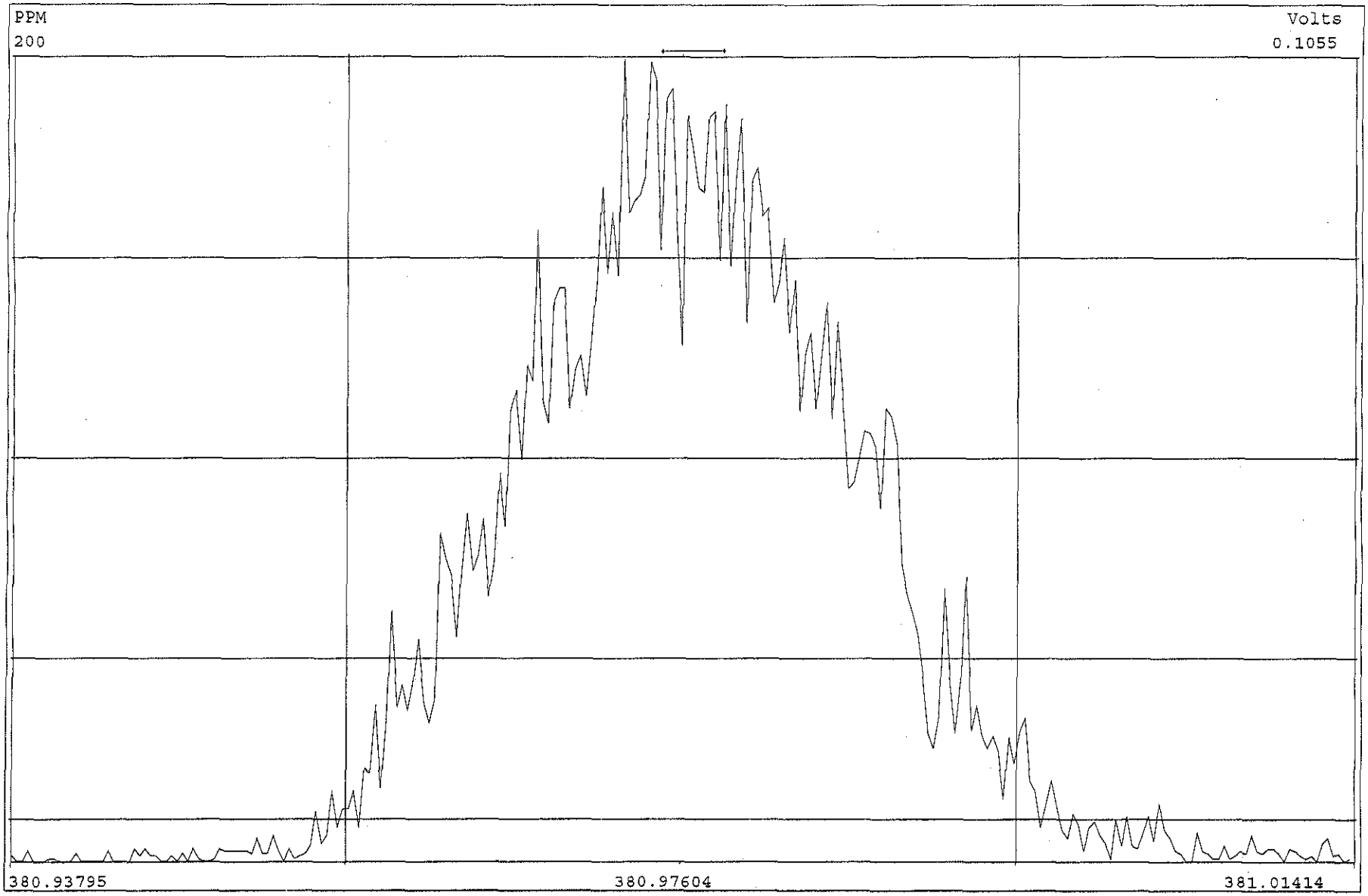
File:0903023B #1-445 Acq:17-SEP-2003 15:29:53 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:6 F:5 Exp:8290
Sample Text:CCAL. M2305C02 File Text:M23



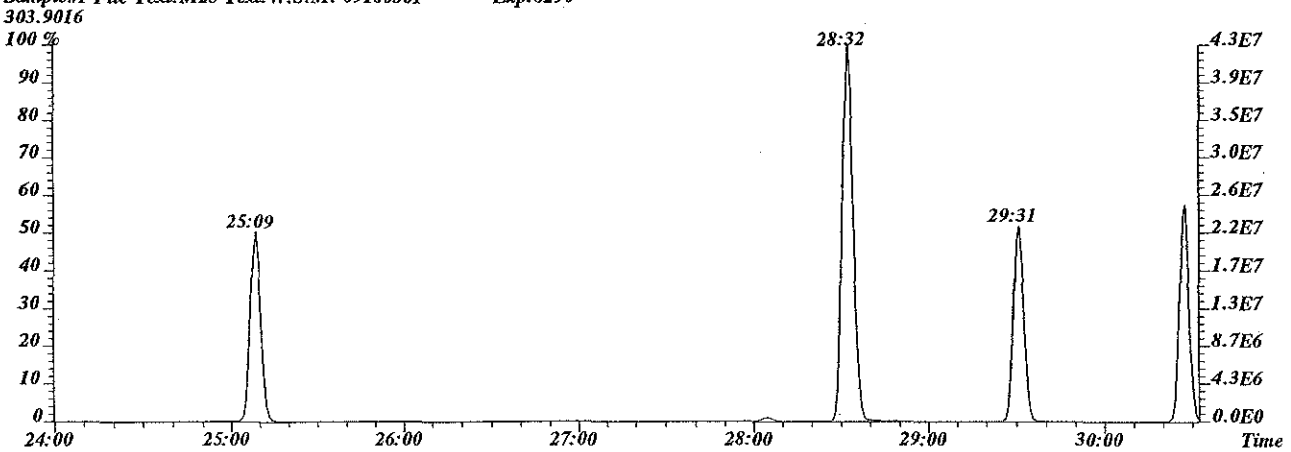
Peak Locate Examination:17-SEP-2003:10:46 File:0903023B
Experiment:8290 Function:1 Reference:PFK

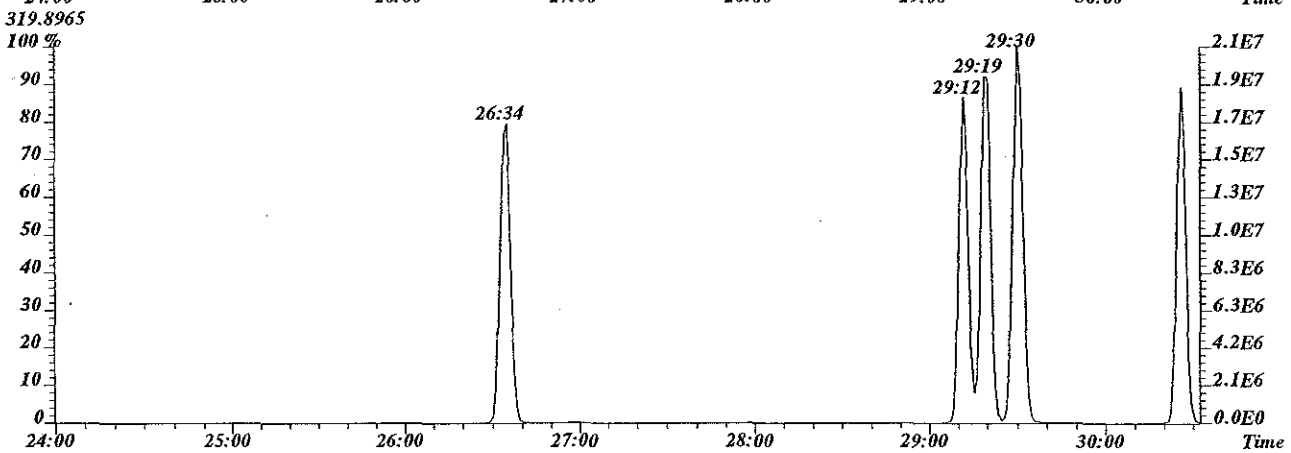


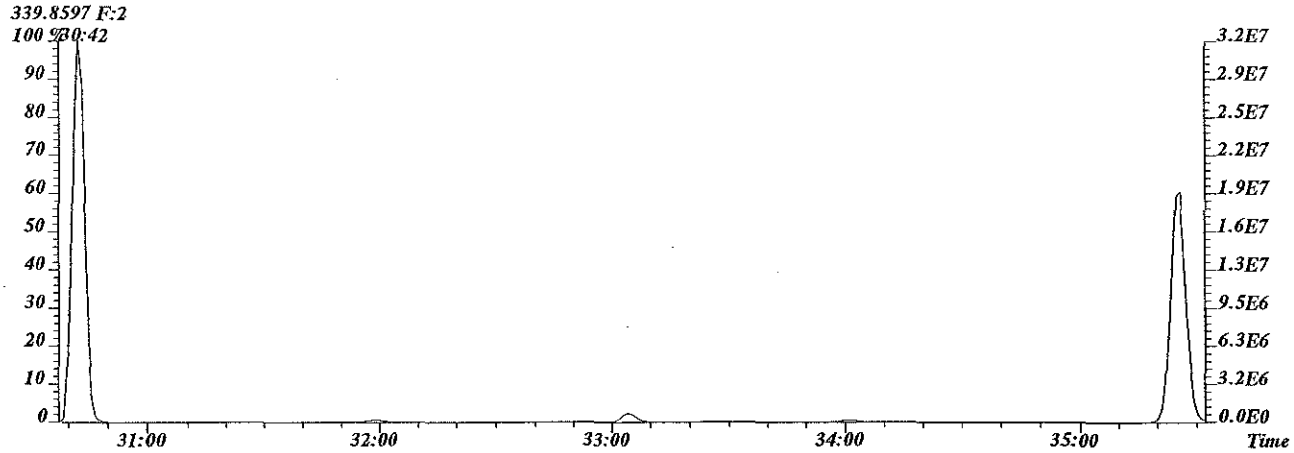
Peak Locate Examination:16-SEP-2003:13:56 File:0903023
Experiment:8290 Function:1 Reference:PFK

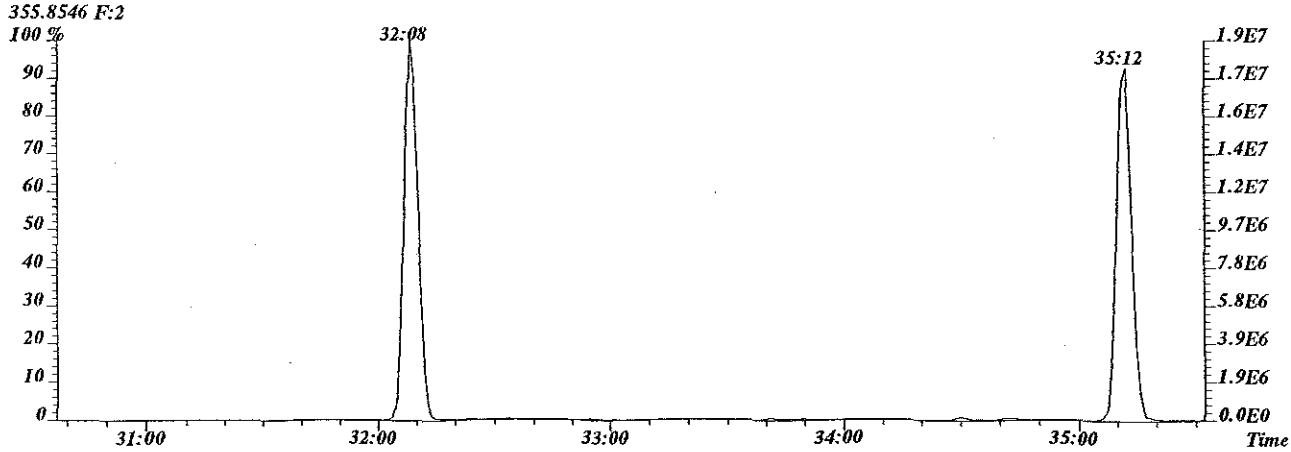


File:0903023A #1-430 Acq:16-SEP-2003 16:35:02 GC EI+ Voltage SIR 70S
Sample#1 File Text:M23 Text:W.S.M. 09160301 Exp:8290

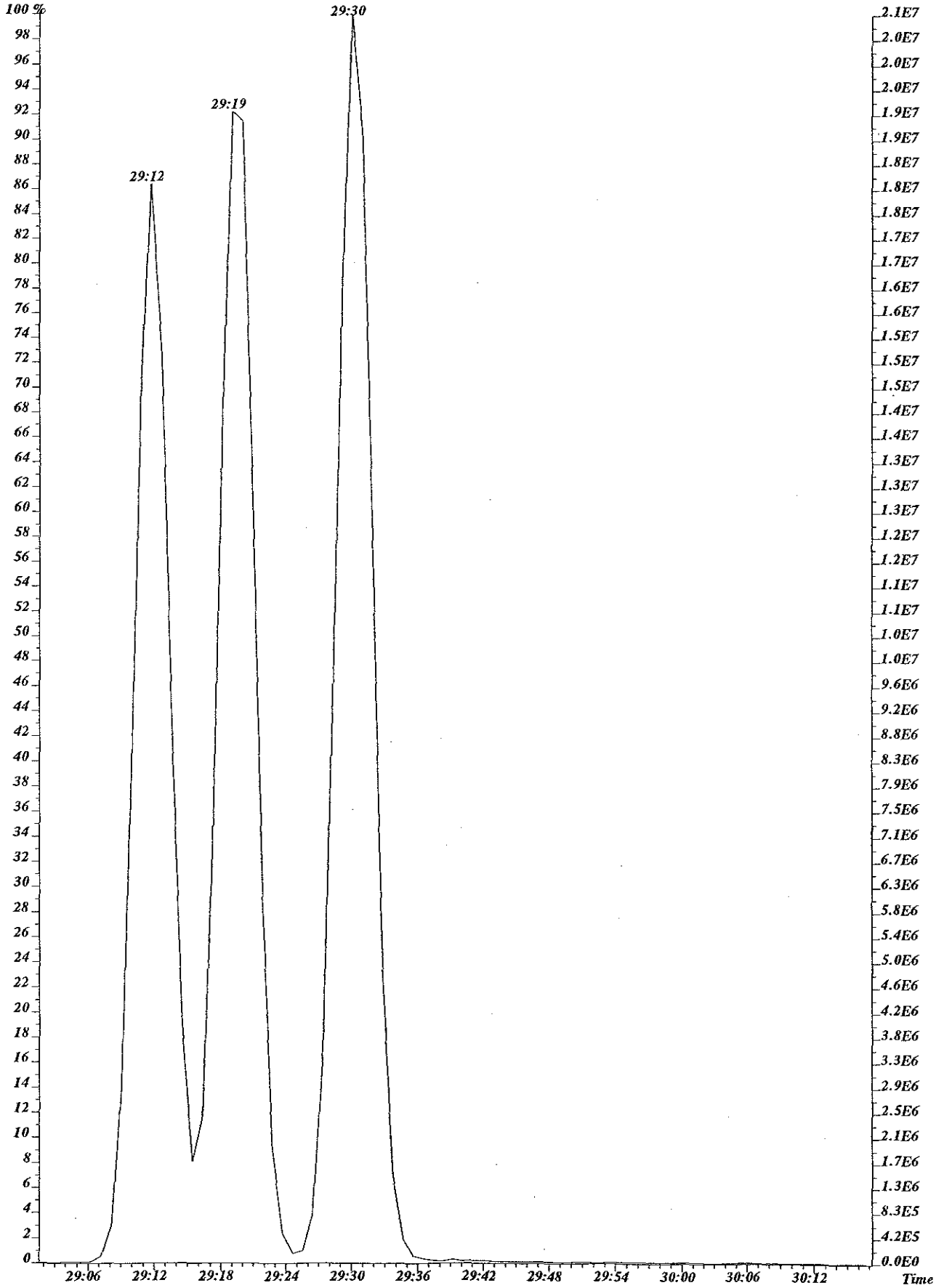






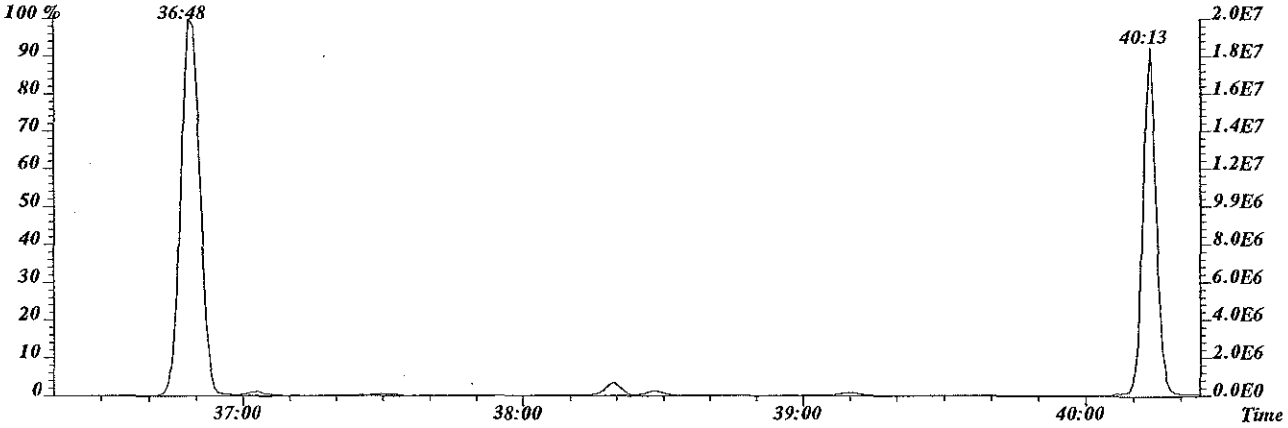


File:0903023A #1-430 Acq:16-SEP-2003 16:35:02 GC EI+ Voltage SIR 70S
Sample#1 File Text:M23 Text:W.S.M. 09160301 Exp:8290
319.8965

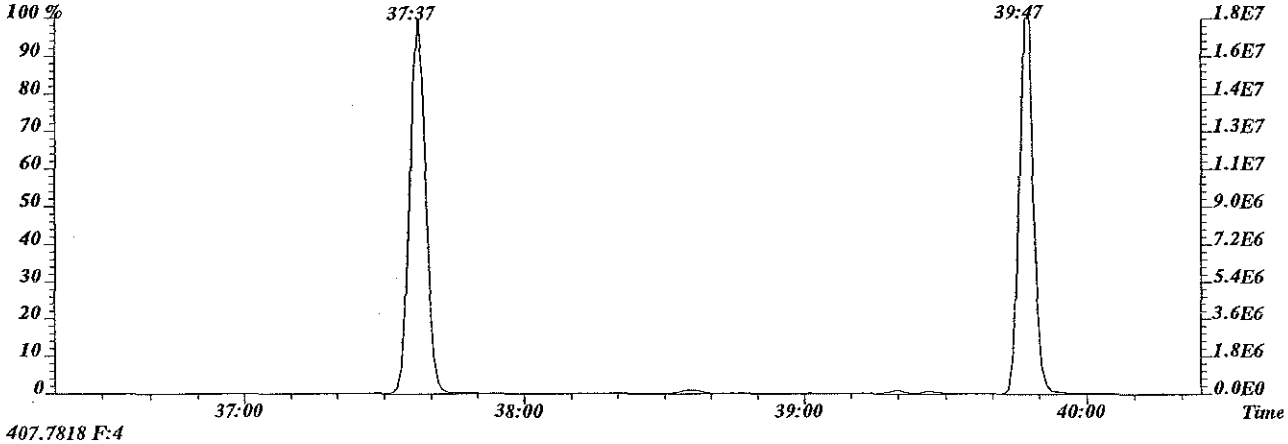


File:0903023A #1-277 Acq:16-SEP-2003 16:35:02 GC EI+ Voltage SIR 70S
Sample#1 File Text:M23 Text:W.S.M. 09160301 Exp:8290

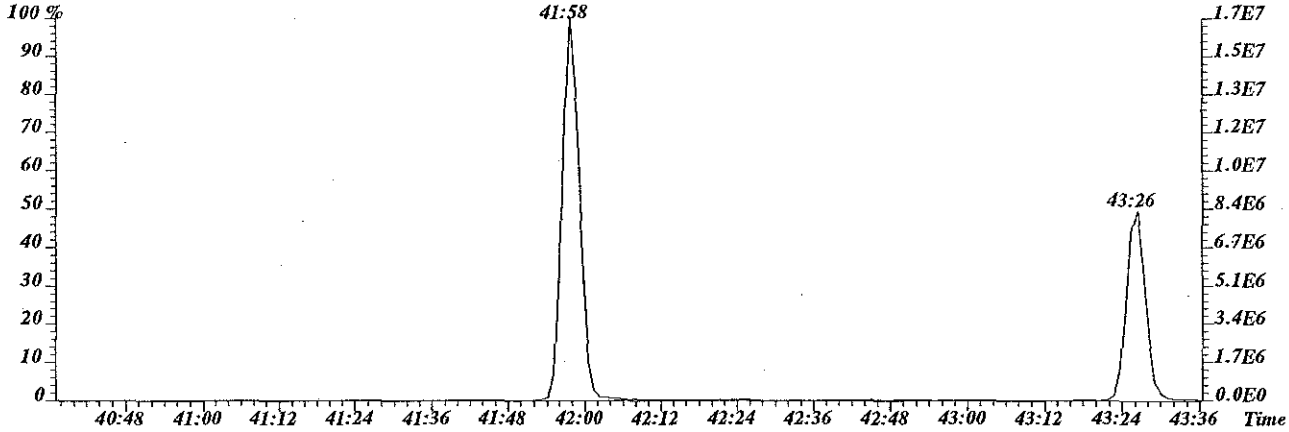
373.8208 F:3



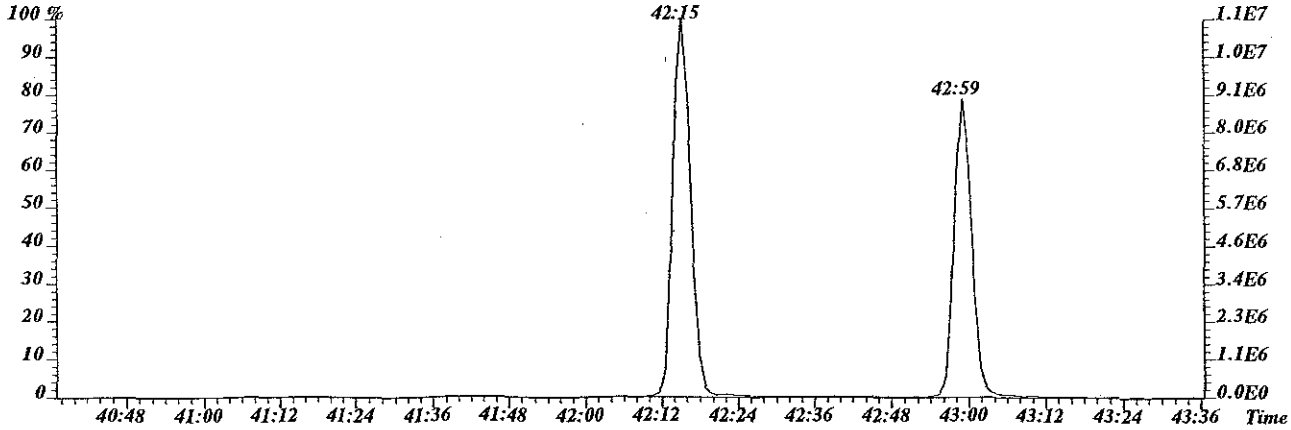
389.8156 F:3



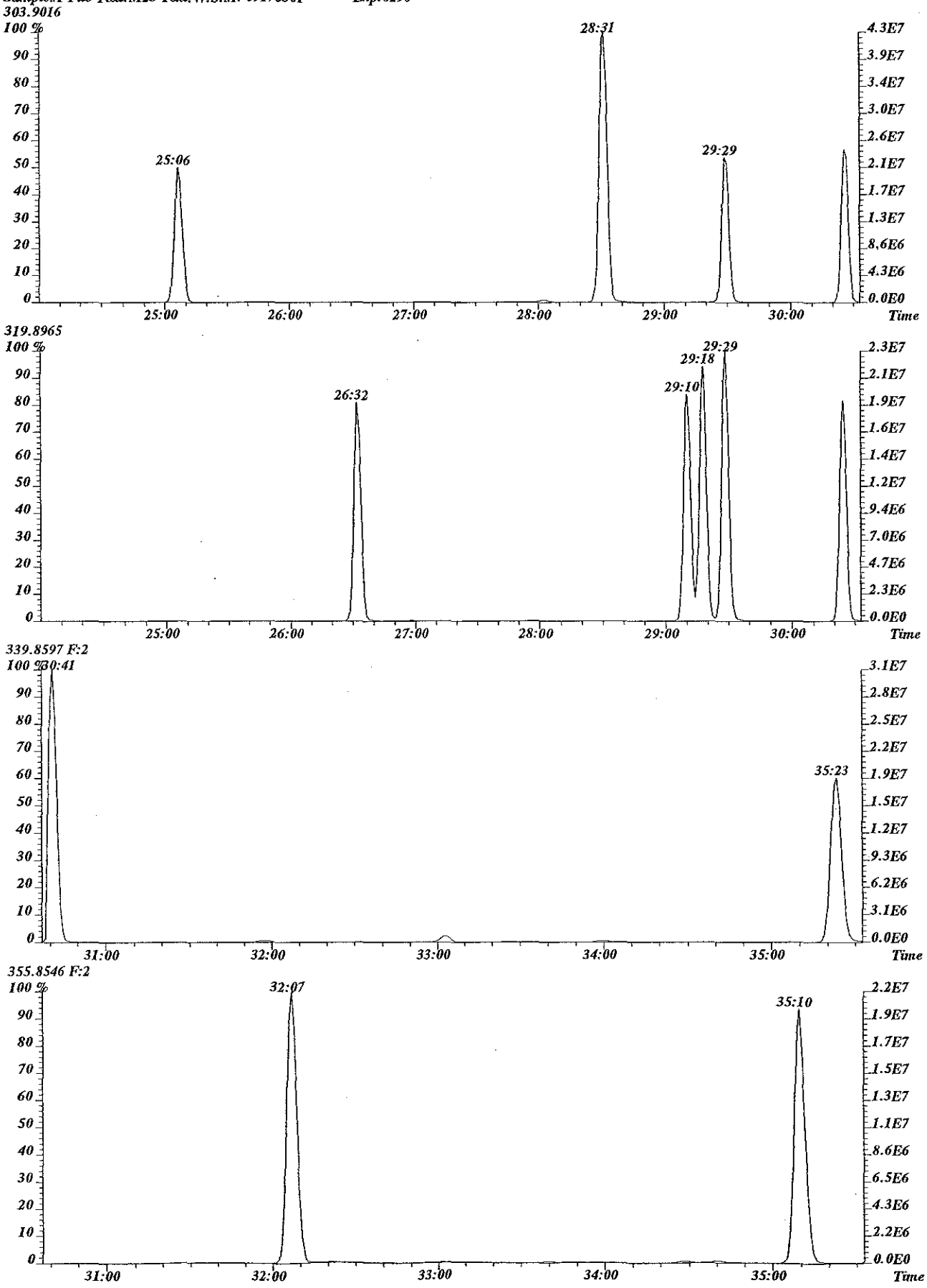
407.7818 F:4



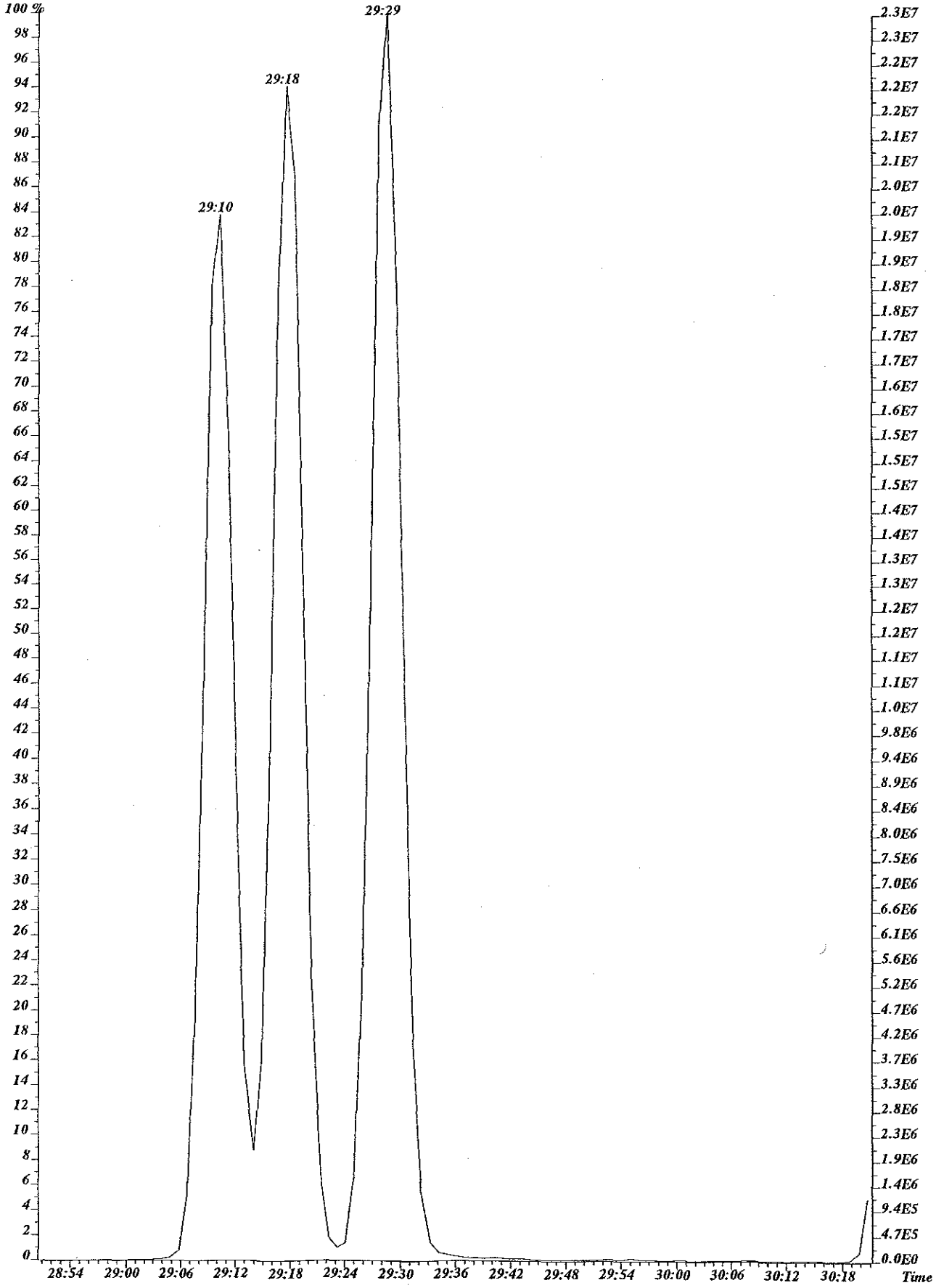
423.7767 F:4



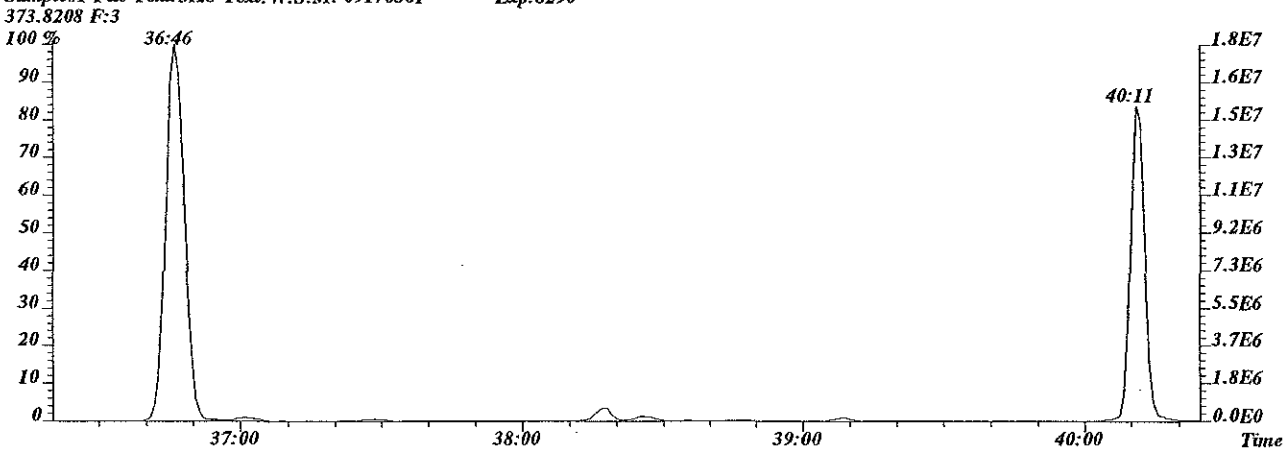
File:0903023B #1-430 Acq:17-SEP-2003 10:50:08 GC EI+ Voltage SIR 70S
Sample#1 File Text:M23 Text:W.S.M. 09170301 Exp:8290

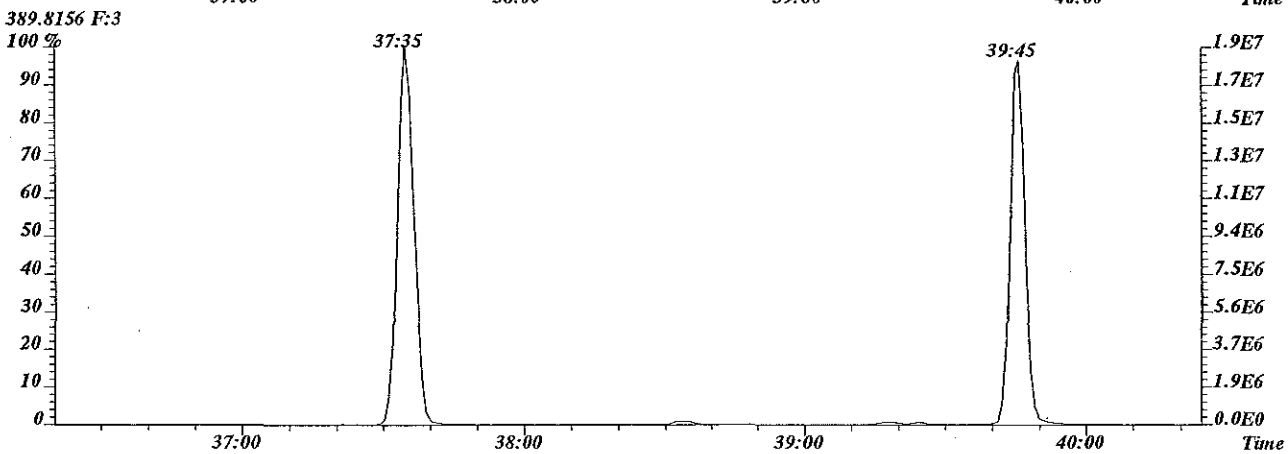


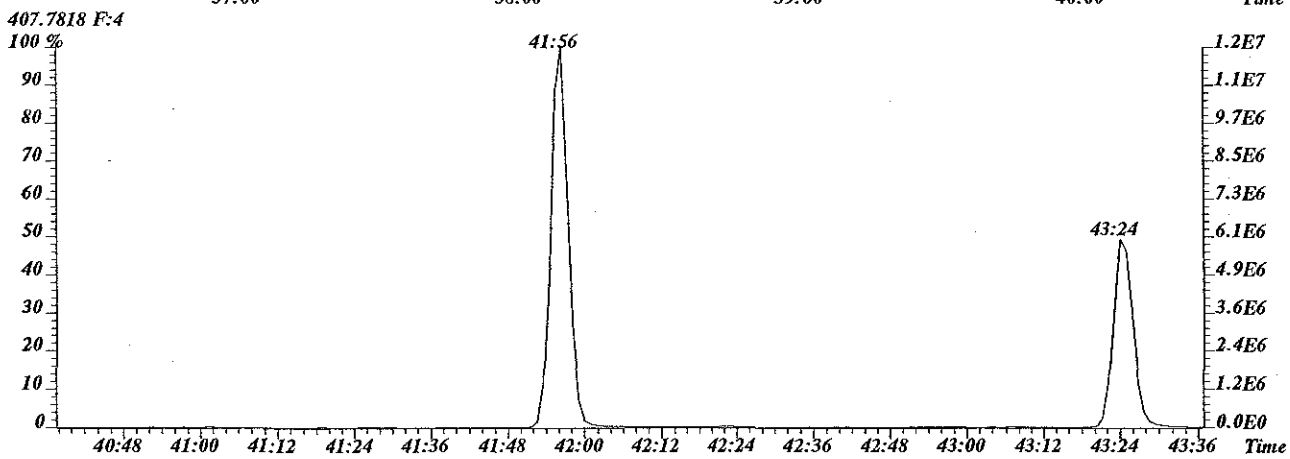
File:0903023B #1-430 Acq:17-SEP-2003 10:50:08 GC EI+ Voltage SIR 70S
Sample#1 File Text:M23 Text:W.S.M. 09170301 Exp:8290
319.8965

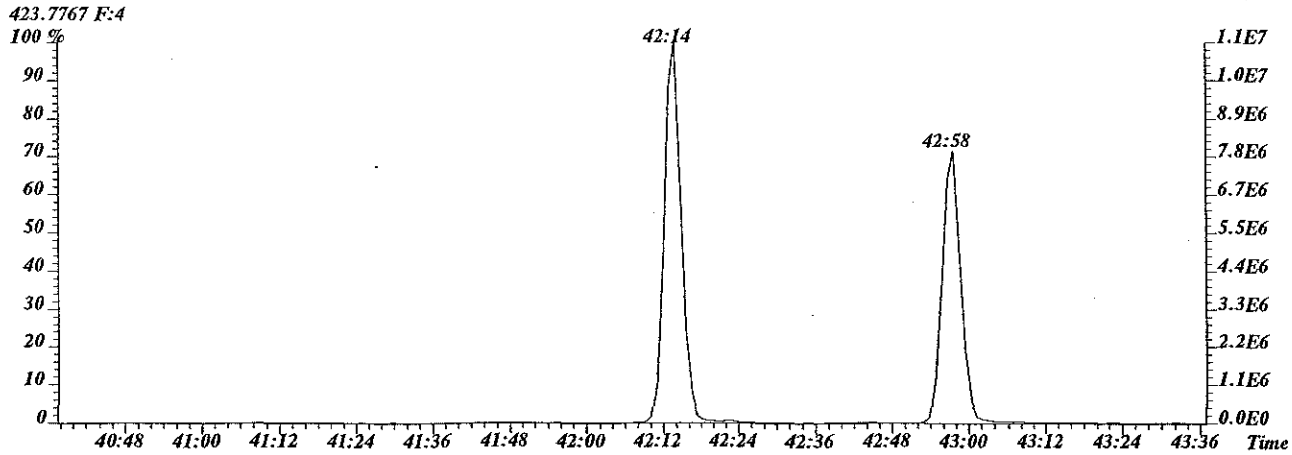


File:0903023B #1-277 Acq:17-SEP-2003 10:50:08 GC EI+ Voltage SIR 70S
Sample#1 File Text:M23 Text:W.S.M. 09170301 Exp:8290

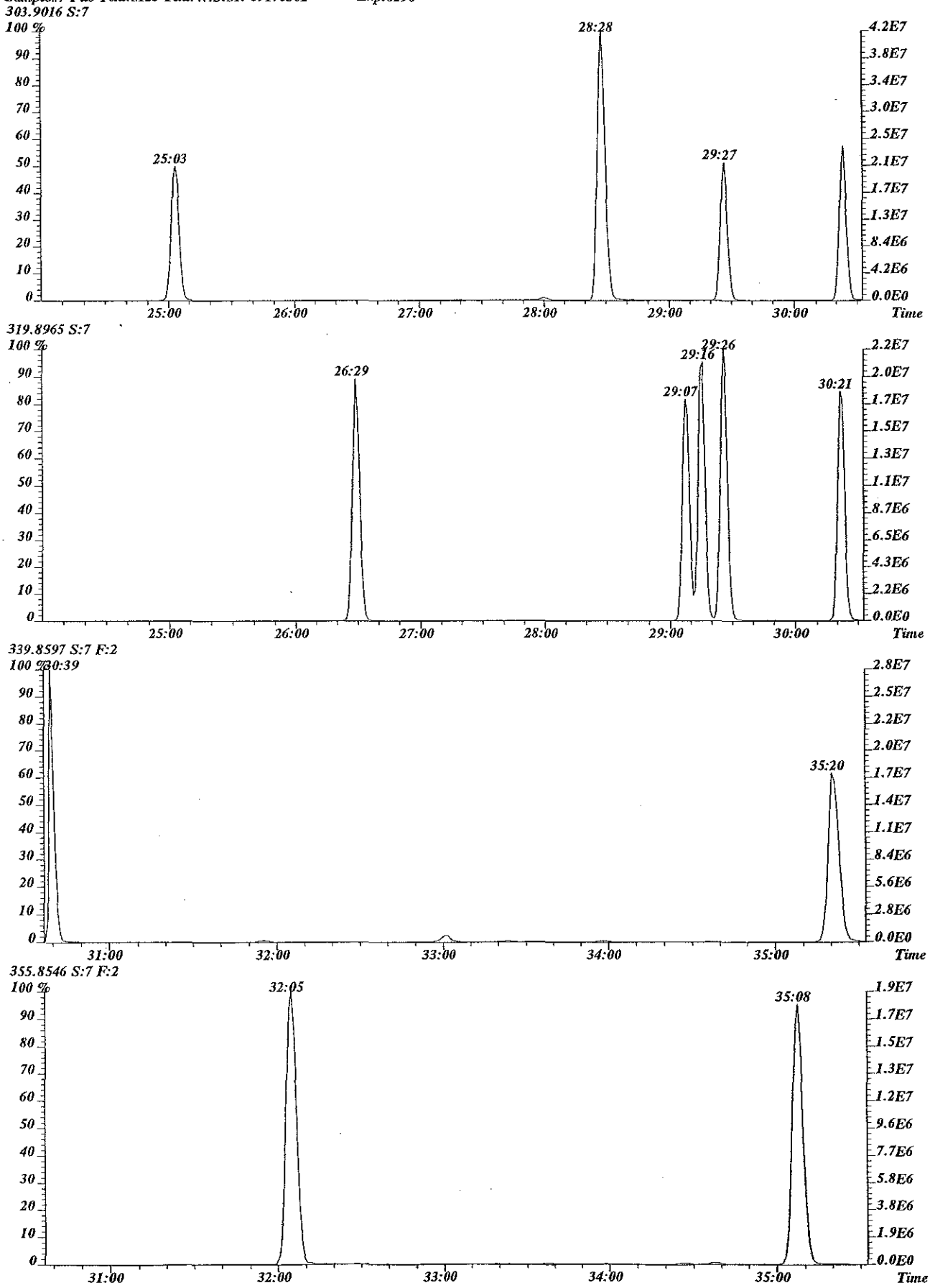




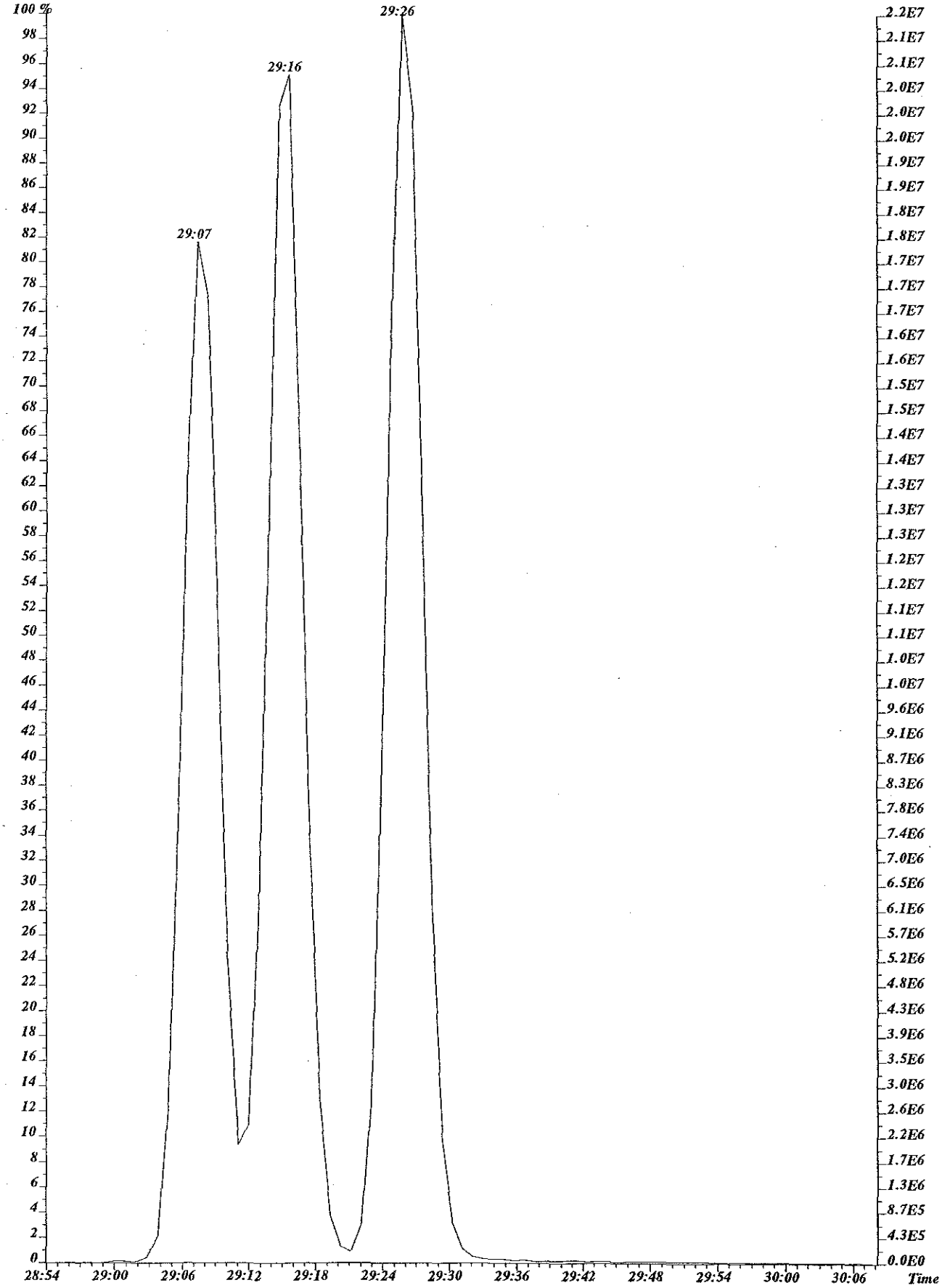




File:0903023B #1-430 Acq:17-SEP-2003 16:25:51 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:W.S.M. 09170302 Exp:8290

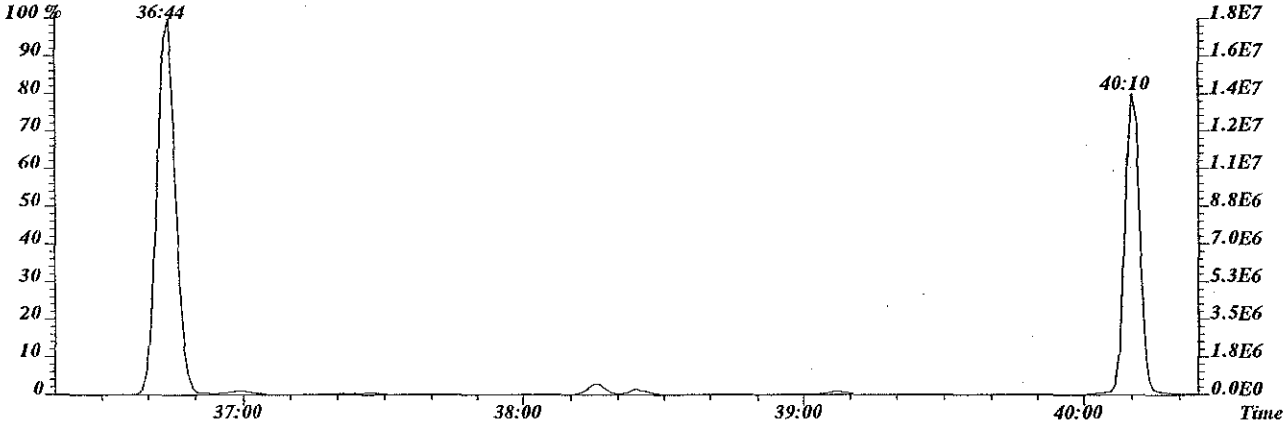


File:0903023B #1-430 Acq:17-SEP-2003 16:25:51 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:W.S.M. 09170302 Exp:8290
319.8965 S:7

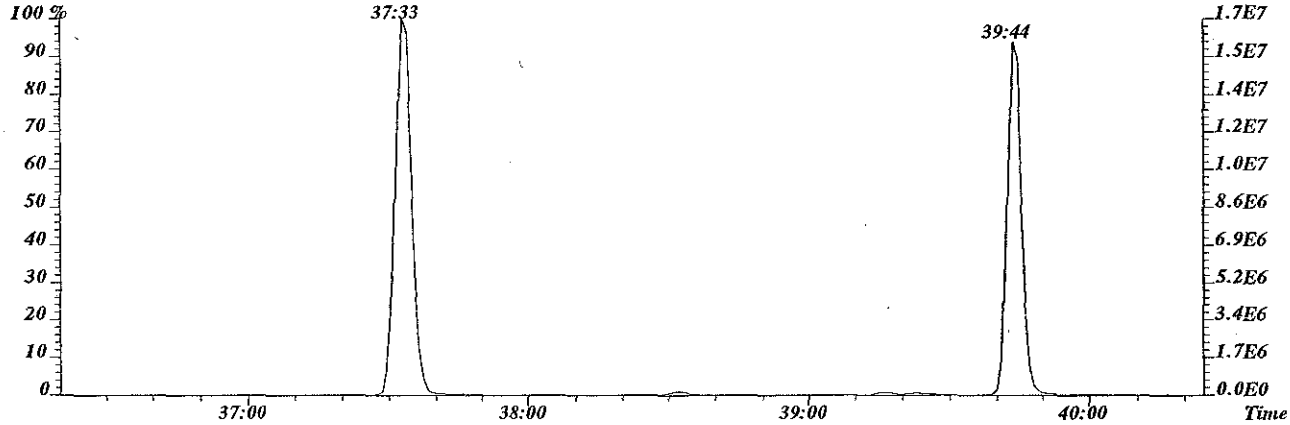


File:0903023B #1-277 Acq:17-SEP-2003 16:25:51 GC EI+ Voltage SIR 70S
Sample#7 File Text:M23 Text:W.S.M. 09170302 Exp:8290

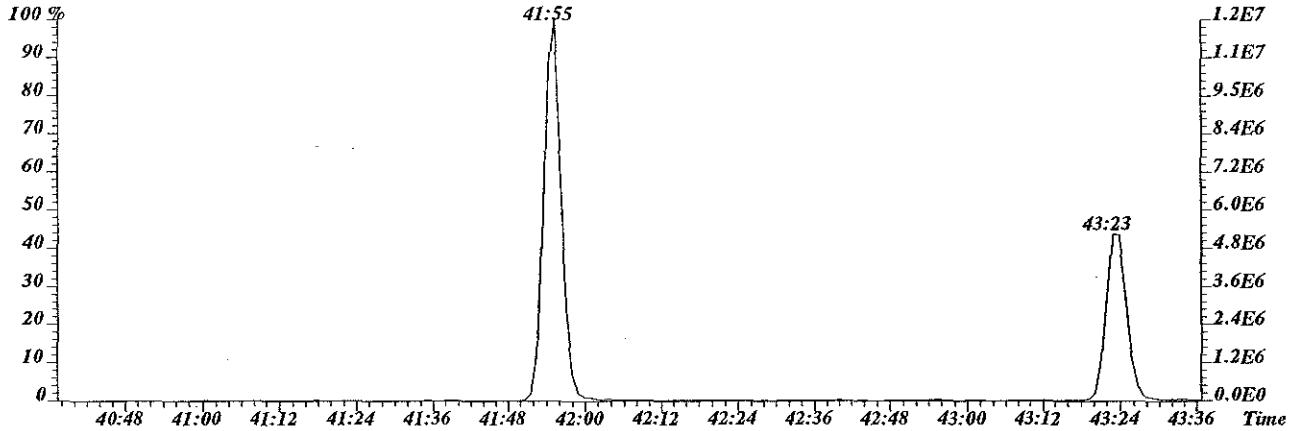
373.8208 S:7 F:3



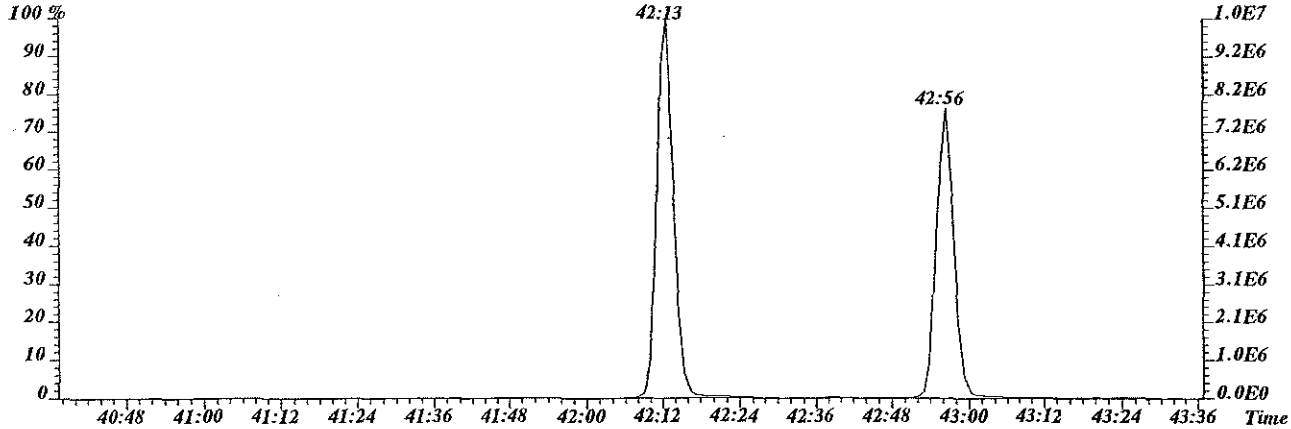
389.8156 S:7 F:3



407.7818 S:7 F:4



423.7767 S:7 F:4

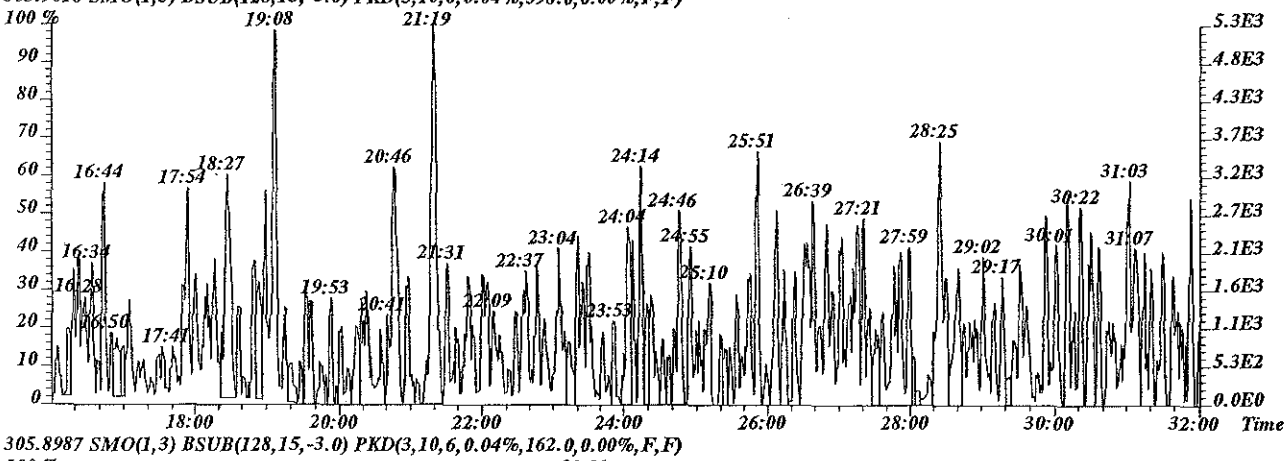


CONFIRMATION COLUMN

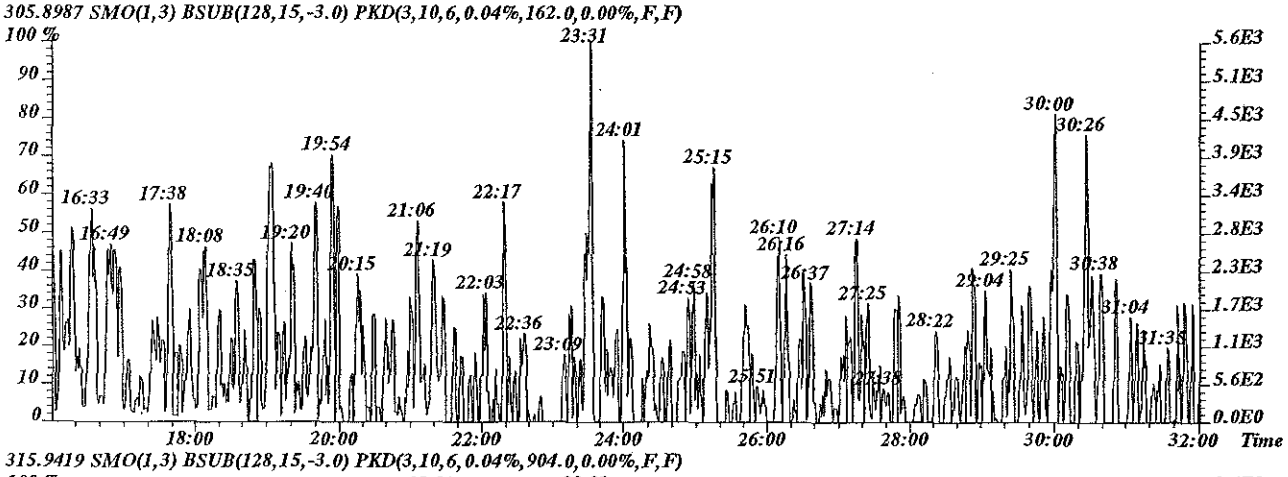
Run #7 Filename 0903023D S: 1 I: 1 Acquired: 19-SEP-03 14:07:01 Processed: 22-SEP-03 08:22:09
Run: tcdf06a Analyte: 0903023C Cal: tcdf06a Results: 0903023C Version: V3.6 9-SEP-2002 14:02:21
Sample text: Ins.Blk. TCDF06B17 Comments:

	Typ	Name	#Hom	Resp	RA		RT	Conc	0.00 Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDF	0	*	*	n	NotFnd	*	*	*	-	n
2	nati	Total TCDF	0	*	*	n	NotFnd	*	*	*	-	n
3	IS	13C12-2,3,7,8-TCDF	0	*	*	n	NotFnd	*	*	-	-	n

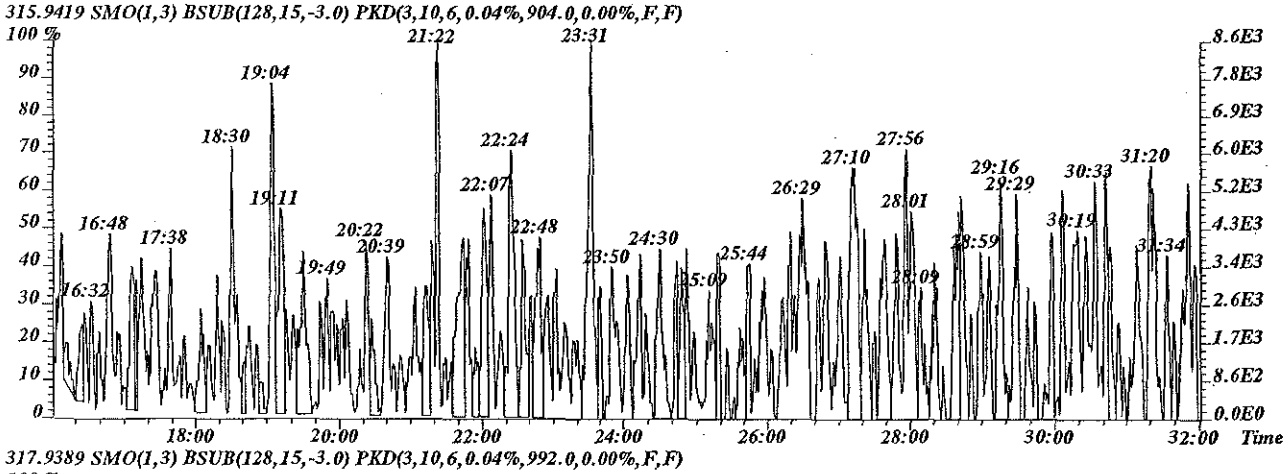
File:0903023D #1-937 Acq:19-SEP-2003 14:07:01 GC EI+ Voltage SIR 70S
Sample#1 File Text:M23 TCDF CONF Text:Ins.Blk. TCDF06B17 Exp:TCDF
303.9016 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,398.0,0.00%,F,F)



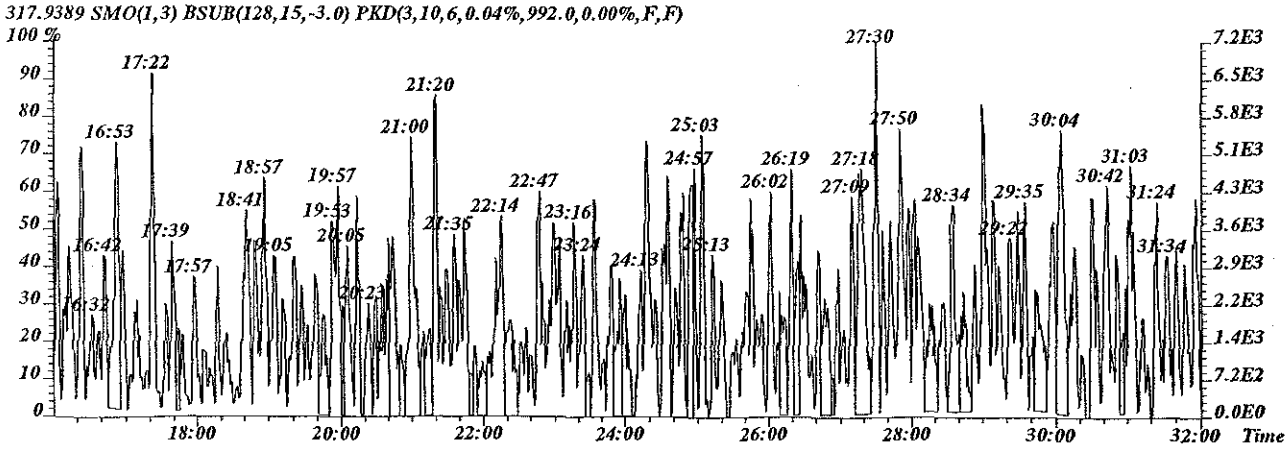
305.8987 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,162.0,0.00%,F,F)



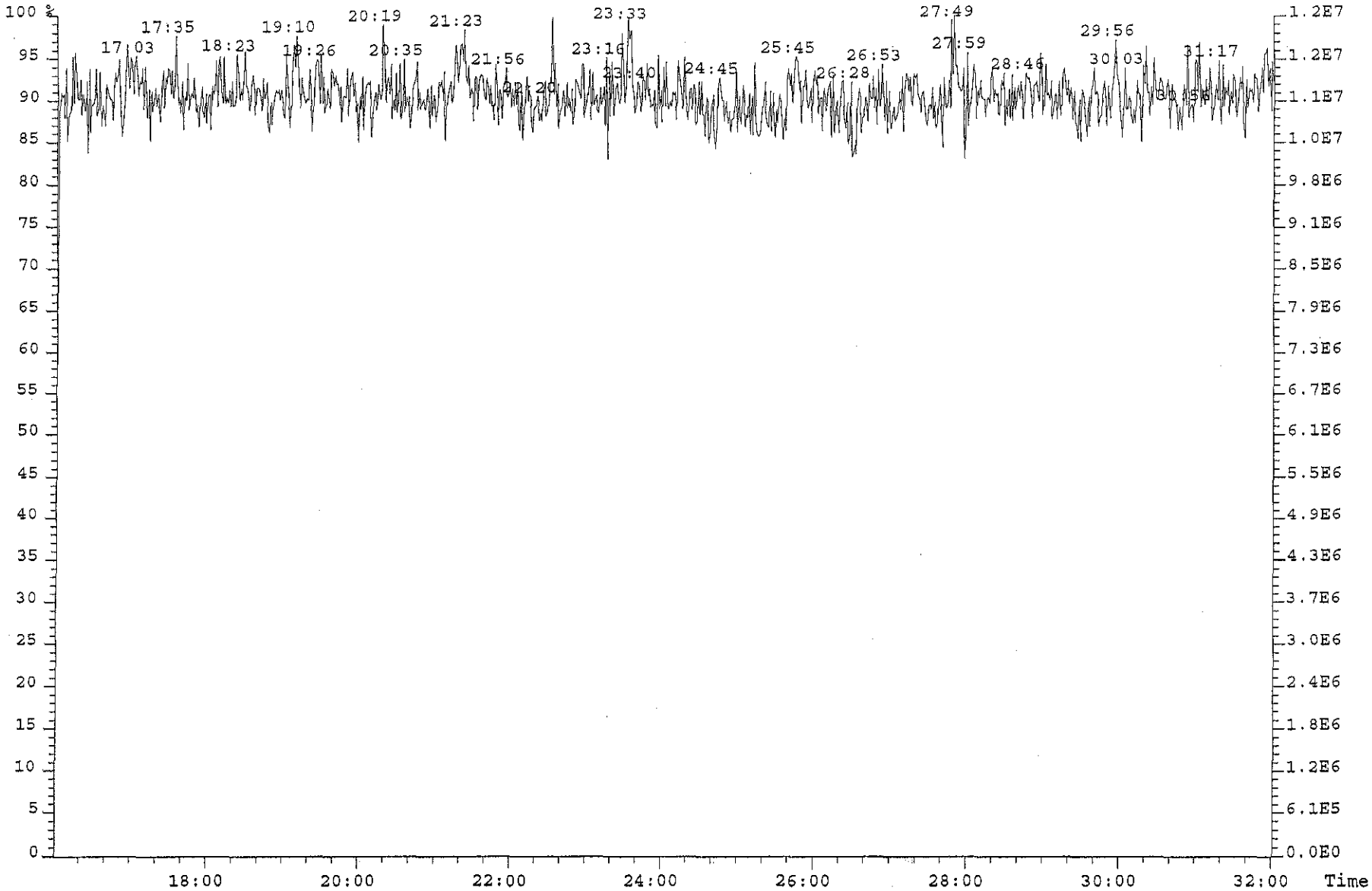
315.9419 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,904.0,0.00%,F,F)



317.9389 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,992.0,0.00%,F,F)



File:0903023D #1-937 Acq:19-SEP-2003 14:07:01 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK Exp:TCDF
Sample Text:Ins.Blk. TCDF06B17 File Text:M23 TCDF CONF



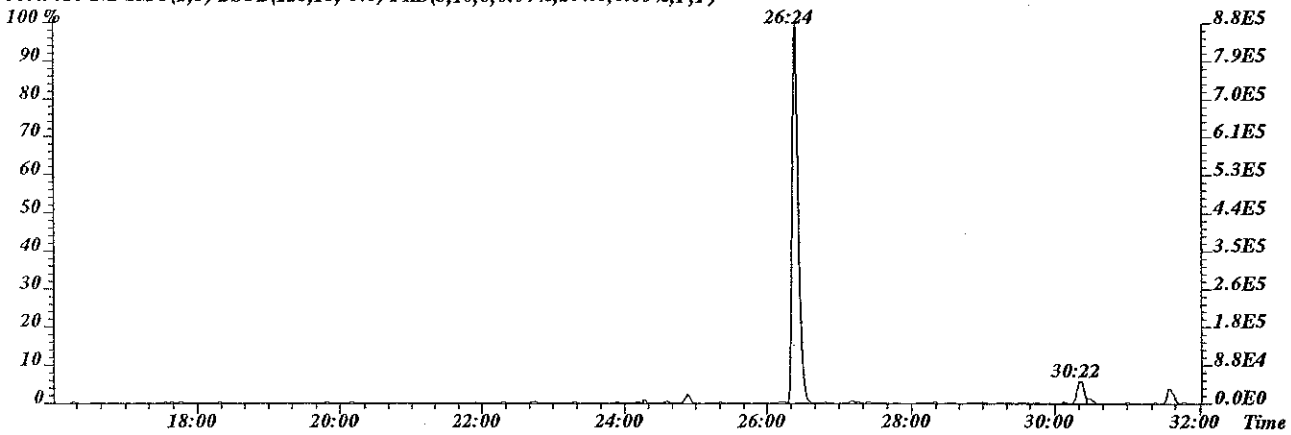
Run #6 Filename 0903023C S: 2 I: 1 Acquired: 19-SEP-03 10:44:42 Processed: 19-SEP-03 11:23:09
Run: tcdf06a Analyte: tcdf06a Cal: tcdf06a Results: 0903023C Quan : V3.6 9-SEP-2002 14:02:21
Sample text: CCAL. TCDF06C17 Comments: OPUS : V3.6X 31-JUL-1998 11:15:12

Typ	Name	Resp	RA		RT	Conc	Dev'n	Mod?
nati	2,3,7,8-TCDF	1.2e+07	0.79	y	26:24	5.12	-4.2	n
nati	Total TCDF	1.2e+07	0.79	y	26:24	5.12	-5.6	n
IS	13C12-2,3,7,8-TCDF	3.3e+08	0.79	y	26:21	170	-	n

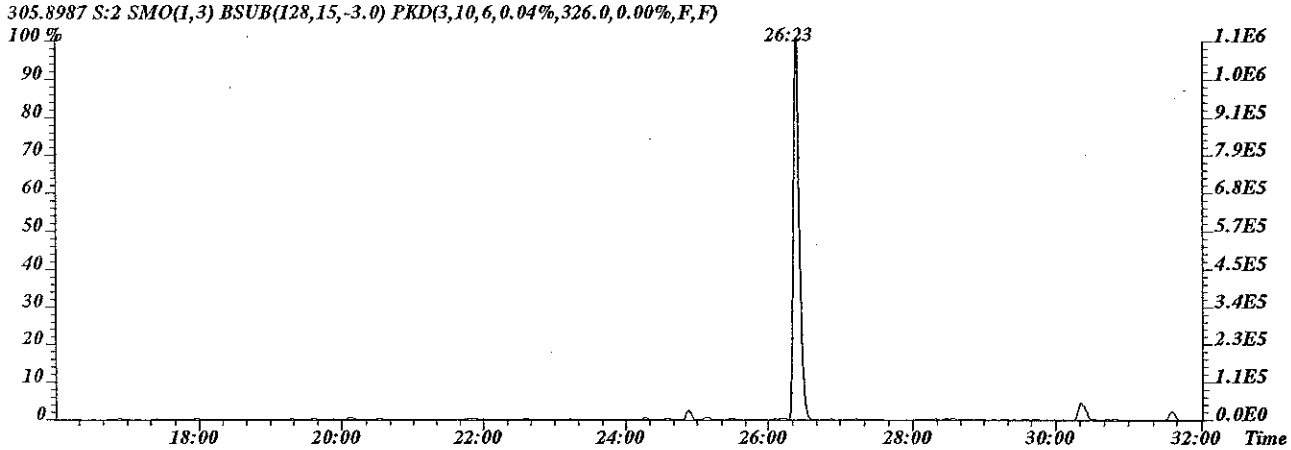
Run #6 Filename 0903023C S: 2 I: 1 Acquired: 19-SEP-03 10:44:42 Processed: 19-SEP-03 11:23:09
Run: tcdf06a Analyte: tcdf06a Cal: tcdf06a Results: 0903023C Version: V3.6 9-SEP-2002 14:02:21
Sample text: CCAL. TCDF06C17 Comments:

	Typ	Name	#Hom	Resp	RA		RT	Conc	5.12 Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDF	1	1.2e+07	0.79	y	26:24	5.121	5.12	0.00	-	n
2	nati	Total TCDF	1	1.2e+07	0.79	y	26:24	5.121	5.12	0.00	-	n
3	IS	13C12-2,3,7,8-TCDF	1	3.3e+08	0.79	y	26:21	170.425	0.00	-	-	n

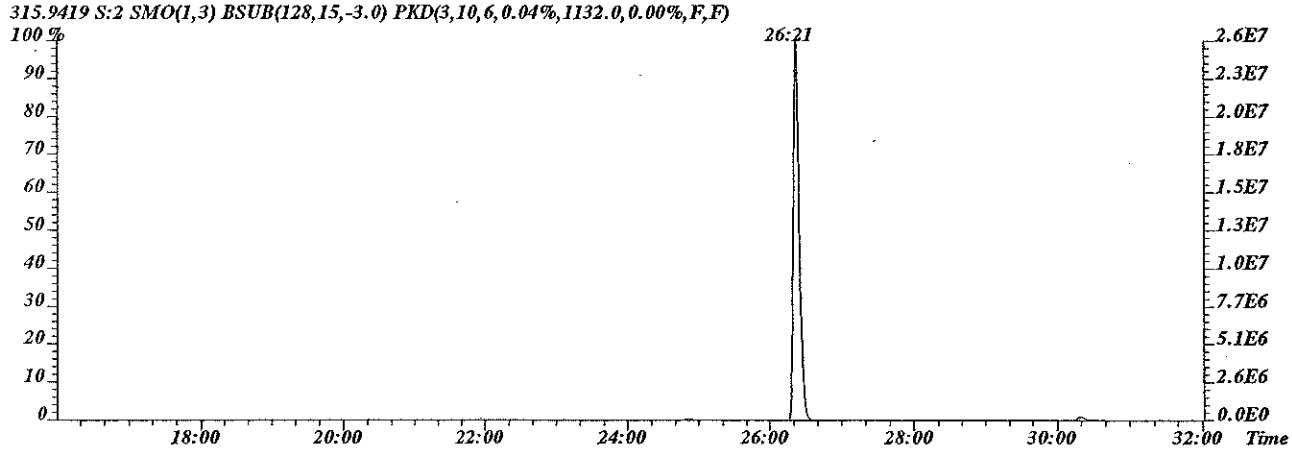
File:0903023C #1-937 Acq:19-SEP-2003 10:44:42 GC EI+ Voltage SIR 70S
Sample#2 File Text:M23 TCDF CONF Text:CCAL. TCDF06C17 Exp:TCDF
303.9016 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,204.0,0.00%,F,F)



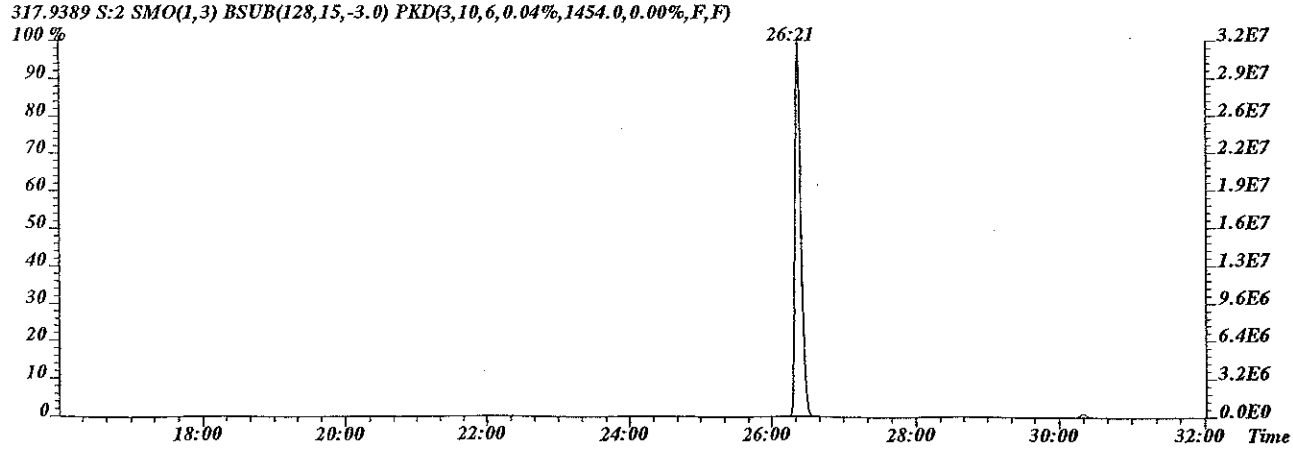
305.8987 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,326.0,0.00%,F,F)



315.9419 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1132.0,0.00%,F,F)

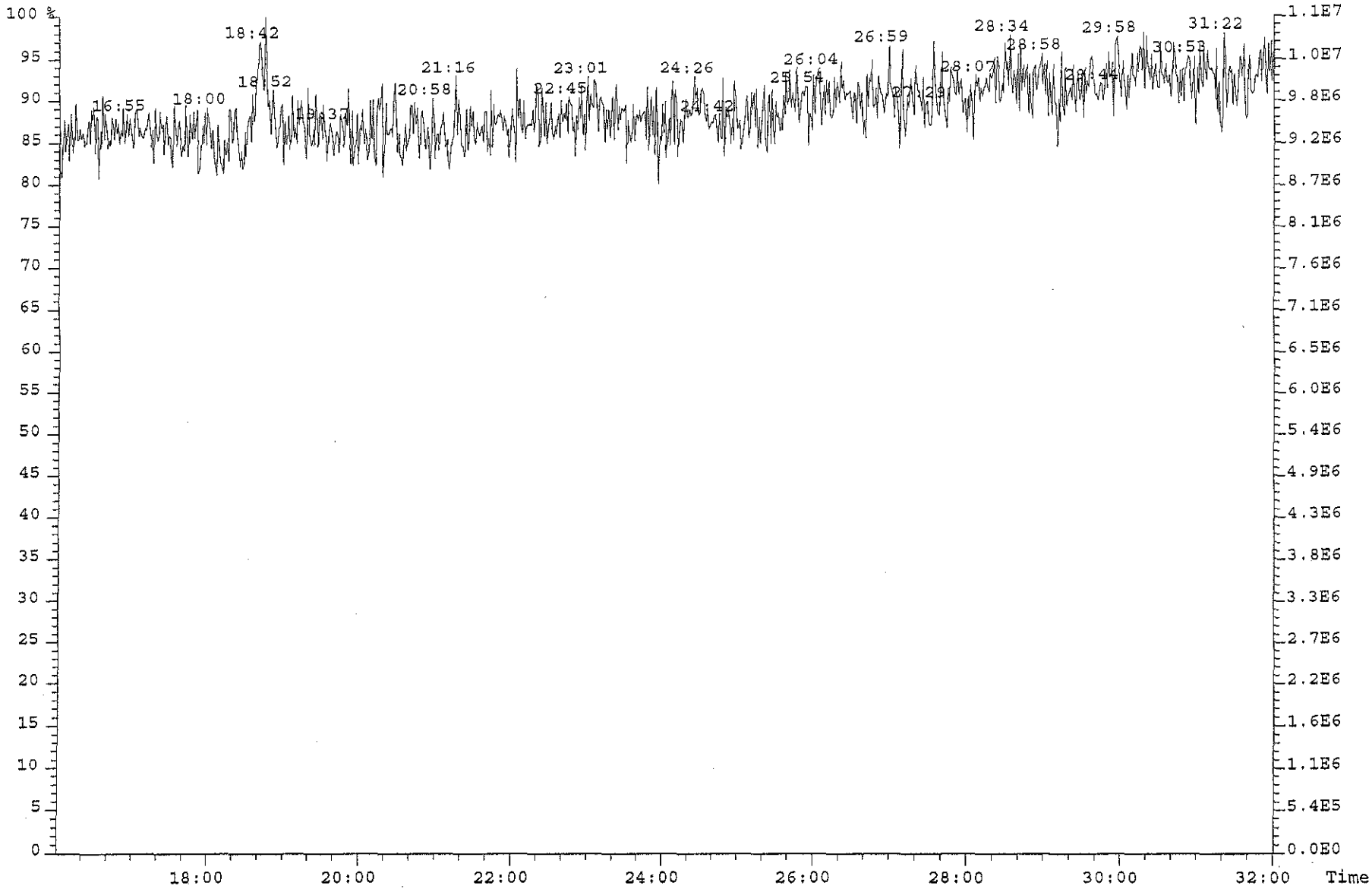


317.9389 S:2 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,1454.0,0.00%,F,F)



P

File:0903023C #1-937 Acq:19-SEP-2003 10:44:42 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:2 Exp:TCDF
Sample Text:CCAL. TCDF06C17 File Text:M23 TCDF CONF



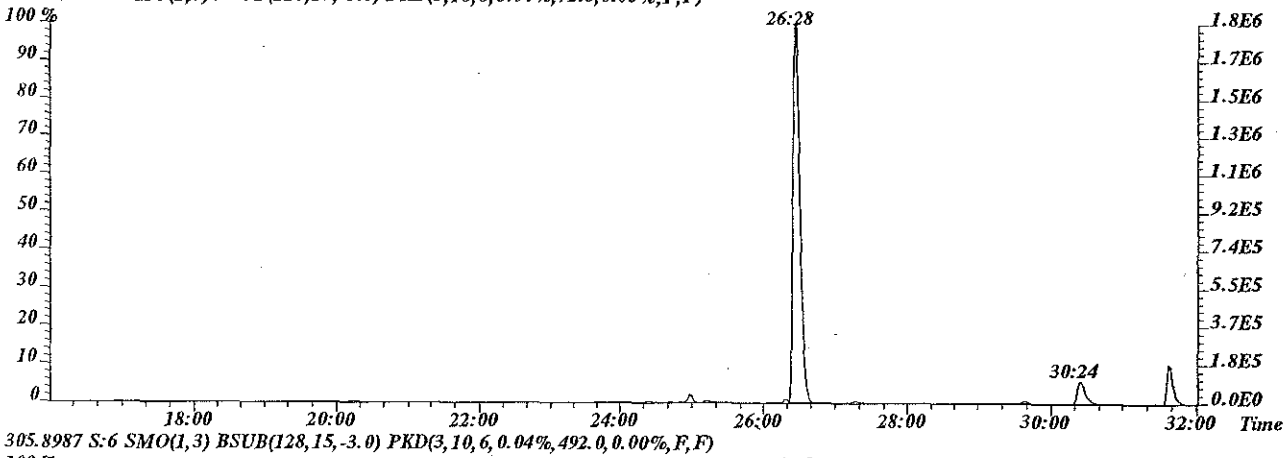
Run #13 Filename 0903023D S: 6 I: 1 Acquired: 19-SEP-03 19:15:42 Processed: 22-SEP-03 08:53:46
Run: tcdf06a Analyte: TCDF06A Cal: tcdf06a Results: 0903023C Quan : V3.6 9-SEP-2002 14:02:21
Sample text: CCAL. TCDF06C18 Comments: OPUS : V3.6X 31-JUL-1998 11:15:12

Typ	Name	Resp	RA		RT	Conc	Dev'n	Mod?
nati	2,3,7,8-TCDF	2.9e+07	0.76	y	26:28	5.51	3.2	n
nati	Total TCDF	3.1e+07	0.76	y	26:28	5.86	8.1	n
IS	13C12-2,3,7,8-TCDF	7.3e+08	0.78	y	26:25	384	-	n

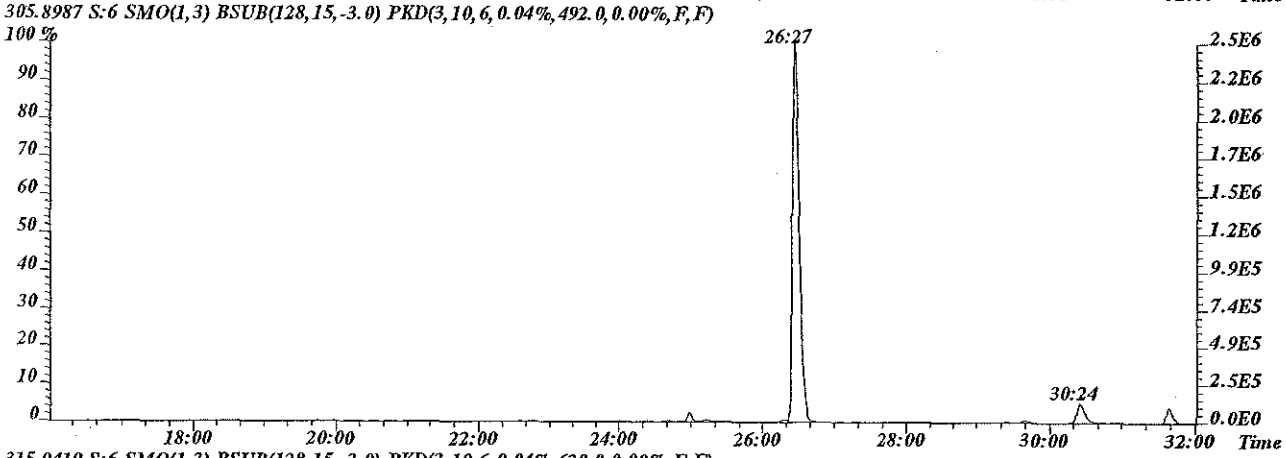
Run #13 Filename 0903023D S: 6 I: 1 Acquired: 19-SEP-03 19:15:42 Processed: 22-SEP-03 08:53:46
Run: tcdf06a Analyte: TCDF06A Cal: tcdf06a Results: 0903023C Version: V3.6 9-SEP-2002 14:02:21
Sample text: CCAL. TCDF06C18 Comments:

	Typ	Name	#Hom	Resp	RA		RT	Conc	5.86 Tox #1	DL	Rec	Mod?
1	nati	2,3,7,8-TCDF	1	2.9e+07	0.76	y	26:28	5.512	5.51	0.00	-	n
2	nati	Total TCDF	3	3.1e+07	0.76	y	26:28	5.859	5.86	0.00	-	n
3	IS	13C12-2,3,7,8-TCDF	1	7.3e+08	0.78	y	26:25	384.167	0.00	-	-	n

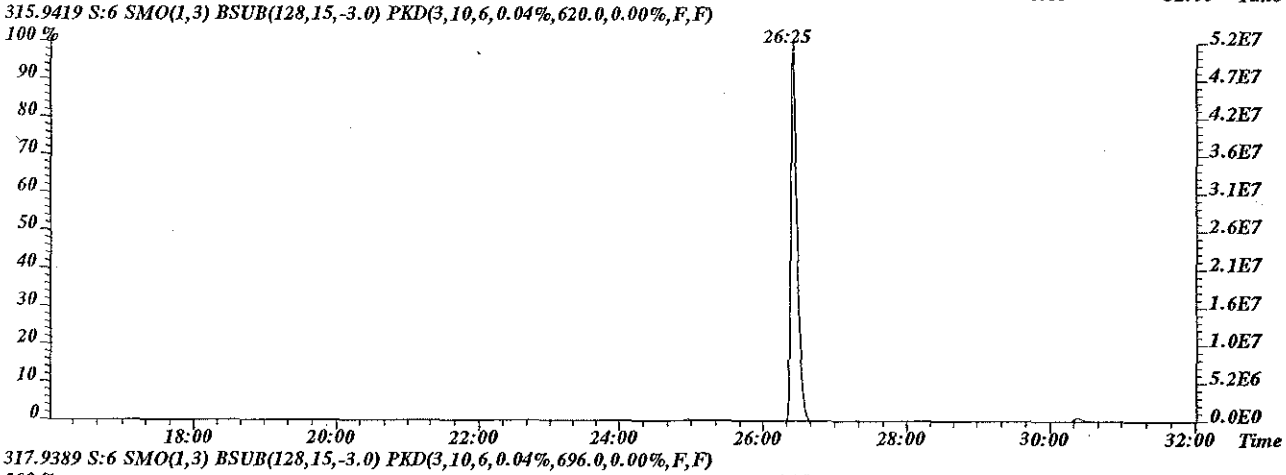
File:0903023D #1-937 Acq:19-SEP-2003 19:15:42 GC EI+ Voltage SIR 70S
Sample#6 File Text:M23 TCDF CONF Text:CCAL. TCDF06C18 Exp:TCDF
303.9016 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,72.0,0.00%,F,F)



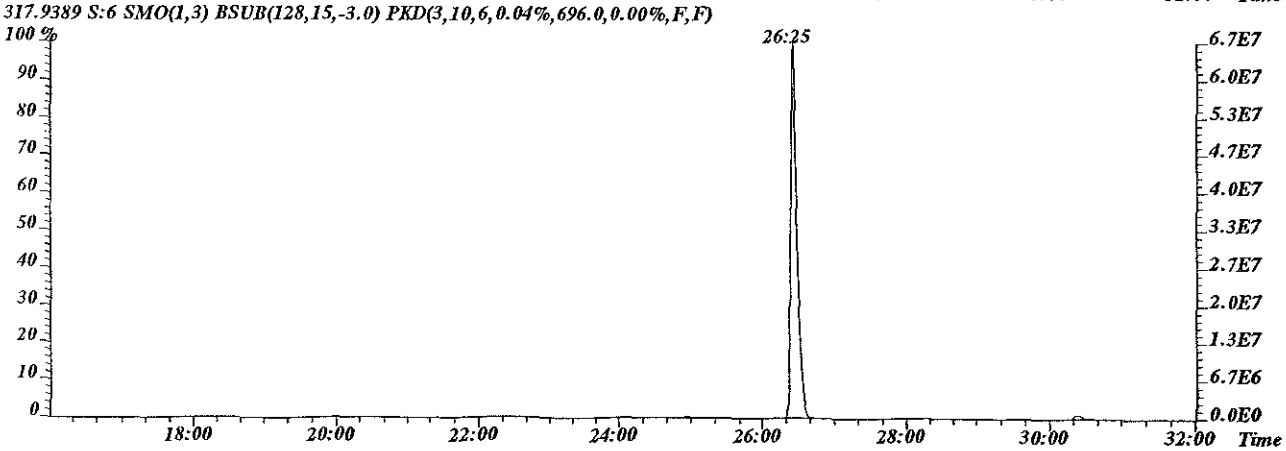
305.8987 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,492.0,0.00%,F,F)



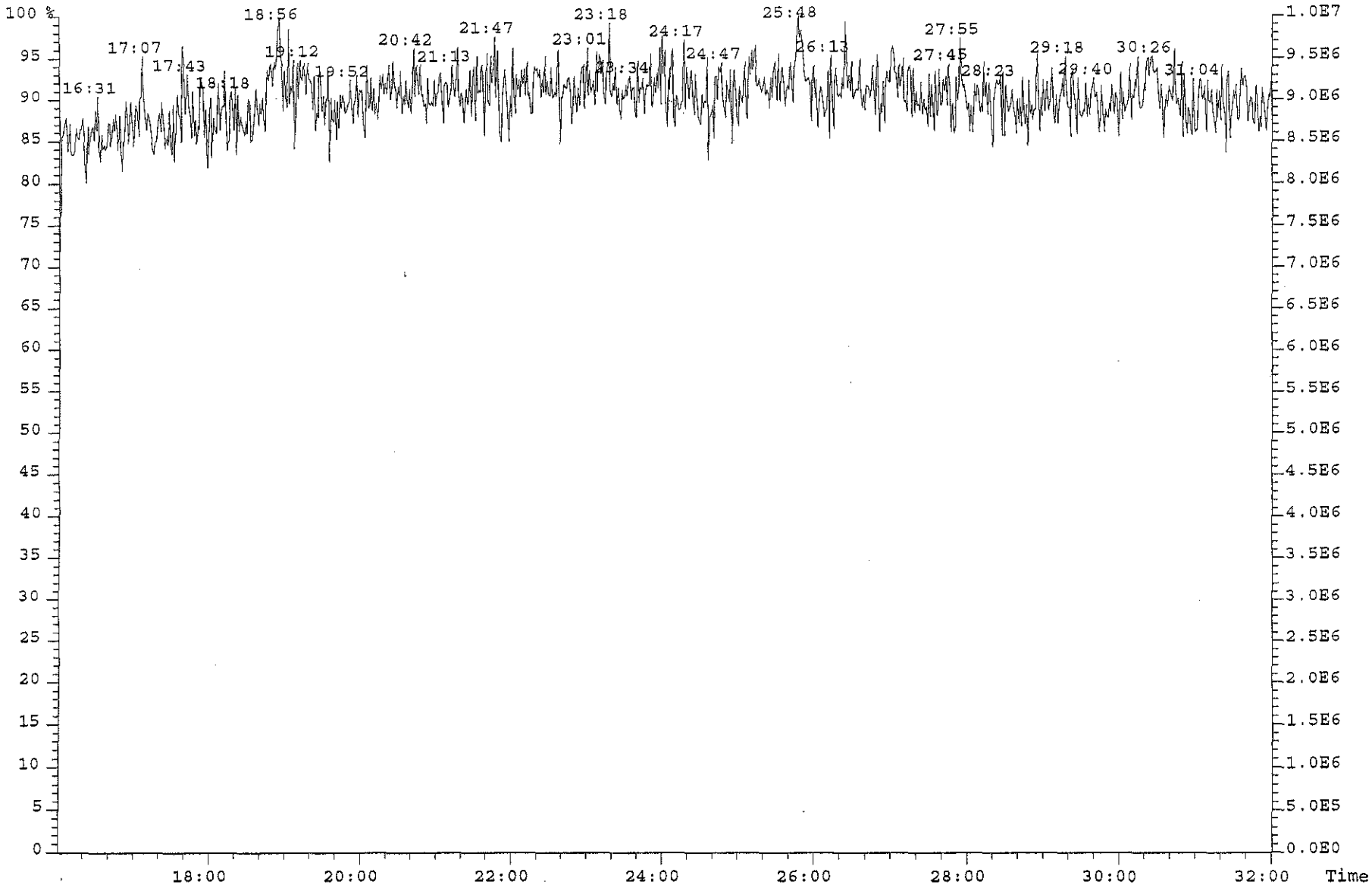
315.9419 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,620.0,0.00%,F,F)



317.9389 S:6 SMO(1,3) BSUB(128,15,-3.0) PKD(3,10,6,0.04%,696.0,0.00%,F,F)



File:0903023D #1-937 Acq:19-SEP-2003 19:15:42 GC EI+ Voltage SIR 70S
LOCK_MASS_CHECK S:6 Exp:TCDF
Sample Text:CCAL. TCDF06C18 File Text:M23 TCDF CONF



d

Run #1 Filename 0103012B S: 2 I: 1 Acquired: 23-JAN-03 17:55:48 Processed: 12-AUG-03 09:36:33
Run: tcdf06a Analyte: tcdf06a Cal: tcdf06a Results: 0903023C Version: V3.6 9-SEP-2002 14:02:21
Sample text: CS-1 TCDF06 Comments:

	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?
1	nati	2,3,7,8-TCDF	0.50	5.16e+05	0.84	y	26:35	-	0.85	y	n
2	nati	Total TCDF	0.50	5.16e+05	0.84	y	26:35	-	0.85	y	n
3	IS	13C12-2,3,7,8-TCDF	100.00	1.22e+08	0.79	y	26:33	1.22e+06	-	n	n

Run #2 Filename 0103012B S: 3 I: 1 Acquired: 23-JAN-03 18:57:30 Processed: 12-AUG-03 09:36:33
Run: tcdf06a Analyte: tcdf06a Cal: tcdf06a Results: 0903023C Version: V3.6 9-SEP-2002 14:02:21
Sample text: CS-2 TCDF06 Comments:

	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?
1	nati	2,3,7,8-TCDF	1.00	9.89e+05	0.85	y	26:34	-	0.65	y	n
2	nati	Total TCDF	1.00	9.89e+05	0.85	y	26:34	-	0.65	y	n
3	IS	13C12-2,3,7,8-TCDF	100.00	1.53e+08	0.77	y	26:33	1.53e+06	-	n	n

Run #3 Filename 0103012B S: 4 I: 1 Acquired: 23-JAN-03 19:59:14 Processed: 12-AUG-03 09:36:33
Run: tcdf06a Analyte: tcdf06a Cal: tcdf06a Results: 0903023C Version: V3.6 9-SEP-2002 14:02:21
Sample text: CS-3 TCDF06 Comments:

	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?
1	nati	2,3,7,8-TCDF	5.00	5.23e+06	0.70	y	26:35	-	0.68	y	n
2	nati	Total TCDF	5.00	5.42e+06	0.86	y	25:02	-	0.70	y	n
3	IS	13C12-2,3,7,8-TCDF	100.00	1.54e+08	0.78	y	26:34	1.54e+06	-	n	n

Run #4 Filename 0103012B S: 5 I: 1 Acquired: 23-JAN-03 21:00:57 Processed: 12-AUG-03 09:36:33
Run: tcdf06a Analyte: tcdf06a Cal: tcdf06a Results: 0903023C Version: V3.6 9-SEP-2002 14:02:21
Sample text: CS-4 TCDF06 Comments:

	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?
1	nati	2,3,7,8-TCDF	50.00	8.50e+07	0.74	y	26:35	-	0.80	y	n
2	nati	Total TCDF	50.00	8.64e+07	0.70	y	25:02	-	0.81	y	n
3	IS	13C12-2,3,7,8-TCDF	100.00	2.13e+08	0.77	y	26:34	2.13e+06	-	n	n

Run #5 Filename 0103012B S: 6 I: 1 Acquired: 23-JAN-03 22:02:43 Processed: 12-AUG-03 09:36:33
Run: tcdf06a Analyte: tcdf06a Cal: tcdf06a Results: 0903023C Version: V3.6 9-SEP-2002 14:02:21
Sample text: CS-5 TCDF06 Comments:

	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?
1	nati	2,3,7,8-TCDF	100.00	2.71e+08	0.76	y	26:35	-	0.87	y	n
2	nati	Total TCDF	100.00	2.76e+08	0.82	y	24:50	-	0.89	y	n
3	IS	13C12-2,3,7,8-TCDF	100.00	3.11e+08	0.77	y	26:34	3.11e+06	-	n	n

Run: tcdf06a Analyte: tcdf06a Cal: tcdf06a Results: 0903023C Version: V3.6 9-SEP-2002 14:02:21

Name	Mean RRF	S. D.	%RSD	0103012B RRF#1	S2 SD	0103012B RRF#2	S3 SD	0103012B RRF#3	S4 SD	0103012B RRF#4	S5 SD	0103012B RRF#5	S6 SD
2,3,7,8-TCDF	0.7678	0.101	13.10 %	0.85	0.8	0.65	-1.2	0.68	-0.9	0.80	0.3	0.87	1.0
Total TCDF	0.7787	0.101	12.95 %	0.85	0.7	0.65	-1.3	0.70	-0.8	0.81	0.3	0.89	1.1
13C12-2,3,7,8-TCDF	-	-	- %	-	-	-	-	-	-	-	-	-	-

```
===== Header Information ==================================================
Entry num: 1  Type: native      Name: 2,3,7,8-TCDF                    F: 1
Run: tcdf06a    Analyte: tcdf06a     Cal: tcdf06a   Results: 0903023C
Version: V3.6 9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 3                        Method : rel_internal
 Cal curve    : quadratic                Origin : force
 Amount on y?: no        Weighted? no    Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.7678      SD: 0.1006    =13.1 %
Curve Eqn: 1.613e-03xÜ2 +7.096e-01x +0.000e+00     Cor: 0.99998  SD: 0.2

===== Calibration Run Summary =============================================
```

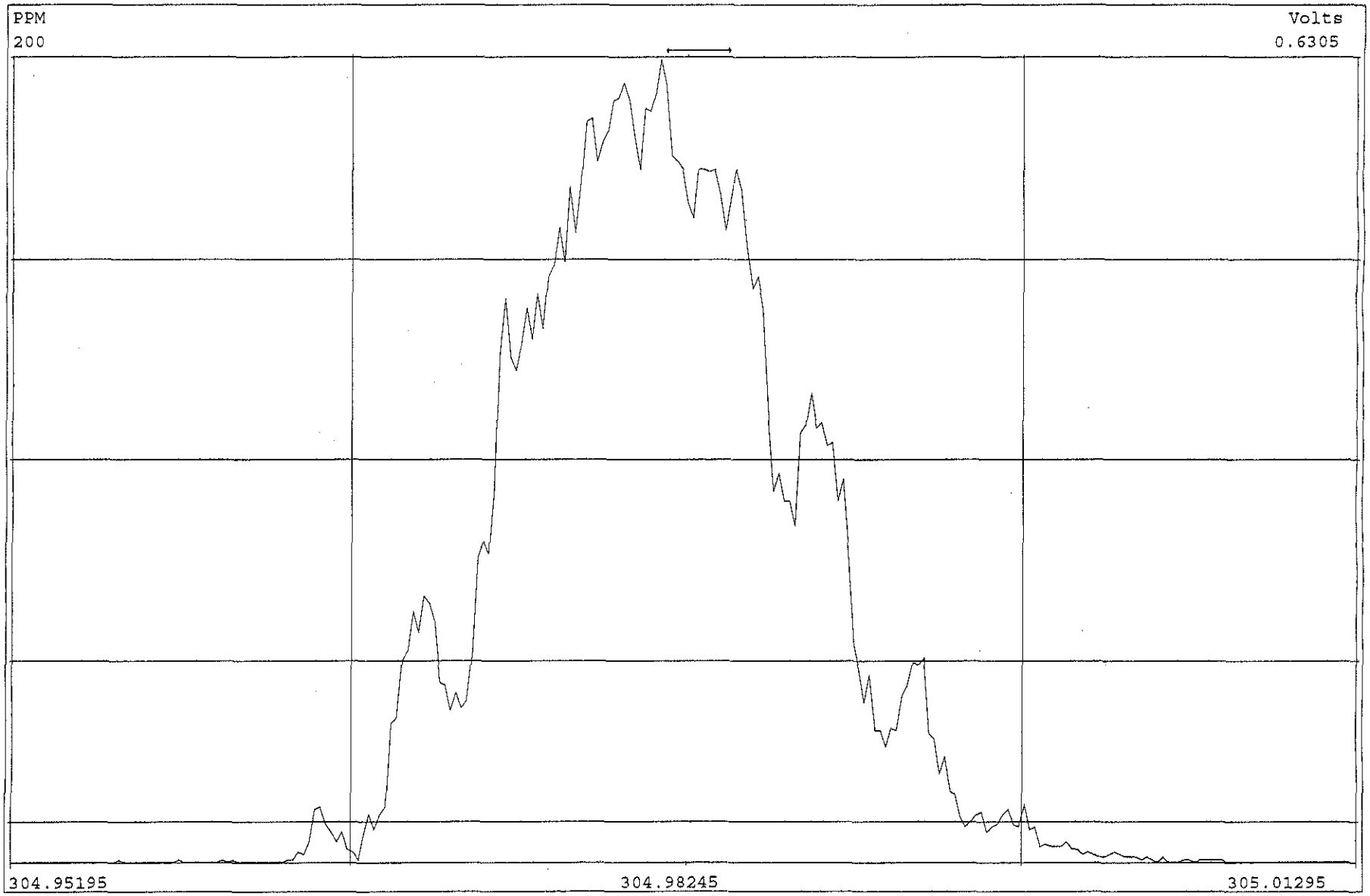
Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0103012B	2	0.5	5.000e-01	4.240e-01	0.848	0.80	y	0.29	y	n
2	0103012B	3	1.0	1.000e+00	6.464e-01	0.646	-1.21	y	-0.28	y	n
3	0103012B	4	5.0	5.000e+00	3.388e+00	0.678	-0.90	y	-0.86	y	n
4	0103012B	5	50.0	5.000e+01	3.988e+01	0.798	0.30	y	1.59	y	n
5	0103012B	6	100.0	1.000e+02	8.692e+01	0.869	1.01	y	-0.75	y	n

```
===== Header Information ==================================================
Entry num: 2  Type: native      Name: Total TCDF                      F: 1
Run: tcdf06a    Analyte: tcdf06a     Cal: tcdf06a   Results: 0903023C
Version: V3.6 9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    : 3                        Method : rel_internal
 Cal curve    : quadratic                Origin : force
 Amount on y?: no       Weighted? no     Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: 0.7787     SD: 0.1008    =12.9 %
Curve Eqn: 1.651e-03xÜ2 +7.223e-01x +0.000e+00     Cor: 0.99999  SD: 0.2

===== Calibration Run Summary =============================================
```

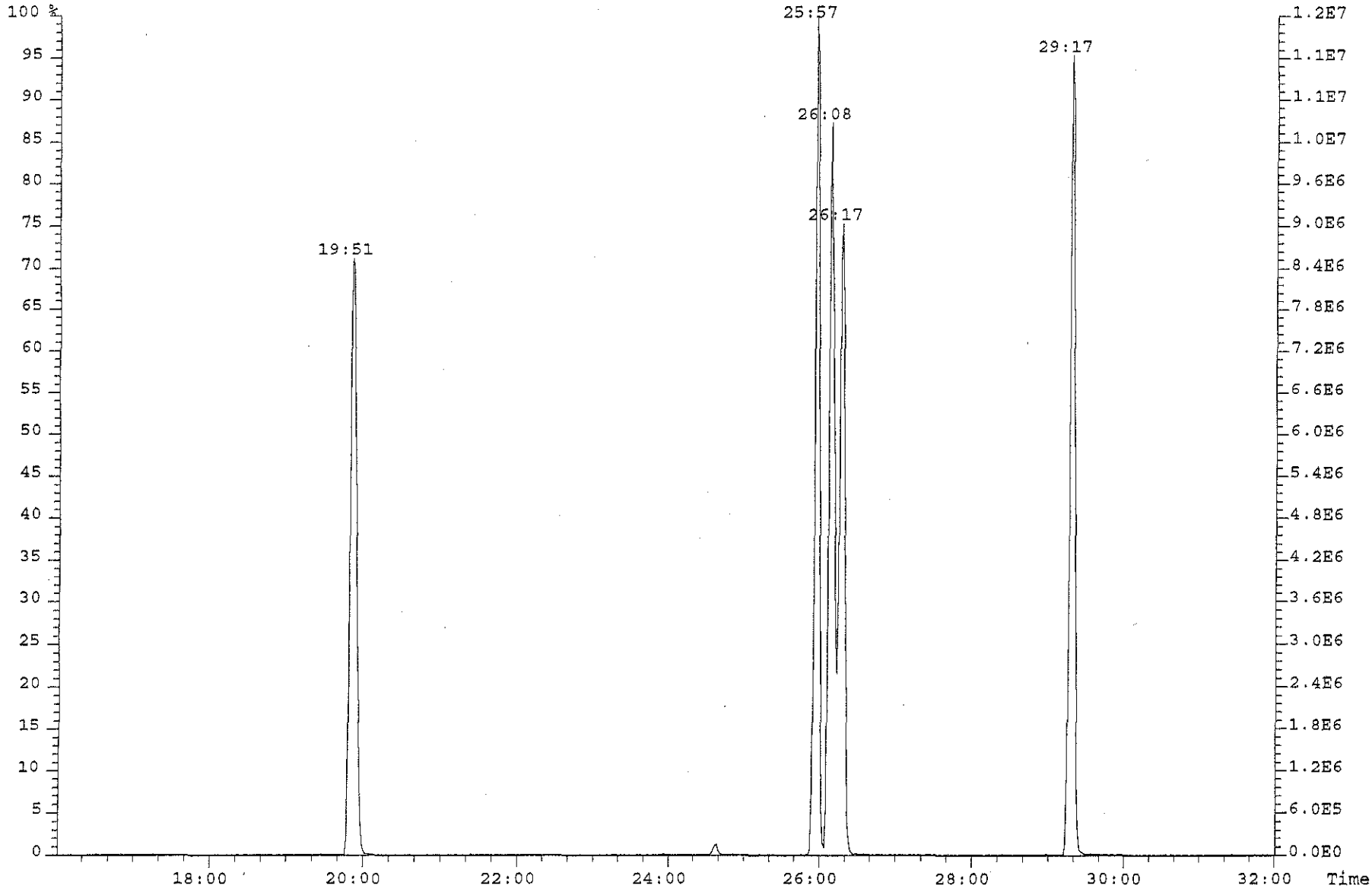
Run	File	S	Amount	x	y	RRF	#SDs	OK	Curve#SDs	OK	Mod?
1	0103012B	2	0.5	5.000e-01	4.240e-01	0.848	0.69	y	0.34	y	n
2	0103012B	3	1.0	1.000e+00	6.464e-01	0.646	-1.31	y	-0.42	y	n
3	0103012B	4	5.0	5.000e+00	3.512e+00	0.702	-0.76	y	-0.76	y	n
4	0103012B	5	50.0	5.000e+01	4.054e+01	0.811	0.32	y	1.60	y	n
5	0103012B	6	100.0	1.000e+02	8.861e+01	0.886	1.06	y	-0.76	y	n

```
===== Header Information ==================================================
Entry num: 3  Type: IS          Name: 13C12-2,3,7,8-TCDF              F: 1
Run: tcdf06a    Analyte: tcdf06a     Cal: tcdf06a   Results: 0903023C
Version: V3.6 9-SEP-2002 14:02:21

===== Calibration Parameters ==============================================
  Standard    :                          Method : abs_internal
 Cal curve    : linear                   Origin : force
 Amount on y?: no       Weighted? no     Max SDs: 2.50

===== Calibration Statistics ==============================================
RRF: Mean: -           SD: -        =- %
Curve Eqn: 1.907e+06x +0.000e+00                    Cor: -        SD: 75123

===== Calibration Run Summary =============================================
Run File       S  Amount          x          y     RRF  #SDs  OK Curve#SDs OK Mod?

  1 0103012B  2   100.0  1.000e+02 1.218e+08      -     -  n      -0.92  y    n
  2 0103012B  3   100.0  1.000e+02 1.530e+08      -     -  n      -0.50  y    n
  3 0103012B  4   100.0  1.000e+02 1.543e+08      -     -  n      -0.48  y    n
  4 0103012B  5   100.0  1.000e+02 2.131e+08      -     -  n       0.30  y    n
  5 0103012B  6   100.0  1.000e+02 3.115e+08      -     -  n       1.61  y    n
```

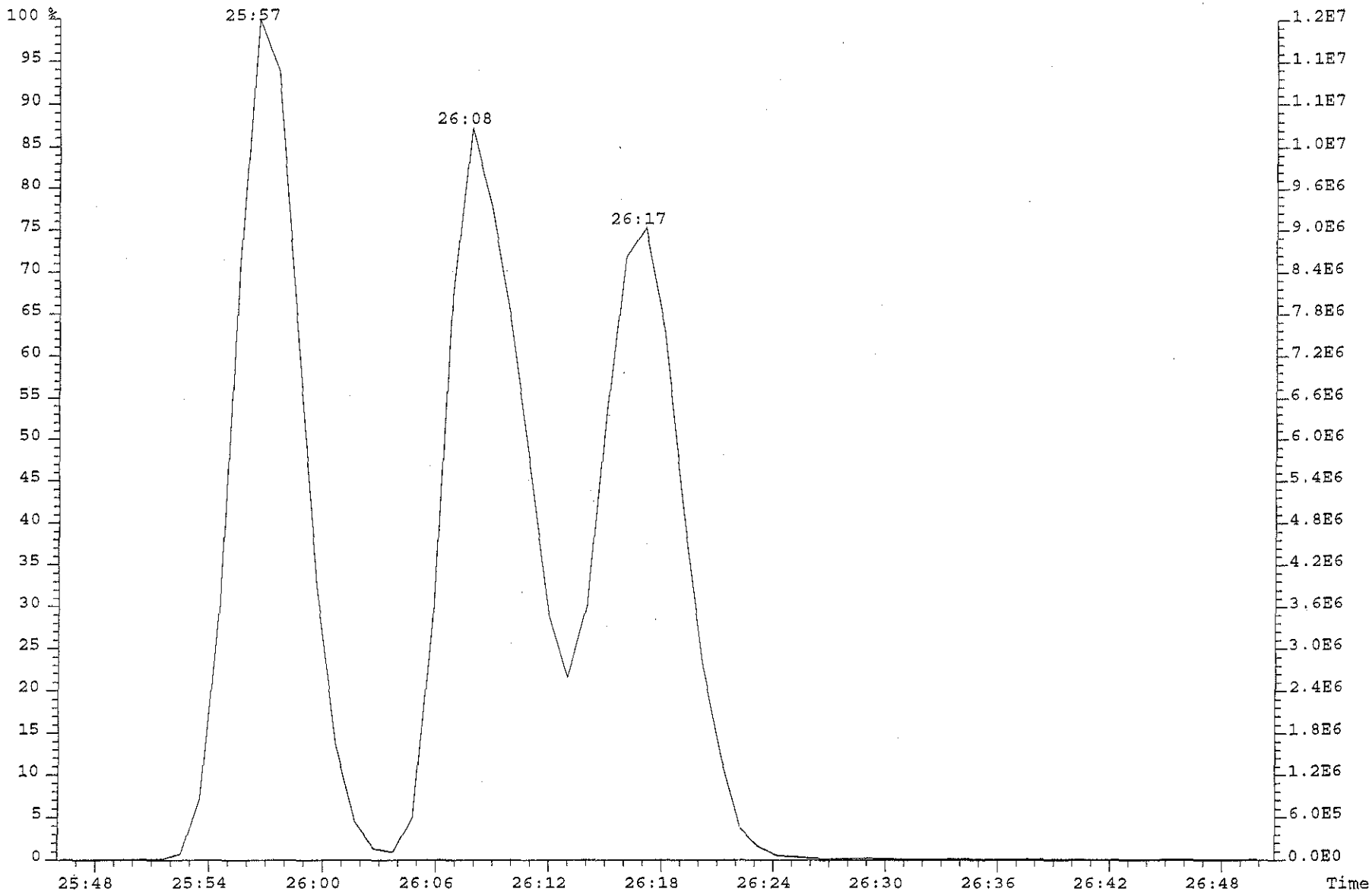
Peak Locate Examination:19-SEP-2003:09:38 File:0903023C
Experiment:TCDF Function:1 Reference:PFK



File:0903023C #1-937 Acq:19-SEP-2003 09:39:53 GC EI+ Voltage SIR 70S
303.9016 Exp:TCDF
Sample Text:W.S.M. 09180301 File Text:M23 TCDF CONF



File:0903023C #1-937 Acq:19-SEP-2003 09:39:53 GC EI+ Voltage SIR 70S
303.9016 Exp:TCDF
Sample Text:W.S.M. 09180301 File Text:M23 TCDF CONF



DOCUMENTATION

DAT®
Data/Analysis Technologies, Inc.
"Analytical Laboratories and Consultants"

SERIAL NO. 25197

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

7715 CORPORATE BLVD.
PLAIN CITY, OHIO 43064
614-873-0710 800-733-8644
FAX 614-873-0810

PROJECT REFERENCE: ST. John's Hospital
PROJECT NO.:
P.O. NUMBER:
PROJECT LOC. (State): IL
SAMPLER(S) NAME: James Gray
PHONE: 330-525-5119
FAX: 330-525-7908
CLIENT NAME: Custom Stack Analysis
CLIENT PROJECT MANAGER: James Gray
CLIENT ADDRESS (CITY, STATE, ZIP): P.O. Box 3750 Alliance, OH 44601

MATRIX TYPE: AQUEOUS (WATER) / SOLID OR SEMISOLID / AIR / NONAQUEOUS LIQUID (oil, solvent, etc.)

REQUIRED ANALYSIS: Dioxin / Furan

PAGE ___ OF ___

☐ STANDARD REPORT DELIVERY
☒ EXPEDITED REPORT DELIVERY (SURCHARGE)
DATE DUE ___

SAMPLE DATE	SAMPLE TIME	DAT NO.	SAMPLE IDENTIFICATION	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID	NUMBER OF CONTAINERS SUBMITTED	REMARKS
9-3-03	3:45pm		Run #1 Container #1		X			Filter	
"			Run #1 Container #2	X				Methylenechloride - Acetone	
"			Run #1 Container #3	X				Toluene Rinse	
9-4-03	8:29am		Run #2 Container #1		X			Filter	?
"			Run #2 Container #2	X				Methylenechloride - Acetone	
"			Run #2 Container #3	X				Toluene Rinse	
9-4-03	1:51pm		Run #3 Container #1		X			Filter	
"			Run #3 Container #2	X				Methylenechloride - Acetone	
"			Run #3 Container #3	X				Toluene Rinse	
9-3-03	3:45pm		Run #1 XAD		X				
9-4-03	8:29am		Run #2 XAD		X				
9-4-03			Run #3 XAD		X				

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY (SIGNATURE)	DATE	TIME
W. Pettine	9-8-03	4:00pm						
RECEIVED BY (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY (SIGNATURE)**	**DATE**	**TIME**

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	DAT LOG NO.	LABORATORY REMARKS:
			☐ YES ☐ NO			

DAT Labs Inc.
Sample Receipt Report

Client: CUSTOM STATE ANALYSIS
Custodian Initial: KBS Date: 9-9-03

The client has been contacted.
_____ Yes _____ No

Upon receipt of samples, check if any of the following discrepancies have been noted.

	Discrepancy Type	*Specify applicable client ID or "all"*
	COC and samples do not match	
	No unique sample identifications	
	Samples received outside of the required temp criteria. **Receipt Temp:** AMBIENT	
	No preservation type was noted	
	No date of collection stated	
	No time of collection stated	
	The sample collector was not named	
	Sample containers were not appropriate	
	Sample labels were destroyed or unreadable	
	Samples were received outside of holding time	
	There was not enough sample to perform the requested analysis.	
	Samples showed sign of damage or contamination.	
	Aqueous samples for volatile analysis: Headspace? Y N If Y (es), details:	
	Sample pH acidic basic neutral Please describe any outliers or nonconformances below.	

Details: _____

Sample pH for nonvolatile aqueous samples and presence or absence of headspace (Y or N) for aqueous samples shall be recorded at time of sample log-in.
Under no circumstances shall VOA vials be opened at time of sample receipt.

Other Discrepancies:

Sample ID	**Discrepancy**

[X] ***Upon receipt, the samples met all of DAT's acceptance criteria.*** ***DAT Project #*** 0903023

FRMSRR081501

247 SAMPLE RECEIVING

7715 Corporate Blvd. Plain City,OH 43064

1 of 4

Project Number: 0903023

Date Received:	9/9/03	Carrier:	FedEx
Client Name:	Custom Stack Analysis	Analysis:	HCl, Metals, Dioxins & Fur
Tracking number:	838889333219/3220	Package Temp:	ambient
Custody Seals ?	No	COC: ☑	"X" = client provided COC

Sample Information

Client ID:	Laboratory ID	Date	Matrix:	Container:	Comment:
Run #1 Container #1	0903023-1	9/3/03	Air (filter)	petri dish	
Run #1 Container #2	0903023-2	9/3/03	Acetone	100 ml plastic	
Run #1 Container #3	0903023-3	9/3/03	Toluene	100 ml plastic	
Run #1 XAD	0903023-4	9/3/03	XAD	XAD glass trap	
Run #2 Container #1	0903023-5	9/4/03	Air (filter)	petri dish	
Run #2 Container #2	0903023-6	9/4/03	Acetone	100 ml plastic	
Run #2 Container #3	0903023-7	9/4/03	Toluene	100 ml plastic	
Run #2 XAD	0903023-8	9/4/03	XAD	XAD glass trap	
Run #3 Container #1	0903023-9	9/4/03	Air (filter)	petri dish	
Run #3 Container #2	0903023-10	9/4/03	Acetone	100 ml plastic	

KDS

Laboratory Receiving Initials

0903023

9/9/03 2:35:16 PM

DAT SAMPLE RECEIVING

7715 Corporate Blvd. Plain City,OH 43064.

2 of 4

Project Number: 0903023

Client ID:	Laboratory ID	Date	Matrix:	Container:	Comment:
Run #3 Container #3	0903023-11	9/4/03	Toluene	100 ml plastic	
Run #3 XAD	0903023-12	9/4/03	XAD	XAD glass trap	
Run #1 Container #3	0903023-13	9/3/03	H2SO4	250 ml plastic	
Run #2 Container #3	0903023-14	9/4/03	H2SO4	250 ml plastic	
Run #3 Container #3	0903023-15	9/4/03	H2SO4	250 ml plastic	
Blank 0.1N H2SO4	0903023-16	9/4/03	H2SO4	100 ml plastic	
Run #1 Container 1	0903023-17	9/3/03	Air (filter)	petri dish	
Run #1 Container 3	0903023-18	9/3/03	HNO3	250 ml plastic	
Run #1 Container 4	0903023-19	9/3/03	HNO3	500 ml plastic	
Run #1 Container 5A	0903023-20	9/3/03	HNO3	250 ml plastic	
Run #1 Container 5B	0903023-21	9/3/03	KMnO4	1L clear wm	
Run #1 Container 5C	0903023-22	9/3/03	0.8N HCl	500 ml clear wm	
Run #2 Container 1	0903023-23	9/4/03	Air (filter)	petri dish	
Run #2 Container 3	0903023-24	9/4/03	HNO3	250 ml plastic	
Run #2 Container 4	0903023-25	9/4/03	HNO3	500 ml plastic	

KAS

Laboratory Receiving Initials

0903023

9/9/03 2:35:16 PM

247 SAMPLE RECEIVING

7715 Corporate Blvd. Plain City,OH 43064.

3 of 4

Project Number: 0903023

Client ID:	Laboratory ID	Date	Matrix:	Container:	Comment:
Run #2 Container 5A	0903023-26	9/4/03	HNO3	250 ml plastic	
Run #2 Container 5B	0903023-27	9/4/03	KMnO4	1L clear wm	
Run #2 Container 5C	0903023-28	9/4/03	0.8N HCl	500 ml clear wm	
Run #3 Container 1	0903023-29	9/4/03	Air (filter)	petri dish	
Run #3 Container 3	0903023-30	9/4/03	HNO3	250 ml plastic	
Run #3 Container 4	0903023-31	9/4/03	HNO3	500 ml plastic	
Run #3 Container 5A	0903023-32	9/4/03	HNO3	250 ml plastic	
Run #3 Container 5B	0903023-33	9/4/03	KMnO4	1L clear wm	
Run #3 Container 5C	0903023-34	9/4/03	0.8N HCl	500 ml clear wm	
Container 7 Blank	0903023-35	9/4/03	Acetone	100 ml plastic	
Container 8A Blank	0903023-36	9/4/03	HNO3	500 ml plastic	
Container 8B Blank	0903023-37	9/4/03	Water	100 ml plastic	
Container 9 Blank	0903023-38	9/4/03	HNO3/H2O2	250 ml plastic	
Container 10 Blank	0903023-39	9/4/03	KMnO4	500 ml clear wm	
Container 11 Blank	0903023-40	9/4/03	0.8N HCl	500 ml clear wm	

KBS

Laboratory Receiving Initials

0903023

9/9/03 2:35:17 PM

247 SAMPLE RECEIVING

7715 Corporate Blvd. Plain City,OH 43064.

4 of 4

Project Number: 0903023

Client ID:	Laboratory ID	Date	Matrix:	Container:	Comment:
Container 12 Blank	0903023-41	9/4/03	Air (filter)	petri dishe	

KBS

Laboratory Receiving Initials

0903023

9/9/03 2:35:17 PM

DAT Labs, Inc. Extraction Form

Project # 0903023

Sample: SOLIDS LIQUID AIR

Analysis: M23

Prepared By: CS

Date: 9/11/03

Spike Witness:

Solvent Manufac: B+J

Solvent Lot # CH357

Extraction	Solvent	Volume mls	Reps
✓ Soxhlet	Hexane		
Sep Funnel	Methanol		
Sonication	Methylene Chloride		
Cont. Ext	ACN		
Vial	Ethyl Acetate		
SPE Distill	IPA		
Other	✓ Toluene		
No Extract	Water		
Other (Describe)		300mL	1/hr

SURROGATE ID	VOL mls / (ul)	CONC
SL- SL-24-7A	40µL	0.1 ng/mL 4000pg/total
SL-		
SL-		

LS/MS ID	VOL mls / ul	CONC
SL-		
SL-		
SL-		

INT STD ID	VOL mls / (ul)	CONC
SL-0 SL-2490	50µL	0.08 ng/mL 4000pg/total
SL- SL-25-15	50µL	0.1 ng/mL (ALT) 5000pg/total
SL- EDF-4055	10µL	500 ng/mL (NS) 5000pg/total

COMMENTS: Stylbr 3,7,11 were archived

SAMPLE ID	TOTAL SAMPLE AMNT	SAMPLE AMNT EXTRACTED	TOTAL EXTRACT VOL (ADD ALL REPS)	FINAL EXTRACT VOL mls / (ul)	SURR INIT	SPK INIT	IS INIT
2,4,17			300mL - 10mL	50µL	CS		CS
6,8,23			300mL - 10mL	50µL	CS		CS
10,12,29			300mL - 10mL	50µL	CS		CS
-MB			300mL - 10mL	50µL	CS		CS

If extract was split for additional analyses, please note the aliquot volume for this analysis and at what point the extract was spiked.

ALIQUOT VOLUME: 5.0 (mls) ul (Circle one)

Extract was spiked: (Before) After the split. (Circle one)

Additional samples may be listed on the back of this page.

59

100

FedEx Express *USA Airbill*

FedEx Tracking Number 8388 8933 3219

NO POUCH NEEDED.
See back for peel and stick application instructions.

RECIPIENT: PEEL HERE

1 From This portion can be removed for Recipient's records.

Date 9-8-03 FedEx Tracking Number 838889333219

Sender's Name James Gray Phone 330 525-5119

Company CUSTOM STACK ANALYSIS

Address 14614 CENFIELD ST NE

Dept./Floor/Suite/Room

City ALLIANCE State OH ZIP 44601-9418

2 Your Internal Billing Reference

3 To

Recipient's Name Ron Middleburn Phone 800 733-8644

Company Data Analysis

Address 7715 Corporate Blvd.

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Dept./Floor/Suite/Room

City Plain City State OH ZIP 43064

8388 8933 3219

0236784921

Recipient's Copy

4a Express Package Service *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- ☐ FedEx Priority Overnight — Next business morning
- ☒ FedEx Standard Overnight — Next business afternoon
- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations
- ☐ FedEx 2Day — Second business day
- ☐ FedEx Express Saver — Third business day

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- ☐ FedEx 1Day Freight* — Next business day
- ☐ FedEx 2Day Freight — Second business day
- ☐ FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging * Declared value limit $500

- ☐ FedEx Envelope*
- ☐ FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- ☒ Other

6 Special Handling Include FedEx address in Section 3.

- ☐ SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- ☐ HOLD Weekday at FedEx Location — Not available for FedEx First Overnight
- ☐ HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- ☒ No
- ☐ Yes — As per attached Shipper's Declaration
- ☐ Yes — Shipper's Declaration not required
- ☐ Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- ☐ Cargo Aircraft Only

Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- ☒ Sender — Acct. No. in Section 1 will be billed.
- ☐ Recipient
- ☐ Third Party
- ☐ Credit Card
- ☐ Cash/Check

Obtain Recip. Acct. No. ☐

Total Packages	Total Weight	Total Charges
1	3 lb	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1.800.Go.FedEx® 800.463.3339.

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447

Align bottom of Airbill Pouch here.
Part # 150454 Rev. 4/00

60

100 **FedEx** Express *USA Airbill* FedEx Tracking Number 8388 8933 3220

0215 **Recipient's Copy**

1 From This portion can be removed for Recipient's records.

Date 9-8-03 FedEx Tracking Number 838889333220

Sender's Name James Clay Phone 330 525-5119

Company CUSTOM STACK ANALYSIS

Address 14614 CENFIELD ST NE Dept./Floor/Suite/Room

City ALLIANCE State OH ZIP 44601-9418

RECIPIENT: PEEL HERE

2 Your Internal Billing Reference

3 To

Recipient's Name Ron Mitchen Phone 800 733-8644

Company Data Analysis

Address To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address 1715 Corporate Blvd Dept./Floor/Suite/Room

City Plain City State OH ZIP 43064

8388 8933 3220

L 0236784921

4a Express Package Service *Packages up to 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx Priority Overnight — Next business morning
- [x] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [x] Other

6 Special Handling Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, UN 1845 ____ x ____ kg

Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.

- [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Charges
1	8 lb	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1.800.Go.FedEx® 800.463.3339.

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447

NO POUCH NEEDED. See back for peel and stick application instructions.

Lab Data Sheet For St. John Hospital **Date** 9-3-03 **By** Jeff Pittman

Moisture Weights **Impinger Number**

Method 26A

	Box	1	2	3	4	5	6	Drierite	Test 1
Gross		596.4	605.4	580.9	589.3			959.9	
Tare	3	566.2	578.3	563.0	580.2			950.9	
Net		30.2	27.1	17.9	9.1			9	

Initial Imp ML = 400

Impinger Total = 84.3 Total = 93.3

	Box	1	2	3	4	5	6	Drierite	Test 2
Gross		656.5	614.8	592.8	487.5			964.6	
Tare	4	580.3	592.1	587.2	482.8			954.1	
Net		72.2	22.7	5.6	4.7			10.5	

Impinger Total = 105.2 Total = 115.7

	Box	1	2	3	4	5	6	Drierite	Test 3
Gross		623.9	604.2	570.3	589.0			985.6	
Tare	5	585.7	584.6	570.8	569.0			974.0	
Net		38.2	19.6	-0.5	20			11.6	

Impinger Total = 77.3 Total = 88.9

	Box	1	2	3	4	5	6	Drierite	Test 4
Gross									
Tare									
Net									

Impinger Total = Total =

Probe Wash Weight

Box	Test	Gross	Tare	Net	Acetone Blank	Total

Filter Weight

No.	Test	Gross	Tare	Net

Total PM Weight

Test	Probe + Filter
1	
2	
3	
4	

Lab Data Sheet For St. John's Hospital **Date** 9-3-03 **By** Jeff Patton

Moisture Weights **Impinger Number**

Method 23

	Box	1	2	3	4	5	6	Drierite	Test 1
Gross		816.6	736.5	590.4	487.2	483.5		969.9	
Tare	3	481.0	593.1	590.6	485.5	483.6		952.9	
Net		335.6	143.4	-0.2	1.7	-0.1		17	

Initial Imp ML = 200

Impinger Total = 480.4 Total = 497.4

	Box	1	2	3	4	5	6	Drierite	Test 2
Gross		859.4	572.6	578.3	479.3	468.1		982.8	
Tare	4	472.2	566.9	577.0	478.6	467.8		967.2	
Net		387.2	5.7	1.3	0.7	0.3		15.6	

Impinger Total = 395.2 Total = 410.8

	Box	1	2	3	4	5	6	Drierite	Test 3
Gross		859.3	612.2	570.2	482.6	491.9		957.7	
Tare	5	507.6	565.3	570.1	478.9	491.8		943.2	
Net		351.7	46.9	0.1	3.7	0.1		14.5	

Impinger Total = 402.5 Total = 417.0

	Box	1	2	3	4	5	6	Drierite	Test 4
Gross									
Tare									
Net									

Impinger Total = Total =

Probe Wash Weight

Box	Test	Gross	Tare	Net	Acetone Blank	Total

Filter Weight

No.	Test	Gross	Tare	Net

Total PM Weight

Test	Probe + Filter
1	
2	
3	
4	

Lab Data Sheet For St. John's Hospital **Date** 9-3-03 **By** Jeff Pettus

Moisture Weights **Impinger Number**

Method 29

	Box	1	2	3	4	5	6	Drierite	Test 1
Gross		621.8	665.7	542.9	482.7	599.9	601.9	972.7	
Tare	7	486.3	596.6	596.5	471.6	587.2	593.2	960.4	
Net		135.5	69.1	-53.6	11.1	12.7	8.7	12.3	

Initial Imp ML = 400

Impinger Total = 183.5 Total = 195.8

	Box	1	2	3	4	5	6	Drierite	Test 2
Gross		597.2	643.1	578.3	483.5	587.3	588.5	970.5	
Tare	8	481.0	591.0	586.3	480.8	584.9	586.8	959.9	
Net		116.2	52.1	-8.0	2.7	2.4	1.7	10.6	

Impinger Total = 167.1 Total = 177.7

	Box	1	2	3	4	5	6	Drierite	Test 3
Gross		566.4	629.4	581.6	502.2	612.2	582.0	982.5	
Tare	9	488.1	577.2	556.3	500.7	579.3	611.3	970.8	
Net		78.3	52.2	25.3	1.5	32.9	-29.3	11.7	

Impinger Total = 160.9 Total = 172.6

	Box	1	2	3	4	5	6	Drierite	Test 4
Gross									
Tare									
Net									

Impinger Total = Total =

Probe Wash Weight

Box	Test	Gross	Tare	Net	Acetone Blank	Total
7	1	114181.1	114173.8	7.3	.15	7.15
8	2	114342.4	114337.1	5.3	.15	5.15
9	3	113363.7	113357.2	6.5	.15	6.35

Filter Weight

No.	Test	Gross	Tare	Net
162	1	822.4	821.9	0.5
163	2	818.4	818.1	0.3
161	3	825.3	824.7	0.6

Total PM Weight

Test	Probe + Filter
1	7.65
2	5.45
3	6.95
4	

3

STACK SAMPLER CALIBRATION SHEET

Customer _____ Order No. _____
Date 07/05/03 Serial No. 002 CSA Unit No. 2

Pump OK Pump Oil CHNG Clean Quick Disconnects YES
Manometers OK Dry Test Meter OK Thermometers SEE CAL SHT
Lights OK Electrical Check OK Variac OK
Vacuum Gauge OK Leak Check @ 27''Hg Vacuum NO LEAKS
Remarks 8.4" H20 NO LEAKS

Barometer (Pb) 29.05

K	N	DH	CFw	CFd	Tw	ITd	OTd	TD	t	H	Y
.0158	.0368	0.5	5	5.01	74	74	74	74	12.93	1.942	0.99
.0317	.0737	1.0	5	4.99	74	75	75	75	9.18	1.961	1.00
.0634	.1470	2.0	10	9.95	75	75	75	75	12.95	1.958	1.00
.1268	.2490	4.0	10	9.93	76	76	76	76	9.15	1.959	0.99
.1902	.4310	6.0	10	9.90	77	77	78	78	7.45	1.948	0.99
.2536	.5880	8.0	10	9.82	78	78	78	78	6.45	1.954	0.99

Tolerances H=1.6-1.84-2.1 , Y=0.99-1.00-1.01

$H=(K/(Pb(OTd+460)))*(((Tw+460)t)/CFw)^2$

$Y=(CFw\ Pb\ (Td\ avg.+460))/(CFd\ (Pb+N)\ (Tw+460))$

Y = .998
ΔH = 1.954

DH= Orifice pressure drop - in. H_2O
CFw= Volume wet test meter - f^3
CFd= Volume dry test meter - f^3
Tw= Temp. wet test meter
ITd= Inlet temperature dry test meter
OTd= Outlet temperature dry test meter
Td avg.= Average temperature dry test meter
t= Time - minutes
Pb=Barometer press.

DIAL THERMOMETER CALIBRATION		ICE WATER		BOILING WATER	
Precision Lab Thermometer		0		0	
Meter Thermometers		ITd 0	OTd 0	ITd 0	OTd 0
Impinger Outlet Thermometer	(1)	0		0	
	(2)	0		0	

STACK DIGITAL TEMPERATURE INDICATORS
NBS TRACABLE FROM FACTORY. 2 UNITS CALIBRATED AGAINST EACH OTHERPyroMation)

ALL THERMOCOUPLES ARE CALIBRATED BY OVEN FROM 100 TO 500°F AGAINST A CMS LAB THERMOMETER (No. 227-934). ANY THERMOCOUPLE THAT IS MORE THAN ±2% FROM STANDARD IS DISCARDED.

C.S.A. Co.
STACK SAMPLER CALIBRATION SHEET

Customer _____ Order No. _____
Date 07/03/03 Serial No. 003 CSA Unit No. 3

Pump OK Pump Oil CHNG Clean Quick Disconnects YES
Manometers OK Dry Test Meter OK Thermometers SEE CAL SHT
Lights OK Electrical Check OK Variac OK
Vacuum Gauge OK Leak Check @ 27''Hg Vacuum NO LEAKS
Remarks 8.4" H20 NO LEAKS

Barometer (Pb) 28.95

K	N	DH	CFw	CFd	Tw	ITd	OTd	TD	t	H	Y
.0158	.0368	0.5	5	4.99	75	75	75	75	12.98	1.968	1.001
.0317	.0737	1.0	5	4.98	74	75	75	75	9.18	1.967	1.003
.0634	.1470	2.0	10	10.00	75	76	76	76	12.95	1.961	0.997
.1268	.2490	4.0	10	9.95	76	77	77	77	9.16	1.966	0.998
.1902	.4310	6.0	10	9.85	77	78	78	78	7.46	1.960	1.002
.2536	.5880	8.0	10	9.85	77	79	79	79	6.48	1.968	0.999

Tolerances H=1.6-1.84-2.1 , Y=0.99-1.00-1.01

$H=(K/(Pb(OTd+460)))*(((Tw+460)t)/CFw)^2$

Y=(CFw Pb (Td avg.+460))/(CFd (Pb+N) (Tw+460))

AH = 1.965
Y = 1.00

DH= Orifice pressure drop - in. H_2O
CFw= Volume wet test meter - f^3
CFd= Volume dry test meter - f^3
Tw= Temp. wet test meter
ITd= Inlet temperature dry test meter
OTd= Outlet temperature dry test meter
Td avg.= Average temperature dry test meter
t= Time - minutes
Pb=Barometer press.

DIAL THERMOMETER CALIBRATION		ICE WATER		BOILING WATER	
Precision Lab Thermometer		0		0	
Meter Thermometers		ITd 0	OTd 0	ITd 0	OTd 0
Impinger Outlet Thermometer	(1)	0		0	
	(2)	0		0	

STACK DIGITAL TEMPERATURE INDICATORS
NBS TRACABLE FROM FACTORY. 2 UNITS CALIBRATED AGAINST EACH OTHERPyroMation)

ALL THERMOCOUPLES ARE CALIBRATED BY OVEN FROM 100 TO 500°F AGAINST A CMS LAB THERMOMETER (No. 227-934). ANY THERMOCOUPLE THAT IS MORE THAN ±2% FROM STANDARD IS DISCARDED.

THERMOCOUPLE CALIBRATIONS FOR SOURCE SAMPLING APPARATUS

CALIBRATION DATE 7/3/03 BY Jim Gray

UNIT NO 1-4 SERIAL NO. 001, 002, 003, 004 Pb 28.95

CALIBRATED IN ICE WATER AND BOILING WATER USING A CMS PRECISION GLASS THERMOMETER NO. 229-054, ASTM NO. 63F FOR ICE WATER AND CMS NO. 229-086, ASTM NO. 66F FOR BOILING WATER.

TC	ICE WATER PRECISION	ICE WATER TC	BOILING WATER PRECISION	BOILING WATER TC
OVEN THERMOCOUPLES				
O-3	32°	32	212°	212
O-4	↓	33	↓	213
O-5	↓	32	↓	212
O-6	↓	32	↓	212
O-7	↓	33	↓	213
O-8	↓	32	↓	212
O-9	↓	32	↓	212
STACK THERMOCOUPLES				
S-1	32°	32	212°	212
S-2	↓	32	↓	212
S-3	↓	32	↓	212
S-4	↓	32	↓	212
S-5	↓	31	↓	211
S-9	↓	32	↓	212
S-11	↓	32	↓	212
S-12	↓	33	↓	213
METER THERMOCOUPLES - UNIT 001				
M-1	32°	32	212°	212
M-2	↓	32	↓	212
METER THERMOCOUPLES - UNIT 002				
M-1	32°	32	212°	212
M-2	↓	32	↓	212
METER THERMOCOUPLES - UNIT 003				
M-1	32°	32	212°	212
M-2	↓	32	↓	212
METER THERMOCOUPLES - UNIT 004				
M-1	32°	33	212	213
M-2	↓	32	↓	212

THERMOCOUPLE TEMPERATURES ARE READ ON THE DTI USED DURING TEST.
DTI CALIBRATED BY ALTEK 22 TC SOURCE S# 243783 PRIOR TO TC CAL.

THERMOCOUPLE CALIBRATIONS FOR SOURCE SAMPLING APPARATUS

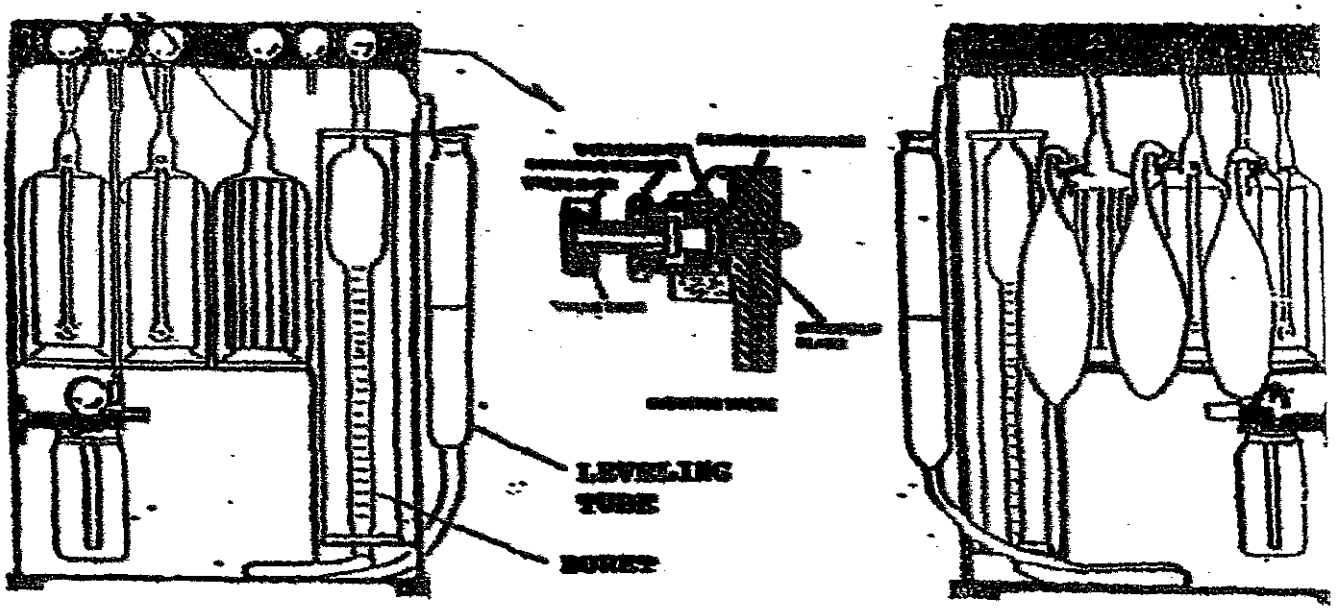
CALIBRATION DATE 7/4/03 BY Jim Gray

UNIT NO 1-4 SERIAL NO. 001, 002, 003, 004 Pb 28.98

CALIBRATED IN ICE WATER AND BOILING WATER USING A CMS PRECISION GLASS THERMOMETER NO. 229-054, ASTM NO. 63F FOR ICE WATER AND CMS NO. 229-088, ASTM NO. 66F FOR BOILING WATER.

TC	ICE WATER PRECISION	ICE WATER TC	BOILING WATER PRECISION	BOILING WATER TC
CONDENSOR THERMOCOUPLES				
C-1	32°	32°	212°	212
C-2		31°		211
C-3		32°		212
C-4		32°		212
C-5		32°		212
PROBE THERMOCOUPLES				
2P-1	32°	33°	212°	212
2P-2		32°		212
2P-3		32°		212
3P-1		32°		212
3P-2		33°		213
3P-3		31°		211
3P-4		32°		212
4P-1		32°		212
4P-2		32°		212
4P-3		32°		212
4P-4		32°		212
5P-1		32°		212
5P-2		31°		211
5P-3		32°		212
5P-4		32°		212
6P-1		32°		212
6P-2		32°		212
6P-3		32°		212

THERMOCOUPLE TEMPERATURES ARE READ ON THE DTI USED DURING TEST.
DTI CALIBRATED BY ALTEK 22 TC SOURCE S# 243783 PRIOR TO TC CAL.



FRONT VIEW

BACK VIEW

LEAK CHECKING

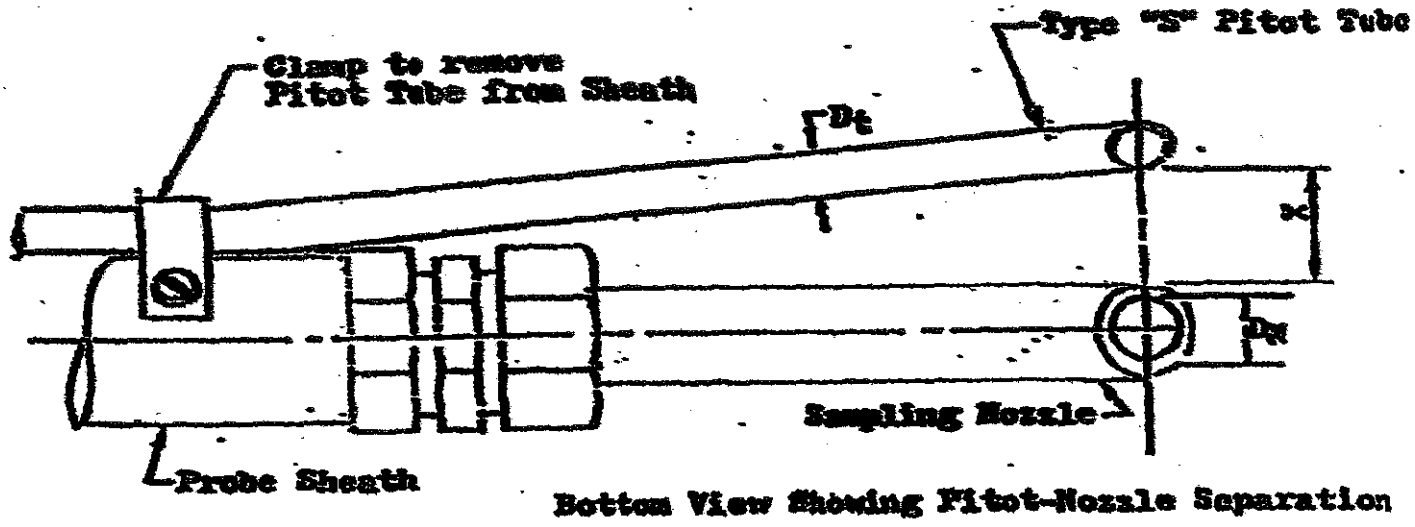
1) THE LEVEL OF THE SOLUTION IN THE PIPET WILL NOT BE MAINTAINED AT ITS PROPER LEVEL IF THER IS A LEAK BETWEEN THE PIPET AND THE MANIFOLD VAVE OR IN THE MANIFOLD VALVE.

2) THE BURET SOLUTION IS SET TO ZERO WITH THE LEVELING TUBE. The LEVELING TUBE IS RAISED TO ABOUT TWENTY INCHES FOR TWO MINUTES TO APPLY PRESSURE TO THE MANIFOLD, VALVES AND REMAINING PART OF THE SYSTEM. THE LEVELING TUBE IS RETURNED TO ITS ORIGINAL ZERO POSITION. IF THER IS A LEAK, THE BURET SOLUTION WILL BE ABOVE THE ZERO MARK. IT WILL BE ON THE ZERO MARK IF THER ARE NO LEAKS.

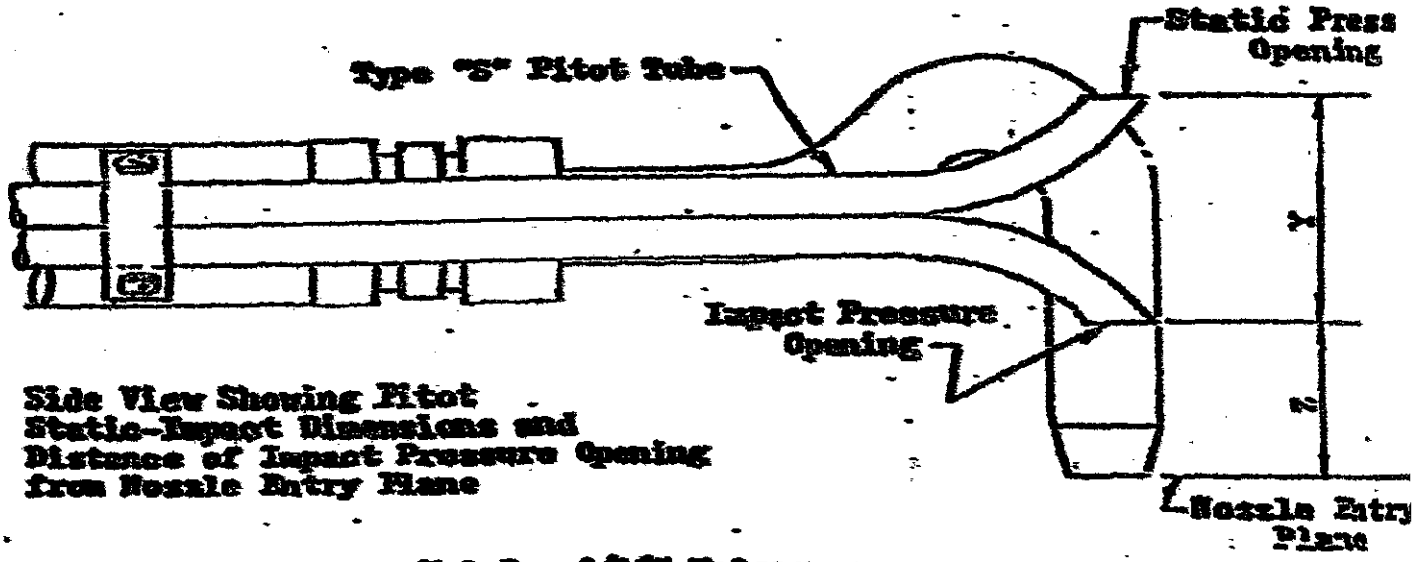
THE LEAK CHECK IS PERFORMED BEFORE EACH GAS ANALYSIS OR SERIES OF ANALYSIS.

THE SOLUTIONS ARE PURCHASED FROM BURRELL CORP. THEY ARE IN THREE OUNCE BOTTLES THAT ARE THE PROPER SIZE FOR FILLING THE PIPET.
"DISORBENT" IS USED IN THE CONTACT PIPET FOR CO_2.
"OXORBENT" IS USED IN THE FIRST AUTO-BUBBLER PIPET FOR O_2.
"COSORBENT IS USED IN THE SECOND AUTO-BUBBLER PIPET FOR CO.

THE BURREL MODEL B "INDUSTRO" ORSAT GAS ANALYZER



Bottom View Showing Pitot-Nozzle Separation



Side View Showing Pitot
Static-Impact Dimensions and
Distance of Impact Pressure Opening
from Nozzle Entry Plane

X & Z 1/16" Tolerance

D_n - inches (Nominal)	X	Y	Z	D_t
3/16	1	1 7/16	5/16	3/8
1/4	15/16	1 7/16	5/16	3/8
5/16	7/8	1 7/16	5/16	3/8
3/8	3/4	1 7/16	5/16	3/8
1/2	5/8	1 7/16	1/2	3/8

PITOT TUBE INTERFERENCE DIMENSIONS

For Technical Information Call
1-800-752-1597

AIR PRODUCTS

Air Products and Chemicals, Inc. * 12722 S. Wentworth Avenue, Chicago, IL 60628

ISO CERTIFICATION: 9002

CERTIFICATE OF ANALYSIS: EPA PROTOCOL GAS STANDARD

PERFORMED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS (PROCEDURE #G1)

Customer: 231 -1
APCI
5420 WARNER RD.
VALLEY VIEW
CLEVELAND OH 44125-

Order No: SRP747048-02
Batch No: 86183995
PO:
Release:

Cylinder No: SG9111696
Bar Code No: FDM607
Cylinder Pressure*: 2000 psig
Certification Date: 06/24/2001
Expiration Date: 06/24/2004

CERTIFIED CONCENTRATION		REFERENCE STANDARDS			ANALYTICAL INSTRUMENTATION			
Component	Certified Concentration	Cylinder Number	Standard Type	Standard Concentration	Instrument Make/Model	Serial Number	Last Calibration	Measurement Principal
CARBON MONOXIDE	12.0±.13 PPM	SG9113593BAL	GMIS	15.84 PPM	Gow-Mac 750	59405U	06/01/01	GC-FID

NITROGEN Balance Gas

*** STANDARD SHOULD NOT BE USED BELOW 150 PSIG**

EPA PROTOCOL GAS MIXTURE : CARBON MONOXIDE IN NITROGEN
To reorder this mixture please use Mix ID: 37452

Analyst: SUZANNE HAUTER

Approved By: James Laas

(16921)

Pub. No. 320-9702

For Technical Information Call
1-800-752-1597

AIR PRODUCTS

Air Products and Chemicals, Inc. * 12722 S. Wentworth Avenue, Chicago, IL 60628

ISO CERTIFICATION: 9002

CERTIFICATE OF ANALYSIS: EPA PROTOCOL GAS STANDARD

PERFORMED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS (PROCEDURE #G1)

Customer: 147 -1
AIR PRODUCTS & CHEMICALS
1680 OAK TREE RD.
EDISON NJ 08820-

Order No: SRP790985-04
Batch No: 86185958
PO:
Release:

Cylinder No: SG9148877BAL
Bar Code No: FDM804
Cylinder Pressure*: 2000 psig
Certification Date: 08/19/2001
Expiration Date: 08/19/2004

CERTIFIED CONCENTRATION		REFERENCE STANDARDS			ANALYTICAL INSTRUMENTATION			
Component	Certified Concentration	Cylinder Number	Standard Type	Standard Concentration	Instrument Make/Model	Serial Number	Last Calibration	Measurement Principal
CARBON MONOXIDE	54.7±.50 PPM	SG9183103BAL	NTRM	99.90 PPM	HORIBA VIA-510	405079	08/01/01	NON DISPERSIVE INFRARED

NITROGEN Balance Gas

*** STANDARD SHOULD NOT BE USED BELOW 150 PSIG**

EPA PROTOCOL GAS MIXTURE : CARBON MONOXIDE IN NITROGEN
To reorder this mixture please use Mix ID: 23334

Analyst: Bryan Baker

Approved By: James Laas

(16921)

Pub. No. 320-9702

Airgas

Airgas Specialty Gases
5480 Hamilton Blvd
Theodore, AL 36582

P.O. Box 190969
Mobile, AL 36619

(251) 653-2500 FAX:(251) 653-2530
http://www.airgas.com

Certificate of Analysis: E.P.A. Protocol Gas Mixture

Cylinder No :	CC146242	Order No.	230696
Cylinder Pressure:	2000 PSIG	Expiration Date:	6/24/05
Certification Date	6/24/02	Laboratory:	ASG-MOBILE

Reference Standard Information:

Type	Component	Cyl. Number	Concentration
GMIS	CARBON MONOXIDE	CC45624	280.1 ppm

Instrumentation:

Instrument/Model/Serial No.	Analytical Principle
SIEMENS ULTRAMAT 5E J9-661	NDIR

Analytical Methodology does not require correction for analytical interferences.

Certified Concentrations:

Component	Concentration	Accuracy	Procedure
CARBON MONOXIDE	85.20 PPM	+/-1%	G1
NITROGEN	Balance		

Analytical Results:

1st Component: CARBON MONOXIDE

1st Analysis Date: 6/17/02

R	280.10	S	85.20	Z	0.00	Conc	85.20 ppm
S	85.20	Z	0.00	R	280.10	Conc	85.20 ppm
Z	0.00	R	280.10	S	85.20	Conc	85.20 ppm
						AVG:	85.20 ppm

2nd Analysis Date: 6/24/02

R	280.10	S	85.20	Z	0.00	Conc	85.20 ppm
S	85.20	Z	0.00	R	280.10	Conc	85.20 ppm
Z	0.00	R	280.10	S	85.20	Conc	85.20 ppm
						AVG:	85.20 ppm

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed.

Do not use cylinder below 150 psig.

Carol Stewart
Approved for Release

Airgas

Airgas Specialty Gases
12722 South Wentworth Avenue
Chicago, IL 60628
773.785.3000 Fax: 773.785.1928
www.airgas.com

Certificate of Analysis: E.P.A. Protocol Gas Mixture

Certification performed in accordance with "EPA Traceability Protocol (Sept.1997)" using assay procedures listed.

Cylinder No:	CC77962	Order No:	402595-00
Certification Date:	05/29/2003	Expiration Date:	05/29/2005
Cylinder Pressure:	2000	Part No:	E02NI99E15AC410

*Do not use cylinder below 150 psig.

Component	Certified Concentration	Unit of Measure	Accuracy	Procedure	Analytical Principle
Nitric Oxide	89.37	ppm	1%	G-1	Chemiluminescence
Nitrogen	Balance				
Nox (Reference Value Only)	90.48	ppm			

Reference Standard Information

Type	Component	Concentration	Unit	Cylinder Number
NTRM	Nitric Oxide	125.8	ppm	SG9154420BAL

Analytical Data

Component 1 Nitric Oxide

1st Analysis Date: 05/22/2003

Zero	0.000	Cand	12.100	Ref	16.810
Zero	0.000	Cand	11.960	Ref	16.900
Zero	0.000	Cand	12.020	Ref	16.850

2nd Analysis Date: 05/29/03

Zero	0.000	Cand	11.950	Ref	16.810
Zero	0.000	Cand	11.920	Ref	16.840
Zero	0.000	Cand	11.940	Ref	16.760

Analyzed by:

Whitlow Enterprises

www.smokeschool.net

Certifies that

Robert Fickel of Custom Stack Analysis

Has attended the lecture portion of EPA Reference Method 9 and 22,
Visible Emissions Workshop and met the requirements of Method 22

Date: July 7, 2003

George Artie" Butch" Whitlow

President

Whitlow Enterprises, LLC

www.smokeschool.net

Certifies that

Robert E. Fickel of Custom Stack Analysis

Has met all of the requirements of EPA Reference Method 9 and 22

And is qualified as a Visible Emissions Observer

Date: July 7, 2003

This certificate is valid for 6 months after the above date

George Artie "Butch" Whitlow

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St. John's Hospital
Springfield, IL.
9/3/2003

Run #1	CO PPM	Nox PPM
19:24	0.5	75.9
19:25	0.4	70.2
19:26	0.5	64.1
19:27	0.5	63.5
19:28	0.5	62.6
19:29	0.5	70.8
19:30	0.5	126.9
19:31	0.5	137.8
19:32	0.7	139.7
19:33	0.9	143.5
19:34	1.0	145.3
19:35	0.9	136.0
19:36	0.6	125.4
19:37	0.5	123.8
19:38	0.7	116.8
19:39	1.1	102.9
19:40	1.2	91.1
19:41	0.7	94.6
19:42	1.5	129.0
19:43	1.5	116.0
19:44	0.7	103.0
19:45	1.2	102.1
19:46	1.1	96.7
19:47	1.4	90.1
19:48	1.2	71.8
19:49	1.2	75.0
19:50	0.7	86.1
19:51	0.5	84.7
19:52	0.4	82.3
19:53	0.4	72.7
19:54	0.5	56.5
19:55	0.4	70.2
19:56	0.4	69.4
19:57	0.4	65.7
19:58	0.4	63.6
19:59	0.4	58.3
20:00	0.5	95.3
20:01	0.5	95.3
20:02	0.5	74.7
20:03	0.5	67.0
20:04	0.5	64.0
20:05	0.5	55.6
20:06	0.5	75.9
20:07	0.5	67.4
20:08	0.5	64.1
20:09	0.5	64.7
20:10	0.5	56.5
20:11	0.5	89.2
20:12	0.5	114.8
20:13	1.0	106.9
20:14	1.5	91.4
20:15	1.5	87.2
20:16	1.2	88.5
20:17	0.9	74.2
20:18	0.4	64.8
20:19	0.4	61.6
20:20	0.4	60.1
20:21	0.4	57.9
20:22	0.6	59.9
20:23	0.5	80.0
20:24	0.4	62.1
AVG	0.7	86.3

CO Pre Cal
0-100 PPM

Cal Gas	Monitor
85.2	85.1
54.7	53.2
12	11.6
0	0.1

Nox Analyzer Cal

Cal Gas	Monitor
89.37	88.3
53.62	52.6
0	0

Nox System Cal

Cal Gas	Monitor
53.62	52.9
0	0

CO System Cal

Cal Gas	Monitor
54.7	54.3
0	0

Nox System Cal

Cal Gas	Monitor
53.62	53.26
0	0.1

St. John's Hospital
Springfield, IL.
9/4/2003

Run #2	CO PPM	Nox PPM
8:29	0.50	48.79
8:30	0.50	47.87
8:31	0.50	45.22
8:32	0.50	49.25
8:33	0.50	92.17
8:34	0.50	122.55
8:35	0.50	100.68
8:36	0.50	93.66
8:37	1.00	87.11
8:38	0.50	83.88
8:39	0.50	71.92
8:40	0.50	69.85
8:41	0.50	64.21
8:42	0.50	63.86
8:43	0.50	56.61
8:44	0.50	69.27
8:45	0.50	62.25
8:46	0.50	57.53
8:47	0.50	57.07
8:48	0.50	60.29
8:49	0.50	125.19
8:50	0.50	106.67
8:51	0.50	89.75
8:52	0.87	86.88
8:53	1.37	89.06
8:54	0.50	91.25
8:55	0.50	93.55
8:56	0.50	100.22
8:57	0.50	95.04
8:58	1.75	93.20
8:59	1.12	129.68
9:00	0.50	156.15
9:01	0.50	125.42
9:02	0.75	116.91
9:03	1.87	104.48
9:04	1.87	93.43
9:05	0.75	110.69
9:06	0.50	107.24
9:07	0.50	87.57
9:08	0.50	78.13
9:09	0.50	75.14
9:10	0.50	74.91
9:11	0.50	79.28
9:12	0.50	65.82
9:13	0.50	62.83
9:14	0.50	63.40
9:15	0.50	63.98
9:16	0.50	66.85
9:17	0.50	80.89
9:18	0.50	92.05
9:19	0.50	89.18
9:20	0.50	80.43
9:21	0.50	79.28
9:22	0.50	72.03
9:23	0.50	69.85
9:24	1.12	67.54
9:25	0.62	65.93
9:26	0.50	83.88
9:27	0.50	82.50
9:28	0.50	69.62
9:29	0.75	63.98
Avg	0.63	82.52

CO Pre Cal
0-100 PPM

Cal Gas	Monitor
85.2	84.8
54.7	53.6
12	11.6
0	0

Nox Analyzer Cal

Cal Gas	Monitor
89.37	89.1
53.62	52.65
0	0

Nox System Cal

Cal Gas	Monitor
53.62	52.6
0	0

CO System Cal

Cal Gas	Monitor
54.7	54.3
0	0.1

Nox System Cal

Cal Gas	Monitor
53.62	52.8
0	0

St. John's Hospital
Springfield, IL.
9/4/2003

R-3	CO PPM	Nox PPM
13:51	0.75	72.03
13:52	0.75	70.65
13:53	0.75	66.74
13:54	1.00	66.28
13:55	0.62	64.44
13:56	0.62	71.57
13:57	0.75	77.78
13:58	0.75	73.76
13:59	1.12	70.19
14:00	0.75	105.98
14:01	0.87	182.96
14:02	0.75	164.78
14:03	0.75	129.45
14:04	1.25	101.95
14:05	0.75	100.11
14:06	0.75	76.52
14:07	0.62	66.51
14:08	0.75	74.45
14:09	0.62	75.02
14:10	0.87	71.80
14:11	0.75	88.95
14:12	0.75	138.31
14:13	0.75	113.34
14:14	0.75	102.98
14:15	1.25	103.44
14:16	1.25	98.04
14:17	0.75	94.01
14:18	0.62	89.98
14:19	0.75	86.30
14:20	0.62	82.50
14:21	0.87	81.81
14:22	1.87	81.81
14:23	2.12	87.68
14:24	1.87	82.27
14:25	1.50	69.85
14:26	0.62	73.53
14:27	0.62	70.65
14:28	1.00	72.26
14:29	0.75	94.12
14:30	0.75	101.14
14:31	0.75	99.53
14:32	0.75	99.76
14:33	1.75	97.12
14:34	1.62	99.30
14:35	0.62	79.05
14:36	0.62	71.69
14:37	0.62	68.92
14:38	0.62	68.35
14:39	0.62	73.64
14:40	0.62	78.94
14:41	0.62	81.70
14:42	0.62	79.17
14:43	0.62	79.28
14:44	0.62	84.23
14:45	0.62	78.01
14:46	0.62	84.57
14:47	0.62	78.36
14:48	1.37	71.57
14:49	1.50	72.84
14:50	0.62	88.72
14:51	0.62	103.10
AVG	0.87	87.44

Co System Cal

Cal Gas	Monitor
54.7	54.5
0	0.2

Nox System Cal

Cal Gas	Monitor
53.62	53.34
0	0

St. John's Hospital

Daily HMIWI Report

Date/Time	Scale		Temperatures						Scrubber		Bypass Stack
	Lbs	Avg	Sec. Chamber		Baghouse In		Baghouse Out		Lbs/Hr		Open
End of Hour	1-Hr	3-Hr	1-Hr	3-Hr	1-Hr	3-Hr	1-Hr	3-Hr	1-Hr	3-Hr	Min/Sec
09/03/03 15:51	870	290	1587		375		311		11.1		0:00
09/03/03 16:51	888	586	1660		384		320		11.2		0:00
09/03/03 17:51	892	883	1679	1642	385	381	324	318	11.2	11.2	0:00
09/03/03 18:51	853	878	1681	1673	389	386	331	325	11.2	11.2	0:00
09/03/03 19:51	853	866	1649	1670	380	385	321	325	11.2	11.2	0:00
09/03/03 20:51	875	860	1653	1661	381	383	319	323	11.2	11.2	0:00
09/03/03 21:51	0	576	1648	1650	379	380	317	319	11.2	11.2	0:00
09/03/03 22:51	0	292	1650	1650	379	380	316	317	11.2	11.2	0:00
Minimum	0	290	1587	1642	375	380	311	317	11.1	11.2	
Maximum	892	883	1681	1673	389	386	331	325	11.2	11.2	
Average	654	654	1651	1658	382	383	320	321	11.2	11.2	
Total	5,231										

*** Invalid data**

St. John's Hospital

Daily HMIWI Report

Date/Time		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
09/04/03	9:27	856	285	1667		383		316		11.2		0:00
09/04/03	10:27	881	579	1674		385		320		11.2		0:00
09/04/03	11:27	879	872	1712	1684	392	387	328	322	11.2	11.2	0:00
09/04/03	12:27	870	877	1699	1695	392	389	331	326	11.2	11.2	0:00
09/04/03	13:27	948	899	1684	1698	387	390	325	328	11.2	11.2	0:00
09/04/03	14:27	884	901	1661	1681	383	387	321	326	11.2	11.2	0:00
09/04/03	15:27	851	894	1730	1692	393	388	328	325	11.2	11.2	0:00
09/04/03	16:27	839	858	1736	1709	397	391	336	328	11.2	11.2	0:00
09/04/03	17:27	818	836	1733	1733	401	397	340	334	11.2	11.2	0:00
[illegible]		818	285	1661	1681	383	387	316	322	11.2	11.2	
[illegible]		948	901	1736	1733	401	397	340	334	11.2	11.2	
[illegible]		870	778	1700	1699	390	390	327	327	11.2	11.2	
[illegible]		7,826										

*** Invalid data**