July 15, 2016

Dr. Jason Conder, Ph.D.
Geosyntec
2100 Main Street
Huntington Beach, CA 92648

Dear: Dr. Conder,

Enclosed are the results for Frontier Analytical Laboratory project **9987**. These results correspond to your project **LDWG** under project number **HE1508, P01.** Five SPME/Hexane extracts and three solvent samples were received on 7/12/2016 in good condition. As per the chain of custody instructions, we were instructed to contact yourself prior to running the analysis of samples 9987-005-SA, 9987-006-SA, 9987-007-SA and 9987-008-SA (GeoSyntec Sample IDs: LDW-CS-C6-S010-PW-MB, Hexane, Acetonitrile and Hexane w PCBs respectively). The remaining four SPME/hexane samples were extracted and analyzed following EPA Method 1668C for all 209 polychlorinated biphenyls (PCBs). The total PCB concentration is listed in the upper right hand corner of the first data page (Page 1 of 3) of each EPA Method 1668C sample. A **RUSH** turnaround time of **three business days** was requested for this project.

The following Level IV report consists of an Analytical Data section, a Sample Receipt section, a Laboratory Raw Data section, and an Instrument Raw Data section. The Analytical Data section contains our project-sample tracking log and the analytical results. The Sample Receipt section contains your chain of custody, our sample login form and a sample photo. The Laboratory Raw Data section contains our project request sheet, an extraction bench sheet and the cleanup bench sheet. The instrument raw data section contains three sub-sections; the sample results section, the initial calibration section and the continuing/ending calibration section. The sample results sub-section consists of the quantitation summary forms with chromatograms for all samples and QC. The initial calibration sub-section consists of the individual quantitation summary forms and chromatograms for each point of the initial calibration curve as well as an overall quantitation summary form of the initial calibration curve. The continuing/ending calibration sub-section consists of the quantitation summary forms and chromatograms for all daily calibration standards, beginning calibration, and ending calibration injections associated with the samples and QC. The Level IV data package on compact disk has been sent to you via OnTrac. The enclosed results and Electronic Data Deliverable (EDD) are specifically for the samples referenced in this report only. These results shall not be reproduced except in full. Frontier Analytical Laboratory's State of Oregon NELAP certificate number is **4041**. Our State of California ELAP certificate number is **2934**.

If you have any questions regarding project **9987**, please feel free to contact me at 916-934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Bradley B. Silverbush
Director of Operations

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **9987**

Received on: **07/12/2016** Project Due: **07/15/2016** Storage: **R2**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
09987-001-SA	0	HE1508, P01	LDW-CS-1-S00.2-KPDMS	EPA 1668 PCB	Solvent	07/11/2016	02:30 pm	07/11/2017
09987-002-SA	0	HE1508, P01	LDW-CS-2-S00.2-KPDMS	EPA 1668 PCB	Solvent	07/11/2016	02:40 pm	07/11/2017
09987-003-SA	0	HE1508, P01	LDW-CS-3-S00.2-KPDMS	EPA 1668 PCB	Solvent	07/11/2016	02:50 pm	07/11/2017
09987-004-SA	0	HE1508, P01	LDW-CS-C6-S010-PW-SED	EPA 1668 PCB	Solvent	07/11/2016	03:00 pm	07/11/2017
09987-005-SA	0	HE1508, P01	LDW-CS-C6-S010-PW-MB	EPA 1668 PCB	Solvent	07/08/2016	02:00 pm	07/10/2017
09987-006-SA	0	HE1508, P01	Hexane	EPA 1668 PCB	Solvent	07/08/2016	02:00 pm	07/10/2017
09987-007-SA	0	HE1508, P01	Acetonitrile	EPA 1668 PCB	Solvent	07/08/2016	02:00 pm	07/10/2017
09987-008-SA	0	HE1508, P01	Hexane w PCBs	EPA 1668 PCB	Solvent	07/08/2016	02:00 pm	07/10/2017

FAL Sample ID	Notes
09987-005-SA	'HOLD'
09987-006-SA	'HOLD'
09987-007-SA	'HOLD'
09987-008-SA	'HOLD'

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EPA Method 1668
PCBs

FAL ID: 9987-001-MB
Client ID: Method Blank
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: NA
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB5
Units: pg/sample

Acquired: 07-13-2016
Total Conc: 0.00

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	ND	3.11			PCB-51	ND	5.39		
PCB-2	ND	4.16			PCB-52	ND	4.74	C	69
PCB-3	ND	3.94			PCB-53	ND	5.73		
PCB-4	ND	8.22			PCB-54	ND	4.07		
PCB-5	ND	6.53			PCB-55	ND	4.26		
PCB-6	ND	8.23			PCB-56	ND	3.38	C	60
PCB-7	ND	6.17			PCB-57	ND	4.24		
PCB-8	ND	7.77			PCB-58	ND	4.36		
PCB-9	ND	8.58			PCB-59	-	-	C042	42
PCB-10	ND	7.43			PCB-60	-	-	C056	56
PCB-11	ND	8.32			PCB-61	ND	4.31	C	70
PCB-12	ND	7.08			PCB-62	ND	4.25		
PCB-13	ND	9.87			PCB-63	ND	4.07		
PCB-14	ND	8.30			PCB-64	-	-	C041	41/71/72
PCB-15	ND	7.43			PCB-65	ND	4.39		
PCB-16	ND	6.53			PCB-66	ND	4.00	C	76
PCB-17	ND	5.71			PCB-67	ND	4.46		
PCB-18	ND	6.50			PCB-68	ND	4.11		
PCB-19	ND	6.11			PCB-69	-	-	C052	52
PCB-20	ND	6.66	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	ND	6.59			PCB-72	-	-	C041	41/64/71
PCB-23	ND	6.58			PCB-73	ND	3.91		
PCB-24	ND	4.36			PCB-74	ND	4.17		
PCB-25	ND	5.61			PCB-75	-	-	C048	48
PCB-26	ND	6.65			PCB-76	-	-	C066	66
PCB-27	ND	4.36			PCB-77	ND	3.94		
PCB-28	ND	5.06			PCB-78	ND	3.63		
PCB-29	ND	6.58			PCB-79	ND	3.33		
PCB-30	ND	4.12			PCB-80	ND	3.78		
PCB-31	ND	7.94			PCB-81	ND	3.14		
PCB-32	ND	4.10			PCB-82	ND	5.57		
PCB-33	-	-	C020	20/21	PCB-83	ND	4.08	C	112
PCB-34	ND	7.21			PCB-84	ND	4.64	C	92
PCB-35	ND	8.23			PCB-85	ND	3.90	C	116
PCB-36	ND	7.34			PCB-86	ND	4.63		
PCB-37	ND	6.69			PCB-87	ND	3.75	C	117/125
PCB-38	ND	6.74			PCB-88	ND	5.30	C	91
PCB-39	ND	7.81			PCB-89	ND	4.58		
PCB-40	ND	7.02			PCB-90	ND	4.25	C	101
PCB-41	ND	4.36	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	ND	4.70	C	59	PCB-92	-	-	C084	84
PCB-43	ND	5.40	C	49	PCB-93	ND	5.07		
PCB-44	ND	6.18			PCB-94	ND	5.47		
PCB-45	ND	5.96			PCB-95	ND	4.82		
PCB-46	ND	6.29			PCB-96	ND	3.62		
PCB-47	ND	4.46			PCB-97	ND	4.11		
PCB-48	ND	4.47	C	75	PCB-98	ND	4.81	C	102
PCB-49	-	-	C043	43	PCB-99	ND	3.75		
PCB-50	ND	5.18			PCB-100	ND	4.67		

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EPA Method 1668
PCBs

FAL ID: 9987-001-MB
Client ID: Method Blank
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: NA
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB5
Units: pg/sample

Acquired: 07-13-2016

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	ND	7.42		
PCB-102	-	-	C098	98	PCB-152	ND	3.19		
PCB-103	ND	4.41			PCB-153	ND	6.17		
PCB-104	ND	3.38			PCB-154	ND	3.75		
PCB-105	ND	3.71			PCB-155	ND	2.79		
PCB-106	ND	3.47	C	118	PCB-156	ND	5.84		
PCB-107	ND	3.67	C	108	PCB-157	ND	6.82		
PCB-108	-	-	C107	107	PCB-158	ND	5.55	C	160
PCB-109	ND	3.50			PCB-159	ND	5.33		
PCB-110	ND	3.11			PCB-160	-	-	C158	158
PCB-111	ND	3.09	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	3.78			PCB-163	-	-	C138	138/164
PCB-114	ND	3.70			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	5.71		
PCB-117	-	-	C087	87/125	PCB-167	ND	6.02		
PCB-118	-	-	C106	106	PCB-168	ND	5.73		
PCB-119	ND	3.20			PCB-169	ND	5.68		
PCB-120	ND	3.19			PCB-170	ND	5.95		
PCB-121	ND	3.64			PCB-171	ND	5.23		
PCB-122	ND	3.05			PCB-172	ND	5.52		
PCB-123	ND	3.22			PCB-173	ND	5.88		
PCB-124	ND	3.46			PCB-174	ND	5.27		
PCB-125	-	-	C087	87/117	PCB-175	ND	4.91		
PCB-126	ND	4.48			PCB-176	ND	3.62		
PCB-127	ND	3.60			PCB-177	ND	5.51		
PCB-128	ND	6.62	C	162	PCB-178	ND	5.13		
PCB-129	ND	8.49			PCB-179	ND	3.46		
PCB-130	ND	8.36			PCB-180	ND	4.57		
PCB-131	ND	7.29	C	133	PCB-181	ND	5.12		
PCB-132	ND	6.40	C	161	PCB-182	ND	4.70	C	187
PCB-133	-	-	C131	131	PCB-183	ND	4.56		
PCB-134	ND	7.32	C	143	PCB-184	ND	3.43		
PCB-135	ND	7.28			PCB-185	ND	5.19		
PCB-136	ND	3.22			PCB-186	ND	3.80		
PCB-137	ND	7.64			PCB-187	-	-	C182	182
PCB-138	ND	5.62	C	163/164	PCB-188	ND	3.94		
PCB-139	ND	6.78	C	149	PCB-189	ND	3.64		
PCB-140	ND	6.86			PCB-190	ND	4.13		
PCB-141	ND	7.28			PCB-191	ND	4.04		
PCB-142	ND	7.80			PCB-192	ND	4.30		
PCB-143	-	-	C134	134	PCB-193	ND	3.94		
PCB-144	ND	6.96			PCB-194	ND	4.24		
PCB-145	ND	3.41			PCB-195	ND	5.07		
PCB-146	ND	6.16	C	165	PCB-196	ND	4.26	C	203
PCB-147	ND	6.81			PCB-197	ND	3.20		
PCB-148	ND	4.29			PCB-198	ND	4.53		
PCB-149	-	-	C139	139	PCB-199	ND	4.78		
PCB-150	ND	3.24			PCB-200	ND	3.18		

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EPA Method 1668
PCBs

FRONTIER ANALYTICAL LABORATORY

FAL ID: 9987-001-MB
Client ID: Method Blank
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: NA
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB5
Units: pg/sample

Acquired: 07-13-2016

Compound	Conc	DL	Qual	Coeluters
PCB-201	ND	3.16		
PCB-202	ND	3.23		
PCB-203	-	-	C196	196
PCB-204	ND	3.04		
PCB-205	ND	3.06		
PCB-206	ND	4.25		
PCB-207	ND	3.20		
PCB-208	ND	2.95		
PCB-209	ND	3.18		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	90.5	5.00 - 145	
13C-PCB-3	86.6	5.00 - 145	
13C-PCB-4	94.9	5.00 - 145	
13C-PCB-15	96.7	5.00 - 145	
13C-PCB-19	79.0	5.00 - 145	
13C-PCB-37	114	5.00 - 145	
13C-PCB-54	101	5.00 - 145	
13C-PCB-77	108	10.0 - 145	
13C-PCB-81	112	10.0 - 145	
13C-PCB-104	90.8	10.0 - 145	
13C-PCB-105	110	10.0 - 145	
13C-PCB-114	113	10.0 - 145	
13C-PCB-118	116	10.0 - 145	
13C-PCB-123	111	10.0 - 145	
13C-PCB-126	112	10.0 - 145	
13C-PCB-155	89.3	10.0 - 145	
13C-PCB-156	98.9	10.0 - 145	
13C-PCB-157	90.4	10.0 - 145	
13C-PCB-167	99.8	10.0 - 145	
13C-PCB-169	102	10.0 - 145	
13C-PCB-188	87.9	10.0 - 145	
13C-PCB-189	94.2	10.0 - 145	
13C-PCB-202	87.6	10.0 - 145	
13C-PCB-205	92.4	10.0 - 145	
13C-PCB-206	79.9	10.0 - 145	
13C-PCB-208	86.7	10.0 - 145	
13C-PCB-209	68.3	10.0 - 145	

Cleanup Surrogates	% Rec	QC Limits	Qual
13C-PCB-28	118	5.00 - 145	
13C-PCB-111	100	10.0 - 145	
13C-PCB-178	90.8	10.0 - 145	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Coelution
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____

Date: 7/15/2016

Reviewed By: _____

Date: 7/15/2016

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EPA Method 1668
PCBs

FAL ID: 9987-001-OPR
Client ID: OPR
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: NA
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB5
Units: ng/ml

Acquired: 07-13-2016

Compound	% Recovery	QC Limits	Qual
PCB-1	102	60.0 - 135	
PCB-3	93.2	60.0 - 135	
PCB-4	94.0	60.0 - 135	
PCB-15	80.4	60.0 - 135	
PCB-19	99.6	60.0 - 135	
PCB-37	92.0	60.0 - 135	
PCB-54	100	60.0 - 135	
PCB-77	103	60.0 - 135	
PCB-81	98.2	60.0 - 135	
PCB-104	97.2	60.0 - 135	
PCB-105	94.6	60.0 - 135	
PCB-114	106	60.0 - 135	
PCB-118	110	60.0 - 135	
PCB-123	90.4	60.0 - 135	
PCB-126	95.4	60.0 - 135	
PCB-155	98.4	60.0 - 135	
PCB-156	95.4	60.0 - 135	
PCB-157	103	60.0 - 135	
PCB-167	99.8	60.0 - 135	
PCB-169	98.8	60.0 - 135	
PCB-188	97.2	60.0 - 135	
PCB-189	99.4	60.0 - 135	
PCB-202	99.6	60.0 - 135	
PCB-205	96.0	60.0 - 135	
PCB-206	95.0	60.0 - 135	
PCB-208	97.6	60.0 - 135	
PCB-209	98.6	60.0 - 135	

Internal Standards	% Recovery	QC Limits	Qual
13C-PCB-1	99.6	15.0 - 145	
13C-PCB-3	95.6	15.0 - 145	
13C-PCB-4	99.0	15.0 - 145	
13C-PCB-15	96.1	15.0 - 145	
13C-PCB-19	87.6	15.0 - 145	
13C-PCB-37	112	15.0 - 145	
13C-PCB-54	106	15.0 - 145	
13C-PCB-77	111	40.0 - 145	
13C-PCB-81	111	40.0 - 145	
13C-PCB-104	95.9	40.0 - 145	
13C-PCB-105	111	40.0 - 145	
13C-PCB-114	111	40.0 - 145	
13C-PCB-118	113	40.0 - 145	
13C-PCB-123	112	40.0 - 145	
13C-PCB-126	115	40.0 - 145	
13C-PCB-155	94.2	40.0 - 145	
13C-PCB-156	102	40.0 - 145	
13C-PCB-157	103	40.0 - 145	
13C-PCB-167	104	40.0 - 145	
13C-PCB-169	105	40.0 - 145	
13C-PCB-188	92.1	40.0 - 145	
13C-PCB-189	98.4	40.0 - 145	
13C-PCB-202	92.8	40.0 - 145	
13C-PCB-205	94.4	40.0 - 145	
13C-PCB-206	88.1	40.0 - 145	
13C-PCB-208	91.7	40.0 - 145	
13C-PCB-209	75.3	40.0 - 145	

Cleanup Surrogate	% Recovery	QC limits	Qual
13C-PCB-28	121	15.0 - 145	
13C-PCB-111	104	40.0 - 145	
13C-PCB-178	96.0	40.0 - 145	

Analyst: _____

Date: 7/15/2016

Reviewed By: _____

Date: 7/15/2016

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EPA Method 1668
PCBs

FAL ID: 9987-001-SA
Client ID: LDW-CS-1-S00.2-KPDMS
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: 07-12-2016
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB1
Units: pg/sample

Acquired: 07-13-2016
Total Conc: 6200

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	ND	6.76			PCB-51	ND	4.40		
PCB-2	ND	10.0			PCB-52	ND	3.86	C	69
PCB-3	ND	10.4			PCB-53	ND	4.68		
PCB-4	ND	6.38			PCB-54	ND	3.32		
PCB-5	ND	6.57			PCB-55	39.9	-		
PCB-6	ND	6.86			PCB-56	ND	5.05	C	60
PCB-7	ND	6.21			PCB-57	ND	3.46		
PCB-8	ND	7.81			PCB-58	ND	3.55		
PCB-9	ND	8.63			PCB-59	-	-	C042	42
PCB-10	ND	7.47			PCB-60	-	-	C056	56
PCB-11	ND	8.36			PCB-61	ND	3.51	C	70
PCB-12	ND	7.12			PCB-62	ND	3.47		
PCB-13	ND	9.93			PCB-63	ND	3.32		
PCB-14	ND	8.35			PCB-64	-	-	C041	41/71/72
PCB-15	ND	8.81			PCB-65	ND	3.58		
PCB-16	ND	8.33			PCB-66	ND	3.26	C	76
PCB-17	ND	7.29			PCB-67	ND	3.64		
PCB-18	ND	8.29			PCB-68	ND	3.36		
PCB-19	ND	7.81			PCB-69	-	-	C052	52
PCB-20	ND	4.94	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	ND	4.89			PCB-72	-	-	C041	41/64/71
PCB-23	ND	4.88			PCB-73	ND	3.19		
PCB-24	ND	5.56			PCB-74	ND	3.40		
PCB-25	ND	4.16			PCB-75	-	-	C048	48
PCB-26	ND	4.94			PCB-76	-	-	C066	66
PCB-27	ND	5.56			PCB-77	ND	5.85		
PCB-28	ND	3.75			PCB-78	575	-		
PCB-29	ND	4.88			PCB-79	ND	4.97		
PCB-30	ND	5.25			PCB-80	ND	3.09		
PCB-31	ND	5.89			PCB-81	ND	4.72		
PCB-32	ND	5.23			PCB-82	ND	8.73		
PCB-33	-	-	C020	20/21	PCB-83	ND	6.38	C	112
PCB-34	ND	5.35			PCB-84	ND	7.26	C	92
PCB-35	ND	6.10			PCB-85	ND	6.11	C	116
PCB-36	ND	5.45			PCB-86	ND	7.25		
PCB-37	ND	4.96			PCB-87	ND	5.87	C	117/125
PCB-38	ND	5.00			PCB-88	ND	7.42	C	91
PCB-39	ND	5.79			PCB-89	ND	7.18		
PCB-40	ND	5.73			PCB-90	ND	6.65	C	101
PCB-41	ND	3.56	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	ND	3.84	C	59	PCB-92	-	-	C084	84
PCB-43	ND	4.40	C	49	PCB-93	ND	7.11		
PCB-44	ND	5.04			PCB-94	ND	7.67		
PCB-45	ND	4.87			PCB-95	ND	6.76		
PCB-46	ND	5.13			PCB-96	ND	5.08		
PCB-47	ND	3.64			PCB-97	ND	6.44		
PCB-48	ND	3.64	C	75	PCB-98	ND	6.75	C	102
PCB-49	-	-	C043	43	PCB-99	ND	5.87		
PCB-50	ND	4.23			PCB-100	ND	6.54		

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EPA Method 1668
PCBs

FAL ID: 9987-001-SA
Client ID: LDW-CS-1-S00.2-KPDMS
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: 07-12-2016
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB1
Units: pg/sample

Acquired: 07-13-2016

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	ND	8.78		
PCB-102	-	-	C098	98	PCB-152	ND	4.81		
PCB-103	ND	6.18			PCB-153	ND	7.29		
PCB-104	2590	-			PCB-154	ND	5.65		
PCB-105	ND	5.87			PCB-155	13.3	-	J	
PCB-106	ND	5.45	C	118	PCB-156	ND	6.92		
PCB-107	ND	5.87	C	108	PCB-157	ND	7.70		
PCB-108	-	-	C107	107	PCB-158	ND	6.57	C	160
PCB-109	ND	5.48			PCB-159	ND	6.31		
PCB-110	ND	4.87			PCB-160	-	-	C158	158
PCB-111	ND	4.84	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	5.92			PCB-163	-	-	C138	138/164
PCB-114	ND	6.23			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	6.75		
PCB-117	-	-	C087	87/125	PCB-167	ND	7.11		
PCB-118	-	-	C106	106	PCB-168	ND	6.78		
PCB-119	ND	5.01			PCB-169	ND	7.04		
PCB-120	ND	5.00			PCB-170	ND	8.66		
PCB-121	2970	-			PCB-171	ND	7.62		
PCB-122	ND	4.88			PCB-172	ND	8.04		
PCB-123	ND	5.01			PCB-173	ND	8.56		
PCB-124	ND	5.54			PCB-174	ND	7.68		
PCB-125	-	-	C087	87/117	PCB-175	ND	7.15		
PCB-126	ND	7.50			PCB-176	ND	5.27		
PCB-127	ND	5.75			PCB-177	ND	8.01		
PCB-128	ND	7.83	C	162	PCB-178	ND	7.47		
PCB-129	ND	9.99			PCB-179	ND	5.04		
PCB-130	ND	9.88			PCB-180	ND	6.65		
PCB-131	ND	8.62	C	133	PCB-181	ND	7.46		
PCB-132	ND	7.57	C	161	PCB-182	ND	6.84	C	187
PCB-133	-	-	C131	131	PCB-183	ND	6.64		
PCB-134	ND	8.66	C	143	PCB-184	ND	5.00		
PCB-135	ND	8.61			PCB-185	ND	7.55		
PCB-136	ND	4.86			PCB-186	ND	5.53		
PCB-137	ND	9.04			PCB-187	-	-	C182	182
PCB-138	ND	6.65	C	163/164	PCB-188	ND	5.36		
PCB-139	ND	8.02	C	149	PCB-189	ND	5.75		
PCB-140	ND	8.12			PCB-190	ND	6.02		
PCB-141	ND	8.61			PCB-191	ND	5.89		
PCB-142	ND	9.22			PCB-192	14.0	-	J	
PCB-143	-	-	C134	134	PCB-193	ND	5.74		
PCB-144	ND	8.23			PCB-194	ND	4.28		
PCB-145	ND	5.14			PCB-195	ND	5.12		
PCB-146	ND	7.29	C	165	PCB-196	ND	9.05	C	203
PCB-147	ND	8.05			PCB-197	ND	6.79		
PCB-148	ND	6.46			PCB-198	ND	9.61		
PCB-149	-	-	C139	139	PCB-199	ND	10.1		
PCB-150	ND	4.88			PCB-200	ND	6.75		

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EPA Method 1668
PCBs

FRONTIER ANALYTICAL LABORATORY

FAL ID: 9987-001-SA
Client ID: LDW-CS-1-S00.2-KPDMS
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: 07-12-2016
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB1
Units: pg/sample

Acquired: 07-13-2016

Compound	Conc	DL	Qual	Coeluters
PCB-201	ND	6.70		
PCB-202	ND	6.86		
PCB-203	-	-	C196	196
PCB-204	ND	6.45		
PCB-205	ND	3.09		
PCB-206	ND	5.77		
PCB-207	ND	4.17		
PCB-208	ND	3.67		
PCB-209	ND	3.04		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	91.4	5.00 - 145	
13C-PCB-3	83.4	5.00 - 145	
13C-PCB-4	96.7	5.00 - 145	
13C-PCB-15	86.2	5.00 - 145	
13C-PCB-19	79.7	5.00 - 145	
13C-PCB-37	113	5.00 - 145	
13C-PCB-54	100	5.00 - 145	
13C-PCB-77	106	10.0 - 145	
13C-PCB-81	106	10.0 - 145	
13C-PCB-104	83.7	10.0 - 145	
13C-PCB-105	108	10.0 - 145	
13C-PCB-114	115	10.0 - 145	
13C-PCB-118	117	10.0 - 145	
13C-PCB-123	110	10.0 - 145	
13C-PCB-126	112	10.0 - 145	
13C-PCB-155	82.1	10.0 - 145	
13C-PCB-156	95.4	10.0 - 145	
13C-PCB-157	104	10.0 - 145	
13C-PCB-167	96.6	10.0 - 145	
13C-PCB-169	103	10.0 - 145	
13C-PCB-188	79.9	10.0 - 145	
13C-PCB-189	90.7	10.0 - 145	
13C-PCB-202	80.0	10.0 - 145	
13C-PCB-205	86.6	10.0 - 145	
13C-PCB-206	71.0	10.0 - 145	
13C-PCB-208	76.2	10.0 - 145	
13C-PCB-209	57.1	10.0 - 145	

Cleanup Surrogates	% Rec	QC Limits	Qual
13C-PCB-28	107	5.00 - 145	
13C-PCB-111	87.9	10.0 - 145	
13C-PCB-178	78.5	10.0 - 145	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Coelution
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____

Date: 7/15/2016

Reviewed By: _____

Date: 7/15/2016

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EPA Method 1668
PCBs

FAL ID: 9987-002-SA
Client ID: LDW-CS-2-S00.2-KPDMS
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: 07-12-2016
Amount: 1.00 sample

ICal: DAILY209FAL4-7-15-16
GC Column: DB1
Units: pg/sample

Acquired: 07-15-2016
Total Conc: 8400

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	ND	5.13			PCB-51	ND	5.79		
PCB-2	ND	6.79			PCB-52	ND	4.94	C	69
PCB-3	ND	7.01			PCB-53	ND	5.90		
PCB-4	ND	7.17			PCB-54	ND	4.19		
PCB-5	ND	6.12			PCB-55	53.1	-		
PCB-6	ND	5.76			PCB-56	ND	5.00	C	60
PCB-7	ND	5.85			PCB-57	ND	4.69		
PCB-8	ND	5.67			PCB-58	ND	4.70		
PCB-9	ND	5.64			PCB-59	-	-	C042	42
PCB-10	ND	5.10			PCB-60	-	-	C056	56
PCB-11	ND	6.72			PCB-61	ND	4.47	C	70
PCB-12	ND	5.05			PCB-62	ND	4.48		
PCB-13	ND	9.77			PCB-63	ND	4.72		
PCB-14	70.4	-			PCB-64	-	-	C041	41/71/72
PCB-15	ND	7.26			PCB-65	ND	4.93		
PCB-16	ND	5.25			PCB-66	ND	4.33	C	76
PCB-17	ND	3.76			PCB-67	ND	4.71		
PCB-18	ND	4.16			PCB-68	ND	4.48		
PCB-19	ND	3.96			PCB-69	-	-	C052	52
PCB-20	ND	5.01	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	ND	4.99			PCB-72	-	-	C041	41/64/71
PCB-23	ND	4.98			PCB-73	ND	4.16		
PCB-24	ND	2.85			PCB-74	ND	4.36		
PCB-25	ND	4.24			PCB-75	-	-	C048	48
PCB-26	ND	5.15			PCB-76	-	-	C066	66
PCB-27	ND	2.85			PCB-77	ND	5.75		
PCB-28	ND	4.17			PCB-78	671	-		
PCB-29	ND	5.04			PCB-79	ND	5.01		
PCB-30	ND	2.83			PCB-80	ND	4.08		
PCB-31	ND	5.67			PCB-81	ND	4.76		
PCB-32	ND	2.46			PCB-82	ND	9.72		
PCB-33	-	-	C020	20/21	PCB-83	ND	6.94	C	112
PCB-34	ND	5.08			PCB-84	ND	7.83	C	92
PCB-35	ND	6.11			PCB-85	ND	6.64	C	116
PCB-36	ND	5.75			PCB-86	ND	8.32		
PCB-37	ND	5.17			PCB-87	ND	6.00	C	117/125
PCB-38	ND	5.11			PCB-88	ND	7.16	C	91
PCB-39	ND	5.74			PCB-89	ND	7.96		
PCB-40	ND	7.97			PCB-90	ND	6.98	C	101
PCB-41	ND	4.52	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	ND	4.96	C	59	PCB-92	-	-	C084	84
PCB-43	ND	6.08	C	49	PCB-93	ND	7.60		
PCB-44	ND	6.81			PCB-94	ND	7.26		
PCB-45	ND	6.64			PCB-95	ND	5.03		
PCB-46	ND	6.94			PCB-96	ND	5.05		
PCB-47	ND	4.71			PCB-97	ND	6.61		
PCB-48	ND	4.90	C	75	PCB-98	ND	6.37	C	102
PCB-49	-	-	C043	43	PCB-99	ND	6.55		
PCB-50	ND	5.80			PCB-100	ND	6.04		

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EPA Method 1668
PCBs

FAL ID: 9987-002-SA
Client ID: LDW-CS-2-S00.2-KPDMS
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: 07-12-2016
Amount: 1.00 sample

ICal: DAILY209FAL4-7-15-16
GC Column: DB1
Units: pg/sample

Acquired: 07-15-2016

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	ND	4.56		
PCB-102	-	-	C098	98	PCB-152	ND	3.05		
PCB-103	ND	6.00			PCB-153	ND	4.08		
PCB-104	3540	-			PCB-154	ND	3.50		
PCB-105	ND	6.77			PCB-155	17.2	-	J	
PCB-106	ND	6.60	C	118	PCB-156	ND	3.79		
PCB-107	ND	6.39	C	108	PCB-157	ND	3.88		
PCB-108	-	-	C107	107	PCB-158	ND	3.42	C	160
PCB-109	ND	5.65			PCB-159	ND	3.39		
PCB-110	ND	5.39			PCB-160	-	-	C158	158
PCB-111	ND	4.99	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	5.96			PCB-163	-	-	C138	138/164
PCB-114	ND	6.46			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	3.66		
PCB-117	-	-	C087	87/125	PCB-167	ND	3.70		
PCB-118	-	-	C106	106	PCB-168	ND	3.54		
PCB-119	ND	5.35			PCB-169	ND	3.62		
PCB-120	ND	5.33			PCB-170	ND	6.96		
PCB-121	4050	-			PCB-171	ND	6.06		
PCB-122	ND	6.27			PCB-172	ND	6.49		
PCB-123	ND	5.37			PCB-173	ND	6.76		
PCB-124	ND	6.29			PCB-174	ND	5.91		
PCB-125	-	-	C087	87/117	PCB-175	ND	5.75		
PCB-126	ND	8.31			PCB-176	ND	4.31		
PCB-127	ND	7.42			PCB-177	ND	6.55		
PCB-128	ND	4.11	C	162	PCB-178	ND	6.15		
PCB-129	ND	5.47			PCB-179	ND	4.26		
PCB-130	ND	5.76			PCB-180	ND	5.01		
PCB-131	ND	4.52	C	133	PCB-181	ND	5.88		
PCB-132	ND	4.00	C	161	PCB-182	ND	5.42	C	187
PCB-133	-	-	C131	131	PCB-183	ND	5.43		
PCB-134	ND	4.56	C	143	PCB-184	ND	4.07		
PCB-135	ND	4.30			PCB-185	ND	6.00		
PCB-136	ND	2.99			PCB-186	ND	4.34		
PCB-137	ND	4.46			PCB-187	-	-	C182	182
PCB-138	ND	3.38	C	163/164	PCB-188	ND	4.19		
PCB-139	ND	4.15	C	149	PCB-189	ND	4.58		
PCB-140	ND	4.38			PCB-190	ND	4.97		
PCB-141	ND	4.55			PCB-191	ND	4.74		
PCB-142	ND	5.24			PCB-192	ND	4.76		
PCB-143	-	-	C134	134	PCB-193	ND	4.52		
PCB-144	ND	4.51			PCB-194	ND	4.88		
PCB-145	ND	3.07			PCB-195	ND	5.28		
PCB-146	ND	3.78	C	165	PCB-196	ND	6.55	C	203
PCB-147	ND	4.33			PCB-197	ND	4.85		
PCB-148	ND	4.20			PCB-198	ND	7.24		
PCB-149	-	-	C139	139	PCB-199	ND	7.05		
PCB-150	ND	2.99			PCB-200	ND	4.97		

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EPA Method 1668
PCBs

FRONTIER ANALYTICAL LABORATORY

FAL ID: 9987-002-SA
Client ID: LDW-CS-2-S00.2-KPDMS
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: 07-12-2016
Amount: 1.00 sample

ICal: DAILY209FAL4-7-15-16
GC Column: DB1
Units: pg/sample

Acquired: 07-15-2016

Compound	Conc	DL	Qual	Coeluters
PCB-201	ND	5.03		
PCB-202	ND	4.99		
PCB-203	-	-	C196	196
PCB-204	ND	4.87		
PCB-205	ND	3.79		
PCB-206	ND	4.65		
PCB-207	ND	3.74		
PCB-208	ND	3.52		
PCB-209	ND	3.78		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	93.9	5.00 - 145	
13C-PCB-3	90.8	5.00 - 145	
13C-PCB-4	92.8	5.00 - 145	
13C-PCB-15	85.4	5.00 - 145	
13C-PCB-19	92.9	5.00 - 145	
13C-PCB-37	86.6	5.00 - 145	
13C-PCB-54	99.2	5.00 - 145	
13C-PCB-77	94.5	10.0 - 145	
13C-PCB-81	92.8	10.0 - 145	
13C-PCB-104	97.9	10.0 - 145	
13C-PCB-105	97.5	10.0 - 145	
13C-PCB-114	95.6	10.0 - 145	
13C-PCB-118	97.2	10.0 - 145	
13C-PCB-123	97.3	10.0 - 145	
13C-PCB-126	101	10.0 - 145	
13C-PCB-155	96.2	10.0 - 145	
13C-PCB-156	95.0	10.0 - 145	
13C-PCB-157	99.7	10.0 - 145	
13C-PCB-167	97.5	10.0 - 145	
13C-PCB-169	97.4	10.0 - 145	
13C-PCB-188	92.7	10.0 - 145	
13C-PCB-189	96.0	10.0 - 145	
13C-PCB-202	94.3	10.0 - 145	
13C-PCB-205	94.2	10.0 - 145	
13C-PCB-206	95.0	10.0 - 145	
13C-PCB-208	90.1	10.0 - 145	
13C-PCB-209	91.9	10.0 - 145	

Cleanup Surrogates	% Rec	QC Limits	Qual
13C-PCB-28	91.2	5.00 - 145	
13C-PCB-111	88.1	10.0 - 145	
13C-PCB-178	90.8	10.0 - 145	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Coelution
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____

Date: 7/15/2016

Reviewed By: _____

Date: 7/15/2016

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EPA Method 1668
PCBs

FAL ID: 9987-003-SA
Client ID: LDW-CS-3-S00.2-KPDMS
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: 07-12-2016
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB1
Units: pg/sample

Acquired: 07-13-2016
Total Conc: 15700

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	ND	3.54			PCB-51	ND	6.17		
PCB-2	ND	5.31			PCB-52	ND	5.42	C	69
PCB-3	ND	5.52			PCB-53	ND	6.57		
PCB-4	ND	6.52			PCB-54	ND	4.67		
PCB-5	ND	6.78			PCB-55	101	-		
PCB-6	ND	7.08			PCB-56	ND	8.40	C	60
PCB-7	ND	6.41			PCB-57	ND	4.86		
PCB-8	ND	8.06			PCB-58	ND	4.99		
PCB-9	ND	8.91			PCB-59	-	-	C042	42
PCB-10	ND	7.71			PCB-60	-	-	C056	56
PCB-11	ND	8.63			PCB-61	ND	4.93	C	70
PCB-12	ND	7.35			PCB-62	ND	4.87		
PCB-13	ND	10.2			PCB-63	ND	4.66		
PCB-14	ND	8.62			PCB-64	-	-	C041	41/71/72
PCB-15	ND	9.13			PCB-65	ND	5.03		
PCB-16	ND	7.88			PCB-66	ND	4.58	C	76
PCB-17	ND	6.89			PCB-67	ND	5.11		
PCB-18	ND	7.84			PCB-68	ND	4.71		
PCB-19	ND	7.38			PCB-69	-	-	C052	52
PCB-20	ND	7.68	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	ND	7.61			PCB-72	-	-	C041	41/64/71
PCB-23	ND	7.60			PCB-73	ND	4.48		
PCB-24	ND	5.26			PCB-74	ND	4.77		
PCB-25	ND	6.47			PCB-75	-	-	C048	48
PCB-26	ND	7.68			PCB-76	-	-	C066	66
PCB-27	ND	5.26			PCB-77	ND	9.85		
PCB-28	ND	5.84			PCB-78	1790	-		
PCB-29	ND	7.59			PCB-79	ND	8.27		
PCB-30	ND	4.97			PCB-80	ND	4.33		
PCB-31	ND	9.17			PCB-81	ND	7.73		
PCB-32	ND	4.95			PCB-82	ND	13.1		
PCB-33	-	-	C020	20/21	PCB-83	ND	9.58	C	112
PCB-34	ND	8.18			PCB-84	ND	10.9	C	92
PCB-35	ND	9.50			PCB-85	ND	9.17	C	116
PCB-36	ND	8.48			PCB-86	ND	10.9		
PCB-37	ND	7.72			PCB-87	ND	8.81	C	117/125
PCB-38	ND	7.78			PCB-88	ND	10.4	C	91
PCB-39	ND	9.02			PCB-89	ND	10.8		
PCB-40	ND	8.04			PCB-90	ND	9.98	C	101
PCB-41	ND	5.00	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	ND	5.39	C	59	PCB-92	-	-	C084	84
PCB-43	ND	6.18	C	49	PCB-93	ND	9.97		
PCB-44	ND	7.08			PCB-94	ND	10.8		
PCB-45	ND	6.83			PCB-95	ND	9.48		
PCB-46	ND	7.21			PCB-96	ND	7.13		
PCB-47	ND	5.11			PCB-97	ND	9.66		
PCB-48	ND	5.12	C	75	PCB-98	ND	9.48	C	102
PCB-49	-	-	C043	43	PCB-99	ND	8.81		
PCB-50	ND	5.93			PCB-100	ND	9.18		

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EPA Method 1668
PCBs

FAL ID: 9987-003-SA
Client ID: LDW-CS-3-S00.2-KPDMS
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: 07-12-2016
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB1
Units: pg/sample

Acquired: 07-13-2016

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	ND	10.2		
PCB-102	-	-	C098	98	PCB-152	ND	4.51		
PCB-103	ND	8.68			PCB-153	ND	8.50		
PCB-104	6430	-			PCB-154	ND	5.30		
PCB-105	ND	5.92			PCB-155	26.0	-		
PCB-106	ND	6.53	C	118	PCB-156	ND	8.41		
PCB-107	ND	6.46	C	108	PCB-157	ND	8.54		
PCB-108	-	-	C107	107	PCB-158	ND	7.65	C	160
PCB-109	ND	8.23			PCB-159	ND	7.35		
PCB-110	ND	7.30			PCB-160	-	-	C158	158
PCB-111	ND	7.26	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	8.89			PCB-163	-	-	C138	138/164
PCB-114	ND	6.69			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	7.86		
PCB-117	-	-	C087	87/125	PCB-167	ND	7.73		
PCB-118	-	-	C106	106	PCB-168	ND	7.90		
PCB-119	ND	7.52			PCB-169	ND	8.91		
PCB-120	ND	7.50			PCB-170	ND	10.4		
PCB-121	7380	-			PCB-171	ND	9.16		
PCB-122	ND	5.37			PCB-172	ND	9.67		
PCB-123	ND	5.68			PCB-173	ND	10.3		
PCB-124	ND	6.10			PCB-174	ND	9.24		
PCB-125	-	-	C087	87/117	PCB-175	ND	8.60		
PCB-126	ND	8.87			PCB-176	ND	6.34		
PCB-127	ND	6.33			PCB-177	ND	9.64		
PCB-128	ND	9.12	C	162	PCB-178	ND	8.99		
PCB-129	ND	11.7			PCB-179	ND	6.06		
PCB-130	ND	11.5			PCB-180	ND	8.01		
PCB-131	ND	10.0	C	133	PCB-181	ND	8.97		
PCB-132	ND	8.83	C	161	PCB-182	ND	8.23	C	187
PCB-133	-	-	C131	131	PCB-183	ND	7.99		
PCB-134	ND	10.1	C	143	PCB-184	ND	6.02		
PCB-135	ND	10.0			PCB-185	ND	9.08		
PCB-136	ND	4.56			PCB-186	ND	6.66		
PCB-137	ND	10.5			PCB-187	-	-	C182	182
PCB-138	ND	7.75	C	163/164	PCB-188	ND	7.02		
PCB-139	ND	9.35	C	149	PCB-189	ND	6.23		
PCB-140	ND	9.46			PCB-190	ND	7.24		
PCB-141	ND	10.0			PCB-191	ND	7.08		
PCB-142	ND	10.7			PCB-192	ND	7.54		
PCB-143	-	-	C134	134	PCB-193	ND	6.91		
PCB-144	ND	9.59			PCB-194	ND	4.42		
PCB-145	ND	4.83			PCB-195	ND	5.29		
PCB-146	ND	8.50	C	165	PCB-196	ND	6.24	C	203
PCB-147	ND	9.39			PCB-197	ND	4.69		
PCB-148	ND	6.06			PCB-198	ND	6.63		
PCB-149	-	-	C139	139	PCB-199	ND	7.00		
PCB-150	ND	4.58			PCB-200	ND	4.66		

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EPA Method 1668
PCBs

FAL ID: 9987-003-SA
Client ID: LDW-CS-3-S00.2-KPDMS
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: 07-12-2016
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB1
Units: pg/sample

Acquired: 07-13-2016

Compound	Conc	DL	Qual	Coeluters
PCB-201	ND	4.63		
PCB-202	ND	4.73		
PCB-203	-	-	C196	196
PCB-204	ND	4.45		
PCB-205	ND	3.19		
PCB-206	ND	4.28		
PCB-207	ND	3.27		
PCB-208	ND	3.06		
PCB-209	ND	3.54		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	87.4	5.00 - 145	
13C-PCB-3	80.0	5.00 - 145	
13C-PCB-4	94.6	5.00 - 145	
13C-PCB-15	85.0	5.00 - 145	
13C-PCB-19	71.4	5.00 - 145	
13C-PCB-37	112	5.00 - 145	
13C-PCB-54	97.6	5.00 - 145	
13C-PCB-77	104	10.0 - 145	
13C-PCB-81	103	10.0 - 145	
13C-PCB-104	78.3	10.0 - 145	
13C-PCB-105	112	10.0 - 145	
13C-PCB-114	109	10.0 - 145	
13C-PCB-118	113	10.0 - 145	
13C-PCB-123	109	10.0 - 145	
13C-PCB-126	110	10.0 - 145	
13C-PCB-155	77.4	10.0 - 145	
13C-PCB-156	89.1	10.0 - 145	
13C-PCB-157	99.2	10.0 - 145	
13C-PCB-167	91.8	10.0 - 145	
13C-PCB-169	95.4	10.0 - 145	
13C-PCB-188	75.0	10.0 - 145	
13C-PCB-189	80.8	10.0 - 145	
13C-PCB-202	74.6	10.0 - 145	
13C-PCB-205	83.0	10.0 - 145	
13C-PCB-206	66.4	10.0 - 145	
13C-PCB-208	71.6	10.0 - 145	
13C-PCB-209	52.3	10.0 - 145	

Cleanup Surrogates	% Rec	QC Limits	Qual
13C-PCB-28	121	5.00 - 145	
13C-PCB-111	86.2	10.0 - 145	
13C-PCB-178	76.5	10.0 - 145	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Coelution
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____

Date: 7/15/2016

Reviewed By: _____

Date: 7/15/2016

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EPA Method 1668
PCBs

FAL ID: 9987-004-SA
Client ID: LDW-CS-C6-S010-PW-SED
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: 07-12-2016
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB1
Units: pg/sample

Acquired: 07-13-2016
Total Conc: 1360000

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	440	-			PCB-51	15400	-		
PCB-2	72.0	-			PCB-52	101000	-	C	69
PCB-3	108	-			PCB-53	45000	-		
PCB-4	3420	-			PCB-54	2380	-		
PCB-5	5100	-			PCB-55	383	-		
PCB-6	12200	-			PCB-56	30500	-	C	60
PCB-7	385	-			PCB-57	409	-		
PCB-8	8780	-			PCB-58	282	-		
PCB-9	310	-			PCB-59	-	-	C042	42
PCB-10	2540	-			PCB-60	-	-	C056	56
PCB-11	333	-			PCB-61	65600	-	C	70
PCB-12	1310	-			PCB-62	ND	15.9		
PCB-13	3100	-			PCB-63	2100	-		
PCB-14	776	-			PCB-64	-	-	C041	41/71/72
PCB-15	1970	-			PCB-65	ND	16.5		
PCB-16	34100	-			PCB-66	64800	-	C	76
PCB-17	46600	-			PCB-67	1830	-		
PCB-18	99500	-			PCB-68	600	-		
PCB-19	27400	-			PCB-69	-	-	C052	52
PCB-20	18200	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	5250	-			PCB-72	-	-	C041	41/64/71
PCB-23	94.4	-			PCB-73	5800	-		
PCB-24	15200	-			PCB-74	30000	-		
PCB-25	20300	-			PCB-75	-	-	C048	48
PCB-26	34400	-			PCB-76	-	-	C066	66
PCB-27	11600	-			PCB-77	3040	-		
PCB-28	61000	-			PCB-78	1940	-		
PCB-29	39.9	-			PCB-79	401	-		
PCB-30	18.0	-	J		PCB-80	ND	14.2		
PCB-31	69600	-			PCB-81	490	-		
PCB-32	28000	-			PCB-82	2870	-		
PCB-33	-	-	C020	20/21	PCB-83	1130	-	C	112
PCB-34	770	-			PCB-84	7910	-	C	92
PCB-35	186	-			PCB-85	3770	-	C	116
PCB-36	1400	-			PCB-86	368	-		
PCB-37	4270	-			PCB-87	6180	-	C	117/125
PCB-38	662	-			PCB-88	6090	-	C	91
PCB-39	ND	10.8			PCB-89	585	-		
PCB-40	6590	-			PCB-90	18600	-	C	101
PCB-41	51200	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	16900	-	C	59	PCB-92	-	-	C084	84
PCB-43	95400	-	C	49	PCB-93	ND	10.4		
PCB-44	46000	-			PCB-94	691	-		
PCB-45	6900	-			PCB-95	23600	-		
PCB-46	4220	-			PCB-96	745	-		
PCB-47	30200	-			PCB-97	5480	-		
PCB-48	16400	-	C	75	PCB-98	ND	9.91	C	102
PCB-49	-	-	C043	43	PCB-99	10300	-		
PCB-50	446	-			PCB-100	503	-		

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EPA Method 1668
PCBs

FAL ID: 9987-004-SA
Client ID: LDW-CS-C6-S010-PW-SED
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: 07-12-2016
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB1
Units: pg/sample

Acquired: 07-13-2016

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	2460	-		
PCB-102	-	-	C098	98	PCB-152	100	-		
PCB-103	666	-			PCB-153	6880	-		
PCB-104	2200	-			PCB-154	215	-		
PCB-105	7390	-			PCB-155	2730	-		
PCB-106	17500	-	C	118	PCB-156	389	-		
PCB-107	1390	-	C	108	PCB-157	81.4	-		
PCB-108	-	-	C107	107	PCB-158	628	-	C	160
PCB-109	78.3	-			PCB-159	74.3	-		
PCB-110	13400	-			PCB-160	-	-	C158	158
PCB-111	497	-	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	11.5			PCB-163	-	-	C138	138/164
PCB-114	427	-			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	15.2	-	J	
PCB-117	-	-	C087	87/125	PCB-167	164	-		
PCB-118	-	-	C106	106	PCB-168	ND	10.1		
PCB-119	593	-			PCB-169	ND	11.5		
PCB-120	ND	9.69			PCB-170	989	-		
PCB-121	2530	-			PCB-171	358	-		
PCB-122	262	-			PCB-172	303	-		
PCB-123	451	-			PCB-173	33.5	-		
PCB-124	618	-			PCB-174	1510	-		
PCB-125	-	-	C087	87/117	PCB-175	69.0	-		
PCB-126	62.2	-			PCB-176	246	-		
PCB-127	ND	10.8			PCB-177	863	-		
PCB-128	657	-	C	162	PCB-178	352	-		
PCB-129	250	-			PCB-179	796	-		
PCB-130	311	-			PCB-180	2290	-		
PCB-131	177	-	C	133	PCB-181	ND	8.09		
PCB-132	1710	-	C	161	PCB-182	1890	-	C	187
PCB-133	-	-	C131	131	PCB-183	834	-		
PCB-134	397	-	C	143	PCB-184	3330	-		
PCB-135	1030	-			PCB-185	146	-		
PCB-136	1460	-			PCB-186	ND	6.00		
PCB-137	246	-			PCB-187	-	-	C182	182
PCB-138	5210	-	C	163/164	PCB-188	11.1	-	J	
PCB-139	6720	-	C	149	PCB-189	35.4	-		
PCB-140	54.1	-			PCB-190	210	-		
PCB-141	1320	-			PCB-191	56.1	-		
PCB-142	2560	-			PCB-192	2400	-		
PCB-143	-	-	C134	134	PCB-193	173	-		
PCB-144	428	-			PCB-194	289	-		
PCB-145	13.3	-	J		PCB-195	149	-		
PCB-146	875	-	C	165	PCB-196	373	-	C	203
PCB-147	256	-			PCB-197	56.6	-		
PCB-148	27.8	-			PCB-198	20.5	-		
PCB-149	-	-	C139	139	PCB-199	374	-		
PCB-150	34.2	-			PCB-200	60.5	-		

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EPA Method 1668
PCBs

FRONTIER ANALYTICAL LABORATORY

FAL ID: 9987-004-SA
Client ID: LDW-CS-C6-S010-PW-SED
Matrix: Solvent
Batch No: X3765

Date Extracted: 07-12-2016
Date Received: 07-12-2016
Amount: 1.00 sample

ICal: DAILY209FAL4-7-13-16
GC Column: DB1
Units: pg/sample

Acquired: 07-13-2016

Compound	Conc	DL	Qual	Coeluters
PCB-201	53.3	-		
PCB-202	96.4	-		
PCB-203	-	-	C196	196
PCB-204	3980	-		
PCB-205	15.6	-	J	
PCB-206	56.5	-		
PCB-207	31.7	-		
PCB-208	17.8	-	J	
PCB-209	34.6	-		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	86.6	5.00 - 145	
13C-PCB-3	74.2	5.00 - 145	
13C-PCB-4	96.7	5.00 - 145	
13C-PCB-15	96.2	5.00 - 145	
13C-PCB-19	74.1	5.00 - 145	
13C-PCB-37	117	5.00 - 145	
13C-PCB-54	98.7	5.00 - 145	
13C-PCB-77	129	10.0 - 145	
13C-PCB-81	130	10.0 - 145	
13C-PCB-104	77.8	10.0 - 145	
13C-PCB-105	129	10.0 - 145	
13C-PCB-114	129	10.0 - 145	
13C-PCB-118	132	10.0 - 145	
13C-PCB-123	130	10.0 - 145	
13C-PCB-126	129	10.0 - 145	
13C-PCB-155	78.1	10.0 - 145	
13C-PCB-156	101	10.0 - 145	
13C-PCB-157	108	10.0 - 145	
13C-PCB-167	100	10.0 - 145	
13C-PCB-169	99.9	10.0 - 145	
13C-PCB-188	76.5	10.0 - 145	
13C-PCB-189	80.6	10.0 - 145	
13C-PCB-202	72.8	10.0 - 145	
13C-PCB-205	89.4	10.0 - 145	
13C-PCB-206	65.9	10.0 - 145	
13C-PCB-208	75.7	10.0 - 145	
13C-PCB-209	50.0	10.0 - 145	

Cleanup Surrogates	% Rec	QC Limits	Qual
13C-PCB-28	119	5.00 - 145	
13C-PCB-111	94.9	10.0 - 145	
13C-PCB-178	76.0	10.0 - 145	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Coelution
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____

Date: 7/15/2016

Reviewed By: _____

Date: 7/15/2016

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SiREM

Chain-of-Custody Form

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9987
10c

130 Stone Rd. W
Guelph, ON N1G 3Z2
(519) 822-2265

Lab #

*Project Name LDWG	*Project # HE1508, P01
*Project Manager Jason Conder	*Company Geosyntec
*Email Address jconder@geosyntec.com	
Address (Street) 2100 Main St.	
City Huntington Beach / State/Province California	Country USA
*Phone # 714-465-1226	
*Sampler's Signature	*Sampler's Printed Name Matt Vanderkooy

Analysis

Preservative Key: 0. None; 1. HCL; 2. Other ____; 3. Other ____; 4. Other ____; 5. Other ____; 6. Other ____

Client Sample ID	Sampling Date	Sampling Time	Matrix	# of Containers	Gene-Trac DHC	Gene-Trac VC	Gene-Trac DHB	Gene-Trac DHG	Gene-Trac toeA	Volatile Fatty Acids	Dissolved hydrocarbon gases	Treatability Study	PCB Congeners EPA 1668C			Other Information
LDW-CS-1-S00.2-KPDMS	7/11/16	14:30h EDT	Hexane	1									✓			Good to analyze
LDW-CS-2-S00.2-KPDMS	7/11/16	14:30h EDT	Hexane	1									✓			Good to analyze
LDW-CS-3-S00.2-KPDMS	7/11/16	14:30h EDT	Hexane	1									✓			Good to analyze
LDW-CS-C6-S010-PW-SED	7/11/16	14:00h EDT	Hexane	1									✓			Good to analyze
LDW-CS-C6-S010-PW-MB	7/8/16	14:00h EDT	Hexane	1									✓			Contact J. Conder before running
Hexane	7/8/16	14:00h EDT	Hexane	1									✓			Contact J. Conder before running
Acetonitrile	7/8/16	14:00h EDT	Acetonitrile	1									✓			Contact J. Conder before running
Hexane w PCBs	7/8/16	14:00h EDT	Hexane	1									✓			Contact J. Conder before running

Billing Information

P.O. #

*Bill To:

Turnaround Time Requested

Normal ☐
Rush ☒

3 day TAT

For Lab Use Only

Cooler Condition:

Cooler Temperature:

Custody Seals: Yes ☐ No ☐

For Lab Use Only

Proposal #: ____

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: Michael Hedley	Signature: [illegible]	Signature:	Signature:	Signature:	Signature:
Printed Name: Michael Hedley	Printed Name: Brad Summers	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Geosyntec	Firm: Frontier Analytical	Firm:	Firm:	Firm:	Firm:
Date/Time: 11 Jul 16 / 4:00 pm	Date/Time: 07/12/16 07:30	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - return to Originator. Yellow - Lab Copy. Pink - Retained by Client

** Mandatory Fields*

Frontier Analytical Laboratory

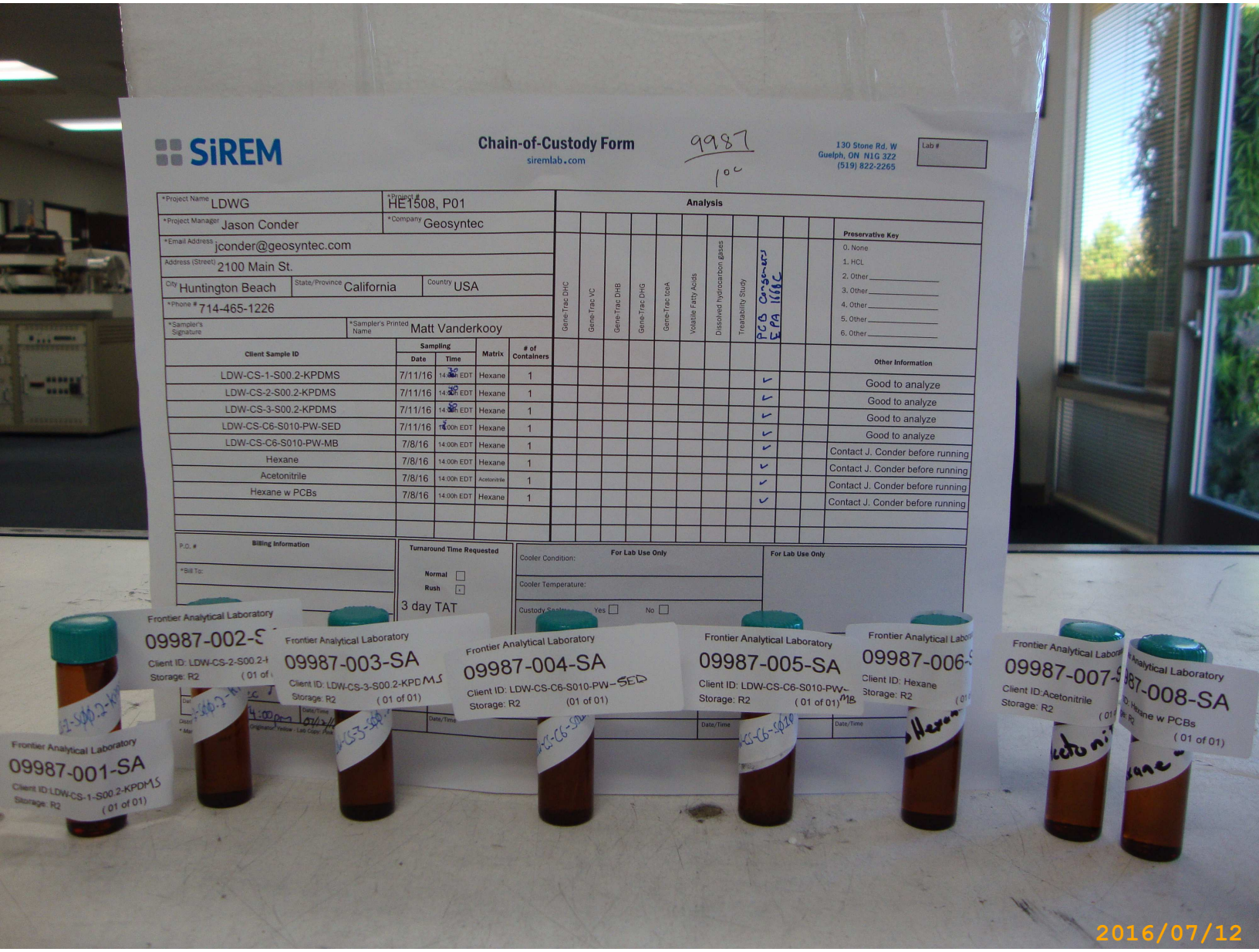
Sample Login Form

FAL Project ID: **9987**

Client:	Geosyntec Consultants, Inc.
Client Project ID:	HE1508, P01
Date Received:	07/12/2016
Time Received:	07:30 am
Received By:	BS
Logged In By:	KZ
# of Samples Received:	8
Duplicates:	0
Storage Location:	R2

Method of Delivery:	Fed-Ex
Tracking Number:	776713940115
Shipping Container Received Intact	Yes
Custody seals(s) present?	No
Custody seals(s) intact?	No
Sample Arrival Temperature (C)	1
Cooling Method	Blue Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	No
Test aqueous sample for residual Chlorine	No
Sodium Thiosulfate Added	No
Adequate Sample Volume	Yes
Appropriate Sample Container	Yes
pH Range of Aqueous Sample	N/A
Anomalies or additional comments:	

5172 Hillsdale Circle * El Dorado Hills, CA 95762 * Tel (916) 934-0900 * Fax (916) 934-0999 * www.frontieranalytical.com



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3-DAY RUSH!

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PROJECT REQUEST SHEET

Project #:	9987	Sample #:	1 - 8	Client Manager:	BS
Client:	Geosyntec Consultants, Inc.			Hold Time:	07/10/2017
Matrix:	Solvent	Extraction Batch:	3765	Due Date:	07/15/2016
Method:	EPA 1668 PCB			Storage:	R2
SOP:	SOPs: EP1A Rev.9 IP1A Rev.6				

COMMENTS/INSTRUCTIONS:

9987.006.SA (Hexane volume ≈ 4.8mls) used entire vial contents for QC. DJV 7.12.16
9987.007.SA (Acetonitrile volume ≈ 5.0mls)
9987.008.SA (Hexane w PCBs volume = 5.05ml) used 1.0ml for QC purposes. DJV 7.12.16

Results: 9987

Extract/s located in box: "Designated Skipper"

Standards: 9987

Instrument:
DB5 ____
DB225 ____
DB1MS FAL-4
Other ____

Hold Samples 5-8

Frontier Analytical Laboratory
EXTRACTION SHEET

Project #: 9987 Extraction Date: 2016-07-12 Extraction Chemist: DV

Method/Analysis: EPA 1668 PCB

Procedure: Solvent Dilution Solvent: Hexane

Sample ID	Wet wt. (g/L)	Dry wt. (g/L)	IS Amt: 10.0uL ID: R160602A Vial: 2 Chemist/Witness/Date	NS Amt: 10.0uL ID: 160705A Vial: 1 Chemist/Witness/Date	CSS Amt: 10.0uL ID: R160707A Vial: 1 Chemist/Witness/Date
03765-001-0001-MB	(5.00ml)*	N/A	DN KH 7.12.16	N/A	DN KH 7.12.16
03765-001-0001-OPR	(5.00ml)*	↓	↓	DN KH 7.12.16	↓
09987-001-0001-SA	5.0ml**	↓	↓	N/A	↓
09987-002-0001-SA	5.0ml**	↓	↓	↓	↓
09987-003-0001-SA	5.0ml**	↓	↓	↓	↓
09987-004-0001-SA	4.4ml**	↓	↓	↓	↓
09987-005-0001-SA	4.5ml**	↓	↓	↓	↓

AX-21 Charcoal Cleaned	130410	Acetone	158570	Acid Alumina	A0347591	Hexane	161098
Methanol	161218	Methylene Chloride (DCM)	161693	Silica Gel	TA1975634	Sodium Hydroxide 1N	151965
Sodium Sulfate	16B100005	Sulfuric Acid	158403	Tetradecane	157561	Toluene	56097
Water	162916	C-18 Empore Discs	320850D	Cyclohexane	55211		

Comments: *Used ≈5.00ml of hexane for MB and OPR blank matrix. DN 7.12.16

**Approximate sample/extract volume using a 5ml pipet. DN 7.12.16

Samples 1-3 vials contained ~~small~~ short fiber piece which was not transferred from vial. DN 7.12.16

Samples 4 & 5 vials contained longer/multiple fiber pieces which were not transferred from vial. DN 7.12.16

Sample 5 hexane was a bit cloudy in appearance. DN 7.12.16

Frontier Analytical Laboratory
CLEANUP SHEET

Project #: 9987

Method/Analysis: EPA 1668 PCB

Splits: 0 Split Date: N/A Final Volume: 100uL

Sample ID	Cleanup 1 PCB MSG Chemist/Date	Cleanup 2 N/A Chemist/Date	Cleanup 3 N/A Chemist/Date	RS Amt: 10.0uL ID: 160705B Vial: 1 Chemist/Witness/Date
03765-001-0001-MB	DN 7.12.16	N/A	N/A	DN 7.12.16
03765-001-0001-OPR				
09987-001-0001-SA				
09987-002-0001-SA				
09987-003-0001-SA				
09987-004-0001-SA				
09987-005-0001-SA				

AX-21 Charcoal Cleaned	130410	Acetone	158570	Acid Alumina	A0347591	Hexane	161098
Methanol	161218	Methylene Chloride (DCM)	161693	Silica Gel	TA1975634	Sodium Hydroxide 1N	151965
Sodium Sulfate	16B100005	Sulfuric Acid	158403	Tetradecane	157561	Toluene	56097
Water	162916	C-18 Empore Discs	320850D	Cyclohexane	55211		

Comments:

FAL ID: 03765-001-0001-MB Filename: 13JUL16Z Sam:6 Acquired: 13-JUL-16 15:16:37 ICal: DAILY209FAL4-7-13-16
Client ID: Method Blank ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 3765 GC Column: DB1 Amount: 1.000

Name	Resp	RA		RT	RRF	Conc	Qual	Noise-1	Noise-2	DL	Rec
PCB-1	*	*	n	NotFnd	1.05	*		6800	2400	3.11	
13C-PCB-1	2.15e+08	3.17	y	14:20	1.06	9050					90.5
PCB-2	*	*	n	NotFnd	0.92	*		6800	2400	4.16	
PCB-3	*	*	n	NotFnd	1.13	*		6800	2400	3.94	
13C-PCB-3	2.01e+08	3.24	y	16:46	1.03	8660					86.6
PCB-4	*	*	n	NotFnd	1.19	*		4270	10300	8.22	
PCB-10	*	*	n	NotFnd	1.33	*		4270	10300	7.43	
13C-PCB-4	1.29e+08	1.59	y	17:59	0.60	9490					94.9
PCB-9	*	*	n	NotFnd	1.15	*		4270	10300	8.58	
PCB-7	*	*	n	NotFnd	1.60	*		4270	10300	6.17	
PCB-6	*	*	n	NotFnd	1.45	*		7270	10300	8.23	
PCB-8	*	*	n	NotFnd	1.27	*		4270	10300	7.77	
PCB-5	*	*	n	NotFnd	1.51	*		4270	10300	6.53	
PCB-14	*	*	n	NotFnd	1.19	*		4270	10300	8.30	
PCB-11	*	*	n	NotFnd	1.19	*		4270	10300	8.32	
PCB-13	*	*	n	NotFnd	1.00	*		4270	10300	9.87	
PCB-12	*	*	n	NotFnd	1.40	*		4270	10300	7.08	
PCB-15	*	*	n	NotFnd	1.34	*		4270	10300	7.43	
13C-PCB-15	1.85e+08	1.59	y	23:31	0.85	9670					96.7
PCB-19	*	*	n	NotFnd	1.14	*		3790	3870	6.11	
PCB-30	*	*	n	NotFnd	1.69	*		3790	3870	4.12	
PCB-18	*	*	n	NotFnd	1.07	*		3790	3870	6.50	
PCB-17	*	*	n	NotFnd	1.22	*		3790	3870	5.71*	
PCB-27	*	*	n	NotFnd	1.59	*		3790	3870	4.36	
PCB-24	*	*	n	NotFnd	1.59	*		3790	3870	4.36	
PCB-16	*	*	n	NotFnd	1.06	*		3790	3870	6.53	
PCB-32	*	*	n	NotFnd	1.69	*		3790	3870	4.10	
13C-PCB-19	1.04e+08	1.10	y	21:51	0.59	7900					79.0
13C-PCB-9	2.25e+08	1.59	y	19:40	-	387					
PCB-34	*	*	n	NotFnd	1.13	*		3930	3810	7.21	
PCB-23	*	*	n	NotFnd	1.24	*		3930	3810	6.58	
PCB-29	*	*	n	NotFnd	1.24	*		3930	3810	6.58	
PCB-26	*	*	n	NotFnd	1.22	*		3930	3810	6.65	
PCB-25	*	*	n	NotFnd	1.45	*		3930	3810	5.61	
PCB-31	*	*	n	NotFnd	1.02	*		3930	3810	7.94*	
PCB-28	*	*	n	NotFnd	1.61	*		3930	3810	5.06*	
PCB-20	*	*	n	NotFnd	1.22	*		3930	3810	6.66	Co-elute PCB 21/33
PCB-21	*	*	n	NotFnd	1.22	*		3930	3810	6.66	Co-elute PCB 20/33
PCB-33	*	*	n	NotFnd	1.22	*		3930	3810	6.66	Co-elute PCB 20/21
PCB-22	*	*	n	NotFnd	1.23	*		3930	3810	6.59	
PCB-36	*	*	n	NotFnd	1.11	*		3930	3810	7.34	
PCB-39	*	*	n	NotFnd	1.04	*		3930	3810	7.81	
PCB-38	*	*	n	NotFnd	1.21	*		3930	3810	6.74	
PCB-35	*	*	n	NotFnd	0.99	*		3930	3810	8.23	
PCB-37	*	*	n	NotFnd	1.22	*		3930	3810	6.69	
13C-PCB-37	1.44e+08	1.08	y	30:10	1.04	11400					114

*trace levels below reported DL.

FAL ID: 03765-001-0001-MB Filename: 13JUL16Z Sam:6 Acquired: 13-JUL-16 ICal: DAILY209FAL4-7-13-16
Client ID: Method Blank ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 3765 GC Column: DB1 Amount: 1.000

PCB-54	*	*	n	NotFnd	1.06	*	2740	3190	4.07	
PCB-50	*	*	n	NotFnd	0.84	*	2740	3190	5.18	
PCB-53	*	*	n	NotFnd	0.75	*	2740	3190	5.73	
PCB-51	*	*	n	NotFnd	0.80	*	2740	3190	5.39	
PCB-45	*	*	n	NotFnd	0.73	*	2740	3190	5.96	
PCB-46	*	*	n	NotFnd	0.69	*	2740	3190	6.29	
PCB-52	*	*	n	NotFnd	0.91	*	2740	3190	4.74*	Co-elute PCB 69
PCB-69	*	*	n	NotFnd	0.91	*	2740	3190	4.74*	Co-elute PCB 52
PCB-73	*	*	n	NotFnd	1.10	*	2740	3190	3.91	
PCB-43	*	*	n	NotFnd	0.80	*	2740	3190	5.40	Co-elute PCB 49
PCB-49	*	*	n	NotFnd	0.80	*	2740	3190	5.40	Co-elute PCB 43
PCB-47	*	*	n	NotFnd	0.97	*	2740	3190	4.46	
PCB-48	*	*	n	NotFnd	0.97	*	2740	3190	4.47	Co-elute PCB 75
PCB-75	*	*	n	NotFnd	0.97	*	2740	3190	4.47	Co-elute PCB 48
PCB-65	*	*	n	NotFnd	0.98	*	2740	3190	4.39	
PCB-62	*	*	n	NotFnd	1.02	*	2740	3190	4.25	
PCB-44	*	*	n	NotFnd	0.70	*	2740	3190	6.18	
PCB-42	*	*	n	NotFnd	0.92	*	2740	3190	4.70	Co-elute PCB 59
PCB-59	*	*	n	NotFnd	0.92	*	2740	3190	4.70	Co-elute PCB 42
PCB-72	*	*	n	NotFnd	0.99	*	2740	3190	4.36	Co-elute PCB 41/71/64
PCB-41	*	*	n	NotFnd	0.99	*	2740	3190	4.36	Co-elute PCB 72/71/64
PCB-71	*	*	n	NotFnd	0.99	*	2740	3190	4.36	Co-elute PCB 72/41/64
PCB-64	*	*	n	NotFnd	0.99	*	2740	3190	4.36	Co-elute PCB 72/41/71
PCB-68	*	*	n	NotFnd	1.05	*	2740	3190	4.11	
PCB-40	*	*	n	NotFnd	0.62	*	2740	3190	7.02	
PCB-57	*	*	n	NotFnd	1.02	*	2740	3190	4.24	
PCB-67	*	*	n	NotFnd	0.97	*	2740	3190	4.46	
PCB-58	*	*	n	NotFnd	0.99	*	2740	3190	4.36	
PCB-63	*	*	n	NotFnd	1.06	*	2740	3190	4.07	
PCB-74	*	*	n	NotFnd	1.04	*	2740	3190	4.17	
PCB-61	*	*	n	NotFnd	1.00	*	2740	3190	4.31	Co-elute PCB 70
PCB-70	*	*	n	NotFnd	1.00	*	2740	3190	4.31	Co-elute PCB 61
PCB-76	*	*	n	NotFnd	1.08	*	2740	3190	4.00	Co-elute PCB 66
PCB-66	*	*	n	NotFnd	1.08	*	2740	3190	4.00	Co-elute PCB 76
PCB-80	*	*	n	NotFnd	1.14	*	2740	3190	3.78	
PCB-55	*	*	n	NotFnd	1.01	*	2740	3190	4.26	
13C-PCB-54	1.36e+08	0.80	y	25:23	1.12	10100				101
PCB-104	*	*	n	NotFnd	1.22	*	1970	1450	3.38	
PCB-96	*	*	n	NotFnd	1.14	*	1970	1450	3.62	
PCB-103	*	*	n	NotFnd	0.94	*	1970	1450	4.41	
PCB-100	*	*	n	NotFnd	0.89	*	1970	1450	4.67	
PCB-94	*	*	n	NotFnd	0.76	*	1970	1450	5.47	
PCB-98	*	*	n	NotFnd	0.86	*	1970	1450	4.81	Co-elute PCB 102
PCB-102	*	*	n	NotFnd	0.86	*	1970	1450	4.81	Co-elute PCB 98
PCB-95	*	*	n	NotFnd	0.86	*	1970	1450	4.82	
PCB-93	*	*	n	NotFnd	0.82	*	1970	1450	5.07	
PCB-88	*	*	n	NotFnd	0.78	*	1970	1450	5.30	Co-elute PCB 91
PCB-91	*	*	n	NotFnd	0.78	*	1970	1450	5.30	Co-elute PCB 88
PCB-121	*	*	n	NotFnd	1.14	*	1970	1450	3.64	
13C-PCB-104	8.29e+07	1.62	y	29:49	0.76	9080				90.8
13C-PCB-28	1.82e+08	1.05	y	26:29	1.27	11800				118
13C-PCB-52	1.21e+08	0.80	y	28:43	-	320				

* trace levels below reported DL.

PCB-56	*	*	n	NotFnd	1.15	*	1560	1540	3.38	Co-elute PCB 60
PCB-60	*	*	n	NotFnd	1.15	*	1560	1540	3.38	Co-elute PCB 56
PCB-79	*	*	n	NotFnd	1.17	*	1560	1540	3.33	
PCB-78	*	*	n	NotFnd	1.07	*	1560	1540	3.63	
PCB-81	*	*	n	NotFnd	1.16	*	1560	1540	3.14	
13C-PCB-81	1.15e+08	0.79	y	35:56	0.97	11200				112
PCB-77	*	*	n	NotFnd	1.04	*	1560	1540	3.94	
13C-PCB-77	1.14e+08	0.80	y	36:29	0.99	10800				108
PCB-155	*	*	n	NotFnd	1.11	*	1560	1250	2.79	
PCB-150	*	*	n	NotFnd	0.96	*	1560	1250	3.24	
PCB-152	*	*	n	NotFnd	0.97	*	1560	1250	3.19	
PCB-145	*	*	n	NotFnd	0.91	*	1560	1250	3.41	
PCB-136	*	*	n	NotFnd	0.96	*	1560	1250	3.22	
PCB-148	*	*	n	NotFnd	0.72	*	1560	1250	4.29	
PCB-154	*	*	n	NotFnd	0.83	*	1560	1250	3.75	
13C-PCB-155	9.36e+07	1.27	y	33:57	0.99	8930				89.3
13C-PCB-111	1.18e+08	1.58	y	36:04	1.11	10000				100
13C-PCB-101	1.06e+08	1.61	y	34:24	-	330				
PCB-84	*	*	n	NotFnd	0.93	*	2260	1720	4.64	Co-elute PCB 92
PCB-92	*	*	n	NotFnd	0.93	*	2260	1720	4.64	Co-elute PCB 84
PCB-89	*	*	n	NotFnd	0.94	*	2260	1720	4.58	
PCB-90	*	*	n	NotFnd	1.01	*	2260	1720	4.25	Co-elute PCB 101
PCB-101	*	*	n	NotFnd	1.01	*	2260	1720	4.25	Co-elute PCB 90
PCB-113	*	*	n	NotFnd	1.14	*	2260	1720	3.78	
PCB-99	*	*	n	NotFnd	1.15	*	2260	1720	3.75	
PCB-119	*	*	n	NotFnd	1.34	*	2260	1720	3.20	
PCB-83	*	*	n	NotFnd	1.05	*	2260	1720	4.08	Co-elute PCB 112
PCB-112	*	*	n	NotFnd	1.05	*	2260	1720	4.08	Co-elute PCB 83
PCB-109	*	*	n	NotFnd	1.23	*	2260	1720	3.50	
PCB-97	*	*	n	NotFnd	1.04	*	2260	1720	4.11	
PCB-86	*	*	n	NotFnd	0.93	*	2260	1720	4.63	
PCB-125	*	*	n	NotFnd	1.14	*	2260	1720	3.75	Co-elute PCB 87/117
PCB-87	*	*	n	NotFnd	1.14	*	2260	1720	3.75	Co-elute PCB 125/117
PCB-117	*	*	n	NotFnd	1.14	*	2260	1720	3.75	Co-elute PCB 125/87
PCB-111	*	*	n	NotFnd	1.39	*	2260	1720	3.09	Co-elute PCB 115
PCB-115	*	*	n	NotFnd	1.39	*	2260	1720	3.09	Co-elute PCB 111
PCB-85	*	*	n	NotFnd	1.10	*	2260	1720	3.90	Co-elute PCB 116
PCB-116	*	*	n	NotFnd	1.10	*	2260	1720	3.90	Co-elute PCB 85
PCB-120	*	*	n	NotFnd	1.34	*	2260	1720	3.19	
PCB-110	*	*	n	NotFnd	1.38	*	2260	1720	3.11	
PCB-82	*	*	n	NotFnd	0.77	*	2260	1720	5.57	
PCB-124	*	*	n	NotFnd	1.06	*	1840	1560	3.46	
PCB-108	*	*	n	NotFnd	1.00	*	1840	1560	3.67	Co-elute PCB 107
PCB-107	*	*	n	NotFnd	1.00	*	1840	1560	3.67	Co-elute PCB 108
PCB-123	*	*	n	NotFnd	1.12	*	1840	1560	3.22	
13C-PCB-123	1.04e+08	1.59	y	38:06	0.97	11100				111
PCB-118	*	*	n	NotFnd	0.97	*	1840	1560	3.47	Co-elute PCB 106
PCB-106	*	*	n	NotFnd	0.97	*	1840	1560	3.47	Co-elute PCB 118
13C-PCB-118	1.21e+08	1.62	y	38:16	1.08	11600				116
PCB-114	*	*	n	NotFnd	0.98	*	1840	1560	3.70	
13C-PCB-114	1.11e+08	1.60	y	38:54	1.02	11300				113
PCB-122	*	*	n	NotFnd	1.20	*	1840	1560	3.05	
PCB-105	*	*	n	NotFnd	1.10	*	1840	1560	3.71	
13C-PCB-105	1.08e+08	1.59	y	39:43	1.02	11000				110

FAL ID: 03765-001-0001-MB Filename: 13JUL16Z Sam:6 Acquired: 13-JUL-16 15:16:37 ICal: DAILY209FAL4-7-13-16
Client ID: Method Blank ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 3765 GC Column: DB1 Amount: 1.000

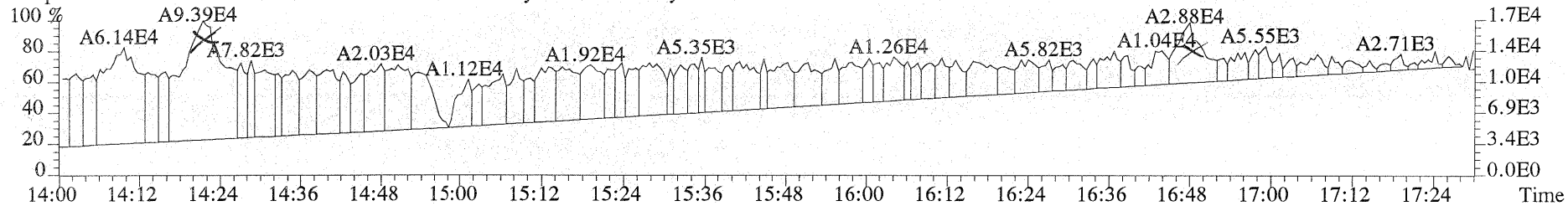
PCB-127	*	*	n	NotFnd	1.02	*	1840	1560	3.60	
PCB-126	*	*	n	NotFnd	1.10	*	1840	1560	4.48	
13C-PCB-126	9.94e+07	1.59	y	41:52	0.92	11200				112
PCB-151	*	*	n	NotFnd	0.81	*	3040	2470	7.42	
PCB-135	*	*	n	NotFnd	0.83	*	3040	2470	7.28	
PCB-144	*	*	n	NotFnd	0.87	*	3040	2470	6.96	
PCB-147	*	*	n	NotFnd	0.89	*	3040	2470	6.81	
PCB-139	*	*	n	NotFnd	0.89	*	3040	2470	6.78	Co-elute PCB 149
PCB-149	*	*	n	NotFnd	0.89	*	3040	2470	6.78	Co-elute PCB 139
PCB-140	*	*	n	NotFnd	0.88	*	3040	2470	6.86	
PCB-143	*	*	n	NotFnd	0.83	*	3040	2470	7.32	Co-elute PCB 134
PCB-134	*	*	n	NotFnd	0.83	*	3040	2470	7.32	Co-elute PCB 143
PCB-131	*	*	n	NotFnd	0.83	*	3040	2470	7.29	Co-elute PCB 133
PCB-133	*	*	n	NotFnd	0.83	*	3040	2470	7.29	Co-elute PCB 131
PCB-142	*	*	n	NotFnd	0.78	*	3040	2470	7.80	
PCB-165	*	*	n	NotFnd	0.98	*	3040	2470	6.16	Co-elute PCB 146
PCB-146	*	*	n	NotFnd	0.98	*	3040	2470	6.16	Co-elute PCB 165
PCB-161	*	*	n	NotFnd	0.94	*	3040	2470	6.40	Co-elute PCB 132
PCB-132	*	*	n	NotFnd	0.94	*	3040	2470	6.40	Co-elute PCB 161
PCB-153	*	*	n	NotFnd	0.98	*	3040	2470	6.17	
PCB-168	*	*	n	NotFnd	1.05	*	3040	2470	5.73	
PCB-141	*	*	n	NotFnd	0.83	*	3040	2470	7.28	
PCB-137	*	*	n	NotFnd	0.79	*	3040	2470	7.64	
PCB-130	*	*	n	NotFnd	0.72	*	3040	2470	8.36	
PCB-138	*	*	n	NotFnd	1.07	*	3040	2470	5.62	Co-elute PCB 163/164
PCB-163	*	*	n	NotFnd	1.07	*	3040	2470	5.62	Co-elute PCB 138/164
PCB-164	*	*	n	NotFnd	1.07	*	3040	2470	5.62	Co-elute PCB 138/163
PCB-158	*	*	n	NotFnd	1.09	*	3040	2470	5.55	Co-elute PCB 160
PCB-160	*	*	n	NotFnd	1.09	*	3040	2470	5.55	Co-elute PCB 158
PCB-129	*	*	n	NotFnd	0.71	*	3040	2470	8.49	
PCB-166	*	*	n	NotFnd	1.06	*	3040	2470	5.71	
PCB-159	*	*	n	NotFnd	1.13	*	3040	2470	5.33	
PCB-128	*	*	n	NotFnd	0.91	*	3040	2470	6.62	Co-elute PCB 162
PCB-162	*	*	n	NotFnd	0.91	*	3040	2470	6.62	Co-elute PCB 128
PCB-167	*	*	n	NotFnd	1.00	*	3040	2470	6.02	
13C-PCB-167	1.07e+08	1.26	y	43:11	1.11	9980				99.8
PCB-156	*	*	n	NotFnd	1.05	*	3040	2470	5.84	
13C-PCB-156	9.99e+07	1.25	y	44:25	1.05	9890				98.9
PCB-157	*	*	n	NotFnd	0.94	*	3040	2470	6.82	
13C-PCB-157	9.66e+07	1.27	y	41:19	1.11	9040				90.4
PCB-169	*	*	n	NotFnd	0.99	*	3040	2470	5.68	
13C-PCB-169	9.92e+07	1.28	y	46:35	1.01	10200				102

FAL ID: 03765-001-0001-MB Filename: 13JUL16Z Sam:6 Acquired: 13-JUL-16 15:16:37 ICal: DAILY209FAL4-7-13-16
Client ID: Method Blank ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 3765 GC Column: DB1 Amount: 1.000

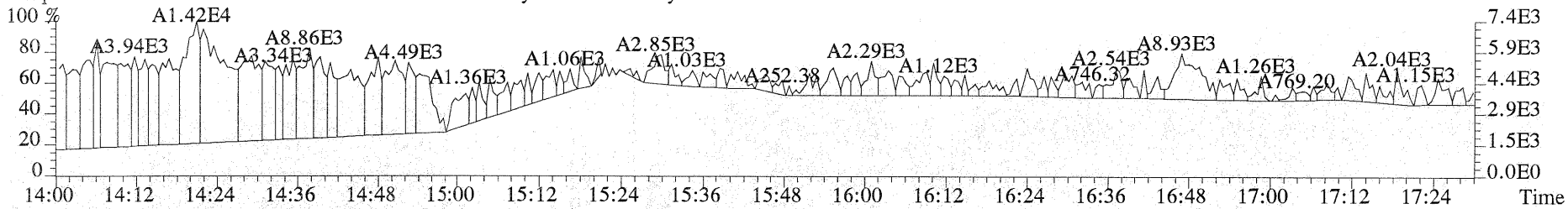
PCB-188	*	*	n	NotFnd	1.17	*	1980	2060	3.94	
13C-PCB-188	9.69e+07	1.08	y	39:27	1.14	8790				87.9
PCB-184	*	*	n	NotFnd	1.28	*	1980	2060	3.43	
PCB-179	*	*	n	NotFnd	1.27	*	1980	2060	3.46	
PCB-176	*	*	n	NotFnd	1.21	*	1980	2060	3.62	
PCB-186	*	*	n	NotFnd	1.16	*	1980	2060	3.80	
PCB-178	*	*	n	NotFnd	0.86	*	1980	2060	5.13	
PCB-175	*	*	n	NotFnd	0.89	*	1980	2060	4.91	
PCB-187	*	*	n	NotFnd	0.93	*	1980	2060	4.70	Co-elute PCB 182
PCB-182	*	*	n	NotFnd	0.93	*	1980	2060	4.70	Co-elute PCB 187
PCB-183	*	*	n	NotFnd	0.96	*	1980	2060	4.56	
PCB-185	*	*	n	NotFnd	0.85	*	1980	2060	5.19	
PCB-174	*	*	n	NotFnd	0.83	*	1980	2060	5.27	
PCB-181	*	*	n	NotFnd	0.86	*	1980	2060	5.12	
PCB-177	*	*	n	NotFnd	0.80	*	1980	2060	5.51	
PCB-171	*	*	n	NotFnd	0.84	*	1980	2060	5.23	
PCB-173	*	*	n	NotFnd	0.75	*	1980	2060	5.88	
PCB-172	*	*	n	NotFnd	0.80	*	1980	2060	5.52	
PCB-192	*	*	n	NotFnd	1.02	*	1980	2060	4.30	
PCB-180	*	*	n	NotFnd	0.96	*	1980	2060	4.57	
PCB-193	*	*	n	NotFnd	1.11	*	1980	2060	3.94	
PCB-191	*	*	n	NotFnd	1.09	*	1980	2060	4.04	
PCB-170	*	*	n	NotFnd	0.74	*	1980	2060	5.95	
PCB-190	*	*	n	NotFnd	1.06	*	1980	2060	4.13	
PCB-189	*	*	n	NotFnd	1.14	*	1980	2060	3.64	
13C-PCB-189	8.15e+07	1.08	y	48:15	0.90	9420				94.2
PCB-202	*	*	n	NotFnd	1.07	*	831	1150	3.23	
PCB-201	*	*	n	NotFnd	1.10	*	831	1150	3.16	
PCB-204	*	*	n	NotFnd	1.14	*	831	1150	3.04	
PCB-197	*	*	n	NotFnd	1.08	*	831	1150	3.20	
PCB-200	*	*	n	NotFnd	1.09	*	831	1150	3.18	
PCB-198	*	*	n	NotFnd	0.77	*	831	1150	4.53	
PCB-199	*	*	n	NotFnd	0.72	*	831	1150	4.78	
PCB-203	*	*	n	NotFnd	0.81	*	831	1150	4.26	Co-elute PCB 196
PCB-196	*	*	n	NotFnd	0.81	*	831	1150	4.26	Co-elute PCB 203
13C-PCB-202	6.40e+07	0.92	y	44:35	0.76	8760				87.6
13C-PCB-178	6.56e+07	1.08	y	42:06	0.75	9080				90.8
13C-PCB-138	9.66e+07	1.27	y	41:19	-	345				
PCB-195	*	*	n	NotFnd	0.66	*	2240	2220	5.07	
PCB-194	*	*	n	NotFnd	0.79	*	2240	2220	4.24	
PCB-205	*	*	n	NotFnd	1.10	*	2240	2220	3.06	
13C-PCB-205	9.41e+07	0.91	y	49:54	1.34	9240				92.4
PCB-208	*	*	n	NotFnd	0.97	*	1960	2090	2.95	
13C-PCB-208	9.96e+07	0.80	y	48:58	1.51	8670				86.7
PCB-207	*	*	n	NotFnd	1.08	*	1960	2090	3.20	
PCB-206	*	*	n	NotFnd	1.01	*	1960	2090	4.25	
13C-PCB-206	6.95e+07	0.79	y	51:05	1.15	7990				79.9
PCB-209	*	*	n	NotFnd	1.11	*	1840	1940	3.18	
13C-PCB-209	8.90e+07	1.21	y	52:14	1.72	6830				68.3
13C-PCB-194	7.60e+07	0.92	y	49:39	-	439				

Analyst: _____ Date: 7/15/16

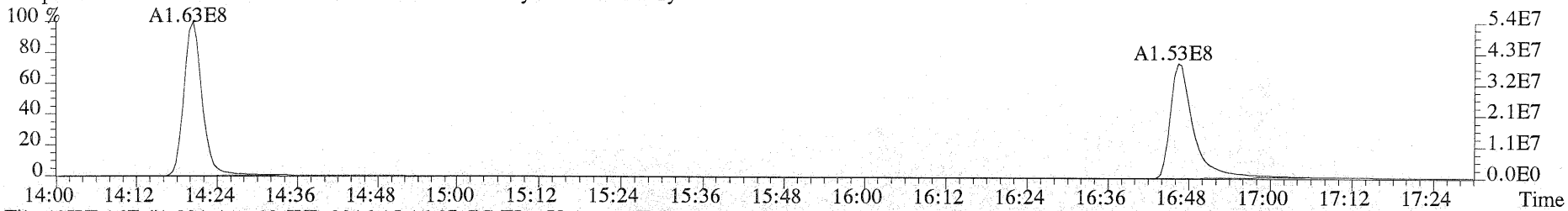
File:13JUL16Z #1-901 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



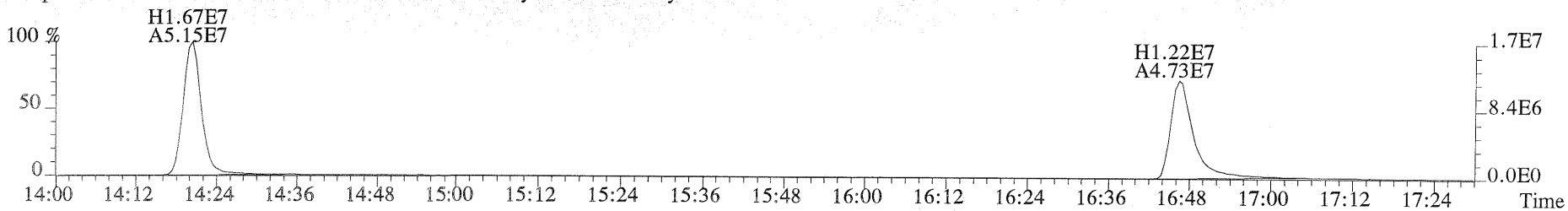
File:13JUL16Z #1-901 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



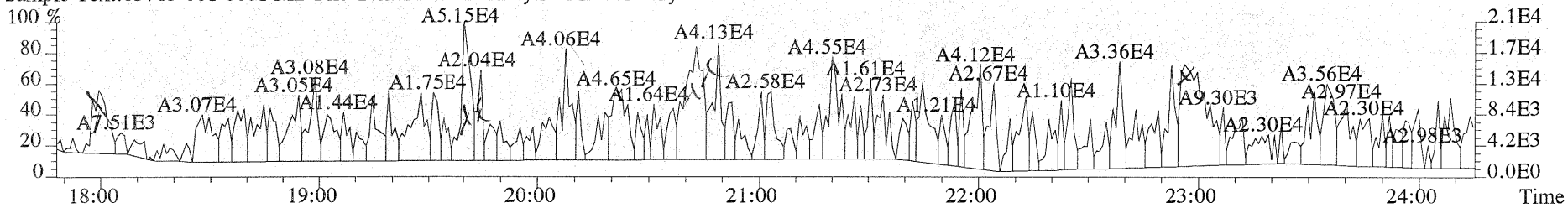
File:13JUL16Z #1-901 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



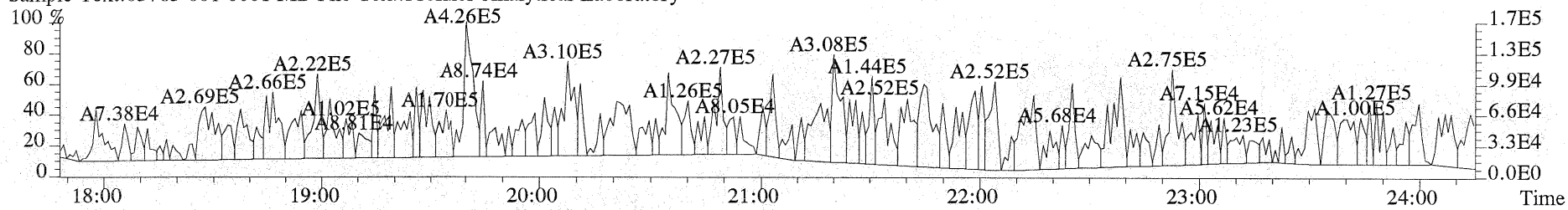
File:13JUL16Z #1-901 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



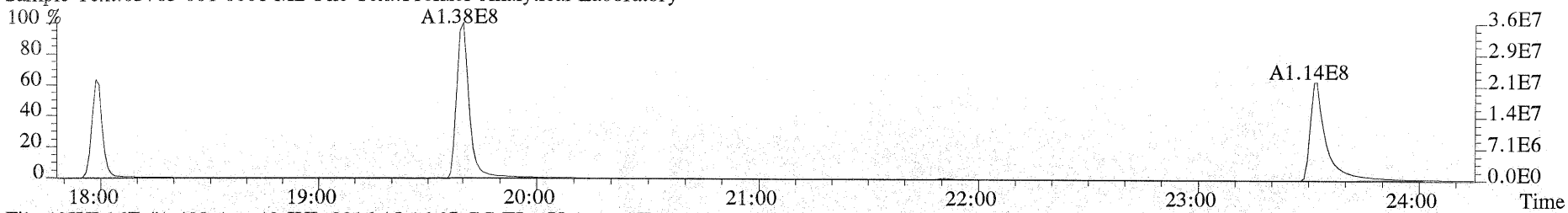
File:13JUL16Z #1-498 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



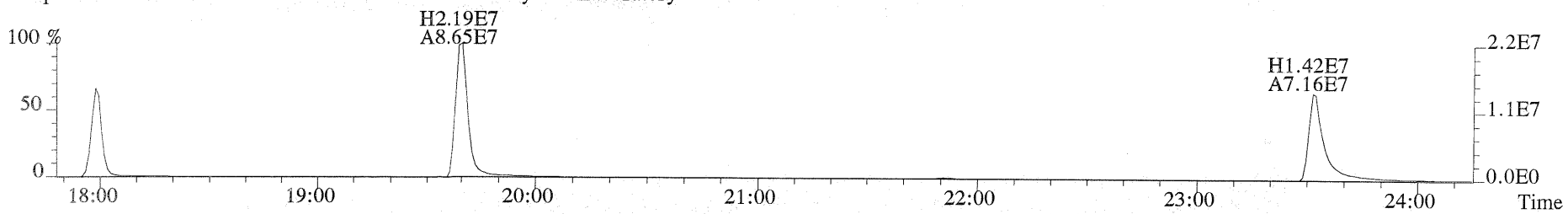
File:13JUL16Z #1-498 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



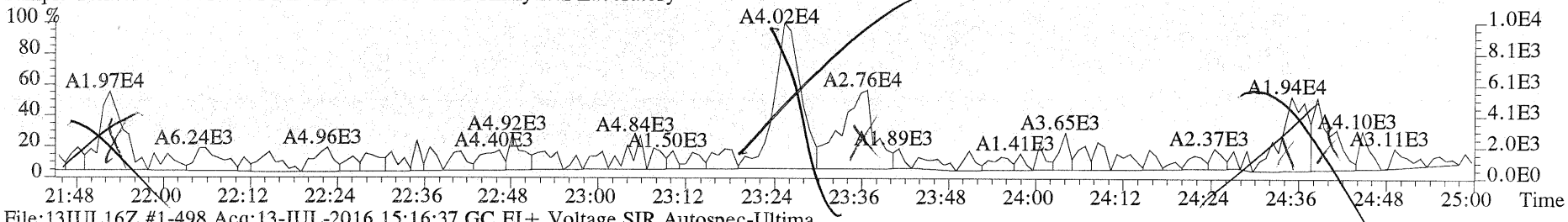
File:13JUL16Z #1-498 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



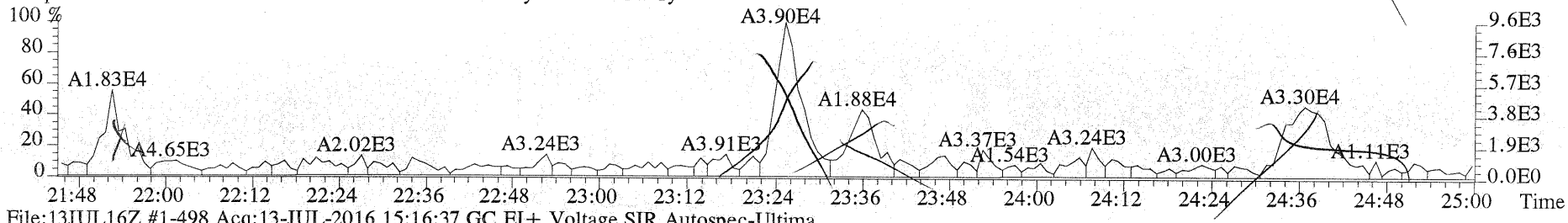
File:13JUL16Z #1-498 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



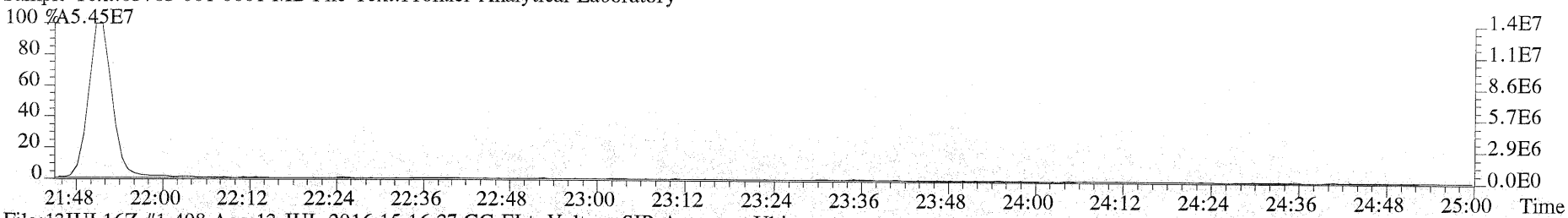
File:13JUL16Z #1-498 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



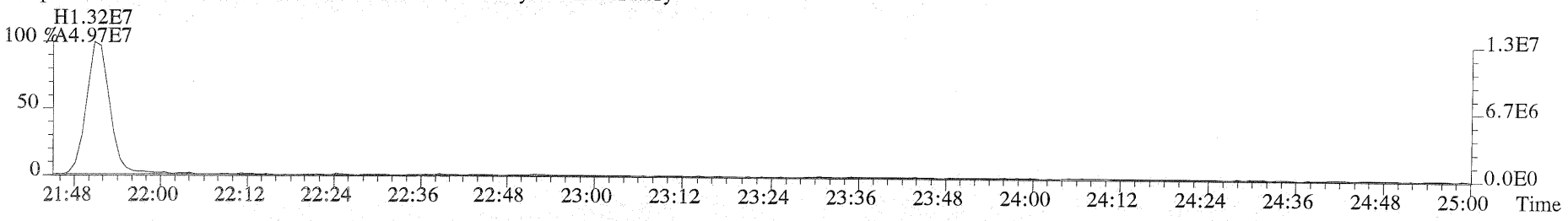
File:13JUL16Z #1-498 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



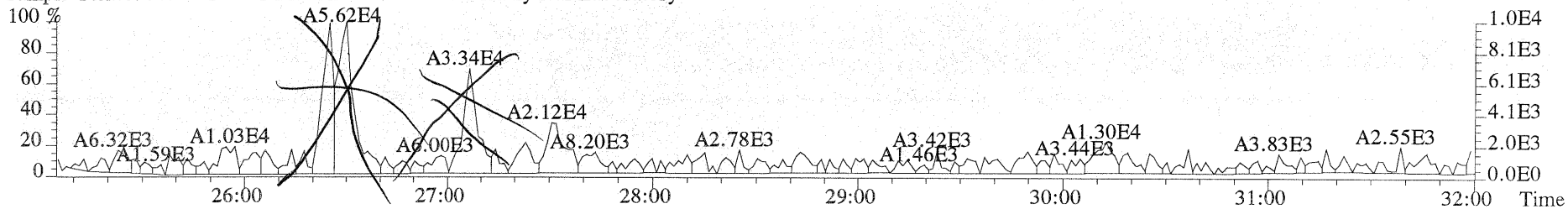
File:13JUL16Z #1-498 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



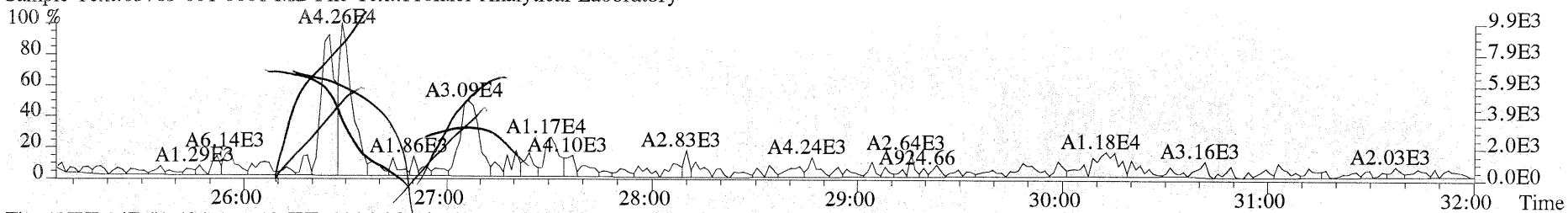
File:13JUL16Z #1-498 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



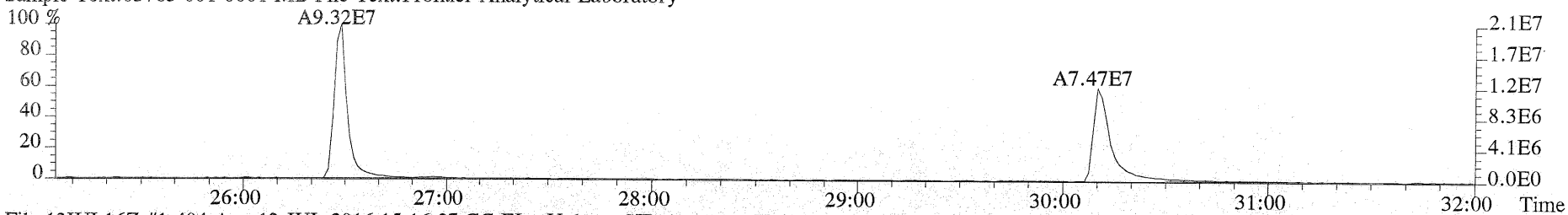
File:13JUL16Z #1-404 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



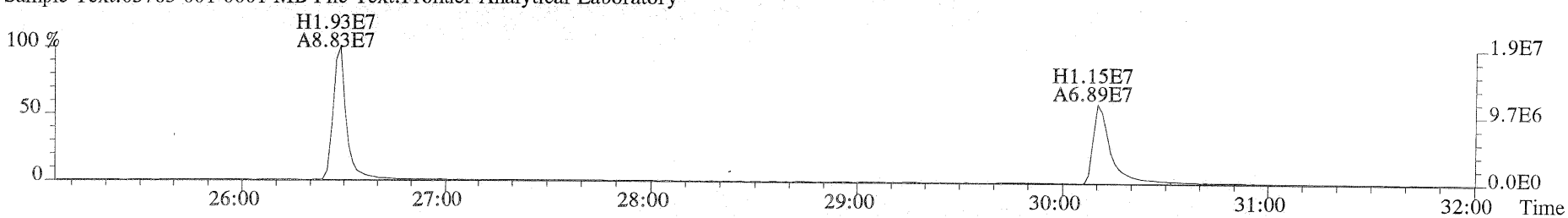
File:13JUL16Z #1-404 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



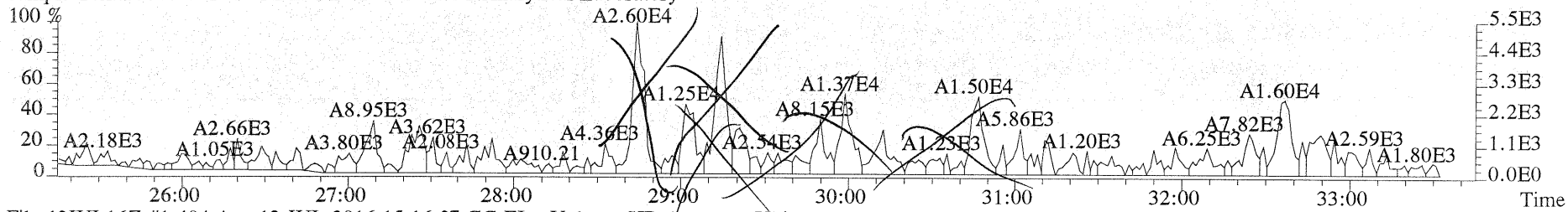
File:13JUL16Z #1-404 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



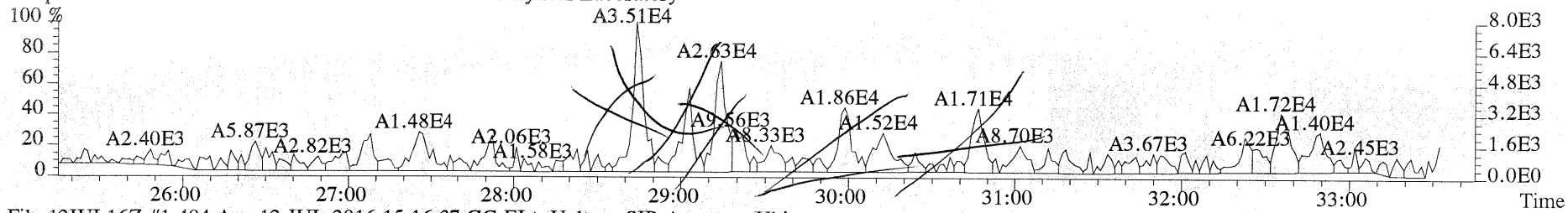
File:13JUL16Z #1-404 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



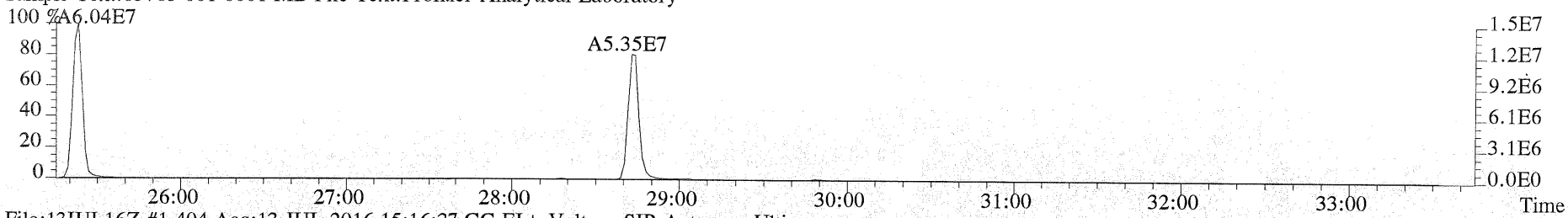
File:13JUL16Z #1-404 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



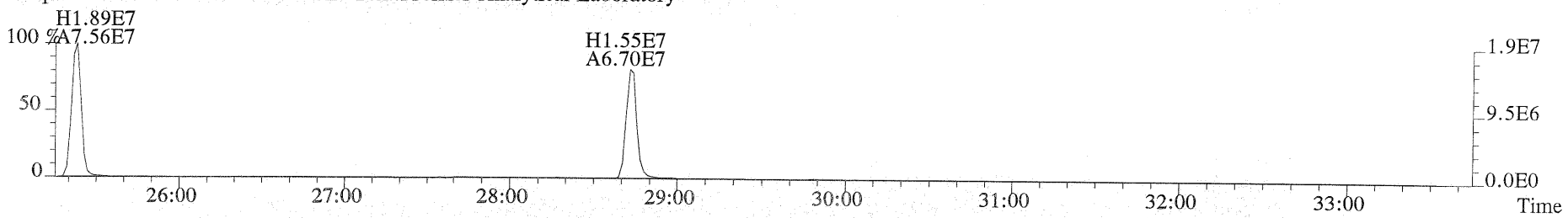
File:13JUL16Z #1-404 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



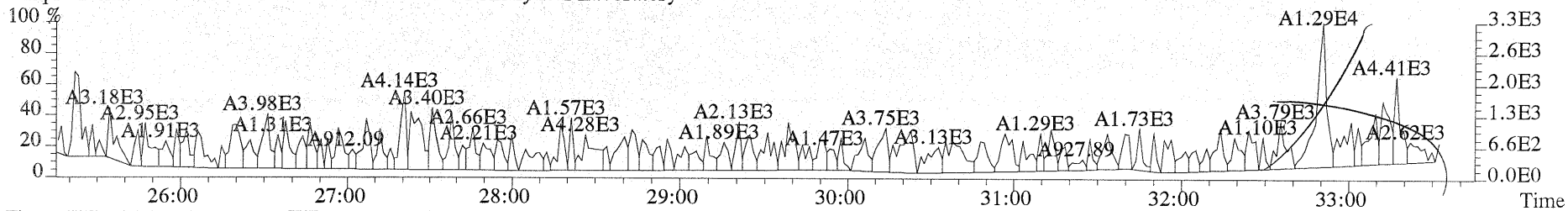
File:13JUL16Z #1-404 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



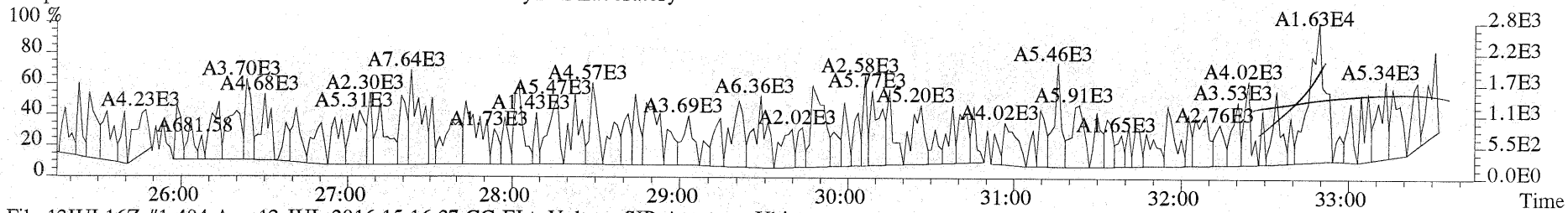
File:13JUL16Z #1-404 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-404 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-404 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



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337.9207 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
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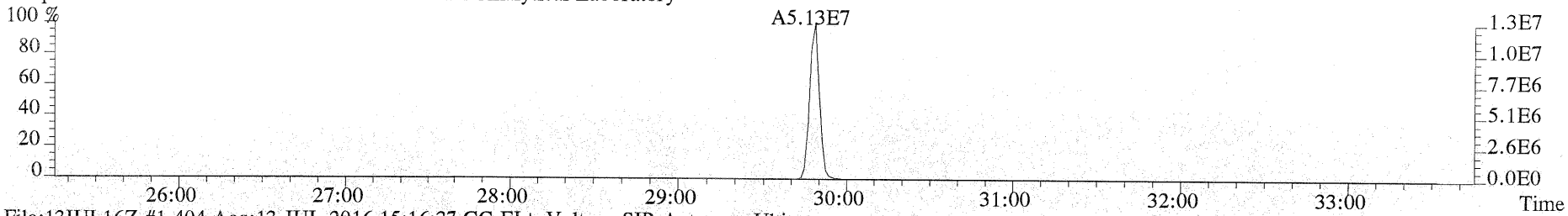

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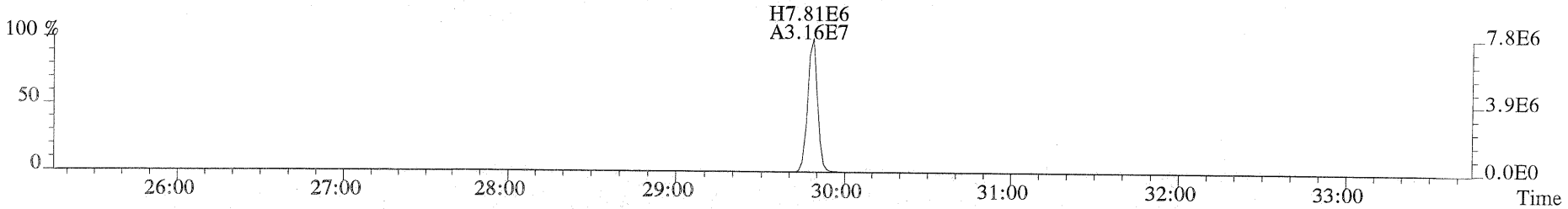
339.9178 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



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289.9224 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
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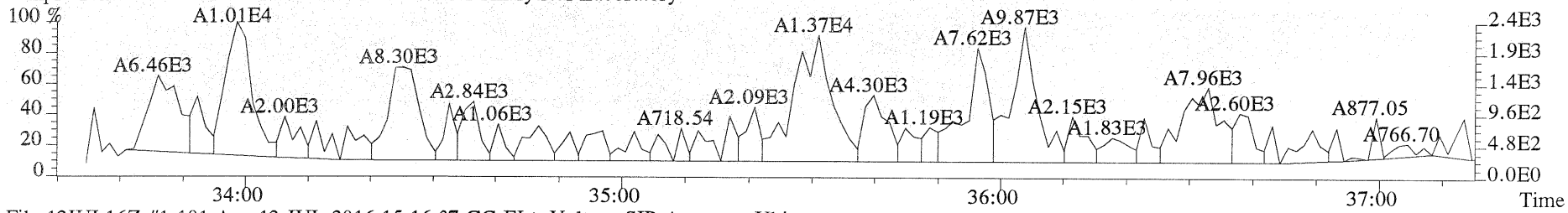

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291.9194 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
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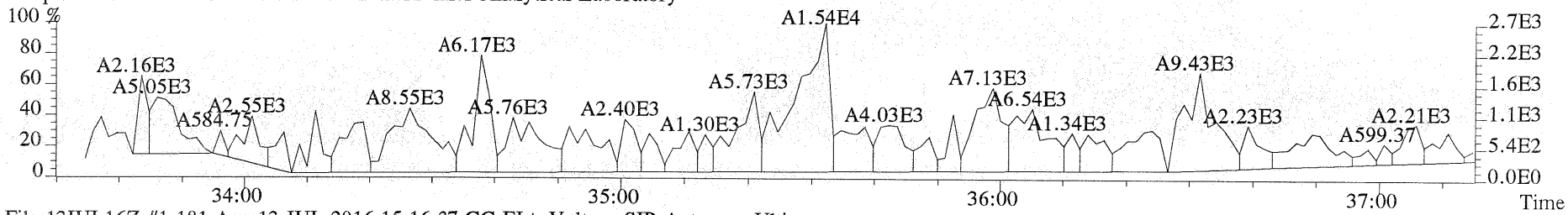

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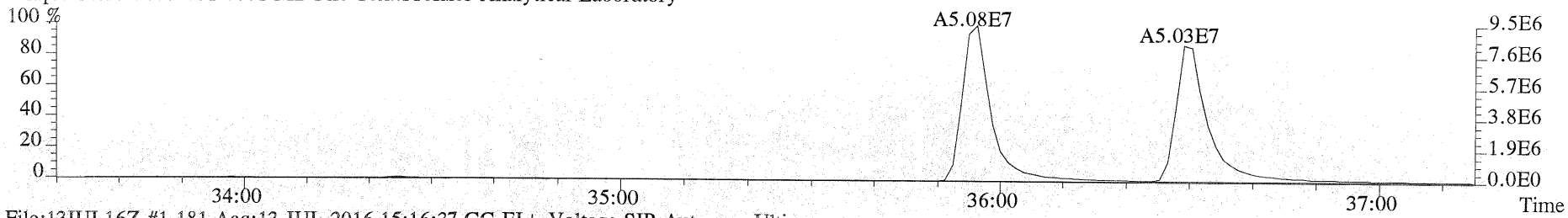
301.9626 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



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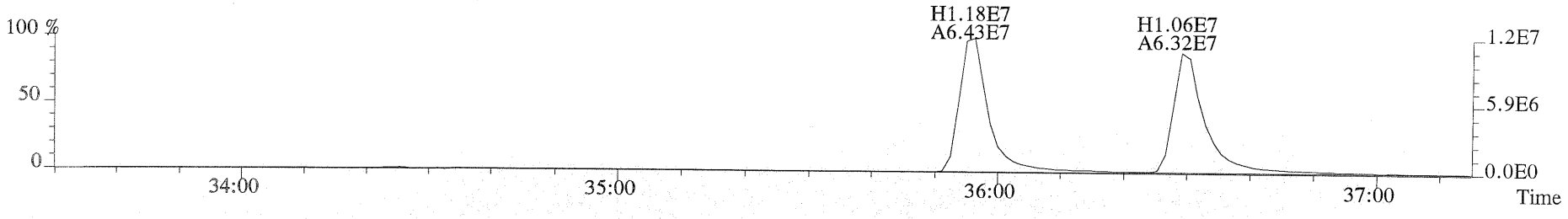
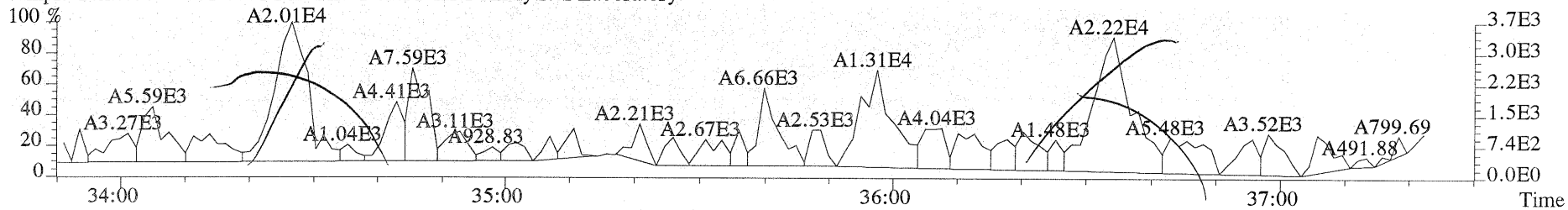
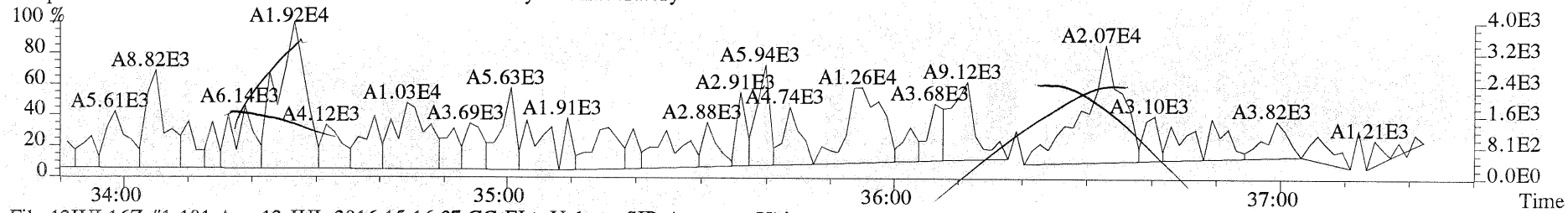
303.9597 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



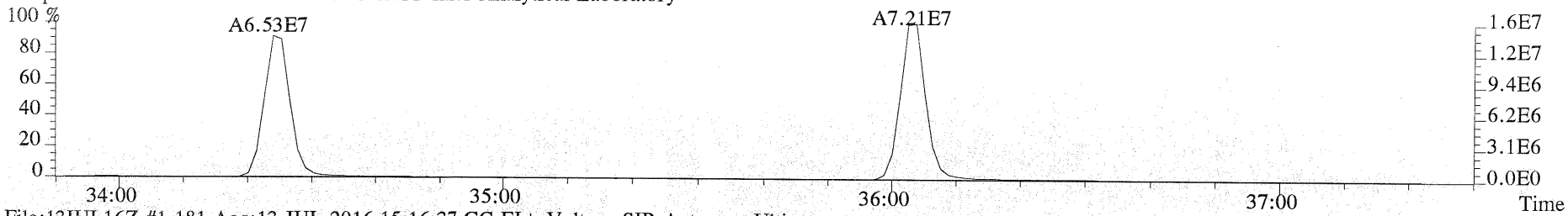
File:13JUL16Z #1-181 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



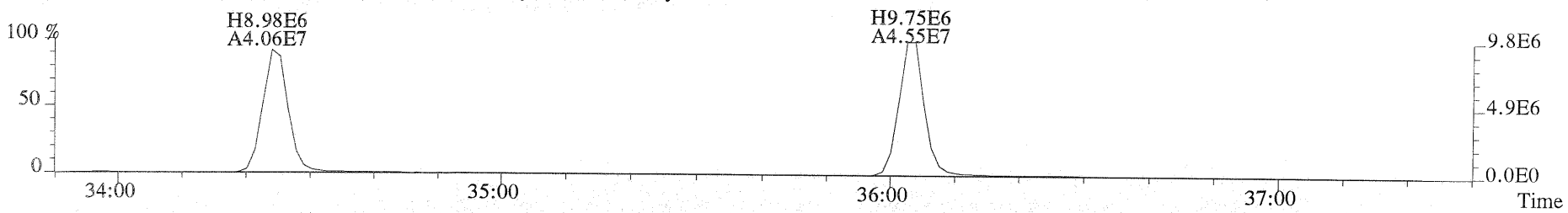
File:13JUL16Z #1-181 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



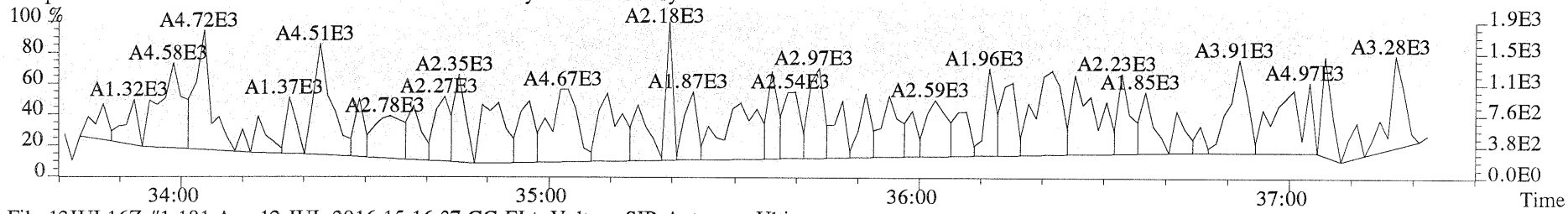
File:13JUL16Z #1-181 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



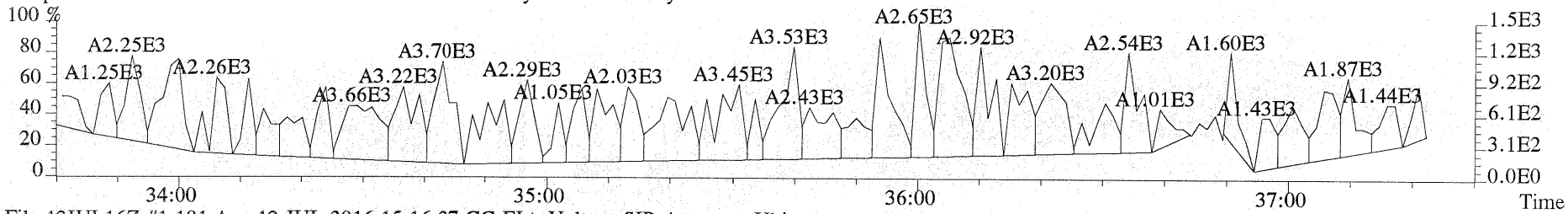
File:13JUL16Z #1-181 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



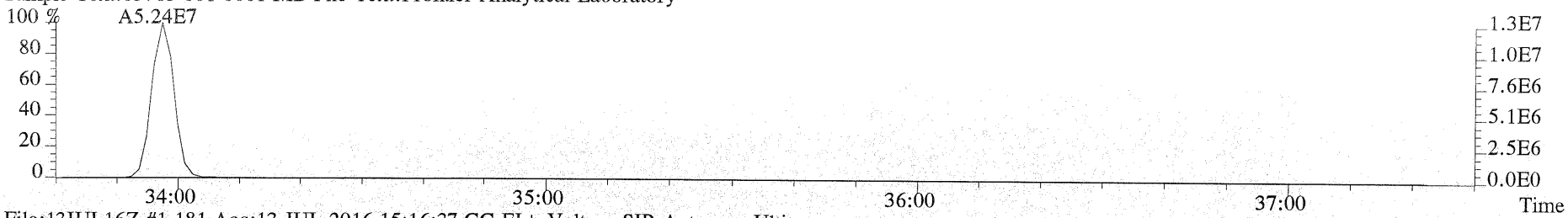
File:13JUL16Z #1-181 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-181 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-181 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



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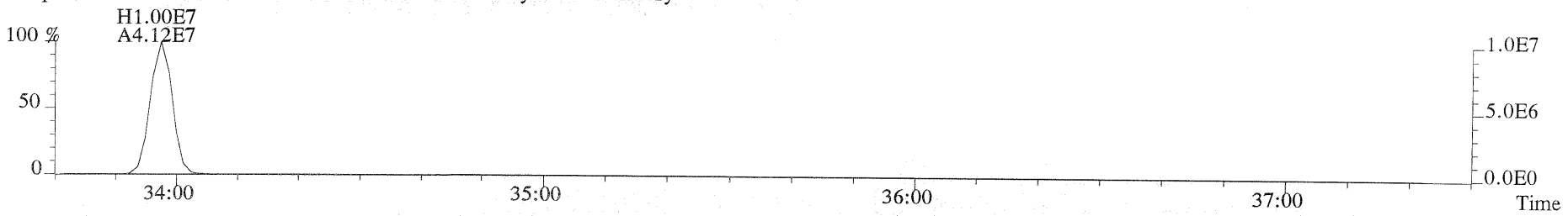
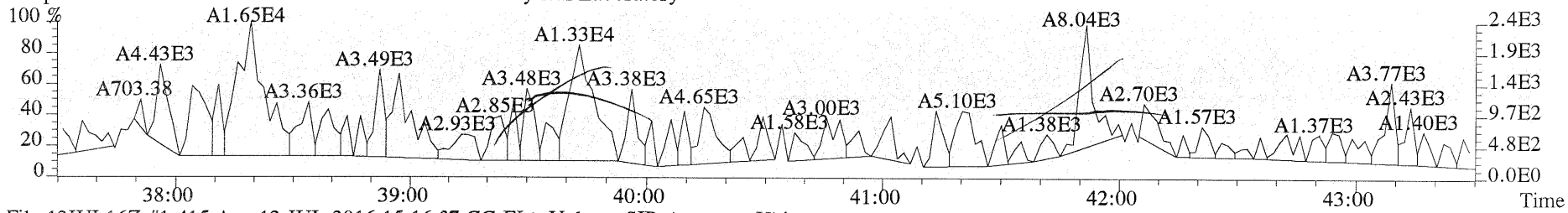
373.8788 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



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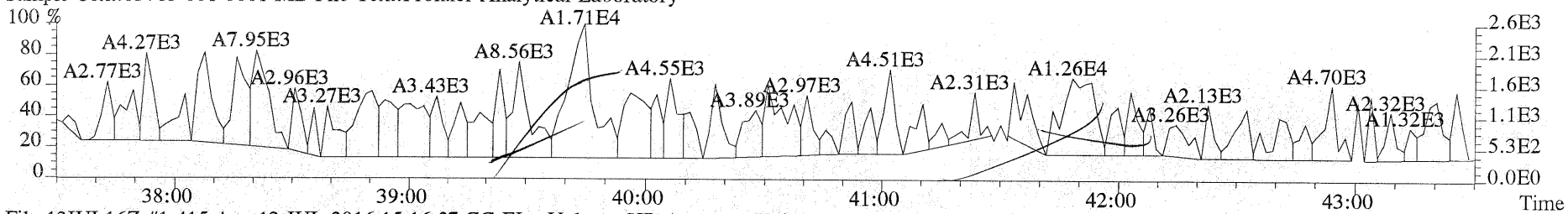
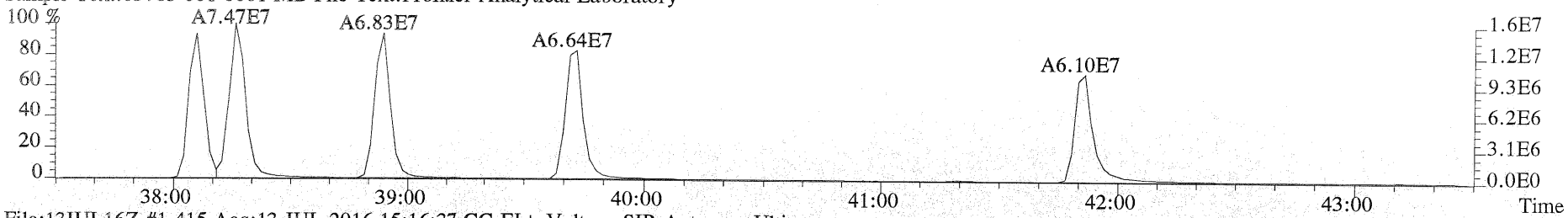
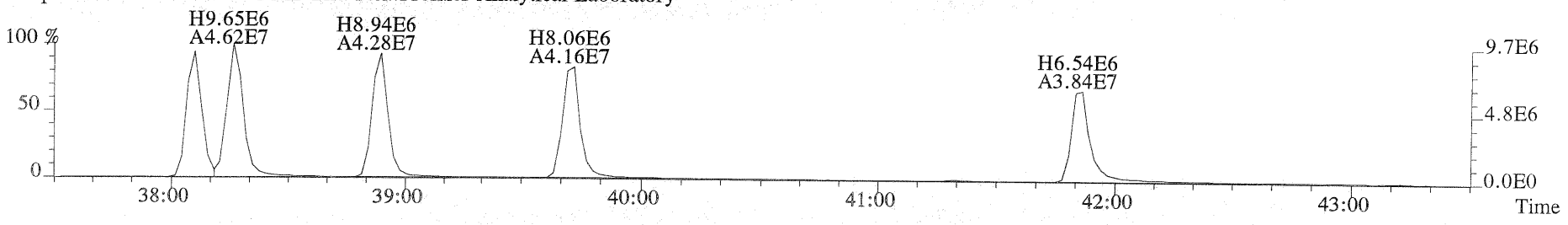
327.8775 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



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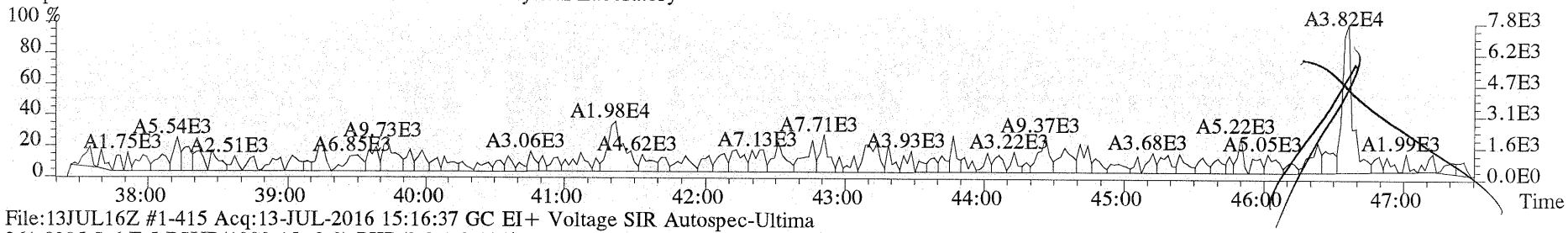
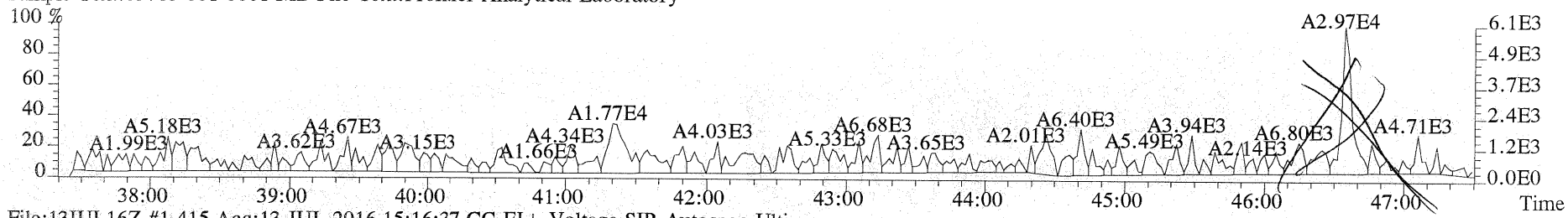
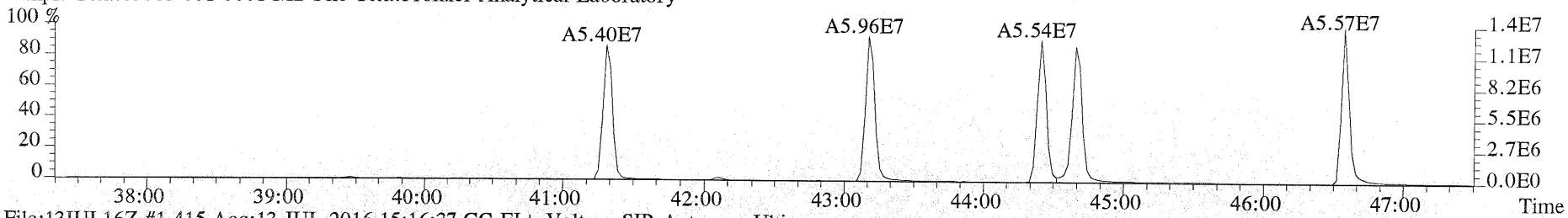
359.8415 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



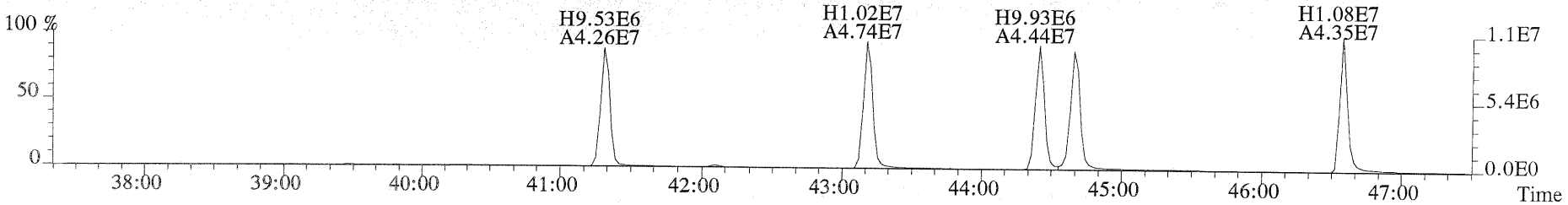
File:13JUL16Z #1-415 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



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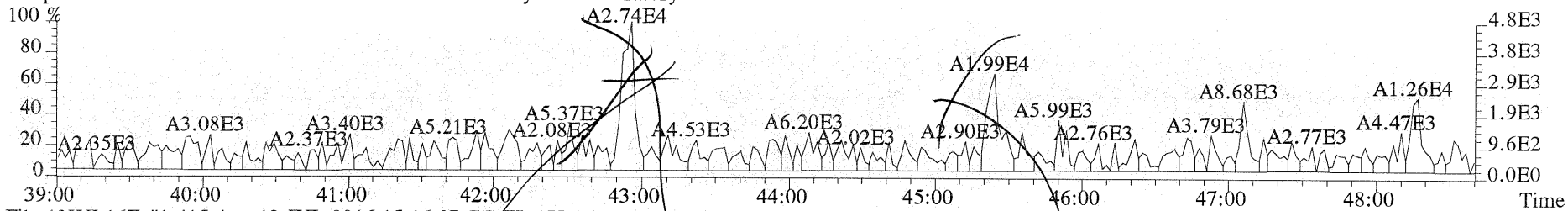
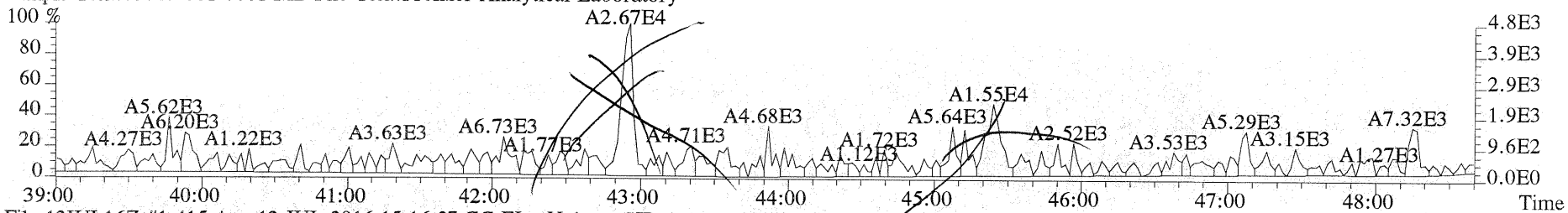
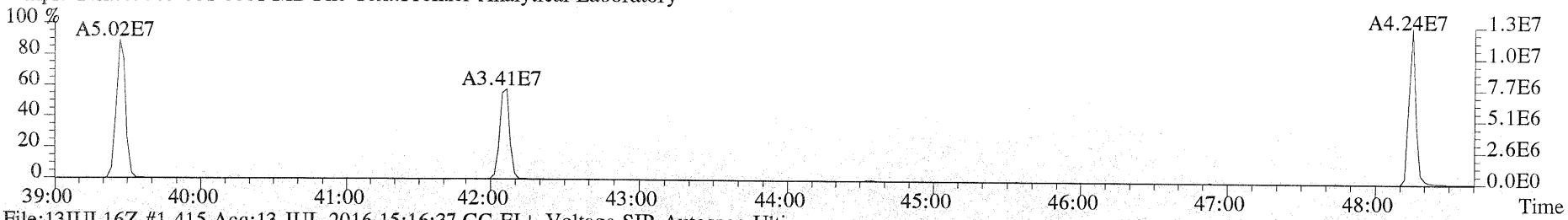
393.8025 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
405.8428 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



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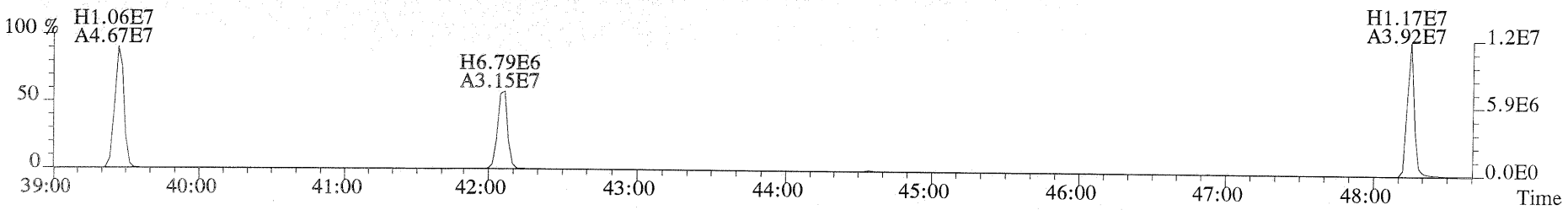
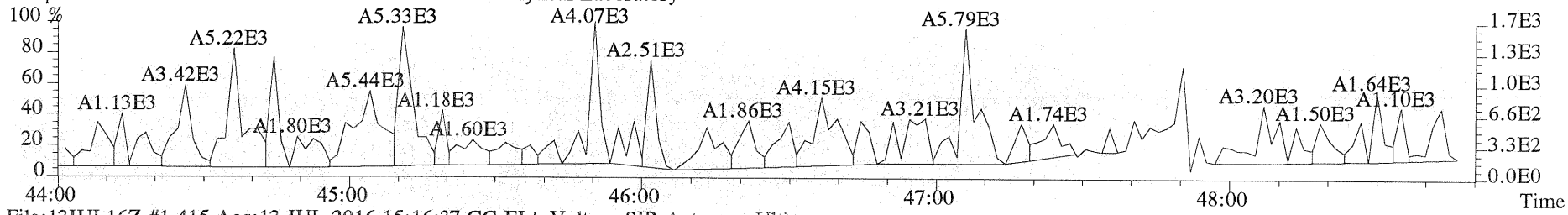
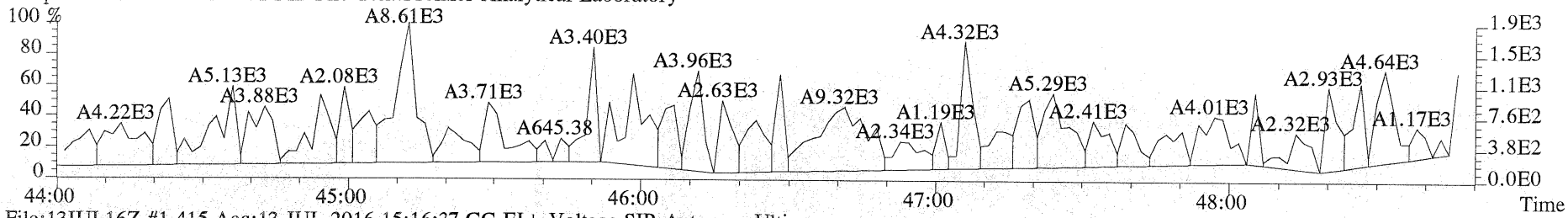
407.8398 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



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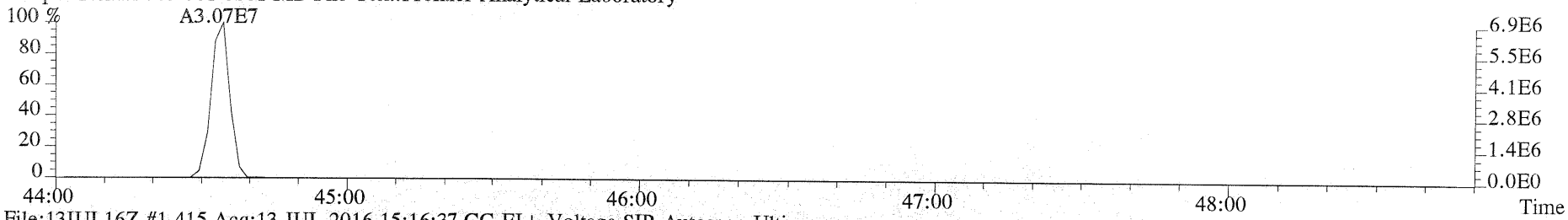
439.8038 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



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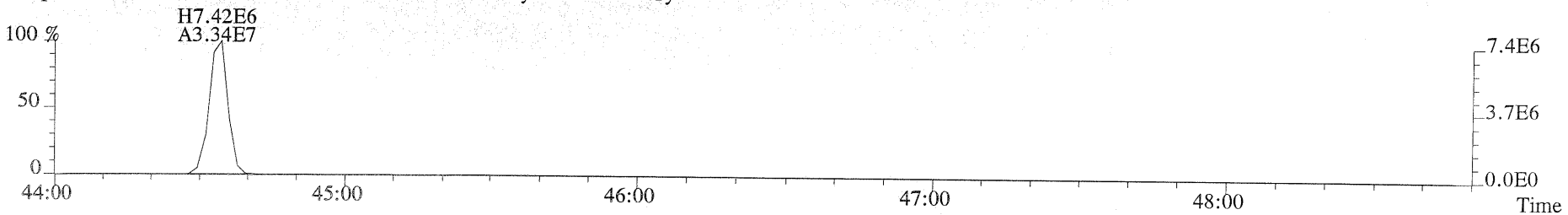
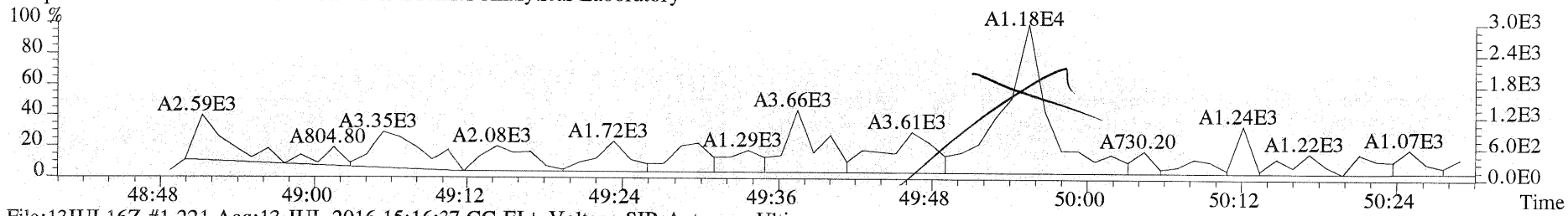
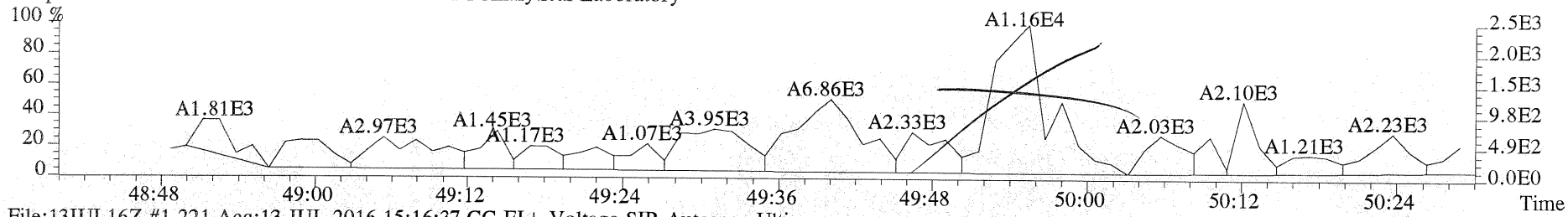
441.8008 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



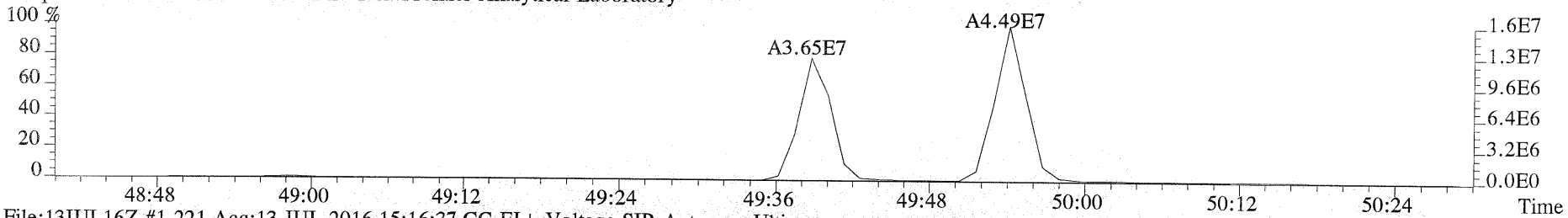
File:13JUL16Z #1-221 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



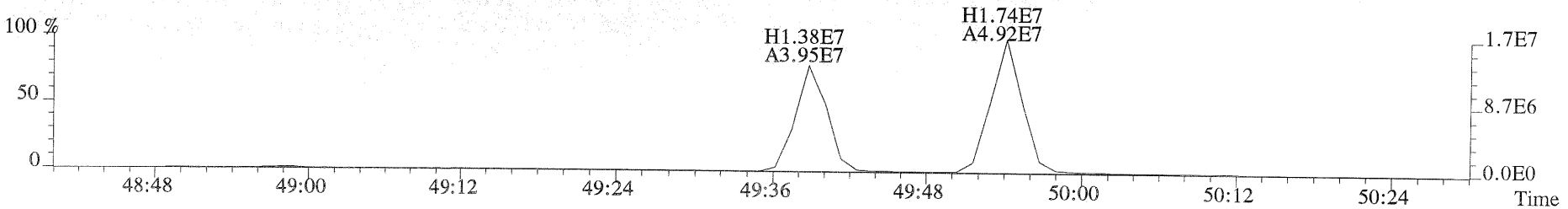
File:13JUL16Z #1-221 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



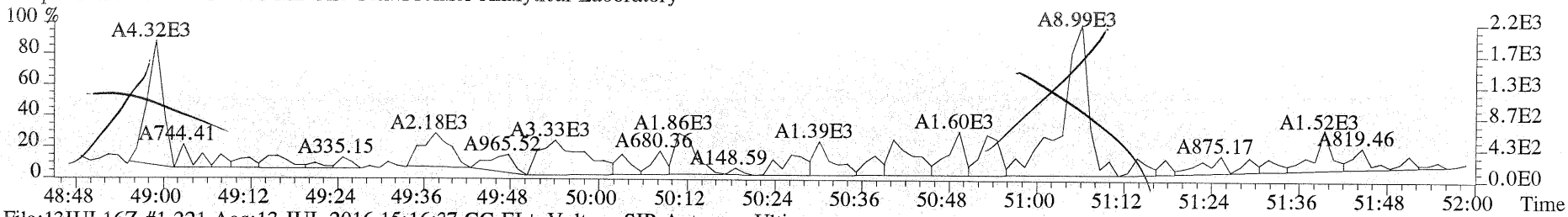
File:13JUL16Z #1-221 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



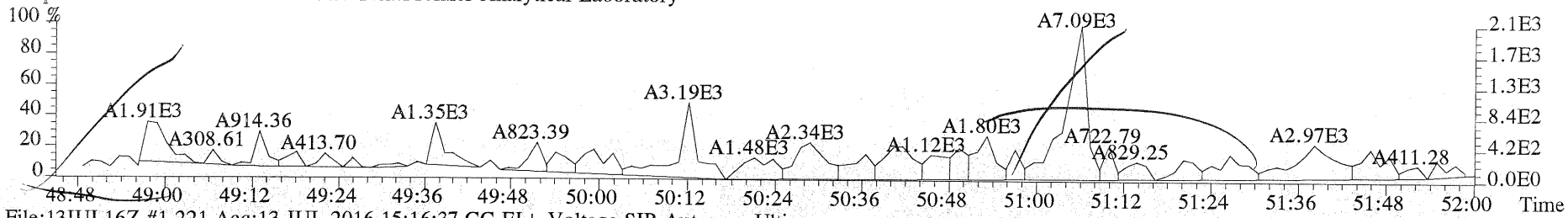
File:13JUL16Z #1-221 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



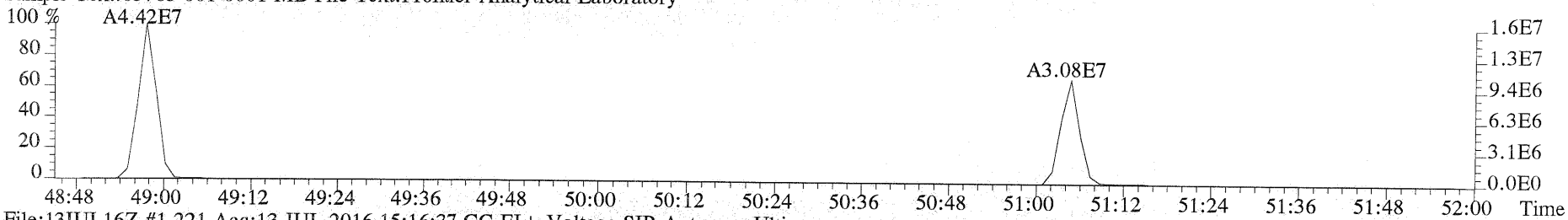
File:13JUL16Z #1-221 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



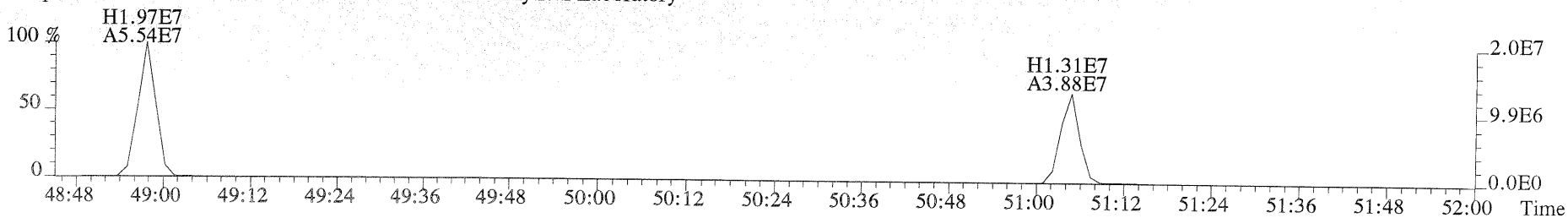
File:13JUL16Z #1-221 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
465.7187 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



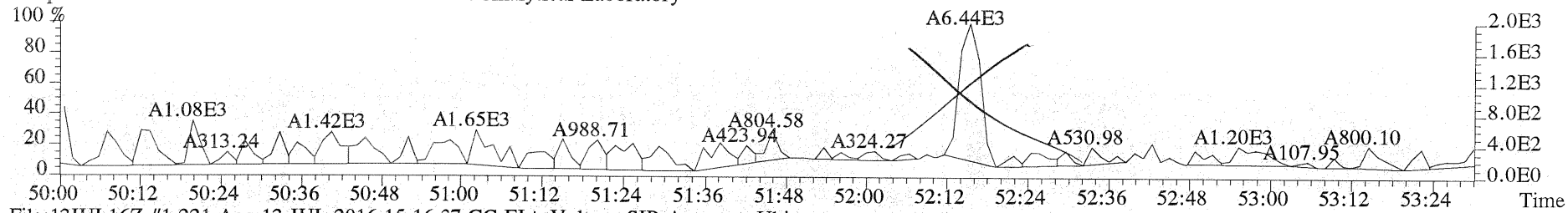
File:13JUL16Z #1-221 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
473.7648 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



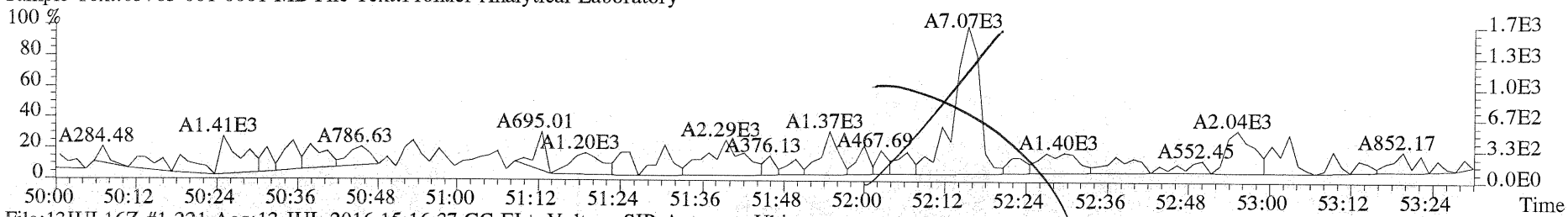
File:13JUL16Z #1-221 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
475.7619 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



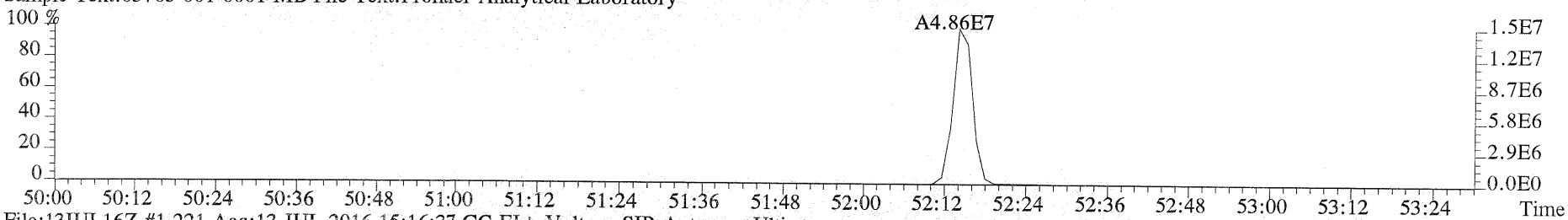
File:13JUL16Z #1-221 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



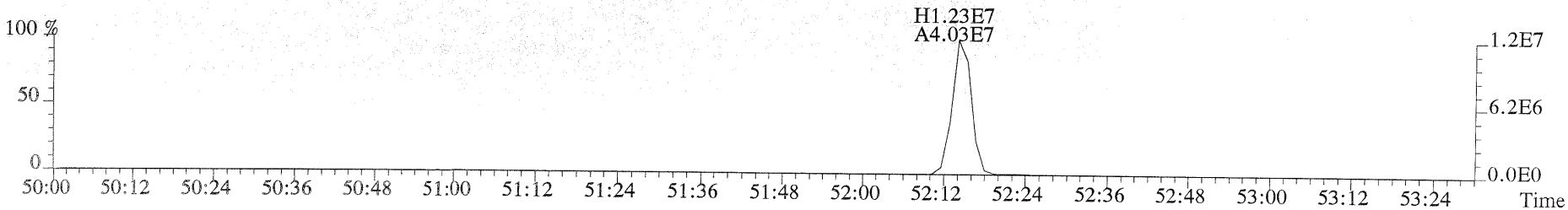
File:13JUL16Z #1-221 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 15:16:37 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-MB File Text:Frontier Analytical Laboratory



03765.001.0001.OPR

USEPA - ITD

FORM 8A
209 PCB ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): Solvent OPR Data Filename: 13JUL16Z Sam:5

Ext. Date: 7/12/16 Shift: Day Analysis Date: 13-JUL-16 14:16:37

	SPIKE CONC. (ng/mL)	CONC REC	OPR CONC. LIMITS (CONC)
NATIVE ANALYTES			
PCB-1	50	51.0	30.0 - 67.5
PCB-3	50	46.6	30.0 - 67.5
PCB-4	50	47.0	30.0 - 67.5
PCB-15	50	40.2	30.0 - 67.5
PCB-19	50	49.8	30.0 - 67.5
PCB-37	50	46.0	30.0 - 67.5
PCB-54	50	50.1	30.0 - 67.5
PCB-77	50	51.5	30.0 - 67.5
PCB-81	50	49.1	30.0 - 67.5
PCB-104	50	48.6	30.0 - 67.5
PCB-105	50	47.3	30.0 - 67.5
PCB-114	50	53.2	30.0 - 67.5
PCB-118	50	54.8	30.0 - 67.5
PCB-123	50	45.2	30.0 - 67.5
PCB-126	50	47.7	30.0 - 67.5
PCB-155	50	49.2	30.0 - 67.5
PCB-156	50	47.7	30.0 - 67.5
PCB-157	50	51.5	30.0 - 67.5
PCB-167	50	49.9	30.0 - 67.5
PCB-169	50	49.4	30.0 - 67.5
PCB-188	50	48.6	30.0 - 67.5
PCB-189	50	49.7	30.0 - 67.5
PCB-202	50	49.8	30.0 - 67.5
PCB-205	50	48.0	30.0 - 67.5
PCB-206	50	47.5	30.0 - 67.5
PCB-208	50	48.8	30.0 - 67.5
PCB-209	50	49.3	30.0 - 67.5

Analyst: [signature] Date: 7/21/16

USEPA - ITD

FORM 8B

209 PCB ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): Solvent OPR Data Filename: 13JUL16Z Sam:5

Ext. Date: 7/12/16 Shift: Day Analysis Date: 13-JUL-16 14:16:37

	SPIKE CONC. (ng/mL)	RECOVERY (%)	OPR CONC. LIMITS (%)
LABELED COMPOUNDS			
13C-PCB-1	100	99.6	15.0 - 145
13C-PCB-3	100	95.6	15.0 - 145
13C-PCB-4	100	99.0	15.0 - 145
13C-PCB-15	100	96.1	15.0 - 145
13C-PCB-19	100	87.6	15.0 - 145
13C-PCB-37	100	112	15.0 - 145
13C-PCB-54	100	106	15.0 - 145
13C-PCB-77	100	111	40.0 - 145
13C-PCB-81	100	111	40.0 - 145
13C-PCB-104	100	95.9	40.0 - 145
13C-PCB-105	100	111	40.0 - 145
13C-PCB-114	100	111	40.0 - 145
13C-PCB-118	100	113	40.0 - 145
13C-PCB-123	100	112	40.0 - 145
13C-PCB-126	100	115	40.0 - 145
13C-PCB-155	100	94.2	40.0 - 145
13C-PCB-156	100	102	40.0 - 145
13C-PCB-157	100	103	40.0 - 145
13C-PCB-167	100	104	40.0 - 145
13C-PCB-169	100	105	40.0 - 145
13C-PCB-188	100	92.1	40.0 - 145
13C-PCB-189	100	98.4	40.0 - 145
13C-PCB-202	100	92.8	40.0 - 145
13C-PCB-205	100	94.4	40.0 - 145
13C-PCB-206	100	88.1	40.0 - 145
13C-PCB-208	100	91.7	40.0 - 145
13C-PCB-209	100	75.3	40.0 - 145
CLEANUP STANDARDS			
13C-PCB-28	100	121	15.0 - 145
13C-PCB-111	100	104	40.0 - 145
13C-PCB-178	100	96.0	40.0 - 145

Analyst: [illegible] Date: 7/15/16

FAL ID: 03765-001-0001-OPR Filename: 13JUL16Z Sam:5 Acquired: 13-JUL-16 14:16:37 ICal: DAILY209FAL4-7-13-16
Client ID: OPR ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 3765 GC Column: DB1 Amount: 1.000

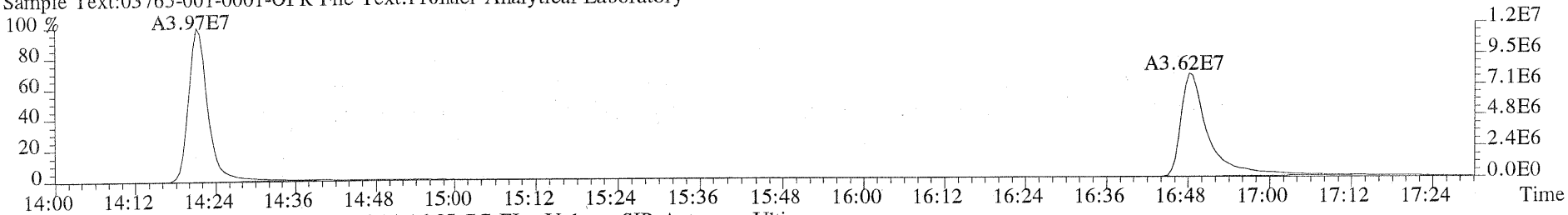
Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL	Rec
PCB-1	5.24e+07	3.14 y	14:21	1.05	51.0		2.50	-	-	*	
13C-PCB-1	9.74e+07	3.15 y	14:20	1.06	99.6		2.50				99.6
PCB-3	4.79e+07	3.08 y	16:48	1.13	46.6		2.50	-	-	*	
13C-PCB-3	9.13e+07	3.34 y	16:47	1.03	95.6		2.50				95.6
PCB-4	3.10e+07	1.58 y	18:01	1.19	47.0		2.50	-	-	*	
13C-PCB-4	5.53e+07	1.57 y	17:60	0.60	99.0		2.50				99.0
PCB-15	4.09e+07	1.55 y	23:34	1.34	40.2		2.50	-	-	*	
13C-PCB-15	7.59e+07	1.53 y	23:33	0.85	96.1		2.50				96.1
PCB-19	2.70e+07	1.06 y	21:54	1.14	49.8		2.50	-	-	*	
13C-PCB-19	4.76e+07	1.09 y	21:52	0.59	87.6		2.50				87.6
13C-PCB-9	9.25e+07	1.60 y	19:40	-	159		2.50				
PCB-37	3.30e+07	1.07 y	30:13	1.22	46.0		2.50	-	-	*	
13C-PCB-37	5.91e+07	1.12 y	30:12	1.04	112		2.50				112
PCB-54	3.17e+07	0.78 y	25:25	1.06	50.1		2.50	-	-	*	
13C-PCB-54	5.96e+07	0.80 y	25:23	1.12	106		2.50				106
PCB-104	2.18e+07	1.58 y	29:50	1.22	48.6		2.50	-	-	*	
13C-PCB-104	3.67e+07	1.61 y	29:49	0.76	95.9		2.50				95.9
13C-PCB-28	7.74e+07	1.08 y	26:30	1.27	121		2.50				121
13C-PCB-52	5.05e+07	0.81 y	28:44	-	134		2.50				
PCB-81	2.69e+07	0.79 y	35:58	1.16	49.1		2.50	-	-	*	
13C-PCB-81	4.73e+07	0.80 y	35:56	0.97	111		2.50				111
PCB-77	2.61e+07	0.79 y	36:32	1.04	51.5		2.50	-	-	*	
13C-PCB-77	4.85e+07	0.79 y	36:31	0.99	111		2.50				111
PCB-155	2.23e+07	1.26 y	34:00	1.11	49.2		2.50	-	-	*	
13C-PCB-155	4.08e+07	1.29 y	33:58	0.99	94.2		2.50				94.2
13C-PCB-111	5.03e+07	1.59 y	36:04	1.11	104		2.50				104
13C-PCB-101	4.37e+07	1.59 y	34:25	-	136		2.50				
PCB-123	2.21e+07	1.53 y	38:08	1.12	45.2		2.50	-	-	*	
13C-PCB-123	4.35e+07	1.57 y	38:07	0.97	112		2.50				112
PCB-118	2.62e+07	1.56 y	38:18	0.97	54.8		2.50	-	-	*	
13C-PCB-118	4.91e+07	1.58 y	38:16	1.08	113		2.50				113
PCB-114	2.38e+07	1.58 y	38:56	0.98	53.2		2.50	-	-	*	
13C-PCB-114	4.56e+07	1.56 y	38:54	1.02	111		2.50				111
PCB-105	2.36e+07	1.60 y	39:44	1.10	47.3		2.50	-	-	*	
13C-PCB-105	4.56e+07	1.59 y	39:44	1.02	111		2.50				111
PCB-126	2.24e+07	1.59 y	41:52	1.10	47.7		2.50	-	-	*	
13C-PCB-126	4.27e+07	1.61 y	41:52	0.92	115		2.50				115
PCB-167	2.30e+07	1.26 y	43:13	1.00	49.9		2.50	-	-	*	
13C-PCB-167	4.63e+07	1.27 y	43:11	1.11	104		2.50				104
PCB-156	2.15e+07	1.25 y	44:27	1.05	47.7		2.50	-	-	*	
13C-PCB-156	4.29e+07	1.27 y	44:25	1.05	102		2.50				102
PCB-157	2.23e+07	1.28 y	44:42	0.94	51.5		2.50	-	-	*	
13C-PCB-157	4.59e+07	1.27 y	44:40	1.11	103		2.50				103
PCB-169	2.09e+07	1.26 y	46:37	0.99	49.4		2.50	-	-	*	
13C-PCB-169	4.28e+07	1.28 y	46:35	1.01	105		2.50				105
PCB-188	2.40e+07	1.06 y	39:29	1.17	48.6		2.50	-	-	*	
13C-PCB-188	4.23e+07	1.08 y	39:27	1.14	92.1		2.50				92.1
PCB-189	2.00e+07	1.05 y	48:16	1.14	49.7		2.50	-	-	*	
13C-PCB-189	3.54e+07	1.07 y	48:16	0.90	98.4		2.50				98.4
PCB-202	1.51e+07	0.90 y	44:35	1.07	49.8		2.50	-	-	*	
13C-PCB-202	2.82e+07	0.93 y	44:35	0.76	92.8		2.50				92.8
13C-PCB-178	2.89e+07	1.07 y	42:05	0.75	96.0		2.50				96.0
13C-PCB-138	4.02e+07	1.26 y	41:19	-	144		2.50				

FAL ID: 03765-001-0001-OPR Filename: 13JUL16Z Sam:5 Acquired: 13-JUL-16 14:16:37 ICal: DAILY209FAL4-7-13-16 2 of 2
Client ID: OPR ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 3765 GC Column: DB1 Amount: 1.000

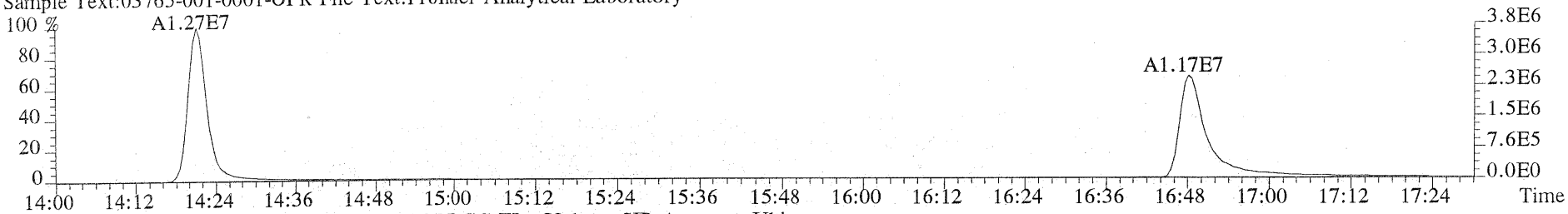
PCB-205	1.97e+07	0.87 y	49:56	1.10	48.0	2.50	-	-	*	
13C-PCB-205	3.74e+07	0.91 y	49:54	1.34	94.4	2.50				94.4
PCB-208	1.94e+07	1.34 y	48:59	0.97	48.8	2.50	-	-	*	
13C-PCB-208	4.10e+07	0.80 y	48:58	1.51	91.7	2.50				91.7
PCB-206	1.43e+07	1.35 y	51:05	1.01	47.5	2.50	-	-	*	
13C-PCB-206	2.98e+07	0.79 y	51:05	1.15	88.1	2.50				88.1
PCB-209	2.08e+07	1.19 y	52:16	1.11	49.3	2.50	-	-	*	
13C-PCB-209	3.82e+07	1.21 y	52:14	1.72	75.3	2.50				75.3
13C-PCB-194	2.95e+07	0.91 y	49:39	-	171	2.50				

Analyst: _____ Date: 7/15/20

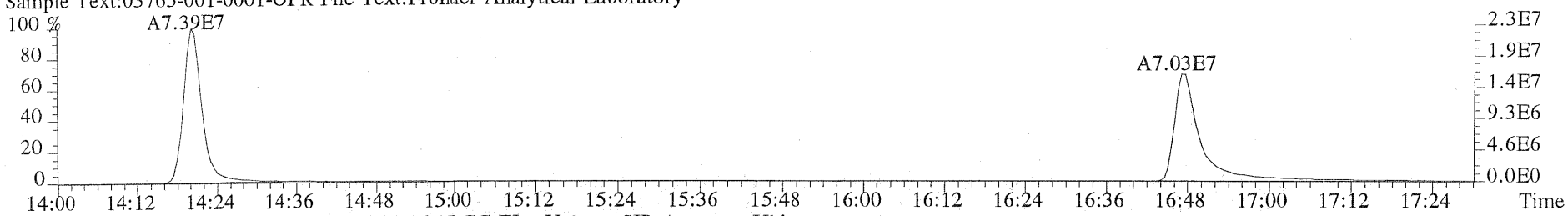
File:13JUL16Z #1-901 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



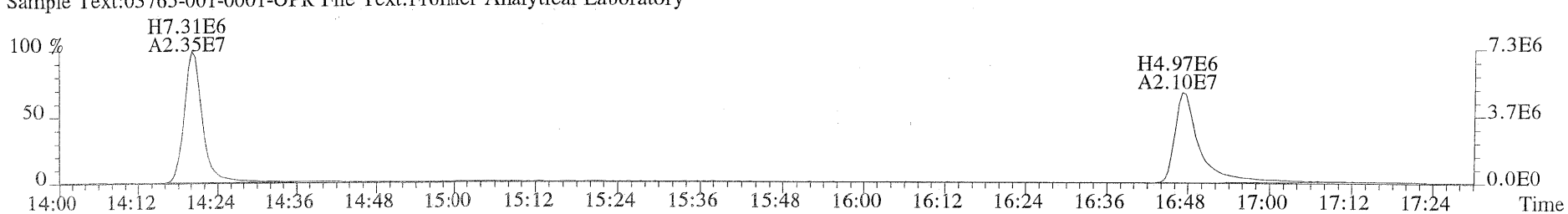
File:13JUL16Z #1-901 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



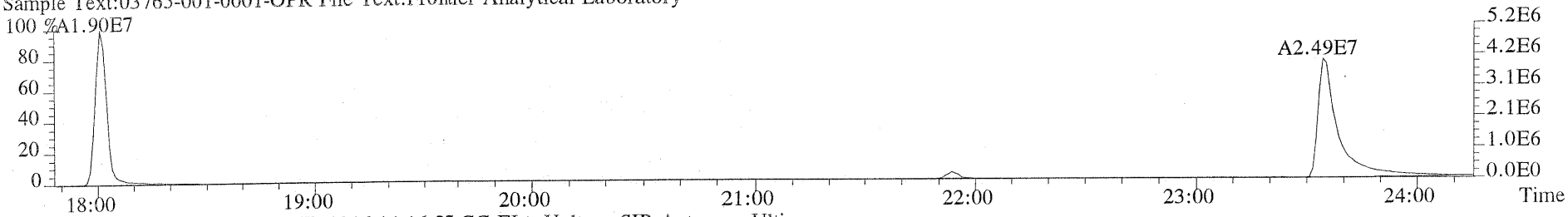
File:13JUL16Z #1-901 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



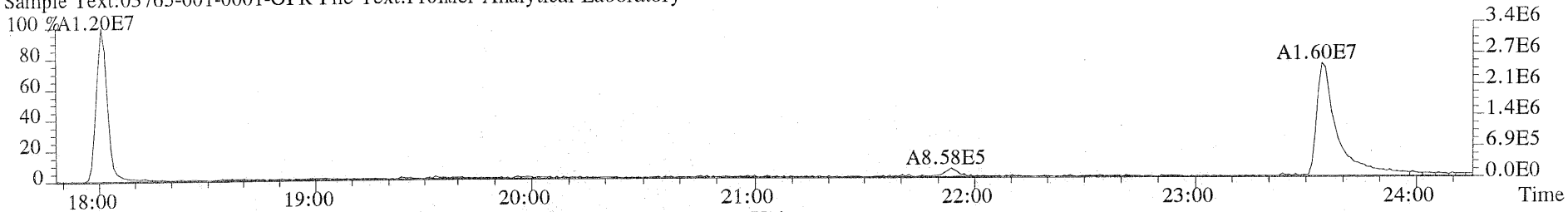
File:13JUL16Z #1-901 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



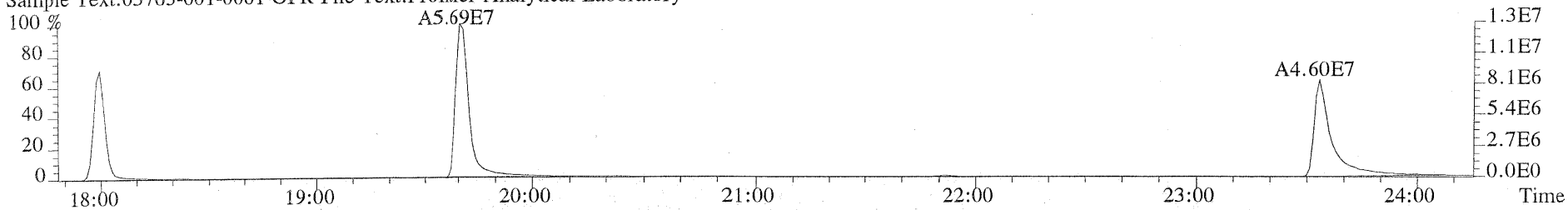
File:13JUL16Z #1-498 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



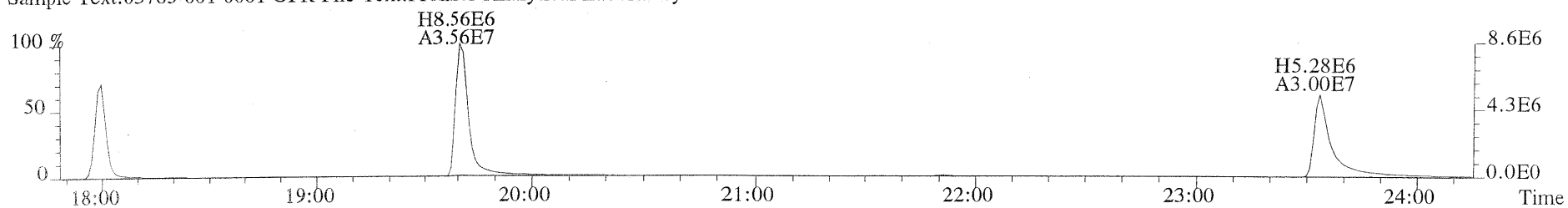
File:13JUL16Z #1-498 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



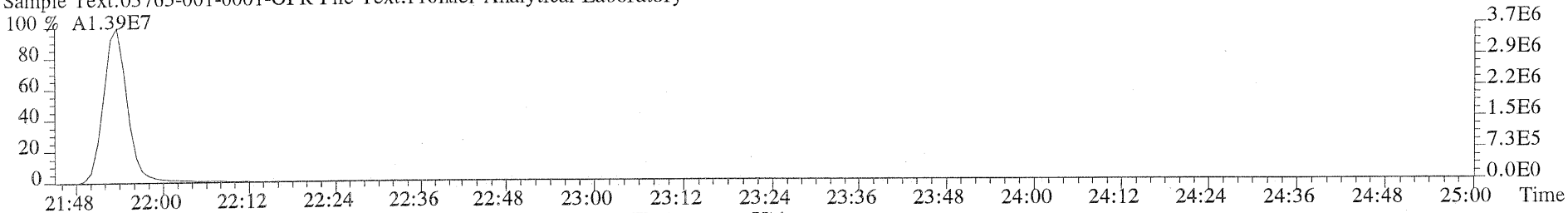
File:13JUL16Z #1-498 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



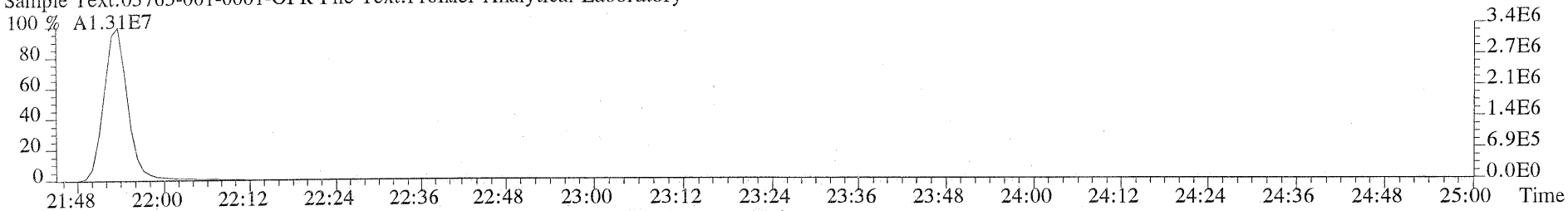
File:13JUL16Z #1-498 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



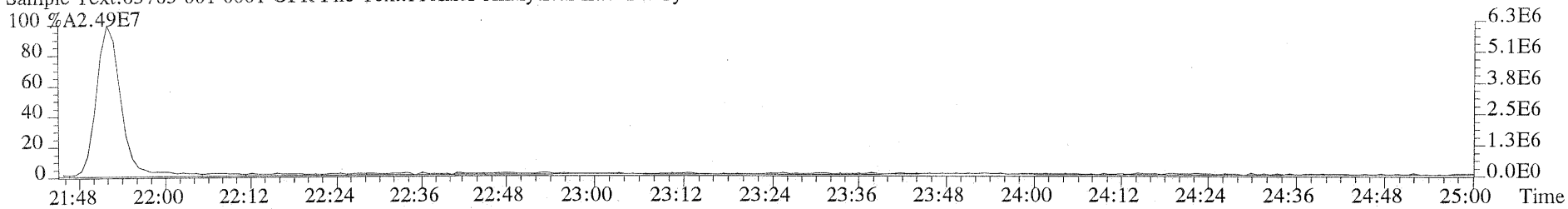
File:13JUL16Z #1-498 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



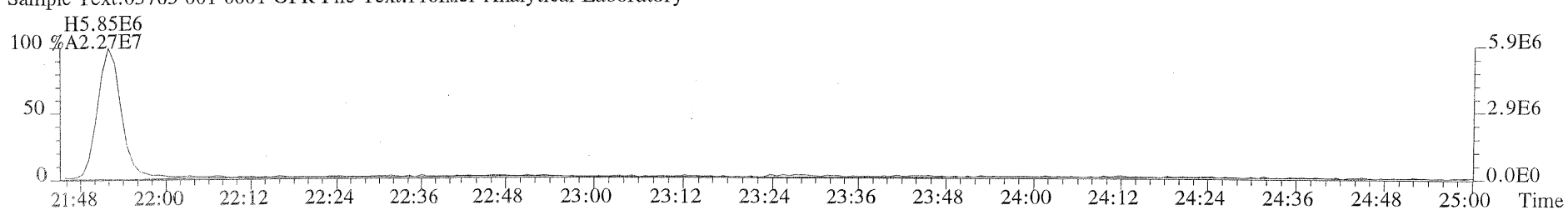
File:13JUL16Z #1-498 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



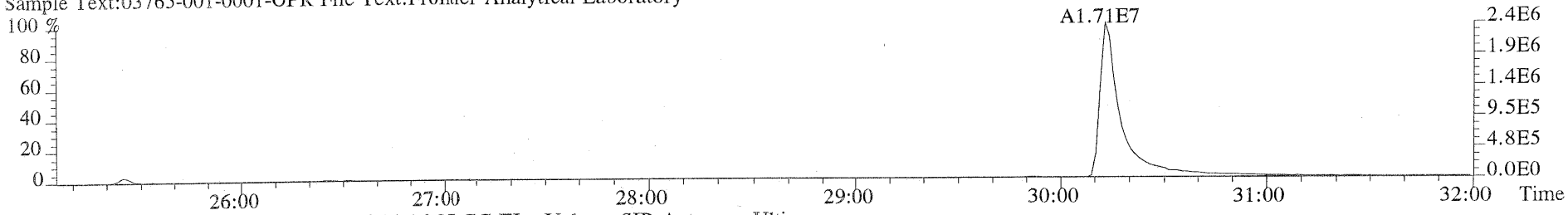
File:13JUL16Z #1-498 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



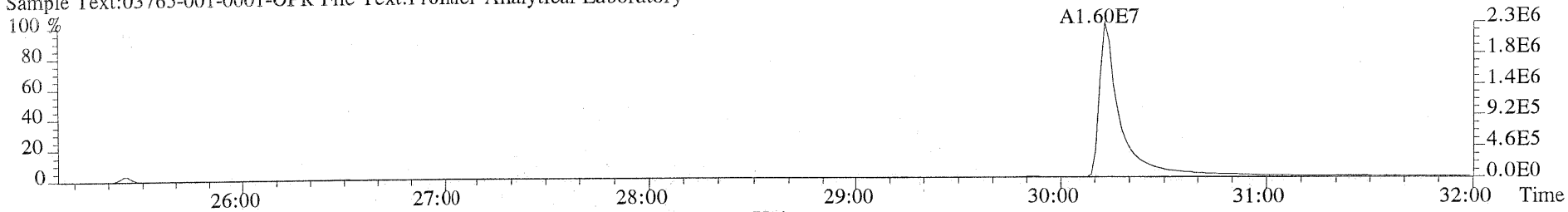
File:13JUL16Z #1-498 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



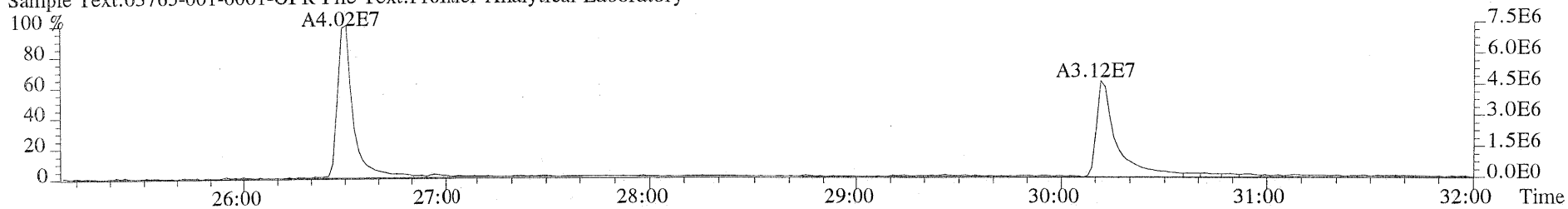
File:13JUL16Z #1-404 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



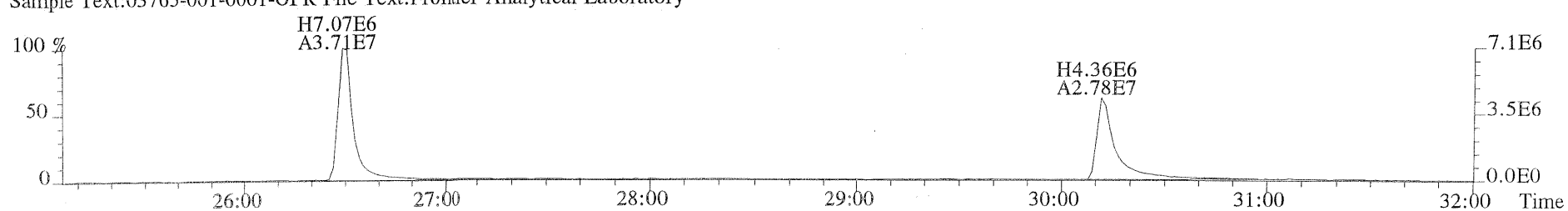
File:13JUL16Z #1-404 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



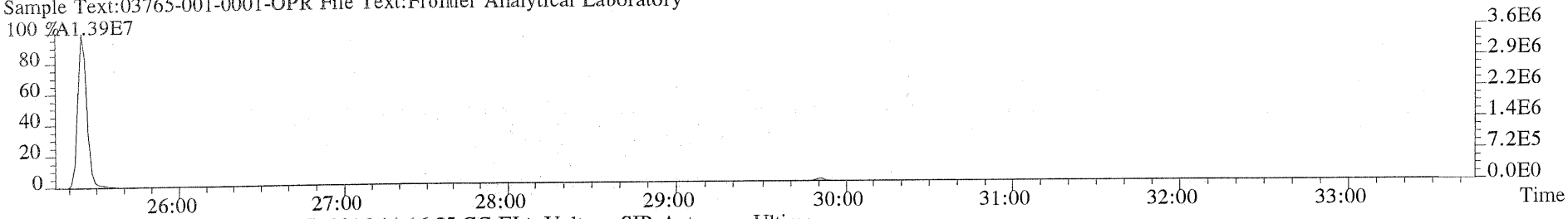
File:13JUL16Z #1-404 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



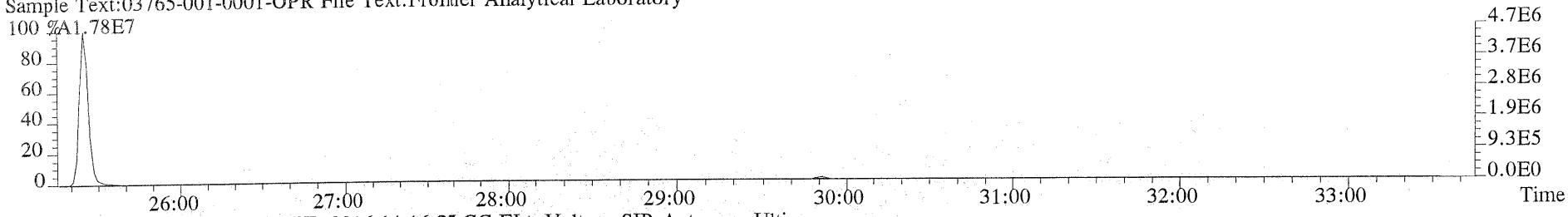
File:13JUL16Z #1-404 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



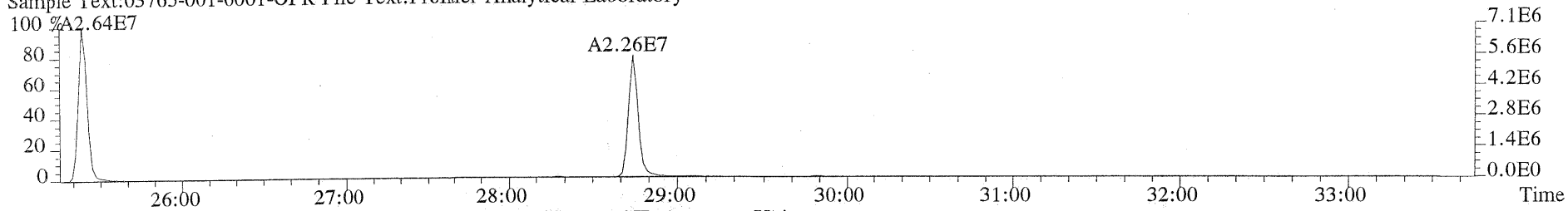
File:13JUL16Z #1-404 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



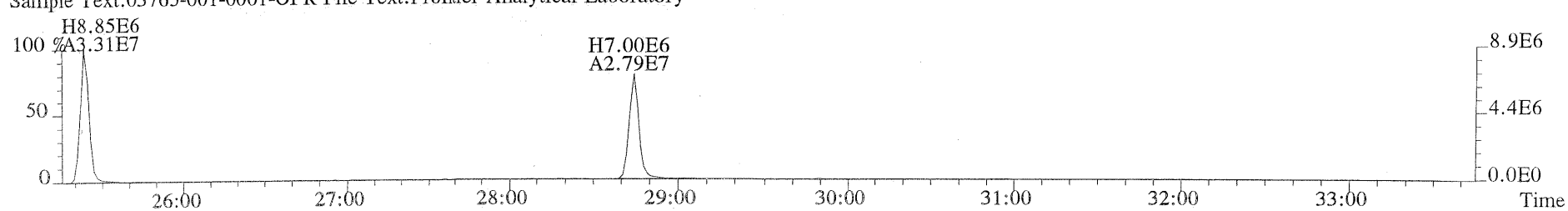
File:13JUL16Z #1-404 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



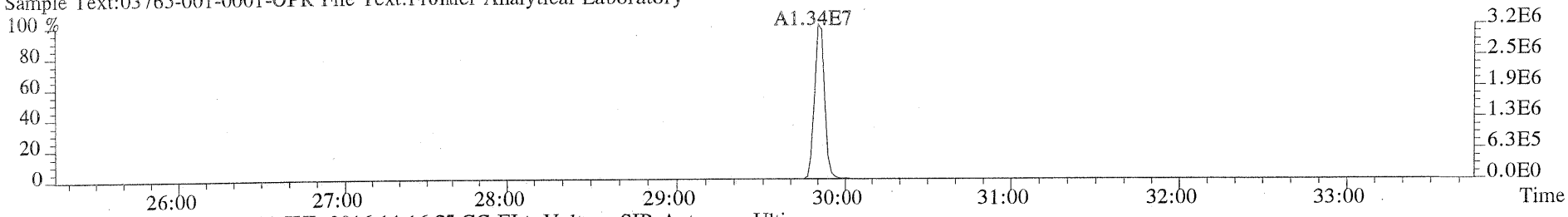
File:13JUL16Z #1-404 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



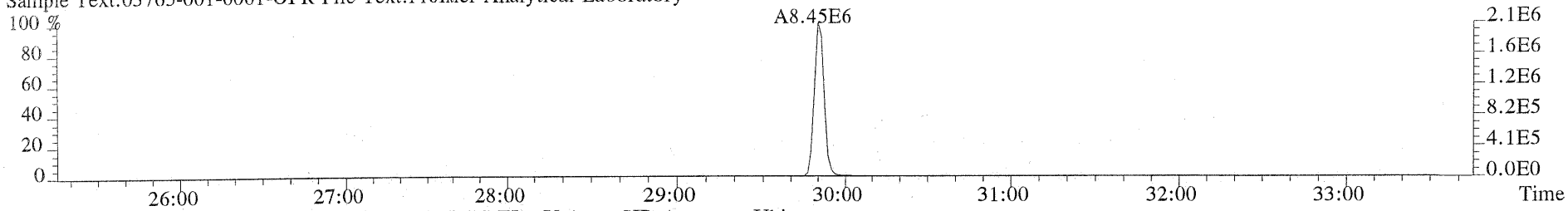
File:13JUL16Z #1-404 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



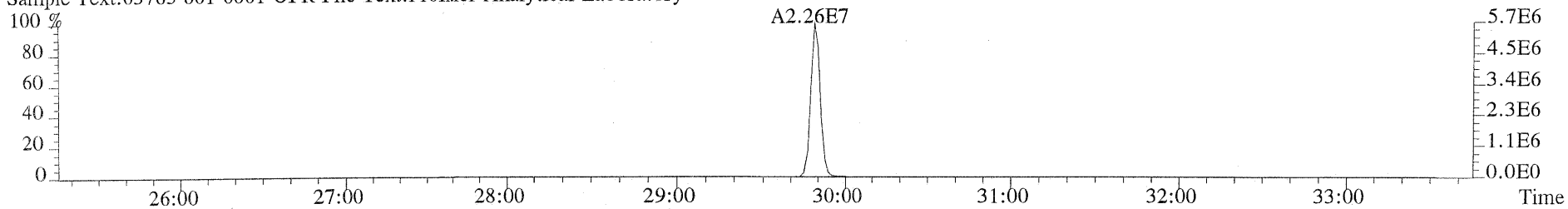
File:13JUL16Z #1-404 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



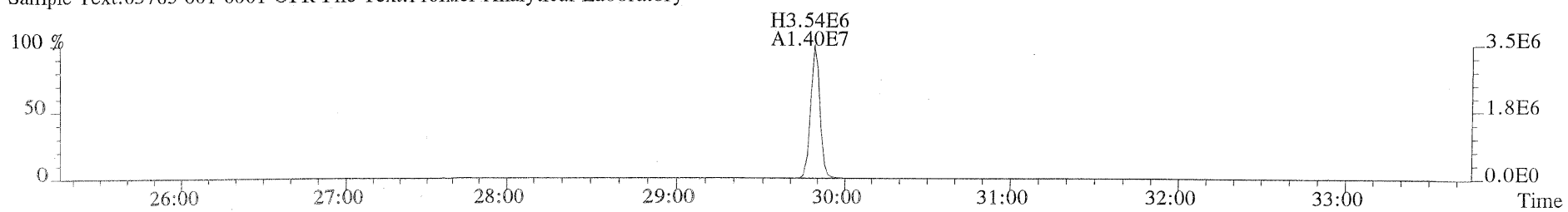
File:13JUL16Z #1-404 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



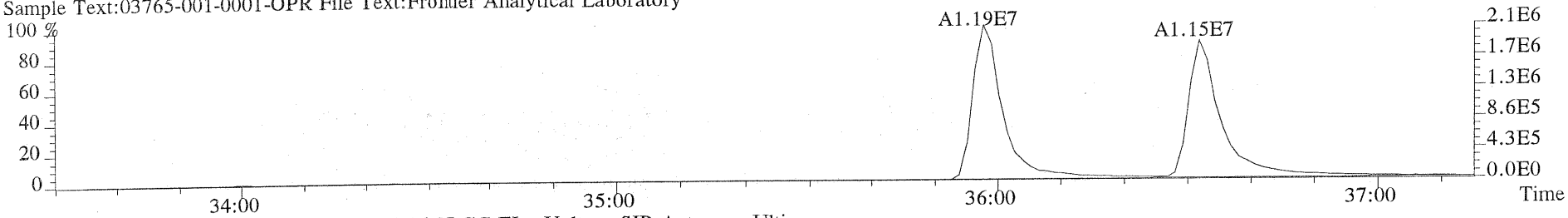
File:13JUL16Z #1-404 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



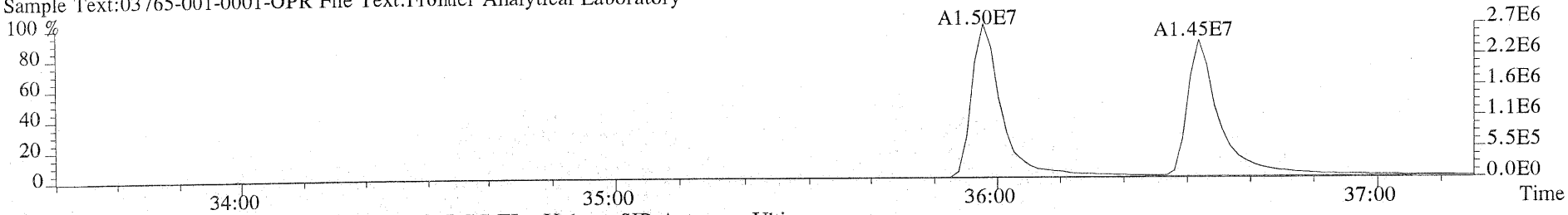
File:13JUL16Z #1-404 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



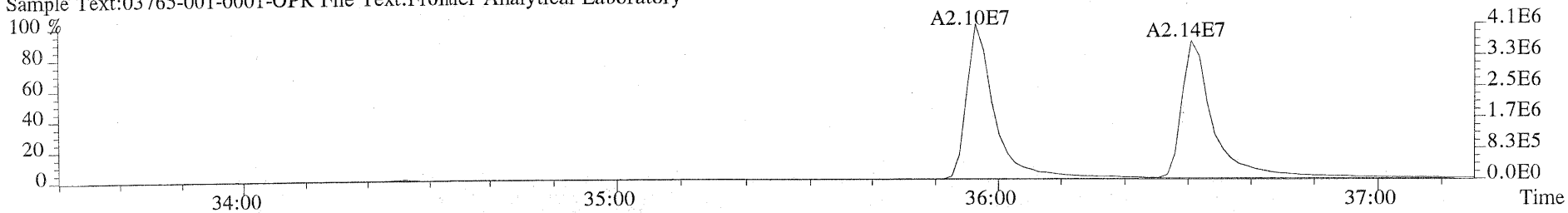
File:13JUL16Z #1-180 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



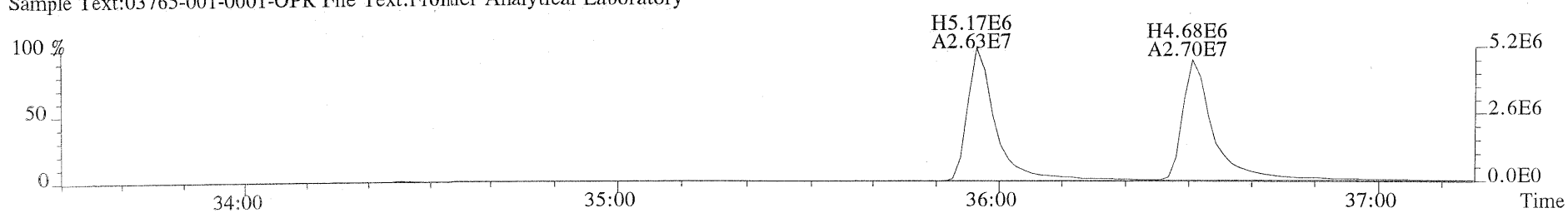
File:13JUL16Z #1-180 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



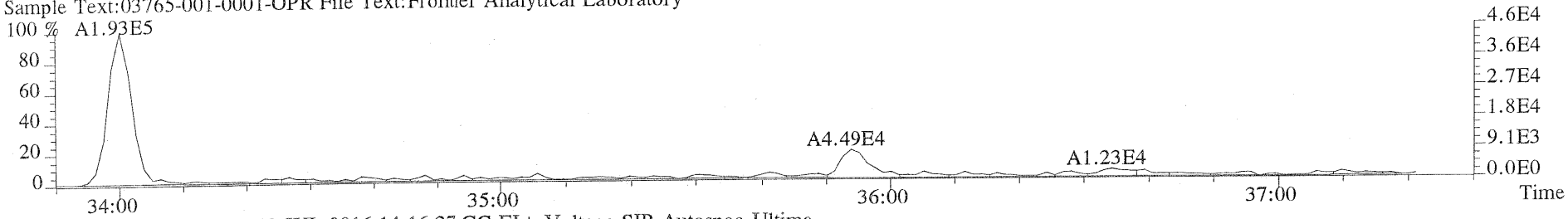
File:13JUL16Z #1-180 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



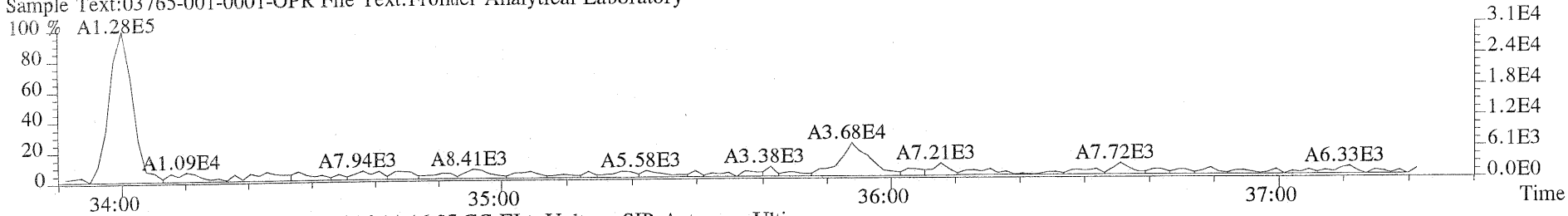
File:13JUL16Z #1-180 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



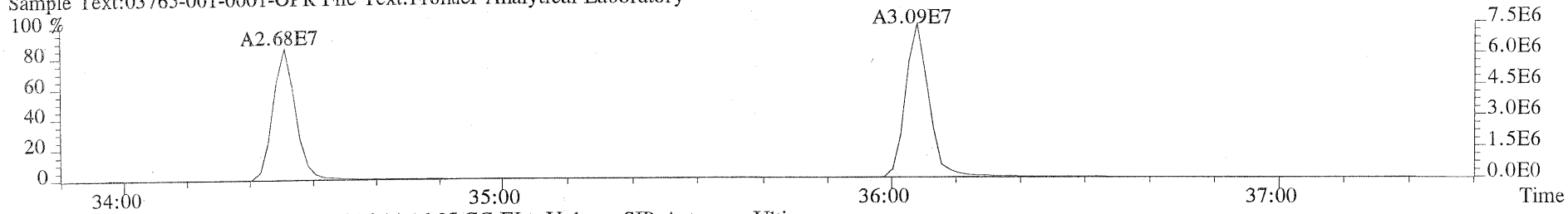
File:13JUL16Z #1-180 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



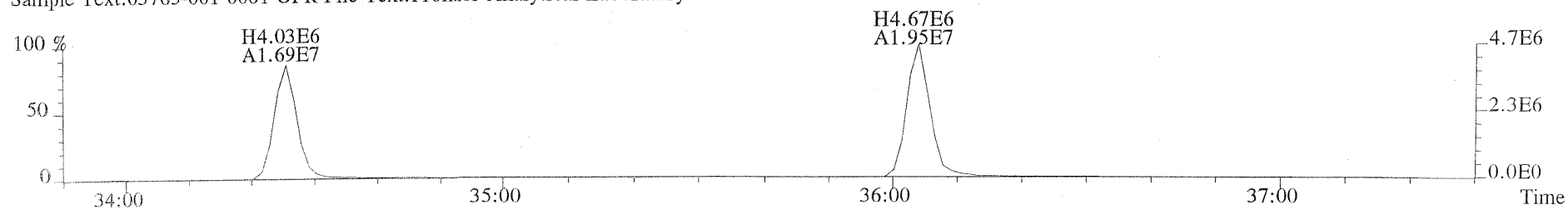
File:13JUL16Z #1-180 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



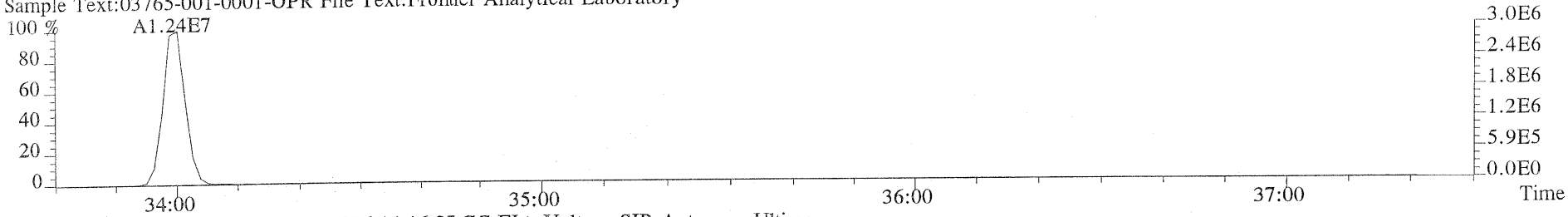
File:13JUL16Z #1-180 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



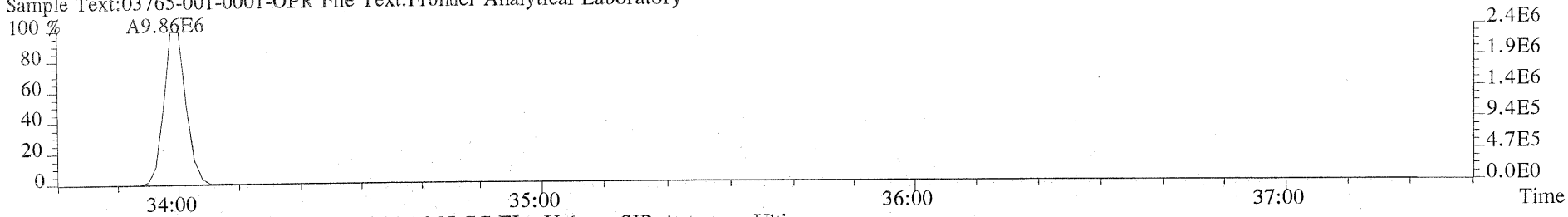
File:13JUL16Z #1-180 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



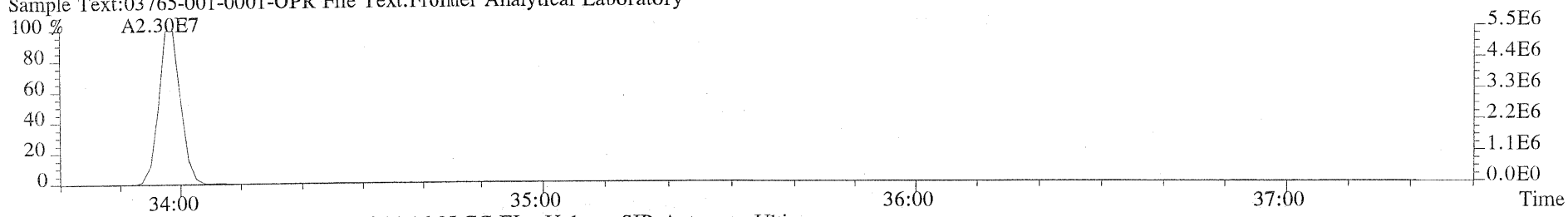
File:13JUL16Z #1-180 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



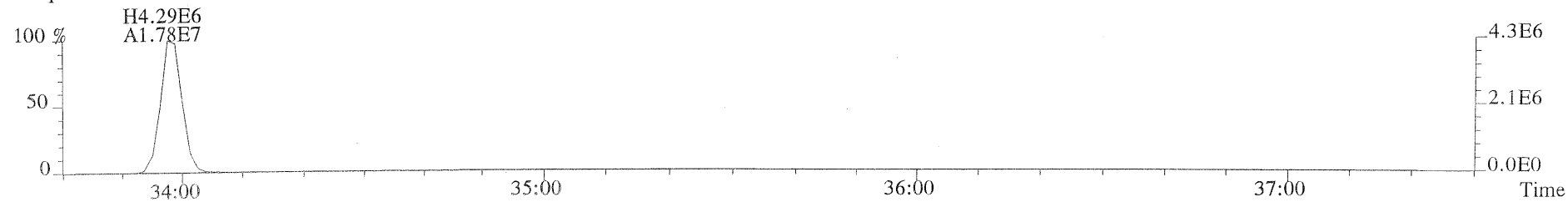
File:13JUL16Z #1-180 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-180 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-180 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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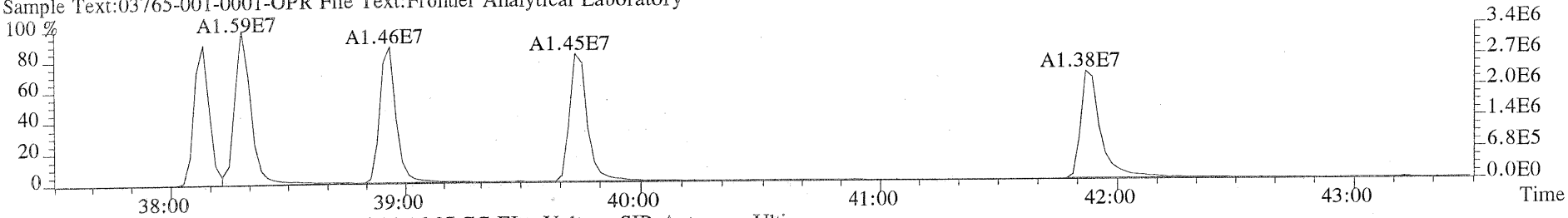
325.8804 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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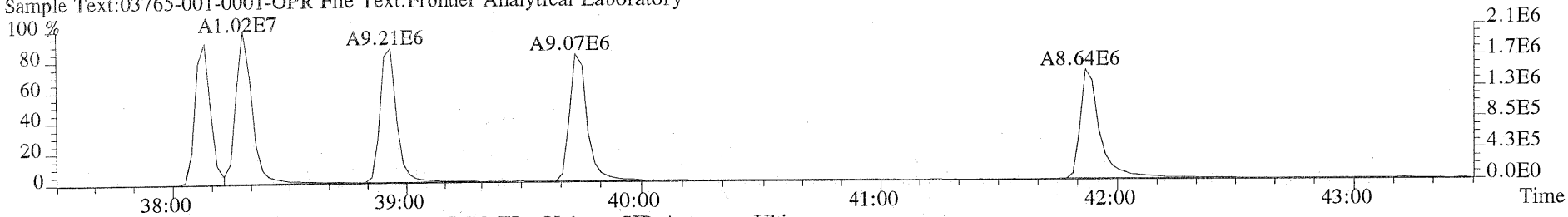
327.8775 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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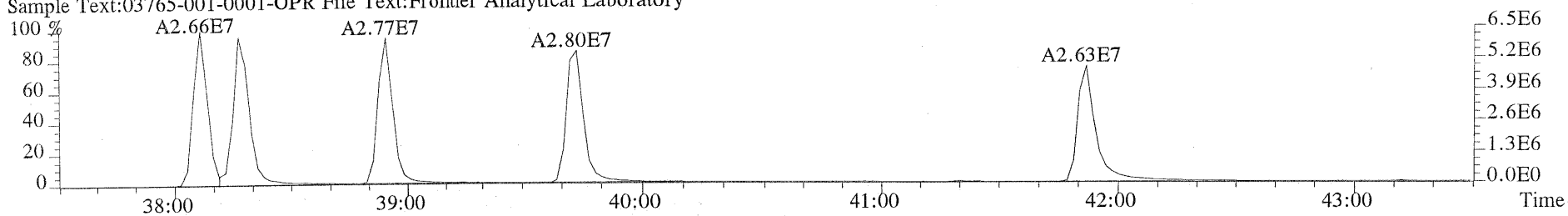
337.9207 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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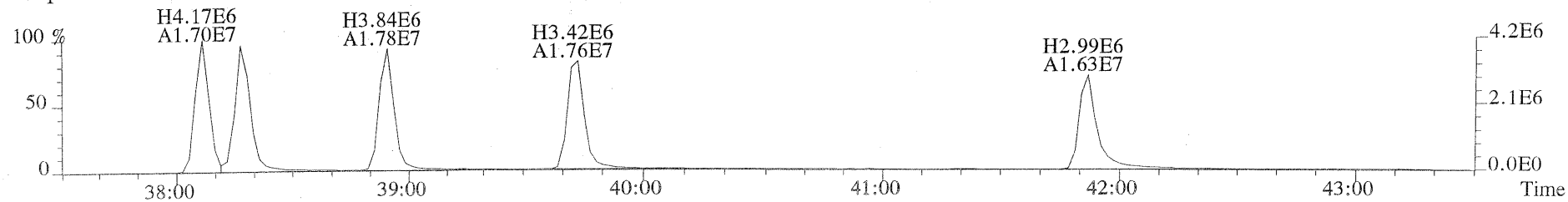
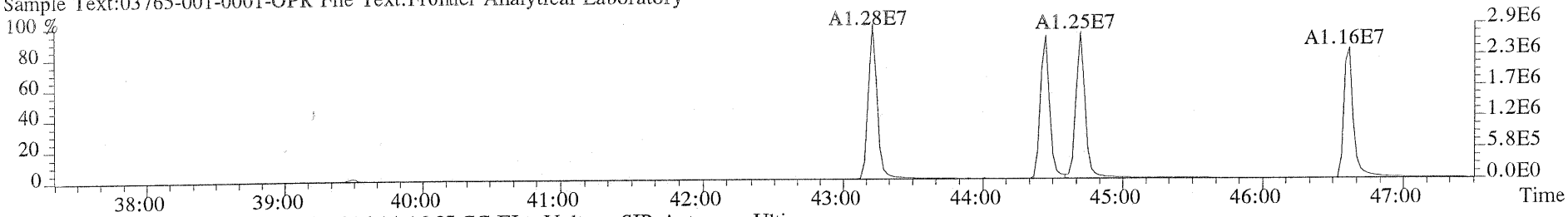
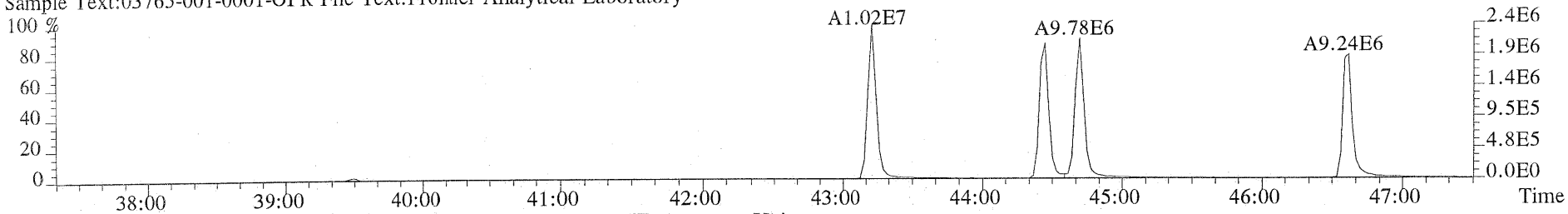
339.9178 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



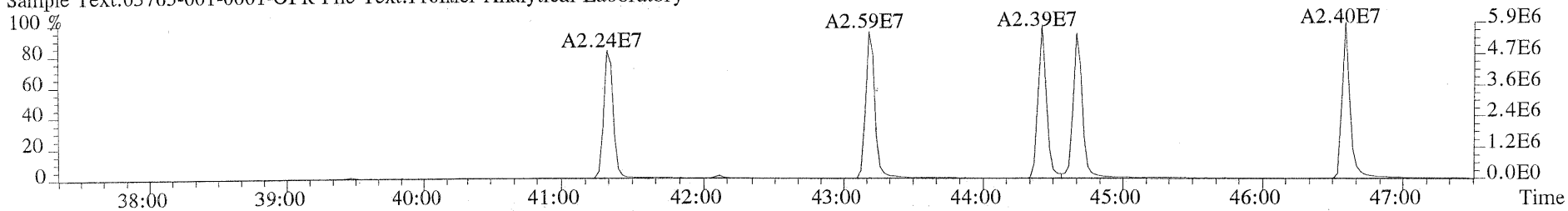
File:13JUL16Z #1-415 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



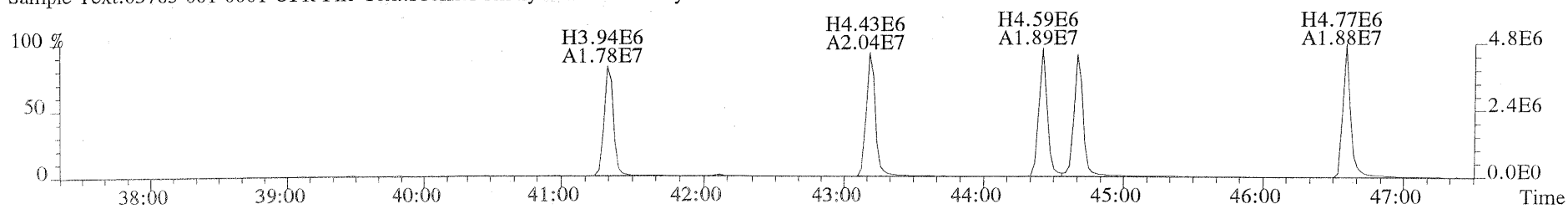
File:13JUL16Z #1-415 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



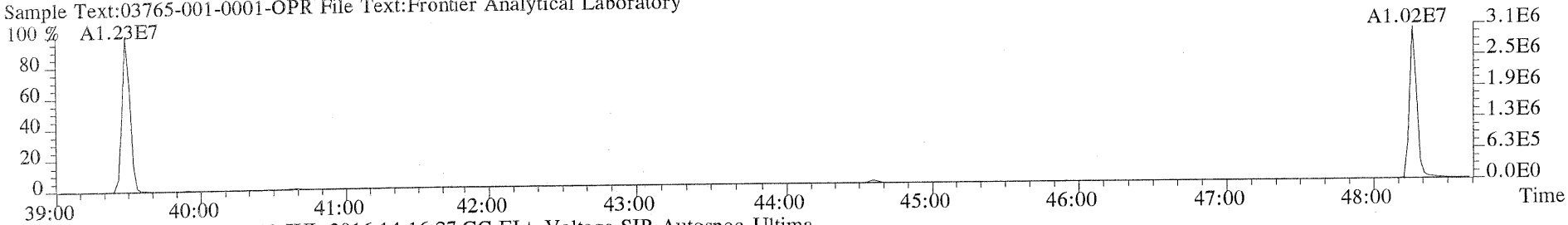
File:13JUL16Z #1-415 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



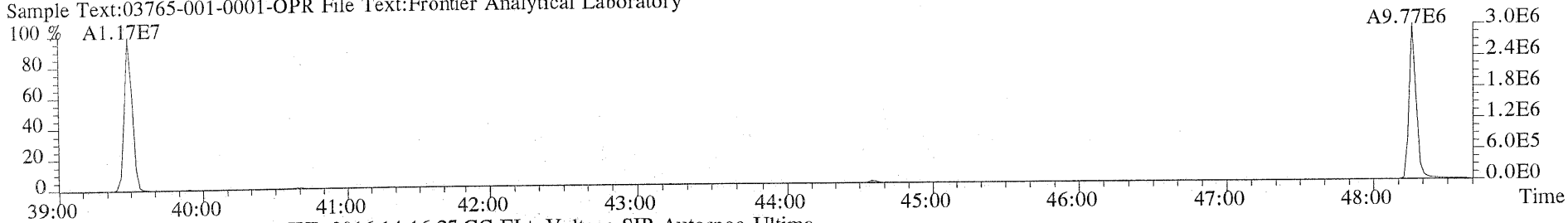
File:13JUL16Z #1-415 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



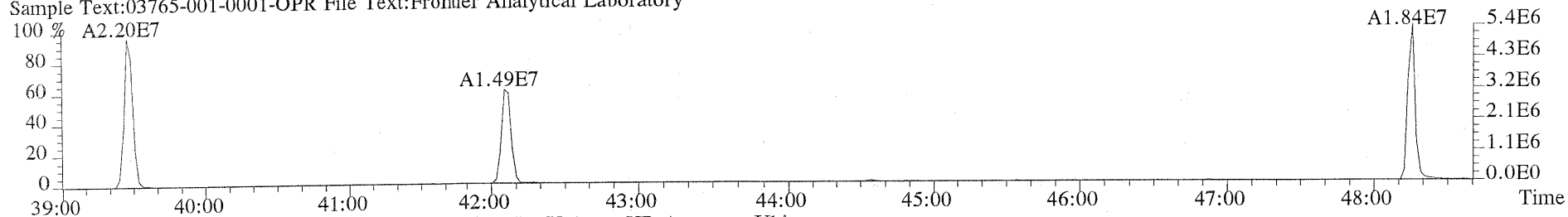
File:13JUL16Z #1-415 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
393.8025 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
405.8428 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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407.8398 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
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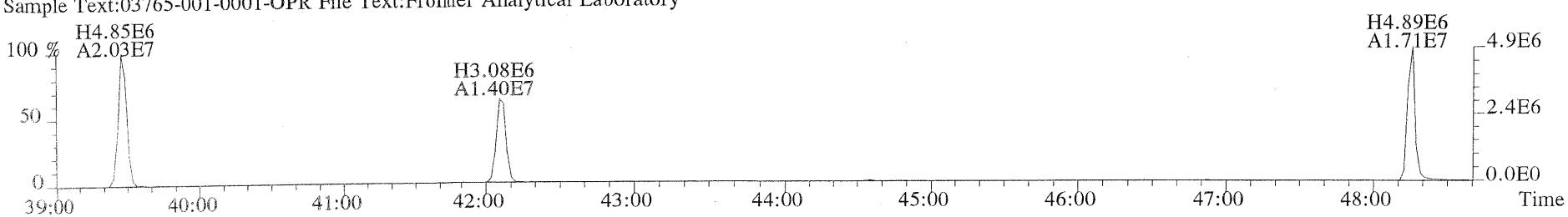
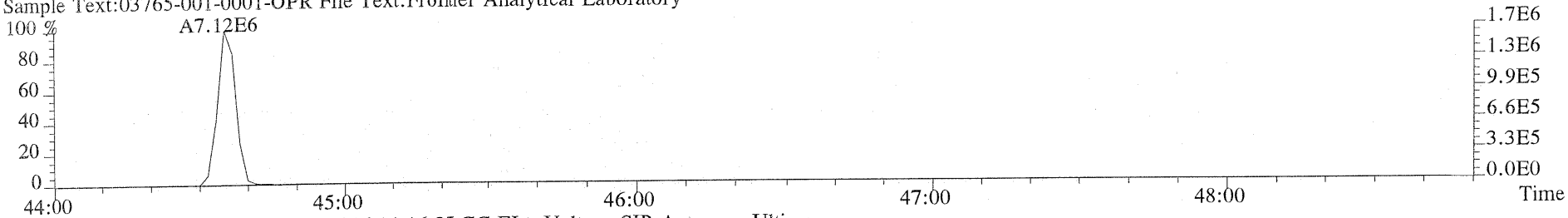
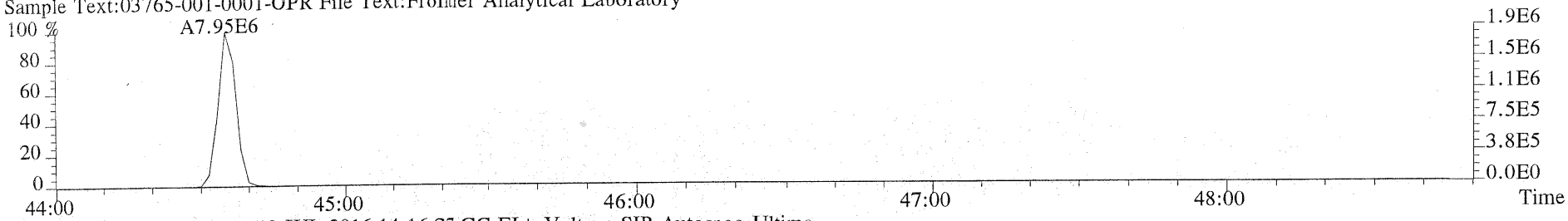


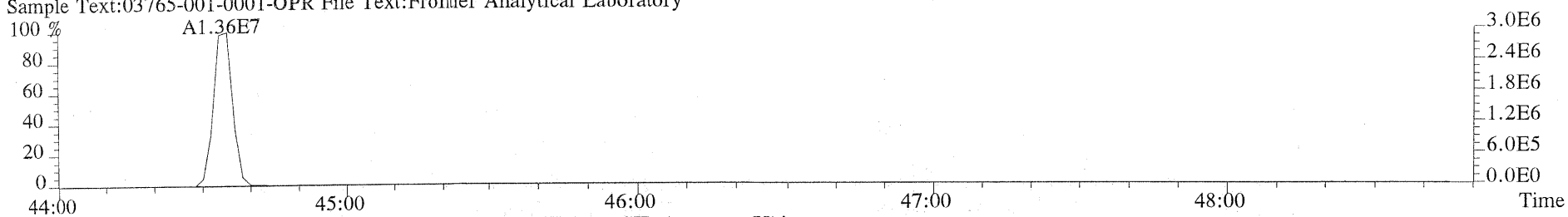
File:13JUL16Z #1-415 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



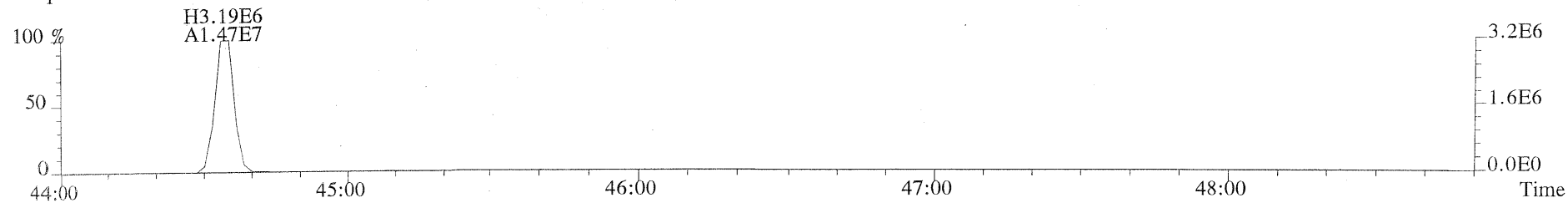
File:13JUL16Z #1-415 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



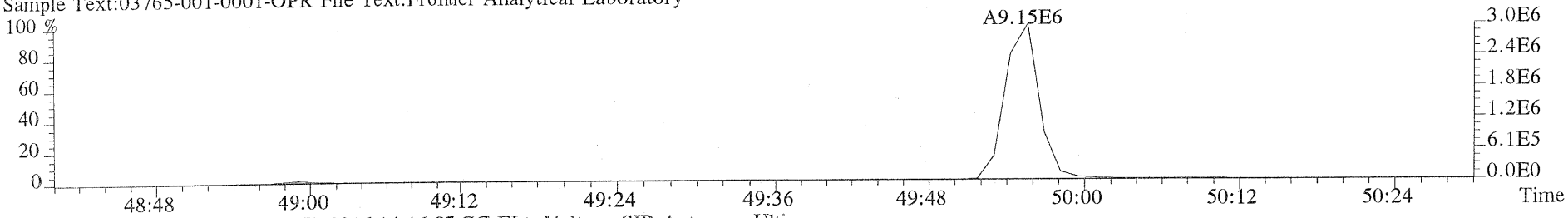
File:13JUL16Z #1-415 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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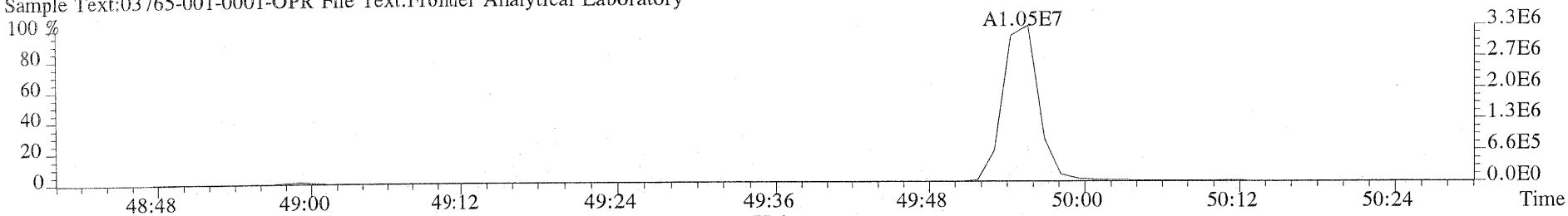
429.7606 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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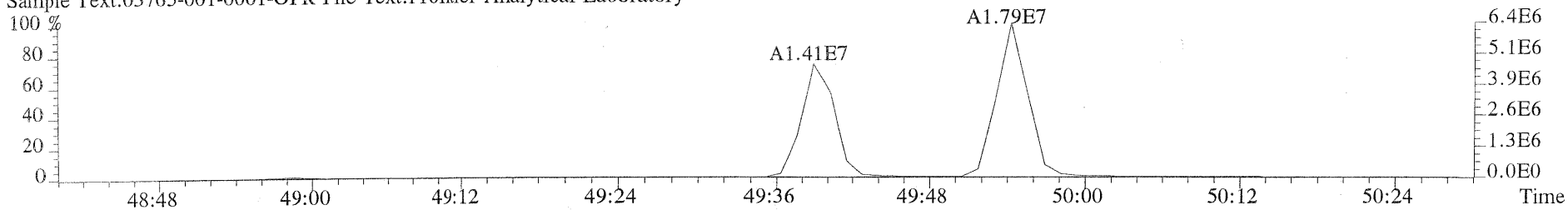
439.8038 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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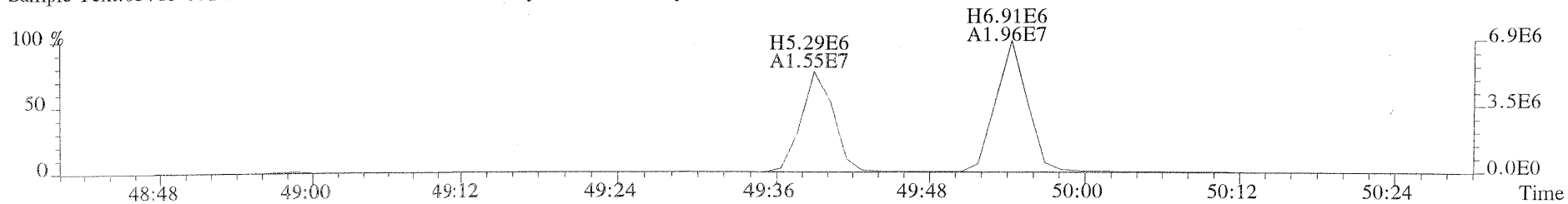
441.8008 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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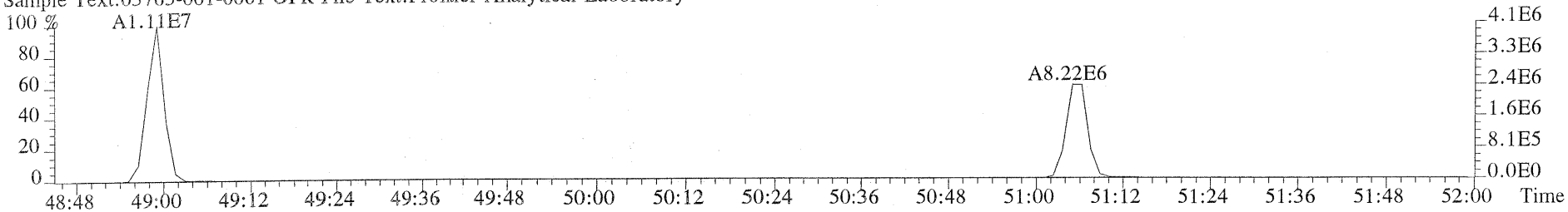
463.7216 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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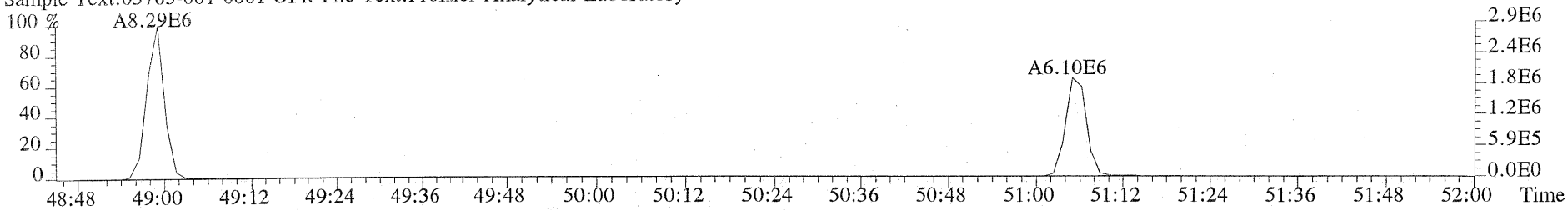
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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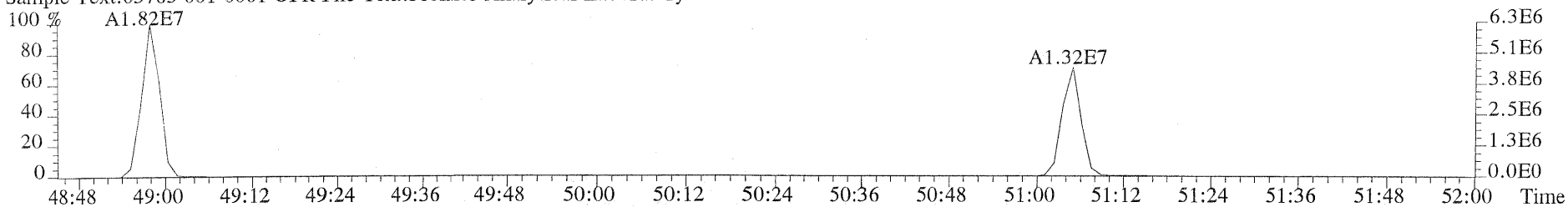
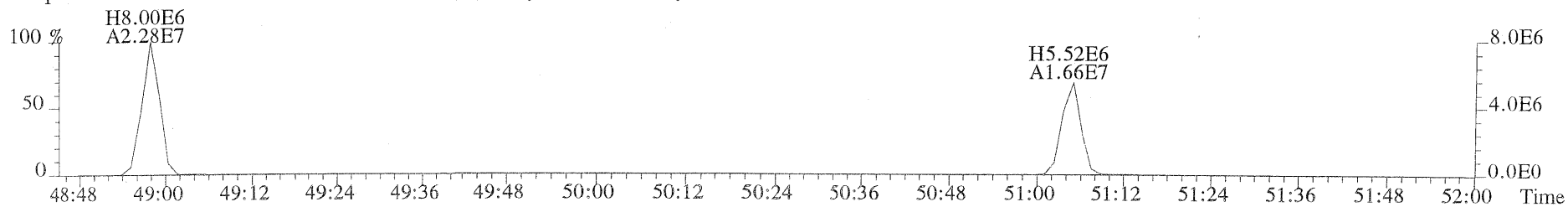
473.7648 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
475.7619 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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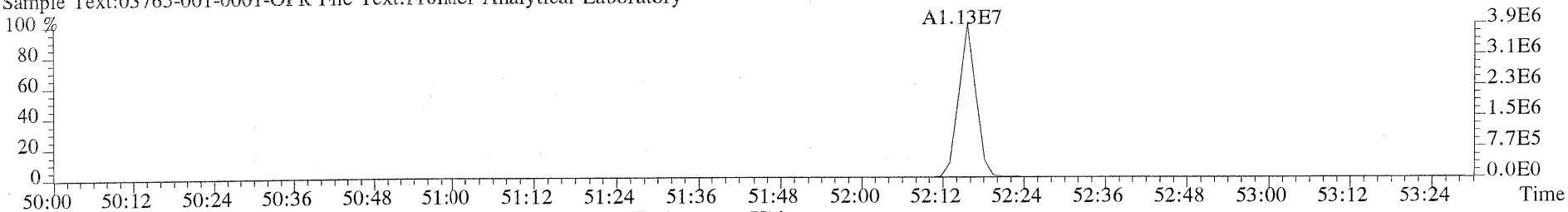
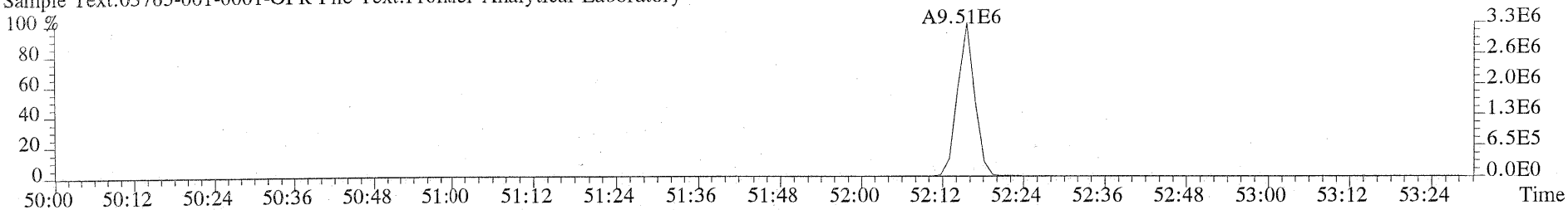
497.6826 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 14:16:37 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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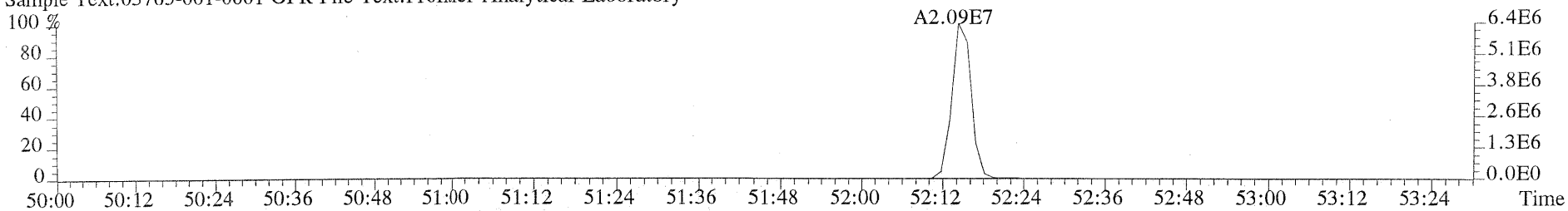
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



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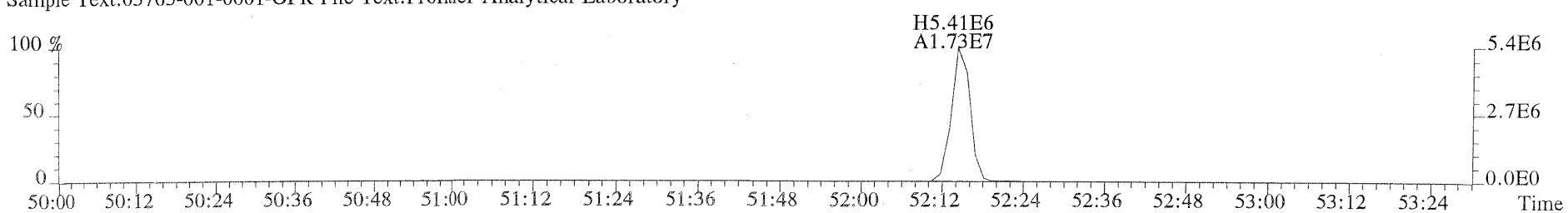
Sample Text:03765-001-0001-OPR File Text:Frontier Analytical Laboratory



FAL ID: 09987-001-0001-SA Filename: 13JUL16Z Sam:9 Acquired: 13-JUL-16 18:16:33 ICal: DAILY209FAL4-7-13-16
Client ID: LDW-CS-1-S00.2-KPDMS ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 9987-06 GC Column: DB1 Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Noise-1	Noise-2	DL	Rec
PCB-1	*	* n	NotFnd	1.05	*		3890	3130	6.76	
13C-PCB-1	8.27e+07	3.19 y	14:20	1.06	9140					91.4
PCB-2	*	* n	NotFnd	0.92	*		3890	3130	10.0	
PCB-3	*	* n	NotFnd	1.13	*		3890	3130	10.4	
13C-PCB-3	7.36e+07	3.24 y	16:47	1.03	8340					83.4
PCB-4	*	* n	NotFnd	1.19	*		1990	2260	6.38	
PCB-10	*	* n	NotFnd	1.33	*		1990	2260	7.47	
13C-PCB-4	4.99e+07	1.55 y	17:59	0.60	9670					96.7
PCB-9	*	* n	NotFnd	1.15	*		1990	2260	8.63	
PCB-7	*	* n	NotFnd	1.60	*		1990	2260	6.21	
PCB-6	*	* n	NotFnd	1.45	*		1990	2260	6.86	
PCB-8	*	* n	NotFnd	1.27	*		1990	2260	7.81	
PCB-5	*	* n	NotFnd	1.51	*		1990	2260	6.57	
PCB-14	*	* n	NotFnd	1.19	*		1990	2260	8.35	
PCB-11	*	* n	NotFnd	1.19	*		1990	2260	8.36	
PCB-13	*	* n	NotFnd	1.00	*		1990	2260	9.93	
PCB-12	*	* n	NotFnd	1.40	*		1990	2260	7.12	
PCB-15	*	* n	NotFnd	1.34	*		1990	2260	8.81	
13C-PCB-15	6.29e+07	1.61 y	23:34	0.85	8620					86.2
PCB-19	*	* n	NotFnd	1.14	*		2440	1020	7.81	
PCB-30	*	* n	NotFnd	1.69	*		2440	1020	5.25	
PCB-18	*	* n	NotFnd	1.07	*		2440	1020	8.29	
PCB-17	*	* n	NotFnd	1.22	*		2440	1020	7.29	
PCB-27	*	* n	NotFnd	1.59	*		2440	1020	5.56	
PCB-24	*	* n	NotFnd	1.59	*		2440	1020	5.56	
PCB-16	*	* n	NotFnd	1.06	*		2440	1020	8.33	
PCB-32	*	* n	NotFnd	1.69	*		2440	1020	5.23	
13C-PCB-19	4.01e+07	1.14 y	21:51	0.59	7970					79.7
13C-PCB-9	8.55e+07	1.62 y	19:41	-	147					
PCB-34	*	* n	NotFnd	1.13	*		705	704	5.35	
PCB-23	*	* n	NotFnd	1.24	*		705	704	4.88	
PCB-29	*	* n	NotFnd	1.24	*		705	704	4.88	
PCB-26	*	* n	NotFnd	1.22	*		705	704	4.94	
PCB-25	*	* n	NotFnd	1.45	*		705	704	4.16	
PCB-31	*	* n	NotFnd	1.02	*		705	704	5.89	
PCB-28	*	* n	NotFnd	1.61	*		705	704	3.75	
PCB-20	*	* n	NotFnd	1.22	*		705	704	4.94	Co-elute PCB 21/33
PCB-21	*	* n	NotFnd	1.22	*		705	704	4.94	Co-elute PCB 20/33
PCB-33	*	* n	NotFnd	1.22	*		705	704	4.94	Co-elute PCB 20/21
PCB-22	*	* n	NotFnd	1.23	*		705	704	4.89	
PCB-36	*	* n	NotFnd	1.11	*		705	704	5.45	
PCB-39	*	* n	NotFnd	1.04	*		705	704	5.79	
PCB-38	*	* n	NotFnd	1.21	*		705	704	5.00	
PCB-35	*	* n	NotFnd	0.99	*		705	704	6.10	
PCB-37	*	* n	NotFnd	1.22	*		705	704	4.96	
13C-PCB-37	5.34e+07	1.07 y	30:13	1.04	11300					113

PCB-54	*	*	n	NotFnd	1.06	*	778	977	3.32	
PCB-50	*	*	n	NotFnd	0.84	*	778	977	4.23	
PCB-53	*	*	n	NotFnd	0.75	*	778	977	4.68	
PCB-51	*	*	n	NotFnd	0.80	*	778	977	4.40	
PCB-45	*	*	n	NotFnd	0.73	*	778	977	4.87	
PCB-46	*	*	n	NotFnd	0.69	*	778	977	5.13	
PCB-52	*	*	n	NotFnd	0.91	*	778	977	3.86	Co-elute PCB 69
PCB-69	*	*	n	NotFnd	0.91	*	778	977	3.86	Co-elute PCB 52
PCB-73	*	*	n	NotFnd	1.10	*	778	977	3.19	
PCB-43	*	*	n	NotFnd	0.80	*	778	977	4.40	Co-elute PCB 49
PCB-49	*	*	n	NotFnd	0.80	*	778	977	4.40	Co-elute PCB 43
PCB-47	*	*	n	NotFnd	0.97	*	778	977	3.64	
PCB-48	*	*	n	NotFnd	0.97	*	778	977	3.64	Co-elute PCB 75
PCB-75	*	*	n	NotFnd	0.97	*	778	977	3.64	Co-elute PCB 48
PCB-65	*	*	n	NotFnd	0.98	*	778	977	3.58	
PCB-62	*	*	n	NotFnd	1.02	*	778	977	3.47	
PCB-44	*	*	n	NotFnd	0.70	*	778	977	5.04	
PCB-42	*	*	n	NotFnd	0.92	*	778	977	3.84	Co-elute PCB 59
PCB-59	*	*	n	NotFnd	0.92	*	778	977	3.84	Co-elute PCB 42
PCB-72	*	*	n	NotFnd	0.99	*	778	977	3.56	Co-elute PCB 41/71/64
PCB-41	*	*	n	NotFnd	0.99	*	778	977	3.56	Co-elute PCB 72/71/64
PCB-71	*	*	n	NotFnd	0.99	*	778	977	3.56	Co-elute PCB 72/41/64
PCB-64	*	*	n	NotFnd	0.99	*	778	977	3.56	Co-elute PCB 72/41/71
PCB-68	*	*	n	NotFnd	1.05	*	778	977	3.36	
PCB-40	*	*	n	NotFnd	0.62	*	778	977	5.73	
PCB-57	*	*	n	NotFnd	1.02	*	778	977	3.46	
PCB-67	*	*	n	NotFnd	0.97	*	778	977	3.64	
PCB-58	*	*	n	NotFnd	0.99	*	778	977	3.55	
PCB-63	*	*	n	NotFnd	1.06	*	778	977	3.32	
PCB-74	*	*	n	NotFnd	1.04	*	778	977	3.40	
PCB-61	*	*	n	NotFnd	1.00	*	778	977	3.51	Co-elute PCB 70
PCB-70	*	*	n	NotFnd	1.00	*	778	977	3.51	Co-elute PCB 61
PCB-76	*	*	n	NotFnd	1.08	*	778	977	3.26	Co-elute PCB 66
PCB-66	*	*	n	NotFnd	1.08	*	778	977	3.26	Co-elute PCB 76
PCB-80	*	*	n	NotFnd	1.14	*	778	977	3.09	
PCB-55	2.05e+05	0.80	y	33:18	1.01	39.9	-	-	*	
13C-PCB-54	5.07e+07	0.80	y	25:24	1.12	10000				100
PCB-104	9.12e+06	1.59	y	29:51	1.22	2590	-	-	*	
PCB-96	*	*	n	NotFnd	1.14	*	608	1000	5.08	
PCB-103	*	*	n	NotFnd	0.94	*	608	1000	6.18	
PCB-100	*	*	n	NotFnd	0.89	*	608	1000	6.54	
PCB-94	*	*	n	NotFnd	0.76	*	608	1000	7.67	
PCB-98	*	*	n	NotFnd	0.86	*	608	1000	6.75	Co-elute PCB 102
PCB-102	*	*	n	NotFnd	0.86	*	608	1000	6.75	Co-elute PCB 98
PCB-95	*	*	n	NotFnd	0.86	*	608	1000	6.76	
PCB-93	*	*	n	NotFnd	0.82	*	608	1000	7.11	
PCB-88	*	*	n	NotFnd	0.78	*	608	1000	7.42	Co-elute PCB 91
PCB-91	*	*	n	NotFnd	0.78	*	608	1000	7.42	Co-elute PCB 88
PCB-121	9.74e+06	1.56	y	33:18	1.14	2970	-	-	*	
13C-PCB-104	2.88e+07	1.62	y	29:48	0.76	8370				83.7
13C-PCB-28	6.19e+07	1.06	y	26:30	1.27	10700				107
13C-PCB-52	4.54e+07	0.80	y	28:44	-	120				

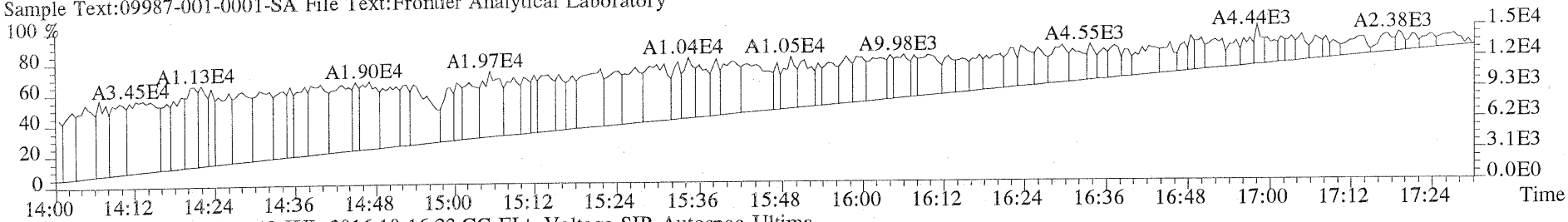
PCB-56	*	*	n	NotFnd	1.15	*		612	868	5.05	Co-elute PCB 60
PCB-60	*	*	n	NotFnd	1.15	*		612	868	5.05	Co-elute PCB 56
PCB-79	*	*	n	NotFnd	1.17	*		612	868	4.97	
PCB-78	2.53e+06	0.76	y	35:30	1.07	575		-	-	*	
PCB-81	*	*	n	NotFnd	1.16	*		612	868	4.72	
13C-PCB-81	4.07e+07	0.79	y	35:57	0.97	10600					106
PCB-77	*	*	n	NotFnd	1.04	*		612	868	5.85	
13C-PCB-77	4.16e+07	0.79	y	36:31	0.99	10600					106
PCB-155	4.76e+04	1.33	y	33:59	1.11	13.3	J	-	-	*	
PCB-150	*	*	n	NotFnd	0.96	*		916	616	4.88	
PCB-152	*	*	n	NotFnd	0.97	*		916	616	4.81	
PCB-145	*	*	n	NotFnd	0.91	*		916	616	5.14	
PCB-136	*	*	n	NotFnd	0.96	*		916	616	4.86	
PCB-148	*	*	n	NotFnd	0.72	*		916	616	6.46	
PCB-154	*	*	n	NotFnd	0.83	*		916	616	5.65	
13C-PCB-155	3.22e+07	1.27	y	33:58	0.99	8210					82.1
13C-PCB-111	3.85e+07	1.58	y	36:05	1.11	8790					87.9
13C-PCB-101	3.96e+07	1.61	y	34:25	-	123					
PCB-84	*	*	n	NotFnd	0.93	*		860	1460	7.26	Co-elute PCB 92
PCB-92	*	*	n	NotFnd	0.93	*		860	1460	7.26	Co-elute PCB 84
PCB-89	*	*	n	NotFnd	0.94	*		860	1460	7.18	
PCB-90	*	*	n	NotFnd	1.01	*		860	1460	6.65	Co-elute PCB 101
PCB-101	*	*	n	NotFnd	1.01	*		860	1460	6.65	Co-elute PCB 90
PCB-113	*	*	n	NotFnd	1.14	*		860	1460	5.92	
PCB-99	*	*	n	NotFnd	1.15	*		860	1460	5.87	
PCB-119	*	*	n	NotFnd	1.34	*		860	1460	5.01	
PCB-83	*	*	n	NotFnd	1.05	*		860	1460	6.38	Co-elute PCB 112
PCB-112	*	*	n	NotFnd	1.05	*		860	1460	6.38	Co-elute PCB 83
PCB-109	*	*	n	NotFnd	1.23	*		860	1460	5.48	
PCB-97	*	*	n	NotFnd	1.04	*		860	1460	6.44	
PCB-86	*	*	n	NotFnd	0.93	*		860	1460	7.25	
PCB-125	*	*	n	NotFnd	1.14	*		860	1460	5.87	Co-elute PCB 87/117
PCB-87	*	*	n	NotFnd	1.14	*		860	1460	5.87	Co-elute PCB 125/117
PCB-117	*	*	n	NotFnd	1.14	*		860	1460	5.87	Co-elute PCB 125/87
PCB-111	*	*	n	NotFnd	1.39	*		860	1460	4.84	Co-elute PCB 115
PCB-115	*	*	n	NotFnd	1.39	*		860	1460	4.84	Co-elute PCB 111
PCB-85	*	*	n	NotFnd	1.10	*		860	1460	6.11	Co-elute PCB 116
PCB-116	*	*	n	NotFnd	1.10	*		860	1460	6.11	Co-elute PCB 85
PCB-120	*	*	n	NotFnd	1.34	*		860	1460	5.00	
PCB-110	*	*	n	NotFnd	1.38	*		860	1460	4.87	
PCB-82	*	*	n	NotFnd	0.77	*		860	1460	8.73	
PCB-124	*	*	n	NotFnd	1.06	*		672	1350	5.54	
PCB-108	*	*	n	NotFnd	1.00	*		672	1350	5.87	Co-elute PCB 107
PCB-107	*	*	n	NotFnd	1.00	*		672	1350	5.87	Co-elute PCB 108
PCB-123	*	*	n	NotFnd	1.12	*		672	1350	5.01	
13C-PCB-123	3.96e+07	1.59	y	38:07	0.97	11000					110
PCB-118	*	*	n	NotFnd	0.97	*		672	1350	5.45	Co-elute PCB 106
PCB-106	*	*	n	NotFnd	0.97	*		672	1350	5.45	Co-elute PCB 118
13C-PCB-118	4.70e+07	1.62	y	38:17	1.08	11700					117
PCB-114	*	*	n	NotFnd	0.98	*		672	1350	6.23	
13C-PCB-114	4.38e+07	1.62	y	38:55	1.02	11500					115
PCB-122	*	*	n	NotFnd	1.20	*		672	1350	4.88	
PCB-105	*	*	n	NotFnd	1.10	*		672	1350	5.87	
13C-PCB-105	4.10e+07	1.66	y	39:43	1.02	10800					108

PCB-127	*	*	n	NotFnd	1.02	*		672	1350	5.75	
PCB-126	*	*	n	NotFnd	1.10	*		672	1350	7.50	
13C-PCB-126	3.83e+07	1.60	y	41:53	0.92	11200					112
PCB-151	*	*	n	NotFnd	0.81	*		1400	1050	8.78	
PCB-135	*	*	n	NotFnd	0.83	*		1400	1050	8.61	
PCB-144	*	*	n	NotFnd	0.87	*		1400	1050	8.23	
PCB-147	*	*	n	NotFnd	0.89	*		1400	1050	8.05	
PCB-139	*	*	n	NotFnd	0.89	*		1400	1050	8.02	Co-elute PCB 149
PCB-149	*	*	n	NotFnd	0.89	*		1400	1050	8.02	Co-elute PCB 139
PCB-140	*	*	n	NotFnd	0.88	*		1400	1050	8.12	
PCB-143	*	*	n	NotFnd	0.83	*		1400	1050	8.66	Co-elute PCB 134
PCB-134	*	*	n	NotFnd	0.83	*		1400	1050	8.66	Co-elute PCB 143
PCB-131	*	*	n	NotFnd	0.83	*		1400	1050	8.62	Co-elute PCB 133
PCB-133	*	*	n	NotFnd	0.83	*		1400	1050	8.62	Co-elute PCB 131
PCB-142	*	*	n	NotFnd	0.78	*		1400	1050	9.22	
PCB-165	*	*	n	NotFnd	0.98	*		1400	1050	7.29	Co-elute PCB 146
PCB-146	*	*	n	NotFnd	0.98	*		1400	1050	7.29	Co-elute PCB 165
PCB-161	*	*	n	NotFnd	0.94	*		1400	1050	7.57	Co-elute PCB 132
PCB-132	*	*	n	NotFnd	0.94	*		1400	1050	7.57	Co-elute PCB 161
PCB-153	*	*	n	NotFnd	0.98	*		1400	1050	7.29	
PCB-168	*	*	n	NotFnd	1.05	*		1400	1050	6.78	
PCB-141	*	*	n	NotFnd	0.83	*		1400	1050	8.61	
PCB-137	*	*	n	NotFnd	0.79	*		1400	1050	9.04	
PCB-130	*	*	n	NotFnd	0.72	*		1400	1050	9.88	
PCB-138	*	*	n	NotFnd	1.07	*		1400	1050	6.65	Co-elute PCB 163/164
PCB-163	*	*	n	NotFnd	1.07	*		1400	1050	6.65	Co-elute PCB 138/164
PCB-164	*	*	n	NotFnd	1.07	*		1400	1050	6.65	Co-elute PCB 138/163
PCB-158	*	*	n	NotFnd	1.09	*		1400	1050	6.57	Co-elute PCB 160
PCB-160	*	*	n	NotFnd	1.09	*		1400	1050	6.57	Co-elute PCB 158
PCB-129	*	*	n	NotFnd	0.71	*		1400	1050	9.99	
PCB-166	*	*	n	NotFnd	1.06	*		1400	1050	6.75	
PCB-159	*	*	n	NotFnd	1.13	*		1400	1050	6.31	
PCB-128	*	*	n	NotFnd	0.91	*		1400	1050	7.83	Co-elute PCB 162
PCB-162	*	*	n	NotFnd	0.91	*		1400	1050	7.83	Co-elute PCB 128
PCB-167	*	*	n	NotFnd	1.00	*		1400	1050	7.11	
13C-PCB-167	4.00e+07	1.26	y	43:12	1.11	9660					96.6
PCB-156	*	*	n	NotFnd	1.05	*		1400	1050	6.92	
13C-PCB-156	3.72e+07	1.26	y	44:26	1.05	9540					95.4
PCB-157	*	*	n	NotFnd	0.94	*		1400	1050	7.70	
13C-PCB-157	4.28e+07	1.28	y	44:41	1.11	10400					104
PCB-169	*	*	n	NotFnd	0.99	*		1400	1050	7.04	
13C-PCB-169	3.88e+07	1.25	y	46:36	1.01	10300					103

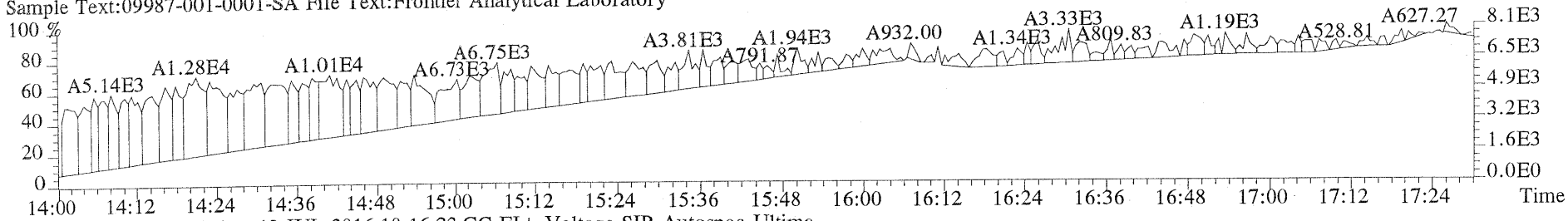
PCB-188	*	*	n	NotFnd	1.17	*		964	1100	5.36	
13C-PCB-188	3.41e+07	1.08	y	39:28	1.14	7990					79.9
PCB-184	*	*	n	NotFnd	1.28	*		964	1100	5.00	
PCB-179	*	*	n	NotFnd	1.27	*		964	1100	5.04	
PCB-176	*	*	n	NotFnd	1.21	*		964	1100	5.27	
PCB-186	*	*	n	NotFnd	1.16	*		964	1100	5.53	
PCB-178	*	*	n	NotFnd	0.86	*		964	1100	7.47	
PCB-175	*	*	n	NotFnd	0.89	*		964	1100	7.15	
PCB-187	*	*	n	NotFnd	0.93	*		964	1100	6.84	Co-elute PCB 182
PCB-182	*	*	n	NotFnd	0.93	*		964	1100	6.84	Co-elute PCB 187
PCB-183	*	*	n	NotFnd	0.96	*		964	1100	6.64	
PCB-185	*	*	n	NotFnd	0.85	*		964	1100	7.55	
PCB-174	*	*	n	NotFnd	0.83	*		964	1100	7.68	
PCB-181	*	*	n	NotFnd	0.86	*		964	1100	7.46	
PCB-177	*	*	n	NotFnd	0.80	*		964	1100	8.01	
PCB-171	*	*	n	NotFnd	0.84	*		964	1100	7.62	
PCB-173	*	*	n	NotFnd	0.75	*		964	1100	8.56	
PCB-172	*	*	n	NotFnd	0.80	*		964	1100	8.04	
PCB-192	4.59e+04	1.06	y	45:25	1.02	14.0	J	-	-	*	
PCB-180	*	*	n	NotFnd	0.96	*		964	1100	6.65	
PCB-193	*	*	n	NotFnd	1.11	*		964	1100	5.74	
PCB-191	*	*	n	NotFnd	1.09	*		964	1100	5.89	
PCB-170	*	*	n	NotFnd	0.74	*		964	1100	8.66	
PCB-190	*	*	n	NotFnd	1.06	*		964	1100	6.02	
PCB-189	*	*	n	NotFnd	1.14	*		964	1100	5.75	
13C-PCB-189	3.03e+07	1.08	y	48:15	0.90	9070					90.7
PCB-202	*	*	n	NotFnd	1.07	*		717	899	6.86	
PCB-201	*	*	n	NotFnd	1.10	*		717	899	6.70	
PCB-204	*	*	n	NotFnd	1.14	*		717	899	6.45	
PCB-197	*	*	n	NotFnd	1.08	*		717	899	6.79	
PCB-200	*	*	n	NotFnd	1.09	*		717	899	6.75	
PCB-198	*	*	n	NotFnd	0.77	*		717	899	9.61	
PCB-199	*	*	n	NotFnd	0.72	*		717	899	10.1	
PCB-203	*	*	n	NotFnd	0.81	*		717	899	9.05	Co-elute PCB 196
PCB-196	*	*	n	NotFnd	0.81	*		717	899	9.05	Co-elute PCB 203
13C-PCB-202	2.26e+07	0.91	y	44:34	0.76	8000					80.0
13C-PCB-178	2.19e+07	1.07	y	42:06	0.75	7850					78.5
13C-PCB-138	3.73e+07	1.25	y	41:20	-	133					
PCB-195	*	*	n	NotFnd	0.66	*		762	937	5.12	
PCB-194	*	*	n	NotFnd	0.79	*		762	937	4.28	
PCB-205	*	*	n	NotFnd	1.10	*		762	937	3.09	
13C-PCB-205	3.84e+07	0.88	y	49:55	1.34	8660					86.6
PCB-208	*	*	n	NotFnd	0.97	*		1340	526	3.67	
13C-PCB-208	3.80e+07	0.79	y	48:58	1.51	7620					76.2
PCB-207	*	*	n	NotFnd	1.08	*		1340	526	4.17	
PCB-206	*	*	n	NotFnd	1.01	*		1340	526	5.77	
13C-PCB-206	2.69e+07	0.79	y	51:04	1.15	7100					71.0
PCB-209	*	*	n	NotFnd	1.11	*		675	755	3.04	
13C-PCB-209	3.24e+07	1.20	y	52:15	1.72	5710					57.1
13C-PCB-194	3.31e+07	0.92	y	49:39	-	191					

Analyst: _____ Date: 7/15/16

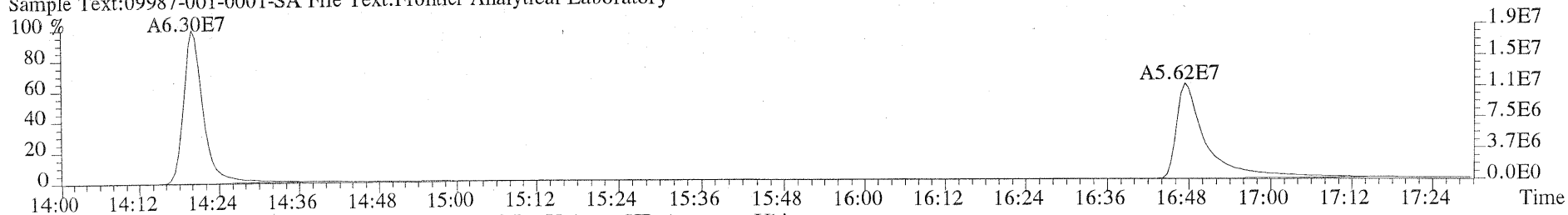
File:13JUL16Z #1-902 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:9 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



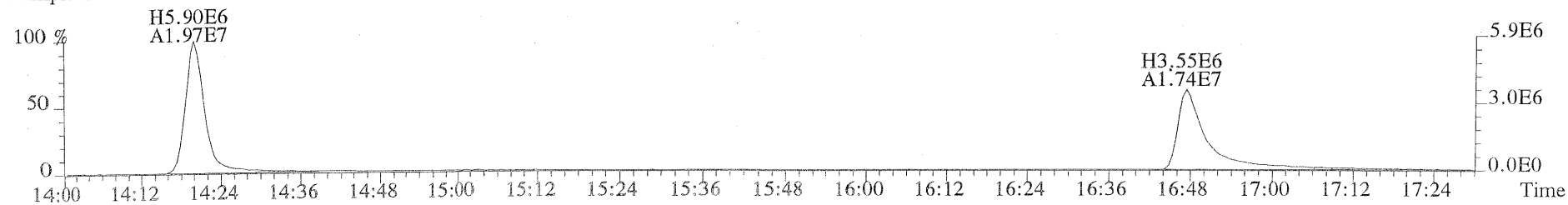
File:13JUL16Z #1-902 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:9 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



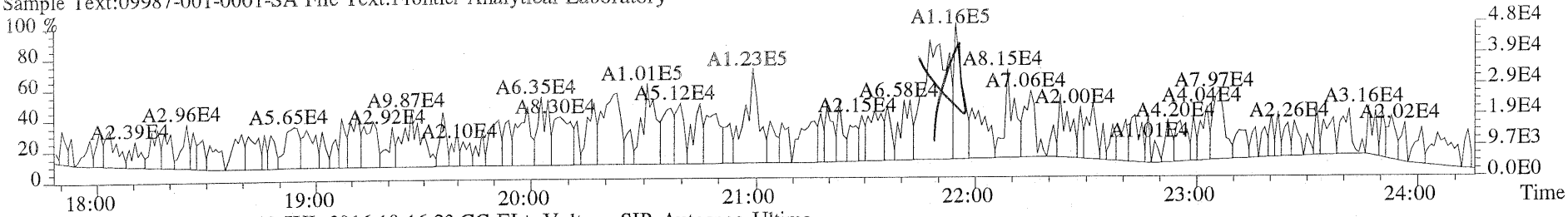
File:13JUL16Z #1-902 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:9 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



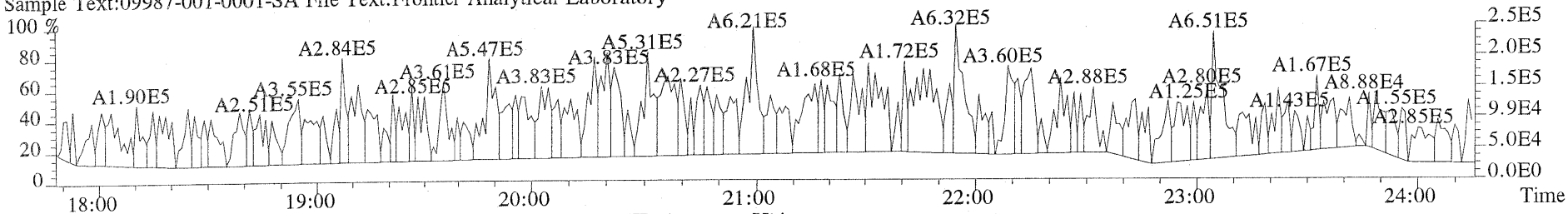
File:13JUL16Z #1-902 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:9 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



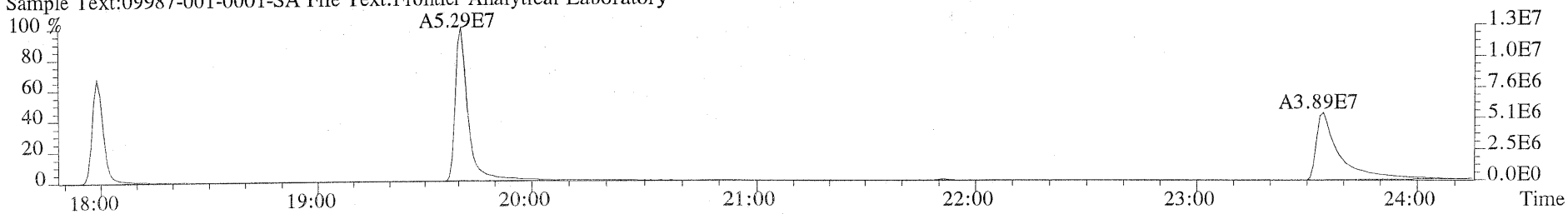
File:13JUL16Z #1-497 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:9 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



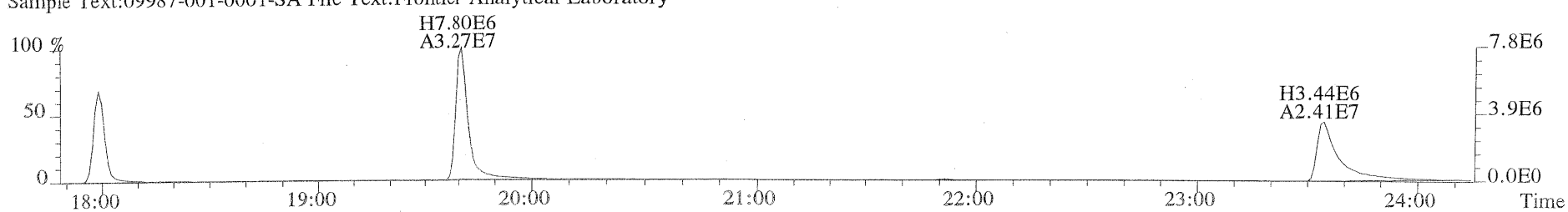
File:13JUL16Z #1-497 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:9 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



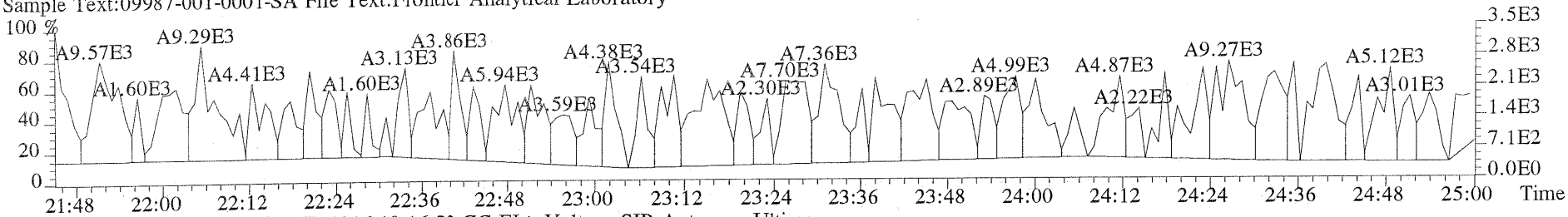
File:13JUL16Z #1-497 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:9 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



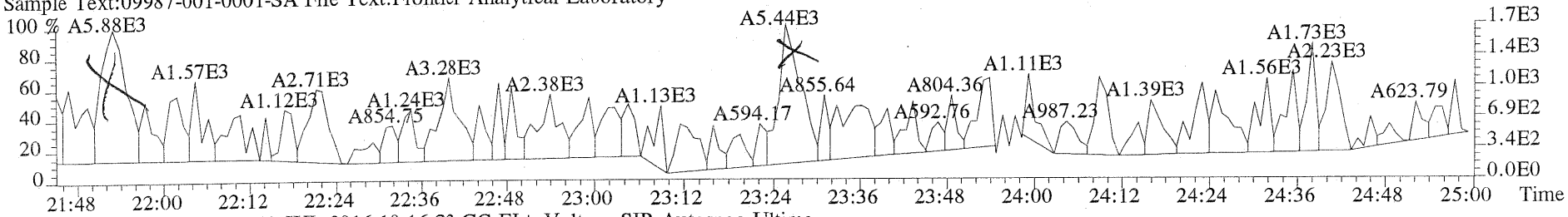
File:13JUL16Z #1-497 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:9 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



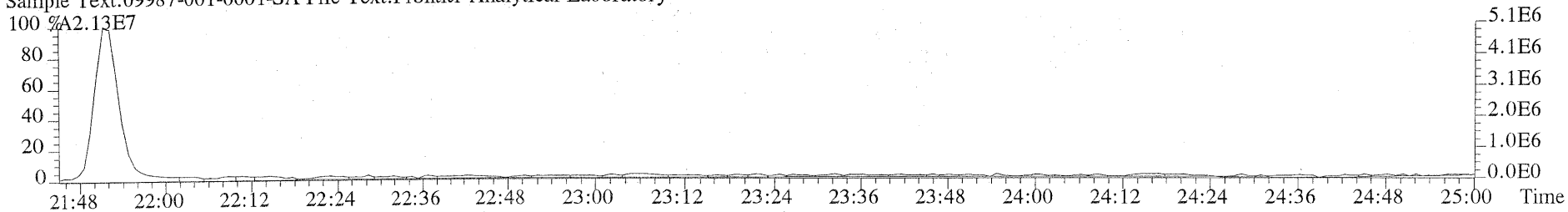
File:13JUL16Z #1-497 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:9 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



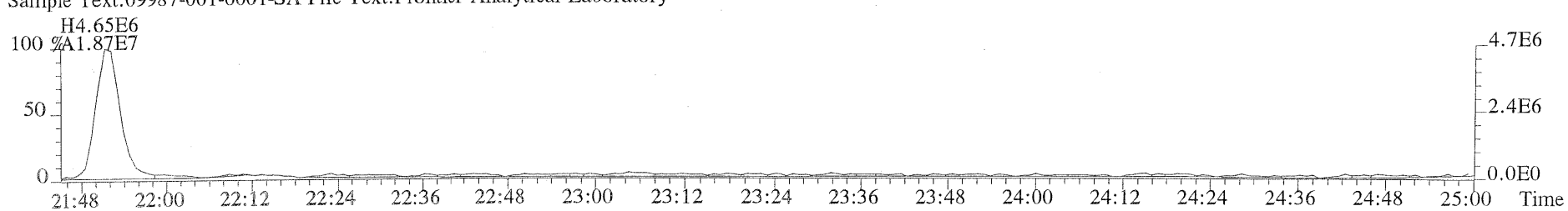
File:13JUL16Z #1-497 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:9 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



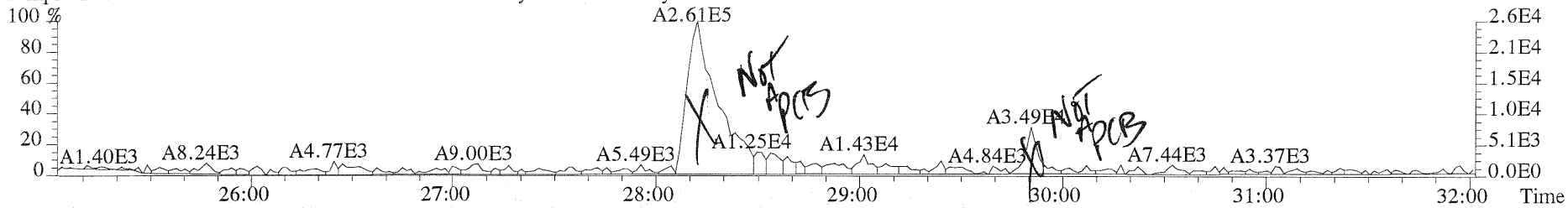
File:13JUL16Z #1-497 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:9 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



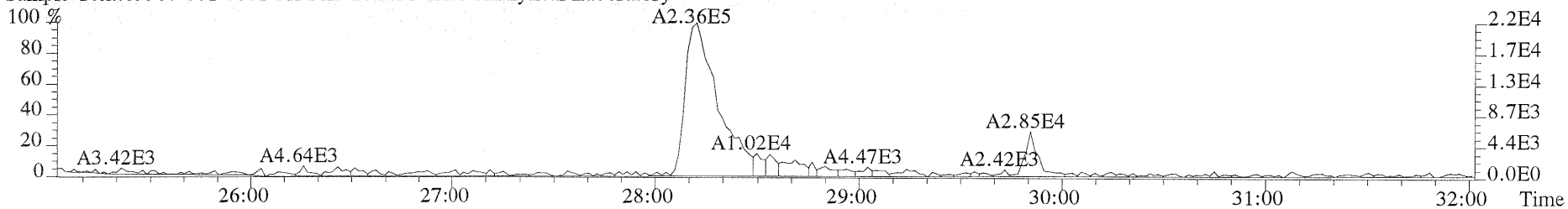
File:13JUL16Z #1-497 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:9 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



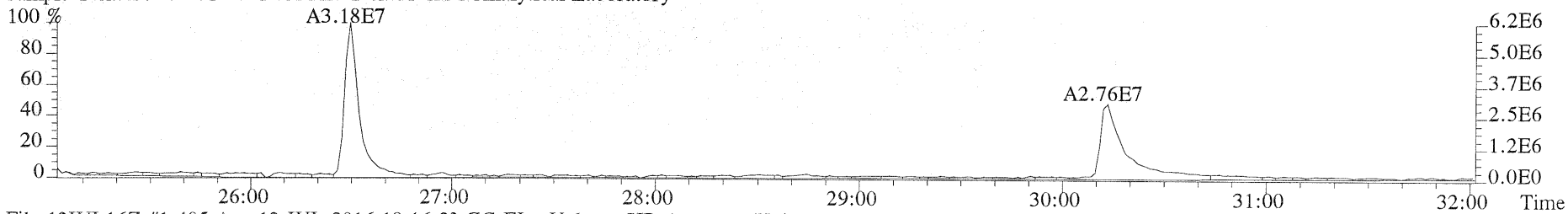
File:13JUL16Z #1-405 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:9 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



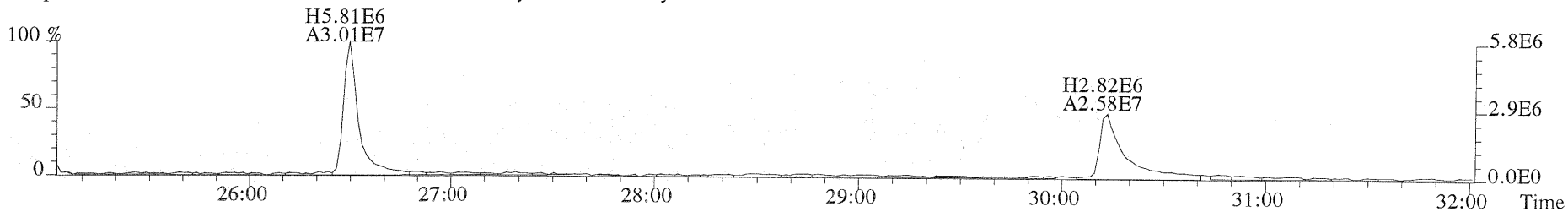
File:13JUL16Z #1-405 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:9 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



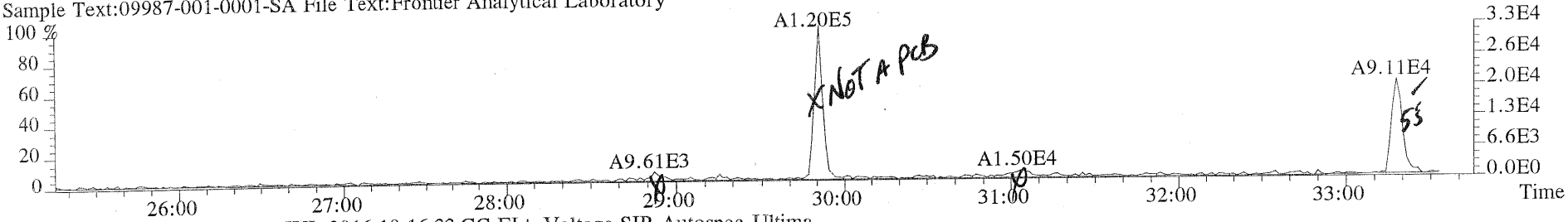
File:13JUL16Z #1-405 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:9 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



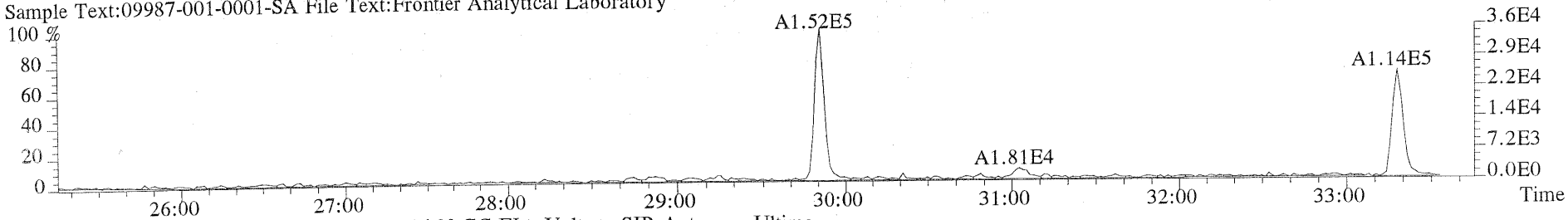
File:13JUL16Z #1-405 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:9 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



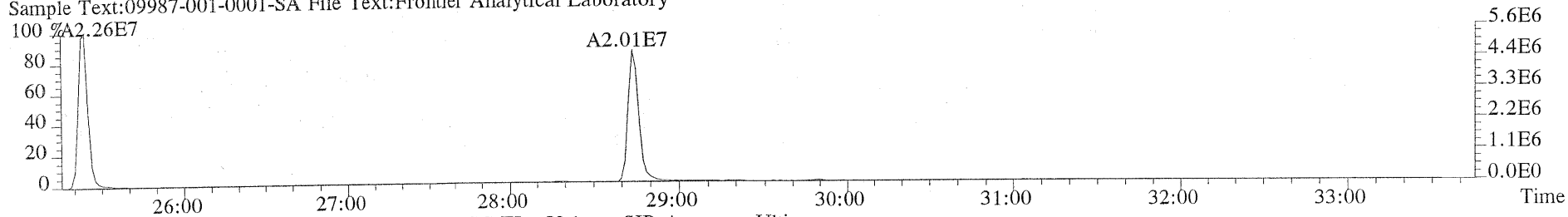
File:13JUL16Z #1-405 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:9 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



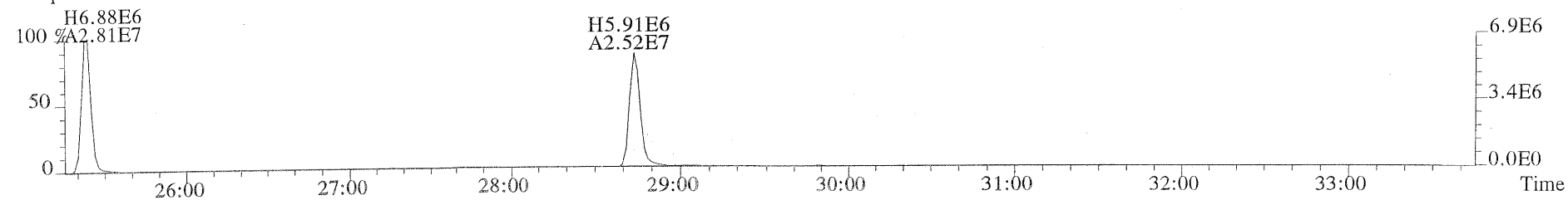
File:13JUL16Z #1-405 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:9 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



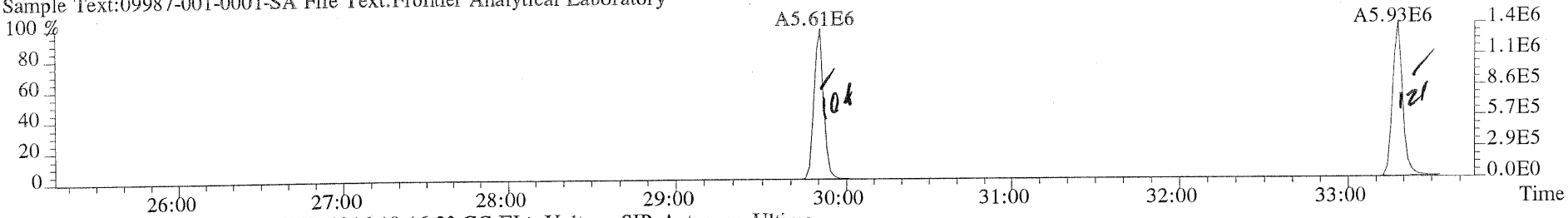
File:13JUL16Z #1-405 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:9 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



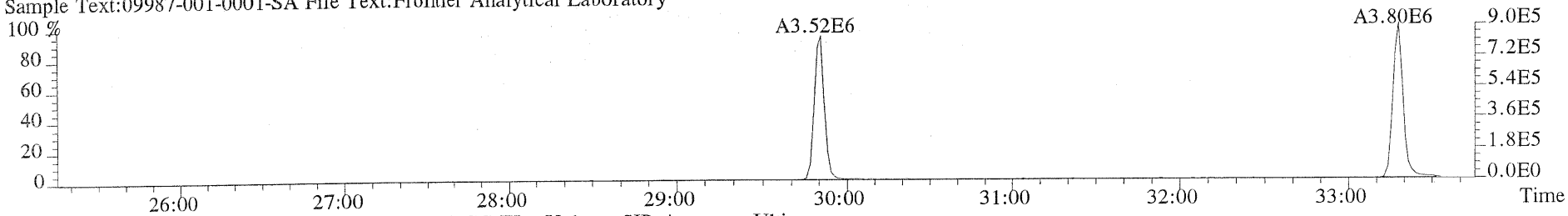
File:13JUL16Z #1-405 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:9 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



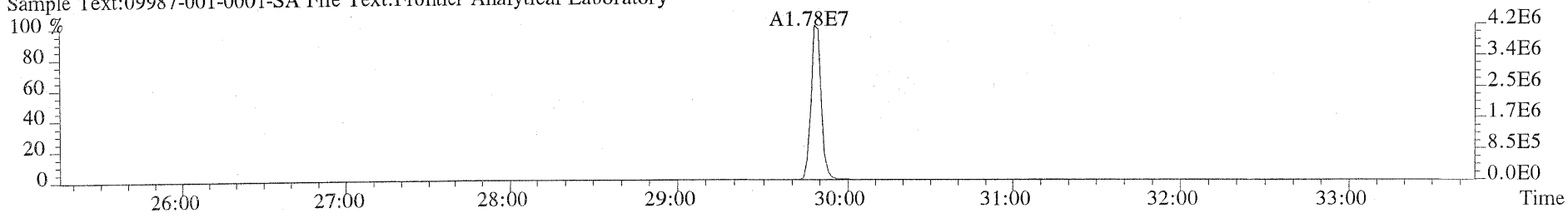
File:13JUL16Z #1-405 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:9 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



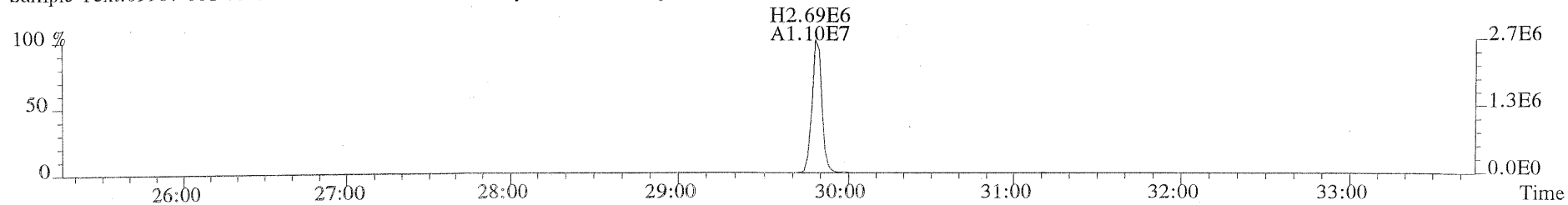
File:13JUL16Z #1-405 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:9 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



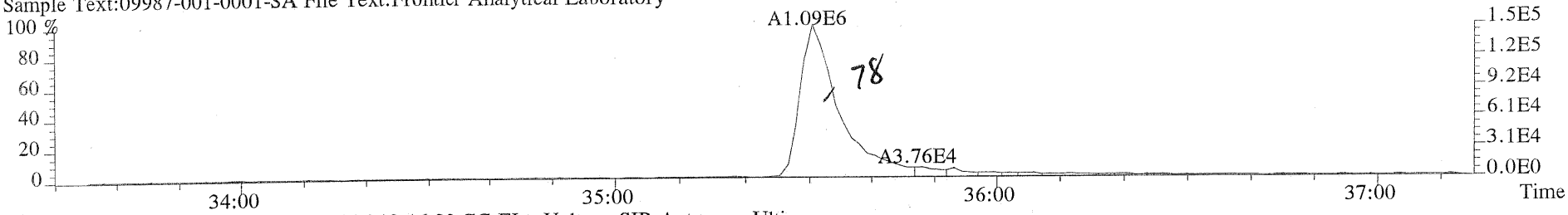
File:13JUL16Z #1-405 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:9 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



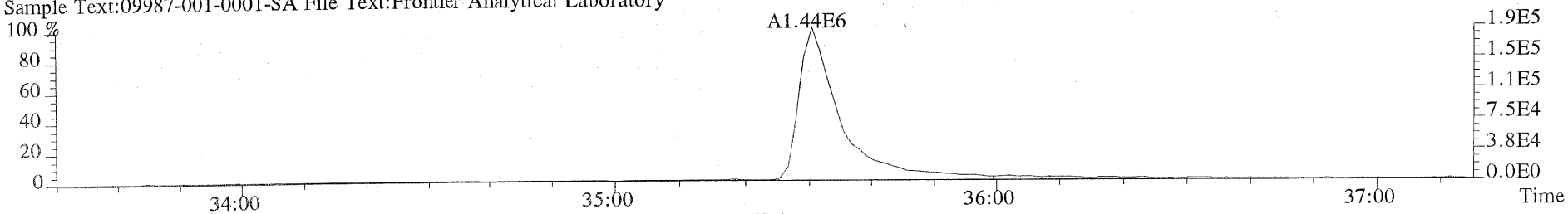
File:13JUL16Z #1-405 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:9 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



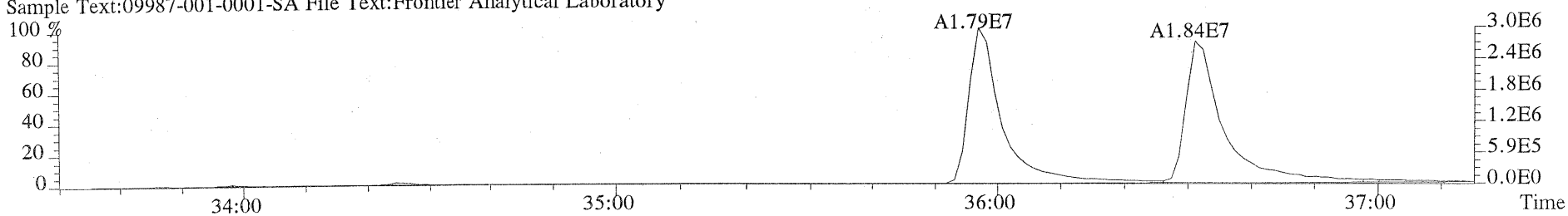
File:13JUL16Z #1-180 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:9 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



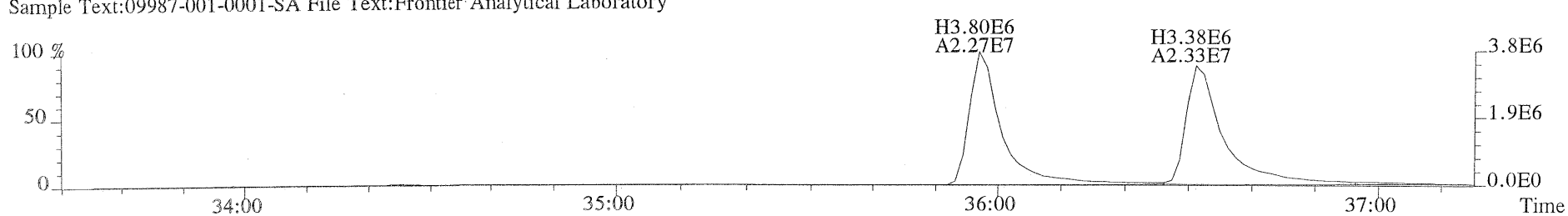
File:13JUL16Z #1-180 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:9 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



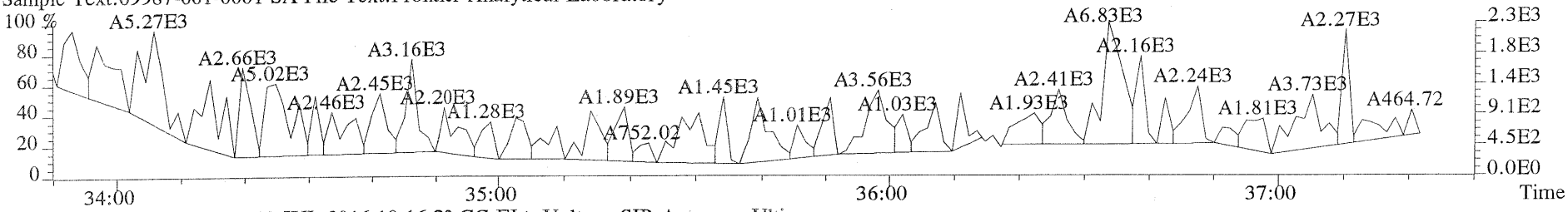
File:13JUL16Z #1-180 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:9 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



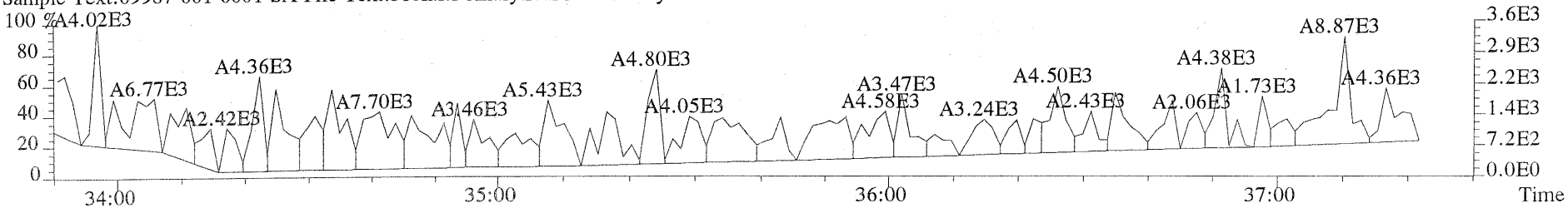
File:13JUL16Z #1-180 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:9 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-180 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:9 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-180 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:9 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-180 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
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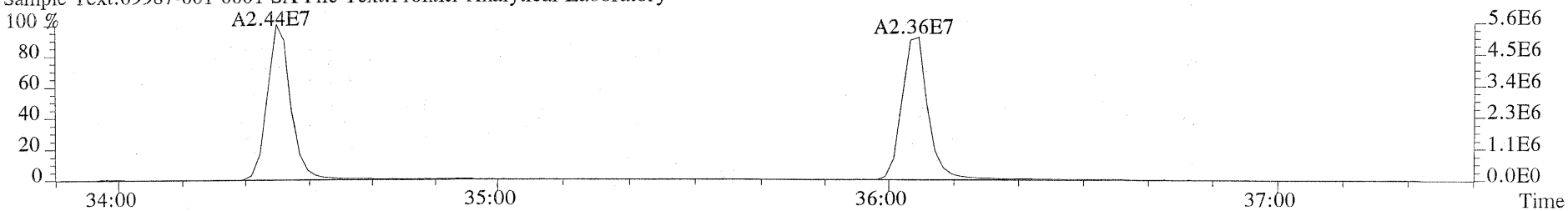
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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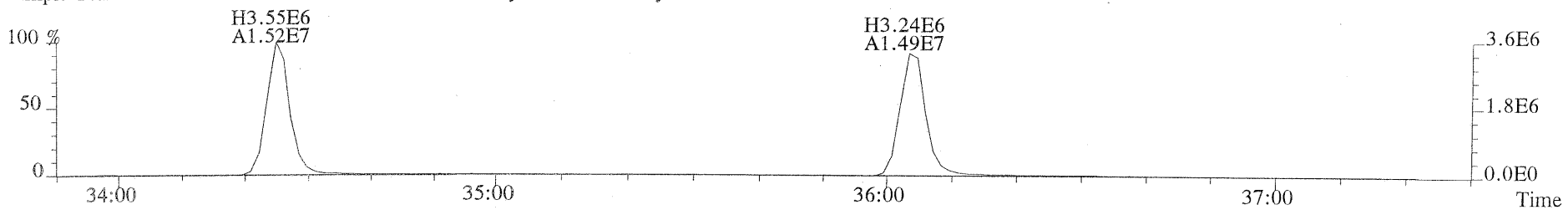
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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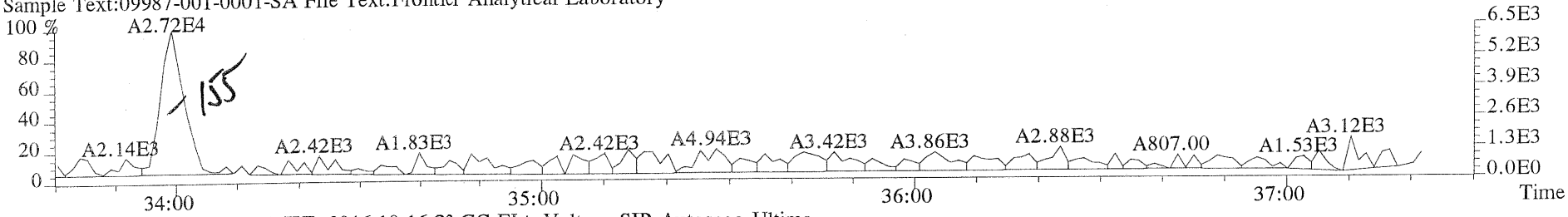
359.8415 S:9 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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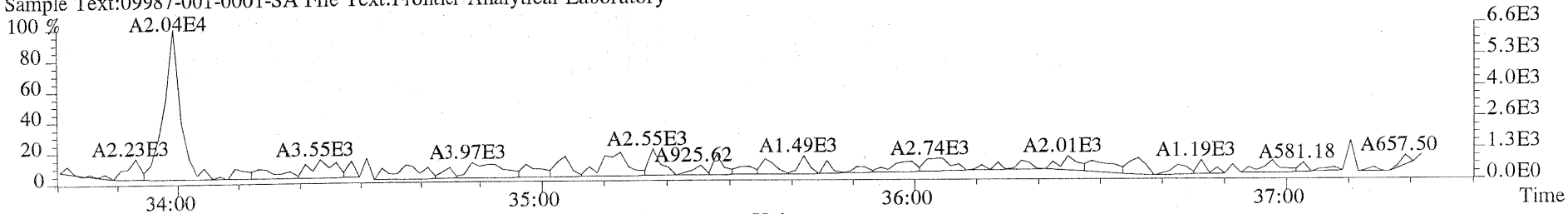
361.8385 S:9 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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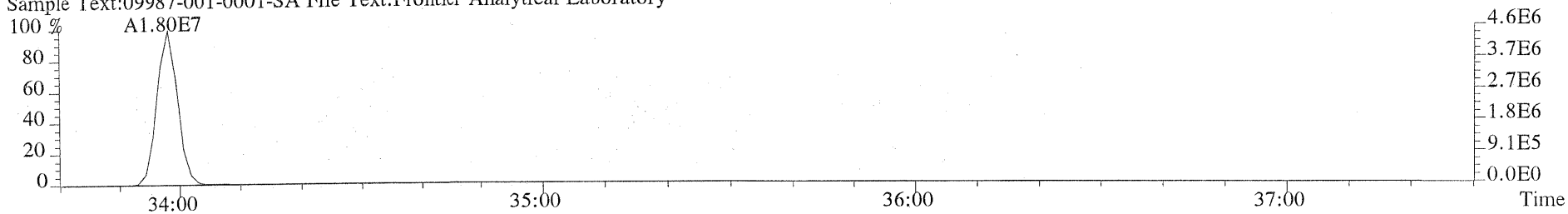
371.8817 S:9 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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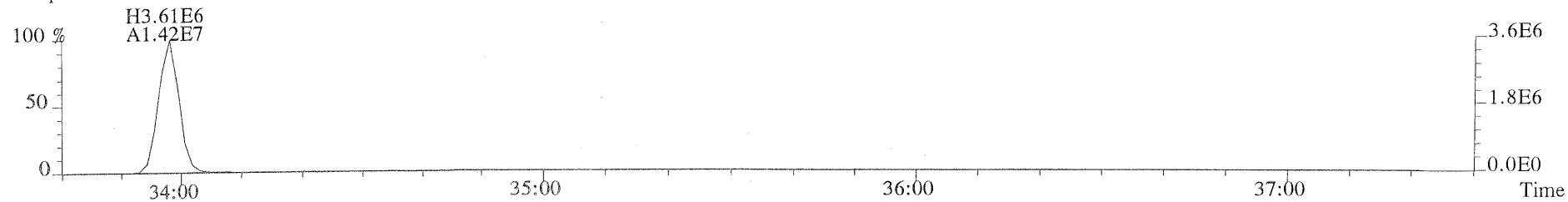
373.8788 S:9 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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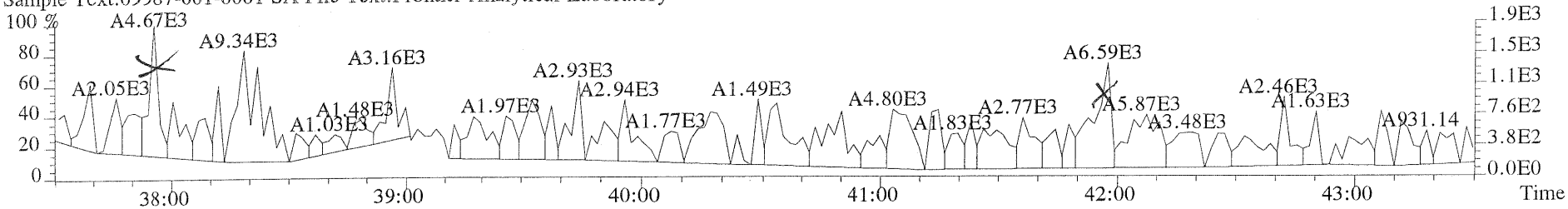
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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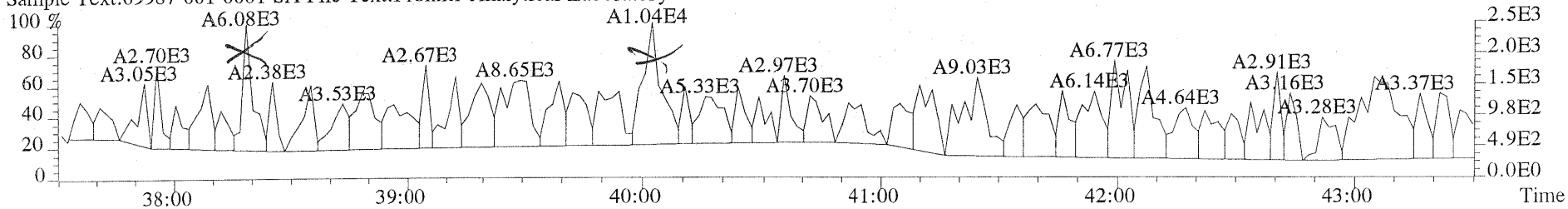
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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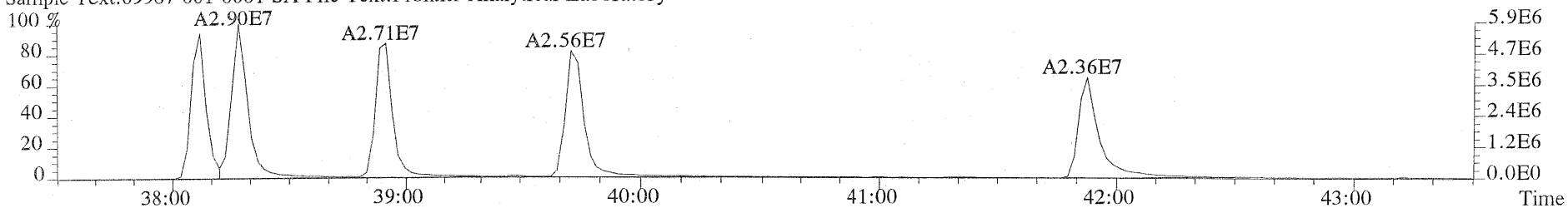
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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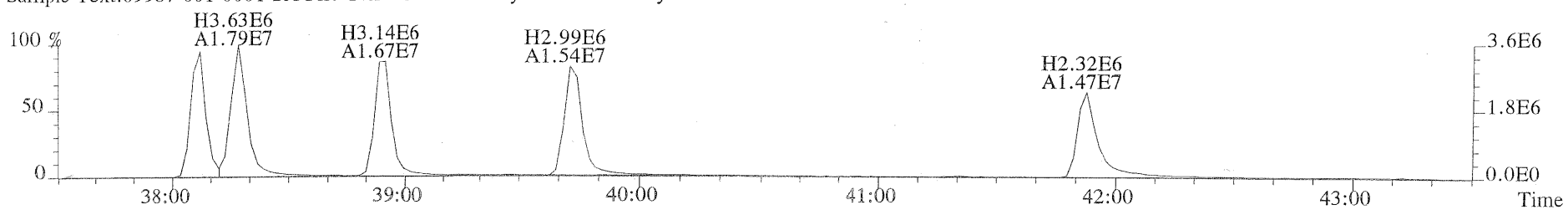
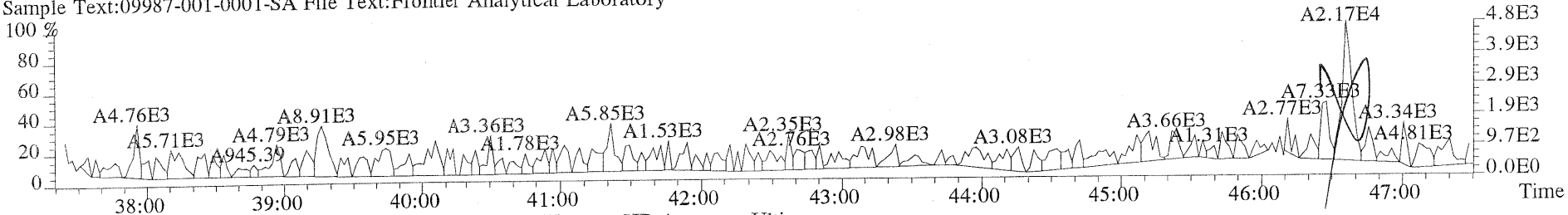
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:9 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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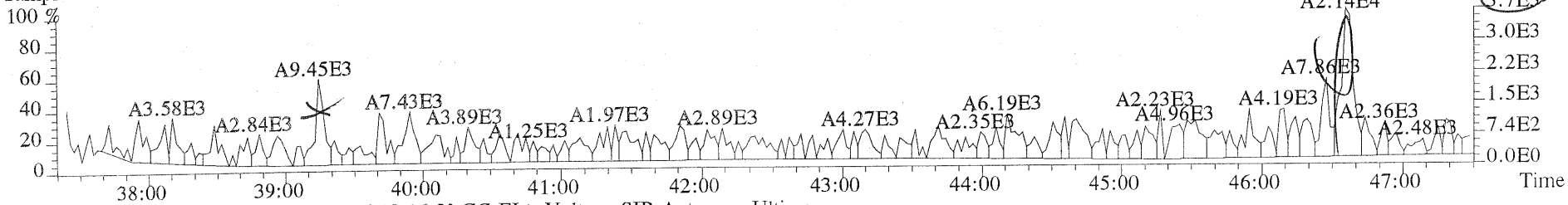
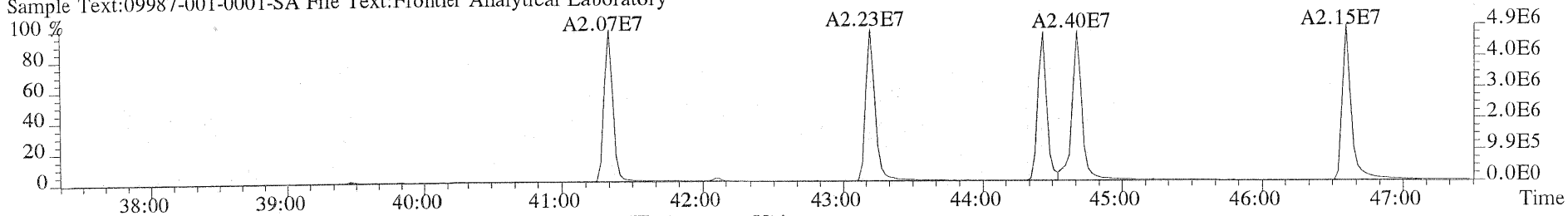
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:9 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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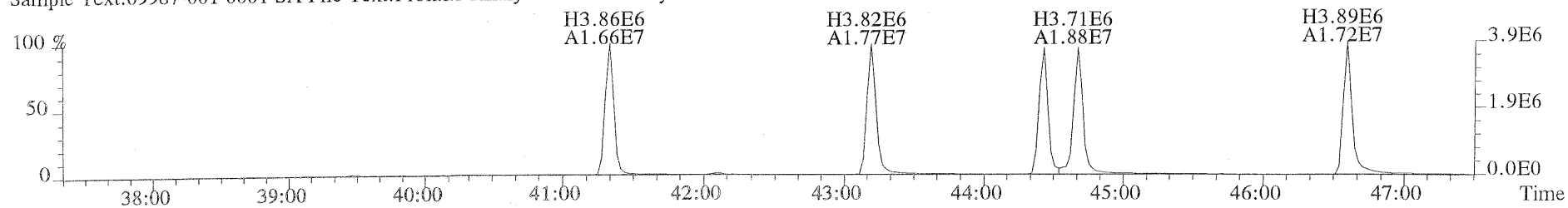

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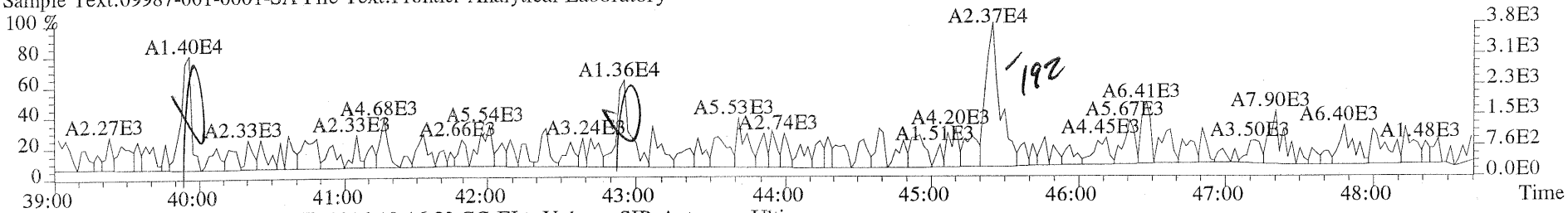
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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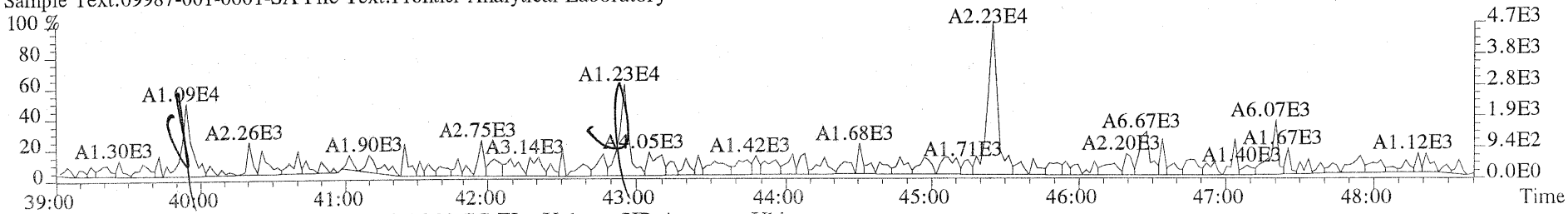

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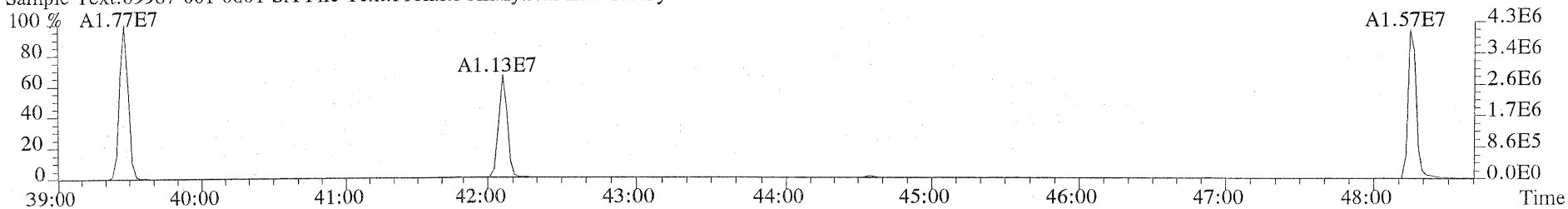
405.8428 S:9 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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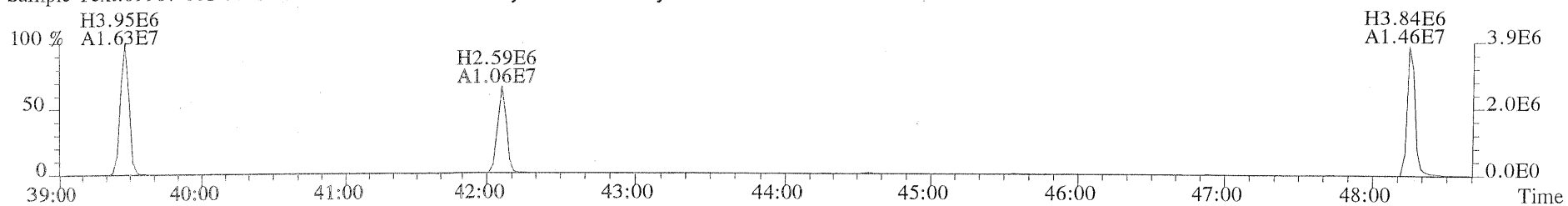
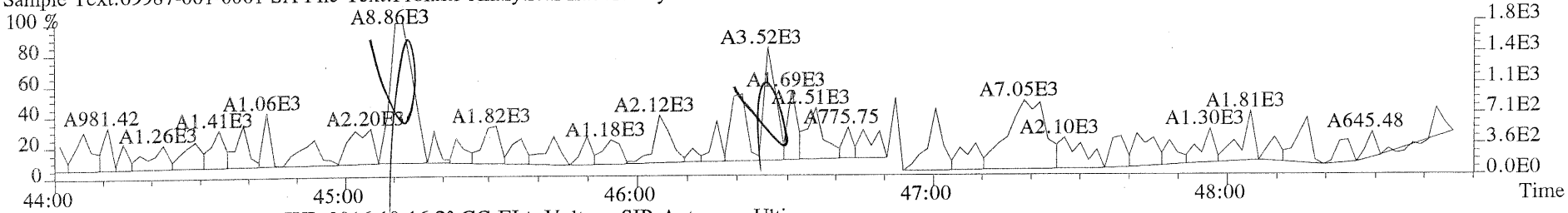
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:9 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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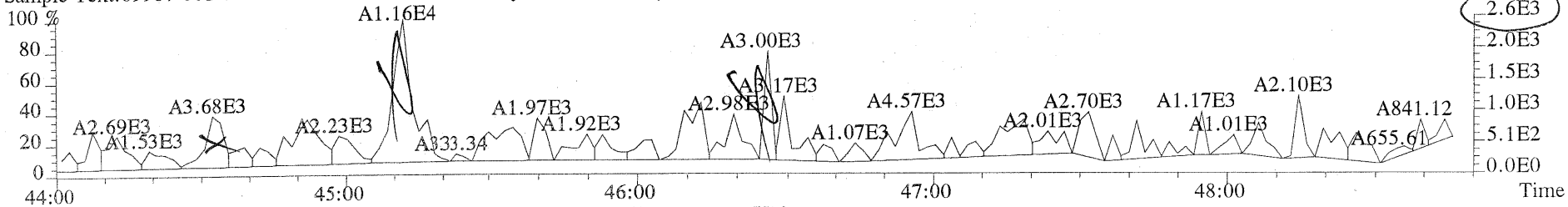
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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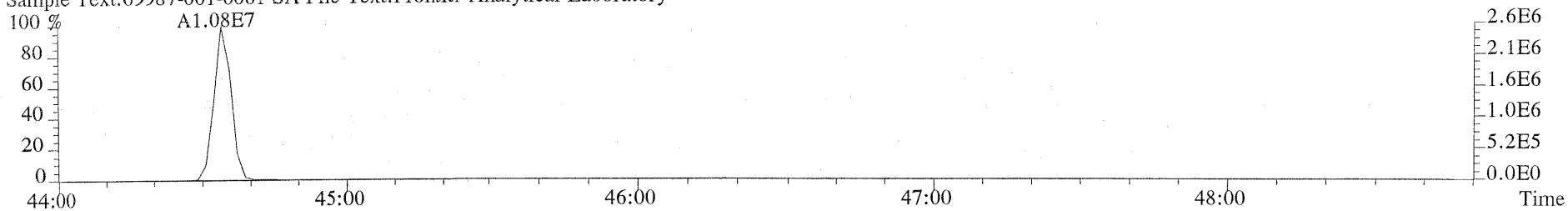
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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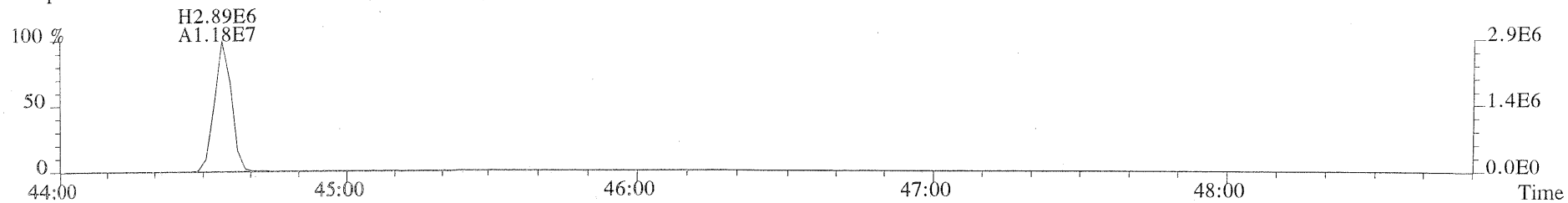
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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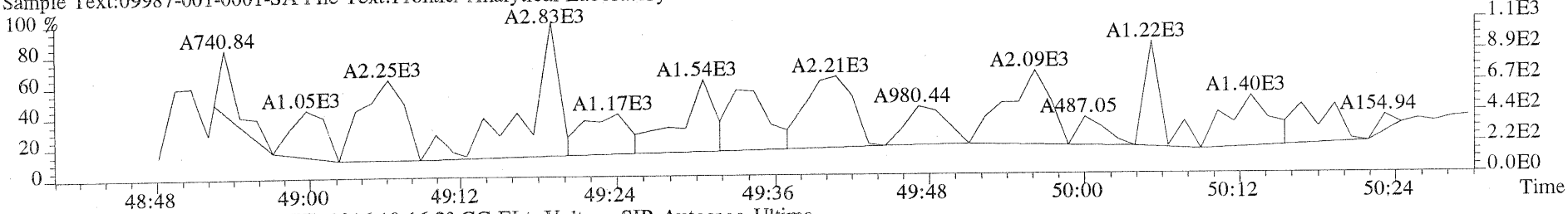
427.7635 S:9 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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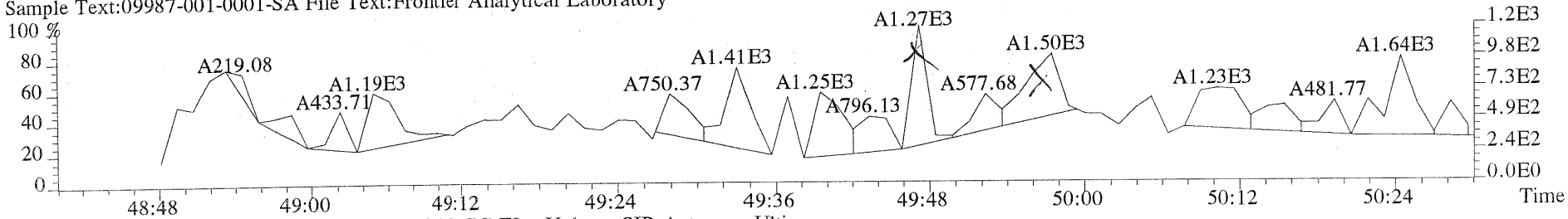
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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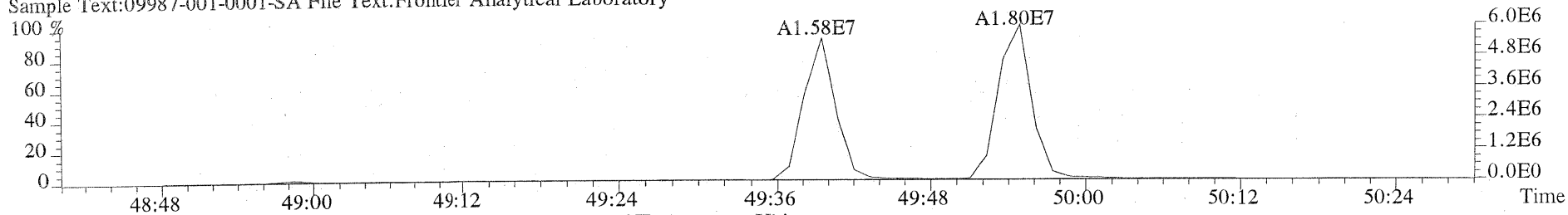
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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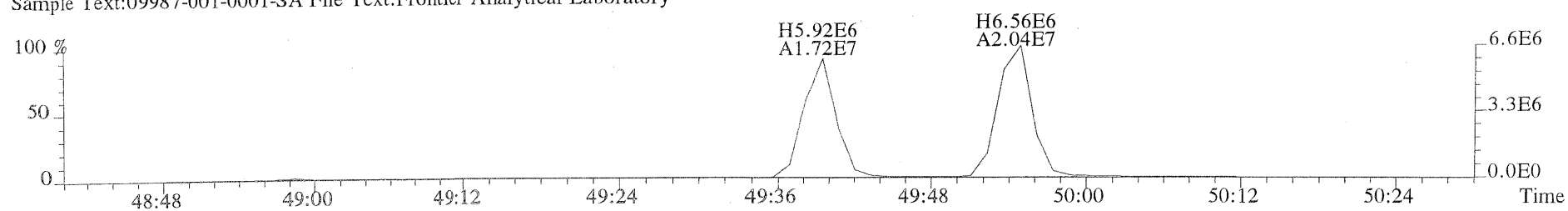
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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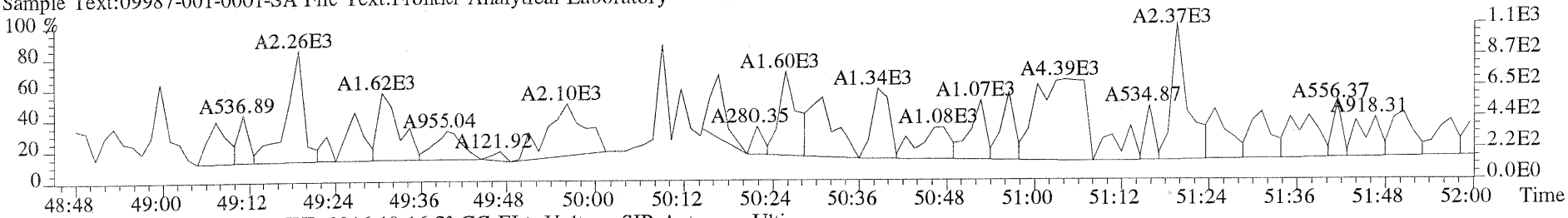
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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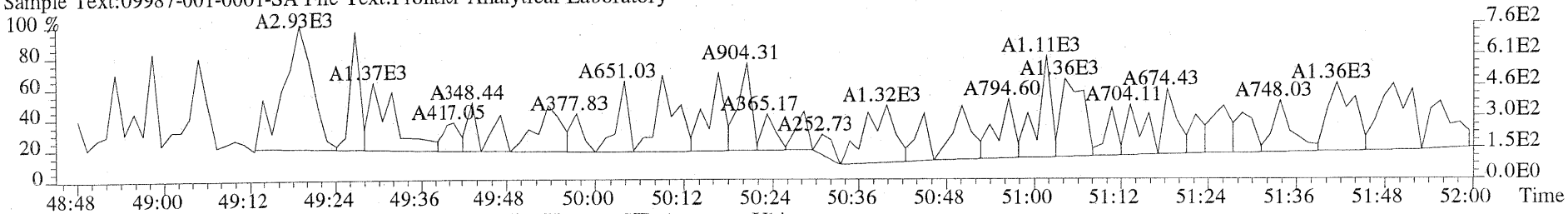
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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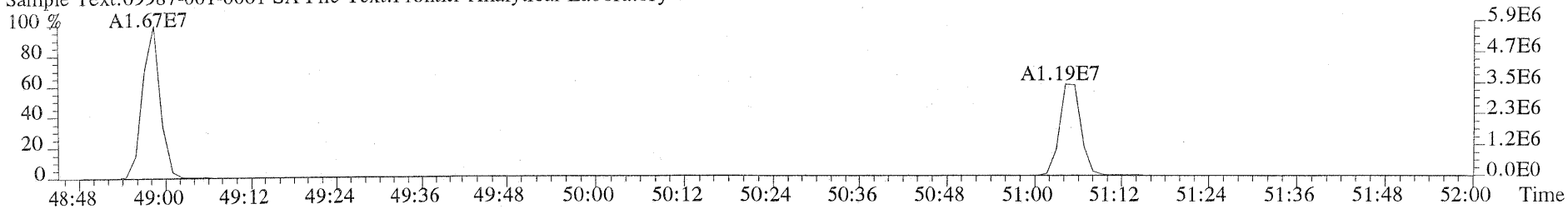
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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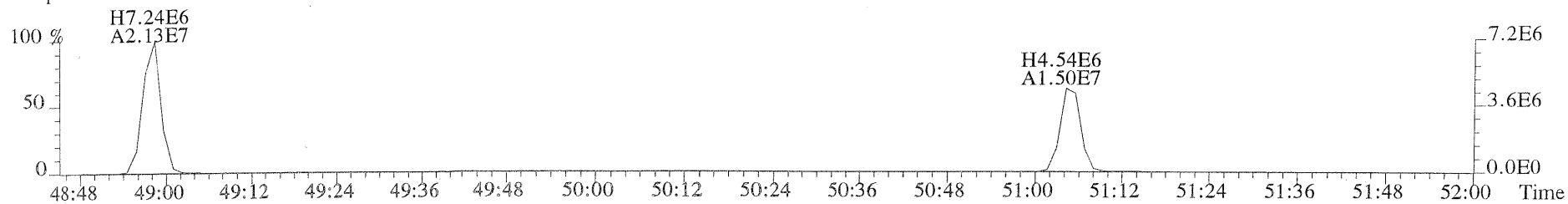
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



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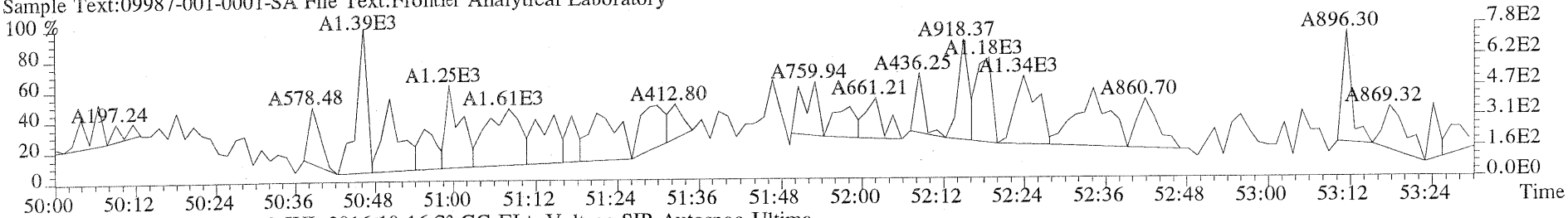
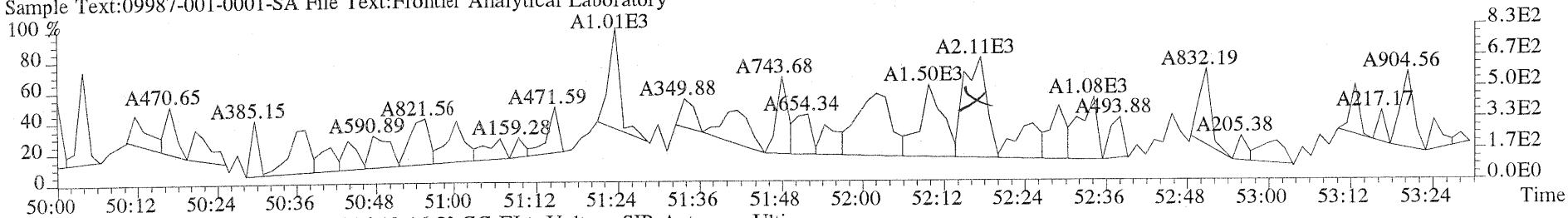
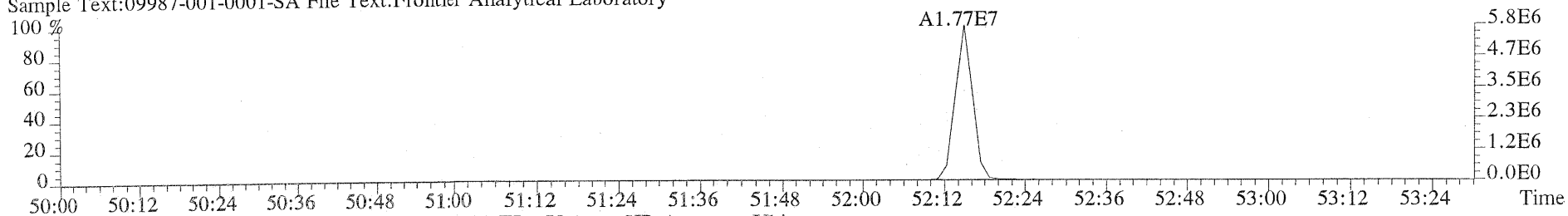
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



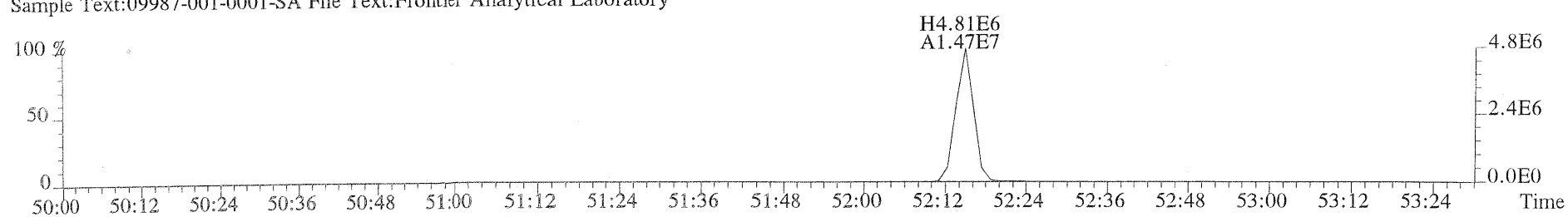
File:13JUL16Z #1-221 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:9 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:9 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 18:16:33 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:9 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-001-0001-SA File Text:Frontier Analytical Laboratory



FAL ID: 09987-002-0001-SA Filename: 15JUL16Z Sam:4 Acquired: 15-JUL-16 11:52:23 ICal: DAILY209FAL4-7-15-16
Client ID: LDW-CS-2-S00.2-KPDMS ConCal: ST071516Z1 EndCal: ST071516Z2
Results: GC Column: DB1 Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Noise-1	Noise-2	DL	Rec
PCB-1	*	* n	NotFnd	1.01	*		2680	2170	5.13	
13C-PCB-1	8.60e+07	3.15 y	14:24	1.18	9390					93.9
PCB-2	*	* n	NotFnd	0.89	*		2680	2170	6.79	
PCB-3	*	* n	NotFnd	1.00	*		2680	2170	7.01	
13C-PCB-3	7.92e+07	3.30 y	16:52	1.13	9080					90.8
PCB-4	*	* n	NotFnd	0.86	*		1860	1300	7.17	
PCB-10	*	* n	NotFnd	1.38	*		1860	1300	5.10	
13C-PCB-4	4.52e+07	1.58 y	18:03	0.63	9280					92.8
PCB-9	*	* n	NotFnd	1.25	*		1860	1300	5.64	
PCB-7	*	* n	NotFnd	1.21	*		1860	1300	5.85	
PCB-6	*	* n	NotFnd	1.22	*		1860	1300	5.76	
PCB-8	*	* n	NotFnd	1.24	*		1860	1300	5.67	
PCB-5	*	* n	NotFnd	1.15	*		1860	1300	6.12	
PCB-14	3.97e+05	1.53 y	21:53	1.07	70.4		-	-	*	
PCB-11	*	* n	NotFnd	1.05	*		1860	1300	6.72	
PCB-13	*	* n	NotFnd	0.72	*		1860	1300	9.77	
PCB-12	*	* n	NotFnd	1.40	*		1860	1300	5.05	
PCB-15	*	* n	NotFnd	1.06	*		1860	1300	7.26	
13C-PCB-15	6.00e+07	1.51 y	23:38	0.91	8540					85.4
PCB-19	*	* n	NotFnd	1.15	*		1300	648	3.96	
PCB-30	*	* n	NotFnd	1.61	*		1300	648	2.83	
PCB-18	*	* n	NotFnd	1.09	*		1300	648	4.16	
PCB-17	*	* n	NotFnd	1.21	*		1300	648	3.76	
PCB-27	*	* n	NotFnd	1.60	*		1300	648	2.85	
PCB-24	*	* n	NotFnd	1.60	*		1300	648	2.85	
PCB-16	*	* n	NotFnd	0.87	*		1300	648	5.25	
PCB-32	*	* n	NotFnd	1.85	*		1300	648	2.46	
13C-PCB-19	4.05e+07	1.11 y	21:56	0.56	9290					92.9
13C-PCB-9	7.73e+07	1.58 y	19:45	-	55.7					
PCB-34	*	* n	NotFnd	1.14	*		916	484	5.08	
PCB-23	*	* n	NotFnd	1.17	*		916	484	4.98	
PCB-29	*	* n	NotFnd	1.15	*		916	484	5.04	
PCB-26	*	* n	NotFnd	1.13	*		916	484	5.15	
PCB-25	*	* n	NotFnd	1.37	*		916	484	4.24	
PCB-31	*	* n	NotFnd	1.02	*		916	484	5.67	
PCB-28	*	* n	NotFnd	1.39	*		916	484	4.17	
PCB-20	*	* n	NotFnd	1.16	*		916	484	5.01	Co-elute PCB 21/33
PCB-21	*	* n	NotFnd	1.16	*		916	484	5.01	Co-elute PCB 20/33
PCB-33	*	* n	NotFnd	1.16	*		916	484	5.01	Co-elute PCB 20/21
PCB-22	*	* n	NotFnd	1.16	*		916	484	4.99	
PCB-36	*	* n	NotFnd	1.01	*		916	484	5.75	
PCB-39	*	* n	NotFnd	1.01	*		916	484	5.74	
PCB-38	*	* n	NotFnd	1.14	*		916	484	5.11	
PCB-35	*	* n	NotFnd	0.95	*		916	484	6.11	
PCB-37	*	* n	NotFnd	1.12	*		916	484	5.17	
13C-PCB-37	4.11e+07	1.04 y	30:17	1.04	8660					86.6

PCB-54	*	*	n	NotFnd	1.07	*	653	1860	4.19	
PCB-50	*	*	n	NotFnd	0.78	*	653	1860	5.80	
PCB-53	*	*	n	NotFnd	0.76	*	653	1860	5.90	
PCB-51	*	*	n	NotFnd	0.78	*	653	1860	5.79	
PCB-45	*	*	n	NotFnd	0.68	*	653	1860	6.64	
PCB-46	*	*	n	NotFnd	0.65	*	653	1860	6.94	
PCB-52	*	*	n	NotFnd	0.91	*	653	1860	4.94	Co-elute PCB 69
PCB-69	*	*	n	NotFnd	0.91	*	653	1860	4.94	Co-elute PCB 52
PCB-73	*	*	n	NotFnd	1.08	*	653	1860	4.16	
PCB-43	*	*	n	NotFnd	0.74	*	653	1860	6.08	Co-elute PCB 49
PCB-49	*	*	n	NotFnd	0.74	*	653	1860	6.08	Co-elute PCB 43
PCB-47	*	*	n	NotFnd	0.95	*	653	1860	4.71	
PCB-48	*	*	n	NotFnd	0.92	*	653	1860	4.90	Co-elute PCB 75
PCB-75	*	*	n	NotFnd	0.92	*	653	1860	4.90	Co-elute PCB 48
PCB-65	*	*	n	NotFnd	0.91	*	653	1860	4.93	
PCB-62	*	*	n	NotFnd	1.01	*	653	1860	4.48	
PCB-44	*	*	n	NotFnd	0.66	*	653	1860	6.81	
PCB-42	*	*	n	NotFnd	0.91	*	653	1860	4.96	Co-elute PCB 59
PCB-59	*	*	n	NotFnd	0.91	*	653	1860	4.96	Co-elute PCB 42
PCB-72	*	*	n	NotFnd	1.00	*	653	1860	4.52	Co-elute PCB 41/71/64
PCB-41	*	*	n	NotFnd	1.00	*	653	1860	4.52	Co-elute PCB 72/71/64
PCB-71	*	*	n	NotFnd	1.00	*	653	1860	4.52	Co-elute PCB 72/41/64
PCB-64	*	*	n	NotFnd	1.00	*	653	1860	4.52	Co-elute PCB 72/41/71
PCB-68	*	*	n	NotFnd	1.00	*	653	1860	4.48	
PCB-40	*	*	n	NotFnd	0.57	*	653	1860	7.97	
PCB-57	*	*	n	NotFnd	0.96	*	653	1860	4.69	
PCB-67	*	*	n	NotFnd	0.96	*	653	1860	4.71	
PCB-58	*	*	n	NotFnd	0.96	*	653	1860	4.70	
PCB-63	*	*	n	NotFnd	0.95	*	653	1860	4.72	
PCB-74	*	*	n	NotFnd	1.03	*	653	1860	4.36	
PCB-61	*	*	n	NotFnd	1.01	*	653	1860	4.47	Co-elute PCB 70
PCB-70	*	*	n	NotFnd	1.01	*	653	1860	4.47	Co-elute PCB 61
PCB-76	*	*	n	NotFnd	1.04	*	653	1860	4.33	Co-elute PCB 66
PCB-66	*	*	n	NotFnd	1.04	*	653	1860	4.33	Co-elute PCB 76
PCB-80	*	*	n	NotFnd	1.10	*	653	1860	4.08	
PCB-55	2.83e+05	0.80	y	33:22	0.98	53.1	-	-	*	
13C-PCB-54	5.44e+07	0.79	y	25:27	1.20	9920				99.2
PCB-104	1.41e+07	1.58	y	29:55	1.19	3540	-	-	*	
PCB-96	*	*	n	NotFnd	1.06	*	744	1060	5.05	
PCB-103	*	*	n	NotFnd	0.89	*	744	1060	6.00	
PCB-100	*	*	n	NotFnd	0.89	*	744	1060	6.04	
PCB-94	*	*	n	NotFnd	0.74	*	744	1060	7.26	
PCB-98	*	*	n	NotFnd	0.84	*	744	1060	6.37	Co-elute PCB 102
PCB-102	*	*	n	NotFnd	0.84	*	744	1060	6.37	Co-elute PCB 98
PCB-95	*	*	n	NotFnd	1.07	*	744	1060	5.03	
PCB-93	*	*	n	NotFnd	0.71	*	744	1060	7.60	
PCB-88	*	*	n	NotFnd	0.75	*	744	1060	7.16	Co-elute PCB 91
PCB-91	*	*	n	NotFnd	0.75	*	744	1060	7.16	Co-elute PCB 88
PCB-121	1.65e+07	1.58	y	33:21	1.21	4050	-	-	*	
13C-PCB-104	3.35e+07	1.61	y	29:53	0.75	9790				97.9
13C-PCB-28	5.05e+07	1.08	y	26:34	1.21	9120				91.2
13C-PCB-52	4.58e+07	0.78	y	28:48	-	53.7				

PCB-56	*	*	n	NotFnd	1.08	*		644	728	5.00	Co-elute PCB 60
PCB-60	*	*	n	NotFnd	1.08	*		644	728	5.00	Co-elute PCB 56
PCB-79	*	*	n	NotFnd	1.08	*		644	728	5.01	
PCB-78	2.66e+06	0.83	y	35:34	1.03	671		-	-	*	
PCB-81	*	*	n	NotFnd	1.07	*		644	728	4.76	
13C-PCB-81	3.81e+07	0.77	y	36:01	1.03	9280					92.8
PCB-77	*	*	n	NotFnd	0.99	*		644	728	5.75	
13C-PCB-77	3.88e+07	0.78	y	36:36	1.03	9450					94.5
PCB-155	7.12e+04	1.21	y	34:04	1.12	17.2	J	-	-	*	
PCB-150	*	*	n	NotFnd	1.01	*		556	500	2.99	
PCB-152	*	*	n	NotFnd	0.99	*		556	500	3.05	
PCB-145	*	*	n	NotFnd	0.99	*		556	500	3.07	
PCB-136	*	*	n	NotFnd	1.01	*		556	500	2.99	
PCB-148	*	*	n	NotFnd	0.72	*		556	500	4.20	
PCB-154	*	*	n	NotFnd	0.87	*		556	500	3.50	
13C-PCB-155	3.68e+07	1.30	y	34:03	0.96	9620					96.2
13C-PCB-111	3.99e+07	1.57	y	36:08	1.14	8810					88.1
13C-PCB-101	3.99e+07	1.59	y	34:29	-	53.3					
PCB-84	*	*	n	NotFnd	0.91	*		1240	850	7.83	Co-elute PCB 92
PCB-92	*	*	n	NotFnd	0.91	*		1240	850	7.83	Co-elute PCB 84
PCB-89	*	*	n	NotFnd	0.89	*		1240	850	7.96	
PCB-90	*	*	n	NotFnd	1.02	*		1240	850	6.98	Co-elute PCB 101
PCB-101	*	*	n	NotFnd	1.02	*		1240	850	6.98	Co-elute PCB 90
PCB-113	*	*	n	NotFnd	1.19	*		1240	850	5.96	
PCB-99	*	*	n	NotFnd	1.08	*		1240	850	6.55	
PCB-119	*	*	n	NotFnd	1.33	*		1240	850	5.35	
PCB-83	*	*	n	NotFnd	1.02	*		1240	850	6.94	Co-elute PCB 112
PCB-112	*	*	n	NotFnd	1.02	*		1240	850	6.94	Co-elute PCB 83
PCB-109	*	*	n	NotFnd	1.26	*		1240	850	5.65	
PCB-97	*	*	n	NotFnd	1.07	*		1240	850	6.61	
PCB-86	*	*	n	NotFnd	0.85	*		1240	850	8.32	
PCB-125	*	*	n	NotFnd	1.18	*		1240	850	6.00	Co-elute PCB 87/117
PCB-87	*	*	n	NotFnd	1.18	*		1240	850	6.00	Co-elute PCB 125/117
PCB-117	*	*	n	NotFnd	1.18	*		1240	850	6.00	Co-elute PCB 125/87
PCB-111	*	*	n	NotFnd	1.43	*		1240	850	4.99	Co-elute PCB 115
PCB-115	*	*	n	NotFnd	1.43	*		1240	850	4.99	Co-elute PCB 111
PCB-85	*	*	n	NotFnd	1.07	*		1240	850	6.64	Co-elute PCB 116
PCB-116	*	*	n	NotFnd	1.07	*		1240	850	6.64	Co-elute PCB 85
PCB-120	*	*	n	NotFnd	1.33	*		1240	850	5.33	
PCB-110	*	*	n	NotFnd	1.32	*		1240	850	5.39	
PCB-82	*	*	n	NotFnd	0.73	*		1240	850	9.72	
PCB-124	*	*	n	NotFnd	1.05	*		576	1360	6.29	
PCB-108	*	*	n	NotFnd	1.03	*		576	1360	6.39	Co-elute PCB 107
PCB-107	*	*	n	NotFnd	1.03	*		576	1360	6.39	Co-elute PCB 108
PCB-123	*	*	n	NotFnd	1.20	*		576	1360	5.37	
13C-PCB-123	3.36e+07	1.57	y	38:10	0.97	9730					97.3
PCB-118	*	*	n	NotFnd	0.96	*		576	1360	6.60	Co-elute PCB 106
PCB-106	*	*	n	NotFnd	0.96	*		576	1360	6.60	Co-elute PCB 118
13C-PCB-118	3.73e+07	1.58	y	38:21	1.08	9720					97.2
PCB-114	*	*	n	NotFnd	1.05	*		576	1360	6.46	
13C-PCB-114	3.39e+07	1.57	y	38:58	1.00	9560					95.6
PCB-122	*	*	n	NotFnd	1.05	*		576	1360	6.27	
PCB-105	*	*	n	NotFnd	1.00	*		576	1360	6.77	
13C-PCB-105	3.40e+07	1.56	y	39:47	0.99	9750					97.5

Results: GC Column: DB1 Amount: 1.000

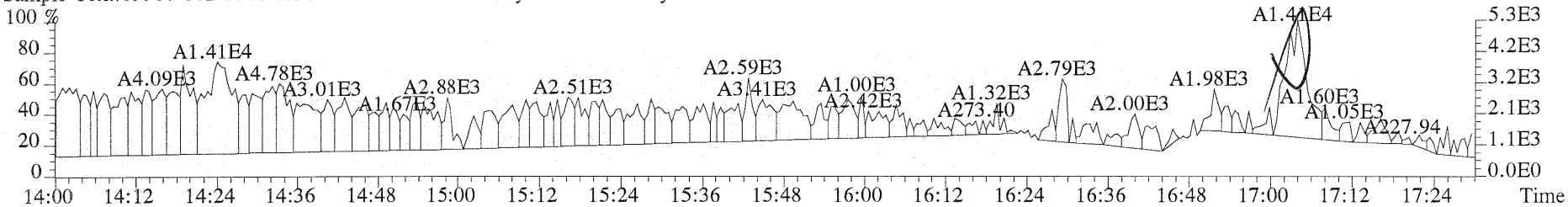
PCB-127	*	*	n	NotFnd	0.89	*		576	1360	7.42	
PCB-126	*	*	n	NotFnd	1.01	*		576	1360	8.31	
13C-PCB-126	3.30e+07	1.60	y	41:55	0.93	10100					101
PCB-151	*	*	n	NotFnd	0.80	*		668	520	4.56	
PCB-135	*	*	n	NotFnd	0.85	*		668	520	4.30	
PCB-144	*	*	n	NotFnd	0.81	*		668	520	4.51	
PCB-147	*	*	n	NotFnd	0.84	*		668	520	4.33	
PCB-139	*	*	n	NotFnd	0.88	*		668	520	4.15	Co-elute PCB 149
PCB-149	*	*	n	NotFnd	0.88	*		668	520	4.15	Co-elute PCB 139
PCB-140	*	*	n	NotFnd	0.84	*		668	520	4.38	
PCB-143	*	*	n	NotFnd	0.80	*		668	520	4.56	Co-elute PCB 134
PCB-134	*	*	n	NotFnd	0.80	*		668	520	4.56	Co-elute PCB 143
PCB-131	*	*	n	NotFnd	0.81	*		668	520	4.52	Co-elute PCB 133
PCB-133	*	*	n	NotFnd	0.81	*		668	520	4.52	Co-elute PCB 131
PCB-142	*	*	n	NotFnd	0.70	*		668	520	5.24	
PCB-165	*	*	n	NotFnd	0.97	*		668	520	3.78	Co-elute PCB 146
PCB-146	*	*	n	NotFnd	0.97	*		668	520	3.78	Co-elute PCB 165
PCB-161	*	*	n	NotFnd	0.92	*		668	520	4.00	Co-elute PCB 132
PCB-132	*	*	n	NotFnd	0.92	*		668	520	4.00	Co-elute PCB 161
PCB-153	*	*	n	NotFnd	0.90	*		668	520	4.08	
PCB-168	*	*	n	NotFnd	1.03	*		668	520	3.54	
PCB-141	*	*	n	NotFnd	0.80	*		668	520	4.55	
PCB-137	*	*	n	NotFnd	0.82	*		668	520	4.46	
PCB-130	*	*	n	NotFnd	0.63	*		668	520	5.76	
PCB-138	*	*	n	NotFnd	1.08	*		668	520	3.38	Co-elute PCB 163/164
PCB-163	*	*	n	NotFnd	1.08	*		668	520	3.38	Co-elute PCB 138/164
PCB-164	*	*	n	NotFnd	1.08	*		668	520	3.38	Co-elute PCB 138/163
PCB-158	*	*	n	NotFnd	1.07	*		668	520	3.42	Co-elute PCB 160
PCB-160	*	*	n	NotFnd	1.07	*		668	520	3.42	Co-elute PCB 158
PCB-129	*	*	n	NotFnd	0.67	*		668	520	5.47	
PCB-166	*	*	n	NotFnd	1.00	*		668	520	3.66	
PCB-159	*	*	n	NotFnd	1.08	*		668	520	3.39	
PCB-128	*	*	n	NotFnd	0.89	*		668	520	4.11	Co-elute PCB 162
PCB-162	*	*	n	NotFnd	0.89	*		668	520	4.11	Co-elute PCB 128
PCB-167	*	*	n	NotFnd	0.98	*		668	520	3.70	
13C-PCB-167	3.91e+07	1.25	y	43:16	1.13	9750					97.5
PCB-156	*	*	n	NotFnd	1.03	*		668	520	3.79	
13C-PCB-156	3.67e+07	1.27	y	44:28	1.09	9500					95.0
PCB-157	*	*	n	NotFnd	0.95	*		668	520	3.88	
13C-PCB-157	3.94e+07	1.25	y	44:45	1.12	9970					99.7
PCB-169	*	*	n	NotFnd	0.95	*		668	520	3.62	
13C-PCB-169	3.60e+07	1.24	y	46:38	1.04	9740					97.4

FAL ID: 09987-002-0001-SA Filename: 15JUL16Z Sam:4 Acquired: 15-JUL-16 11:52:23 ICal: DAILY209FAL4-7-15-16
Client ID: LDW-CS-2-S00.2-KPDMS ConCal: ST071516Z1 EndCal: ST071516Z2
Results: GC Column: DB1 Amount: 1.000

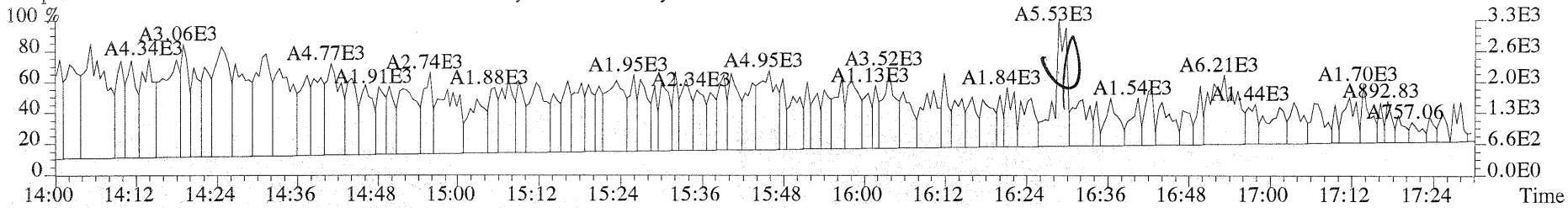
PCB-188	*	*	n	NotFnd	1.17	*	640	1080	4.19	
13C-PCB-188	3.67e+07	1.07	y	39:32	1.12	9270				92.7
PCB-184	*	*	n	NotFnd	1.24	*	640	1080	4.07	
PCB-179	*	*	n	NotFnd	1.18	*	640	1080	4.26	
PCB-176	*	*	n	NotFnd	1.17	*	640	1080	4.31	
PCB-186	*	*	n	NotFnd	1.16	*	640	1080	4.34	
PCB-178	*	*	n	NotFnd	0.82	*	640	1080	6.15	
PCB-175	*	*	n	NotFnd	0.87	*	640	1080	5.75	
PCB-187	*	*	n	NotFnd	0.93	*	640	1080	5.42	Co-elute PCB 182
PCB-182	*	*	n	NotFnd	0.93	*	640	1080	5.42	Co-elute PCB 187
PCB-183	*	*	n	NotFnd	0.93	*	640	1080	5.43	
PCB-185	*	*	n	NotFnd	0.84	*	640	1080	6.00	
PCB-174	*	*	n	NotFnd	0.85	*	640	1080	5.91	
PCB-181	*	*	n	NotFnd	0.85	*	640	1080	5.88	
PCB-177	*	*	n	NotFnd	0.77	*	640	1080	6.55	
PCB-171	*	*	n	NotFnd	0.83	*	640	1080	6.06	
PCB-173	*	*	n	NotFnd	0.74	*	640	1080	6.76	
PCB-172	*	*	n	NotFnd	0.77	*	640	1080	6.49	
PCB-192	*	*	n	NotFnd	1.06	*	640	1080	4.76	
PCB-180	*	*	n	NotFnd	1.00	*	640	1080	5.01	
PCB-193	*	*	n	NotFnd	1.11	*	640	1080	4.52	
PCB-191	*	*	n	NotFnd	1.06	*	640	1080	4.74	
PCB-170	*	*	n	NotFnd	0.72	*	640	1080	6.96	
PCB-190	*	*	n	NotFnd	1.01	*	640	1080	4.97	
PCB-189	*	*	n	NotFnd	1.13	*	640	1080	4.58	
13C-PCB-189	3.07e+07	1.07	y	48:17	0.90	9600				96.0
PCB-202	*	*	n	NotFnd	1.02	*	842	464	4.99	
PCB-201	*	*	n	NotFnd	1.01	*	842	464	5.03	
PCB-204	*	*	n	NotFnd	1.04	*	842	464	4.87	
PCB-197	*	*	n	NotFnd	1.05	*	842	464	4.85	
PCB-200	*	*	n	NotFnd	1.02	*	842	464	4.97	
PCB-198	*	*	n	NotFnd	0.70	*	842	464	7.24	
PCB-199	*	*	n	NotFnd	0.72	*	842	464	7.05	
PCB-203	*	*	n	NotFnd	0.78	*	842	464	6.55	Co-elute PCB 196
PCB-196	*	*	n	NotFnd	0.78	*	842	464	6.55	Co-elute PCB 203
13C-PCB-202	2.61e+07	0.91	y	44:38	0.78	9430				94.3
13C-PCB-178	2.36e+07	1.06	y	42:10	0.73	9080				90.8
13C-PCB-138	3.54e+07	1.25	y	41:24	-	53.6				
PCB-195	*	*	n	NotFnd	0.72	*	650	802	5.28	
PCB-194	*	*	n	NotFnd	0.78	*	650	802	4.88	
PCB-205	*	*	n	NotFnd	1.01	*	650	802	3.79	
13C-PCB-205	2.70e+07	0.86	y	49:57	1.27	9420				94.2
PCB-208	*	*	n	NotFnd	0.95	*	756	706	3.52	
13C-PCB-208	3.20e+07	0.79	y	49:00	1.57	9010				90.1
PCB-207	*	*	n	NotFnd	1.02	*	756	706	3.74	
PCB-206	*	*	n	NotFnd	0.96	*	756	706	4.65	
13C-PCB-206	2.38e+07	0.79	y	51:07	1.11	9500				95.0
PCB-209	*	*	n	NotFnd	1.07	*	877	698	3.78	
13C-PCB-209	3.34e+07	1.20	y	52:18	1.61	9190				91.9
13C-PCB-194	2.26e+07	0.87	y	49:41	-	55.2				

Analyst: Date: 7/15/16

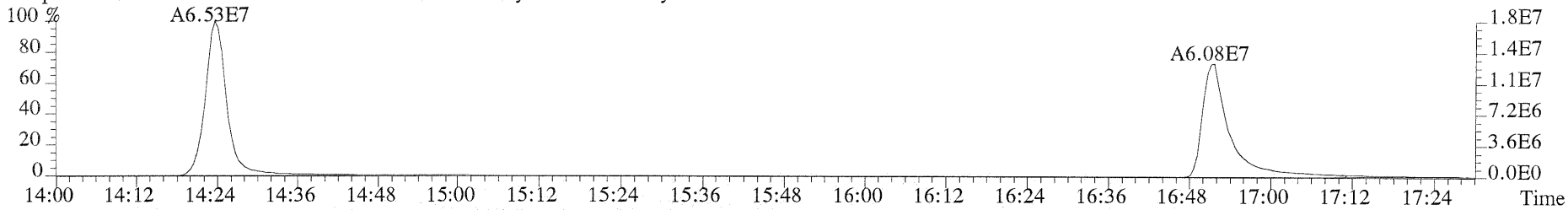
File:15JUL16Z #1-901 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



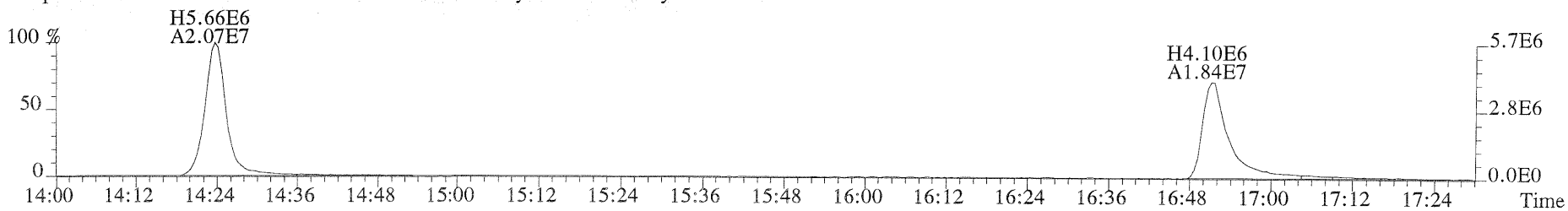
File:15JUL16Z #1-901 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



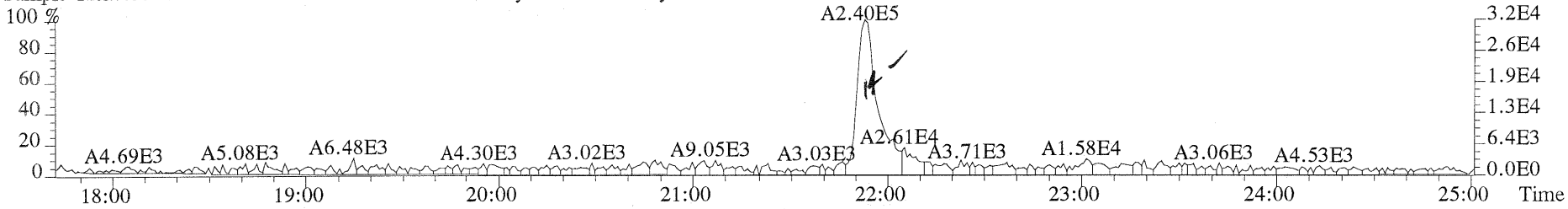
File:15JUL16Z #1-901 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



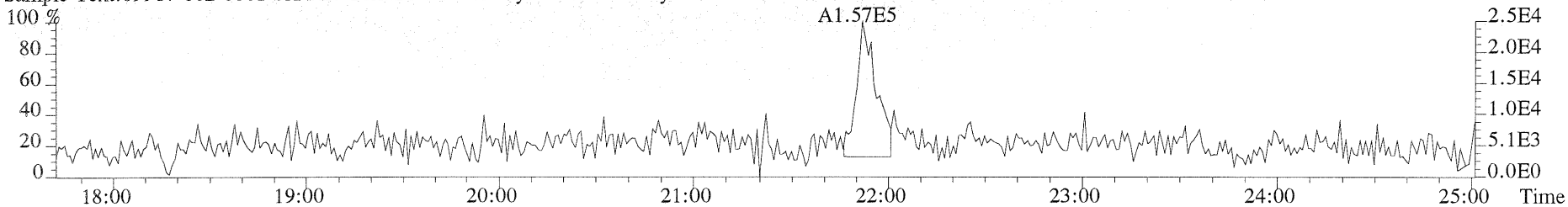
File:15JUL16Z #1-901 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



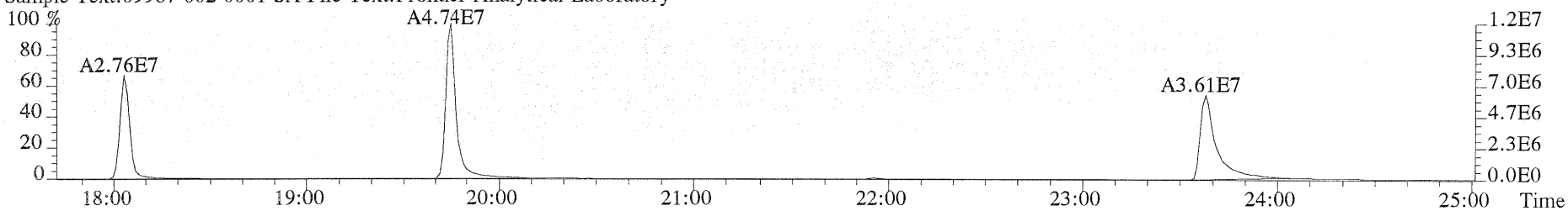
File:15JUL16Z #1-498 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:4 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



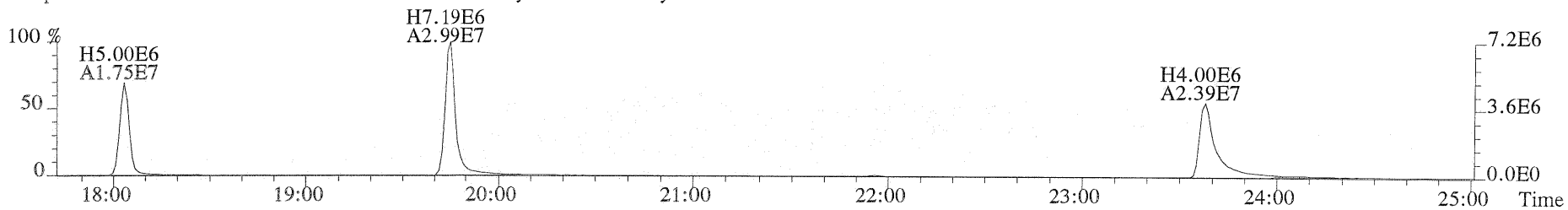
File:15JUL16Z #1-498 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:4 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



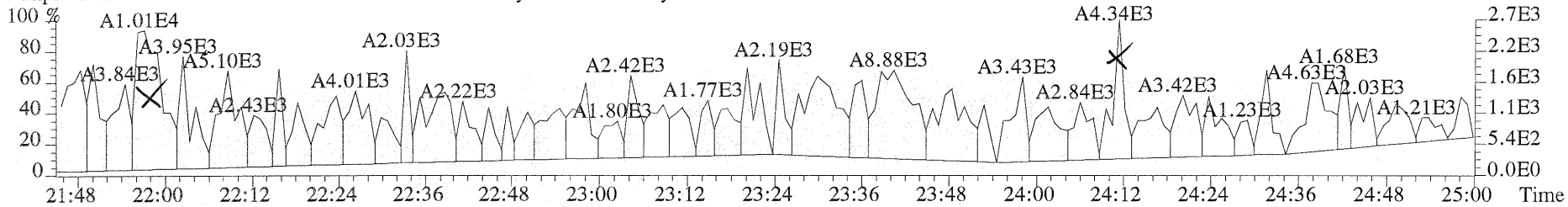
File:15JUL16Z #1-498 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:4 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



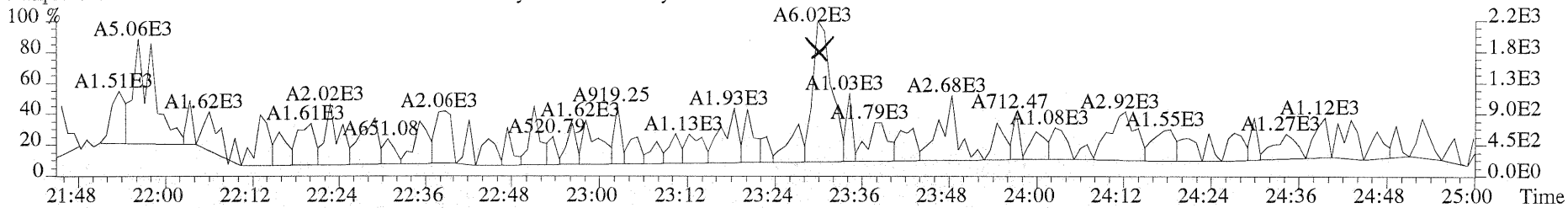
File:15JUL16Z #1-498 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:4 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



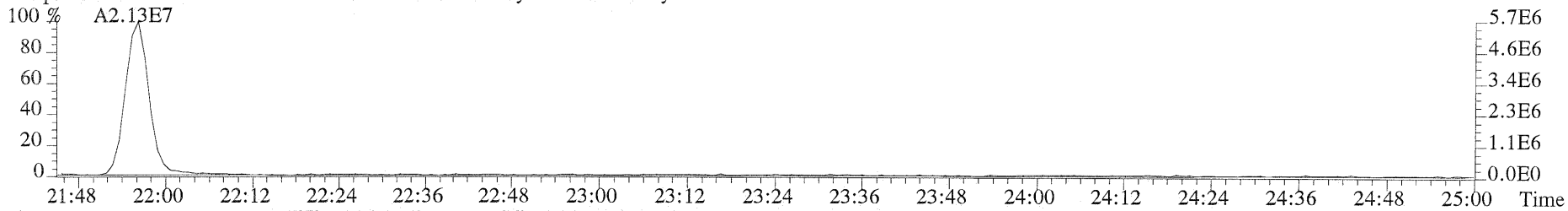
File:15JUL16Z #1-498 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:4 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



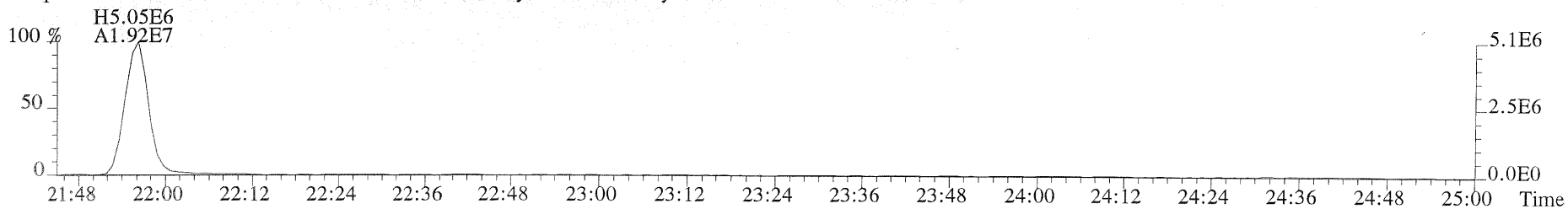
File:15JUL16Z #1-498 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:4 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



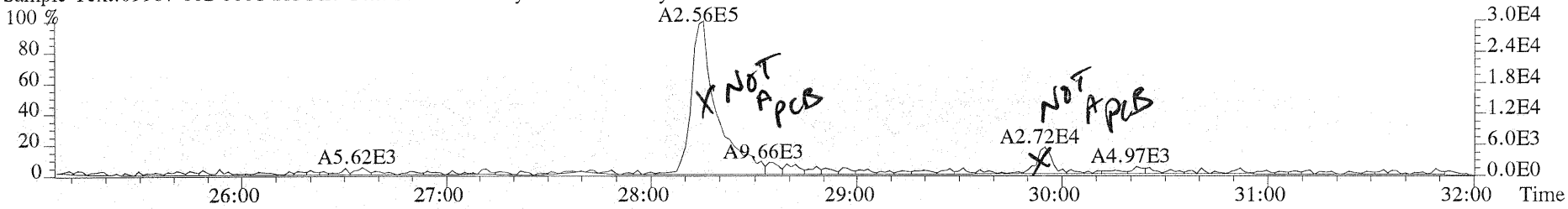
File:15JUL16Z #1-498 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:4 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



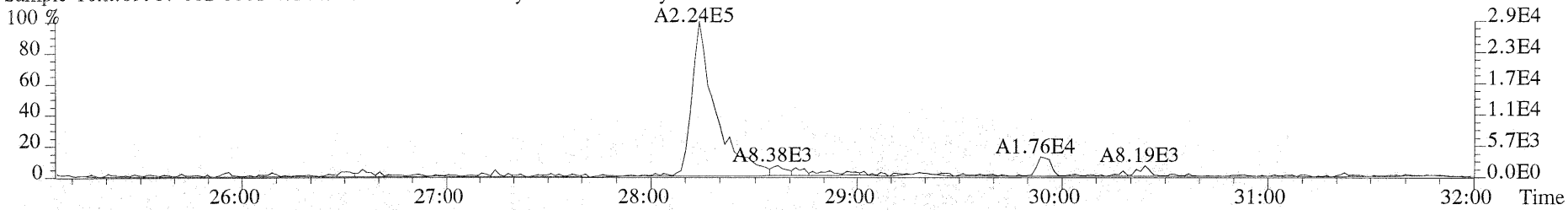
File:15JUL16Z #1-498 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:4 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



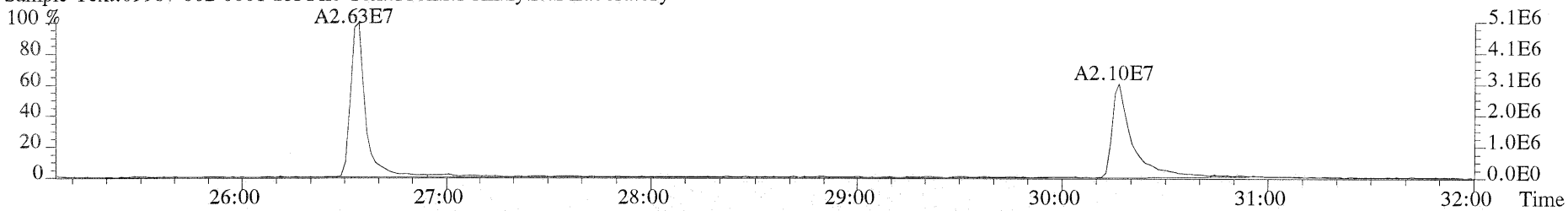
File:15JUL16Z #1-404 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



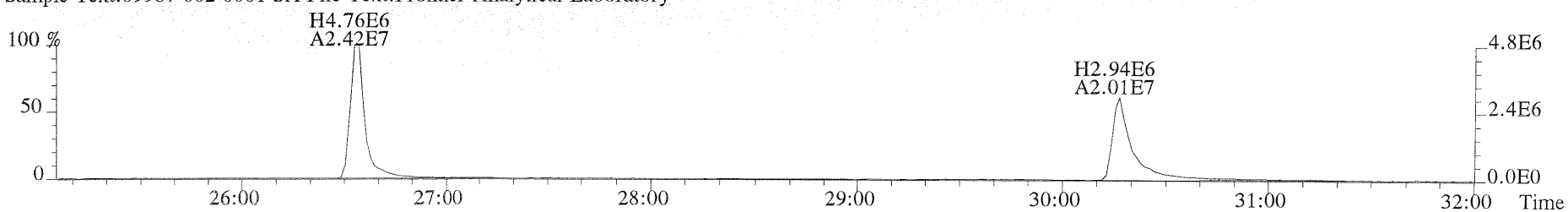
File:15JUL16Z #1-404 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



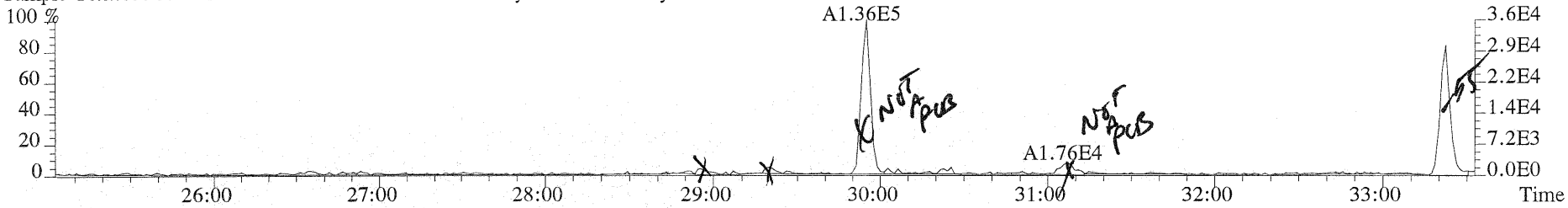
File:15JUL16Z #1-404 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



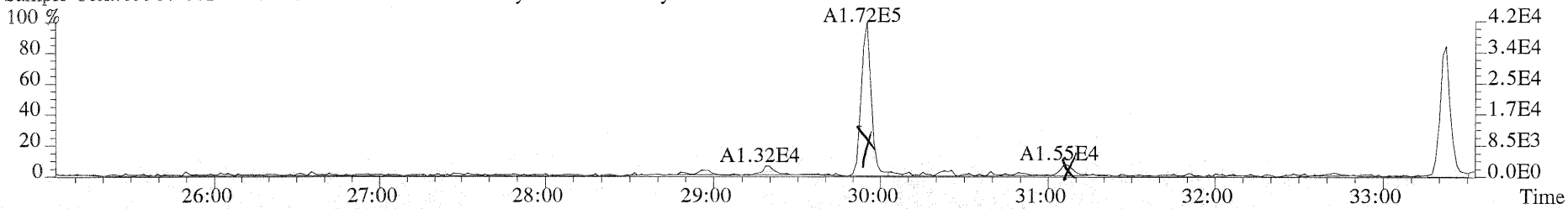
File:15JUL16Z #1-404 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



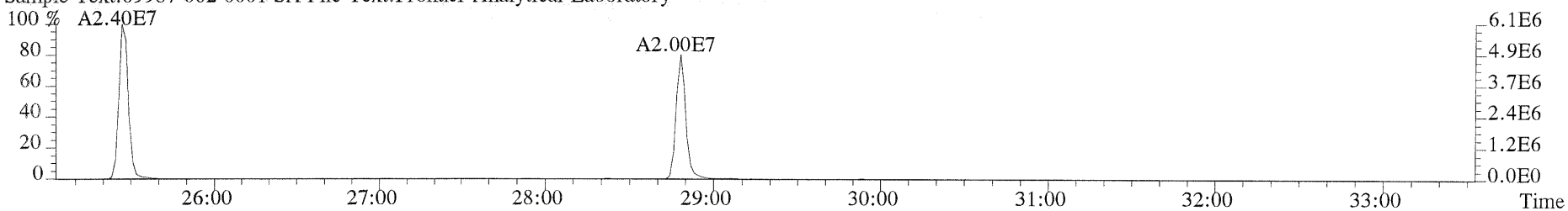
File:15JUL16Z #1-404 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:4 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



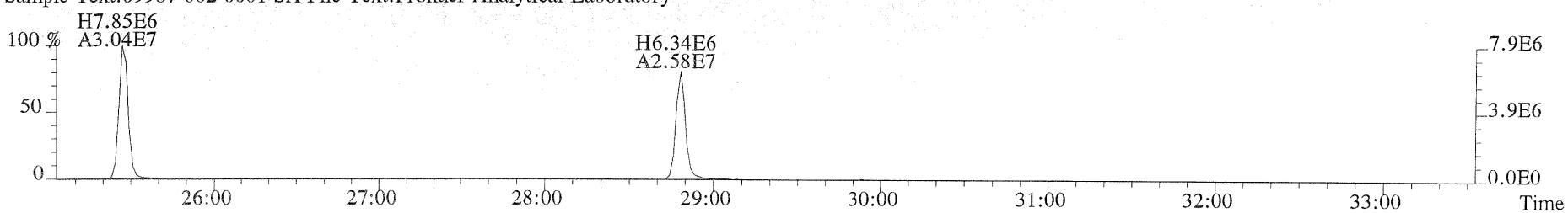
File:15JUL16Z #1-404 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:4 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



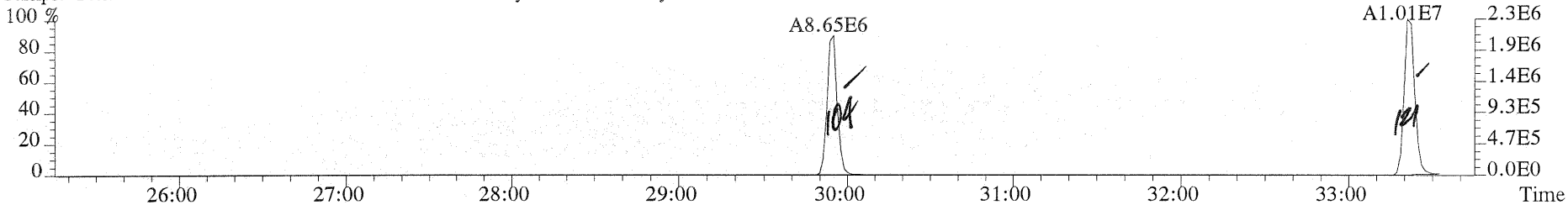
File:15JUL16Z #1-404 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:4 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



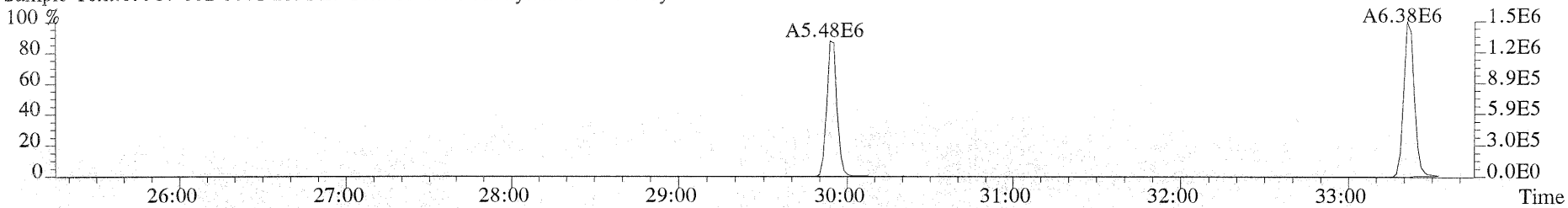
File:15JUL16Z #1-404 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:4 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



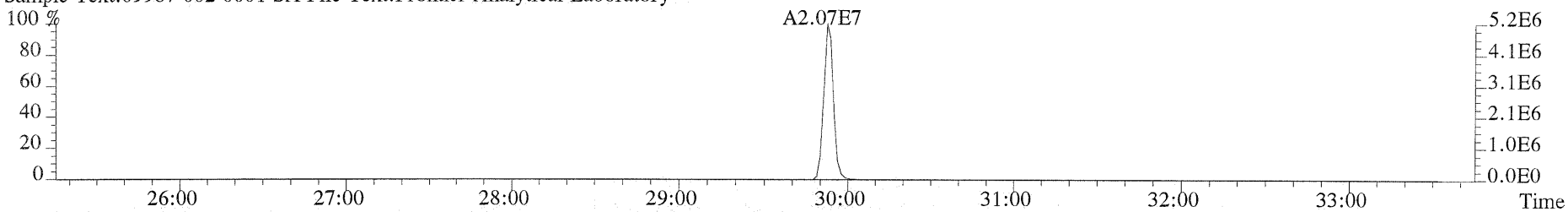
File:15JUL16Z #1-404 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



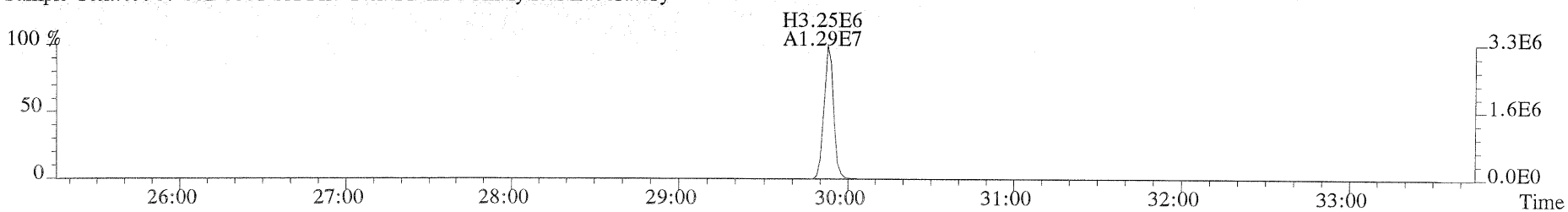
File:15JUL16Z #1-404 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



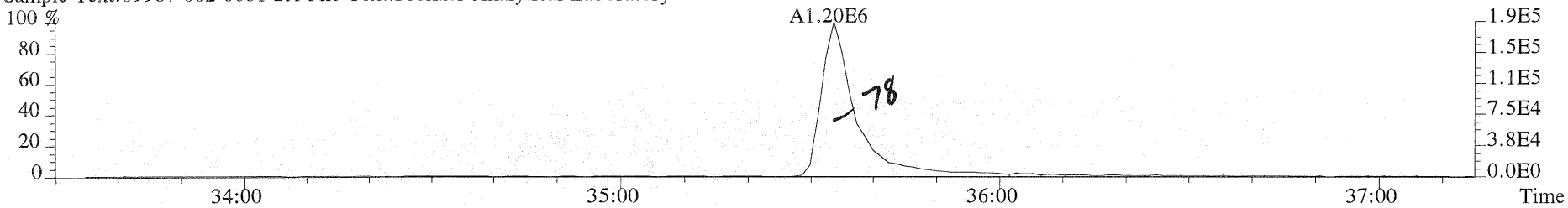
File:15JUL16Z #1-404 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



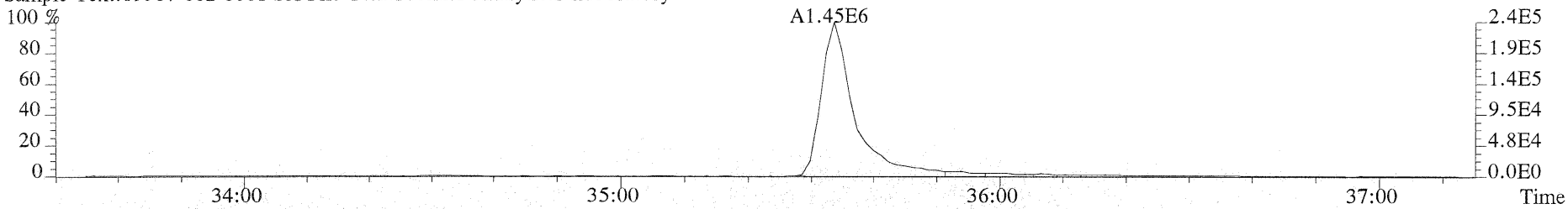
File:15JUL16Z #1-404 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



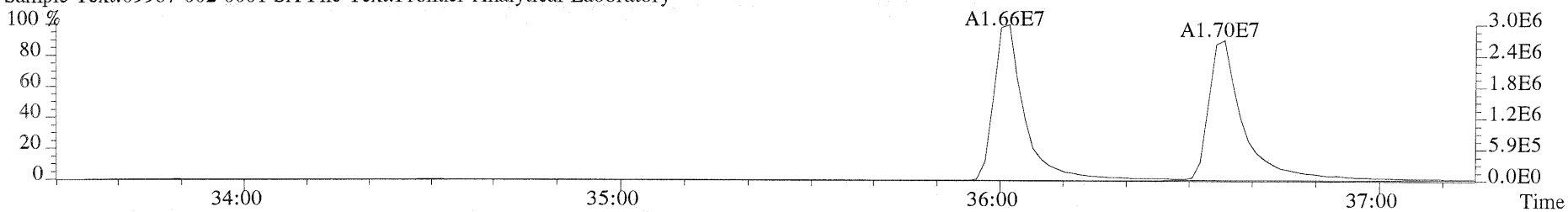
File:15JUL16Z #1-180 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



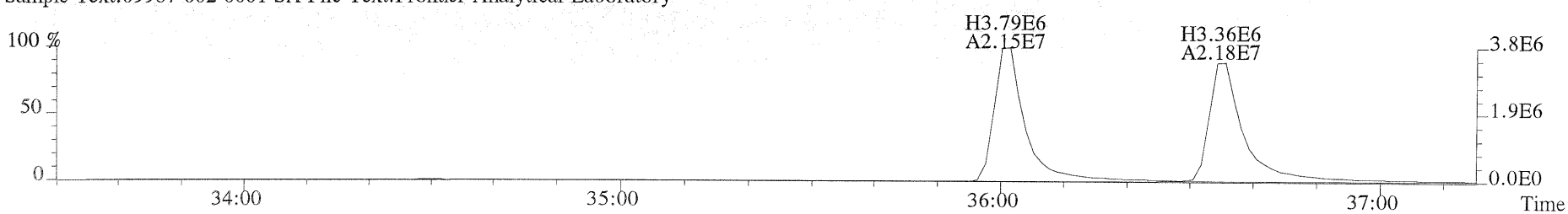
File:15JUL16Z #1-180 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



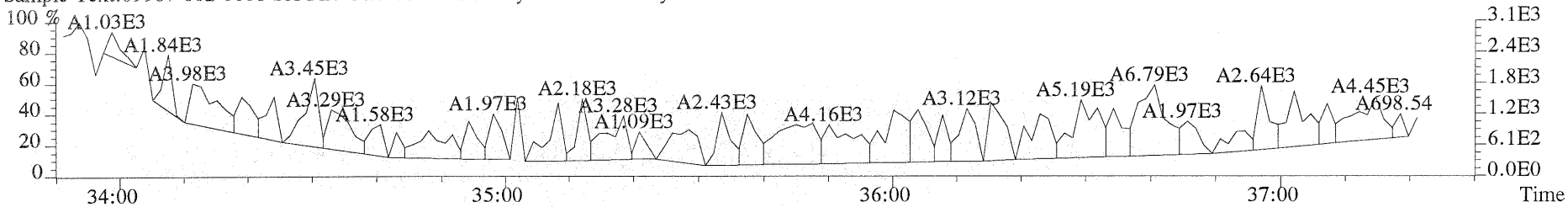
File:15JUL16Z #1-180 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



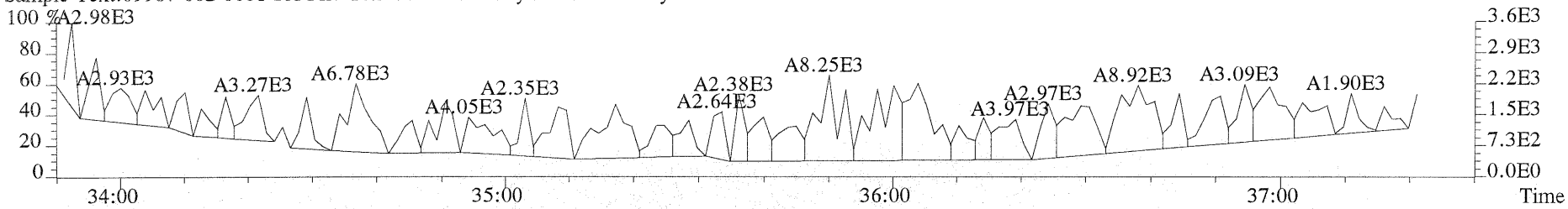
File:15JUL16Z #1-180 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



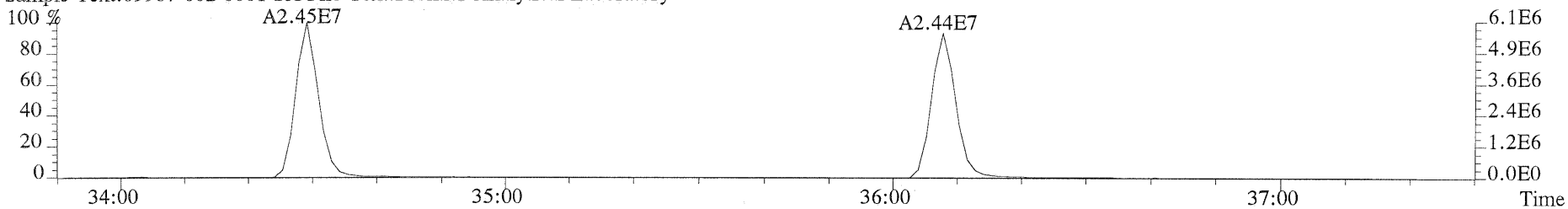
File:15JUL16Z #1-180 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



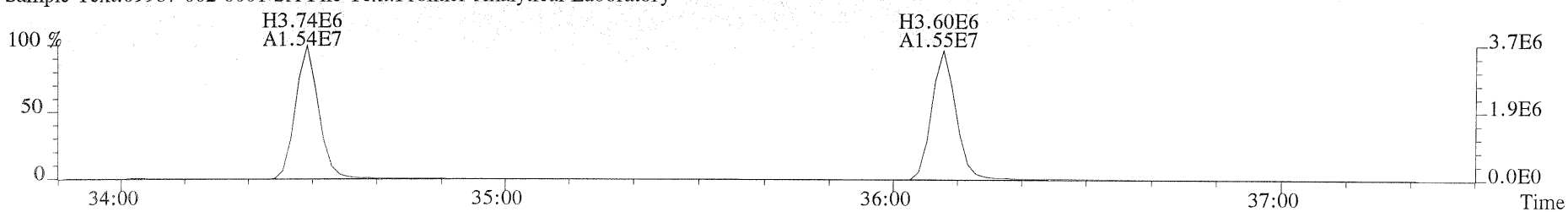
File:15JUL16Z #1-180 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



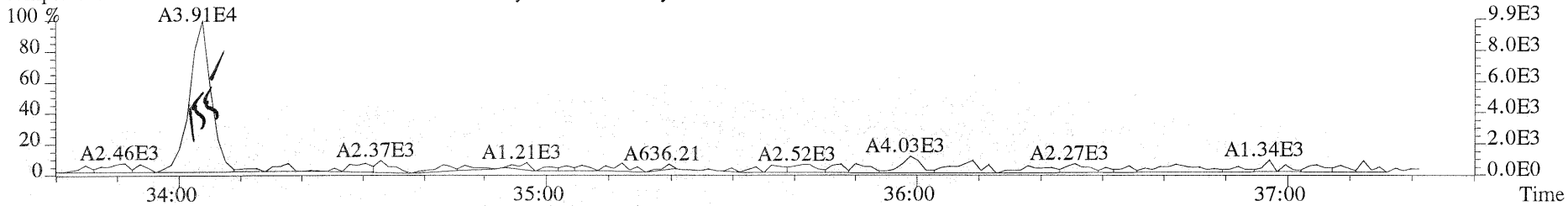
File:15JUL16Z #1-180 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



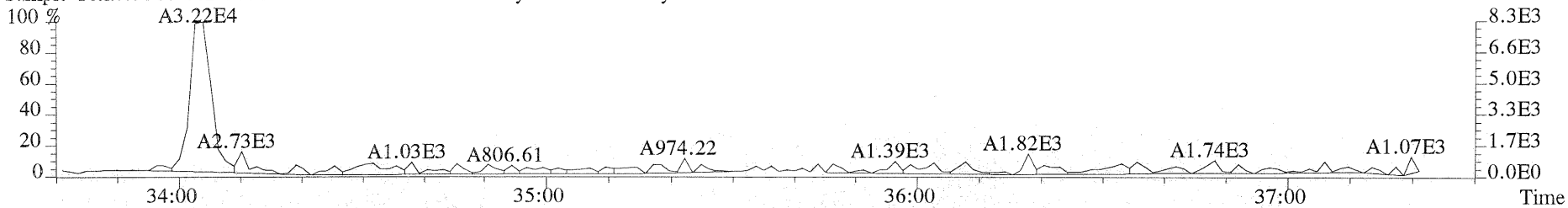
File:15JUL16Z #1-180 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



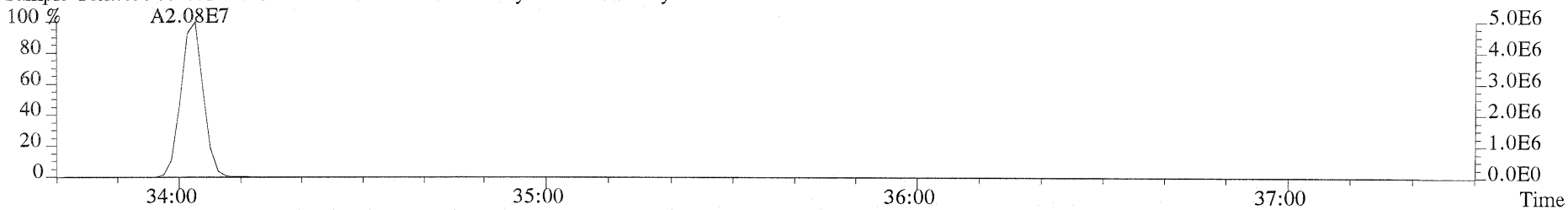
File:15JUL16Z #1-180 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



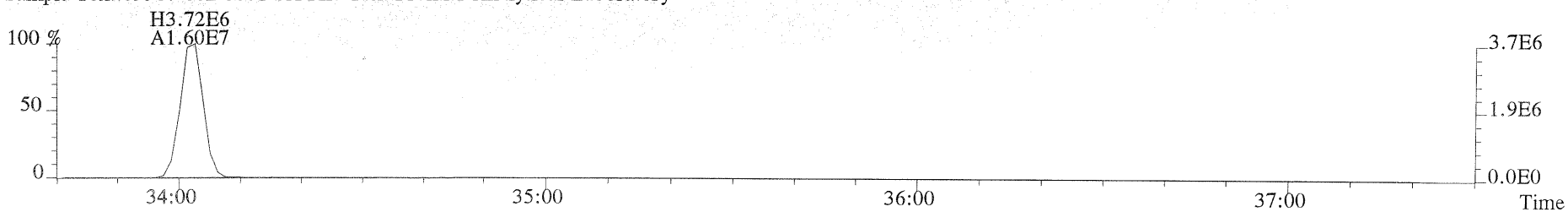
File:15JUL16Z #1-180 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



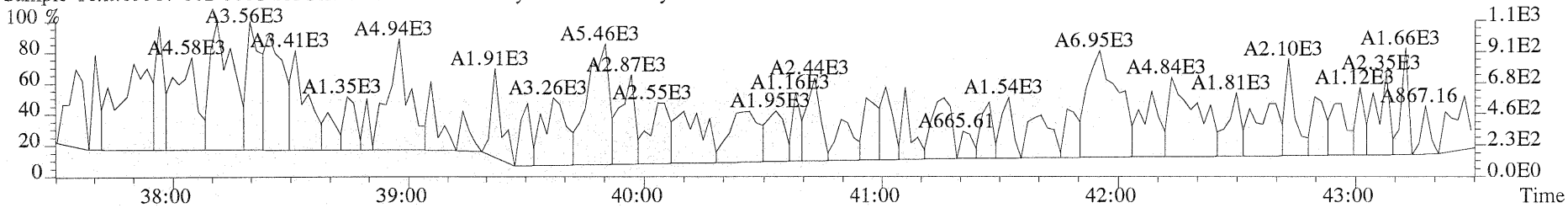
File:15JUL16Z #1-180 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



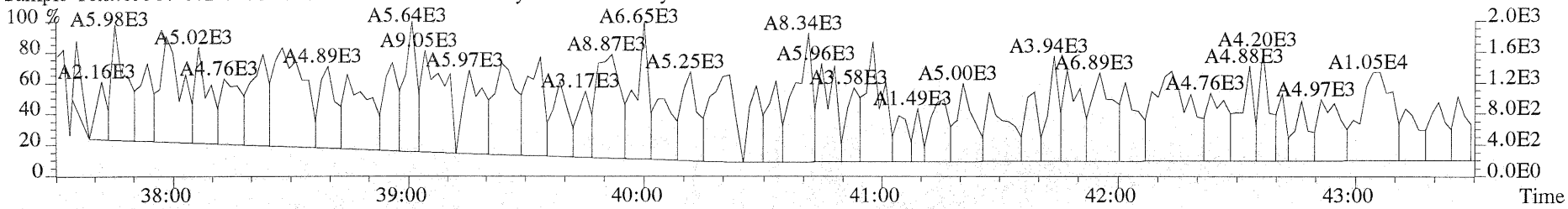
File:15JUL16Z #1-180 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



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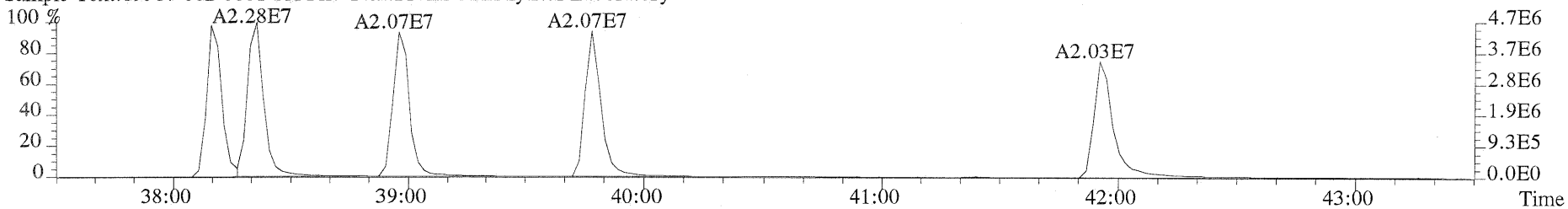
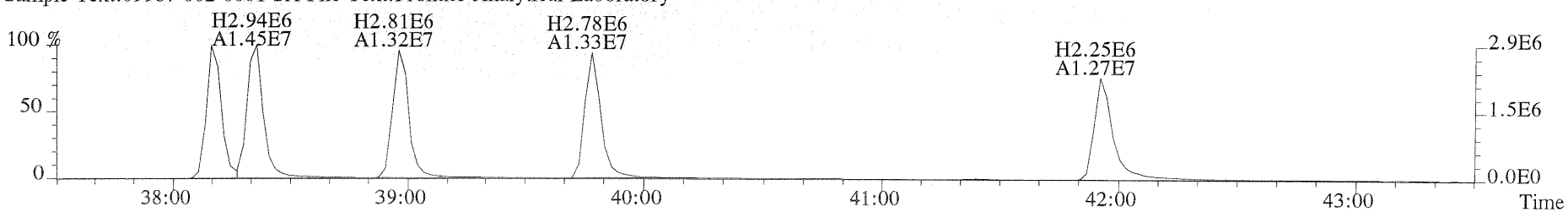
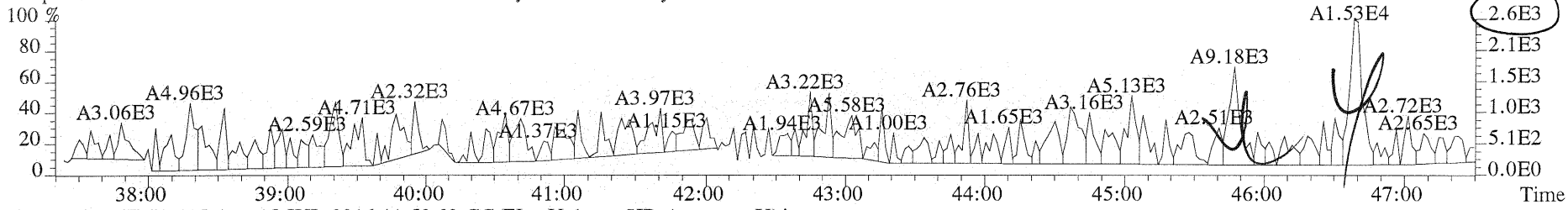
337.9207 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



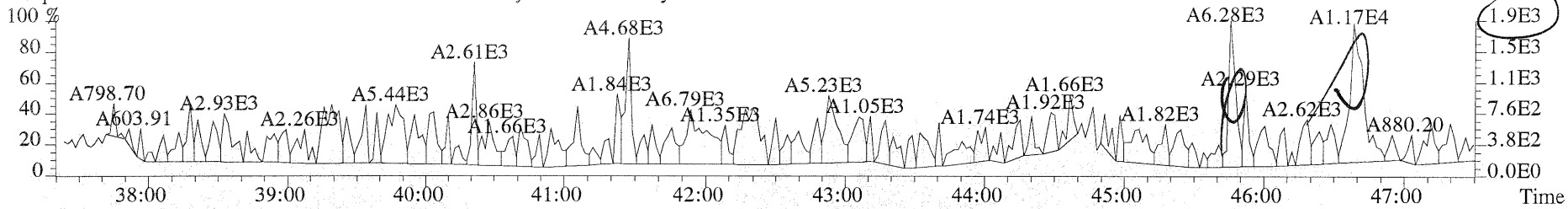
File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



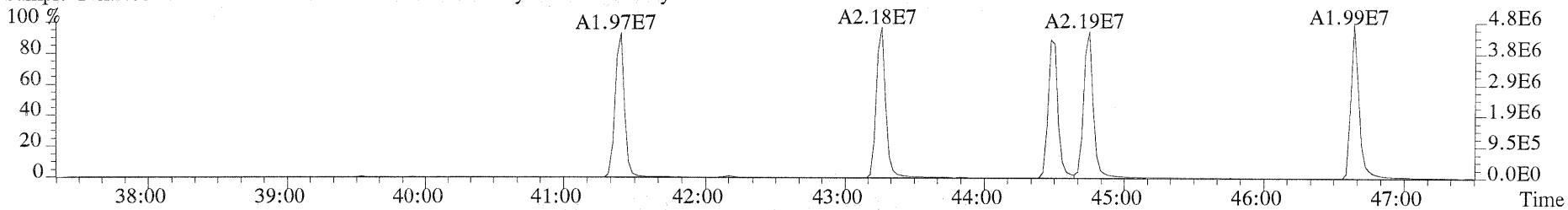
File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



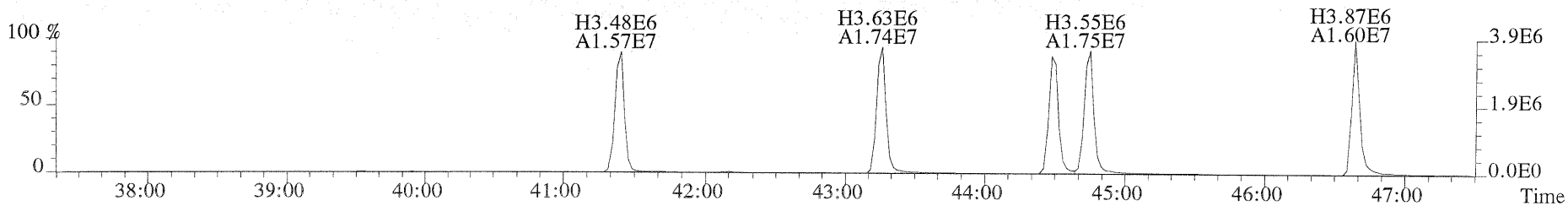
File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



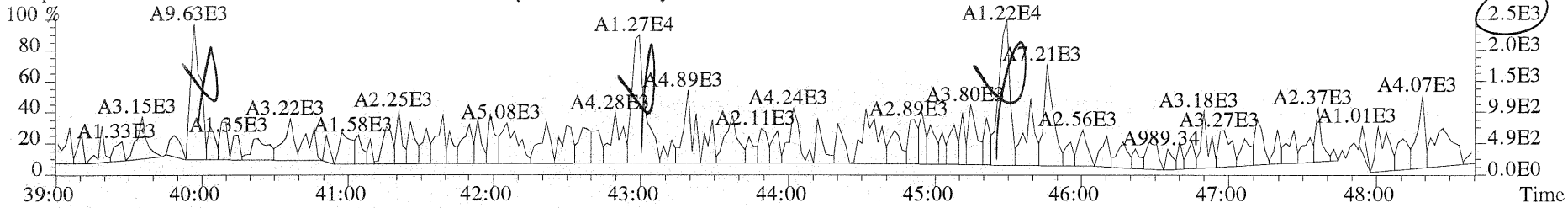
File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



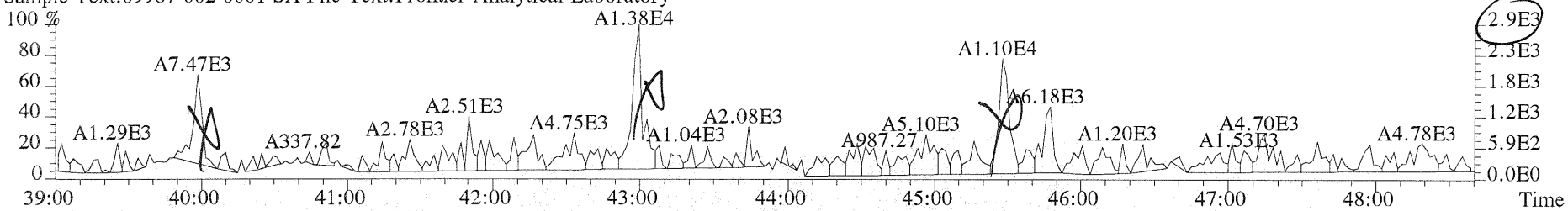
File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
393.8025 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



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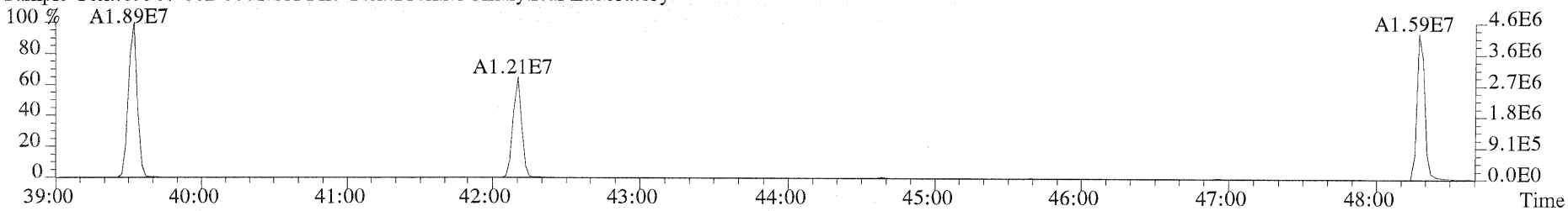
405.8428 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



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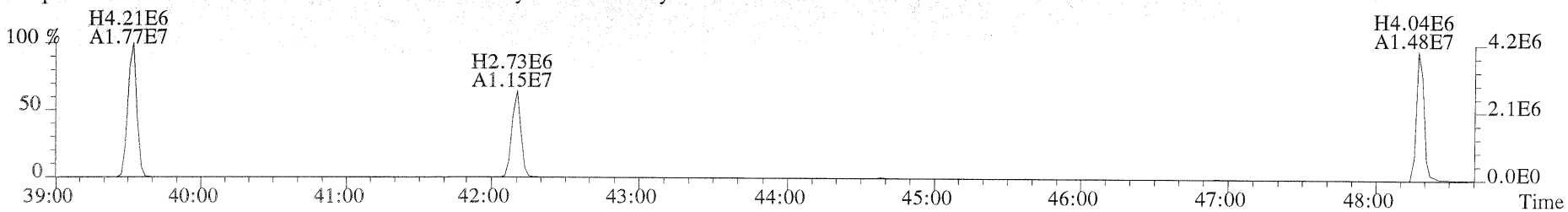
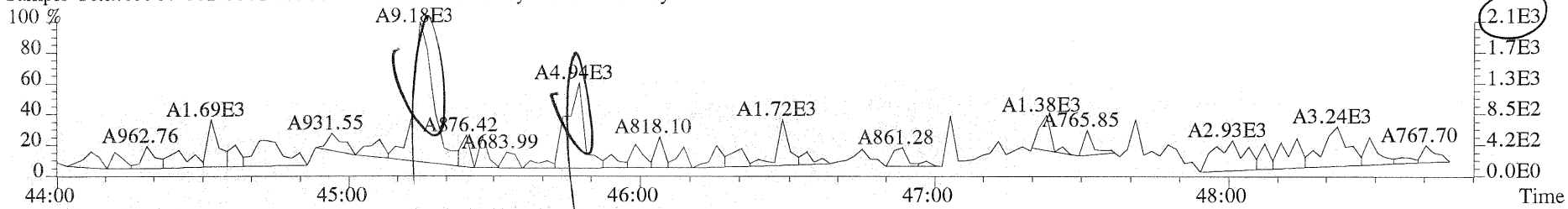
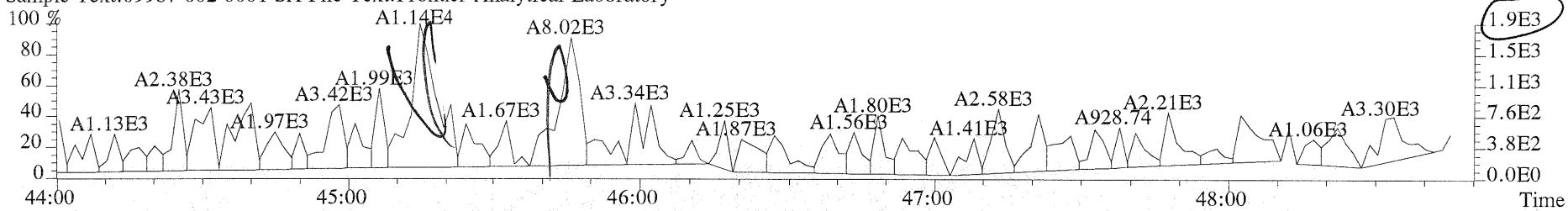
407.8398 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



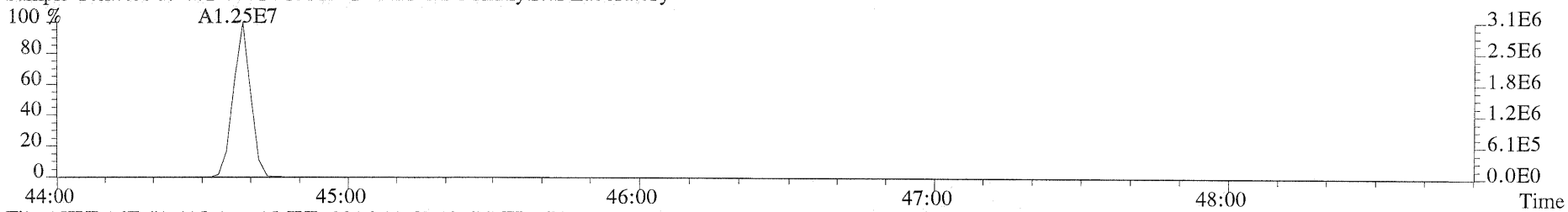
File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



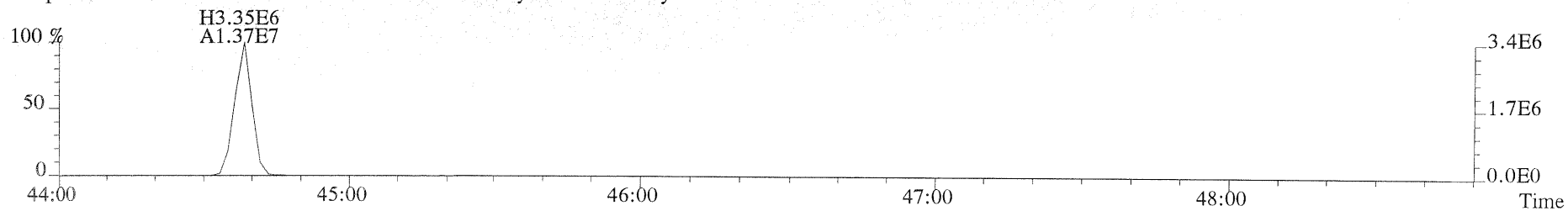
File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



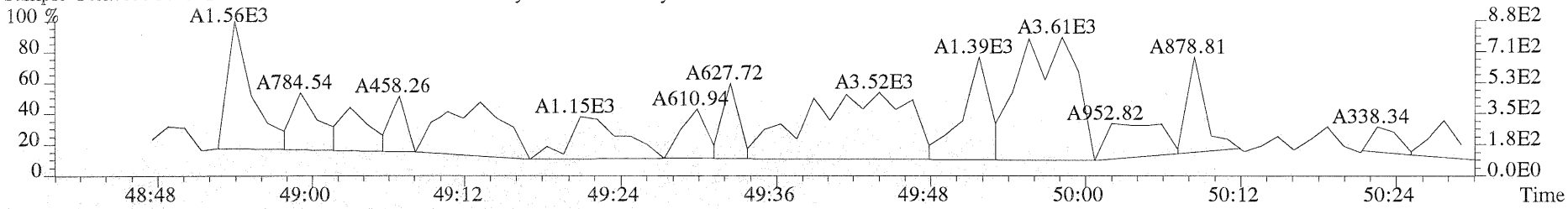
File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



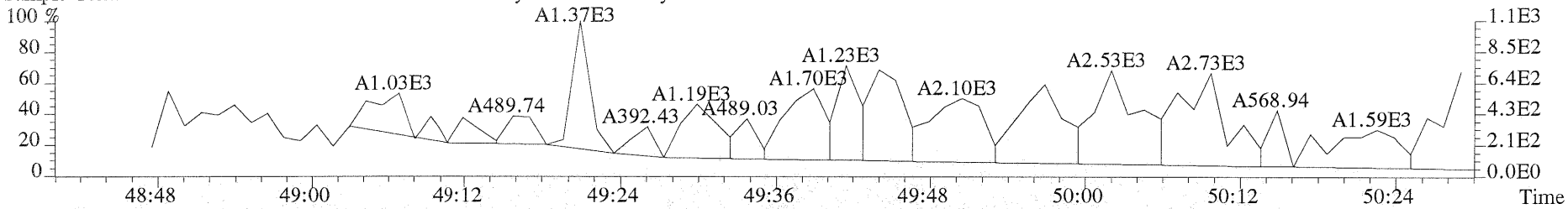
File:15JUL16Z #1-415 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



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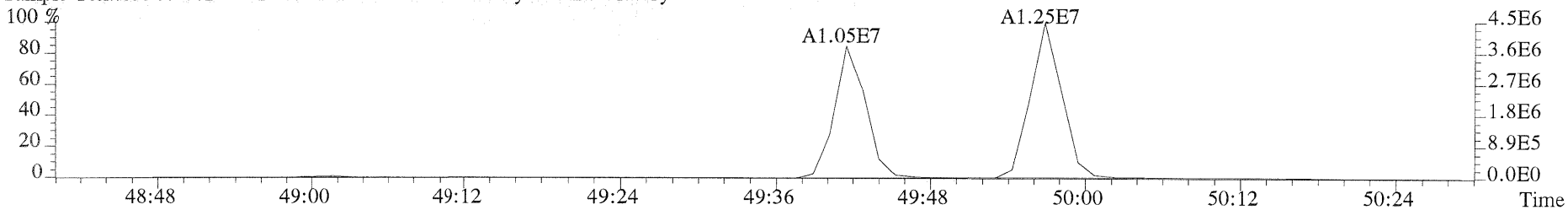
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



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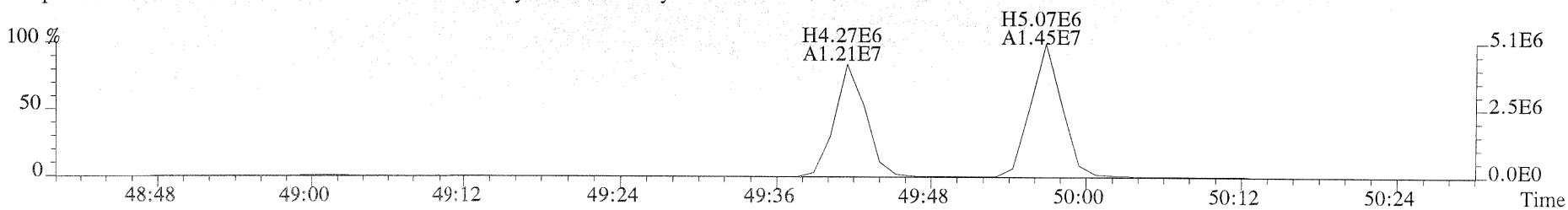
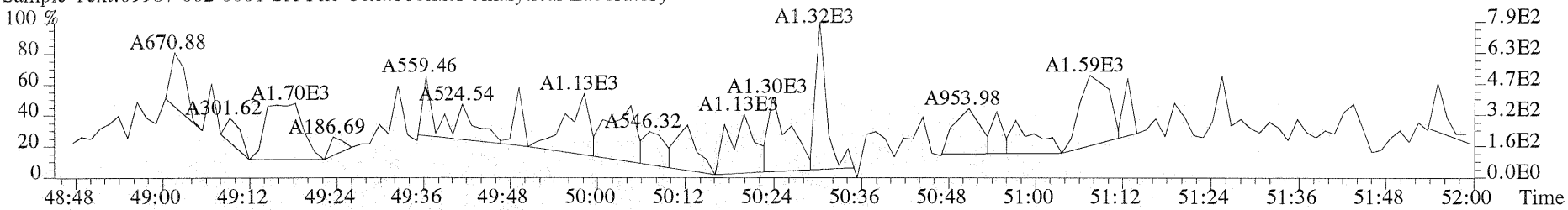
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



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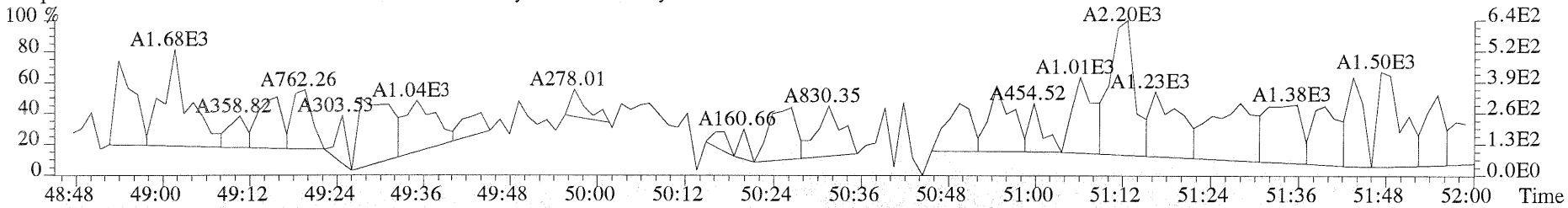
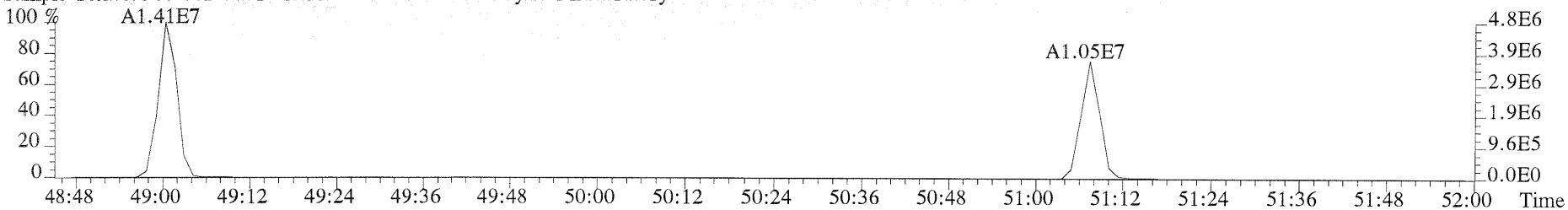
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
473.7648 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



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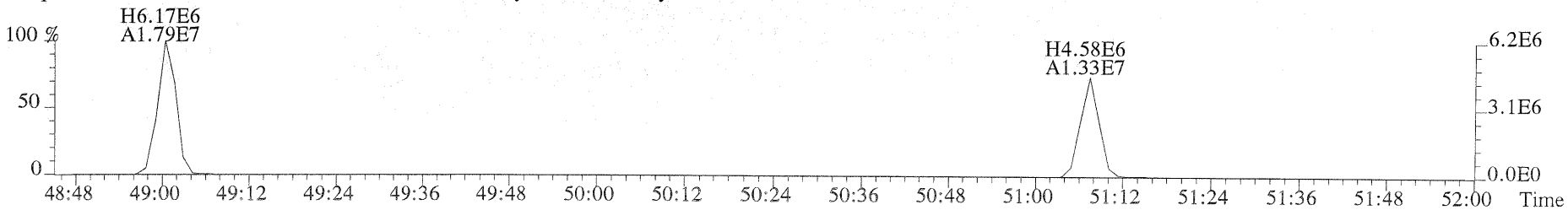
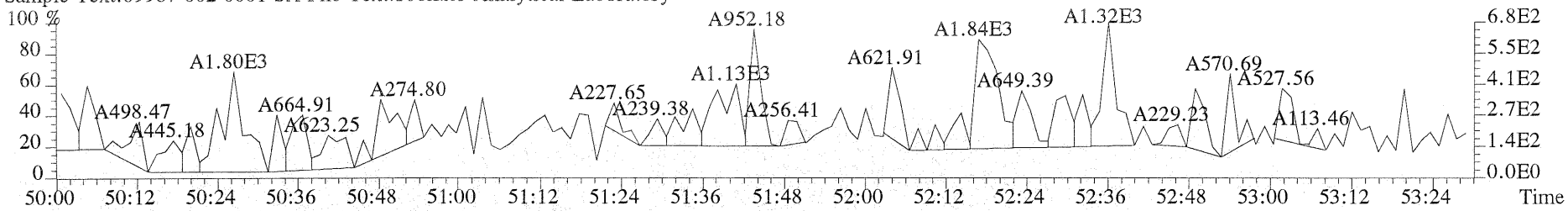
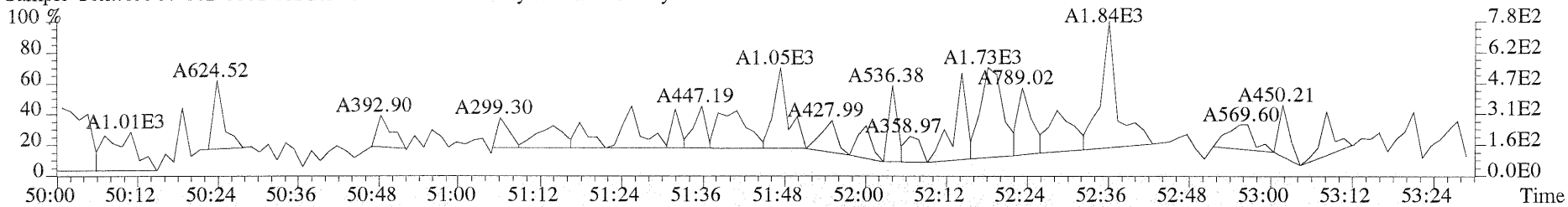
475.7619 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



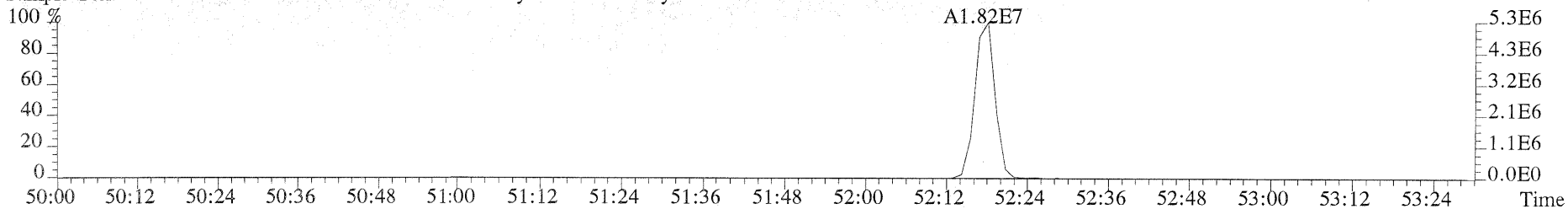
File:15JUL16Z #1-221 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



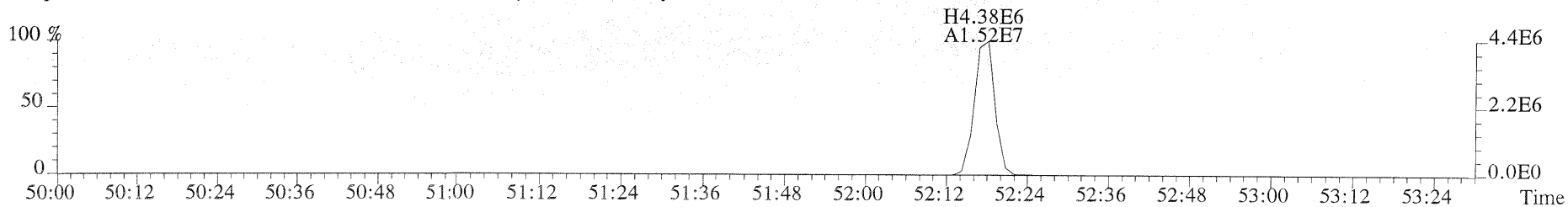
File:15JUL16Z #1-221 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 11:52:23 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-002-0001-SA File Text:Frontier Analytical Laboratory



FAL ID: 09987-003-0001-SA Filename: 13JUL16Z Sam:11 Acquired: 13-JUL-16 20:16:28 ICal: DAILY209FAL4-7-13-16
Client ID: LDW-CS-3-S00.2-KPDMS ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 9987-06 GC Column: DB1 Amount: 1.000

Name	Resp	RA		RT	RRF	Conc	Qual	Noise-1	Noise-2	DL	Rec
PCB-1	*	*	n	NotFnd	1.05	*		2360	975	3.54	
13C-PCB-1	7.61e+07	3.16	y	14:20	1.06	8740					87.4
PCB-2	*	*	n	NotFnd	0.92	*		2360	975	5.31	
PCB-3	*	*	n	NotFnd	1.13	*		2360	975	5.52	
13C-PCB-3	6.80e+07	3.22	y	16:48	1.03	8000					80.0
PCB-4	*	*	n	NotFnd	1.19	*		1900	2000	6.52	
PCB-10	*	*	n	NotFnd	1.33	*		1900	2000	7.71	
13C-PCB-4	4.70e+07	1.57	y	18:00	0.60	9460					94.6
PCB-9	*	*	n	NotFnd	1.15	*		1900	2000	8.91	
PCB-7	*	*	n	NotFnd	1.60	*		1900	2000	6.41	
PCB-6	*	*	n	NotFnd	1.45	*		1900	2000	7.08	
PCB-8	*	*	n	NotFnd	1.27	*		1900	2000	8.06	
PCB-5	*	*	n	NotFnd	1.51	*		1900	2000	6.78	
PCB-14	*	*	n	NotFnd	1.19	*		1900	2000	8.62	
PCB-11	*	*	n	NotFnd	1.19	*		1900	2000	8.63	
PCB-13	*	*	n	NotFnd	1.00	*		1900	2000	10.2	
PCB-12	*	*	n	NotFnd	1.40	*		1900	2000	7.35	
PCB-15	*	*	n	NotFnd	1.34	*		1900	2000	9.13	
13C-PCB-15	5.98e+07	1.60	y	23:34	0.85	8500					85.0
PCB-19	*	*	n	NotFnd	1.14	*		2270	840	7.38	
PCB-30	*	*	n	NotFnd	1.69	*		2270	840	4.97	
PCB-18	*	*	n	NotFnd	1.07	*		2270	840	7.84	
PCB-17	*	*	n	NotFnd	1.22	*		2270	840	6.89	
PCB-27	*	*	n	NotFnd	1.59	*		2270	840	5.26	
PCB-24	*	*	n	NotFnd	1.59	*		2270	840	5.26	
PCB-16	*	*	n	NotFnd	1.06	*		2270	840	7.88	
PCB-32	*	*	n	NotFnd	1.69	*		2270	840	4.95	
13C-PCB-19	3.45e+07	1.07	y	21:52	0.59	7140					71.4
13C-PCB-9	8.24e+07	1.62	y	19:41	-	142					
PCB-34	*	*	n	NotFnd	1.13	*		1100	848	8.18	
PCB-23	*	*	n	NotFnd	1.24	*		1140	848	7.60	
PCB-29	*	*	n	NotFnd	1.24	*		1140	848	7.59	
PCB-26	*	*	n	NotFnd	1.22	*		1140	848	7.68	
PCB-25	*	*	n	NotFnd	1.45	*		1140	848	6.47	
PCB-31	*	*	n	NotFnd	1.02	*		1140	848	9.17	
PCB-28	*	*	n	NotFnd	1.61	*		1140	848	5.84	
PCB-20	*	*	n	NotFnd	1.22	*		1140	848	7.68	Co-elute PCB 21/33
PCB-21	*	*	n	NotFnd	1.22	*		1140	848	7.68	Co-elute PCB 20/33
PCB-33	*	*	n	NotFnd	1.22	*		1140	848	7.68	Co-elute PCB 20/21
PCB-22	*	*	n	NotFnd	1.23	*		1140	848	7.61	
PCB-36	*	*	n	NotFnd	1.11	*		1140	848	8.48	
PCB-39	*	*	n	NotFnd	1.04	*		1140	848	9.02	
PCB-38	*	*	n	NotFnd	1.21	*		1140	848	7.78	
PCB-35	*	*	n	NotFnd	0.99	*		1140	848	9.50	
PCB-37	*	*	n	NotFnd	1.22	*		1140	848	7.72	
13C-PCB-37	4.91e+07	1.14	y	30:15	1.04	11200					112

PCB-54	*	*	n	NotFnd	1.06	*	923	1480	4.67	
PCB-50	*	*	n	NotFnd	0.84	*	923	1480	5.93	
PCB-53	*	*	n	NotFnd	0.75	*	923	1480	6.57	
PCB-51	*	*	n	NotFnd	0.80	*	923	1480	6.17	
PCB-45	*	*	n	NotFnd	0.73	*	923	1480	6.83	
PCB-46	*	*	n	NotFnd	0.69	*	923	1480	7.21	
PCB-52	*	*	n	NotFnd	0.91	*	923	1480	5.42	Co-elute PCB 69
PCB-69	*	*	n	NotFnd	0.91	*	923	1480	5.42	Co-elute PCB 52
PCB-73	*	*	n	NotFnd	1.10	*	923	1480	4.48	
PCB-43	*	*	n	NotFnd	0.80	*	923	1480	6.18	Co-elute PCB 49
PCB-49	*	*	n	NotFnd	0.80	*	923	1480	6.18	Co-elute PCB 43
PCB-47	*	*	n	NotFnd	0.97	*	923	1480	5.11	
PCB-48	*	*	n	NotFnd	0.97	*	923	1480	5.12	Co-elute PCB 75
PCB-75	*	*	n	NotFnd	0.97	*	923	1480	5.12	Co-elute PCB 48
PCB-65	*	*	n	NotFnd	0.98	*	923	1480	5.03	
PCB-62	*	*	n	NotFnd	1.02	*	923	1480	4.87	
PCB-44	*	*	n	NotFnd	0.70	*	923	1480	7.08	
PCB-42	*	*	n	NotFnd	0.92	*	923	1480	5.39	Co-elute PCB 59
PCB-59	*	*	n	NotFnd	0.92	*	923	1480	5.39	Co-elute PCB 42
PCB-72	*	*	n	NotFnd	0.99	*	923	1480	5.00	Co-elute PCB 41/71/64
PCB-41	*	*	n	NotFnd	0.99	*	923	1480	5.00	Co-elute PCB 72/71/64
PCB-71	*	*	n	NotFnd	0.99	*	923	1480	5.00	Co-elute PCB 72/41/64
PCB-64	*	*	n	NotFnd	0.99	*	923	1480	5.00	Co-elute PCB 72/41/71
PCB-68	*	*	n	NotFnd	1.05	*	923	1480	4.71	
PCB-40	*	*	n	NotFnd	0.62	*	923	1480	8.04	
PCB-57	*	*	n	NotFnd	1.02	*	923	1480	4.86	
PCB-67	*	*	n	NotFnd	0.97	*	923	1480	5.11	
PCB-58	*	*	n	NotFnd	0.99	*	923	1480	4.99	
PCB-63	*	*	n	NotFnd	1.06	*	923	1480	4.66	
PCB-74	*	*	n	NotFnd	1.04	*	923	1480	4.77	
PCB-61	*	*	n	NotFnd	1.00	*	923	1480	4.93	Co-elute PCB 70
PCB-70	*	*	n	NotFnd	1.00	*	923	1480	4.93	Co-elute PCB 61
PCB-76	*	*	n	NotFnd	1.08	*	923	1480	4.58	Co-elute PCB 66
PCB-66	*	*	n	NotFnd	1.08	*	923	1480	4.58	Co-elute PCB 76
PCB-80	*	*	n	NotFnd	1.14	*	923	1480	4.33	
PCB-55	4.70e+05	0.78	y	33:19	1.01	101	-	-	*	
13C-PCB-54	4.59e+07	0.79	y	25:24	1.12	9760				97.6
PCB-104	1.97e+07	1.60	y	29:51	1.22	6430	-	-	*	
PCB-96	*	*	n	NotFnd	1.14	*	724	1380	7.13	
PCB-103	*	*	n	NotFnd	0.94	*	724	1380	8.68	
PCB-100	*	*	n	NotFnd	0.89	*	724	1380	9.18	
PCB-94	*	*	n	NotFnd	0.76	*	724	1380	10.8	
PCB-98	*	*	n	NotFnd	0.86	*	724	1380	9.48	Co-elute PCB 102
PCB-102	*	*	n	NotFnd	0.86	*	724	1380	9.48	Co-elute PCB 98
PCB-95	*	*	n	NotFnd	0.86	*	724	1380	9.48	
PCB-93	*	*	n	NotFnd	0.82	*	724	1380	9.97	
PCB-88	*	*	n	NotFnd	0.78	*	724	1380	10.4	Co-elute PCB 91
PCB-91	*	*	n	NotFnd	0.78	*	724	1380	10.4	Co-elute PCB 88
PCB-121	2.11e+07	1.58	y	33:18	1.14	7380	-	-	*	
13C-PCB-104	2.51e+07	1.60	y	29:49	0.76	7830				78.3
13C-PCB-28	6.49e+07	1.19	y	26:30	1.27	12100				121
13C-PCB-52	4.22e+07	0.79	y	28:45	-	112				

PCB-56	*	*	n	NotFnd	1.15	*	1490	748	8.40	Co-elute PCB 60
PCB-60	*	*	n	NotFnd	1.15	*	1490	748	8.40	Co-elute PCB 56
PCB-79	*	*	n	NotFnd	1.17	*	1490	748	8.27	
PCB-78	7.12e+06	0.79	y	35:30	1.07	1790	-	-	*	
PCB-81	*	*	n	NotFnd	1.16	*	1490	748	7.73	
13C-PCB-81	3.67e+07	0.79	y	35:58	0.97	10300				103
PCB-77	*	*	n	NotFnd	1.04	*	1490	748	9.85	
13C-PCB-77	3.80e+07	0.80	y	36:32	0.99	10400				104
PCB-155	8.10e+04	1.26	y	34:01	1.11	26.0	-	-	*	
PCB-150	*	*	n	NotFnd	0.96	*	724	496	4.58	
PCB-152	*	*	n	NotFnd	0.97	*	724	496	4.51	
PCB-145	*	*	n	NotFnd	0.91	*	724	496	4.83	
PCB-136	*	*	n	NotFnd	0.96	*	724	496	4.56	
PCB-148	*	*	n	NotFnd	0.72	*	724	496	6.06	
PCB-154	*	*	n	NotFnd	0.83	*	724	496	5.30	
13C-PCB-155	2.81e+07	1.27	y	33:59	0.99	7740				77.4
13C-PCB-111	3.50e+07	1.60	y	36:04	1.11	8620				86.2
13C-PCB-101	3.67e+07	1.60	y	34:26	-	114				
PCB-84	*	*	n	NotFnd	0.93	*	1360	1880	10.9	Co-elute PCB 92
PCB-92	*	*	n	NotFnd	0.93	*	1360	1880	10.9	Co-elute PCB 84
PCB-89	*	*	n	NotFnd	0.94	*	1360	1880	10.8	
PCB-90	*	*	n	NotFnd	1.01	*	1360	1880	9.98	Co-elute PCB 101
PCB-101	*	*	n	NotFnd	1.01	*	1360	1880	9.98	Co-elute PCB 90
PCB-113	*	*	n	NotFnd	1.14	*	1360	1880	8.89	
PCB-99	*	*	n	NotFnd	1.15	*	1360	1880	8.81	
PCB-119	*	*	n	NotFnd	1.34	*	1360	1880	7.52	
PCB-83	*	*	n	NotFnd	1.05	*	1360	1880	9.58	Co-elute PCB 112
PCB-112	*	*	n	NotFnd	1.05	*	1360	1880	9.58	Co-elute PCB 83
PCB-109	*	*	n	NotFnd	1.23	*	1360	1880	8.23	
PCB-97	*	*	n	NotFnd	1.04	*	1360	1880	9.66	
PCB-86	*	*	n	NotFnd	0.93	*	1360	1880	10.9	
PCB-125	*	*	n	NotFnd	1.14	*	1360	1880	8.81	Co-elute PCB 87/117
PCB-87	*	*	n	NotFnd	1.14	*	1360	1880	8.81	Co-elute PCB 125/117
PCB-117	*	*	n	NotFnd	1.14	*	1360	1880	8.81	Co-elute PCB 125/87
PCB-111	*	*	n	NotFnd	1.39	*	1360	1880	7.26	Co-elute PCB 115
PCB-115	*	*	n	NotFnd	1.39	*	1360	1880	7.26	Co-elute PCB 111
PCB-85	*	*	n	NotFnd	1.10	*	1360	1880	9.17	Co-elute PCB 116
PCB-116	*	*	n	NotFnd	1.10	*	1360	1880	9.17	Co-elute PCB 85
PCB-120	*	*	n	NotFnd	1.34	*	1360	1880	7.50	
PCB-110	*	*	n	NotFnd	1.38	*	1360	1880	7.30	
PCB-82	*	*	n	NotFnd	0.77	*	1360	1880	13.1	
PCB-124	*	*	n	NotFnd	1.06	*	668	1400	6.10	
PCB-108	*	*	n	NotFnd	1.00	*	668	1400	6.46	Co-elute PCB 107
PCB-107	*	*	n	NotFnd	1.00	*	668	1400	6.46	Co-elute PCB 108
PCB-123	*	*	n	NotFnd	1.12	*	668	1400	5.68	
13C-PCB-123	3.65e+07	1.60	y	38:07	0.97	10900				109
PCB-118	*	*	n	NotFnd	0.97	*	668	1400	6.53	Co-elute PCB 106
PCB-106	*	*	n	NotFnd	0.97	*	668	1400	6.53	Co-elute PCB 118
13C-PCB-118	4.21e+07	1.61	y	38:19	1.08	11300				113
PCB-114	*	*	n	NotFnd	0.98	*	668	1400	6.69	
13C-PCB-114	3.86e+07	1.62	y	38:55	1.02	10900				109
PCB-122	*	*	n	NotFnd	1.20	*	668	1400	5.37	
PCB-105	*	*	n	NotFnd	1.10	*	668	1400	5.92	
13C-PCB-105	3.95e+07	1.62	y	39:44	1.02	11200				112

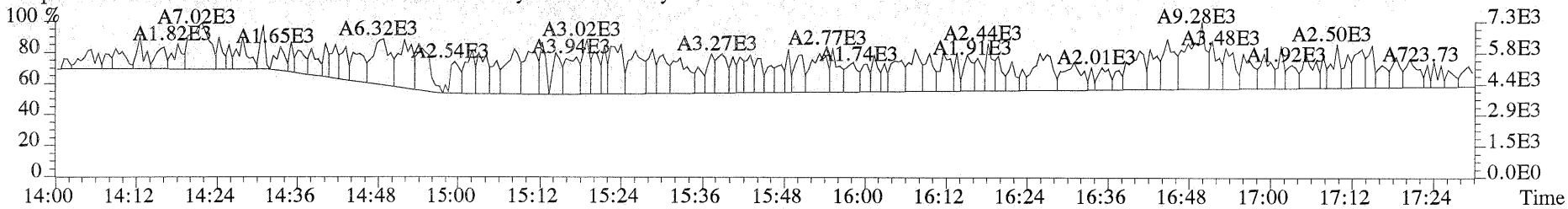
PCB-127	*	*	n	NotFnd	1.02	*	668	1400	6.33		
PCB-126	*	*	n	NotFnd	1.10	*	668	1400	8.87		
13C-PCB-126	3.51e+07	1.66	y	41:54	0.92	11000				110	
PCB-151	*	*	n	NotFnd	0.81	*	1320	1010	10.2		
PCB-135	*	*	n	NotFnd	0.83	*	1320	1010	10.0		
PCB-144	*	*	n	NotFnd	0.87	*	1320	1010	9.59		
PCB-147	*	*	n	NotFnd	0.89	*	1320	1010	9.39		
PCB-139	*	*	n	NotFnd	0.89	*	1320	1010	9.35	Co-elute PCB 149	
PCB-149	*	*	n	NotFnd	0.89	*	1320	1010	9.35	Co-elute PCB 139	
PCB-140	*	*	n	NotFnd	0.88	*	1320	1010	9.46		
PCB-143	*	*	n	NotFnd	0.83	*	1320	1010	10.1	Co-elute PCB 134	
PCB-134	*	*	n	NotFnd	0.83	*	1320	1010	10.1	Co-elute PCB 143	
PCB-131	*	*	n	NotFnd	0.83	*	1320	1010	10.0	Co-elute PCB 133	
PCB-133	*	*	n	NotFnd	0.83	*	1320	1010	10.0	Co-elute PCB 131	
PCB-142	*	*	n	NotFnd	0.78	*	1320	1010	10.7		
PCB-165	*	*	n	NotFnd	0.98	*	1320	1010	8.50	Co-elute PCB 146	
PCB-146	*	*	n	NotFnd	0.98	*	1320	1010	8.50	Co-elute PCB 165	
PCB-161	*	*	n	NotFnd	0.94	*	1320	1010	8.83	Co-elute PCB 132	
PCB-132	*	*	n	NotFnd	0.94	*	1320	1010	8.83	Co-elute PCB 161	
PCB-153	*	*	n	NotFnd	0.98	*	1320	1010	8.50		
PCB-168	*	*	n	NotFnd	1.05	*	1320	1010	7.90		
PCB-141	*	*	n	NotFnd	0.83	*	1320	1010	10.0		
PCB-137	*	*	n	NotFnd	0.79	*	1320	1010	10.5		
PCB-130	*	*	n	NotFnd	0.72	*	1320	1010	11.5		
PCB-138	*	*	n	NotFnd	1.07	*	1320	1010	7.75	Co-elute PCB 163/164	
PCB-163	*	*	n	NotFnd	1.07	*	1320	1010	7.75	Co-elute PCB 138/164	
PCB-164	*	*	n	NotFnd	1.07	*	1320	1010	7.75	Co-elute PCB 138/163	
PCB-158	*	*	n	NotFnd	1.09	*	1320	1010	7.65	Co-elute PCB 160	
PCB-160	*	*	n	NotFnd	1.09	*	1320	1010	7.65	Co-elute PCB 158	
PCB-129	*	*	n	NotFnd	0.71	*	1320	1010	11.7		
PCB-166	*	*	n	NotFnd	1.06	*	1320	1010	7.86		
PCB-159	*	*	n	NotFnd	1.13	*	1320	1010	7.35		
PCB-128	*	*	n	NotFnd	0.91	*	1320	1010	9.12	Co-elute PCB 162	
PCB-162	*	*	n	NotFnd	0.91	*	1320	1010	9.12	Co-elute PCB 128	
PCB-167	*	*	n	NotFnd	1.00	*	1320	1010	7.73		
13C-PCB-167	3.53e+07	1.26	y	43:13	1.11	9180				91.8	
PCB-156	*	*	n	NotFnd	1.05	*	1320	1010	8.41		
13C-PCB-156	3.23e+07	1.25	y	44:27	1.05	8910				89.1	
PCB-157	*	*	n	NotFnd	0.94	*	1320	1010	8.54		
13C-PCB-157	3.80e+07	1.34	y	44:42	1.11	9920				99.2	
PCB-169	*	*	n	NotFnd	0.99	*	1320	1010	8.91		
13C-PCB-169	3.34e+07	1.27	y	46:37	1.01	9540				95.4	

FAL ID: 09987-003-0001-SA Filename: 13JUL16Z Sam:11 Acquired: 13-JUL-16 20:16:28 ICal: DAILY209FAL4-7-13-16
Client ID: LDW-CS-3-S00.2-KPDMS ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 9987-06 GC Column: DB1 Amount: 1.000

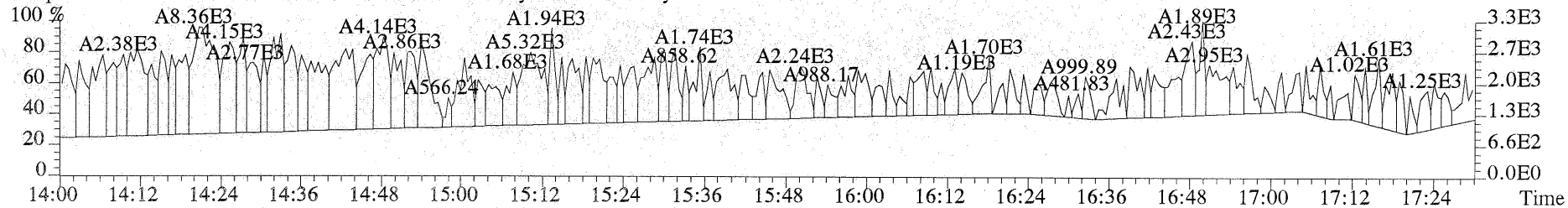
PCB-188	*	*	n	NotFnd	1.17	*	874	1290	7.02	
13C-PCB-188	2.97e+07	1.07	y	39:29	1.14	7500				75.0
PCB-184	*	*	n	NotFnd	1.28	*	874	1290	6.02	
PCB-179	*	*	n	NotFnd	1.27	*	874	1290	6.06	
PCB-176	*	*	n	NotFnd	1.21	*	874	1290	6.34	
PCB-186	*	*	n	NotFnd	1.16	*	874	1290	6.66	
PCB-178	*	*	n	NotFnd	0.86	*	874	1290	8.99	
PCB-175	*	*	n	NotFnd	0.89	*	874	1290	8.60	
PCB-187	*	*	n	NotFnd	0.93	*	874	1290	8.23	Co-elute PCB 182
PCB-182	*	*	n	NotFnd	0.93	*	874	1290	8.23	Co-elute PCB 187
PCB-183	*	*	n	NotFnd	0.96	*	874	1290	7.99	
PCB-185	*	*	n	NotFnd	0.85	*	874	1290	9.08	
PCB-174	*	*	n	NotFnd	0.83	*	874	1290	9.24	
PCB-181	*	*	n	NotFnd	0.86	*	874	1290	8.97	
PCB-177	*	*	n	NotFnd	0.80	*	874	1290	9.64	
PCB-171	*	*	n	NotFnd	0.84	*	874	1290	9.16	
PCB-173	*	*	n	NotFnd	0.75	*	874	1290	10.3	
PCB-172	*	*	n	NotFnd	0.80	*	874	1290	9.67	
PCB-192	*	*	n	NotFnd	1.02	*	874	1290	7.54	
PCB-180	*	*	n	NotFnd	0.96	*	874	1290	8.01	
PCB-193	*	*	n	NotFnd	1.11	*	874	1290	6.91	
PCB-191	*	*	n	NotFnd	1.09	*	874	1290	7.08	
PCB-170	*	*	n	NotFnd	0.74	*	874	1290	10.4	
PCB-190	*	*	n	NotFnd	1.06	*	874	1290	7.24	
PCB-189	*	*	n	NotFnd	1.14	*	874	1290	6.23	
13C-PCB-189	2.51e+07	1.06	y	48:16	0.90	8080				80.8
PCB-202	*	*	n	NotFnd	1.07	*	400	560	4.73	
PCB-201	*	*	n	NotFnd	1.10	*	400	560	4.63	
PCB-204	*	*	n	NotFnd	1.14	*	400	560	4.45	
PCB-197	*	*	n	NotFnd	1.08	*	400	560	4.69	
PCB-200	*	*	n	NotFnd	1.09	*	400	560	4.66	
PCB-198	*	*	n	NotFnd	0.77	*	400	560	6.63	
PCB-199	*	*	n	NotFnd	0.72	*	400	560	7.00	
PCB-203	*	*	n	NotFnd	0.81	*	400	560	6.24	Co-elute PCB 196
PCB-196	*	*	n	NotFnd	0.81	*	400	560	6.24	Co-elute PCB 203
13C-PCB-202	1.96e+07	0.91	y	44:35	0.76	7460				74.6
13C-PCB-178	1.98e+07	1.06	y	42:07	0.75	7650				76.5
13C-PCB-138	3.47e+07	1.27	y	41:21	-	124				
PCB-195	*	*	n	NotFnd	0.66	*	643	1090	5.29	
PCB-194	*	*	n	NotFnd	0.79	*	643	1090	4.42	
PCB-205	*	*	n	NotFnd	1.10	*	643	1090	3.19	
13C-PCB-205	3.54e+07	0.90	y	49:55	1.34	8300				83.0
PCB-208	*	*	n	NotFnd	0.97	*	750	671	3.06	
13C-PCB-208	3.45e+07	0.79	y	48:58	1.51	7160				71.6
PCB-207	*	*	n	NotFnd	1.08	*	750	671	3.27	
PCB-206	*	*	n	NotFnd	1.01	*	750	671	4.28	
13C-PCB-206	2.43e+07	0.81	y	51:05	1.15	6640				66.4
PCB-209	*	*	n	NotFnd	1.11	*	636	653	3.54	
13C-PCB-209	2.86e+07	1.20	y	52:15	1.72	5230				52.3
13C-PCB-194	3.19e+07	0.93	y	49:39	-	184				

Analyst: _____ Date: 7/15/16

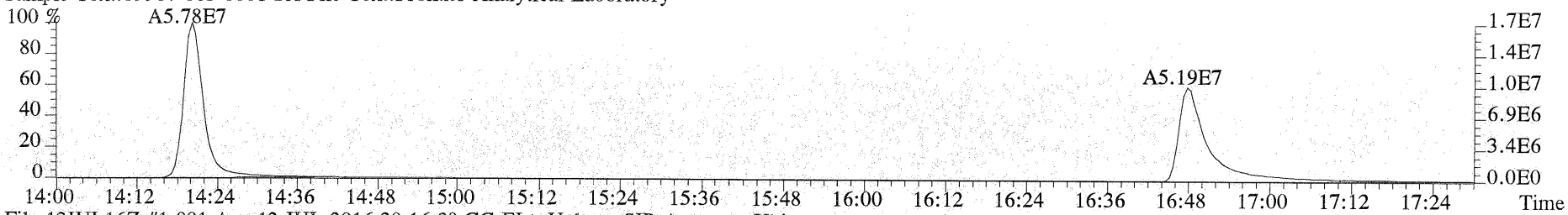
File:13JUL16Z #1-901 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:11 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



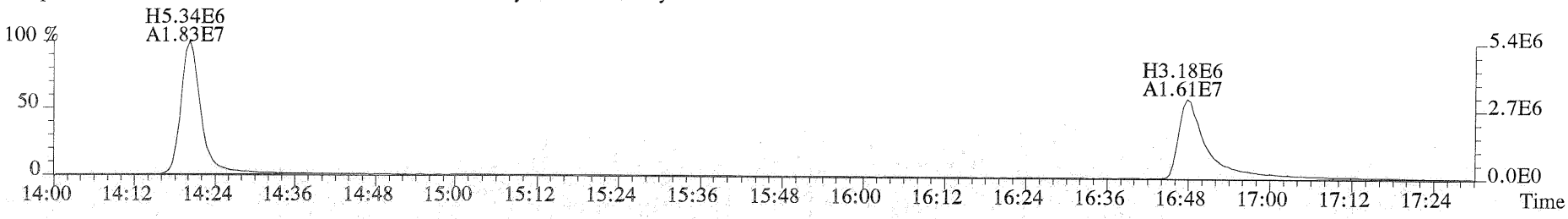
File:13JUL16Z #1-901 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:11 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



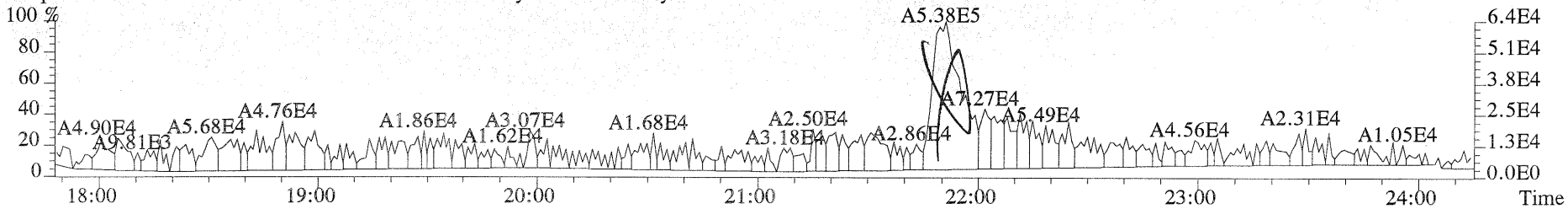
File:13JUL16Z #1-901 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:11 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



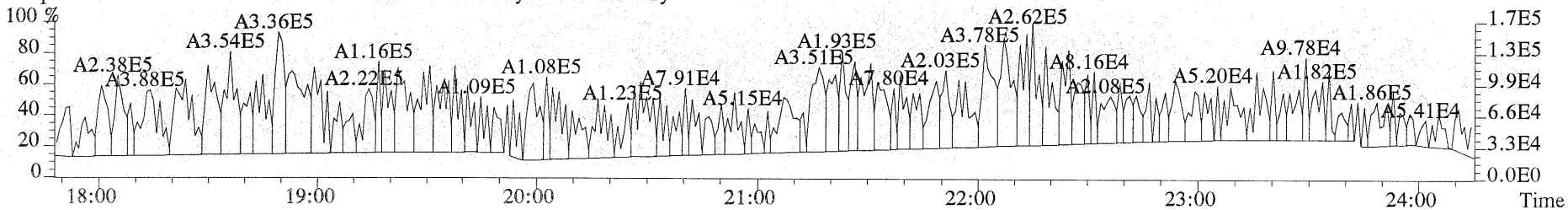
File:13JUL16Z #1-901 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:11 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



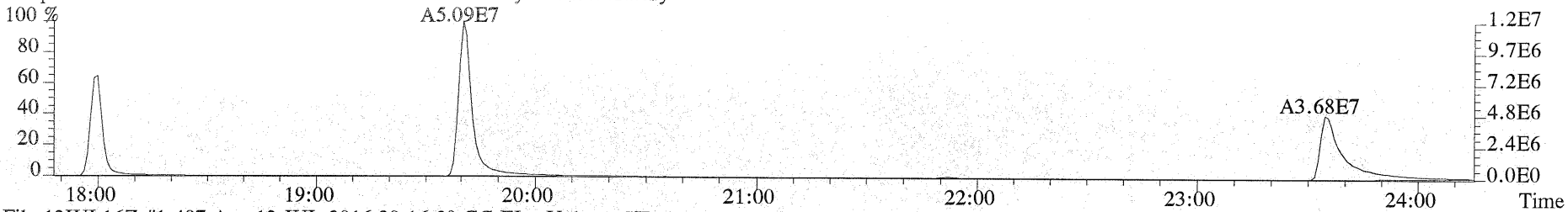
File:13JUL16Z #1-497 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:11 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



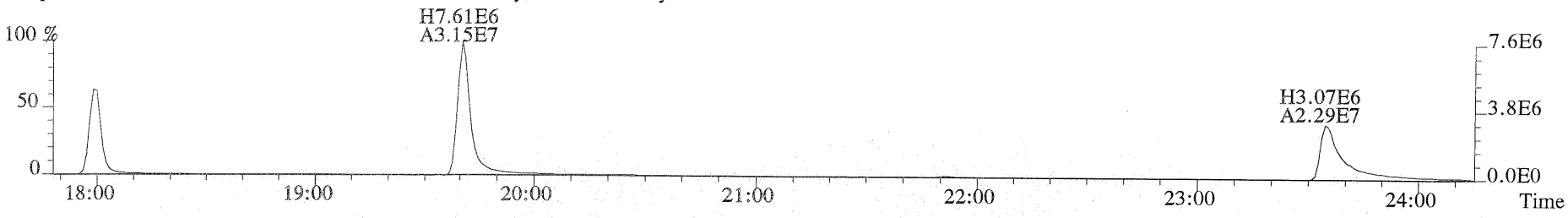
File:13JUL16Z #1-497 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:11 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



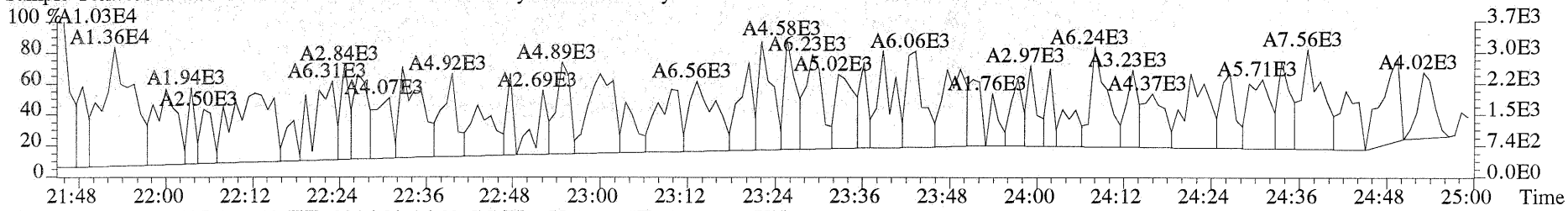
File:13JUL16Z #1-497 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:11 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



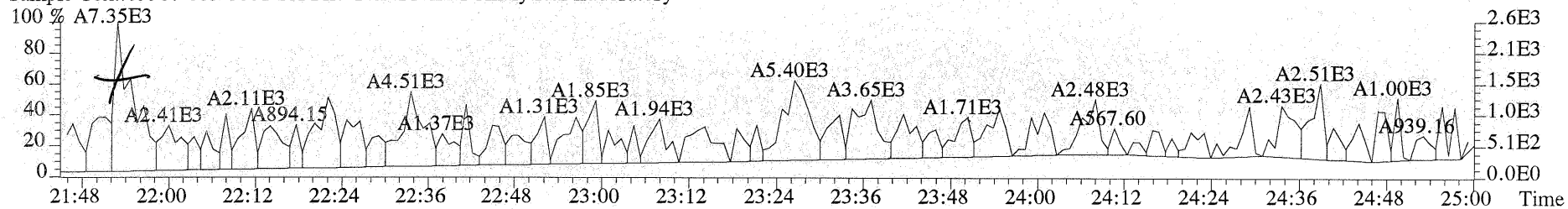
File:13JUL16Z #1-497 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:11 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



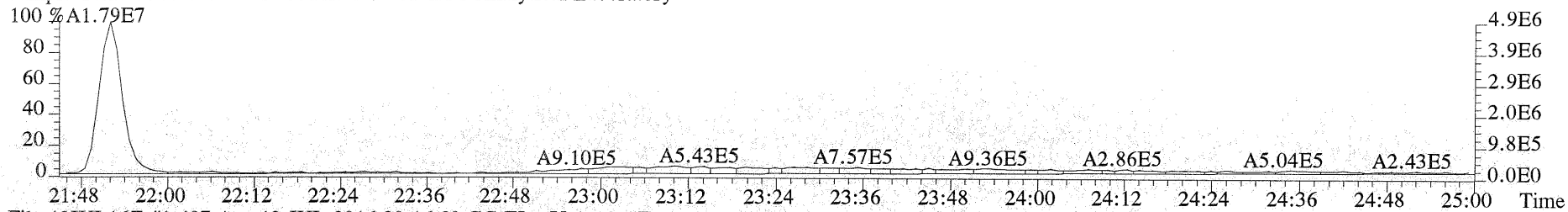
File:13JUL16Z #1-497 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:11 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



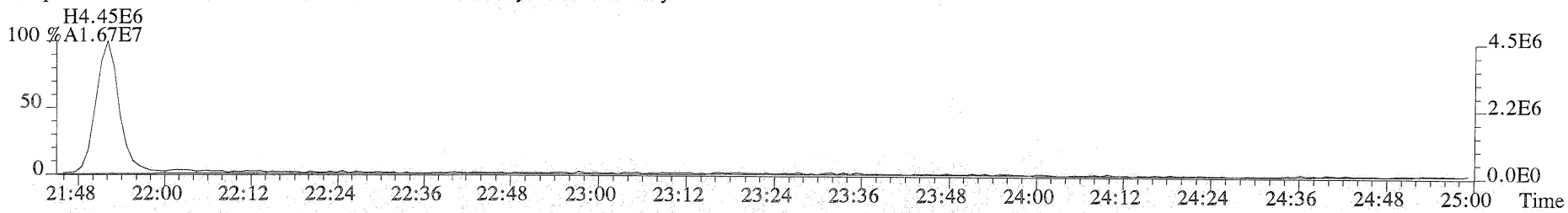
File:13JUL16Z #1-497 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:11 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



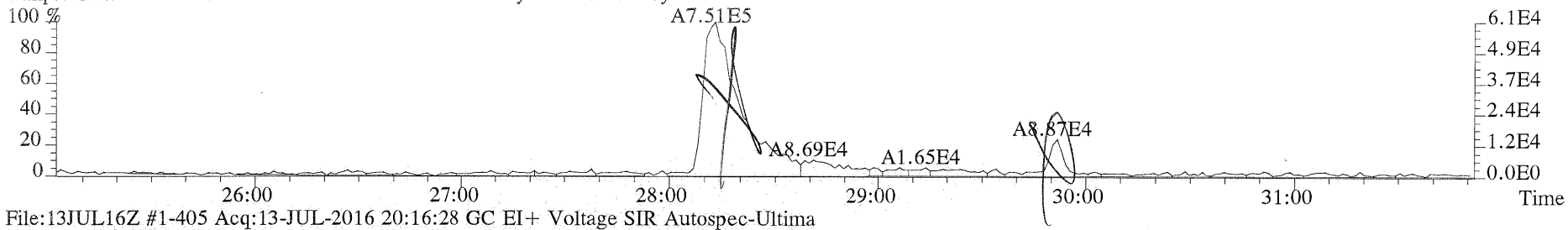
File:13JUL16Z #1-497 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:11 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



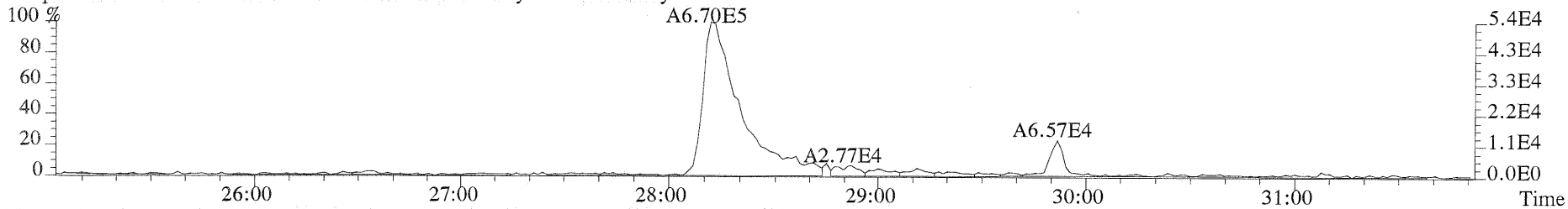
File:13JUL16Z #1-497 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:11 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



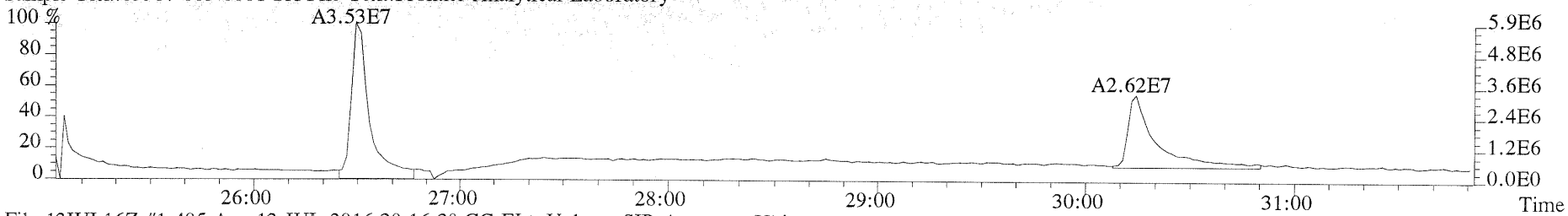
File:13JUL16Z #1-405 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



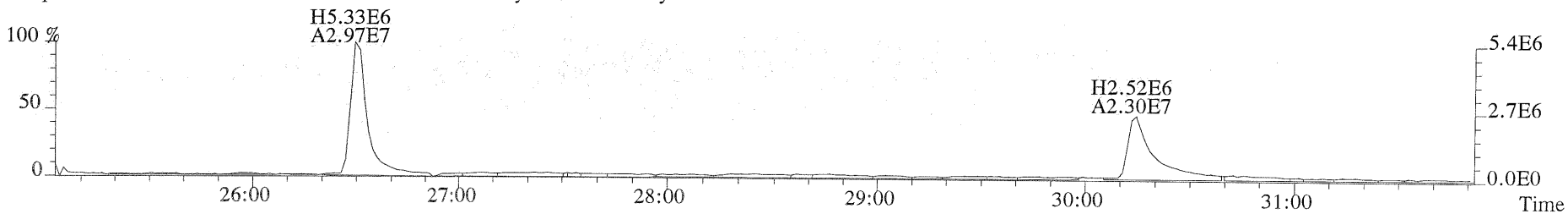
File:13JUL16Z #1-405 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



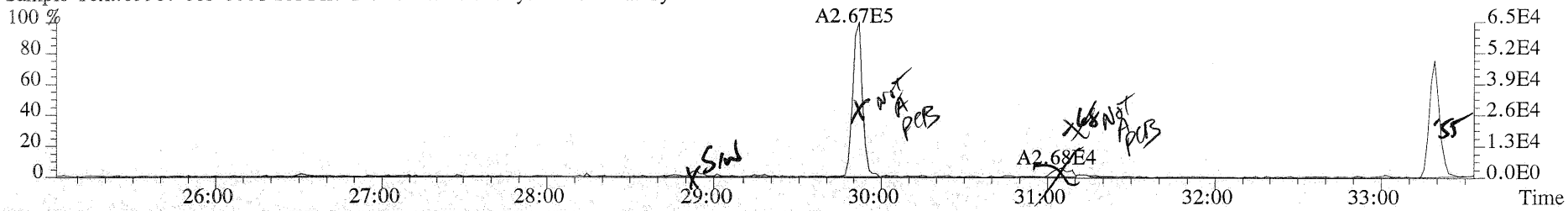
File:13JUL16Z #1-405 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



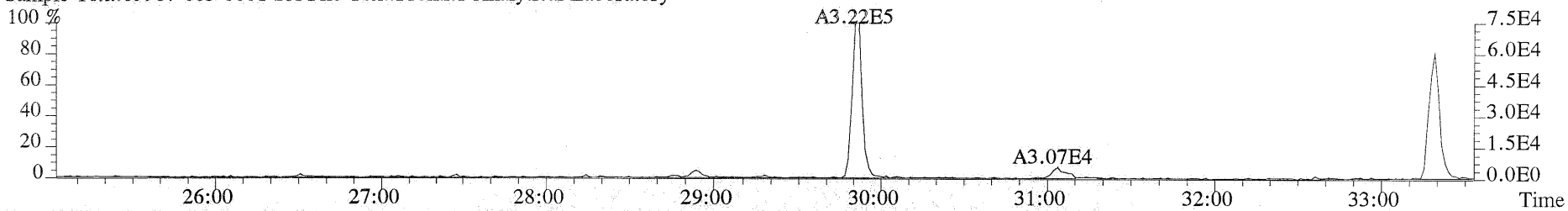
File:13JUL16Z #1-405 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



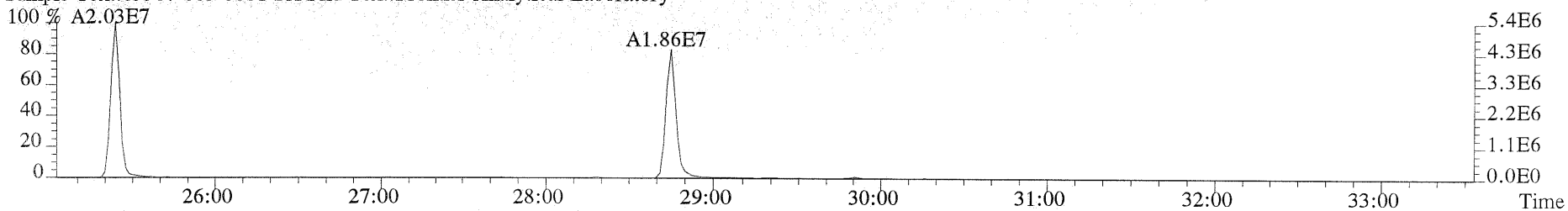
File:13JUL16Z #1-405 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:11 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



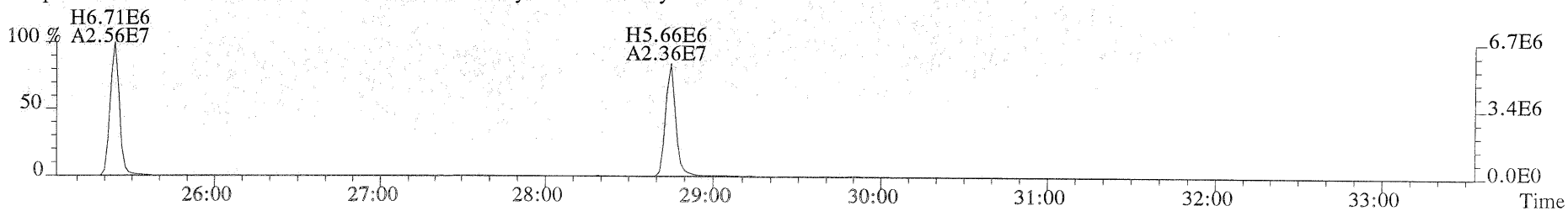
File:13JUL16Z #1-405 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:11 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



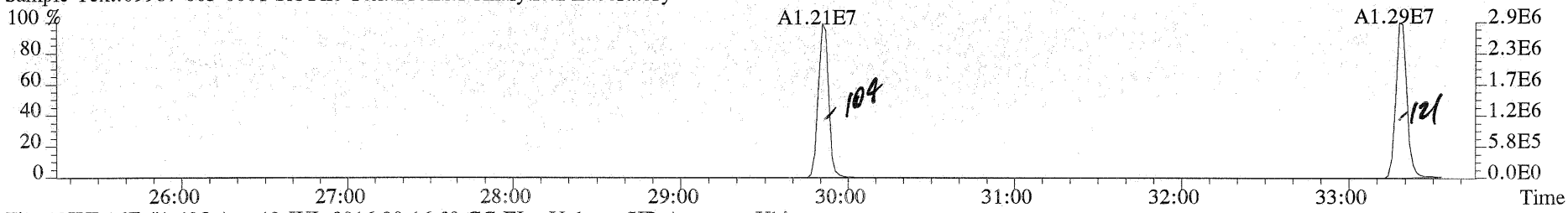
File:13JUL16Z #1-405 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:11 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



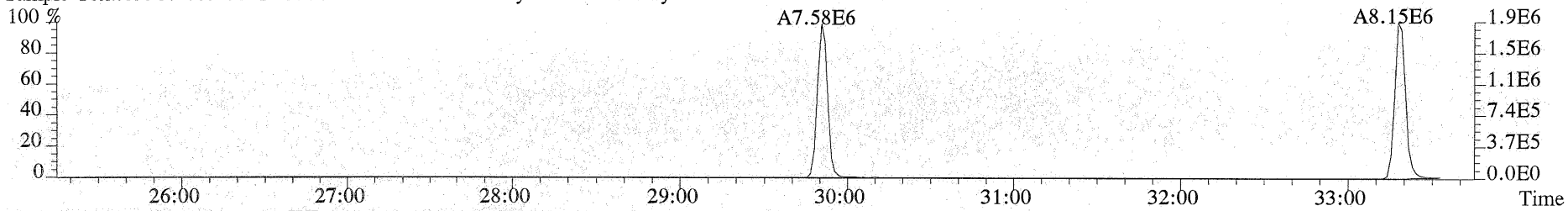
File:13JUL16Z #1-405 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:11 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



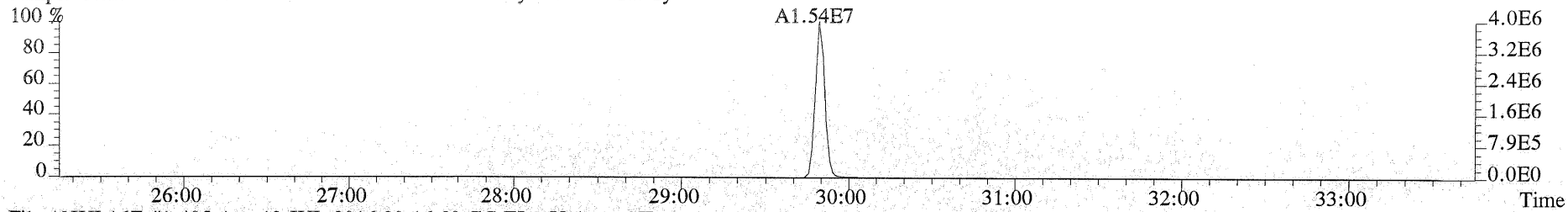
File:13JUL16Z #1-405 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:11 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



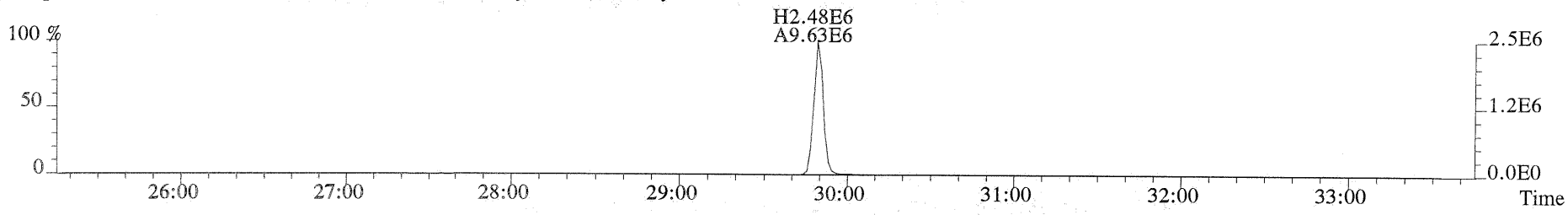
File:13JUL16Z #1-405 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:11 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



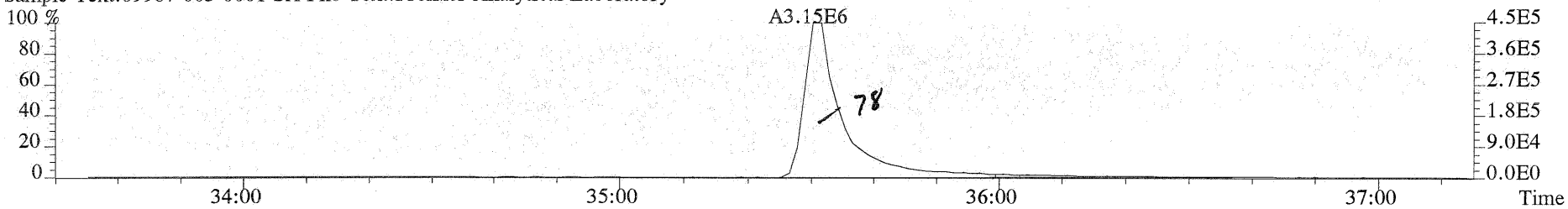
File:13JUL16Z #1-405 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:11 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



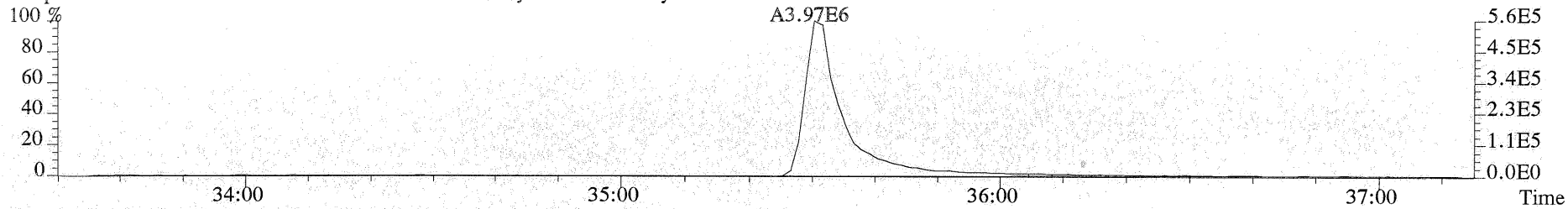
File:13JUL16Z #1-405 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:11 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-180 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:11 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory

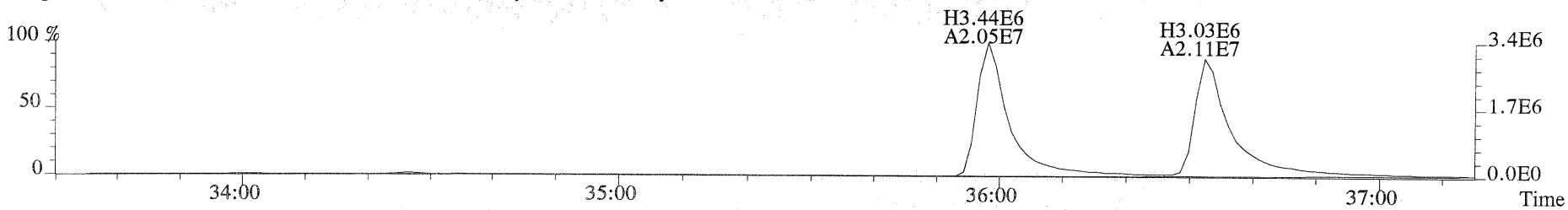


File:13JUL16Z #1-180 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:11 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory

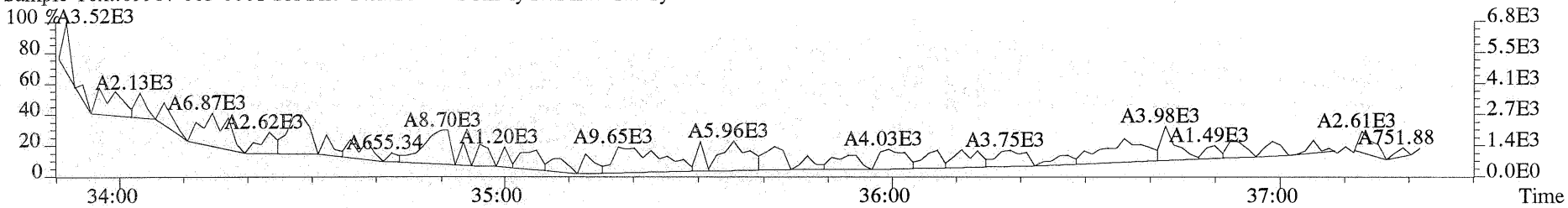


File:13JUL16Z #1-180 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:11 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory

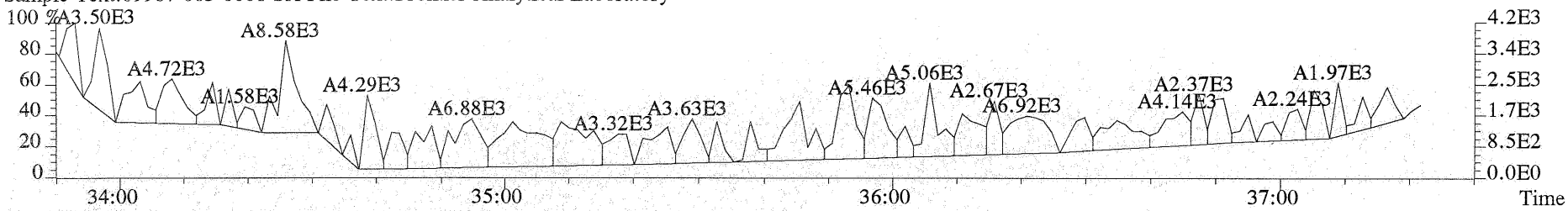
File:13JUL16Z #1-180 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:11 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



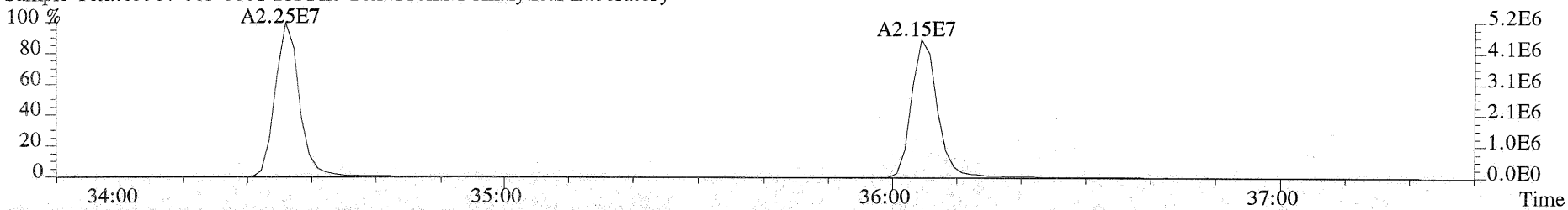
File:13JUL16Z #1-180 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:11 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



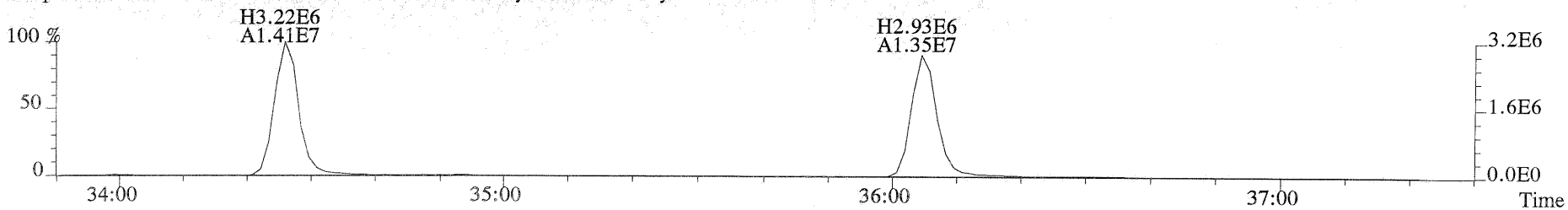
File:13JUL16Z #1-180 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:11 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



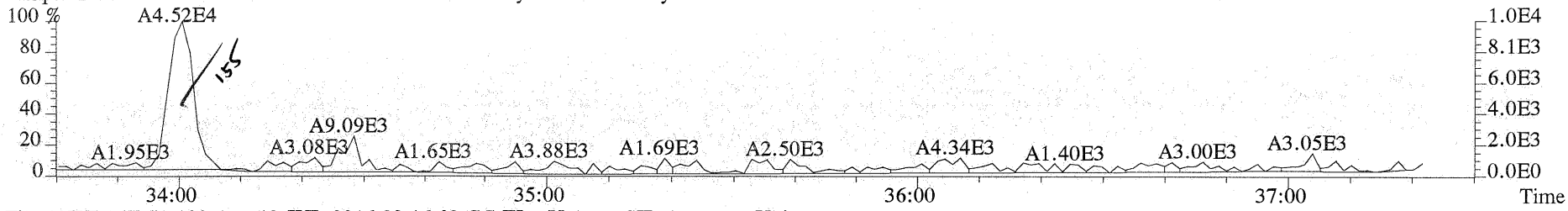
File:13JUL16Z #1-180 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:11 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



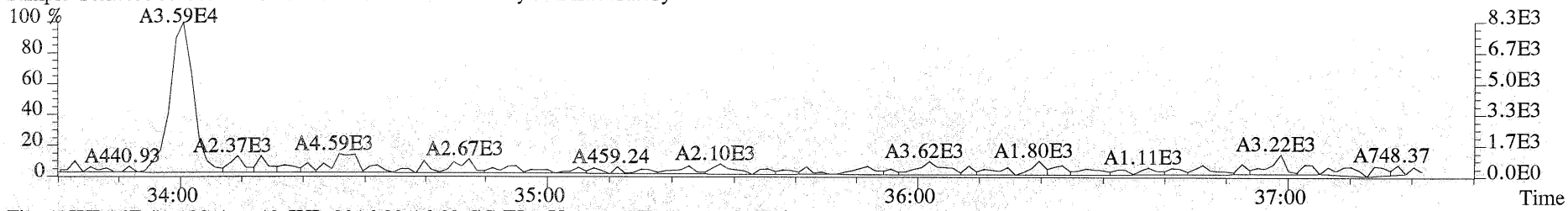
File:13JUL16Z #1-180 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:11 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



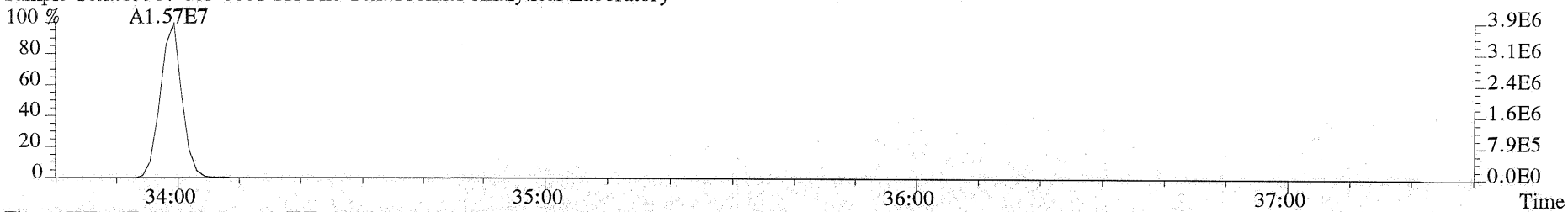
File:13JUL16Z #1-180 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:11 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



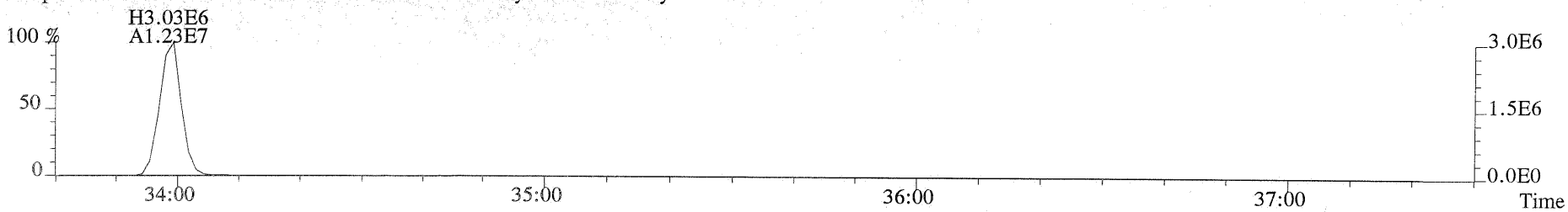
File:13JUL16Z #1-180 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:11 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



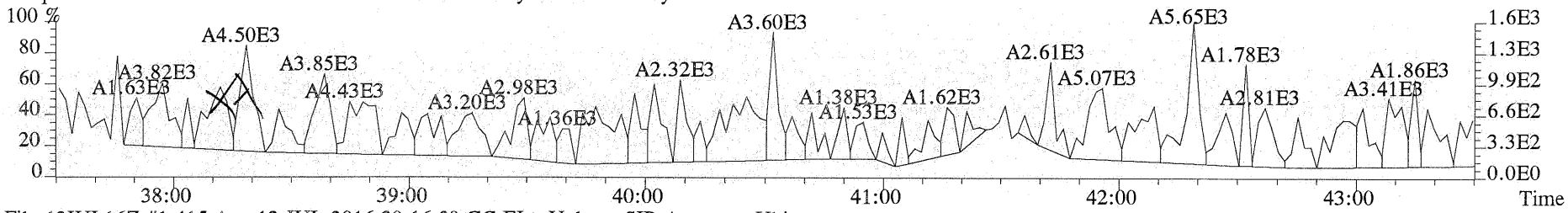
File:13JUL16Z #1-180 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:11 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



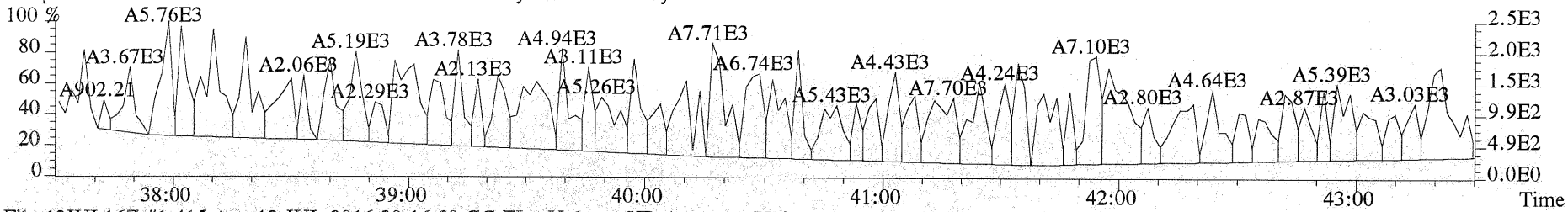
File:13JUL16Z #1-180 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:11 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



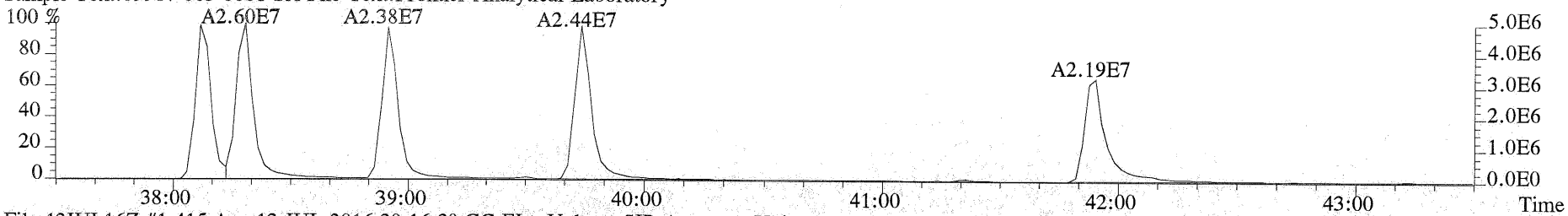
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



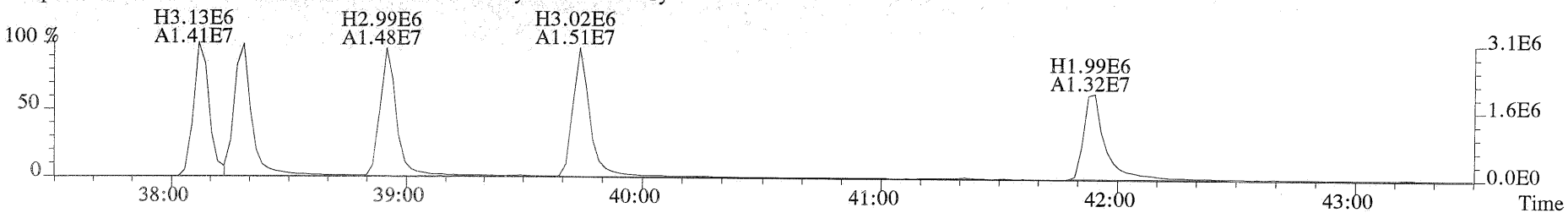
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



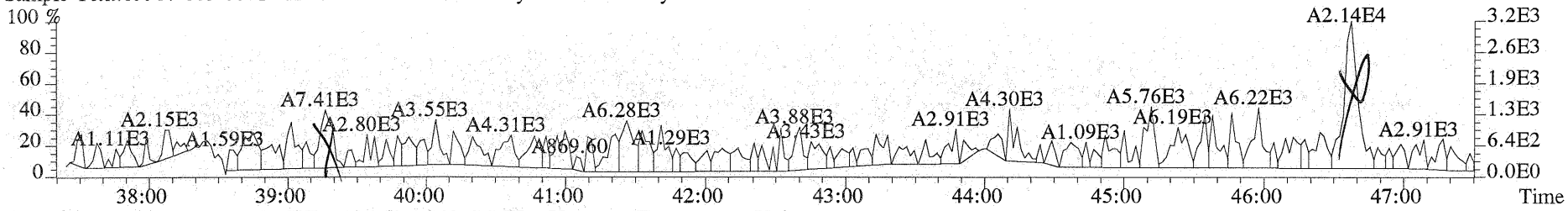
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



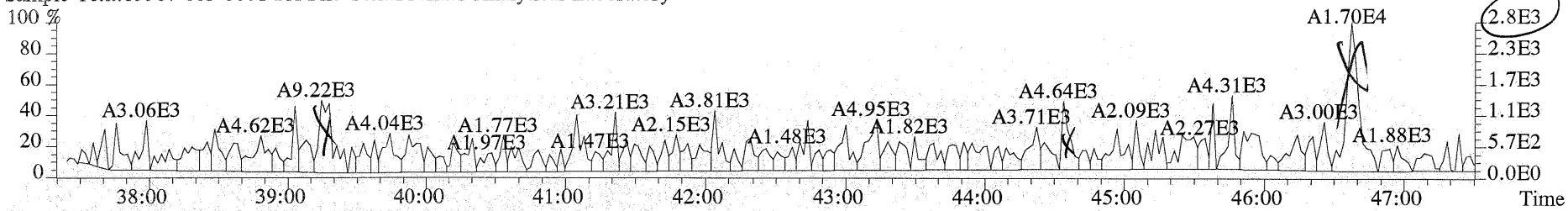
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



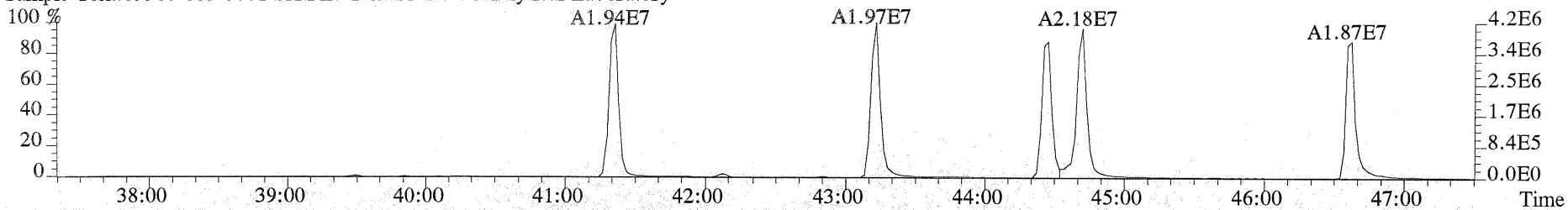
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



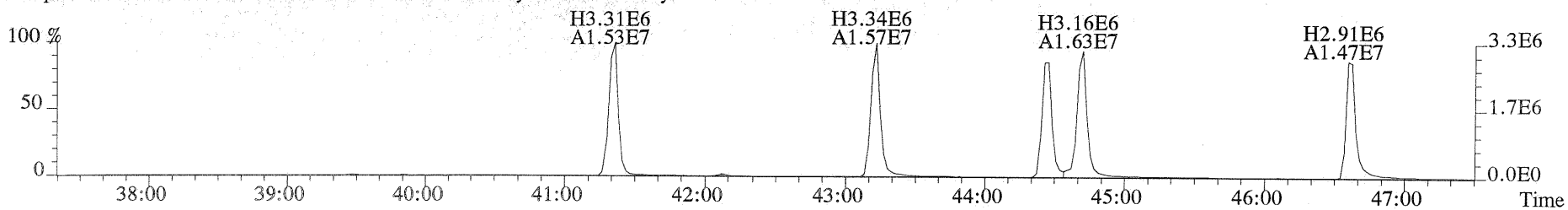
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



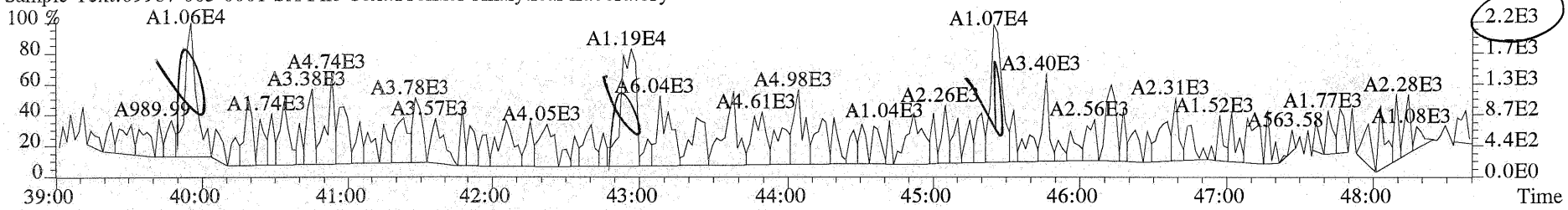
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



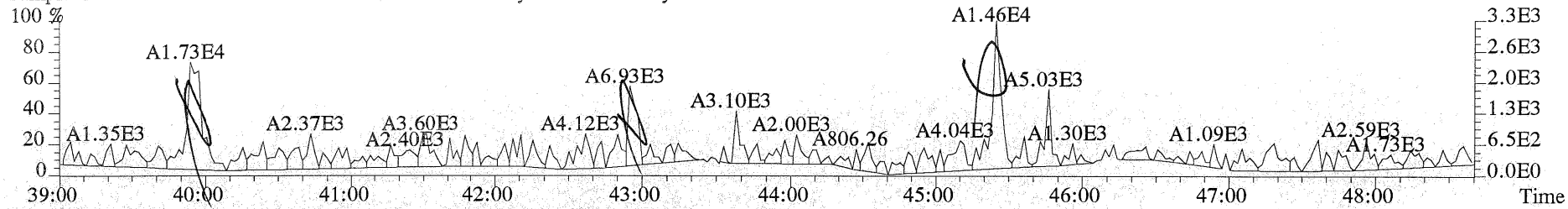
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



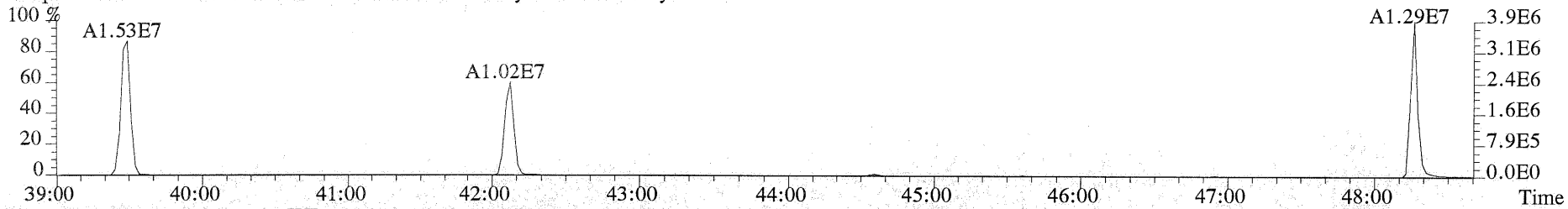
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
393.8025 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



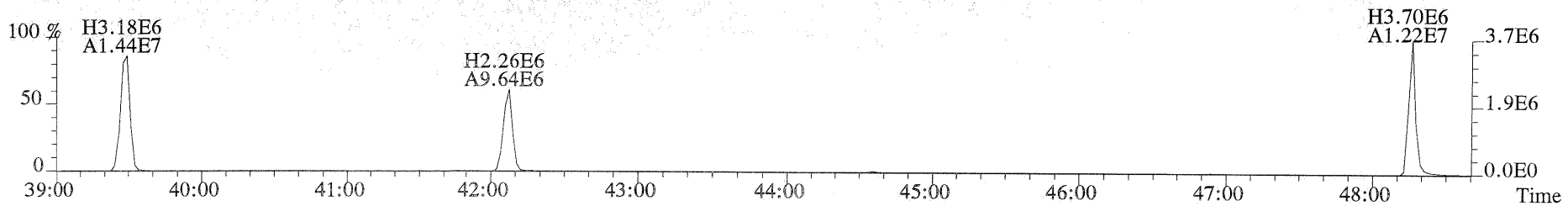
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



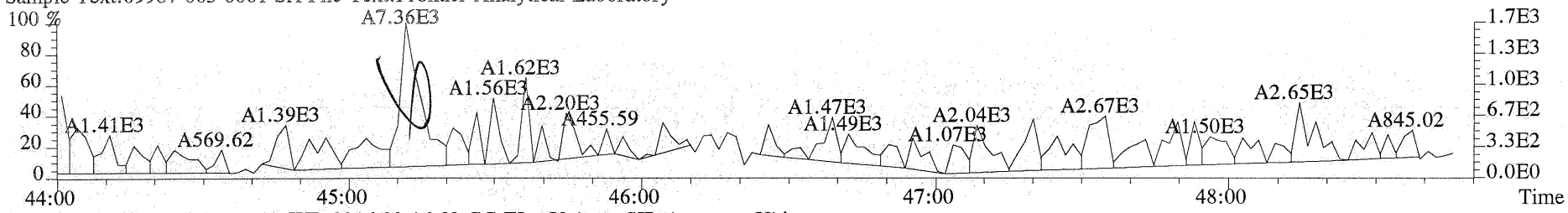
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
405.8428 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



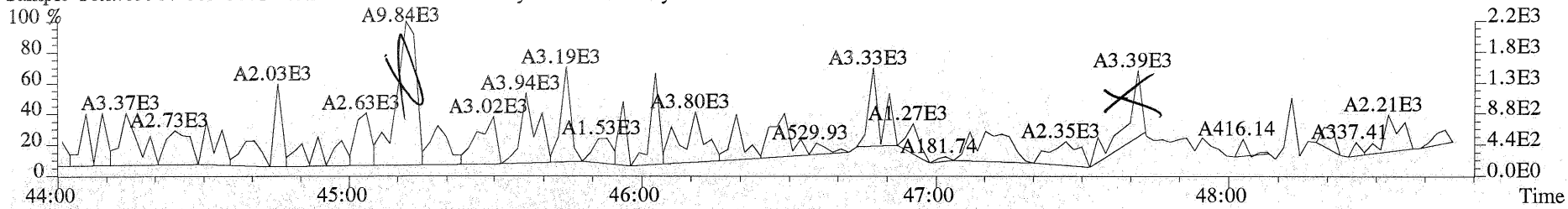
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
407.8398 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



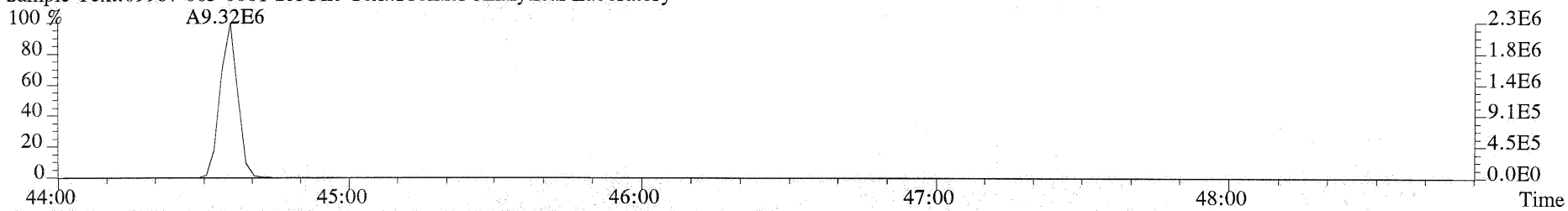
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



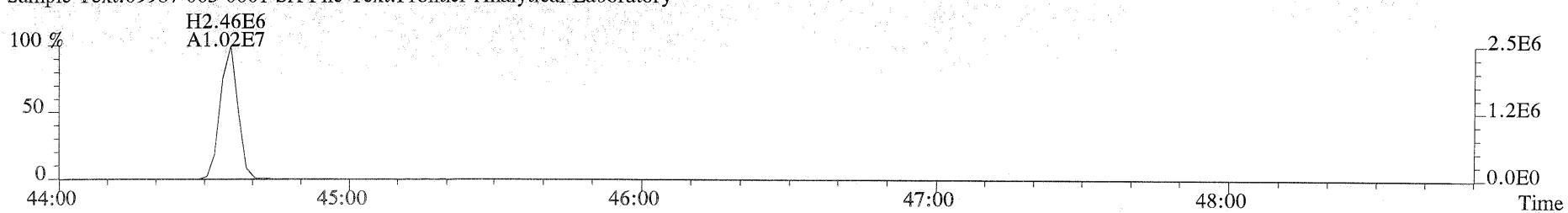
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



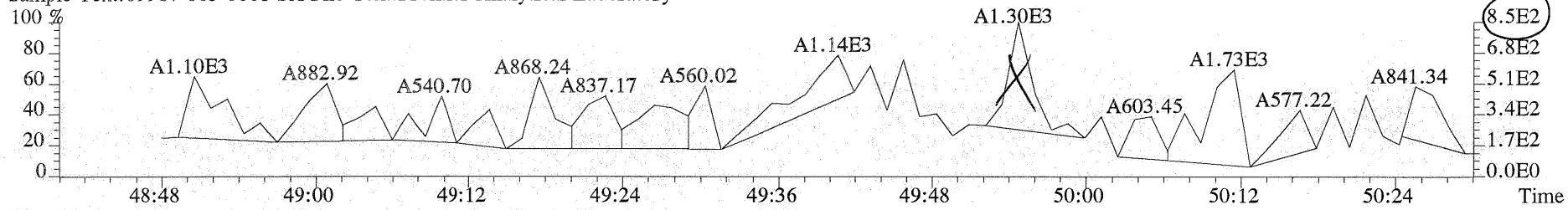
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



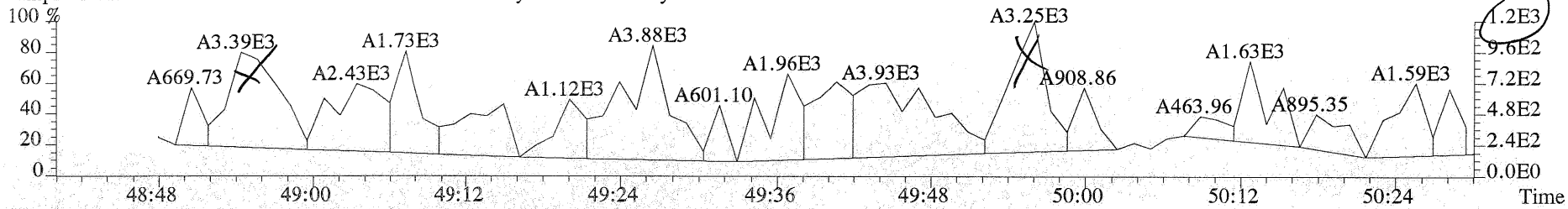
File:13JUL16Z #1-415 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:11 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



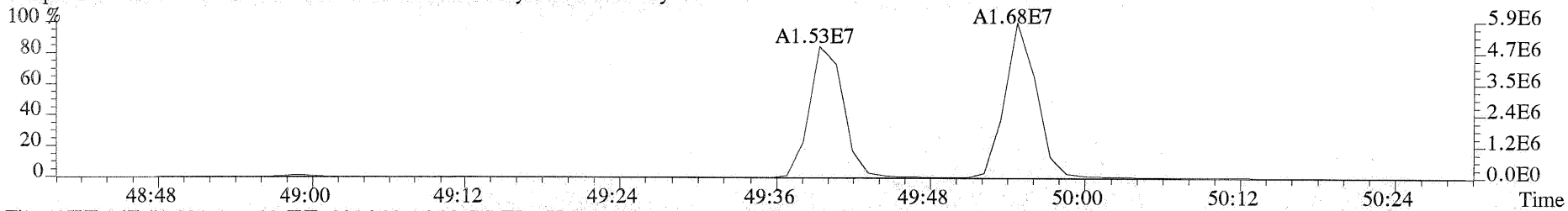
File:13JUL16Z #1-221 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:11 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:11 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:11 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



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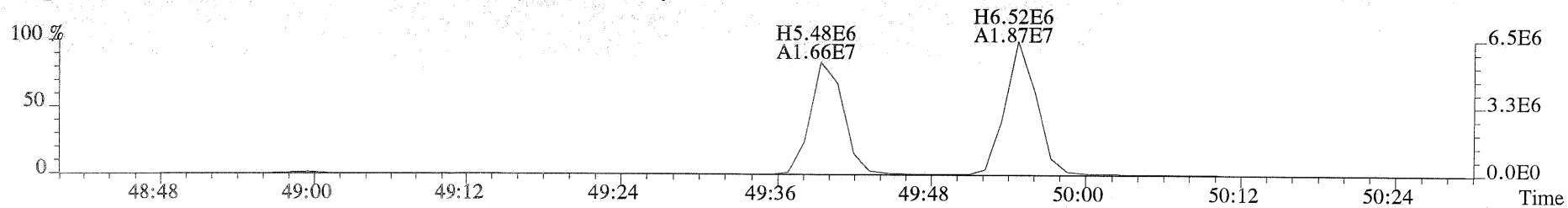
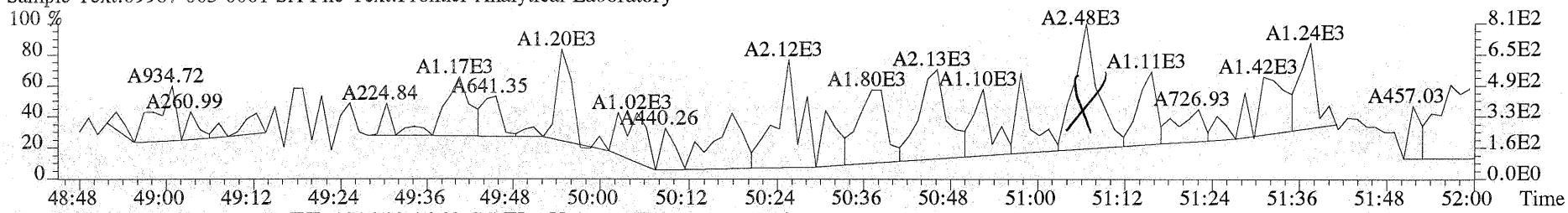
441.8008 S:11 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:11 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



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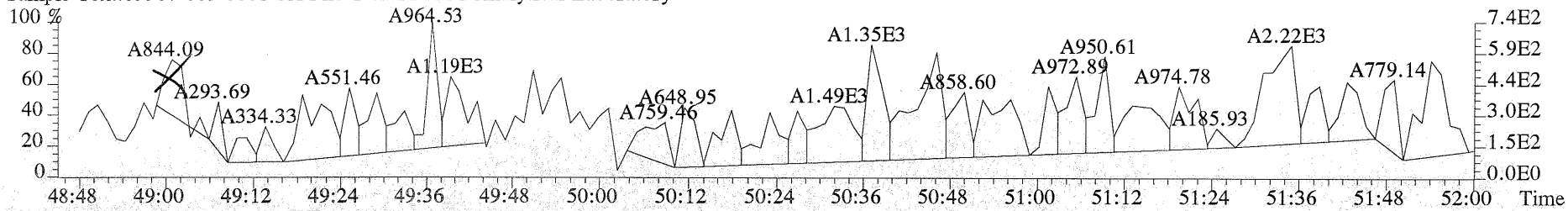
465.7187 S:11 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



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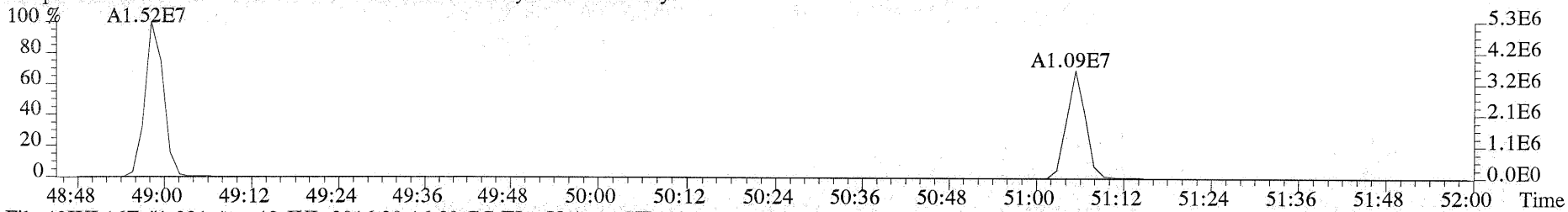
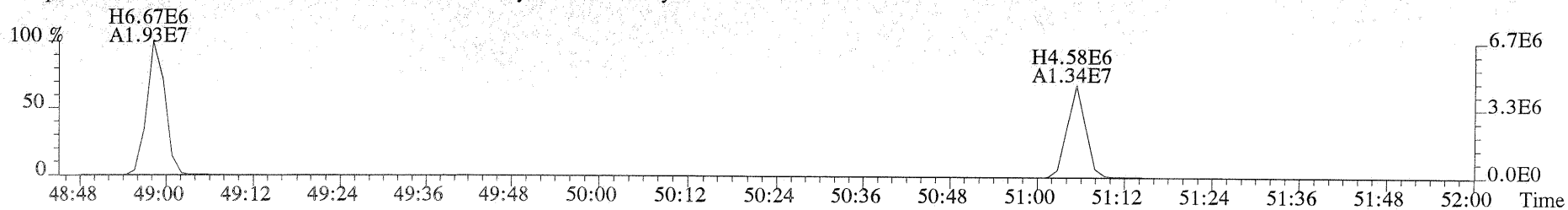
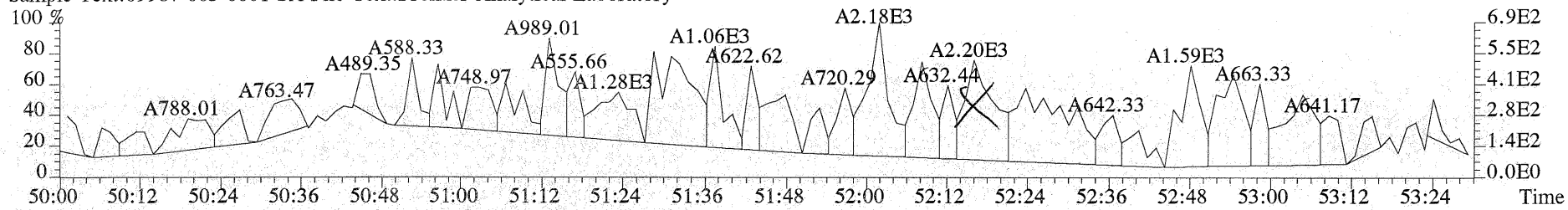
473.7648 S:11 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



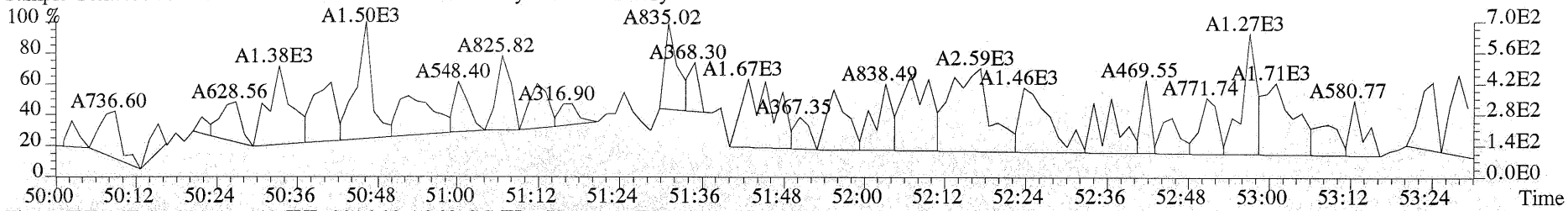
File:13JUL16Z #1-221 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
475.7619 S:11 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



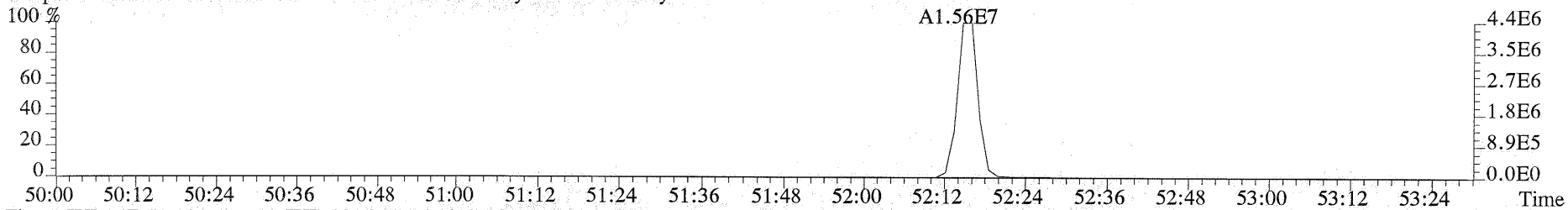
File:13JUL16Z #1-221 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:11 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



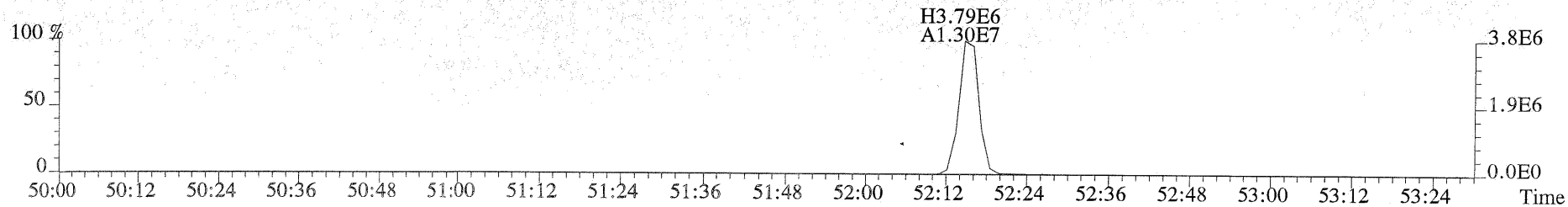
File:13JUL16Z #1-221 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:11 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:11 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 20:16:28 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:11 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-003-0001-SA File Text:Frontier Analytical Laboratory



FAL ID: 09987-004-0001-SA Filename: 13JUL16Z Sam:12 Acquired: 13-JUL-16 21:16:24 ICal: DAILY209FAL4-7-13-16
Client ID: LDW-CS-C6-S010-PW-SED ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 9987-06 GC Column: DB1 Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Noise-1	Noise-2	DL	Rec
PCB-1	3.15e+06	3.07 y	14:22	1.05	440		-	-	*	
13C-PCB-1	6.80e+07	3.23 y	14:21	1.06	8660					86.6
PCB-2	4.15e+05	2.99 y	16:39	0.92	72.0		-	-	*	
PCB-3	6.94e+05	3.63 n	16:50	1.13	108		-	-	*	
13C-PCB-3	5.68e+07	3.27 y	16:49	1.03	7420					74.2
PCB-4	1.77e+07	1.45 y	18:03	1.19	3420		-	-	*	
PCB-10	1.77e+07	1.45 y	18:03	1.33	2540		-	-	*	
13C-PCB-4	4.33e+07	1.58 y	18:01	0.60	9670					96.7
PCB-9	1.86e+06	1.34 y	19:45	1.15	310		-	-	*	
PCB-7	3.21e+06	1.48 y	19:46	1.60	385		-	-	*	
PCB-6	9.20e+07	1.54 y	20:21	1.45	12200		-	-	*	
PCB-8	5.83e+07	1.54 y	20:43	1.27	8780		-	-	*	
PCB-5	4.03e+07	1.70 y	20:44	1.51	5100		-	-	*	
PCB-14	4.82e+06	1.37 y	21:48	1.19	776		-	-	*	
PCB-11	2.07e+06	1.73 y	22:59	1.19	333		-	-	*	
PCB-13	1.62e+07	1.48 y	23:27	1.00	3100		-	-	*	
PCB-12	9.57e+06	1.42 y	23:28	1.40	1310		-	-	*	
PCB-15	1.61e+07	1.62 y	23:37	1.34	1970		-	-	*	
13C-PCB-15	6.10e+07	1.63 y	23:35	0.85	9620					96.2
PCB-19	1.01e+08	1.05 y	21:54	1.14	27400		-	-	*	
PCB-30	9.79e+04	1.19 y	22:47	1.69	18.0	J	-	-	*	
PCB-18	3.44e+08	1.05 y	23:27	1.07	99500		-	-	*	
PCB-17	1.83e+08	1.05 y	23:37	1.22	46600		-	-	*	
PCB-27	5.96e+07	1.06 y	24:08	1.59	11600		-	-	*	
PCB-24	7.85e+07	1.05 y	24:09	1.59	15200		-	-	*	
PCB-16	1.17e+08	1.00 y	24:39	1.06	34100		-	-	*	
PCB-32	1.53e+08	1.10 y	24:40	1.69	28000		-	-	*	
13C-PCB-19	3.23e+07	1.11 y	21:53	0.59	7410					74.1
13C-PCB-9	7.42e+07	1.62 y	19:41	-	128					
PCB-34	4.08e+06	1.10 y	25:26	1.13	770		-	-	*	
PCB-23	5.48e+05	0.95 y	25:28	1.24	94.4		-	-	*	
PCB-29	2.32e+05	1.00 y	25:45	1.24	39.9		-	-	*	
PCB-26	1.97e+08	1.08 y	25:56	1.22	34400		-	-	*	
PCB-25	1.38e+08	1.09 y	26:05	1.45	20300		-	-	*	
PCB-31	3.35e+08	1.07 y	26:25	1.02	69600		-	-	*	
PCB-28	4.61e+08	1.09 y	26:31	1.61	61000		-	-	*	
PCB-20	1.04e+08	1.07 y	27:07	1.22	18200		-	-	*	Co-elute PCB 21/33
PCB-21	1.04e+08	1.07 y	27:07	1.22	18200		-	-	*	Co-elute PCB 20/33
PCB-33	1.04e+08	1.07 y	27:07	1.22	18200		-	-	*	Co-elute PCB 20/21
PCB-22	3.05e+07	1.08 y	27:32	1.23	5250		-	-	*	
PCB-36	7.28e+06	1.08 y	28:10	1.11	1400		-	-	*	
PCB-39	*	* n	NotFnd	1.04	*		1670	1700	10.8	
PCB-38	3.75e+06	1.05 y	29:22	1.21	662		-	-	*	
PCB-35	8.65e+05	1.08 y	29:52	0.99	186		-	-	*	
PCB-37	2.44e+07	1.13 y	30:14	1.22	4270		-	-	*	
13C-PCB-37	4.70e+07	1.08 y	30:13	1.04	11700					117

PCB-54	1.07e+07	0.74	y	25:26	1.06	2380	-	-	*	
PCB-50	1.58e+06	0.81	y	26:33	0.84	446	-	-	*	
PCB-53	1.44e+08	0.78	y	27:08	0.75	45000	-	-	*	
PCB-51	5.22e+07	0.79	y	27:28	0.80	15400	-	-	*	
PCB-45	2.12e+07	0.77	y	27:52	0.73	6900	-	-	*	
PCB-46	1.23e+07	0.77	y	28:20	0.69	4220	-	-	*	
PCB-52	3.92e+08	0.78	y	28:47	0.91	101000	-	-	*	Co-elute PCB 69
PCB-69	3.92e+08	0.78	y	28:47	0.91	101000	-	-	*	Co-elute PCB 52
PCB-73	2.71e+07	0.84	y	28:51	1.10	5800	-	-	*	
PCB-43	3.24e+08	0.78	y	29:03	0.80	95400	-	-	*	Co-elute PCB 49
PCB-49	3.24e+08	0.78	y	29:03	0.80	95400	-	-	*	Co-elute PCB 43
PCB-47	1.24e+08	0.83	y	29:16	0.97	30200	-	-	*	
PCB-48	6.74e+07	0.68	y	29:22	0.97	16400	-	-	*	Co-elute PCB 75
PCB-75	6.74e+07	0.68	y	29:22	0.97	16400	-	-	*	Co-elute PCB 48
PCB-65	*	*	n	NotFnd	0.98	*	3580	3610	16.5	
PCB-62	*	*	n	NotFnd	1.02	*	3580	3610	15.9	
PCB-44	1.36e+08	0.79	y	30:00	0.70	46000	-	-	*	
PCB-42	6.59e+07	0.78	y	30:14	0.92	16900	-	-	*	Co-elute PCB 59
PCB-59	6.59e+07	0.78	y	30:14	0.92	16900	-	-	*	Co-elute PCB 42
PCB-72	2.15e+08	0.78	y	30:47	0.99	51200	-	-	*	Co-elute PCB 41/71/64
PCB-41	2.15e+08	0.78	y	30:47	0.99	51200	-	-	*	Co-elute PCB 72/71/64
PCB-71	2.15e+08	0.78	y	30:47	0.99	51200	-	-	*	Co-elute PCB 72/41/64
PCB-64	2.15e+08	0.78	y	30:47	0.99	51200	-	-	*	Co-elute PCB 72/41/71
PCB-68	2.67e+06	0.83	y	31:03	1.05	600	-	-	*	
PCB-40	1.72e+07	0.77	y	31:13	0.62	6590	-	-	*	
PCB-57	1.77e+06	0.74	y	31:36	1.02	409	-	-	*	
PCB-67	7.53e+06	0.79	y	31:53	0.97	1830	-	-	*	
PCB-58	1.18e+06	0.67	y	31:59	0.99	282	-	-	*	
PCB-63	9.45e+06	0.78	y	32:09	1.06	2100	-	-	*	
PCB-74	1.32e+08	0.77	y	32:24	1.04	30000	-	-	*	
PCB-61	2.79e+08	0.78	y	32:36	1.00	65600	-	-	*	Co-elute PCB 70
PCB-70	2.79e+08	0.78	y	32:36	1.00	65600	-	-	*	Co-elute PCB 61
PCB-76	2.97e+08	0.78	y	32:47	1.08	64800	-	-	*	Co-elute PCB 66
PCB-66	2.97e+08	0.78	y	32:47	1.08	64800	-	-	*	Co-elute PCB 76
PCB-80	*	*	n	NotFnd	1.14	*	3580	3610	14.2	
PCB-55	1.65e+06	0.82	y	33:15	1.01	383	-	-	*	
13C-PCB-54	4.24e+07	0.80	y	25:24	1.12	9870				98.7
PCB-104	6.12e+06	1.60	y	29:51	1.22	2200	-	-	*	
PCB-96	1.93e+06	1.52	y	31:03	1.14	745	-	-	*	
PCB-103	1.42e+06	1.61	y	31:34	0.94	666	-	-	*	
PCB-100	1.01e+06	1.60	y	31:54	0.89	503	-	-	*	
PCB-94	1.19e+06	1.52	y	32:20	0.76	691	-	-	*	
PCB-98	*	*	n	NotFnd	0.86	*	824	1190	9.91	Co-elute PCB 102
PCB-102	*	*	n	NotFnd	0.86	*	824	1190	9.91	Co-elute PCB 98
PCB-95	4.60e+07	1.58	y	32:52	0.86	23600	-	-	*	
PCB-93	*	*	n	NotFnd	0.82	*	824	1190	10.4	
PCB-88	1.08e+07	1.58	y	33:15	0.78	6090	-	-	*	Co-elute PCB 91
PCB-91	1.08e+07	1.58	y	33:15	0.78	6090	-	-	*	Co-elute PCB 88
PCB-121	6.55e+06	1.56	y	33:18	1.14	2530	-	-	*	
13C-PCB-104	2.27e+07	1.64	y	29:50	0.76	7780				77.8
13C-PCB-28	5.84e+07	1.10	y	26:29	1.27	11900				119
13C-PCB-52	3.85e+07	0.80	y	28:45	-	102				

PCB-56	1.50e+08	0.81	y	33:46	1.15	30500		-	-	*	Co-elute PCB 60
PCB-60	1.50e+08	0.81	y	33:46	1.15	30500		-	-	*	Co-elute PCB 56
PCB-79	2.00e+06	0.73	y	34:47	1.17	401		-	-	*	
PCB-78	8.88e+06	0.82	y	35:30	1.07	1940		-	-	*	
PCB-81	2.42e+06	0.81	y	35:59	1.16	490		-	-	*	
13C-PCB-81	4.26e+07	0.80	y	35:59	0.97	13000					130
PCB-77	1.37e+07	0.75	y	36:34	1.04	3040		-	-	*	
13C-PCB-77	4.32e+07	0.79	y	36:32	0.99	12900					129
PCB-155	7.92e+06	1.28	y	34:01	1.11	2730		-	-	*	
PCB-150	8.56e+04	1.25	y	35:12	0.96	34.2		-	-	*	
PCB-152	2.55e+05	1.30	y	35:40	0.97	100		-	-	*	
PCB-145	3.16e+04	1.24	y	36:05	0.91	13.3	J	-	-	*	
PCB-136	3.68e+06	1.27	y	36:24	0.96	1460		-	-	*	
PCB-148	5.26e+04	1.25	y	36:30	0.72	27.8		-	-	*	
PCB-154	4.64e+05	1.21	y	36:57	0.83	215		-	-	*	
13C-PCB-155	2.61e+07	1.27	y	34:00	0.99	7810					78.1
13C-PCB-111	3.55e+07	1.62	y	36:05	1.11	9490					94.9
13C-PCB-101	3.38e+07	1.62	y	34:27	-	105					
PCB-84	3.19e+07	1.57	y	34:06	0.93	7910		-	-	*	Co-elute PCB 92
PCB-92	3.19e+07	1.57	y	34:06	0.93	7910		-	-	*	Co-elute PCB 84
PCB-89	2.39e+06	1.51	y	34:16	0.94	585		-	-	*	
PCB-90	8.17e+07	1.57	y	34:28	1.01	18600		-	-	*	Co-elute PCB 101
PCB-101	8.17e+07	1.57	y	34:28	1.01	18600		-	-	*	Co-elute PCB 90
PCB-113	*	*	n	NotFnd	1.14	*		2820	1980	11.5	
PCB-99	5.12e+07	1.54	y	34:47	1.15	10300		-	-	*	
PCB-119	3.47e+06	1.53	y	35:13	1.34	593		-	-	*	
PCB-83	5.18e+06	1.50	y	35:22	1.05	1130		-	-	*	Co-elute PCB 112
PCB-112	5.18e+06	1.50	y	35:22	1.05	1130		-	-	*	Co-elute PCB 83
PCB-109	4.18e+05	1.64	y	35:31	1.23	78.3		-	-	*	
PCB-97	2.49e+07	1.56	y	35:42	1.04	5480		-	-	*	
PCB-86	1.48e+06	1.47	y	35:51	0.93	368		-	-	*	
PCB-125	3.08e+07	1.57	y	35:59	1.14	6180		-	-	*	Co-elute PCB 87/117
PCB-87	3.08e+07	1.57	y	35:59	1.14	6180		-	-	*	Co-elute PCB 125/117
PCB-117	3.08e+07	1.57	y	35:59	1.14	6180		-	-	*	Co-elute PCB 125/87
PCB-111	3.01e+06	1.63	y	36:08	1.39	497		-	-	*	Co-elute PCB 115
PCB-115	3.01e+06	1.63	y	36:08	1.39	497		-	-	*	Co-elute PCB 111
PCB-85	1.81e+07	1.56	y	36:13	1.10	3770		-	-	*	Co-elute PCB 116
PCB-116	1.81e+07	1.56	y	36:13	1.10	3770		-	-	*	Co-elute PCB 85
PCB-120	*	*	n	NotFnd	1.34	*		2820	1980	9.69	
PCB-110	8.03e+07	1.57	y	36:35	1.38	13400		-	-	*	
PCB-82	9.63e+06	1.57	y	37:11	0.77	2870		-	-	*	
PCB-124	2.84e+06	1.59	y	37:51	1.06	618		-	-	*	
PCB-108	6.06e+06	1.63	y	38:01	1.00	1390		-	-	*	Co-elute PCB 107
PCB-107	6.06e+06	1.63	y	38:01	1.00	1390		-	-	*	Co-elute PCB 108
PCB-123	2.09e+06	1.58	y	38:09	1.12	451		-	-	*	
13C-PCB-123	4.13e+07	1.61	y	38:08	0.97	13000					130
PCB-118	7.96e+07	1.59	y	38:19	0.97	17500		-	-	*	Co-elute PCB 106
PCB-106	7.96e+07	1.59	y	38:19	0.97	17500		-	-	*	Co-elute PCB 118
13C-PCB-118	4.68e+07	1.63	y	38:19	1.08	13200					132
PCB-114	1.80e+06	1.60	y	38:57	0.98	427		-	-	*	
13C-PCB-114	4.30e+07	1.64	y	38:55	1.02	12900					129
PCB-122	1.37e+06	1.63	y	39:05	1.20	262		-	-	*	
PCB-105	3.49e+07	1.62	y	39:46	1.10	7390		-	-	*	
13C-PCB-105	4.30e+07	1.64	y	39:45	1.02	12900					129

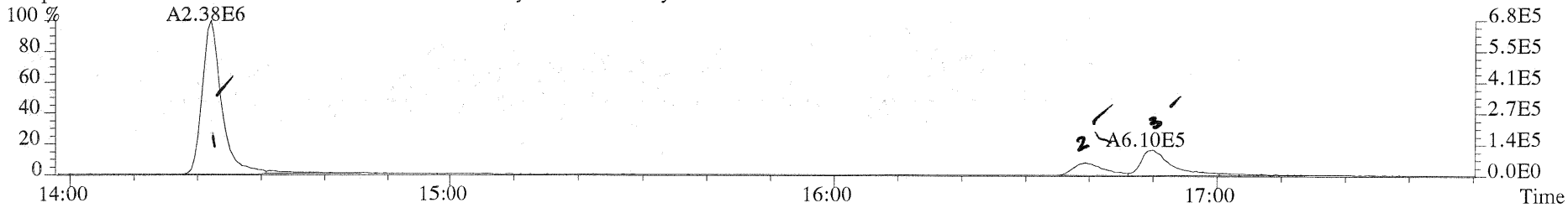
PCB-127	*	*	n	NotFnd	1.02	*		2030	2000	10.8		
PCB-126	2.67e+05	1.49	y	41:55	1.10	62.2		-	-	*		
13C-PCB-126	3.89e+07	1.61	y	41:55	0.92	12900					129	
PCB-151	7.17e+06	1.25	y	37:35	0.81	2460		-	-	*		
PCB-135	3.05e+06	1.25	y	37:46	0.83	1030		-	-	*		
PCB-144	1.33e+06	1.23	y	37:53	0.87	428		-	-	*		
PCB-147	8.13e+05	1.23	y	38:01	0.89	256		-	-	*		
PCB-139	2.14e+07	1.27	y	38:14	0.89	6720		-	-	*	Co-elute PCB 149	
PCB-149	2.14e+07	1.27	y	38:14	0.89	6720		-	-	*	Co-elute PCB 139	
PCB-140	1.71e+05	1.06	y	38:26	0.88	54.1		-	-	*		
PCB-143	1.18e+06	1.25	y	38:52	0.83	397		-	-	*	Co-elute PCB 134	
PCB-134	1.18e+06	1.25	y	38:52	0.83	397		-	-	*	Co-elute PCB 143	
PCB-131	5.25e+05	1.23	y	39:07	0.83	177		-	-	*	Co-elute PCB 133	
PCB-133	5.25e+05	1.23	y	39:07	0.83	177		-	-	*	Co-elute PCB 131	
PCB-142	7.10e+06	1.26	y	39:17	0.78	2560		-	-	*		
PCB-165	3.07e+06	1.25	y	39:30	0.98	875		-	-	*	Co-elute PCB 146	
PCB-146	3.07e+06	1.25	y	39:30	0.98	875		-	-	*	Co-elute PCB 165	
PCB-161	5.78e+06	1.24	y	39:45	0.94	1710		-	-	*	Co-elute PCB 132	
PCB-132	5.78e+06	1.24	y	39:45	0.94	1710		-	-	*	Co-elute PCB 161	
PCB-153	2.42e+07	1.25	y	39:53	0.98	6880		-	-	*		
PCB-168	*	*	n	NotFnd	1.05	*		1890	1450	10.1		
PCB-141	3.93e+06	1.28	y	40:36	0.83	1320		-	-	*		
PCB-137	6.97e+05	1.20	y	40:57	0.79	246		-	-	*		
PCB-130	8.05e+05	1.30	y	41:02	0.72	311		-	-	*		
PCB-138	2.00e+07	1.27	y	41:24	1.07	5210		-	-	*	Co-elute PCB 163/164	
PCB-163	2.00e+07	1.27	y	41:24	1.07	5210		-	-	*	Co-elute PCB 138/164	
PCB-164	2.00e+07	1.27	y	41:24	1.07	5210		-	-	*	Co-elute PCB 138/163	
PCB-158	2.45e+06	1.26	y	41:37	1.09	628		-	-	*	Co-elute PCB 160	
PCB-160	2.45e+06	1.26	y	41:37	1.09	628		-	-	*	Co-elute PCB 158	
PCB-129	6.37e+05	1.28	y	41:52	0.71	250		-	-	*		
PCB-166	5.78e+04	1.15	y	42:18	1.06	15.2	J	-	-	*		
PCB-159	3.02e+05	1.22	y	42:39	1.13	74.3		-	-	*		
PCB-128	2.15e+06	1.22	y	42:52	0.91	657		-	-	*	Co-elute PCB 162	
PCB-162	2.15e+06	1.22	y	42:52	0.91	657		-	-	*	Co-elute PCB 128	
PCB-167	5.97e+05	1.33	y	43:15	1.00	164		-	-	*		
13C-PCB-167	3.65e+07	1.25	y	43:14	1.11	10000					100	
PCB-156	1.42e+06	1.23	y	44:30	1.05	389		-	-	*		
13C-PCB-156	3.46e+07	1.28	y	44:28	1.05	10100					101	
PCB-157	3.01e+05	1.39	y	44:44	0.94	81.4		-	-	*		
13C-PCB-157	3.92e+07	1.32	y	44:43	1.11	10800					108	
PCB-169	*	*	n	NotFnd	0.99	*		1890	1450	11.5		
13C-PCB-169	3.30e+07	1.25	y	46:38	1.01	9990					99.9	

FAL ID: 09987-004-0001-SA Filename: 13JUL16Z Sam:12 Acquired: 13-JUL-16 21:16:24 ICal: DAILY209FAL4-7-13-16
Client ID: LDW-CS-C6-S010-PW-SED ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 9987-06 GC Column: DB1 Amount: 1.000

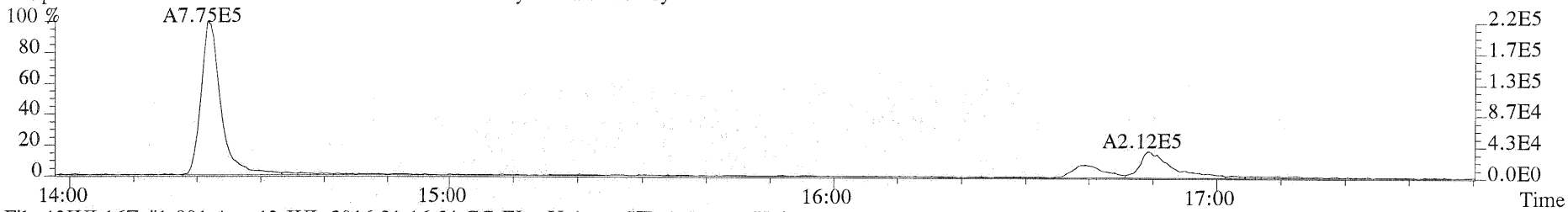
PCB-188	3.70e+04	1.19	y	39:30	1.17	11.1	J	-	-	*	
13C-PCB-188	2.86e+07	1.08	y	39:30	1.14	7650					76.5
PCB-184	1.11e+07	1.06	y	39:56	1.28	3330		-	-	*	
PCB-179	2.64e+06	1.07	y	40:41	1.27	796		-	-	*	
PCB-176	7.79e+05	1.03	y	41:07	1.21	246		-	-	*	
PCB-186	*	*	n	NotFnd	1.16	*		1020	888	6.00	
PCB-178	7.86e+05	1.08	y	42:10	0.86	352		-	-	*	
PCB-175	1.61e+05	0.98	y	42:29	0.89	69.0		-	-	*	
PCB-187	4.62e+06	1.05	y	42:38	0.93	1890		-	-	*	Co-elute PCB 182
PCB-182	4.62e+06	1.05	y	42:38	0.93	1890		-	-	*	Co-elute PCB 187
PCB-183	2.10e+06	1.08	y	42:57	0.96	834		-	-	*	
PCB-185	3.24e+05	1.01	y	43:35	0.85	146		-	-	*	
PCB-174	3.27e+06	1.05	y	43:55	0.83	1510		-	-	*	
PCB-181	*	*	n	NotFnd	0.86	*		1020	888	8.09	
PCB-177	1.80e+06	1.07	y	44:11	0.80	863		-	-	*	
PCB-171	7.85e+05	1.08	y	44:28	0.84	358		-	-	*	
PCB-173	6.54e+04	1.10	y	44:53	0.75	33.5		-	-	*	
PCB-172	6.28e+05	1.01	y	45:16	0.80	303		-	-	*	
PCB-192	6.38e+06	1.07	y	45:27	1.02	2400		-	-	*	
PCB-180	5.75e+06	1.08	y	45:37	0.96	2290		-	-	*	
PCB-193	5.04e+05	1.12	y	45:49	1.11	173		-	-	*	
PCB-191	1.59e+05	0.97	y	46:02	1.09	56.1		-	-	*	
PCB-170	1.90e+06	1.04	y	46:56	0.74	989		-	-	*	
PCB-190	5.84e+05	1.02	y	47:06	1.06	210		-	-	*	
PCB-189	9.51e+04	1.16	y	48:18	1.14	35.4		-	-	*	
13C-PCB-189	2.36e+07	1.08	y	48:17	0.90	8060					80.6
PCB-202	1.86e+05	0.89	y	44:38	1.07	96.4		-	-	*	
PCB-201	1.05e+05	0.81	y	45:06	1.10	53.3		-	-	*	
PCB-204	8.18e+06	0.90	y	45:14	1.14	3980		-	-	*	
PCB-197	1.10e+05	0.90	y	45:30	1.08	56.6		-	-	*	
PCB-200	1.19e+05	1.01	y	46:15	1.09	60.5		-	-	*	
PCB-198	2.82e+04	0.96	y	47:27	0.77	20.5		-	-	*	
PCB-199	4.88e+05	0.90	y	47:32	0.72	374		-	-	*	
PCB-203	5.46e+05	0.90	y	47:47	0.81	373		-	-	*	Co-elute PCB 196
PCB-196	5.46e+05	0.90	y	47:47	0.81	373		-	-	*	Co-elute PCB 203
13C-PCB-202	1.80e+07	0.93	y	44:36	0.76	7280					72.8
13C-PCB-178	1.86e+07	1.08	y	42:08	0.75	7600					76.0
13C-PCB-138	3.27e+07	1.28	y	41:22	-	117					
PCB-195	3.41e+05	0.96	y	48:54	0.66	149		-	-	*	
PCB-194	7.94e+05	0.90	y	49:41	0.79	289		-	-	*	
PCB-205	5.93e+04	0.78	y	49:57	1.10	15.6	J	-	-	*	
13C-PCB-205	3.47e+07	0.91	y	49:55	1.34	8940					89.4
PCB-208	5.72e+04	1.35	y	49:00	0.97	17.8	J	-	-	*	
13C-PCB-208	3.31e+07	0.80	y	48:59	1.51	7570					75.7
PCB-207	9.38e+04	1.36	y	49:18	1.08	31.7		-	-	*	
PCB-206	1.24e+05	1.34	y	51:06	1.01	56.5		-	-	*	
13C-PCB-206	2.18e+07	0.80	y	51:06	1.15	6590					65.9
PCB-209	9.50e+04	1.13	y	52:17	1.11	34.6		-	-	*	
13C-PCB-209	2.48e+07	1.20	y	52:15	1.72	5000					50.0
13C-PCB-194	2.89e+07	0.92	y	49:40	-	167					

Analyst: [signature] Date: 7/15/16

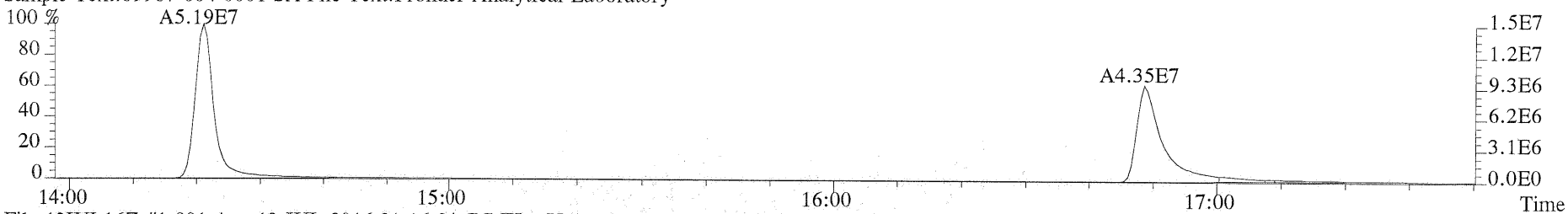
File:13JUL16Z #1-901 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:12 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



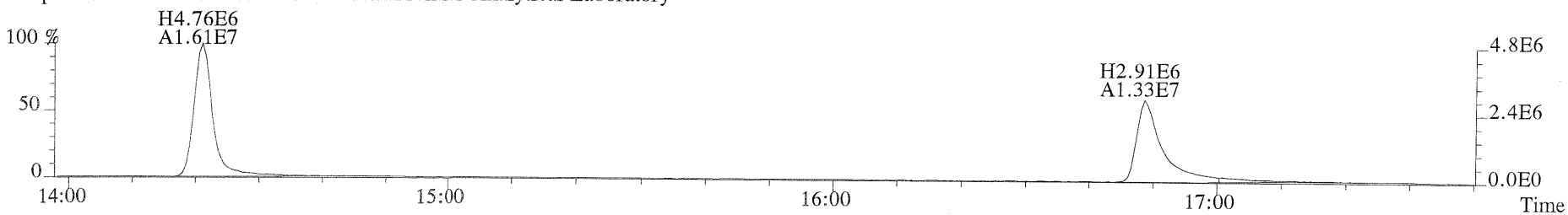
File:13JUL16Z #1-901 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:12 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



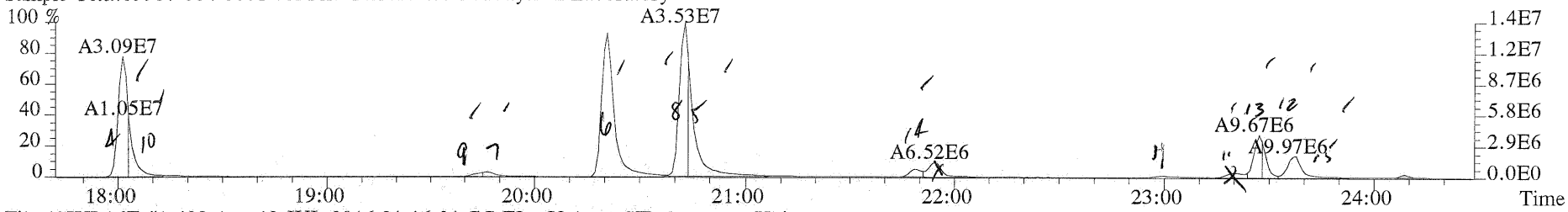
File:13JUL16Z #1-901 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:12 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



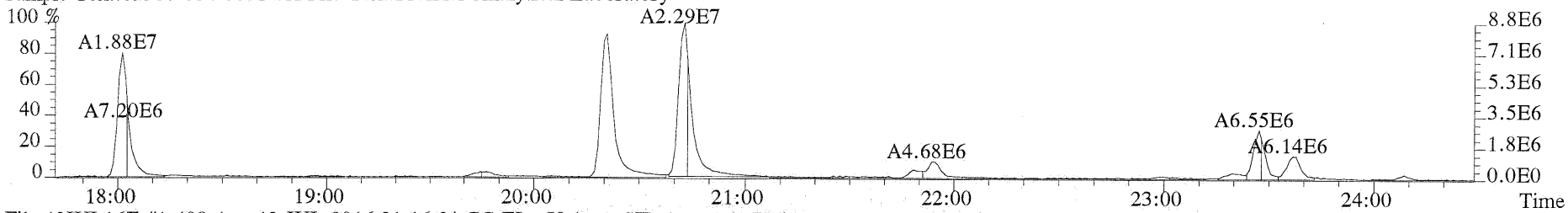
File:13JUL16Z #1-901 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:12 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



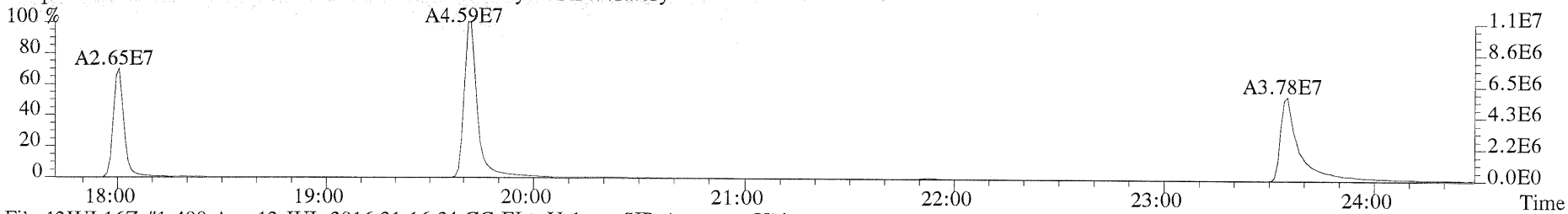
File:13JUL16Z #1-498 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:12 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



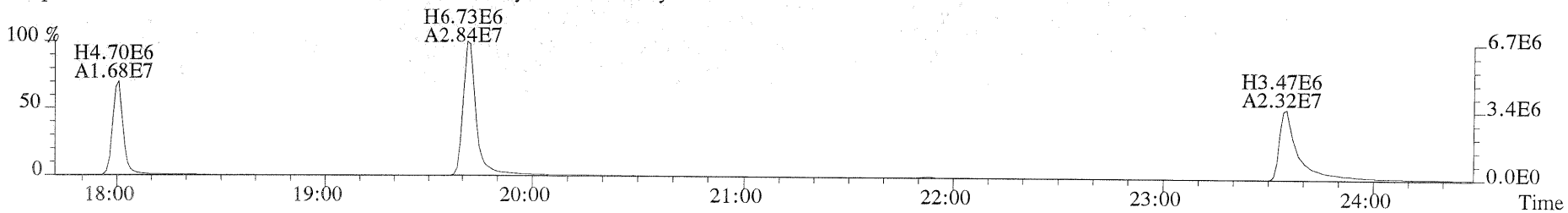
File:13JUL16Z #1-498 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:12 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



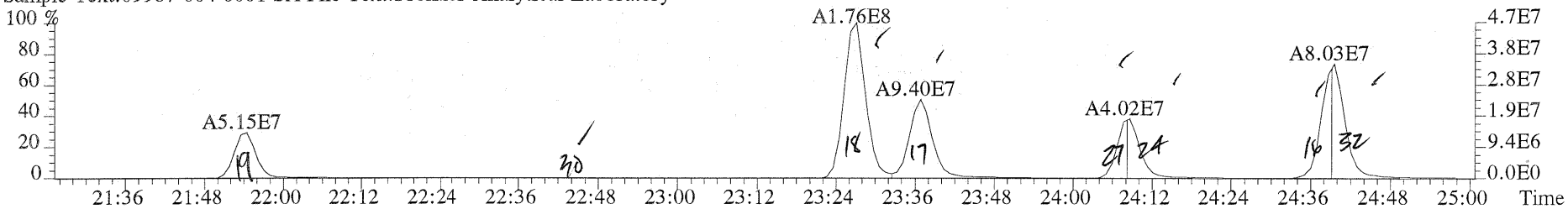
File:13JUL16Z #1-498 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:12 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



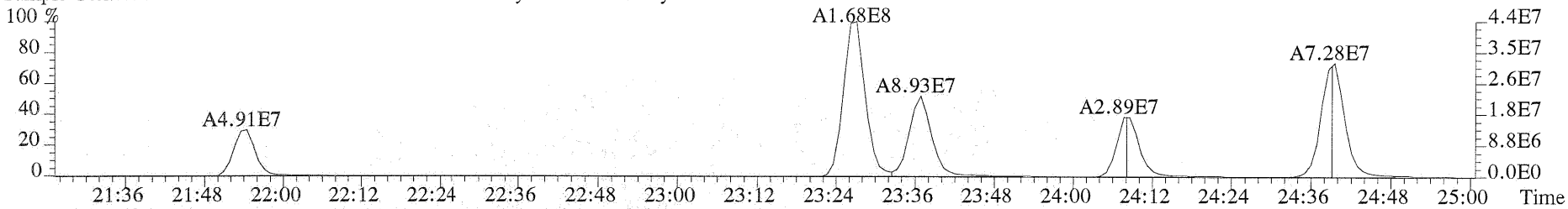
File:13JUL16Z #1-498 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:12 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



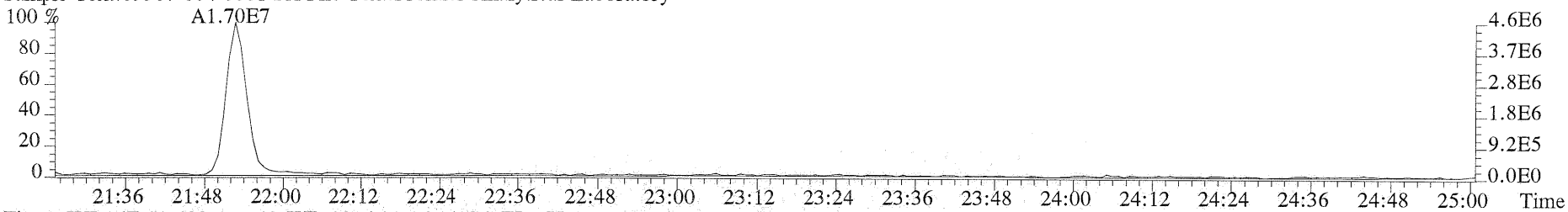
File:13JUL16Z #1-498 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:12 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



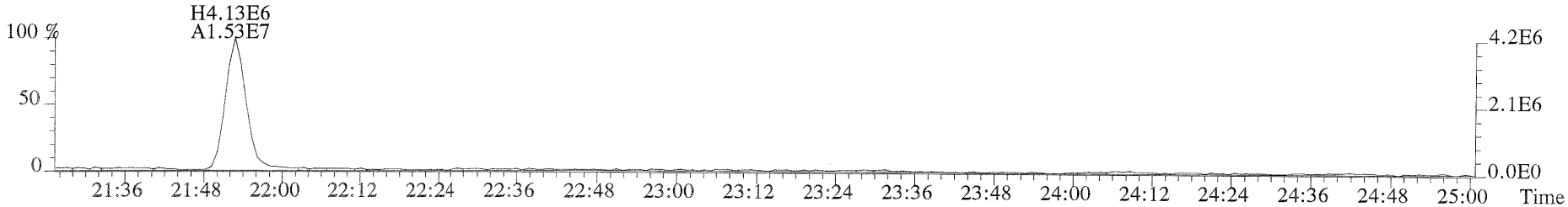
File:13JUL16Z #1-498 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:12 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



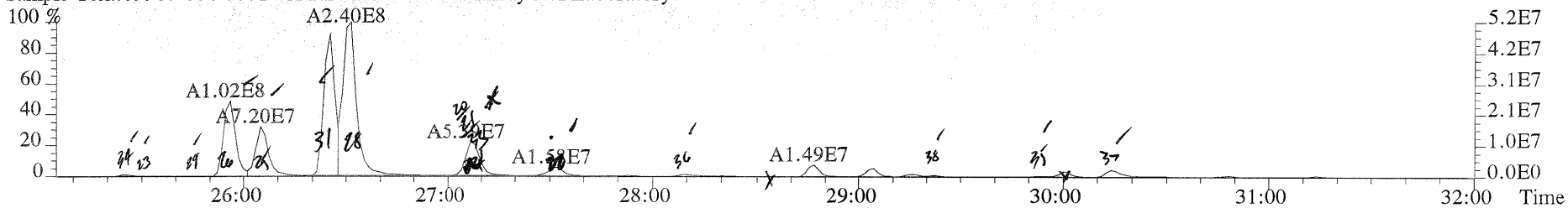
File:13JUL16Z #1-498 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:12 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



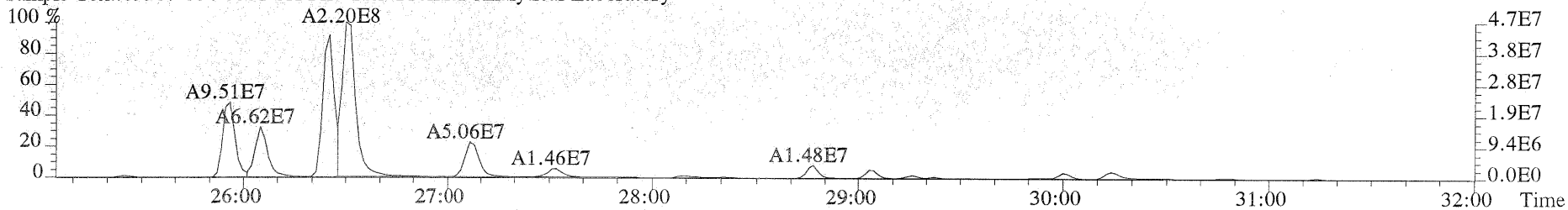
File:13JUL16Z #1-498 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:12 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



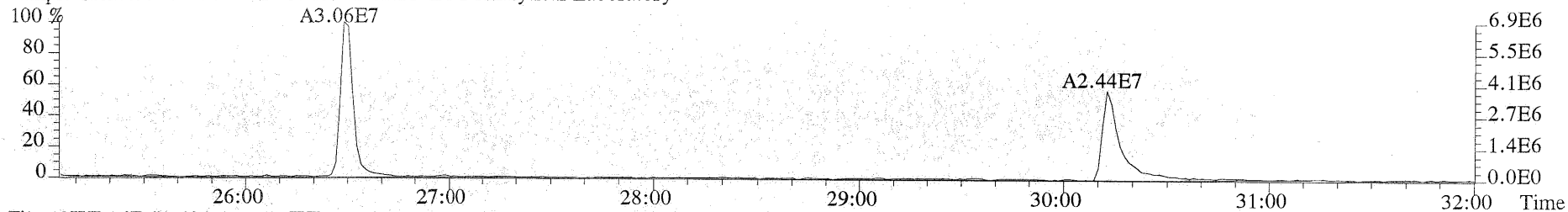
File:13JUL16Z #1-404 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:12 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



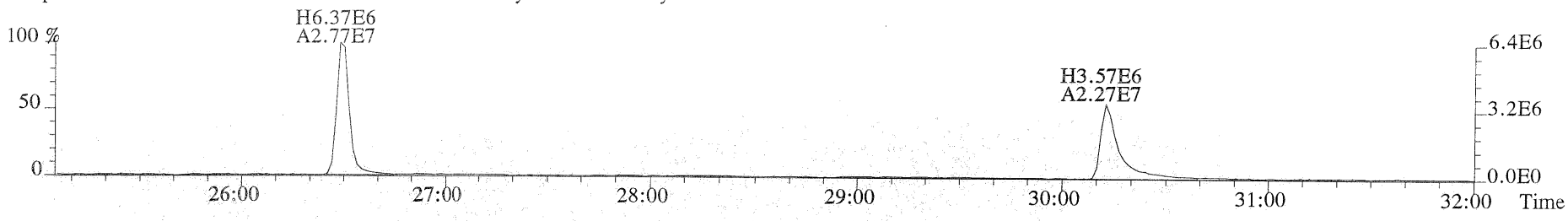
File:13JUL16Z #1-404 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:12 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



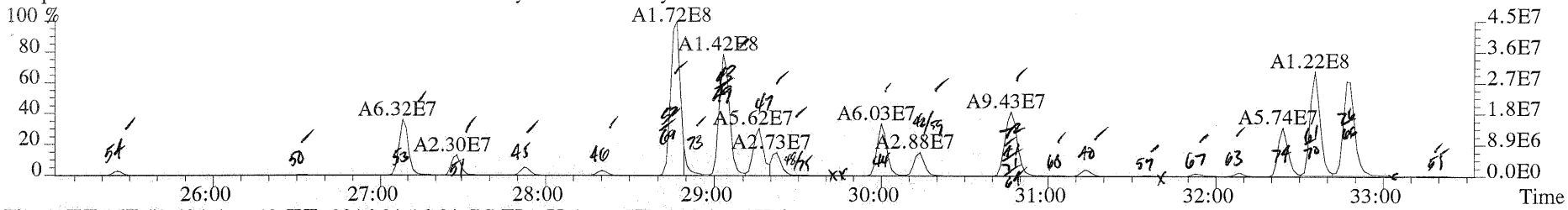
File:13JUL16Z #1-404 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:12 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-404 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:12 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-404 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:12 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-404 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
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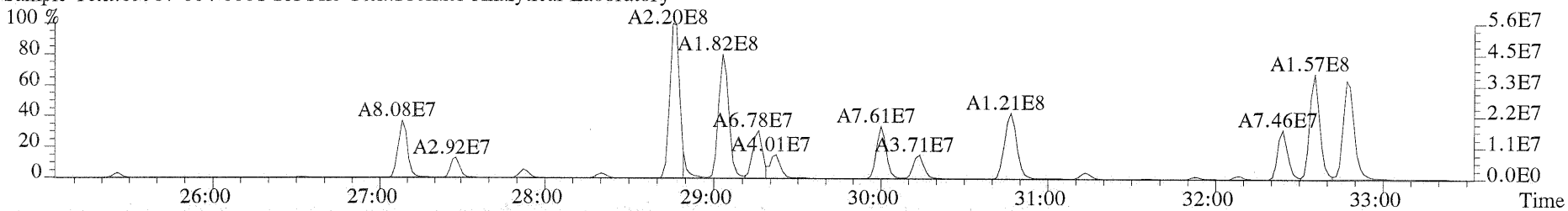
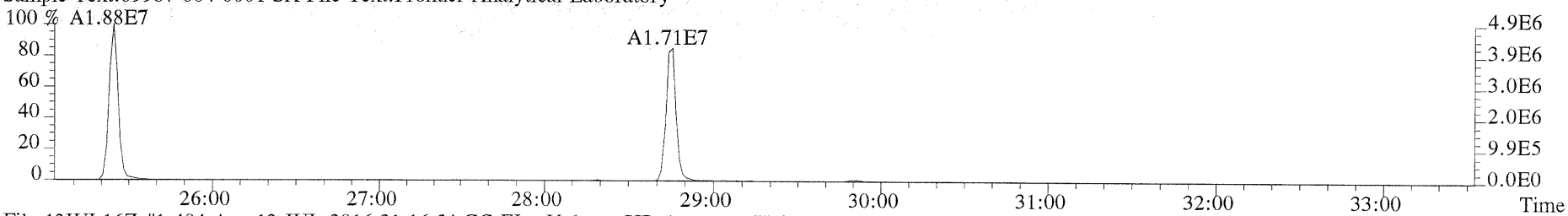
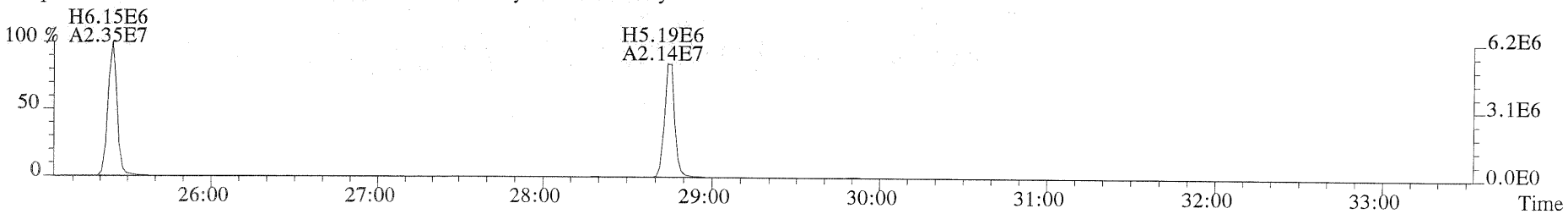
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



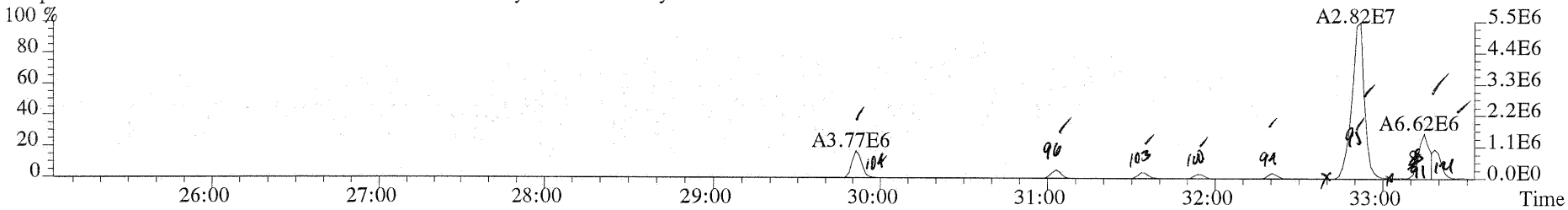
File:13JUL16Z #1-404 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:12 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



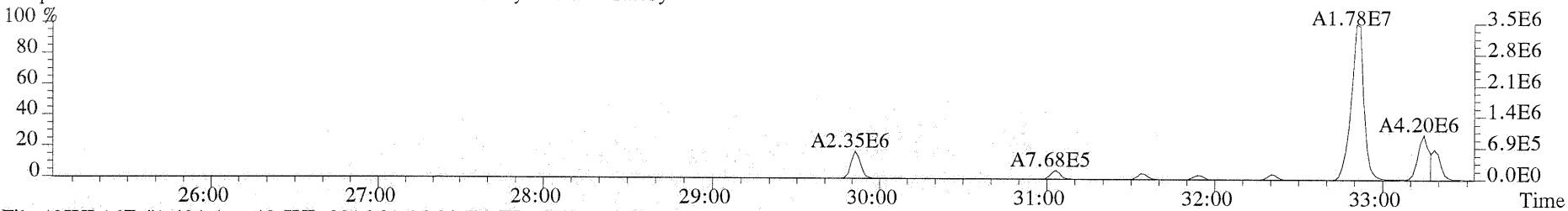
File:13JUL16Z #1-404 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:12 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



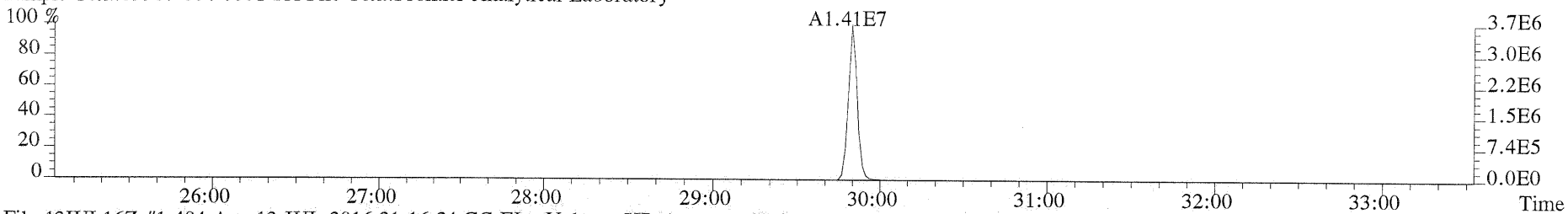
File:13JUL16Z #1-404 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:12 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



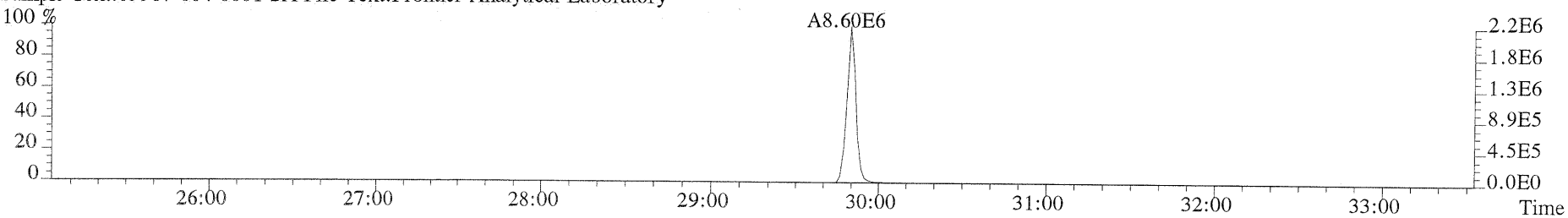
File:13JUL16Z #1-404 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:12 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



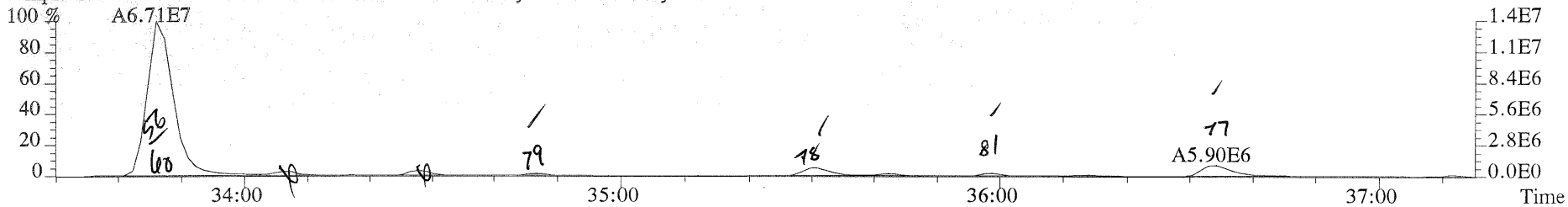
File:13JUL16Z #1-404 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:12 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



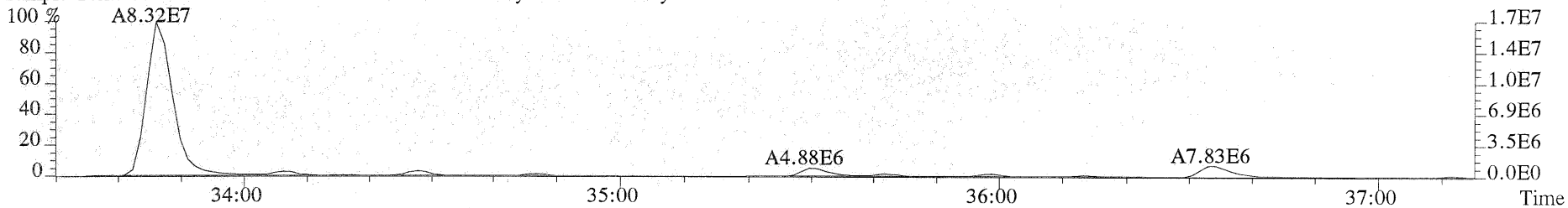
File:13JUL16Z #1-404 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:12 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



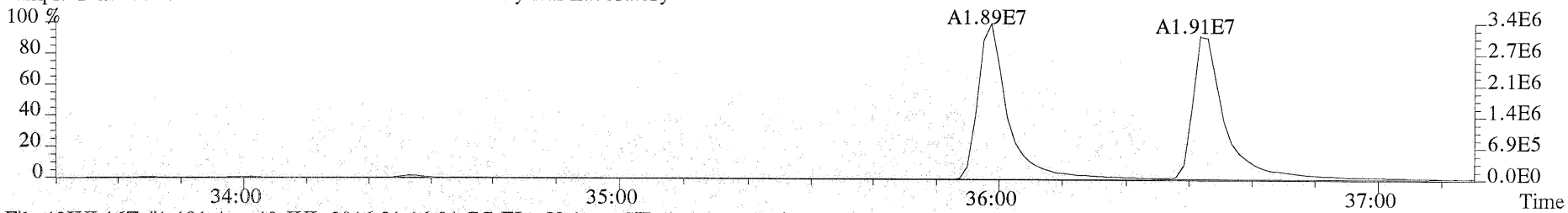
File:13JUL16Z #1-181 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:12 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-181 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:12 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory

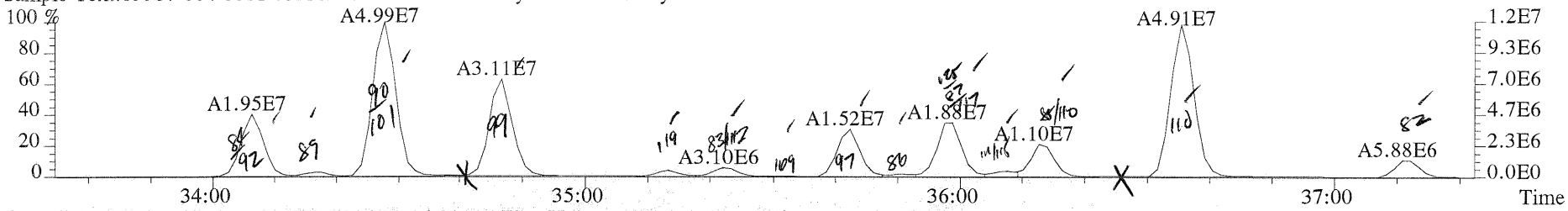


File:13JUL16Z #1-181 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:12 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory

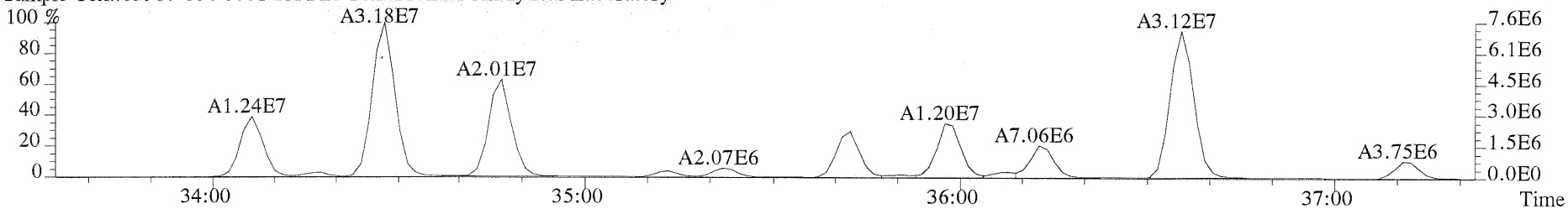


File:13JUL16Z #1-181 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:12 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory

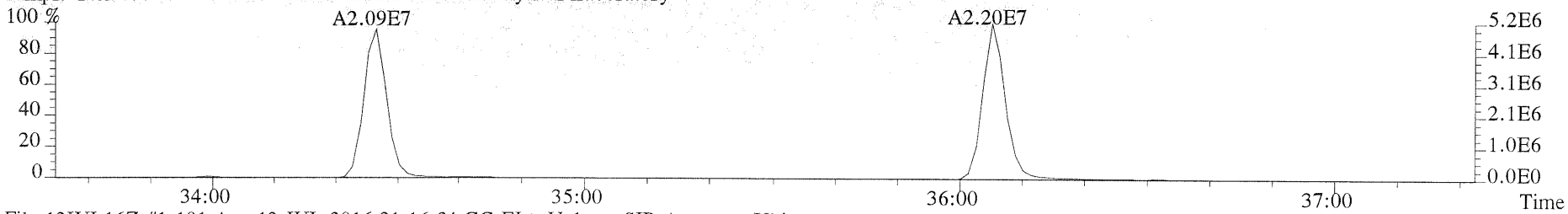
File:13JUL16Z #1-181 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:12 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



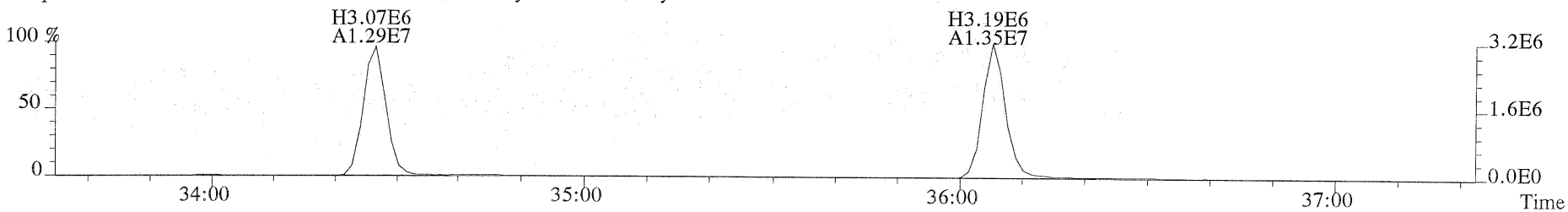
File:13JUL16Z #1-181 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:12 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



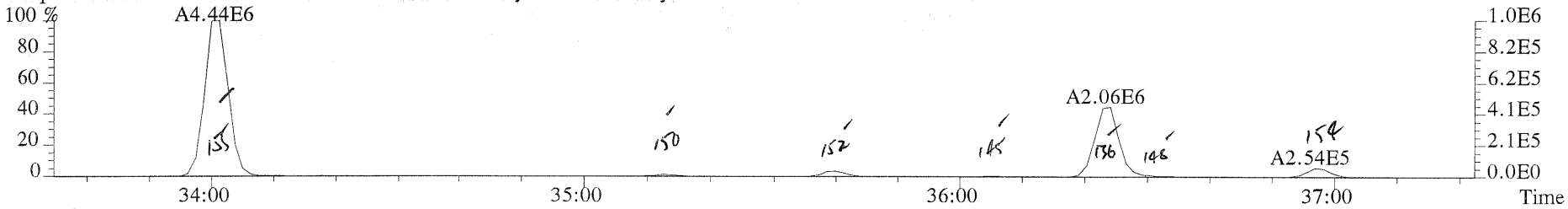
File:13JUL16Z #1-181 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:12 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



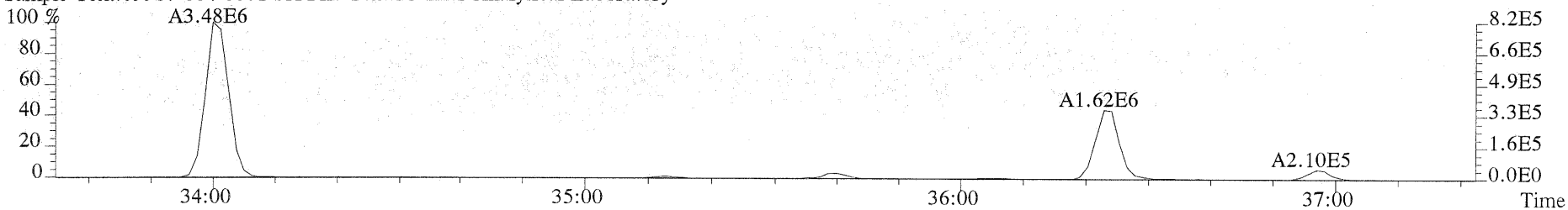
File:13JUL16Z #1-181 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:12 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



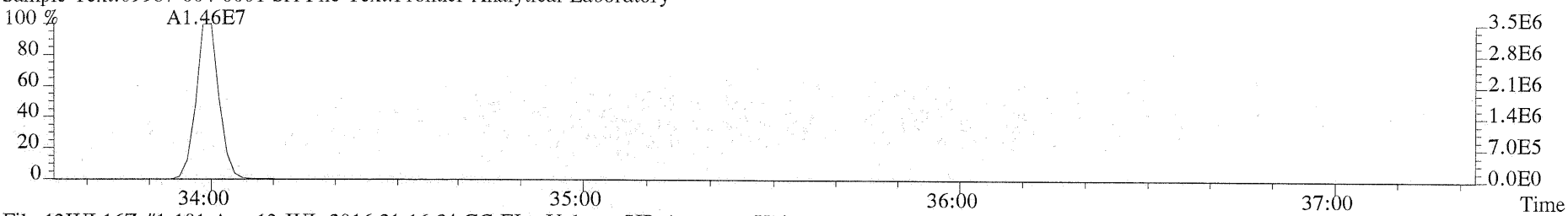
File:13JUL16Z #1-181 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:12 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-181 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:12 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-181 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:12 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



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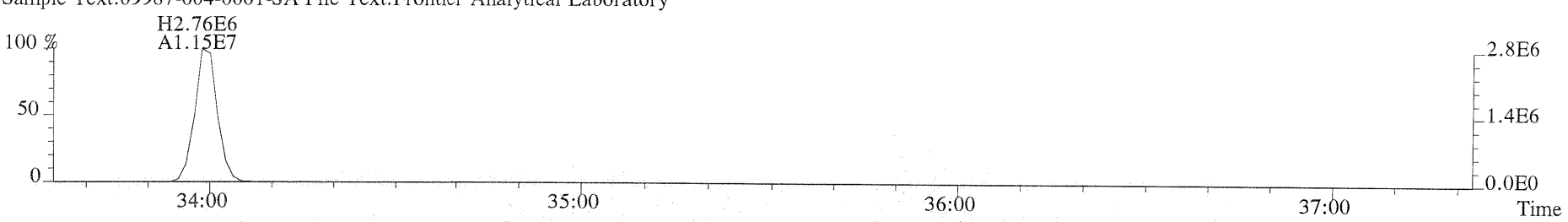
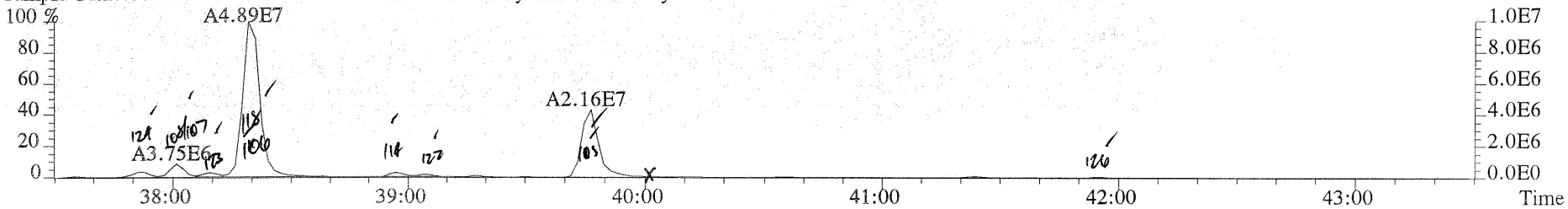
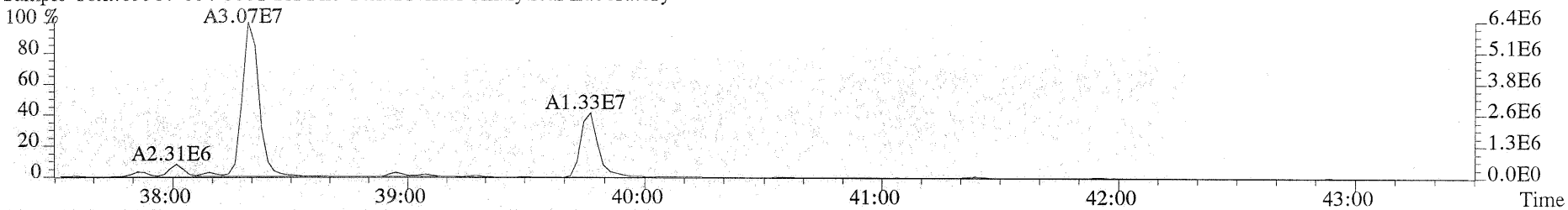
373.8788 S:12 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



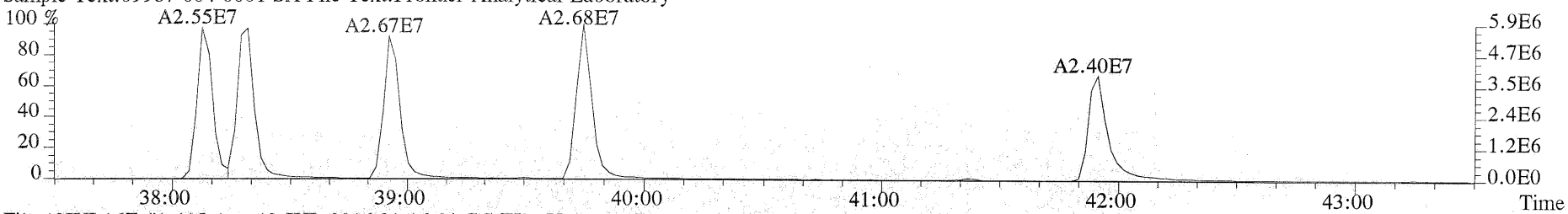
File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



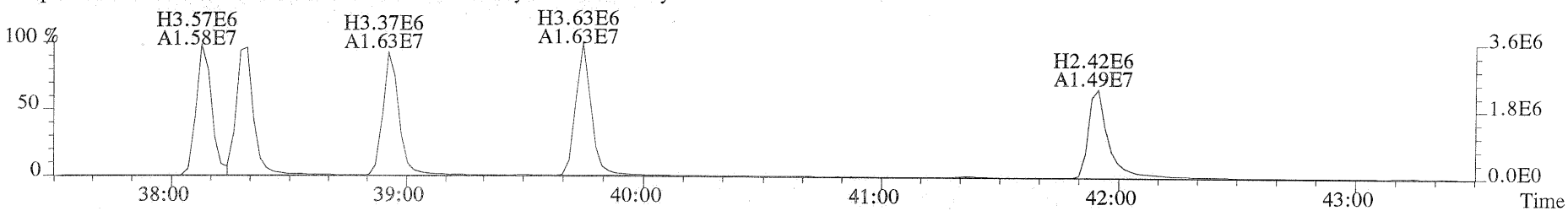
File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



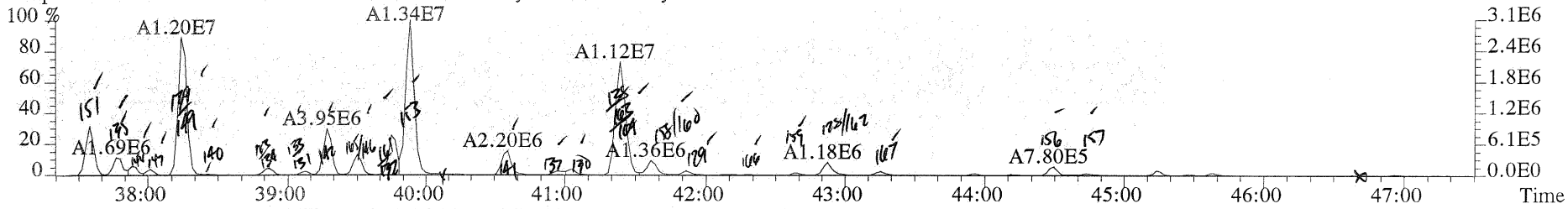
File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



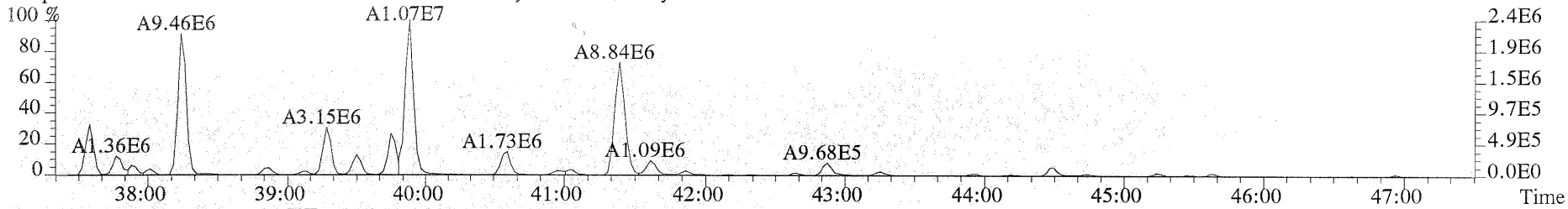
File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



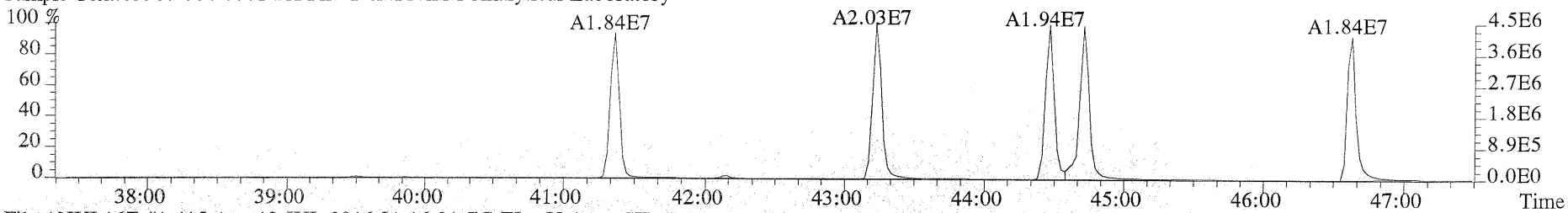
File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



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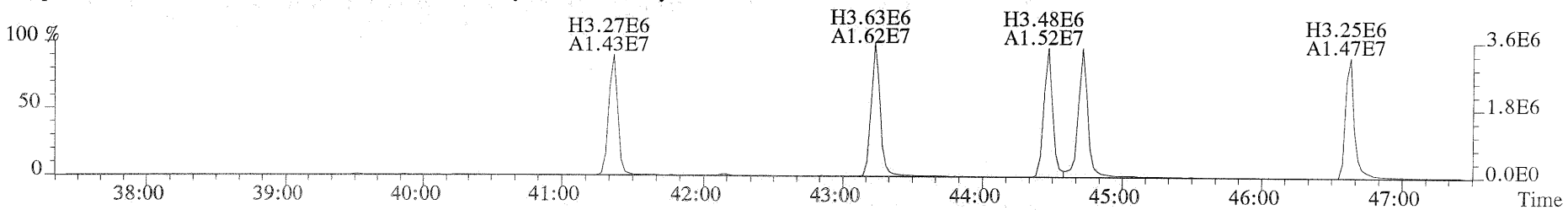
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



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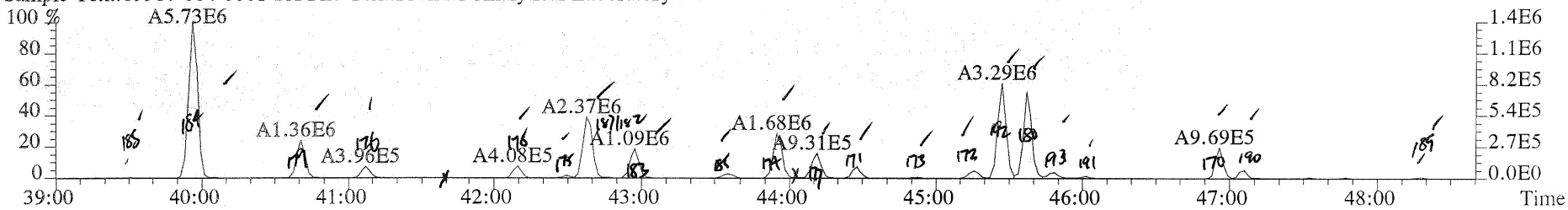
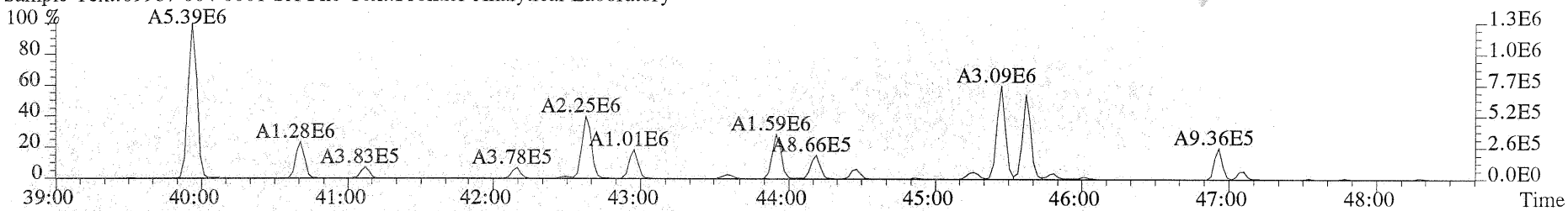
393.8025 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



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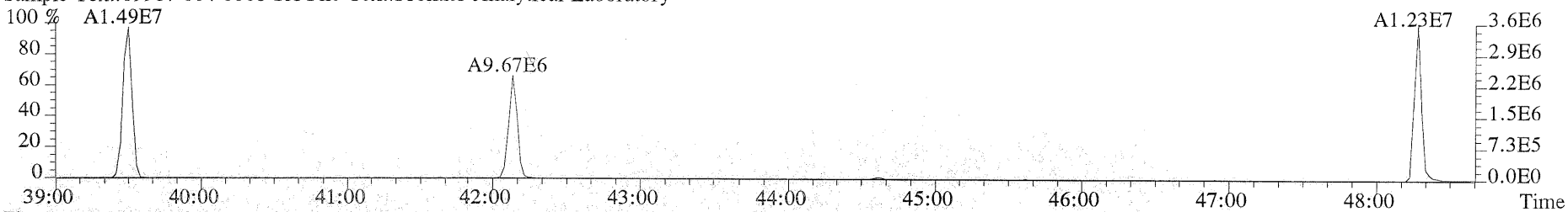
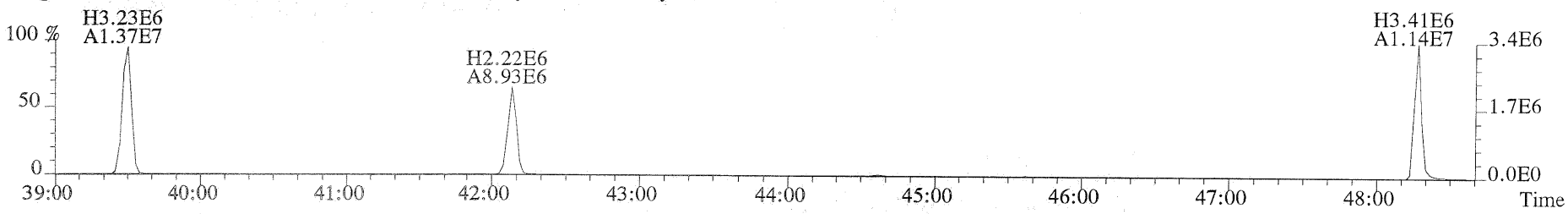
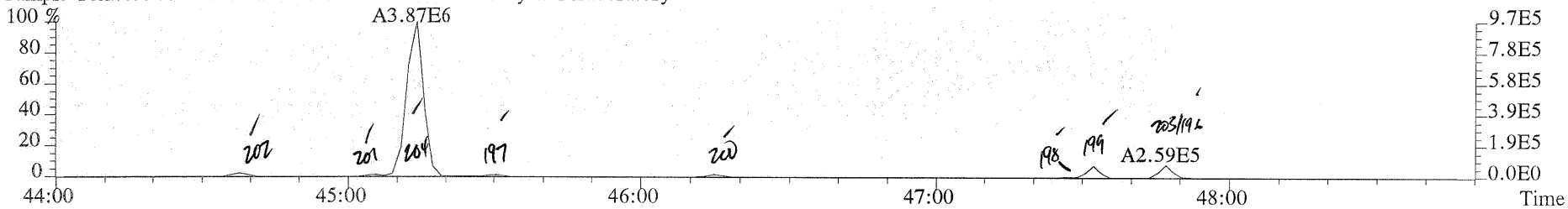
405.8428 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



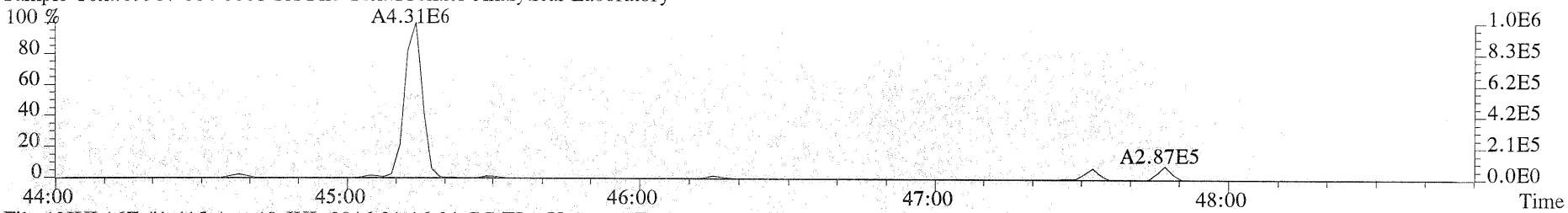
File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
407.8398 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



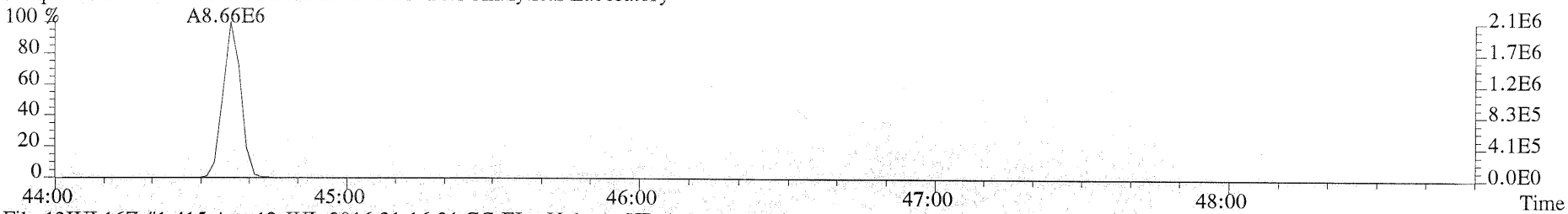
File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



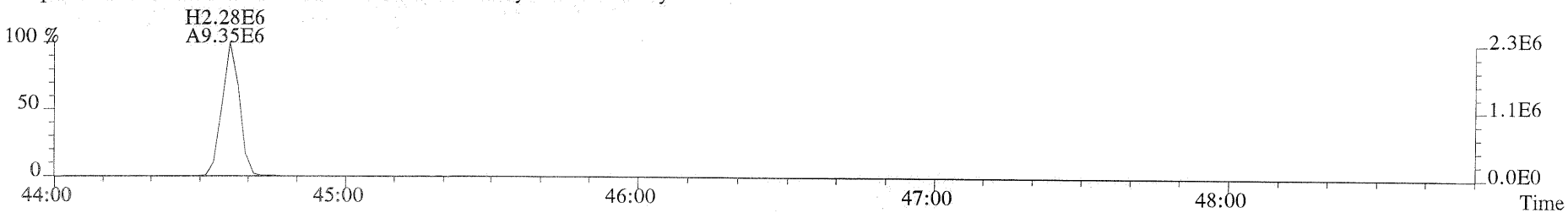
File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



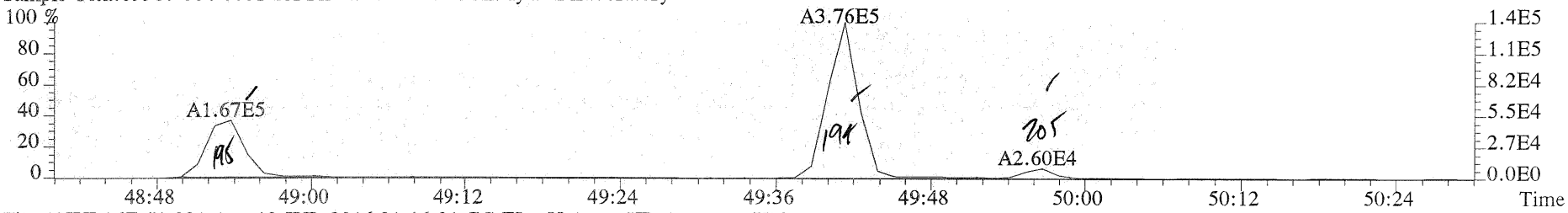
File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



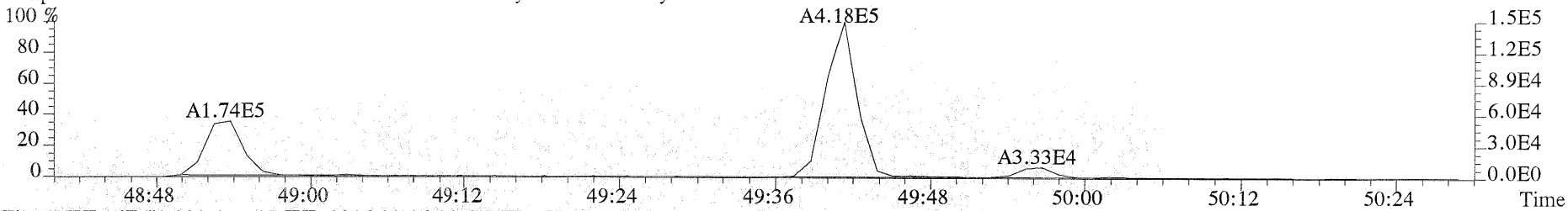
File:13JUL16Z #1-415 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:12 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



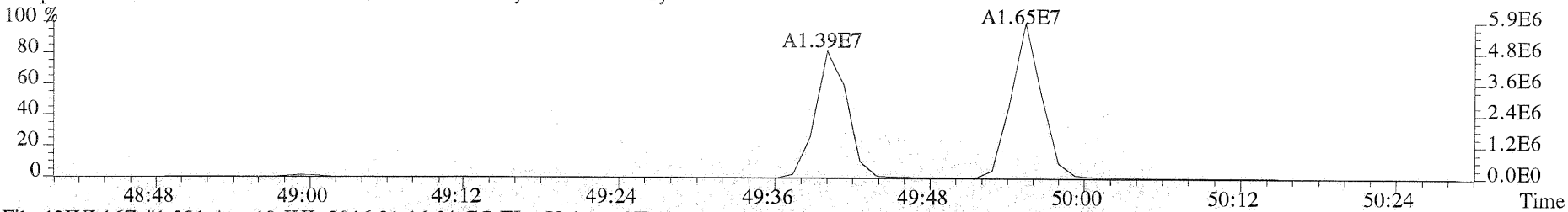
File:13JUL16Z #1-221 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:12 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



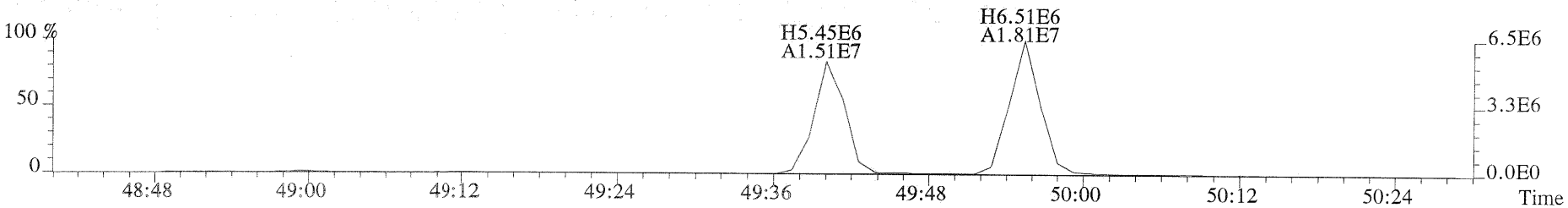
File:13JUL16Z #1-221 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:12 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



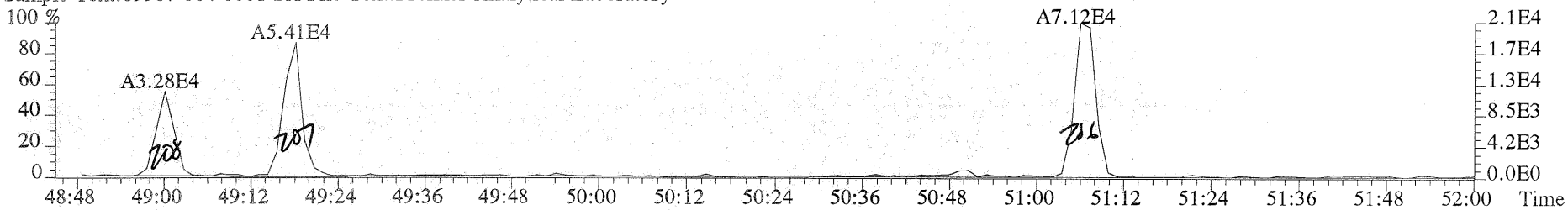
File:13JUL16Z #1-221 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:12 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



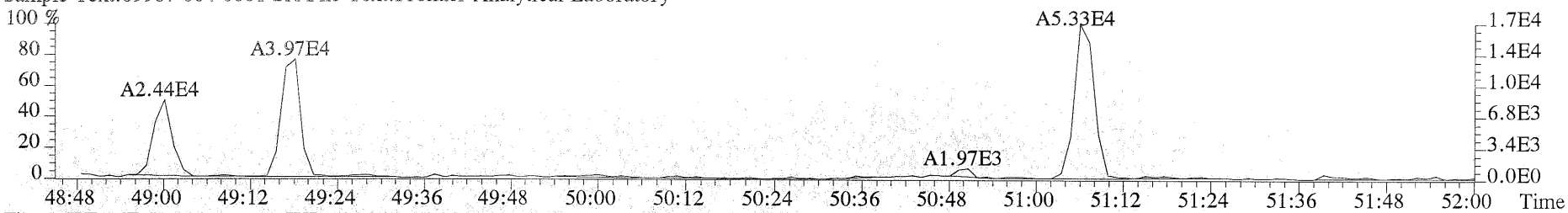
File:13JUL16Z #1-221 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:12 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



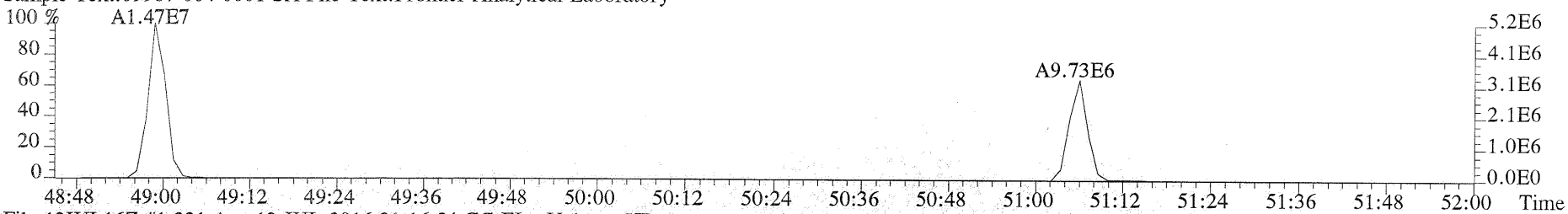
File:13JUL16Z #1-221 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:12 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



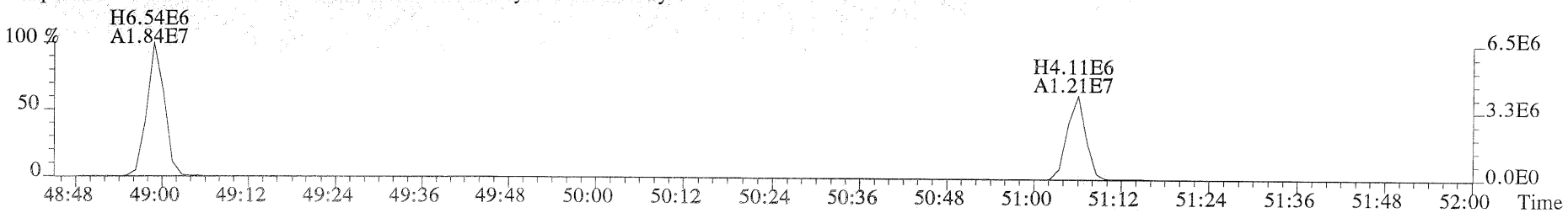
File:13JUL16Z #1-221 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
465.7187 S:12 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



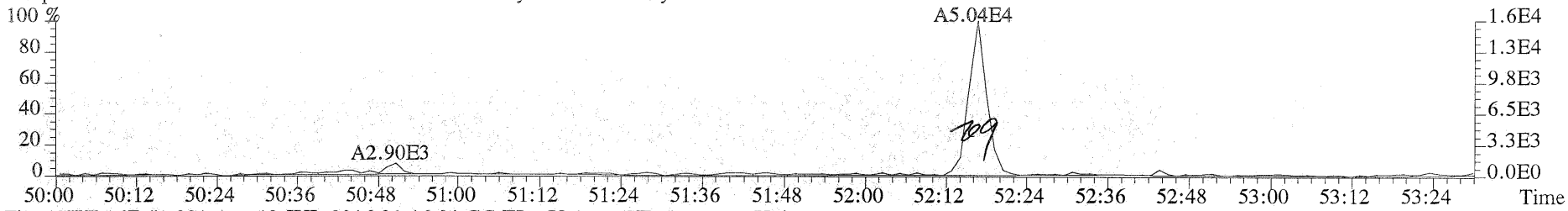
File:13JUL16Z #1-221 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
473.7648 S:12 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



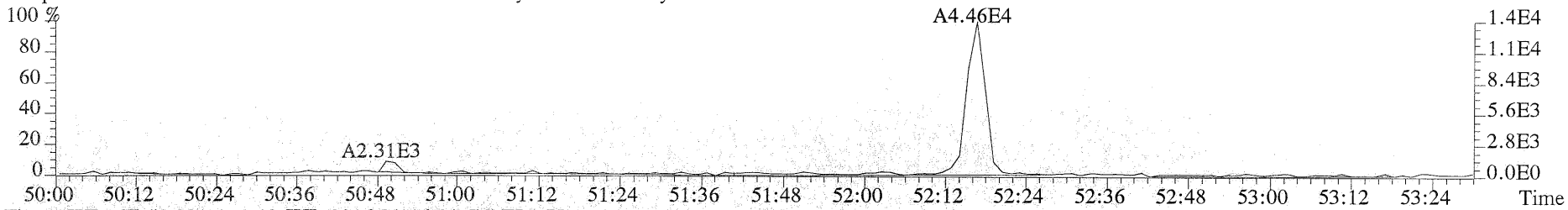
File:13JUL16Z #1-221 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
475.7619 S:12 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



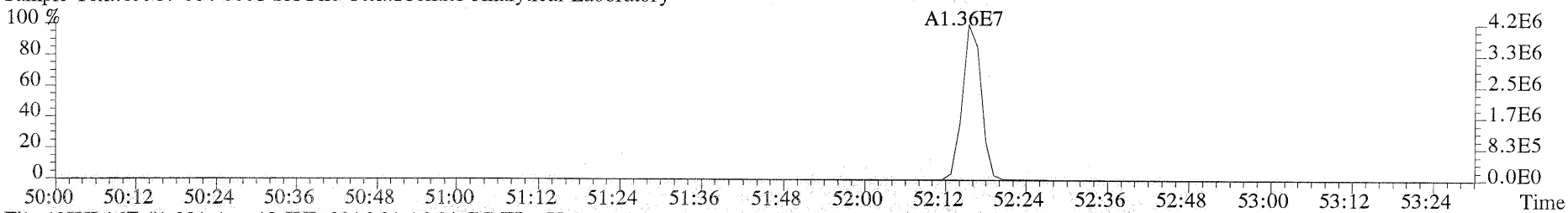
File:13JUL16Z #1-221 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:12 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



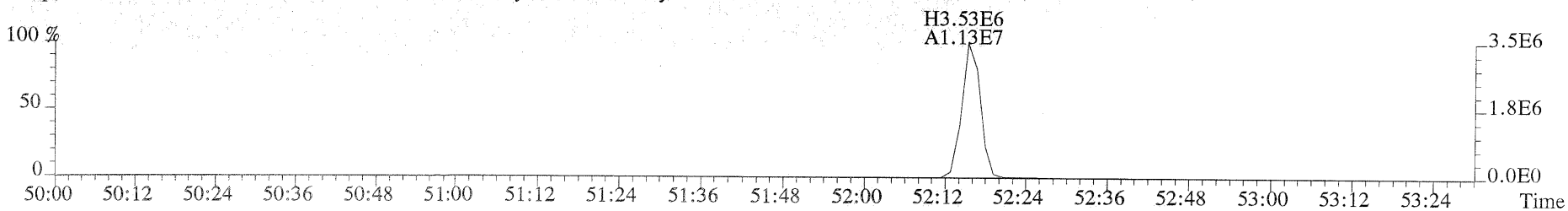
File:13JUL16Z #1-221 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:12 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:12 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 21:16:24 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:12 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:09987-004-0001-SA File Text:Frontier Analytical Laboratory



Frontier Analytical Laboratory

Data Filename: 08FEB16Z

Analyte: 1668FAL4-2-8-16 Cal: 1668FAL4-2-8-16

Name	RRF	S. D.	%RSD	S2 RRF#1	S3 RRF#2	S4 RRF#3	S1 RRF#4	S5 RRF#5	S6 RRF#6
PCB-1	0.97	0.0526	5.40 %	1.00	1.05	0.98	0.92	0.98	0.91
13C-PCB-1	1.34	0.0794	5.92 %	1.39	1.29	1.31	1.37	1.23	1.46
PCB-3	0.99	0.0339	3.41 %	1.01	1.05	0.99	0.97	0.95	1.00
13C-PCB-3	1.26	0.0119	0.947 %	1.28	1.25	1.25	1.24	1.25	1.25
PCB-4	1.08	0.0873	8.07 %	1.22	1.16	1.05	1.01	1.03	1.01
13C-PCB-4	0.66	0.0160	2.41 %	0.67	0.66	0.66	0.67	0.65	0.69
PCB-15	1.06	0.0382	3.61 %	1.10	1.11	1.01	1.04	1.04	1.05
13C-PCB-15	1.00	0.0355	3.56 %	0.99	1.01	1.01	0.94	0.98	1.05
PCB-19	1.00	0.0569	5.70 %	0.96	1.11	1.02	0.98	0.95	0.97
13C-PCB-19	0.76	0.0563	7.40 %	0.87	0.73	0.73	0.75	0.74	0.76
13C-PCB-9	-	-	- %	-	-	-	-	-	-
PCB-37	1.12	0.0719	6.42 %	1.25	1.15	1.10	1.09	1.07	1.06
13C-PCB-37	1.08	0.0596	5.52 %	1.03	1.09	1.07	1.03	1.07	1.19
PCB-54	0.97	0.0430	4.44 %	1.03	1.00	0.96	0.94	0.95	0.92
13C-PCB-54	1.23	0.0264	2.14 %	1.20	1.24	1.20	1.24	1.26	1.25
PCB-104	1.10	0.0807	7.34 %	1.23	1.17	1.08	1.03	1.05	1.05
13C-PCB-104	1.09	0.0367	3.36 %	1.07	1.09	1.08	1.06	1.09	1.16
13C-PCB-28	1.14	0.0462	4.05 %	1.19	1.10	1.08	1.19	1.13	1.14
13C-PCB-52	-	-	- %	-	-	-	-	-	-
PCB-81	1.15	0.0706	6.14 %	1.29	1.15	1.11	1.14	1.13	1.10
13C-PCB-81	1.01	0.0722	7.11 %	0.96	1.04	1.02	0.92	1.01	1.14
PCB-77	1.13	0.0745	6.60 %	1.25	1.19	1.12	1.07	1.08	1.07
13C-PCB-77	1.02	0.0735	7.22 %	1.03	0.99	0.99	0.94	1.01	1.15
PCB-155	1.09	0.0906	8.32 %	1.24	1.16	1.08	1.03	1.03	1.01
13C-PCB-155	1.29	0.0638	4.96 %	1.29	1.24	1.21	1.31	1.27	1.40
13C-PCB-111	1.22	0.0267	2.19 %	1.23	1.19	1.19	1.22	1.21	1.26
13C-PCB-101	-	-	- %	-	-	-	-	-	-
PCB-123	1.07	0.127	11.9 %	1.31	1.09	1.00	0.99	0.99	1.02
13C-PCB-123	1.07	0.0851	7.94 %	1.04	1.01	1.00	1.05	1.12	1.22
PCB-118	1.07	0.0937	8.77 %	1.25	1.06	0.97	1.06	1.05	1.04
13C-PCB-118	1.19	0.0976	8.21 %	1.14	1.11	1.12	1.18	1.22	1.37
PCB-114	1.06	0.0838	7.91 %	1.18	1.16	1.00	1.02	1.01	0.99
13C-PCB-114	1.11	0.100	9.07 %	1.08	1.04	0.97	1.11	1.20	1.24
PCB-105	1.07	0.0538	5.03 %	1.11	1.15	1.04	1.02	1.02	1.06
13C-PCB-105	1.11	0.102	9.11 %	1.09	1.03	1.02	1.09	1.16	1.30
PCB-126	1.08	0.0952	8.85 %	1.24	1.15	1.01	1.02	1.02	1.02
13C-PCB-126	1.02	0.0907	8.88 %	1.03	0.98	0.99	0.90	1.05	1.17
PCB-167	0.97	0.0557	5.76 %	1.07	0.99	0.94	0.93	0.94	0.93
13C-PCB-167	1.21	0.115	9.52 %	1.15	1.13	1.14	1.18	1.26	1.43
PCB-156	1.01	0.0964	9.52 %	1.20	1.04	0.98	0.95	0.95	0.95
13C-PCB-156	1.12	0.126	11.3 %	1.05	1.03	1.05	1.06	1.18	1.35
PCB-157	0.94	0.0630	6.67 %	1.06	0.95	0.91	0.92	0.93	0.88
13C-PCB-157	1.20	0.134	11.2 %	1.14	1.11	1.10	1.14	1.24	1.45
PCB-169	0.97	0.0734	7.54 %	1.10	1.02	0.95	0.91	0.93	0.92
13C-PCB-169	0.98	0.127	13.0 %	0.95	0.88	0.87	0.94	1.02	1.22
PCB-188	1.13	0.0635	5.64 %	1.18	1.23	1.10	1.06	1.12	1.08
13C-PCB-188	1.41	0.133	9.44 %	1.42	1.23	1.30	1.50	1.39	1.60
PCB-189	1.17	0.0769	6.55 %	1.31	1.21	1.17	1.09	1.14	1.13
13C-PCB-189	0.89	0.109	12.2 %	0.88	0.80	0.78	0.94	0.88	1.08
PCB-202	1.12	0.0705	6.32 %	1.22	1.17	1.11	1.03	1.06	1.09
13C-PCB-202	1.06	0.136	12.9 %	1.02	0.89	0.93	1.14	1.11	1.26
13C-PCB-178	0.83	0.0550	6.62 %	0.83	0.76	0.76	0.88	0.87	0.88
13C-PCB-138	-	-	- %	-	-	-	-	-	-

PCB-205	1.13	0.128	11.3	%	1.38	1.08	1.01	1.08	1.11	1.13
13C-PCB-205	1.47	0.0977	6.67	%	1.35	1.45	1.53	1.38	1.45	1.62
PCB-208	0.91	0.0676	7.43	%	1.02	0.96	0.92	0.85	0.86	0.86
13C-PCB-208	2.00	0.220	11.0	%	1.85	1.89	1.90	1.87	2.05	2.42
PCB-206	0.96	0.0534	5.56	%	1.05	1.00	0.95	0.90	0.93	0.93
13C-PCB-206	1.40	0.166	11.9	%	1.27	1.30	1.35	1.30	1.44	1.71
PCB-209	1.13	0.151	13.4	%	1.42	1.04	0.99	1.09	1.11	1.12
13C-PCB-209	2.10	0.243	11.6	%	1.78	2.24	2.27	1.88	2.03	2.40
13C-PCB-194	-	-	-	%	-	-	-	-	-	-

Analyst: [illegible] Date: 2/9/16

Run #1 Filename 08FEB16Z S: 2 Acquired: 8-FEB-16 07:25:55 Cal: 1668FAL4-2-8-16
Client ID: ST020816Z0 Analyte: FAL ID: 1668 CS0 R151116A

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	PCB-1	0.20	4.46e+05	3.07	y	14:28	-	0.999	y
2	IS/RT	13C-PCB-1	100.00	2.23e+08	2.93	y	14:27	-	1.39	y
3	Unk	PCB-3	0.20	4.13e+05	3.05	y	16:54	-	1.01	y
4	IS/RT	13C-PCB-3	100.00	2.05e+08	3.03	y	16:53	-	1.28	y
5	Unk	PCB-4	0.20	2.63e+05	1.33	y	18:08	-	1.22	y
6	IS/RT	13C-PCB-4	100.00	1.08e+08	1.56	y	18:07	-	0.669	y
7	Unk	PCB-15	0.20	3.51e+05	1.37	y	23:41	-	1.10	y
8	IS/RT	13C-PCB-15	100.00	1.60e+08	1.57	y	23:40	-	0.994	y
9	Unk	PCB-19	0.20	2.71e+05	1.04	y	22:02	-	0.964	y
10	IS/RT	13C-PCB-19	100.00	1.40e+08	1.15	y	22:00	-	0.874	y
11	RS	13C-PCB-9	100.00	1.61e+08	1.56	y	19:48	1.61e+06	-	n
12	Unk	PCB-37	0.20	2.66e+05	1.17	y	30:21	-	1.25	y
13	IS	13C-PCB-37	100.00	1.07e+08	1.06	y	30:18	-	1.03	y
14	Unk	PCB-54	0.20	2.58e+05	0.84	y	25:34	-	1.03	y
15	IS/RT	13C-PCB-54	100.00	1.25e+08	0.79	y	25:33	-	1.20	y
16	Unk	PCB-104	0.20	2.73e+05	1.40	y	30:01	-	1.23	y
17	IS	13C-PCB-104	100.00	1.11e+08	1.59	y	29:59	-	1.07	y
18	C/Up	13C-PCB-28	100.00	1.24e+08	1.07	y	26:37	-	1.19	y
19	RS	13C-PCB-52	100.00	1.04e+08	0.79	y	28:54	1.04e+06	-	n
20	Unk	PCB-81	0.20	2.12e+05	0.72	y	36:07	-	1.29	y
21	IS	13C-PCB-81	100.00	8.22e+07	0.81	y	36:06	-	0.964	y
22	Unk	PCB-77	0.20	2.20e+05	0.79	y	36:40	-	1.25	y
23	IS/RT	13C-PCB-77	100.00	8.82e+07	0.79	y	36:40	-	1.03	y
24	Unk	PCB-155	0.20	2.72e+05	1.36	y	34:11	-	1.24	y
25	IS	13C-PCB-155	100.00	1.10e+08	1.25	y	34:09	-	1.29	y
26	C/Up	13C-PCB-111	100.00	1.05e+08	1.55	y	36:13	-	1.23	y
27	RS	13C-PCB-101	100.00	8.53e+07	1.58	y	34:36	8.53e+05	-	n
28	Unk	PCB-123	0.20	1.93e+05	1.36	y	38:19	-	1.31	y
29	IS	13C-PCB-123	100.00	7.35e+07	1.56	y	38:17	-	1.04	y
30	Unk	PCB-118	0.20	2.01e+05	1.53	y	38:29	-	1.25	y
31	IS	13C-PCB-118	100.00	8.05e+07	1.59	y	38:27	-	1.14	y
32	Unk	PCB-114	0.20	1.79e+05	1.57	y	39:05	-	1.18	y
33	IS	13C-PCB-114	100.00	7.61e+07	1.56	y	39:05	-	1.08	y
34	Unk	PCB-105	0.20	1.71e+05	1.34	y	39:54	-	1.11	y
35	IS	13C-PCB-105	100.00	7.68e+07	1.57	y	39:53	-	1.09	y
36	Unk	PCB-126	0.20	1.80e+05	1.43	y	42:03	-	1.24	y
37	IS	13C-PCB-126	100.00	7.29e+07	1.55	y	42:01	-	1.03	y
38	Unk	PCB-167	0.20	1.74e+05	1.15	y	43:23	-	1.07	y
39	IS	13C-PCB-167	100.00	8.13e+07	1.24	y	43:22	-	1.15	y
40	Unk	PCB-156	0.20	1.78e+05	1.11	y	44:37	-	1.20	y
41	IS	13C-PCB-156	100.00	7.45e+07	1.24	y	44:36	-	1.05	y
42	Unk	PCB-157	0.20	1.72e+05	1.09	y	44:52	-	1.06	y
43	IS	13C-PCB-157	100.00	8.08e+07	1.25	y	44:52	-	1.14	y
44	Unk	PCB-169	0.20	1.48e+05	1.06	y	46:46	-	1.10	y
45	IS	13C-PCB-169	100.00	6.72e+07	1.25	y	46:44	-	0.949	y
46	Unk	PCB-188	0.20	2.36e+05	1.05	y	39:39	-	1.18	y
47	IS	13C-PCB-188	100.00	1.00e+08	1.06	y	39:39	-	1.42	y
48	Unk	PCB-189	0.20	1.62e+05	1.07	y	48:25	-	1.31	y
49	IS	13C-PCB-189	100.00	6.21e+07	1.04	y	48:25	-	0.878	y
50	Unk	PCB-202	0.20	1.77e+05	0.80	y	44:47	-	1.22	y
51	IS	13C-PCB-202	100.00	7.23e+07	0.92	y	44:46	-	1.02	y
52	C/Up	13C-PCB-178	100.00	5.87e+07	1.04	y	42:17	-	0.829	y
53	RS	13C-PCB-138	100.00	7.08e+07	1.24	y	41:31	7.08e+05	-	n

54	Unk	PCB-205	0.20	1.15e+05	0.94	y	50:02	-	1.38	y
55	IS	13C-PCB-205	100.00	4.18e+07	0.91	y	50:02	-	1.35	y
56	Unk	PCB-208	0.20	1.16e+05	1.28	y	49:07	-	1.02	y
57	IS	13C-PCB-208	100.00	5.71e+07	0.78	y	49:06	-	1.85	y
58	Unk	PCB-206	0.20	8.23e+04	1.34	y	51:14	-	1.05	y
59	IS	13C-PCB-206	100.00	3.93e+07	0.78	y	51:13	-	1.27	y
60	Unk	PCB-209	0.20	1.56e+05	1.16	y	52:25	-	1.42	y
61	IS	13C-PCB-209	100.00	5.50e+07	1.20	y	52:24	-	1.78	y
62	RS	13C-PCB-194	100.00	3.08e+07	0.93	y	49:47	3.08e+05	-	n

Analyst: [illegible] Date: 2/9/16

Run #2 Filename 08FEB16Z S: 3 Acquired: 8-FEB-16 08:25:50 Cal: 1668FAL4-2-8-16
Client ID: ST020816Z1 Analyte: FAL ID: 1668 CS1 R121023B

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	PCB-1	1.00	2.62e+06	2.91	y	14:28	-	1.05	y
2	IS/RT	13C-PCB-1	100.00	2.49e+08	3.06	y	14:27	-	1.29	y
3	Unk	PCB-3	1.00	2.54e+06	2.84	y	16:54	-	1.05	y
4	IS/RT	13C-PCB-3	100.00	2.43e+08	3.03	y	16:53	-	1.25	y
5	Unk	PCB-4	1.00	1.47e+06	1.54	y	18:09	-	1.16	y
6	IS/RT	13C-PCB-4	100.00	1.27e+08	1.57	y	18:07	-	0.656	y
7	Unk	PCB-15	1.00	2.16e+06	1.49	y	23:41	-	1.11	y
8	IS/RT	13C-PCB-15	100.00	1.95e+08	1.57	y	23:40	-	1.01	y
9	Unk	PCB-19	1.00	1.56e+06	1.05	y	22:02	-	1.11	y
10	IS/RT	13C-PCB-19	100.00	1.41e+08	1.06	y	22:01	-	0.730	y
11	RS	13C-PCB-9	100.00	1.94e+08	1.55	y	19:48	1.94e+06	-	n
12	Unk	PCB-37	1.00	1.53e+06	1.00	y	30:20	-	1.15	y
13	IS	13C-PCB-37	100.00	1.33e+08	1.05	y	30:18	-	1.09	y
14	Unk	PCB-54	1.00	1.52e+06	0.80	y	25:34	-	1.00	y
15	IS/RT	13C-PCB-54	100.00	1.51e+08	0.80	y	25:33	-	1.24	y
16	Unk	PCB-104	1.00	1.56e+06	1.52	y	30:01	-	1.17	y
17	IS	13C-PCB-104	100.00	1.33e+08	1.60	y	29:59	-	1.09	y
18	C/Up	13C-PCB-28	100.00	1.34e+08	1.03	y	26:37	-	1.10	y
19	RS	13C-PCB-52	100.00	1.22e+08	0.79	y	28:54	1.22e+06	-	n
20	Unk	PCB-81	1.00	1.25e+06	0.78	y	36:06	-	1.15	y
21	IS	13C-PCB-81	100.00	1.09e+08	0.80	y	36:05	-	1.04	y
22	Unk	PCB-77	1.00	1.24e+06	0.74	y	36:40	-	1.19	y
23	IS/RT	13C-PCB-77	100.00	1.04e+08	0.81	y	36:39	-	0.986	y
24	Unk	PCB-155	1.00	1.52e+06	1.19	y	34:11	-	1.16	y
25	IS	13C-PCB-155	100.00	1.31e+08	1.26	y	34:09	-	1.24	y
26	C/Up	13C-PCB-111	100.00	1.26e+08	1.56	y	36:13	-	1.19	y
27	RS	13C-PCB-101	100.00	1.05e+08	1.58	y	34:35	1.05e+06	-	n
28	Unk	PCB-123	1.00	9.99e+05	1.45	y	38:17	-	1.09	y
29	IS	13C-PCB-123	100.00	9.16e+07	1.55	y	38:17	-	1.01	y
30	Unk	PCB-118	1.00	1.07e+06	1.38	y	38:29	-	1.06	y
31	IS	13C-PCB-118	100.00	1.01e+08	1.56	y	38:27	-	1.11	y
32	Unk	PCB-114	1.00	1.10e+06	1.37	y	39:05	-	1.16	y
33	IS	13C-PCB-114	100.00	9.50e+07	1.57	y	39:03	-	1.04	y
34	Unk	PCB-105	1.00	1.09e+06	1.32	y	39:54	-	1.15	y
35	IS	13C-PCB-105	100.00	9.42e+07	1.58	y	39:53	-	1.03	y
36	Unk	PCB-126	1.00	1.02e+06	1.45	y	42:03	-	1.15	y
37	IS	13C-PCB-126	100.00	8.88e+07	1.55	y	42:01	-	0.975	y
38	Unk	PCB-167	1.00	1.02e+06	1.24	y	43:23	-	0.988	y
39	IS	13C-PCB-167	100.00	1.03e+08	1.25	y	43:22	-	1.13	y
40	Unk	PCB-156	1.00	9.83e+05	1.27	y	44:37	-	1.04	y
41	IS	13C-PCB-156	100.00	9.42e+07	1.23	y	44:36	-	1.03	y
42	Unk	PCB-157	1.00	9.62e+05	1.17	y	44:52	-	0.955	y
43	IS	13C-PCB-157	100.00	1.01e+08	1.25	y	44:51	-	1.11	y
44	Unk	PCB-169	1.00	8.19e+05	1.23	y	46:44	-	1.02	y
45	IS	13C-PCB-169	100.00	8.04e+07	1.21	y	46:44	-	0.883	y
46	Unk	PCB-188	1.00	1.37e+06	1.12	y	39:40	-	1.23	y
47	IS	13C-PCB-188	100.00	1.12e+08	1.06	y	39:40	-	1.23	y
48	Unk	PCB-189	1.00	8.86e+05	1.13	y	48:25	-	1.21	y
49	IS	13C-PCB-189	100.00	7.32e+07	1.03	y	48:23	-	0.805	y
50	Unk	PCB-202	1.00	9.50e+05	0.87	y	44:47	-	1.17	y
51	IS	13C-PCB-202	100.00	8.11e+07	0.94	y	44:46	-	0.891	y
52	C/Up	13C-PCB-178	100.00	6.96e+07	1.04	y	42:18	-	0.764	y
53	RS	13C-PCB-138	100.00	9.10e+07	1.22	y	41:30	9.10e+05	-	n

54	Unk	PCB-205	1.00	5.61e+05	0.94	y	50:03	-	1.08	y	
55	IS	13C-PCB-205	100.00	5.20e+07	0.92	y	50:03	-	1.45	y	
56	Unk	PCB-208	1.00	6.46e+05	1.32	y	49:07	-	0.956	y	
57	IS	13C-PCB-208	100.00	6.76e+07	0.79	y	49:06	-	1.89	y	
58	Unk	PCB-206	1.00	4.63e+05	1.25	y	51:15	-	0.997	y	
59	IS	13C-PCB-206	100.00	4.65e+07	0.78	y	51:13	-	1.30	y	
60	Unk	PCB-209	1.00	8.35e+05	1.23	y	52:24	-	1.04	y	
61	IS	13C-PCB-209	100.00	8.01e+07	1.19	y	52:24	-	2.24	y	
62	RS	13C-PCB-194	100.00	3.58e+07	0.96	y	49:47	3.58e+05	-	n	

Analyst: [illegible] Date: 2/9/16

Run #3 Filename 08FEB16Z S: 4 Acquired: 8-FEB-16 09:25:45 Cal: 1668FAL4-2-8-16
Client ID: ST020816Z2 Analyte: FAL ID: 1668 CS2 R130426B

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	PCB-1	5.00	1.23e+07	3.04	y	14:28	-	0.982	y
2	IS/RT	13C-PCB-1	100.00	2.51e+08	3.03	y	14:28	-	1.31	y
3	Unk	PCB-3	5.00	1.19e+07	3.05	y	16:54	-	0.992	y
4	IS/RT	13C-PCB-3	100.00	2.41e+08	3.03	y	16:53	-	1.25	y
5	Unk	PCB-4	5.00	6.65e+06	1.47	y	18:09	-	1.05	y
6	IS/RT	13C-PCB-4	100.00	1.26e+08	1.57	y	18:07	-	0.656	y
7	Unk	PCB-15	5.00	9.80e+06	1.56	y	23:41	-	1.01	y
8	IS/RT	13C-PCB-15	100.00	1.94e+08	1.56	y	23:40	-	1.01	y
9	Unk	PCB-19	5.00	7.11e+06	1.02	y	22:02	-	1.02	y
10	IS/RT	13C-PCB-19	100.00	1.40e+08	1.08	y	22:01	-	0.725	y
11	RS	13C-PCB-9	100.00	1.92e+08	1.57	y	19:48	1.92e+06	-	n
12	Unk	PCB-37	5.00	7.16e+06	1.02	y	30:20	-	1.10	y
13	IS	13C-PCB-37	100.00	1.30e+08	1.06	y	30:19	-	1.07	y
14	Unk	PCB-54	5.00	7.00e+06	0.77	y	25:34	-	0.960	y
15	IS/RT	13C-PCB-54	100.00	1.46e+08	0.80	y	25:33	-	1.20	y
16	Unk	PCB-104	5.00	7.12e+06	1.50	y	30:01	-	1.08	y
17	IS	13C-PCB-104	100.00	1.32e+08	1.62	y	29:60	-	1.08	y
18	C/Up	13C-PCB-28	100.00	1.31e+08	1.06	y	26:37	-	1.08	y
19	RS	13C-PCB-52	100.00	1.22e+08	0.78	y	28:54	1.22e+06	-	n
20	Unk	PCB-81	5.00	6.08e+06	0.78	y	36:06	-	1.11	y
21	IS	13C-PCB-81	100.00	1.10e+08	0.79	y	36:05	-	1.02	y
22	Unk	PCB-77	5.00	5.93e+06	0.80	y	36:40	-	1.12	y
23	IS/RT	13C-PCB-77	100.00	1.06e+08	0.79	y	36:39	-	0.987	y
24	Unk	PCB-155	5.00	7.04e+06	1.24	y	34:10	-	1.08	y
25	IS	13C-PCB-155	100.00	1.31e+08	1.25	y	34:08	-	1.21	y
26	C/Up	13C-PCB-111	100.00	1.29e+08	1.55	y	36:14	-	1.19	y
27	RS	13C-PCB-101	100.00	1.08e+08	1.58	y	34:35	1.08e+06	-	n
28	Unk	PCB-123	5.00	4.58e+06	1.53	y	38:17	-	1.00	y
29	IS	13C-PCB-123	100.00	9.16e+07	1.55	y	38:16	-	0.997	y
30	Unk	PCB-118	5.00	4.96e+06	1.47	y	38:27	-	0.965	y
31	IS	13C-PCB-118	100.00	1.03e+08	1.57	y	38:27	-	1.12	y
32	Unk	PCB-114	5.00	4.49e+06	1.44	y	39:05	-	1.00	y
33	IS	13C-PCB-114	100.00	8.94e+07	1.57	y	39:04	-	0.973	y
34	Unk	PCB-105	5.00	4.90e+06	1.47	y	39:55	-	1.04	y
35	IS	13C-PCB-105	100.00	9.40e+07	1.56	y	39:53	-	1.02	y
36	Unk	PCB-126	5.00	4.63e+06	1.47	y	42:01	-	1.01	y
37	IS	13C-PCB-126	100.00	9.13e+07	1.54	y	42:01	-	0.994	y
38	Unk	PCB-167	5.00	4.89e+06	1.25	y	43:24	-	0.936	y
39	IS	13C-PCB-167	100.00	1.05e+08	1.25	y	43:22	-	1.14	y
40	Unk	PCB-156	5.00	4.71e+06	1.22	y	44:38	-	0.981	y
41	IS	13C-PCB-156	100.00	9.61e+07	1.24	y	44:36	-	1.05	y
42	Unk	PCB-157	5.00	4.63e+06	1.20	y	44:52	-	0.914	y
43	IS	13C-PCB-157	100.00	1.01e+08	1.25	y	44:51	-	1.10	y
44	Unk	PCB-169	5.00	3.80e+06	1.23	y	46:44	-	0.947	y
45	IS	13C-PCB-169	100.00	8.02e+07	1.23	y	46:44	-	0.873	y
46	Unk	PCB-188	5.00	6.58e+06	1.04	y	39:40	-	1.10	y
47	IS	13C-PCB-188	100.00	1.20e+08	1.05	y	39:38	-	1.30	y
48	Unk	PCB-189	5.00	4.18e+06	1.10	y	48:25	-	1.17	y
49	IS	13C-PCB-189	100.00	7.15e+07	1.07	y	48:23	-	0.778	y
50	Unk	PCB-202	5.00	4.78e+06	0.85	y	44:48	-	1.11	y
51	IS	13C-PCB-202	100.00	8.59e+07	0.94	y	44:46	-	0.935	y
52	C/Up	13C-PCB-178	100.00	7.01e+07	1.03	y	42:18	-	0.762	y
53	RS	13C-PCB-138	100.00	9.19e+07	1.24	y	41:30	9.19e+05	-	n

54	Unk	PCB-205	5.00	2.67e+06	0.91 y	50:03	-	1.01	y	
55	IS	13C-PCB-205	100.00	5.28e+07	0.92 y	50:03	-	1.53	y	
56	Unk	PCB-208	5.00	3.01e+06	1.36 y	49:08	-	0.918	y	
57	IS	13C-PCB-208	100.00	6.56e+07	0.79 y	49:06	-	1.90	y	
58	Unk	PCB-206	5.00	2.23e+06	1.34 y	51:13	-	0.952	y	
59	IS	13C-PCB-206	100.00	4.68e+07	0.76 y	51:13	-	1.35	y	
60	Unk	PCB-209	5.00	3.88e+06	1.16 y	52:24	-	0.987	y	
61	IS	13C-PCB-209	100.00	7.85e+07	1.20 y	52:23	-	2.27	y	
62	RS	13C-PCB-194	100.00	3.45e+07	0.92 y	49:47	3.45e+05	-	n	

Analyst: [signature] Date: 2/9/16

Run #4 Filename 08FEB16Z S: 1 Acquired: 8-FEB-16 06:25:37 Cal: 1668FAL4-2-8-16
Client ID: ST020816Z3 Analyte: FAL ID: 1668 CS3 R150603A

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	PCB-1	50.00	1.03e+08	3.08	y	14:27	-	0.918	y
2	IS/RT	13C-PCB-1	100.00	2.24e+08	3.05	y	14:26	-	1.37	y
3	Unk	PCB-3	50.00	9.81e+07	3.17	y	16:54	-	0.966	y
4	IS/RT	13C-PCB-3	100.00	2.03e+08	3.06	y	16:53	-	1.24	y
5	Unk	PCB-4	50.00	5.52e+07	1.54	y	18:08	-	1.01	y
6	IS/RT	13C-PCB-4	100.00	1.09e+08	1.57	y	18:06	-	0.667	y
7	Unk	PCB-15	50.00	8.00e+07	1.57	y	23:41	-	1.04	y
8	IS/RT	13C-PCB-15	100.00	1.54e+08	1.58	y	23:39	-	0.940	y
9	Unk	PCB-19	50.00	6.00e+07	1.01	y	22:01	-	0.982	y
10	IS/RT	13C-PCB-19	100.00	1.22e+08	1.05	y	22:00	-	0.747	y
11	RS	13C-PCB-9	100.00	1.64e+08	1.57	y	19:48	1.64e+06	-	n
12	Unk	PCB-37	50.00	5.94e+07	1.03	y	30:20	-	1.09	y
13	IS	13C-PCB-37	100.00	1.09e+08	1.07	y	30:19	-	1.03	y
14	Unk	PCB-54	50.00	6.14e+07	0.78	y	25:34	-	0.937	y
15	IS/RT	13C-PCB-54	100.00	1.31e+08	0.80	y	25:33	-	1.24	y
16	Unk	PCB-104	50.00	5.74e+07	1.52	y	30:01	-	1.03	y
17	IS	13C-PCB-104	100.00	1.12e+08	1.60	y	29:60	-	1.06	y
18	C/Up	13C-PCB-28	100.00	1.26e+08	1.04	y	26:37	-	1.19	y
19	RS	13C-PCB-52	100.00	1.06e+08	0.78	y	28:54	1.06e+06	-	n
20	Unk	PCB-81	50.00	4.62e+07	0.77	y	36:06	-	1.14	y
21	IS	13C-PCB-81	100.00	8.14e+07	0.80	y	36:05	-	0.924	y
22	Unk	PCB-77	50.00	4.41e+07	0.76	y	36:40	-	1.07	y
23	IS/RT	13C-PCB-77	100.00	8.24e+07	0.80	y	36:39	-	0.936	y
24	Unk	PCB-155	50.00	5.92e+07	1.25	y	34:10	-	1.03	y
25	IS	13C-PCB-155	100.00	1.15e+08	1.25	y	34:08	-	1.31	y
26	C/Up	13C-PCB-111	100.00	1.07e+08	1.58	y	36:14	-	1.22	y
27	RS	13C-PCB-101	100.00	8.81e+07	1.60	y	34:35	8.81e+05	-	n
28	Unk	PCB-123	50.00	3.50e+07	1.51	y	38:17	-	0.990	y
29	IS	13C-PCB-123	100.00	7.07e+07	1.52	y	38:16	-	1.05	y
30	Unk	PCB-118	50.00	4.19e+07	1.53	y	38:29	-	1.06	y
31	IS	13C-PCB-118	100.00	7.93e+07	1.57	y	38:27	-	1.18	y
32	Unk	PCB-114	50.00	3.81e+07	1.52	y	39:05	-	1.02	y
33	IS	13C-PCB-114	100.00	7.48e+07	1.55	y	39:03	-	1.11	y
34	Unk	PCB-105	50.00	3.73e+07	1.55	y	39:54	-	1.02	y
35	IS	13C-PCB-105	100.00	7.33e+07	1.55	y	39:53	-	1.09	y
36	Unk	PCB-126	50.00	3.09e+07	1.52	y	42:03	-	1.02	y
37	IS	13C-PCB-126	100.00	6.07e+07	1.62	y	42:01	-	0.900	y
38	Unk	PCB-167	50.00	3.69e+07	1.24	y	43:24	-	0.930	y
39	IS	13C-PCB-167	100.00	7.92e+07	1.25	y	43:22	-	1.18	y
40	Unk	PCB-156	50.00	3.39e+07	1.22	y	44:38	-	0.953	y
41	IS	13C-PCB-156	100.00	7.13e+07	1.26	y	44:36	-	1.06	y
42	Unk	PCB-157	50.00	3.55e+07	1.24	y	44:52	-	0.921	y
43	IS	13C-PCB-157	100.00	7.70e+07	1.23	y	44:51	-	1.14	y
44	Unk	PCB-169	50.00	2.88e+07	1.25	y	46:44	-	0.913	y
45	IS	13C-PCB-169	100.00	6.30e+07	1.26	y	46:44	-	0.935	y
46	Unk	PCB-188	50.00	5.36e+07	1.05	y	39:40	-	1.06	y
47	IS	13C-PCB-188	100.00	1.01e+08	1.03	y	39:40	-	1.50	y
48	Unk	PCB-189	50.00	3.44e+07	1.06	y	48:25	-	1.09	y
49	IS	13C-PCB-189	100.00	6.31e+07	1.05	y	48:23	-	0.936	y
50	Unk	PCB-202	50.00	3.97e+07	0.86	y	44:48	-	1.03	y
51	IS	13C-PCB-202	100.00	7.69e+07	0.93	y	44:46	-	1.14	y
52	C/Up	13C-PCB-178	100.00	5.91e+07	1.04	y	42:18	-	0.878	y
53	RS	13C-PCB-138	100.00	6.74e+07	1.24	y	41:30	6.74e+05	-	n

54	Unk	PCB-205	50.00	2.36e+07	0.91 y	50:03		-	1.08	y
55	IS	13C-PCB-205	100.00	4.38e+07	0.91 y	50:03		-	1.38	y
56	Unk	PCB-208	50.00	2.51e+07	1.36 y	49:08		-	0.848	y
57	IS	13C-PCB-208	100.00	5.93e+07	0.78 y	49:06		-	1.87	y
58	Unk	PCB-206	50.00	1.86e+07	1.33 y	51:13		-	0.903	y
59	IS	13C-PCB-206	100.00	4.13e+07	0.76 y	51:13		-	1.30	y
60	Unk	PCB-209	50.00	3.24e+07	1.17 y	52:24		-	1.09	y
61	IS	13C-PCB-209	100.00	5.94e+07	1.18 y	52:23		-	1.88	y
62	RS	13C-PCB-194	100.00	3.17e+07	0.92 y	49:47	3.17e+05	-		n

Analyst: _____ Date: 2/9/16

Run #5 Filename 08FEB16Z S: 5 Acquired: 8-FEB-16 10:25:42 Cal: 1668FAL4-2-8-16
Client ID: ST020816Z4 Analyte: FAL ID: 1668 CS4 R151116B

	Typ	Name	Amount	Resp	RA	RT	RF	RRF	
1	Unk	PCB-1	400.00	6.62e+08	3.13 y	14:27	-	0.980	y
2	IS/RT	13C-PCB-1	100.00	1.69e+08	3.03 y	14:26	-	1.23	y
3	Unk	PCB-3	400.00	6.53e+08	3.14 y	16:53	-	0.952	y
4	IS/RT	13C-PCB-3	100.00	1.71e+08	3.10 y	16:52	-	1.25	y
5	Unk	PCB-4	400.00	3.65e+08	1.55 y	18:08	-	1.03	y
6	IS/RT	13C-PCB-4	100.00	8.83e+07	1.57 y	18:07	-	0.646	y
7	Unk	PCB-15	400.00	5.59e+08	1.55 y	23:41	-	1.04	y
8	IS/RT	13C-PCB-15	100.00	1.34e+08	1.58 y	23:40	-	0.981	y
9	Unk	PCB-19	400.00	3.83e+08	1.00 y	22:02	-	0.952	y
10	IS/RT	13C-PCB-19	100.00	1.01e+08	1.06 y	21:60	-	0.736	y
11	RS	13C-PCB-9	100.00	1.37e+08	1.61 y	19:48	1.37e+06	-	n
12	Unk	PCB-37	400.00	4.10e+08	1.02 y	30:19	-	1.07	y
13	IS	13C-PCB-37	100.00	9.61e+07	1.10 y	30:18	-	1.07	y
14	Unk	PCB-54	400.00	4.30e+08	0.79 y	25:34	-	0.952	y
15	IS/RT	13C-PCB-54	100.00	1.13e+08	0.79 y	25:32	-	1.26	y
16	Unk	PCB-104	400.00	4.08e+08	1.55 y	30:00	-	1.05	y
17	IS	13C-PCB-104	100.00	9.71e+07	1.60 y	29:59	-	1.09	y
18	C/Up	13C-PCB-28	100.00	1.01e+08	1.08 y	26:37	-	1.13	y
19	RS	13C-PCB-52	100.00	8.95e+07	0.78 y	28:53	8.95e+05	-	n
20	Unk	PCB-81	400.00	3.43e+08	0.77 y	36:06	-	1.13	y
21	IS	13C-PCB-81	100.00	7.60e+07	0.80 y	36:04	-	1.01	y
22	Unk	PCB-77	400.00	3.29e+08	0.78 y	36:40	-	1.08	y
23	IS/RT	13C-PCB-77	100.00	7.63e+07	0.80 y	36:38	-	1.01	y
24	Unk	PCB-155	400.00	3.95e+08	1.24 y	34:09	-	1.03	y
25	IS	13C-PCB-155	100.00	9.63e+07	1.26 y	34:08	-	1.27	y
26	C/Up	13C-PCB-111	100.00	9.12e+07	1.55 y	36:13	-	1.21	y
27	RS	13C-PCB-101	100.00	7.56e+07	1.58 y	34:35	7.56e+05	-	n
28	Unk	PCB-123	400.00	2.57e+08	1.50 y	38:17	-	0.986	y
29	IS	13C-PCB-123	100.00	6.51e+07	1.56 y	38:17	-	1.12	y
30	Unk	PCB-118	400.00	2.97e+08	1.52 y	38:29	-	1.05	y
31	IS	13C-PCB-118	100.00	7.08e+07	1.57 y	38:27	-	1.22	y
32	Unk	PCB-114	400.00	2.83e+08	1.54 y	39:05	-	1.01	y
33	IS	13C-PCB-114	100.00	6.97e+07	1.61 y	39:03	-	1.20	y
34	Unk	PCB-105	400.00	2.76e+08	1.54 y	39:54	-	1.02	y
35	IS	13C-PCB-105	100.00	6.74e+07	1.62 y	39:53	-	1.16	y
36	Unk	PCB-126	400.00	2.50e+08	1.53 y	42:01	-	1.02	y
37	IS	13C-PCB-126	100.00	6.13e+07	1.58 y	42:01	-	1.05	y
38	Unk	PCB-167	400.00	2.76e+08	1.24 y	43:23	-	0.940	y
39	IS	13C-PCB-167	100.00	7.33e+07	1.25 y	43:22	-	1.26	y
40	Unk	PCB-156	400.00	2.62e+08	1.25 y	44:37	-	0.955	y
41	IS	13C-PCB-156	100.00	6.85e+07	1.26 y	44:36	-	1.18	y
42	Unk	PCB-157	400.00	2.69e+08	1.29 y	44:52	-	0.931	y
43	IS	13C-PCB-157	100.00	7.23e+07	1.26 y	44:50	-	1.24	y
44	Unk	PCB-169	400.00	2.21e+08	1.24 y	46:44	-	0.932	y
45	IS	13C-PCB-169	100.00	5.92e+07	1.25 y	46:44	-	1.02	y
46	Unk	PCB-188	400.00	3.62e+08	1.05 y	39:39	-	1.12	y
47	IS	13C-PCB-188	100.00	8.08e+07	1.05 y	39:39	-	1.39	y
48	Unk	PCB-189	400.00	2.32e+08	1.04 y	48:24	-	1.14	y
49	IS	13C-PCB-189	100.00	5.11e+07	1.02 y	48:23	-	0.879	y
50	Unk	PCB-202	400.00	2.74e+08	0.86 y	44:47	-	1.06	y
51	IS	13C-PCB-202	100.00	6.45e+07	0.93 y	44:46	-	1.11	y
52	C/Up	13C-PCB-178	100.00	5.04e+07	1.05 y	42:17	-	0.868	y
53	RS	13C-PCB-138	100.00	5.81e+07	1.23 y	41:30	5.81e+05	-	n

54	Unk	PCB-205	400.00	1.60e+08	0.92 y	50:02	-	1.11	y	
55	IS	13C-PCB-205	100.00	3.60e+07	0.91 y	50:02	-	1.45	y	
56	Unk	PCB-208	400.00	1.76e+08	1.34 y	49:07	-	0.863	y	
57	IS	13C-PCB-208	100.00	5.08e+07	0.79 y	49:06	-	2.05	y	
58	Unk	PCB-206	400.00	1.33e+08	1.35 y	51:14	-	0.935	y	
59	IS	13C-PCB-206	100.00	3.56e+07	0.77 y	51:13	-	1.44	y	
60	Unk	PCB-209	400.00	2.24e+08	1.17 y	52:24	-	1.11	y	
61	IS	13C-PCB-209	100.00	5.04e+07	1.19 y	52:24	-	2.03	y	
62	RS	13C-PCB-194	100.00	2.48e+07	0.92 y	49:47	2.48e+05	-	n	

Analyst: [signature] Date: 2/9/16

Run #6 Filename 08FEB16Z S: 6 Acquired: 8-FEB-16 11:25:37 Cal: 1668FAL4-2-8-16
Client ID: ST020816Z5 Analyte: 1668FAL4-2-8-16 FAL ID: 1668 CS5 R150603A

	Typ	Name	Amount	Resp	RA		RT	RF	RRF	
1	Unk	PCB-1	2000.00	4.32e+09	3.04	y	14:26	-	0.911	y
2	IS/RT	13C-PCB-1	100.00	2.37e+08	3.01	y	14:25	-	1.46	y
3	Unk	PCB-3	2000.00	4.06e+09	3.07	y	16:53	-	0.995	y
4	IS/RT	13C-PCB-3	100.00	2.04e+08	3.08	y	16:52	-	1.25	y
5	Unk	PCB-4	2000.00	2.28e+09	1.52	y	18:09	-	1.01	y
6	IS/RT	13C-PCB-4	100.00	1.13e+08	1.54	y	18:07	-	0.692	y
7	Unk	PCB-15	2000.00	3.58e+09	1.57	y	23:41	-	1.05	y
8	IS/RT	13C-PCB-15	100.00	1.71e+08	1.59	y	23:40	-	1.05	y
9	Unk	PCB-19	2000.00	2.39e+09	1.01	y	22:03	-	0.973	y
10	IS/RT	13C-PCB-19	100.00	1.23e+08	1.06	y	22:01	-	0.755	y
11	RS	13C-PCB-9	100.00	1.63e+08	1.55	y	19:48	1.63e+06	-	n
12	Unk	PCB-37	2000.00	2.69e+09	1.00	y	30:19	-	1.06	y
13	IS	13C-PCB-37	100.00	1.27e+08	1.08	y	30:19	-	1.19	y
14	Unk	PCB-54	2000.00	2.46e+09	0.78	y	25:35	-	0.920	y
15	IS/RT	13C-PCB-54	100.00	1.34e+08	0.80	y	25:34	-	1.25	y
16	Unk	PCB-104	2000.00	2.60e+09	1.54	y	30:02	-	1.05	y
17	IS	13C-PCB-104	100.00	1.24e+08	1.59	y	30:00	-	1.16	y
18	C/Up	13C-PCB-28	100.00	1.22e+08	1.04	y	26:38	-	1.14	y
19	RS	13C-PCB-52	100.00	1.07e+08	0.79	y	28:55	1.07e+06	-	n
20	Unk	PCB-81	2000.00	2.23e+09	0.76	y	36:07	-	1.10	y
21	IS	13C-PCB-81	100.00	1.01e+08	0.81	y	36:06	-	1.14	y
22	Unk	PCB-77	2000.00	2.19e+09	0.77	y	36:40	-	1.07	y
23	IS/RT	13C-PCB-77	100.00	1.03e+08	0.82	y	36:38	-	1.15	y
24	Unk	PCB-155	2000.00	2.51e+09	1.24	y	34:11	-	1.01	y
25	IS	13C-PCB-155	100.00	1.24e+08	1.26	y	34:09	-	1.40	y
26	C/Up	13C-PCB-111	100.00	1.13e+08	1.55	y	36:14	-	1.26	y
27	RS	13C-PCB-101	100.00	8.92e+07	1.58	y	34:36	8.92e+05	-	n
28	Unk	PCB-123	2000.00	1.72e+09	1.49	y	38:19	-	1.02	y
29	IS	13C-PCB-123	100.00	8.42e+07	1.56	y	38:17	-	1.22	y
30	Unk	PCB-118	2000.00	1.96e+09	1.50	y	38:29	-	1.04	y
31	IS	13C-PCB-118	100.00	9.44e+07	1.56	y	38:27	-	1.37	y
32	Unk	PCB-114	2000.00	1.69e+09	1.48	y	39:06	-	0.986	y
33	IS	13C-PCB-114	100.00	8.58e+07	1.57	y	39:05	-	1.24	y
34	Unk	PCB-105	2000.00	1.89e+09	1.55	y	39:54	-	1.06	y
35	IS	13C-PCB-105	100.00	8.94e+07	1.57	y	39:54	-	1.30	y
36	Unk	PCB-126	2000.00	1.64e+09	1.53	y	42:03	-	1.02	y
37	IS	13C-PCB-126	100.00	8.07e+07	1.61	y	42:01	-	1.17	y
38	Unk	PCB-167	2000.00	1.84e+09	1.24	y	43:23	-	0.933	y
39	IS	13C-PCB-167	100.00	9.84e+07	1.23	y	43:23	-	1.43	y
40	Unk	PCB-156	2000.00	1.77e+09	1.24	y	44:37	-	0.949	y
41	IS	13C-PCB-156	100.00	9.34e+07	1.25	y	44:36	-	1.35	y
42	Unk	PCB-157	2000.00	1.77e+09	1.24	y	44:52	-	0.882	y
43	IS	13C-PCB-157	100.00	1.00e+08	1.24	y	44:52	-	1.45	y
44	Unk	PCB-169	2000.00	1.55e+09	1.24	y	46:46	-	0.923	y
45	IS	13C-PCB-169	100.00	8.38e+07	1.23	y	46:44	-	1.22	y
46	Unk	PCB-188	2000.00	2.37e+09	1.05	y	39:41	-	1.08	y
47	IS	13C-PCB-188	100.00	1.10e+08	1.05	y	39:39	-	1.60	y
48	Unk	PCB-189	2000.00	1.68e+09	1.05	y	48:24	-	1.13	y
49	IS	13C-PCB-189	100.00	7.47e+07	1.03	y	48:24	-	1.08	y
50	Unk	PCB-202	2000.00	1.89e+09	0.86	y	44:47	-	1.09	y
51	IS	13C-PCB-202	100.00	8.65e+07	0.94	y	44:47	-	1.26	y
52	C/Up	13C-PCB-178	100.00	6.07e+07	1.04	y	42:17	-	0.880	y
53	RS	13C-PCB-138	100.00	6.89e+07	1.25	y	41:31	6.89e+05	-	n

54	Unk	PCB-205	2000.00	1.07e+09	0.91 y	50:04	-	1.13	y	
55	IS	13C-PCB-205	100.00	4.76e+07	0.92 y	50:02	-	1.62	y	
56	Unk	PCB-208	2000.00	1.22e+09	1.34 y	49:07	-	0.857	y	
57	IS	13C-PCB-208	100.00	7.11e+07	0.79 y	49:07	-	2.42	y	
58	Unk	PCB-206	2000.00	9.31e+08	1.36 y	51:14	-	0.925	y	
59	IS	13C-PCB-206	100.00	5.03e+07	0.78 y	51:13	-	1.71	y	
60	Unk	PCB-209	2000.00	1.58e+09	1.16 y	52:25	-	1.12	y	
61	IS	13C-PCB-209	100.00	7.05e+07	1.20 y	52:24	-	2.40	y	
62	RS	13C-PCB-194	100.00	2.94e+07	0.93 y	49:47	2.94e+05	-	n	

Analyst: _____ Date: 2/9/14

USEPA - ITD

FORM 4A
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 2/8/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 08FEB16Z Sam:1 Analysis Date: 8-FEB-16 06:25:37

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
PCB-1	M/M+2	3.08	2.66-3.60	y	47.1	37.5 - 62.5
PCB-3	M/M+2	3.17	2.66-3.60	y	48.6	37.5 - 62.5
PCB-4	M/M+2	1.54	1.33-1.79	y	46.7	37.5 - 62.5
PCB-15	M/M+2	1.57	1.33-1.79	y	49.1	37.5 - 62.5
PCB-19	M/M+2	1.01	0.88-1.20	y	49.1	37.5 - 62.5
PCB-37	M/M+2	1.03	0.88-1.20	y	48.5	37.5 - 62.5
PCB-54	M/M+2	0.78	0.65-0.89	y	48.4	37.5 - 62.5
PCB-77	M/M+2	0.76	0.65-0.89	y	47.4	37.5 - 62.5
PCB-81	M/M+2	0.77	0.65-0.89	y	49.3	37.5 - 62.5
PCB-104	M+2/M+4	1.52	1.32-1.78	y	46.6	37.5 - 62.5
PCB-105	M+2/M+4	1.55	1.32-1.78	y	47.6	37.5 - 62.5
PCB-114	M+2/M+4	1.52	1.32-1.78	y	48.1	37.5 - 62.5
PCB-118	M+2/M+4	1.53	1.32-1.78	y	49.5	37.5 - 62.5
PCB-123	M+2/M+4	1.51	1.32-1.78	y	46.4	37.5 - 62.5
PCB-126	M+2/M+4	1.52	1.32-1.78	y	47.4	37.5 - 62.5
PCB-155	M+2/M+4	1.25	1.05-1.43	y	47.1	37.5 - 62.5
PCB-156	M+2/M+4	1.22	1.05-1.43	y	47.0	37.5 - 62.5
PCB-157	M+2/M+4	1.24	1.05-1.43	y	48.8	37.5 - 62.5
PCB-167	M+2/M+4	1.24	1.05-1.43	y	48.1	37.5 - 62.5
PCB-169	M+2/M+4	1.25	1.05-1.43	y	47.0	37.5 - 62.5
PCB-188	M+2/M+4	1.05	0.89-1.21	y	47.0	37.5 - 62.5
PCB-189	M+2/M+4	1.06	0.89-1.21	y	46.5	37.5 - 62.5
PCB-202	M+2/M+4	0.86	0.76-1.02	y	46.3	37.5 - 62.5
PCB-205	M+2/M+4	0.91	0.76-1.02	y	47.6	37.5 - 62.5
PCB-206	M+4/M+6	1.33	1.13-1.53	y	47.0	37.5 - 62.5
PCB-208	M+4/M+6	1.36	1.13-1.53	y	46.6	37.5 - 62.5
PCB-209	M+4/M+6	1.17	0.99-1.33	y	48.4	37.5 - 62.5

Analyst: [signature] Date: 2/9/16

USEPA - ITD

FORM 4B
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 2/8/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 08FEB16Z Sam:1 Analysis Date: 8-FEB-16 06:25:37

	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
LABELED COMPOUNDS						
13C-PCB-1	M/M+2	3.05	2.66-3.60	y	102	50.0 - 145
13C-PCB-3	M/M+2	3.06	2.66-3.60	y	98.8	50.0 - 145
13C-PCB-4	M/M+2	1.57	1.33-1.79	y	100	50.0 - 145
13C-PCB-15	M/M+2	1.58	1.33-1.79	y	94.4	50.0 - 145
13C-PCB-19	M/M+2	1.05	0.88-1.20	y	98.1	50.0 - 145
13C-PCB-37	M/M+2	1.07	0.88-1.20	y	95.6	50.0 - 145
13C-PCB-54	M/M+2	0.80	0.65-0.89	y	100	50.0 - 145
13C-PCB-77	M/M+2	0.80	0.65-0.89	y	92.0	50.0 - 145
13C-PCB-81	M/M+2	0.80	0.65-0.89	y	91.1	50.0 - 145
13C-PCB-104	M+2/M+4	1.60	1.32-1.78	y	96.8	50.0 - 145
13C-PCB-105	M+2/M+4	1.55	1.32-1.78	y	97.6	50.0 - 145
13C-PCB-114	M+2/M+4	1.55	1.32-1.78	y	100	50.0 - 145
13C-PCB-118	M+2/M+4	1.57	1.32-1.78	y	99.0	50.0 - 145
13C-PCB-123	M+2/M+4	1.52	1.32-1.78	y	97.8	50.0 - 145
13C-PCB-126	M+2/M+4	1.62	1.32-1.78	y	88.2	50.0 - 145
13C-PCB-155	M+2/M+4	1.25	1.05-1.43	y	102	50.0 - 145
13C-PCB-156	M+2/M+4	1.26	1.05-1.43	y	94.4	50.0 - 145
13C-PCB-157	M+2/M+4	1.23	1.05-1.43	y	95.4	50.0 - 145
13C-PCB-167	M+2/M+4	1.25	1.05-1.43	y	96.9	50.0 - 145
13C-PCB-169	M+2/M+4	1.26	1.05-1.43	y	95.5	50.0 - 145
13C-PCB-188	M+2/M+4	1.03	0.89-1.21	y	107	50.0 - 145
13C-PCB-189	M+2/M+4	1.05	0.89-1.21	y	105	50.0 - 145
13C-PCB-202	M+2/M+4	0.93	0.76-1.02	y	108	50.0 - 145
13C-PCB-205	M+2/M+4	0.91	0.76-1.02	y	94.3	50.0 - 145
13C-PCB-206	M+2/M+4	0.76	0.65-0.89	y	93.3	50.0 - 145
13C-PCB-208	M+2/M+4	0.78	0.65-0.89	y	93.7	50.0 - 145
13C-PCB-209	M+4/M+6	1.18	0.99-1.33	y	89.2	50.0 - 145
CLEANUP STANDARDS						
13C-PCB-28	M/M+2	1.04	0.88-1.20	y	105	65.0 - 135
13C-PCB-111	M+2/M+4	1.58	1.32-1.78	y	100.0	75.0 - 125
13C-PCB-178	M+2/M+4	1.04	0.89-1.21	y	106	75.0 - 125

Analyst: [signature] Date: 2/9/16

FAL ID: ST020816Z3 Filename: 08FEB16Z Sam:1 Acquired: 8-FEB-16 06:25:37 ICal: 1668FAL4-2-8-16
Client ID: 1668 CS3 R150603A ConCal: NA EndCal: NA
Results: GC Column: DB1 Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL	Rec
PCB-1	1.03e+08	3.08 y	14:27	0.97	47.1		2.50	-	-	*	-
13C-PCB-1	2.24e+08	3.05 y	14:26	1.34	102		2.50				102
PCB-3	9.81e+07	3.17 y	16:54	0.99	48.6		2.50	-	-	*	-
13C-PCB-3	2.03e+08	3.06 y	16:53	1.26	98.8		2.50				98.8
PCB-4	5.52e+07	1.54 y	18:08	1.08	46.7		2.50	-	-	*	-
13C-PCB-4	1.09e+08	1.57 y	18:06	0.66	100		2.50				100
PCB-15	8.00e+07	1.57 y	23:41	1.06	49.1		2.50	-	-	*	-
13C-PCB-15	1.54e+08	1.58 y	23:39	1.00	94.4		2.50				94.4
PCB-19	6.00e+07	1.01 y	22:01	1.00	49.1		2.50	-	-	*	-
13C-PCB-19	1.22e+08	1.05 y	22:00	0.76	98.1		2.50				98.1
13C-PCB-9	1.64e+08	1.57 y	19:48	-	97.2		2.50				
PCB-37	5.94e+07	1.03 y	30:20	1.12	48.5		2.50	-	-	*	-
13C-PCB-37	1.09e+08	1.07 y	30:19	1.08	95.6		2.50				95.6
PCB-54	6.14e+07	0.78 y	25:34	0.97	48.4		2.50	-	-	*	-
13C-PCB-54	1.31e+08	0.80 y	25:33	1.23	100		2.50				100
PCB-104	5.74e+07	1.52 y	30:01	1.10	46.6		2.50	-	-	*	-
13C-PCB-104	1.12e+08	1.60 y	29:60	1.09	96.8		2.50				96.8
13C-PCB-28	1.26e+08	1.04 y	26:37	1.14	105		2.50				105
13C-PCB-52	1.06e+08	0.78 y	28:54	-	97.8		2.50				
PCB-81	4.62e+07	0.77 y	36:06	1.15	49.3		2.50	-	-	*	-
13C-PCB-81	8.14e+07	0.80 y	36:05	1.01	91.1		2.50				91.1
PCB-77	4.41e+07	0.76 y	36:40	1.13	47.4		2.50	-	-	*	-
13C-PCB-77	8.24e+07	0.80 y	36:39	1.02	92.0		2.50				92.0
PCB-155	5.92e+07	1.25 y	34:10	1.09	47.1		2.50	-	-	*	-
13C-PCB-155	1.15e+08	1.25 y	34:08	1.29	102		2.50				102
13C-PCB-111	1.07e+08	1.58 y	36:14	1.22	100.0		2.50				100.0
13C-PCB-101	8.81e+07	1.60 y	34:35	-	95.9		2.50				
PCB-123	3.50e+07	1.51 y	38:17	1.07	46.4		2.50	-	-	*	-
13C-PCB-123	7.07e+07	1.52 y	38:16	1.07	97.8		2.50				97.8
PCB-118	4.19e+07	1.53 y	38:29	1.07	49.5		2.50	-	-	*	-
13C-PCB-118	7.93e+07	1.57 y	38:27	1.19	99.0		2.50				99.0
PCB-114	3.81e+07	1.52 y	39:05	1.06	48.1		2.50	-	-	*	-
13C-PCB-114	7.48e+07	1.55 y	39:03	1.11	100		2.50				100
PCB-105	3.73e+07	1.55 y	39:54	1.07	47.6		2.50	-	-	*	-
13C-PCB-105	7.33e+07	1.55 y	39:53	1.11	97.6		2.50				97.6
PCB-126	3.09e+07	1.52 y	42:03	1.08	47.4		2.50	-	-	*	-
13C-PCB-126	6.07e+07	1.62 y	42:01	1.02	88.2		2.50				88.2
PCB-167	3.69e+07	1.24 y	43:24	0.97	48.1		2.50	-	-	*	-
13C-PCB-167	7.92e+07	1.25 y	43:22	1.21	96.9		2.50				96.9
PCB-156	3.39e+07	1.22 y	44:38	1.01	47.0		2.50	-	-	*	-
13C-PCB-156	7.13e+07	1.26 y	44:36	1.12	94.4		2.50				94.4
PCB-157	3.55e+07	1.24 y	44:52	0.94	48.8		2.50	-	-	*	-
13C-PCB-157	7.70e+07	1.23 y	44:51	1.20	95.4		2.50				95.4
PCB-169	2.88e+07	1.25 y	46:44	0.97	47.0		2.50	-	-	*	-
13C-PCB-169	6.30e+07	1.26 y	46:44	0.98	95.5		2.50				95.5
PCB-188	5.36e+07	1.05 y	39:40	1.13	47.0		2.50	-	-	*	-
13C-PCB-188	1.01e+08	1.03 y	39:40	1.41	107		2.50				107
PCB-189	3.44e+07	1.06 y	48:25	1.17	46.5		2.50	-	-	*	-
13C-PCB-189	6.31e+07	1.05 y	48:23	0.89	105		2.50				105
PCB-202	3.97e+07	0.86 y	44:48	1.12	46.3		2.50	-	-	*	-
13C-PCB-202	7.69e+07	0.93 y	44:46	1.06	108		2.50				108
13C-PCB-178	5.91e+07	1.04 y	42:18	0.83	106		2.50				106
13C-PCB-138	6.74e+07	1.24 y	41:30	-	90.2		2.50				

Client ID: 1668 CS3 R150603A ConCal: NA EndCal: NA
Results: GC Column: DB1 Amount: 1.000

PCB-205	2.36e+07	0.91	y	50:03	1.13	47.6	2.50	-	-	*	-
13C-PCB-205	4.38e+07	0.91	y	50:03	1.47	94.3	2.50				94.3
PCB-208	2.51e+07	1.36	y	49:08	0.91	46.6	2.50	-	-	*	-
13C-PCB-208	5.93e+07	0.78	y	49:06	2.00	93.7	2.50				93.7
PCB-206	1.86e+07	1.33	y	51:13	0.96	47.0	2.50	-	-	*	-
13C-PCB-206	4.13e+07	0.76	y	51:13	1.40	93.3	2.50				93.3
PCB-209	3.24e+07	1.17	y	52:24	1.13	48.4	2.50	-	-	*	-
13C-PCB-209	5.94e+07	1.18	y	52:23	2.10	89.2	2.50				89.2
13C-PCB-194	3.17e+07	0.92	y	49:47	-	102	2.50				

Analyst: [illegible] Date: 2/9/16

Frontier Analytical Laboratory - Acquisition Log

Run Name:08FEB16Z Instrument: FAL4 GC: DB1 Experiment:1668PCB

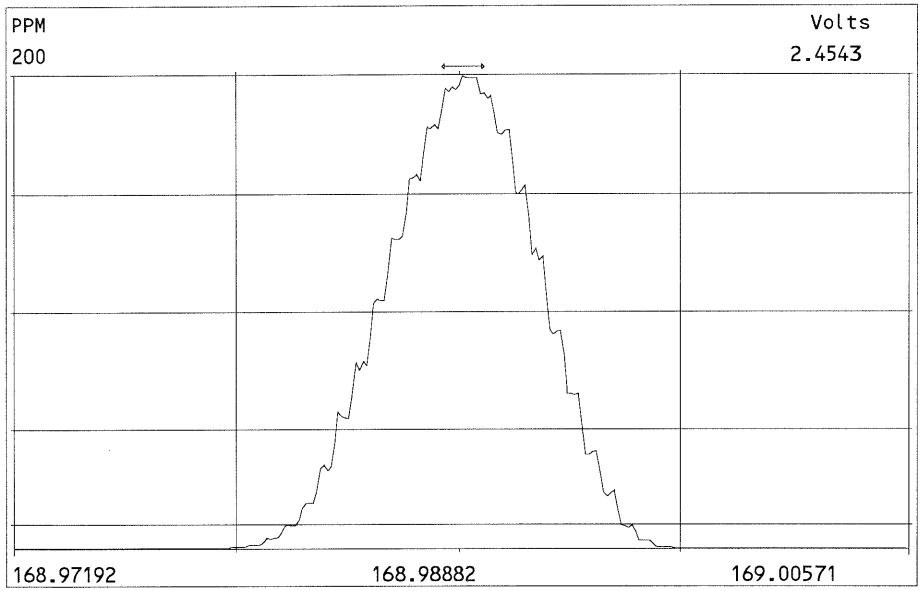
Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
08FEB16Z	1	ST020816Z3	1668 CS3 R150603A	8-FEB-16 06:25:37	NA	NA	BS
08FEB16Z	2	ST020816Z0	1668 CS0 R151116A	8-FEB-16 07:25:55	NA	NA	BS
08FEB16Z	3	ST020816Z1	1668 CS1 R121023B	8-FEB-16 08:25:50	NA	NA	BS
08FEB16Z	4	ST020816Z2	1668 CS2 R130426B	8-FEB-16 09:25:45	NA	NA	BS
08FEB16Z	5	ST020816Z4	1668 CS4 R151116B	8-FEB-16 10:25:42	NA	NA	BS
08FEB16Z	6	ST020816Z5	1668 CS5 R130426C	8-FEB-16 11:25:37	NA	NA	BS
08FEB16Z	7	SB020816Z1	Solvent Blank	8-FEB-16 12:25:34	NA	NA	BS
08FEB16Z	8	SS020816Z1	209 Second Source	8-FEB-16 13:25:31	NA	NA	BS
08FEB16Z	9	ST020816Z6	1668 CS3 R150603A	8-FEB-16 14:25:28	ST020816Z6	ST020816Z7	BS
08FEB16Z	10	SS020816Z2	DAILY 209 151201A	8-FEB-16 15:25:25	ST020816Z6	ST020816Z7	BS
08FEB16Z	11	3578-001-0001-OPR	OPR	8-FEB-16 16:25:22	ST020816Z6	ST020816Z7	BS
08FEB16Z	12	3578-001-0001-MB	Method Blank	8-FEB-16 17:25:19	ST020816Z6	ST020816Z7	BS
08FEB16Z	13	9545-001-0001-SA	E-002	8-FEB-16 18:25:15	ST020816Z6	ST020816Z7	BS
08FEB16Z	14	9547-002-0001-SA	E-1 Grab	8-FEB-16 19:25:10	ST020816Z6	ST020816Z7	BS
08FEB16Z	15	9560-002-0001-SA	EFF-001	8-FEB-16 20:25:07	ST020816Z6	ST020816Z7	BS
08FEB16Z	16	9606-001-0001-SA	EFFLUENT (E001-D)	8-FEB-16 21:25:05	ST020816Z6	ST020816Z7	BS
08FEB16Z	17	9610-004-0001-SA	EFF-001 East/West Comp	8-FEB-16 22:25:00	ST020816Z6	ST020816Z7	BS
08FEB16Z	18	SB020816Z2	Solvent Blank	8-FEB-16 23:24:54	ST020816Z6	ST020816Z7	BS
08FEB16Z	19	ST020816Z7	1668 CS3 R150603A	9-FEB-16 00:24:48	ST020816Z6	ST020816Z7	BS

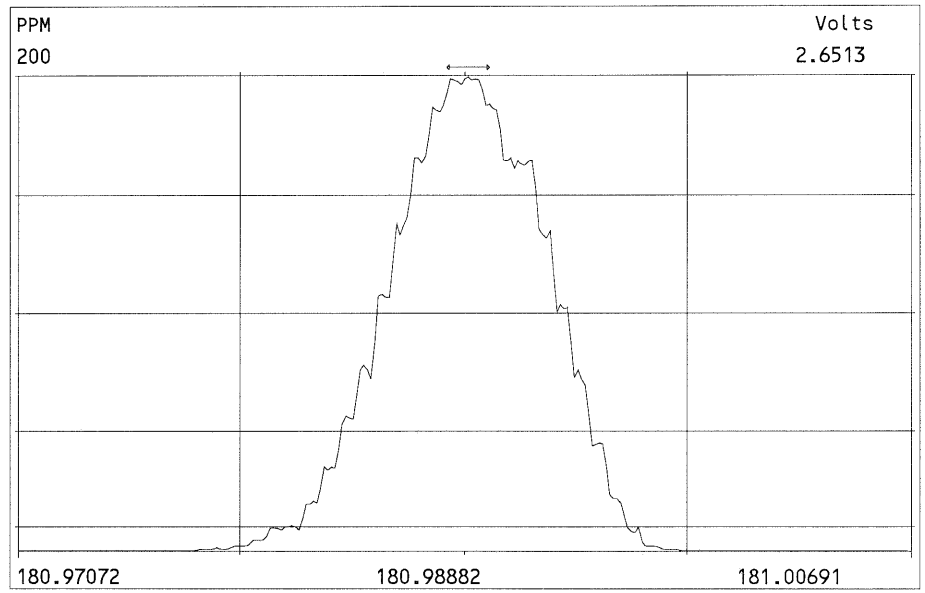
b 2/9/16

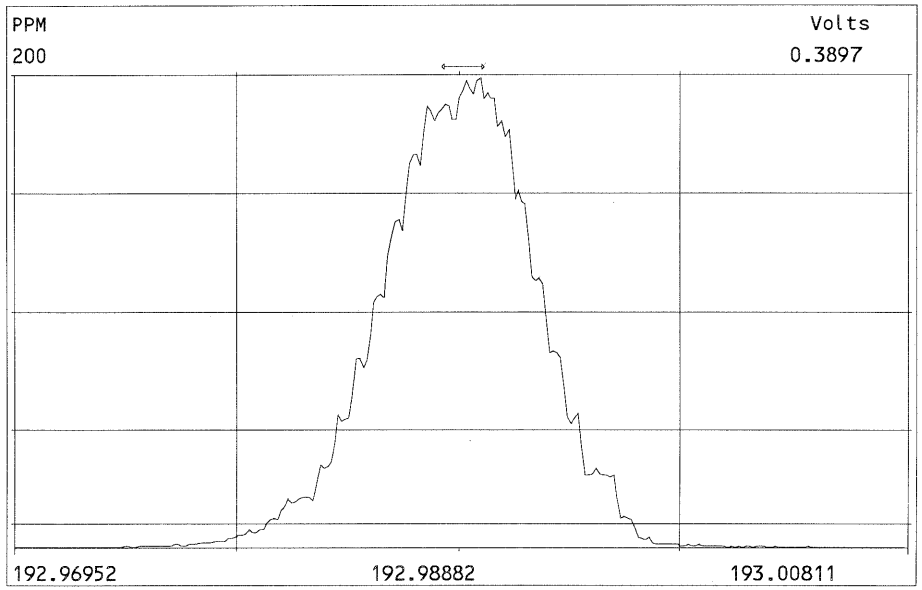
Data Backed Up:_____

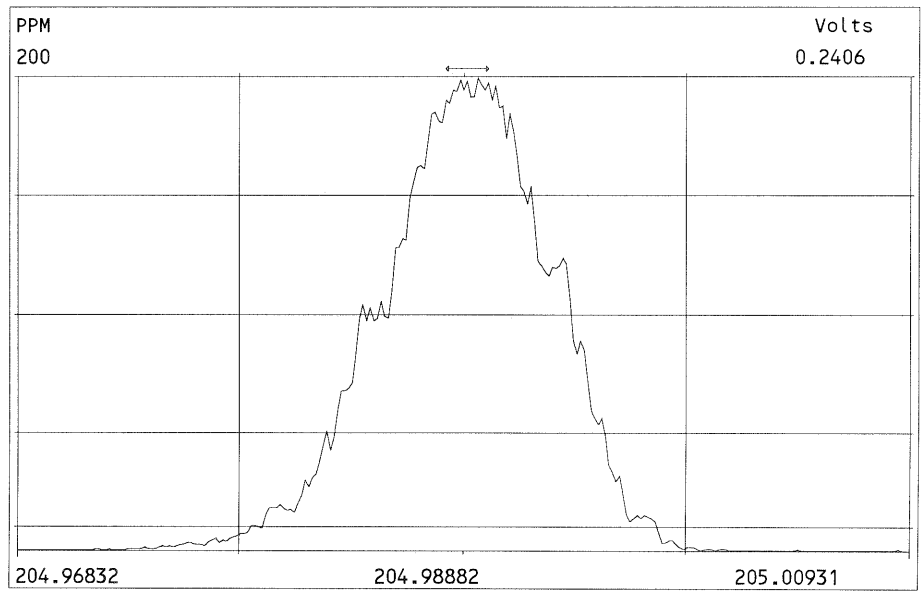
Date:_____

Peak Locate Examination: 8-FEB-2016:06:22 File:08FEB16Z
Experiment:1668PCB Function:1 Reference:PFK

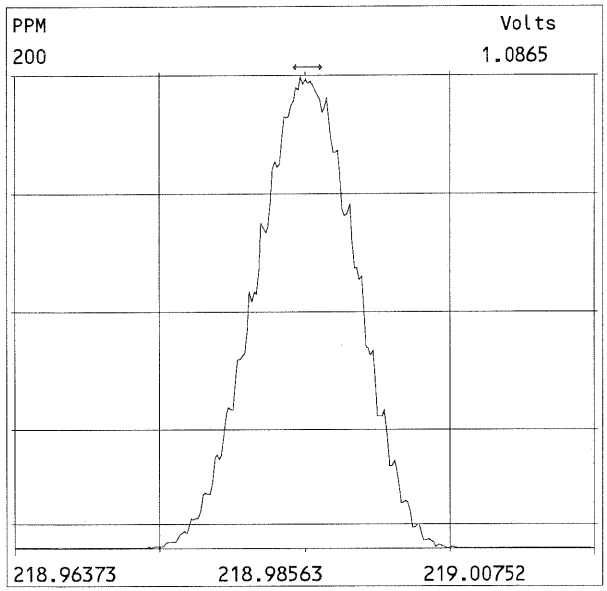


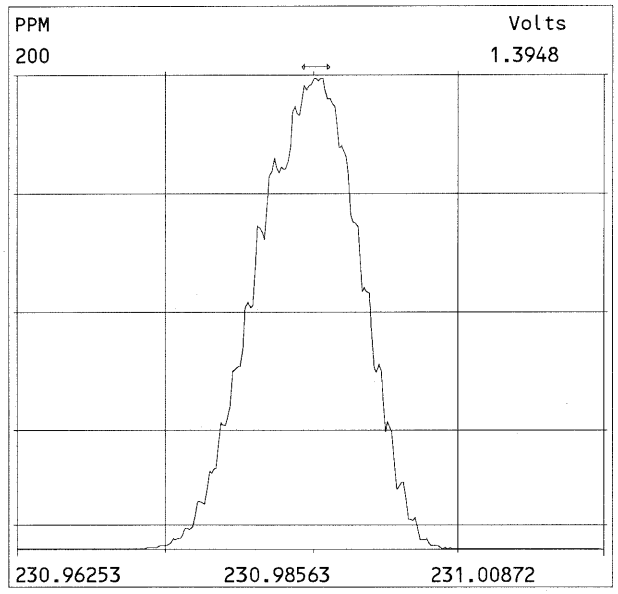


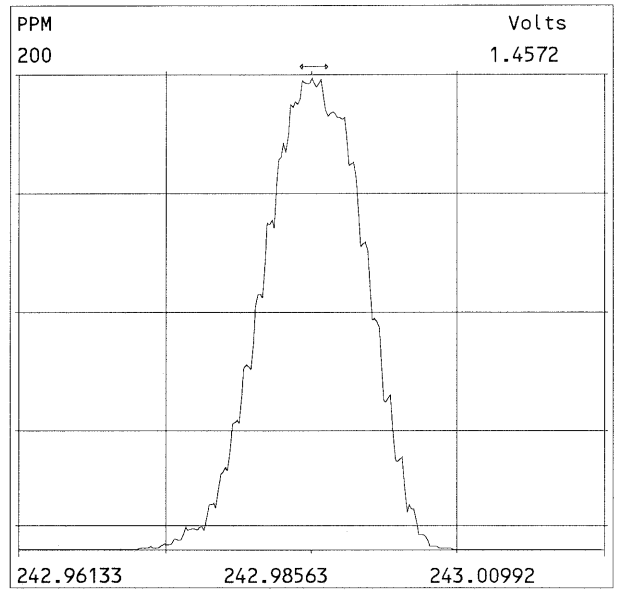


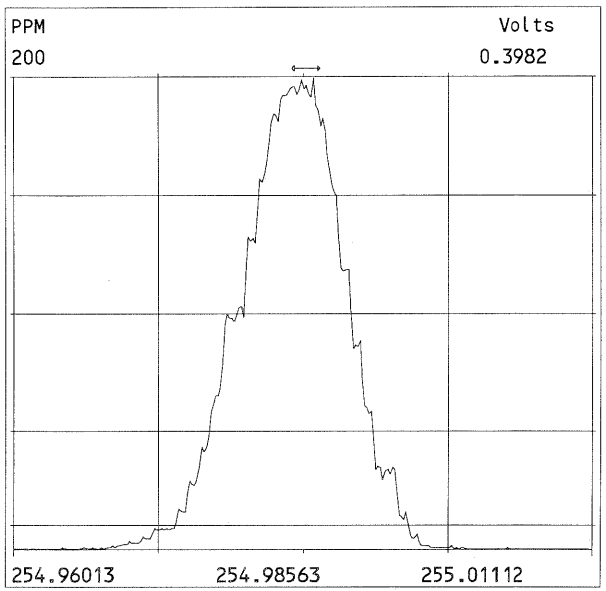


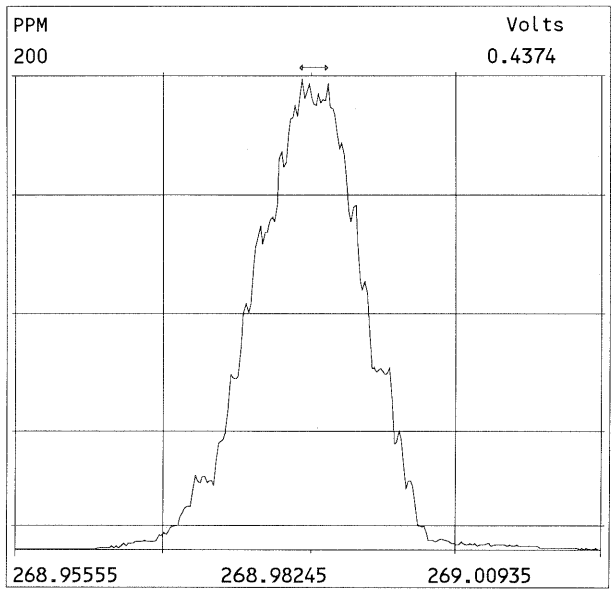
Peak Locate Examination: 8-FEB-2016:06:23 File:08FEB16Z
Experiment:1668PCB Function:2 Reference:PFK

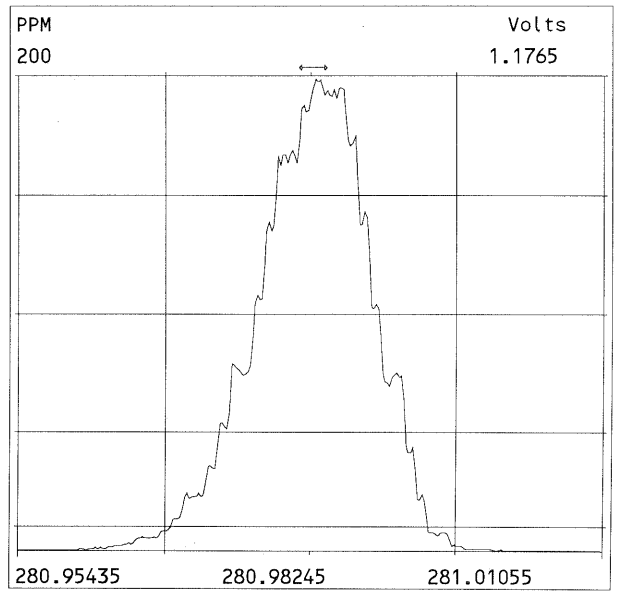




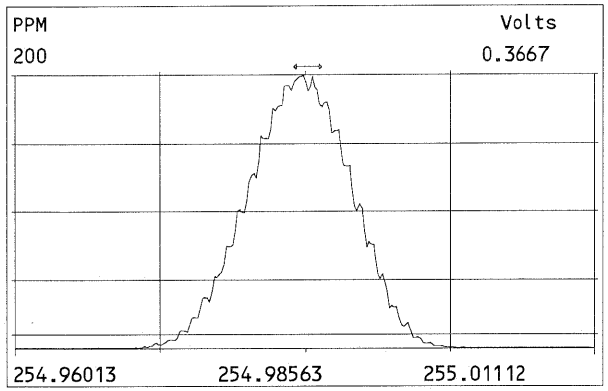


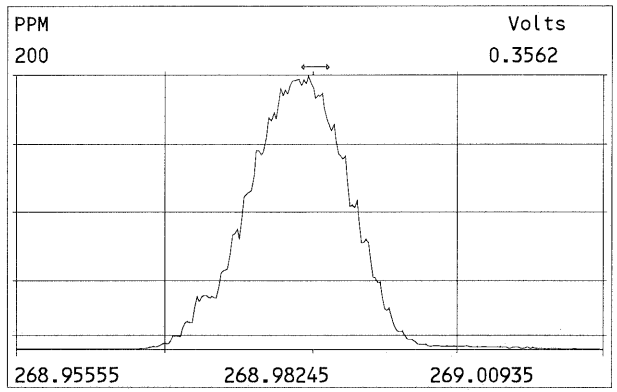


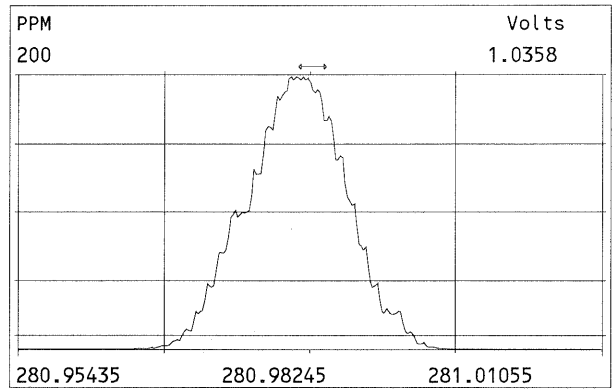


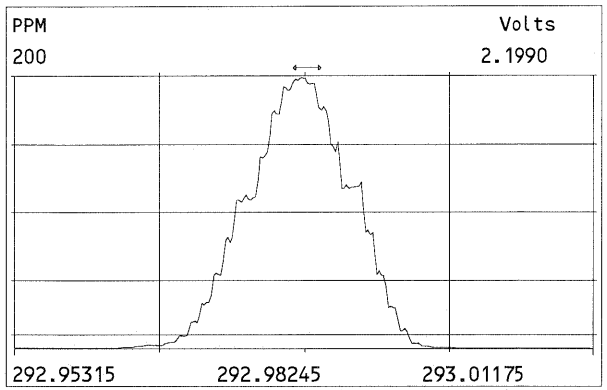


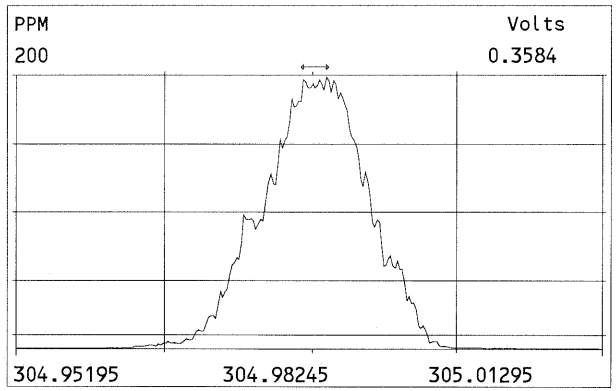
Peak Locate Examination: 8-FEB-2016:06:23 File:08FEB16Z
Experiment:1668PCB Function:3 Reference:PFK

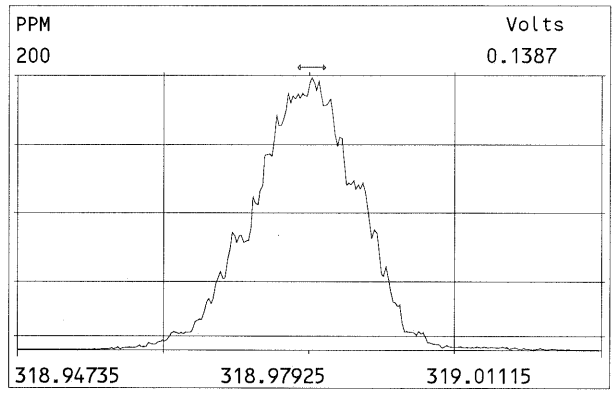


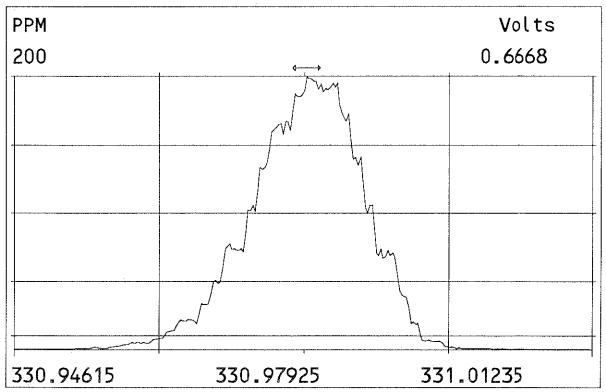


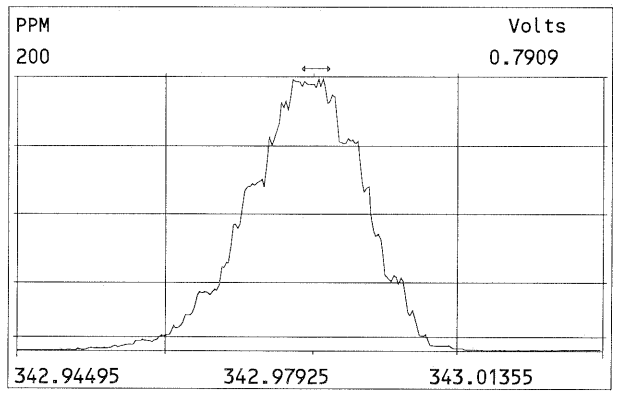




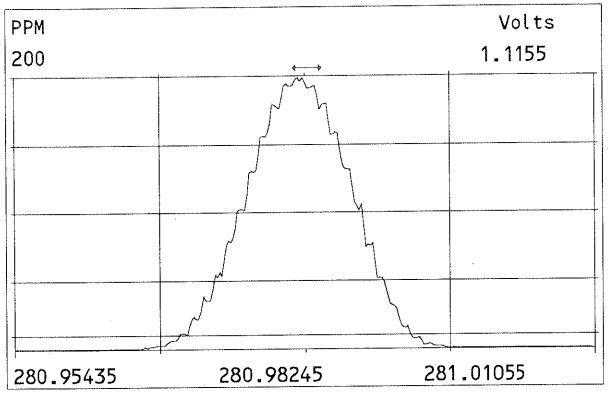


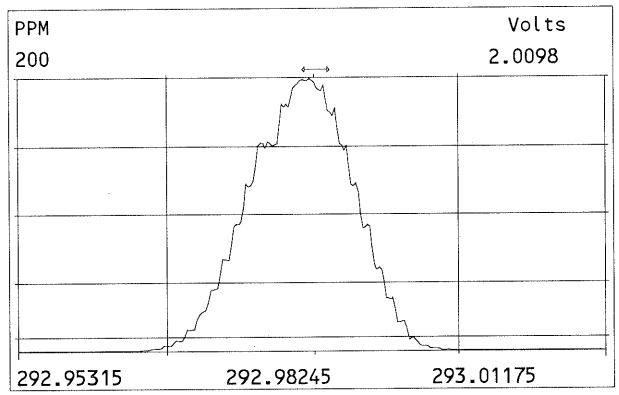


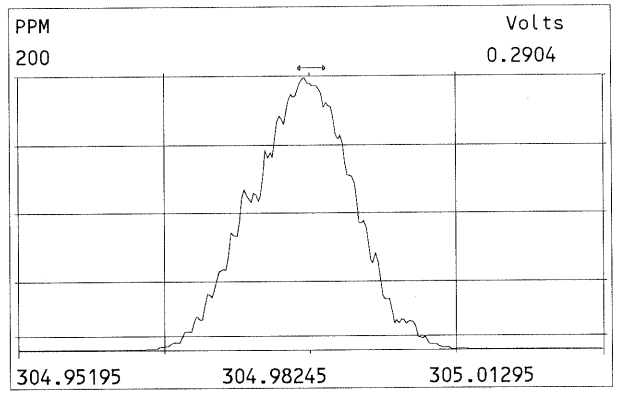


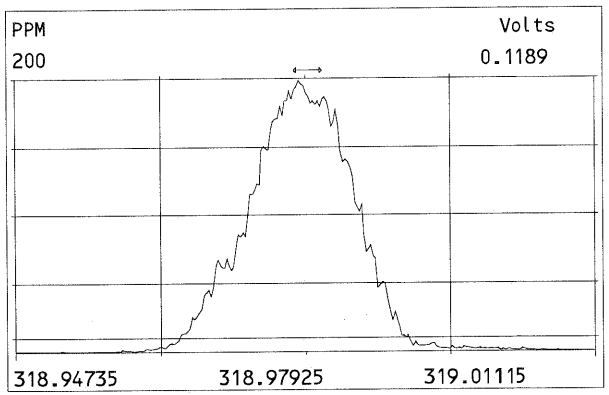


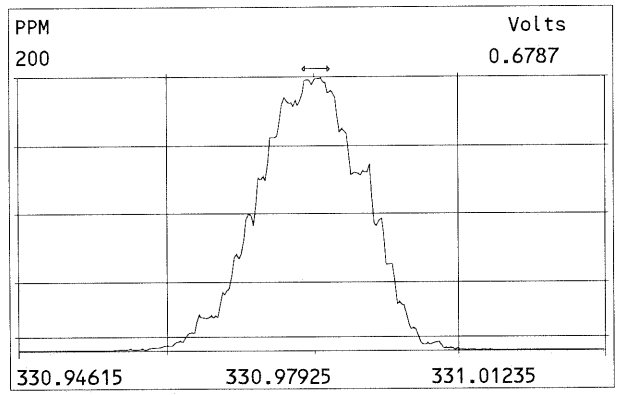
Peak Locate Examination: 8-FEB-2016:06:24 File:08FEB16Z
Experiment:1668PCB Function:4 Reference:PFK

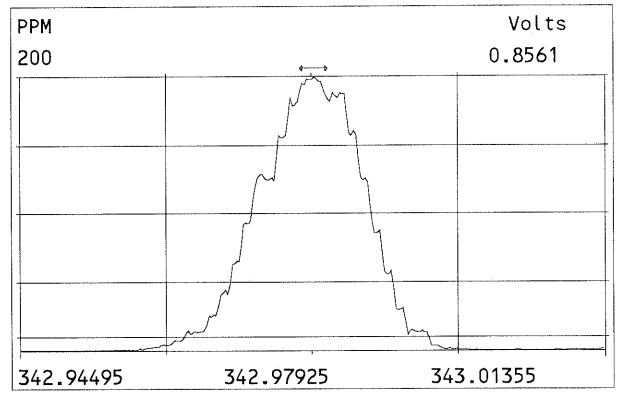


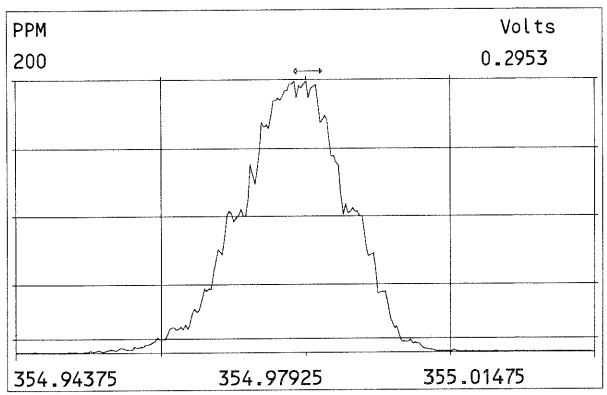


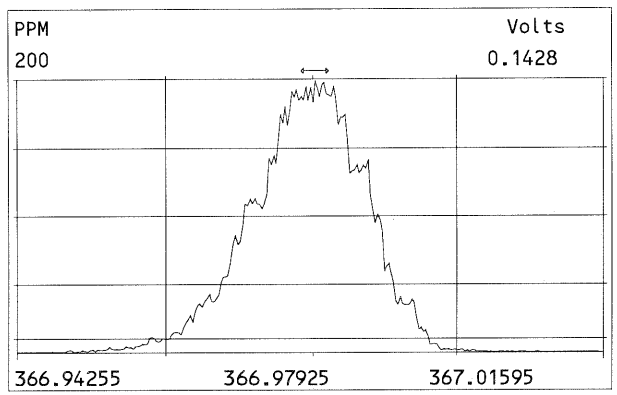


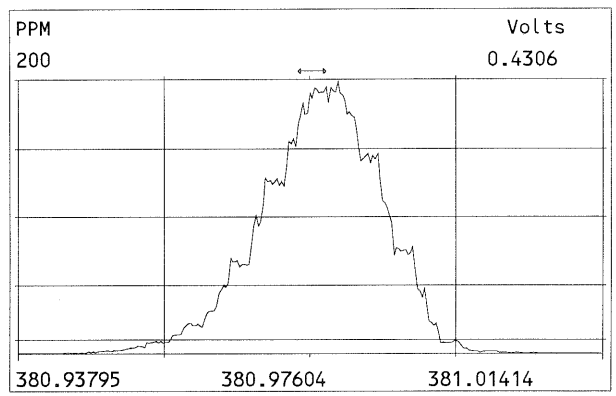




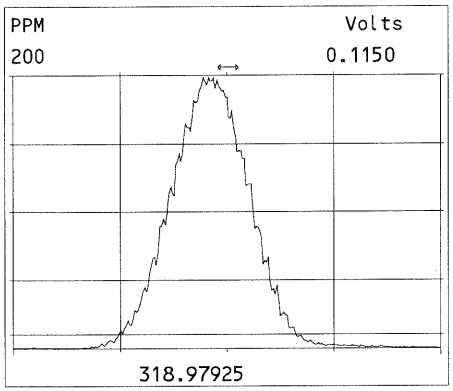


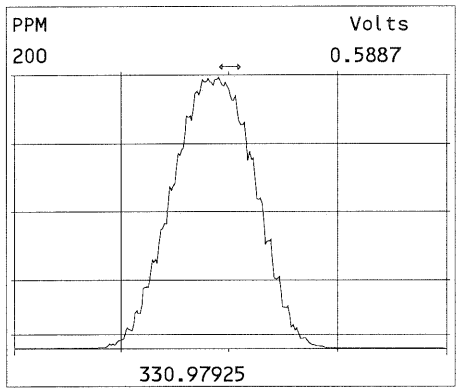


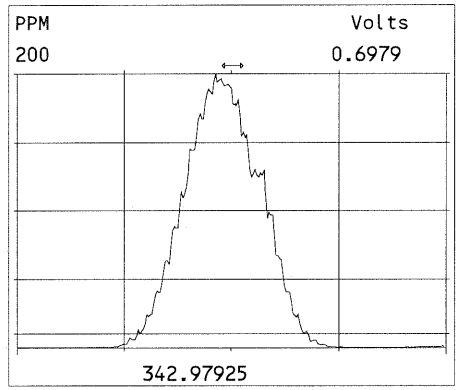


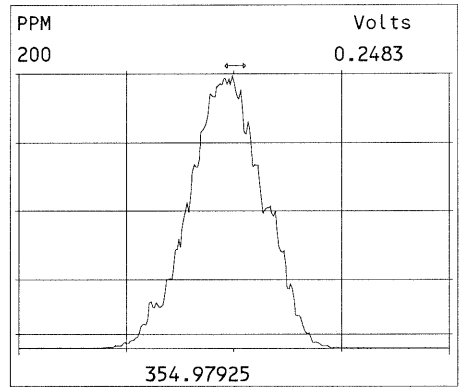


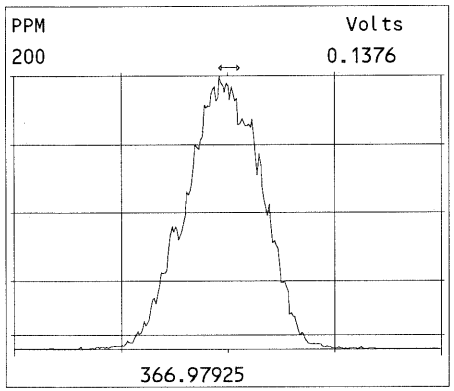
Peak Locate Examination: 8-FEB-2016:06:24 File:08FEB16Z
Experiment:1668PCB Function:5 Reference:PFK

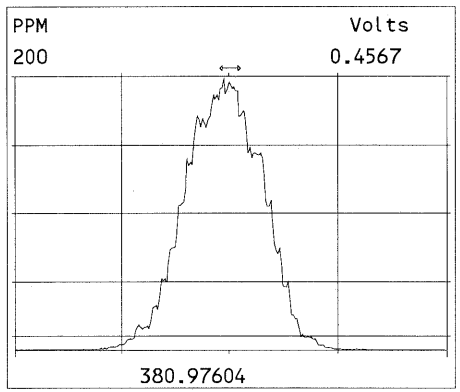


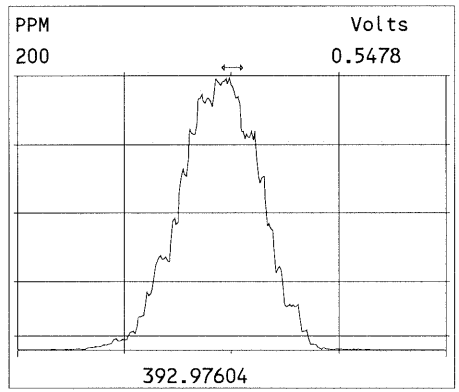


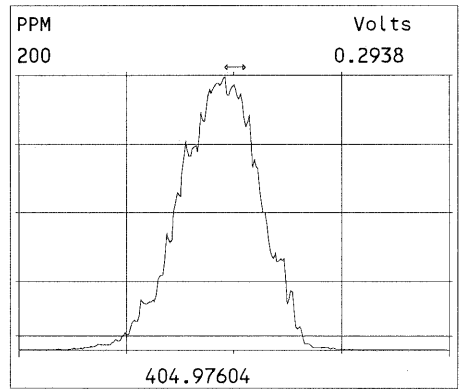


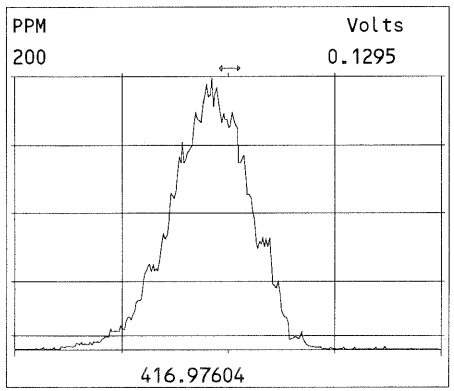


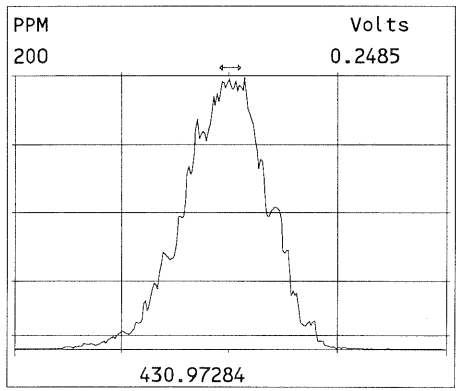


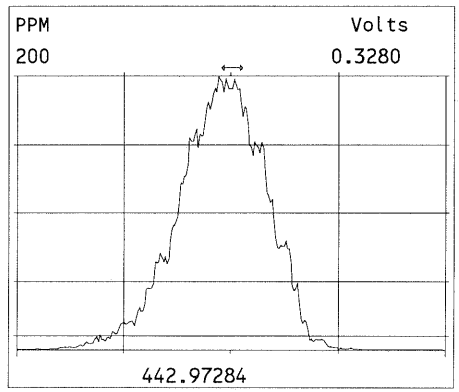




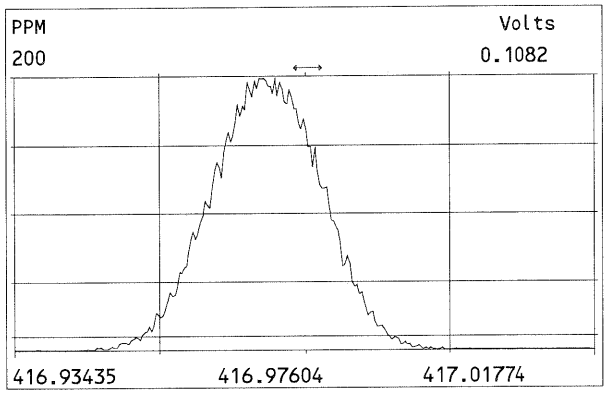


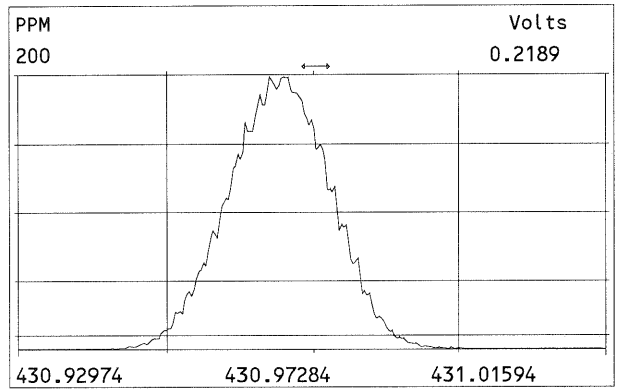


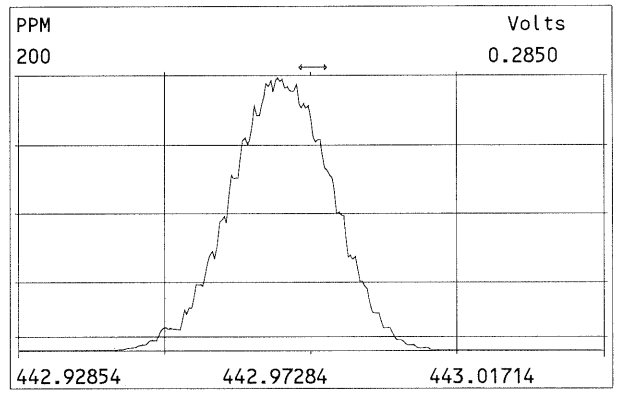


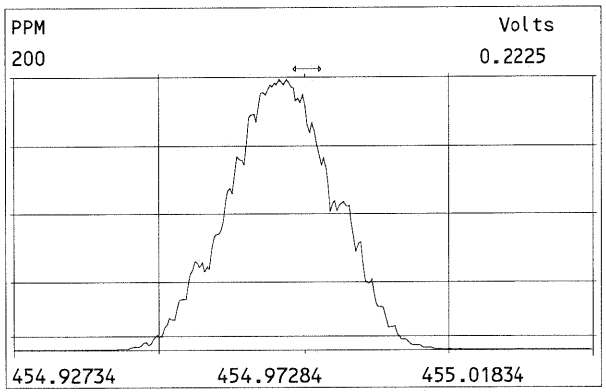


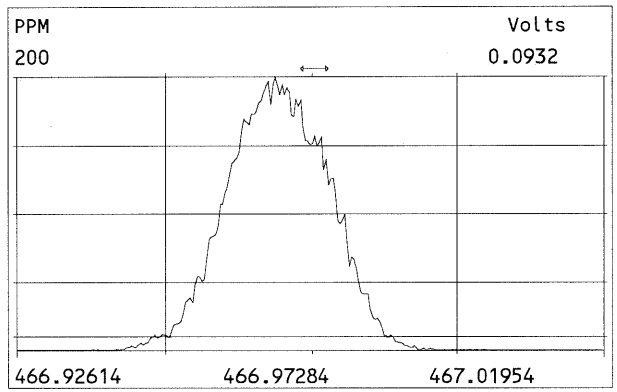
Peak Locate Examination: 8-FEB-2016:06:25 File:08FEB16Z
Experiment:1668PCB Function:6 Reference:PFK

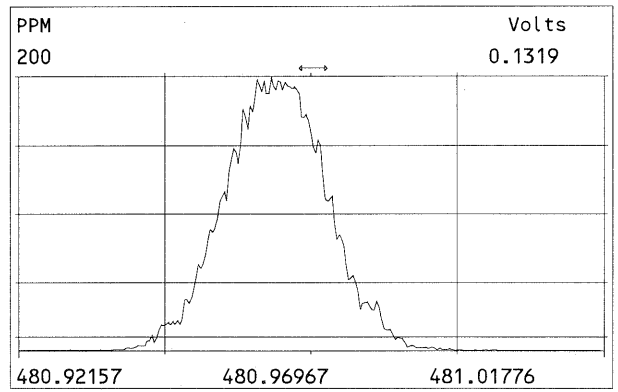


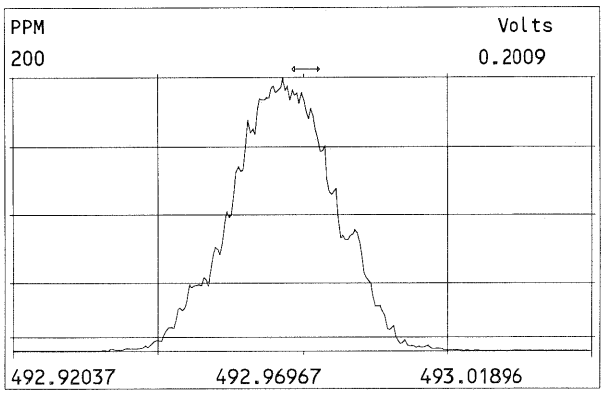


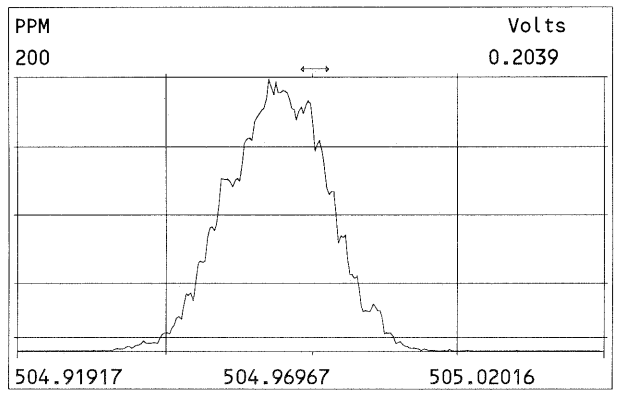


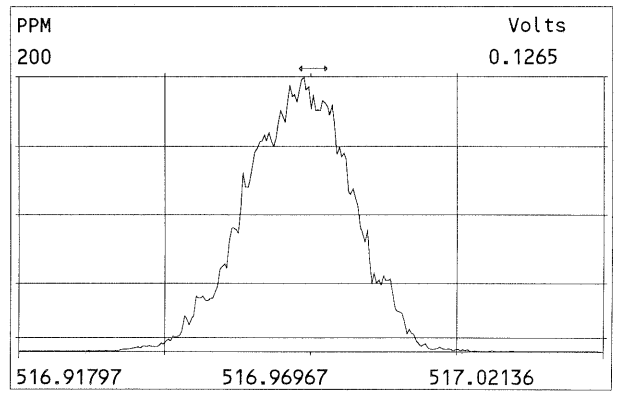




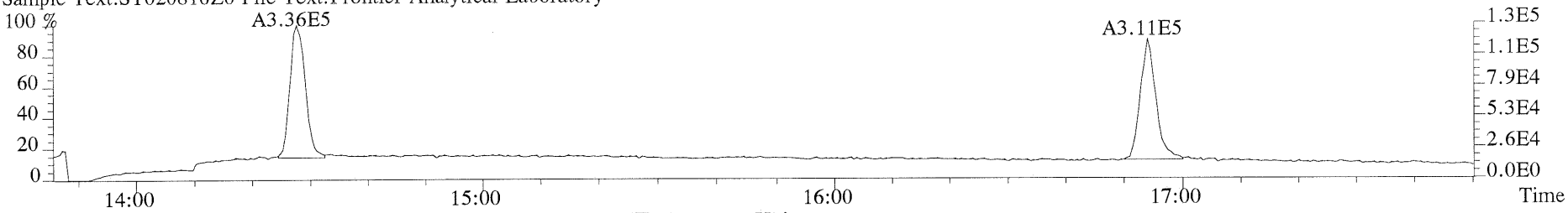








File:08FEB16Z #1-489 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-489 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
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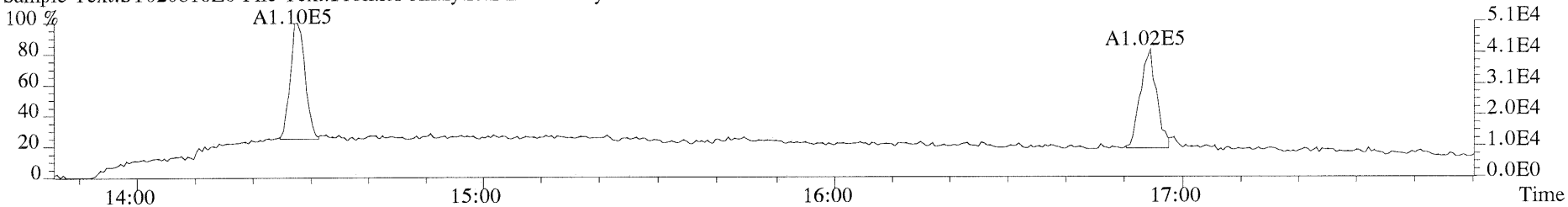
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



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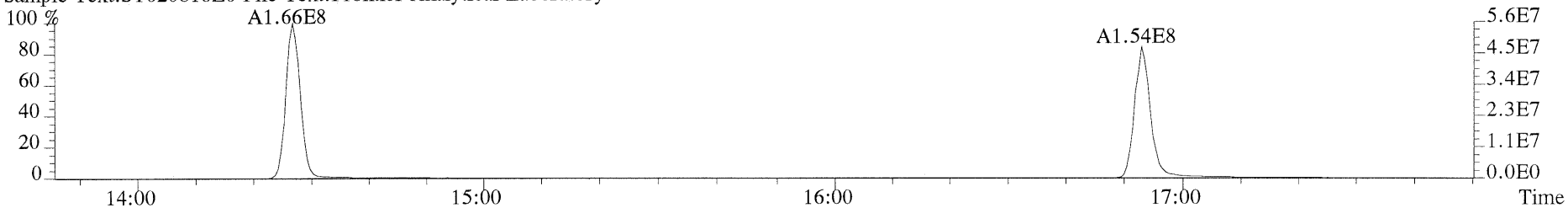
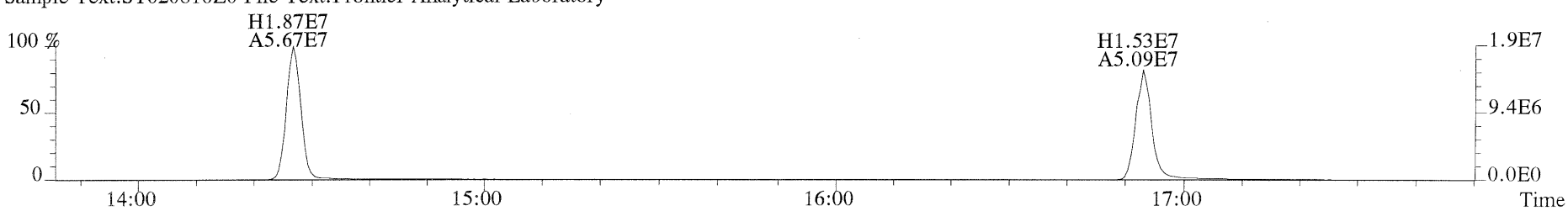
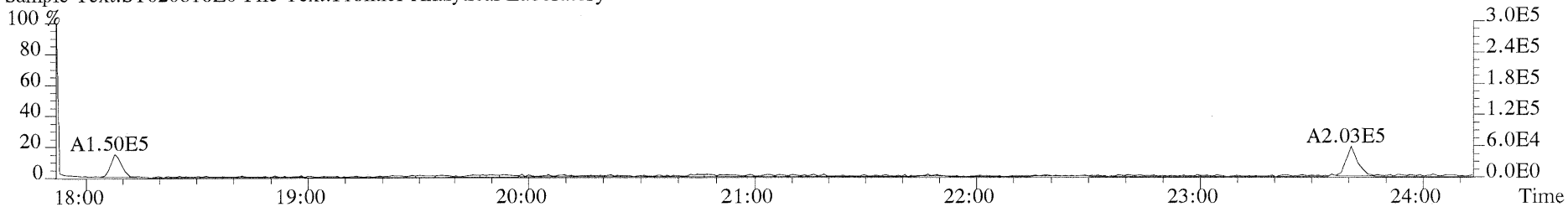
200.0795 S:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



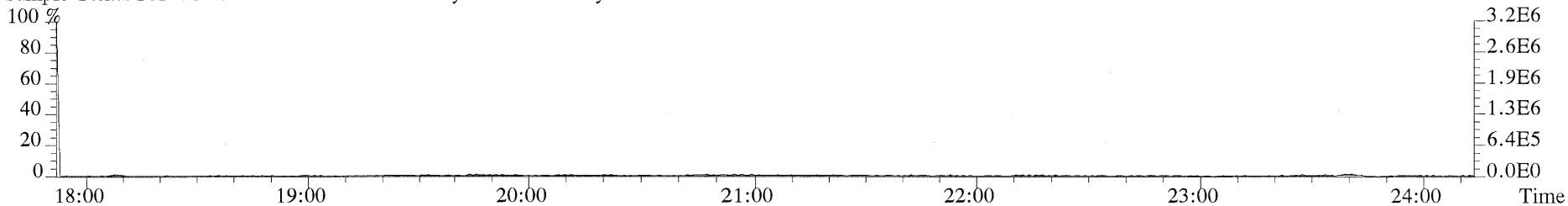
File:08FEB16Z #1-489 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



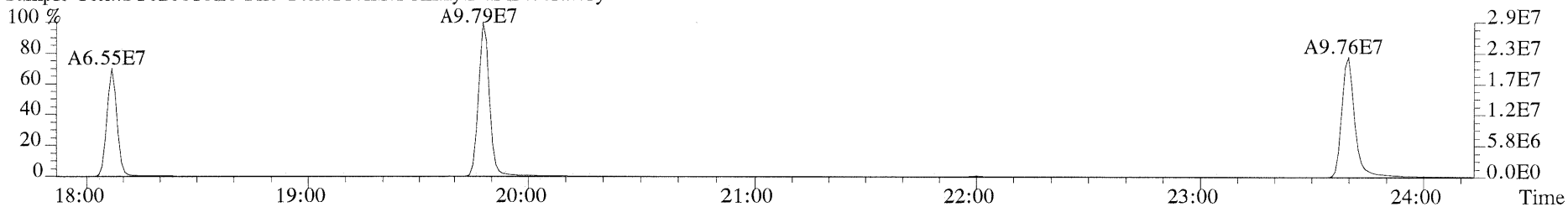
File:08FEB16Z #1-503 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



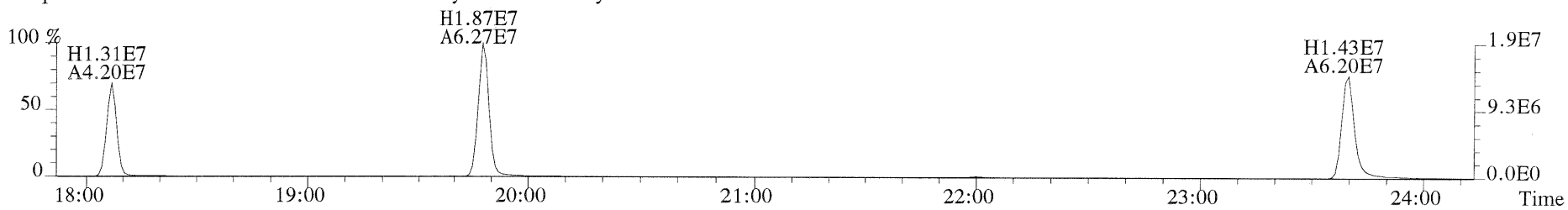
File:08FEB16Z #1-503 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



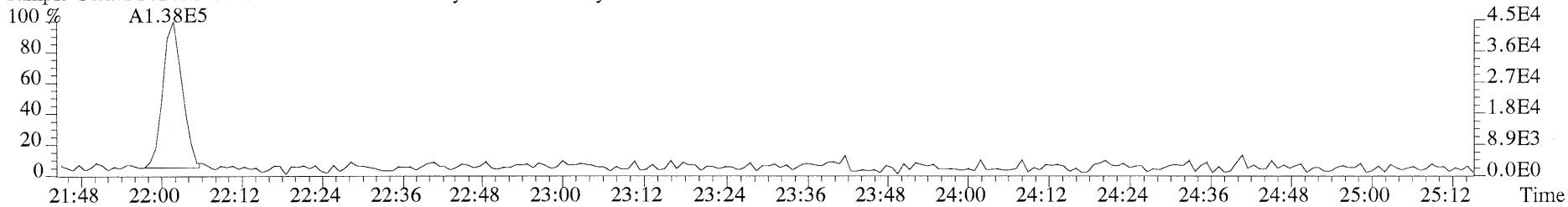
File:08FEB16Z #1-503 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



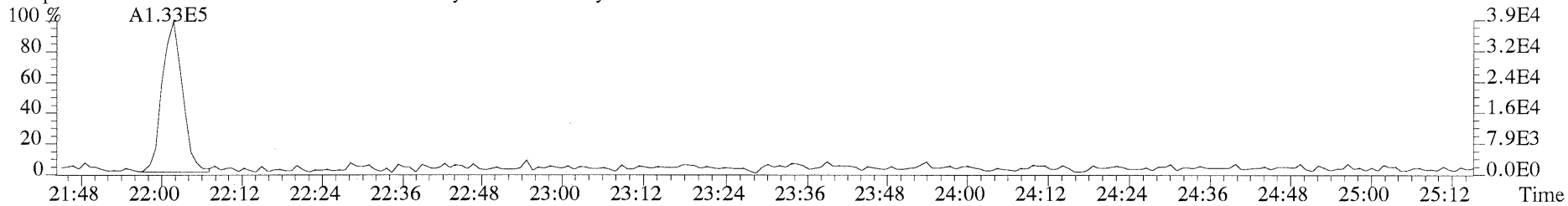
File:08FEB16Z #1-503 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



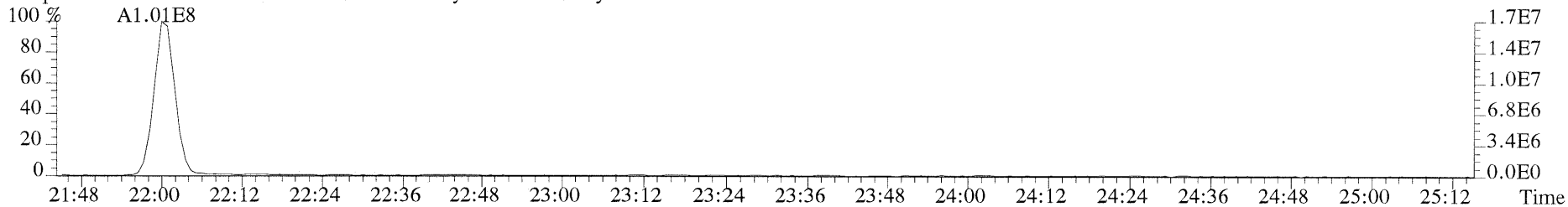
File:08FEB16Z #1-503 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



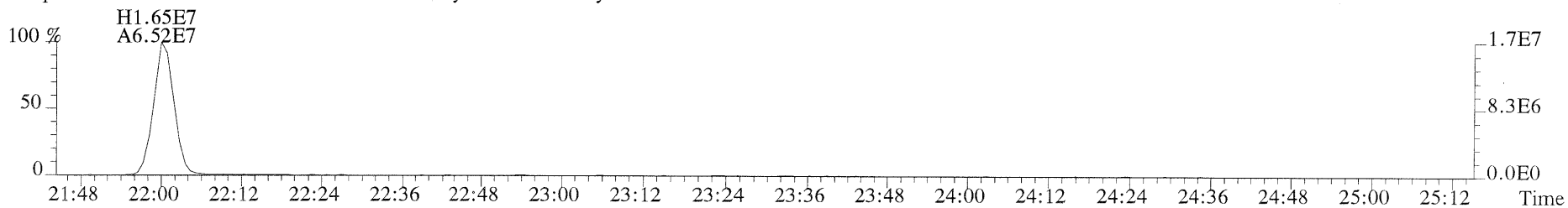
File:08FEB16Z #1-503 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



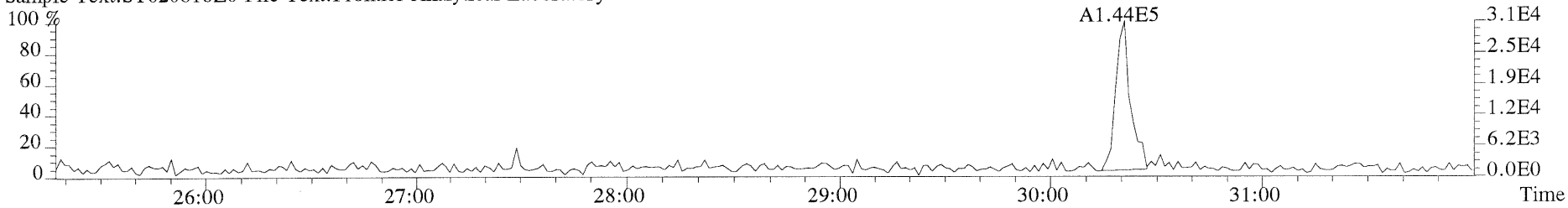
File:08FEB16Z #1-503 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



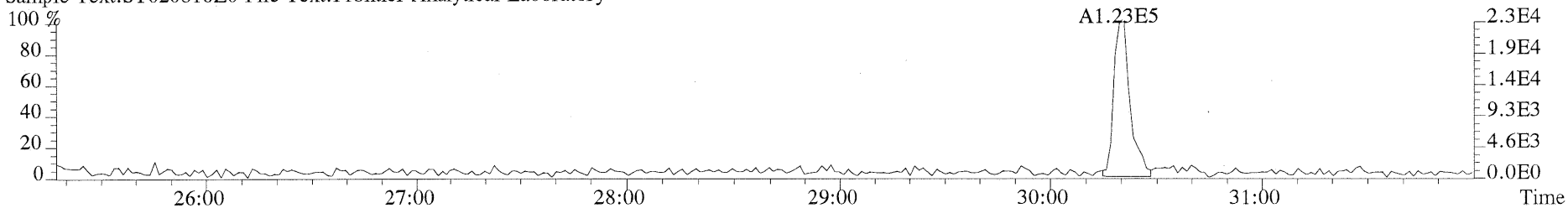
File:08FEB16Z #1-503 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



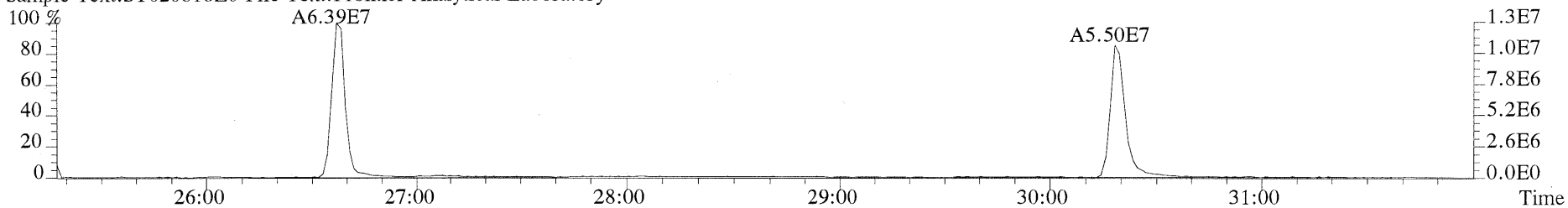
File:08FEB16Z #1-399 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



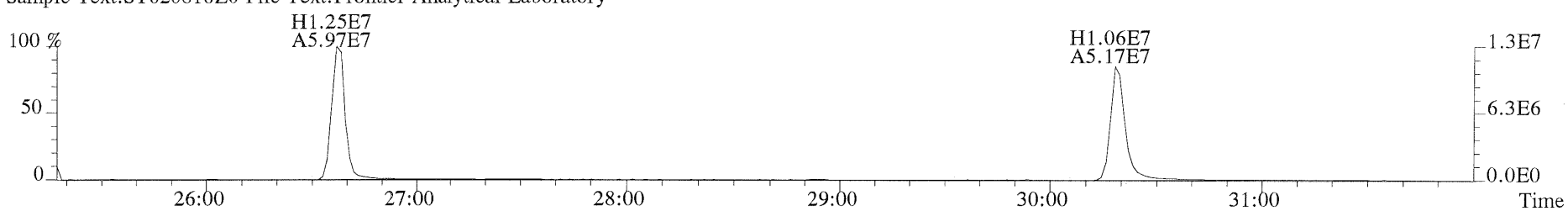
File:08FEB16Z #1-399 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



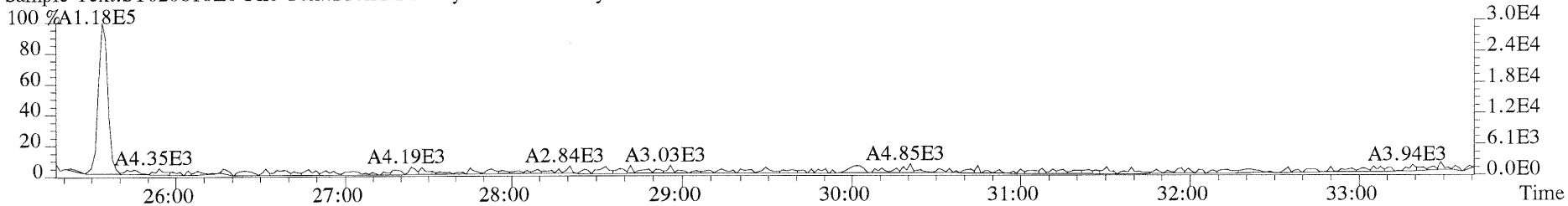
File:08FEB16Z #1-399 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-399 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-399 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-399 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
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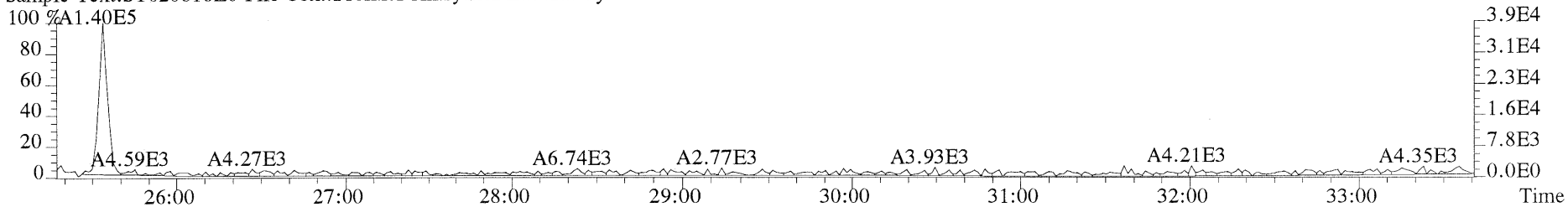
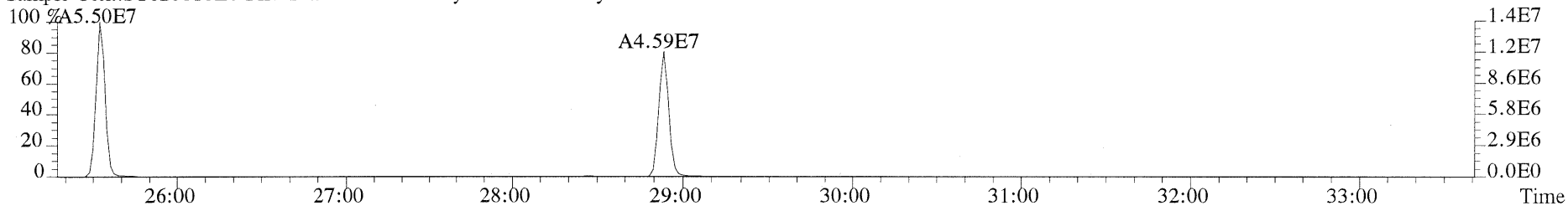
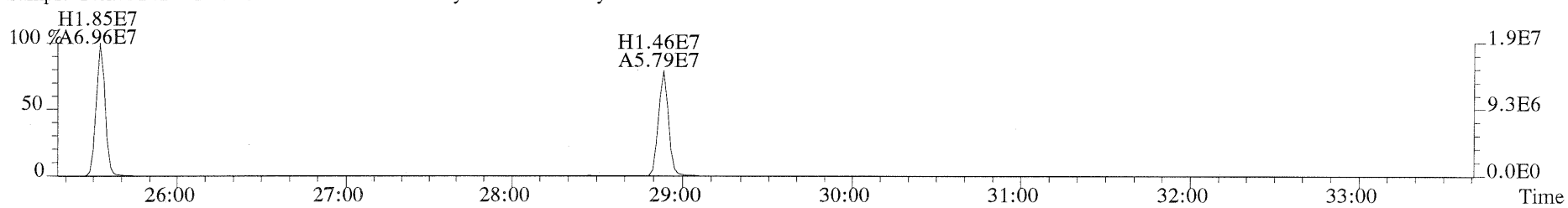


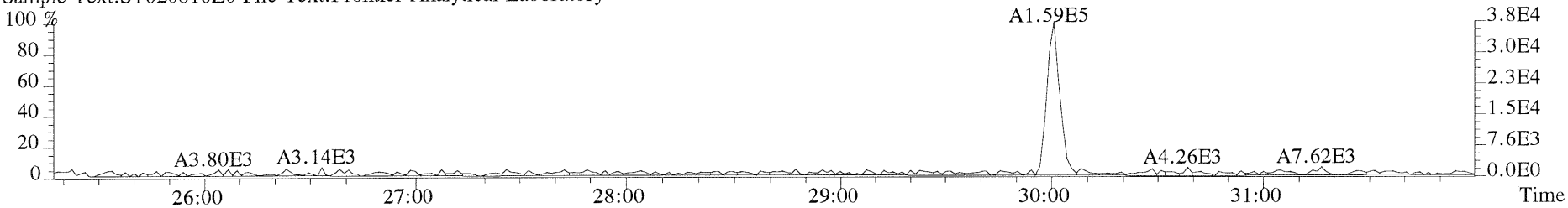
File:08FEB16Z #1-399 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



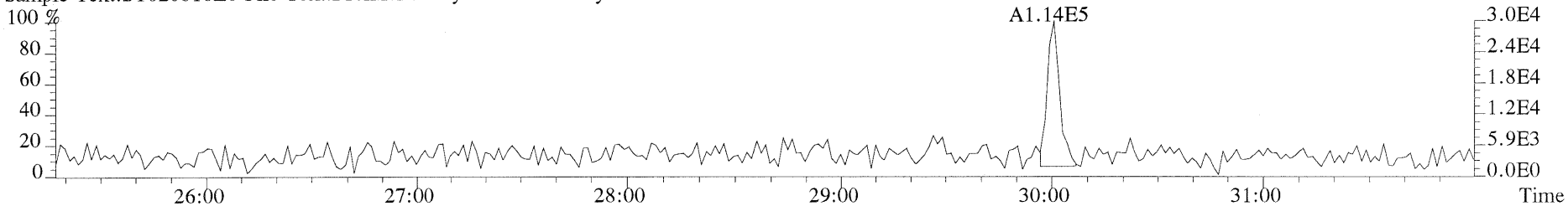
File:08FEB16Z #1-399 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



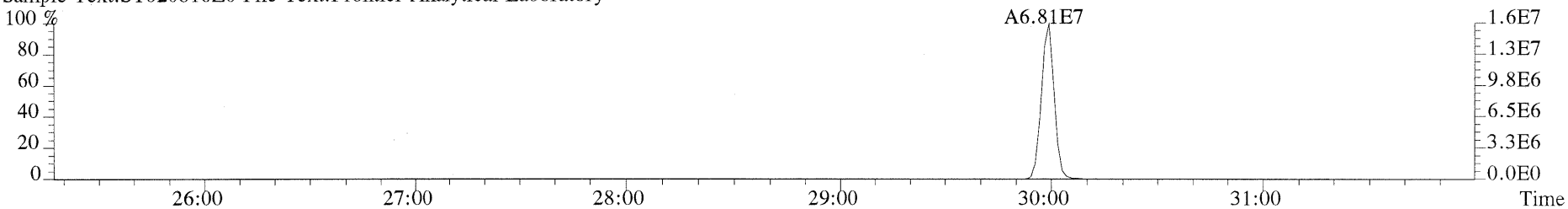
File:08FEB16Z #1-399 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



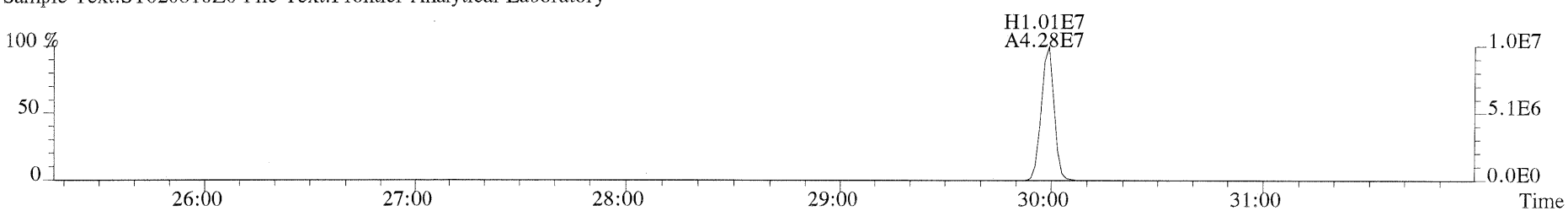
File:08FEB16Z #1-399 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



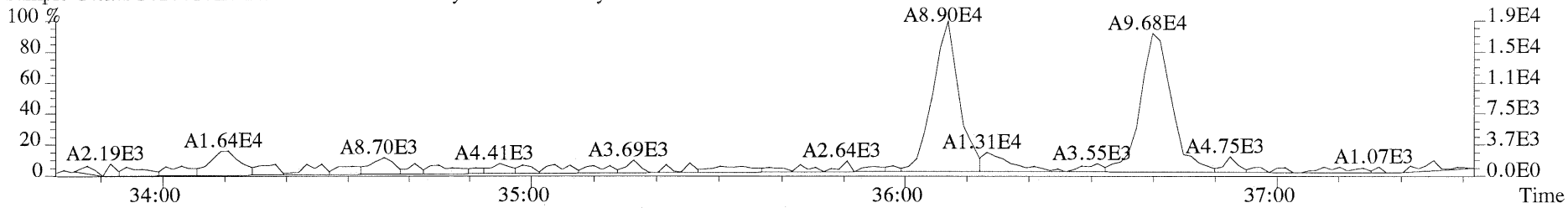
File:08FEB16Z #1-399 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



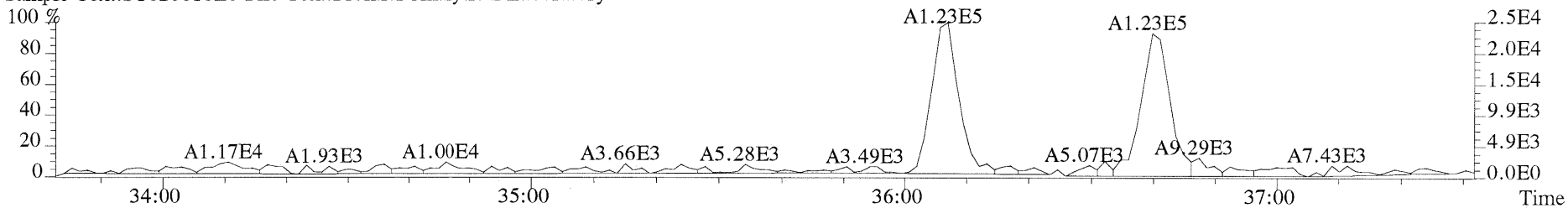
File:08FEB16Z #1-399 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



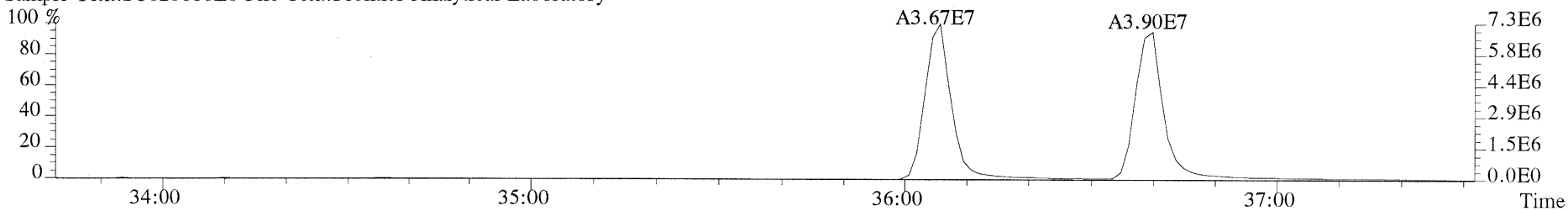
File:08FEB16Z #1-182 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



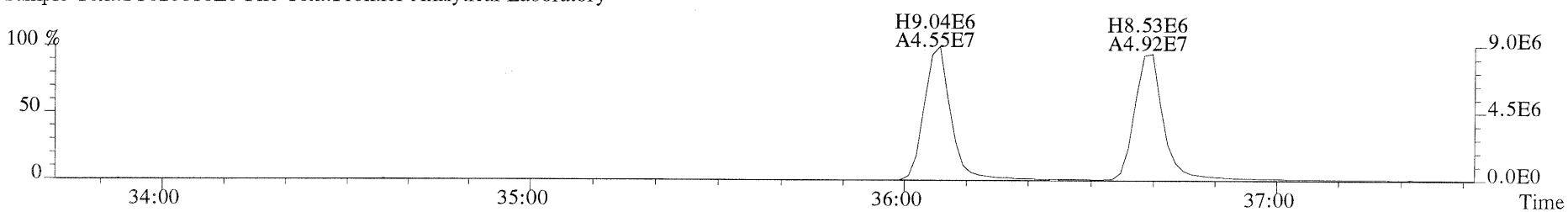
File:08FEB16Z #1-182 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



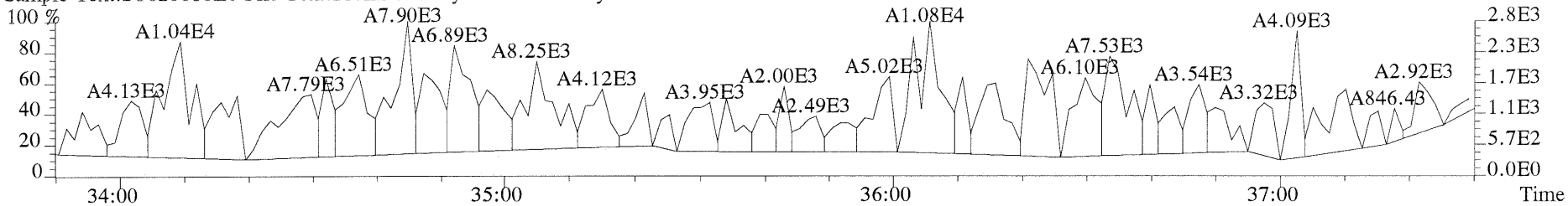
File:08FEB16Z #1-182 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



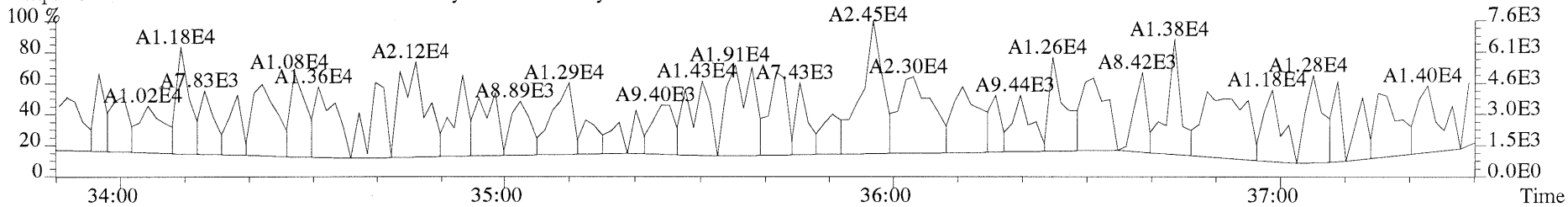
File:08FEB16Z #1-182 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



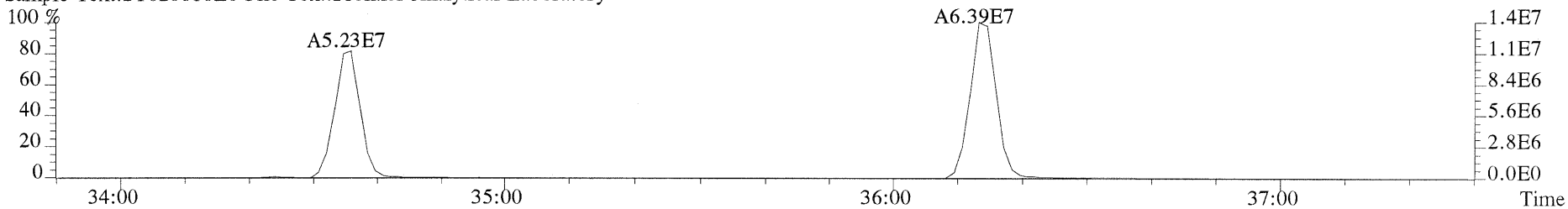
File:08FEB16Z #1-182 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



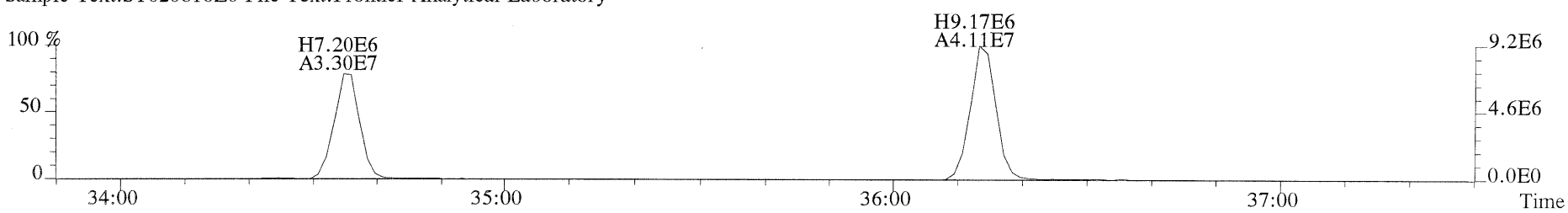
File:08FEB16Z #1-182 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



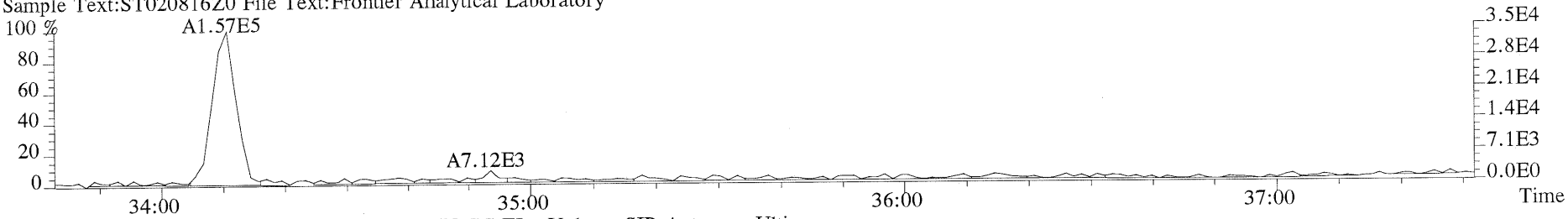
File:08FEB16Z #1-182 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



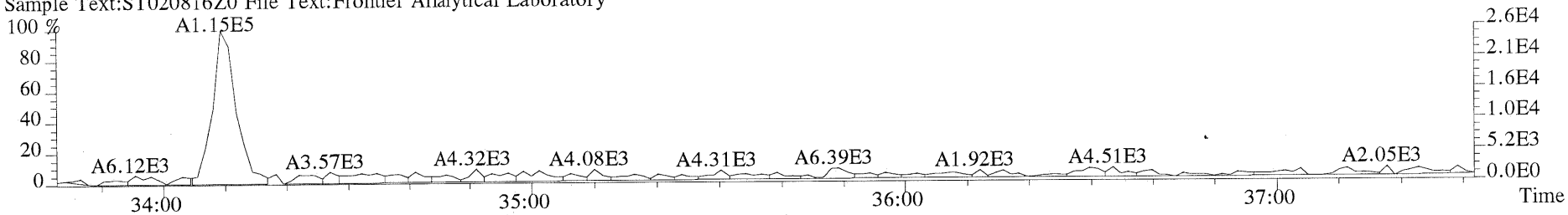
File:08FEB16Z #1-182 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



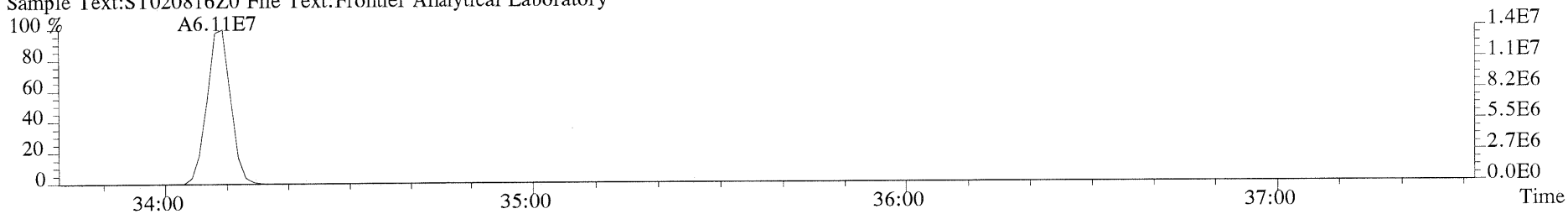
File:08FEB16Z #1-182 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-182 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-182 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



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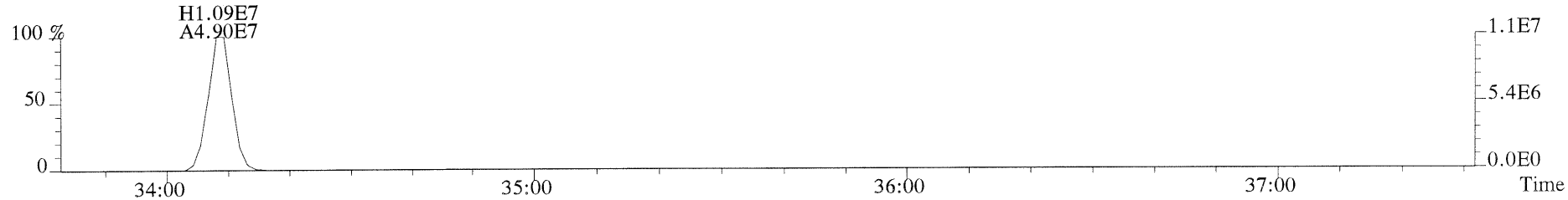
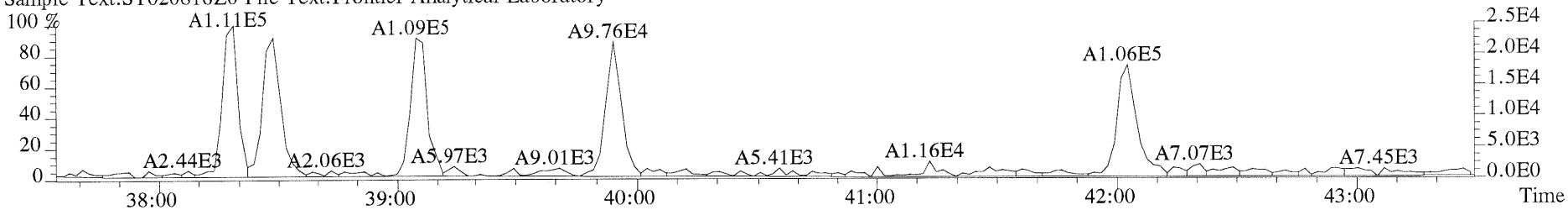
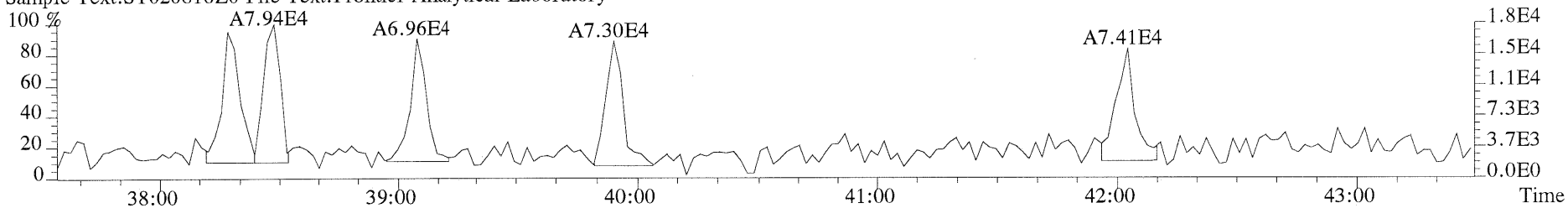
373.8788 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



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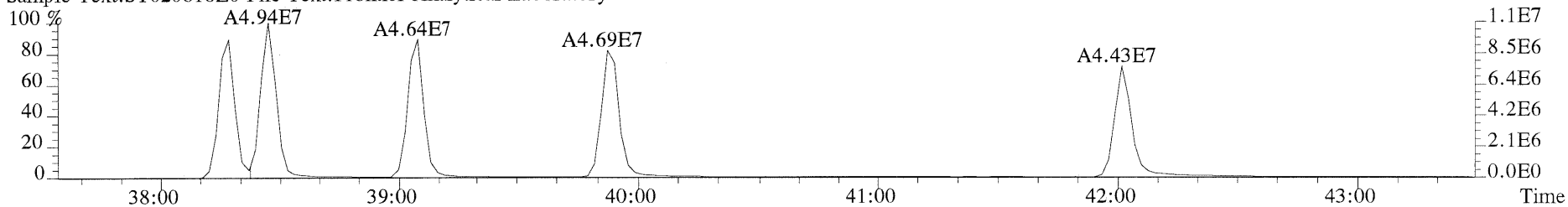
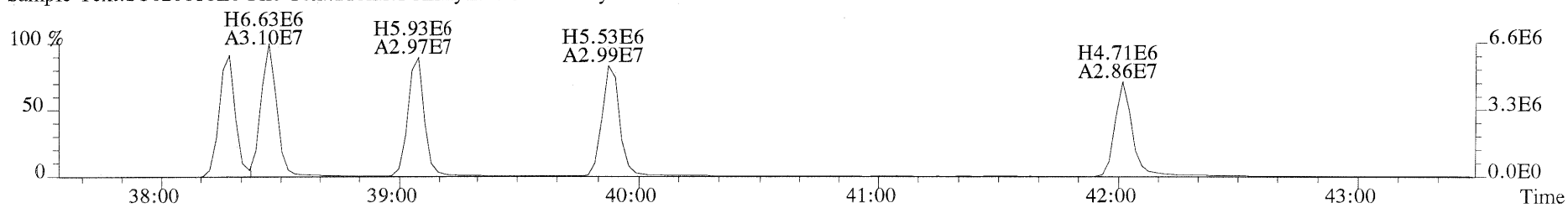
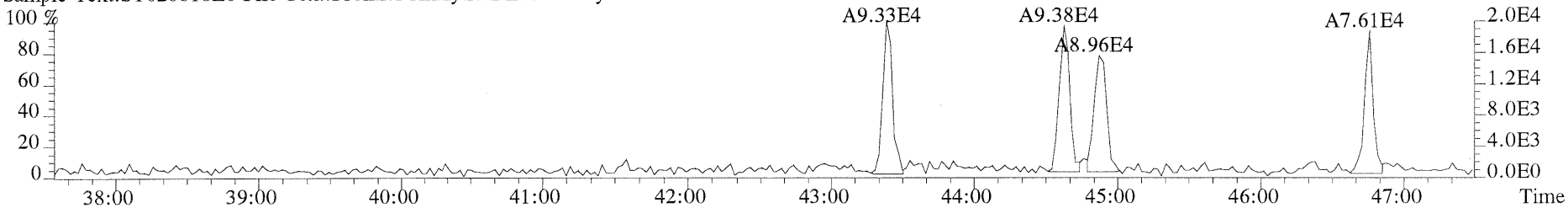
337.9207 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



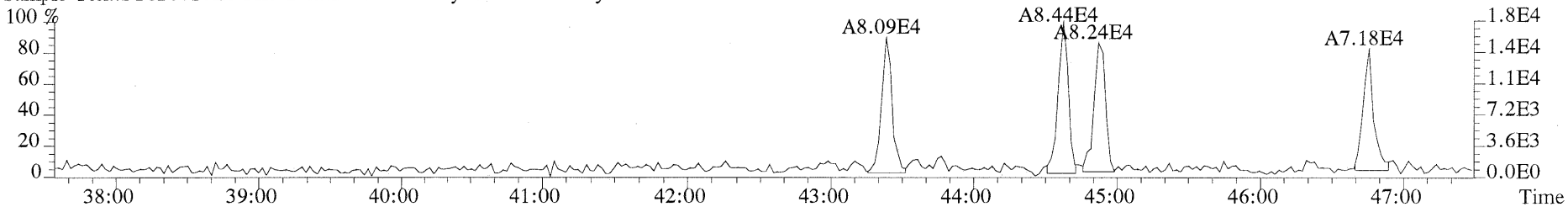
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



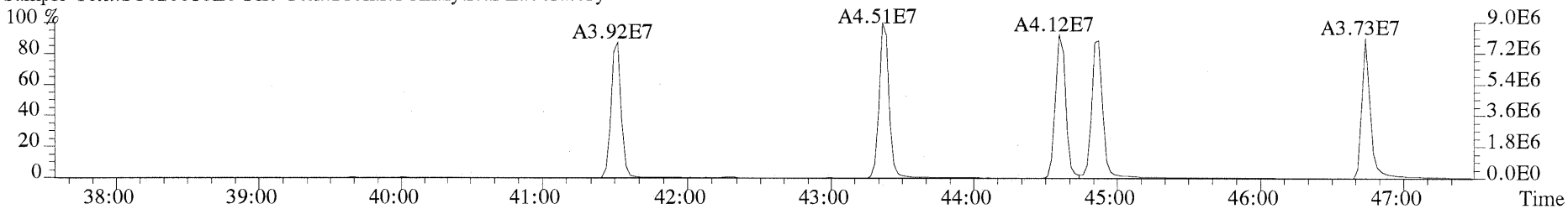
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



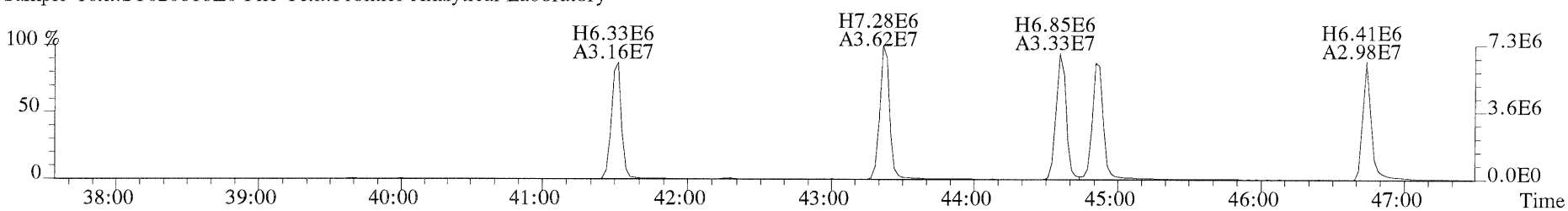
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



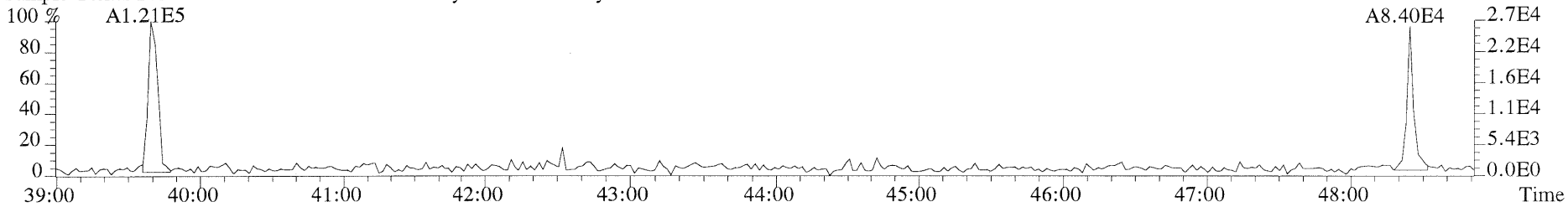
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



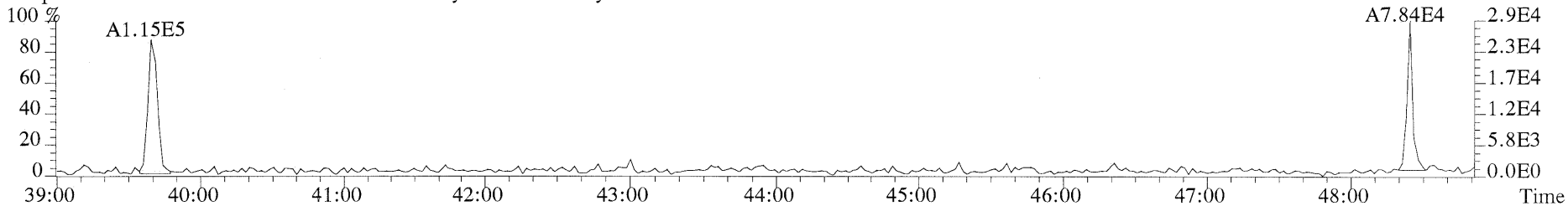
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



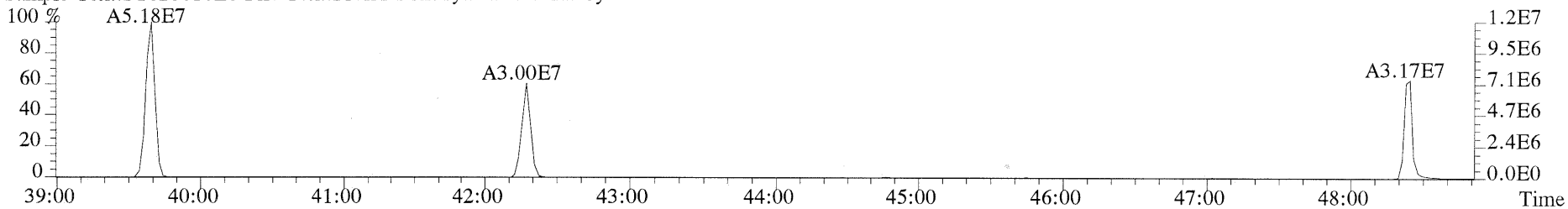
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
393.8025 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



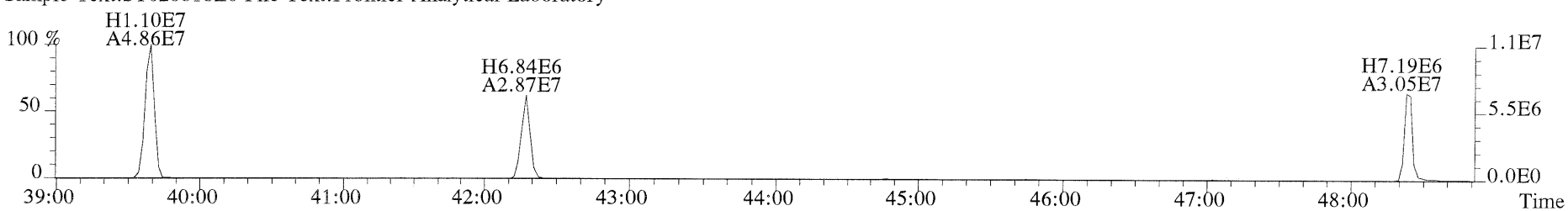
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



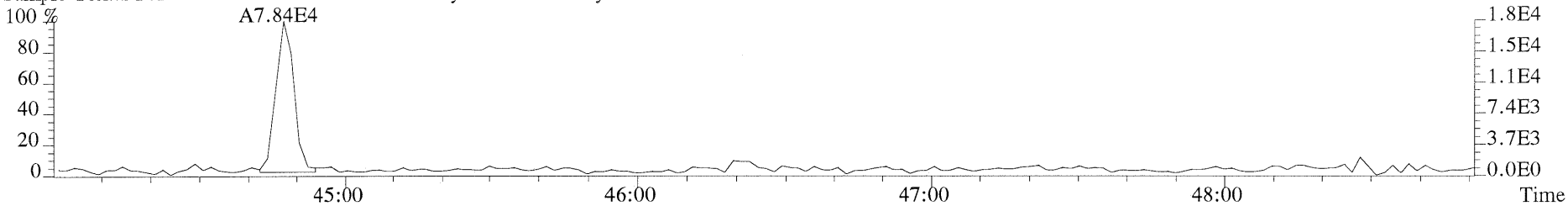
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
405.8428 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



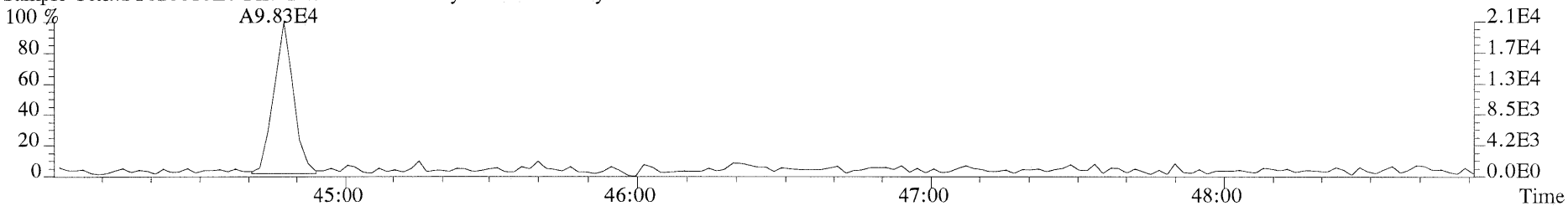
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
407.8398 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



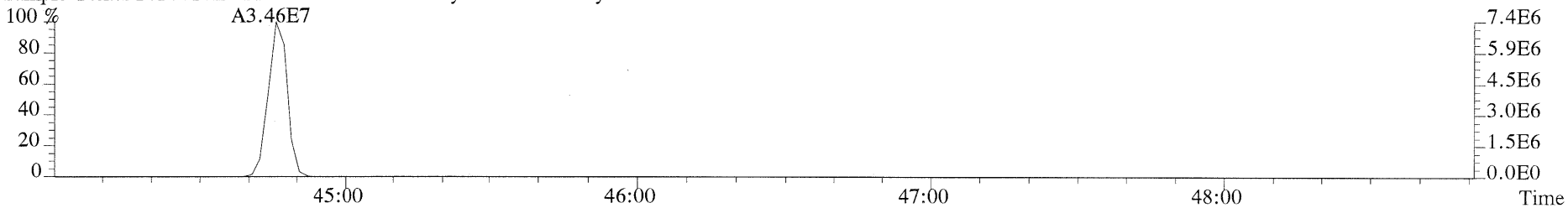
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



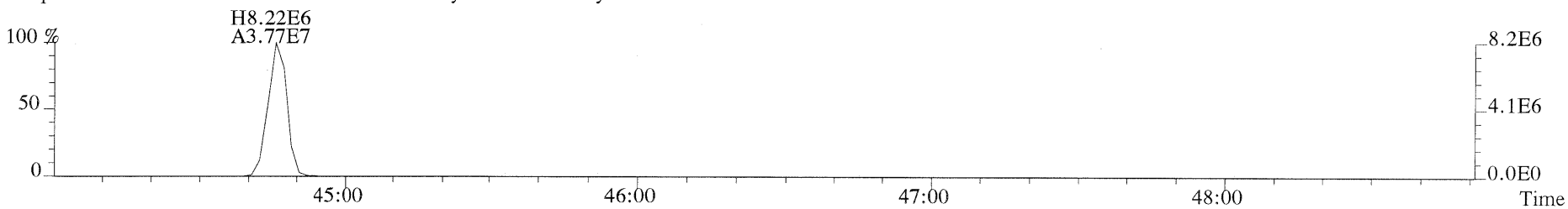
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



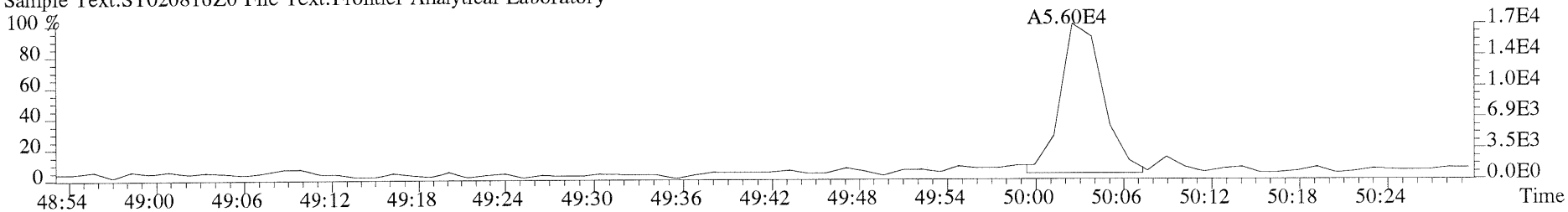
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



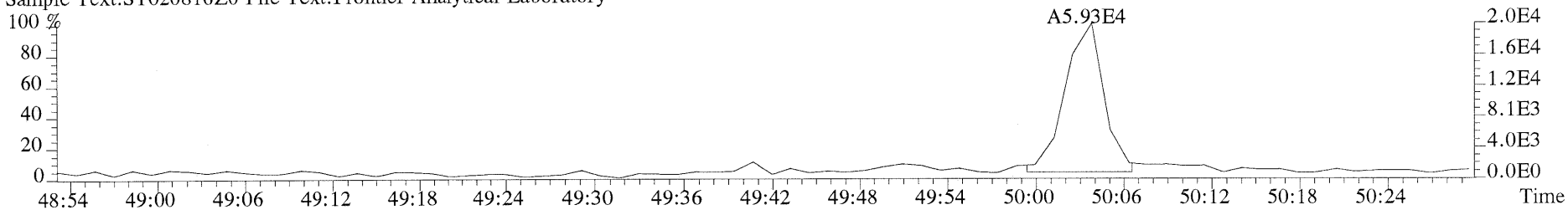
File:08FEB16Z #1-412 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



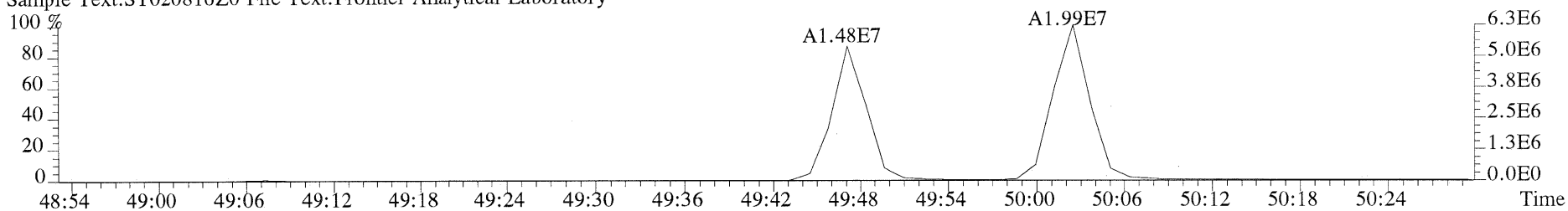
File:08FEB16Z #1-217 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



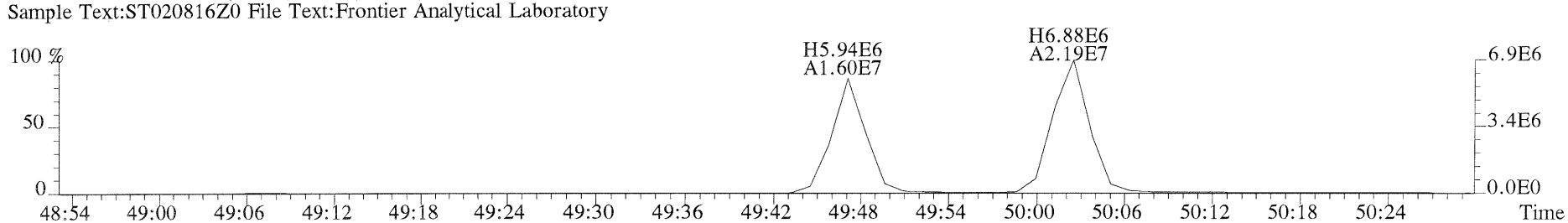
File:08FEB16Z #1-217 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



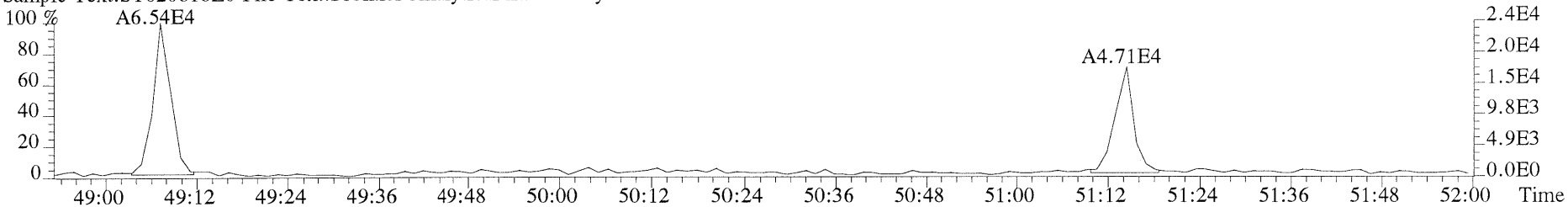
File:08FEB16Z #1-217 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



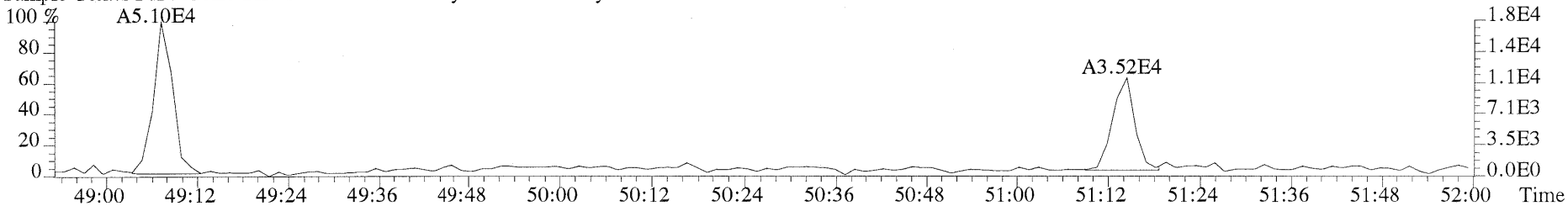
File:08FEB16Z #1-217 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



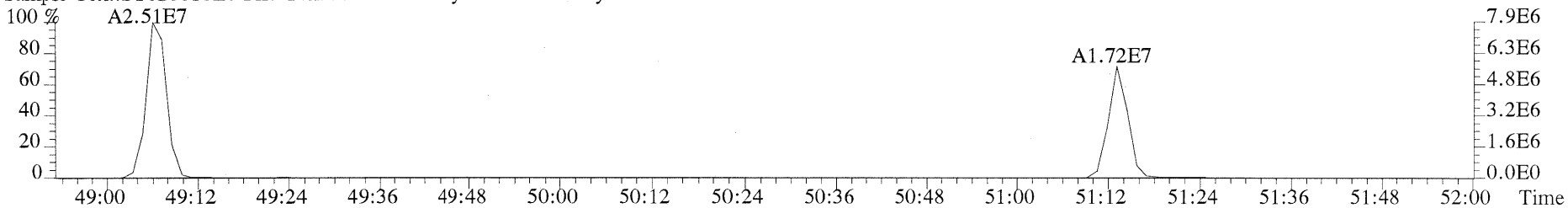
File:08FEB16Z #1-217 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



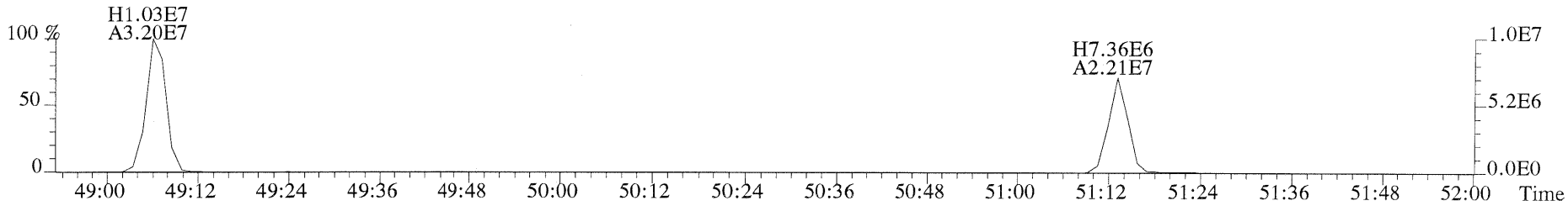
File:08FEB16Z #1-217 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
465.7187 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



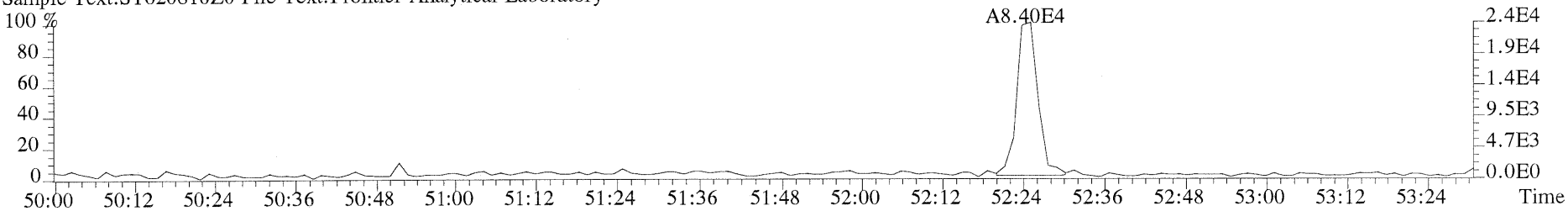
File:08FEB16Z #1-217 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
473.7648 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



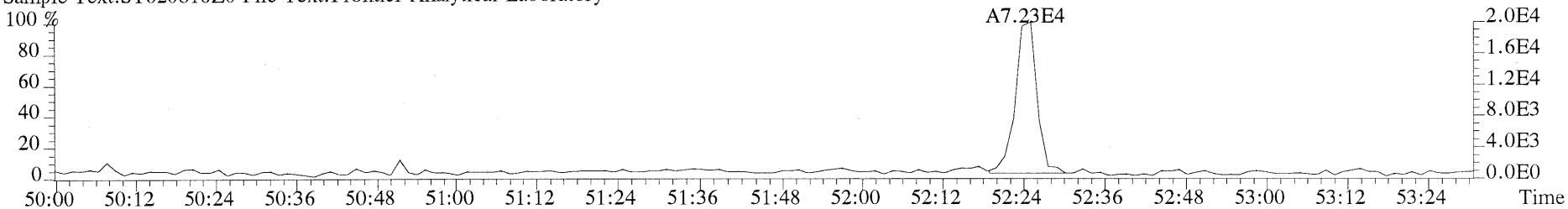
File:08FEB16Z #1-217 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
475.7619 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



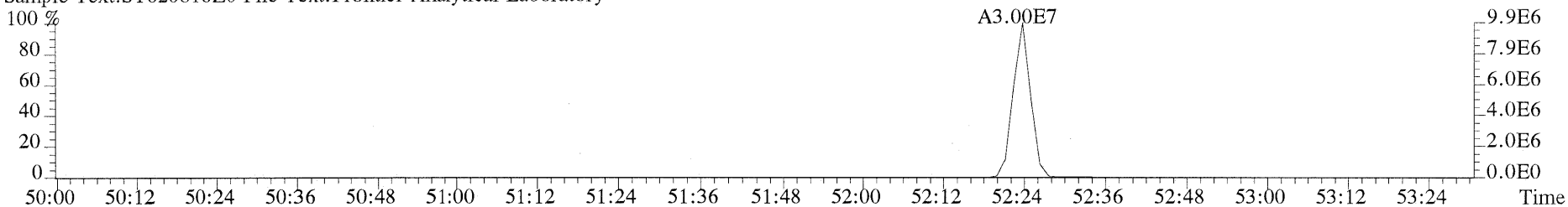
File:08FEB16Z #1-217 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



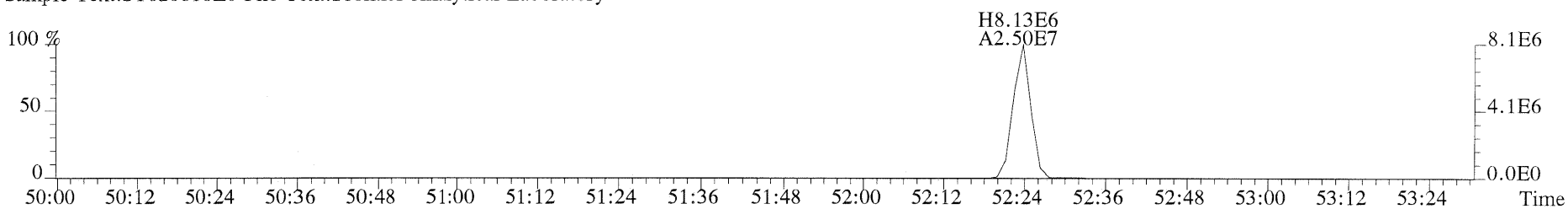
File:08FEB16Z #1-217 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



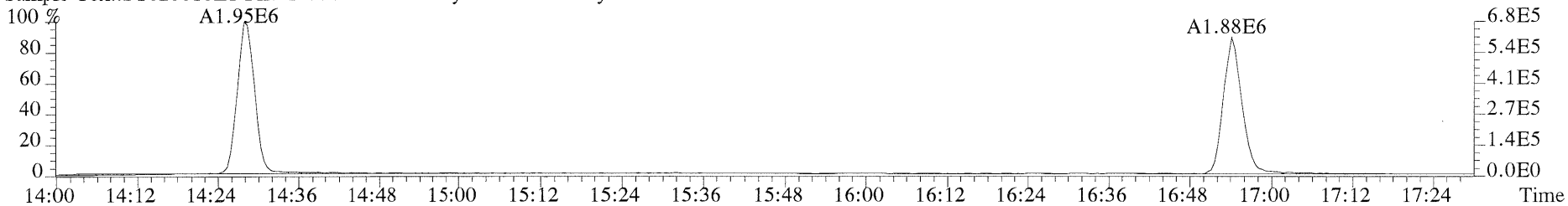
File:08FEB16Z #1-217 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



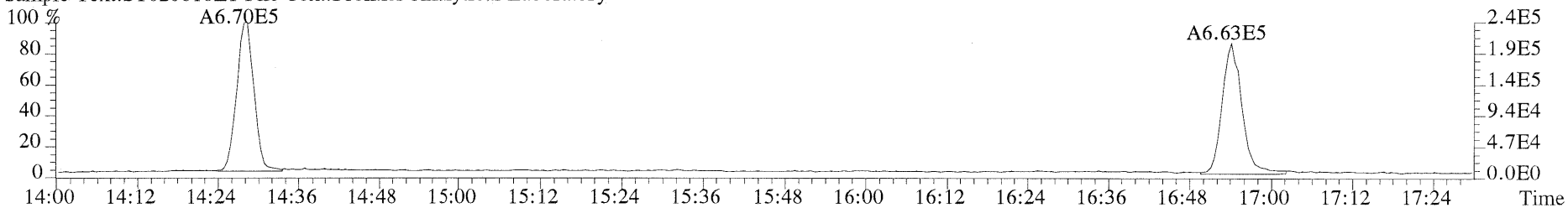
File:08FEB16Z #1-217 Acq: 8-FEB-2016 07:25:55 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z0 File Text:Frontier Analytical Laboratory



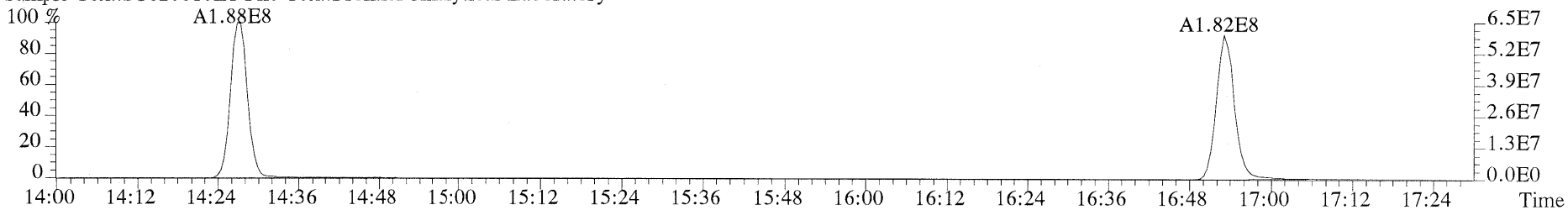
File:08FEB16Z #1-489 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



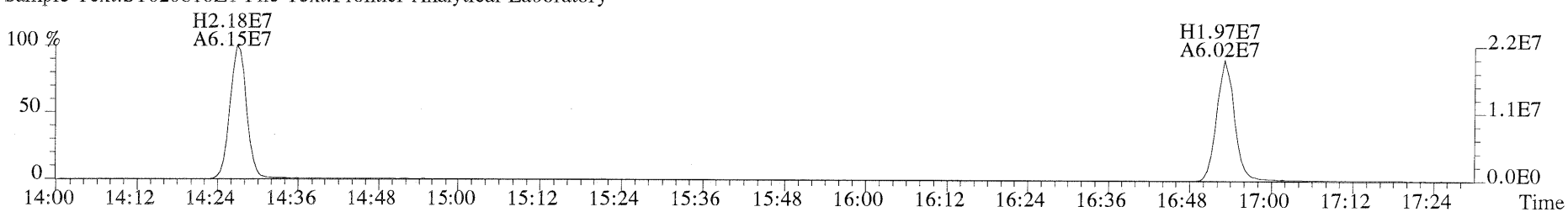
File:08FEB16Z #1-489 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



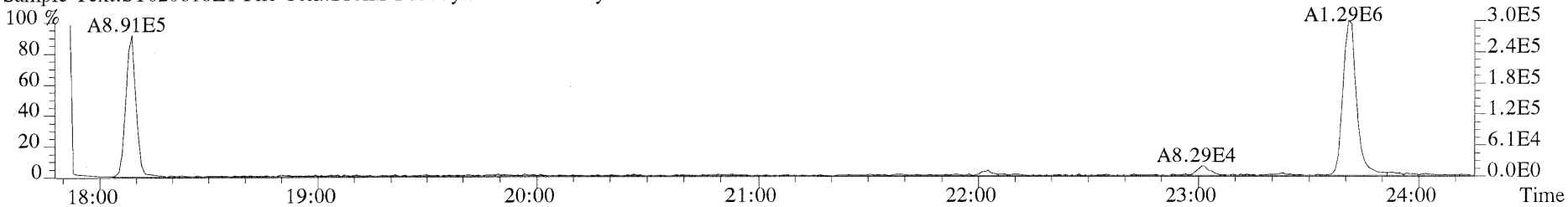
File:08FEB16Z #1-489 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



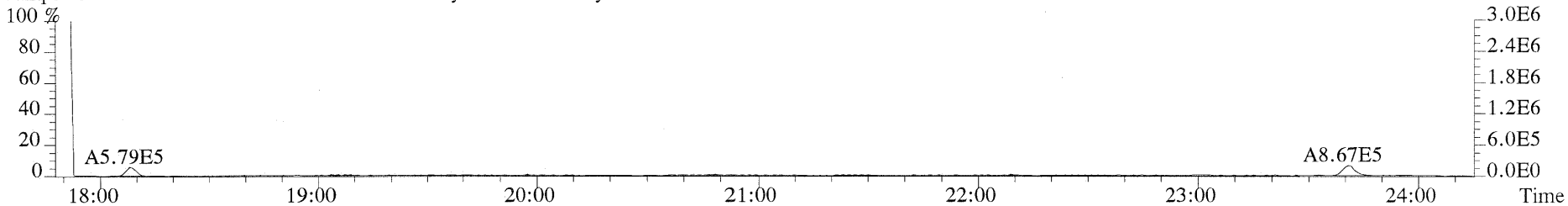
File:08FEB16Z #1-489 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



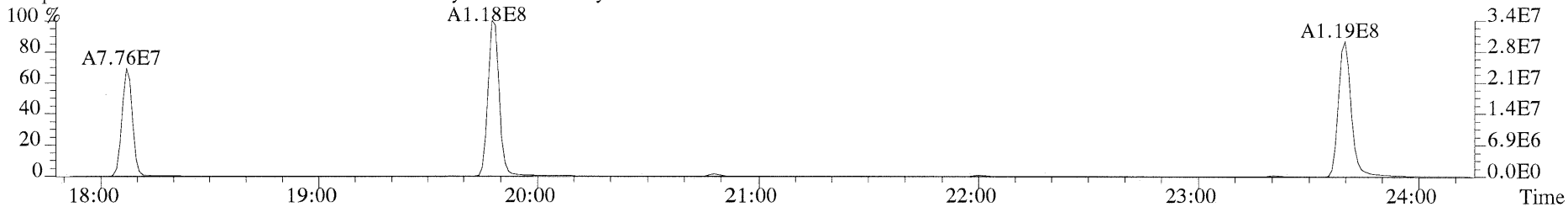
File:08FEB16Z #1-503 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:3 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



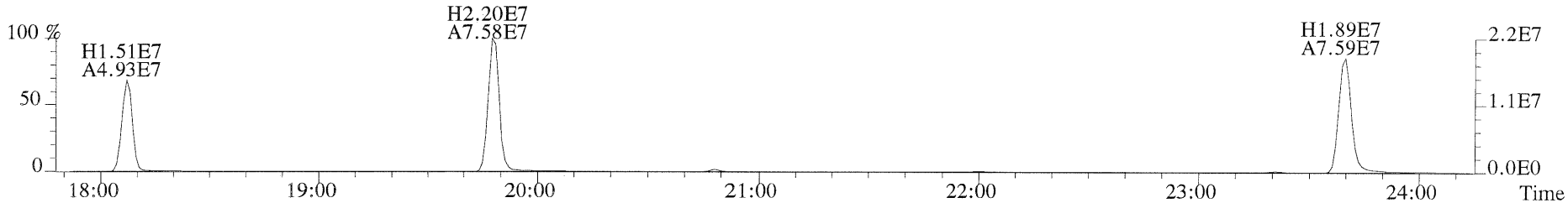
File:08FEB16Z #1-503 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:3 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



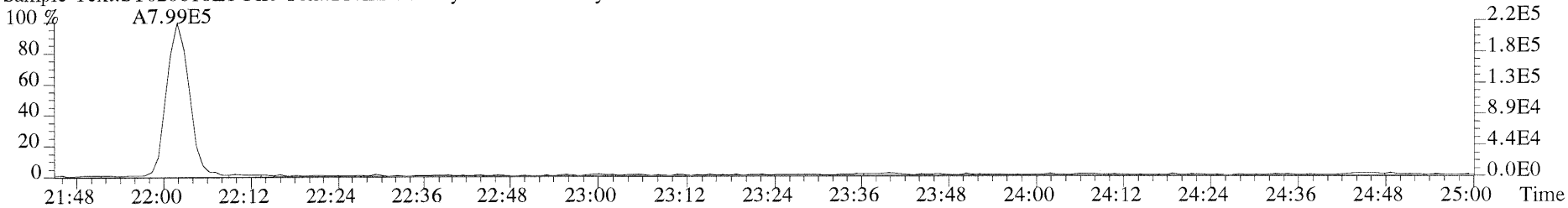
File:08FEB16Z #1-503 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:3 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



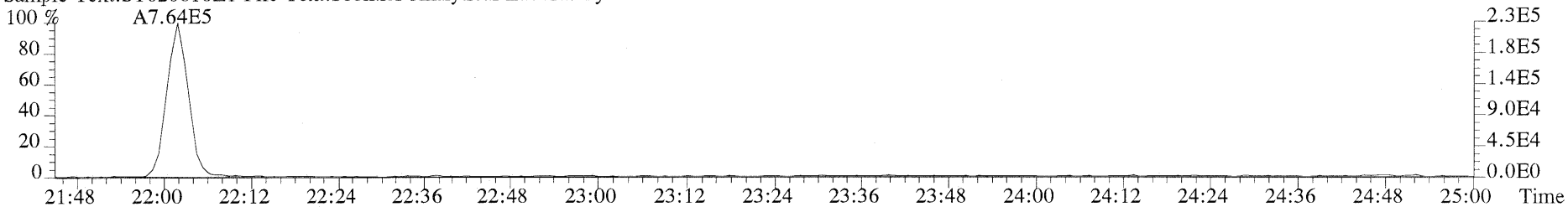
File:08FEB16Z #1-503 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:3 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



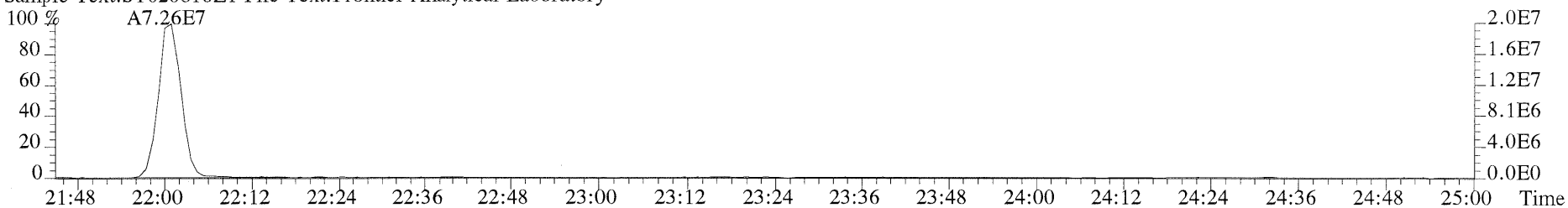
File:08FEB16Z #1-503 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:3 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



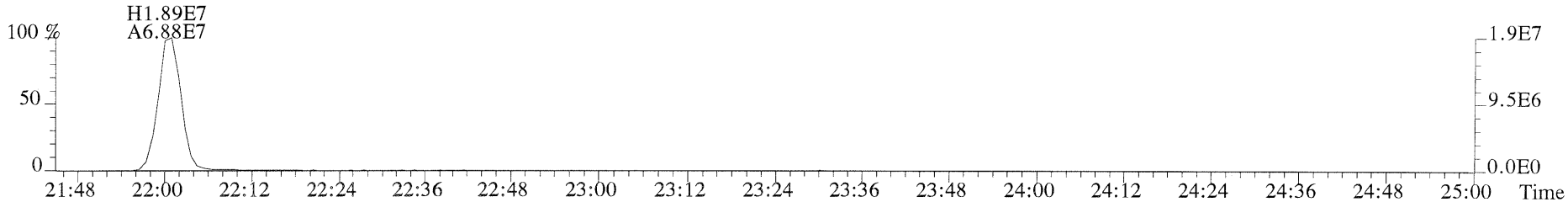
File:08FEB16Z #1-503 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:3 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



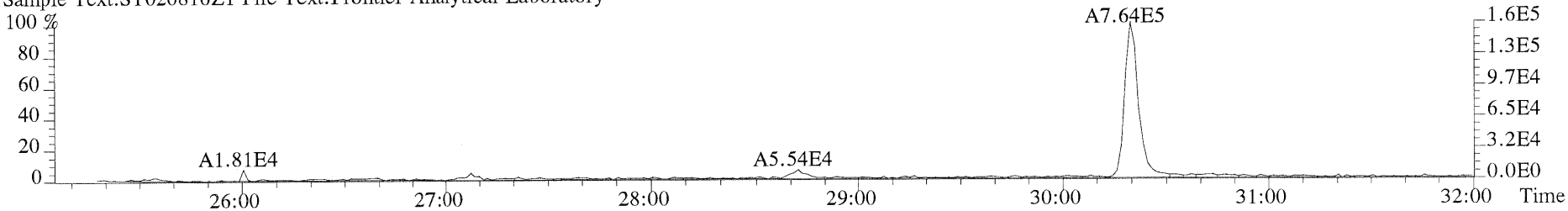
File:08FEB16Z #1-503 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:3 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



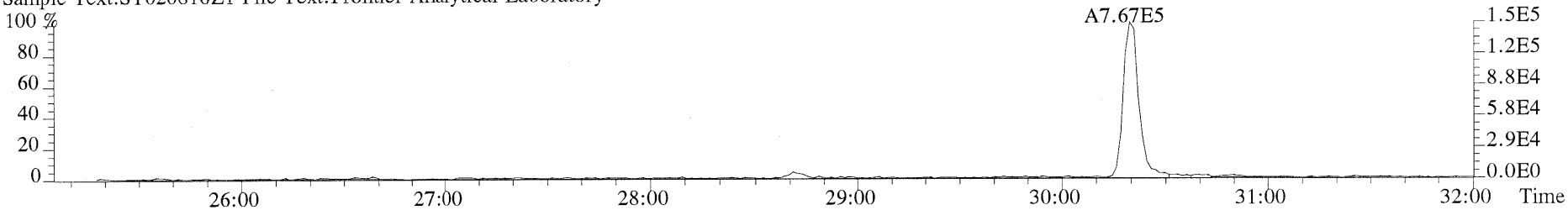
File:08FEB16Z #1-503 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:3 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



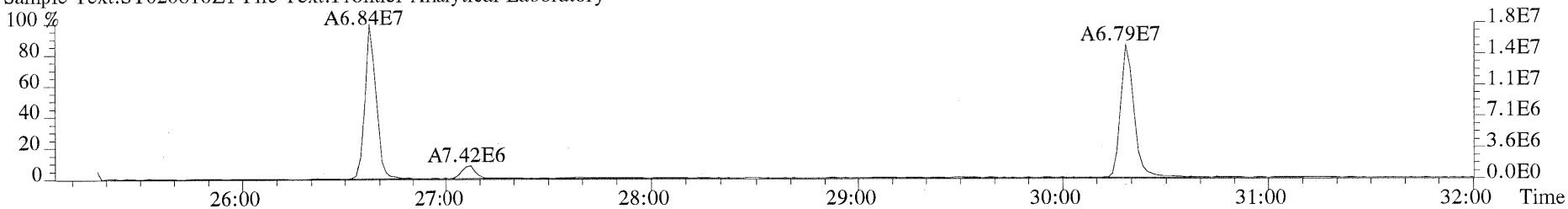
File:08FEB16Z #1-399 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:3 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



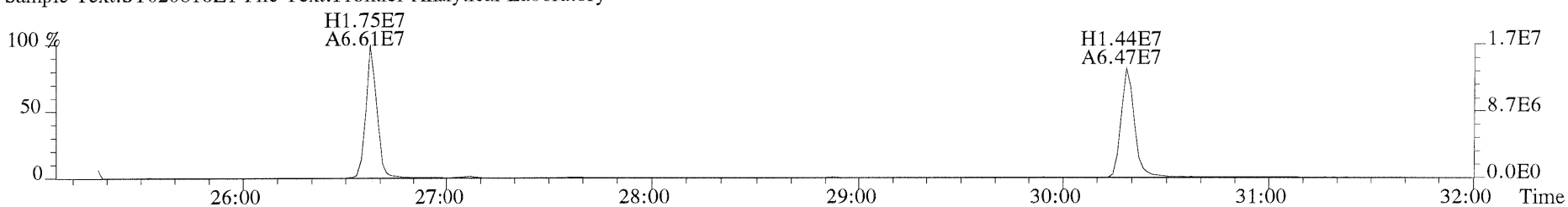
File:08FEB16Z #1-399 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:3 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



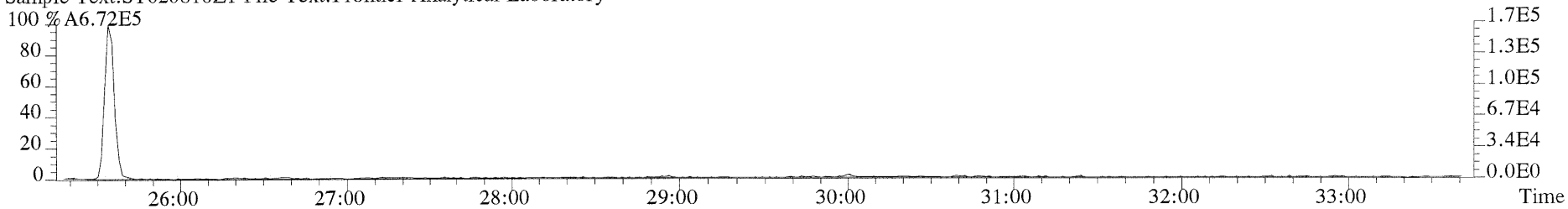
File:08FEB16Z #1-399 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:3 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-399 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:3 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-399 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:3 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



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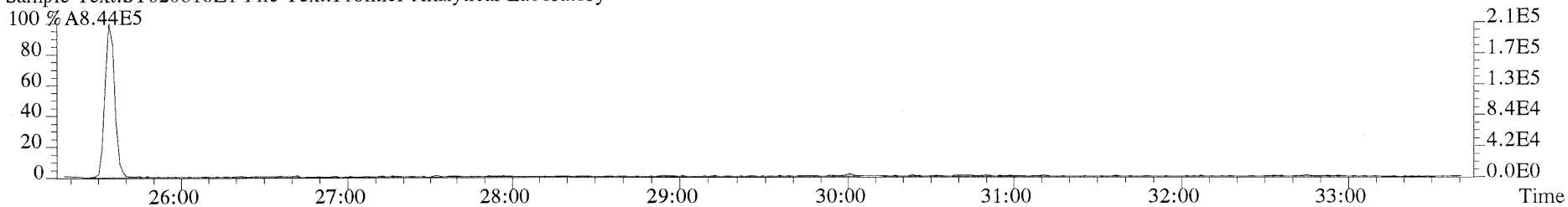
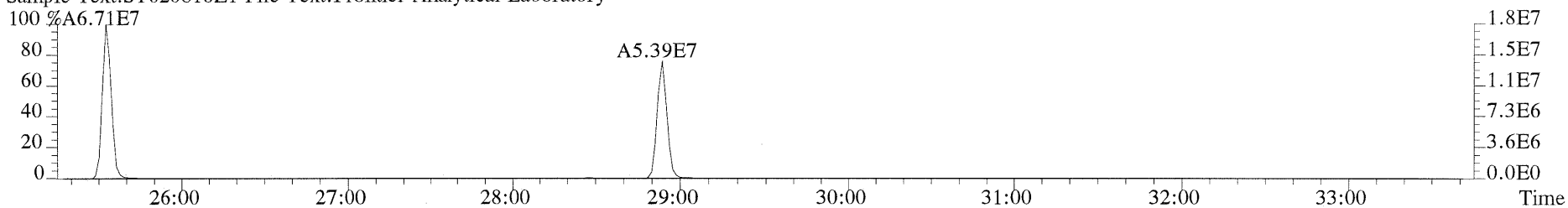
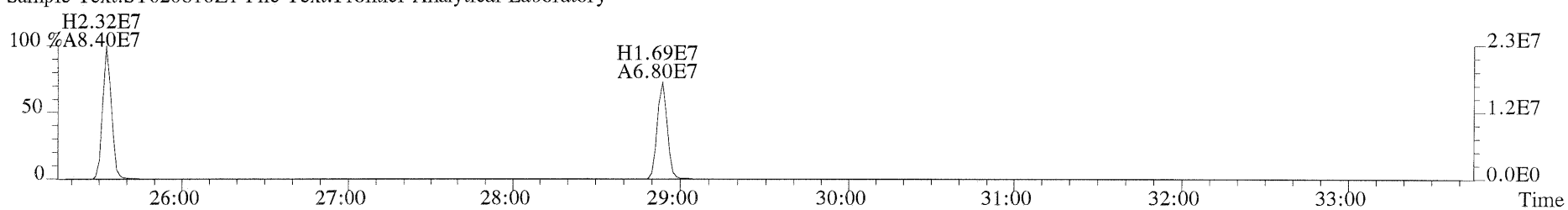
291.9194 S:3 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



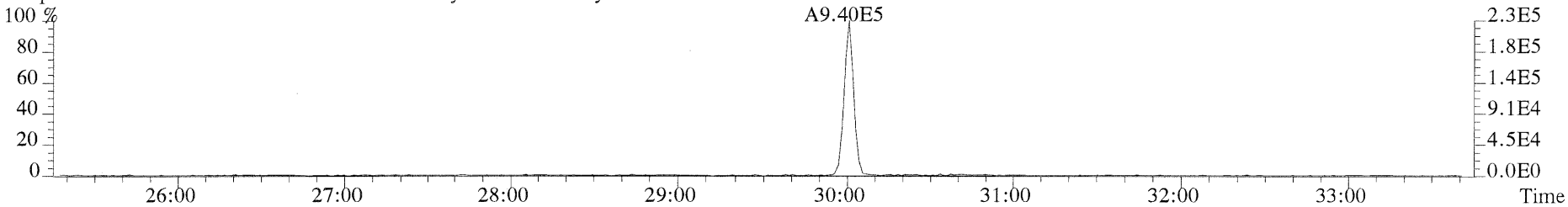
File:08FEB16Z #1-399 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:3 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



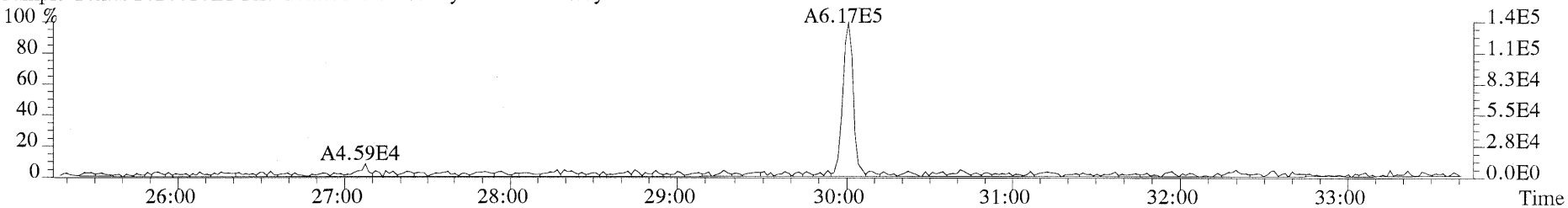
File:08FEB16Z #1-399 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:3 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



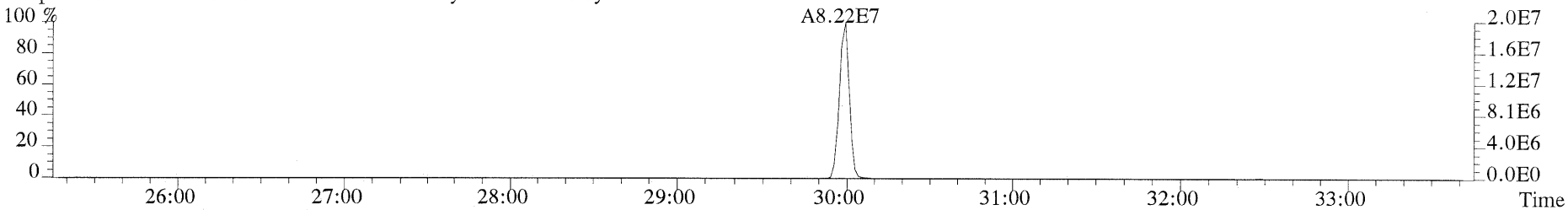
File:08FEB16Z #1-399 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:3 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



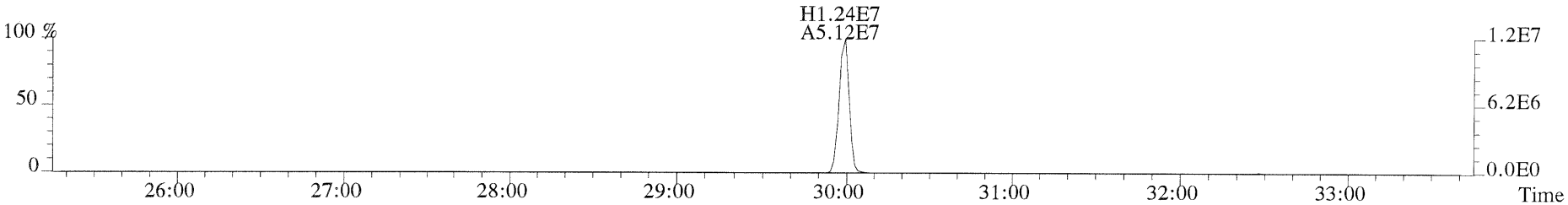
File:08FEB16Z #1-399 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:3 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



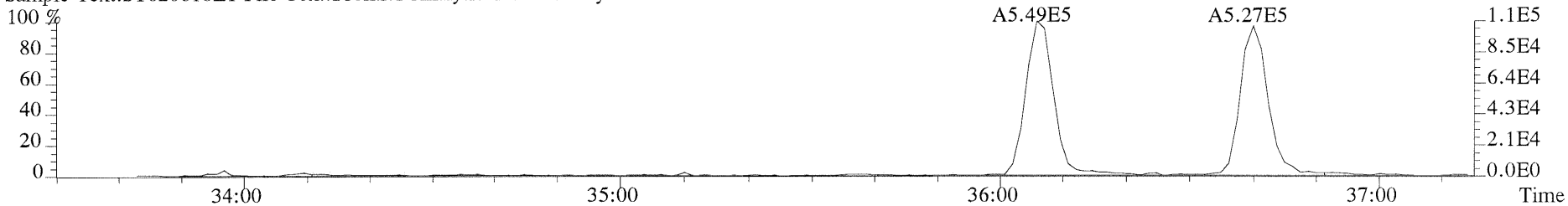
File:08FEB16Z #1-399 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:3 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



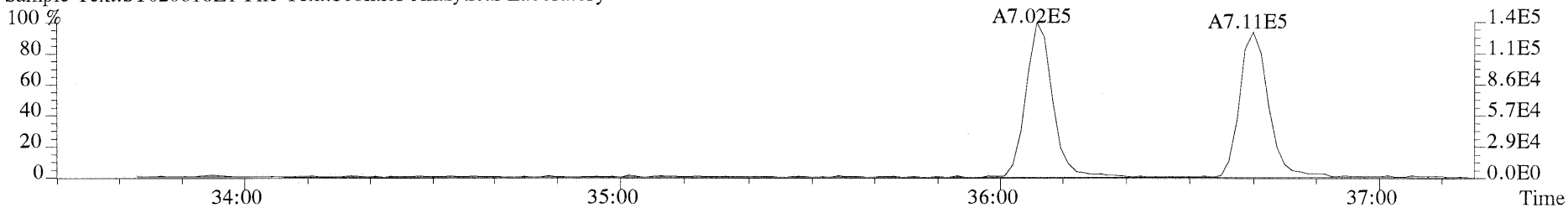
File:08FEB16Z #1-399 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:3 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



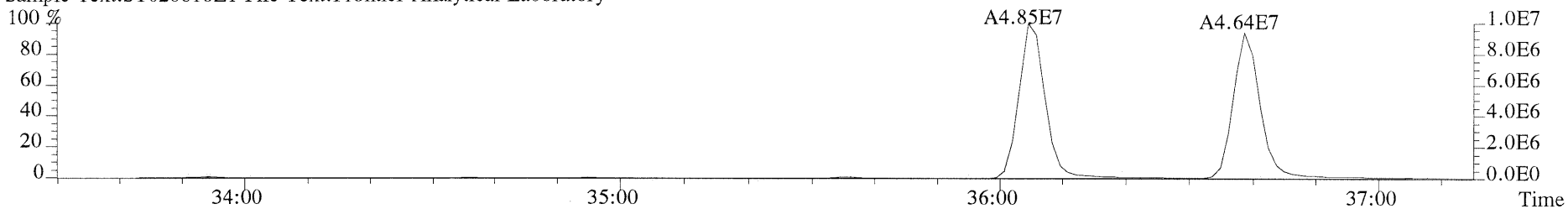
File:08FEB16Z #1-182 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:3 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



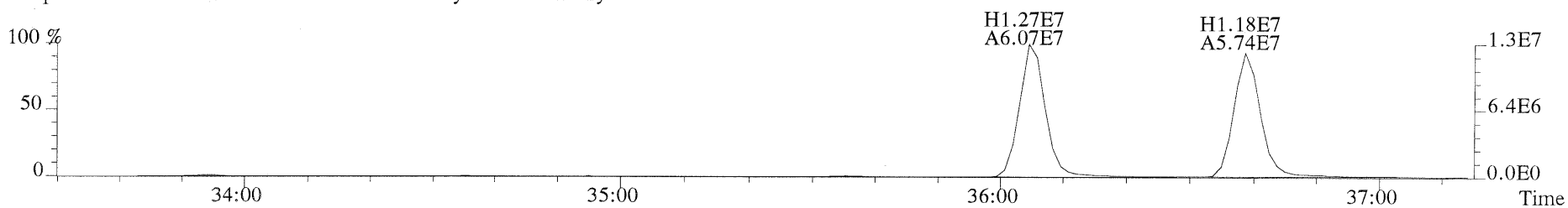
File:08FEB16Z #1-182 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:3 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



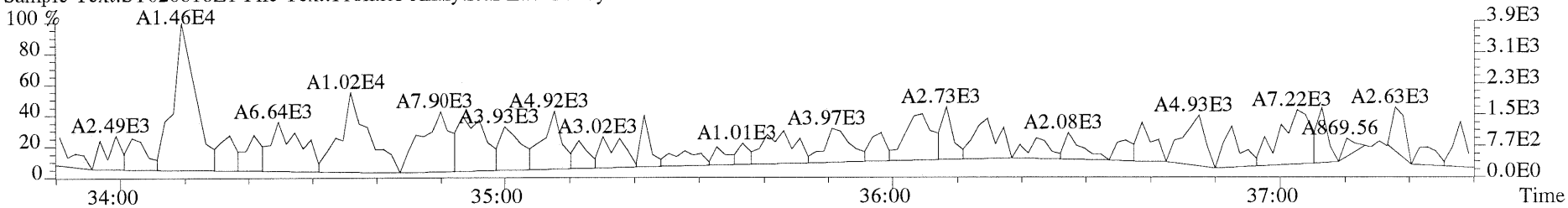
File:08FEB16Z #1-182 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:3 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



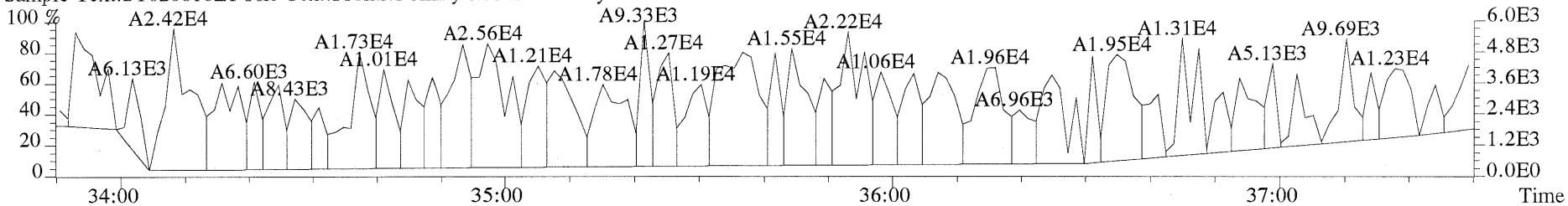
File:08FEB16Z #1-182 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:3 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



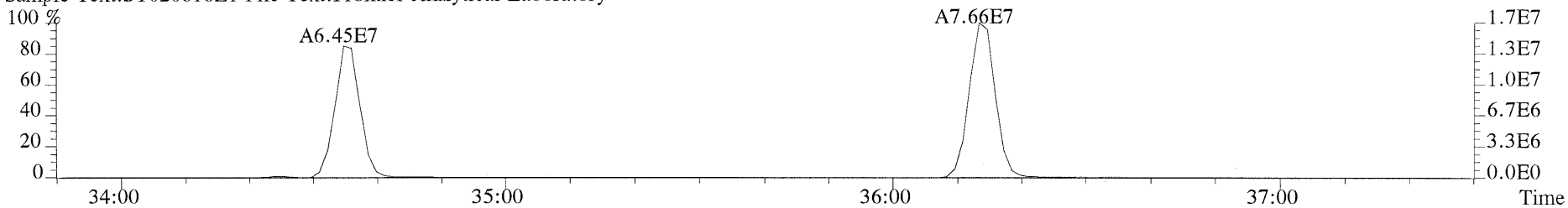
File:08FEB16Z #1-182 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:3 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



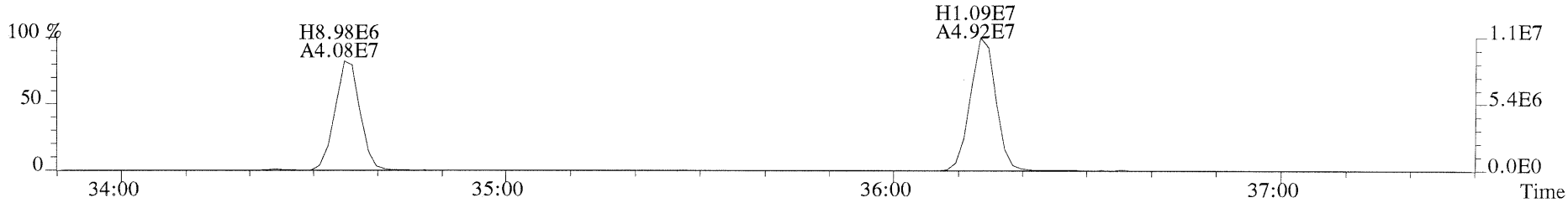
File:08FEB16Z #1-182 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:3 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



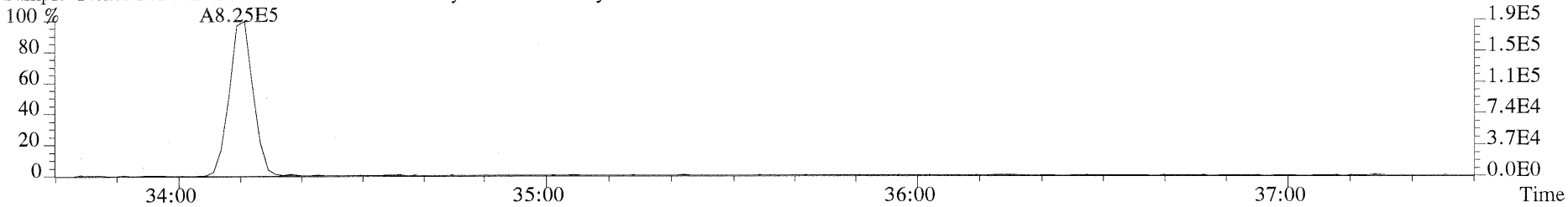
File:08FEB16Z #1-182 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:3 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



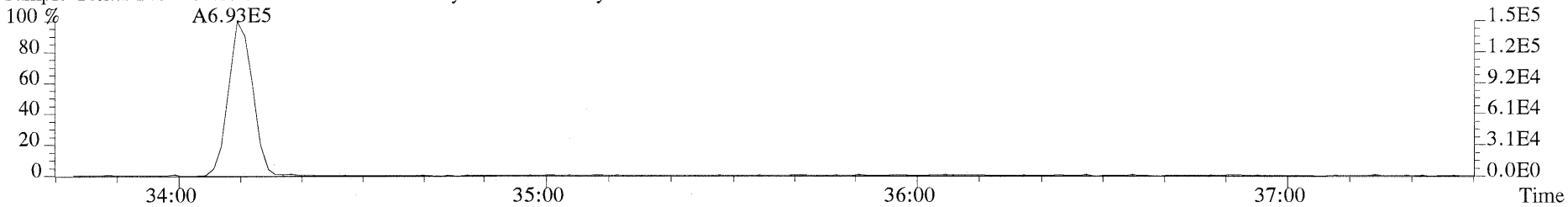
File:08FEB16Z #1-182 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:3 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



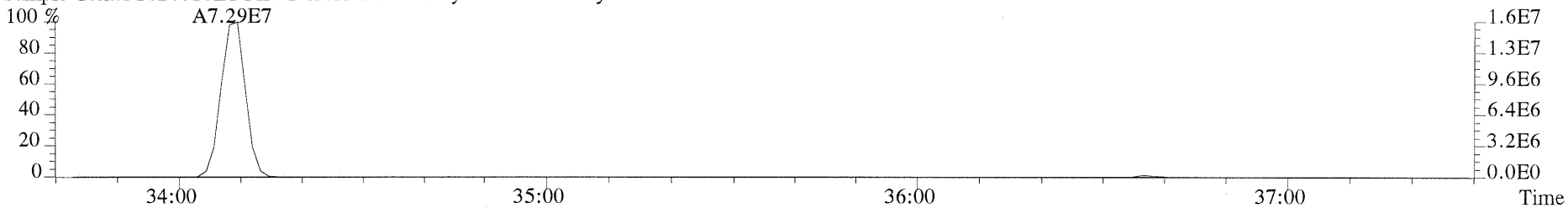
File:08FEB16Z #1-182 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:3 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



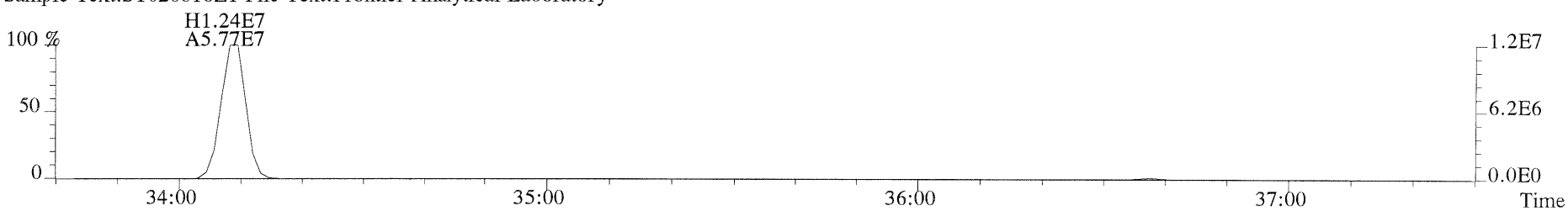
File:08FEB16Z #1-182 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:3 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



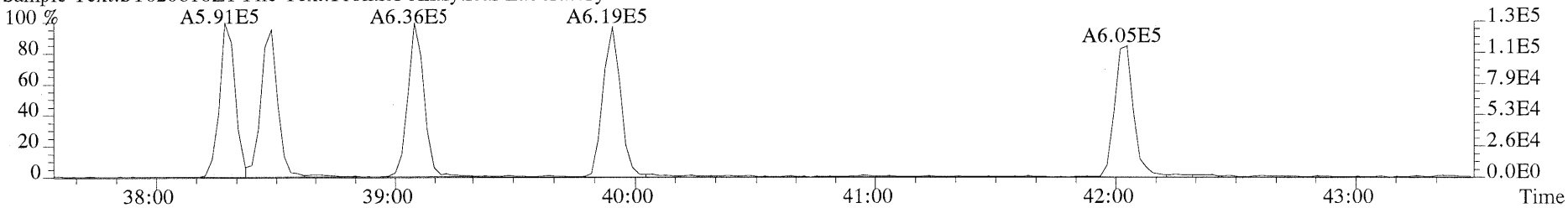
File:08FEB16Z #1-182 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:3 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



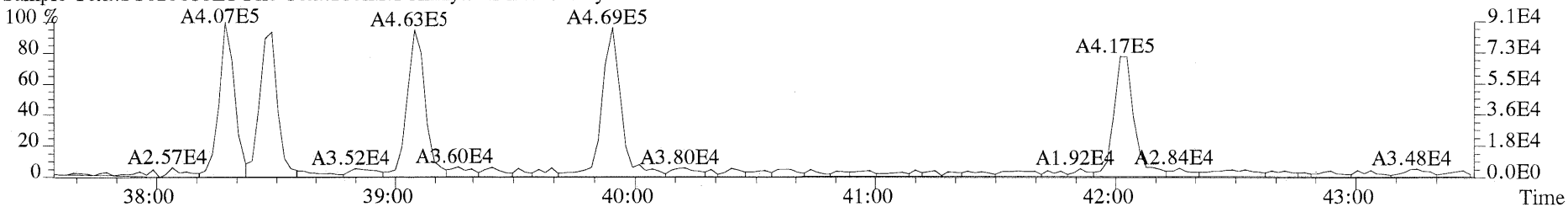
File:08FEB16Z #1-182 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:3 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



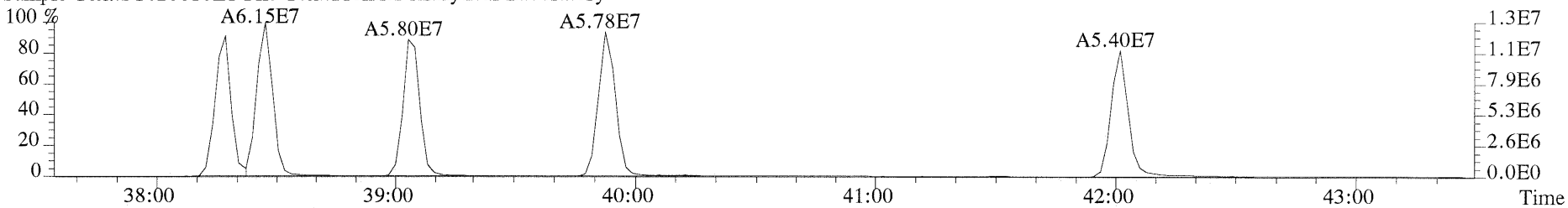
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:3 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



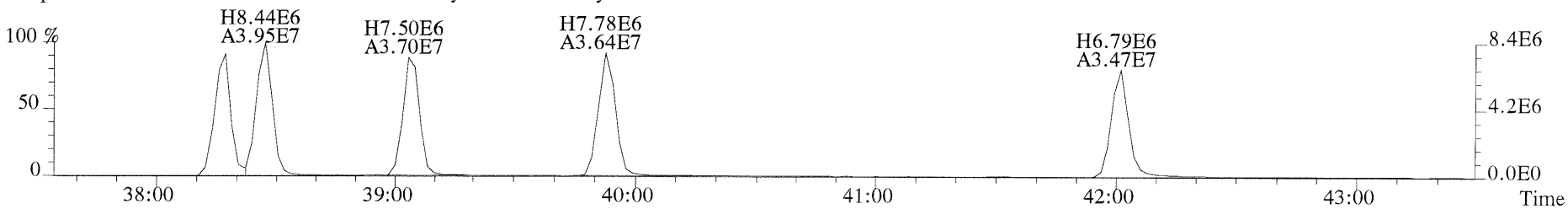
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:3 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



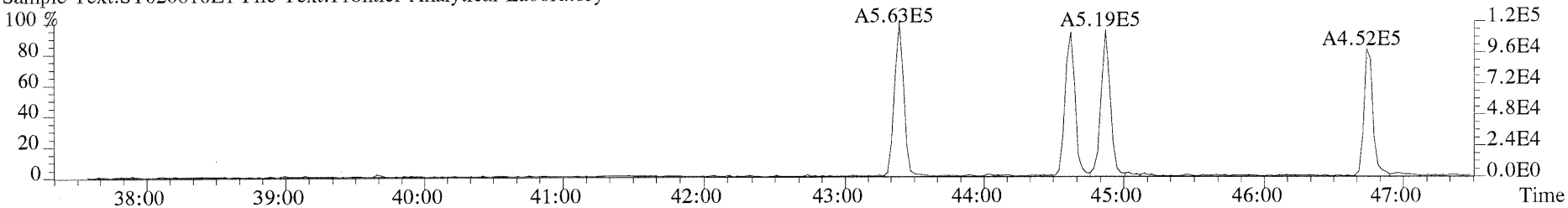
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:3 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



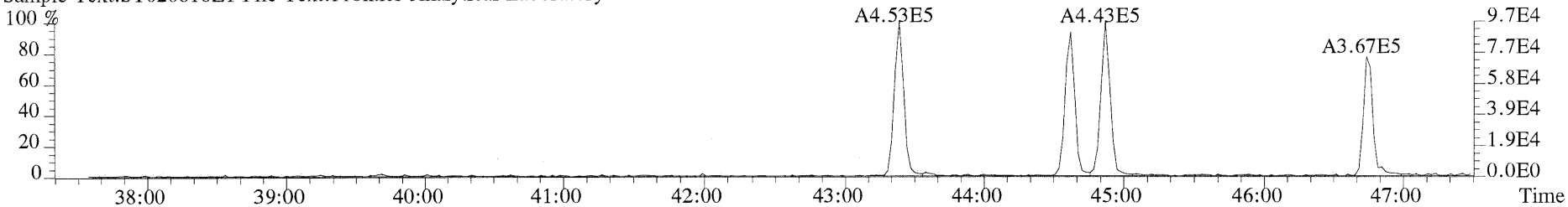
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:3 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



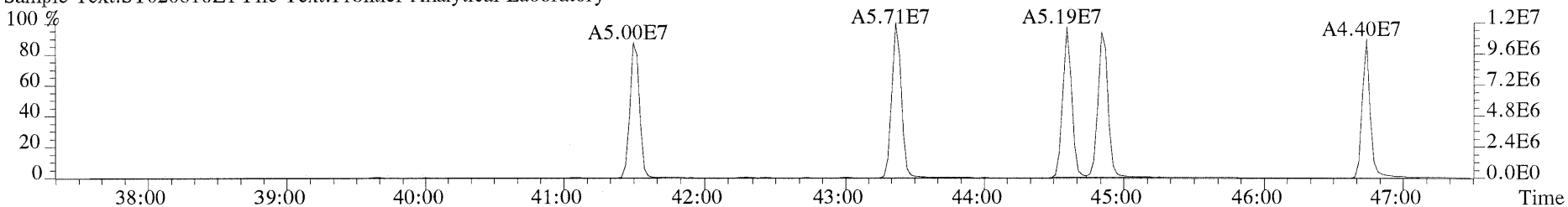
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:3 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



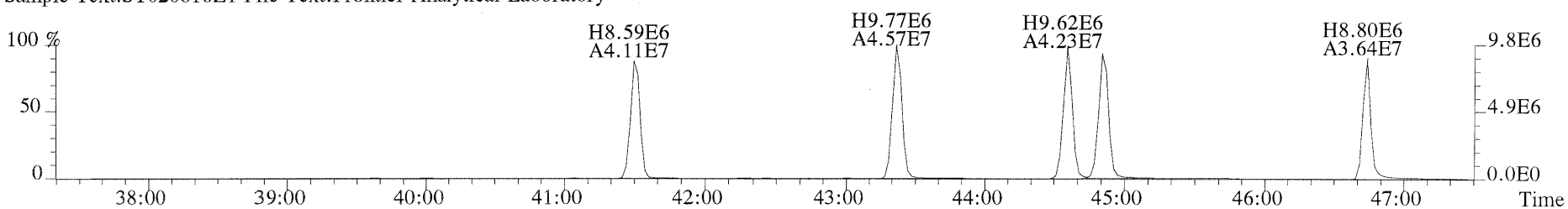
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:3 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



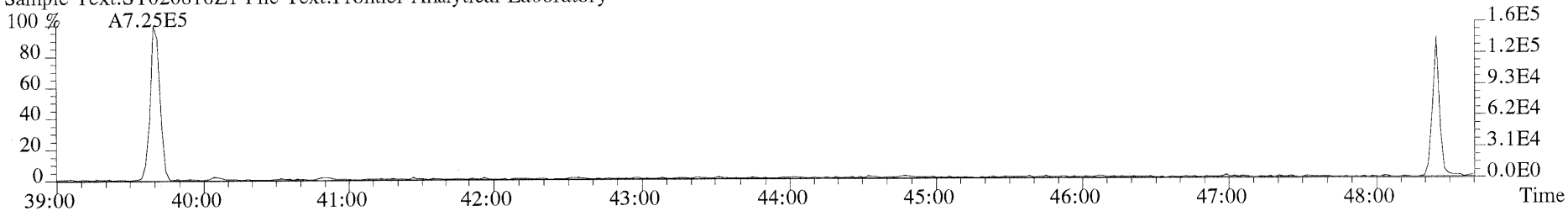
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:3 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



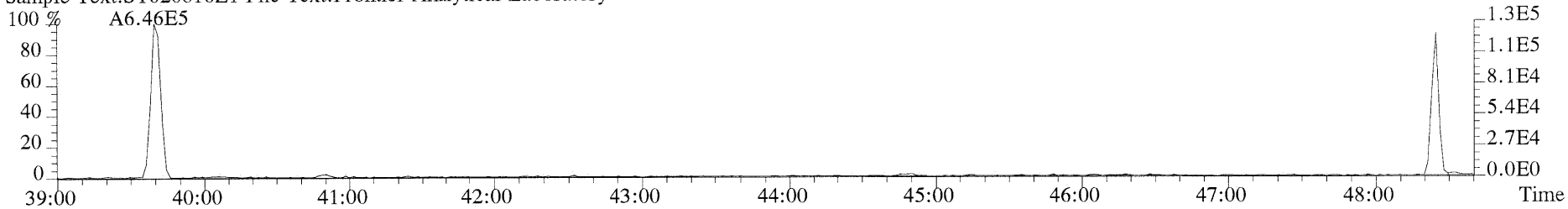
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:3 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



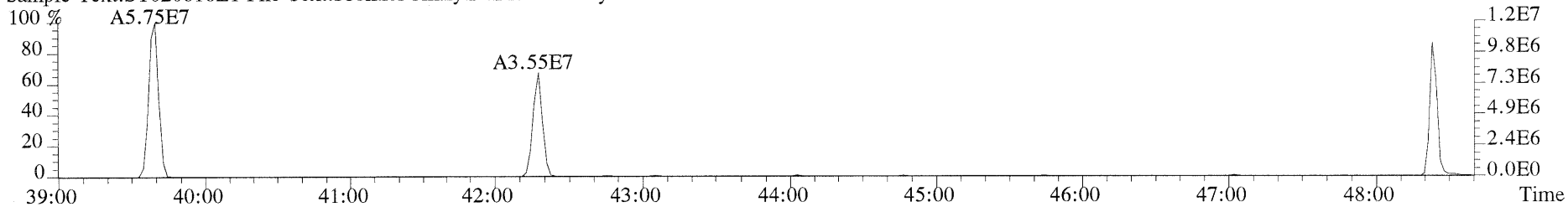
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
393.8025 S:3 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



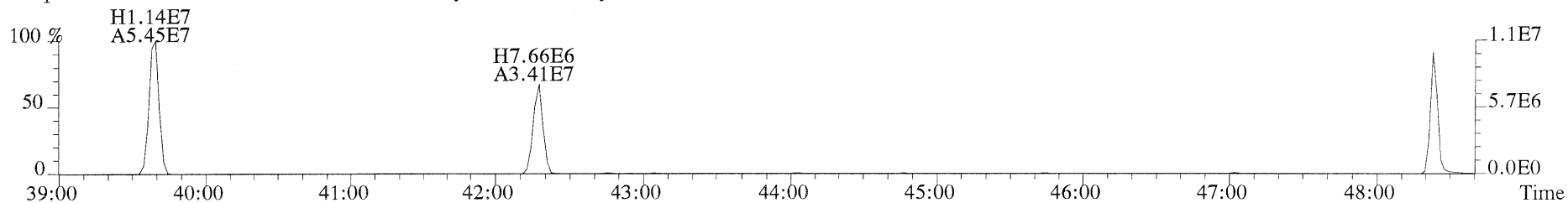
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:3 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



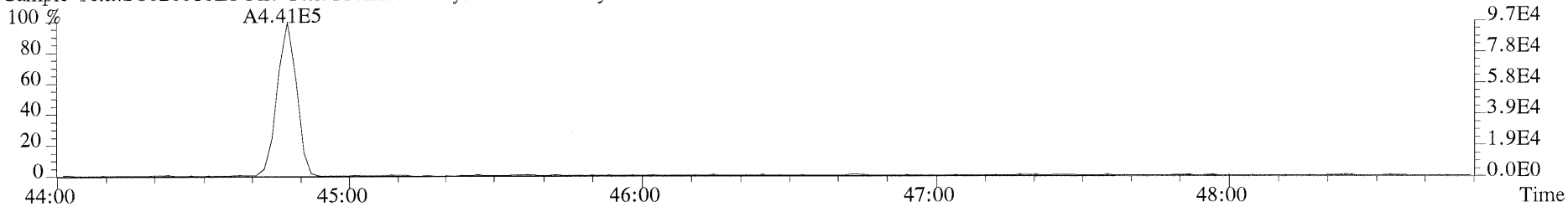
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
405.8428 S:3 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



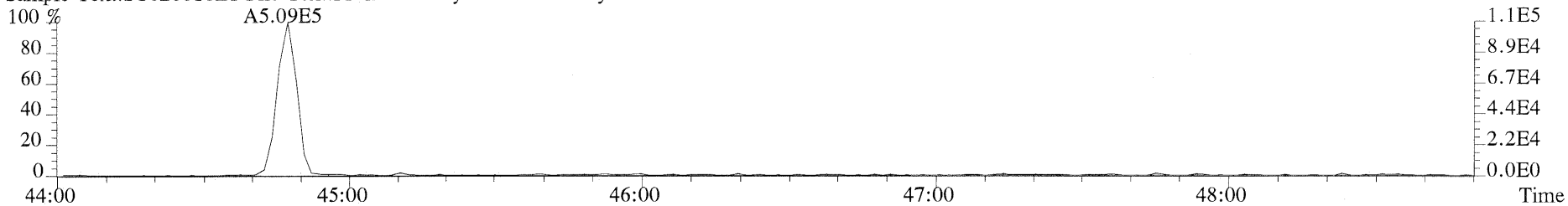
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
407.8398 S:3 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



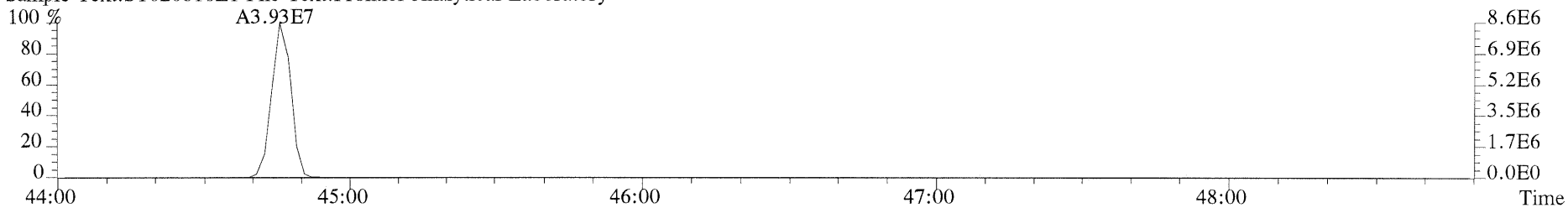
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:3 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



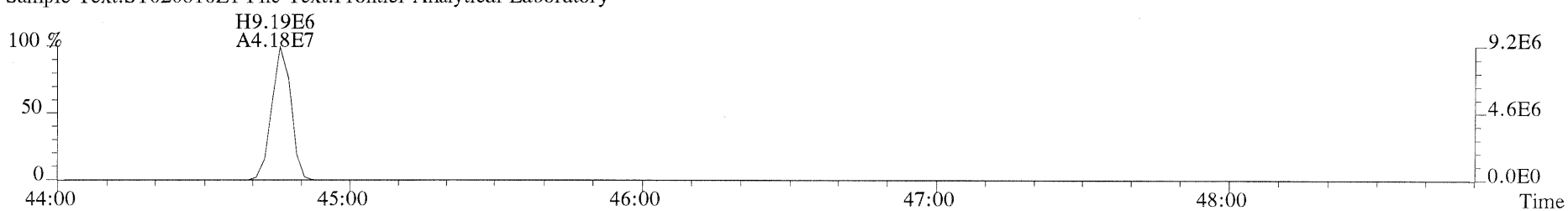
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:3 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



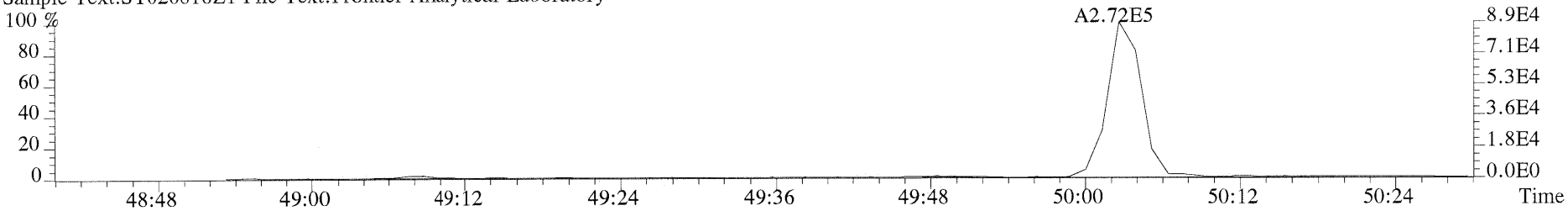
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:3 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



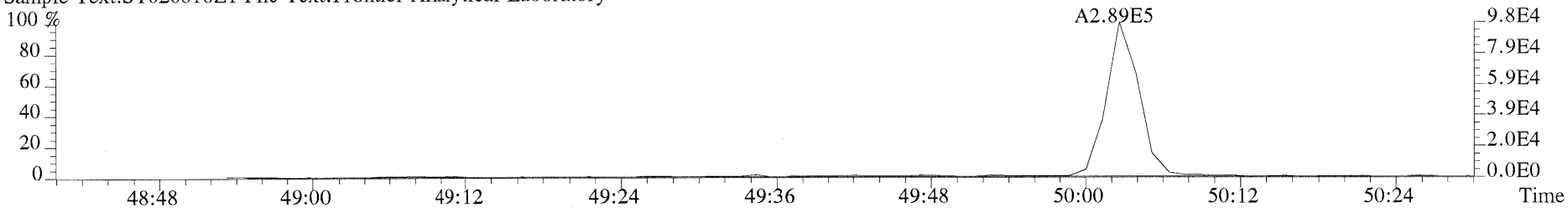
File:08FEB16Z #1-412 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:3 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



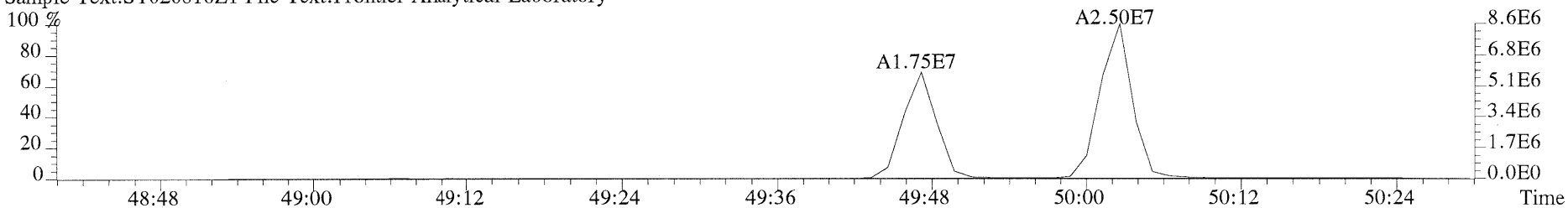
File:08FEB16Z #1-217 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:3 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



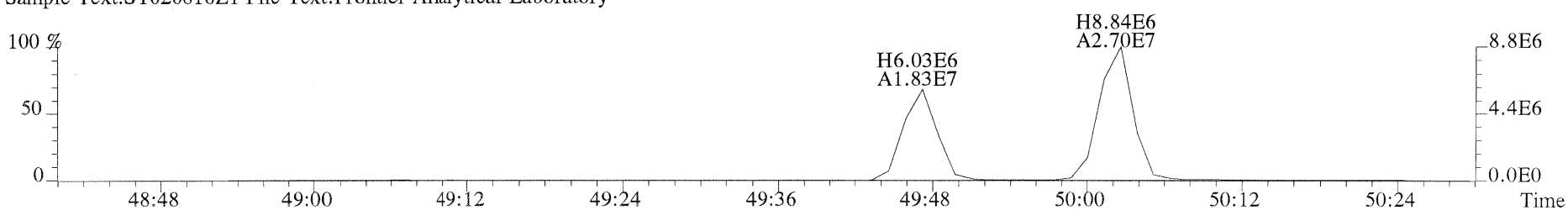
File:08FEB16Z #1-217 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:3 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



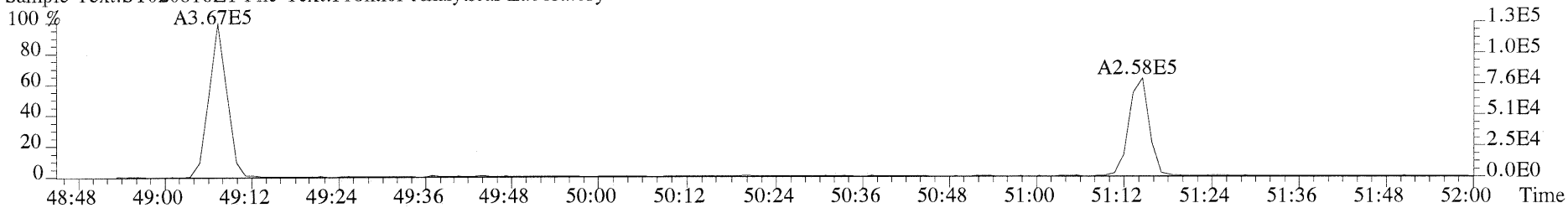
File:08FEB16Z #1-217 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:3 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



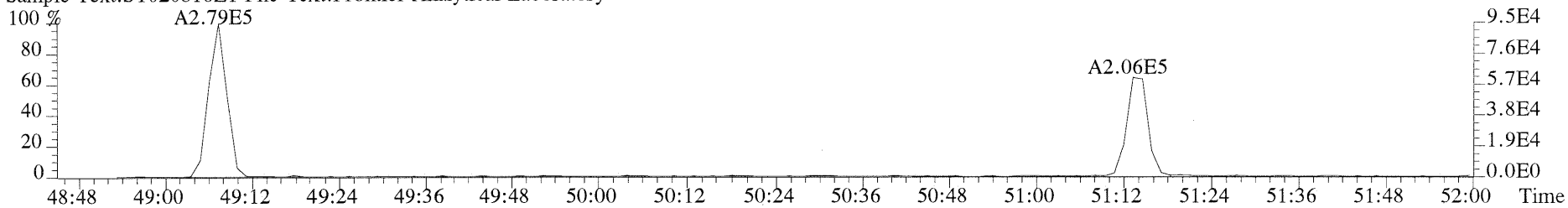
File:08FEB16Z #1-217 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:3 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



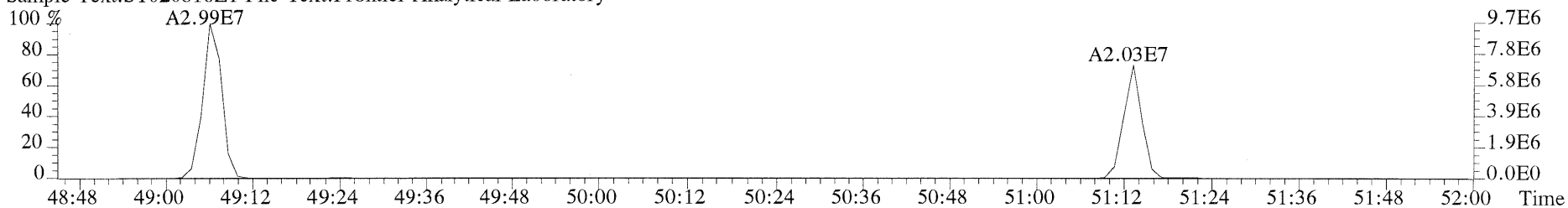
File:08FEB16Z #1-217 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:3 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



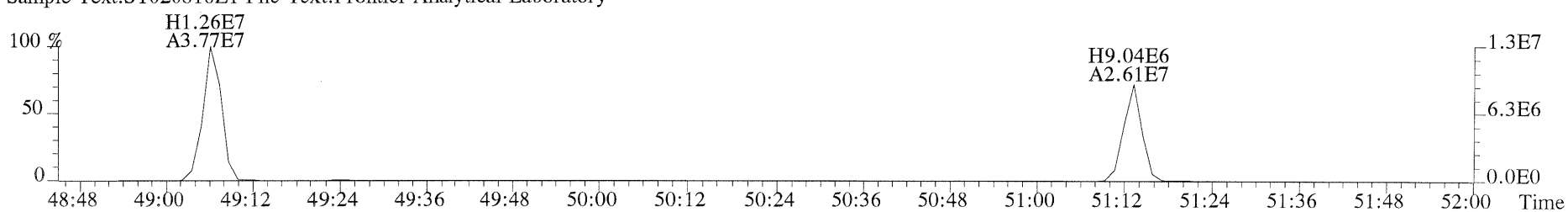
File:08FEB16Z #1-217 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
465.7187 S:3 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



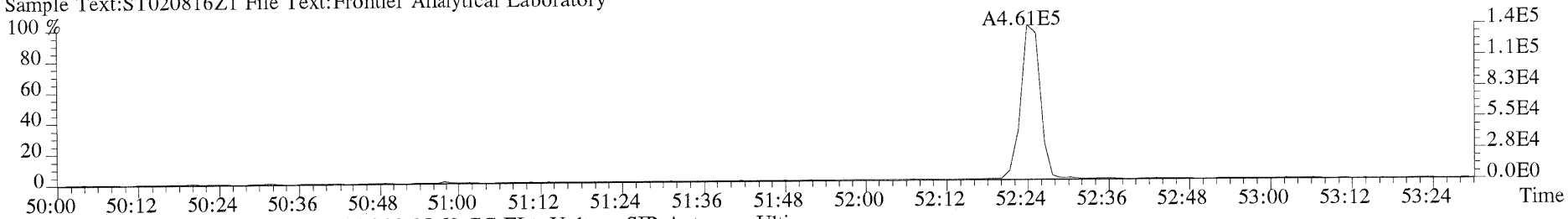
File:08FEB16Z #1-217 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
473.7648 S:3 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



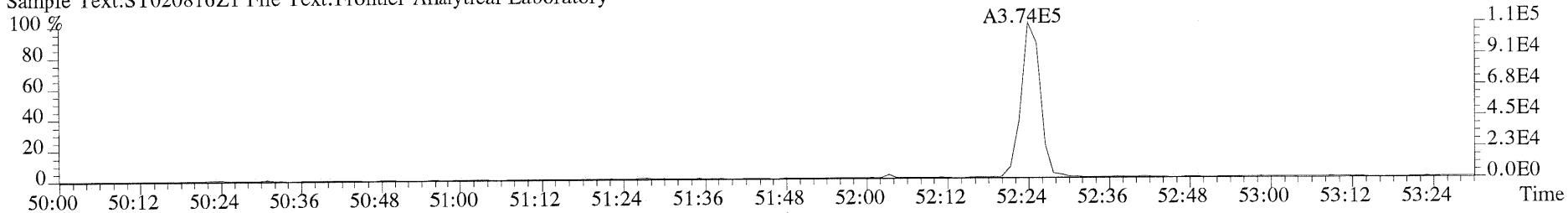
File:08FEB16Z #1-217 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
475.7619 S:3 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



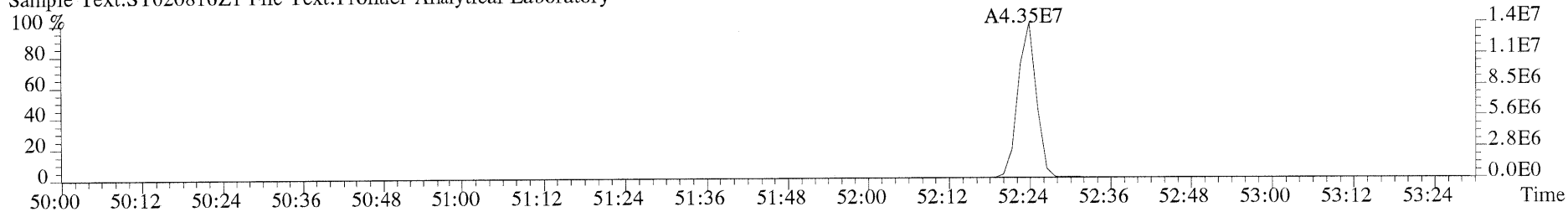
File:08FEB16Z #1-217 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:3 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



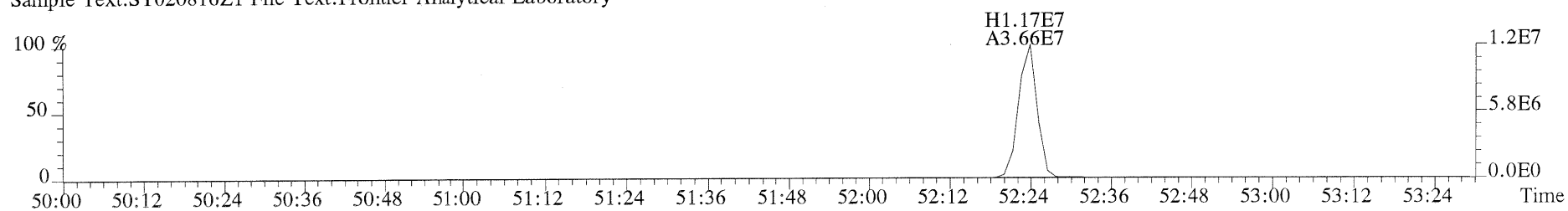
File:08FEB16Z #1-217 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:3 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



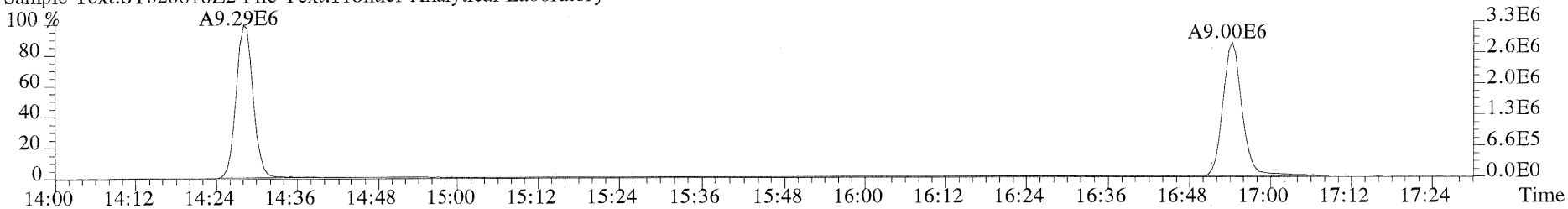
File:08FEB16Z #1-217 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:3 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



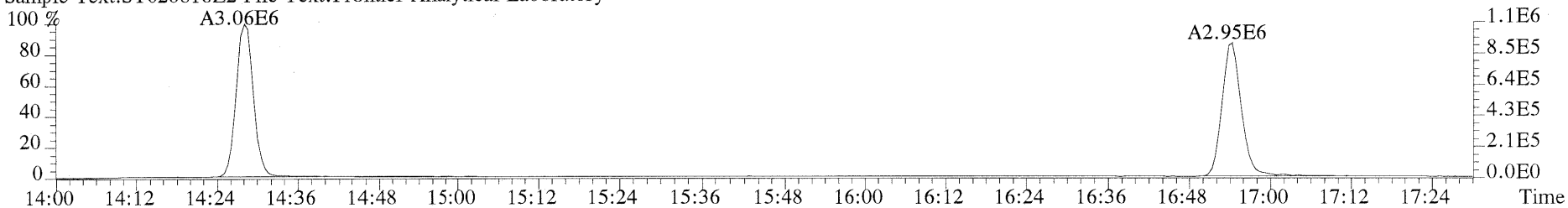
File:08FEB16Z #1-217 Acq: 8-FEB-2016 08:25:50 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:3 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z1 File Text:Frontier Analytical Laboratory



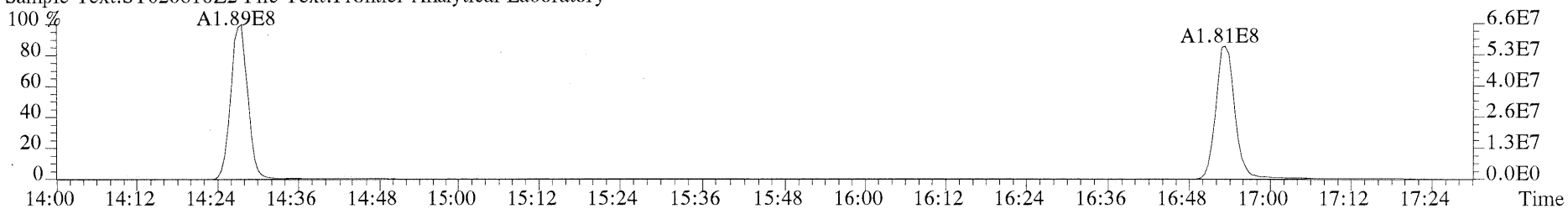
File:08FEB16Z #1-490 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



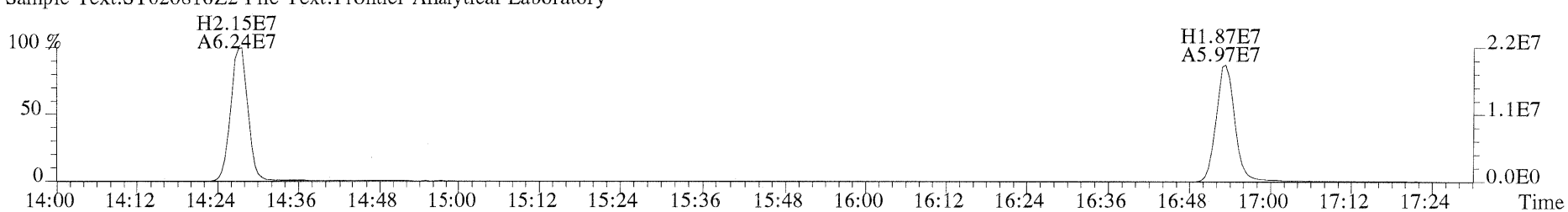
File:08FEB16Z #1-490 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



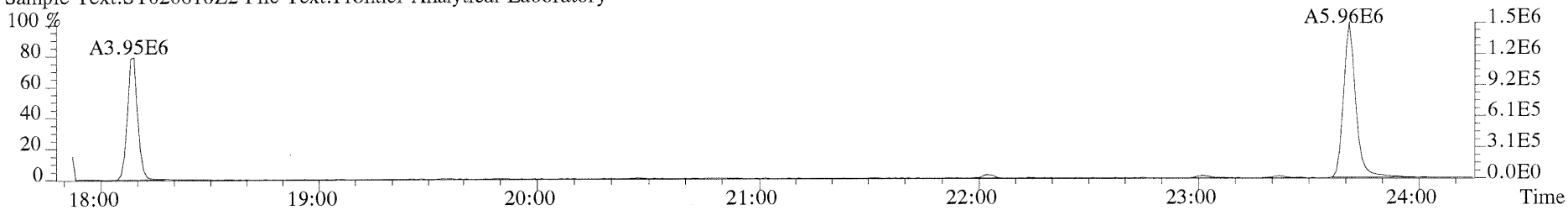
File:08FEB16Z #1-490 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



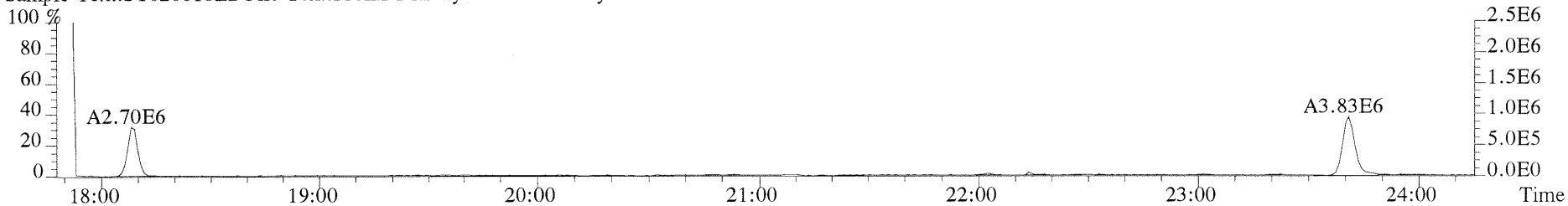
File:08FEB16Z #1-490 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



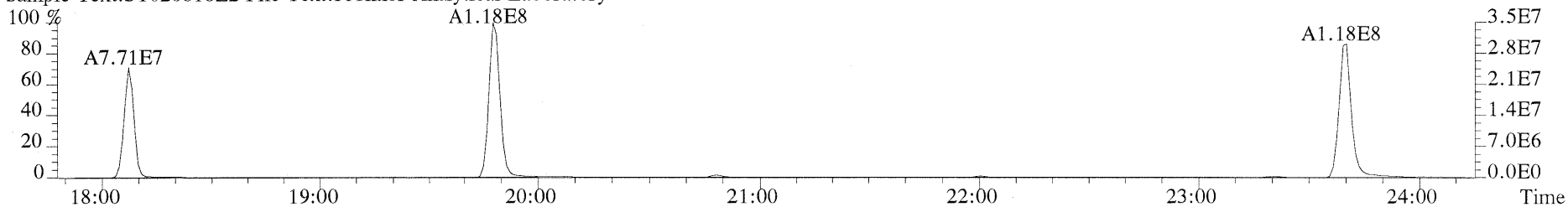
File:08FEB16Z #1-503 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:4 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



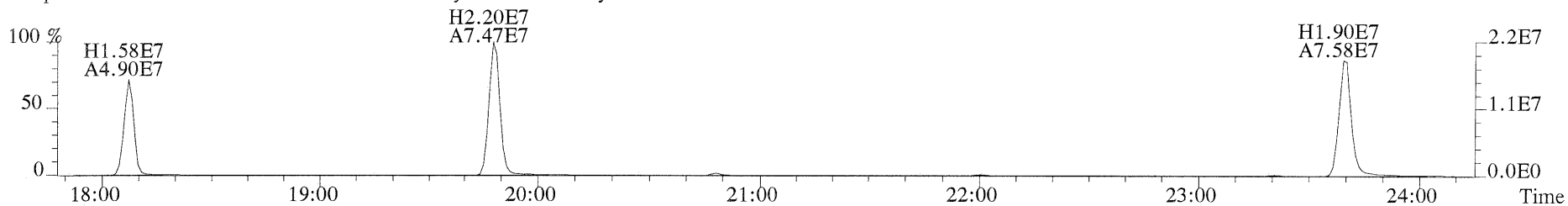
File:08FEB16Z #1-503 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:4 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



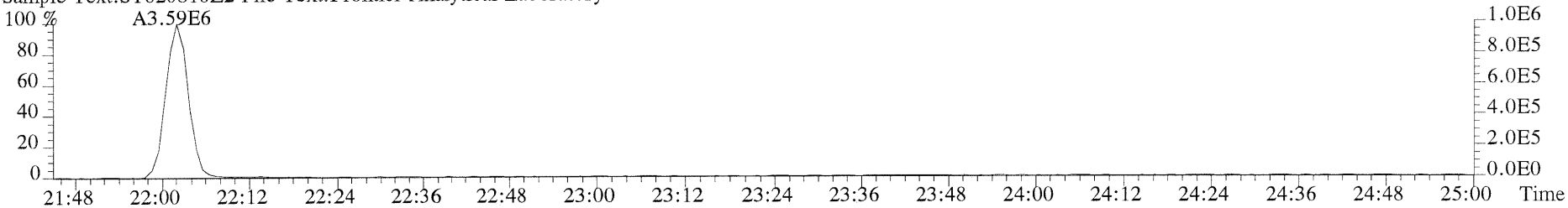
File:08FEB16Z #1-503 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:4 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



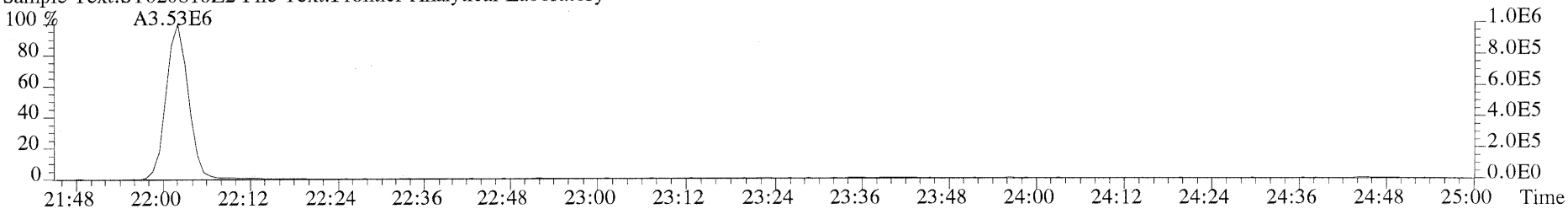
File:08FEB16Z #1-503 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:4 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



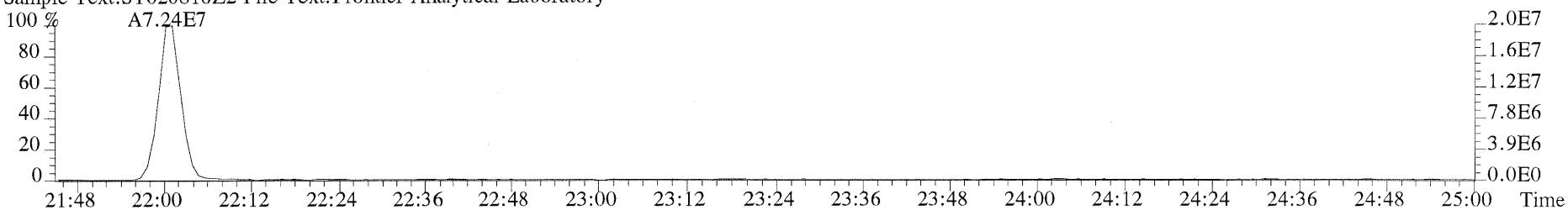
File:08FEB16Z #1-503 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:4 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



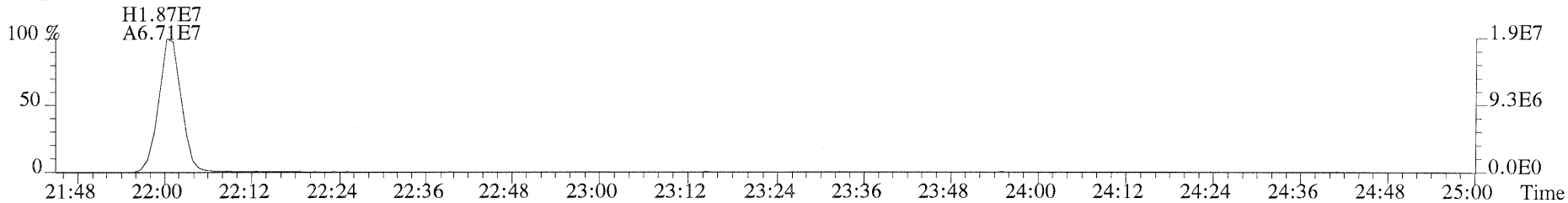
File:08FEB16Z #1-503 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:4 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



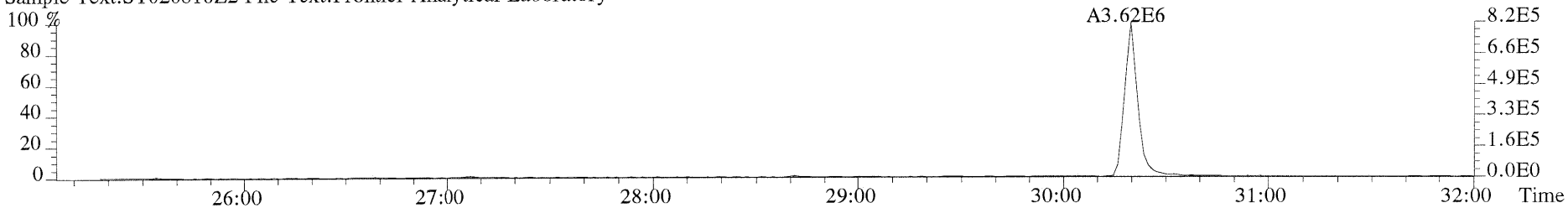
File:08FEB16Z #1-503 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:4 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



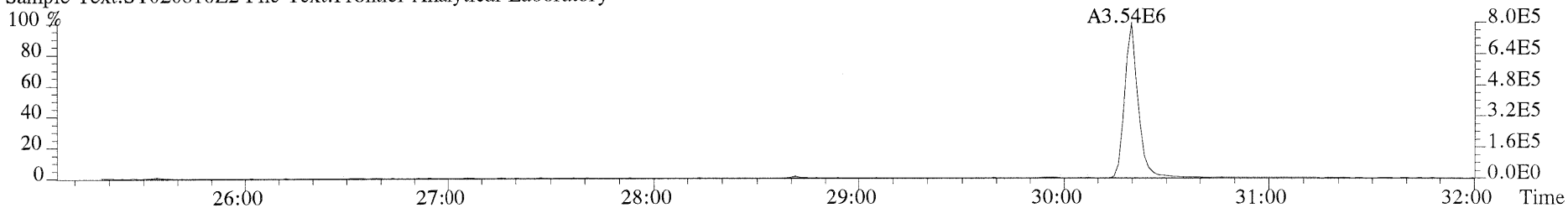
File:08FEB16Z #1-503 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:4 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



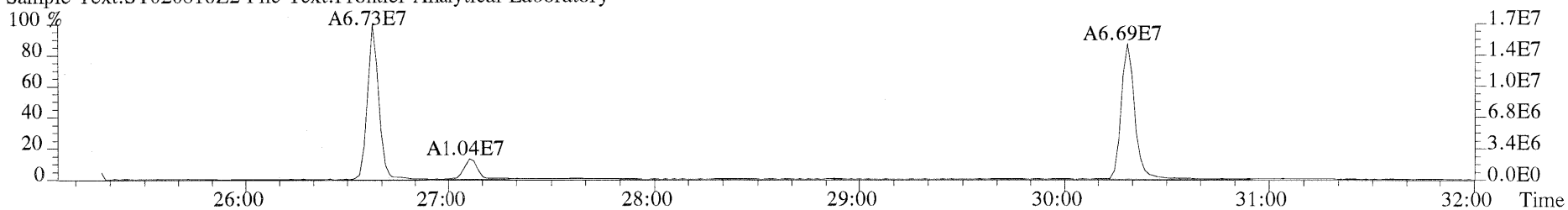
File:08FEB16Z #1-399 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



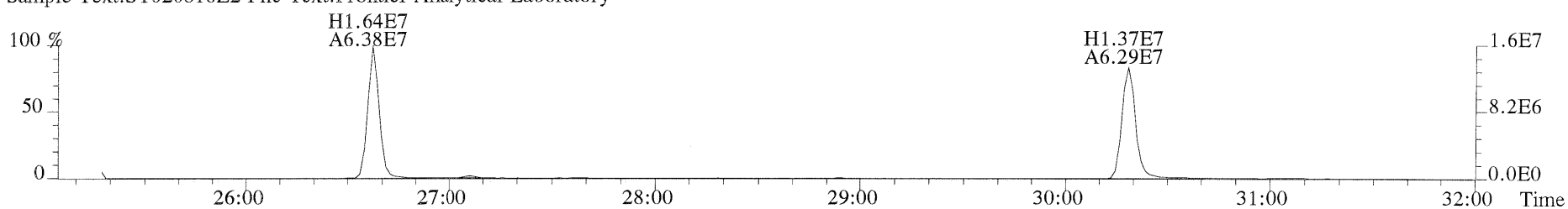
File:08FEB16Z #1-399 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



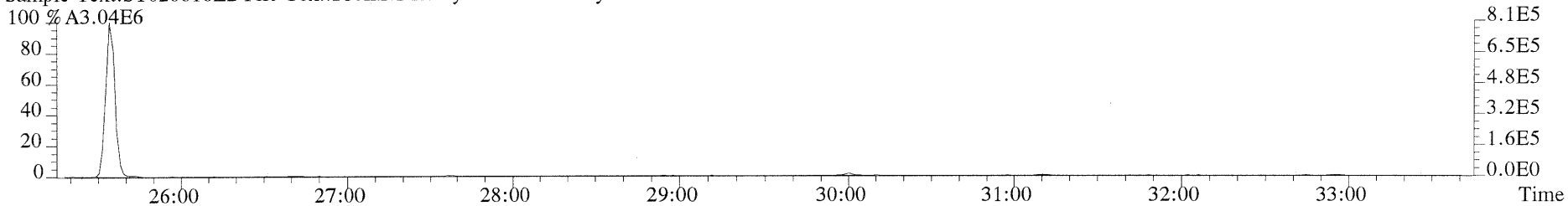
File:08FEB16Z #1-399 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-399 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-399 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



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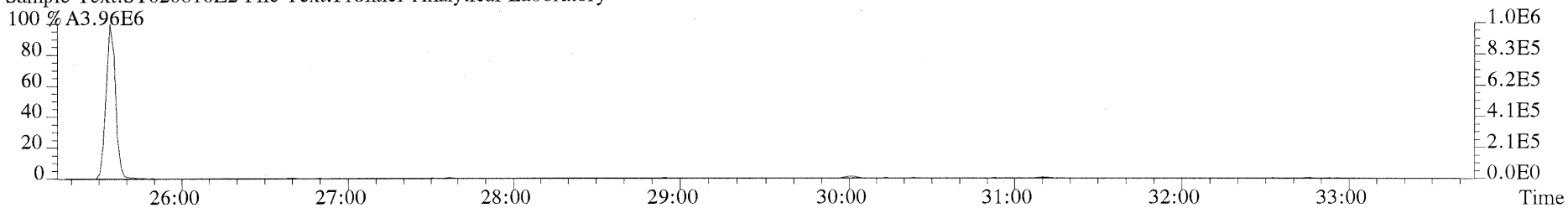
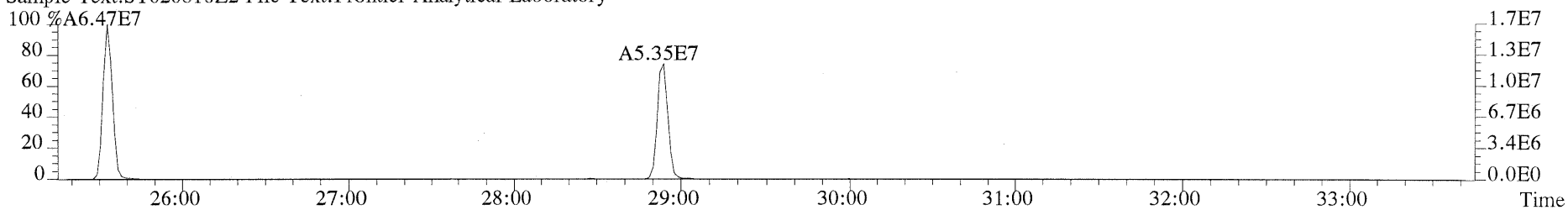
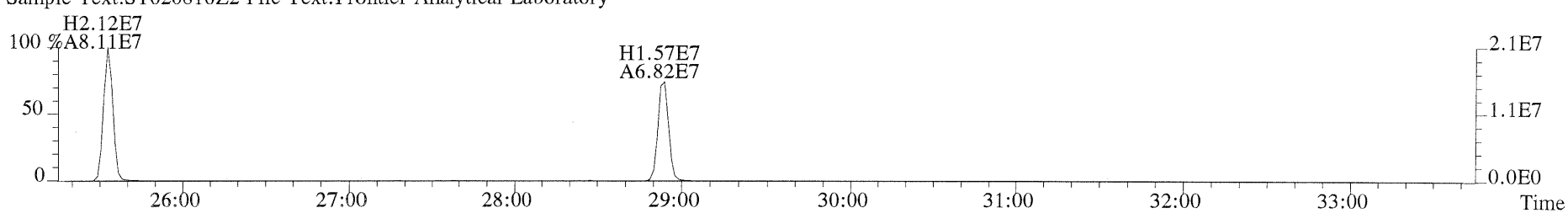
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



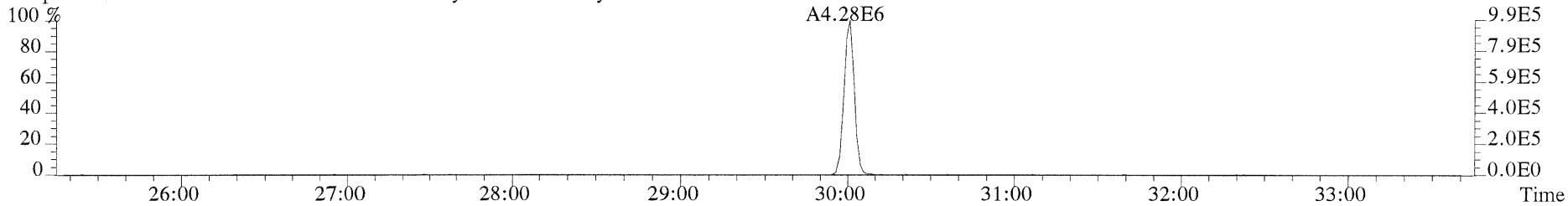
File:08FEB16Z #1-399 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



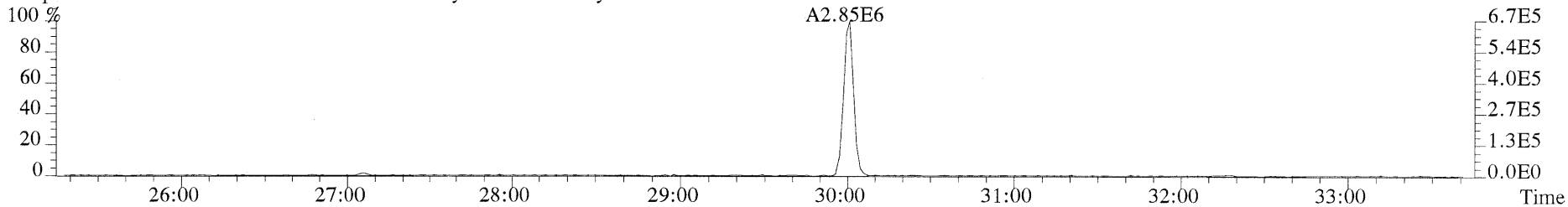
File:08FEB16Z #1-399 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



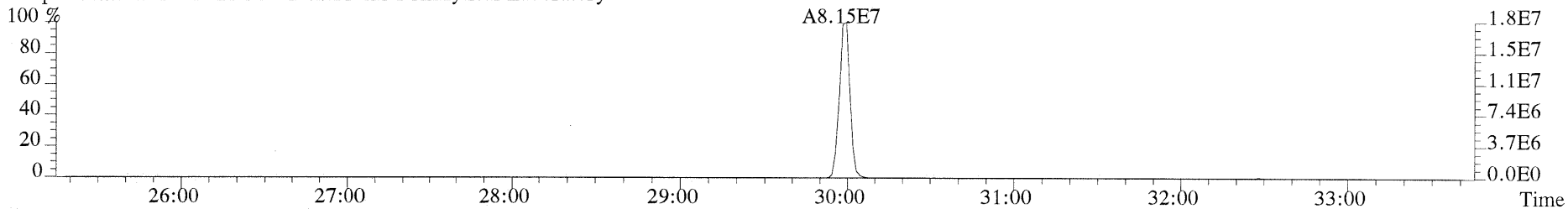
File:08FEB16Z #1-399 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-399 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-399 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



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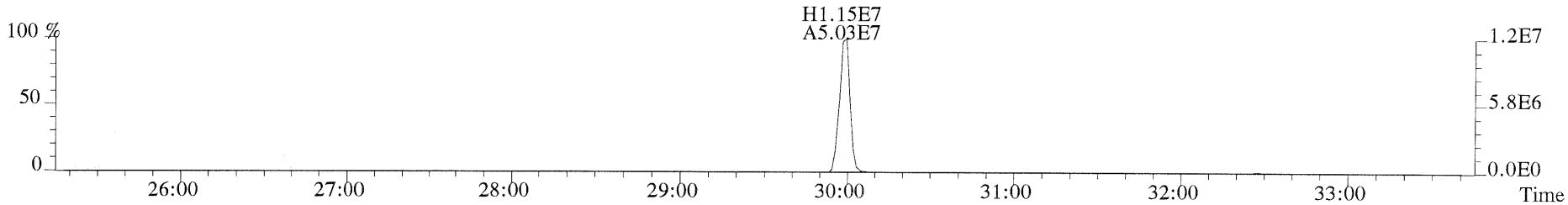
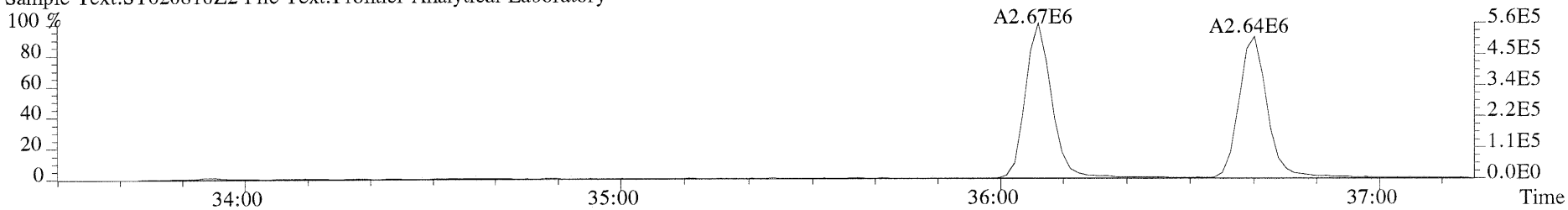
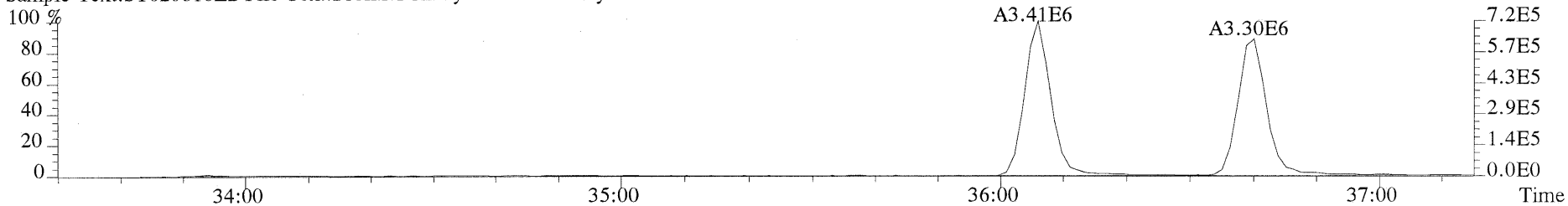
339.9178 S:4 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



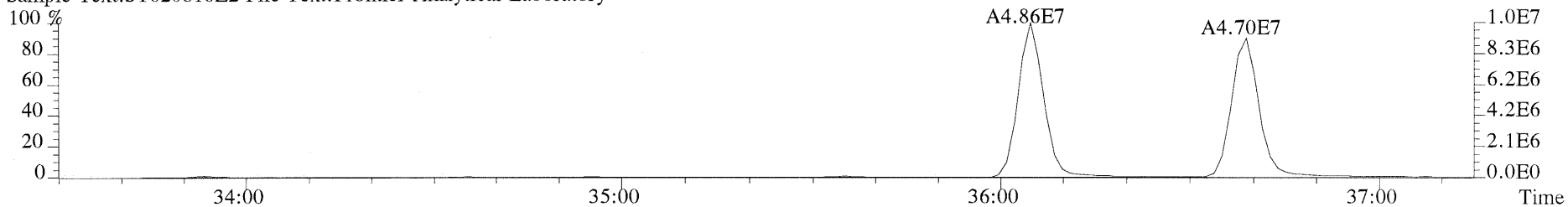
File:08FEB16Z #1-182 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



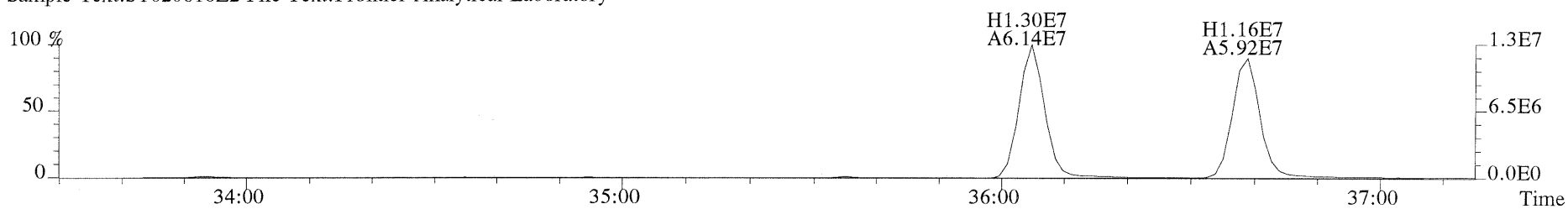
File:08FEB16Z #1-182 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



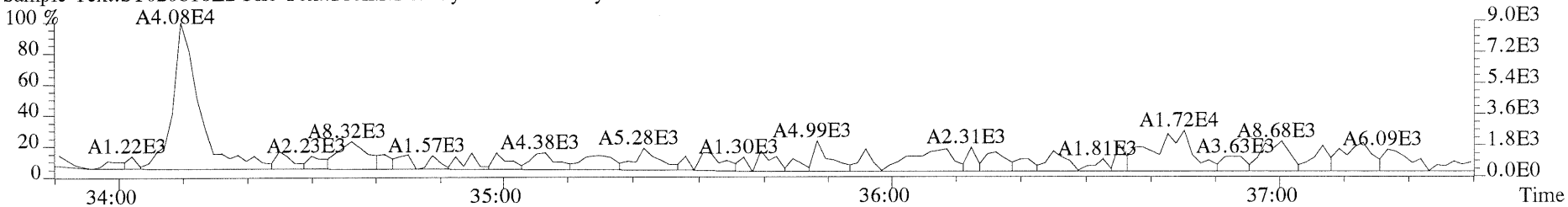
File:08FEB16Z #1-182 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



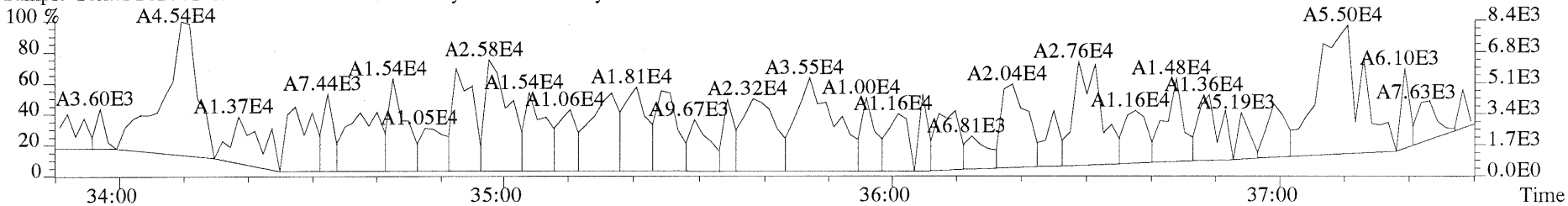
File:08FEB16Z #1-182 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



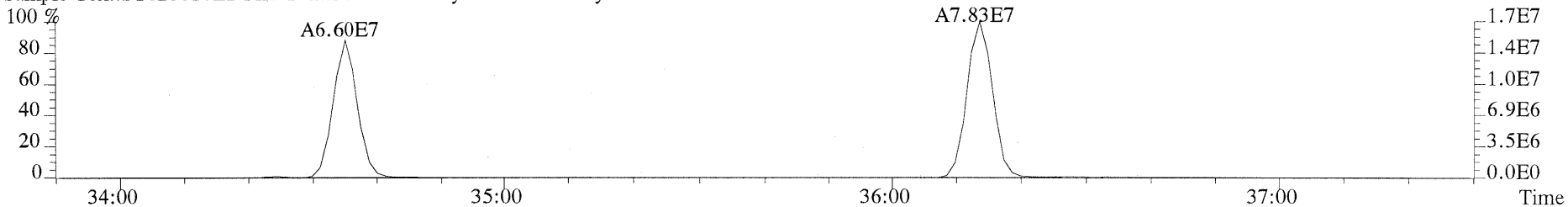
File:08FEB16Z #1-182 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-182 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-182 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



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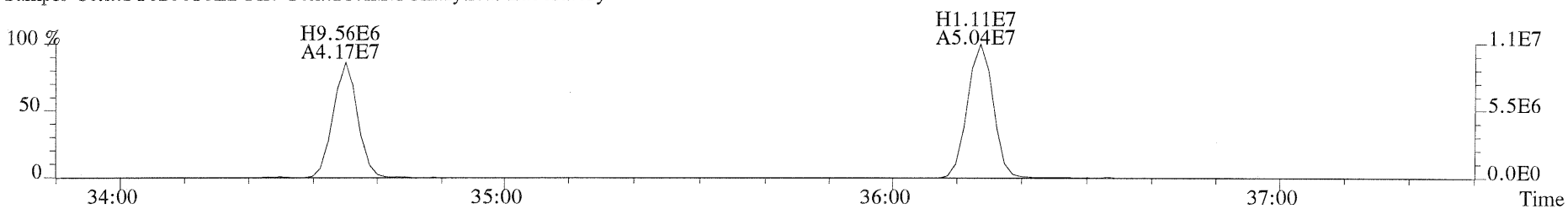
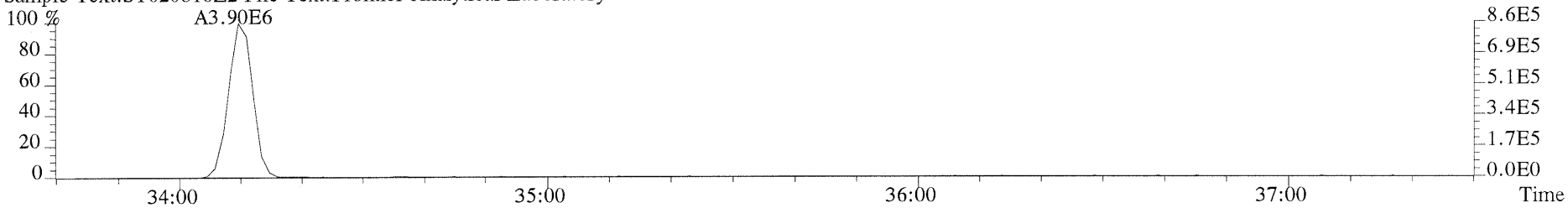
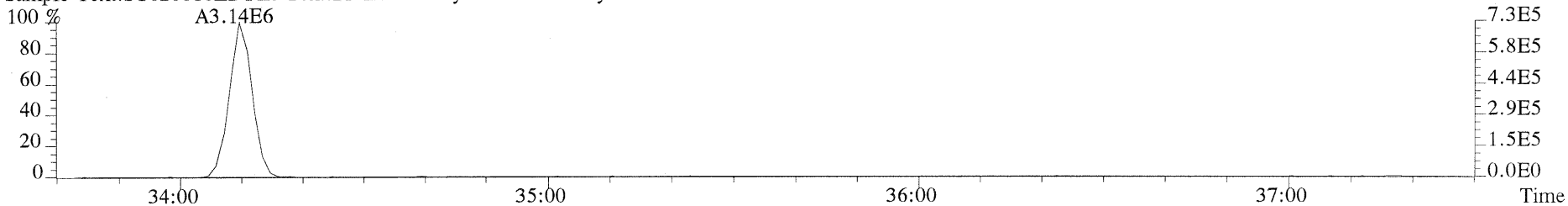
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



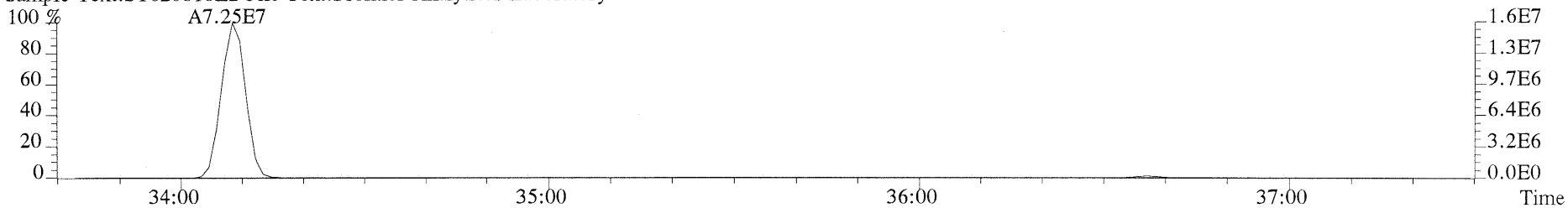
File:08FEB16Z #1-182 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



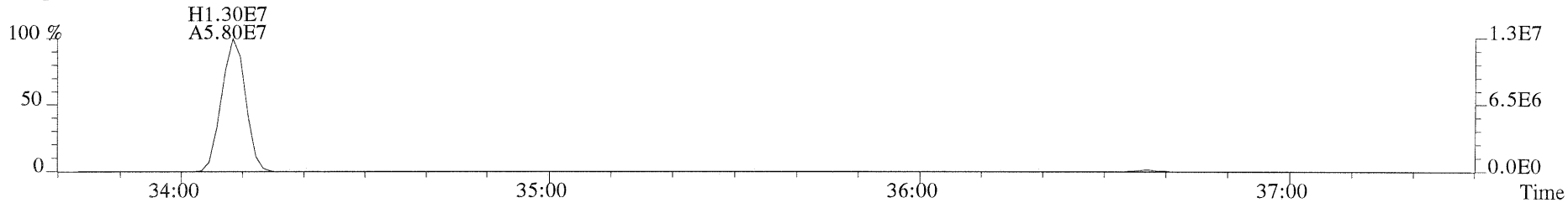
File:08FEB16Z #1-182 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



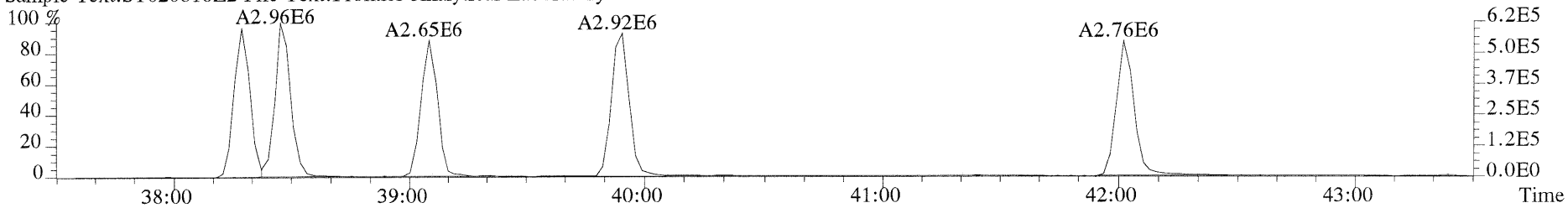
File:08FEB16Z #1-182 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



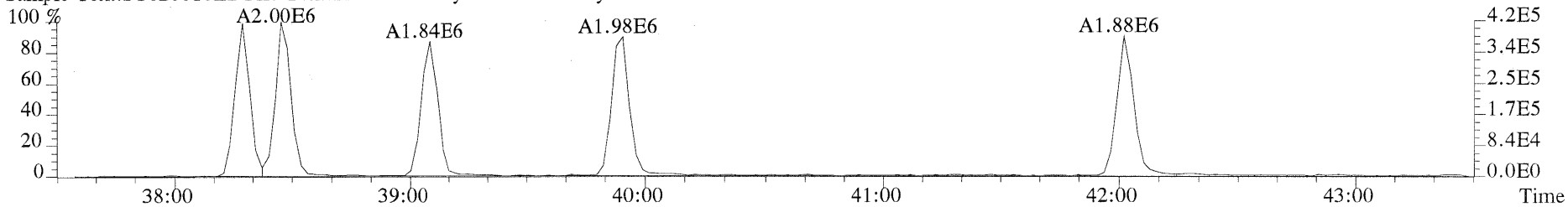
File:08FEB16Z #1-182 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:4 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



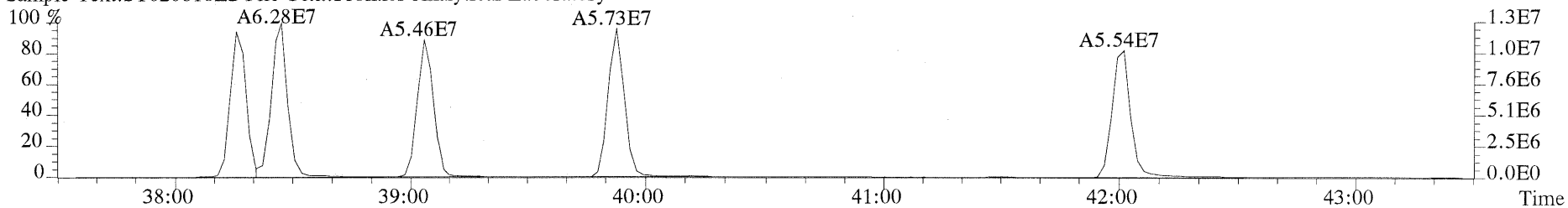
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



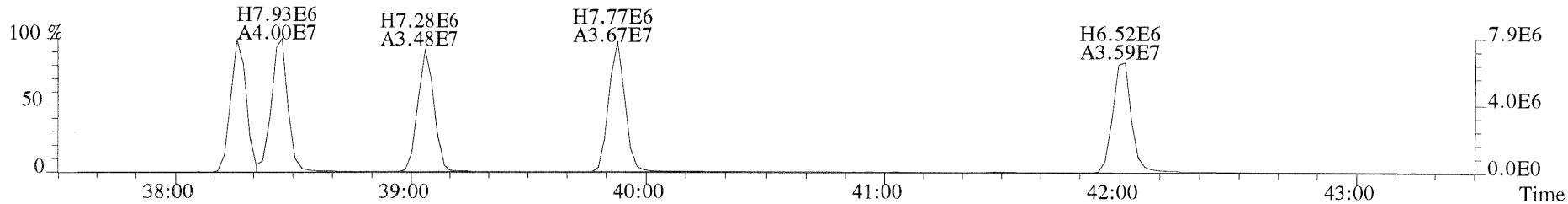
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



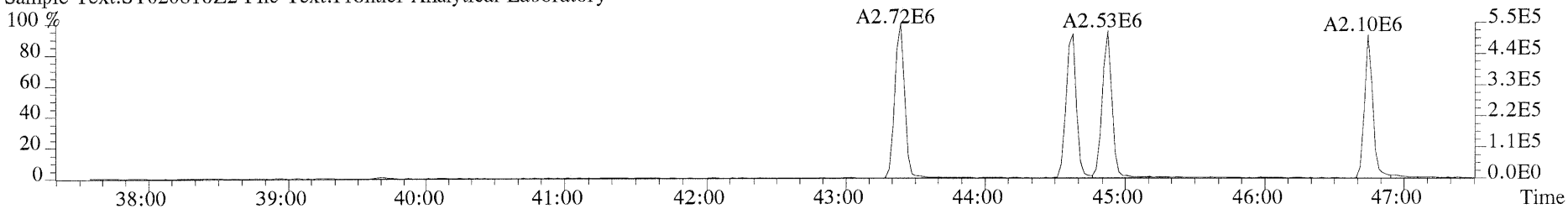
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



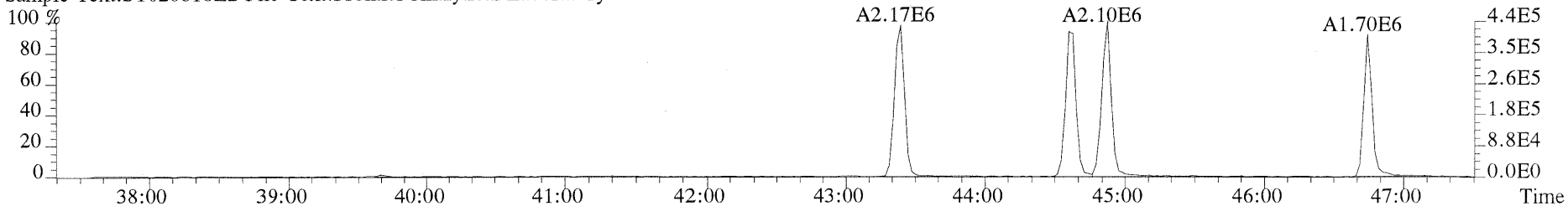
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



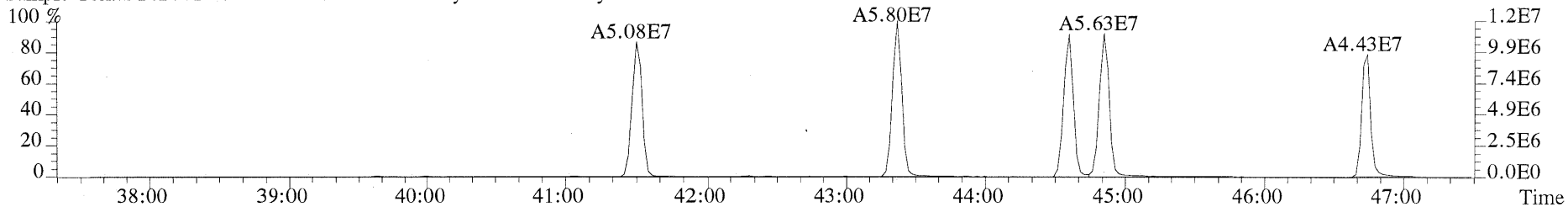
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



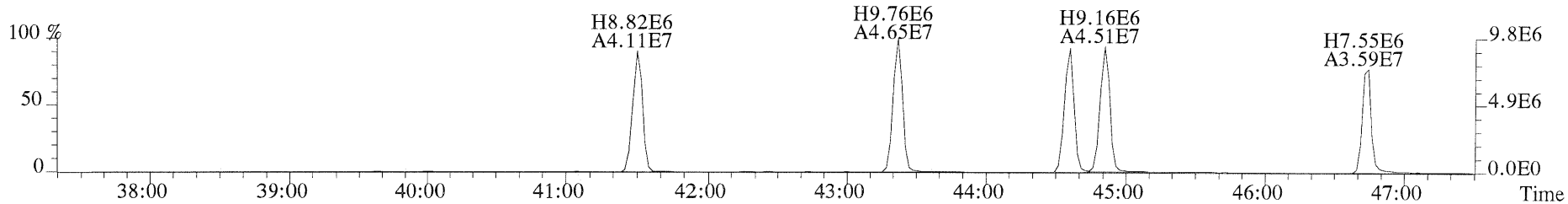
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



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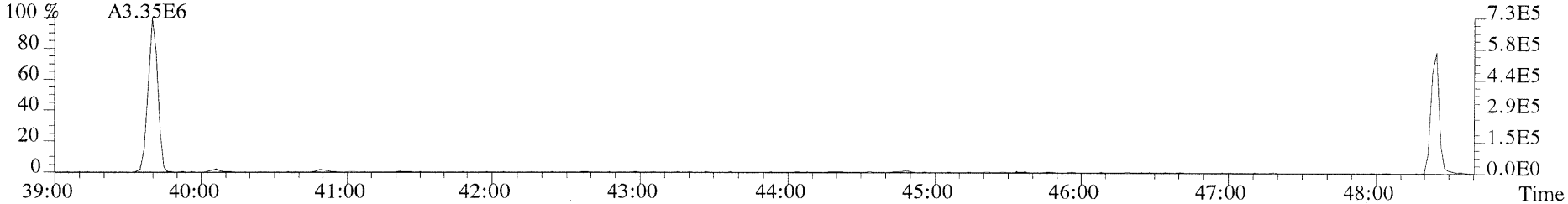
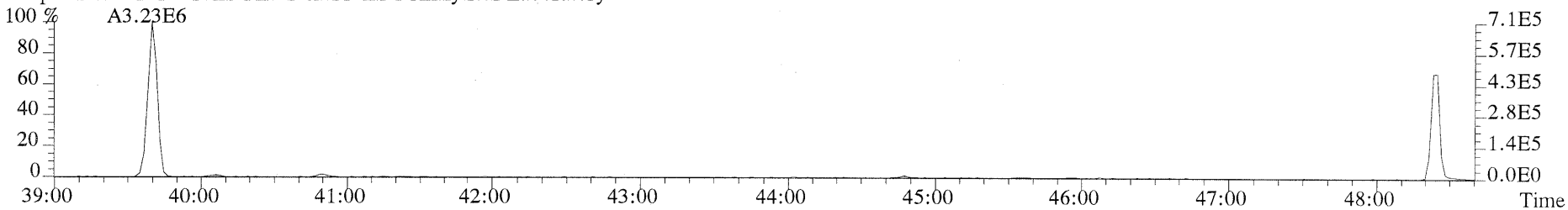
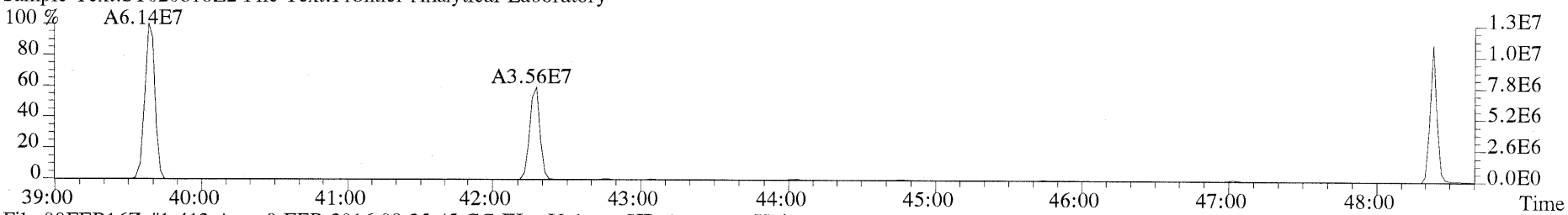
393.8025 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



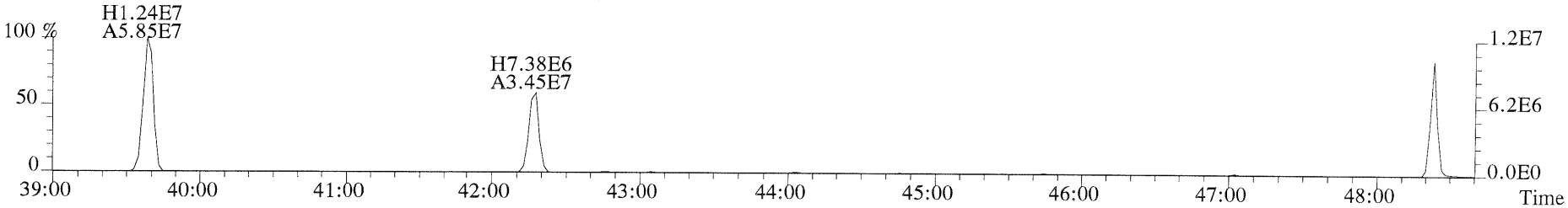
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



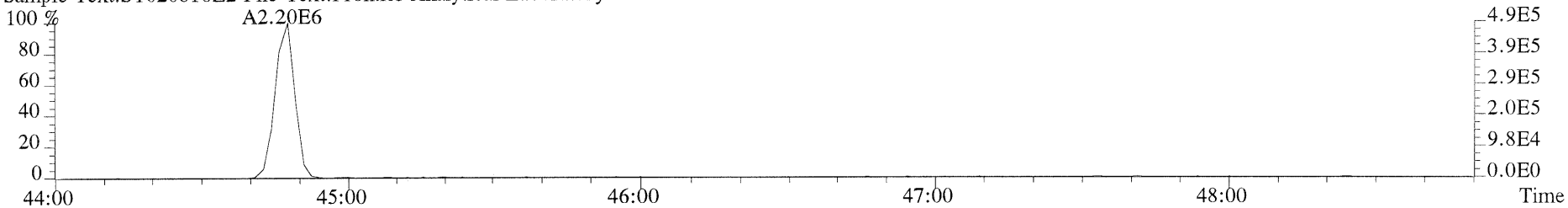
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
405.8428 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



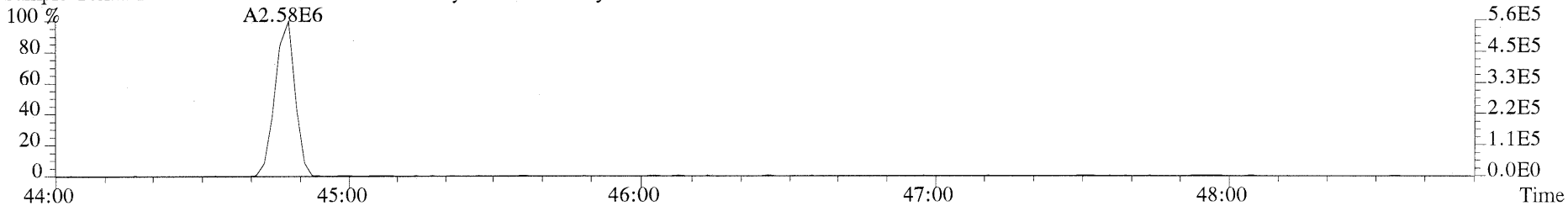
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
407.8398 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



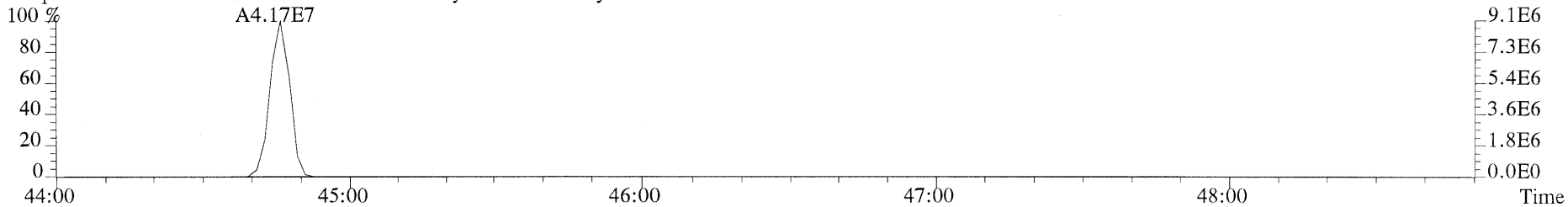
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



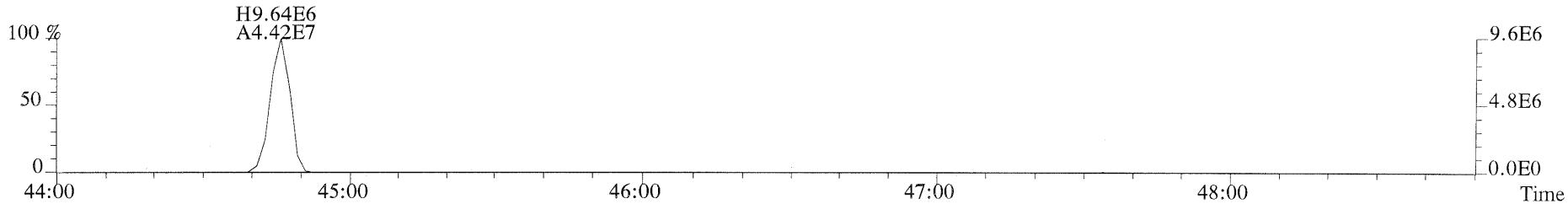
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



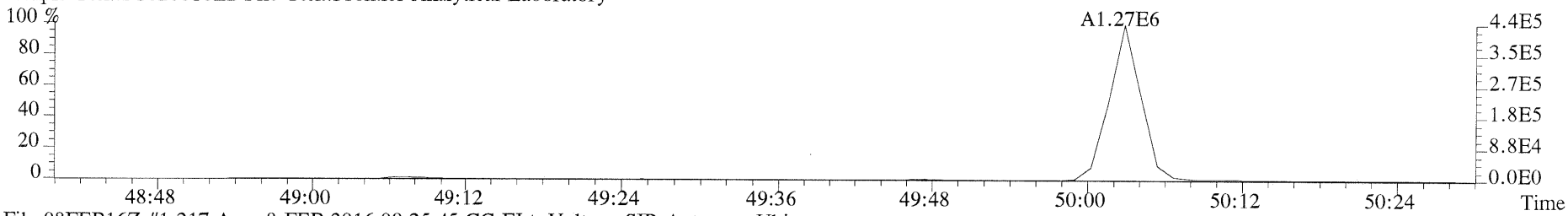
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



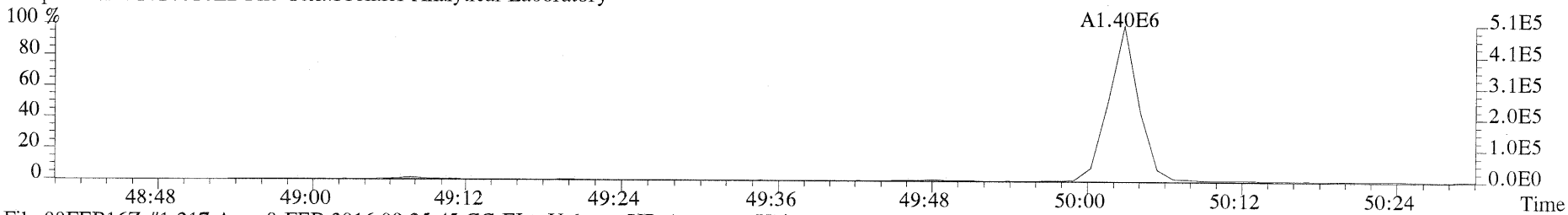
File:08FEB16Z #1-412 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:4 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



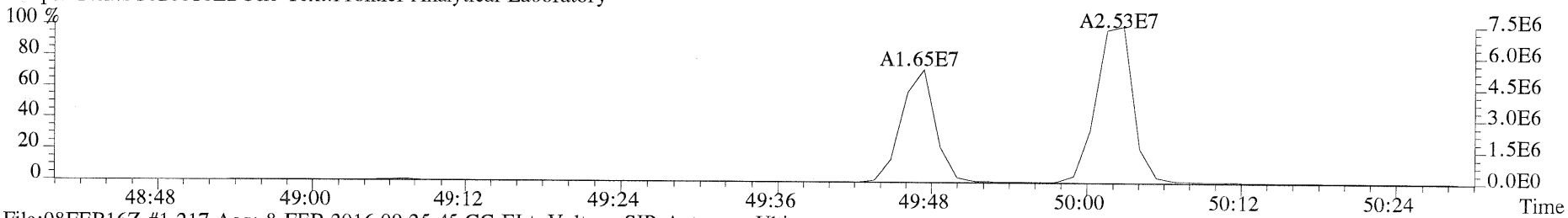
File:08FEB16Z #1-217 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



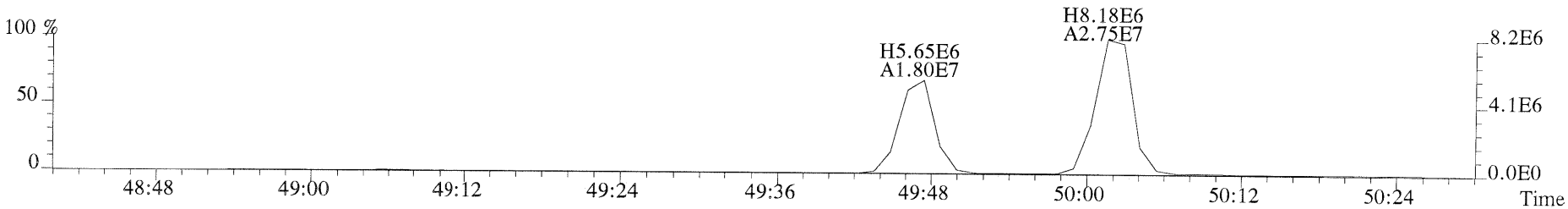
File:08FEB16Z #1-217 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



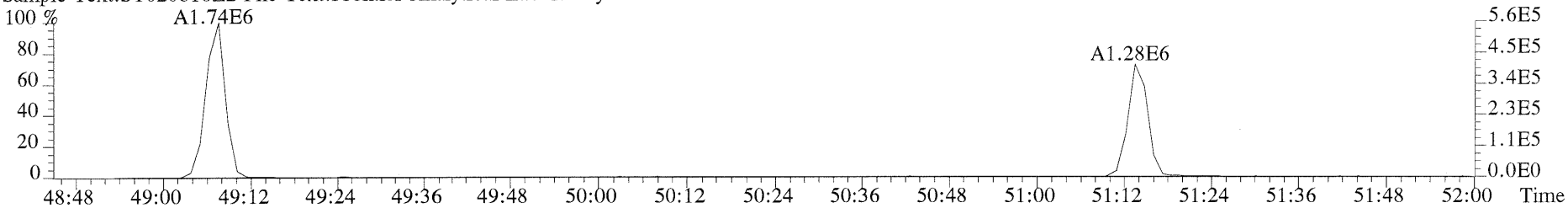
File:08FEB16Z #1-217 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



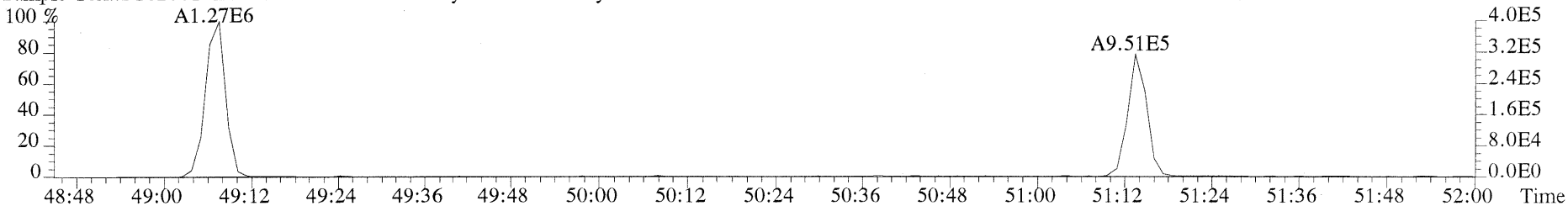
File:08FEB16Z #1-217 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



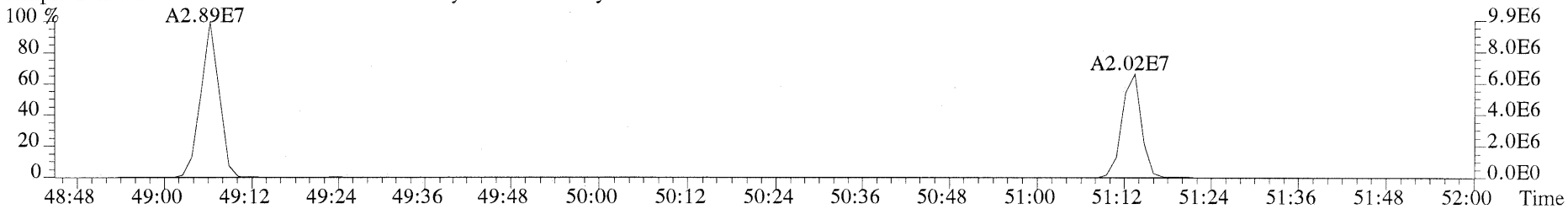
File:08FEB16Z #1-217 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



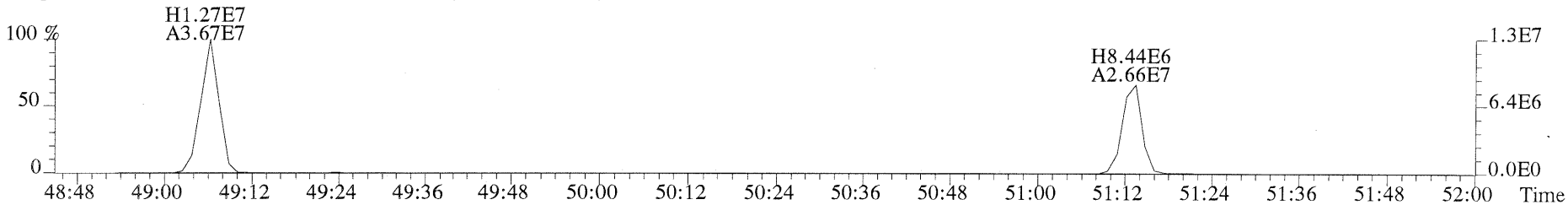
File:08FEB16Z #1-217 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
465.7187 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



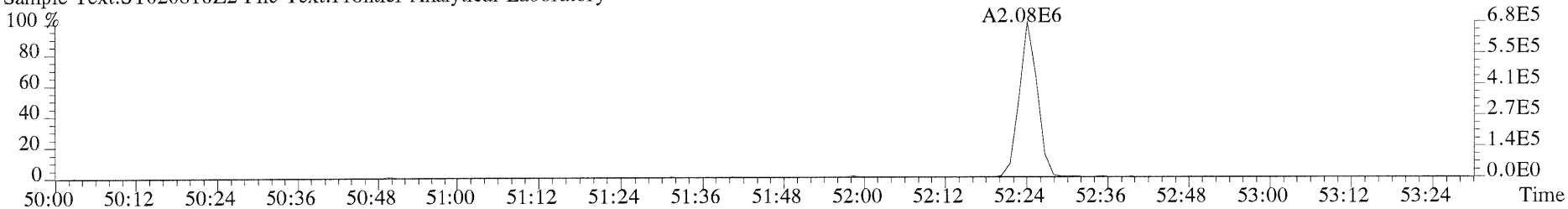
File:08FEB16Z #1-217 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
473.7648 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



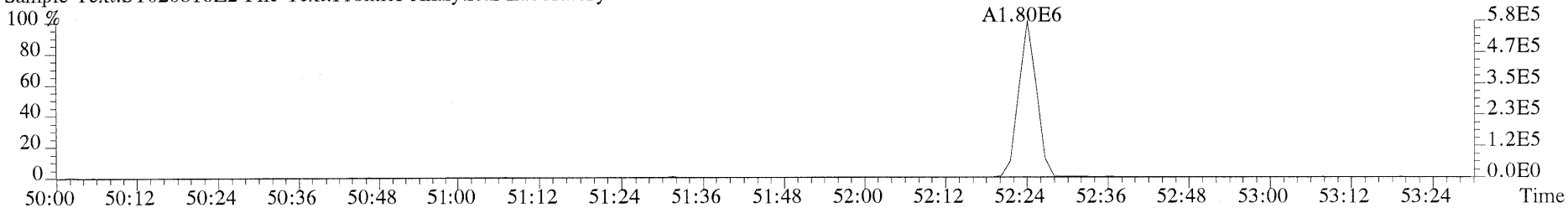
File:08FEB16Z #1-217 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
475.7619 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



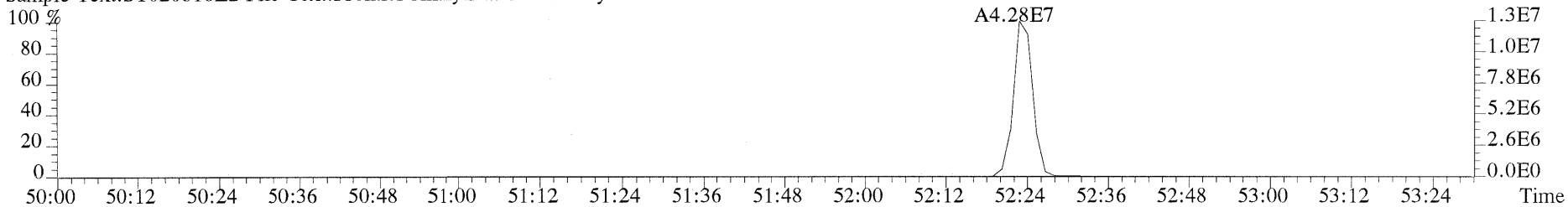
File:08FEB16Z #1-217 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



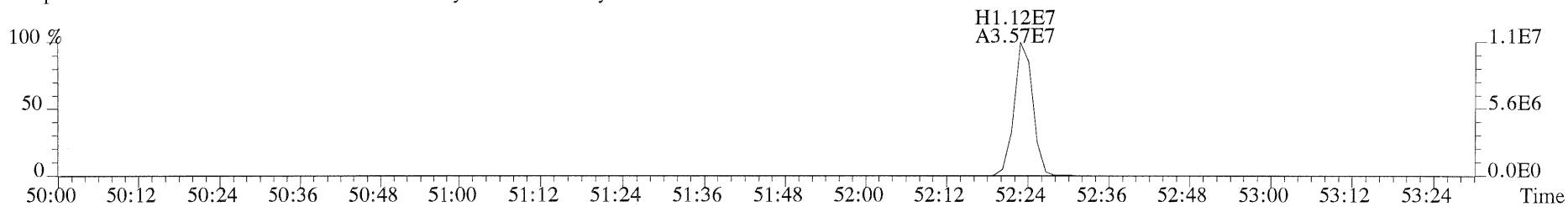
File:08FEB16Z #1-217 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



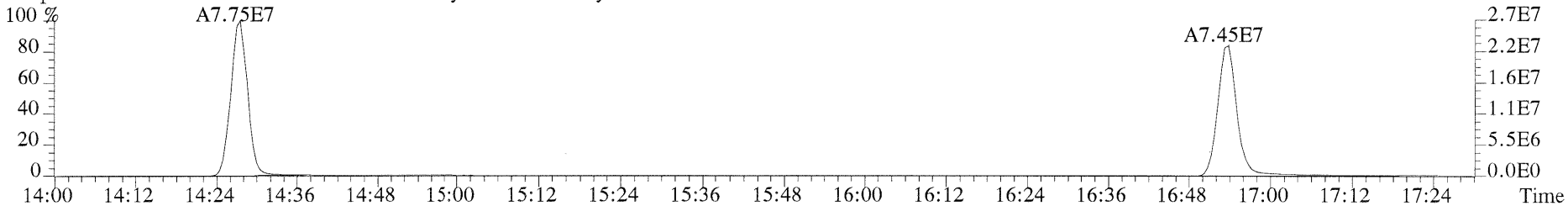
File:08FEB16Z #1-217 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



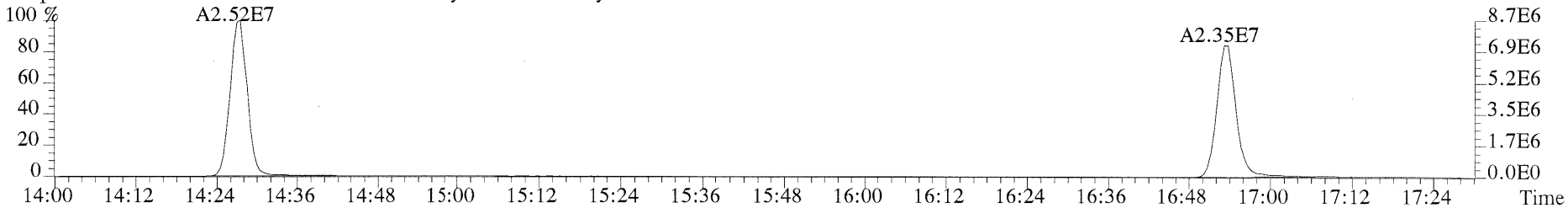
File:08FEB16Z #1-217 Acq: 8-FEB-2016 09:25:45 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:4 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z2 File Text:Frontier Analytical Laboratory



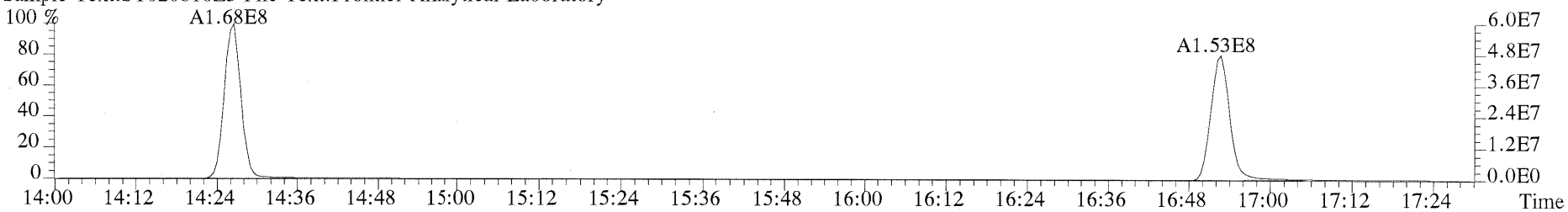
File:08FEB16Z #1-489 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
188.0393 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



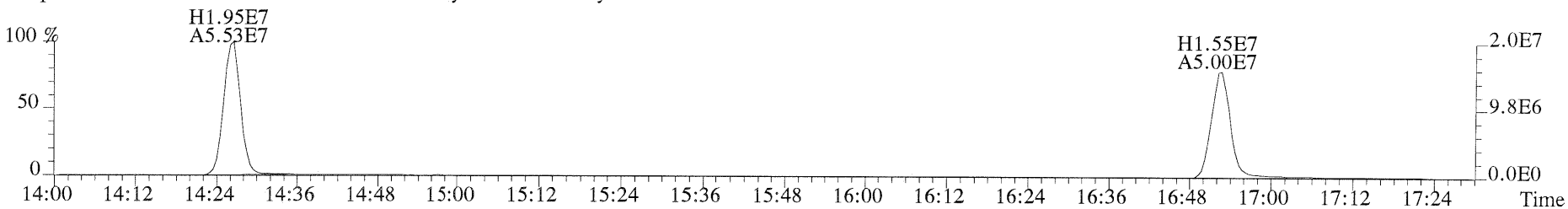
File:08FEB16Z #1-489 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
190.0363 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



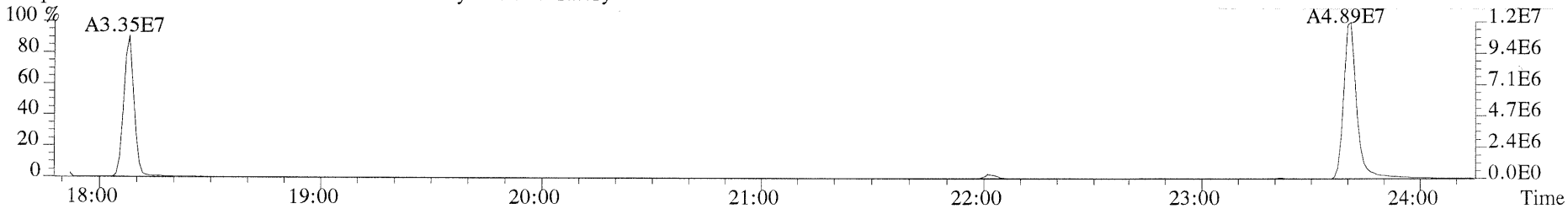
File:08FEB16Z #1-489 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
200.0795 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



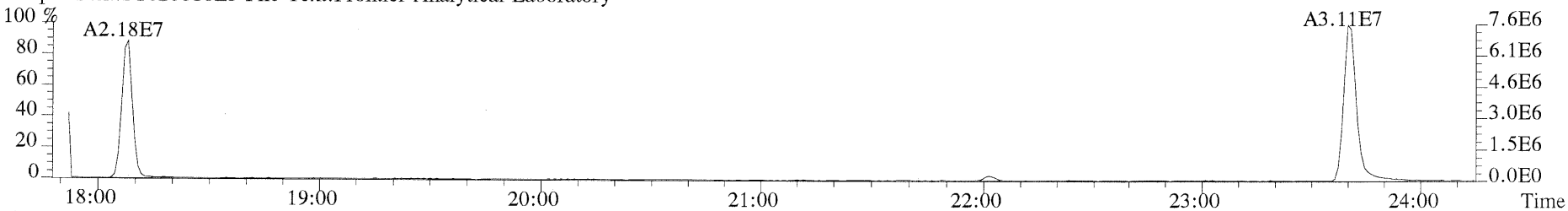
File:08FEB16Z #1-489 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
202.0766 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



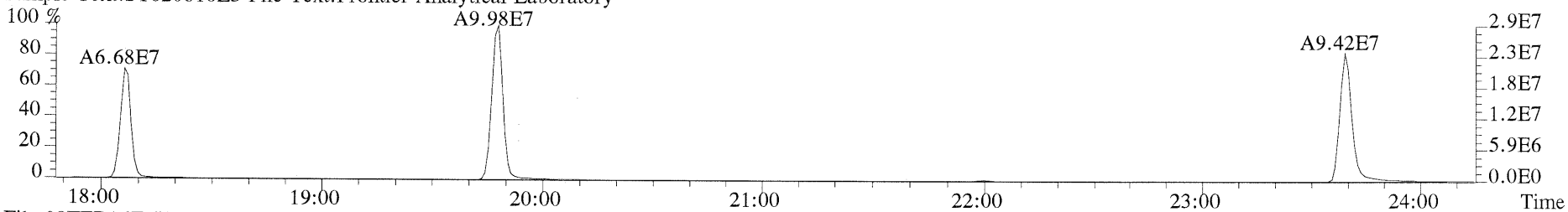
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
222.0003 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



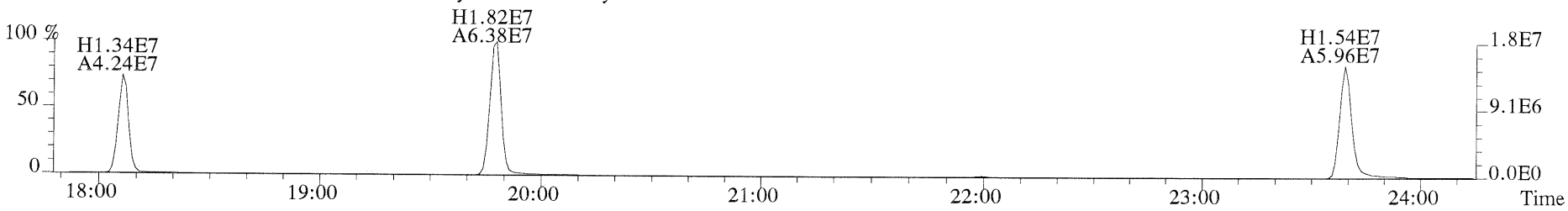
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
223.9974 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



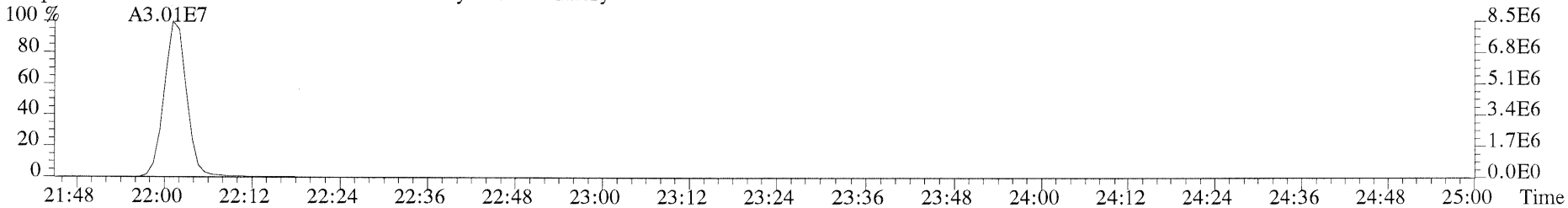
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
234.0406 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



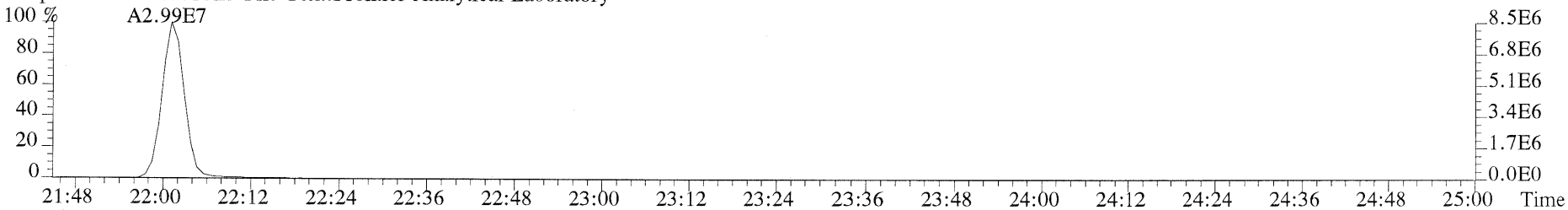
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
236.0376 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



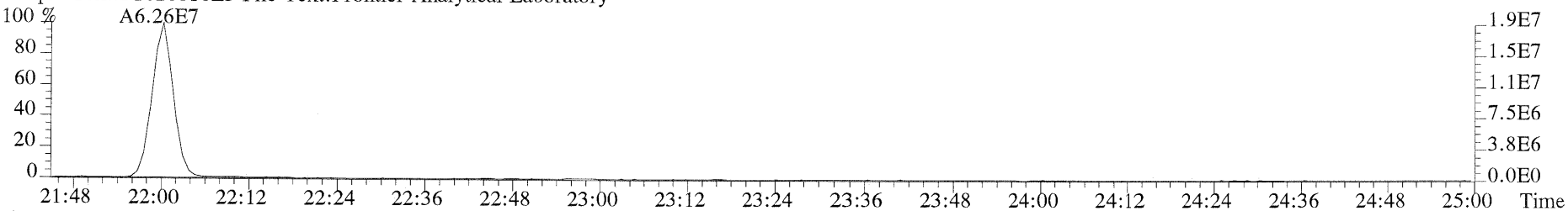
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
255.9613 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



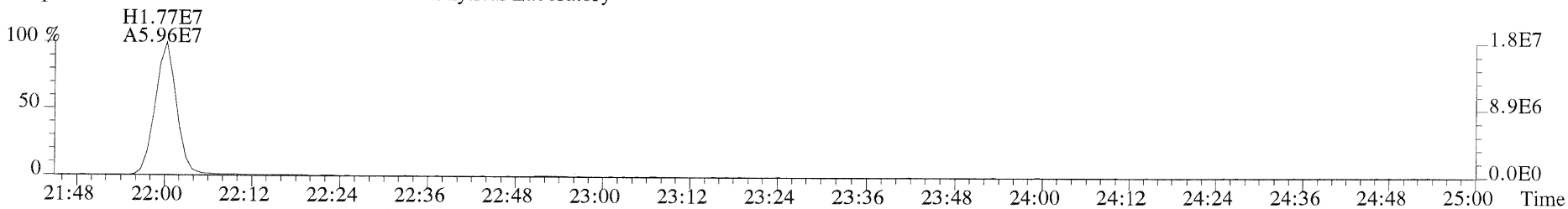
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
257.9584 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



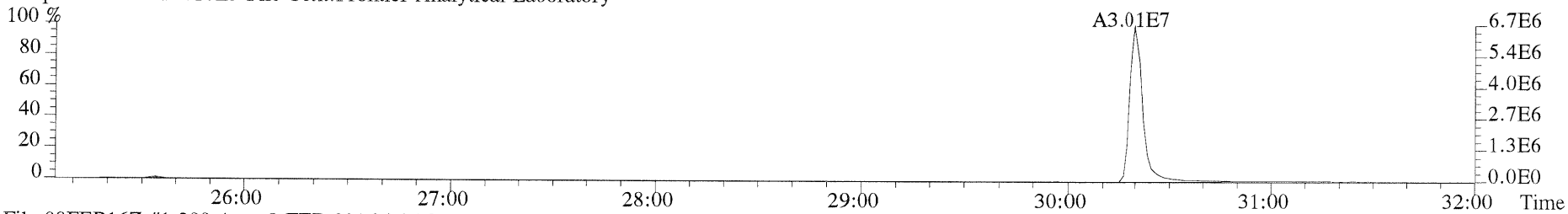
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
268.0016 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



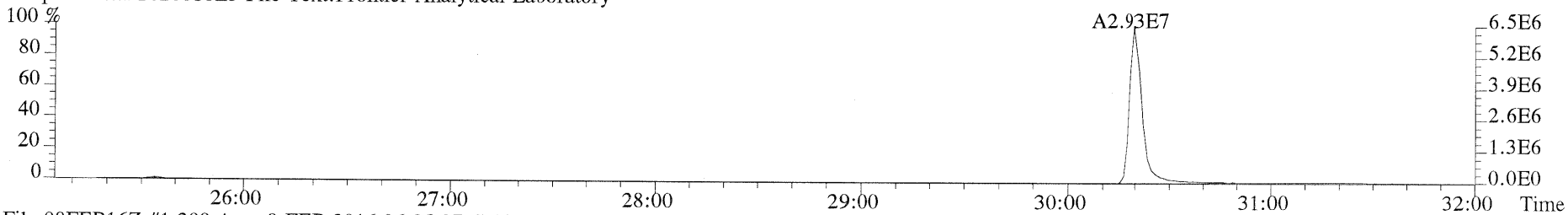
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
269.9986 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



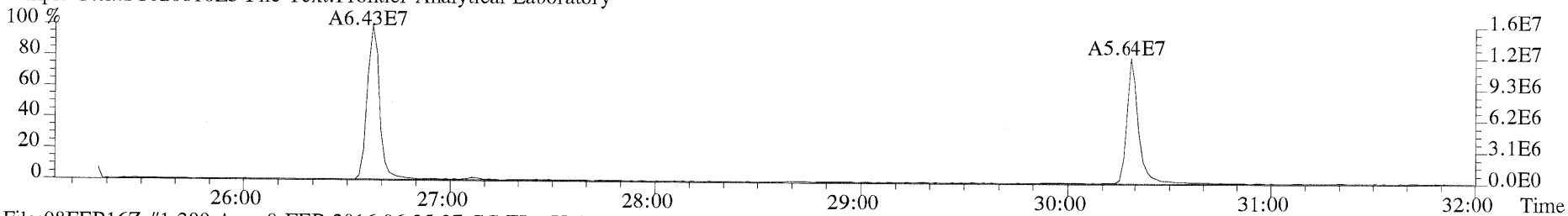
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
255.9613 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



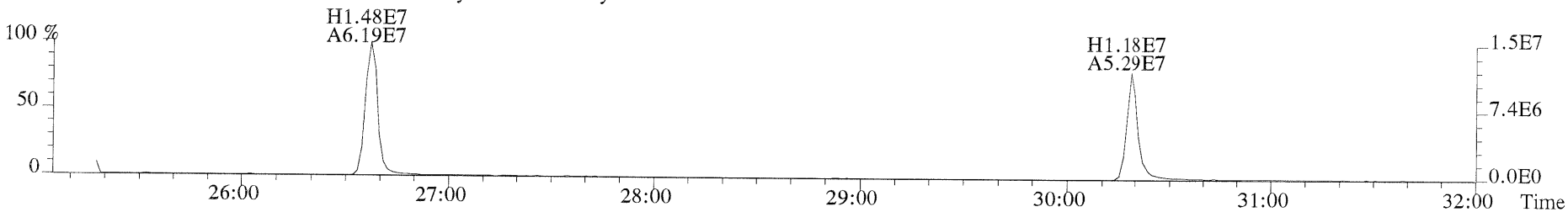
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
257.9584 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



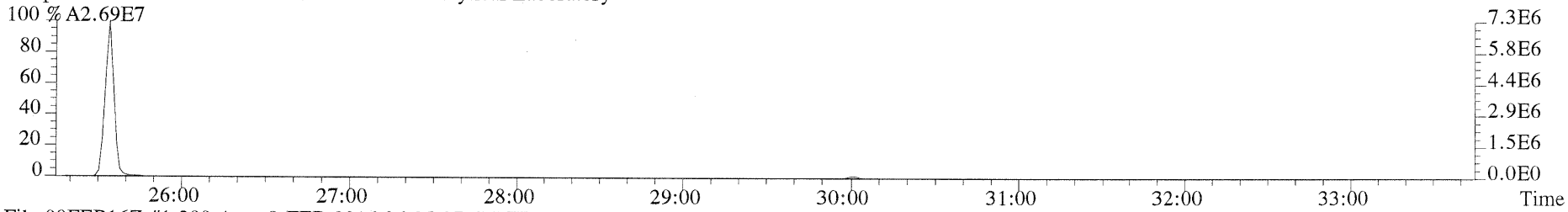
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
268.0016 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



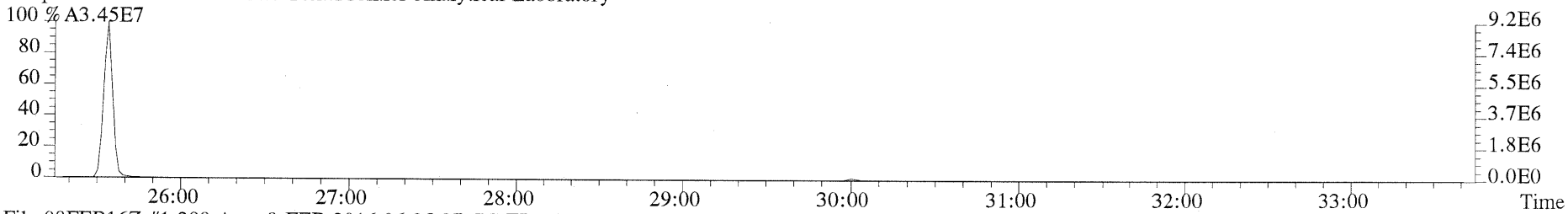
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
269.9986 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



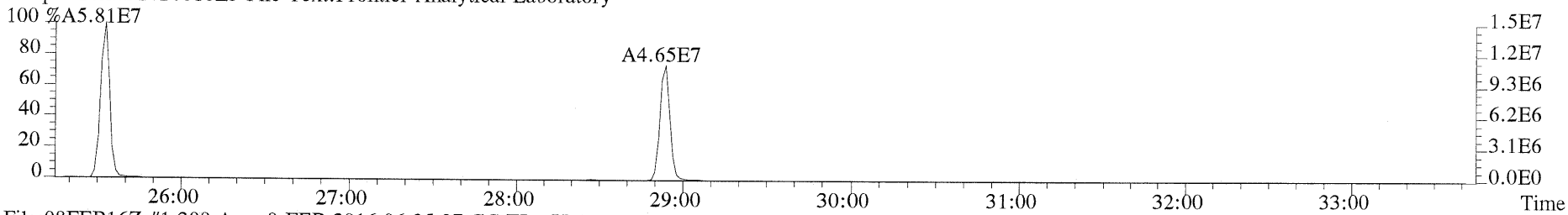
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
289.9224 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



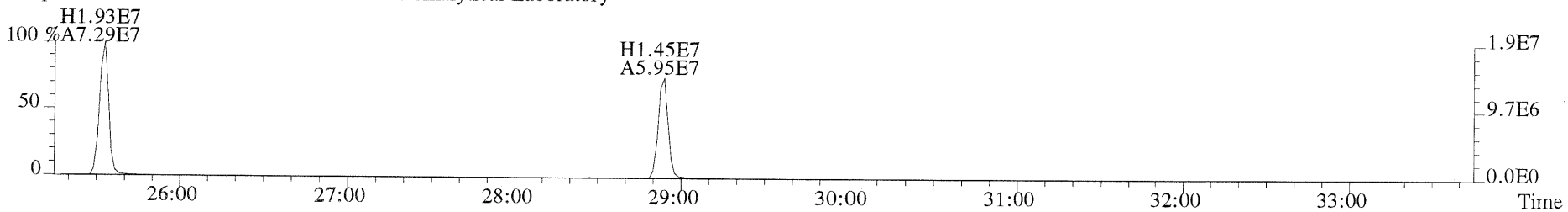
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
291.9194 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



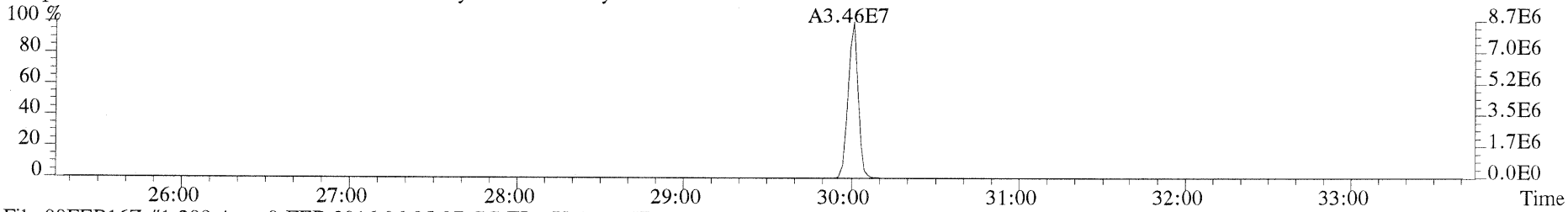
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
301.9626 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



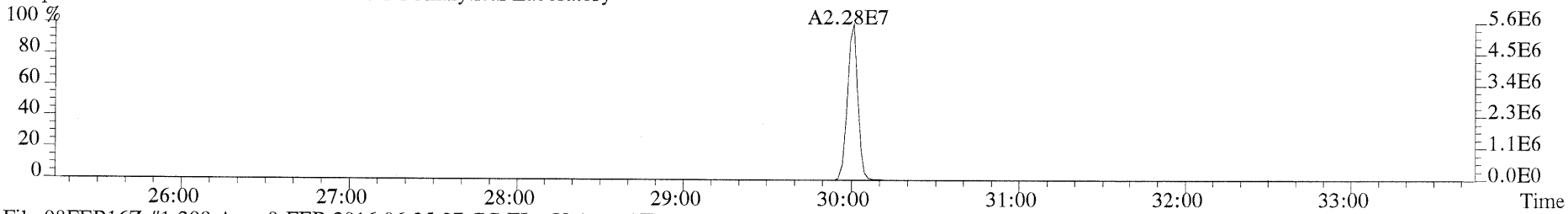
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
303.9597 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



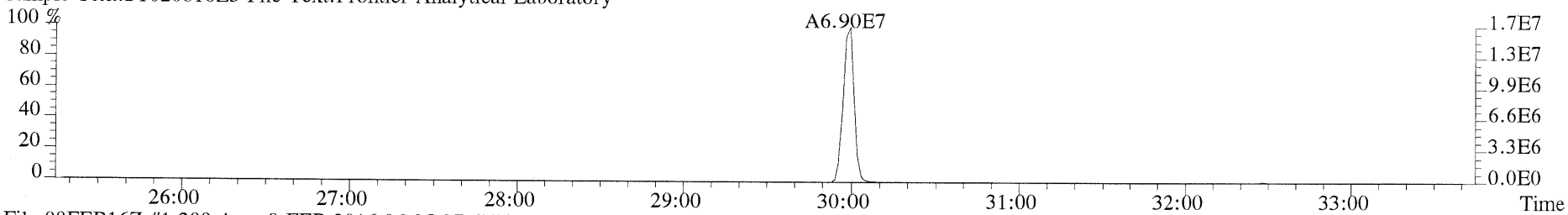
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
325.8804 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



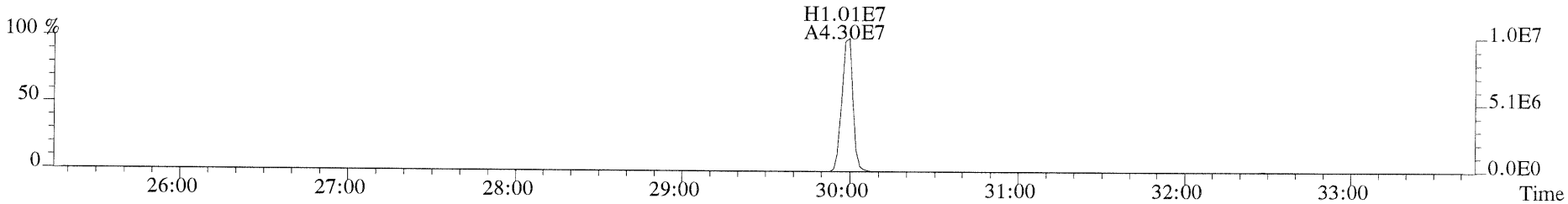
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
327.8775 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



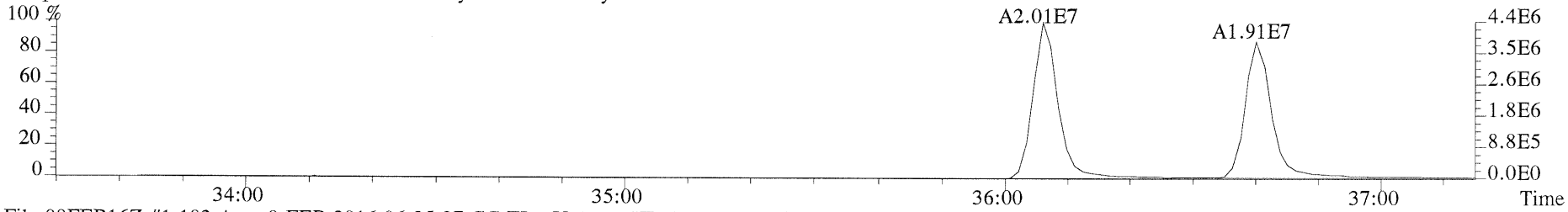
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
337.9207 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



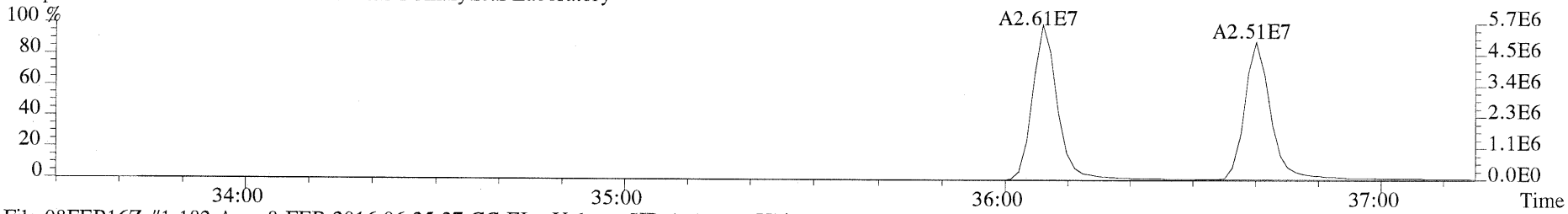
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
339.9178 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



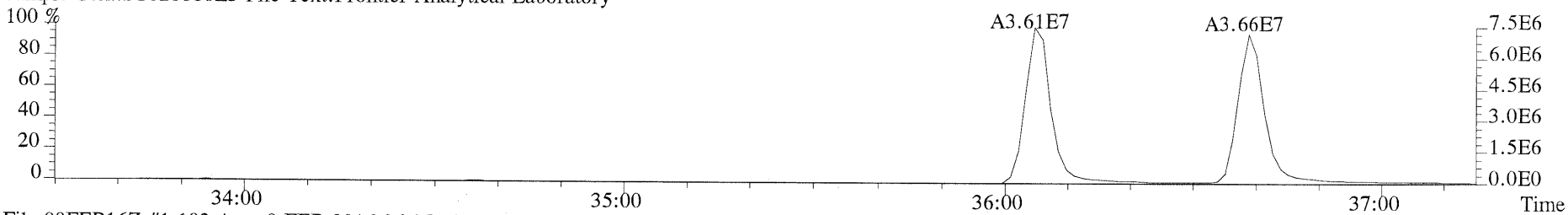
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
289.9224 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



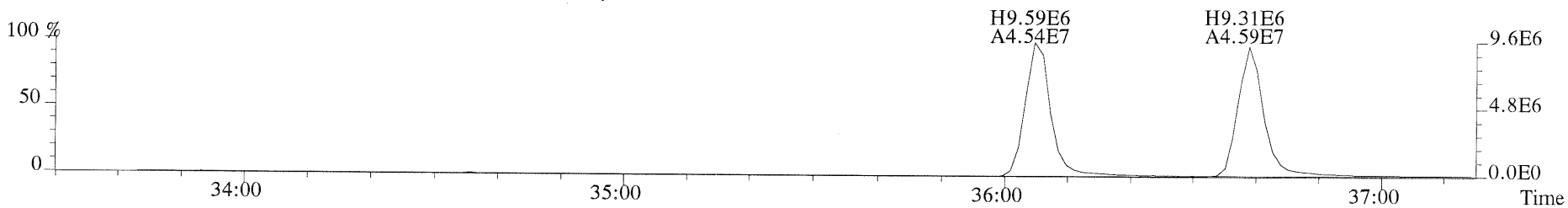
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
291.9194 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



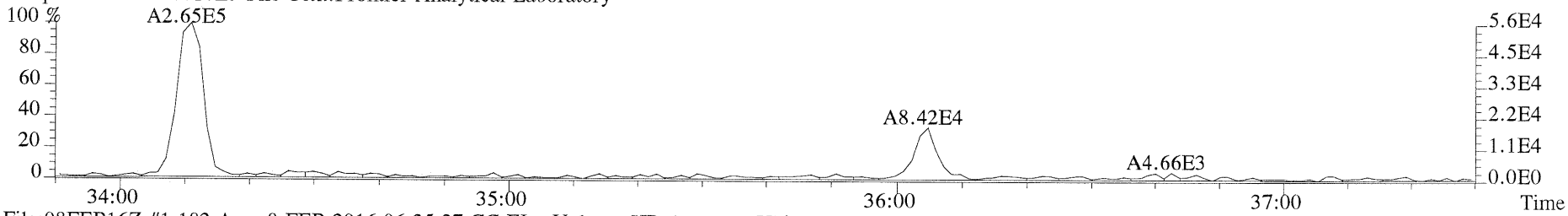
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
301.9626 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



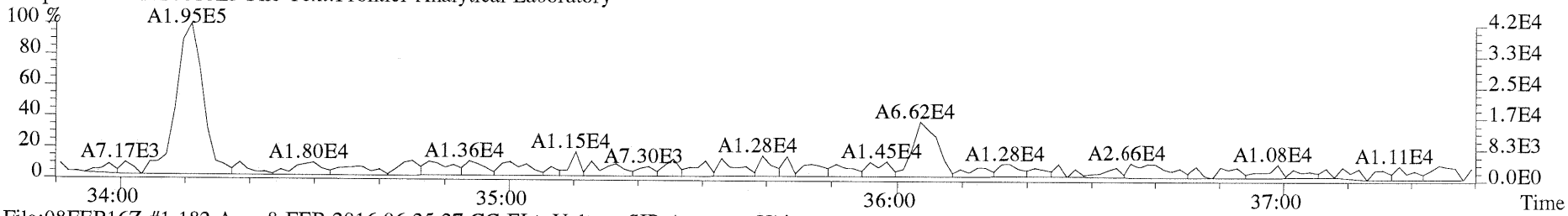
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
303.9597 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



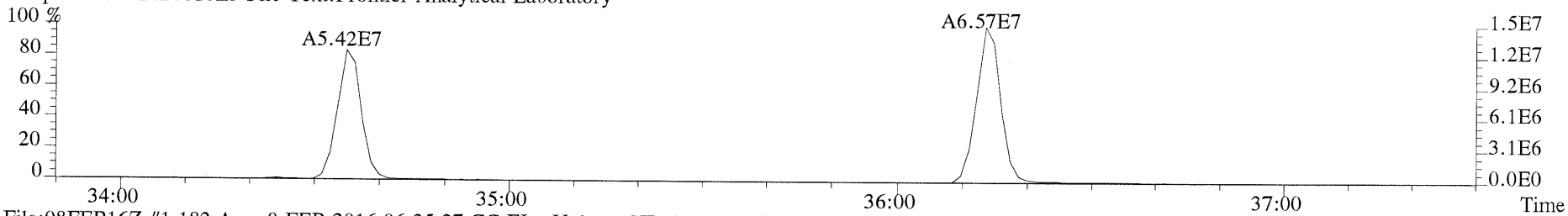
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
325.8804 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



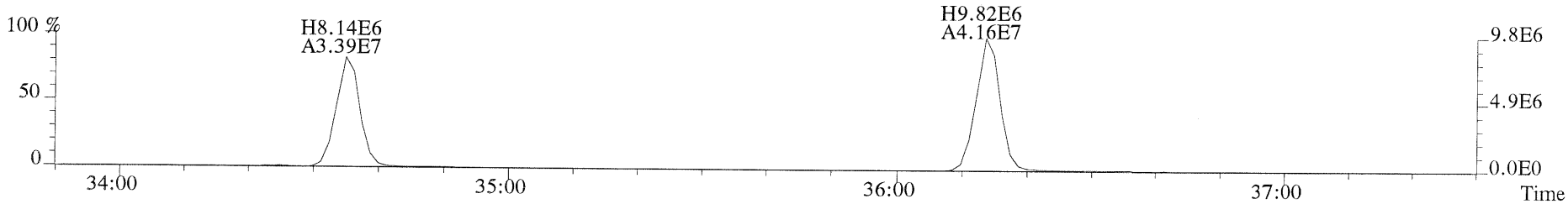
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
327.8775 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



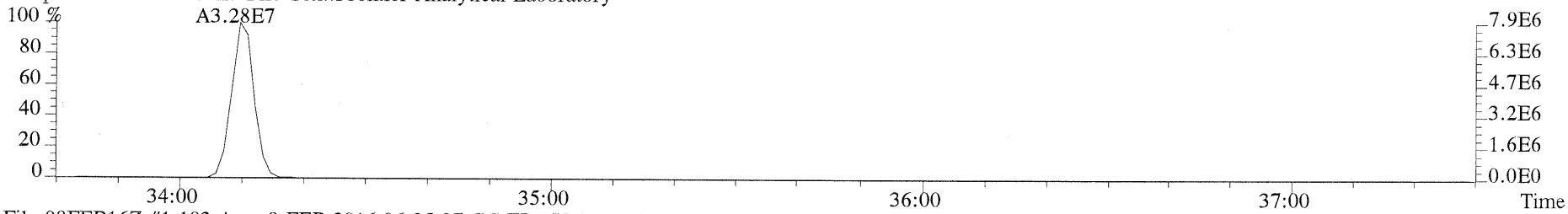
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
337.9207 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



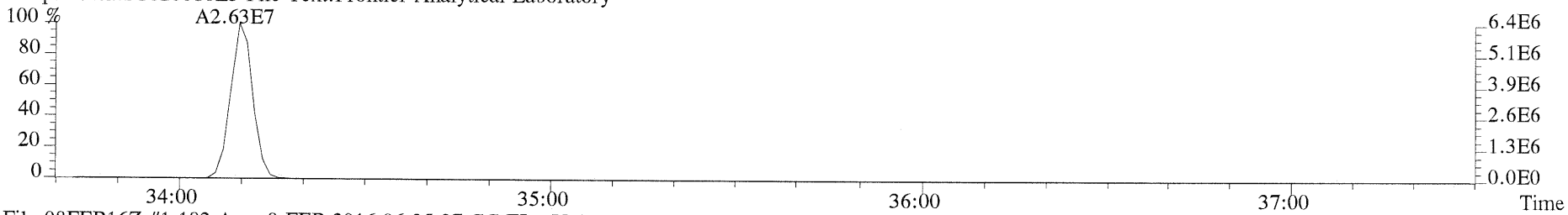
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
339.9178 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



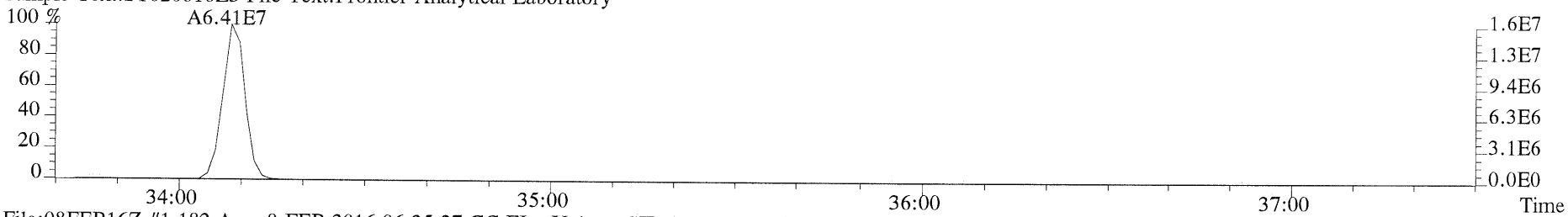
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
359.8415 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



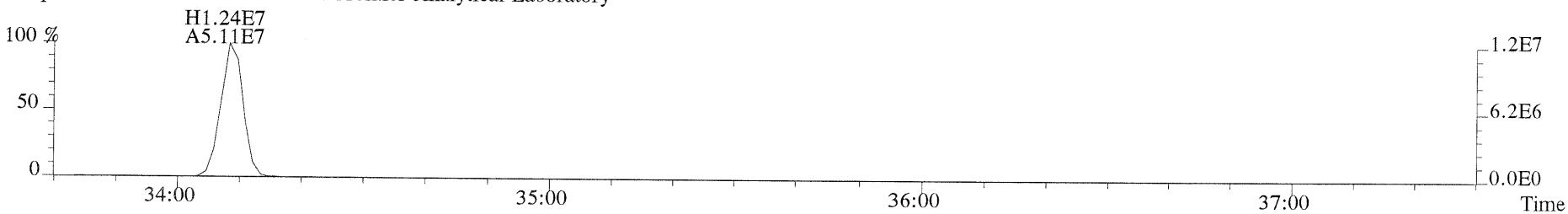
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
361.8385 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



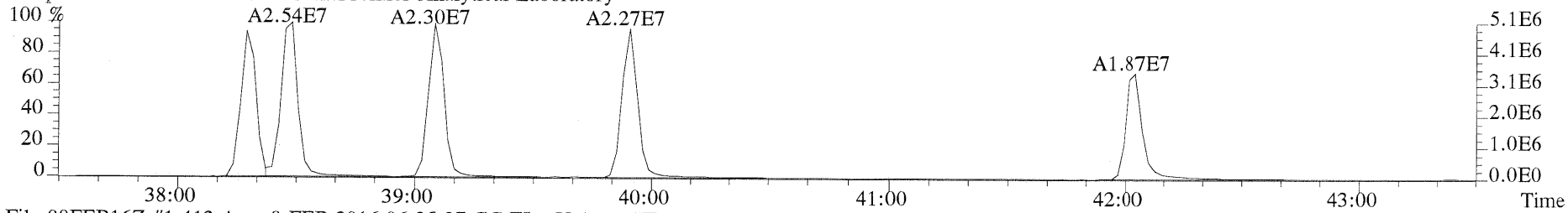
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
371.8817 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



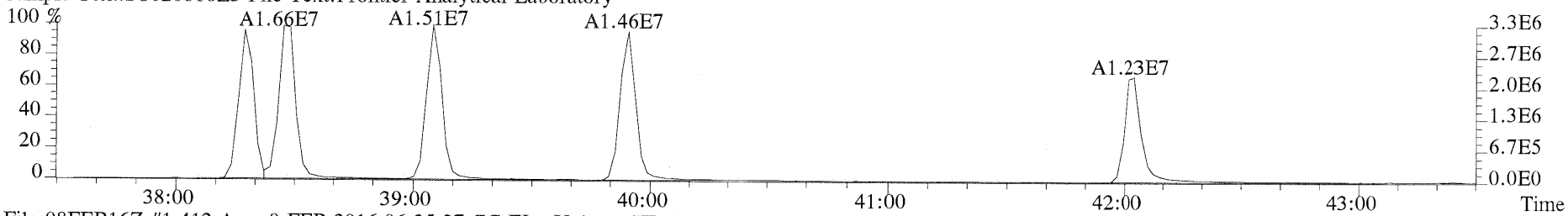
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
373.8788 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



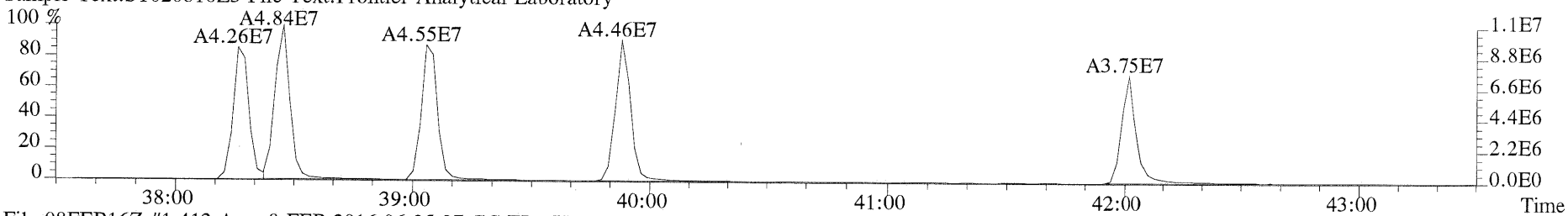
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
325.8804 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



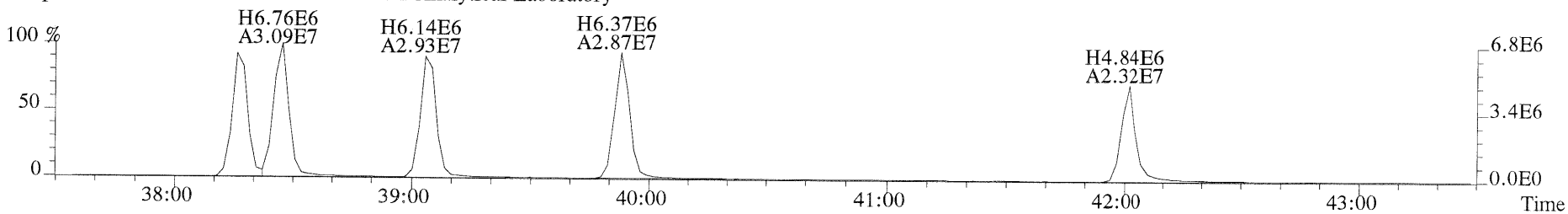
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
327.8775 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



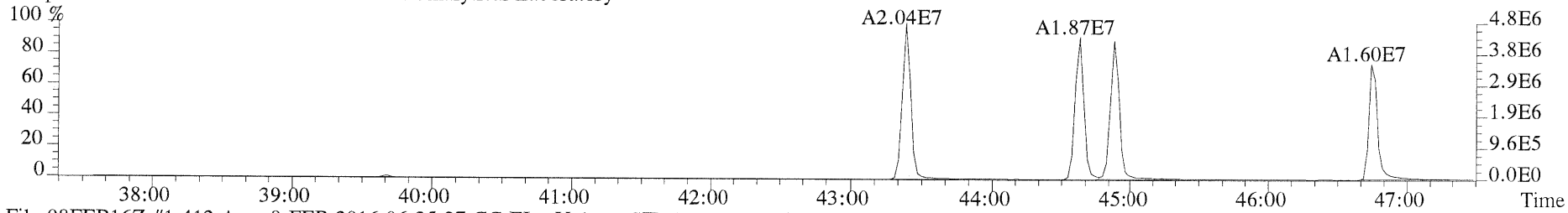
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
337.9207 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



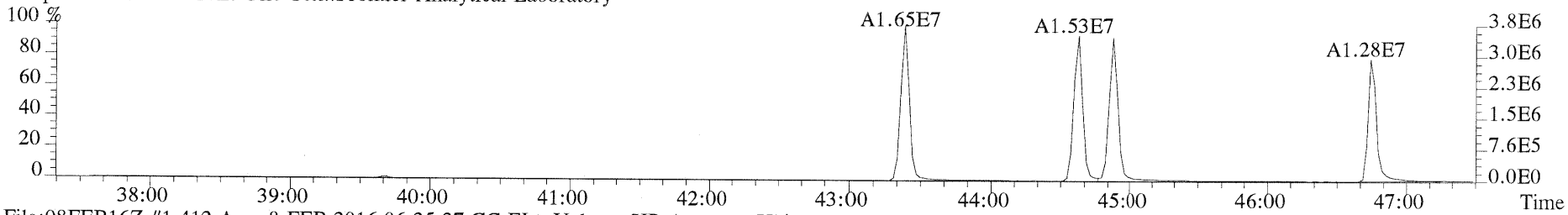
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
339.9178 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



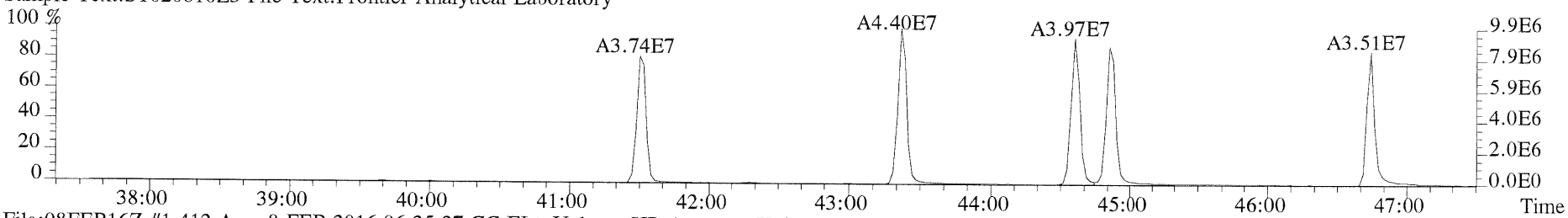
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
359.8415 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



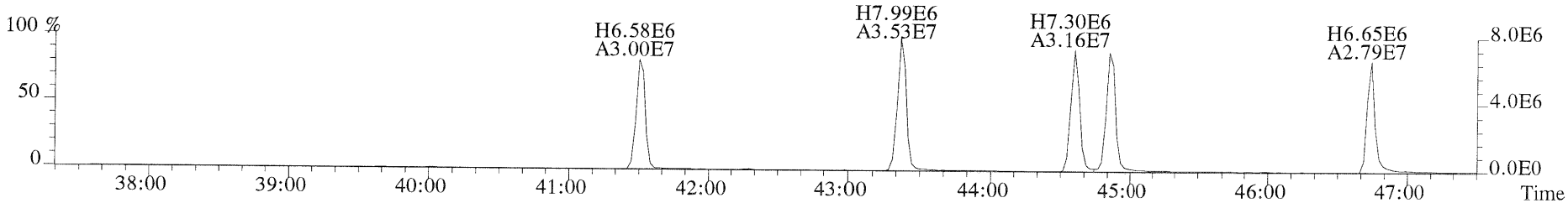
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
361.8385 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



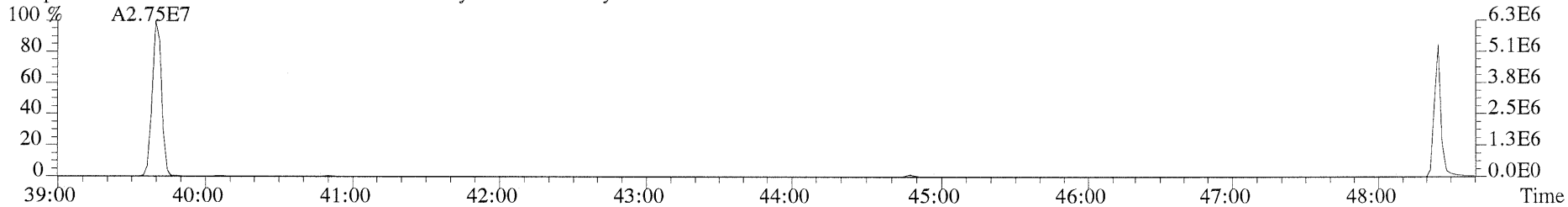
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
371.8817 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



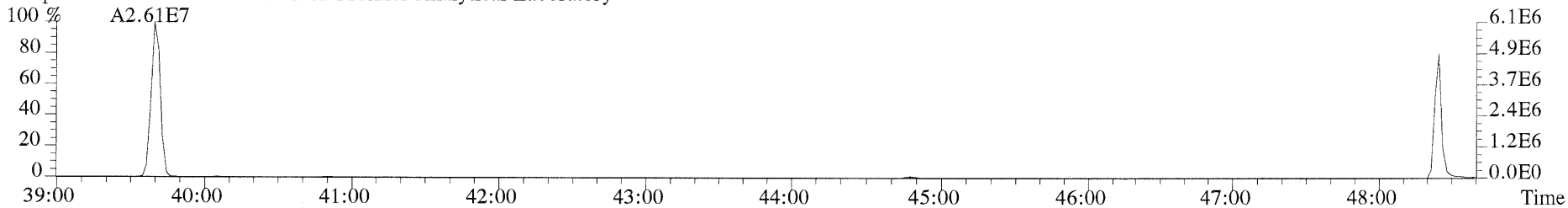
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
373.8788 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



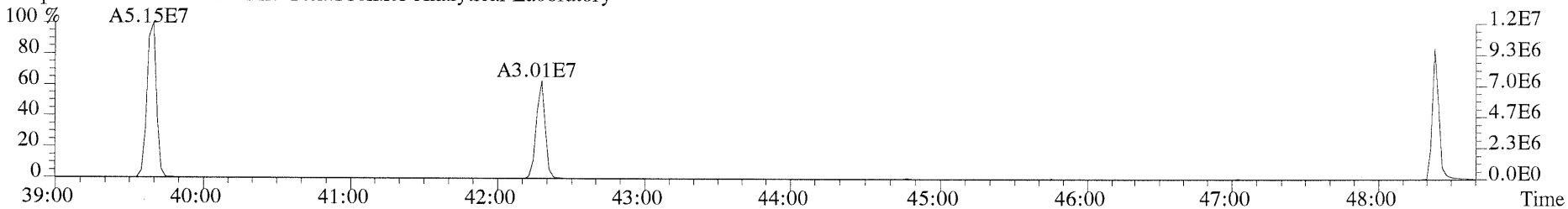
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
393.8025 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



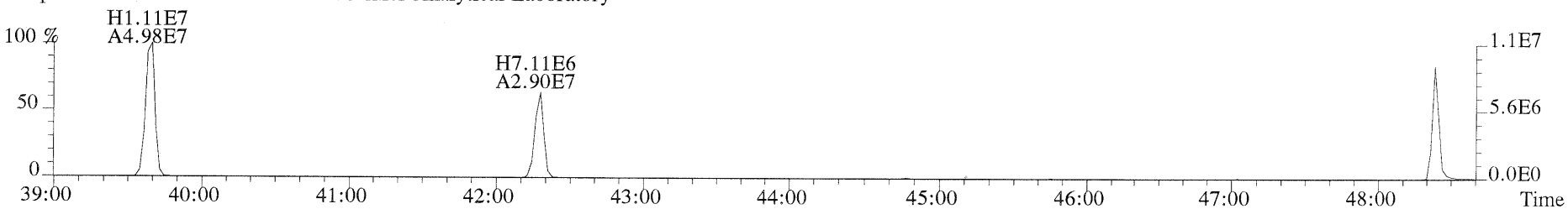
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
395.7995 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



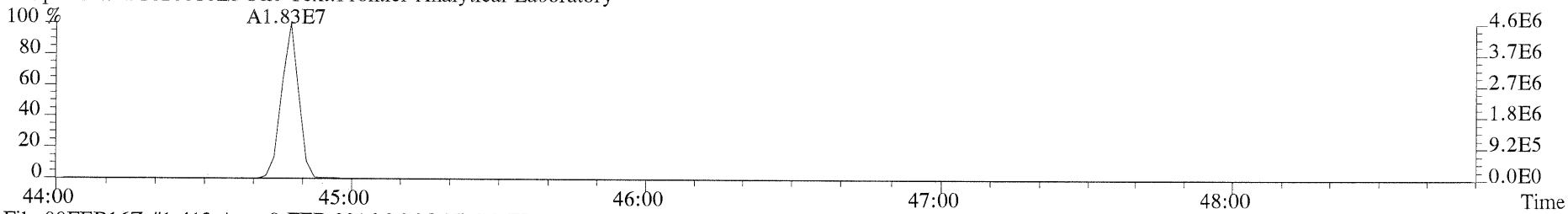
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
405.8428 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



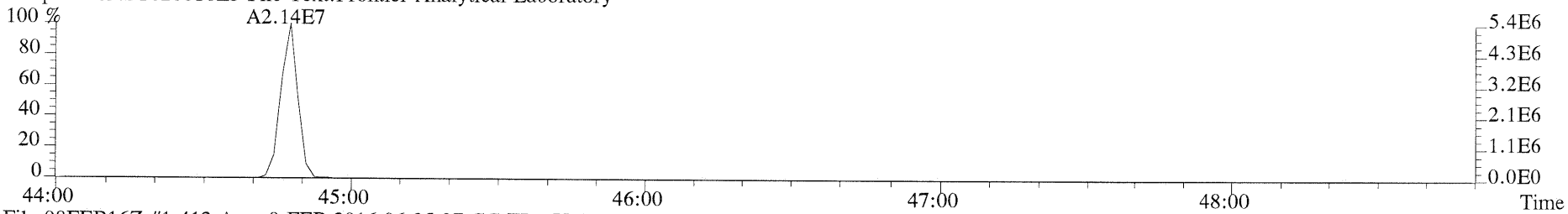
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
407.8398 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



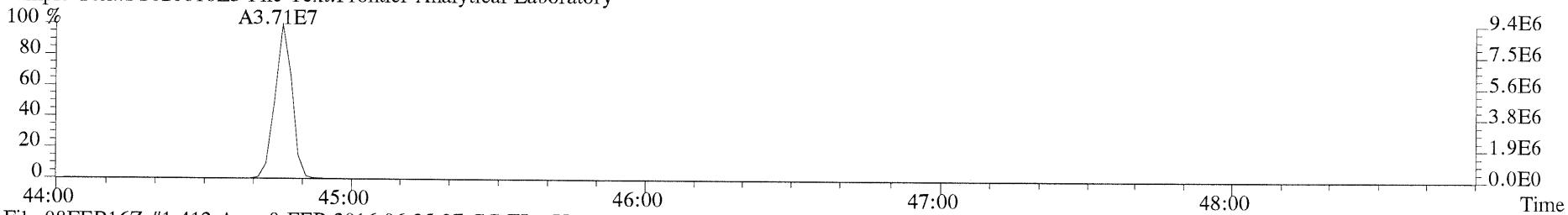
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
427.7635 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



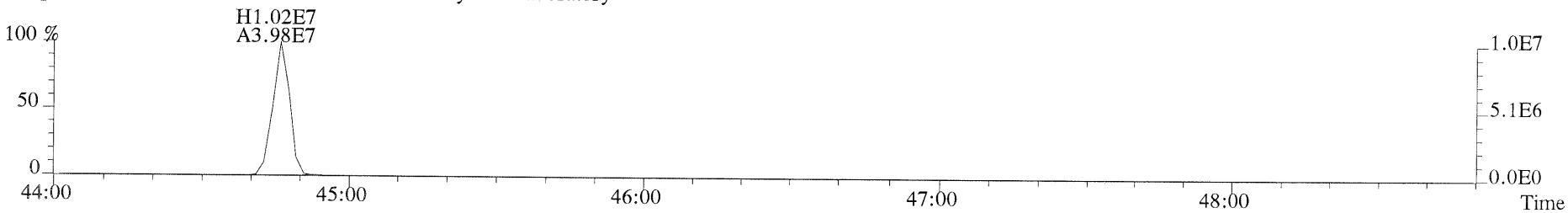
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
429.7606 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



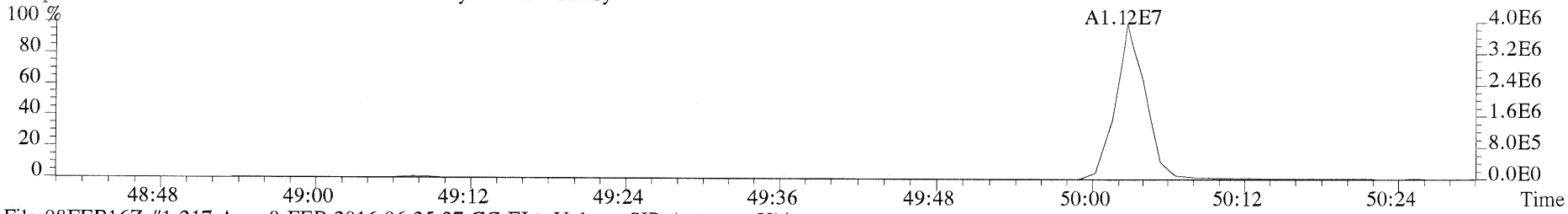
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
439.8038 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



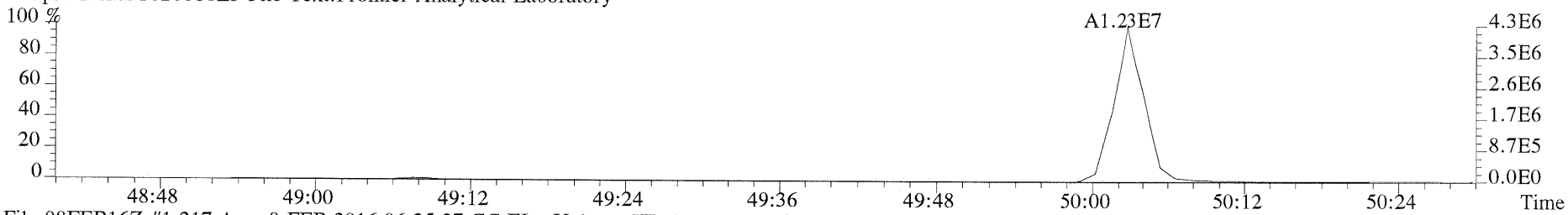
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
441.8008 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



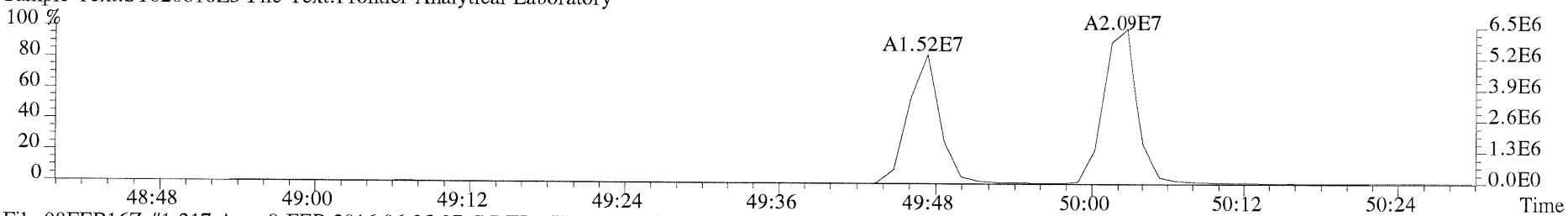
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
427.7635 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



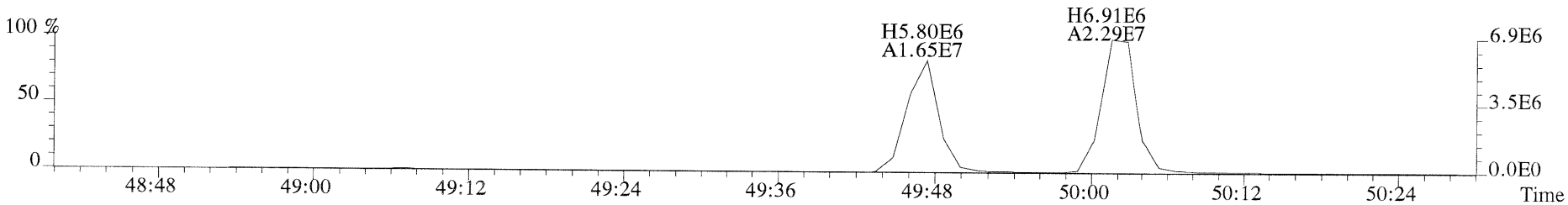
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
429.7606 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



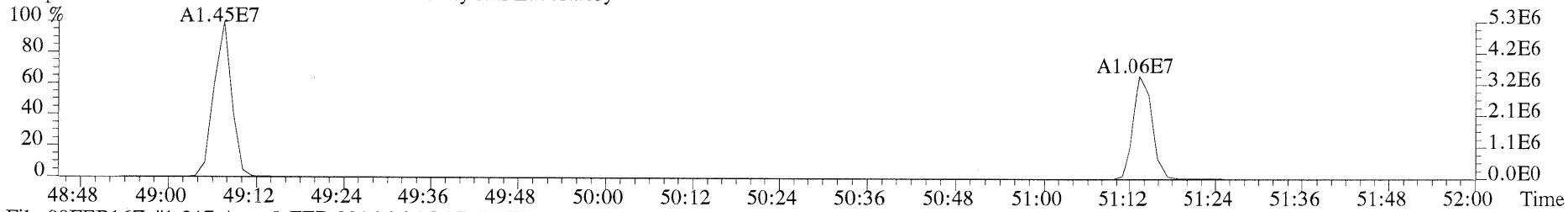
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
439.8038 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



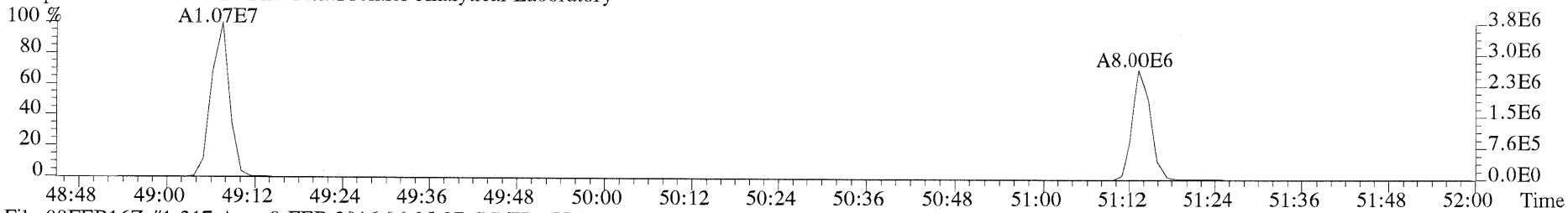
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
441.8008 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



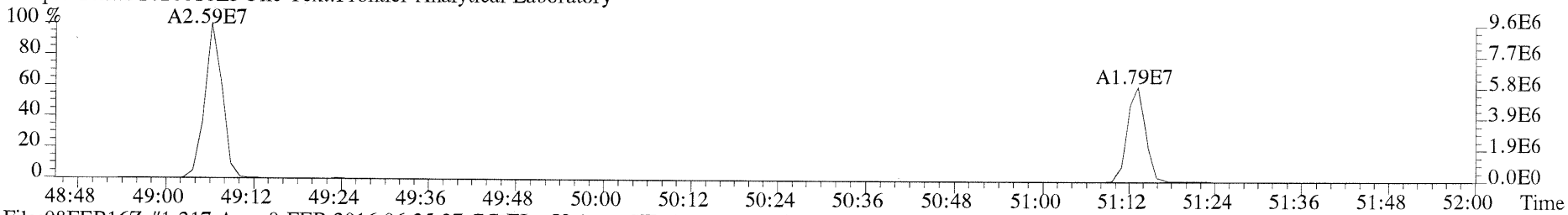
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
463.7216 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



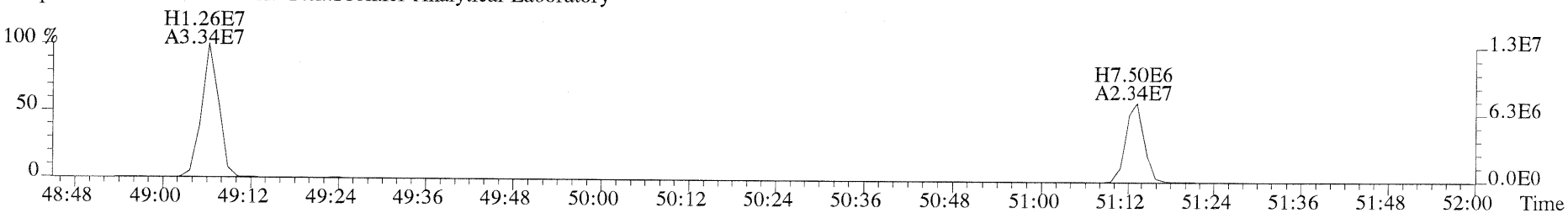
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
465.7187 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



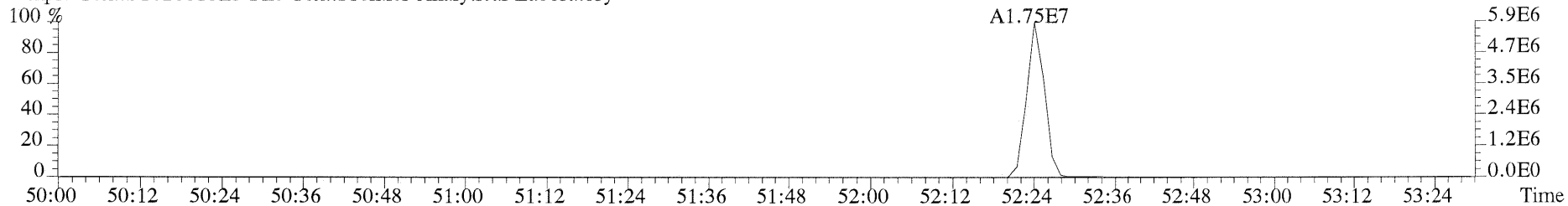
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
473.7648 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



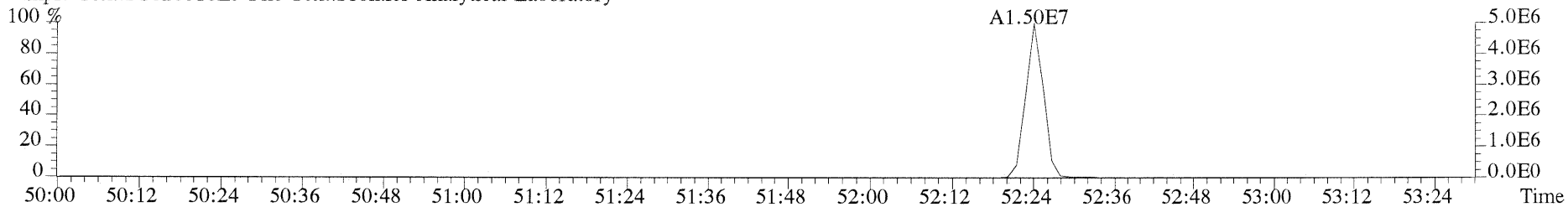
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
475.7619 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



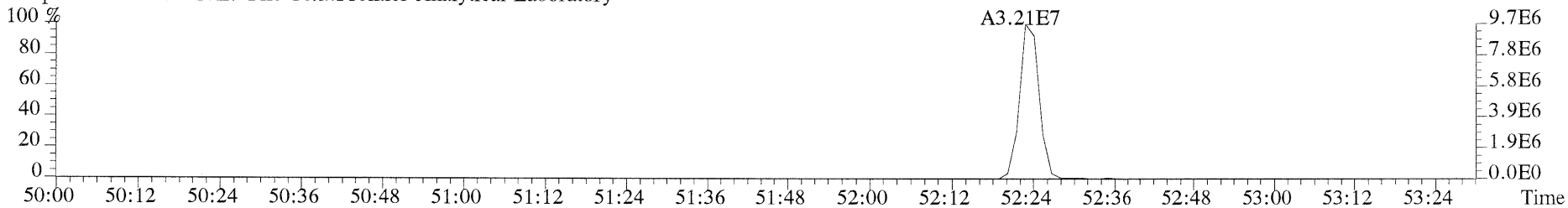
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
497.6826 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



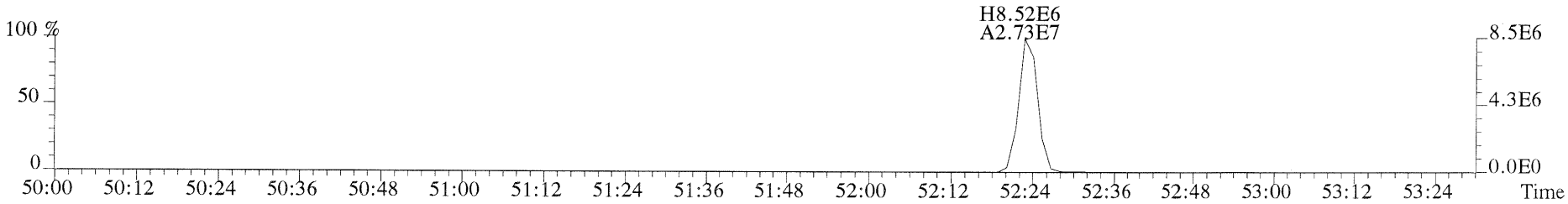
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
499.6797 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



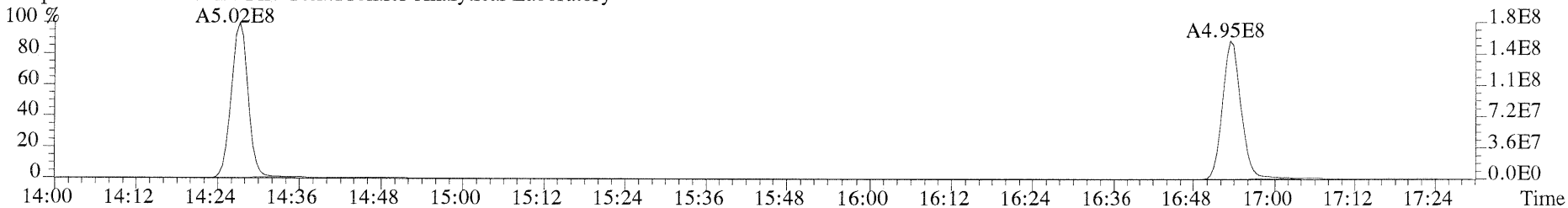
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
509.7229 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



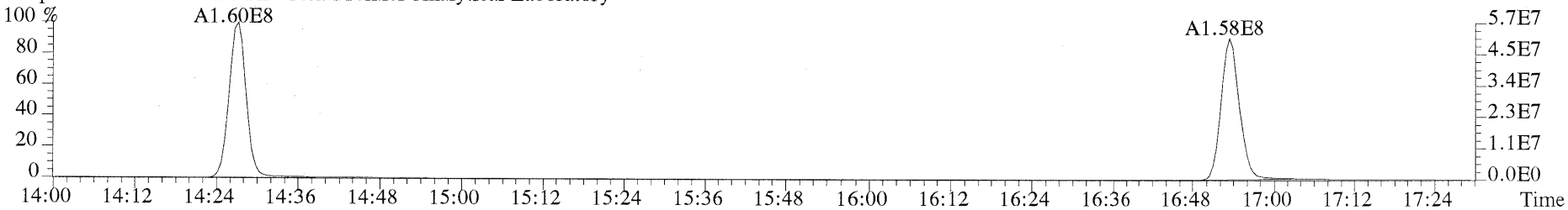
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
511.7199 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z3 File Text:Frontier Analytical Laboratory



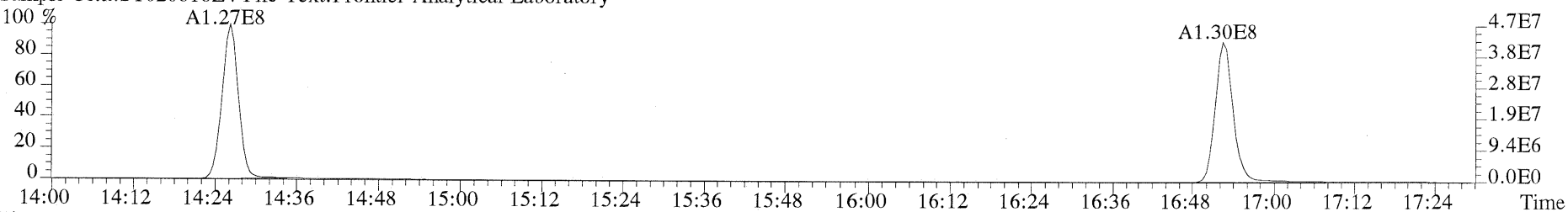
File:08FEB16Z #1-489 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



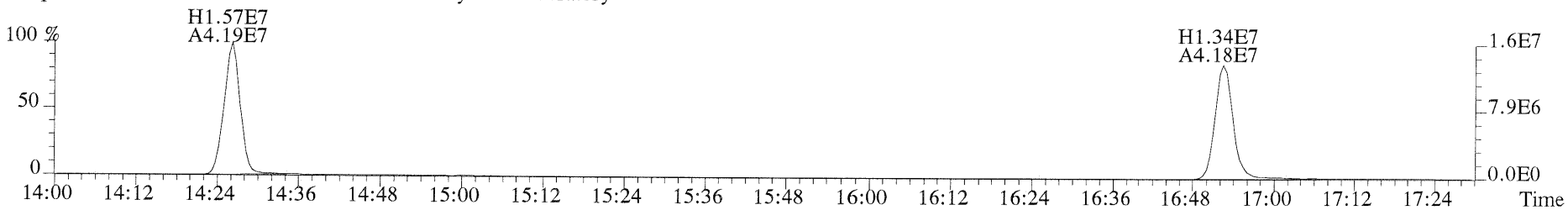
File:08FEB16Z #1-489 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



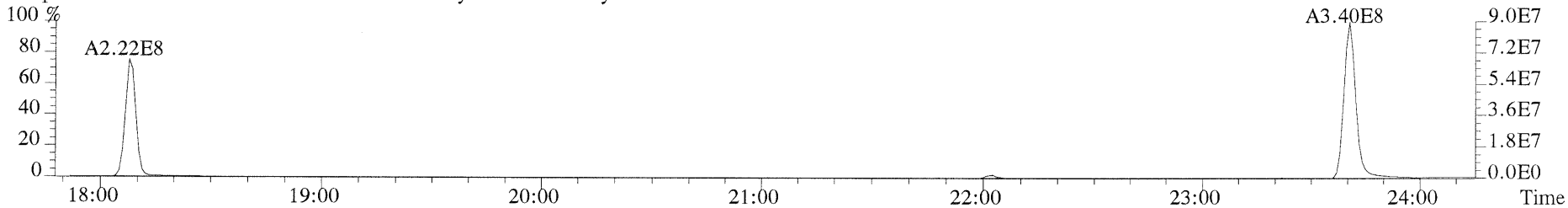
File:08FEB16Z #1-489 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



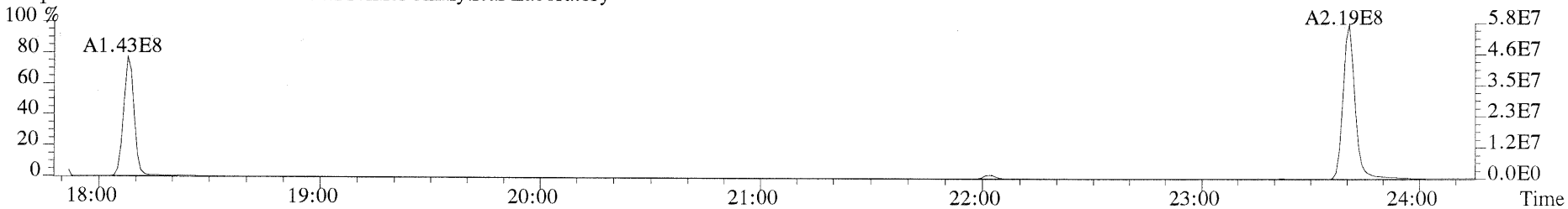
File:08FEB16Z #1-489 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



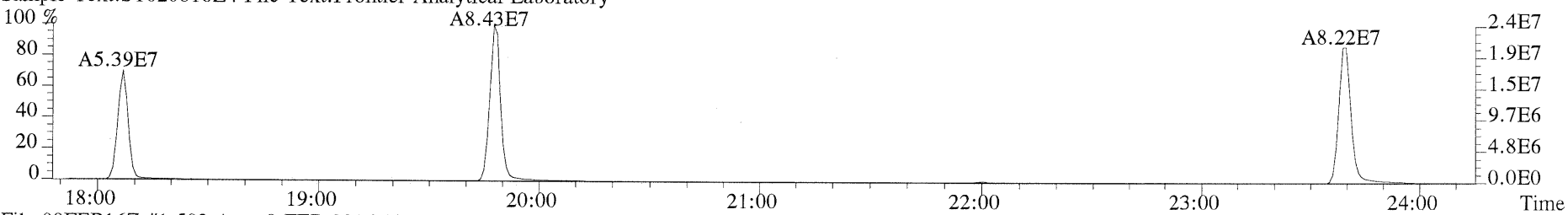
File:08FEB16Z #1-503 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



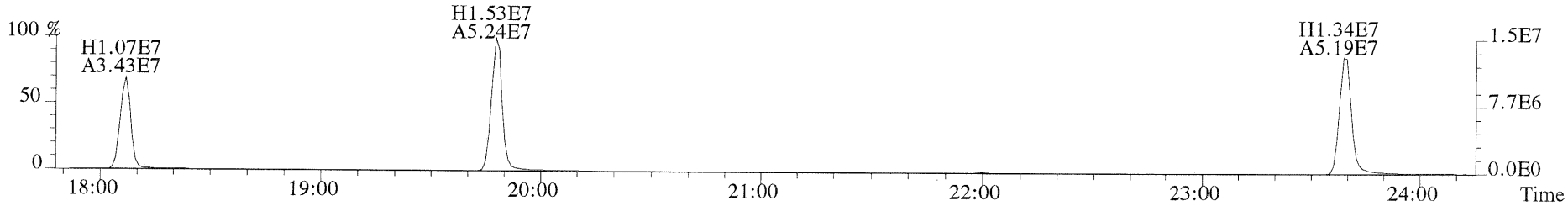
File:08FEB16Z #1-503 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



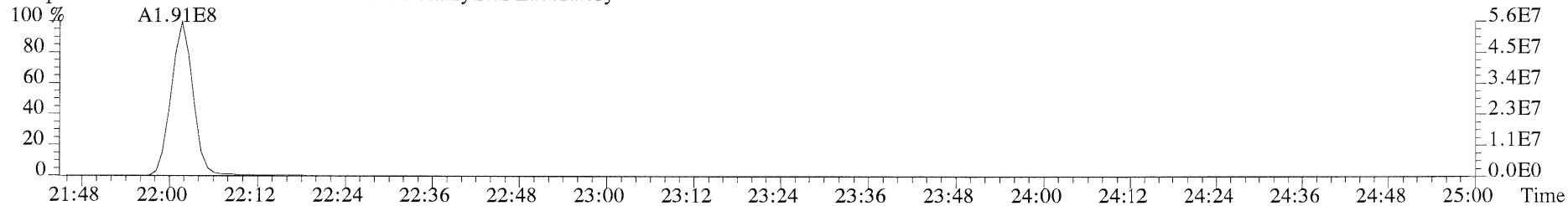
File:08FEB16Z #1-503 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



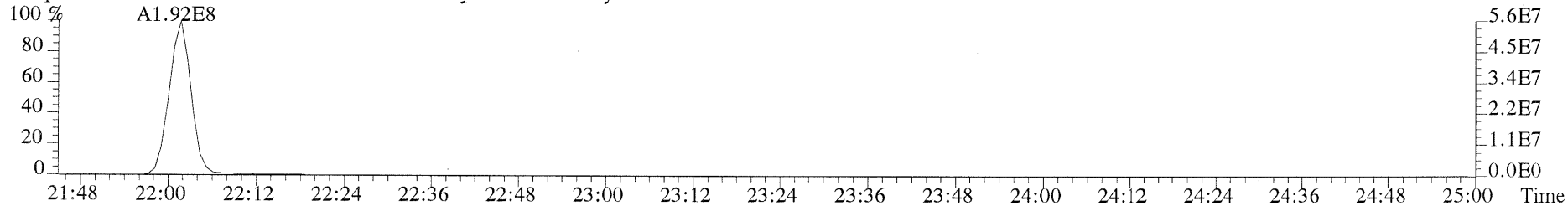
File:08FEB16Z #1-503 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



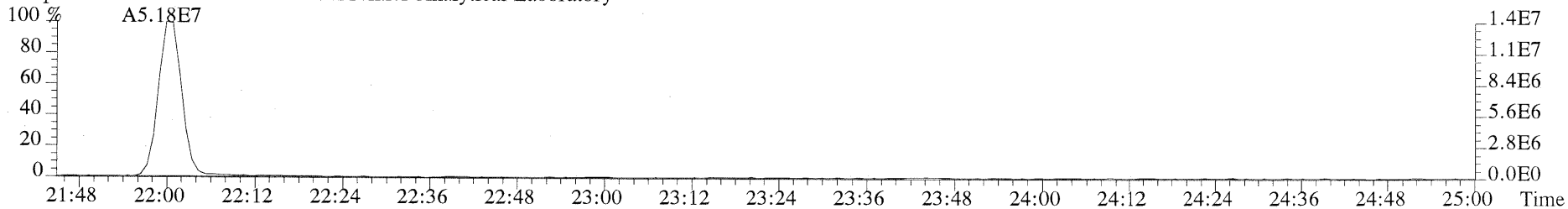
File:08FEB16Z #1-503 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



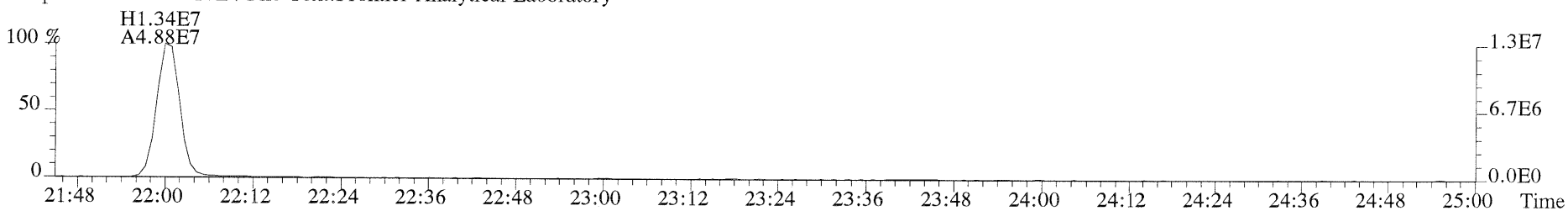
File:08FEB16Z #1-503 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



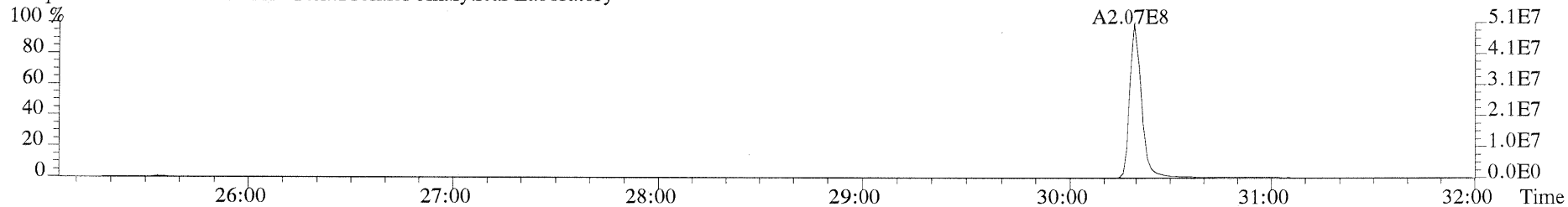
File:08FEB16Z #1-503 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



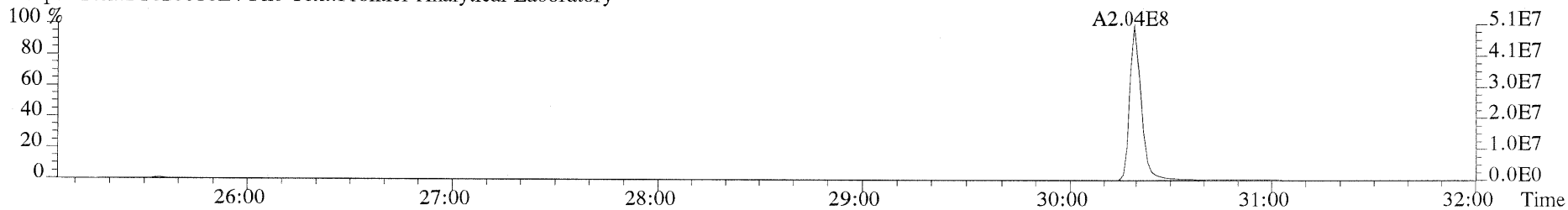
File:08FEB16Z #1-503 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



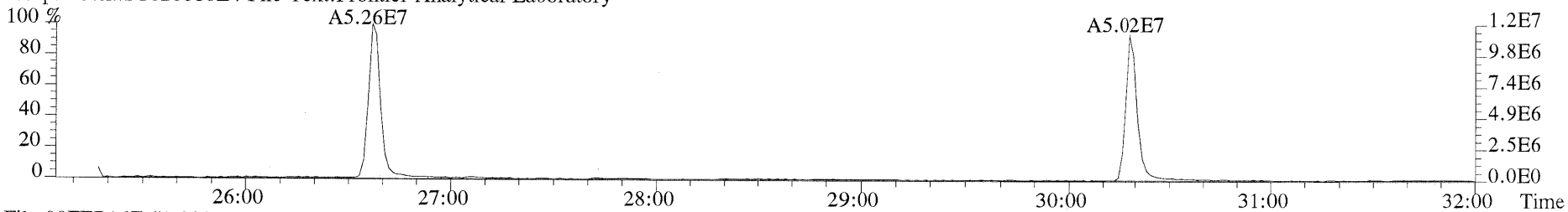
File:08FEB16Z #1-399 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



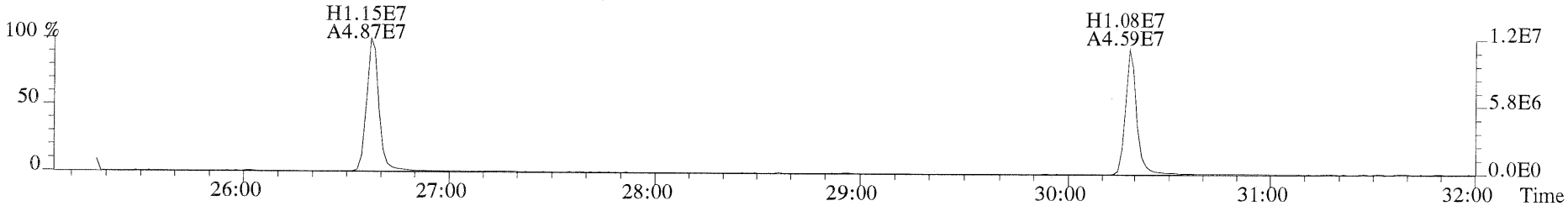
File:08FEB16Z #1-399 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



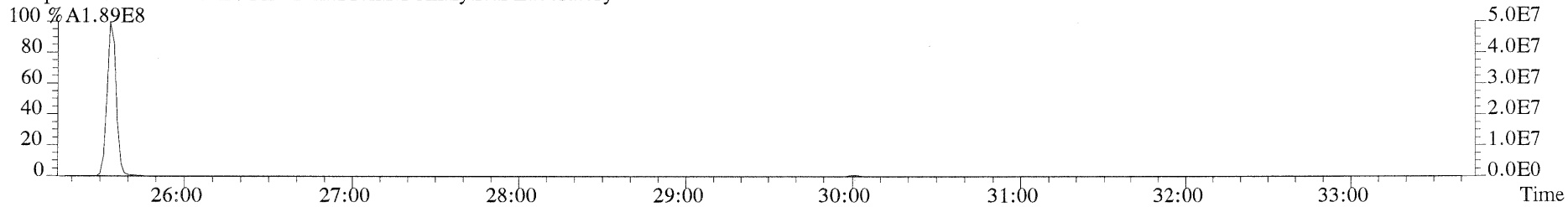
File:08FEB16Z #1-399 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



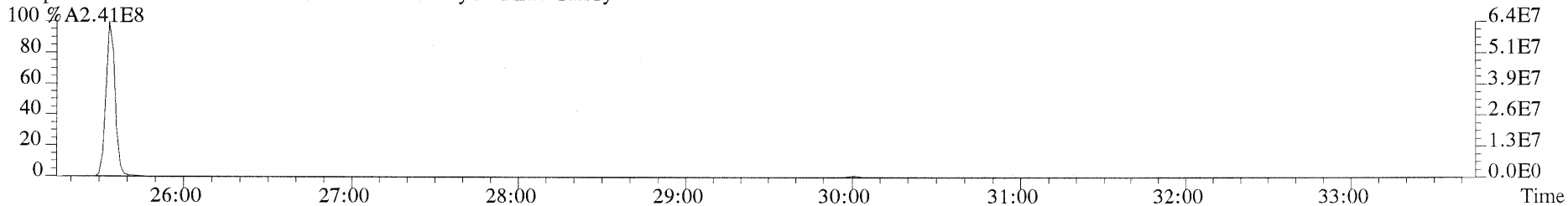
File:08FEB16Z #1-399 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



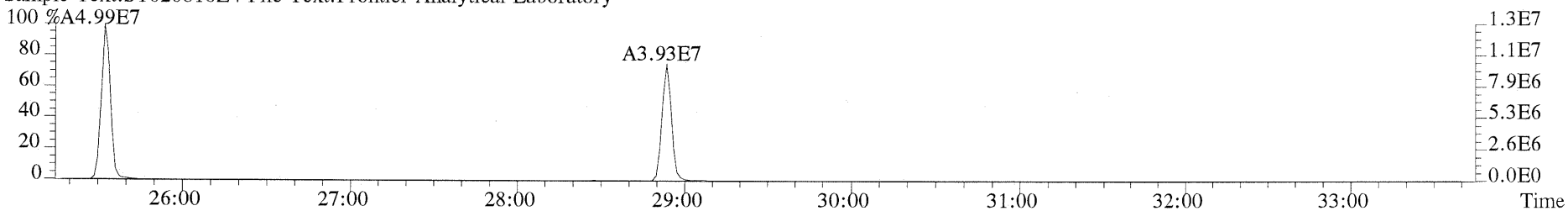
File:08FEB16Z #1-399 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



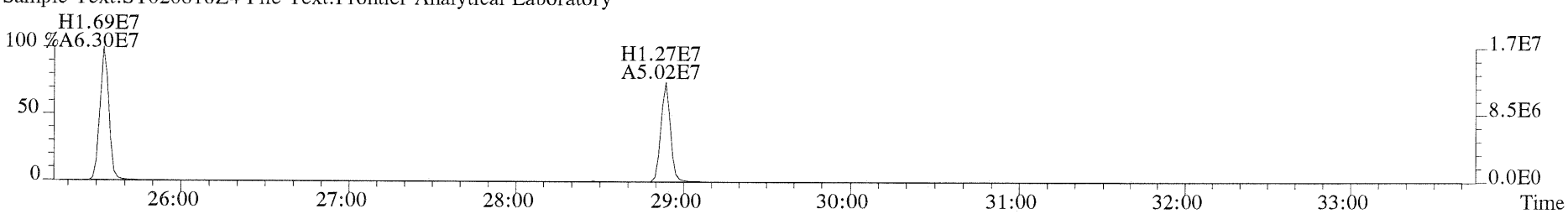
File:08FEB16Z #1-399 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



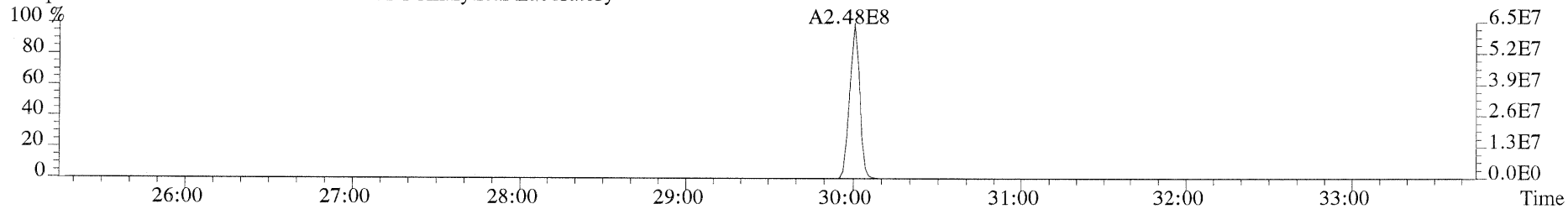
File:08FEB16Z #1-399 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



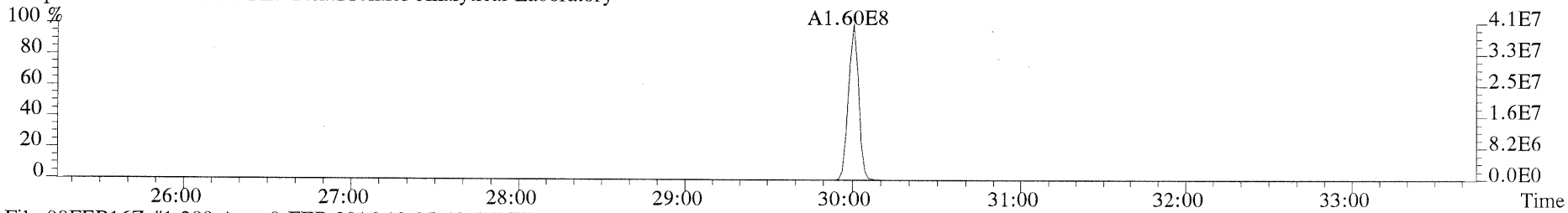
File:08FEB16Z #1-399 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



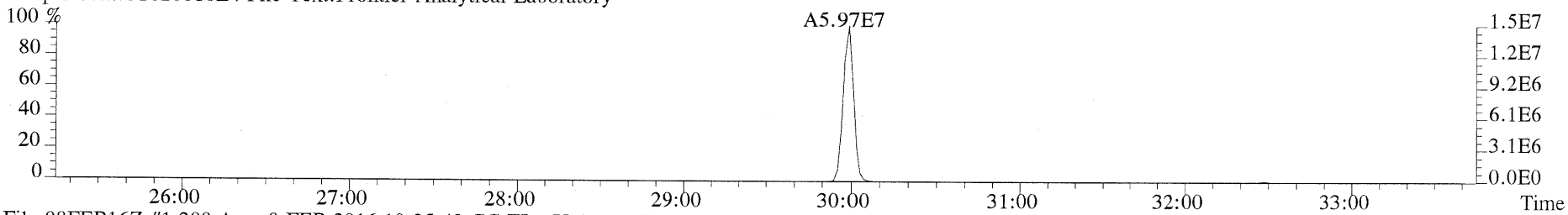
File:08FEB16Z #1-399 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



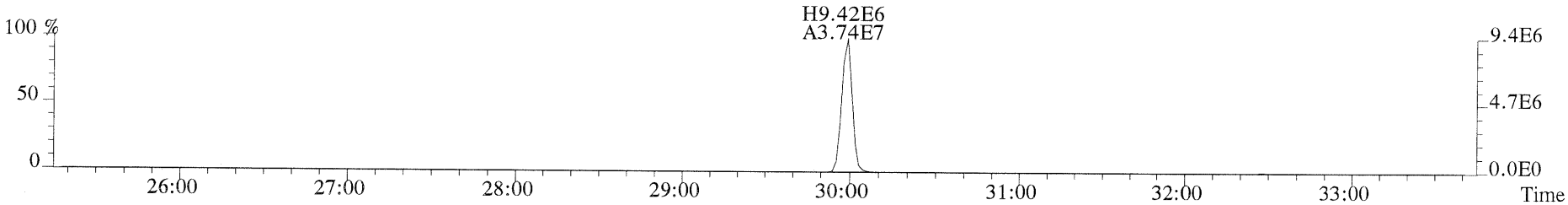
File:08FEB16Z #1-399 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



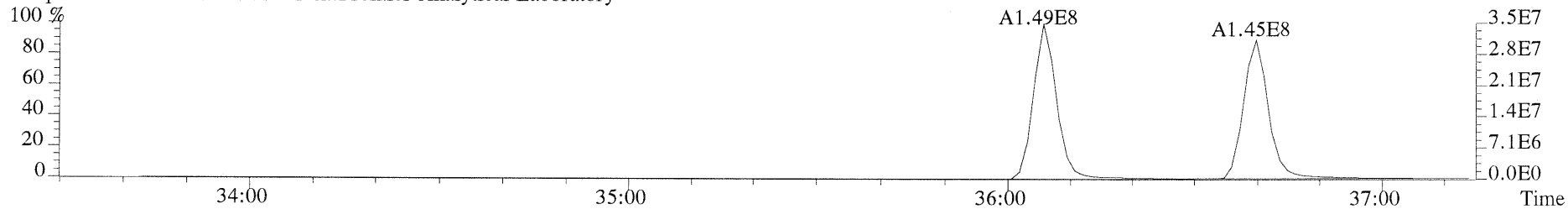
File:08FEB16Z #1-399 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



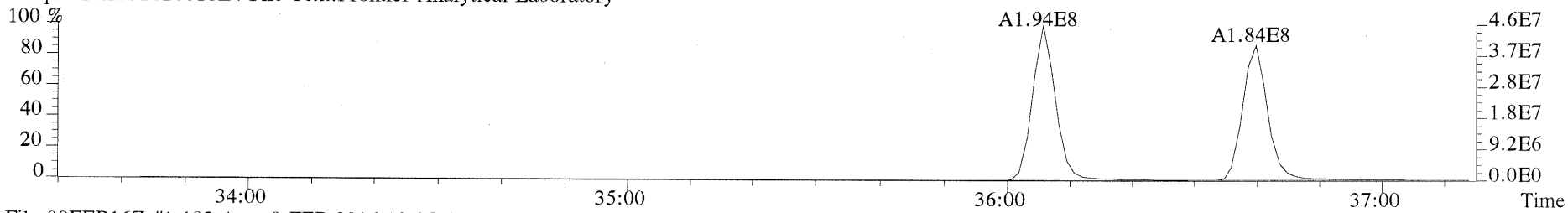
File:08FEB16Z #1-399 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



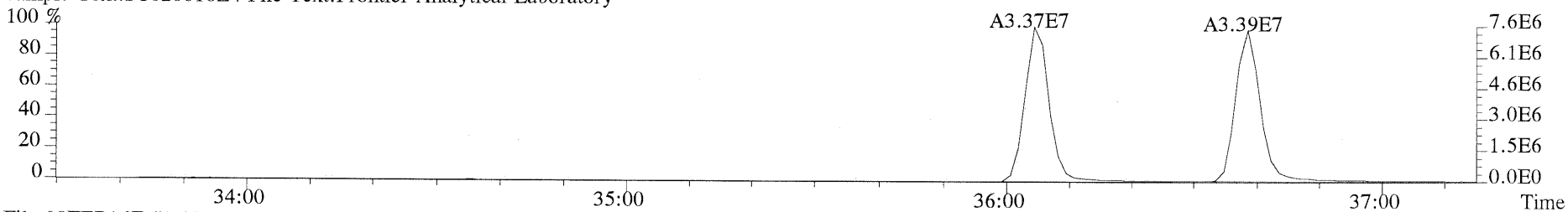
File:08FEB16Z #1-182 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



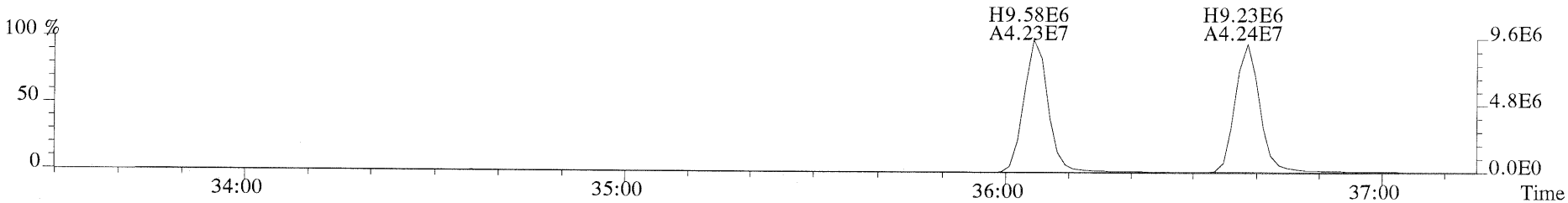
File:08FEB16Z #1-182 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



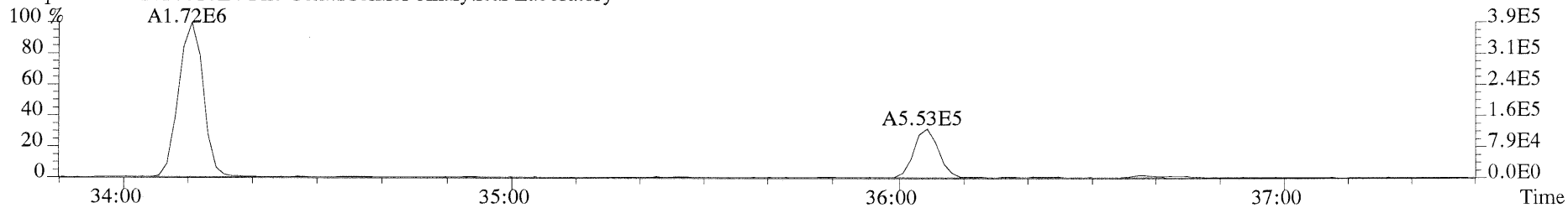
File:08FEB16Z #1-182 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



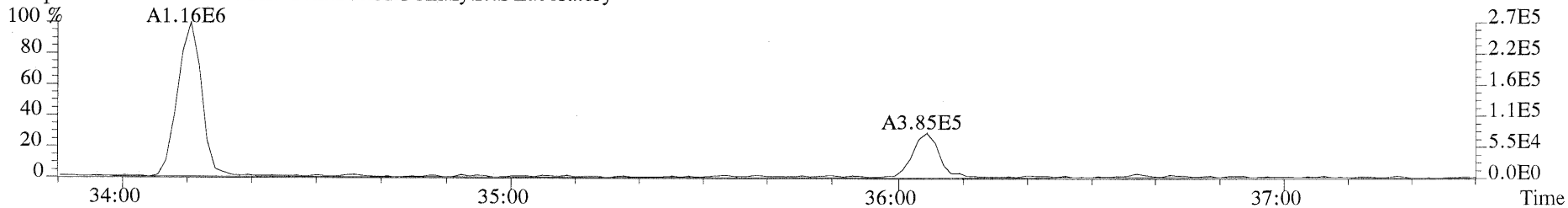
File:08FEB16Z #1-182 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



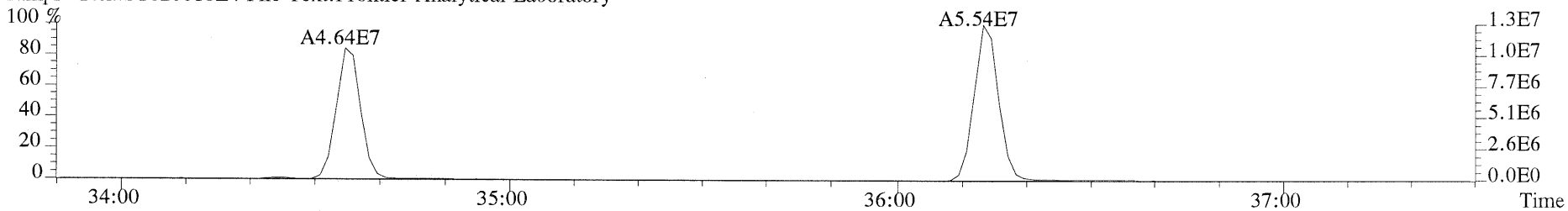
File:08FEB16Z #1-182 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



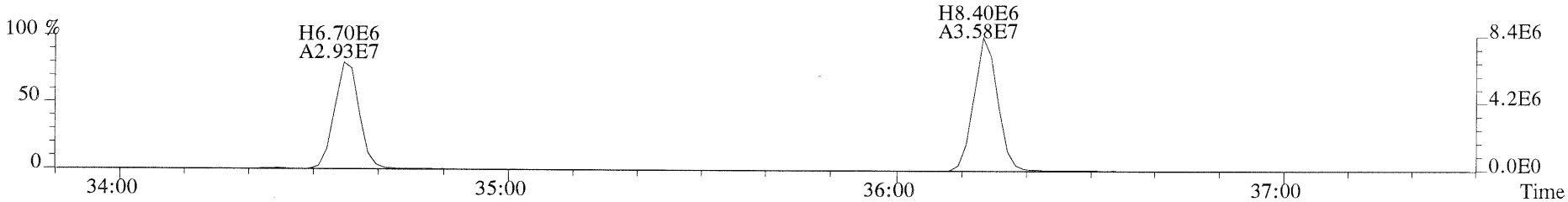
File:08FEB16Z #1-182 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



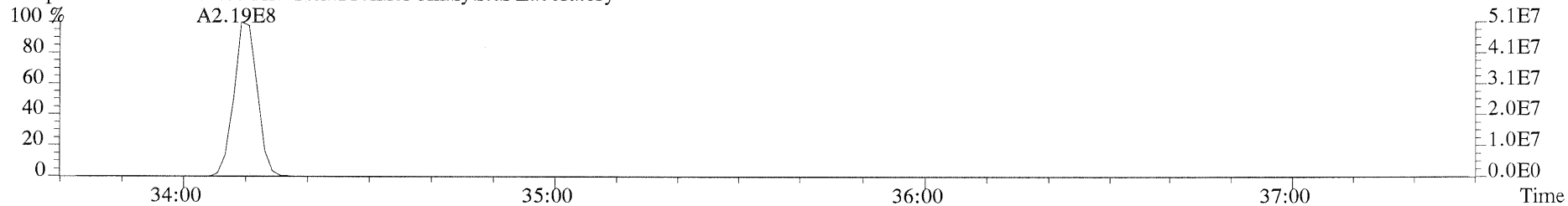
File:08FEB16Z #1-182 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



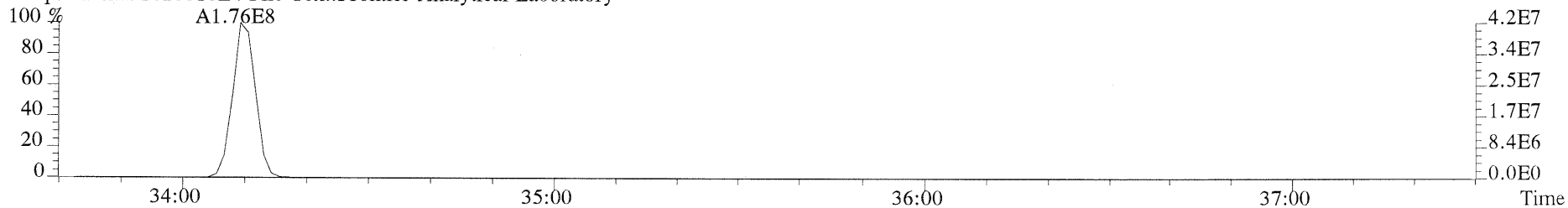
File:08FEB16Z #1-182 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



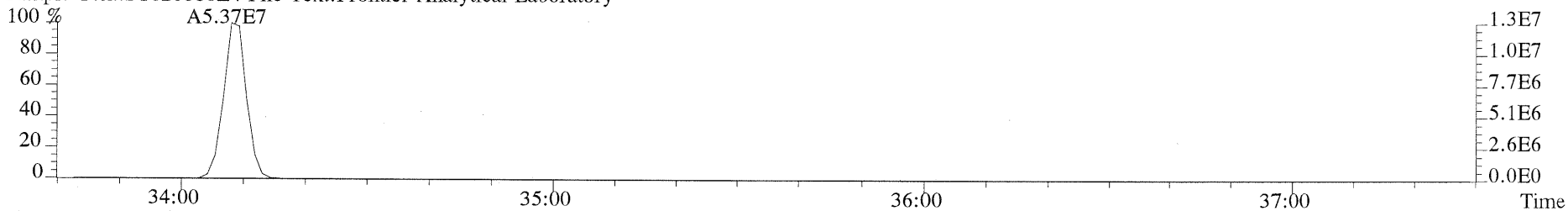
File:08FEB16Z #1-182 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



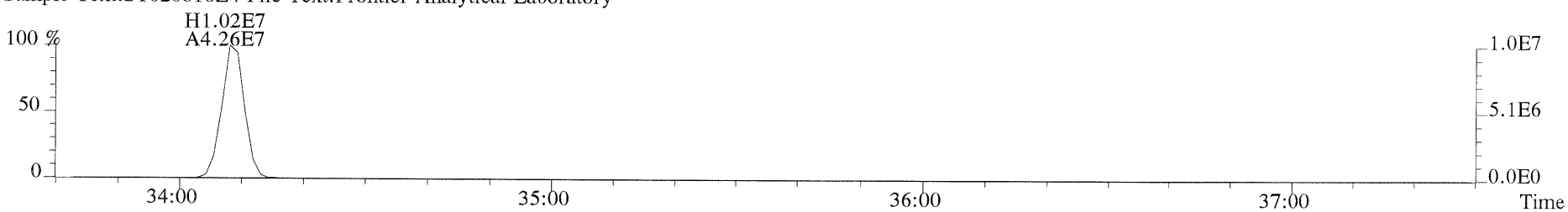
File:08FEB16Z #1-182 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



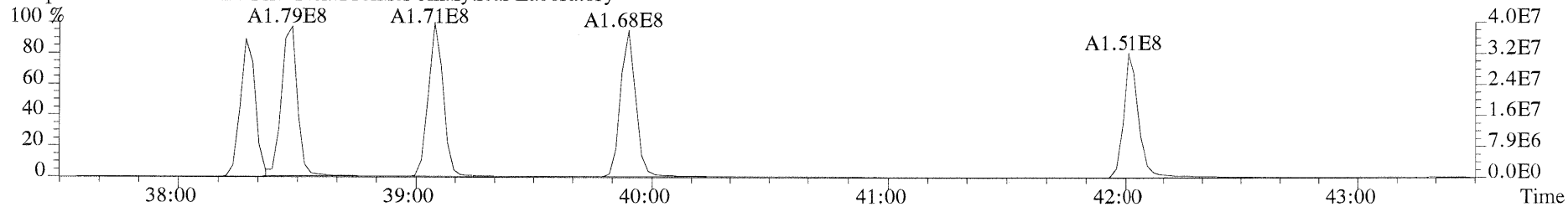
File:08FEB16Z #1-182 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



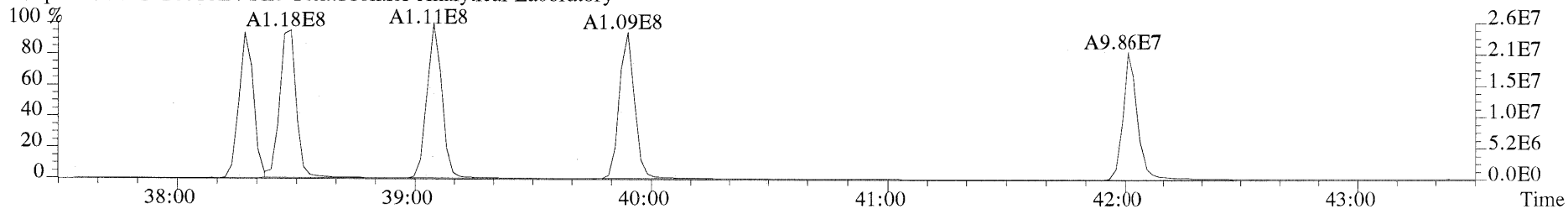
File:08FEB16Z #1-182 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



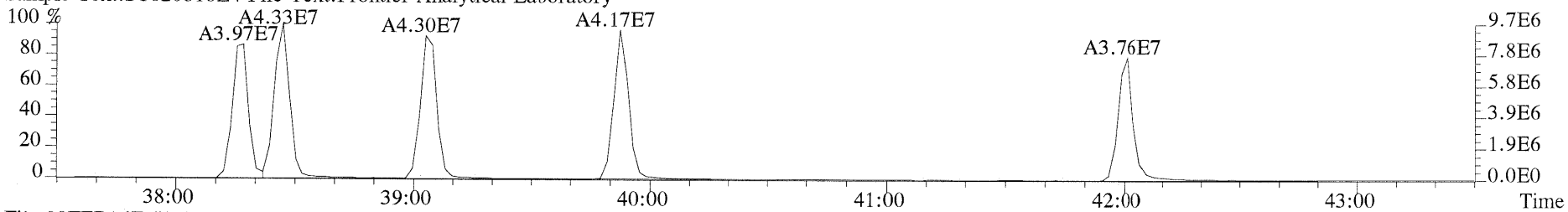
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



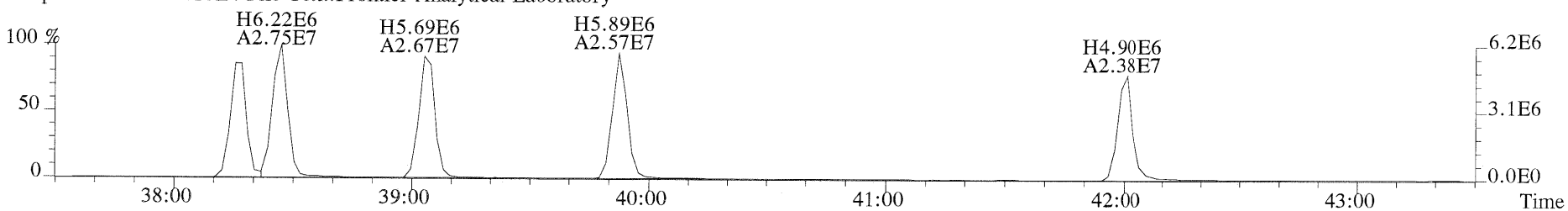
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



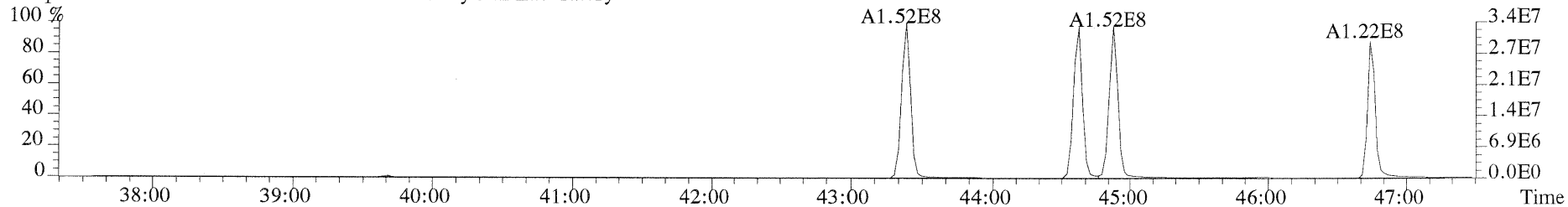
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



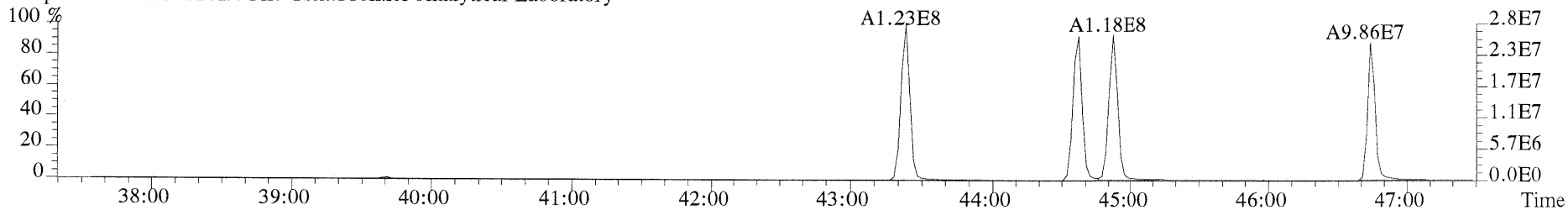
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



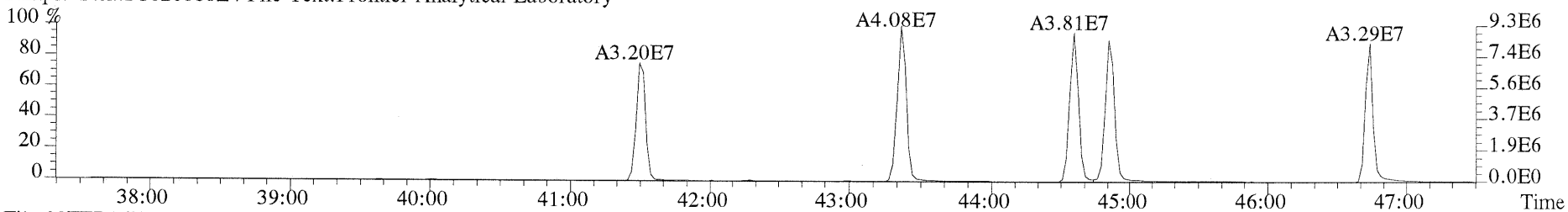
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



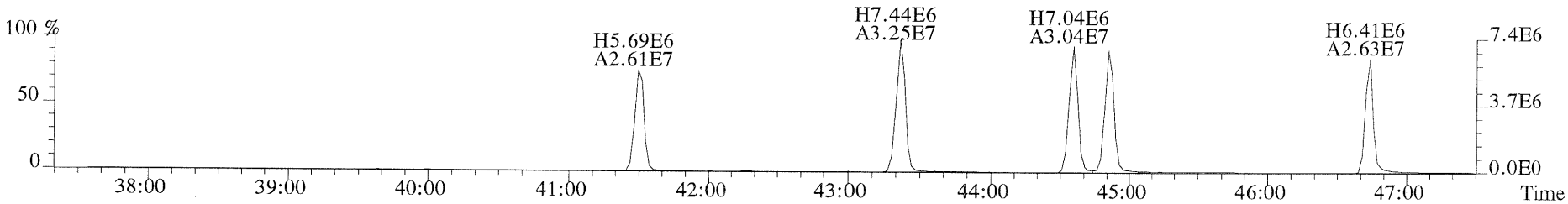
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



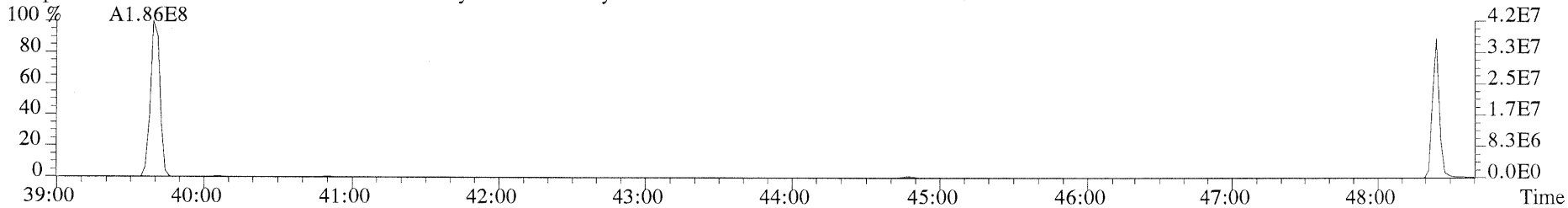
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



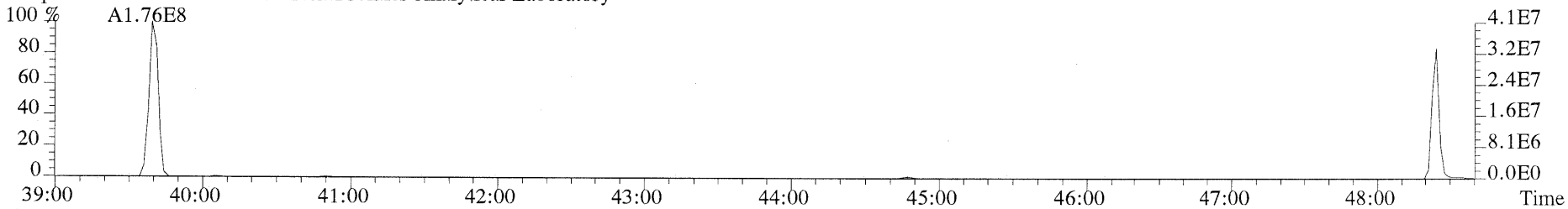
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



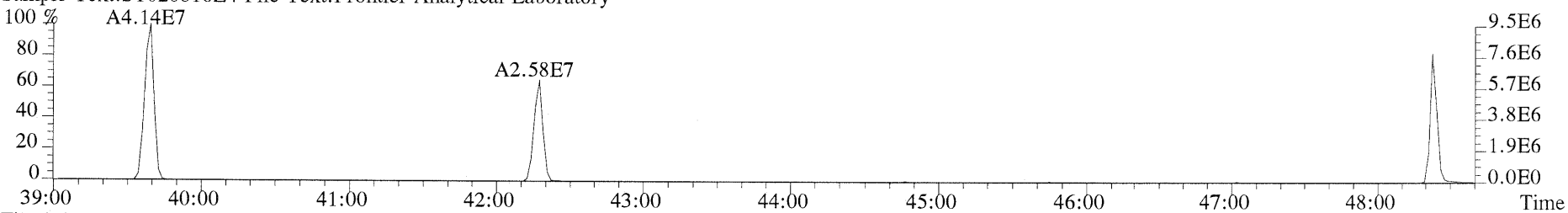
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
393.8025 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



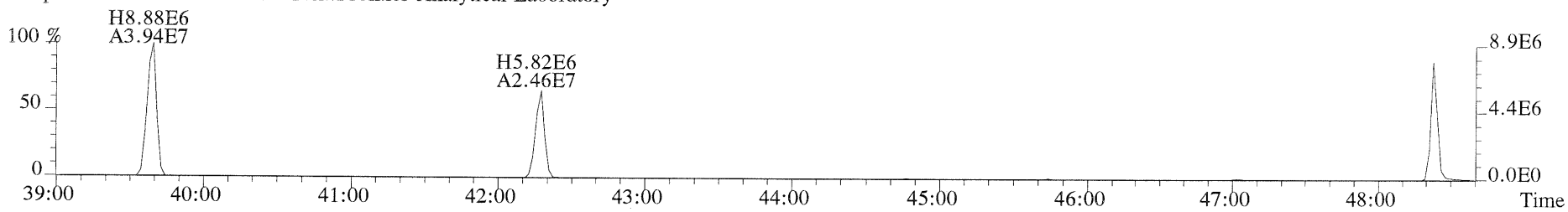
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



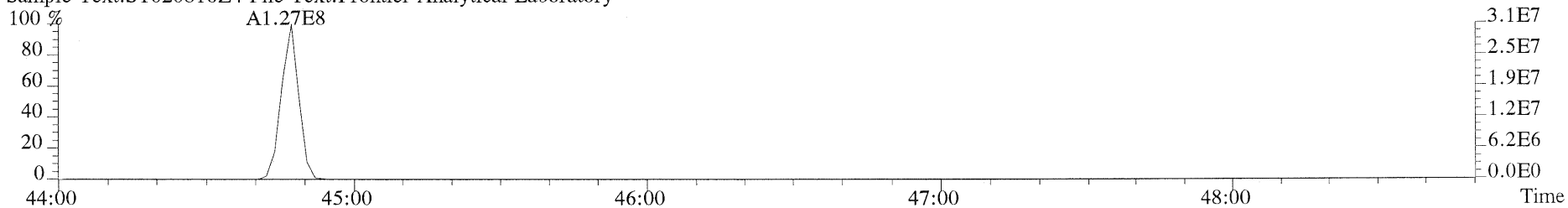
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
405.8428 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



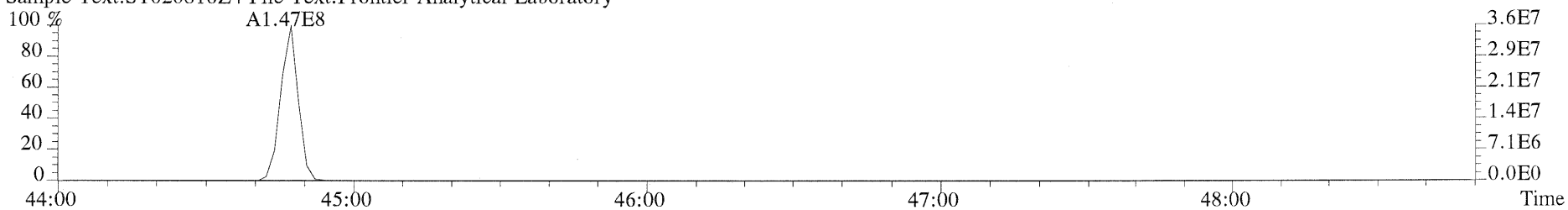
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
407.8398 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



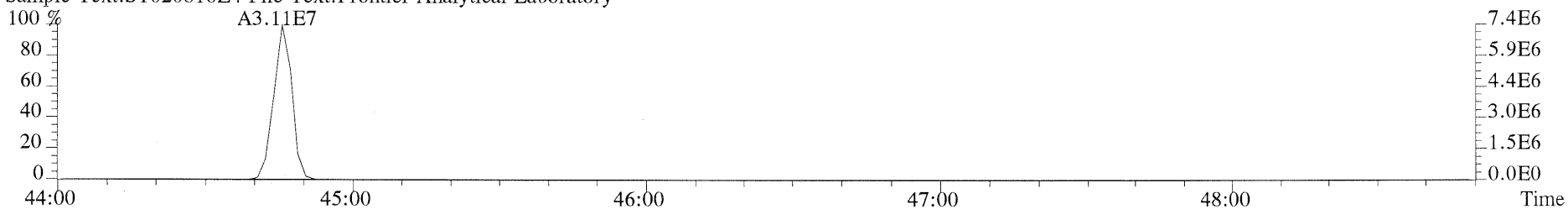
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



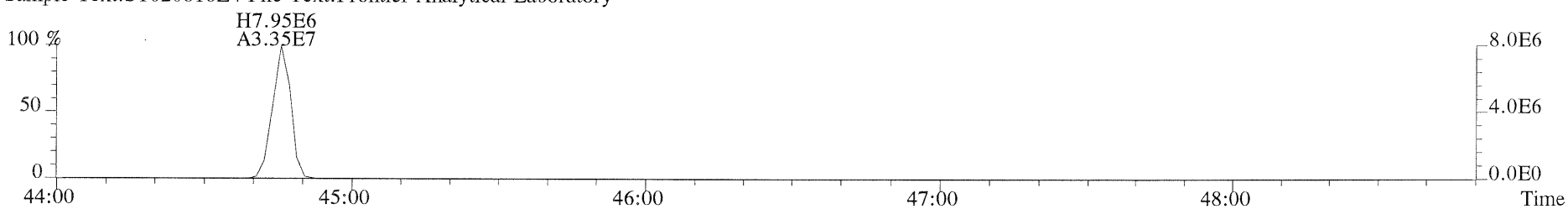
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



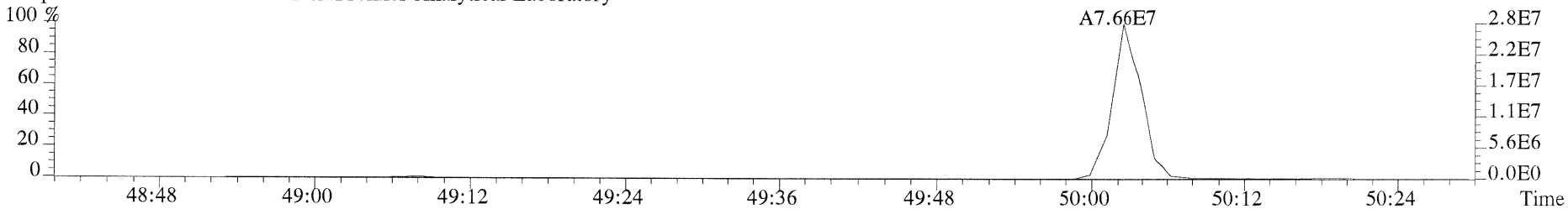
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



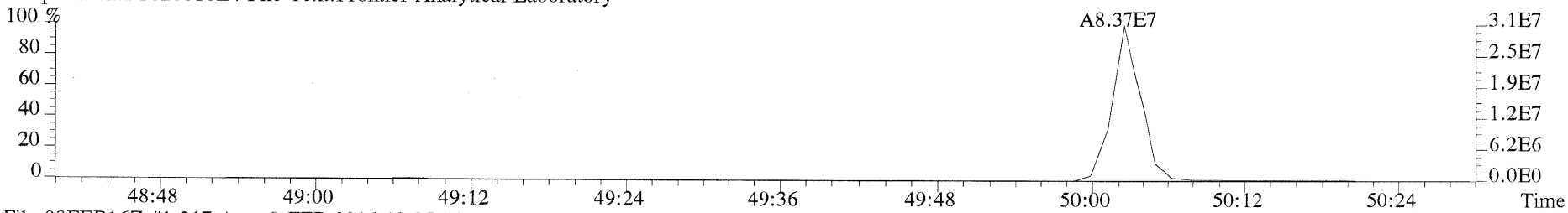
File:08FEB16Z #1-412 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



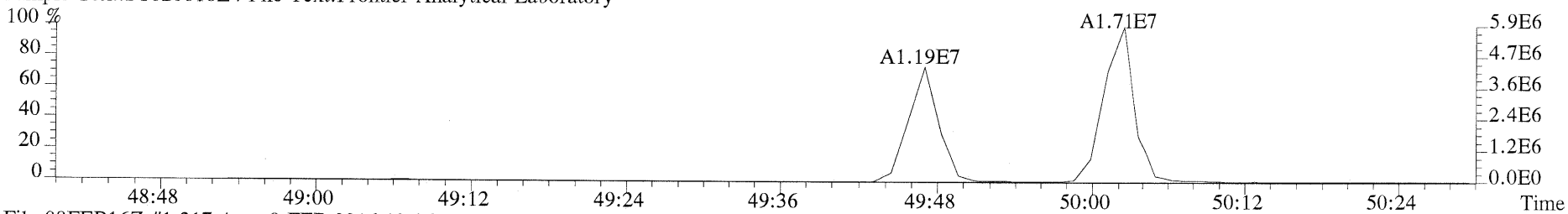
File:08FEB16Z #1-217 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



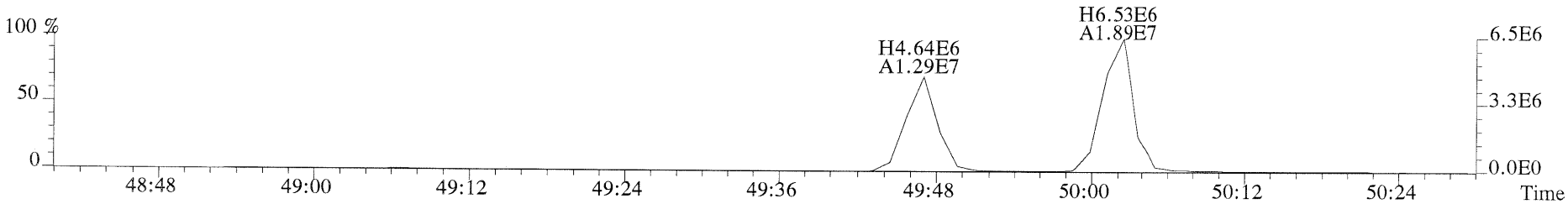
File:08FEB16Z #1-217 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



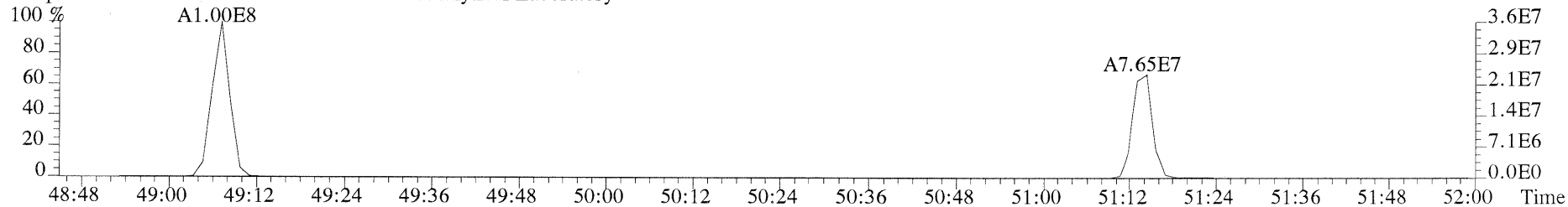
File:08FEB16Z #1-217 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



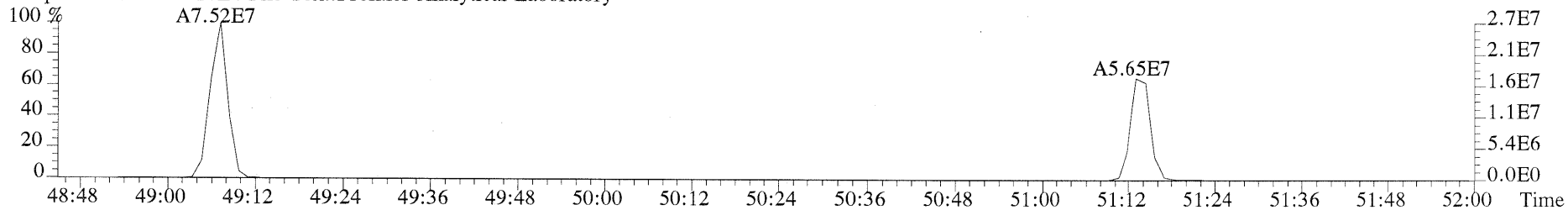
File:08FEB16Z #1-217 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



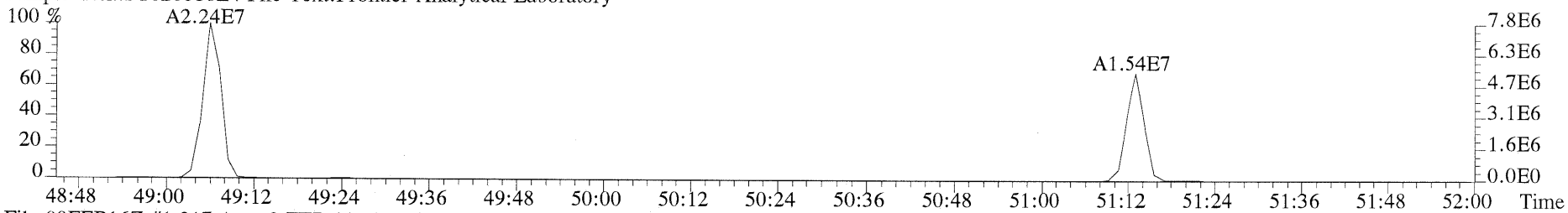
File:08FEB16Z #1-217 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



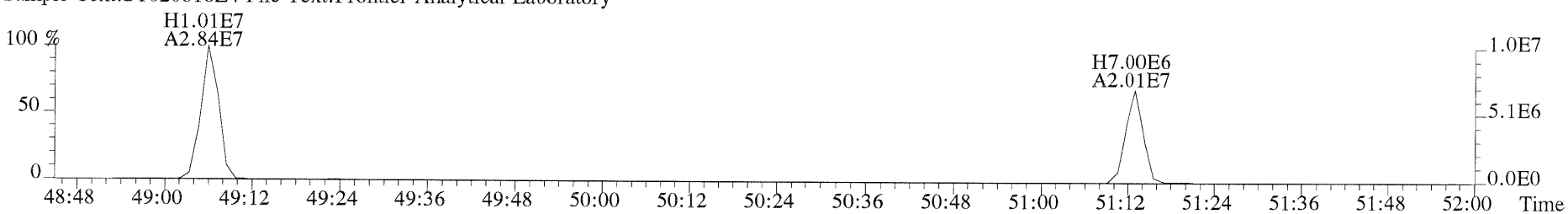
File:08FEB16Z #1-217 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
465.7187 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



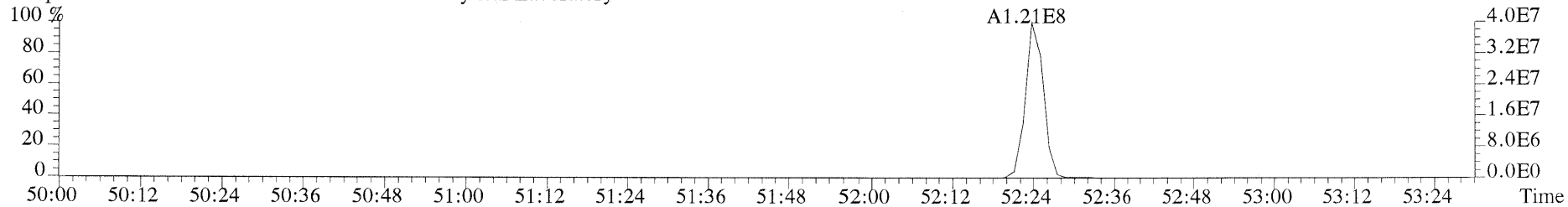
File:08FEB16Z #1-217 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
473.7648 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



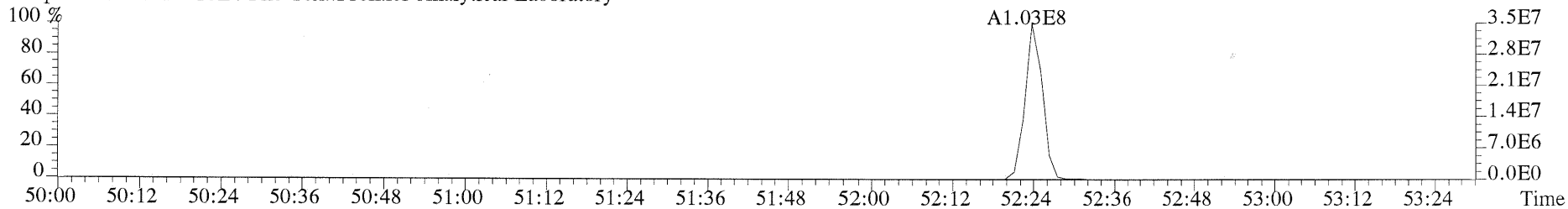
File:08FEB16Z #1-217 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
475.7619 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



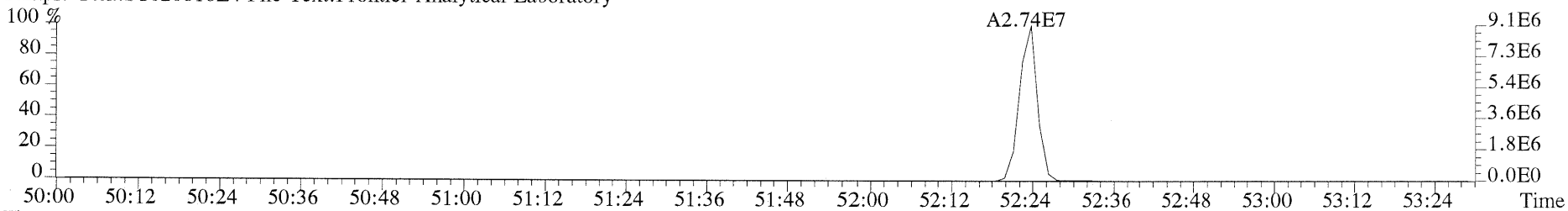
File:08FEB16Z #1-217 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



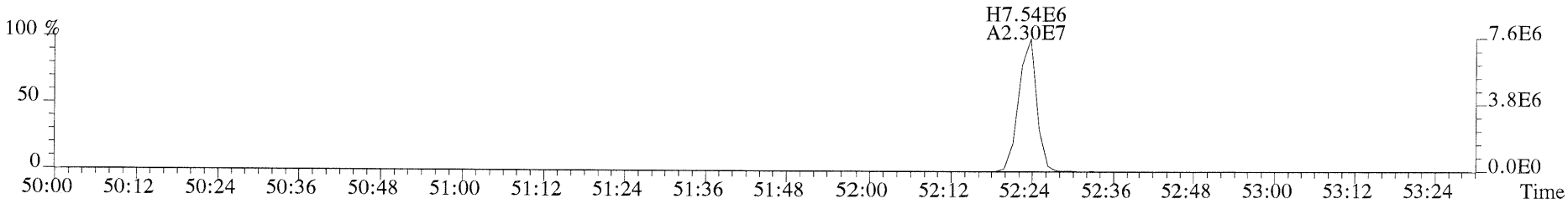
File:08FEB16Z #1-217 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



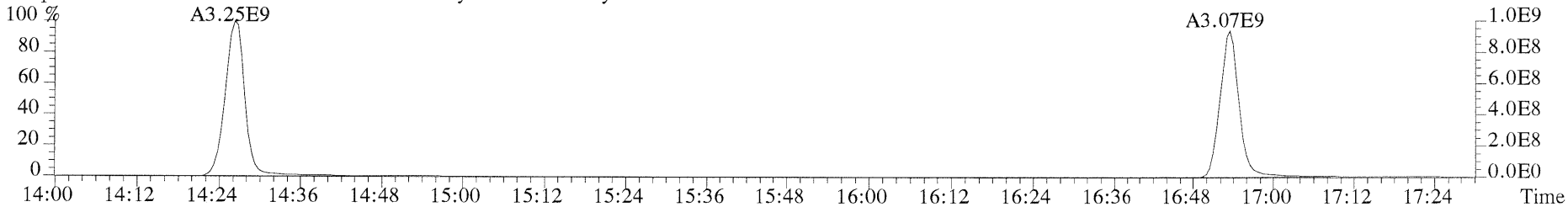
File:08FEB16Z #1-217 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



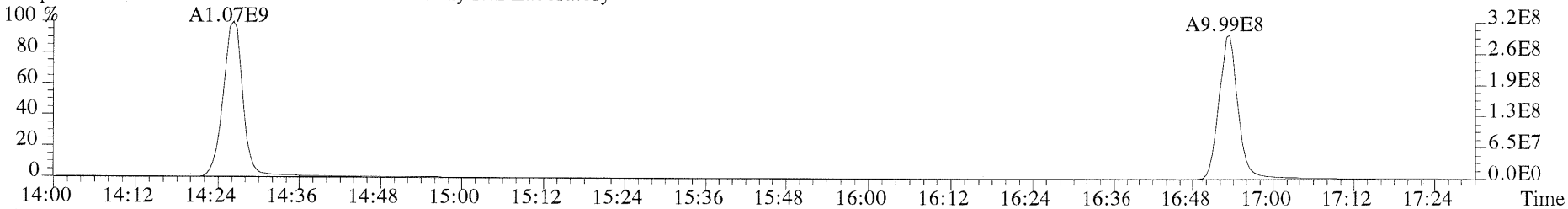
File:08FEB16Z #1-217 Acq: 8-FEB-2016 10:25:42 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z4 File Text:Frontier Analytical Laboratory



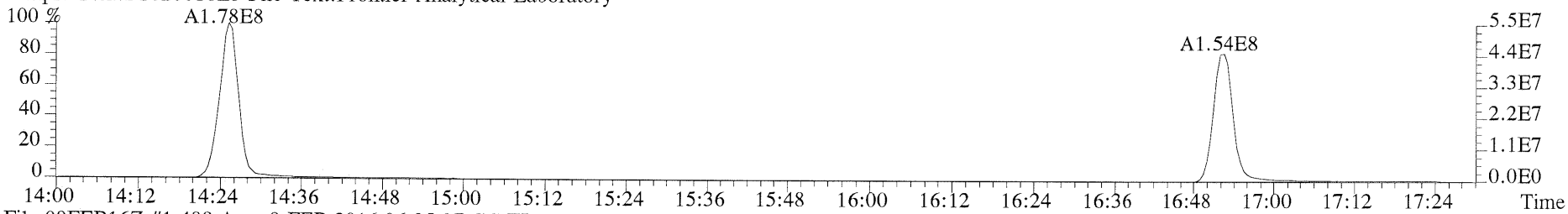
File:08FEB16Z #1-489 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



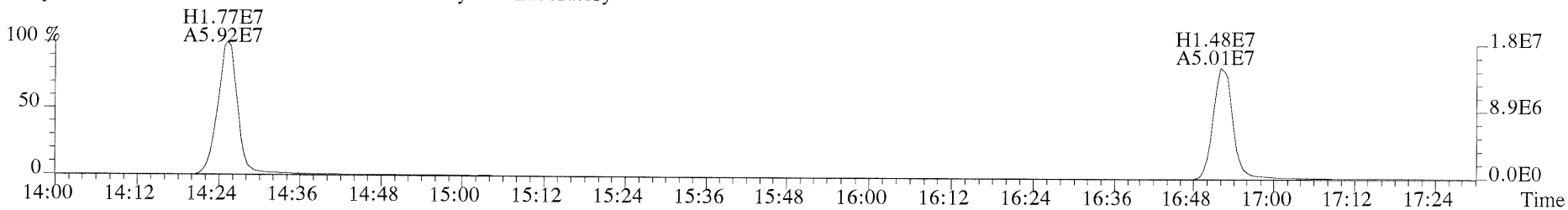
File:08FEB16Z #1-489 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



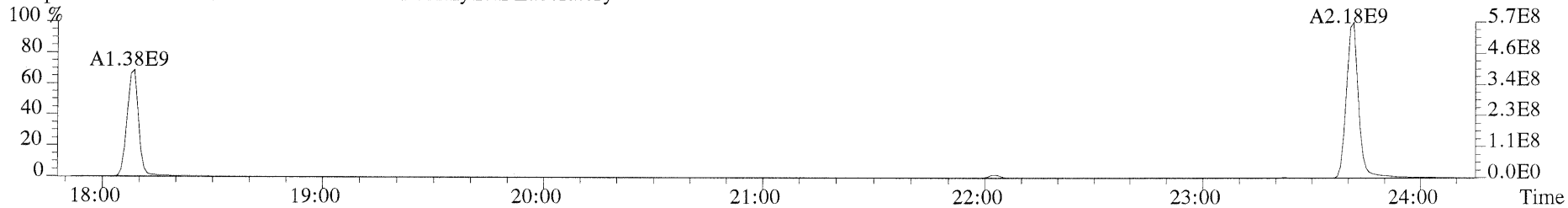
File:08FEB16Z #1-489 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



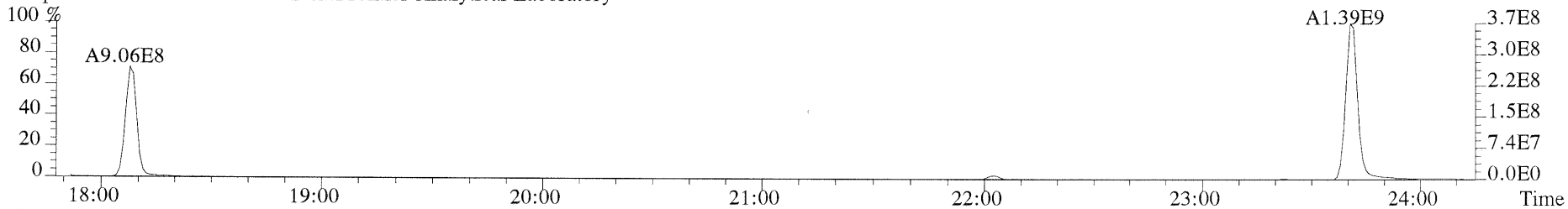
File:08FEB16Z #1-489 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



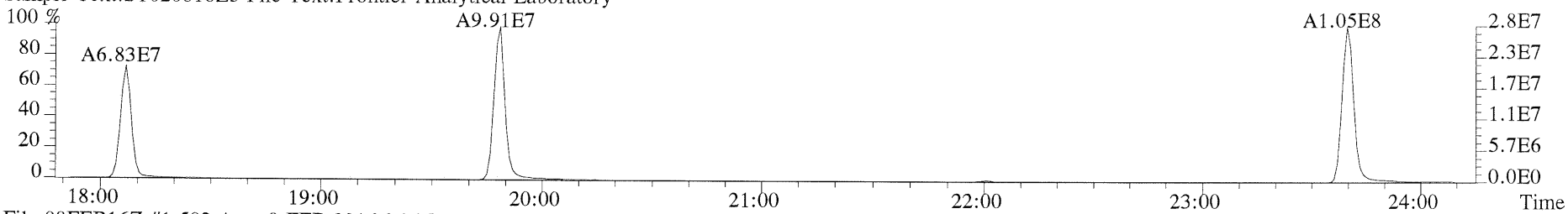
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



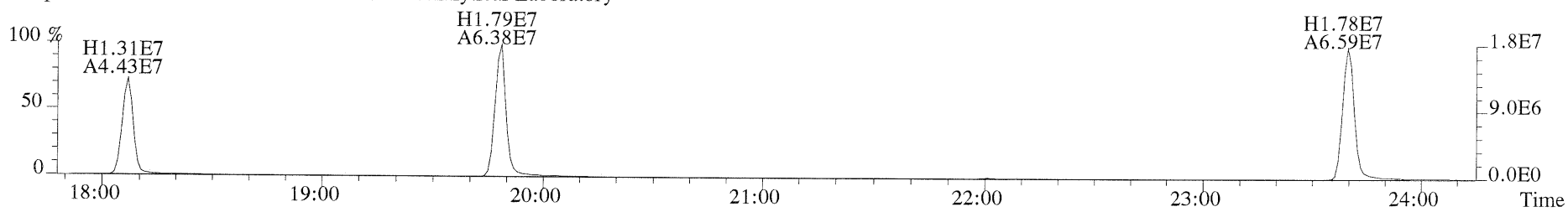
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



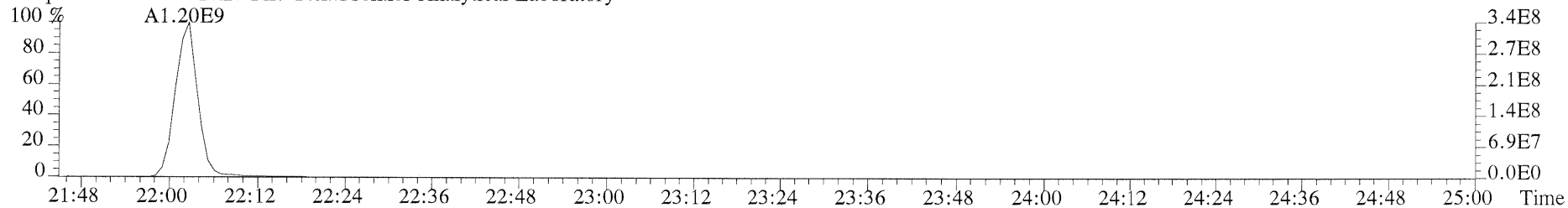
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



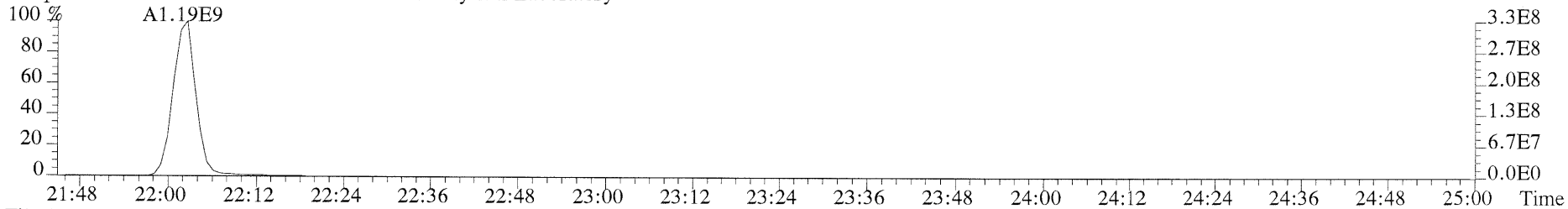
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



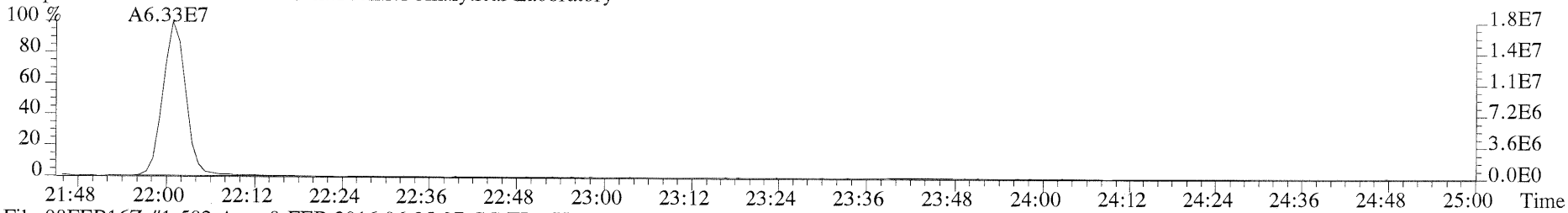
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



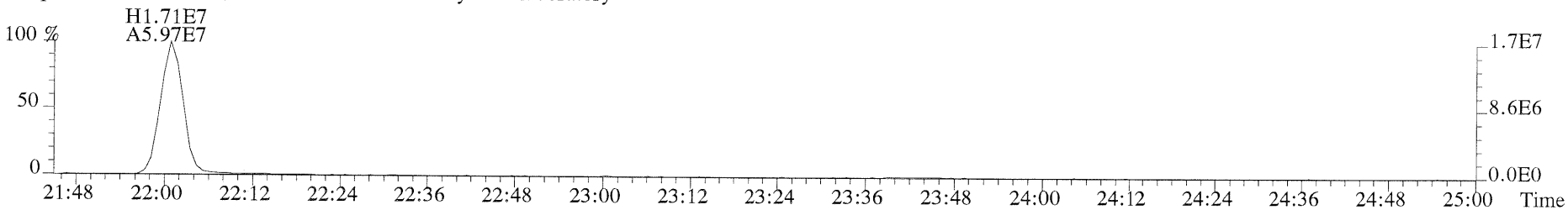
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



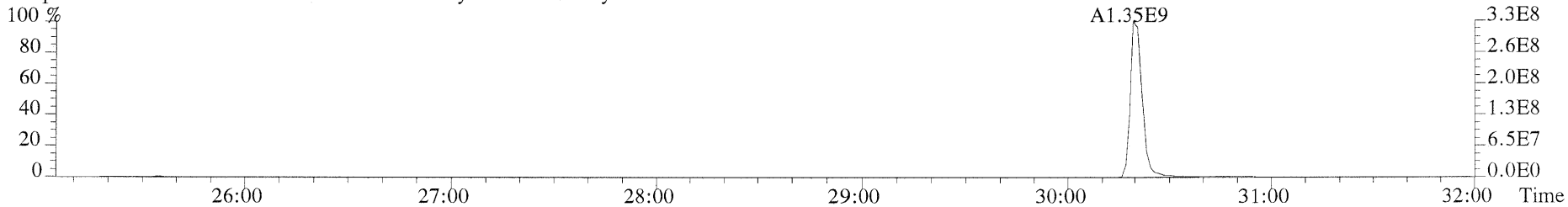
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



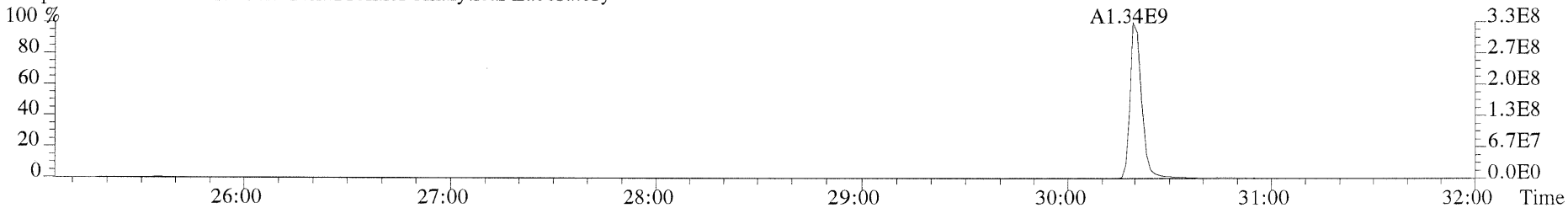
File:08FEB16Z #1-503 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:6 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



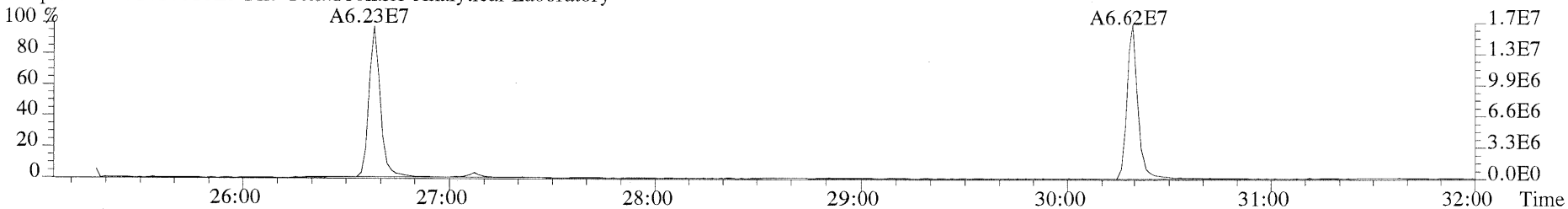
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



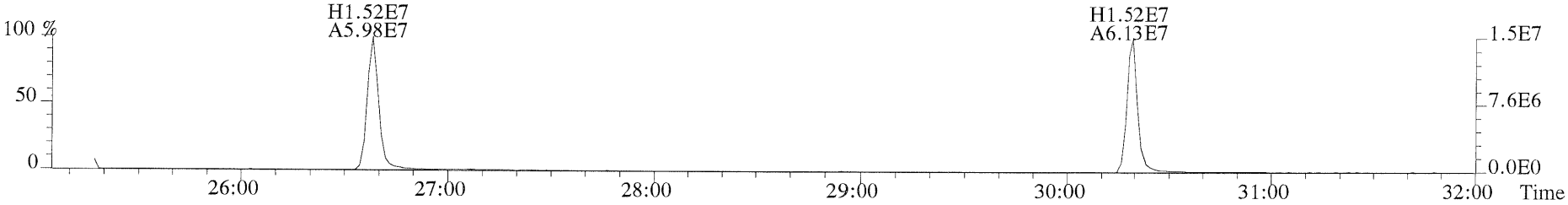
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



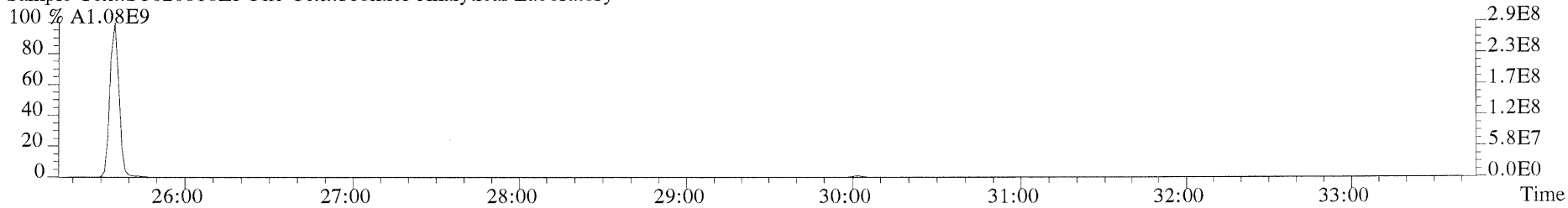
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



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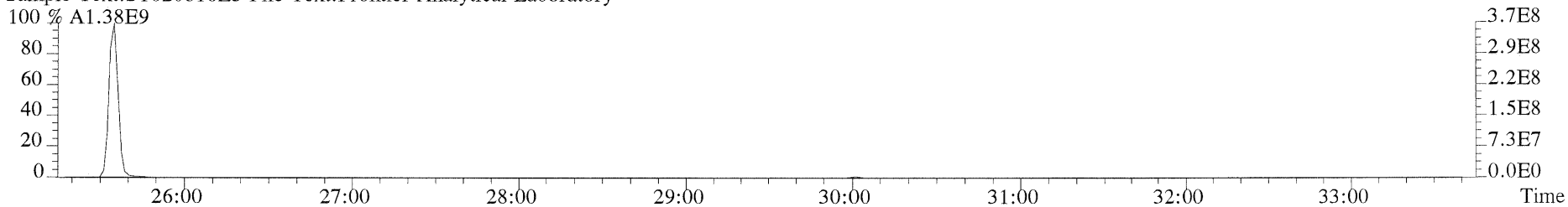
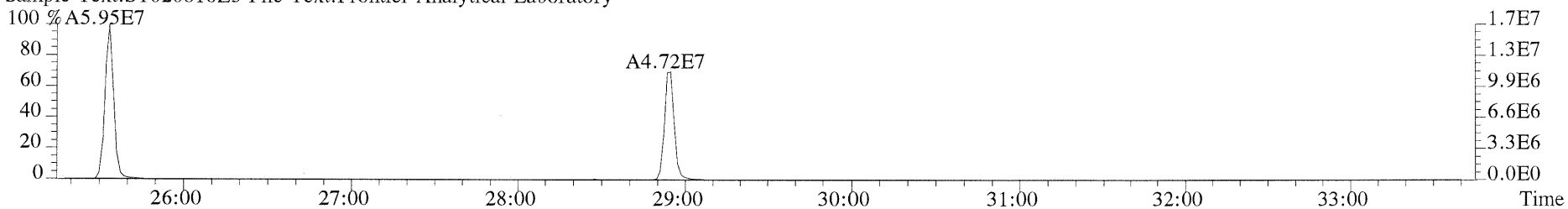
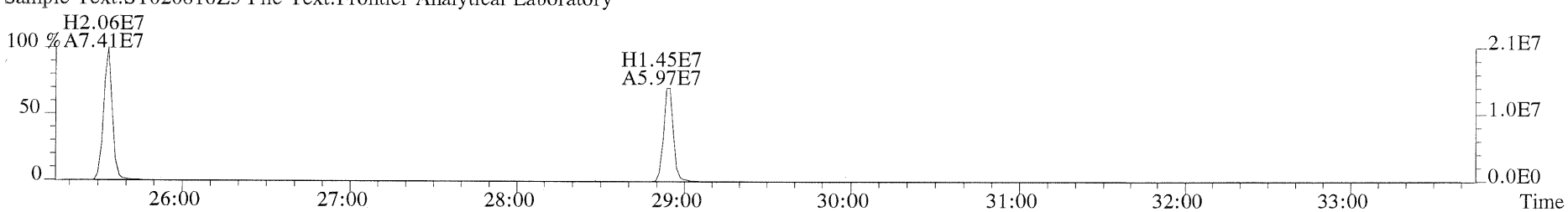
291.9194 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



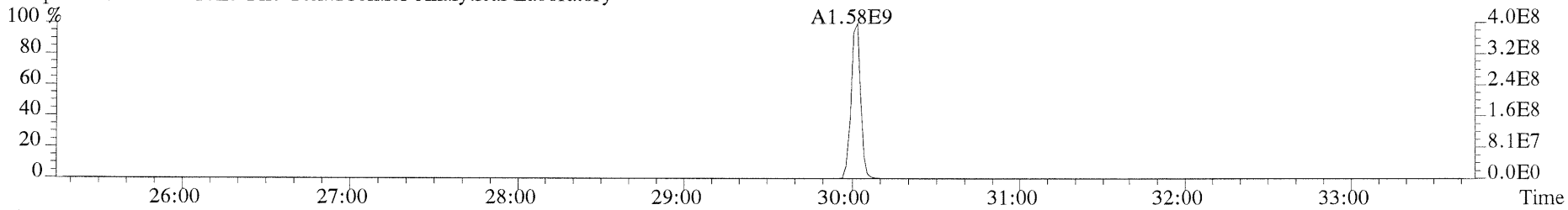
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



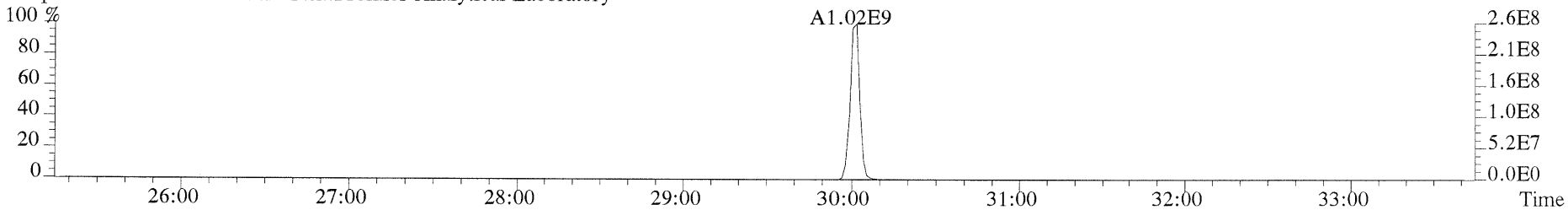
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



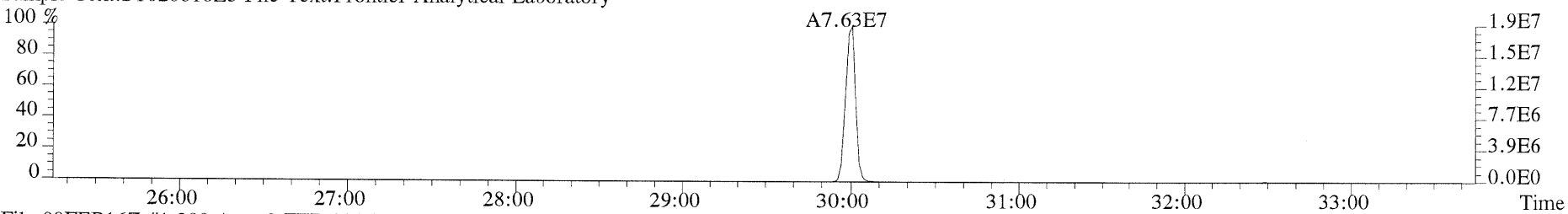
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



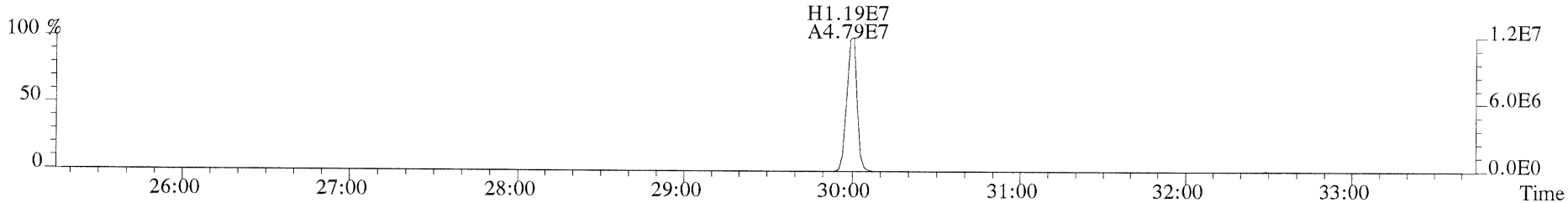
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



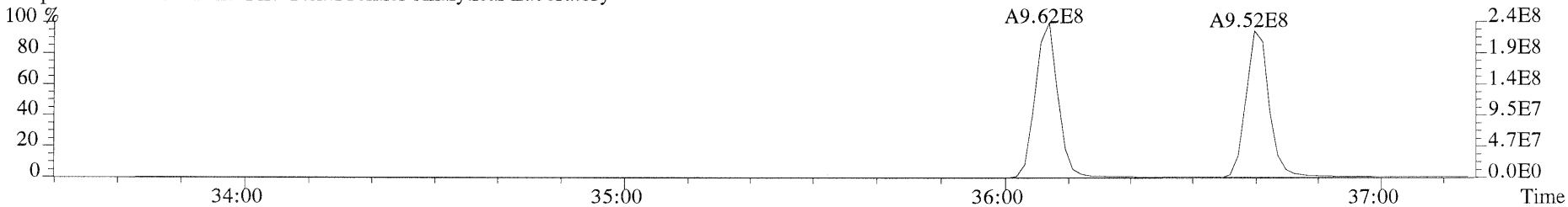
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



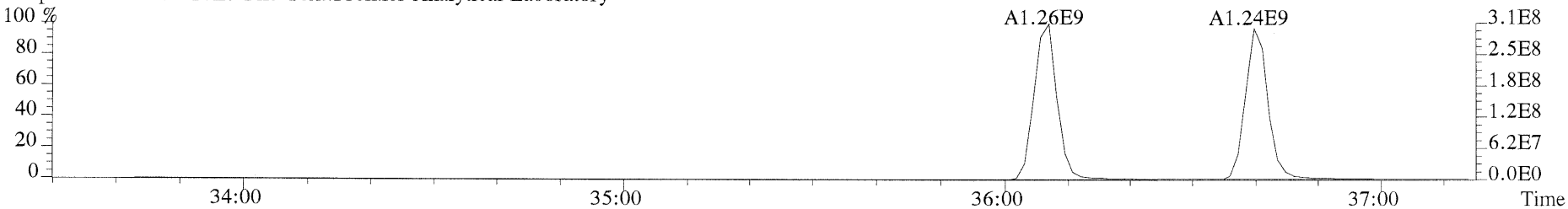
File:08FEB16Z #1-399 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:6 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



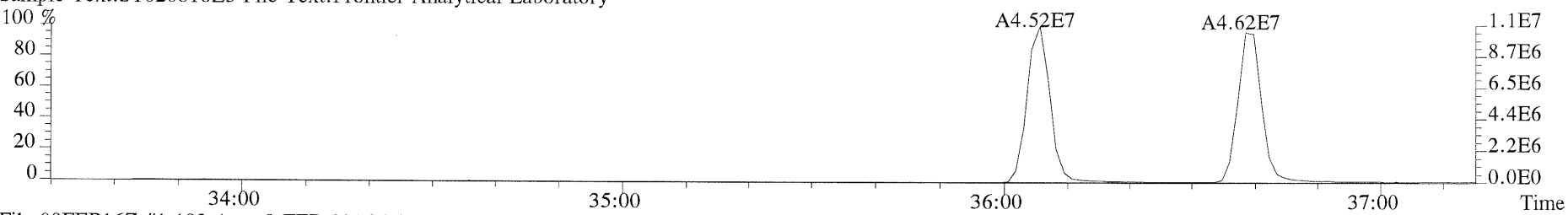
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



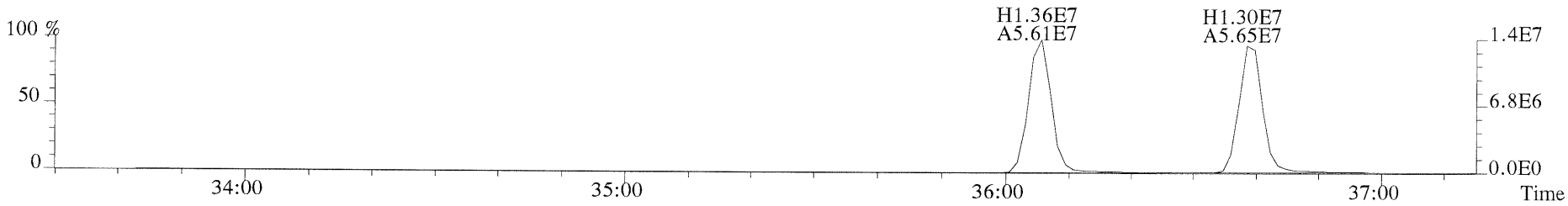
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



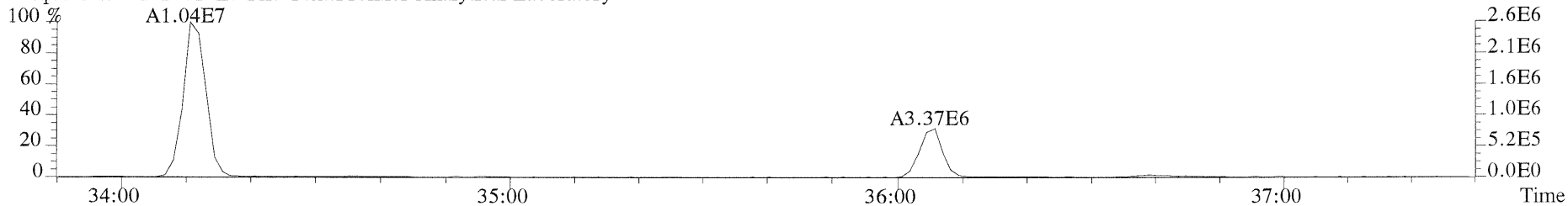
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



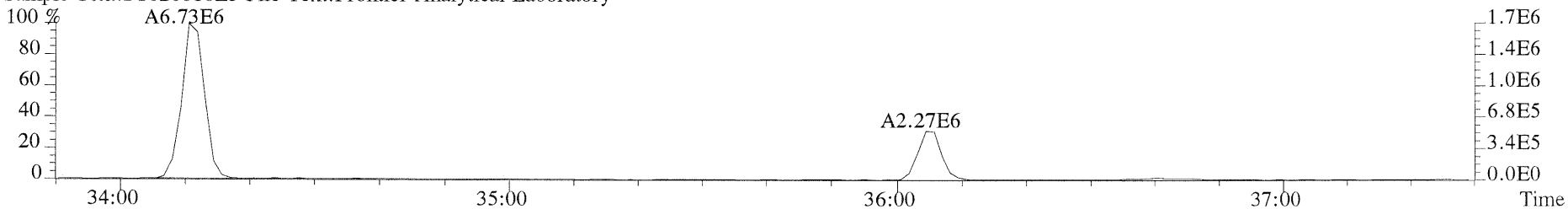
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



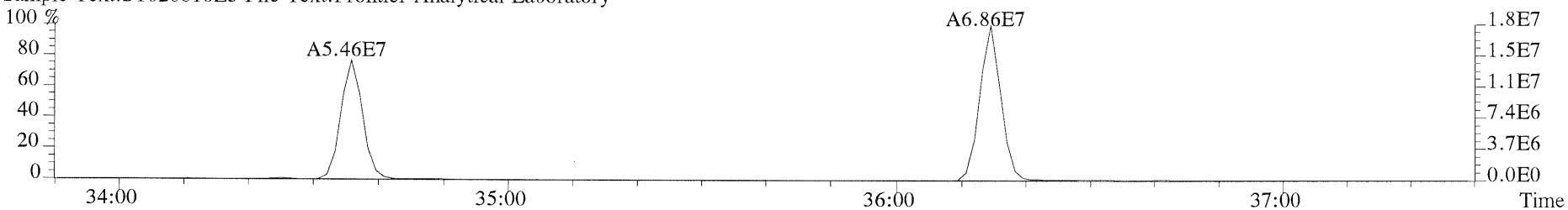
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



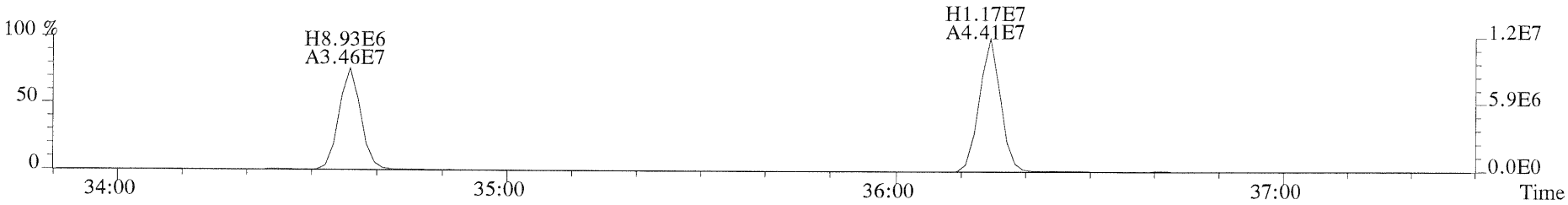
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



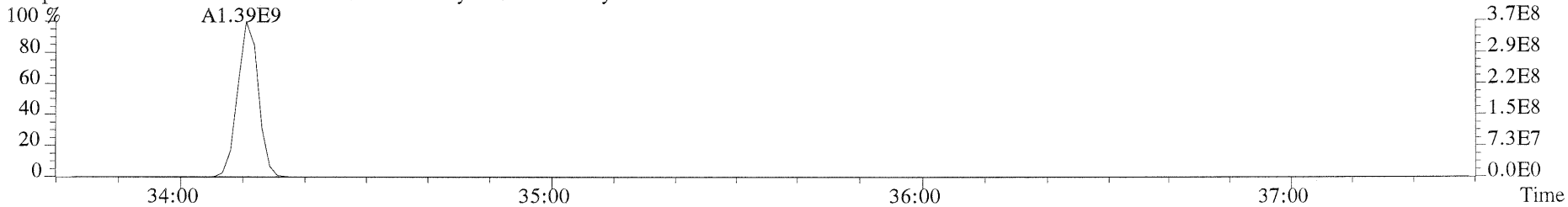
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



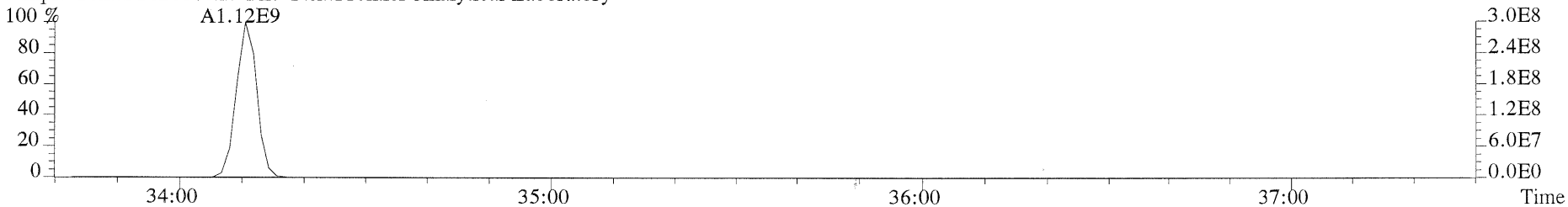
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



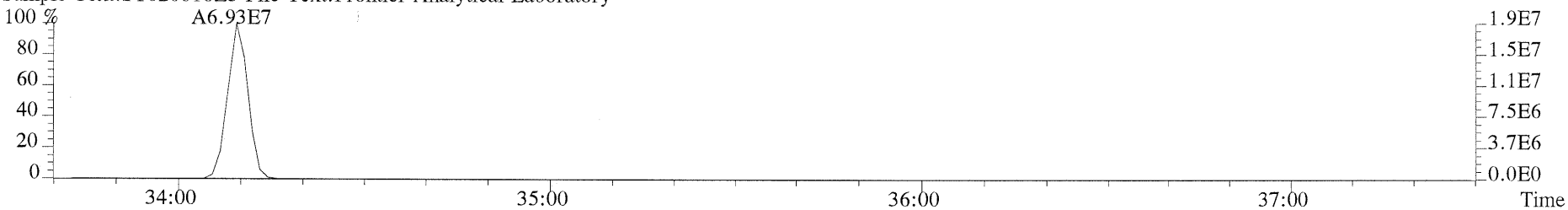
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



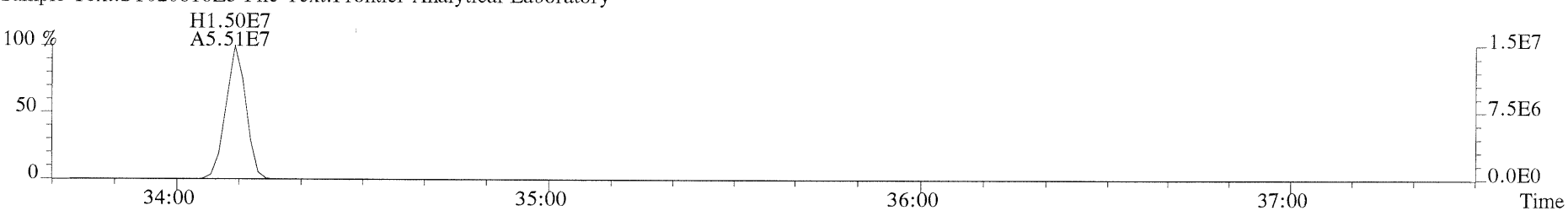
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



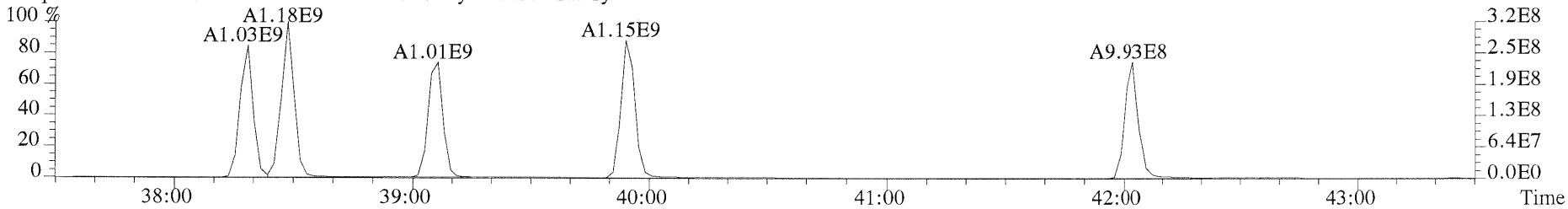
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



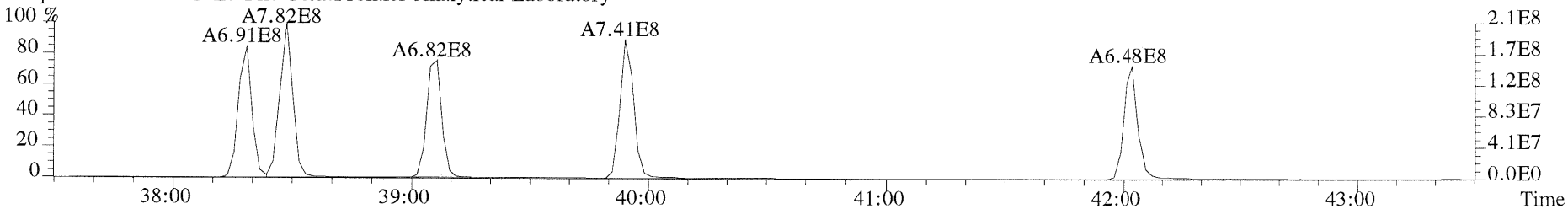
File:08FEB16Z #1-182 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:6 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



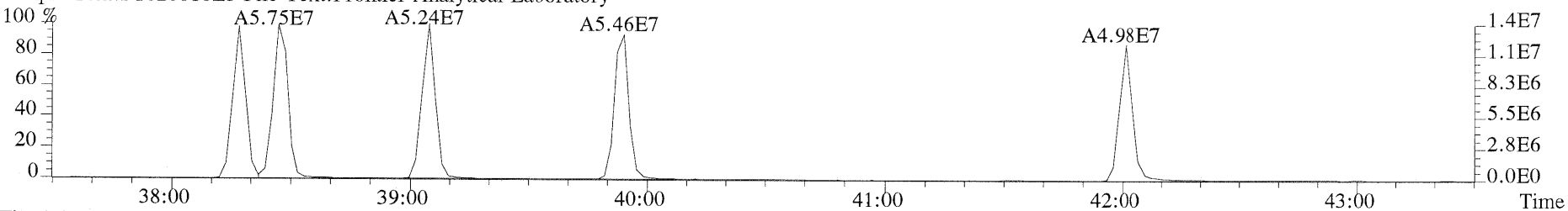
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



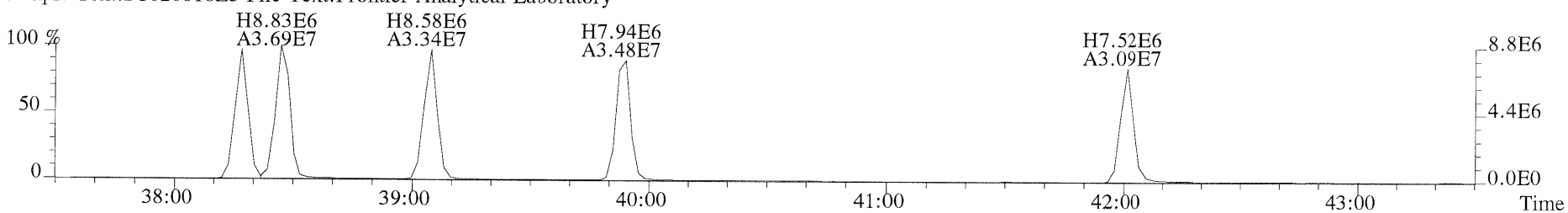
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



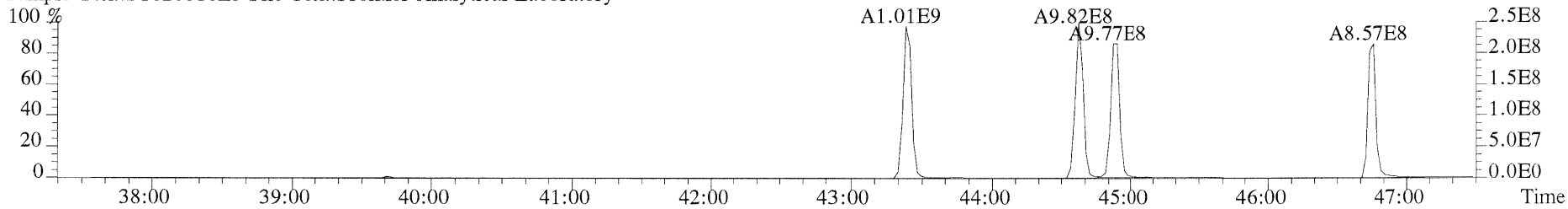
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



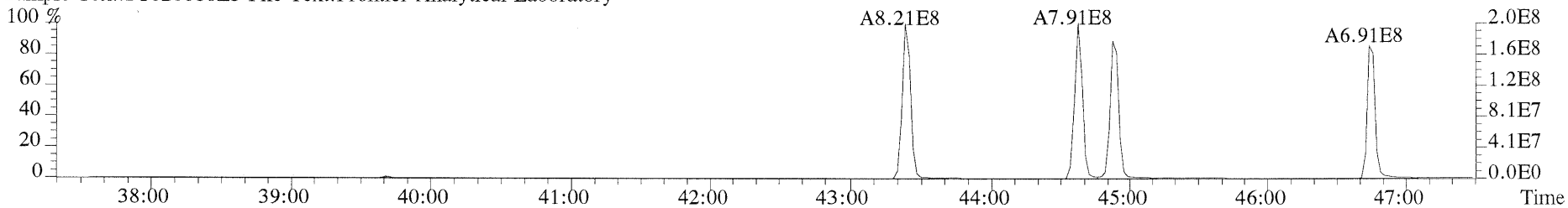
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



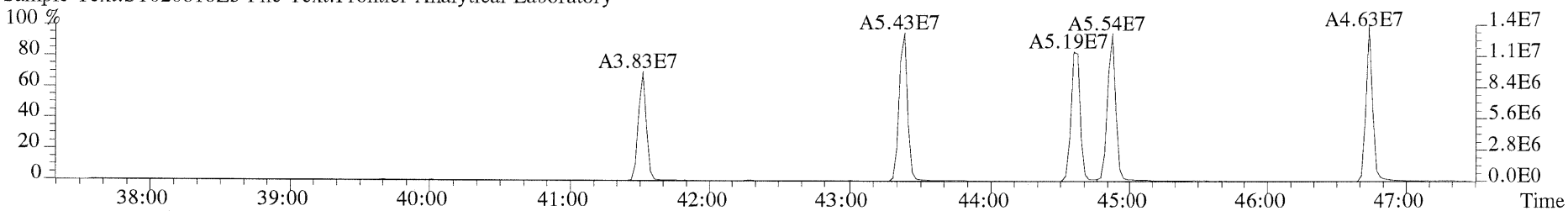
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



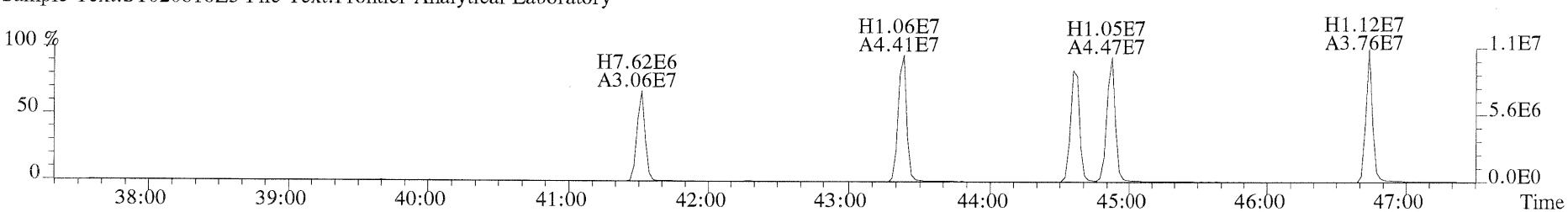
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



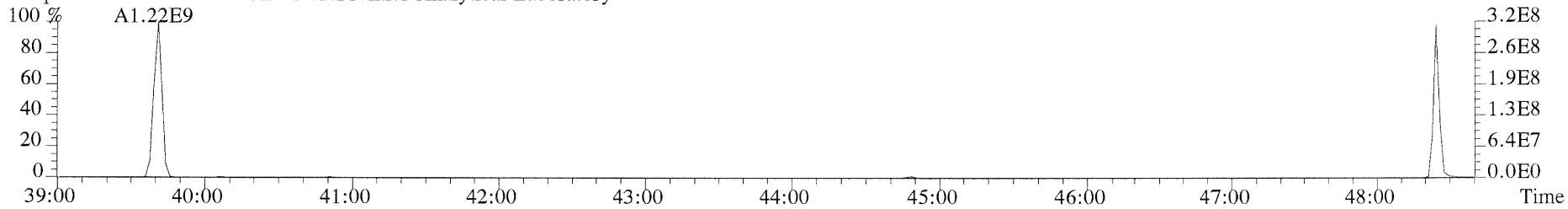
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



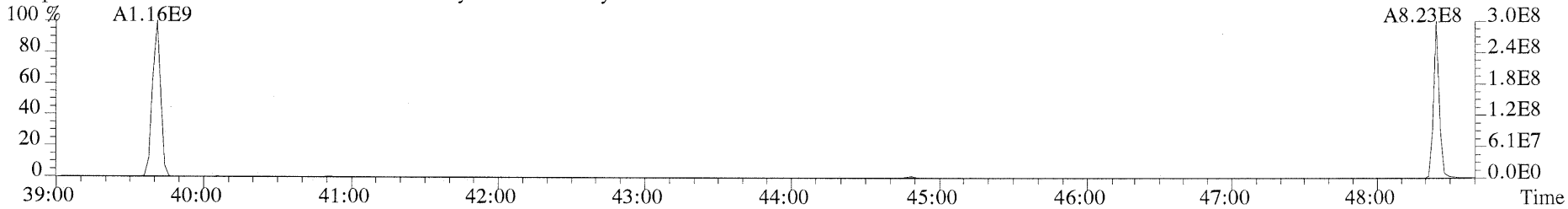
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



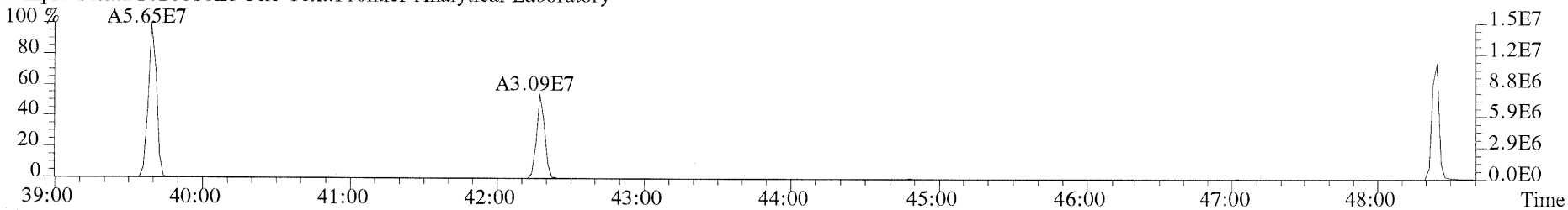
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
393.8025 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



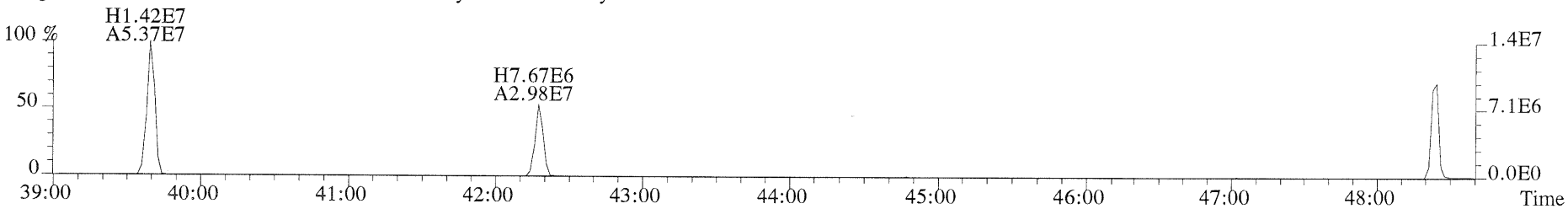
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



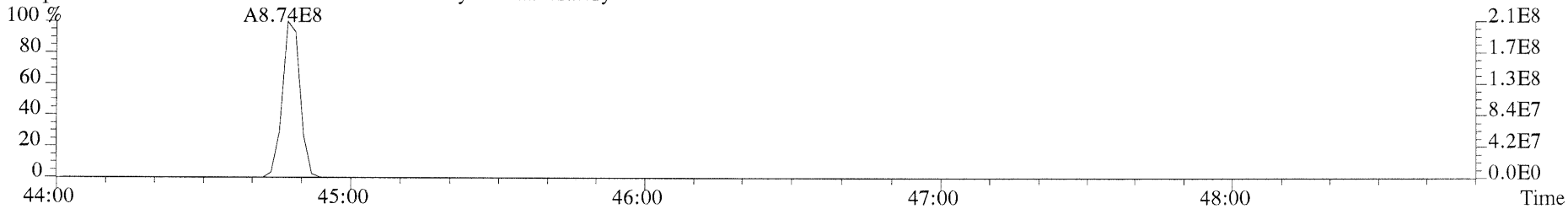
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
405.8428 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
407.8398 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



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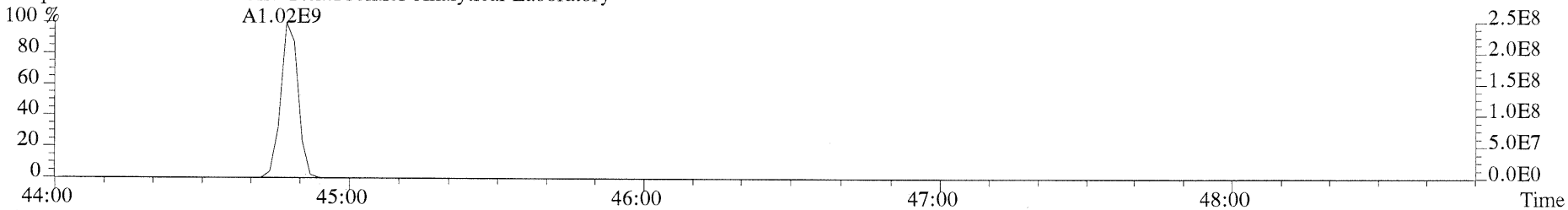
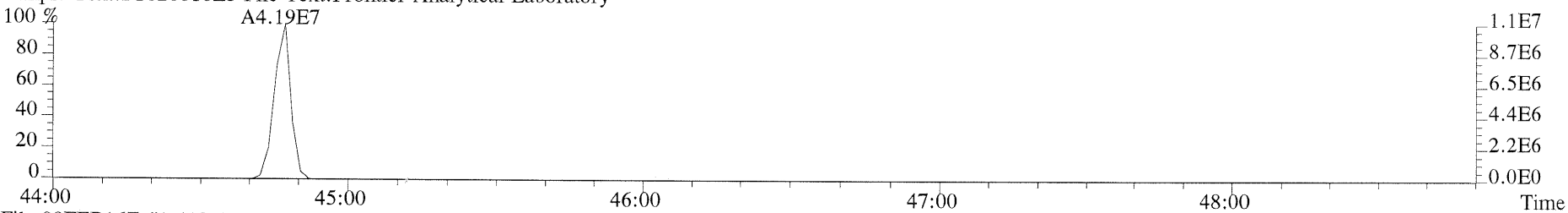
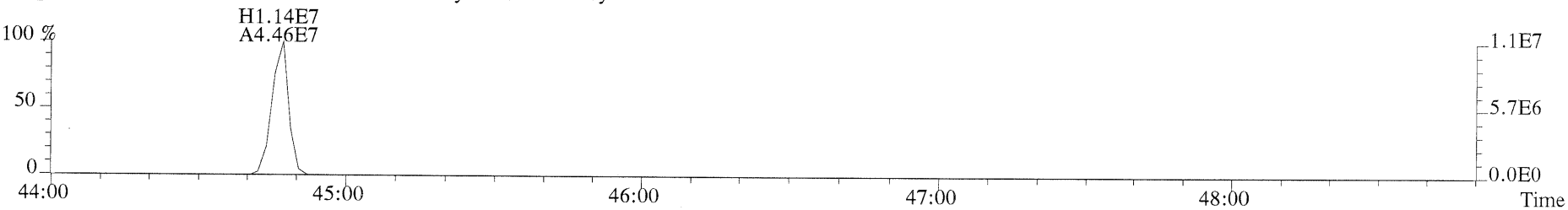
429.7606 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



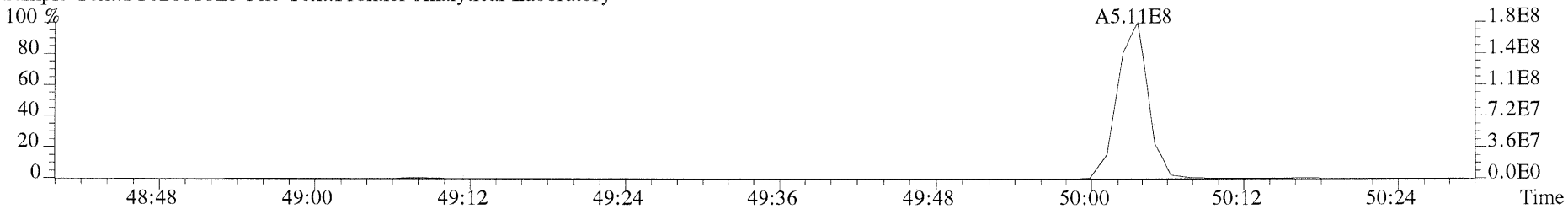
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



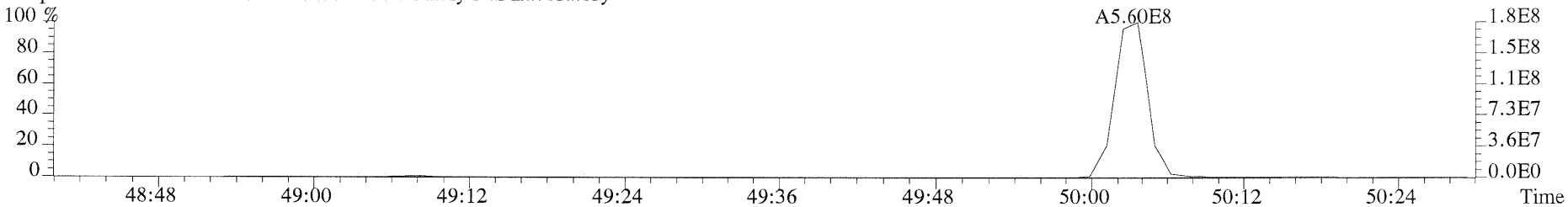
File:08FEB16Z #1-412 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:6 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



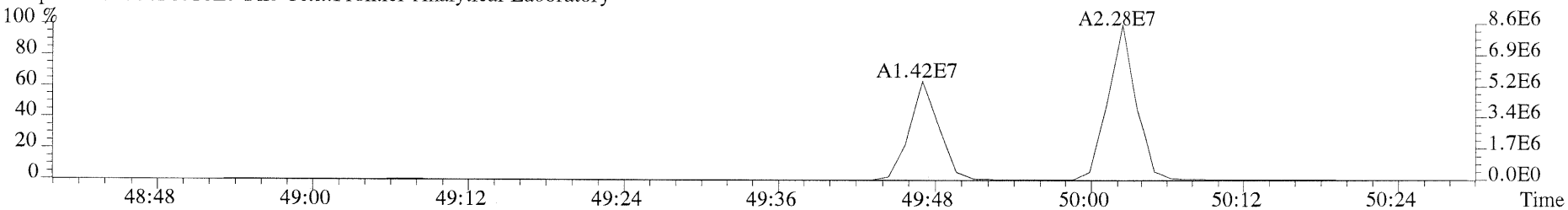
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



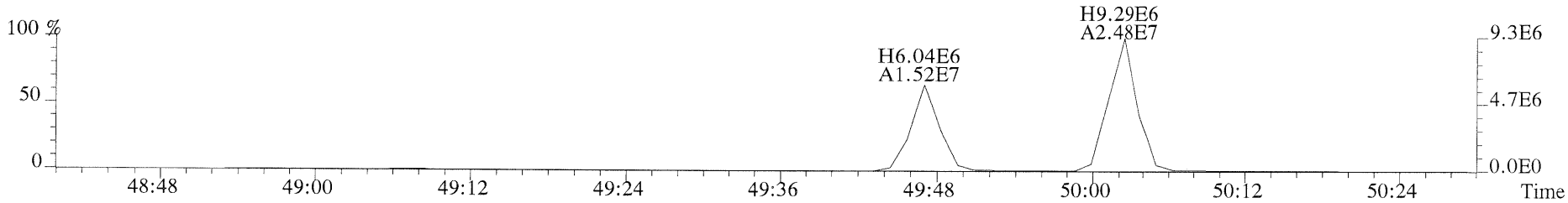
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



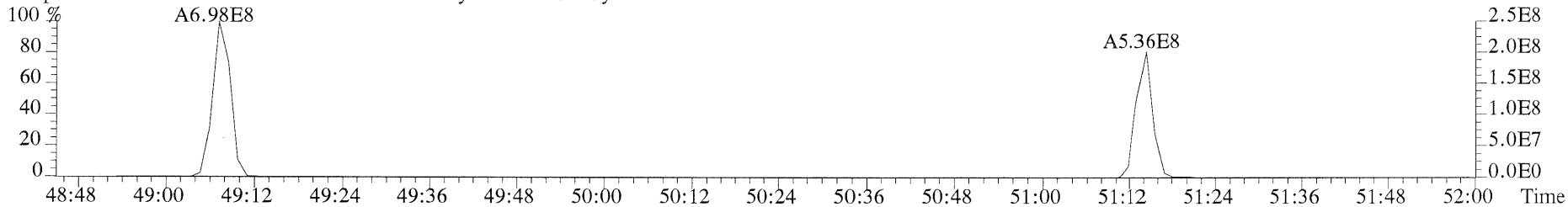
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



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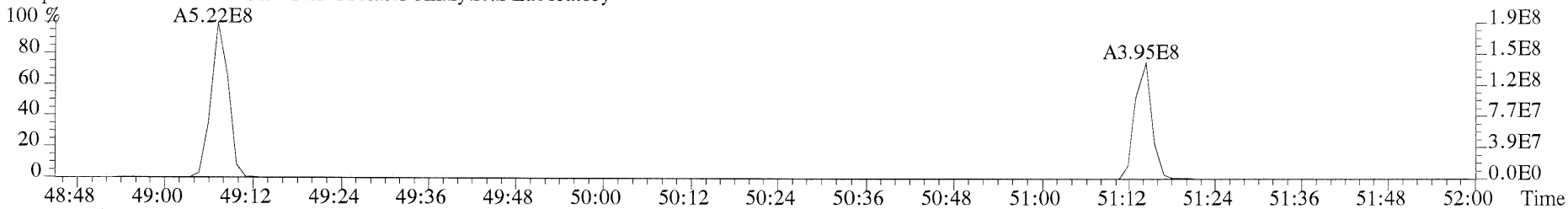
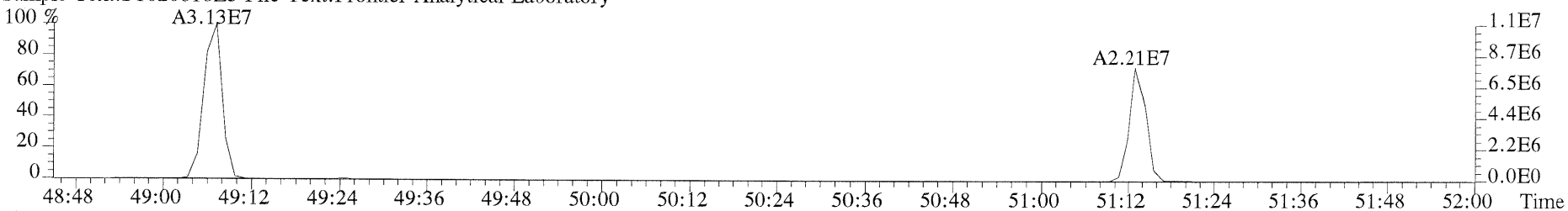
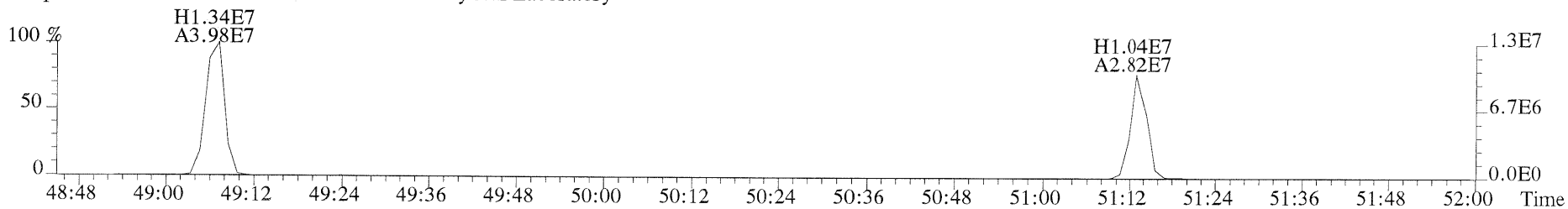
465.7187 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



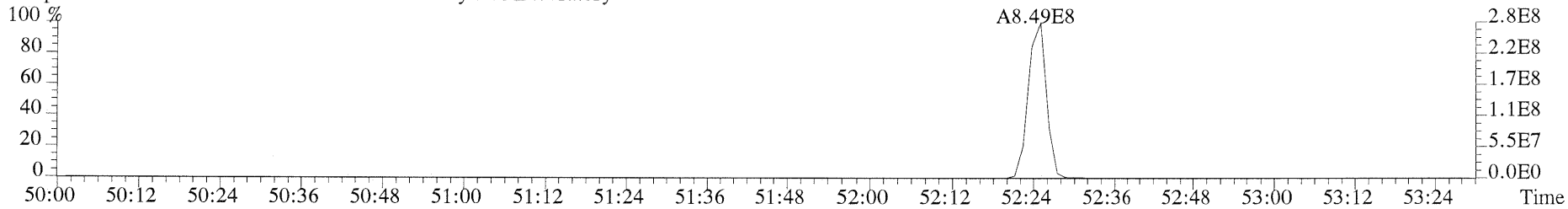
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
473.7648 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



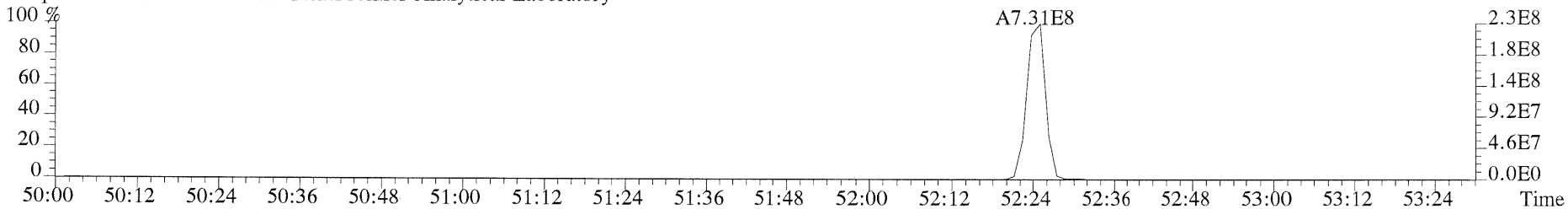
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
475.7619 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory



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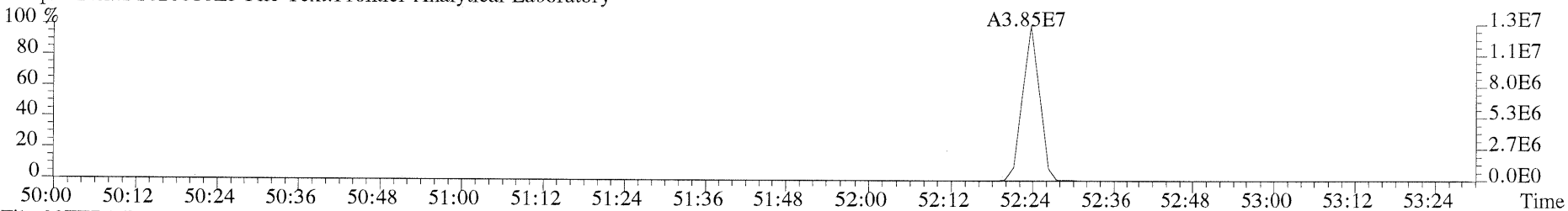
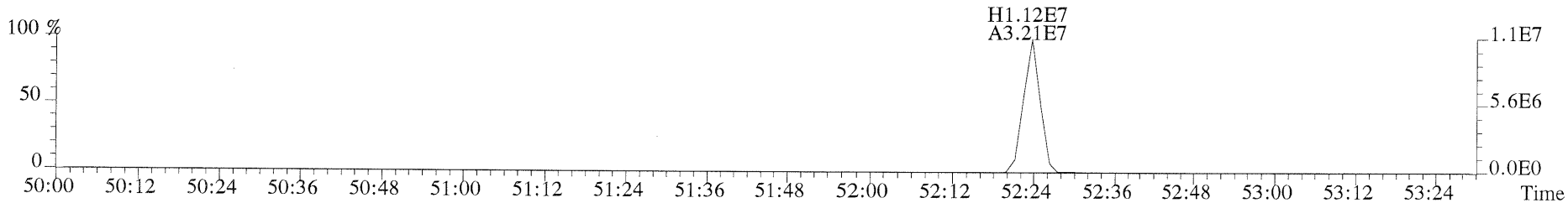
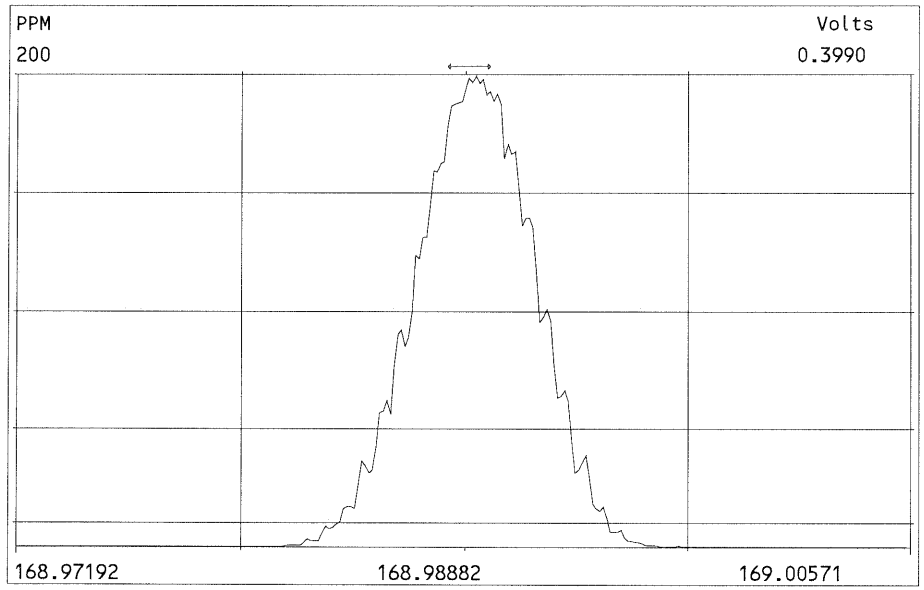
509.7229 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory

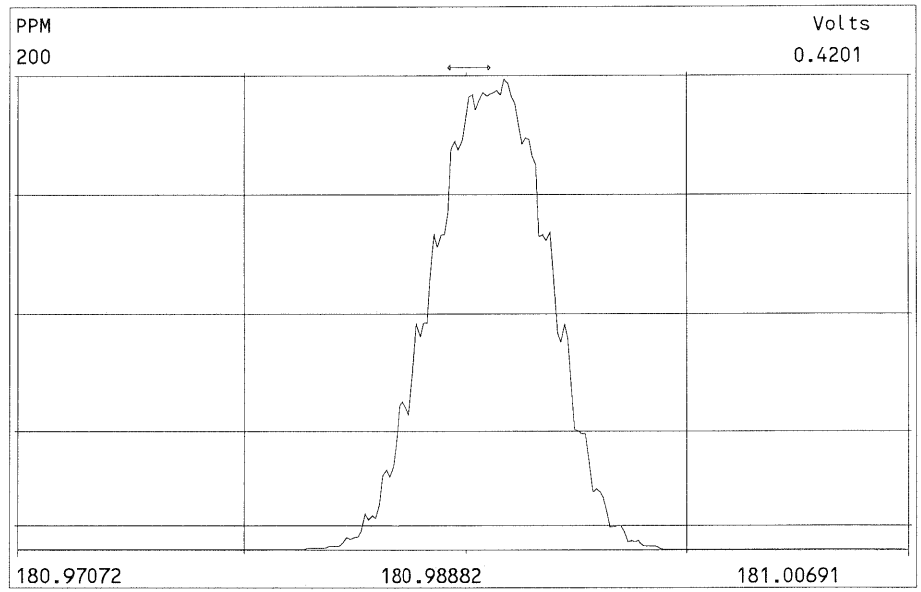


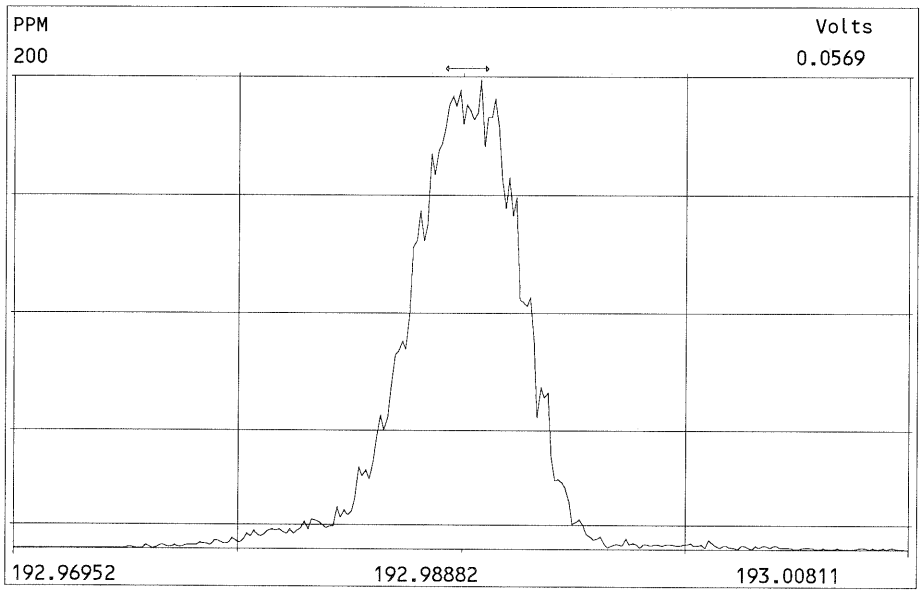
File:08FEB16Z #1-217 Acq: 8-FEB-2016 06:25:37 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:6 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST020816Z5 File Text:Frontier Analytical Laboratory

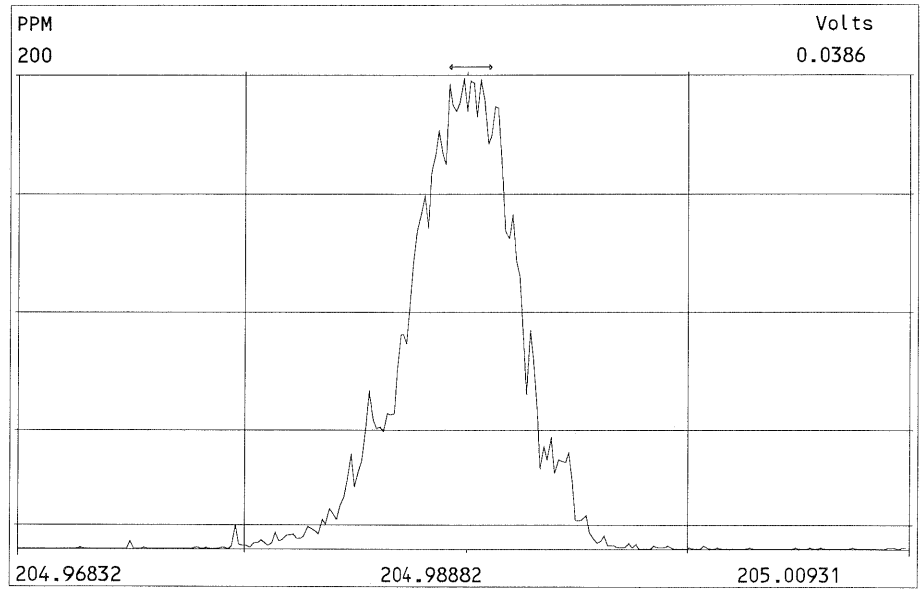


Peak Locate Examination: 9-FEB-2016:06:51 File:08FEB16Z_RES_CHECK
Experiment:1668PCB Function:1 Reference:PFK

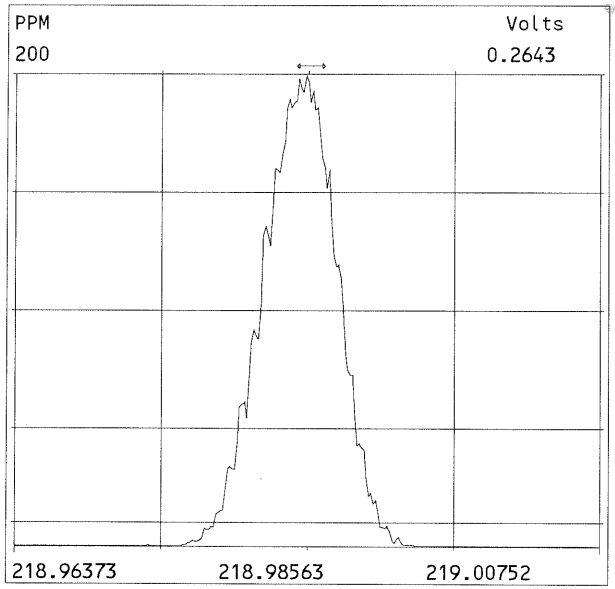


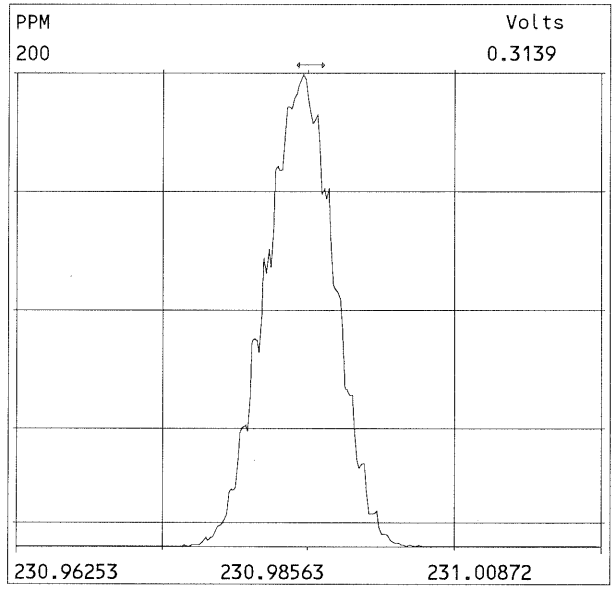


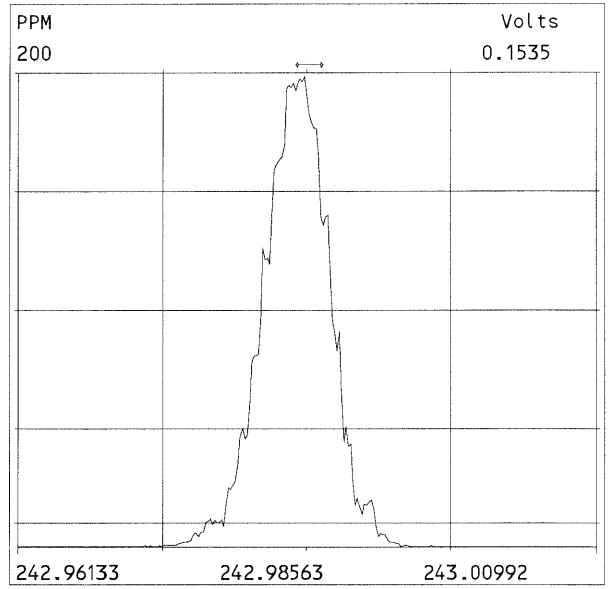


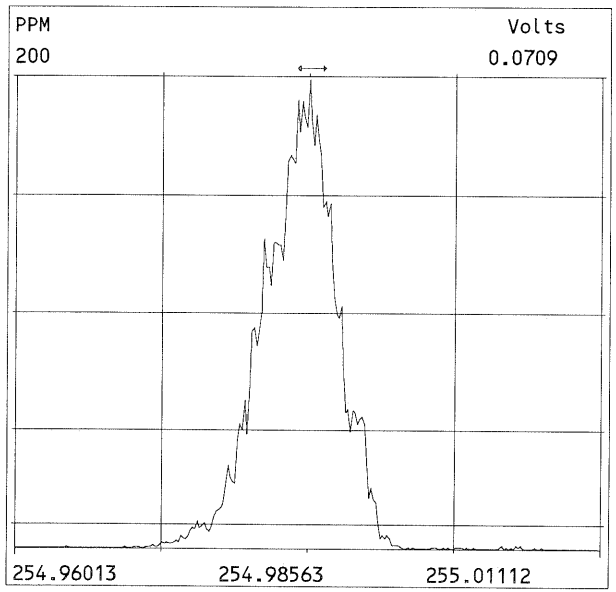


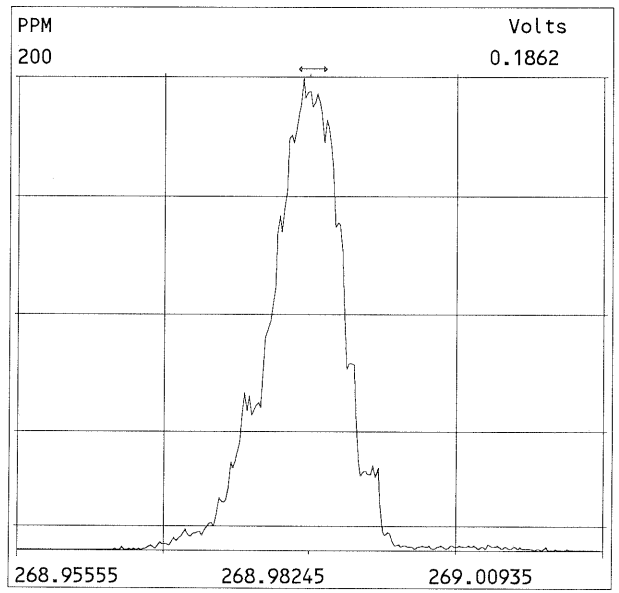
Peak Locate Examination: 9-FEB-2016:06:51 File:08FEB16Z_RES_CHECK
Experiment:1668PCB Function:2 Reference:PFK

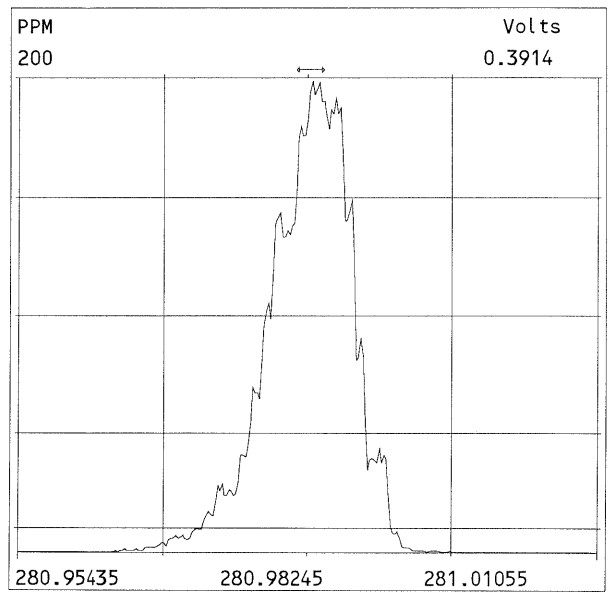




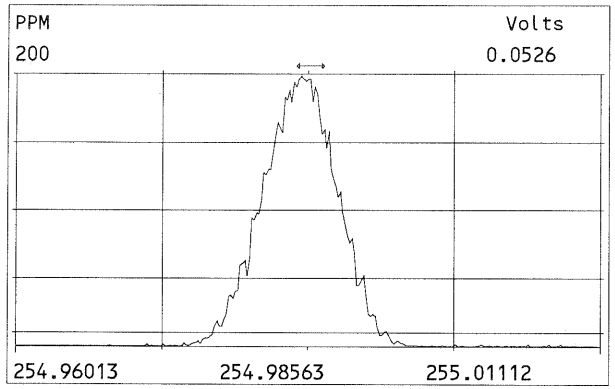


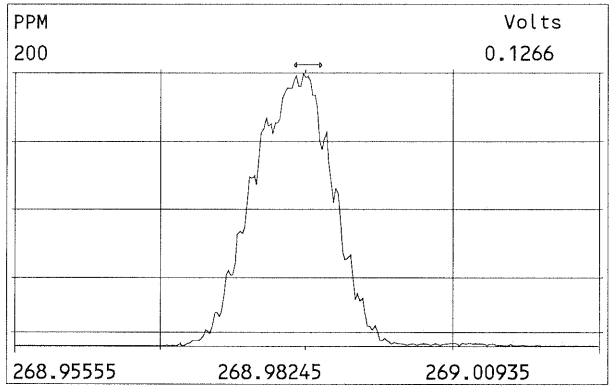


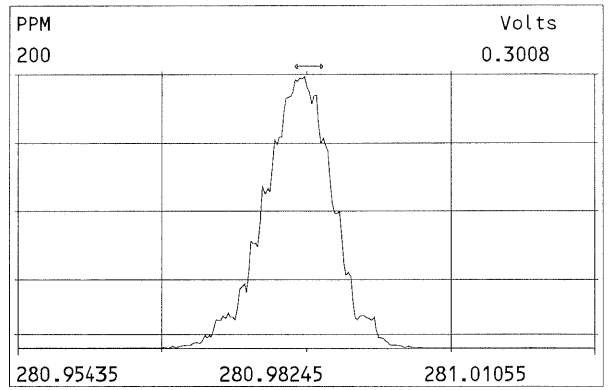


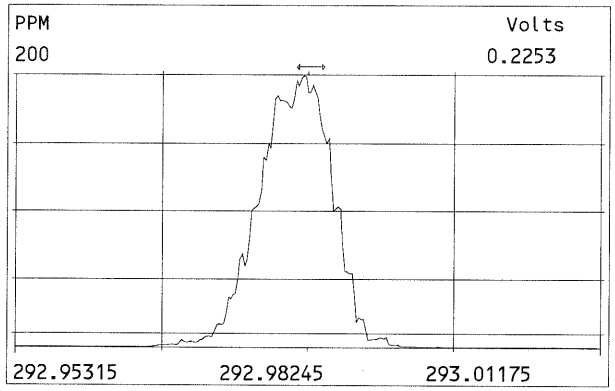


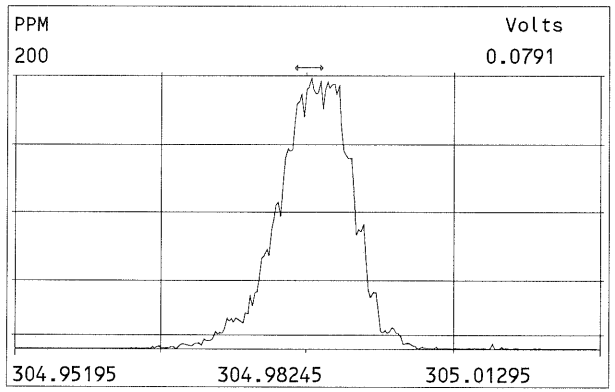
Peak Locate Examination: 9-FEB-2016:06:51 File:08FEB16Z_RES_CHECK
Experiment:1668PCB Function:3 Reference:PFK

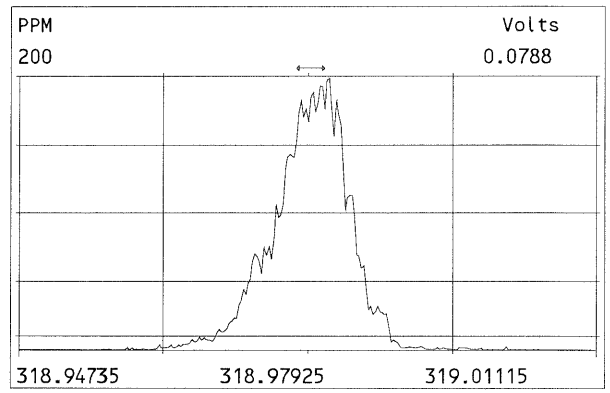


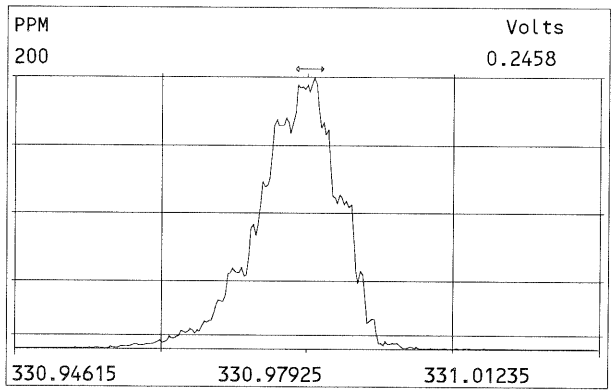


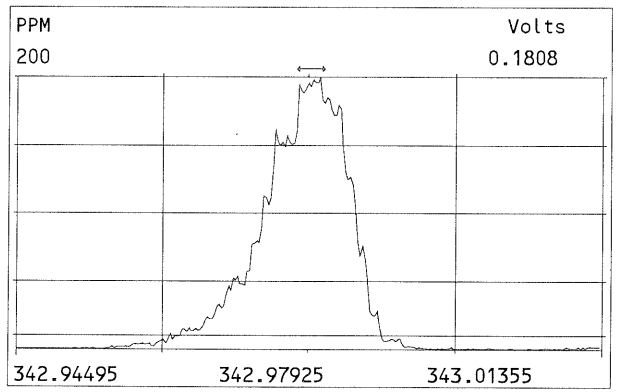




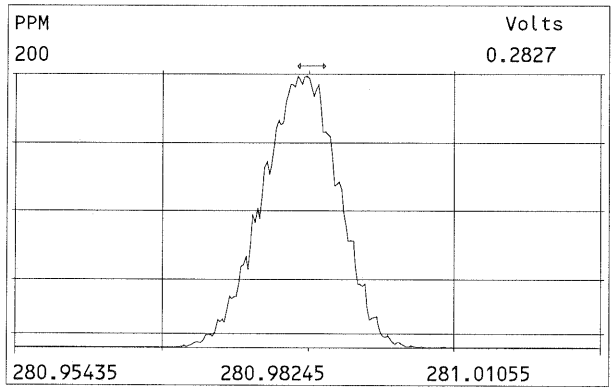


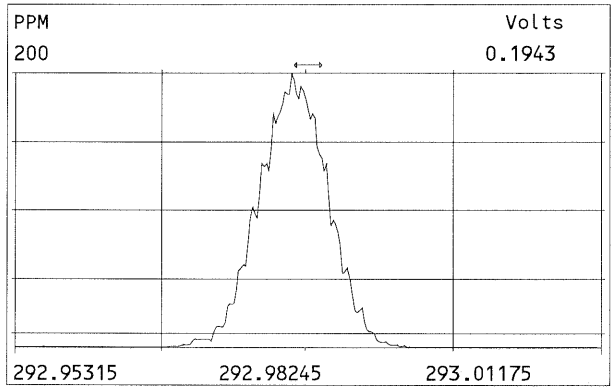


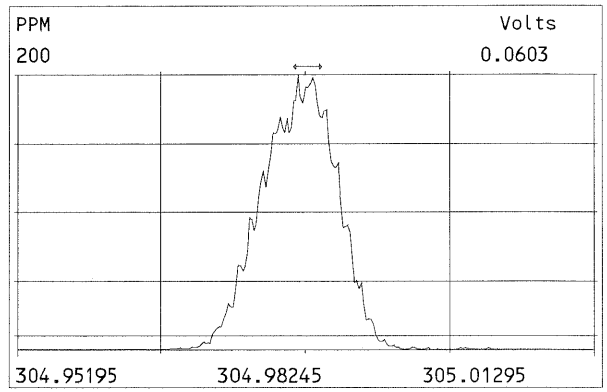


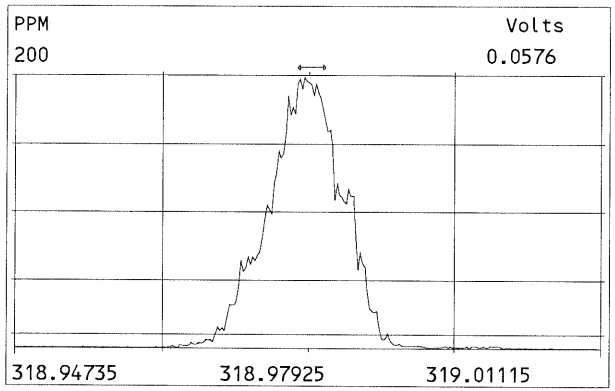


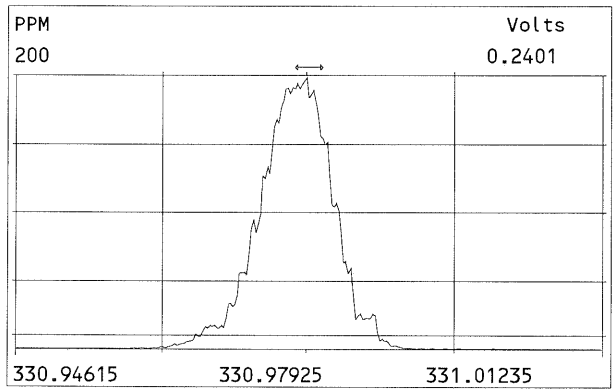
Peak Locate Examination: 9-FEB-2016:06:52 File:08FEB16Z_RES_CHECK
Experiment:1668PCB Function:4 Reference:PFK

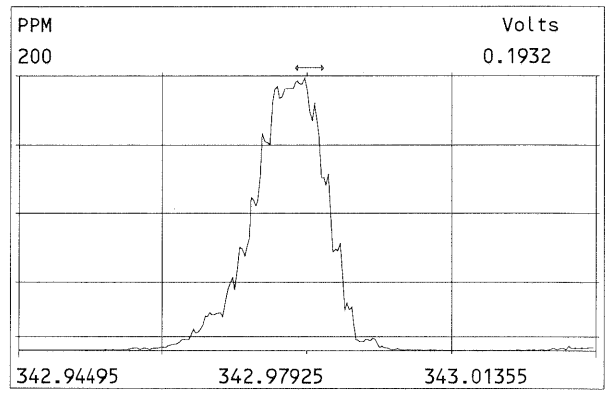


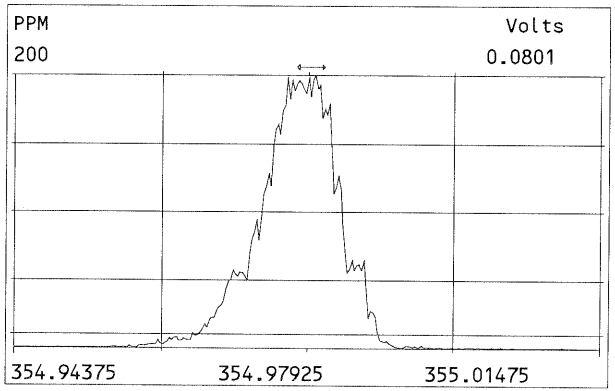


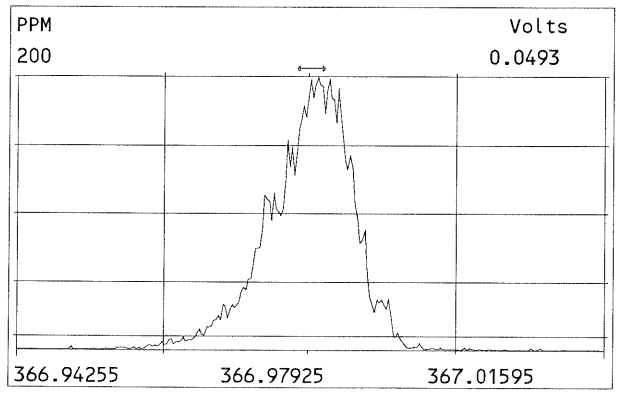


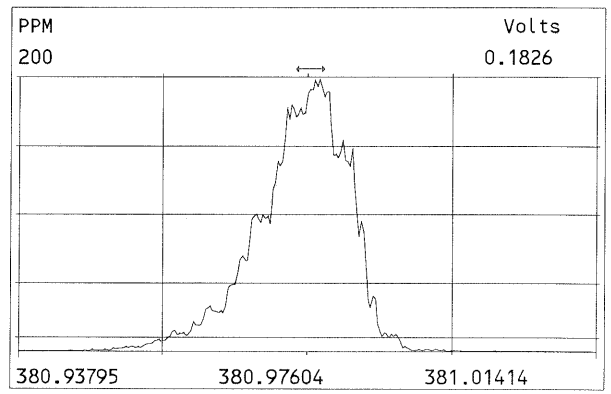




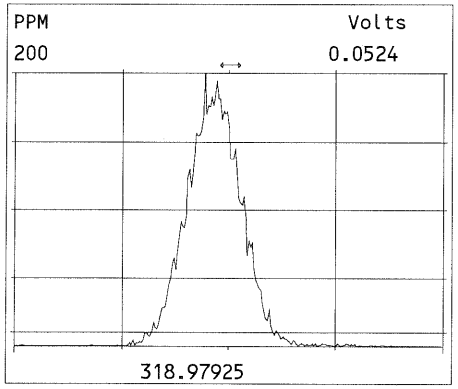


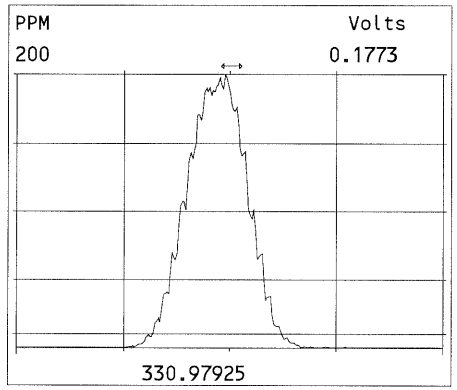


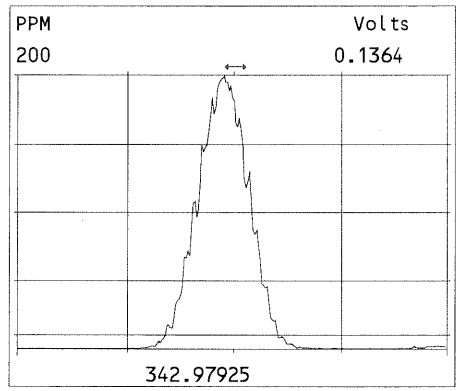


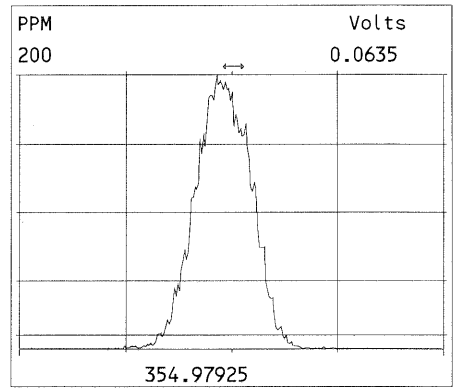


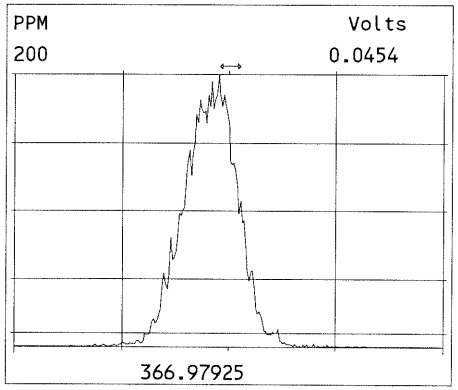
Peak Locate Examination: 9-FEB-2016:06:52 File:08FEB16Z_RES_CHECK
Experiment:1668PCB Function:5 Reference:PFK

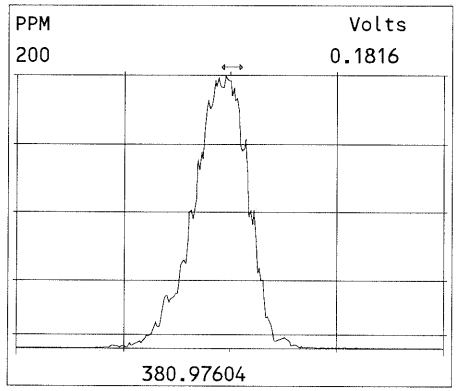


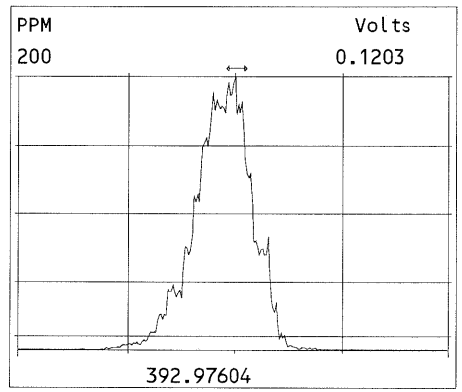


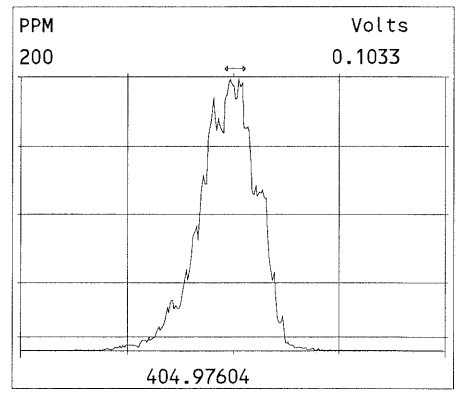


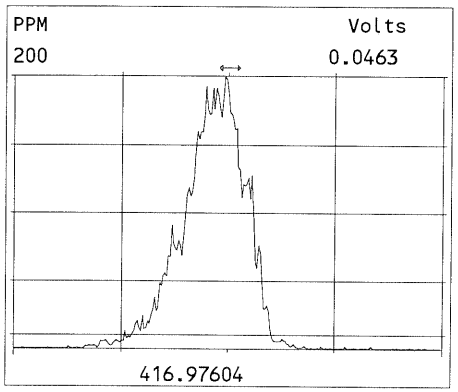


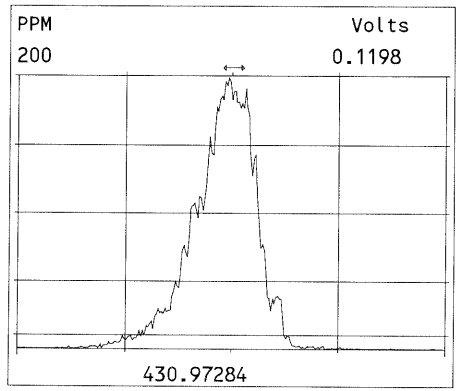


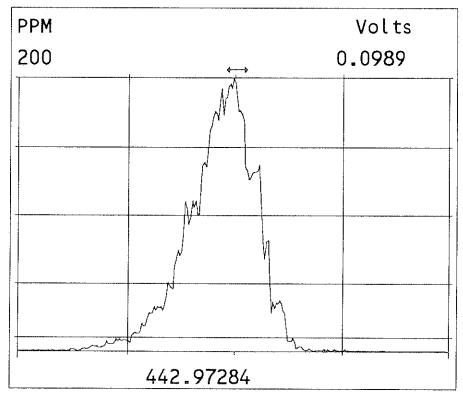




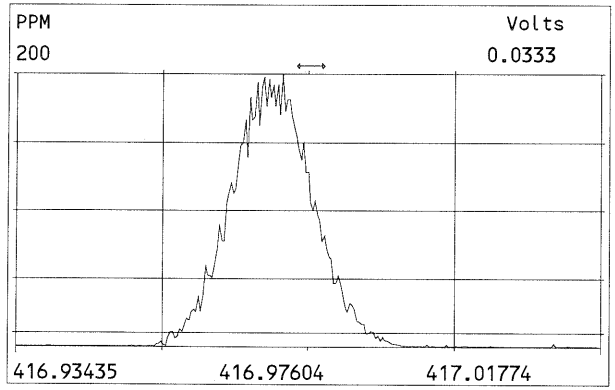


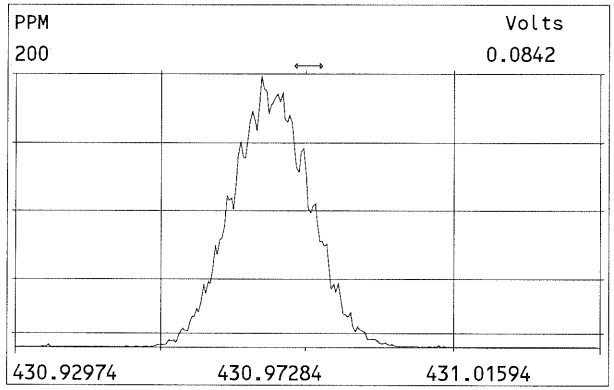


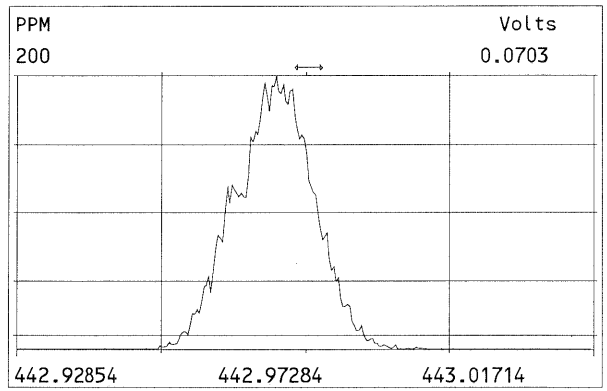


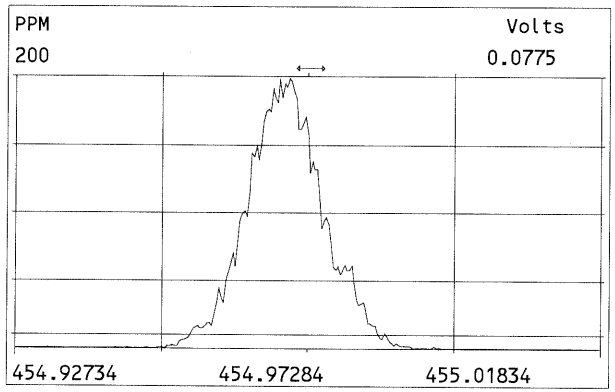


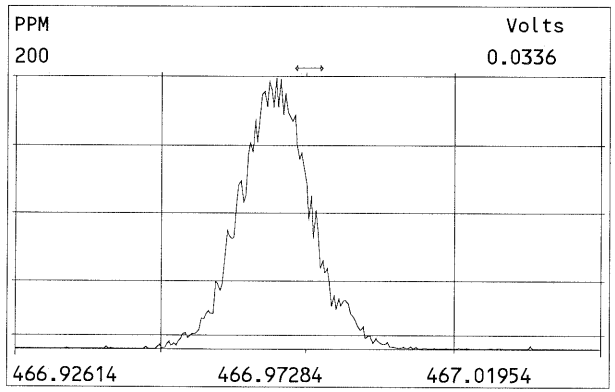
Peak Locate Examination: 9-FEB-2016:06:53 File:08FEB16Z_RES_CHECK
Experiment:1668PCB Function:6 Reference:PFK

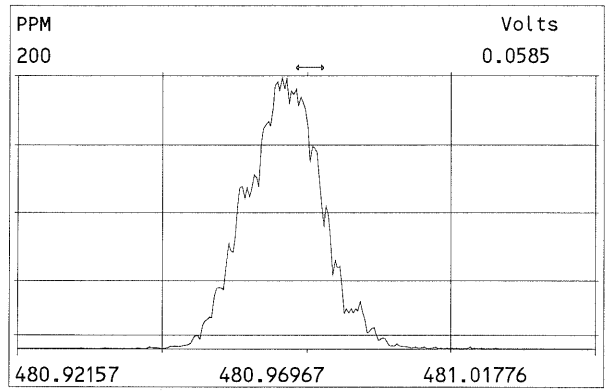


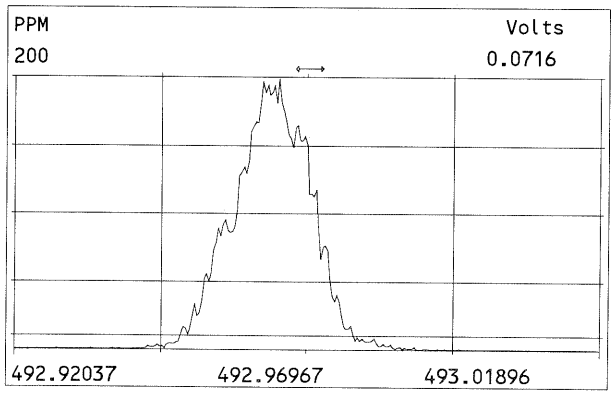


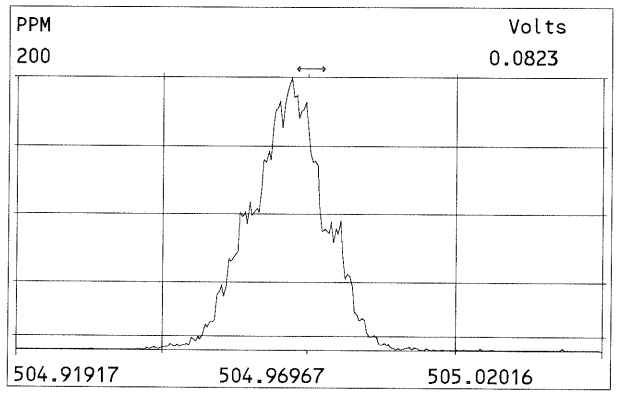


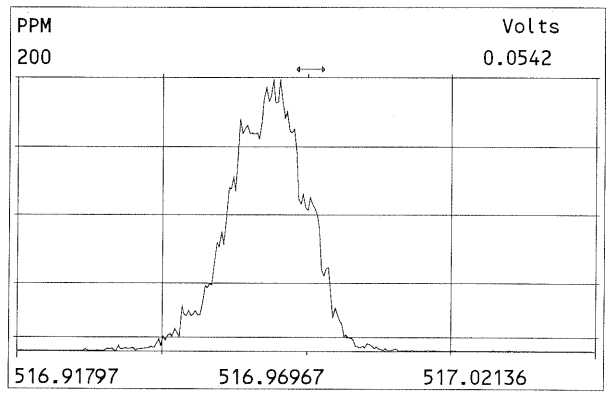












USEPA - ITD

FORM 4A
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 2/8/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 13JUL16Z Sam:1 Analysis Date: 13-JUL-16 10:16:51

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
PCB-1	M/M+2	3.13	2.66-3.60	y	50.0	37.5 - 62.5
PCB-3	M/M+2	3.03	2.66-3.60	y	49.3	37.5 - 62.5
PCB-4	M/M+2	1.52	1.33-1.79	y	47.5	37.5 - 62.5
PCB-15	M/M+2	1.53	1.33-1.79	y	47.4	37.5 - 62.5
PCB-19	M/M+2	1.04	0.88-1.20	y	56.3	37.5 - 62.5
PCB-37	M/M+2	1.08	0.88-1.20	y	47.9	37.5 - 62.5
PCB-54	M/M+2	0.79	0.65-0.89	y	51.2	37.5 - 62.5
PCB-77	M/M+2	0.76	0.65-0.89	y	44.2	37.5 - 62.5
PCB-81	M/M+2	0.77	0.65-0.89	y	47.0	37.5 - 62.5
PCB-104	M+2/M+4	1.59	1.32-1.78	y	50.0	37.5 - 62.5
PCB-105	M+2/M+4	1.51	1.32-1.78	y	45.3	37.5 - 62.5
PCB-114	M+2/M+4	1.50	1.32-1.78	y	46.2	37.5 - 62.5
PCB-118	M+2/M+4	1.53	1.32-1.78	y	45.1	37.5 - 62.5
PCB-123	M+2/M+4	1.48	1.32-1.78	y	44.7	37.5 - 62.5
PCB-126	M+2/M+4	1.52	1.32-1.78	y	45.0	37.5 - 62.5
PCB-155	M+2/M+4	1.28	1.05-1.43	y	50.6	37.5 - 62.5
PCB-156	M+2/M+4	1.25	1.05-1.43	y	47.9	37.5 - 62.5
PCB-157	M+2/M+4	1.24	1.05-1.43	y	50.7	37.5 - 62.5
PCB-167	M+2/M+4	1.25	1.05-1.43	y	49.7	37.5 - 62.5
PCB-169	M+2/M+4	1.24	1.05-1.43	y	49.3	37.5 - 62.5
PCB-188	M+2/M+4	1.06	0.89-1.21	y	46.5	37.5 - 62.5
PCB-189	M+2/M+4	1.07	0.89-1.21	y	46.6	37.5 - 62.5
PCB-202	M+2/M+4	0.88	0.76-1.02	y	49.1	37.5 - 62.5
PCB-205	M+2/M+4	0.86	0.76-1.02	y	45.2	37.5 - 62.5
PCB-206	M+4/M+6	1.36	1.13-1.53	y	46.9	37.5 - 62.5
PCB-208	M+4/M+6	1.33	1.13-1.53	y	48.6	37.5 - 62.5
PCB-209	M+4/M+6	1.18	0.99-1.33	y	50.4	37.5 - 62.5

Analyst: [signature] Date: 7/14/16

USEPA - ITD

FORM 4B
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 2/8/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 13JUL16Z Sam:1 Analysis Date: 13-JUL-16 10:16:51

	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
LABELED COMPOUNDS						
13C-PCB-1	M/M+2	3.07	2.66-3.60	y	90.5	50.0 - 145
13C-PCB-3	M/M+2	3.12	2.66-3.60	y	90.9	50.0 - 145
13C-PCB-4	M/M+2	1.59	1.33-1.79	y	100	50.0 - 145
13C-PCB-15	M/M+2	1.59	1.33-1.79	y	93.3	50.0 - 145
13C-PCB-19	M/M+2	1.06	0.88-1.20	y	86.0	50.0 - 145
13C-PCB-37	M/M+2	1.07	0.88-1.20	y	102	50.0 - 145
13C-PCB-54	M/M+2	0.80	0.65-0.89	y	99.1	50.0 - 145
13C-PCB-77	M/M+2	0.79	0.65-0.89	y	104	50.0 - 145
13C-PCB-81	M/M+2	0.79	0.65-0.89	y	99.1	50.0 - 145
13C-PCB-104	M+2/M+4	1.60	1.32-1.78	y	83.1	50.0 - 145
13C-PCB-105	M+2/M+4	1.60	1.32-1.78	y	97.8	50.0 - 145
13C-PCB-114	M+2/M+4	1.58	1.32-1.78	y	97.2	50.0 - 145
13C-PCB-118	M+2/M+4	1.57	1.32-1.78	y	93.2	50.0 - 145
13C-PCB-123	M+2/M+4	1.53	1.32-1.78	y	92.4	50.0 - 145
13C-PCB-126	M+2/M+4	1.59	1.32-1.78	y	96.9	50.0 - 145
13C-PCB-155	M+2/M+4	1.28	1.05-1.43	y	84.3	50.0 - 145
13C-PCB-156	M+2/M+4	1.25	1.05-1.43	y	104	50.0 - 145
13C-PCB-157	M+2/M+4	1.26	1.05-1.43	y	100.0	50.0 - 145
13C-PCB-167	M+2/M+4	1.26	1.05-1.43	y	102	50.0 - 145
13C-PCB-169	M+2/M+4	1.24	1.05-1.43	y	116	50.0 - 145
13C-PCB-188	M+2/M+4	1.08	0.89-1.21	y	96.4	50.0 - 145
13C-PCB-189	M+2/M+4	1.05	0.89-1.21	y	111	50.0 - 145
13C-PCB-202	M+2/M+4	0.92	0.76-1.02	y	81.2	50.0 - 145
13C-PCB-205	M+2/M+4	0.91	0.76-1.02	y	93.5	50.0 - 145
13C-PCB-206	M+2/M+4	0.77	0.65-0.89	y	96.8	50.0 - 145
13C-PCB-208	M+2/M+4	0.78	0.65-0.89	y	89.8	50.0 - 145
13C-PCB-209	M+4/M+6	1.20	0.99-1.33	y	79.7	50.0 - 145
CLEANUP STANDARDS						
13C-PCB-28	M/M+2	1.11	0.88-1.20	y	110	65.0 - 135
13C-PCB-111	M+2/M+4	1.60	1.32-1.78	y	104	75.0 - 125
13C-PCB-178	M+2/M+4	1.06	0.89-1.21	y	105	75.0 - 125

Analyst: [signature] Date: 7/15/16

FAL ID: ST071316Z1 Filename: 13JUL16Z Sam:1 Acquired: 13-JUL-16 10:16:51 ICal: 1668FAL4-2-8-16
Client ID: 1668 CS3 R150603A ConCal: ST071316Z1 EndCal: ST071316Z2
Results: GC Column: DB1 Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL	Rec
PCB-1	3.61e+07	3.13 y	14:21	0.97	50.0		2.50	-	-	*	-
13C-PCB-1	7.41e+07	3.07 y	14:20	1.34	90.5		2.50				90.5
PCB-3	3.41e+07	3.03 y	16:48	0.99	49.3		2.50	-	-	*	-
13C-PCB-3	6.97e+07	3.12 y	16:47	1.26	90.9		2.50				90.9
PCB-4	2.09e+07	1.52 y	18:01	1.08	47.5		2.50	-	-	*	-
13C-PCB-4	4.06e+07	1.59 y	17:60	0.66	100		2.50				100
PCB-15	2.85e+07	1.53 y	23:34	1.06	47.4		2.50	-	-	*	-
13C-PCB-15	5.67e+07	1.59 y	23:33	1.00	93.3		2.50				93.3
PCB-19	2.25e+07	1.04 y	21:54	1.00	56.3		2.50	-	-	*	-
13C-PCB-19	3.99e+07	1.06 y	21:52	0.76	86.0		2.50				86.0
13C-PCB-9	6.10e+07	1.57 y	19:40	-	36.3		2.50				
PCB-37	2.39e+07	1.08 y	30:13	1.12	47.9		2.50	-	-	*	-
13C-PCB-37	4.45e+07	1.07 y	30:11	1.08	102		2.50				102
PCB-54	2.44e+07	0.79 y	25:26	0.97	51.2		2.50	-	-	*	-
13C-PCB-54	4.92e+07	0.80 y	25:24	1.23	99.1		2.50				99.1
PCB-104	2.01e+07	1.59 y	29:51	1.10	50.0		2.50	-	-	*	-
13C-PCB-104	3.66e+07	1.60 y	29:50	1.09	83.1		2.50				83.1
13C-PCB-28	5.06e+07	1.11 y	26:30	1.14	110		2.50				110
13C-PCB-52	4.03e+07	0.79 y	28:46	-	37.3		2.50				
PCB-81	1.91e+07	0.77 y	35:59	1.15	47.0		2.50	-	-	*	-
13C-PCB-81	3.53e+07	0.79 y	35:58	1.01	99.1		2.50				99.1
PCB-77	1.86e+07	0.76 y	36:33	1.13	44.2		2.50	-	-	*	-
13C-PCB-77	3.73e+07	0.79 y	36:32	1.02	104		2.50				104
PCB-155	2.10e+07	1.28 y	34:00	1.09	50.6		2.50	-	-	*	-
13C-PCB-155	3.81e+07	1.28 y	33:59	1.29	84.3		2.50				84.3
13C-PCB-111	4.44e+07	1.60 y	36:05	1.22	104		2.50				104
13C-PCB-101	3.51e+07	1.60 y	34:27	-	38.3		2.50				
PCB-123	1.44e+07	1.48 y	38:08	1.07	44.7		2.50	-	-	*	-
13C-PCB-123	3.01e+07	1.53 y	38:08	1.07	92.4		2.50				92.4
PCB-118	1.63e+07	1.53 y	38:20	1.07	45.1		2.50	-	-	*	-
13C-PCB-118	3.37e+07	1.57 y	38:18	1.19	93.2		2.50				93.2
PCB-114	1.60e+07	1.50 y	38:56	1.06	46.2		2.50	-	-	*	-
13C-PCB-114	3.28e+07	1.58 y	38:54	1.11	97.2		2.50				97.2
PCB-105	1.60e+07	1.51 y	39:45	1.07	45.3		2.50	-	-	*	-
13C-PCB-105	3.32e+07	1.60 y	39:44	1.11	97.8		2.50				97.8
PCB-126	1.46e+07	1.52 y	41:54	1.08	45.0		2.50	-	-	*	-
13C-PCB-126	3.01e+07	1.59 y	41:52	1.02	96.9		2.50				96.9
PCB-167	1.82e+07	1.25 y	43:14	0.97	49.7		2.50	-	-	*	-
13C-PCB-167	3.79e+07	1.26 y	43:13	1.21	102		2.50				102
PCB-156	1.73e+07	1.25 y	44:28	1.01	47.9		2.50	-	-	*	-
13C-PCB-156	3.56e+07	1.25 y	44:27	1.12	104		2.50				104
PCB-157	1.75e+07	1.24 y	44:43	0.94	50.7		2.50	-	-	*	-
13C-PCB-157	3.65e+07	1.26 y	44:42	1.20	100.0		2.50				100.0
PCB-169	1.66e+07	1.24 y	46:37	0.97	49.3		2.50	-	-	*	-
13C-PCB-169	3.46e+07	1.24 y	46:37	0.98	116		2.50				116
PCB-188	2.16e+07	1.06 y	39:31	1.13	46.5		2.50	-	-	*	-
13C-PCB-188	4.13e+07	1.08 y	39:29	1.41	96.4		2.50				96.4
PCB-189	1.66e+07	1.07 y	48:17	1.17	46.6		2.50	-	-	*	-
13C-PCB-189	3.03e+07	1.05 y	48:16	0.89	111		2.50				111
PCB-202	1.43e+07	0.88 y	44:37	1.12	49.1		2.50	-	-	*	-
13C-PCB-202	2.62e+07	0.92 y	44:37	1.06	81.2		2.50				81.2
13C-PCB-178	2.65e+07	1.06 y	42:07	0.83	105		2.50				105
13C-PCB-138	3.04e+07	1.27 y	41:21	-	40.8		2.50				

FAL ID: ST071316Z1 Filename: 13JUL16Z Sam:1 Acquired: 13-JUL-16 10:16:51 ICal: 1668FAL4-2-8-16
Client ID: 1668 CS3 R150603A ConCal: ST071316Z1 EndCal: ST071316Z2
Results: GC Column: DB1 Amount: 1.000

PCB-205	1.32e+07	0.86 y	49:56	1.13	45.2	2.50	-	-	*	-
13C-PCB-205	2.57e+07	0.91 y	49:56	1.47	93.5	2.50				93.5
PCB-208	1.49e+07	1.33 y	49:00	0.91	48.6	2.50	-	-	*	-
13C-PCB-208	3.37e+07	0.78 y	48:59	2.00	89.8	2.50				89.8
PCB-206	1.14e+07	1.36 y	51:06	0.96	46.9	2.50	-	-	*	-
13C-PCB-206	2.54e+07	0.77 y	51:06	1.40	96.8	2.50				96.8
PCB-209	1.79e+07	1.18 y	52:17	1.13	50.4	2.50	-	-	*	-
13C-PCB-209	3.15e+07	1.20 y	52:16	2.10	79.7	2.50				79.7
13C-PCB-194	1.88e+07	0.94 y	49:40	-	60.3	2.50				

Analyst: [signature] Date: 7/15/16

Frontier Analytical Laboratory - Acquisition Log

Run Name:13JUL16Z Instrument: FAL4 GC: DB1 Experiment:1668PCB

Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
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13JUL16Z	2	SS071316Z1	Daily 209 151201A	13-JUL-16 11:16:43	ST071316Z1	ST071316Z2	BS
13JUL16Z	3	QC071316Z1	New QC	13-JUL-16 12:16:40	ST071316Z1	ST071316Z2	BS
13JUL16Z	4	QC071316Z2	New QC2	13-JUL-16 13:16:38	ST071316Z1	ST071316Z2	BS
13JUL16Z	5	03765-001-0001-OPR	OPR	13-JUL-16 14:16:37	ST071316Z1	ST071316Z2	BS
13JUL16Z	6	03765-001-0001-MB	Method Blank	13-JUL-16 15:16:37	ST071316Z1	ST071316Z2	BS
13JUL16Z	7	09987-006-0001-SA	Hexane	13-JUL-16 16:16:35	ST071316Z1	ST071316Z2	BS
13JUL16Z	8	09987-005-0001-SA	LDW-CS-C6-S010-PW-MB	13-JUL-16 17:16:34	ST071316Z1	ST071316Z2	BS
13JUL16Z	9	09987-001-0001-SA	LDW-CS-1-S00.2-KPDMS	13-JUL-16 18:16:33	ST071316Z1	ST071316Z2	BS
13JUL16Z	10	09987-002-0001-SA	LDW-CS-2-S00.2-KPDMS	13-JUL-16 19:16:30	ST071316Z1	ST071316Z2	BS
13JUL16Z	11	09987-003-0001-SA	LDW-CS-3-S00.2-KPDMS	13-JUL-16 20:16:28	ST071316Z1	ST071316Z2	BS
13JUL16Z	12	09987-004-0001-SA	LDW-CS-C6-S010-PW-SED	13-JUL-16 21:16:24	ST071316Z1	ST071316Z2	BS
13JUL16Z	13	SB071316Z1	Solvent Blank	13-JUL-16 22:16:20	ST071316Z1	ST071316Z2	BS
13JUL16Z	14	ST071316Z2	1668 CS3 R150603A	13-JUL-16 23:16:15	ST071316Z1	ST071316Z2	BS
13JUL16Z	15	SB071316Z2	Solvent Blank	14-JUL-16 00:16:11	ST071316Z1	ST071316Z2	BS
13JUL16Z	16	QC071316Z3	QC160713A-ISQC	14-JUL-16 01:16:08	ST071316Z1	ST071316Z2	BS
13JUL16Z	17	QC071316Z4	QC160713B-CSSQC	14-JUL-16 02:16:03	ST071316Z1	ST071316Z2	BS
13JUL16Z	18	QC071316Z5	QC160713C-RSQC	14-JUL-16 03:15:58	ST071316Z1	ST071316Z2	BS
13JUL16Z	19	09987-008-0001-SA	Hexane w PCBs	14-JUL-16 04:15:53	ST071316Z1	ST071316Z2	BS
13JUL16Z	20	SB071316Z3	Solvent Blank	14-JUL-16 05:15:49	ST071316Z1	ST071316Z2	BS
13JUL16Z	21	SB071316Z4	Solvent Blank	14-JUL-16 06:15:44	ST071316Z1	ST071316Z2	BS
13JUL16Z	22	SB071316Z5	Solvent Blank	14-JUL-16 07:15:39	ST071316Z1	ST071316Z2	BS

7/14/16

Data Backed Up:_____

Date:_____

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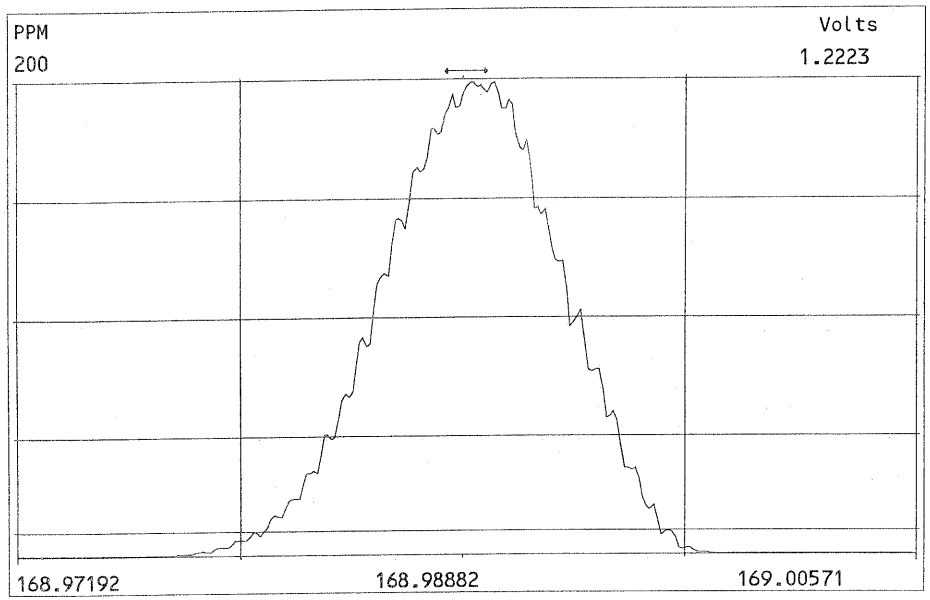
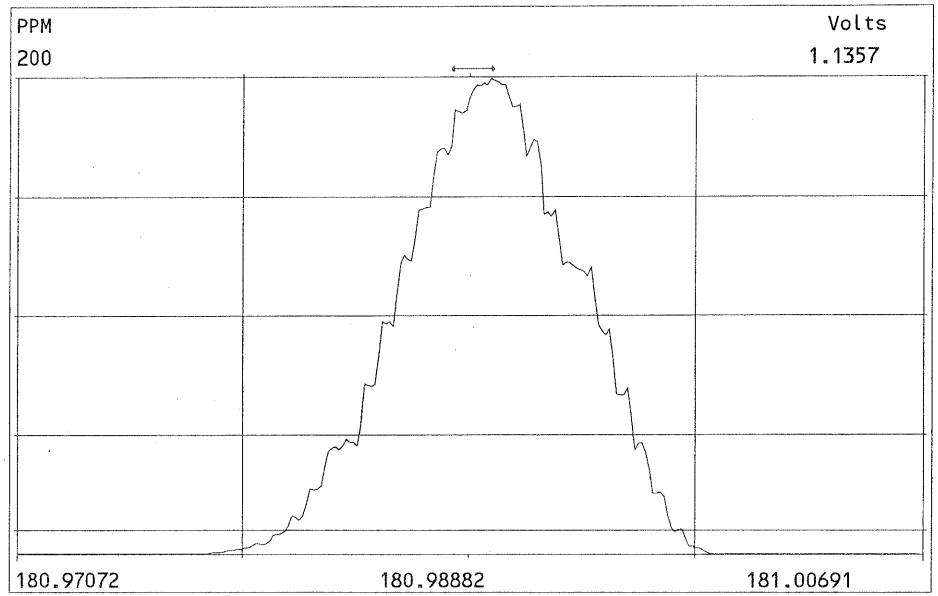
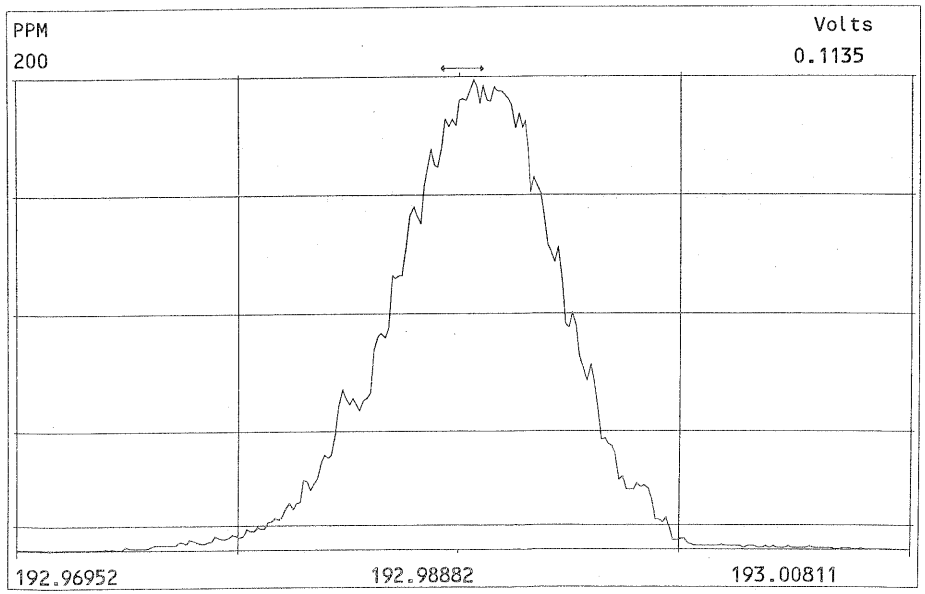
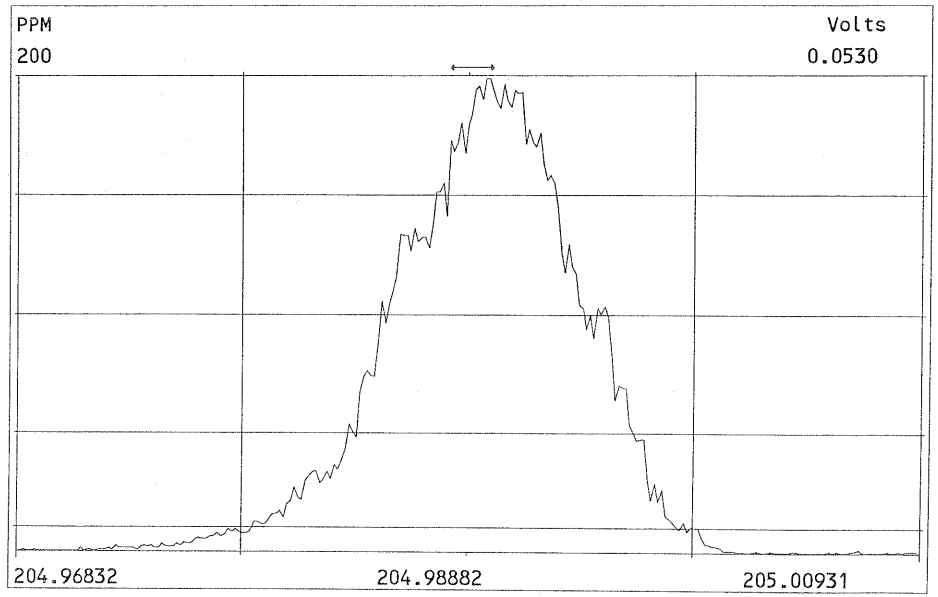
Experiment:1668PCB Function:1 Reference:PFK

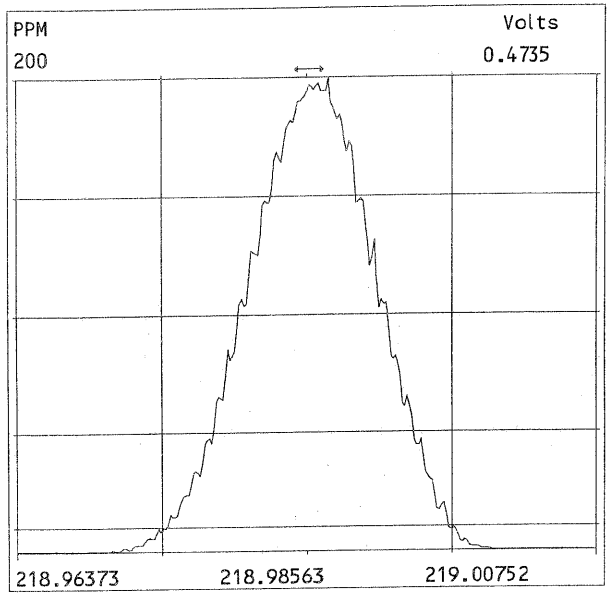


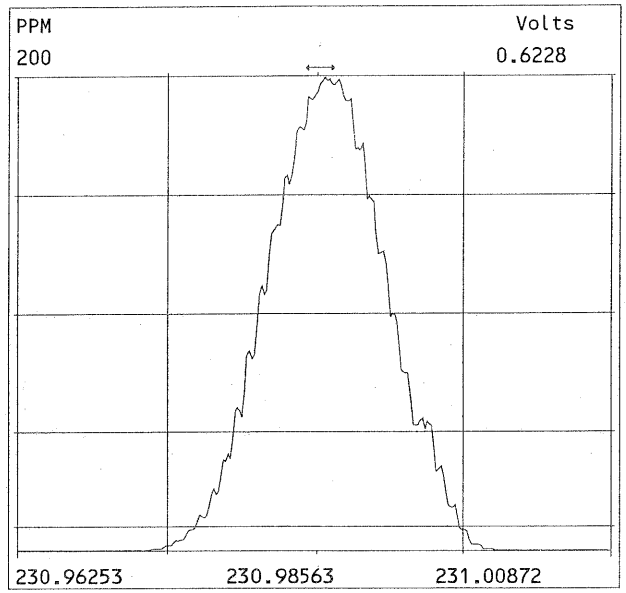


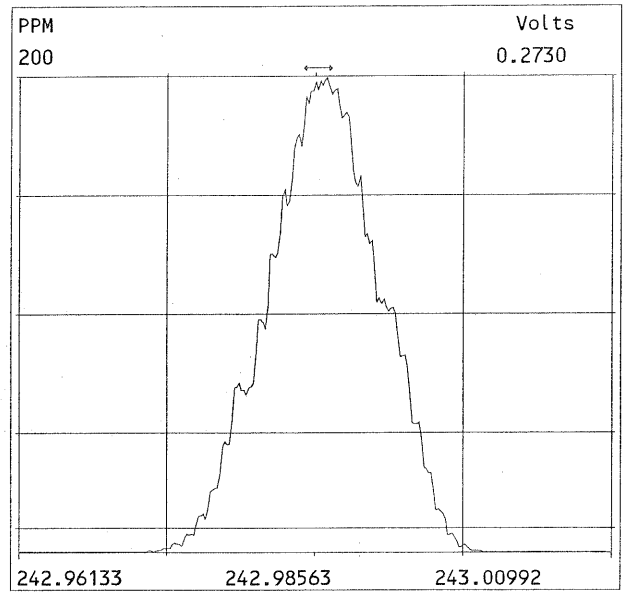


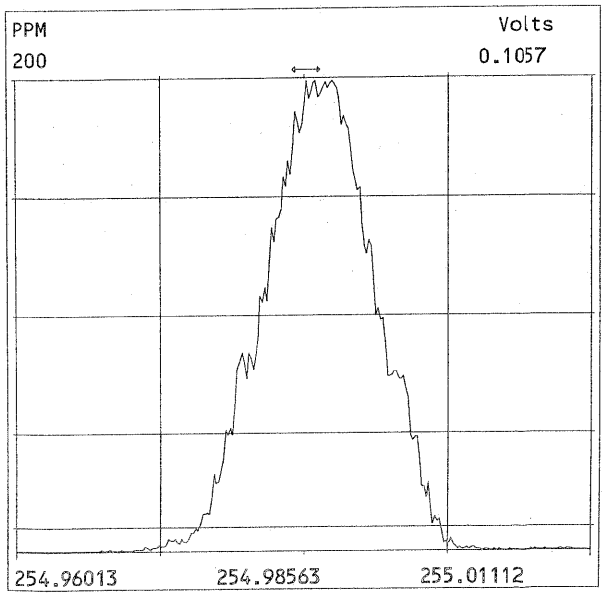


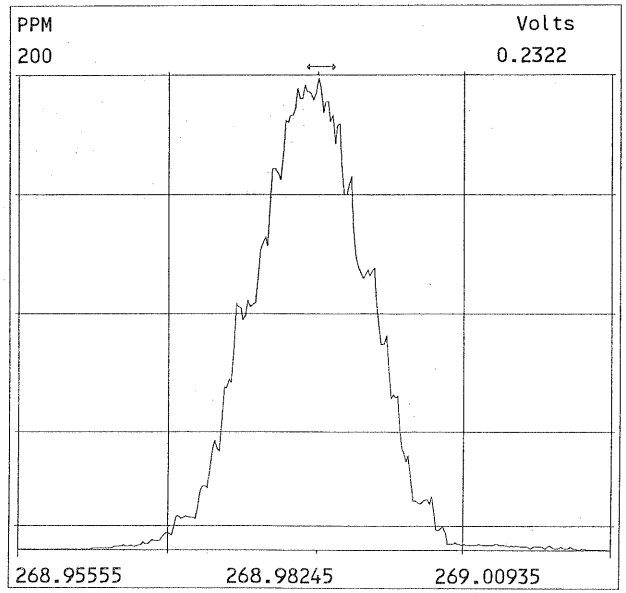
Peak Locate Examination:13-JUL-2016:10:14 File:13JUL16Z
Experiment:1668PCB Function:2 Reference:PFK

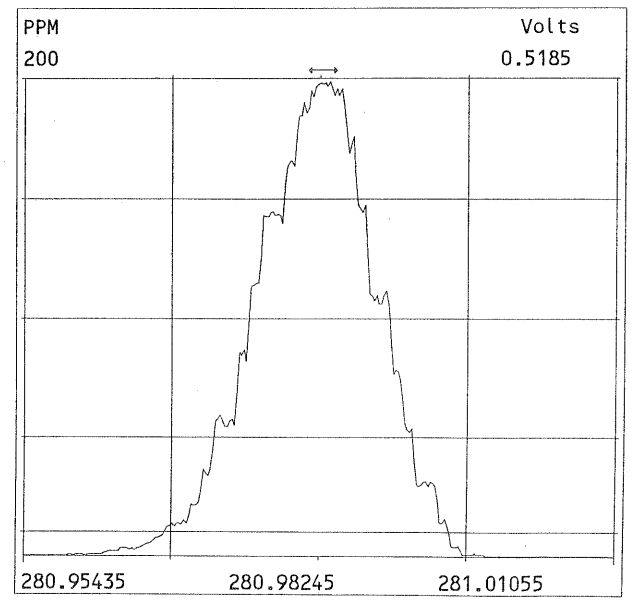




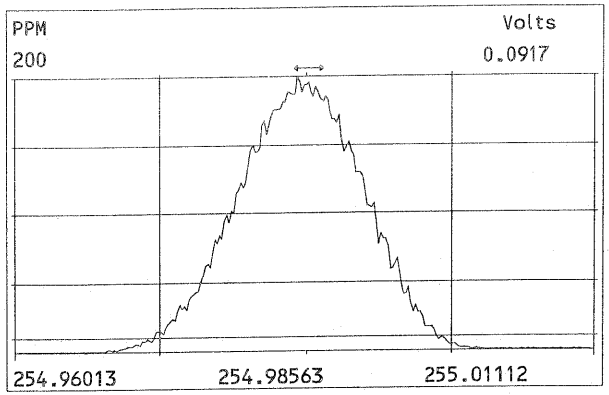


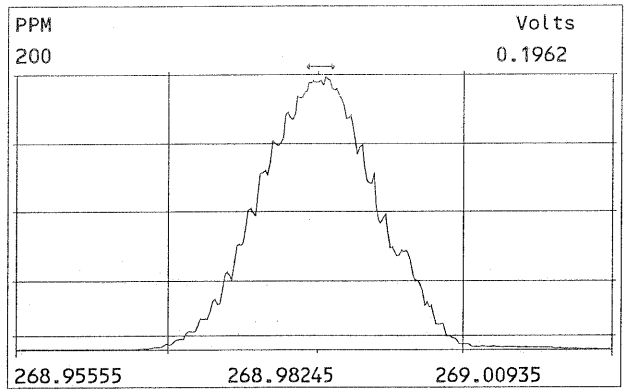


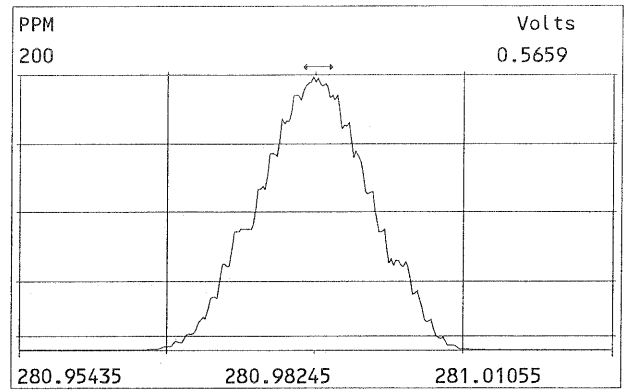


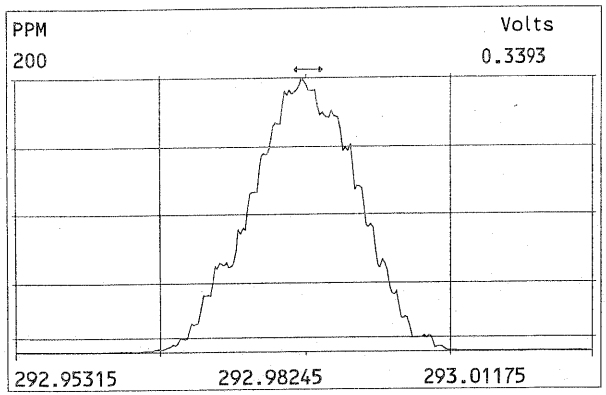


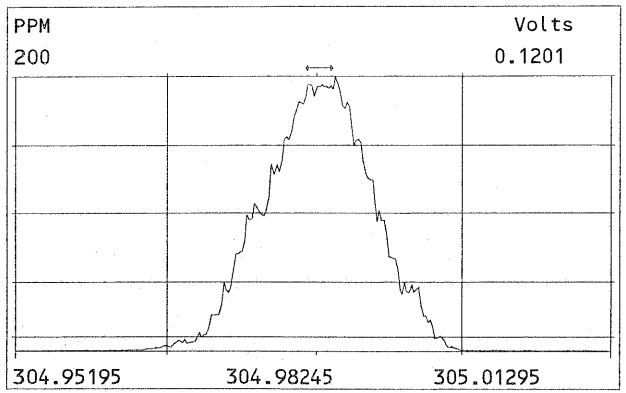
Peak Locate Examination:13-JUL-2016:10:14 File:13JUL16Z
Experiment:1668PCB Function:3 Reference:PFK

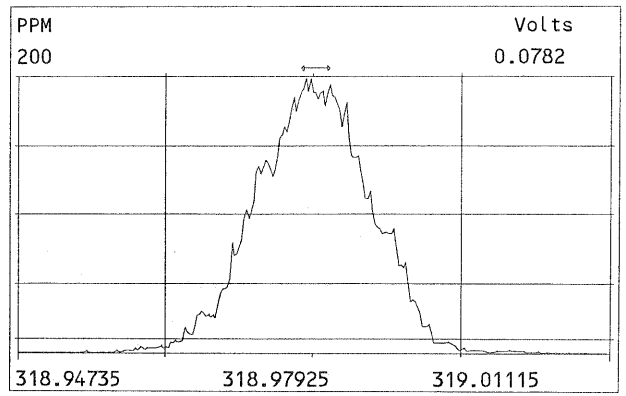


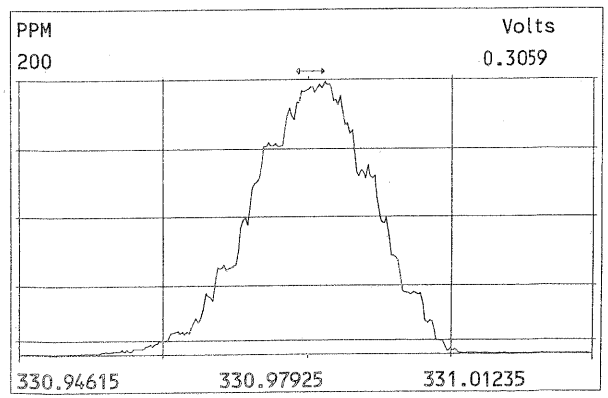


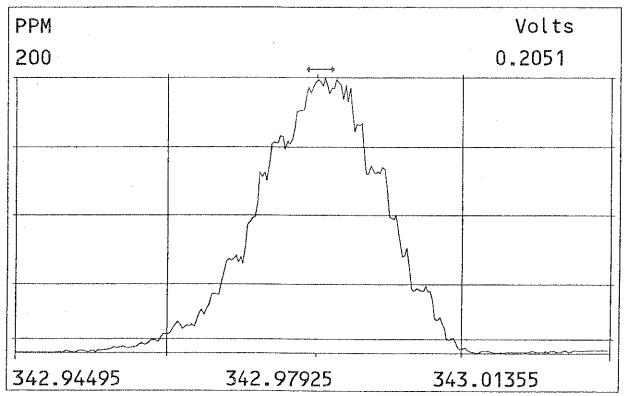




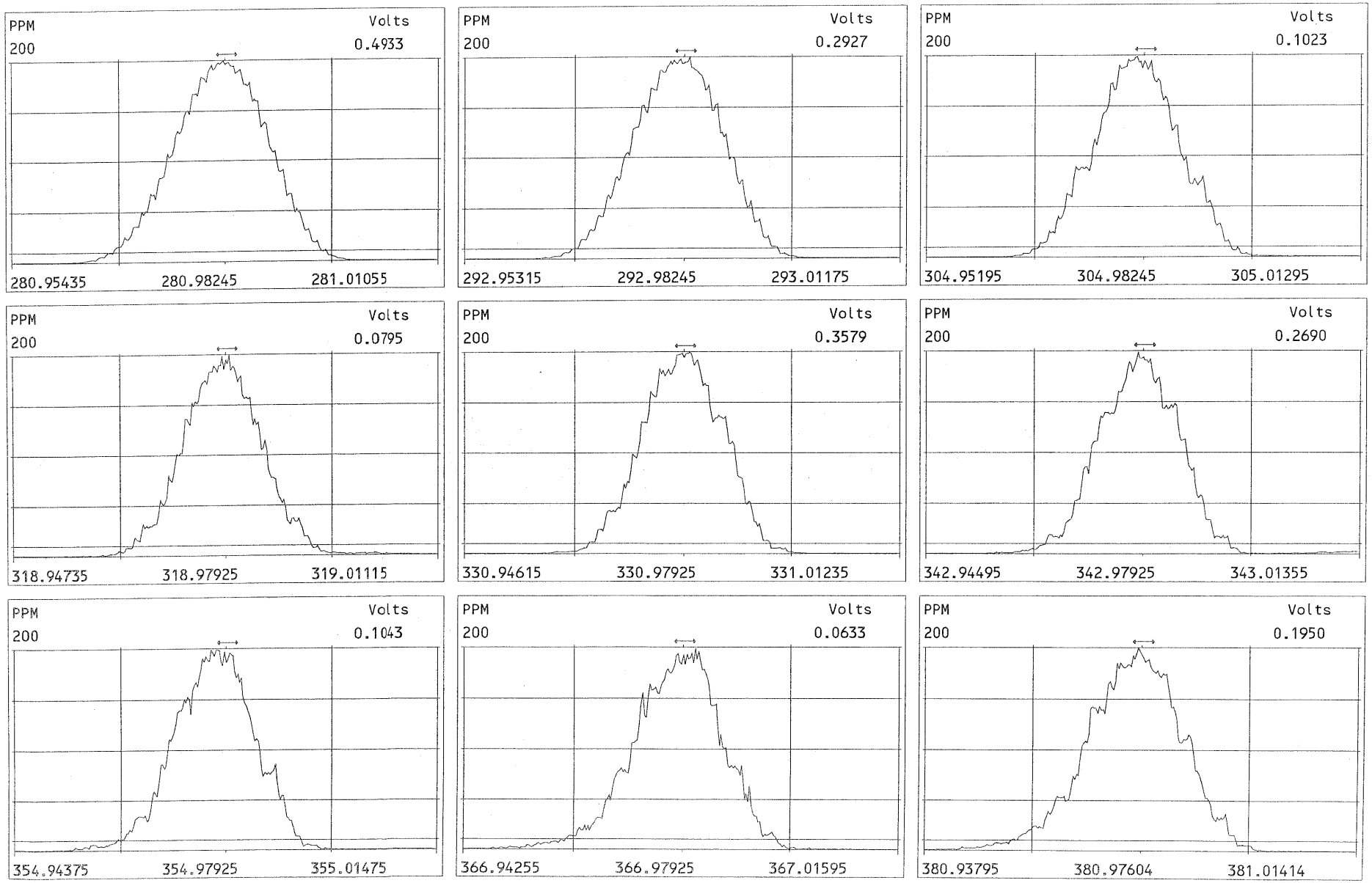




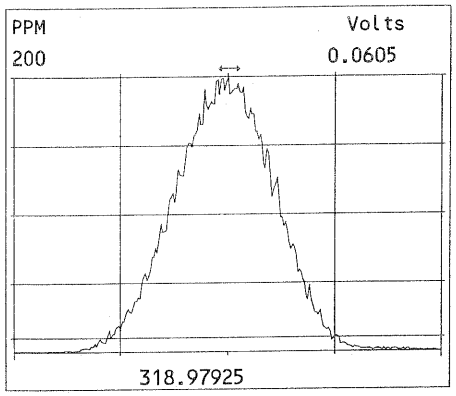


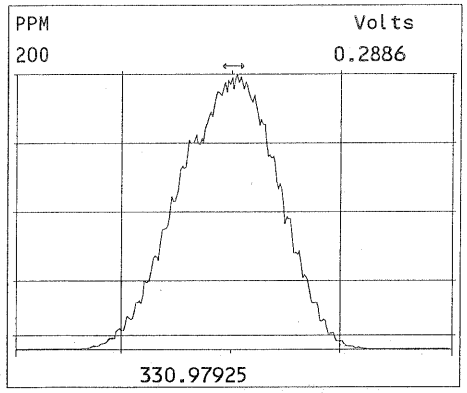


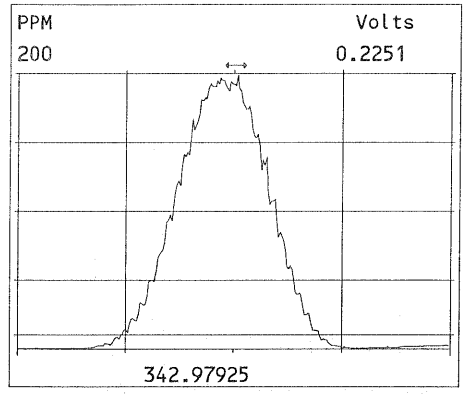
Peak Locate Examination:13-JUL-2016:10:14 File:13JUL16Z
Experiment:1668PCB Function:4 Reference:PFK

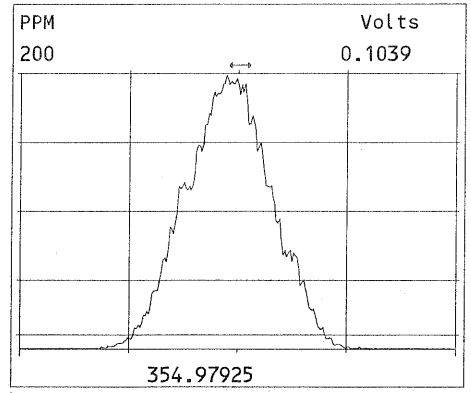


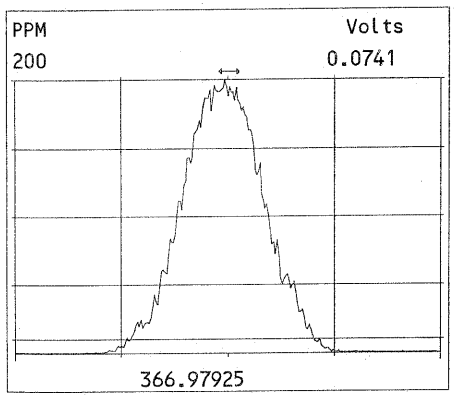
Peak Locate Examination:13-JUL-2016:10:15 File:13JUL16Z
Experiment:1668PCB Function:5 Reference:PFK

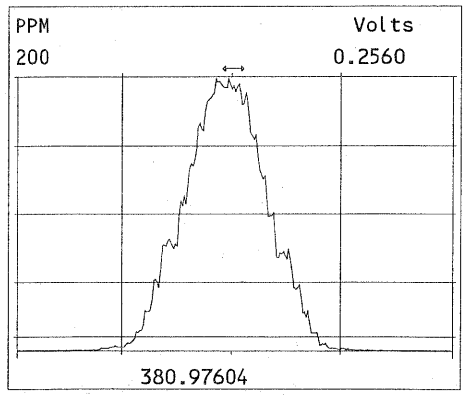


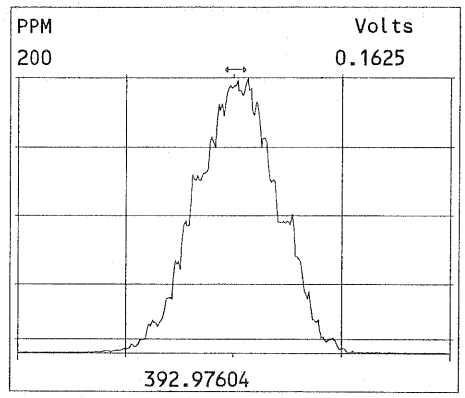


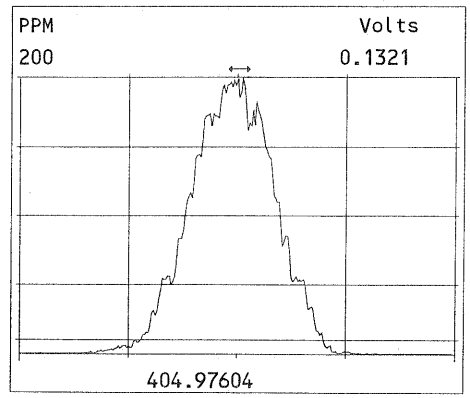


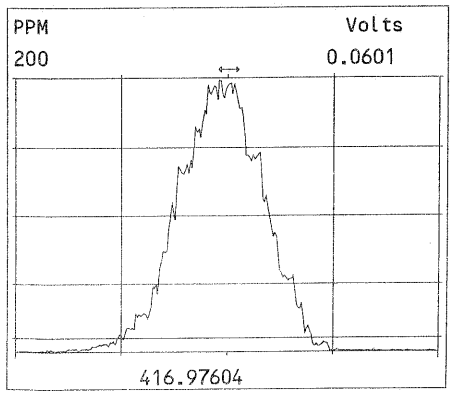


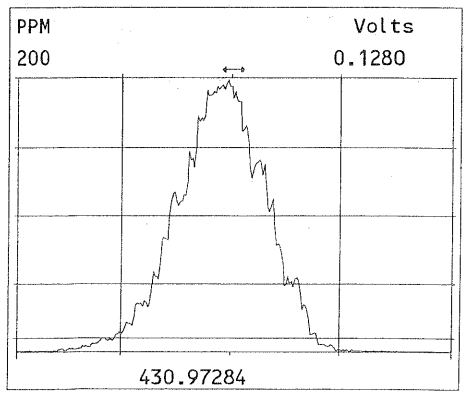


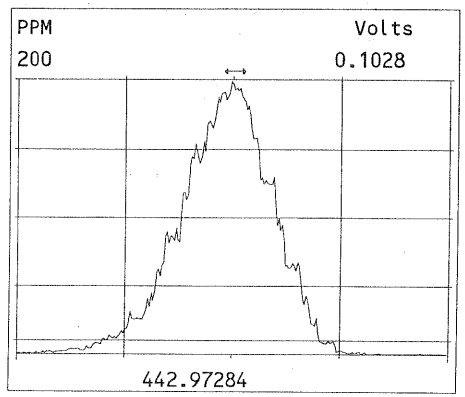




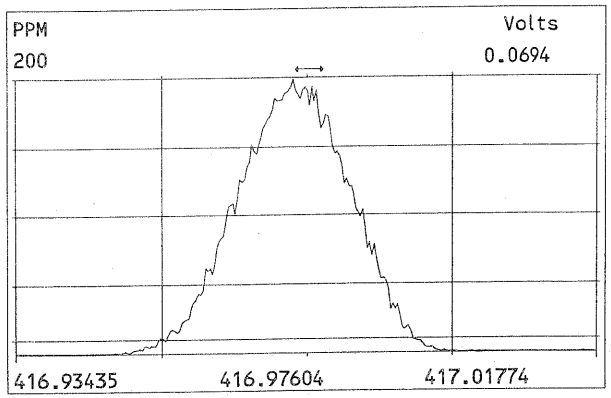


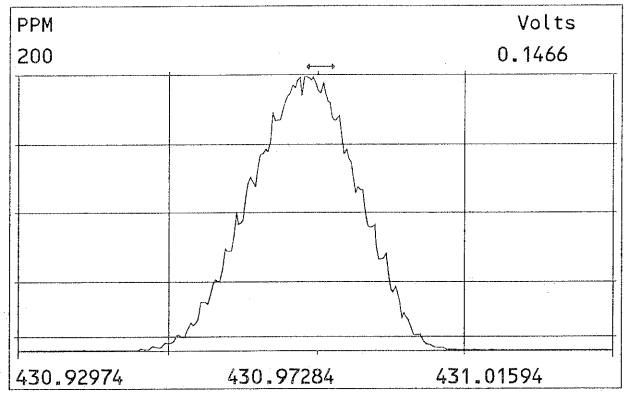


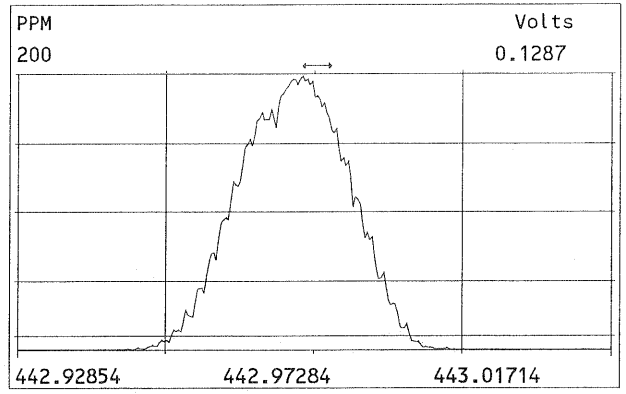


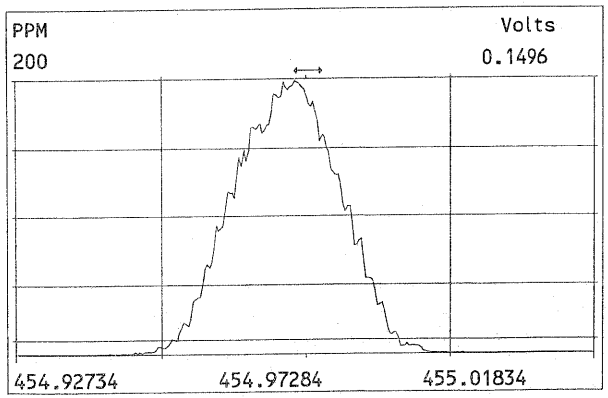


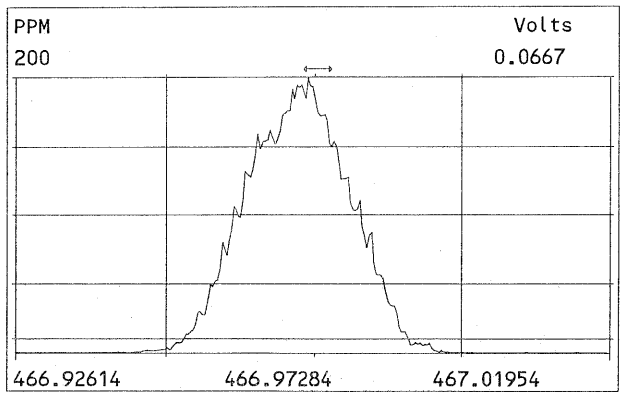
Peak Locate Examination:13-JUL-2016:10:16 File:13JUL16Z
Experiment:1668PCB Function:6 Reference:PFK

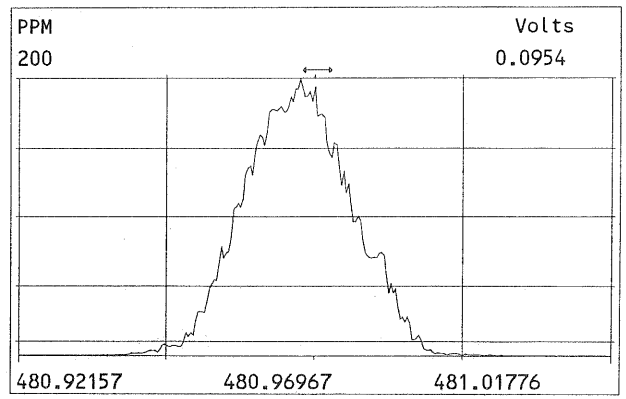


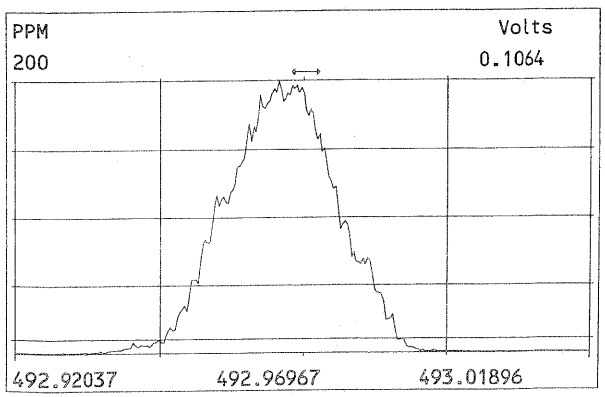


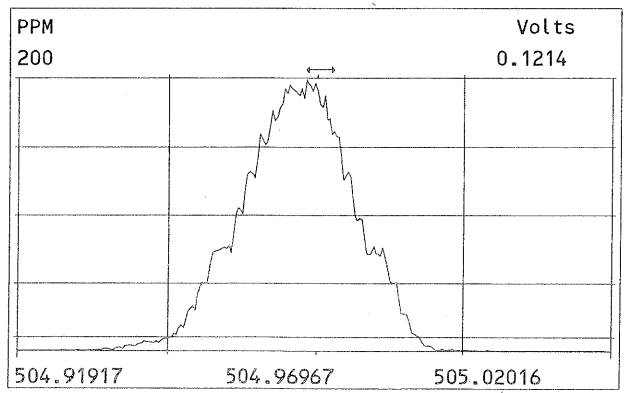


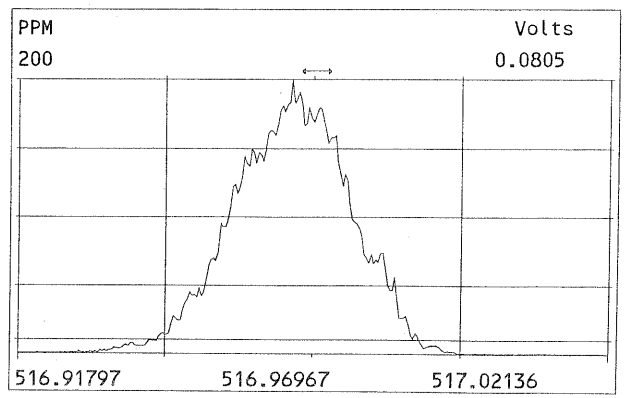




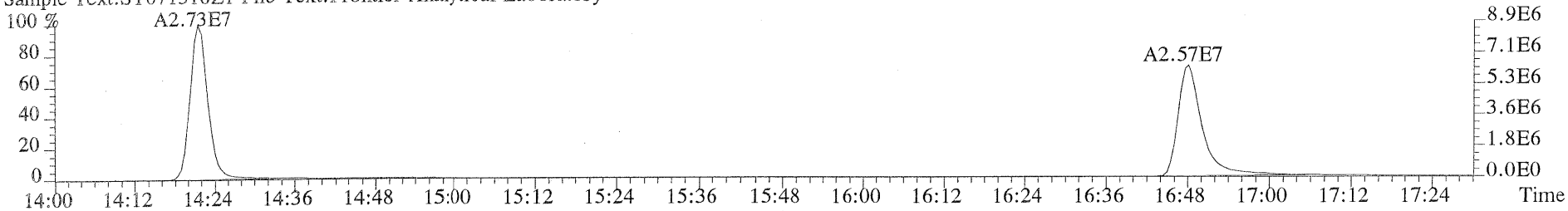




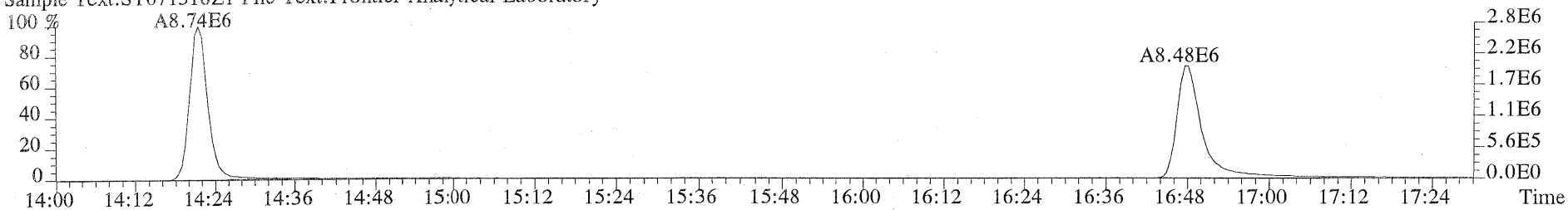




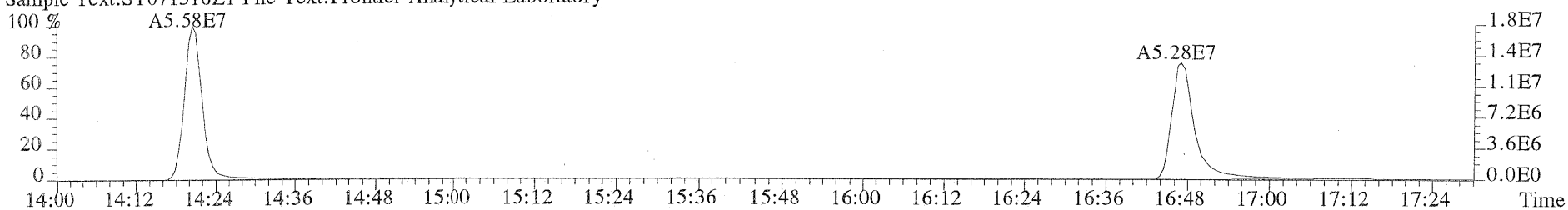
File:13JUL16Z #1-900 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
188.0393 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



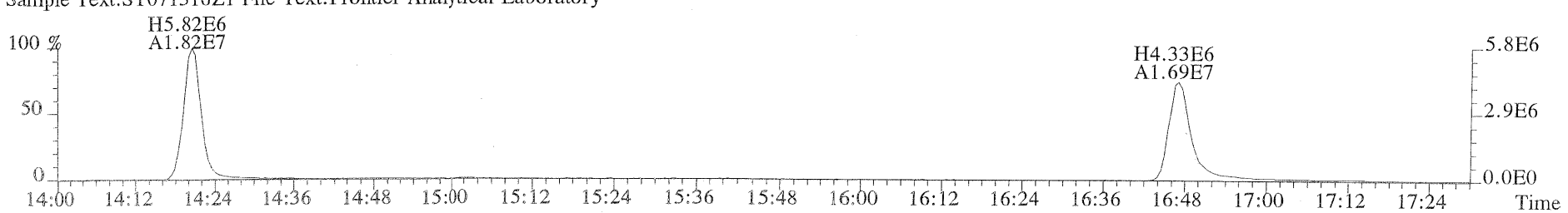
File:13JUL16Z #1-900 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
190.0363 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



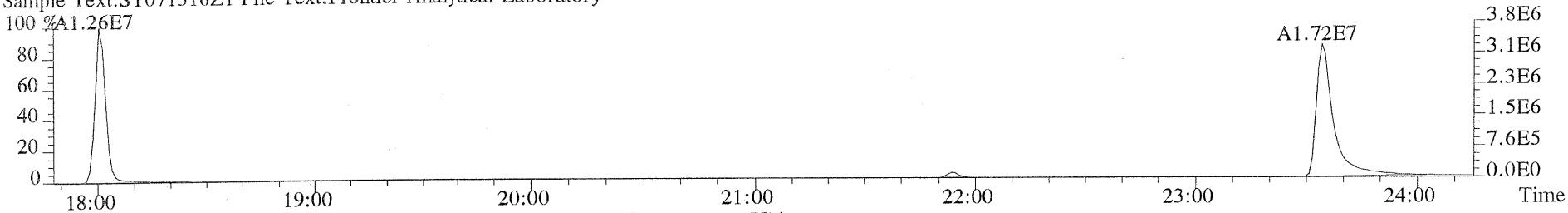
File:13JUL16Z #1-900 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
200.0795 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



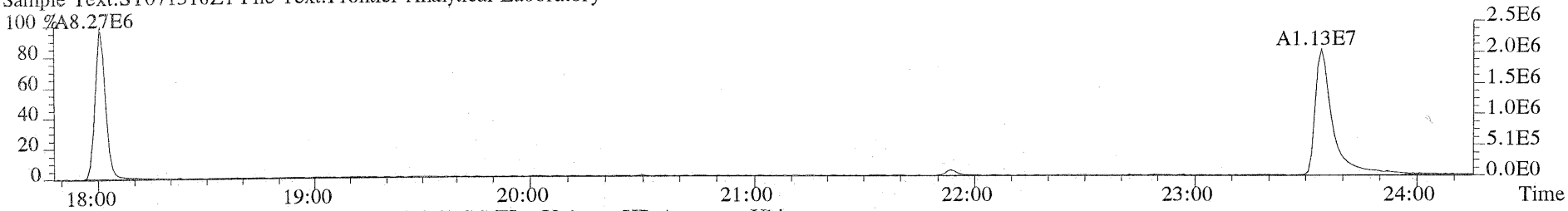
File:13JUL16Z #1-900 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
202.0766 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



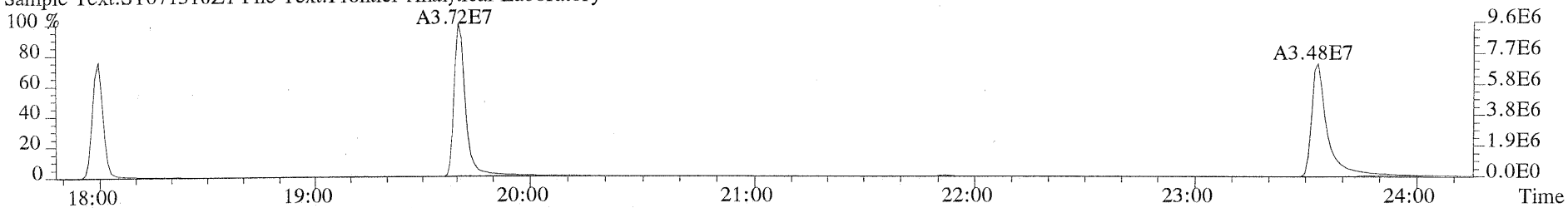
File:13JUL16Z #1-498 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
222.0003 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



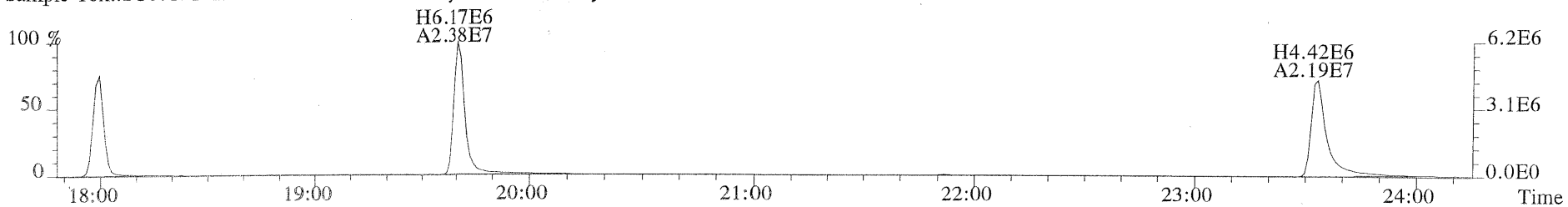
File:13JUL16Z #1-498 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
223.9974 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



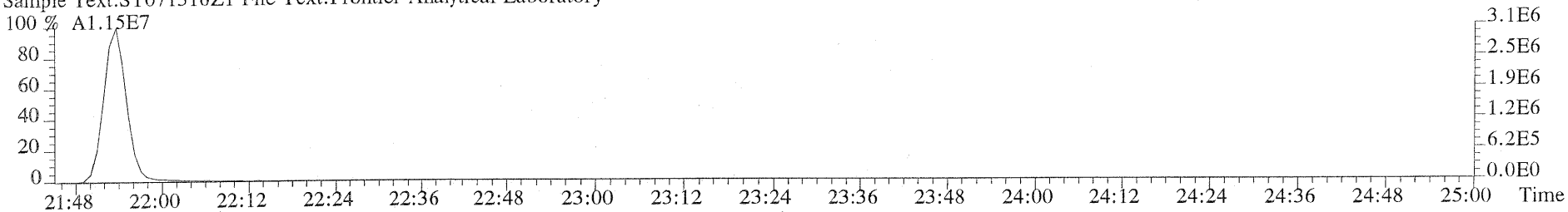
File:13JUL16Z #1-498 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
234.0406 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



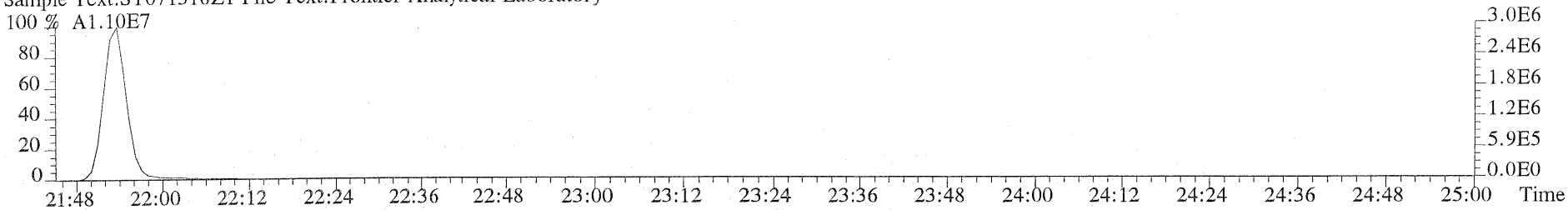
File:13JUL16Z #1-498 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
236.0376 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



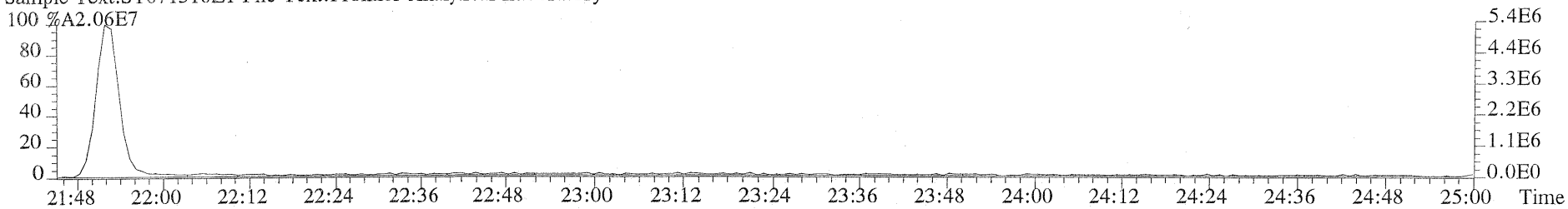
File:13JUL16Z #1-498 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
255.9613 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



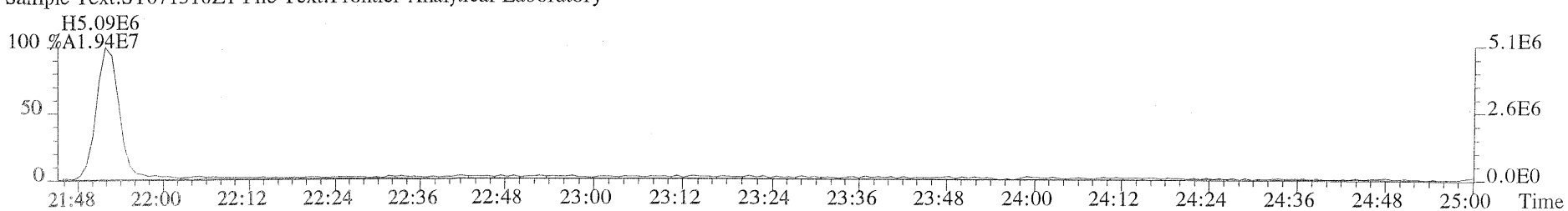
File:13JUL16Z #1-498 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
257.9584 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



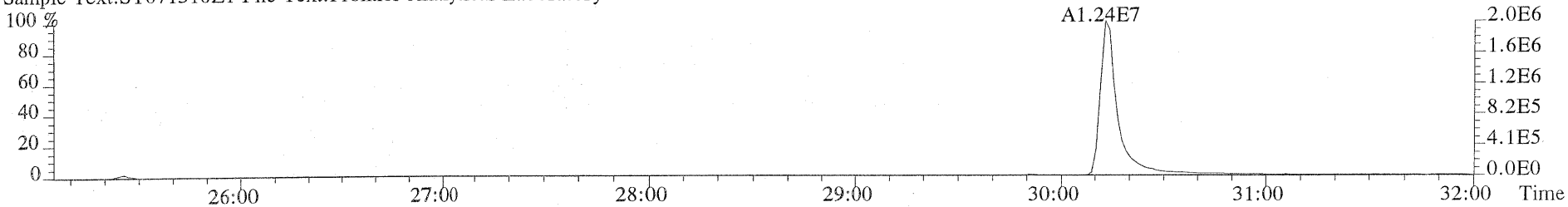
File:13JUL16Z #1-498 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
268.0016 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



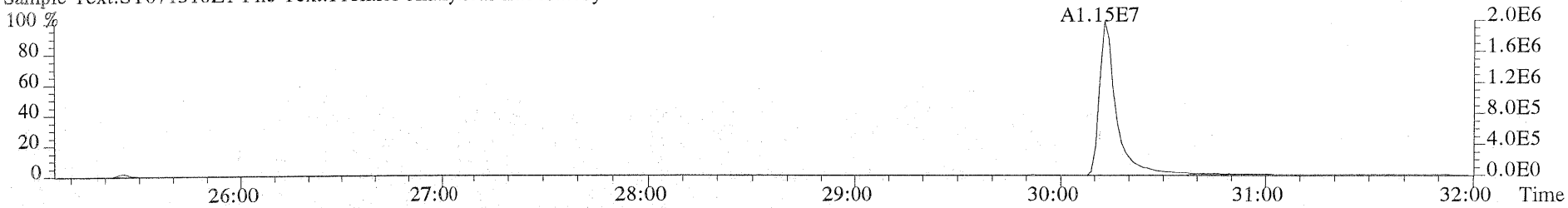
File:13JUL16Z #1-498 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
269.9986 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



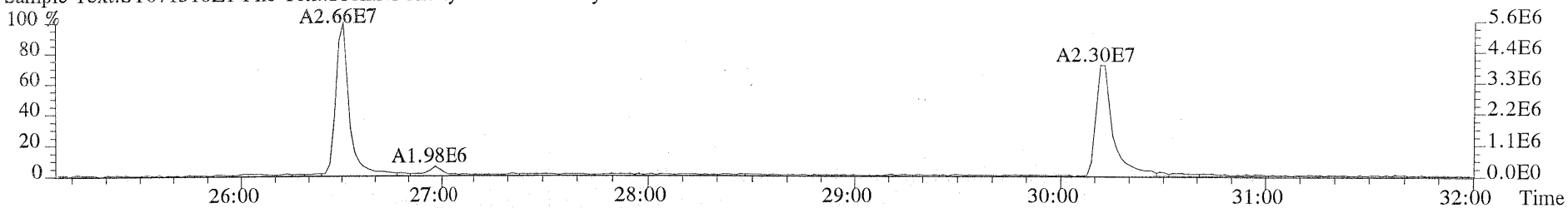
File:13JUL16Z #1-404 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
255.9613 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



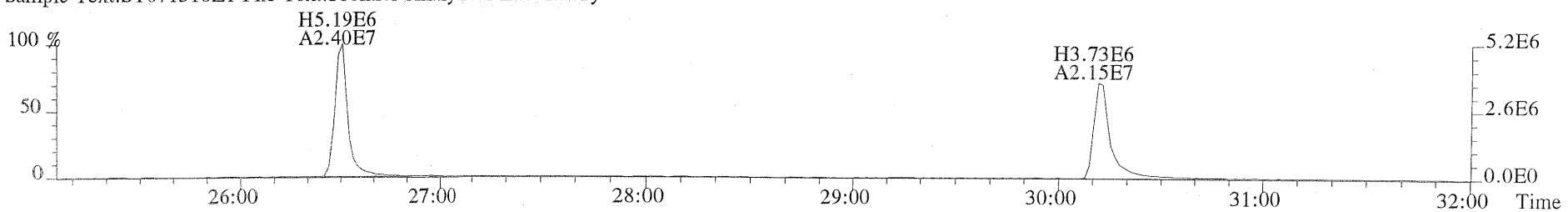
File:13JUL16Z #1-404 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
257.9584 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



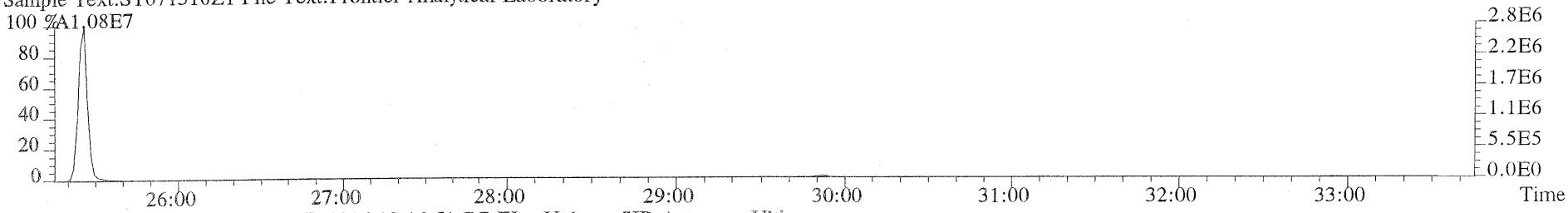
File:13JUL16Z #1-404 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
268.0016 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



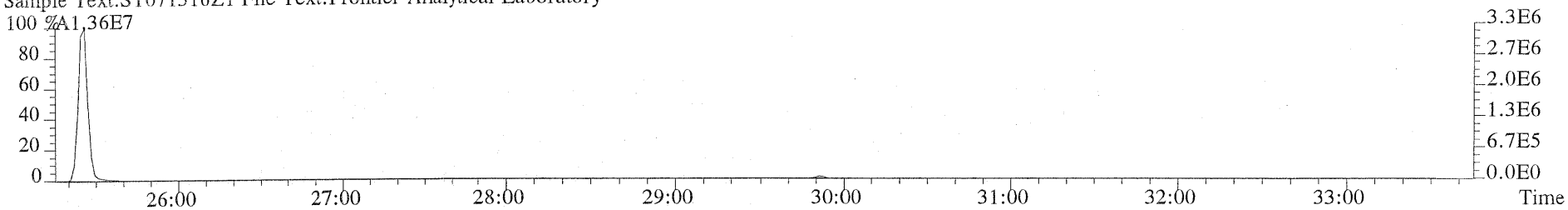
File:13JUL16Z #1-404 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
269.9986 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



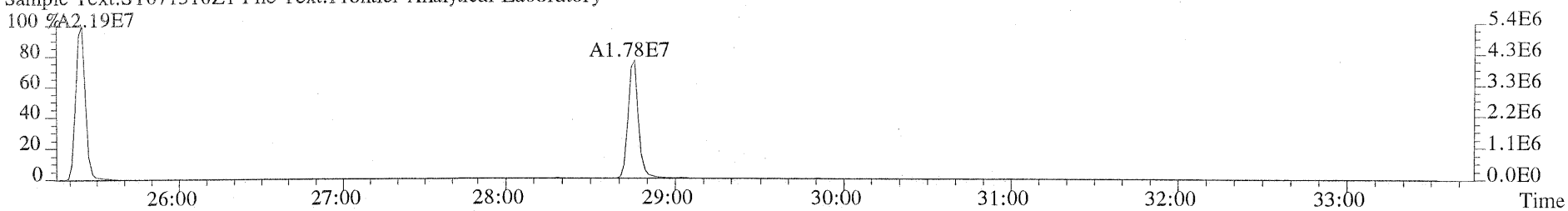
File:13JUL16Z #1-404 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
289.9224 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



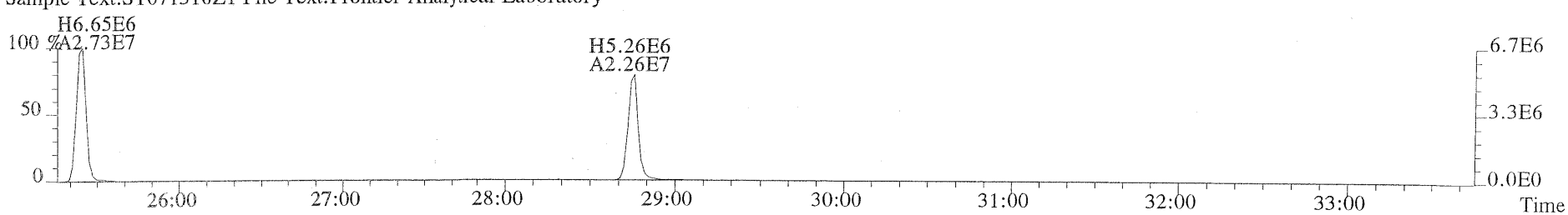
File:13JUL16Z #1-404 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
291.9194 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



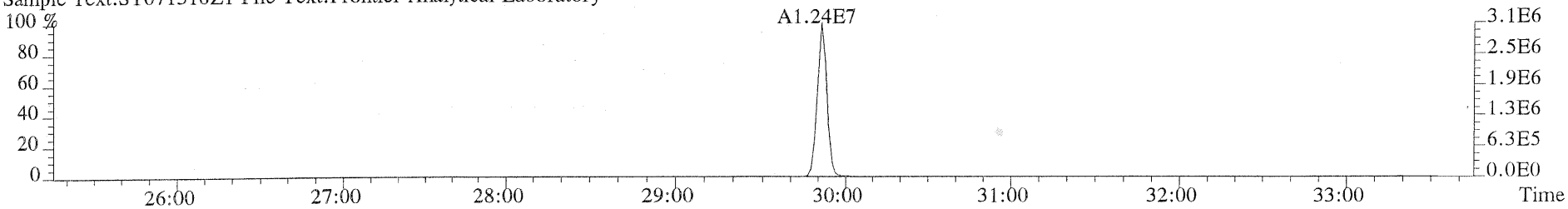
File:13JUL16Z #1-404 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
301.9626 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



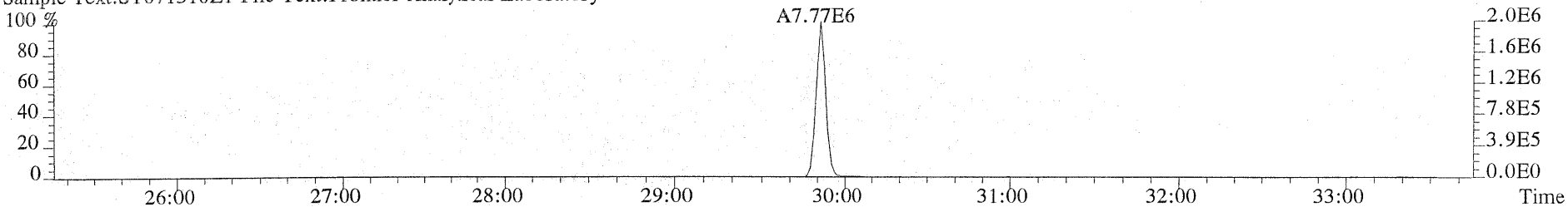
File:13JUL16Z #1-404 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
303.9597 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



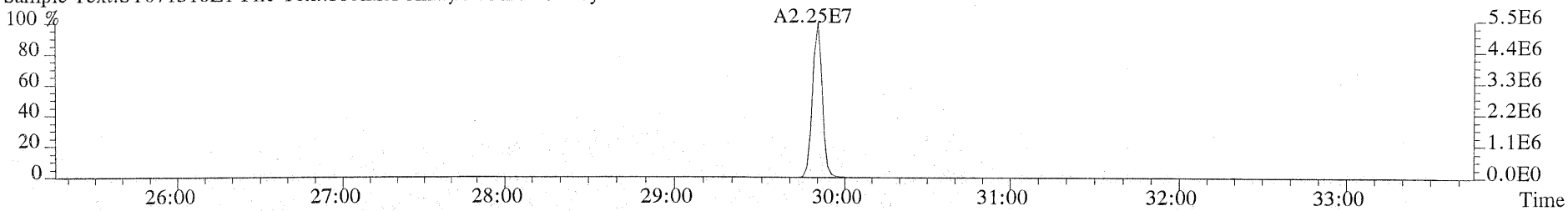
File:13JUL16Z #1-404 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
325.8804 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



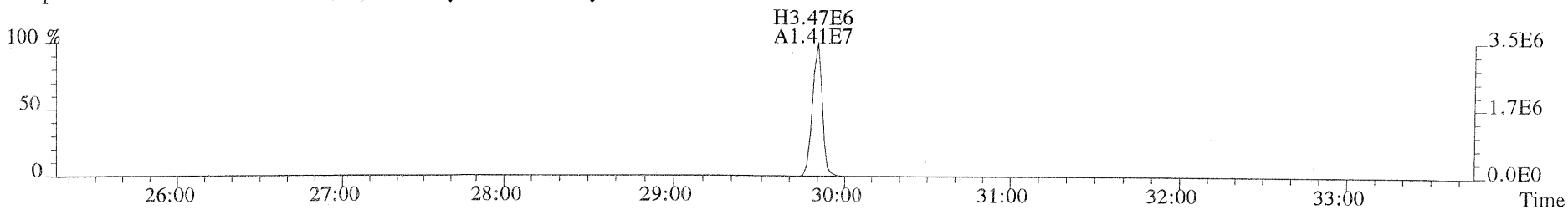
File:13JUL16Z #1-404 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
327.8775 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



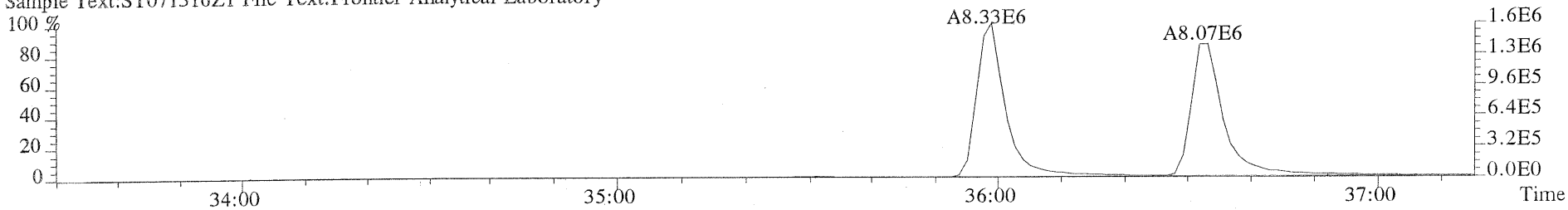
File:13JUL16Z #1-404 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
337.9207 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



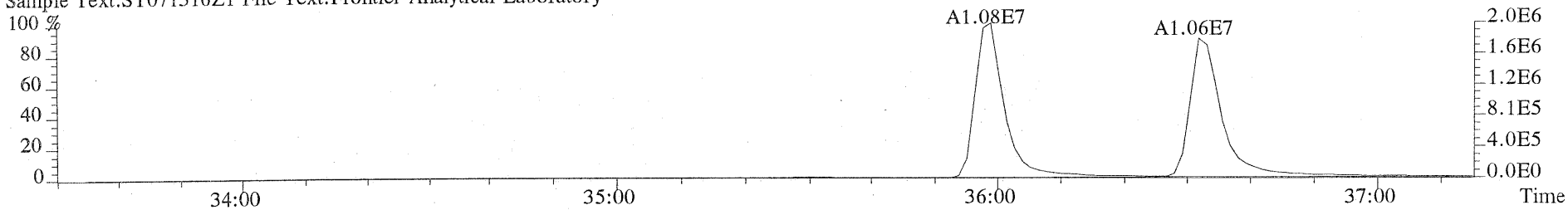
File:13JUL16Z #1-404 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
339.9178 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



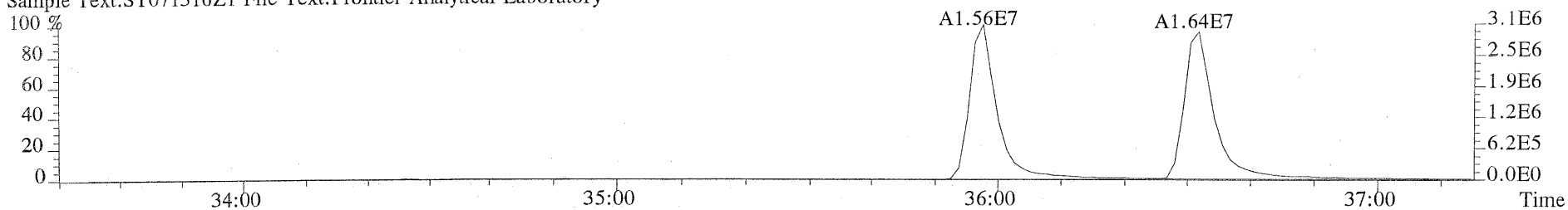
File:13JUL16Z #1-180 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
289.9224 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



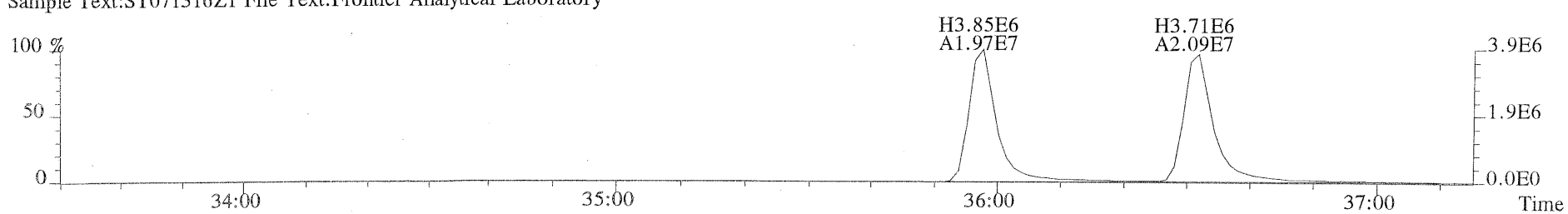
File:13JUL16Z #1-180 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
291.9194 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



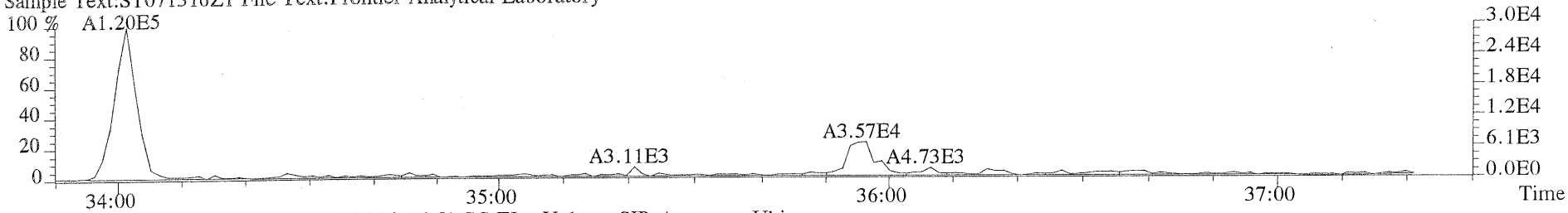
File:13JUL16Z #1-180 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
301.9626 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



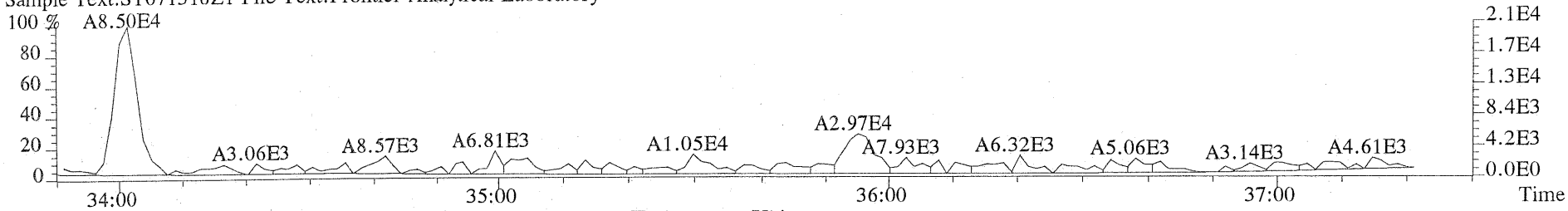
File:13JUL16Z #1-180 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
303.9597 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



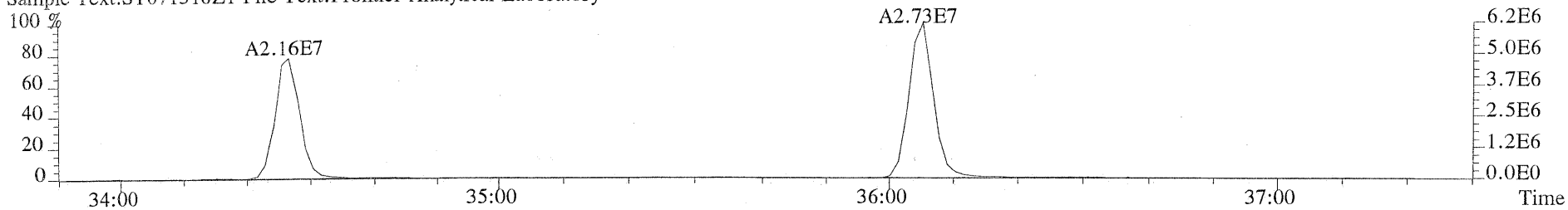
File:13JUL16Z #1-180 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
325.8804 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



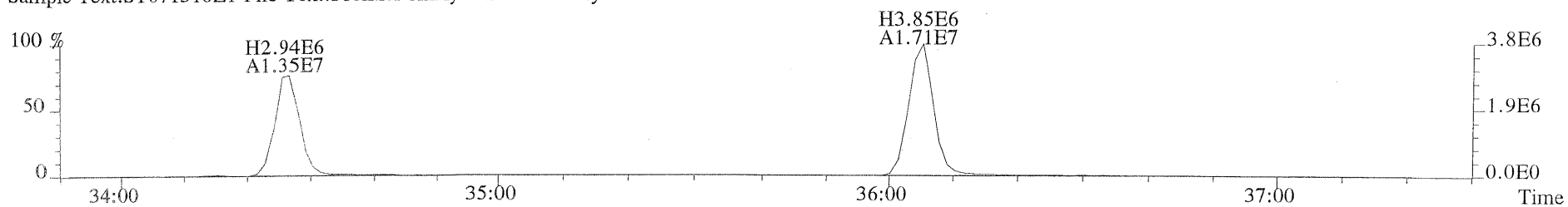
File:13JUL16Z #1-180 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
327.8775 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



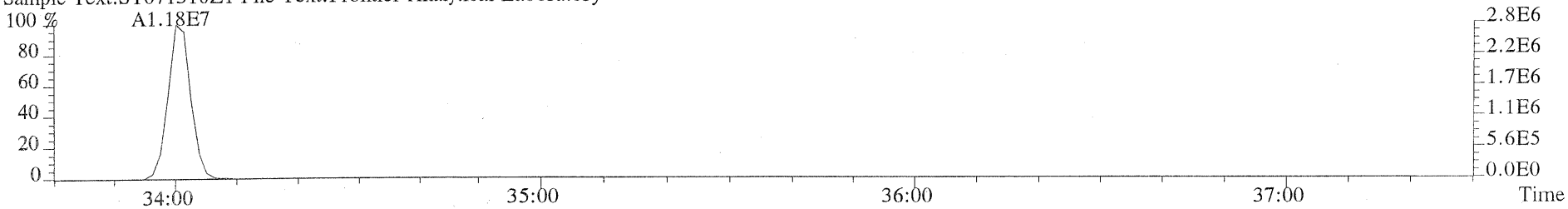
File:13JUL16Z #1-180 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
337.9207 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



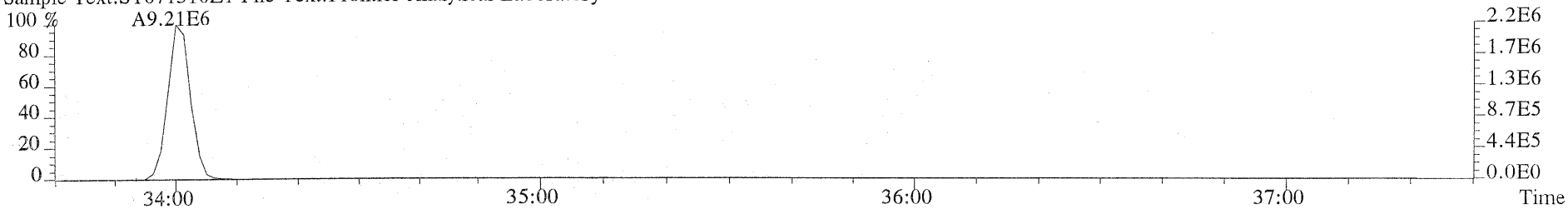
File:13JUL16Z #1-180 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
339.9178 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



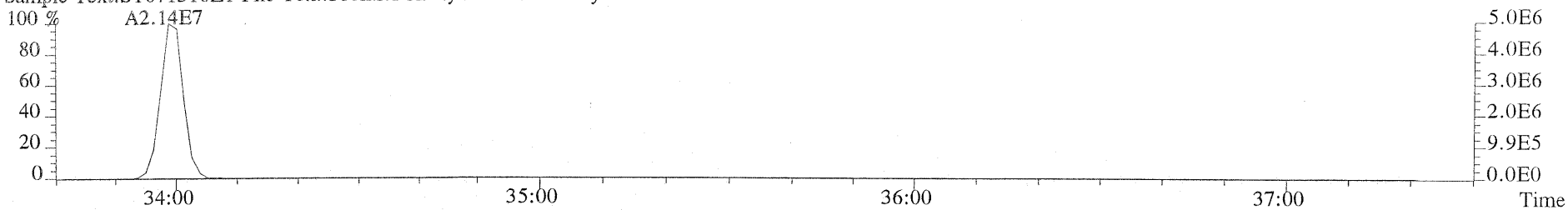
File:13JUL16Z #1-180 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
359.8415 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



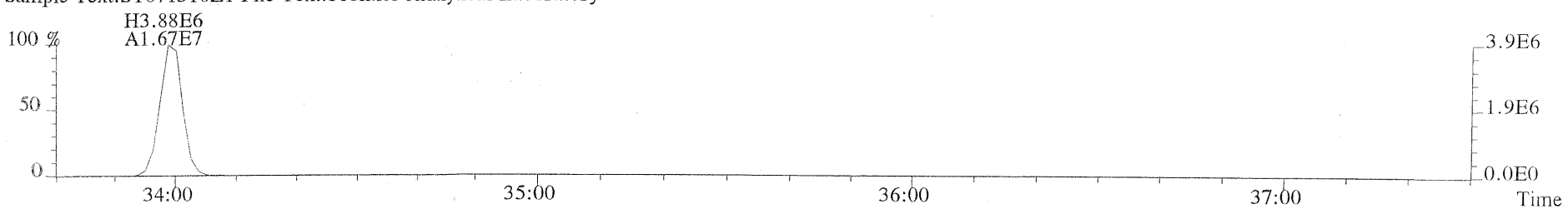
File:13JUL16Z #1-180 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
361.8385 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



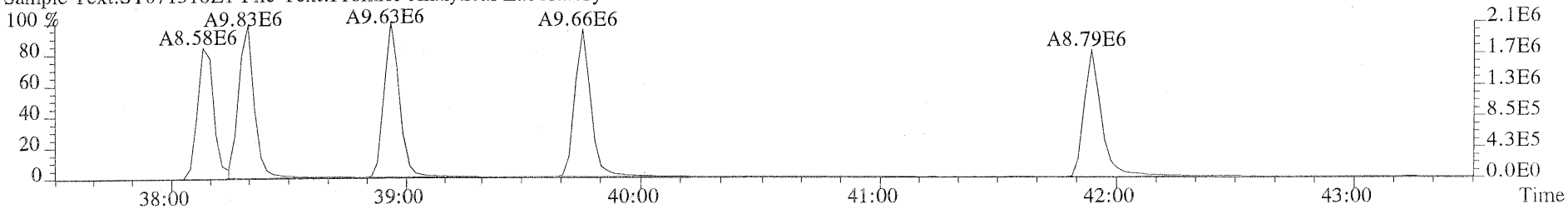
File:13JUL16Z #1-180 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
371.8817 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



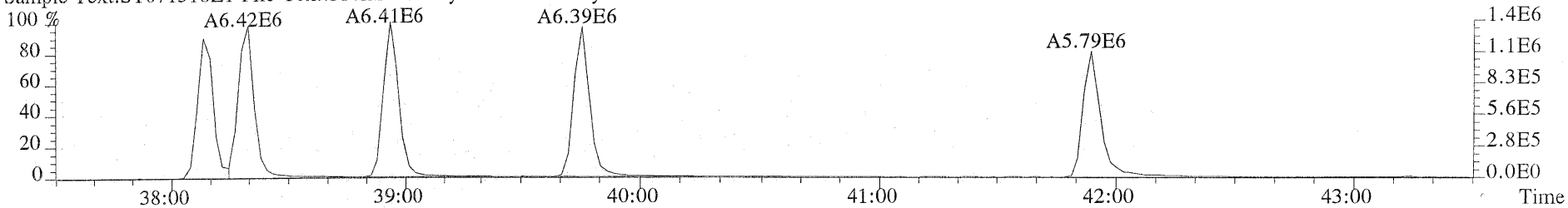
File:13JUL16Z #1-180 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
373.8788 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



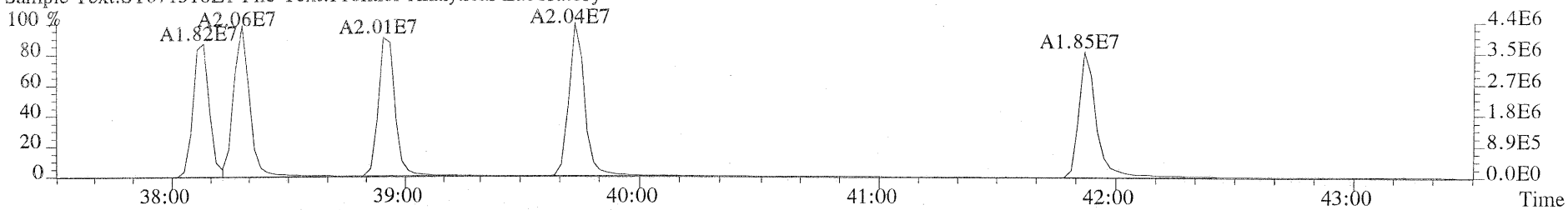
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
325.8804 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



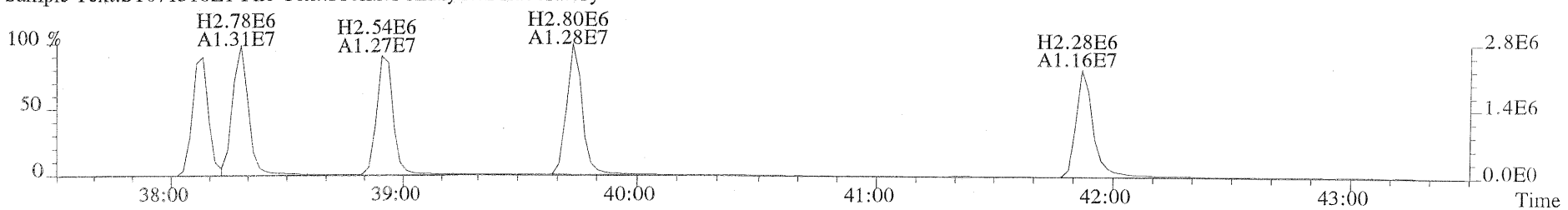
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
327.8775 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



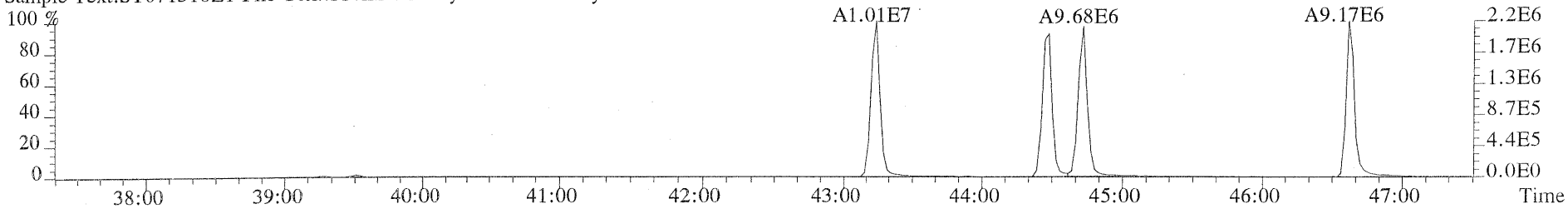
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
337.9207 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



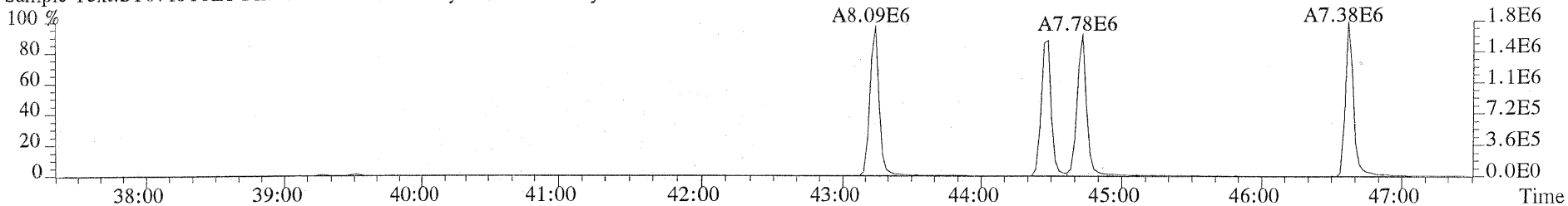
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
339.9178 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



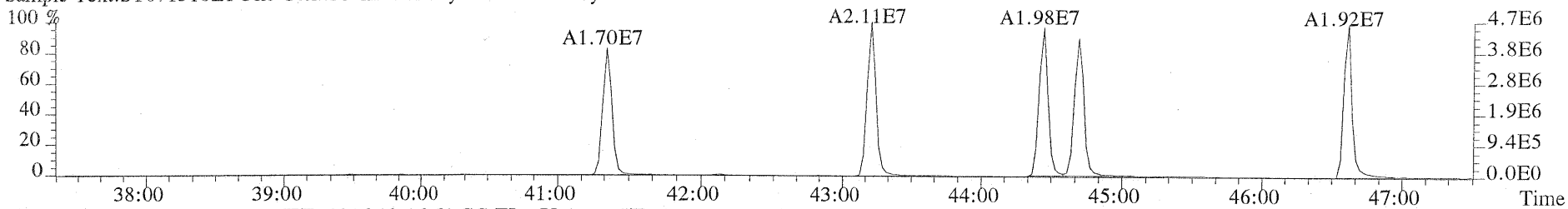
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
359.8415 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



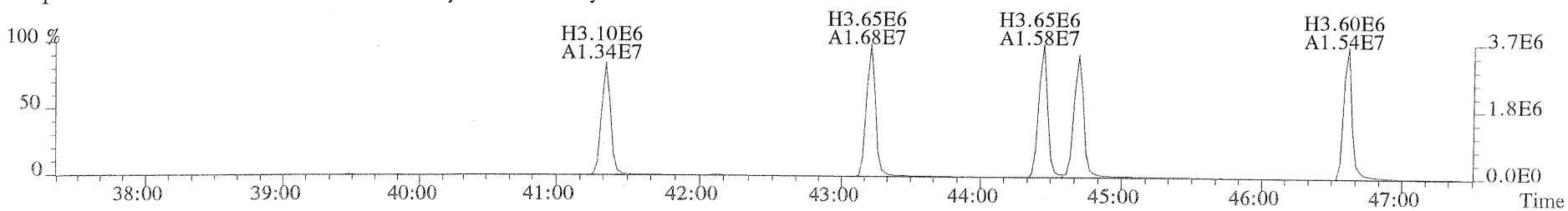
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
361.8385 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



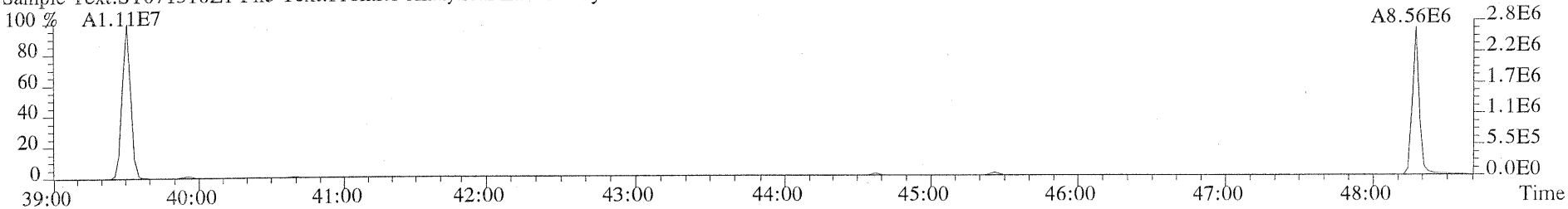
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
371.8817 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



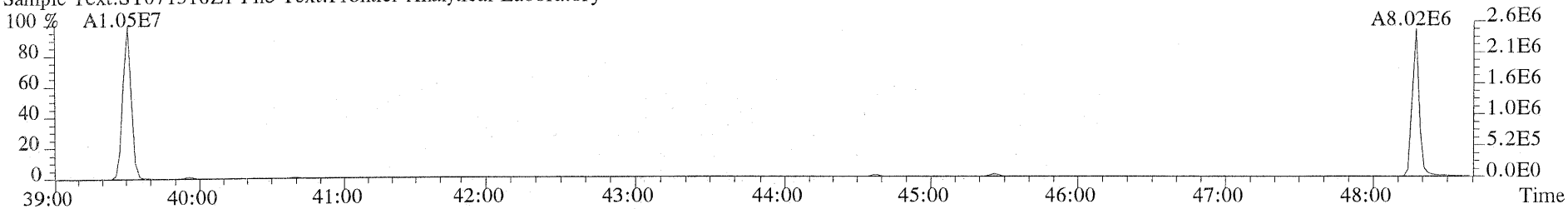
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
373.8788 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



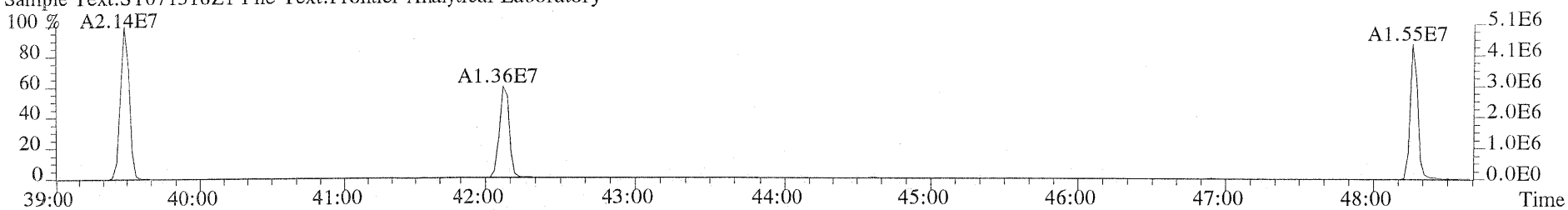
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
393.8025 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



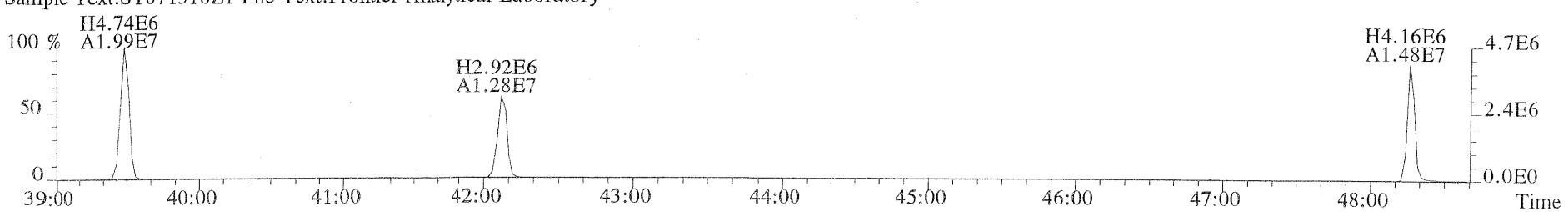
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
395.7995 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



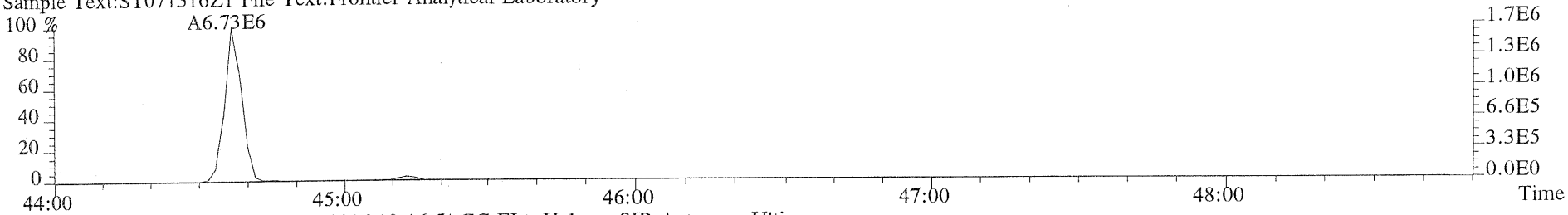
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
405.8428 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



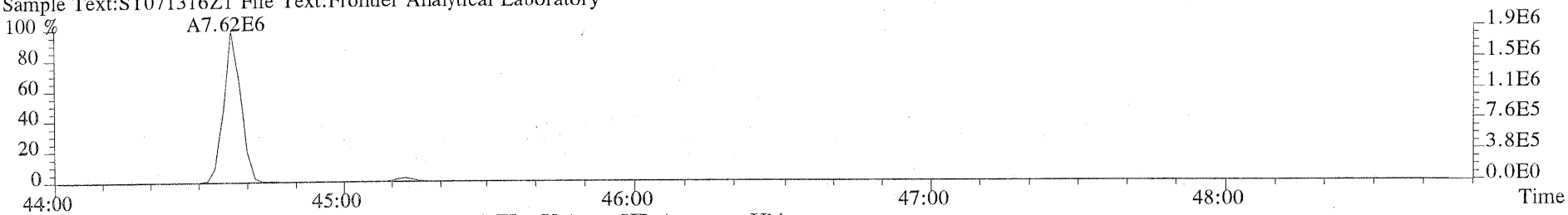
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
407.8398 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



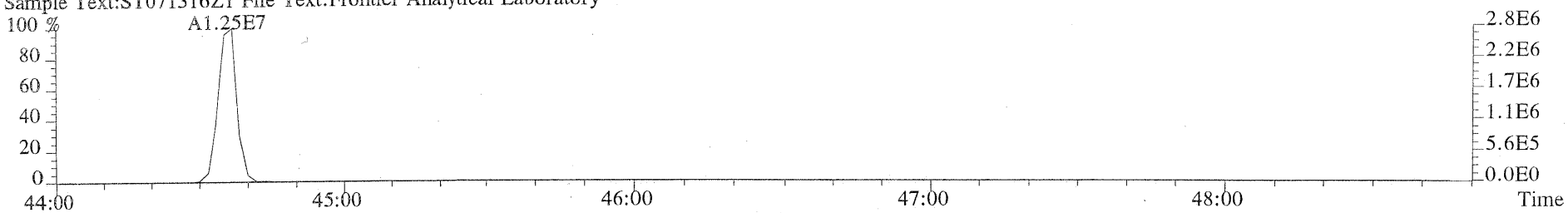
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
427.7635 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



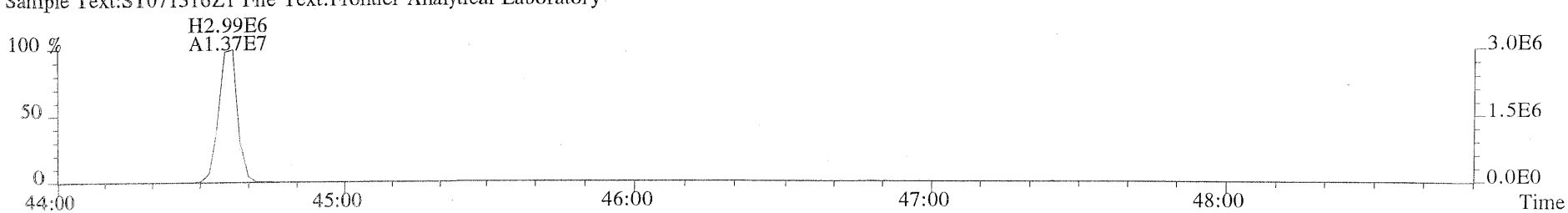
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
429.7606 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



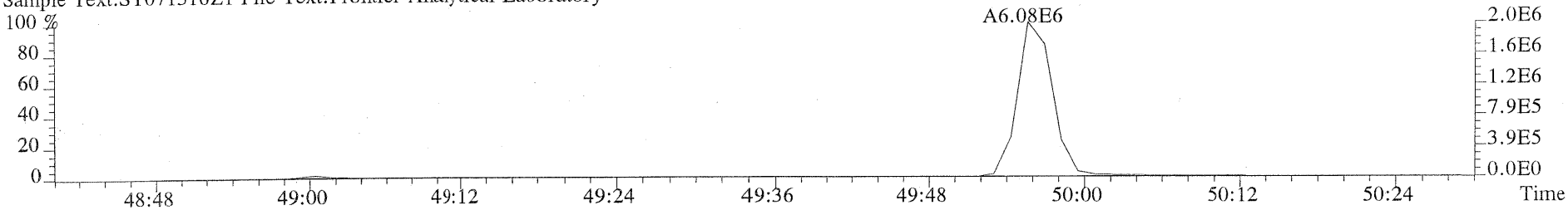
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
439.8038 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



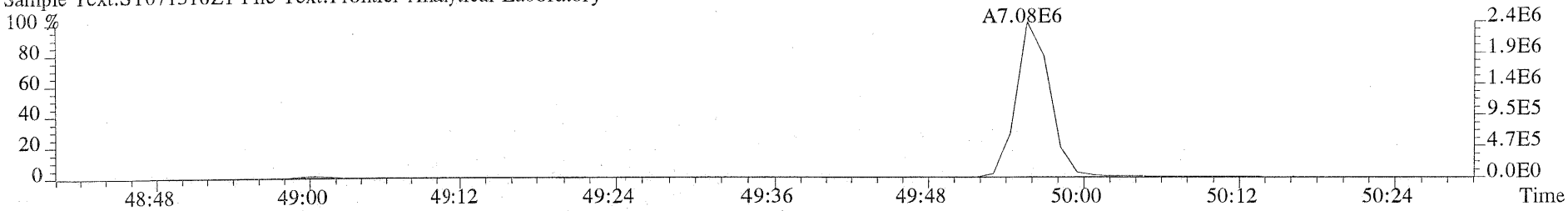
File:13JUL16Z #1-415 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
441.8008 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



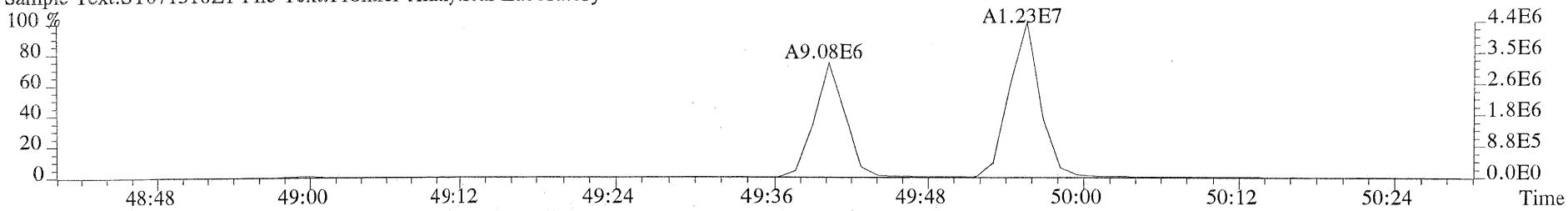
File:13JUL16Z #1-221 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
427.7635 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



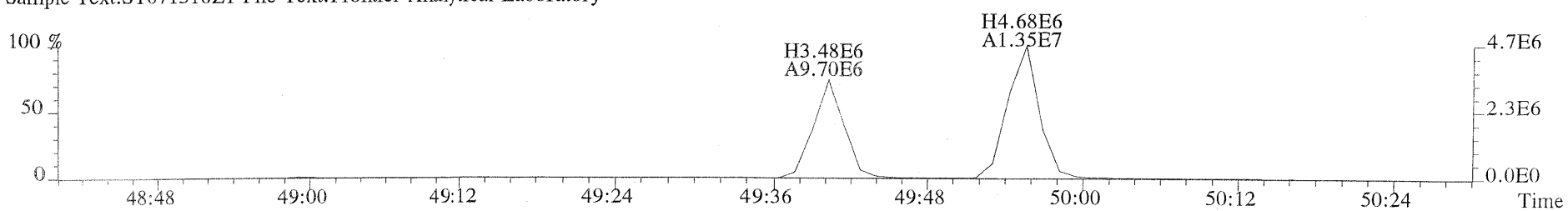
File:13JUL16Z #1-221 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
429.7606 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



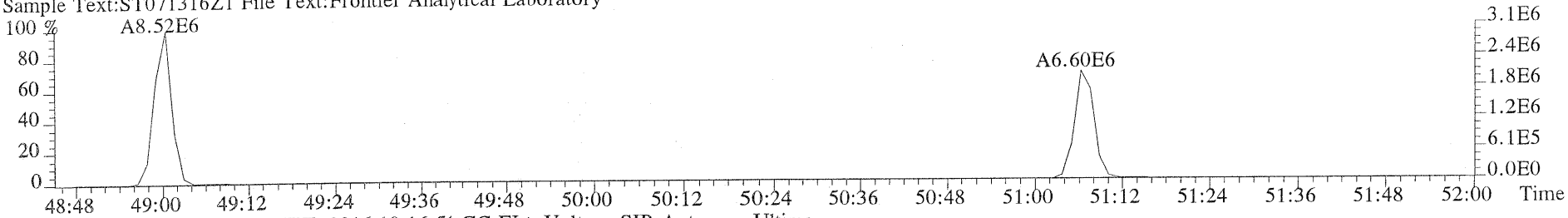
File:13JUL16Z #1-221 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
439.8038 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



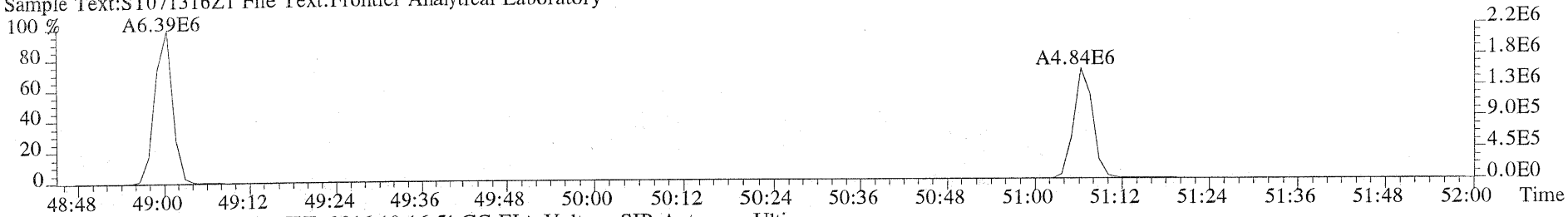
File:13JUL16Z #1-221 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
441.8008 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



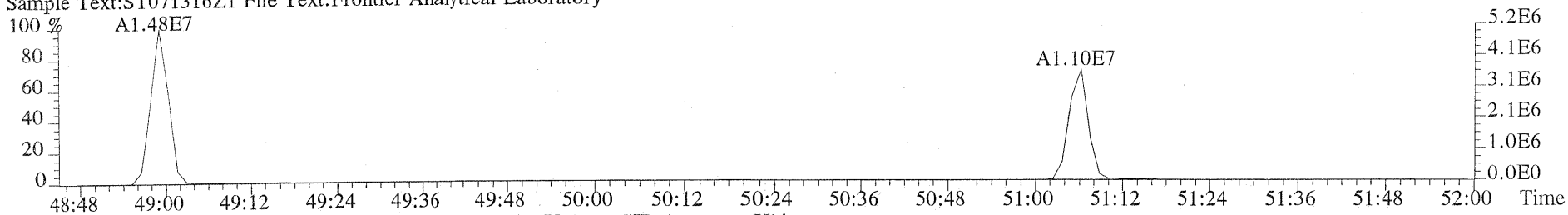
File:13JUL16Z #1-221 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
463.7216 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



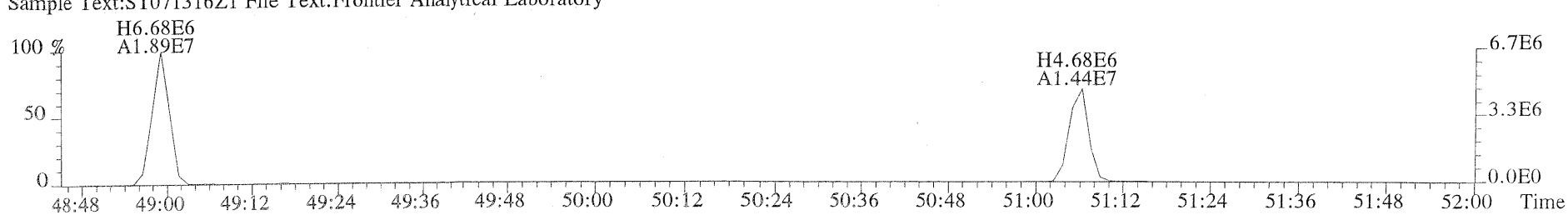
File:13JUL16Z #1-221 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
465.7187 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



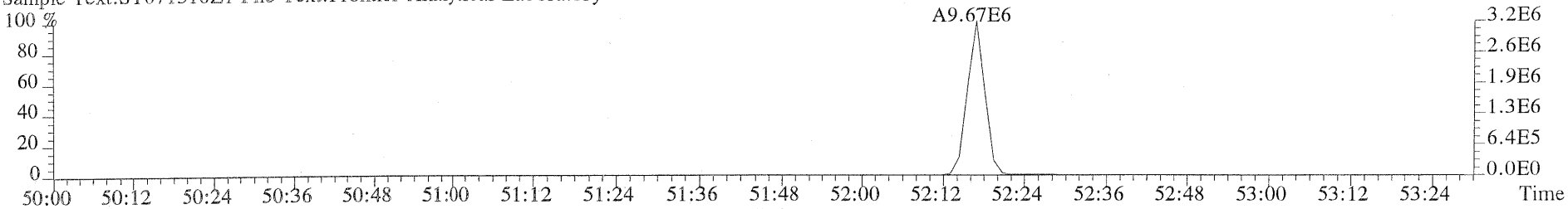
File:13JUL16Z #1-221 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
473.7648 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



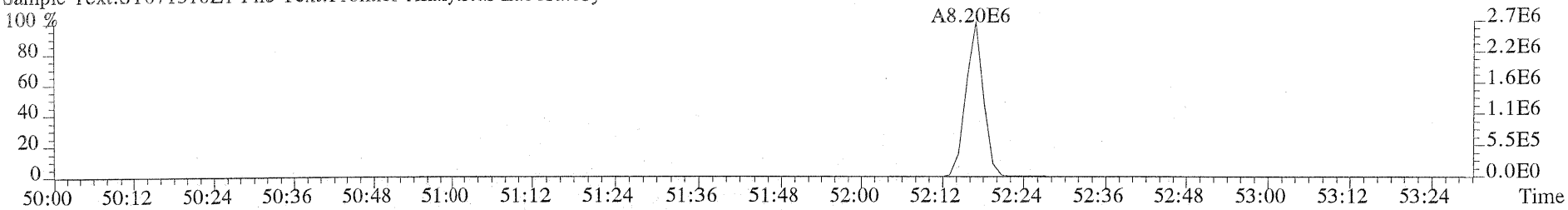
File:13JUL16Z #1-221 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
475.7619 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



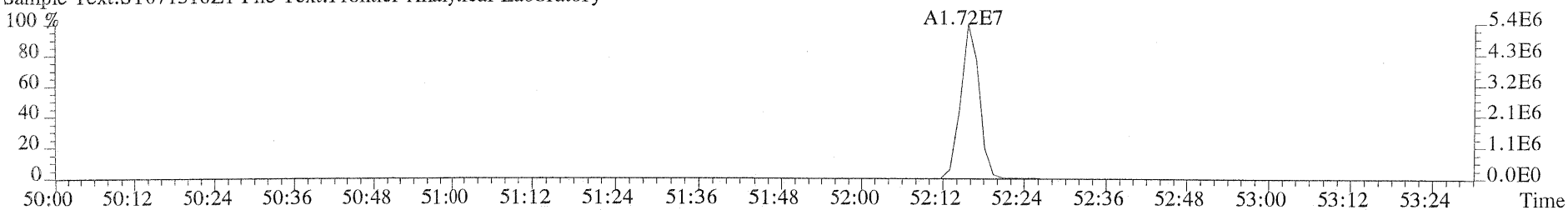
File:13JUL16Z #1-221 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
497.6826 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



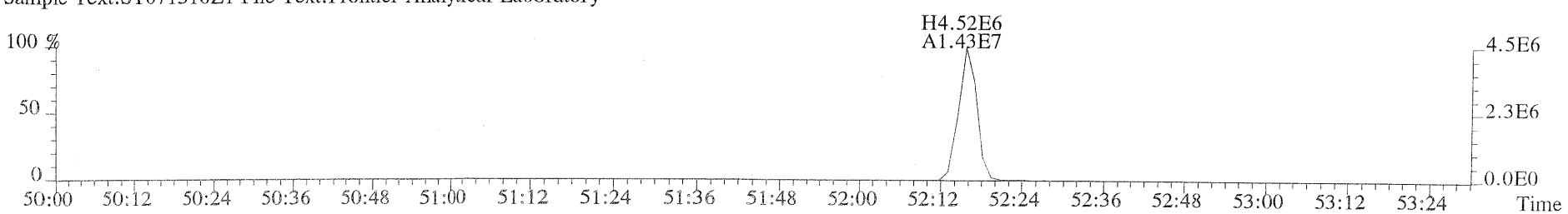
File:13JUL16Z #1-221 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
499.6797 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory



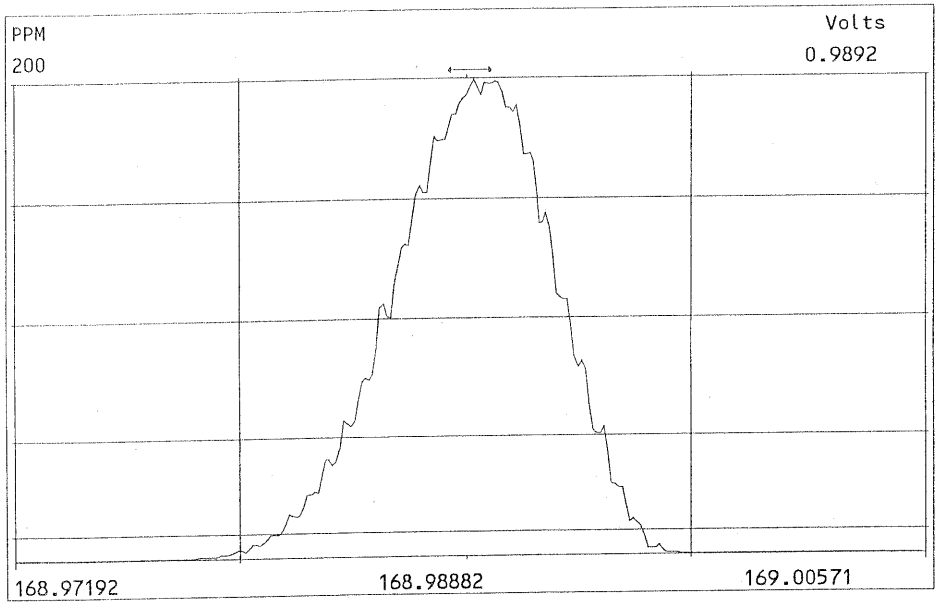
File:13JUL16Z #1-221 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
509.7229 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory

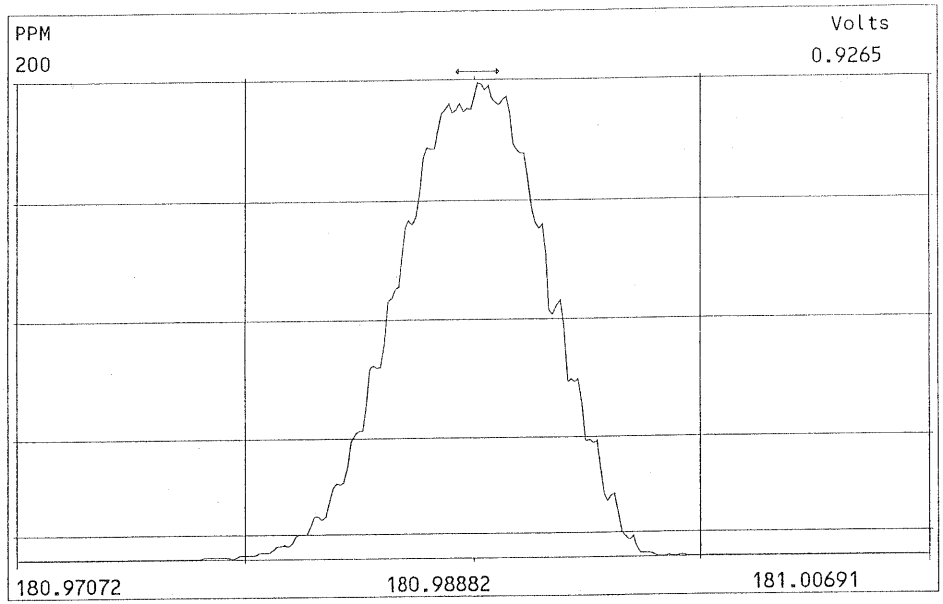


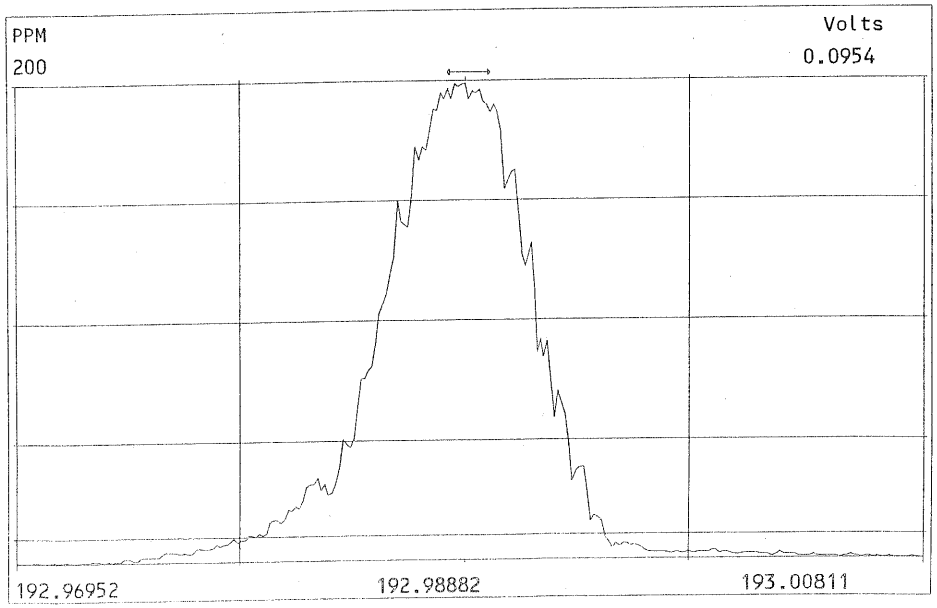
File:13JUL16Z #1-221 Acq:13-JUL-2016 10:16:51 GC EI+ Voltage SIR Autospec-Ultima
511.7199 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z1 File Text:Frontier Analytical Laboratory

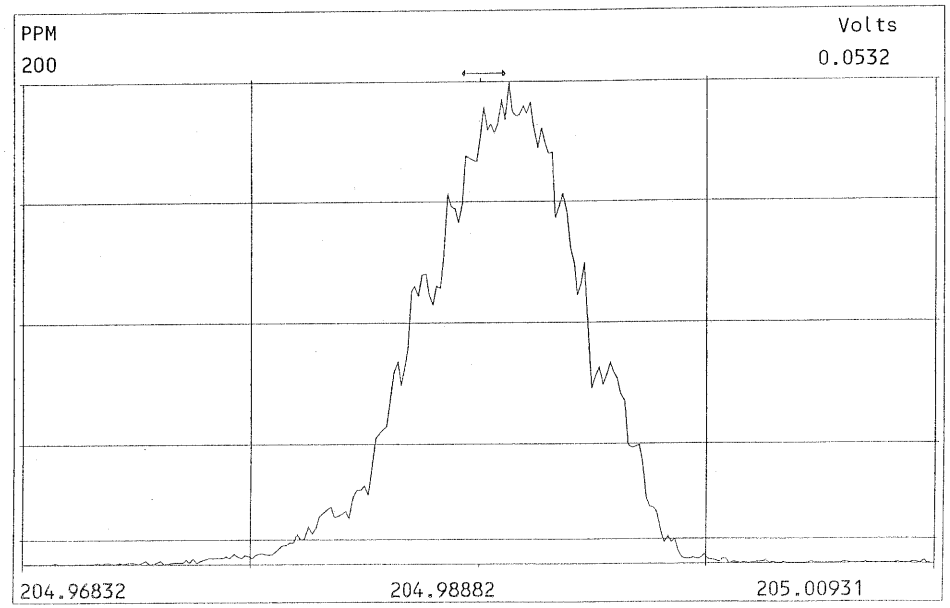


Peak Locate Examination:14-JUL-2016:09:16 File:13JUL16Z_RES_CHECK
Experiment:1668PCB Function:1 Reference:PFK

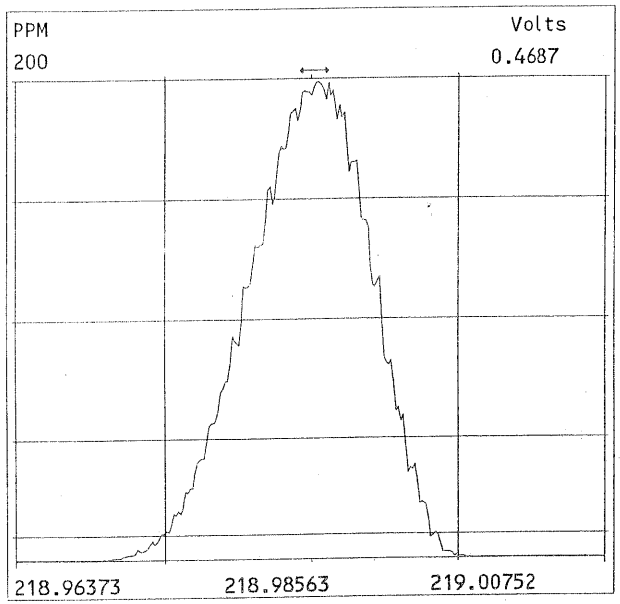


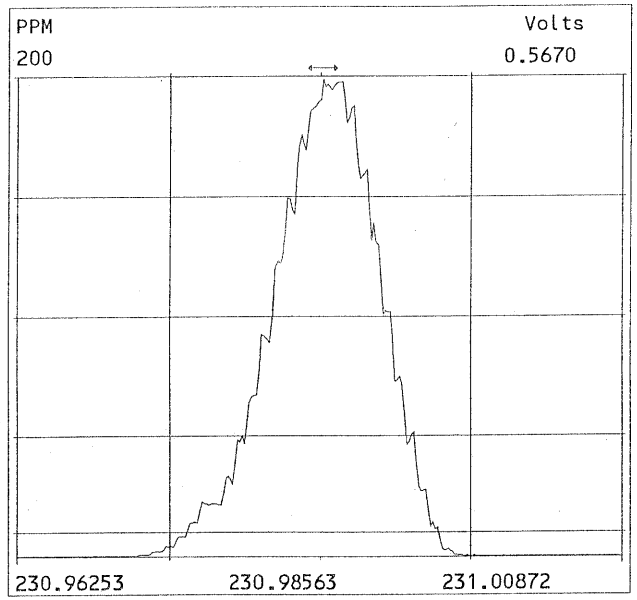


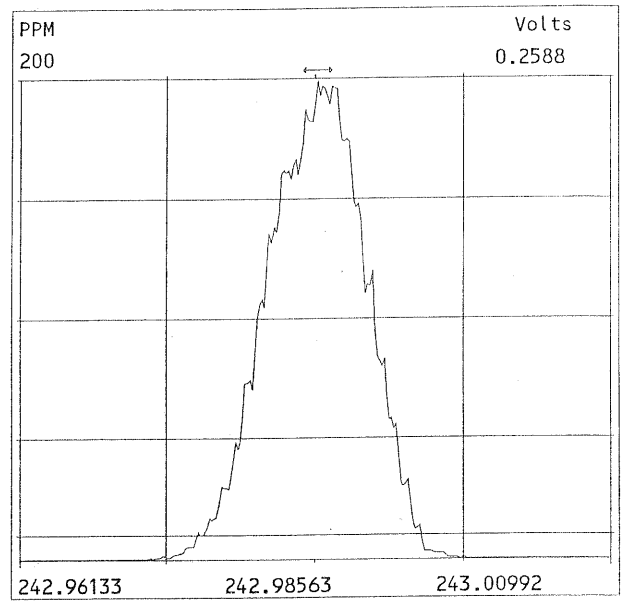


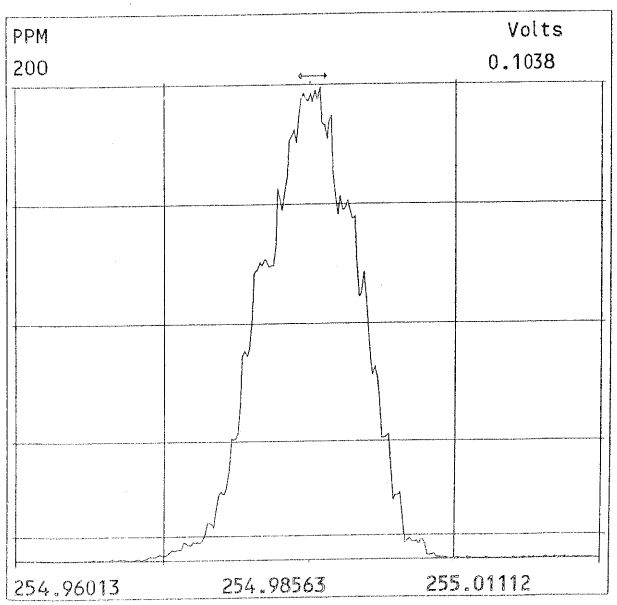


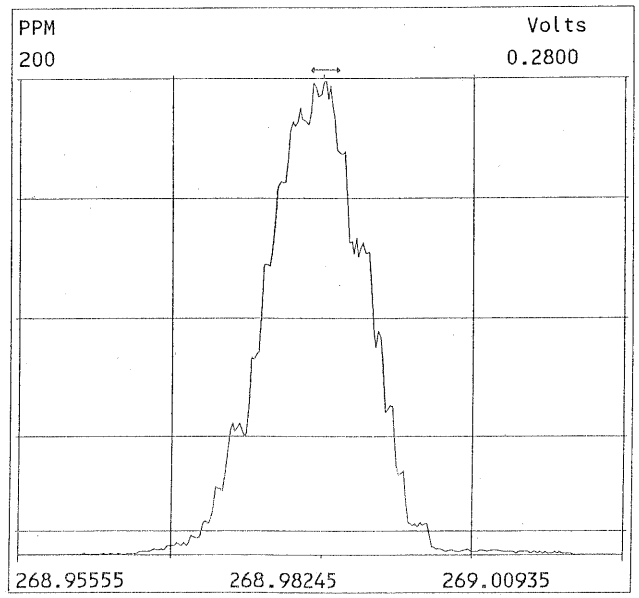
Peak Locate Examination:14-JUL-2016:09:17 File:13JUL16Z_RES_CHECK
Experiment:1668PCB Function:2 Reference:PFK

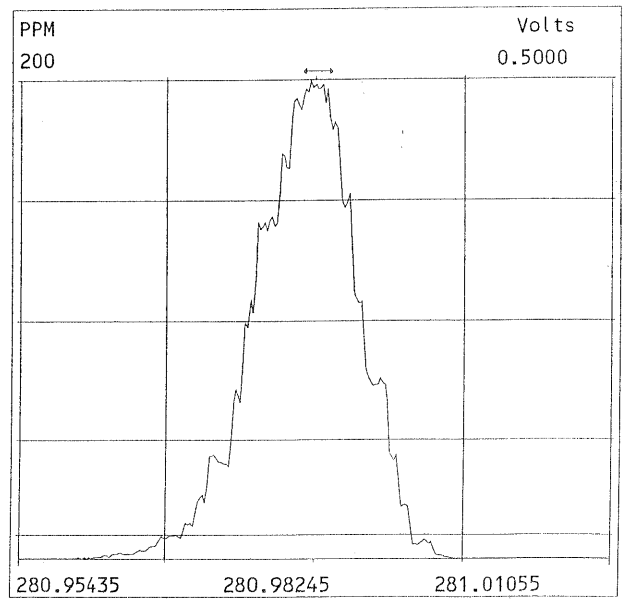




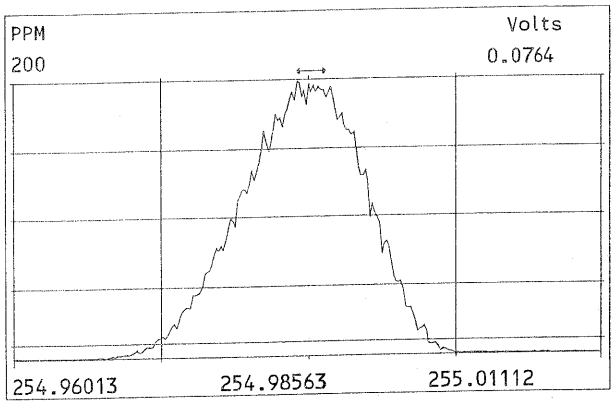


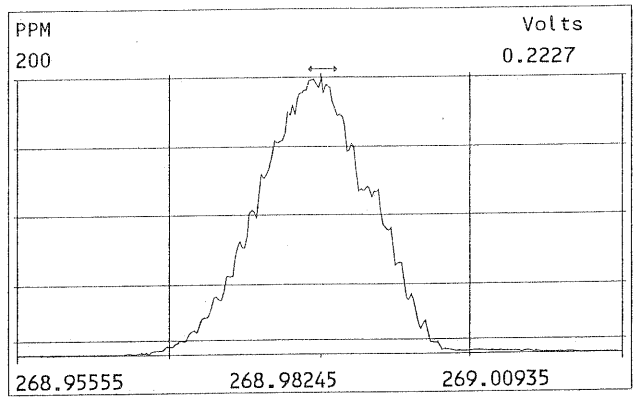


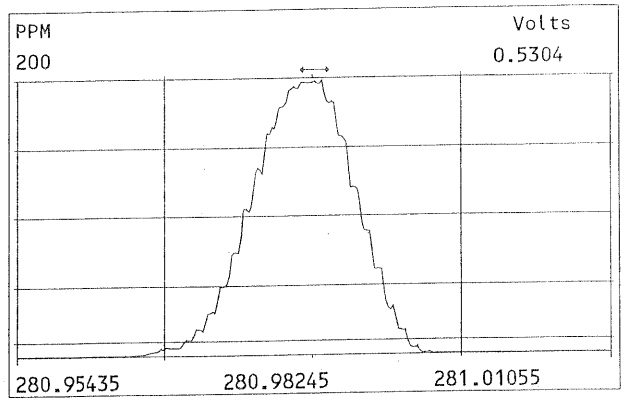


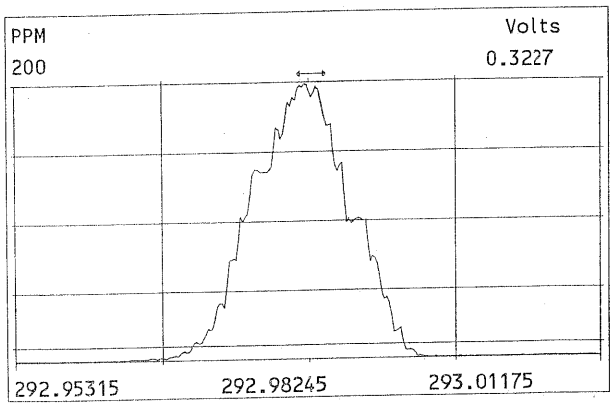


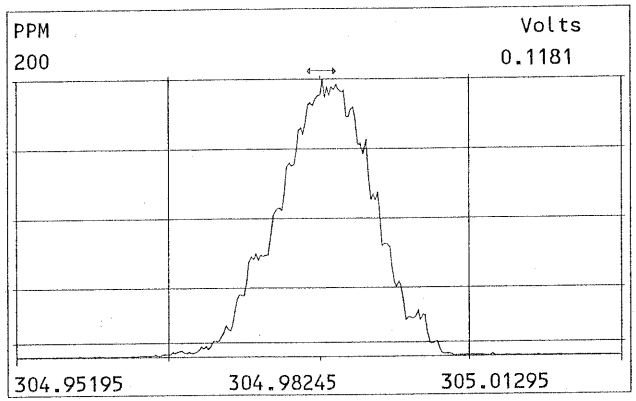
Peak Locate Examination:14-JUL-2016:09:17 File:13JUL16Z_RES_CHECK
Experiment:1668PCB Function:3 Reference:PFK

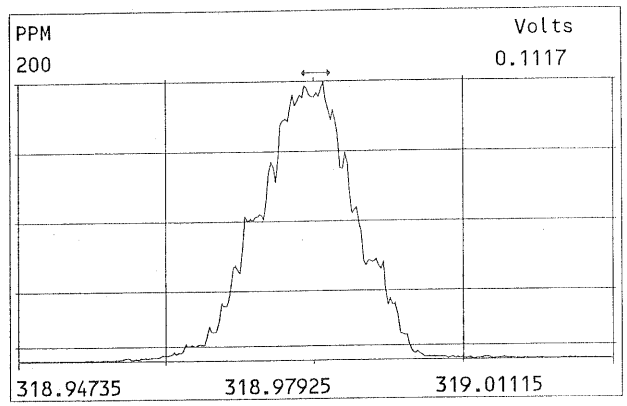


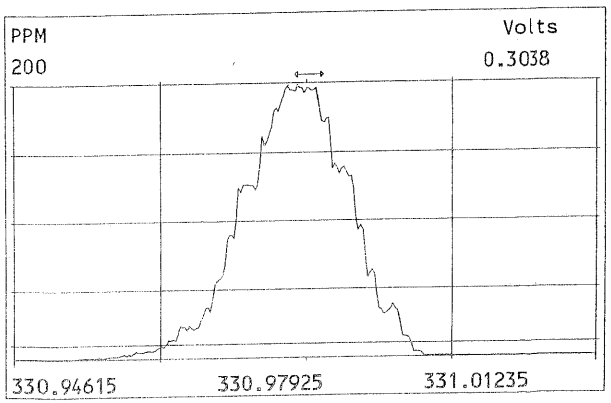


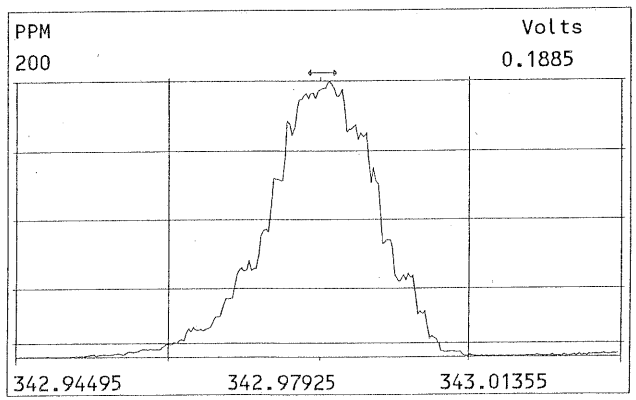




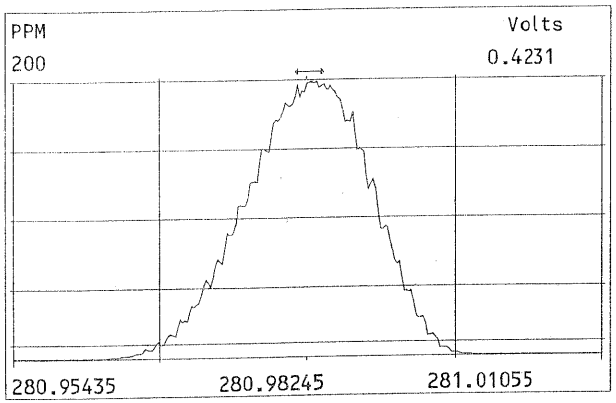


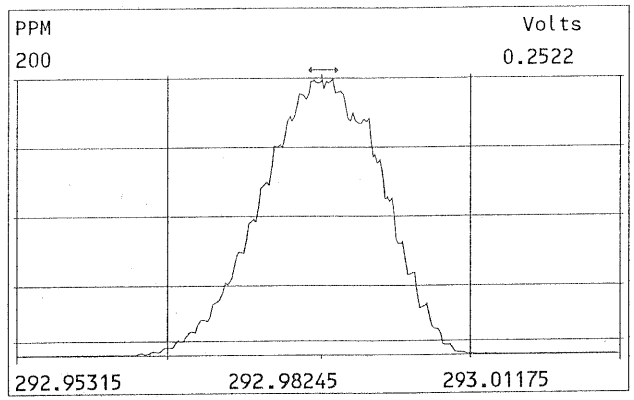


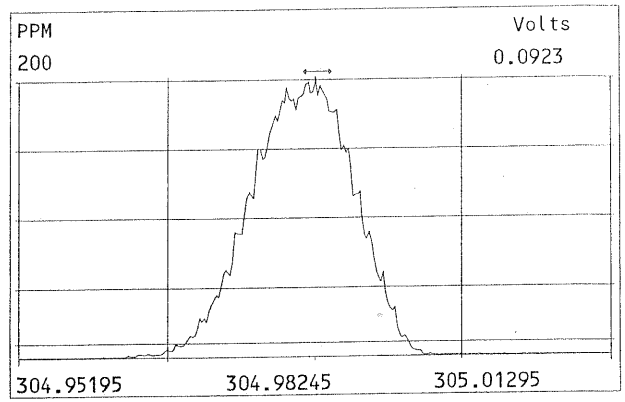


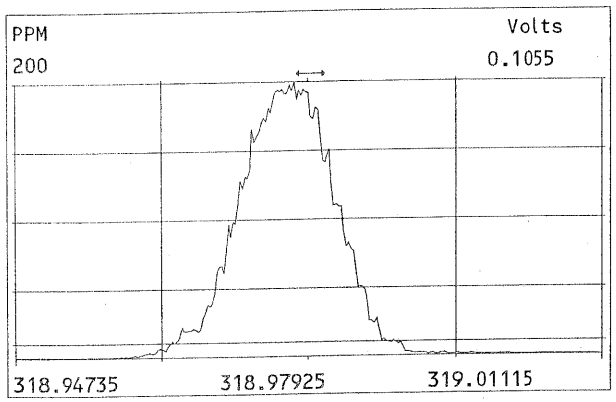


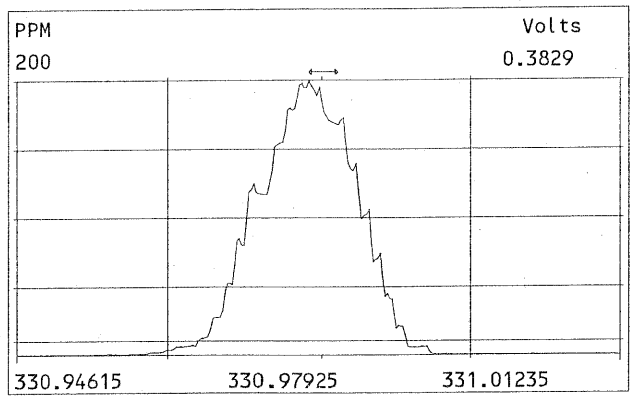
Peak Locate Examination:14-JUL-2016:09:17 File:13JUL16Z_RES_CHECK
Experiment:1668PCB Function:4 Reference:PFK

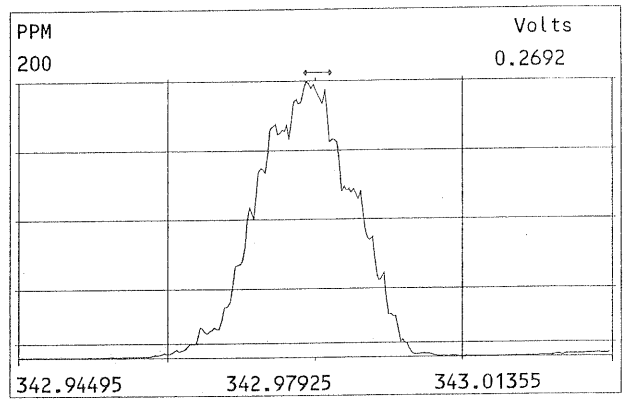


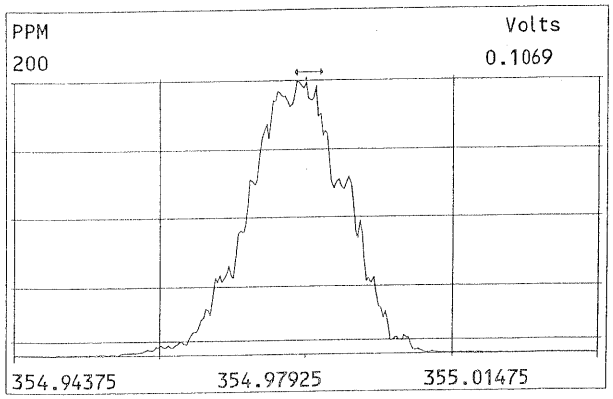


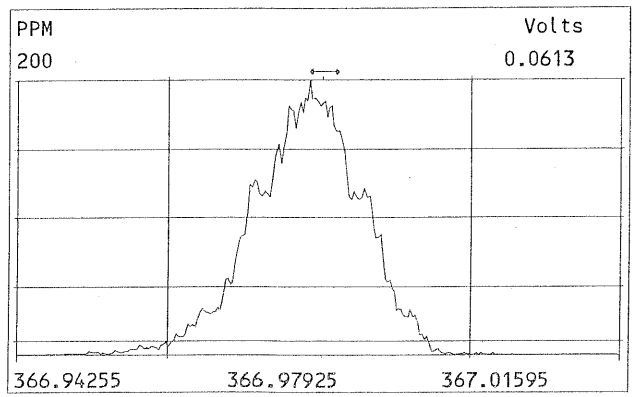


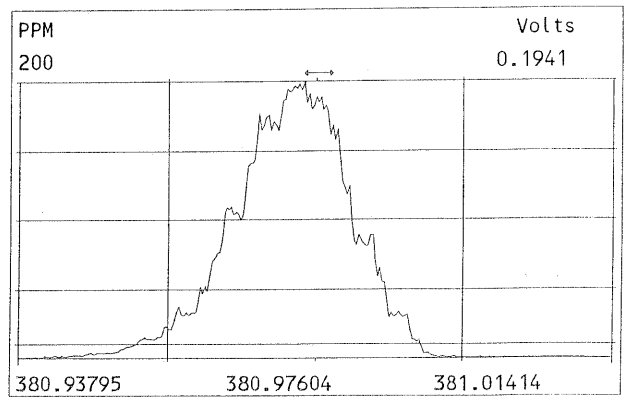




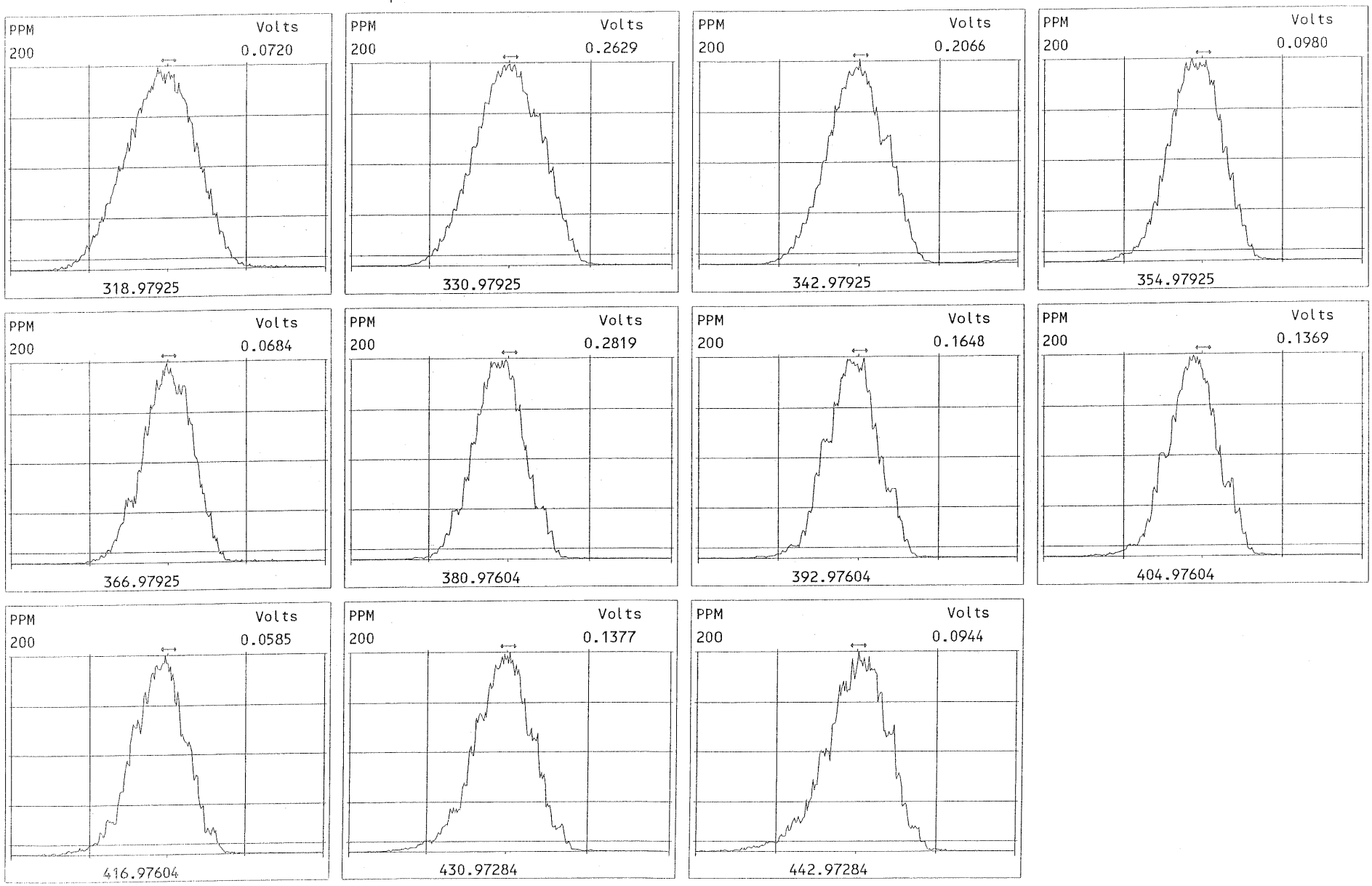




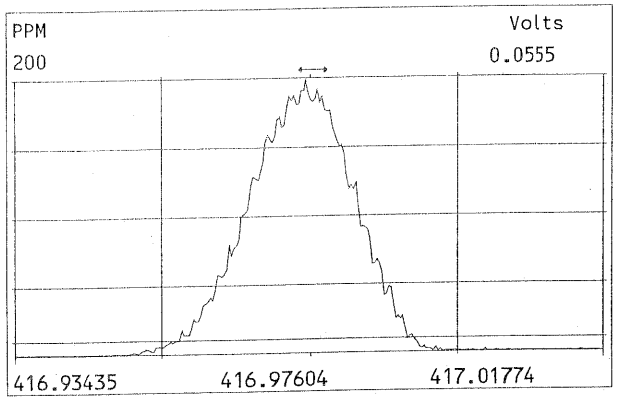


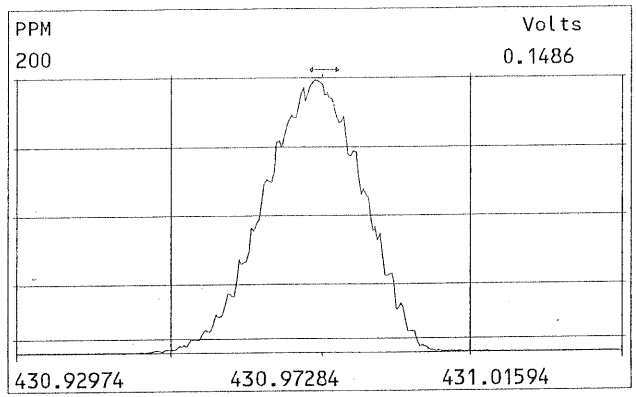


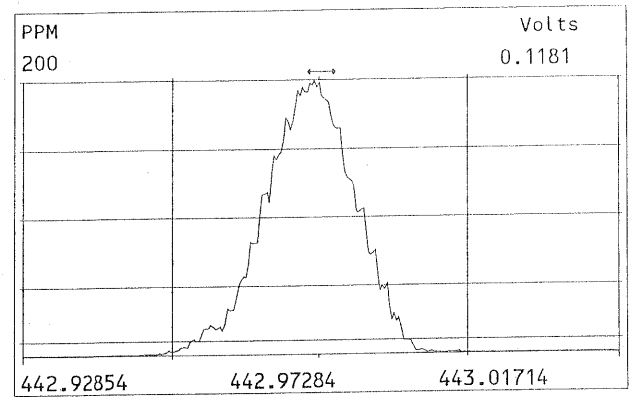
Peak Locate Examination:14-JUL-2016:09:18 File:13JUL16Z_RES_CHECK
Experiment:1668PCB Function:5 Reference:PFK

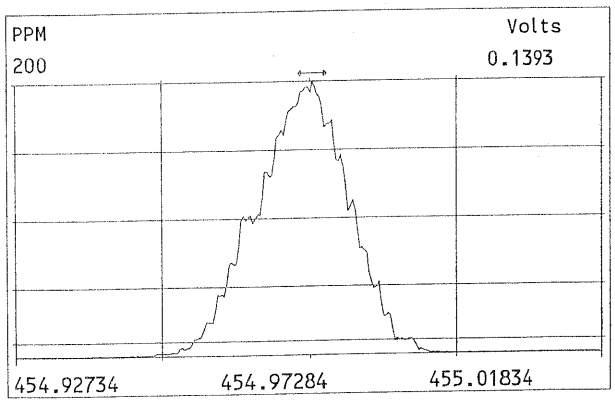


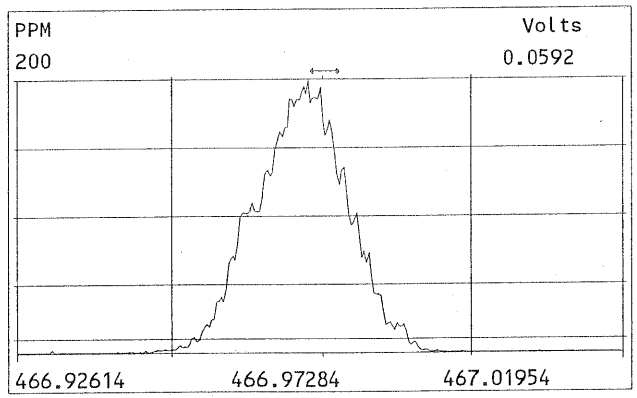
Peak Locate Examination:14-JUL-2016:09:19 File:13JUL16Z_RES_CHECK
Experiment:1668PCB Function:6 Reference:PFK

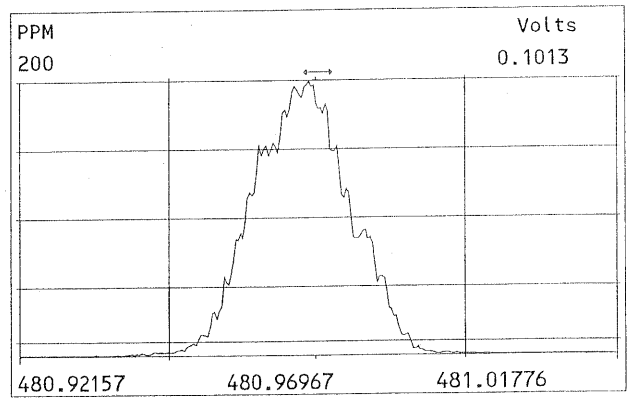


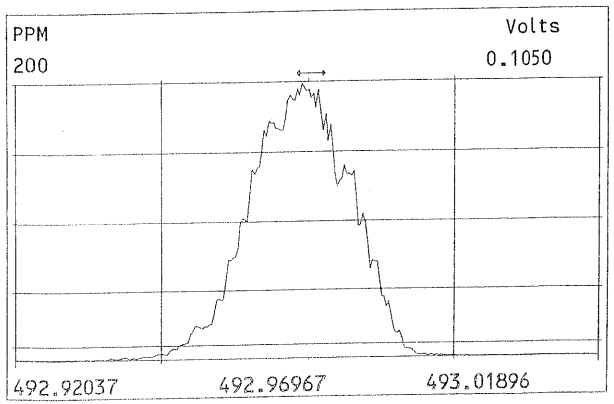


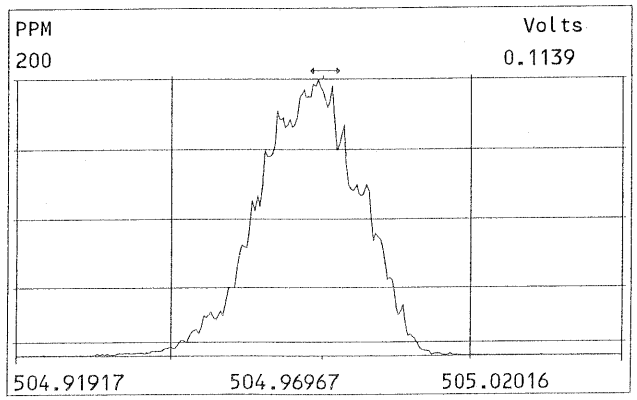


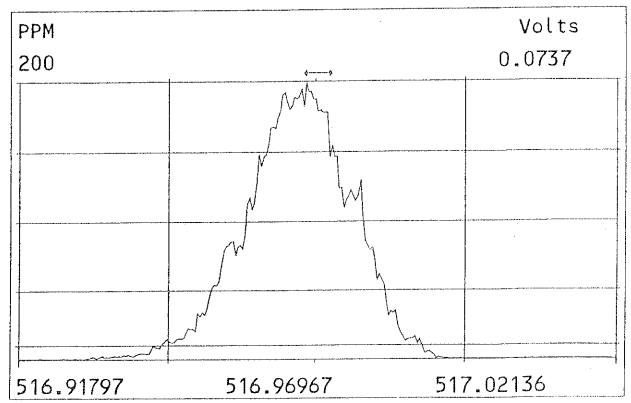












Cal: DAILY209FAL4-7-13-16

Run: 13JUL16Z Analyte: 209DAILY Results: 9987-06 Version: V3.6 21-MAY-2002 15:28:22

Data Filename:13JUL16Z S2

Name	Mean RRF	S. D.	RRF#1	
PCB-1	1.0547	-	1.05	
13C-PCB-1	1.0573	-	1.06	
PCB-2	0.9246	-	0.92	
PCB-3	1.1266	-	1.13	
13C-PCB-3	1.0326	-	1.03	
PCB-4	1.1919	-	1.19	
PCB-10	1.3316	-	1.33	
13C-PCB-4	0.6035	-	0.60	
PCB-9	1.1532	-	1.15	
PCB-7	1.6022	-	1.60	
PCB-6	1.4499	-	1.45	
PCB-8	1.2735	-	1.27	
PCB-5	1.5149	-	1.51	
PCB-14	1.1917	-	1.19	
PCB-11	1.1894	-	1.19	
PCB-13	1.0022	-	1.00	
PCB-12	1.3964	-	1.40	
PCB-15	1.3402	-	1.34	
13C-PCB-15	0.8539	-	0.85	
PCB-19	1.1367	-	1.14	
PCB-30	1.6879	-	1.69	
PCB-18	1.0696	-	1.07	
PCB-17	1.2166	-	1.22	
PCB-27	1.5945	-	1.59	
PCB-24	1.5945	-	1.59	
PCB-16	1.0644	-	1.06	
PCB-32	1.6943	-	1.69	
13C-PCB-19	0.5878	-	0.59	
13C-PCB-9	-	-	-	
PCB-34	1.1271	-	1.13	
PCB-23	1.2353	-	1.24	
PCB-29	1.2362	-	1.24	
PCB-26	1.2221	-	1.22	
PCB-25	1.4502	-	1.45	
PCB-31	1.0236	-	1.02	
PCB-28	1.6076	-	1.61	
PCB-20	1.2214	-	1.22	Co-elute PCB 21/33
PCB-21	1.2214	-	1.22	Co-elute PCB 20/33
PCB-33	1.2214	-	1.22	Co-elute PCB 20/21
PCB-22	1.2341	-	1.23	
PCB-36	1.1075	-	1.11	
PCB-39	1.0409	-	1.04	
PCB-38	1.2057	-	1.21	
PCB-35	0.9881	-	0.99	
PCB-37	1.2155	-	1.22	
13C-PCB-37	1.0419	-	1.04	

PCB-54	1.0616	-	1.06	
PCB-50	0.8352	-	0.84	
PCB-53	0.7546	-	0.75	
PCB-51	0.8027	-	0.80	
PCB-45	0.7252	-	0.73	
PCB-46	0.6875	-	0.69	
PCB-52	0.9135	-	0.91	Co-elute PCB 69
PCB-69	0.9135	-	0.91	Co-elute PCB 52
PCB-73	1.1049	-	1.10	
PCB-43	0.8016	-	0.80	Co-elute PCB 49
PCB-49	0.8016	-	0.80	Co-elute PCB 43
PCB-47	0.9699	-	0.97	
PCB-48	0.9684	-	0.97	Co-elute PCB 75
PCB-75	0.9684	-	0.97	Co-elute PCB 48
PCB-65	0.9848	-	0.98	
PCB-62	1.0183	-	1.02	
PCB-44	0.7002	-	0.70	
PCB-42	0.9200	-	0.92	Co-elute PCB 59
PCB-59	0.9200	-	0.92	Co-elute PCB 42
PCB-72	0.9915	-	0.99	Co-elute PCB 41/71/64
PCB-41	0.9915	-	0.99	Co-elute PCB 72/71/64
PCB-71	0.9915	-	0.99	Co-elute PCB 72/41/64
PCB-64	0.9915	-	0.99	Co-elute PCB 72/41/71
PCB-68	1.0513	-	1.05	
PCB-40	0.6162	-	0.62	
PCB-57	1.0198	-	1.02	
PCB-67	0.9699	-	0.97	
PCB-58	0.9929	-	0.99	
PCB-63	1.0624	-	1.06	
PCB-74	1.0377	-	1.04	
PCB-61	1.0040	-	1.00	Co-elute PCB 70
PCB-70	1.0040	-	1.00	Co-elute PCB 61
PCB-76	1.0822	-	1.08	Co-elute PCB 66
PCB-66	1.0822	-	1.08	Co-elute PCB 76
PCB-80	1.1438	-	1.14	
PCB-55	1.0148	-	1.01	
13C-PCB-54	1.1150	-	1.12	
PCB-104	1.2232	-	1.22	
PCB-96	1.1431	-	1.14	
PCB-103	0.9385	-	0.94	
PCB-100	0.8870	-	0.89	
PCB-94	0.7565	-	0.76	
PCB-98	0.8597	-	0.86	Co-elute PCB 102
PCB-102	0.8597	-	0.86	Co-elute PCB 98
PCB-95	0.8591	-	0.86	
PCB-93	0.8167	-	0.82	
PCB-88	0.7817	-	0.78	Co-elute PCB 91
PCB-91	0.7817	-	0.78	Co-elute PCB 88
PCB-121	1.1383	-	1.14	
13C-PCB-104	0.7581	-	0.76	
13C-PCB-28	1.2714	-	1.27	
13C-PCB-52	-	-	-	

PCB-56	1.1482	-	1.15	Co-elute PCB 60
PCB-60	1.1482	-	1.15	Co-elute PCB 56
PCB-79	1.1657	-	1.17	
PCB-78	1.0672	-	1.07	
PCB-81	1.1598	-	1.16	
13C-PCB-81	0.9723	-	0.97	
PCB-77	1.0444	-	1.04	
13C-PCB-77	0.9944	-	0.99	
PCB-155	1.1116	-	1.11	
PCB-150	0.9587	-	0.96	
PCB-152	0.9727	-	0.97	
PCB-145	0.9098	-	0.91	
PCB-136	0.9630	-	0.96	
PCB-148	0.7244	-	0.72	
PCB-154	0.8281	-	0.83	
13C-PCB-155	0.9892	-	0.99	
13C-PCB-111	1.1074	-	1.11	
13C-PCB-101	-	-	-	
PCB-84	0.9262	-	0.93	Co-elute PCB 92
PCB-92	0.9262	-	0.93	Co-elute PCB 84
PCB-89	0.9370	-	0.94	
PCB-90	1.0114	-	1.01	Co-elute PCB 101
PCB-101	1.0114	-	1.01	Co-elute PCB 90
PCB-113	1.1357	-	1.14	
PCB-99	1.1454	-	1.15	
PCB-119	1.3418	-	1.34	
PCB-83	1.0534	-	1.05	Co-elute PCB 112
PCB-112	1.0534	-	1.05	Co-elute PCB 83
PCB-109	1.2267	-	1.23	
PCB-97	1.0446	-	1.04	
PCB-86	0.9272	-	0.93	
PCB-125	1.1449	-	1.14	Co-elute PCB 87/117
PCB-87	1.1449	-	1.14	Co-elute PCB 125/117
PCB-117	1.1449	-	1.14	Co-elute PCB 125/87
PCB-111	1.3897	-	1.39	Co-elute PCB 115
PCB-115	1.3897	-	1.39	Co-elute PCB 111
PCB-85	1.1008	-	1.10	Co-elute PCB 116
PCB-116	1.1008	-	1.10	Co-elute PCB 85
PCB-120	1.3446	-	1.34	
PCB-110	1.3816	-	1.38	
PCB-82	0.7707	-	0.77	
PCB-124	1.0570	-	1.06	
PCB-108	0.9976	-	1.00	Co-elute PCB 107
PCB-107	0.9976	-	1.00	Co-elute PCB 108
PCB-123	1.1222	-	1.12	
13C-PCB-123	0.9689	-	0.97	
PCB-118	0.9726	-	0.97	Co-elute PCB 106
PCB-106	0.9726	-	0.97	Co-elute PCB 118
13C-PCB-118	1.0797	-	1.08	
PCB-114	0.9801	-	0.98	
13C-PCB-114	1.0176	-	1.02	
PCB-122	1.1989	-	1.20	
PCB-105	1.0969	-	1.10	
13C-PCB-105	1.0169	-	1.02	
PCB-127	1.0177	-	1.02	
PCB-126	1.1014	-	1.10	
13C-PCB-126	0.9201	-	0.92	

PCB-151	0.8144	-	0.81	
PCB-135	0.8307	-	0.83	
PCB-144	0.8684	-	0.87	
PCB-147	0.8878	-	0.89	
PCB-139	0.8910	-	0.89	Co-elute PCB 149
PCB-149	0.8910	-	0.89	Co-elute PCB 139
PCB-140	0.8808	-	0.88	
PCB-143	0.8257	-	0.83	Co-elute PCB 134
PCB-134	0.8257	-	0.83	Co-elute PCB 143
PCB-131	0.8294	-	0.83	Co-elute PCB 131
PCB-133	0.8294	-	0.83	Co-elute PCB 142
PCB-142	0.7751	-	0.78	
PCB-165	0.9806	-	0.98	Co-elute PCB 146
PCB-146	0.9806	-	0.98	Co-elute PCB 165
PCB-161	0.9440	-	0.94	Co-elute PCB 132
PCB-132	0.9440	-	0.94	Co-elute PCB 161
PCB-153	0.9800	-	0.98	
PCB-168	1.0545	-	1.05	
PCB-141	0.8305	-	0.83	
PCB-137	0.7910	-	0.79	
PCB-130	0.7235	-	0.72	
PCB-138	1.0747	-	1.07	Co-elute PCB 163/164
PCB-163	1.0747	-	1.07	Co-elute PCB 138/164
PCB-164	1.0747	-	1.07	Co-elute PCB 138/163
PCB-158	1.0887	-	1.09	Co-elute PCB 160
PCB-160	1.0887	-	1.09	Co-elute PCB 158
PCB-129	0.7122	-	0.71	
PCB-166	1.0596	-	1.06	
PCB-159	1.1334	-	1.13	
PCB-128	0.9133	-	0.91	Co-elute PCB 162
PCB-162	0.9133	-	0.91	Co-elute PCB 128
PCB-167	0.9964	-	1.00	
13C-PCB-167	1.1101	-	1.11	
PCB-156	1.0541	-	1.05	
13C-PCB-156	1.0458	-	1.05	
PCB-157	0.9426	-	0.94	
13C-PCB-157	1.1061	-	1.11	
PCB-169	0.9877	-	0.99	
13C-PCB-169	1.0102	-	1.01	
PCB-188	1.1682	-	1.17	
13C-PCB-188	1.1423	-	1.14	

PCB-184	1.2785	-	1.28	
PCB-179	1.2685	-	1.27	
PCB-176	1.2133	-	1.21	
PCB-186	1.1553	-	1.16	
PCB-178	0.8554	-	0.86	
PCB-175	0.8944	-	0.89	
PCB-187	0.9348	-	0.93	Co-elute PCB 182
PCB-182	0.9348	-	0.93	Co-elute PCB 187
PCB-183	0.9629	-	0.96	
PCB-185	0.8467	-	0.85	
PCB-174	0.8326	-	0.83	
PCB-181	0.8572	-	0.86	
PCB-177	0.7974	-	0.80	
PCB-171	0.8392	-	0.84	
PCB-173	0.7468	-	0.75	
PCB-172	0.7953	-	0.80	
PCB-192	1.0202	-	1.02	
PCB-180	0.9606	-	0.96	
PCB-193	1.1133	-	1.11	
PCB-191	1.0856	-	1.09	
PCB-170	0.7377	-	0.74	
PCB-190	1.0622	-	1.06	
PCB-189	1.1365	-	1.14	
13C-PCB-189	0.8959	-	0.90	
PCB-202	1.0727	-	1.07	
PCB-201	1.0973	-	1.10	
PCB-204	1.1406	-	1.14	
PCB-197	1.0826	-	1.08	
PCB-200	1.0901	-	1.09	
PCB-198	0.7654	-	0.77	
PCB-199	0.7249	-	0.72	
PCB-203	0.8130	-	0.81	Co-elute PCB 196
PCB-196	0.8130	-	0.81	Co-elute PCB 203
13C-PCB-202	0.7567	-	0.76	
13C-PCB-178	0.7477	-	0.75	
13C-PCB-138	-	-	-	
PCB-195	0.7295	-	0.73	
PCB-194	0.7914	-	0.79	
PCB-205	1.0974	-	1.10	
13C-PCB-205	1.3406	-	1.34	
PCB-208	0.9709	-	0.97	
13C-PCB-208	1.5112	-	1.51	
PCB-207	1.0786	-	1.08	
PCB-206	1.0097	-	1.01	
13C-PCB-206	1.1459	-	1.15	
PCB-209	1.1052	-	1.11	
13C-PCB-209	1.7151	-	1.72	
13C-PCB-194	-	-	-	

Analyst: [illegible] Date: 7/15/16

Run #1 Filename 13JUL16Z S: 2 Acquired: 13-JUL-16 11:16:43 Cal: DAILY209FAL4-7-13-16
Client ID: SS071316Z1 Analyte: FAL ID: Daily 209 151201A

	Typ	Name	Amount	Resp	RA	RT	RF	RRF	
1	Unk	PCB-1	50.00	3.24e+07	3.18 y	14:22	-	1.05	
2	IS/RT	13C-PCB-1	100.00	6.14e+07	3.11 y	14:21	-	1.06	
3	Unk	PCB-2	50.00	2.81e+07	3.15 y	16:35	-	0.925	
4	Unk	PCB-3	50.00	3.38e+07	3.12 y	16:48	-	1.13	
5	IS/RT	13C-PCB-3	100.00	6.00e+07	3.35 y	16:47	-	1.03	
6	Unk	PCB-4	50.00	2.09e+07	1.41 y	18:01	-	1.19	
7	Unk	PCB-10	50.00	2.82e+07	1.58 y	18:04	-	1.33	
8	IS/RT	13C-PCB-4	100.00	3.51e+07	1.56 y	17:59	-	0.604	
9	Unk	PCB-9	50.00	2.44e+07	1.52 y	19:42	-	1.15	
10	Unk	PCB-7	50.00	3.39e+07	1.53 y	19:44	-	1.60	
11	Unk	PCB-6	50.00	3.07e+07	1.54 y	20:20	-	1.45	
12	Unk	PCB-8	50.00	2.70e+07	1.57 y	20:43	-	1.27	
13	Unk	PCB-5	50.00	3.21e+07	1.55 y	20:44	-	1.51	
14	Unk	PCB-14	50.00	2.52e+07	1.53 y	21:47	-	1.19	
15	Unk	PCB-11	50.00	2.52e+07	1.57 y	22:55	-	1.19	
16	Unk	PCB-13	50.00	2.12e+07	1.70 y	23:17	-	1.00	
17	Unk	PCB-12	50.00	2.96e+07	1.47 y	23:19	-	1.40	
18	Unk	PCB-15	50.00	3.32e+07	1.53 y	23:34	-	1.34	
19	IS/RT	13C-PCB-15	100.00	4.96e+07	1.59 y	23:34	-	0.854	
20	Unk	PCB-19	50.00	1.94e+07	1.02 y	21:53	-	1.14	
21	Unk	PCB-30	50.00	2.88e+07	1.04 y	22:44	-	1.69	
22	Unk	PCB-18	50.00	1.83e+07	1.03 y	23:26	-	1.07	
23	Unk	PCB-17	50.00	2.08e+07	1.03 y	23:36	-	1.22	
24	Unk	PCB-27	50.00	2.72e+07	1.05 y	24:09	-	1.59	
25	Unk	PCB-24	50.00	2.72e+07	1.05 y	24:09	-	1.59	
26	Unk	PCB-16	50.00	1.82e+07	1.02 y	24:37	-	1.06	
27	Unk	PCB-32	50.00	2.89e+07	1.05 y	24:39	-	1.69	
28	IS/RT	13C-PCB-19	100.00	3.41e+07	1.12 y	21:52	-	0.588	
29	RS	13C-PCB-9	100.00	5.81e+07	1.59 y	19:40	5.81e+05	-	
30	Unk	PCB-34	50.00	2.21e+07	1.00 y	25:24	-	1.13	
31	Unk	PCB-23	50.00	2.43e+07	1.04 y	25:29	-	1.24	
32	Unk	PCB-29	50.00	2.43e+07	1.03 y	25:43	-	1.24	
33	Unk	PCB-26	50.00	2.40e+07	1.05 y	25:55	-	1.22	
34	Unk	PCB-25	50.00	2.85e+07	1.04 y	26:04	-	1.45	
35	Unk	PCB-31	50.00	2.01e+07	1.02 y	26:24	-	1.02	
36	Unk	PCB-28	50.00	3.16e+07	1.07 y	26:31	-	1.61	
37	Unk	PCB-20	150.00	7.20e+07	1.04 y	27:05	-	1.22	Co-elute PCB 21/33
38	Unk	PCB-21	150.00	7.20e+07	1.04 y	27:05	-	1.22	Co-elute PCB 20/33
39	Unk	PCB-33	150.00	7.20e+07	1.04 y	27:05	-	1.22	Co-elute PCB 20/21
40	Unk	PCB-22	50.00	2.42e+07	1.06 y	27:31	-	1.23	
41	Unk	PCB-36	50.00	2.18e+07	1.09 y	28:07	-	1.11	
42	Unk	PCB-39	50.00	2.04e+07	1.07 y	28:35	-	1.04	
43	Unk	PCB-38	50.00	2.37e+07	1.06 y	29:18	-	1.21	
44	Unk	PCB-35	50.00	1.94e+07	1.05 y	29:48	-	0.988	
45	Unk	PCB-37	50.00	2.39e+07	1.06 y	30:13	-	1.22	
46	IS	13C-PCB-37	100.00	3.93e+07	1.10 y	30:12	-	1.04	

47	Unk	PCB-54	100.00	4.46e+07	0.79 y	25:25		-	1.06	
48	Unk	PCB-50	100.00	3.51e+07	0.77 y	26:31		-	0.835	
49	Unk	PCB-53	100.00	3.17e+07	0.79 y	27:07		-	0.755	
50	Unk	PCB-51	100.00	3.37e+07	0.78 y	27:26		-	0.803	
51	Unk	PCB-45	100.00	3.05e+07	0.77 y	27:52		-	0.725	
52	Unk	PCB-46	100.00	2.89e+07	0.77 y	28:20		-	0.688	
53	Unk	PCB-52	200.00	7.68e+07	0.77 y	28:46		-	0.914	Co-elute PCB 69
54	Unk	PCB-69	200.00	7.68e+07	0.77 y	28:46		-	0.914	Co-elute PCB 52
55	Unk	PCB-73	100.00	4.65e+07	0.80 y	28:52		-	1.10	
56	Unk	PCB-43	200.00	6.74e+07	0.78 y	29:02		-	0.802	Co-elute PCB 49
57	Unk	PCB-49	200.00	6.74e+07	0.78 y	29:02		-	0.802	Co-elute PCB 43
58	Unk	PCB-47	100.00	4.08e+07	0.76 y	29:15		-	0.970	
59	Unk	PCB-48	200.00	8.14e+07	0.78 y	29:20		-	0.968	Co-elute PCB 75
60	Unk	PCB-75	200.00	8.14e+07	0.78 y	29:20		-	0.968	Co-elute PCB 48
61	Unk	PCB-65	100.00	4.14e+07	0.77 y	29:37		-	0.985	
62	Unk	PCB-62	100.00	4.28e+07	0.78 y	29:42		-	1.02	
63	Unk	PCB-44	100.00	2.94e+07	0.79 y	29:59		-	0.700	
64	Unk	PCB-42	200.00	7.74e+07	0.77 y	30:12		-	0.920	Co-elute PCB 59
65	Unk	PCB-59	200.00	7.74e+07	0.77 y	30:12		-	0.920	Co-elute PCB 42
66	Unk	PCB-72	400.00	1.67e+08	0.77 y	30:46		-	0.991	Co-elute PCB 41/71/64
67	Unk	PCB-41	400.00	1.67e+08	0.77 y	30:46		-	0.991	Co-elute PCB 72/71/64
68	Unk	PCB-71	400.00	1.67e+08	0.77 y	30:46		-	0.991	Co-elute PCB 72/41/64
69	Unk	PCB-64	400.00	1.67e+08	0.77 y	30:46		-	0.991	Co-elute PCB 72/41/71
70	Unk	PCB-68	100.00	4.42e+07	0.77 y	31:01		-	1.05	
71	Unk	PCB-40	100.00	2.59e+07	0.78 y	31:13		-	0.616	
72	Unk	PCB-57	100.00	4.29e+07	0.78 y	31:34		-	1.02	
73	Unk	PCB-67	100.00	4.08e+07	0.76 y	31:52		-	0.970	
74	Unk	PCB-58	100.00	4.17e+07	0.78 y	31:57		-	0.993	
75	Unk	PCB-63	100.00	4.47e+07	0.78 y	32:07		-	1.06	
76	Unk	PCB-74	100.00	4.36e+07	0.77 y	32:24		-	1.04	
77	Unk	PCB-61	200.00	8.44e+07	0.77 y	32:35		-	1.00	Co-elute PCB 70
78	Unk	PCB-70	200.00	8.44e+07	0.77 y	32:35		-	1.00	Co-elute PCB 61
79	Unk	PCB-76	200.00	9.10e+07	0.78 y	32:46		-	1.08	Co-elute PCB 66
80	Unk	PCB-66	200.00	9.10e+07	0.78 y	32:46		-	1.08	Co-elute PCB 76
81	Unk	PCB-80	100.00	4.81e+07	0.78 y	32:59		-	1.14	
82	Unk	PCB-55	100.00	4.27e+07	0.77 y	33:18		-	1.01	
83	IS/RT	13C-PCB-54	100.00	4.20e+07	0.81 y	25:24		-	1.12	
84	Unk	PCB-104	100.00	3.50e+07	1.59 y	29:51		-	1.22	
85	Unk	PCB-96	100.00	3.27e+07	1.62 y	31:03		-	1.14	
86	Unk	PCB-103	100.00	2.68e+07	1.61 y	31:33		-	0.939	
87	Unk	PCB-100	100.00	2.54e+07	1.59 y	31:53		-	0.887	
88	Unk	PCB-94	100.00	2.16e+07	1.59 y	32:20		-	0.756	
89	Unk	PCB-98	200.00	4.91e+07	1.57 y	32:46		-	0.860	Co-elute PCB 102
90	Unk	PCB-102	200.00	4.91e+07	1.57 y	32:46		-	0.860	Co-elute PCB 98
91	Unk	PCB-95	100.00	2.46e+07	1.64 y	32:49		-	0.859	
92	Unk	PCB-93	100.00	2.33e+07	1.63 y	32:55		-	0.817	
93	Unk	PCB-88	200.00	4.47e+07	1.60 y	33:13		-	0.782	Co-elute PCB 91
94	Unk	PCB-91	200.00	4.47e+07	1.60 y	33:13		-	0.782	Co-elute PCB 88
95	Unk	PCB-121	100.00	3.25e+07	1.62 y	33:18		-	1.14	
96	IS	13C-PCB-104	100.00	2.86e+07	1.63 y	29:49		-	0.758	
97	C/Up	13C-PCB-28	100.00	4.79e+07	1.09 y	26:30		-	1.27	
98	RS	13C-PCB-52	100.00	3.77e+07	0.79 y	28:44	3.77e+05		-	
99	Unk	PCB-56	200.00	7.26e+07	0.77 y	33:45		-	1.15	Co-elute PCB 60
100	Unk	PCB-60	200.00	7.26e+07	0.77 y	33:45		-	1.15	Co-elute PCB 56

101	Unk	PCB-79	100.00	3.68e+07	0.79	y	34:49	-	1.17	
102	Unk	PCB-78	100.00	3.37e+07	0.78	y	35:28	-	1.07	
103	Unk	PCB-81	100.00	3.62e+07	0.79	y	35:57	-	1.16	
104	IS	13C-PCB-81	100.00	3.12e+07	0.79	y	35:57	-	0.972	
105	Unk	PCB-77	100.00	3.34e+07	0.76	y	36:32	-	1.04	
106	IS/RT	13C-PCB-77	100.00	3.20e+07	0.79	y	36:31	-	0.994	
107	Unk	PCB-155	100.00	3.53e+07	1.27	y	33:59	-	1.11	
108	Unk	PCB-150	100.00	3.05e+07	1.25	y	35:11	-	0.959	
109	Unk	PCB-152	100.00	3.09e+07	1.26	y	35:39	-	0.973	
110	Unk	PCB-145	100.00	2.89e+07	1.26	y	36:05	-	0.910	
111	Unk	PCB-136	100.00	3.06e+07	1.26	y	36:22	-	0.963	
112	Unk	PCB-148	100.00	2.30e+07	1.26	y	36:29	-	0.724	
113	Unk	PCB-154	100.00	2.63e+07	1.26	y	36:56	-	0.828	
114	IS	13C-PCB-155	100.00	3.18e+07	1.28	y	33:58	-	0.989	
115	C/Up	13C-PCB-111	100.00	3.56e+07	1.59	y	36:03	-	1.11	
116	RS	13C-PCB-101	100.00	3.21e+07	1.59	y	34:26	3.21e+05	-	
117	Unk	PCB-84	200.00	5.29e+07	1.58	y	34:06	-	0.926	Co-elute PCB 92
118	Unk	PCB-92	200.00	5.29e+07	1.58	y	34:06	-	0.926	Co-elute PCB 84
119	Unk	PCB-89	100.00	2.67e+07	1.55	y	34:16	-	0.937	
120	Unk	PCB-90	200.00	5.77e+07	1.55	y	34:26	-	1.01	Co-elute PCB 101
121	Unk	PCB-101	200.00	5.77e+07	1.55	y	34:26	-	1.01	Co-elute PCB 90
122	Unk	PCB-113	100.00	3.24e+07	1.52	y	34:40	-	1.14	
123	Unk	PCB-99	100.00	3.27e+07	1.56	y	34:45	-	1.15	
124	Unk	PCB-119	100.00	3.83e+07	1.61	y	35:11	-	1.34	
125	Unk	PCB-83	200.00	6.01e+07	1.51	y	35:20	-	1.05	Co-elute PCB 112
126	Unk	PCB-112	200.00	6.01e+07	1.51	y	35:20	-	1.05	Co-elute PCB 83
127	Unk	PCB-109	100.00	3.50e+07	1.56	y	35:30	-	1.23	
128	Unk	PCB-97	100.00	2.98e+07	1.55	y	35:40	-	1.04	
129	Unk	PCB-86	100.00	2.65e+07	1.52	y	35:49	-	0.927	
130	Unk	PCB-125	300.00	9.81e+07	1.55	y	35:57	-	1.14	Co-elute PCB 87/117
131	Unk	PCB-87	300.00	9.81e+07	1.55	y	35:57	-	1.14	Co-elute PCB 125/117
132	Unk	PCB-117	300.00	9.81e+07	1.55	y	35:57	-	1.14	Co-elute PCB 125/87
133	Unk	PCB-111	200.00	7.93e+07	1.54	y	36:06	-	1.39	Co-elute PCB 115
134	Unk	PCB-115	200.00	7.93e+07	1.54	y	36:06	-	1.39	Co-elute PCB 111
135	Unk	PCB-85	200.00	6.28e+07	1.57	y	36:13	-	1.10	Co-elute PCB 116
136	Unk	PCB-116	200.00	6.28e+07	1.57	y	36:13	-	1.10	Co-elute PCB 85
137	Unk	PCB-120	100.00	3.84e+07	1.65	y	36:26	-	1.34	
138	Unk	PCB-110	100.00	3.94e+07	1.47	y	36:35	-	1.38	
139	Unk	PCB-82	100.00	2.20e+07	1.54	y	37:10	-	0.771	
140	Unk	PCB-124	100.00	3.02e+07	1.72	y	37:49	-	1.06	
141	Unk	PCB-108	200.00	5.70e+07	1.40	y	37:57	-	0.998	Co-elute PCB 107
142	Unk	PCB-107	200.00	5.70e+07	1.40	y	37:57	-	0.998	Co-elute PCB 108
143	Unk	PCB-123	100.00	3.04e+07	1.50	y	38:07	-	1.12	
144	IS	13C-PCB-123	100.00	2.71e+07	1.54	y	38:07	-	0.969	
145	Unk	PCB-118	200.00	5.87e+07	1.51	y	38:20	-	0.973	Co-elute PCB 106
146	Unk	PCB-106	200.00	5.87e+07	1.51	y	38:20	-	0.973	Co-elute PCB 118
147	IS	13C-PCB-118	100.00	3.02e+07	1.60	y	38:17	-	1.08	
148	Unk	PCB-114	100.00	2.79e+07	1.54	y	38:55	-	0.980	
149	IS	13C-PCB-114	100.00	2.85e+07	1.61	y	38:55	-	1.02	
150	Unk	PCB-122	100.00	3.42e+07	1.55	y	39:03	-	1.20	
151	Unk	PCB-105	100.00	3.12e+07	1.53	y	39:44	-	1.10	
152	IS	13C-PCB-105	100.00	2.84e+07	1.62	y	39:43	-	1.02	
153	Unk	PCB-127	100.00	2.91e+07	1.57	y	40:04	-	1.02	
154	Unk	PCB-126	100.00	2.83e+07	1.57	y	41:53	-	1.10	
155	IS	13C-PCB-126	100.00	2.57e+07	1.60	y	41:51	-	0.920	

156	Unk	PCB-151	100.00	2.43e+07	1.29	y	37:34	-	0.814	
157	Unk	PCB-135	100.00	2.48e+07	1.21	y	37:46	-	0.831	
158	Unk	PCB-144	100.00	2.59e+07	1.26	y	37:52	-	0.868	
159	Unk	PCB-147	100.00	2.65e+07	1.26	y	37:59	-	0.888	
160	Unk	PCB-139	200.00	5.32e+07	1.25	y	38:14	-	0.891	Co-elute PCB 149
161	Unk	PCB-149	200.00	5.32e+07	1.25	y	38:14	-	0.891	Co-elute PCB 139
162	Unk	PCB-140	100.00	2.63e+07	1.25	y	38:25	-	0.881	
163	Unk	PCB-143	200.00	4.93e+07	1.24	y	38:50	-	0.826	Co-elute PCB 134
164	Unk	PCB-134	200.00	4.93e+07	1.24	y	38:50	-	0.826	Co-elute PCB 143
165	Unk	PCB-131	200.00	4.95e+07	1.24	y	39:06	-	0.829	Co-elute PCB 133
166	Unk	PCB-133	200.00	4.95e+07	1.24	y	39:06	-	0.829	Co-elute PCB 131
167	Unk	PCB-142	100.00	2.32e+07	1.24	y	39:16	-	0.775	
168	Unk	PCB-165	200.00	5.86e+07	1.23	y	39:28	-	0.981	Co-elute PCB 146
169	Unk	PCB-146	200.00	5.86e+07	1.23	y	39:28	-	0.981	Co-elute PCB 165
170	Unk	PCB-161	200.00	5.64e+07	1.24	y	39:41	-	0.944	Co-elute PCB 132
171	Unk	PCB-132	200.00	5.64e+07	1.24	y	39:41	-	0.944	Co-elute PCB 161
172	Unk	PCB-153	100.00	2.93e+07	1.26	y	39:51	-	0.980	
173	Unk	PCB-168	100.00	3.15e+07	1.24	y	40:04	-	1.05	
174	Unk	PCB-141	100.00	2.48e+07	1.24	y	40:34	-	0.831	
175	Unk	PCB-137	100.00	2.36e+07	1.21	y	40:55	-	0.791	
176	Unk	PCB-130	100.00	2.16e+07	1.26	y	41:02	-	0.723	
177	Unk	PCB-138	300.00	9.63e+07	1.25	y	41:23	-	1.07	Co-elute PCB 163/164
178	Unk	PCB-163	300.00	9.63e+07	1.25	y	41:23	-	1.07	Co-elute PCB 138/164
179	Unk	PCB-164	300.00	9.63e+07	1.25	y	41:23	-	1.07	Co-elute PCB 138/163
180	Unk	PCB-158	200.00	6.50e+07	1.25	y	41:36	-	1.09	Co-elute PCB 160
181	Unk	PCB-160	200.00	6.50e+07	1.25	y	41:36	-	1.09	Co-elute PCB 158
182	Unk	PCB-129	100.00	2.13e+07	1.23	y	41:49	-	0.712	
183	Unk	PCB-166	100.00	3.16e+07	1.22	y	42:16	-	1.06	
184	Unk	PCB-159	100.00	3.39e+07	1.24	y	42:34	-	1.13	
185	Unk	PCB-128	200.00	5.46e+07	1.23	y	42:50	-	0.913	Co-elute PCB 162
186	Unk	PCB-162	200.00	5.46e+07	1.23	y	42:50	-	0.913	Co-elute PCB 128
187	Unk	PCB-167	100.00	3.09e+07	1.22	y	43:13	-	0.996	
188	IS	13C-PCB-167	100.00	3.10e+07	1.27	y	43:12	-	1.11	
189	Unk	PCB-156	100.00	3.08e+07	1.24	y	44:27	-	1.05	
190	IS	13C-PCB-156	100.00	2.92e+07	1.26	y	44:26	-	1.05	
191	Unk	PCB-157	100.00	2.92e+07	1.26	y	44:42	-	0.943	
192	IS	13C-PCB-157	100.00	3.09e+07	1.25	y	44:41	-	1.11	
193	Unk	PCB-169	100.00	2.79e+07	1.24	y	46:36	-	0.988	
194	IS	13C-PCB-169	100.00	2.83e+07	1.25	y	46:36	-	1.01	
195	Unk	PCB-188	100.00	3.73e+07	1.05	y	39:29	-	1.17	
196	IS	13C-PCB-188	100.00	3.19e+07	1.07	y	39:28	-	1.14	

197	Unk	PCB-184	100.00	3.64e+07	1.05 y	39:54	-	1.28	
198	Unk	PCB-179	100.00	3.62e+07	1.06 y	40:39	-	1.27	
199	Unk	PCB-176	100.00	3.46e+07	1.05 y	41:05	-	1.21	
200	Unk	PCB-186	100.00	3.29e+07	1.06 y	41:39	-	1.16	
201	Unk	PCB-178	100.00	2.44e+07	1.05 y	42:07	-	0.855	
202	Unk	PCB-175	100.00	2.55e+07	1.04 y	42:27	-	0.894	
203	Unk	PCB-187	200.00	5.33e+07	1.06 y	42:37	-	0.935	Co-elute PCB 182
204	Unk	PCB-182	200.00	5.33e+07	1.06 y	42:37	-	0.935	Co-elute PCB 187
205	Unk	PCB-183	100.00	2.74e+07	1.07 y	42:55	-	0.963	
206	Unk	PCB-185	100.00	2.41e+07	1.05 y	43:33	-	0.847	
207	Unk	PCB-174	100.00	2.37e+07	1.04 y	43:53	-	0.833	
208	Unk	PCB-181	100.00	2.44e+07	1.05 y	43:59	-	0.857	
209	Unk	PCB-177	100.00	2.27e+07	1.06 y	44:09	-	0.797	
210	Unk	PCB-171	100.00	2.39e+07	1.06 y	44:26	-	0.839	
211	Unk	PCB-173	100.00	2.13e+07	1.05 y	44:50	-	0.747	
212	Unk	PCB-172	100.00	2.27e+07	1.05 y	45:13	-	0.795	
213	Unk	PCB-192	100.00	2.91e+07	1.06 y	45:25	-	1.02	
214	Unk	PCB-180	100.00	2.74e+07	1.04 y	45:35	-	0.961	
215	Unk	PCB-193	100.00	3.17e+07	1.07 y	45:46	-	1.11	
216	Unk	PCB-191	100.00	3.09e+07	1.06 y	46:00	-	1.09	
217	Unk	PCB-170	100.00	2.10e+07	1.05 y	46:54	-	0.738	
218	Unk	PCB-190	100.00	3.03e+07	1.06 y	47:04	-	1.06	
219	Unk	PCB-189	100.00	2.85e+07	1.06 y	48:16	-	1.14	
220	IS	13C-PCB-189	100.00	2.51e+07	1.05 y	48:16	-	0.896	
221	Unk	PCB-202	150.00	3.41e+07	0.90 y	44:36	-	1.07	
222	Unk	PCB-201	150.00	3.48e+07	0.89 y	45:04	-	1.10	
223	Unk	PCB-204	150.00	3.62e+07	0.91 y	45:12	-	1.14	
224	Unk	PCB-197	150.00	3.44e+07	0.89 y	45:28	-	1.08	
225	Unk	PCB-200	150.00	3.46e+07	0.91 y	46:14	-	1.09	
226	Unk	PCB-198	150.00	2.43e+07	0.88 y	47:25	-	0.765	
227	Unk	PCB-199	150.00	2.30e+07	0.89 y	47:30	-	0.725	
228	Unk	PCB-203	300.00	5.16e+07	0.88 y	47:47	-	0.813	Co-elute PCB 196
229	Unk	PCB-196	300.00	5.16e+07	0.88 y	47:47	-	0.813	Co-elute PCB 203
230	IS	13C-PCB-202	100.00	2.12e+07	0.92 y	44:34	-	0.757	
231	C/Up	13C-PCB-178	100.00	2.09e+07	1.06 y	42:06	-	0.748	
232	RS	13C-PCB-138	100.00	2.80e+07	1.26 y	41:20	2.80e+05	-	
233	Unk	PCB-195	150.00	2.54e+07	0.88 y	48:52	-	0.730	
234	Unk	PCB-194	150.00	2.76e+07	0.86 y	49:41	-	0.791	
235	Unk	PCB-205	150.00	3.82e+07	0.85 y	49:56	-	1.10	
236	IS	13C-PCB-205	100.00	2.32e+07	0.91 y	49:55	-	1.34	
237	Unk	PCB-208	150.00	3.81e+07	1.35 y	49:00	-	0.971	
238	IS	13C-PCB-208	100.00	2.62e+07	0.78 y	48:58	-	1.51	
239	Unk	PCB-207	150.00	3.72e+07	1.34 y	49:16	-	1.08	
240	Unk	PCB-206	150.00	3.01e+07	1.34 y	51:05	-	1.01	
241	IS	13C-PCB-206	100.00	1.99e+07	0.80 y	51:05	-	1.15	
242	Unk	PCB-209	150.00	4.93e+07	1.17 y	52:16	-	1.11	
243	IS	13C-PCB-209	100.00	2.97e+07	1.21 y	52:15	-	1.72	
244	RS	13C-PCB-194	100.00	1.73e+07	0.92 y	49:39	1.73e+05	-	

Analyst: [illegible] Date: 7/15/16

USEPA - ITD

FORM 4A
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 7/13/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 13JUL16Z Sam:1 Analysis Date: 13-JUL-16 10:16:51

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
PCB-1	M/M+2	3.13	2.66-3.60	y	46.2	37.5 - 62.5
PCB-3	M/M+2	3.03	2.66-3.60	y	43.5	37.5 - 62.5
PCB-4	M/M+2	1.52	1.33-1.79	y	43.1	37.5 - 62.5
PCB-15	M/M+2	1.55	1.33-1.79	y	39.0	37.5 - 62.5
PCB-19	M/M+2	1.04	0.88-1.20	y	49.5	37.5 - 62.5
PCB-37	M/M+2	1.08	0.88-1.20	y	44.1	37.5 - 62.5
PCB-54	M/M+2	0.79	0.65-0.89	y	46.6	37.5 - 62.5
PCB-77	M/M+2	0.76	0.65-0.89	y	47.8	37.5 - 62.5
PCB-81	M/M+2	0.77	0.65-0.89	y	46.6	37.5 - 62.5
PCB-104	M+2/M+4	1.59	1.32-1.78	y	45.0	37.5 - 62.5
PCB-105	M+2/M+4	1.51	1.32-1.78	y	44.1	37.5 - 62.5
PCB-114	M+2/M+4	1.50	1.32-1.78	y	49.9	37.5 - 62.5
PCB-118	M+2/M+4	1.53	1.32-1.78	y	49.6	37.5 - 62.5
PCB-123	M+2/M+4	1.48	1.32-1.78	y	42.5	37.5 - 62.5
PCB-126	M+2/M+4	1.52	1.32-1.78	y	44.0	37.5 - 62.5
PCB-155	M+2/M+4	1.28	1.05-1.43	y	49.6	37.5 - 62.5
PCB-156	M+2/M+4	1.25	1.05-1.43	y	46.0	37.5 - 62.5
PCB-157	M+2/M+4	1.24	1.05-1.43	y	50.8	37.5 - 62.5
PCB-167	M+2/M+4	1.25	1.05-1.43	y	48.2	37.5 - 62.5
PCB-169	M+2/M+4	1.24	1.05-1.43	y	48.5	37.5 - 62.5
PCB-188	M+2/M+4	1.06	0.89-1.21	y	44.8	37.5 - 62.5
PCB-189	M+2/M+4	1.07	0.89-1.21	y	48.1	37.5 - 62.5
PCB-202	M+2/M+4	0.88	0.76-1.02	y	51.1	37.5 - 62.5
PCB-205	M+2/M+4	0.86	0.76-1.02	y	46.6	37.5 - 62.5
PCB-206	M+4/M+6	1.36	1.13-1.53	y	44.6	37.5 - 62.5
PCB-208	M+4/M+6	1.33	1.13-1.53	y	45.6	37.5 - 62.5
PCB-209	M+4/M+6	1.18	0.99-1.33	y	51.4	37.5 - 62.5

Analyst: [illegible] Date: 7/15/16

USEPA - ITD

FORM 4B
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 7/13/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 13JUL16Z Sam:1 Analysis Date: 13-JUL-16 10:16:51

	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
LABELED COMPOUNDS						
13C-PCB-1	M/M+2	3.07	2.66-3.60	y	115	50.0 - 145
13C-PCB-3	M/M+2	3.12	2.66-3.60	y	111	50.0 - 145
13C-PCB-4	M/M+2	1.59	1.33-1.79	y	110	50.0 - 145
13C-PCB-15	M/M+2	1.59	1.33-1.79	y	109	50.0 - 145
13C-PCB-19	M/M+2	1.06	0.88-1.20	y	111	50.0 - 145
13C-PCB-37	M/M+2	1.07	0.88-1.20	y	106	50.0 - 145
13C-PCB-54	M/M+2	0.80	0.65-0.89	y	109	50.0 - 145
13C-PCB-77	M/M+2	0.79	0.65-0.89	y	107	50.0 - 145
13C-PCB-81	M/M+2	0.79	0.65-0.89	y	103	50.0 - 145
13C-PCB-104	M+2/M+4	1.60	1.32-1.78	y	120	50.0 - 145
13C-PCB-105	M+2/M+4	1.60	1.32-1.78	y	107	50.0 - 145
13C-PCB-114	M+2/M+4	1.58	1.32-1.78	y	106	50.0 - 145
13C-PCB-118	M+2/M+4	1.57	1.32-1.78	y	103	50.0 - 145
13C-PCB-123	M+2/M+4	1.53	1.32-1.78	y	102	50.0 - 145
13C-PCB-126	M+2/M+4	1.59	1.32-1.78	y	107	50.0 - 145
13C-PCB-155	M+2/M+4	1.28	1.05-1.43	y	110	50.0 - 145
13C-PCB-156	M+2/M+4	1.25	1.05-1.43	y	112	50.0 - 145
13C-PCB-157	M+2/M+4	1.26	1.05-1.43	y	108	50.0 - 145
13C-PCB-167	M+2/M+4	1.26	1.05-1.43	y	112	50.0 - 145
13C-PCB-169	M+2/M+4	1.24	1.05-1.43	y	112	50.0 - 145
13C-PCB-188	M+2/M+4	1.08	0.89-1.21	y	119	50.0 - 145
13C-PCB-189	M+2/M+4	1.05	0.89-1.21	y	111	50.0 - 145
13C-PCB-202	M+2/M+4	0.92	0.76-1.02	y	114	50.0 - 145
13C-PCB-205	M+2/M+4	0.91	0.76-1.02	y	102	50.0 - 145
13C-PCB-206	M+2/M+4	0.77	0.65-0.89	y	118	50.0 - 145
13C-PCB-208	M+2/M+4	0.78	0.65-0.89	y	119	50.0 - 145
13C-PCB-209	M+4/M+6	1.20	0.99-1.33	y	97.7	50.0 - 145
CLEANUP STANDARDS						
13C-PCB-28	M/M+2	1.11	0.88-1.20	y	98.7	65.0 - 135
13C-PCB-111	M+2/M+4	1.60	1.32-1.78	y	114	75.0 - 125
13C-PCB-178	M+2/M+4	1.06	0.89-1.21	y	116	75.0 - 125

Analyst: [signature] Date: 7/15/16

FAL ID: ST071316Z1 Filename: 13JUL16Z Sam:1 Acquired: 13-JUL-16 10:16:51 ICal: DAILY209FAL4-7-13-16
Client ID: 1668 CS3 R150603A ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 3765 GC Column: DB1 Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL	Rec
PCB-1	3.61e+07	3.13 y	14:21	1.05	46.2		2.50	-	-	*	
13C-PCB-1	7.41e+07	3.07 y	14:20	1.06	115		2.50				115
PCB-3	3.41e+07	3.03 y	16:48	1.13	43.5		2.50	-	-	*	
13C-PCB-3	6.97e+07	3.12 y	16:47	1.03	111		2.50				111
PCB-4	2.09e+07	1.52 y	18:01	1.19	43.1		2.50	-	-	*	
13C-PCB-4	4.06e+07	1.59 y	18:00	0.60	110		2.50				110
PCB-15	2.96e+07	1.55 y	23:34	1.34	39.0		2.50	-	-	*	
13C-PCB-15	5.67e+07	1.59 y	23:33	0.85	109		2.50				109
PCB-19	2.25e+07	1.04 y	21:54	1.14	49.5		2.50	-	-	*	
13C-PCB-19	3.99e+07	1.06 y	21:52	0.59	111		2.50				111
13C-PCB-9	6.10e+07	1.57 y	19:40	-	105		2.50				
PCB-37	2.39e+07	1.08 y	30:13	1.22	44.1		2.50	-	-	*	
13C-PCB-37	4.45e+07	1.07 y	30:11	1.04	106		2.50				106
PCB-54	2.44e+07	0.79 y	25:26	1.06	46.6		2.50	-	-	*	
13C-PCB-54	4.92e+07	0.80 y	25:24	1.12	109		2.50				109
PCB-104	2.01e+07	1.59 y	29:51	1.22	45.0		2.50	-	-	*	
13C-PCB-104	3.66e+07	1.60 y	29:50	0.76	120		2.50				120
13C-PCB-28	5.06e+07	1.11 y	26:30	1.27	98.7		2.50				98.7
13C-PCB-52	4.03e+07	0.79 y	28:46	-	107		2.50				
PCB-81	1.91e+07	0.77 y	35:59	1.16	46.6		2.50	-	-	*	
13C-PCB-81	3.53e+07	0.79 y	35:58	0.97	103		2.50				103
PCB-77	1.86e+07	0.76 y	36:33	1.04	47.8		2.50	-	-	*	
13C-PCB-77	3.73e+07	0.79 y	36:32	0.99	107		2.50				107
PCB-155	2.10e+07	1.28 y	34:00	1.11	49.6		2.50	-	-	*	
13C-PCB-155	3.81e+07	1.28 y	33:59	0.99	110		2.50				110
13C-PCB-111	4.44e+07	1.60 y	36:05	1.11	114		2.50				114
13C-PCB-101	3.51e+07	1.60 y	34:27	-	109		2.50				
PCB-123	1.44e+07	1.48 y	38:08	1.12	42.5		2.50	-	-	*	
13C-PCB-123	3.01e+07	1.53 y	38:08	0.97	102		2.50				102
PCB-118	1.63e+07	1.53 y	38:20	0.97	49.6		2.50	-	-	*	
13C-PCB-118	3.37e+07	1.57 y	38:18	1.08	103		2.50				103
PCB-114	1.60e+07	1.50 y	38:56	0.98	49.9		2.50	-	-	*	
13C-PCB-114	3.28e+07	1.58 y	38:54	1.02	106		2.50				106
PCB-105	1.60e+07	1.51 y	39:45	1.10	44.1		2.50	-	-	*	
13C-PCB-105	3.32e+07	1.60 y	39:44	1.02	107		2.50				107
PCB-126	1.46e+07	1.52 y	41:54	1.10	44.0		2.50	-	-	*	
13C-PCB-126	3.01e+07	1.59 y	41:52	0.92	107		2.50				107
PCB-167	1.82e+07	1.25 y	43:14	1.00	48.2		2.50	-	-	*	
13C-PCB-167	3.79e+07	1.26 y	43:13	1.11	112		2.50				112
PCB-156	1.73e+07	1.25 y	44:28	1.05	46.0		2.50	-	-	*	
13C-PCB-156	3.56e+07	1.25 y	44:27	1.05	112		2.50				112
PCB-157	1.75e+07	1.24 y	44:43	0.94	50.8		2.50	-	-	*	
13C-PCB-157	3.65e+07	1.26 y	44:42	1.11	108		2.50				108
PCB-169	1.66e+07	1.24 y	46:37	0.99	48.5		2.50	-	-	*	
13C-PCB-169	3.46e+07	1.24 y	46:37	1.01	112		2.50				112
PCB-188	2.16e+07	1.06 y	39:31	1.17	44.8		2.50	-	-	*	
13C-PCB-188	4.13e+07	1.08 y	39:29	1.14	119		2.50				119
PCB-189	1.66e+07	1.07 y	48:17	1.14	48.1		2.50	-	-	*	
13C-PCB-189	3.03e+07	1.05 y	48:16	0.90	111		2.50				111
PCB-202	1.43e+07	0.88 y	44:37	1.07	51.1		2.50	-	-	*	
13C-PCB-202	2.62e+07	0.92 y	44:37	0.76	114		2.50				114
13C-PCB-178	2.65e+07	1.06 y	42:07	0.75	116		2.50				116
13C-PCB-138	3.04e+07	1.27 y	41:21	-	109		2.50				

FAL ID: ST071316Z1 Filename: 13JUL16Z Sam:1 Acquired: 13-JUL-16 10:16:51 ICal: DAILY209FAL4-7-13-16 2 of 2
Client ID: 1668 CS3 R150603A ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 3765 GC Column: DB1 Amount: 1.000

PCB-205	1.32e+07	0.86	y	49:56	1.10	46.6	2.50	-	-	*	
13C-PCB-205	2.57e+07	0.91	y	49:56	1.34	102	2.50				102
PCB-208	1.49e+07	1.33	y	49:00	0.97	45.6	2.50	-	-	*	
13C-PCB-208	3.37e+07	0.78	y	48:59	1.51	119	2.50				119
PCB-206	1.14e+07	1.36	y	51:06	1.01	44.6	2.50	-	-	*	
13C-PCB-206	2.54e+07	0.77	y	51:06	1.15	118	2.50				118
PCB-209	1.79e+07	1.18	y	52:17	1.11	51.4	2.50	-	-	*	
13C-PCB-209	3.15e+07	1.20	y	52:16	1.72	97.7	2.50				97.7
13C-PCB-194	1.88e+07	0.94	y	49:40	-	108	2.50				

Analyst: [illegible] Date: 7/15/16

USEPA - ITD

FORM 4A
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 7/13/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 13JUL16Z Sam:14 Analysis Date: 13-JUL-16 23:16:15

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
PCB-1	M/M+2	3.24	2.66-3.60	y	54.8	37.5 - 62.5
PCB-3	M/M+2	3.25	2.66-3.60	y	50.1	37.5 - 62.5
PCB-4	M/M+2	1.57	1.33-1.79	y	52.6	37.5 - 62.5
PCB-15	M/M+2	1.60	1.33-1.79	y	45.0	37.5 - 62.5
PCB-19	M/M+2	1.05	0.88-1.20	y	51.7	37.5 - 62.5
PCB-37	M/M+2	1.08	0.88-1.20	y	48.5	37.5 - 62.5
PCB-54	M/M+2	0.78	0.65-0.89	y	53.2	37.5 - 62.5
PCB-77	M/M+2	0.74	0.65-0.89	y	53.8	37.5 - 62.5
PCB-81	M/M+2	0.78	0.65-0.89	y	53.1	37.5 - 62.5
PCB-104	M+2/M+4	1.57	1.32-1.78	y	47.9	37.5 - 62.5
PCB-105	M+2/M+4	1.59	1.32-1.78	y	51.7	37.5 - 62.5
PCB-114	M+2/M+4	1.58	1.32-1.78	y	56.6	37.5 - 62.5
PCB-118	M+2/M+4	1.59	1.32-1.78	y	57.7	37.5 - 62.5
PCB-123	M+2/M+4	1.66	1.32-1.78	y	49.7	37.5 - 62.5
PCB-126	M+2/M+4	1.63	1.32-1.78	y	51.3	37.5 - 62.5
PCB-155	M+2/M+4	1.26	1.05-1.43	y	50.2	37.5 - 62.5
PCB-156	M+2/M+4	1.24	1.05-1.43	y	50.0	37.5 - 62.5
PCB-157	M+2/M+4	1.27	1.05-1.43	y	53.4	37.5 - 62.5
PCB-167	M+2/M+4	1.26	1.05-1.43	y	51.6	37.5 - 62.5
PCB-169	M+2/M+4	1.23	1.05-1.43	y	50.6	37.5 - 62.5
PCB-188	M+2/M+4	1.06	0.89-1.21	y	47.7	37.5 - 62.5
PCB-189	M+2/M+4	1.04	0.89-1.21	y	51.5	37.5 - 62.5
PCB-202	M+2/M+4	0.90	0.76-1.02	y	51.4	37.5 - 62.5
PCB-205	M+2/M+4	0.89	0.76-1.02	y	51.1	37.5 - 62.5
PCB-206	M+4/M+6	1.37	1.13-1.53	y	47.9	37.5 - 62.5
PCB-208	M+4/M+6	1.34	1.13-1.53	y	47.6	37.5 - 62.5
PCB-209	M+4/M+6	1.19	0.99-1.33	y	55.2	37.5 - 62.5

Analyst: [signature] Date: 7/15/16

USEPA - ITD

FORM 4B
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 7/13/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 13JUL16Z Sam:14 Analysis Date: 13-JUL-16 23:16:15

	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
LABELED COMPOUNDS						
13C-PCB-1	M/M+2	3.19	2.66-3.60	y	97.6	50.0 - 145
13C-PCB-3	M/M+2	3.36	2.66-3.60	y	85.1	50.0 - 145
13C-PCB-4	M/M+2	1.61	1.33-1.79	y	112	50.0 - 145
13C-PCB-15	M/M+2	1.66	1.33-1.79	y	96.8	50.0 - 145
13C-PCB-19	M/M+2	1.12	0.88-1.20	y	81.5	50.0 - 145
13C-PCB-37	M/M+2	1.06	0.88-1.20	y	129	50.0 - 145
13C-PCB-54	M/M+2	0.80	0.65-0.89	y	112	50.0 - 145
13C-PCB-77	M/M+2	0.81	0.65-0.89	y	134	50.0 - 145
13C-PCB-81	M/M+2	0.80	0.65-0.89	y	129	50.0 - 145
13C-PCB-104	M+2/M+4	1.62	1.32-1.78	y	92.7	50.0 - 145
13C-PCB-105	M+2/M+4	1.61	1.32-1.78	y	129	50.0 - 145
13C-PCB-114	M+2/M+4	1.63	1.32-1.78	y	137	50.0 - 145
13C-PCB-118	M+2/M+4	1.59	1.32-1.78	y	141	50.0 - 145
13C-PCB-123	M+2/M+4	1.60	1.32-1.78	y	136	50.0 - 145
13C-PCB-126	M+2/M+4	1.70	1.32-1.78	y	129	50.0 - 145
13C-PCB-155	M+2/M+4	1.29	1.05-1.43	y	91.5	50.0 - 145
13C-PCB-156	M+2/M+4	1.28	1.05-1.43	y	106	50.0 - 145
13C-PCB-157	M+2/M+4	1.27	1.05-1.43	y	112	50.0 - 145
13C-PCB-167	M+2/M+4	1.24	1.05-1.43	y	107	50.0 - 145
13C-PCB-169	M+2/M+4	1.27	1.05-1.43	y	110	50.0 - 145
13C-PCB-188	M+2/M+4	1.09	0.89-1.21	y	93.7	50.0 - 145
13C-PCB-189	M+2/M+4	1.07	0.89-1.21	y	93.0	50.0 - 145
13C-PCB-202	M+2/M+4	0.93	0.76-1.02	y	85.4	50.0 - 145
13C-PCB-205	M+2/M+4	0.91	0.76-1.02	y	104	50.0 - 145
13C-PCB-206	M+2/M+4	0.79	0.65-0.89	y	88.0	50.0 - 145
13C-PCB-208	M+2/M+4	0.81	0.65-0.89	y	91.9	50.0 - 145
13C-PCB-209	M+4/M+6	1.20	0.99-1.33	y	61.6	50.0 - 145
CLEANUP STANDARDS						
13C-PCB-28	M/M+2	1.09	0.88-1.20	y	133	65.0 - 135
13C-PCB-111	M+2/M+4	1.59	1.32-1.78	y	113	75.0 - 125
13C-PCB-178	M+2/M+4	1.07	0.89-1.21	y	88.4	75.0 - 125

Analyst: [signature] Date: 7/15/16

FAL ID: ST071316Z2 Filename: 13JUL16Z Sam:14 Acquired: 13-JUL-16 23:16:15 ICal: DAILY209FAL4-7-13-16
Client ID: 1668 CS3 R150603A ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 3765 GC Column: DB1 Amount: 1.000

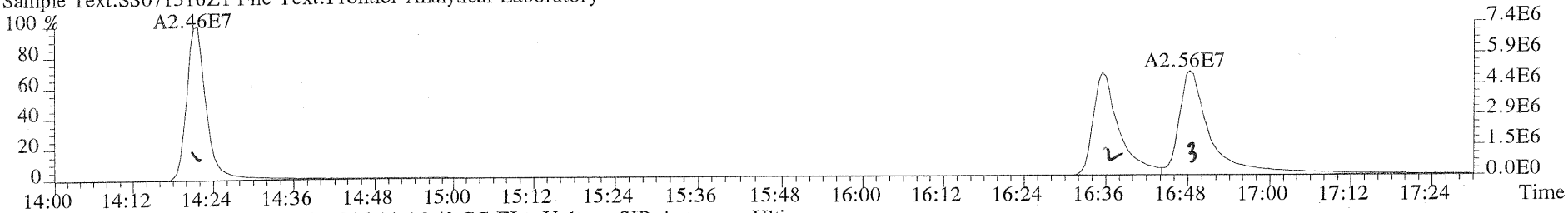
Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL	Rec
PCB-1	2.22e+07	3.24 y	14:22	1.05	54.8		2.50	-	-	*	
13C-PCB-1	3.85e+07	3.19 y	14:21	1.06	97.6		2.50				97.6
PCB-3	1.85e+07	3.25 y	16:49	1.13	50.1		2.50	-	-	*	
13C-PCB-3	3.28e+07	3.36 y	16:49	1.03	85.1		2.50				85.1
PCB-4	1.58e+07	1.57 y	18:01	1.19	52.6		2.50	-	-	*	
13C-PCB-4	2.51e+07	1.61 y	18:00	0.60	112		2.50				112
PCB-15	1.86e+07	1.60 y	23:37	1.34	45.0		2.50	-	-	*	
13C-PCB-15	3.08e+07	1.66 y	23:36	0.85	96.8		2.50				96.8
PCB-19	1.05e+07	1.05 y	21:54	1.14	51.7		2.50	-	-	*	
13C-PCB-19	1.79e+07	1.12 y	21:53	0.59	81.5		2.50				81.5
13C-PCB-9	3.73e+07	1.64 y	19:42	-	64.2		2.50				
PCB-37	1.45e+07	1.08 y	30:16	1.22	48.5		2.50	-	-	*	
13C-PCB-37	2.46e+07	1.06 y	30:15	1.04	129		2.50				129
PCB-54	1.29e+07	0.78 y	25:26	1.06	53.2		2.50	-	-	*	
13C-PCB-54	2.29e+07	0.80 y	25:24	1.12	112		2.50				112
PCB-104	7.55e+06	1.57 y	29:52	1.22	47.9		2.50	-	-	*	
13C-PCB-104	1.29e+07	1.62 y	29:50	0.76	92.7		2.50				92.7
13C-PCB-28	3.10e+07	1.09 y	26:31	1.27	133		2.50				133
13C-PCB-52	1.84e+07	0.80 y	28:45	-	48.7		2.50				
PCB-81	1.18e+07	0.78 y	35:60	1.16	53.1		2.50	-	-	*	
13C-PCB-81	1.92e+07	0.80 y	35:59	0.97	129		2.50				129
PCB-77	1.14e+07	0.74 y	36:34	1.04	53.8		2.50	-	-	*	
13C-PCB-77	2.03e+07	0.81 y	36:33	0.99	134		2.50				134
PCB-155	7.73e+06	1.26 y	34:01	1.11	50.2		2.50	-	-	*	
13C-PCB-155	1.38e+07	1.29 y	33:60	0.99	91.5		2.50				91.5
13C-PCB-111	1.91e+07	1.59 y	36:05	1.11	113		2.50				113
13C-PCB-101	1.53e+07	1.63 y	34:26	-	47.6		2.50				
PCB-123	1.12e+07	1.66 y	38:09	1.12	49.7		2.50	-	-	*	
13C-PCB-123	2.00e+07	1.60 y	38:08	0.97	136		2.50				136
PCB-118	1.29e+07	1.59 y	38:19	0.97	57.7		2.50	-	-	*	
13C-PCB-118	2.31e+07	1.59 y	38:19	1.08	141		2.50				141
PCB-114	1.18e+07	1.58 y	38:57	0.98	56.6		2.50	-	-	*	
13C-PCB-114	2.12e+07	1.63 y	38:55	1.02	137		2.50				137
PCB-105	1.13e+07	1.59 y	39:46	1.10	51.7		2.50	-	-	*	
13C-PCB-105	1.99e+07	1.61 y	39:45	1.02	129		2.50				129
PCB-126	1.01e+07	1.63 y	41:55	1.10	51.3		2.50	-	-	*	
13C-PCB-126	1.79e+07	1.70 y	41:53	0.92	129		2.50				129
PCB-167	9.26e+06	1.26 y	43:14	1.00	51.6		2.50	-	-	*	
13C-PCB-167	1.80e+07	1.24 y	43:14	1.11	107		2.50				107
PCB-156	8.82e+06	1.24 y	44:28	1.05	50.0		2.50	-	-	*	
13C-PCB-156	1.67e+07	1.28 y	44:26	1.05	106		2.50				106
PCB-157	9.43e+06	1.27 y	44:43	0.94	53.4		2.50	-	-	*	
13C-PCB-157	1.87e+07	1.27 y	44:43	1.11	112		2.50				112
PCB-169	8.44e+06	1.23 y	46:38	0.99	50.6		2.50	-	-	*	
13C-PCB-169	1.69e+07	1.27 y	46:36	1.01	110		2.50				110
PCB-188	9.05e+06	1.06 y	39:30	1.17	47.7		2.50	-	-	*	
13C-PCB-188	1.62e+07	1.09 y	39:30	1.14	93.7		2.50				93.7
PCB-189	7.39e+06	1.04 y	48:17	1.14	51.5		2.50	-	-	*	
13C-PCB-189	1.26e+07	1.07 y	48:17	0.90	93.0		2.50				93.0
PCB-202	5.40e+06	0.90 y	44:38	1.07	51.4		2.50	-	-	*	
13C-PCB-202	9.80e+06	0.93 y	44:36	0.76	85.4		2.50				85.4
13C-PCB-178	1.00e+07	1.07 y	42:08	0.75	88.4		2.50				88.4
13C-PCB-138	1.52e+07	1.27 y	41:22	-	54.2		2.50				

FAL ID: ST071316Z2 Filename: 13JUL16Z Sam:14 Acquired: 13-JUL-16 23:16:15 ICal: DAILY209FAL4-7-13-16 2 of 2
Client ID: 1668 CS3 R150603A ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 3765 GC Column: DB1 Amount: 1.000

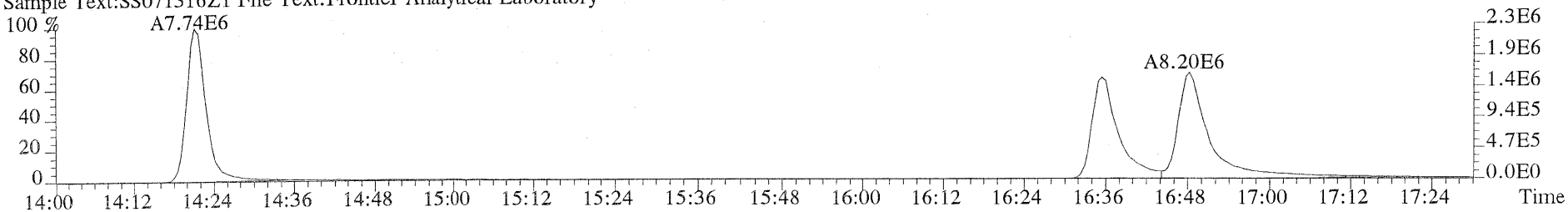
PCB-205	1.12e+07	0.89	y	49:57	1.10	51.1	2.50	-	-	*
13C-PCB-205	1.99e+07	0.91	y	49:55	1.34	104	2.50			104
PCB-208	9.19e+06	1.34	y	49:00	0.97	47.6	2.50	-	-	*
13C-PCB-208	1.99e+07	0.81	y	48:59	1.51	91.9	2.50			91.9
PCB-206	6.98e+06	1.37	y	51:07	1.01	47.9	2.50	-	-	*
13C-PCB-206	1.44e+07	0.79	y	51:06	1.15	88.0	2.50			88.0
PCB-209	9.21e+06	1.19	y	52:17	1.11	55.2	2.50	-	-	*
13C-PCB-209	1.51e+07	1.20	y	52:17	1.72	61.6	2.50			61.6
13C-PCB-194	1.43e+07	0.92	y	49:40	-	82.6	2.50			

Analyst: [illegible] Date: 7/15/16

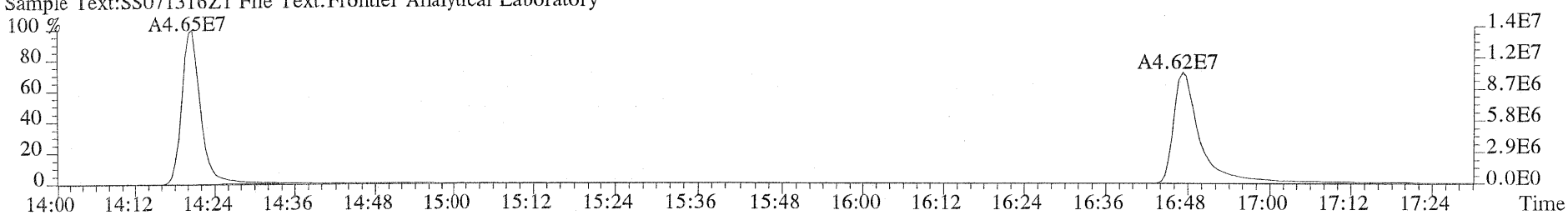
File:13JUL16Z #1-901 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



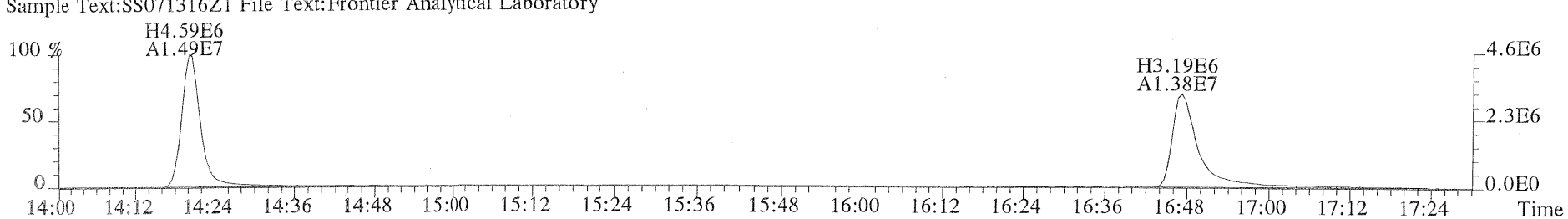
File:13JUL16Z #1-901 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



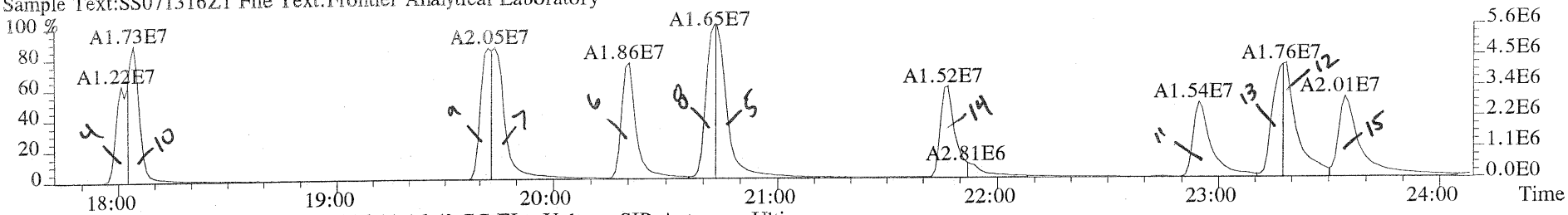
File:13JUL16Z #1-901 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



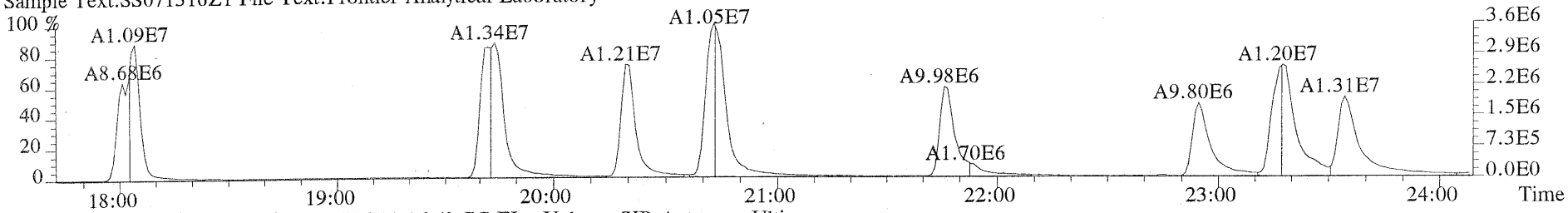
File:13JUL16Z #1-901 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



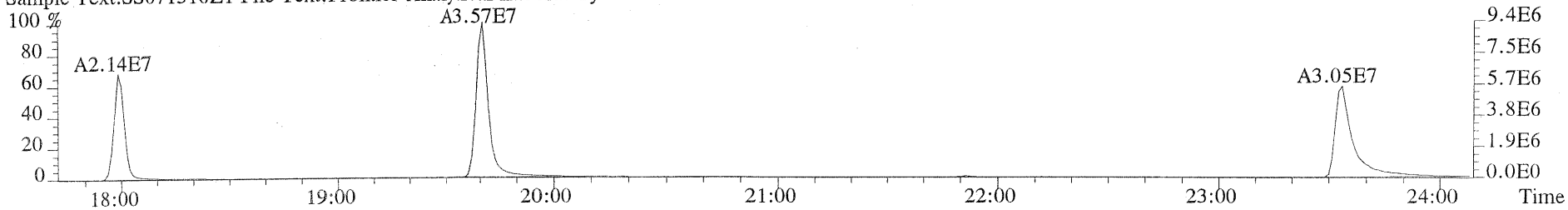
File:13JUL16Z #1-497 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:2 F:2 BSUB(10000,15,-3.0) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



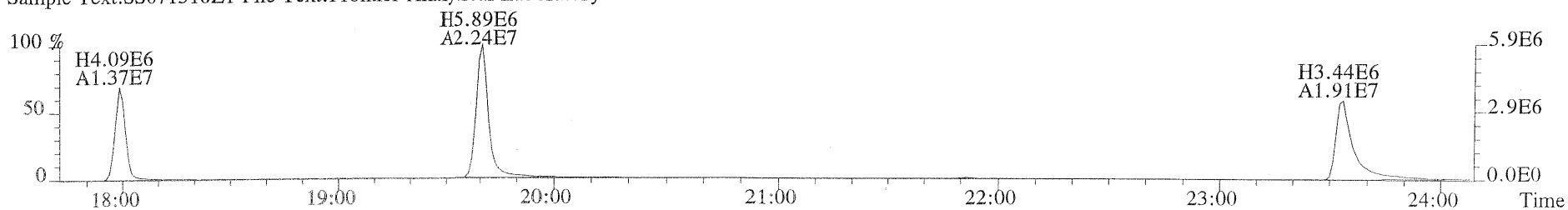
File:13JUL16Z #1-497 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:2 F:2 BSUB(10000,15,-3.0) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



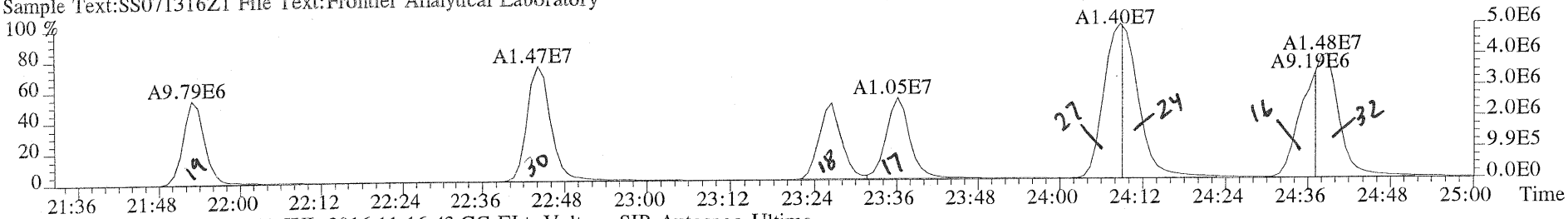
File:13JUL16Z #1-497 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



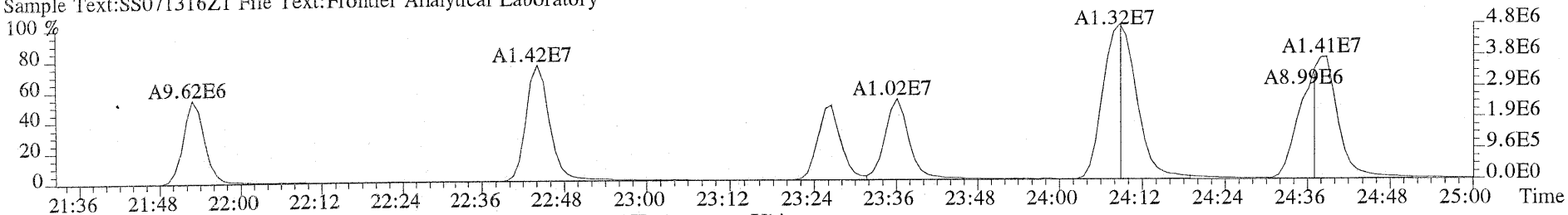
File:13JUL16Z #1-497 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



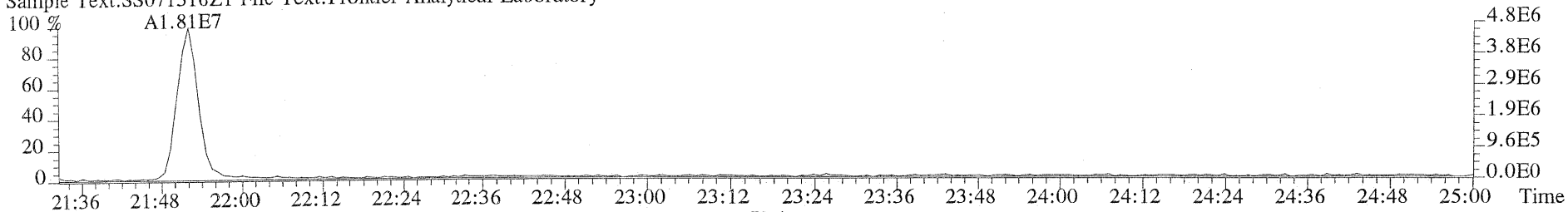
File:13JUL16Z #1-497 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



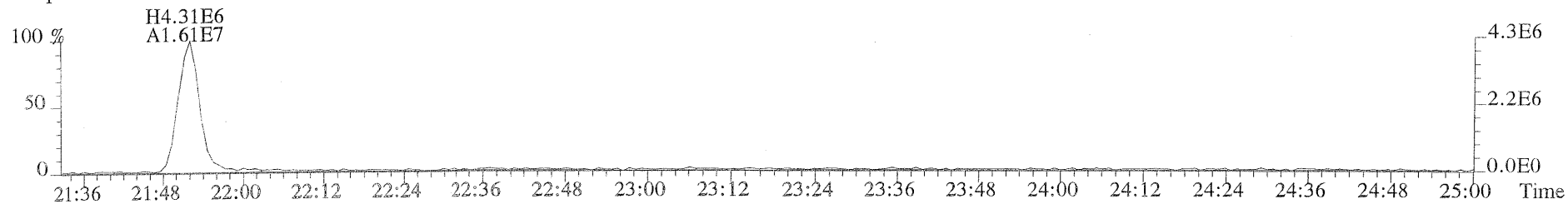
File:13JUL16Z #1-497 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



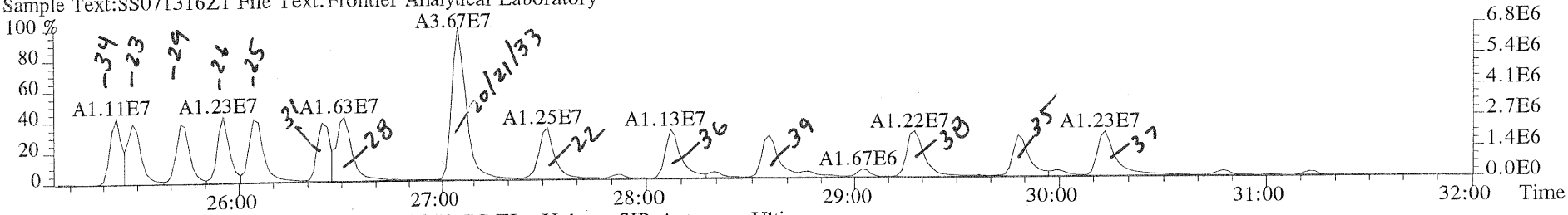
File:13JUL16Z #1-497 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



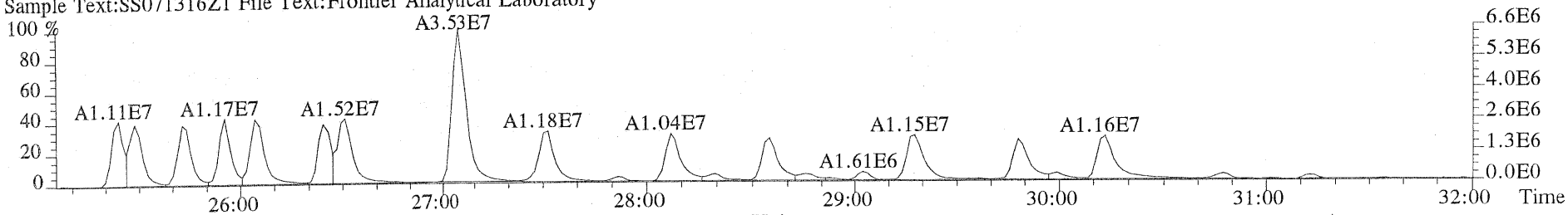
File:13JUL16Z #1-497 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



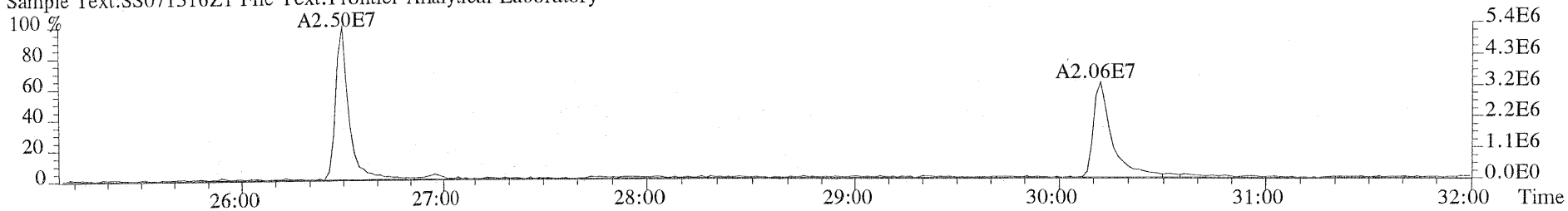
File:13JUL16Z #1-405 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:2 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



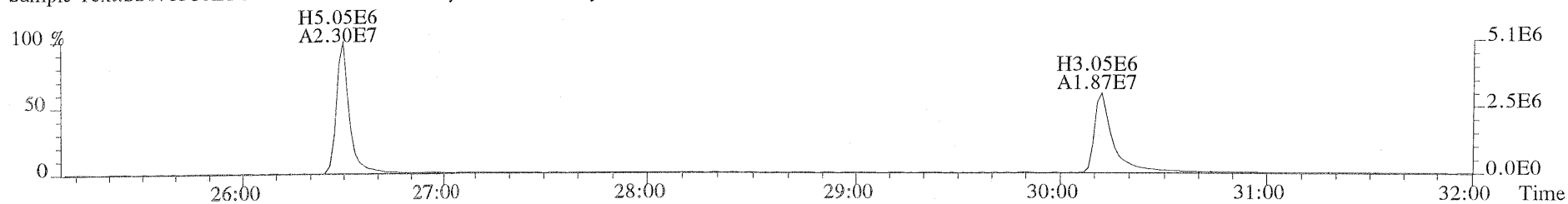
File:13JUL16Z #1-405 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:2 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



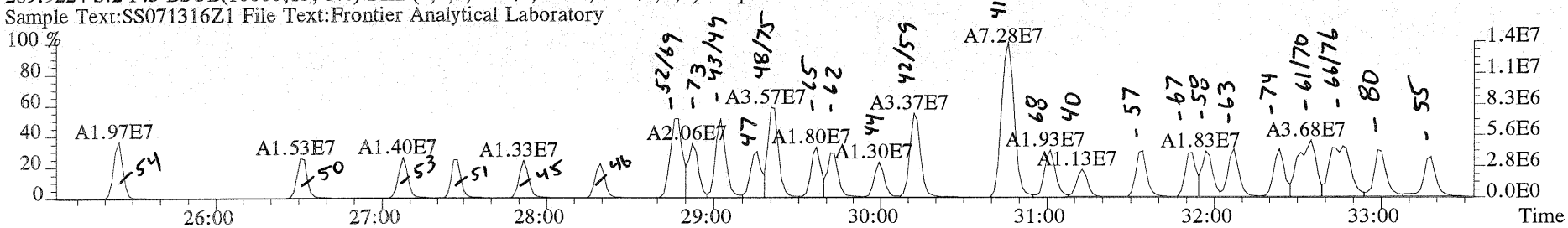
File:13JUL16Z #1-405 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:2 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



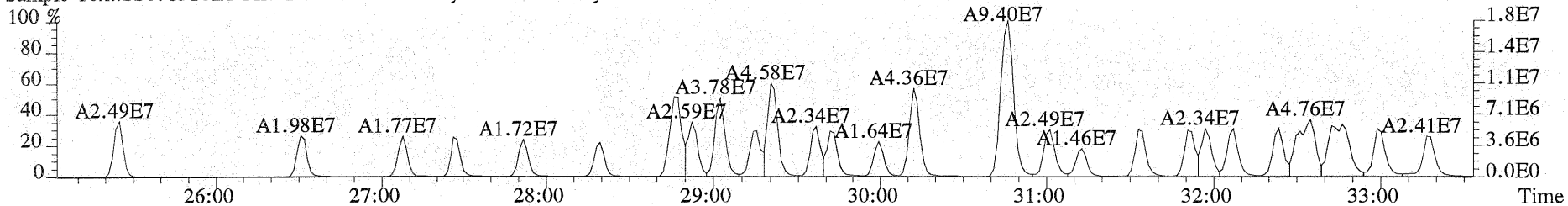
File:13JUL16Z #1-405 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:2 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



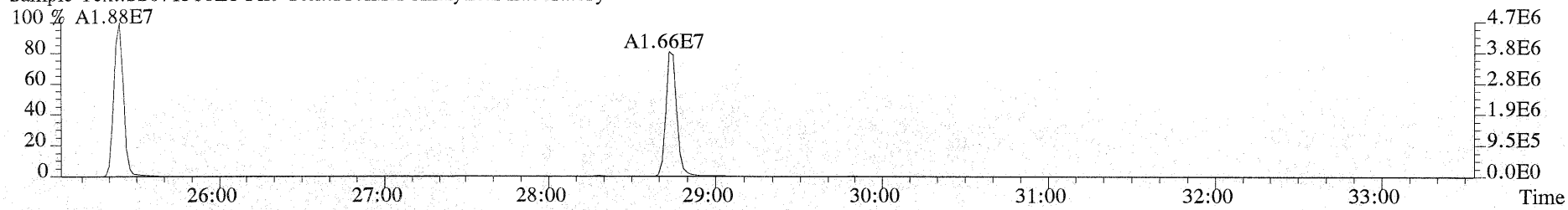
File:13JUL16Z #1-405 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



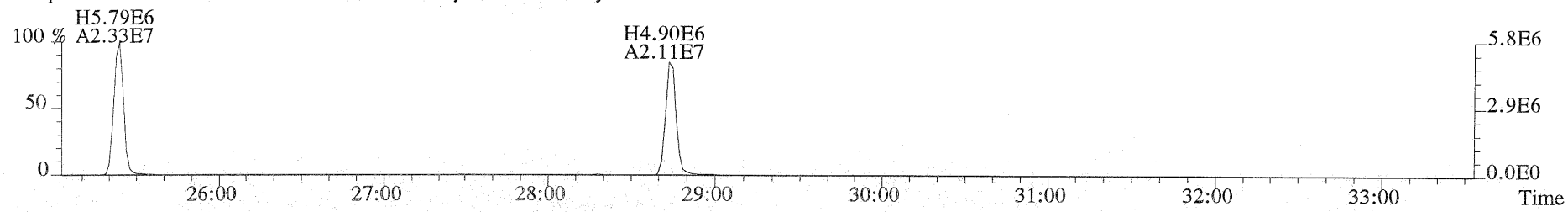
File:13JUL16Z #1-405 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



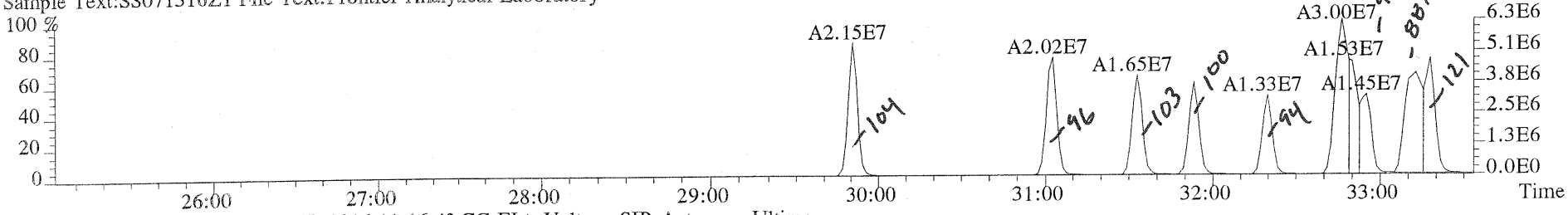
File:13JUL16Z #1-405 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



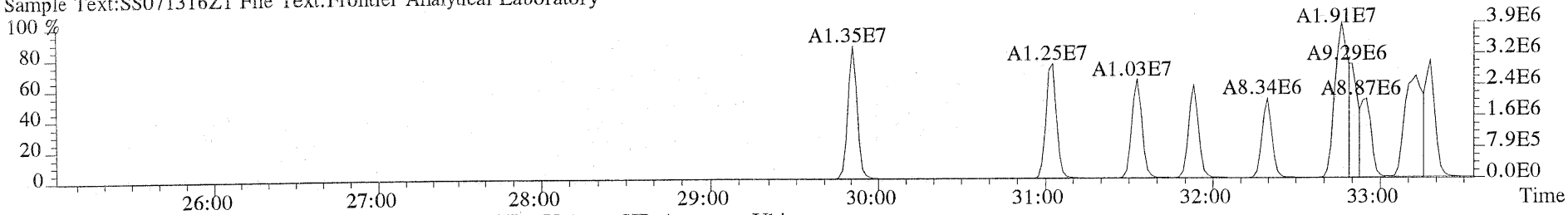
File:13JUL16Z #1-405 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



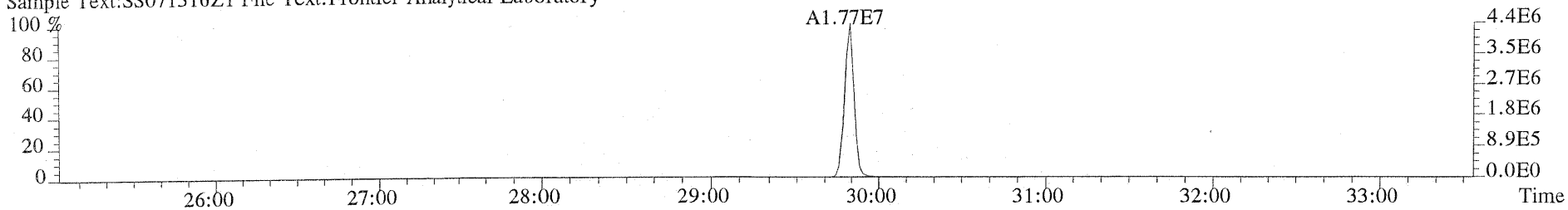
File:13JUL16Z #1-405 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



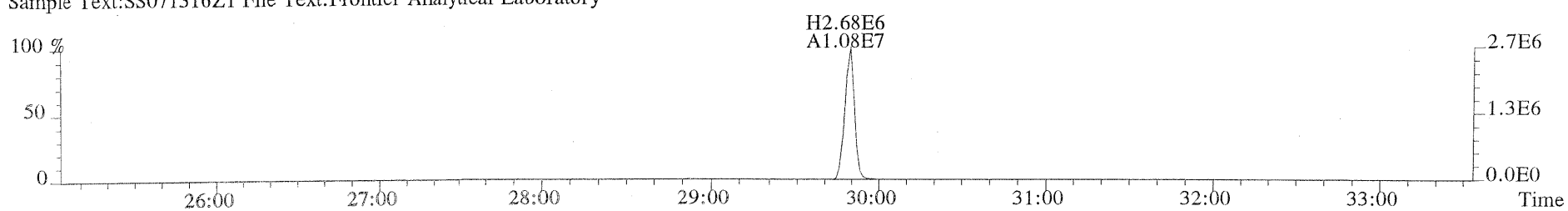
File:13JUL16Z #1-405 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



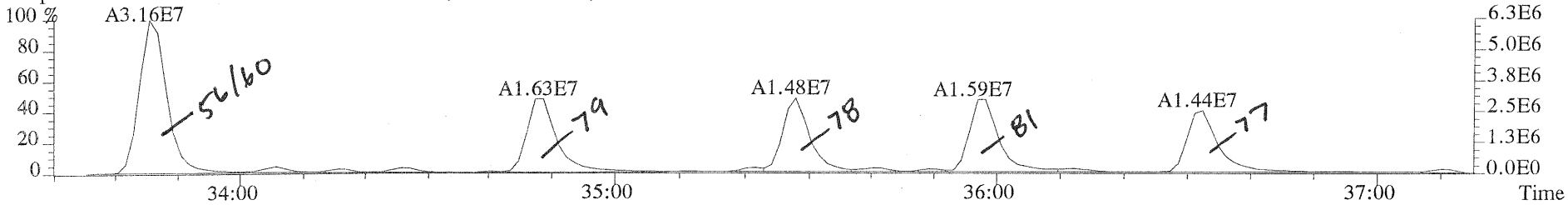
File:13JUL16Z #1-405 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



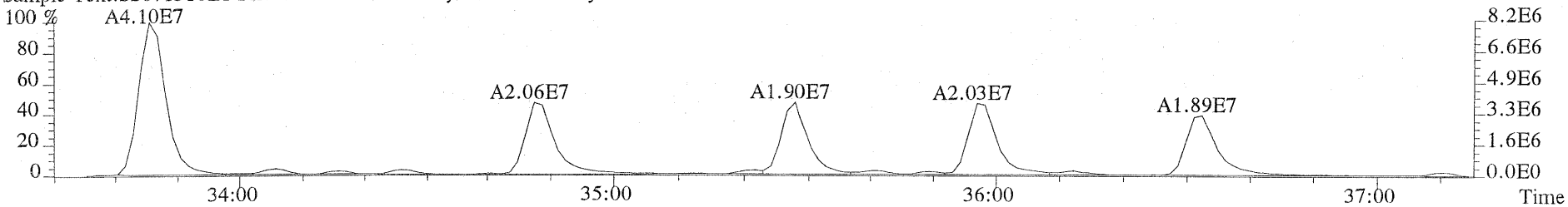
File:13JUL16Z #1-405 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



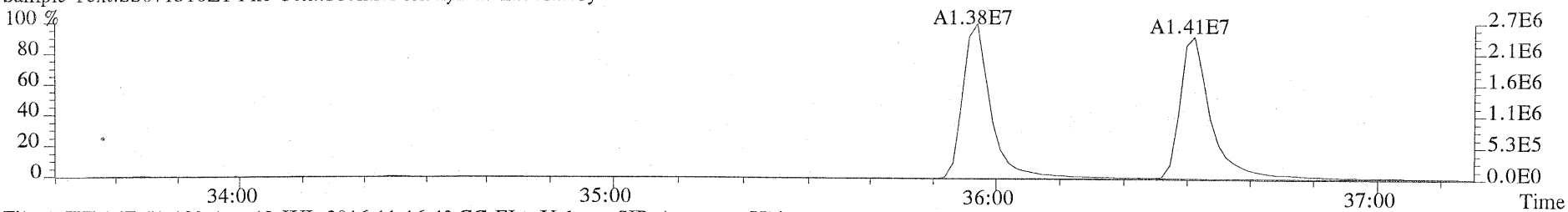
File:13JUL16Z #1-180 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



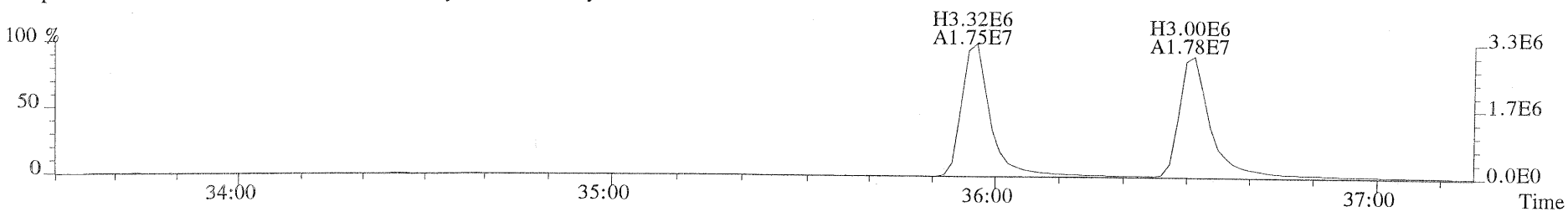
File:13JUL16Z #1-180 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



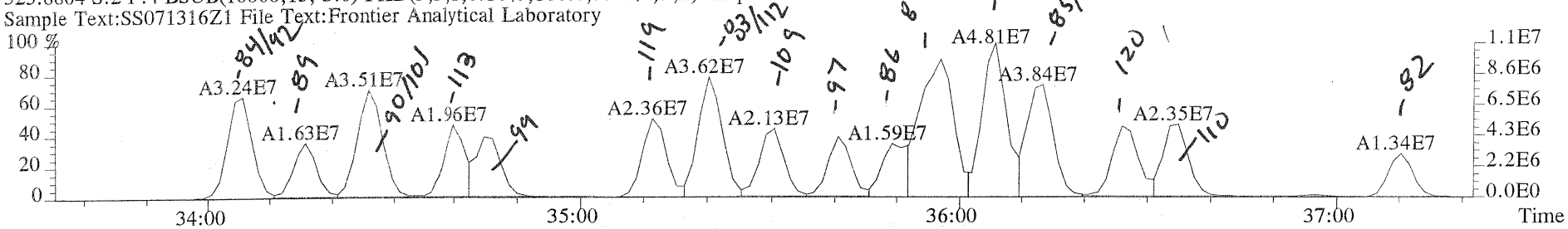
File:13JUL16Z #1-180 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



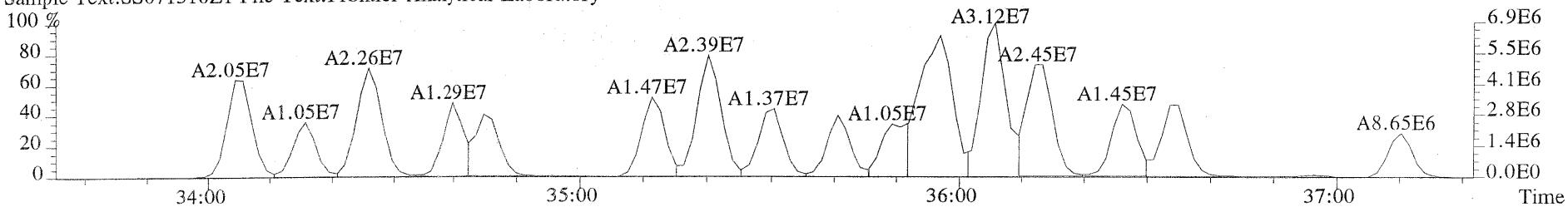
File:13JUL16Z #1-180 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



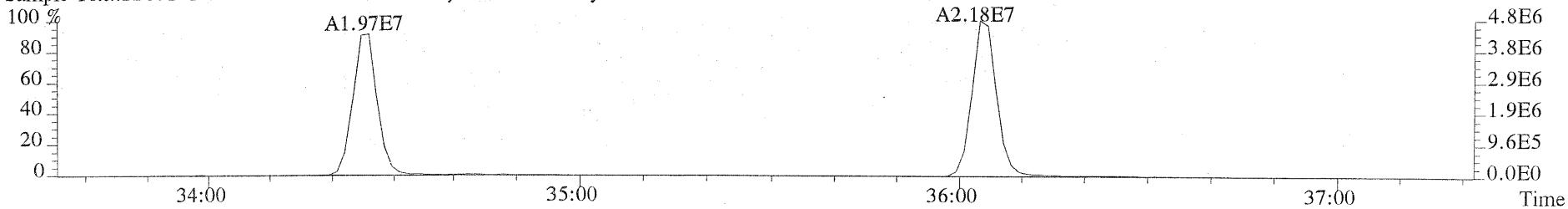
File:13JUL16Z #1-180 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



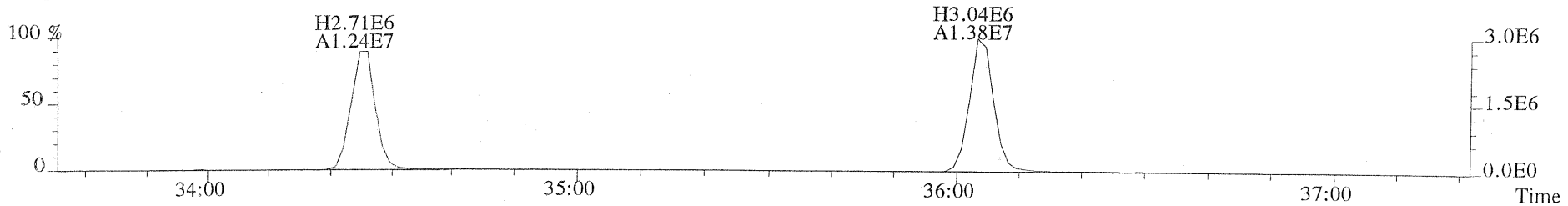
File:13JUL16Z #1-180 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



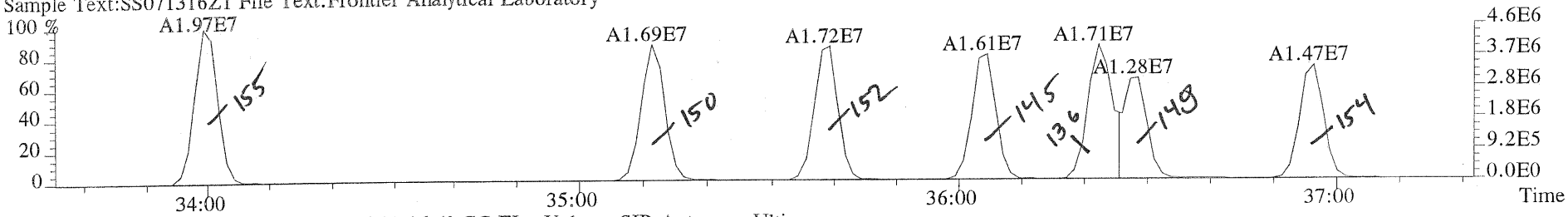
File:13JUL16Z #1-180 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



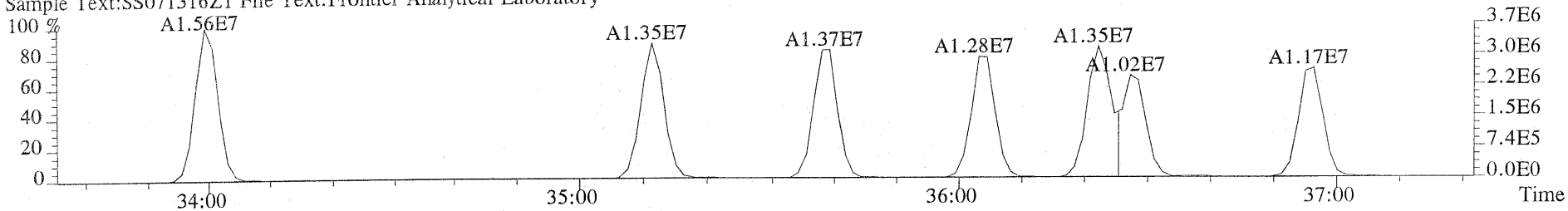
File:13JUL16Z #1-180 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



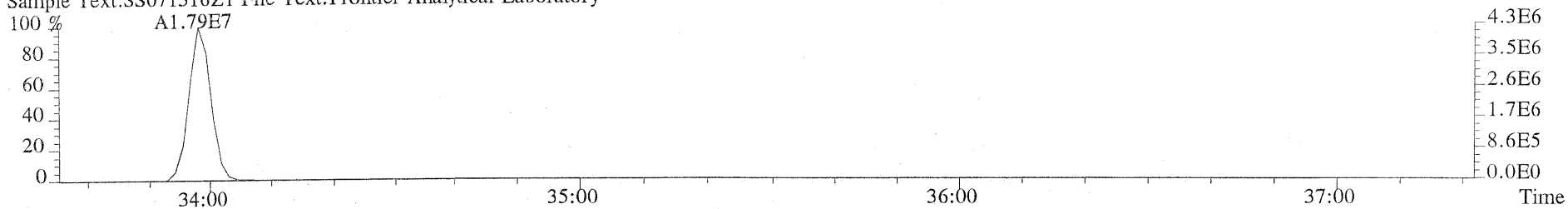
File:13JUL16Z #1-180 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



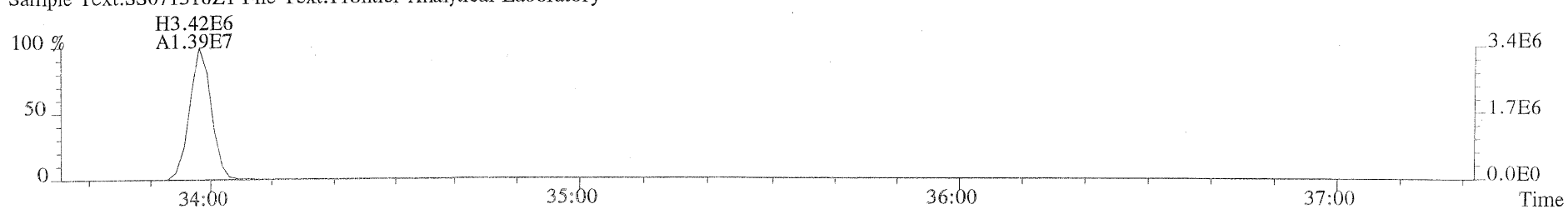
File:13JUL16Z #1-180 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



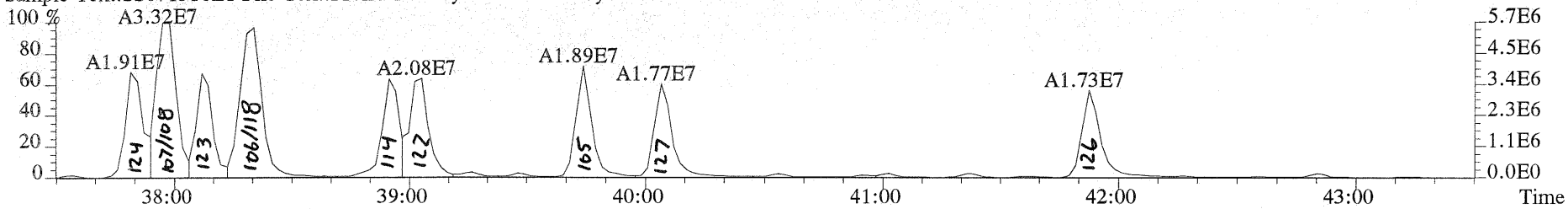
File:13JUL16Z #1-180 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



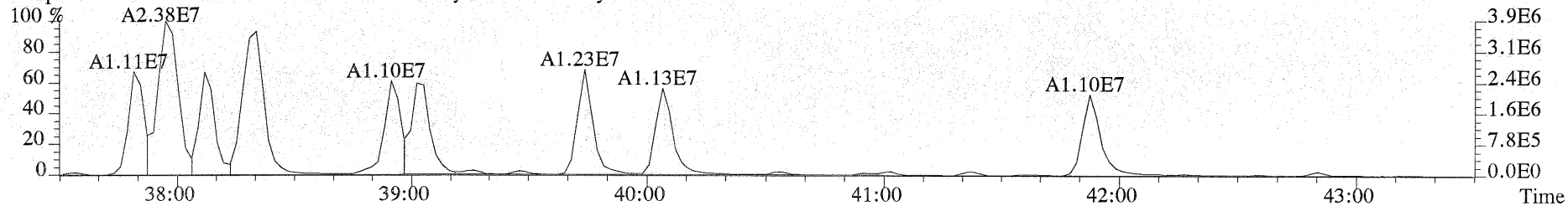
File:13JUL16Z #1-180 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



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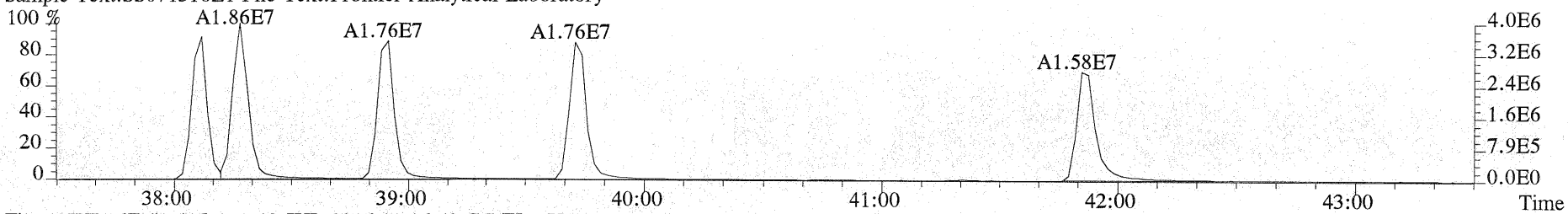
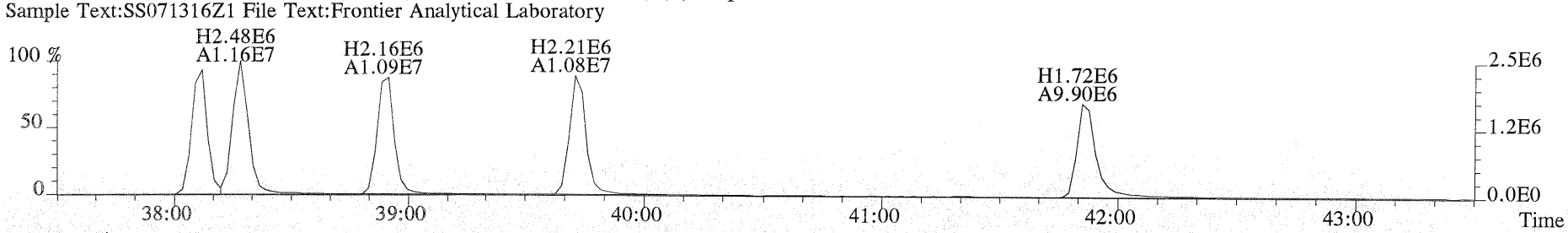
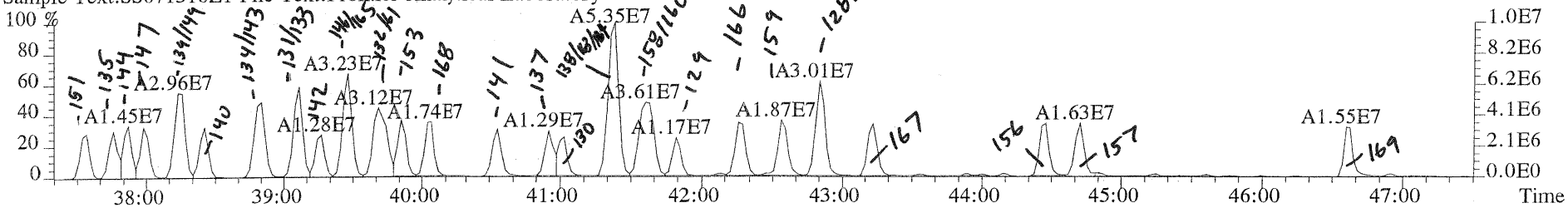
337.9207 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



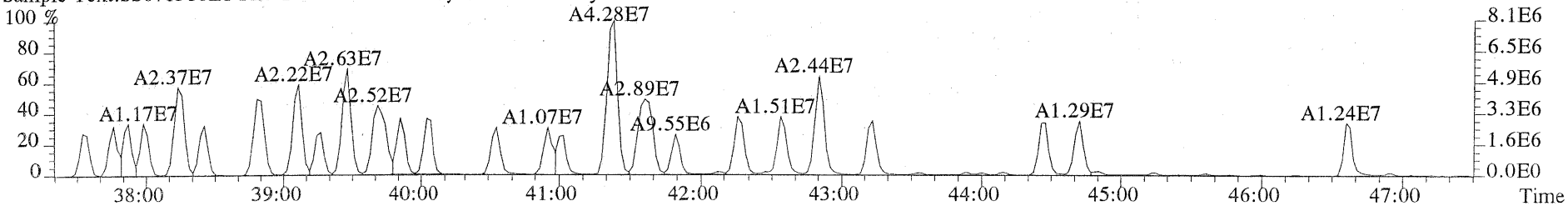
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



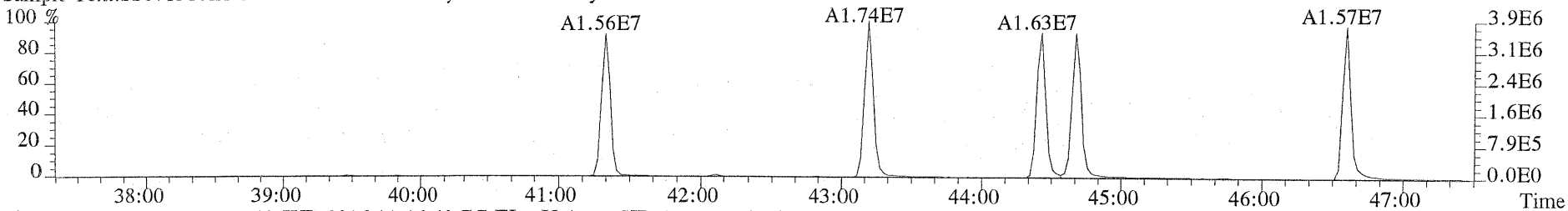
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



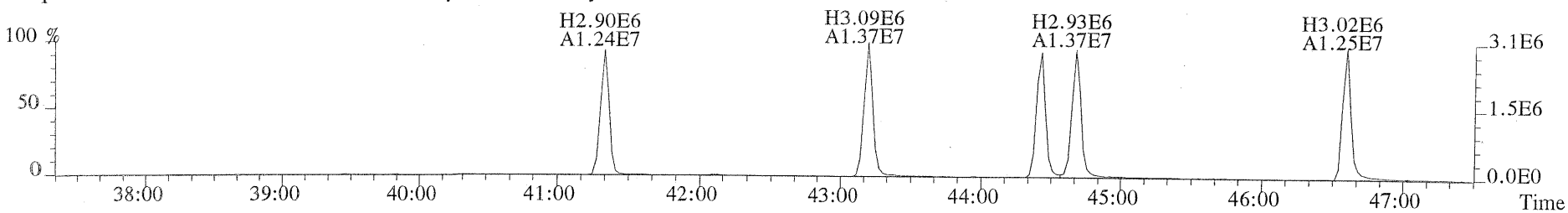
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



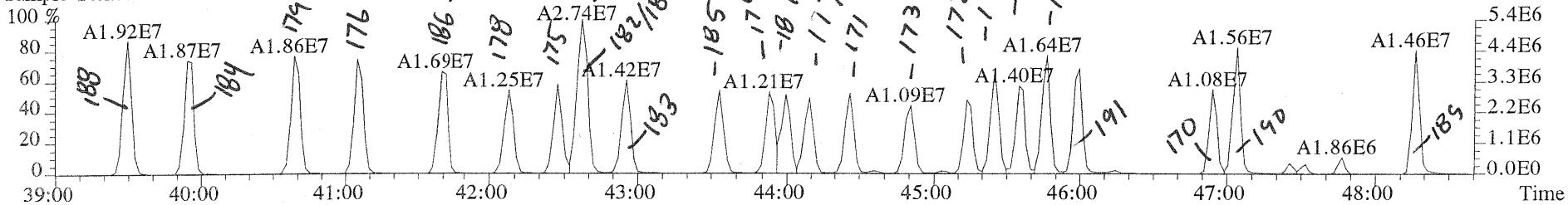
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



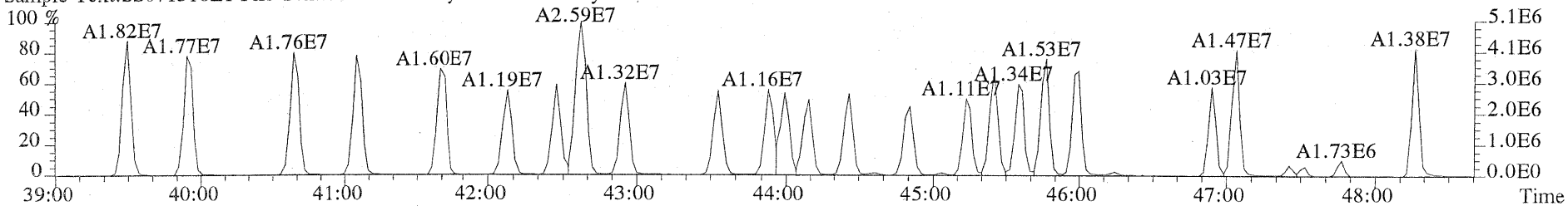
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



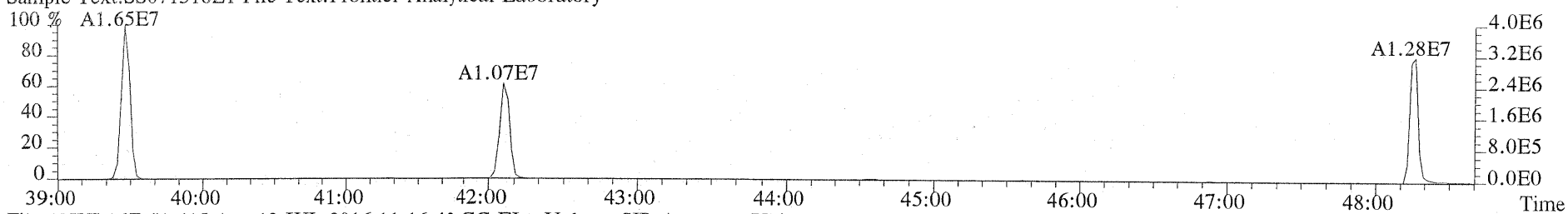
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
393.8025 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



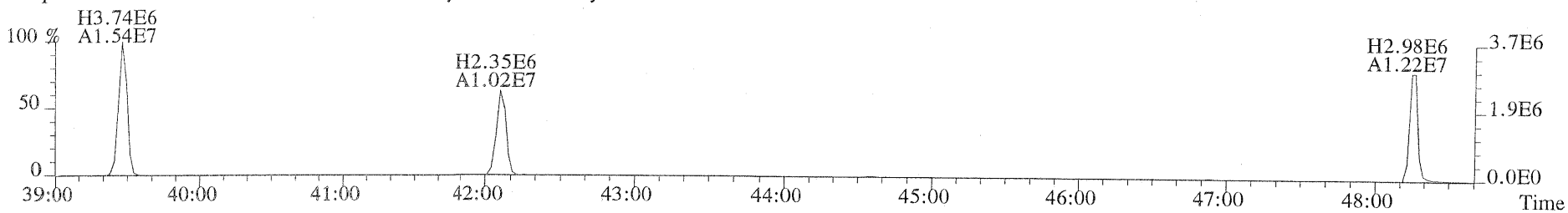
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



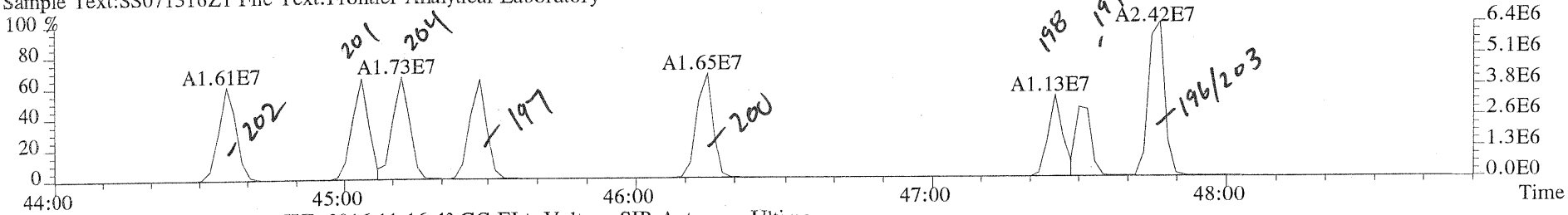
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
405.8428 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



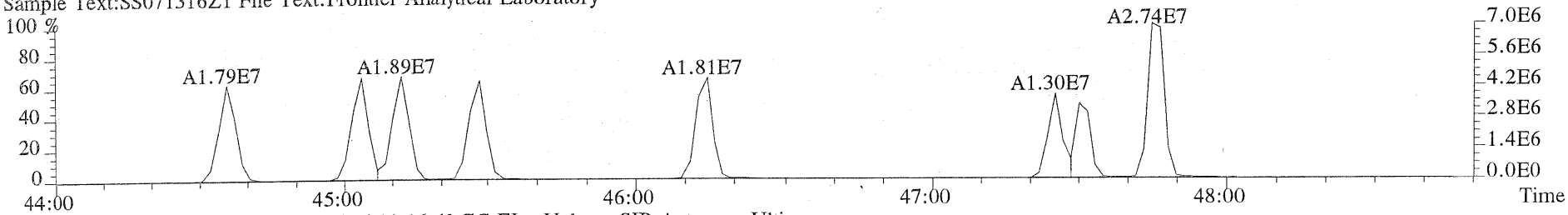
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
407.8398 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



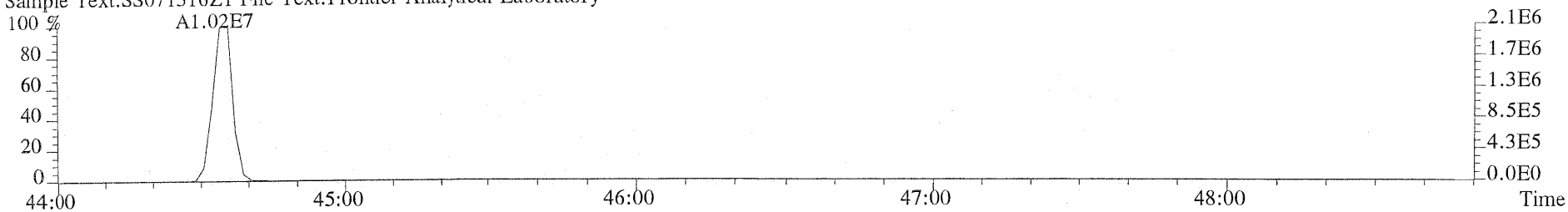
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



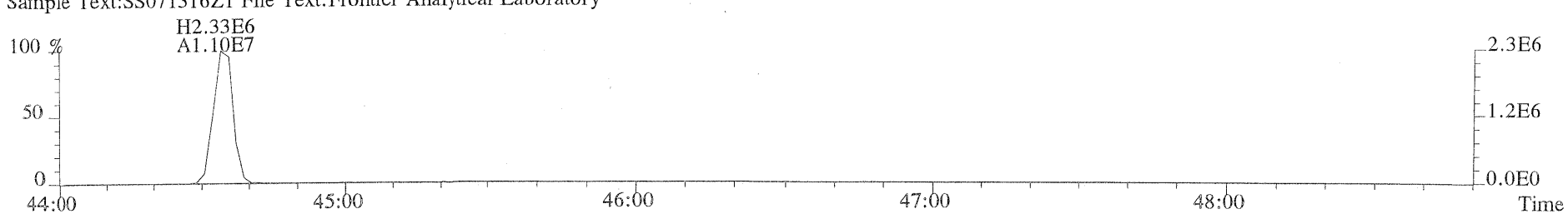
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



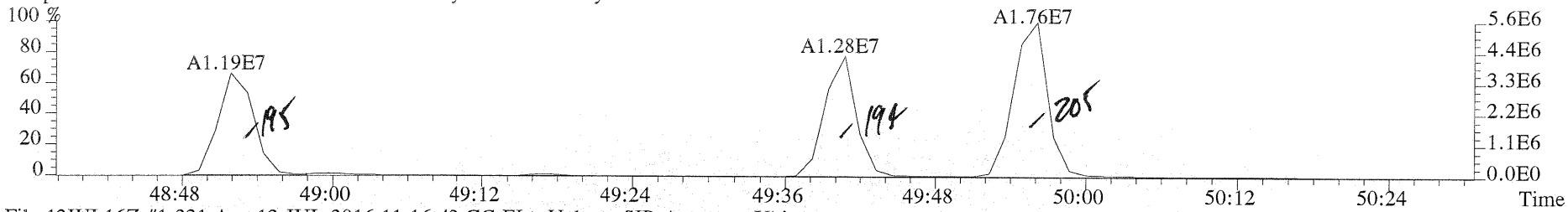
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



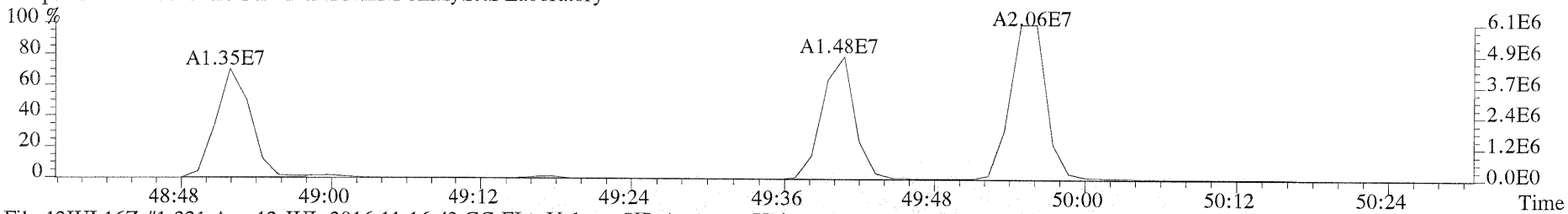
File:13JUL16Z #1-415 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



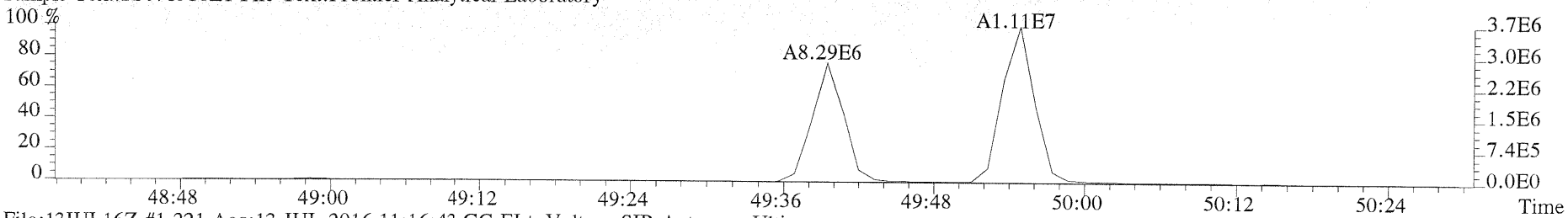
File:13JUL16Z #1-221 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



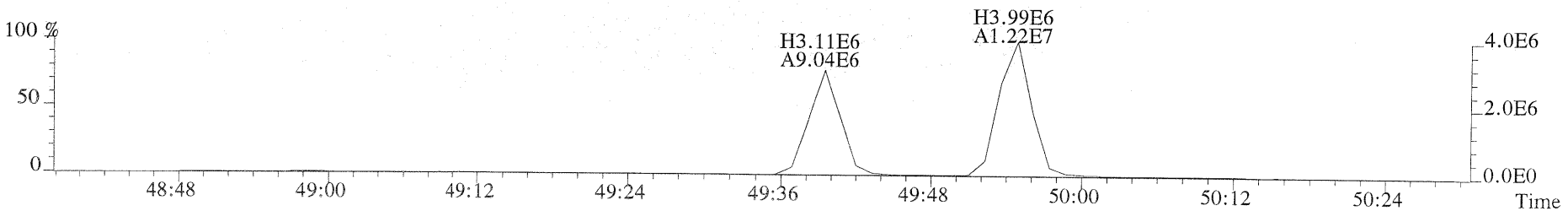
File:13JUL16Z #1-221 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



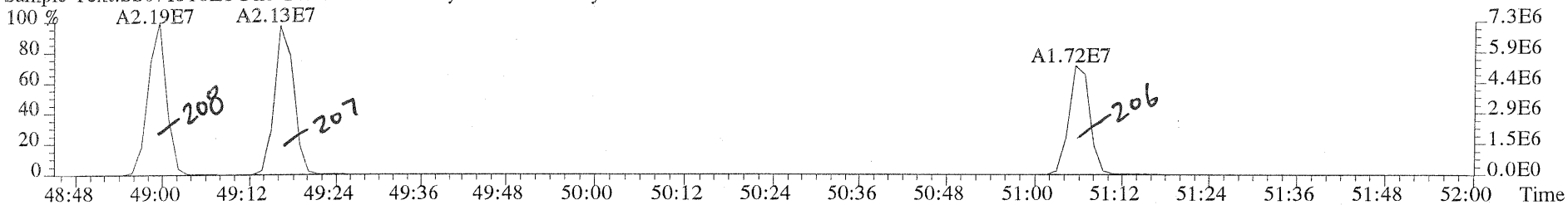
File:13JUL16Z #1-221 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:2 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



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465.7187 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
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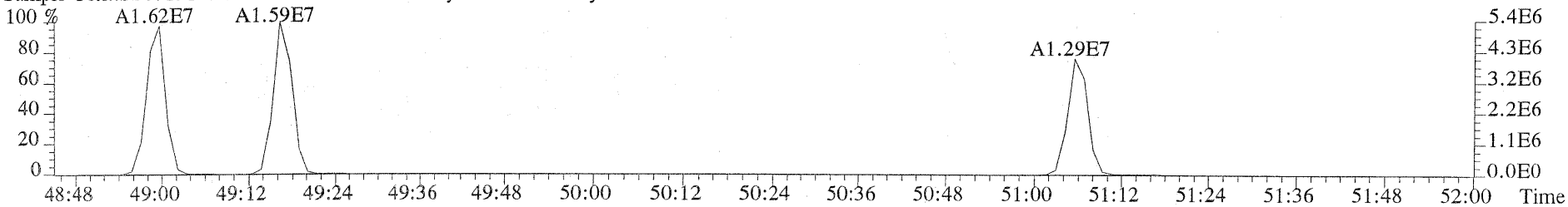

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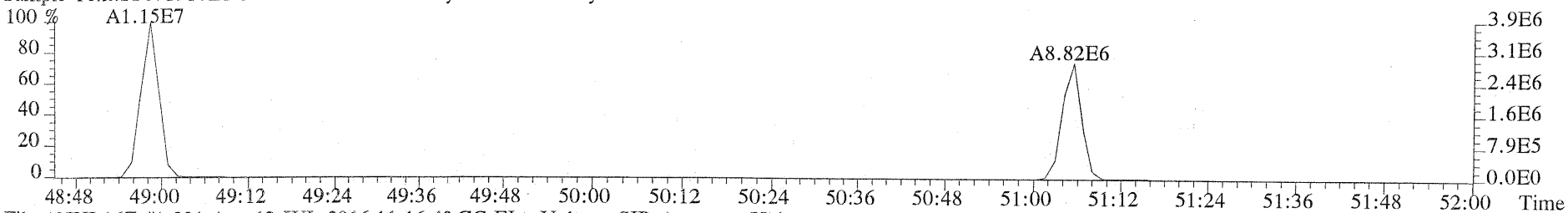
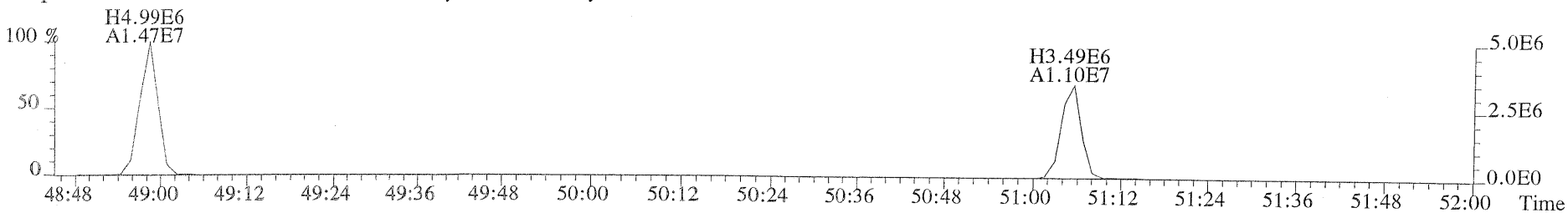
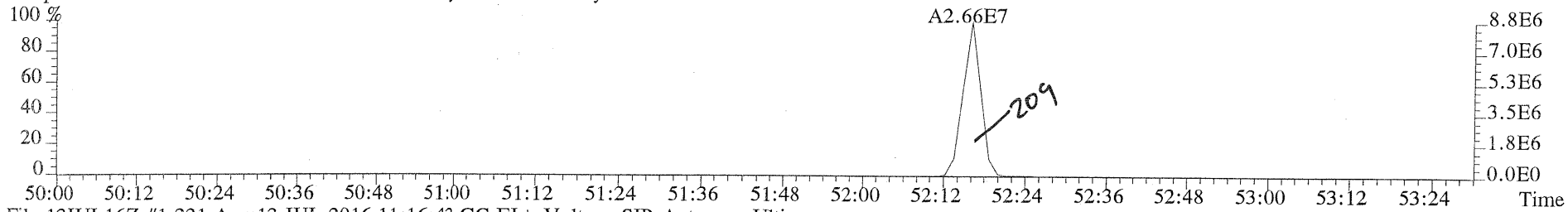
473.7648 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
475.7619 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



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499.6797 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
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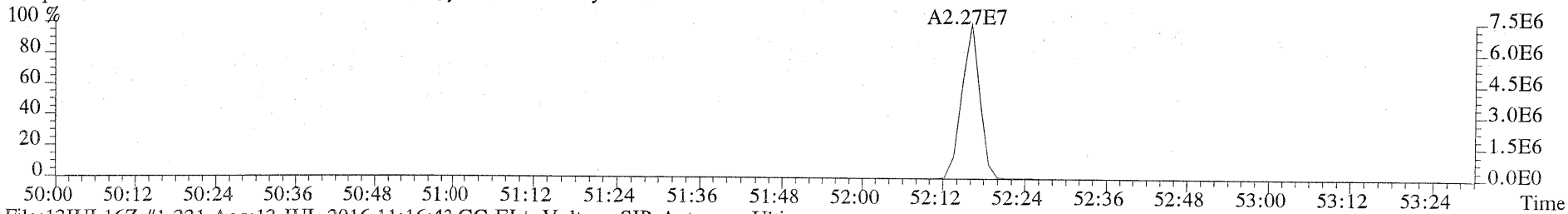
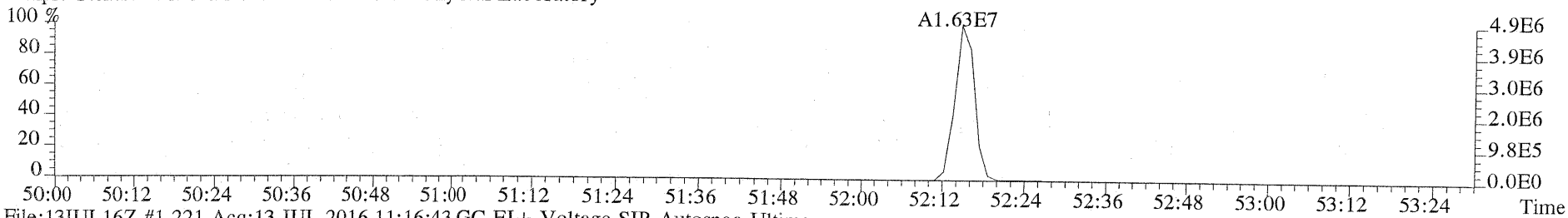
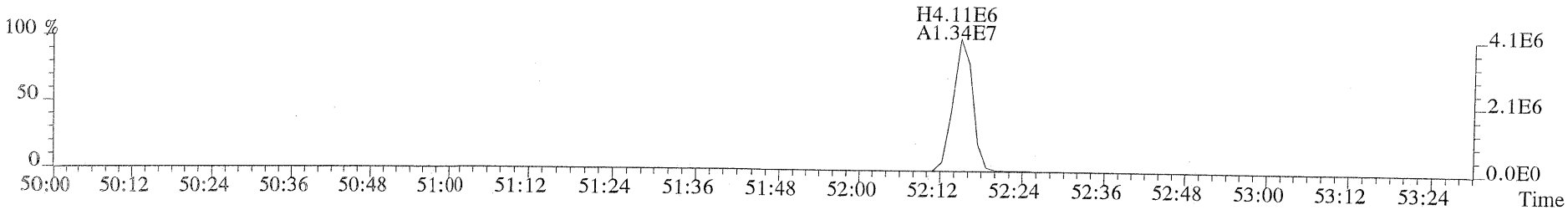


File:13JUL16Z #1-221 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-221 Acq:13-JUL-2016 11:16:43 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071316Z1 File Text:Frontier Analytical Laboratory



USEPA - ITD

FORM 4A
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 2/8/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 13JUL16Z Sam:14 Analysis Date: 13-JUL-16 23:16:15

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
PCB-1	M/M+2	3.24	2.66-3.60	y	59.3	37.5 - 62.5
PCB-3	M/M+2	3.25	2.66-3.60	y	56.8	37.5 - 62.5
PCB-4	M/M+2	1.57	1.33-1.79	y	57.9	37.5 - 62.5
PCB-15	M/M+2	1.60	1.33-1.79	y	56.9	37.5 - 62.5
PCB-19	M/M+2	1.05	0.88-1.20	y	58.8	37.5 - 62.5
PCB-37	M/M+2	1.08	0.88-1.20	y	52.6	37.5 - 62.5
PCB-54	M/M+2	0.78	0.65-0.89	y	58.4	37.5 - 62.5
PCB-77	M/M+2	0.74	0.65-0.89	y	49.8	37.5 - 62.5
PCB-81	M/M+2	0.78	0.65-0.89	y	53.5	37.5 - 62.5
PCB-104	M+2/M+4	1.57	1.32-1.78	y	53.2	37.5 - 62.5
PCB-105	M+2/M+4	1.59	1.32-1.78	y	53.1	37.5 - 62.5
PCB-114	M+2/M+4	1.58	1.32-1.78	y	52.4	37.5 - 62.5
PCB-118	M+2/M+4	1.59	1.32-1.78	y	52.5	37.5 - 62.5
PCB-123	M+2/M+4	1.66	1.32-1.78	y	52.2	37.5 - 62.5
PCB-126	M+2/M+4	1.63	1.32-1.78	y	52.5	37.5 - 62.5
PCB-155	M+2/M+4	1.26	1.05-1.43	y	51.2	37.5 - 62.5
PCB-156	M+2/M+4	1.24	1.05-1.43	y	52.0	37.5 - 62.5
PCB-157	M+2/M+4	1.27	1.05-1.43	y	53.3	37.5 - 62.5
PCB-167	M+2/M+4	1.26	1.05-1.43	y	53.2	37.5 - 62.5
PCB-169	M+2/M+4	1.23	1.05-1.43	y	51.4	37.5 - 62.5
PCB-188	M+2/M+4	1.06	0.89-1.21	y	49.5	37.5 - 62.5
PCB-189	M+2/M+4	1.04	0.89-1.21	y	49.9	37.5 - 62.5
PCB-202	M+2/M+4	0.90	0.76-1.02	y	49.4	37.5 - 62.5
PCB-205	M+2/M+4	0.89	0.76-1.02	y	49.6	37.5 - 62.5
PCB-206	M+4/M+6	1.37	1.13-1.53	y	50.3	37.5 - 62.5
PCB-208	M+4/M+6	1.34	1.13-1.53	y	50.8	37.5 - 62.5
PCB-209	M+4/M+6	1.19	0.99-1.33	y	54.0	37.5 - 62.5

Analyst: _____ Date: 7/15/16

USEPA - ITD

FORM 4B
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 2/8/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 13JUL16Z Sam:14 Analysis Date: 13-JUL-16 23:16:15

	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
LABELED COMPOUNDS						
13C-PCB-1	M/M+2	3.19	2.66-3.60	y	77.0	50.0 - 145
13C-PCB-3	M/M+2	3.36	2.66-3.60	y	70.0	50.0 - 145
13C-PCB-4	M/M+2	1.61	1.33-1.79	y	101	50.0 - 145
13C-PCB-15	M/M+2	1.66	1.33-1.79	y	82.9	50.0 - 145
13C-PCB-19	M/M+2	1.12	0.88-1.20	y	63.0	50.0 - 145
13C-PCB-37	M/M+2	1.06	0.88-1.20	y	109	50.0 - 145
13C-PCB-54	M/M+2	0.81	0.65-0.89	y	88.9	50.0 - 145
13C-PCB-77	M/M+2	0.81	0.65-0.89	y	131	50.0 - 145
13C-PCB-81	M/M+2	0.80	0.65-0.89	y	123	50.0 - 145
13C-PCB-104	M+2/M+4	1.62	1.32-1.78	y	56.6	50.0 - 145
13C-PCB-105	M+2/M+4	1.61	1.32-1.78	y	117	50.0 - 145
13C-PCB-114	M+2/M+4	1.63	1.32-1.78	y	126	50.0 - 145
13C-PCB-118	M+2/M+4	1.59	1.32-1.78	y	128	50.0 - 145
13C-PCB-123	M+2/M+4	1.60	1.32-1.78	y	123	50.0 - 145
13C-PCB-126	M+2/M+4	1.70	1.32-1.78	y	116	50.0 - 145
13C-PCB-155	M+2/M+4	1.29	1.05-1.43	y	70.3	50.0 - 145
13C-PCB-156	M+2/M+4	1.28	1.05-1.43	y	98.5	50.0 - 145
13C-PCB-157	M+2/M+4	1.27	1.05-1.43	y	103	50.0 - 145
13C-PCB-167	M+2/M+4	1.24	1.05-1.43	y	97.9	50.0 - 145
13C-PCB-169	M+2/M+4	1.27	1.05-1.43	y	114	50.0 - 145
13C-PCB-188	M+2/M+4	1.09	0.89-1.21	y	76.0	50.0 - 145
13C-PCB-189	M+2/M+4	1.07	0.89-1.21	y	93.3	50.0 - 145
13C-PCB-202	M+2/M+4	0.93	0.76-1.02	y	61.0	50.0 - 145
13C-PCB-205	M+2/M+4	0.91	0.76-1.02	y	94.9	50.0 - 145
13C-PCB-206	M+2/M+4	0.79	0.65-0.89	y	72.2	50.0 - 145
13C-PCB-208	M+2/M+4	0.81	0.65-0.89	y	69.5	50.0 - 145
13C-PCB-209	M+4/M+6	1.20	0.99-1.33	y	50.2	50.0 - 145
CLEANUP STANDARDS						
13C-PCB-28	M/M+2	1.10	0.88-1.20	y	127	65.0 - 135
13C-PCB-111	M+2/M+4	1.59	1.32-1.78	y	102	75.0 - 125
13C-PCB-178	M+2/M+4	1.07	0.89-1.21	y	79.7	75.0 - 125

Analyst: _____ Date: 7/15/16

USEPA - ITD

FORM 4B
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 2/8/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 13JUL16Z Sam:14 Analysis Date: 13-JUL-16 23:16:15

	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
LABELED COMPOUNDS						
13C-PCB-1	M/M+2	3.19	2.66-3.60	y	77.0	50.0 - 145
13C-PCB-3	M/M+2	3.36	2.66-3.60	y	70.0	50.0 - 145
13C-PCB-4	M/M+2	1.61	1.33-1.79	y	101	50.0 - 145
13C-PCB-15	M/M+2	1.66	1.33-1.79	y	82.9	50.0 - 145
13C-PCB-19	M/M+2	1.12	0.88-1.20	y	63.0	50.0 - 145
13C-PCB-37	M/M+2	1.06	0.88-1.20	y	109	50.0 - 145
13C-PCB-54	M/M+2	0.81	0.65-0.89	y	88.9	50.0 - 145
13C-PCB-77	M/M+2	0.81	0.65-0.89	y	131	50.0 - 145
13C-PCB-81	M/M+2	0.80	0.65-0.89	y	123	50.0 - 145
13C-PCB-104	M+2/M+4	1.62	1.32-1.78	y	56.6	50.0 - 145
13C-PCB-105	M+2/M+4	1.61	1.32-1.78	y	117	50.0 - 145
13C-PCB-114	M+2/M+4	1.63	1.32-1.78	y	126	50.0 - 145
13C-PCB-118	M+2/M+4	1.59	1.32-1.78	y	128	50.0 - 145
13C-PCB-123	M+2/M+4	1.60	1.32-1.78	y	123	50.0 - 145
13C-PCB-126	M+2/M+4	1.70	1.32-1.78	y	116	50.0 - 145
13C-PCB-155	M+2/M+4	1.29	1.05-1.43	y	70.3	50.0 - 145
13C-PCB-156	M+2/M+4	1.28	1.05-1.43	y	98.5	50.0 - 145
13C-PCB-157	M+2/M+4	1.27	1.05-1.43	y	103	50.0 - 145
13C-PCB-167	M+2/M+4	1.24	1.05-1.43	y	97.9	50.0 - 145
13C-PCB-169	M+2/M+4	1.27	1.05-1.43	y	114	50.0 - 145
13C-PCB-188	M+2/M+4	1.09	0.89-1.21	y	76.0	50.0 - 145
13C-PCB-189	M+2/M+4	1.07	0.89-1.21	y	93.3	50.0 - 145
13C-PCB-202	M+2/M+4	0.93	0.76-1.02	y	61.0	50.0 - 145
13C-PCB-205	M+2/M+4	0.91	0.76-1.02	y	94.9	50.0 - 145
13C-PCB-206	M+2/M+4	0.79	0.65-0.89	y	72.2	50.0 - 145
13C-PCB-208	M+2/M+4	0.81	0.65-0.89	y	69.5	50.0 - 145
13C-PCB-209	M+4/M+6	1.20	0.99-1.33	y	50.2	50.0 - 145
CLEANUP STANDARDS						
13C-PCB-28	M/M+2	1.10	0.88-1.20	y	127	65.0 - 135
13C-PCB-111	M+2/M+4	1.59	1.32-1.78	y	102	75.0 - 125
13C-PCB-178	M+2/M+4	1.07	0.89-1.21	y	79.7	75.0 - 125

Analyst: _____ Date: 7/15/16

FAL ID: ST071316Z2 Filename: 13JUL16Z Sam:14 Acquired: 13-JUL-16 23:16:15 ICal: 1668FAL4-2-8-16
Client ID: 1668 CS3 R150603A ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 13JUL16Z GC Column: DB1 Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL	Rec
PCB-1	2.22e+07	3.24 y	14:22	0.97	59.3		2.50	-	-	*	-
13C-PCB-1	3.85e+07	3.19 y	14:21	1.34	77.0		2.50				77.0
PCB-3	1.85e+07	3.25 y	16:49	0.99	56.8		2.50	-	-	*	-
13C-PCB-3	3.28e+07	3.36 y	16:49	1.26	70.0		2.50				70.0
PCB-4	1.58e+07	1.57 y	18:01	1.08	57.9		2.50	-	-	*	-
13C-PCB-4	2.51e+07	1.61 y	18:00	0.66	101		2.50				101
PCB-15	1.86e+07	1.60 y	23:37	1.06	56.9		2.50	-	-	*	-
13C-PCB-15	3.08e+07	1.66 y	23:36	1.00	82.9		2.50				82.9
PCB-19	1.05e+07	1.05 y	21:54	1.00	58.8		2.50	-	-	*	-
13C-PCB-19	1.79e+07	1.12 y	21:53	0.76	63.0		2.50				63.0
13C-PCB-9	3.73e+07	1.64 y	19:42	-	22.2		2.50				
PCB-37	1.45e+07	1.08 y	30:16	1.12	52.6		2.50	-	-	*	-
13C-PCB-37	2.46e+07	1.06 y	30:15	1.08	109		2.50				109
PCB-54	1.29e+07	0.78 y	25:26	0.97	58.4		2.50	-	-	*	-
13C-PCB-54	2.29e+07	0.81 y	25:24	1.23	88.9		2.50				88.9
PCB-104	7.55e+06	1.57 y	29:52	1.10	53.2		2.50	-	-	*	-
13C-PCB-104	1.29e+07	1.62 y	29:50	1.09	56.6		2.50				56.6
13C-PCB-28	3.03e+07	1.10 y	26:31	1.14	127		2.50				127
13C-PCB-52	2.09e+07	0.88 y	28:45	-	19.3		2.50				
PCB-81	1.18e+07	0.78 y	35:60	1.15	53.5		2.50	-	-	*	-
13C-PCB-81	1.92e+07	0.80 y	35:59	1.01	123		2.50				123
PCB-77	1.14e+07	0.74 y	36:34	1.13	49.8		2.50	-	-	*	-
13C-PCB-77	2.03e+07	0.81 y	36:33	1.02	131		2.50				131
PCB-155	7.73e+06	1.26 y	34:01	1.09	51.2		2.50	-	-	*	-
13C-PCB-155	1.38e+07	1.29 y	33:60	1.29	70.3		2.50				70.3
13C-PCB-111	1.91e+07	1.59 y	36:05	1.22	102		2.50				102
13C-PCB-101	1.53e+07	1.63 y	34:26	-	16.6		2.50				
PCB-123	1.12e+07	1.66 y	38:09	1.07	52.2		2.50	-	-	*	-
13C-PCB-123	2.00e+07	1.60 y	38:08	1.07	123		2.50				123
PCB-118	1.29e+07	1.59 y	38:19	1.07	52.5		2.50	-	-	*	-
13C-PCB-118	2.31e+07	1.59 y	38:19	1.19	128		2.50				128
PCB-114	1.18e+07	1.58 y	38:57	1.06	52.4		2.50	-	-	*	-
13C-PCB-114	2.12e+07	1.63 y	38:55	1.11	126		2.50				126
PCB-105	1.13e+07	1.59 y	39:46	1.07	53.1		2.50	-	-	*	-
13C-PCB-105	1.99e+07	1.61 y	39:45	1.11	117		2.50				117
PCB-126	1.01e+07	1.63 y	41:55	1.08	52.5		2.50	-	-	*	-
13C-PCB-126	1.79e+07	1.70 y	41:53	1.02	116		2.50				116
PCB-167	9.26e+06	1.26 y	43:14	0.97	53.2		2.50	-	-	*	-
13C-PCB-167	1.80e+07	1.24 y	43:14	1.21	97.9		2.50				97.9
PCB-156	8.82e+06	1.24 y	44:28	1.01	52.0		2.50	-	-	*	-
13C-PCB-156	1.67e+07	1.28 y	44:26	1.12	98.5		2.50				98.5
PCB-157	9.43e+06	1.27 y	44:43	0.94	53.3		2.50	-	-	*	-
13C-PCB-157	1.87e+07	1.27 y	44:43	1.20	103		2.50				103
PCB-169	8.44e+06	1.23 y	46:38	0.97	51.4		2.50	-	-	*	-
13C-PCB-169	1.69e+07	1.27 y	46:36	0.98	114		2.50				114
PCB-188	9.05e+06	1.06 y	39:30	1.13	49.5		2.50	-	-	*	-
13C-PCB-188	1.62e+07	1.09 y	39:30	1.41	76.0		2.50				76.0
PCB-189	7.39e+06	1.04 y	48:17	1.17	49.9		2.50	-	-	*	-
13C-PCB-189	1.26e+07	1.07 y	48:17	0.89	93.3		2.50				93.3
PCB-202	5.40e+06	0.90 y	44:38	1.12	49.4		2.50	-	-	*	-
13C-PCB-202	9.80e+06	0.93 y	44:36	1.06	61.0		2.50				61.0
13C-PCB-178	1.00e+07	1.07 y	42:08	0.83	79.7		2.50				79.7
13C-PCB-138	1.52e+07	1.27 y	41:22	-	20.3		2.50				

FAL ID: ST071316Z2 Filename: 13JUL16Z Sam:14 Acquired: 13-JUL-16 23:16:15 ICal: 1668FAL4-2-8-16
Client ID: 1668 CS3 R150603A ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 13JUL16Z GC Column: DB1 Amount: 1.000

PCB-205	1.12e+07	0.89	y	49:57	1.13	49.6	2.50	-	-	*	-
13C-PCB-205	1.99e+07	0.91	y	49:55	1.47	94.9	2.50				94.9
PCB-208	9.19e+06	1.34	y	49:00	0.91	50.8	2.50	-	-	*	-
13C-PCB-208	1.99e+07	0.81	y	48:59	2.00	69.5	2.50				69.5
PCB-206	6.98e+06	1.37	y	51:07	0.96	50.3	2.50	-	-	*	-
13C-PCB-206	1.44e+07	0.79	y	51:06	1.40	72.2	2.50				72.2
PCB-209	9.21e+06	1.19	y	52:17	1.13	54.0	2.50	-	-	*	-
13C-PCB-209	1.51e+07	1.20	y	52:17	2.10	50.2	2.50				50.2
13C-PCB-194	1.43e+07	0.91	y	49:40	-	45.9	2.50				

Analyst: _____ Date: 7/15/16

Frontier Analytical Laboratory - Acquisition Log

Run Name:13JUL16Z Instrument: FAL4 GC: DB1 Experiment:1668PCB

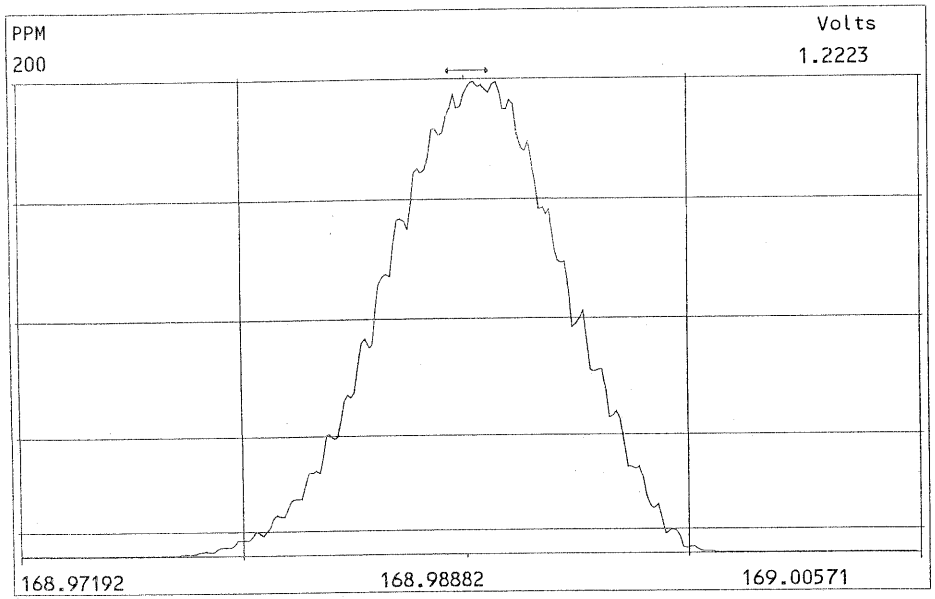
Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
13JUL16Z	1	ST071316Z1	1668 CS3 R150603A	13-JUL-16 10:16:51	ST071316Z1	ST071316Z2	BS
13JUL16Z	2	SS071316Z1	Daily 209 151201A	13-JUL-16 11:16:43	ST071316Z1	ST071316Z2	BS
13JUL16Z	3	QC071316Z1	New QC	13-JUL-16 12:16:40	ST071316Z1	ST071316Z2	BS
13JUL16Z	4	QC071316Z2	New QC2	13-JUL-16 13:16:38	ST071316Z1	ST071316Z2	BS
13JUL16Z	5	03765-001-0001-OPR	OPR	13-JUL-16 14:16:37	ST071316Z1	ST071316Z2	BS
13JUL16Z	6	03765-001-0001-MB	Method Blank	13-JUL-16 15:16:37	ST071316Z1	ST071316Z2	BS
13JUL16Z	7	09987-006-0001-SA	Hexane	13-JUL-16 16:16:35	ST071316Z1	ST071316Z2	BS
13JUL16Z	8	09987-005-0001-SA	LDW-CS-C6-S010-PW-MB	13-JUL-16 17:16:34	ST071316Z1	ST071316Z2	BS
13JUL16Z	9	09987-001-0001-SA	LDW-CS-1-S00.2-KPDMS	13-JUL-16 18:16:33	ST071316Z1	ST071316Z2	BS
13JUL16Z	10	09987-002-0001-SA	LDW-CS-2-S00.2-KPDMS	13-JUL-16 19:16:30	ST071316Z1	ST071316Z2	BS
13JUL16Z	11	09987-003-0001-SA	LDW-CS-3-S00.2-KPDMS	13-JUL-16 20:16:28	ST071316Z1	ST071316Z2	BS
13JUL16Z	12	09987-004-0001-SA	LDW-CS-C6-S010-PW-SED	13-JUL-16 21:16:24	ST071316Z1	ST071316Z2	BS
13JUL16Z	13	SB071316Z1	Solvent Blank	13-JUL-16 22:16:20	ST071316Z1	ST071316Z2	BS
13JUL16Z	14	ST071316Z2	1668 CS3 R150603A	13-JUL-16 23:16:15	ST071316Z1	ST071316Z2	BS
13JUL16Z	15	SB071316Z2	Solvent Blank	14-JUL-16 00:16:11	ST071316Z1	ST071316Z2	BS
13JUL16Z	16	QC071316Z3	QC160713A-ISQC	14-JUL-16 01:16:08	ST071316Z1	ST071316Z2	BS
13JUL16Z	17	QC071316Z4	QC160713B-CSSQC	14-JUL-16 02:16:03	ST071316Z1	ST071316Z2	BS
13JUL16Z	18	QC071316Z5	QC160713C-RSQC	14-JUL-16 03:15:58	ST071316Z1	ST071316Z2	BS
13JUL16Z	19	09987-008-0001-SA	Hexane w PCBs	14-JUL-16 04:15:53	ST071316Z1	ST071316Z2	BS
13JUL16Z	20	SB071316Z3	Solvent Blank	14-JUL-16 05:15:49	ST071316Z1	ST071316Z2	BS
13JUL16Z	21	SB071316Z4	Solvent Blank	14-JUL-16 06:15:44	ST071316Z1	ST071316Z2	BS
13JUL16Z	22	SB071316Z5	Solvent Blank	14-JUL-16 07:15:39	ST071316Z1	ST071316Z2	BS

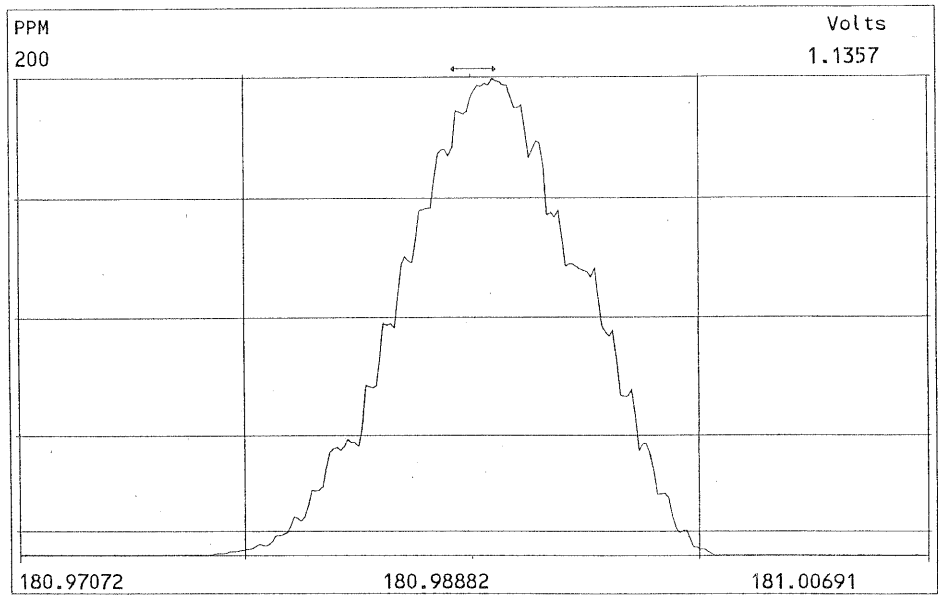
7/14/16

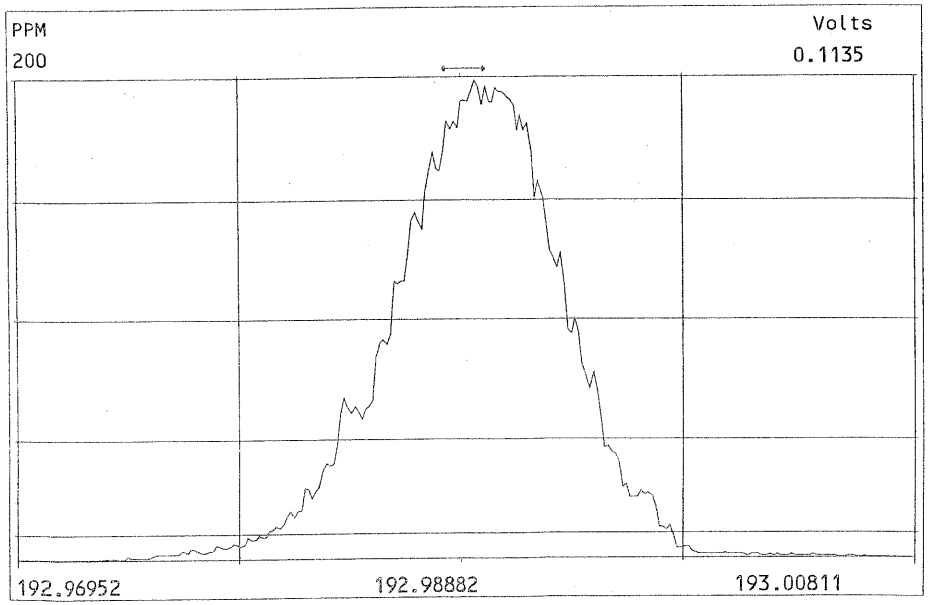
Data Backed Up:_____

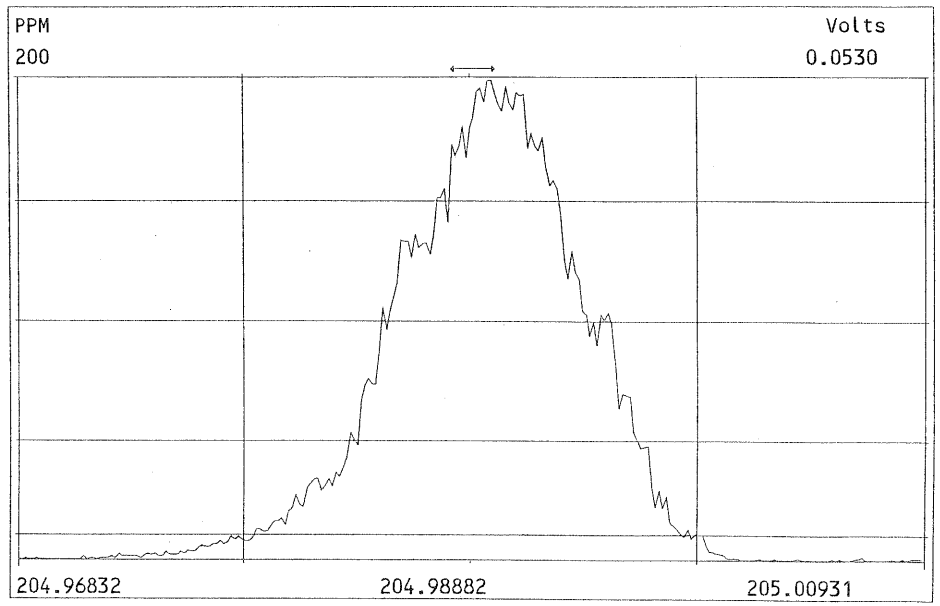
Date:_____

Peak Locate Examination:13-JUL-2016:10:10 File:13JUL16Z
Experiment:1668PCB Function:1 Reference:PFK

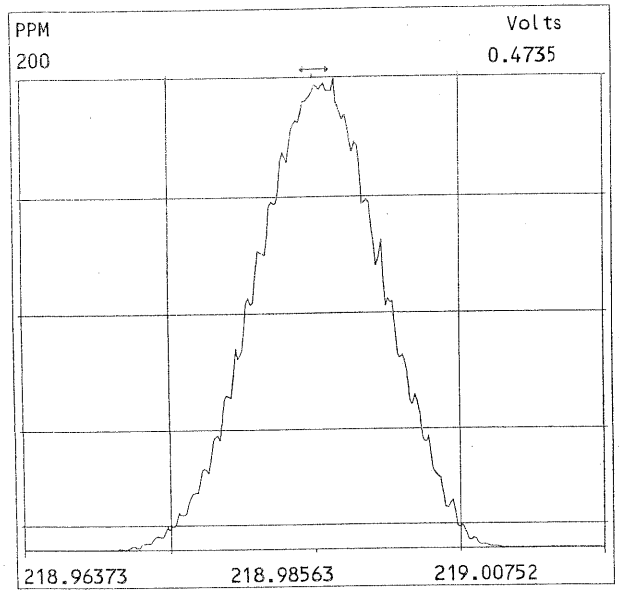


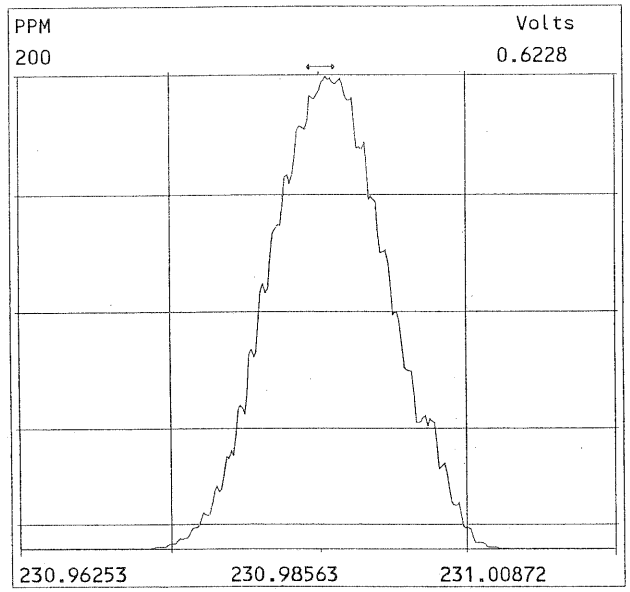


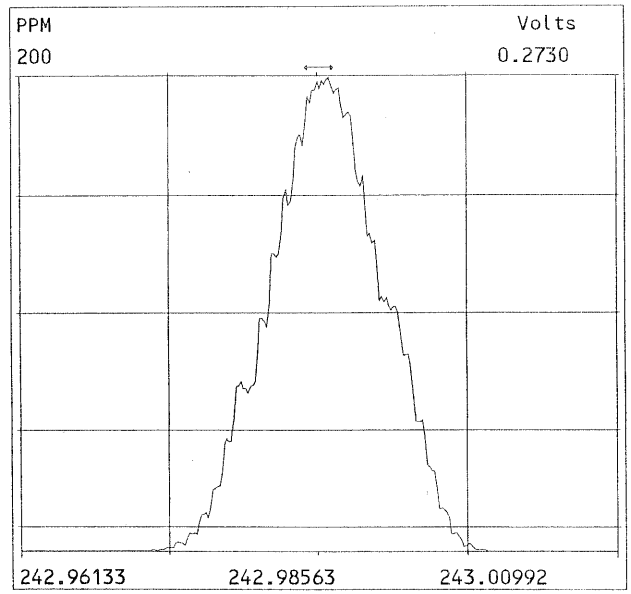


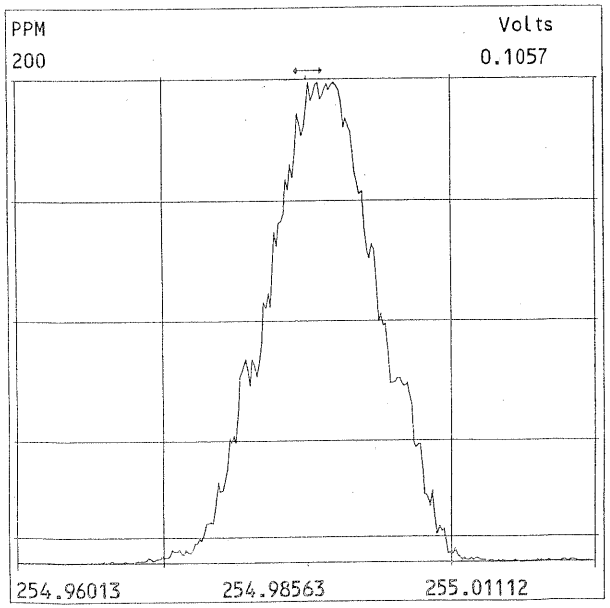


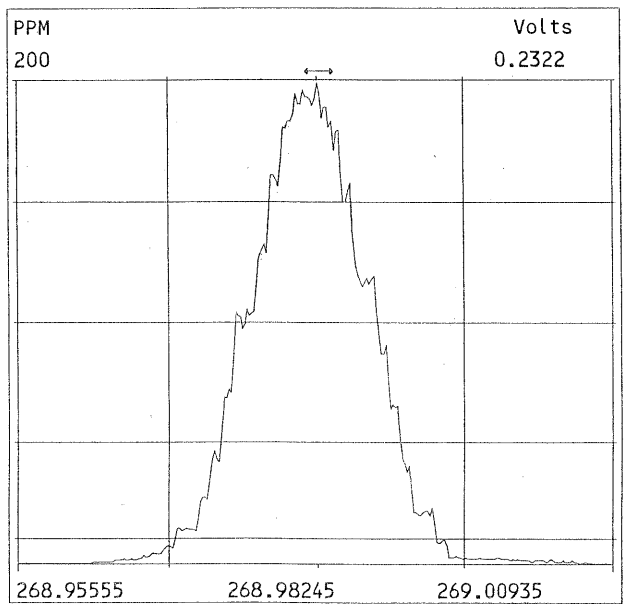
Peak Locate Examination:13-JUL-2016:10:14 File:13JUL16Z
Experiment:1668PCB Function:2 Reference:PFK

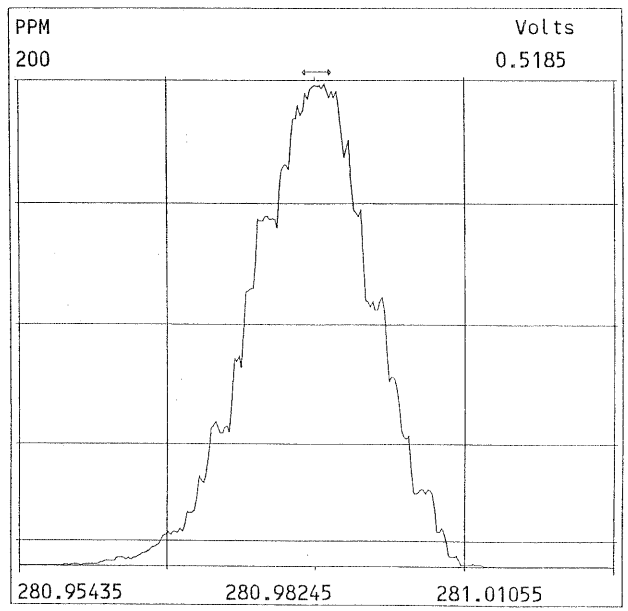




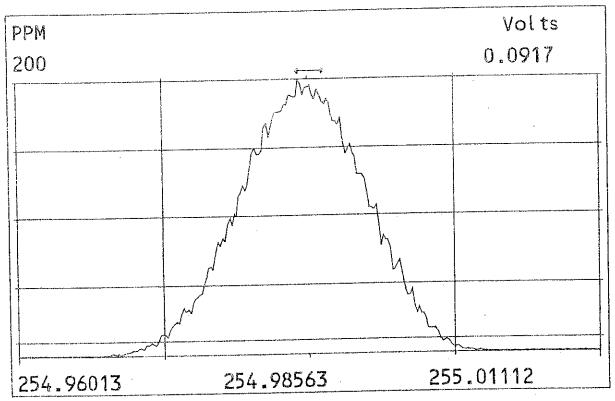


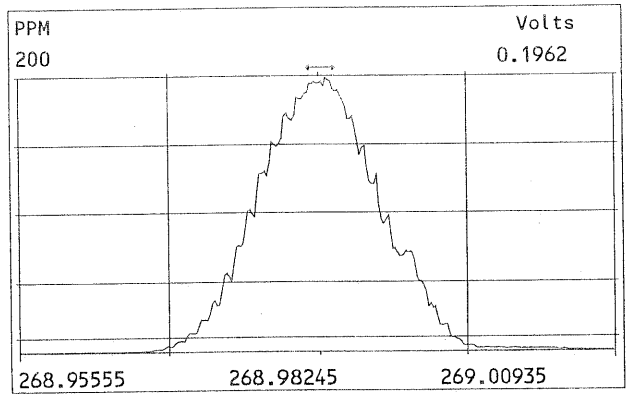


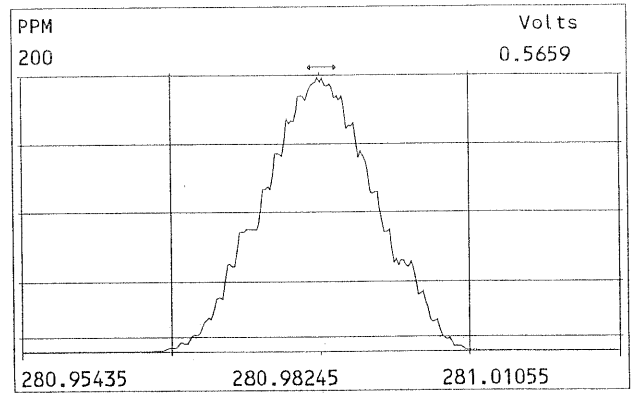


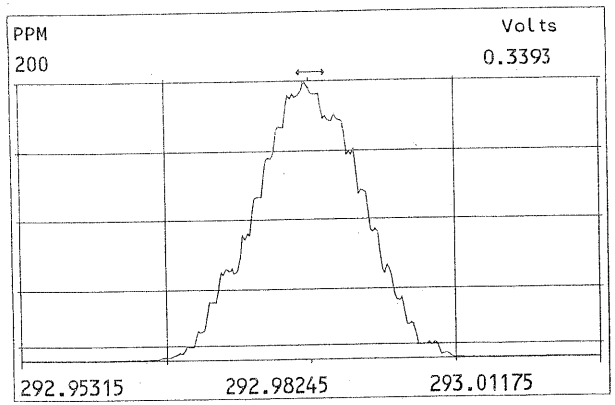


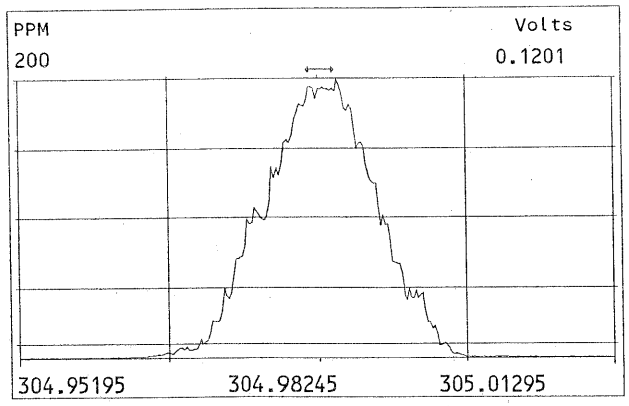
Peak Locate Examination:13-JUL-2016:10:14 File:13JUL16Z
Experiment:1668PCB Function:3 Reference:PFK

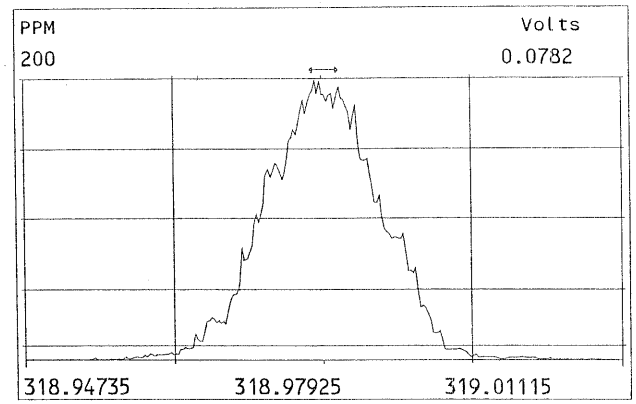


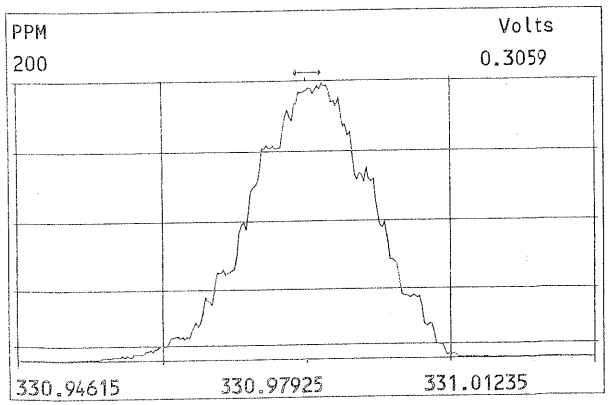


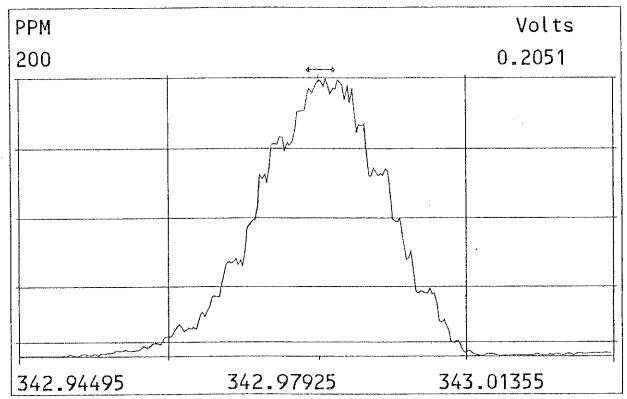




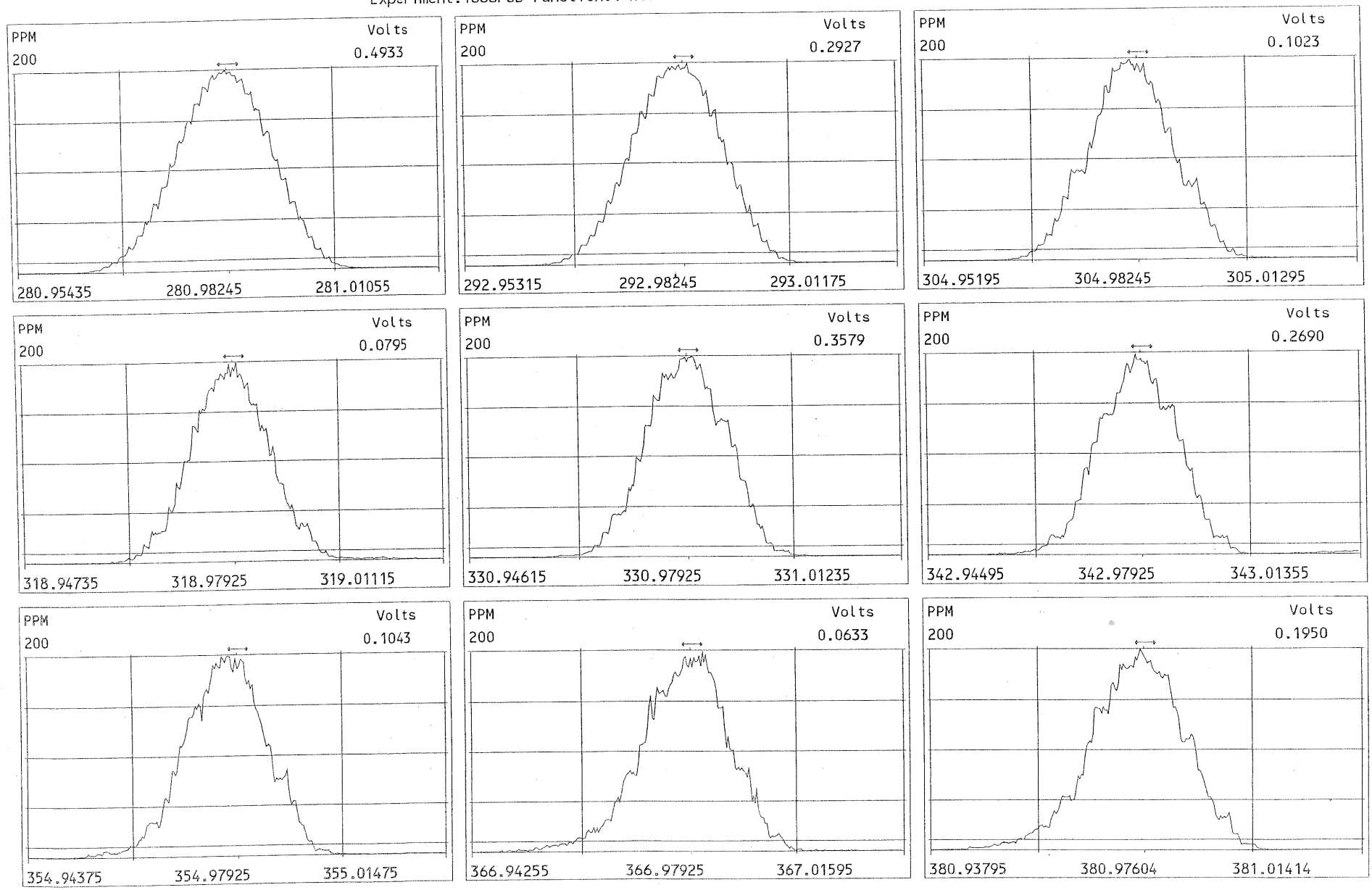




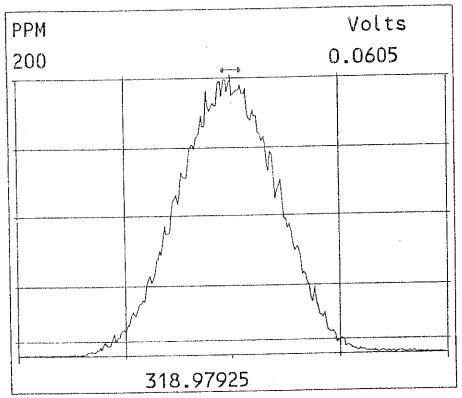


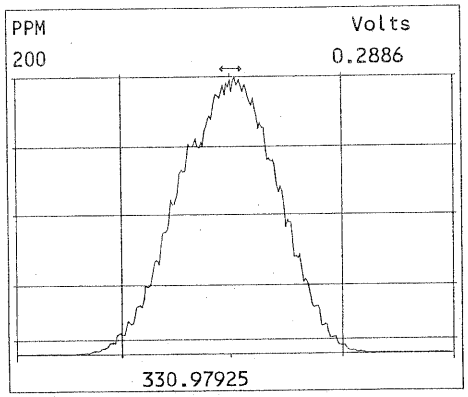


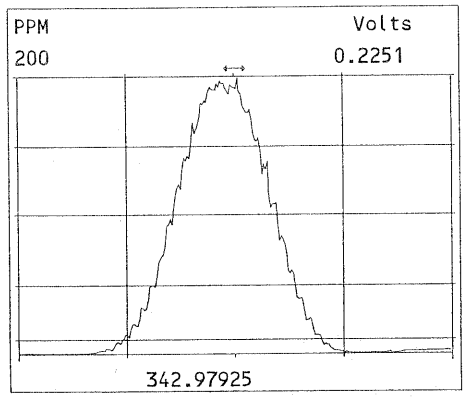
Peak Locate Examination:13-JUL-2016:10:14 File:13JUL16Z
Experiment:1668PCB Function:4 Reference:PFK

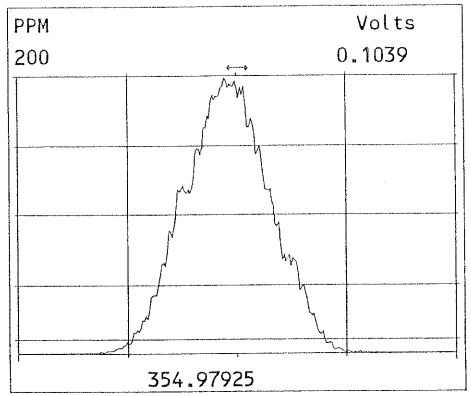


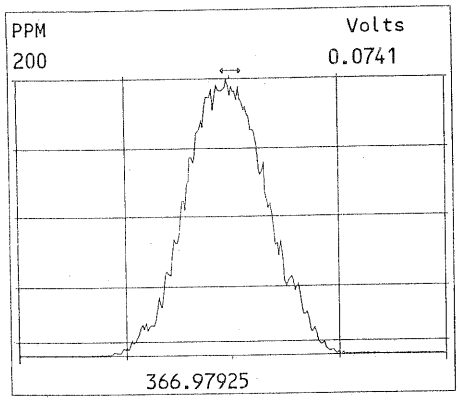
Peak Locate Examination:13-JUL-2016:10:15 File:13JUL16Z
Experiment:1668PCB Function:5 Reference:PFK

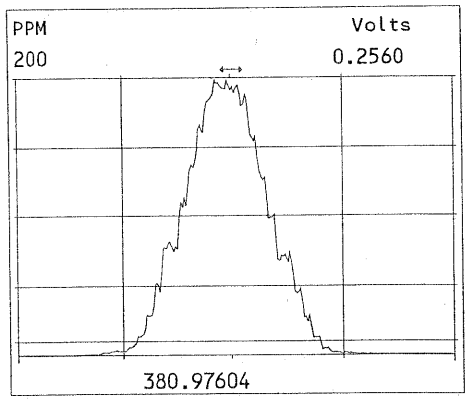


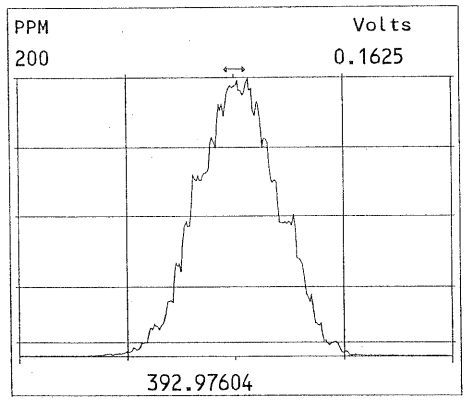


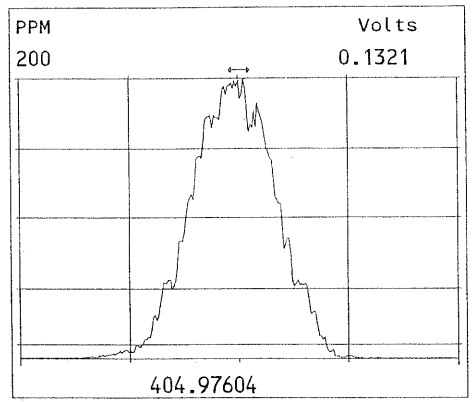


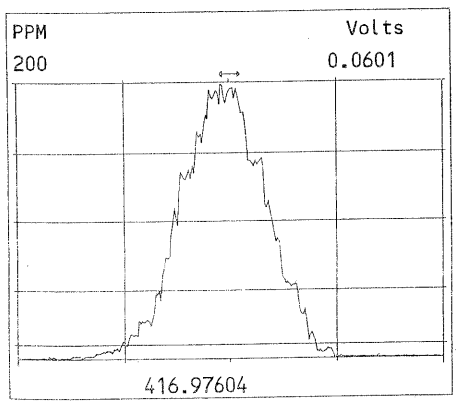


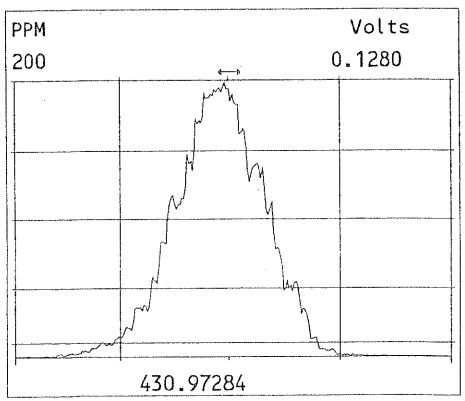


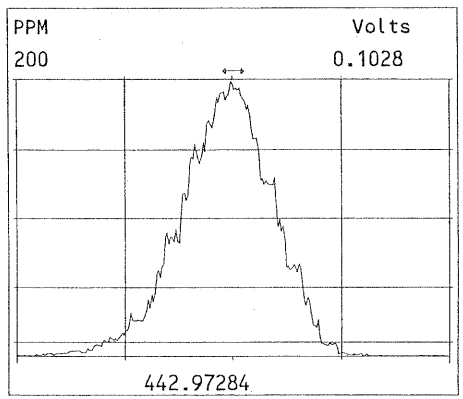




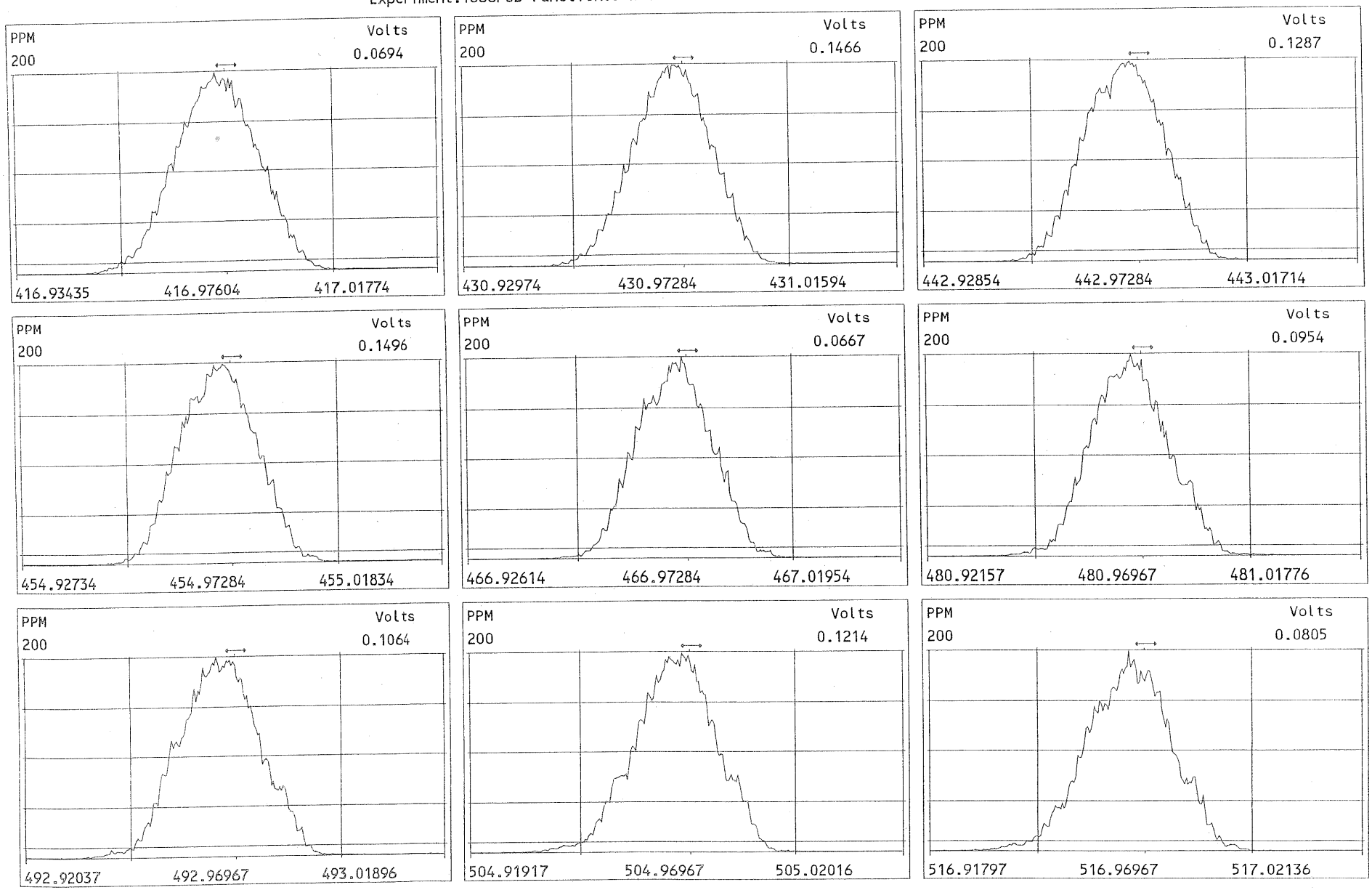




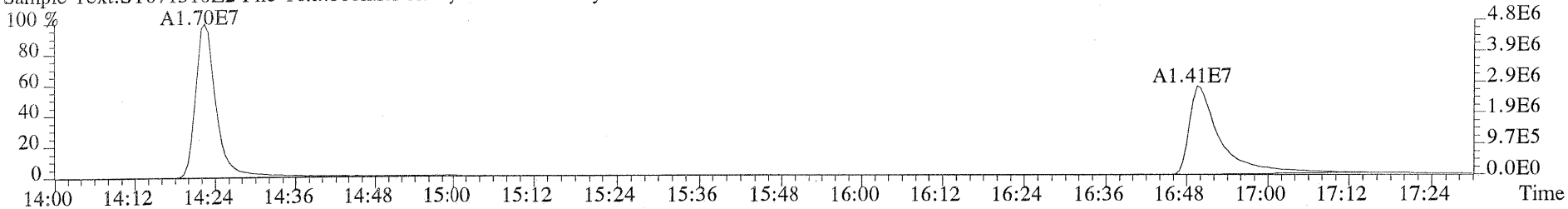




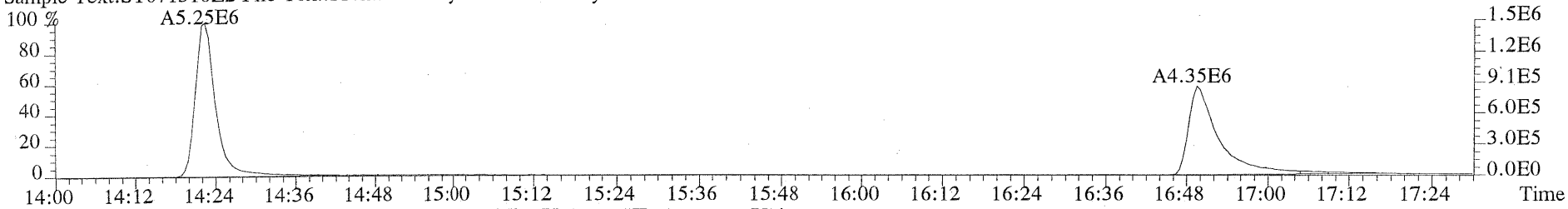
Peak Locate Examination:13-JUL-2016:10:16 File:13JUL16Z
Experiment:1668PCB Function:6 Reference:PFK



File:13JUL16Z #1-900 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:14 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



File:13JUL16Z #1-900 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:14 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



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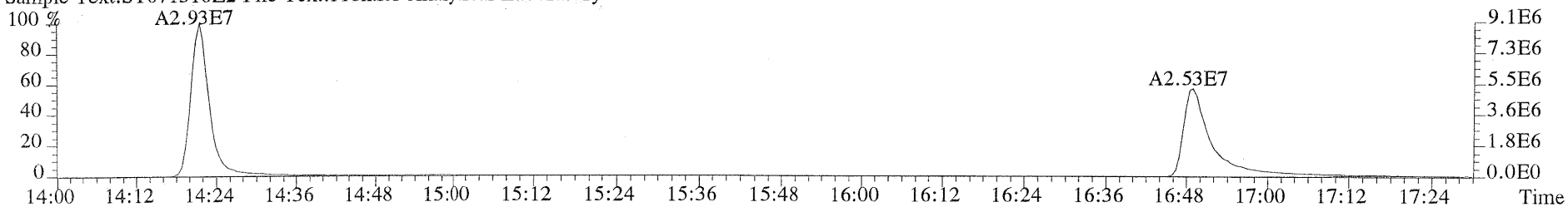
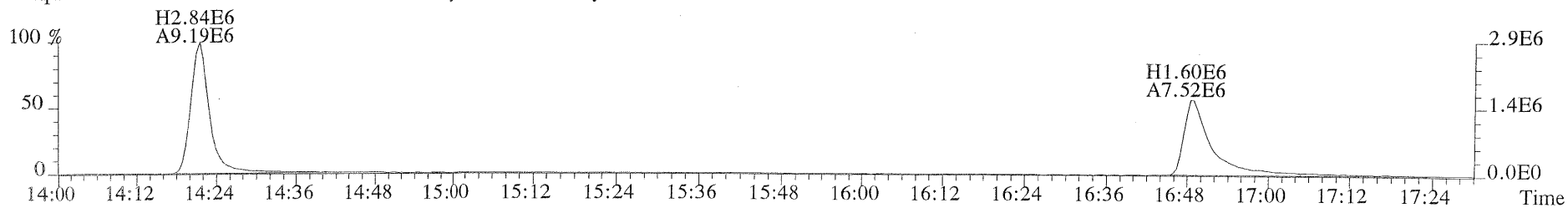
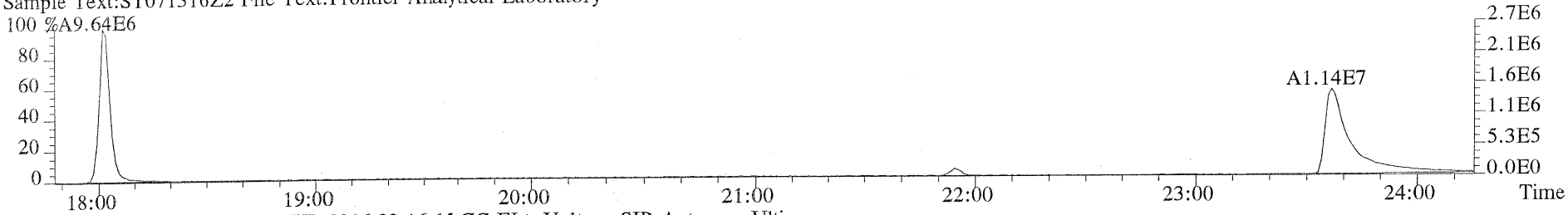
200.0795 S:14 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



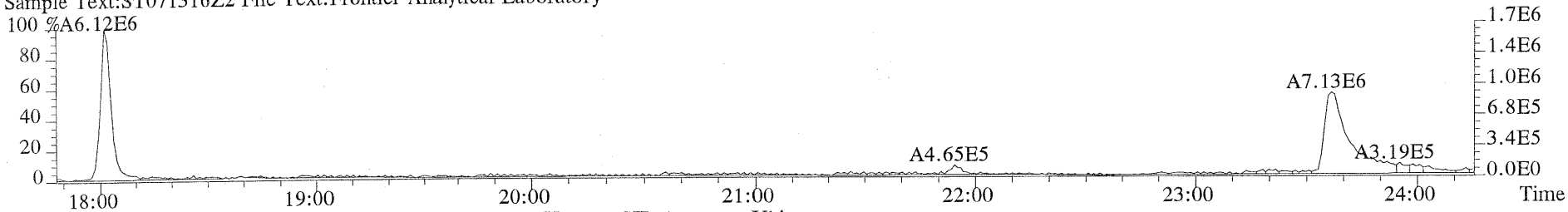
File:13JUL16Z #1-900 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:14 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



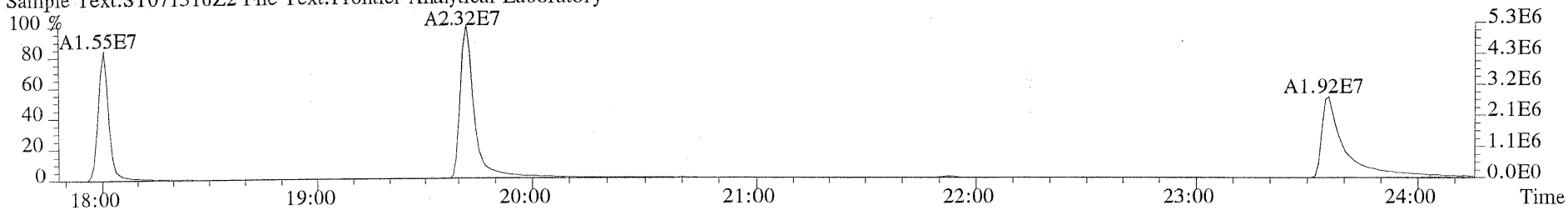
File:13JUL16Z #1-498 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:14 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



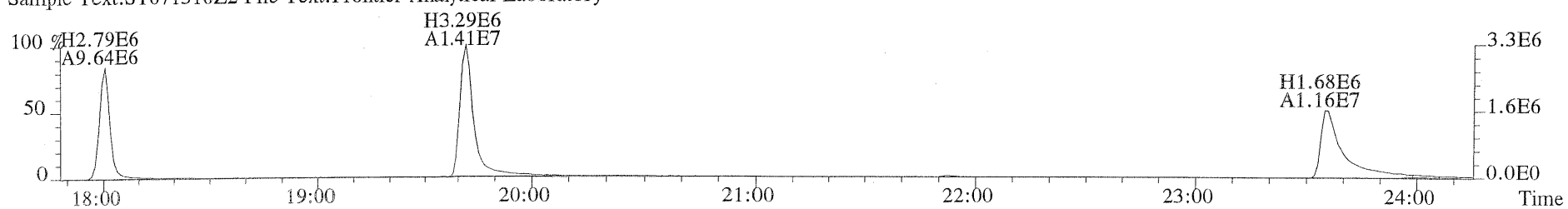
File:13JUL16Z #1-498 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:14 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



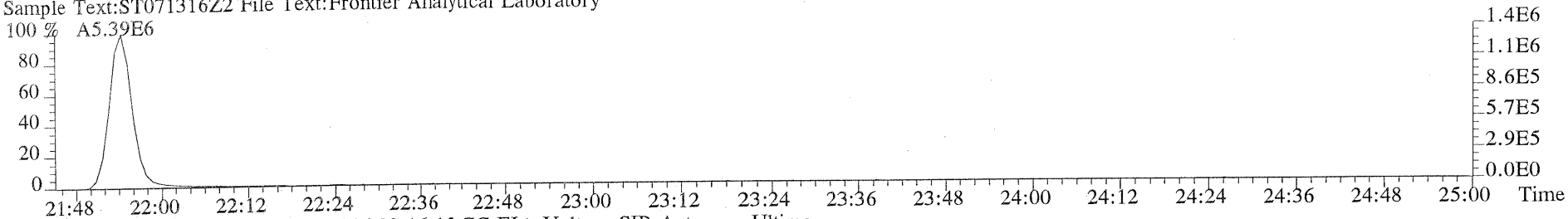
File:13JUL16Z #1-498 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:14 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



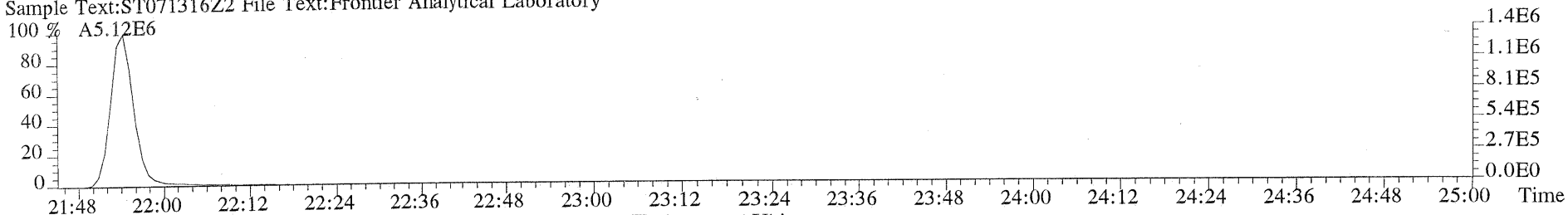
File:13JUL16Z #1-498 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:14 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



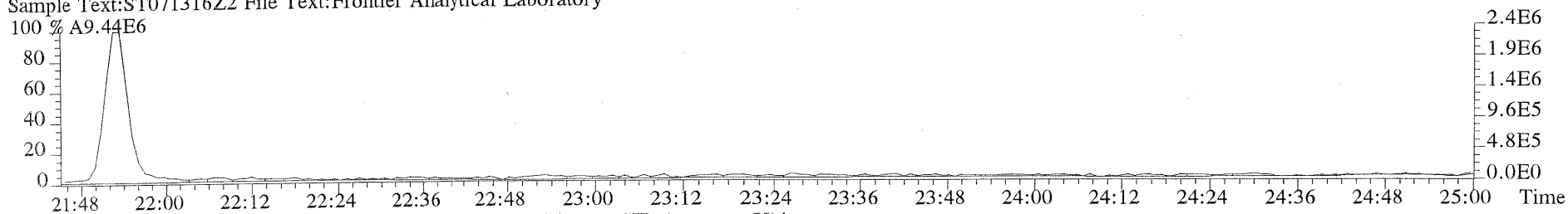
File:13JUL16Z #1-498 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:14 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



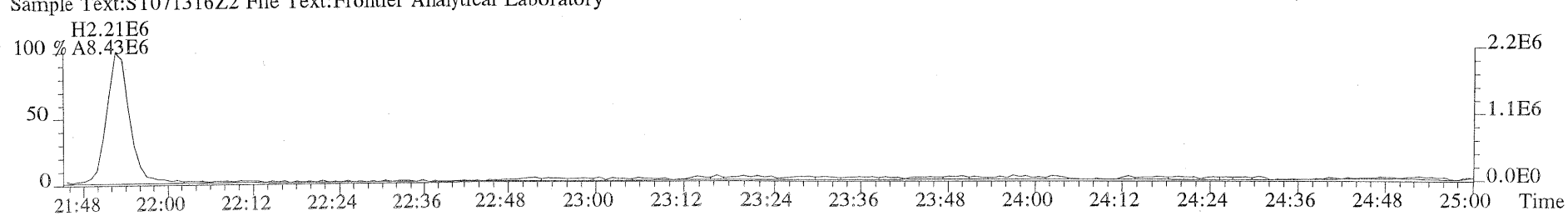
File:13JUL16Z #1-498 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:14 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



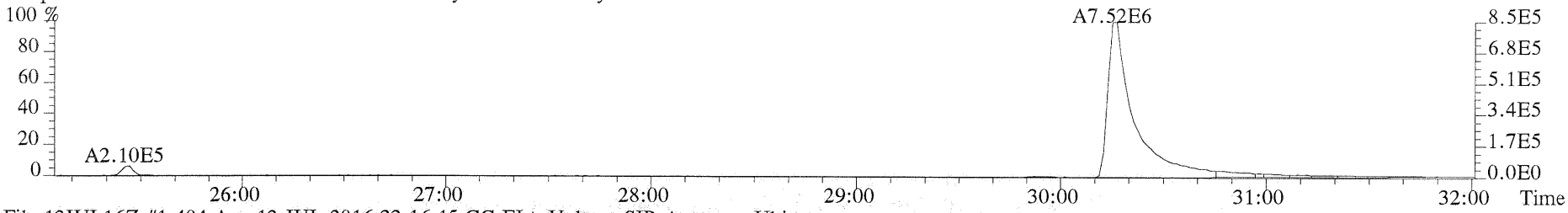
File:13JUL16Z #1-498 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:14 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



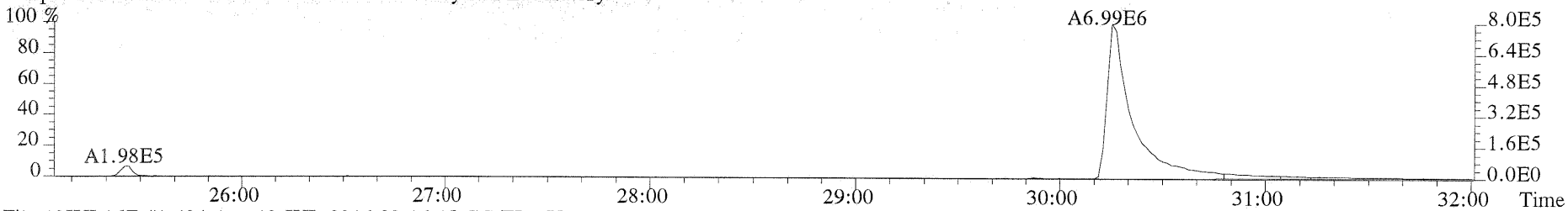
File:13JUL16Z #1-498 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:14 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



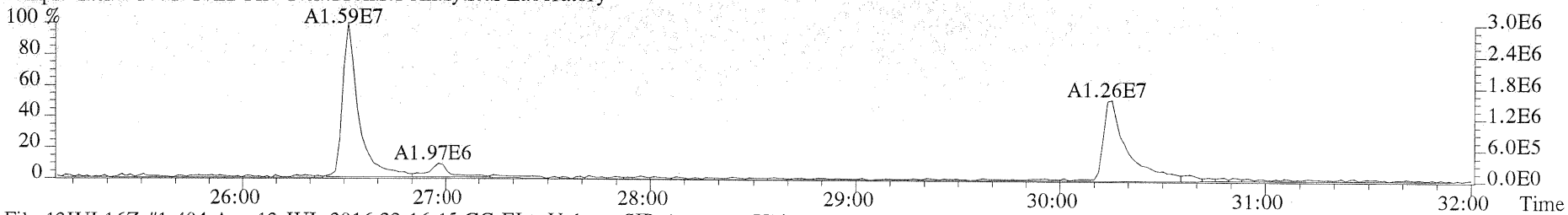
File:13JUL16Z #1-404 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:14 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



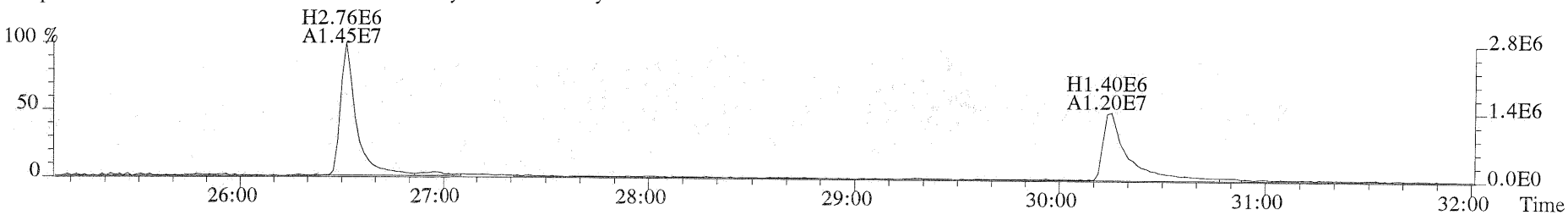
File:13JUL16Z #1-404 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:14 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



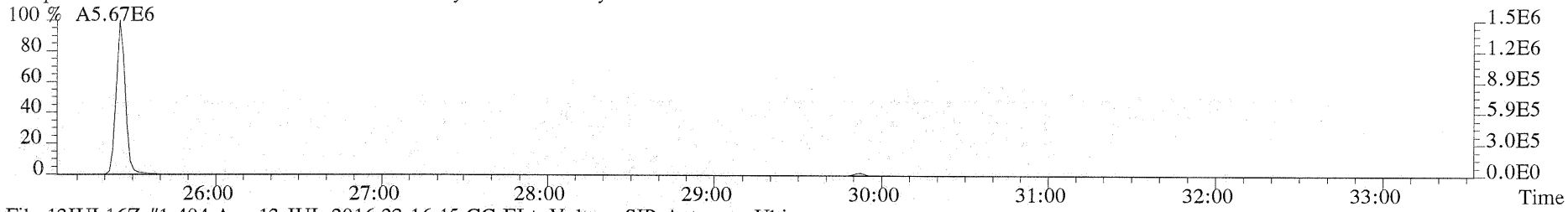
File:13JUL16Z #1-404 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:14 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



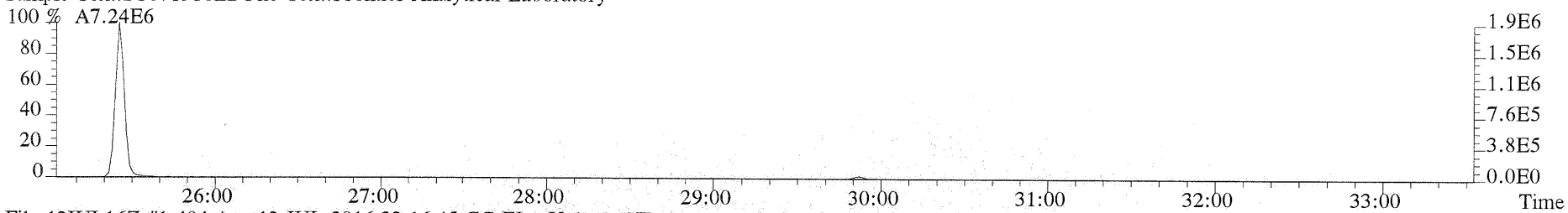
File:13JUL16Z #1-404 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:14 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



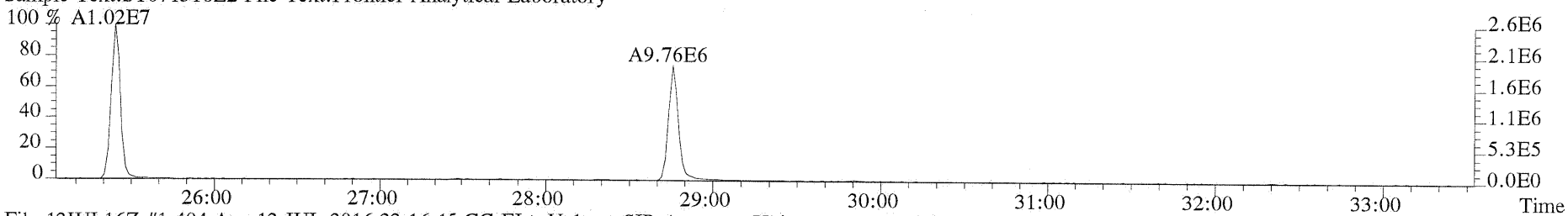
File:13JUL16Z #1-404 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:14 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



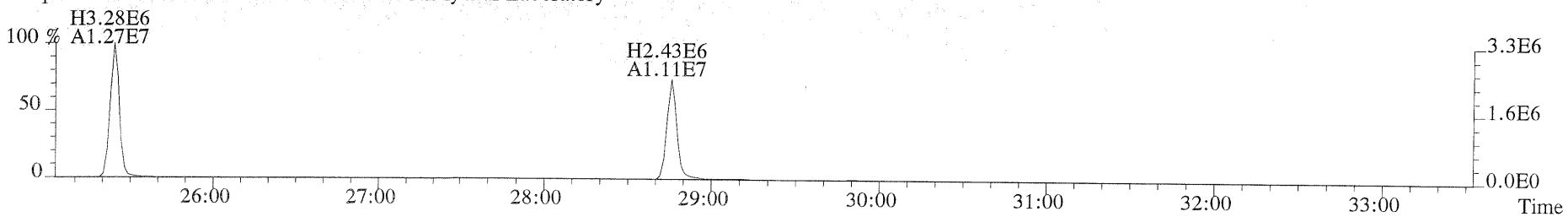
File:13JUL16Z #1-404 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:14 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



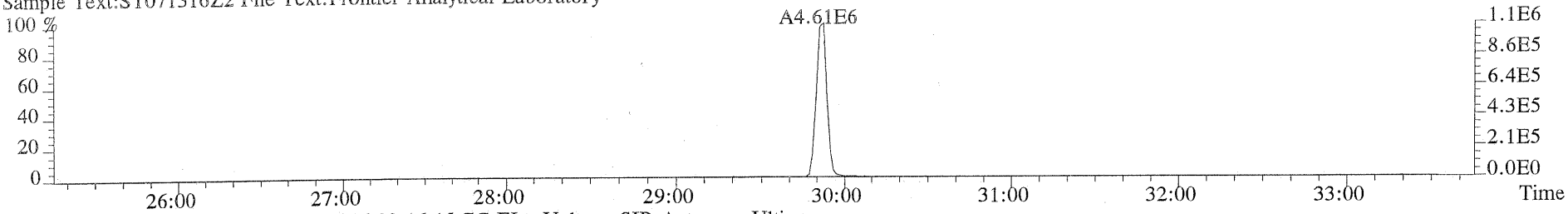
File:13JUL16Z #1-404 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:14 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



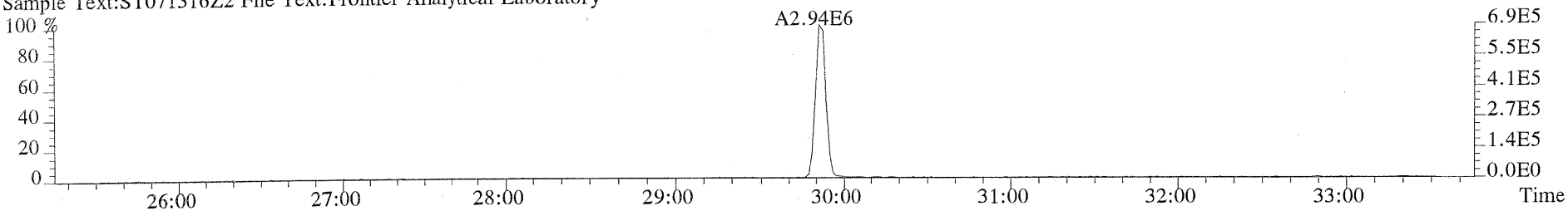
File:13JUL16Z #1-404 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:14 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



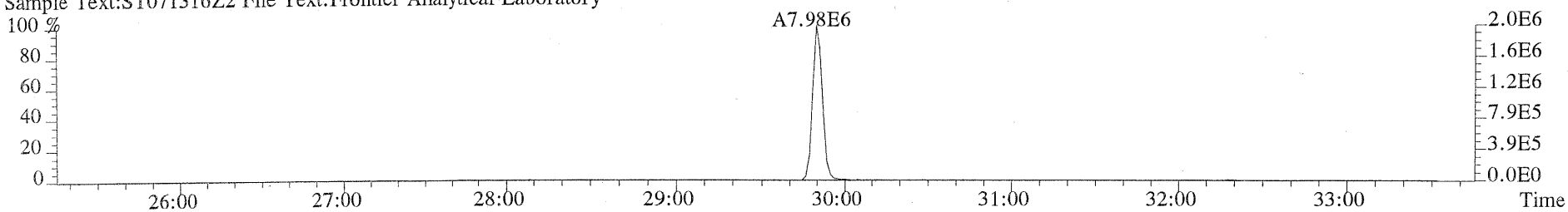
File:13JUL16Z #1-404 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:14 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



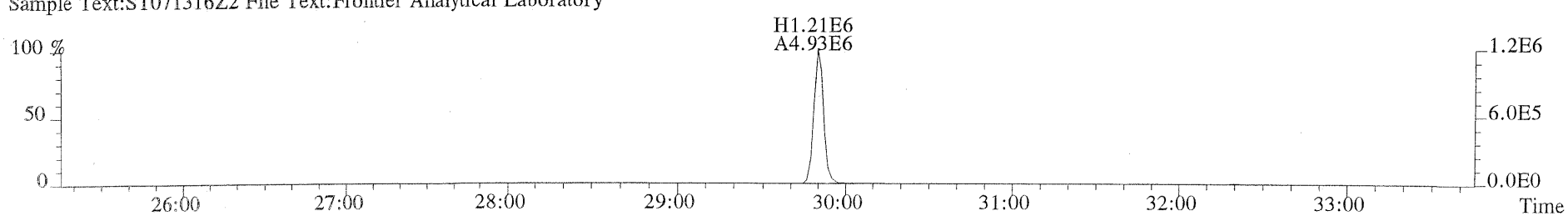
File:13JUL16Z #1-404 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:14 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



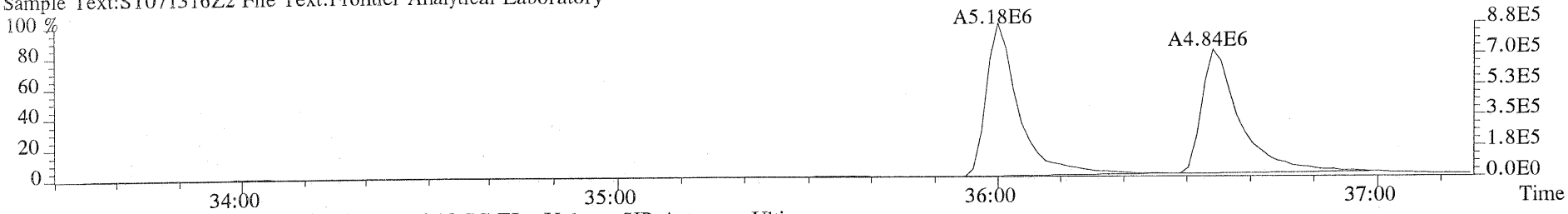
File:13JUL16Z #1-404 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:14 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



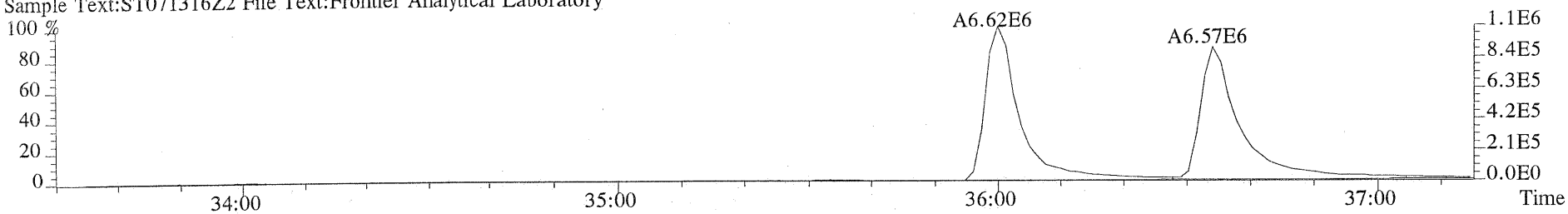
File:13JUL16Z #1-404 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:14 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



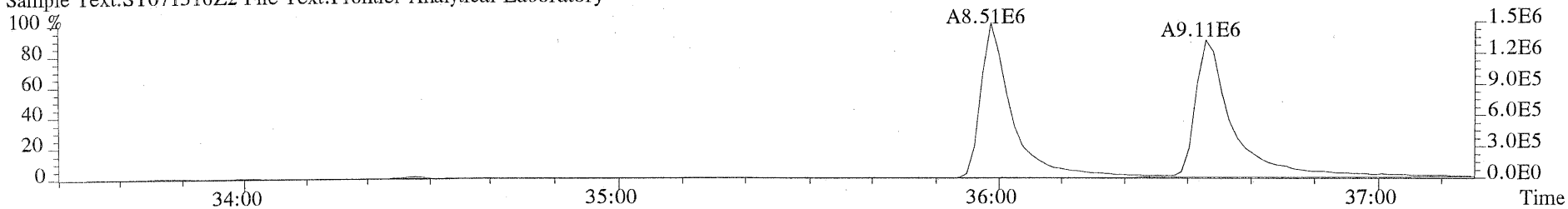
File:13JUL16Z #1-181 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:14 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



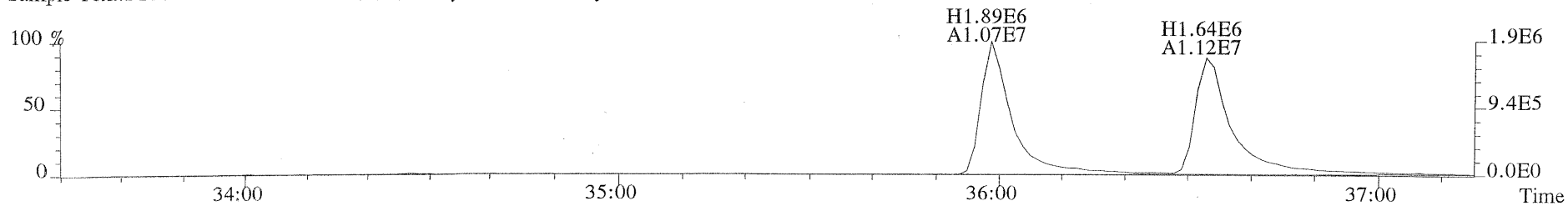
File:13JUL16Z #1-181 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:14 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



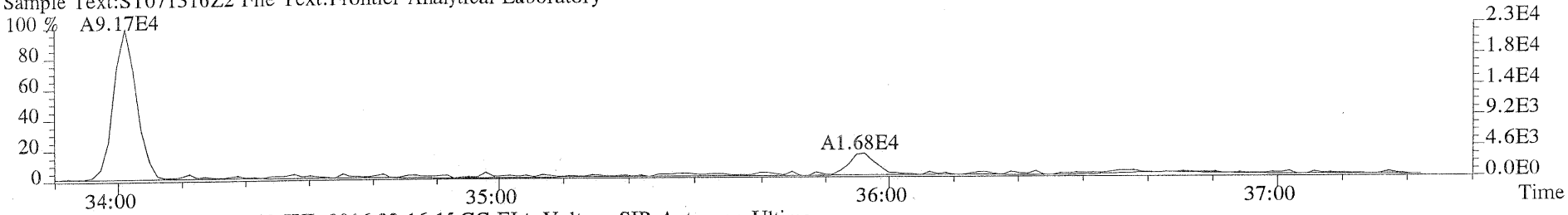
File:13JUL16Z #1-181 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:14 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



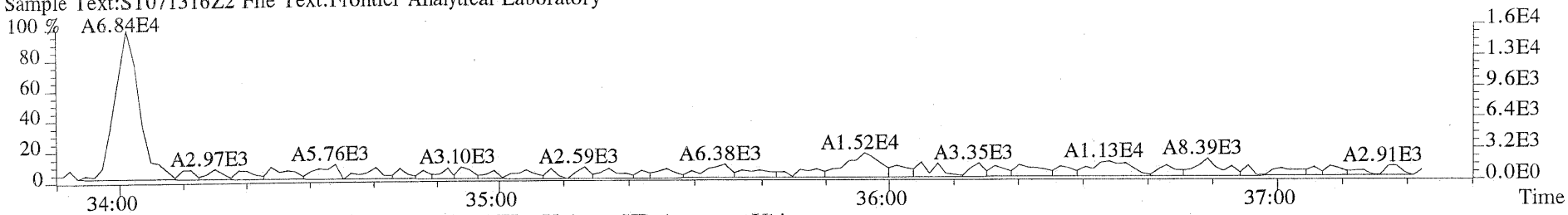
File:13JUL16Z #1-181 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:14 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



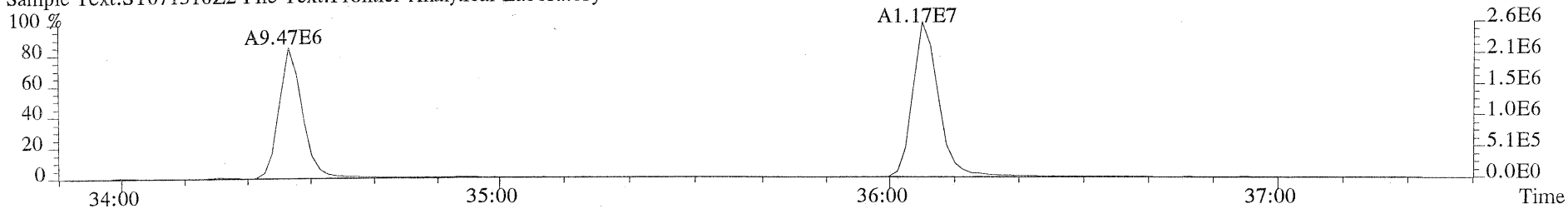
File:13JUL16Z #1-181 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:14 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



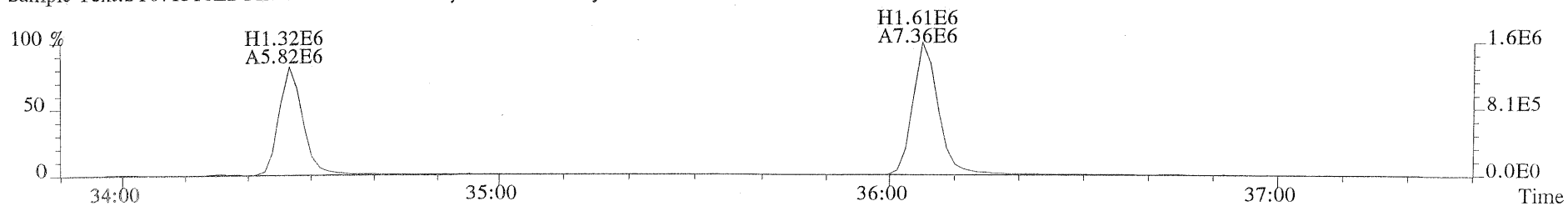
File:13JUL16Z #1-181 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:14 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



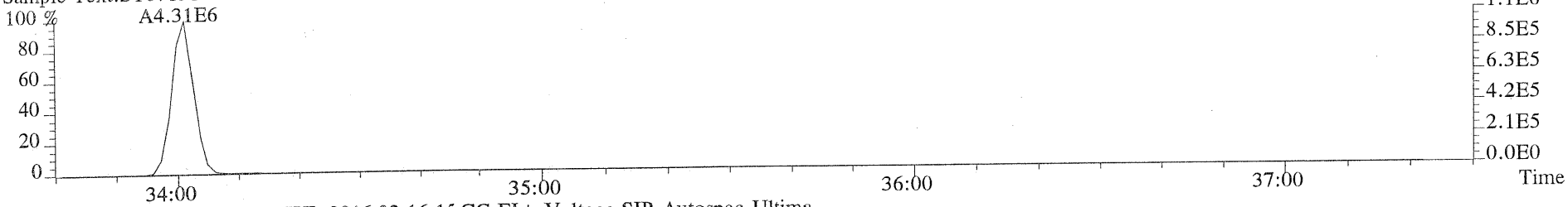
File:13JUL16Z #1-181 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:14 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



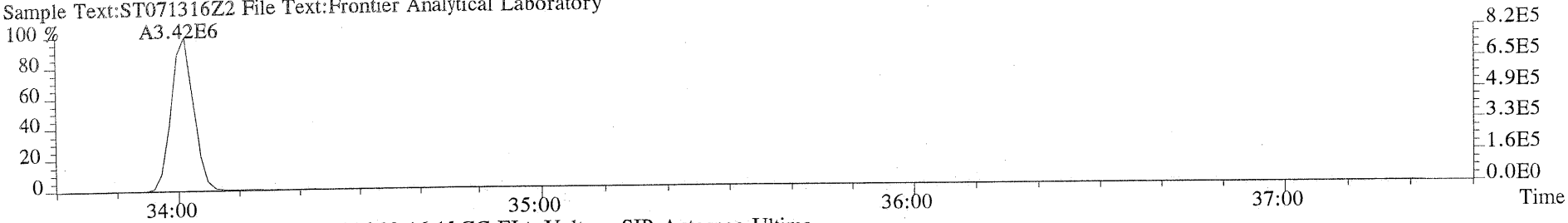
File:13JUL16Z #1-181 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:14 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



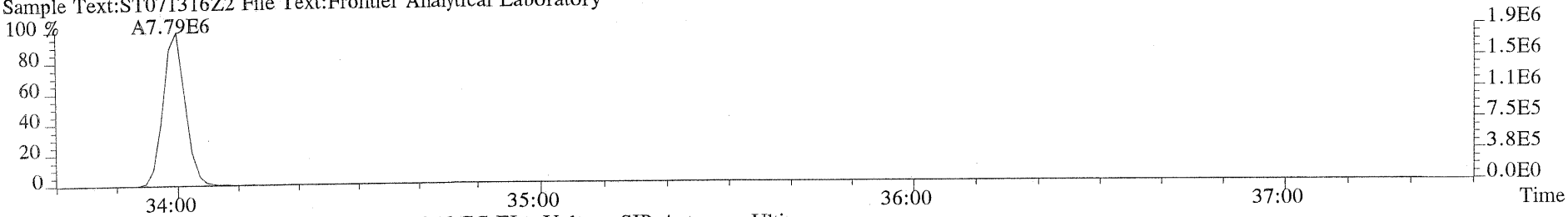
File:13JUL16Z #1-181 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:14 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



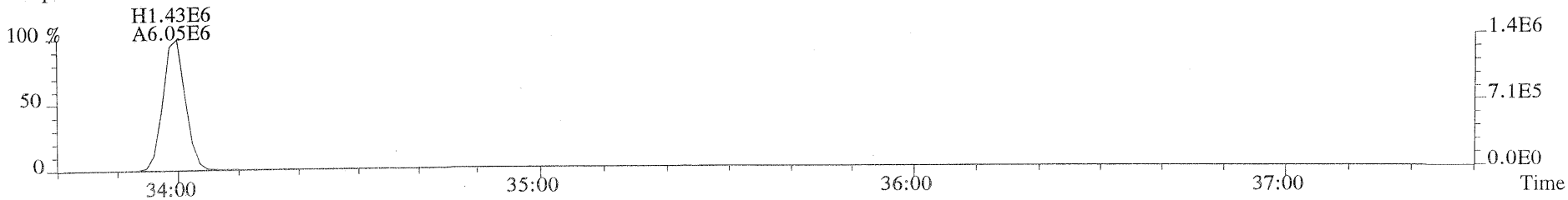
File:13JUL16Z #1-181 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:14 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



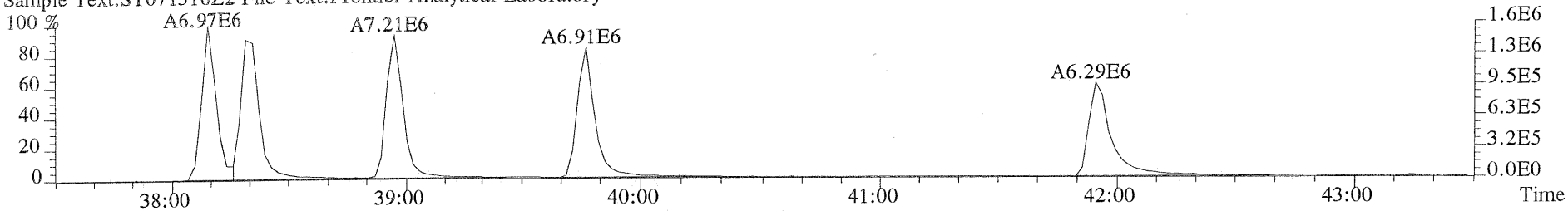
File:13JUL16Z #1-181 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:14 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



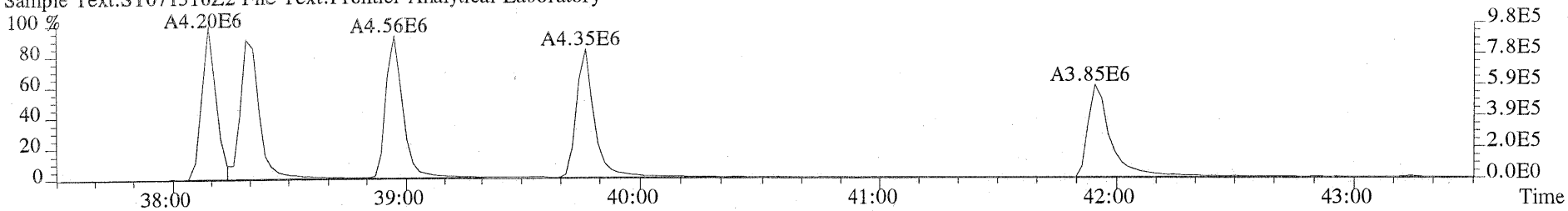
File:13JUL16Z #1-181 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:14 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



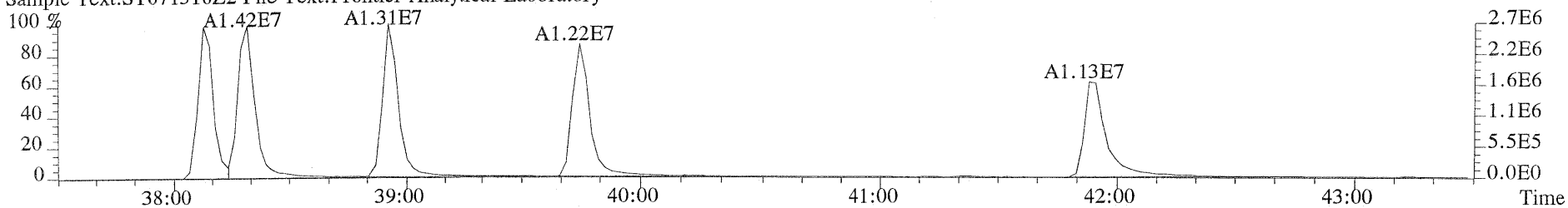
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



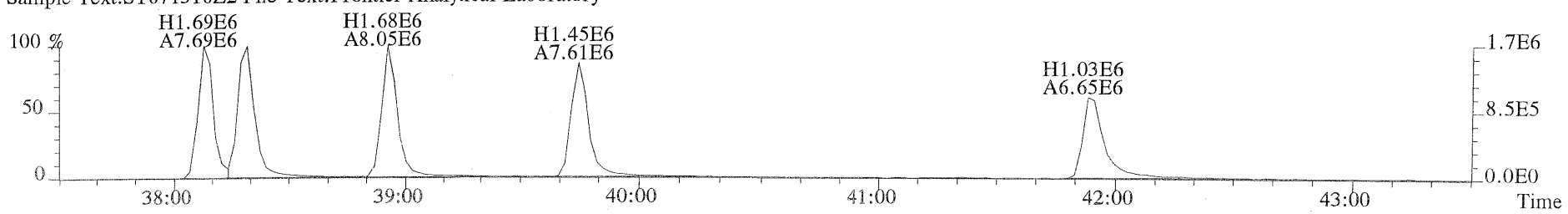
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



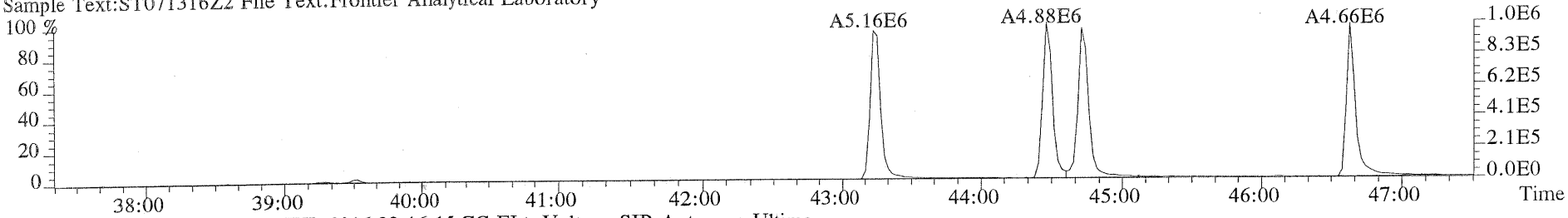
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



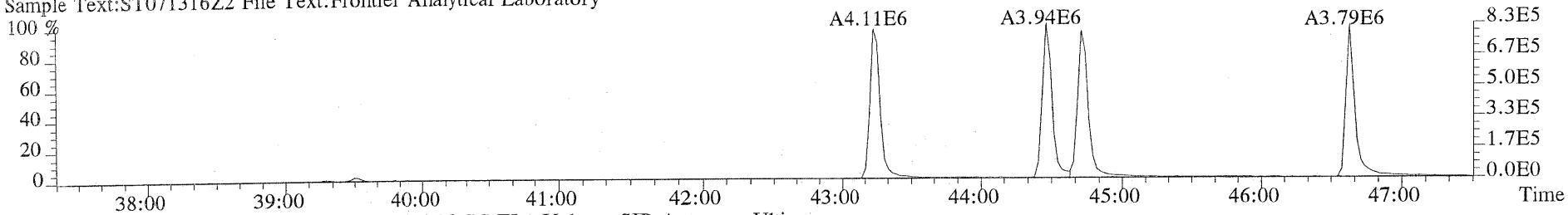
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



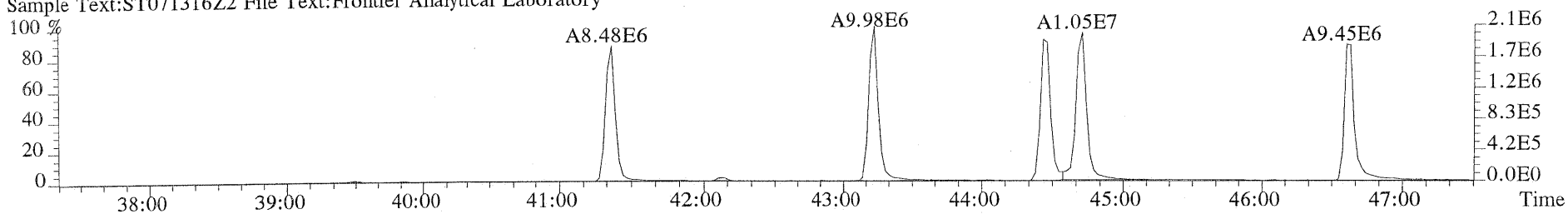
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



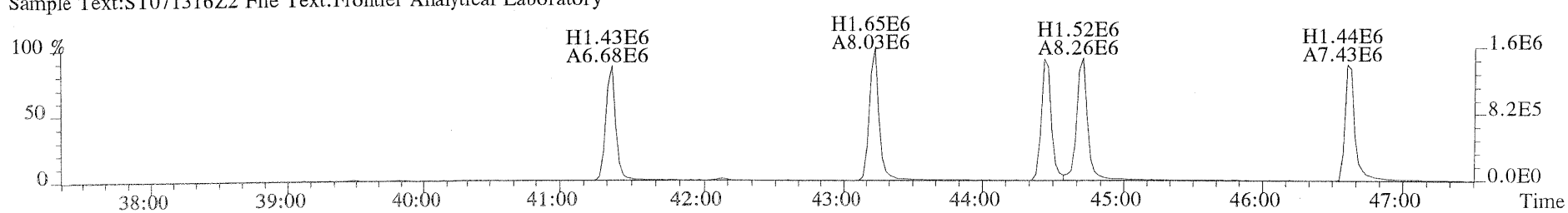
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



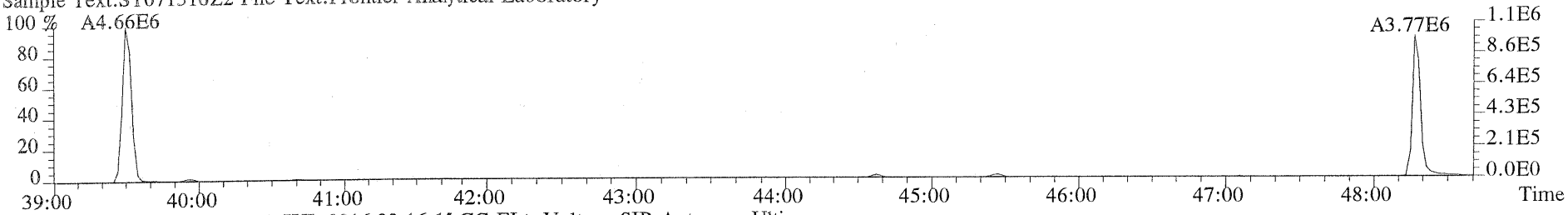
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



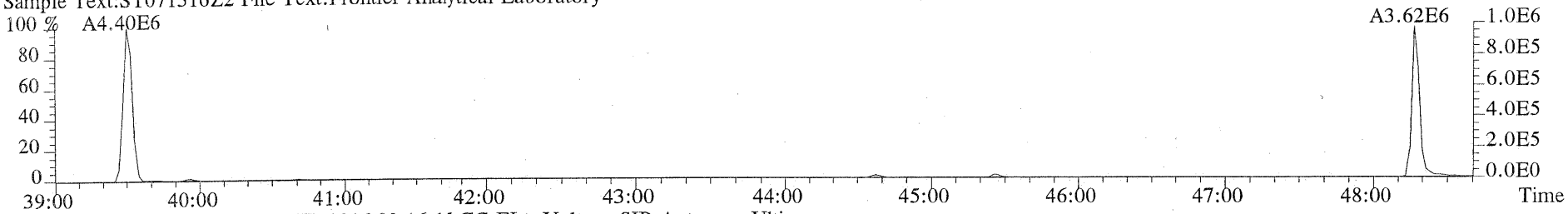
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



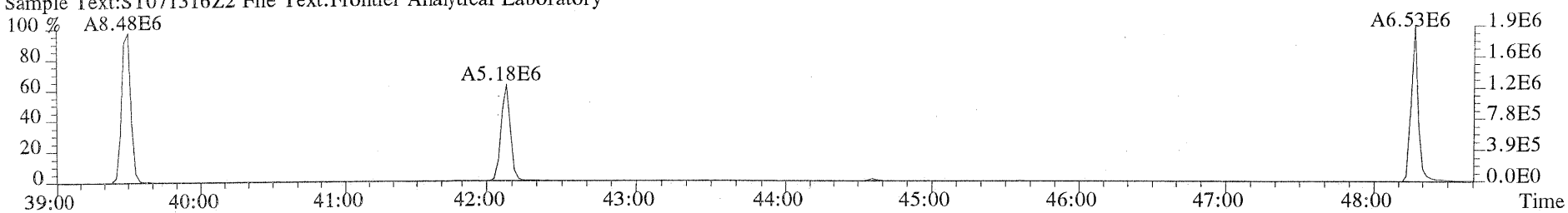
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
393.8025 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



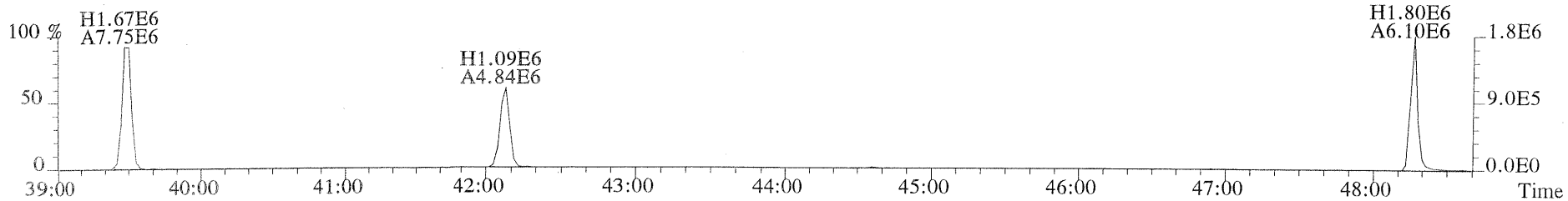
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



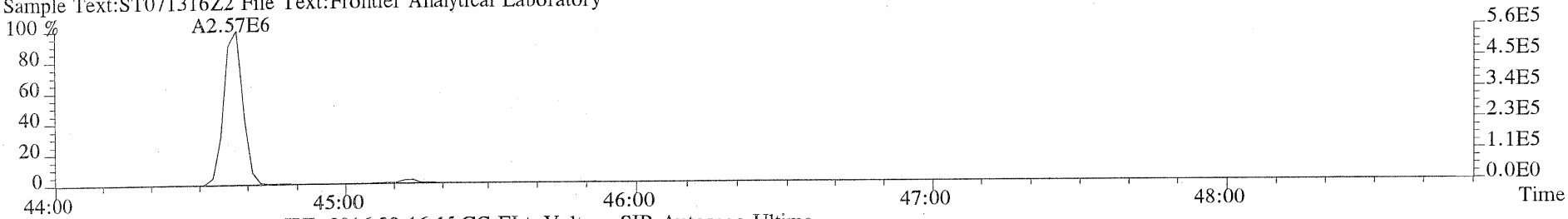
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
405.8428 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



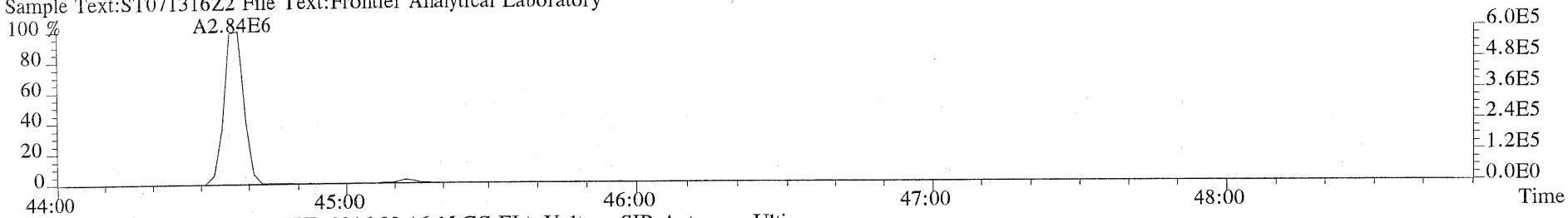
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
407.8398 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



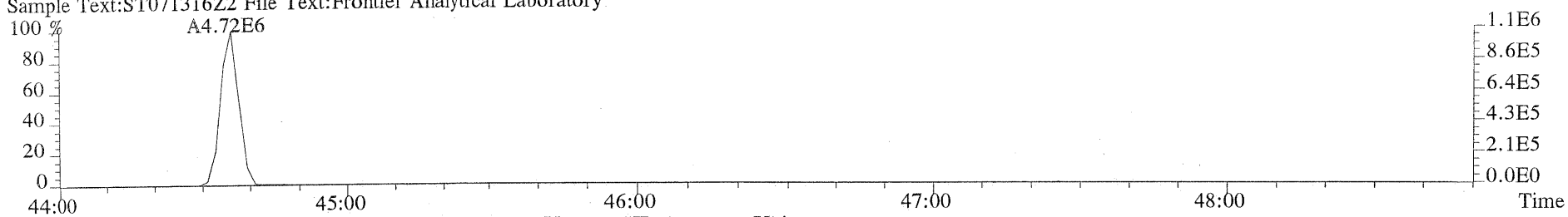
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



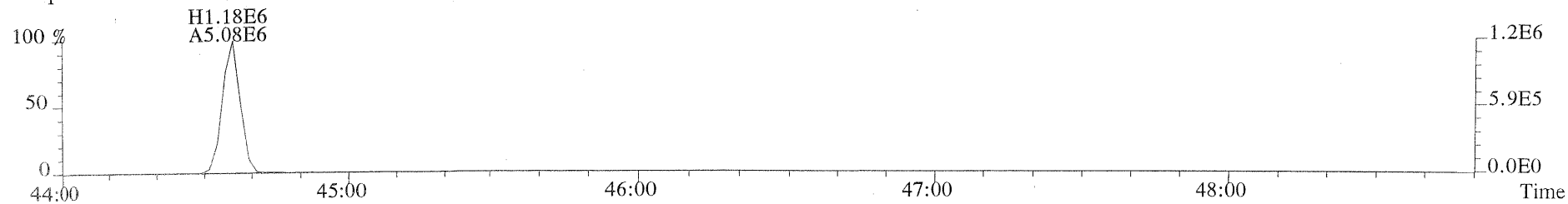
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



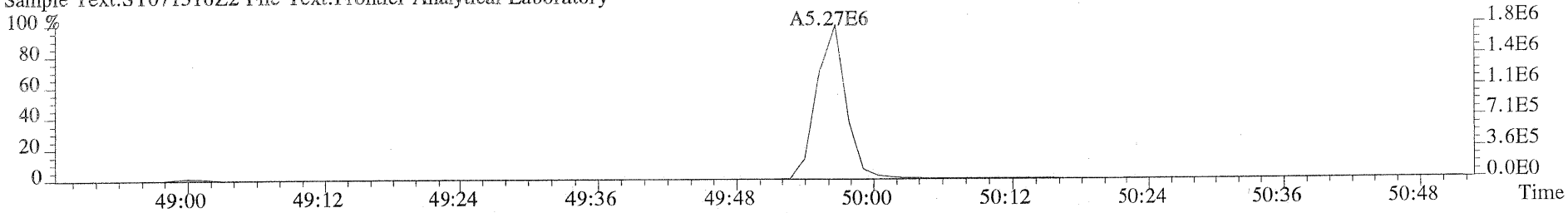
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



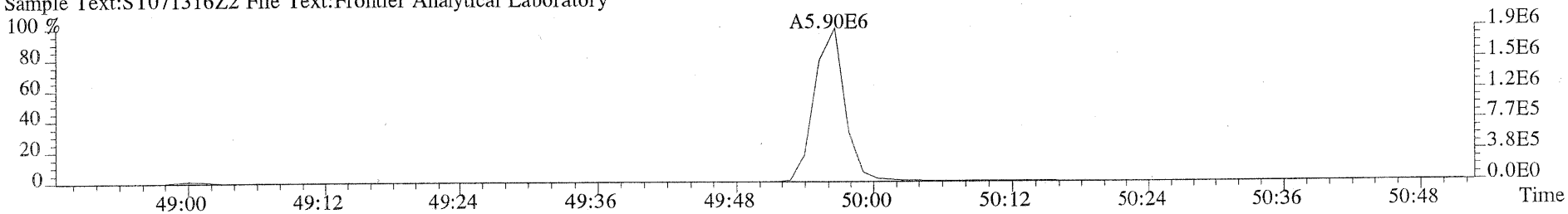
File:13JUL16Z #1-415 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:14 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



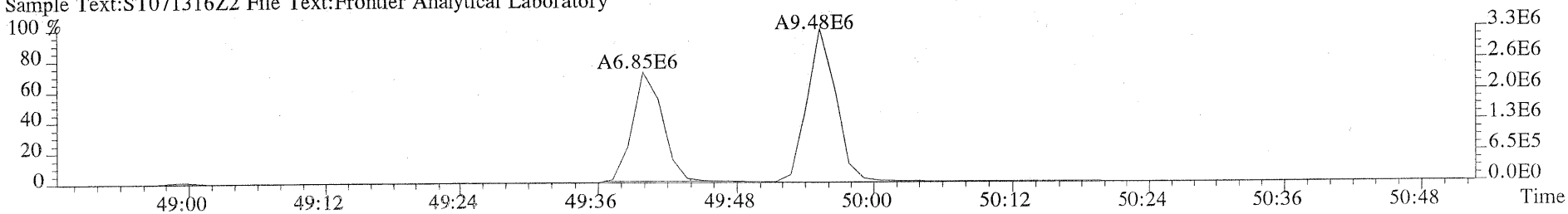
File:13JUL16Z #1-221 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:14 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



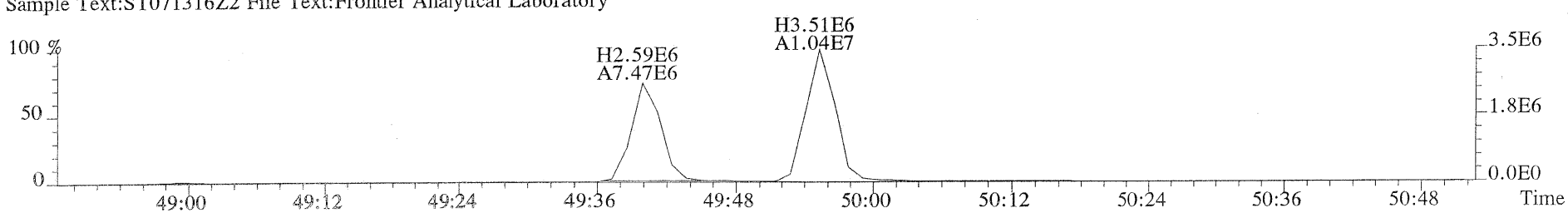
File:13JUL16Z #1-221 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:14 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



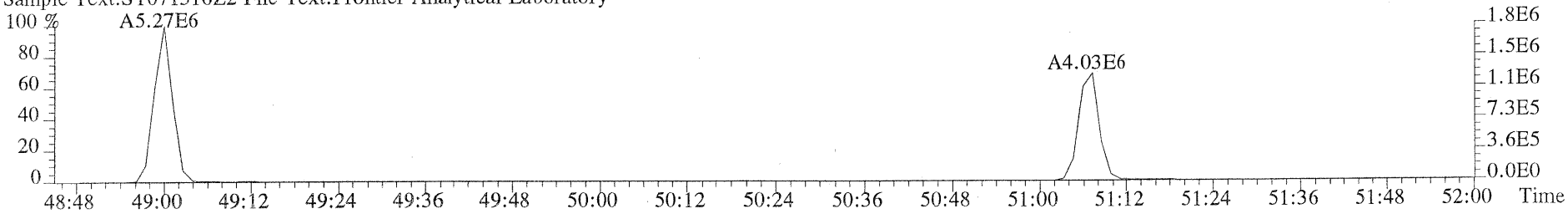
File:13JUL16Z #1-221 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:14 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



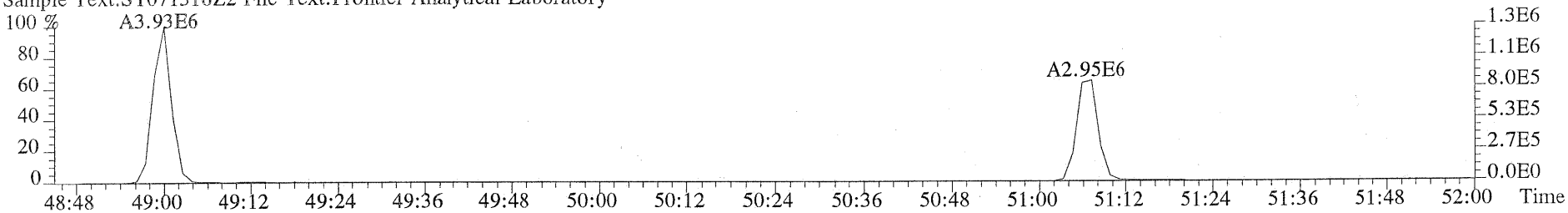
File:13JUL16Z #1-221 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:14 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



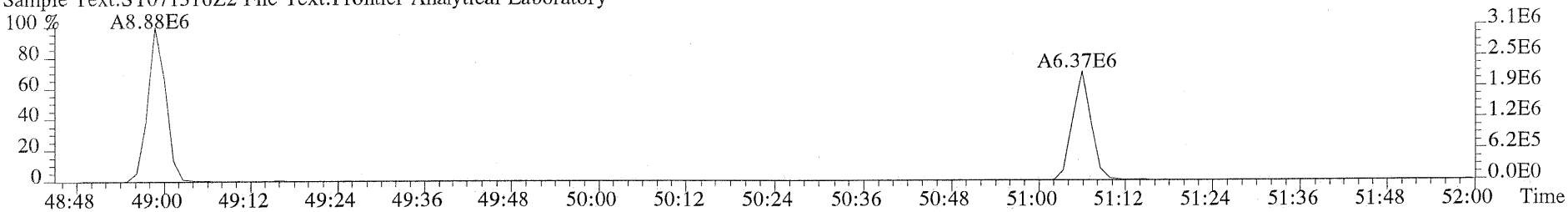
File:13JUL16Z #1-221 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:14 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



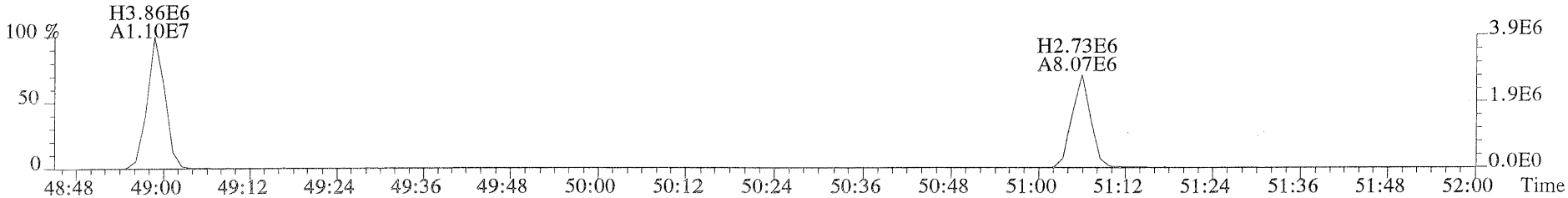
File:13JUL16Z #1-221 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
465.7187 S:14 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



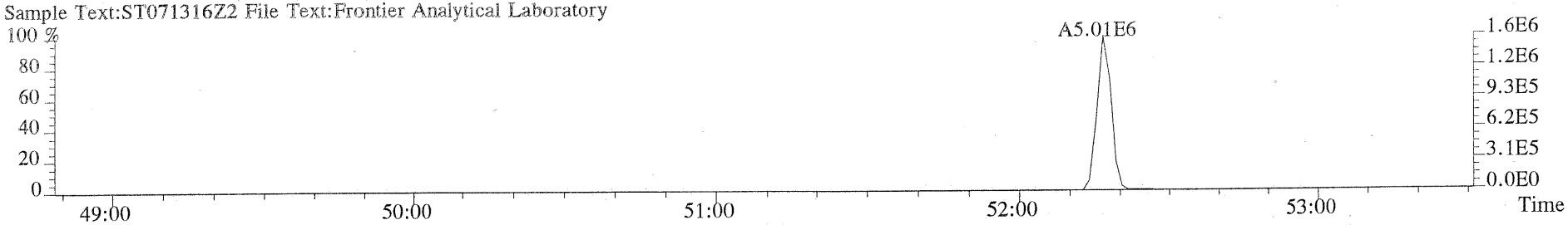
File:13JUL16Z #1-221 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
473.7648 S:14 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



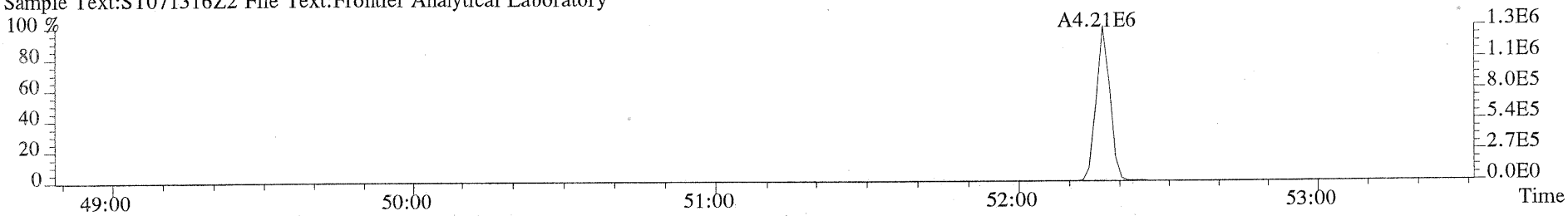
File:13JUL16Z #1-221 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
475.7619 S:14 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



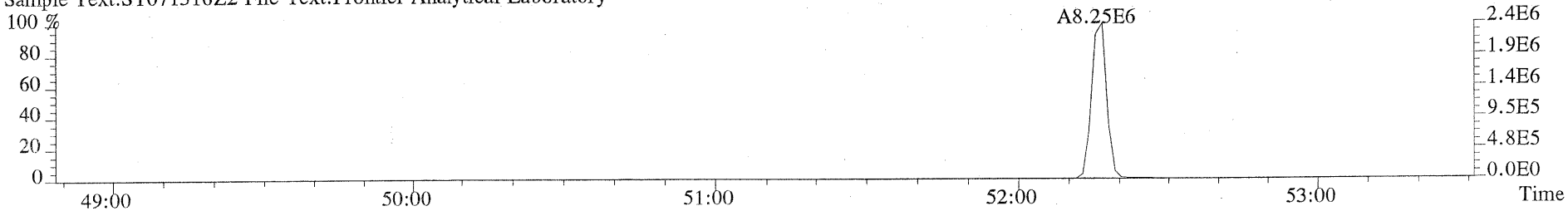
File:13JUL16Z #1-221 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:14 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



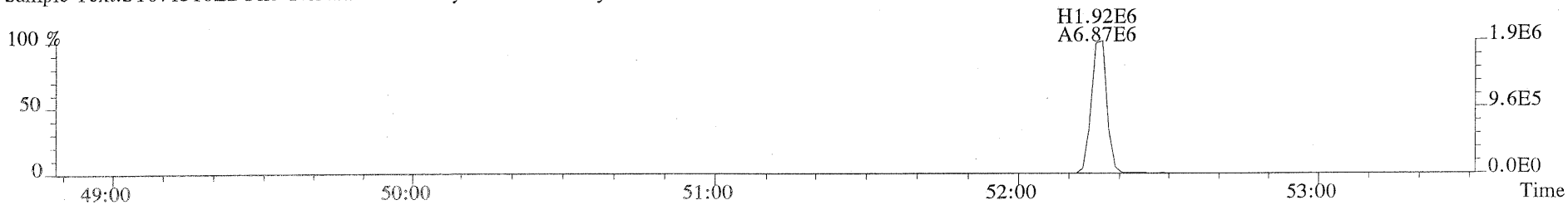
File:13JUL16Z #1-221 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:14 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory



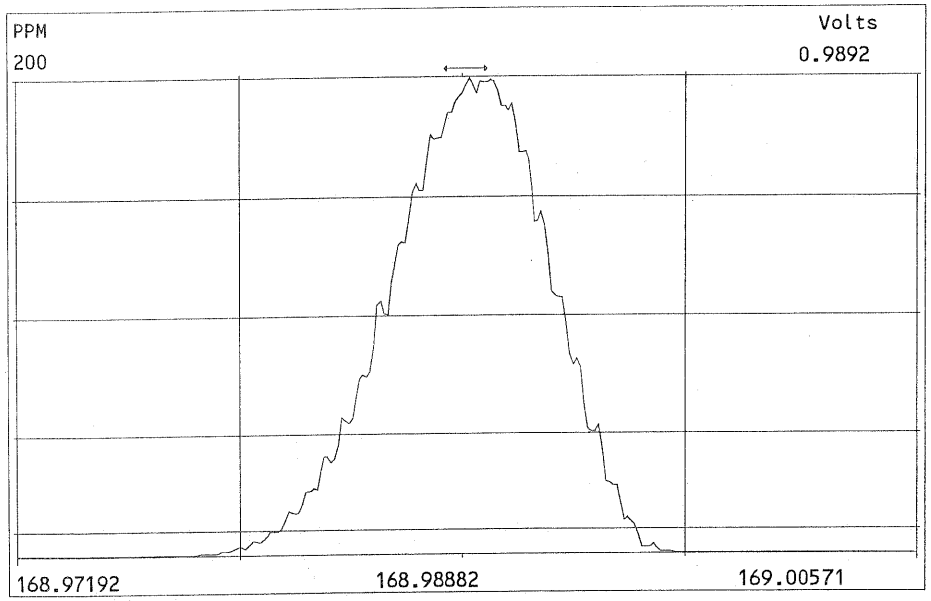
File:13JUL16Z #1-221 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:14 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory

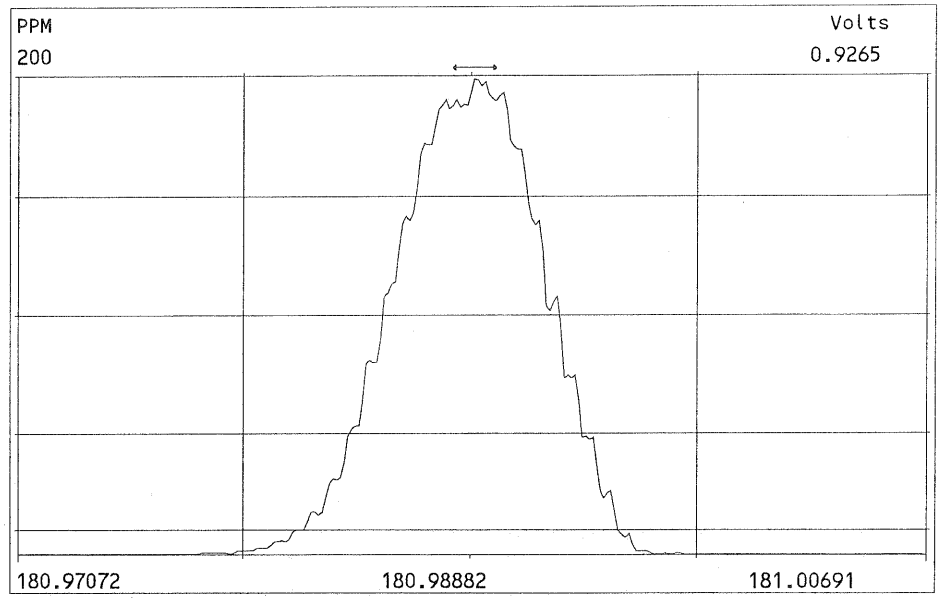


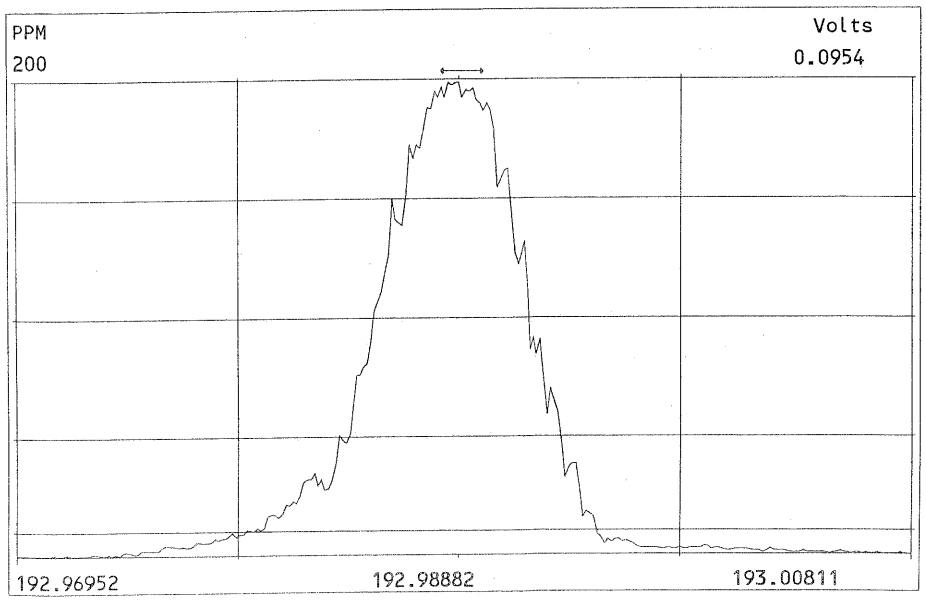
File:13JUL16Z #1-221 Acq:13-JUL-2016 23:16:15 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:14 F:6 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071316Z2 File Text:Frontier Analytical Laboratory

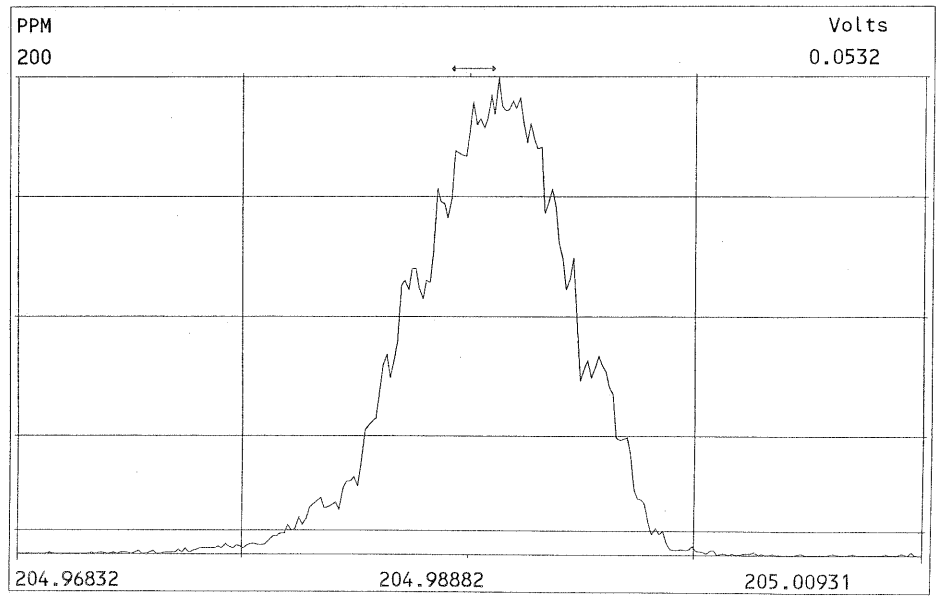


Peak Locate Examination:14-JUL-2016:09:16 File:13JUL16Z_RES_CHECK
Experiment:1668PCB Function:1 Reference:PFK

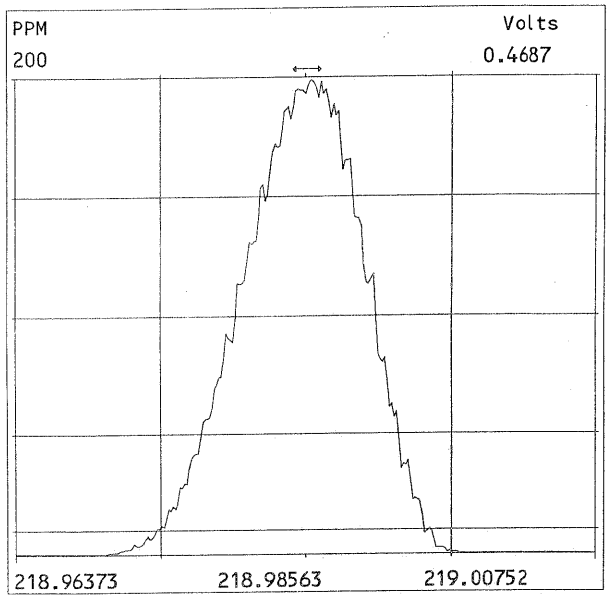


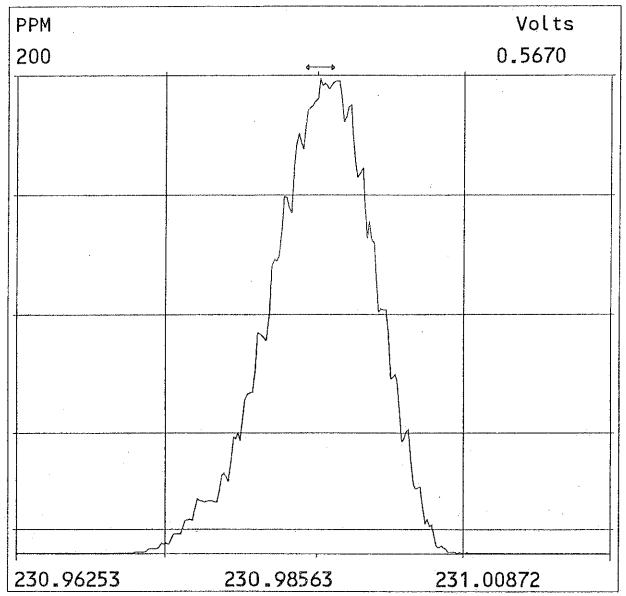


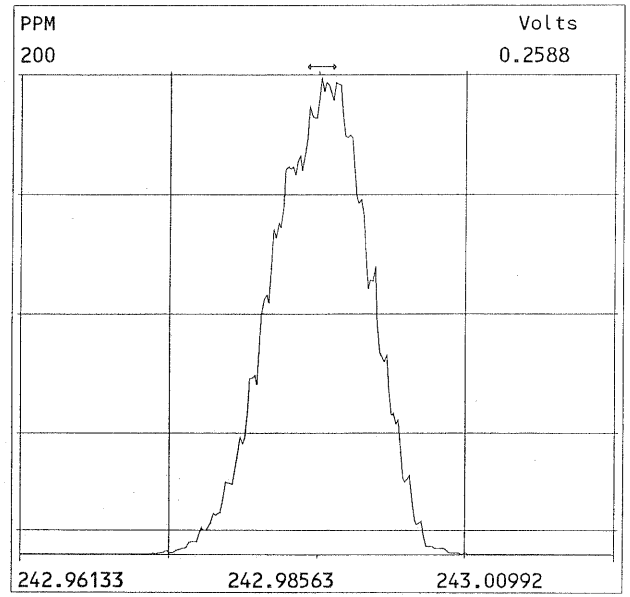


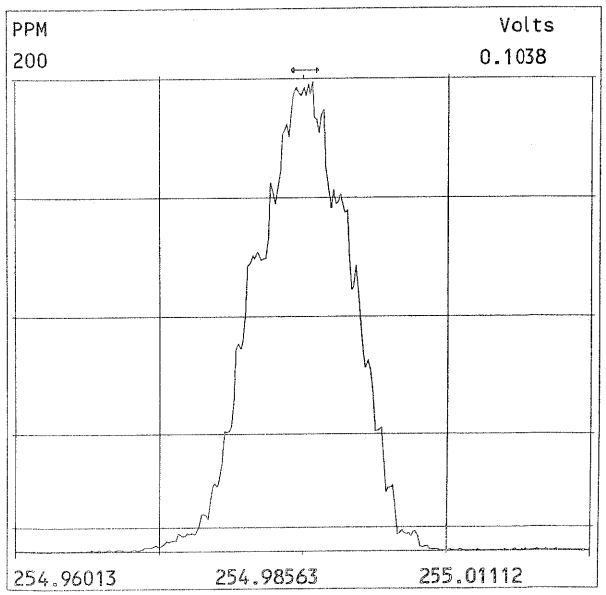


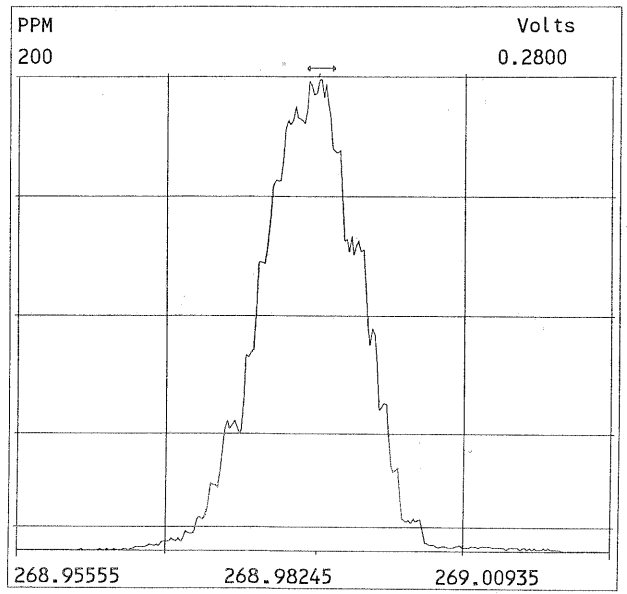
Peak Locate Examination:14-JUL-2016:09:17 File:13JUL16Z_RES_CHECK
Experiment:1668PCB Function:2 Reference:PFK

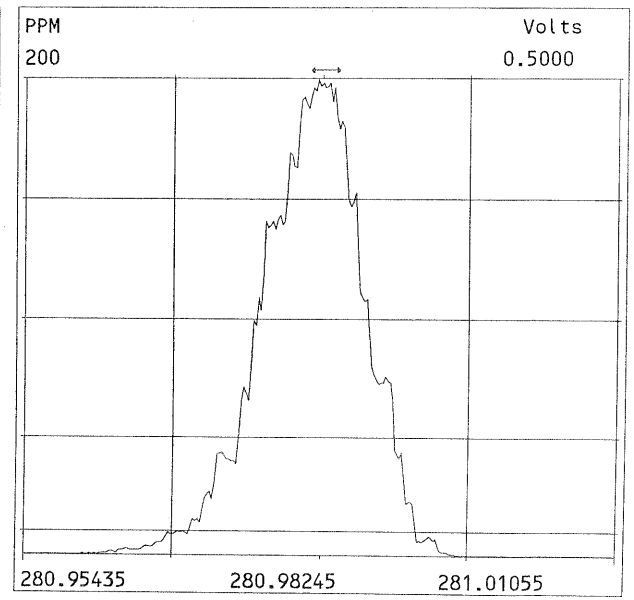




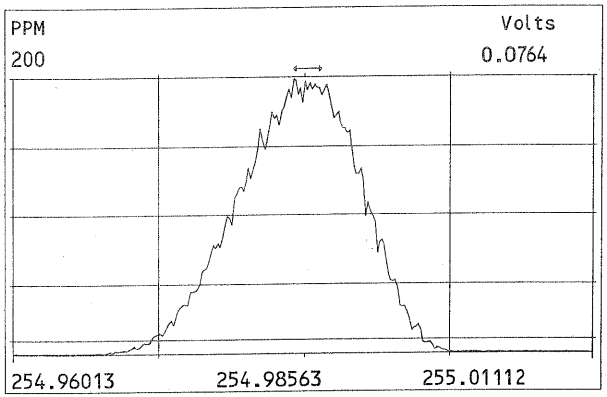


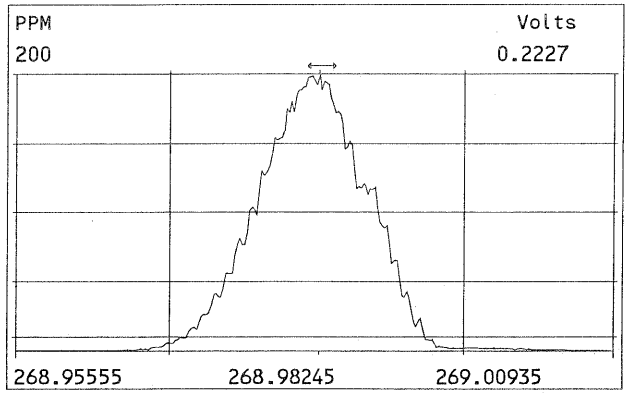


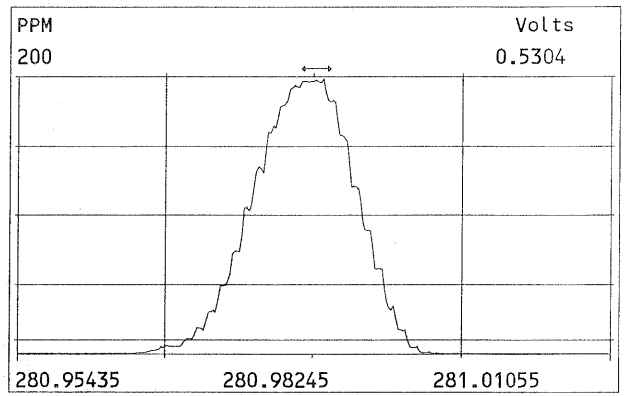


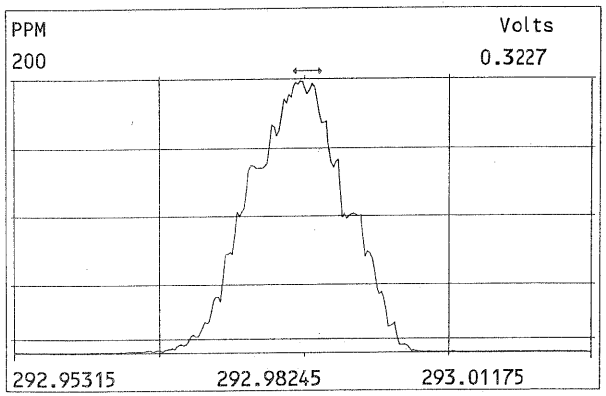


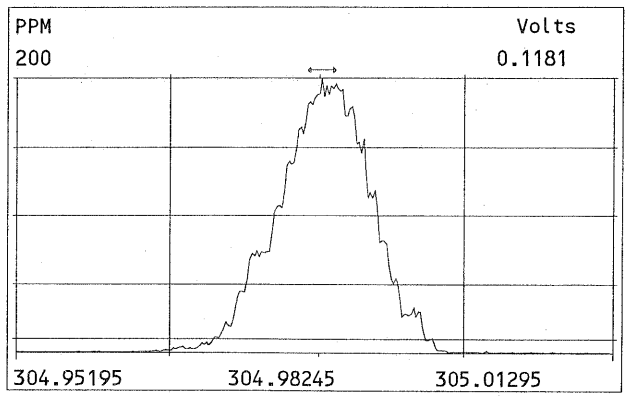
Peak Locate Examination:14-JUL-2016:09:17 File:13JUL16Z_RES_CHECK
Experiment:1668PCB Function:3 Reference:PFK

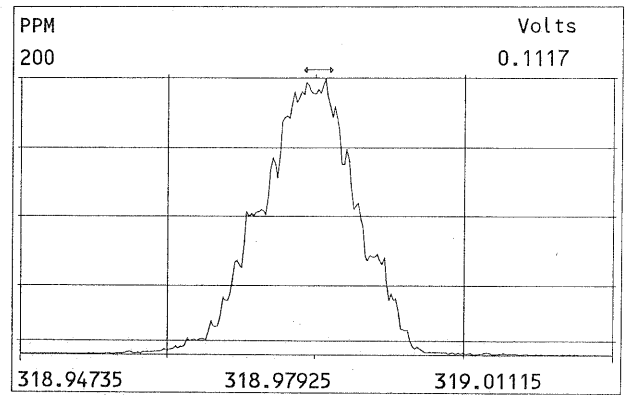


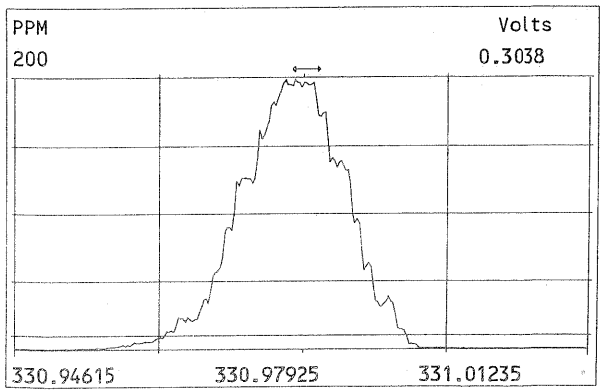


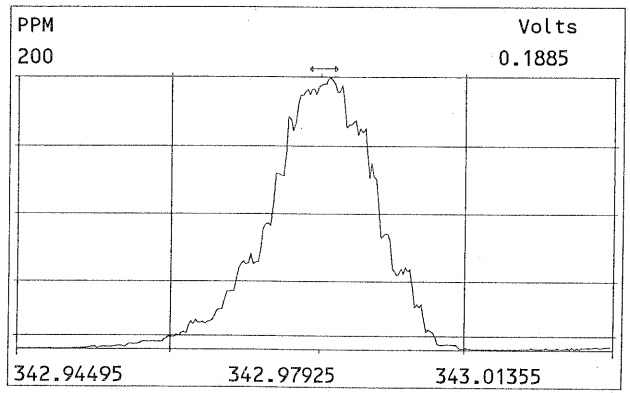




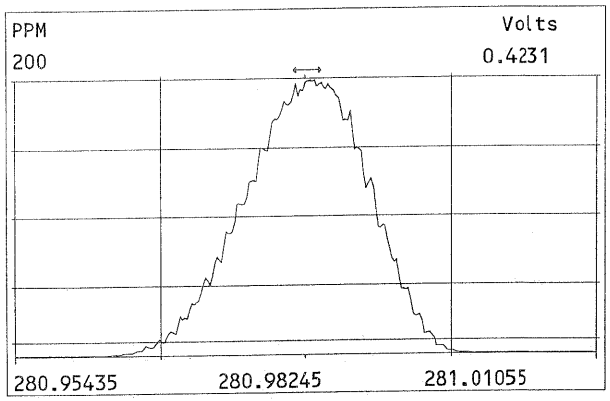


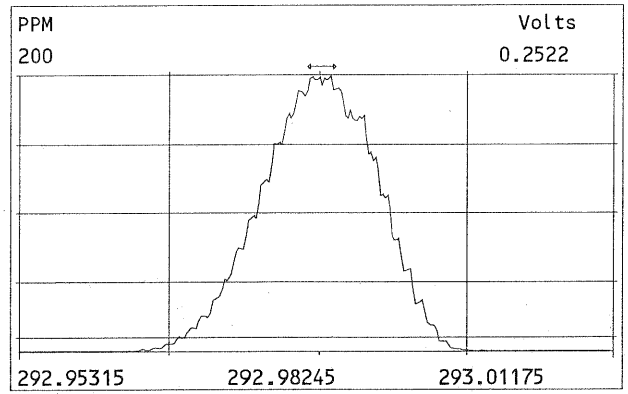


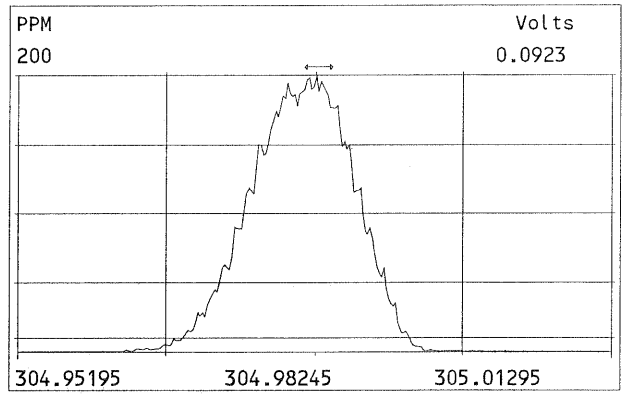


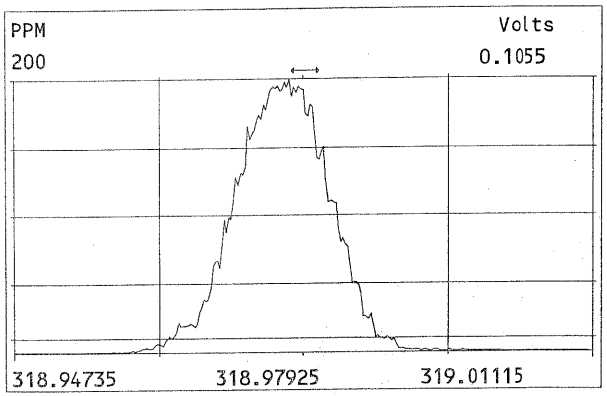


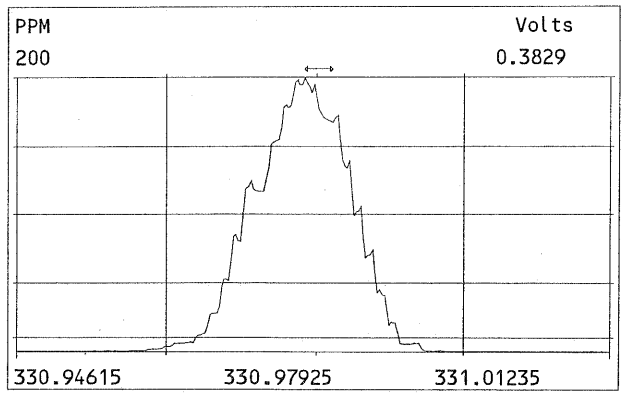
Peak Locate Examination:14-JUL-2016:09:17 File:13JUL16Z_RES_CHECK
Experiment:1668PCB Function:4 Reference:PFK

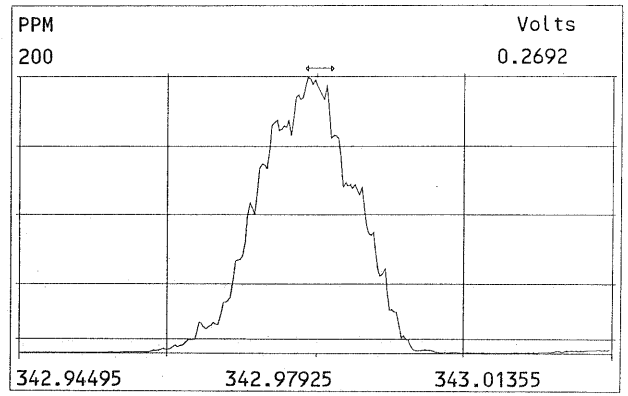


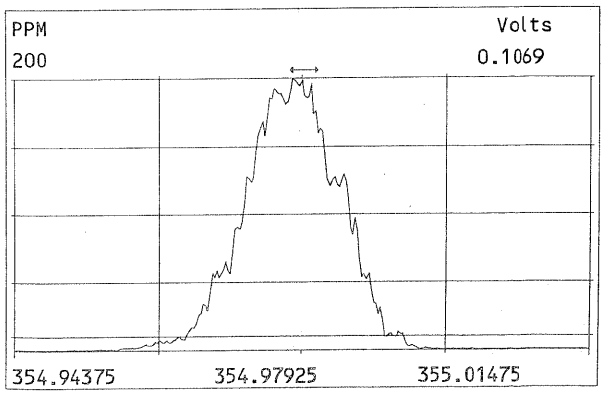


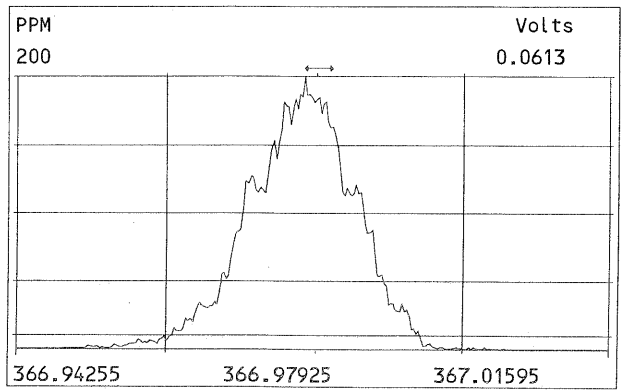


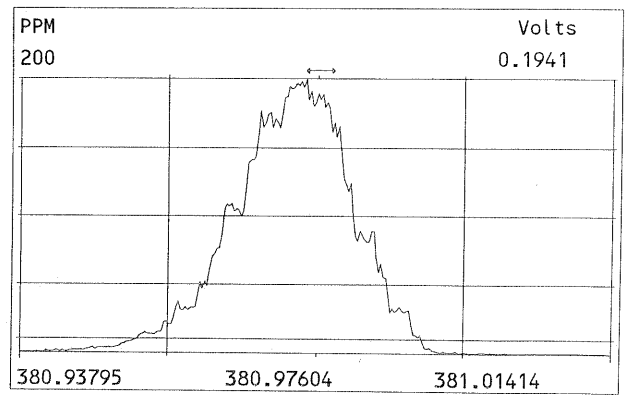




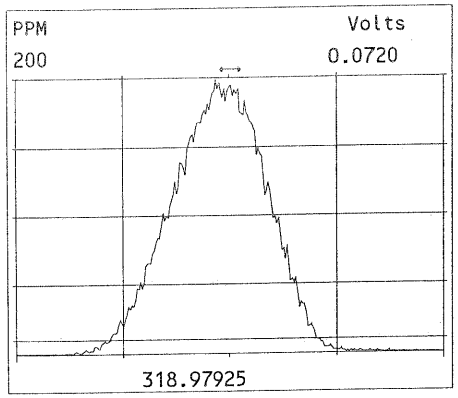


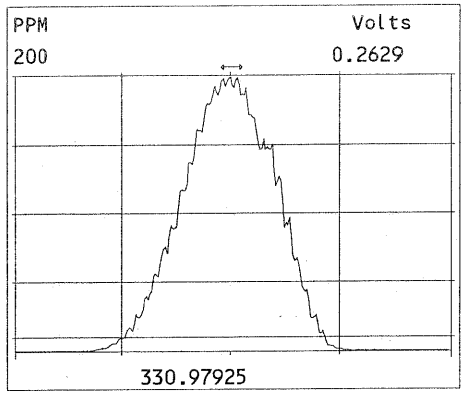


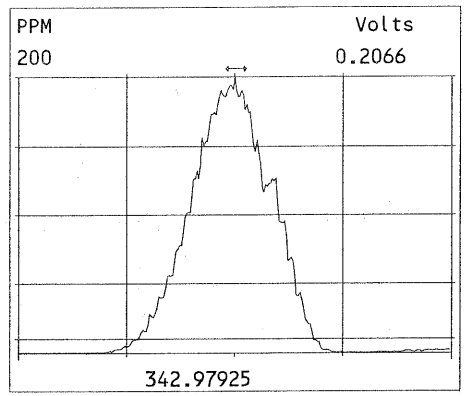


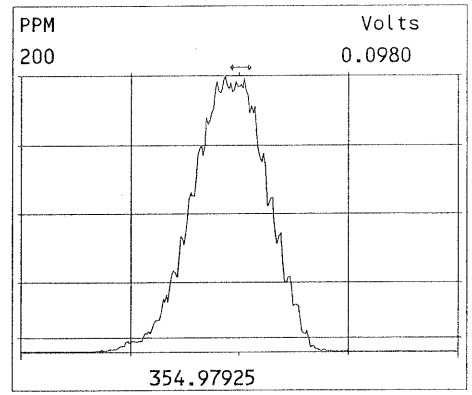


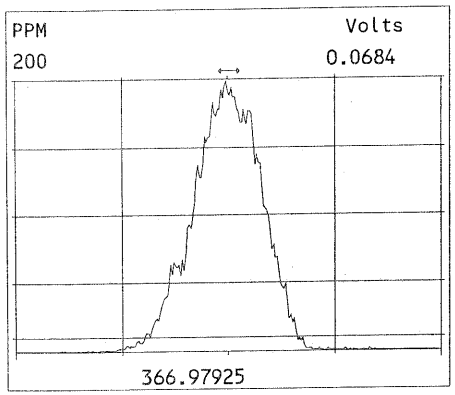
Peak Locate Examination:14-JUL-2016:09:18 File:13JUL16Z_RES_CHECK
Experiment:1668PCB Function:5 Reference:PFK

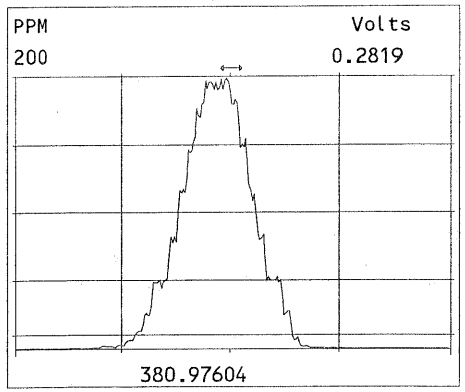


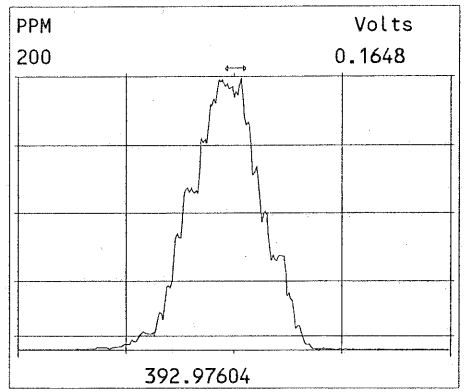


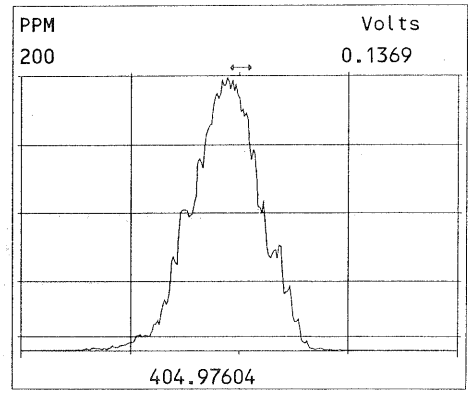


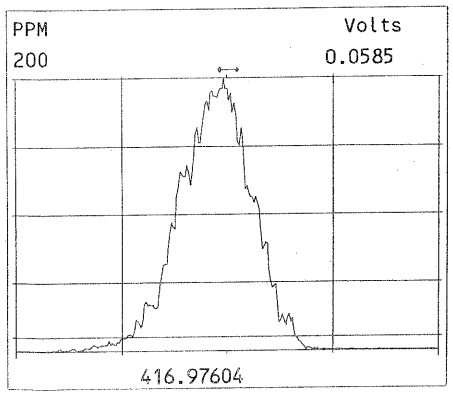


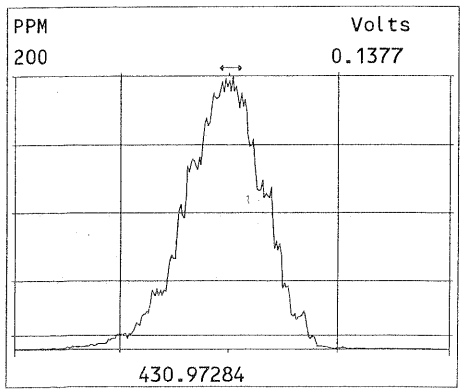


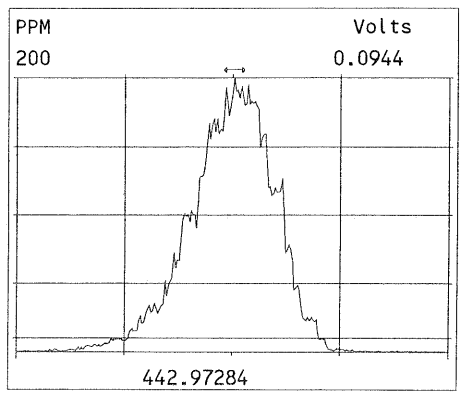




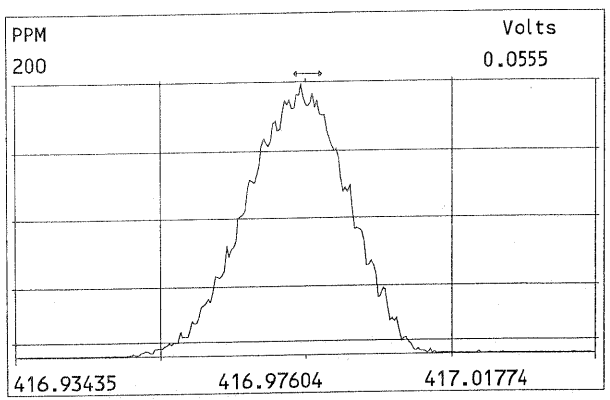


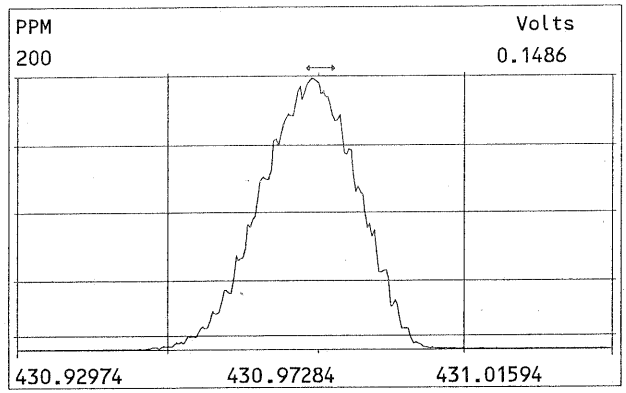


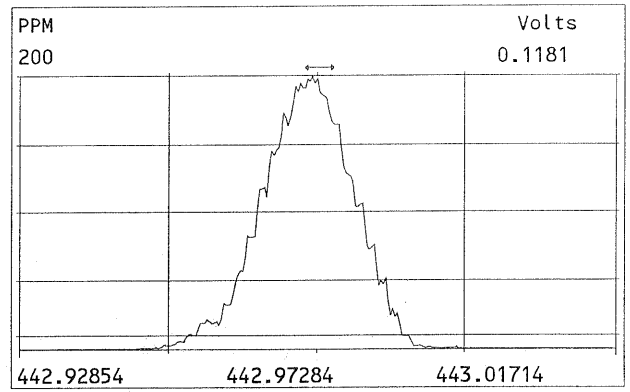


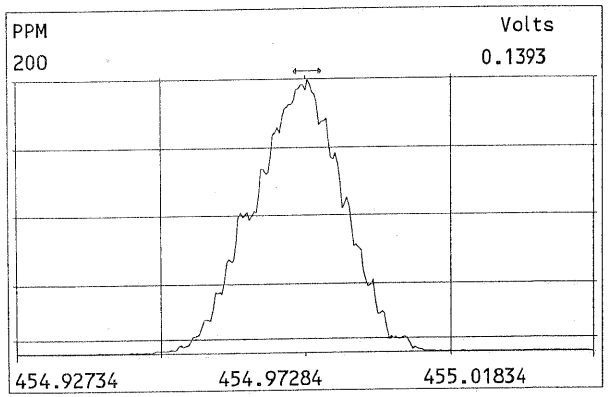


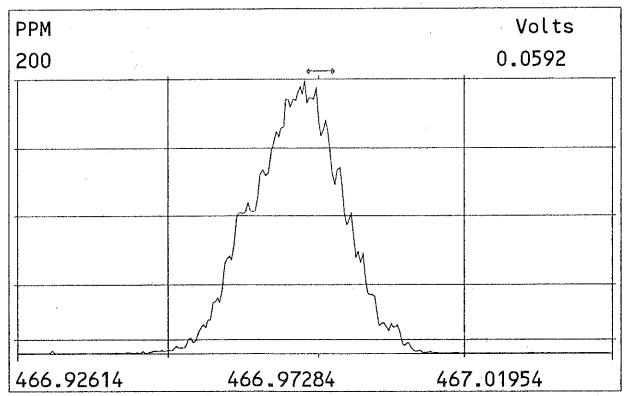
Peak Locate Examination:14-JUL-2016:09:19 File:13JUL16Z_RES_CHECK
Experiment:1668PCB Function:6 Reference:PFK

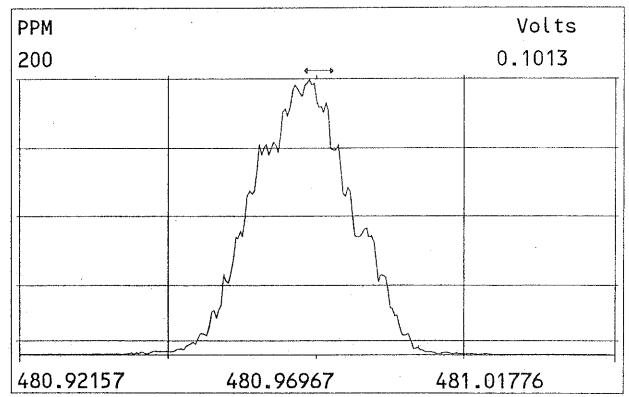


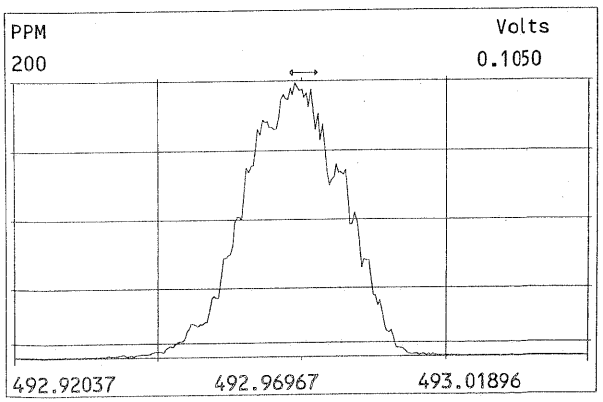


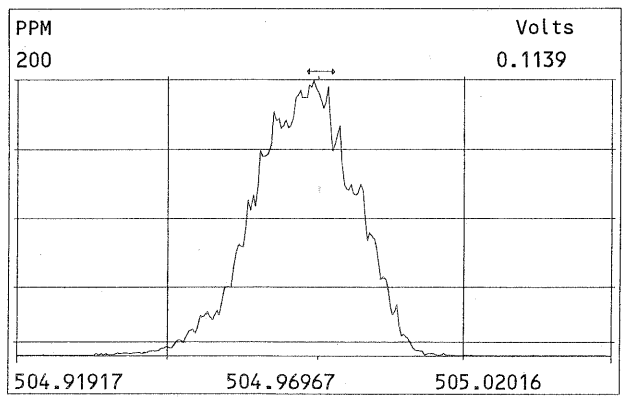


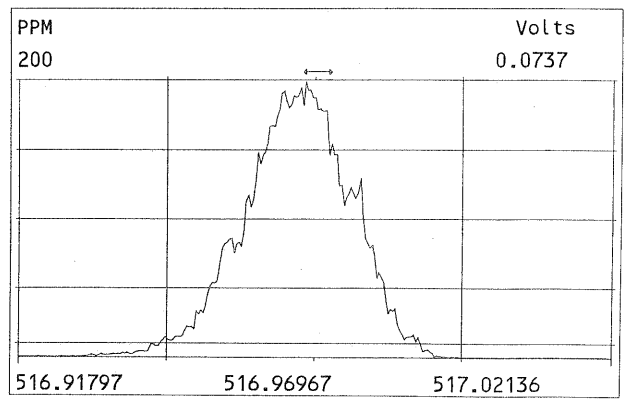












USEPA - ITD

FORM 4A
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 2/8/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 15JUL16Z Sam:1 Analysis Date: 15-JUL-16 08:51:12

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
PCB-1	M/M+2	3.17	2.66-3.60	y	48.9	37.5 - 62.5
PCB-3	M/M+2	3.14	2.66-3.60	y	49.5	37.5 - 62.5
PCB-4	M/M+2	1.52	1.33-1.79	y	45.2	37.5 - 62.5
PCB-15	M/M+2	1.53	1.33-1.79	y	45.4	37.5 - 62.5
PCB-19	M/M+2	1.06	0.88-1.20	y	56.7	37.5 - 62.5
PCB-37	M/M+2	1.07	0.88-1.20	y	46.0	37.5 - 62.5
PCB-54	M/M+2	0.79	0.65-0.89	y	52.9	37.5 - 62.5
PCB-77	M/M+2	0.78	0.65-0.89	y	44.6	37.5 - 62.5
PCB-81	M/M+2	0.78	0.65-0.89	y	45.4	37.5 - 62.5
PCB-104	M+2/M+4	1.58	1.32-1.78	y	50.1	37.5 - 62.5
PCB-105	M+2/M+4	1.59	1.32-1.78	y	46.3	37.5 - 62.5
PCB-114	M+2/M+4	1.57	1.32-1.78	y	45.3	37.5 - 62.5
PCB-118	M+2/M+4	1.58	1.32-1.78	y	47.1	37.5 - 62.5
PCB-123	M+2/M+4	1.56	1.32-1.78	y	46.8	37.5 - 62.5
PCB-126	M+2/M+4	1.61	1.32-1.78	y	44.0	37.5 - 62.5
PCB-155	M+2/M+4	1.29	1.05-1.43	y	51.3	37.5 - 62.5
PCB-156	M+2/M+4	1.22	1.05-1.43	y	48.1	37.5 - 62.5
PCB-157	M+2/M+4	1.24	1.05-1.43	y	50.9	37.5 - 62.5
PCB-167	M+2/M+4	1.24	1.05-1.43	y	50.3	37.5 - 62.5
PCB-169	M+2/M+4	1.23	1.05-1.43	y	48.6	37.5 - 62.5
PCB-188	M+2/M+4	1.06	0.89-1.21	y	47.7	37.5 - 62.5
PCB-189	M+2/M+4	1.08	0.89-1.21	y	48.0	37.5 - 62.5
PCB-202	M+2/M+4	0.89	0.76-1.02	y	47.7	37.5 - 62.5
PCB-205	M+2/M+4	0.88	0.76-1.02	y	44.6	37.5 - 62.5
PCB-206	M+4/M+6	1.33	1.13-1.53	y	45.3	37.5 - 62.5
PCB-208	M+4/M+6	1.37	1.13-1.53	y	49.0	37.5 - 62.5
PCB-209	M+4/M+6	1.17	0.99-1.33	y	50.2	37.5 - 62.5

Analyst: [signature] Date: 7/15/16

USEPA - ITD

FORM 4B
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 2/8/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 15JUL16Z Sam:1 Analysis Date: 15-JUL-16 08:51:12

	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
LABELED COMPOUNDS						
13C-PCB-1	M/M+2	3.07	2.66-3.60	y	89.1	50.0 - 145
13C-PCB-3	M/M+2	3.15	2.66-3.60	y	94.1	50.0 - 145
13C-PCB-4	M/M+2	1.56	1.33-1.79	y	94.3	50.0 - 145
13C-PCB-15	M/M+2	1.58	1.33-1.79	y	99.4	50.0 - 145
13C-PCB-19	M/M+2	1.08	0.88-1.20	y	79.9	50.0 - 145
13C-PCB-37	M/M+2	1.08	0.88-1.20	y	104	50.0 - 145
13C-PCB-54	M/M+2	0.80	0.65-0.89	y	96.3	50.0 - 145
13C-PCB-77	M/M+2	0.77	0.65-0.89	y	110	50.0 - 145
13C-PCB-81	M/M+2	0.79	0.65-0.89	y	107	50.0 - 145
13C-PCB-104	M+2/M+4	1.62	1.32-1.78	y	73.7	50.0 - 145
13C-PCB-105	M+2/M+4	1.60	1.32-1.78	y	94.7	50.0 - 145
13C-PCB-114	M+2/M+4	1.57	1.32-1.78	y	96.1	50.0 - 145
13C-PCB-118	M+2/M+4	1.58	1.32-1.78	y	95.8	50.0 - 145
13C-PCB-123	M+2/M+4	1.58	1.32-1.78	y	97.7	50.0 - 145
13C-PCB-126	M+2/M+4	1.56	1.32-1.78	y	100	50.0 - 145
13C-PCB-155	M+2/M+4	1.29	1.05-1.43	y	77.9	50.0 - 145
13C-PCB-156	M+2/M+4	1.27	1.05-1.43	y	103	50.0 - 145
13C-PCB-157	M+2/M+4	1.25	1.05-1.43	y	98.5	50.0 - 145
13C-PCB-167	M+2/M+4	1.24	1.05-1.43	y	99.0	50.0 - 145
13C-PCB-169	M+2/M+4	1.25	1.05-1.43	y	116	50.0 - 145
13C-PCB-188	M+2/M+4	1.06	0.89-1.21	y	87.8	50.0 - 145
13C-PCB-189	M+2/M+4	1.06	0.89-1.21	y	106	50.0 - 145
13C-PCB-202	M+2/M+4	0.92	0.76-1.02	y	74.5	50.0 - 145
13C-PCB-205	M+2/M+4	0.92	0.76-1.02	y	92.5	50.0 - 145
13C-PCB-206	M+2/M+4	0.77	0.65-0.89	y	91.6	50.0 - 145
13C-PCB-208	M+2/M+4	0.80	0.65-0.89	y	80.3	50.0 - 145
13C-PCB-209	M+4/M+6	1.19	0.99-1.33	y	75.6	50.0 - 145
CLEANUP STANDARDS						
13C-PCB-28	M/M+2	1.06	0.88-1.20	y	111	65.0 - 135
13C-PCB-111	M+2/M+4	1.58	1.32-1.78	y	99.4	75.0 - 125
13C-PCB-178	M+2/M+4	1.06	0.89-1.21	y	93.3	75.0 - 125

Analyst: [signature] Date: 7/15/16

FAL ID: ST071516Z1 Filename: 15JUL16Z Sam:1 Acquired: 15-JUL-16 08:51:12 ICal: 1668FAL4-2-8-16
Client ID: 1668 CS3 R150603A ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 13JUL16Z GC Column: DB1 Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL	Rec
PCB-1	6.05e+07	3.17 y	14:26	0.97	48.9		2.50	-	-	*	-
13C-PCB-1	1.27e+08	3.07 y	14:25	1.34	89.1		2.50				89.1
PCB-3	6.17e+07	3.14 y	16:53	0.99	49.5		2.50	-	-	*	-
13C-PCB-3	1.25e+08	3.15 y	16:52	1.26	94.1		2.50				94.1
PCB-4	3.26e+07	1.52 y	18:07	1.08	45.2		2.50	-	-	*	-
13C-PCB-4	6.65e+07	1.56 y	18:05	0.66	94.3		2.50				94.3
PCB-15	5.05e+07	1.53 y	23:39	1.06	45.4		2.50	-	-	*	-
13C-PCB-15	1.05e+08	1.58 y	23:38	1.00	99.4		2.50				99.4
PCB-19	3.66e+07	1.06 y	21:60	1.00	56.7		2.50	-	-	*	-
13C-PCB-19	6.46e+07	1.08 y	21:59	0.76	79.9		2.50				79.9
13C-PCB-9	1.06e+08	1.57 y	19:46	-	63.1		2.50				
PCB-37	4.02e+07	1.07 y	30:19	1.12	46.0		2.50	-	-	*	-
13C-PCB-37	7.80e+07	1.08 y	30:18	1.08	104		2.50				104
PCB-54	4.21e+07	0.79 y	25:32	0.97	52.9		2.50	-	-	*	-
13C-PCB-54	8.23e+07	0.80 y	25:31	1.23	96.3		2.50				96.3
PCB-104	3.08e+07	1.58 y	29:57	1.10	50.1		2.50	-	-	*	-
13C-PCB-104	5.58e+07	1.62 y	29:56	1.09	73.7		2.50				73.7
13C-PCB-28	8.75e+07	1.06 y	26:35	1.14	111		2.50				111
13C-PCB-52	6.94e+07	0.79 y	28:52	-	64.1		2.50				
PCB-81	3.37e+07	0.78 y	36:04	1.15	45.4		2.50	-	-	*	-
13C-PCB-81	6.46e+07	0.79 y	36:03	1.01	107		2.50				107
PCB-77	3.36e+07	0.78 y	36:38	1.13	44.6		2.50	-	-	*	-
13C-PCB-77	6.69e+07	0.77 y	36:37	1.02	110		2.50				110
PCB-155	3.33e+07	1.29 y	34:08	1.09	51.3		2.50	-	-	*	-
13C-PCB-155	5.96e+07	1.29 y	34:06	1.29	77.9		2.50				77.9
13C-PCB-111	7.21e+07	1.58 y	36:11	1.22	99.4		2.50				99.4
13C-PCB-101	5.95e+07	1.59 y	34:33	-	64.8		2.50				
PCB-123	2.77e+07	1.56 y	38:16	1.07	46.8		2.50	-	-	*	-
13C-PCB-123	5.54e+07	1.58 y	38:14	1.07	97.7		2.50				97.7
PCB-118	3.03e+07	1.58 y	38:26	1.07	47.1		2.50	-	-	*	-
13C-PCB-118	6.02e+07	1.58 y	38:24	1.19	95.8		2.50				95.8
PCB-114	2.70e+07	1.57 y	39:02	1.06	45.3		2.50	-	-	*	-
13C-PCB-114	5.63e+07	1.57 y	39:02	1.11	96.1		2.50				96.1
PCB-105	2.76e+07	1.59 y	39:51	1.07	46.3		2.50	-	-	*	-
13C-PCB-105	5.58e+07	1.60 y	39:50	1.11	94.7		2.50				94.7
PCB-126	2.56e+07	1.61 y	41:60	1.08	44.0		2.50	-	-	*	-
13C-PCB-126	5.42e+07	1.56 y	41:58	1.02	100		2.50				100
PCB-167	3.09e+07	1.24 y	43:20	0.97	50.3		2.50	-	-	*	-
13C-PCB-167	6.35e+07	1.24 y	43:19	1.21	99.0		2.50				99.0
PCB-156	2.98e+07	1.22 y	44:34	1.01	48.1		2.50	-	-	*	-
13C-PCB-156	6.12e+07	1.27 y	44:33	1.12	103		2.50				103
PCB-157	3.00e+07	1.24 y	44:49	0.94	50.9		2.50	-	-	*	-
13C-PCB-157	6.24e+07	1.25 y	44:48	1.20	98.5		2.50				98.5
PCB-169	2.85e+07	1.23 y	46:43	0.97	48.6		2.50	-	-	*	-
13C-PCB-169	6.02e+07	1.25 y	46:41	0.98	116		2.50				116
PCB-188	3.51e+07	1.06 y	39:37	1.13	47.7		2.50	-	-	*	-
13C-PCB-188	6.54e+07	1.06 y	39:37	1.41	87.8		2.50				87.8
PCB-189	2.83e+07	1.08 y	48:22	1.17	48.0		2.50	-	-	*	-
13C-PCB-189	5.02e+07	1.06 y	48:22	0.89	106		2.50				106
PCB-202	2.22e+07	0.89 y	44:44	1.12	47.7		2.50	-	-	*	-
13C-PCB-202	4.17e+07	0.92 y	44:43	1.06	74.5		2.50				74.5
13C-PCB-178	4.09e+07	1.06 y	42:15	0.83	93.3		2.50				93.3
13C-PCB-138	5.29e+07	1.26 y	41:28	-	70.8		2.50				

FAL ID: ST071516Z1 Filename: 15JUL16Z Sam:1 Acquired: 15-JUL-16 08:51:12 ICal: 1668FAL4-2-8-16
Client ID: 1668 CS3 R150603A ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 13JUL16Z GC Column: DB1 Amount: 1.000

PCB-205	2.26e+07	0.88	y	50:01	1.13	44.6	2.50	-	-	*	-
13C-PCB-205	4.48e+07	0.92	y	49:59	1.47	92.5	2.50				92.5
PCB-208	2.36e+07	1.37	y	49:04	0.91	49.0	2.50	-	-	*	-
13C-PCB-208	5.30e+07	0.80	y	49:04	2.00	80.3	2.50				80.3
PCB-206	1.84e+07	1.33	y	51:11	0.96	45.3	2.50	-	-	*	-
13C-PCB-206	4.23e+07	0.77	y	51:11	1.40	91.6	2.50				91.6
PCB-209	2.97e+07	1.17	y	52:22	1.13	50.2	2.50	-	-	*	-
13C-PCB-209	5.25e+07	1.19	y	52:21	2.10	75.6	2.50				75.6
13C-PCB-194	3.30e+07	0.92	y	49:45	-	106	2.50				

Analyst: _____ Date: 7/15/16

Frontier Analytical Laboratory - Acquisition Log

Run Name:15JUL16Z Instrument: FAL4 GC: DB1 Experiment:1668PCB

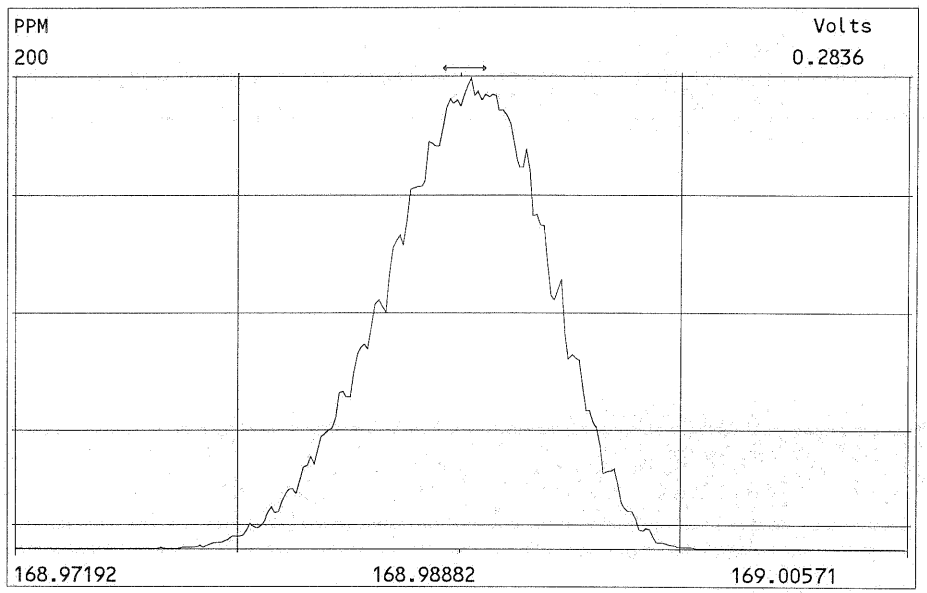
Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
15JUL16Z	1	ST071516Z1	1668 CS3 R150603A	15-JUL-16 08:51:12	ST071516Z1	ST071516Z2	BS
15JUL16Z	2	SS071516Z1	Daily 209 151201A	15-JUL-16 09:51:07	ST071516Z1	ST071516Z2	BS
15JUL16Z	3	SB071516Z1	Solvent Blank	15-JUL-16 10:52:26	ST071516Z1	ST071516Z2	BS
15JUL16Z	4	09987-002-0001-SA	LDW-CS-2-S00.2-KPDMS	15-JUL-16 11:52:23	ST071516Z1	ST071516Z2	BS
15JUL16Z	5	ST071516Z2	1668 CS3 R150603A	15-JUL-16 12:52:20	ST071516Z1	ST071516Z2	BS

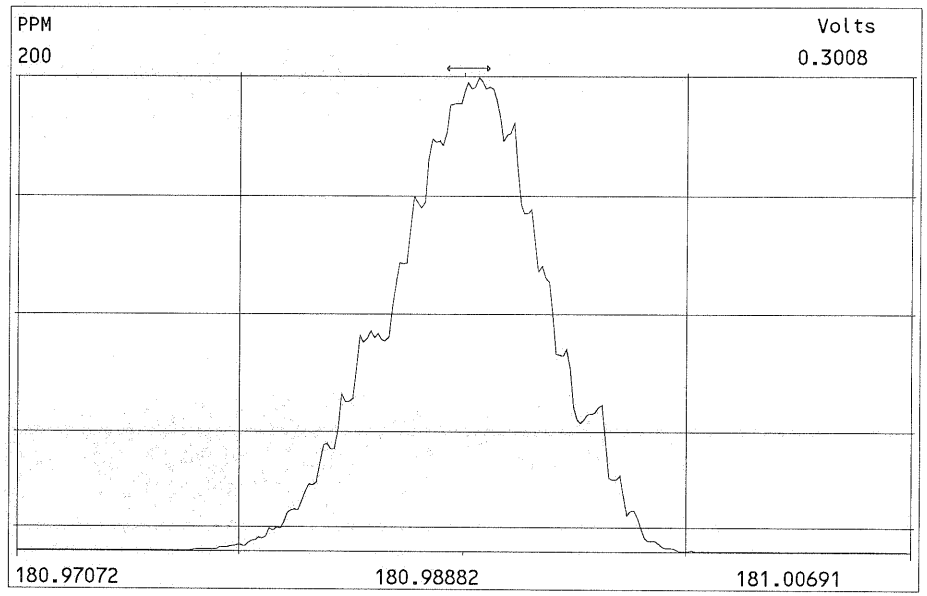
7/15/16

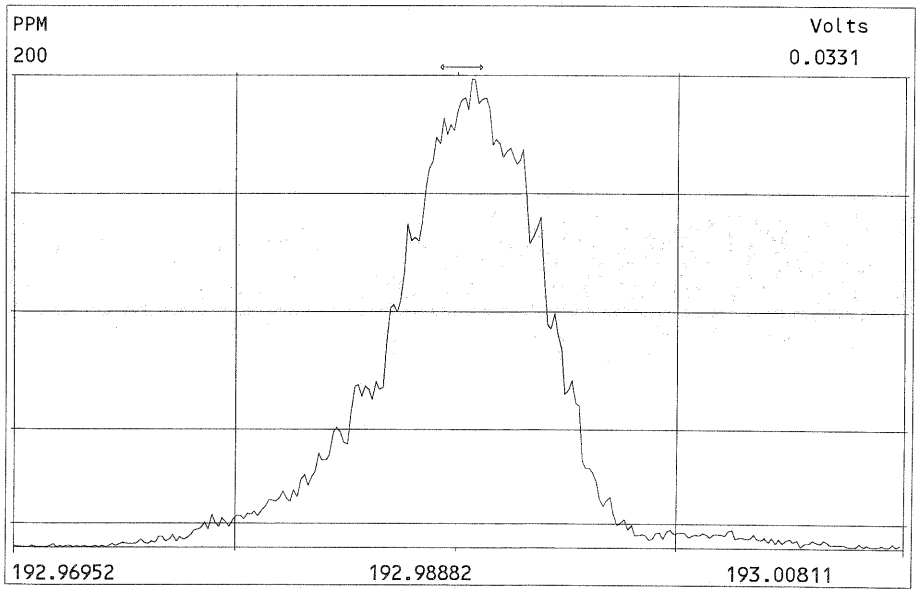
Data Backed Up:_____

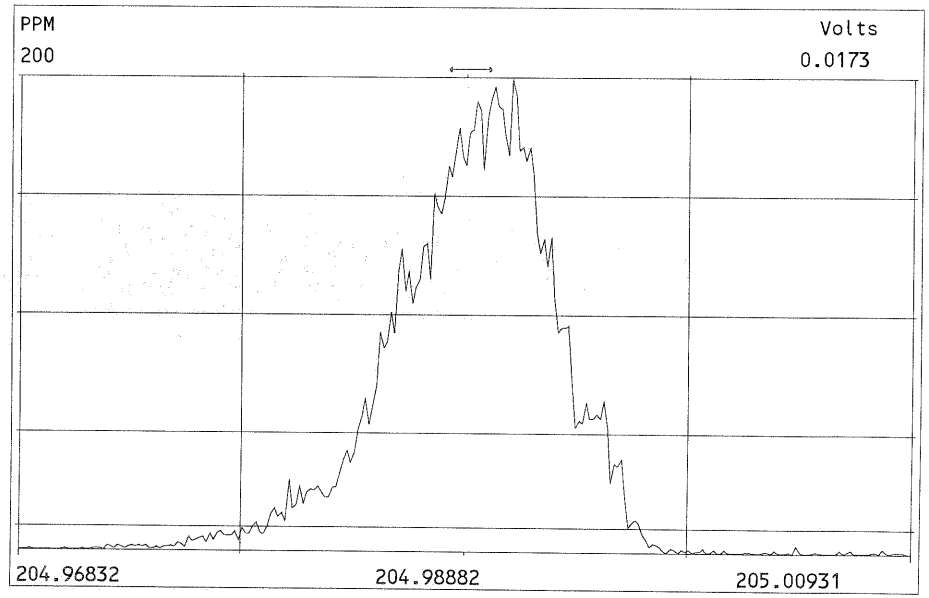
Date:_____

Peak Locate Examination:15-JUL-2016:08:45 File:15JUL16Z
Experiment:1668PCB Function:1 Reference:PFK

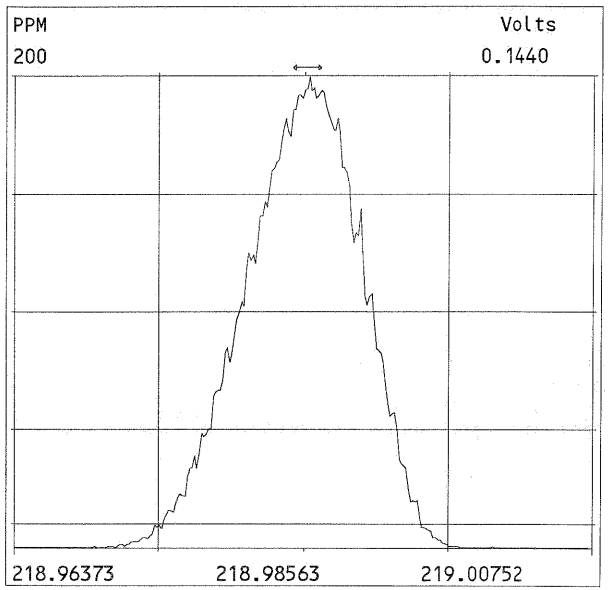


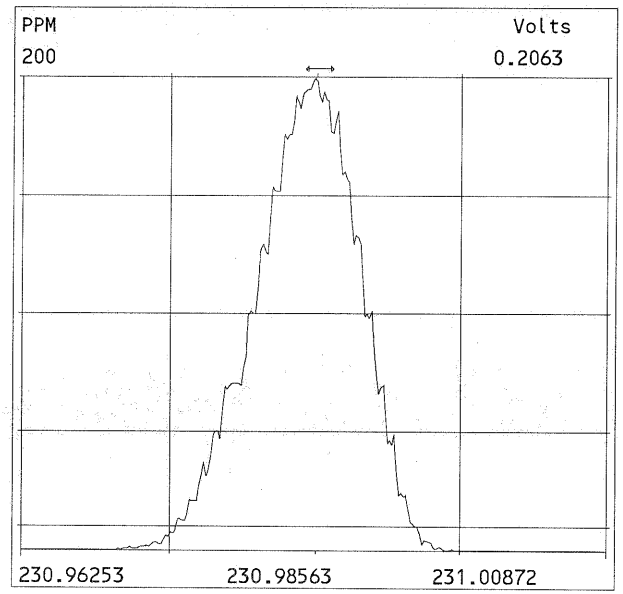


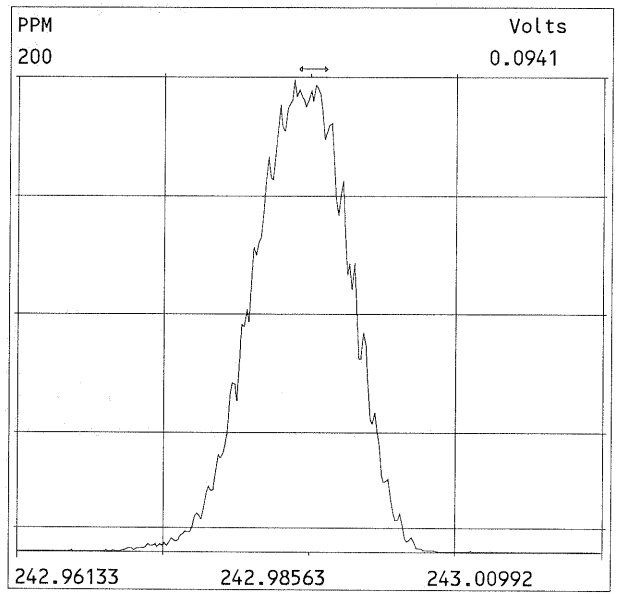


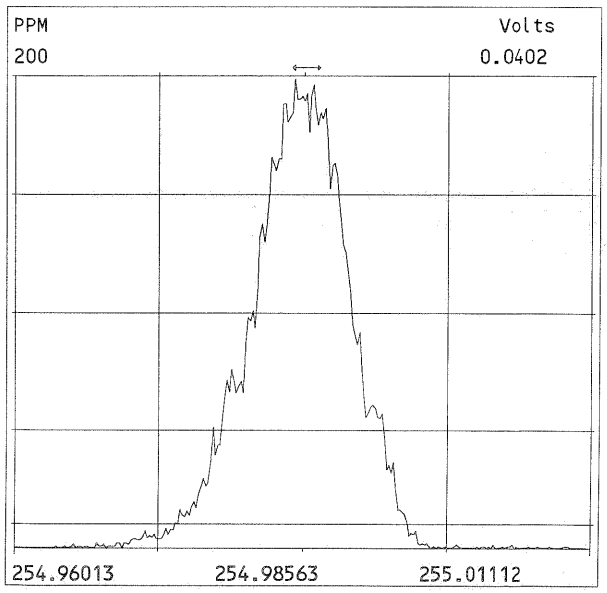


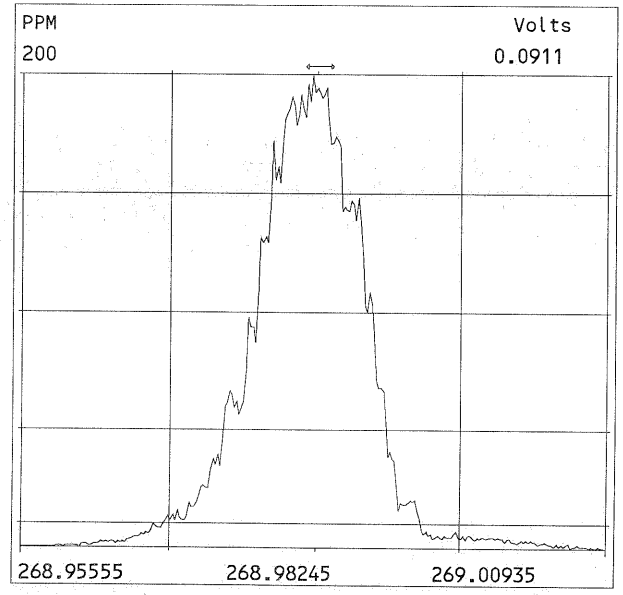
Peak Locate Examination:15-JUL-2016:08:46 File:15JUL16Z
Experiment:1668PCB Function:2 Reference:PFK

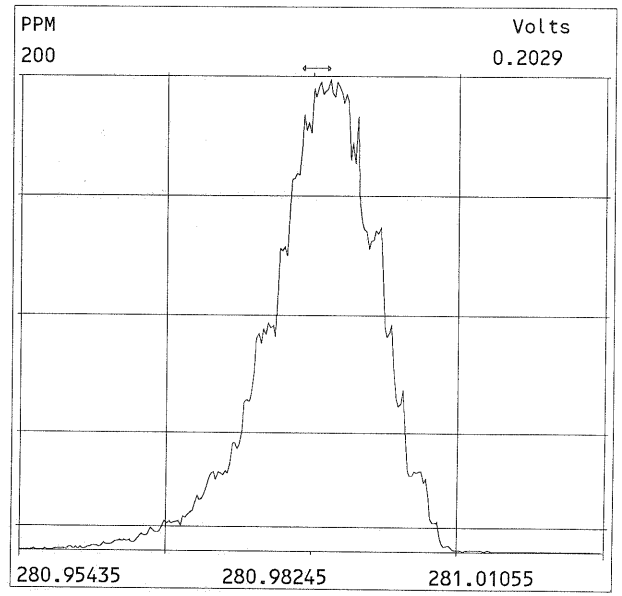




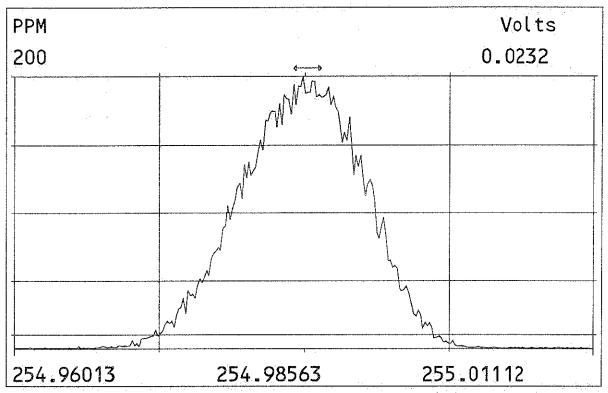


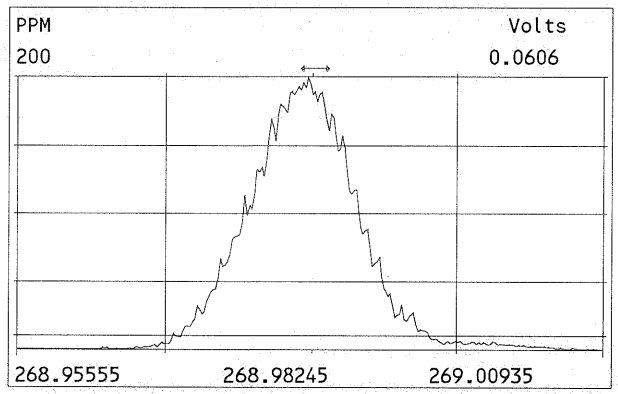


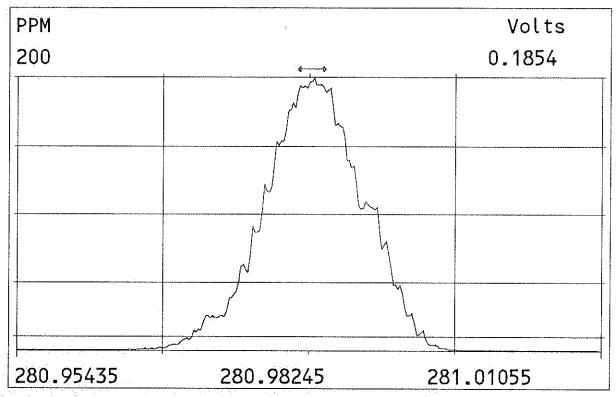


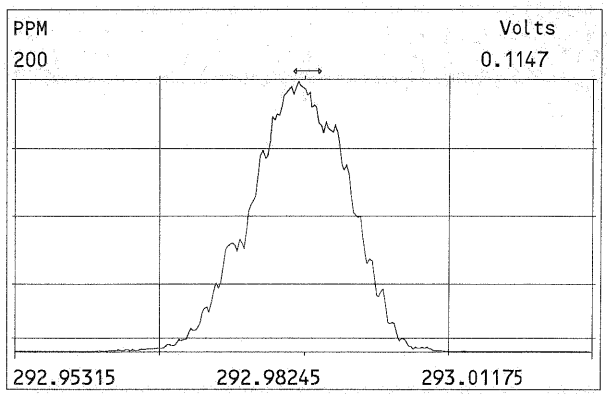


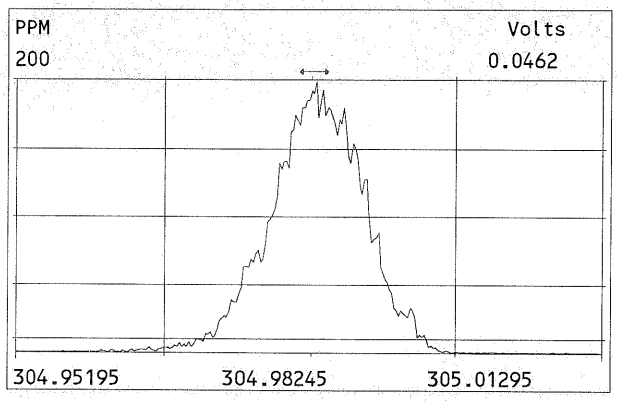
Peak Locate Examination:15-JUL-2016:08:47 File:15JUL16Z
Experiment:1668PCB Function:3 Reference:PFK

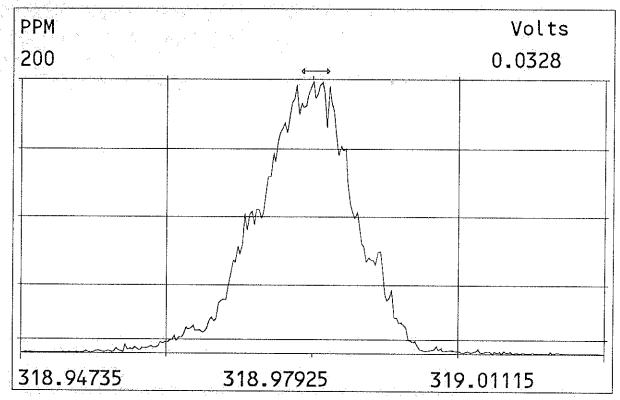


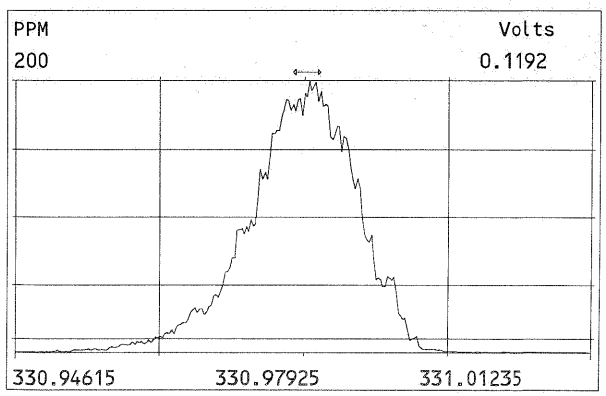


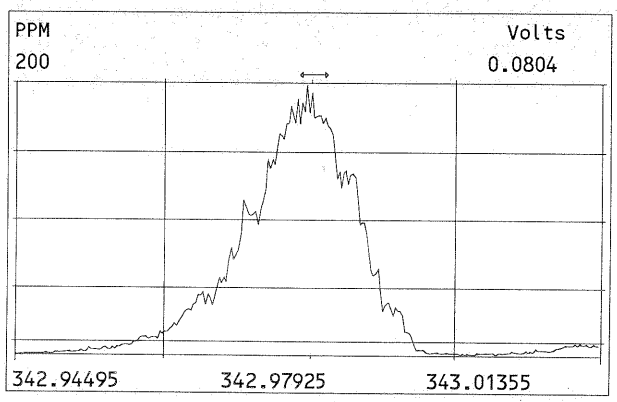




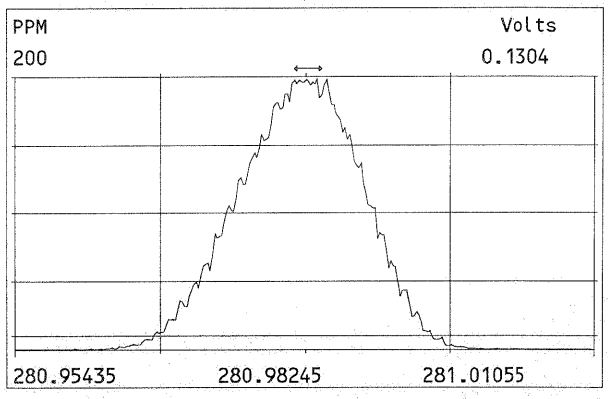


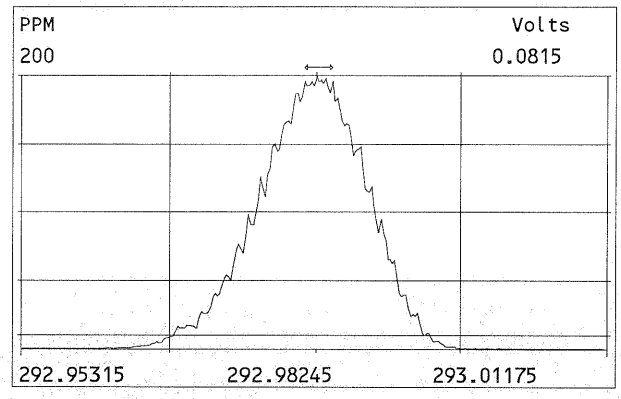


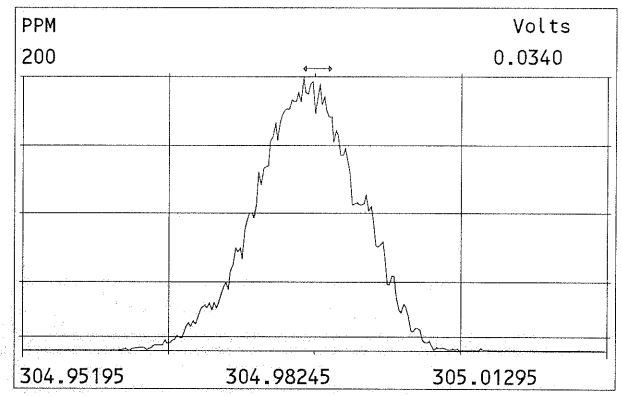


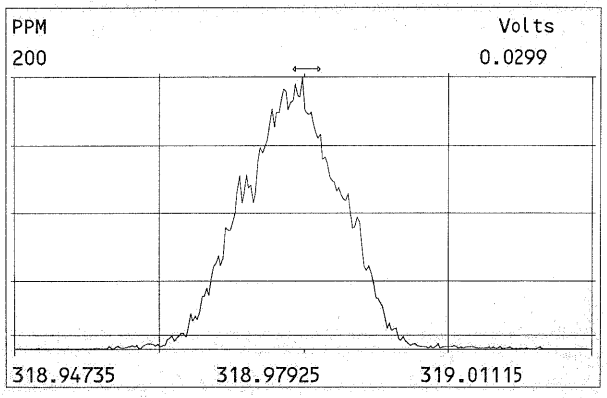


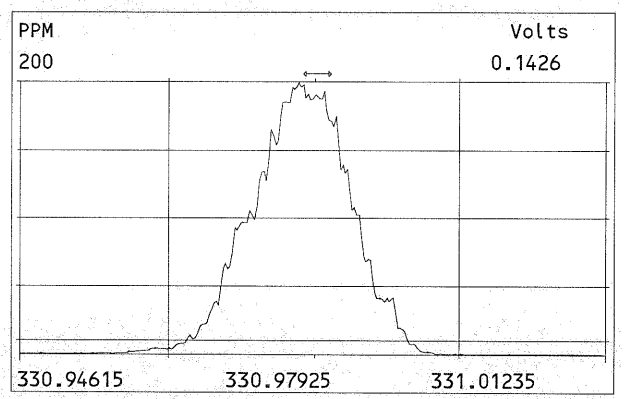
Peak Locate Examination:15-JUL-2016:08:48 File:15JUL16Z
Experiment:1668PCB Function:4 Reference:PFK

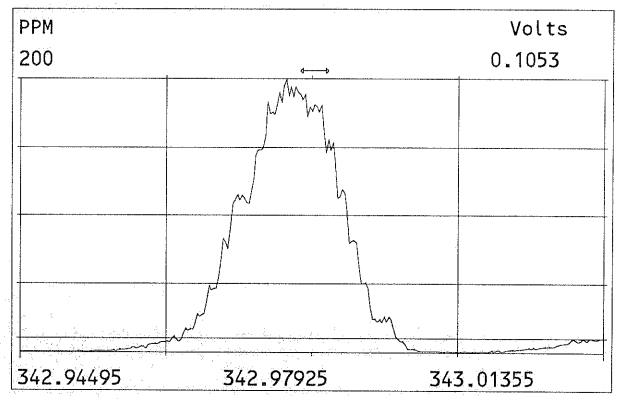


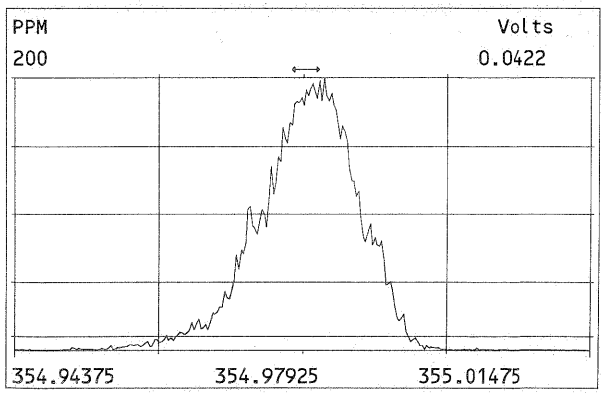


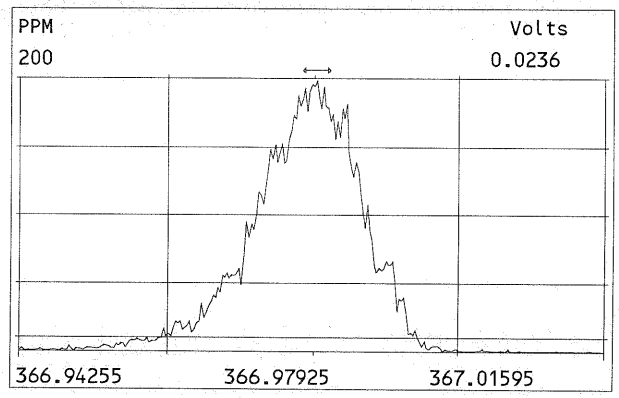


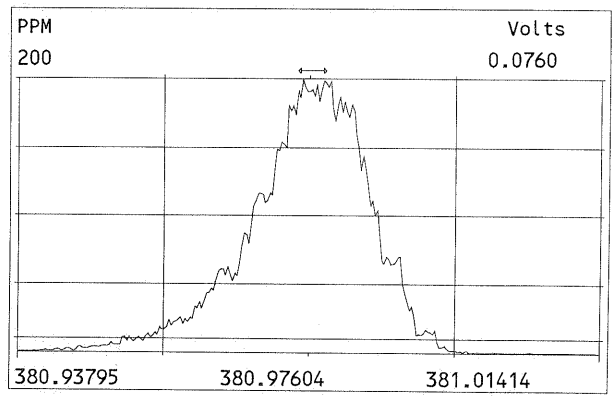




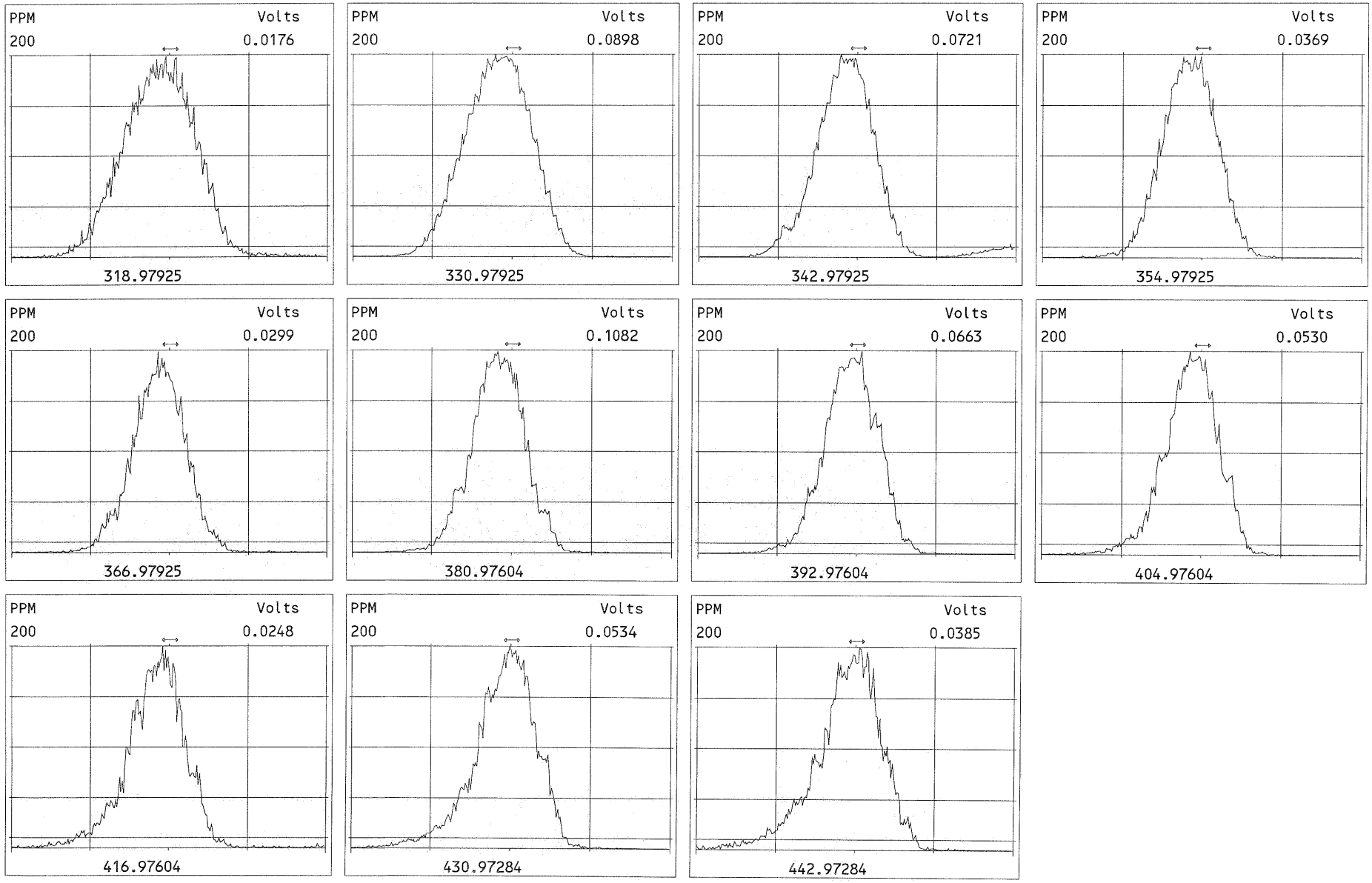




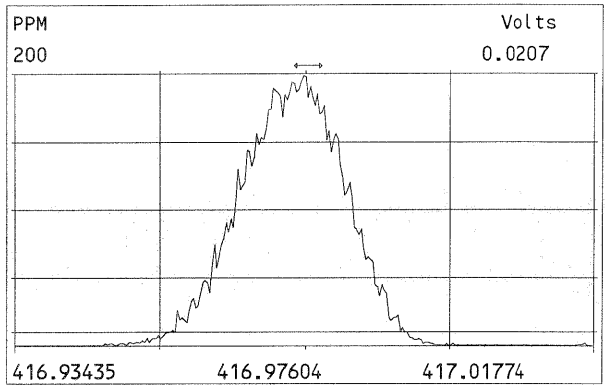


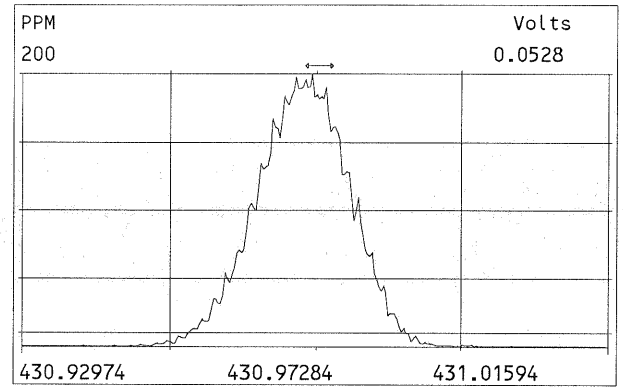


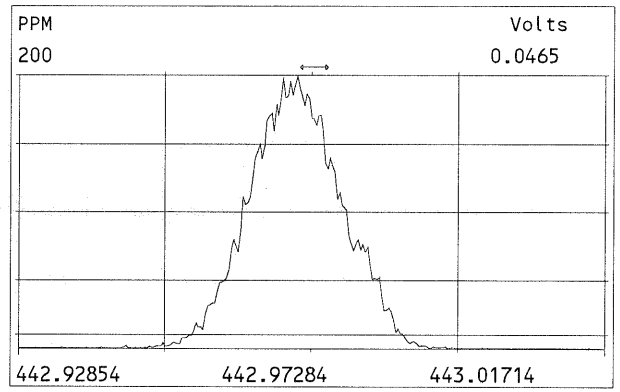
Peak Locate Examination:15-JUL-2016:08:48 File:15JUL16Z
Experiment:1668PCB Function:5 Reference:PFK

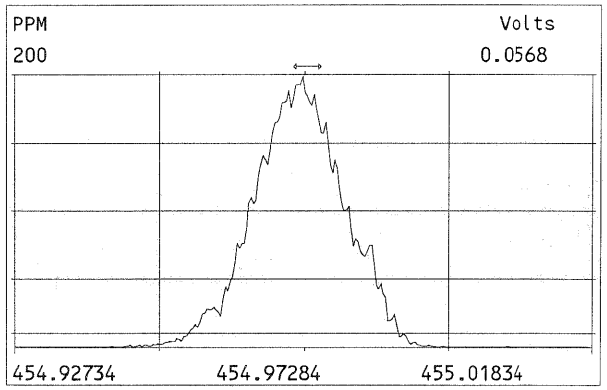


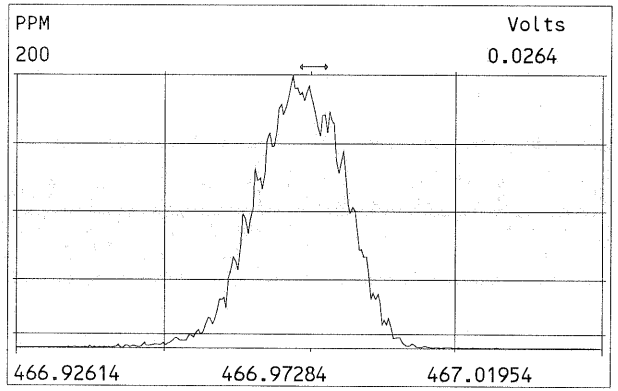
Peak Locate Examination:15-JUL-2016:08:49 File:15JUL16Z
Experiment:1668PCB Function:6 Reference:PFK

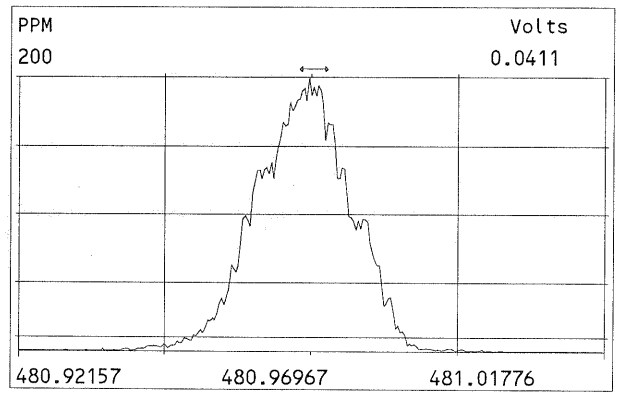


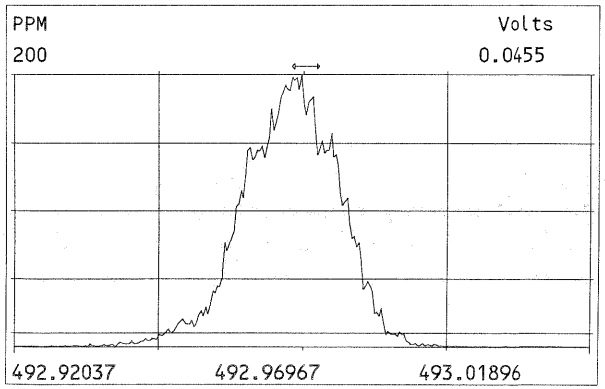


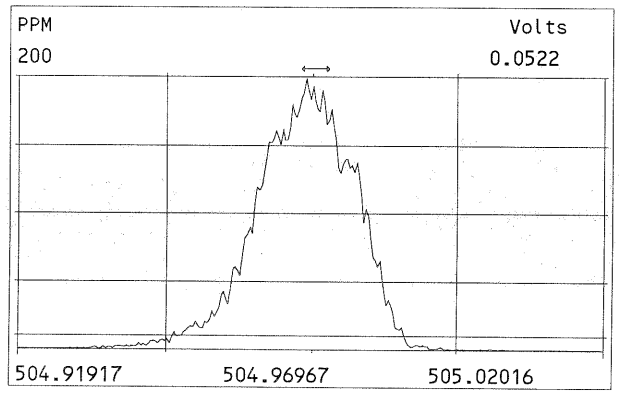


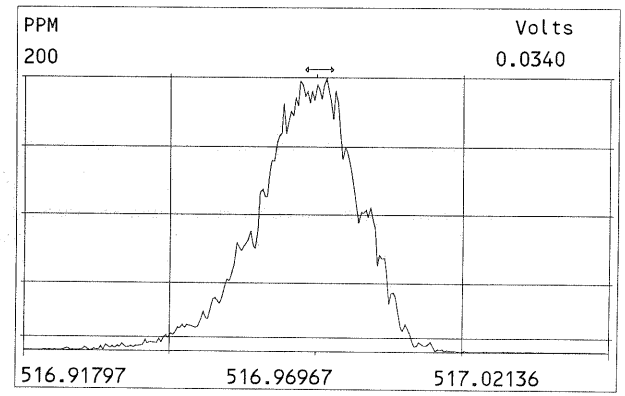




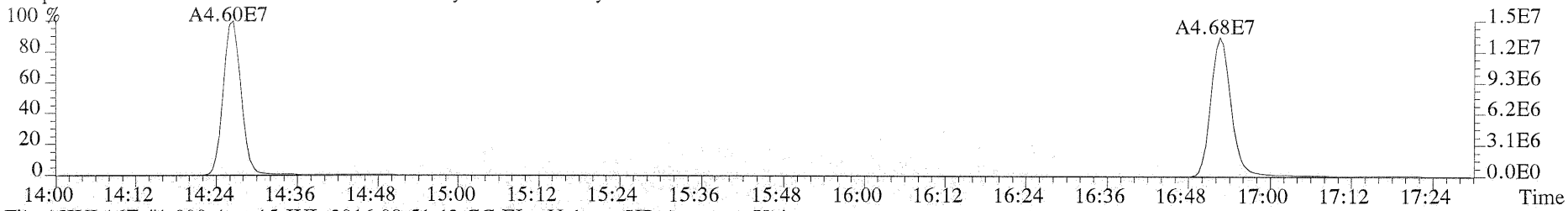




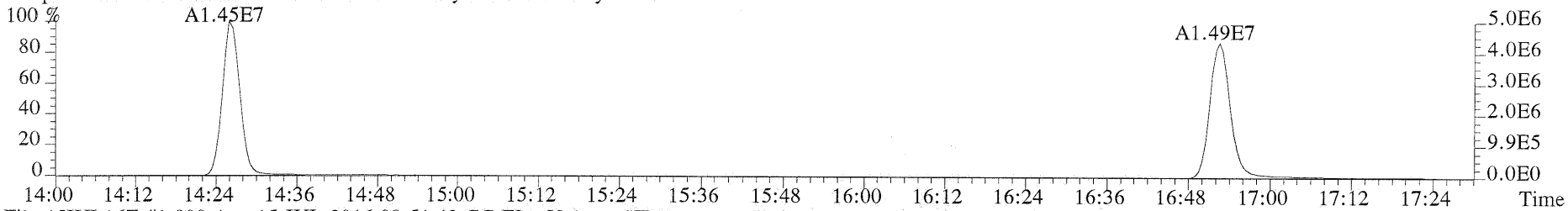




File:15JUL16Z #1-900 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
188.0393 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-900 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
190.0363 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-900 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
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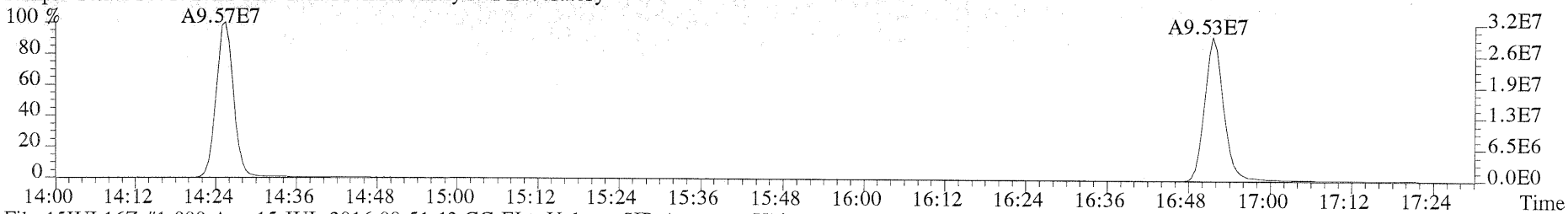
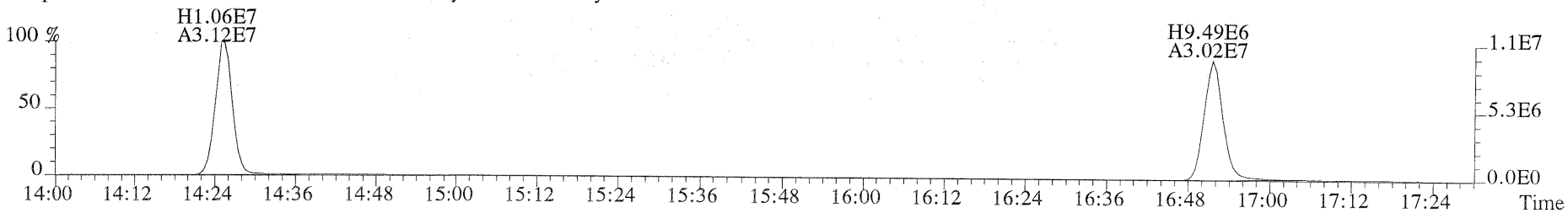
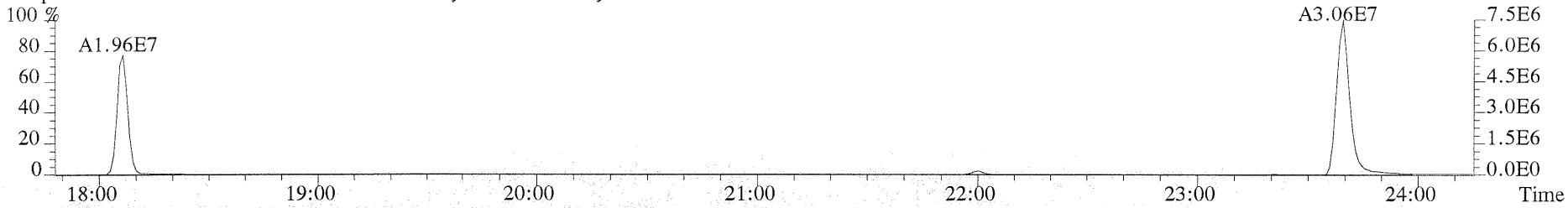
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-900 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
202.0766 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-498 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
222.0003 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-498 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
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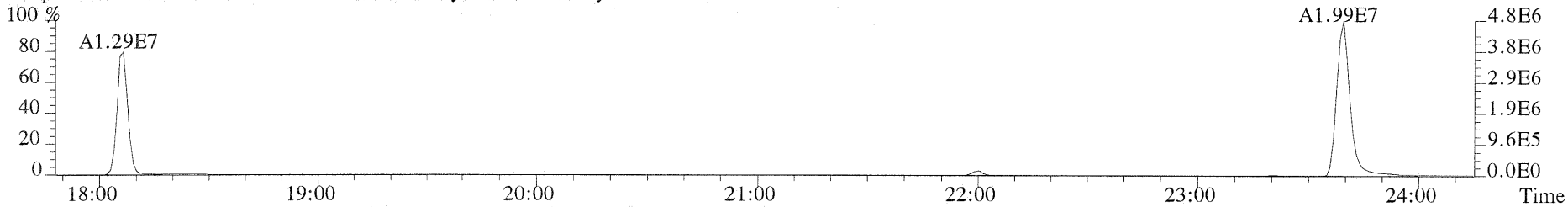
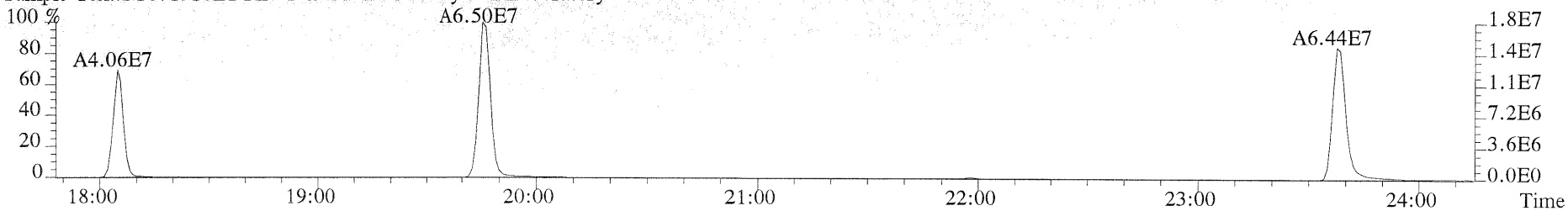
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-498 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
234.0406 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-498 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
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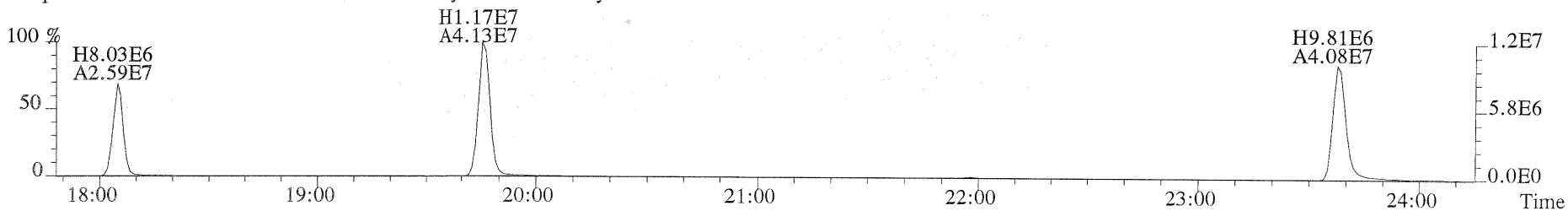
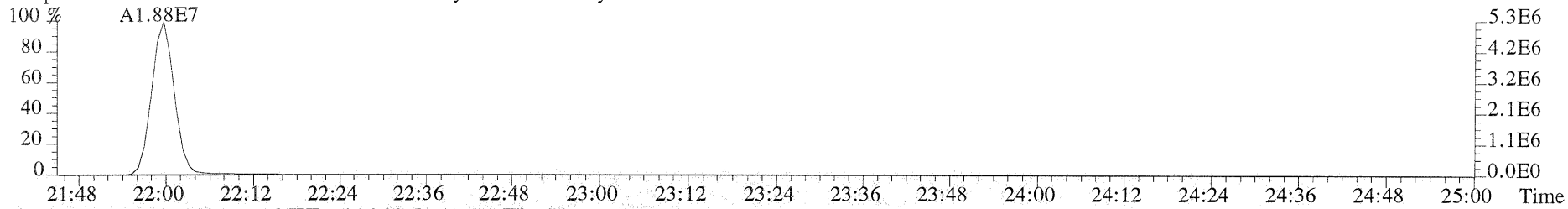
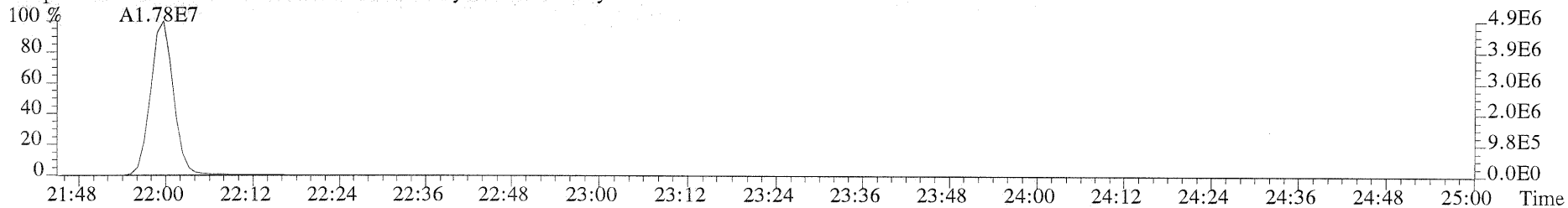
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



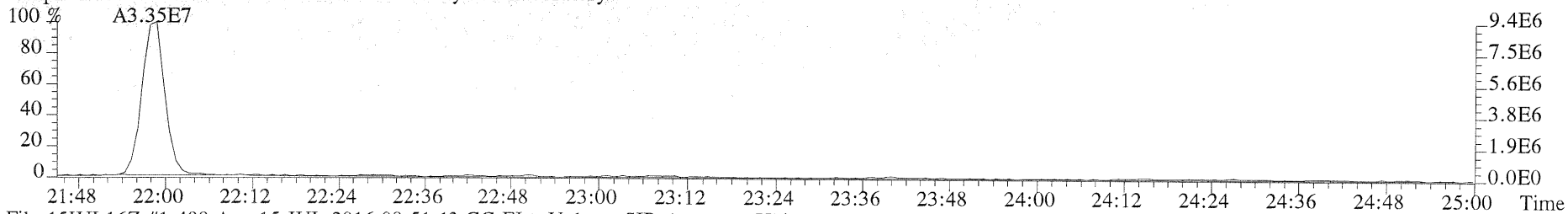
File:15JUL16Z #1-498 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
255.9613 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



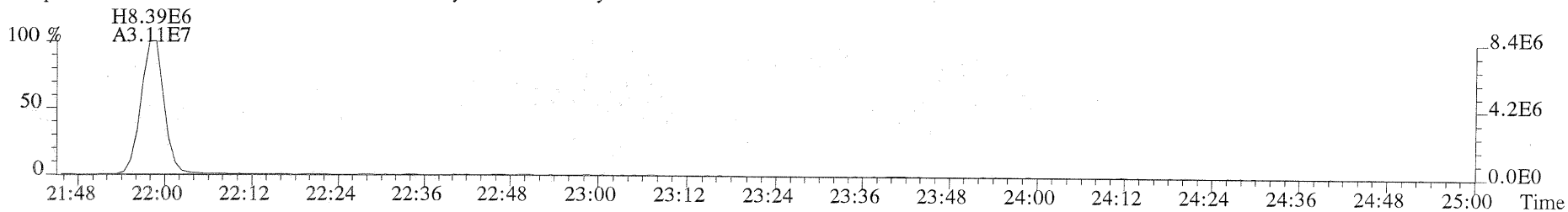
File:15JUL16Z #1-498 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
257.9584 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



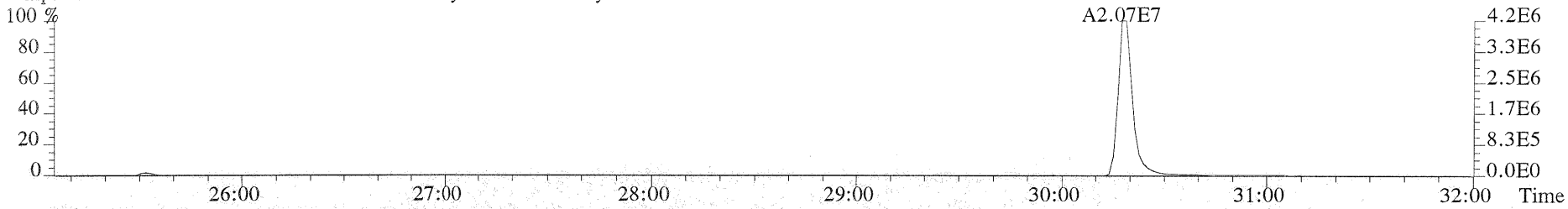
File:15JUL16Z #1-498 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
268.0016 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



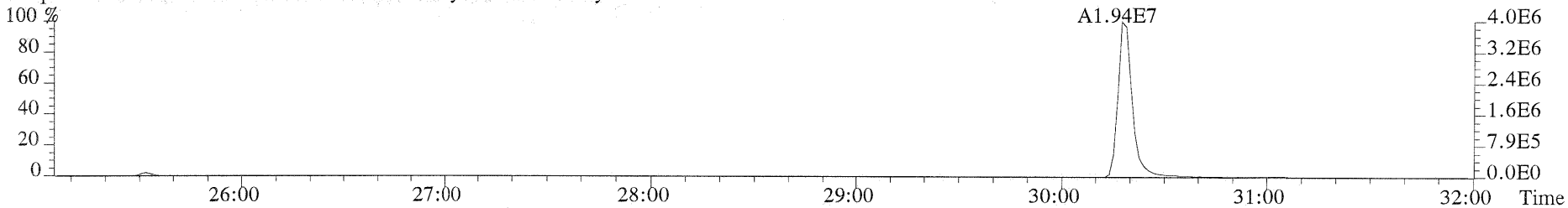
File:15JUL16Z #1-498 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
269.9986 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



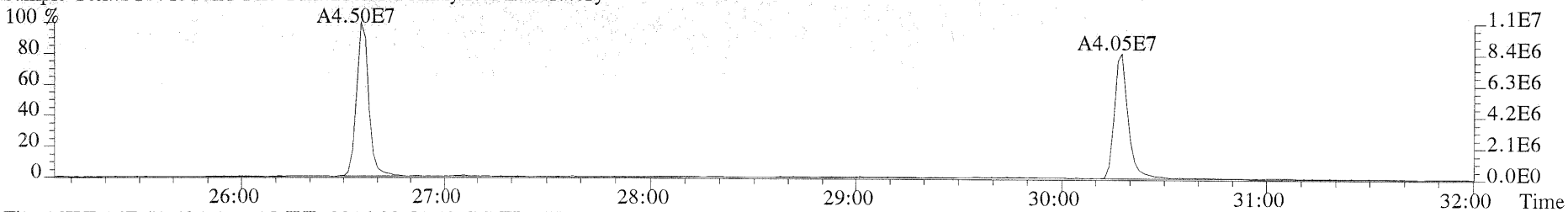
File:15JUL16Z #1-404 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
255.9613 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



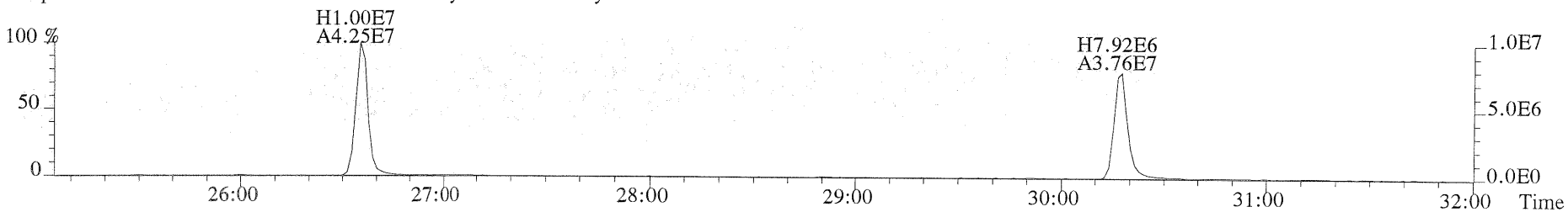
File:15JUL16Z #1-404 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
257.9584 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



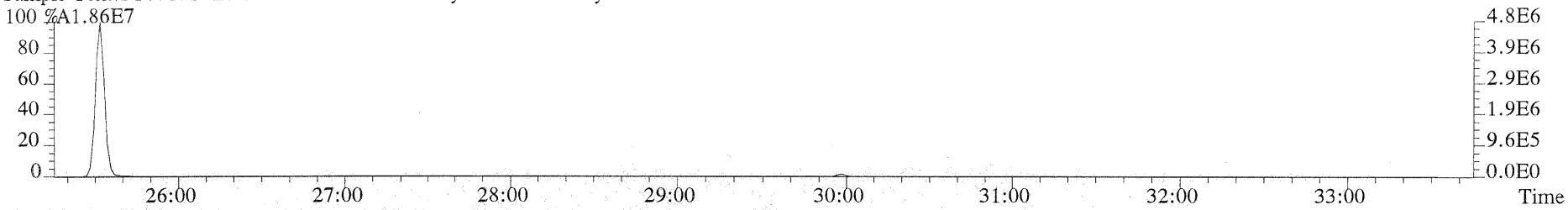
File:15JUL16Z #1-404 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
268.0016 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



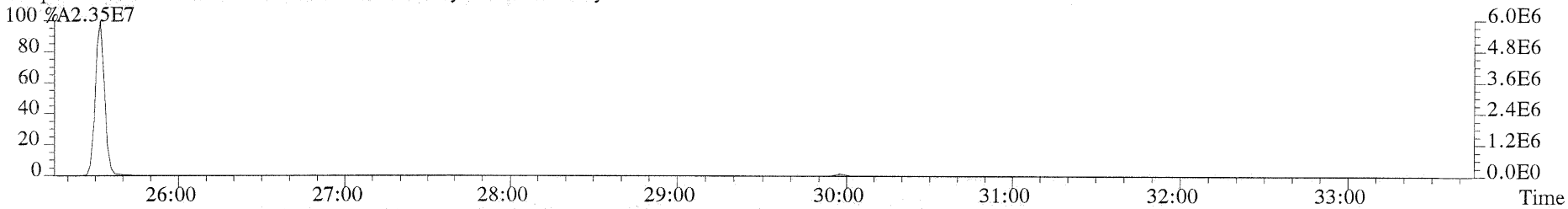
File:15JUL16Z #1-404 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
269.9986 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



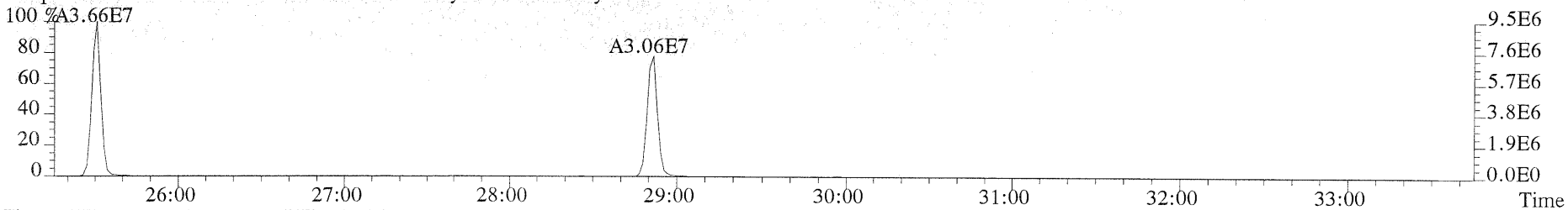
File:15JUL16Z #1-404 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
289.9224 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



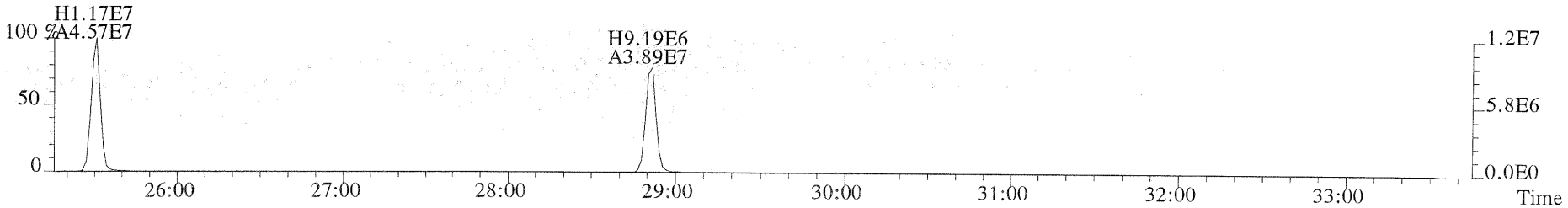
File:15JUL16Z #1-404 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
291.9194 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



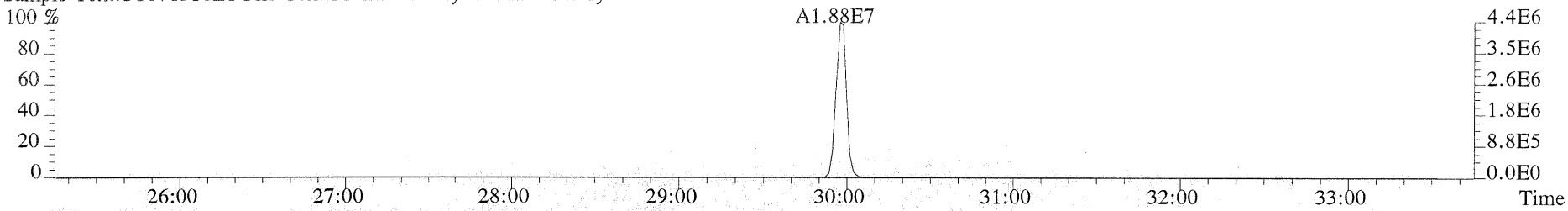
File:15JUL16Z #1-404 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
301.9626 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



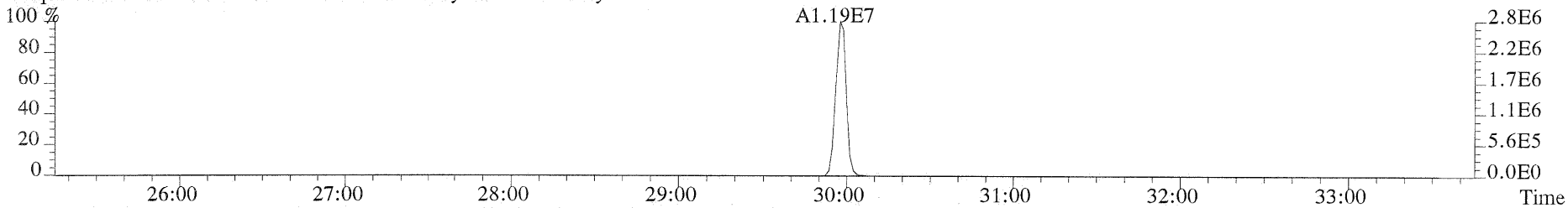
File:15JUL16Z #1-404 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
303.9597 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



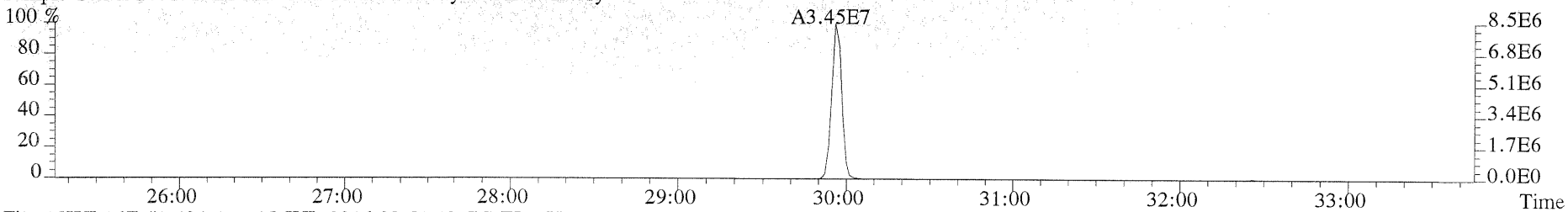
File:15JUL16Z #1-404 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
325.8804 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



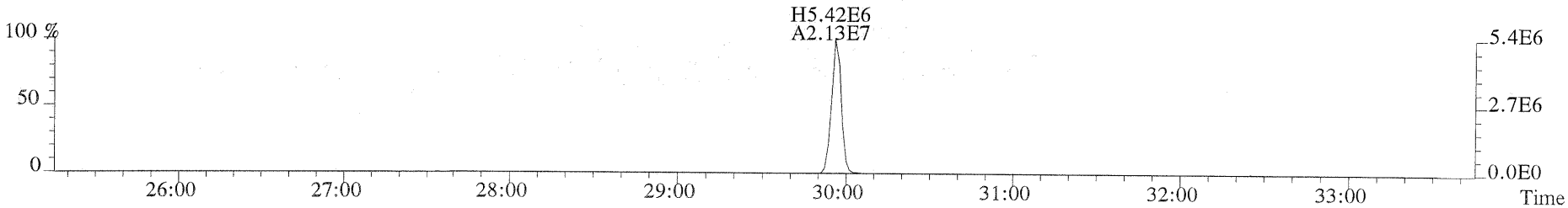
File:15JUL16Z #1-404 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
327.8775 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



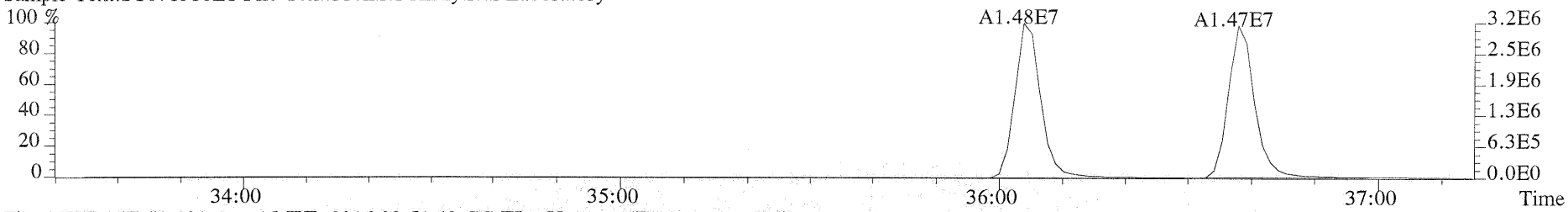
File:15JUL16Z #1-404 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
337.9207 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



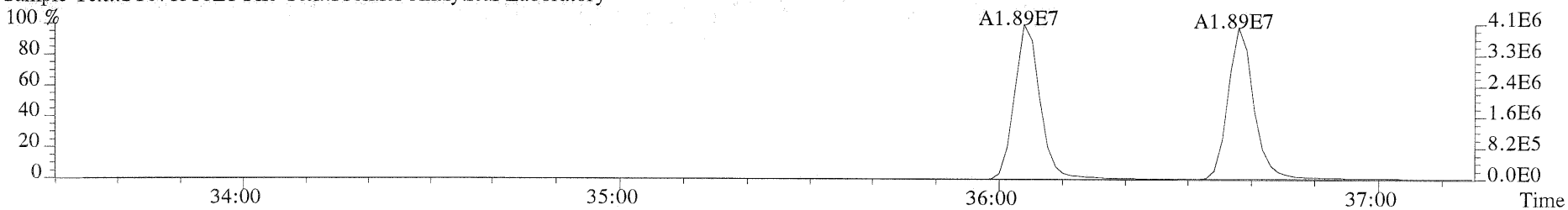
File:15JUL16Z #1-404 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
339.9178 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



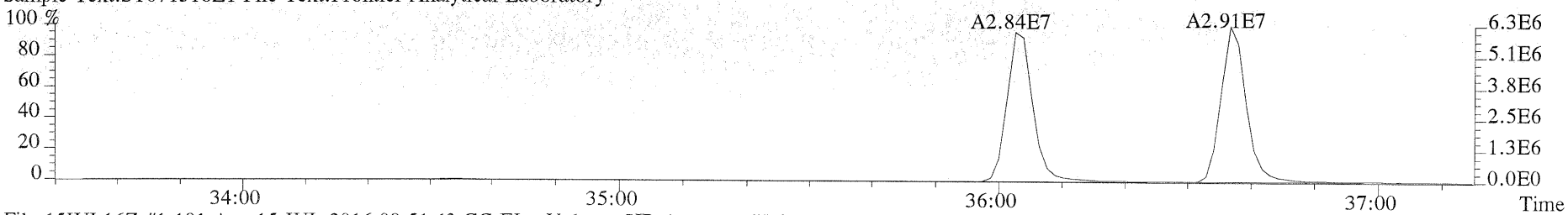
File:15JUL16Z #1-181 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
289.9224 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



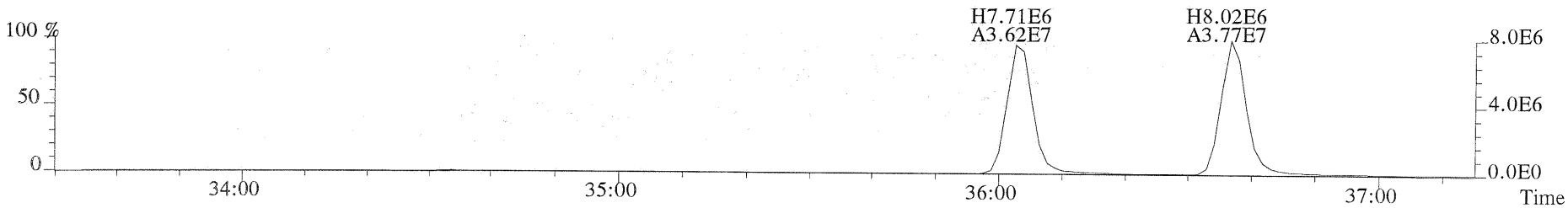
File:15JUL16Z #1-181 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
291.9194 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



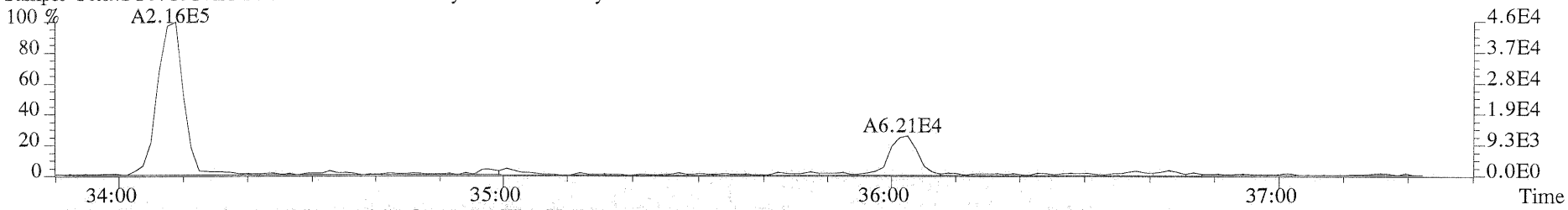
File:15JUL16Z #1-181 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
301.9626 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



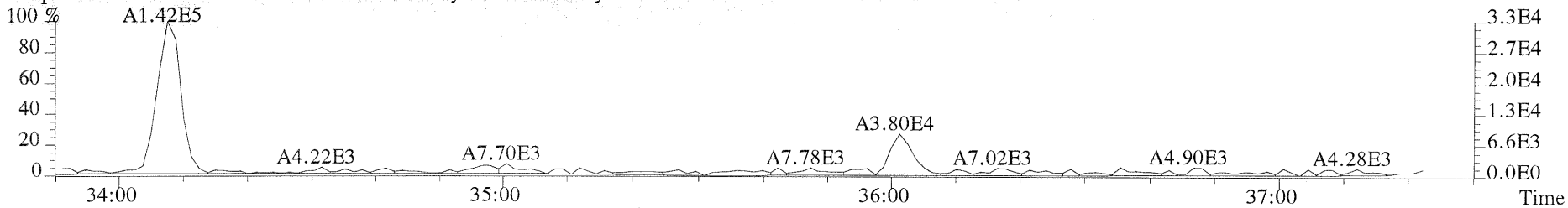
File:15JUL16Z #1-181 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
303.9597 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



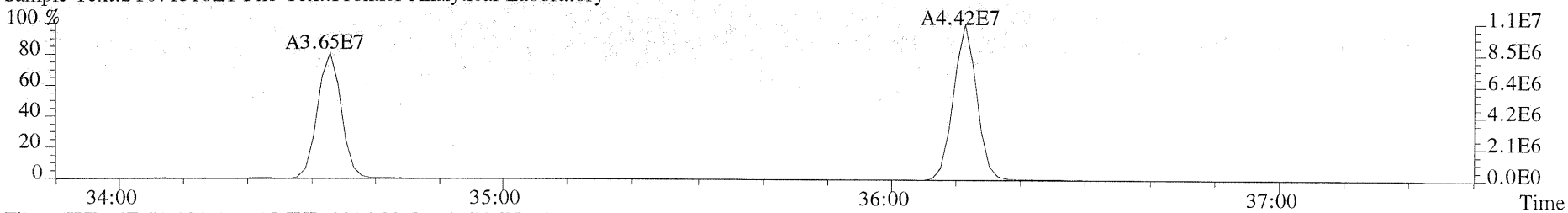
File:15JUL16Z #1-181 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
325.8804 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



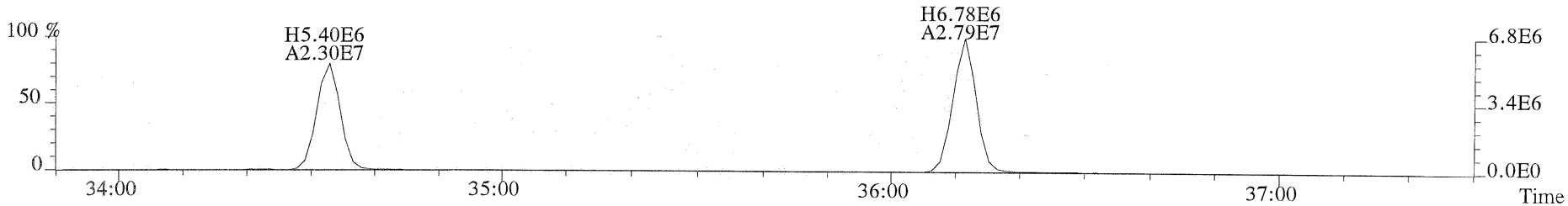
File:15JUL16Z #1-181 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
327.8775 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



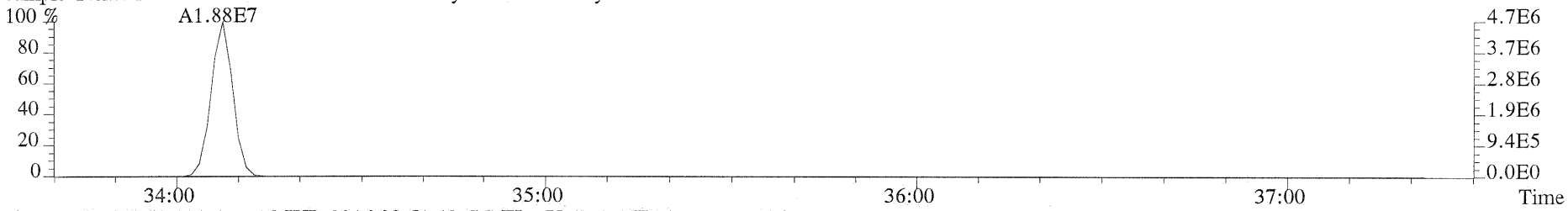
File:15JUL16Z #1-181 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
337.9207 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



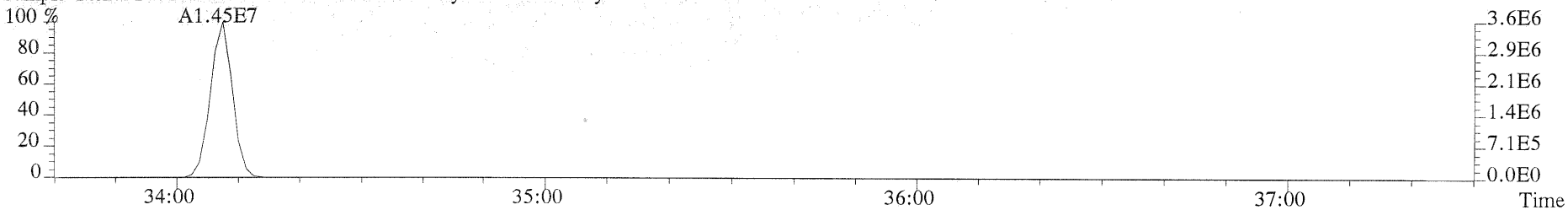
File:15JUL16Z #1-181 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
339.9178 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



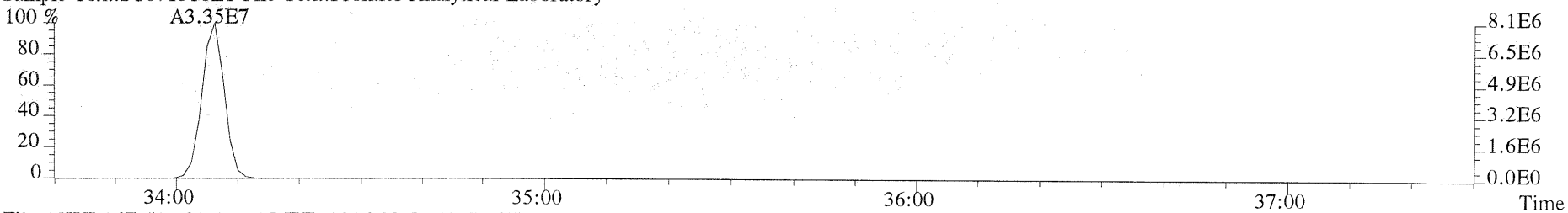
File:15JUL16Z #1-181 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
359.8415 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



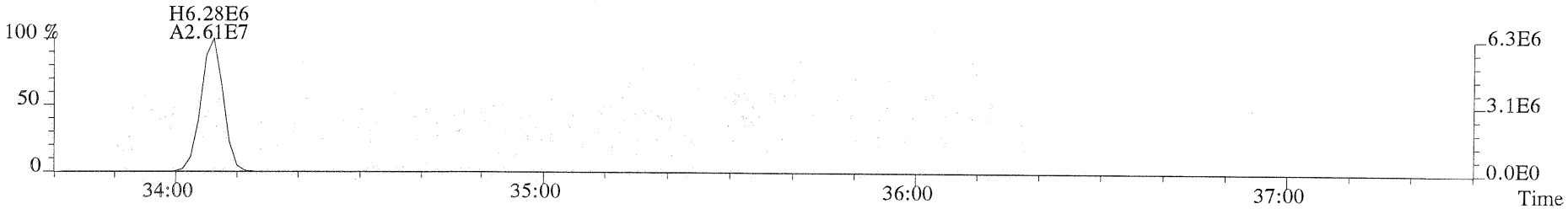
File:15JUL16Z #1-181 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
361.8385 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



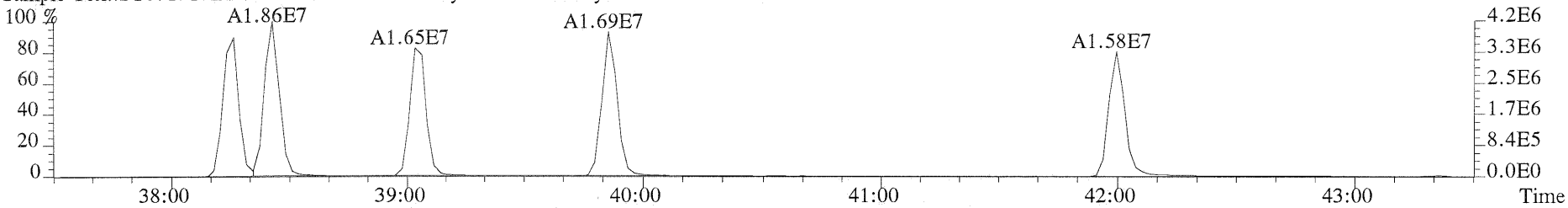
File:15JUL16Z #1-181 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
371.8817 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



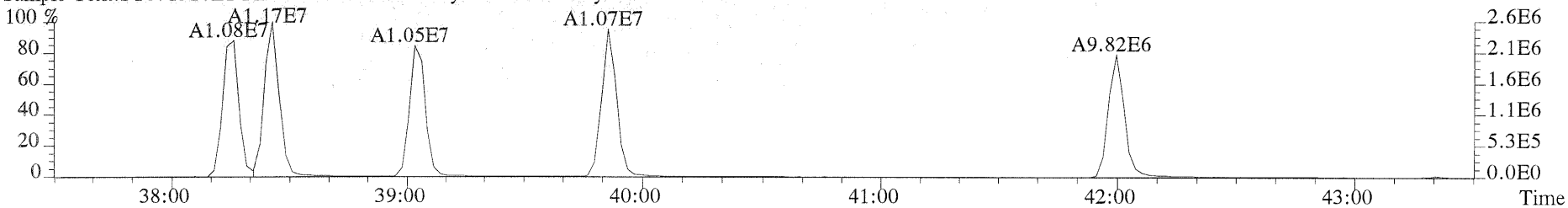
File:15JUL16Z #1-181 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
373.8788 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



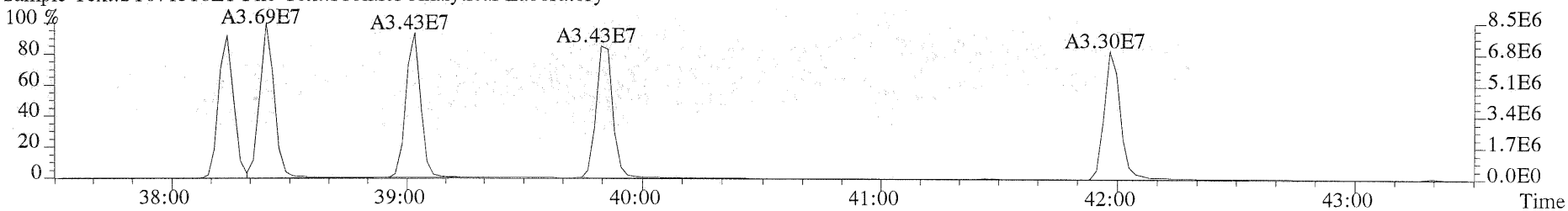
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
325.8804 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



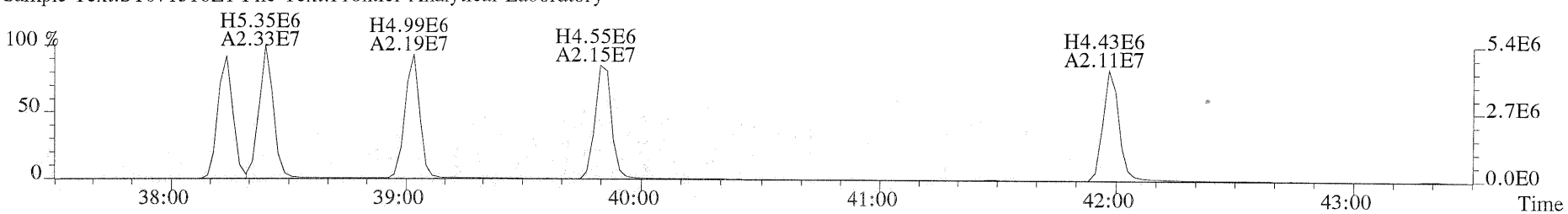
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
327.8775 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



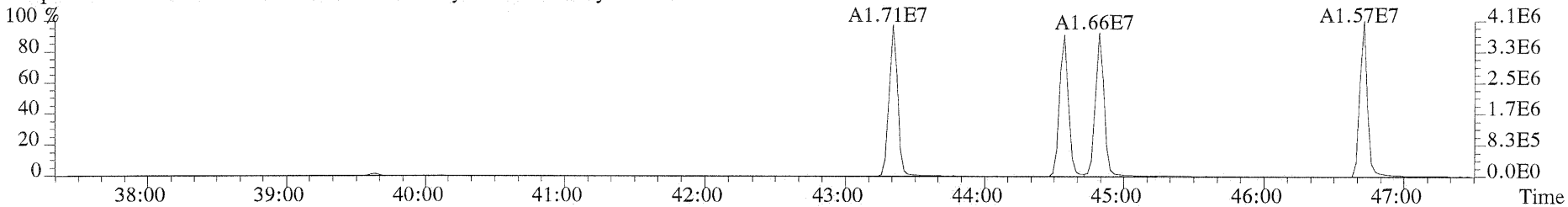
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
337.9207 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



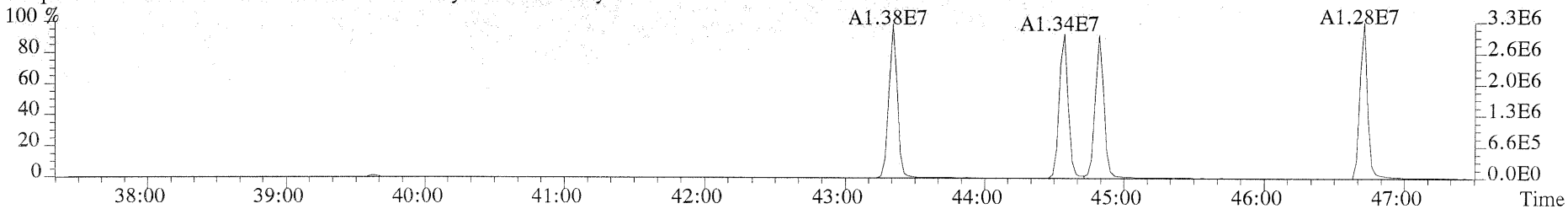
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
339.9178 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



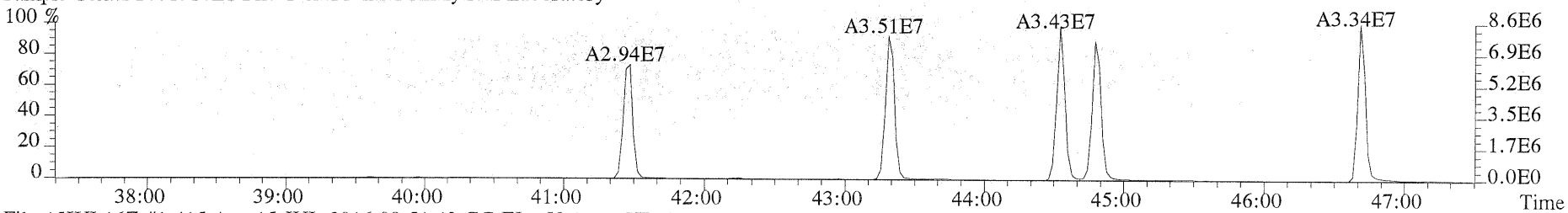
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
359.8415 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



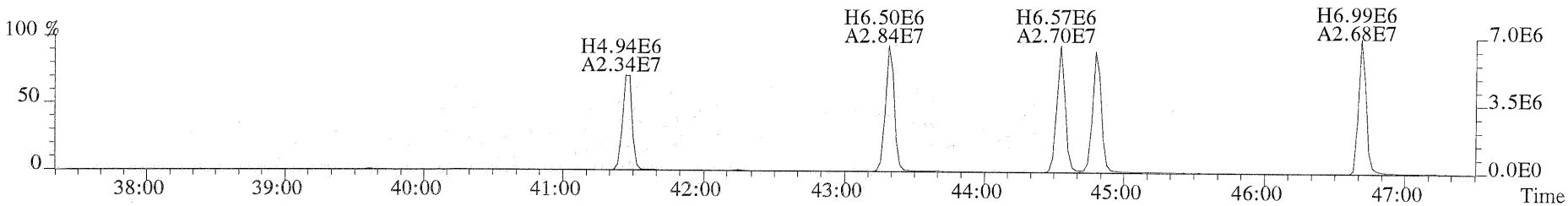
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
361.8385 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



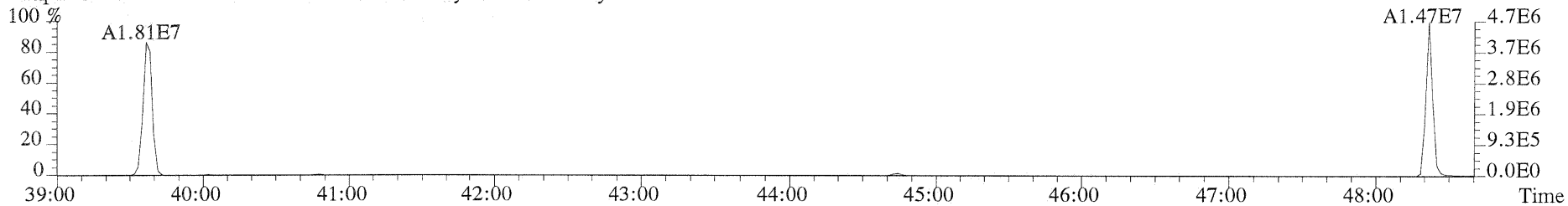
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
371.8817 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



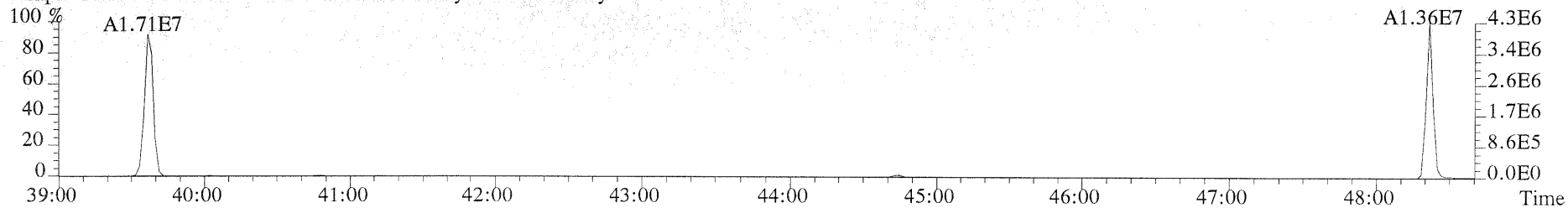
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
373.8788 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



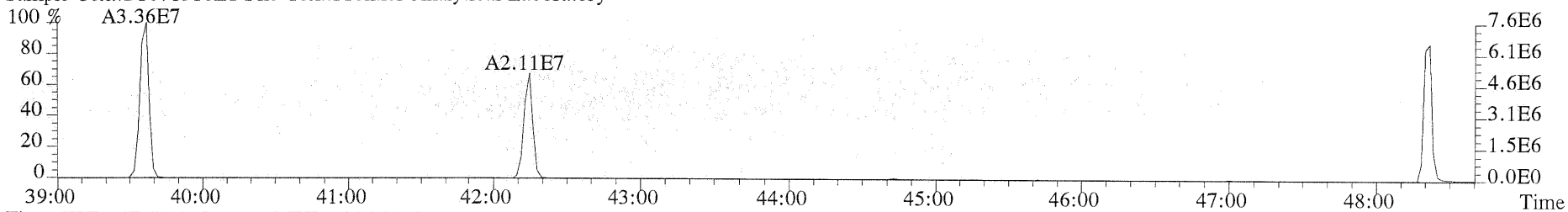
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
393.8025 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



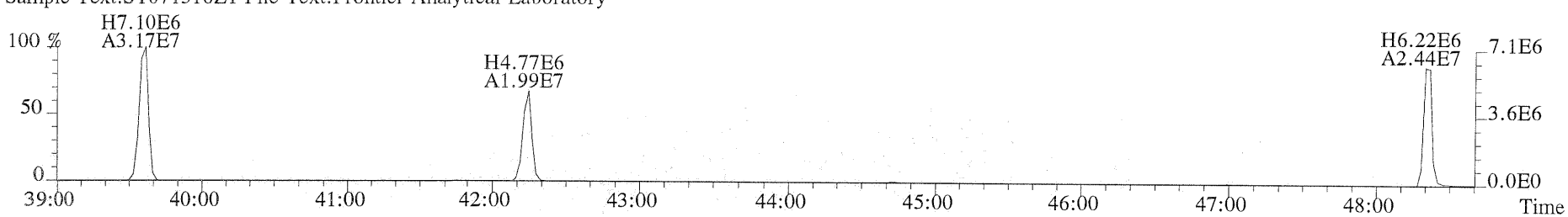
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
395.7995 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



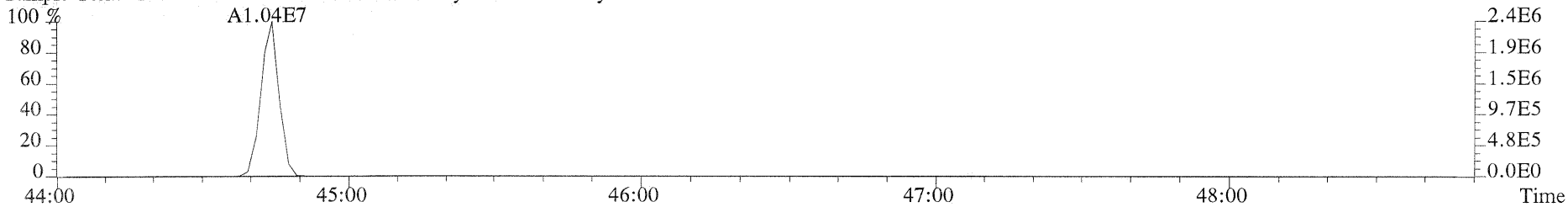
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
405.8428 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



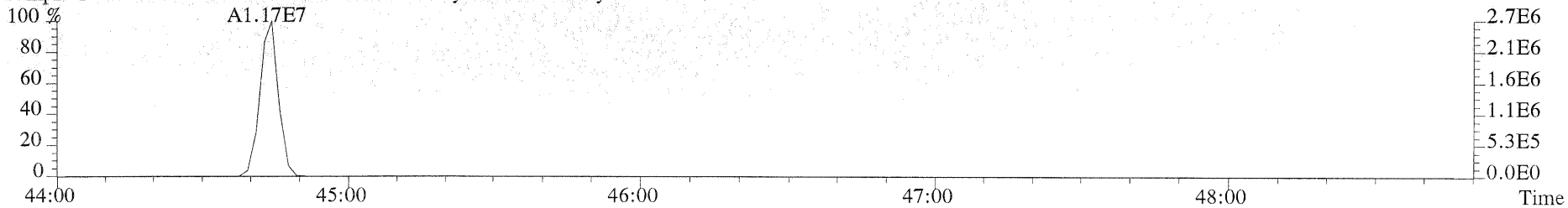
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
407.8398 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



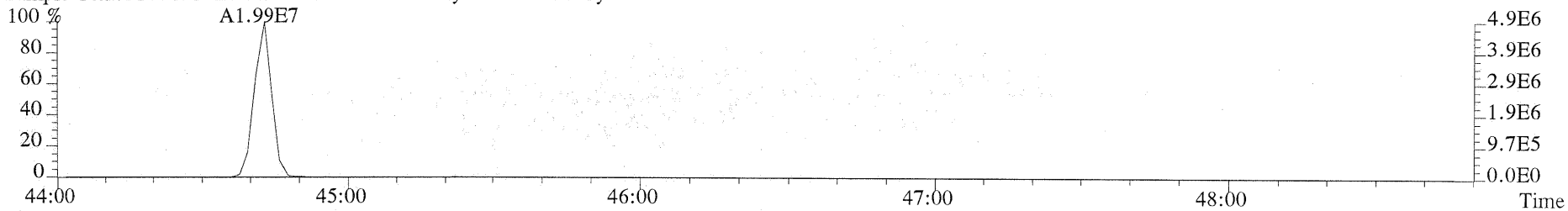
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
427.7635 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



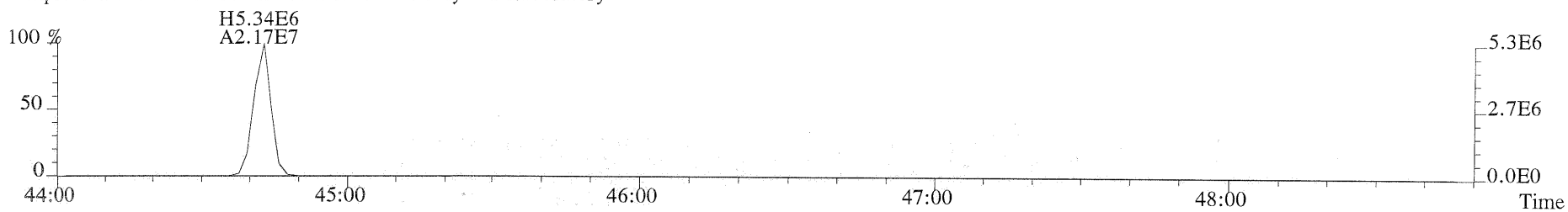
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
429.7606 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



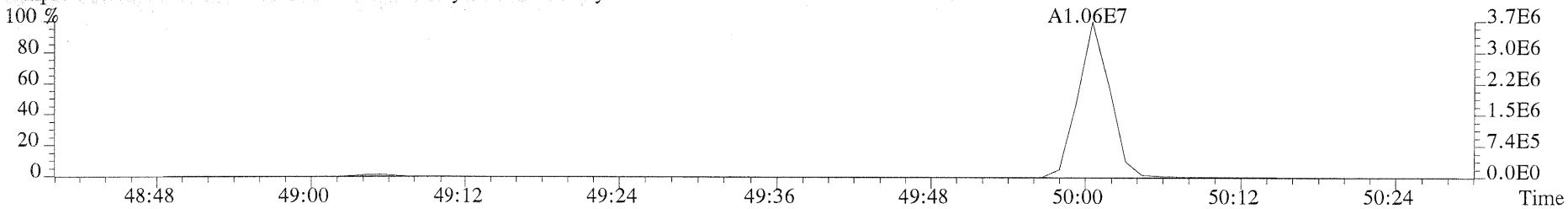
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
439.8038 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



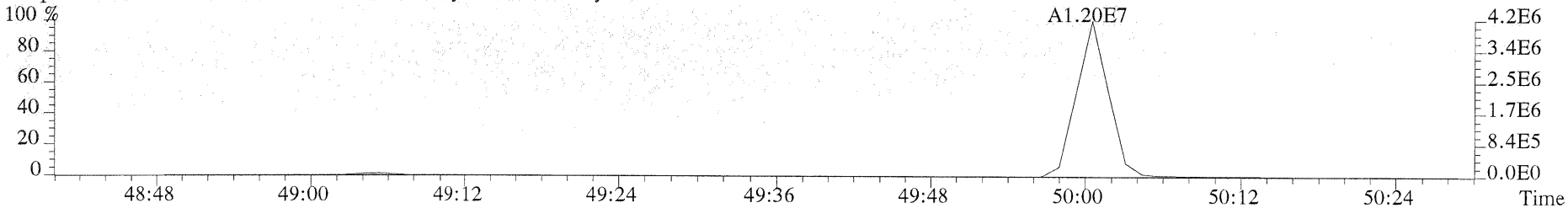
File:15JUL16Z #1-415 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
441.8008 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



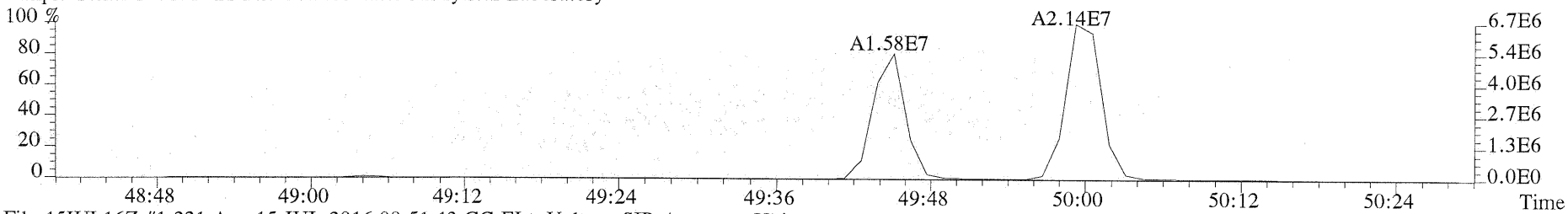
File:15JUL16Z #1-221 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
427.7635 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



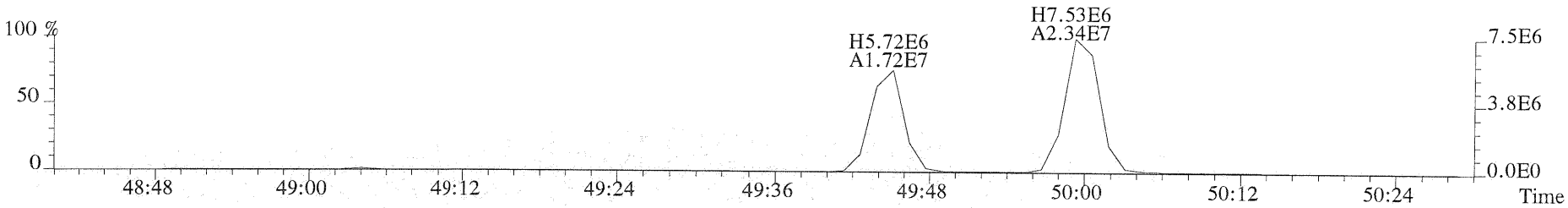
File:15JUL16Z #1-221 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
429.7606 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



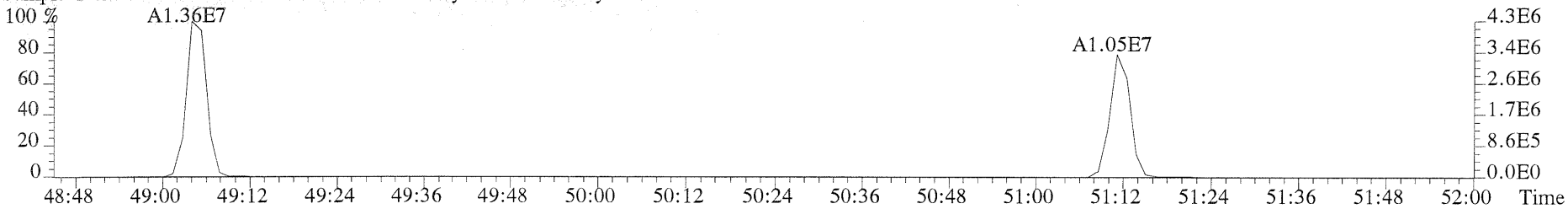
File:15JUL16Z #1-221 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
439.8038 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



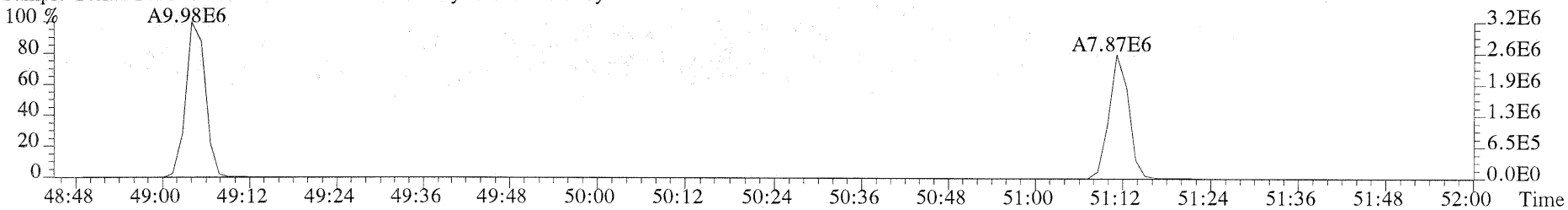
File:15JUL16Z #1-221 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
441.8008 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



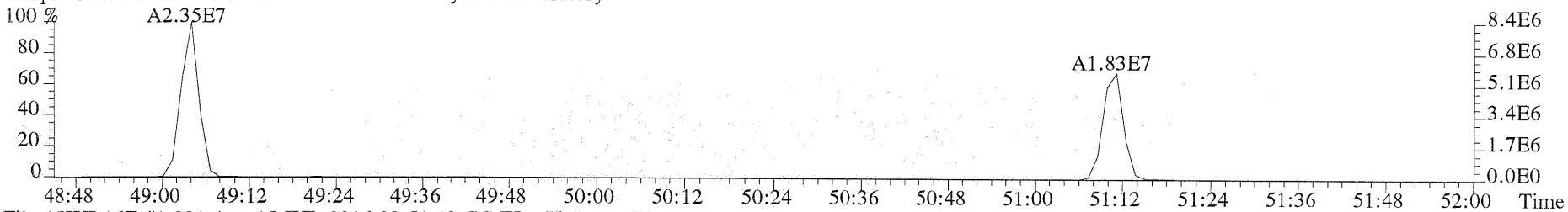
File:15JUL16Z #1-221 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
463.7216 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



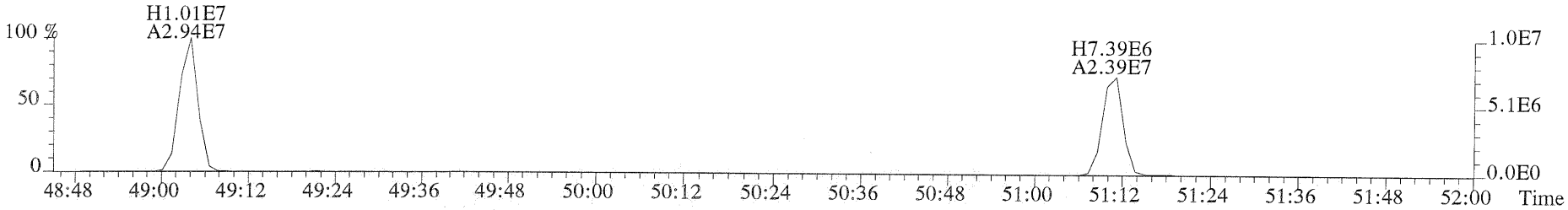
File:15JUL16Z #1-221 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
465.7187 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



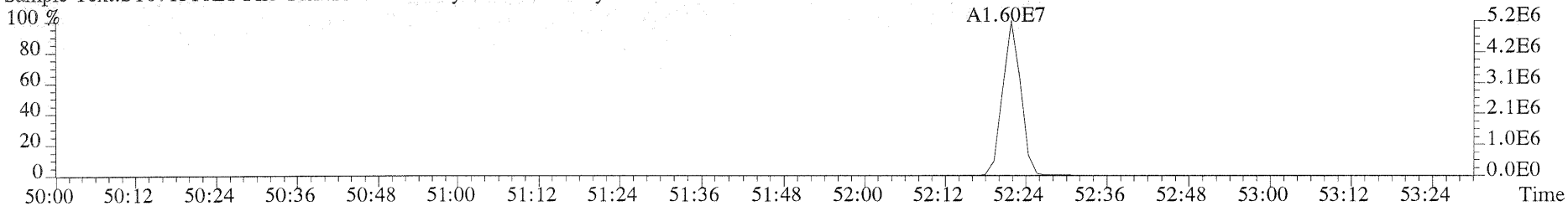
File:15JUL16Z #1-221 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
473.7648 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



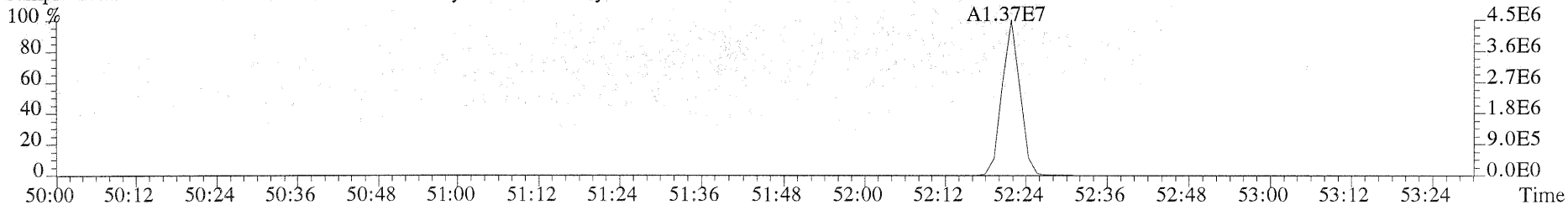
File:15JUL16Z #1-221 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
475.7619 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



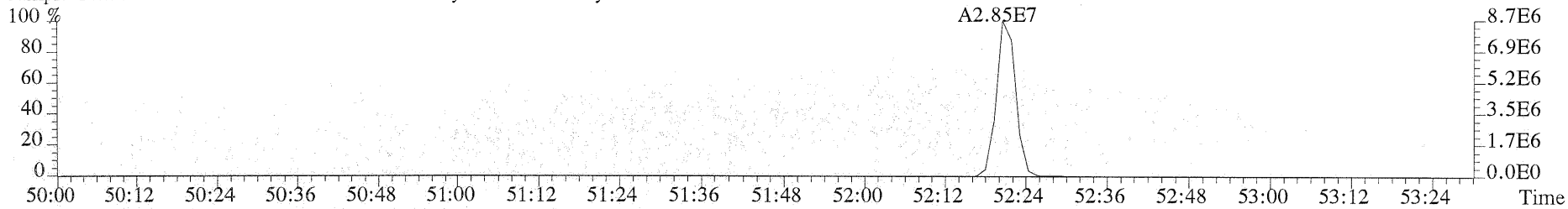
File:15JUL16Z #1-221 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
497.6826 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



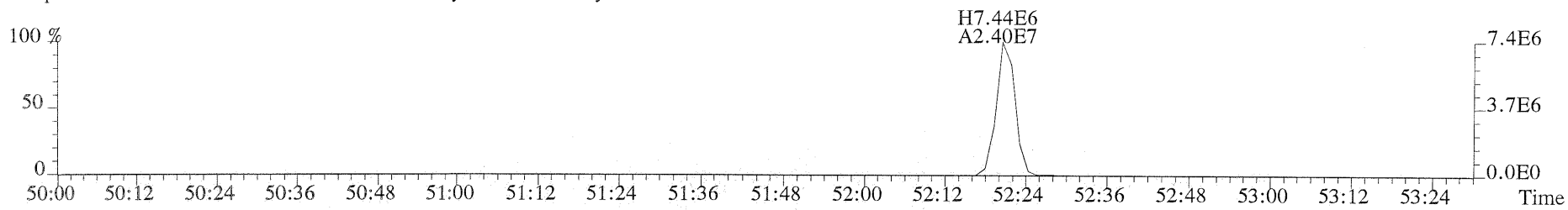
File:15JUL16Z #1-221 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
499.6797 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory



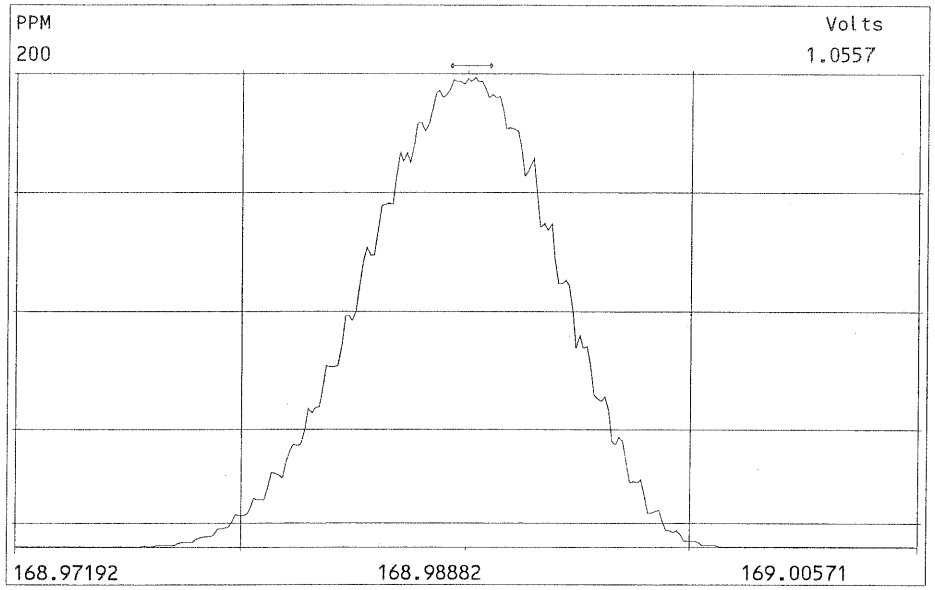
File:15JUL16Z #1-221 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
509.7229 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory

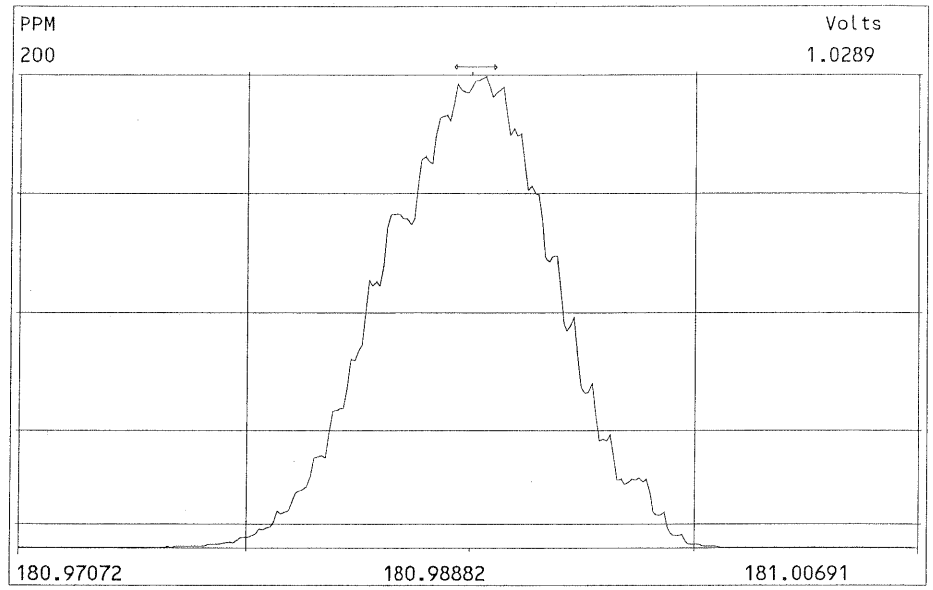


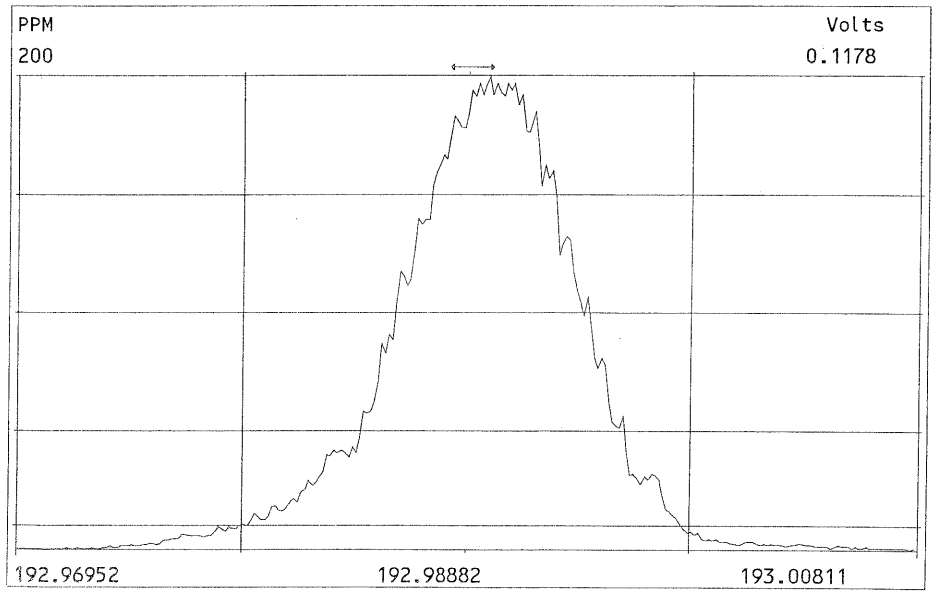
File:15JUL16Z #1-221 Acq:15-JUL-2016 08:51:12 GC EI+ Voltage SIR Autospec-Ultima
511.7199 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z1 File Text:Frontier Analytical Laboratory

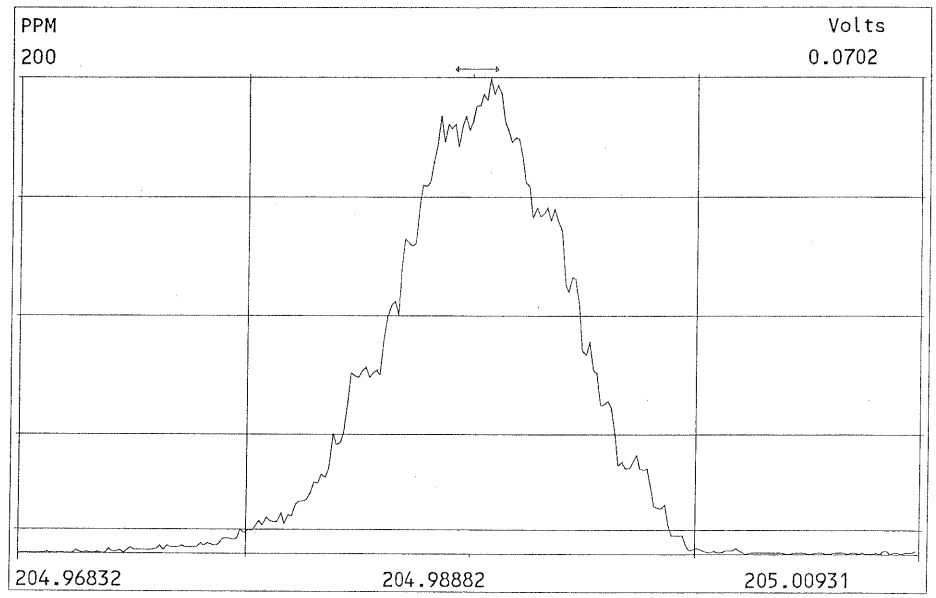


Peak Locate Examination:15-JUL-2016:13:54 File:15JUL16Z_RES_CHECK
Experiment:1668PCB Function:1 Reference:PFK

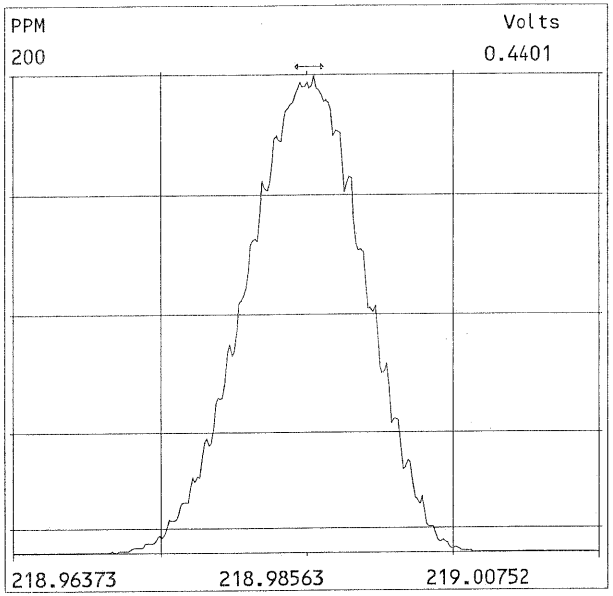


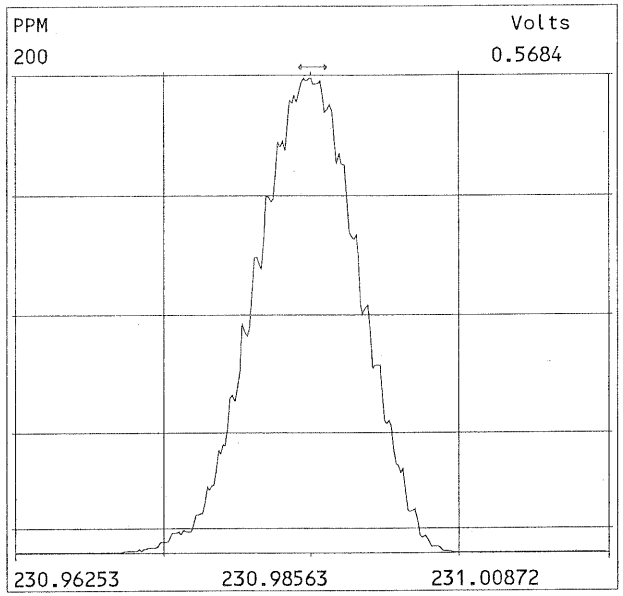


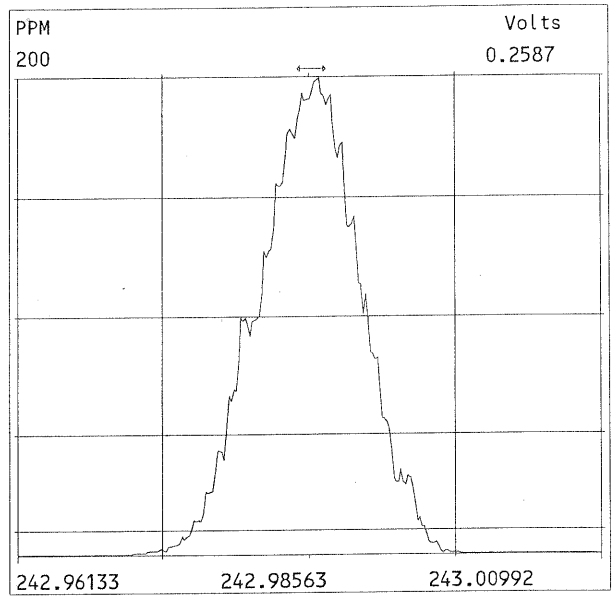


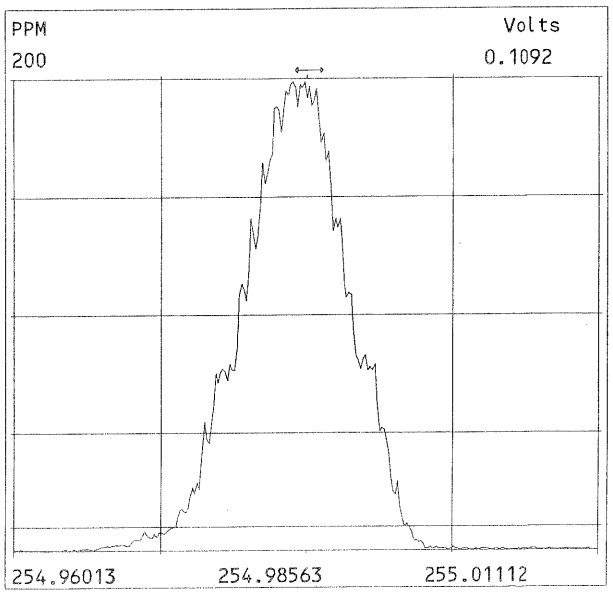


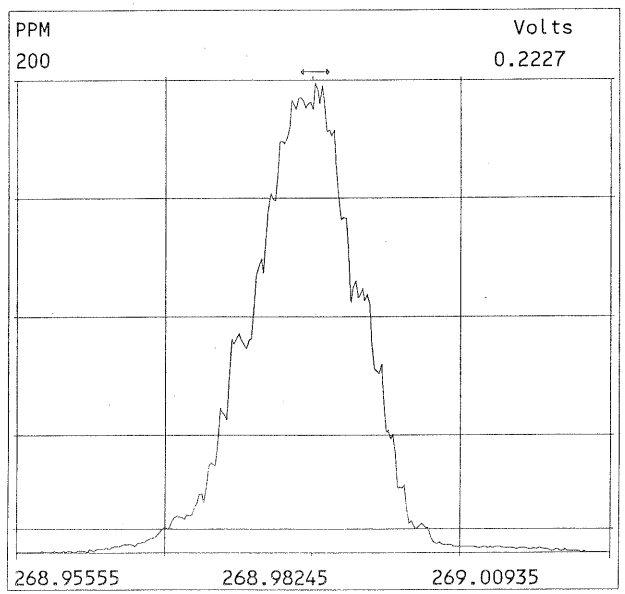
Peak Locate Examination:15-JUL-2016:13:55 File:15JUL16Z_RES_CHECK
Experiment:1668PCB Function:2 Reference:PFK

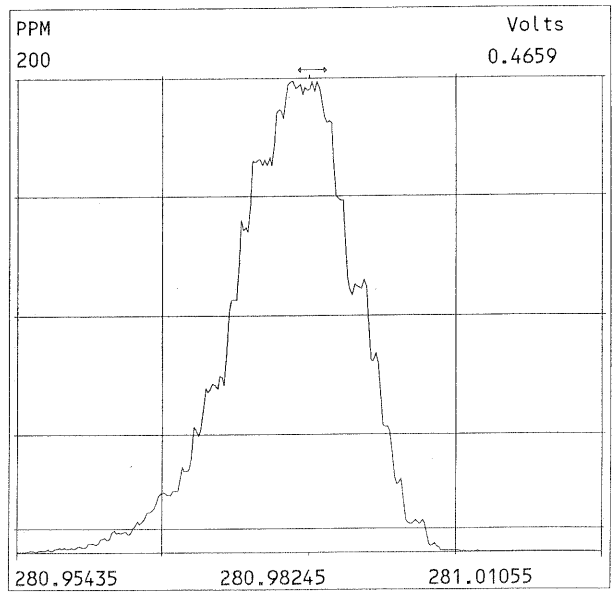




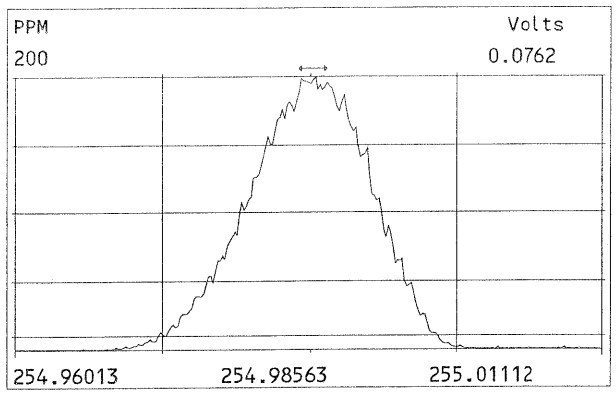


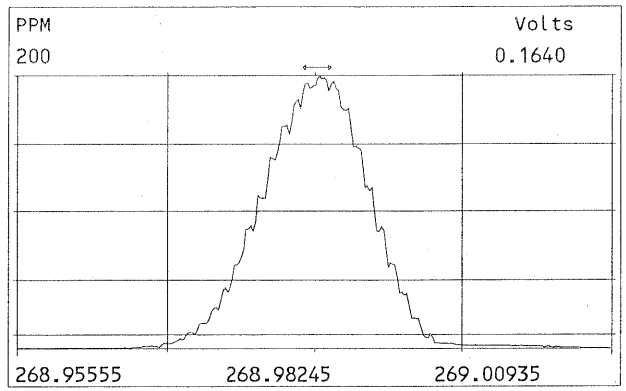


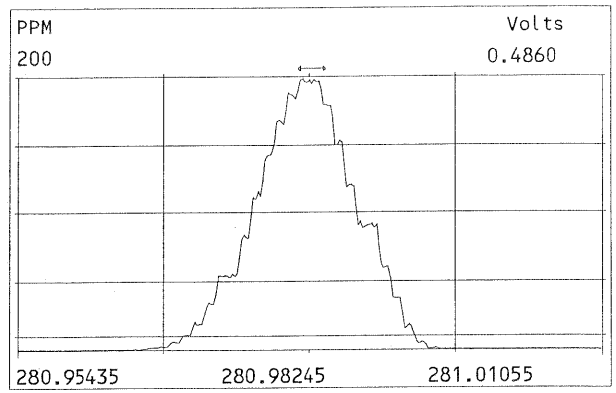


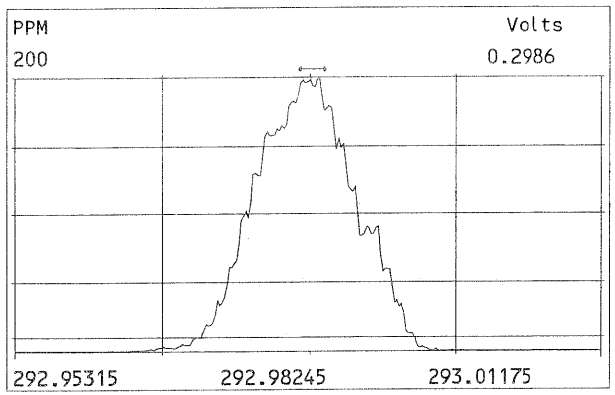


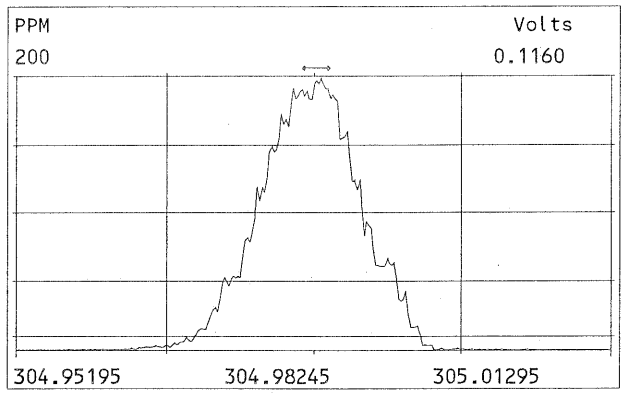
Peak Locate Examination:15-JUL-2016:13:57 File:15JUL16Z_RES_CHECK
Experiment:1668PCB Function:3 Reference:PFK

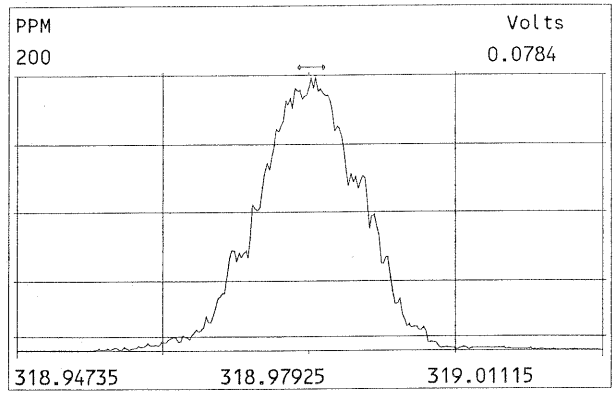


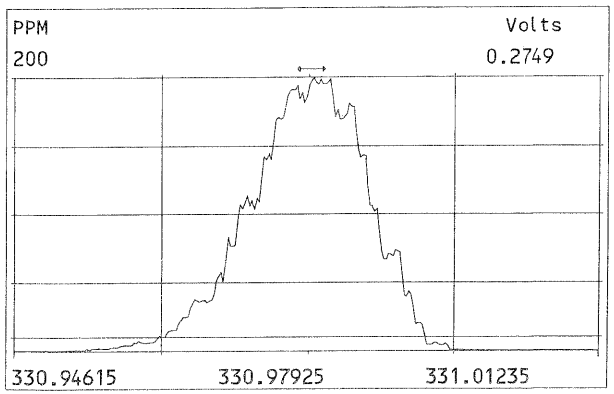


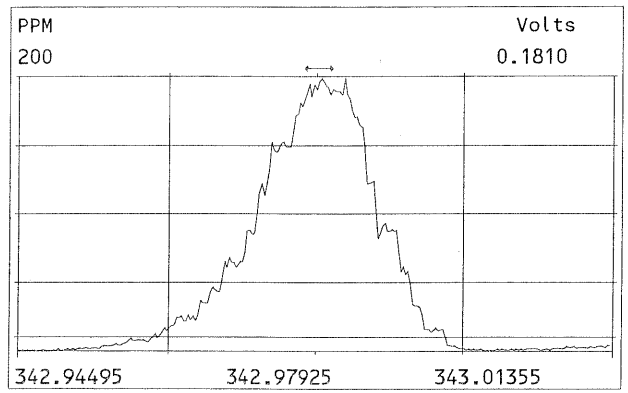




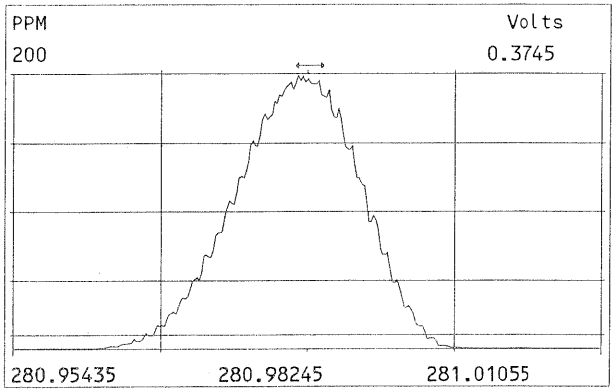


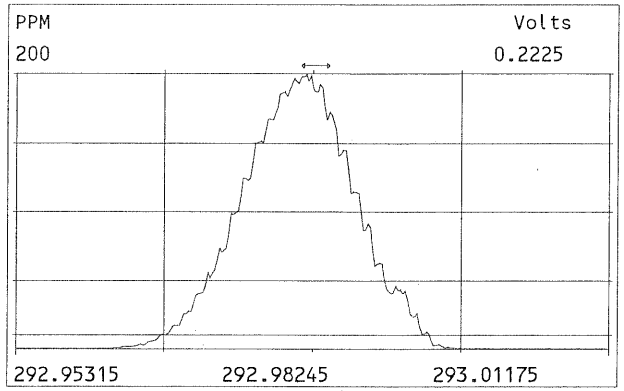


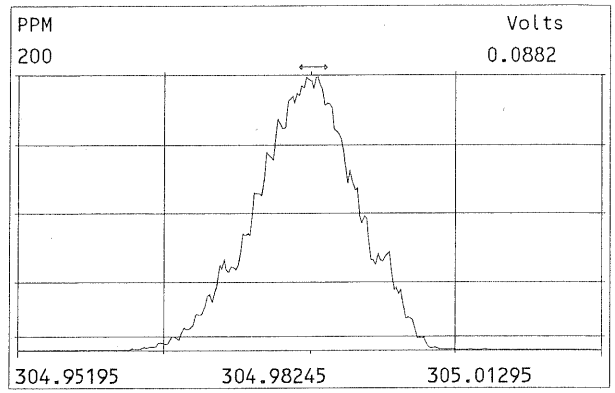


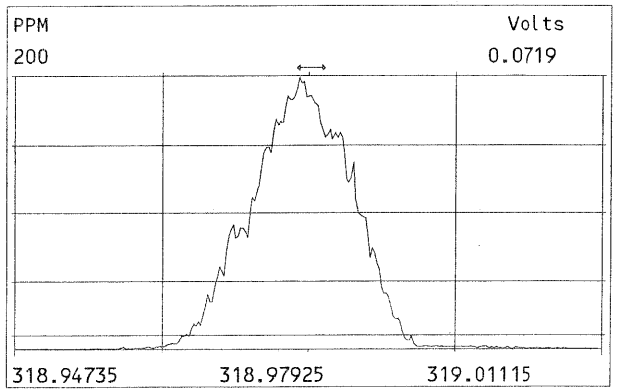


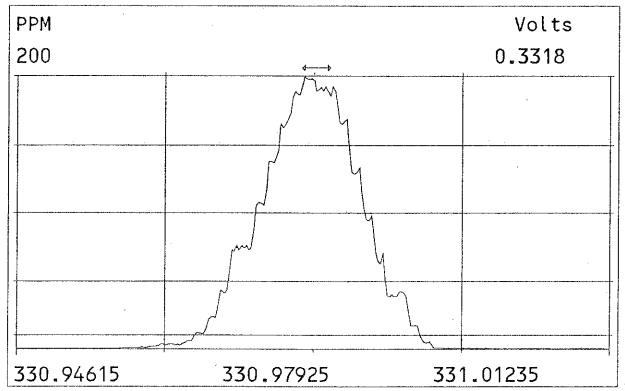
Peak Locate Examination:15-JUL-2016:13:57 File:15JUL16Z_RES_CHECK
Experiment:1668PCB Function:4 Reference:PFK

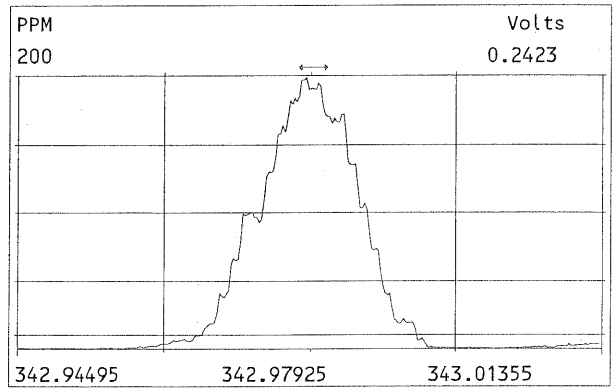


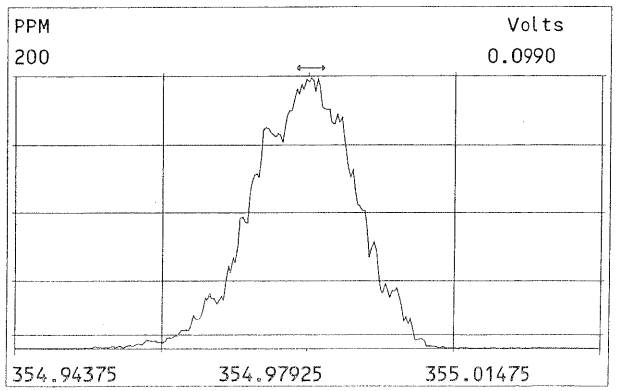


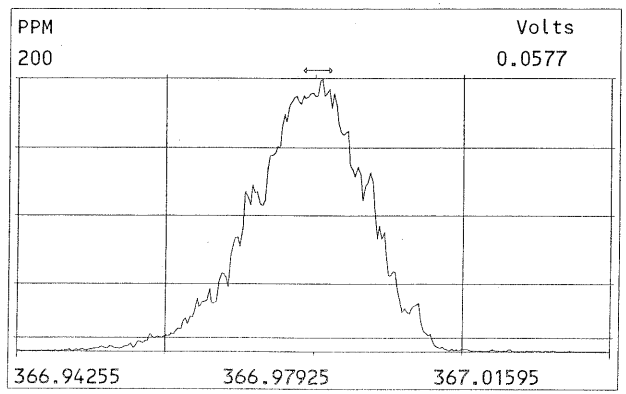


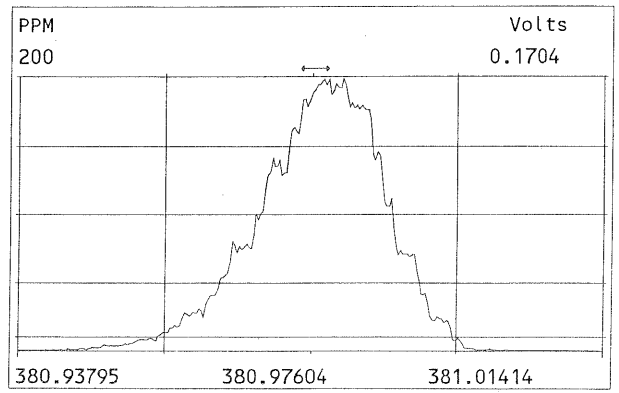




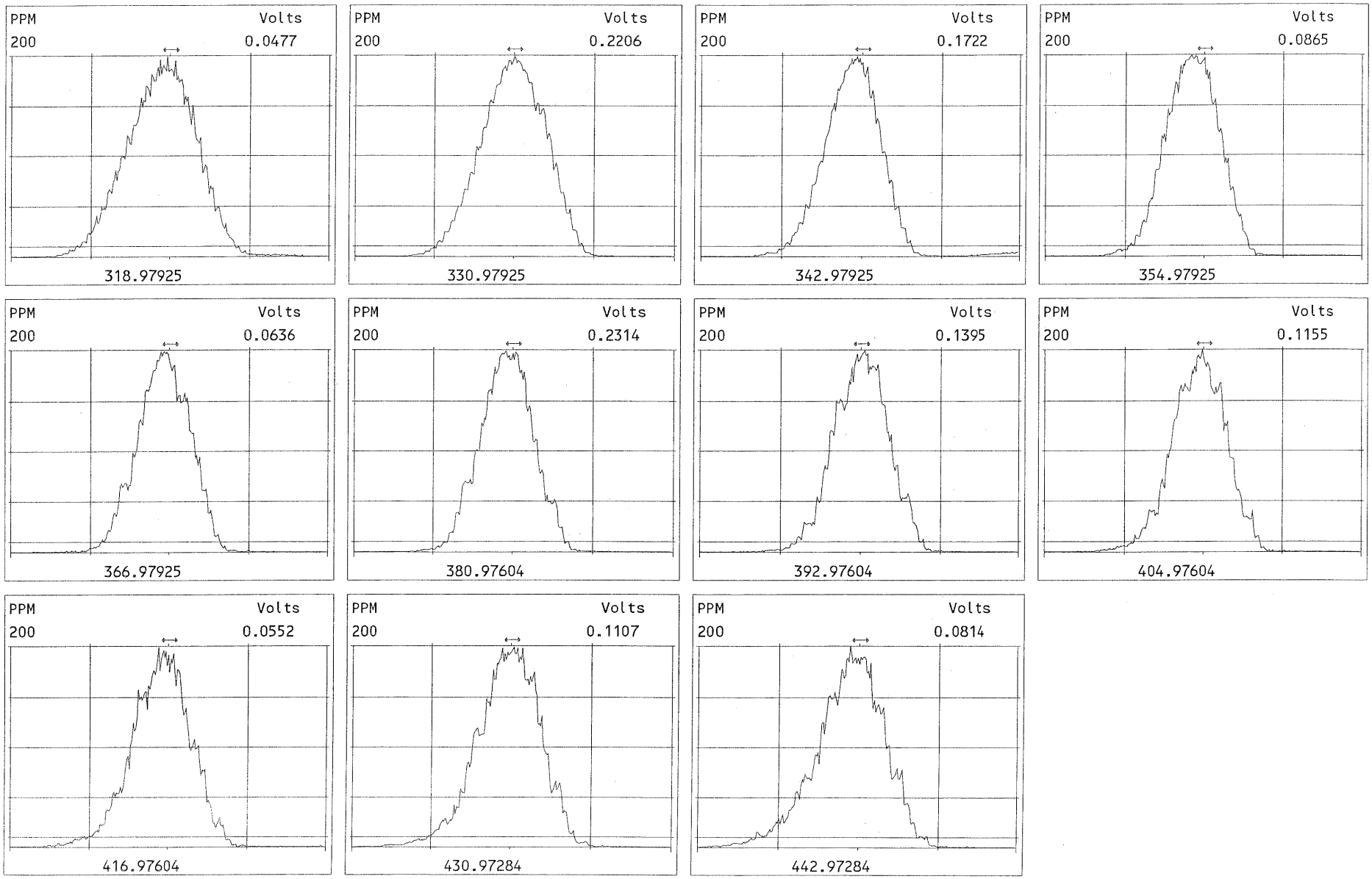




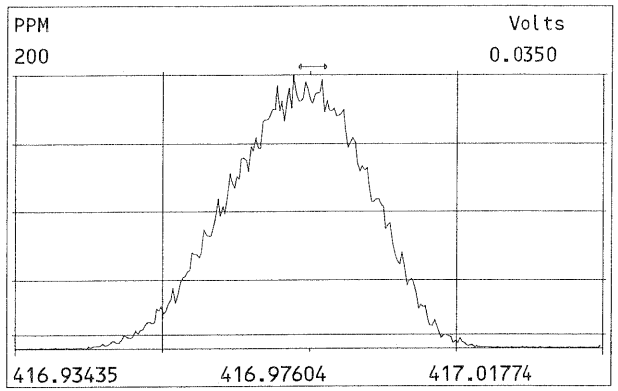


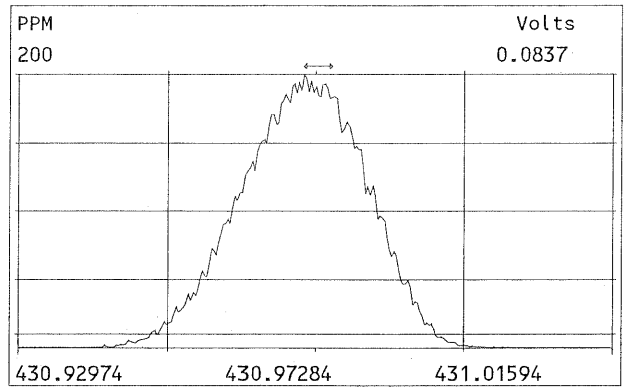


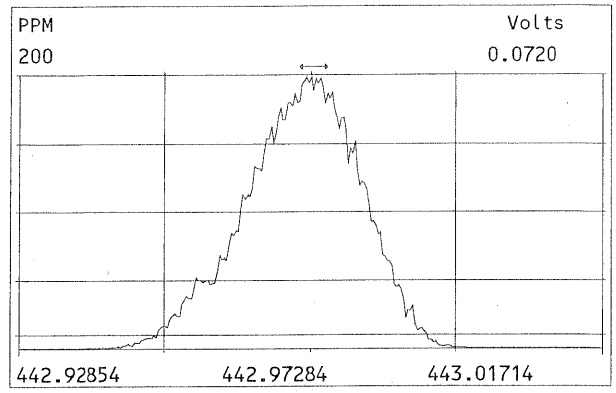
Peak Locate Examination:15-JUL-2016:13:58 File:15JUL16Z_RES_CHECK
Experiment:1668PCB Function:5 Reference:PFK

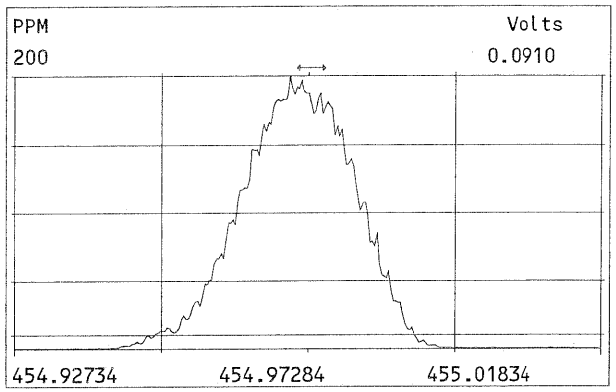


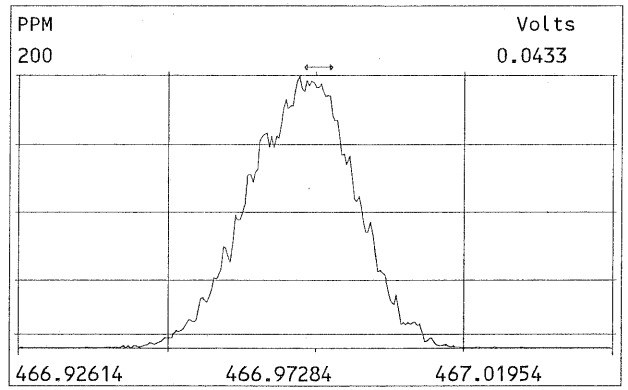
Peak Locate Examination:15-JUL-2016:13:59 File:15JUL16Z_RES_CHECK
Experiment:1668PCB Function:6 Reference:PFK

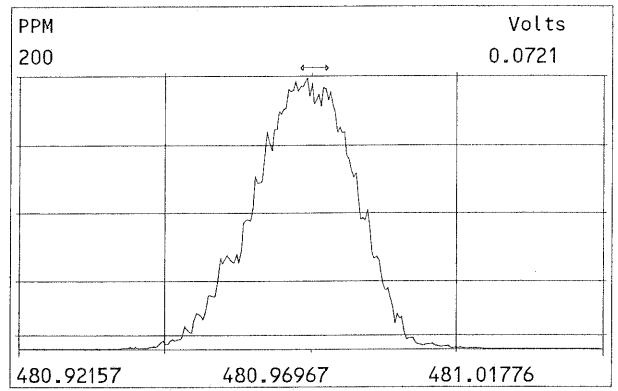


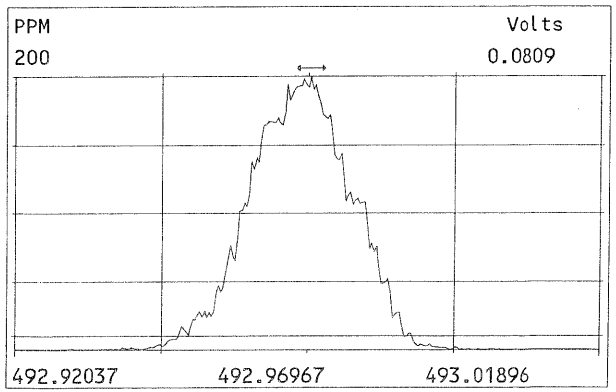


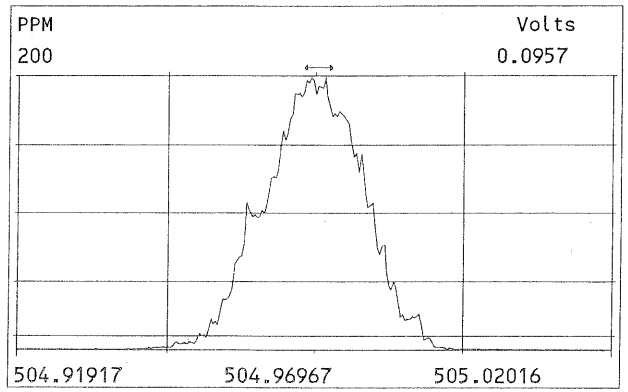


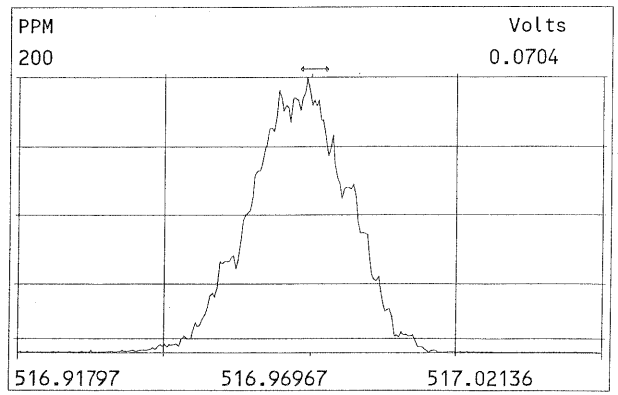












Cal: DAILY209FAL4-7-15-16

Run: 12JUL16Z Analyte: Results: Version: V3.6 21-MAY-2002 15:28:22

Data Filename:15JUL16Z S2

Name	Mean RRF	S. D.	RRF#1	
PCB-1	1.0054	-	1.01	
13C-PCB-1	1.1849	-	1.18	
PCB-2	0.8899	-	0.89	
PCB-3	0.9984	-	1.00	
13C-PCB-3	1.1299	-	1.13	
PCB-4	0.8602	-	0.86	
PCB-10	1.3832	-	1.38	
13C-PCB-4	0.6295	-	0.63	
PCB-9	1.2503	*	1.25	
PCB-7	1.2054	-	1.21	
PCB-6	1.2244	-	1.22	
PCB-8	1.2449	-	1.24	
PCB-5	1.1527	-	1.15	
PCB-14	1.0722	-	1.07	
PCB-11	1.0505	*	1.05	
PCB-13	0.7224	*	0.72	
PCB-12	1.3972	*	1.40	
PCB-15	1.0639	-	1.06	
13C-PCB-15	0.9103	-	0.91	
PCB-19	1.1502	-	1.15	
PCB-30	1.6123	-	1.61	
PCB-18	1.0937	-	1.09	
PCB-17	1.2100	-	1.21	
PCB-27	1.5977	*	1.60	
PCB-24	1.5977	-	1.60	
PCB-16	0.8682	-	0.87	
PCB-32	1.8523	-	1.85	
13C-PCB-19	0.5644	-	0.56	
13C-PCB-9	-	-	-	
PCB-34	1.1422	-	1.14	
PCB-23	1.1651	-	1.17	
PCB-29	1.1521	-	1.15	
PCB-26	1.1272	-	1.13	
PCB-25	1.3685	-	1.37	
PCB-31	1.0235	-	1.02	
PCB-28	1.3930	-	1.39	
PCB-20	1.1595	-	1.16	Co-elute PCB 21/33
PCB-21	1.1595	-	1.16	Co-elute PCB 20/33
PCB-33	1.1595	-	1.16	Co-elute PCB 20/21
PCB-22	1.1637	-	1.16	
PCB-36	1.0096	-	1.01	
PCB-39	1.0122	-	1.01	
PCB-38	1.1369	-	1.14	
PCB-35	0.9507	-	0.95	
PCB-37	1.1233	-	1.12	
13C-PCB-37	1.0367	-	1.04	

PCB-54	1.0749	-	1.07	
PCB-50	0.7770	-	0.78	
PCB-53	0.7637	-	0.76	
PCB-51	0.7780	-	0.78	
PCB-45	0.6781	-	0.68	
PCB-46	0.6491	-	0.65	
PCB-52	0.9117	-	0.91	Co-elute PCB 69
PCB-69	0.9117	-	0.91	Co-elute PCB 52
PCB-73	1.0823	-	1.08	
PCB-43	0.7406	-	0.74	Co-elute PCB 49
PCB-49	0.7406	-	0.74	Co-elute PCB 43
PCB-47	0.9550	-	0.95	
PCB-48	0.9185	-	0.92	Co-elute PCB 75
PCB-75	0.9185	-	0.92	Co-elute PCB 48
PCB-65	0.9126	-	0.91	
PCB-62	1.0054	-	1.01	
PCB-44	0.6609	-	0.66	
PCB-42	0.9077	-	0.91	Co-elute PCB 59
PCB-59	0.9077	-	0.91	Co-elute PCB 42
PCB-72	0.9966	-	1.00	Co-elute PCB 41/71/64
PCB-41	0.9966	-	1.00	Co-elute PCB 72/71/64
PCB-71	0.9966	-	1.00	Co-elute PCB 72/41/64
PCB-64	0.9966	-	1.00	Co-elute PCB 72/41/71
PCB-68	1.0047	-	1.00	
PCB-40	0.5651	-	0.57	
PCB-57	0.9595	-	0.96	
PCB-67	0.9569	-	0.96	
PCB-58	0.9573	-	0.96	
PCB-63	0.9530	-	0.95	
PCB-74	1.0317	-	1.03	
PCB-61	1.0080	-	1.01	Co-elute PCB 70
PCB-70	1.0080	-	1.01	Co-elute PCB 61
PCB-76	1.0401	-	1.04	Co-elute PCB 66
PCB-66	1.0401	-	1.04	Co-elute PCB 76
PCB-80	1.1023	-	1.10	
PCB-55	0.9798	-	0.98	
13C-PCB-54	1.1958	-	1.20	
PCB-104	1.1914	-	1.19	
PCB-96	1.0612	-	1.06	
PCB-103	0.8928	-	0.89	
PCB-100	0.8874	-	0.89	
PCB-94	0.7386	-	0.74	
PCB-98	0.8409	-	0.84	Co-elute PCB 102
PCB-102	0.8409	-	0.84	Co-elute PCB 98
PCB-95	1.0656	*	1.07	
PCB-93	0.7051	-	0.71	
PCB-88	0.7482	-	0.75	Co-elute PCB 91
PCB-91	0.7482	-	0.75	Co-elute PCB 88
PCB-121	1.2108	-	1.21	
13C-PCB-104	0.7469	-	0.75	
13C-PCB-28	1.2090	-	1.21	
13C-PCB-52	-	-	-	

PCB-56	1.0796	-	1.08	Co-elute PCB 60
PCB-60	1.0796	-	1.08	Co-elute PCB 56
PCB-79	1.0785	-	1.08	
PCB-78	1.0291	-	1.03	
PCB-81	1.0687	-	1.07	
13C-PCB-81	1.0278	-	1.03	
PCB-77	0.9910	-	0.99	
13C-PCB-77	1.0288	-	1.03	
PCB-155	1.1222	-	1.12	
PCB-150	1.0140	-	1.01	
PCB-152	0.9919	-	0.99	
PCB-145	0.9883	-	0.99	
PCB-136	1.0126	-	1.01	
PCB-148	0.7211	-	0.72	
PCB-154	0.8664	-	0.87	
13C-PCB-155	0.9587	-	0.96	
13C-PCB-111	1.1358	-	1.14	
13C-PCB-101	-	-	-	
PCB-84	0.9079	-	0.91	Co-elute PCB 92
PCB-92	0.9079	-	0.91	Co-elute PCB 84
PCB-89	0.8930	-	0.89	
PCB-90	1.0182	-	1.02	Co-elute PCB 101
PCB-101	1.0182	-	1.02	Co-elute PCB 90
PCB-113	1.1919	-	1.19	
PCB-99	1.0849	-	1.08	
PCB-119	1.3281	-	1.33	
PCB-83	1.0245	-	1.02	Co-elute PCB 112
PCB-112	1.0245	-	1.02	Co-elute PCB 83
PCB-109	1.2586	-	1.26	
PCB-97	1.0744	-	1.07	
PCB-86	0.8538	-	0.85	
PCB-125	1.1838	-	1.18	Co-elute PCB 87/117
PCB-87	1.1838	-	1.18	Co-elute PCB 125/117
PCB-117	1.1838	-	1.18	Co-elute PCB 125/87
PCB-111	1.4256	-	1.43	Co-elute PCB 115
PCB-115	1.4256	-	1.43	Co-elute PCB 111
PCB-85	1.0698	-	1.07	Co-elute PCB 116
PCB-116	1.0698	-	1.07	Co-elute PCB 85
PCB-120	1.3344	-	1.33	
PCB-110	1.3190	-	1.32	
PCB-82	0.7310	-	0.73	
PCB-124	1.0458	-	1.05	
PCB-108	1.0304	-	1.03	Co-elute PCB 107
PCB-107	1.0304	-	1.03	Co-elute PCB 108
PCB-123	1.2004	-	1.20	
13C-PCB-123	0.9745	-	0.97	
PCB-118	0.9646	-	0.96	Co-elute PCB 106
PCB-106	0.9646	-	0.96	Co-elute PCB 118
13C-PCB-118	1.0824	-	1.08	
PCB-114	1.0464	-	1.05	
13C-PCB-114	0.9997	-	1.00	
PCB-122	1.0507	-	1.05	
PCB-105	1.0002	-	1.00	
13C-PCB-105	0.9854	-	0.99	
PCB-127	0.8873	-	0.89	
PCB-126	1.0132	-	1.01	
13C-PCB-126	0.9255	-	0.93	

PCB-151	0.8014	-	0.80	
PCB-135	0.8508	-	0.85	
PCB-144	0.8117	-	0.81	
PCB-147	0.8440	-	0.84	
PCB-139	0.8819	-	0.88	Co-elute PCB 149
PCB-149	0.8819	-	0.88	Co-elute PCB 139
PCB-140	0.8357	-	0.84	
PCB-143	0.8026	-	0.80	Co-elute PCB 134
PCB-134	0.8026	-	0.80	Co-elute PCB 143
PCB-131	0.8092	-	0.81	Co-elute PCB 131
PCB-133	0.8092	-	0.81	Co-elute PCB 142
PCB-142	0.6985	-	0.70	
PCB-165	0.9681	-	0.97	Co-elute PCB 146
PCB-146	0.9681	-	0.97	Co-elute PCB 165
PCB-161	0.9152	-	0.92	Co-elute PCB 132
PCB-132	0.9152	-	0.92	Co-elute PCB 161
PCB-153	0.8956	-	0.90	
PCB-168	1.0328	-	1.03	
PCB-141	0.8043	-	0.80	
PCB-137	0.8199	-	0.82	
PCB-130	0.6344	-	0.63	
PCB-138	1.0830	-	1.08	Co-elute PCB 163/164
PCB-163	1.0830	-	1.08	Co-elute PCB 138/164
PCB-164	1.0830	-	1.08	Co-elute PCB 138/163
PCB-158	1.0707	-	1.07	Co-elute PCB 160
PCB-160	1.0707	-	1.07	Co-elute PCB 158
PCB-129	0.6682	-	0.67	
PCB-166	1.0001	-	1.00	
PCB-159	1.0785	-	1.08	
PCB-128	0.8899	-	0.89	Co-elute PCB 162
PCB-162	0.8899	-	0.89	Co-elute PCB 128
PCB-167	0.9759	-	0.98	
13C-PCB-167	1.1328	-	1.13	
PCB-156	1.0252	-	1.03	
13C-PCB-156	1.0898	-	1.09	
PCB-157	0.9511	-	0.95	
13C-PCB-157	1.1164	-	1.12	
PCB-169	0.9480	-	0.95	
13C-PCB-169	1.0424	-	1.04	
PCB-188	1.1708	-	1.17	
13C-PCB-188	1.1171	-	1.12	

PCB-184	1.2364	-	1.24	
PCB-179	1.1821	-	1.18	
PCB-176	1.1681	-	1.17	
PCB-186	1.1583	-	1.16	
PCB-178	0.8175	-	0.82	
PCB-175	0.8741	-	0.87	
PCB-187	0.9276	-	0.93	Co-elute PCB 182
PCB-182	0.9276	-	0.93	Co-elute PCB 187
PCB-183	0.9262	-	0.93	
PCB-185	0.8382	-	0.84	
PCB-174	0.8506	-	0.85	
PCB-181	0.8547	*	0.85	
PCB-177	0.7675	-	0.77	
PCB-171	0.8293	-	0.83	
PCB-173	0.7444	-	0.74	
PCB-172	0.7744	-	0.77	
PCB-192	1.0567	-	1.06	
PCB-180	1.0044	-	1.00	
PCB-193	1.1135	-	1.11	
PCB-191	1.0621	-	1.06	
PCB-170	0.7222	-	0.72	
PCB-190	1.0126	-	1.01	
PCB-189	1.1295	-	1.13	
13C-PCB-189	0.9034	-	0.90	
PCB-202	1.0186	-	1.02	
PCB-201	1.0099	-	1.01	
PCB-204	1.0445	-	1.04	
PCB-197	1.0488	-	1.05	
PCB-200	1.0215	-	1.02	
PCB-198	0.7018	-	0.70	
PCB-199	0.7213	-	0.72	
PCB-203	0.7759	-	0.78	Co-elute PCB 196
PCB-196	0.7759	-	0.78	Co-elute PCB 203
13C-PCB-202	0.7824	-	0.78	
13C-PCB-178	0.7336	-	0.73	
13C-PCB-138	-	-	-	
PCB-195	0.7228	-	0.72	
PCB-194	0.7815	-	0.78	
PCB-205	1.0081	-	1.01	
13C-PCB-205	1.2680	-	1.27	
PCB-208	0.9455	-	0.95	
13C-PCB-208	1.5690	-	1.57	
PCB-207	1.0188	-	1.02	
PCB-206	0.9566	-	0.96	
13C-PCB-206	1.1086	-	1.11	
PCB-209	1.0707	-	1.07	
13C-PCB-209	1.6090	-	1.61	
13C-PCB-194	-	-	-	

Analyst: [illegible] Date: 7/15/16

Run #1 Filename 15JUL16Z S: 2 Acquired: 15-JUL-16 09:51:07 Cal: DAILY209FAL4-7-15-16
Client ID: SS071516Z1 Analyte: FAL ID: Daily 209 151201A

	Typ	Name	Amount	Resp	RA	RT	RF	RRF	
1	Unk	PCB-1	50.00	8.27e+07	3.16 y	14:24	-	1.01	
2	IS/RT	13C-PCB-1	100.00	1.65e+08	3.07 y	14:23	-	1.18	
3	Unk	PCB-2	50.00	7.15e+07	3.18 y	16:38	-	0.890	
4	Unk	PCB-3	50.00	7.83e+07	3.16 y	16:50	-	0.998	
5	IS/RT	13C-PCB-3	100.00	1.57e+08	3.23 y	16:49	-	1.13	
6	Unk	PCB-4	50.00	3.76e+07	1.49 y	18:04	-	0.860	
7	Unk	PCB-10	50.00	7.39e+07	1.58 y	18:07	-	1.38	
8	IS/RT	13C-PCB-4	100.00	8.74e+07	1.56 y	18:02	-	0.630	
9	Unk	PCB-9	50.00	6.68e+07	1.48 y	19:45	-	1.25	
10	Unk	PCB-7	50.00	6.44e+07	1.61 y	19:47	-	1.21	
11	Unk	PCB-6	50.00	6.55e+07	1.53 y	20:23	-	1.22	
12	Unk	PCB-8	50.00	6.65e+07	1.53 y	20:45	-	1.24	
13	Unk	PCB-5	50.00	6.16e+07	1.56 y	20:47	-	1.15	
14	Unk	PCB-14	50.00	5.73e+07	1.55 y	21:49	-	1.07	
15	Unk	PCB-11	50.00	5.62e+07	1.54 y	22:57	-	1.05	
16	Unk	PCB-13	50.00	3.86e+07	1.49 y	23:18	-	0.722	
17	Unk	PCB-12	50.00	7.47e+07	1.58 y	23:20	-	1.40	
18	Unk	PCB-15	50.00	6.72e+07	1.55 y	23:37	-	1.06	
19	IS/RT	13C-PCB-15	100.00	1.26e+08	1.58 y	23:35	-	0.910	
20	Unk	PCB-19	50.00	4.51e+07	1.05 y	21:56	-	1.15	
21	Unk	PCB-30	50.00	6.32e+07	1.06 y	22:47	-	1.61	
22	Unk	PCB-18	50.00	4.29e+07	1.06 y	23:30	-	1.09	
23	Unk	PCB-17	50.00	4.74e+07	1.04 y	23:39	-	1.21	
24	Unk	PCB-27	50.00	6.26e+07	1.05 y	24:13	-	1.60	
25	Unk	PCB-24	50.00	6.26e+07	1.05 y	24:13	-	1.60	
26	Unk	PCB-16	50.00	3.40e+07	0.96 y	24:39	-	0.868	
27	Unk	PCB-32	50.00	7.26e+07	1.10 y	24:42	-	1.85	
28	IS/RT	13C-PCB-19	100.00	7.84e+07	1.10 y	21:55	-	0.564	
29	RS	13C-PCB-9	100.00	1.39e+08	1.58 y	19:43	1.39e+06	-	
30	Unk	PCB-34	50.00	5.06e+07	1.04 y	25:27	-	1.14	
31	Unk	PCB-23	50.00	5.16e+07	1.08 y	25:32	-	1.17	
32	Unk	PCB-29	50.00	5.10e+07	1.07 y	25:46	-	1.15	
33	Unk	PCB-26	50.00	4.99e+07	1.05 y	25:58	-	1.13	
34	Unk	PCB-25	50.00	6.06e+07	1.08 y	26:07	-	1.37	
35	Unk	PCB-31	50.00	4.53e+07	1.06 y	26:28	-	1.02	
36	Unk	PCB-28	50.00	6.17e+07	1.08 y	26:34	-	1.39	
37	Unk	PCB-20	150.00	1.54e+08	1.07 y	27:08	-	1.16	Co-elute PCB 21/33
38	Unk	PCB-21	150.00	1.54e+08	1.07 y	27:08	-	1.16	Co-elute PCB 20/33
39	Unk	PCB-33	150.00	1.54e+08	1.07 y	27:08	-	1.16	Co-elute PCB 20/21
40	Unk	PCB-22	50.00	5.15e+07	1.08 y	27:33	-	1.16	
41	Unk	PCB-36	50.00	4.47e+07	1.09 y	28:10	-	1.01	
42	Unk	PCB-39	50.00	4.48e+07	1.06 y	28:36	-	1.01	
43	Unk	PCB-38	50.00	5.03e+07	1.06 y	29:19	-	1.14	
44	Unk	PCB-35	50.00	4.21e+07	1.06 y	29:50	-	0.951	
45	Unk	PCB-37	50.00	4.97e+07	1.05 y	30:15	-	1.12	
46	IS	13C-PCB-37	100.00	8.86e+07	1.10 y	30:14	-	1.04	

47	Unk	PCB-54	100.00	1.10e+08	0.78	y	25:28	-	1.07	
48	Unk	PCB-50	100.00	7.94e+07	0.76	y	26:34	-	0.777	
49	Unk	PCB-53	100.00	7.80e+07	0.77	y	27:10	-	0.764	
50	Unk	PCB-51	100.00	7.95e+07	0.77	y	27:31	-	0.778	
51	Unk	PCB-45	100.00	6.93e+07	0.77	y	27:55	-	0.678	
52	Unk	PCB-46	100.00	6.63e+07	0.77	y	28:23	-	0.649	
53	Unk	PCB-52	200.00	1.86e+08	0.76	y	28:50	-	0.912	Co-elute PCB 69
54	Unk	PCB-69	200.00	1.86e+08	0.76	y	28:50	-	0.912	Co-elute PCB 52
55	Unk	PCB-73	100.00	1.11e+08	0.78	y	28:55	-	1.08	
56	Unk	PCB-43	200.00	1.51e+08	0.78	y	29:06	-	0.741	Co-elute PCB 49
57	Unk	PCB-49	200.00	1.51e+08	0.78	y	29:06	-	0.741	Co-elute PCB 43
58	Unk	PCB-47	100.00	9.76e+07	0.75	y	29:18	-	0.955	
59	Unk	PCB-48	200.00	1.88e+08	0.77	y	29:25	-	0.919	Co-elute PCB 75
60	Unk	PCB-75	200.00	1.88e+08	0.77	y	29:25	-	0.919	Co-elute PCB 48
61	Unk	PCB-65	100.00	9.32e+07	0.76	y	29:40	-	0.913	
62	Unk	PCB-62	100.00	1.03e+08	0.79	y	29:46	-	1.01	
63	Unk	PCB-44	100.00	6.75e+07	0.77	y	30:02	-	0.661	
64	Unk	PCB-42	200.00	1.85e+08	0.77	y	30:15	-	0.908	Co-elute PCB 59
65	Unk	PCB-59	200.00	1.85e+08	0.77	y	30:15	-	0.908	Co-elute PCB 42
66	Unk	PCB-72	400.00	4.07e+08	0.77	y	30:49	-	0.997	Co-elute PCB 41/71/64
67	Unk	PCB-41	400.00	4.07e+08	0.77	y	30:49	-	0.997	Co-elute PCB 72/71/64
68	Unk	PCB-71	400.00	4.07e+08	0.77	y	30:49	-	0.997	Co-elute PCB 72/41/64
69	Unk	PCB-64	400.00	4.07e+08	0.77	y	30:49	-	0.997	Co-elute PCB 72/41/71
70	Unk	PCB-68	100.00	1.03e+08	0.76	y	31:04	-	1.00	
71	Unk	PCB-40	100.00	5.77e+07	0.76	y	31:16	-	0.565	
72	Unk	PCB-57	100.00	9.80e+07	0.77	y	31:37	-	0.959	
73	Unk	PCB-67	100.00	9.78e+07	0.76	y	31:54	-	0.957	
74	Unk	PCB-58	100.00	9.78e+07	0.79	y	32:00	-	0.957	
75	Unk	PCB-63	100.00	9.74e+07	0.76	y	32:10	-	0.953	
76	Unk	PCB-74	100.00	1.05e+08	0.76	y	32:27	-	1.03	
77	Unk	PCB-61	200.00	2.06e+08	0.76	y	32:38	-	1.01	Co-elute PCB 70
78	Unk	PCB-70	200.00	2.06e+08	0.76	y	32:38	-	1.01	Co-elute PCB 61
79	Unk	PCB-76	200.00	2.13e+08	0.77	y	32:49	-	1.04	Co-elute PCB 66
80	Unk	PCB-66	200.00	2.13e+08	0.77	y	32:49	-	1.04	Co-elute PCB 76
81	Unk	PCB-80	100.00	1.13e+08	0.78	y	33:02	-	1.10	
82	Unk	PCB-55	100.00	1.00e+08	0.76	y	33:21	-	0.980	
83	IS/RT	13C-PCB-54	100.00	1.02e+08	0.79	y	25:27	-	1.20	
84	Unk	PCB-104	100.00	7.60e+07	1.57	y	29:54	-	1.19	
85	Unk	PCB-96	100.00	6.77e+07	1.56	y	31:06	-	1.06	
86	Unk	PCB-103	100.00	5.70e+07	1.57	y	31:36	-	0.893	
87	Unk	PCB-100	100.00	5.66e+07	1.57	y	31:56	-	0.887	
88	Unk	PCB-94	100.00	4.71e+07	1.58	y	32:23	-	0.739	
89	Unk	PCB-98	200.00	1.07e+08	1.56	y	32:51	-	0.841	Co-elute PCB 102
90	Unk	PCB-102	200.00	1.07e+08	1.56	y	32:51	-	0.841	Co-elute PCB 98
91	Unk	PCB-95	100.00	6.80e+07	1.55	y	32:52	-	1.07	
92	Unk	PCB-93	100.00	4.50e+07	1.67	y	32:58	-	0.705	
93	Unk	PCB-88	200.00	9.55e+07	1.57	y	33:17	-	0.748	Co-elute PCB 91
94	Unk	PCB-91	200.00	9.55e+07	1.57	y	33:17	-	0.748	Co-elute PCB 88
95	Unk	PCB-121	100.00	7.73e+07	1.62	y	33:21	-	1.21	
96	IS	13C-PCB-104	100.00	6.38e+07	1.61	y	29:52	-	0.747	
97	C/Up	13C-PCB-28	100.00	1.03e+08	1.06	y	26:33	-	1.21	
98	RS	13C-PCB-52	100.00	8.54e+07	0.79	y	28:48	8.54e+05	-	
99	Unk	PCB-56	200.00	1.66e+08	0.77	y	33:48	-	1.08	Co-elute PCB 60
100	Unk	PCB-60	200.00	1.66e+08	0.77	y	33:48	-	1.08	Co-elute PCB 56

101	Unk	PCB-79	100.00	8.31e+07	0.79 y	34:50	-	1.08	
102	Unk	PCB-78	100.00	7.92e+07	0.78 y	35:30	-	1.03	
103	Unk	PCB-81	100.00	8.23e+07	0.79 y	35:60	-	1.07	
104	IS	13C-PCB-81	100.00	7.70e+07	0.77 y	35:59	-	1.03	
105	Unk	PCB-77	100.00	7.64e+07	0.80 y	36:34	-	0.991	
106	IS/RT	13C-PCB-77	100.00	7.70e+07	0.78 y	36:33	-	1.03	
107	Unk	PCB-155	100.00	8.06e+07	1.28 y	34:04	-	1.12	
108	Unk	PCB-150	100.00	7.28e+07	1.28 y	35:16	-	1.01	
109	Unk	PCB-152	100.00	7.12e+07	1.28 y	35:42	-	0.992	
110	Unk	PCB-145	100.00	7.10e+07	1.29 y	36:08	-	0.988	
111	Unk	PCB-136	100.00	7.27e+07	1.28 y	36:25	-	1.01	
112	Unk	PCB-148	100.00	5.18e+07	1.29 y	36:32	-	0.721	
113	Unk	PCB-154	100.00	6.22e+07	1.28 y	36:59	-	0.866	
114	IS	13C-PCB-155	100.00	7.18e+07	1.29 y	34:02	-	0.959	
115	C/Up	13C-PCB-111	100.00	8.51e+07	1.56 y	36:08	-	1.14	
116	RS	13C-PCB-101	100.00	7.49e+07	1.58 y	34:29	7.49e+05	-	
117	Unk	PCB-84	200.00	1.21e+08	1.55 y	34:09	-	0.908	Co-elute PCB 92
118	Unk	PCB-92	200.00	1.21e+08	1.55 y	34:09	-	0.908	Co-elute PCB 84
119	Unk	PCB-89	100.00	5.96e+07	1.54 y	34:19	-	0.893	
120	Unk	PCB-90	200.00	1.36e+08	1.56 y	34:29	-	1.02	Co-elute PCB 101
121	Unk	PCB-101	200.00	1.36e+08	1.56 y	34:29	-	1.02	Co-elute PCB 90
122	Unk	PCB-113	100.00	7.95e+07	1.59 y	34:43	-	1.19	
123	Unk	PCB-99	100.00	7.24e+07	1.55 y	34:49	-	1.08	
124	Unk	PCB-119	100.00	8.86e+07	1.55 y	35:14	-	1.33	
125	Unk	PCB-83	200.00	1.37e+08	1.57 y	35:23	-	1.02	Co-elute PCB 112
126	Unk	PCB-112	200.00	1.37e+08	1.57 y	35:23	-	1.02	Co-elute PCB 83
127	Unk	PCB-109	100.00	8.40e+07	1.57 y	35:33	-	1.26	
128	Unk	PCB-97	100.00	7.17e+07	1.55 y	35:44	-	1.07	
129	Unk	PCB-86	100.00	5.70e+07	1.50 y	35:52	-	0.854	
130	Unk	PCB-125	300.00	2.37e+08	1.56 y	36:00	-	1.18	Co-elute PCB 87/117
131	Unk	PCB-87	300.00	2.37e+08	1.56 y	36:00	-	1.18	Co-elute PCB 125/117
132	Unk	PCB-117	300.00	2.37e+08	1.56 y	36:00	-	1.18	Co-elute PCB 125/87
133	Unk	PCB-111	200.00	1.90e+08	1.56 y	36:09	-	1.43	Co-elute PCB 115
134	Unk	PCB-115	200.00	1.90e+08	1.56 y	36:09	-	1.43	Co-elute PCB 111
135	Unk	PCB-85	200.00	1.43e+08	1.57 y	36:16	-	1.07	Co-elute PCB 116
136	Unk	PCB-116	200.00	1.43e+08	1.57 y	36:16	-	1.07	Co-elute PCB 85
137	Unk	PCB-120	100.00	8.90e+07	1.54 y	36:30	-	1.33	
138	Unk	PCB-110	100.00	8.80e+07	1.56 y	36:38	-	1.32	
139	Unk	PCB-82	100.00	4.88e+07	1.55 y	37:13	-	0.731	
140	Unk	PCB-124	100.00	6.98e+07	1.56 y	37:53	-	1.05	
141	Unk	PCB-108	200.00	1.38e+08	1.59 y	38:01	-	1.03	Co-elute PCB 107
142	Unk	PCB-107	200.00	1.38e+08	1.59 y	38:01	-	1.03	Co-elute PCB 108
143	Unk	PCB-123	100.00	7.72e+07	1.58 y	38:11	-	1.20	
144	IS	13C-PCB-123	100.00	6.44e+07	1.57 y	38:09	-	0.974	
145	Unk	PCB-118	200.00	1.38e+08	1.59 y	38:22	-	0.965	Co-elute PCB 106
146	Unk	PCB-106	200.00	1.38e+08	1.59 y	38:22	-	0.965	Co-elute PCB 118
147	IS	13C-PCB-118	100.00	7.15e+07	1.59 y	38:21	-	1.08	
148	Unk	PCB-114	100.00	6.91e+07	1.58 y	38:59	-	1.05	
149	IS	13C-PCB-114	100.00	6.60e+07	1.57 y	38:57	-	1.000	
150	Unk	PCB-122	100.00	7.01e+07	1.58 y	39:05	-	1.05	
151	Unk	PCB-105	100.00	6.51e+07	1.60 y	39:48	-	1.00	
152	IS	13C-PCB-105	100.00	6.51e+07	1.56 y	39:46	-	0.985	
153	Unk	PCB-127	100.00	5.92e+07	1.63 y	40:08	-	0.887	
154	Unk	PCB-126	100.00	6.19e+07	1.62 y	41:55	-	1.01	
155	IS	13C-PCB-126	100.00	6.11e+07	1.57 y	41:55	-	0.925	

156	Unk	PCB-151	100.00	5.80e+07	1.24 y	37:36	-	0.801	
157	Unk	PCB-135	100.00	6.15e+07	1.23 y	37:49	-	0.851	
158	Unk	PCB-144	100.00	5.87e+07	1.25 y	37:56	-	0.812	
159	Unk	PCB-147	100.00	6.10e+07	1.26 y	38:03	-	0.844	
160	Unk	PCB-139	200.00	1.28e+08	1.26 y	38:17	-	0.882	Co-elute PCB 149
161	Unk	PCB-149	200.00	1.28e+08	1.26 y	38:17	-	0.882	Co-elute PCB 139
162	Unk	PCB-140	100.00	6.04e+07	1.25 y	38:29	-	0.836	
163	Unk	PCB-143	200.00	1.16e+08	1.24 y	38:52	-	0.803	Co-elute PCB 134
164	Unk	PCB-134	200.00	1.16e+08	1.24 y	38:52	-	0.803	Co-elute PCB 143
165	Unk	PCB-131	200.00	1.17e+08	1.25 y	39:10	-	0.809	Co-elute PCB 133
166	Unk	PCB-133	200.00	1.17e+08	1.25 y	39:10	-	0.809	Co-elute PCB 131
167	Unk	PCB-142	100.00	5.05e+07	1.24 y	39:18	-	0.698	
168	Unk	PCB-165	200.00	1.40e+08	1.24 y	39:32	-	0.968	Co-elute PCB 146
169	Unk	PCB-146	200.00	1.40e+08	1.24 y	39:32	-	0.968	Co-elute PCB 165
170	Unk	PCB-161	200.00	1.32e+08	1.24 y	39:45	-	0.915	Co-elute PCB 132
171	Unk	PCB-132	200.00	1.32e+08	1.24 y	39:45	-	0.915	Co-elute PCB 161
172	Unk	PCB-153	100.00	6.48e+07	1.25 y	39:55	-	0.896	
173	Unk	PCB-168	100.00	7.47e+07	1.23 y	40:06	-	1.03	
174	Unk	PCB-141	100.00	5.82e+07	1.23 y	40:37	-	0.804	
175	Unk	PCB-137	100.00	5.93e+07	1.23 y	40:59	-	0.820	
176	Unk	PCB-130	100.00	4.59e+07	1.26 y	41:04	-	0.634	
177	Unk	PCB-138	300.00	2.35e+08	1.23 y	41:25	-	1.08	Co-elute PCB 163/164
178	Unk	PCB-163	300.00	2.35e+08	1.23 y	41:25	-	1.08	Co-elute PCB 138/164
179	Unk	PCB-164	300.00	2.35e+08	1.23 y	41:25	-	1.08	Co-elute PCB 138/163
180	Unk	PCB-158	200.00	1.55e+08	1.23 y	41:38	-	1.07	Co-elute PCB 160
181	Unk	PCB-160	200.00	1.55e+08	1.23 y	41:38	-	1.07	Co-elute PCB 158
182	Unk	PCB-129	100.00	4.83e+07	1.23 y	41:53	-	0.668	
183	Unk	PCB-166	100.00	7.23e+07	1.24 y	42:19	-	1.00	
184	Unk	PCB-159	100.00	7.80e+07	1.23 y	42:38	-	1.08	
185	Unk	PCB-128	200.00	1.29e+08	1.24 y	42:54	-	0.890	Co-elute PCB 162
186	Unk	PCB-162	200.00	1.29e+08	1.24 y	42:54	-	0.890	Co-elute PCB 128
187	Unk	PCB-167	100.00	7.30e+07	1.24 y	43:15	-	0.976	
188	IS	13C-PCB-167	100.00	7.48e+07	1.24 y	43:15	-	1.13	
189	Unk	PCB-156	100.00	7.38e+07	1.24 y	44:29	-	1.03	
190	IS	13C-PCB-156	100.00	7.20e+07	1.27 y	44:28	-	1.09	
191	Unk	PCB-157	100.00	7.01e+07	1.24 y	44:44	-	0.951	
192	IS	13C-PCB-157	100.00	7.37e+07	1.26 y	44:44	-	1.12	
193	Unk	PCB-169	100.00	6.53e+07	1.23 y	46:40	-	0.948	
194	IS	13C-PCB-169	100.00	6.88e+07	1.24 y	46:38	-	1.04	
195	Unk	PCB-188	100.00	8.64e+07	1.06 y	39:33	-	1.17	
196	IS	13C-PCB-188	100.00	7.38e+07	1.08 y	39:32	-	1.12	

197	Unk	PCB-184	100.00	8.25e+07	1.06 y	39:58	-	1.24	
198	Unk	PCB-179	100.00	7.89e+07	1.07 y	40:42	-	1.18	
199	Unk	PCB-176	100.00	7.79e+07	1.06 y	41:09	-	1.17	
200	Unk	PCB-186	100.00	7.73e+07	1.06 y	41:43	-	1.16	
201	Unk	PCB-178	100.00	5.45e+07	1.07 y	42:11	-	0.818	
202	Unk	PCB-175	100.00	5.83e+07	1.06 y	42:31	-	0.874	
203	Unk	PCB-187	200.00	1.24e+08	1.06 y	42:41	-	0.928	Co-elute PCB 182
204	Unk	PCB-182	200.00	1.24e+08	1.06 y	42:41	-	0.928	Co-elute PCB 187
205	Unk	PCB-183	100.00	6.18e+07	1.05 y	42:59	-	0.926	
206	Unk	PCB-185	100.00	5.59e+07	1.06 y	43:37	-	0.838	
207	Unk	PCB-174	100.00	5.67e+07	1.06 y	43:57	-	0.851	
208	Unk	PCB-181	100.00	5.70e+07	1.07 y	44:03	-	0.855	
209	Unk	PCB-177	100.00	5.12e+07	1.05 y	44:13	-	0.768	
210	Unk	PCB-171	100.00	5.53e+07	1.06 y	44:29	-	0.829	
211	Unk	PCB-173	100.00	4.97e+07	1.05 y	44:54	-	0.744	
212	Unk	PCB-172	100.00	5.17e+07	1.06 y	45:17	-	0.774	
213	Unk	PCB-192	100.00	7.05e+07	1.06 y	45:29	-	1.06	
214	Unk	PCB-180	100.00	6.70e+07	1.06 y	45:39	-	1.00	
215	Unk	PCB-193	100.00	7.43e+07	1.06 y	45:48	-	1.11	
216	Unk	PCB-191	100.00	7.09e+07	1.05 y	46:02	-	1.06	
217	Unk	PCB-170	100.00	4.82e+07	1.04 y	46:58	-	0.722	
218	Unk	PCB-190	100.00	6.76e+07	1.04 y	47:06	-	1.01	
219	Unk	PCB-189	100.00	6.74e+07	1.07 y	48:18	-	1.13	
220	IS	13C-PCB-189	100.00	5.97e+07	1.06 y	48:18	-	0.903	
221	Unk	PCB-202	150.00	7.89e+07	0.89 y	44:39	-	1.02	
222	Unk	PCB-201	150.00	7.83e+07	0.90 y	45:07	-	1.01	
223	Unk	PCB-204	150.00	8.09e+07	0.90 y	45:16	-	1.04	
224	Unk	PCB-197	150.00	8.13e+07	0.90 y	45:32	-	1.05	
225	Unk	PCB-200	150.00	7.92e+07	0.91 y	46:16	-	1.02	
226	Unk	PCB-198	150.00	5.44e+07	0.88 y	47:27	-	0.702	
227	Unk	PCB-199	150.00	5.59e+07	0.90 y	47:34	-	0.721	
228	Unk	PCB-203	300.00	1.20e+08	0.89 y	47:49	-	0.776	Co-elute PCB 196
229	Unk	PCB-196	300.00	1.20e+08	0.89 y	47:49	-	0.776	Co-elute PCB 203
230	IS	13C-PCB-202	100.00	5.17e+07	0.92 y	44:38	-	0.782	
231	C/Up	13C-PCB-178	100.00	4.84e+07	1.07 y	42:10	-	0.734	
232	RS	13C-PCB-138	100.00	6.60e+07	1.26 y	41:23	6.60e+05	-	
233	Unk	PCB-195	150.00	5.63e+07	0.90 y	48:55	-	0.723	
234	Unk	PCB-194	150.00	6.09e+07	0.89 y	49:42	-	0.782	
235	Unk	PCB-205	150.00	7.85e+07	0.90 y	49:58	-	1.01	
236	IS	13C-PCB-205	100.00	5.19e+07	0.90 y	49:57	-	1.27	
237	Unk	PCB-208	150.00	9.11e+07	1.36 y	49:01	-	0.945	
238	IS	13C-PCB-208	100.00	6.42e+07	0.79 y	49:01	-	1.57	
239	Unk	PCB-207	150.00	8.38e+07	1.33 y	49:19	-	1.02	
240	Unk	PCB-206	150.00	6.51e+07	1.33 y	51:09	-	0.957	
241	IS	13C-PCB-206	100.00	4.54e+07	0.79 y	51:07	-	1.11	
242	Unk	PCB-209	150.00	1.06e+08	1.17 y	52:19	-	1.07	
243	IS	13C-PCB-209	100.00	6.59e+07	1.19 y	52:18	-	1.61	
244	RS	13C-PCB-194	100.00	4.09e+07	0.91 y	49:41	4.09e+05	-	

Analyst: _____ Date: 7/15/16

USEPA - ITD

FORM 4A
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 7/15/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 15JUL16Z Sam:1 Analysis Date: 15-JUL-16 08:51:12

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
PCB-1	M/M+2	3.17	2.66-3.60	y	47.4	37.5 - 62.5
PCB-3	M/M+2	3.14	2.66-3.60	y	49.2	37.5 - 62.5
PCB-4	M/M+2	1.52	1.33-1.79	y	56.9	37.5 - 62.5
PCB-15	M/M+2	1.53	1.33-1.79	y	45.1	37.5 - 62.5
PCB-19	M/M+2	1.06	0.88-1.20	y	49.2	37.5 - 62.5
PCB-37	M/M+2	1.07	0.88-1.20	y	45.9	37.5 - 62.5
PCB-54	M/M+2	0.79	0.65-0.89	y	47.6	37.5 - 62.5
PCB-77	M/M+2	0.78	0.65-0.89	y	50.7	37.5 - 62.5
PCB-81	M/M+2	0.78	0.65-0.89	y	48.9	37.5 - 62.5
PCB-104	M+2/M+4	1.58	1.32-1.78	y	46.2	37.5 - 62.5
PCB-105	M+2/M+4	1.59	1.32-1.78	y	49.5	37.5 - 62.5
PCB-114	M+2/M+4	1.57	1.32-1.78	y	45.9	37.5 - 62.5
PCB-118	M+2/M+4	1.58	1.32-1.78	y	52.2	37.5 - 62.5
PCB-123	M+2/M+4	1.56	1.32-1.78	y	41.6	37.5 - 62.5
PCB-126	M+2/M+4	1.61	1.32-1.78	y	46.7	37.5 - 62.5
PCB-155	M+2/M+4	1.29	1.05-1.43	y	49.8	37.5 - 62.5
PCB-156	M+2/M+4	1.22	1.05-1.43	y	47.6	37.5 - 62.5
PCB-157	M+2/M+4	1.24	1.05-1.43	y	50.5	37.5 - 62.5
PCB-167	M+2/M+4	1.24	1.05-1.43	y	49.8	37.5 - 62.5
PCB-169	M+2/M+4	1.23	1.05-1.43	y	49.9	37.5 - 62.5
PCB-188	M+2/M+4	1.06	0.89-1.21	y	45.9	37.5 - 62.5
PCB-189	M+2/M+4	1.08	0.89-1.21	y	49.9	37.5 - 62.5
PCB-202	M+2/M+4	0.89	0.76-1.02	y	52.2	37.5 - 62.5
PCB-205	M+2/M+4	0.88	0.76-1.02	y	50.0	37.5 - 62.5
PCB-206	M+4/M+6	1.33	1.13-1.53	y	45.4	37.5 - 62.5
PCB-208	M+4/M+6	1.37	1.13-1.53	y	47.1	37.5 - 62.5
PCB-209	M+4/M+6	1.17	0.99-1.33	y	52.9	37.5 - 62.5

Analyst: [illegible] Date: 7/15/16

USEPA - ITD

FORM 4B
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 7/15/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 15JUL16Z Sam:1 Analysis Date: 15-JUL-16 08:51:12

	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
LABELED COMPOUNDS						
13C-PCB-1	M/M+2	3.07	2.66-3.60	y	101	50.0 - 145
13C-PCB-3	M/M+2	3.15	2.66-3.60	y	105	50.0 - 145
13C-PCB-4	M/M+2	1.56	1.33-1.79	y	99.5	50.0 - 145
13C-PCB-15	M/M+2	1.58	1.33-1.79	y	109	50.0 - 145
13C-PCB-19	M/M+2	1.08	0.88-1.20	y	108	50.0 - 145
13C-PCB-37	M/M+2	1.08	0.88-1.20	y	108	50.0 - 145
13C-PCB-54	M/M+2	0.80	0.65-0.89	y	99.1	50.0 - 145
13C-PCB-77	M/M+2	0.77	0.65-0.89	y	109	50.0 - 145
13C-PCB-81	M/M+2	0.79	0.65-0.89	y	106	50.0 - 145
13C-PCB-104	M+2/M+4	1.62	1.32-1.78	y	108	50.0 - 145
13C-PCB-105	M+2/M+4	1.60	1.32-1.78	y	107	50.0 - 145
13C-PCB-114	M+2/M+4	1.57	1.32-1.78	y	106	50.0 - 145
13C-PCB-118	M+2/M+4	1.58	1.32-1.78	y	105	50.0 - 145
13C-PCB-123	M+2/M+4	1.58	1.32-1.78	y	107	50.0 - 145
13C-PCB-126	M+2/M+4	1.56	1.32-1.78	y	111	50.0 - 145
13C-PCB-155	M+2/M+4	1.29	1.05-1.43	y	105	50.0 - 145
13C-PCB-156	M+2/M+4	1.27	1.05-1.43	y	106	50.0 - 145
13C-PCB-157	M+2/M+4	1.25	1.05-1.43	y	106	50.0 - 145
13C-PCB-167	M+2/M+4	1.24	1.05-1.43	y	106	50.0 - 145
13C-PCB-169	M+2/M+4	1.25	1.05-1.43	y	109	50.0 - 145
13C-PCB-188	M+2/M+4	1.06	0.89-1.21	y	111	50.0 - 145
13C-PCB-189	M+2/M+4	1.06	0.89-1.21	y	105	50.0 - 145
13C-PCB-202	M+2/M+4	0.92	0.76-1.02	y	101	50.0 - 145
13C-PCB-205	M+2/M+4	0.92	0.76-1.02	y	107	50.0 - 145
13C-PCB-206	M+2/M+4	0.77	0.65-0.89	y	115	50.0 - 145
13C-PCB-208	M+2/M+4	0.80	0.65-0.89	y	102	50.0 - 145
13C-PCB-209	M+4/M+6	1.19	0.99-1.33	y	98.7	50.0 - 145
CLEANUP STANDARDS						
13C-PCB-28	M/M+2	1.06	0.88-1.20	y	104	65.0 - 135
13C-PCB-111	M+2/M+4	1.58	1.32-1.78	y	107	75.0 - 125
13C-PCB-178	M+2/M+4	1.06	0.89-1.21	y	106	75.0 - 125

Analyst: [illegible] Date: 7/15/16

FAL ID: ST071516Z1 Filename: 15JUL16Z Sam:1 Acquired: 15-JUL-16 08:51:12 ICal: DAILY209FAL4-7-15-16
Client ID: 1668 CS3 R150603A ConCal: ST071516Z1 EndCal: ST071516Z2
Results: GC Column: DB1 Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL	Rec
PCB-1	6.05e+07	3.17 y	14:26	1.01	47.4		2.50	-	-	*	
13C-PCB-1	1.27e+08	3.07 y	14:25	1.18	101		2.50				101
PCB-3	6.17e+07	3.14 y	16:53	1.00	49.2		2.50	-	-	*	
13C-PCB-3	1.25e+08	3.15 y	16:52	1.13	105		2.50				105
PCB-4	3.26e+07	1.52 y	18:07	0.86	56.9		2.50	-	-	*	
13C-PCB-4	6.65e+07	1.56 y	18:05	0.63	99.5		2.50				99.5
PCB-15	5.05e+07	1.53 y	23:39	1.06	45.1		2.50	-	-	*	
13C-PCB-15	1.05e+08	1.58 y	23:38	0.91	109		2.50				109
PCB-19	3.66e+07	1.06 y	21:60	1.15	49.2		2.50	-	-	*	
13C-PCB-19	6.46e+07	1.08 y	21:59	0.56	108		2.50				108
13C-PCB-9	1.06e+08	1.57 y	19:46	-	76.5		2.50				
PCB-37	4.02e+07	1.07 y	30:19	1.12	45.9		2.50	-	-	*	
13C-PCB-37	7.80e+07	1.08 y	30:18	1.04	108		2.50				108
PCB-54	4.21e+07	0.79 y	25:32	1.07	47.6		2.50	-	-	*	
13C-PCB-54	8.23e+07	0.80 y	25:31	1.20	99.1		2.50				99.1
PCB-104	3.08e+07	1.58 y	29:57	1.19	46.2		2.50	-	-	*	
13C-PCB-104	5.58e+07	1.62 y	29:56	0.75	108		2.50				108
13C-PCB-28	8.75e+07	1.06 y	26:35	1.21	104		2.50				104
13C-PCB-52	6.94e+07	0.79 y	28:52	-	81.3		2.50				
PCB-81	3.37e+07	0.78 y	36:04	1.07	48.9		2.50	-	-	*	
13C-PCB-81	6.46e+07	0.79 y	36:03	1.03	106		2.50				106
PCB-77	3.36e+07	0.78 y	36:38	0.99	50.7		2.50	-	-	*	
13C-PCB-77	6.69e+07	0.77 y	36:37	1.03	109		2.50				109
PCB-155	3.33e+07	1.29 y	34:08	1.12	49.8		2.50	-	-	*	
13C-PCB-155	5.96e+07	1.29 y	34:06	0.96	105		2.50				105
13C-PCB-111	7.21e+07	1.58 y	36:11	1.14	107		2.50				107
13C-PCB-101	5.95e+07	1.59 y	34:33	-	79.5		2.50				
PCB-123	2.77e+07	1.56 y	38:16	1.20	41.6		2.50	-	-	*	
13C-PCB-123	5.54e+07	1.58 y	38:14	0.97	107		2.50				107
PCB-118	3.03e+07	1.58 y	38:26	0.96	52.2		2.50	-	-	*	
13C-PCB-118	6.02e+07	1.58 y	38:24	1.08	105		2.50				105
PCB-114	2.70e+07	1.57 y	39:02	1.05	45.9		2.50	-	-	*	
13C-PCB-114	5.63e+07	1.57 y	39:02	1.00	106		2.50				106
PCB-105	2.76e+07	1.59 y	39:51	1.00	49.5		2.50	-	-	*	
13C-PCB-105	5.58e+07	1.60 y	39:50	0.99	107		2.50				107
PCB-126	2.56e+07	1.61 y	41:60	1.01	46.7		2.50	-	-	*	
13C-PCB-126	5.42e+07	1.56 y	41:58	0.93	111		2.50				111
PCB-167	3.09e+07	1.24 y	43:20	0.98	49.8		2.50	-	-	*	
13C-PCB-167	6.35e+07	1.24 y	43:19	1.13	106		2.50				106
PCB-156	2.98e+07	1.22 y	44:34	1.03	47.6		2.50	-	-	*	
13C-PCB-156	6.12e+07	1.27 y	44:33	1.09	106		2.50				106
PCB-157	3.00e+07	1.24 y	44:49	0.95	50.5		2.50	-	-	*	
13C-PCB-157	6.24e+07	1.25 y	44:48	1.12	106		2.50				106
PCB-169	2.85e+07	1.23 y	46:43	0.95	49.9		2.50	-	-	*	
13C-PCB-169	6.02e+07	1.25 y	46:41	1.04	109		2.50				109
PCB-188	3.51e+07	1.06 y	39:37	1.17	45.9		2.50	-	-	*	
13C-PCB-188	6.54e+07	1.06 y	39:37	1.12	111		2.50				111
PCB-189	2.83e+07	1.08 y	48:22	1.13	49.9		2.50	-	-	*	
13C-PCB-189	5.02e+07	1.06 y	48:22	0.90	105		2.50				105
PCB-202	2.22e+07	0.89 y	44:44	1.02	52.2		2.50	-	-	*	
13C-PCB-202	4.17e+07	0.92 y	44:43	0.78	101		2.50				101
13C-PCB-178	4.09e+07	1.06 y	42:15	0.73	106		2.50				106
13C-PCB-138	5.29e+07	1.26 y	41:28	-	80.1		2.50				

FAL ID: ST071516Z1 Filename: 15JUL16Z Sam:1 Acquired: 15-JUL-16 08:51:12 ICal: DAILY209FAL4-7-15-16 2 of 2
Client ID: 1668 CS3 R150603A ConCal: ST071516Z1 EndCal: ST071516Z2
Results: GC Column: DB1 Amount: 1.000

PCB-205	2.26e+07	0.88	y	50:01	1.01	50.0		2.50	-	-	*	
13C-PCB-205	4.48e+07	0.92	y	49:59	1.27	107		2.50				107
PCB-208	2.36e+07	1.37	y	49:04	0.95	47.1	J	2.50	-	-	*	
13C-PCB-208	5.30e+07	0.80	y	49:04	1.57	102		2.50				102
PCB-206	1.84e+07	1.33	y	51:11	0.96	45.4		2.50	-	-	*	
13C-PCB-206	4.23e+07	0.77	y	51:11	1.11	115		2.50				115
PCB-209	2.97e+07	1.17	y	52:22	1.07	52.9		2.50	-	-	*	
13C-PCB-209	5.25e+07	1.19	y	52:21	1.61	98.7		2.50				98.7
13C-PCB-194	3.30e+07	0.92	y	49:45	-	80.7		2.50				

Analyst: [illegible] Date: 7/15/16

USEPA - ITD

FORM 4A
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 7/15/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 15JUL16Z Sam:5 Analysis Date: 15-JUL-16 12:52:20

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
PCB-1	M/M+2	3.17	2.66-3.60	y	49.0	37.5 - 62.5
PCB-3	M/M+2	3.13	2.66-3.60	y	49.7	37.5 - 62.5
PCB-4	M/M+2	1.53	1.33-1.79	y	61.6	37.5 - 62.5
PCB-15	M/M+2	1.54	1.33-1.79	y	45.0	37.5 - 62.5
PCB-19	M/M+2	1.07	0.88-1.20	y	49.4	37.5 - 62.5
PCB-37	M/M+2	1.06	0.88-1.20	y	44.8	37.5 - 62.5
PCB-54	M/M+2	0.77	0.65-0.89	y	48.0	37.5 - 62.5
PCB-77	M/M+2	0.77	0.65-0.89	y	49.7	37.5 - 62.5
PCB-81	M/M+2	0.79	0.65-0.89	y	49.3	37.5 - 62.5
PCB-104	M+2/M+4	1.59	1.32-1.78	y	47.0	37.5 - 62.5
PCB-105	M+2/M+4	1.59	1.32-1.78	y	46.9	37.5 - 62.5
PCB-114	M+2/M+4	1.60	1.32-1.78	y	45.3	37.5 - 62.5
PCB-118	M+2/M+4	1.62	1.32-1.78	y	49.4	37.5 - 62.5
PCB-123	M+2/M+4	1.60	1.32-1.78	y	40.4	37.5 - 62.5
PCB-126	M+2/M+4	1.67	1.32-1.78	y	45.0	37.5 - 62.5
PCB-155	M+2/M+4	1.29	1.05-1.43	y	49.8	37.5 - 62.5
PCB-156	M+2/M+4	1.24	1.05-1.43	y	47.7	37.5 - 62.5
PCB-157	M+2/M+4	1.20	1.05-1.43	y	49.8	37.5 - 62.5
PCB-167	M+2/M+4	1.25	1.05-1.43	y	49.6	37.5 - 62.5
PCB-169	M+2/M+4	1.24	1.05-1.43	y	50.6	37.5 - 62.5
PCB-188	M+2/M+4	1.07	0.89-1.21	y	45.6	37.5 - 62.5
PCB-189	M+2/M+4	1.05	0.89-1.21	y	50.8	37.5 - 62.5
PCB-202	M+2/M+4	0.90	0.76-1.02	y	52.2	37.5 - 62.5
PCB-205	M+2/M+4	0.90	0.76-1.02	y	49.0	37.5 - 62.5
PCB-206	M+4/M+6	1.37	1.13-1.53	y	46.7	37.5 - 62.5
PCB-208	M+4/M+6	1.36	1.13-1.53	y	46.4	37.5 - 62.5
PCB-209	M+4/M+6	1.16	0.99-1.33	y	51.0	37.5 - 62.5

Analyst: [signature] Date: 7/15/16

USEPA - ITD

FORM 4B
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 7/15/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 15JUL16Z Sam:5 Analysis Date: 15-JUL-16 12:52:20

	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
LABELED COMPOUNDS						
13C-PCB-1	M/M+2	3.16	2.66-3.60	y	109	50.0 - 145
13C-PCB-3	M/M+2	3.17	2.66-3.60	y	104	50.0 - 145
13C-PCB-4	M/M+2	1.58	1.33-1.79	y	104	50.0 - 145
13C-PCB-15	M/M+2	1.60	1.33-1.79	y	101	50.0 - 145
13C-PCB-19	M/M+2	1.13	0.88-1.20	y	102	50.0 - 145
13C-PCB-37	M/M+2	1.09	0.88-1.20	y	94.9	50.0 - 145
13C-PCB-54	M/M+2	0.79	0.65-0.89	y	109	50.0 - 145
13C-PCB-77	M/M+2	0.78	0.65-0.89	y	106	50.0 - 145
13C-PCB-81	M/M+2	0.79	0.65-0.89	y	101	50.0 - 145
13C-PCB-104	M+2/M+4	1.61	1.32-1.78	y	112	50.0 - 145
13C-PCB-105	M+2/M+4	1.56	1.32-1.78	y	111	50.0 - 145
13C-PCB-114	M+2/M+4	1.52	1.32-1.78	y	108	50.0 - 145
13C-PCB-118	M+2/M+4	1.52	1.32-1.78	y	107	50.0 - 145
13C-PCB-123	M+2/M+4	1.56	1.32-1.78	y	108	50.0 - 145
13C-PCB-126	M+2/M+4	1.57	1.32-1.78	y	106	50.0 - 145
13C-PCB-155	M+2/M+4	1.28	1.05-1.43	y	107	50.0 - 145
13C-PCB-156	M+2/M+4	1.24	1.05-1.43	y	105	50.0 - 145
13C-PCB-157	M+2/M+4	1.25	1.05-1.43	y	109	50.0 - 145
13C-PCB-167	M+2/M+4	1.25	1.05-1.43	y	105	50.0 - 145
13C-PCB-169	M+2/M+4	1.23	1.05-1.43	y	103	50.0 - 145
13C-PCB-188	M+2/M+4	1.07	0.89-1.21	y	114	50.0 - 145
13C-PCB-189	M+2/M+4	1.09	0.89-1.21	y	105	50.0 - 145
13C-PCB-202	M+2/M+4	0.92	0.76-1.02	y	110	50.0 - 145
13C-PCB-205	M+2/M+4	0.91	0.76-1.02	y	107	50.0 - 145
13C-PCB-206	M+2/M+4	0.77	0.65-0.89	y	106	50.0 - 145
13C-PCB-208	M+2/M+4	0.79	0.65-0.89	y	109	50.0 - 145
13C-PCB-209	M+4/M+6	1.20	0.99-1.33	y	99.9	50.0 - 145
CLEANUP STANDARDS						
13C-PCB-28	M/M+2	1.05	0.88-1.20	y	100	65.0 - 135
13C-PCB-111	M+2/M+4	1.56	1.32-1.78	y	108	75.0 - 125
13C-PCB-178	M+2/M+4	1.06	0.89-1.21	y	107	75.0 - 125

Analyst: [signature] Date: 7/15/16

FAL ID: ST071516Z2 Filename: 15JUL16Z Sam:5 Acquired: 15-JUL-16 12:52:20 ICal: DAILY209FAL4-7-15-16
Client ID: 1668 CS3 R150603A ConCal: ST071516Z1 EndCal: ST071516Z2
Results: GC Column: DB1 Amount: 1.000

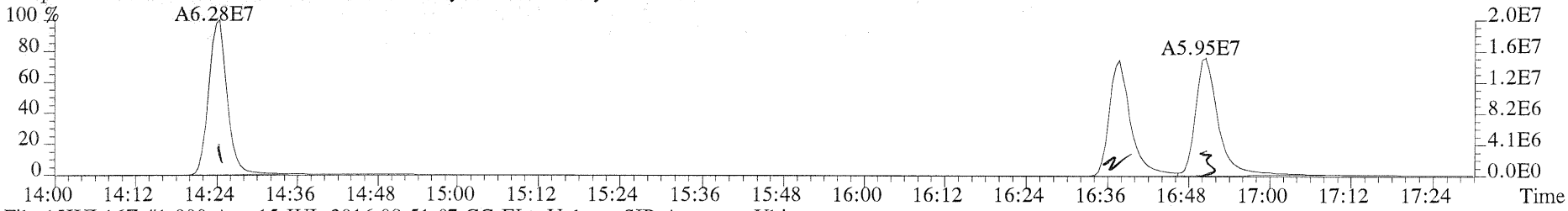
Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL	Rec
PCB-1	7.76e+07	3.17 y	14:24	1.01	49.0		2.50	-	-	*	
13C-PCB-1	1.58e+08	3.16 y	14:23	1.18	109		2.50				109
PCB-3	7.11e+07	3.13 y	16:50	1.00	49.7		2.50	-	-	*	
13C-PCB-3	1.43e+08	3.17 y	16:49	1.13	104		2.50				104
PCB-4	4.21e+07	1.53 y	18:03	0.86	61.6		2.50	-	-	*	
13C-PCB-4	7.96e+07	1.58 y	18:02	0.63	104		2.50				104
PCB-15	5.33e+07	1.54 y	23:37	1.06	45.0		2.50	-	-	*	
13C-PCB-15	1.11e+08	1.60 y	23:35	0.91	101		2.50				101
PCB-19	3.97e+07	1.07 y	21:55	1.15	49.4		2.50	-	-	*	
13C-PCB-19	6.98e+07	1.13 y	21:54	0.56	102		2.50				102
13C-PCB-9	1.22e+08	1.57 y	19:43	-	87.5		2.50				
PCB-37	3.56e+07	1.06 y	30:15	1.12	44.8		2.50	-	-	*	
13C-PCB-37	7.08e+07	1.09 y	30:14	1.04	94.9		2.50				94.9
PCB-54	4.84e+07	0.77 y	25:27	1.07	48.0		2.50	-	-	*	
13C-PCB-54	9.38e+07	0.79 y	25:26	1.20	109		2.50				109
PCB-104	3.38e+07	1.59 y	29:54	1.19	47.0		2.50	-	-	*	
13C-PCB-104	6.03e+07	1.61 y	29:53	0.75	112		2.50				112
13C-PCB-28	8.74e+07	1.05 y	26:33	1.21	100		2.50				100
13C-PCB-52	7.19e+07	0.79 y	28:47	-	84.2		2.50				
PCB-81	3.39e+07	0.79 y	36:00	1.07	49.3		2.50	-	-	*	
13C-PCB-81	6.44e+07	0.79 y	35:59	1.03	101		2.50				101
PCB-77	3.32e+07	0.77 y	36:34	0.99	49.7		2.50	-	-	*	
13C-PCB-77	6.73e+07	0.78 y	36:33	1.03	106		2.50				106
PCB-155	3.56e+07	1.29 y	34:03	1.12	49.8		2.50	-	-	*	
13C-PCB-155	6.37e+07	1.28 y	34:01	0.96	107		2.50				107
13C-PCB-111	7.62e+07	1.56 y	36:06	1.14	108		2.50				108
13C-PCB-101	6.20e+07	1.60 y	34:28	-	82.8		2.50				
PCB-123	2.76e+07	1.60 y	38:11	1.20	40.4		2.50	-	-	*	
13C-PCB-123	5.69e+07	1.56 y	38:10	0.97	108		2.50				108
PCB-118	2.98e+07	1.62 y	38:21	0.96	49.4		2.50	-	-	*	
13C-PCB-118	6.26e+07	1.52 y	38:20	1.08	107		2.50				107
PCB-114	2.76e+07	1.60 y	38:58	1.05	45.3		2.50	-	-	*	
13C-PCB-114	5.82e+07	1.52 y	38:58	1.00	108		2.50				108
PCB-105	2.77e+07	1.59 y	39:47	1.00	46.9		2.50	-	-	*	
13C-PCB-105	5.90e+07	1.56 y	39:45	0.99	111		2.50				111
PCB-126	2.41e+07	1.67 y	41:55	1.01	45.0		2.50	-	-	*	
13C-PCB-126	5.29e+07	1.57 y	41:55	0.93	106		2.50				106
PCB-167	3.12e+07	1.25 y	43:16	0.98	49.6		2.50	-	-	*	
13C-PCB-167	6.45e+07	1.25 y	43:14	1.13	105		2.50				105
PCB-156	3.02e+07	1.24 y	44:30	1.03	47.7		2.50	-	-	*	
13C-PCB-156	6.17e+07	1.24 y	44:28	1.09	105		2.50				105
PCB-157	3.10e+07	1.20 y	44:45	0.95	49.8		2.50	-	-	*	
13C-PCB-157	6.55e+07	1.25 y	44:43	1.12	109		2.50				109
PCB-169	2.79e+07	1.24 y	46:38	0.95	50.6		2.50	-	-	*	
13C-PCB-169	5.81e+07	1.23 y	46:38	1.04	103		2.50				103
PCB-188	3.67e+07	1.07 y	39:32	1.17	45.6		2.50	-	-	*	
13C-PCB-188	6.88e+07	1.07 y	39:30	1.12	114		2.50				114
PCB-189	2.94e+07	1.05 y	48:19	1.13	50.8		2.50	-	-	*	
13C-PCB-189	5.13e+07	1.09 y	48:17	0.90	105		2.50				105
PCB-202	2.47e+07	0.90 y	44:38	1.02	52.2		2.50	-	-	*	
13C-PCB-202	4.65e+07	0.92 y	44:38	0.78	110		2.50				110
13C-PCB-178	4.22e+07	1.06 y	42:10	0.73	107		2.50				107
13C-PCB-138	5.40e+07	1.26 y	41:22	-	81.8		2.50				

FAL ID: ST071516Z2 Filename: 15JUL16Z Sam:5 Acquired: 15-JUL-16 12:52:20 ICal: DAILY209FAL4-7-15-16 2 of 2
Client ID: 1668 CS3 R150603A ConCal: ST071516Z1 EndCal: ST071516Z2
Results: GC Column: DB1 Amount: 1.000

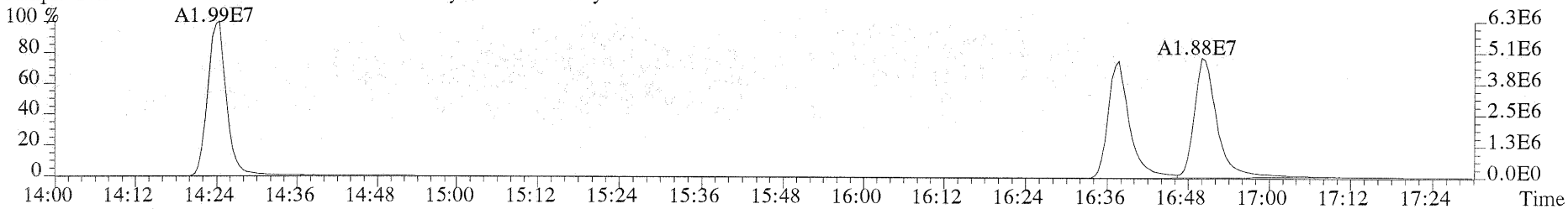
PCB-205	2.35e+07	0.90	y	49:57	1.01	49.0		2.50	-	-	*	
13C-PCB-205	4.75e+07	0.91	y	49:57	1.27	107		2.50				107
PCB-208	2.61e+07	1.36	y	49:02	0.95	46.4	J	2.50	-	-	*	
13C-PCB-208	5.95e+07	0.79	y	49:00	1.57	109		2.50				109
PCB-206	1.84e+07	1.37	y	51:09	0.96	46.7		2.50	-	-	*	
13C-PCB-206	4.12e+07	0.77	y	51:07	1.11	106		2.50				106
PCB-209	3.07e+07	1.16	y	52:18	1.07	51.0		2.50	-	-	*	
13C-PCB-209	5.61e+07	1.20	y	52:18	1.61	99.9		2.50				99.9
13C-PCB-194	3.49e+07	0.91	y	49:41	-	85.3		2.50				

Analyst: Date: 7/15/16

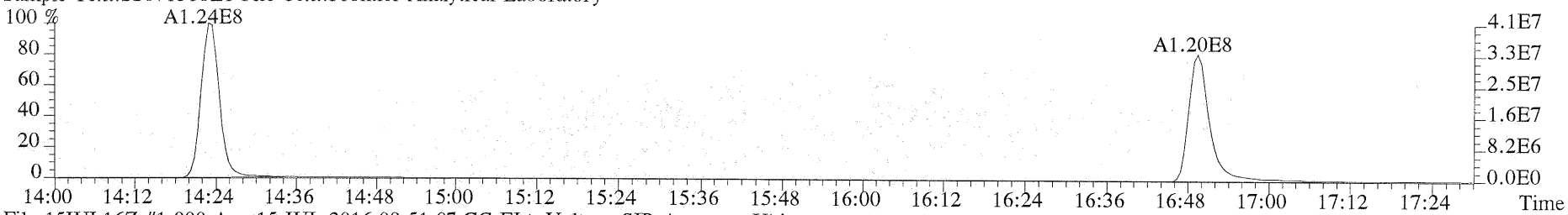
File:15JUL16Z #1-900 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



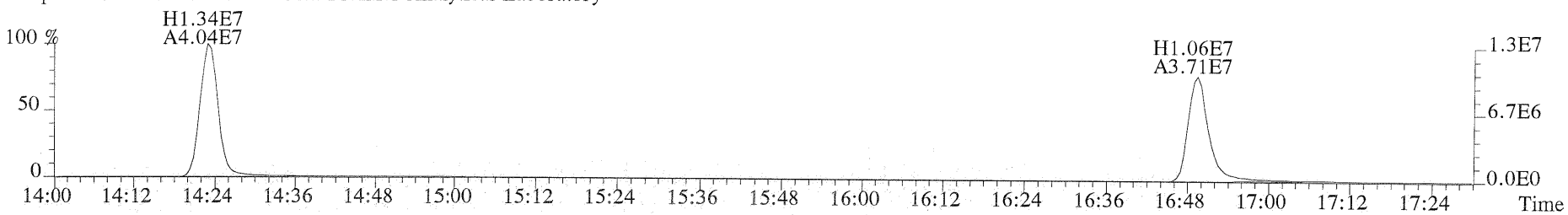
File:15JUL16Z #1-900 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



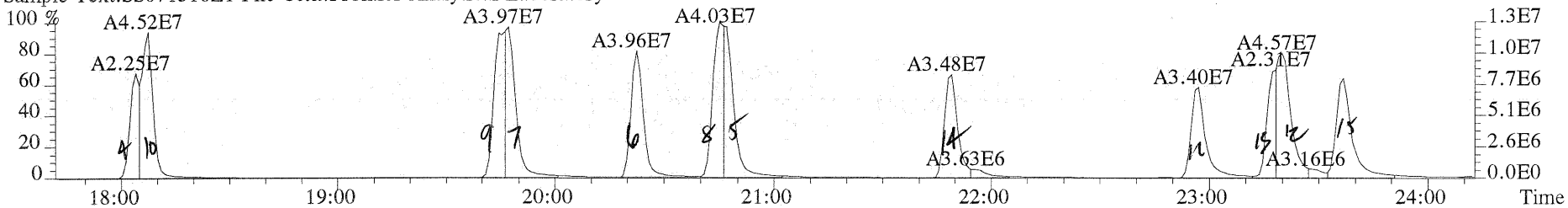
File:15JUL16Z #1-900 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



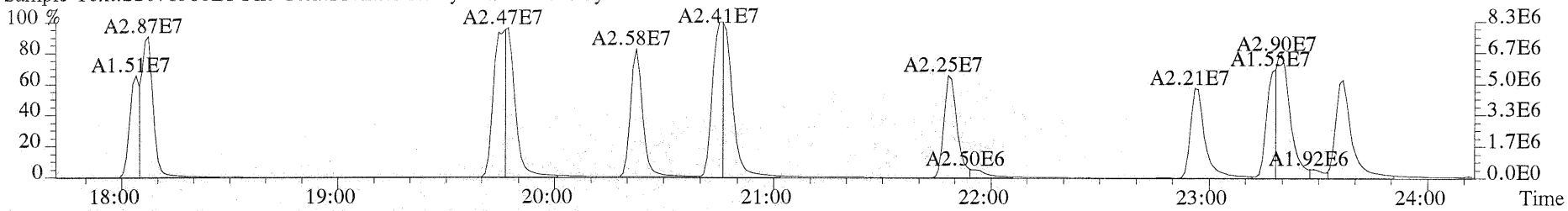
File:15JUL16Z #1-900 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



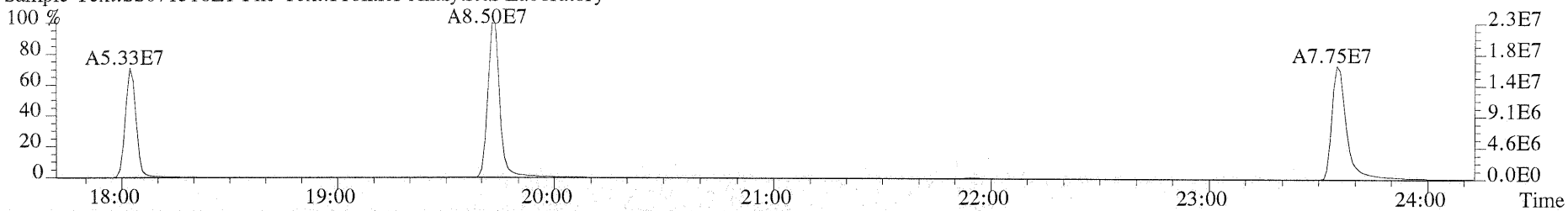
File:15JUL16Z #1-498 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



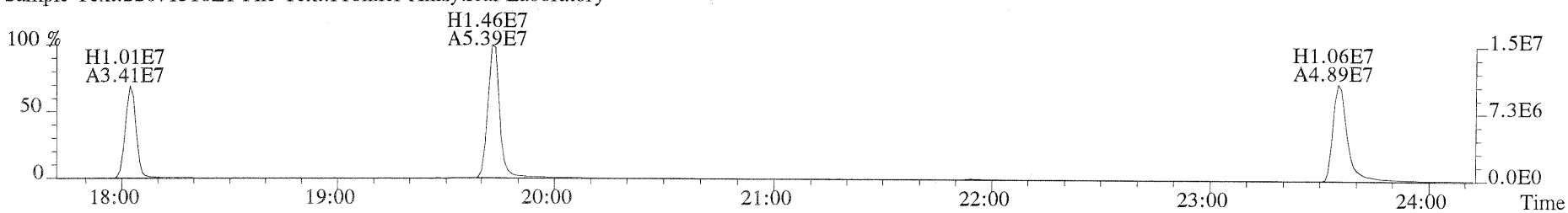
File:15JUL16Z #1-498 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



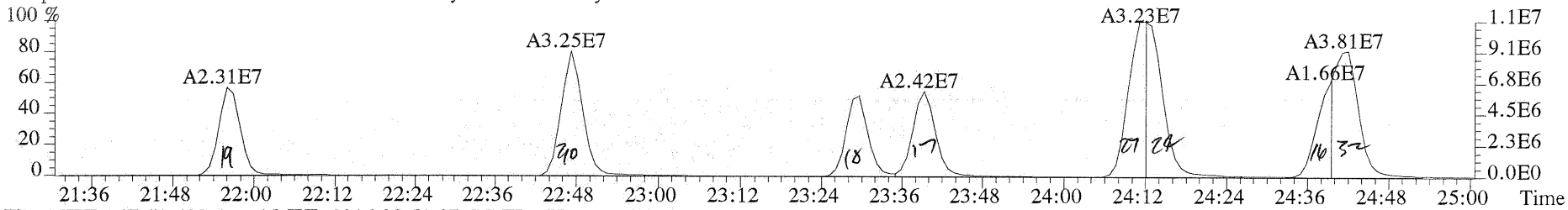
File:15JUL16Z #1-498 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



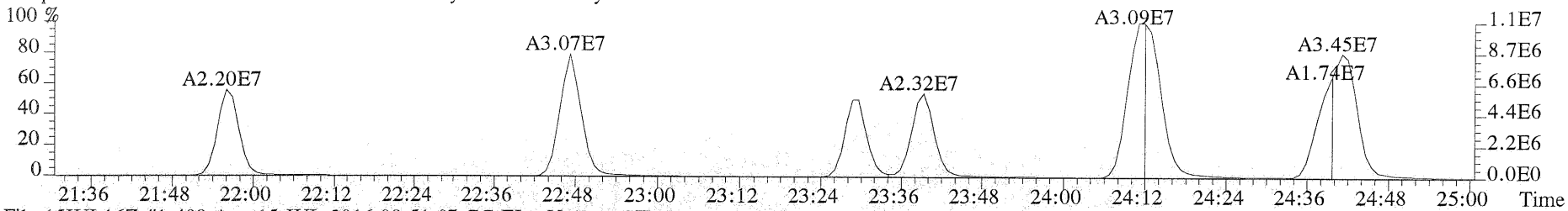
File:15JUL16Z #1-498 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



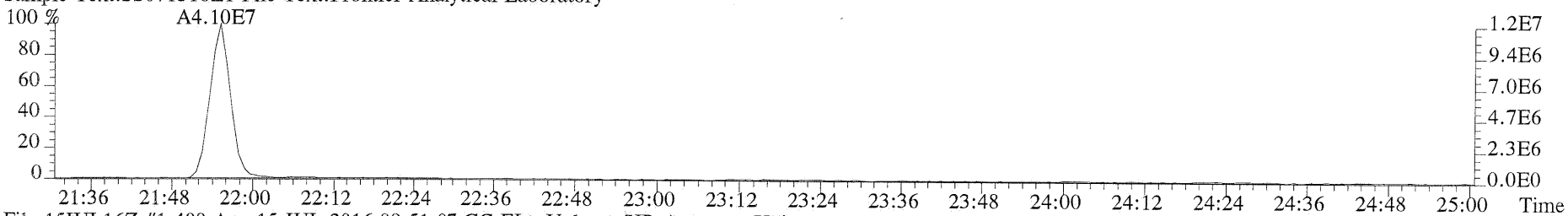
File:15JUL16Z #1-498 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



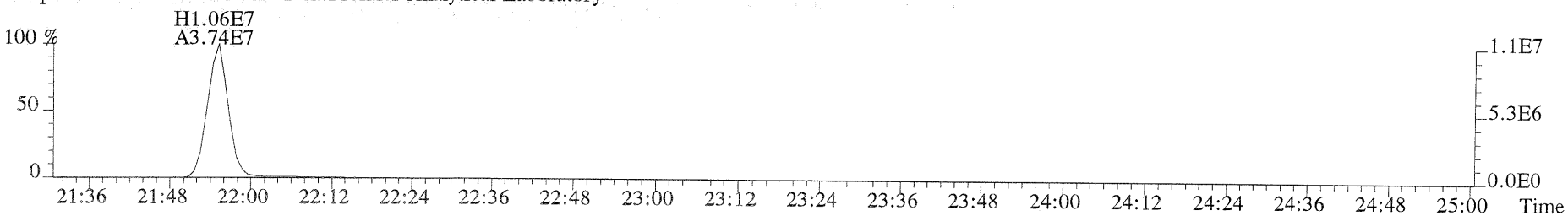
File:15JUL16Z #1-498 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



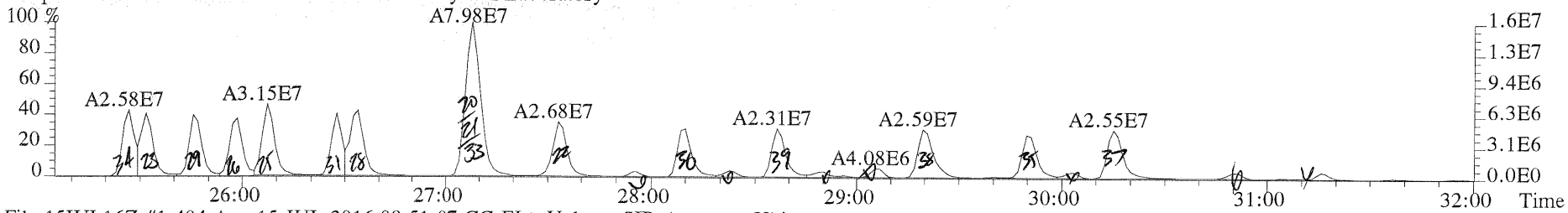
File:15JUL16Z #1-498 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



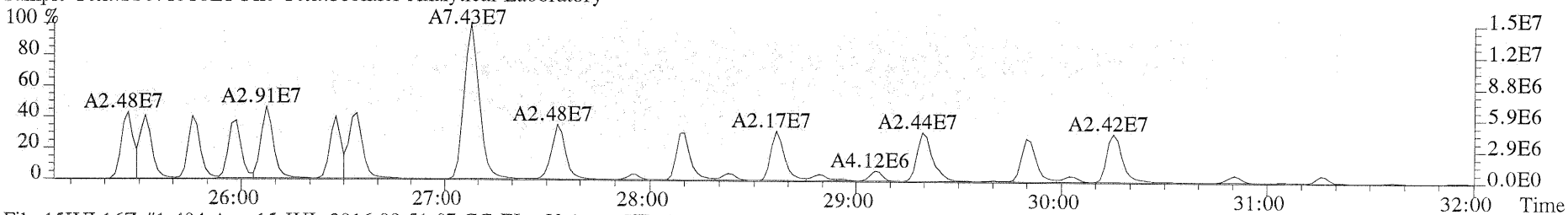
File:15JUL16Z #1-498 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:2 F:2 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



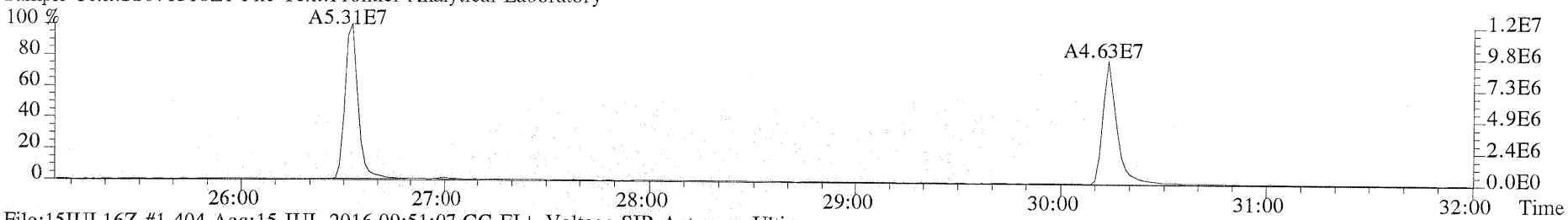
File:15JUL16Z #1-404 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:2 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



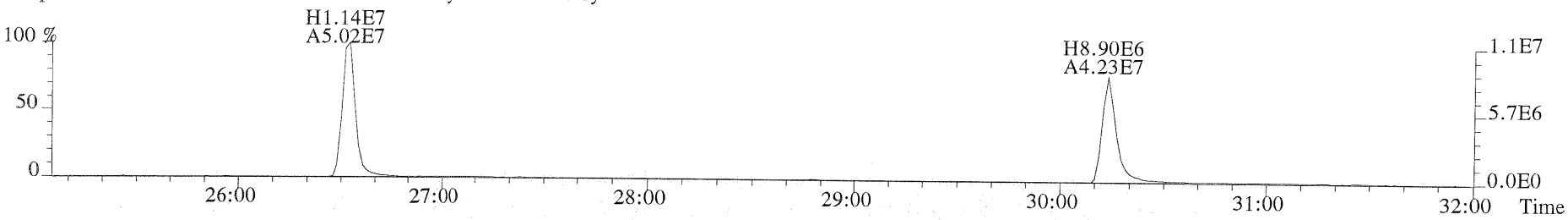
File:15JUL16Z #1-404 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:2 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



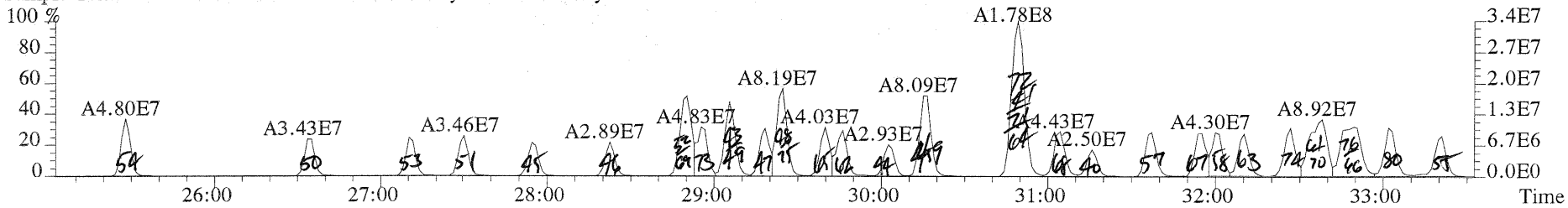
File:15JUL16Z #1-404 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:2 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



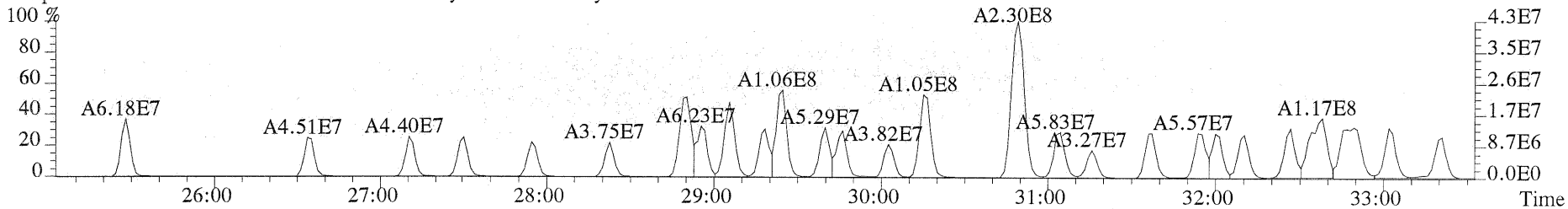
File:15JUL16Z #1-404 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:2 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



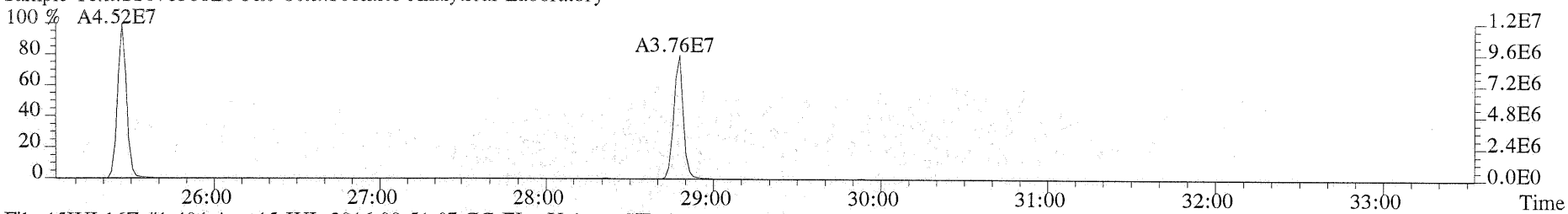
File:15JUL16Z #1-404 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



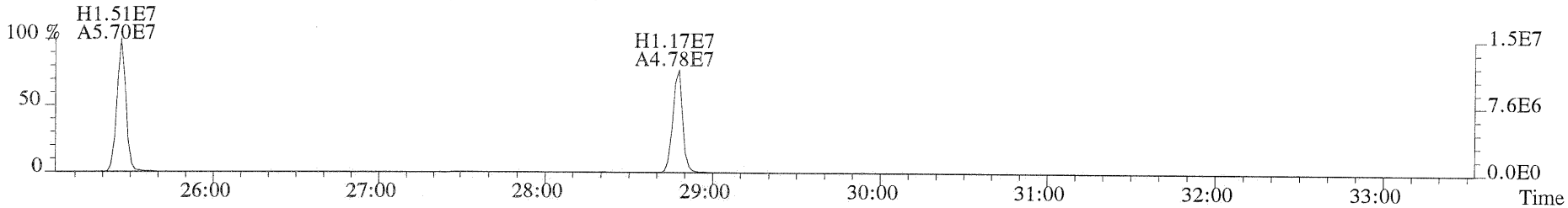
File:15JUL16Z #1-404 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



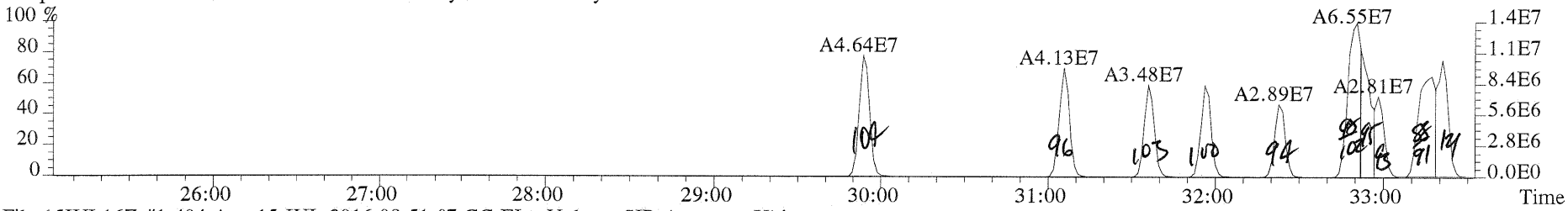
File:15JUL16Z #1-404 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



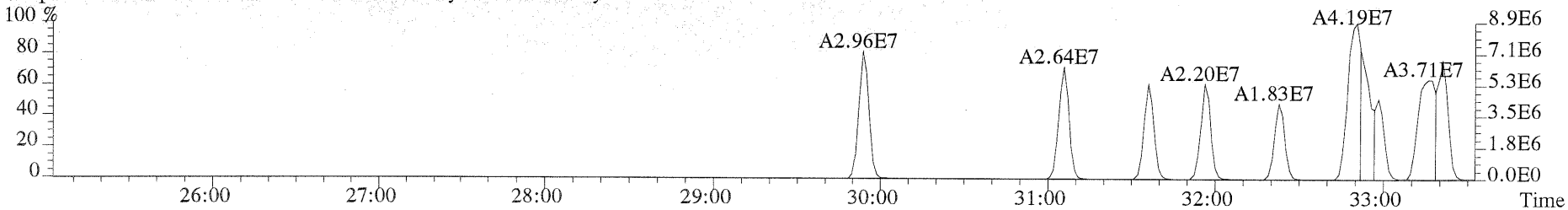
File:15JUL16Z #1-404 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



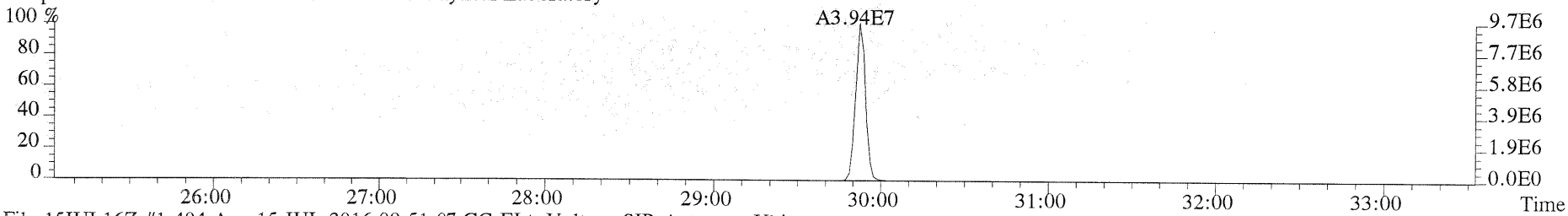
File:15JUL16Z #1-404 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



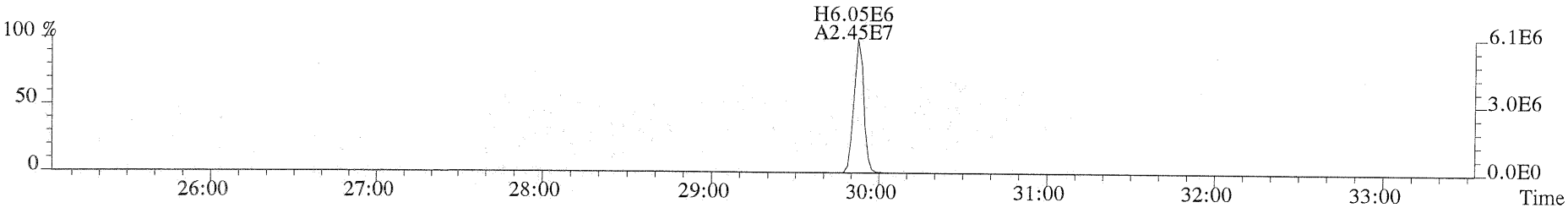
File:15JUL16Z #1-404 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



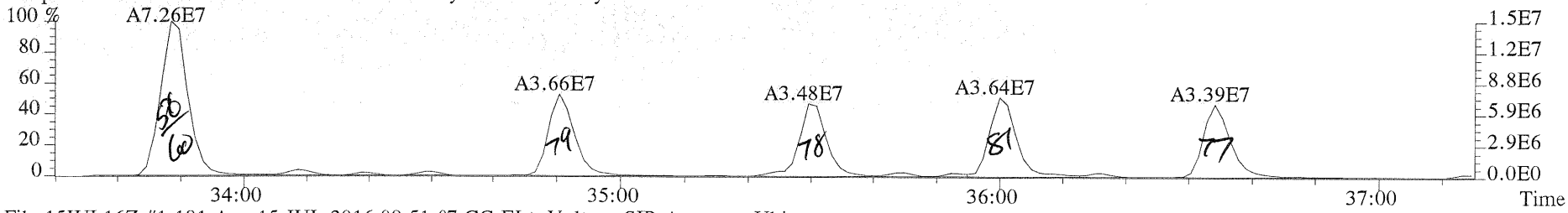
File:15JUL16Z #1-404 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



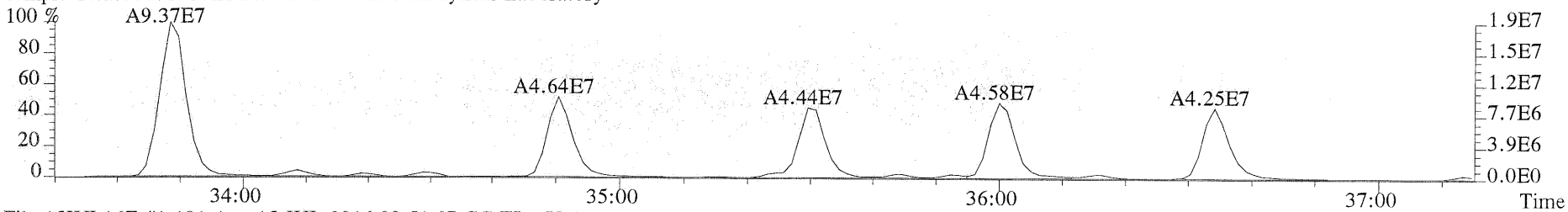
File:15JUL16Z #1-404 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:2 F:3 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



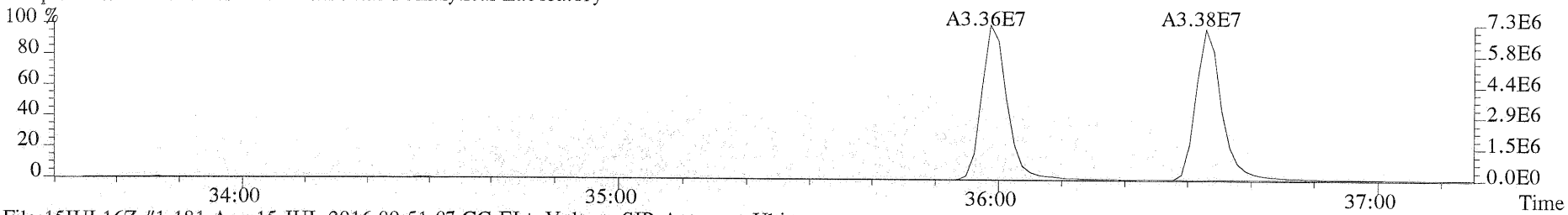
File:15JUL16Z #1-181 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



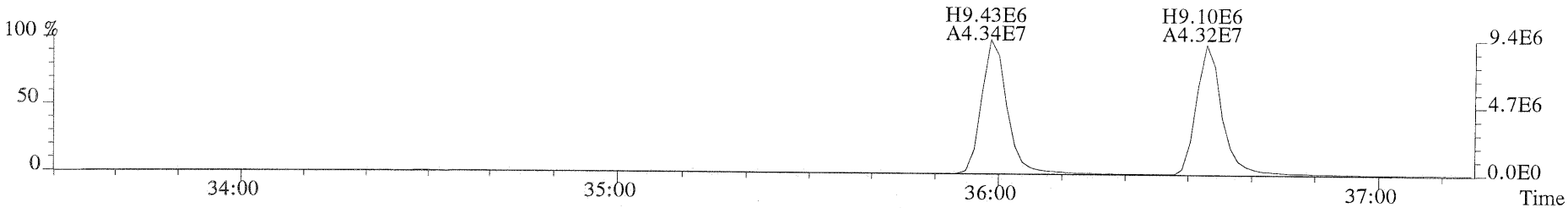
File:15JUL16Z #1-181 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



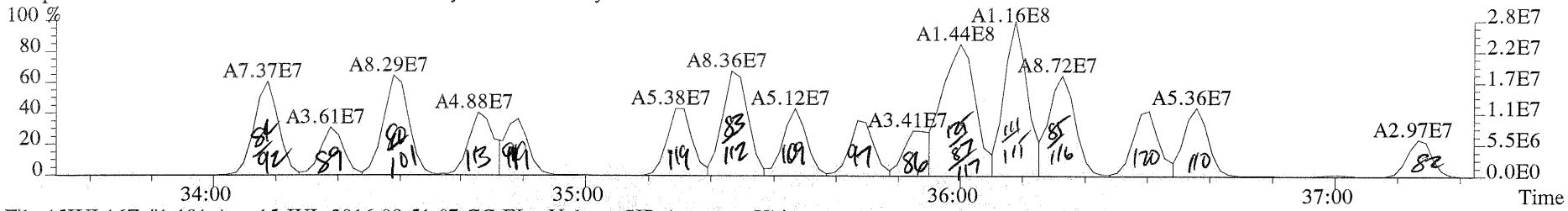
File:15JUL16Z #1-181 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



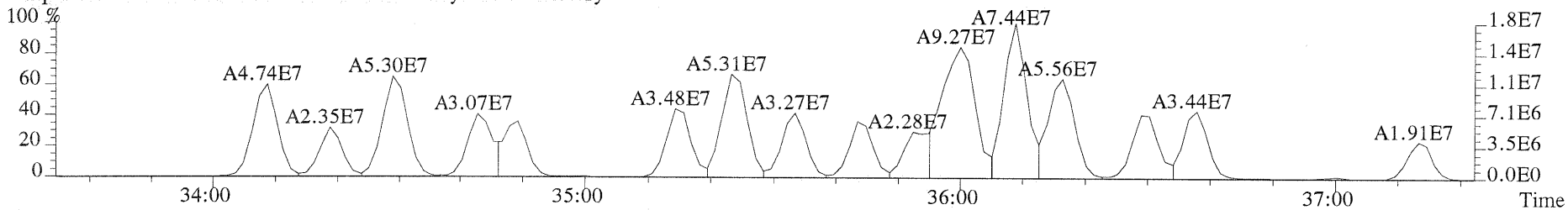
File:15JUL16Z #1-181 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



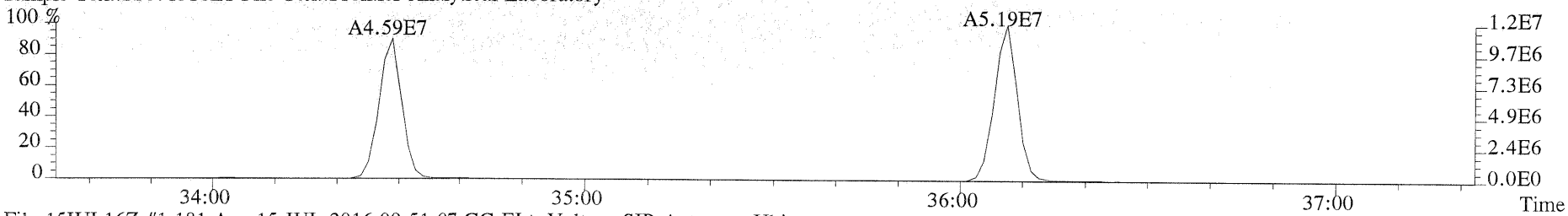
File:15JUL16Z #1-181 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



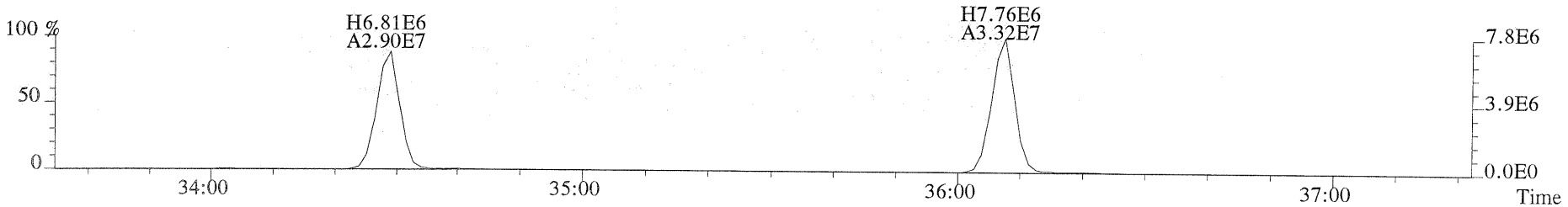
File:15JUL16Z #1-181 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



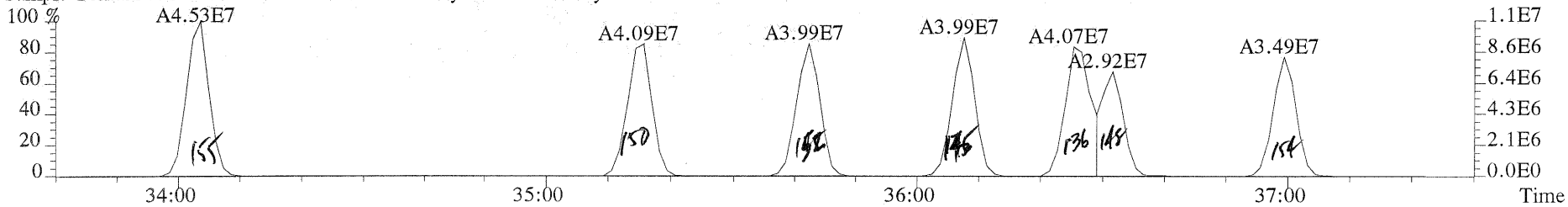
File:15JUL16Z #1-181 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



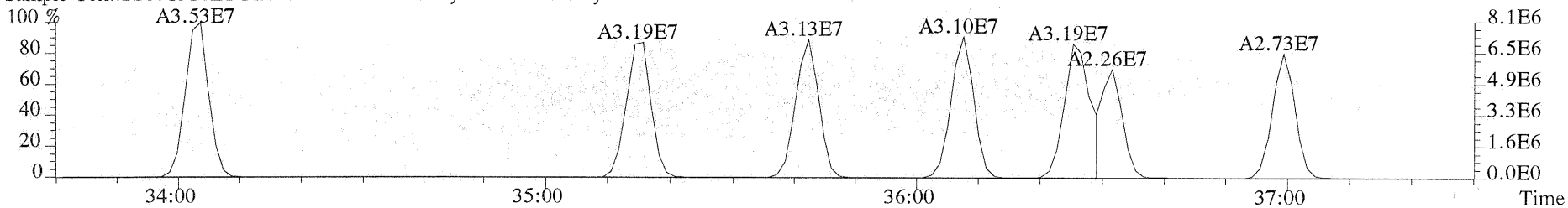
File:15JUL16Z #1-181 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:2 F:4 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



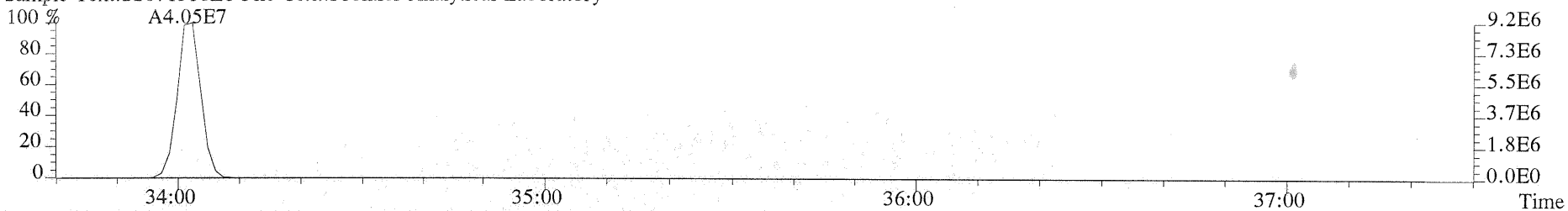
File:15JUL16Z #1-181 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



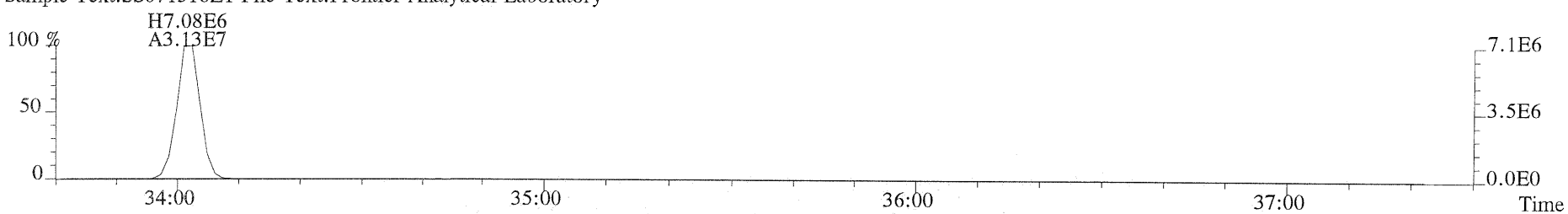
File:15JUL16Z #1-181 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



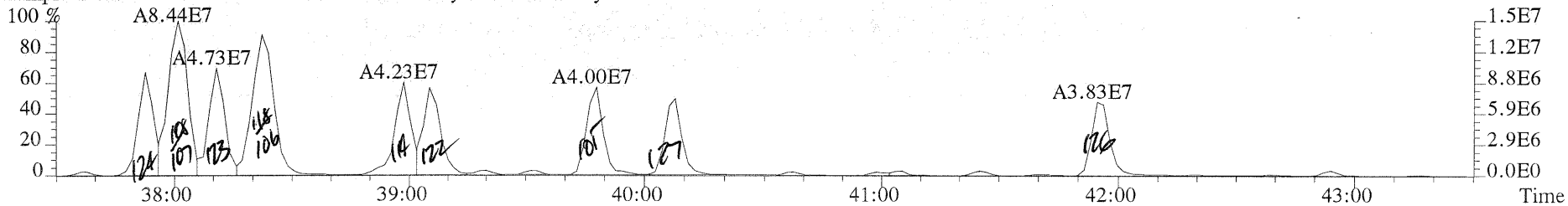
File:15JUL16Z #1-181 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



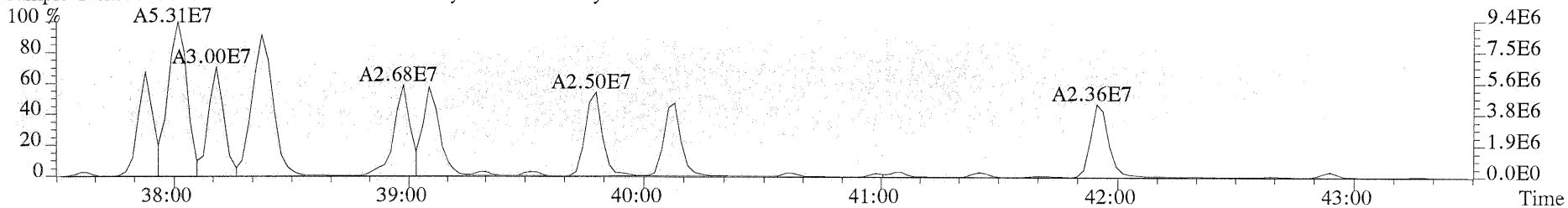
File:15JUL16Z #1-181 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:2 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



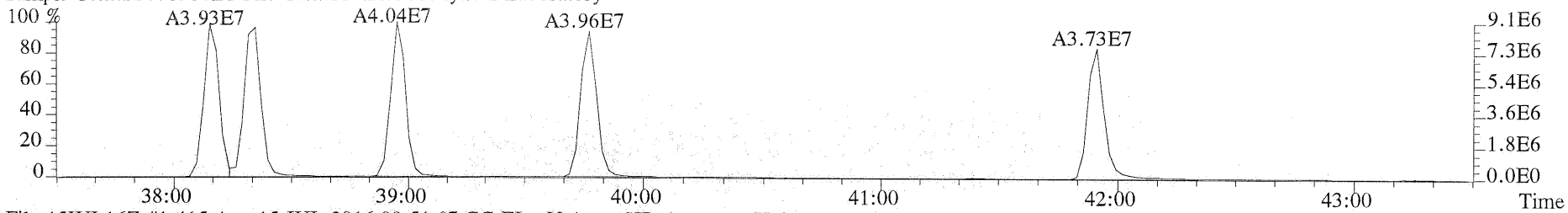
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



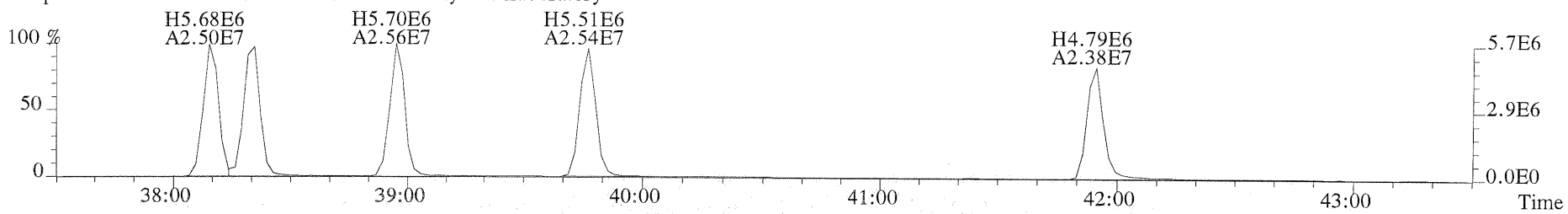
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



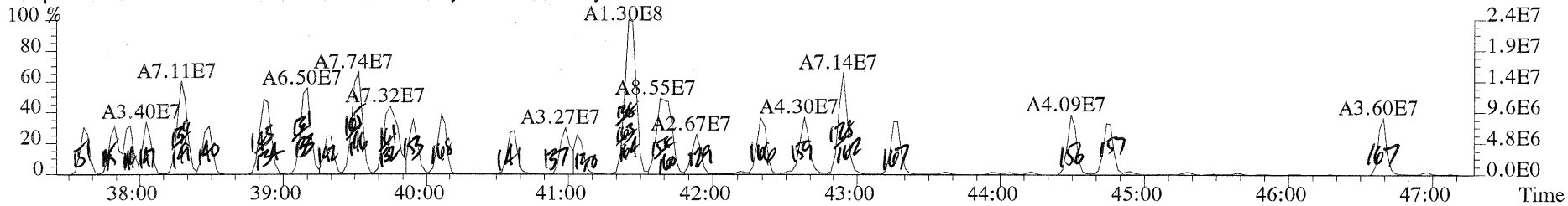
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



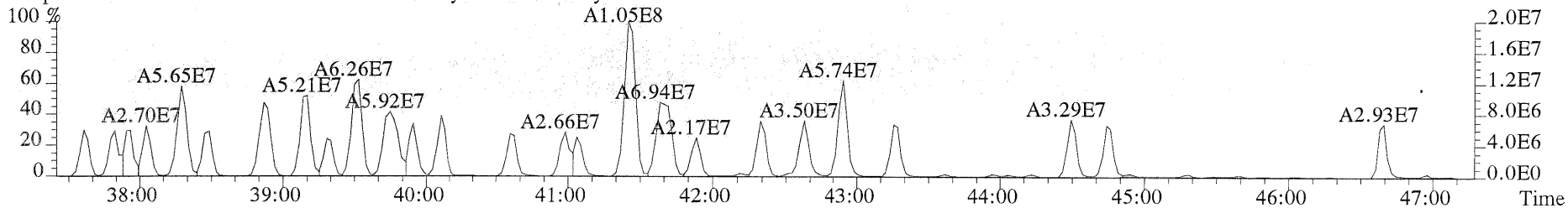
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



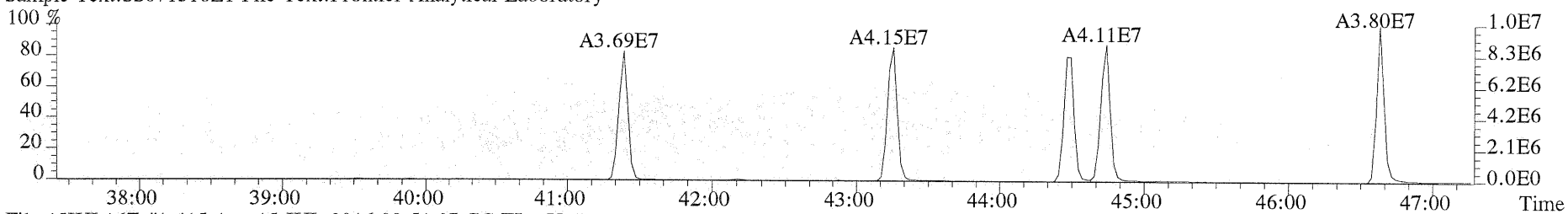
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



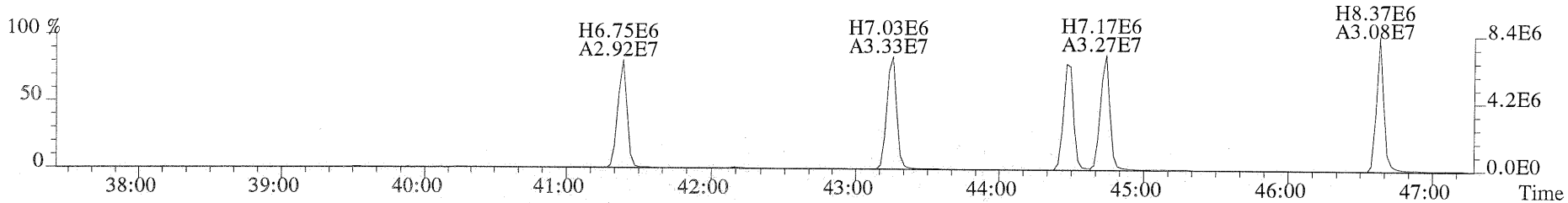
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



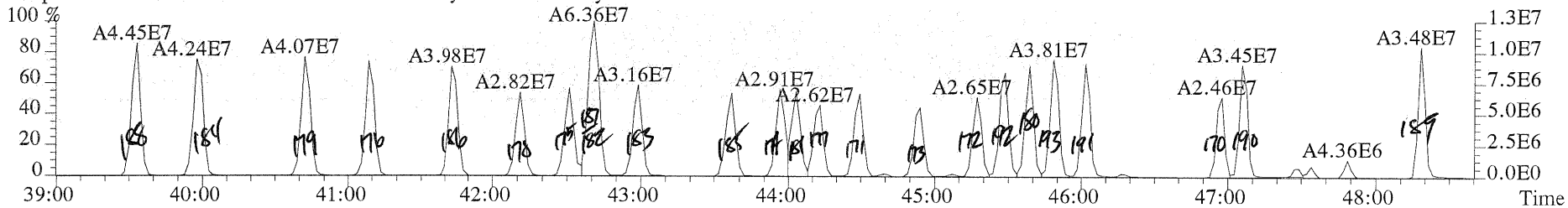
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



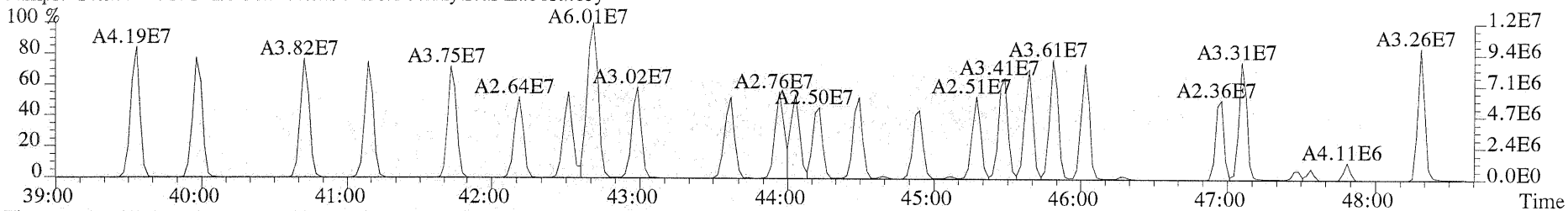
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:2 F:5 BSUB(10000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



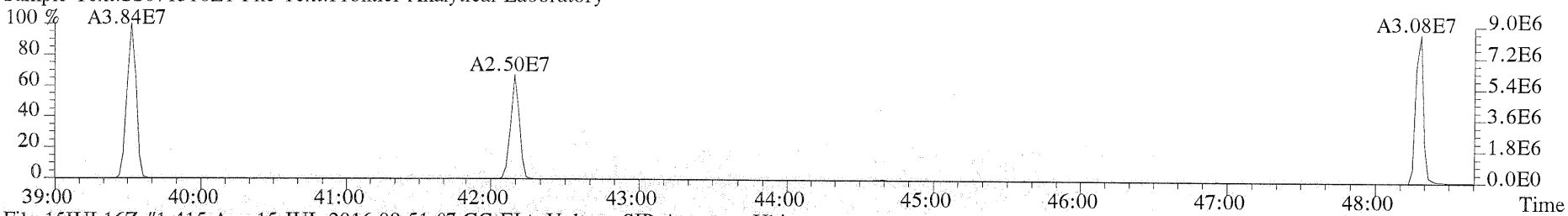
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
393.8025 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



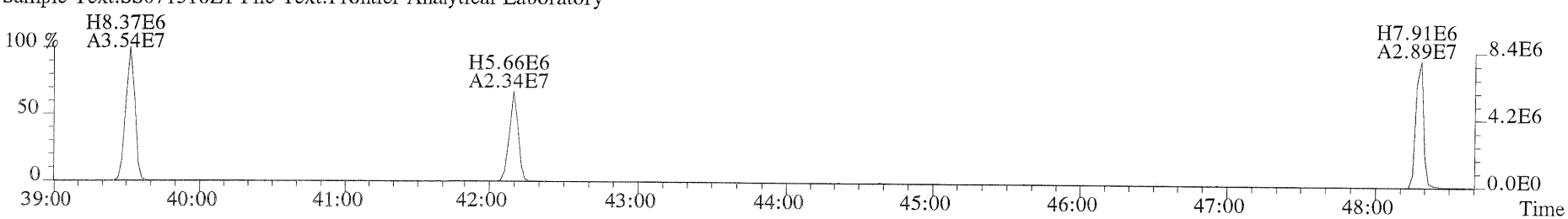
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



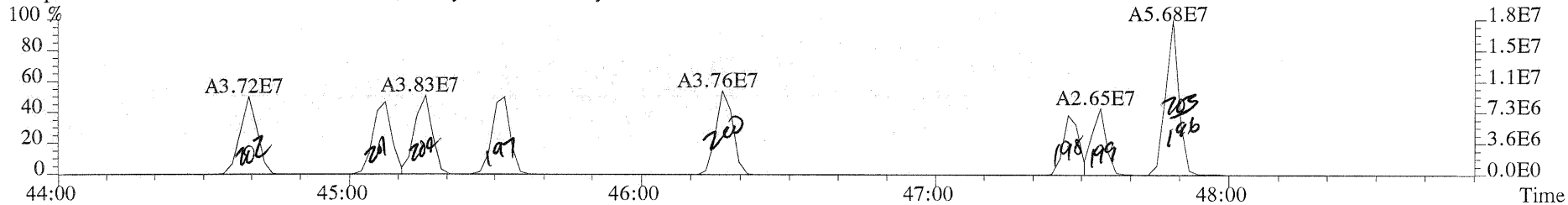
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
405.8428 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



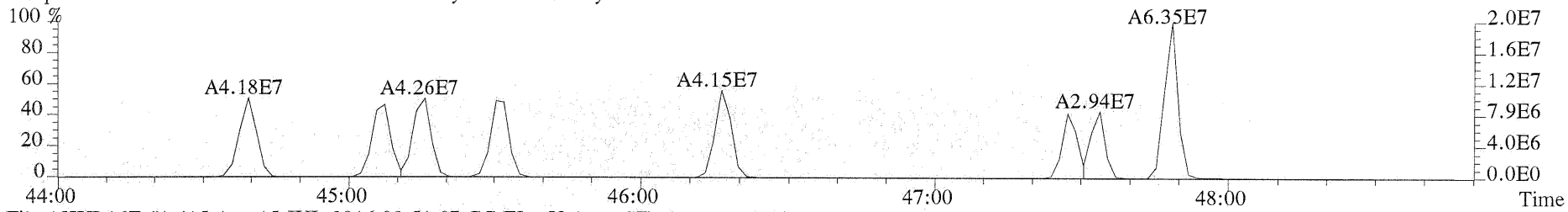
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
407.8398 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory

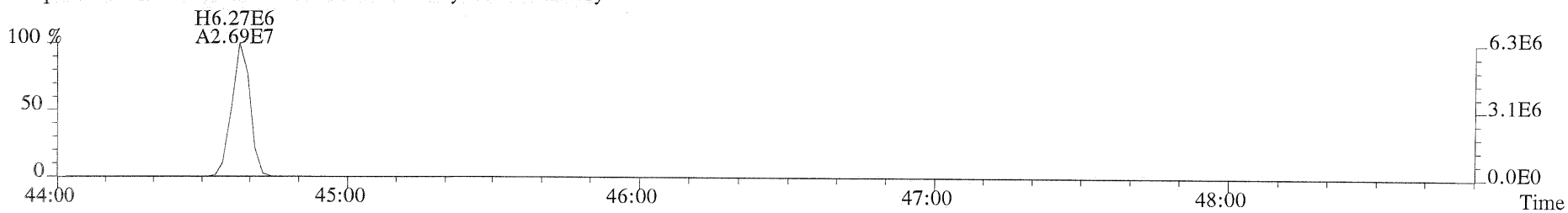


File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory

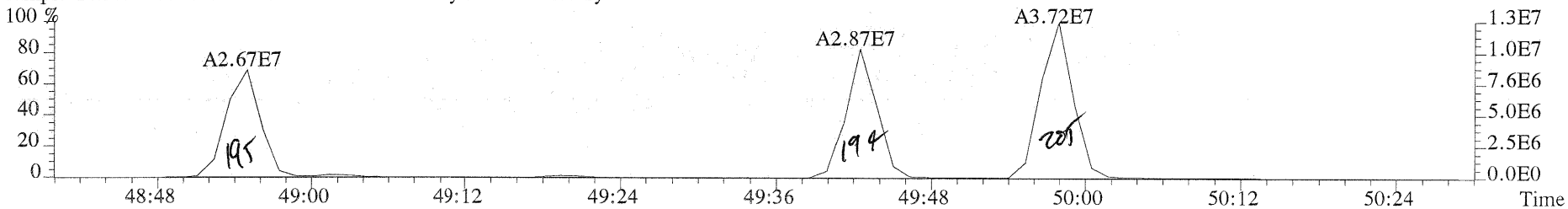


File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory

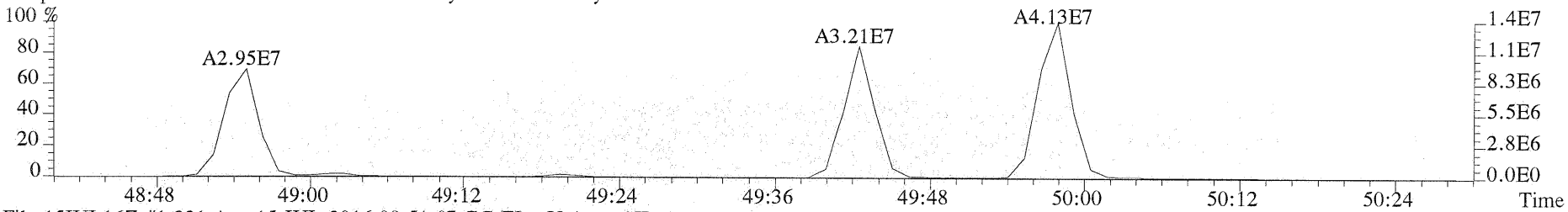
File:15JUL16Z #1-415 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:2 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



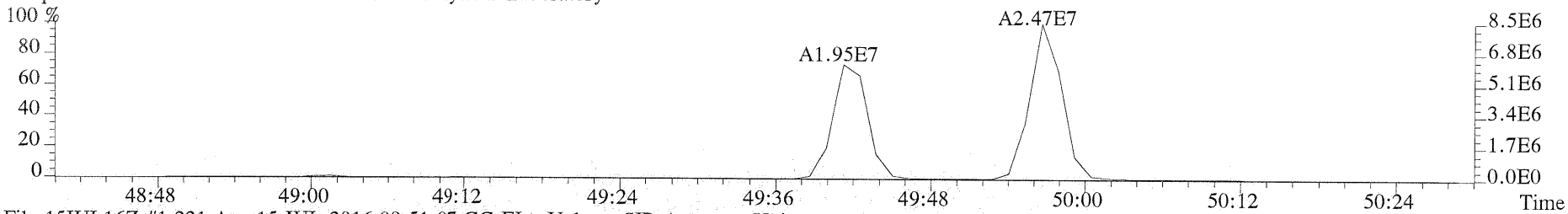
File:15JUL16Z #1-221 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



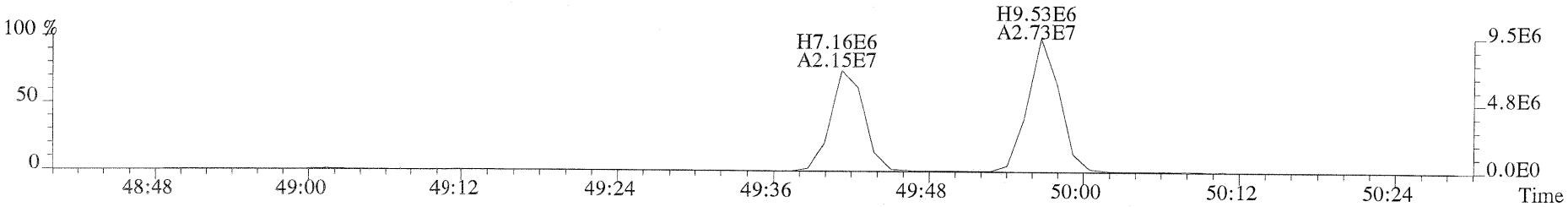
File:15JUL16Z #1-221 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



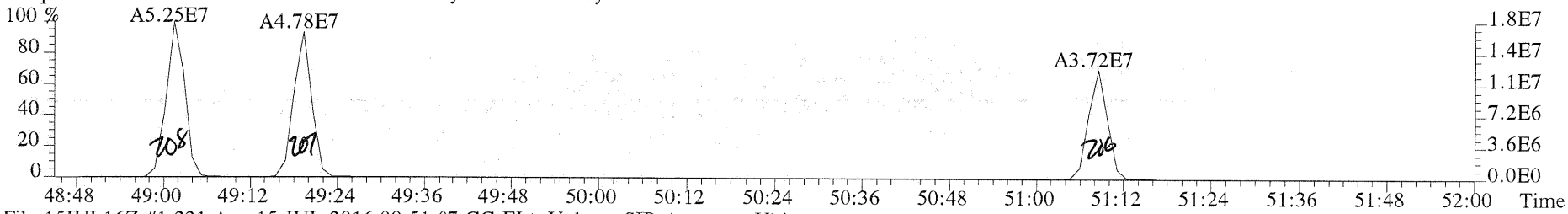
File:15JUL16Z #1-221 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



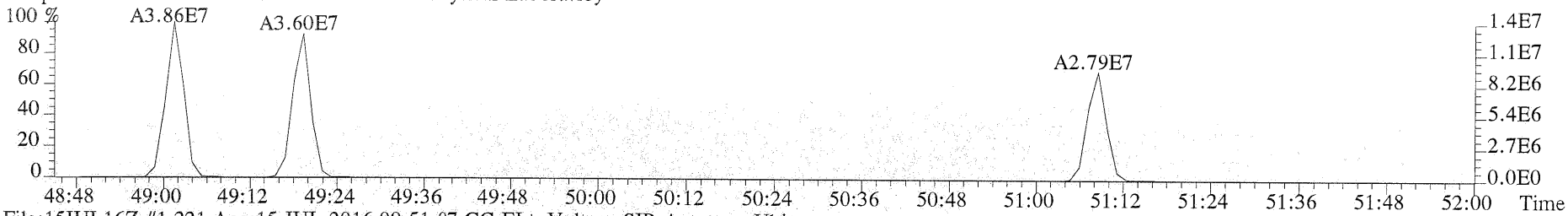
File:15JUL16Z #1-221 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



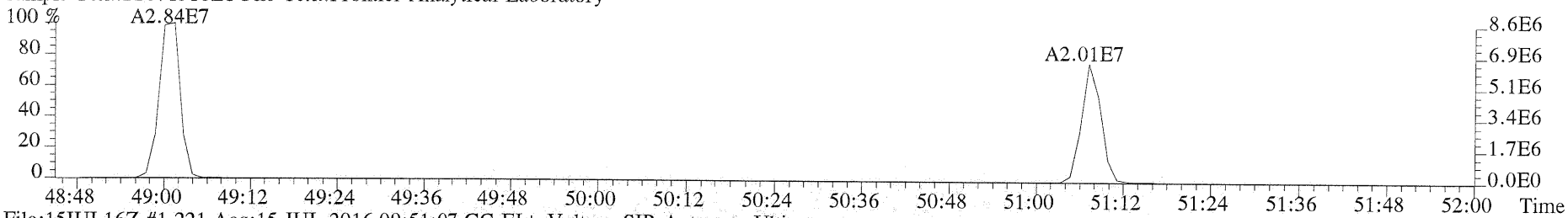
File:15JUL16Z #1-221 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



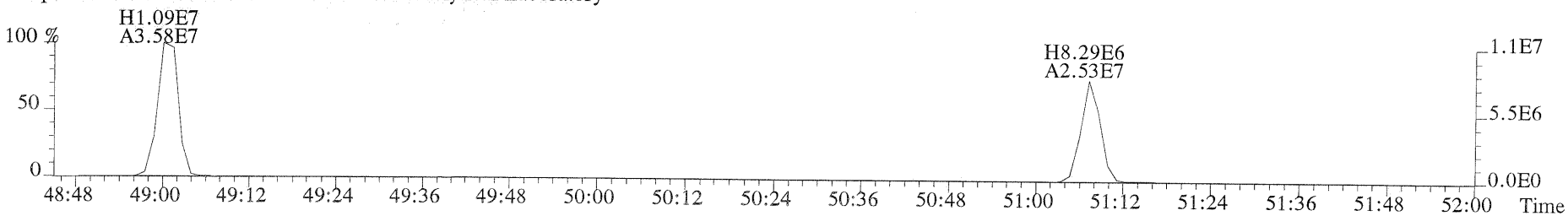
File:15JUL16Z #1-221 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
465.7187 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



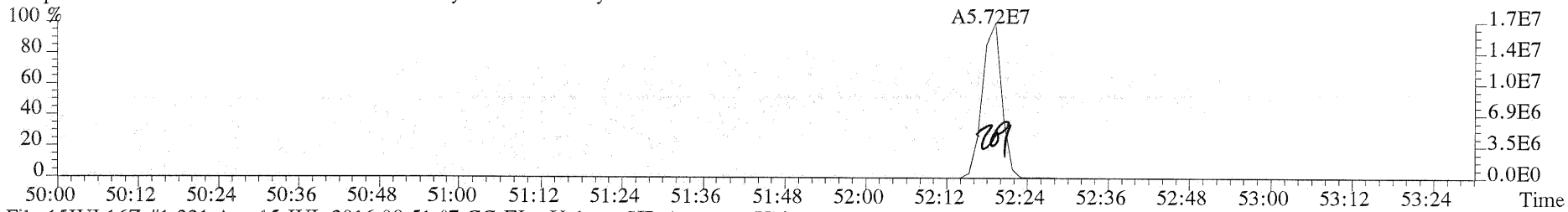
File:15JUL16Z #1-221 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
473.7648 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



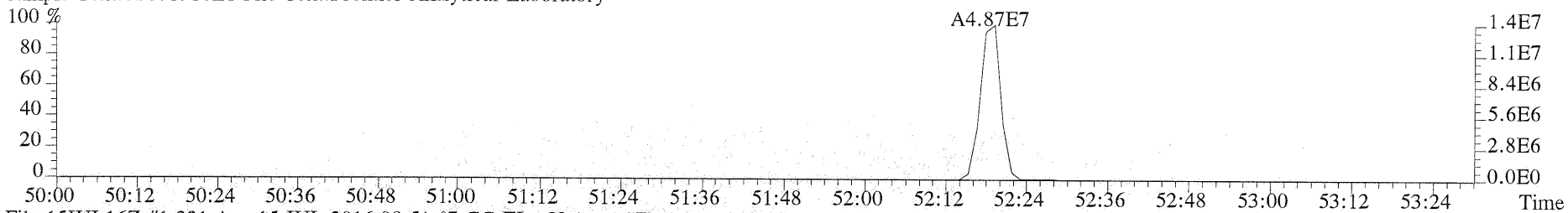
File:15JUL16Z #1-221 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
475.7619 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



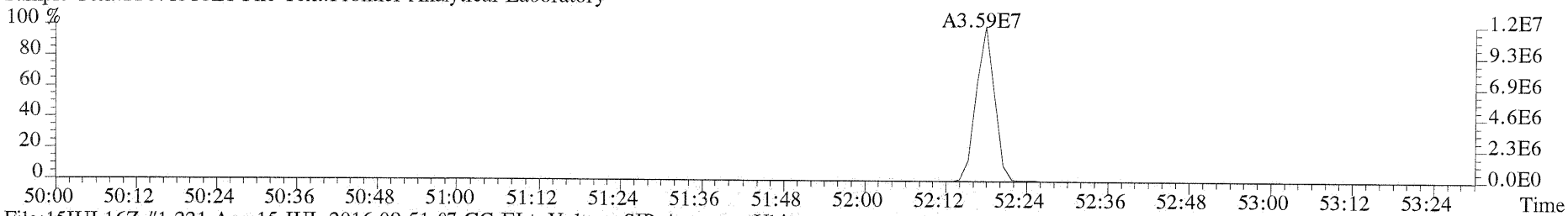
File:15JUL16Z #1-221 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



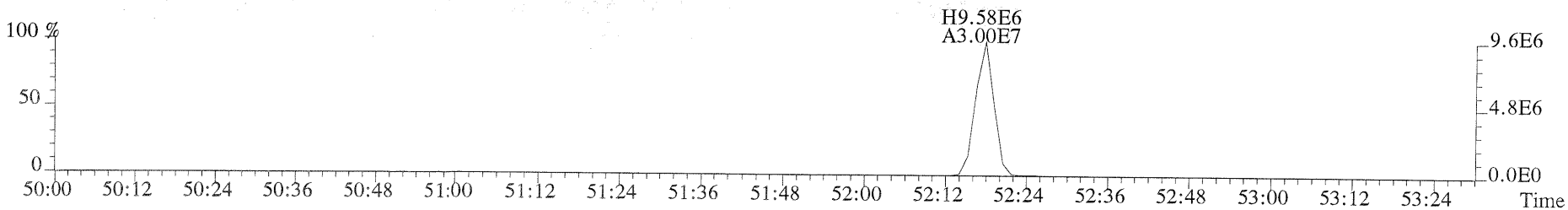
File:15JUL16Z #1-221 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
499.6797 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 09:51:07 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:2 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:SS071516Z1 File Text:Frontier Analytical Laboratory



USEPA - ITD

FORM 4A
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 2/8/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 15JUL16Z Sam:5 Analysis Date: 15-JUL-16 12:52:20

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
PCB-1	M/M+2	3.17	2.66-3.60	y	50.6	37.5 - 62.5
PCB-3	M/M+2	3.13	2.66-3.60	y	50.0	37.5 - 62.5
PCB-4	M/M+2	1.53	1.33-1.79	y	48.9	37.5 - 62.5
PCB-15	M/M+2	1.54	1.33-1.79	y	45.3	37.5 - 62.5
PCB-19	M/M+2	1.07	0.88-1.20	y	56.8	37.5 - 62.5
PCB-37	M/M+2	1.06	0.88-1.20	y	44.9	37.5 - 62.5
PCB-54	M/M+2	0.77	0.65-0.89	y	53.3	37.5 - 62.5
PCB-77	M/M+2	0.77	0.65-0.89	y	43.7	37.5 - 62.5
PCB-81	M/M+2	0.79	0.65-0.89	y	45.8	37.5 - 62.5
PCB-104	M+2/M+4	1.59	1.32-1.78	y	50.8	37.5 - 62.5
PCB-105	M+2/M+4	1.59	1.32-1.78	y	44.0	37.5 - 62.5
PCB-114	M+2/M+4	1.60	1.32-1.78	y	44.8	37.5 - 62.5
PCB-118	M+2/M+4	1.62	1.32-1.78	y	44.6	37.5 - 62.5
PCB-123	M+2/M+4	1.60	1.32-1.78	y	45.4	37.5 - 62.5
PCB-126	M+2/M+4	1.67	1.32-1.78	y	42.4	37.5 - 62.5
PCB-155	M+2/M+4	1.29	1.05-1.43	y	51.3	37.5 - 62.5
PCB-156	M+2/M+4	1.24	1.05-1.43	y	48.3	37.5 - 62.5
PCB-157	M+2/M+4	1.20	1.05-1.43	y	50.2	37.5 - 62.5
PCB-167	M+2/M+4	1.25	1.05-1.43	y	50.1	37.5 - 62.5
PCB-169	M+2/M+4	1.24	1.05-1.43	y	49.3	37.5 - 62.5
PCB-188	M+2/M+4	1.07	0.89-1.21	y	47.4	37.5 - 62.5
PCB-189	M+2/M+4	1.05	0.89-1.21	y	48.9	37.5 - 62.5
PCB-202	M+2/M+4	0.90	0.76-1.02	y	47.6	37.5 - 62.5
PCB-205	M+2/M+4	0.90	0.76-1.02	y	43.7	37.5 - 62.5
PCB-206	M+4/M+6	1.37	1.13-1.53	y	46.6	37.5 - 62.5
PCB-208	M+4/M+6	1.36	1.13-1.53	y	48.2	37.5 - 62.5
PCB-209	M+4/M+6	1.16	0.99-1.33	y	48.4	37.5 - 62.5

Analyst: _____ Date: 7/15/16

USEPA - ITD

FORM 4B
209 PCB CALIBRATION VERIFICATION

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 2/8/16

Instrument ID: FAL4 GC Column ID: DB1

VER Data Filename: 15JUL16Z Sam:5 Analysis Date: 15-JUL-16 12:52:20

	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	ACCEPT	CONC. FOUND	CONC. RANGE (ng/mL)
LABELED COMPOUNDS						
13C-PCB-1	M/M+2	3.16	2.66-3.60	y	96.7	50.0 - 145
13C-PCB-3	M/M+2	3.17	2.66-3.60	y	94.0	50.0 - 145
13C-PCB-4	M/M+2	1.58	1.33-1.79	y	98.6	50.0 - 145
13C-PCB-15	M/M+2	1.60	1.33-1.79	y	92.0	50.0 - 145
13C-PCB-19	M/M+2	1.13	0.88-1.20	y	75.5	50.0 - 145
13C-PCB-37	M/M+2	1.09	0.88-1.20	y	91.1	50.0 - 145
13C-PCB-54	M/M+2	0.79	0.65-0.89	y	106	50.0 - 145
13C-PCB-77	M/M+2	0.78	0.65-0.89	y	107	50.0 - 145
13C-PCB-81	M/M+2	0.79	0.65-0.89	y	102	50.0 - 145
13C-PCB-104	M+2/M+4	1.61	1.32-1.78	y	76.8	50.0 - 145
13C-PCB-105	M+2/M+4	1.56	1.32-1.78	y	98.0	50.0 - 145
13C-PCB-114	M+2/M+4	1.52	1.32-1.78	y	97.2	50.0 - 145
13C-PCB-118	M+2/M+4	1.52	1.32-1.78	y	97.5	50.0 - 145
13C-PCB-123	M+2/M+4	1.56	1.32-1.78	y	98.3	50.0 - 145
13C-PCB-126	M+2/M+4	1.57	1.32-1.78	y	95.8	50.0 - 145
13C-PCB-155	M+2/M+4	1.28	1.05-1.43	y	79.8	50.0 - 145
13C-PCB-156	M+2/M+4	1.24	1.05-1.43	y	102	50.0 - 145
13C-PCB-157	M+2/M+4	1.25	1.05-1.43	y	101	50.0 - 145
13C-PCB-167	M+2/M+4	1.25	1.05-1.43	y	98.4	50.0 - 145
13C-PCB-169	M+2/M+4	1.23	1.05-1.43	y	110	50.0 - 145
13C-PCB-188	M+2/M+4	1.07	0.89-1.21	y	90.4	50.0 - 145
13C-PCB-189	M+2/M+4	1.09	0.89-1.21	y	106	50.0 - 145
13C-PCB-202	M+2/M+4	0.92	0.76-1.02	y	81.3	50.0 - 145
13C-PCB-205	M+2/M+4	0.91	0.76-1.02	y	92.8	50.0 - 145
13C-PCB-206	M+2/M+4	0.77	0.65-0.89	y	84.4	50.0 - 145
13C-PCB-208	M+2/M+4	0.79	0.65-0.89	y	85.3	50.0 - 145
13C-PCB-209	M+4/M+6	1.20	0.99-1.33	y	76.5	50.0 - 145
CLEANUP STANDARDS						
13C-PCB-28	M/M+2	1.05	0.88-1.20	y	107	65.0 - 135
13C-PCB-111	M+2/M+4	1.56	1.32-1.78	y	101	75.0 - 125
13C-PCB-178	M+2/M+4	1.06	0.89-1.21	y	94.1	75.0 - 125

Analyst: [illegible] Date: 7/15/16

FAL ID: ST071516Z2 Filename: 15JUL16Z Sam:5 Acquired: 15-JUL-16 12:52:20 ICal: 1668FAL4-2-8-16
Client ID: 1668 CS3 R150603A ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 13JUL16Z GC Column: DB1 Amount: 1.000

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL	Rec
PCB-1	7.76e+07	3.17 y	14:24	0.97	50.6		2.50	-	-	*	-
13C-PCB-1	1.58e+08	3.16 y	14:23	1.34	96.7		2.50				96.7
PCB-3	7.11e+07	3.13 y	16:50	0.99	50.0		2.50	-	-	*	-
13C-PCB-3	1.43e+08	3.17 y	16:49	1.26	94.0		2.50				94.0
PCB-4	4.21e+07	1.53 y	18:03	1.08	48.9		2.50	-	-	*	-
13C-PCB-4	7.96e+07	1.58 y	18:02	0.66	98.6		2.50				98.6
PCB-15	5.33e+07	1.54 y	23:37	1.06	45.3		2.50	-	-	*	-
13C-PCB-15	1.11e+08	1.60 y	23:35	1.00	92.0		2.50				92.0
PCB-19	3.97e+07	1.07 y	21:55	1.00	56.8		2.50	-	-	*	-
13C-PCB-19	6.98e+07	1.13 y	21:54	0.76	75.5		2.50				75.5
13C-PCB-9	1.22e+08	1.57 y	19:43	-	72.2		2.50				
PCB-37	3.56e+07	1.06 y	30:15	1.12	44.9		2.50	-	-	*	-
13C-PCB-37	7.08e+07	1.09 y	30:14	1.08	91.1		2.50				91.1
PCB-54	4.84e+07	0.77 y	25:27	0.97	53.3		2.50	-	-	*	-
13C-PCB-54	9.38e+07	0.79 y	25:26	1.23	106		2.50				106
PCB-104	3.38e+07	1.59 y	29:54	1.10	50.8		2.50	-	-	*	-
13C-PCB-104	6.03e+07	1.61 y	29:53	1.09	76.8		2.50				76.8
13C-PCB-28	8.74e+07	1.05 y	26:33	1.14	107		2.50				107
13C-PCB-52	7.19e+07	0.79 y	28:47	-	66.4		2.50				
PCB-81	3.39e+07	0.79 y	36:00	1.15	45.8		2.50	-	-	*	-
13C-PCB-81	6.44e+07	0.79 y	35:59	1.01	102		2.50				102
PCB-77	3.32e+07	0.77 y	36:34	1.13	43.7		2.50	-	-	*	-
13C-PCB-77	6.73e+07	0.78 y	36:33	1.02	107		2.50				107
PCB-155	3.56e+07	1.29 y	34:03	1.09	51.3		2.50	-	-	*	-
13C-PCB-155	6.37e+07	1.28 y	34:01	1.29	79.8		2.50				79.8
13C-PCB-111	7.62e+07	1.56 y	36:06	1.22	101		2.50				101
13C-PCB-101	6.20e+07	1.60 y	34:28	-	67.5		2.50				
PCB-123	2.76e+07	1.60 y	38:11	1.07	45.4		2.50	-	-	*	-
13C-PCB-123	5.69e+07	1.56 y	38:10	1.07	98.3		2.50				98.3
PCB-118	2.98e+07	1.62 y	38:21	1.07	44.6		2.50	-	-	*	-
13C-PCB-118	6.26e+07	1.52 y	38:20	1.19	97.5		2.50				97.5
PCB-114	2.76e+07	1.60 y	38:58	1.06	44.8		2.50	-	-	*	-
13C-PCB-114	5.82e+07	1.52 y	38:58	1.11	97.2		2.50				97.2
PCB-105	2.77e+07	1.59 y	39:47	1.07	44.0		2.50	-	-	*	-
13C-PCB-105	5.90e+07	1.56 y	39:45	1.11	98.0		2.50				98.0
PCB-126	2.41e+07	1.67 y	41:55	1.08	42.4		2.50	-	-	*	-
13C-PCB-126	5.29e+07	1.57 y	41:55	1.02	95.8		2.50				95.8
PCB-167	3.12e+07	1.25 y	43:16	0.97	50.1		2.50	-	-	*	-
13C-PCB-167	6.45e+07	1.25 y	43:14	1.21	98.4		2.50				98.4
PCB-156	3.02e+07	1.24 y	44:30	1.01	48.3		2.50	-	-	*	-
13C-PCB-156	6.17e+07	1.24 y	44:28	1.12	102		2.50				102
PCB-157	3.10e+07	1.20 y	44:45	0.94	50.2		2.50	-	-	*	-
13C-PCB-157	6.55e+07	1.25 y	44:43	1.20	101		2.50				101
PCB-169	2.79e+07	1.24 y	46:38	0.97	49.3		2.50	-	-	*	-
13C-PCB-169	5.81e+07	1.23 y	46:38	0.98	110		2.50				110
PCB-188	3.67e+07	1.07 y	39:32	1.13	47.4		2.50	-	-	*	-
13C-PCB-188	6.88e+07	1.07 y	39:30	1.41	90.4		2.50				90.4
PCB-189	2.94e+07	1.05 y	48:19	1.17	48.9		2.50	-	-	*	-
13C-PCB-189	5.13e+07	1.09 y	48:17	0.89	106		2.50				106
PCB-202	2.47e+07	0.90 y	44:38	1.12	47.6		2.50	-	-	*	-
13C-PCB-202	4.65e+07	0.92 y	44:38	1.06	81.3		2.50				81.3
13C-PCB-178	4.22e+07	1.06 y	42:10	0.83	94.1		2.50				94.1
13C-PCB-138	5.40e+07	1.26 y	41:22	-	72.4		2.50				

FAL ID: ST071516Z2 Filename: 15JUL16Z Sam:5 Acquired: 15-JUL-16 12:52:20 ICal: 1668FAL4-2-8-16
Client ID: 1668 CS3 R150603A ConCal: ST071316Z1 EndCal: ST071316Z2
Results: 13JUL16Z GC Column: DB1 Amount: 1.000

PCB-205	2.35e+07	0.90 y	49:57	1.13	43.7	2.50	-	-	*	-
13C-PCB-205	4.75e+07	0.91 y	49:57	1.47	92.8	2.50				92.8
PCB-208	2.61e+07	1.36 y	49:02	0.91	48.2	2.50	-	-	*	-
13C-PCB-208	5.95e+07	0.79 y	49:00	2.00	85.3	2.50				85.3
PCB-206	1.84e+07	1.37 y	51:09	0.96	46.6	2.50	-	-	*	-
13C-PCB-206	4.12e+07	0.77 y	51:07	1.40	84.4	2.50				84.4
PCB-209	3.07e+07	1.16 y	52:18	1.13	48.4	2.50	-	-	*	-
13C-PCB-209	5.61e+07	1.20 y	52:18	2.10	76.5	2.50				76.5
13C-PCB-194	3.49e+07	0.91 y	49:41	-	112	2.50				

Analyst: _____ Date: 7/15/16

Frontier Analytical Laboratory - Acquisition Log

Run Name:15JUL16Z Instrument: FAL4 GC: DB1 Experiment:1668PCB

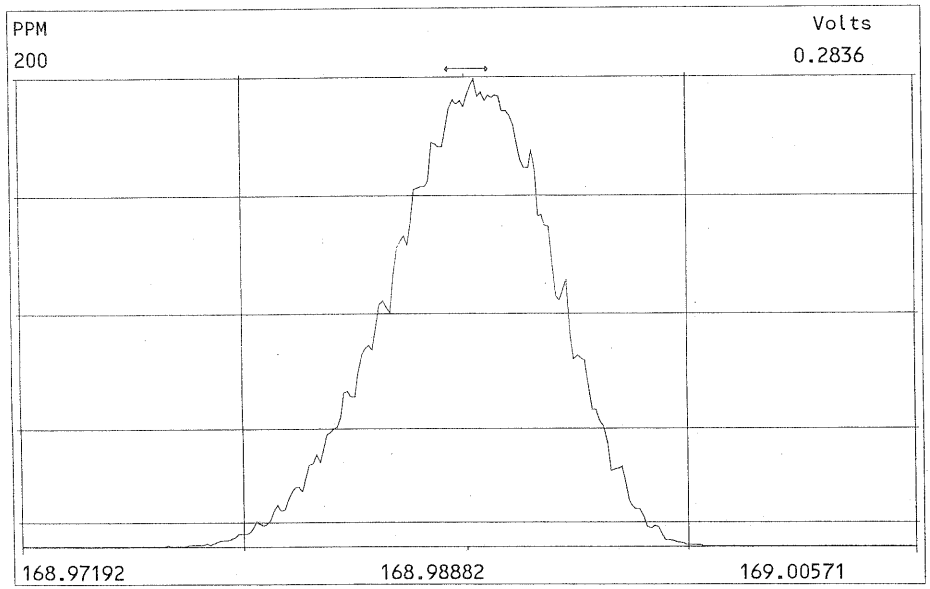
Data File	S	FAL ID	Client ID	Acquired	ConCal	EndCal	Analyst
15JUL16Z	1	ST071516Z1	1668 CS3 R150603A	15-JUL-16 08:51:12	ST071516Z1	ST071516Z2	BS
15JUL16Z	2	SS071516Z1	Daily 209 151201A	15-JUL-16 09:51:07	ST071516Z1	ST071516Z2	BS
15JUL16Z	3	SB071516Z1	Solvent Blank	15-JUL-16 10:52:26	ST071516Z1	ST071516Z2	BS
15JUL16Z	4	09987-002-0001-SA	LDW-CS-2-S00.2-KPDMS	15-JUL-16 11:52:23	ST071516Z1	ST071516Z2	BS
15JUL16Z	5	ST071516Z2	1668 CS3 R150603A	15-JUL-16 12:52:20	ST071516Z1	ST071516Z2	BS

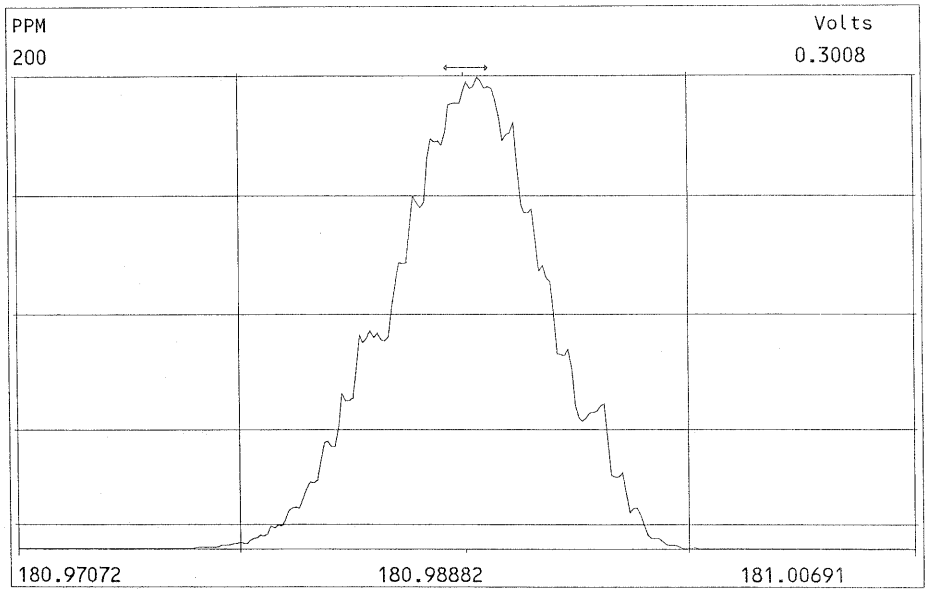
7/15/16

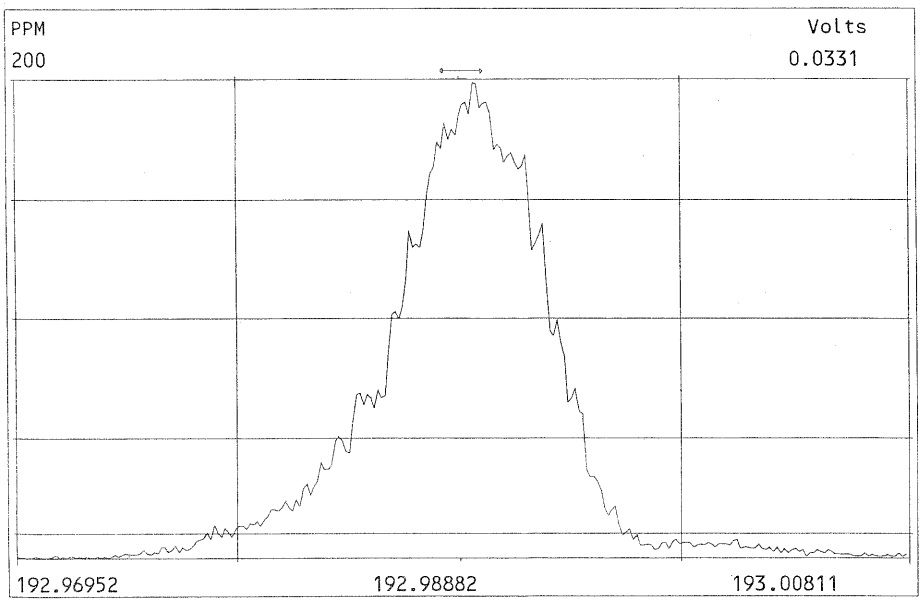
Data Backed Up:_____

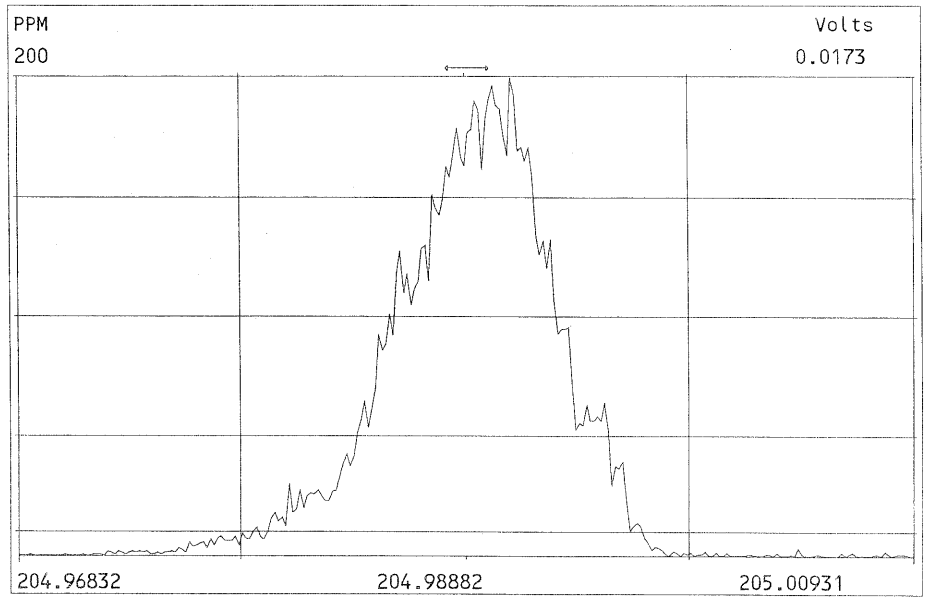
Date:_____

Peak Locate Examination:15-JUL-2016:08:45 File:15JUL16Z
Experiment:1668PCB Function:1 Reference:PFK

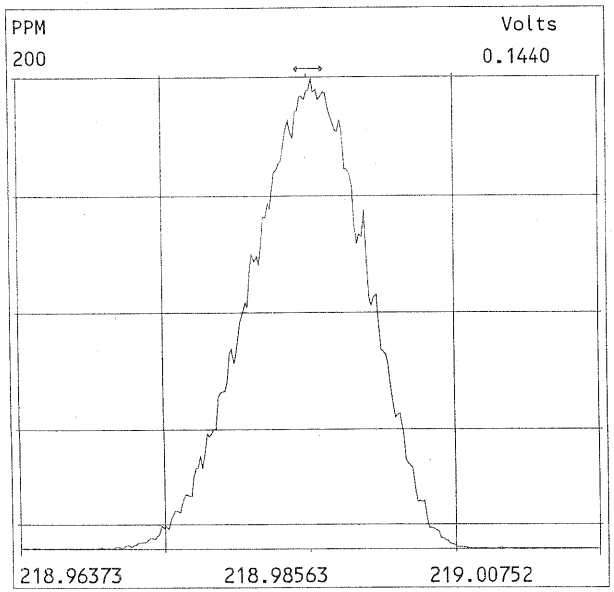


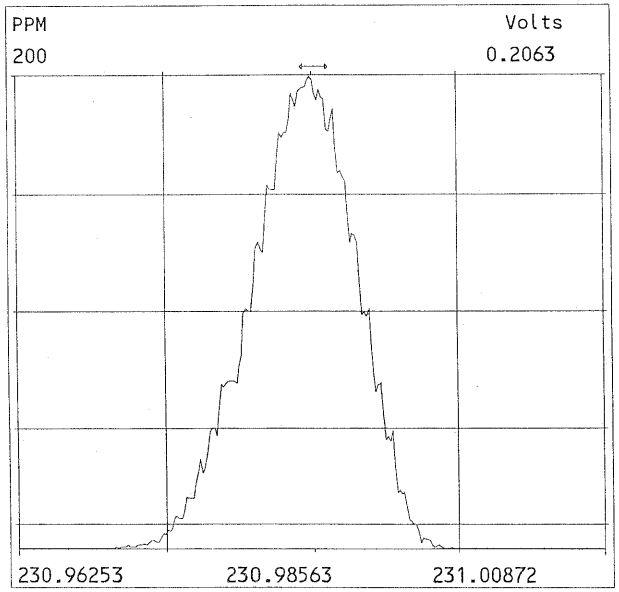


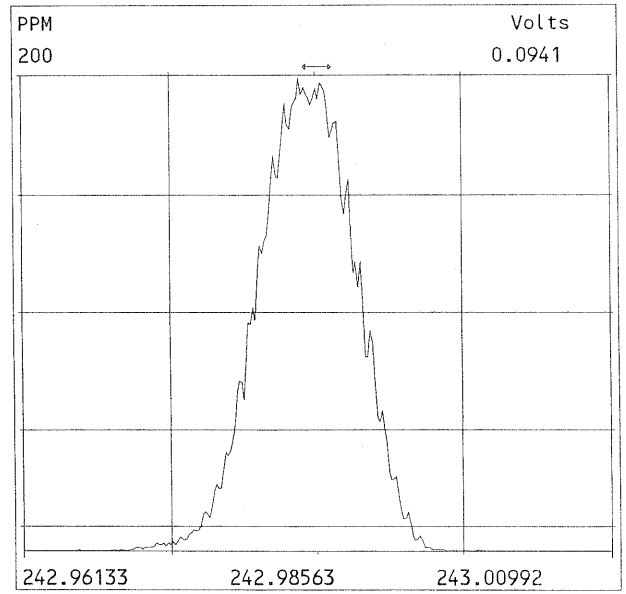


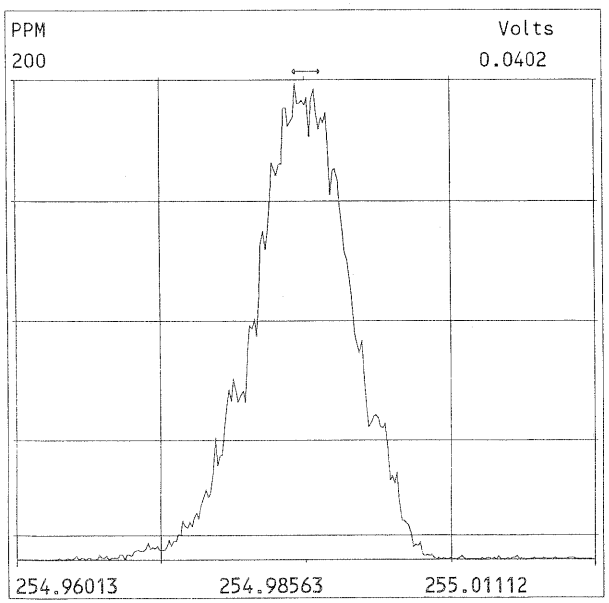


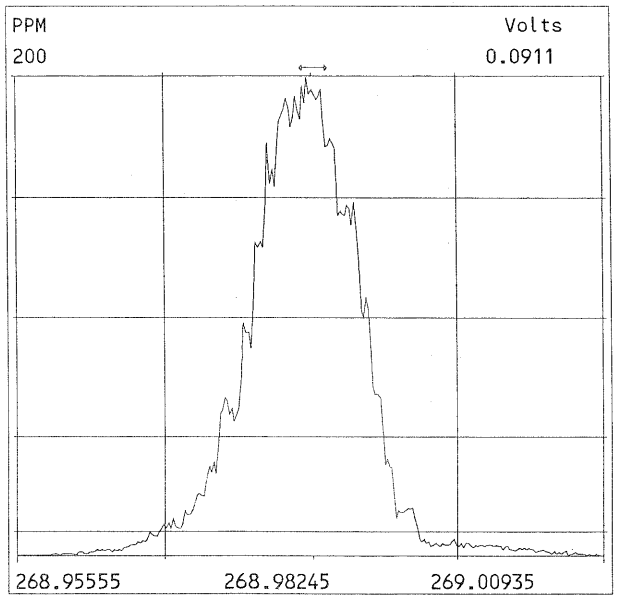
Peak Locate Examination:15-JUL-2016:08:46 File:15JUL16Z
Experiment:1668PCB Function:2 Reference:PFK

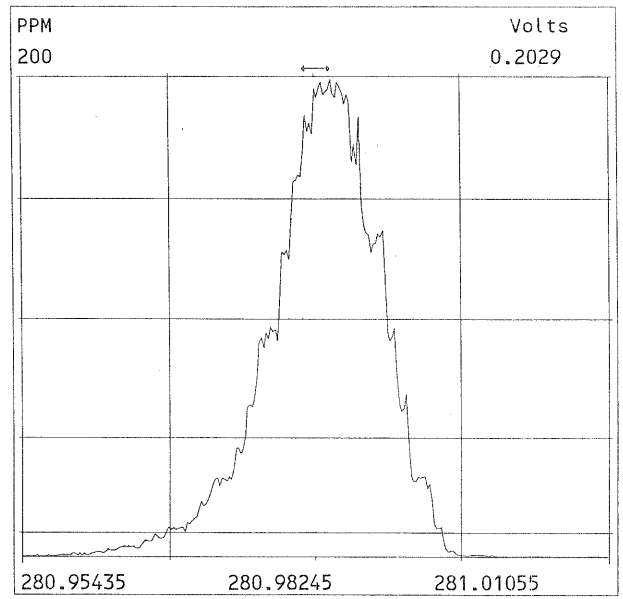




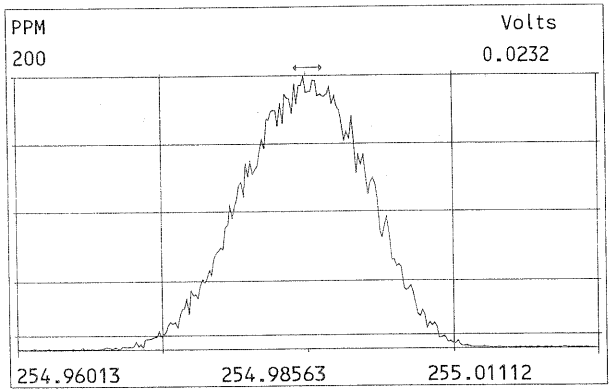


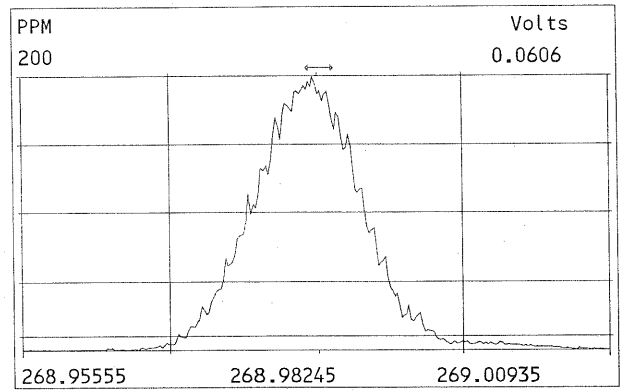


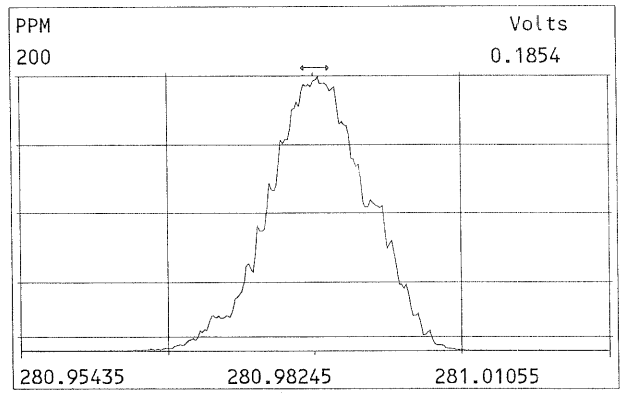


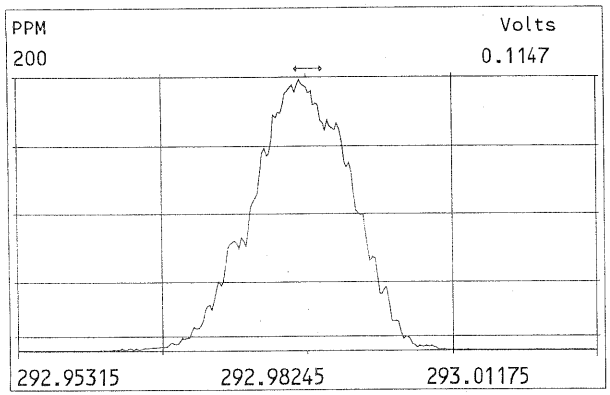


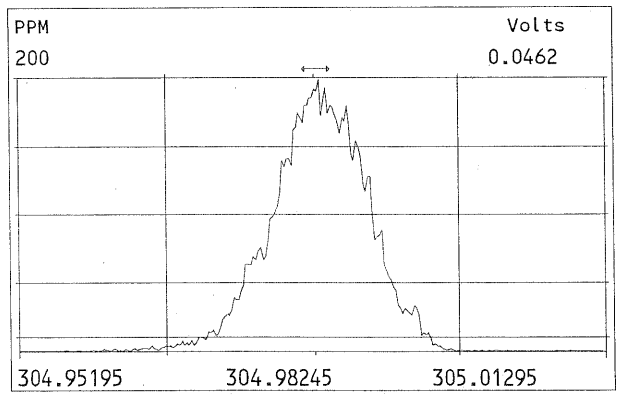
Peak Locate Examination:15-JUL-2016:08:47 File:15JUL16Z
Experiment:1668PCB Function:3 Reference:PFK

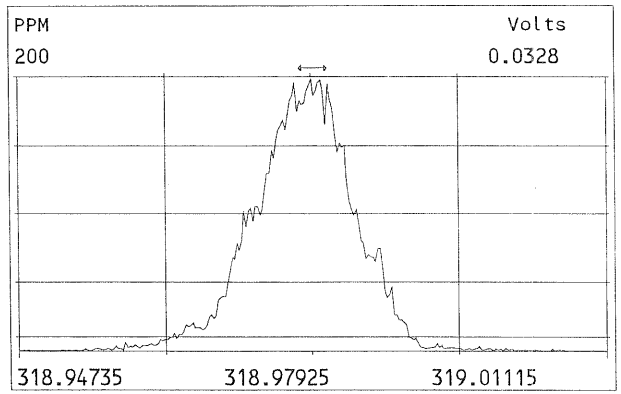


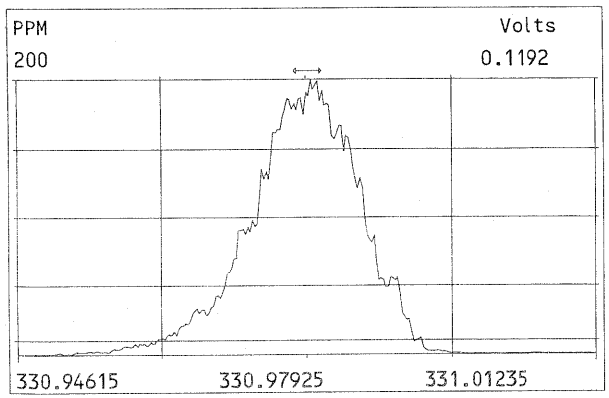


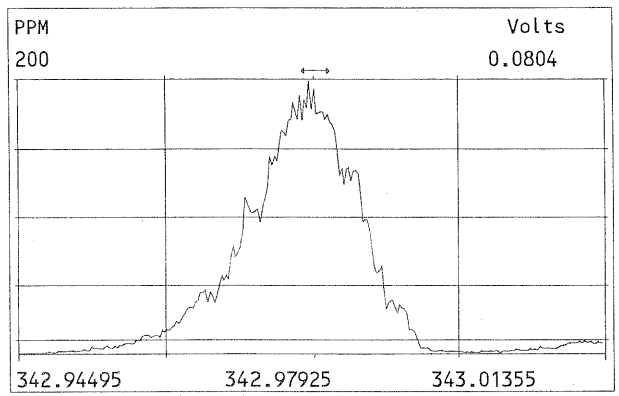




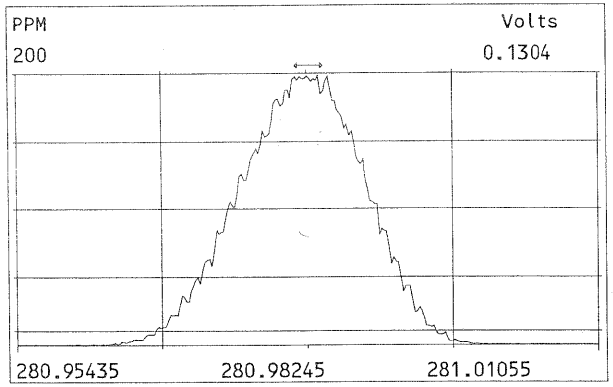


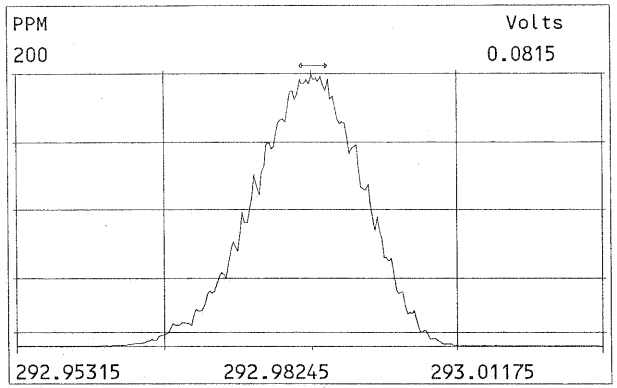


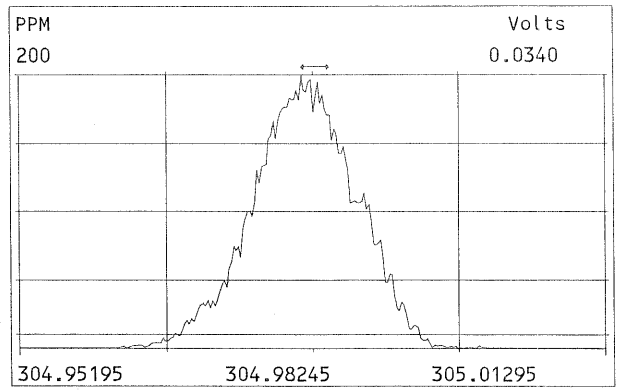


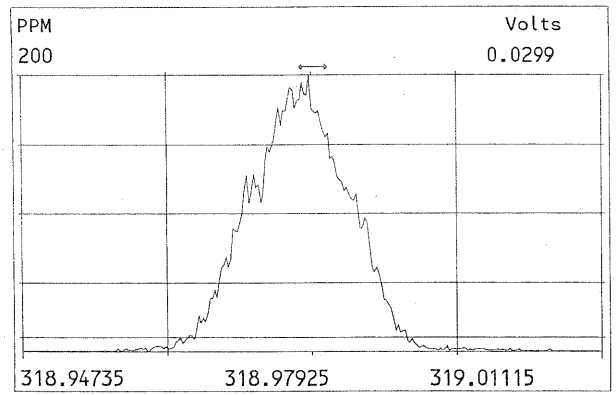


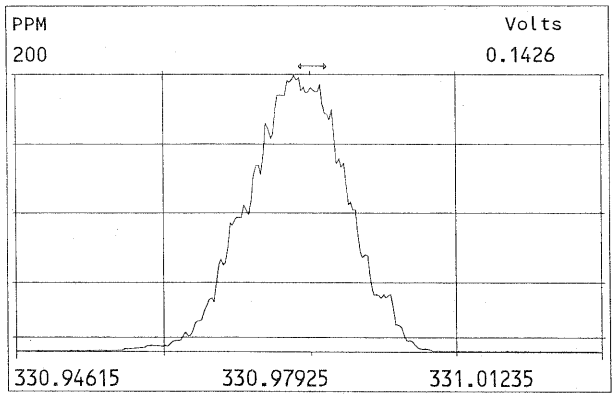
Peak Locate Examination:15-JUL-2016:08:48 File:15JUL16Z
Experiment:1668PCB Function:4 Reference:PFK

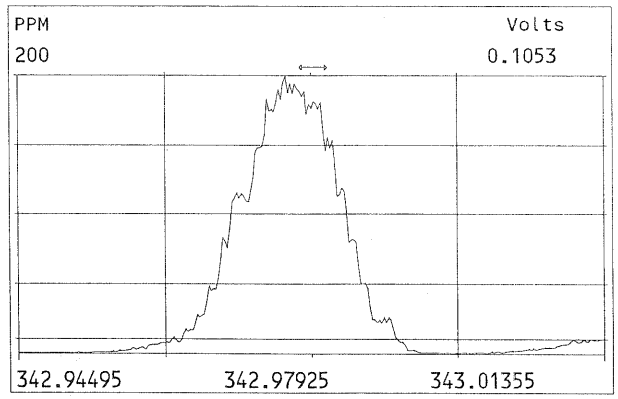


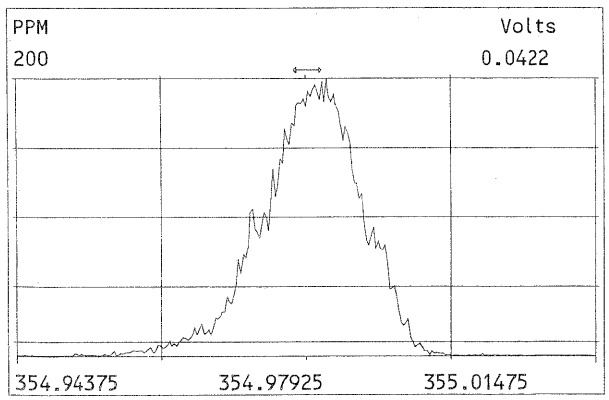


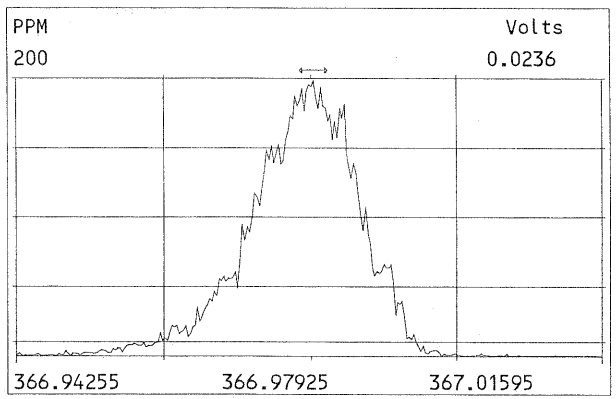


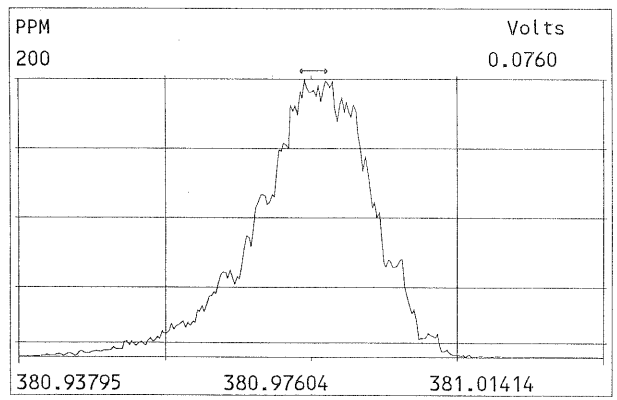




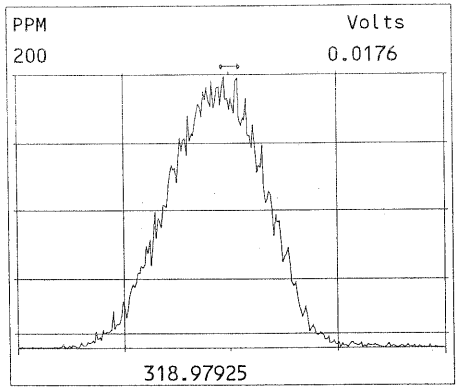


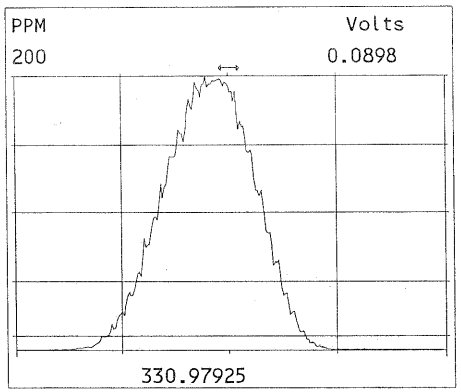


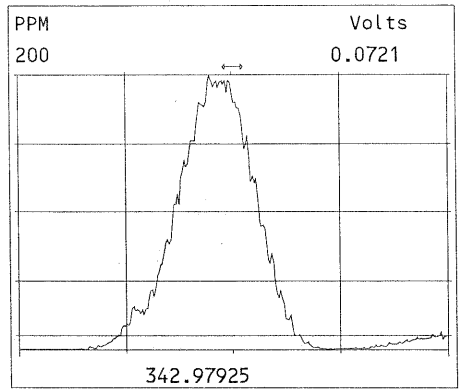


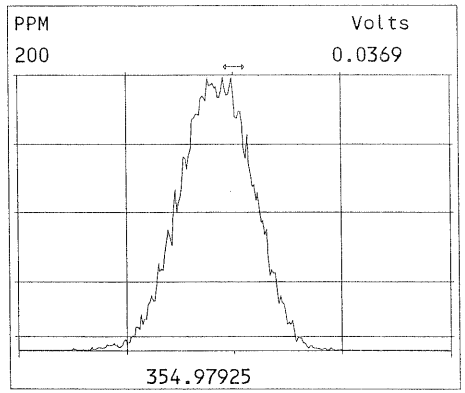


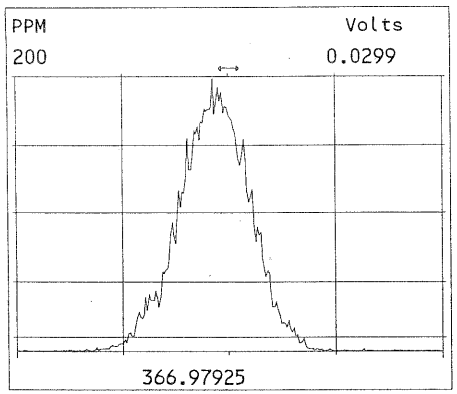
Peak Locate Examination:15-JUL-2016:08:48 File:15JUL16Z
Experiment:1668PCB Function:5 Reference:PFK

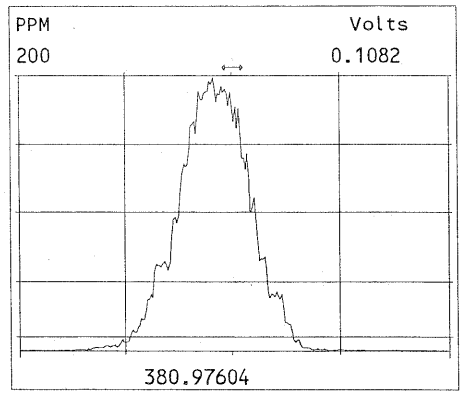


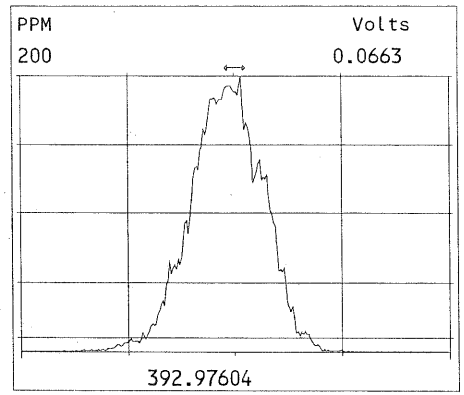


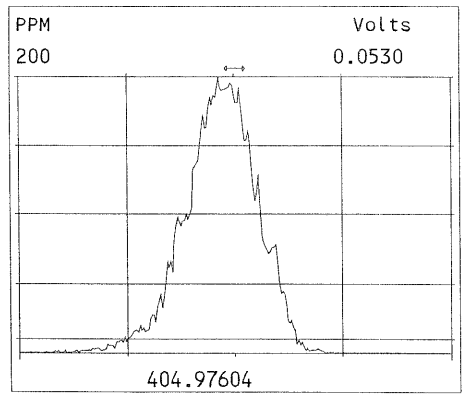


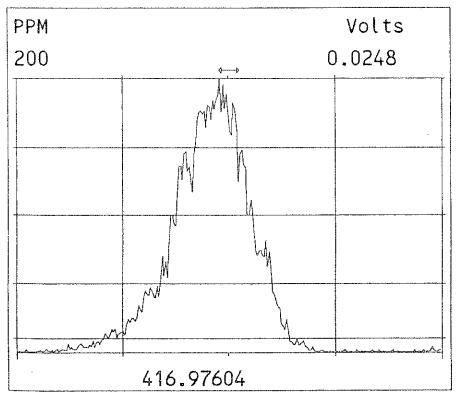


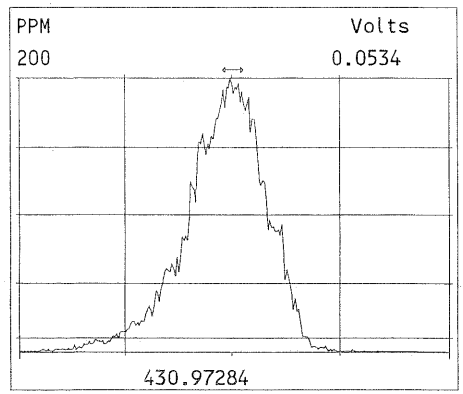


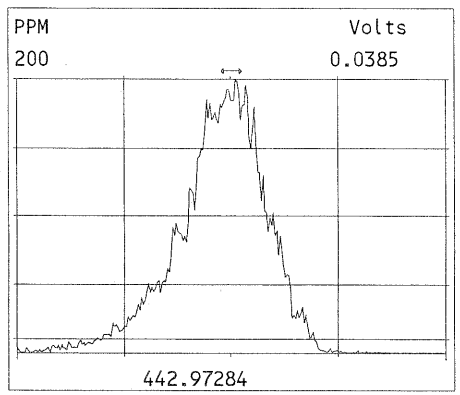




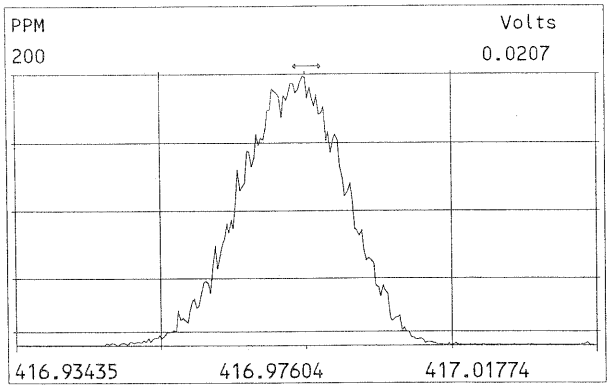


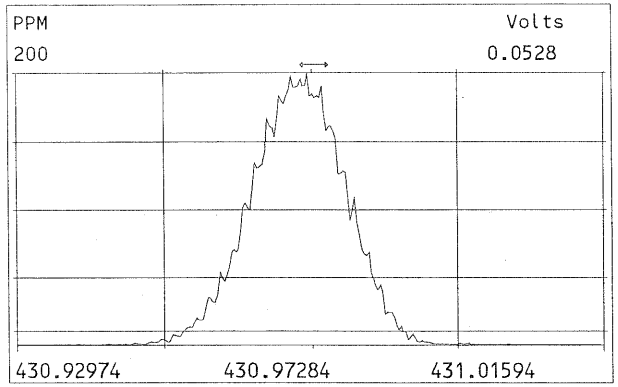


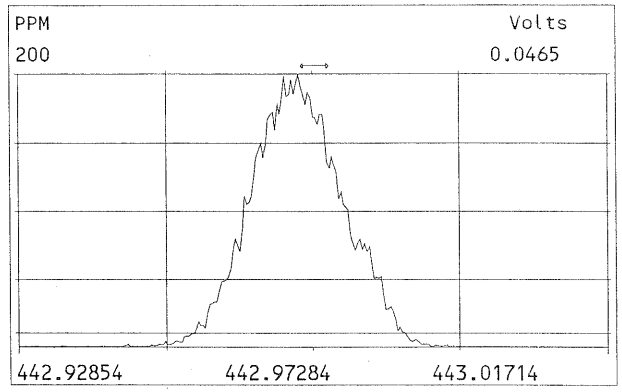


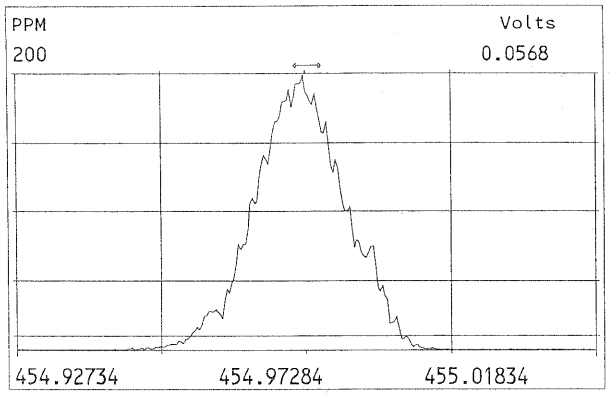


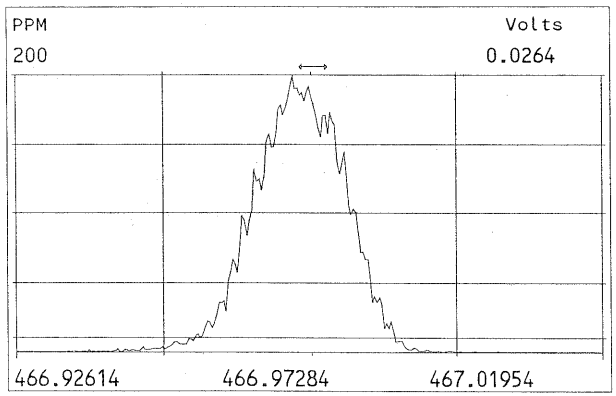
Peak Locate Examination:15-JUL-2016:08:49 File:15JUL16Z
Experiment:1668PCB Function:6 Reference:PFK

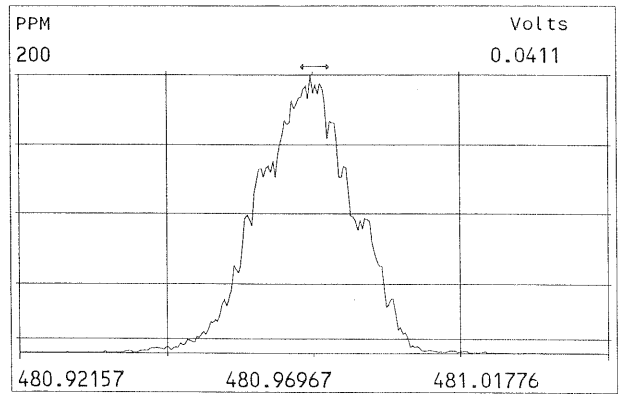


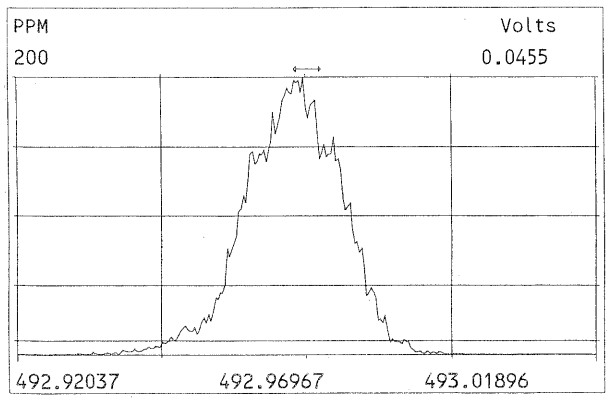


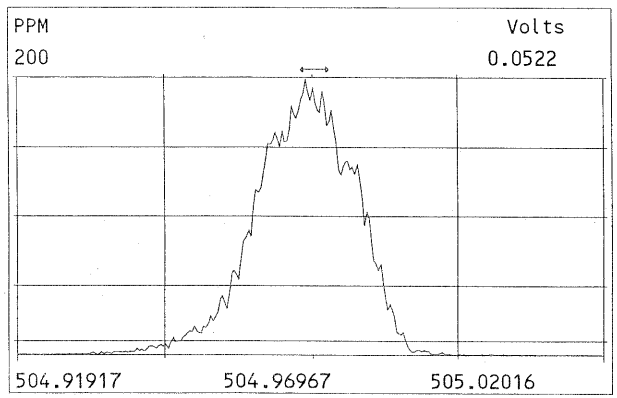


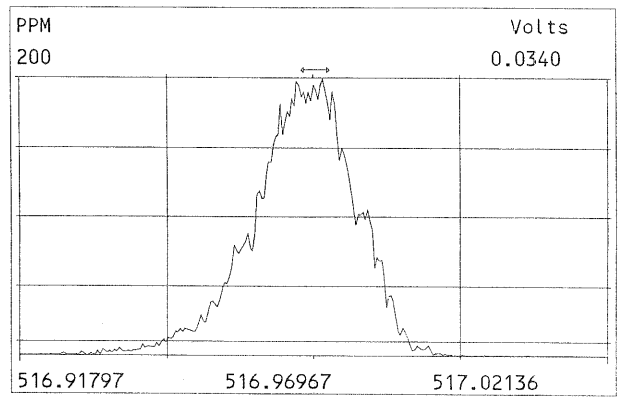




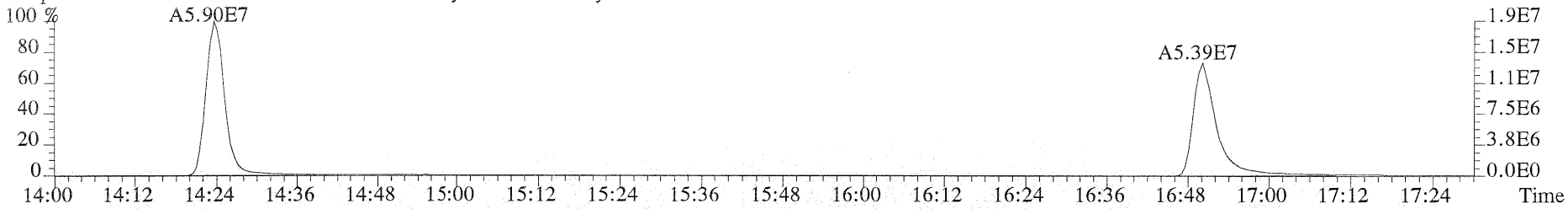




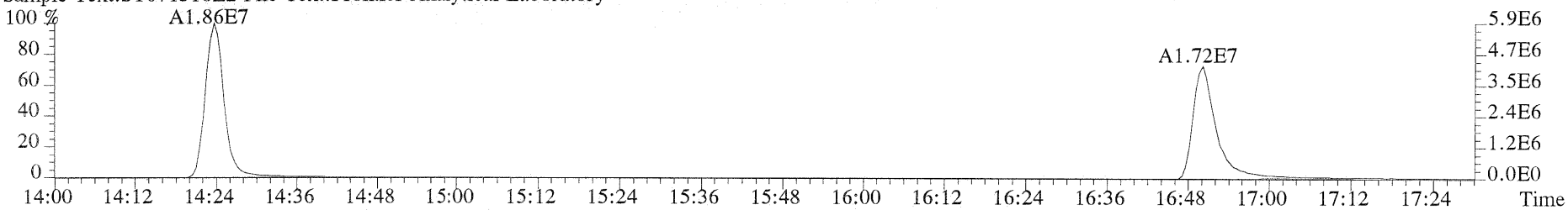




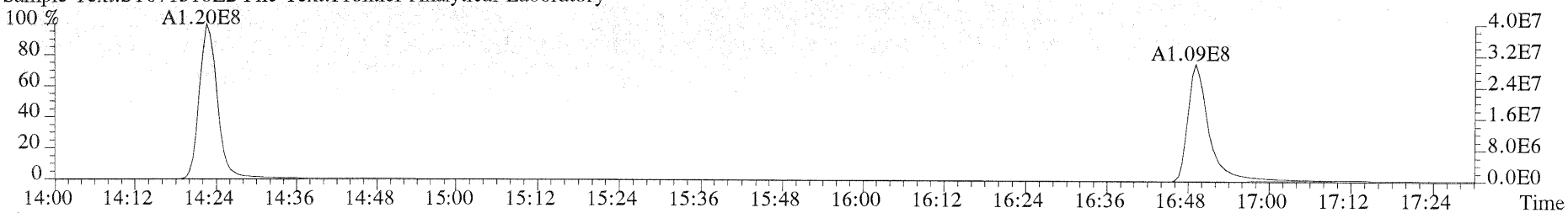
File:15JUL16Z #1-901 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
188.0393 S:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



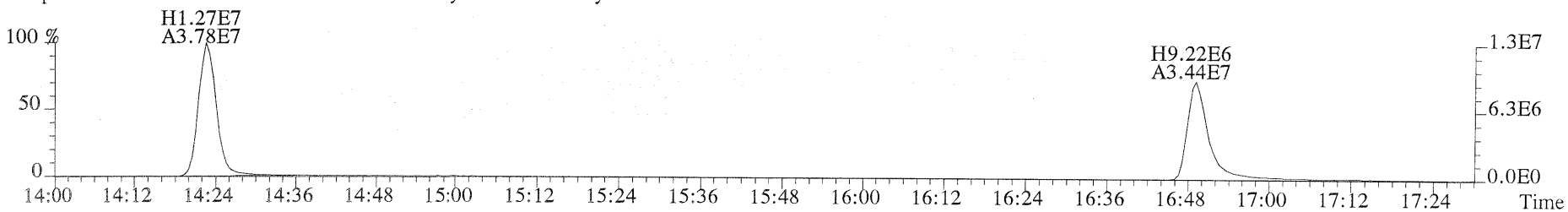
File:15JUL16Z #1-901 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
190.0363 S:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



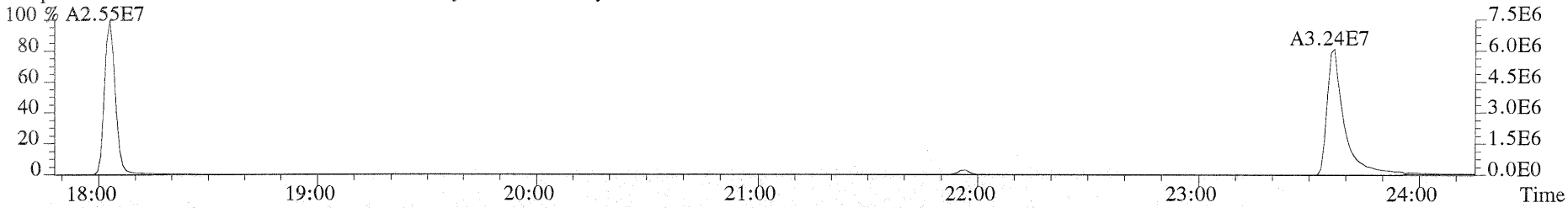
File:15JUL16Z #1-901 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
200.0795 S:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



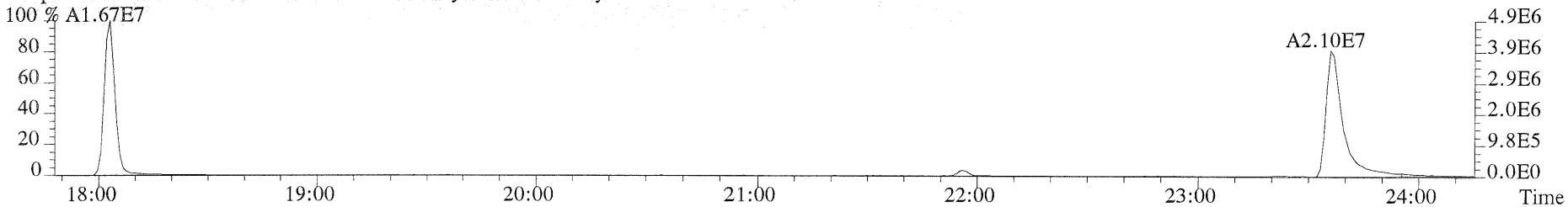
File:15JUL16Z #1-901 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
202.0766 S:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



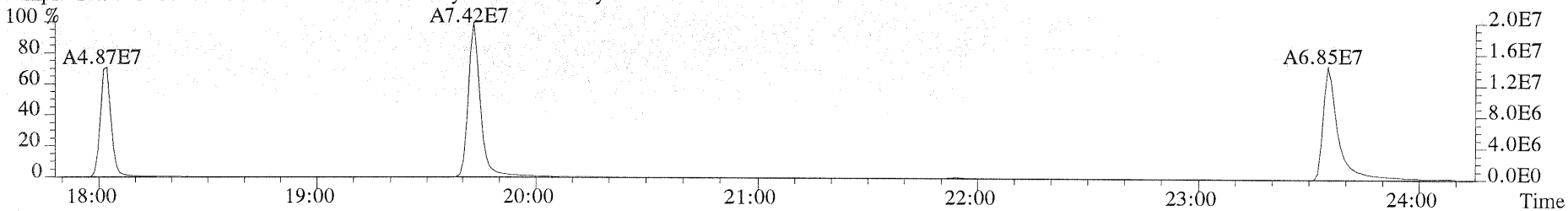
File:15JUL16Z #1-498 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
222.0003 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



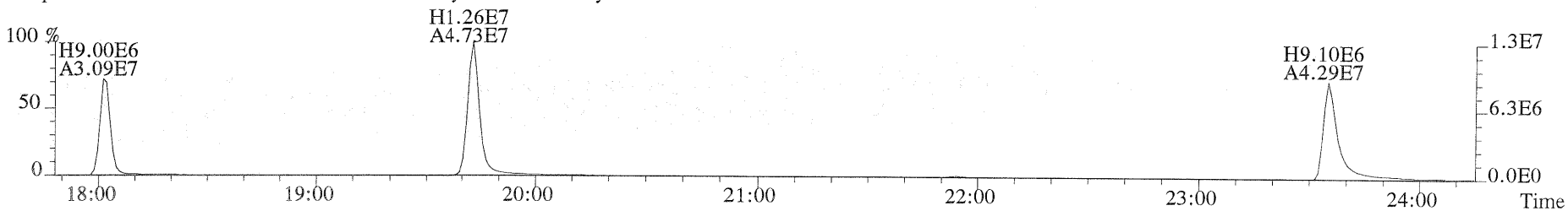
File:15JUL16Z #1-498 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
223.9974 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



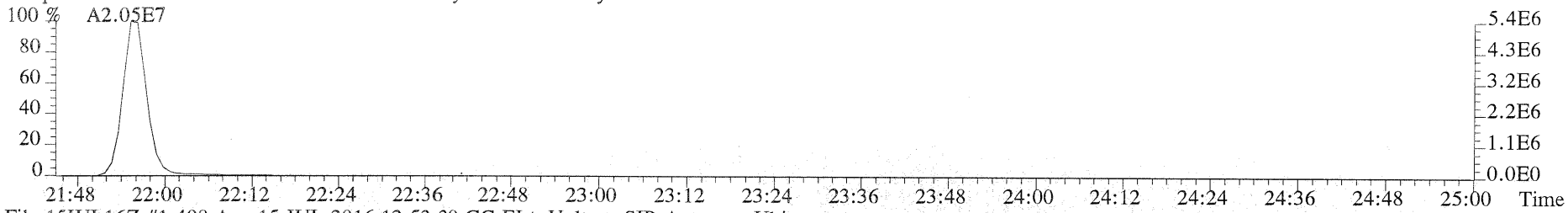
File:15JUL16Z #1-498 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
234.0406 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



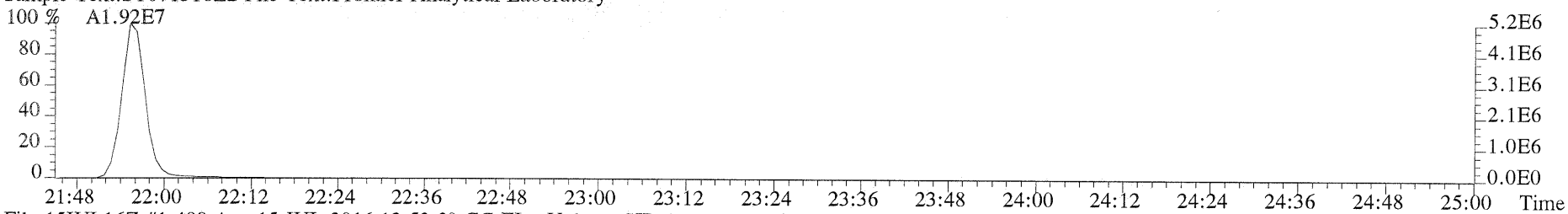
File:15JUL16Z #1-498 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
236.0376 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



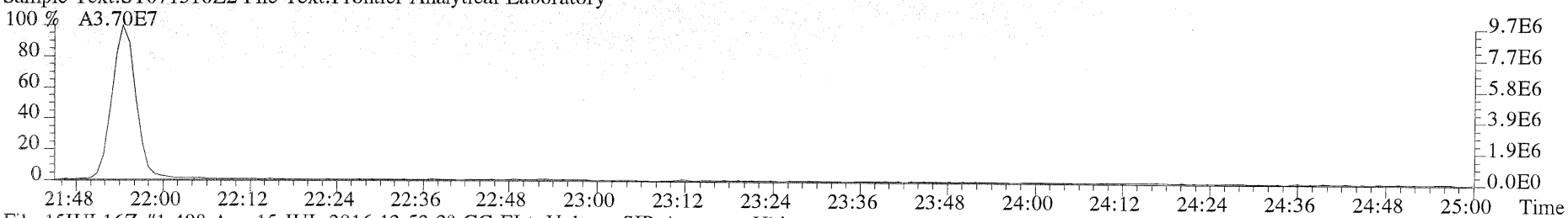
File:15JUL16Z #1-498 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



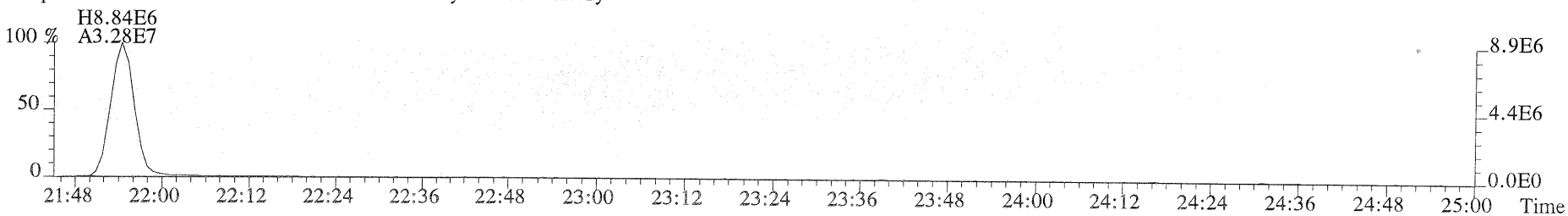
File:15JUL16Z #1-498 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



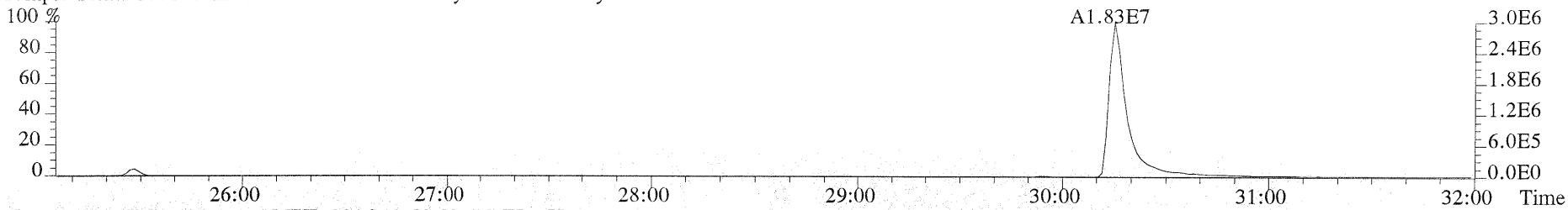
File:15JUL16Z #1-498 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



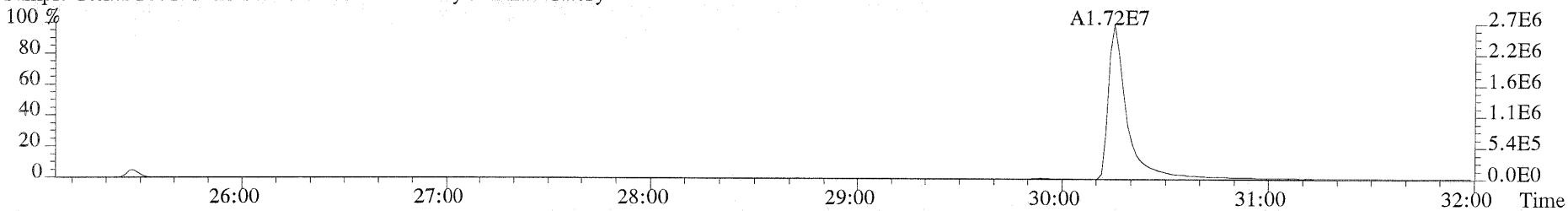
File:15JUL16Z #1-498 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:5 F:2 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



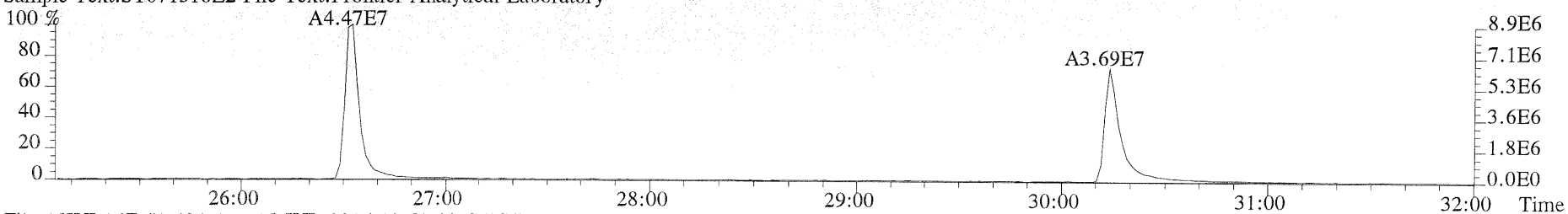
File:15JUL16Z #1-404 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
255.9613 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



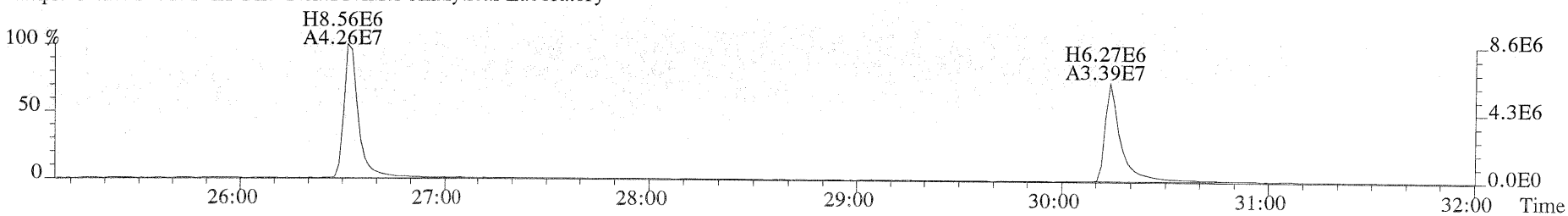
File:15JUL16Z #1-404 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
257.9584 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



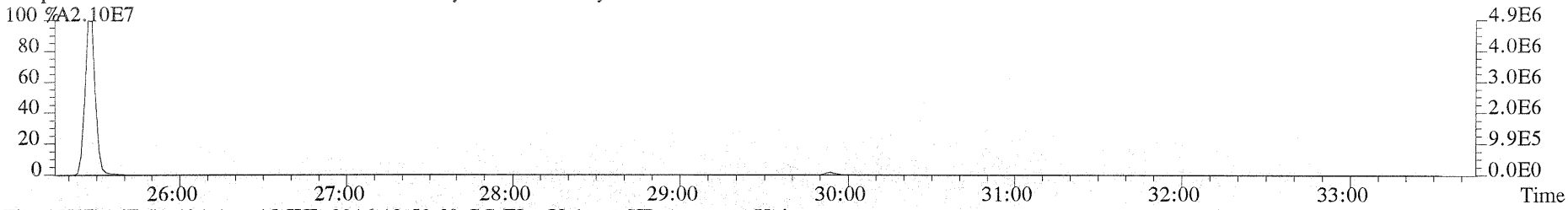
File:15JUL16Z #1-404 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
268.0016 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



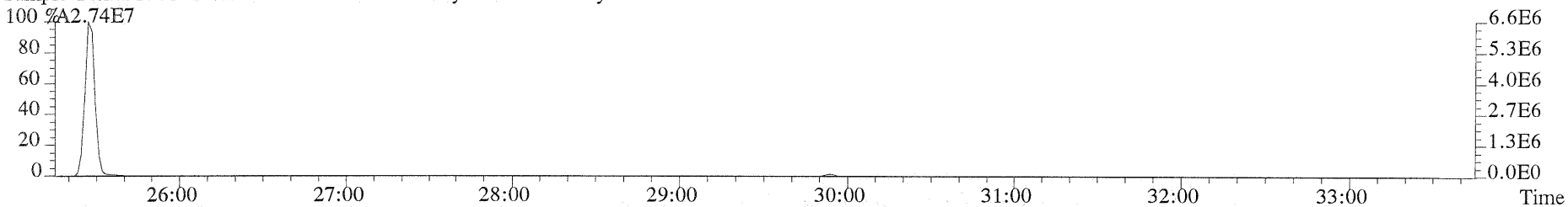
File:15JUL16Z #1-404 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
269.9986 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



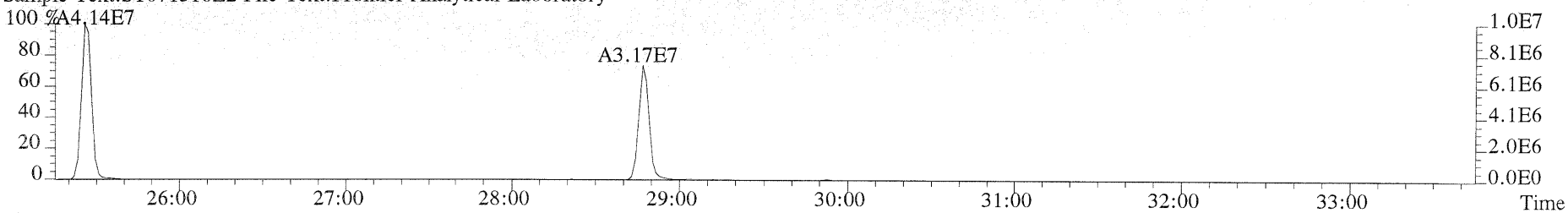
File:15JUL16Z #1-404 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



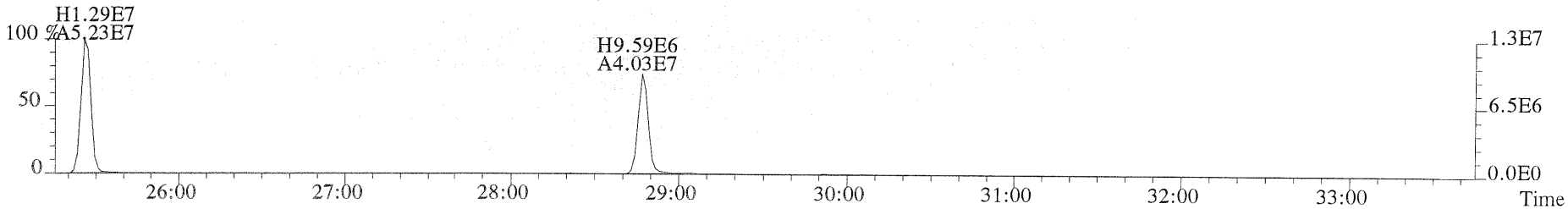
File:15JUL16Z #1-404 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



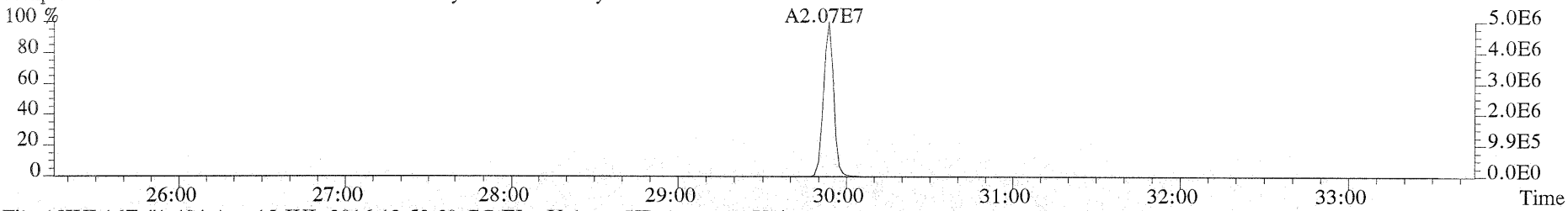
File:15JUL16Z #1-404 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



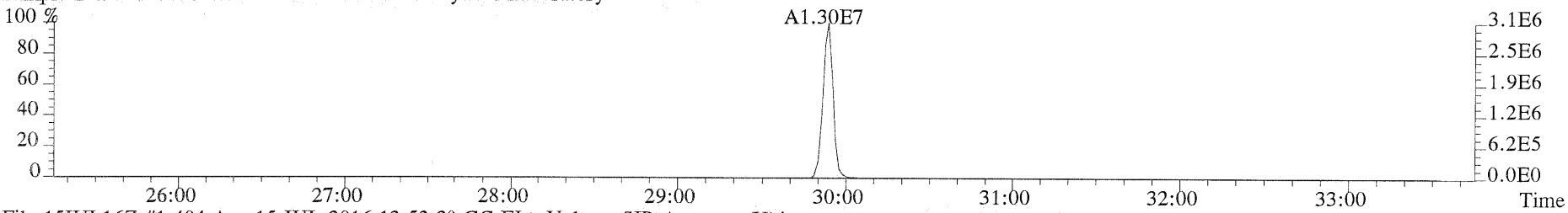
File:15JUL16Z #1-404 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



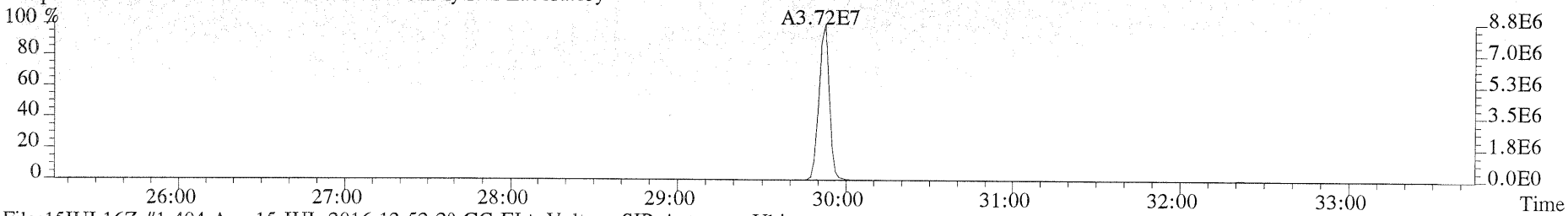
File:15JUL16Z #1-404 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



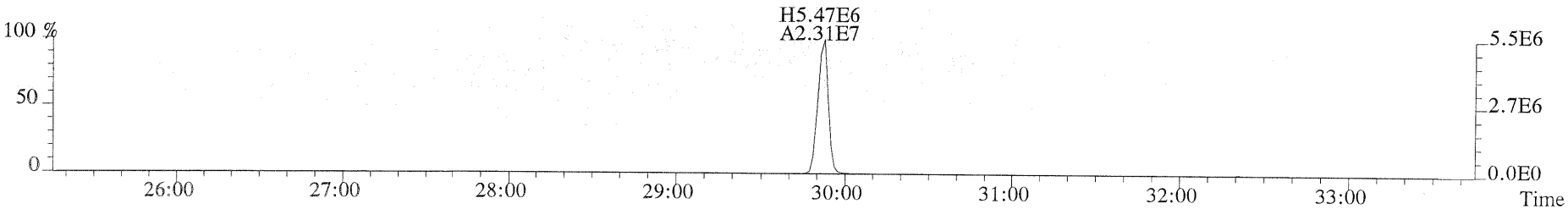
File:15JUL16Z #1-404 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



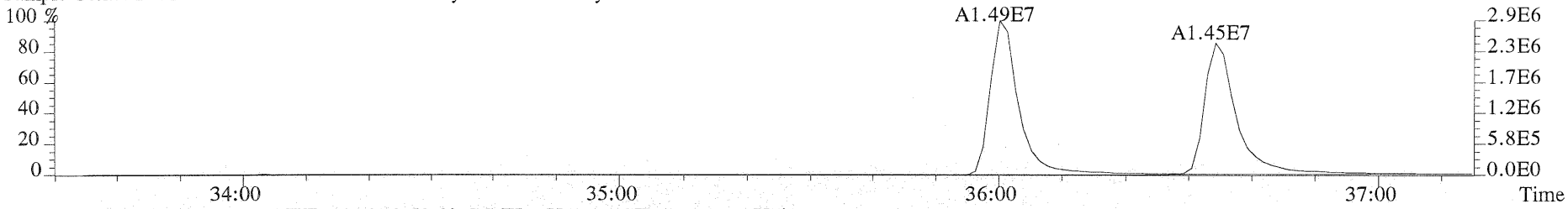
File:15JUL16Z #1-404 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



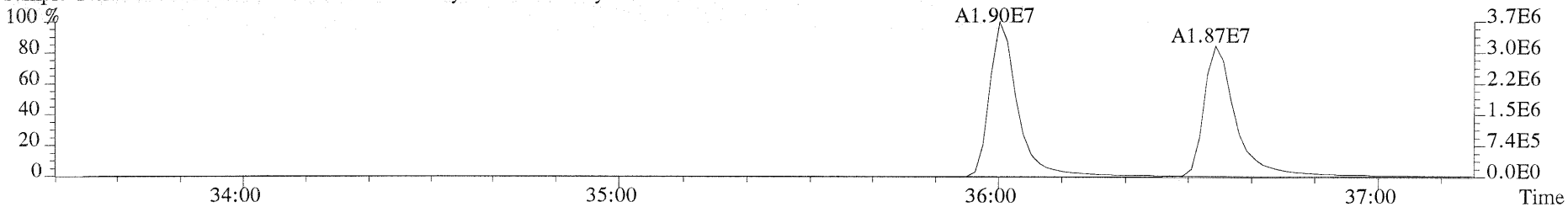
File:15JUL16Z #1-404 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:5 F:3 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



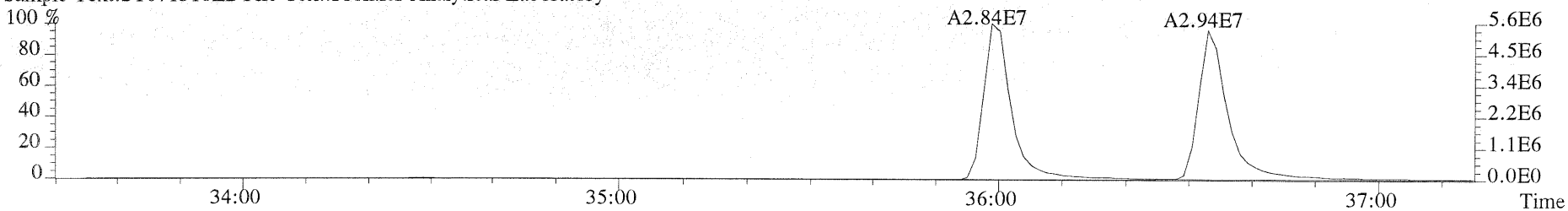
File:15JUL16Z #1-180 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
289.9224 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



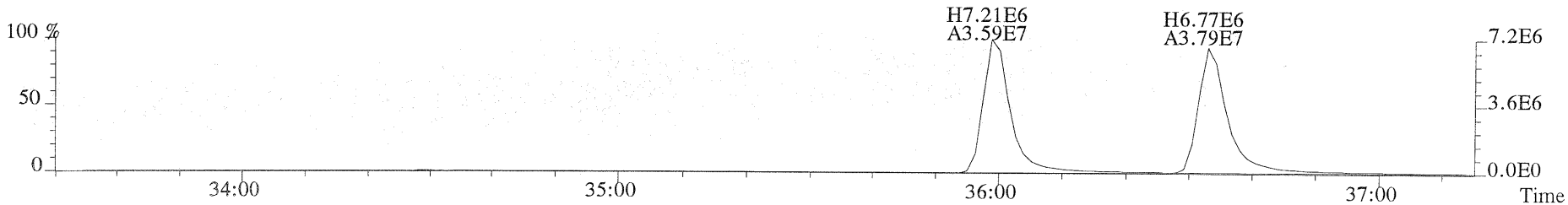
File:15JUL16Z #1-180 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
291.9194 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



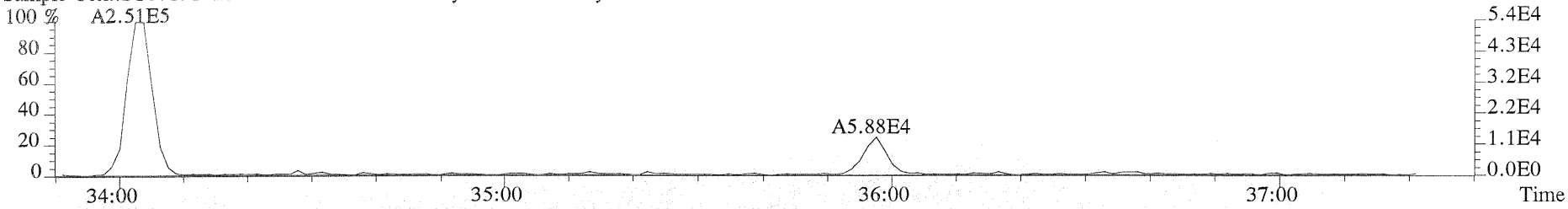
File:15JUL16Z #1-180 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
301.9626 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



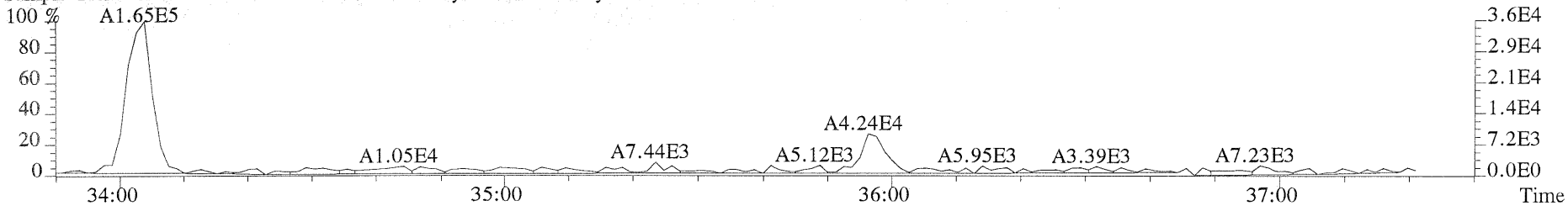
File:15JUL16Z #1-180 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
303.9597 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



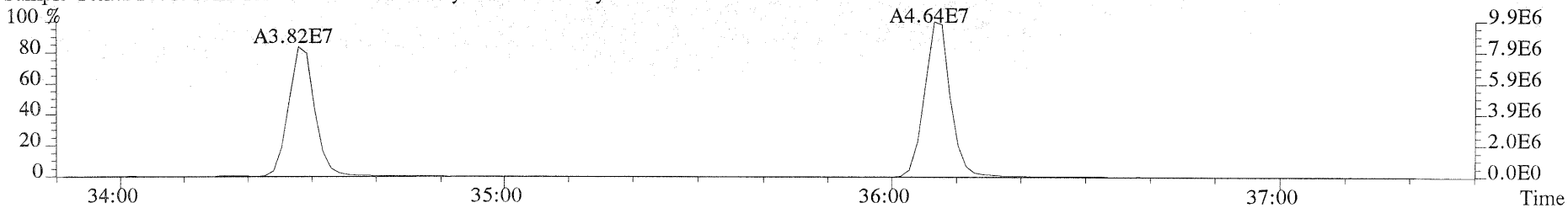
File:15JUL16Z #1-180 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



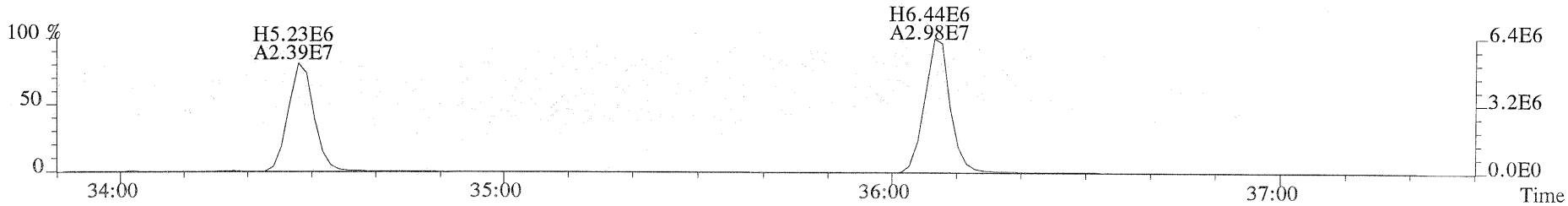
File:15JUL16Z #1-180 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



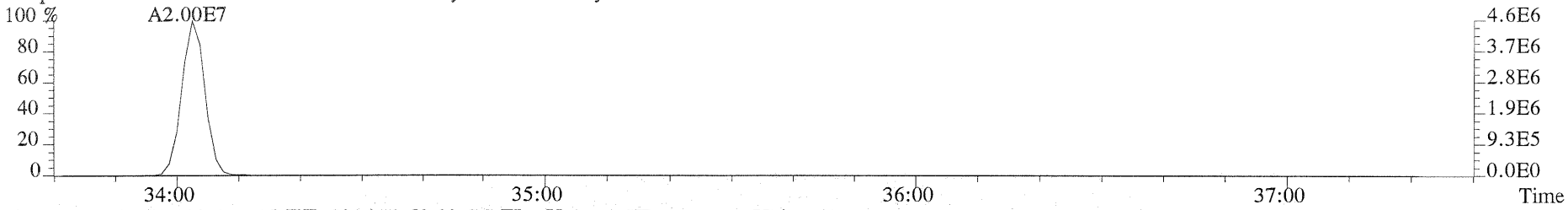
File:15JUL16Z #1-180 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



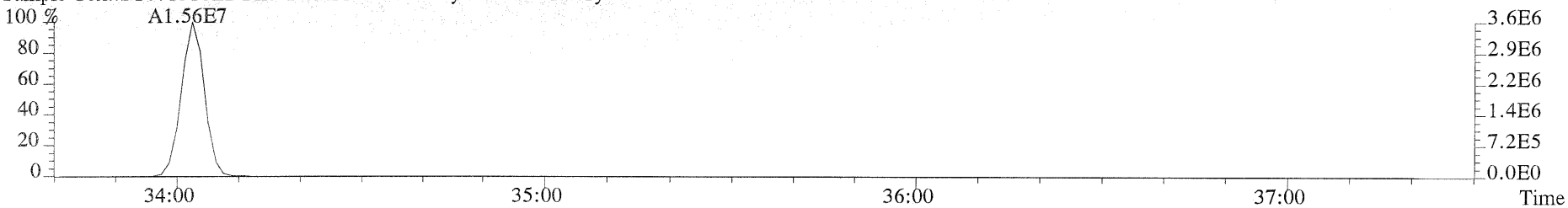
File:15JUL16Z #1-180 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



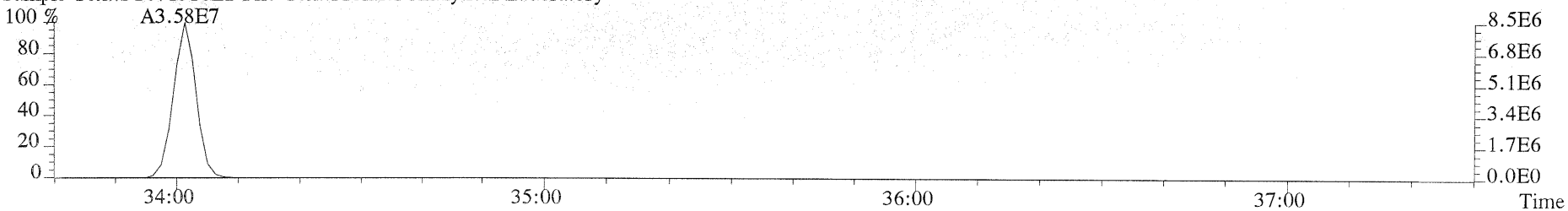
File:15JUL16Z #1-180 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



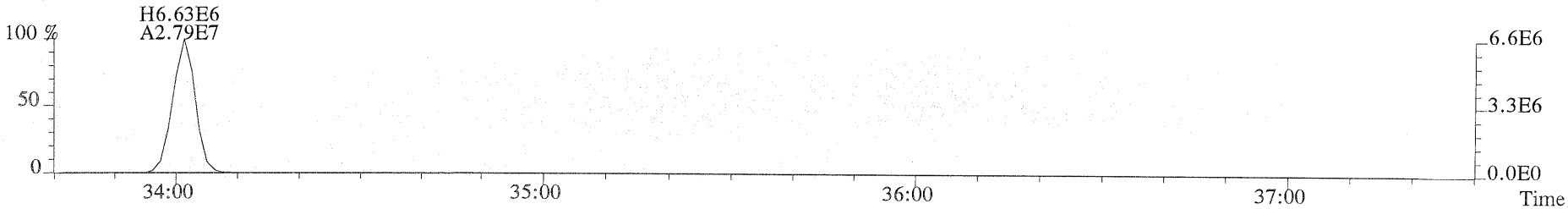
File:15JUL16Z #1-180 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



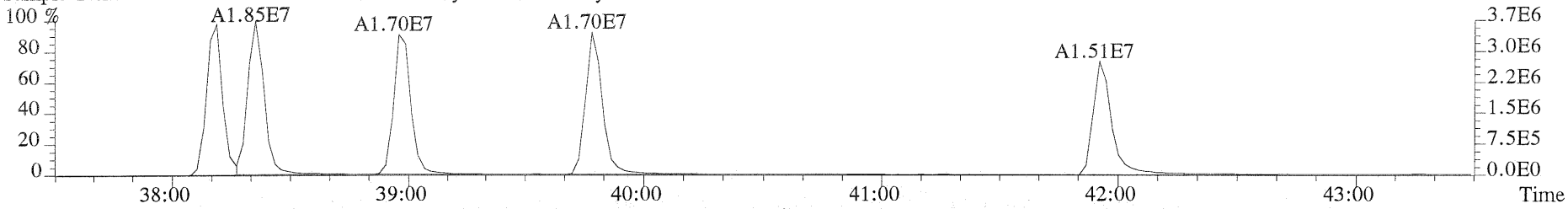
File:15JUL16Z #1-180 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



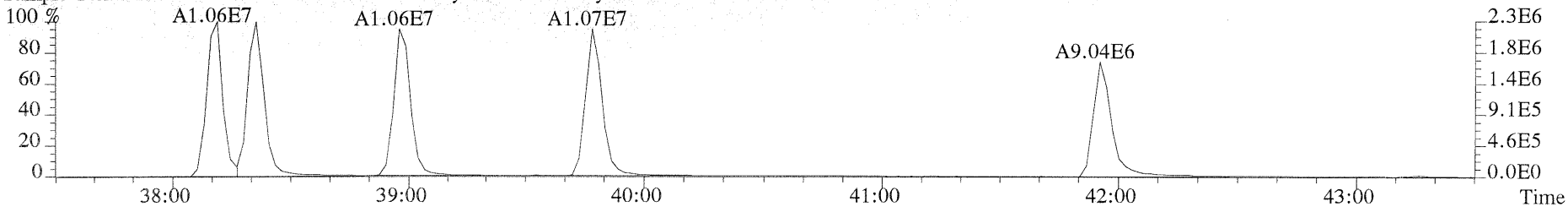
File:15JUL16Z #1-180 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:5 F:4 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



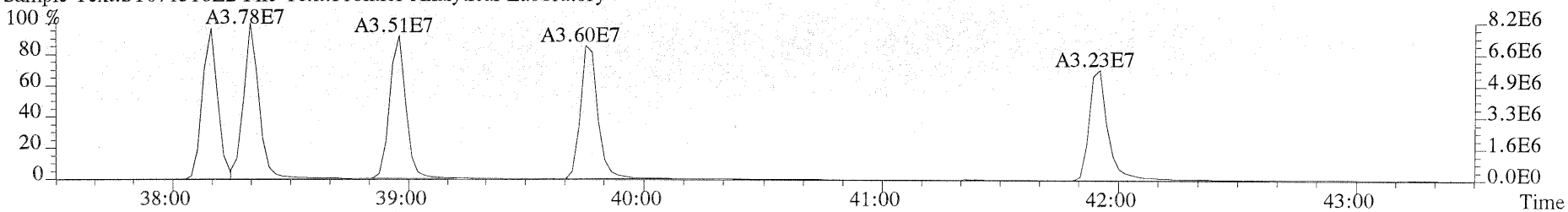
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
325.8804 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



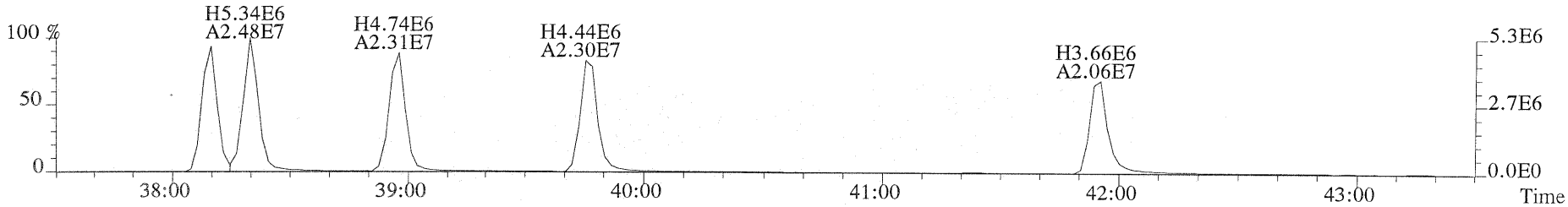
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
327.8775 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



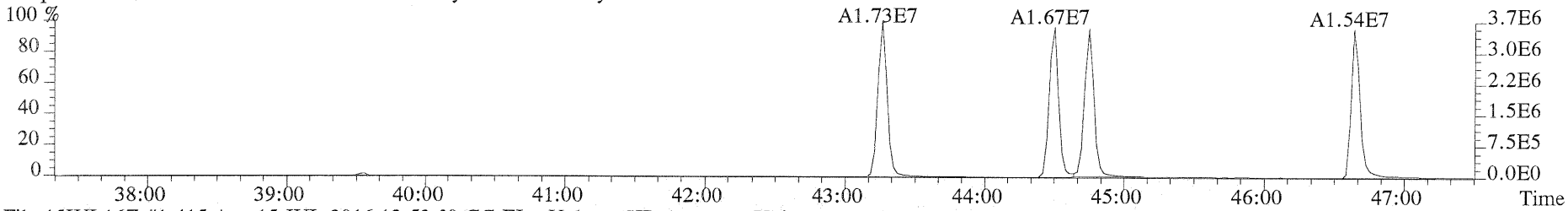
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
337.9207 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



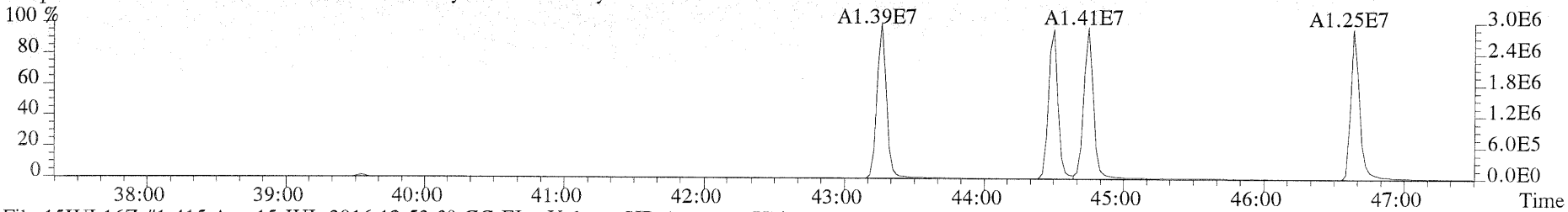
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
339.9178 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



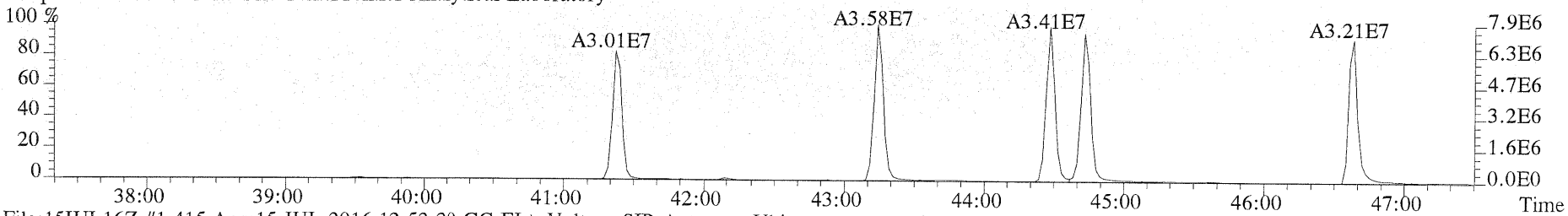
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
359.8415 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



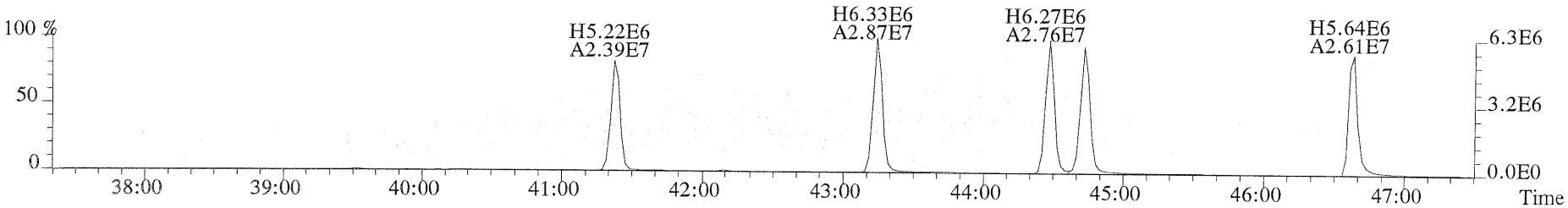
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
361.8385 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



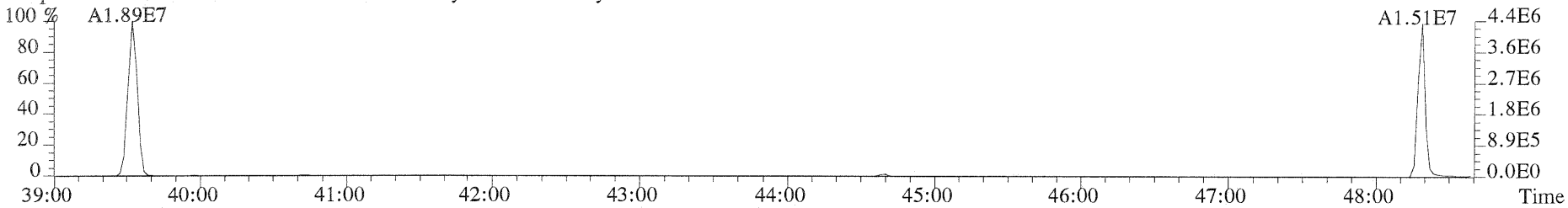
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
371.8817 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



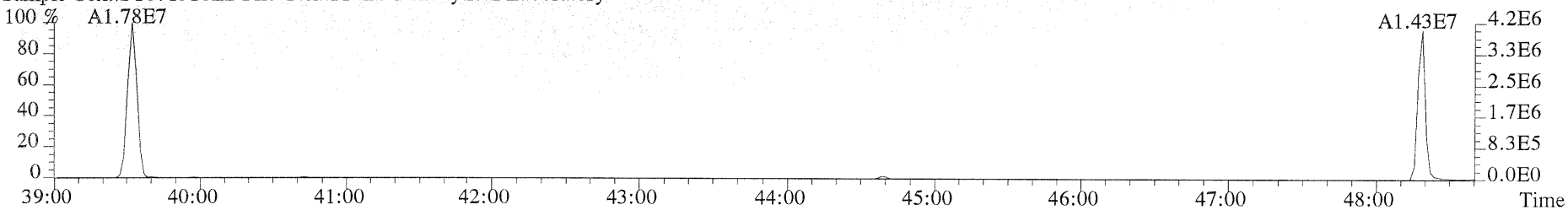
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
373.8788 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



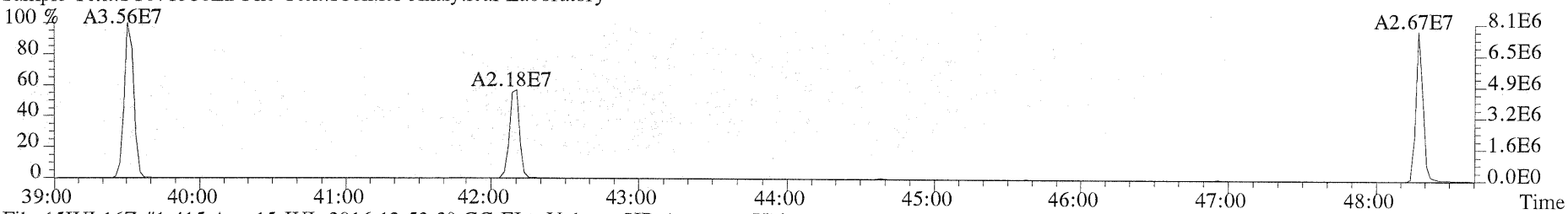
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
393.8025 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



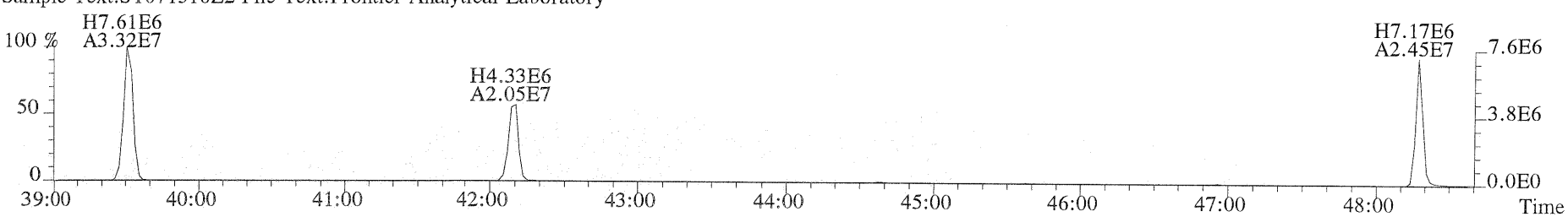
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
395.7995 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



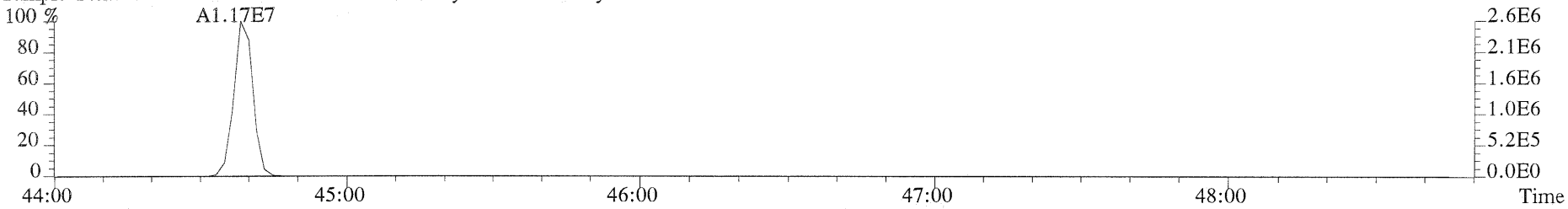
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
405.8428 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



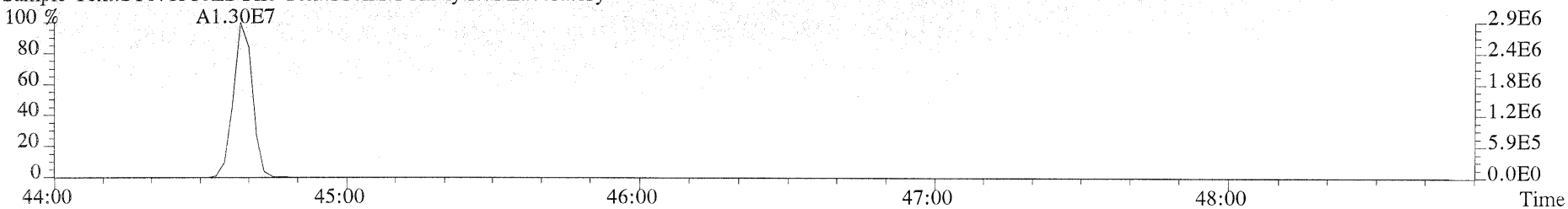
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
407.8398 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



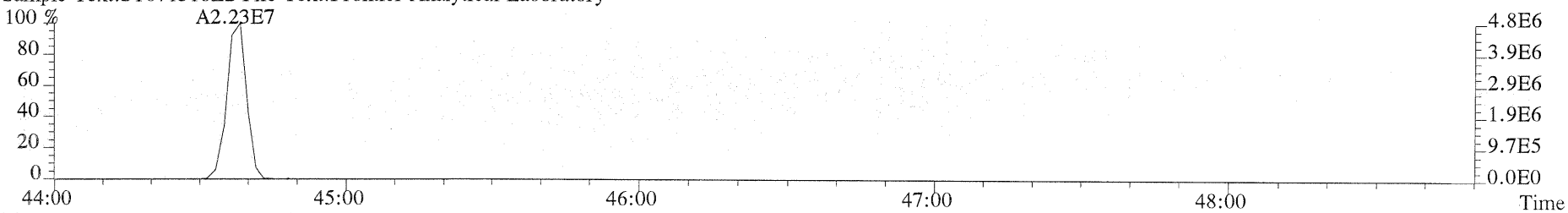
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



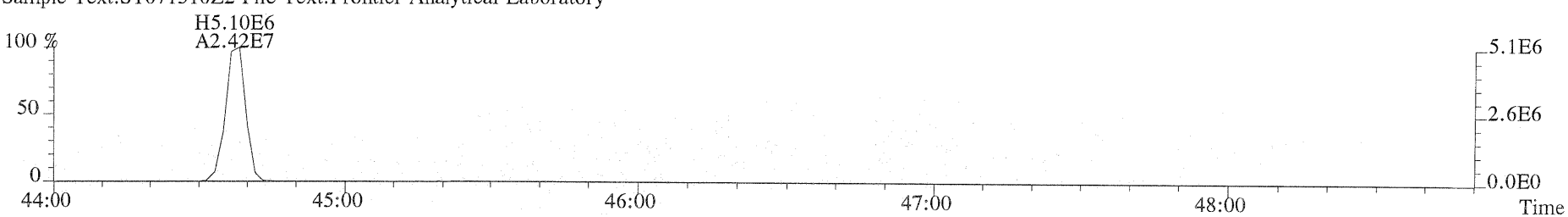
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



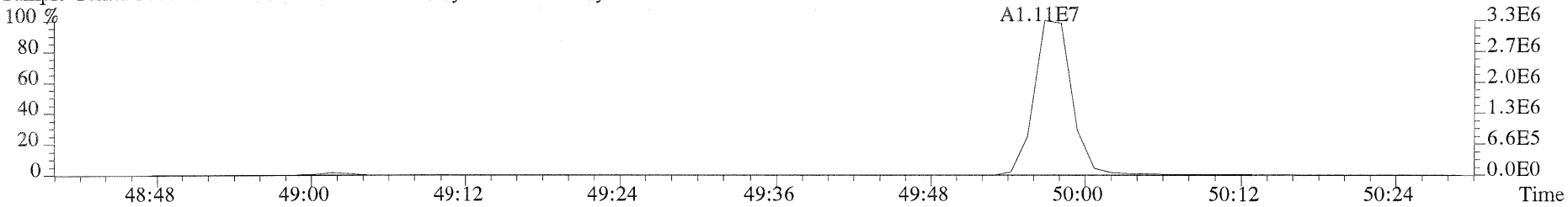
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



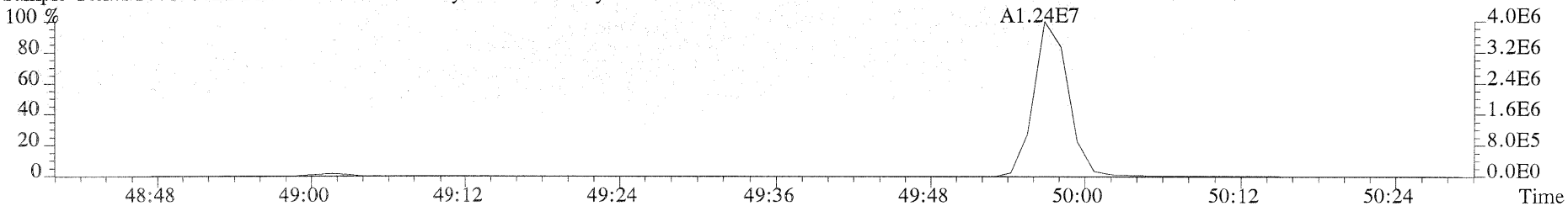
File:15JUL16Z #1-415 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:5 F:5 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



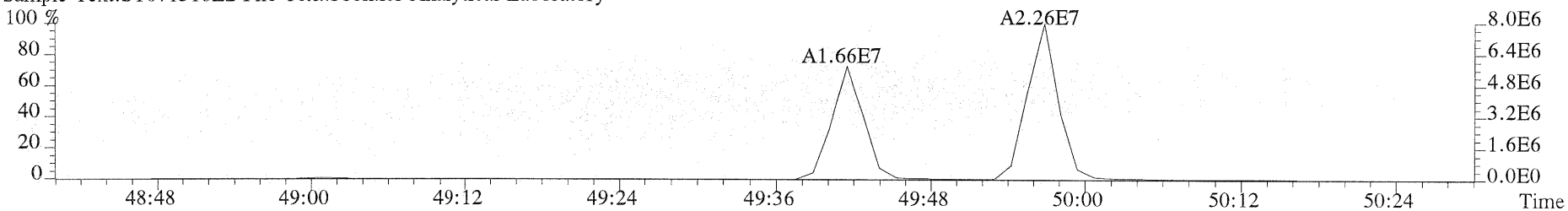
File:15JUL16Z #1-221 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
427.7635 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



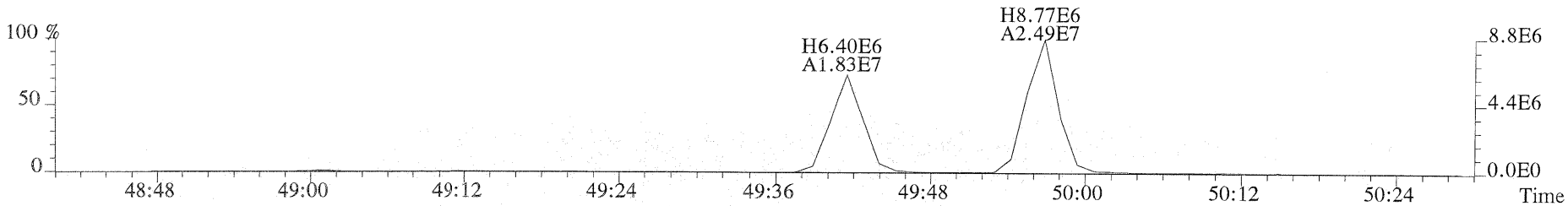
File:15JUL16Z #1-221 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
429.7606 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



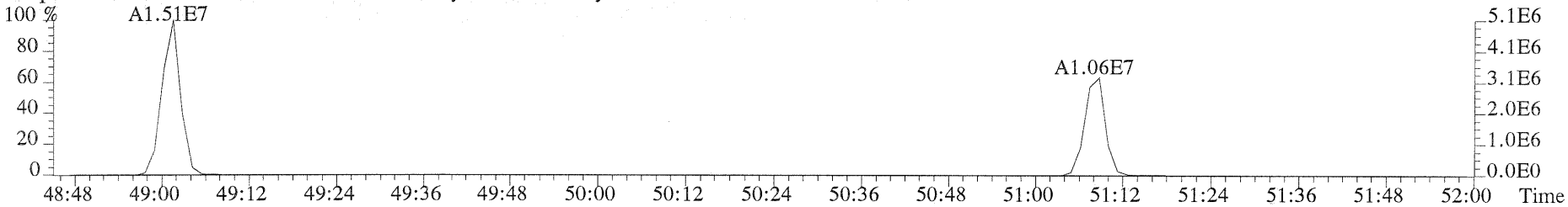
File:15JUL16Z #1-221 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
439.8038 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



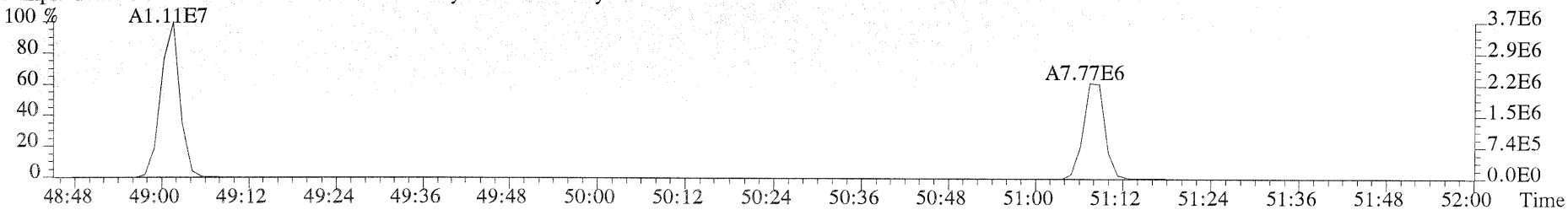
File:15JUL16Z #1-221 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
441.8008 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
463.7216 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
465.7187 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



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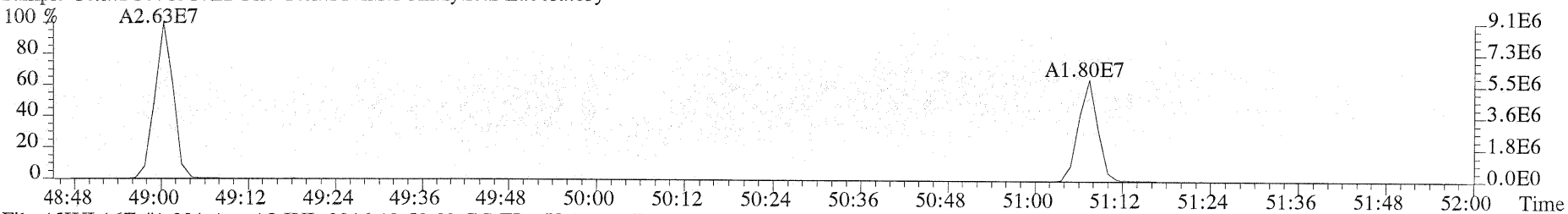
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
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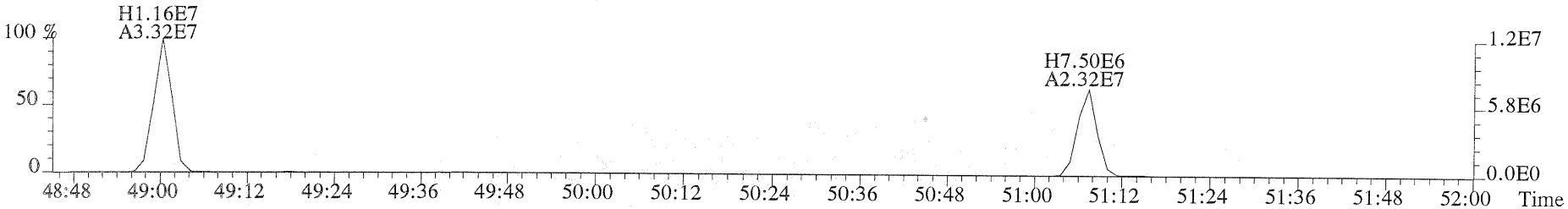
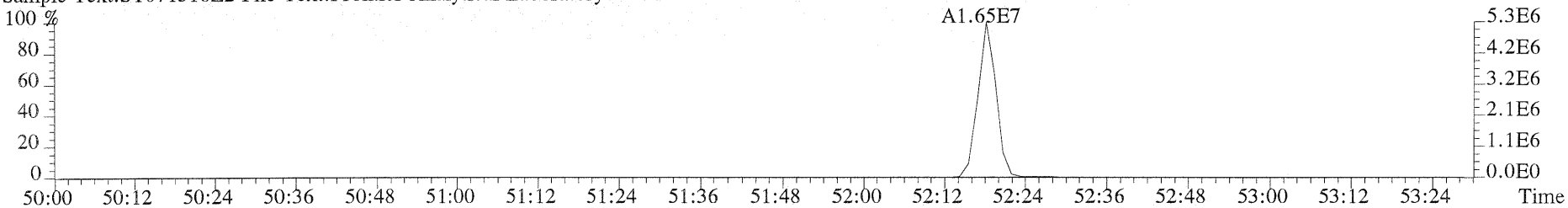
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
497.6826 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



File:15JUL16Z #1-221 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
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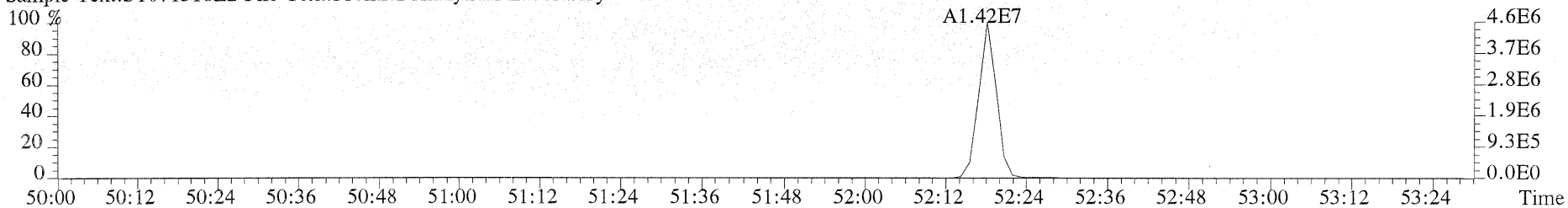
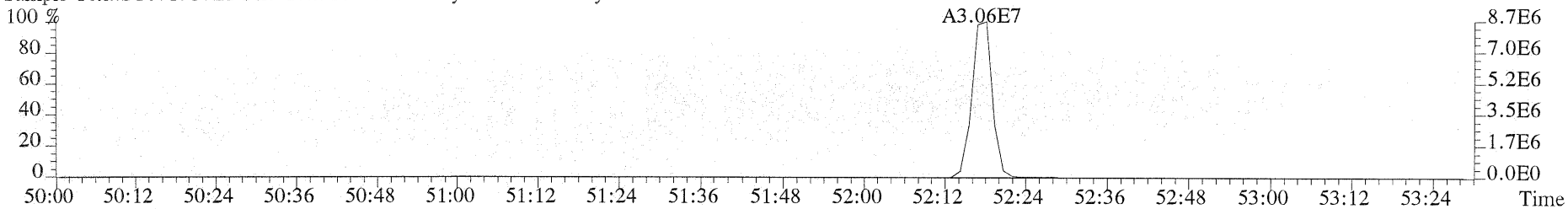
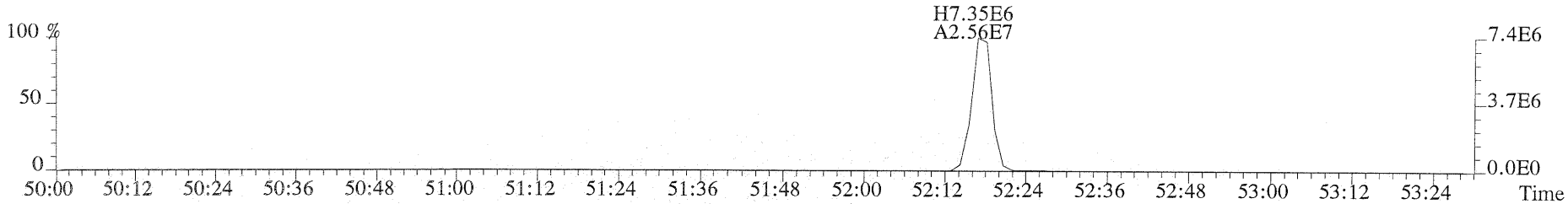
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory



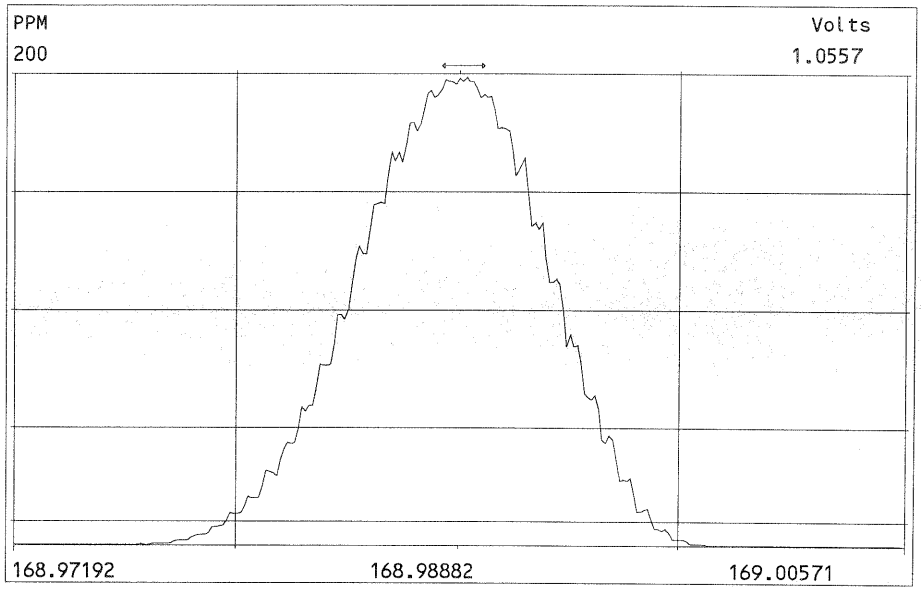
File:15JUL16Z #1-221 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
509.7229 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory

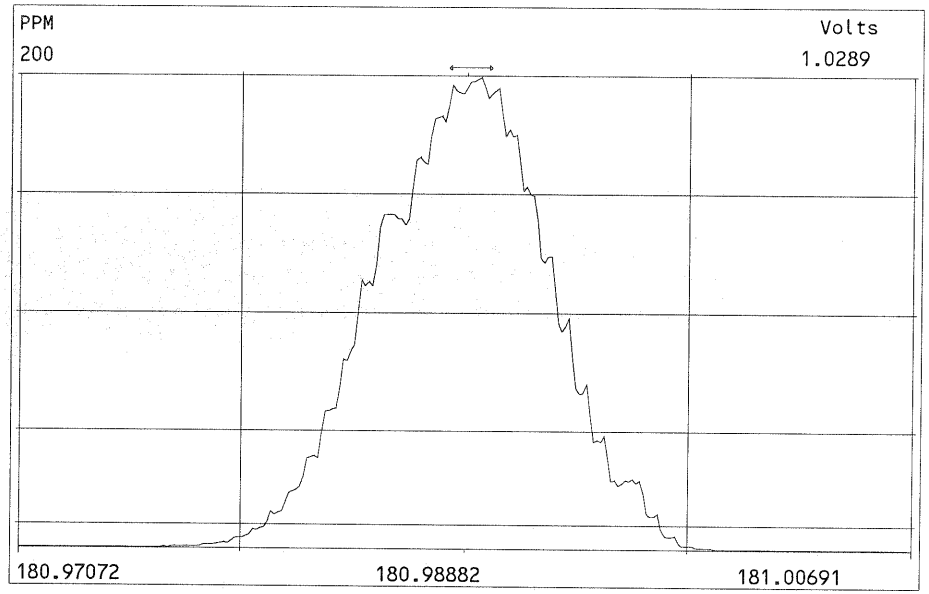


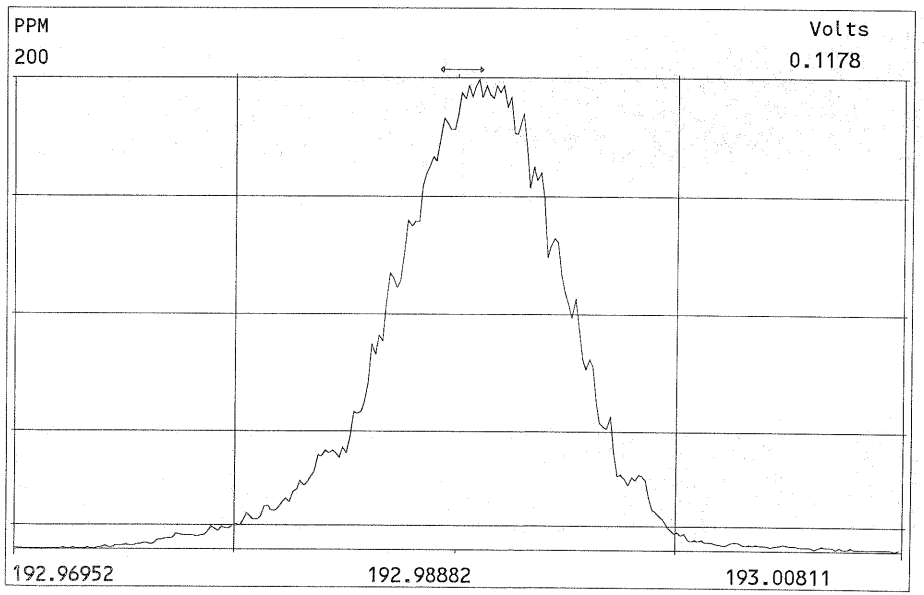
File:15JUL16Z #1-221 Acq:15-JUL-2016 12:52:20 GC EI+ Voltage SIR Autospec-Ultima
511.7199 S:5 F:6 BSUB(1000,15,-3.0) PKD(3,3,1,0.10%,100.0,0.00%,F,F) Exp:1668PCB
Sample Text:ST071516Z2 File Text:Frontier Analytical Laboratory

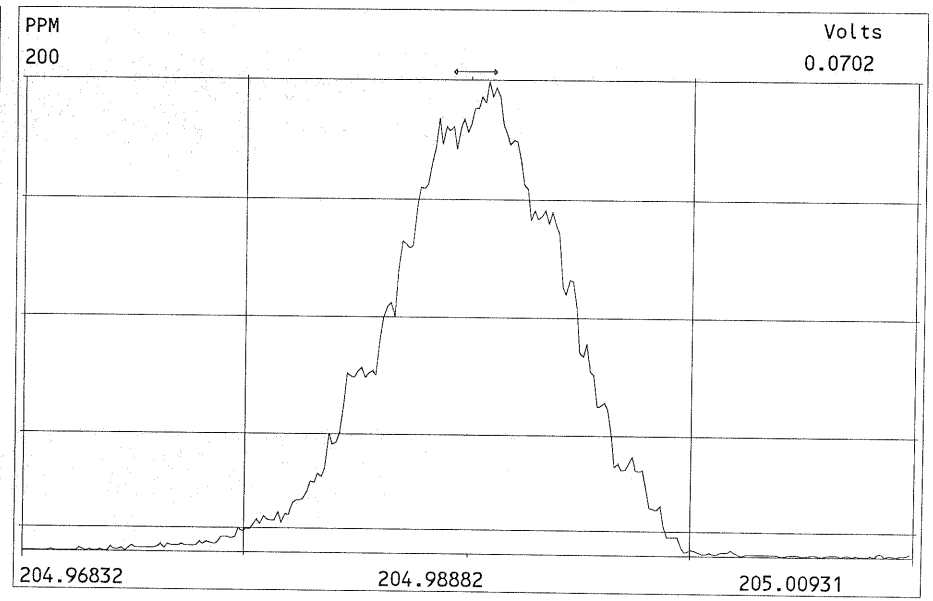


Peak Locate Examination:15-JUL-2016:13:54 File:15JUL16Z_RES_CHECK
Experiment:1668PCB Function:1 Reference:PFK

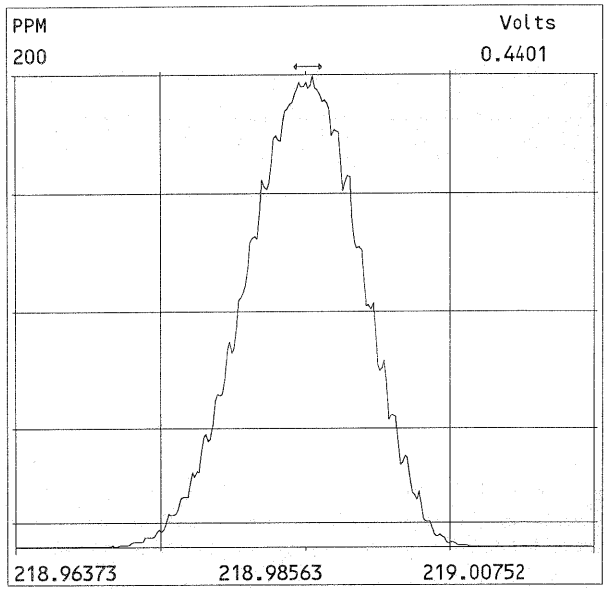


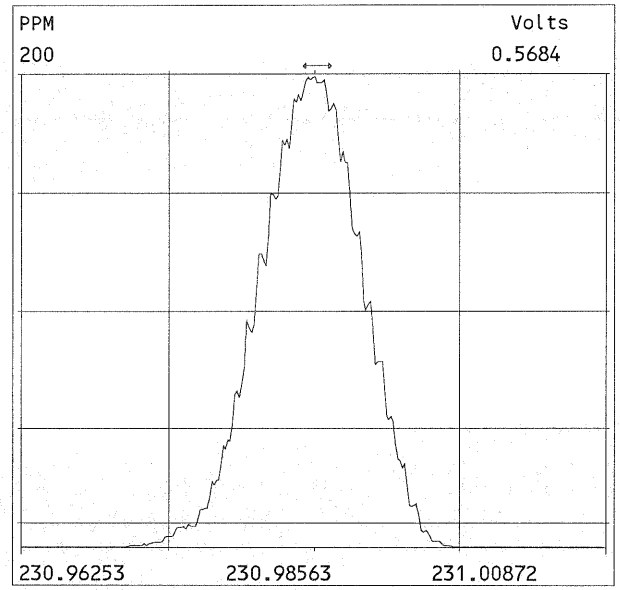


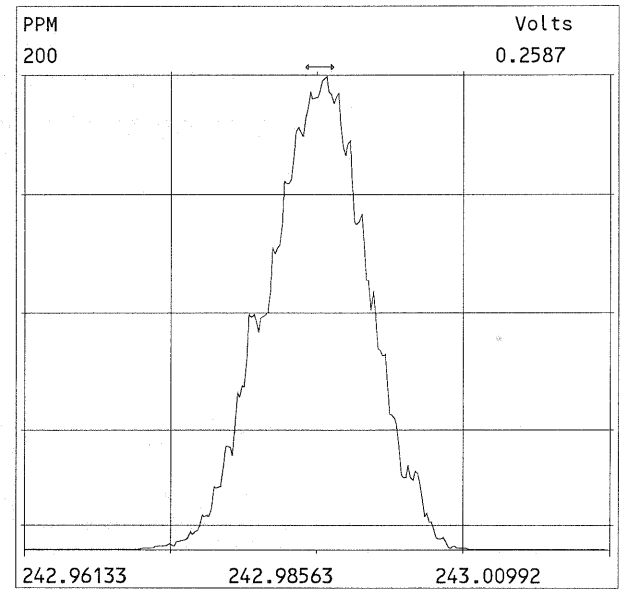


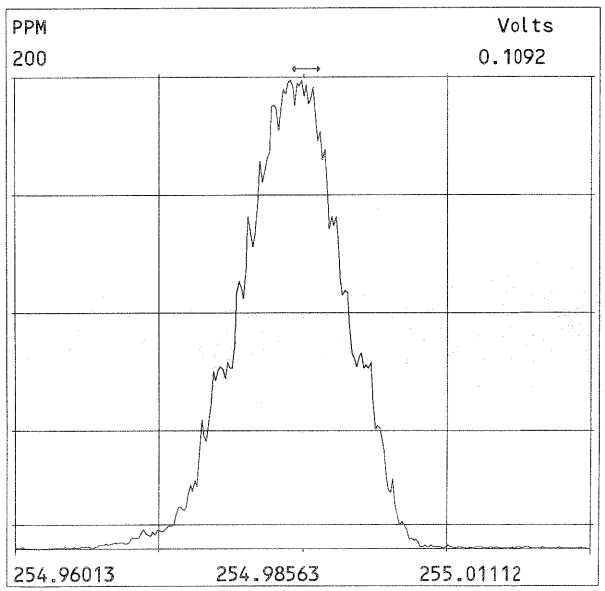


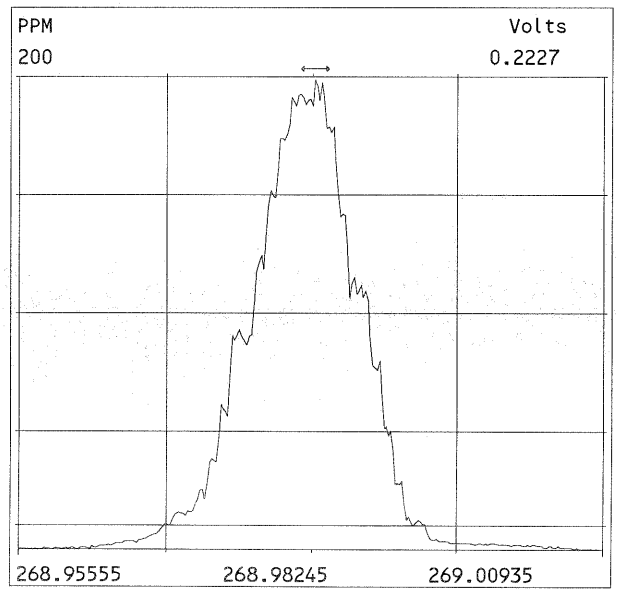
Peak Locate Examination:15-JUL-2016:13:55 File:15JUL16Z_RES_CHECK
Experiment:1668PCB Function:2 Reference:PFK

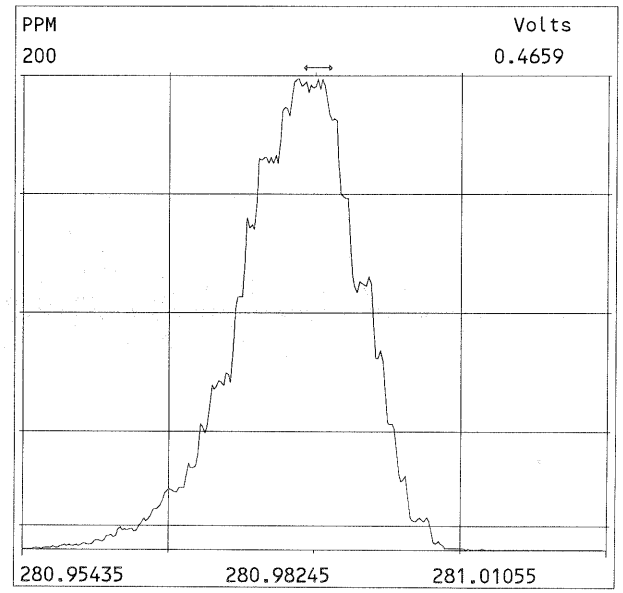




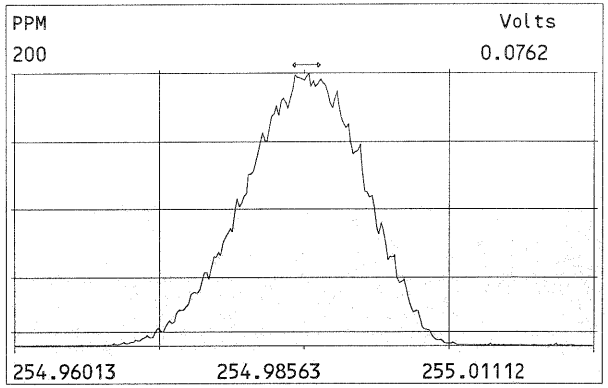


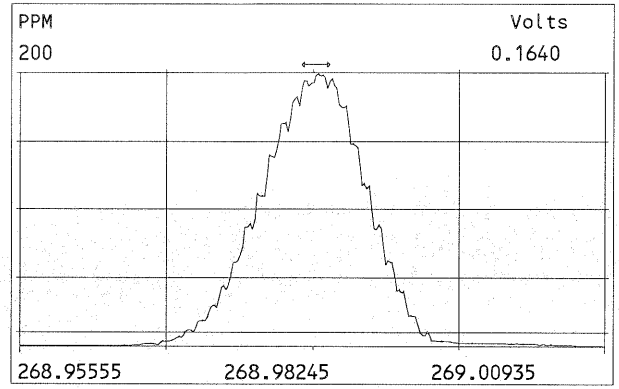


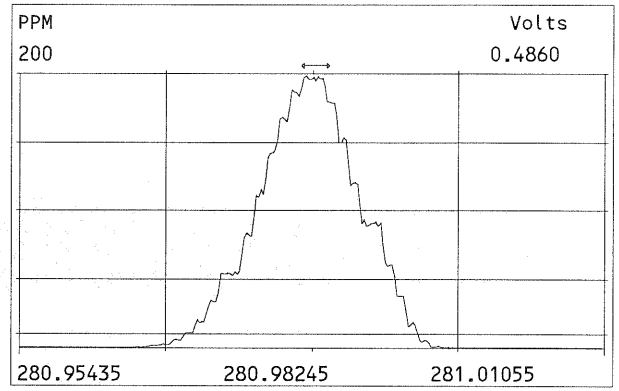


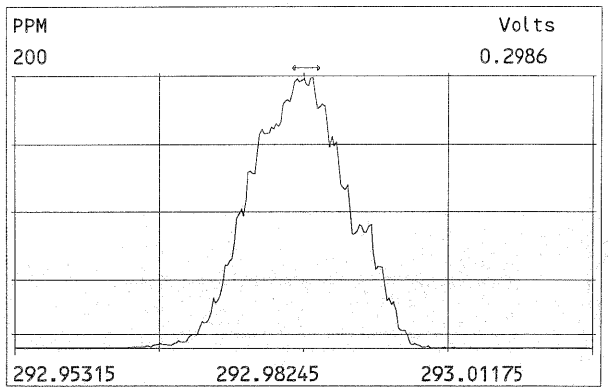


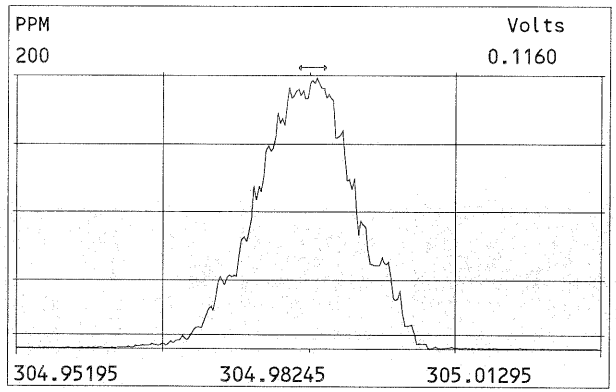
Peak Locate Examination:15-JUL-2016:13:57 File:15JUL16Z_RES_CHECK
Experiment:1668PCB Function:3 Reference:PFK

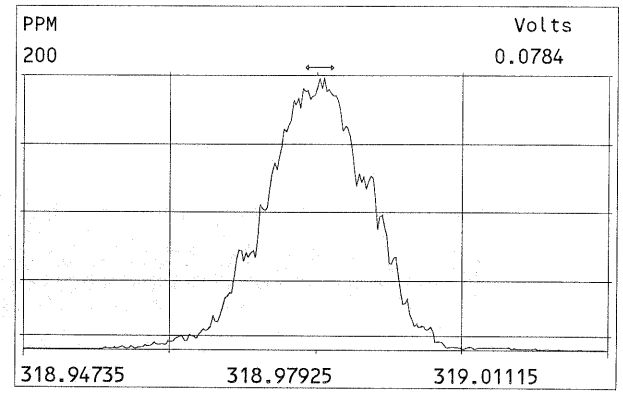


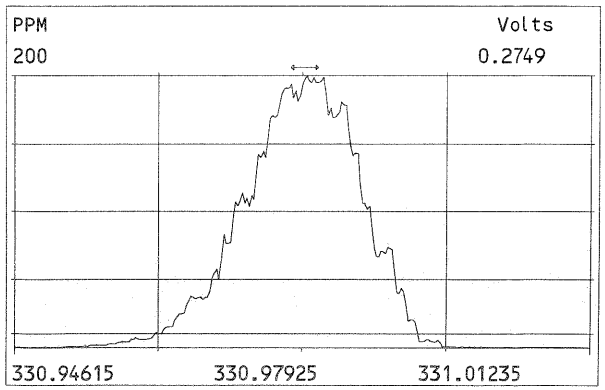


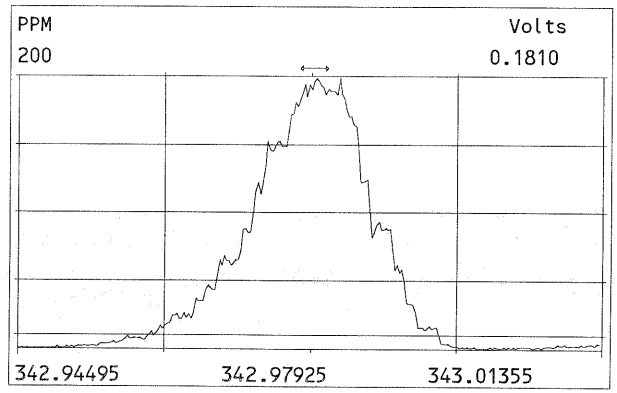




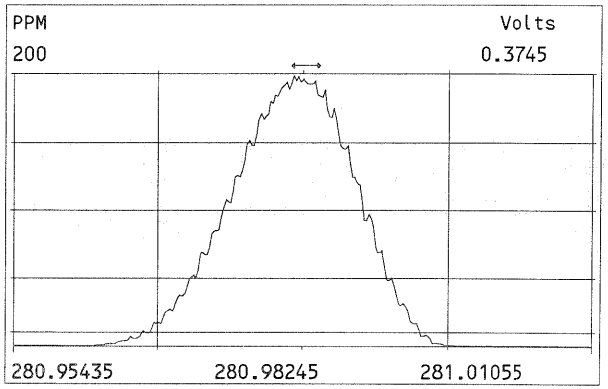


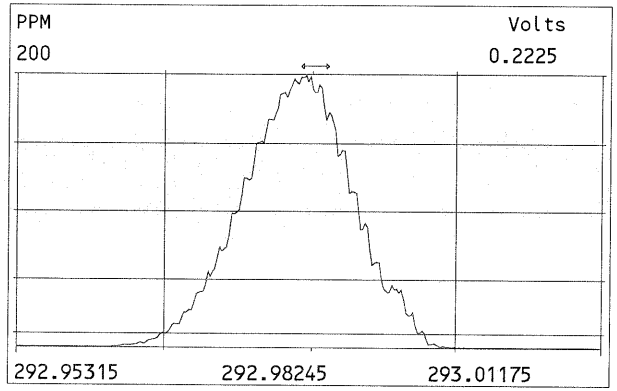


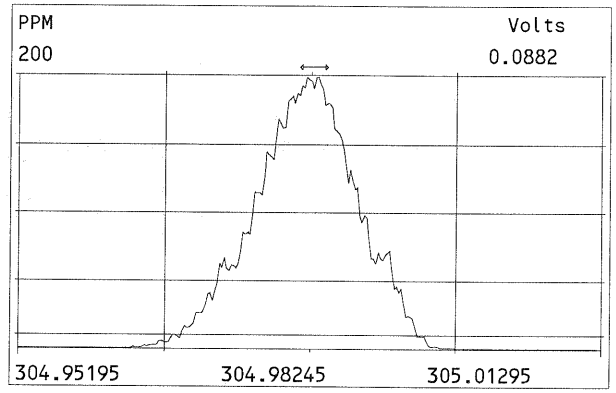


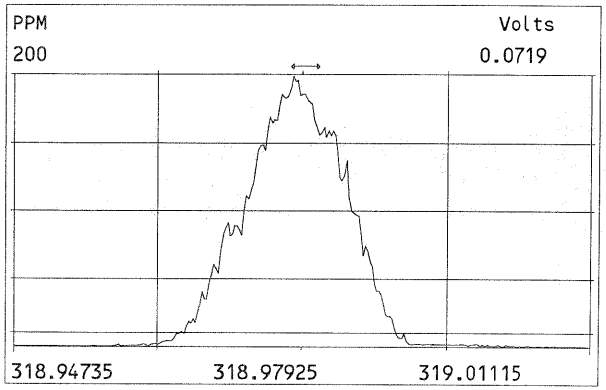


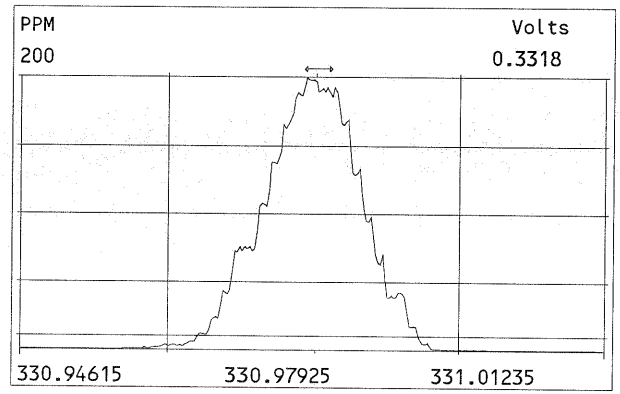
Peak Locate Examination:15-JUL-2016:13:57 File:15JUL16Z_RES_CHECK
Experiment:1668PCB Function:4 Reference:PFK

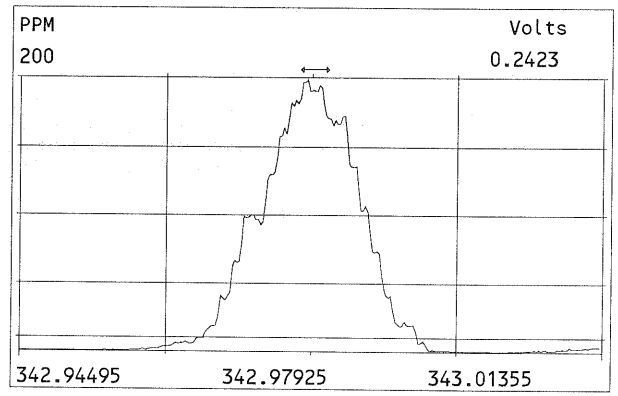


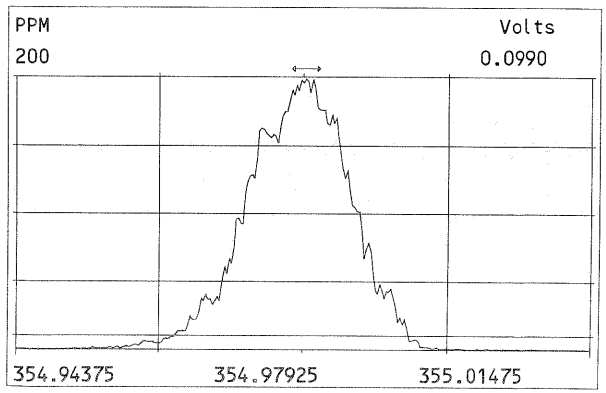


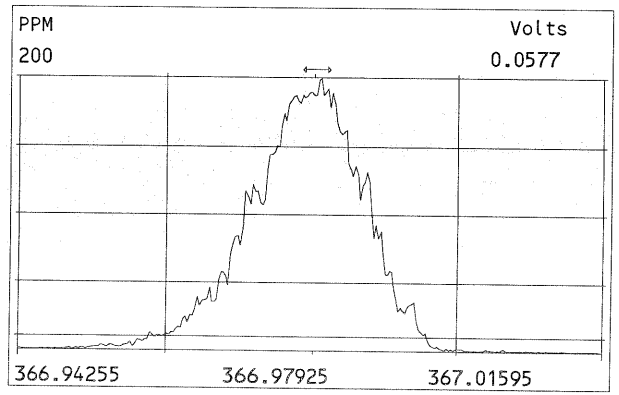


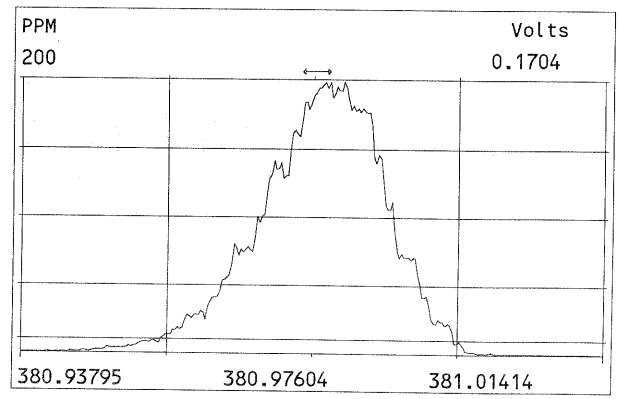




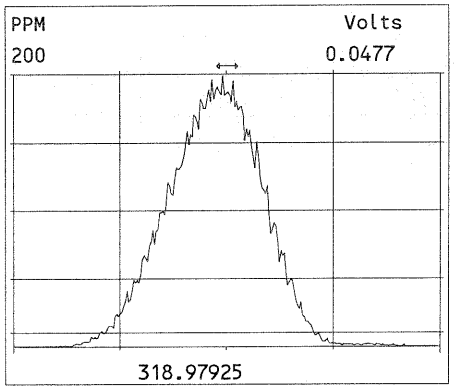


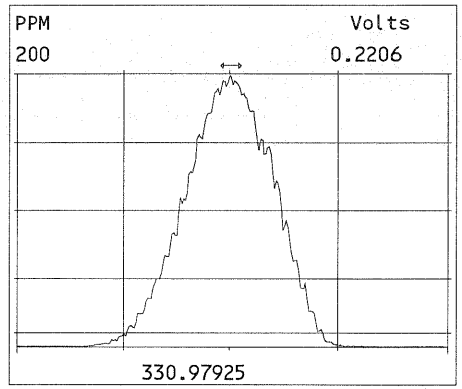


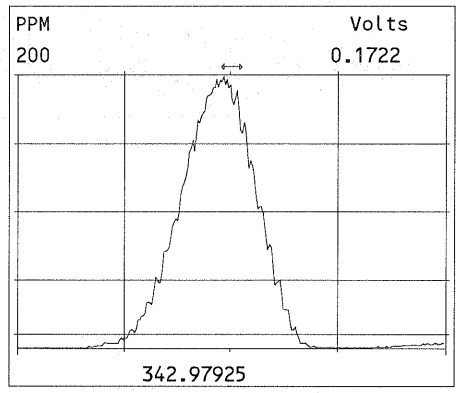


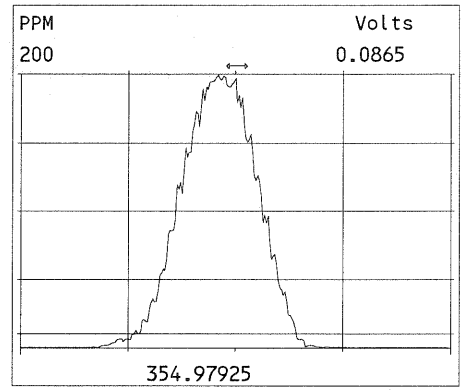


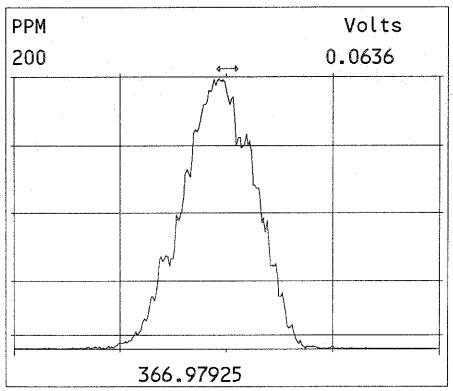
Peak Locate Examination:15-JUL-2016:13:58 File:15JUL16Z_RES_CHECK
Experiment:1668PCB Function:5 Reference:PFK

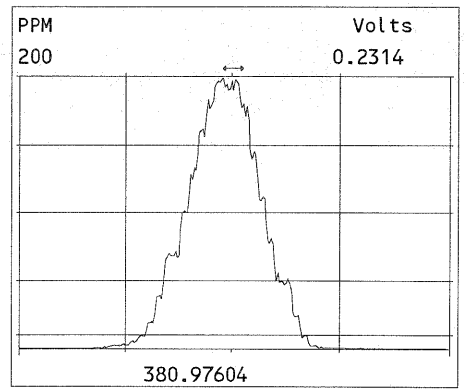


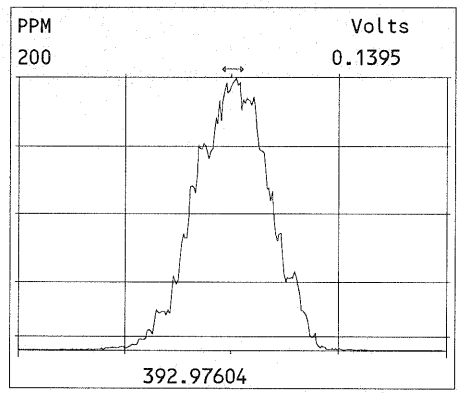


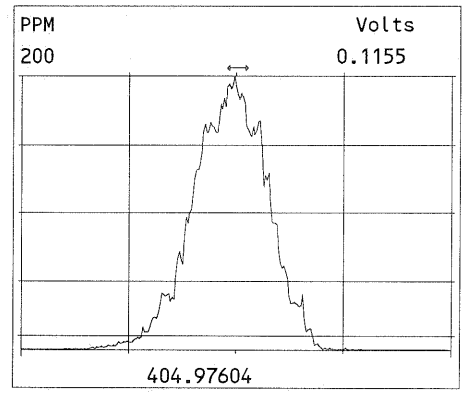


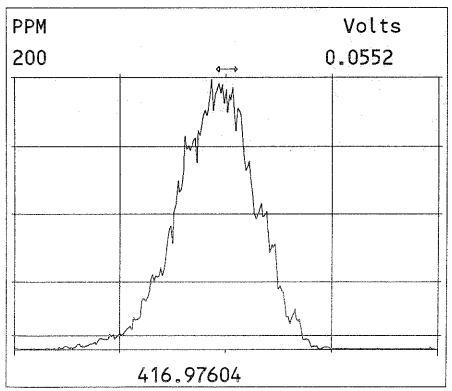


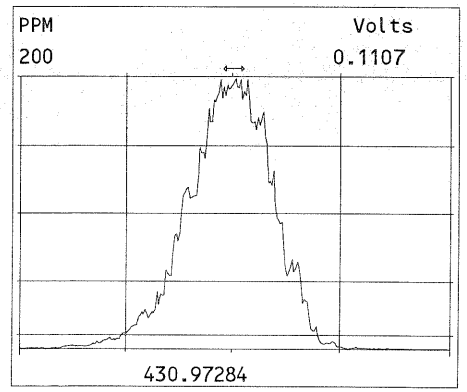


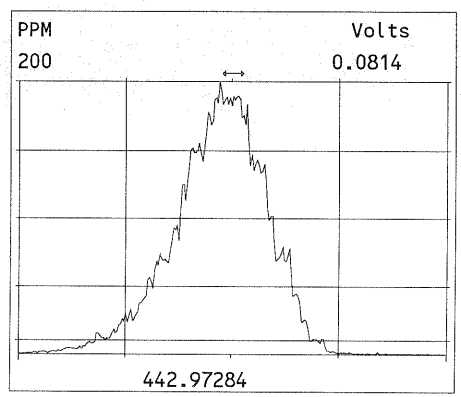
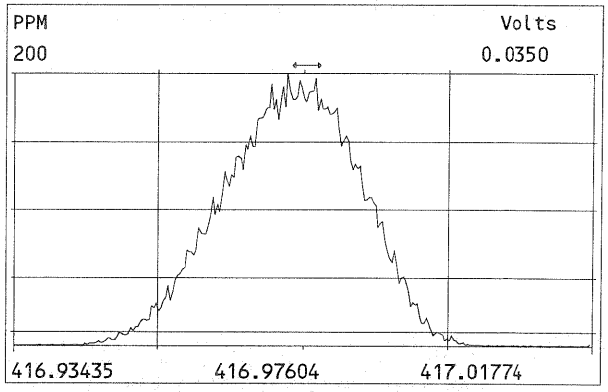
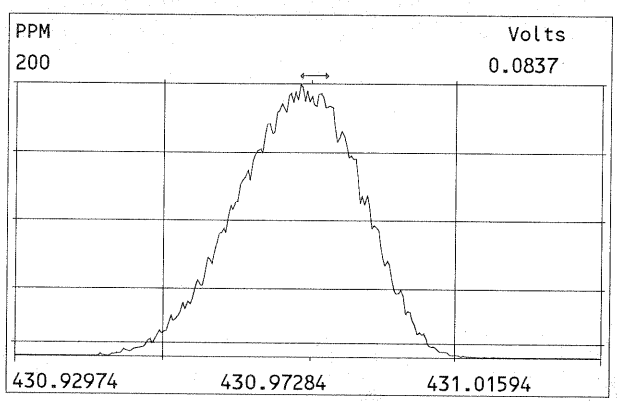
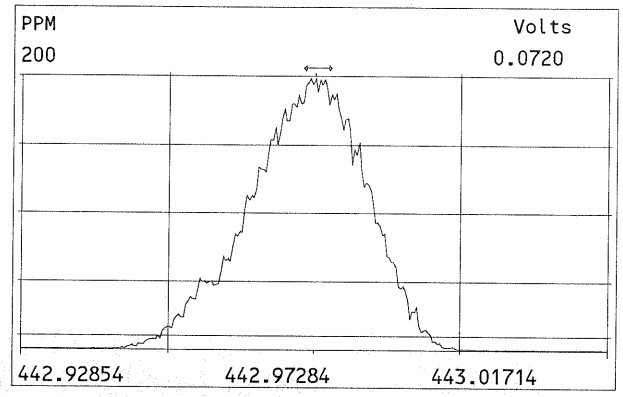
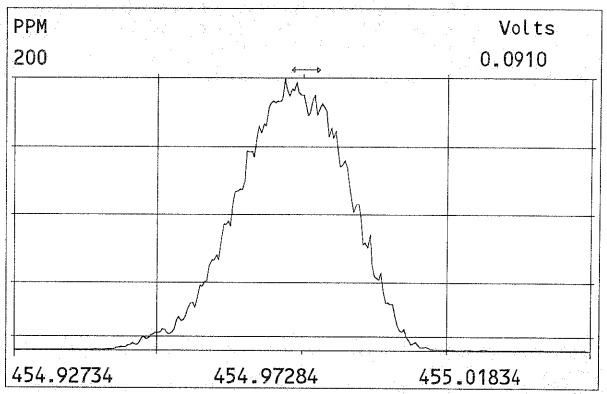
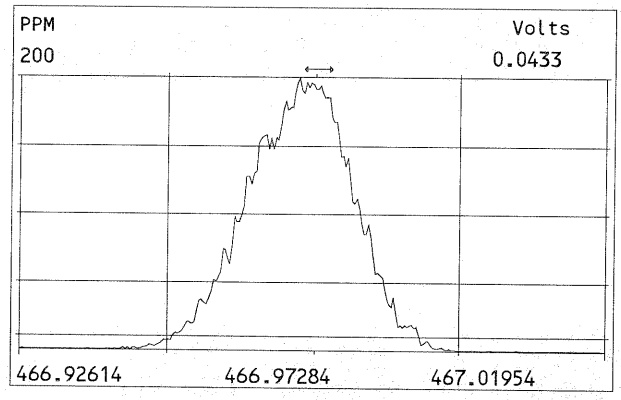
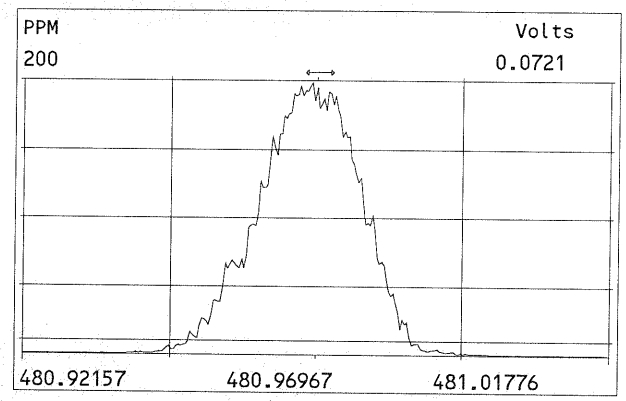
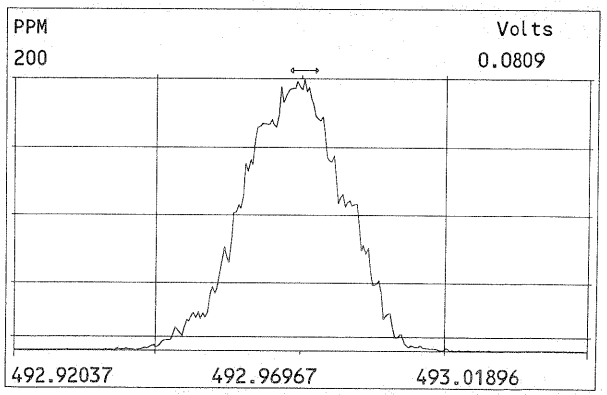
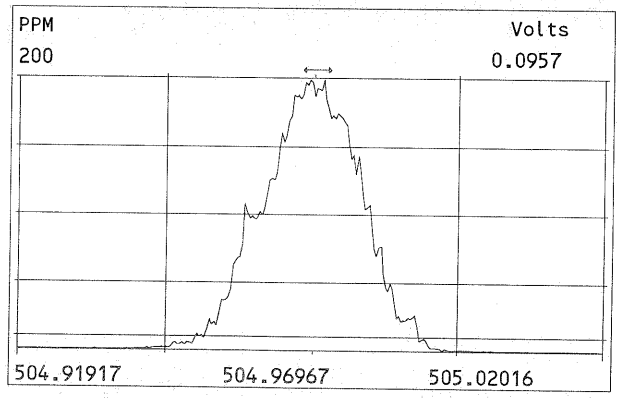
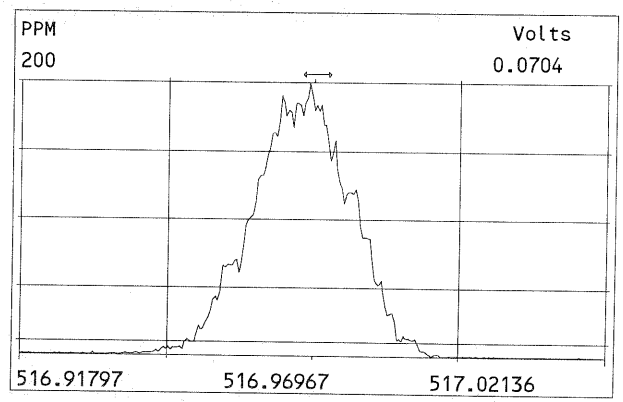








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