

## **ATTACHMENT 8**

**SAND, PT-INF (BAG FILTER EFFLUENT) AND ACTIVATED  
CARBON**

**FILTER DRUM INFLUENT AND EFFLUENT DATA**

**09/14/06**

**SAND, PT-INF (BAG FILTER EFFLUENT)  
AND ACTIVATED CARBON**

**LABORATORY REPORT**

Prepared For: MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test

Sampled: 09/14/06  
Received: 09/14/06  
Issued: 09/25/06 16:51

NELAP #01108CA California ELAP#1197 CSDLAC #10256

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.*

*This entire report was reviewed and approved for release.*

**SAMPLE CROSS REFERENCE**

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

**LABORATORY ID**  
IPI1298-01

**CLIENT ID**  
S-EFF

**MATRIX**  
Water

Reviewed By:



**TestAmerica - Irvine, CA**  
Lisa Reightley For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1298-01 (S-EFF - Water)</b>									
Reporting Units: mg/l									
Iron	EPA 200.7	6118075	0.015	0.040	<b>0.15</b>	1	09/18/06	09/20/06	
<b>Sample ID: IPI1298-01 (S-EFF - Water)</b>									
Reporting Units: ug/l									
Antimony	EPA 200.8	6118071	0.050	2.0	<b>0.42</b>	1	09/18/06	09/18/06	J
Arsenic	EPA 200.7	6118075	4.4	5.0	<b>4.9</b>	1	09/18/06	09/20/06	J
Beryllium	EPA 200.7	6118075	0.90	2.0	ND	1	09/18/06	09/20/06	
Cadmium	EPA 200.8	6118071	0.025	1.0	ND	1	09/18/06	09/18/06	
Chromium	EPA 200.7	6118075	2.0	5.0	ND	1	09/18/06	09/20/06	
Copper	EPA 200.8	6118071	0.25	2.0	<b>2.5</b>	1	09/18/06	09/18/06	
Lead	EPA 200.8	6118071	0.040	1.0	<b>0.15</b>	1	09/18/06	09/19/06	J
Manganese	EPA 200.7	6118075	7.0	20	<b>100</b>	1	09/18/06	09/20/06	
Mercury	EPA 245.1	6115062	0.15	0.20	ND	1	09/15/06	09/15/06	
Nickel	EPA 200.7	6118075	2.0	10	<b>2.0</b>	1	09/18/06	09/20/06	J
Selenium	EPA 200.8	6118071	0.30	2.0	<b>0.72</b>	1	09/18/06	09/18/06	J
Silver	EPA 200.8	6118071	0.025	1.0	ND	1	09/18/06	09/18/06	
Thallium	EPA 200.8	6118071	0.15	1.0	ND	1	09/18/06	09/19/06	
Zinc	EPA 200.7	6118075	15	20	ND	1	09/18/06	09/20/06	

TestAmerica - Irvine, CA  
 Lisa Reightley For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1298-01 (S-EFF - Water) - cont.</b>									
Reporting Units: mg/l									
Iron	EPA 200.7-Diss	6115121	0.015	0.040	ND	1	09/15/06	09/23/06	
<b>Sample ID: IPI1298-01 (S-EFF - Water)</b>									
Reporting Units: ug/l									
<b>Antimony</b>	EPA 200.8-Diss	6118073	0.050	2.0	<b>0.39</b>	1	09/18/06	09/18/06	J
Arsenic	EPA 200.7-Diss	6115121	4.4	5.0	ND	1	09/15/06	09/23/06	
Beryllium	EPA 200.7-Diss	6115121	0.90	2.0	ND	1	09/15/06	09/23/06	
Cadmium	EPA 200.8-Diss	6118073	0.025	1.0	ND	1	09/18/06	09/18/06	
Chromium	EPA 200.7-Diss	6115121	2.0	5.0	ND	1	09/15/06	09/23/06	
<b>Copper</b>	EPA 200.8-Diss	6118073	0.25	2.0	<b>2.2</b>	1	09/18/06	09/18/06	
Lead	EPA 200.8-Diss	6118073	0.040	1.0	ND	1	09/18/06	09/18/06	
Manganese	EPA 200.7-Diss	6115121	7.0	20	ND	1	09/15/06	09/23/06	
Mercury	EPA 245.1-Diss	6118082	0.15	0.20	ND	1	09/18/06	09/18/06	
<b>Nickel</b>	EPA 200.7-Diss	6115121	2.0	10	<b>2.7</b>	1	09/15/06	09/23/06	J
<b>Selenium</b>	EPA 200.8-Diss	6118073	0.30	2.0	<b>0.45</b>	1	09/18/06	09/18/06	J
Silver	EPA 200.8-Diss	6118073	0.025	1.0	ND	1	09/18/06	09/18/06	
Thallium	EPA 200.8-Diss	6118073	0.15	1.0	ND	1	09/18/06	09/18/06	
Zinc	EPA 200.7-Diss	6115121	15	20	ND	1	09/15/06	09/23/06	

TestAmerica - Irvine, CA  
 Lisa Reightley For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1298-01 (S-EFF - Water) - cont.</b>									
Reporting Units: g/cc									
Density	Displacement	6I22108	N/A	NA	1.0	1	09/22/06	09/22/06	
<b>Sample ID: IPI1298-01 (S-EFF - Water)</b>									
Reporting Units: mg/l									
Sediment	ASTM D3977	6I25082	10	10	ND	1	09/25/06	09/25/06	
Total Kjeldahl Nitrogen	EPA 351.3	6I20101	0.43	0.50	1.7	1	09/20/06	09/20/06	
Alkalinity as CaCO3	EPA 310.1	6I20071	2.0	2.0	130	1	09/20/06	09/20/06	
Ammonia-N (Distilled)	EPA 350.2	6I16057	0.30	0.50	0.84	1	09/16/06	09/16/06	
Hardness (as CaCO3)	SM2340B	6I18075	1.0	1.0	170	1	09/18/06	09/20/06	
Nitrate-N	EPA 300.0	6I14043	0.080	0.15	ND	1	09/14/06	09/14/06	
Nitrite-N	EPA 300.0	6I14043	0.080	0.15	ND	1	09/14/06	09/14/06	
Nitrate/Nitrite-N	EPA 300.0	6I14043	0.080	0.15	ND	1	09/14/06	09/14/06	
Oil & Grease	EPA 413.1	6I16001	0.90	4.8	ND	1	09/16/06	09/16/06	
Sulfate	EPA 300.0	6I14043	2.2	2.5	89	5	09/14/06	09/15/06	
Total Dissolved Solids	SM2540C	6I18061	10	10	340	1	09/18/06	09/18/06	
Total Organic Carbon	EPA 415.1	6I20145	0.50	1.0	9.8	1	09/20/06	09/20/06	
Total Suspended Solids	EPA 160.2	6I20129	10	10	ND	1	09/20/06	09/20/06	

TestAmerica - Irvine, CA  
 Lisa Reightley For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1298-01 (S-EFF - Water) - cont.</b>									
<b>Reporting Units: NTU</b>									
<b>Turbidity</b>	EPA 180.1	6I15115	0.040	1.0	<b>2.4</b>	1	09/15/06	09/15/06	

**TestAmerica - Irvine, CA**  
 Lisa Reightley For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1298-01 (S-EFF - Water) - cont.</b>									
<b>Reporting Units: pH Units</b>									
<b>pH</b>	EPA 150.1	6I15082	N/A	NA	<b>7.82</b>	1	09/15/06	09/15/06	

**TestAmerica - Irvine, CA**  
 Lisa Reightley For Michele Chamberlin  
 Project Manager



MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1298

Sampled: 09/14/06  
Received: 09/14/06

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1298-01 (S-EFF - Water) - cont.</b>									
Reporting Units: umhos/cm									
Specific Conductance	EPA 120.1	6118059	N/A	1.0	580	1	09/18/06	09/18/06	

TestAmerica - Irvine, CA  
Lisa Reightley For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1298

Sampled: 09/14/06  
Received: 09/14/06

## SHORT HOLD TIME DETAIL REPORT

	<b>Hold Time (in days)</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>	<b>Date/Time Extracted</b>	<b>Date/Time Analyzed</b>
<b>Sample ID: S-EFF (IPI1298-01) - Water</b>					
EPA 150.1	1	09/14/2006 08:40	09/14/2006 18:15	09/15/2006 09:25	09/15/2006 10:45
EPA 180.1	2	09/14/2006 08:40	09/14/2006 18:15	09/15/2006 14:00	09/15/2006 15:35
EPA 300.0	2	09/14/2006 08:40	09/14/2006 18:15	09/14/2006 21:00	09/14/2006 22:06
Filtration	1	09/14/2006 08:40	09/14/2006 18:15	09/15/2006 16:50	09/15/2006 16:50

**TestAmerica - Irvine, CA**  
Lisa Reightley For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I15062 Extracted: 09/15/06</b>											
<b>Blank Analyzed: 09/15/2006 (6I15062-BLK1)</b>											
Mercury	ND	0.20	0.15	ug/l							
<b>LCS Analyzed: 09/15/2006 (6I15062-BS1)</b>											
Mercury	8.40	0.20	0.15	ug/l	8.00		105	85-115			
<b>Matrix Spike Analyzed: 09/15/2006 (6I15062-MS1)</b>											
						<b>Source: IPI1162-01</b>					
Mercury	8.20	0.20	0.15	ug/l	8.00	ND	102	70-130			
<b>Matrix Spike Dup Analyzed: 09/15/2006 (6I15062-MSD1)</b>											
						<b>Source: IPI1162-01</b>					
Mercury	8.24	0.20	0.15	ug/l	8.00	ND	103	70-130	1	20	
<b>Batch: 6I18071 Extracted: 09/18/06</b>											
<b>Blank Analyzed: 09/19/2006 (6I18071-BLK1)</b>											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Copper	0.400	2.0	0.25	ug/l							J
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
<b>LCS Analyzed: 09/19/2006 (6I18071-BS1)</b>											
Antimony	80.1	2.0	0.050	ug/l	80.0		100	85-115			
Cadmium	81.5	1.0	0.025	ug/l	80.0		102	85-115			
Copper	80.5	2.0	0.25	ug/l	80.0		101	85-115			
Lead	82.3	1.0	0.040	ug/l	80.0		103	85-115			
Selenium	80.9	2.0	0.30	ug/l	80.0		101	85-115			
Silver	80.3	1.0	0.025	ug/l	80.0		100	85-115			
Thallium	84.3	1.0	0.15	ug/l	80.0		105	85-115			

TestAmerica - Irvine, CA  
 Lisa Reightley For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1298

Sampled: 09/14/06  
Received: 09/14/06

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I18071 Extracted: 09/18/06</b>											
<b>Matrix Spike Analyzed: 09/19/2006 (6I18071-MS1)</b>						<b>Source: IPI1509-01</b>					
Antimony	80.6	2.0	0.050	ug/l	80.0	0.15	101	70-130			
Cadmium	80.6	1.0	0.025	ug/l	80.0	ND	101	70-130			
Copper	81.9	2.0	0.25	ug/l	80.0	3.3	98	70-130			
Lead	77.8	1.0	0.040	ug/l	80.0	0.088	97	70-130			
Selenium	77.2	2.0	0.30	ug/l	80.0	ND	96	70-130			
Silver	78.0	1.0	0.025	ug/l	80.0	ND	98	70-130			
Thallium	79.0	1.0	0.15	ug/l	80.0	0.19	99	70-130			
<b>Matrix Spike Analyzed: 09/19/2006 (6I18071-MS2)</b>						<b>Source: IPI1509-02</b>					
Antimony	79.9	2.0	0.050	ug/l	80.0	0.16	100	70-130			
Cadmium	79.5	1.0	0.025	ug/l	80.0	ND	99	70-130			
Copper	86.5	2.0	0.25	ug/l	80.0	0.90	107	70-130			
Lead	77.5	1.0	0.040	ug/l	80.0	0.060	97	70-130			
Selenium	76.3	2.0	0.30	ug/l	80.0	ND	95	70-130			
Silver	76.9	1.0	0.025	ug/l	80.0	ND	96	70-130			
Thallium	74.6	1.0	0.15	ug/l	80.0	0.20	93	70-130			
<b>Matrix Spike Dup Analyzed: 09/19/2006 (6I18071-MSD1)</b>						<b>Source: IPI1509-01</b>					
Antimony	80.3	2.0	0.050	ug/l	80.0	0.15	100	70-130	0	20	
Cadmium	80.9	1.0	0.025	ug/l	80.0	ND	101	70-130	0	20	
Copper	78.1	2.0	0.25	ug/l	80.0	3.3	94	70-130	5	20	
Lead	77.9	1.0	0.040	ug/l	80.0	0.088	97	70-130	0	20	
Selenium	76.4	2.0	0.30	ug/l	80.0	ND	96	70-130	1	20	
Silver	77.7	1.0	0.025	ug/l	80.0	ND	97	70-130	0	20	
Thallium	82.4	1.0	0.15	ug/l	80.0	0.19	103	70-130	4	20	

### **Batch: 6I18075 Extracted: 09/18/06**

#### **Blank Analyzed: 09/20/2006 (6I18075-BLK1)**

Arsenic	ND	5.0	4.4	ug/l
Beryllium	ND	2.0	0.90	ug/l
Chromium	ND	5.0	2.0	ug/l
Iron	ND	0.040	0.015	mg/l
Manganese	ND	20	7.0	ug/l
Nickel	ND	10	2.0	ug/l
Zinc	ND	20	15	ug/l

**TestAmerica - Irvine, CA**  
Lisa Reightley For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1298

Sampled: 09/14/06  
Received: 09/14/06

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I18075 Extracted: 09/18/06</b>											
<b>LCS Analyzed: 09/20/2006 (6I18075-BS1)</b>											
Arsenic	484	5.0	4.4	ug/l	500		97	85-115			
Beryllium	473	2.0	0.90	ug/l	500		95	85-115			
Chromium	480	5.0	2.0	ug/l	500		96	85-115			
Iron	0.491	0.040	0.015	mg/l	0.500		98	85-115			
Manganese	479	20	7.0	ug/l	500		96	85-115			
Nickel	475	10	2.0	ug/l	500		95	85-115			
Zinc	483	20	15	ug/l	500		97	85-115			
<b>Matrix Spike Analyzed: 09/20/2006 (6I18075-MS1) Source: IPI1294-01</b>											
Arsenic	500	5.0	4.4	ug/l	500	4.7	99	70-130			
Beryllium	493	2.0	0.90	ug/l	500	ND	99	70-130			
Chromium	472	5.0	2.0	ug/l	500	ND	94	70-130			
Iron	0.571	0.040	0.015	mg/l	0.500	0.095	95	70-130			
Manganese	534	20	7.0	ug/l	500	50	97	70-130			
Nickel	465	10	2.0	ug/l	500	ND	93	70-130			
Zinc	478	20	15	ug/l	500	ND	96	70-130			
<b>Matrix Spike Analyzed: 09/20/2006 (6I18075-MS2) Source: IPI1298-01</b>											
Arsenic	498	5.0	4.4	ug/l	500	4.9	99	70-130			
Beryllium	486	2.0	0.90	ug/l	500	ND	97	70-130			
Chromium	473	5.0	2.0	ug/l	500	ND	95	70-130			
Iron	0.635	0.040	0.015	mg/l	0.500	0.15	97	70-130			
Manganese	576	20	7.0	ug/l	500	100	95	70-130			
Nickel	467	10	2.0	ug/l	500	2.0	93	70-130			
Zinc	480	20	15	ug/l	500	ND	96	70-130			
<b>Matrix Spike Dup Analyzed: 09/20/2006 (6I18075-MSD1) Source: IPI1294-01</b>											
Arsenic	492	5.0	4.4	ug/l	500	4.7	97	70-130	2	20	
Beryllium	480	2.0	0.90	ug/l	500	ND	96	70-130	3	20	
Chromium	475	5.0	2.0	ug/l	500	ND	95	70-130	1	20	
Iron	0.566	0.040	0.015	mg/l	0.500	0.095	94	70-130	1	20	
Manganese	524	20	7.0	ug/l	500	50	95	70-130	2	20	
Nickel	459	10	2.0	ug/l	500	ND	92	70-130	1	20	
Zinc	475	20	15	ug/l	500	ND	95	70-130	1	20	

TestAmerica - Irvine, CA  
Lisa Reightley For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I15121 Extracted: 09/15/06</b>											
<b>Blank Analyzed: 09/23/2006 (6I15121-BLK1)</b>											
Arsenic	ND	5.0	4.4	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Zinc	ND	20	15	ug/l							
<b>LCS Analyzed: 09/23/2006 (6I15121-BS1)</b>											
Arsenic	1040	5.0	4.4	ug/l	1000		104	85-115			
Beryllium	1040	2.0	0.90	ug/l	1000		104	85-115			
Chromium	1020	5.0	2.0	ug/l	1000		102	85-115			
Iron	1.03	0.040	0.015	mg/l	1.00		103	85-115			
Manganese	1030	20	7.0	ug/l	1000		103	85-115			
Nickel	1020	10	2.0	ug/l	1000		102	85-115			
Zinc	1040	20	15	ug/l	1000		104	85-115			
<b>Matrix Spike Analyzed: 09/23/2006 (6I15121-MS1) Source: IPI1286-01</b>											
Arsenic	1050	5.0	4.4	ug/l	1000	6.3	104	70-130			
Beryllium	1040	2.0	0.90	ug/l	1000	ND	104	70-130			
Chromium	1010	5.0	2.0	ug/l	1000	ND	101	70-130			
Iron	1.04	0.040	0.015	mg/l	1.00	0.032	101	70-130			
Manganese	1060	20	7.0	ug/l	1000	49	101	70-130			
Nickel	993	10	2.0	ug/l	1000	2.3	99	70-130			
Zinc	1030	20	15	ug/l	1000	36	99	70-130			
<b>Matrix Spike Dup Analyzed: 09/23/2006 (6I15121-MSD1) Source: IPI1286-01</b>											
Arsenic	1070	5.0	4.4	ug/l	1000	6.3	106	70-130	2	20	
Beryllium	1060	2.0	0.90	ug/l	1000	ND	106	70-130	2	20	
Chromium	1030	5.0	2.0	ug/l	1000	ND	103	70-130	2	20	
Iron	1.06	0.040	0.015	mg/l	1.00	0.032	103	70-130	2	20	
Manganese	1070	20	7.0	ug/l	1000	49	102	70-130	1	20	
Nickel	1020	10	2.0	ug/l	1000	2.3	102	70-130	3	20	
Zinc	1050	20	15	ug/l	1000	36	101	70-130	2	20	

TestAmerica - Irvine, CA  
 Lisa Reightley For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I18073 Extracted: 09/18/06</b>											
<b>Blank Analyzed: 09/18/2006 (6I18073-BLK1)</b>											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Copper	0.303	2.0	0.25	ug/l							J
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
<b>LCS Analyzed: 09/18/2006 (6I18073-BS1)</b>											
Antimony	74.5	2.0	0.050	ug/l	80.0		93	85-115			
Cadmium	74.9	1.0	0.025	ug/l	80.0		94	85-115			
Copper	79.0	2.0	0.25	ug/l	80.0		99	85-115			
Lead	80.4	1.0	0.040	ug/l	80.0		100	85-115			
Selenium	77.2	2.0	0.30	ug/l	80.0		96	85-115			
Silver	77.2	1.0	0.025	ug/l	80.0		96	85-115			
Thallium	80.8	1.0	0.15	ug/l	80.0		101	85-115			
<b>Matrix Spike Analyzed: 09/18/2006 (6I18073-MS1) Source: IPI1226-01</b>											
Antimony	74.1	2.0	0.050	ug/l	80.0	0.22	92	70-130			
Cadmium	68.4	1.0	0.025	ug/l	80.0	0.096	85	70-130			
Copper	73.2	2.0	0.25	ug/l	80.0	6.8	83	70-130			
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130			
Selenium	76.1	2.0	0.30	ug/l	80.0	6.1	88	70-130			
Silver	69.4	1.0	0.025	ug/l	80.0	ND	87	70-130			
Thallium	74.8	1.0	0.15	ug/l	80.0	ND	94	70-130			
<b>Matrix Spike Analyzed: 09/18/2006 (6I18073-MS2) Source: IPI1286-01</b>											
Antimony	76.7	2.0	0.050	ug/l	80.0	1.0	95	70-130			
Cadmium	73.5	1.0	0.025	ug/l	80.0	ND	92	70-130			
Copper	74.3	2.0	0.25	ug/l	80.0	6.1	85	70-130			
Lead	76.3	1.0	0.040	ug/l	80.0	0.093	95	70-130			
Selenium	73.8	2.0	0.30	ug/l	80.0	0.77	91	70-130			
Silver	74.5	1.0	0.025	ug/l	80.0	ND	93	70-130			
Thallium	76.5	1.0	0.15	ug/l	80.0	0.36	95	70-130			

TestAmerica - Irvine, CA  
 Lisa Reightley For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I18073 Extracted: 09/18/06</b>											
<b>Matrix Spike Dup Analyzed: 09/18/2006 (6I18073-MSD1)</b>						<b>Source: IPI1226-01</b>					
Antimony	75.1	2.0	0.050	ug/l	80.0	0.22	94	70-130	1	20	
Cadmium	69.1	1.0	0.025	ug/l	80.0	0.096	86	70-130	1	20	
Copper	71.7	2.0	0.25	ug/l	80.0	6.8	81	70-130	2	20	
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130	0	20	
Selenium	77.3	2.0	0.30	ug/l	80.0	6.1	89	70-130	2	20	
Silver	70.2	1.0	0.025	ug/l	80.0	ND	88	70-130	1	20	
Thallium	74.4	1.0	0.15	ug/l	80.0	ND	93	70-130	1	20	
<b>Batch: 6I18082 Extracted: 09/18/06</b>											
<b>Blank Analyzed: 09/18/2006 (6I18082-BLK1)</b>											
Mercury	ND	0.20	0.15	ug/l							
<b>LCS Analyzed: 09/18/2006 (6I18082-BS1)</b>											
Mercury	8.42	0.20	0.15	ug/l	8.00		105	85-115			
<b>Matrix Spike Analyzed: 09/18/2006 (6I18082-MS1)</b>						<b>Source: IPI1321-01</b>					
Mercury	8.28	0.20	0.15	ug/l	8.00	ND	104	70-130			
<b>Matrix Spike Dup Analyzed: 09/18/2006 (6I18082-MSD1)</b>						<b>Source: IPI1321-01</b>					
Mercury	8.17	0.20	0.15	ug/l	8.00	ND	102	70-130	1	20	

TestAmerica - Irvine, CA  
 Lisa Reightley For Michele Chamberlin  
 Project Manager



MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I14043 Extracted: 09/14/06</b>										
<b>Blank Analyzed: 09/14/2006 (6I14043-BLK1)</b>										
Nitrate-N	ND	0.15	0.080	mg/l						
Nitrite-N	ND	0.15	0.080	mg/l						
Nitrate/Nitrite-N	ND	0.15	0.080	mg/l						
Sulfate	ND	0.50	0.45	mg/l						
<b>LCS Analyzed: 09/14/2006 (6I14043-BS1)</b>										
Nitrate-N	1.04	0.15	0.080	mg/l	1.13		92		90-110	
Nitrite-N	1.62	0.15	0.080	mg/l	1.52		107		90-110	
Sulfate	10.9	0.50	0.45	mg/l	10.0		109		90-110	
<b>Matrix Spike Analyzed: 09/14/2006 (6I14043-MS1) Source: IPI1252-03</b>										
Nitrate-N	4.09	0.30	0.16	mg/l	1.13	3.1	88		80-120	
Nitrite-N	1.62	0.30	0.16	mg/l	1.52	ND	107		80-120	
Sulfate	85.5	1.0	0.90	mg/l	10.0	75	105		80-120	
<b>Matrix Spike Dup Analyzed: 09/14/2006 (6I14043-MSD1) Source: IPI1252-03</b>										
Nitrate-N	4.06	0.30	0.16	mg/l	1.13	3.1	85	80-120	1	20
Nitrite-N	1.60	0.30	0.16	mg/l	1.52	ND	105	80-120	1	20
Sulfate	84.7	1.0	0.90	mg/l	10.0	75	97	80-120	1	20
<b>Batch: 6I15082 Extracted: 09/15/06</b>										
<b>Duplicate Analyzed: 09/15/2006 (6I15082-DUP1) Source: IPI1268-01</b>										
pH	6.87	NA	N/A	pH Units		6.85			0	5
<b>Duplicate Analyzed: 09/15/2006 (6I15082-DUP2) Source: IPI1293-01</b>										
pH	7.55	NA	N/A	pH Units		7.54			0	5

TestAmerica - Irvine, CA  
 Lisa Reightley For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 6I15115 Extracted: 09/15/06</u></b>											
<b>Blank Analyzed: 09/15/2006 (6I15115-BLK1)</b>											
Turbidity	ND	1.0	0.040	NTU							
<b>Duplicate Analyzed: 09/15/2006 (6I15115-DUP1)</b>											
Turbidity	3.33	1.0	0.040	NTU		3.4			2	20	
<b>Duplicate Analyzed: 09/15/2006 (6I15115-DUP2)</b>											
Turbidity	1.63	1.0	0.040	NTU		1.6			2	20	
<b><u>Batch: 6I16001 Extracted: 09/16/06</u></b>											
<b>Blank Analyzed: 09/16/2006 (6I16001-BLK1)</b>											
Oil & Grease	ND	5.0	0.94	mg/l							
<b>LCS Analyzed: 09/16/2006 (6I16001-BS1)</b>											
Oil & Grease	17.9	5.0	0.94	mg/l	20.0		90	65-120			M-NRI
<b>LCS Dup Analyzed: 09/16/2006 (6I16001-BSD1)</b>											
Oil & Grease	18.1	5.0	0.94	mg/l	20.0		90	65-120	1	20	
<b><u>Batch: 6I16057 Extracted: 09/16/06</u></b>											
<b>Blank Analyzed: 09/16/2006 (6I16057-BLK1)</b>											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
<b>LCS Analyzed: 09/16/2006 (6I16057-BS1)</b>											
Ammonia-N (Distilled)	10.9	0.50	0.30	mg/l	10.0		109	80-115			

TestAmerica - Irvine, CA  
 Lisa Reightley For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 6I16057 Extracted: 09/16/06</u></b>											
<b>Matrix Spike Analyzed: 09/16/2006 (6I16057-MS1)</b>						<b>Source: IPI1286-01</b>					
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120			
<b>Matrix Spike Dup Analyzed: 09/16/2006 (6I16057-MSD1)</b>						<b>Source: IPI1286-01</b>					
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120	0	15	
<b><u>Batch: 6I18059 Extracted: 09/18/06</u></b>											
<b>Duplicate Analyzed: 09/18/2006 (6I18059-DUP1)</b>						<b>Source: IPI1351-01</b>					
Specific Conductance	2030	1.0	N/A	umhos/cm		2000			1	5	
<b><u>Batch: 6I18061 Extracted: 09/18/06</u></b>											
<b>Blank Analyzed: 09/18/2006 (6I18061-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 09/18/2006 (6I18061-BS1)</b>											
Total Dissolved Solids	994	10	10	mg/l	1000		99	90-110			
<b>Duplicate Analyzed: 09/18/2006 (6I18061-DUP1)</b>						<b>Source: IPI1321-01</b>					
Total Dissolved Solids	343	10	10	mg/l		350			2	10	
<b><u>Batch: 6I18075 Extracted: 09/18/06</u></b>											
<b>Blank Analyzed: 09/20/2006 (6I18075-BLK1)</b>											
Hardness (as CaCO3)	ND	1.0	1.0	mg/l							

TestAmerica - Irvine, CA  
 Lisa Reightley For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 6I20071 Extracted: 09/20/06</u></b>											
<b>Duplicate Analyzed: 09/20/2006 (6I20071-DUP1)</b>						<b>Source: IPI1125-01</b>					
Alkalinity as CaCO <sub>3</sub>	348	2.0	2.0	mg/l		350			1	20	
<b>Reference Analyzed: 09/20/2006 (6I20071-SRM1)</b>											
Alkalinity as CaCO <sub>3</sub>	224	2.0	2.0	mg/l	231		97	90-110			
<b><u>Batch: 6I20101 Extracted: 09/20/06</u></b>											
<b>Blank Analyzed: 09/20/2006 (6I20101-BLK1)</b>											
Total Kjeldahl Nitrogen	ND	0.50	0.43	mg/l							
<b>LCS Analyzed: 09/20/2006 (6I20101-BS1)</b>											
Total Kjeldahl Nitrogen	19.6	0.50	0.43	mg/l	20.0		98	85-120			
<b>LCS Dup Analyzed: 09/20/2006 (6I20101-BSD1)</b>											
Total Kjeldahl Nitrogen	19.9	0.50	0.43	mg/l	20.0		100	85-120	2	15	
<b>Matrix Spike Analyzed: 09/20/2006 (6I20101-MS1)</b>						<b>Source: IPI1210-01</b>					
Total Kjeldahl Nitrogen	10.6	0.50	0.43	mg/l	10.0	0.84	98	85-120			
<b>Matrix Spike Dup Analyzed: 09/20/2006 (6I20101-MSD1)</b>						<b>Source: IPI1210-01</b>					
Total Kjeldahl Nitrogen	11.2	0.50	0.43	mg/l	10.0	0.84	104	85-120	6	15	
<b><u>Batch: 6I20129 Extracted: 09/20/06</u></b>											
<b>Blank Analyzed: 09/20/2006 (6I20129-BLK1)</b>											
Total Suspended Solids	ND	10	10	mg/l							

TestAmerica - Irvine, CA  
 Lisa Reightley For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 6I20129 Extracted: 09/20/06</u></b>											
<b>LCS Analyzed: 09/20/2006 (6I20129-BS1)</b>											
Total Suspended Solids	1010	10	10	mg/l	1000		101	85-115			
<b>Duplicate Analyzed: 09/20/2006 (6I20129-DUP1)</b>											
Total Suspended Solids	396	10	10	mg/l		330			18	10	R-3
<b><u>Batch: 6I20145 Extracted: 09/20/06</u></b>											
<b>Blank Analyzed: 09/20/2006 (6I20145-BLK1)</b>											
Total Organic Carbon	ND	1.0	0.25	mg/l							
<b>LCS Analyzed: 09/20/2006 (6I20145-BS1)</b>											
Total Organic Carbon	10.7	1.0	0.25	mg/l	10.0		107	90-110			
<b>Matrix Spike Analyzed: 09/20/2006 (6I20145-MS1)</b>											
Total Organic Carbon	6.34	1.0	0.25	mg/l	5.00	1.5	97	80-120			
<b>Matrix Spike Dup Analyzed: 09/20/2006 (6I20145-MSD1)</b>											
Total Organic Carbon	6.52	1.0	0.25	mg/l	5.00	1.5	100	80-120	3	20	
<b><u>Batch: 6I22108 Extracted: 09/22/06</u></b>											
<b>Duplicate Analyzed: 09/22/2006 (6I22108-DUP1)</b>											
Density	0.999	NA	N/A	g/cc		1.0			0	20	

TestAmerica - Irvine, CA  
 Lisa Reightley For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1298

Sampled: 09/14/06  
Received: 09/14/06

### DATA QUALIFIERS AND DEFINITIONS

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M-NR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- R-3** The RPD exceeded the method control limit due to sample matrix effects.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

**TestAmerica - Irvine, CA**  
Lisa Reightley For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1298

Sampled: 09/14/06  
 Received: 09/14/06

## Certification Summary

### TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
1613A/1613B	Water		
ASTM D3977	Water		
Displacement	Water		
EPA 120.1	Water	X	X
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 310.1	Water	X	X
EPA 350.2	Water		X
EPA 351.3	Water		
EPA 413.1	Water	X	X
EPA 415.1	Water	X	X
Filtration	Water	N/A	N/A
SM2340B	Water	X	X
SM2540C	Water	X	X

*Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at [www.testamericainc.com](http://www.testamericainc.com)*

### Subcontracted Laboratories

**Alta Analytical** NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta

Samples: IPI1298-01

### TestAmerica - Irvine, CA

Lisa Reightley For Michele Chamberlin  
 Project Manager

**CHAIN OF CUSTODY FORM**

Del Mar Analytical Version 04/28/06

Client Name/Address: <b>MWH-Pasadena</b> 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101		Project: Boeing-SSFL BMP/NPDES R-2A Pond Filtration Pilot Test		Field readings: Temp = 68 pH = 7.3															
Project Manager: Bronwyn Kelly		Phone Number: (626) 568-6691		Comments															
Sampler: <i>Bronwyn Kelly</i>		Fax Number: (626) 568-6515																	
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals As, Ag, Be, Cd, Cr, Cu, Pb, Hg, Ni, Mn, Sb, Se, Tl, Fe*	Zn, Hardness	Total Dissolved Solids, pH, Alkalinity, Suspended Sediments Concentration (ASTM Method)	Total Organic Carbon	Oil & Grease (EPA 413.1)	Total Kjeldahl Nitrogen	SO4, NO3+NO2-N, Nitrate-N, Nitrite-N (NO3 + NO2-N)	Turbidity, TSS, Conductivity	Ammonia-N (NH3-N)	Total Dissolved Metals As, Ag, Be, Cd, Cr, Cu, Pb, Hg, Ni, Mn, Sb, Se, Tl, Fe*	Zn	TCDD (and all congeners)	
S-EFF	W	Poly-1L	1	9/14/06 1500	HNO3	1	X		X										
S-EFF	W	Poly-1L	1		None	2				X									
S-EFF	W	VOCs	2		HCl	3A, 3B													
S-EFF	W	1L Amber	2		HCl	4A, 4B					X								
S-EFF	W	Poly-500 ml	1		H2SO4	5						X							
S-EFF	W	Poly-500 ml	1		None	6							X						
S-EFF	W	Poly-500 ml	2		None	7A, 7B								X					
S-EFF	W	Poly-500 ml	1		H2SO4	8									X				
S-EFF	W	Poly-1L	1		None	9										X			
S-EFF	W	1L Amber	2		None	10A, 10B												X	
Relinquished By: <i>Bronwyn Kelly</i>		Date/Time: 9-14-06 1500		Received By: <i>[Signature]</i>		Date/Time: 9-14-06 1500		Turn around Time: (check) 5 Days		48 Hours		10 Days		72 Hours		Normal		X	
Relinquished By: <i>[Signature]</i>		Date/Time: 9-14-06 1815		Received By: <i>[Signature]</i>		Date/Time: 9-14-06 1815		Perchlorate Only 72 Hours		Metals Only 72 Hours		Sample Integrity: (Check) Intact		On Ice: <i>[Signature]</i>					





September 21, 2006

**Alta Project I.D.: 28111**

Ms. Michele Chamberlin  
Test America-Irvine  
17461 Derian Avenue  
Suite 100  
Irvine, CA 92614

Dear Ms. Chamberlin,

Enclosed are the results for the one aqueous sample received at Alta Analytical Laboratory on September 16, 2006 under your Project Name "IPI1298". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Alta's current certifications, and copies of the raw data (if requested).

Alta Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-933-1640 or by email at [mmaier@altalab.com](mailto:mmaier@altalab.com). Thank you for choosing Alta as part of your analytical support team.

Sincerely,

Martha M. Maier  
Director of HRMS Services



*Alta Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. This report should not be reproduced except in full without the written approval of ALTA.*



**Alta Analytical Laboratory, Inc.**

1104 Windfield Way  
El Dorado Hills, CA 95762

(916) 933-1640  
FAX (916) 673-0106

**Section I: Sample Inventory Report**

**Date Received: 9/16/2006**

Alta Lab. ID

Client Sample ID

28111-001

IPI1298-01

## **SECTION II**

Method Blank					EPA Method 1613				
Matrix:	Aqueous	QC Batch No.:	8381	Lab Sample:	0-MB001	Date Analyzed DB-5:	20-Sep-06	Date Analyzed DB-225:	NA
Sample Size:	1.00 L	Date Extracted:	18-Sep-06						
Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers	
2,3,7,8-TCDD	ND	0.00000120			<b>IS</b> 13C-2,3,7,8-TCDD	80.5	25 - 164		
1,2,3,7,8-PeCDD	ND	0.00000185			13C-1,2,3,7,8-PeCDD	71.4	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.00000114			13C-1,2,3,4,7,8-HxCDD	83.4	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.00000119			13C-1,2,3,6,7,8-HxCDD	82.7	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.00000113			13C-1,2,3,4,6,7,8-HpCDD	77.1	23 - 140		
1,2,3,4,6,7,8-HpCDD	ND	0.00000251			13C-OCDD	70.2	17 - 157		
OCDD	ND	0.00000489			13C-2,3,7,8-TCDF	80.1	24 - 169		
2,3,7,8-TCDF	ND	0.00000133			13C-1,2,3,7,8-PeCDF	72.7	24 - 185		
1,2,3,7,8-PeCDF	ND	0.00000197			13C-2,3,4,7,8-PeCDF	65.5	21 - 178		
2,3,4,7,8-PeCDF	ND	0.00000201			13C-1,2,3,4,7,8-HxCDF	89.4	26 - 152		
1,2,3,4,7,8-HxCDF	ND	0.000000613			13C-1,2,3,6,7,8-HxCDF	85.1	26 - 123		
1,2,3,6,7,8-HxCDF	ND	0.000000579			13C-2,3,4,6,7,8-HxCDF	80.1	28 - 136		
2,3,4,6,7,8-HxCDF	ND	0.000000710			13C-1,2,3,7,8,9-HxCDF	63.8	29 - 147		
1,2,3,7,8,9-HxCDF	ND	0.00000163			13C-1,2,3,4,6,7,8-HpCDF	70.3	28 - 143		
1,2,3,4,6,7,8-HpCDF	ND	0.00000121			13C-1,2,3,4,7,8,9-HpCDF	58.0	26 - 138		
1,2,3,4,7,8,9-HpCDF	ND	0.00000160			13C-OCDF	56.7	17 - 157		
OCDF	ND	0.00000380			<b>CRS</b> 37Cl-2,3,7,8-TCDD	81.7	35 - 197		
Totals					Footnotes				
Total TCDD	ND	0.00000120			a. Sample specific estimated detection limit.				
Total PeCDD	ND	0.00000432			b. Estimated maximum possible concentration.				
Total HxCDD	ND	0.00000116			c. Method detection limit.				
Total HpCDD	ND	0.00000251			d. Lower control limit - upper control limit.				
Total TCDF	ND	0.00000133							
Total PeCDF	ND	0.00000342							
Total HxCDF	ND	0.000000802							
Total HpCDF	ND	0.00000137							

Analyst: MAS

Approved By: William J. Luksemburg 21-Sep-2006 14:49

OPR Results				EPA Method 1613			
Matrix:	Aqueous	QC Batch No.:	8381	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	18-Sep-06	Date Analyzed DB-5:	20-Sep-06	Date Analyzed DB-225:	NA
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	
2,3,7,8-TCDD	10.0	9.99	6.7 - 15.8	<b>IS</b> 13C-2,3,7,8-TCDD	72.8	25 - 164	
1,2,3,7,8-PeCDD	50.0	48.5	35 - 71	13C-1,2,3,7,8-PeCDD	62.1	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	46.7	35 - 82	13C-1,2,3,4,7,8-HxCDD	79.6	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	48.1	38 - 67	13C-1,2,3,6,7,8-HxCDD	76.6	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	47.4	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	76.9	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	51.3	35 - 70	13C-OCDD	68.9	17 - 157	
OCDD	100	99.3	78 - 144	13C-2,3,7,8-TCDF	76.1	24 - 169	
2,3,7,8-TCDF	10.0	9.77	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	62.3	24 - 185	
1,2,3,7,8-PeCDF	50.0	51.9	40 - 67	13C-2,3,4,7,8-PeCDF	59.0	21 - 178	
2,3,4,7,8-PeCDF	50.0	51.8	34 - 80	13C-1,2,3,4,7,8-HxCDF	77.8	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	51.8	36 - 67	13C-1,2,3,6,7,8-HxCDF	75.4	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	50.6	42 - 65	13C-2,3,4,6,7,8-HxCDF	76.0	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	50.1	35 - 78	13C-1,2,3,7,8,9-HxCDF	54.3	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	51.3	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	64.1	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	51.1	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	58.8	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	52.3	39 - 69	13C-OCDF	58.1	17 - 157	
OCDF	100	105	63 - 170	<b>CRS</b> 37Cl-2,3,7,8-TCDD	81.1	35 - 197	

Analyst: MAS

Approved By: William J. Luksemburg 21-Sep-2006 14:49

Sample ID: IPI1298-01					EPA Method 1613			
Client Data			Sample Data		Laboratory Data			
Name:	Test America-Irvine		Matrix:	Aqueous	Lab Sample:	28111-001	Date Received:	16-Sep-06
Project:	IPI1298		Sample Size:	1.03 L	QC Batch No.:	8381	Date Extracted:	18-Sep-06
Date Collected:	14-Sep-06				Date Analyzed DB-5:	20-Sep-06	Date Analyzed DB-225:	NA
Time Collected:	0840							
Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers
2,3,7,8-TCDD	ND	0.00000144			<b>IS</b> 13C-2,3,7,8-TCDD	64.1	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000224			13C-1,2,3,7,8-PeCDD	50.5	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000276			13C-1,2,3,4,7,8-HxCDD	59.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000284			13C-1,2,3,6,7,8-HxCDD	60.9	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000270			13C-1,2,3,4,6,7,8-HpCDD	70.8	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000245				13C-OCDD	64.9	17 - 157	
OCDD	0.000264				13C-2,3,7,8-TCDF	59.9	24 - 169	
2,3,7,8-TCDF	ND	0.00000189			13C-1,2,3,7,8-PeCDF	50.3	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000202			13C-2,3,4,7,8-PeCDF	46.3	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000205			13C-1,2,3,4,7,8-HxCDF	63.2	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000867			13C-1,2,3,6,7,8-HxCDF	61.0	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000826			13C-2,3,4,6,7,8-HxCDF	59.3	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000101			13C-1,2,3,7,8,9-HxCDF	49.3	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000225			13C-1,2,3,4,6,7,8-HpCDF	65.7	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000457			13C-1,2,3,4,7,8,9-HpCDF	58.9	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000162			13C-OCDF	50.9	17 - 157	
OCDF	0.00000717			J	<b>CRS</b> 37Cl-2,3,7,8-TCDD	82.6	35 - 197	
Totals					Footnotes			
Total TCDD	ND	0.00000144			a. Sample specific estimated detection limit.			
Total PeCDD	ND	0.00000674			b. Estimated maximum possible concentration.			
Total HxCDD	0.00000383		0.00000724		c. Method detection limit.			
Total HpCDD	0.0000535				d. Lower control limit - upper control limit.			
Total TCDF	0.00000280							
Total PeCDF	ND	0.00000391						
Total HxCDF	ND	0.00000280						
Total HpCDF	0.00000615							

Analyst: MAS

Approved By: William J. Luksemburg 21-Sep-2006 14:49

## **APPENDIX**

## DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
E	The reported value exceeds the calibration range of the instrument.
H	The signal-to-noise ratio is greater than 10:1.
I	Chemical interference
J	The amount detected is below the Lower Calibration Limit of the instrument.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated Detection Limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that corresponds to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.



## CERTIFICATIONS

<b>Accrediting Authority</b>	<b>Certificate Number</b>
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

## SUBCONTRACT ORDER - PROJECT # IPI1298 28111, 0.1°C

### SENDING LABORATORY:

TestAmerica - Irvine, CA  
17461 Derian Avenue, Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Michele Chamberlin

### RECEIVING LABORATORY:

Alta Analytical  
1104 Windfield Way  
El Dorado Hills, CA 95762  
Phone : (916) 933-1640  
Fax: (916) 673-0106

Standard TAT is requested unless specific due date is requested => Due Date: \_\_\_\_\_ Initials: \_\_\_\_\_

Analysis	Expiration	Comments
Sample ID: IPI1298-01 1613-Dioxin-HR-Alta	Water 09/21/06 08:40	Sampled: 09/14/06 08:40 J flags, 17 cngnrs, no TEQ, ug/L, sub=Alta, Boeing EDD

### Containers Supplied:

- 1 L Amber (IPI1298-01M)
- 1 L Amber (IPI1298-01N)

### SAMPLE INTEGRITY:

All containers intact:  Yes  No  
Custody Seals Present:  Yes  No *N/A*  
Sample labels/COC agree:  Yes  No  
Samples Preserved Properly:  Yes  No  
Samples Received On Ice:  Yes  No  
Samples Received at (temp): 0.1°C

*[Signature]* 9/15/06 0830 *Michele Chamberlin* 9/16/06 0830  
Released By Date Time Received By Date Time

Released By Date Time Received By Date Time

### SAMPLE LOG-IN CHECKLIST

Alta Project #: 28111 TAT Standard

Samples Arrival:	Date/Time <u>9/16/06 0830</u>	Initials: <u>MA</u>	Location: <u>WR-2</u> Shelf/Rack: <u>N/A</u>
Logged In:	Date/Time <u>9/16/06 0912</u>	Initials: <u>FEB</u>	Location: <u>WR-2</u> Shelf/Rack: <u>C-3</u>
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> Cal
	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Other
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
	<input type="checkbox"/> None		
Temp °C	<u>0.1°</u>	Time: <u>0840</u>	Thermometer ID: DT-20

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
<u>Airbill</u> Trk # <u>7911 2401 9182</u>	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Preservation Documented?			<u>None</u>
Shipping Container	Alta	<u>Client</u>	Retain
			<u>Return</u>
			Dispose

Comments:

## **EXTRACTION INFORMATION**

PROCESS SHEET

Project No.-AR: 28111-1 of 1

Prep Due: 9/27/2006

Project Due: 10/7/2006

Hold Due: 9/14/2007

TAT: 21

Client: Test America-Irvine(TEACA01B)

Client Manager: Martha M. Maier

Method: EPA Method 1613 | PCDD/F (Tetra - Octa)

8381

Split Type:

Matrix: Aqueous

LabID	Recon	Client-ID	Description	Date Received	SLoc	Shelf
001	<input checked="" type="checkbox"/>	IPI1298-01		9/16/2006	WR-2	C-3

Instructions:

ugL; no TEQ

Report Options

Report Level:

TEQ Type: :

EDD Type:

Report Group: Dioxins NoMDL

Samples Reconciled By:

TEH 9/17/06

Vial Box ID:

Drag

Project 28111





Project: 28111  
 Method(s): EPA Method 1613 | 2,3,7,8s Only

### Extraction Set: 8381

Chemist: T. HORNER 9/18/06

C	ALTA Sample ID	G Eqv	Sample Amt. (L)	IS/NS CHEM/ WIT DATE	CRS CHEM/WIT DATE	AP CHEM/Date	ABSG CHEM/Date	AA CHEM/Date	Florisol CHEM/Date	RS CHEM/WIT DATE
<input type="checkbox"/>	0_8381_MB001	NA	1.00	TEH 9/18/06	TEH MDH 9/18/06	NA	TEH 9/18/06	TEH 9/18/06	TEH 9/18/06	TEH FEB 9/18/06
<input type="checkbox"/>	0_8381_OPR001	↓	↓	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	28111_8381_001	↓	1.029	↓	↓	↓	↓	↓	↓	↓

IS Name	NS Name	CRS Name	RS Name	Cycle Time	APP.: SEFUN SOX	Check Out:
PCDD/F 10ml 060110A (V2)	PCDD/F 10ml 060110B (V4)	PCDD/F 10ml 060110C (V3)	PCDD/F 10ml 060110D (V3)	9/18	SDS	TEH 9/18/06
PCB	PCB	PCB	PCB	Start: 1230	SOLV: TOL	Check-In:
PAH	PAH	PAH	PAH	9/19	Other: SPE	Empty 9/18/06
				Stop: 0430	Final Volume(s): 20ml	
					C14	

Comments:

Project 28111 Page 6 of 236



## **CALIBRATION DATA**

FORM 4A  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory

Episode No.:

CCAL ID: ST060920C2-1

Contract No.:

SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

NATIVE ANALYTES	M/Z'S	ION	QC	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
	FORMING RATIO (1)	ABUND. RATIO	LIMITS (2)			
2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	9.37	7.8 - 12.9
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	45.4	8.2 - 12.3 (4) 39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	47.7	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	43.8	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	43.9	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	49.1	43.0 - 58.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	93.2	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	y	9.51	8.4 - 12.0 8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	49.3	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	48.6	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	48.4	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	48.4	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	47.2	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.19	1.05-1.43	y	48.6	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	48.8	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	48.3	43.0 - 58.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.8	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: miDate: 9/20/06

FORM 4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)	
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	99.0	82.0 - 121.0 85.0 - 117.0 (5)	(1) See Table 8, Method 1613, for m/z specifications.
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	92.4	62.0 - 160.0	
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	100	85.0 - 117.0	(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	111	85.0 - 118.0	
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	113	72.0 - 138.0	(3) Contract-required concentration range, as specified in Table 6, Method 1613.
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	235	96.0 - 415.0	(4) No ion abundance ratio; report concentration found.
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	110	71.0 - 140.0 76.0 - 131.0 (5)	(5) Contract-required concentration range, as specified in Table 6a, Method 1613, for tetras only.
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	102	76.0 - 130.0	
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	97.6	77.0 - 130.0	
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	111	76.0 - 131.0	
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	98.9	70.0 - 143.0	
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	99.4	73.0 - 137.0	
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	y	102	74.0 - 135.0	
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	y	109	78.0 - 129.0	
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	y	111	77.0 - 129.0	
13C-OCDF	M+2/M+4	0.90	0.76-1.02	y	216	96.0 - 415.0	

CLEANUP STANDARD (4)

37C1-2,3,7,8-TCDD 9.32 7.9 - 12.7  
8.3 - 12.1 (5)

Analyst: MS

Date: 9/20/06

FORM 5  
PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-5 Initial Calibration Date: 3/22/06

RT Window Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

DB-5 IS Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

DB\_225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:13	1,3,6,8-TCDF (F)	20:07
1,2,8,9-TCDD (L)	27:25	1,2,8,9-TCDF (L)	27:35
1,2,4,7,9-PeCDD (F)	29:12	1,3,4,6,8-PeCDF (F)	27:31
1,2,3,8,9-PeCDD (L)	31:49	1,2,3,8,9-PeCDF (L)	32:04
1,2,4,6,7,9-HxCDD (F)	33:16	1,2,3,4,6,8-HxCDF (F)	32:43
1,2,3,7,8,9-HxCDD (L)	35:09	1,2,3,7,8,9-HxCDF (L)	35:31
1,2,3,4,6,7,9-HpCDD (F)	37:37	1,2,3,4,6,7,8-HpCDF (F)	37:14
1,2,3,4,6,7,8-HpCDD (L)	38:40	1,2,3,4,7,8,9-HpCDF (L)	39:15

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5).

=====

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT  
BETWEEN  
COMPARED PEAKS (1)

<25%

(1) To meet contract requirements, %Valley Height Between Compared  
Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: IN

Date: 9/20/06

FORM 6A  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME	RRT	RRT
	REFERENCE		QC LIMITS (1)
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.001	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002

(1) Contract-required limits for  
Relative Retention Times (RRT)  
as specified in Table 2, Method 1613. 10/94

LABELED COMPOUNDS

13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923-1.103
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.027	0.976-1.043
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.028	0.989-1.052
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.173	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.211	1.011-1.526
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.222	1.000-1.567

Analyst: ms

Date: 9/20/06

FORM 6B  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

Compounds Using 13C-123789-HxCDD as Internal Standard

NATIVE ANALYTES	RETENTION TIME		RRT	QC LIMITS (1)
	REFERENCE	RRT	QC LIMITS (1)	
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001	(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005	
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001	
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001	
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004	
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.009	1.000-1.019	
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001	
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001	
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001	
OCDD	13C-OCDD	1.000	0.999-1.001	
OCDF	13C-OCDF	1.000	0.999-1.001	

LABELED COMPOUNDS

13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.964	0.944-0.970
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.968	0.949-0.975
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.984	0.959-1.021
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDD	1.011	0.977-1.047
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.989	0.977-1.000
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.992	0.981-1.003
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.060	1.043-1.085
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,7,8,9-HxCDD	1.100	1.086-1.110
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.117	1.057-1.151
13C-OCDD	13C-1,2,3,7,8,9-HxCDD	1.191	1.032-1.311
13C-OCDF	13C-1,2,3,7,8,9-HxCDD	1.197	1.032-1.311

Analyst: MS

Date: 9/20/06

## EPA METHOD 8290

## PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory

Episode No.:

CCAL ID: ST060920C2-1

Contract No.:

SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060920C2 S#1 Analysis Date: 20-SEP-06 Time: 15:15:02

NATIVE ANALYTES	M/Z'S	ION	QC	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
	FORMING RATIO	ABUND. RATIO	LIMITS			
2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	9.37	8.00 - 12.0
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	45.4	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	47.7	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	43.8	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	43.9	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	49.1	40.0 - 60.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	93.2	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	y	9.51	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	49.3	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	48.6	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	48.4	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	48.4	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	47.2	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.19	1.05-1.43	y	48.6	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	48.8	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	48.3	40.0 - 60.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.8	80.0 - 120

Analyst: msDate: 9/20/06

## EPA METHOD 8290

## PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory      Episode No.:

Contract No.:                      SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060920C2    S#1    Analysis Date: 20-SEP-06    Time: 15:15:02

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	99.0	70.0 - 130
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	92.4	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	100	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	111	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	113	70.0 - 130
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	235	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	110	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	102	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	97.6	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	111	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	98.9	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	99.4	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	y	102	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	y	109	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	y	111	70.0 - 130
13C-OCDF	M+2/M+4	0.90	0.76-1.02	y	216	140 - 260
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD					9.32	7.00 - 13.0

Analyst: msDate: 9/20/06



Client ID: 1613 CS3 060110H  
Lab ID: ST060920C2-1

Filename: 060920C2  
GC Column ID: db-5

S:1 Acq:20-SEP-06 15:15:02  
Ical: 1613VG5-3-22-06

wt/vol: 1.000

ConCal: ST060920C2-1  
EndCAL: ST060920C2-2

Page 1 of 1

Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
2,3,7,8-TCDD	5.49e+06	0.79 y	1.08	26:26	9.3694		* 2.5	*	*
1,2,3,7,8-PeCDD	2.26e+07	0.62 y	1.03	31:26	45.386		* 2.5	*	*
1,2,3,4,7,8-HxCDD	1.85e+07	1.22 y	1.13	34:44	47.733		* 2.5	*	*
1,2,3,6,7,8-HxCDD	2.14e+07	1.23 y	1.03	34:51	43.765		* 2.5	*	*
1,2,3,7,8,9-HxCDD	2.00e+07	1.23 y	1.12	35:09	43.917		* 2.5	*	*
1,2,3,4,6,7,8-HpCDD	1.97e+07	1.05 y	1.02	38:39	49.121		* 2.5	*	*
OCDD	3.40e+07	0.89 y	1.06	41:51	93.250		* 2.5	*	*
2,3,7,8-TCDF	7.22e+06	0.76 y	1.06	25:31	9.5148		* 2.5	*	*
1,2,3,7,8-PeCDF	3.50e+07	1.55 y	1.01	30:09	49.274		* 2.5	*	*
2,3,4,7,8-PeCDF	3.35e+07	1.58 y	1.02	31:08	48.551		* 2.5	*	*
1,2,3,4,7,8-HxCDF	2.90e+07	1.21 y	1.15	33:53	48.386		* 2.5	*	*
1,2,3,6,7,8-HxCDF	3.14e+07	1.22 y	1.14	34:00	48.378		* 2.5	*	*
2,3,4,6,7,8-HxCDF	2.85e+07	1.21 y	1.17	34:36	47.177		* 2.5	*	*
1,2,3,7,8,9-HxCDF	2.43e+07	1.19 y	1.10	35:31	48.599		* 2.5	*	*
1,2,3,4,6,7,8-HpCDF	2.67e+07	1.03 y	1.31	37:14	48.759		* 2.5	*	*
1,2,3,4,7,8,9-HpCDF	2.25e+07	1.02 y	1.33	39:15	48.273		* 2.5	*	*
OCDF	3.82e+07	0.90 y	0.91	42:03	99.847		* 2.5	*	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	51.814	52.279	*	*	*
Total Penta-Dioxins	136.21	136.60	*	*	*
Total Hexa-Dioxins	187.41	188.23	*	*	*
Total Hepta-Dioxins	97.872	98.813	*	*	*
Total Tetra-Furans	31.628	32.078	*	*	*
Total Penta-Furans	185.47	186.67	*	*	*
Total Hexa-Furans	245.23	247.32	*	*	*
Total Hepta-Furans	97.436	98.202	*	*	*

IS	13C-2,3,7,8-TCDD	5.42e+07	0.78 y	1.09	26:25	98.980
IS	13C-1,2,3,7,8-PeCDD	4.84e+07	0.62 y	1.04	31:25	92.393
IS	13C-1,2,3,4,7,8-HxCDD	3.42e+07	1.23 y	0.83	34:44	100.32
IS	13C-1,2,3,6,7,8-HxCDD	4.74e+07	1.25 y	1.04	34:50	110.78
IS	13C-1,2,3,4,6,7,8-HpCDD	3.95e+07	1.06 y	0.85	38:39	112.88
IS	13C-OCDD	6.91e+07	0.89 y	0.71	41:50	235.45
IS	13C-2,3,7,8-TCDF	7.14e+07	0.79 y	0.96	25:30	110.02
IS	13C-1,2,3,7,8-PeCDF	7.04e+07	1.58 y	1.02	30:08	102.23
IS	13C-2,3,4,7,8-PeCDF	6.74e+07	1.58 y	1.02	31:07	97.609
IS	13C-1,2,3,4,7,8-HxCDF	5.24e+07	0.52 y	1.14	33:52	111.18
IS	13C-1,2,3,6,7,8-HxCDF	5.69e+07	0.52 y	1.40	33:60	98.914
IS	13C-2,3,4,6,7,8-HxCDF	5.16e+07	0.52 y	1.26	34:35	99.387
IS	13C-1,2,3,7,8,9-HxCDF	4.57e+07	0.50 y	1.08	35:30	102.47
IS	13C-1,2,3,4,6,7,8-HpCDF	4.18e+07	0.45 y	0.93	37:13	108.64
IS	13C-1,2,3,4,7,8,9-HpCDF	3.51e+07	0.45 y	0.77	39:14	111.35
IS	13C-OCDF	8.40e+07	0.90 y	0.94	42:03	216.24

Rec Qual

99.0	
92.4	
100	
111	
113	
118	
110	
102	
97.6	
111	
98.9	
99.4	
102	
109	
111	
108	

C/Up	37C1-2,3,7,8-TCDD	3.62e+06		0.77	26:25	9.3191
RS/RT	13C-1,2,3,4-TCDD	5.02e+07	0.80 y	1.00	25:42	100.00
RS	13C-1,2,3,4-TCDF	6.77e+07	0.80 y	1.00	23:56	100.00
RS/RT	13C-1,2,3,7,8,9-HxCDD	4.11e+07	1.26 y	1.00	35:08	100.00

Integrations Reviewed  
by \_\_\_\_\_ by \_\_\_\_\_  
Analyst: MS Analyst: \_\_\_\_\_  
Date: 9/20/06 Date: \_\_\_\_\_

Alta Analytical Laboratory - Injection Log    Run file: 060920C2    Instrument ID: VG-5    GC Column ID: db-5

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
060920C2	1	ST060920C2-1	MAS	20-SEP-06	15:15:02	ST060920C2-1	ST060920C2-2
060920C2	2	0_8381_OPR001	MAS	20-SEP-06	16:04:31	ST060920C2-1	ST060920C2-2
060920C2	3	0_8382_OPR001	MAS	20-SEP-06	16:54:06	ST060920C2-1	ST060920C2-2
060920C2	4	SOLVENT BLANK	MAS	20-SEP-06	17:43:41	ST060920C2-1	ST060920C2-2
060920C2	5	0_8381_MB001	MAS	20-SEP-06	18:33:15	ST060920C2-1	ST060920C2-2
060920C2	6	0_8382_MB001	MAS	20-SEP-06	19:22:48	ST060920C2-1	ST060920C2-2
060920C2	7	28101_8381_001	MAS	20-SEP-06	20:12:26	ST060920C2-1	ST060920C2-2
060920C2	8	28101_8381_002	MAS	20-SEP-06	21:02:04	ST060920C2-1	ST060920C2-2
060920C2	9	28110_8381_001	MAS	20-SEP-06	21:51:37	ST060920C2-1	ST060920C2-2
060920C2	10	28111_8381_001	MAS	20-SEP-06	22:41:10	ST060920C2-1	ST060920C2-2
060920C2	11	28112_8381_001	MAS	20-SEP-06	23:30:43	ST060920C2-1	ST060920C2-2
060920C2	12	28113_8381_001	MAS	21-SEP-06	00:20:15	ST060920C2-1	ST060920C2-2
060920C2	13	28114_8381_001	MAS	21-SEP-06	01:09:54	ST060920C2-1	ST060920C2-2
060920C2	14	28074_8382_001	MAS	21-SEP-06	01:59:27	ST060920C2-1	ST060920C2-2
060920C2	15	SOLVENT BLANK	MAS	21-SEP-06	02:48:56	ST060920C2-1	ST060920C2-2
060920C2	16	ST060920C2-2	MAS	21-SEP-06	03:38:30	ST060920C2-1	ST060920C2-2

### CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST060920C2-1

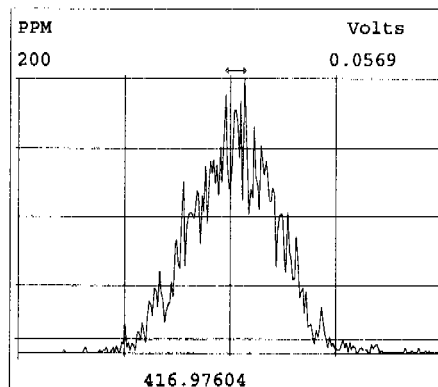
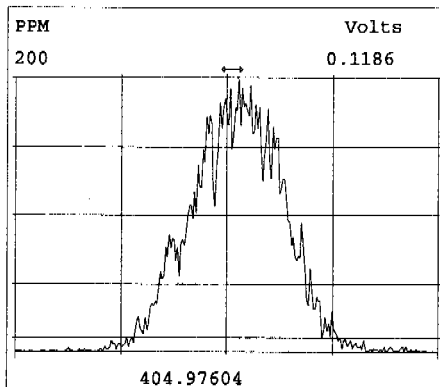
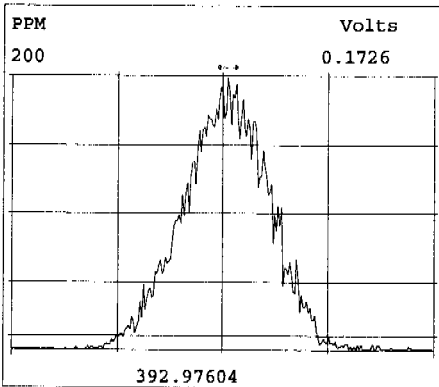
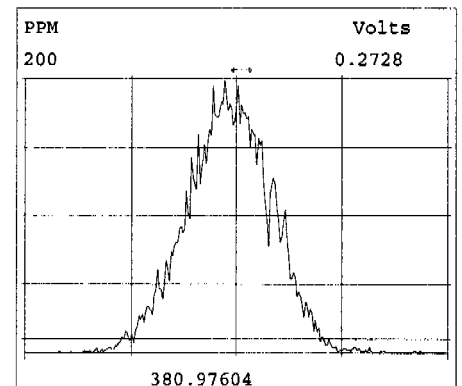
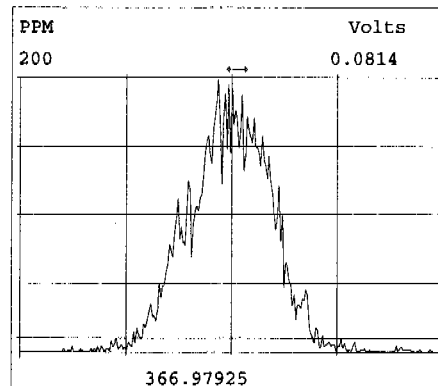
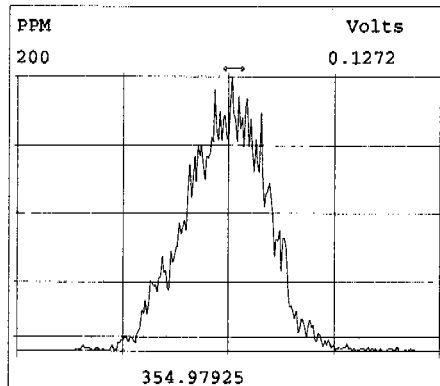
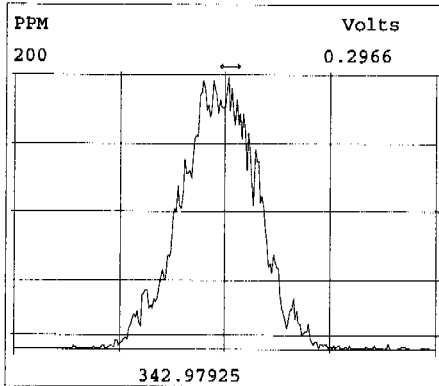
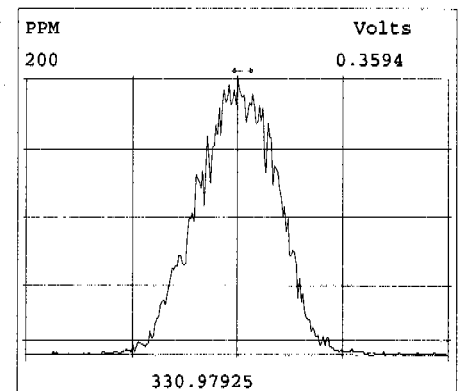
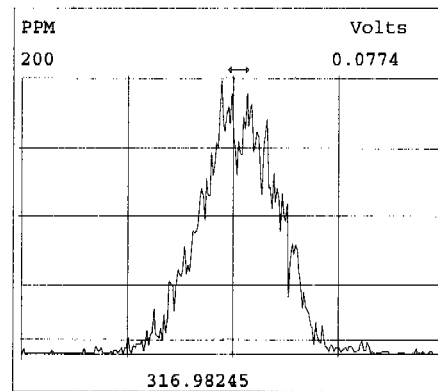
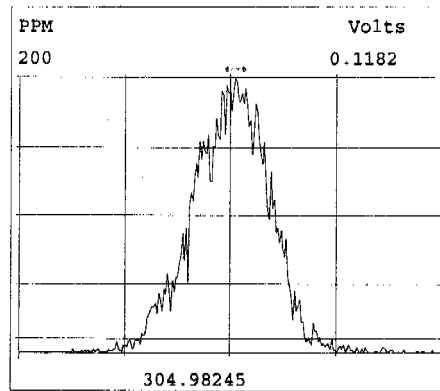
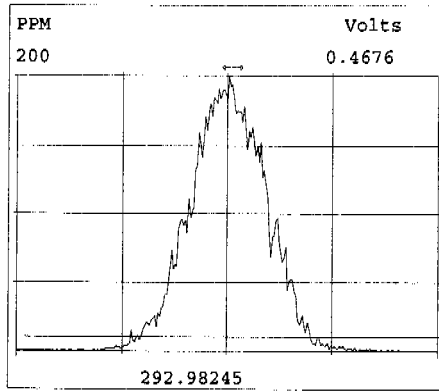
End Calibration ID: ST0920C2-2

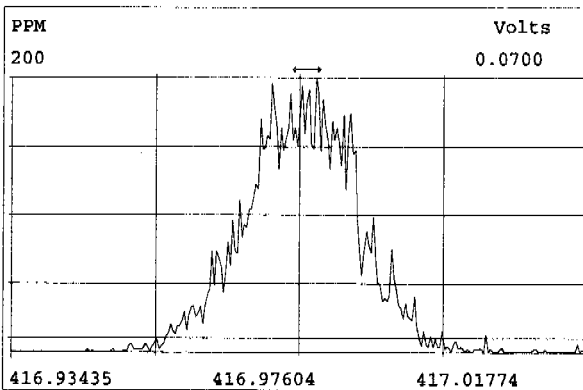
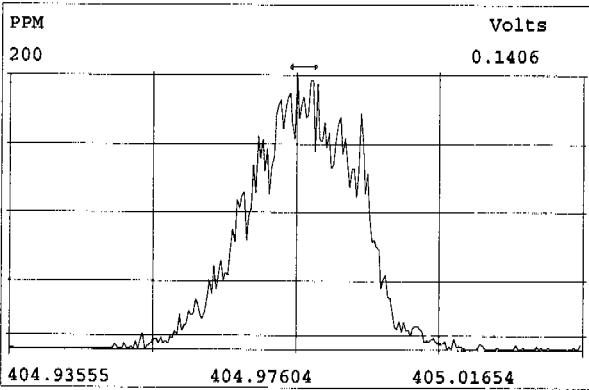
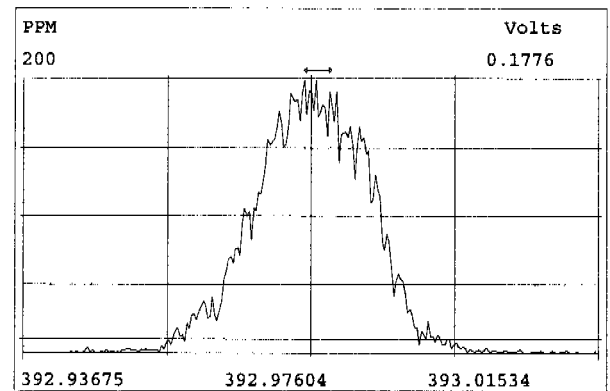
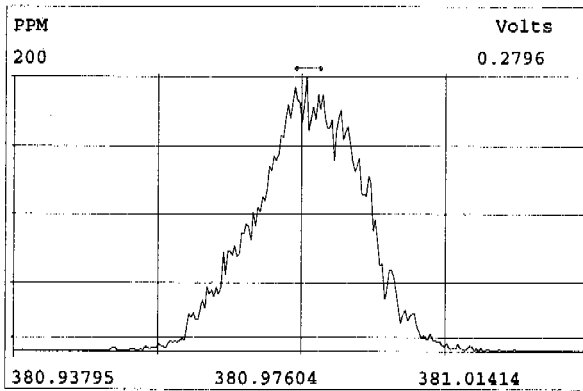
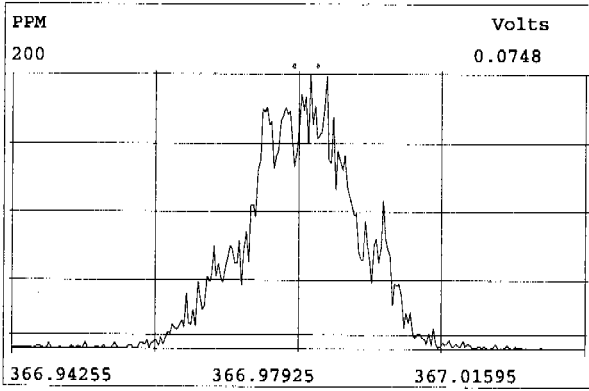
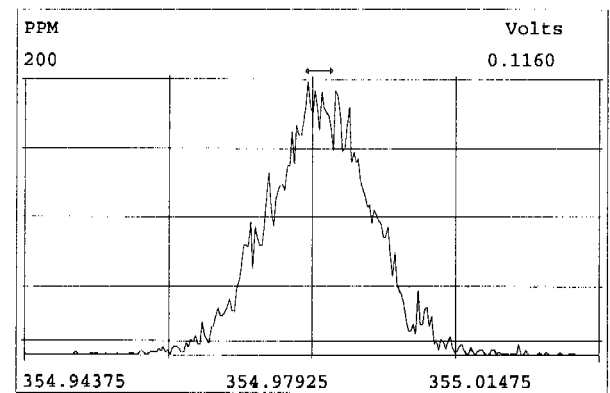
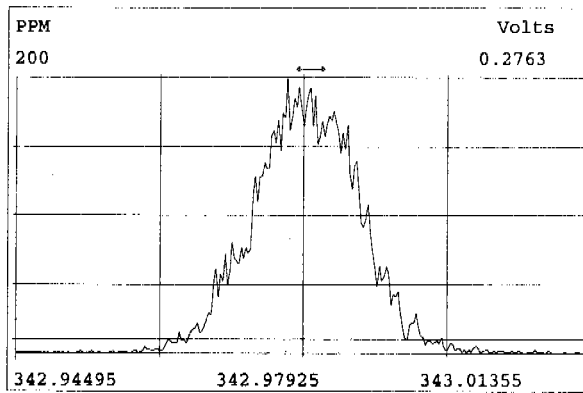
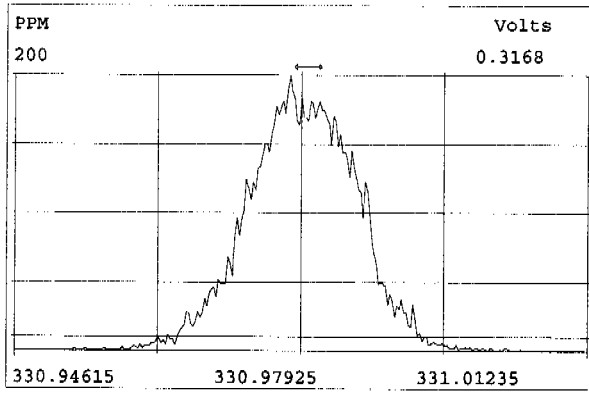
	<u>Beg.</u>	<u>End</u>		<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Mass resolution > 10,000?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Concentration within range?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>TCDD/TCDF</u> valleys < 25%?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
First and last eluters present?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Peaks integrated correctly?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Retention Times within criteria?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Manual integrations included?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	8280 CS1 Ending Standard		
Forms signed and dated?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	-Ratios within limits		<input type="checkbox"/> NA
Correct ICAL referenced?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	-S/N > 2.5:1		<input type="checkbox"/> 1
Run Log:			-CS1 within 12-hour clock		<input type="checkbox"/> 6
-Standards named correctly?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
-Correct instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
-Samples within 12-hour clock?	<input checked="" type="checkbox"/> y	<input type="checkbox"/> n			

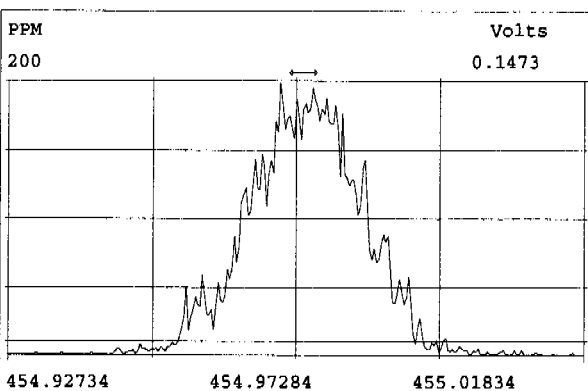
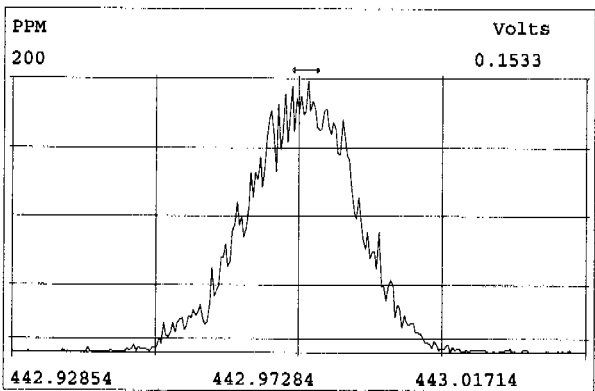
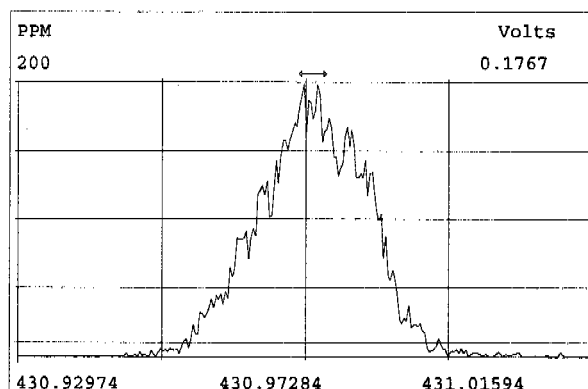
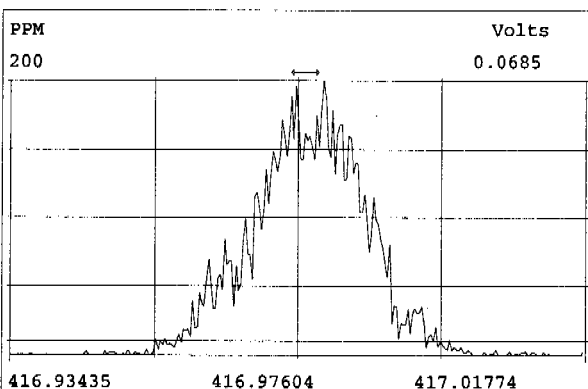
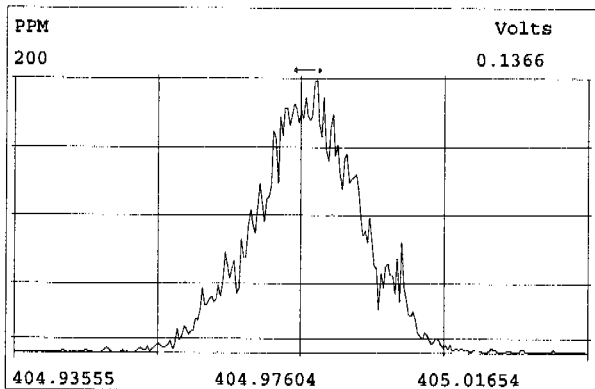
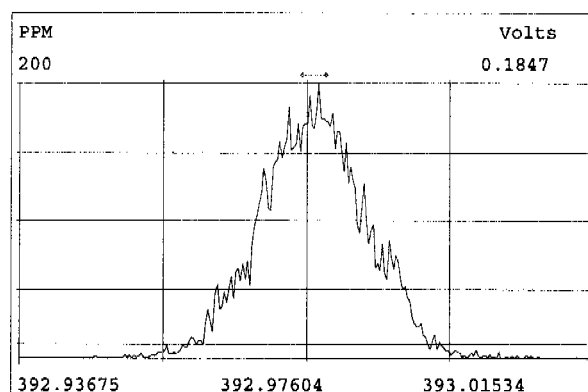
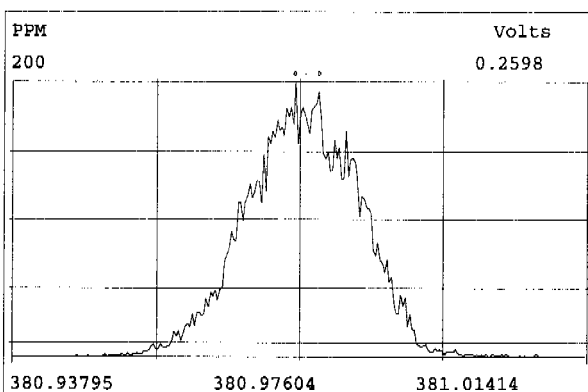
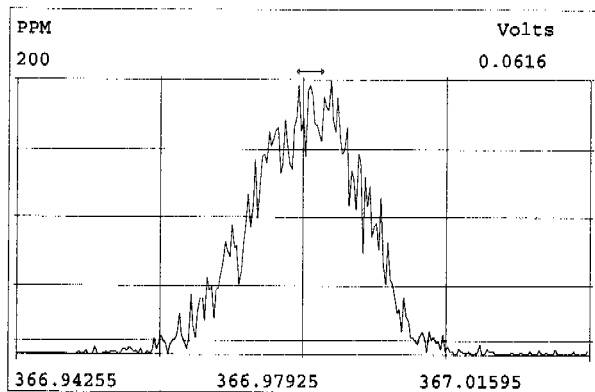
Comments:

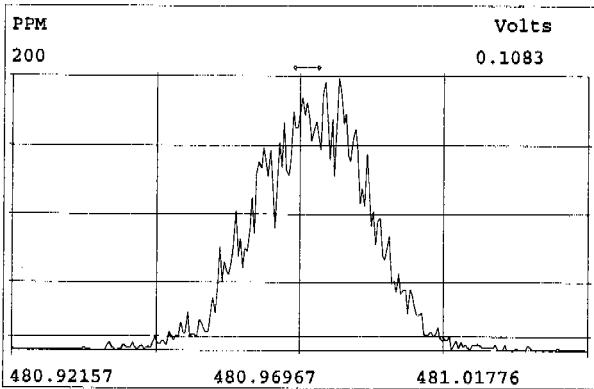
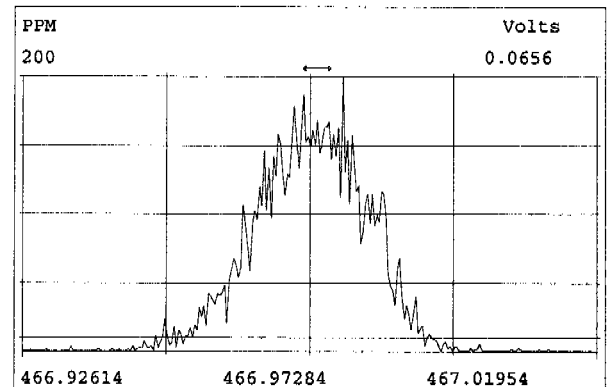
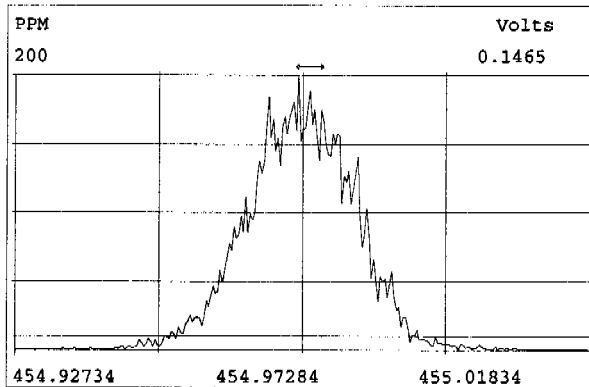
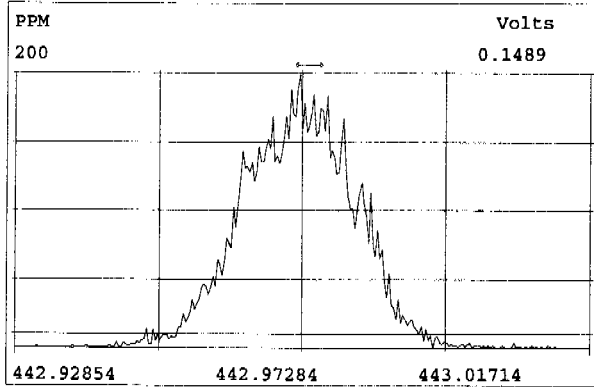
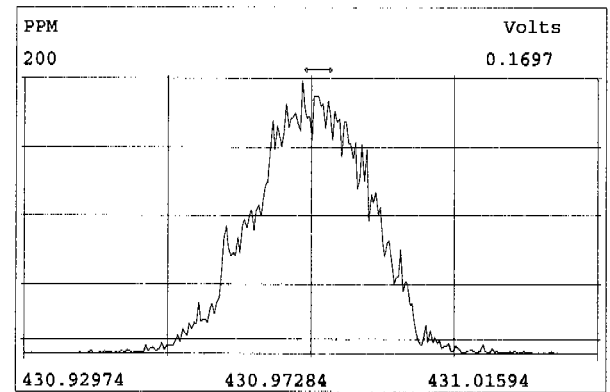
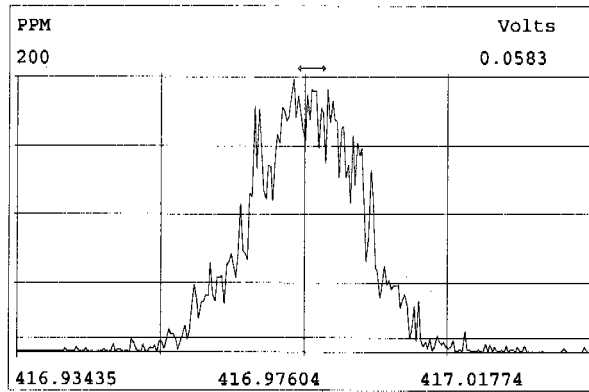
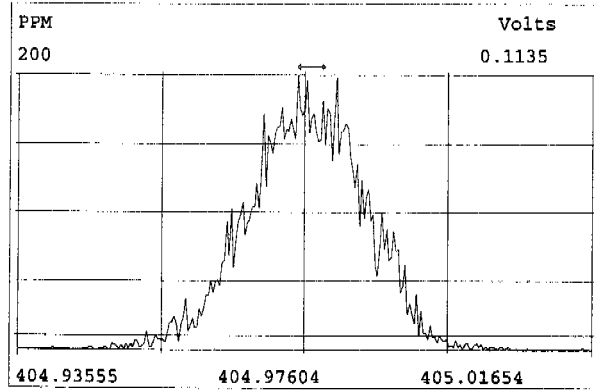
Reviewed by: J 9/25/06  
 Initials & Date

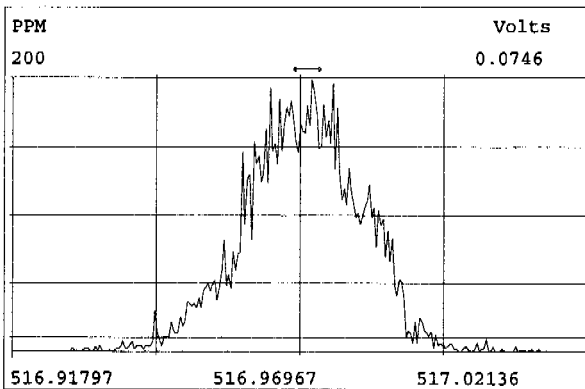
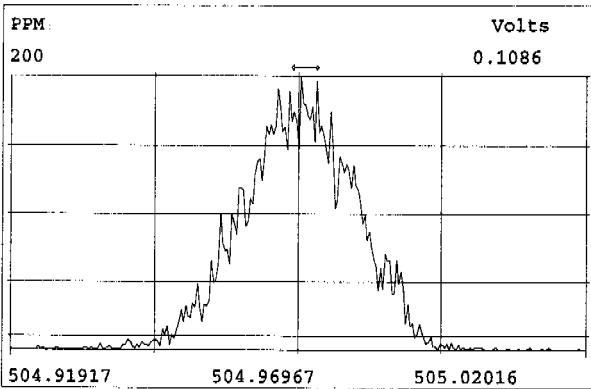
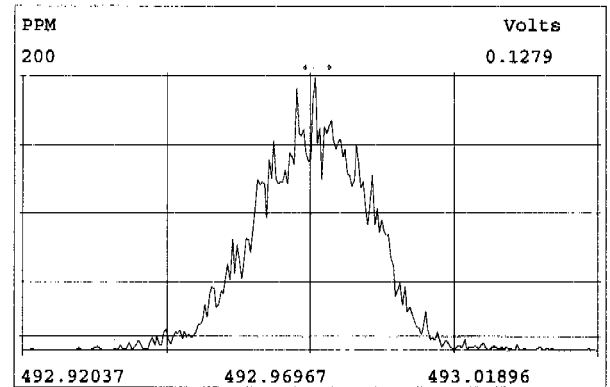
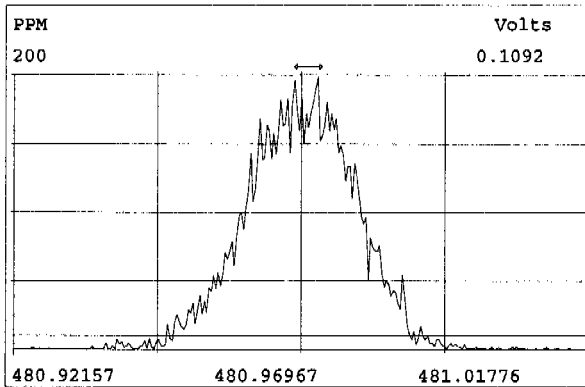
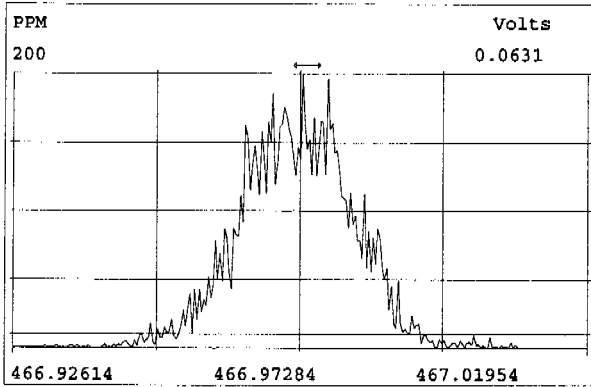
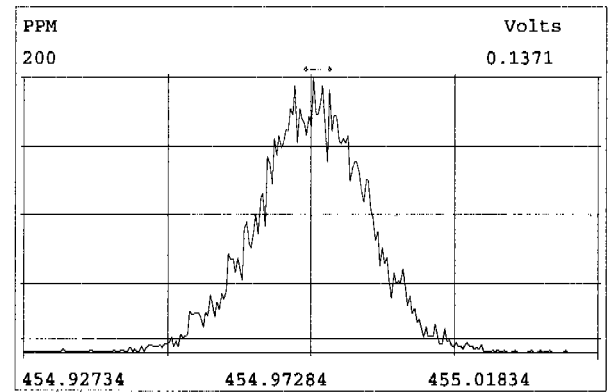
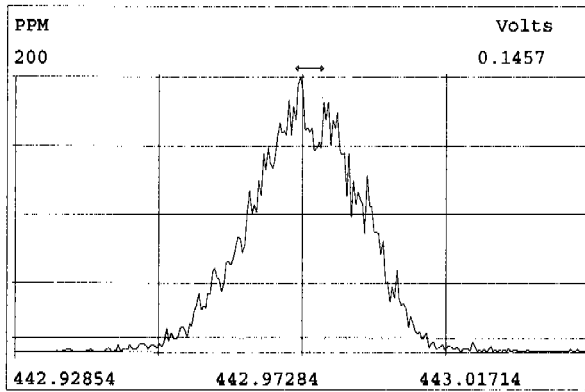
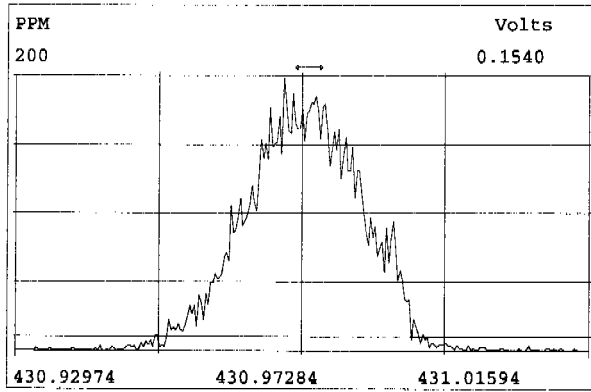
\* Ending standard criteria applicable to 8290 only.



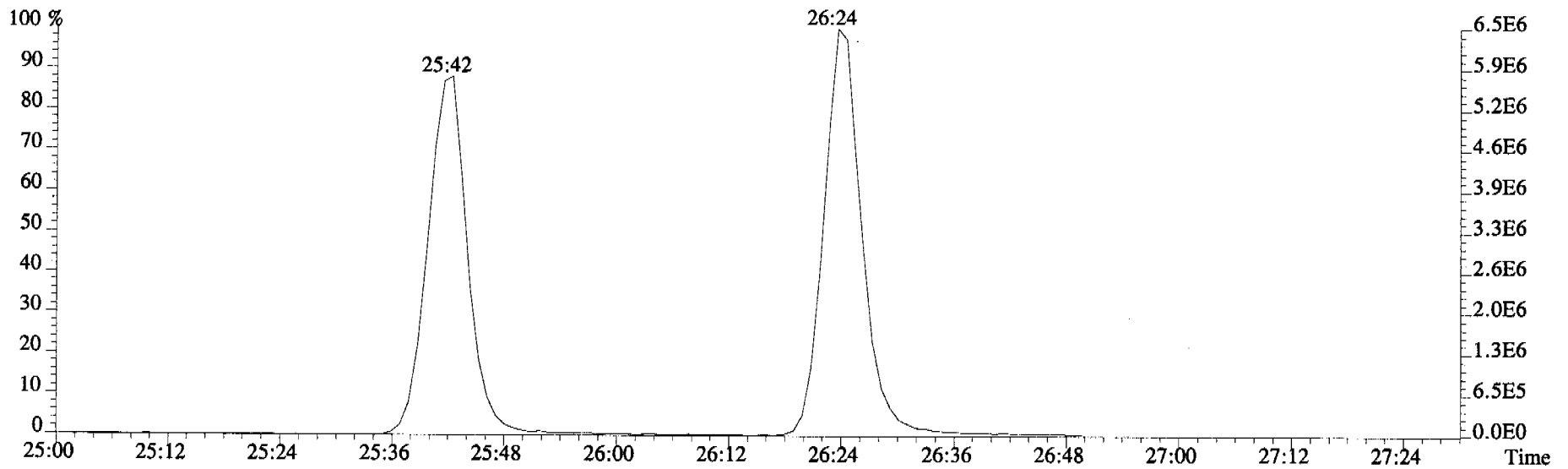
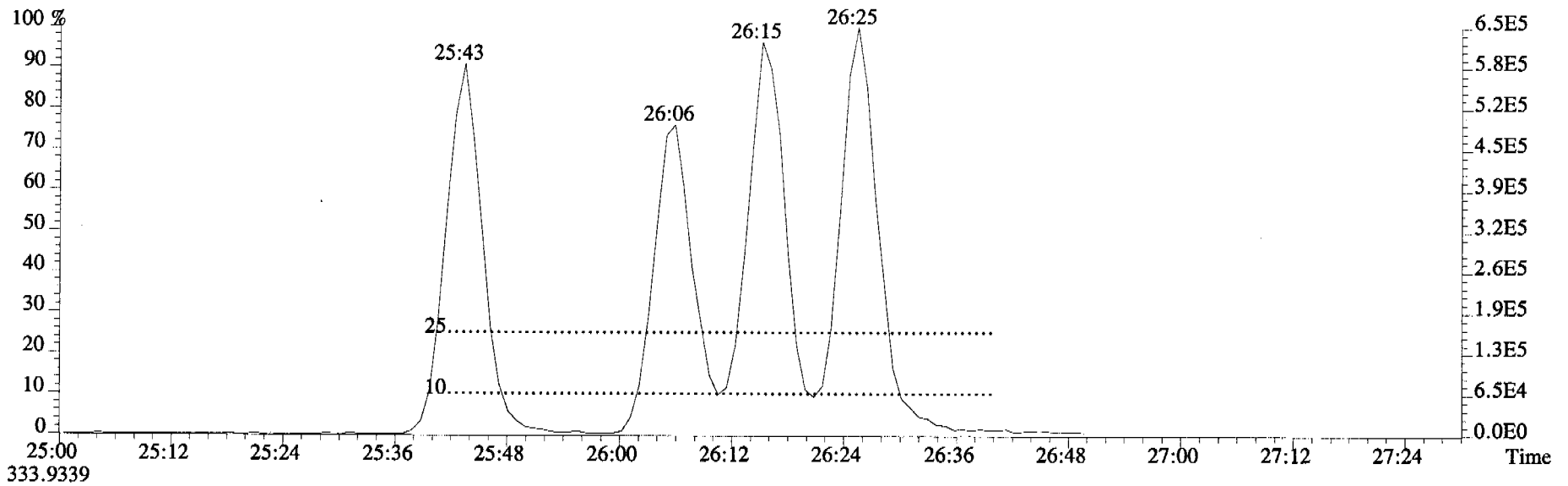




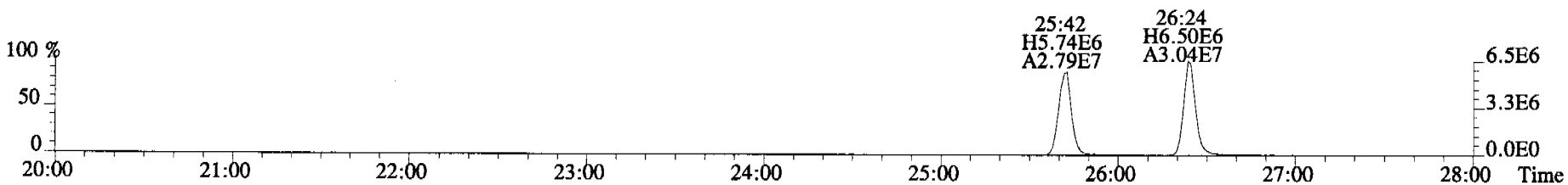
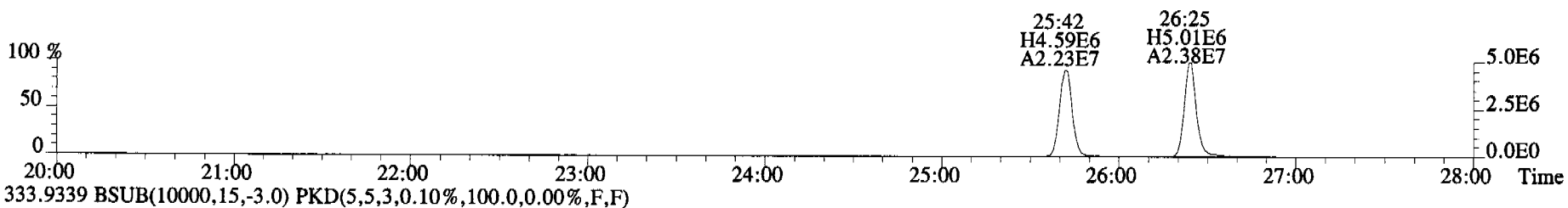
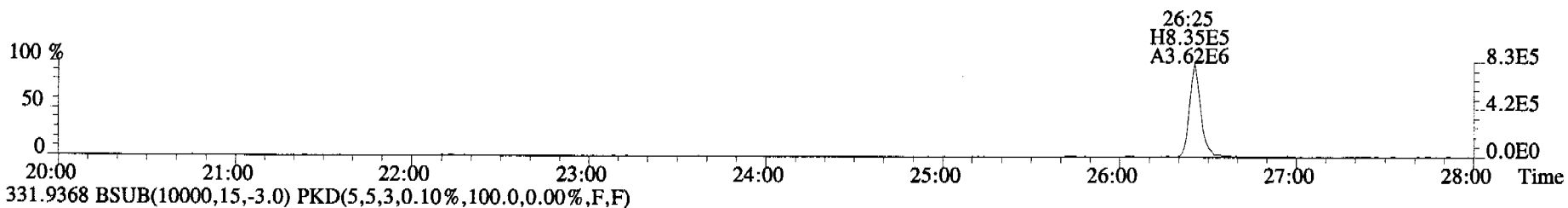
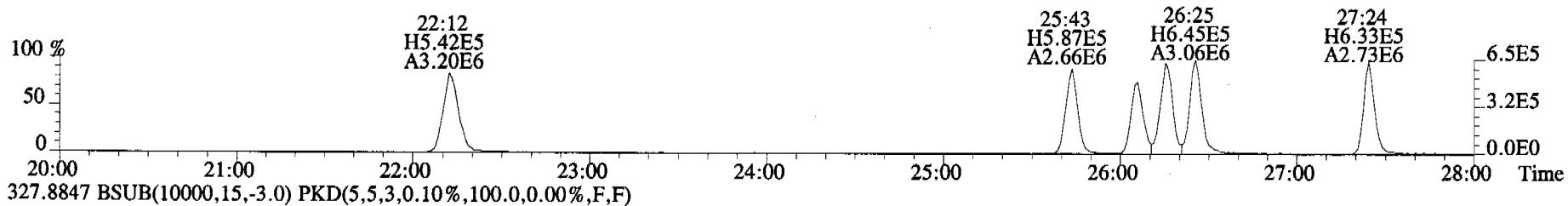
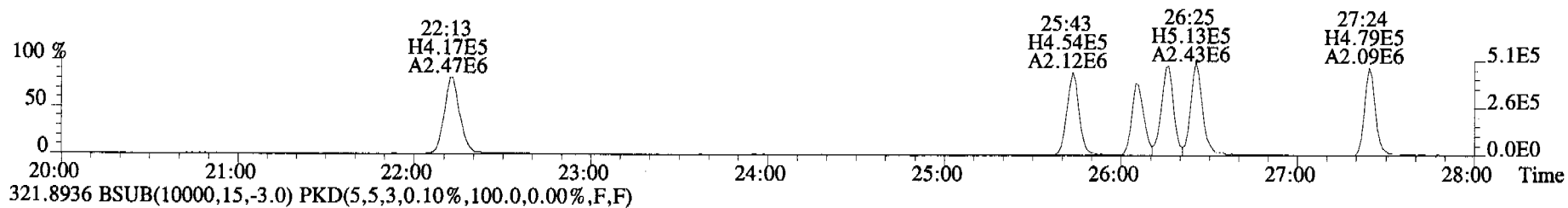




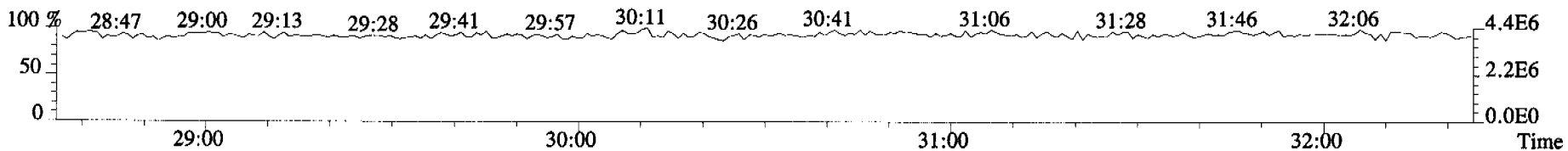
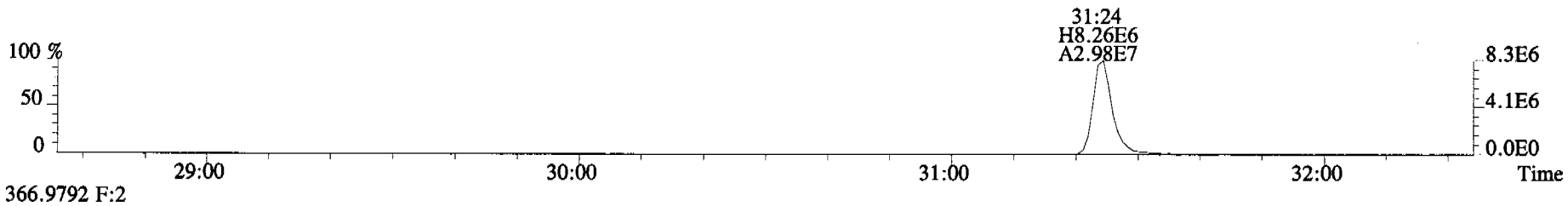
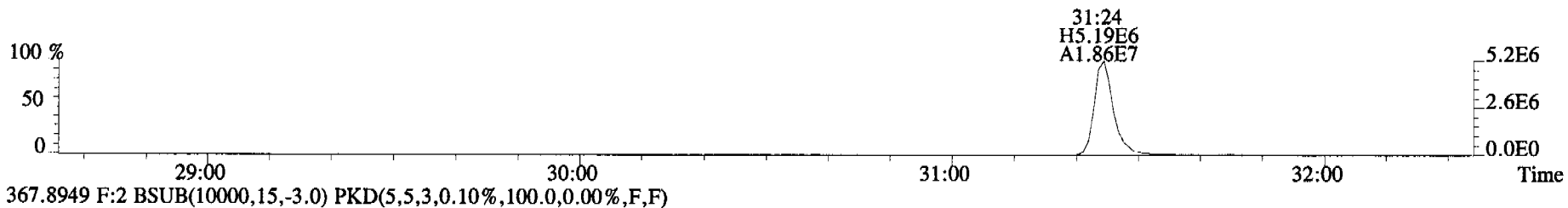
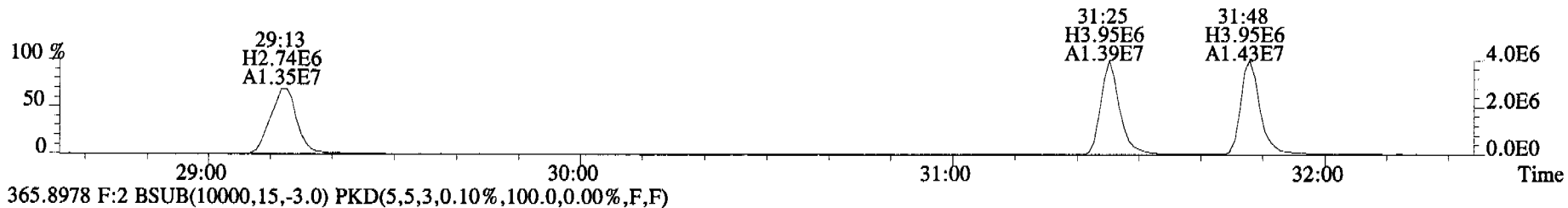
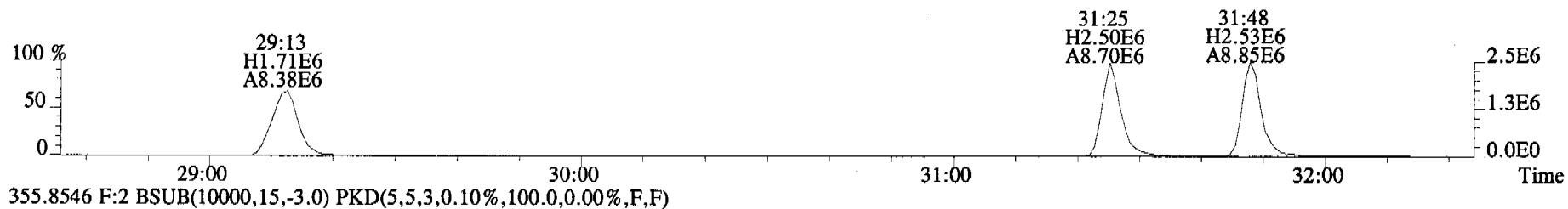




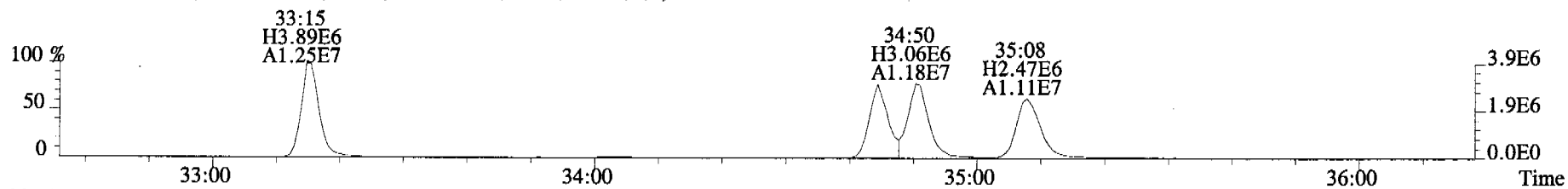
File:060920C2 #1-546 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD\_DB5  
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



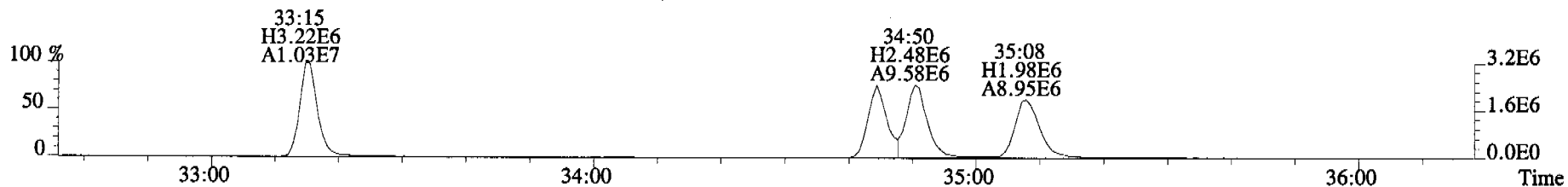
File:060920C2 #1-324 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD\_DB5  
353.8576 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



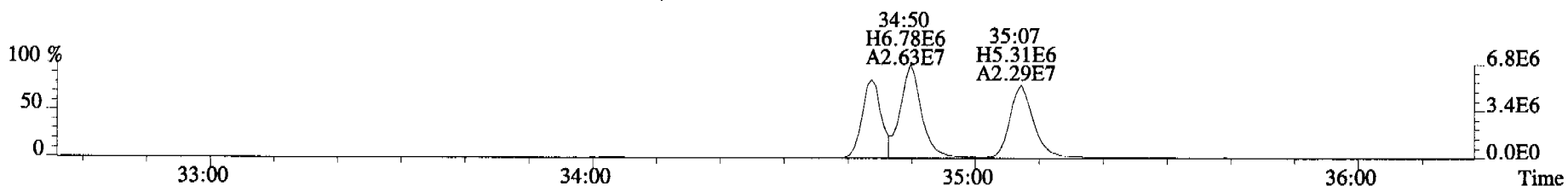
File:060920C2 #1-363 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD\_DB5  
389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



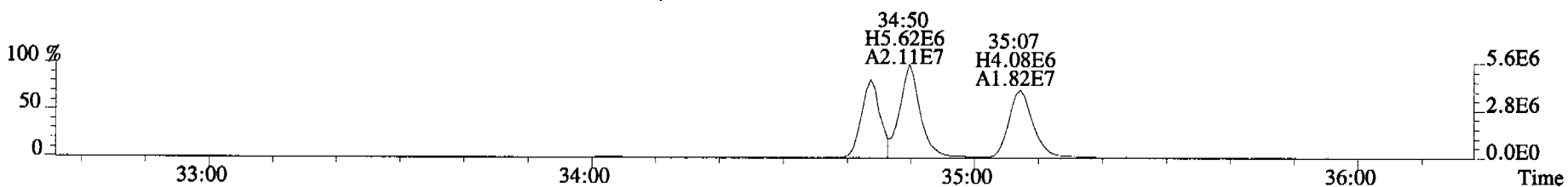
391.8127 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



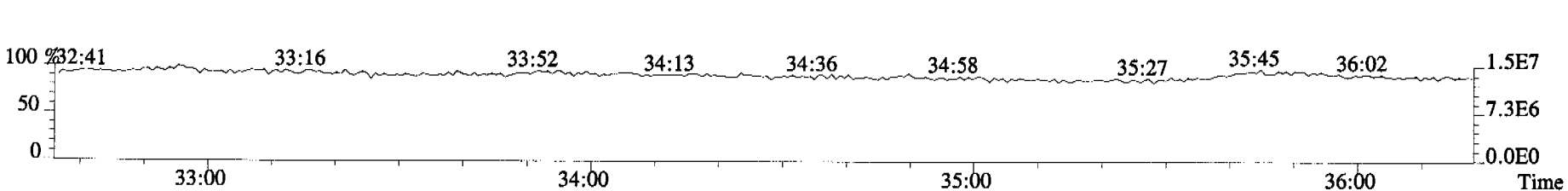
401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



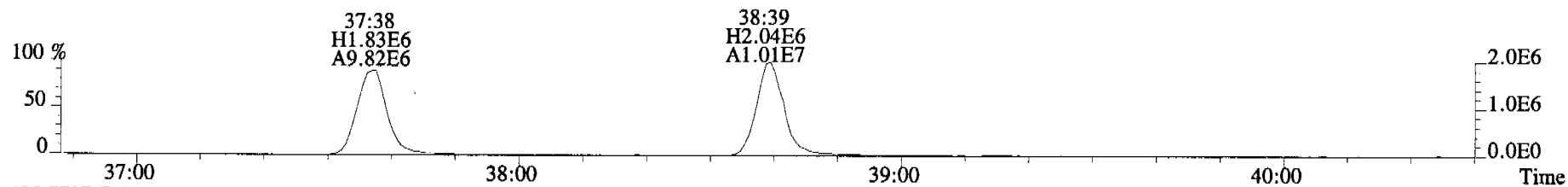
403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



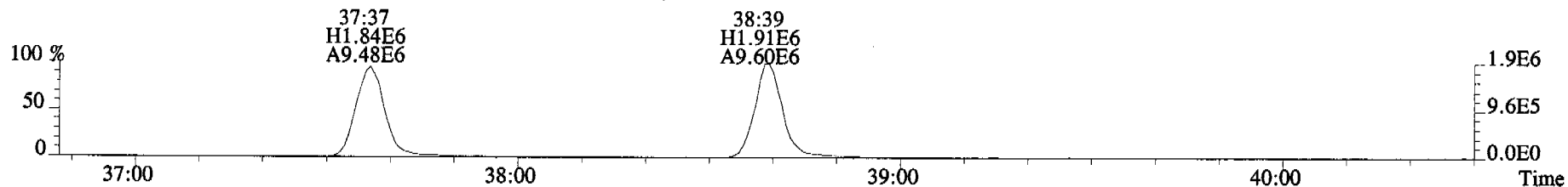
380.9760 F:3



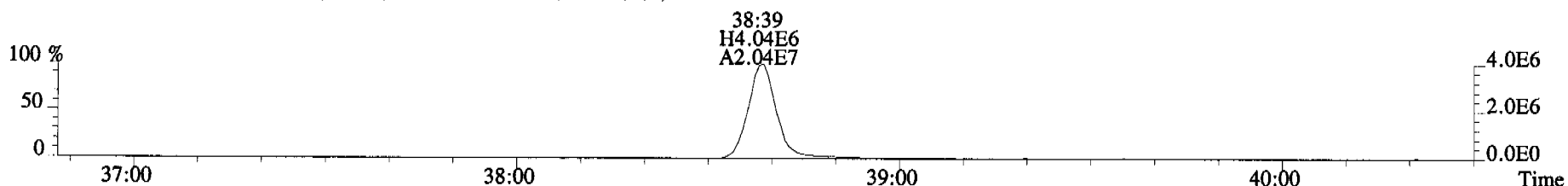
File:060920C2 #1-399 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD\_DB5  
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



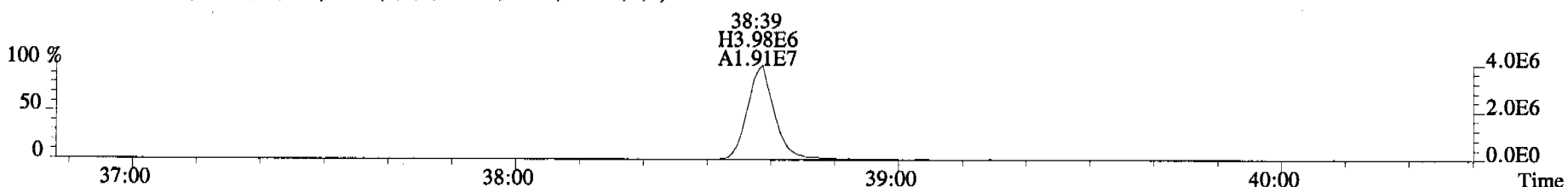
425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



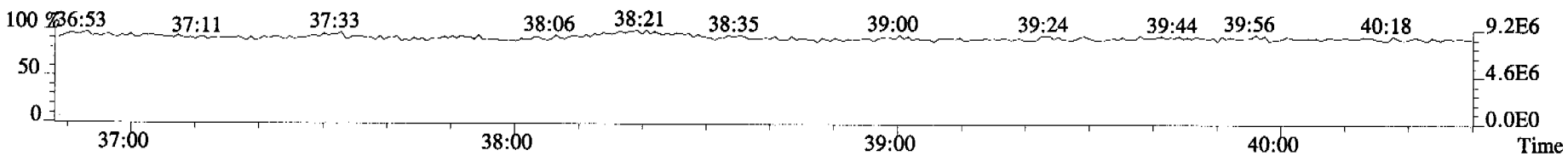
435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



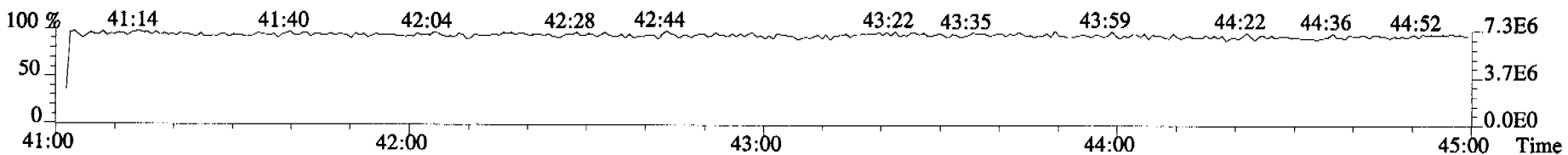
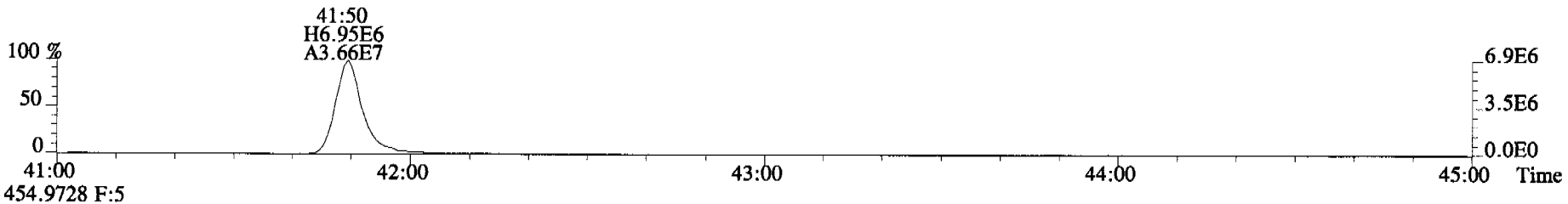
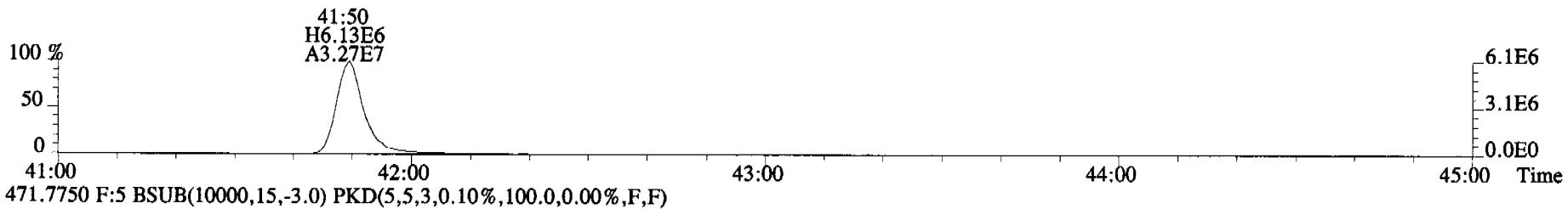
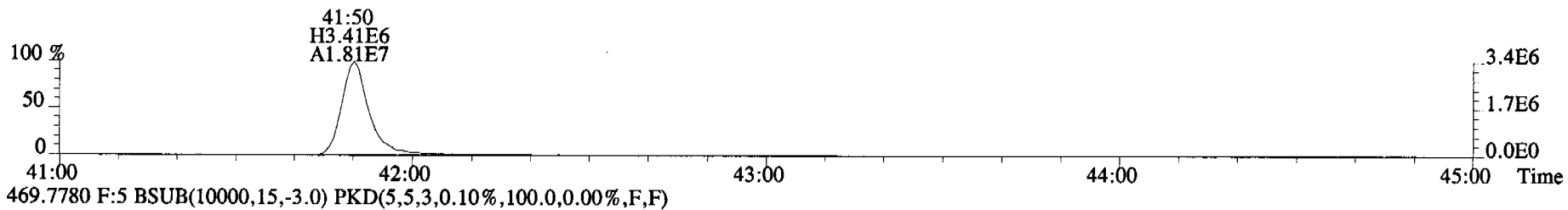
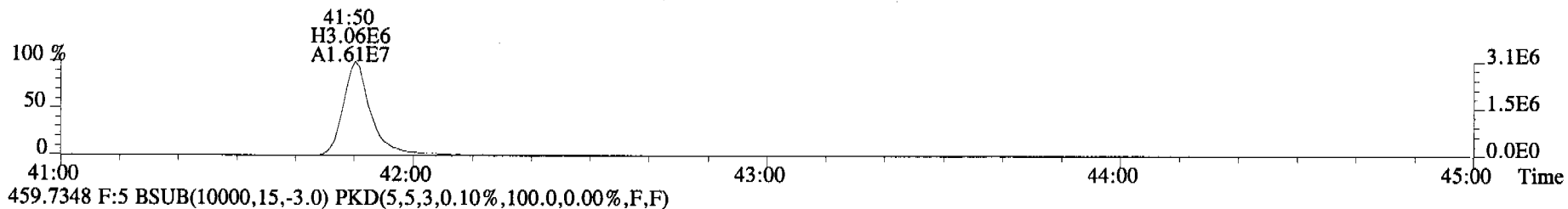
437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



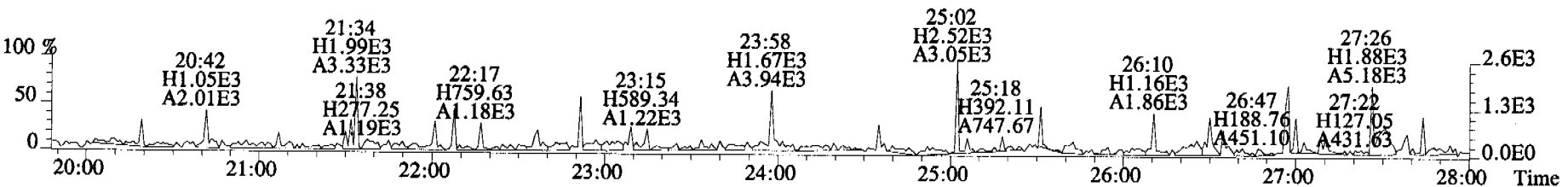
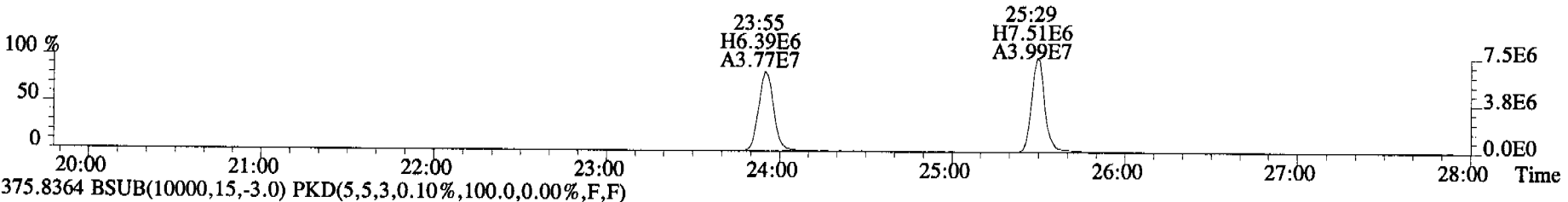
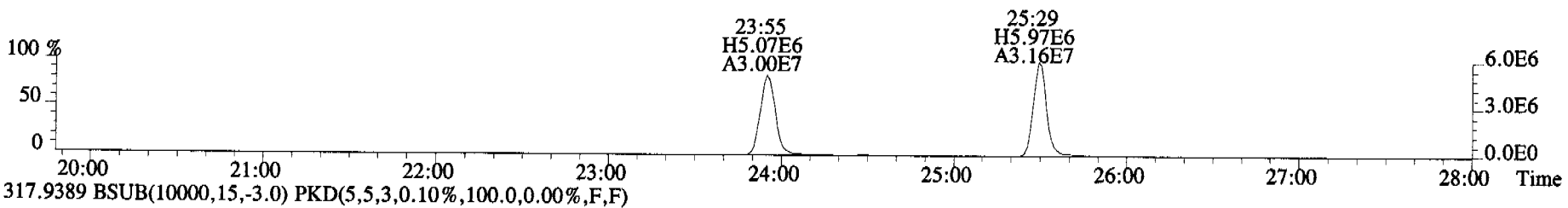
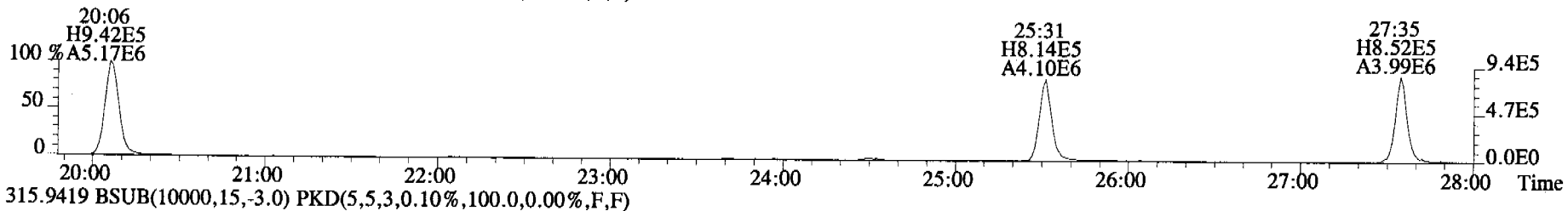
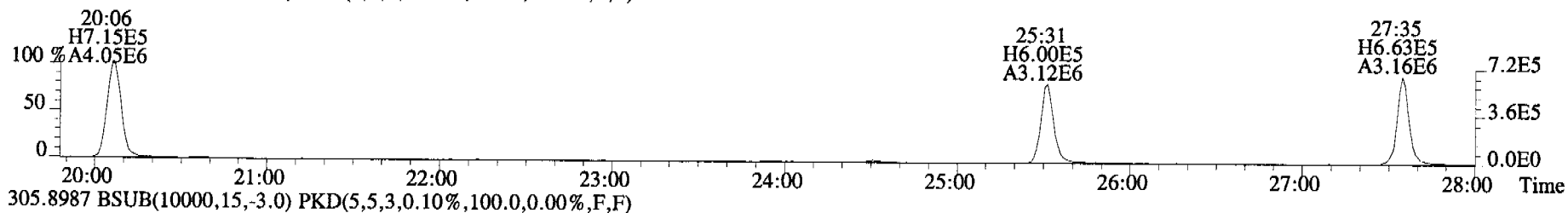
430.9728 F:4



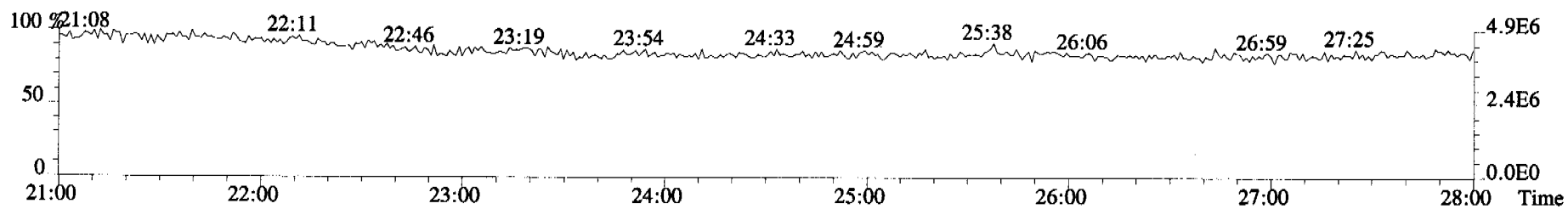
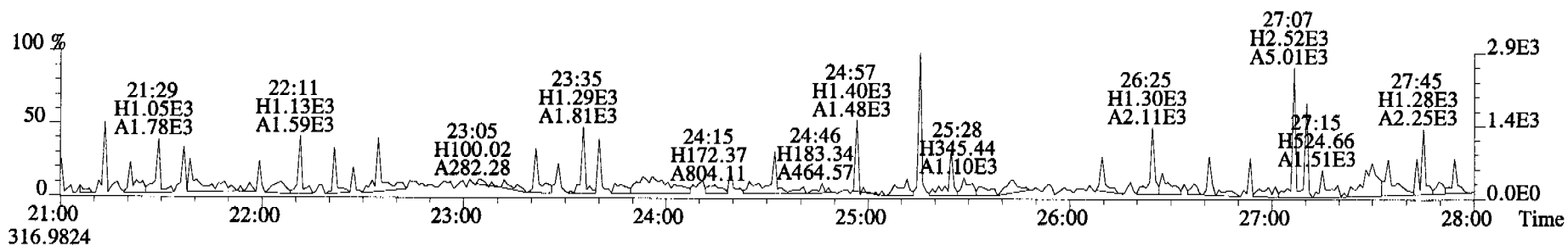
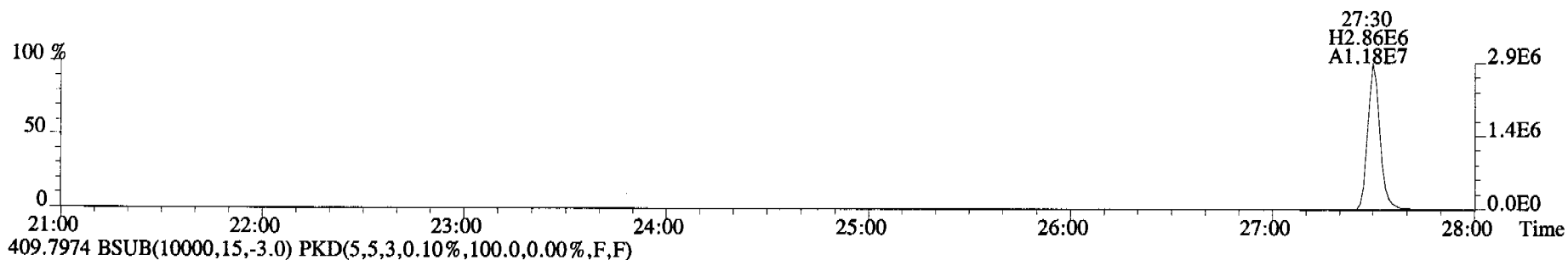
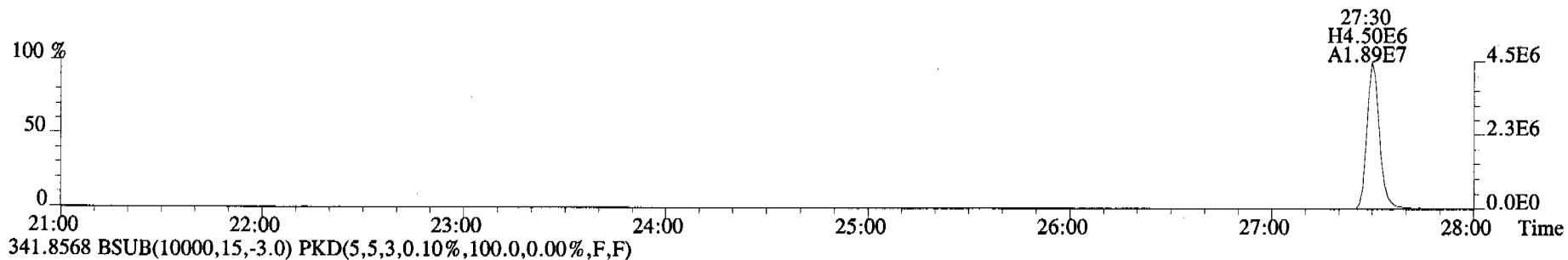
File:060920C2 #1-345 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD\_DB5  
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-546 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD\_DB5  
 303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

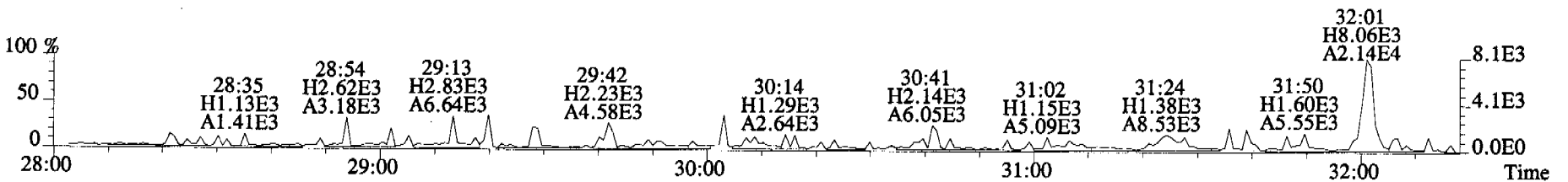
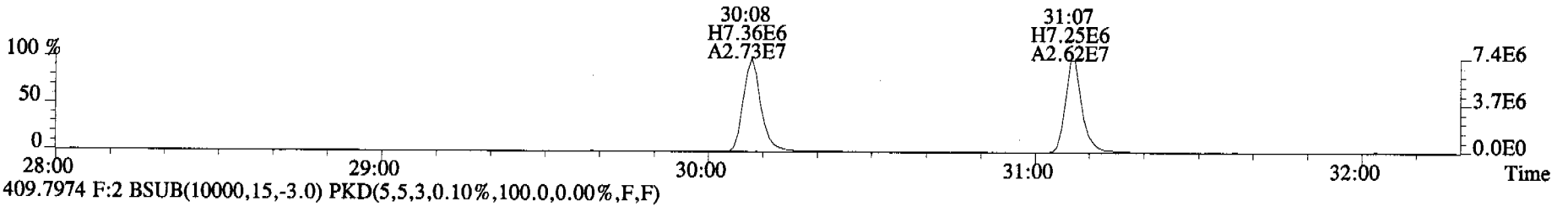
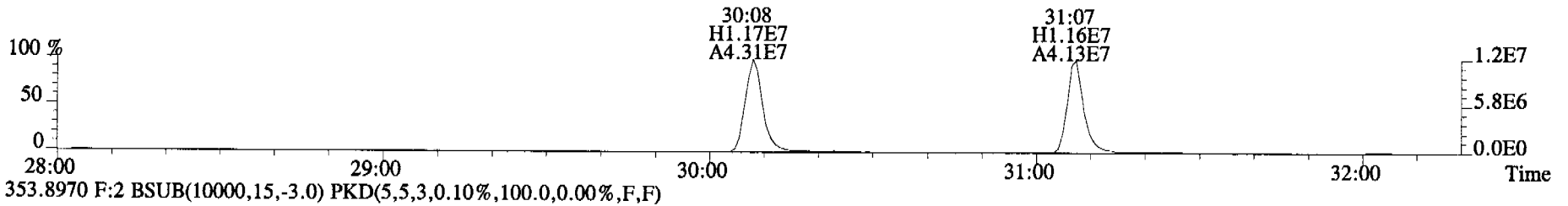
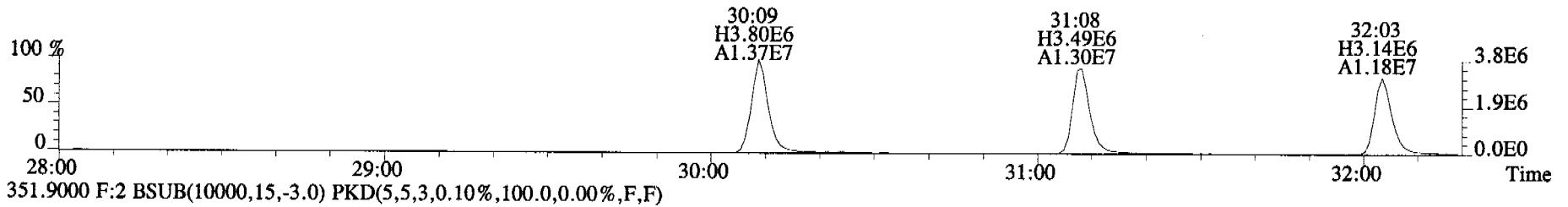
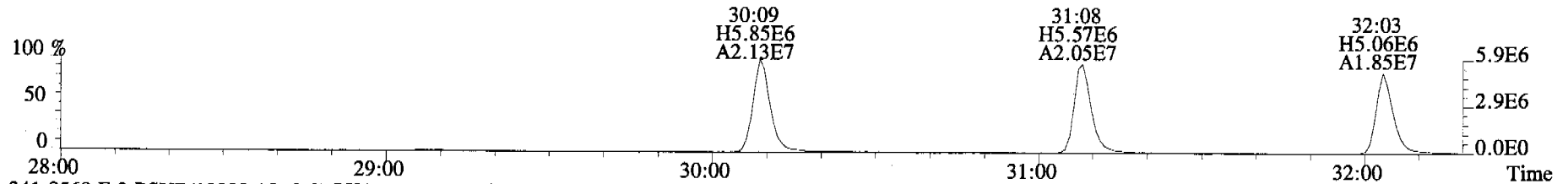


File:060920C2 #1-546 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD\_DB5  
339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

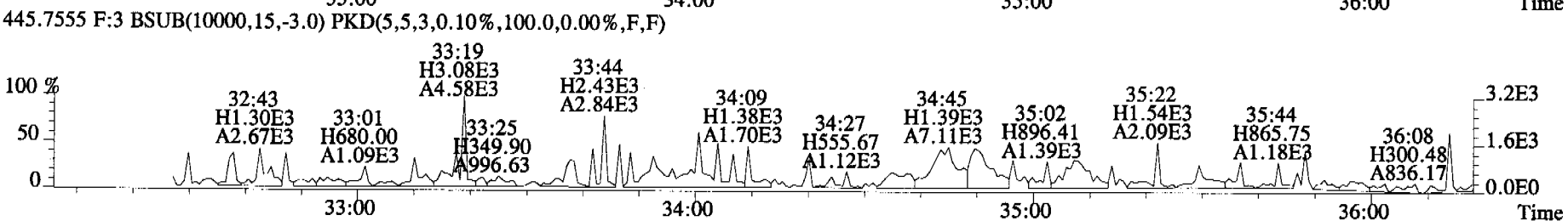
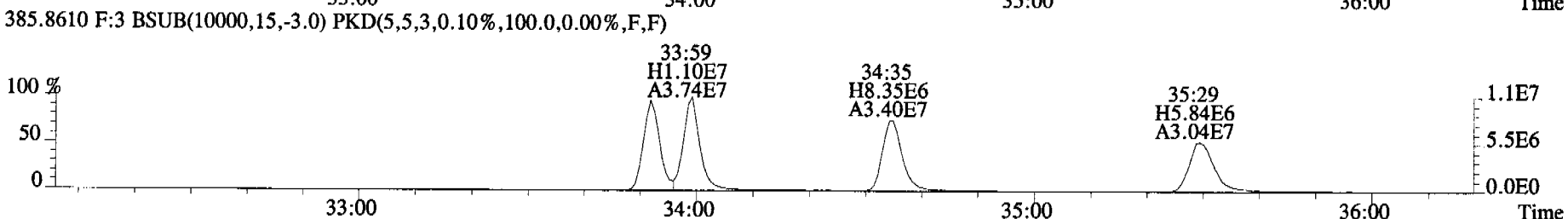
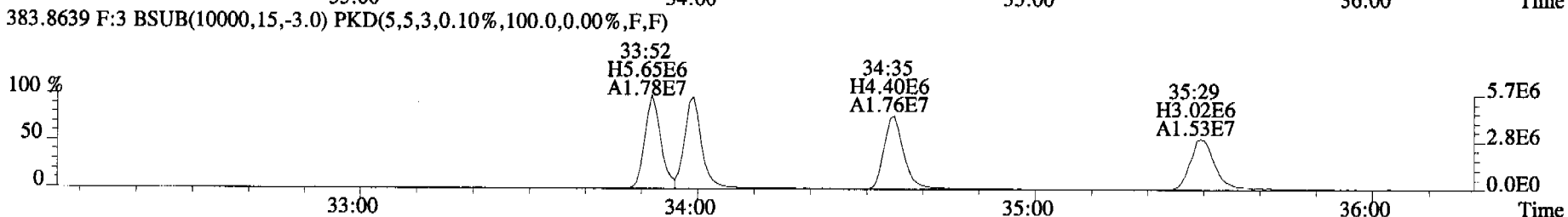
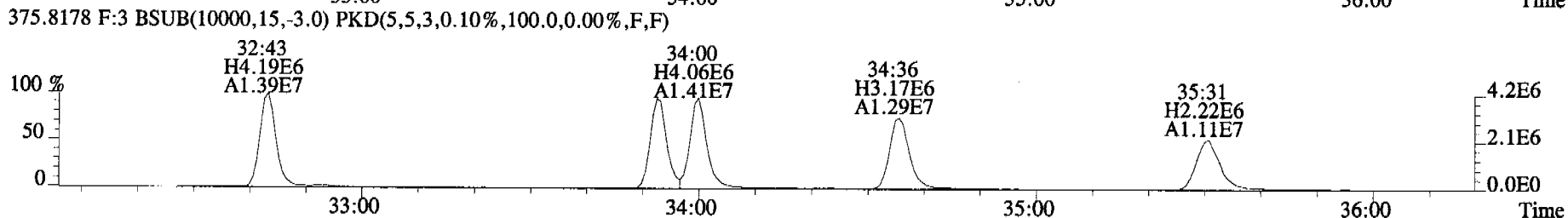
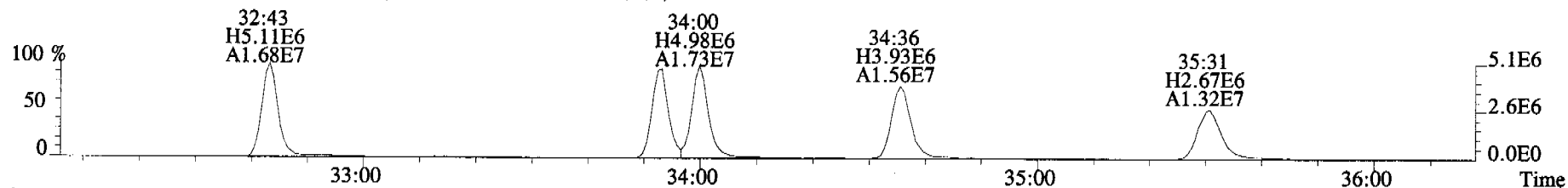




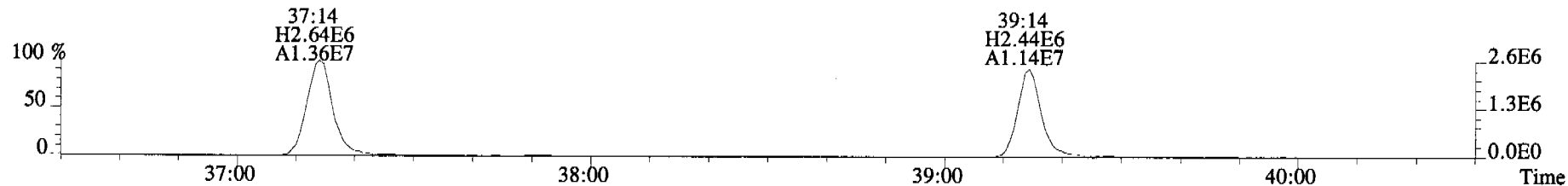
File:060920C2 #1-324 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD\_DB5  
339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



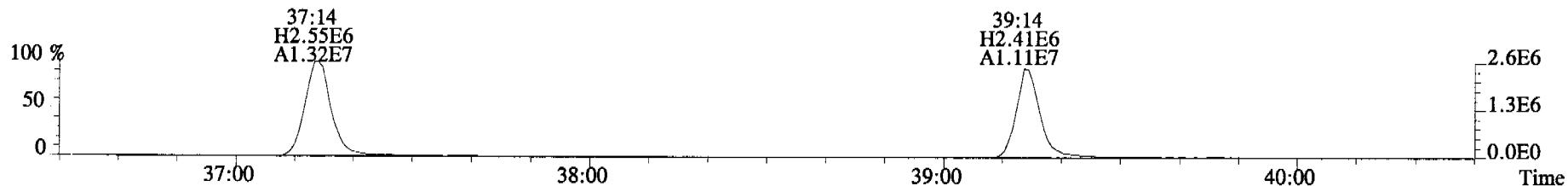
File:060920C2 #1-363 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD\_DB5  
 373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



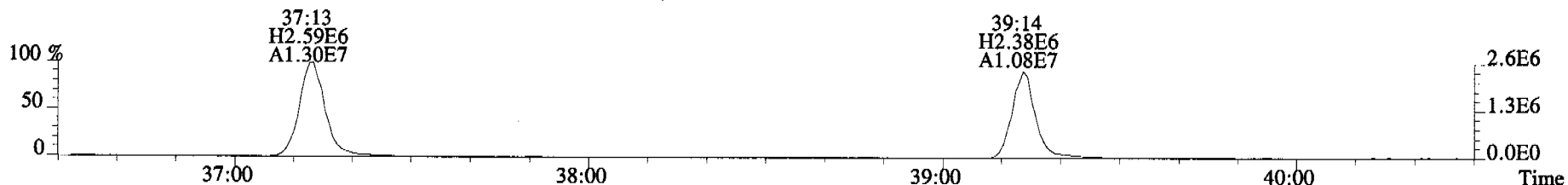
File:060920C2 #1-399 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD\_DB5  
407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



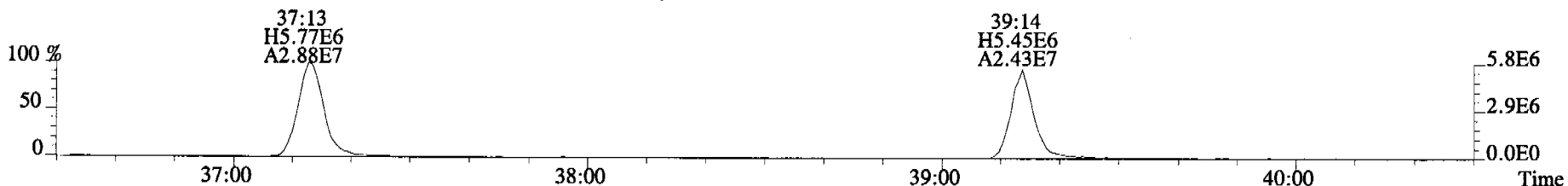
409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



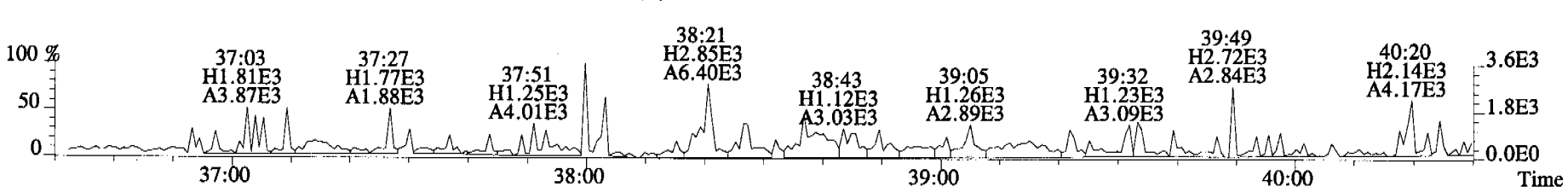
417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



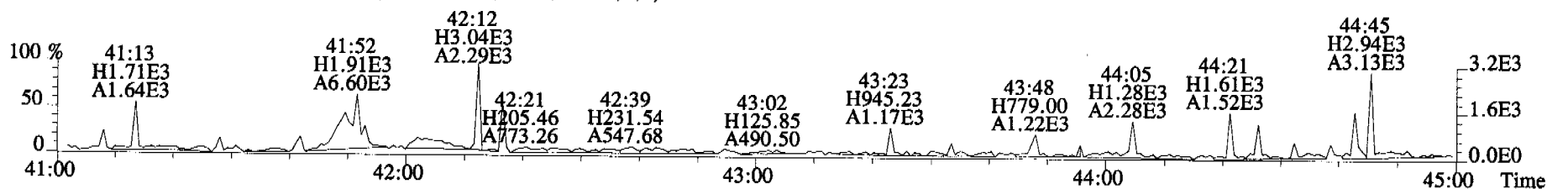
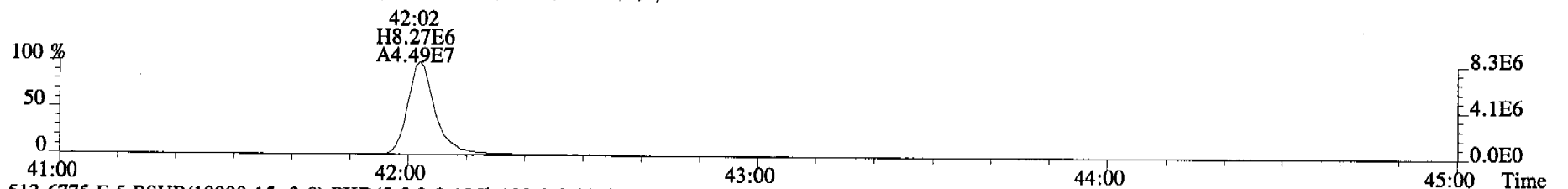
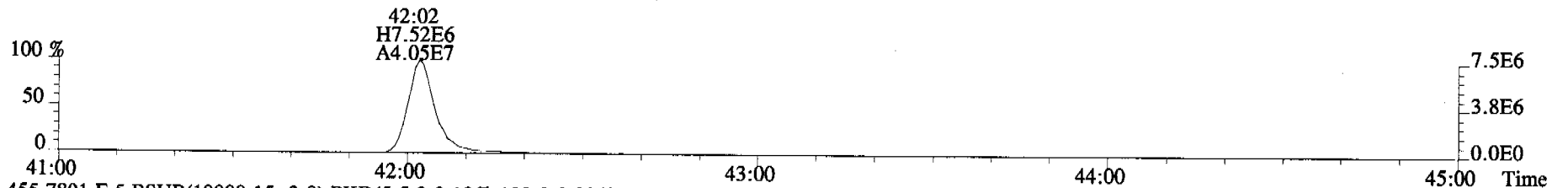
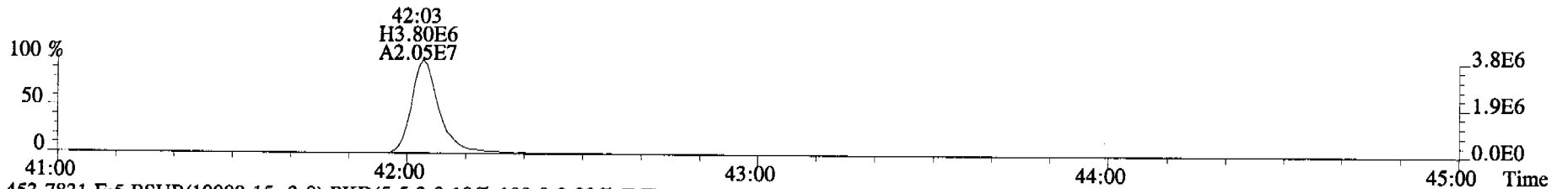
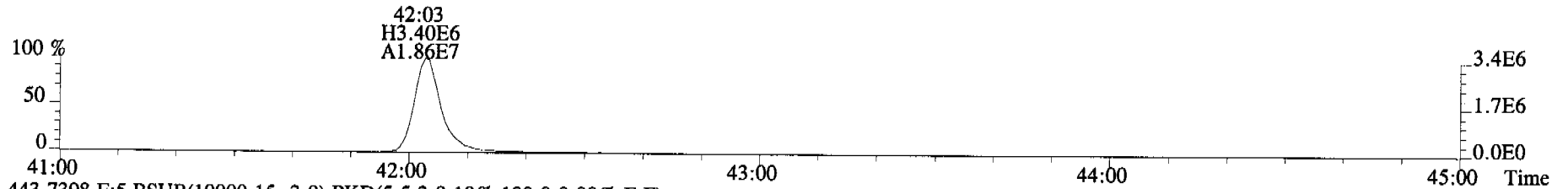
419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-345 Acq:20-SEP-2006 15:15:02 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060920C2-1 1613 CS3 060110H Exp:OCDD\_DB5  
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



FORM 4A  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory

Episode No.:

CCAL ID: ST060920C2-2

Contract No.:

SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

NATIVE ANALYTES	M/Z'S	ION	QC	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
	FORMING RATIO (1)	ABUND. RATIO	LIMITS (2)			
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	y	10.1	7.8 - 12.9 8.2 - 12.3 (4)
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	44.4	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	44.2	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y	46.5	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	47.0	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	49.6	43.0 - 58.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	94.9	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.25	8.4 - 12.0 8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	48.2	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	y	47.9	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.19	1.05-1.43	y	48.9	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.6	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.0	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.20	1.05-1.43	y	47.4	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	48.5	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.04	0.88-1.20	y	48.3	43.0 - 58.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.2	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: MSDate: 9/21/06

FORM 4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)	
13C-2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	96.9	82.0 - 121.0 85.0 - 117.0	(5) (1) See Table 8, Method 1613, for m/z specifications.
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	89.0	62.0 - 160.0	(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	95.7	85.0 - 117.0	(3) Contract-required concentration range, as specified in Table 6, Method 1613.
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	104	85.0 - 118.0	(4) No ion abundance ratio; report concentration found.
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	102	72.0 - 138.0	(5) Contract-required concentration range, as specified in Table 6a, Method 1613, for tetras only.
13C-OCDD	M+2/M+4	0.90	0.76-1.02	y	215	96.0 - 415.0	
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	y	101	71.0 - 140.0 76.0 - 131.0	
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	87.7	76.0 - 130.0	
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	82.1	77.0 - 130.0	
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	76.0 - 131.0	
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.50	0.43-0.59	y	103	70.0 - 143.0	
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	96.3	73.0 - 137.0	
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	y	99.1	74.0 - 135.0	
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	y	99.9	78.0 - 129.0	
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	99.0	77.0 - 129.0	
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	199	96.0 - 415.0	
CLEANUP STANDARD (4)							
37Cl-2,3,7,8-TCDD					8.94	7.9 - 12.7 8.3 - 12.1	(5)

Analyst: ms

Date: 9/21/06

FORM 5  
PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-5 Initial Calibration Date: 3/22/06

RT Window Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

DB-5 IS Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

DB\_225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:15	1,3,6,8-TCDF (F)	20:09
1,2,8,9-TCDD (L)	27:27	1,2,8,9-TCDF (L)	27:37
1,2,4,7,9-PeCDD (F)	29:14	1,3,4,6,8-PeCDF (F)	27:32
1,2,3,8,9-PeCDD (L)	31:51	1,2,3,8,9-PeCDF (L)	32:07
1,2,4,6,7,9-HxCDD (F)	33:18	1,2,3,4,6,8-HxCDF (F)	32:46
1,2,3,7,8,9-HxCDD (L)	35:12	1,2,3,7,8,9-HxCDF (L)	35:35
1,2,3,4,6,7,9-HpCDD (F)	37:41	1,2,3,4,6,7,8-HpCDF (F)	37:18
1,2,3,4,6,7,8,9-HpCDD (L)	38:43	1,2,3,4,7,8,9-HpCDF (L)	39:19

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5).

=====

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT  
BETWEEN  
COMPARED PEAKS (1)

<25%

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: ms

Date: 9/21/06

FORM 6A  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME	RRT	RRT
	REFERENCE		QC LIMITS (1)
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.001	0.999-1.002

(1) Contract-required limits for  
Relative Retention Times (RRT)  
as specified in Table 2, Method 1613. 10/94

LABELED COMPOUNDS

13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.993	0.923-1.103
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.028	0.976-1.043
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.028	0.989-1.052
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.173	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.212	1.011-1.526
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.223	1.000-1.567

Analyst: MS

Date: 9/21/06



FORM 6B  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

Compounds Using 13C-123789-HxCDD as Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.009	1.000-1.019
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001

(1) Contract-required limits for  
Relative Retention Times (RRT)  
as specified in Table 2, Method 1613. 10/94

LABELED COMPOUNDS

13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.964	0.944-0.970
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.967	0.949-0.975
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.984	0.959-1.021
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDD	1.011	0.977-1.047
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.988	0.977-1.000
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.991	0.981-1.003
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.060	1.043-1.085
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,7,8,9-HxCDD	1.100	1.086-1.110
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.117	1.057-1.151
13C-OCDD	13C-1,2,3,7,8,9-HxCDD	1.191	1.032-1.311
13C-OCDF	13C-1,2,3,7,8,9-HxCDD	1.197	1.032-1.311

Analyst: MS

Date: 9/21/06

## EPA METHOD 8290

## PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory

Episode No.:

CCAL ID: ST060920C2-2

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060920C2 S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

NATIVE ANALYTES	M/Z'S	ION	QC	Pass	CONC.	CONC.
	FORMING	ABUND.	LIMITS		FOUND	RANGE
	RATIO	RATIO			(ng/mL)	
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	y	10.1	8.00 - 12.0
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	44.4	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	44.2	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	y	46.5	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	y	47.0	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	49.6	40.0 - 60.0
OCDD	M+2/M+4	0.89	0.76-1.02	y	94.9	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.25	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	48.2	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	y	47.9	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.19	1.05-1.43	y	48.9	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.6	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.0	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.20	1.05-1.43	y	47.4	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.03	0.88-1.20	y	48.5	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.04	0.88-1.20	y	48.3	40.0 - 60.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	99.2	80.0 - 120

Analyst: VMDate: 9/21/06

## EPA METHOD 8290

## PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory      Episode No.:

Contract No.:                      SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060920C2      S#16 Analysis Date: 21-SEP-06 Time: 03:38:30

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	96.9	70.0 - 130
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	89.0	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	95.7	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	104	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	102	70.0 - 130
13C-OCDD	M+2/M+4	0.90	0.76-1.02	y	215	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	y	101	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	87.7	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	82.1	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.50	0.43-0.59	y	103	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	96.3	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	y	99.1	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	y	99.9	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	99.0	70.0 - 130
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	199	140 - 260
CLEANUP STANDARD						
37C1-2,3,7,8-TCDD					8.94	7.00 - 13.0

Analyst: VMJDate: 9/21/06

Client ID: 1613 CS3 060110H  
Lab ID: ST060920C2-2

Filename: 060920C2  
GC Column ID: db-5

S:16 Acq:21-SEP-06 03:38:30  
ICal: 1613VG5-3-22-06 wt/vol: 1.000

ConCal: ST060920C2-1  
EndCAL: ST060920C2-2

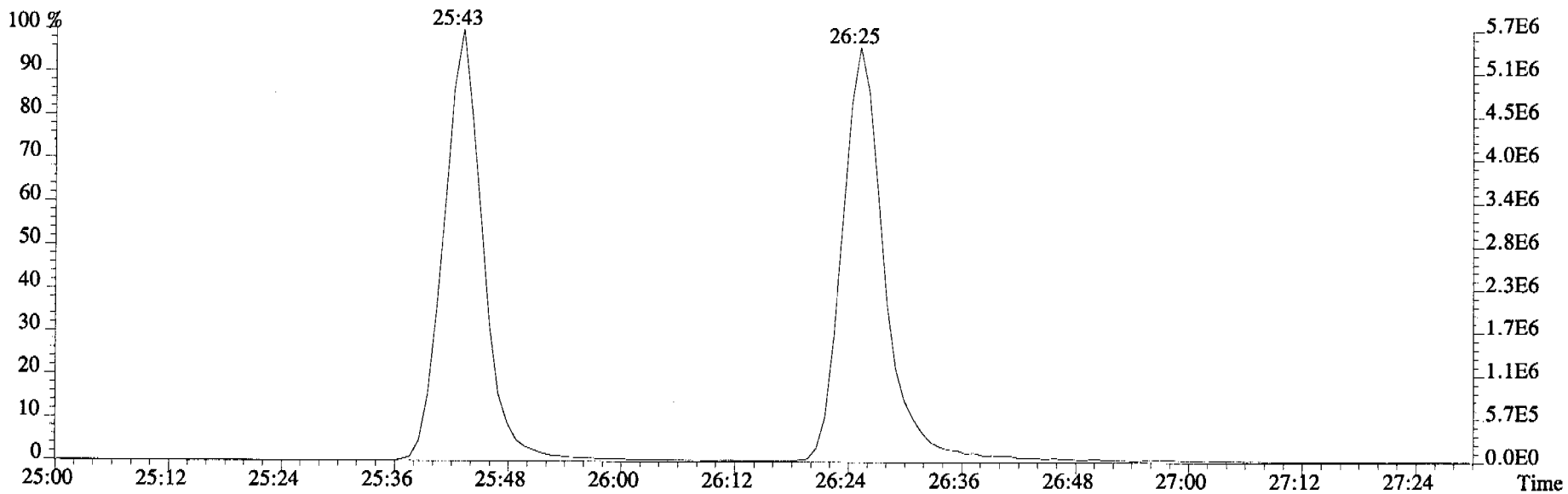
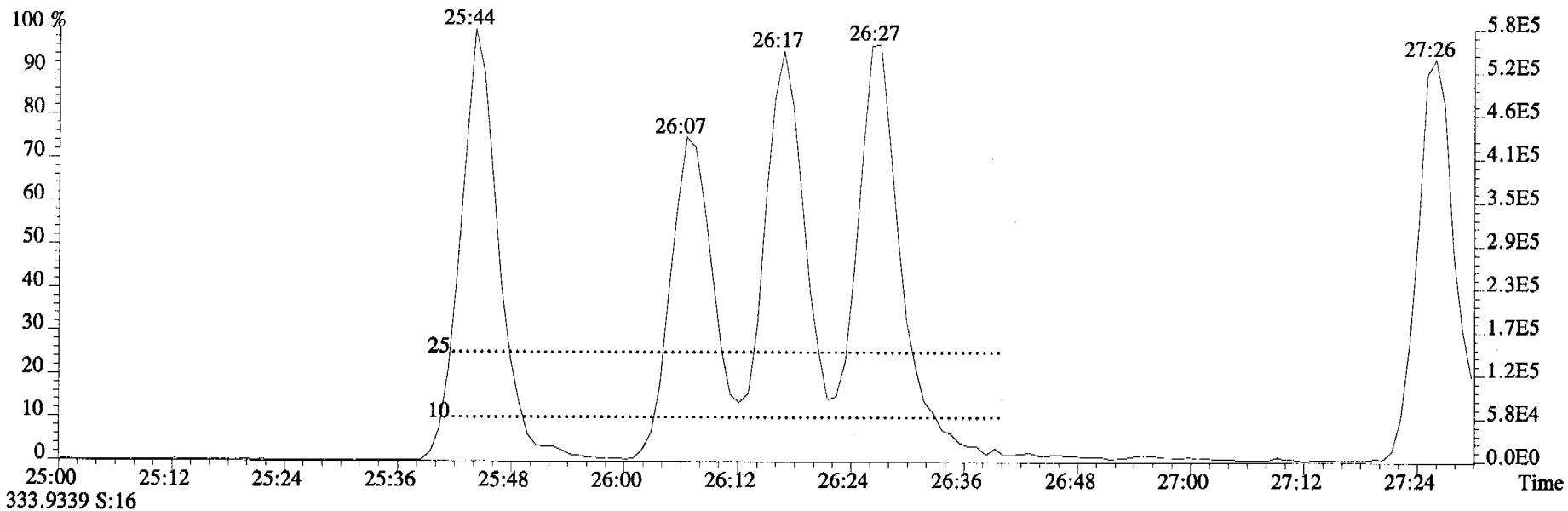
Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	5.52e+06	0.77 y	1.08	26:28	10.079			* 2.5	*	Total Tetra-Dioxins	53.345	53.895	*	*	
1,2,3,7,8-PeCDD	2.04e+07	0.62 y	1.03	31:28	44.445			* 2.5	*	Total Penta-Dioxins	138.92	139.22	*	*	
1,2,3,4,7,8-HxCDD	1.55e+07	1.22 y	1.13	34:47	44.224			* 2.5	*	Total Hexa-Dioxins	190.35	191.92	*	*	
1,2,3,6,7,8-HxCDD	2.01e+07	1.24 y	1.03	34:53	46.492			* 2.5	*	Total Hepta-Dioxins	99.126	100.77	*	*	
1,2,3,7,8,9-HxCDD	1.91e+07	1.23 y	1.12	35:12	46.993			* 2.5	*	Total Tetra-Furans	30.569	30.737	*	*	
1,2,3,4,6,7,8-HpCDD	1.70e+07	1.06 y	1.02	38:43	49.591			* 2.5	*	Total Penta-Furans	185.84	187.20	*	*	
OCDD	2.98e+07	0.89 y	1.06	41:55	94.889			* 2.5	*	Total Hexa-Furans	240.85	242.03	*	*	
										Total Hepta-Furans	97.108	99.126	*	*	
2,3,7,8-TCDF	6.84e+06	0.77 y	1.06	25:33	9.2501			* 2.5	*						
1,2,3,7,8-PeCDF	3.10e+07	1.57 y	1.01	30:11	48.150			* 2.5	*						
2,3,4,7,8-PeCDF	2.94e+07	1.56 y	1.02	31:11	47.888			* 2.5	*						
1,2,3,4,7,8-HxCDF	2.53e+07	1.19 y	1.15	33:55	48.865			* 2.5	*						
1,2,3,6,7,8-HxCDF	2.96e+07	1.22 y	1.14	34:02	46.639			* 2.5	*						
2,3,4,6,7,8-HxCDF	2.54e+07	1.22 y	1.17	34:39	46.013			* 2.5	*						
1,2,3,7,8,9-HxCDF	2.17e+07	1.20 y	1.10	35:35	47.404			* 2.5	*						
1,2,3,4,6,7,8-HpCDF	2.31e+07	1.03 y	1.31	37:18	48.499			* 2.5	*						
1,2,3,4,7,8,9-HpCDF	1.89e+07	1.04 y	1.33	39:19	48.346			* 2.5	*						
OCDF	3.29e+07	0.90 y	0.91	42:08	99.199			* 2.5	*						
IS	13C-2,3,7,8-TCDD	5.07e+07	0.80 y	1.09	26:26	96.904				Rec	Qual				
IS	13C-1,2,3,7,8-PeCDD	4.45e+07	0.62 y	1.04	31:27	89.038				96.9					
IS	13C-1,2,3,4,7,8-HxCDD	3.08e+07	1.22 y	0.83	34:46	95.738				89.0					
IS	13C-1,2,3,6,7,8-HxCDD	4.19e+07	1.25 y	1.04	34:53	103.73				95.7					
IS	13C-1,2,3,4,6,7,8-HpCDD	3.38e+07	1.06 y	0.85	38:42	102.32				104					
IS	13C-OCDD	5.96e+07	0.90 y	0.71	41:55	214.99				102					
IS	13C-2,3,7,8-TCDF	6.97e+07	0.80 y	0.96	25:32	101.40				107					
IS	13C-1,2,3,7,8-PeCDF	6.40e+07	1.55 y	1.02	30:10	87.728				101					
IS	13C-2,3,4,7,8-PeCDF	6.00e+07	1.57 y	1.02	31:10	82.101				87.7					
IS	13C-1,2,3,4,7,8-HxCDF	4.52e+07	0.54 y	1.14	33:54	101.70				82.1					
IS	13C-1,2,3,6,7,8-HxCDF	5.58e+07	0.50 y	1.40	34:02	102.69				102					
IS	13C-2,3,4,6,7,8-HxCDF	4.72e+07	0.51 y	1.26	34:38	96.313				103					
IS	13C-1,2,3,7,8,9-HxCDF	4.17e+07	0.52 y	1.08	35:34	99.055				96.3					
IS	13C-1,2,3,4,6,7,8-HpCDF	3.62e+07	0.44 y	0.93	37:16	99.869				99.1					
IS	13C-1,2,3,4,7,8,9-HpCDF	2.95e+07	0.44 y	0.77	39:18	99.039				99.9					
IS	13C-OCDF	7.28e+07	0.91 y	0.94	42:07	198.59				99.0					
C/Up	37C1-2,3,7,8-TCDD	3.32e+06		0.77	26:27	8.9415				99.3					
RS/RT	13C-1,2,3,4-TCDD	4.80e+07	0.79 y	1.00	25:43	100.00									
RS	13C-1,2,3,4-TCDF	7.17e+07	0.80 y	1.00	23:57	100.00									
RS/RT	13C-1,2,3,7,8,9-HxCDD	3.88e+07	1.25 y	1.00	35:11	100.00									

Integrations Reviewed  
by by  
Analyst: MJ Analyst: \_\_\_\_\_  
Date: 9/21/06 Date: \_\_\_\_\_

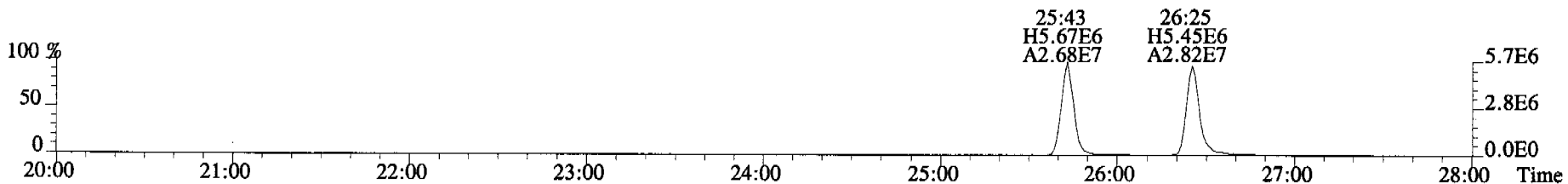
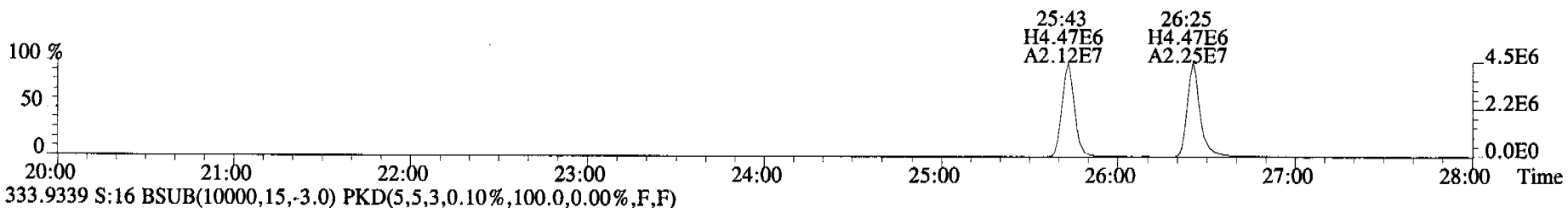
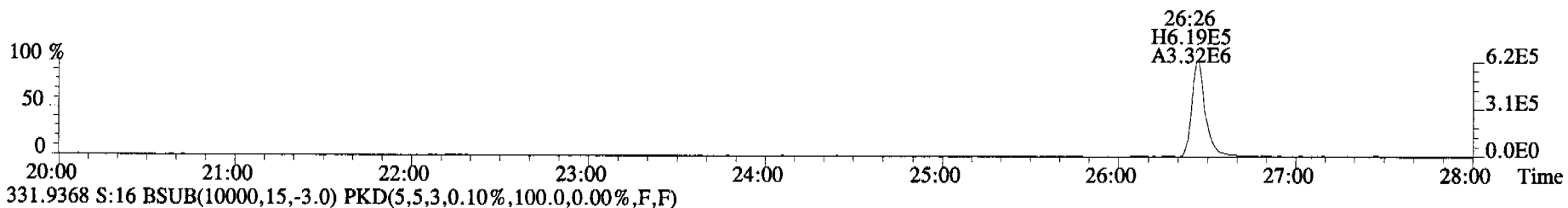
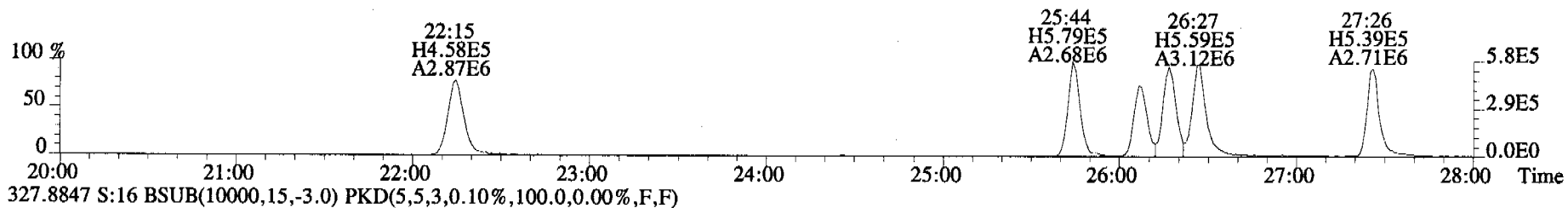
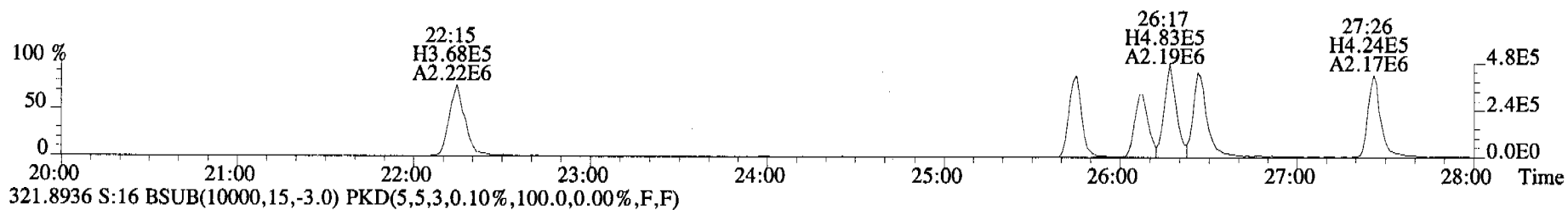
Alta Analytical Laboratory - Injection Log Run file: 060920C2 Instrument ID: VG-5 GC Column ID: db-5

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
060920C2	1	ST060920C2-1	MAS	20-SEP-06	15:15:02	ST060920C2-1	ST060920C2-2
060920C2	2	0_8381_OPR001	MAS	20-SEP-06	16:04:31	ST060920C2-1	ST060920C2-2
060920C2	3	0_8382_OPR001	MAS	20-SEP-06	16:54:06	ST060920C2-1	ST060920C2-2
060920C2	4	SOLVENT BLANK	MAS	20-SEP-06	17:43:41	ST060920C2-1	ST060920C2-2
060920C2	5	0_8381_MB001	MAS	20-SEP-06	18:33:15	ST060920C2-1	ST060920C2-2
060920C2	6	0_8382_MB001	MAS	20-SEP-06	19:22:48	ST060920C2-1	ST060920C2-2
060920C2	7	28101_8381_001	MAS	20-SEP-06	20:12:26	ST060920C2-1	ST060920C2-2
060920C2	8	28101_8381_002	MAS	20-SEP-06	21:02:04	ST060920C2-1	ST060920C2-2
060920C2	9	28110_8381_001	MAS	20-SEP-06	21:51:37	ST060920C2-1	ST060920C2-2
060920C2	10	28111_8381_001	MAS	20-SEP-06	22:41:10	ST060920C2-1	ST060920C2-2
060920C2	11	28112_8381_001	MAS	20-SEP-06	23:30:43	ST060920C2-1	ST060920C2-2
060920C2	12	28113_8381_001	MAS	21-SEP-06	00:20:15	ST060920C2-1	ST060920C2-2
060920C2	13	28114_8381_001	MAS	21-SEP-06	01:09:54	ST060920C2-1	ST060920C2-2
060920C2	14	28074_8382_001	MAS	21-SEP-06	01:59:27	ST060920C2-1	ST060920C2-2
060920C2	15	SOLVENT BLANK	MAS	21-SEP-06	02:48:56	ST060920C2-1	ST060920C2-2
060920C2	16	ST060920C2-2	MAS	21-SEP-06	03:38:30	ST060920C2-1	ST060920C2-2

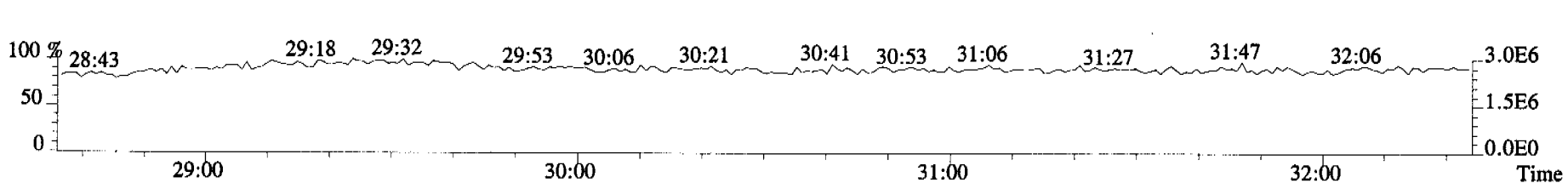
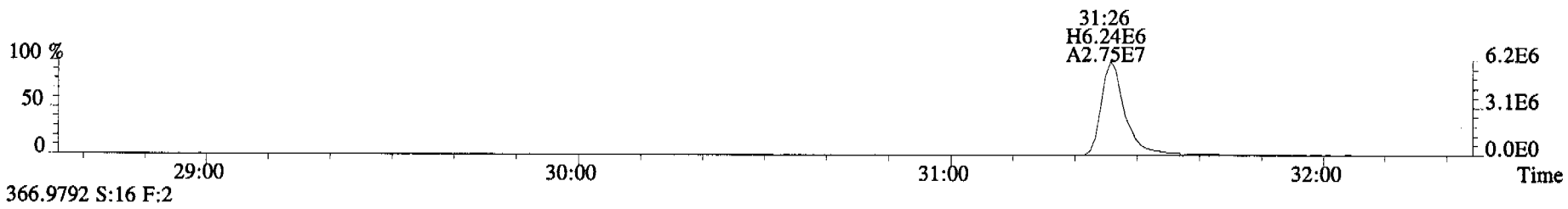
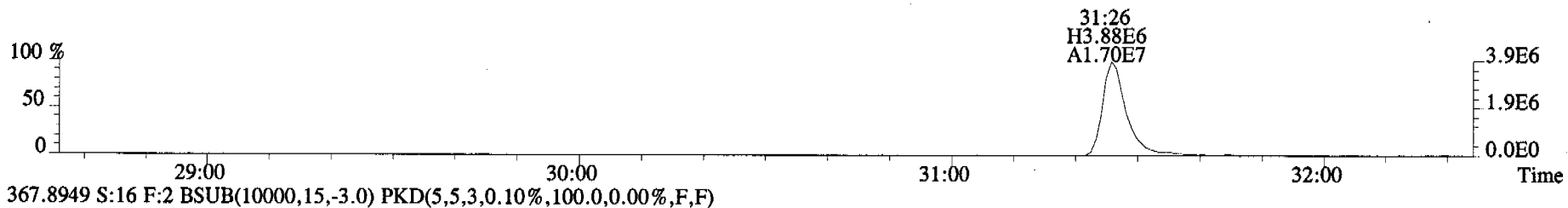
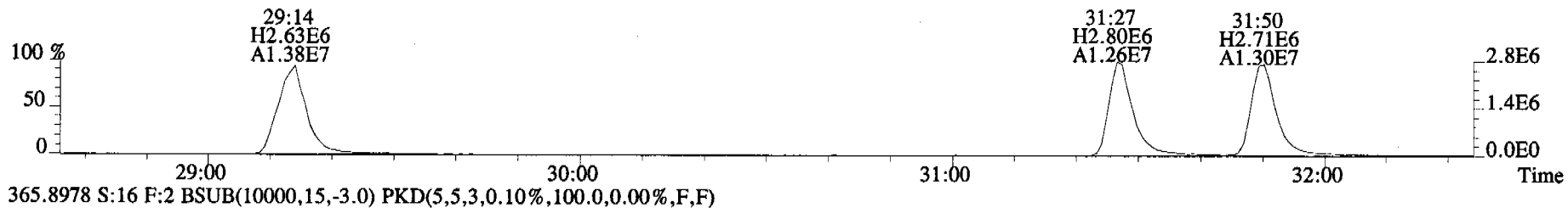
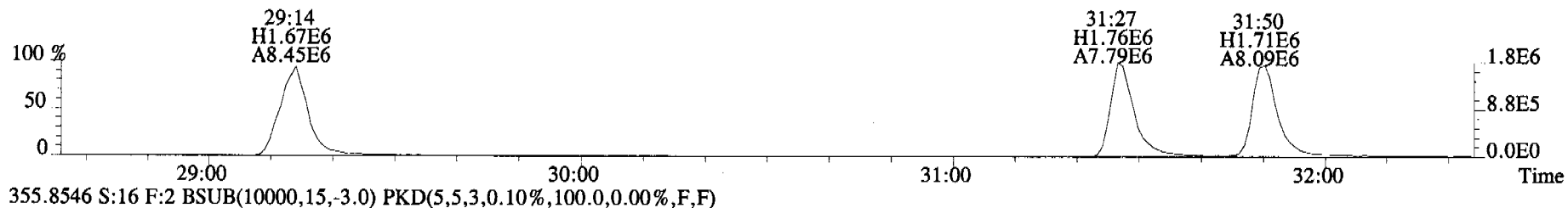
File:060920C2 #1-546 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD\_DB5  
321.8936 S:16



File:060920C2 #1-546 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD\_DB5  
319.8965 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

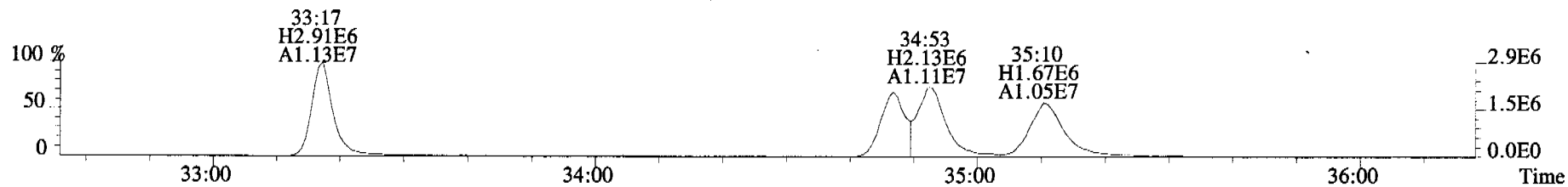


File:060920C2 #1-324 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD\_DB5  
353.8576 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

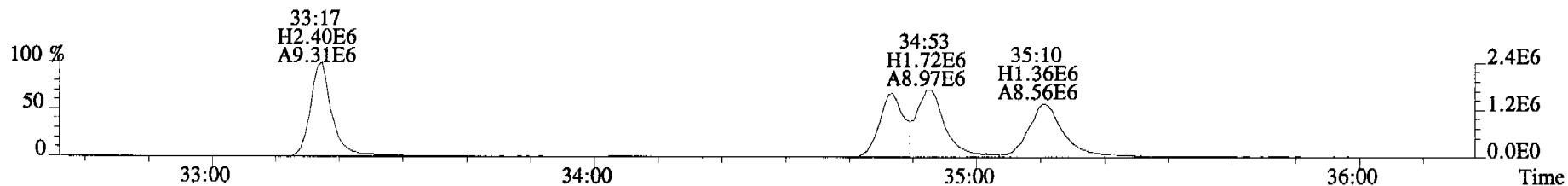




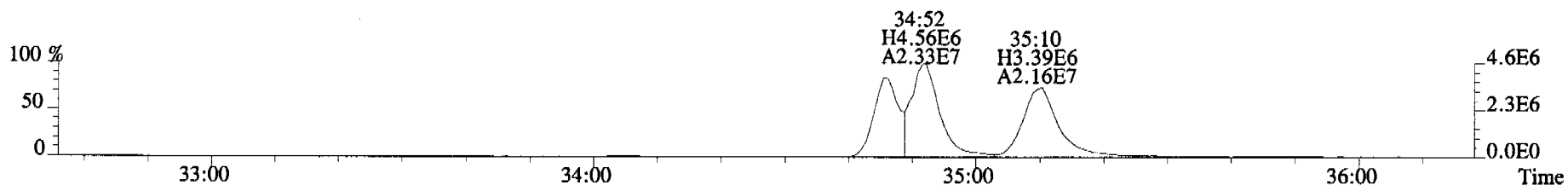
File:060920C2 #1-363 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD\_DB5  
389.8156 S:16 F:3 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



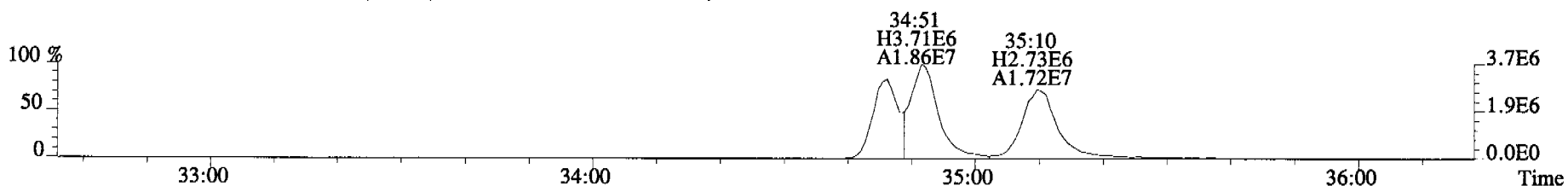
391.8127 S:16 F:3 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



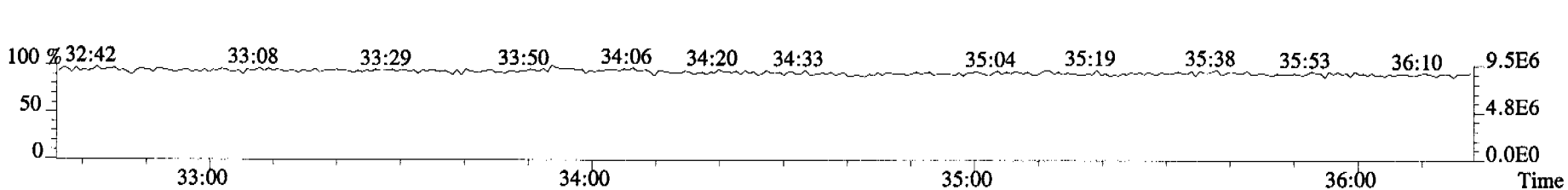
401.8559 S:16 F:3 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



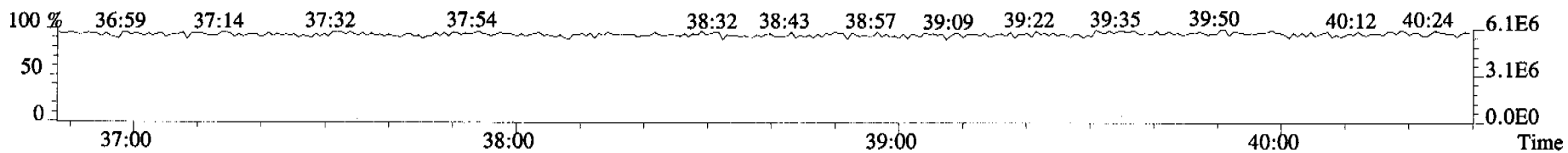
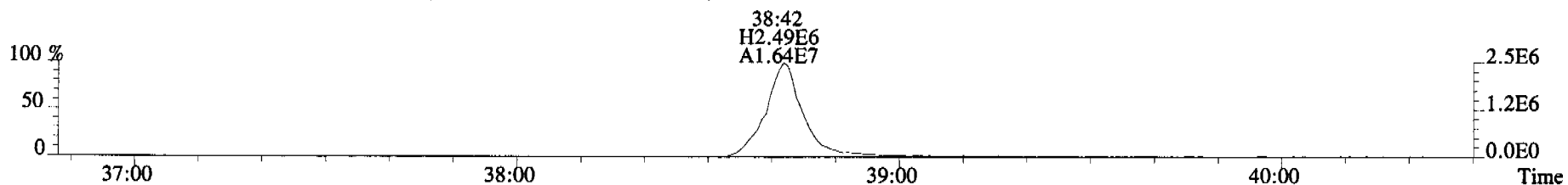
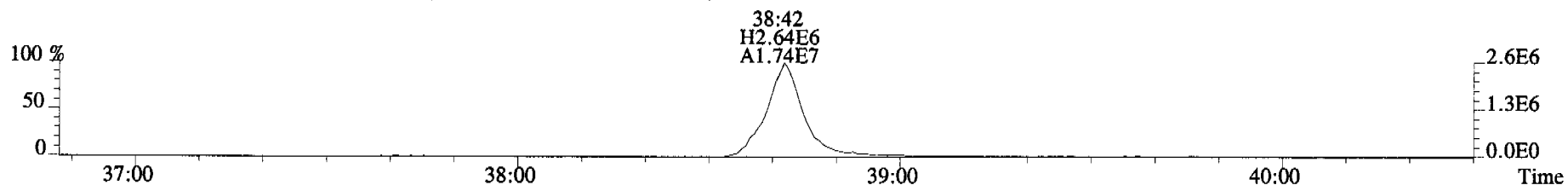
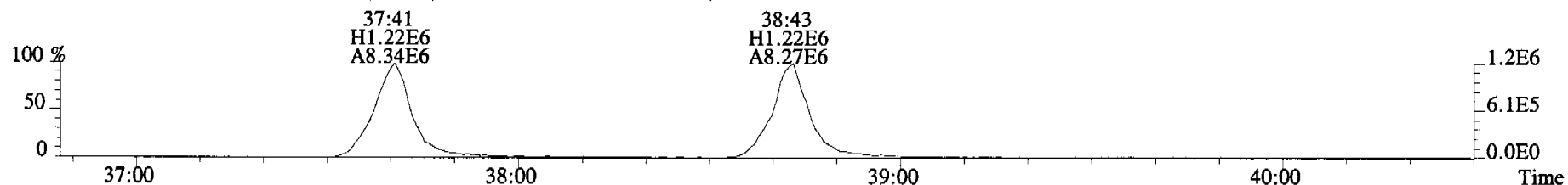
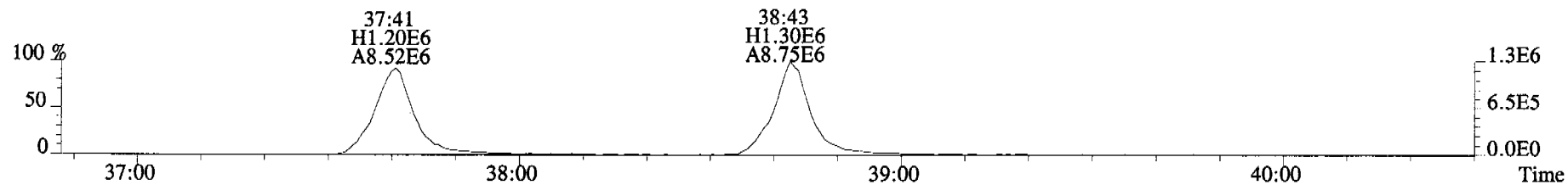
403.8530 S:16 F:3 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



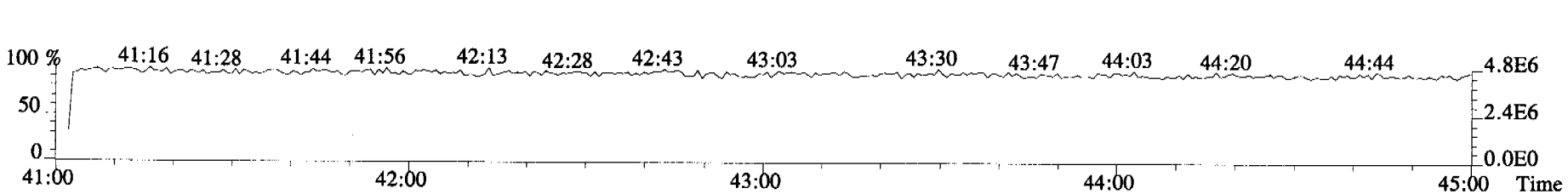
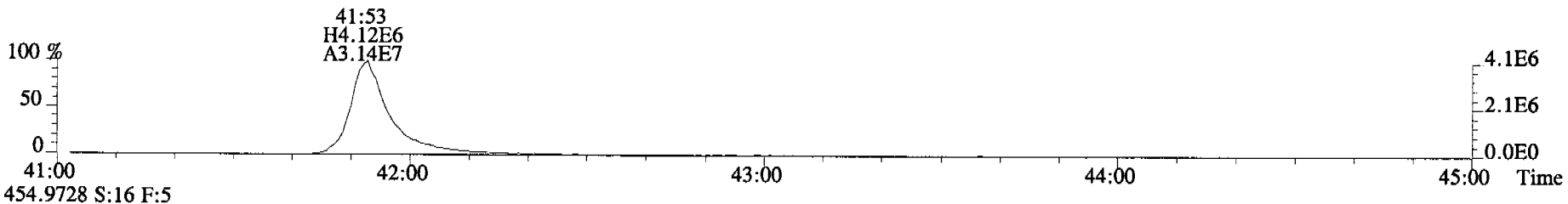
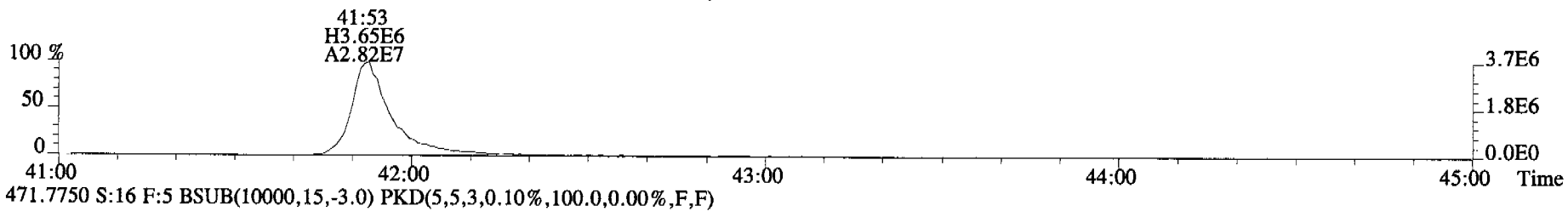
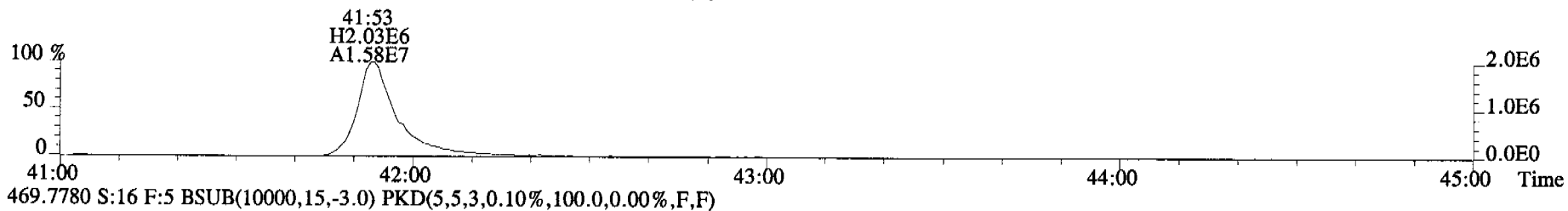
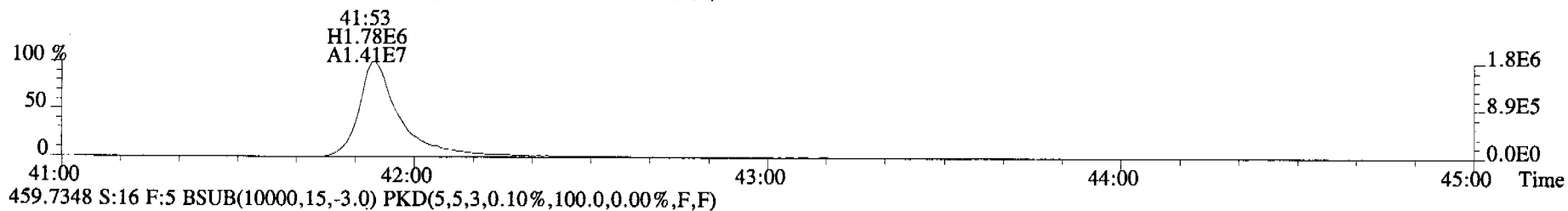
380.9760 S:16 F:3



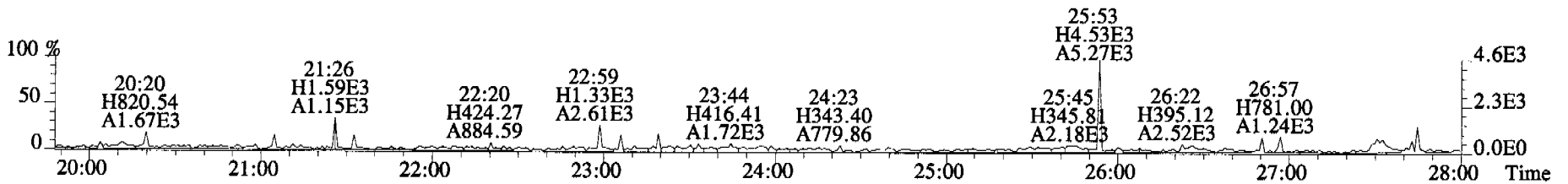
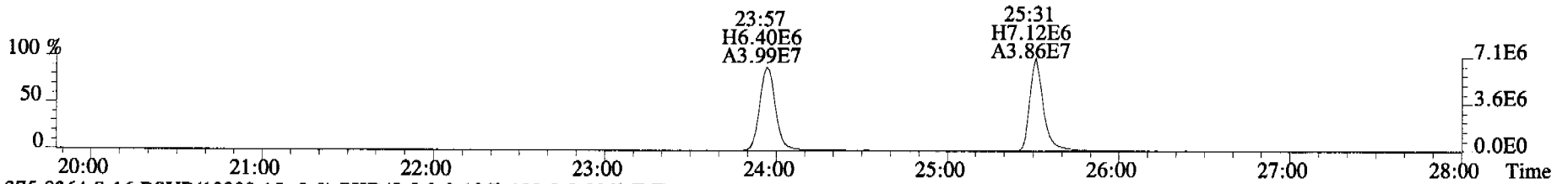
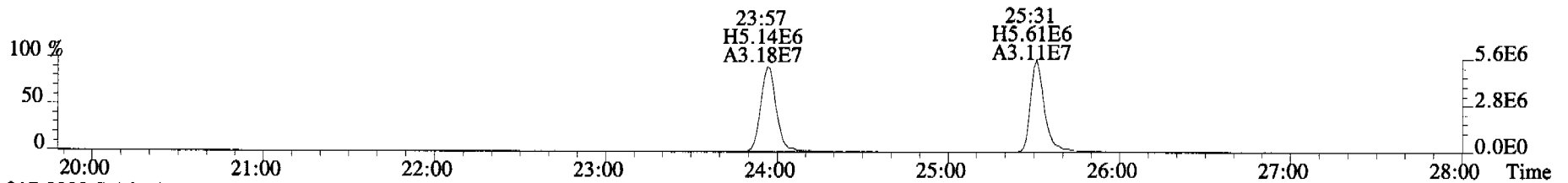
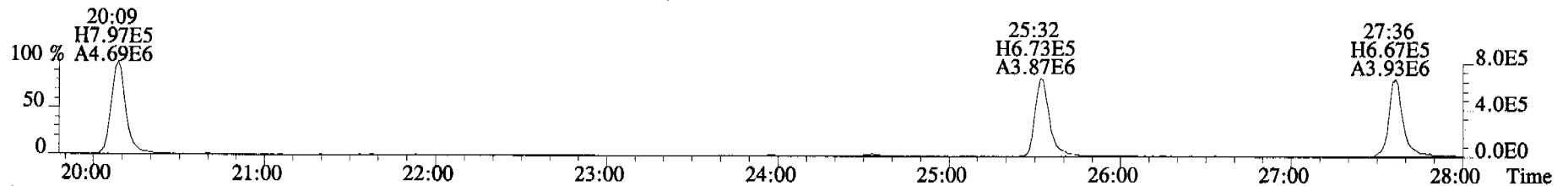
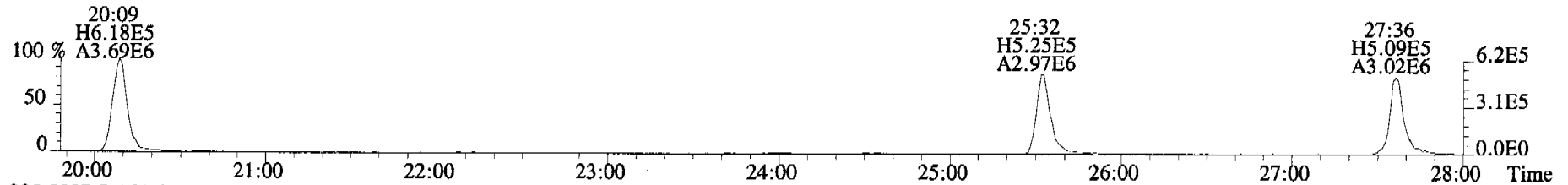
File:060920C2 #1-400 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD\_DB5  
423.7767 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



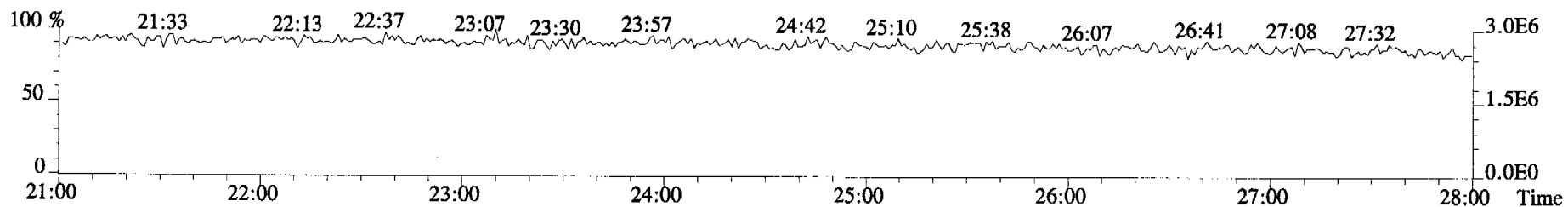
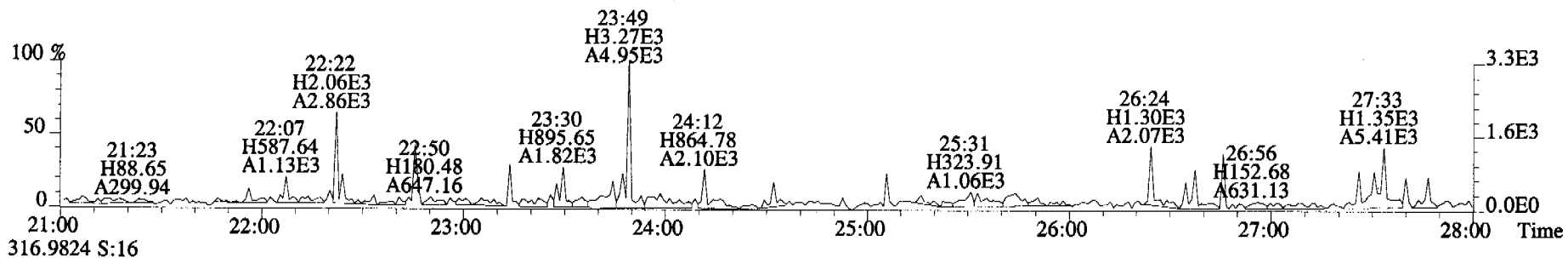
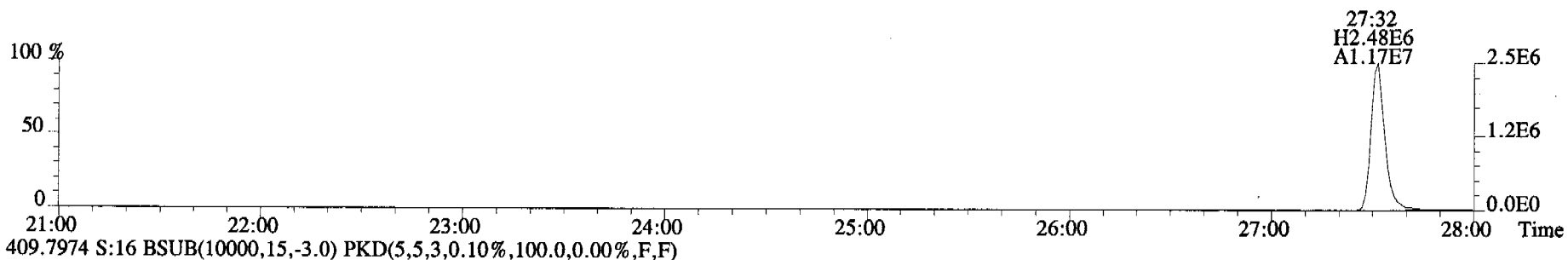
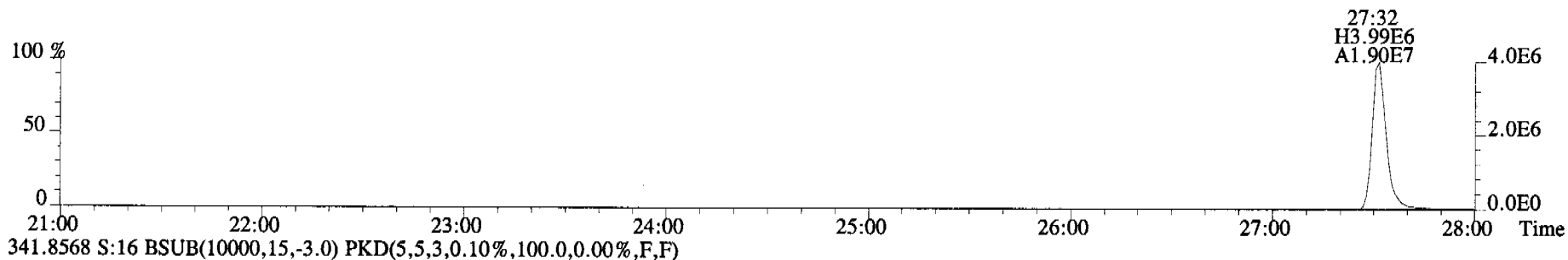
File:060920C2 #1-345 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD\_DB5  
457.7377 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



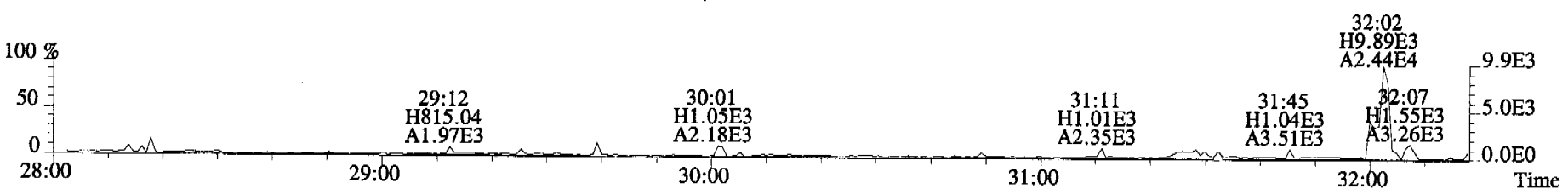
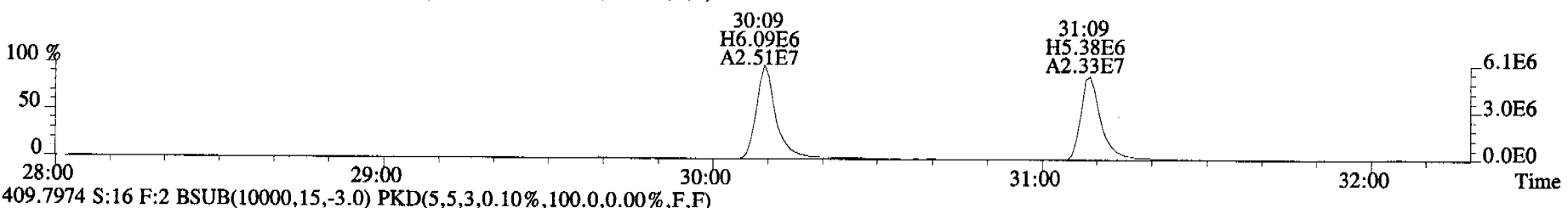
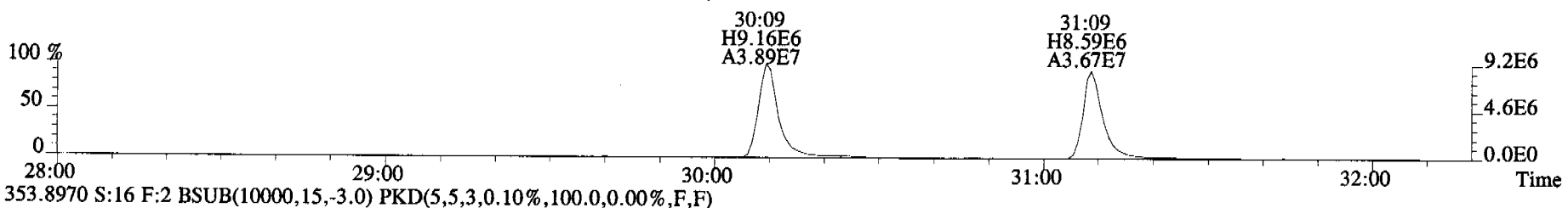
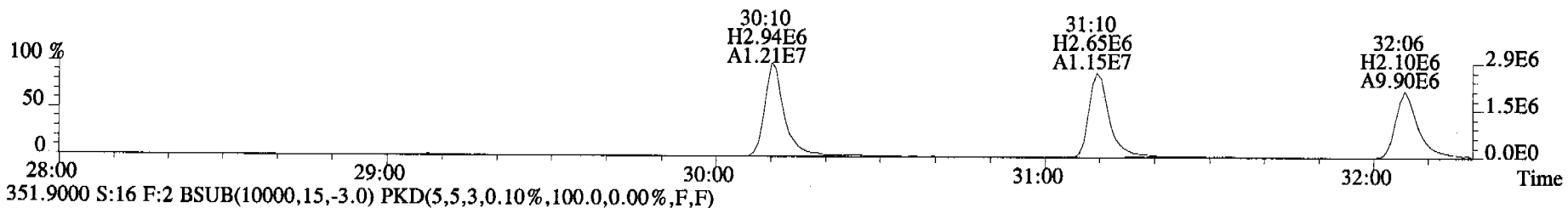
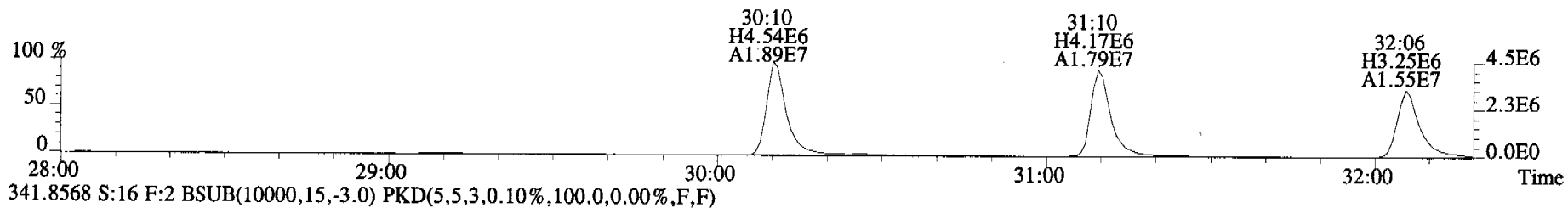
File:060920C2 #1-546 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD\_DB5  
303.9016 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



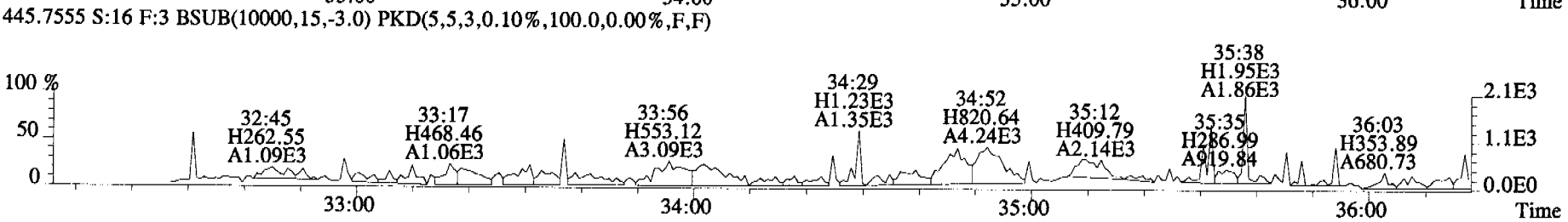
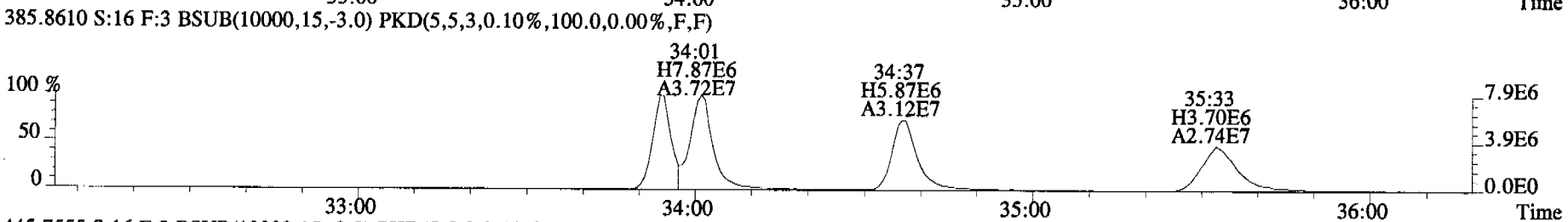
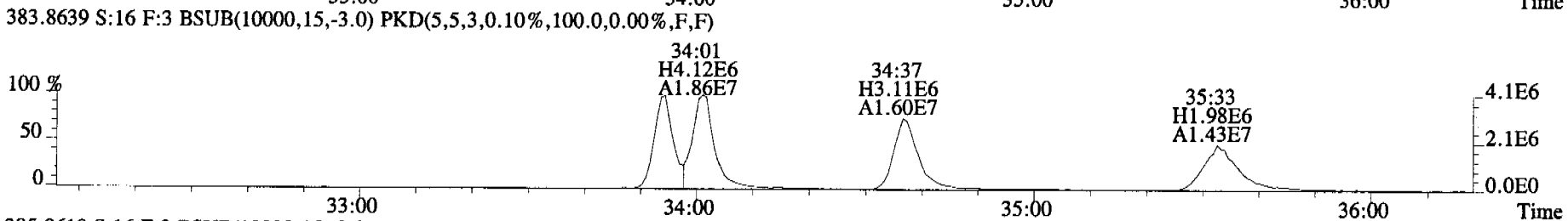
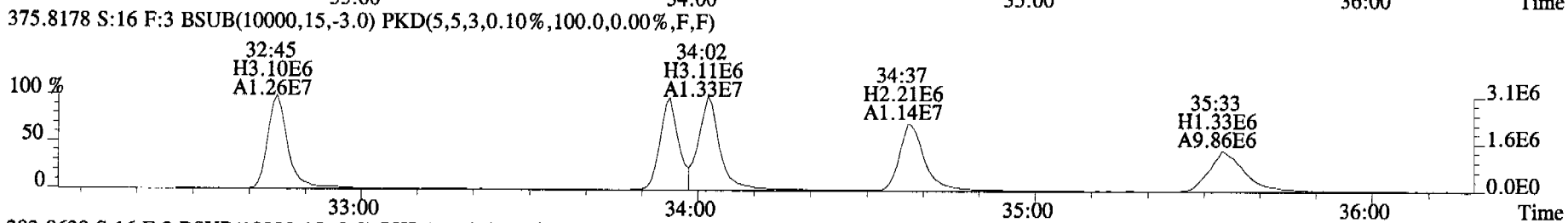
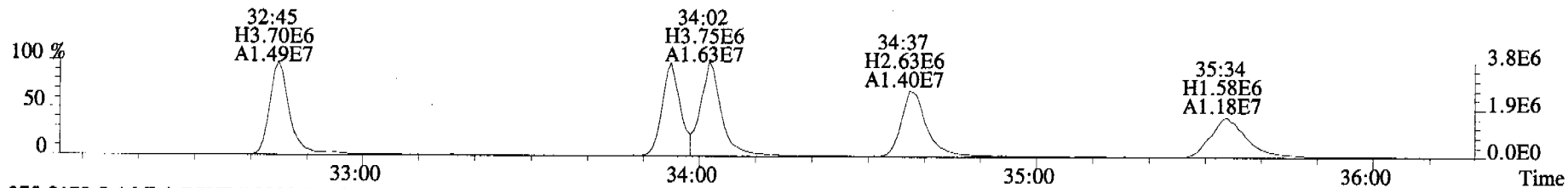
File:060920C2 #1-546 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD\_DB5  
339.8597 S:16 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



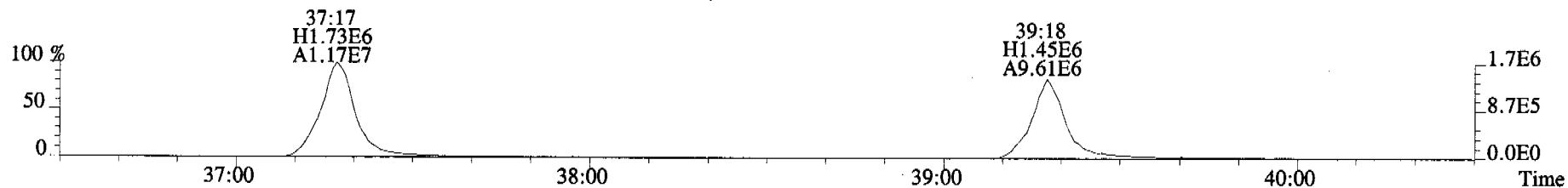
File:060920C2 #1-324 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD\_DB5  
339.8597 S:16 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



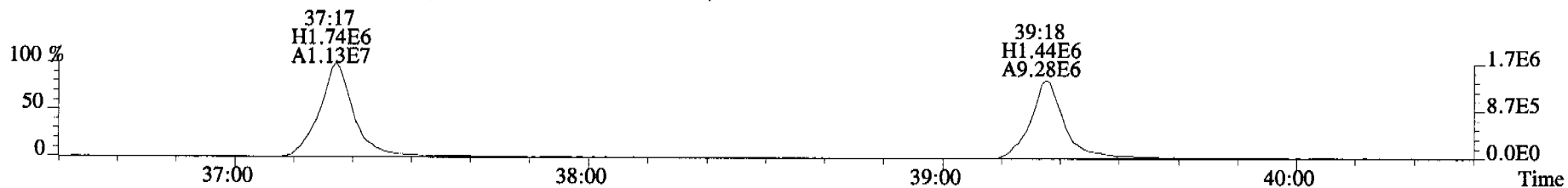
File:060920C2 #1-363 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD\_DB5  
373.8207 S:16 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



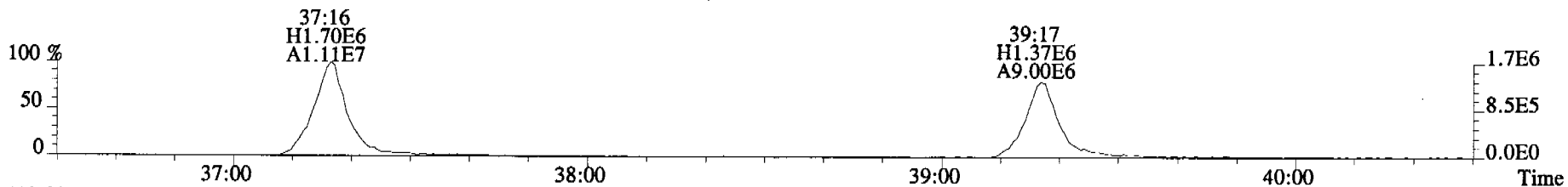
File:060920C2 #1-400 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD\_DB5  
407.7818 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



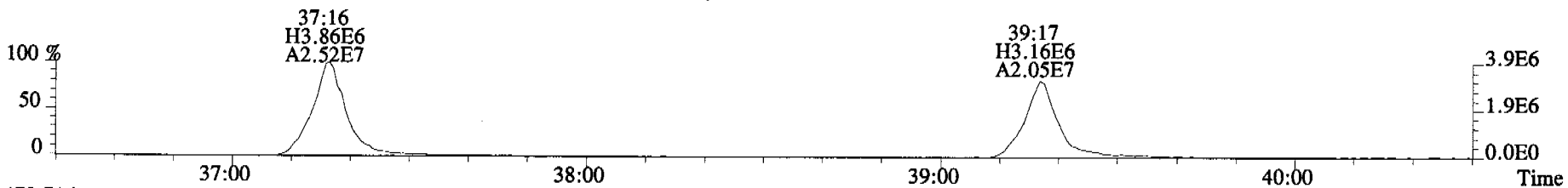
409.7788 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



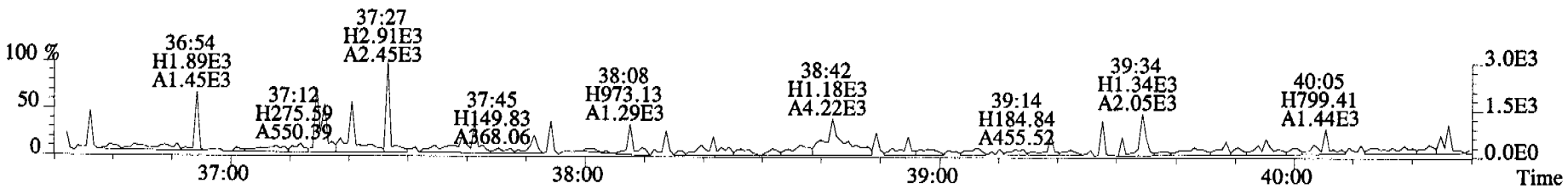
417.8253 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



419.8220 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

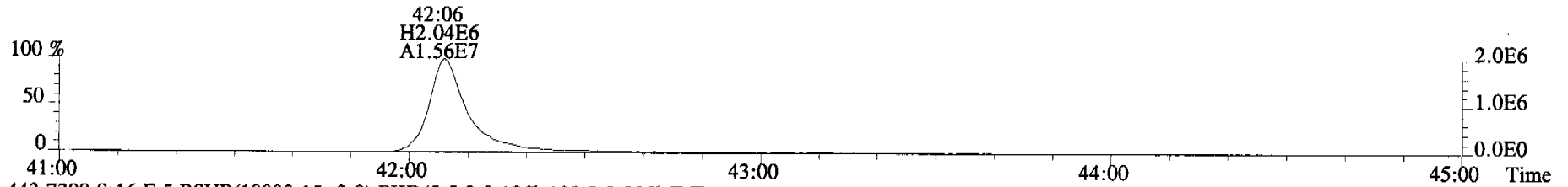


479.7165 S:16 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

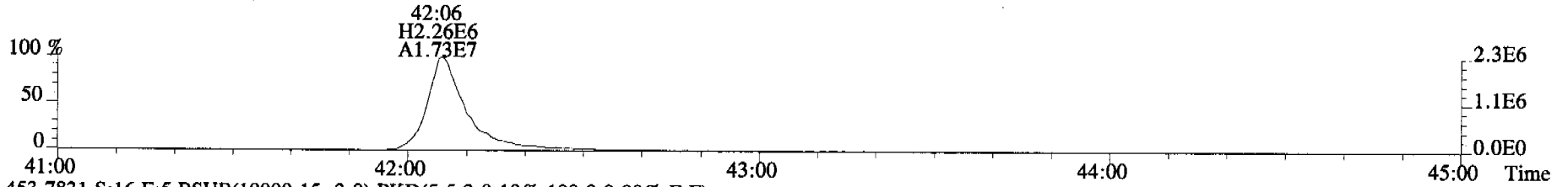




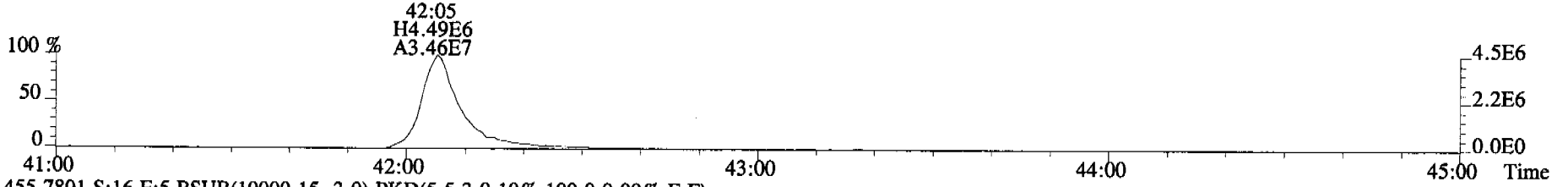
File:060920C2 #1-345 Acq:21-SEP-2006 03:38:30 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#16 File Text:Alta Analytical Laboratory Text:ST060920C2-2 1613 CS3 060110H Exp:OCDD\_DB5  
441.7428 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



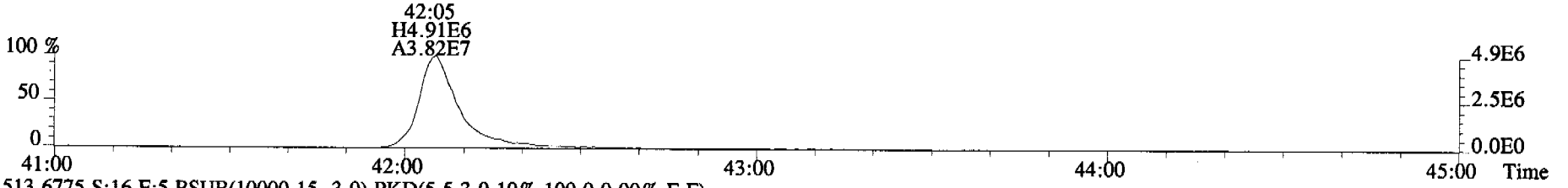
443.7398 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



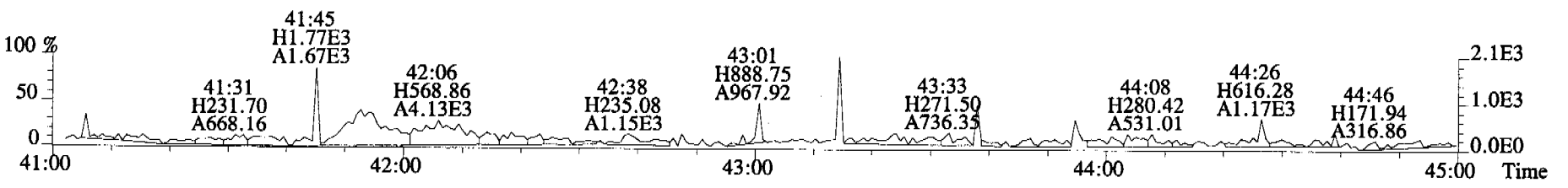
453.7831 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

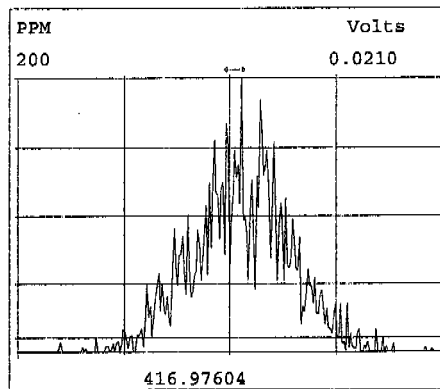
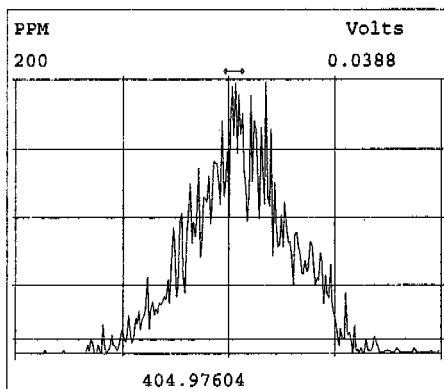
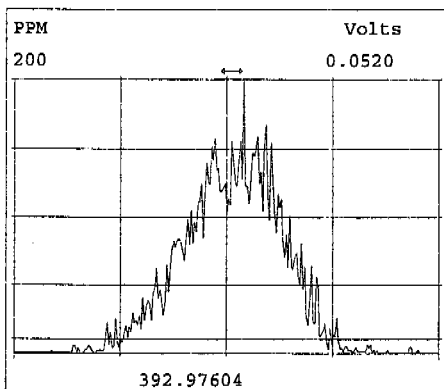
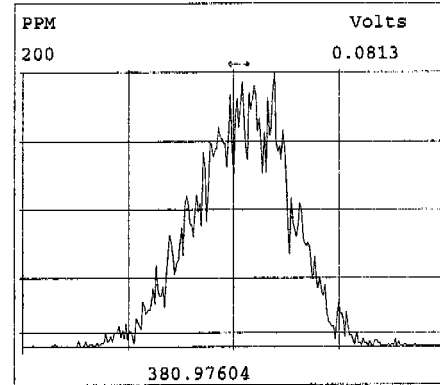
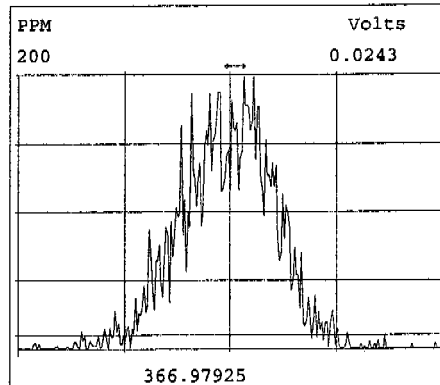
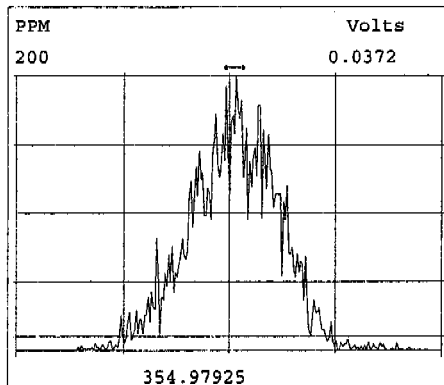
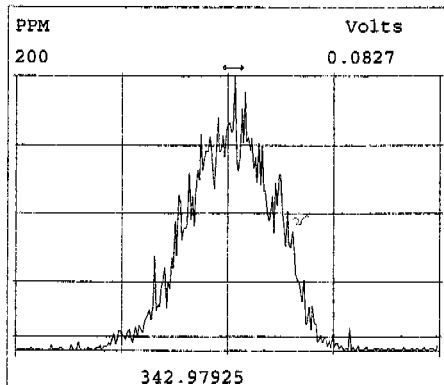
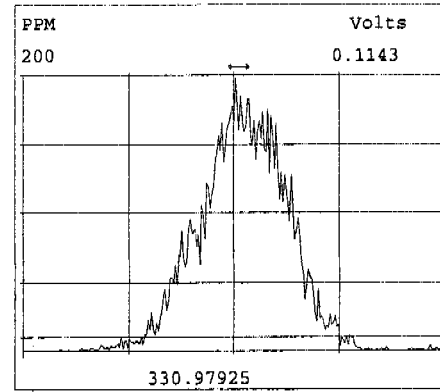
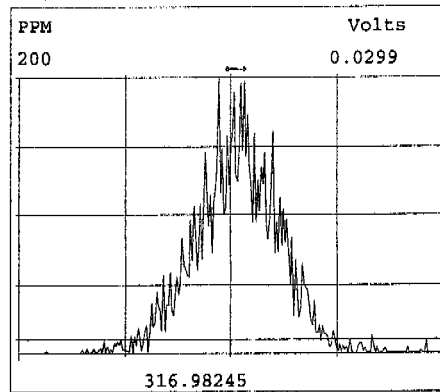
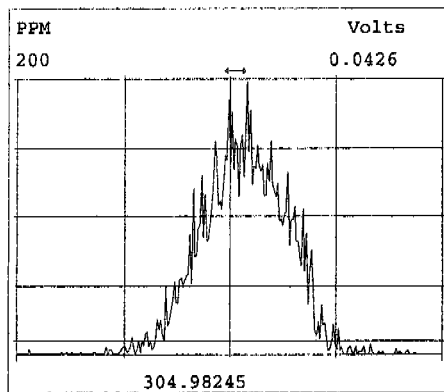
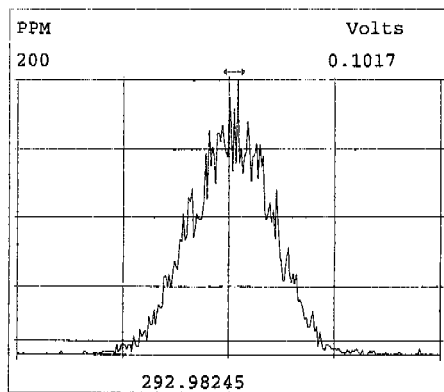


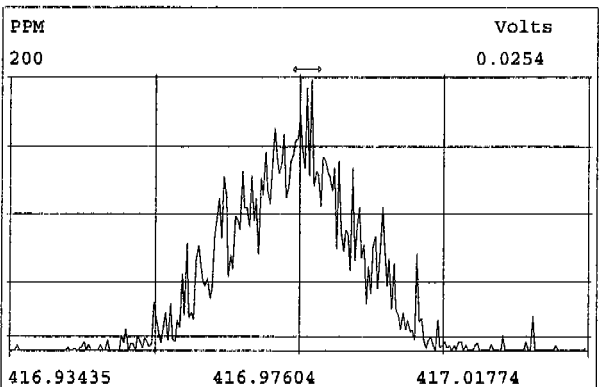
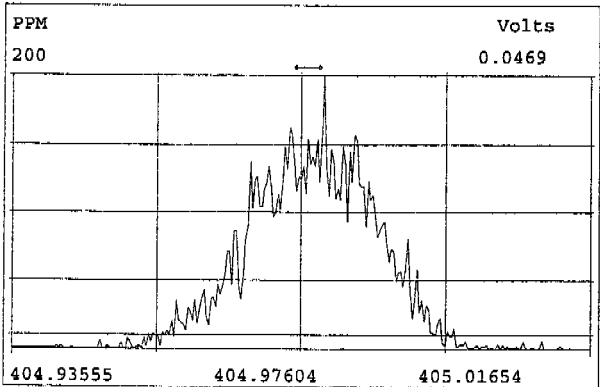
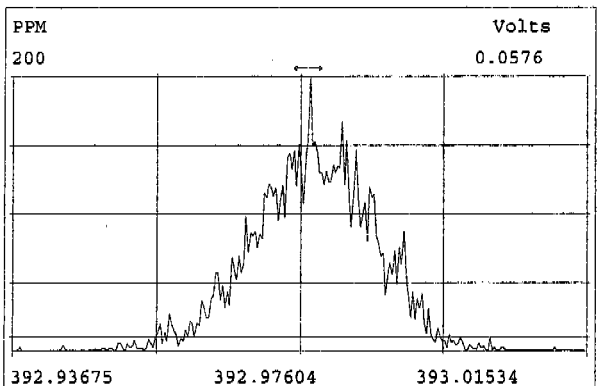
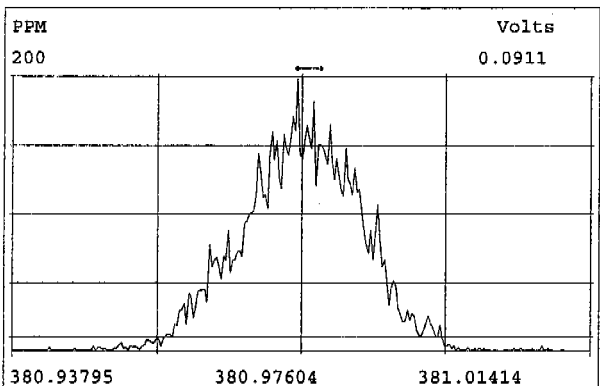
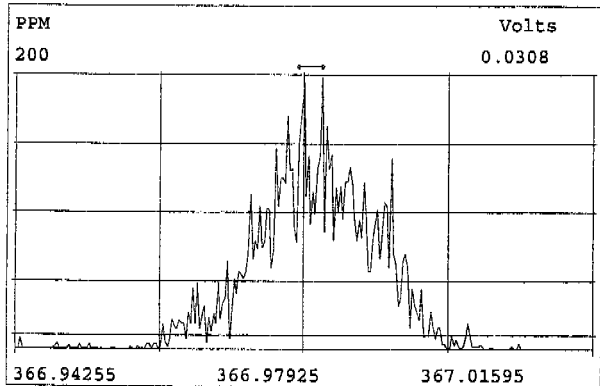
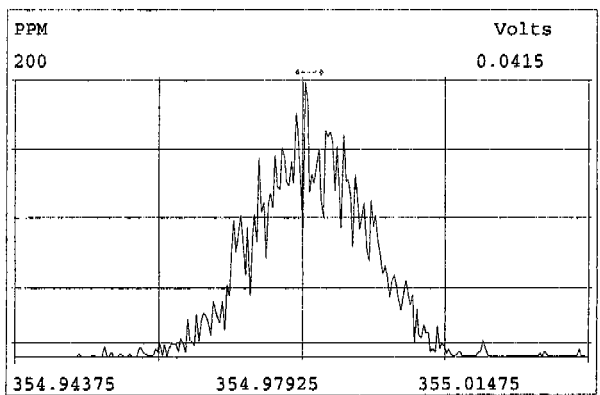
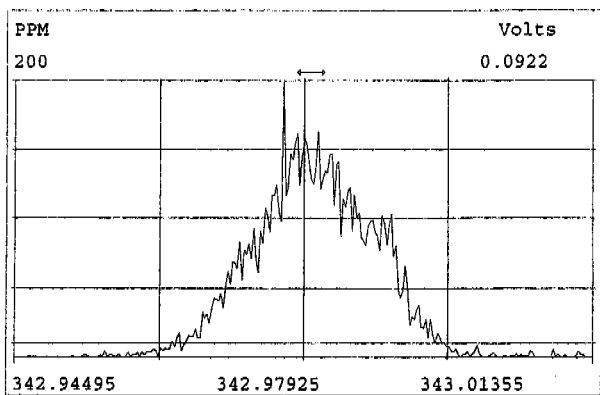
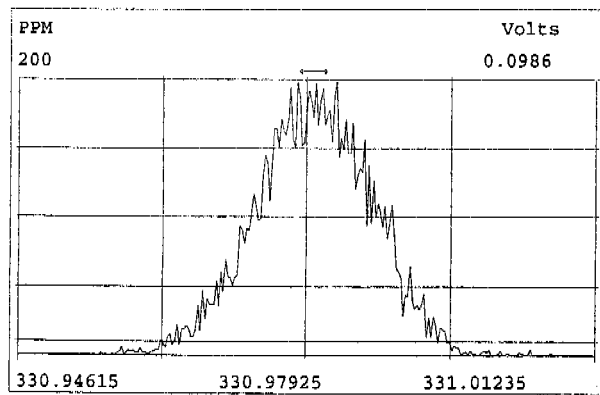
455.7801 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

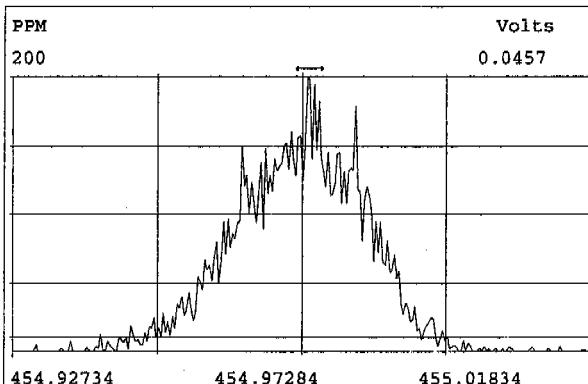
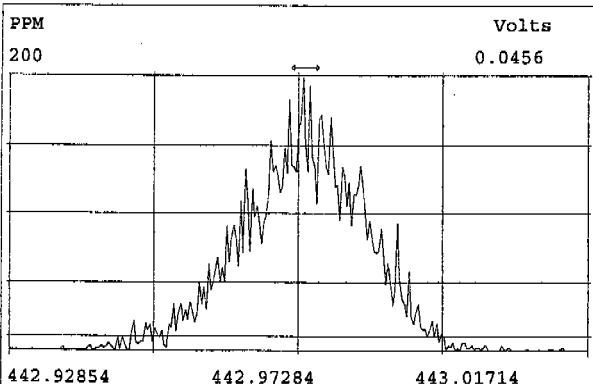
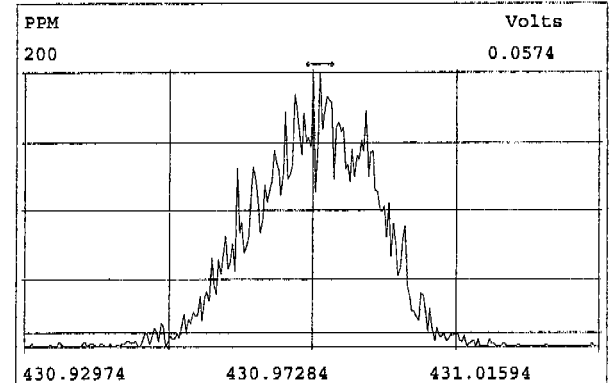
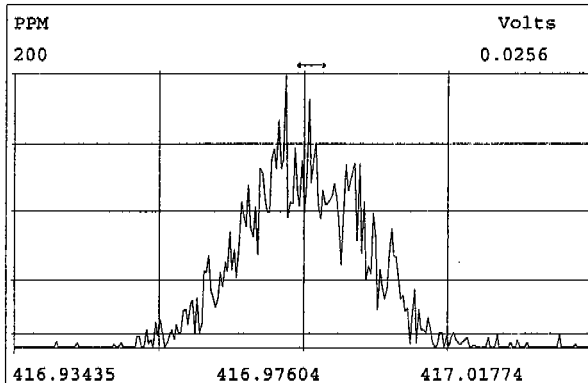
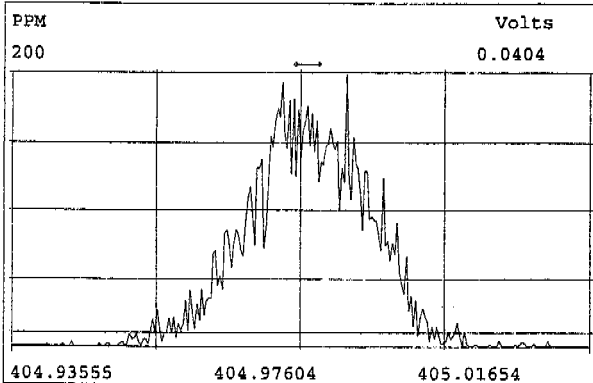
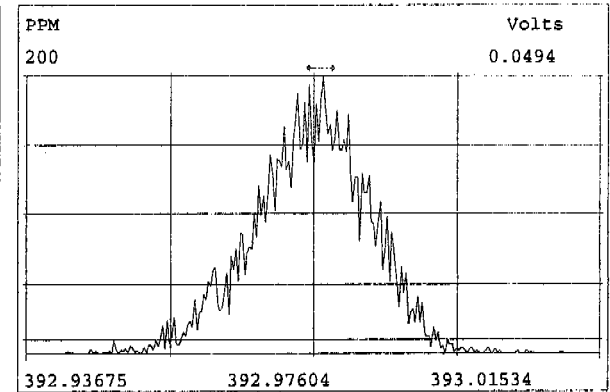
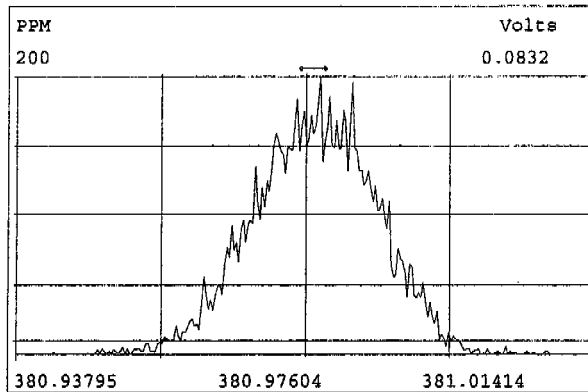
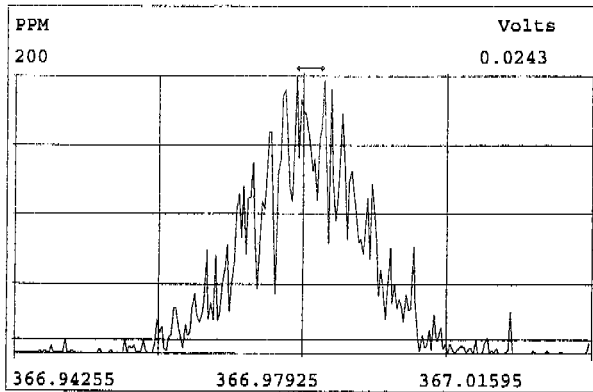


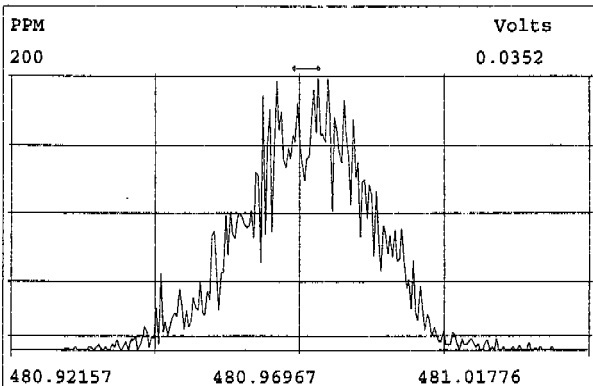
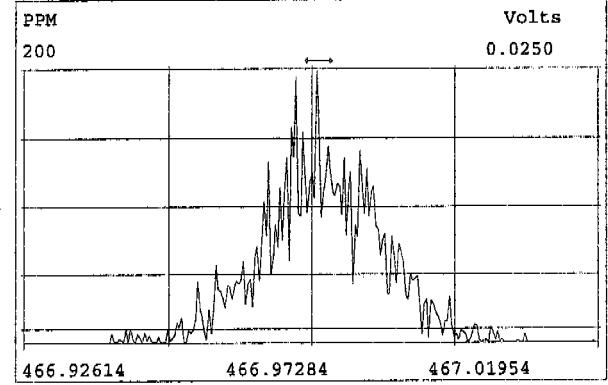
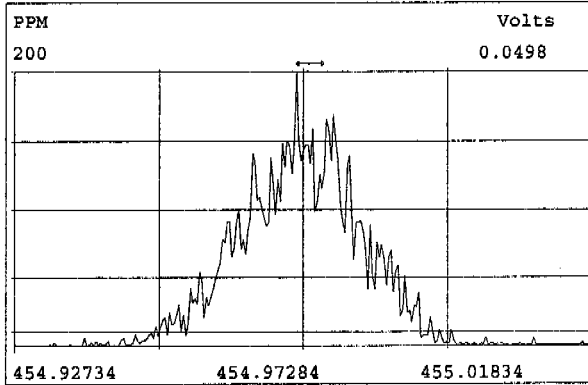
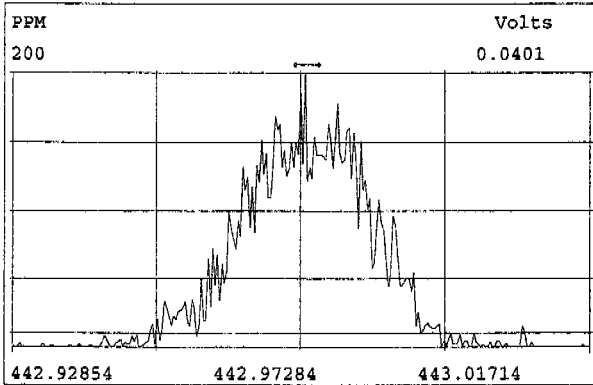
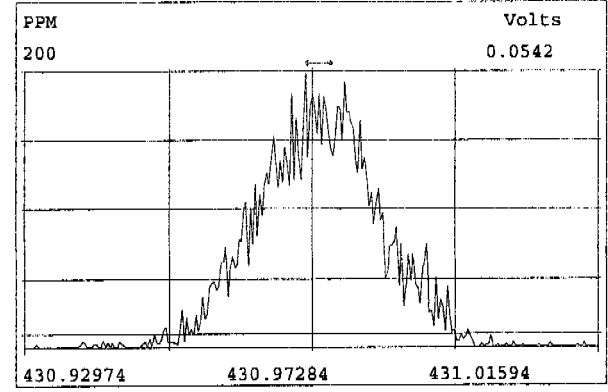
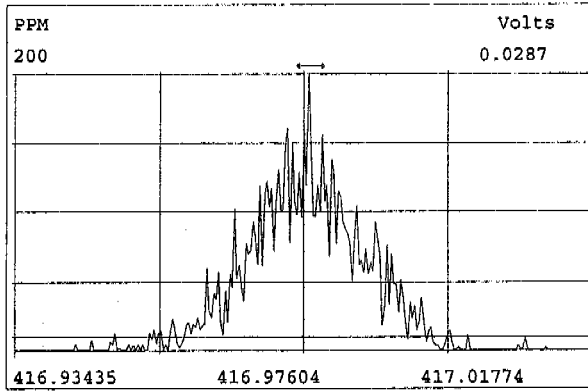
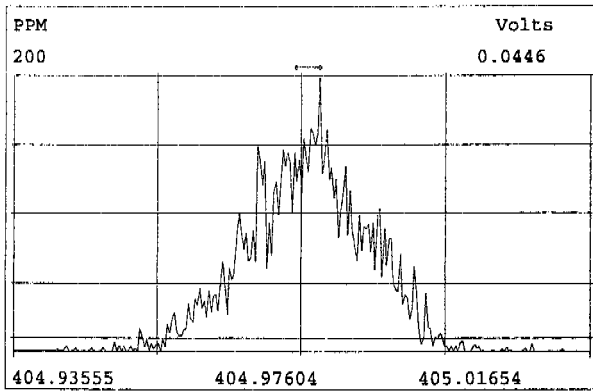
513.6775 S:16 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

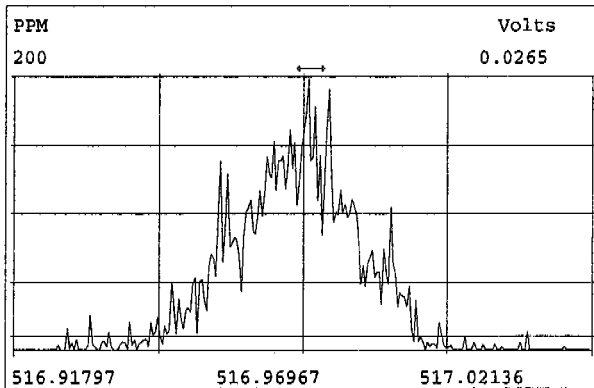
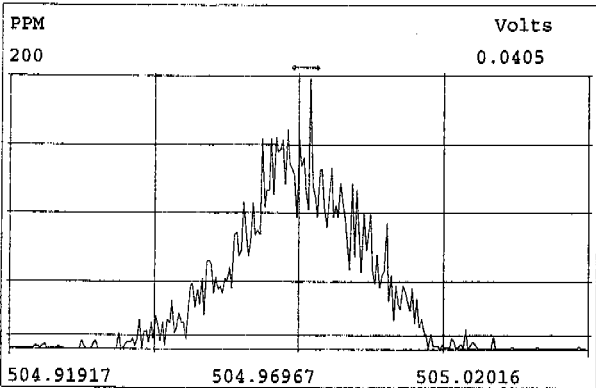
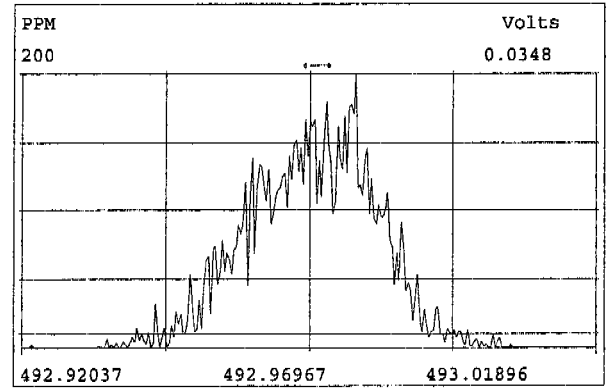
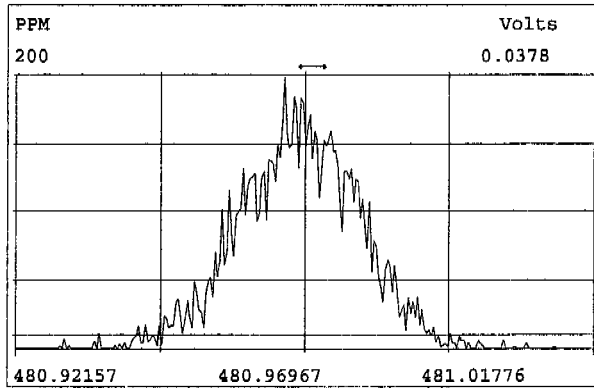
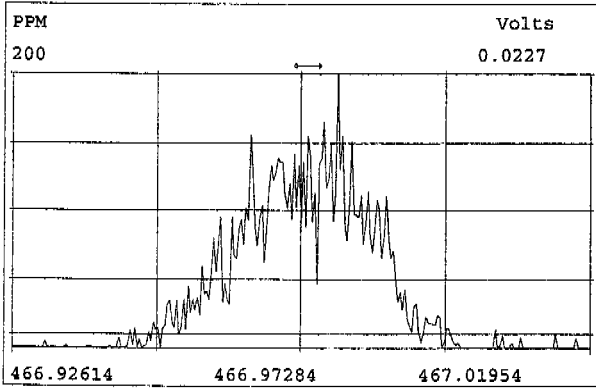
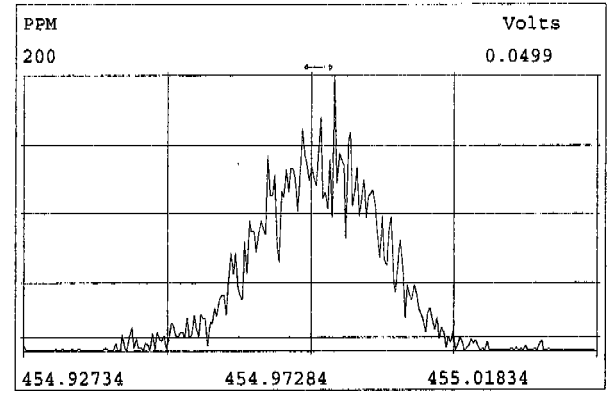
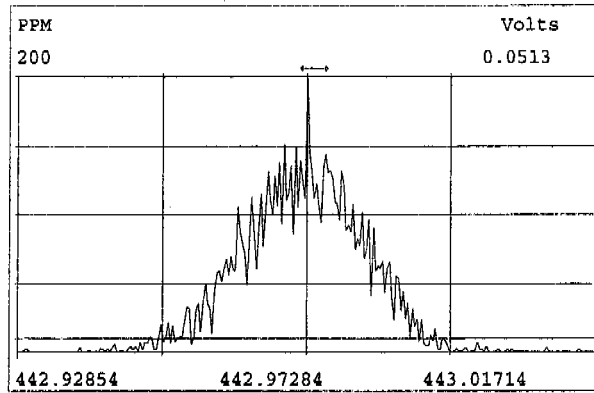
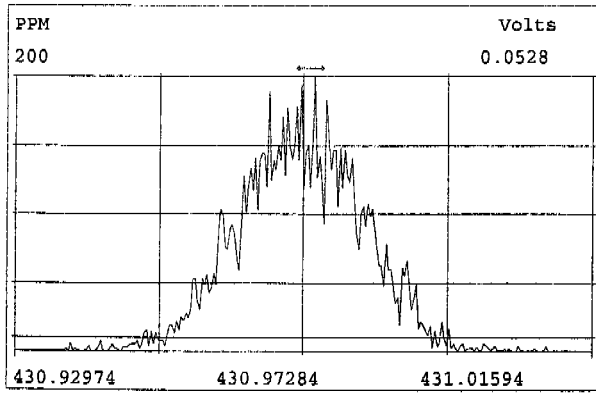












## **SAMPLE DATA**

Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	*	* n	1.08	NotF <sub>7</sub>	*		1130	2.5	1.20	Total Tetra-Dioxins	*	*		1130	1.20
1,2,3,7,8-PeCDD	*	* n	1.03	NotF <sub>7</sub>	*		1970	2.5	1.85	Total Penta-Dioxins	*	*		4610	4.32
1,2,3,4,7,8-HxCDD	*	* n	1.13	NotF <sub>7</sub>	*		775	2.5	1.14	Total Hexa-Dioxins	*	*		775	1.16
1,2,3,6,7,8-HxCDD	*	* n	1.03	NotF <sub>7</sub>	*		775	2.5	1.19	Total Hepta-Dioxins	*	*		1030	2.51
1,2,3,7,8,9-HxCDD	*	* n	1.12	NotF <sub>7</sub>	*		775	2.5	1.13	Total Tetra-Furans	*	*		1530	1.33
1,2,3,4,6,7,8-HpCDD	*	* n	1.02	NotF <sub>7</sub>	*		1030	2.5	2.51	Total Penta-Furans	0.0000	0.0000		3110	3.42
OCDD	*	* n	1.06	NotF <sub>7</sub>	*		1640	2.5	4.89	Total Hexa-Furans	*	*		961	0.802
										Total Hepta-Furans	*	*		868	1.37
2,3,7,8-TCDF	*	* n	1.06	NotF <sub>7</sub>	*		1530	2.5	1.33						
1,2,3,7,8-PeCDF	*	* n	1.01	NotF <sub>7</sub>	*		1810	2.5	1.97						
2,3,4,7,8-PeCDF	*	* n	1.02	NotF <sub>7</sub>	*		1810	2.5	2.01						
1,2,3,4,7,8-HxCDF	*	* n	1.15	NotF <sub>7</sub>	*		961	2.5	0.613						
1,2,3,6,7,8-HxCDF	*	* n	1.14	NotF <sub>7</sub>	*		961	2.5	0.579						
2,3,4,6,7,8-HxCDF	*	* n	1.17	NotF <sub>7</sub>	*		961	2.5	0.710						
1,2,3,7,8,9-HxCDF	*	* n	1.10	NotF <sub>7</sub>	*		961	2.5	1.63						
1,2,3,4,6,7,8-HpCDF	*	* n	1.31	NotF <sub>7</sub>	*		868	2.5	1.21						
1,2,3,4,7,8,9-HpCDF	*	* n	1.33	NotF <sub>7</sub>	*		868	2.5	1.60						
OCDF	*	* n	0.91	NotF <sub>7</sub>	*		1190	2.5	3.80						

Rec Qual

IS	13C-2,3,7,8-TCDD	3.65e+07	0.80 y	1.09	26:24	1610.3	80.5
IS	13C-1,2,3,7,8-PeCDD	3.10e+07	0.61 y	1.04	31:24	1428.4	71.4
IS	13C-1,2,3,4,7,8-HxCDD	2.67e+07	1.25 y	0.83	34:43	1668.3	83.4
IS	13C-1,2,3,6,7,8-HxCDD	3.32e+07	1.27 y	1.04	34:50	1654.0	82.7
IS	13C-1,2,3,4,6,7,8-HpCDD	2.54e+07	1.05 y	0.85	38:39	1542.3	77.1
IS	13C-OCDD	3.87e+07	0.89 y	0.71	41:51	2809.4	70.2
IS	13C-2,3,7,8-TCDF	4.93e+07	0.78 y	0.96	25:30	1601.3	80.1
IS	13C-1,2,3,7,8-PeCDF	4.75e+07	1.60 y	1.02	30:08	1453.4	72.7
IS	13C-2,3,4,7,8-PeCDF	4.29e+07	1.57 y	1.02	31:07	1310.4	65.5
IS	13C-1,2,3,4,7,8-HxCDF	3.96e+07	0.52 y	1.14	33:52	1788.7	89.4
IS	13C-1,2,3,6,7,8-HxCDF	4.61e+07	0.52 y	1.40	33:59	1702.5	85.1
IS	13C-2,3,4,6,7,8-HxCDF	3.91e+07	0.51 y	1.26	34:35	1603.0	80.1
IS	13C-1,2,3,7,8,9-HxCDF	2.67e+07	0.51 y	1.08	35:30	1275.4	63.8
IS	13C-1,2,3,4,6,7,8-HpCDF	2.54e+07	0.45 y	0.93	37:14	1405.3	70.3
IS	13C-1,2,3,4,7,8,9-HpCDF	1.72e+07	0.42 y	0.77	39:14	1161.0	58.0
IS	13C-OCDF	4.14e+07	0.88 y	0.94	42:03	2268.3	56.7
C/Up	37C1-2,3,7,8-TCDD	1.05e+07		0.77	26:25	653.51	81.7
RS/RT	13C-1,2,3,4-TCDD	4.16e+07	0.83 y	1.00	25:42	2000.0	
RS	13C-1,2,3,4-TCDF	6.42e+07	0.78 y	1.00	23:56	2000.0	
RS/RT	13C-1,2,3,7,8,9-HxCDD	3.87e+07	1.25 y	1.00	35:07	2000.0	

Integrations

by  
Analyst: MD

Reviewed

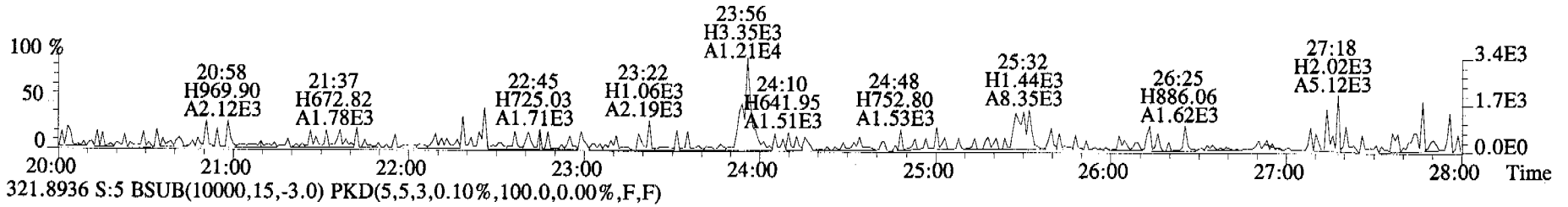
by  
Analyst: LU

Date: 9/21/06

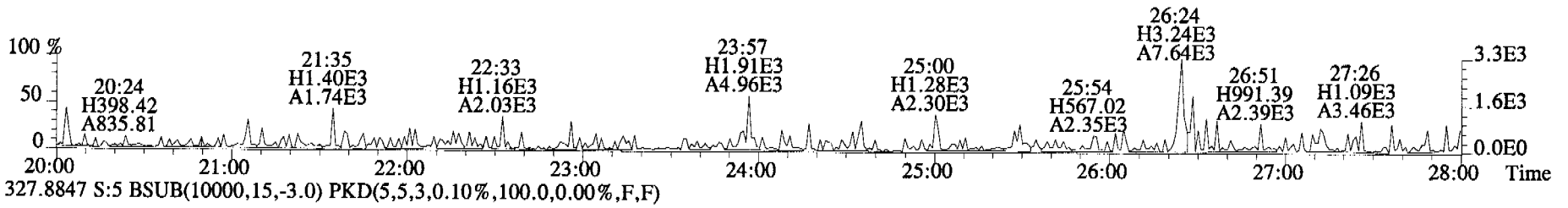
Date: 9/21/06



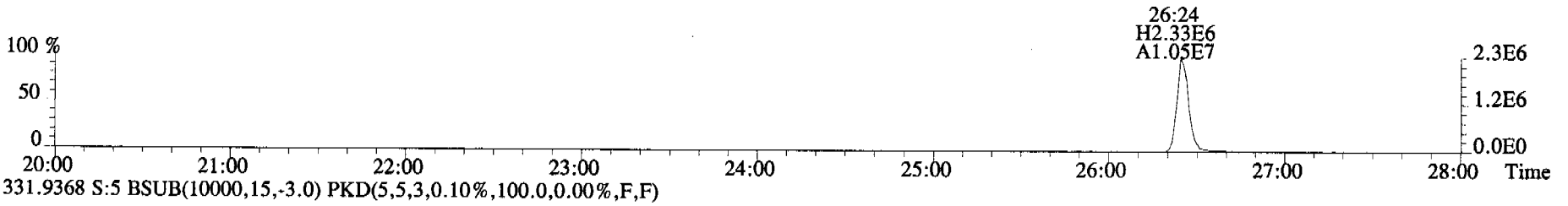
File:060920C2 #1-546 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:0 8381\_MB001 Exp:OCDD\_DB5  
319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



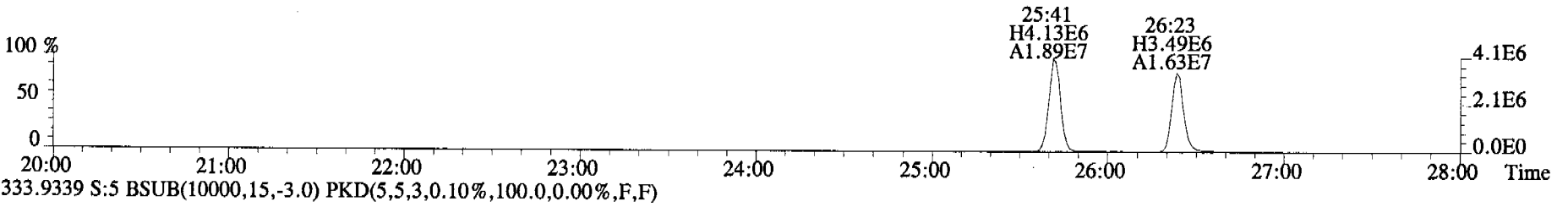
321.8936 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



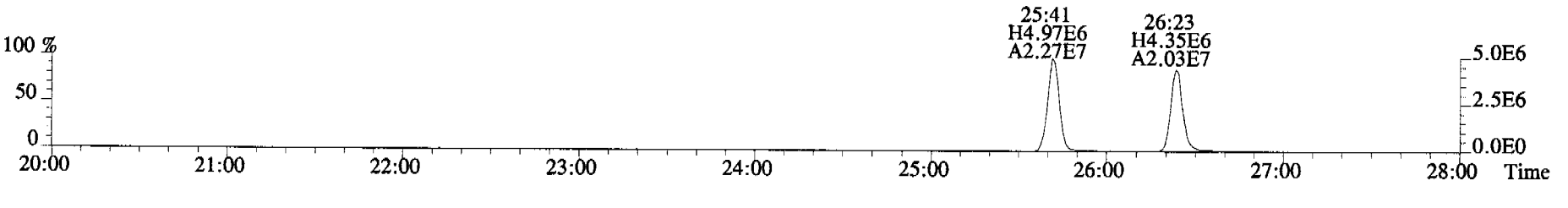
327.8847 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



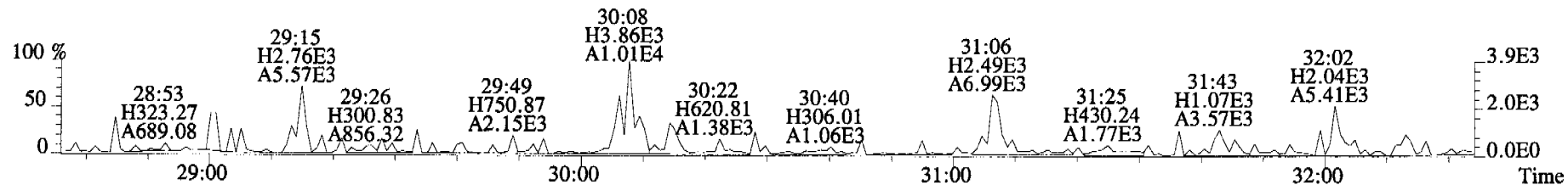
331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



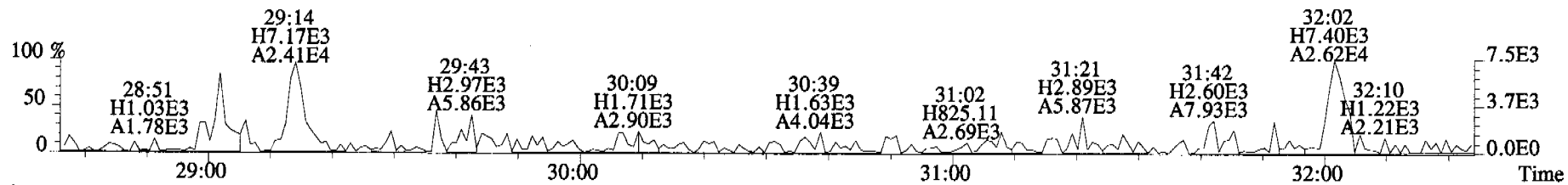
333.9339 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



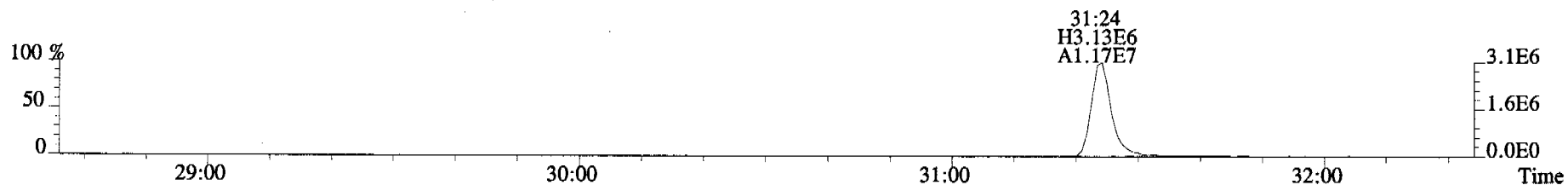
File:060920C2 #1-324 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:0\_8381\_MB001 Exp:OCDD\_DB5  
353.8576 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



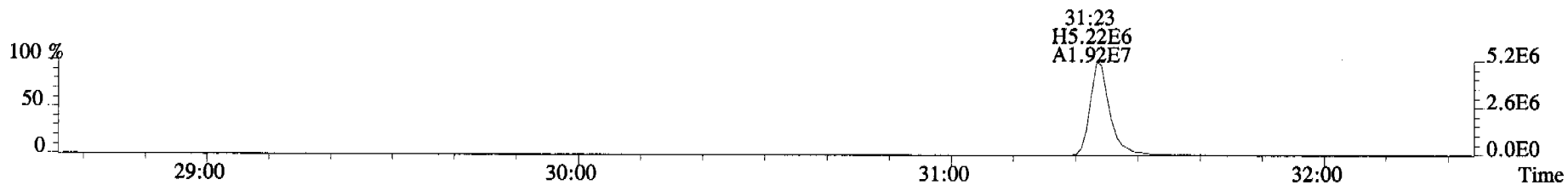
355.8546 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



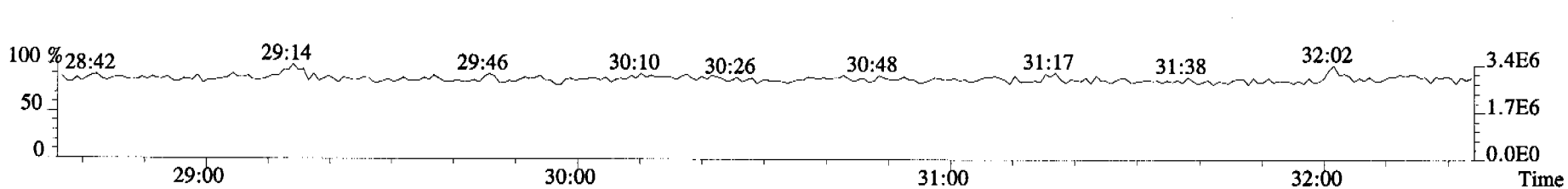
365.8978 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



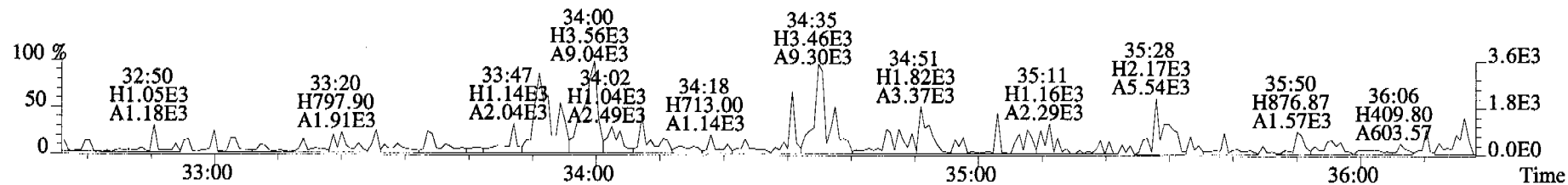
367.8949 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



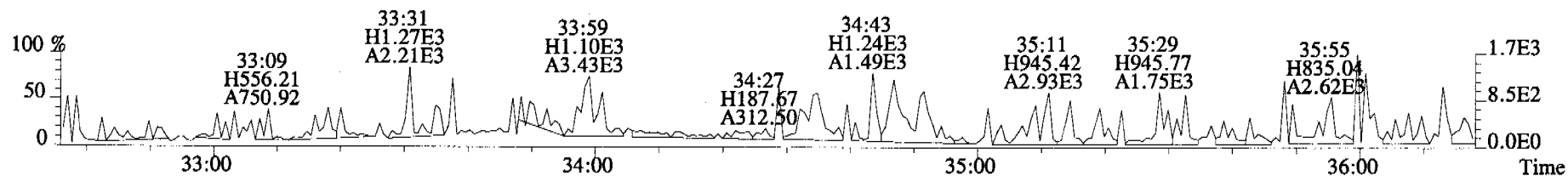
366.9792 S:5 F:2



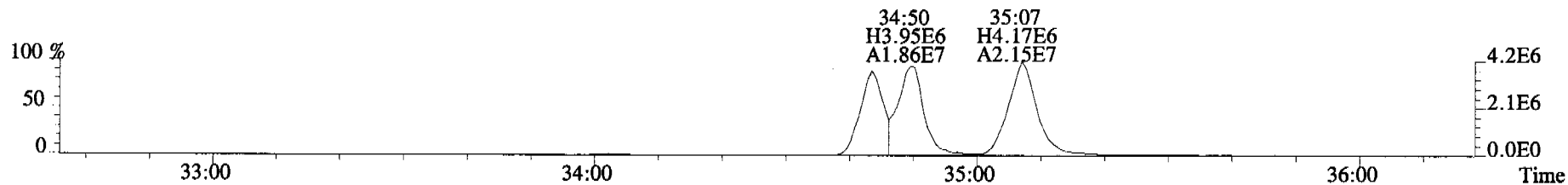
File:060920C2 #1-363 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:0 8381\_MB001 Exp:OCDD\_DB5  
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



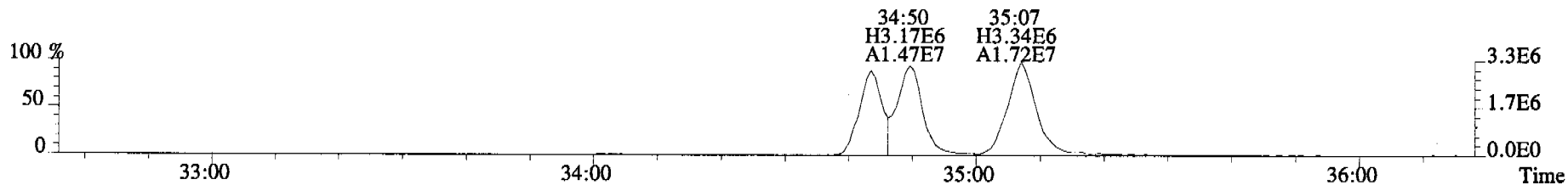
391.8127 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



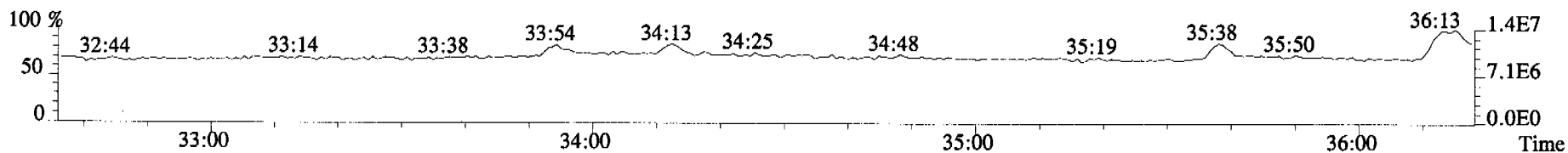
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



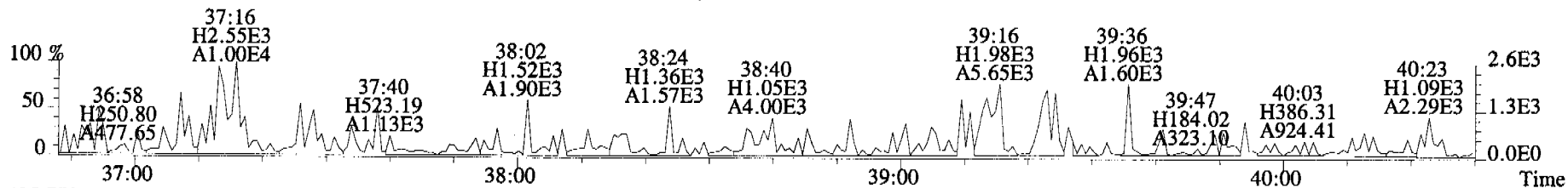
403.8530 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



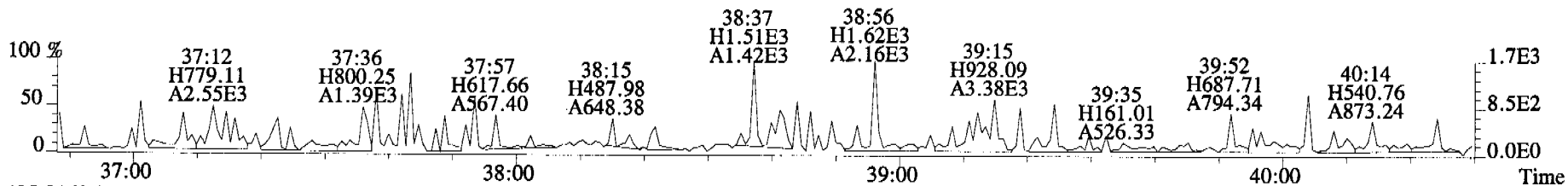
380.9760 S:5 F:3



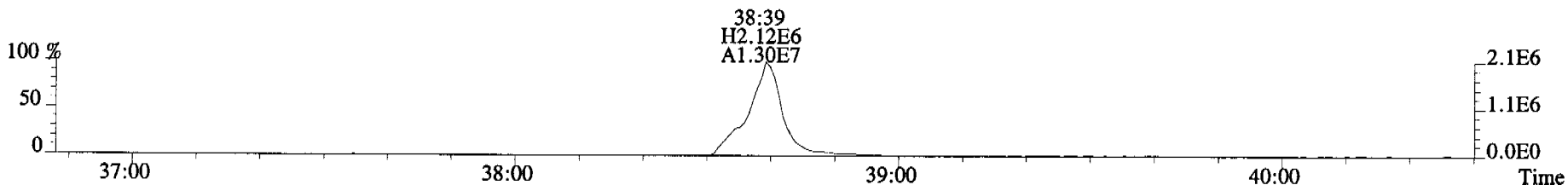
File:060920C2 #1-400 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:0\_8381\_MB001\_Exp:OCDD\_DB5  
423.7767 S:5 F:4 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



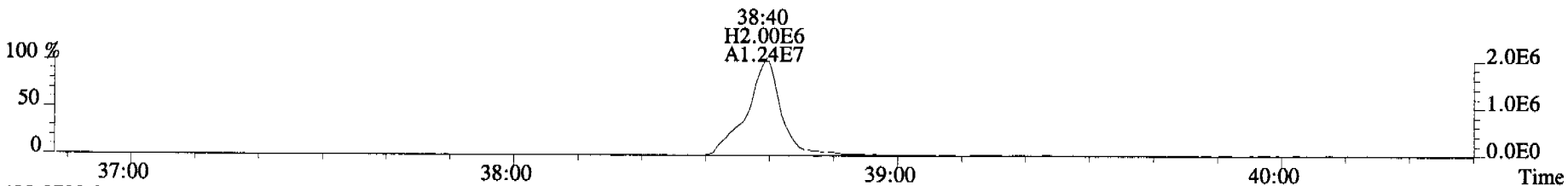
425.7737 S:5 F:4 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



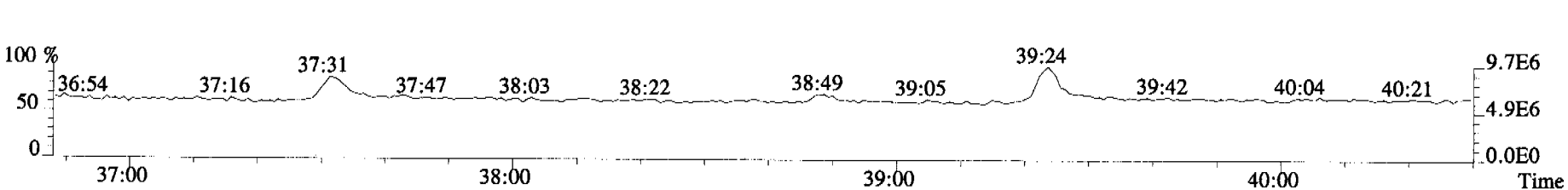
435.8169 S:5 F:4 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



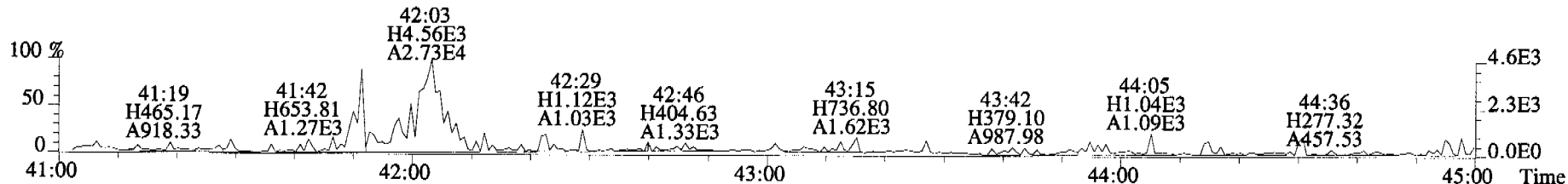
437.8140 S:5 F:4 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



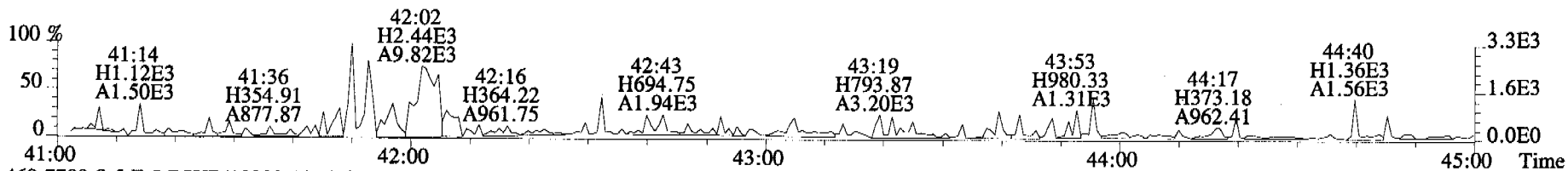
430.9728 S:5 F:4



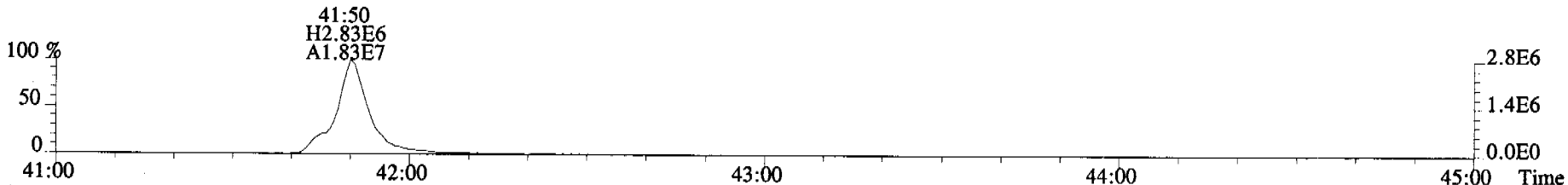
File:060920C2 #1-345 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:0 8381\_MB001 Exp:OCDD\_DB5  
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



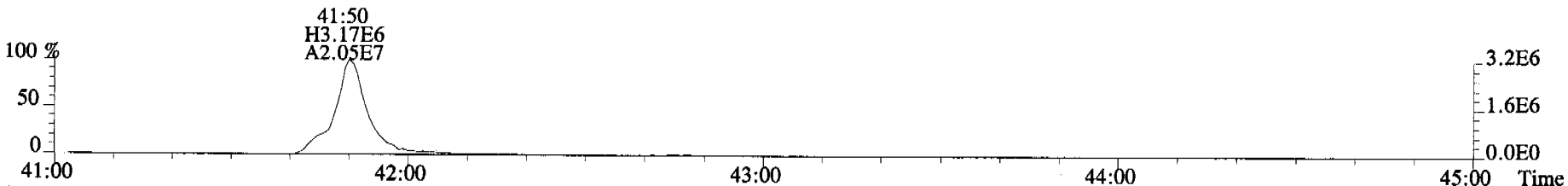
459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



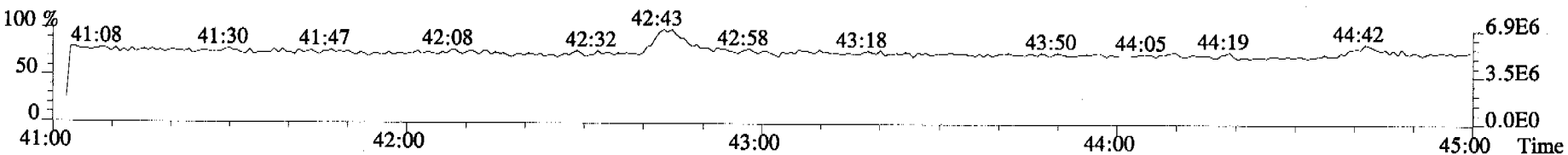
469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



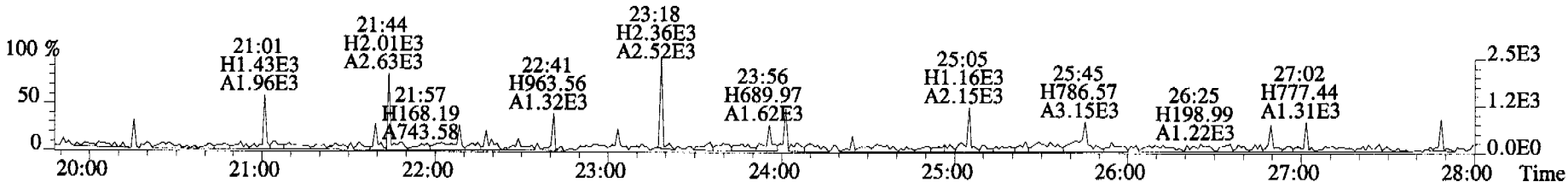
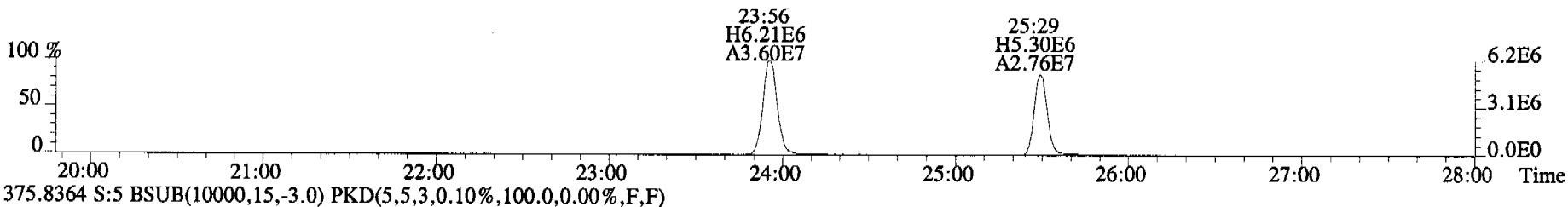
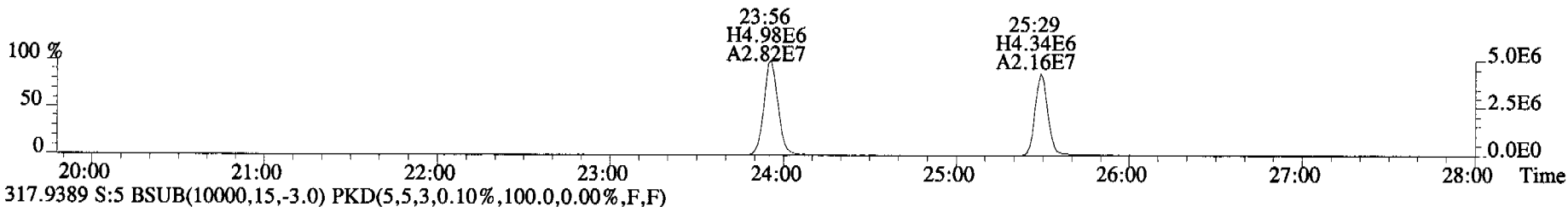
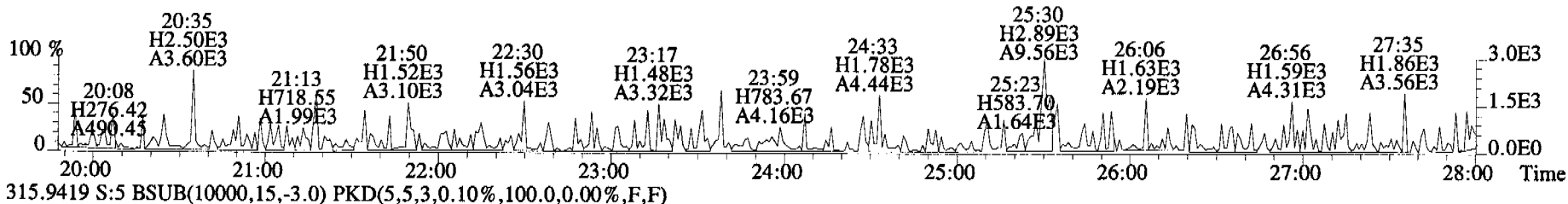
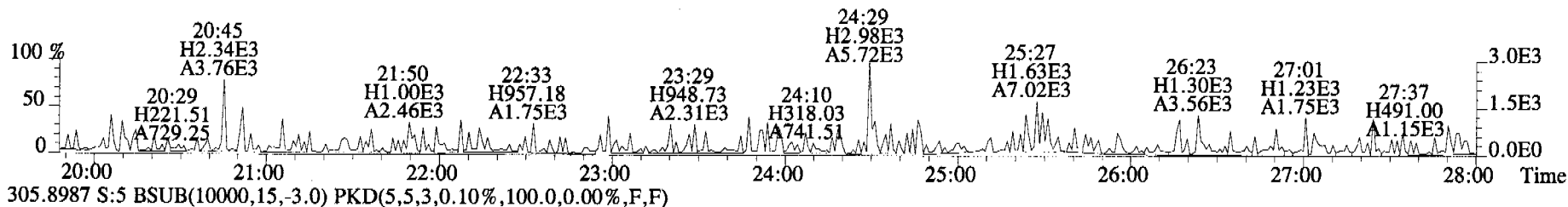
471.7750 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



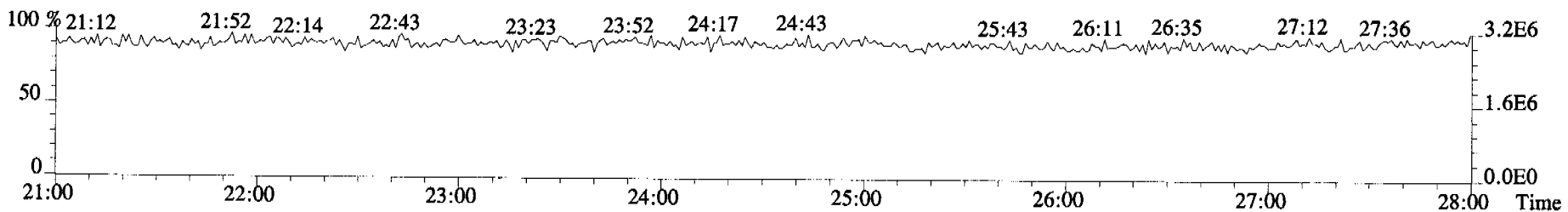
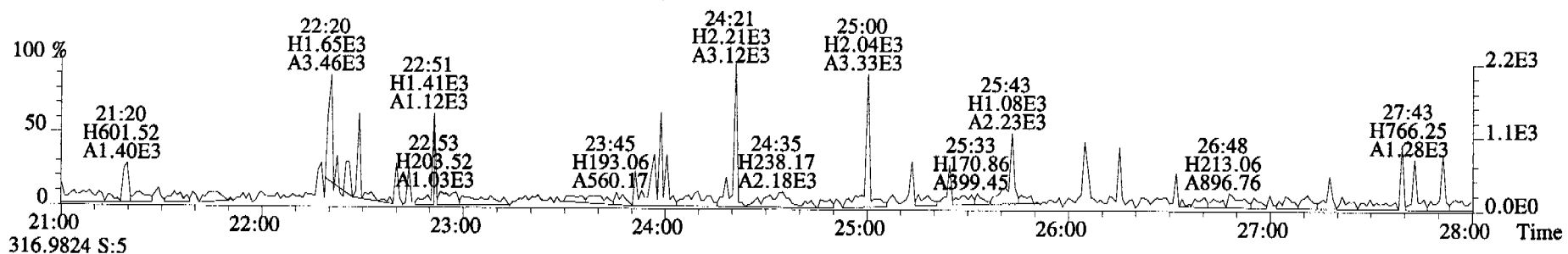
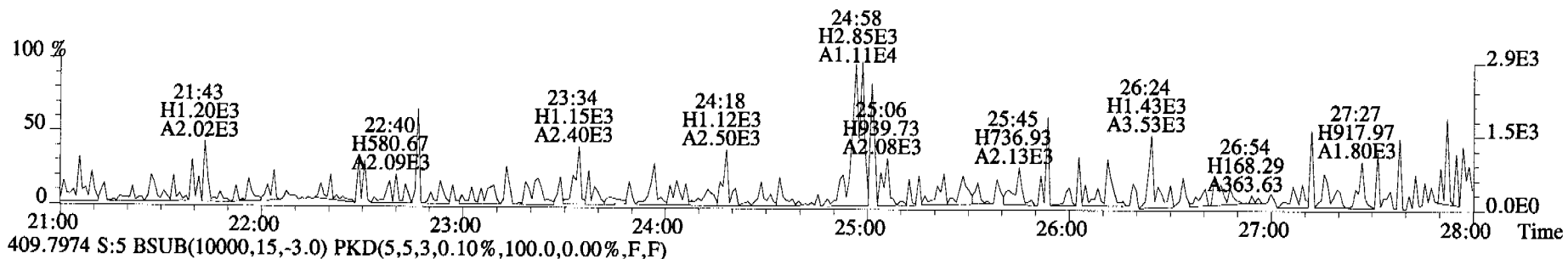
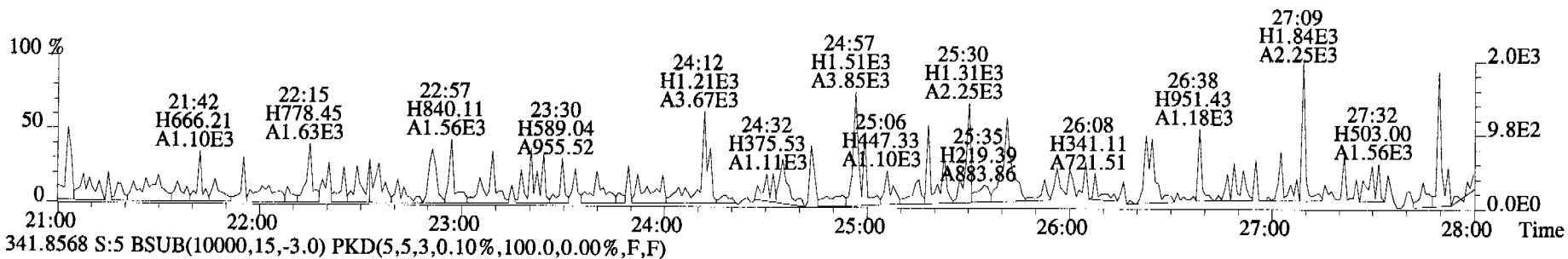
454.9728 S:5 F:5



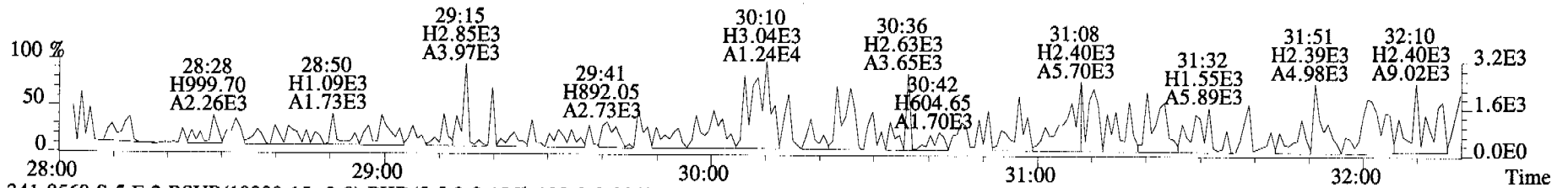
File:060920C2 #1-546 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:0 8381 MB001 Exp:OCDD\_DB5  
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



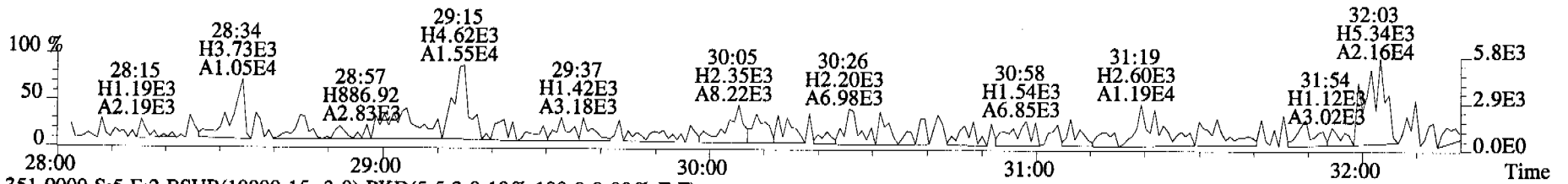
File:060920C2 #1-546 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#5 File Text:Alta Analytical Laboratory Text:0 8381 MB001 Exp:OCDD\_DB5  
 339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



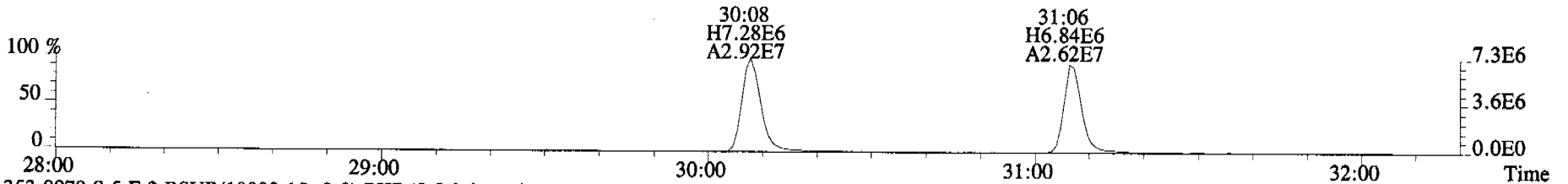
File:060920C2 #1-324 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:0 8381\_MB001 Exp:OCDD\_DB5  
339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



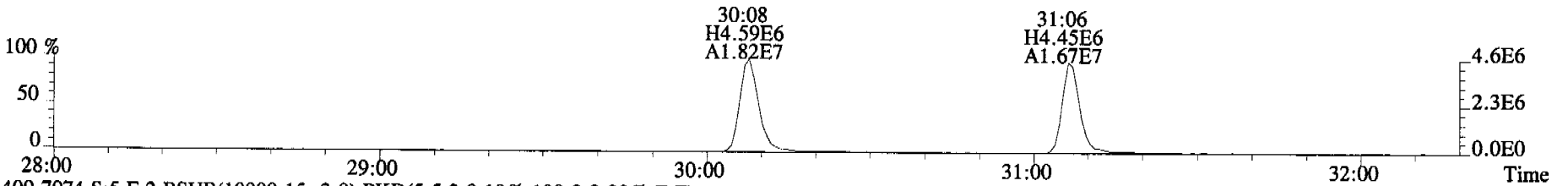
341.8568 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



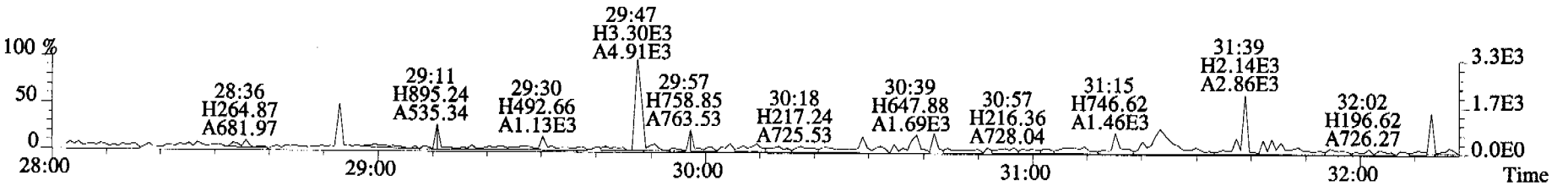
351.9000 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



353.8970 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

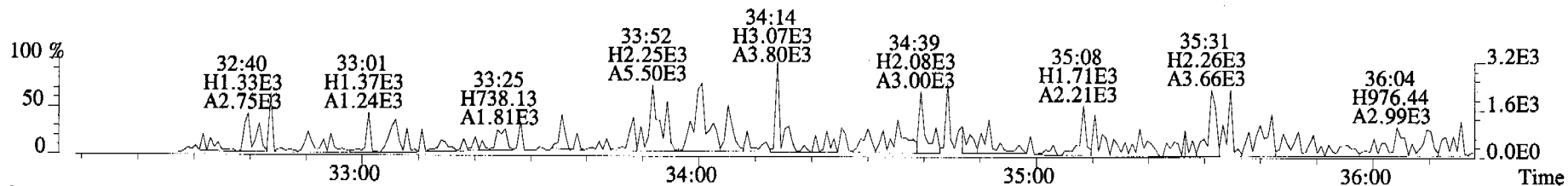


409.7974 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

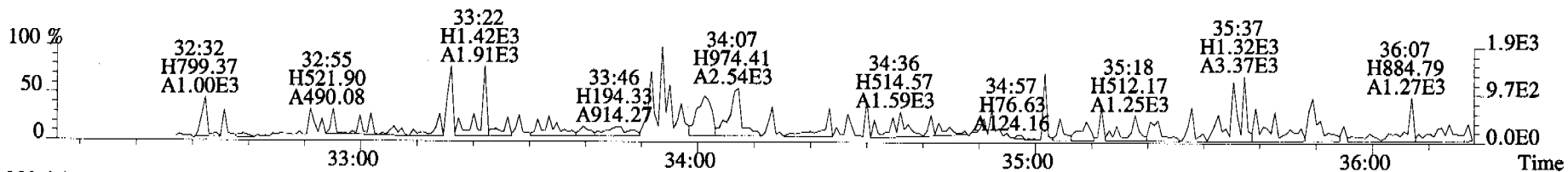




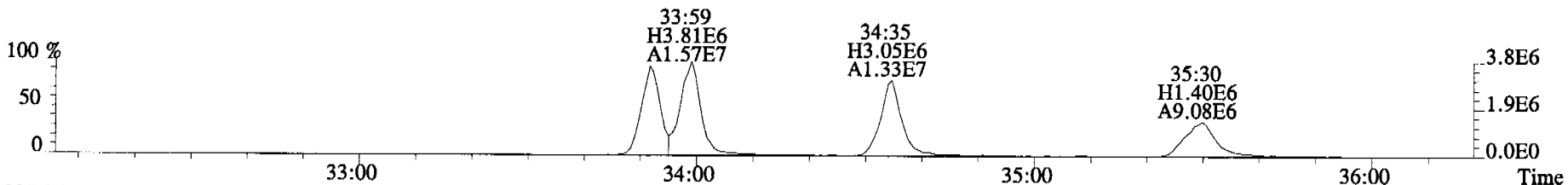
File:060920C2 #1-363 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:0 8381\_MB001 Exp:OCDD\_DB5  
373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



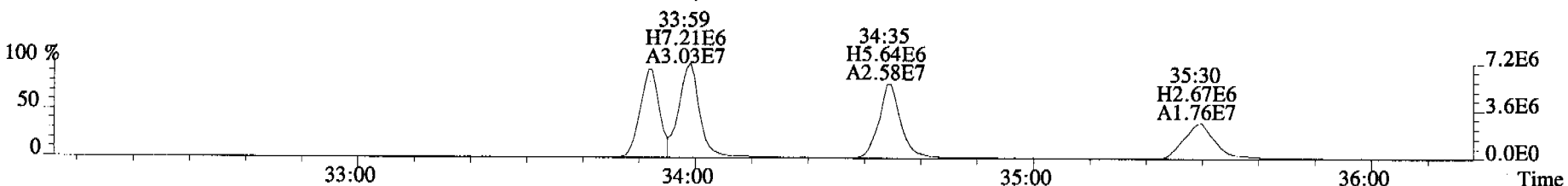
375.8178 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



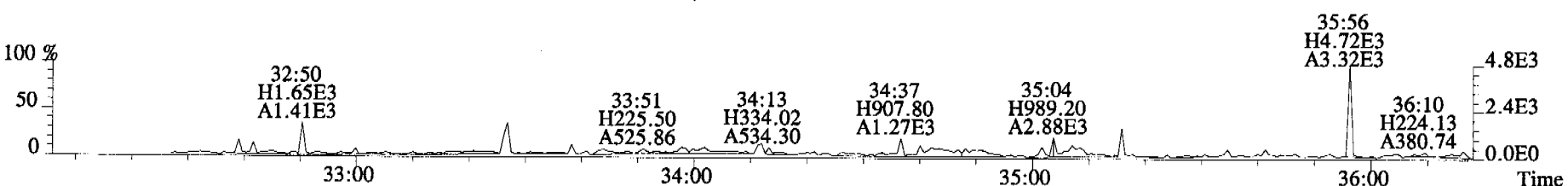
383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



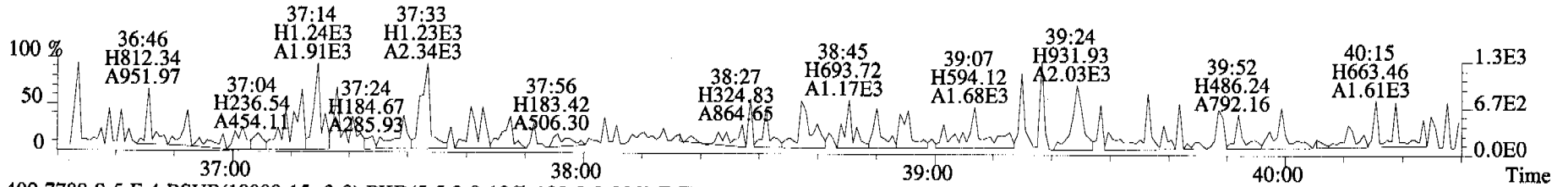
385.8610 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



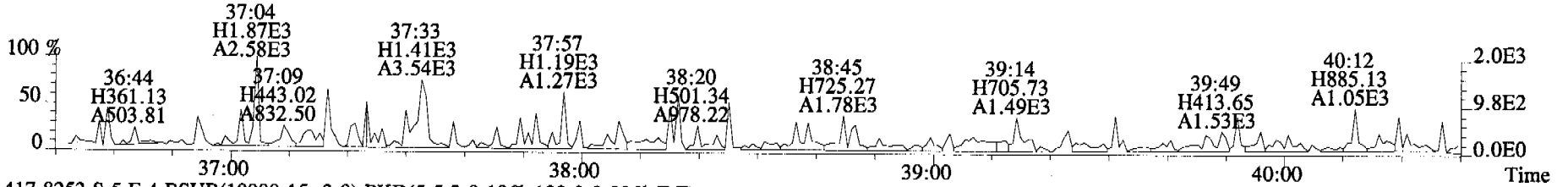
445.7555 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



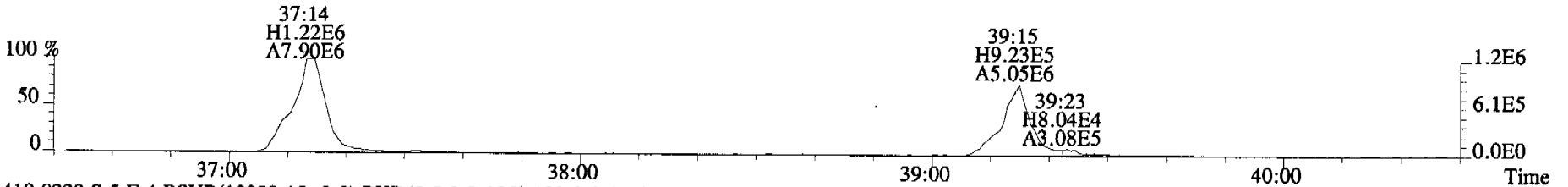
File:060920C2 #1-400 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:0\_8381\_MB001 Exp:OCDD\_DB5  
407.7818 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



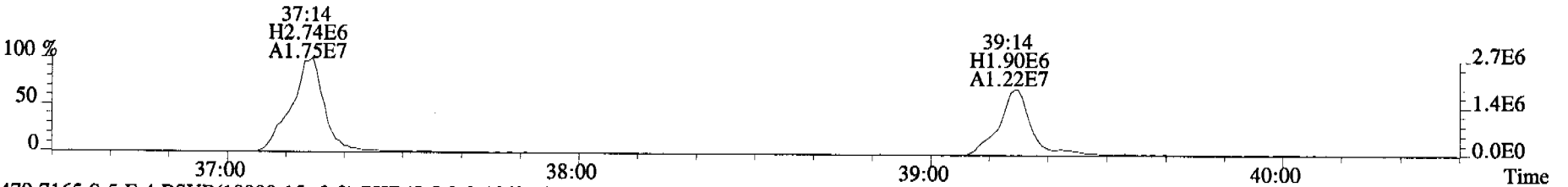
409.7788 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



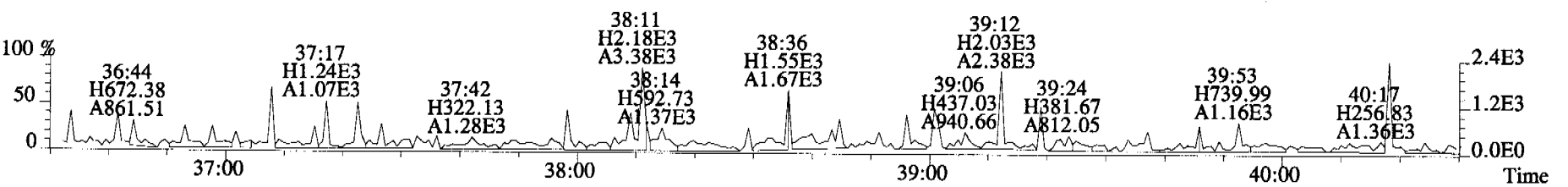
417.8253 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



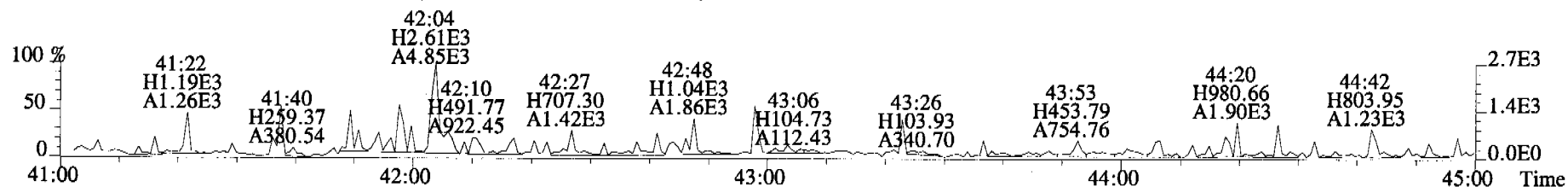
419.8220 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



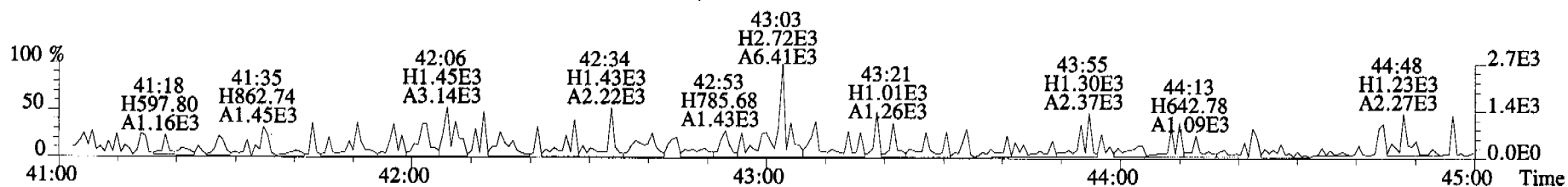
479.7165 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



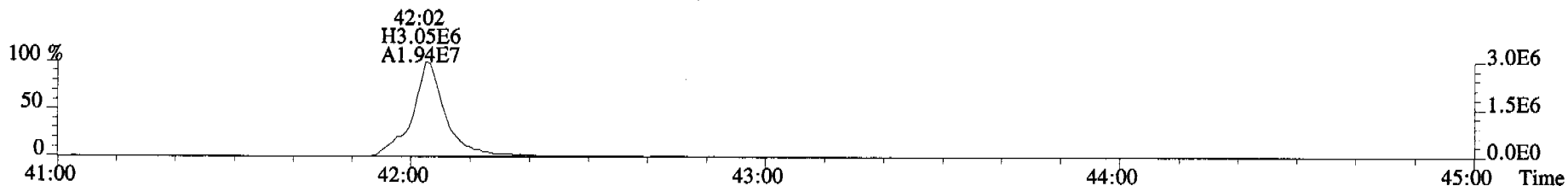
File:060920C2 #1-345 Acq:20-SEP-2006 18:33:15 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:0 8381 MB001 Exp:OCDD\_DB5  
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



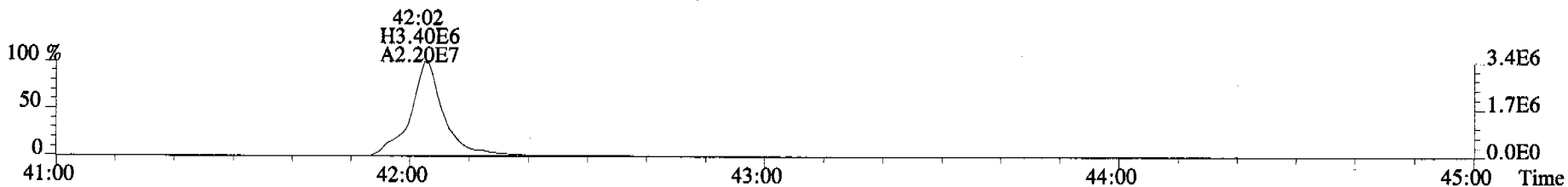
443.7398 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



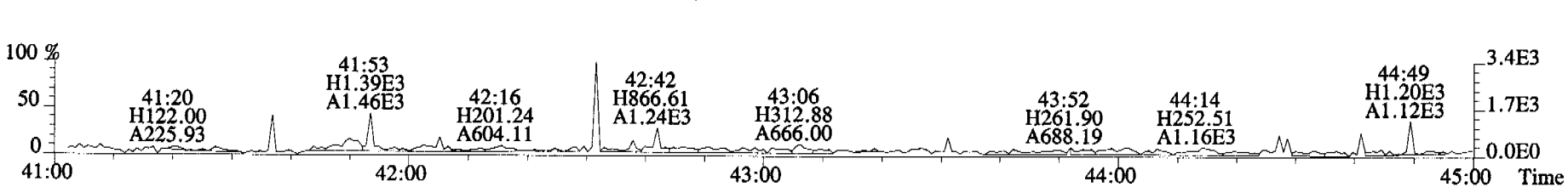
453.7831 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



513.6775 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



## FORM 8A

## PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Alta Analytical Laboratory      Extraction Batch: 0\_8381\_OPR001

Contract No.:                      SAS No.:

Matrix (aqueous/solid/leachate): AQUEOUS      OPR Data Filename: 060920C2-2

Ext. Date: 9/18/06      Shift: Day      Analysis Date: 20-SEP-06      Time: 16:04:31

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

NATIVE ANALYTES	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
2,3,7,8-TCDD	10	9.99	6.7 - 15.8 7.3 - 14.6 (2)
1,2,3,7,8-PeCDD	50	48.5	35.0 - 71.0
1,2,3,4,7,8-HxCDD	50	46.7	35.0 - 82.0
1,2,3,6,7,8-HxCDD	50	48.1	38.0 - 67.0
1,2,3,7,8,9-HxCDD	50	47.4	32.0 - 81.0
1,2,3,4,6,7,8-HpCDD	50	51.3	35.0 - 70.0
OCDD	100	99.3	78.0 - 144.0
2,3,7,8-TCDF	10	9.77	7.5 - 15.8 8.0 - 14.7 (2)
1,2,3,7,8-PeCDF	50	51.9	40.0 - 67.0
2,3,4,7,8-PeCDF	50	51.8	34.0 - 80.0
1,2,3,4,7,8-HxCDF	50	51.8	36.0 - 67.0
1,2,3,6,7,8-HxCDF	50	50.6	42.0 - 65.0
2,3,4,6,7,8-HxCDF	50	50.1	35.0 - 78.0
1,2,3,7,8,9-HxCDF	50	51.3	39.0 - 65.0
1,2,3,4,6,7,8-HpCDF	50	51.1	41.0 - 61.0
1,2,3,4,7,8,9-HpCDF	50	52.3	39.0 - 69.0
OCDF	100	105	63.0 - 170.0

(1) Contract-required concentration limits for OPR  
as specified in Table 6, Method 1613. 10/94(2) Contract-required concentration limits for OPR  
as specified in Table 6a, Method 1613, for tetras only.  
10/94Analyst: msDate: 9/21/06

## FORM 8B

## PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Alta Analytical Laboratory      Extraction Batch: 0\_8381\_OPR001

Contract No.:                      SAS No.:

Matrix (aqueous/solid/leachate): AQUEOUS      OPR Data Filename: 060920C2-2

Ext. Date: 9/18/06      Shift: Day      Analysis Date: 20-SEP-06      Time: 16:04:31

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

LABELED COMPOUNDS	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
13C-2,3,7,8-TCDD	100	72.8	20.0 - 175.0 25.0 - 141.0 (2)
13C-1,2,3,7,8-PeCDD	100	62.1	21.0 - 227.0
13C-1,2,3,4,7,8-HxCDD	100	79.6	21.0 - 193.0
13C-1,2,3,6,7,8-HxCDD	100	76.6	25.0 - 163.0
13C-1,2,3,4,6,7,8-HpCDD	100	76.9	26.0 - 166.0
13C-OCDD	200	138	26.0 - 397.0
13C-2,3,7,8-TCDF	100	76.1	22.0 - 152.0 26.0 - 126.0 (2)
13C-1,2,3,7,8-PeCDF	100	62.3	21.0 - 192.0
13C-2,3,4,7,8-PeCDF	100	59.0	13.0 - 328.0
13C-1,2,3,4,7,8-HxCDF	100	77.8	19.0 - 202.0
13C-1,2,3,6,7,8-HxCDF	100	75.4	21.0 - 159.0
13C-2,3,4,6,7,8-HxCDF	100	76.0	22.0 - 176.0
13C-1,2,3,7,8,9-HxCDF	100	54.3	17.0 - 205.0
13C-1,2,3,4,6,7,8-HpCDF	100	64.1	21.0 - 158.0
13C-1,2,3,4,7,8,9-HpCDF	100	58.8	20.0 - 186.0
13C-OCDF	200	116	26.0 - 397.0
CLEANUP STANDARD			
37C1-2,3,7,8-TCDD	40	32.4	12.4 - 76.4

(1) Contract-required concentration limits for OPR  
as specified in Table 6, Method 1613. 10/94(2) Contract-required concentration limits for OPR  
as specified in Table 6a, Method 1613. 10/94Analyst: msDate: 9/21/06

Client ID: 0\_8381\_OPR001  
Lab ID: 0\_8381\_OPR001

Filename: 060920C2 S:2 Acq:20-SEP-06 16:04:31  
GC Column ID: db-5 ICal: 1613VG5-3-22-06 wt/vol: 1.000

ConCal: ST060920C2-1  
EndCAL: ST060920C2-2

Page 2 of 2

Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	3.52e+06	0.78 y	1.08	26:26	9.9927	*	2.5	*	*	Total Tetra-Dioxins	10.001	10.349	*	*	*
1,2,3,7,8-PeCDD	1.33e+07	0.62 y	1.03	31:26	48.498	*	2.5	*	*	Total Penta-Dioxins	48.644	49.132	*	*	*
1,2,3,4,7,8-HxCDD	1.43e+07	1.22 y	1.13	34:44	46.743	*	2.5	*	*	Total Hexa-Dioxins	142.66	143.01	*	*	*
1,2,3,6,7,8-HxCDD	1.62e+07	1.23 y	1.03	34:50	48.140	*	2.5	*	*	Total Hepta-Dioxins	51.411	52.035	*	*	*
1,2,3,7,8,9-HxCDD	1.58e+07	1.24 y	1.12	35:08	47.374	*	2.5	*	*	Total Tetra-Furans	10.181	10.615	*	*	*
1,2,3,4,6,7,8-HpCDD	1.39e+07	1.06 y	1.02	38:40	51.285	*	2.5	*	*	Total Penta-Furans	106.01	106.64	*	*	*
OCDD	2.11e+07	0.89 y	1.06	41:52	99.315	*	2.5	*	*	Total Hexa-Furans	204.44	204.94	*	*	*
2,3,7,8-TCDF	4.57e+06	0.76 y	1.06	25:31	9.7742	*	2.5	*	*	Total Hepta-Furans	104.53	105.79	*	*	*
1,2,3,7,8-PeCDF	2.00e+07	1.57 y	1.01	30:09	51.947	*	2.5	*	*						
2,3,4,7,8-PeCDF	1.93e+07	1.56 y	1.02	31:08	51.804	*	2.5	*	*						
1,2,3,4,7,8-HxCDF	2.16e+07	1.21 y	1.15	33:53	51.772	*	2.5	*	*						
1,2,3,6,7,8-HxCDF	2.49e+07	1.22 y	1.14	34:00	50.622	*	2.5	*	*						
2,3,4,6,7,8-HxCDF	2.30e+07	1.20 y	1.17	34:36	50.117	*	2.5	*	*						
1,2,3,7,8,9-HxCDF	1.35e+07	1.23 y	1.10	35:31	51.264	*	2.5	*	*						
1,2,3,4,6,7,8-HpCDF	1.65e+07	1.04 y	1.31	37:15	51.138	*	2.5	*	*						
1,2,3,4,7,8,9-HpCDF	1.28e+07	0.97 y	1.33	39:15	52.275	*	2.5	*	*						
OCDF	2.16e+07	0.90 y	0.91	42:04	105.47	*	2.5	*	*						

Rec Qual

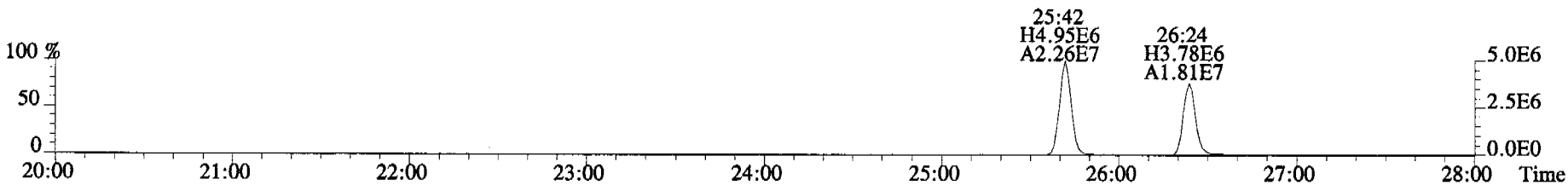
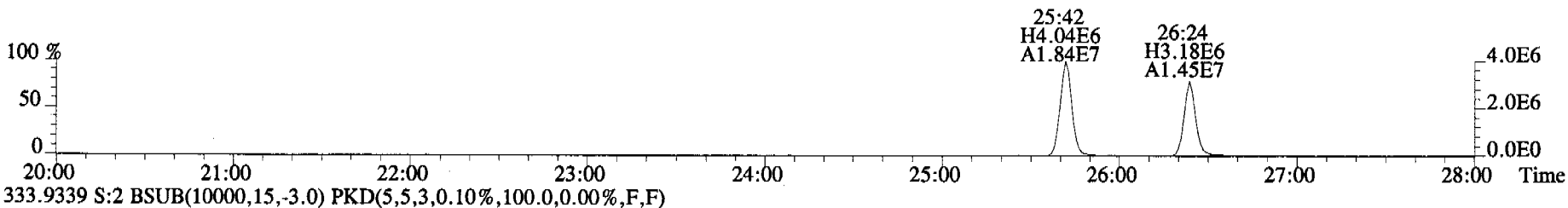
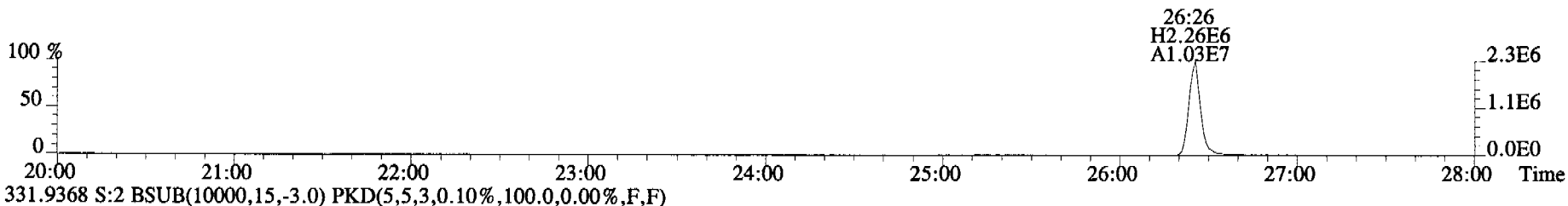
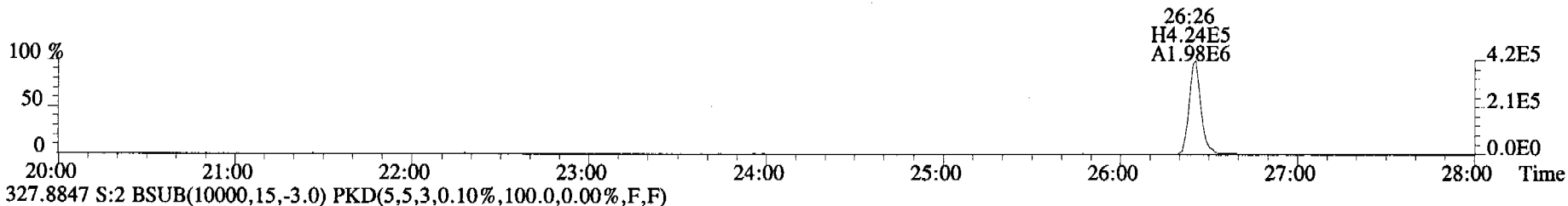
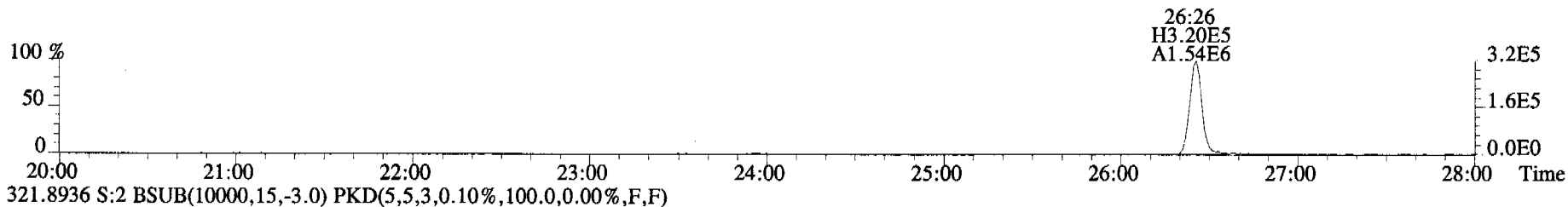
IS	13C-2,3,7,8-TCDD	3.26e+07	0.80 y	1.09	26:24	72.759				72.8	
IS	13C-1,2,3,7,8-PeCDD	2.66e+07	0.63 y	1.04	31:24	62.107				62.1	
IS	13C-1,2,3,4,7,8-HxCDD	2.70e+07	1.25 y	0.83	34:43	79.643				79.6	
IS	13C-1,2,3,6,7,8-HxCDD	3.26e+07	1.26 y	1.04	34:50	76.607				76.6	
IS	13C-1,2,3,4,6,7,8-HpCDD	2.68e+07	1.07 y	0.85	38:39	76.932				76.9	
IS	13C-OCDD	4.02e+07	0.90 y	0.71	41:51	137.77				68.9	
IS	13C-2,3,7,8-TCDF	4.40e+07	0.78 y	0.96	25:30	76.116				76.1	
IS	13C-1,2,3,7,8-PeCDF	3.83e+07	1.56 y	1.02	30:08	62.340				62.3	
IS	13C-2,3,4,7,8-PeCDF	3.63e+07	1.61 y	1.02	31:07	59.009				59.0	
IS	13C-1,2,3,4,7,8-HxCDF	3.64e+07	0.52 y	1.14	33:52	77.805				77.8	
IS	13C-1,2,3,6,7,8-HxCDF	4.32e+07	0.51 y	1.40	33:59	75.439				75.4	
IS	13C-2,3,4,6,7,8-HxCDF	3.92e+07	0.52 y	1.26	34:35	75.954				76.0	
IS	13C-1,2,3,7,8,9-HxCDF	2.41e+07	0.53 y	1.08	35:30	54.340				54.3	
IS	13C-1,2,3,4,6,7,8-HpCDF	2.45e+07	0.46 y	0.93	37:14	64.142				64.1	
IS	13C-1,2,3,4,7,8,9-HpCDF	1.84e+07	0.46 y	0.77	39:14	58.769				58.8	
IS	13C-OCDF	4.49e+07	0.90 y	0.94	42:03	116.28				58.1	

C/Up 37C1-2,3,7,8-TCDD 1.03e+07 0.77 26:26 32.425 81.1

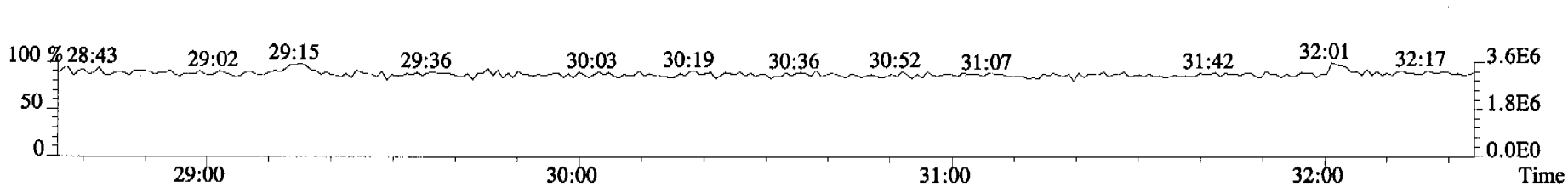
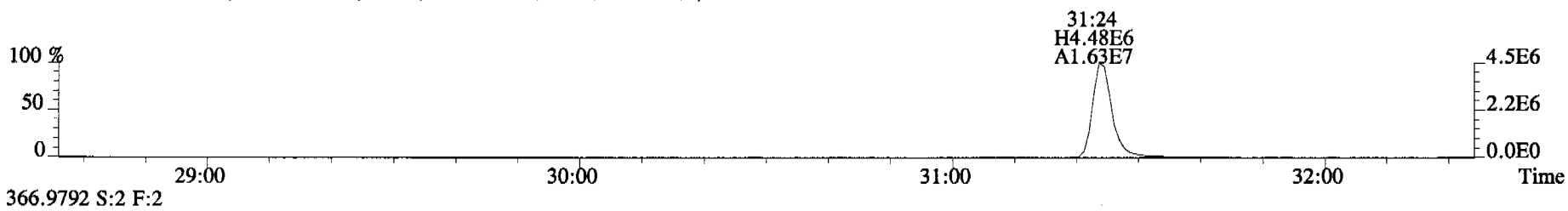
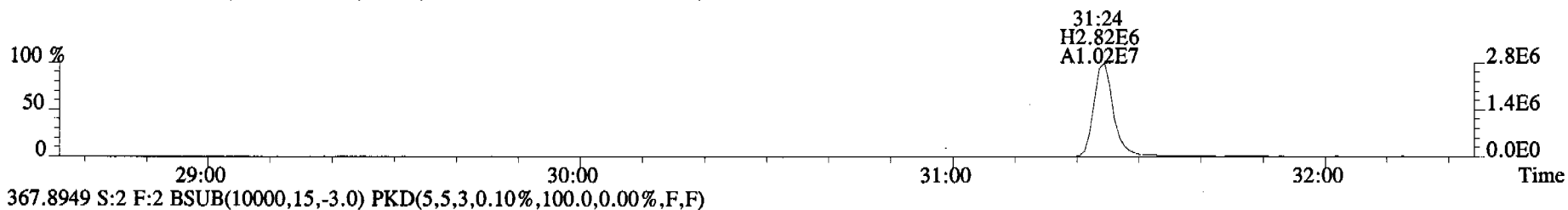
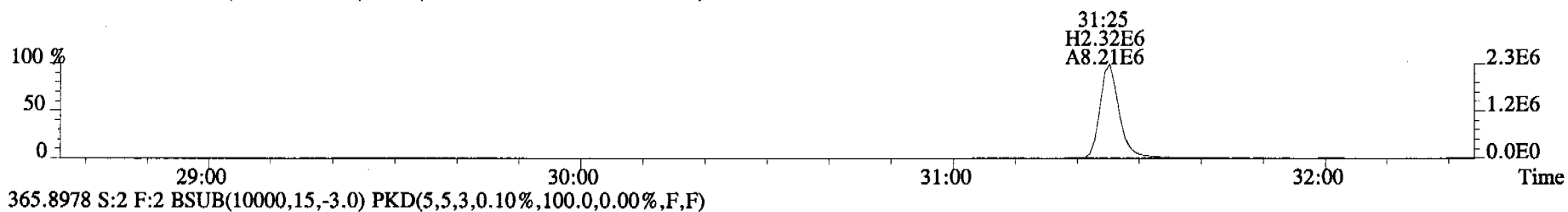
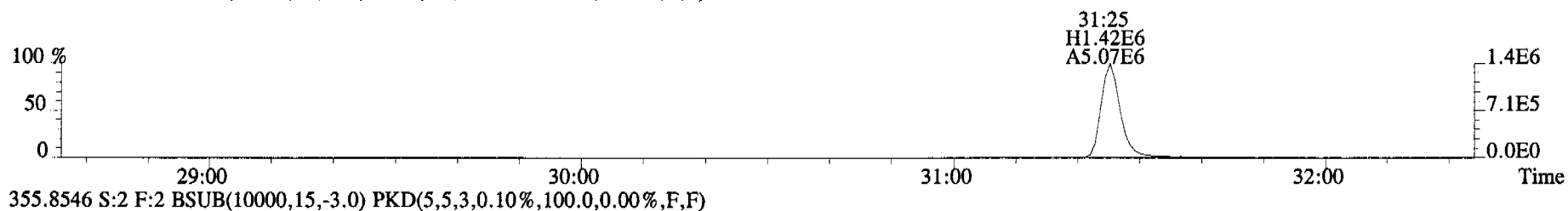
RS/RT	13C-1,2,3,4-TCDD	4.11e+07	0.82 y	1.00	25:42	100.00					
RS	13C-1,2,3,4-TCDF	6.03e+07	0.79 y	1.00	23:55	100.00					
RS/RT	13C-1,2,3,7,8,9-HxCDD	4.09e+07	1.23 y	1.00	35:07	100.00					

Integrations Reviewed  
by  
Analyst: MS Analyst: MLL  
Date: 9/21/06 Date: 9/21/06

File:060920C2 #1-546 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Alta Analytical Laboratory Text:0 8381 OPR001 Exp:OCDD\_DB5  
319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

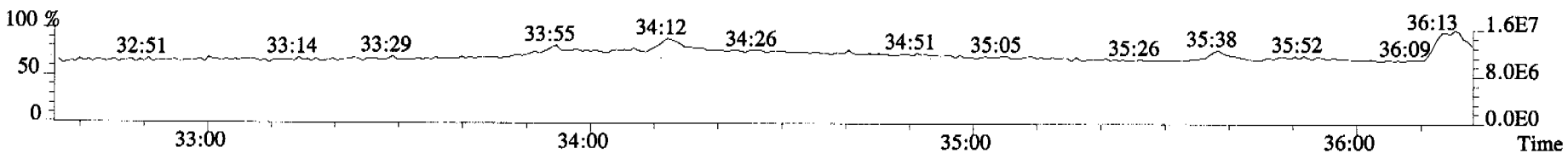
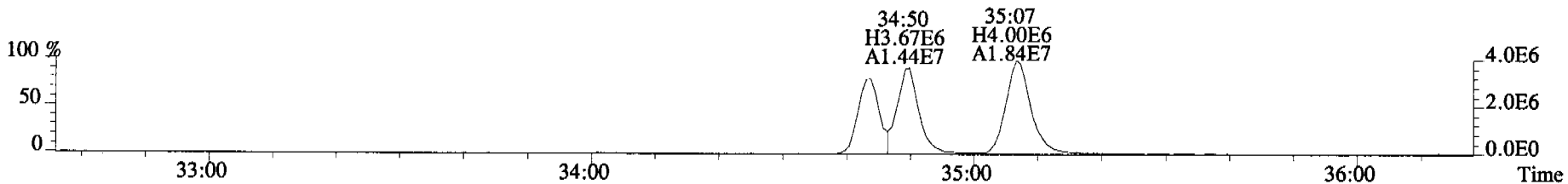
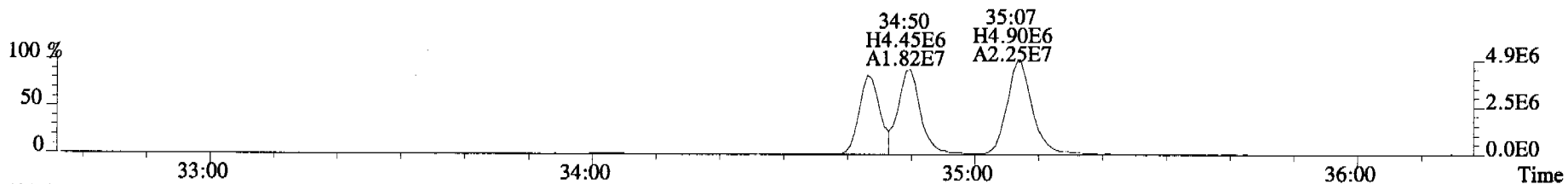
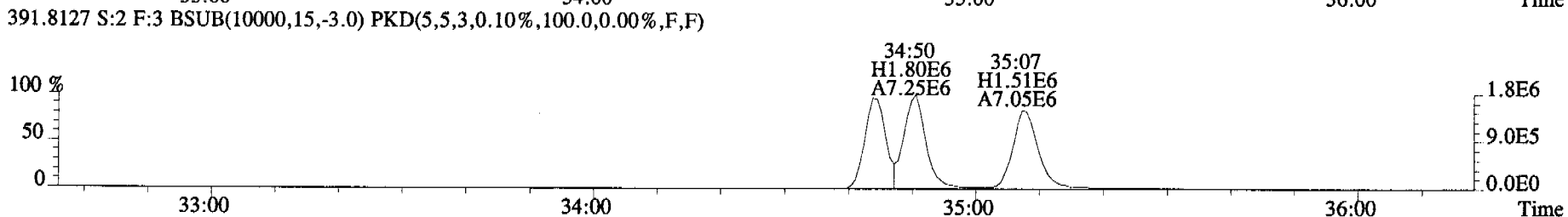
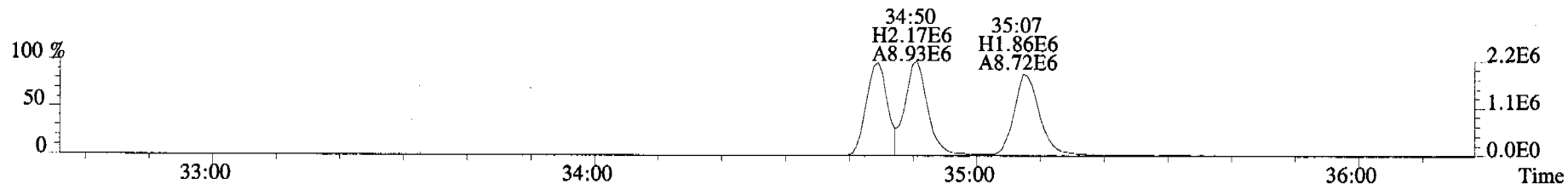


File:060920C2 #1-324 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Alta Analytical Laboratory Text:0 8381\_OPR001 Exp:OCDD\_DB5  
353.8576 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

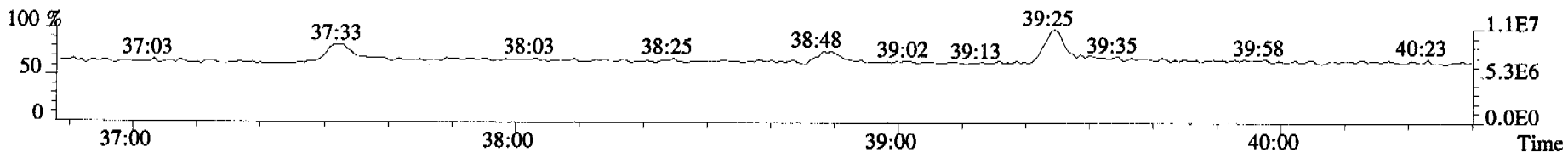
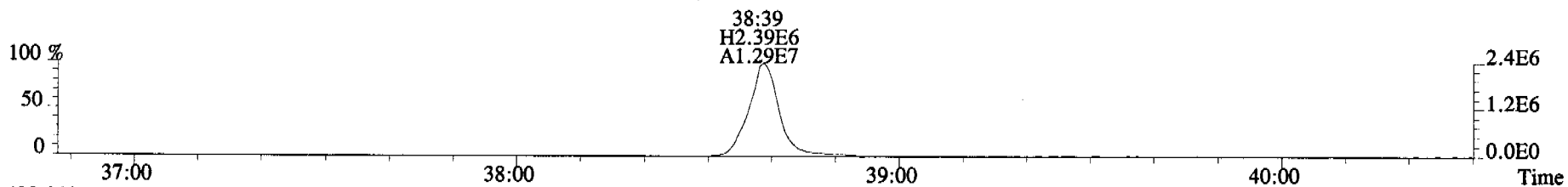
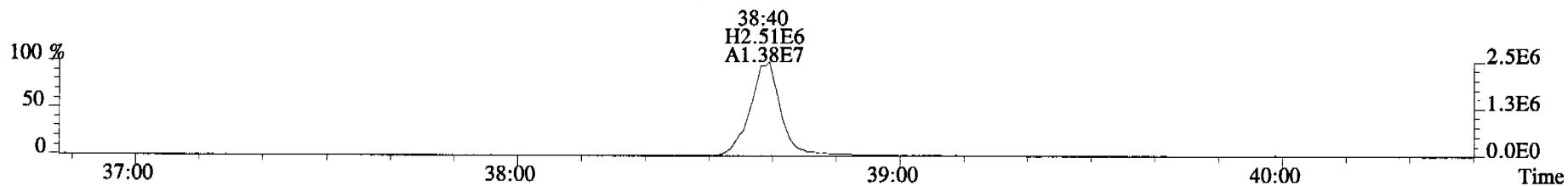
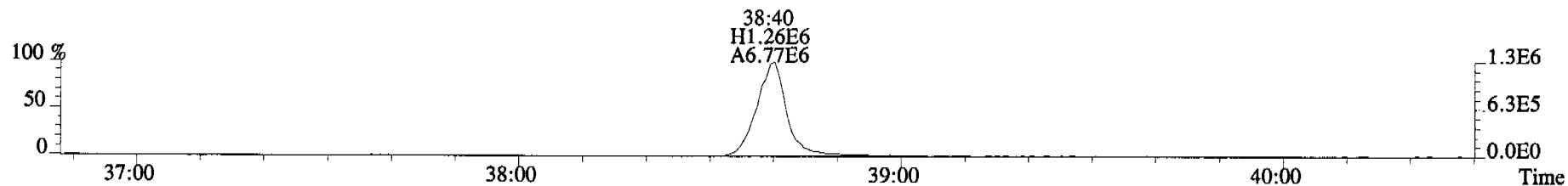
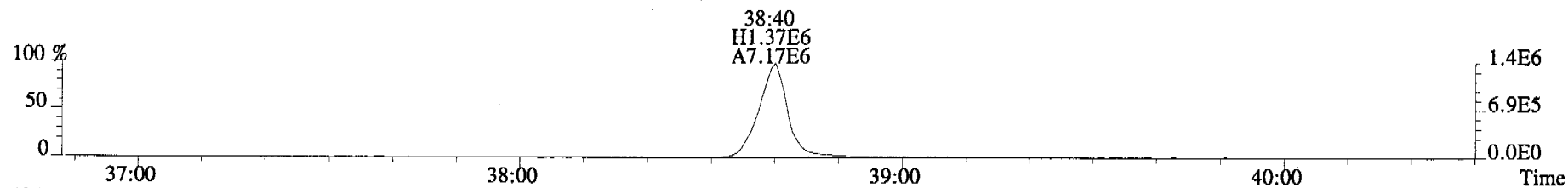




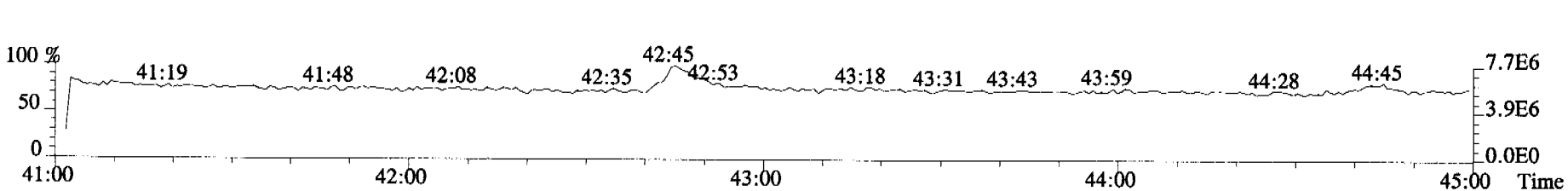
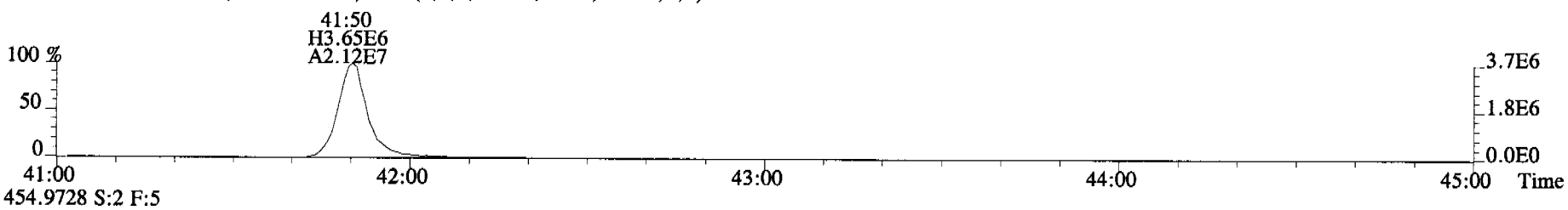
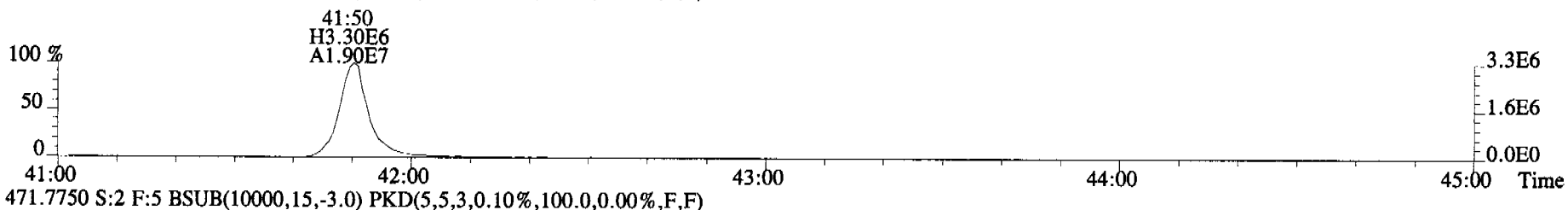
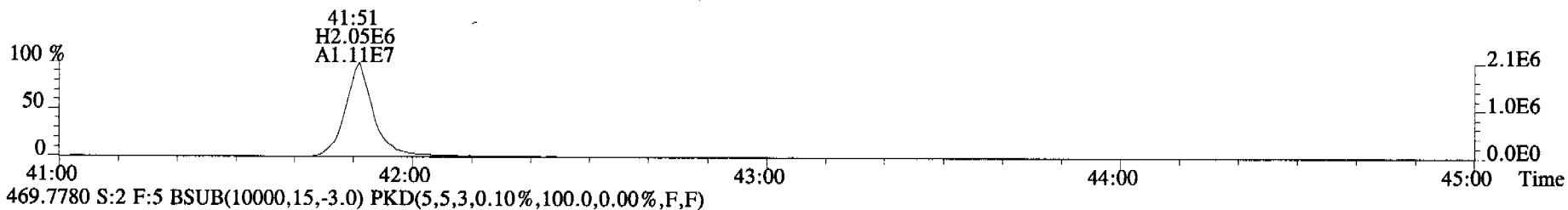
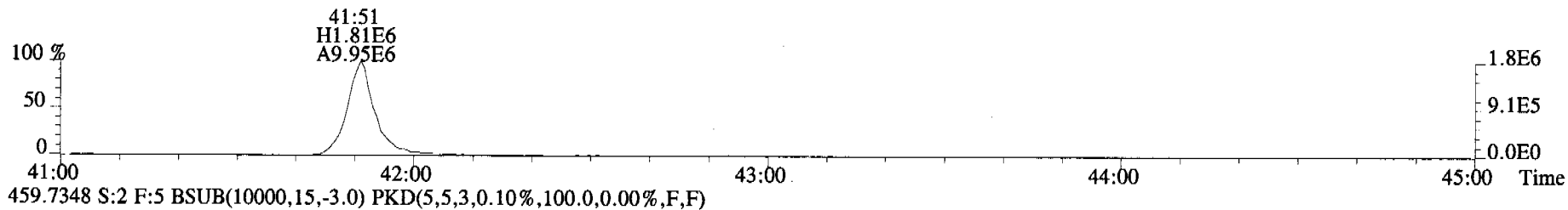
File:060920C2 #1-362 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Alta Analytical Laboratory Text:0 8381\_OPR001 Exp:OCDD\_DB5  
389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



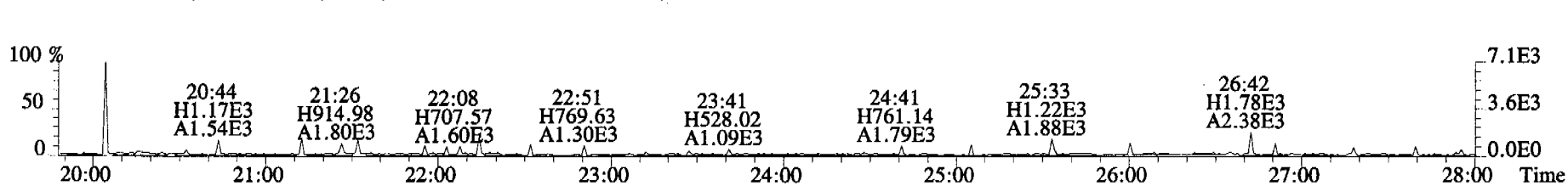
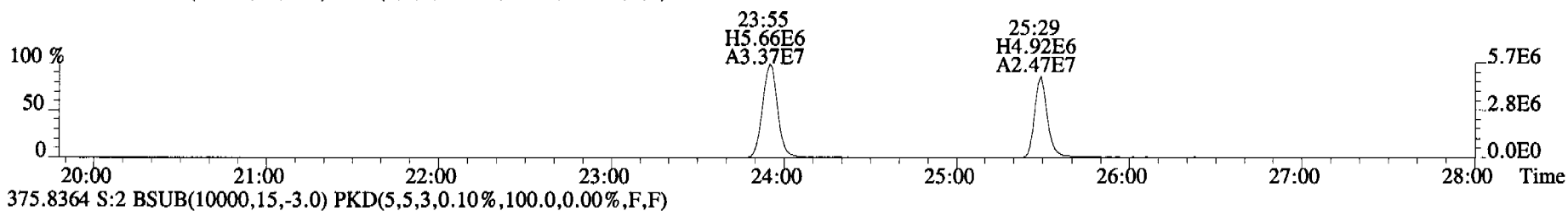
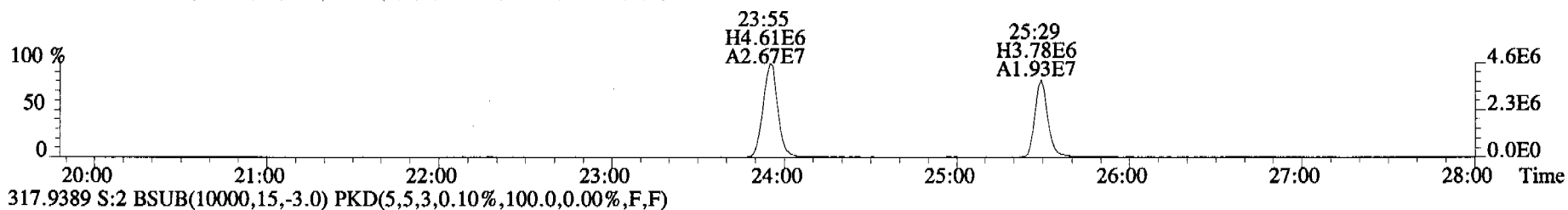
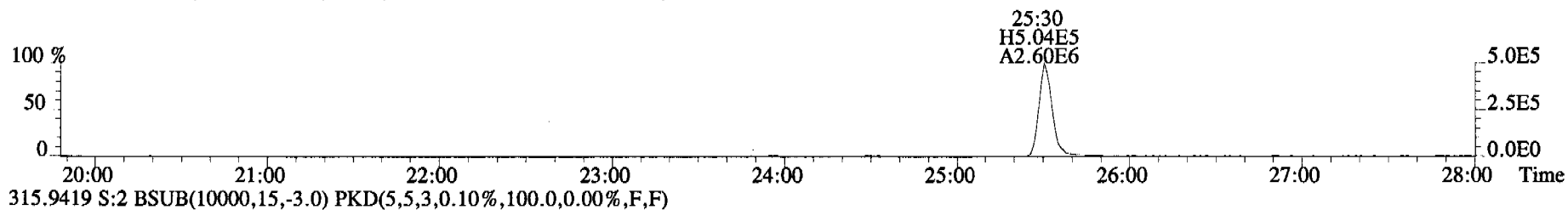
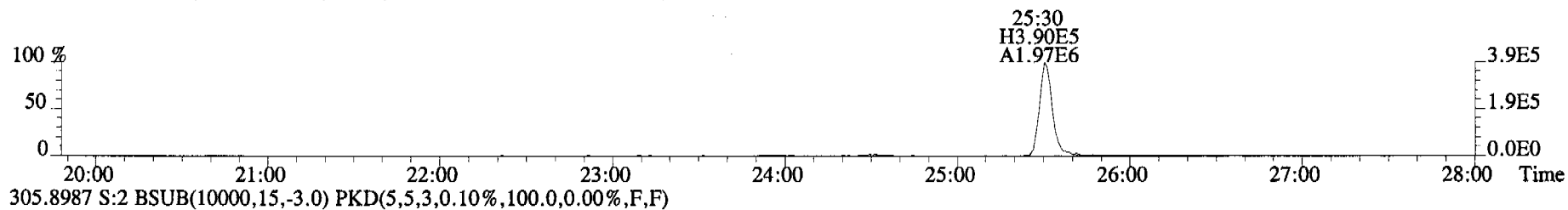
File:060920C2 #1-400 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Alta Analytical Laboratory Text:0 8381\_OPR001 Exp:OCDD\_DB5  
423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



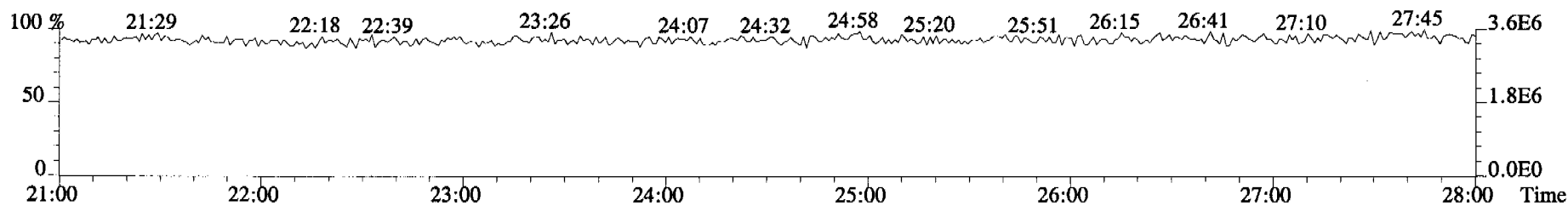
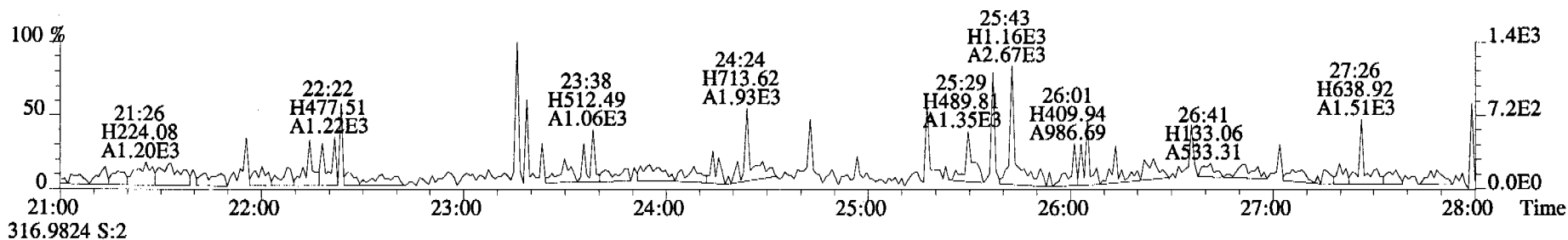
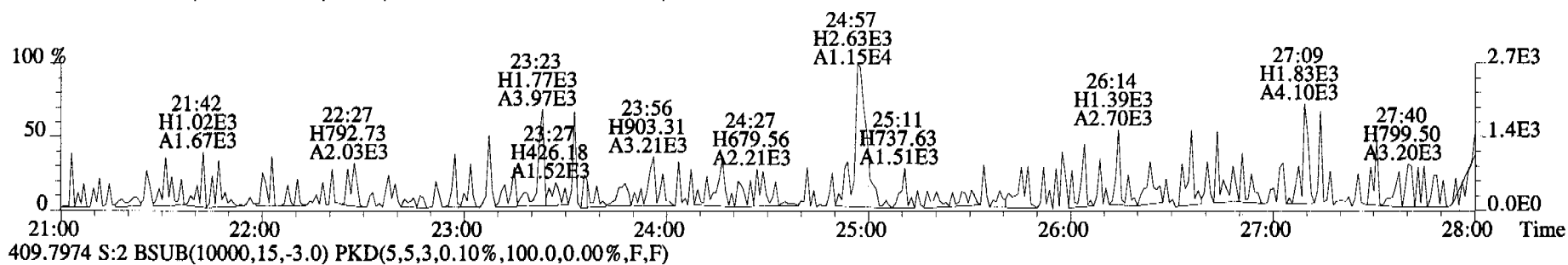
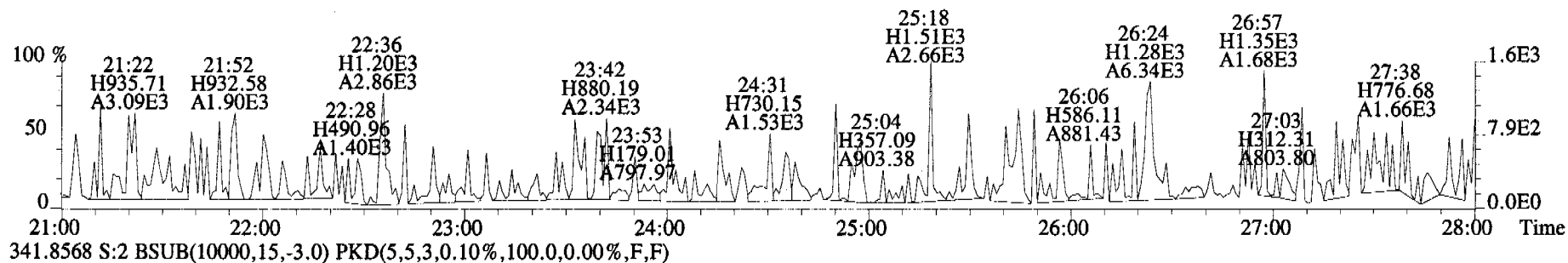
File:060920C2 #1-345 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Alta Analytical Laboratory Text:0 8381\_OPR001 Exp:OCDD\_DB5  
457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



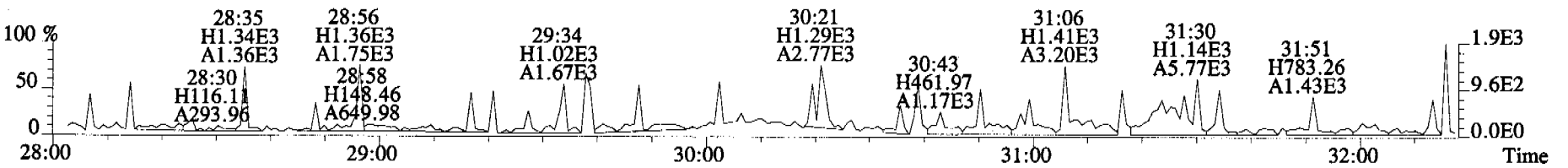
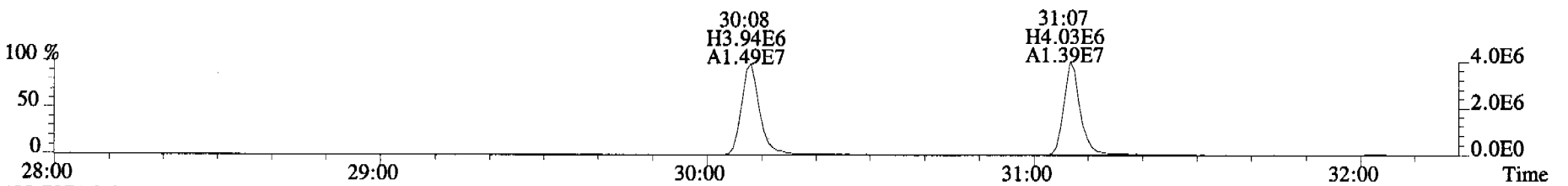
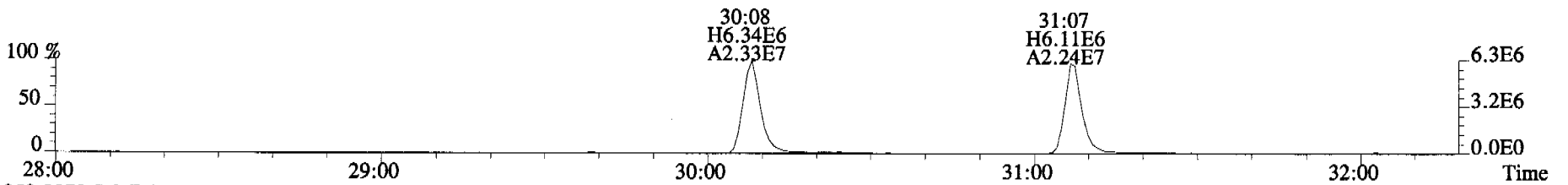
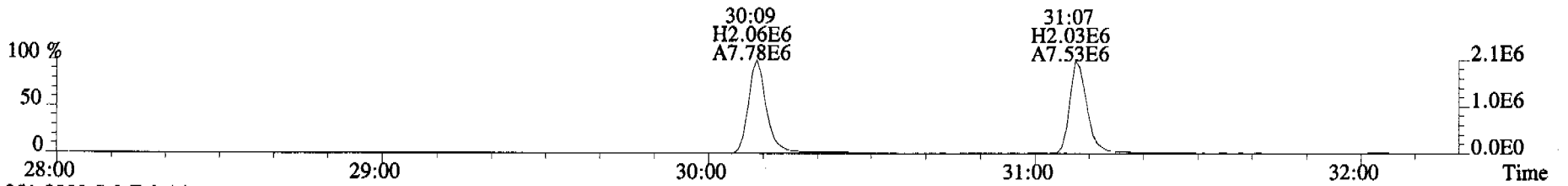
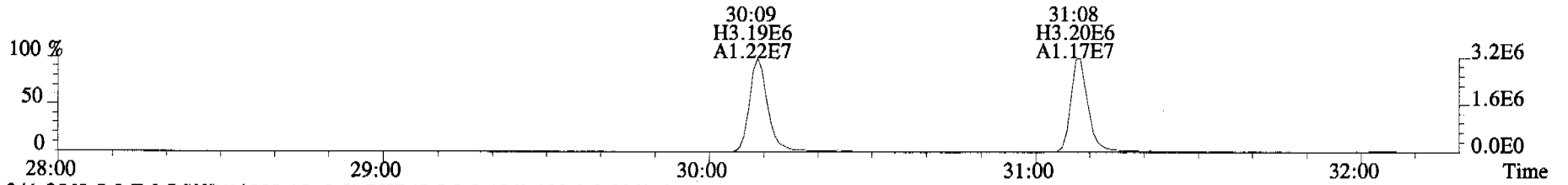
File:060920C2 #1-546 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Alta Analytical Laboratory Text:0\_8381 OPR001 Exp:OCDD\_DB5  
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



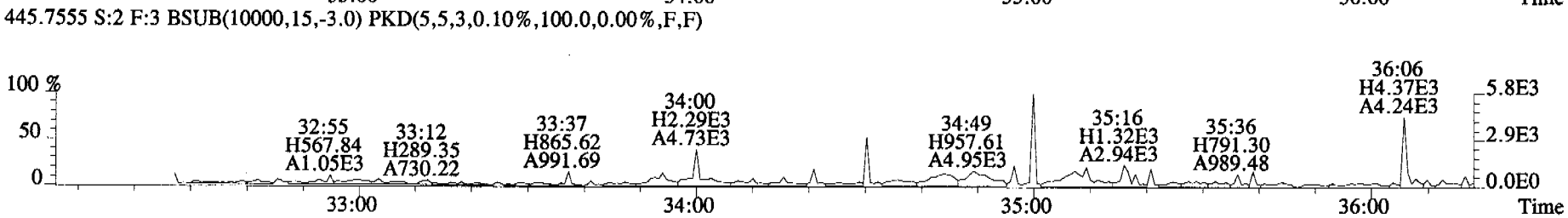
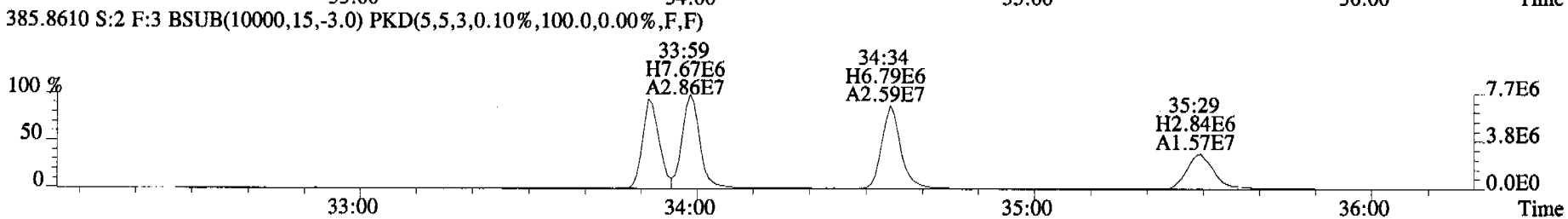
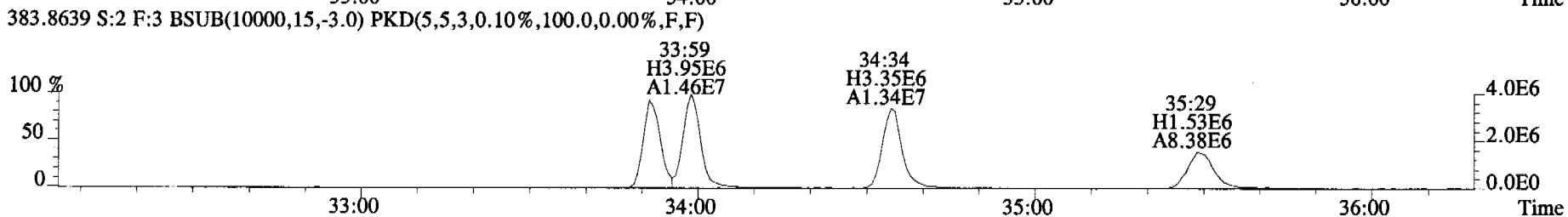
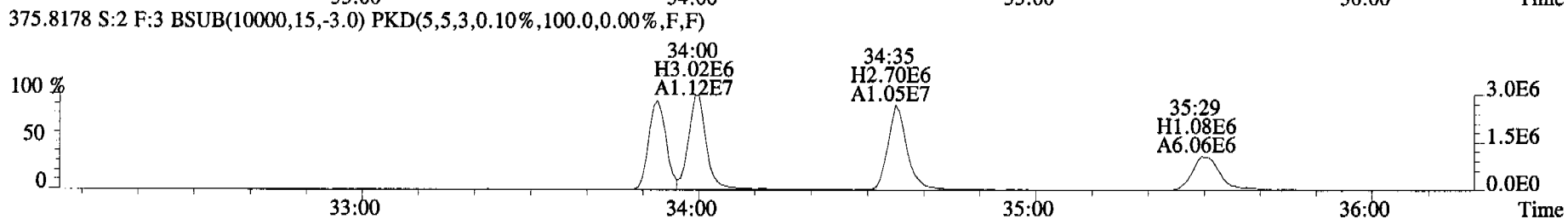
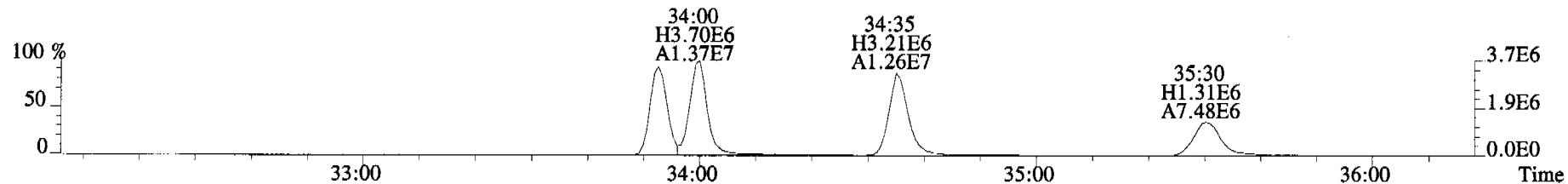
File:060920C2 #1-546 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE  
 Sample#2 File Text:Alta Analytical Laboratory Text:0 8381 OPR001 Exp:OCDD\_DB5  
 339.8597 S:2 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



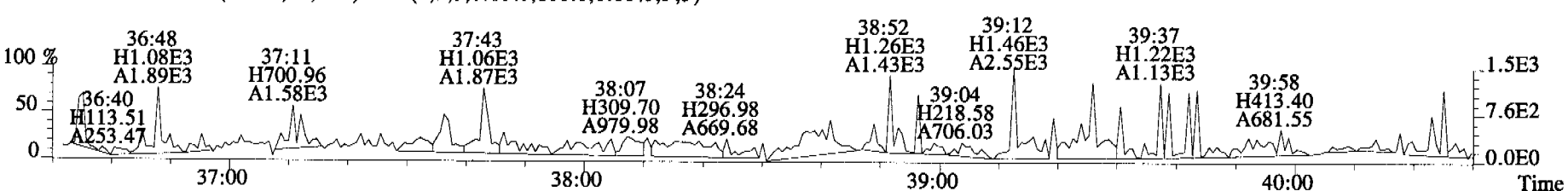
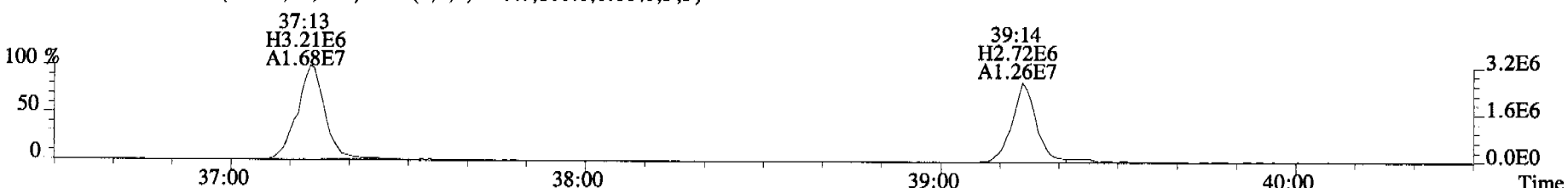
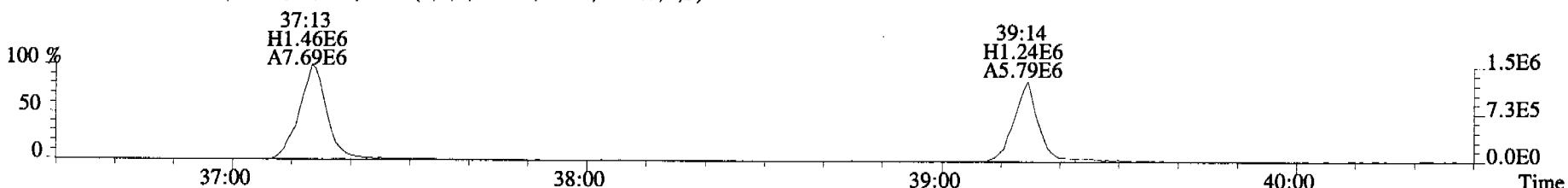
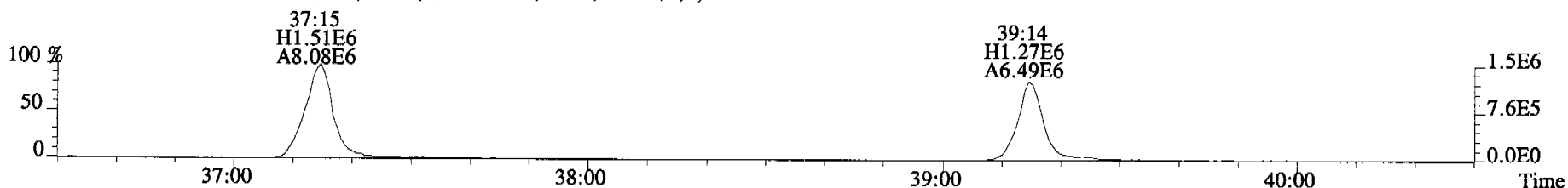
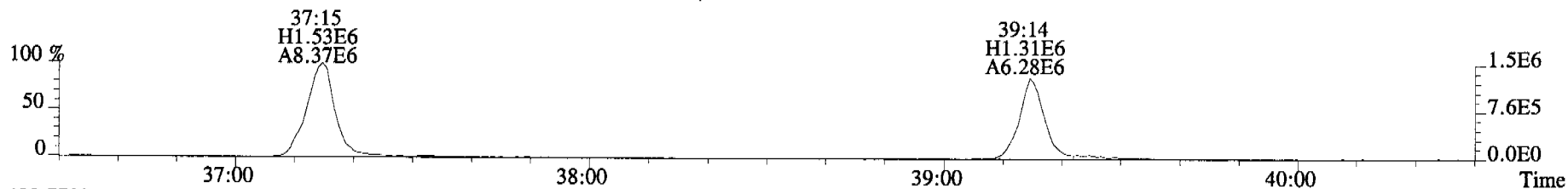
File:060920C2 #1-324 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Alta Analytical Laboratory Text:0 8381\_OPR001 Exp:OCDD\_DB5  
339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-362 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Alta Analytical Laboratory Text:0 8381\_OPR001 Exp:OCDD\_DB5  
373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

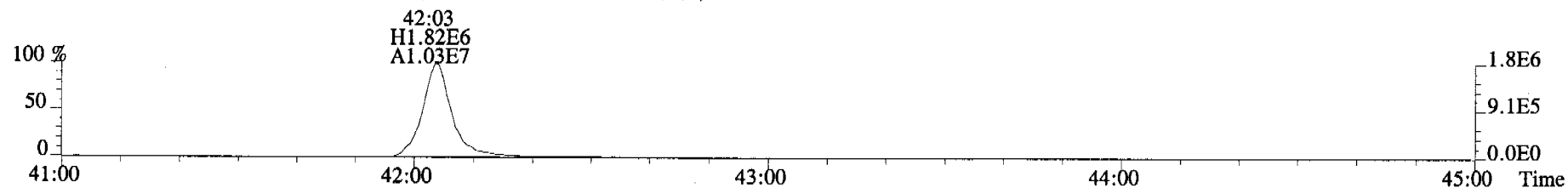


File:060920C2 #1-400 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Alta Analytical Laboratory Text:0 8381\_OPR001 Exp:OCDD\_DB5  
407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

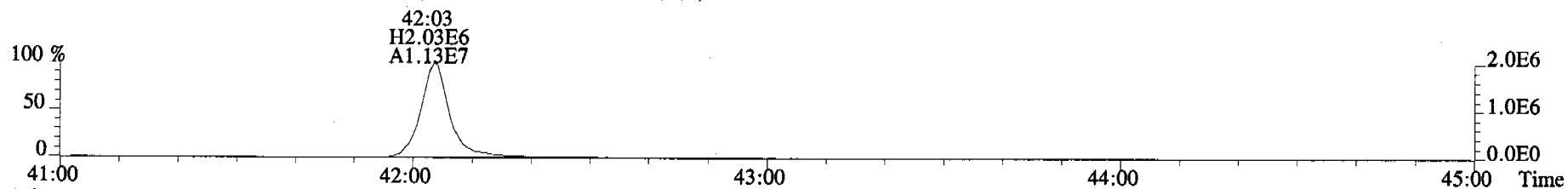




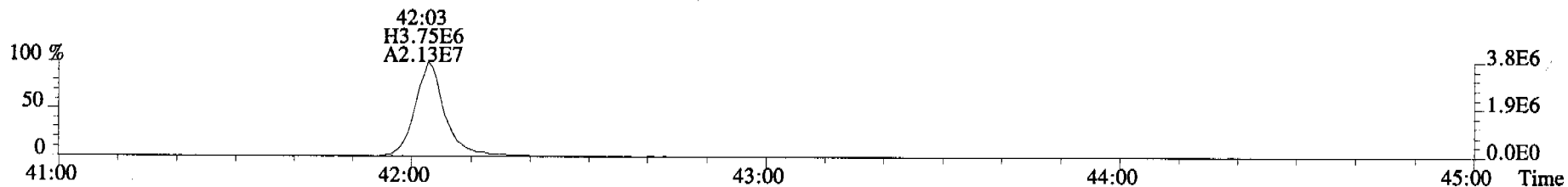
File:060920C2 #1-345 Acq:20-SEP-2006 16:04:31 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#2 File Text:Alta Analytical Laboratory Text:0 8381 OPR001 Exp:OCDD\_DB5  
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



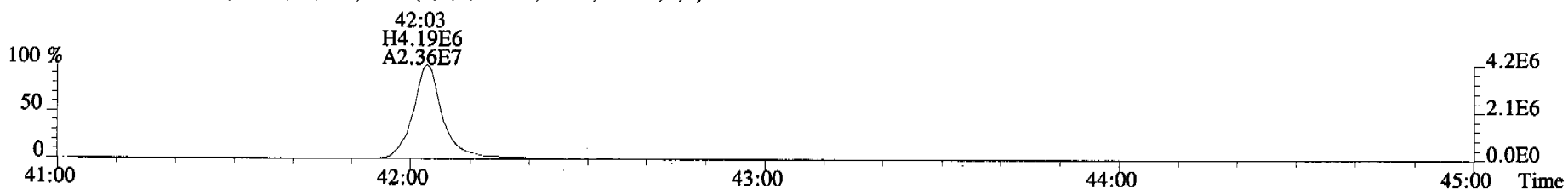
443.7398 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



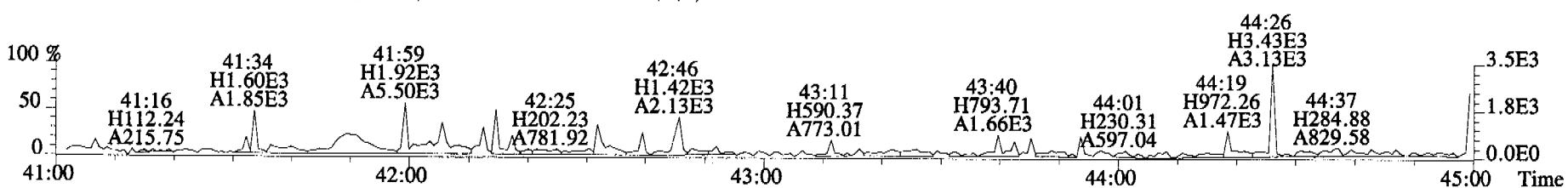
453.7831 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



513.6775 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



Client ID: IPI1298-01  
Lab ID: 28111\_8381\_001

Filename: 060920C2  
GC Column ID: db-5

S:10 Acq:20-SEP-06 22:41:10  
Ical: 1613VG5-3-22-06 wt/vol: 1.029

ConCal: ST060920C2-1  
EndCAL: ST060920C2-2

Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
2,3,7,8-TCDD	*	* n	1.08	NotF <sub>7</sub>	*		1090	2.5	1.44
1,2,3,7,8-PeCDD	*	* n	1.03	NotF <sub>7</sub>	*		1770	2.5	2.24
1,2,3,4,7,8-HxCDD	*	* n	1.13	NotF <sub>7</sub>	*		1510	2.5	2.76
1,2,3,6,7,8-HxCDD	*	* n	1.03	NotF <sub>7</sub>	*		1510	2.5	2.84
1,2,3,7,8,9-HxCDD	*	* n	1.12	NotF <sub>7</sub>	*		1510	2.5	2.70
1,2,3,4,6,7,8-HpCDD	2.97e+05	1.12 y	1.02	38:41	24.491		*	2.5	*
OCDD	2.55e+06	0.87 y	1.06	41:54	263.87		*	2.5	*
2,3,7,8-TCDF	*	* n	1.06	NotF <sub>7</sub>	*		1690	2.5	1.89
1,2,3,7,8-PeCDF	*	* n	1.01	NotF <sub>7</sub>	*		1390	2.5	2.02
2,3,4,7,8-PeCDF	*	* n	1.02	NotF <sub>7</sub>	*		1390	2.5	2.05
1,2,3,4,7,8-HxCDF	*	* n	1.15	NotF <sub>7</sub>	*		1100	2.5	0.867
1,2,3,6,7,8-HxCDF	*	* n	1.14	NotF <sub>7</sub>	*		1100	2.5	0.826
2,3,4,6,7,8-HxCDF	*	* n	1.17	NotF <sub>7</sub>	*		1100	2.5	1.01
1,2,3,7,8,9-HxCDF	*	* n	1.10	NotF <sub>7</sub>	*		1100	2.5	2.25
1,2,3,4,6,7,8-HpCDF	*	* n	1.31	NotF <sub>7</sub>	*		3410	2.5	4.57
1,2,3,4,7,8,9-HpCDF	*	* n	1.33	NotF <sub>7</sub>	*		914	2.5	1.62
OCDF	6.23e+04	0.80 y	0.91	42:05	7.1695		*	2.5	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	*	*		1090	1.44
Total Penta-Dioxins	*	*		5320	6.74
Total Hexa-Dioxins	3.8251	7.2438		*	*
Total Hepta-Dioxins	53.511	53.511		*	*
Total Tetra-Furans	2.8006	2.8006		*	*
Total Penta-Furans	0.0000	0.0000		2670	3.91
Total Hexa-Furans	*	*		2690	2.80
Total Hepta-Furans	6.1454	6.1454		*	*

IS	13C-2,3,7,8-TCDD	3.12e+07	0.83 y	1.09	26:25	1246.8
IS	13C-1,2,3,7,8-PeCDD	2.35e+07	0.64 y	1.04	31:26	982.33
IS	13C-1,2,3,4,7,8-HxCDD	1.91e+07	1.24 y	0.83	34:45	1160.9
IS	13C-1,2,3,6,7,8-HxCDD	2.44e+07	1.25 y	1.04	34:51	1184.0
IS	13C-1,2,3,4,6,7,8-HpCDD	2.32e+07	1.09 y	0.85	38:41	1376.4
IS	13C-OCDD	3.57e+07	0.87 y	0.71	41:53	2521.6
IS	13C-2,3,7,8-TCDF	3.94e+07	0.79 y	0.96	25:31	1164.8
IS	13C-1,2,3,7,8-PeCDF	3.51e+07	1.57 y	1.02	30:10	978.37
IS	13C-2,3,4,7,8-PeCDF	3.24e+07	1.55 y	1.02	31:09	899.97
IS	13C-1,2,3,4,7,8-HxCDF	2.78e+07	0.52 y	1.14	33:53	1227.5
IS	13C-1,2,3,6,7,8-HxCDF	3.29e+07	0.50 y	1.40	34:00	1185.7
IS	13C-2,3,4,6,7,8-HxCDF	2.88e+07	0.51 y	1.26	34:36	1151.6
IS	13C-1,2,3,7,8,9-HxCDF	2.06e+07	0.51 y	1.08	35:32	958.34
IS	13C-1,2,3,4,6,7,8-HpCDF	2.36e+07	0.45 y	0.93	37:16	1276.1
IS	13C-1,2,3,4,7,8,9-HpCDF	1.74e+07	0.44 y	0.77	39:16	1145.0
IS	13C-OCDF	3.70e+07	0.88 y	0.94	42:05	1979.5
C/Up	37Cl-2,3,7,8-TCDD	1.14e+07		0.77	26:27	642.31
RS/RT	13C-1,2,3,4-TCDD	4.45e+07	0.82 y	1.00	25:43	1943.6
RS	13C-1,2,3,4-TCDF	6.86e+07	0.78 y	1.00	23:57	1943.6
RS/RT	13C-1,2,3,7,8,9-HxCDD	3.85e+07	1.25 y	1.00	35:09	1943.6

Rec Qual

64.1  
50.5  
59.7  
60.9  
70.8  
64.9  
59.9  
50.3  
46.3  
63.2  
61.0  
59.3  
49.3  
65.7  
58.9  
50.9

Integrations  
by  
Analyst: WJ

Reviewed  
by  
Analyst: [Signature]

Date: 9/21/06

Date: 9/20/06

Totals class: HxCDD EMPC

Entry #: 23

Run: 15 File: 060920C2 S: 10 I: 1 F: 3

Acquired: 20-SEP-06 22:41:10 Processed: 21-SEP-06 07:06:55

Total Concentration: 7.2438

Unnamed Concentration: 7.244

RT	m1 Resp	m2 Resp	RA	Resp	Concentration	Name
33:16	2.307e+04	2.268e+04	1.02 n	4.167e+04	3.4187	
34:04	2.546e+04	2.116e+04	1.20 y	4.663e+04	3.8251	

Totals class: HpCDD EMPC

Entry #: 25

Run: 15 File: 060920C2 S: 10 I: 1 F: 4

Acquired: 20-SEP-06 22:41:10 Processed: 21-SEP-06 07:06:55

Total Concentration: 53.511

Unnamed Concentration: 29.021

RT	m1 Resp	m2 Resp	RA	Resp	Concentration	Name
37:39	1.730e+05	1.789e+05	0.97 y	3.519e+05	29.021	
38:41	1.570e+05	1.400e+05	1.12 y	2.970e+05	24.491	1,2,3,4,6,7,8-HpCDD

Totals class: TCDF EMPC

Entry #: 27

Run: 15 File: 060920C2 S: 10 I: 1 F: 1

Acquired: 20-SEP-06 22:41:10 Processed: 21-SEP-06 07:06:55

Total Concentration: 2.8006

Unnamed Concentration: 2.801

RT	m1 Resp	m2 Resp	RA	Resp	Concentration	Name
22:18	2.742e+04	3.289e+04	0.83 y	6.031e+04	2.8006	

Totals class: HpCDF EMPC

Entry #: 35

Run: 15 File: 060920C2 S: 10 I: 1 F: 4

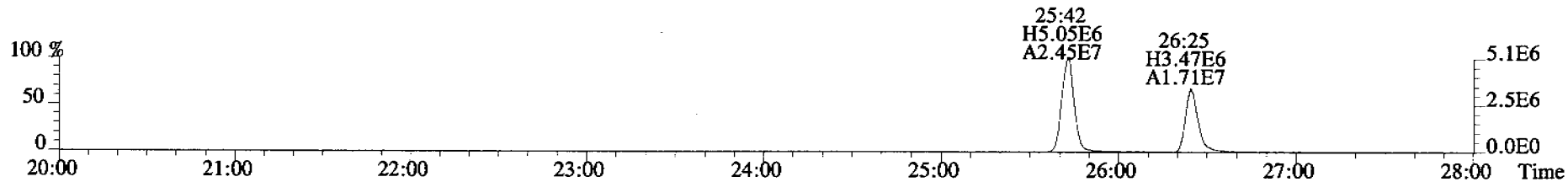
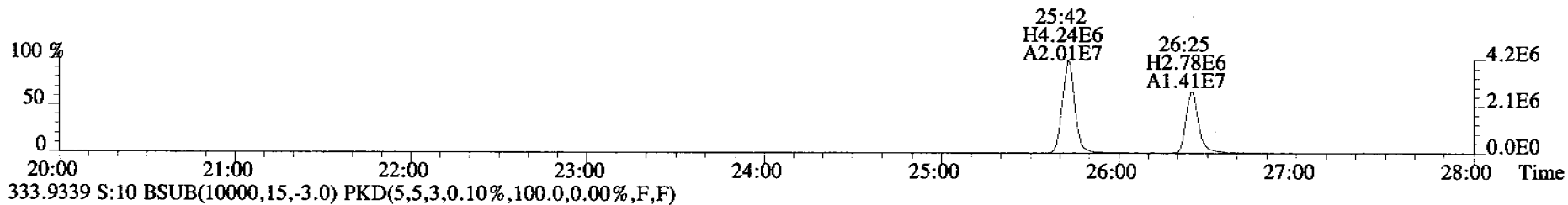
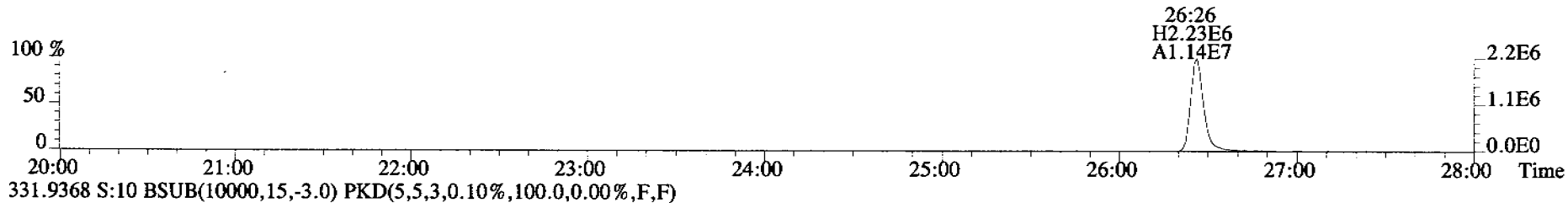
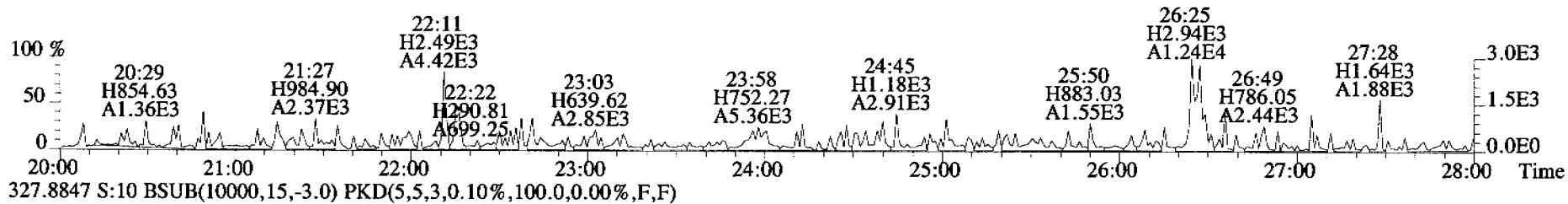
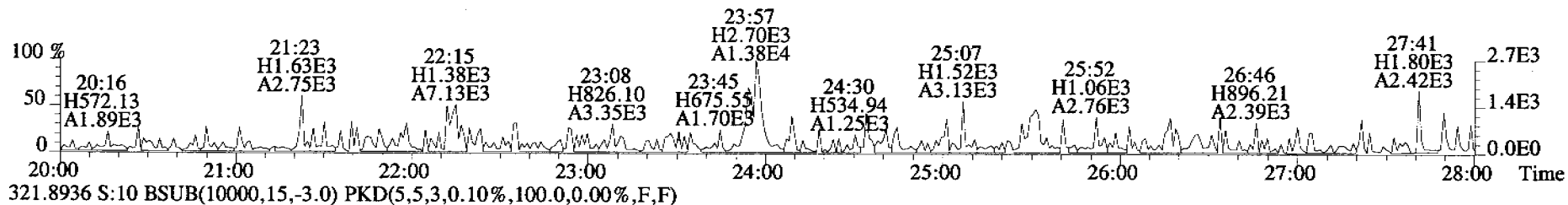
Acquired: 20-SEP-06 22:41:10 Processed: 21-SEP-06 07:06:55

Total Concentration: 6.1454

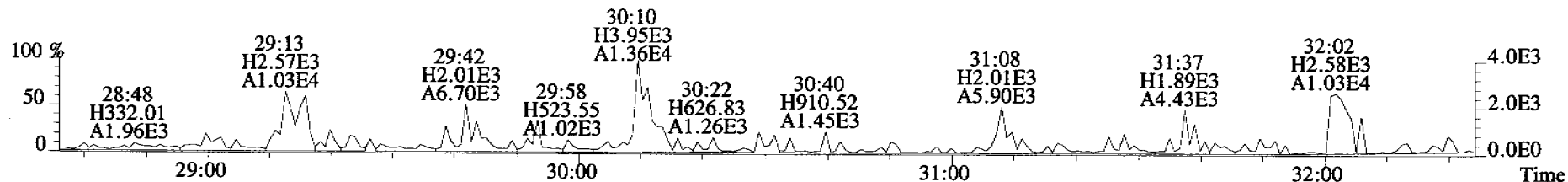
Unnamed Concentration: 6.145

RT	m1 Resp	m2 Resp	RA	Resp	Concentration	Name
37:53	4.464e+04	4.085e+04	1.09 y	8.549e+04	6.1454	

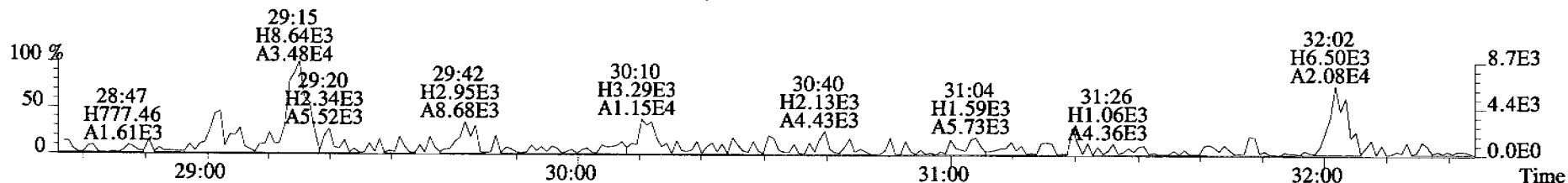
File:060920C2 #1-546 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111\_8381\_001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
319.8965 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



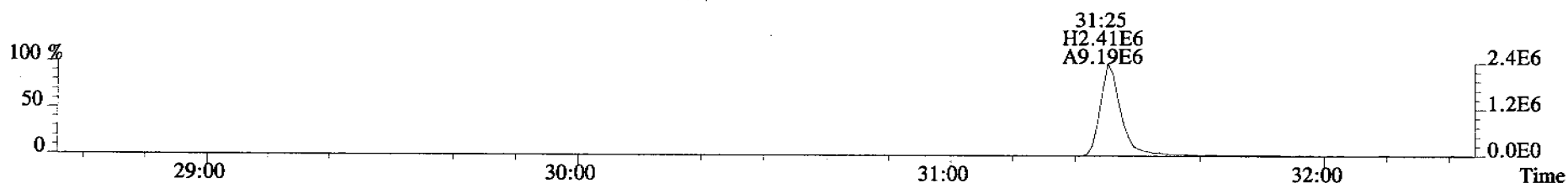
File:060920C2 #1-324 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111\_8381\_001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
353.8576 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



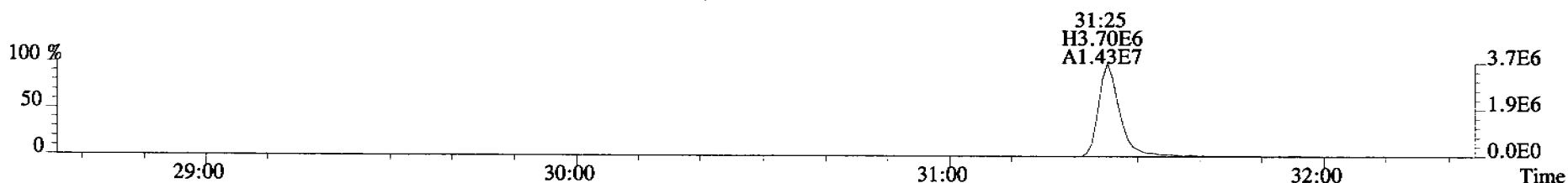
355.8546 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



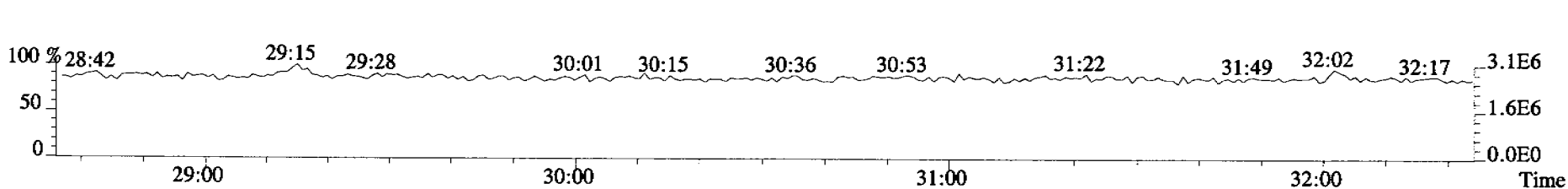
365.8978 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



367.8949 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

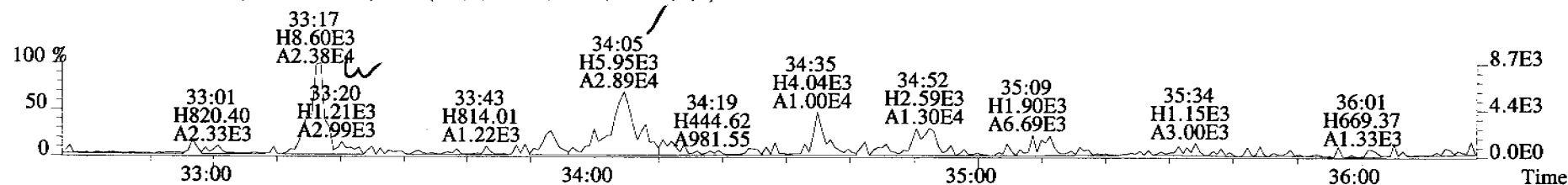


366.9792 S:10 F:2

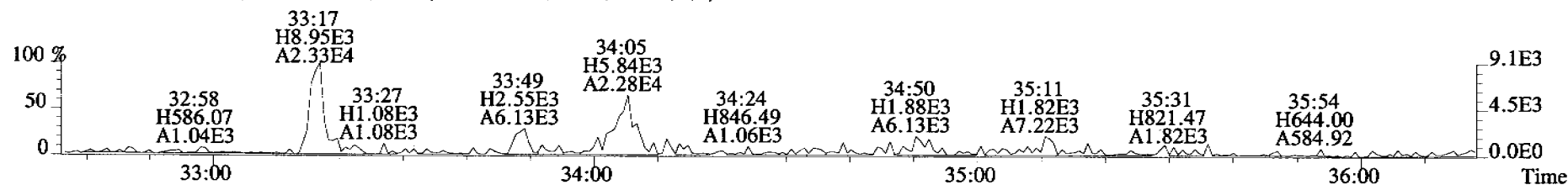




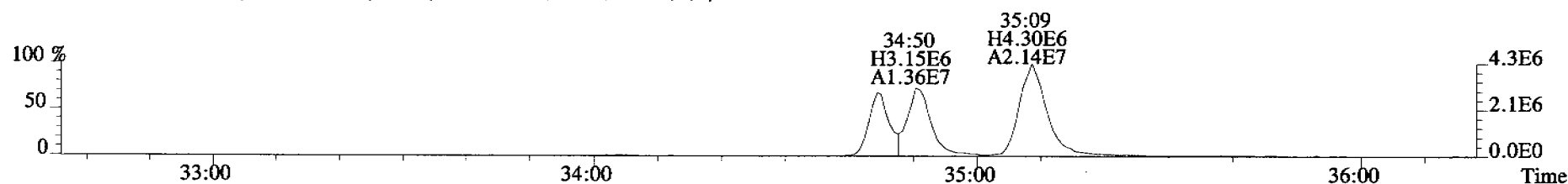
File:060920C2 #1-363 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111\_8381\_001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
389.8156 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



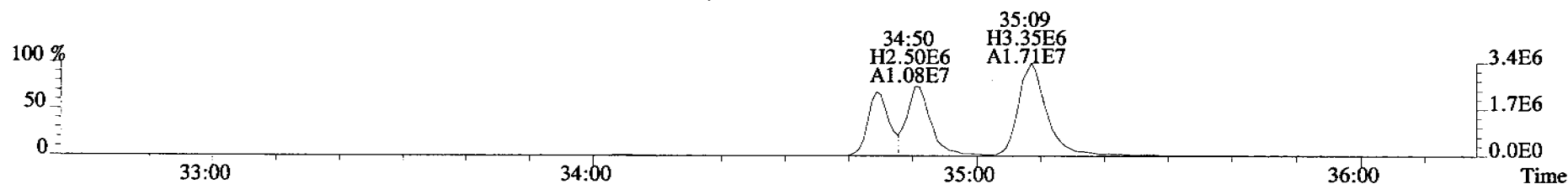
391.8127 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



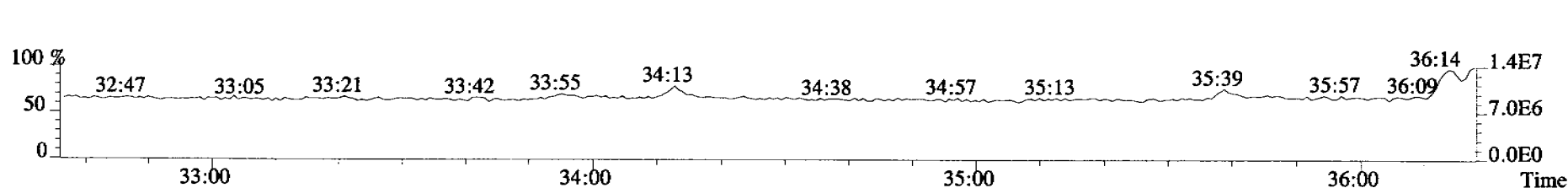
401.8559 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



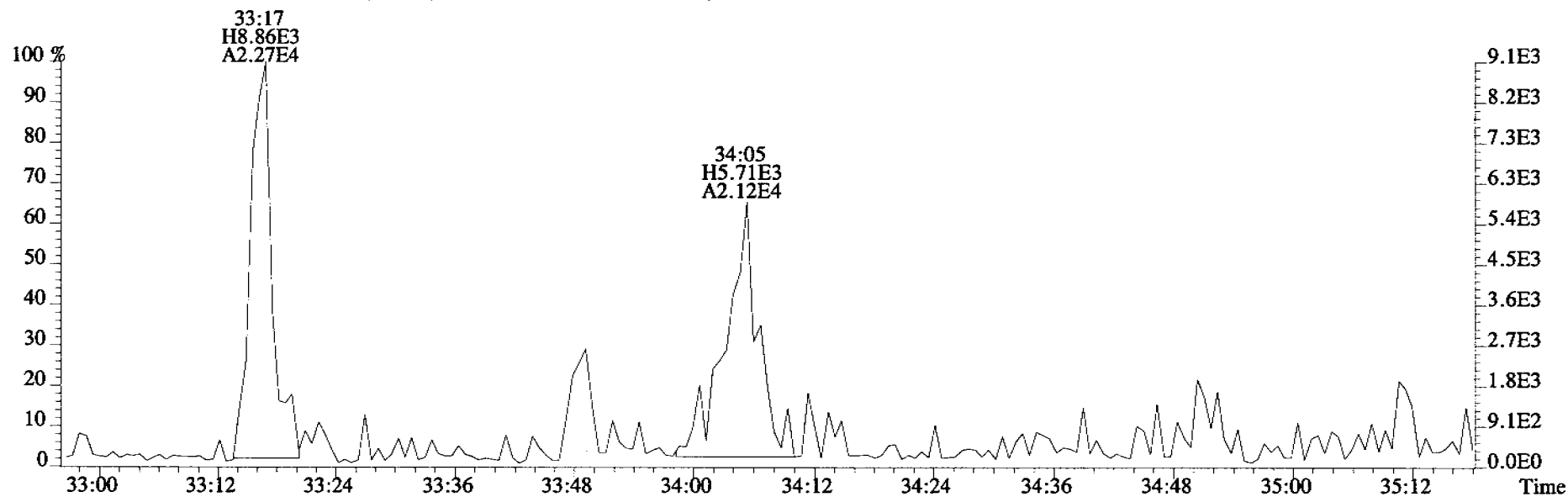
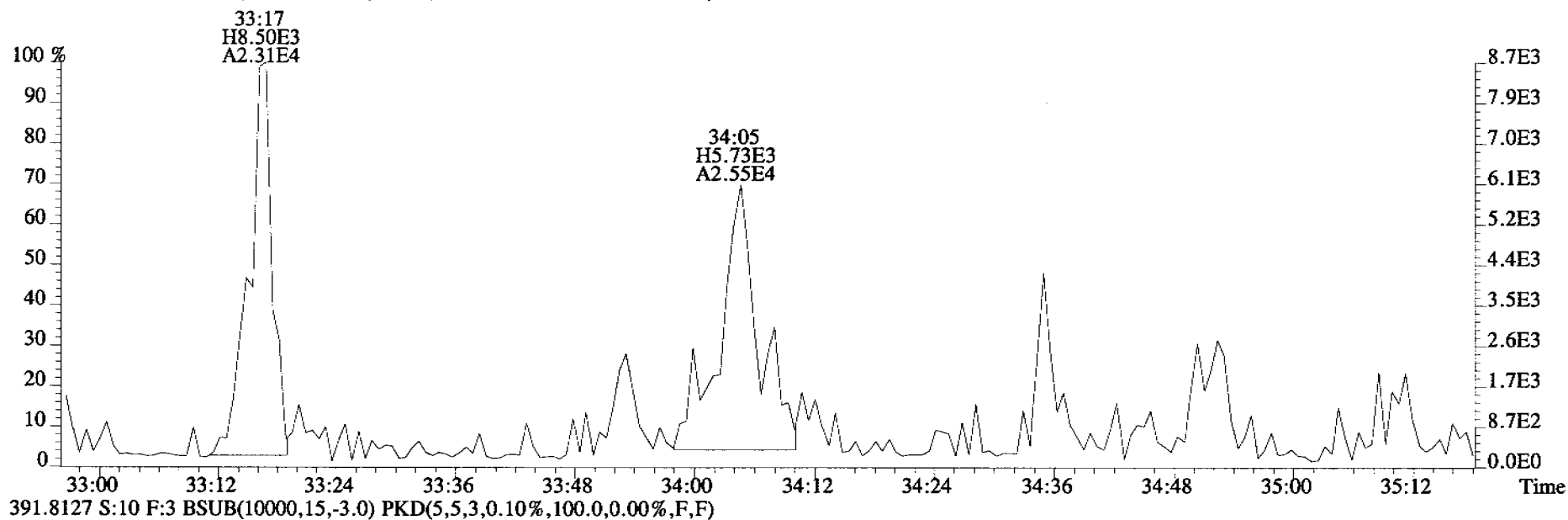
403.8530 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



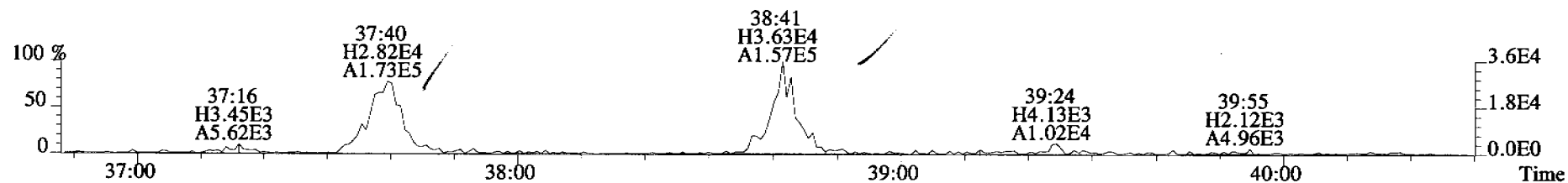
380.9760 S:10 F:3



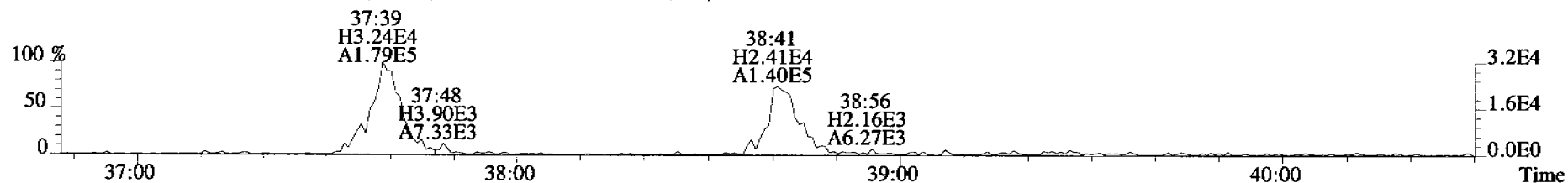
File:060920C2 #1-363 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111 8381 001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
389.8156 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



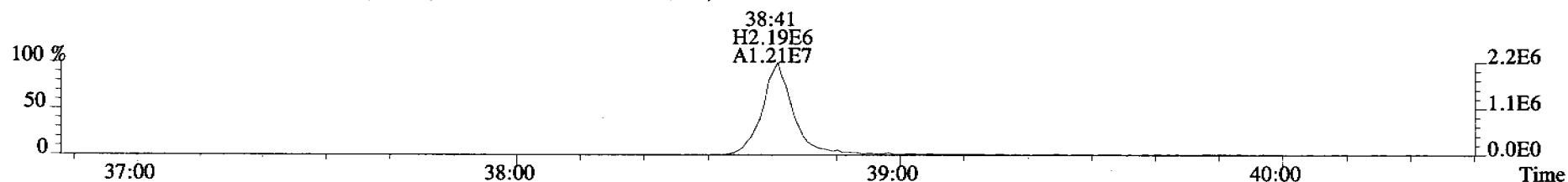
File:060920C2 #1-399 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111\_8381\_001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
423.7767 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



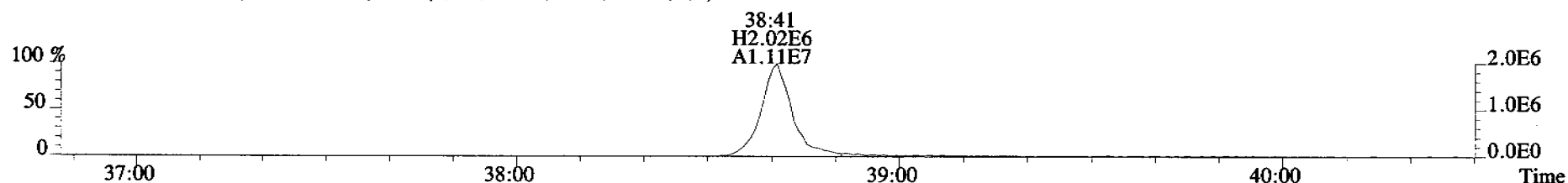
425.7737 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



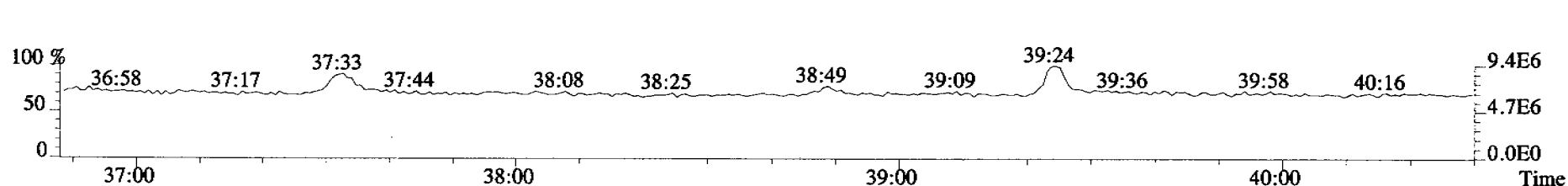
435.8169 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



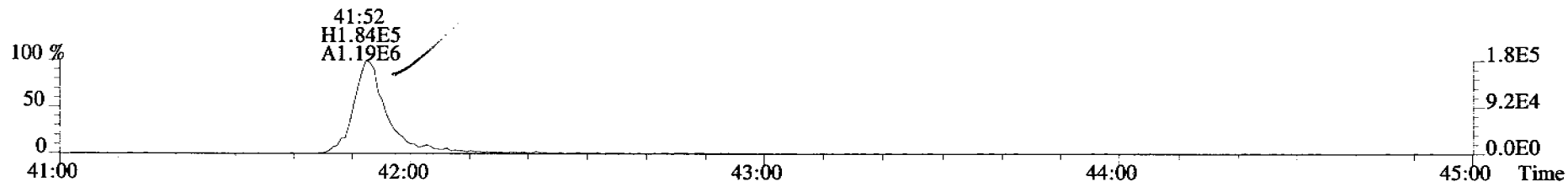
437.8140 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



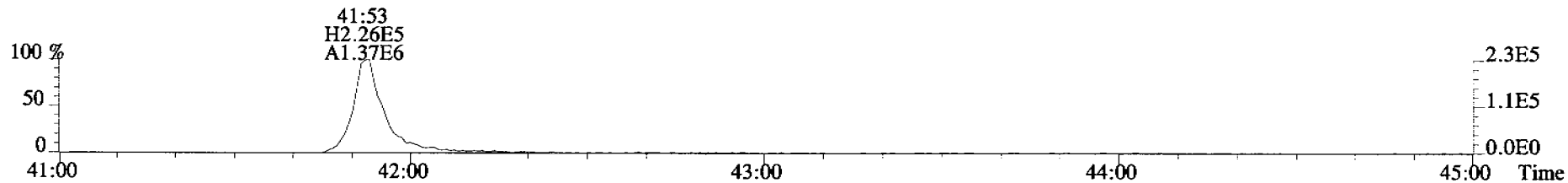
430.9728 S:10 F:4



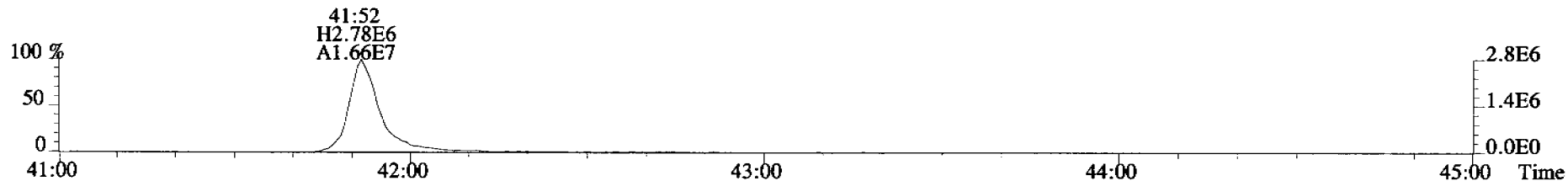
File:060920C2 #1-346 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111\_8381\_001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
457.7377 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



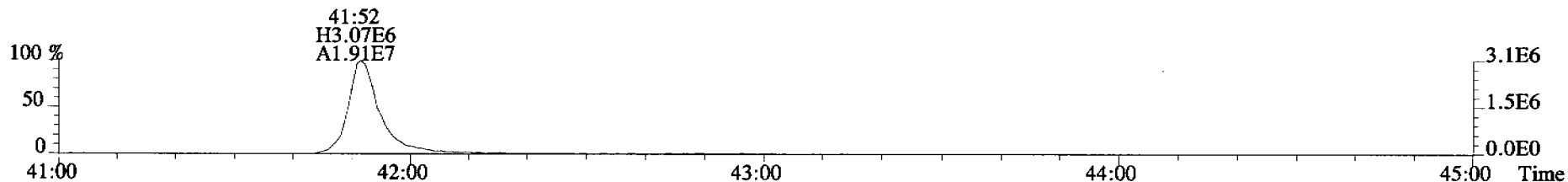
459.7348 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



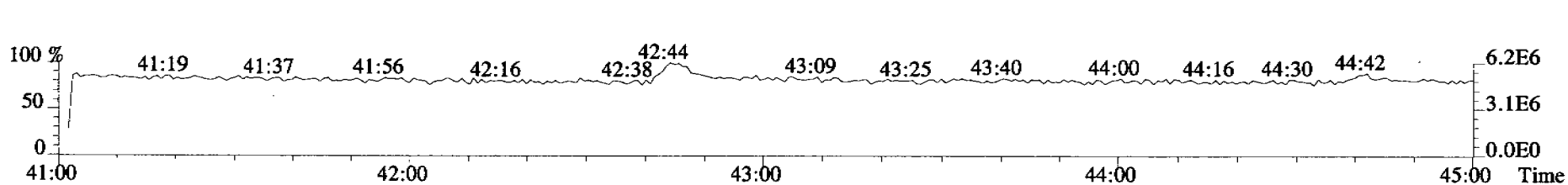
469.7780 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



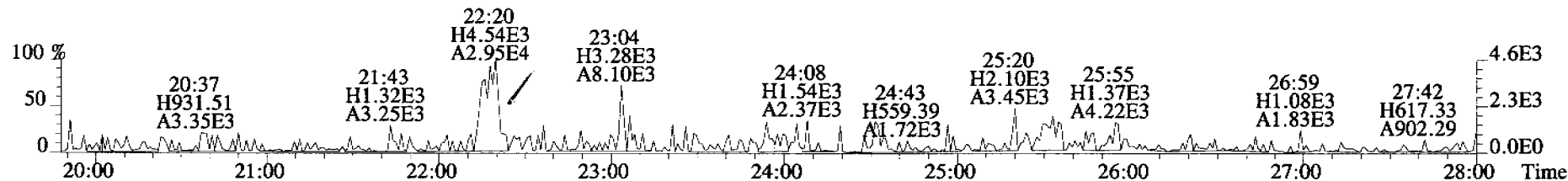
471.7750 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



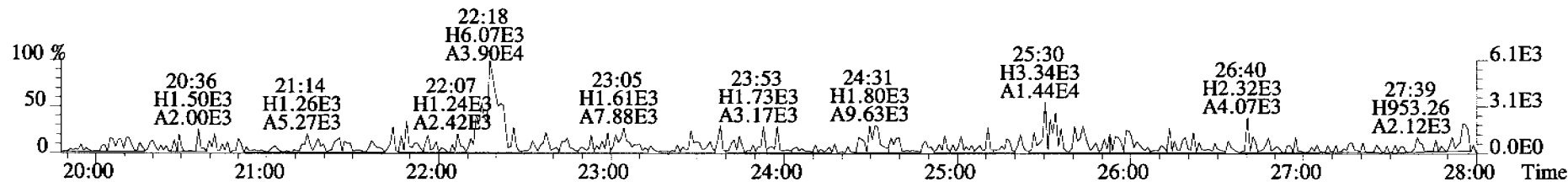
454.9728 S:10 F:5



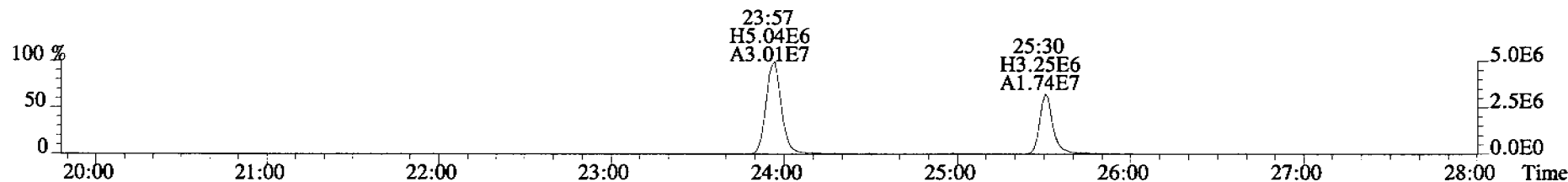
File:060920C2 #1-546 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111\_8381\_001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
303.9016 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



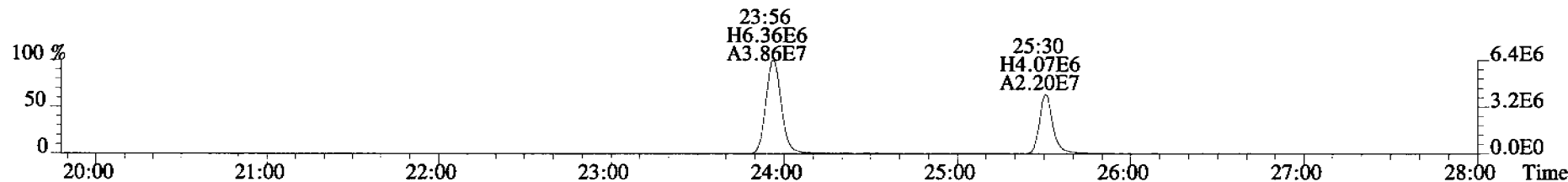
305.8987 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



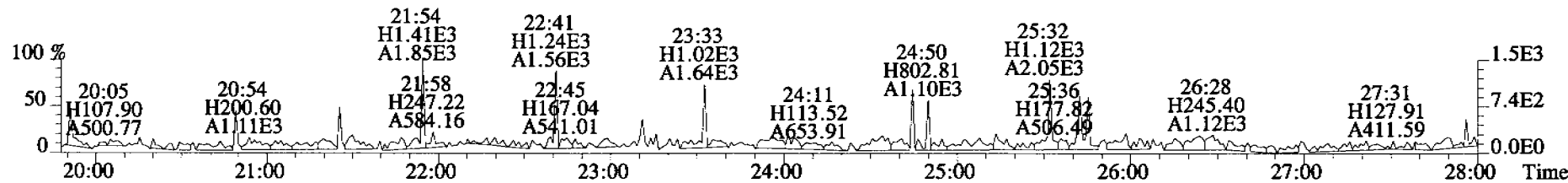
315.9419 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



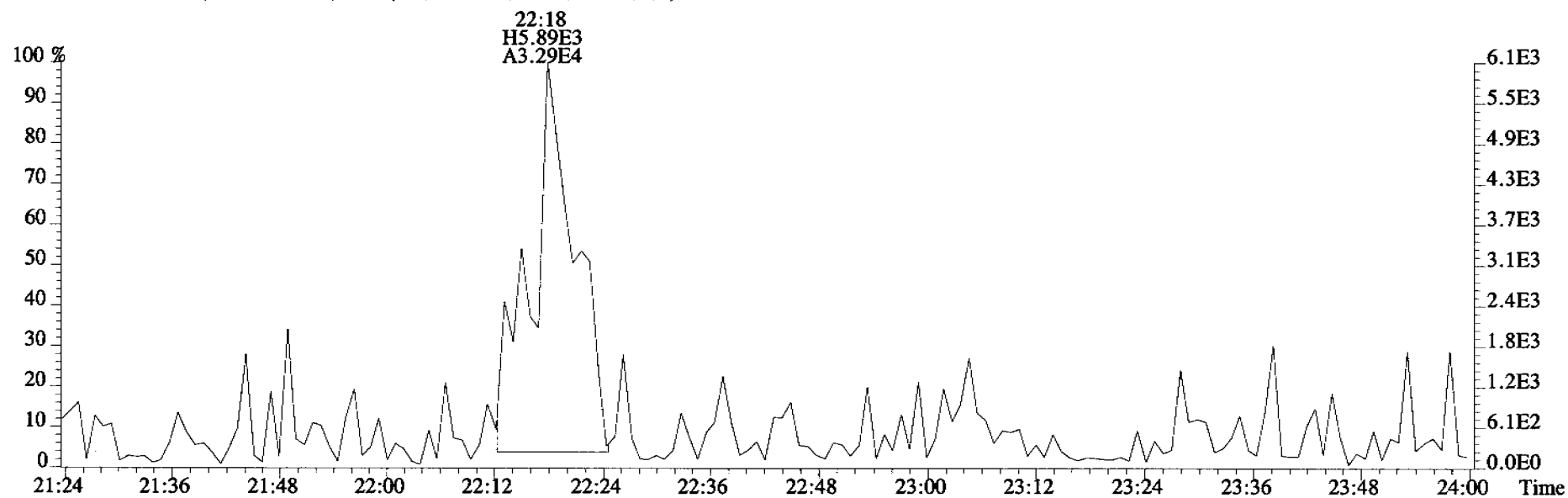
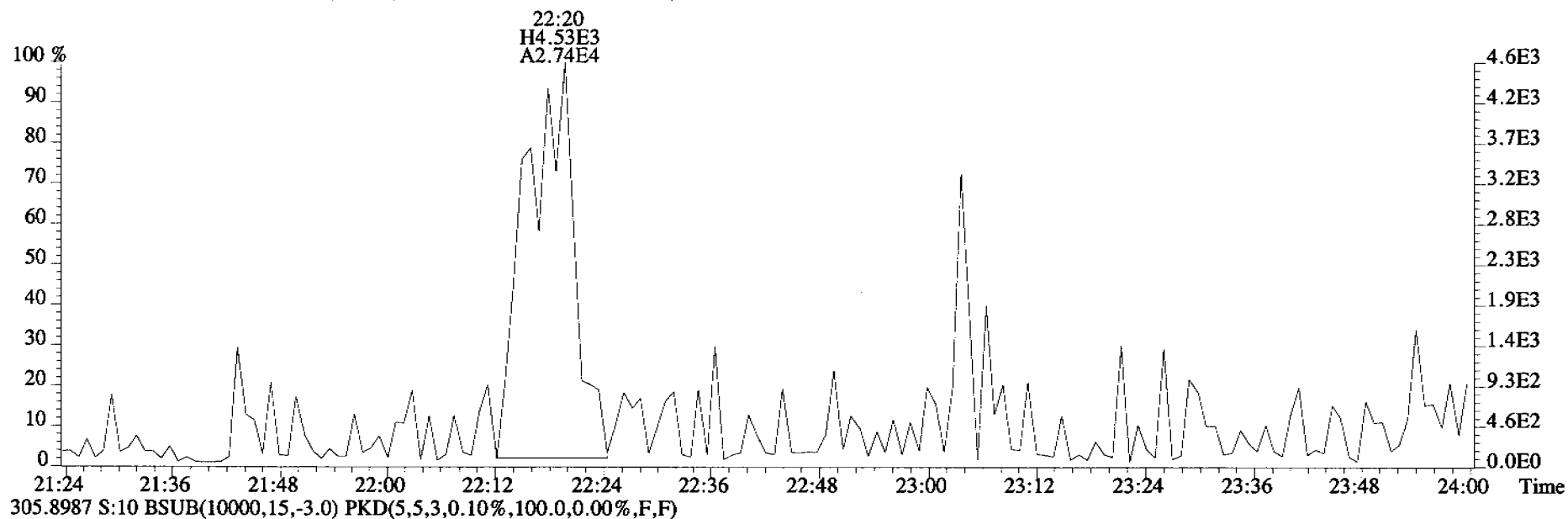
317.9389 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



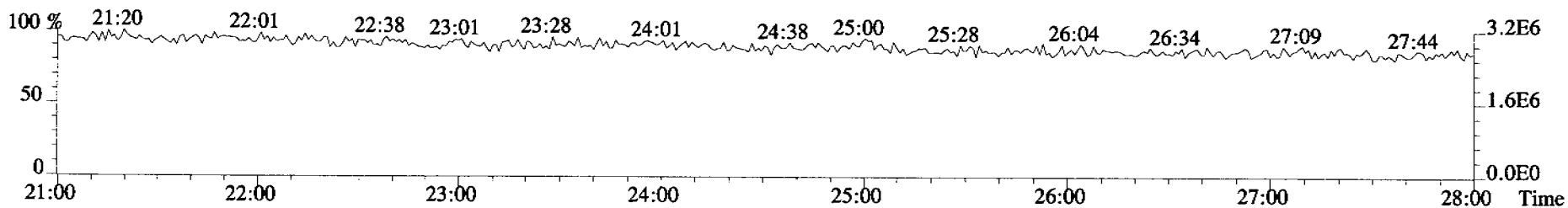
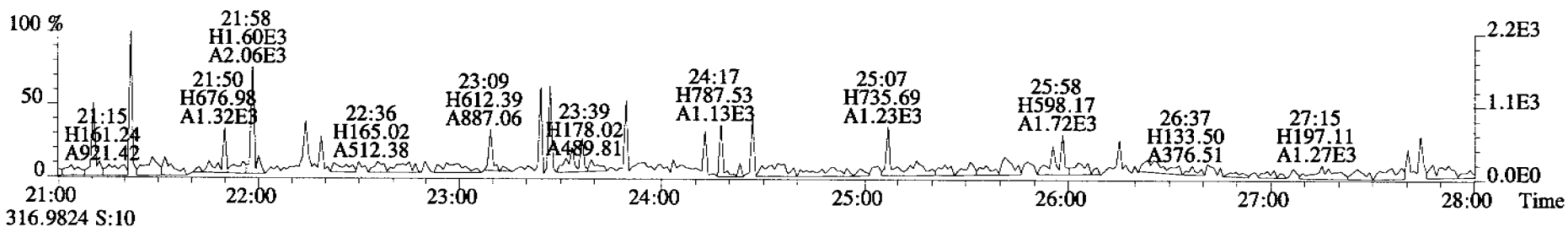
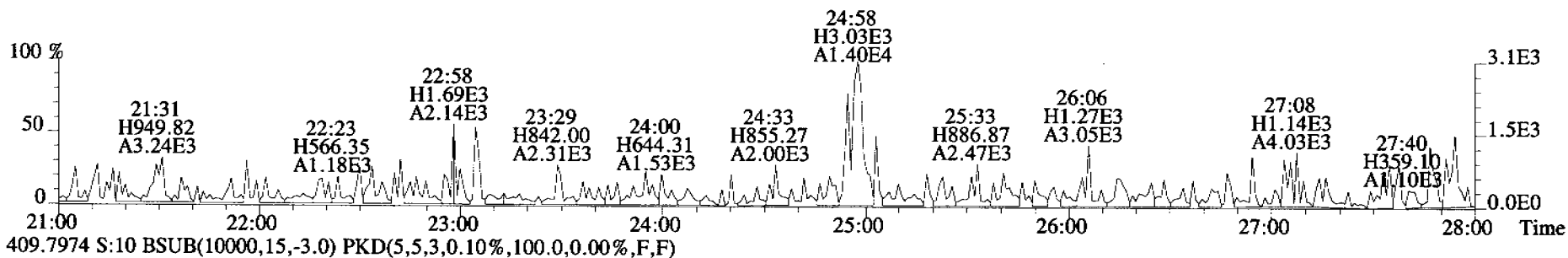
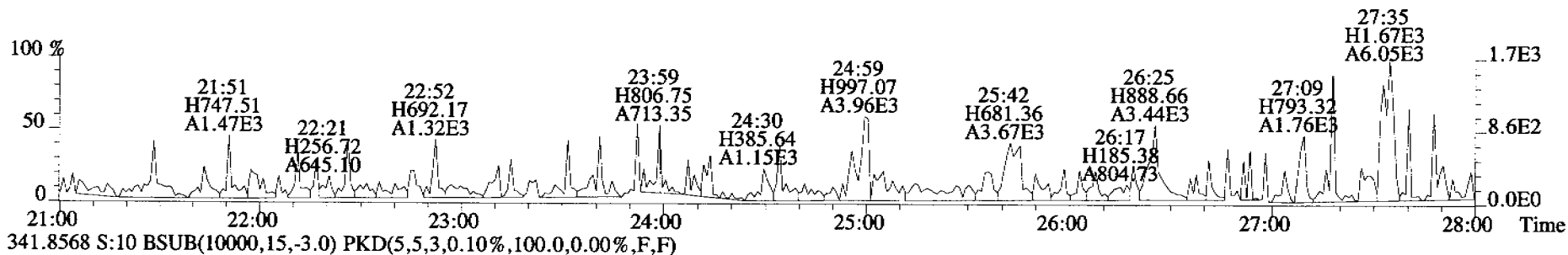
375.8364 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



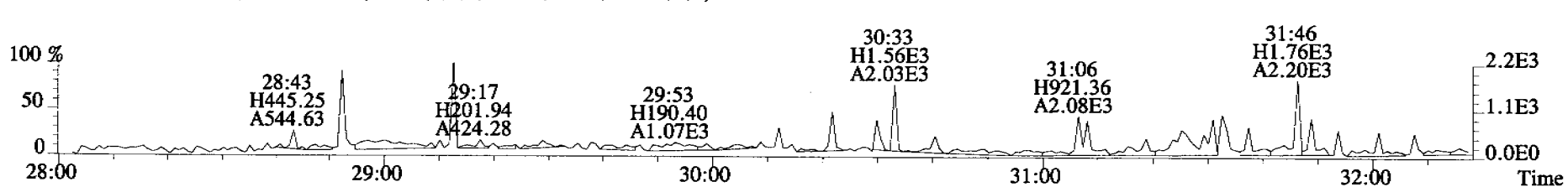
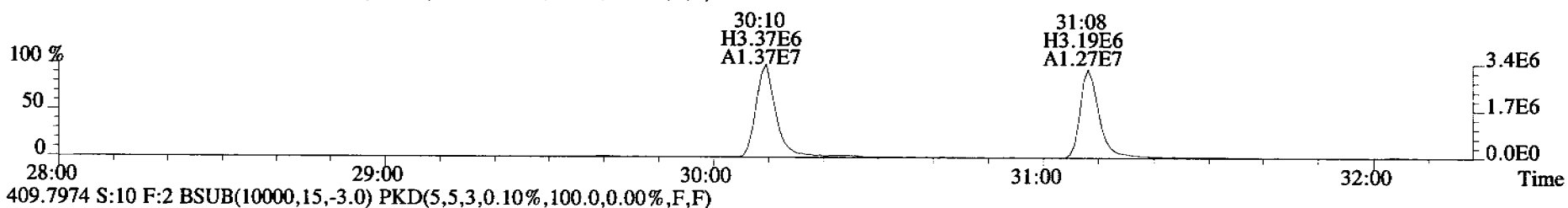
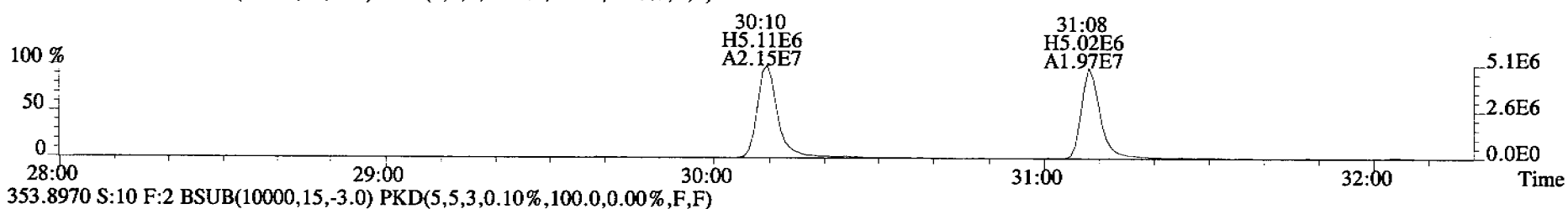
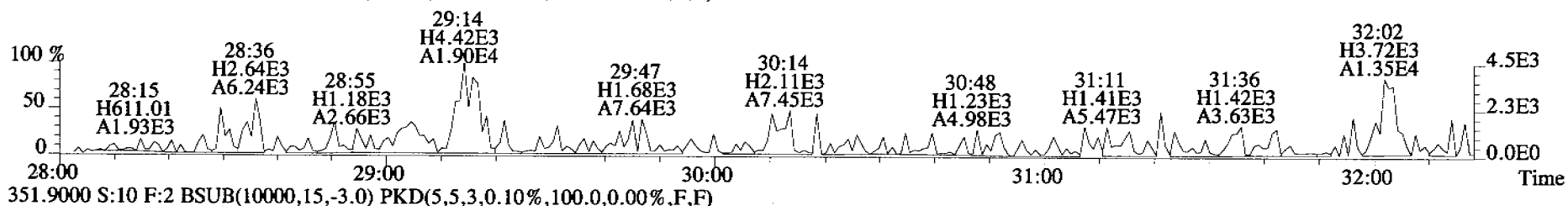
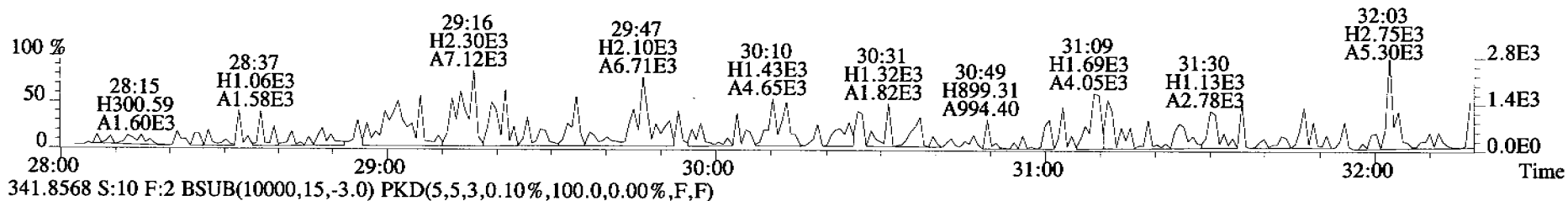
File:060920C2 #1-546 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111 8381 001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
303.9016 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-546 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111 8381 001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
339.8597 S:10 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

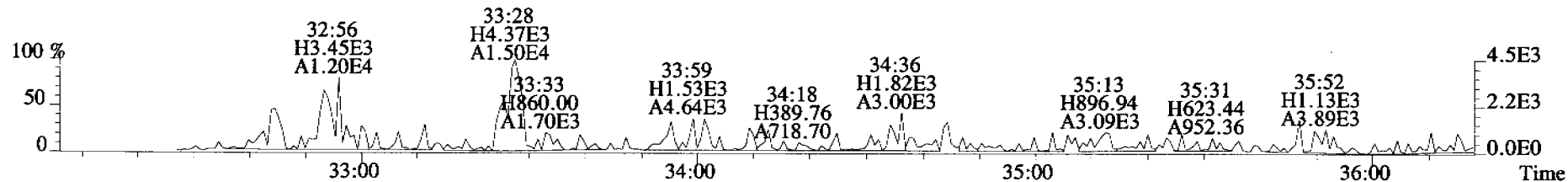


File:060920C2 #1-324 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111\_8381\_001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
339.8597 S:10 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

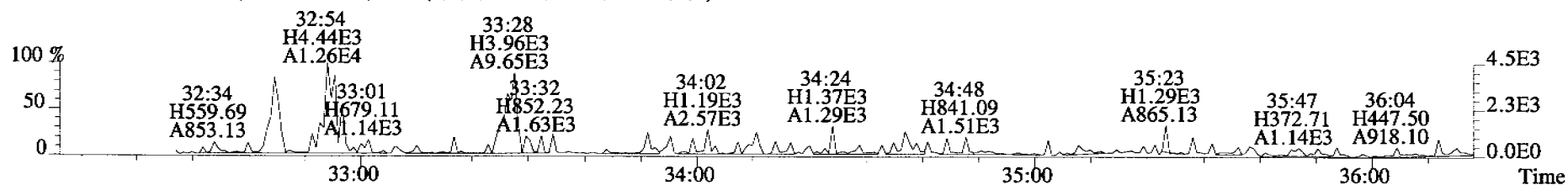




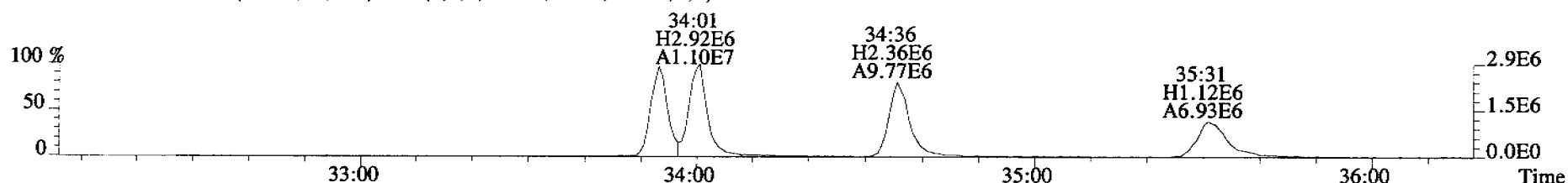
File:060920C2 #1-363 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111\_8381\_001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
373.8207 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



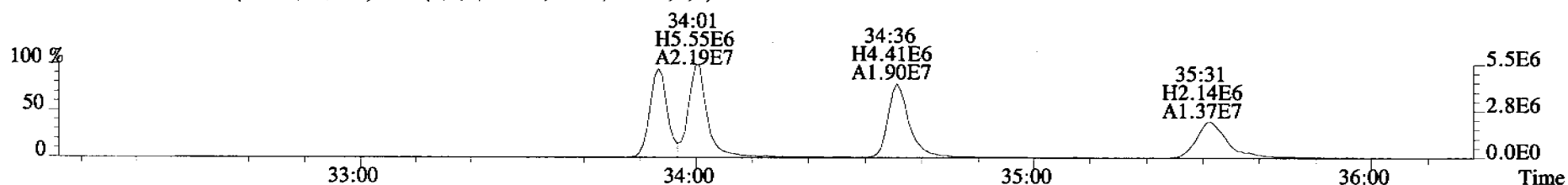
375.8178 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



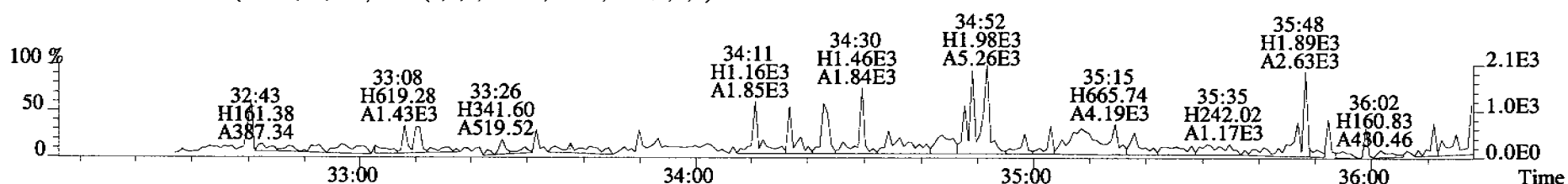
383.8639 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



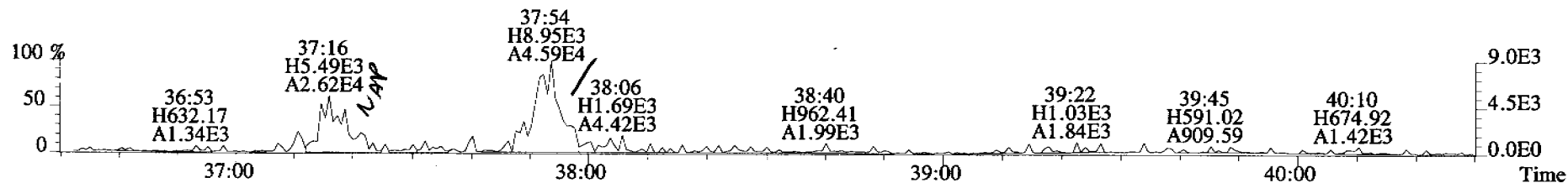
385.8610 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



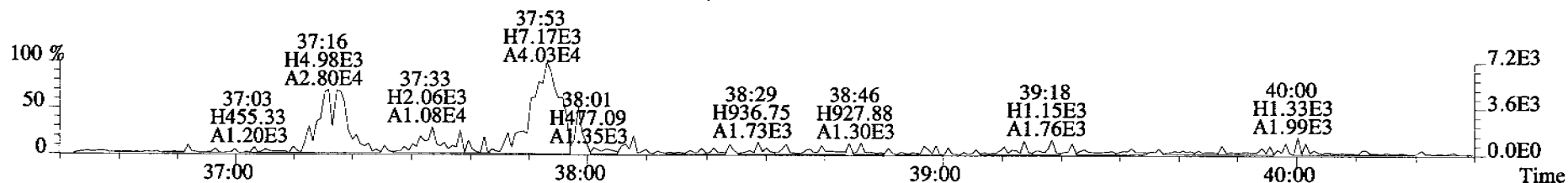
445.7555 S:10 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



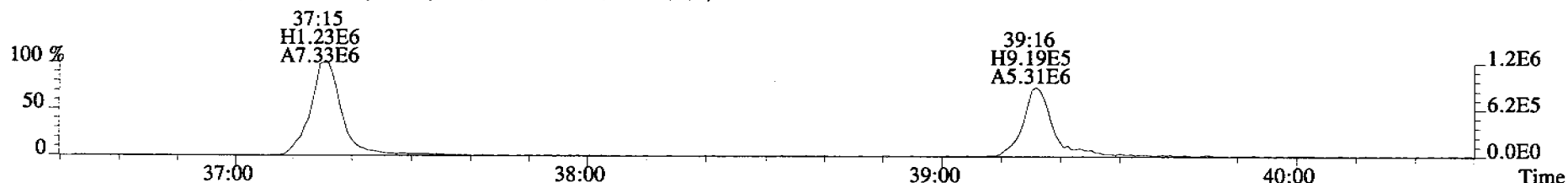
File:060920C2 #1-399 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111\_8381\_001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



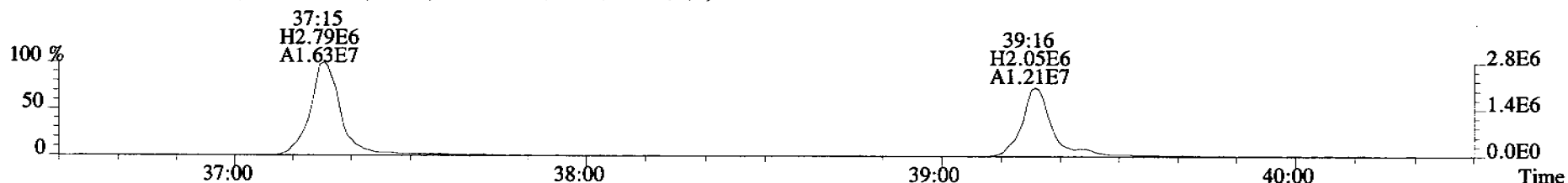
409.7788 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



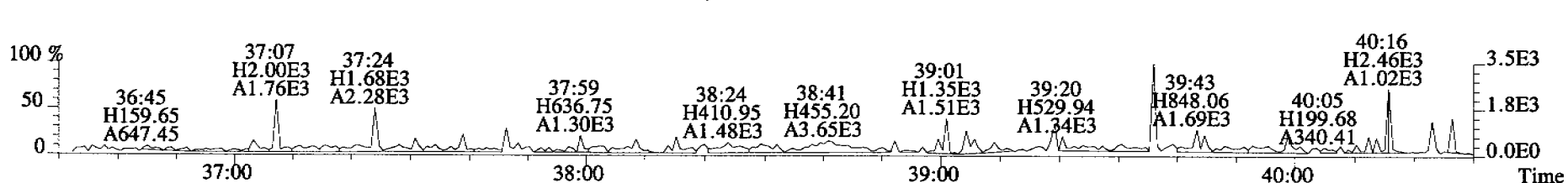
417.8253 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



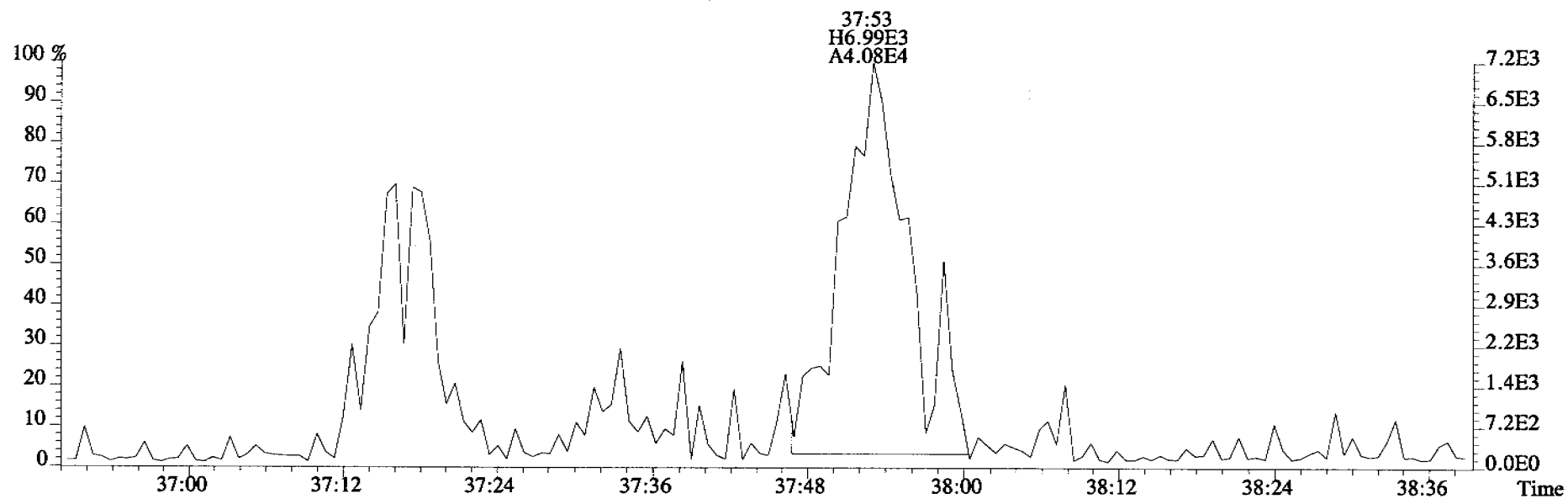
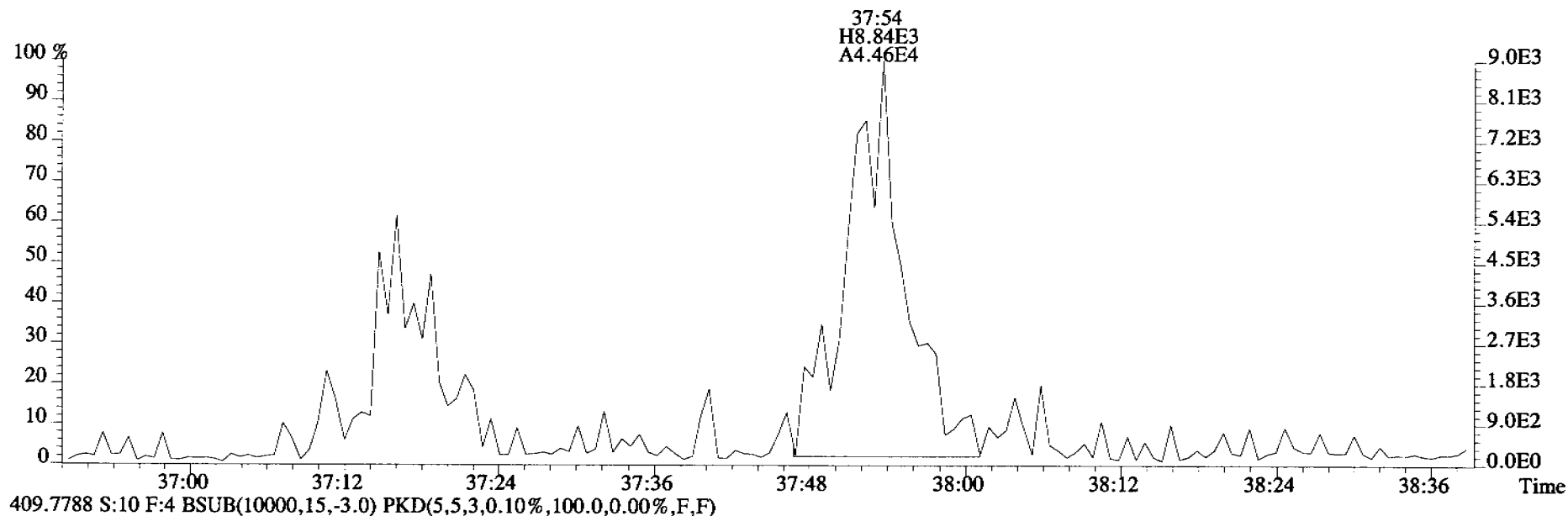
419.8220 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



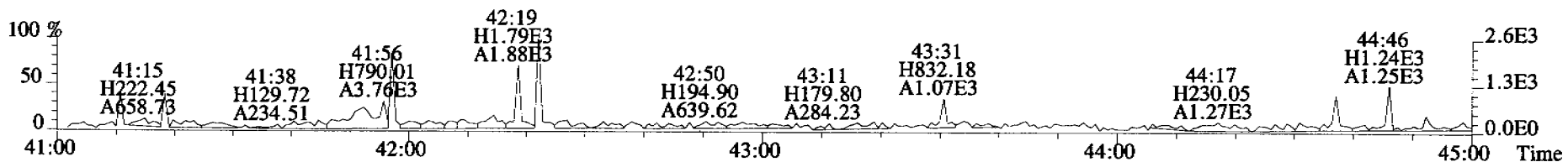
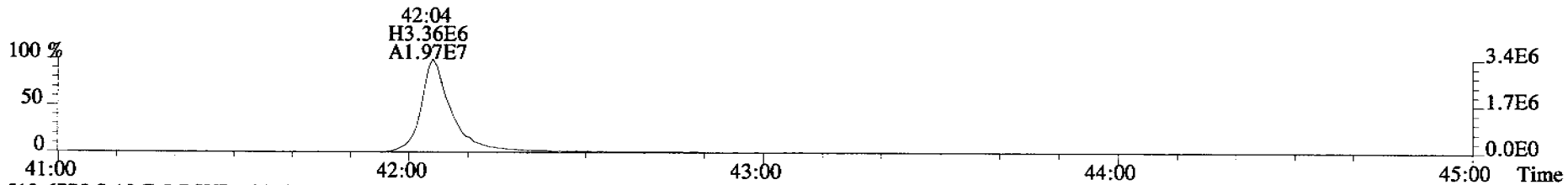
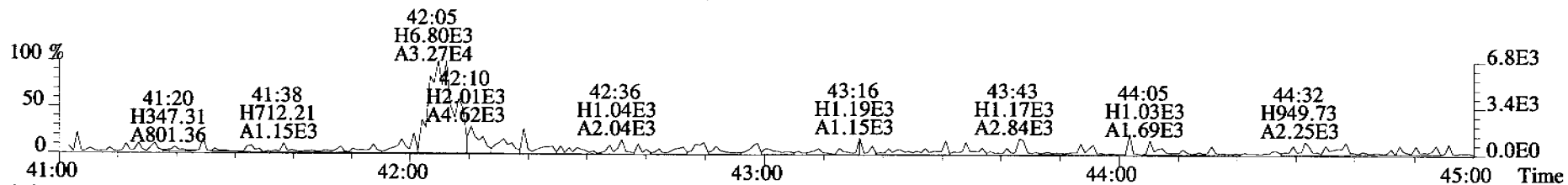
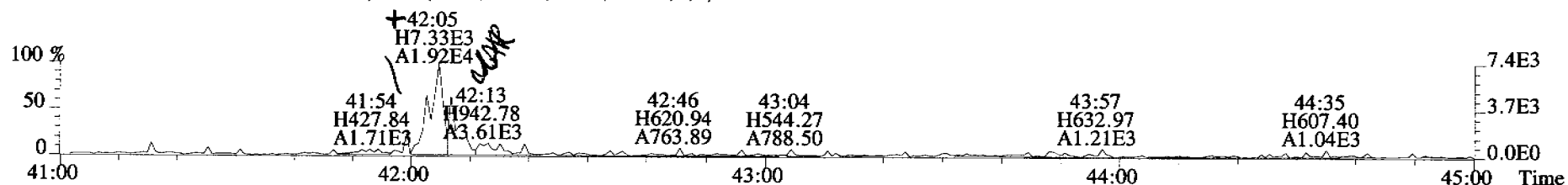
479.7165 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



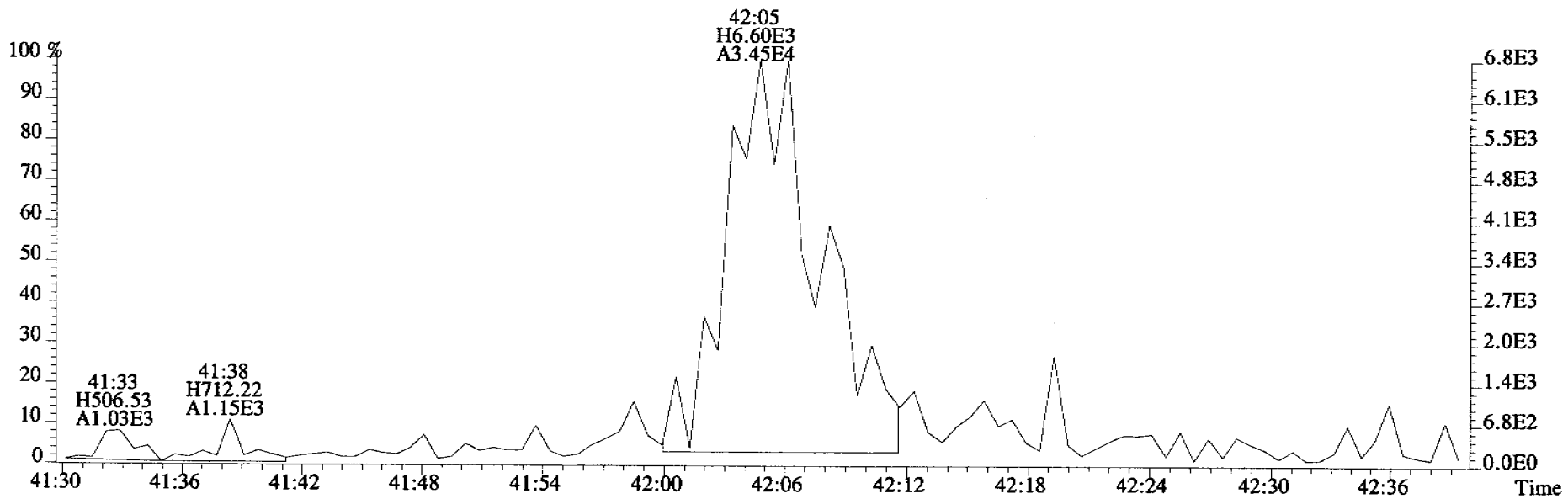
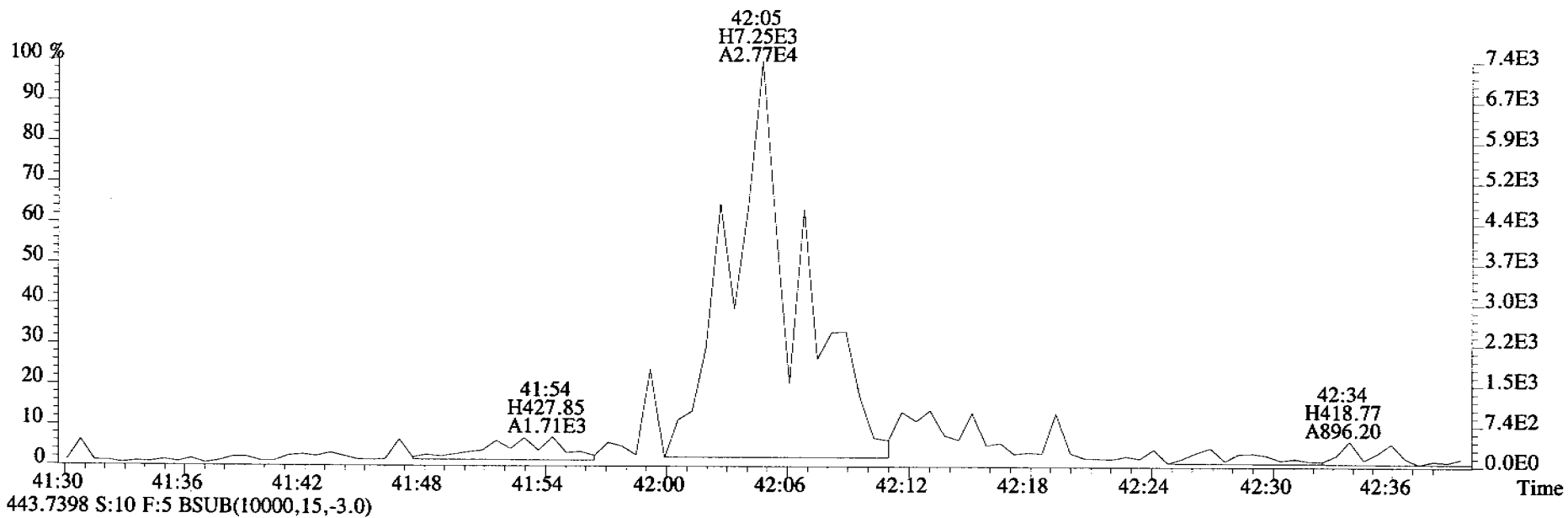
File:060920C2 #1-399 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111 8381 001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
407.7818 S:10 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-346 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111\_8381\_001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
441.7428 S:10 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060920C2 #1-346 Acq:20-SEP-2006 22:41:10 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#10 File Text:Alta Analytical Laboratory Text:28111\_8381\_001 IPI1298-01 1.0290L Exp:OCDD\_DB5  
441.7428 S:10 F:5 BSUB(10000,15,-3.0)



## ICAL

Run: 060322C1

Analyte:

Cal: 1613VG5-3-22-06

Inst. ID. VG-5

Data filename: 060322C1

			Samp# 1	Samp# 3	Samp# 4	Samp# 5	Samp# 6	Samp# 7
			10	0.25	0.50	2.0	40	200
Name	Mean RRF	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6
2,3,7,8-TCDD	1.08	7.92 %	1.08	1.16	1.05	1.05	1.19	0.95
1,2,3,7,8-PeCDD	1.03	4.40 %	1.00	1.01	1.02	1.02	1.12	1.01
1,2,3,4,7,8-HxCDD	1.13	4.74 %	1.14	1.08	1.11	1.11	1.24	1.13
1,2,3,6,7,8-HxCDD	1.03	7.53 %	0.96	1.10	1.02	1.05	1.13	0.94
1,2,3,7,8,9-HxCDD	1.12	5.45 %	1.11	1.12	1.08	1.09	1.23	1.07
1,2,3,4,6,7,8-HpCDD	1.02	8.12 %	1.02	1.01	1.02	1.03	1.14	0.88
OCDD	1.06	5.69 %	1.04	1.07	0.98	1.08	1.15	1.02
2,3,7,8-TCDF	1.06	7.77 %	1.02	1.13	1.08	1.07	1.15	0.92
1,2,3,7,8-PeCDF	1.01	4.14 %	0.99	1.00	1.01	1.01	1.08	0.95
2,3,4,7,8-PeCDF	1.02	4.24 %	0.99	1.02	1.03	1.04	1.10	0.97
1,2,3,4,7,8-HxCDF	1.15	5.39 %	1.10	1.18	1.13	1.14	1.25	1.08
1,2,3,6,7,8-HxCDF	1.14	5.33 %	1.10	1.11	1.14	1.13	1.26	1.09
2,3,4,6,7,8-HxCDF	1.17	4.53 %	1.12	1.17	1.16	1.16	1.27	1.14
1,2,3,7,8,9-HxCDF	1.10	5.28 %	1.05	1.07	1.09	1.08	1.21	1.07
1,2,3,4,6,7,8-HpCDF	1.31	4.72 %	1.27	1.31	1.28	1.30	1.43	1.28
1,2,3,4,7,8,9-HpCDF	1.33	5.03 %	1.29	1.35	1.28	1.32	1.45	1.27
OCDF	0.91	3.45 %	0.88	0.90	0.91	0.90	0.97	0.90
13C-2,3,7,8-TCDD	1.09	2.67 %	1.13	1.08	1.09	1.08	1.05	1.12
13C-1,2,3,7,8-PeCDD	1.04	3.01 %	1.09	1.00	1.04	1.03	1.03	1.07
13C-1,2,3,4,7,8-HxCDD	0.83	2.39 %	0.79	0.85	0.83	0.83	0.83	0.84
13C-1,2,3,6,7,8-HxCDD	1.04	2.93 %	1.08	1.06	1.01	1.04	1.00	1.04
13C-1,2,3,4,6,7,8-HpCDD	0.85	5.38 %	0.83	0.81	0.87	0.79	0.89	0.91
13C-OCDD	0.71	11.07 %	0.69	0.66	0.70	0.63	0.75	0.85
13C-2,3,7,8-TCDF	0.96	4.18 %	1.02	0.96	0.92	0.99	0.93	0.92
13C-1,2,3,7,8-PeCDF	1.02	3.93 %	1.09	1.00	0.98	1.04	1.01	0.99
13C-2,3,4,7,8-PeCDF	1.02	4.06 %	1.09	1.00	1.00	1.05	1.00	0.98
13C-1,2,3,4,7,8-HxCDF	1.14	2.98 %	1.12	1.19	1.13	1.17	1.15	1.10
13C-1,2,3,6,7,8-HxCDF	1.40	4.36 %	1.43	1.49	1.38	1.43	1.37	1.31
13C-2,3,4,6,7,8-HxCDF	1.26	2.41 %	1.26	1.30	1.25	1.29	1.23	1.23
13C-1,2,3,7,8,9-HxCDF	1.08	1.14 %	1.10	1.07	1.08	1.08	1.07	1.10
13C-1,2,3,4,6,7,8-HpCDF	0.93	3.49 %	0.93	0.92	0.96	0.88	0.96	0.95
13C-1,2,3,4,7,8,9-HpCDF	0.77	6.13 %	0.74	0.74	0.77	0.71	0.80	0.84
13C-OCDF	0.94	9.65 %	0.93	0.89	0.91	0.84	0.98	1.10
37Cl-2,3,7,8-TCDD	0.77	2.76 %	0.78	0.76	0.77	0.74	0.79	0.80
13C-1,2,3,4-TCDD	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-1,2,3,4-TCDF	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-1,2,3,7,8,9-HxCDD	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00

*MS 7/23/04*

*ok 9/3/23/06*

Filename: 060322C1 S: 1 Acquired: 22-MAR-06 09:32:59

Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06

Results:

Sample text: ST060322C1-1 1613 CS3 060110H

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	10.00	1.79e+07	0.78 y	26:33	-	1.08
2	Unk	1,2,3,7,8-PeCDD	50.00	7.94e+07	0.63 y	31:17	-	1.00
3	Unk	1,2,3,4,7,8-HxCDD	50.00	7.27e+07	1.23 y	34:34	-	1.14
4	Unk	1,2,3,6,7,8-HxCDD	50.00	8.37e+07	1.27 y	34:41	-	0.96
5	Unk	1,2,3,7,8,9-HxCDD	50.00	8.40e+07	1.24 y	34:58	-	1.11
6	Unk	1,2,3,4,6,7,8-HpCDD	50.00	6.84e+07	1.03 y	38:31	-	1.02
7	Unk	OCDD	100.00	1.16e+08	0.90 y	41:47	-	1.04
8	Unk	2,3,7,8-TCDF	10.00	2.23e+07	0.77 y	25:42	-	1.02
9	Unk	1,2,3,7,8-PeCDF	50.00	1.15e+08	1.55 y	30:03	-	0.99
10	Unk	2,3,4,7,8-PeCDF	50.00	1.15e+08	1.55 y	30:59	-	0.99
11	Unk	1,2,3,4,7,8-HxCDF	50.00	9.97e+07	1.23 y	33:41	-	1.10
12	Unk	1,2,3,6,7,8-HxCDF	50.00	1.27e+08	1.24 y	33:49	-	1.10
13	Unk	2,3,4,6,7,8-HxCDF	50.00	1.14e+08	1.24 y	34:25	-	1.12
14	Unk	1,2,3,7,8,9-HxCDF	50.00	9.32e+07	1.25 y	35:21	-	1.05
15	Unk	1,2,3,4,6,7,8-HpCDF	50.00	9.59e+07	1.01 y	37:07	-	1.27
16	Unk	1,2,3,4,7,8,9-HpCDF	50.00	7.72e+07	1.02 y	39:04	-	1.29
17	Unk	OCDF	100.00	1.33e+08	0.89 y	42:00	-	0.88
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.08
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.08
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.00
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.00
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.06
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.06
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.02
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.02
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.02
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.02
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	0.99
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	0.99
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	0.99
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	0.99
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.10
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.10
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.28
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.28
36	IS	13C-2,3,7,8-TCDD	100.00	1.66e+08	0.78 y	26:31	-	1.13
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.59e+08	0.65 y	31:16	-	1.09
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.28e+08	1.25 y	34:33	-	0.79



39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.75e+08	1.26 y	34:40	-	1.08
40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.34e+08	1.07 y	38:30	-	0.83
41	IS	13C-OCDD	200.00	2.24e+08	0.89 y	41:46	-	0.69
42	IS	13C-2,3,7,8-TCDF	100.00	2.18e+08	0.79 y	25:41	-	1.02
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.32e+08	1.59 y	30:02	-	1.09
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.32e+08	1.61 y	30:59	-	1.09
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.81e+08	0.52 y	33:40	-	1.12
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.31e+08	0.54 y	33:48	-	1.43
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.04e+08	0.54 y	34:24	-	1.26
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.78e+08	0.53 y	35:20	-	1.10
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.51e+08	0.43 y	37:05	-	0.93
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.20e+08	0.44 y	39:04	-	0.74
51	IS	13C-OCDF	200.00	3.02e+08	0.91 y	41:59	-	0.93

52	C/Up	37Cl-2,3,7,8-TCDD	10.00	1.15e+07		26:32	-	0.78
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.47e+08	0.80 y	25:53	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.13e+08	0.78 y	24:18	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.62e+08	1.27 y	34:58	-	1.00

Filename: 060322C1 S: 3 Acquired: 22-MAR-06 11:12:17

Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06

Results:

Sample text: ST060322C1-2 1613 CS0 060110E

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	0.25	4.63e+05	0.72 y	26:33	-	1.16
2	Unk	1,2,3,7,8-PeCDD	1.25	1.87e+06	0.60 y	31:17	-	1.01
3	Unk	1,2,3,4,7,8-HxCDD	1.25	1.65e+06	1.24 y	34:34	-	1.08
4	Unk	1,2,3,6,7,8-HxCDD	1.25	2.11e+06	1.29 y	34:41	-	1.10
5	Unk	1,2,3,7,8,9-HxCDD	1.25	1.94e+06	1.31 y	34:59	-	1.12
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	1.49e+06	0.96 y	38:32	-	1.01
7	Unk	OCDD	2.50	2.54e+06	0.82 y	41:46	-	1.07
8	Unk	2,3,7,8-TCDF	0.25	5.89e+05	0.73 y	25:43	-	1.13
9	Unk	1,2,3,7,8-PeCDF	1.25	2.72e+06	1.49 y	30:03	-	1.00
10	Unk	2,3,4,7,8-PeCDF	1.25	2.78e+06	1.58 y	30:59	-	1.02
11	Unk	1,2,3,4,7,8-HxCDF	1.25	2.55e+06	1.25 y	33:41	-	1.18
12	Unk	1,2,3,6,7,8-HxCDF	1.25	2.98e+06	1.31 y	33:49	-	1.11
13	Unk	2,3,4,6,7,8-HxCDF	1.25	2.76e+06	1.26 y	34:25	-	1.17
14	Unk	1,2,3,7,8,9-HxCDF	1.25	2.08e+06	1.22 y	35:21	-	1.07
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	2.19e+06	1.00 y	37:07	-	1.31
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	1.82e+06	0.99 y	39:05	-	1.35
17	Unk	OCDF	2.50	2.91e+06	0.90 y	41:59	-	0.90
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.16
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.16
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.01
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.01
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.10
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.10
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.01
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.01
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.13
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.13
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	1.01
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.01
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	1.01
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	1.01
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.13
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.13
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.33
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.33
36	IS	13C-2,3,7,8-TCDD	100.00	1.60e+08	0.80 y	26:32	-	1.08
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.49e+08	0.64 y	31:16	-	1.00
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.23e+08	1.27 y	34:33	-	0.85
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.54e+08	1.27 y	34:40	-	1.06

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.18e+08	1.07 y	38:32	-	0.81
41	IS	13C-OCDD	200.00	1.91e+08	0.90 y	41:47	-	0.66
42	IS	13C-2,3,7,8-TCDF	100.00	2.08e+08	0.79 y	25:41	-	0.96
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.17e+08	1.60 y	30:02	-	1.00
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.17e+08	1.58 y	30:58	-	1.00
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.73e+08	0.54 y	33:41	-	1.19
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.15e+08	0.53 y	33:49	-	1.49
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	1.89e+08	0.52 y	34:24	-	1.30
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.56e+08	0.53 y	35:20	-	1.07
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.34e+08	0.43 y	37:07	-	0.92
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.08e+08	0.43 y	39:04	-	0.74
51	IS	13C-OCDF	200.00	2.57e+08	0.88 y	41:59	-	0.89

52	C/Up	37C1-2,3,7,8-TCDD	0.25	2.81e+05		26:33	-	0.76
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.48e+08	0.80 y	25:53	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.18e+08	0.79 y	24:18	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.45e+08	1.26 y	34:58	-	1.00

Filename: 060322C1 S: 4 Acquired: 22-MAR-06 12:02:01  
 Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:  
 Sample text: ST060322C1-3 1613 CS1 060110F

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	0.50	8.69e+05	0.73 y	26:33	- 1.05
2	Unk	1,2,3,7,8-PeCDD	2.50	4.04e+06	0.64 y	31:16	- 1.02
3	Unk	1,2,3,4,7,8-HxCDD	2.50	3.83e+06	1.23 y	34:34	- 1.11
4	Unk	1,2,3,6,7,8-HxCDD	2.50	4.26e+06	1.27 y	34:40	- 1.02
5	Unk	1,2,3,7,8,9-HxCDD	2.50	4.12e+06	1.34 y	34:58	- 1.08
6	Unk	1,2,3,4,6,7,8-HpCDD	2.50	3.65e+06	0.98 y	38:30	- 1.02
7	Unk	OCDD	5.00	5.67e+06	0.86 y	41:46	- 0.98
8	Unk	2,3,7,8-TCDF	0.50	1.16e+06	0.79 y	25:43	- 1.08
9	Unk	1,2,3,7,8-PeCDF	2.50	5.73e+06	1.60 y	30:02	- 1.01
10	Unk	2,3,4,7,8-PeCDF	2.50	5.95e+06	1.52 y	30:59	- 1.03
11	Unk	1,2,3,4,7,8-HxCDF	2.50	5.27e+06	1.27 y	33:41	- 1.13
12	Unk	1,2,3,6,7,8-HxCDF	2.50	6.53e+06	1.25 y	33:49	- 1.14
13	Unk	2,3,4,6,7,8-HxCDF	2.50	5.96e+06	1.26 y	34:25	- 1.16
14	Unk	1,2,3,7,8,9-HxCDF	2.50	4.89e+06	1.23 y	35:20	- 1.09
15	Unk	1,2,3,4,6,7,8-HpCDF	2.50	5.05e+06	1.01 y	37:06	- 1.28
16	Unk	1,2,3,4,7,8,9-HpCDF	2.50	4.06e+06	1.00 y	39:03	- 1.28
17	Unk	OCDF	5.00	6.85e+06	0.87 y	42:00	- 0.91
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	- 1.05
19	Tot	TCDD EMPC	0.00	-	- n	-	- 1.05
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	- 1.02
21	Tot	PeCDD EMPC	0.00	-	- n	-	- 1.02
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	- 1.07
23	Tot	HxCDD EMPC	0.00	-	- n	-	- 1.07
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	- 1.02
25	Tot	HpCDD EMPC	0.00	-	- n	-	- 1.02
26	Tot	Total Tetra-Furans	0.00	-	- n	-	- 1.08
27	Tot	TCDF EMPC	0.00	-	- n	-	- 1.08
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	- 1.02
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	- 1.02
30	Tot	Total Penta-Furans	0.00	-	- n	-	- 1.02
31	Tot	PeCDF EMPC	0.00	-	- n	-	- 1.02
32	Tot	Total Hexa-Furans	0.00	-	- n	-	- 1.13
33	Tot	HxCDF EMPC	0.00	-	- n	-	- 1.13
34	Tot	Total Hepta-Furans	0.00	-	- n	-	- 1.28
35	Tot	HpCDF EMPC	0.00	-	- n	-	- 1.28
36	IS	13C-2,3,7,8-TCDD	100.00	1.66e+08	0.78 y	26:31	- 1.09
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.59e+08	0.64 y	31:15	- 1.04
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.37e+08	1.27 y	34:33	- 0.83
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.68e+08	1.27 y	34:39	- 1.01

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.44e+08	1.07 y	38:30	-	0.87
41	IS	13C-OCDD	200.00	2.32e+08	0.91 y	41:46	-	0.70
42	IS	13C-2,3,7,8-TCDF	100.00	2.15e+08	0.80 y	25:42	-	0.92
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.28e+08	1.60 y	30:01	-	0.98
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.32e+08	1.57 y	30:58	-	1.00
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.86e+08	0.52 y	33:40	-	1.13
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.28e+08	0.52 y	33:48	-	1.38
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.06e+08	0.52 y	34:24	-	1.25
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.79e+08	0.52 y	35:19	-	1.08
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.58e+08	0.45 y	37:05	-	0.96
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.27e+08	0.44 y	39:03	-	0.77
51	IS	13C-OCDF	200.00	3.02e+08	0.89 y	41:59	-	0.91

52	C/Up	37C1-2,3,7,8-TCDD	0.50	5.89e+05		26:33	-	0.77
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.53e+08	0.80 y	25:54	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.32e+08	0.78 y	24:19	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.65e+08	1.29 y	34:57	-	1.00



Filename: 060322C1 S: 5 Acquired: 22-MAR-06 12:51:46  
Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06 Results:  
Sample text: ST060322C1-4 1613 CS2 060110G

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	2.00	3.64e+06	0.80 y	26:33	- 1.05
2	Unk	1,2,3,7,8-PeCDD	10.00	1.69e+07	0.63 y	31:17	- 1.02
3	Unk	1,2,3,4,7,8-HxCDD	10.00	1.53e+07	1.25 y	34:34	- 1.11
4	Unk	1,2,3,6,7,8-HxCDD	10.00	1.82e+07	1.28 y	34:41	- 1.05
5	Unk	1,2,3,7,8,9-HxCDD	10.00	1.69e+07	1.27 y	34:58	- 1.09
6	Unk	1,2,3,4,6,7,8-HpCDD	10.00	1.36e+07	1.05 y	38:32	- 1.03
7	Unk	OCDD	20.00	2.24e+07	0.90 y	41:52	- 1.08
8	Unk	2,3,7,8-TCDF	2.00	4.80e+06	0.77 y	25:43	- 1.07
9	Unk	1,2,3,7,8-PeCDF	10.00	2.39e+07	1.53 y	30:02	- 1.01
10	Unk	2,3,4,7,8-PeCDF	10.00	2.49e+07	1.60 y	30:59	- 1.04
11	Unk	1,2,3,4,7,8-HxCDF	10.00	2.22e+07	1.23 y	33:41	- 1.14
12	Unk	1,2,3,6,7,8-HxCDF	10.00	2.68e+07	1.23 y	33:49	- 1.13
13	Unk	2,3,4,6,7,8-HxCDF	10.00	2.49e+07	1.22 y	34:25	- 1.16
14	Unk	1,2,3,7,8,9-HxCDF	10.00	1.94e+07	1.24 y	35:20	- 1.08
15	Unk	1,2,3,4,6,7,8-HpCDF	10.00	1.89e+07	1.04 y	37:08	- 1.30
16	Unk	1,2,3,4,7,8,9-HpCDF	10.00	1.55e+07	1.03 y	39:05	- 1.32
17	Unk	OCDF	20.00	2.53e+07	0.87 y	42:03	- 0.90
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	- 1.05
19	Tot	TCDD EMPC	0.00	-	- n	-	- 1.05
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	- 1.02
21	Tot	PeCDD EMPC	0.00	-	- n	-	- 1.02
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	- 1.08
23	Tot	HxCDD EMPC	0.00	-	- n	-	- 1.08
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	- 1.03
25	Tot	HpCDD EMPC	0.00	-	- n	-	- 1.03
26	Tot	Total Tetra-Furans	0.00	-	- n	-	- 1.07
27	Tot	TCDF EMPC	0.00	-	- n	-	- 1.07
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	- 1.03
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	- 1.03
30	Tot	Total Penta-Furans	0.00	-	- n	-	- 1.03
31	Tot	PeCDF EMPC	0.00	-	- n	-	- 1.03
32	Tot	Total Hexa-Furans	0.00	-	- n	-	- 1.13
33	Tot	HxCDF EMPC	0.00	-	- n	-	- 1.13
34	Tot	Total Hepta-Furans	0.00	-	- n	-	- 1.31
35	Tot	HpCDF EMPC	0.00	-	- n	-	- 1.31
36	IS	13C-2,3,7,8-TCDD	100.00	1.73e+08	0.79 y	26:32	- 1.08
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.65e+08	0.64 y	31:16	- 1.03
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.38e+08	1.27 y	34:33	- 0.83
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.73e+08	1.27 y	34:40	- 1.04

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.32e+08	1.09 y	38:31	-	0.79
41	IS	13C-OCDD	200.00	2.08e+08	0.89 y	41:51	-	0.63
42	IS	13C-2,3,7,8-TCDF	100.00	2.25e+08	0.79 y	25:42	-	0.99
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.36e+08	1.59 y	30:02	-	1.04
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.39e+08	1.59 y	30:59	-	1.05
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.95e+08	0.52 y	33:40	-	1.17
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.36e+08	0.52 y	33:48	-	1.43
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.14e+08	0.52 y	34:24	-	1.29
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.79e+08	0.53 y	35:20	-	1.08
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.45e+08	0.45 y	37:07	-	0.88
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.18e+08	0.43 y	39:03	-	0.71
51	IS	13C-OCDF	200.00	2.80e+08	0.88 y	42:02	-	0.84

52	C/Up	37C1-2,3,7,8-TCDD	2.00	2.38e+06		26:33	-	0.74
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.61e+08	0.80 y	25:54	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.27e+08	0.79 y	24:19	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.66e+08	1.26 y	34:57	-	1.00

Filename: 060322C1 S: 6 Acquired: 22-MAR-06 13:41:25

Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06

Results:

Sample text: ST060322C1-5 1613 CS4 060110I

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	40.00	6.96e+07	0.78 y	26:33	-	1.19
2	Unk	1,2,3,7,8-PeCDD	200.00	3.19e+08	0.64 y	31:16	-	1.12
3	Unk	1,2,3,4,7,8-HxCDD	200.00	2.97e+08	1.24 y	34:33	-	1.24
4	Unk	1,2,3,6,7,8-HxCDD	200.00	3.27e+08	1.25 y	34:40	-	1.13
5	Unk	1,2,3,7,8,9-HxCDD	200.00	3.27e+08	1.24 y	34:57	-	1.23
6	Unk	1,2,3,4,6,7,8-HpCDD	200.00	2.90e+08	1.03 y	38:31	-	1.14
7	Unk	OCDD	400.00	4.99e+08	0.91 y	41:47	-	1.15
8	Unk	2,3,7,8-TCDF	40.00	8.69e+07	0.76 y	25:42	-	1.15
9	Unk	1,2,3,7,8-PeCDF	200.00	4.43e+08	1.54 y	30:01	-	1.08
10	Unk	2,3,4,7,8-PeCDF	200.00	4.46e+08	1.54 y	30:58	-	1.10
11	Unk	1,2,3,4,7,8-HxCDF	200.00	4.16e+08	1.22 y	33:40	-	1.25
12	Unk	1,2,3,6,7,8-HxCDF	200.00	4.97e+08	1.23 y	33:48	-	1.26
13	Unk	2,3,4,6,7,8-HxCDF	200.00	4.54e+08	1.22 y	34:24	-	1.27
14	Unk	1,2,3,7,8,9-HxCDF	200.00	3.74e+08	1.25 y	35:20	-	1.21
15	Unk	1,2,3,4,6,7,8-HpCDF	200.00	3.99e+08	1.02 y	37:06	-	1.43
16	Unk	1,2,3,4,7,8,9-HpCDF	200.00	3.35e+08	1.03 y	39:03	-	1.45
17	Unk	OCDF	400.00	5.50e+08	0.87 y	41:59	-	0.97
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.19
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.19
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.12
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.12
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.20
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.20
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.14
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.14
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.15
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.15
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	1.09
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.09
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	1.09
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	1.09
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.25
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.25
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.44
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.44
36	IS	13C-2,3,7,8-TCDD	100.00	1.46e+08	0.79 y	26:31	-	1.05
37	IS	13C-1,2,3,7,8-PeCDD	100.00	1.43e+08	0.65 y	31:14	-	1.03
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	1.20e+08	1.25 y	34:32	-	0.83
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	1.44e+08	1.26 y	34:39	-	1.00

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.28e+08	1.06 y	38:30	-	0.89
41	IS	13C-OCDD	200.00	2.16e+08	0.91 y	41:46	-	0.75
42	IS	13C-2,3,7,8-TCDF	100.00	1.89e+08	0.80 y	25:41	-	0.93
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.05e+08	1.60 y	30:01	-	1.01
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.04e+08	1.58 y	30:57	-	1.00
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	1.67e+08	0.52 y	33:39	-	1.15
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	1.98e+08	0.52 y	33:47	-	1.37
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	1.78e+08	0.52 y	34:23	-	1.23
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	1.54e+08	0.54 y	35:19	-	1.07
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.39e+08	0.44 y	37:05	-	0.96
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.16e+08	0.44 y	39:03	-	0.80
51	IS	13C-OCDF	200.00	2.83e+08	0.90 y	41:59	-	0.98

52	C/Up	37Cl-2,3,7,8-TCDD	40.00	4.40e+07		26:32	-	0.79
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.39e+08	0.79 y	25:53	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.03e+08	0.78 y	24:18	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.44e+08	1.27 y	34:57	-	1.00

Filename: 060322C1 S: 7 Acquired: 22-MAR-06 14:31:06

Run: 060322C1 Analyte: Cal: 1613VG5-3-22-06

Results:

Sample text: ST060322C1-6 1613 CSS 060110J

Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk 2,3,7,8-TCDD	200.00	3.53e+08	0.78 y	26:32	-	0.95
2	Unk 1,2,3,7,8-PeCDD	1000.00	1.80e+09	0.63 y	31:16	-	1.01
3	Unk 1,2,3,4,7,8-HxCDD	1000.00	1.85e+09	1.26 y	34:34	-	1.13
4	Unk 1,2,3,6,7,8-HxCDD	1000.00	1.89e+09	1.27 y	34:41	-	0.94
5	Unk 1,2,3,7,8,9-HxCDD	1000.00	1.96e+09	1.25 y	34:58	-	1.07
6	Unk 1,2,3,4,6,7,8-HpCDD	1000.00	1.56e+09	1.05 y	38:32	-	0.88
7	Unk OCDD	2000.00	3.39e+09	0.90 y	41:52	-	1.02
8	Unk 2,3,7,8-TCDF	200.00	4.37e+08	0.78 y	25:42	-	0.92
9	Unk 1,2,3,7,8-PeCDF	1000.00	2.42e+09	1.54 y	30:02	-	0.95
10	Unk 2,3,4,7,8-PeCDF	1000.00	2.45e+09	1.55 y	30:59	-	0.97
11	Unk 1,2,3,4,7,8-HxCDF	1000.00	2.31e+09	1.26 y	33:41	-	1.08
12	Unk 1,2,3,6,7,8-HxCDF	1000.00	2.78e+09	1.23 y	33:49	-	1.09
13	Unk 2,3,4,6,7,8-HxCDF	1000.00	2.75e+09	1.24 y	34:25	-	1.14
14	Unk 1,2,3,7,8,9-HxCDF	1000.00	2.30e+09	1.24 y	35:21	-	1.07
15	Unk 1,2,3,4,6,7,8-HpCDF	1000.00	2.38e+09	1.02 y	37:06	-	1.28
16	Unk 1,2,3,4,7,8,9-HpCDF	1000.00	2.07e+09	1.02 y	39:06	-	1.27
17	Unk OCDF	2000.00	3.87e+09	0.88 y	42:04	-	0.90
18	Tot Total Tetra-Dioxins	0.00	-	- n	-	-	0.95
19	Tot TCDD EMPC	0.00	-	- n	-	-	0.95
20	Tot Total Penta-Dioxins	0.00	-	- n	-	-	1.01
21	Tot PeCDD EMPC	0.00	-	- n	-	-	1.01
22	Tot Total Hexa-Dioxins	0.00	-	- n	-	-	1.04
23	Tot HxCDD EMPC	0.00	-	- n	-	-	1.04
24	Tot Total Hepta-Dioxins	0.00	-	- n	-	-	0.88
25	Tot HpCDD EMPC	0.00	-	- n	-	-	0.88
26	Tot Total Tetra-Furans	0.00	-	- n	-	-	0.92
27	Tot TCDF EMPC	0.00	-	- n	-	-	0.92
28	Tot 1st Func. Penta-Furans	0.00	-	- n	-	-	0.96
29	Tot 1st Func. PeCDF EMPC	0.00	-	- n	-	-	0.96
30	Tot Total Penta-Furans	0.00	-	- n	-	-	0.96
31	Tot PeCDF EMPC	0.00	-	- n	-	-	0.96
32	Tot Total Hexa-Furans	0.00	-	- n	-	-	1.10
33	Tot HxCDF EMPC	0.00	-	- n	-	-	1.10
34	Tot Total Hepta-Furans	0.00	-	- n	-	-	1.27
35	Tot HpCDF EMPC	0.00	-	- n	-	-	1.27
36	IS 13C-2,3,7,8-TCDD	100.00	1.85e+08	0.79 y	26:31	-	1.12
37	IS 13C-1,2,3,7,8-PeCDD	100.00	1.78e+08	0.64 y	31:15	-	1.07
38	IS 13C-1,2,3,4,7,8-HxCDD	100.00	1.64e+08	1.27 y	34:33	-	0.84
39	IS 13C-1,2,3,6,7,8-HxCDD	100.00	2.02e+08	1.28 y	34:40	-	1.04

40	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	1.78e+08	1.06 y	38:31	-	0.91
41	IS	13C-OCDD	200.00	3.32e+08	0.90 y	41:51	-	0.85
42	IS	13C-2,3,7,8-TCDF	100.00	2.38e+08	0.79 y	25:41	-	0.92
43	IS	13C-1,2,3,7,8-PeCDF	100.00	2.54e+08	1.60 y	30:01	-	0.99
44	IS	13C-2,3,4,7,8-PeCDF	100.00	2.52e+08	1.61 y	30:58	-	0.98
45	IS	13C-1,2,3,4,7,8-HxCDF	100.00	2.15e+08	0.54 y	33:40	-	1.10
46	IS	13C-1,2,3,6,7,8-HxCDF	100.00	2.55e+08	0.52 y	33:48	-	1.31
47	IS	13C-2,3,4,6,7,8-HxCDF	100.00	2.41e+08	0.53 y	34:24	-	1.23
48	IS	13C-1,2,3,7,8,9-HxCDF	100.00	2.14e+08	0.53 y	35:20	-	1.10
49	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	1.86e+08	0.44 y	37:06	-	0.95
50	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	1.64e+08	0.45 y	39:05	-	0.84
51	IS	13C-OCDF	200.00	4.31e+08	0.89 y	42:03	-	1.10



52	C/Up	37C1-2,3,7,8-TCDD	200.00	2.64e+08		26:32	-	0.80
53	RS/RT	13C-1,2,3,4-TCDD	100.00	1.66e+08	0.80 y	25:53	-	1.00
54	RS	13C-1,2,3,4-TCDF	100.00	2.57e+08	0.78 y	24:17	-	1.00
55	RS/RT	13C-1,2,3,7,8,9-HxCDD	100.00	1.95e+08	1.25 y	34:57	-	1.00

FORM 4A  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory

Episode No.:

CCAL ID: ST060322C1-1

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

NATIVE ANALYTES	M/Z'S	ION	QC	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
	FORMING RATIO (1)	ABUND. RATIO	LIMITS (2)			
2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	10.00	7.8 - 12.9 8.2 - 12.3 (4)
1,2,3,7,8-PeCDD	M+2/M+4	0.63	0.54-0.72	y	48.4	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	50.1	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	y	46.3	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	49.6	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	y	50.2	43.0 - 58.0
OCDD	M+2/M+4	0.90	0.76-1.02	y	98.4	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.64	8.4 - 12.0 8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	49.1	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	48.2	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	48.0	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	48.4	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	47.9	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.05-1.43	y	47.9	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	48.3	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	48.7	43.0 - 58.0
OCDF	M+2/M+4	0.89	0.76-1.02	y	96.7	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: MS

Date: 3/23/06

FORM 4B  
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

LABELLED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)	
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	104	82.0 - 121.0 85.0 - 117.0 (5)	(1) See Table 8, Method 1613, for m/z specifications.
13C-1,2,3,7,8-PeCDD	M+2/M+4	0.65	0.54-0.72	y	104	62.0 - 160.0	(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	95.4	85.0 - 117.0	(3) Contract-required concentration range, as specified in Table 6, Method 1613.
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	104	85.0 - 118.0	
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88-1.20	y	97.4	72.0 - 138.0	(4) No ion abundance ratio; report concentration found.
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	194	96.0 - 415.0	(5) Contract-required concentration range, as specified in Table 6a, Method 1613, for tetras only.
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	107	71.0 - 140.0 76.0 - 131.0 (5)	
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	107	76.0 - 130.0	
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	107	77.0 - 130.0	
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	97.8	76.0 - 131.0	
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	70.0 - 143.0	
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	99.9	73.0 - 137.0	
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	y	101	74.0 - 135.0	
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.43	0.37-0.51	y	100	78.0 - 129.0	
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	96.5	77.0 - 129.0	
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	198	96.0 - 415.0	Analyst: <u>vm</u>
CLEANUP STANDARD (4)							
37Cl-2,3,7,8-TCDD					10.1	7.9 - 12.7 8.3 - 12.1 (5)	Date: <u>3/22/06</u>

## PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory

Episode No.:

CCAL ID: ST060322C1-1

Contract No.:

SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	10.00	8.00 - 12.0
1,2,3,7,8-PeCDD	M+2/M+4	0.63	0.54-0.72	y	48.4	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	y	50.1	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	y	46.3	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	49.6	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	y	50.2	40.0 - 60.0
OCDD	M+2/M+4	0.90	0.76-1.02	y	98.4	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.64	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	49.1	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	48.2	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	48.0	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	48.4	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	47.9	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.05-1.43	y	47.9	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	48.3	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.02	0.88-1.20	y	48.7	40.0 - 60.0
OCDF	M+2/M+4	0.89	0.76-1.02	y	96.7	80.0 - 120

Analyst: miDate: 3/23/06

## EPA METHOD 8290

## PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

LABELLED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	y	104	70.0 - 130
13C-1,2,3,7,8-PeCDD	M+2/M+4	0.65	0.54-0.72	y	104	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	y	95.4	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	104	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88-1.20	y	97.4	70.0 - 130
13C-OCDD	M+2/M+4	0.89	0.76-1.02	y	194	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	y	107	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	107	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	107	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	97.8	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	102	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	99.9	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	y	101	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.43	0.37-0.51	y	100	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	96.5	70.0 - 130
13C-OCDF	M+2/M+4	0.91	0.76-1.02	y	198	140 - 260
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD					10.1	7.00 - 13.0

Analyst: RMDate: 3/23/06

## FORM 5

## PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-5 Initial Calibration Date: 3/22/06

RT Window Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

DB-5 IS Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

DB\_225 IS Data Filename: Analysis Date: Time:

## DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:44	1,3,6,8-TCDF (F)	20:32
1,2,8,9-TCDD (L)	27:27	1,2,8,9-TCDF (L)	27:36
1,2,4,7,9-PeCDD (F)	29:08	1,3,4,6,8-PeCDF (F)	27:31
1,2,3,8,9-PeCDD (L)	31:39	1,2,3,8,9-PeCDF (L)	31:53
1,2,4,6,7,9-HxCDD (F)	33:03	1,2,3,4,6,8-HxCDF (F)	32:31
1,2,3,7,8,9-HxCDD (L)	34:58	1,2,3,7,8,9-HxCDF (L)	35:21
1,2,3,4,6,7,9-HpCDD (F)	37:31	1,2,3,4,6,7,8-HpCDF (F)	37:07
1,2,3,4,6,7,8-HpCDD (L)	38:31	1,2,3,4,7,8,9-HpCDF (L)	39:04

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5).

## =====

## ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT  
BETWEEN  
COMPARED PEAKS (1)

&lt;25%

(1) To meet contract requirements, %Valley Height Between Compared  
Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: AMDate: 3/23/06

FORM 6A  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5

GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME	RRT	RRT
	REFERENCE		QC LIMITS (1)
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999-1.002

(1) Contract-required limits for  
Relative Retention Times (RRT)  
as specified in Table 2, Method 1613. 10/94

LABELED COMPOUNDS

13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923-1.103
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.025	0.976-1.043
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.026	0.989-1.052
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.160	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.197	1.011-1.526
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.208	1.000-1.567

Analyst: YH

Date: 3/23/06

FORM 6B  
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Alta Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 3/22/06

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 060322C1 S#1 Analysis Date: 22-MAR-06 Time: 09:32:59

Compounds Using 13C-123789-HxCDD as Internal Standard

NATIVE ANALYTES	RETENTION TIME	RRT	RRT
	REFERENCE		QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.000	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.009	1.000-1.019
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.001	0.999-1.001
OCDF	13C-OCDF	1.006	0.999-1.008

(1) Contract-required limits for  
Relative Retention Times (RRT)  
as specified in Table 2, Method 1613. 10/94

LABELED COMPOUNDS

13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.963	0.944-0.970
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.967	0.949-0.975
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,7,8,9-HxCDD	0.984	0.959-1.021
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDD	1.011	0.977-1.047
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.988	0.977-1.000
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,7,8,9-HxCDD	0.991	0.981-1.003
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.061	1.043-1.085
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,7,8,9-HxCDD	1.101	1.086-1.110
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,7,8,9-HxCDD	1.117	1.057-1.151
13C-OCDD	13C-1,2,3,7,8,9-HxCDD	1.195	1.032-1.311
13C-OCDF	13C-1,2,3,7,8,9-HxCDD	1.201	1.032-1.311

Analyst: AM

Date: 3/23/06



Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
2,3,7,8-TCDD	1.79e+07	0.78 y	1.08	26:33	9.9986		*	2.5	*
1,2,3,7,8-PeCDD	7.94e+07	0.63 y	1.03	31:17	48.413		*	2.5	*
1,2,3,4,7,8-HxCDD	7.27e+07	1.23 y	1.13	34:34	50.100		*	2.5	*
1,2,3,6,7,8-HxCDD	8.37e+07	1.27 y	1.03	34:41	46.322		*	2.5	*
1,2,3,7,8,9-HxCDD	8.40e+07	1.24 y	1.12	34:58	49.626		*	2.5	*
1,2,3,4,6,7,8-HpCDD	6.84e+07	1.03 y	1.02	38:31	50.200		*	2.5	*
OCDD	1.16e+08	0.90 y	1.06	41:47	98.413		*	2.5	*
2,3,7,8-TCDF	2.23e+07	0.77 y	1.06	25:42	9.6429		*	2.5	*
1,2,3,7,8-PeCDF	1.15e+08	1.55 y	1.01	30:03	49.145		*	2.5	*
2,3,4,7,8-PeCDF	1.15e+08	1.55 y	1.02	30:59	48.157		*	2.5	*
1,2,3,4,7,8-HxCDF	9.97e+07	1.23 y	1.15	33:41	48.028		*	2.5	*
1,2,3,6,7,8-HxCDF	1.27e+08	1.24 y	1.14	33:49	48.373		*	2.5	*
2,3,4,6,7,8-HxCDF	1.14e+08	1.24 y	1.17	34:25	47.928		*	2.5	*
1,2,3,7,8,9-HxCDF	9.32e+07	1.25 y	1.10	35:21	47.854		*	2.5	*
1,2,3,4,6,7,8-HpCDF	9.59e+07	1.01 y	1.31	37:07	48.348		*	2.5	*
1,2,3,4,7,8,9-HpCDF	7.72e+07	1.02 y	1.33	39:04	48.679		*	2.5	*
OCDF	1.33e+08	0.89 y	0.91	42:00	96.741		*	2.5	*

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	52.364	52.641	*	*	*
Total Penta-Dioxins	143.45	143.74	*	*	*
Total Hexa-Dioxins	202.96	203.37	*	*	*
Total Hepta-Dioxins	100.70	101.63	*	*	*
Total Tetra-Furans	30.189	30.289	*	*	*
Total Penta-Furans	181.82	182.98	*	*	*
Total Hexa-Furans	243.28	244.86	*	*	*
Total Hepta-Furans	97.658	99.281	*	*	*

Rec Qual

104

104

95.4

104

97.4

97.0

107

107

107

97.8

102

99.9

101

100

96.5

99.0

101

Integrations

Reviewed

by

by

Analyst: MJ

Analyst: \_\_\_\_\_

Date: 3/22/06

Date: \_\_\_\_\_

Run: 060322C1

Analyte:

Cal: 1613VG5-3-22-06

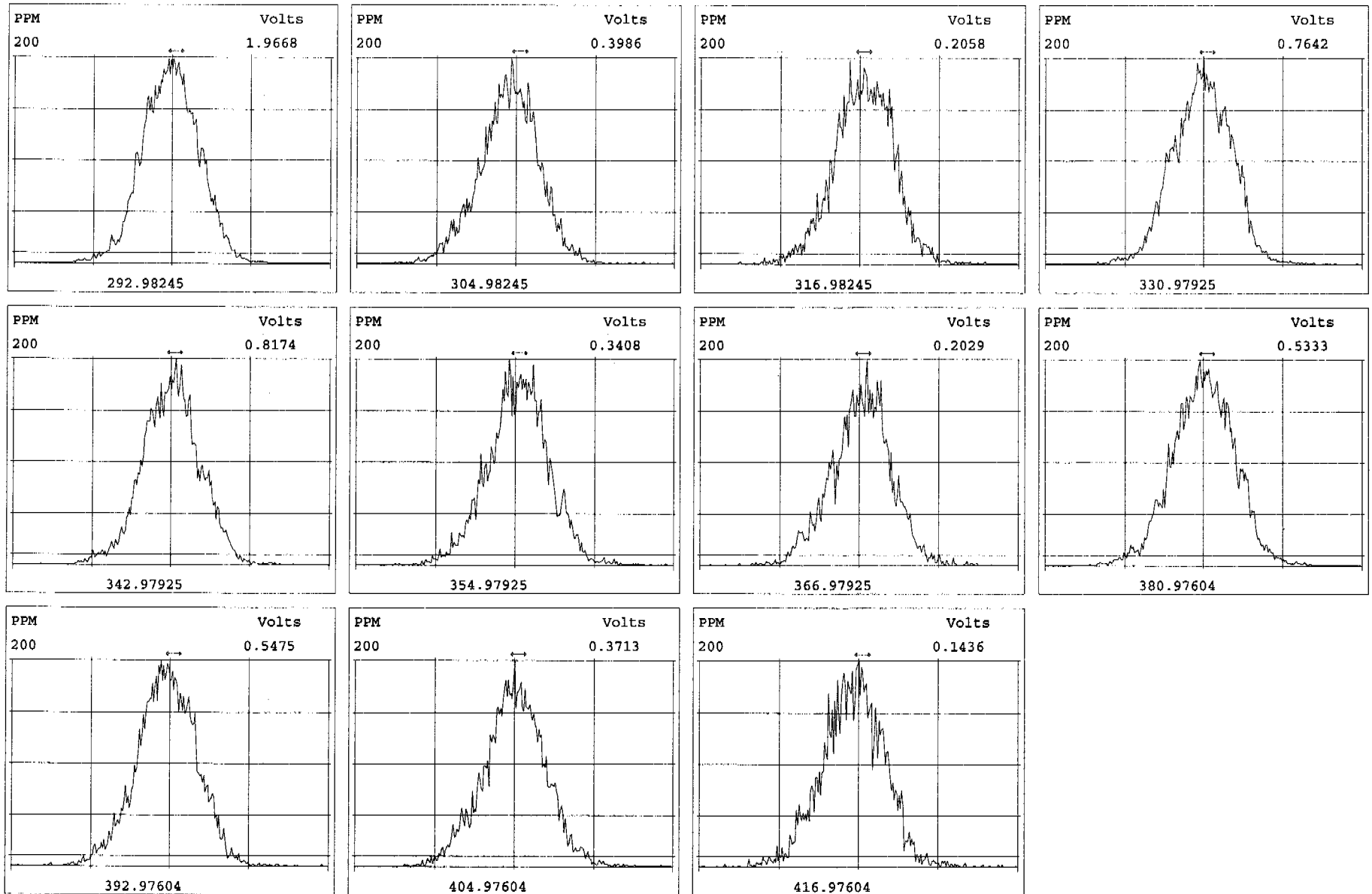
Inst. ID. VG-7

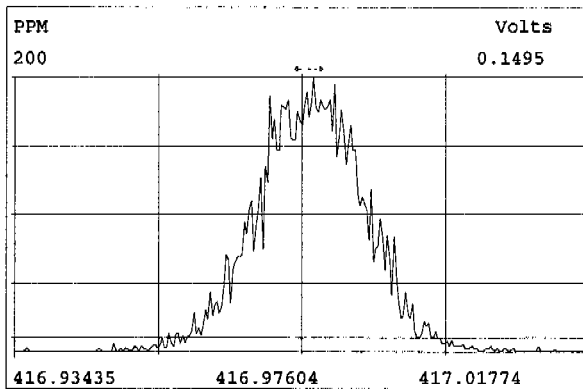
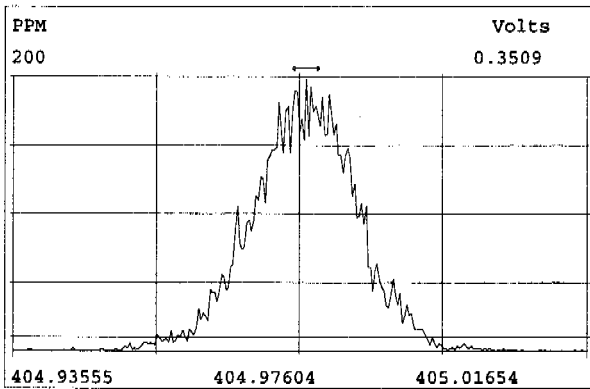
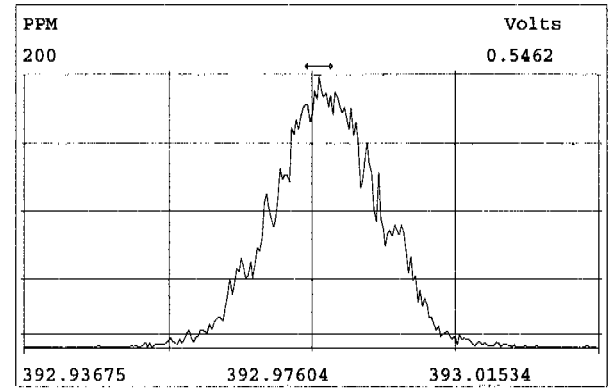
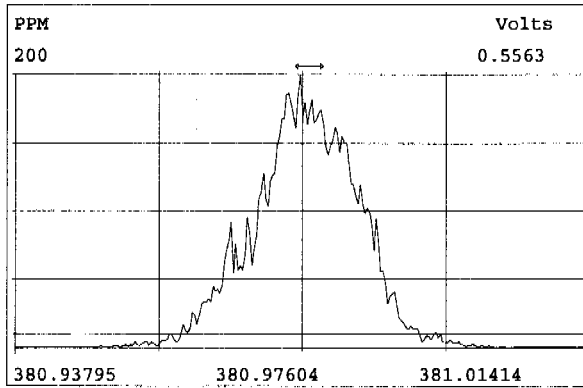
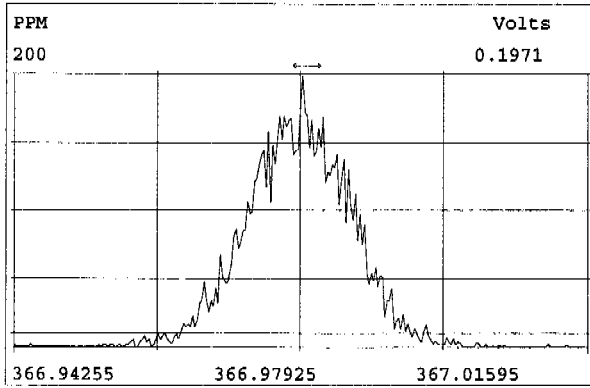
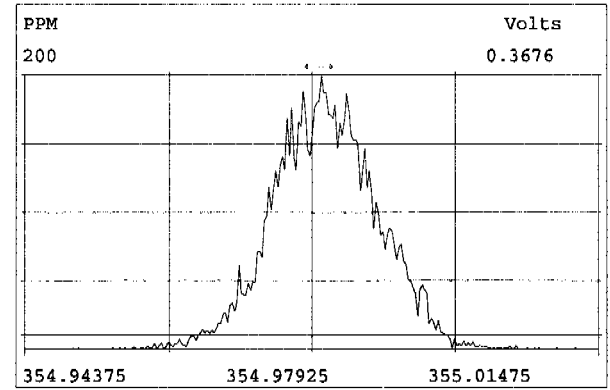
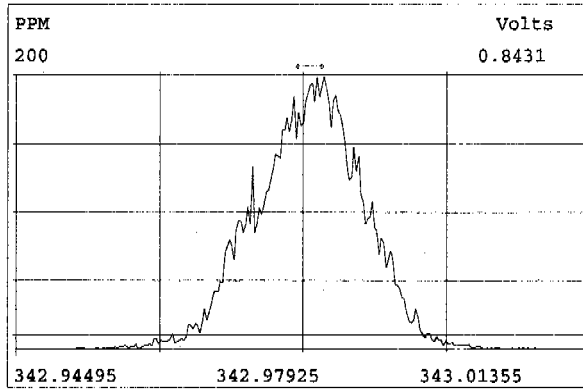
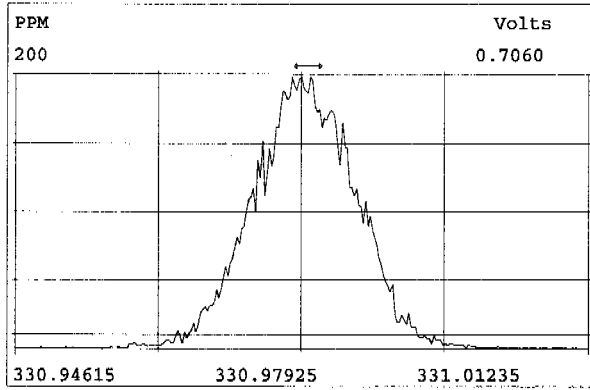
Data filename: 060322C1

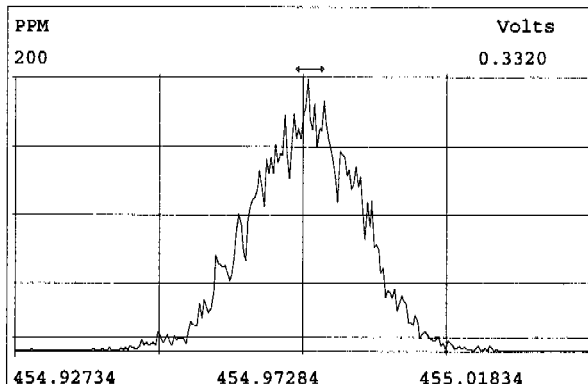
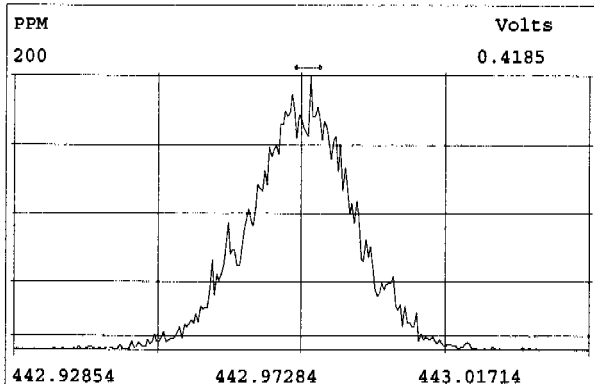
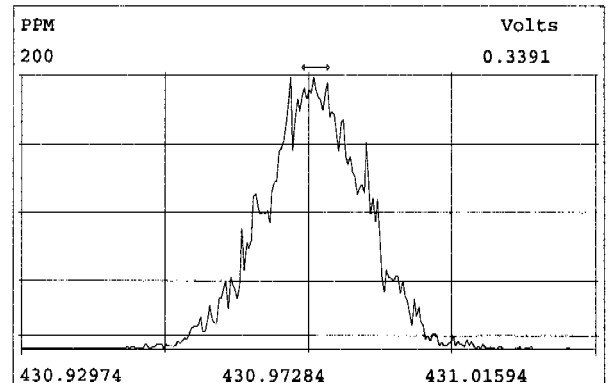
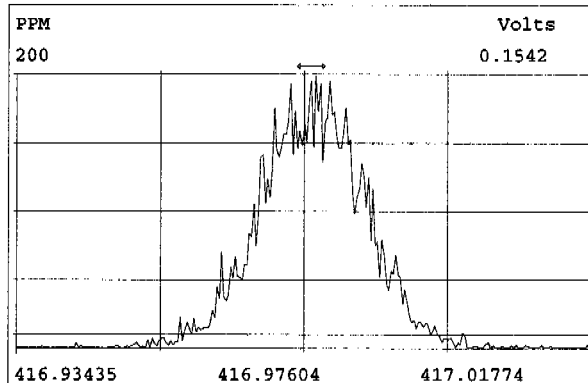
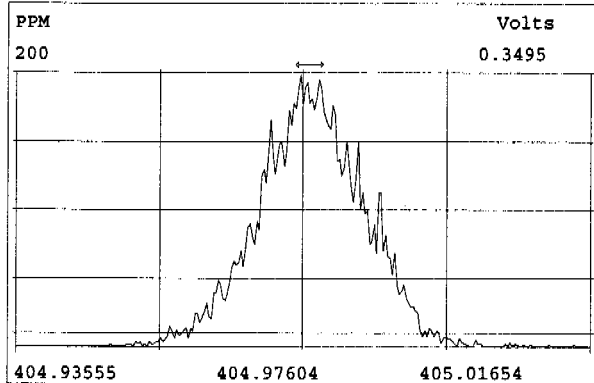
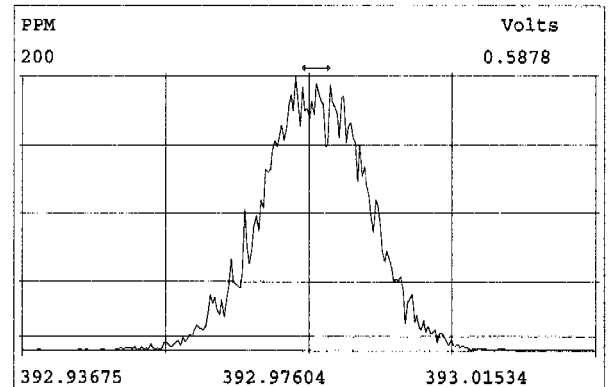
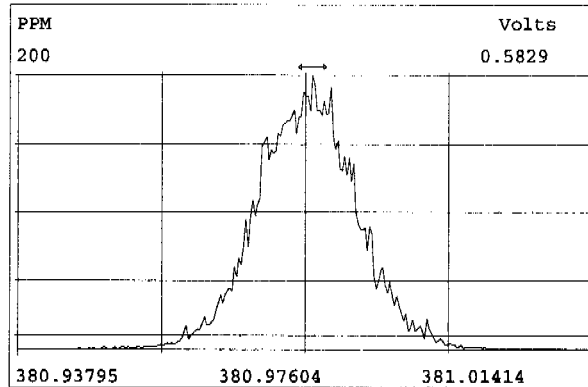
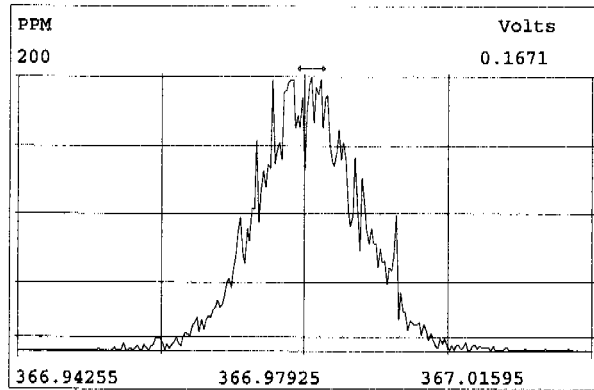
Name	RRT Limits		Samp# 1	Samp# 3	Samp# 4	Samp# 5	Samp# 6	Samp# 7
	Lower	Upper	10	0.25	0.50	2.0	40	200
2,3,7,8-TCDD	0.999	-1.002	1.001	1.001	1.001	1.001	1.001	1.001
1,2,3,7,8-PeCDD	0.999	-1.002	1.000	1.000	1.000	1.000	1.001	1.000
1,2,3,4,7,8-HxCDD	0.999	-1.001	1.000	1.001	1.000	1.000	1.000	1.000
1,2,3,6,7,8-HxCDD	0.998	-1.004	1.000	1.000	1.001	1.000	1.000	1.000
1,2,3,7,8,9-HxCDD	1.000	-1.019	1.009	1.009	1.009	1.009	1.009	1.009
1,2,3,4,6,7,8-HpCDD	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
OCDD	0.999	-1.001	1.001	1.000	1.000	1.000	1.000	1.000
2,3,7,8-TCDF	0.999	-1.003	1.001	1.001	1.001	1.001	1.001	1.001
1,2,3,7,8-PeCDF	0.999	-1.002	1.000	1.000	1.000	1.000	1.000	1.000
2,3,4,7,8-PeCDF	0.999	-1.002	1.000	1.000	1.000	1.000	1.000	1.000
1,2,3,4,7,8-HxCDF	0.999	-1.001	1.001	1.000	1.000	1.001	1.001	1.000
1,2,3,6,7,8-HxCDF	0.997	-1.005	1.000	1.000	1.000	1.000	1.001	1.001
2,3,4,6,7,8-HxCDF	0.999	-1.001	1.001	1.000	1.000	1.000	1.000	1.000
1,2,3,7,8,9-HxCDF	0.999	-1.001	1.000	1.000	1.001	1.000	1.001	1.000
1,2,3,4,6,7,8-HpCDF	0.999	-1.001	1.001	1.000	1.000	1.000	1.000	1.000
1,2,3,4,7,8,9-HpCDF	0.999	-1.001	1.000	1.000	1.000	1.000	1.000	1.000
OCDF	0.999	-1.008	1.006	1.005	1.005	1.005	1.005	1.005
13C-2,3,7,8-TCDD	0.976	-1.043	1.025	1.025	1.024	1.025	1.024	1.024
13C-1,2,3,7,8-PeCDD	1.000	-1.567	1.208	1.208	1.207	1.207	1.207	1.208
13C-1,2,3,4,7,8-HxCDD	0.977	-1.000	0.988	0.988	0.988	0.988	0.988	0.988
13C-1,2,3,6,7,8-HxCDD	0.981	-1.003	0.991	0.992	0.991	0.992	0.992	0.992
13C-1,2,3,4,6,7,8-HpCDD	1.086	-1.110	1.101	1.102	1.102	1.102	1.102	1.102
13C-OCDD	1.032	-1.311	1.195	1.195	1.195	1.197	1.195	1.197
13C-2,3,7,8-TCDF	0.923	-1.103	0.992	0.992	0.992	0.992	0.992	0.992
13C-1,2,3,7,8-PeCDF	1.000	-1.425	1.160	1.160	1.159	1.160	1.159	1.160
13C-2,3,4,7,8-PeCDF	1.011	-1.526	1.197	1.196	1.196	1.196	1.196	1.197
13C-1,2,3,4,7,8-HxCDF	0.944	-0.970	0.963	0.963	0.963	0.963	0.963	0.963
13C-1,2,3,6,7,8-HxCDF	0.949	-0.975	0.967	0.967	0.967	0.967	0.967	0.967
13C-2,3,4,6,7,8-HxCDF	0.959	-1.021	0.984	0.984	0.984	0.984	0.984	0.984
13C-1,2,3,7,8,9-HxCDF	0.977	-1.047	1.011	1.011	1.010	1.011	1.011	1.011
13C-1,2,3,4,6,7,8-HpCDF	1.043	-1.085	1.061	1.061	1.061	1.062	1.061	1.061
13C-1,2,3,4,7,8,9-HpCDF	1.057	-1.151	1.117	1.117	1.117	1.117	1.117	1.118
13C-OCDF	1.032	-1.311	1.201	1.201	1.201	1.203	1.201	1.203
37C1-2,3,7,8-TCDD	0.989	-1.052	1.026	1.025	1.025	1.025	1.025	1.026
13C-1,2,3,4-TCDD	0.000	-0.000	*	*	*	*	*	*
13C-1,2,3,4-TCDF	0.923	-1.103	*	*	*	*	*	*
13C-1,2,3,7,8,9-HxCDD	0.000	-0.000	*	*	*	*	*	*

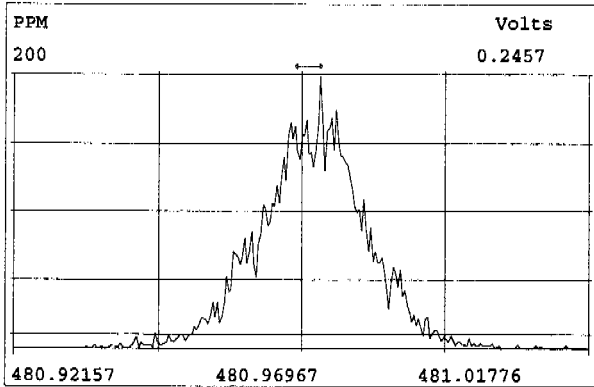
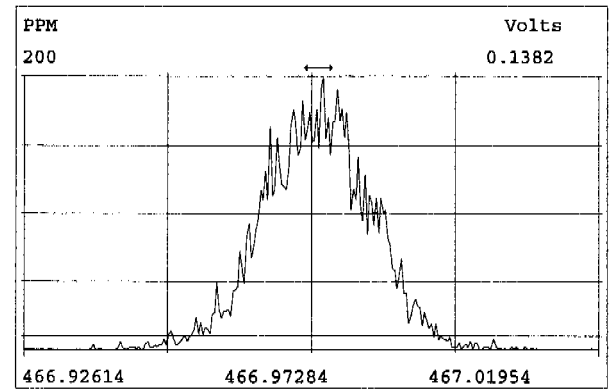
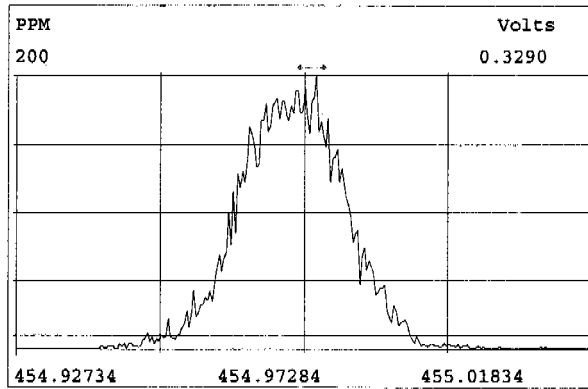
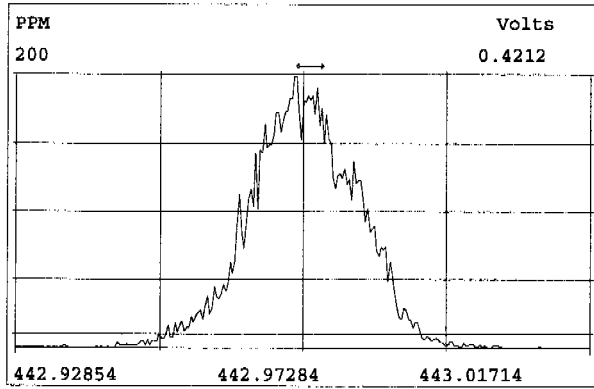
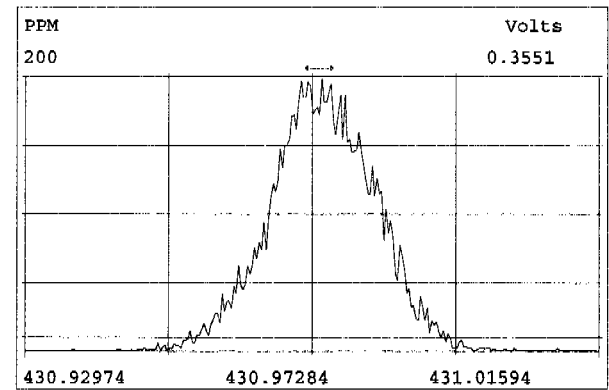
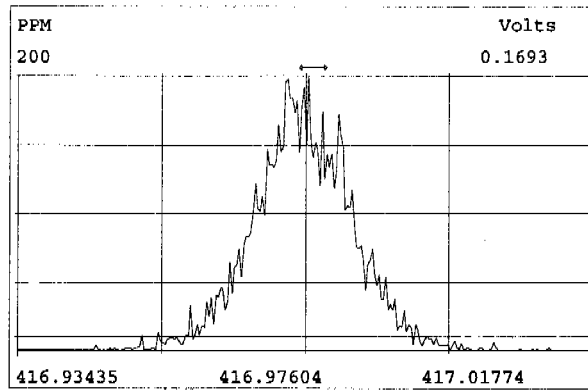
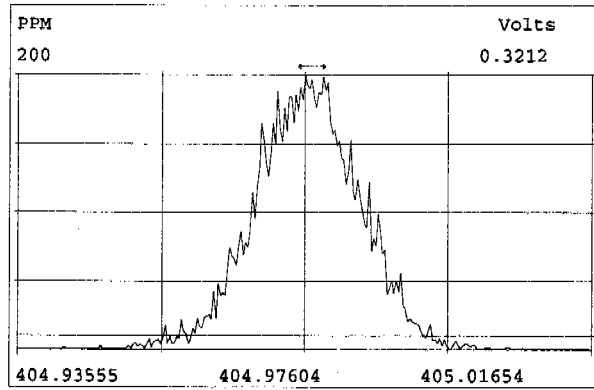
Alta Analytical Laboratory - Injection Log Run file: 060322C1 Instrument ID: VG-5 GC Column ID: db-5

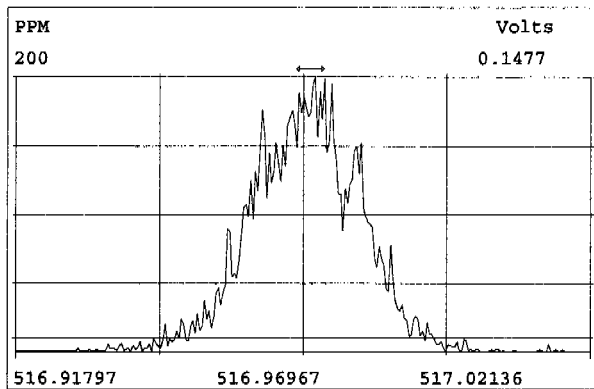
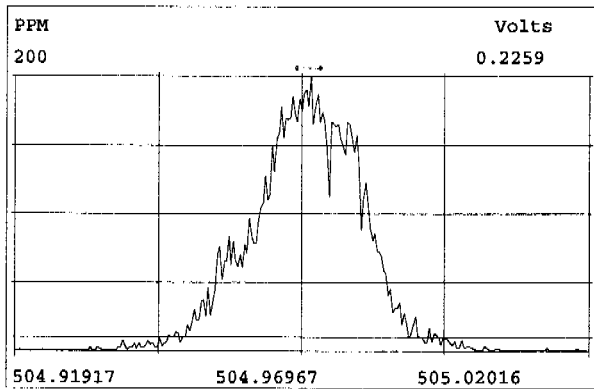
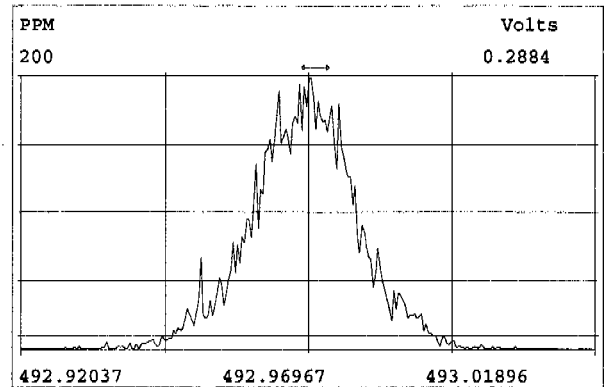
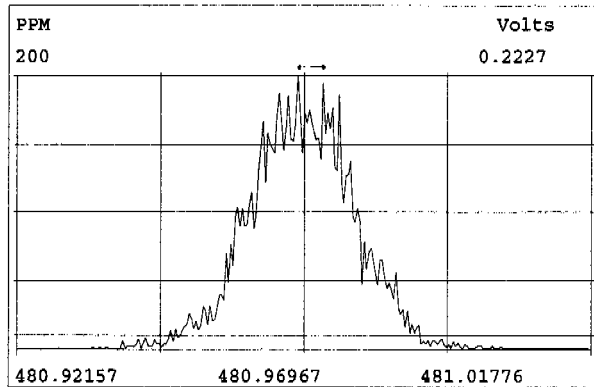
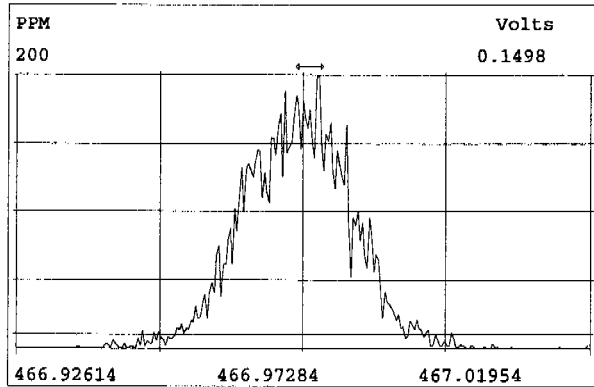
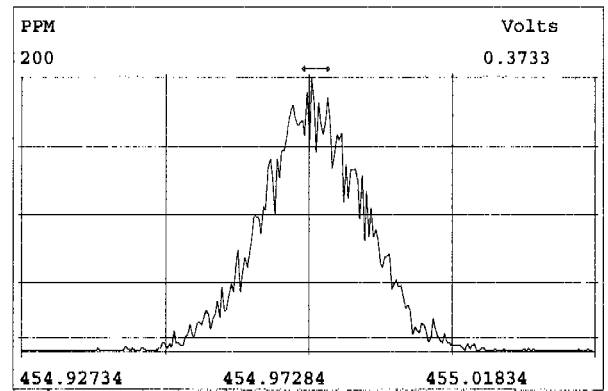
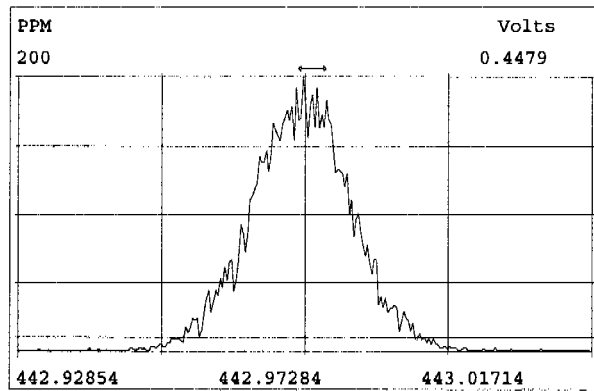
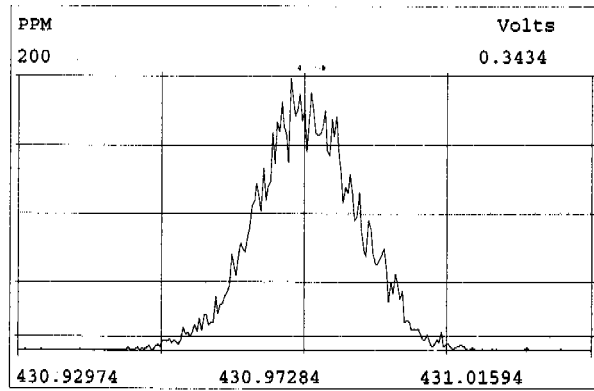
Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
060322C1	1	ST060322C1-1	MAS	22-MAR-06	09:32:59	NA	NA
060322C1	2	SOLVENT BLANK	MAS	22-MAR-06	10:22:37	NA	NA
060322C1	3	ST060322C1-2	MAS	22-MAR-06	11:12:17	NA	NA
060322C1	4	ST060322C1-3	MAS	22-MAR-06	12:02:01	NA	NA
060322C1	5	ST060322C1-4	MAS	22-MAR-06	12:51:46	NA	NA
060322C1	6	ST060322C1-5	MAS	22-MAR-06	13:41:25	NA	NA
060322C1	7	ST060322C1-6	MAS	22-MAR-06	14:31:06	NA	NA
060322C1	8	SOLVENT BLANK	MAS	22-MAR-06	15:20:45	NA	NA
060322C1	9	SS060322C1-1	MAS	22-MAR-06	16:10:24	NA	NA





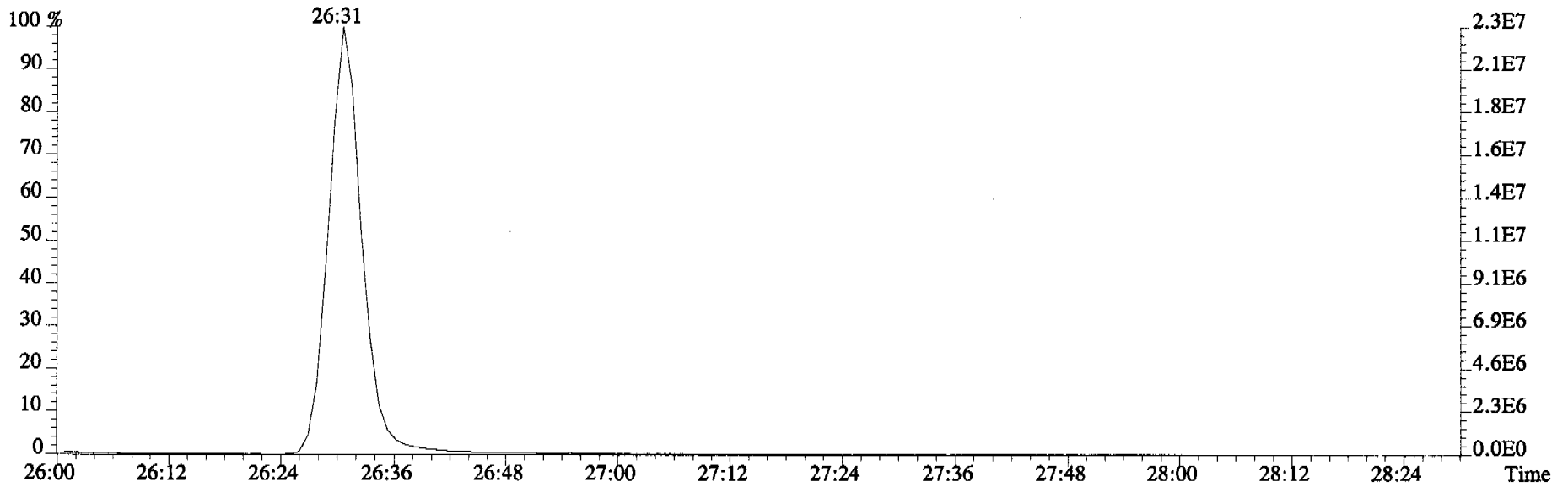
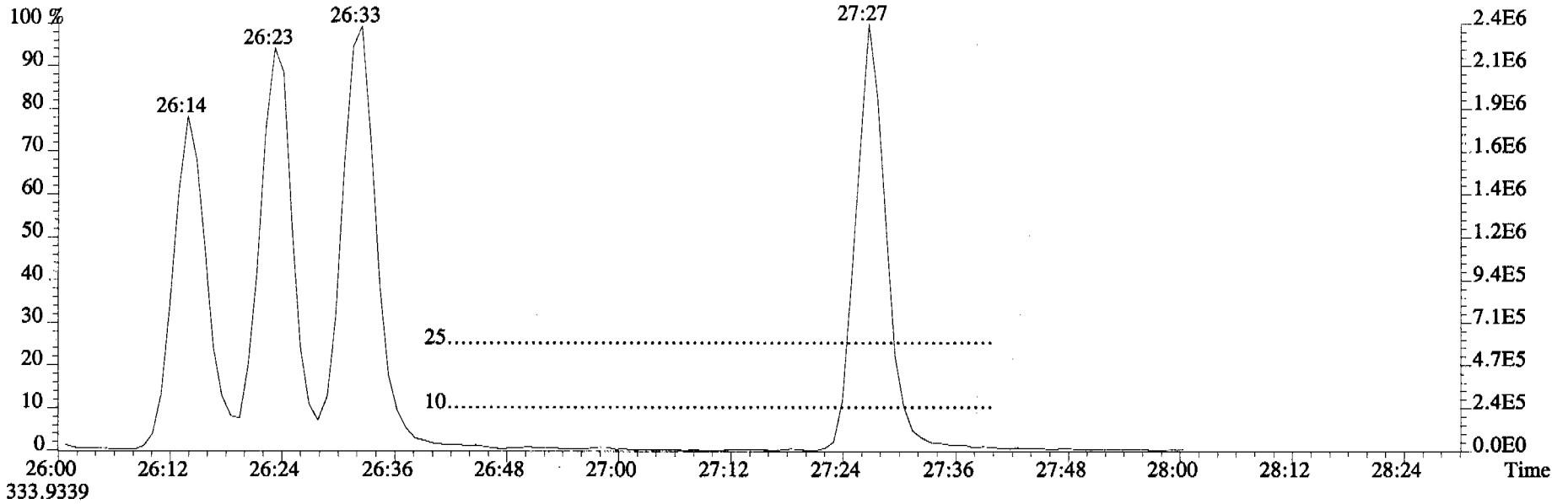




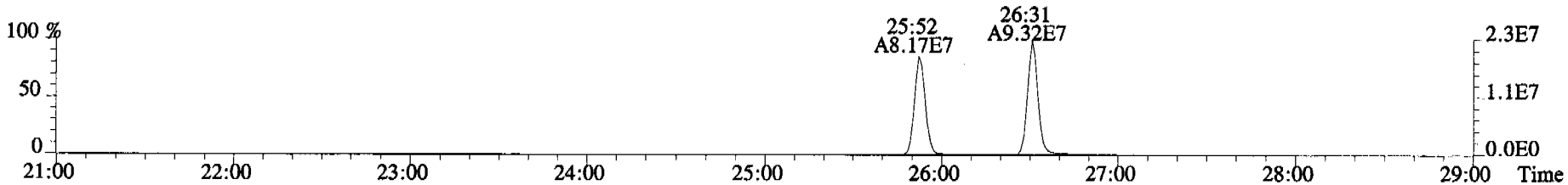
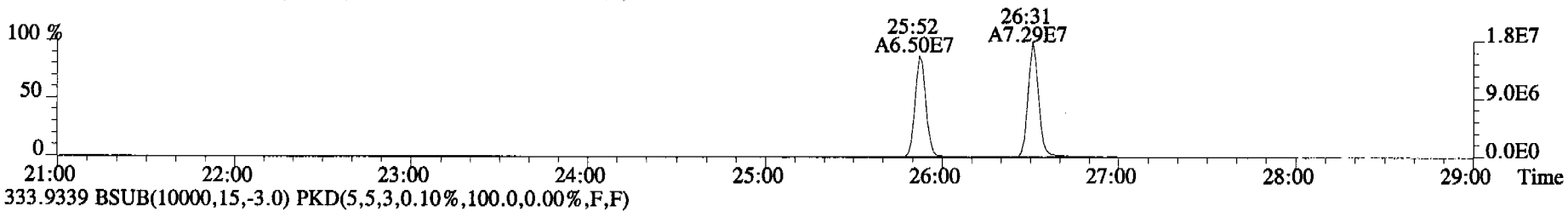
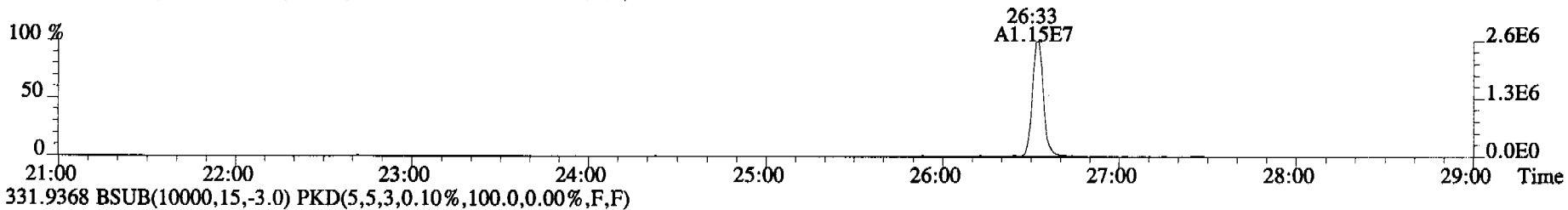
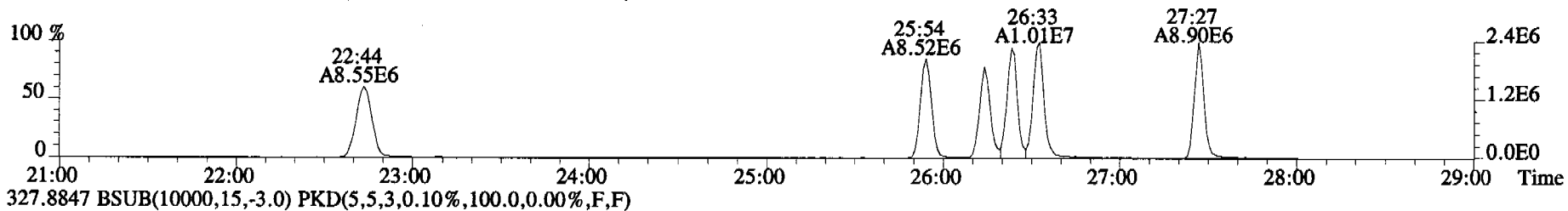
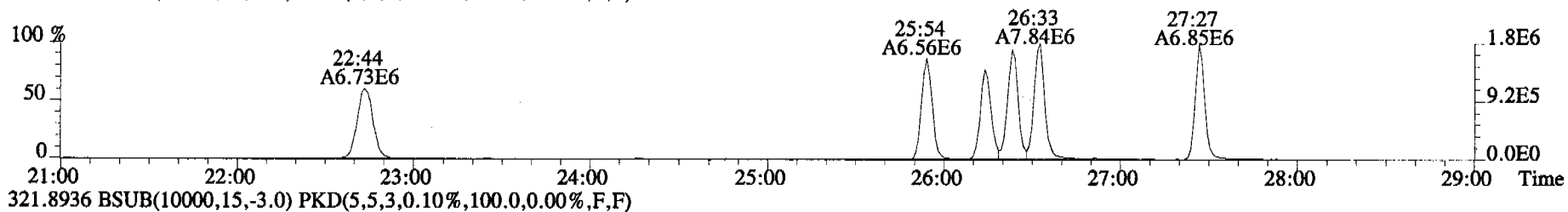




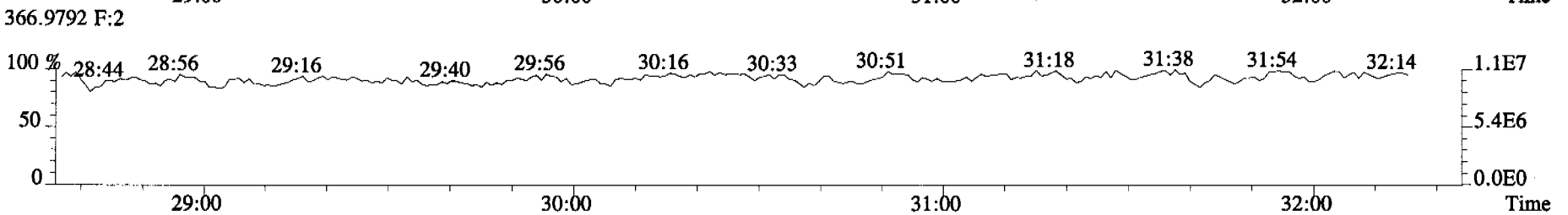
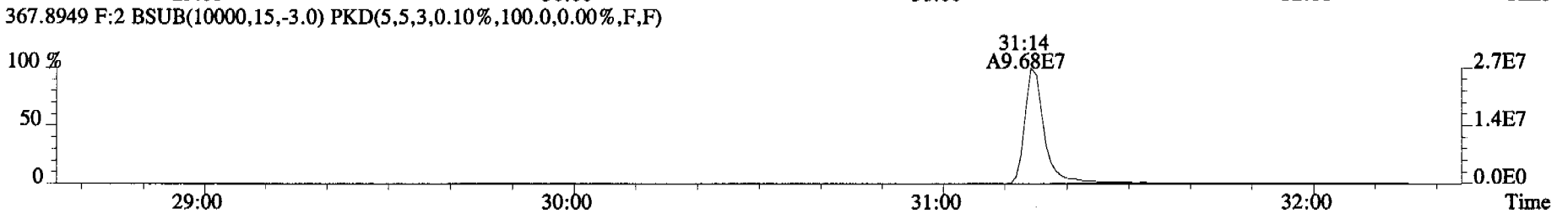
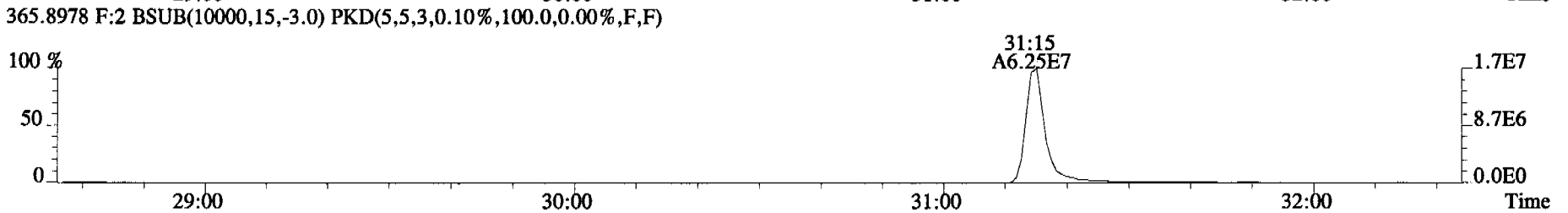
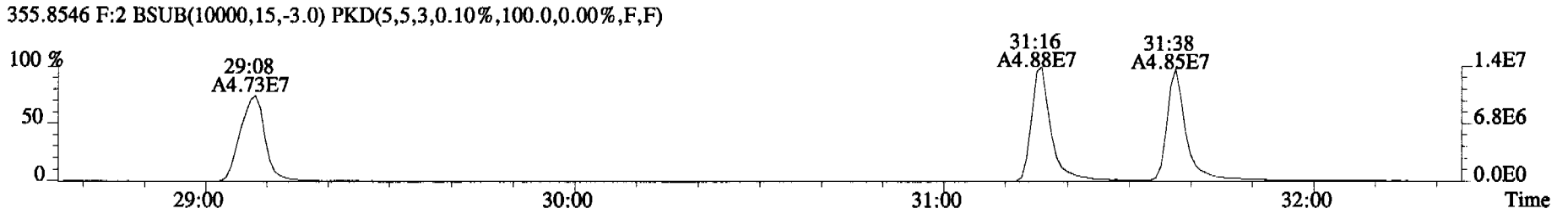
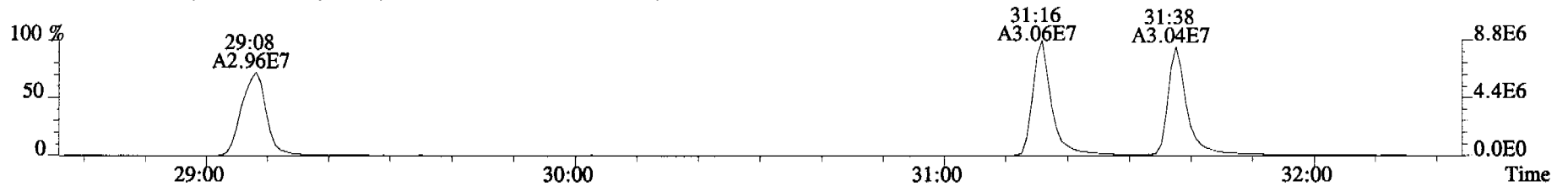
File:060322C1 #1-514 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD\_DB5  
321.8936



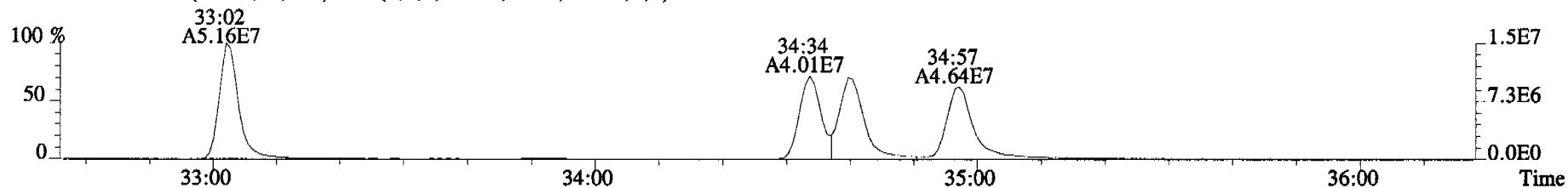
File:060322C1 #1-514 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD\_DB5  
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



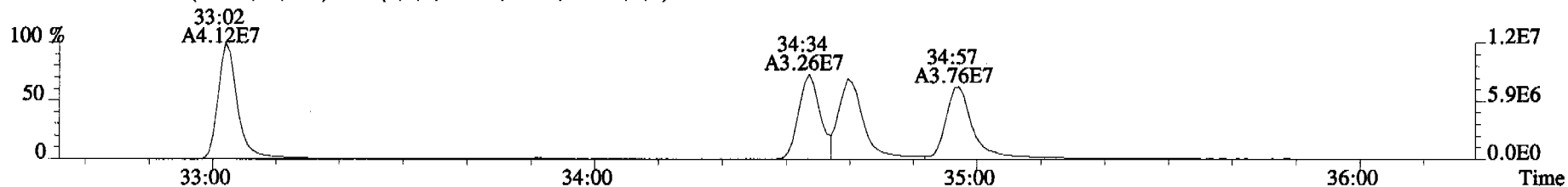
File:060322C1 #1-316 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD\_DB5  
353.8576 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



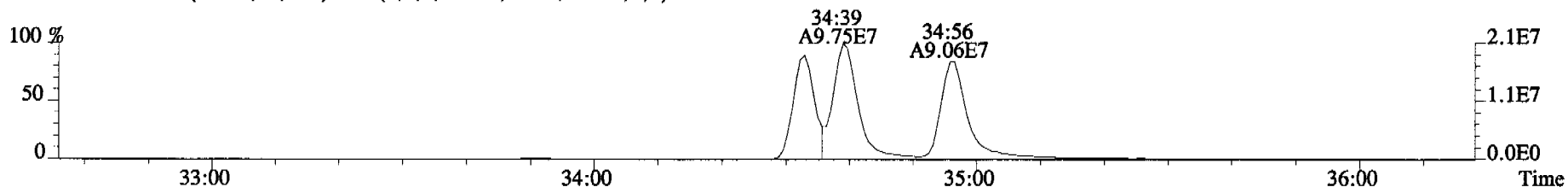
File:060322C1 #1-378 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD\_DB5  
389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



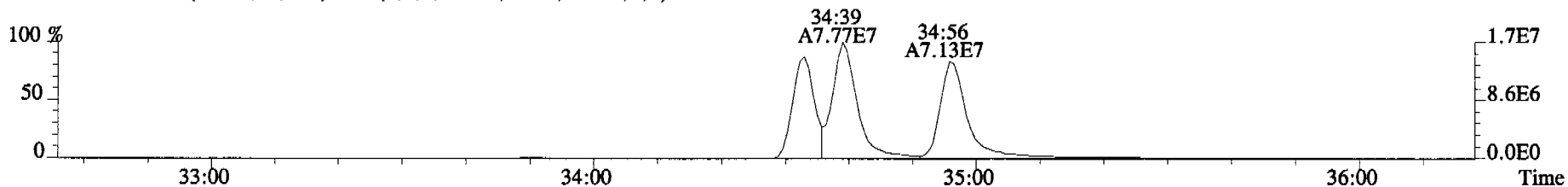
391.8127 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



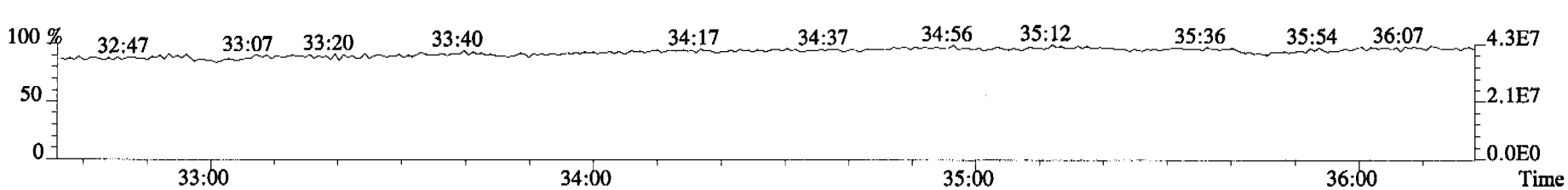
401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



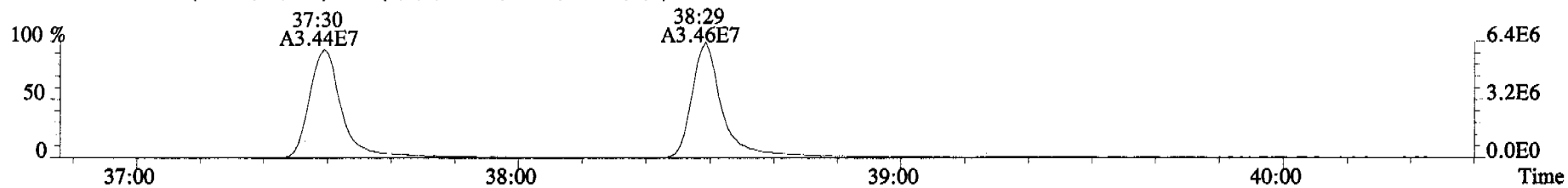
403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



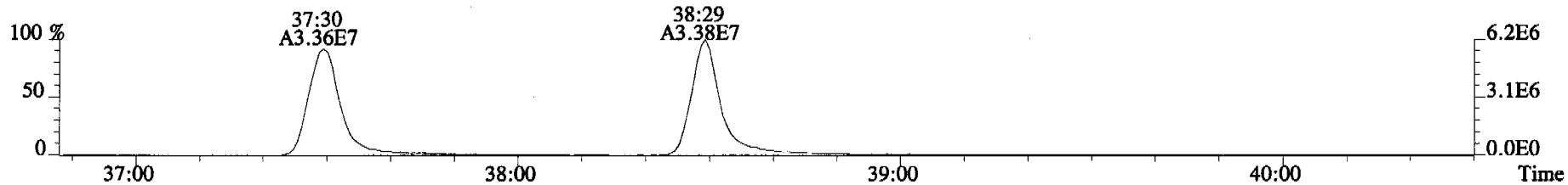
380.9760 F:3



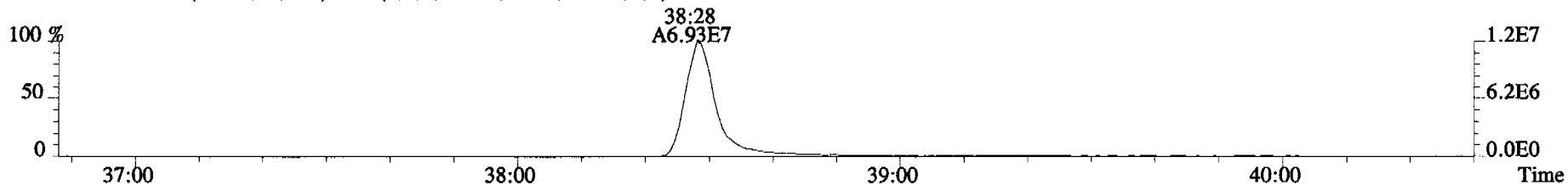
File:060322C1 #1-399 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD\_DB5  
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



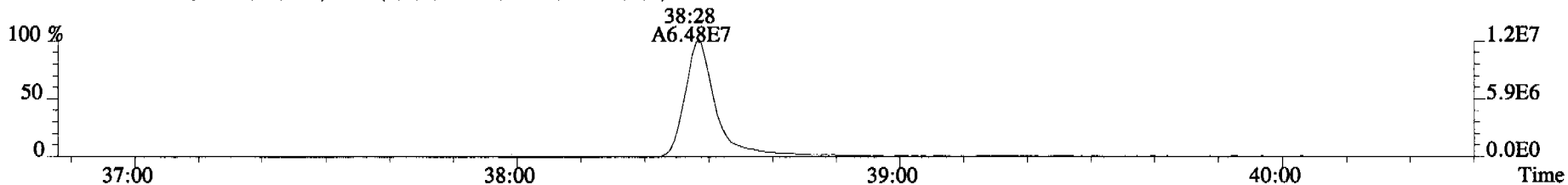
425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



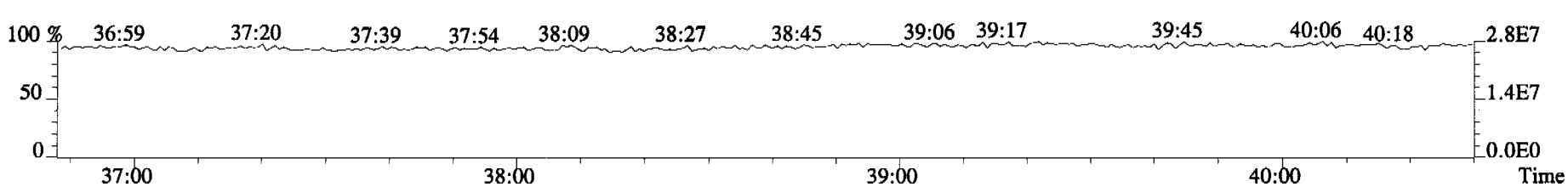
435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



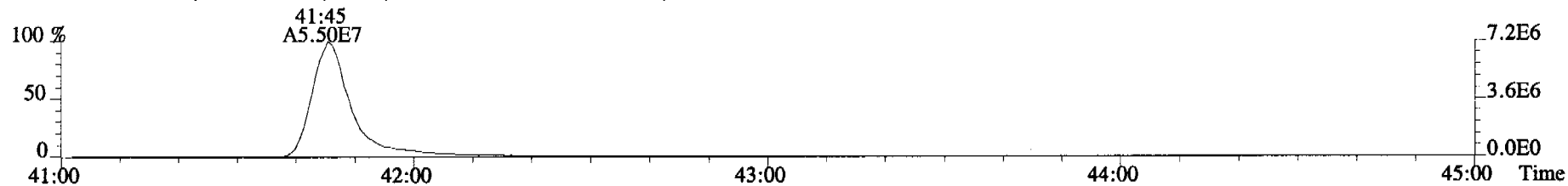
437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



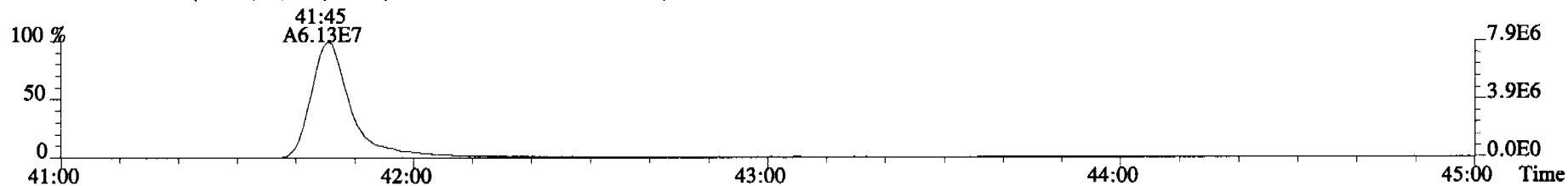
430.9728 F:4



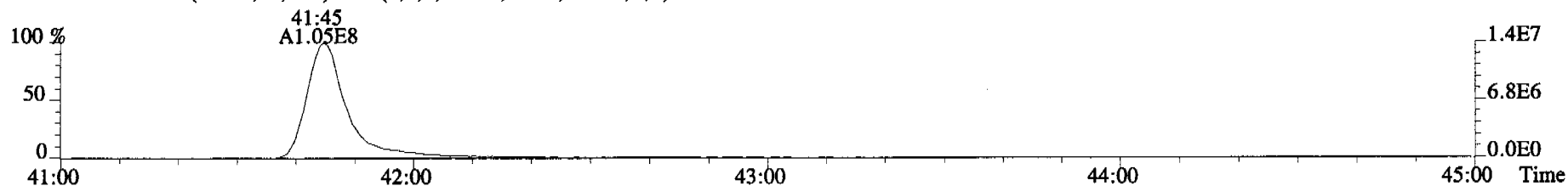
File:060322C1 #1-345 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD\_DB5  
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



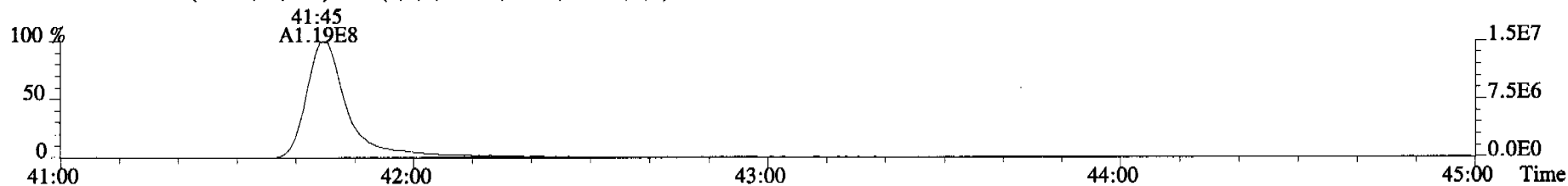
459.7348 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



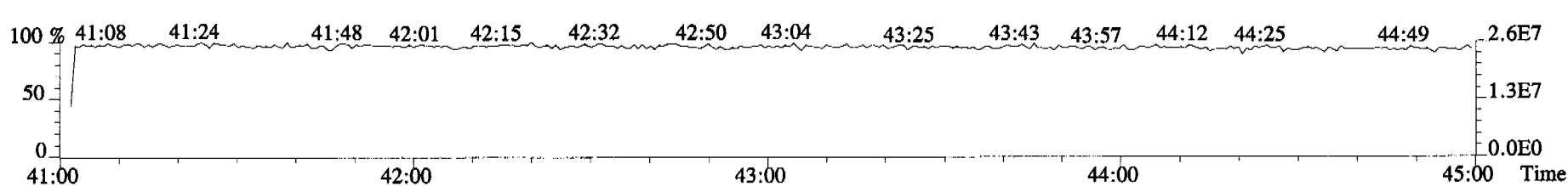
469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



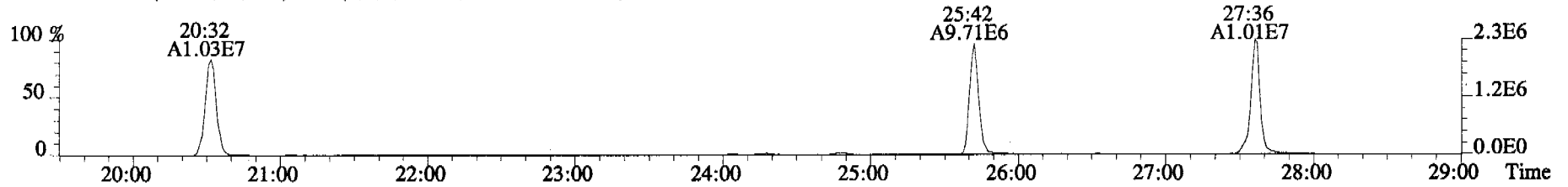
471.7750 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



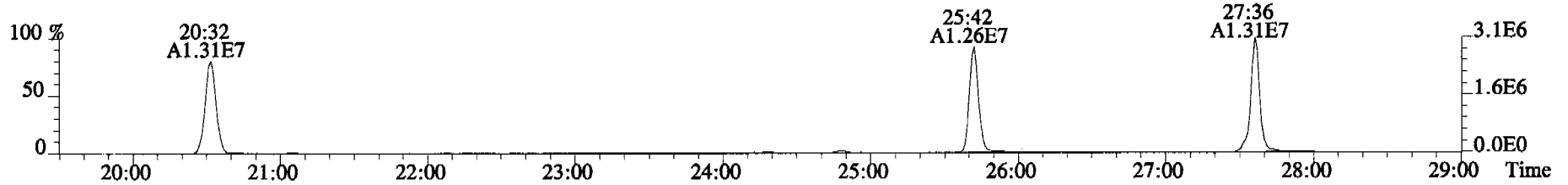
454.9728 F:5



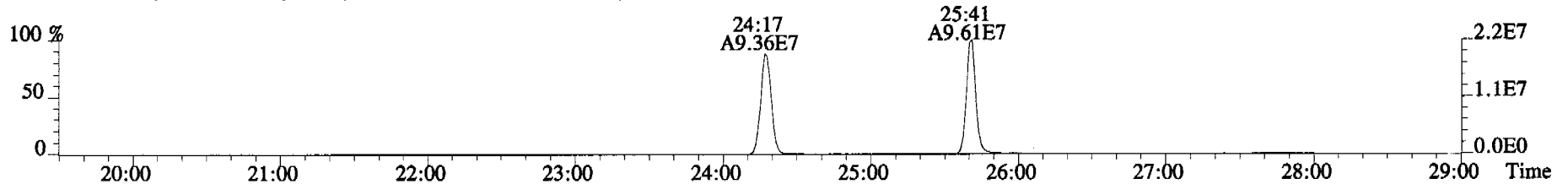
File:060322C1 #1-514 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD\_DB5  
303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



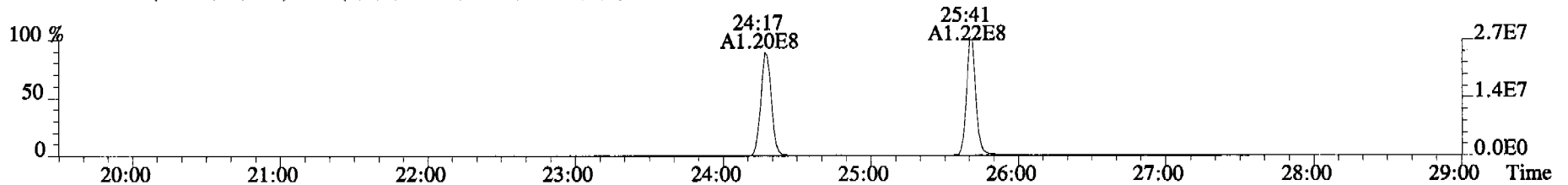
305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



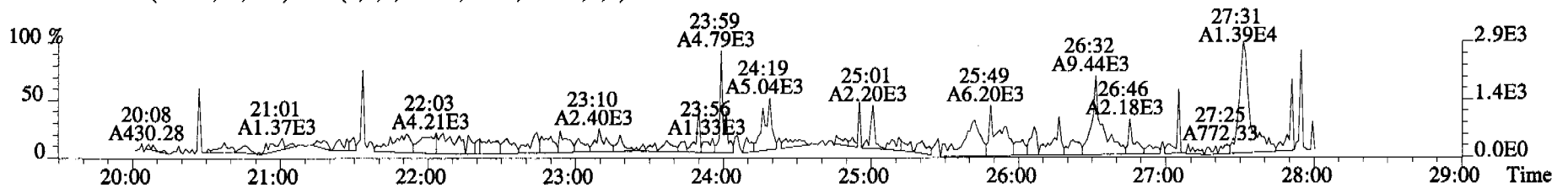
315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



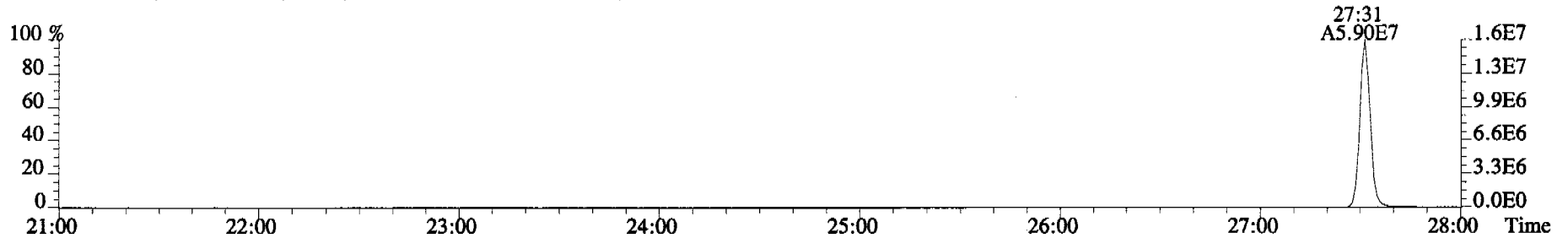
317.9389 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



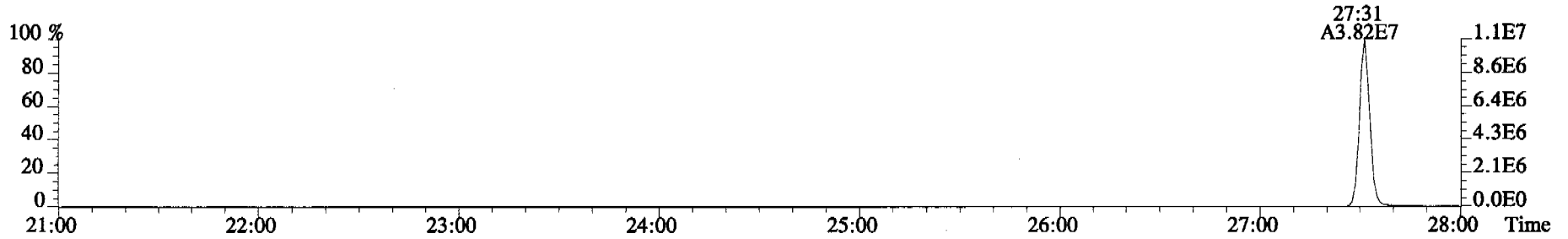
375.8364 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



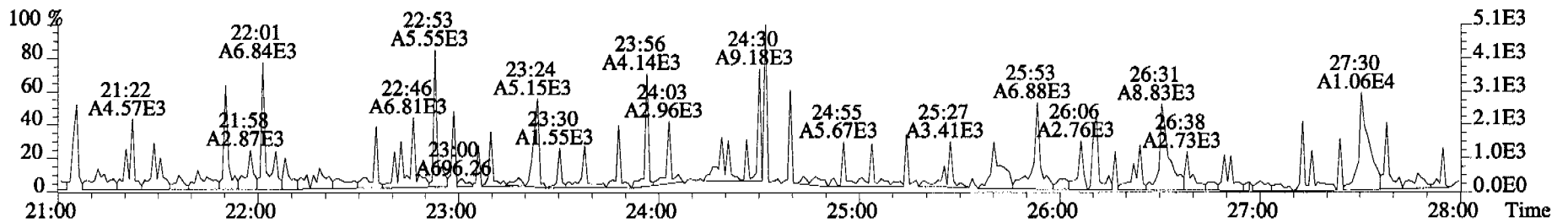
File:060322C1 #1-514 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD\_DB5  
339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



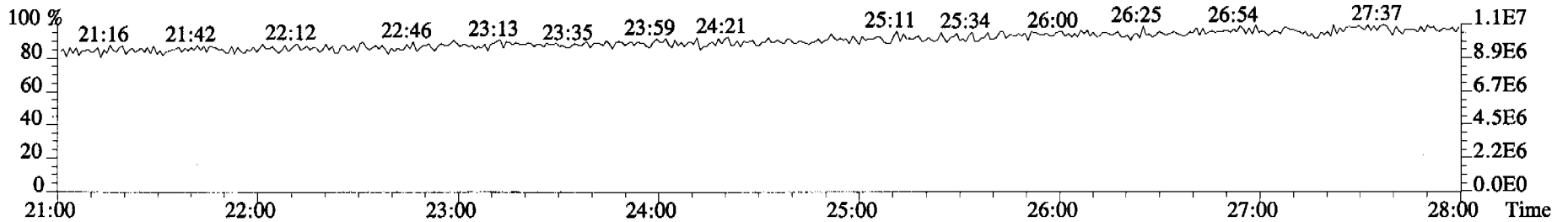
341.8568 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



409.7974 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

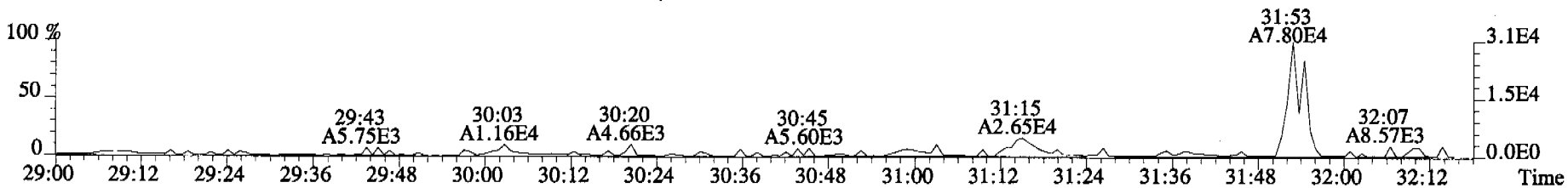
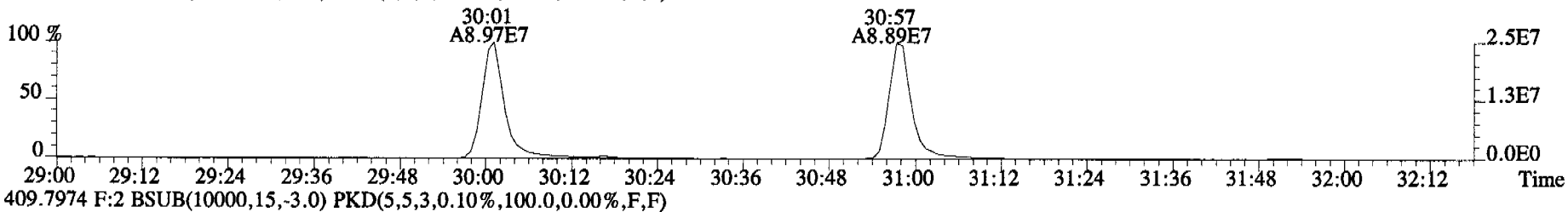
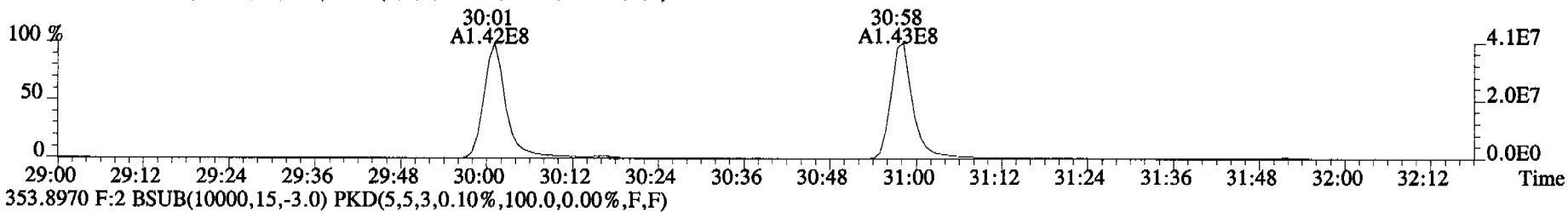
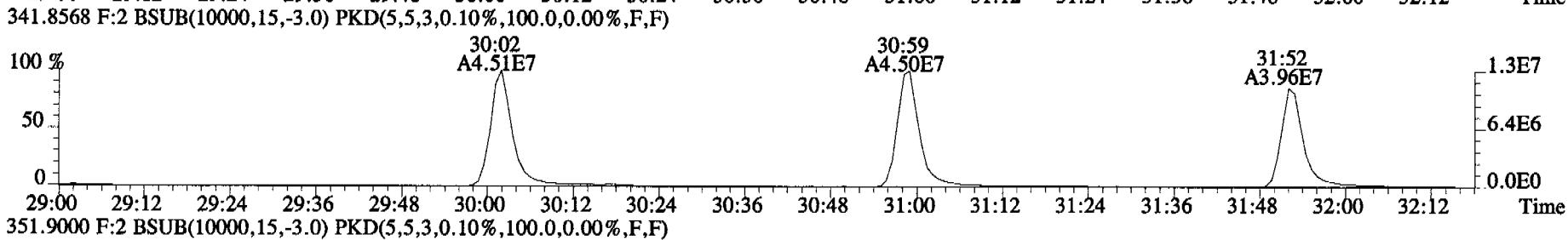
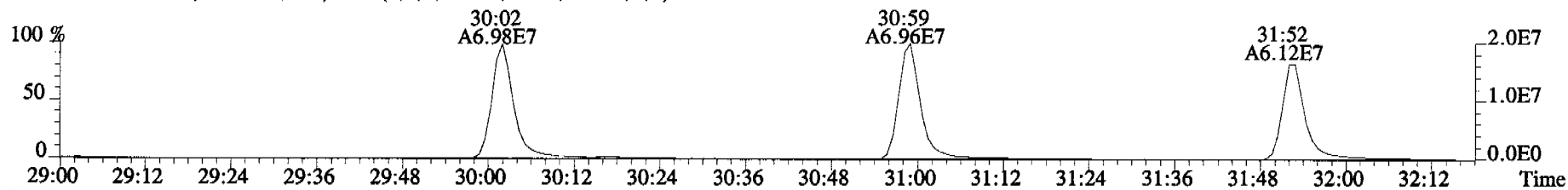


316.9824

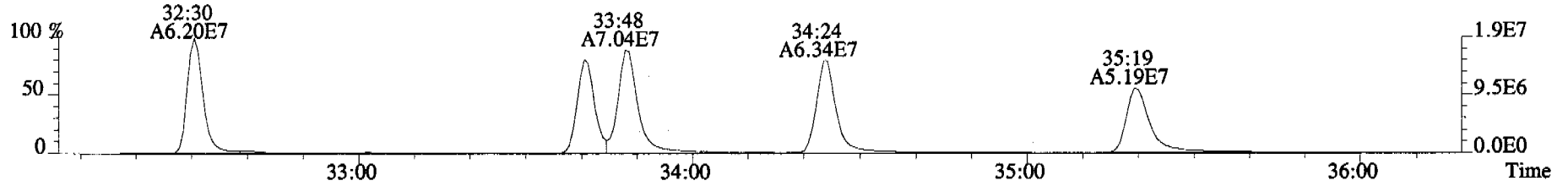




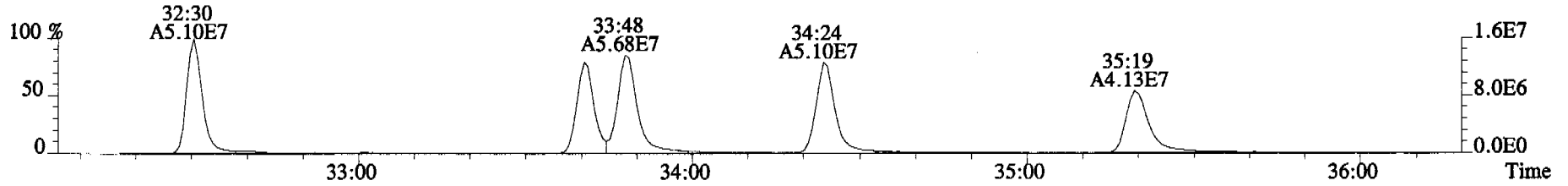
File:060322C1 #1-316 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD\_DB5  
339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



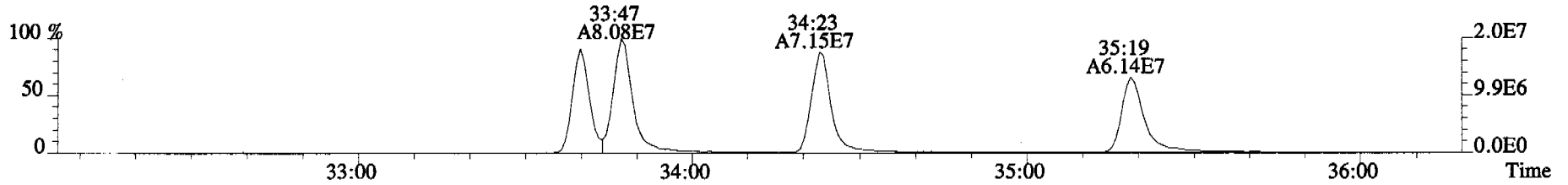
File:060322C1 #1-378 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD\_DB5  
373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



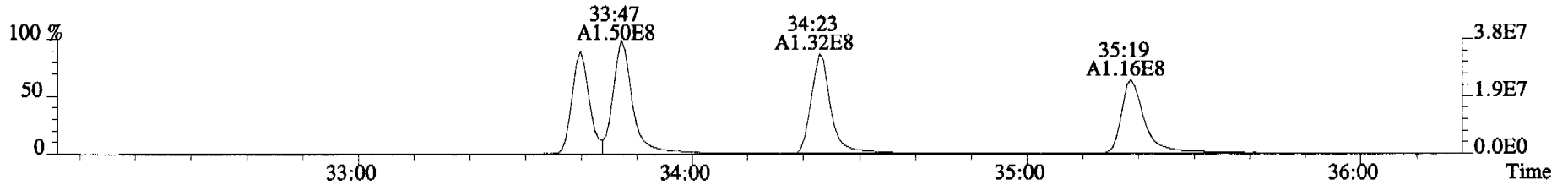
375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



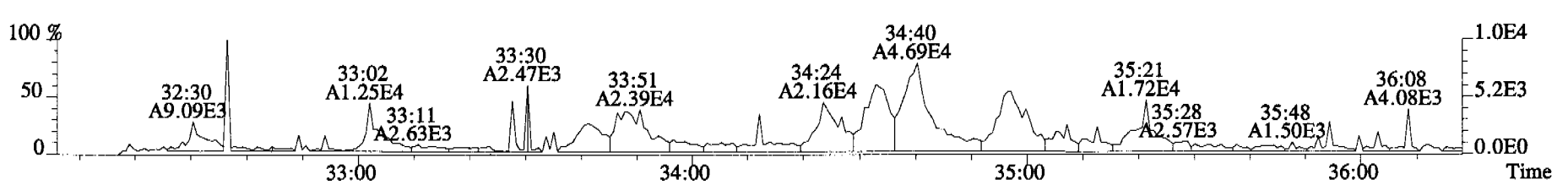
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



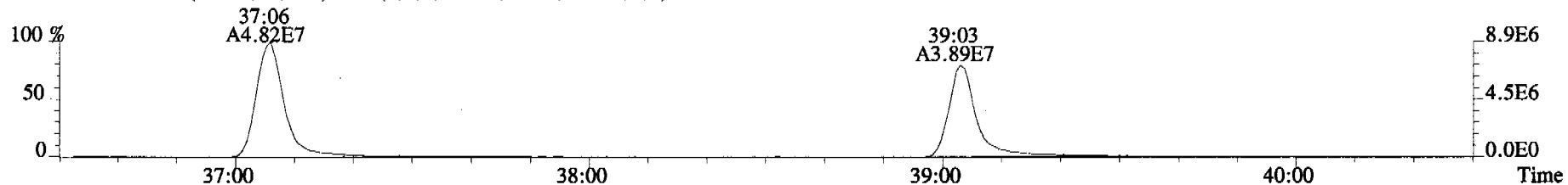
385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



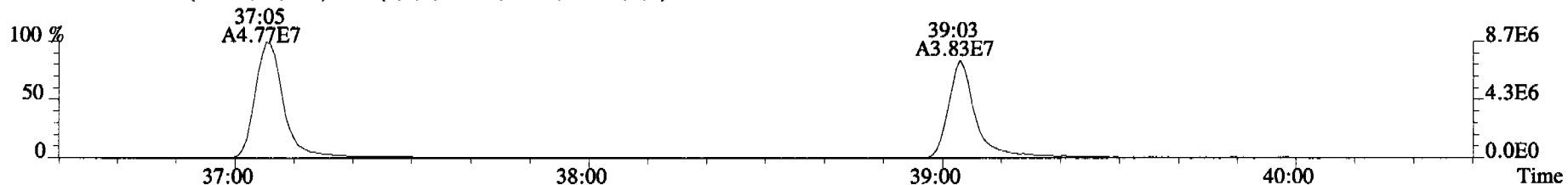
445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



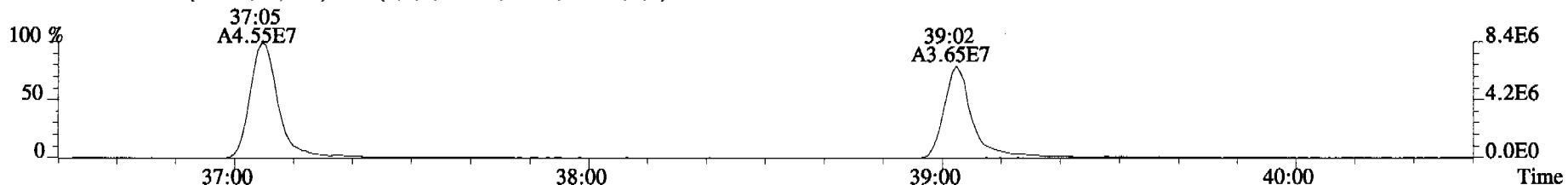
File:060322C1 #1-399 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD\_DB5  
407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



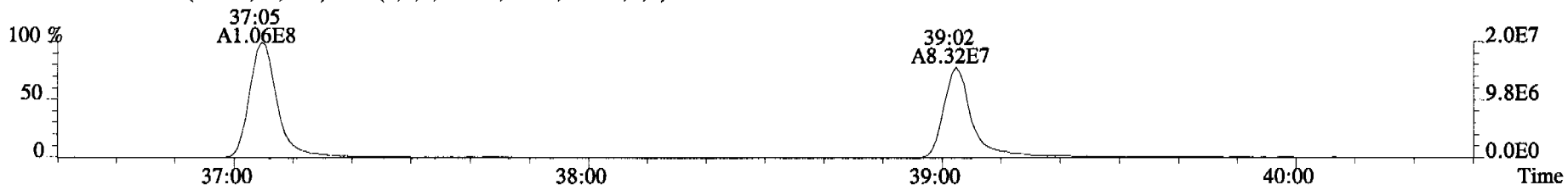
409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



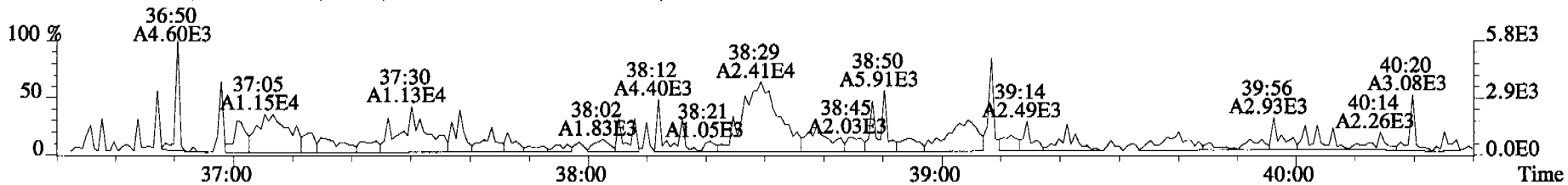
417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



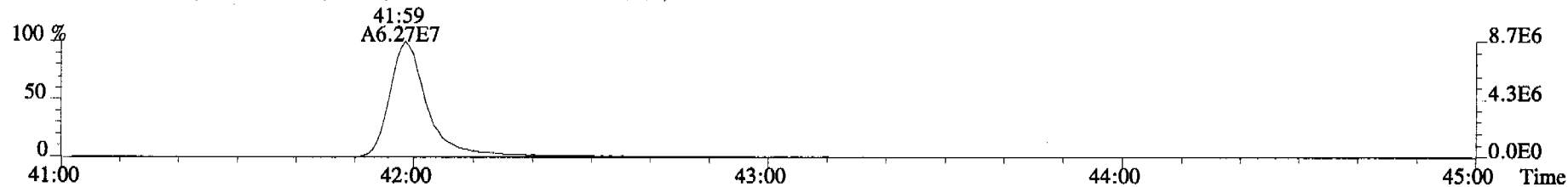
419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



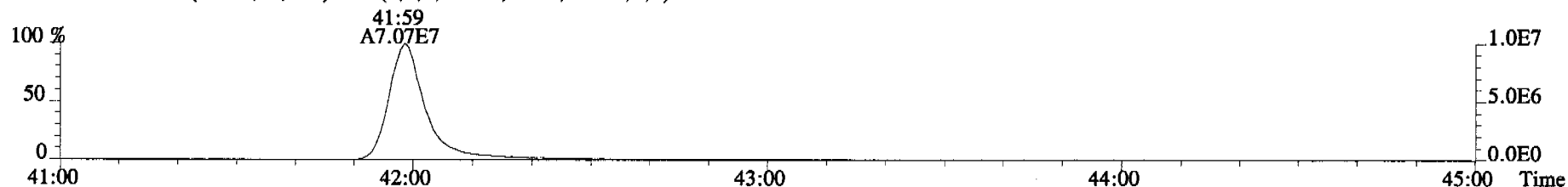
479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



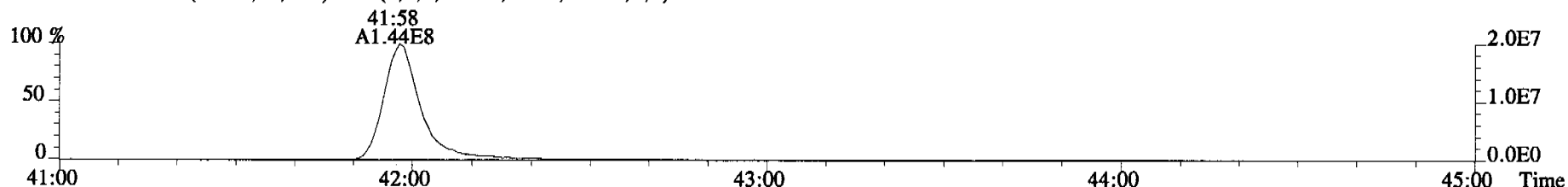
File:060322C1 #1-345 Acq:22-MAR-2006 09:32:59 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#1 File Text:Alta Analytical Laboratory Text:ST060322C1-1 1613 CS3 060110H Exp:OCDD\_DB5  
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



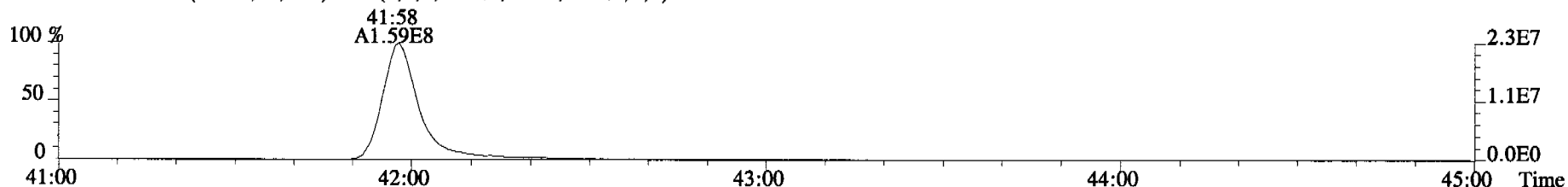
443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



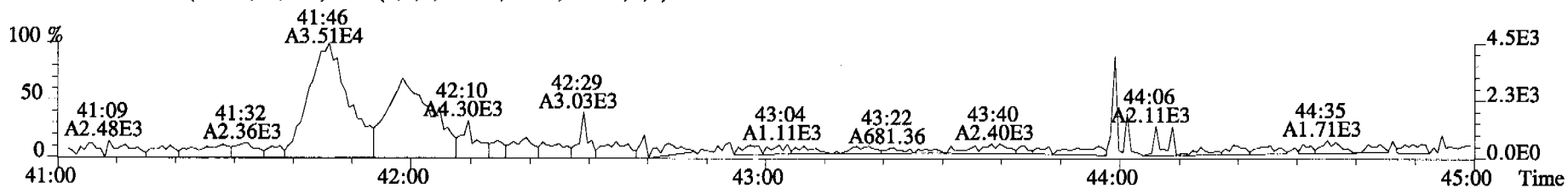
453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



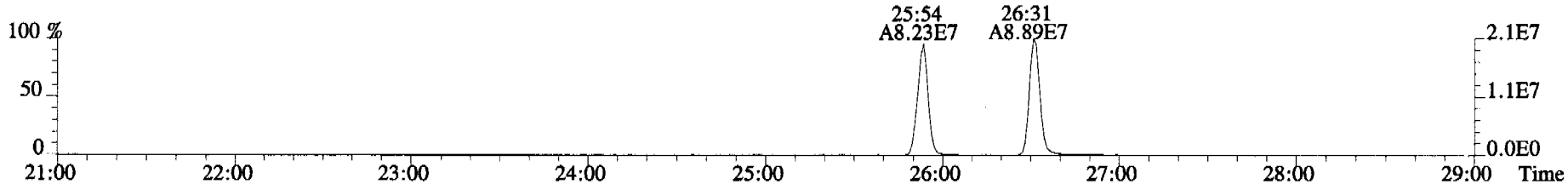
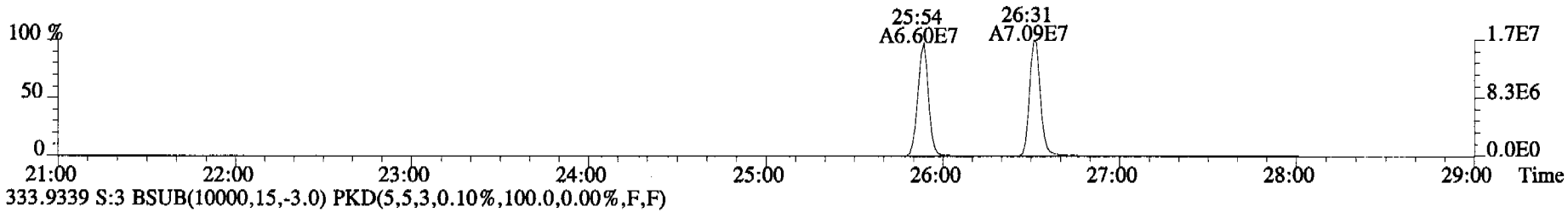
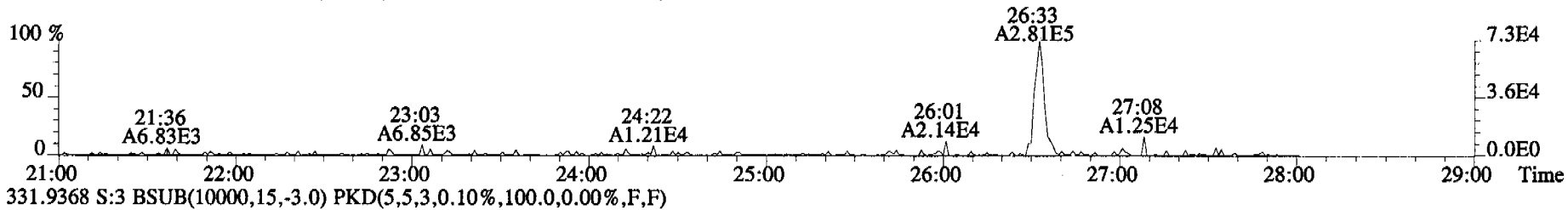
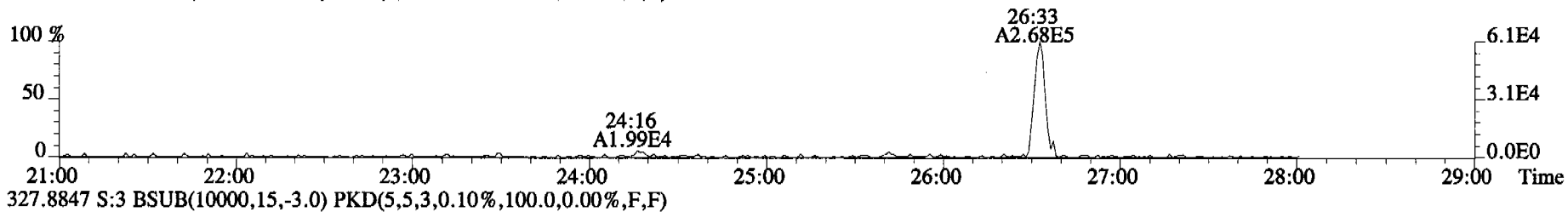
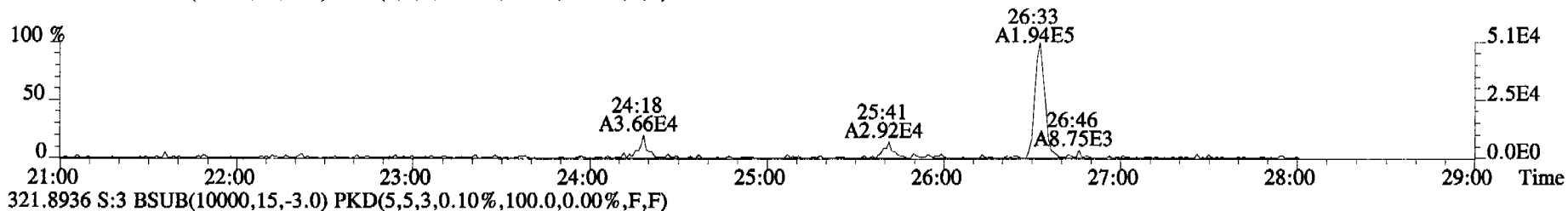
455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



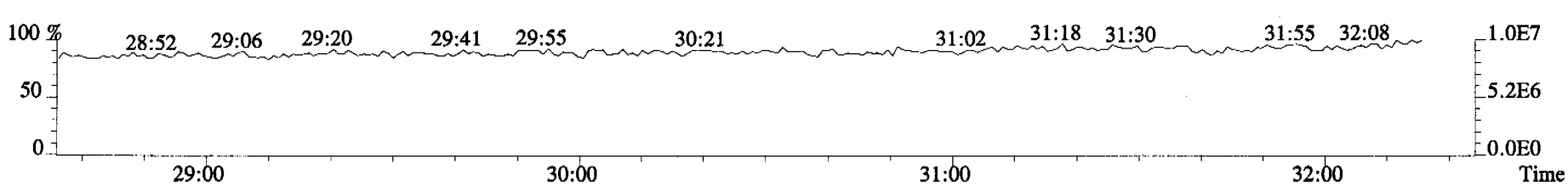
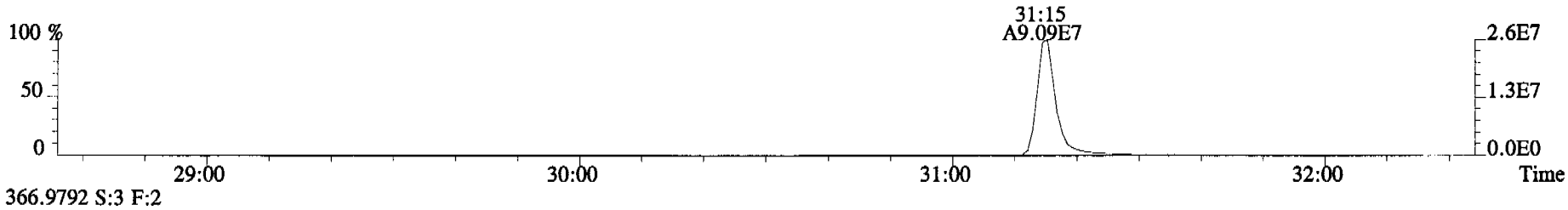
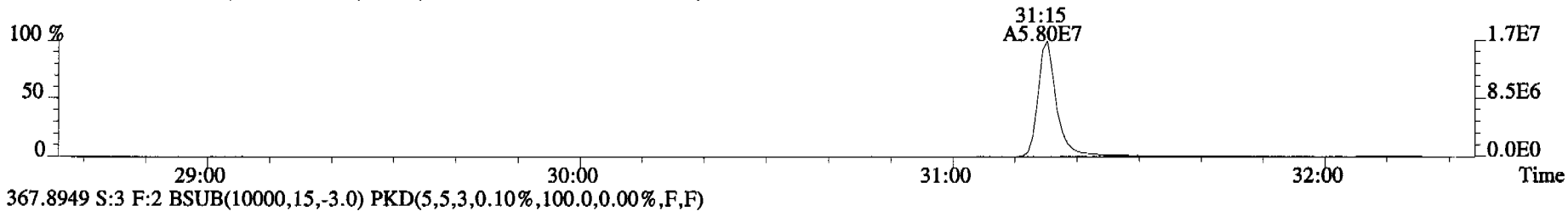
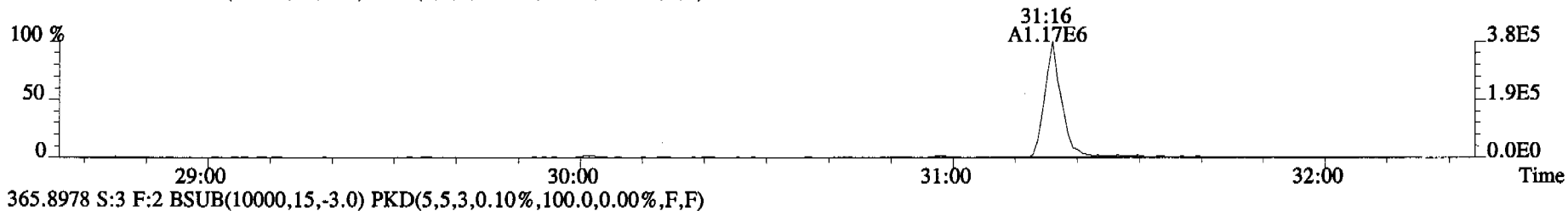
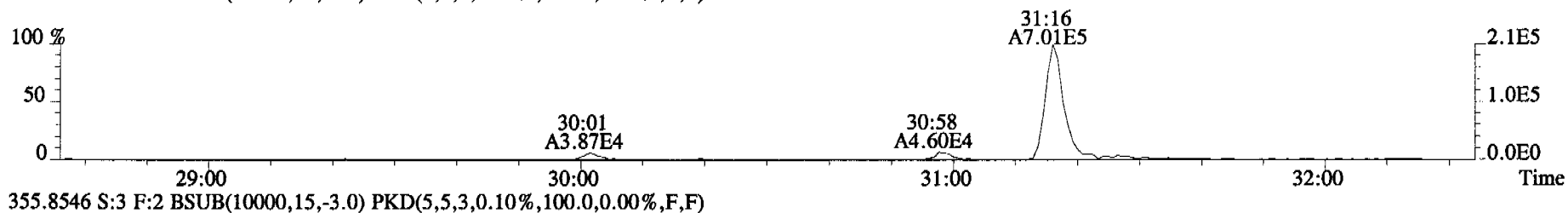
513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



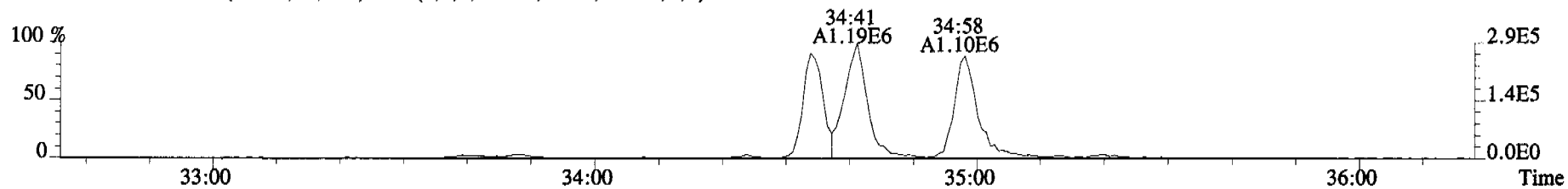
File:060322C1 #1-514 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD\_DB5  
319.8965 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



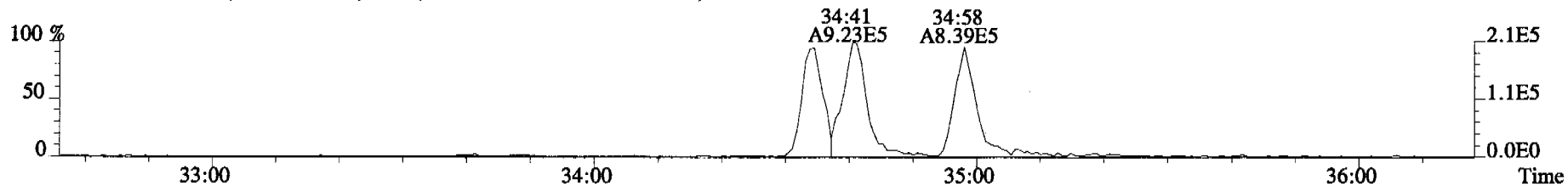
File:060322C1 #1-316 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD\_DB5  
353.8576 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



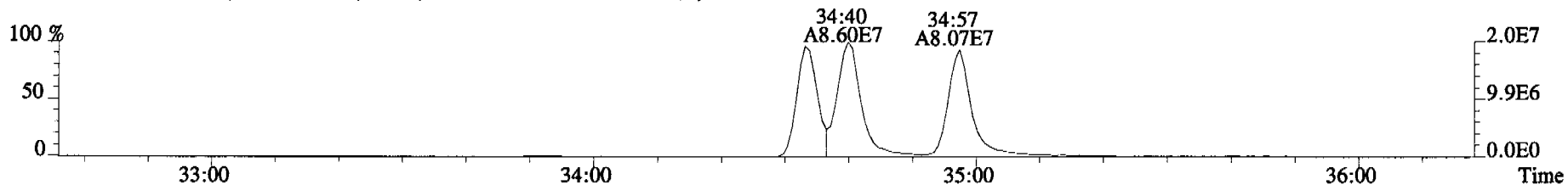
File:060322C1 #1-377 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD\_DB5  
389.8156 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



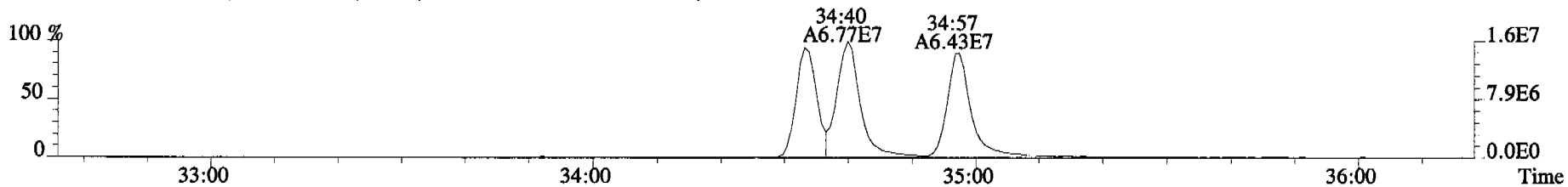
391.8127 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



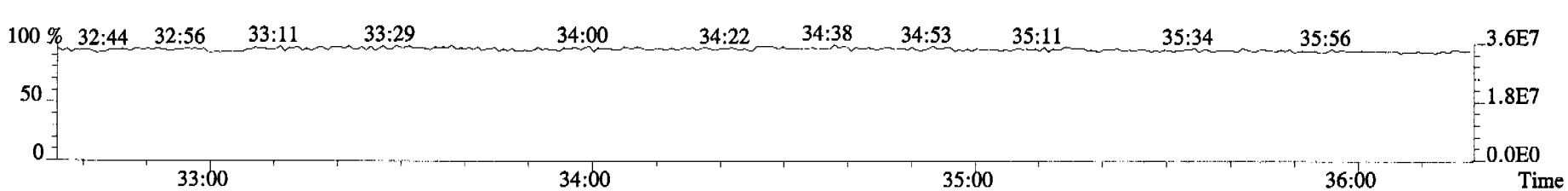
401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



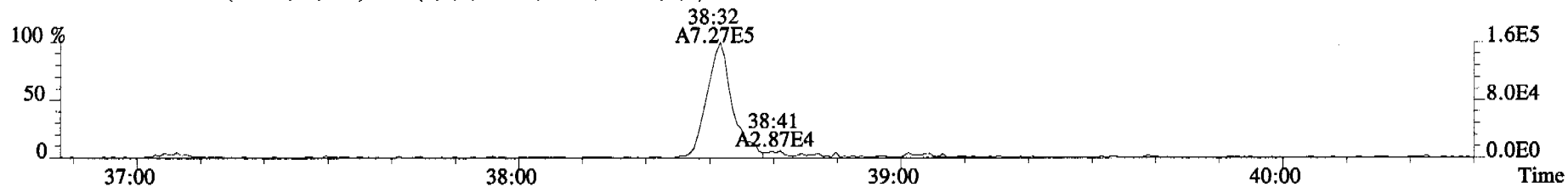
403.8530 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



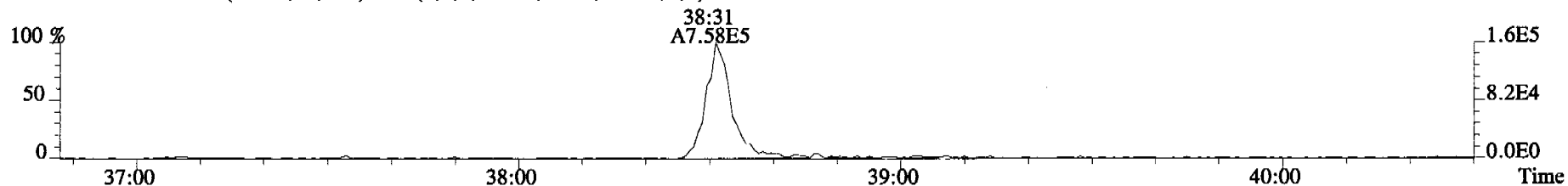
380.9760 S:3 F:3



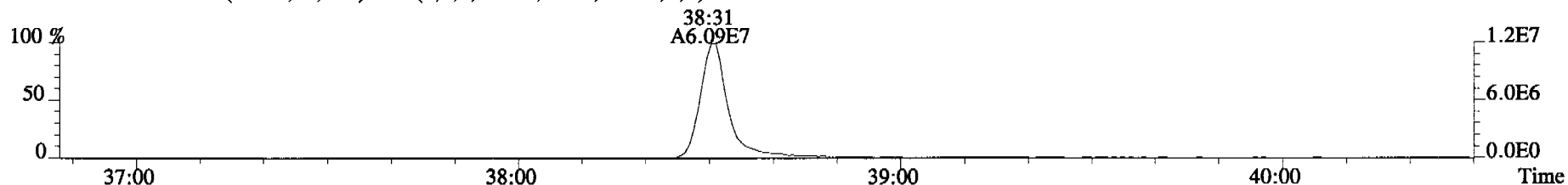
File:060322C1 #1-400 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD\_DB5  
423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



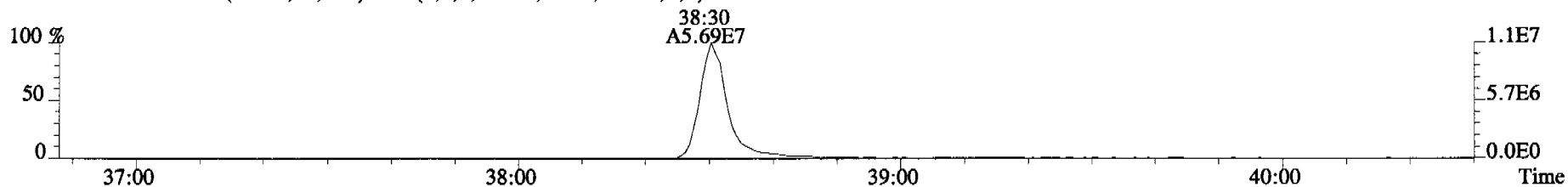
425.7737 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



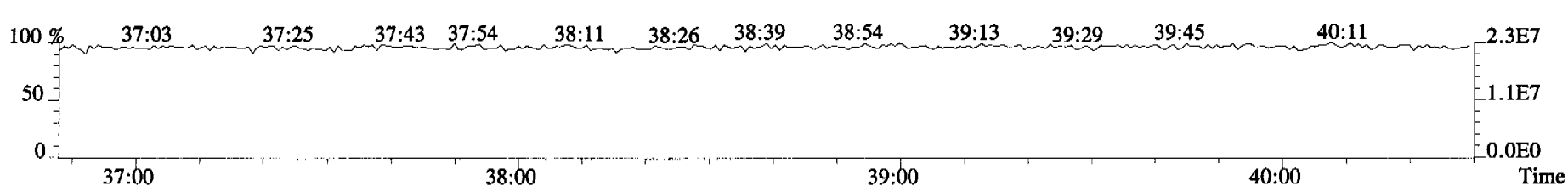
435.8169 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



437.8140 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

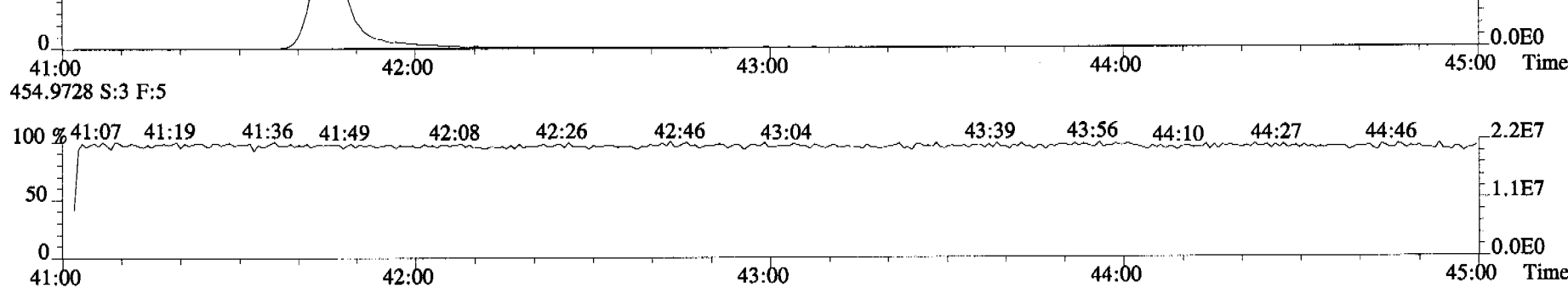
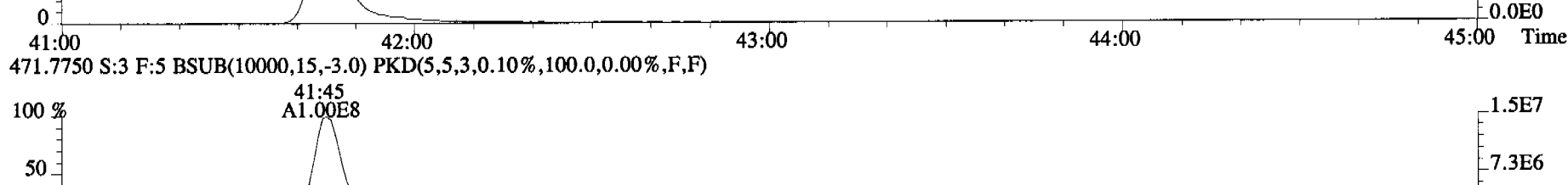
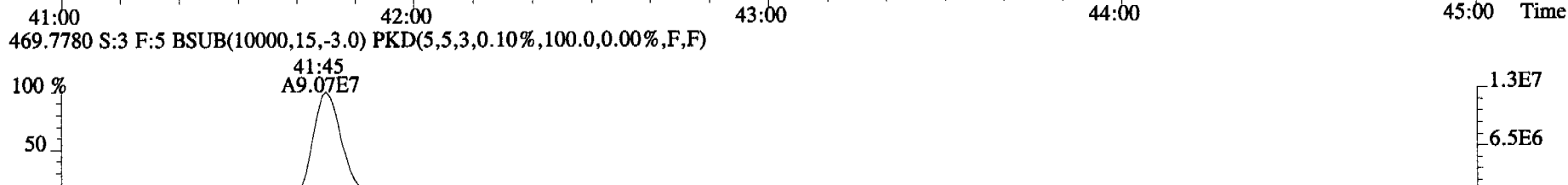
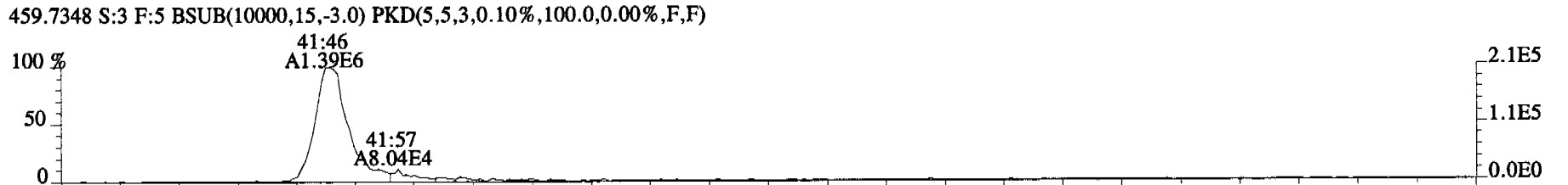
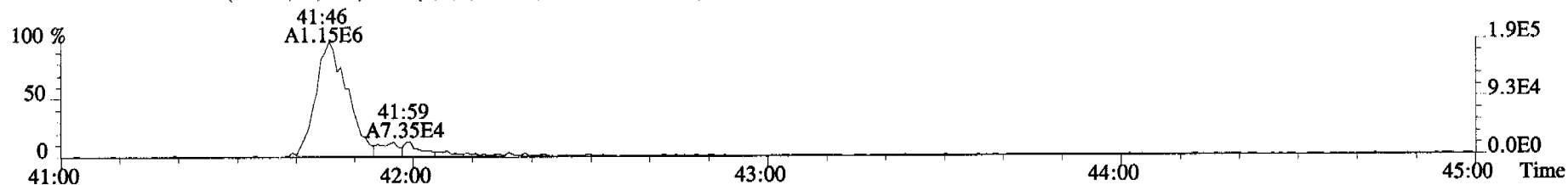


430.9728 S:3 F:4

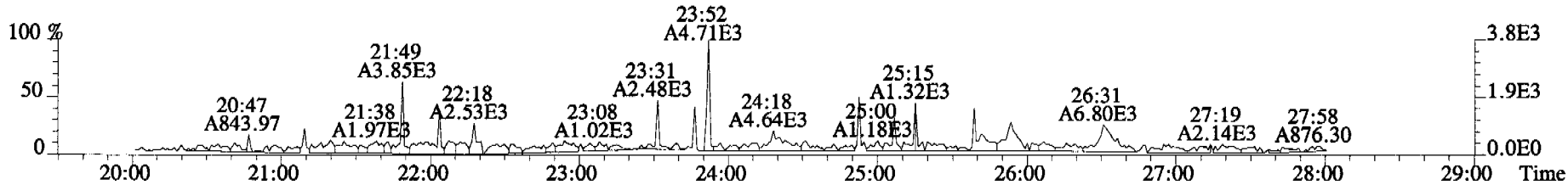
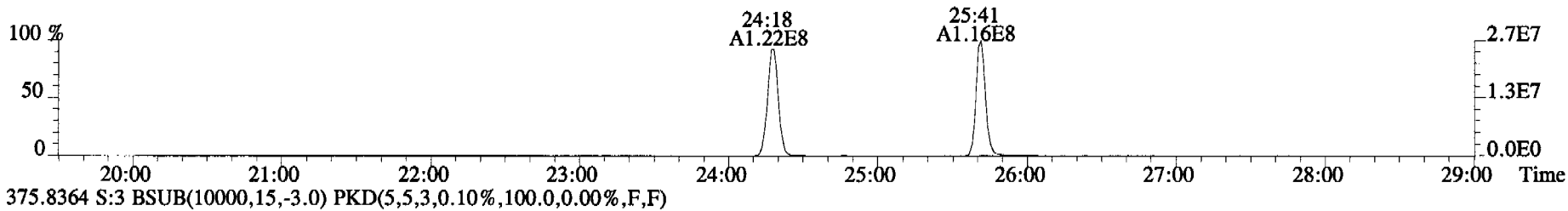
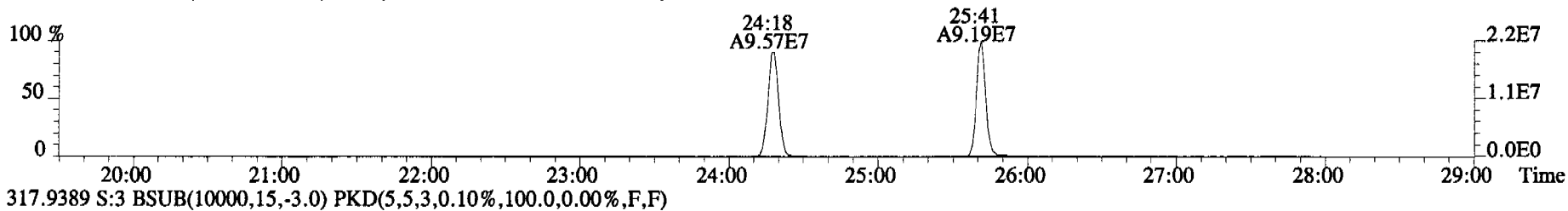
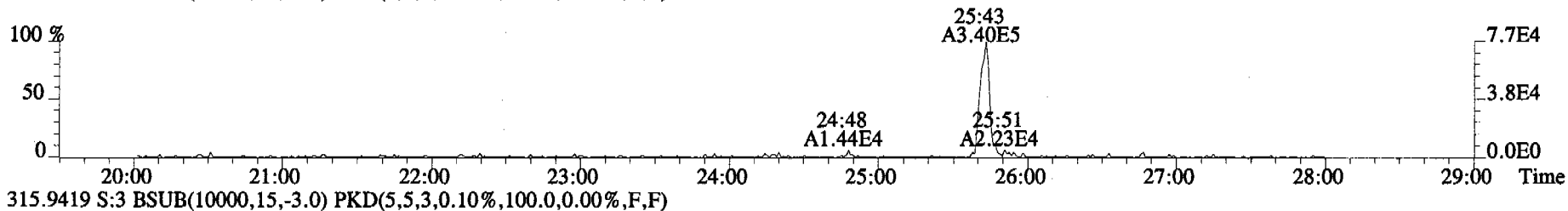
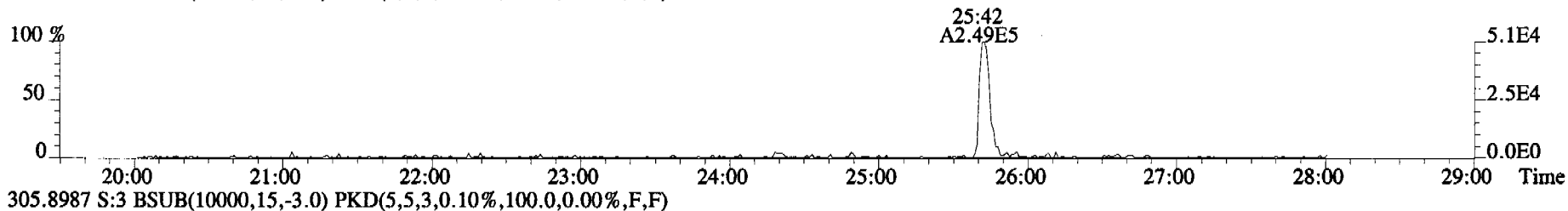




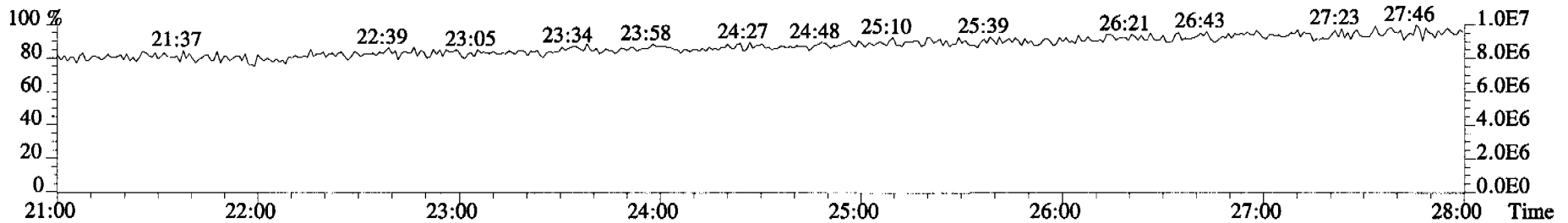
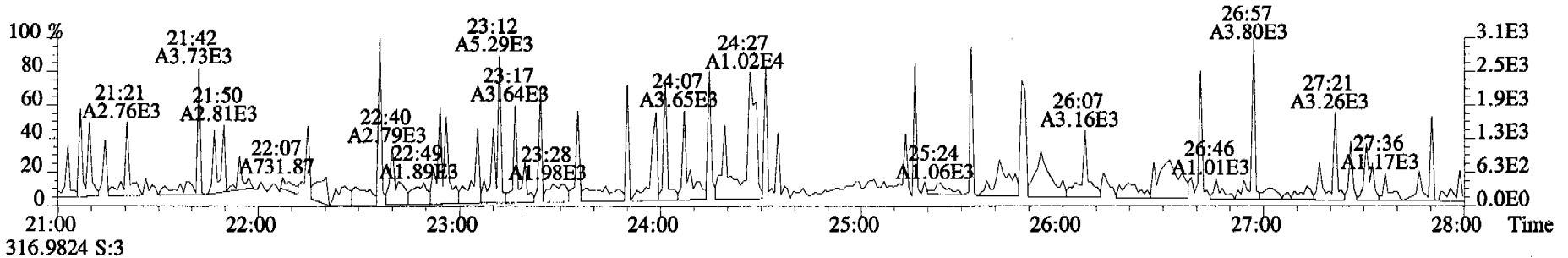
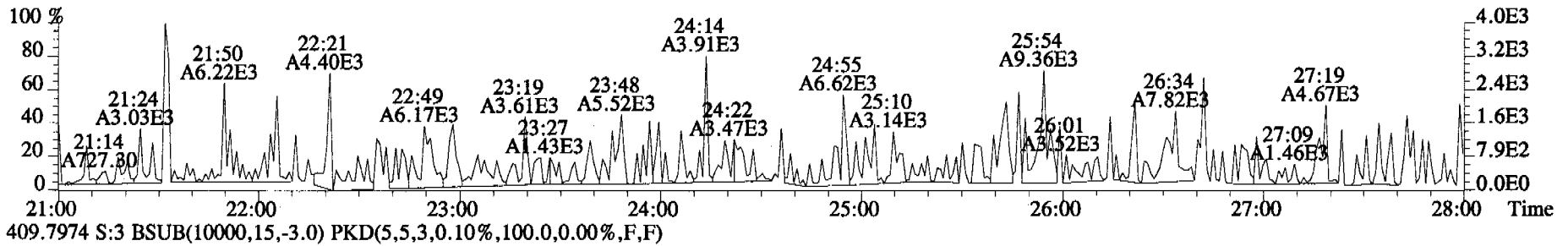
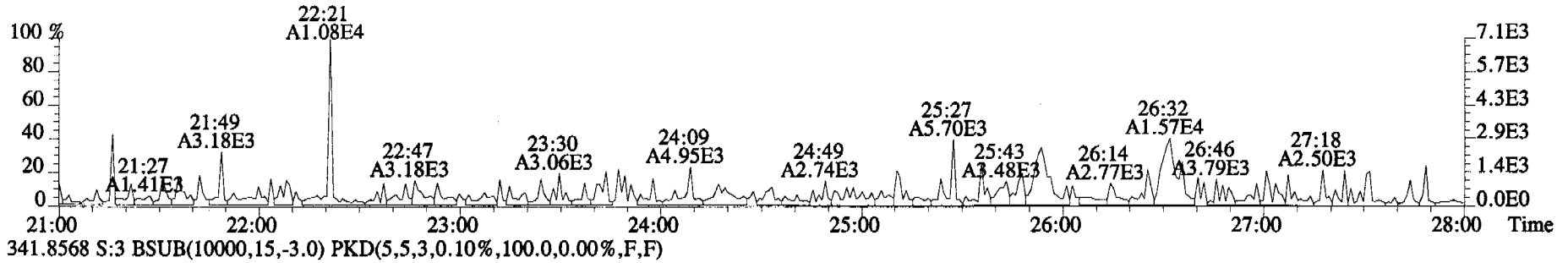
File:060322C1 #1-345 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD\_DB5  
457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



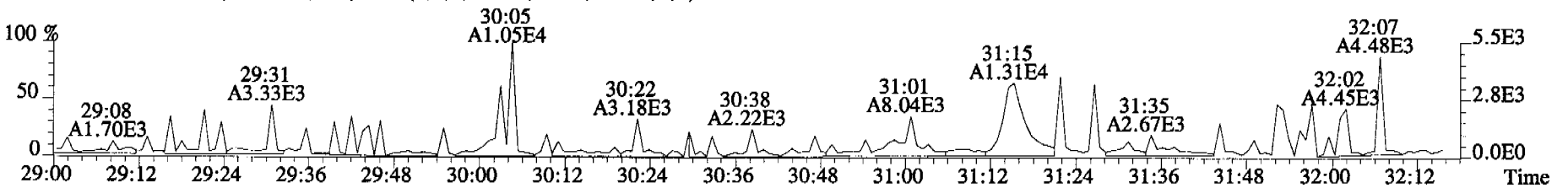
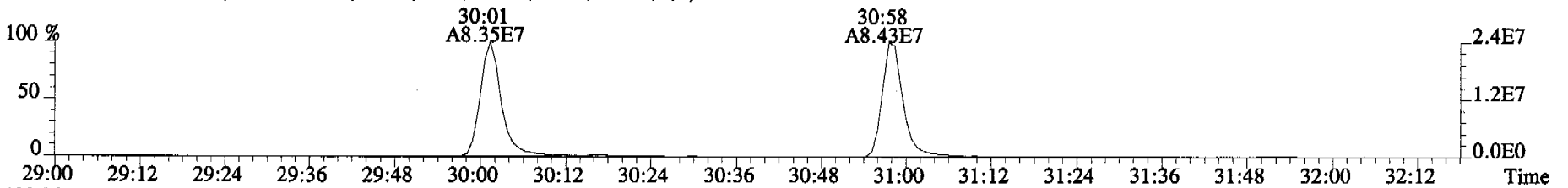
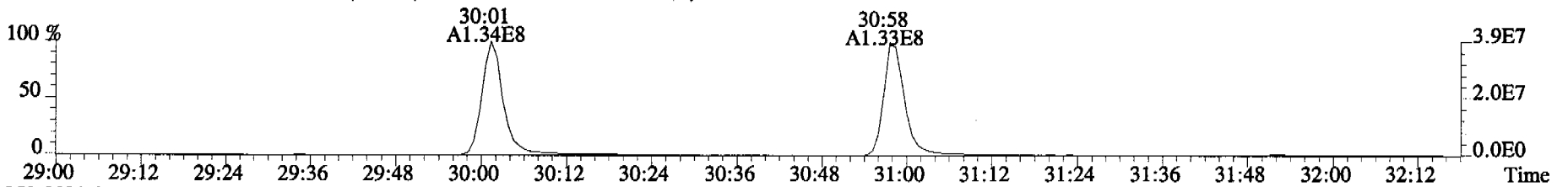
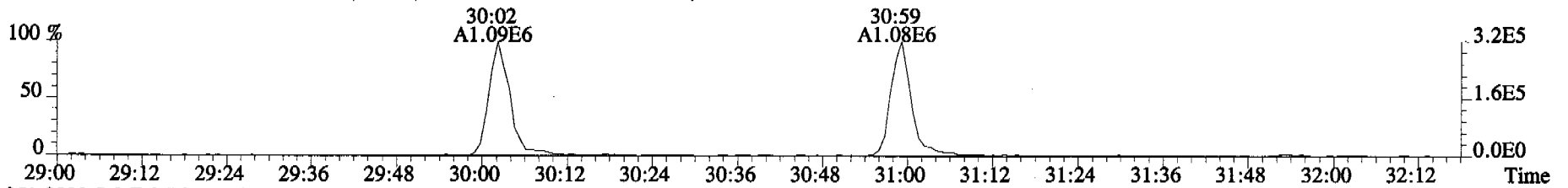
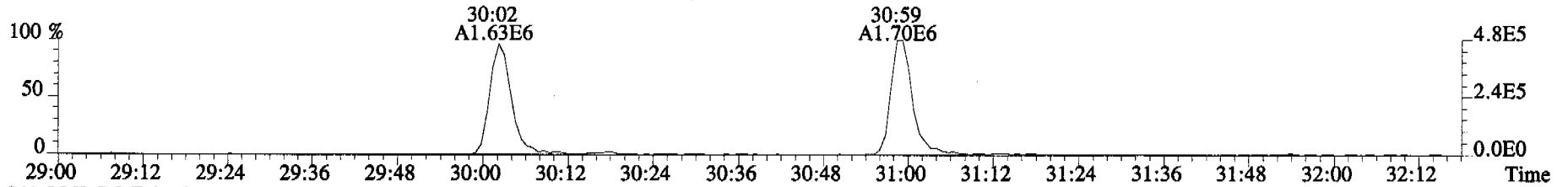
File:060322C1 #1-514 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD\_DB5  
303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



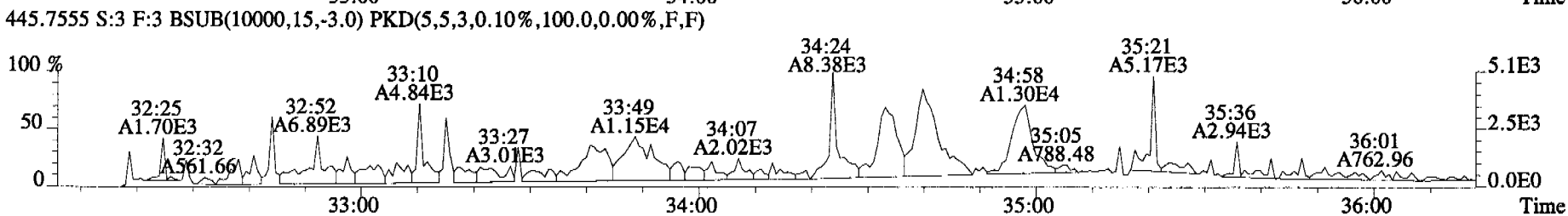
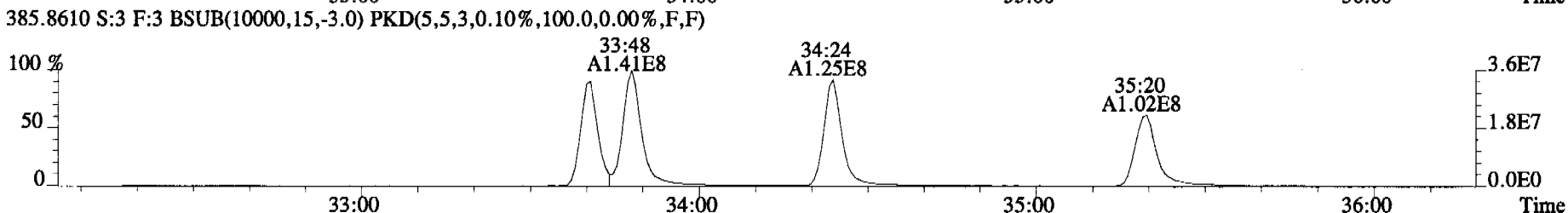
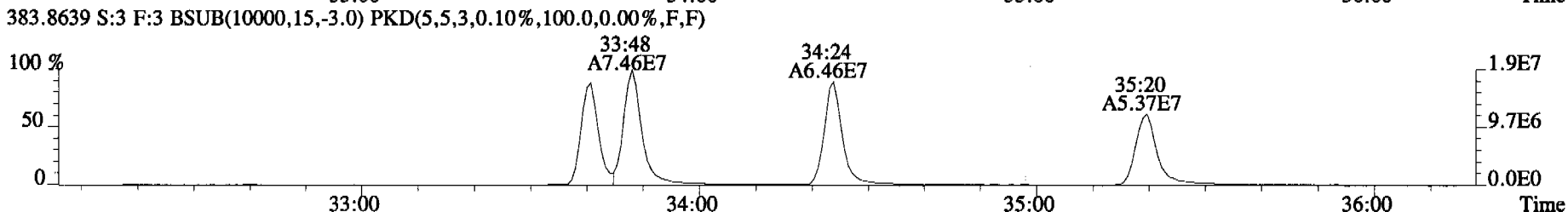
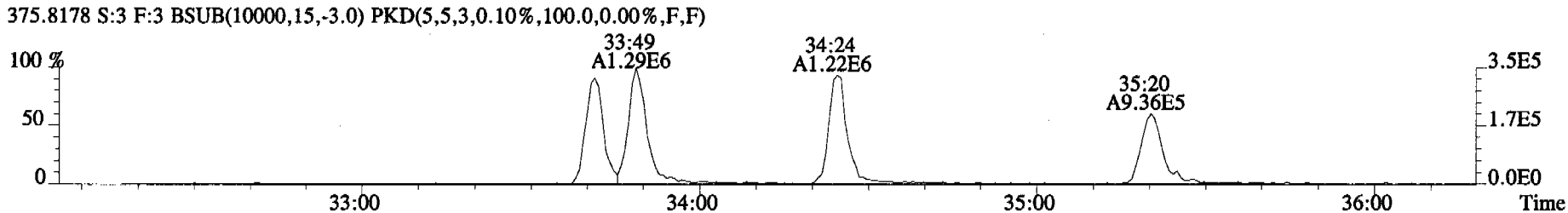
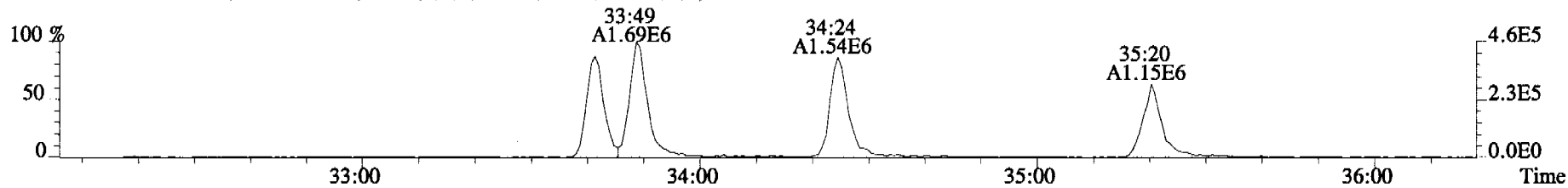
File:060322C1 #1-514 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD\_DB5  
339.8597 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



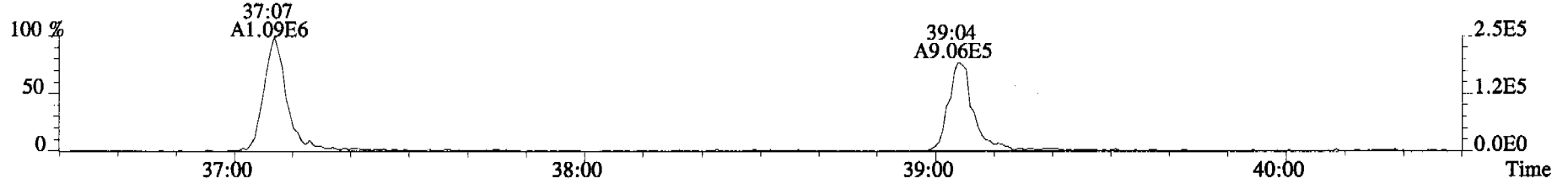
File:060322C1 #1-316 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD\_DB5  
339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



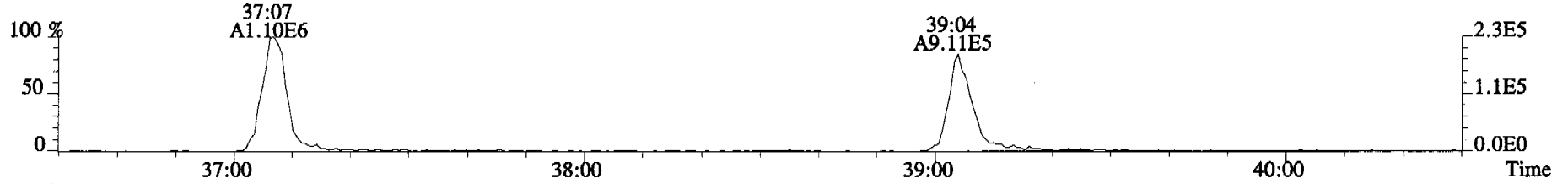
File:060322C1 #1-377 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD\_DB5  
373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



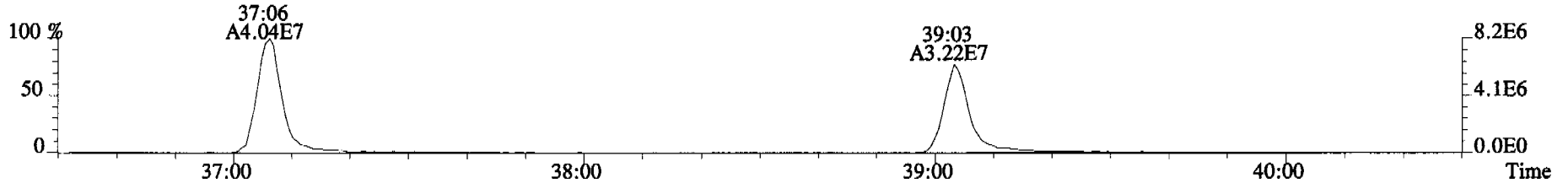
File:060322C1 #1-400 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD\_DB5  
407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



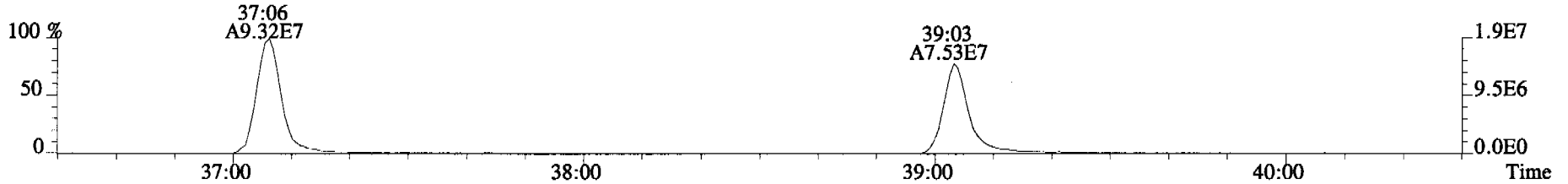
409.7788 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



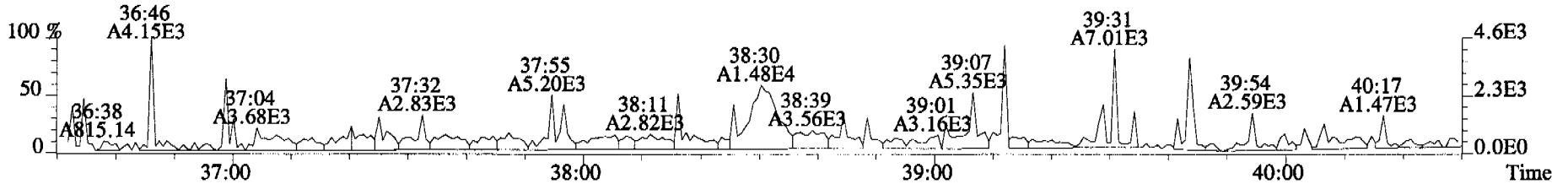
417.8253 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



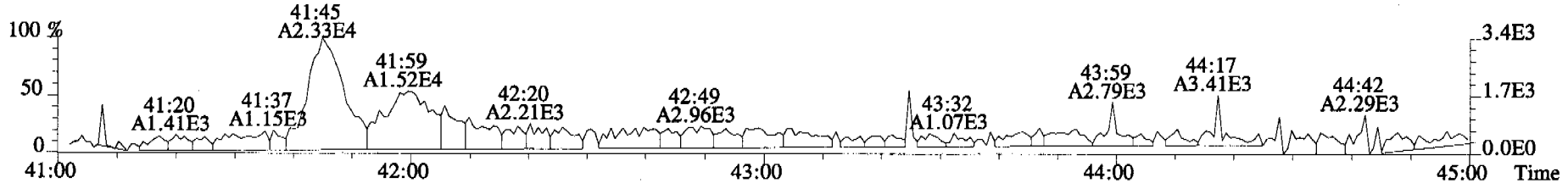
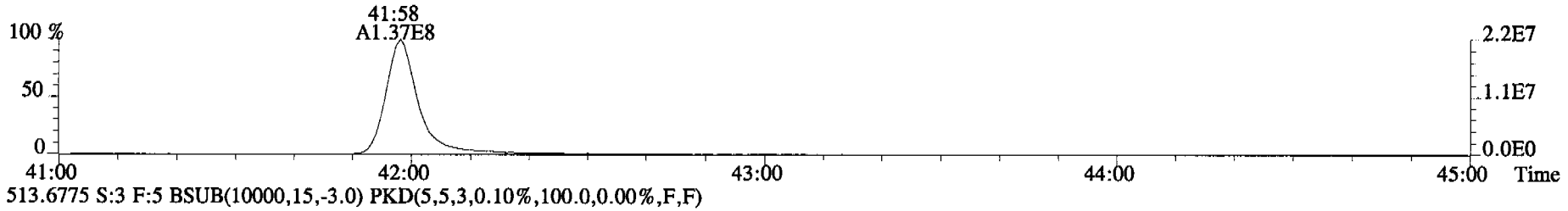
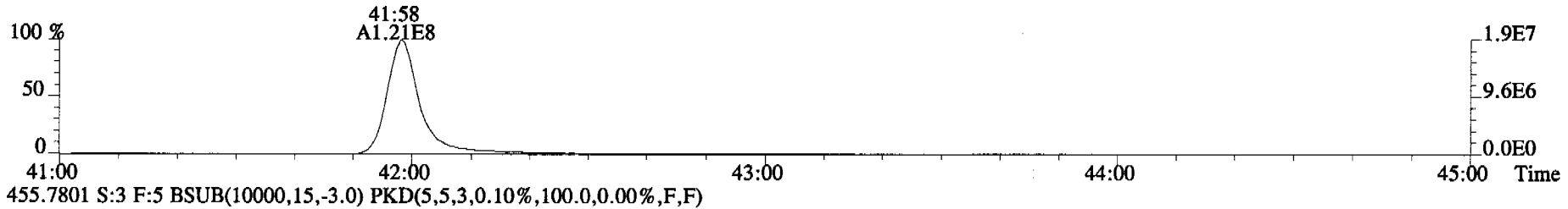
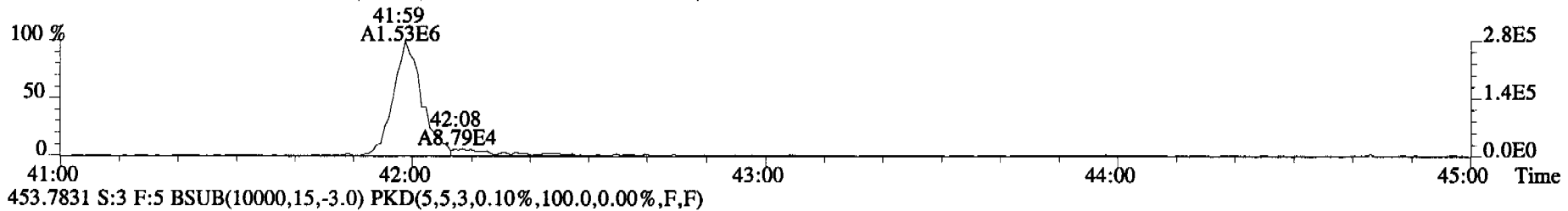
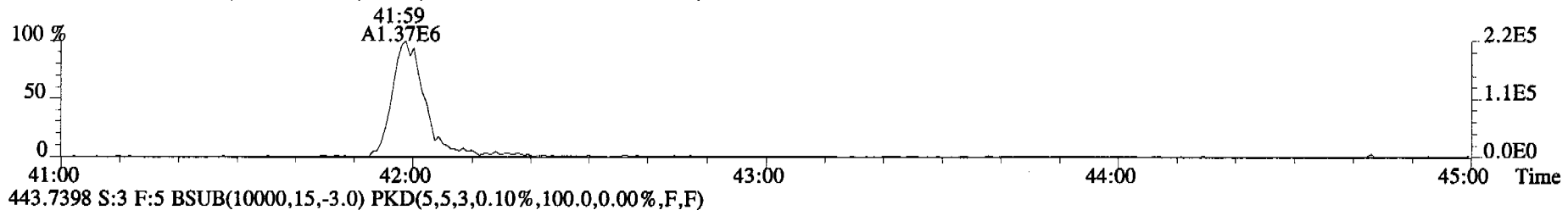
419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



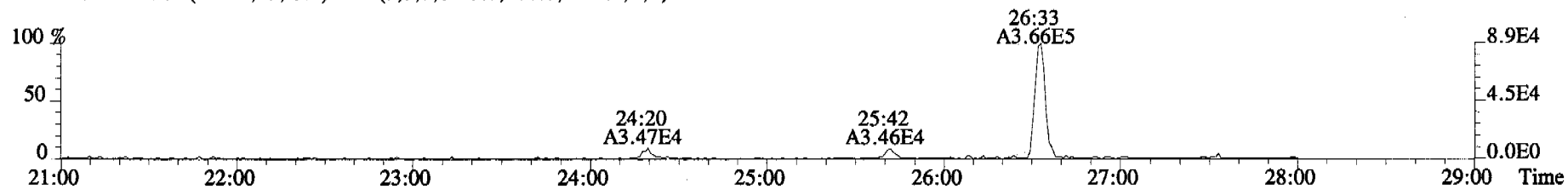
479.7165 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



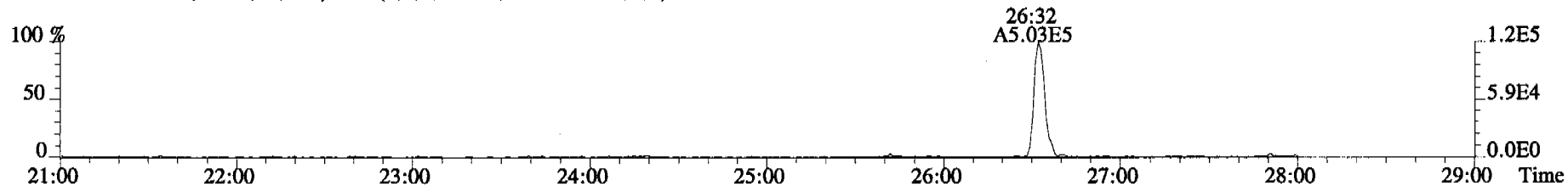
File:060322C1 #1-345 Acq:22-MAR-2006 11:12:17 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#3 File Text:Alta Analytical Laboratory Text:ST060322C1-2 1613 CS0 060110E Exp:OCDD\_DB5  
441.7428 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



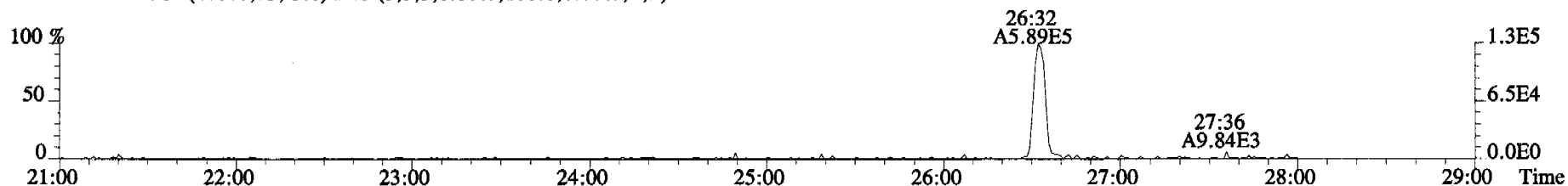
File:060322C1 #1-513 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD\_DB5  
319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



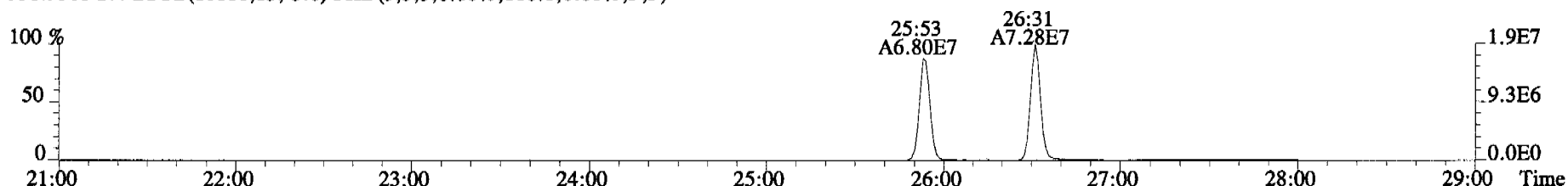
321.8936 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



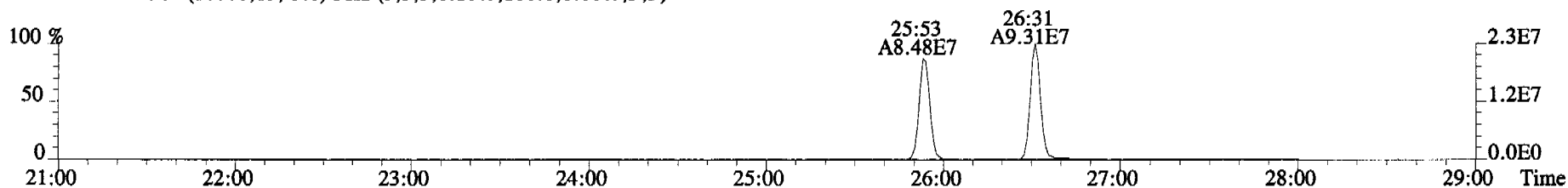
327.8847 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



331.9368 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

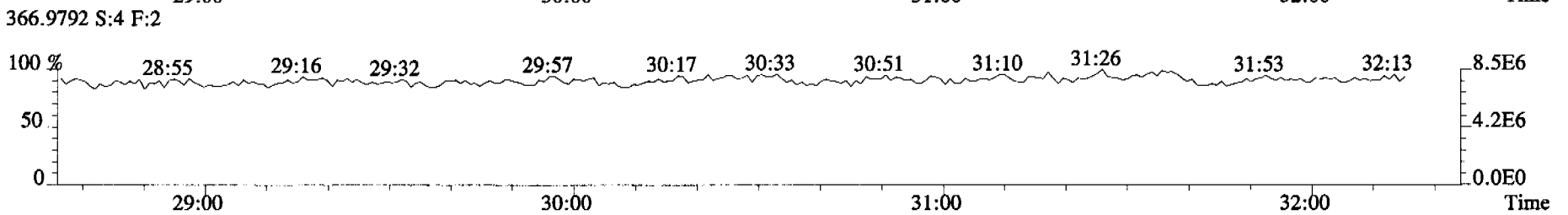
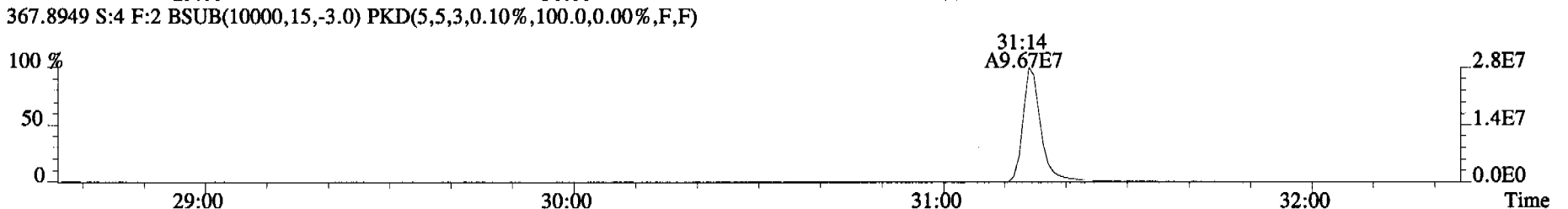
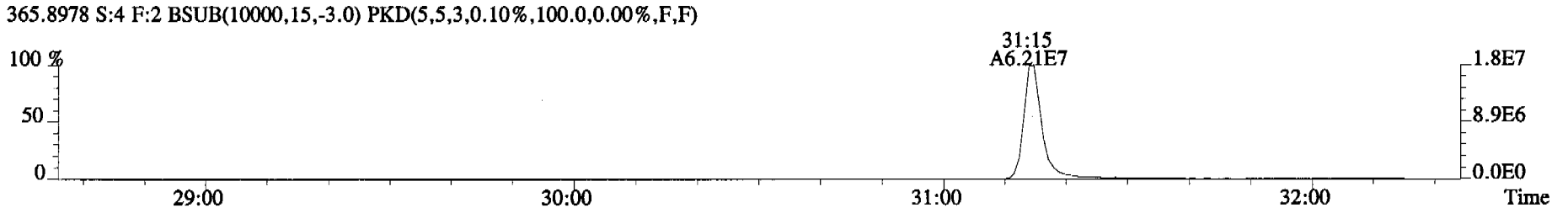
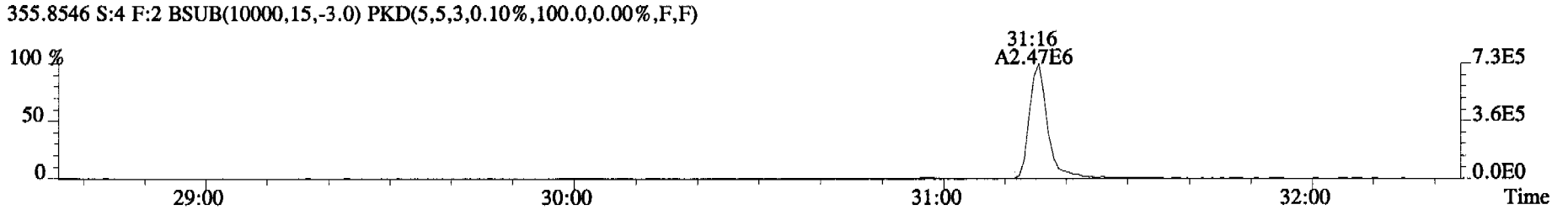
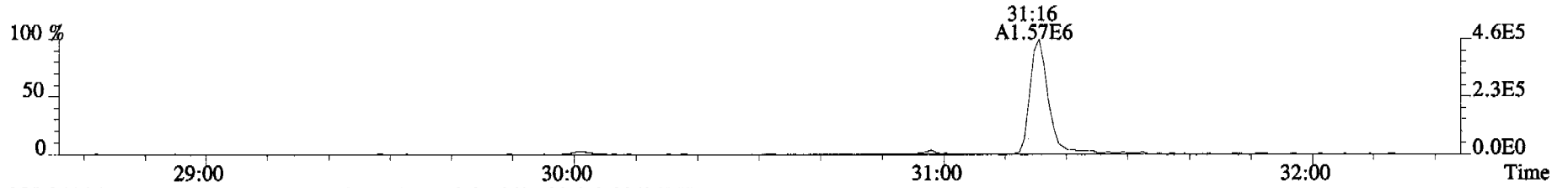


333.9339 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

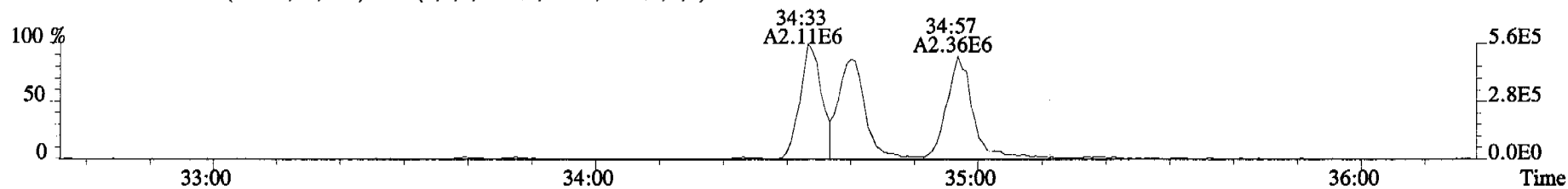




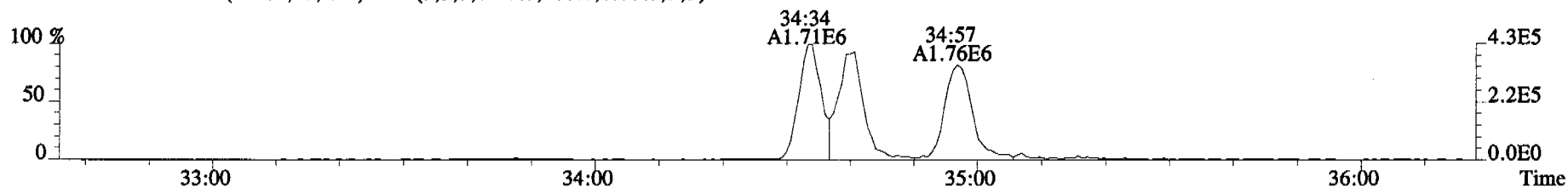
File:060322C1 #1-316 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD\_DB5  
353.8576 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



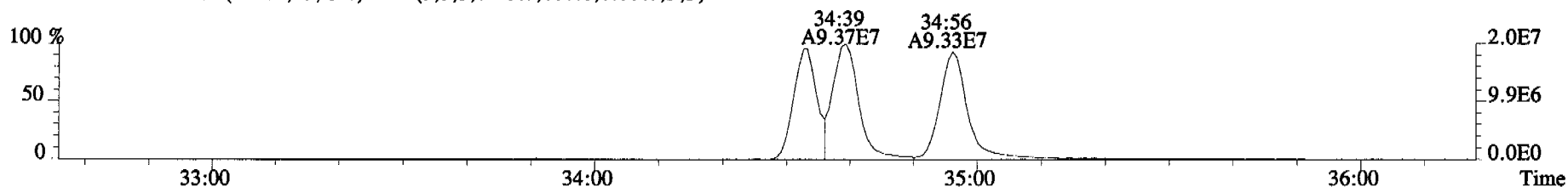
File:060322C1 #1-378 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD\_DB5  
389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



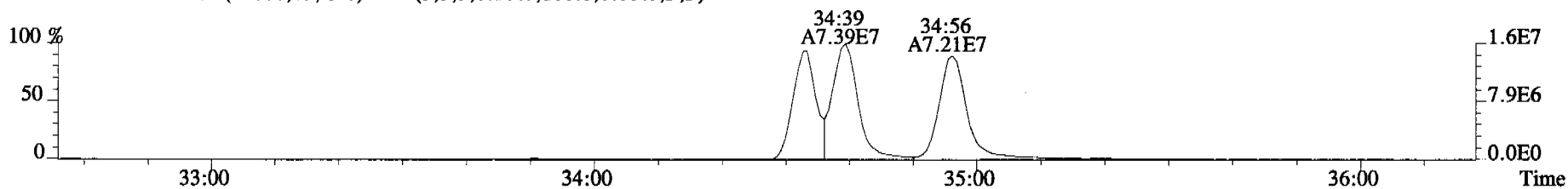
391.8127 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



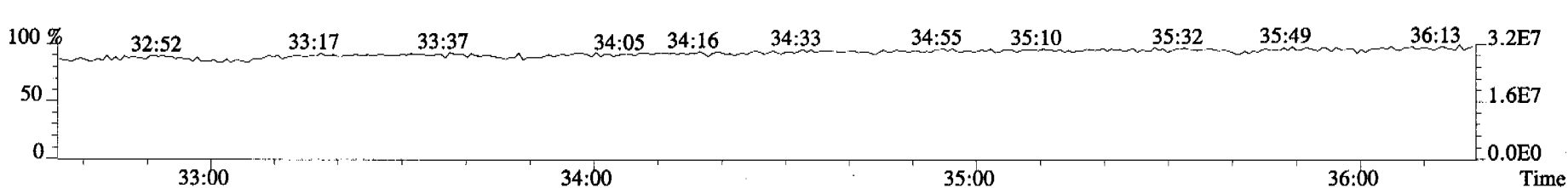
401.8559 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



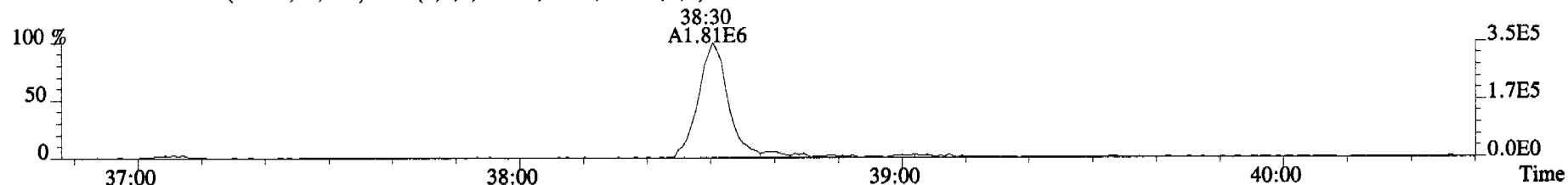
403.8530 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



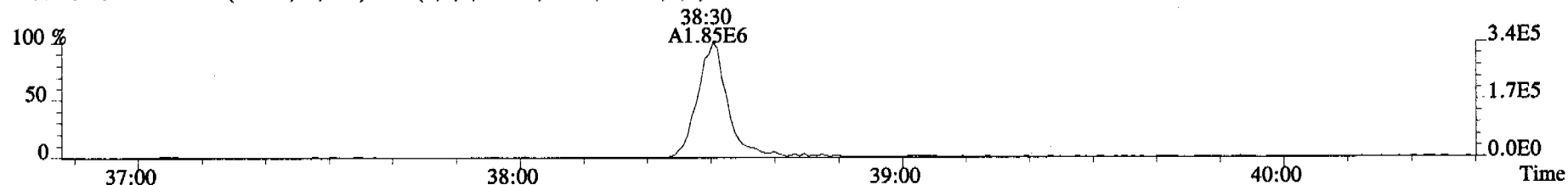
380.9760 S:4 F:3



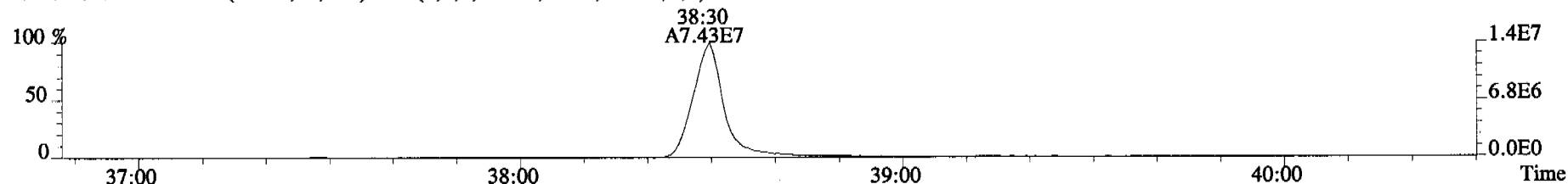
File:060322C1 #1-400 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD\_DB5  
423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



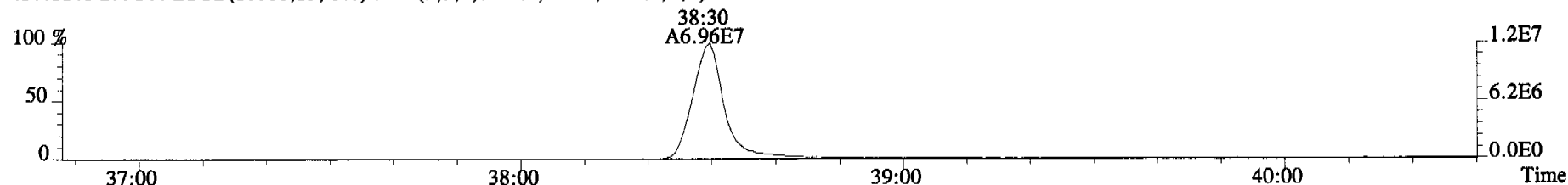
425.7737 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



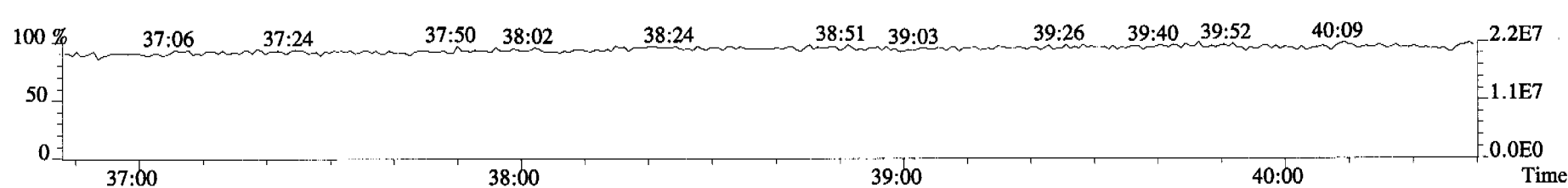
435.8169 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



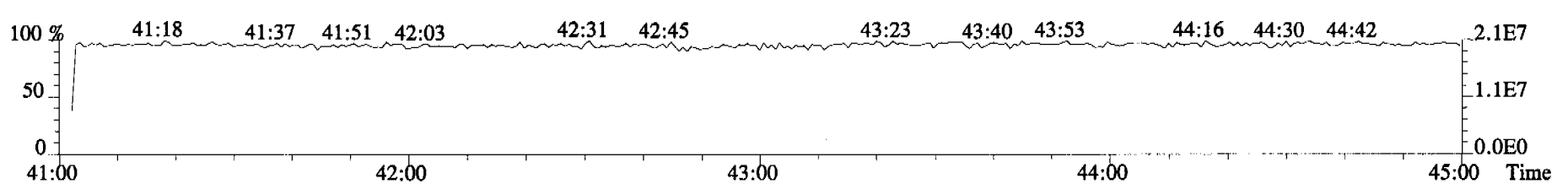
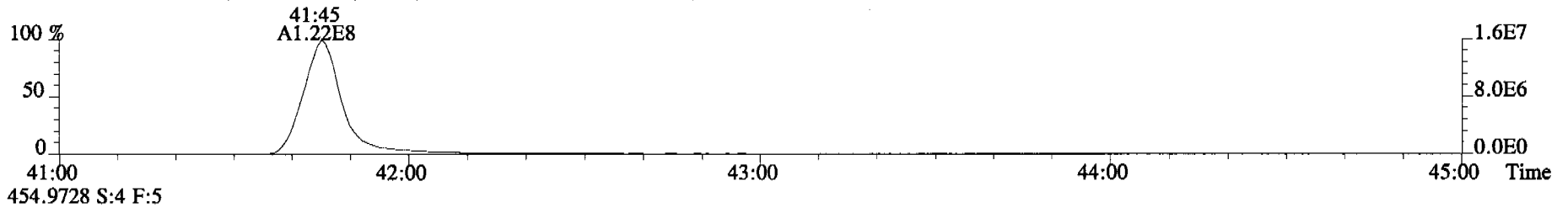
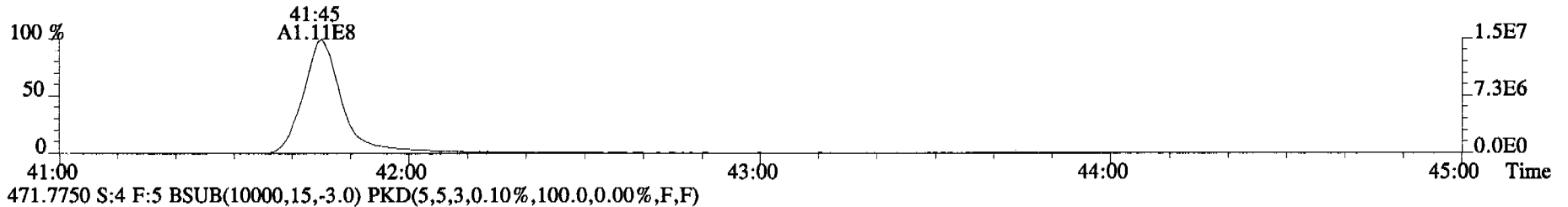
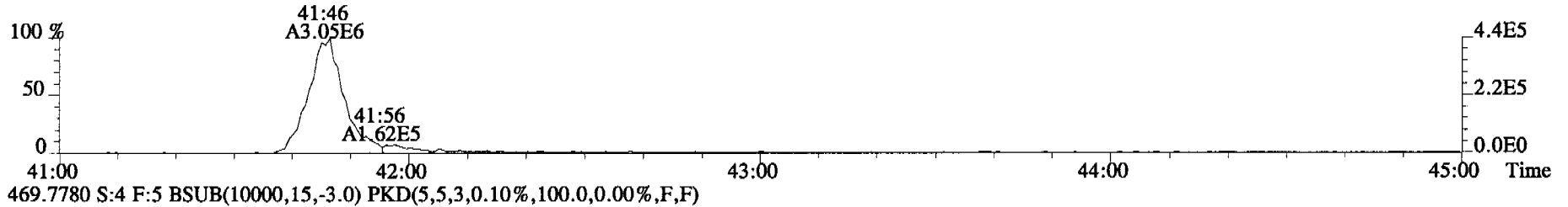
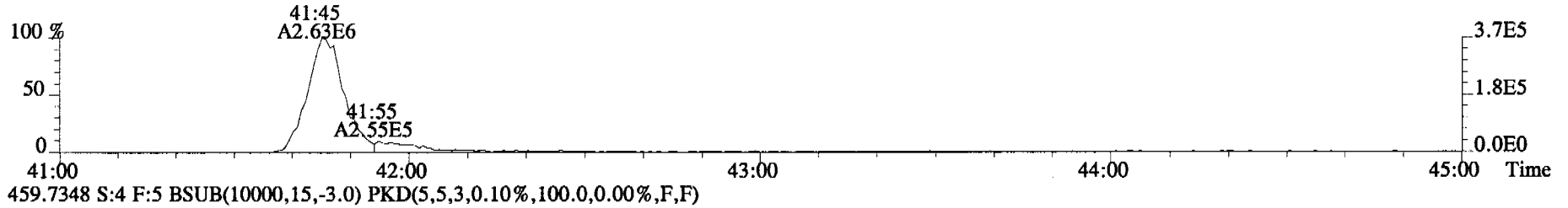
437.8140 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



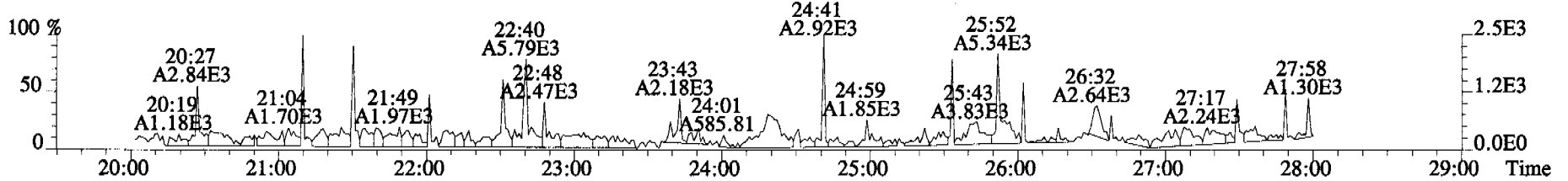
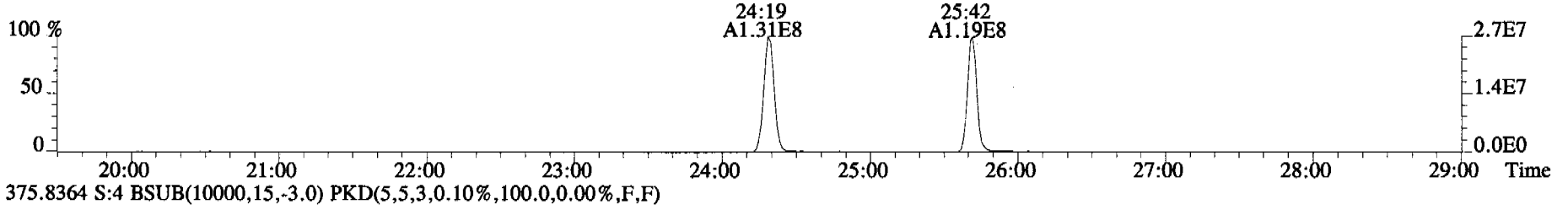
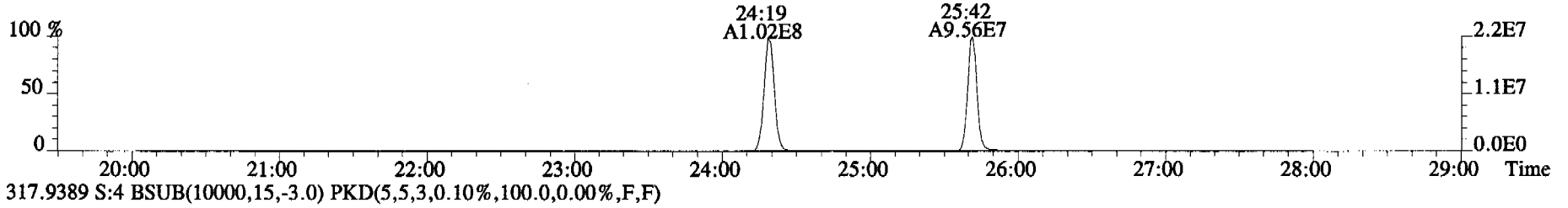
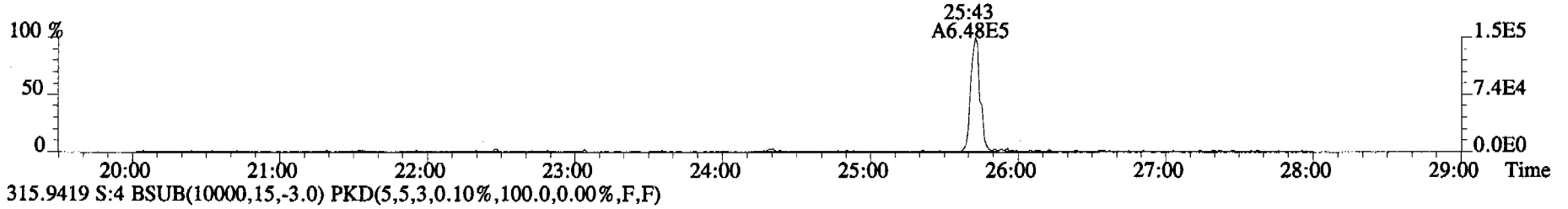
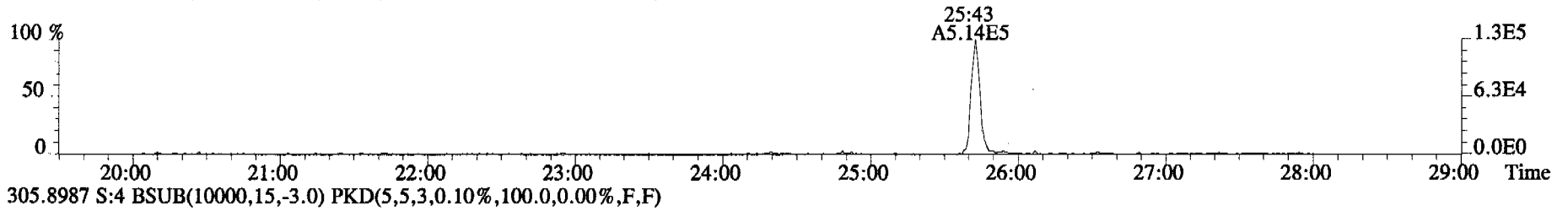
430.9728 S:4 F:4



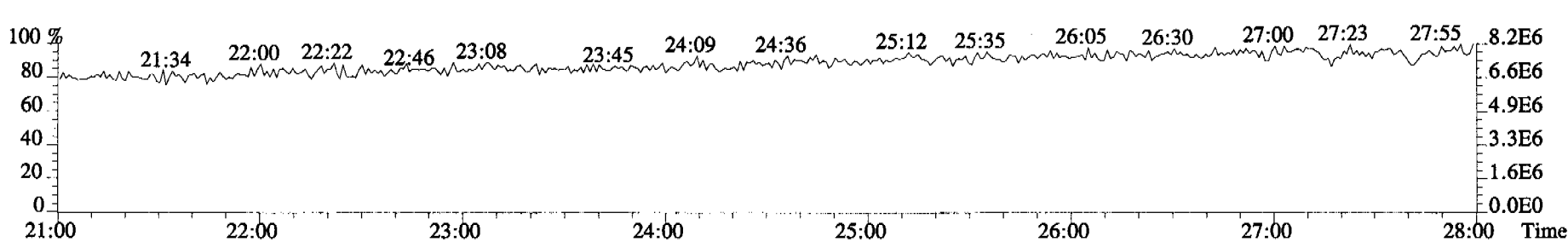
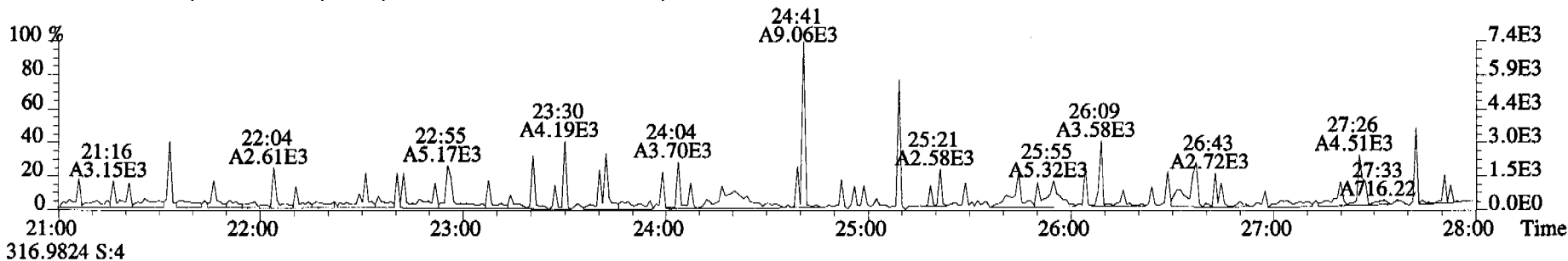
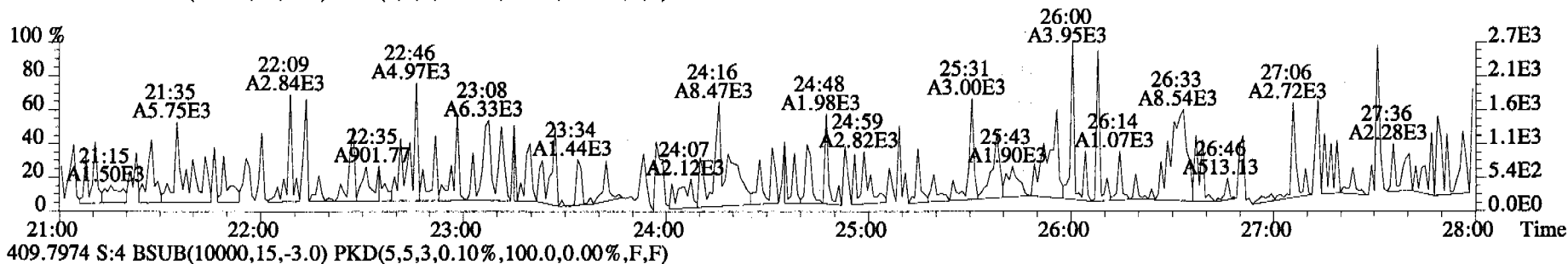
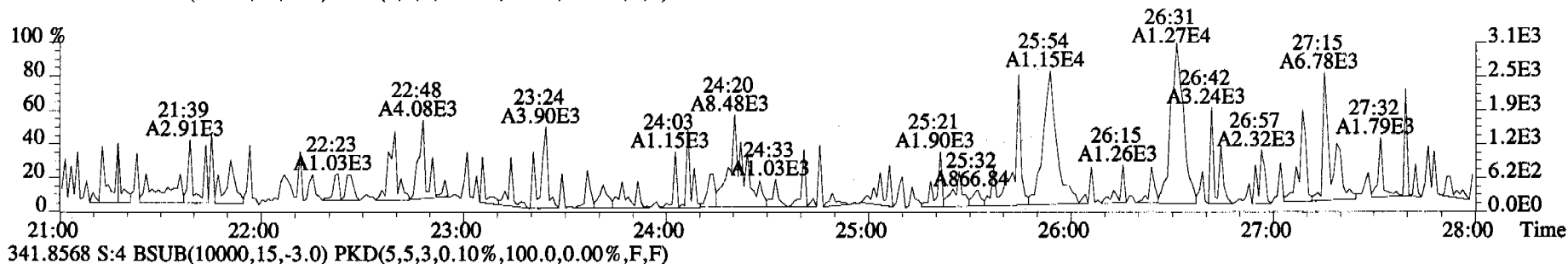
File:060322C1 #1-345 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD\_DB5  
457.7377 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



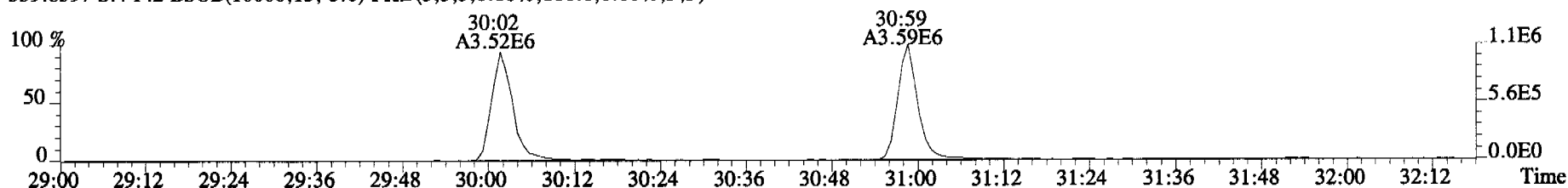
File:060322C1 #1-513 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD\_DB5  
303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



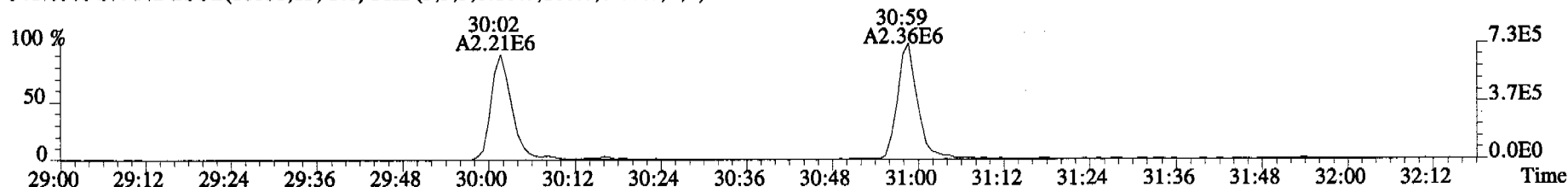
File:060322C1 #1-513 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD\_DB5  
339.8597 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



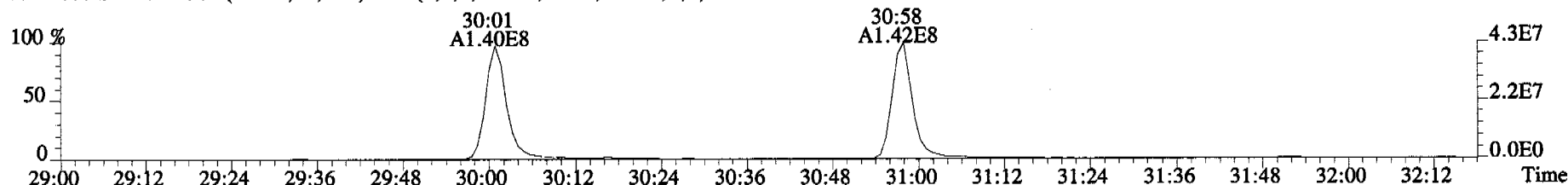
File:060322C1 #1-316 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD\_DB5  
339.8597 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



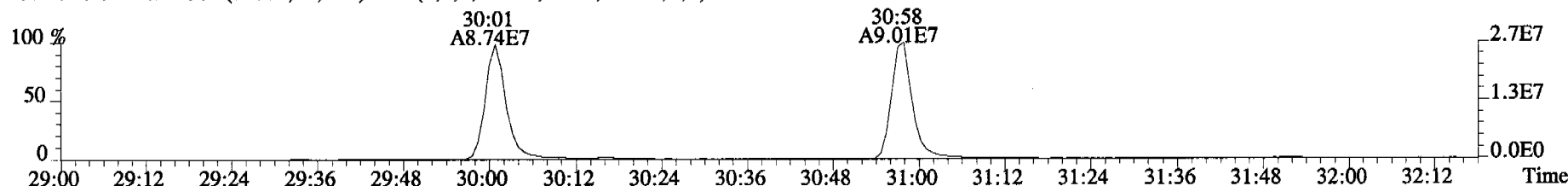
341.8568 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



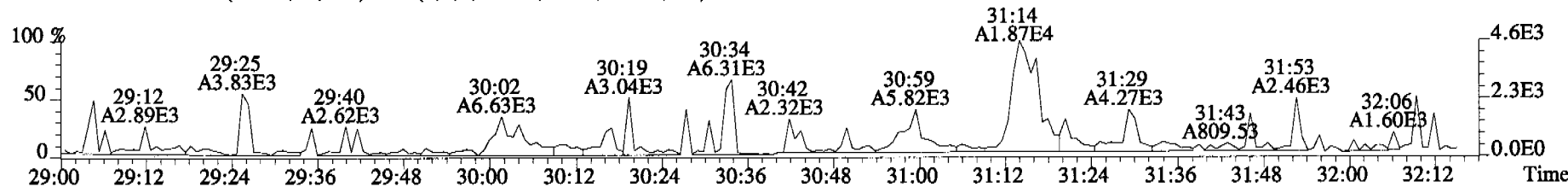
351.9000 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



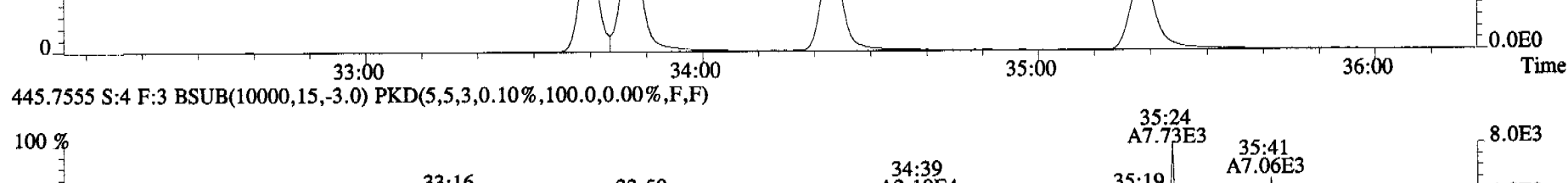
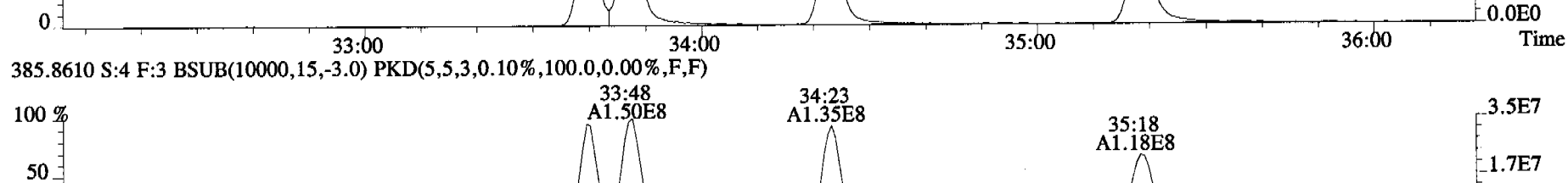
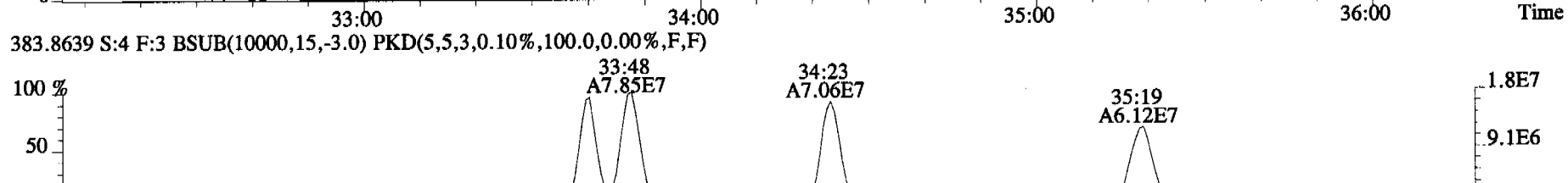
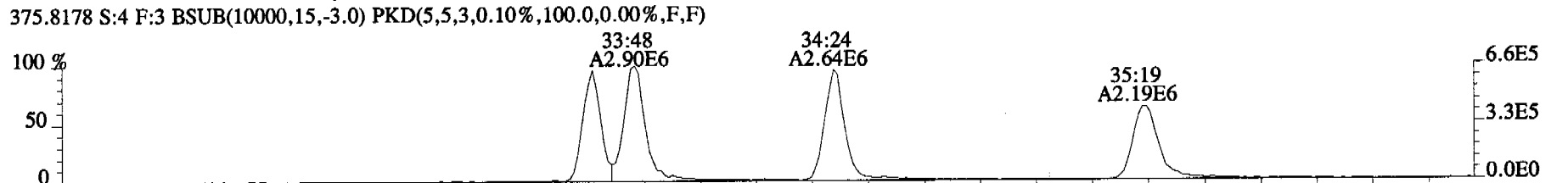
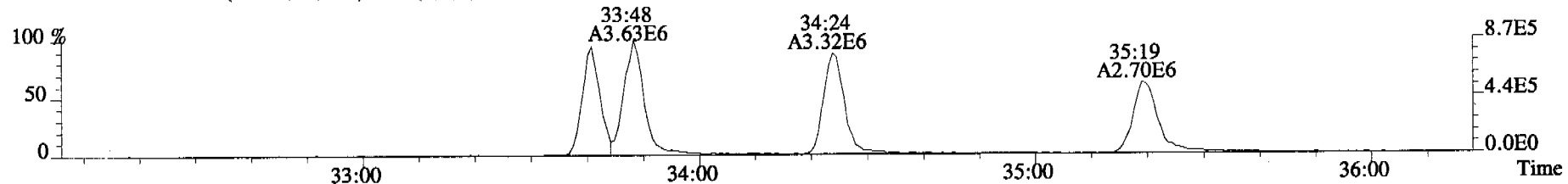
353.8970 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



409.7974 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

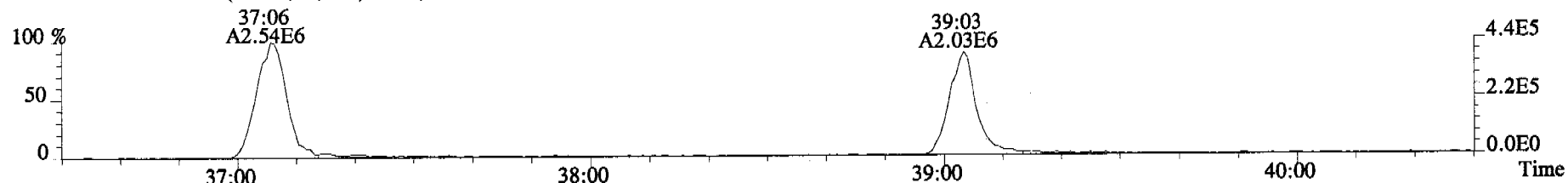


File:060322C1 #1-378 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD\_DB5  
373.8207 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

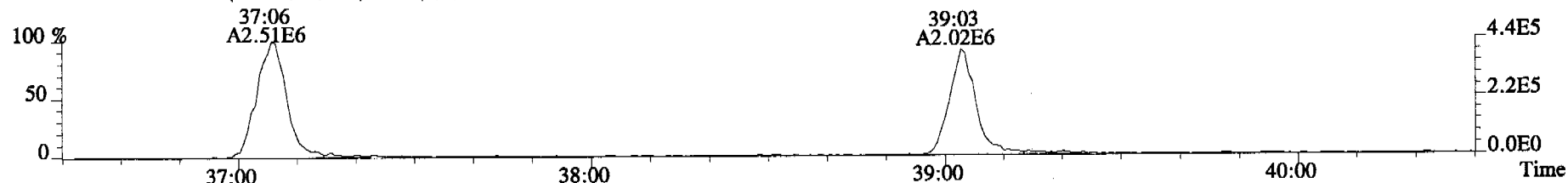




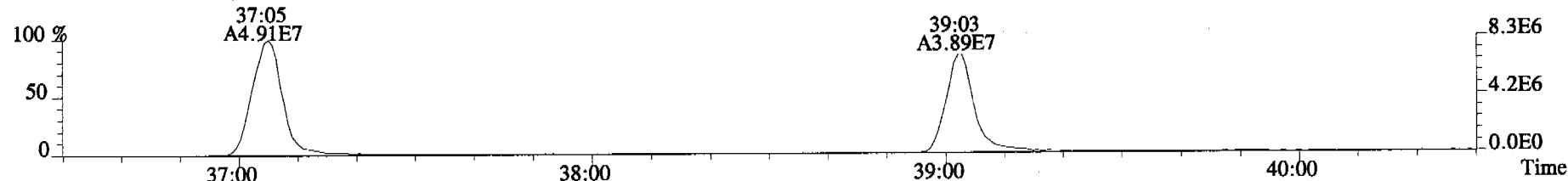
File:060322C1 #1-400 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD\_DB5  
407.7818 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



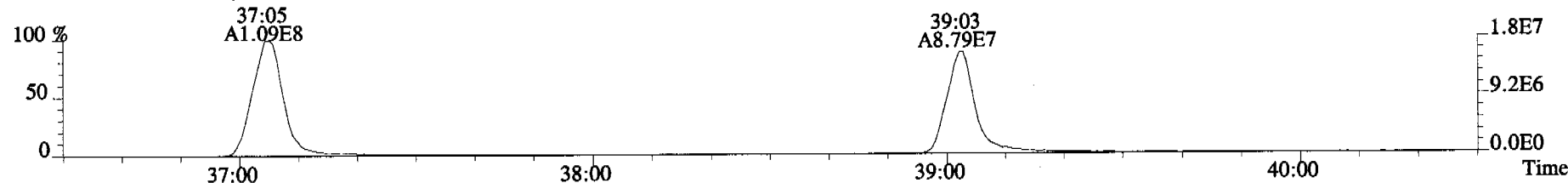
409.7788 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



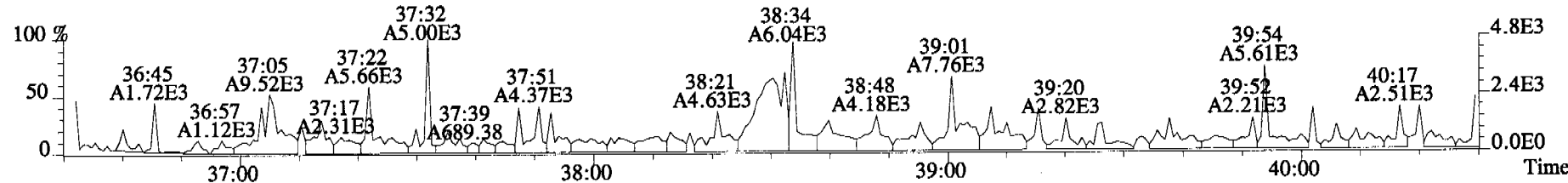
417.8253 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



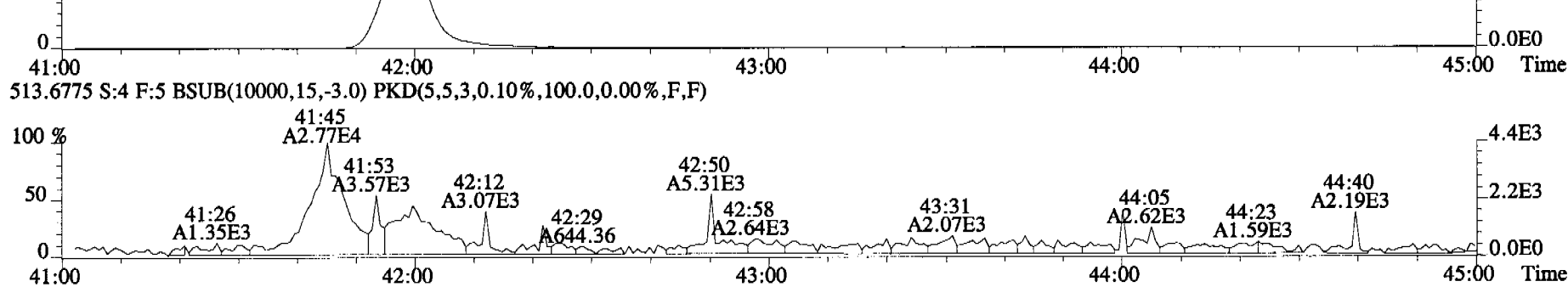
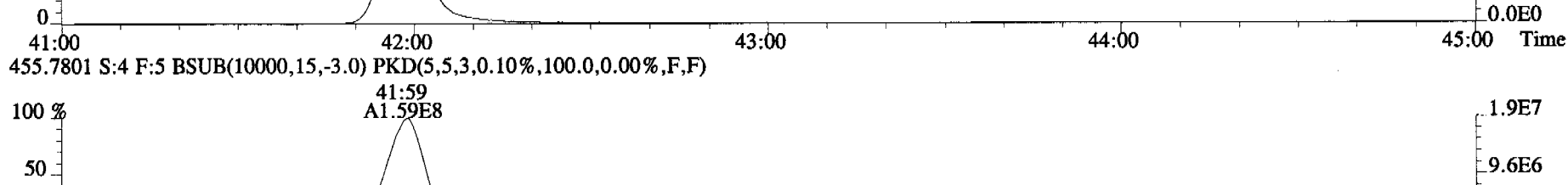
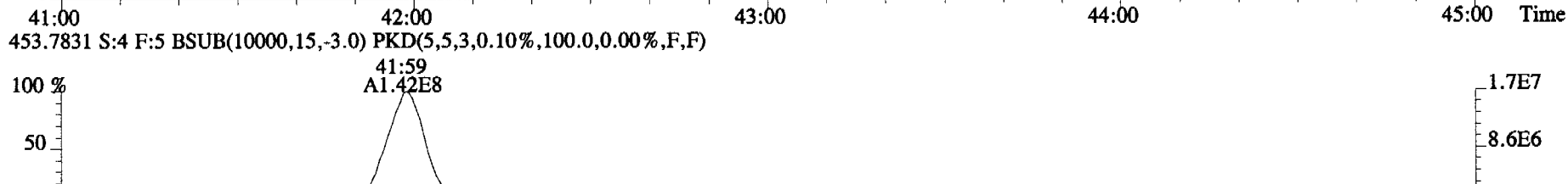
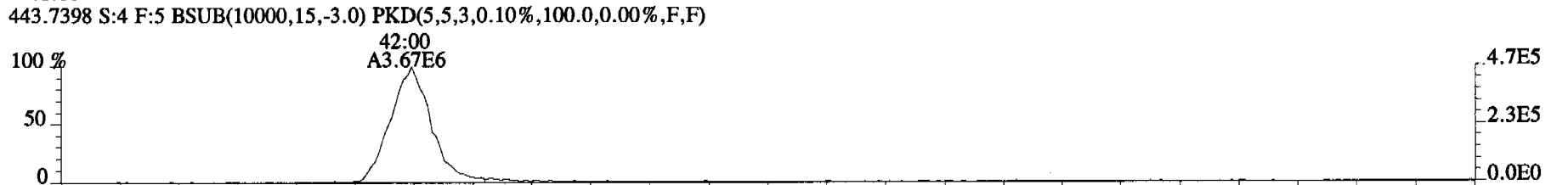
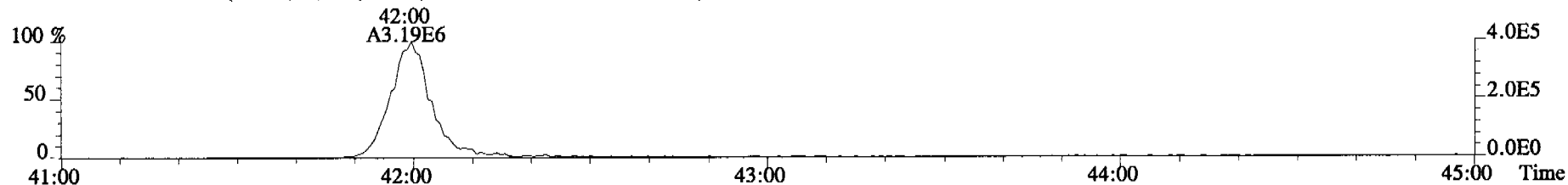
419.8220 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



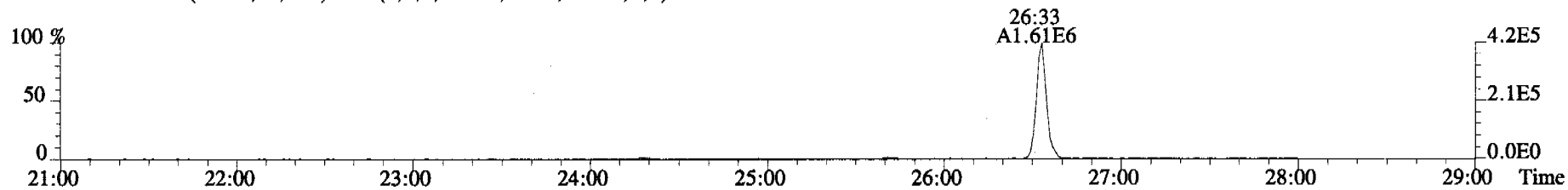
479.7165 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



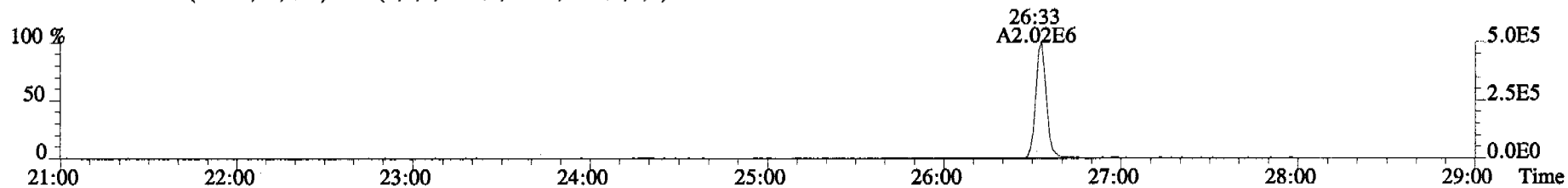
File:060322C1 #1-345 Acq:22-MAR-2006 12:02:01 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#4 File Text:Alta Analytical Laboratory Text:ST060322C1-3 1613 CS1 060110F Exp:OCDD\_DB5  
441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



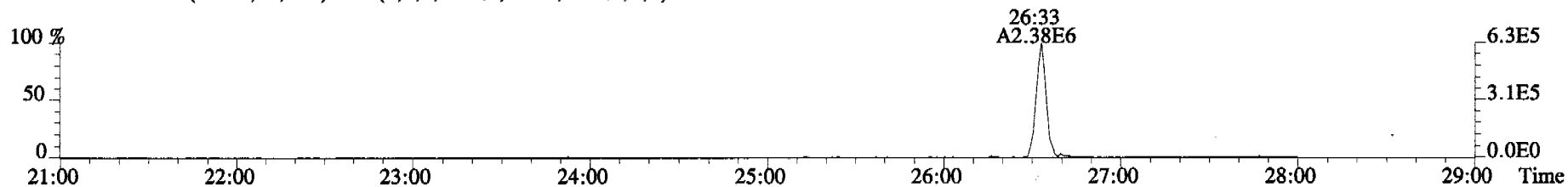
File:060322C1 #1-513 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD\_DB5  
319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



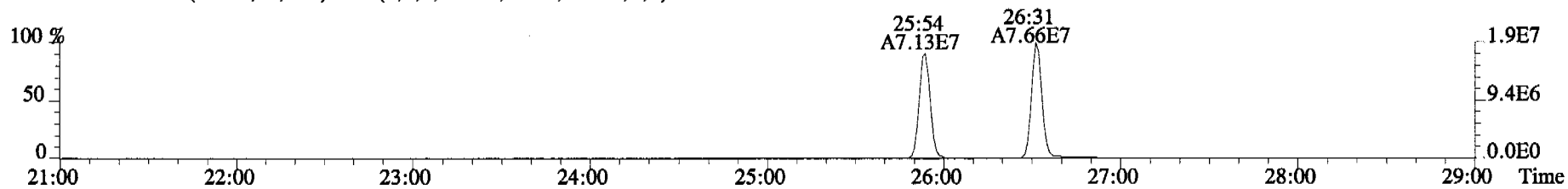
321.8936 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



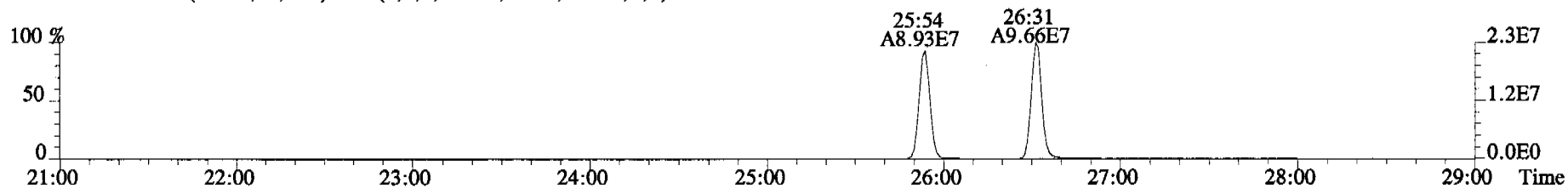
327.8847 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



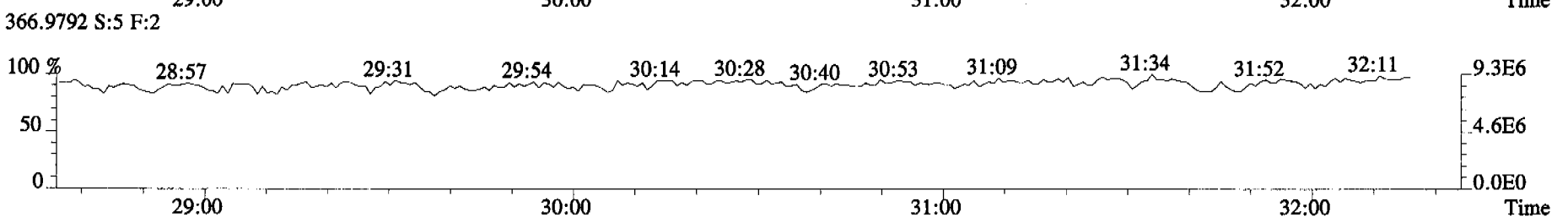
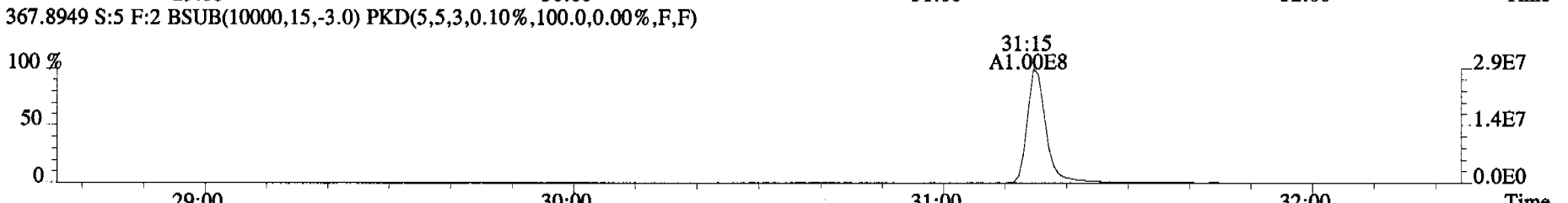
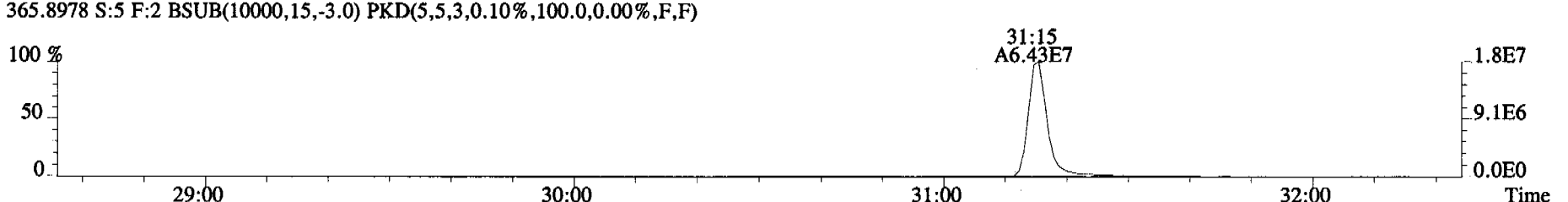
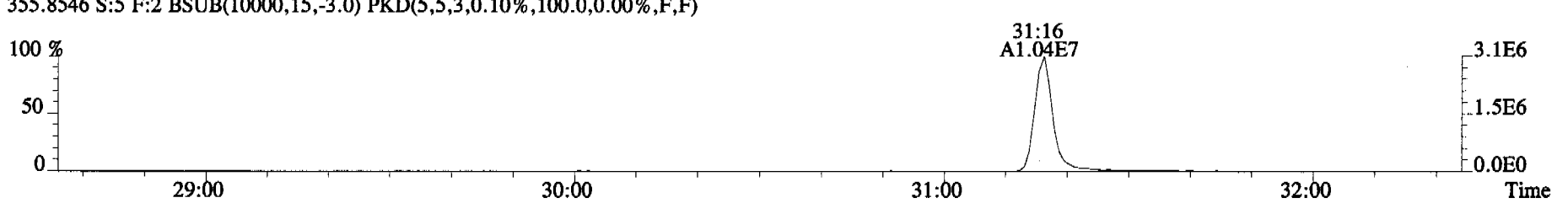
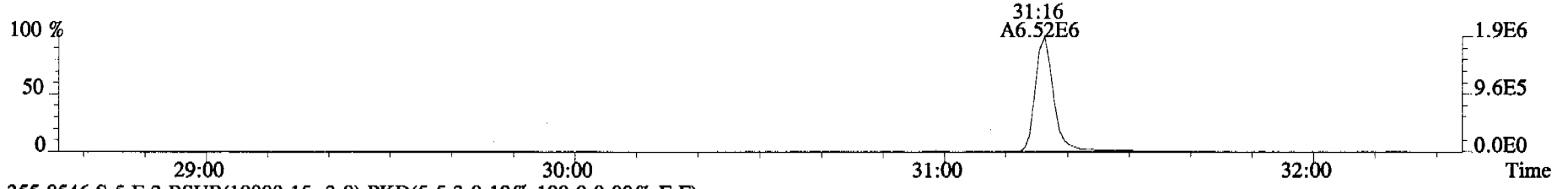
331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



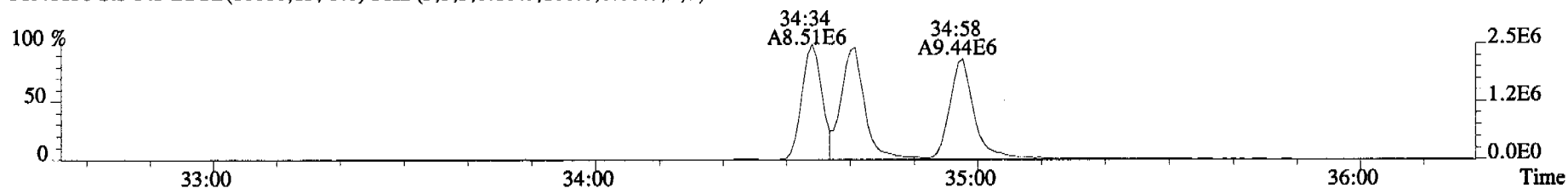
333.9339 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



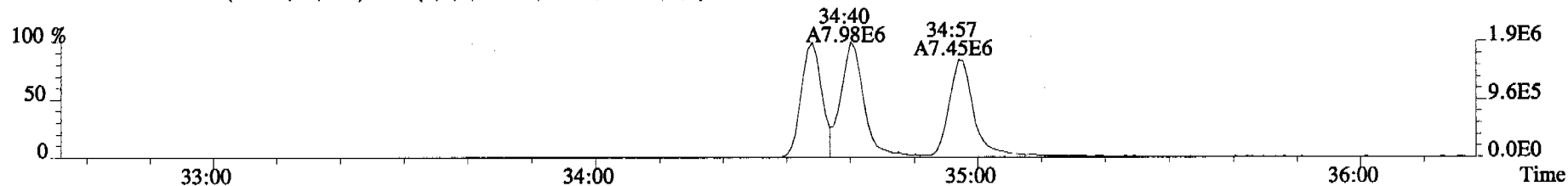
File:060322C1 #1-317 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD\_DB5  
353.8576 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



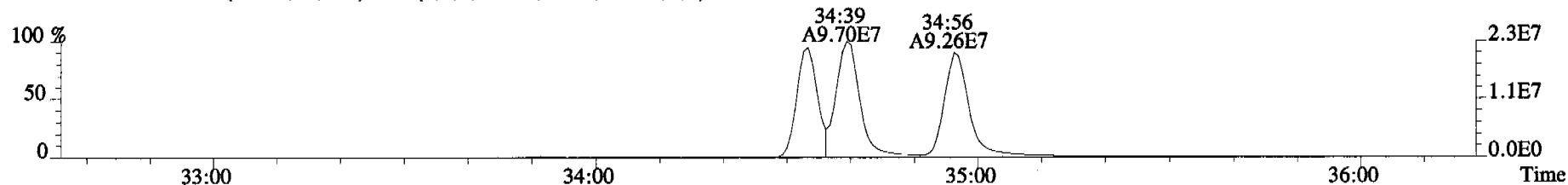
File:060322C1 #1-377 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD\_DB5  
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



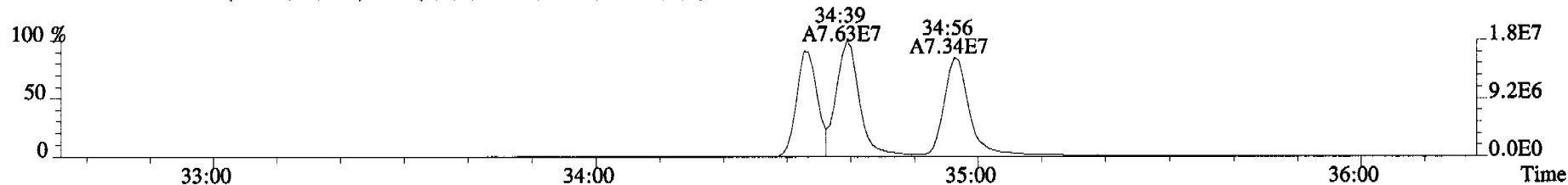
391.8127 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



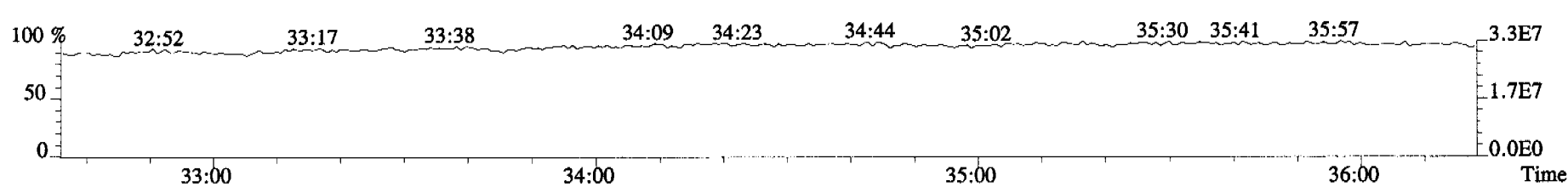
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



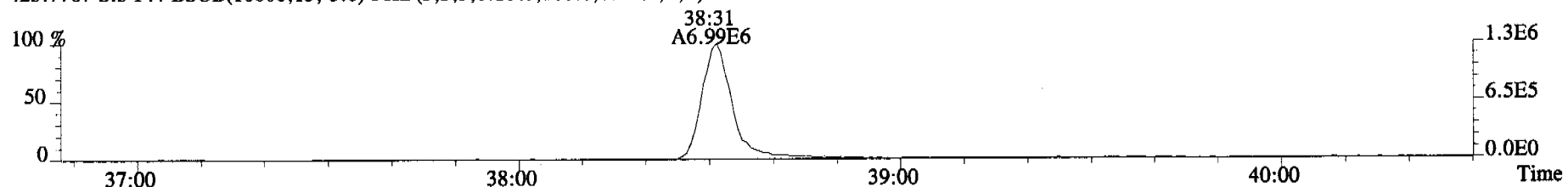
403.8530 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



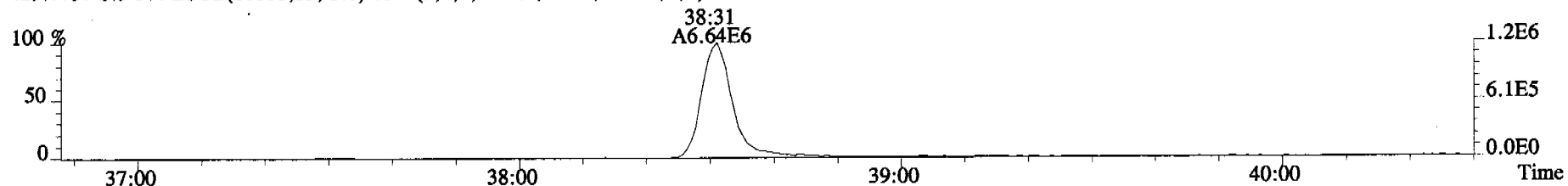
380.9760 S:5 F:3



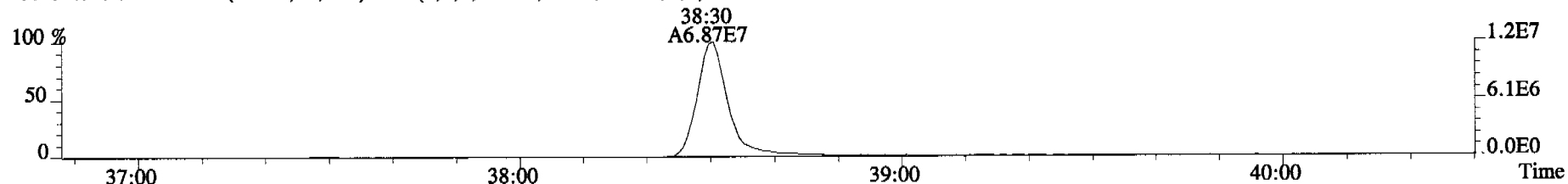
File:060322C1 #1-400 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD\_DB5  
423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



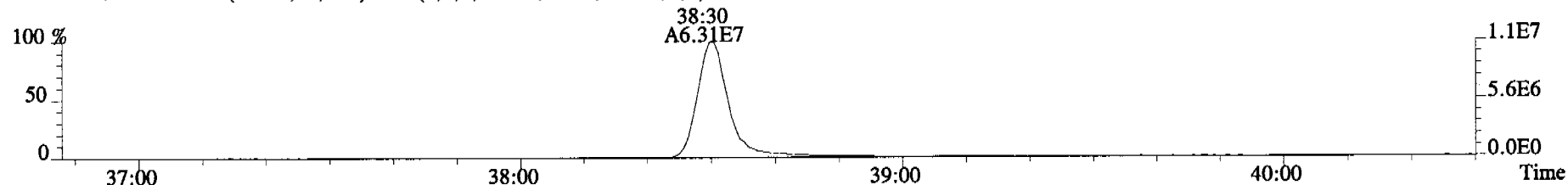
425.7737 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



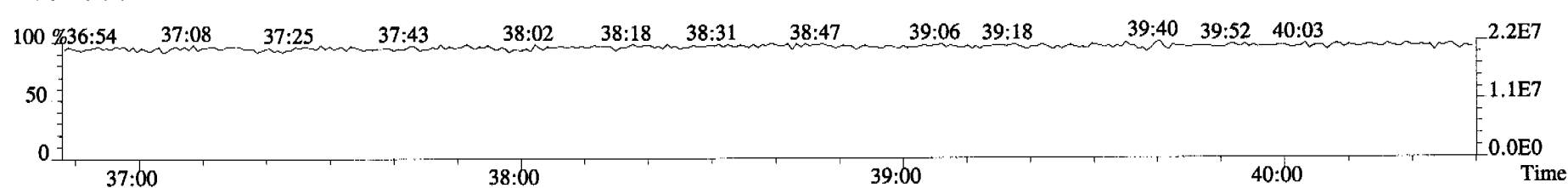
435.8169 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



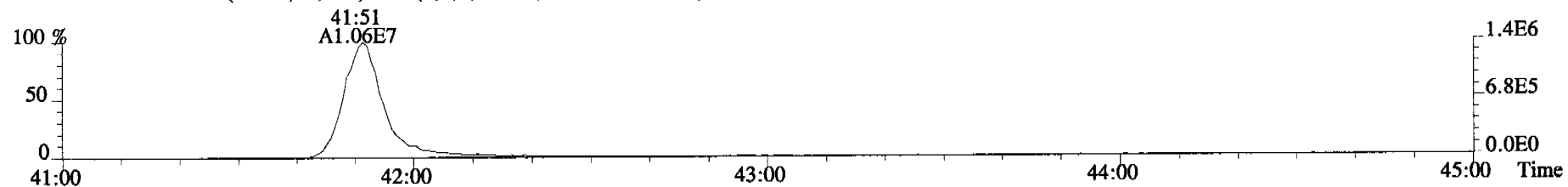
437.8140 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



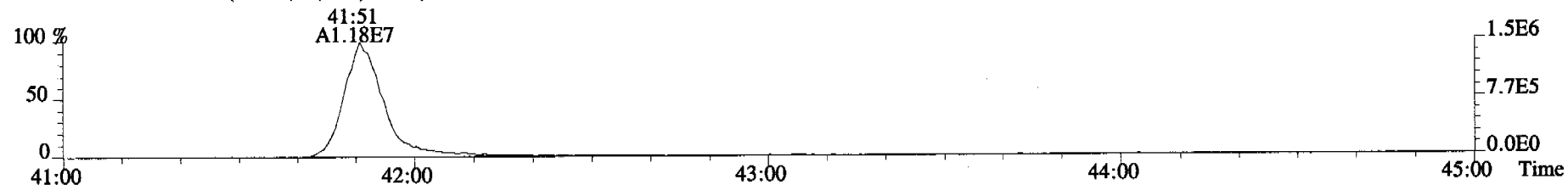
430.9728 S:5 F:4



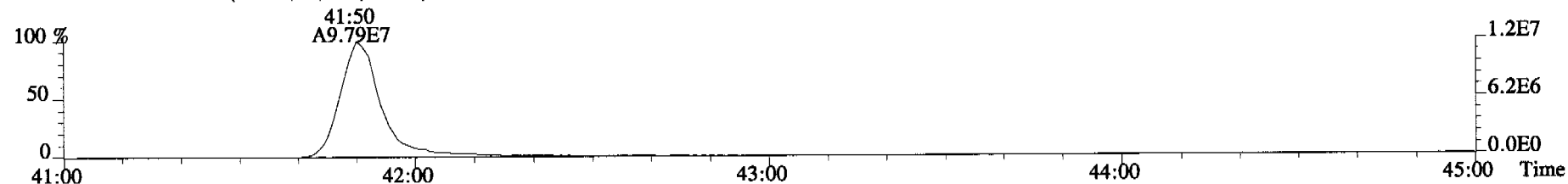
File:060322C1 #1-345 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD\_DB5  
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



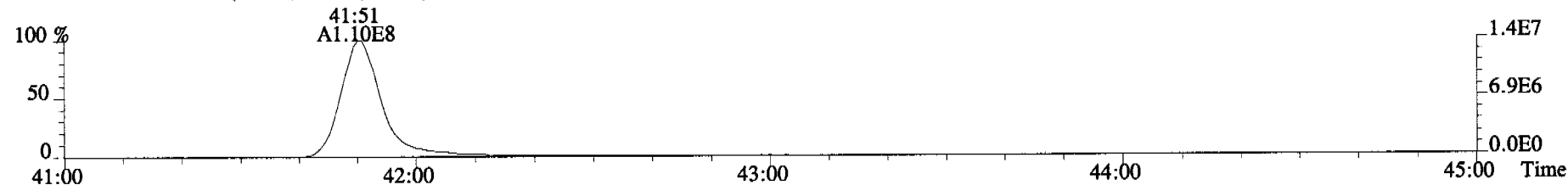
459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



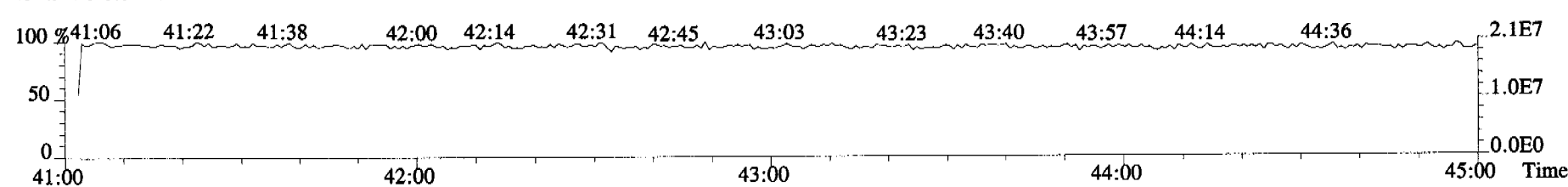
469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



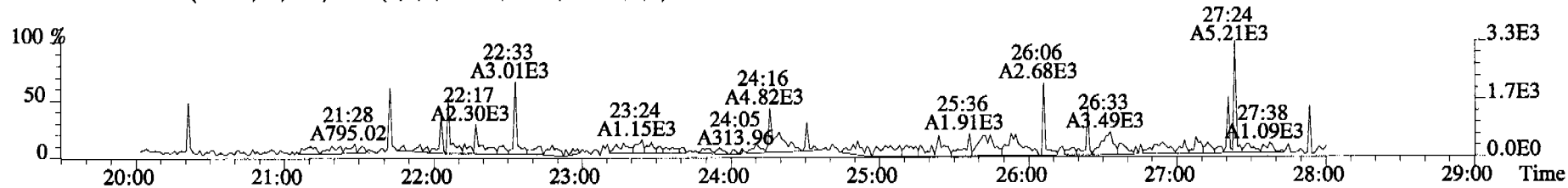
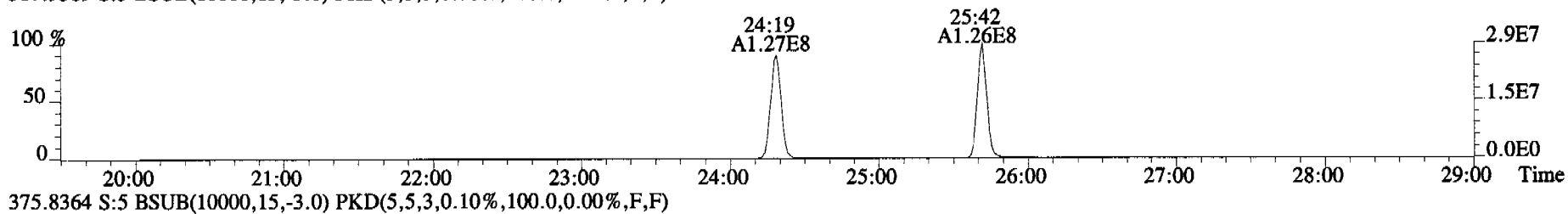
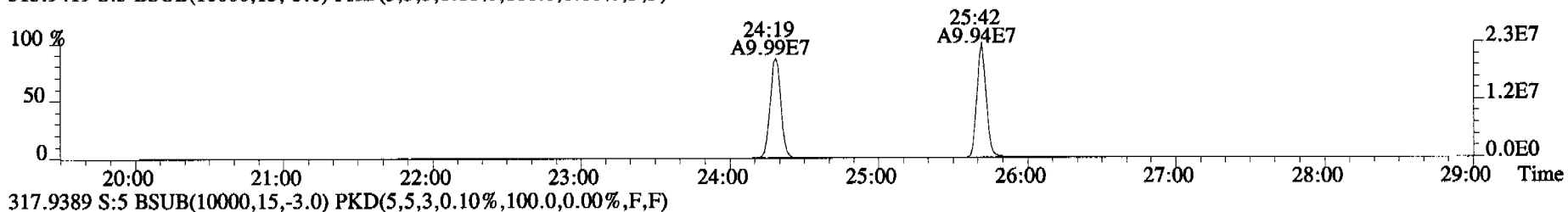
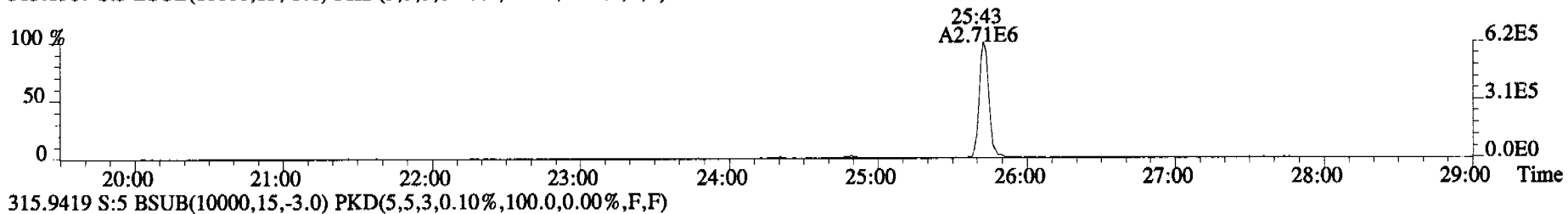
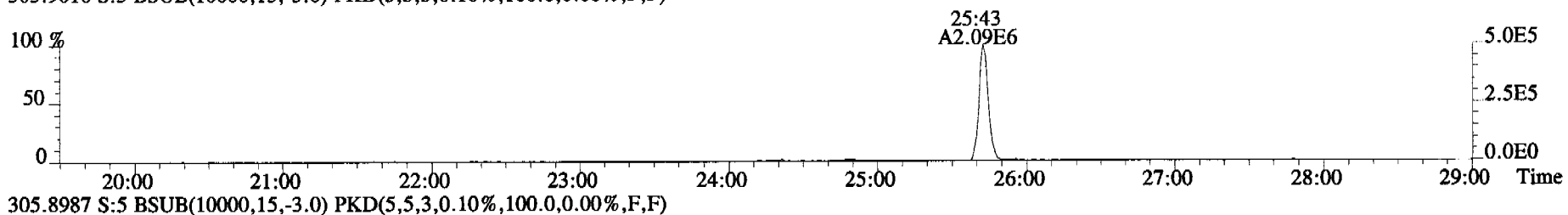
471.7750 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



454.9728 S:5 F:5

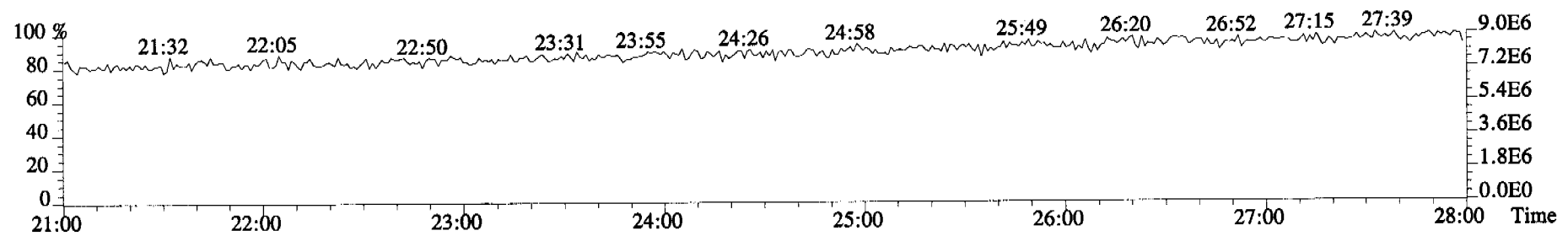
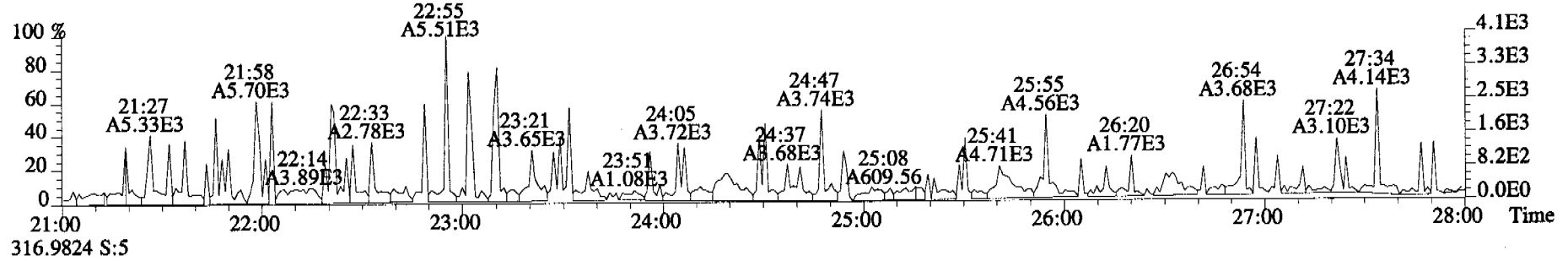
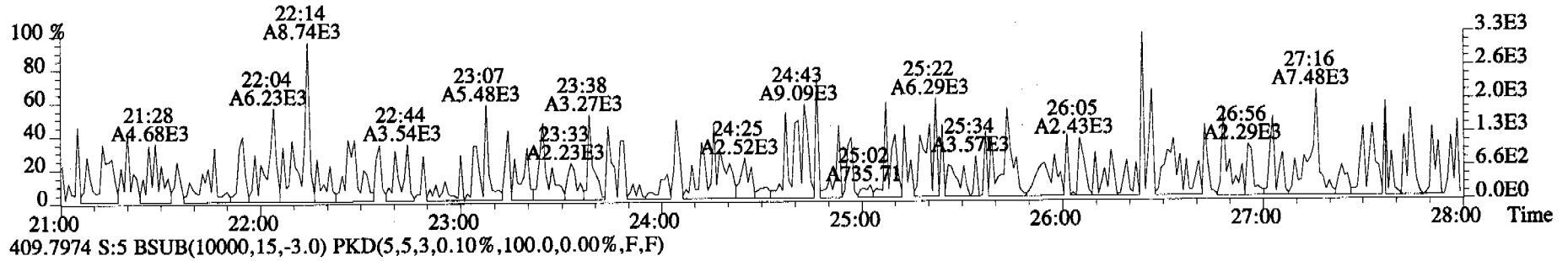
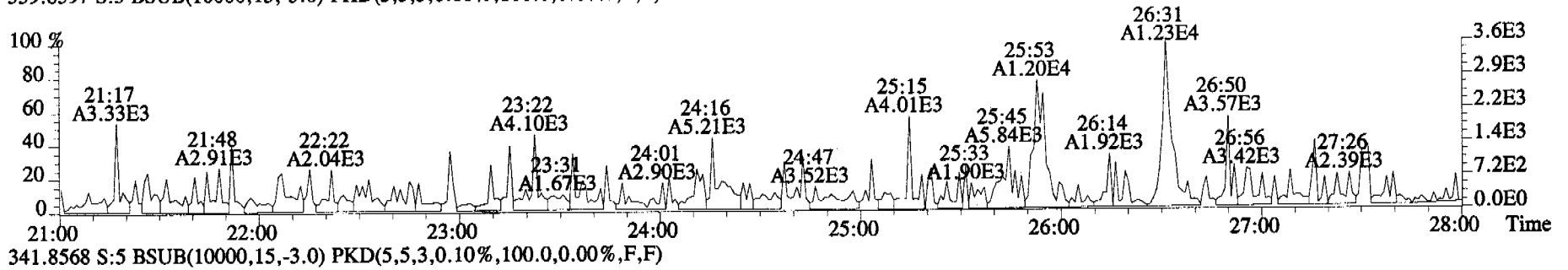


File:060322C1 #1-513 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD\_DB5  
303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

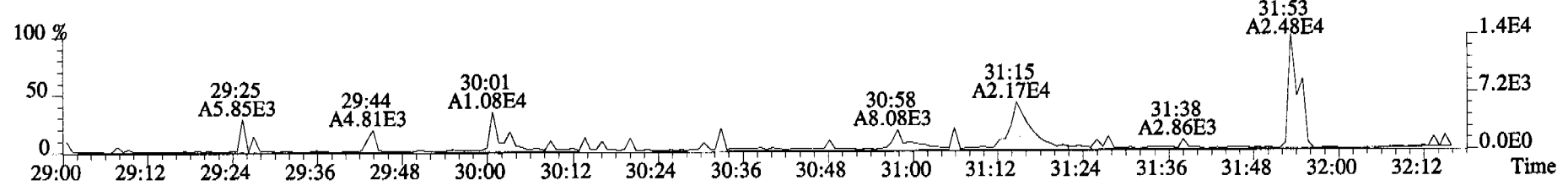
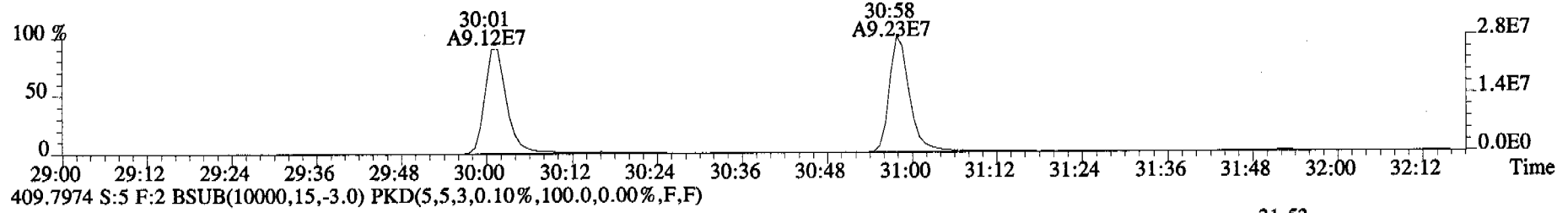
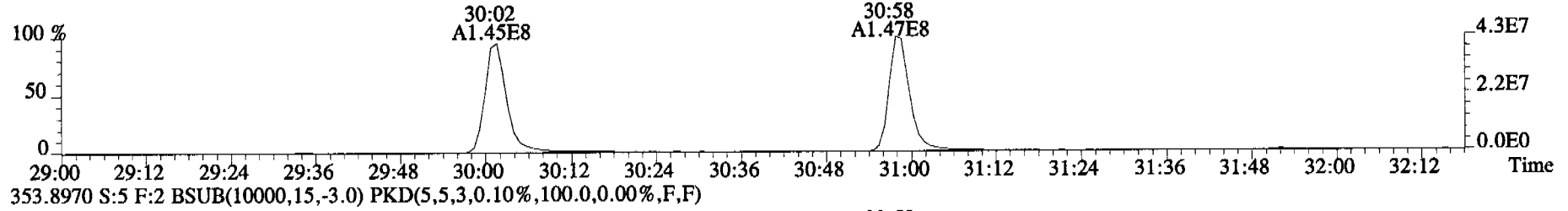
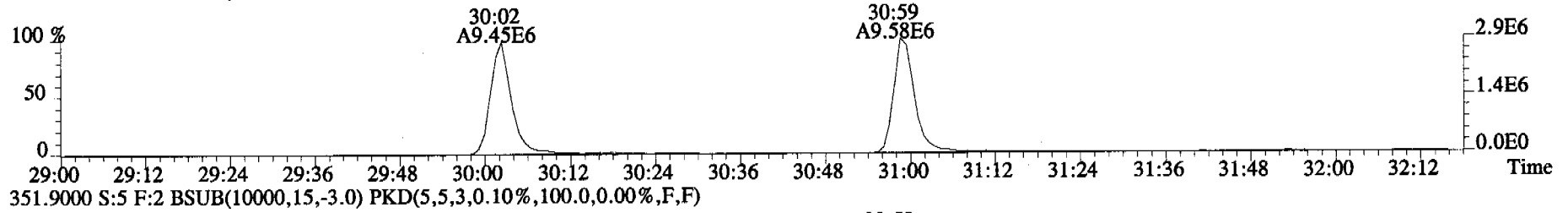
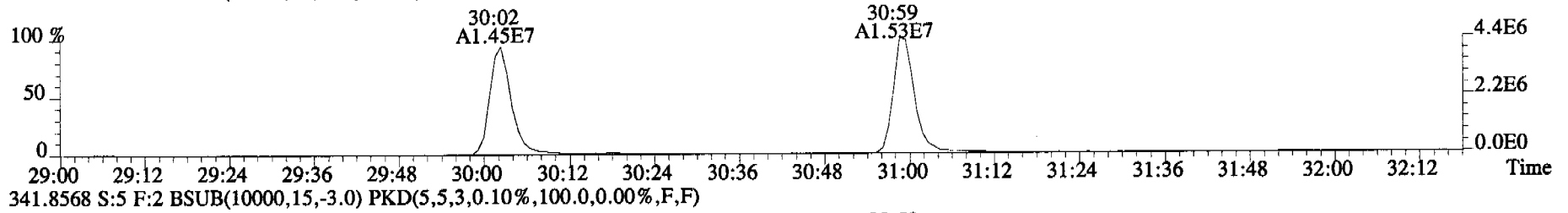




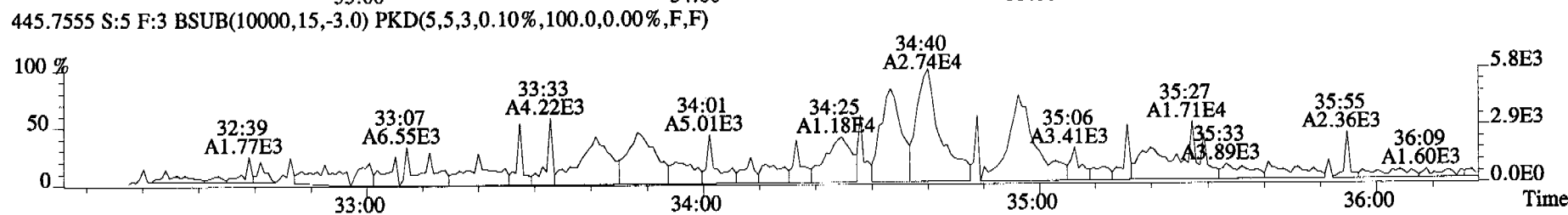
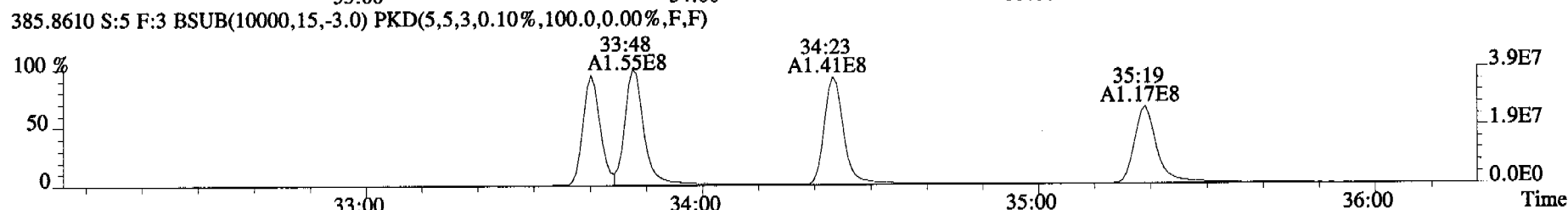
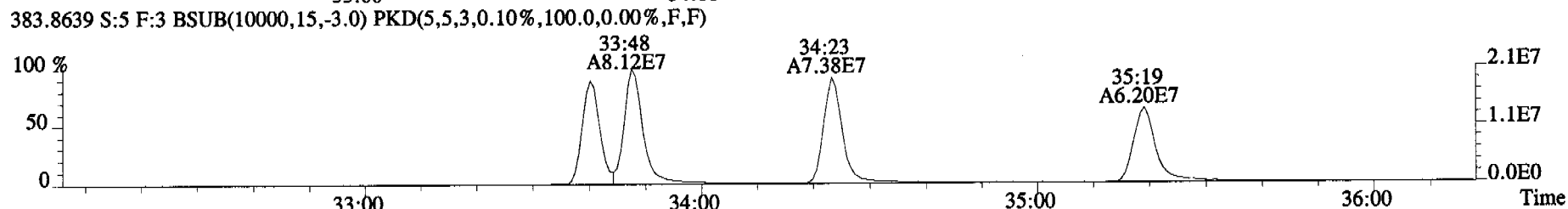
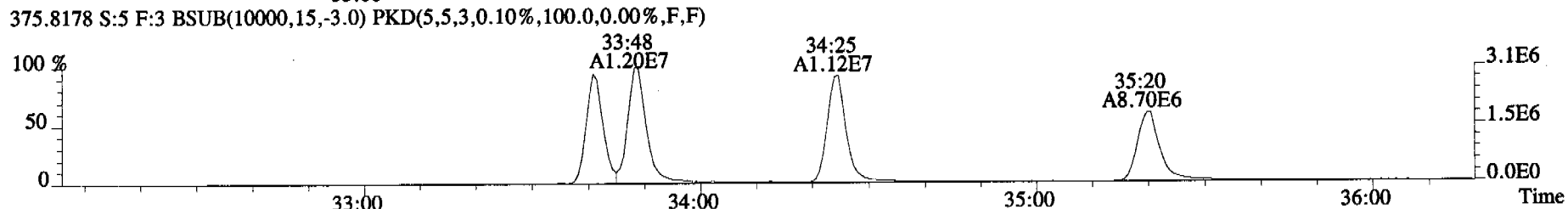
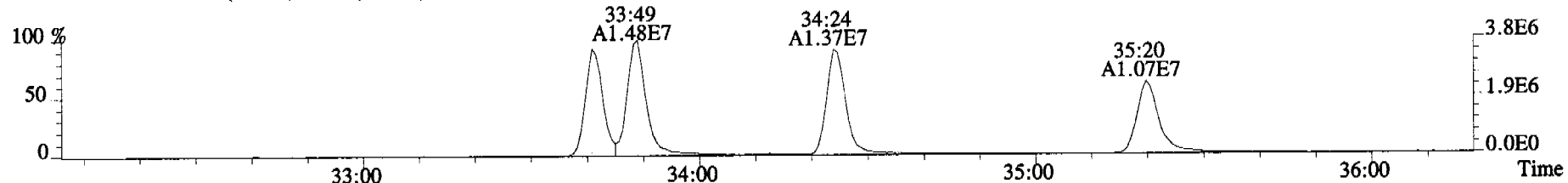
File:060322C1 #1-513 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD\_DB5  
339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



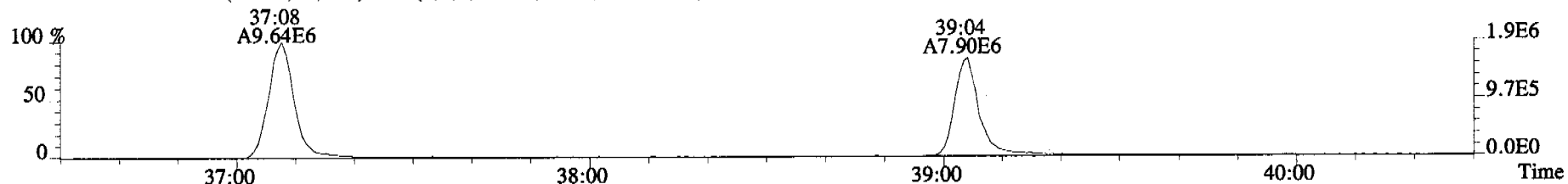
File:060322C1 #1-317 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD\_DB5  
339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



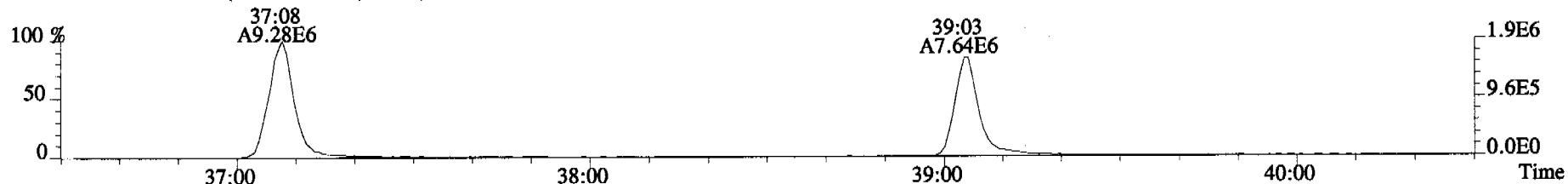
File:060322C1 #1-377 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD\_DB5  
373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



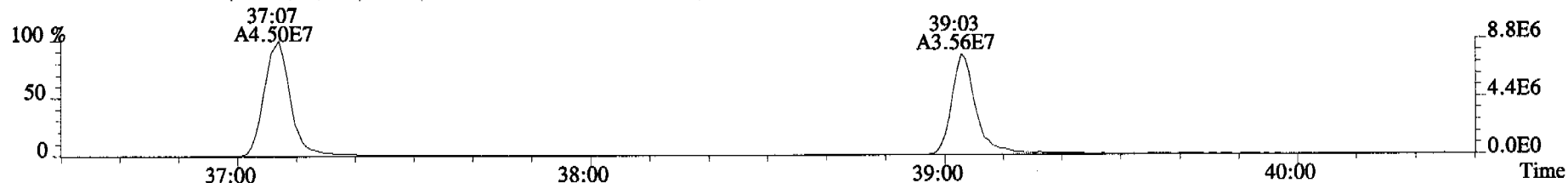
File:060322C1 #1-400 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD\_DB5  
407.7818 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



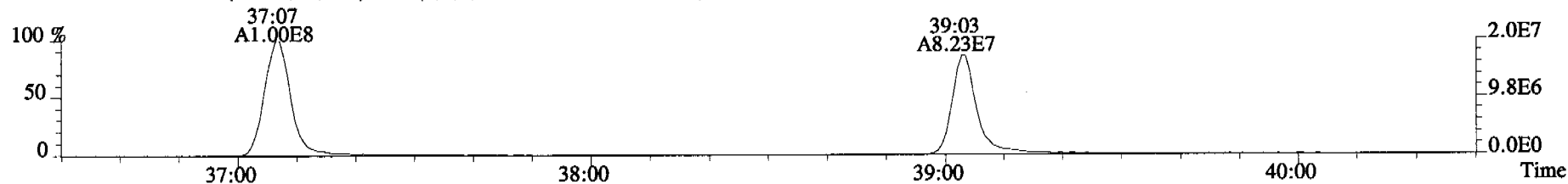
409.7788 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



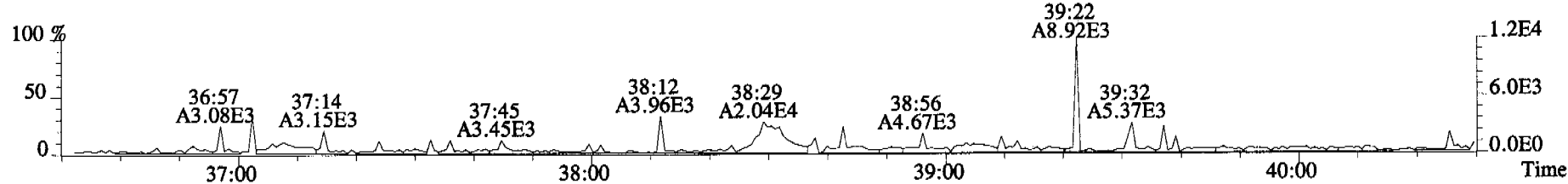
417.8253 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



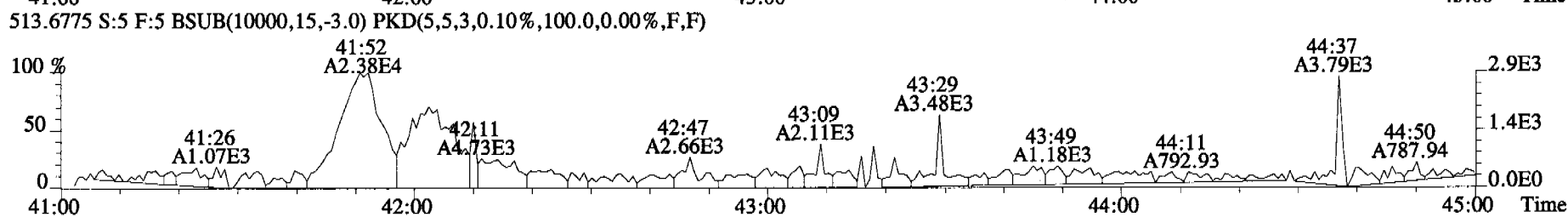
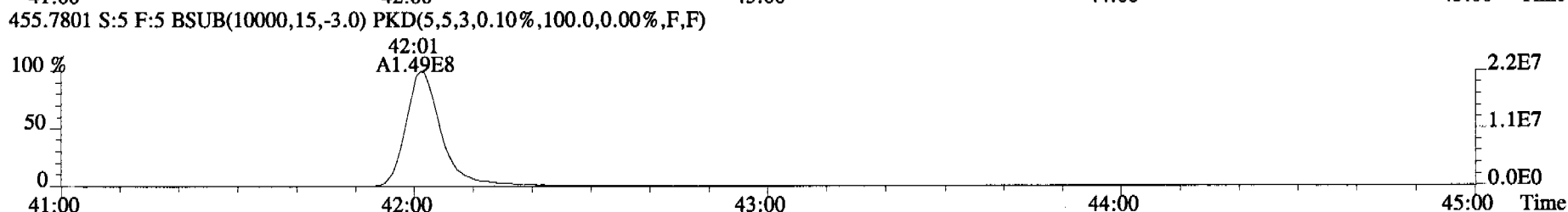
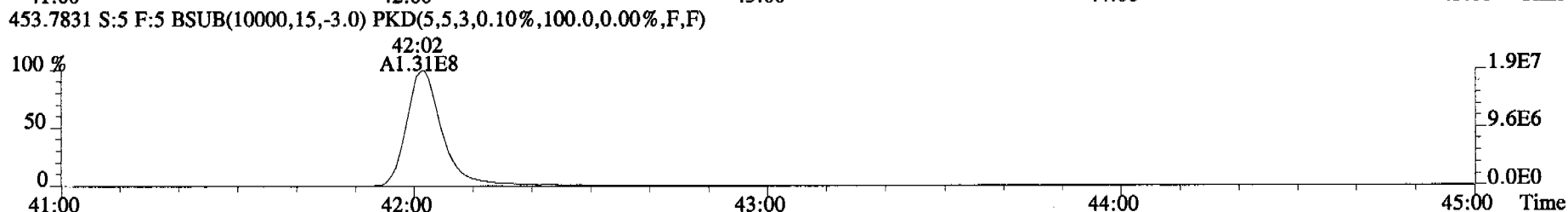
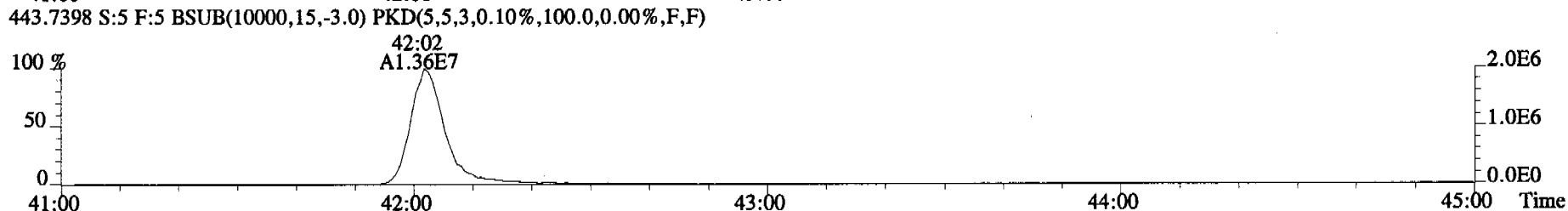
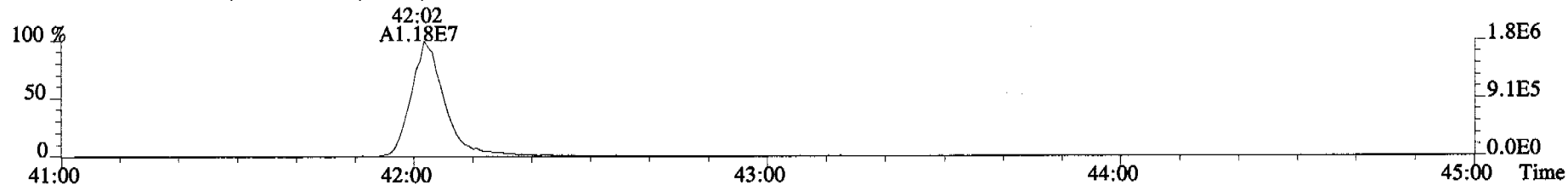
419.8220 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



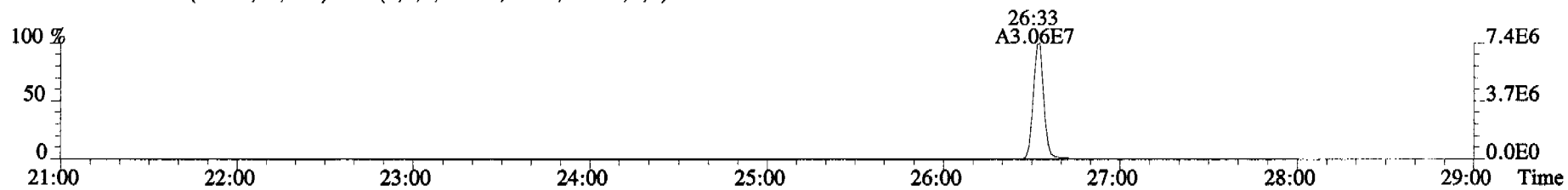
479.7165 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



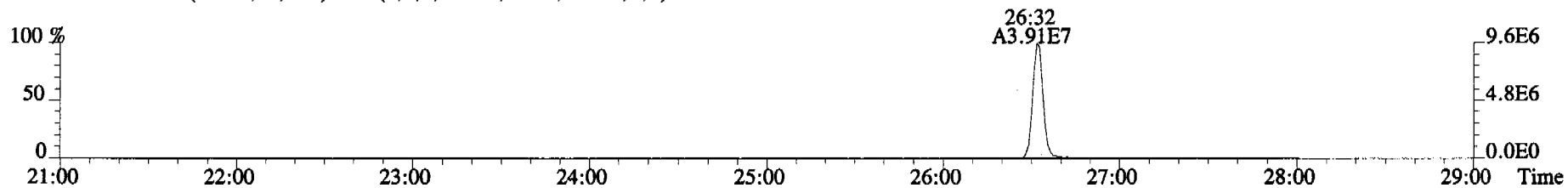
File:060322C1 #1-345 Acq:22-MAR-2006 12:51:46 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#5 File Text:Alta Analytical Laboratory Text:ST060322C1-4 1613 CS2 060110G Exp:OCDD\_DB5  
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



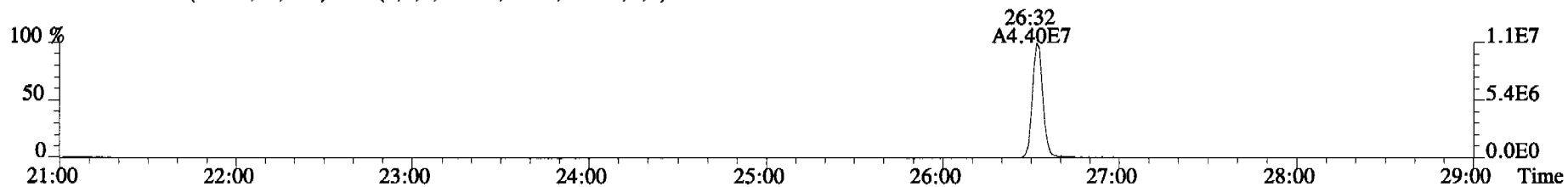
File:060322C1 #1-514 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD\_DB5  
319.8965 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



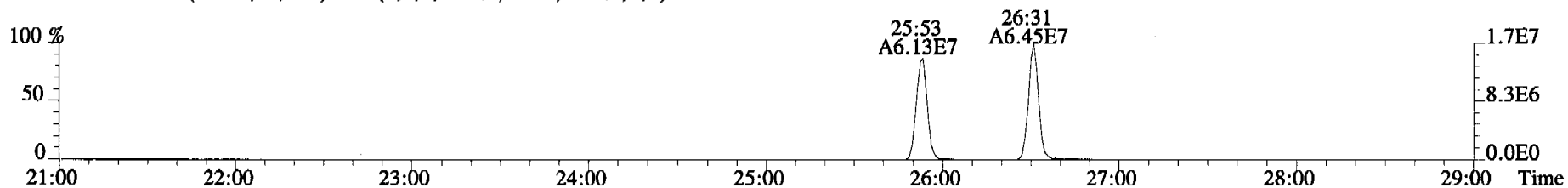
321.8936 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



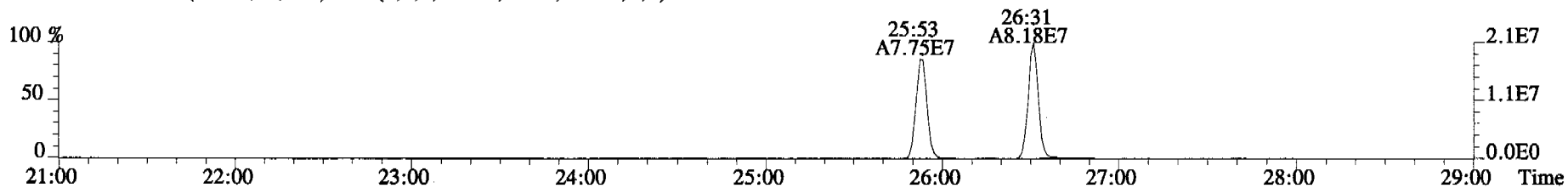
327.8847 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



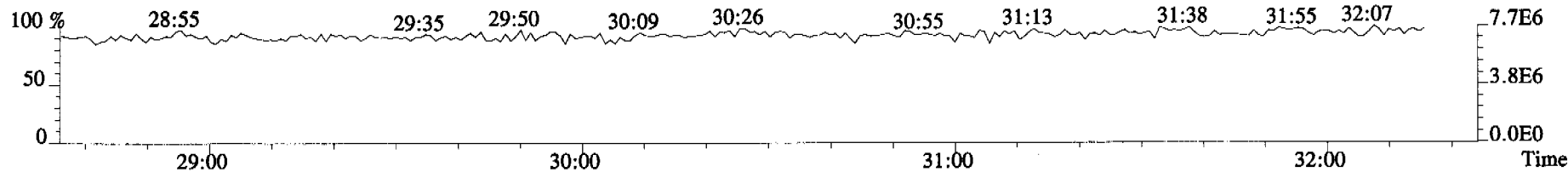
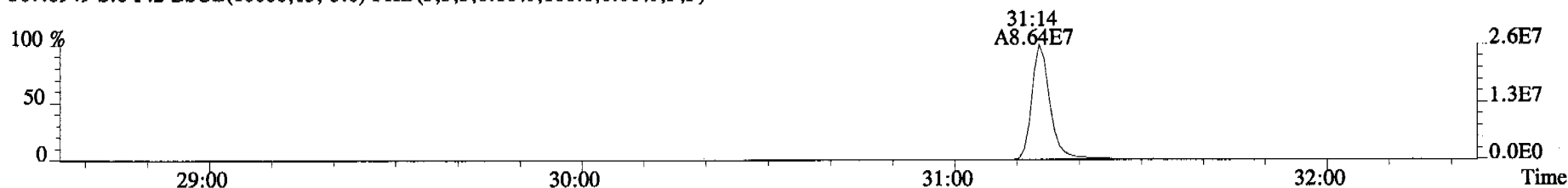
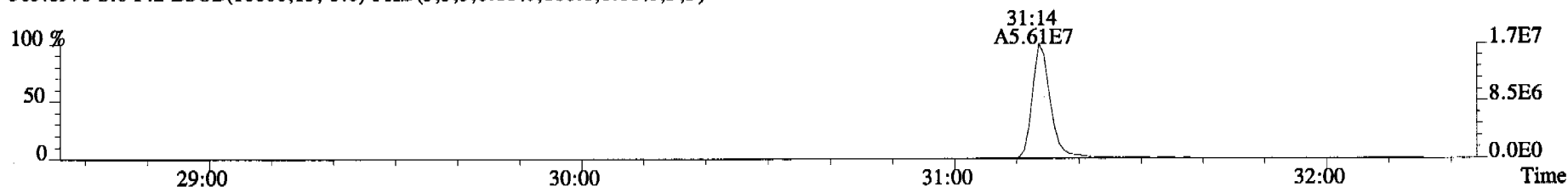
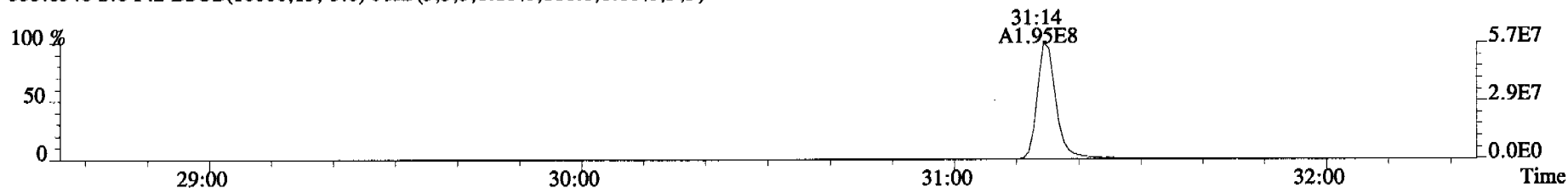
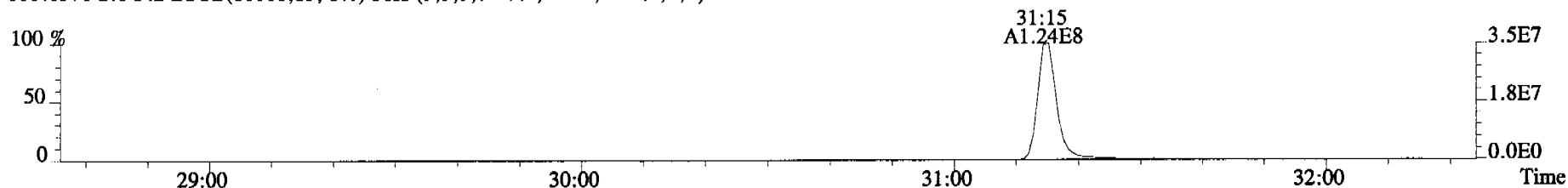
331.9368 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



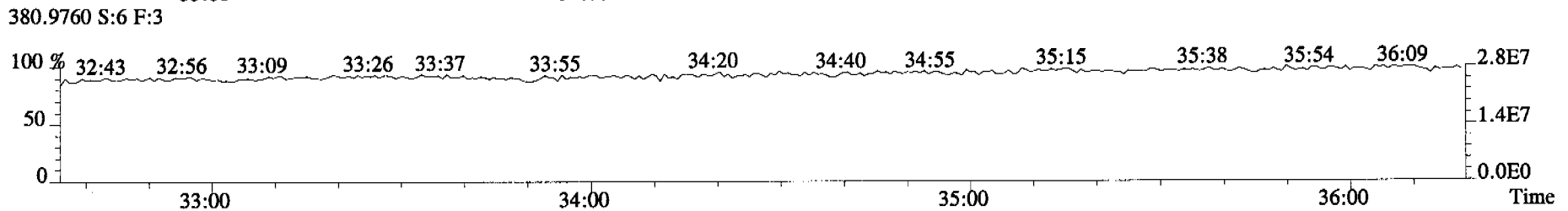
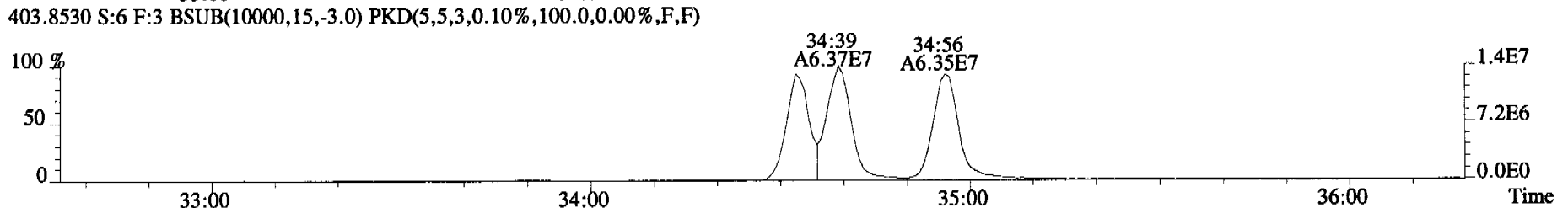
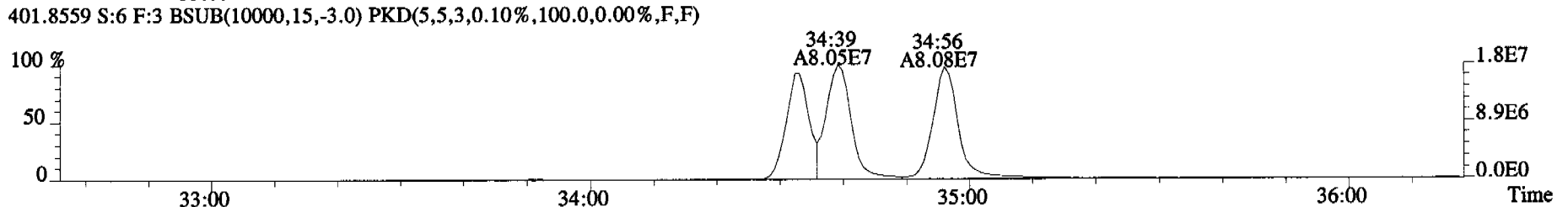
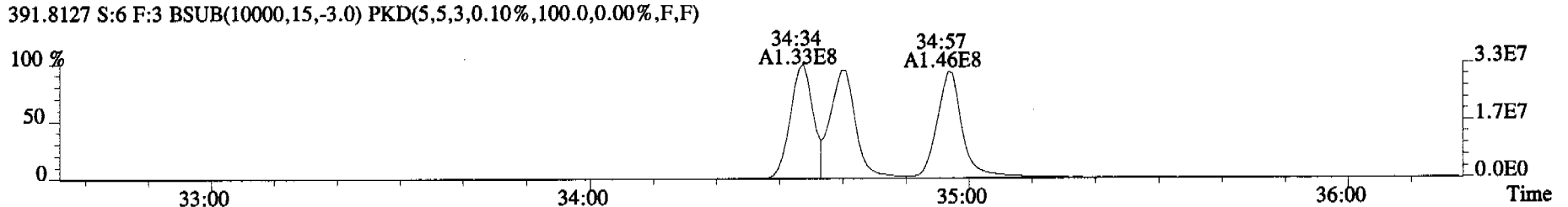
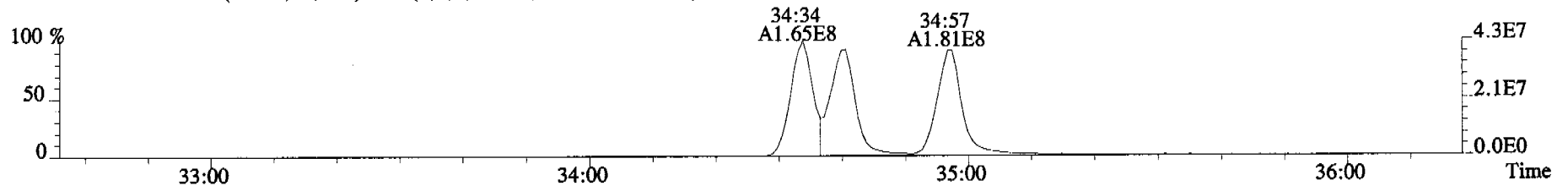
333.9339 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



File:060322C1 #1-316 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD\_DB5  
353.8576 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

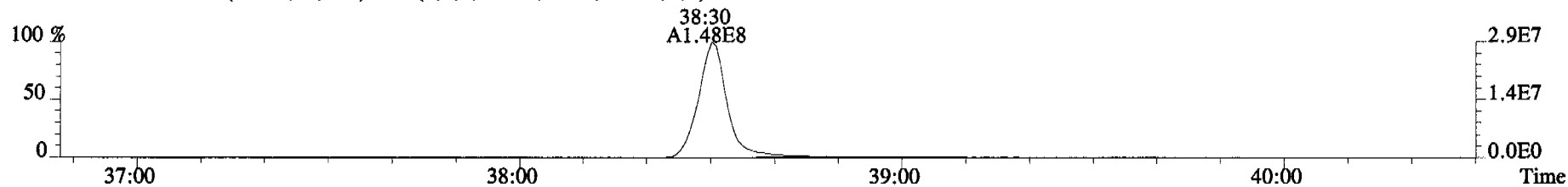


File:060322C1 #1-377 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD\_DB5  
389.8156 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

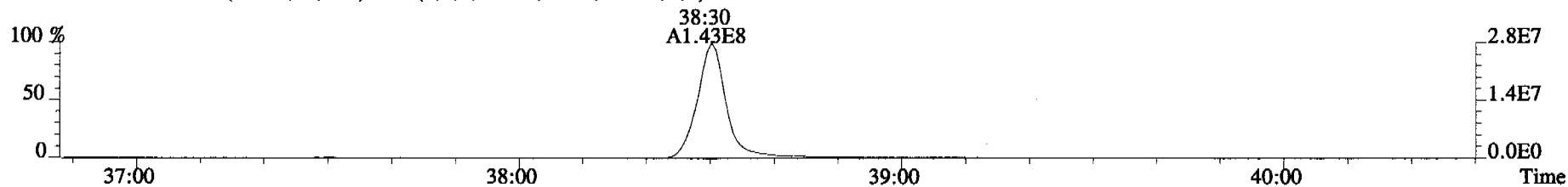




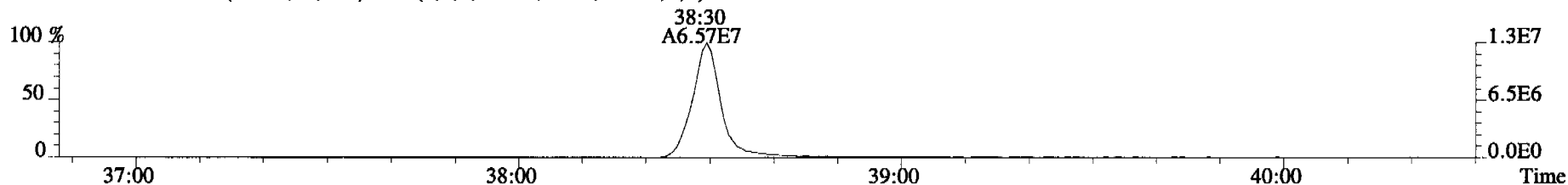
File:060322C1 #1-400 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD\_DB5  
423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



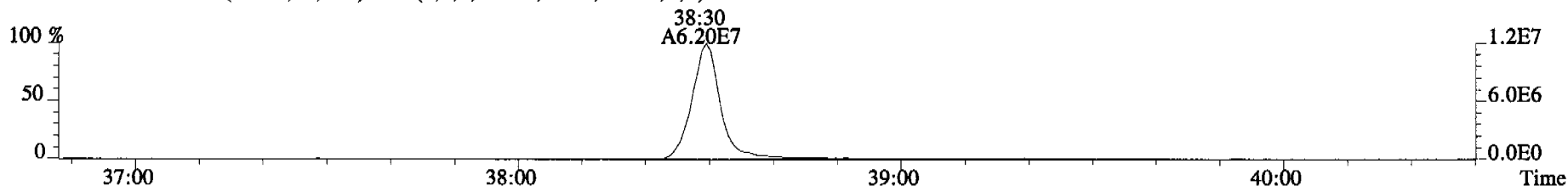
425.7737 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



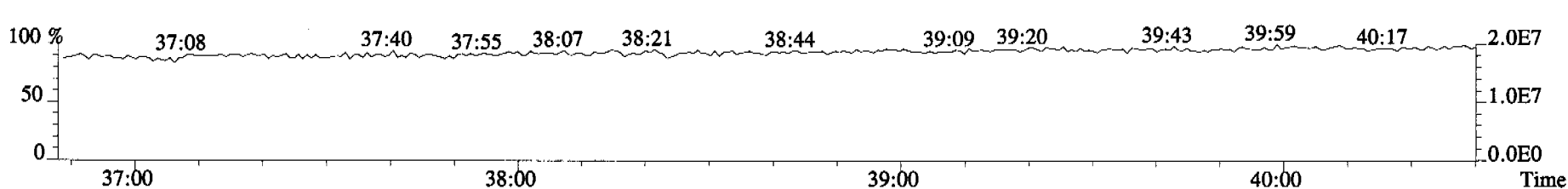
435.8169 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



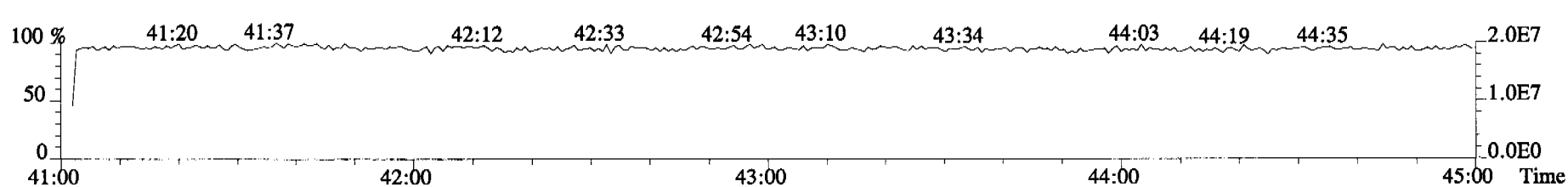
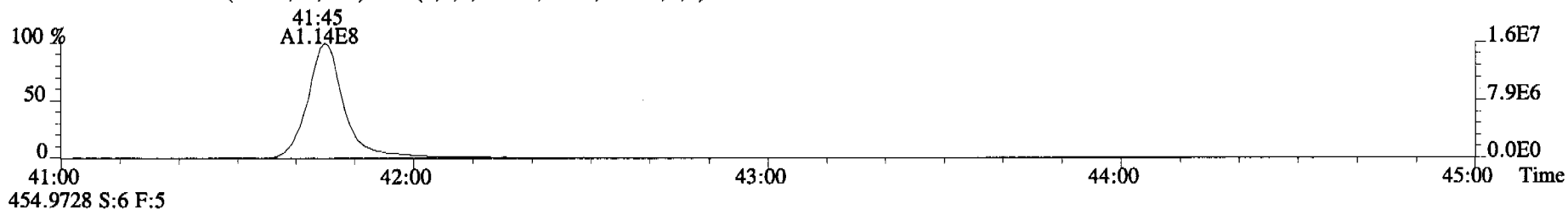
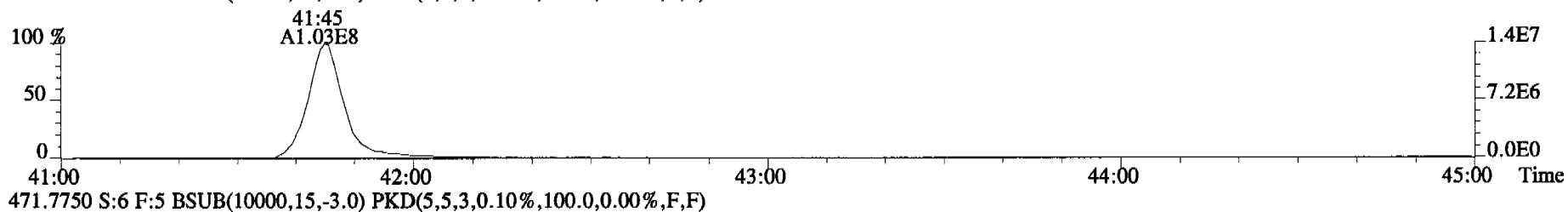
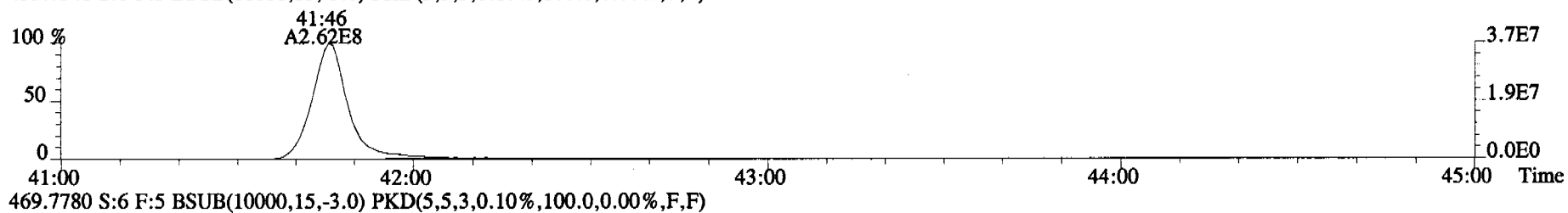
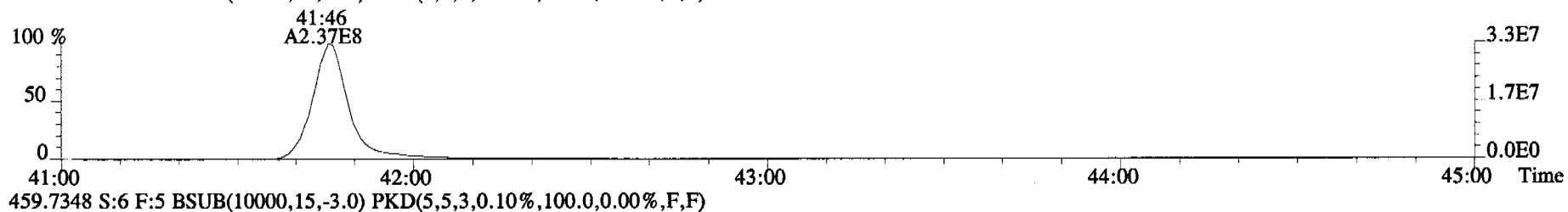
437.8140 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



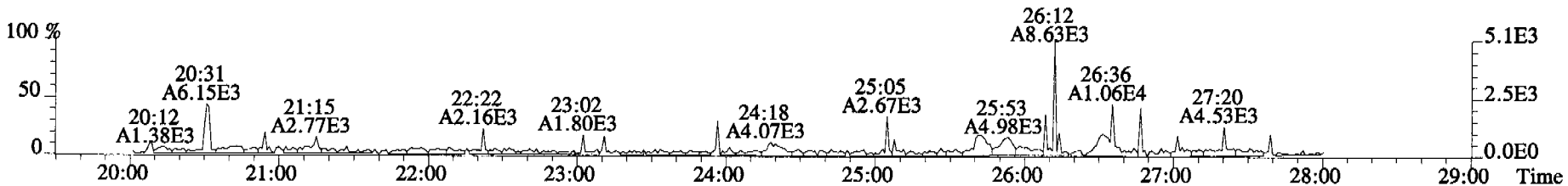
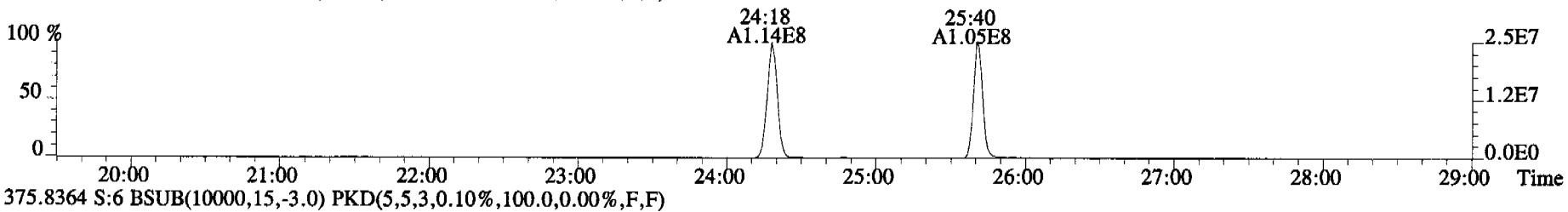
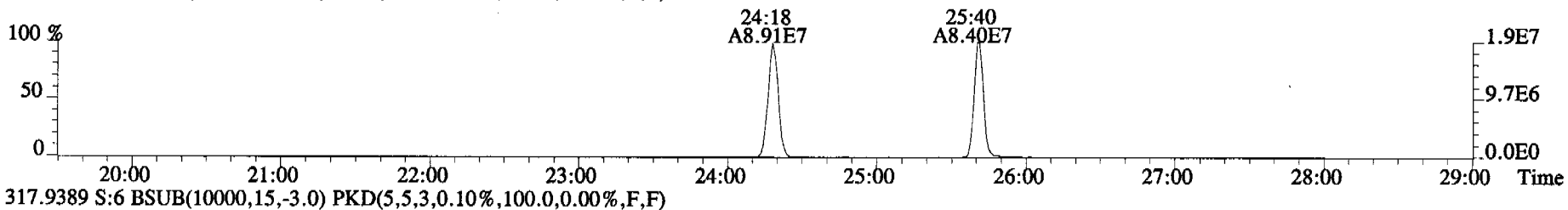
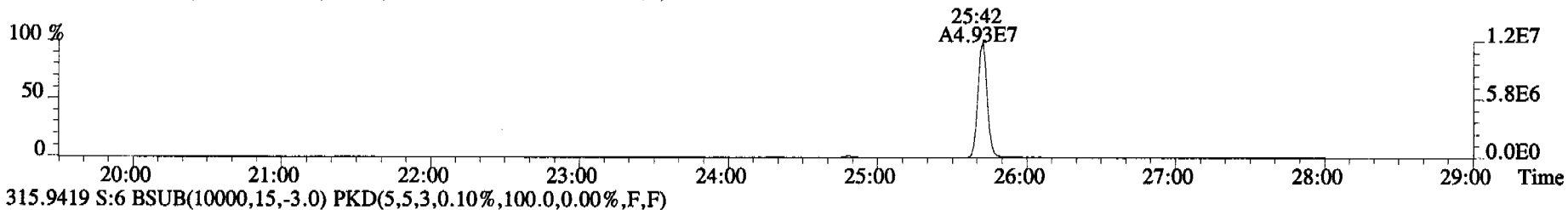
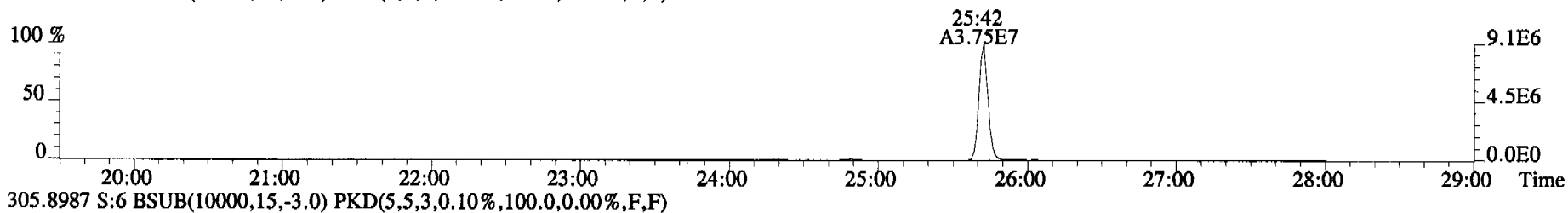
430.9728 S:6 F:4



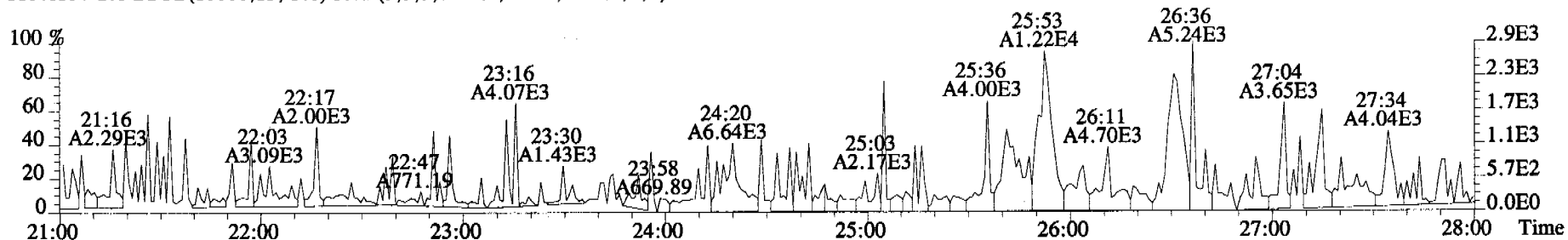
File:060322C1 #1-345 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Aita Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD\_DB5  
457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



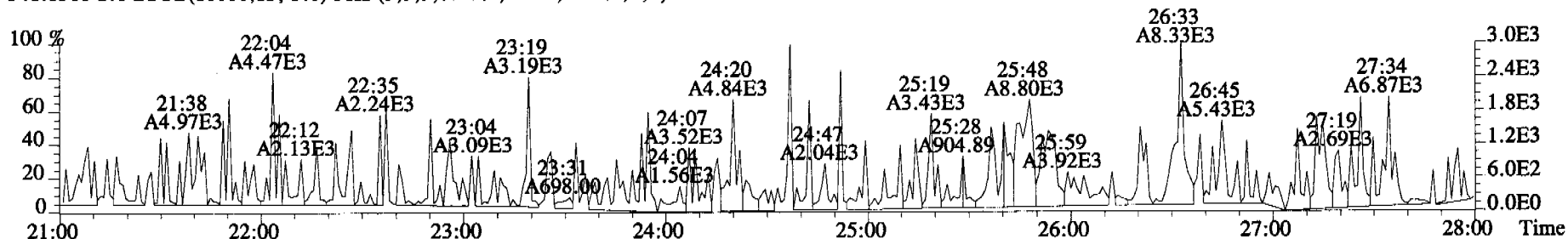
File:060322C1 #1-514 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD\_DB5  
303.9016 S:6 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



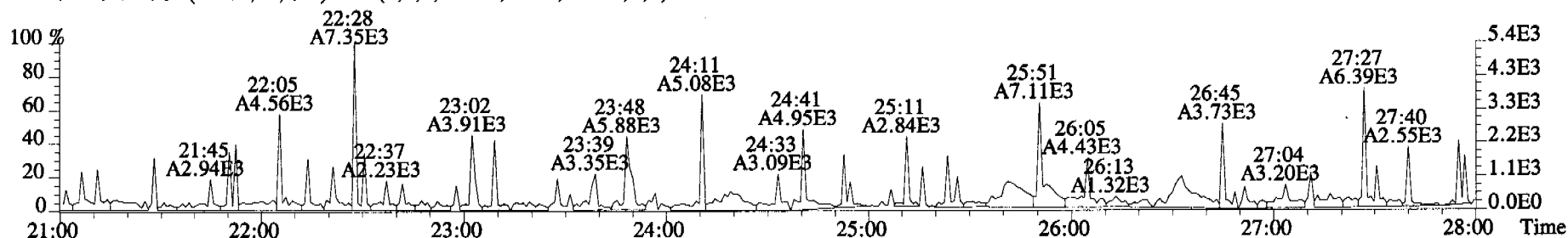
File:060322C1 #1-514 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD\_DB5  
339.8597 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



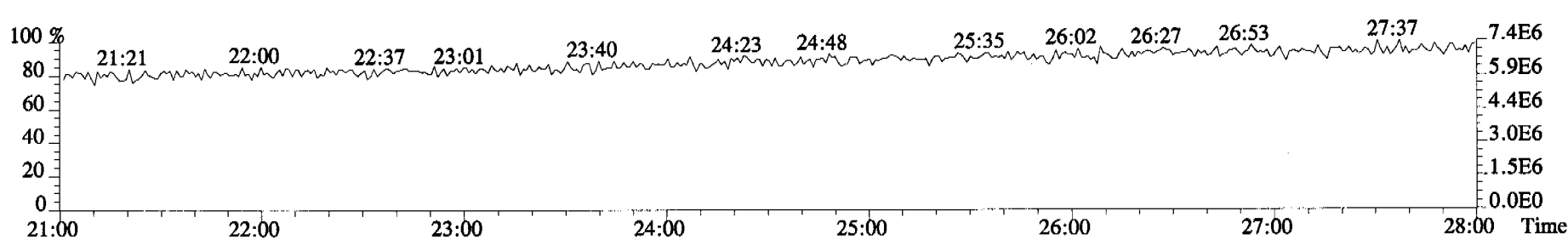
341.8568 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



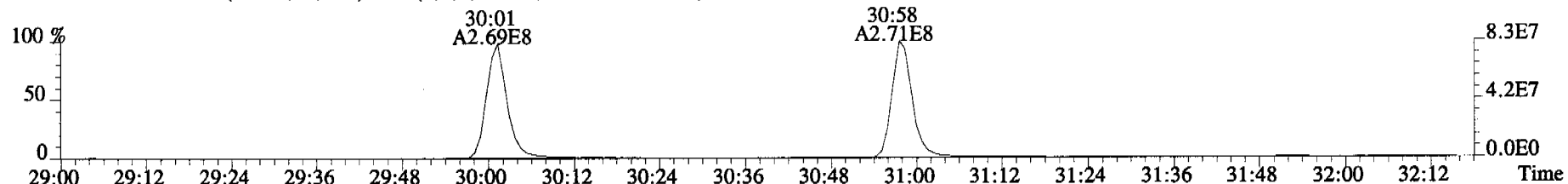
409.7974 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



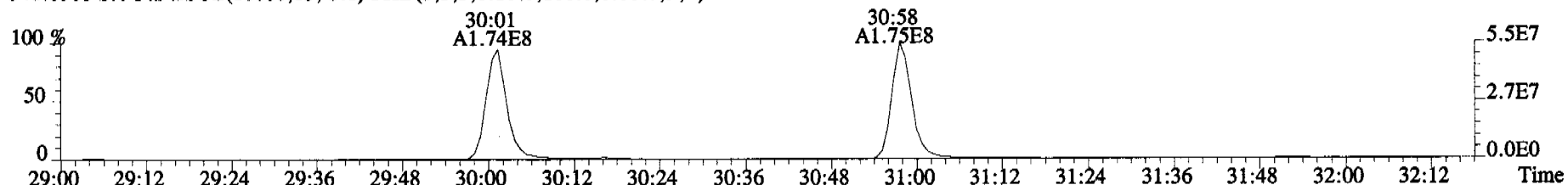
316.9824 S:6



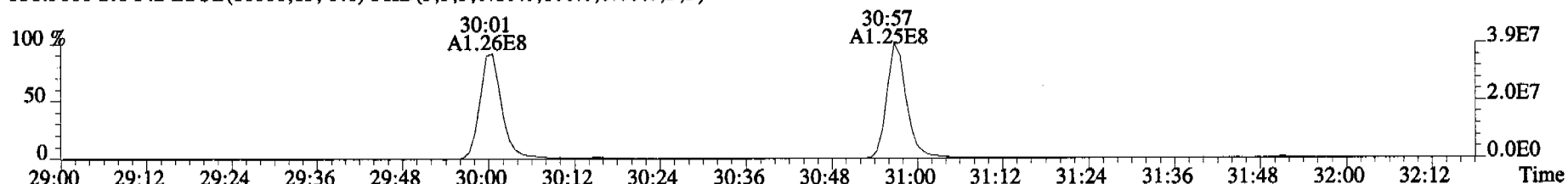
File:060322C1 #1-316 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD\_DB5  
339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



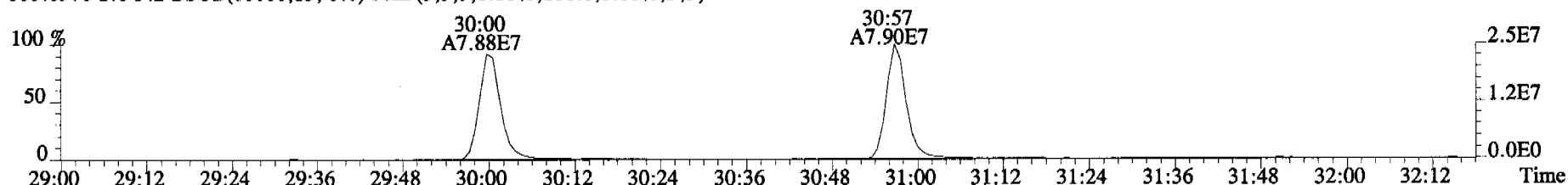
341.8568 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



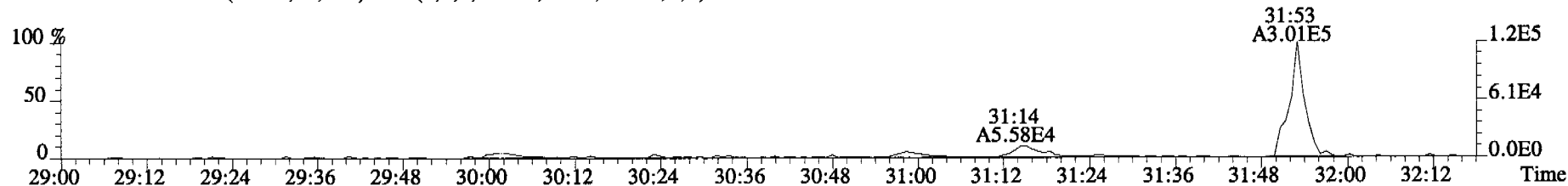
351.9000 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



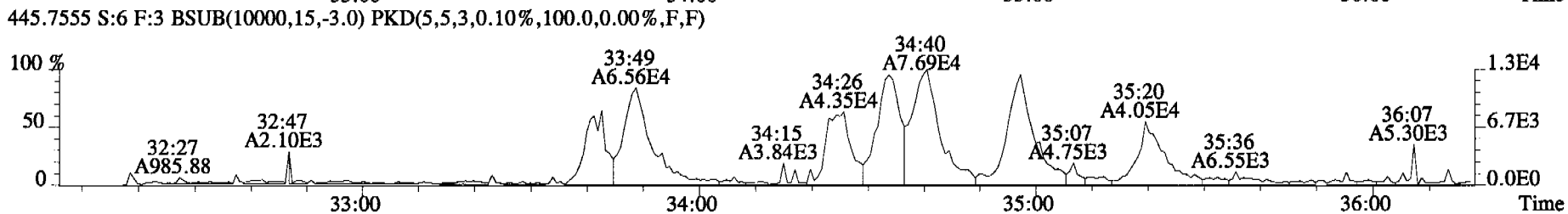
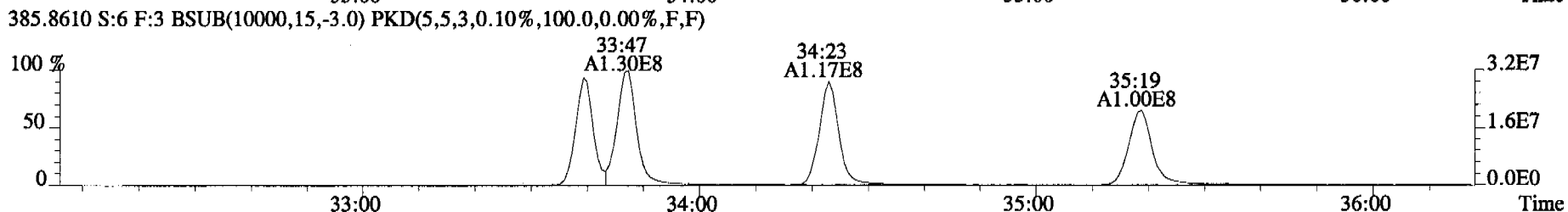
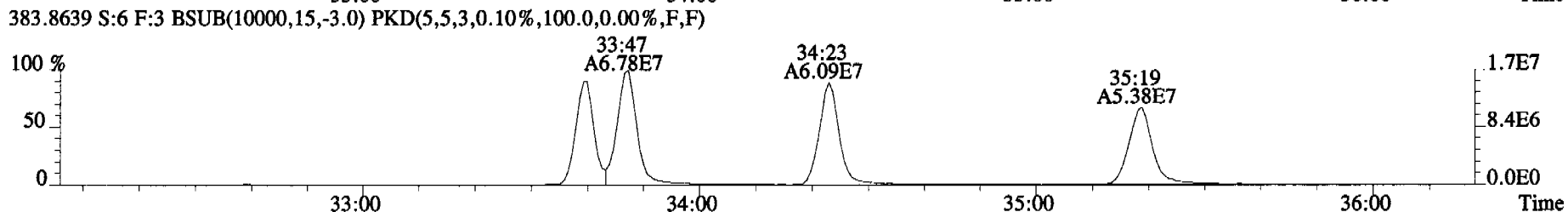
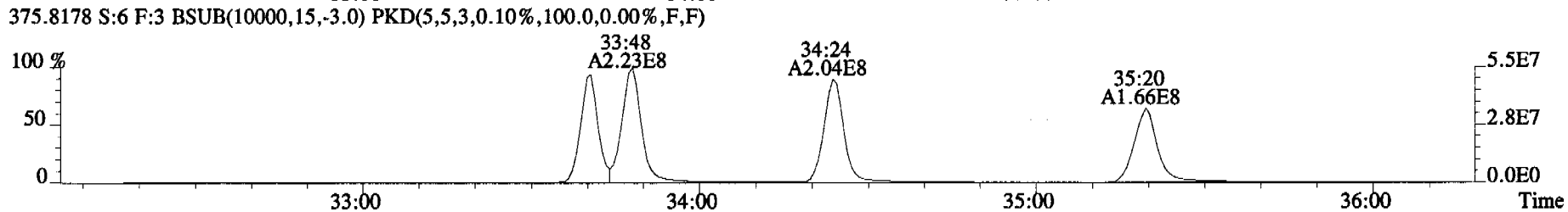
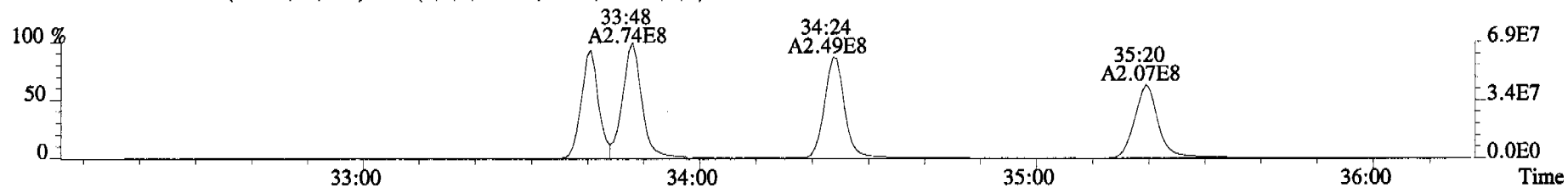
353.8970 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



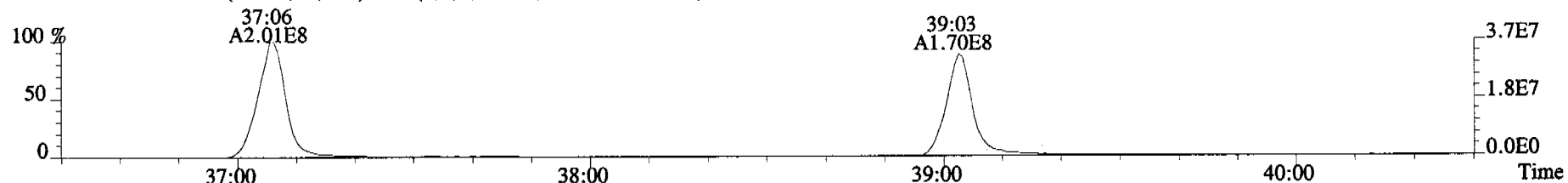
409.7974 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



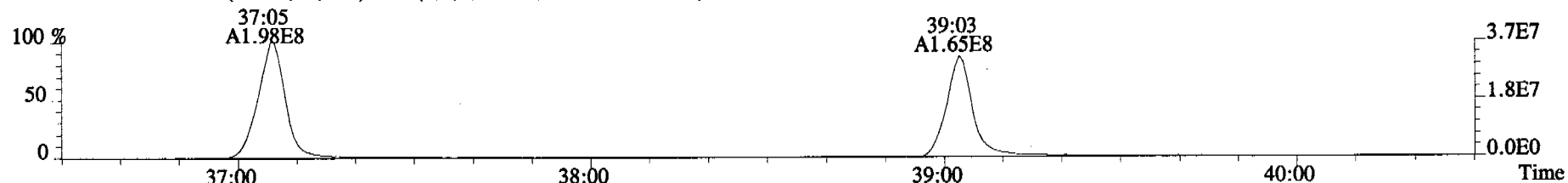
File:060322C1 #1-377 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD\_DB5  
373.8207 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



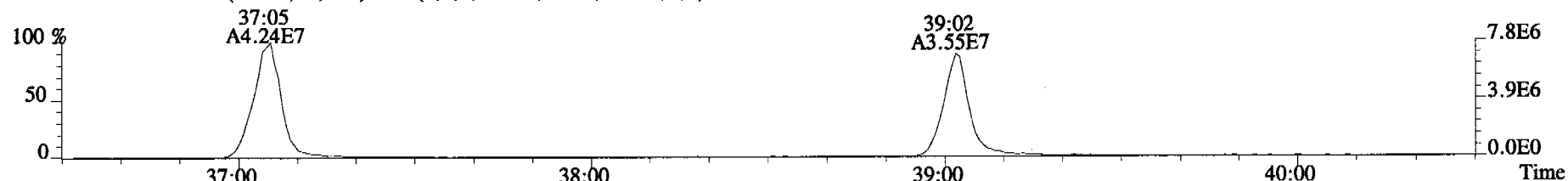
File:060322C1 #1-400 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 060110I Exp:OCDD\_DB5  
407.7818 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



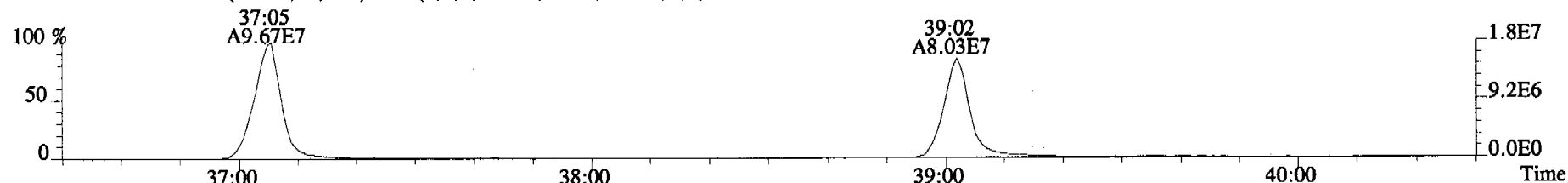
409.7788 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



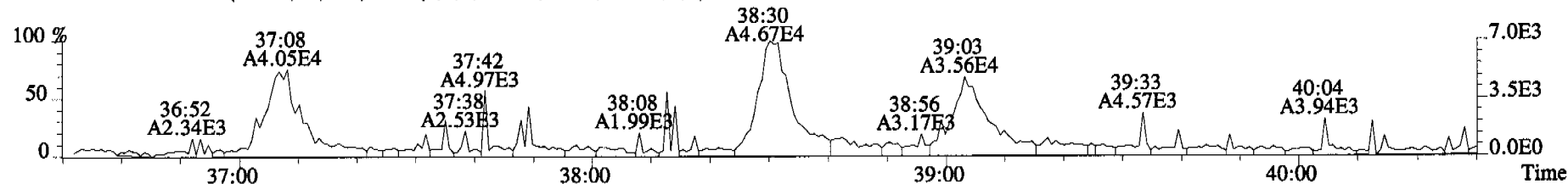
417.8253 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



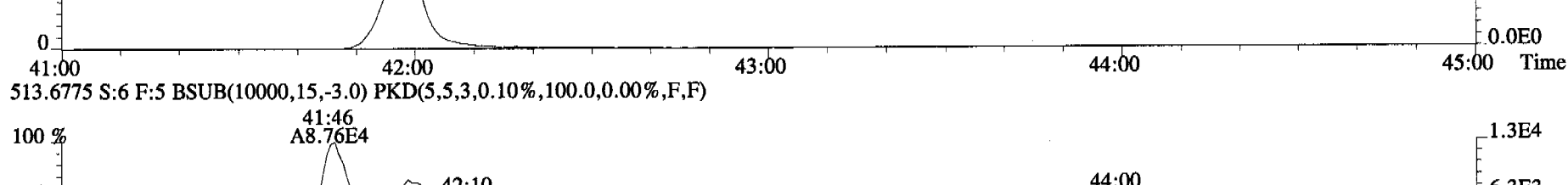
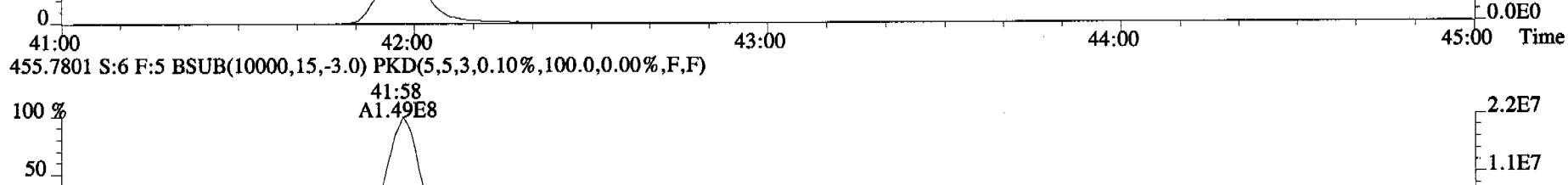
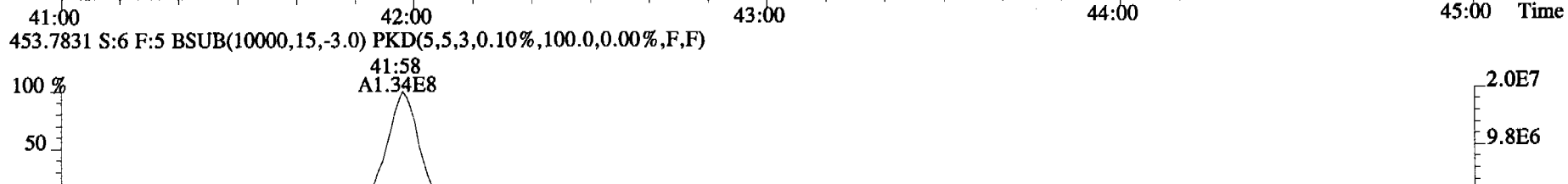
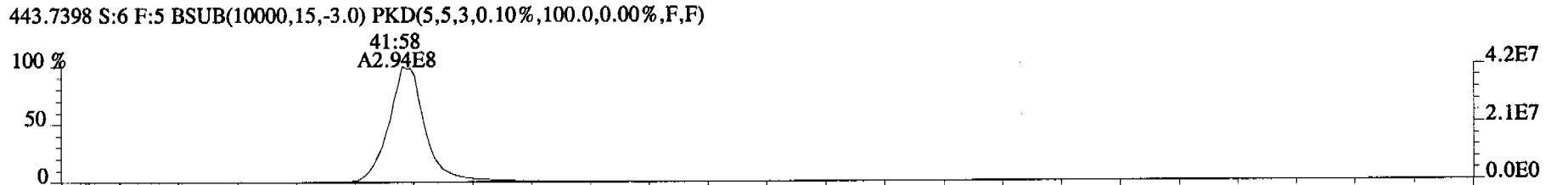
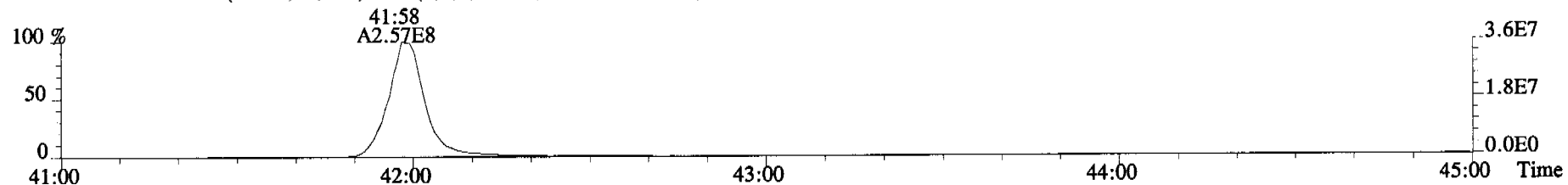
419.8220 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



479.7165 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

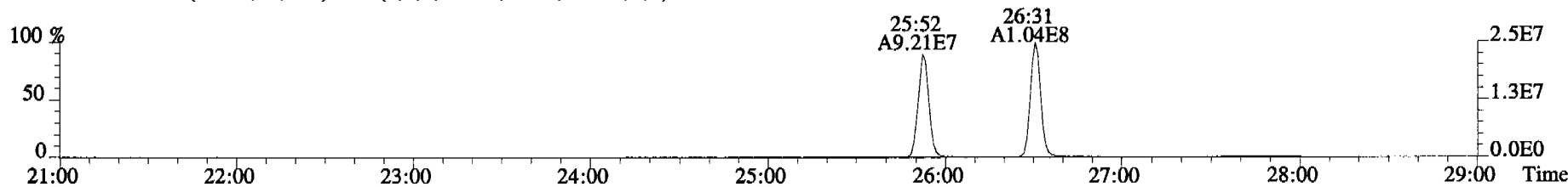
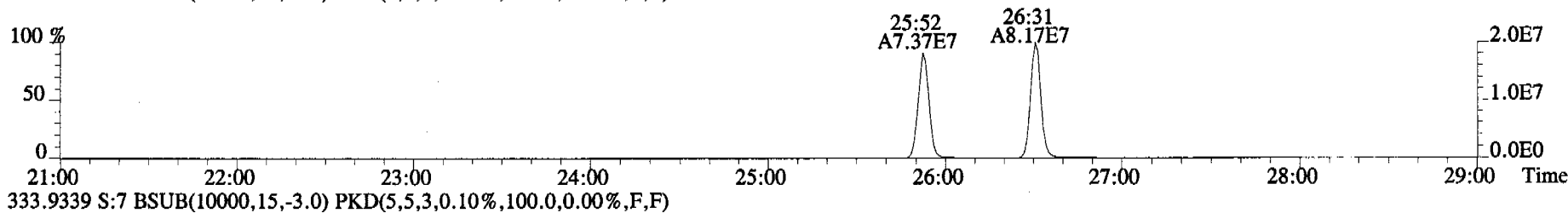
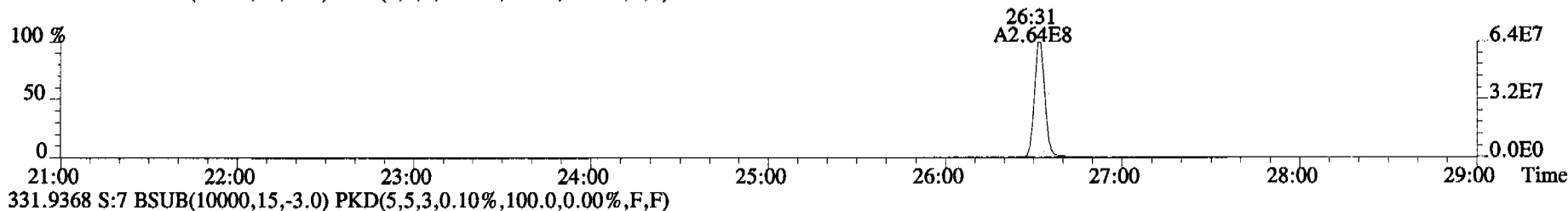
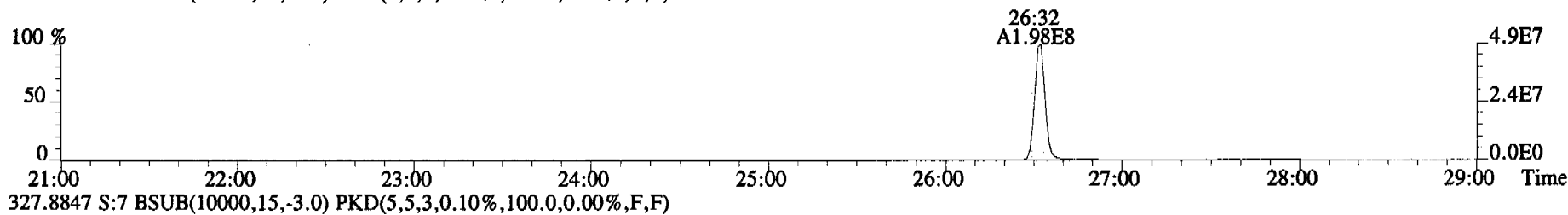
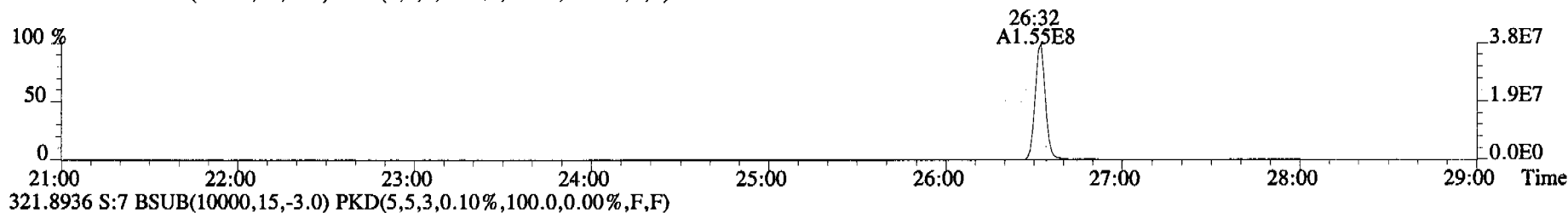


File:060322C1 #1-345 Acq:22-MAR-2006 13:41:25 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#6 File Text:Alta Analytical Laboratory Text:ST060322C1-5 1613 CS4 0601101 Exp:OCDD\_DB5  
441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

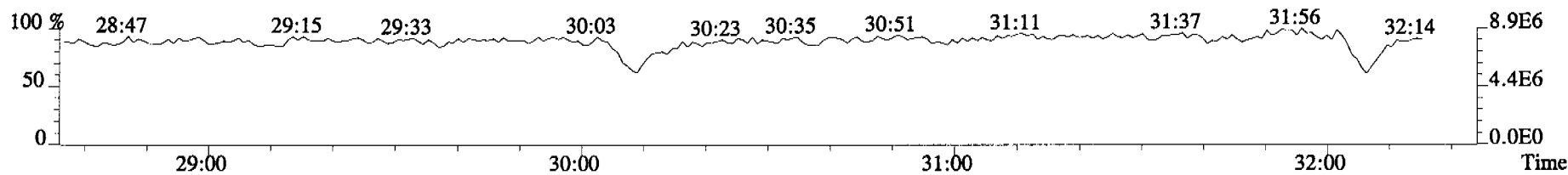
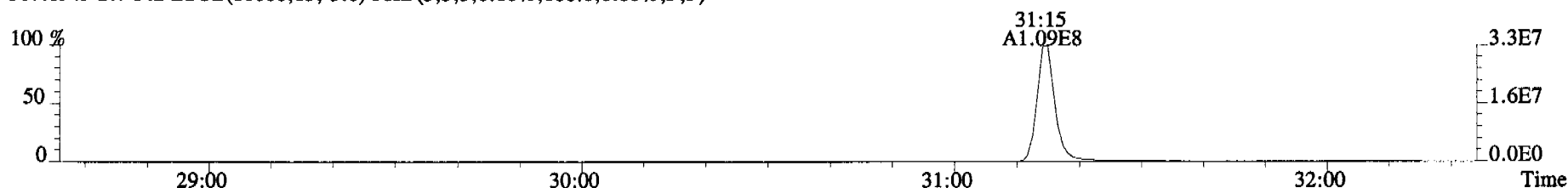
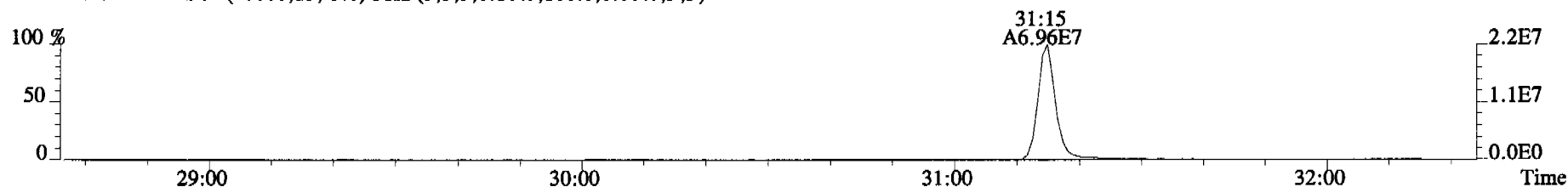
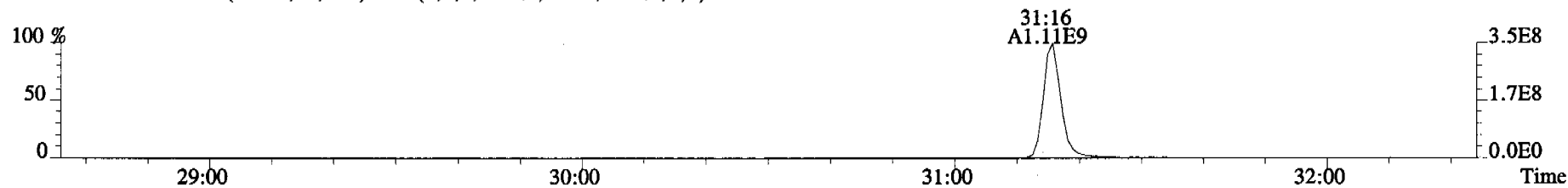
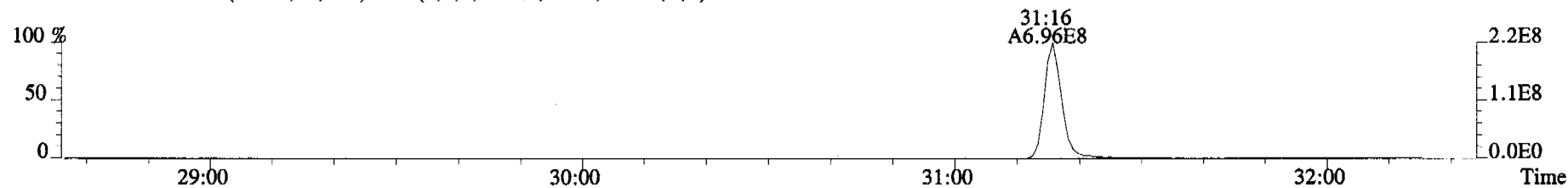




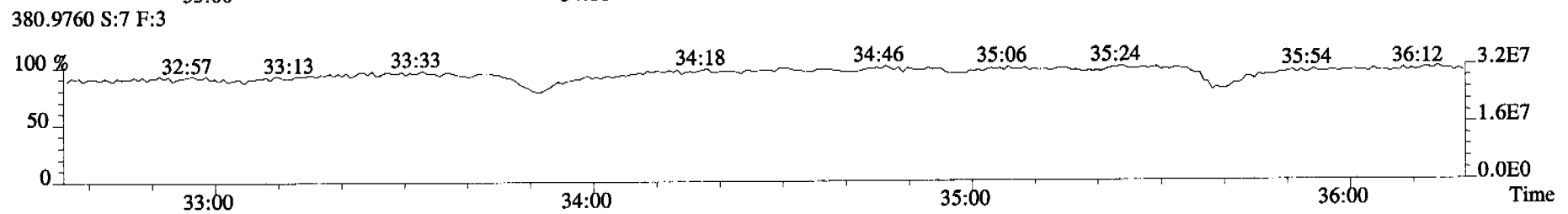
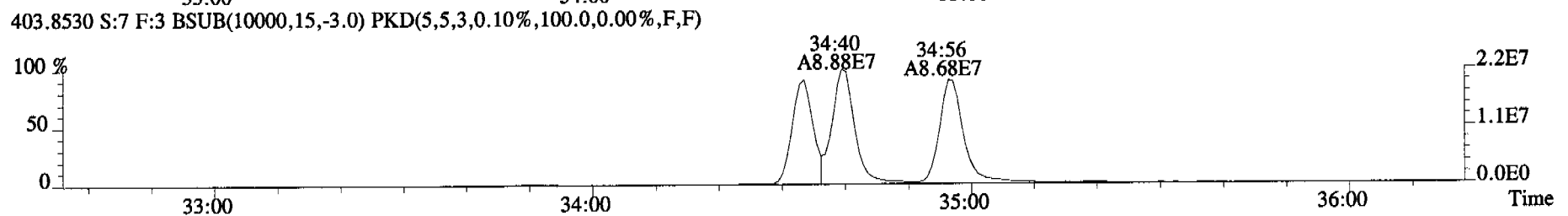
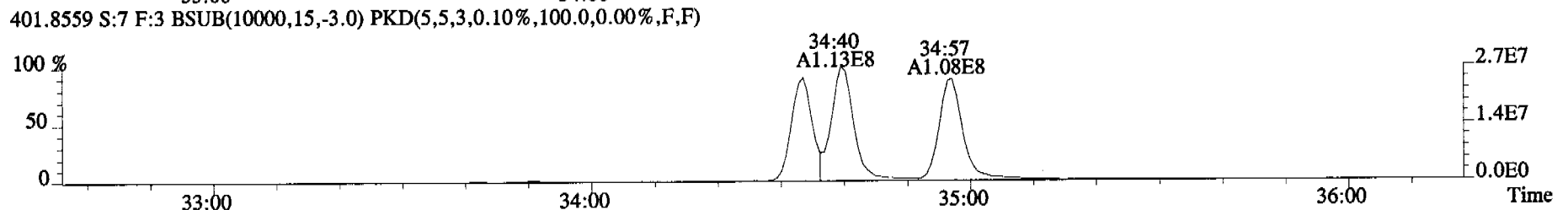
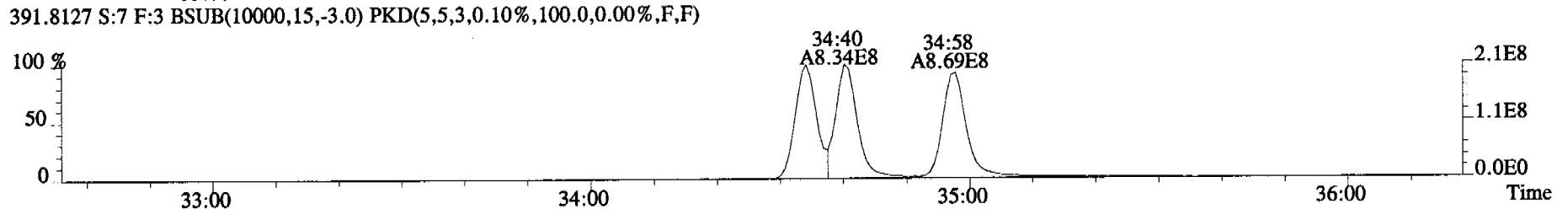
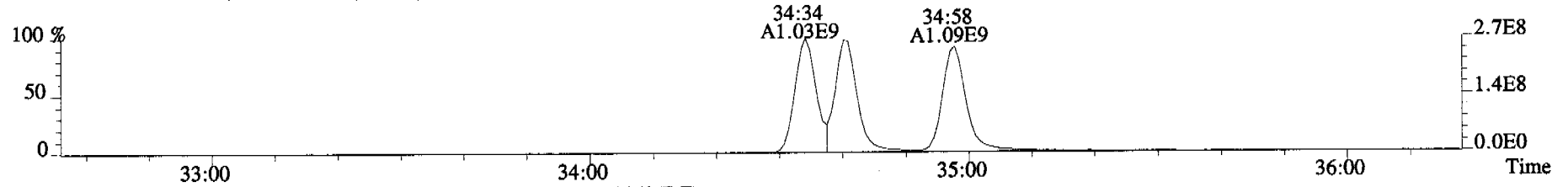
File:060322C1 #1-513 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD\_DB5  
319.8965 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



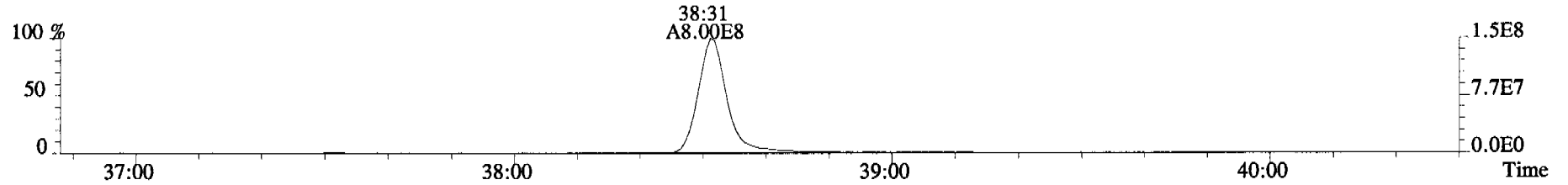
File:060322C1 #1-316 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD\_DB5  
353.8576 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



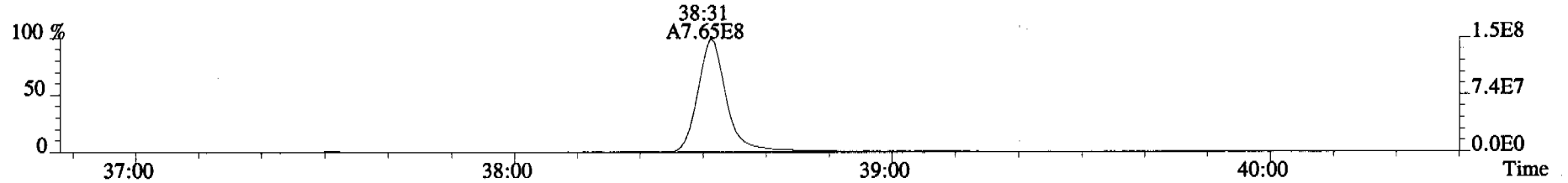
File:060322C1 #1-378 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD\_DB5  
389.8156 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



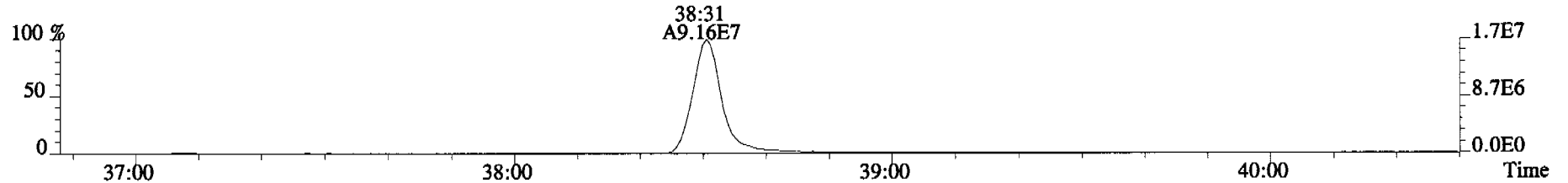
File:060322C1 #1-400 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD\_DB5  
423.7767 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



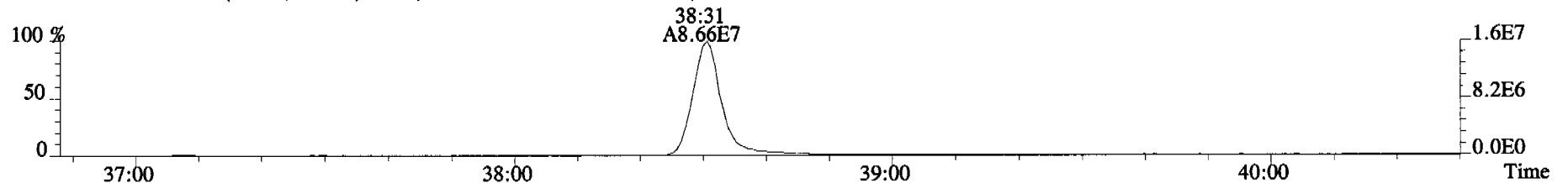
425.7737 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



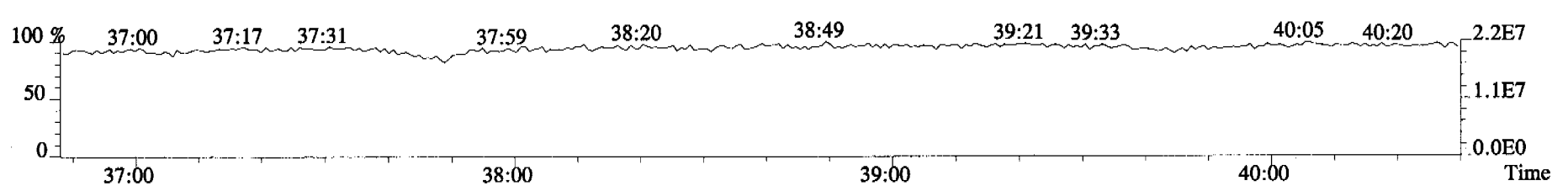
435.8169 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



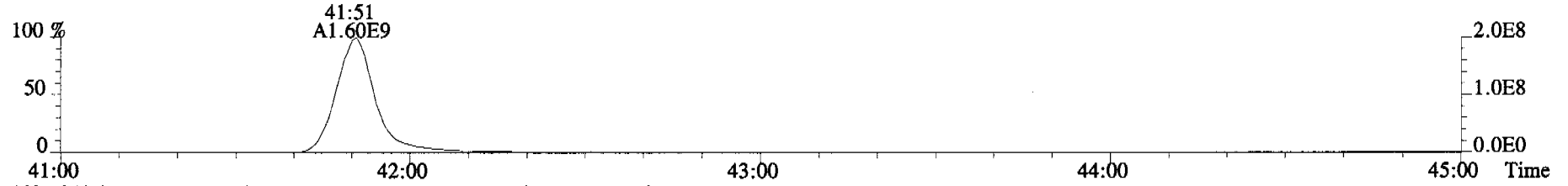
437.8140 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



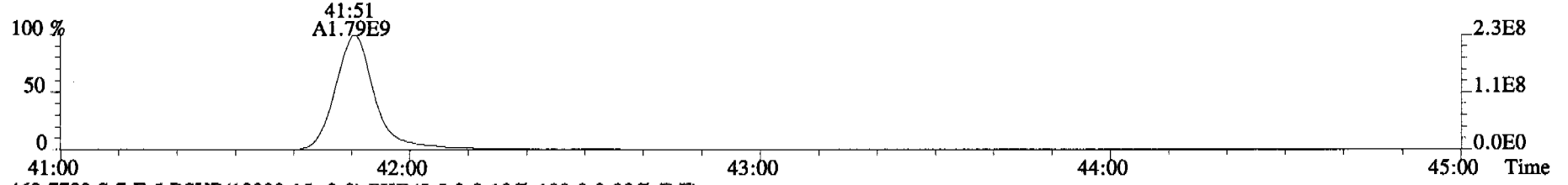
430.9728 S:7 F:4



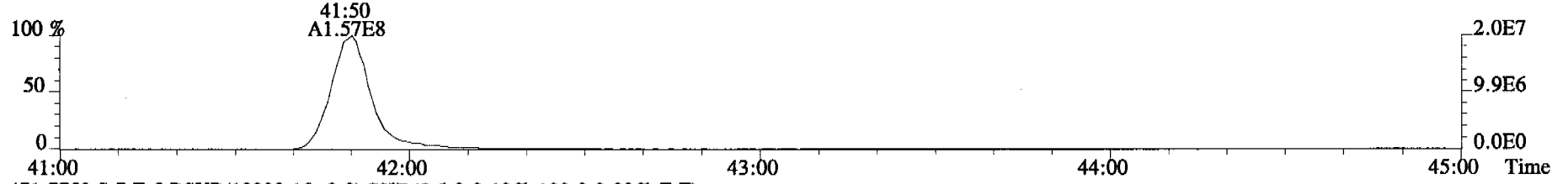
File:060322C1 #1-345 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD\_DB5  
457.7377 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



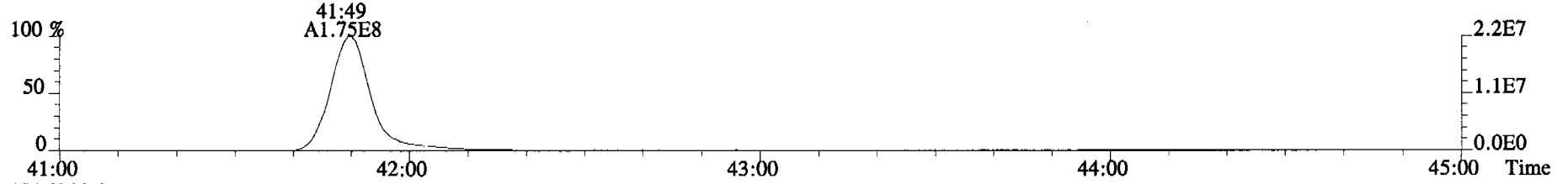
459.7348 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



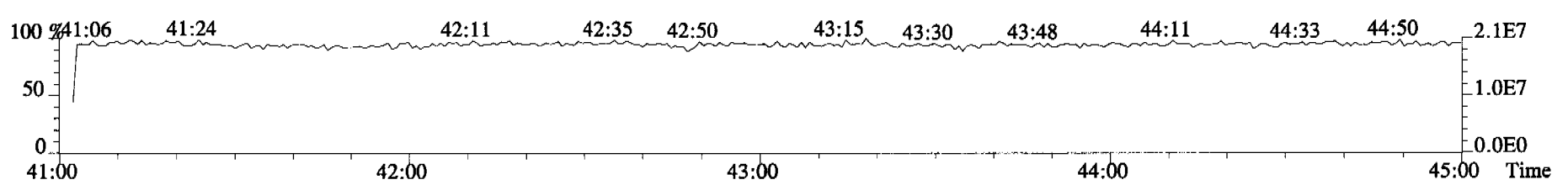
469.7780 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



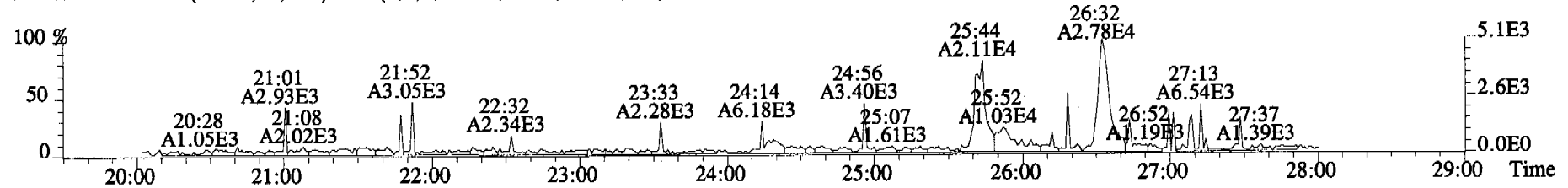
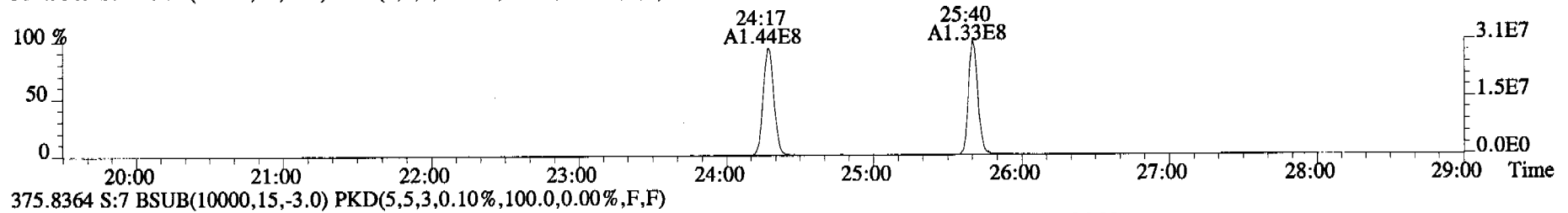
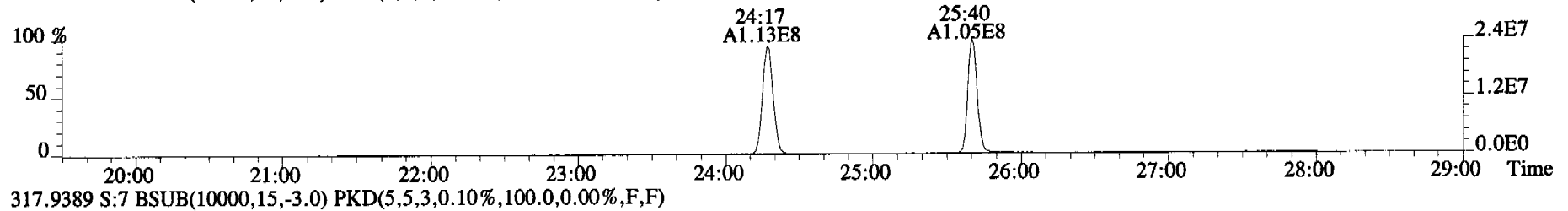
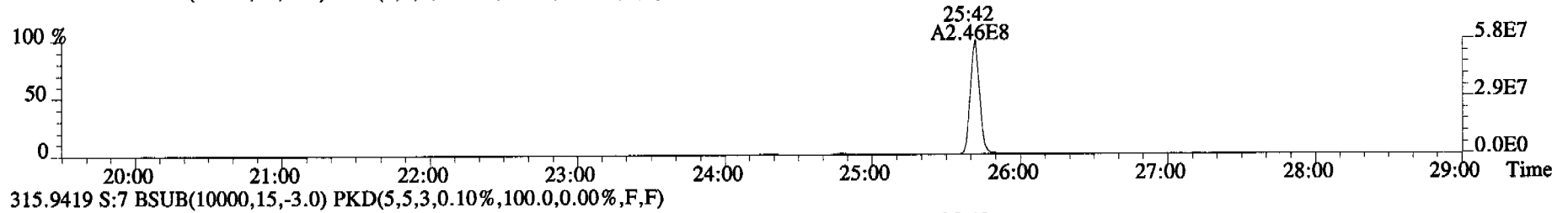
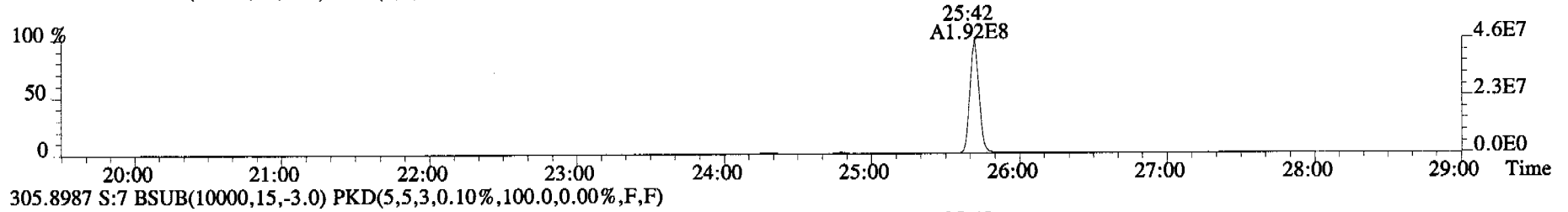
471.7750 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



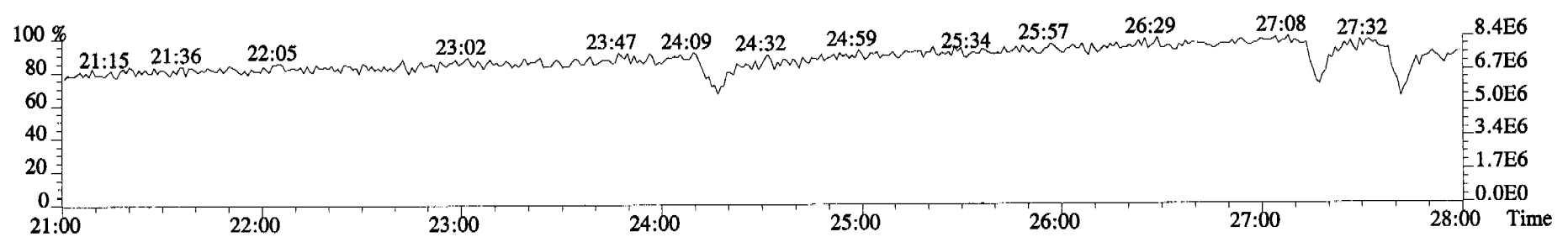
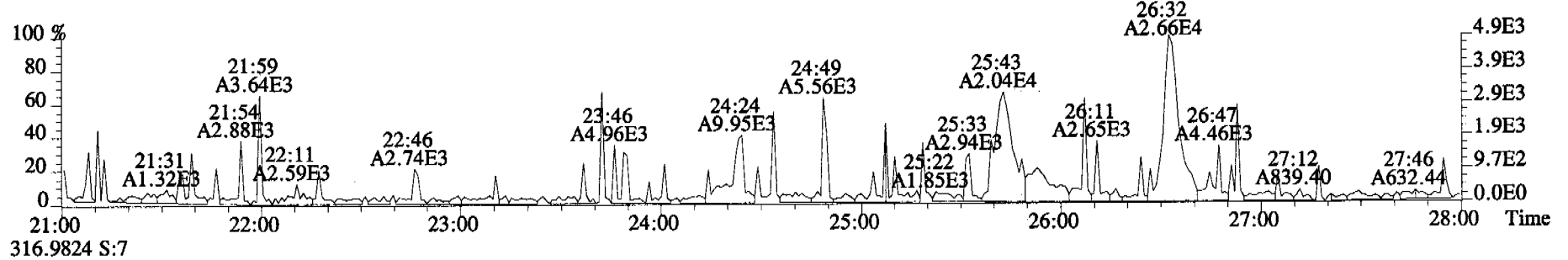
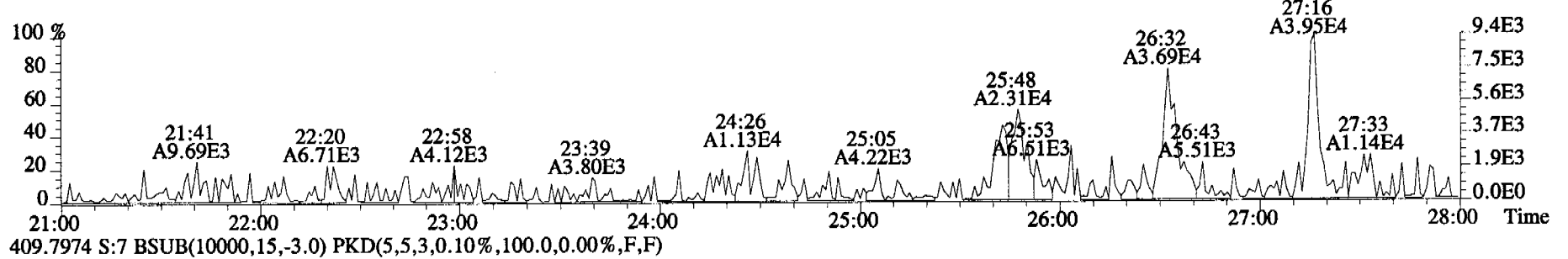
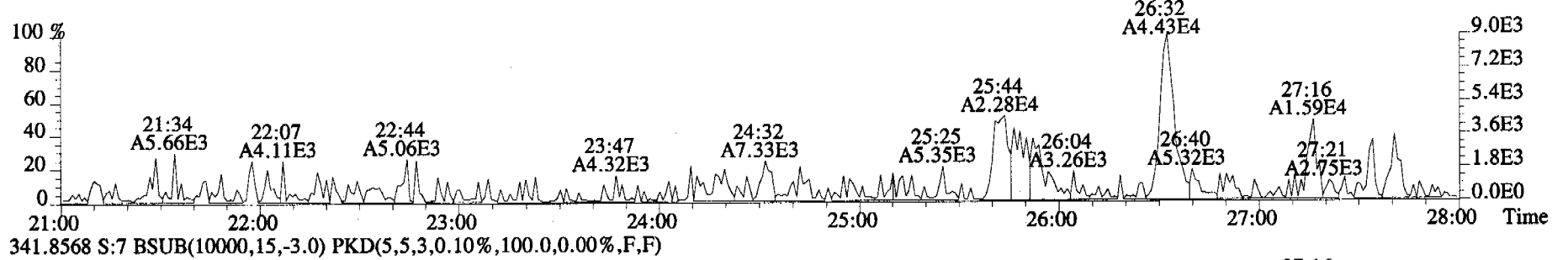
454.9728 S:7 F:5



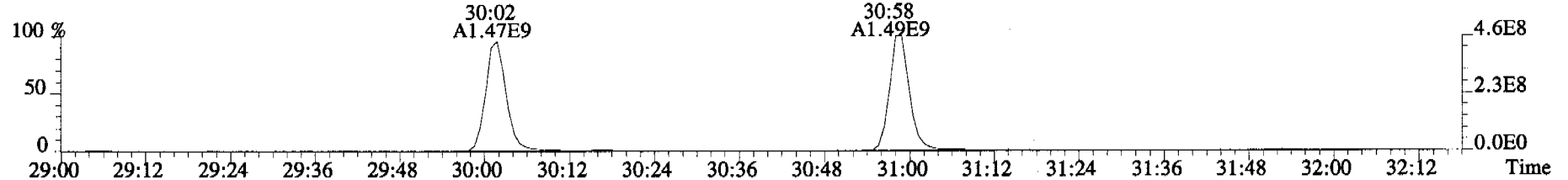
File:060322C1 #1-513 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD\_DB5  
303.9016 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



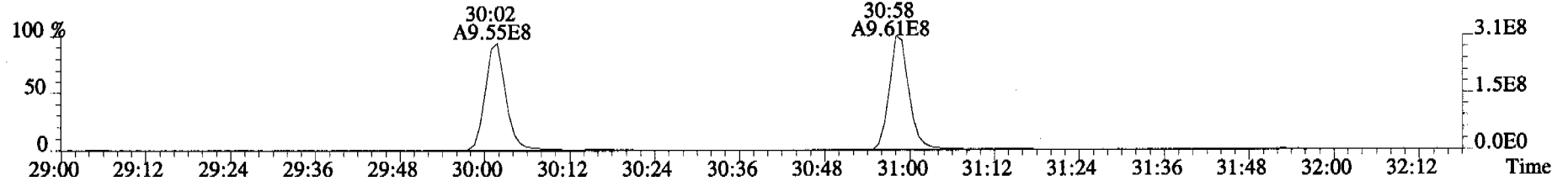
File:060322C1 #1-513 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD\_DB5  
339.8597 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



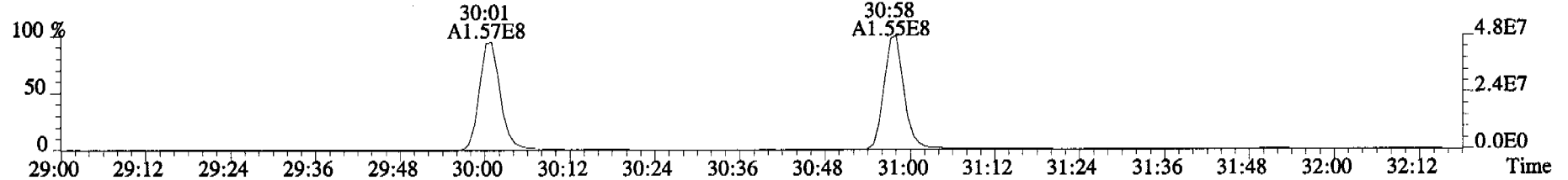
File:060322C1 #1-316 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD\_DB5  
339.8597 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



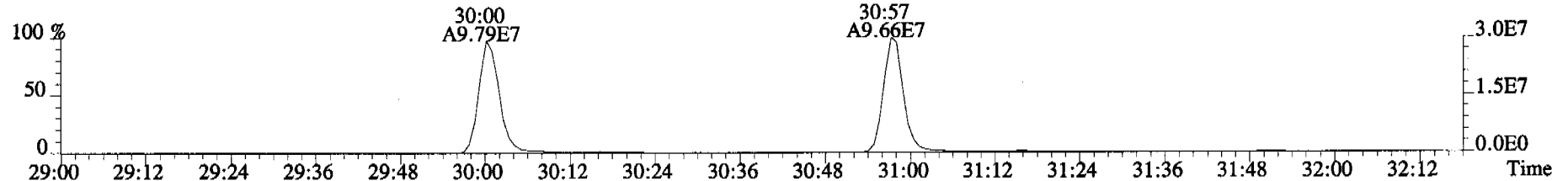
341.8568 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



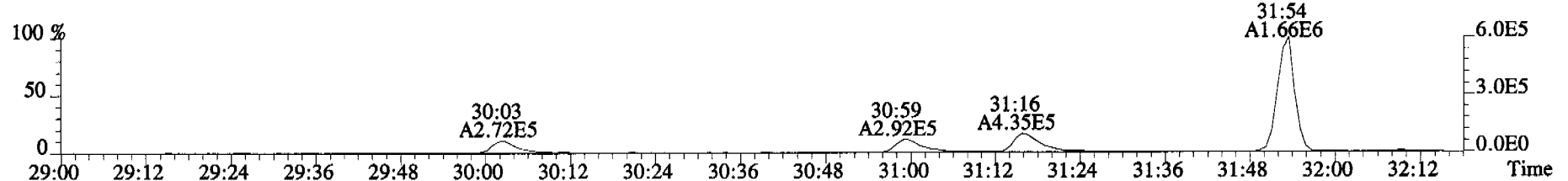
351.9000 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



353.8970 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

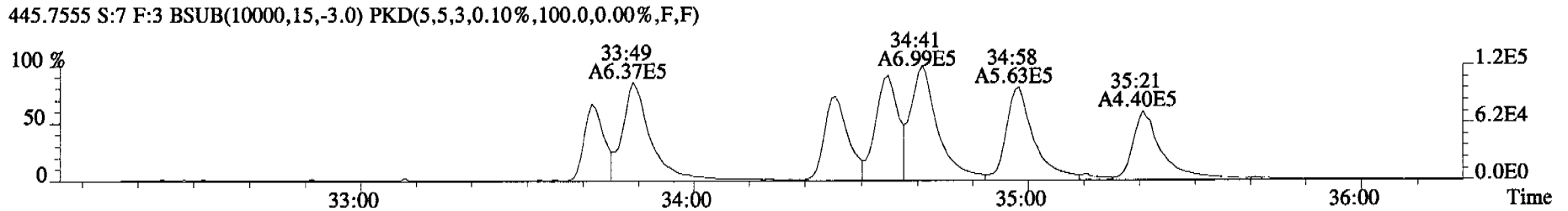
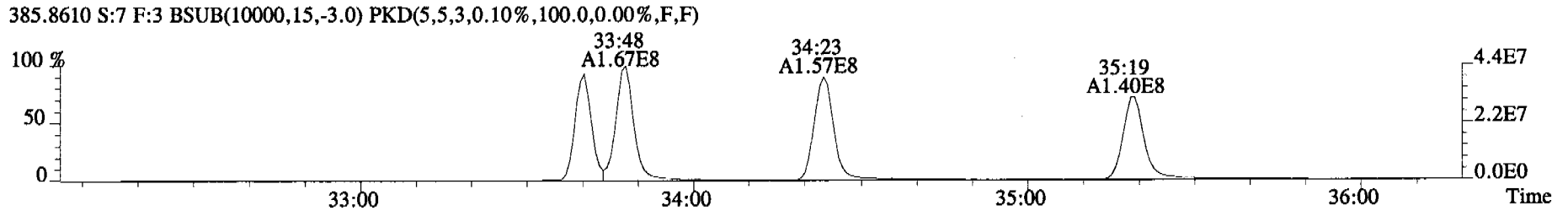
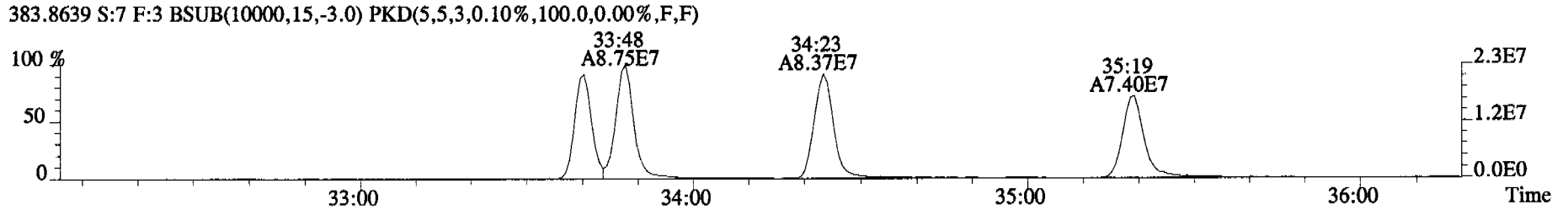
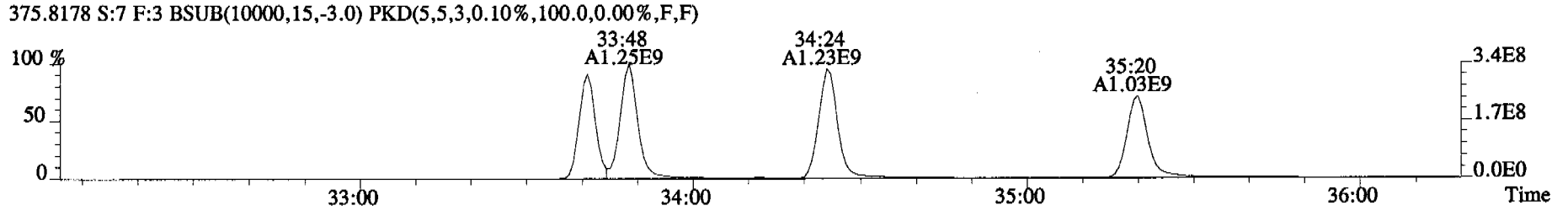
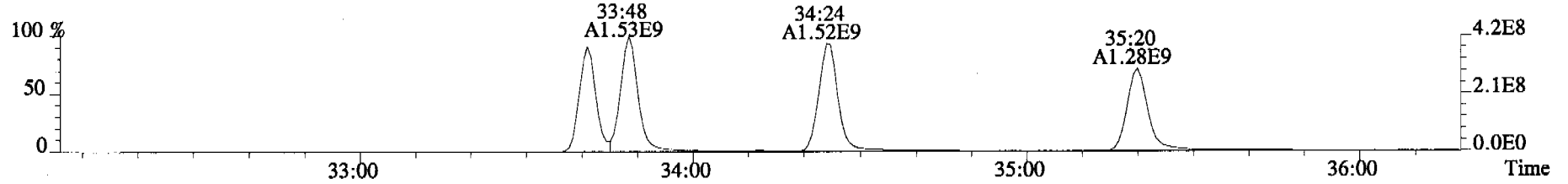


409.7974 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

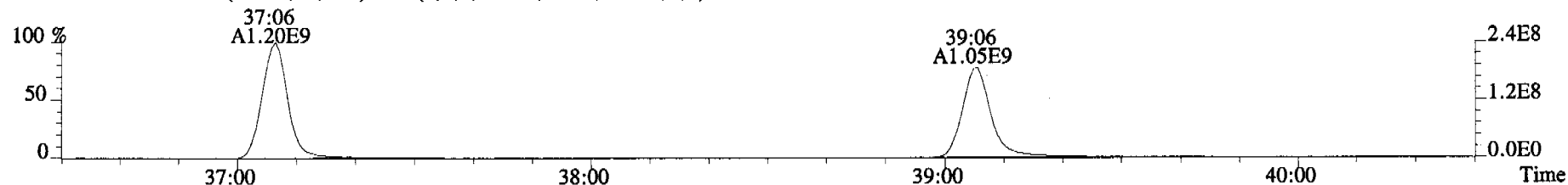




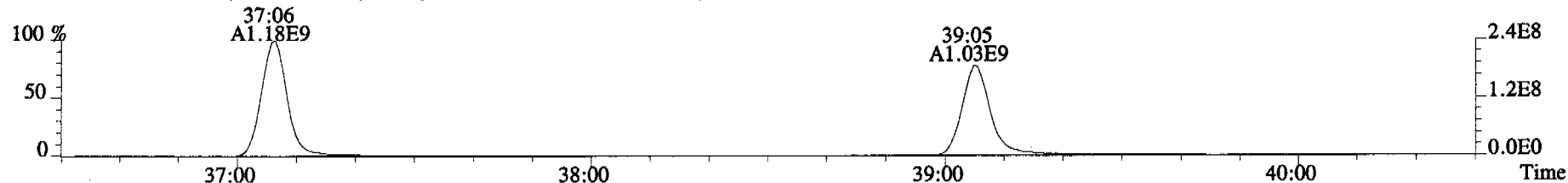
File:060322C1 #1-378 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD\_DB5  
373.8207 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



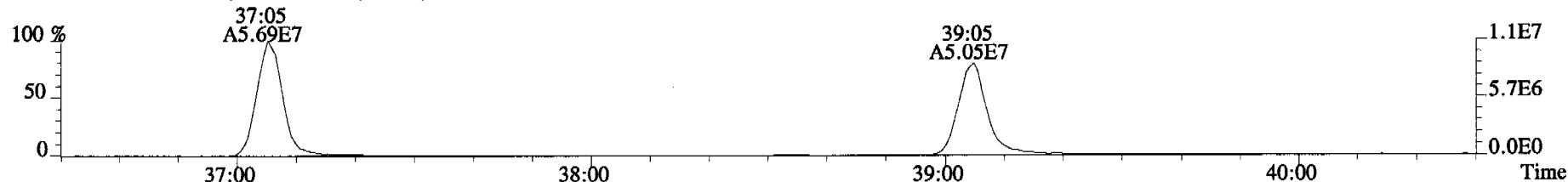
File:060322C1 #1-400 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD\_DB5  
407.7818 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



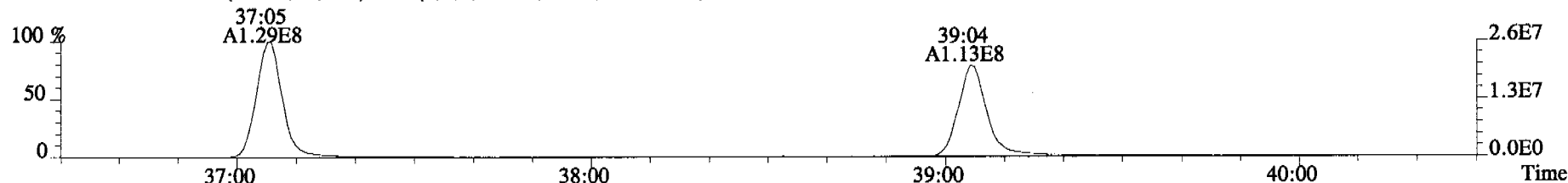
409.7788 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



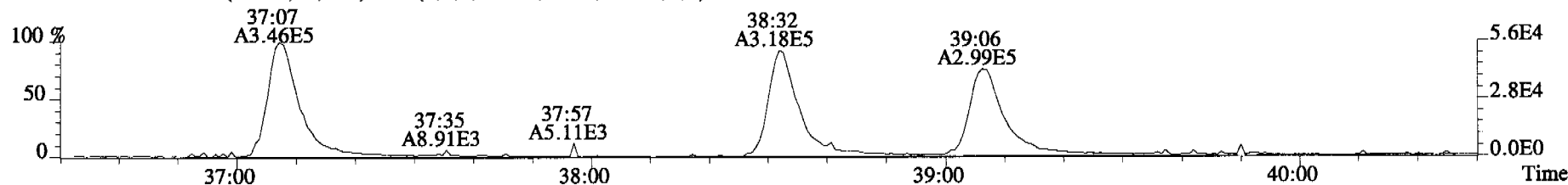
417.8253 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



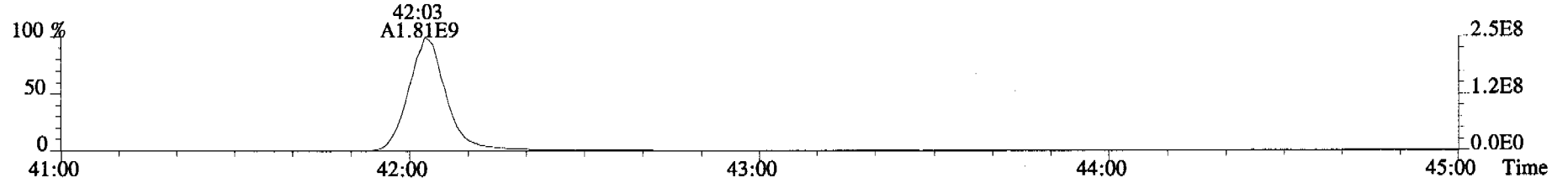
419.8220 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



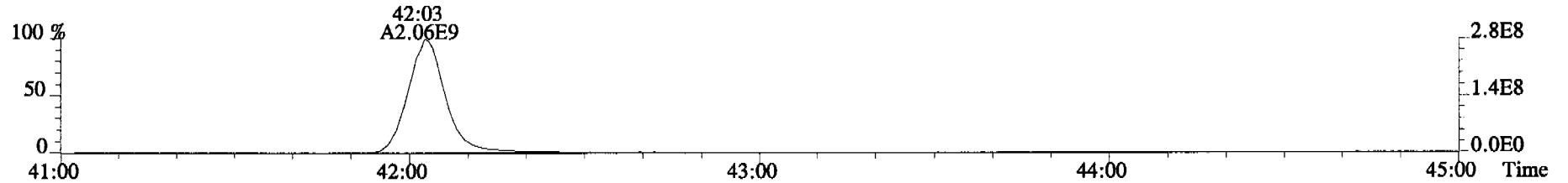
479.7165 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



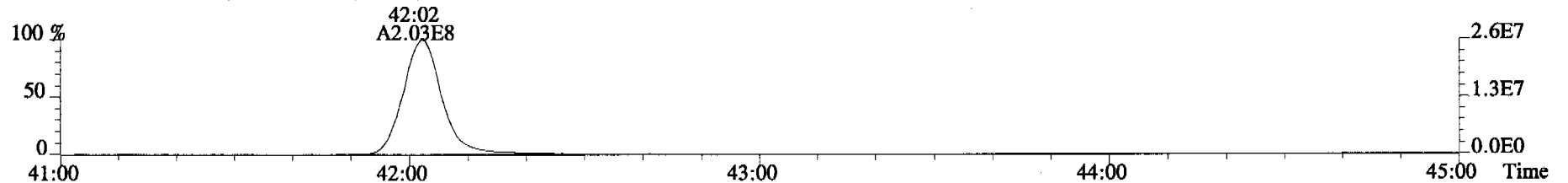
File:060322C1 #1-345 Acq:22-MAR-2006 14:31:06 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#7 File Text:Alta Analytical Laboratory Text:ST060322C1-6 1613 CS5 060110J Exp:OCDD\_DB5  
441.7428 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



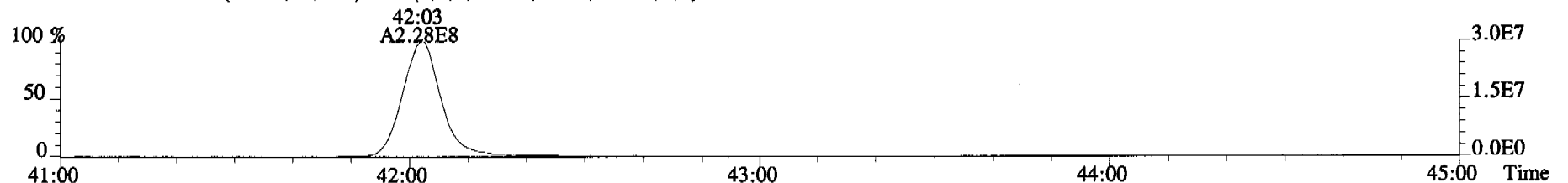
443.7398 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



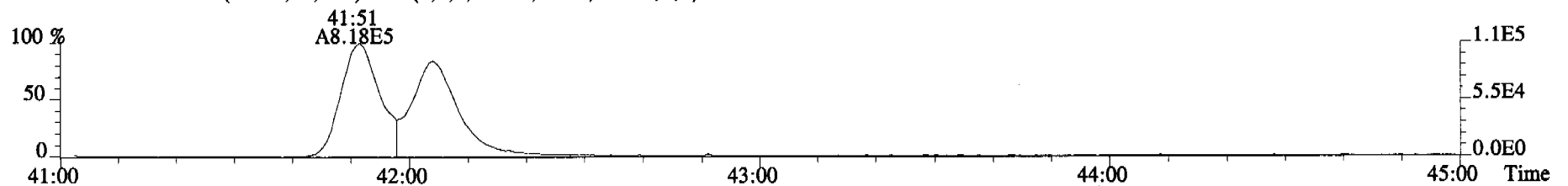
453.7831 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

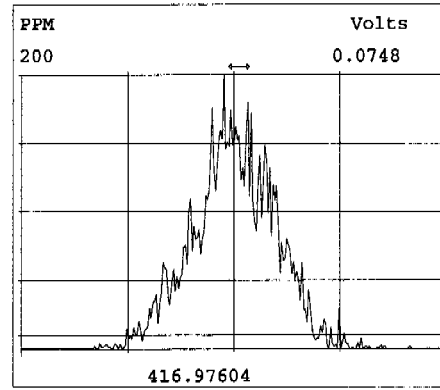
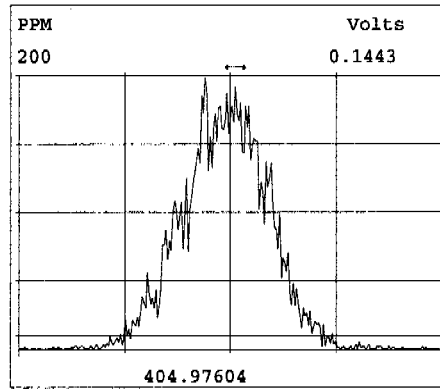
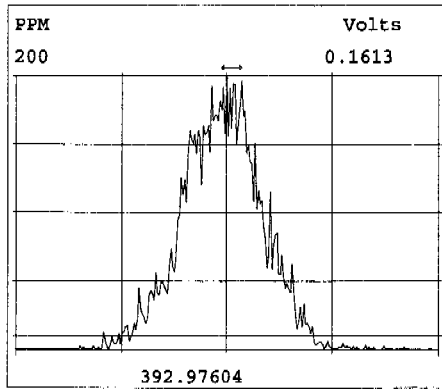
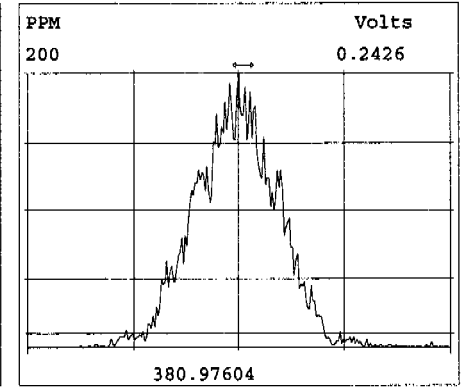
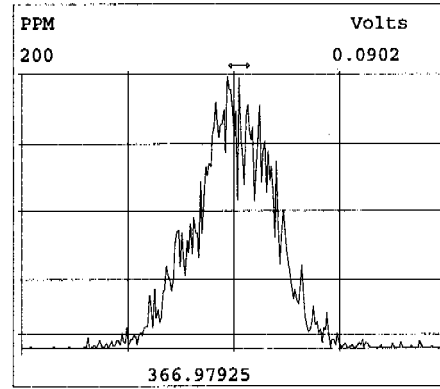
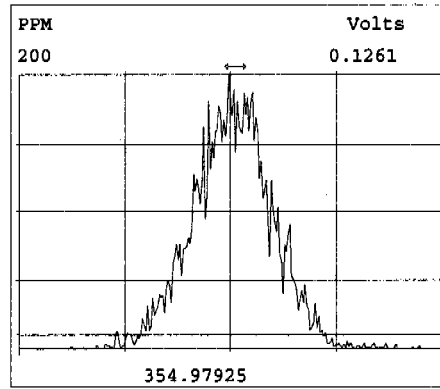
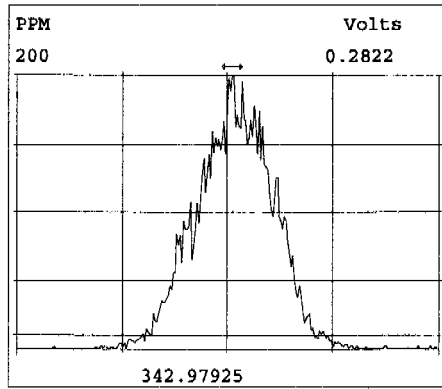
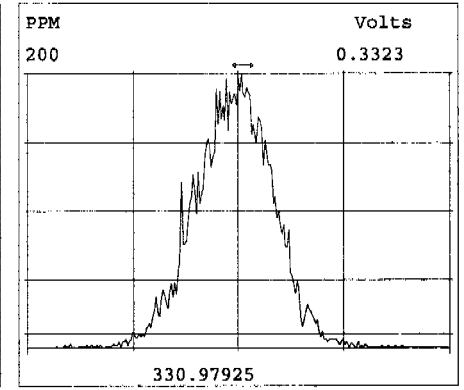
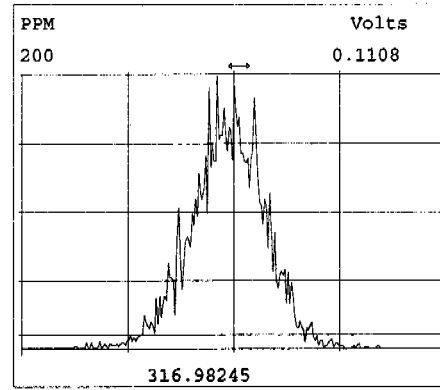
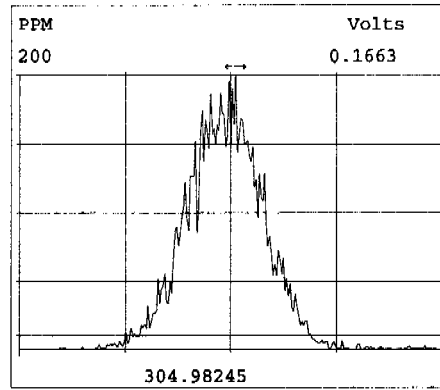
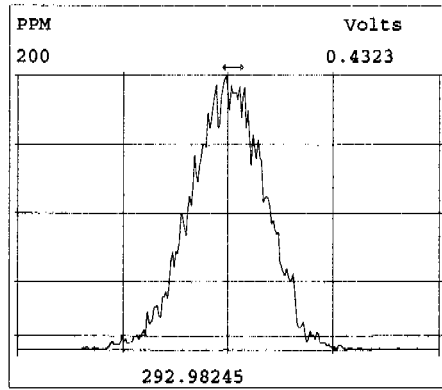


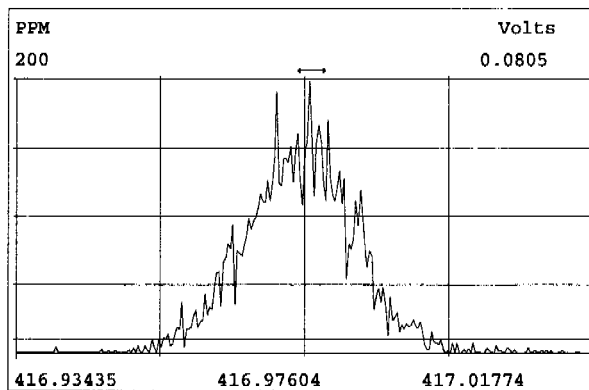
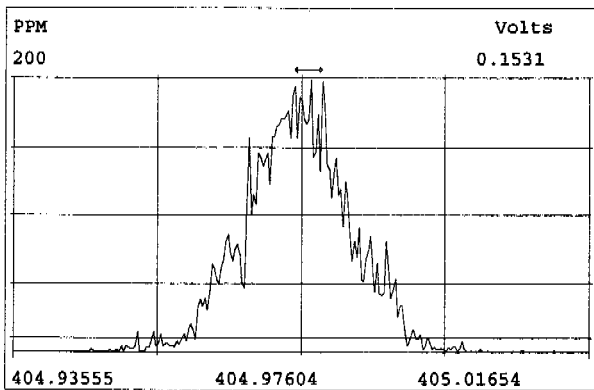
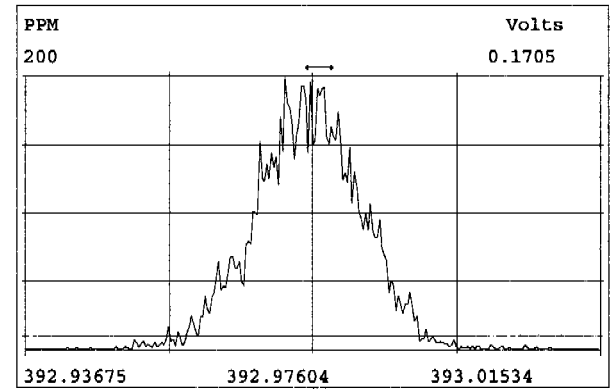
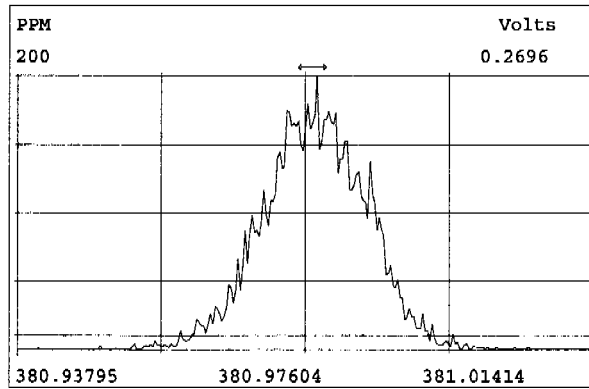
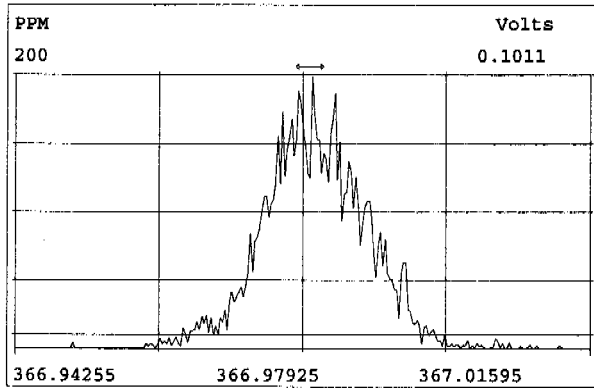
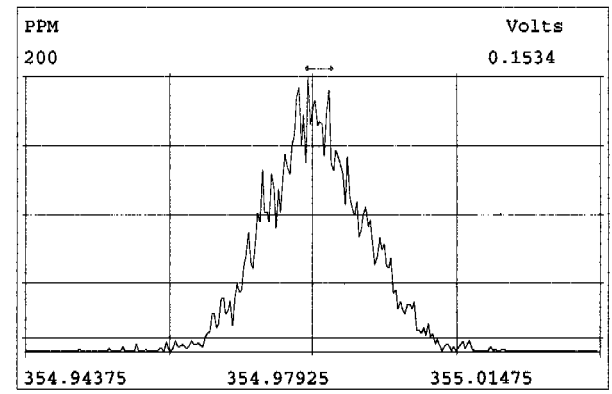
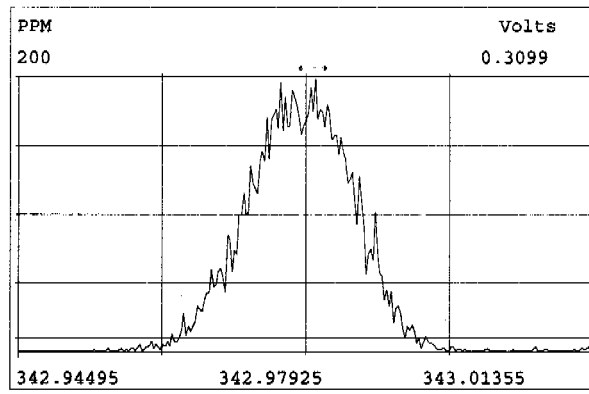
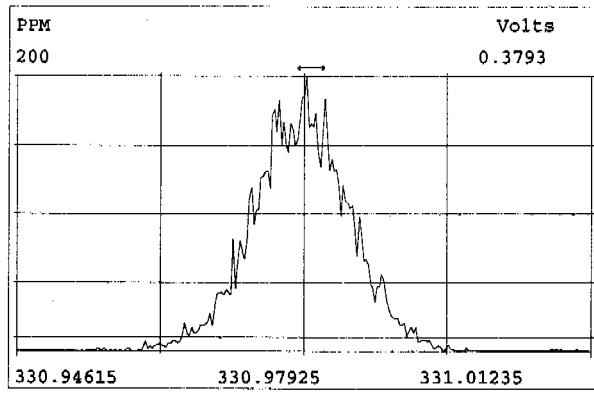
455.7801 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

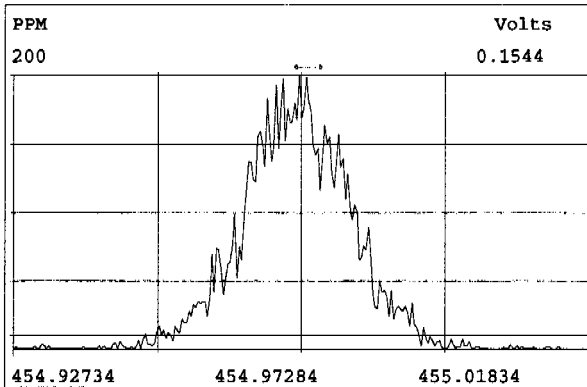
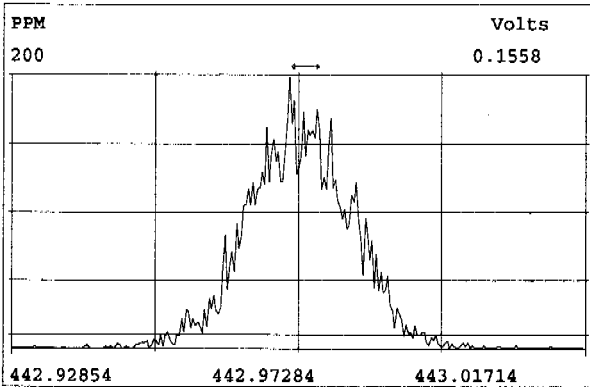
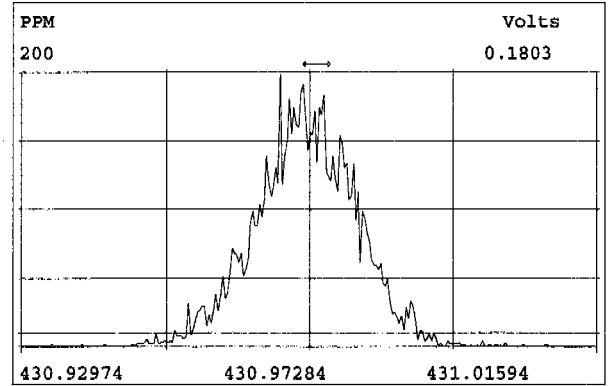
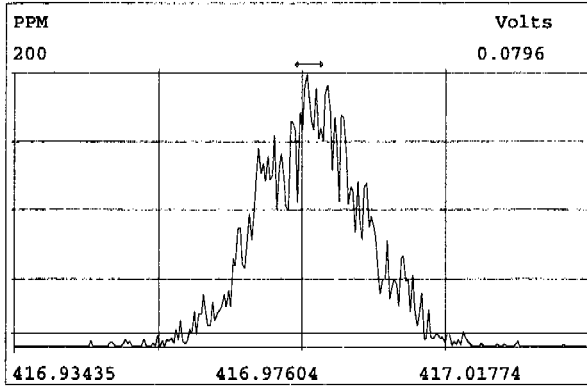
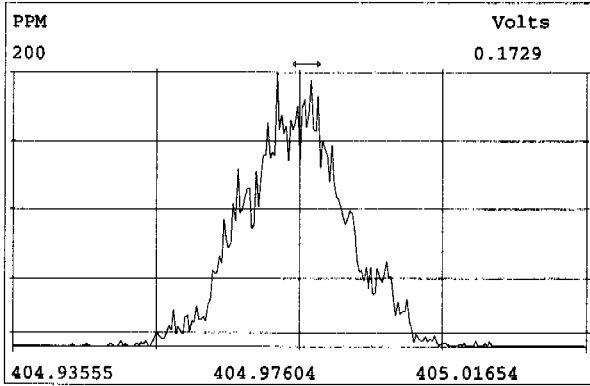
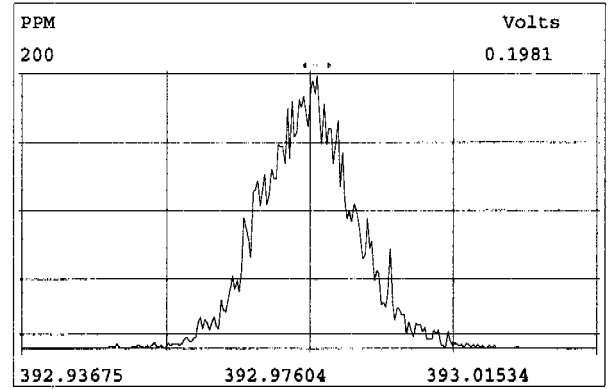
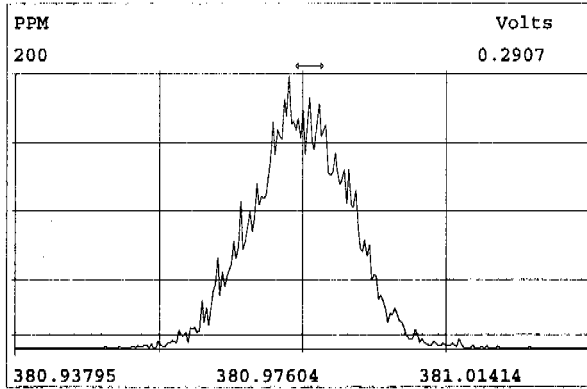
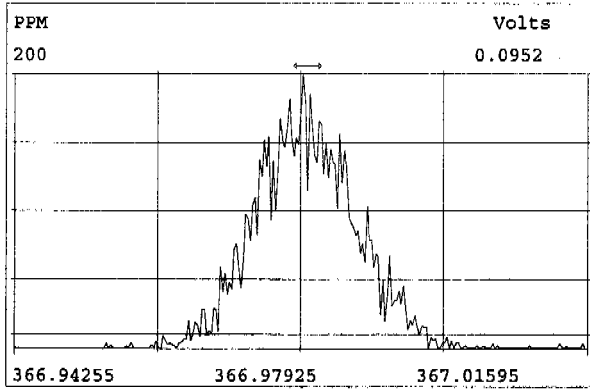


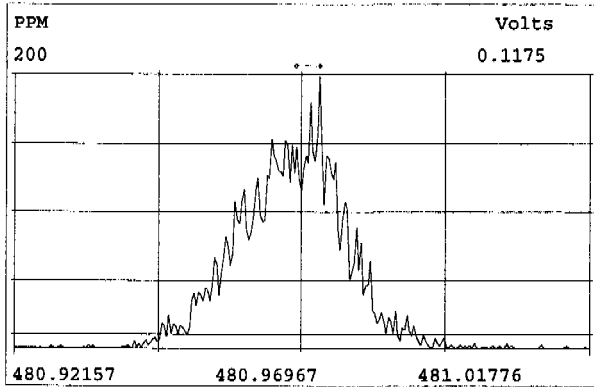
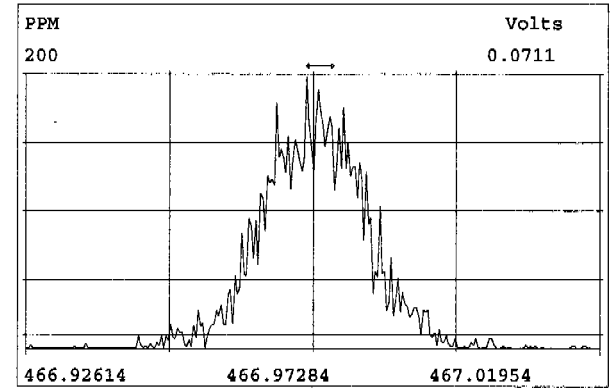
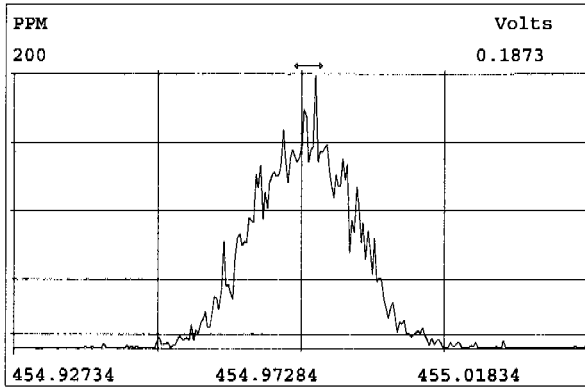
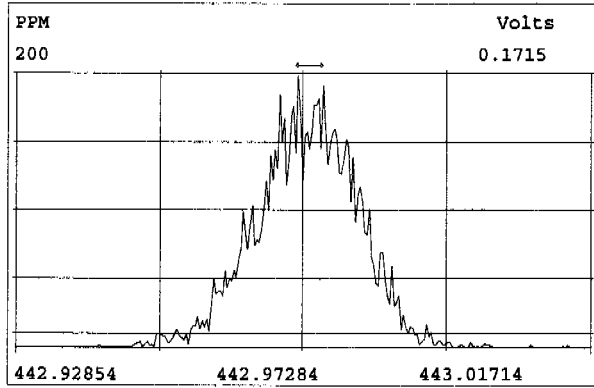
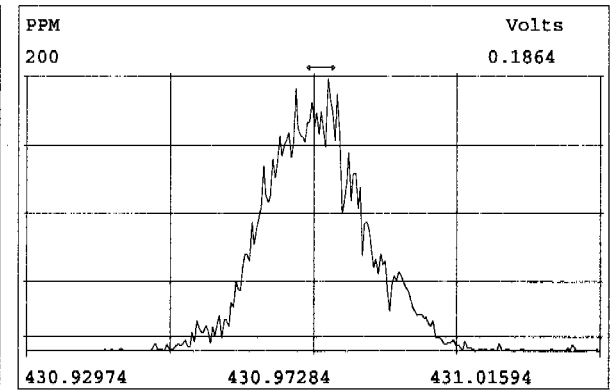
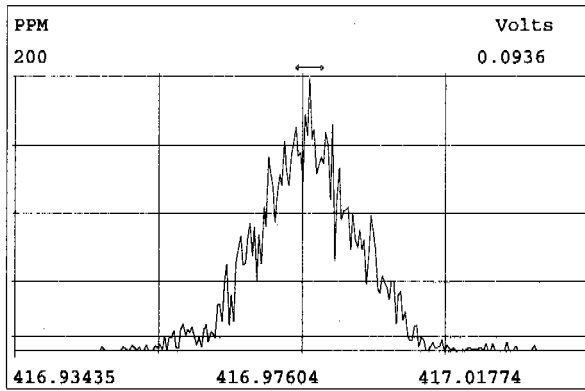
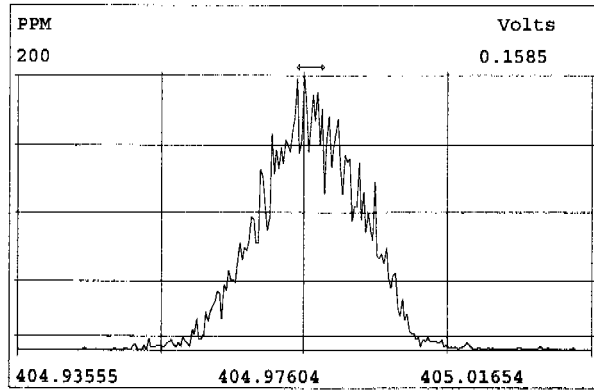
513.6775 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

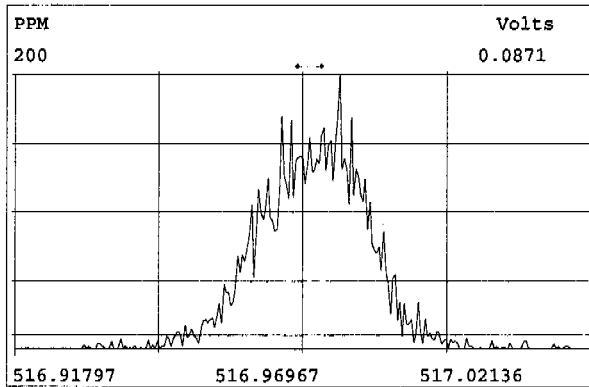
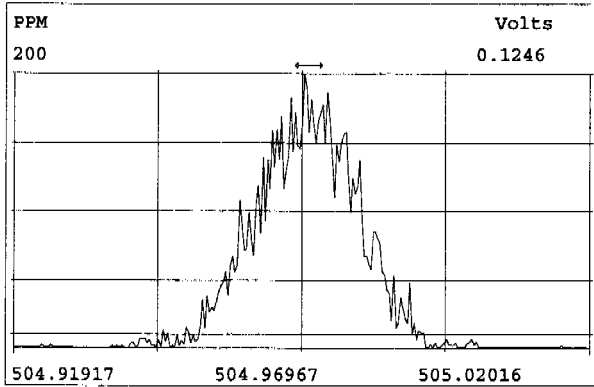
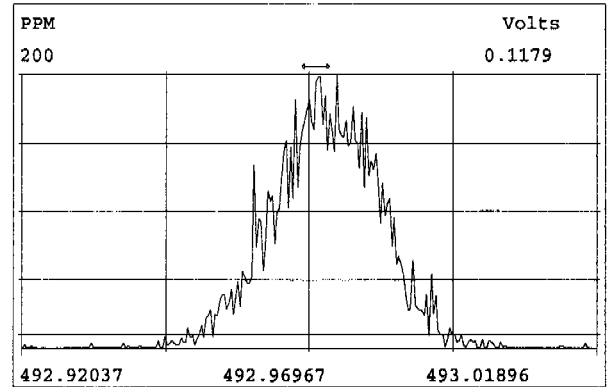
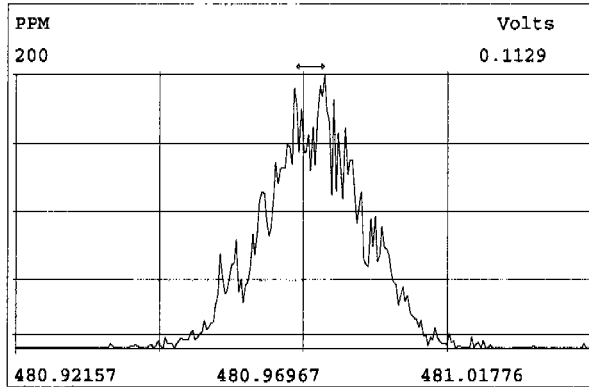
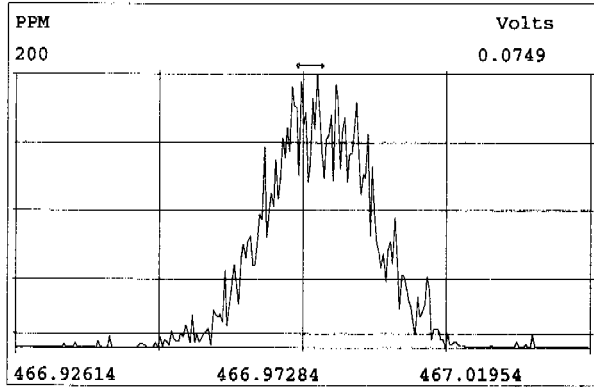
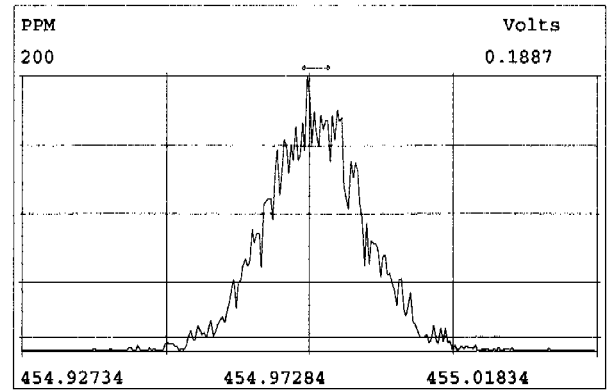
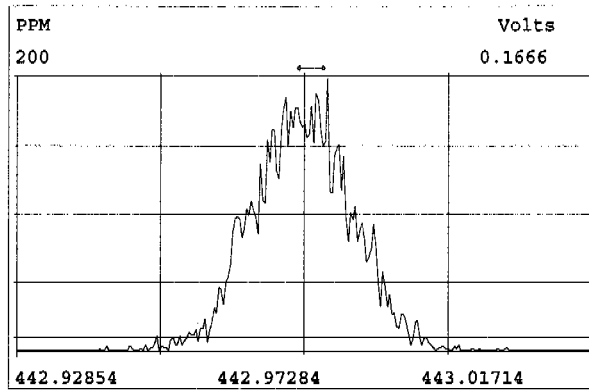
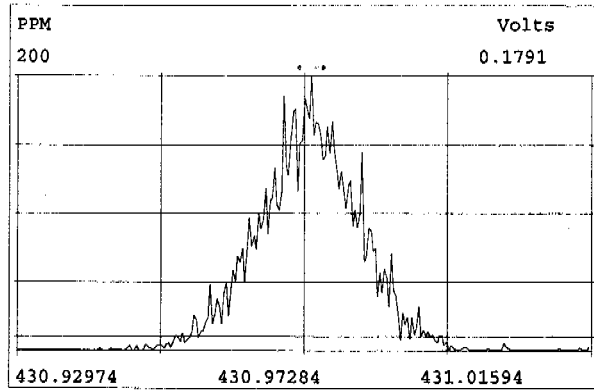














Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL	Name	Conc	EMPC	Qual	noise	DL
2,3,7,8-TCDD	1.73e+07	0.79 y	1.08	26:34	10.177		* 2.5		*	Total Tetra-Dioxins	10.238	10.310		*	*
1,2,3,7,8-PeCDD	8.22e+07	0.63 y	1.03	31:17	51.086		* 2.5		*	Total Penta-Dioxins	51.086	51.131		*	*
1,2,3,4,7,8-HxCDD	7.49e+07	1.27 y	1.13	34:34	49.404		* 2.5		*	Total Hexa-Dioxins	155.83	156.52		*	*
1,2,3,6,7,8-HxCDD	8.77e+07	1.26 y	1.03	34:41	53.502		* 2.5		*	Total Hepta-Dioxins	49.585	49.917		*	*
1,2,3,7,8,9-HxCDD	8.63e+07	1.27 y	1.12	34:59	52.828		* 2.5		*	Total Tetra-Furans	10.228	10.271		*	*
1,2,3,4,6,7,8-HpCDD	7.21e+07	1.06 y	1.02	38:32	49.541		* 2.5		*	Total Penta-Furans	103.59	103.93		*	*
OCDD	1.33e+08	0.89 y	1.06	41:51	97.377		* 2.5		*	Total Hexa-Furans	198.49	198.65		*	*
										Total Hepta-Furans	99.713	100.55		*	*
2,3,7,8-TCDF	2.25e+07	0.77 y	1.06	25:43	10.004		* 2.5		*						
1,2,3,7,8-PeCDF	1.09e+08	1.55 y	1.01	30:03	50.447		* 2.5		*						
2,3,4,7,8-PeCDF	1.20e+08	1.54 y	1.02	30:60	51.163		* 2.5		*						
1,2,3,4,7,8-HxCDF	1.06e+08	1.20 y	1.15	33:41	50.462		* 2.5		*						
1,2,3,6,7,8-HxCDF	1.27e+08	1.22 y	1.14	33:50	49.315		* 2.5		*						
2,3,4,6,7,8-HxCDF	1.10e+08	1.23 y	1.17	34:25	46.925		* 2.5		*						
1,2,3,7,8,9-HxCDF	9.74e+07	1.25 y	1.10	35:21	51.523		* 2.5		*						
1,2,3,4,6,7,8-HpCDF	9.52e+07	1.01 y	1.31	37:08	49.746		* 2.5		*						
1,2,3,4,7,8,9-HpCDF	8.39e+07	1.01 y	1.33	39:04	49.924		* 2.5		*						
OCDF	1.52e+08	0.87 y	0.91	42:02			* 2.5		*						
										Rec	Qual				
IS 13C-2,3,7,8-TCDD	1.57e+08	0.78 y	1.09	26:32	94.685					94.7					
IS 13C-1,2,3,7,8-PeCDD	1.56e+08	0.64 y	1.04	31:16	98.317					98.3					
IS 13C-1,2,3,4,7,8-HxCDD	1.34e+08	1.27 y	0.83	34:34	100.36					100					
IS 13C-1,2,3,6,7,8-HxCDD	1.59e+08	1.28 y	1.04	34:40	95.078					95.1					
IS 13C-1,2,3,4,6,7,8-HpCDD	1.43e+08	1.08 y	0.85	38:31	104.81					105					
IS 13C-OCDD	2.59e+08	0.90 y	0.71	41:50	225.79					113					
IS 13C-2,3,7,8-TCDF	2.12e+08	0.80 y	0.96	25:42						+94.0					
IS 13C-1,2,3,7,8-PeCDF	2.14e+08	1.59 y	1.02	30:02						+89.2					
IS 13C-2,3,4,7,8-PeCDF	2.29e+08	1.59 y	1.02	30:59						+95.5					
IS 13C-1,2,3,4,7,8-HxCDF	1.84e+08	0.51 y	1.14	33:41	99.916					99.9					
IS 13C-1,2,3,6,7,8-HxCDF	2.27e+08	0.52 y	1.40	33:49	100.76					101					
IS 13C-2,3,4,6,7,8-HxCDF	2.01e+08	0.52 y	1.26	34:24	99.050					99.0					
IS 13C-1,2,3,7,8,9-HxCDF	1.72e+08	0.52 y	1.08	35:20	98.961					99.0					
IS 13C-1,2,3,4,6,7,8-HpCDF	1.46e+08	0.43 y	0.93	37:08	97.155					97.2					
IS 13C-1,2,3,4,7,8,9-HpCDF	1.27e+08	0.43 y	0.77	39:03	102.95					103					
IS 13C-OCDF	*	* n	0.94	NotF $\eta$	*					*					
C/Up 37C1-2,3,7,8-TCDD	1.66e+07		0.77	26:33	14.069					141					
RS/RT 13C-1,2,3,4-TCDD	1.52e+08	0.80 y	1.00	25:54	100.00										
RS 13C-1,2,3,4-TCDF	*	* n	1.00	NotF $\eta$	*										
RS/RT 13C-1,2,3,7,8,9-HxCDD	1.61e+08	1.27 y	1.00	34:57	100.00										

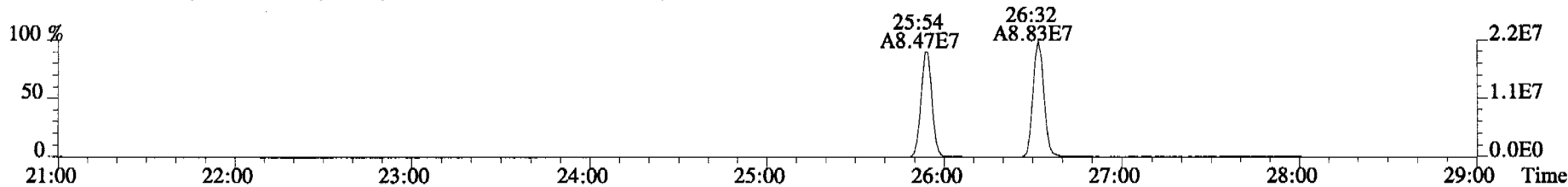
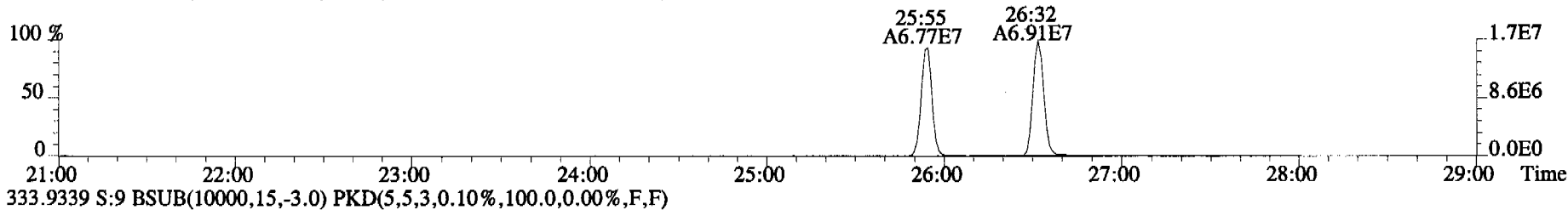
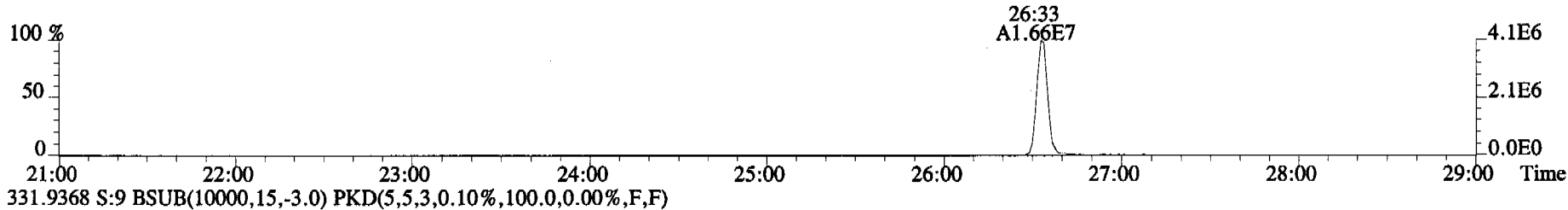
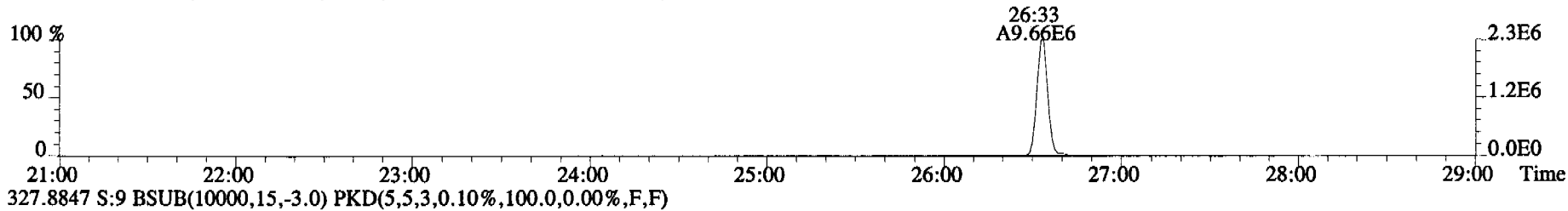
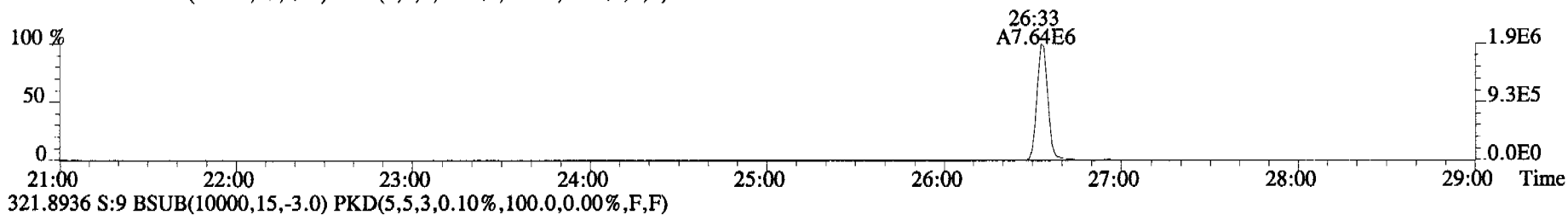
\*98.84 Daily RRF = 1.19 using OCDD

\*Daily RRF = 1.46 using TCDD  
\*Daily RRF = 1.58 using TCDD  
\*Daily RRF = 1.58 using TCDD

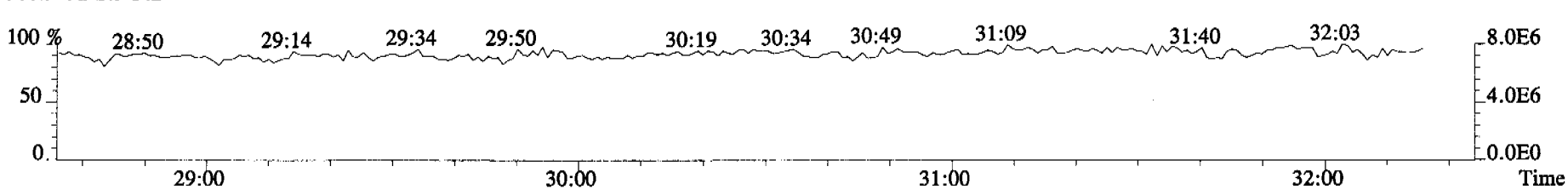
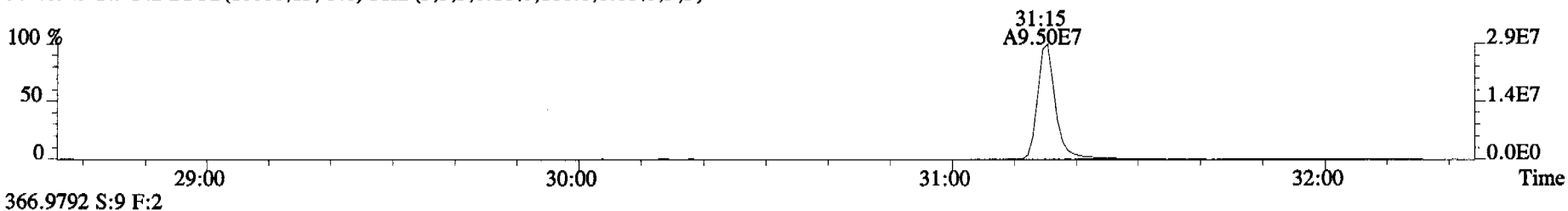
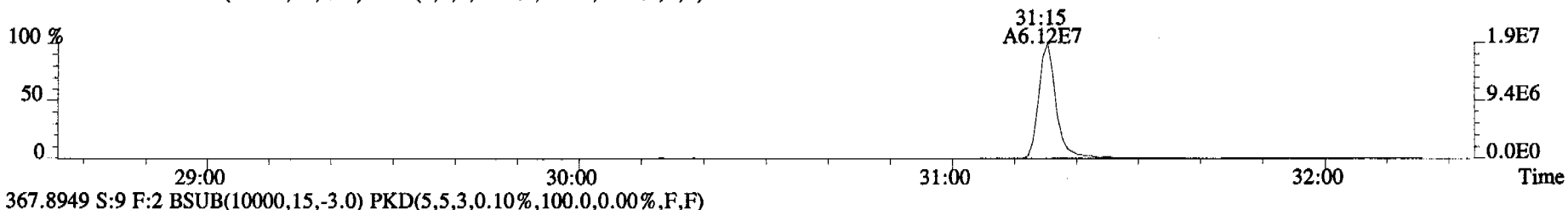
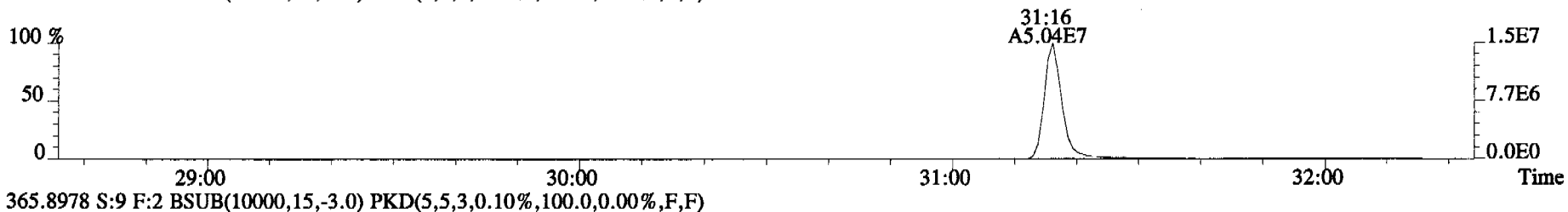
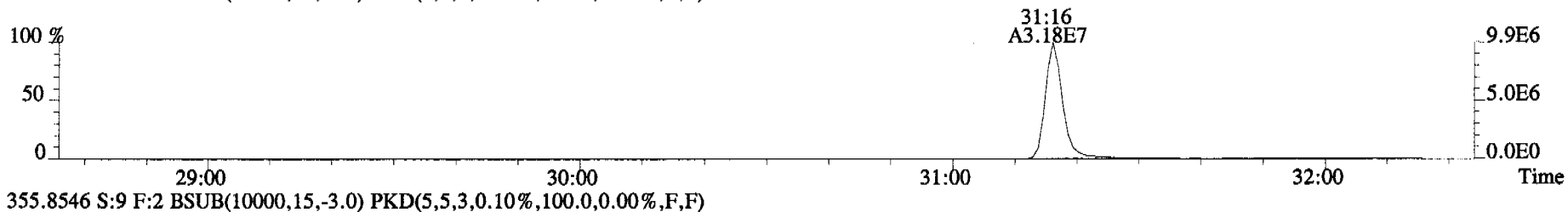
Integrations Reviewed  
by my by \_\_\_\_\_  
Analyst: \_\_\_\_\_ Analyst: \_\_\_\_\_

Date: 3/23/06 Date: \_\_\_\_\_

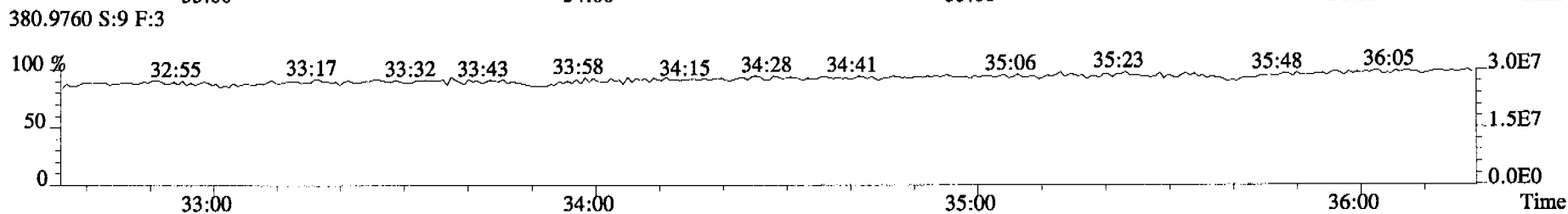
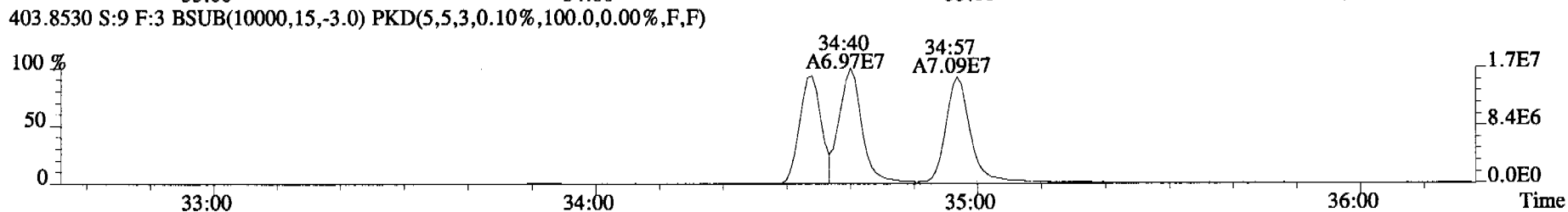
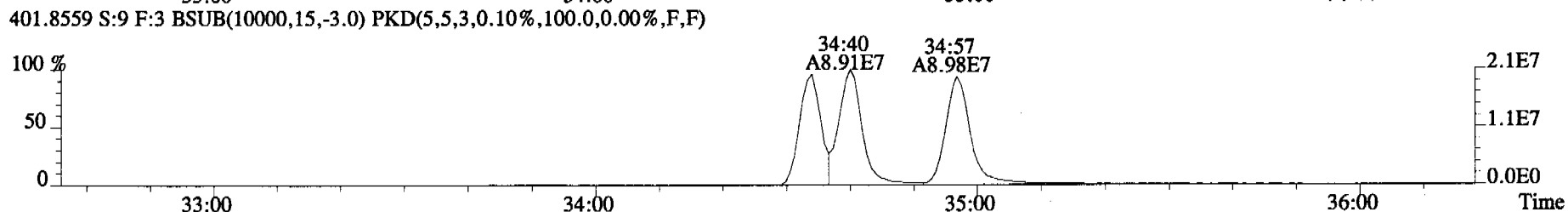
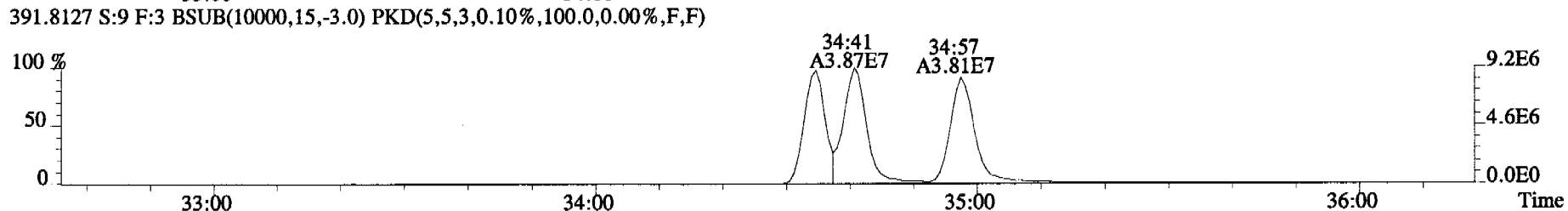
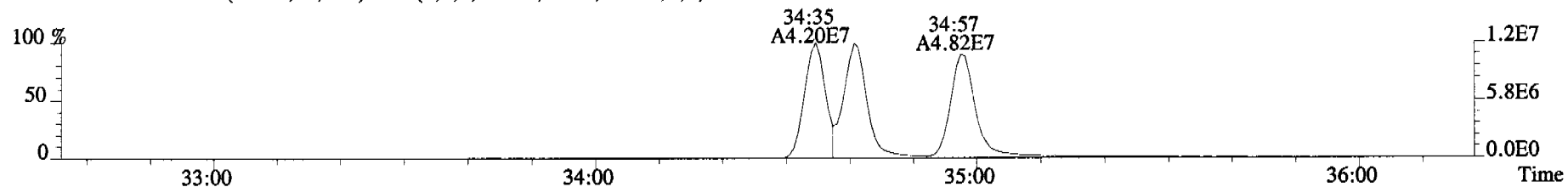
File:060322C1 #1-514 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD\_DB5  
319.8965 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



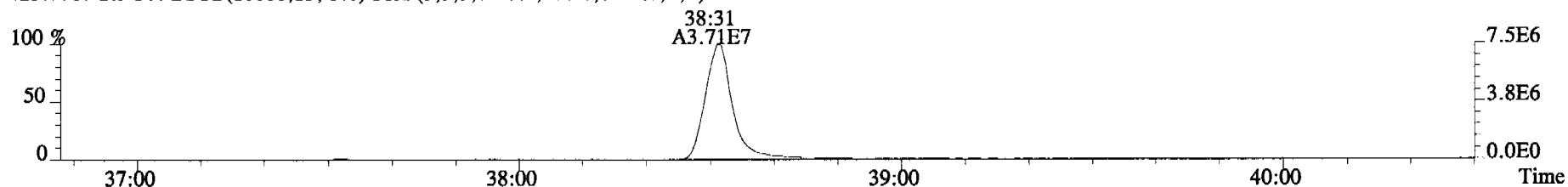
File:060322C1 #1-316 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD\_DB5  
353.8576 S:9 F:2 BSub(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



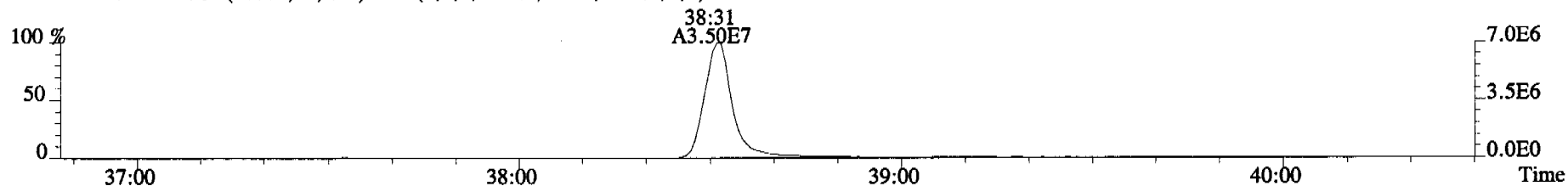
File:060322C1 #1-377 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD\_DB5  
389.8156 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



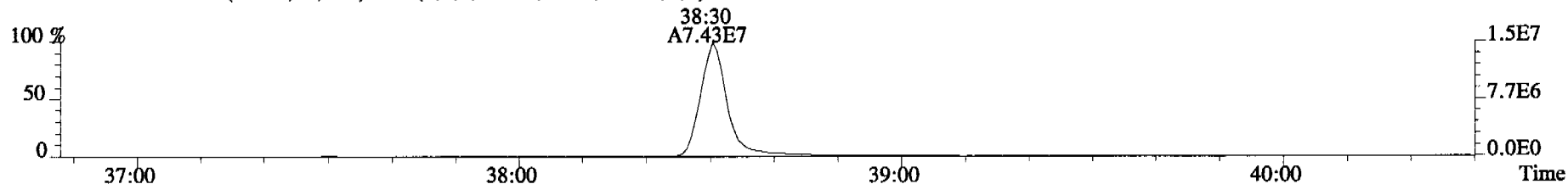
File:060322C1 #1-400 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD\_DB5  
423.7767 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



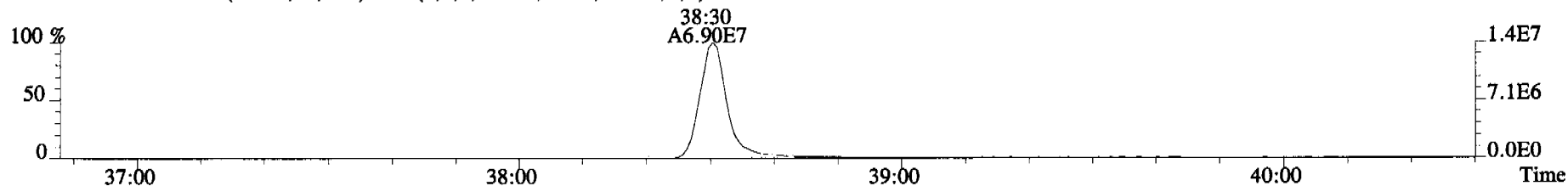
425.7737 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



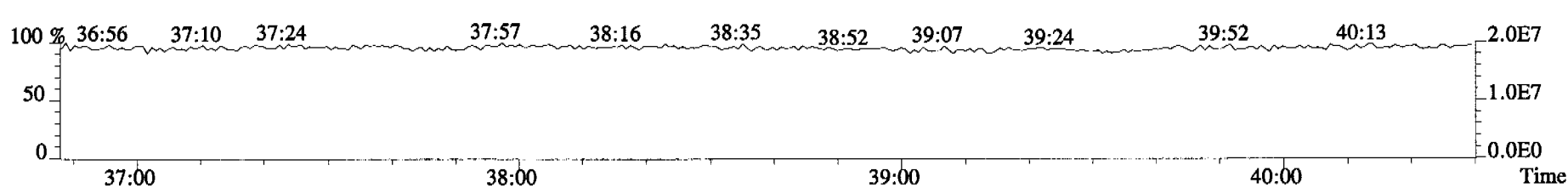
435.8169 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



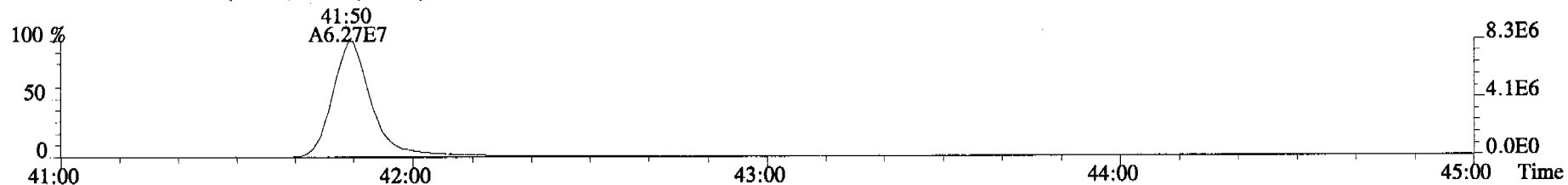
437.8140 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



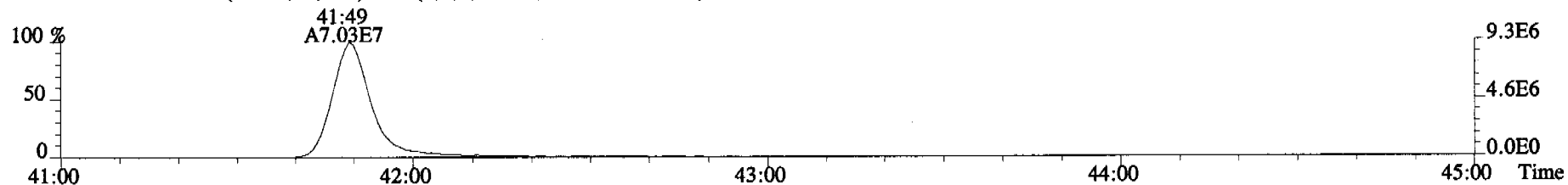
430.9728 S:9 F:4



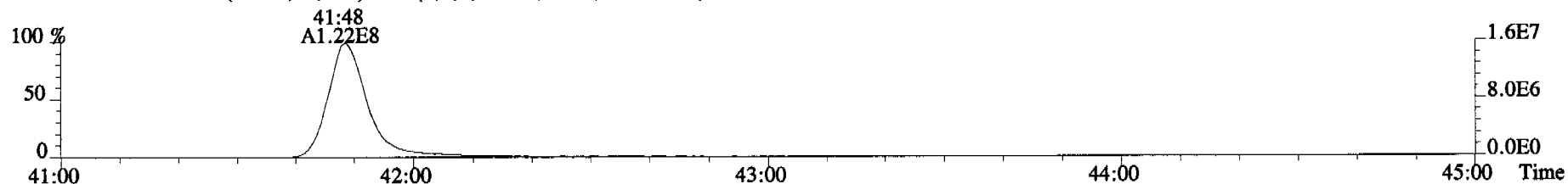
File:060322C1 #1-345 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD\_DB5  
457.7377 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



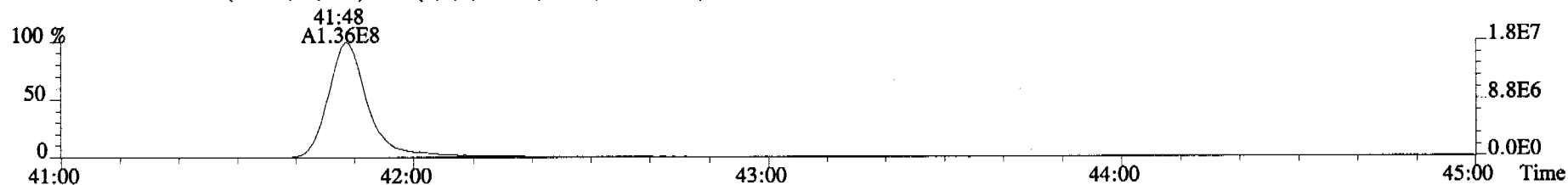
459.7348 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



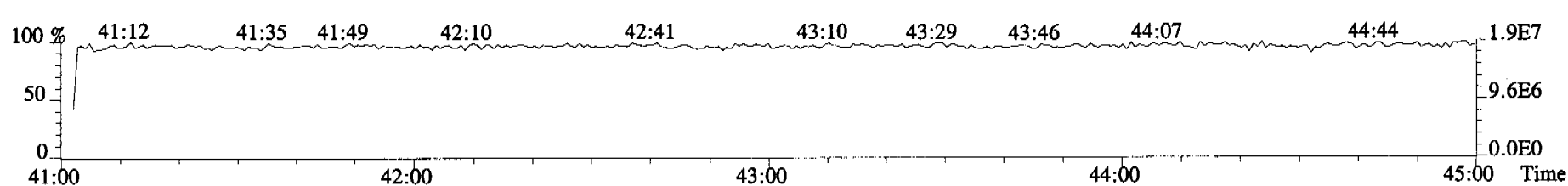
469.7780 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



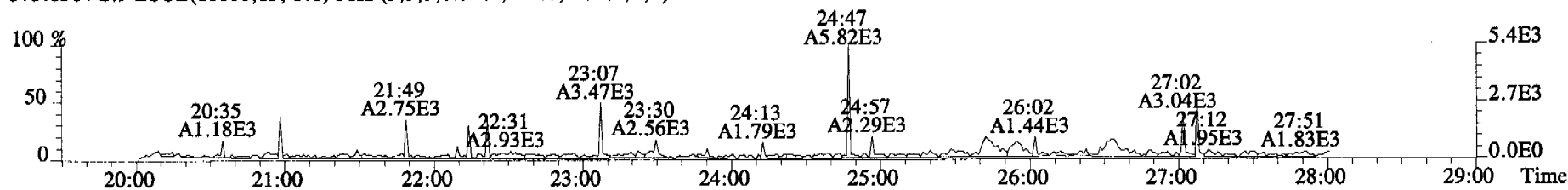
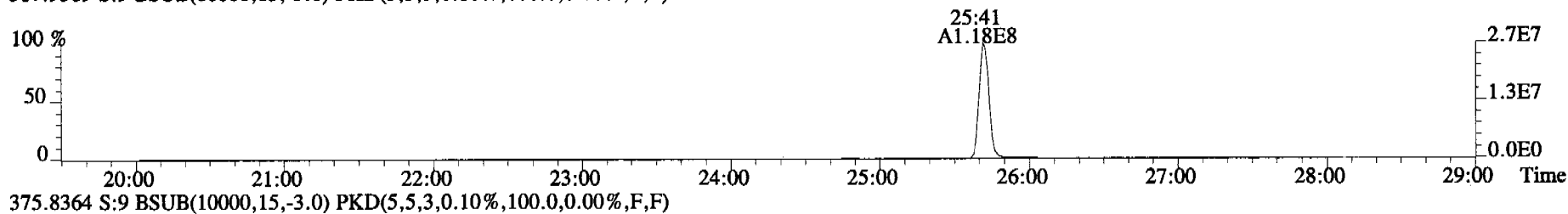
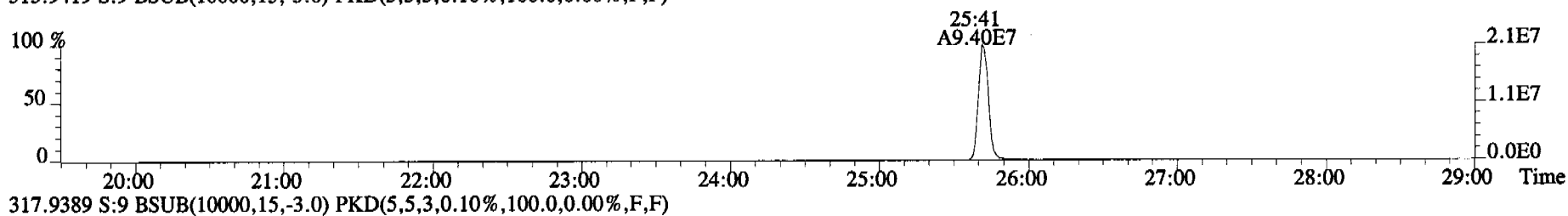
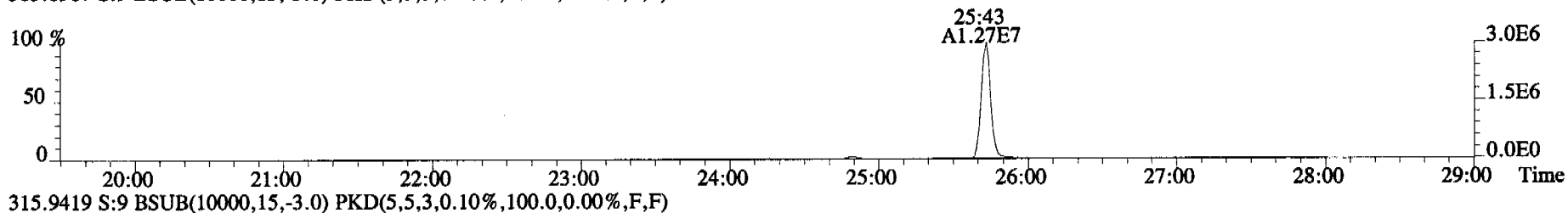
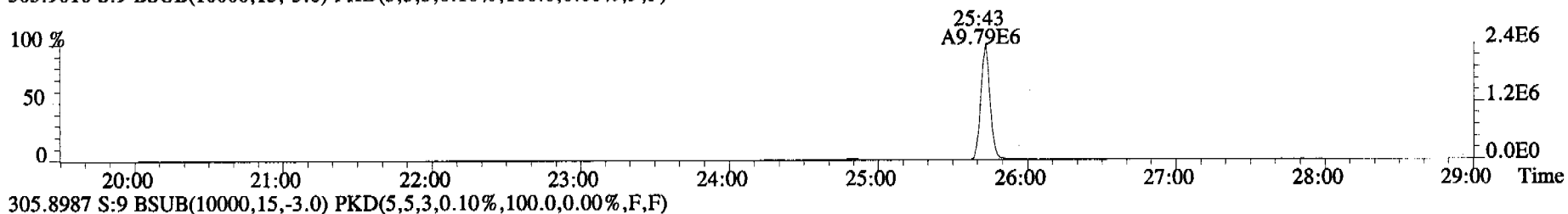
471.7750 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



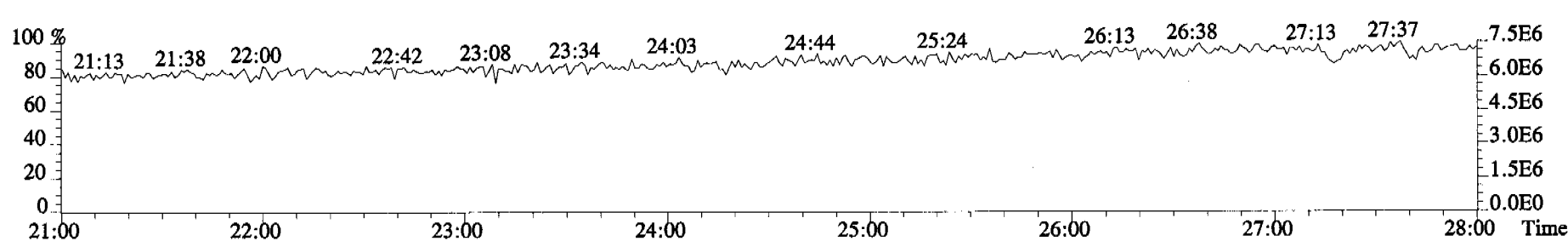
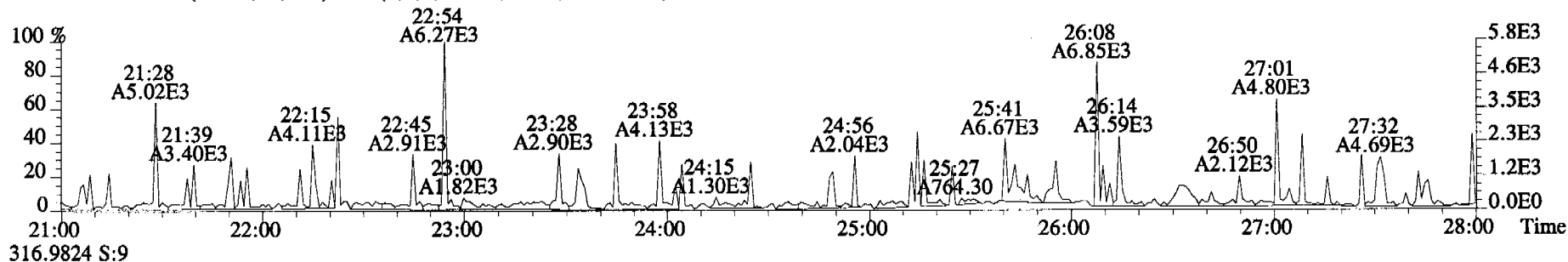
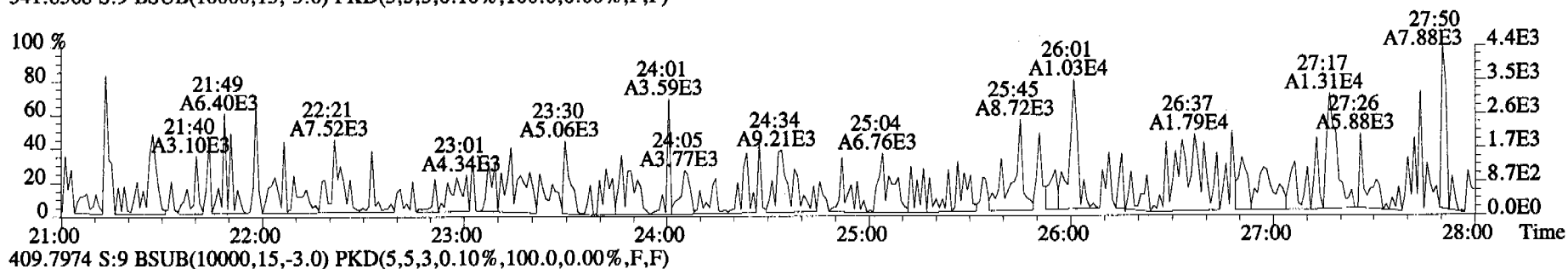
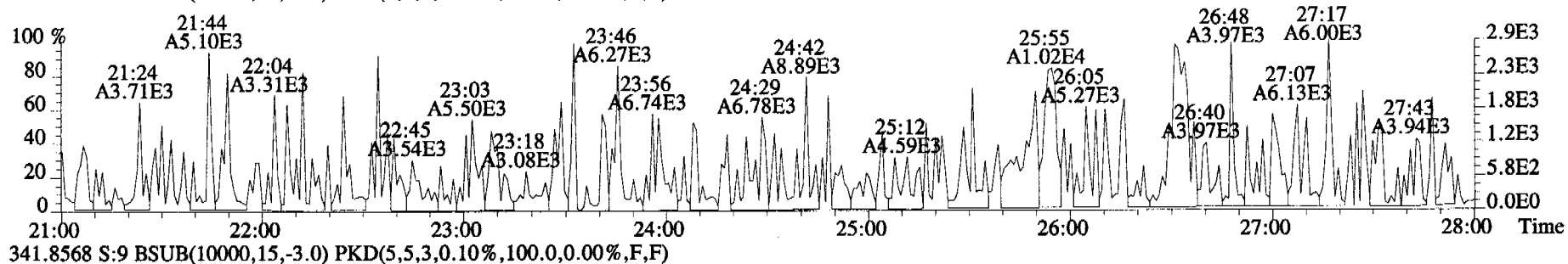
454.9728 S:9 F:5



File:060322C1 #1-514 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD\_DB5  
303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

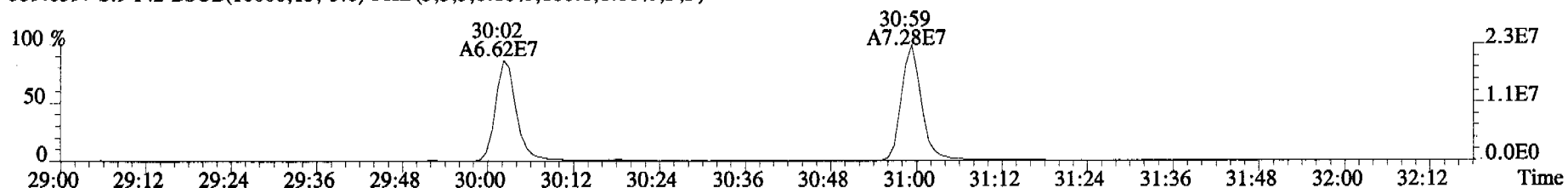


File:060322C1 #1-514 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD\_DB5  
339.8597 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

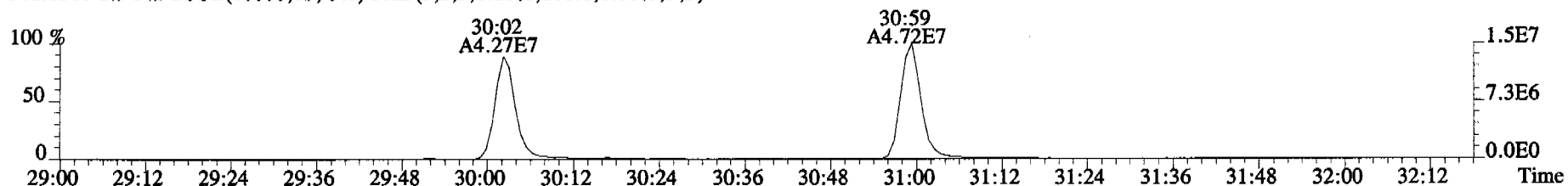




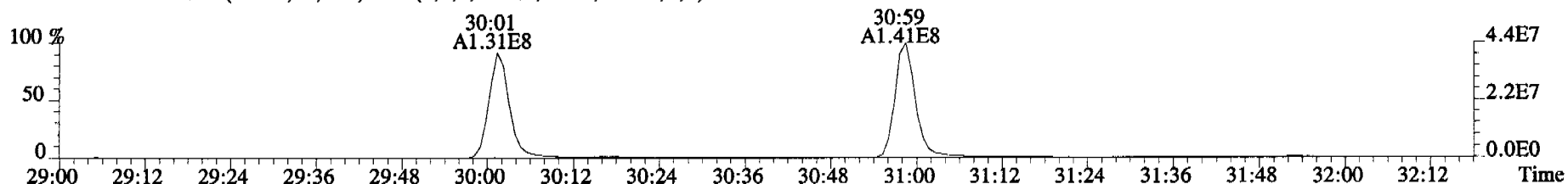
File:060322C1 #1-316 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD\_DB5  
339.8597 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



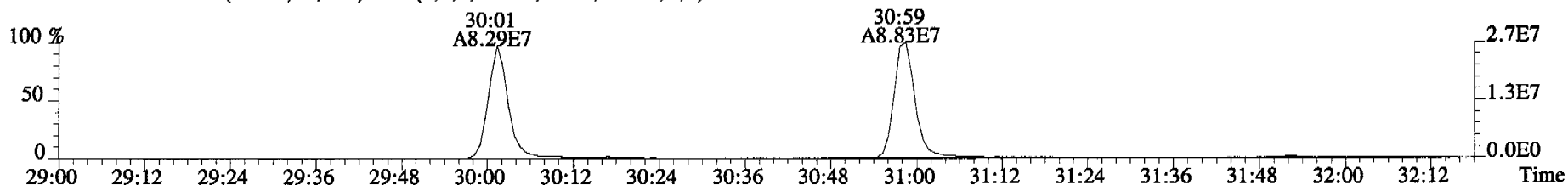
341.8568 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



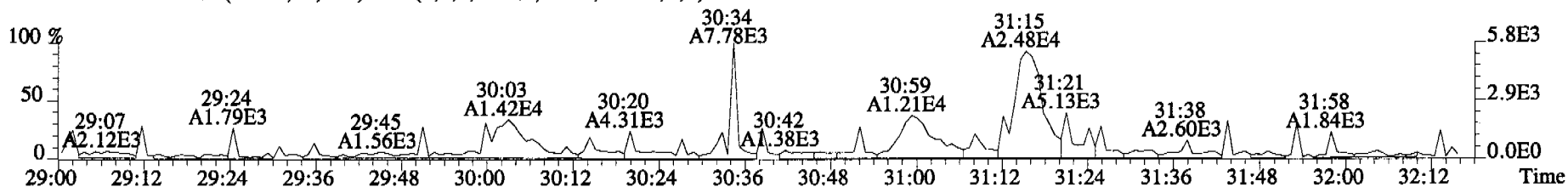
351.9000 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



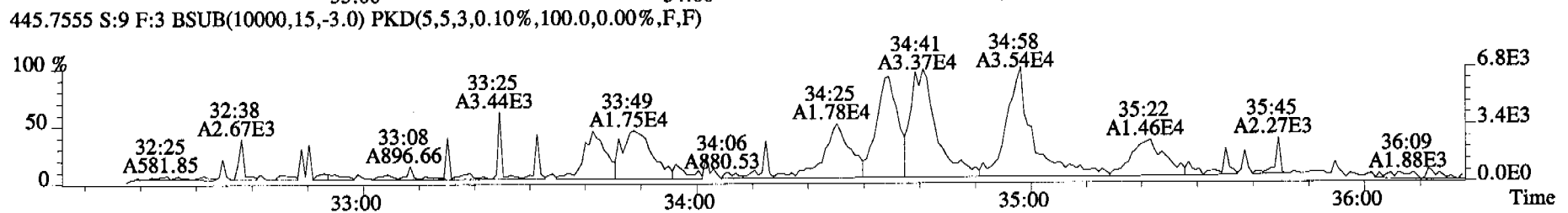
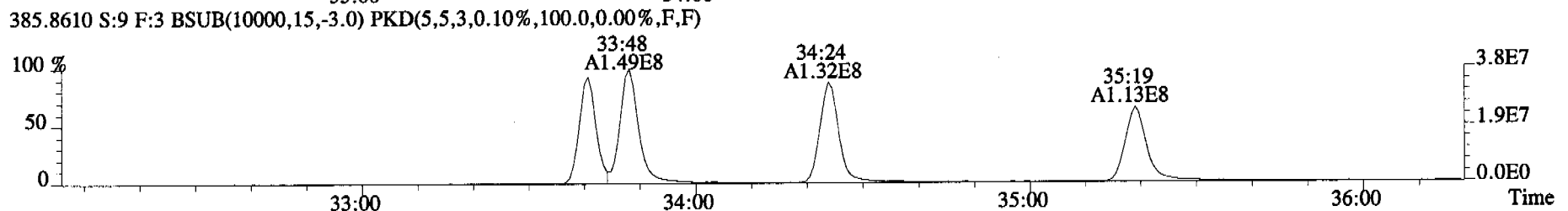
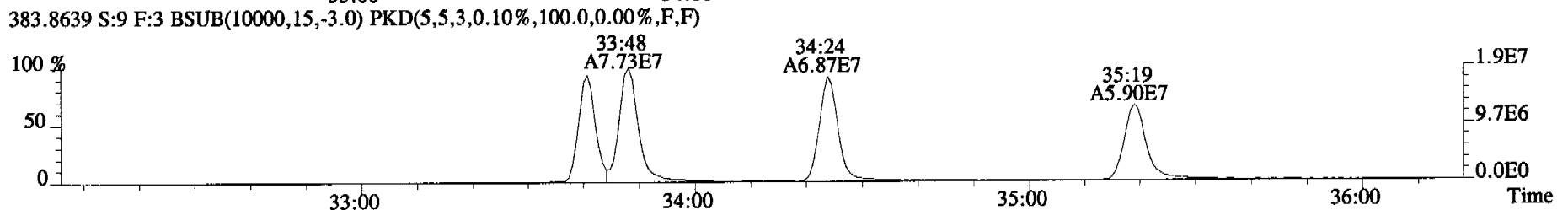
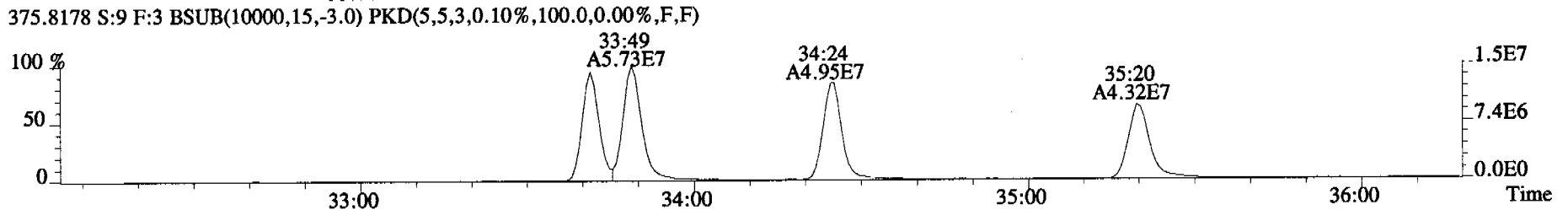
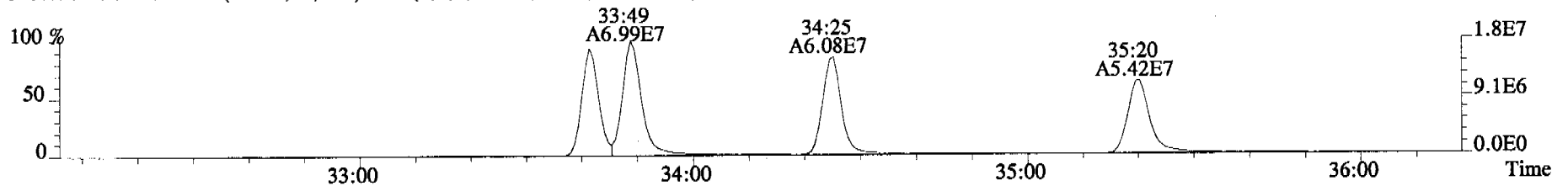
353.8970 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



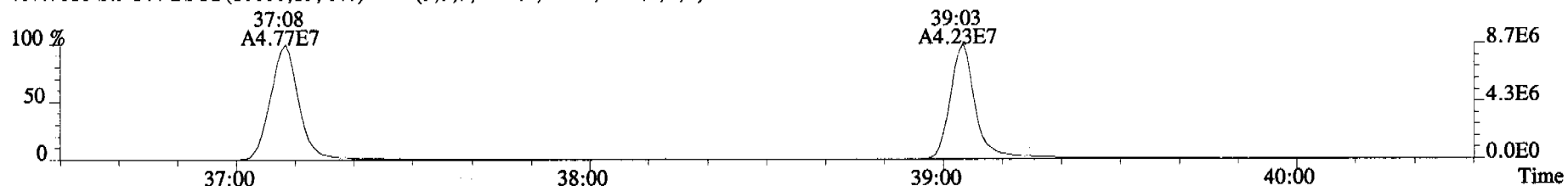
409.7974 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



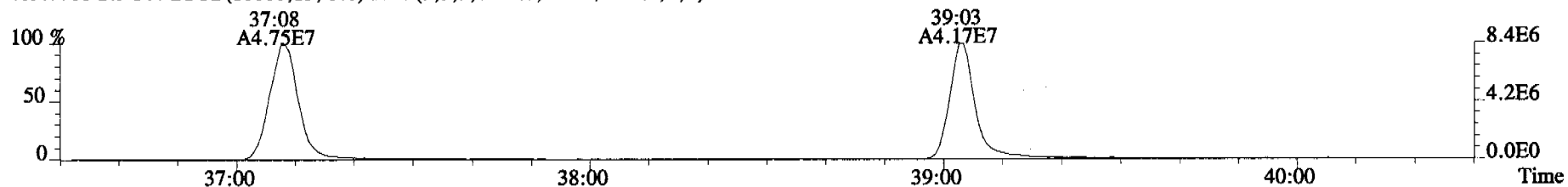
File:060322C1 #1-377 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD\_DB5  
373.8207 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



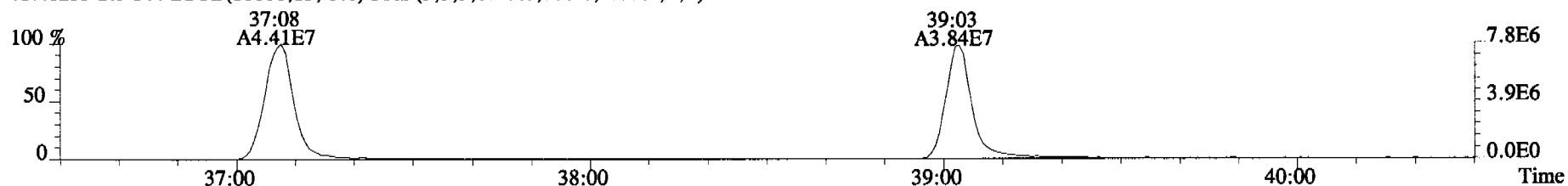
File:060322C1 #1-400 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD\_DB5  
407.7818 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



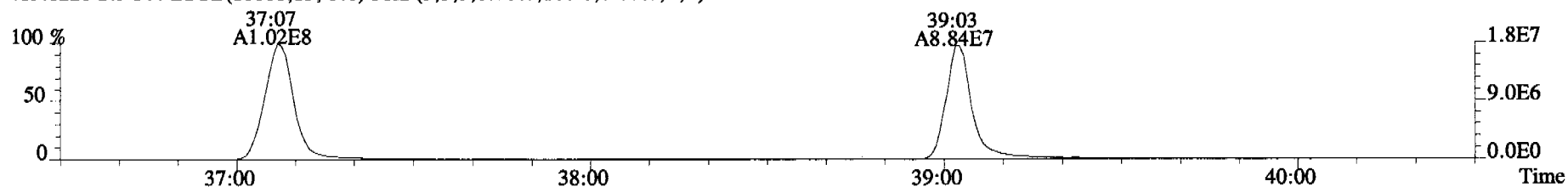
409.7788 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



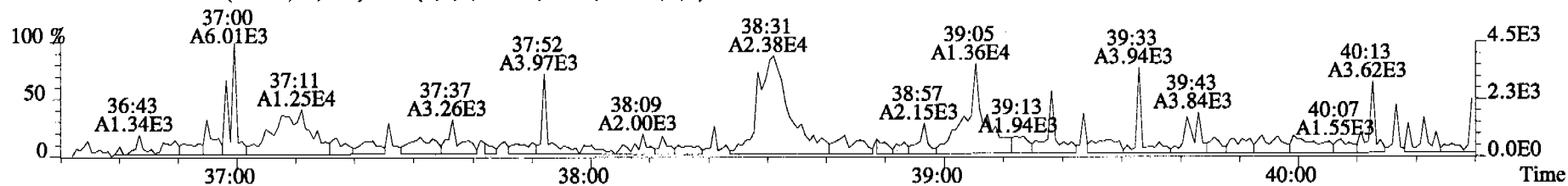
417.8253 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



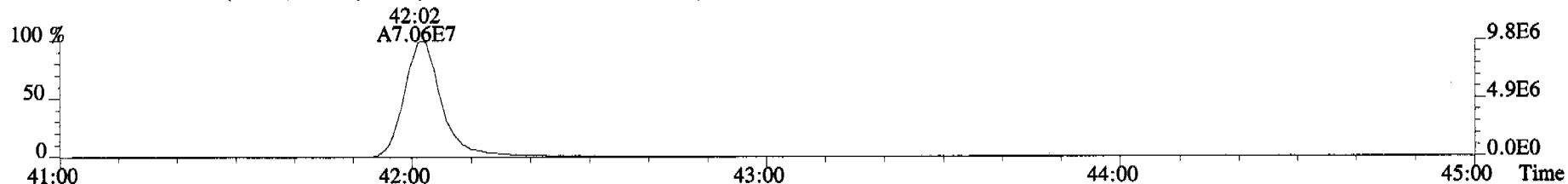
419.8220 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



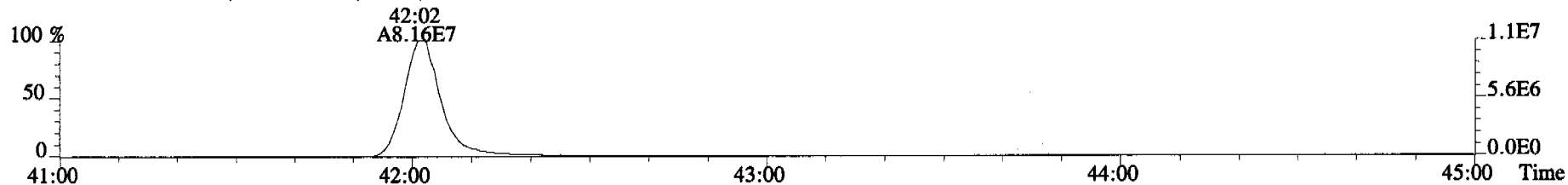
479.7165 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



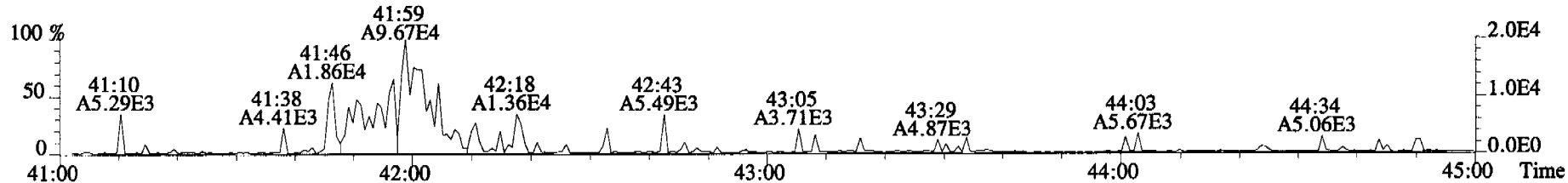
File:060322C1 #1-345 Acq:22-MAR-2006 16:10:24 GC EI+ Voltage SIR Autospec-UltimaE  
Sample#9 File Text:Alta Analytical Laboratory Text:SS060322C1-1 SSS L050203A Exp:OCDD\_DB5  
441.7428 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



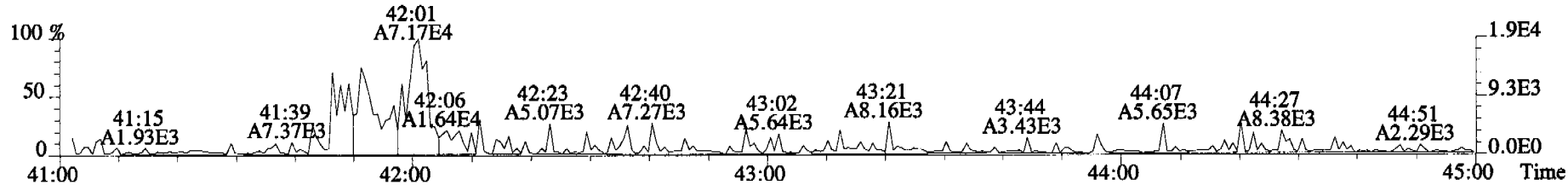
443.7398 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



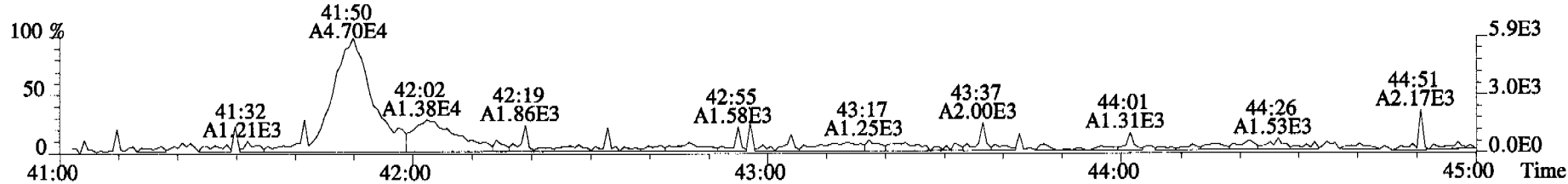
453.7831 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



455.7801 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



513.6775 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)



## LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test

Sampled: 09/14/06  
Received: 09/14/06  
Issued: 09/28/06 17:54

NELAP #01108CA California ELAP#1197 CSDLAC #10256

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.*

*This entire report was reviewed and approved for release.*

## SAMPLE CROSS REFERENCE

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

**LABORATORY ID**  
IPI1296-01

**CLIENT ID**  
AC-EFF

**MATRIX**  
Water

Reviewed By:



**TestAmerica - Irvine, CA**  
Amy Windham For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1296-01 (AC-EFF - Water)</b>									
Reporting Units: mg/l									
Iron	EPA 200.7	6118075	0.015	0.040	<b>0.11</b>	1	09/18/06	09/20/06	
<b>Sample ID: IPI1296-01 (AC-EFF - Water)</b>									
Reporting Units: ug/l									
Antimony	EPA 200.8	6118071	0.050	2.0	<b>0.41</b>	1	09/18/06	09/18/06	J
Arsenic	EPA 200.7	6118075	4.4	5.0	<b>4.9</b>	1	09/18/06	09/20/06	J
Beryllium	EPA 200.7	6118075	0.90	2.0	ND	1	09/18/06	09/20/06	
Cadmium	EPA 200.8	6118071	0.025	1.0	ND	1	09/18/06	09/18/06	
Chromium	EPA 200.7	6118075	2.0	5.0	ND	1	09/18/06	09/20/06	
Copper	EPA 200.8	6118071	0.25	2.0	<b>1.6</b>	1	09/18/06	09/18/06	B, J
Lead	EPA 200.8	6118071	0.040	1.0	<b>0.10</b>	1	09/18/06	09/19/06	J
Manganese	EPA 200.7	6118075	7.0	20	<b>120</b>	1	09/18/06	09/20/06	
Mercury	EPA 245.1	6115062	0.15	0.20	ND	1	09/15/06	09/15/06	
Nickel	EPA 200.7	6118075	2.0	10	ND	1	09/18/06	09/20/06	
Selenium	EPA 200.8	6118071	0.30	2.0	<b>0.65</b>	1	09/18/06	09/18/06	J
Silver	EPA 200.8	6118071	0.025	1.0	ND	1	09/18/06	09/18/06	
Thallium	EPA 200.8	6118071	0.15	1.0	ND	1	09/18/06	09/19/06	
Zinc	EPA 200.7	6118075	15	20	ND	1	09/18/06	09/20/06	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1296-01 (AC-EFF - Water) - cont.</b>									
Reporting Units: mg/l									
Iron	EPA 200.7-Diss	6115121	0.015	0.040	ND	1	09/15/06	09/23/06	
<b>Sample ID: IPI1296-01 (AC-EFF - Water)</b>									
Reporting Units: ug/l									
<b>Antimony</b>	EPA 200.8-Diss	6118073	0.050	2.0	<b>0.37</b>	1	09/18/06	09/18/06	J
Arsenic	EPA 200.7-Diss	6115121	4.4	5.0	ND	1	09/15/06	09/23/06	
Beryllium	EPA 200.7-Diss	6115121	0.90	2.0	ND	1	09/15/06	09/23/06	
Cadmium	EPA 200.8-Diss	6118073	0.025	1.0	ND	1	09/18/06	09/18/06	
Chromium	EPA 200.7-Diss	6115121	2.0	5.0	ND	1	09/15/06	09/23/06	
<b>Copper</b>	EPA 200.8-Diss	6118073	0.25	2.0	<b>15</b>	1	09/18/06	09/18/06	
Lead	EPA 200.8-Diss	6118073	0.040	1.0	ND	1	09/18/06	09/18/06	
Manganese	EPA 200.7-Diss	6115121	7.0	20	ND	1	09/15/06	09/23/06	
Mercury	EPA 245.1-Diss	6118082	0.15	0.20	ND	1	09/18/06	09/18/06	
<b>Nickel</b>	EPA 200.7-Diss	6115121	2.0	10	<b>2.0</b>	1	09/15/06	09/23/06	J
<b>Selenium</b>	EPA 200.8-Diss	6118073	0.30	2.0	<b>0.46</b>	1	09/18/06	09/18/06	J
Silver	EPA 200.8-Diss	6118073	0.025	1.0	ND	1	09/18/06	09/18/06	
Thallium	EPA 200.8-Diss	6118073	0.15	1.0	ND	1	09/18/06	09/18/06	
Zinc	EPA 200.7-Diss	6115121	15	20	ND	1	09/15/06	09/23/06	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1296-01 (AC-EFF - Water) - cont.</b>									
Reporting Units: g/cc									
Density	Displacement	6I22108	N/A	NA	1.0	1	09/22/06	09/22/06	
<b>Sample ID: IPI1296-01 (AC-EFF - Water)</b>									
Reporting Units: mg/l									
Sediment	ASTM D3977	6I25082	10	10	ND	1	09/25/06	09/25/06	
Total Kjeldahl Nitrogen	EPA 351.3	6I20101	0.43	0.50	2.0	1	09/20/06	09/20/06	
Alkalinity as CaCO3	EPA 310.1	6I20071	2.0	2.0	120	1	09/20/06	09/20/06	
Ammonia-N (Distilled)	EPA 350.2	6I16057	0.30	0.50	ND	1	09/16/06	09/16/06	
Hardness (as CaCO3)	SM2340B	6I18075	1.0	1.0	170	1	09/18/06	09/20/06	
Nitrate-N	EPA 300.0	6I14043	0.080	0.15	ND	1	09/14/06	09/14/06	
Nitrite-N	EPA 300.0	6I14043	0.080	0.15	ND	1	09/14/06	09/14/06	
Nitrate/Nitrite-N	EPA 300.0	6I14043	0.080	0.15	ND	1	09/14/06	09/14/06	
Oil & Grease	EPA 413.1	6I16001	0.89	4.7	ND	1	09/16/06	09/16/06	
Sulfate	EPA 300.0	6I14043	2.2	2.5	88	5	09/14/06	09/15/06	
Total Dissolved Solids	SM2540C	6I18061	10	10	340	1	09/18/06	09/18/06	
Total Organic Carbon	EPA 415.1	6I20145	0.50	1.0	7.3	1	09/20/06	09/20/06	
Total Suspended Solids	EPA 160.2	6I20129	10	10	ND	1	09/20/06	09/20/06	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager



MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1296-01 (AC-EFF - Water) - cont.</b>									
Reporting Units: NTU									
Turbidity	EPA 180.1	6I15115	0.040	1.0	2.4	1	09/15/06	09/15/06	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1296

Sampled: 09/14/06  
Received: 09/14/06

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1296-01 (AC-EFF - Water) - cont.</b>									
Reporting Units: pH Units									
pH	EPA 150.1	6I15082	N/A	NA	7.50	1	09/15/06	09/15/06	

TestAmerica - Irvine, CA  
Amy Windham For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1296-01 (AC-EFF - Water) - cont.</b>									
Reporting Units: umhos/cm									
Specific Conductance	EPA 120.1	6118059	N/A	1.0	<b>580</b>	1	09/18/06	09/18/06	

**TestAmerica - Irvine, CA**  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1296

Sampled: 09/14/06  
Received: 09/14/06

## SHORT HOLD TIME DETAIL REPORT

Sample ID: AC-EFF (IPI1296-01) - Water	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 150.1	1	09/14/2006 08:25	09/14/2006 18:15	09/15/2006 09:25	09/15/2006 10:45
EPA 180.1	2	09/14/2006 08:25	09/14/2006 18:15	09/15/2006 14:00	09/15/2006 15:35
EPA 300.0	2	09/14/2006 08:25	09/14/2006 18:15	09/14/2006 21:00	09/14/2006 21:25
Filtration	1	09/14/2006 08:25	09/14/2006 18:15	09/15/2006 16:50	09/15/2006 16:50

TestAmerica - Irvine, CA  
Amy Windham For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I15062 Extracted: 09/15/06</b>											
<b>Blank Analyzed: 09/15/2006 (6I15062-BLK1)</b>											
Mercury	ND	0.20	0.15	ug/l							
<b>LCS Analyzed: 09/15/2006 (6I15062-BS1)</b>											
Mercury	8.40	0.20	0.15	ug/l	8.00		105	85-115			
<b>Matrix Spike Analyzed: 09/15/2006 (6I15062-MS1)</b>											
						<b>Source: IPI1162-01</b>					
Mercury	8.20	0.20	0.15	ug/l	8.00	ND	102	70-130			
<b>Matrix Spike Dup Analyzed: 09/15/2006 (6I15062-MSD1)</b>											
						<b>Source: IPI1162-01</b>					
Mercury	8.24	0.20	0.15	ug/l	8.00	ND	103	70-130	1	20	
<b>Batch: 6I18071 Extracted: 09/18/06</b>											
<b>Blank Analyzed: 09/19/2006 (6I18071-BLK1)</b>											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Copper	0.400	2.0	0.25	ug/l							J
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
<b>LCS Analyzed: 09/19/2006 (6I18071-BS1)</b>											
Antimony	80.1	2.0	0.050	ug/l	80.0		100	85-115			
Cadmium	81.5	1.0	0.025	ug/l	80.0		102	85-115			
Copper	80.5	2.0	0.25	ug/l	80.0		101	85-115			
Lead	82.3	1.0	0.040	ug/l	80.0		103	85-115			
Selenium	80.9	2.0	0.30	ug/l	80.0		101	85-115			
Silver	80.3	1.0	0.025	ug/l	80.0		100	85-115			
Thallium	84.3	1.0	0.15	ug/l	80.0		105	85-115			

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1296

Sampled: 09/14/06  
Received: 09/14/06

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I18071 Extracted: 09/18/06</b>											
<b>Matrix Spike Analyzed: 09/19/2006 (6I18071-MS1)</b>						<b>Source: IPI1509-01</b>					
Antimony	80.6	2.0	0.050	ug/l	80.0	0.15	101	70-130			
Cadmium	80.6	1.0	0.025	ug/l	80.0	ND	101	70-130			
Copper	81.9	2.0	0.25	ug/l	80.0	3.3	98	70-130			
Lead	77.8	1.0	0.040	ug/l	80.0	0.088	97	70-130			
Selenium	77.2	2.0	0.30	ug/l	80.0	ND	96	70-130			
Silver	78.0	1.0	0.025	ug/l	80.0	ND	98	70-130			
Thallium	79.0	1.0	0.15	ug/l	80.0	0.19	99	70-130			
<b>Matrix Spike Analyzed: 09/19/2006 (6I18071-MS2)</b>						<b>Source: IPI1509-02</b>					
Antimony	79.9	2.0	0.050	ug/l	80.0	0.16	100	70-130			
Cadmium	79.5	1.0	0.025	ug/l	80.0	ND	99	70-130			
Copper	86.5	2.0	0.25	ug/l	80.0	0.90	107	70-130			
Lead	77.5	1.0	0.040	ug/l	80.0	0.060	97	70-130			
Selenium	76.3	2.0	0.30	ug/l	80.0	ND	95	70-130			
Silver	76.9	1.0	0.025	ug/l	80.0	ND	96	70-130			
Thallium	74.6	1.0	0.15	ug/l	80.0	0.20	93	70-130			
<b>Matrix Spike Dup Analyzed: 09/19/2006 (6I18071-MSD1)</b>						<b>Source: IPI1509-01</b>					
Antimony	80.3	2.0	0.050	ug/l	80.0	0.15	100	70-130	0	20	
Cadmium	80.9	1.0	0.025	ug/l	80.0	ND	101	70-130	0	20	
Copper	78.1	2.0	0.25	ug/l	80.0	3.3	94	70-130	5	20	
Lead	77.9	1.0	0.040	ug/l	80.0	0.088	97	70-130	0	20	
Selenium	76.4	2.0	0.30	ug/l	80.0	ND	96	70-130	1	20	
Silver	77.7	1.0	0.025	ug/l	80.0	ND	97	70-130	0	20	
Thallium	82.4	1.0	0.15	ug/l	80.0	0.19	103	70-130	4	20	

### **Batch: 6I18075 Extracted: 09/18/06**

#### **Blank Analyzed: 09/20/2006 (6I18075-BLK1)**

Arsenic	ND	5.0	4.4	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Zinc	ND	20	15	ug/l							

**TestAmerica - Irvine, CA**  
Amy Windham For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I18075 Extracted: 09/18/06</b>											
<b>LCS Analyzed: 09/20/2006 (6I18075-BS1)</b>											
Arsenic	484	5.0	4.4	ug/l	500		97	85-115			
Beryllium	473	2.0	0.90	ug/l	500		95	85-115			
Chromium	480	5.0	2.0	ug/l	500		96	85-115			
Iron	0.491	0.040	0.015	mg/l	0.500		98	85-115			
Manganese	479	20	7.0	ug/l	500		96	85-115			
Nickel	475	10	2.0	ug/l	500		95	85-115			
Zinc	483	20	15	ug/l	500		97	85-115			
<b>Matrix Spike Analyzed: 09/20/2006 (6I18075-MS1) Source: IPI1294-01</b>											
Arsenic	500	5.0	4.4	ug/l	500	4.7	99	70-130			
Beryllium	493	2.0	0.90	ug/l	500	ND	99	70-130			
Chromium	472	5.0	2.0	ug/l	500	ND	94	70-130			
Iron	0.571	0.040	0.015	mg/l	0.500	0.095	95	70-130			
Manganese	534	20	7.0	ug/l	500	50	97	70-130			
Nickel	465	10	2.0	ug/l	500	ND	93	70-130			
Zinc	478	20	15	ug/l	500	ND	96	70-130			
<b>Matrix Spike Analyzed: 09/20/2006 (6I18075-MS2) Source: IPI1298-01</b>											
Arsenic	498	5.0	4.4	ug/l	500	4.9	99	70-130			
Beryllium	486	2.0	0.90	ug/l	500	ND	97	70-130			
Chromium	473	5.0	2.0	ug/l	500	ND	95	70-130			
Iron	0.635	0.040	0.015	mg/l	0.500	0.15	97	70-130			
Manganese	576	20	7.0	ug/l	500	100	95	70-130			
Nickel	467	10	2.0	ug/l	500	2.0	93	70-130			
Zinc	480	20	15	ug/l	500	ND	96	70-130			
<b>Matrix Spike Dup Analyzed: 09/20/2006 (6I18075-MSD1) Source: IPI1294-01</b>											
Arsenic	492	5.0	4.4	ug/l	500	4.7	97	70-130	2	20	
Beryllium	480	2.0	0.90	ug/l	500	ND	96	70-130	3	20	
Chromium	475	5.0	2.0	ug/l	500	ND	95	70-130	1	20	
Iron	0.566	0.040	0.015	mg/l	0.500	0.095	94	70-130	1	20	
Manganese	524	20	7.0	ug/l	500	50	95	70-130	2	20	
Nickel	459	10	2.0	ug/l	500	ND	92	70-130	1	20	
Zinc	475	20	15	ug/l	500	ND	95	70-130	1	20	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1296

Sampled: 09/14/06  
Received: 09/14/06

## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I15121 Extracted: 09/15/06</b>											
<b>Blank Analyzed: 09/23/2006 (6I15121-BLK1)</b>											
Arsenic	ND	5.0	4.4	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Zinc	ND	20	15	ug/l							
<b>LCS Analyzed: 09/23/2006 (6I15121-BS1)</b>											
Arsenic	1040	5.0	4.4	ug/l	1000		104	85-115			
Beryllium	1040	2.0	0.90	ug/l	1000		104	85-115			
Chromium	1020	5.0	2.0	ug/l	1000		102	85-115			
Iron	1.03	0.040	0.015	mg/l	1.00		103	85-115			
Manganese	1030	20	7.0	ug/l	1000		103	85-115			
Nickel	1020	10	2.0	ug/l	1000		102	85-115			
Zinc	1040	20	15	ug/l	1000		104	85-115			
<b>Matrix Spike Analyzed: 09/23/2006 (6I15121-MS1) Source: IPI1286-01</b>											
Arsenic	1050	5.0	4.4	ug/l	1000	6.3	104	70-130			
Beryllium	1040	2.0	0.90	ug/l	1000	ND	104	70-130			
Chromium	1010	5.0	2.0	ug/l	1000	ND	101	70-130			
Iron	1.04	0.040	0.015	mg/l	1.00	0.032	101	70-130			
Manganese	1060	20	7.0	ug/l	1000	49	101	70-130			
Nickel	993	10	2.0	ug/l	1000	2.3	99	70-130			
Zinc	1030	20	15	ug/l	1000	36	99	70-130			
<b>Matrix Spike Dup Analyzed: 09/23/2006 (6I15121-MSD1) Source: IPI1286-01</b>											
Arsenic	1070	5.0	4.4	ug/l	1000	6.3	106	70-130	2	20	
Beryllium	1060	2.0	0.90	ug/l	1000	ND	106	70-130	2	20	
Chromium	1030	5.0	2.0	ug/l	1000	ND	103	70-130	2	20	
Iron	1.06	0.040	0.015	mg/l	1.00	0.032	103	70-130	2	20	
Manganese	1070	20	7.0	ug/l	1000	49	102	70-130	1	20	
Nickel	1020	10	2.0	ug/l	1000	2.3	102	70-130	3	20	
Zinc	1050	20	15	ug/l	1000	36	101	70-130	2	20	

TestAmerica - Irvine, CA  
Amy Windham For Michele Chamberlin  
Project Manager



MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I18073 Extracted: 09/18/06</b>											
<b>Blank Analyzed: 09/18/2006 (6I18073-BLK1)</b>											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Copper	0.303	2.0	0.25	ug/l							J
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
<b>LCS Analyzed: 09/18/2006 (6I18073-BS1)</b>											
Antimony	74.5	2.0	0.050	ug/l	80.0		93	85-115			
Cadmium	74.9	1.0	0.025	ug/l	80.0		94	85-115			
Copper	79.0	2.0	0.25	ug/l	80.0		99	85-115			
Lead	80.4	1.0	0.040	ug/l	80.0		100	85-115			
Selenium	77.2	2.0	0.30	ug/l	80.0		96	85-115			
Silver	77.2	1.0	0.025	ug/l	80.0		96	85-115			
Thallium	80.8	1.0	0.15	ug/l	80.0		101	85-115			
<b>Matrix Spike Analyzed: 09/18/2006 (6I18073-MS1) Source: IPI1226-01</b>											
Antimony	74.1	2.0	0.050	ug/l	80.0	0.22	92	70-130			
Cadmium	68.4	1.0	0.025	ug/l	80.0	0.096	85	70-130			
Copper	73.2	2.0	0.25	ug/l	80.0	6.8	83	70-130			
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130			
Selenium	76.1	2.0	0.30	ug/l	80.0	6.1	88	70-130			
Silver	69.4	1.0	0.025	ug/l	80.0	ND	87	70-130			
Thallium	74.8	1.0	0.15	ug/l	80.0	ND	94	70-130			
<b>Matrix Spike Analyzed: 09/18/2006 (6I18073-MS2) Source: IPI1286-01</b>											
Antimony	76.7	2.0	0.050	ug/l	80.0	1.0	95	70-130			
Cadmium	73.5	1.0	0.025	ug/l	80.0	ND	92	70-130			
Copper	74.3	2.0	0.25	ug/l	80.0	6.1	85	70-130			
Lead	76.3	1.0	0.040	ug/l	80.0	0.093	95	70-130			
Selenium	73.8	2.0	0.30	ug/l	80.0	0.77	91	70-130			
Silver	74.5	1.0	0.025	ug/l	80.0	ND	93	70-130			
Thallium	76.5	1.0	0.15	ug/l	80.0	0.36	95	70-130			

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I18073 Extracted: 09/18/06</b>											
<b>Matrix Spike Dup Analyzed: 09/18/2006 (6I18073-MSD1)</b>						<b>Source: IPI1226-01</b>					
Antimony	75.1	2.0	0.050	ug/l	80.0	0.22	94	70-130	1	20	
Cadmium	69.1	1.0	0.025	ug/l	80.0	0.096	86	70-130	1	20	
Copper	71.7	2.0	0.25	ug/l	80.0	6.8	81	70-130	2	20	
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130	0	20	
Selenium	77.3	2.0	0.30	ug/l	80.0	6.1	89	70-130	2	20	
Silver	70.2	1.0	0.025	ug/l	80.0	ND	88	70-130	1	20	
Thallium	74.4	1.0	0.15	ug/l	80.0	ND	93	70-130	1	20	
<b>Batch: 6I18082 Extracted: 09/18/06</b>											
<b>Blank Analyzed: 09/18/2006 (6I18082-BLK1)</b>											
Mercury	ND	0.20	0.15	ug/l							
<b>LCS Analyzed: 09/18/2006 (6I18082-BS1)</b>											
Mercury	8.42	0.20	0.15	ug/l	8.00		105	85-115			
<b>Matrix Spike Analyzed: 09/18/2006 (6I18082-MS1)</b>						<b>Source: IPI1321-01</b>					
Mercury	8.28	0.20	0.15	ug/l	8.00	ND	104	70-130			
<b>Matrix Spike Dup Analyzed: 09/18/2006 (6I18082-MSD1)</b>						<b>Source: IPI1321-01</b>					
Mercury	8.17	0.20	0.15	ug/l	8.00	ND	102	70-130	1	20	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I14043 Extracted: 09/14/06</b>											
<b>Blank Analyzed: 09/14/2006 (6I14043-BLK1)</b>											
Nitrate-N	ND	0.15	0.080	mg/l							
Nitrite-N	ND	0.15	0.080	mg/l							
Nitrate/Nitrite-N	ND	0.15	0.080	mg/l							
Sulfate	ND	0.50	0.45	mg/l							
<b>LCS Analyzed: 09/14/2006 (6I14043-BS1)</b>											
Nitrate-N	1.04	0.15	0.080	mg/l	1.13		92	90-110			
Nitrite-N	1.62	0.15	0.080	mg/l	1.52		107	90-110			
Sulfate	10.9	0.50	0.45	mg/l	10.0		109	90-110			
<b>Matrix Spike Analyzed: 09/14/2006 (6I14043-MS1) Source: IPI1252-03</b>											
Nitrate-N	4.09	0.30	0.16	mg/l	1.13	3.1	88	80-120			
Nitrite-N	1.62	0.30	0.16	mg/l	1.52	ND	107	80-120			
Sulfate	85.5	1.0	0.90	mg/l	10.0	75	105	80-120			M-HA
<b>Matrix Spike Dup Analyzed: 09/14/2006 (6I14043-MSD1) Source: IPI1252-03</b>											
Nitrate-N	4.06	0.30	0.16	mg/l	1.13	3.1	85	80-120	1	20	
Nitrite-N	1.60	0.30	0.16	mg/l	1.52	ND	105	80-120	1	20	
Sulfate	84.7	1.0	0.90	mg/l	10.0	75	97	80-120	1	20	M-HA
<b>Batch: 6I15082 Extracted: 09/15/06</b>											
<b>Duplicate Analyzed: 09/15/2006 (6I15082-DUP1) Source: IPI1268-01</b>											
pH	6.87	NA	N/A	pH Units		6.85			0	5	
<b>Duplicate Analyzed: 09/15/2006 (6I15082-DUP2) Source: IPI1293-01</b>											
pH	7.55	NA	N/A	pH Units		7.54			0	5	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 6I15115 Extracted: 09/15/06</u></b>											
<b>Blank Analyzed: 09/15/2006 (6I15115-BLK1)</b>											
Turbidity	ND	1.0	0.040	NTU							
<b>Duplicate Analyzed: 09/15/2006 (6I15115-DUP1)</b>											
Turbidity	3.33	1.0	0.040	NTU		3.4			2	20	
<b>Duplicate Analyzed: 09/15/2006 (6I15115-DUP2)</b>											
Turbidity	1.63	1.0	0.040	NTU		1.6			2	20	
<b><u>Batch: 6I16001 Extracted: 09/16/06</u></b>											
<b>Blank Analyzed: 09/16/2006 (6I16001-BLK1)</b>											
Oil & Grease	ND	5.0	0.94	mg/l							
<b>LCS Analyzed: 09/16/2006 (6I16001-BS1)</b>											
Oil & Grease	17.9	5.0	0.94	mg/l	20.0		90	65-120			M-NRI
<b>LCS Dup Analyzed: 09/16/2006 (6I16001-BSD1)</b>											
Oil & Grease	18.1	5.0	0.94	mg/l	20.0		90	65-120	1	20	
<b><u>Batch: 6I16057 Extracted: 09/16/06</u></b>											
<b>Blank Analyzed: 09/16/2006 (6I16057-BLK1)</b>											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
<b>LCS Analyzed: 09/16/2006 (6I16057-BS1)</b>											
Ammonia-N (Distilled)	10.9	0.50	0.30	mg/l	10.0		109	80-115			

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 6I16057 Extracted: 09/16/06</u></b>											
<b>Matrix Spike Analyzed: 09/16/2006 (6I16057-MS1)</b>						<b>Source: IPI1286-01</b>					
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120			
<b>Matrix Spike Dup Analyzed: 09/16/2006 (6I16057-MSD1)</b>						<b>Source: IPI1286-01</b>					
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120	0	15	
<b><u>Batch: 6I18059 Extracted: 09/18/06</u></b>											
<b>Duplicate Analyzed: 09/18/2006 (6I18059-DUP1)</b>						<b>Source: IPI1351-01</b>					
Specific Conductance	2030	1.0	N/A	umhos/cm		2000			1	5	
<b><u>Batch: 6I18061 Extracted: 09/18/06</u></b>											
<b>Blank Analyzed: 09/18/2006 (6I18061-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 09/18/2006 (6I18061-BS1)</b>											
Total Dissolved Solids	994	10	10	mg/l	1000		99	90-110			
<b>Duplicate Analyzed: 09/18/2006 (6I18061-DUP1)</b>						<b>Source: IPI1321-01</b>					
Total Dissolved Solids	343	10	10	mg/l		350			2	10	
<b><u>Batch: 6I18075 Extracted: 09/18/06</u></b>											
<b>Blank Analyzed: 09/20/2006 (6I18075-BLK1)</b>											
Hardness (as CaCO3)	ND	1.0	1.0	mg/l							

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 6I20071 Extracted: 09/20/06</u></b>											
<b>Duplicate Analyzed: 09/20/2006 (6I20071-DUP1)</b>						<b>Source: IPI1125-01</b>					
Alkalinity as CaCO3	348	2.0	2.0	mg/l		350			1	20	
<b>Reference Analyzed: 09/20/2006 (6I20071-SRM1)</b>											
Alkalinity as CaCO3	224	2.0	2.0	mg/l	231		97	90-110			
<b><u>Batch: 6I20101 Extracted: 09/20/06</u></b>											
<b>Blank Analyzed: 09/20/2006 (6I20101-BLK1)</b>											
Total Kjeldahl Nitrogen	ND	0.50	0.43	mg/l							
<b>LCS Analyzed: 09/20/2006 (6I20101-BS1)</b>											
Total Kjeldahl Nitrogen	19.6	0.50	0.43	mg/l	20.0		98	85-120			
<b>LCS Dup Analyzed: 09/20/2006 (6I20101-BSD1)</b>											
Total Kjeldahl Nitrogen	19.9	0.50	0.43	mg/l	20.0		100	85-120	2	15	
<b>Matrix Spike Analyzed: 09/20/2006 (6I20101-MS1)</b>						<b>Source: IPI1210-01</b>					
Total Kjeldahl Nitrogen	10.6	0.50	0.43	mg/l	10.0	0.84	98	85-120			
<b>Matrix Spike Dup Analyzed: 09/20/2006 (6I20101-MSD1)</b>						<b>Source: IPI1210-01</b>					
Total Kjeldahl Nitrogen	11.2	0.50	0.43	mg/l	10.0	0.84	104	85-120	6	15	
<b><u>Batch: 6I20129 Extracted: 09/20/06</u></b>											
<b>Blank Analyzed: 09/20/2006 (6I20129-BLK1)</b>											
Total Suspended Solids	ND	10	10	mg/l							

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 6I20129 Extracted: 09/20/06</u></b>											
<b>LCS Analyzed: 09/20/2006 (6I20129-BS1)</b>											
Total Suspended Solids	1010	10	10	mg/l	1000		101	85-115			
<b>Duplicate Analyzed: 09/20/2006 (6I20129-DUP1)</b>											
Total Suspended Solids	396	10	10	mg/l		330			18	10	R-3
<b><u>Batch: 6I20145 Extracted: 09/20/06</u></b>											
<b>Blank Analyzed: 09/20/2006 (6I20145-BLK1)</b>											
Total Organic Carbon	ND	1.0	0.25	mg/l							
<b>LCS Analyzed: 09/20/2006 (6I20145-BS1)</b>											
Total Organic Carbon	10.7	1.0	0.25	mg/l	10.0		107	90-110			
<b>Matrix Spike Analyzed: 09/20/2006 (6I20145-MS1)</b>											
Total Organic Carbon	6.34	1.0	0.25	mg/l	5.00	1.5	97	80-120			
<b>Matrix Spike Dup Analyzed: 09/20/2006 (6I20145-MSD1)</b>											
Total Organic Carbon	6.52	1.0	0.25	mg/l	5.00	1.5	100	80-120	3	20	
<b><u>Batch: 6I22108 Extracted: 09/22/06</u></b>											
<b>Duplicate Analyzed: 09/22/2006 (6I22108-DUP1)</b>											
Density	0.999	NA	N/A	g/cc		1.0			0	20	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1296

Sampled: 09/14/06  
Received: 09/14/06

## DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M-HA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- M-NR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- R-3** The RPD exceeded the method control limit due to sample matrix effects.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

**TestAmerica - Irvine, CA**  
Amy Windham For Michele Chamberlin  
Project Manager



MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1296

Sampled: 09/14/06  
 Received: 09/14/06

## Certification Summary

### TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
1613A/1613B	Water		
ASTM D3977	Water		
Displacement	Water		
EPA 120.1	Water	X	X
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 310.1	Water	X	X
EPA 350.2	Water		X
EPA 351.3	Water		
EPA 413.1	Water	X	X
EPA 415.1	Water	X	X
Filtration	Water	N/A	N/A
SM2340B	Water	X	X
SM2540C	Water	X	X

*Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at [www.testamericainc.com](http://www.testamericainc.com)*

### Subcontracted Laboratories

**Alta Analytical** NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta

Samples: IPI1296-01

### TestAmerica - Irvine, CA

Amy Windham For Michele Chamberlin  
 Project Manager

IPI 1296

Client Name/Address: **MWH-Pasadena**  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101

Project: **Boeing-SSFL BMP/NPDES R-2A Pond Filtration Pilot Test**

Project Manager: **Bronwyn Kelly**  
 Phone Number: (626) 568-6691  
 Fax Number: (626) 568-6515

Sampler: **BAIA GR**

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals: As, Ag, Be, Cd, Cr, Cu, Pb, Hg, Ni, Mn, Sb, Se, Ti, Fe, Zn, Hardness	Total Dissolved Solids, pH, Alkalinity, Suspended Sediments Concentration (ASTM Method)	Total Organic Carbon	Oil & Grease (EPA 413.1)	Total Kjeldahl Nitrogen	SO <sub>4</sub> , NO <sub>3</sub> +NO <sub>2</sub> -N, Nitrate-N, Nitrite-N (NO <sub>3</sub> + NO <sub>2</sub> -N)	Turbidity, TSS, Conductivity	Ammonia-N (NH <sub>3</sub> -N)	Total Dissolved Metals: As, Ag, Be, Cd, Cr, Cu, Pb, Hg, Ni, Mn, Sb, Se, Ti, Fe, Zn	TCDD (and all congeners)	Field readings: Temp = 68, pH = 7.1	Comments
AC-EFF	W	Poly-1L	1	9/14/06 1500	HNO3	1	X	X										
AC-EFF	W	Poly-1L	1		None	2		X										
AC-EFF	W	VOAs	2		HCl	3A, 3B			X									
AC-EFF	W	1L Amber	2		HCl	4A, 4B			X									
AC-EFF	W	Poly-500 ml	1		H2SO4	5				X								
AC-EFF	W	Poly-500 ml	1		None	6					X							
AC-EFF	W	Poly-500 ml	2		None	7A, 7B						X						
AC-EFF	W	Poly-500 ml	1		H2SO4	8								X				
AC-EFF	W	Poly-1L	1		None	9									X			
AC-EFF	W	1L Amber	2		None	10A, 10B										X		

Relinquished By: *[Signature]* Date/Time: 9-14-06 1500  
 Received By: *[Signature]* Date/Time: 9-14-06 1500

Relinquished By: *[Signature]* Date/Time: 9-14-06 1815  
 Received By: *[Signature]* Date/Time: 9-14-06 1815

Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Turn around Time: (check)  
 24 Hours \_\_\_\_\_ 5 Days \_\_\_\_\_  
 48 Hours \_\_\_\_\_ 10 Days \_\_\_\_\_  
 72 Hours \_\_\_\_\_ Normal \_\_\_\_\_

Perchlorate Only 72 Hours \_\_\_\_\_  
 Metals Only 72 Hours \_\_\_\_\_

Sample Integrity: (Check) On Ice: 6  
 Intact X

*[Signature]*



October 05, 2006

**Alta Project I.D.: 28118**

Ms. Michele Chamberlin  
Test America-Irvine  
17461 Derian Avenue  
Suite 100  
Irvine, CA 92614

Dear Ms. Chamberlin,

Enclosed are the results for the one aqueous sample received at Alta Analytical Laboratory on September 18, 2006 under your Project Name "IPI1296". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Alta's current certifications, and copies of the raw data (if requested).

Alta Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-933-1640 or by email at [mmaier@altalab.com](mailto:mmaier@altalab.com). Thank you for choosing Alta as part of your analytical support team.

Sincerely,

Martha M. Maier  
Director of HRMS Services



*Alta Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. This report should not be reproduced except in full without the written approval of ALTA.*



**Alta Analytical Laboratory, Inc.**

1104 Windfield Way  
El Dorado Hills, CA 95762

(916) 933-1640  
FAX (916) 673-0106

**Section I: Sample Inventory Report**

**Date Received: 9/18/2006**

Alta Lab. ID

Client Sample ID

28118-001

IPI1296-01

## SECTION II

Method Blank					EPA Method 1613				
Matrix:	Aqueous	QC Batch No.:	8402	Lab Sample:	0-MB001	Date Analyzed DB-5:	29-Sep-06	Date Analyzed DB-225:	NA
Sample Size:	1.00 L	Date Extracted:	22-Sep-06						
Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers	
2,3,7,8-TCDD	ND	0.000000917			<b>IS</b> 13C-2,3,7,8-TCDD	85.7	25 - 164		
1,2,3,7,8-PeCDD	ND	0.00000246			13C-1,2,3,7,8-PeCDD	81.4	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.00000113			13C-1,2,3,4,7,8-HxCDD	81.8	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.00000124			13C-1,2,3,6,7,8-HxCDD	70.4	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.00000115			13C-1,2,3,4,6,7,8-HpCDD	76.2	23 - 140		
1,2,3,4,6,7,8-HpCDD	ND	0.000000961			13C-OCDD	75.7	17 - 157		
OCDD	0.00000329			J	13C-2,3,7,8-TCDF	86.7	24 - 169		
2,3,7,8-TCDF	ND	0.000000846			13C-1,2,3,7,8-PeCDF	80.1	24 - 185		
1,2,3,7,8-PeCDF	ND	0.00000165			13C-2,3,4,7,8-PeCDF	82.3	21 - 178		
2,3,4,7,8-PeCDF	ND	0.00000154			13C-1,2,3,4,7,8-HxCDF	98.1	26 - 152		
1,2,3,4,7,8-HxCDF	ND	0.000000391			13C-1,2,3,6,7,8-HxCDF	84.6	26 - 123		
1,2,3,6,7,8-HxCDF	ND	0.000000400			13C-2,3,4,6,7,8-HxCDF	81.8	28 - 136		
2,3,4,6,7,8-HxCDF	ND	0.000000452			13C-1,2,3,7,8,9-HxCDF	82.1	29 - 147		
1,2,3,7,8,9-HxCDF	ND	0.000000647			13C-1,2,3,4,6,7,8-HpCDF	75.5	28 - 143		
1,2,3,4,6,7,8-HpCDF	ND	0.000000711			13C-1,2,3,4,7,8,9-HpCDF	83.2	26 - 138		
1,2,3,4,7,8,9-HpCDF	ND	0.000000661			13C-OCDF	75.9	17 - 157		
OCDF	ND	0.00000198			<b>CRS</b> 37Cl-2,3,7,8-TCDD	98.4	35 - 197		
Totals					Footnotes				
Total TCDD	ND	0.000000917			a. Sample specific estimated detection limit.				
Total PeCDD	ND	0.00000246			b. Estimated maximum possible concentration.				
Total HxCDD	ND	0.00000118			c. Method detection limit.				
Total HpCDD	ND	0.000000961			d. Lower control limit - upper control limit.				
Total TCDF	ND	0.000000846							
Total PeCDF	ND	0.00000159							
Total HxCDF	ND	0.000000461							
Total HpCDF	ND	0.000000687							

Analyst: RAS

Approved By: William J. Luksemburg 05-Oct-2006 11:27

OPR Results				EPA Method 1613			
Matrix:	Aqueous	QC Batch No.:	8402	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	22-Sep-06	Date Analyzed DB-5:	29-Sep-06	Date Analyzed DB-225:	NA
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	
2,3,7,8-TCDD	10.0	10.5	6.7 - 15.8	<b>IS</b> 13C-2,3,7,8-TCDD	80.9	25 - 164	
1,2,3,7,8-PeCDD	50.0	48.2	35 - 71	13C-1,2,3,7,8-PeCDD	73.2	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	49.6	35 - 82	13C-1,2,3,4,7,8-HxCDD	68.8	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	48.1	38 - 67	13C-1,2,3,6,7,8-HxCDD	58.9	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	46.9	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	61.8	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	49.8	35 - 70	13C-OCDD	61.4	17 - 157	
OCDD	100	96.7	78 - 144	13C-2,3,7,8-TCDF	83.8	24 - 169	
2,3,7,8-TCDF	10.0	9.95	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	72.5	24 - 185	
1,2,3,7,8-PeCDF	50.0	50.2	40 - 67	13C-2,3,4,7,8-PeCDF	75.8	21 - 178	
2,3,4,7,8-PeCDF	50.0	51.2	34 - 80	13C-1,2,3,4,7,8-HxCDF	77.4	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	50.2	36 - 67	13C-1,2,3,6,7,8-HxCDF	66.1	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	48.7	42 - 65	13C-2,3,4,6,7,8-HxCDF	68.4	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	48.5	35 - 78	13C-1,2,3,7,8,9-HxCDF	66.5	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	50.6	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	61.0	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	49.1	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	66.9	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	48.4	39 - 69	13C-OCDF	63.4	17 - 157	
OCDF	100	102	63 - 170	<b>CRS</b> 37Cl-2,3,7,8-TCDD	101	35 - 197	

Analyst: RAS

Approved By: William J. Luksemburg 05-Oct-2006 11:27

Sample ID: IPI1296-01					EPA Method 1613			
Client Data			Sample Data		Laboratory Data			
Name:	Test America-Irvine		Matrix:	Aqueous	Lab Sample:	28118-001	Date Received:	18-Sep-06
Project:	IPI1296		Sample Size:	1.04 L	QC Batch No.:	8402	Date Extracted:	22-Sep-06
Date Collected:	14-Sep-06				Date Analyzed DB-5:	29-Sep-06	Date Analyzed DB-225:	NA
Time Collected:	0825							
Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers
2,3,7,8-TCDD	ND	0.00000104			<b>IS</b> 13C-2,3,7,8-TCDD	75.1	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000192			13C-1,2,3,7,8-PeCDD	69.3	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000162			13C-1,2,3,4,7,8-HxCDD	70.4	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000175			13C-1,2,3,6,7,8-HxCDD	60.4	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000163			13C-1,2,3,4,6,7,8-HpCDD	64.4	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.00000420			J	13C-OCDD	66.8	17 - 157	
OCDD	0.0000314			J,B	13C-2,3,7,8-TCDF	69.3	24 - 169	
2,3,7,8-TCDF	ND	0.00000118			13C-1,2,3,7,8-PeCDF	68.7	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000183			13C-2,3,4,7,8-PeCDF	69.4	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000167			13C-1,2,3,4,7,8-HxCDF	81.1	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000569			13C-1,2,3,6,7,8-HxCDF	80.9	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000459			13C-2,3,4,6,7,8-HxCDF	68.1	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000000668			13C-1,2,3,7,8,9-HxCDF	69.6	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.000000898			13C-1,2,3,4,6,7,8-HpCDF	63.6	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.000000916			13C-1,2,3,4,7,8,9-HpCDF	72.6	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.000000857			13C-OCDF	68.3	17 - 157	
OCDF	ND	0.00000280			<b>CRS</b> 37Cl-2,3,7,8-TCDD	108	35 - 197	
Totals					Footnotes			
Total TCDD	ND	0.00000104			a. Sample specific estimated detection limit.			
Total PeCDD	ND		0.00000159		b. Estimated maximum possible concentration.			
Total HxCDD	ND	0.00000167			c. Method detection limit.			
Total HpCDD	0.00000881				d. Lower control limit - upper control limit.			
Total TCDF	ND	0.00000118						
Total PeCDF	ND	0.00000175						
Total HxCDF	ND	0.000000624						
Total HpCDF	ND	0.000000888						

Analyst: RAS

Approved By: William J. Luksemburg 05-Oct-2006 11:27



## **APPENDIX**

## DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
E	The reported value exceeds the calibration range of the instrument.
H	The signal-to-noise ratio is greater than 10:1.
I	Chemical interference
J	The amount detected is below the Lower Calibration Limit of the instrument.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated Detection Limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that corresponds to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

## CERTIFICATIONS

<b>Accrediting Authority</b>	<b>Certificate Number</b>
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

# TestAmerica

ANALYTICAL TESTING CORPORATION

## SUBCONTRACT ORDER - PROJECT # IPI1296

### SENDING LABORATORY:

TestAmerica - Irvine, CA  
17461 Derian Avenue, Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Michele Chamberlin

### RECEIVING LABORATORY:

Alta Analytical  
1104 Windfield Way  
El Dorado Hills, CA 95762  
Phone : (916) 933-1640  
Fax: (916) 673-0106

28118

14.7°C

Standard TAT is requested unless specific due date is requested => Due Date: \_\_\_\_\_ Initials: \_\_\_\_\_

Analysis	Expiration	Comments
Sample ID: IPI1296-01 1613-Dioxin-HR-Alta	Water 09/21/06 08:25	Sampled: 09/14/06 08:25 J flags, 17 cngnrs, no TEQ, ug/L, sub=Alta, Boeing EDD

### Containers Supplied:

- 1 L Amber (IPI1296-01M)
- 1 L Amber (IPI1296-01N)

### SAMPLE INTEGRITY:

All containers intact:  Yes  No      Sample labels/COC agree:  Yes  No      Samples Received On Ice:  Yes  No  
Custody Seals Present:  Yes  No      Samples Preserved Properly:  Yes  No      Samples Received at (temp): \_\_\_\_\_

Released By: \_\_\_\_\_ Date: 9/15/06 Time: \_\_\_\_\_ Received By: Bettina G. Benedict Date: 9/18/06 Time: 0948

Released By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

### SAMPLE LOG-IN CHECKLIST

Alta Project #: 28118

TAT Standard

Samples Arrival:	Date/Time <u>9/18/06 0848</u>	Initials: <u>BSB</u>	Location: <u>WR-2</u>			
			Shelf/Rack: <u>N/A</u>			
Logged In:	Date/Time <u>9/18/06 1332</u>	Initials: <u>BSB</u>	Location: <u>WR-2</u>			
			Shelf/Rack: <u>C-4</u>			
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> Cal	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Other
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice	<input type="checkbox"/> None		
Temp °C	<u>14.7</u>	Time:	<u>0910</u>	Thermometer ID: DT-20		

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill	Trk # <u>7911 2401 9160</u>		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?	✓		
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Preservation Documented?		COC	Sample Container <u>None</u>
Shipping Container	Alta	<u>Client</u>	Retain <u>Return</u> Dispose

Comments:

Chain of Custody Anomaly/Sample Acceptance Form

Client: Test America-Irvine
Contact: Michele Chamberlin
Fax Number: 949-2611228

Project Number 28118
Date Received: Sep 18 2006
Documented by/date: VBB 9/18/06

Please review the following information and complete the Client Authorization section. To comply with NELAC regulations, we must receive authorization before proceeding with sample analysis.

Thank You. ( Fax # 916-673-0106 )

The following information or item is needed to proceed with analysis:

- Complete Chain-of-Custody
Test Method Requested
Analyte List Requested
Preservative
Sample Identification
Sample Collection Date / Time
Collector's Name
Sample Type
Sample Location

The following anomalies were noted. Authorization is needed to proceed with the analysis.

Temperature outside +/-2C range Samples Affected: All
Temperature outside 14.7 C Ice present? Yes No
Sample ID Discrepancy Samples Affected
Sample holding time missed Samples Affected
Custody seals broken Samples Affected
Insufficient Sample Size Samples Affected
Sample Container(s) Broken Samples Affected
Incorrect Container Type Samples Affected
Other

Client Authorization

Proceed With Analysis: YES NO Signature and Date [Signature] 9/19/06

Client Comments/Instructions: proceed per M. Chamberlin by email

ALTA Analytical Laboratory
El Dorado Hills, CA 96762

**LABORATORY REPORT**

Prepared For: MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test

Sampled: 09/14/06  
Received: 09/14/06  
Issued: 09/28/06 17:49

NELAP #01108CA California ELAP#1197 CSDLAC #10256

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.*

*This entire report was reviewed and approved for release.*

**SAMPLE CROSS REFERENCE**

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

**LABORATORY ID**

IPI1297-01

**CLIENT ID**

PT-INF

**MATRIX**

Water

Reviewed By:



**TestAmerica - Irvine, CA**  
Amy Windham For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1297-01 (PT-INF - Water)</b>									
Reporting Units: mg/l									
Iron	EPA 200.7	6118075	0.015	0.040	<b>0.35</b>	1	09/18/06	09/20/06	
<b>Sample ID: IPI1297-01 (PT-INF - Water)</b>									
Reporting Units: ug/l									
Antimony	EPA 200.8	6118071	0.050	2.0	<b>0.43</b>	1	09/18/06	09/18/06	J
Arsenic	EPA 200.7	6118075	4.4	5.0	<b>4.5</b>	1	09/18/06	09/20/06	J
Beryllium	EPA 200.7	6118075	0.90	2.0	ND	1	09/18/06	09/20/06	
Cadmium	EPA 200.8	6118071	0.025	1.0	ND	1	09/18/06	09/18/06	
Chromium	EPA 200.7	6118075	2.0	5.0	ND	1	09/18/06	09/20/06	
Copper	EPA 200.8	6118071	0.25	2.0	<b>2.5</b>	1	09/18/06	09/18/06	B
Lead	EPA 200.8	6118071	0.040	1.0	<b>0.27</b>	1	09/18/06	09/19/06	J
Manganese	EPA 200.7	6118075	7.0	20	<b>110</b>	1	09/18/06	09/20/06	
Mercury	EPA 245.1	6115062	0.15	0.20	ND	1	09/15/06	09/15/06	
Nickel	EPA 200.7	6118075	2.0	10	ND	1	09/18/06	09/20/06	
Selenium	EPA 200.8	6118071	0.30	2.0	<b>0.60</b>	1	09/18/06	09/18/06	J
Silver	EPA 200.8	6118071	0.025	1.0	ND	1	09/18/06	09/18/06	
Thallium	EPA 200.8	6118071	0.15	1.0	ND	1	09/18/06	09/19/06	
Zinc	EPA 200.7	6118075	15	20	ND	1	09/18/06	09/20/06	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager



MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1297-01 (PT-INF - Water) - cont.</b>									
Reporting Units: mg/l									
Iron	EPA 200.7-Diss	6115121	0.015	0.040	ND	1	09/15/06	09/23/06	
<b>Sample ID: IPI1297-01 (PT-INF - Water)</b>									
Reporting Units: ug/l									
<b>Antimony</b>	EPA 200.8-Diss	6118073	0.050	2.0	<b>0.38</b>	1	09/18/06	09/18/06	J
Arsenic	EPA 200.7-Diss	6115121	4.4	5.0	ND	1	09/15/06	09/23/06	
Beryllium	EPA 200.7-Diss	6115121	0.90	2.0	ND	1	09/15/06	09/23/06	
Cadmium	EPA 200.8-Diss	6118073	0.025	1.0	ND	1	09/18/06	09/18/06	
Chromium	EPA 200.7-Diss	6115121	2.0	5.0	ND	1	09/15/06	09/23/06	
<b>Copper</b>	EPA 200.8-Diss	6118073	0.25	2.0	<b>2.1</b>	1	09/18/06	09/18/06	B
Lead	EPA 200.8-Diss	6118073	0.040	1.0	ND	1	09/18/06	09/18/06	
Manganese	EPA 200.7-Diss	6115121	7.0	20	ND	1	09/15/06	09/23/06	
Mercury	EPA 245.1-Diss	6118082	0.15	0.20	ND	1	09/18/06	09/18/06	
<b>Nickel</b>	EPA 200.7-Diss	6115121	2.0	10	<b>2.7</b>	1	09/15/06	09/23/06	J
<b>Selenium</b>	EPA 200.8-Diss	6118073	0.30	2.0	<b>0.48</b>	1	09/18/06	09/18/06	J
Silver	EPA 200.8-Diss	6118073	0.025	1.0	ND	1	09/18/06	09/18/06	
Thallium	EPA 200.8-Diss	6118073	0.15	1.0	ND	1	09/18/06	09/18/06	
Zinc	EPA 200.7-Diss	6115121	15	20	ND	1	09/15/06	09/23/06	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1297-01 (PT-INF - Water) - cont.</b>									
Reporting Units: g/cc									
Density	Displacement	6I22108	N/A	NA	<b>0.99</b>	1	09/22/06	09/22/06	
<b>Sample ID: IPI1297-01 (PT-INF - Water)</b>									
Reporting Units: mg/l									
Sediment	ASTM D3977	6I25082	10	10	<b>12</b>	1	09/25/06	09/25/06	
Total Kjeldahl Nitrogen	EPA 351.3	6I20101	0.43	0.50	<b>1.1</b>	1	09/20/06	09/20/06	
Alkalinity as CaCO3	EPA 310.1	6I20071	2.0	2.0	<b>130</b>	1	09/20/06	09/20/06	
Ammonia-N (Distilled)	EPA 350.2	6I16057	0.30	0.50	<b>0.84</b>	1	09/16/06	09/16/06	
Hardness (as CaCO3)	SM2340B	6I18075	1.0	1.0	<b>170</b>	1	09/18/06	09/20/06	
Nitrate-N	EPA 300.0	6I14043	0.080	0.15	ND	1	09/14/06	09/14/06	
Nitrite-N	EPA 300.0	6I14043	0.080	0.15	ND	1	09/14/06	09/14/06	
Nitrate/Nitrite-N	EPA 300.0	6I14043	0.080	0.15	ND	1	09/14/06	09/14/06	
Oil & Grease	EPA 413.1	6I16001	0.90	4.8	ND	1	09/16/06	09/16/06	
Sulfate	EPA 300.0	6I14043	2.2	2.5	<b>89</b>	5	09/14/06	09/15/06	
Total Dissolved Solids	SM2540C	6I18061	10	10	<b>340</b>	1	09/18/06	09/18/06	
Total Organic Carbon	EPA 415.1	6I20145	0.50	1.0	<b>10</b>	1	09/20/06	09/20/06	
Total Suspended Solids	EPA 160.2	6I20129	10	10	<b>12</b>	1	09/20/06	09/20/06	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1297-01 (PT-INF - Water) - cont.</b>									
Reporting Units: NTU									
Turbidity	EPA 180.1	6I15115	0.040	1.0	<b>5.0</b>	1	09/15/06	09/15/06	

**TestAmerica - Irvine, CA**  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1297

Sampled: 09/14/06  
Received: 09/14/06

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1297-01 (PT-INF - Water) - cont.</b>									
Reporting Units: pH Units									
pH	EPA 150.1	6I15082	N/A	NA	7.84	1	09/15/06	09/15/06	

TestAmerica - Irvine, CA  
Amy Windham For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IPI1297-01 (PT-INF - Water) - cont.</b>									
Reporting Units: umhos/cm									
Specific Conductance	EPA 120.1	6118059	N/A	1.0	<b>580</b>	1	09/18/06	09/18/06	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1297

Sampled: 09/14/06  
Received: 09/14/06

## SHORT HOLD TIME DETAIL REPORT

Sample ID: PT-INF (IPI1297-01) - Water	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
EPA 150.1	1	09/14/2006 08:10	09/14/2006 18:15	09/15/2006 09:25	09/15/2006 10:45
EPA 180.1	2	09/14/2006 08:10	09/14/2006 18:15	09/15/2006 14:00	09/15/2006 15:35
EPA 300.0	2	09/14/2006 08:10	09/14/2006 18:15	09/14/2006 21:00	09/14/2006 21:46
Filtration	1	09/14/2006 08:10	09/14/2006 18:15	09/15/2006 16:50	09/15/2006 16:50

TestAmerica - Irvine, CA  
Amy Windham For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I15062 Extracted: 09/15/06</b>											
<b>Blank Analyzed: 09/15/2006 (6I15062-BLK1)</b>											
Mercury	ND	0.20	0.15	ug/l							
<b>LCS Analyzed: 09/15/2006 (6I15062-BS1)</b>											
Mercury	8.40	0.20	0.15	ug/l	8.00		105	85-115			
<b>Matrix Spike Analyzed: 09/15/2006 (6I15062-MS1)</b>											
						<b>Source: IPI1162-01</b>					
Mercury	8.20	0.20	0.15	ug/l	8.00	ND	102	70-130			
<b>Matrix Spike Dup Analyzed: 09/15/2006 (6I15062-MSD1)</b>											
						<b>Source: IPI1162-01</b>					
Mercury	8.24	0.20	0.15	ug/l	8.00	ND	103	70-130	1	20	
<b>Batch: 6I18071 Extracted: 09/18/06</b>											
<b>Blank Analyzed: 09/19/2006 (6I18071-BLK1)</b>											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Copper	0.400	2.0	0.25	ug/l							J
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
<b>LCS Analyzed: 09/19/2006 (6I18071-BS1)</b>											
Antimony	80.1	2.0	0.050	ug/l	80.0		100	85-115			
Cadmium	81.5	1.0	0.025	ug/l	80.0		102	85-115			
Copper	80.5	2.0	0.25	ug/l	80.0		101	85-115			
Lead	82.3	1.0	0.040	ug/l	80.0		103	85-115			
Selenium	80.9	2.0	0.30	ug/l	80.0		101	85-115			
Silver	80.3	1.0	0.025	ug/l	80.0		100	85-115			
Thallium	84.3	1.0	0.15	ug/l	80.0		105	85-115			

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1297

Sampled: 09/14/06  
Received: 09/14/06

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I18071 Extracted: 09/18/06</b>											
<b>Matrix Spike Analyzed: 09/19/2006 (6I18071-MS1)</b>						<b>Source: IPI1509-01</b>					
Antimony	80.6	2.0	0.050	ug/l	80.0	0.15	101	70-130			
Cadmium	80.6	1.0	0.025	ug/l	80.0	ND	101	70-130			
Copper	81.9	2.0	0.25	ug/l	80.0	3.3	98	70-130			
Lead	77.8	1.0	0.040	ug/l	80.0	0.088	97	70-130			
Selenium	77.2	2.0	0.30	ug/l	80.0	ND	96	70-130			
Silver	78.0	1.0	0.025	ug/l	80.0	ND	98	70-130			
Thallium	79.0	1.0	0.15	ug/l	80.0	0.19	99	70-130			
<b>Matrix Spike Analyzed: 09/19/2006 (6I18071-MS2)</b>						<b>Source: IPI1509-02</b>					
Antimony	79.9	2.0	0.050	ug/l	80.0	0.16	100	70-130			
Cadmium	79.5	1.0	0.025	ug/l	80.0	ND	99	70-130			
Copper	86.5	2.0	0.25	ug/l	80.0	0.90	107	70-130			
Lead	77.5	1.0	0.040	ug/l	80.0	0.060	97	70-130			
Selenium	76.3	2.0	0.30	ug/l	80.0	ND	95	70-130			
Silver	76.9	1.0	0.025	ug/l	80.0	ND	96	70-130			
Thallium	74.6	1.0	0.15	ug/l	80.0	0.20	93	70-130			
<b>Matrix Spike Dup Analyzed: 09/19/2006 (6I18071-MSD1)</b>						<b>Source: IPI1509-01</b>					
Antimony	80.3	2.0	0.050	ug/l	80.0	0.15	100	70-130	0	20	
Cadmium	80.9	1.0	0.025	ug/l	80.0	ND	101	70-130	0	20	
Copper	78.1	2.0	0.25	ug/l	80.0	3.3	94	70-130	5	20	
Lead	77.9	1.0	0.040	ug/l	80.0	0.088	97	70-130	0	20	
Selenium	76.4	2.0	0.30	ug/l	80.0	ND	96	70-130	1	20	
Silver	77.7	1.0	0.025	ug/l	80.0	ND	97	70-130	0	20	
Thallium	82.4	1.0	0.15	ug/l	80.0	0.19	103	70-130	4	20	

### **Batch: 6I18075 Extracted: 09/18/06**

#### **Blank Analyzed: 09/20/2006 (6I18075-BLK1)**

Arsenic	ND	5.0	4.4	ug/l
Beryllium	ND	2.0	0.90	ug/l
Chromium	ND	5.0	2.0	ug/l
Iron	ND	0.040	0.015	mg/l
Manganese	ND	20	7.0	ug/l
Nickel	ND	10	2.0	ug/l
Zinc	ND	20	15	ug/l

**TestAmerica - Irvine, CA**  
Amy Windham For Michele Chamberlin  
Project Manager



MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1297

Sampled: 09/14/06  
Received: 09/14/06

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I18075 Extracted: 09/18/06</b>											
<b>LCS Analyzed: 09/20/2006 (6I18075-BS1)</b>											
Arsenic	484	5.0	4.4	ug/l	500		97	85-115			
Beryllium	473	2.0	0.90	ug/l	500		95	85-115			
Chromium	480	5.0	2.0	ug/l	500		96	85-115			
Iron	0.491	0.040	0.015	mg/l	0.500		98	85-115			
Manganese	479	20	7.0	ug/l	500		96	85-115			
Nickel	475	10	2.0	ug/l	500		95	85-115			
Zinc	483	20	15	ug/l	500		97	85-115			
<b>Matrix Spike Analyzed: 09/20/2006 (6I18075-MS1) Source: IPI1294-01</b>											
Arsenic	500	5.0	4.4	ug/l	500	4.7	99	70-130			
Beryllium	493	2.0	0.90	ug/l	500	ND	99	70-130			
Chromium	472	5.0	2.0	ug/l	500	ND	94	70-130			
Iron	0.571	0.040	0.015	mg/l	0.500	0.095	95	70-130			
Manganese	534	20	7.0	ug/l	500	50	97	70-130			
Nickel	465	10	2.0	ug/l	500	ND	93	70-130			
Zinc	478	20	15	ug/l	500	ND	96	70-130			
<b>Matrix Spike Analyzed: 09/20/2006 (6I18075-MS2) Source: IPI1298-01</b>											
Arsenic	498	5.0	4.4	ug/l	500	4.9	99	70-130			
Beryllium	486	2.0	0.90	ug/l	500	ND	97	70-130			
Chromium	473	5.0	2.0	ug/l	500	ND	95	70-130			
Iron	0.635	0.040	0.015	mg/l	0.500	0.15	97	70-130			
Manganese	576	20	7.0	ug/l	500	100	95	70-130			
Nickel	467	10	2.0	ug/l	500	2.0	93	70-130			
Zinc	480	20	15	ug/l	500	ND	96	70-130			
<b>Matrix Spike Dup Analyzed: 09/20/2006 (6I18075-MSD1) Source: IPI1294-01</b>											
Arsenic	492	5.0	4.4	ug/l	500	4.7	97	70-130	2	20	
Beryllium	480	2.0	0.90	ug/l	500	ND	96	70-130	3	20	
Chromium	475	5.0	2.0	ug/l	500	ND	95	70-130	1	20	
Iron	0.566	0.040	0.015	mg/l	0.500	0.095	94	70-130	1	20	
Manganese	524	20	7.0	ug/l	500	50	95	70-130	2	20	
Nickel	459	10	2.0	ug/l	500	ND	92	70-130	1	20	
Zinc	475	20	15	ug/l	500	ND	95	70-130	1	20	

TestAmerica - Irvine, CA  
Amy Windham For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1297

Sampled: 09/14/06  
Received: 09/14/06

## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I15121 Extracted: 09/15/06</b>											
<b>Blank Analyzed: 09/23/2006 (6I15121-BLK1)</b>											
Arsenic	ND	5.0	4.4	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Zinc	ND	20	15	ug/l							
<b>LCS Analyzed: 09/23/2006 (6I15121-BS1)</b>											
Arsenic	1040	5.0	4.4	ug/l	1000		104	85-115			
Beryllium	1040	2.0	0.90	ug/l	1000		104	85-115			
Chromium	1020	5.0	2.0	ug/l	1000		102	85-115			
Iron	1.03	0.040	0.015	mg/l	1.00		103	85-115			
Manganese	1030	20	7.0	ug/l	1000		103	85-115			
Nickel	1020	10	2.0	ug/l	1000		102	85-115			
Zinc	1040	20	15	ug/l	1000		104	85-115			
<b>Matrix Spike Analyzed: 09/23/2006 (6I15121-MS1) Source: IPI1286-01</b>											
Arsenic	1050	5.0	4.4	ug/l	1000	6.3	104	70-130			
Beryllium	1040	2.0	0.90	ug/l	1000	ND	104	70-130			
Chromium	1010	5.0	2.0	ug/l	1000	ND	101	70-130			
Iron	1.04	0.040	0.015	mg/l	1.00	0.032	101	70-130			
Manganese	1060	20	7.0	ug/l	1000	49	101	70-130			
Nickel	993	10	2.0	ug/l	1000	2.3	99	70-130			
Zinc	1030	20	15	ug/l	1000	36	99	70-130			
<b>Matrix Spike Dup Analyzed: 09/23/2006 (6I15121-MSD1) Source: IPI1286-01</b>											
Arsenic	1070	5.0	4.4	ug/l	1000	6.3	106	70-130	2	20	
Beryllium	1060	2.0	0.90	ug/l	1000	ND	106	70-130	2	20	
Chromium	1030	5.0	2.0	ug/l	1000	ND	103	70-130	2	20	
Iron	1.06	0.040	0.015	mg/l	1.00	0.032	103	70-130	2	20	
Manganese	1070	20	7.0	ug/l	1000	49	102	70-130	1	20	
Nickel	1020	10	2.0	ug/l	1000	2.3	102	70-130	3	20	
Zinc	1050	20	15	ug/l	1000	36	101	70-130	2	20	

TestAmerica - Irvine, CA  
Amy Windham For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I18073 Extracted: 09/18/06</b>											
<b>Blank Analyzed: 09/18/2006 (6I18073-BLK1)</b>											
Antimony	ND	2.0	0.050	ug/l							
Cadmium	ND	1.0	0.025	ug/l							
Copper	0.303	2.0	0.25	ug/l							J
Lead	ND	1.0	0.040	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.025	ug/l							
Thallium	ND	1.0	0.15	ug/l							
<b>LCS Analyzed: 09/18/2006 (6I18073-BS1)</b>											
Antimony	74.5	2.0	0.050	ug/l	80.0		93	85-115			
Cadmium	74.9	1.0	0.025	ug/l	80.0		94	85-115			
Copper	79.0	2.0	0.25	ug/l	80.0		99	85-115			
Lead	80.4	1.0	0.040	ug/l	80.0		100	85-115			
Selenium	77.2	2.0	0.30	ug/l	80.0		96	85-115			
Silver	77.2	1.0	0.025	ug/l	80.0		96	85-115			
Thallium	80.8	1.0	0.15	ug/l	80.0		101	85-115			
<b>Matrix Spike Analyzed: 09/18/2006 (6I18073-MS1) Source: IPI1226-01</b>											
Antimony	74.1	2.0	0.050	ug/l	80.0	0.22	92	70-130			
Cadmium	68.4	1.0	0.025	ug/l	80.0	0.096	85	70-130			
Copper	73.2	2.0	0.25	ug/l	80.0	6.8	83	70-130			
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130			
Selenium	76.1	2.0	0.30	ug/l	80.0	6.1	88	70-130			
Silver	69.4	1.0	0.025	ug/l	80.0	ND	87	70-130			
Thallium	74.8	1.0	0.15	ug/l	80.0	ND	94	70-130			
<b>Matrix Spike Analyzed: 09/18/2006 (6I18073-MS2) Source: IPI1286-01</b>											
Antimony	76.7	2.0	0.050	ug/l	80.0	1.0	95	70-130			
Cadmium	73.5	1.0	0.025	ug/l	80.0	ND	92	70-130			
Copper	74.3	2.0	0.25	ug/l	80.0	6.1	85	70-130			
Lead	76.3	1.0	0.040	ug/l	80.0	0.093	95	70-130			
Selenium	73.8	2.0	0.30	ug/l	80.0	0.77	91	70-130			
Silver	74.5	1.0	0.025	ug/l	80.0	ND	93	70-130			
Thallium	76.5	1.0	0.15	ug/l	80.0	0.36	95	70-130			

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 6I18073 Extracted: 09/18/06</b>											
<b>Matrix Spike Dup Analyzed: 09/18/2006 (6I18073-MSD1)</b>						<b>Source: IPI1226-01</b>					
Antimony	75.1	2.0	0.050	ug/l	80.0	0.22	94	70-130	1	20	
Cadmium	69.1	1.0	0.025	ug/l	80.0	0.096	86	70-130	1	20	
Copper	71.7	2.0	0.25	ug/l	80.0	6.8	81	70-130	2	20	
Lead	75.6	1.0	0.040	ug/l	80.0	0.067	94	70-130	0	20	
Selenium	77.3	2.0	0.30	ug/l	80.0	6.1	89	70-130	2	20	
Silver	70.2	1.0	0.025	ug/l	80.0	ND	88	70-130	1	20	
Thallium	74.4	1.0	0.15	ug/l	80.0	ND	93	70-130	1	20	
<b>Batch: 6I18082 Extracted: 09/18/06</b>											
<b>Blank Analyzed: 09/18/2006 (6I18082-BLK1)</b>											
Mercury	ND	0.20	0.15	ug/l							
<b>LCS Analyzed: 09/18/2006 (6I18082-BS1)</b>											
Mercury	8.42	0.20	0.15	ug/l	8.00		105	85-115			
<b>Matrix Spike Analyzed: 09/18/2006 (6I18082-MS1)</b>						<b>Source: IPI1321-01</b>					
Mercury	8.28	0.20	0.15	ug/l	8.00	ND	104	70-130			
<b>Matrix Spike Dup Analyzed: 09/18/2006 (6I18082-MSD1)</b>						<b>Source: IPI1321-01</b>					
Mercury	8.17	0.20	0.15	ug/l	8.00	ND	102	70-130	1	20	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	Data Qualifiers
<b>Batch: 6I14043 Extracted: 09/14/06</b>										
<b>Blank Analyzed: 09/14/2006 (6I14043-BLK1)</b>										
Nitrate-N	ND	0.15	0.080	mg/l						
Nitrite-N	ND	0.15	0.080	mg/l						
Nitrate/Nitrite-N	ND	0.15	0.080	mg/l						
Sulfate	ND	0.50	0.45	mg/l						
<b>LCS Analyzed: 09/14/2006 (6I14043-BS1)</b>										
Nitrate-N	1.04	0.15	0.080	mg/l	1.13		92	90-110		
Nitrite-N	1.62	0.15	0.080	mg/l	1.52		107	90-110		
Sulfate	10.9	0.50	0.45	mg/l	10.0		109	90-110		
<b>Matrix Spike Analyzed: 09/14/2006 (6I14043-MS1) Source: IPI1252-03</b>										
Nitrate-N	4.09	0.30	0.16	mg/l	1.13	3.1	88	80-120		
Nitrite-N	1.62	0.30	0.16	mg/l	1.52	ND	107	80-120		
Sulfate	85.5	1.0	0.90	mg/l	10.0	75	105	80-120		M-HA
<b>Matrix Spike Dup Analyzed: 09/14/2006 (6I14043-MSD1) Source: IPI1252-03</b>										
Nitrate-N	4.06	0.30	0.16	mg/l	1.13	3.1	85	80-120	1	20
Nitrite-N	1.60	0.30	0.16	mg/l	1.52	ND	105	80-120	1	20
Sulfate	84.7	1.0	0.90	mg/l	10.0	75	97	80-120	1	20
<b>Batch: 6I15082 Extracted: 09/15/06</b>										
<b>Duplicate Analyzed: 09/15/2006 (6I15082-DUP1) Source: IPI1268-01</b>										
pH	6.87	NA	N/A	pH Units		6.85			0	5
<b>Duplicate Analyzed: 09/15/2006 (6I15082-DUP2) Source: IPI1293-01</b>										
pH	7.55	NA	N/A	pH Units		7.54			0	5

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 6I15115 Extracted: 09/15/06</u></b>											
<b>Blank Analyzed: 09/15/2006 (6I15115-BLK1)</b>											
Turbidity	ND	1.0	0.040	NTU							
<b>Duplicate Analyzed: 09/15/2006 (6I15115-DUP1)</b>											
Turbidity	3.33	1.0	0.040	NTU		Source: IPI1266-01 3.4			2	20	
<b>Duplicate Analyzed: 09/15/2006 (6I15115-DUP2)</b>											
Turbidity	1.63	1.0	0.040	NTU		Source: IPI1293-01 1.6			2	20	
<b><u>Batch: 6I16001 Extracted: 09/16/06</u></b>											
<b>Blank Analyzed: 09/16/2006 (6I16001-BLK1)</b>											
Oil & Grease	ND	5.0	0.94	mg/l							
<b>LCS Analyzed: 09/16/2006 (6I16001-BS1)</b>											
Oil & Grease	17.9	5.0	0.94	mg/l	20.0		90	65-120			M-NRI
<b>LCS Dup Analyzed: 09/16/2006 (6I16001-BSD1)</b>											
Oil & Grease	18.1	5.0	0.94	mg/l	20.0		90	65-120	1	20	
<b><u>Batch: 6I16057 Extracted: 09/16/06</u></b>											
<b>Blank Analyzed: 09/16/2006 (6I16057-BLK1)</b>											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
<b>LCS Analyzed: 09/16/2006 (6I16057-BS1)</b>											
Ammonia-N (Distilled)	10.9	0.50	0.30	mg/l	10.0		109	80-115			

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 6I16057 Extracted: 09/16/06</u></b>											
<b>Matrix Spike Analyzed: 09/16/2006 (6I16057-MS1)</b>						<b>Source: IPI1286-01</b>					
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120			
<b>Matrix Spike Dup Analyzed: 09/16/2006 (6I16057-MSD1)</b>						<b>Source: IPI1286-01</b>					
Ammonia-N (Distilled)	11.2	0.50	0.30	mg/l	10.0	0.84	104	70-120	0	15	
<b><u>Batch: 6I18059 Extracted: 09/18/06</u></b>											
<b>Duplicate Analyzed: 09/18/2006 (6I18059-DUP1)</b>						<b>Source: IPI1351-01</b>					
Specific Conductance	2030	1.0	N/A	umhos/cm		2000			1	5	
<b><u>Batch: 6I18061 Extracted: 09/18/06</u></b>											
<b>Blank Analyzed: 09/18/2006 (6I18061-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 09/18/2006 (6I18061-BS1)</b>											
Total Dissolved Solids	994	10	10	mg/l	1000		99	90-110			
<b>Duplicate Analyzed: 09/18/2006 (6I18061-DUP1)</b>						<b>Source: IPI1321-01</b>					
Total Dissolved Solids	343	10	10	mg/l		350			2	10	
<b><u>Batch: 6I18075 Extracted: 09/18/06</u></b>											
<b>Blank Analyzed: 09/20/2006 (6I18075-BLK1)</b>											
Hardness (as CaCO3)	ND	1.0	1.0	mg/l							

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 6I20071 Extracted: 09/20/06</u></b>											
<b>Duplicate Analyzed: 09/20/2006 (6I20071-DUP1)</b>						<b>Source: IPI1125-01</b>					
Alkalinity as CaCO3	348	2.0	2.0	mg/l		350			1	20	
<b>Reference Analyzed: 09/20/2006 (6I20071-SRM1)</b>											
Alkalinity as CaCO3	224	2.0	2.0	mg/l	231		97	90-110			
<b><u>Batch: 6I20101 Extracted: 09/20/06</u></b>											
<b>Blank Analyzed: 09/20/2006 (6I20101-BLK1)</b>											
Total Kjeldahl Nitrogen	ND	0.50	0.43	mg/l							
<b>LCS Analyzed: 09/20/2006 (6I20101-BS1)</b>											
Total Kjeldahl Nitrogen	19.6	0.50	0.43	mg/l	20.0		98	85-120			
<b>LCS Dup Analyzed: 09/20/2006 (6I20101-BSD1)</b>											
Total Kjeldahl Nitrogen	19.9	0.50	0.43	mg/l	20.0		100	85-120	2	15	
<b>Matrix Spike Analyzed: 09/20/2006 (6I20101-MS1)</b>						<b>Source: IPI1210-01</b>					
Total Kjeldahl Nitrogen	10.6	0.50	0.43	mg/l	10.0	0.84	98	85-120			
<b>Matrix Spike Dup Analyzed: 09/20/2006 (6I20101-MSD1)</b>						<b>Source: IPI1210-01</b>					
Total Kjeldahl Nitrogen	11.2	0.50	0.43	mg/l	10.0	0.84	104	85-120	6	15	
<b><u>Batch: 6I20129 Extracted: 09/20/06</u></b>											
<b>Blank Analyzed: 09/20/2006 (6I20129-BLK1)</b>											
Total Suspended Solids	ND	10	10	mg/l							

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager



MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 6I20129 Extracted: 09/20/06</u></b>											
<b>LCS Analyzed: 09/20/2006 (6I20129-BS1)</b>											
Total Suspended Solids	1010	10	10	mg/l	1000		101	85-115			
<b>Duplicate Analyzed: 09/20/2006 (6I20129-DUP1)</b>											
Total Suspended Solids	396	10	10	mg/l		330			18	10	R-3
<b><u>Batch: 6I20145 Extracted: 09/20/06</u></b>											
<b>Blank Analyzed: 09/20/2006 (6I20145-BLK1)</b>											
Total Organic Carbon	ND	1.0	0.25	mg/l							
<b>LCS Analyzed: 09/20/2006 (6I20145-BS1)</b>											
Total Organic Carbon	10.7	1.0	0.25	mg/l	10.0		107	90-110			
<b>Matrix Spike Analyzed: 09/20/2006 (6I20145-MS1)</b>											
Total Organic Carbon	6.34	1.0	0.25	mg/l	5.00	1.5	97	80-120			
<b>Matrix Spike Dup Analyzed: 09/20/2006 (6I20145-MSD1)</b>											
Total Organic Carbon	6.52	1.0	0.25	mg/l	5.00	1.5	100	80-120	3	20	
<b><u>Batch: 6I22108 Extracted: 09/22/06</u></b>											
<b>Duplicate Analyzed: 09/22/2006 (6I22108-DUP1)</b>											
Density	0.999	NA	N/A	g/cc		1.0			0	20	

TestAmerica - Irvine, CA  
 Amy Windham For Michele Chamberlin  
 Project Manager

MWH-Pasadena/Boeing  
300 North Lake Avenue, Suite 1200  
Pasadena, CA 91101  
Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
R-2A Pond Pilot Test  
Report Number: IPI1297

Sampled: 09/14/06  
Received: 09/14/06

## DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M-HA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- M-NR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- R-3** The RPD exceeded the method control limit due to sample matrix effects.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

**TestAmerica - Irvine, CA**  
Amy Windham For Michele Chamberlin  
Project Manager

MWH-Pasadena/Boeing  
 300 North Lake Avenue, Suite 1200  
 Pasadena, CA 91101  
 Attention: Bronwyn Kelly

Project ID: Boeing-SSFL BMP/NPDES  
 R-2A Pond Pilot Test  
 Report Number: IPI1297

Sampled: 09/14/06  
 Received: 09/14/06

## Certification Summary

### TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
1613A/1613B	Water		
ASTM D3977	Water		
Displacement	Water		
EPA 120.1	Water	X	X
EPA 150.1	Water	X	X
EPA 160.2	Water	X	X
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 310.1	Water	X	X
EPA 350.2	Water		X
EPA 351.3	Water		
EPA 413.1	Water	X	X
EPA 415.1	Water	X	X
Filtration	Water	N/A	N/A
SM2340B	Water	X	X
SM2540C	Water	X	X

*Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at [www.testamericainc.com](http://www.testamericainc.com)*

### Subcontracted Laboratories

**Alta Analytical** NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta

Samples: IPI1297-01

### TestAmerica - Irvine, CA

Amy Windham For Michele Chamberlin  
 Project Manager





October 05, 2006

**Alta Project I.D.: 28119**

Ms. Michele Chamberlin  
Test America-Irvine  
17461 Derian Avenue  
Suite 100  
Irvine, CA 92614

Dear Ms. Chamberlin,

Enclosed are the results for the one aqueous sample received at Alta Analytical Laboratory on September 18, 2006 under your Project Name "IPI1297". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Alta's current certifications, and copies of the raw data (if requested).

Alta Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-933-1640 or by email at [mmaier@altalab.com](mailto:mmaier@altalab.com). Thank you for choosing Alta as part of your analytical support team.

Sincerely,

Martha M. Maier  
Director of HRMS Services



*Alta Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. This report should not be reproduced except in full without the written approval of ALTA.*



**Alta Analytical Laboratory, Inc.**

1104 Windfield Way  
El Dorado Hills, CA 95762

(916) 933-1640  
FAX (916) 673-0106

**Section I: Sample Inventory Report**

**Date Received: 9/18/2006**

**Alta Lab. ID**

**Client Sample ID**

28119-001

IPI1297-01

## SECTION II

Method Blank					EPA Method 1613				
Matrix:	Aqueous	QC Batch No.:	8402	Lab Sample:	0-MB001	Date Analyzed DB-5:	29-Sep-06	Date Analyzed DB-225:	NA
Sample Size:	1.00 L	Date Extracted:	22-Sep-06						
Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers	
2,3,7,8-TCDD	ND	0.000000917			<b>IS</b> 13C-2,3,7,8-TCDD	85.7	25 - 164		
1,2,3,7,8-PeCDD	ND	0.00000246			13C-1,2,3,7,8-PeCDD	81.4	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.00000113			13C-1,2,3,4,7,8-HxCDD	81.8	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.00000124			13C-1,2,3,6,7,8-HxCDD	70.4	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.00000115			13C-1,2,3,4,6,7,8-HpCDD	76.2	23 - 140		
1,2,3,4,6,7,8-HpCDD	ND	0.000000961			13C-OCDD	75.7	17 - 157		
OCDD	0.00000329			J	13C-2,3,7,8-TCDF	86.7	24 - 169		
2,3,7,8-TCDF	ND	0.000000846			13C-1,2,3,7,8-PeCDF	80.1	24 - 185		
1,2,3,7,8-PeCDF	ND	0.00000165			13C-2,3,4,7,8-PeCDF	82.3	21 - 178		
2,3,4,7,8-PeCDF	ND	0.00000154			13C-1,2,3,4,7,8-HxCDF	98.1	26 - 152		
1,2,3,4,7,8-HxCDF	ND	0.000000391			13C-1,2,3,6,7,8-HxCDF	84.6	26 - 123		
1,2,3,6,7,8-HxCDF	ND	0.000000400			13C-2,3,4,6,7,8-HxCDF	81.8	28 - 136		
2,3,4,6,7,8-HxCDF	ND	0.000000452			13C-1,2,3,7,8,9-HxCDF	82.1	29 - 147		
1,2,3,7,8,9-HxCDF	ND	0.000000647			13C-1,2,3,4,6,7,8-HpCDF	75.5	28 - 143		
1,2,3,4,6,7,8-HpCDF	ND	0.000000711			13C-1,2,3,4,7,8,9-HpCDF	83.2	26 - 138		
1,2,3,4,7,8,9-HpCDF	ND	0.000000661			13C-OCDF	75.9	17 - 157		
OCDF	ND	0.00000198			<b>CRS</b> 37Cl-2,3,7,8-TCDD	98.4	35 - 197		
Totals					Footnotes				
Total TCDD	ND	0.000000917			a. Sample specific estimated detection limit.				
Total PeCDD	ND	0.00000246			b. Estimated maximum possible concentration.				
Total HxCDD	ND	0.00000118			c. Method detection limit.				
Total HpCDD	ND	0.000000961			d. Lower control limit - upper control limit.				
Total TCDF	ND	0.000000846							
Total PeCDF	ND	0.00000159							
Total HxCDF	ND	0.000000461							
Total HpCDF	ND	0.000000687							

Analyst: RAS

Approved By: William J. Luksemburg 05-Oct-2006 11:44



OPR Results				EPA Method 1613			
Matrix:	Aqueous	QC Batch No.:	8402	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	22-Sep-06	Date Analyzed DB-5:	29-Sep-06	Date Analyzed DB-225:	NA
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	
2,3,7,8-TCDD	10.0	10.5	6.7 - 15.8	<b>IS</b> 13C-2,3,7,8-TCDD	80.9	25 - 164	
1,2,3,7,8-PeCDD	50.0	48.2	35 - 71	13C-1,2,3,7,8-PeCDD	73.2	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	49.6	35 - 82	13C-1,2,3,4,7,8-HxCDD	68.8	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	48.1	38 - 67	13C-1,2,3,6,7,8-HxCDD	58.9	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	46.9	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	61.8	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	49.8	35 - 70	13C-OCDD	61.4	17 - 157	
OCDD	100	96.7	78 - 144	13C-2,3,7,8-TCDF	83.8	24 - 169	
2,3,7,8-TCDF	10.0	9.95	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	72.5	24 - 185	
1,2,3,7,8-PeCDF	50.0	50.2	40 - 67	13C-2,3,4,7,8-PeCDF	75.8	21 - 178	
2,3,4,7,8-PeCDF	50.0	51.2	34 - 80	13C-1,2,3,4,7,8-HxCDF	77.4	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	50.2	36 - 67	13C-1,2,3,6,7,8-HxCDF	66.1	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	48.7	42 - 65	13C-2,3,4,6,7,8-HxCDF	68.4	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	48.5	35 - 78	13C-1,2,3,7,8,9-HxCDF	66.5	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	50.6	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	61.0	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	49.1	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	66.9	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	48.4	39 - 69	13C-OCDF	63.4	17 - 157	
OCDF	100	102	63 - 170	<b>CRS</b> 37Cl-2,3,7,8-TCDD	101	35 - 197	

Analyst: RAS

Approved By: William J. Luksemburg 05-Oct-2006 11:44

Sample ID: IPI1297-01					EPA Method 1613			
Client Data			Sample Data		Laboratory Data			
Name:	Test America-Irvine		Matrix:	Aqueous	Lab Sample:	28119-001	Date Received:	18-Sep-06
Project:	IPI1297		Sample Size:	0.990 L	QC Batch No.:	8402	Date Extracted:	22-Sep-06
Date Collected:	14-Sep-06				Date Analyzed DB-5:	29-Sep-06	Date Analyzed DB-225:	NA
Time Collected:	0810							
Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers
2,3,7,8-TCDD	ND	0.00000117			<b>IS</b> 13C-2,3,7,8-TCDD	79.5	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000249			13C-1,2,3,7,8-PeCDD	66.6	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000256			13C-1,2,3,4,7,8-HxCDD	65.5	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000278			13C-1,2,3,6,7,8-HxCDD	56.0	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000258			13C-1,2,3,4,6,7,8-HpCDD	62.2	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000126			J	13C-OCDD	66.5	17 - 157	
OCDD	0.000129			B	13C-2,3,7,8-TCDF	72.2	24 - 169	
2,3,7,8-TCDF	ND	0.00000124			13C-1,2,3,7,8-PeCDF	66.1	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000173			13C-2,3,4,7,8-PeCDF	69.1	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000158			13C-1,2,3,4,7,8-HxCDF	76.3	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000617			13C-1,2,3,6,7,8-HxCDF	66.3	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000620			13C-2,3,4,6,7,8-HxCDF	65.0	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000000719			13C-1,2,3,7,8,9-HxCDF	66.6	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.000000986			13C-1,2,3,4,6,7,8-HpCDF	62.4	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000220			13C-1,2,3,4,7,8,9-HpCDF	67.5	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.000000956			13C-OCDF	67.4	17 - 157	
OCDF	0.00000576			J	<b>CRS</b> 37Cl-2,3,7,8-TCDD	113	35 - 197	
Totals					Footnotes			
Total TCDD	ND	0.00000117			a. Sample specific estimated detection limit.			
Total PeCDD	ND	0.00000249			b. Estimated maximum possible concentration.			
Total HxCDD	0.00000267				c. Method detection limit.			
Total HpCDD	0.0000292				d. Lower control limit - upper control limit.			
Total TCDF	0.00000193							
Total PeCDF	ND	0.00000165						
Total HxCDF	ND	0.00000130						
Total HpCDF	0.00000429							

Analyst: RAS

Approved By: William J. Luksemburg 05-Oct-2006 11:44

## **APPENDIX**

## DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
E	The reported value exceeds the calibration range of the instrument.
H	The signal-to-noise ratio is greater than 10:1.
I	Chemical interference
J	The amount detected is below the Lower Calibration Limit of the instrument.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated Detection Limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that corresponds to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

## CERTIFICATIONS

<b>Accrediting Authority</b>	<b>Certificate Number</b>
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

# TestAmerica

ANALYTICAL TESTING CORPORATION

## SUBCONTRACT ORDER - PROJECT # IPI1297

### SENDING LABORATORY:

TestAmerica - Irvine, CA  
17461 Derian Avenue, Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Michele Chamberlin

### RECEIVING LABORATORY:

Alta Analytical  
1104 Windfield Way  
El Dorado Hills, CA 95762  
Phone: (916) 933-1640  
Fax: (916) 673-0106

28119  
14.7°C

Standard TAT is requested unless specific due date is requested => Due Date: \_\_\_\_\_ Initials: \_\_\_\_\_

Analysis	Expiration	Comments
Sample ID: IPI1297-01 1613-Dioxin-HR-Alta	Water 09/21/06 08:10	Sampled: 09/14/06 08:10 J flags, 17 cngnrs, no TEQ, ug/L, sub=Alta, Boeing EDD

### Containers Supplied:

1 L Amber (IPI1297-01M)  
1 L Amber (IPI1297-01N)

### SAMPLE INTEGRITY:

All containers intact:  Yes  No      Sample labels/COC agree:  Yes  No      Samples Received On Ice:  Yes  No  
Custody Seals Present:  Yes  No      Samples Preserved Properly:  Yes  No      Samples Received at (temp): \_\_\_\_\_

~~Released By~~ ~~Date~~ ~~Time~~      Received By: *Bethma St. Benedict*      Date: *9/18/06*      Time: *0848*

Released By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

### SAMPLE LOG-IN CHECKLIST

Alta Project #: 28119 TAT Standard

Samples Arrival:	Date/Time <u>9/18/06 0848</u>	Initials: <u>BSB</u>	Location: <u>WR-2</u> Shelf/Rack: <u>N/A</u>
Logged In:	Date/Time <u>9/18/06 1348</u>	Initials: <u>BSB</u>	Location: <u>WR-2</u> Shelf/Rack: <u>C-4</u>
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> Cal
	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Other
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
	<input type="checkbox"/> None		
Temp °C	<u>14.7</u>	Time: <u>0910</u>	Thermometer ID: DT-20

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill	✓		
Trk # <u>7911 2401 9160</u>			
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?	✓		
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Preservation Documented?			None
Shipping Container	Alta	Client	Retain
		Return	Dispose

Comments:

Chain of Custody Anomaly/Sample Acceptance Form

Client: Test America-Irvine
Contact: Michele Chamberlin
Fax Number: 949-2611228

Project Number 28119
Date Received: Sep 18 2006
Documented by/date: BJB 9/18/06

Please review the following information and complete the Client Authorization section. To comply with NELAC regulations, we must receive authorization before proceeding with sample analysis.

Thank You. ( Fax # 916-673-0106 )

The following information or item is needed to proceed with analysis:

- Complete Chain-of-Custody
Test Method Requested
Analyte List Requested
Preservative
Sample Identification
Sample Collection Date / Time
Collector's Name
Sample Type
Sample Location

The following anomalies were noted. Authorization is needed to proceed with the analysis.

Temperature outside +/-2C range Samples Affected: All

Temperature outside 14.7 C Ice present? Yes No

Sample ID Discrepancy Samples Affected
Sample holding time missed Samples Affected
Custody seals broken Samples Affected
Insufficient Sample Size Samples Affected
Sample Container(s) Broken Samples Affected
Incorrect Container Type Samples Affected
Other

Client Authorization

Proceed With Analysis: YES NO Signature and Date MCH 9/19/06

Client Comments/Instructions: per M. Chamberlin by email