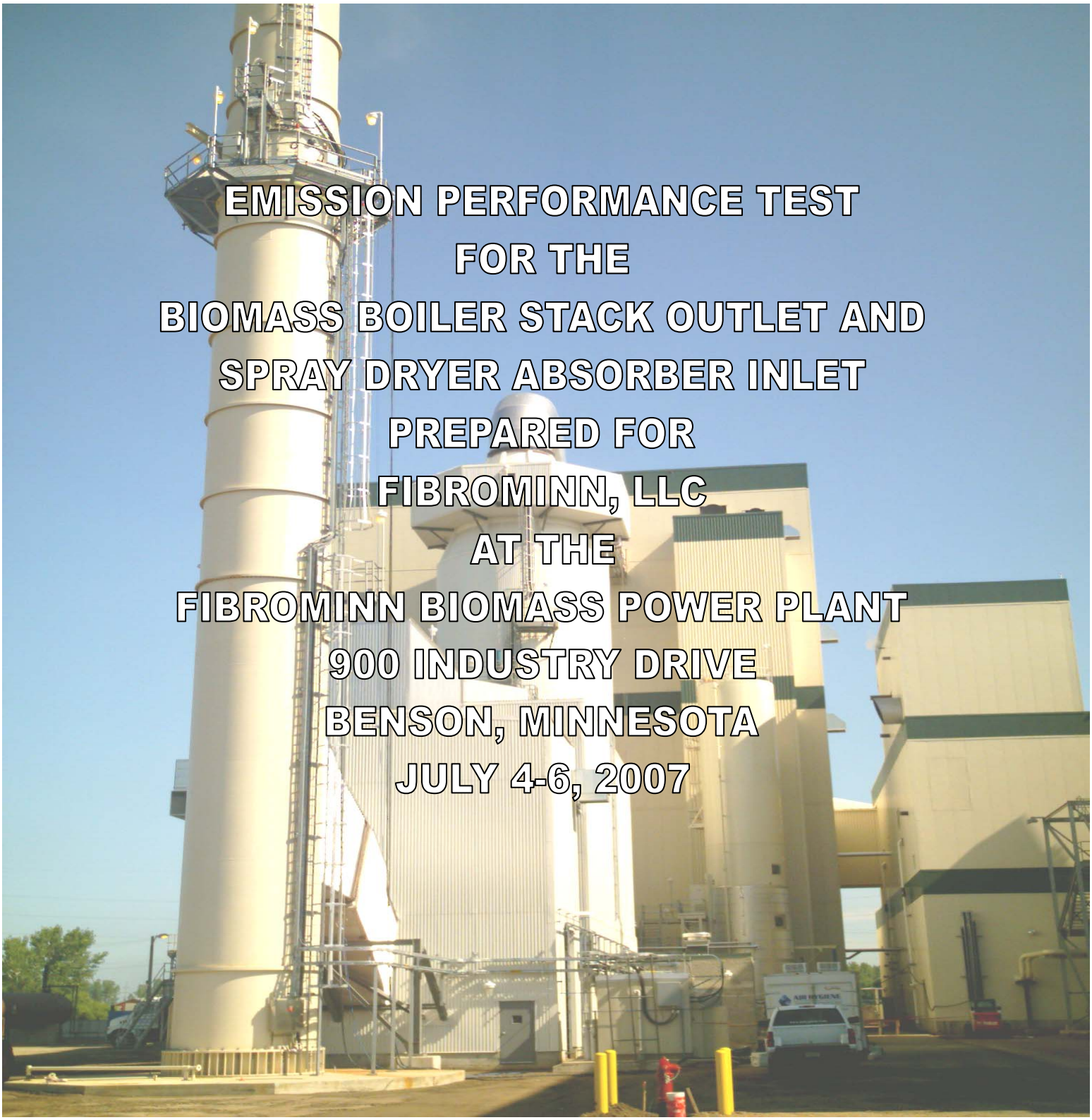

EMISSION PERFORMANCE TEST
FOR THE
BIOMASS BOILER STACK OUTLET AND
SPRAY DRYER ABSORBER INLET
PREPARED FOR
FIBROMINN, LLC
AT THE
FIBROMINN BIOMASS POWER PLANT
900 INDUSTRY DRIVE
BENSON, MINNESOTA
JULY 4-6, 2007

Air Hygiene International, Inc.

Corporate Headquarters
5634 S. 122nd E. Ave. Ste. F
Tulsa, Oklahoma 74146

Las Vegas Office
5925 E. Lake Mead Blvd.
Las Vegas, Nevada 89156

Philadelphia Office
8900 State Road
Philadelphia, Pennsylvania 19136

Houston Office
1920 Treble Drive
Humble, Texas 77338

(918) 307-8865 or (888) 461-8778
www.airhygiene.com

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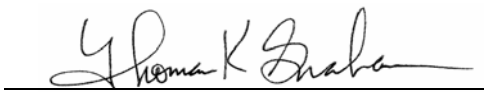
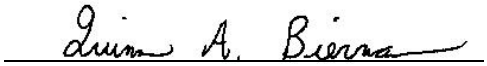
Prepared and Reviewed by:



Thomas K. Graham, PE, Director of Operations



Quinn A. Bierman, President

Minn R. 7017.2040 Certification Statements

Certification of sampling procedures
I certify under penalty of law that the sampling procedures were performed in accordance with the approved test plan and that the data presented in this test report are, to the best of my knowledge and belief, true, accurate, and complete. All exceptions are listed and explained below.

Thomas K. Graham, PE, Director of Operations

Exceptions: None

Certification of analytical procedures
I certify under penalty of law that the analytical procedures were performed in accordance with the requirements of the test methods and that the data presented for use in the test report were, to the best of my knowledge and belief, true, accurate, and complete. All exceptions are listed and explained below.

Pandu Sattvika, Laboratory Manager

Exceptions: None

Certification of test report by testing company
I certify under penalty of law that this test report and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the test information submitted. Based on my inquiry of the person or persons who performed sampling and analysis relating to the performance test, the information submitted in this test report is, to the best of my knowledge and belief, true, accurate, and complete. All exceptions are listed and explained below.

Quinn A. Bierman, President

Exceptions: None

Certification of test report by owner or operator of emission facility
I certify under penalty of law that the information submitted in this test report accurately reflects the operating conditions at the emission facility during this performance test and describes the date and nature of all operational and maintenance activities that were performed on process and control equipment during the month prior to the performance test. Based on my inquiry of the person or persons who performed the operational and maintenance activities, the information submitted in this test report is, to the best of my knowledge and belief, true, accurate, and complete. All exceptions are listed and explained below.

Exceptions:

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Emissions Performance Test
Biomass Boiler Stack Outlet and Spray Dryer Absorber Inlet
Fibrominn, LLC
Fibrominn Biomass Power Plant
Benson, Minnesota
July 4-6, 2007

1.0 INTRODUCTION

Air Hygiene International, Inc. (Air Hygiene) has completed the emissions testing study for dioxins (PCDDs), furans (PCDFs), and mercury (Hg) from the Biomass Boiler Stack Outlet and Spray Dryer Absorber Inlet for Fibrominn, LLC at the Fibrominn Biomass Power Plant near Benson, Minnesota. This report details the background, results, process description, and the sampling/analysis methodology of the stack sampling survey conducted on July 4-6, 2007.

1.1 TEST PURPOSE AND OBJECTIVES

The purpose of the test was to conduct an initial performance emission test to document levels of selected pollutants at a maximum test load (greater than 90 percent). The information will be used to establish emission baselines with the operating permit issued by the Minnesota Pollution Control Agency (MPCA). The specific objective was to determine the emission concentration of PCDDs, PCDFs, and Hg from Fibrominn, LLC'sBiomass Boiler Stack Outlet and Hg entering the Spray Dryer Absorber Inlet.

1.2 SUMMARY OF TEST PROGRAM

The following list details pertinent information related to this specific project:

1.2.1 Participating Organizations
- Minnesota Pollution Control Agency (MPCA)
- Fibrominn, LLC
- SNC - Lavalin
- Air Hygiene

1.2.2 Industry
- Biomass Fired Electric Utility / Electric Services

1.2.3 Air Permit
- Permit Number: 15100038-004
- AQ Facility ID No: 4065

1.2.4 Plant Location
- Fibrominn Biomass Power Plant near Benson, Minnesota

1.2.5 Equipment Tested
- Biomass Boiler Stack Outlet and Spray Dryer Absorber Inlet (identified as EU-001)

1.2.6 Emission Points
- Biomass Boiler Stack Outlet and Spray Dryer Absorber Inlet
- For Hg, 12 sampling points from the Biomass Boiler Stack Outlet and Spray Dryer Absorber Inlet
- For all PCDD and PCDF testing, twelve sample points in the Biomass Boiler Stack Outlet (refer to Appendix B)

1.2.7 Pollutants Measured
- PCDDs / PCDFs
- Hg

1.2.8 Dates of Emission Test
- July 4-6, 2007

1.3 KEY PERSONNEL

Fibrominn, LLC:	Chuck Wagoner	320-843-9013
MPCA:	Steven Gorg	651-296-8766
SNC:	Victor Myers	320-843-5170
Air Hygiene:	Thomas Graham	918-307-8865

2.0 SUMMARY OF TEST RESULTS

Results from the sampling conducted on Fibrominn, LLC's Biomass Boiler Stack Outlet and Spray Dryer Absorber Inlet located at the Fibrominn Biomass Power Plant on July 4-6, 2007 are summarized in the following table.

TABLE 2.1
SUMMARY EMISSIONS DATA

Parameter	Units	Run 1	Run 2	Run 3	Average
PCDDs / PCDFs (Total)	ng	0.6280	0.3957	0.2774	0.4337
	ng/dscm@7%O2	0.1654	0.1119	0.0744	0.1176
	kg/hr	5.25E-08	3.65E-08	2.41E-08	3.77E-08
	lbs/hr	1.16E-07	8.06E-08	5.32E-08	8.32E-08
	tons/yr	5.07E-07	3.53E-07	2.33E-07	3.64E-07
	lbs/MMBtu	1.60E-10	1.08E-10	7.18E-11	1.13E-10
Hg (Inlet)	mg	0.00052	0.00000	0.00000	0.00017
	lbs/hr	0.00036	0.00000	0.00000	0.00012
	tons/yr	0.00156	0.00000	0.00000	0.00052
	lbs/MMBtu	4.23E-07	0.00E+00	0.00E+00	1.41E-07
Hg (Outlet)	mg	0.00000	0.00000	0.00000	0.00000
	lbs/hr	0.00000	0.00000	0.00000	0.00000
	tons/yr	0.00000	0.00000	0.00000	0.00000
	lbs/MMBtu	0.00E+00	0.00E+00	0.00E+00	0.00E+00

All measurements and calculations were performed as stated and approved in the attached testing protocol (Appendix F) without any real or apparent errors. Unit loads during testing were at or above 90 percent of maximum.

3.0 SOURCE OPERATION

3.1 PROCESS DESCRIPTION

PowerMinn 9090, LLC (PowerMinn) owns and Fibrominn, LLC (Fibrominn) operates the Fibrominn Biomass Power Plant in Swift County, Benson, Minnesota. The plant consists of one boiler, fueled principally with poultry litter. Vegetative biomass may also be burned. The facility generates a nominal 50 megawatts (MW) of electricity for export and has a peak electrical export capacity of 55 MW with a peak gross electrical generating capacity of 65 MW.

Emissions from the boiler are controlled by a spray dryer absorber followed by a fabric filter baghouse to control particulate matter and particulate matter / particulate matter less than 10 microns in diameter (PM/PM_{10}), SO_2, sulfuric acid mist (H_2SO_4), and HCl. Selective non-catalytic reduction (SNCR) is used to control NOx. Good combustion practices are used to control CO and volatile organic compounds (VOCs).

3.2 SAMPLING LOCATION

Performance testing was performed on the unit at the spray dryer absorber (SDA) inlet and the stack outlet. The SDA inlet duct is circular and measures 10.8 feet (ft) (129 inches) in diameter at the test ports which are approximately 120 ft above grade level. The test ports are located approximately 101.8 ft (1,222 inches) downstream and approximately 29.2 ft (350 inches) upstream from the nearest disturbances.

The stack exhaust is circular and measures 9 feet (ft) (108 inches) in diameter at the test ports which are approximately 104 ft above grade level with an exit elevation of approximately 300 ft above grade level. The test ports are located approximately 75.8 ft (910 inches) downstream and approximately 196.5 ft (2,358 inches) upstream from the nearest disturbances.

All samples for Hg emissions were continuously drawn from the stack exhaust and SDA Inlet at 12 sample points. For PCDD and PCDF testing on the stack exhaust, an initial velocity traverse was performed across the stack from 12 total points. All PCDD and PCDF sampling occurred from the same 12 points by leaving the probe at each for an equal amount of time in order to draw at least 100 dry standard cubic feet of gas through the sample train.

4.0 SAMPLING AND ANALYTICAL PROCEDURES

4.1 TEST METHODS

The emission test on the Biomass Boiler Stack Outlet and Spray Dryer Absorber Inlet at the Fibrominn Biomass Power Plant was performed following United States Environmental Protection Agency (EPA) methods described by the Code of Federal Regulations (CFR) and the Ontario Hydro Method. Table 4.1 outlines the specific methods performed on July 4-6, 2007.

TABLE 4.1
SUMMARY OF SAMPLING METHODS

Pollutant or Parameter	Sampling Method	Analysis Method
Sample Point Location	EPA Method 1	Equal Area Method
Stack Flow Rate	EPA Method 2	S-Type Pitot Tube
Oxygen	EPA Method 3a	Paramagnetic Cell
Carbon Dioxide	EPA Method 3a	Nondispersive Infrared Analyzer
Stack Moisture Content	EPA Method 4	Gravimetric Analysis
PCDD and PCDF	EPA Method 23	Laboratory GC/MS
Carbon Monoxide	EPA Method 10	Nondispersive Infrared Analyzer
Fuel Based F-Factor	EPA Method 19	CO_2 Based F Factor
Mercury	Ontario Hydro	ASTM D6784-02

4.2 INSTRUMENT CONFIGURATION AND OPERATIONS FOR GAS ANALYSIS

The sampling and analysis procedures used during these tests conform with the methods outlined in the Code of Federal Regulations (CFR), Title 40, Part 60, Appendix A, Methods 1, 2, 3a, 4, 10, 23, and the Ontario Hydro Method.

Figure 4.1 depicts the sample system used for the CO, CO_2, and O_2 tests. A stainless steel probe was inserted into the sample ports of the stack exhaust and the SDA inlet to extract gas measurements. The gas sample was continuously pulled through the probe and transported via heat-traced Teflon® tubing to a stainless steel minimum-contact condenser designed to dry the sample and through Teflon® tubing via a stainless steel/Teflon® diaphragm pump and into the sample manifold within the mobile laboratory. From the manifold, the sample was partitioned to the CO, CO_2, and O_2 analyzers through rotameters that controlled the flow rate of the sample.

Figure 4.1 shows that the sample systems were also equipped with a separate path through which a calibration gas could be delivered to the probe and back through the entire sampling systems. This allowed for convenient performance of system bias checks as required by the testing methods.

All instruments were housed in an air-conditioned trailer-mounted mobile laboratory. Gaseous calibration standards were provided in aluminum cylinders with the concentrations certified by the vendor. EPA Protocol No. 1 was used to determine the cylinder concentrations where applicable (i.e. NOx calibration gases).

Table 4.2 provides a description of the analyzers used for the instrument portion of the tests. All data from the continuous monitoring instruments were recorded on a Logic Beach Portable Data Logging System Hyperlogger which retrieves calibrated electronic data from each instrument every one second and reports an average of the collected data every 30 seconds. Data records can be found in Appendix A and B of this report.

Figure 4.2 represent the sample system used for the wet chemistry (PCDD, PCDF, and Hg) tests. A heated stainless steel probe with a glass liner and glass nozzle was inserted into the sample ports of the stack to extract gas measurements from the emission stream through a filter and glass impinger train. Flow rates are monitored with oil filled manometers and total sample volumes are measured with a dry gas meter.

Three test runs of approximately 120 minutes each were conducted on the Biomass Boiler Stack Outlet and Spray Dryer Absorber Inlet at the maximum test load simultaneously for Hg. Three test runs pulling at least 100 dry standard cubic feet of sample were run at at the maximum test load for the PCDD and PCDF testing at the stack exhaust.

The stack gas analysis for O_2 and CO_2 concentrations was performed in accordance with procedures set forth in EPA Method 3a. The O_2 analyzer uses a paramagnetic cell detector and the CO_2 analyzer uses a continuous nondispersive infrared analyzer.

CO emission concentrations were quantified in accordance with procedures set forth in EPA Method 10. A continuous nondispersive infrared (NDIR) analyzer was used for this purpose.

TABLE 4.2
ANALYTICAL INSTRUMENTATION

Parameter	Model & Manufacturer	Max. Ranges	Sensitivity	Detection Principle
CO	Outlet: THERMO 48C	User may select up to 3,000 ppm	0.1 ppm	Infrared absorption, gas filter correlation detector, microprocessor based linearization.
CO_2	Outlet: SERV 1440	0-20%	0.1%	Nondispersive infrared
O_2	Outlet: SERV 1400 Inlet: M&C PMA 22	0-25%	0.1%	Paramagnetic cell, inherently linear.

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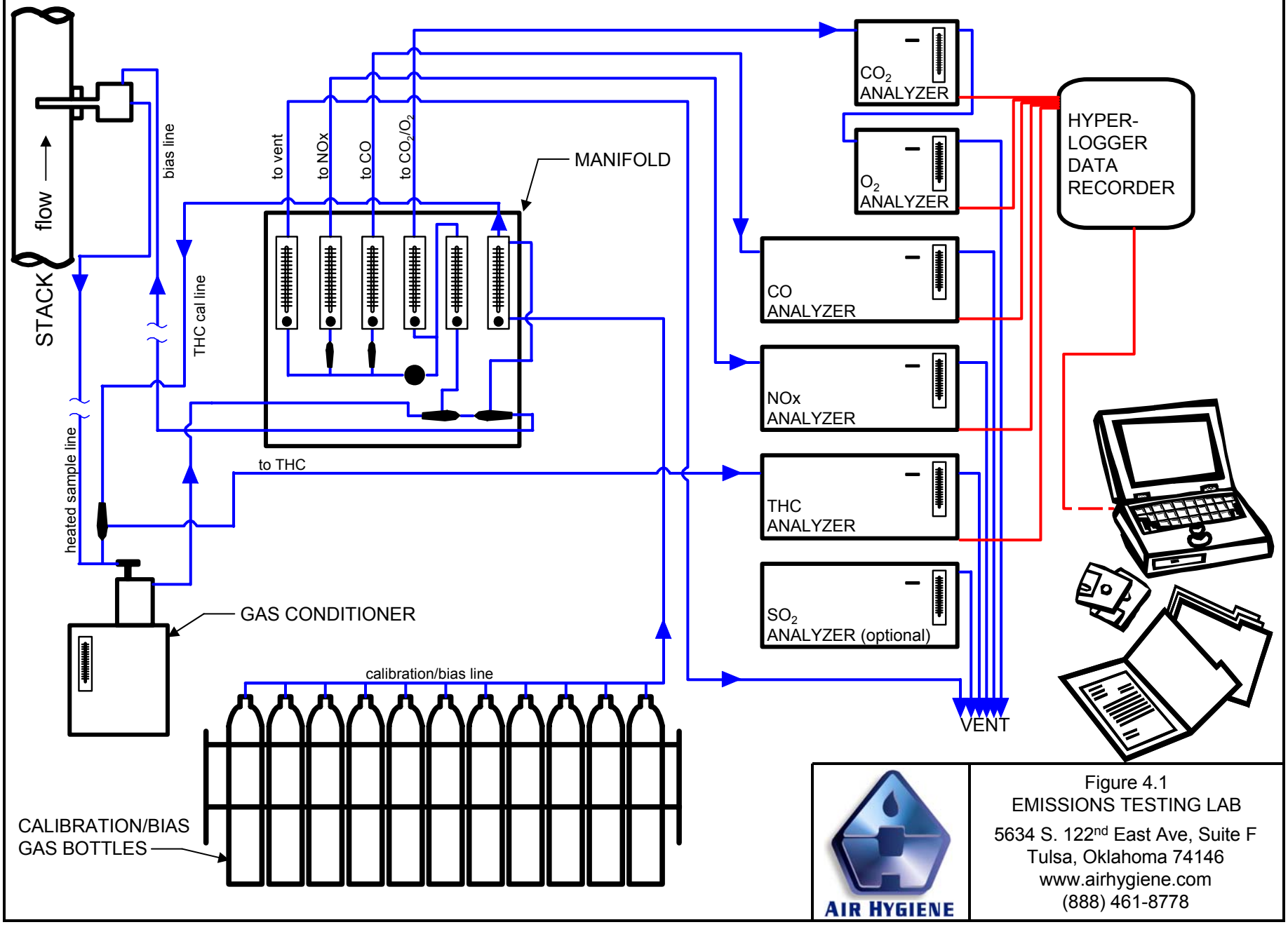

Figure 4.1
EMISSIONS TESTING LAB

5634 S. 122nd East Ave, Suite F
Tulsa, Oklahoma 74146
www.airhygiene.com
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AIR HYGIENE

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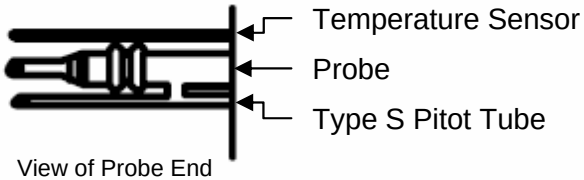


View of Probe End
(from the bottom)

Wet Chemistry Assembly
(photo)

Temperature Sensor

Temperature Sensor

Stack Wall

Liner
(glass, stainless steel, or inconel)

Probe Housing
(heated opt.)

could add more impingers or other components to system

Temperature Sensor

Impingers

Nozzle

Type S Pitot Tube

Glass Filter Holder

Ice Water Bath

Vacuum Line

Heated Area

Oil-Filler Manometer

Hot Box

Filled with water or other various chemicals to cause capture of condensed liquid or reaction with target compounds

Cold Box

Vacuum Gauge

Temperature Sensor

Temperature Sensor

Orifice

By-pass Valve

Main Valve

Dry Gas Meter

Air-Tight Pump

Oil-Filler Manometer

Figure 4.2
WET CHEMISTRY ASSEMBLY

5634 S. 122nd East Ave, Suite F
Tulsa, Oklahoma 74146
www.airhygiene.com
(888) 461-8778

APPENDIX A

TEST RESULTS AND CALCULATIONS

TABLE A.1: EMISSIONS TESTING SCHEDULE

Unit	Load	Component	Run	Date	Start	Stop	Time Sync
OUT-Diox	100%	Dioxins	OUT-Diox-1	07/04/07	14:52:00	20:00:00	DAHS
OUT-Diox	100%	Dioxins	OUT-Diox-2	07/04/07	22:34:00	2:47:00	DAHS
OUT-Diox	100%	Dioxins	OUT-Diox-3	07/05/07	3:15:00	7:26:00	DAHS
IN-OHM	100%	Ontario Hydro	IN-OHM-1	07/05/07	18:02:00	20:20:00	DAHS
IN-OHM	100%	Ontario Hydro	IN-OHM-2	07/05/07	21:12:00	23:30:00	DAHS
IN-OHM	100%	Ontario Hydro	IN-OHM-3	07/06/07	0:43:00	3:00:00	DAHS
OUT-OHM	100%	Ontario Hydro	OUT-OHM-1	07/05/07	18:02:00	22:10:00	DAHS
OUT-OHM	100%	Ontario Hydro	OUT-OHM-2	07/05/07	21:12:00	23:22:00	DAHS
OUT-OHM	100%	Ontario Hydro	OUT-OHM-3	07/06/07	0:43:00	2:55:00	DAHS

Note: DAHS Time (CST)

TEST RESULTS AND CALCULATIONS

PCDD and PCDF Emissions Data

METHOD 23 (DIOXINS) - RESULTS

Plant Name	Fibrominn Biomass Power Plant	**Date**	07/04/07
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP/TKG	**Stack Type**	Circular

Historical Data						
Run Number		OUT-Diox-1	OUT-Diox-2	OUT-Diox-3	**Average**	
Run Start Time		14:52	22:34	3:15		hh:mm
Run Stop Time		20:00	2:47	7:26		hh:mm
Meter Calibration Factor	(Y)	1.005	1.005	1.005		
Pitot Tube Coefficient	(C_p)	0.840	0.840	0.840		
Average Nozzle Diameter	(D_{na})	0.184	0.175	0.184		in
Stack Test Data						
Initial Meter Volume	(V_m)$_i$	357.914	480.392	602.870		ft3
Final Meter Volume	(V_m)$_f$	479.322	592.900	721.378		ft3
Total Meter Volume	(V_m)	121.408	112.508	118.508	117.475	ft3
Total Sampling Time	(Θ)	240.0	240.0	240.0	240.0	min
Average Meter Temperature	(t_m)$_{avg}$	83.8	80.5	80.6	81.6	oF
Average Stack Temperature	(t_s)$_{avg}$	297.9	299.5	297.7	298.4	oF
Barometric Pressure	(P_b)	29.53	29.52	29.52	29.52	in Hg
Stack Static Pressure	(P_{static})	-0.23	-0.23	-0.23	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.51	29.50	29.50	29.51	in Hg
Average Orifice Pressure Drop	(ΔH)$_{avg}$	0.80	0.68	0.83	0.77	in H2O
Absolute Meter Pressure	(P_m)	29.66	29.65	29.65	29.66	in Hg
Avg Square Root Pitot Pressure	($\Delta p^{1/2}$)$_{avg}$	1.19	1.20	1.21	1.20	(in H2O)1/2
Moisture Content Data						
Impingers 1-3 Water Volume Gain	(V_n)	777.3	643.7	735.4	718.8	ml
Impinger 4 Silica Gel Weight Gain	(W_n)	37.9	42.7	46.0	42.2	g
Total Water Volume Collected	(V_{lc})	815.3	686.4	781.5	761.1	ml
Standard Water Vapor Volume	(V_w)$_{std}$	38.375	32.311	36.786	35.824	scf
Standard Meter Volume	(V_m)$_{std}$	117.195	109.165	115.012	113.791	dscf
Calculated Stack Moisture	($B_{ws(calc)}$)	24.67	22.84	24.23	23.91	%
Saturated Stack Moisture	($B_{ws(svp)}$)	100.0	100.0	100.0	100.0	%
Reported Stack Moisture Content	(B_{ws})	24.67	22.84	24.23	23.91	%
Gas Analysis Data						
Carbon Dioxide Percentage	(%CO_2)	14.0	14.0	14.0	14.0	%
Oxygen Percentage	(%O_2)	5.0	5.0	5.0	5.0	%
Carbon Monoxide Percentage	(%CO)	0.0	0.0	0.0	0.0	%
Nitrogen Percentage	(%N_2)	81.0	81.0	81.0	81.0	%
Dry Gas Molecular Weight	(M_d)	30.44	30.44	30.44	30.44	lb/lb-mole
Wet Stack Gas Molecular Weight	(M_s)	27.37	27.60	27.43	27.47	lb/lb-mole
Calculated Fuel Factor	(F_o)	1.135	1.135	1.135	1.135	
Fuel F-Factor	(F_c)	1890	1890	1890	1890	dscf/MMBtu
Percent Excess Air	(%EA)	30.5	30.5	30.5	30.5	%
Volumetric Flow Rate Data						
Average Stack Gas Velocity	(v_s)	82.66	83.23	83.84	83.24	ft/sec
Stack Cross-Sectional Area	(A_s)	63.62	63.62	63.62	63.62	ft2
Actual Stack Flow Rate	(Q_{aw})	315,509	317,707	320,013	317,743	acfm
Wet Standard Stack Flow Rate	(Q_{sw})	13,009	13,067	13,194	13,090	wkscfh
Dry Standard Stack Flow Rate	(Q_{sd})	163,324	168,055	166,616	165,998	dscfm
Percent of Isokinetic Rate	(I)	102.8	103.9	99.1	101.9	%

METHOD 23 (DIOXINS) - RESULTS

Plant Name	Fibrominn Biomass Power Plant	**Date**	07/04/07
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP/TKG	**Stack Type**	Circular

Historical Data						
Run Number		OUT-Diox-1	OUT-Diox-2	OUT-Diox-3	**Average**	
Total TCDDs						
Stack Total TCDDs Concentration	(c_{pe})	0.0264	0.0140	0.0000	0.0135	ng
	(c_{pe}')	0.0070	0.0040	0.0000	0.0037	ng/dscm@7%O2
Total TCDDs Emission Rate	(E)	2.21E-09	1.29E-09	0.00E+00	1.17E-09	kg/hr
	(E_{pe})	4.87E-09	2.85E-09	0.00E+00	2.57E-09	lbs/hr
	(E_{pe}')	2.13E-08	1.25E-08	0.00E+00	1.13E-08	tons/yr
	(E''')	1.23E-12	7.03E-13	0.00E+00	6.46E-13	lbs/MMBtu
Total PeCDDs						
Stack Total PeCDDs Concentration	(c_{pe})	0.1240	0.0245	0.0204	0.0563	ng
	(c_{pe}')	0.0327	0.0069	0.0055	0.0153	ng/dscm@7%O2
Total PeCDDs Emission Rate	(E)	1.04E-08	2.26E-09	1.77E-09	4.80E-09	kg/hr
	(E_{pe})	2.29E-08	4.99E-09	3.91E-09	1.06E-08	lbs/hr
	(E_{pe}')	1.00E-07	2.19E-08	1.71E-08	4.64E-08	tons/yr
	(E''')	5.80E-12	1.23E-12	9.72E-13	2.67E-12	lbs/MMBtu
Total HxCDDs						
Stack Total HxCDDs Concentration	(c_{pe})	0.0614	0.0266	0.0530	0.0470	ng
	(c_{pe}')	0.0162	0.0075	0.0142	0.0127	ng/dscm@7%O2
Total HxCDDs Emission Rate	(E)	5.13E-09	2.46E-09	4.61E-09	4.07E-09	kg/hr
	(E_{pe})	1.13E-08	5.42E-09	1.02E-08	8.96E-09	lbs/hr
	(E_{pe}')	4.96E-08	2.37E-08	4.45E-08	3.93E-08	tons/yr
	(E''')	2.87E-12	1.33E-12	2.52E-12	2.24E-12	lbs/MMBtu
Total HpCDDs						
Stack Total HpCDDs Concentration	(c_{pe})	0.0438	0.0000	0.0000	0.0146	ng
	(c_{pe}')	0.0115	0.0000	0.0000	0.0040	ng/dscm@7%O2
Total HpCDDs Emission Rate	(E)	3.66E-09	0.00E+00	0.00E+00	1.22E-09	kg/hr
	(E_{pe})	8.07E-09	0.00E+00	0.00E+00	2.69E-09	lbs/hr
	(E_{pe}')	3.54E-08	0.00E+00	0.00E+00	1.18E-08	tons/yr
	(E''')	2.05E-12	0.00E+00	0.00E+00	6.82E-13	lbs/MMBtu
Total OCDDs						
Stack Total OCDDs Concentration	(c_{pe})	0.0527	0.0000	0.0000	0.0176	ng
	(c_{pe}')	0.0139	0.0000	0.0000	0.0048	ng/dscm@7%O2
Total OCDDs Emission Rate	(E)	4.41E-09	0.00E+00	0.00E+00	1.47E-09	kg/hr
	(E_{pe})	9.71E-09	0.00E+00	0.00E+00	3.24E-09	lbs/hr
	(E_{pe}')	4.26E-08	0.00E+00	0.00E+00	1.42E-08	tons/yr
	(E''')	2.46E-12	0.00E+00	0.00E+00	8.21E-13	lbs/MMBtu
Total PCDDs						
Stack Total PCDDs Concentration	(c_{pe})	0.3083	0.0651	0.0734	0.1489	ng
	(c_{pe}')	0.0812	0.0184	0.0197	0.0404	ng/dscm@7%O2
Total PCDDs Emission Rate	(E)	2.58E-08	6.01E-09	6.38E-09	1.27E-08	kg/hr
	(E_{pe})	5.68E-08	1.33E-08	1.41E-08	2.81E-08	lbs/hr
	(E_{pe}')	2.49E-07	5.81E-08	6.16E-08	1.23E-07	tons/yr
	(E''')	1.44E-11	3.27E-12	3.50E-12	7.06E-12	lbs/MMBtu

METHOD 23 (DIOXINS) - RESULTS

Plant Name	Fibrominn Biomass Power Plant	**Date**	07/04/07
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP/TKG	**Stack Type**	Circular

Historical Data						
Run Number		OUT-Diox-1	OUT-Diox-2	OUT-Diox-3	**Average**	
Total TCDFs						
Stack Total TCDFs Concentration	(c_{pe})	0.1060	0.0155	0.0189	0.0468	ng
	(c_{pe}')	0.0279	0.0044	0.0051	0.0127	ng/dscm@7%O2
Total TCDFs Emission Rate	(E)	8.86E-09	1.43E-09	1.64E-09	3.98E-09	kg/hr
	(E_{pe})	1.95E-08	3.16E-09	3.62E-09	8.77E-09	lbs/hr
	(E_{pe}')	8.56E-08	1.38E-08	1.59E-08	3.84E-08	tons/yr
	(E''')	4.95E-12	7.78E-13	9.00E-13	2.21E-12	lbs/MMBtu
Total PeCDFs						
Stack Total PeCDFs Concentration	(c_{pe})	0.0933	0.0301	0.0000	0.0411	ng
	(c_{pe}')	0.0246	0.0085	0.0000	0.0112	ng/dscm@7%O2
Total PeCDFs Emission Rate	(E)	7.80E-09	2.78E-09	0.00E+00	3.53E-09	kg/hr
	(E_{pe})	1.72E-08	6.13E-09	0.00E+00	7.78E-09	lbs/hr
	(E_{pe}')	7.53E-08	2.68E-08	0.00E+00	3.41E-08	tons/yr
	(E''')	4.36E-12	1.51E-12	0.00E+00	1.96E-12	lbs/MMBtu
Total HxCDFs						
Stack Total HxCDFs Concentration	(c_{pe})	0.0769	0.0495	0.0387	0.0550	ng
	(c_{pe}')	0.0202	0.0140	0.0104	0.0149	ng/dscm@7%O2
Total HxCDFs Emission Rate	(E)	6.43E-09	4.57E-09	3.36E-09	4.79E-09	kg/hr
	(E_{pe})	1.42E-08	1.01E-08	7.42E-09	1.06E-08	lbs/hr
	(E_{pe}')	6.21E-08	4.42E-08	3.25E-08	4.62E-08	tons/yr
	(E''')	3.59E-12	2.48E-12	1.84E-12	2.64E-12	lbs/MMBtu
Total HpCDFs						
Stack Total HpCDFs Concentration	(c_{pe})	0.0394	0.0943	0.0462	0.0600	ng
	(c_{pe}')	0.0104	0.0267	0.0124	0.0163	ng/dscm@7%O2
Total HpCDFs Emission Rate	(E)	3.29E-09	8.71E-09	4.02E-09	5.34E-09	kg/hr
	(E_{pe})	7.26E-09	1.92E-08	8.85E-09	1.18E-08	lbs/hr
	(E_{pe}')	3.18E-08	8.41E-08	3.88E-08	5.16E-08	tons/yr
	(E''')	1.84E-12	4.73E-12	2.20E-12	2.92E-12	lbs/MMBtu
Total OCDFs						
Stack Total OCDFs Concentration	(c_{pe})	0.0041	0.1412	0.1002	0.0818	ng
	(c_{pe}')	0.0011	0.0399	0.0269	0.0222	ng/dscm@7%O2
Total OCDFs Emission Rate	(E)	3.43E-10	1.30E-08	8.71E-09	7.36E-09	kg/hr
	(E_{pe})	7.56E-10	2.88E-08	1.92E-08	1.62E-08	lbs/hr
	(E_{pe}')	3.31E-09	1.26E-07	8.41E-08	7.11E-08	tons/yr
	(E''')	1.92E-13	7.09E-12	4.77E-12	4.02E-12	lbs/MMBtu
Total PCDFs						
Stack Total PCDFs Concentration	(c_{pe})	0.3197	0.3306	0.2040	0.2848	ng
	(c_{pe}')	0.0842	0.0935	0.0547	0.0772	ng/dscm@7%O2
Total PCDFs Emission Rate	(E)	2.67E-08	3.05E-08	1.77E-08	2.50E-08	kg/hr
	(E_{pe})	5.89E-08	6.73E-08	3.91E-08	5.51E-08	lbs/hr
	(E_{pe}')	2.58E-07	2.95E-07	1.71E-07	2.41E-07	tons/yr
	(E''')	1.49E-11	1.66E-11	9.72E-12	1.38E-11	lbs/MMBtu

Note: Sample concentrations reported as zero for ND, the EMPC if present, or the measured amount.
Note: HpCDFs (0.0387 ng) and OCDFs (0.0688 ng) are blank corrected. All other blanks ND.

METHOD 23 (DIOXINS) SOURCE SAMPLING TITLE PAGE

Source Information				
Plant Name	Fibrominn Biomass Power Plant			
Sampling Location	Stack Outlet			
Fuel or Source Type	Biomass			
Fuel F-Factor	1890	1890	1890	

Test Information			
Starting Test Date		07/04/07	
Project #		snc-07-benson.mn-comp#1	
Operator		TP/TKG	
Standard Temperature		68	oF
Standard Pressure		29.92	in Hg
Minimum Required Sample Vol.	indust. spec.		scf
Run Duration	chk Subpart	240	minutes
Unit Number		OUT-Diox	
Load	% or w/DB	100%	
Base Run Number		OUT-Diox	
Number of Ports Available		4	
Number of Ports Used		4	
Port Inside Diameter		5.00	in
Circular Stack			

Test Equipment Information					
Run		**1**	**2**	**3**	
Meter Box Number	from ACS	SAMP-CP-0017	SAMP-CP-0017	SAMP-CP-0017	
Meter Calibration Factor	(Y)	1.005	1.005	1.005	
Orifice Meter Coefficient	(ΔH@)	1.814	1.814	1.814	in H_2O
Pitot Identification	from ACS	SAMP-HP-0034	SAMP-HP-0033	SAMP-HP-0034	
Pitot Tube Coefficient	(C_p)	0.840	0.840	0.840	
Orsat Identification	from ACS	N/A	N/A	N/A	
Nozzle Number	from ACS	#6B-2	#6B-2	#5B-2	
Nozzle Diameter	(D_n)	0.184	0.175	0.184	in
Probe Number	from ACS	SAMP-HP-0034	SAMP-HP-0033	SAMP-HP-0034	
Probe Length		60.00	60.00	60.00	in
(SS, Glass ….) Liner Material	from list	glass	glass	glass	
Sample Case / Oven Number	from ACS	SAMP-BH-0004	SAMP-BH-0004	SAMP-BH-0004	
Impinger Case Number	from ACS	SAMP-BC-0032	SAMP-BC-0031	SAMP-BC-0032	
Acetone Lot Number	from bottle	C38B11	C38B11	C38B11	

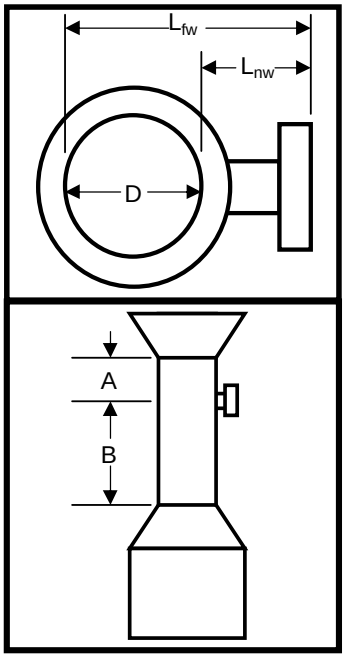
Testing Company Information	
Company Name	Air Hygiene International, Inc. (Tulsa, Oklahoma)
Address	5634 S. 122nd East Ave., Suite F
City, State Country Zip	Tulsa, Oklahoma 74146
Project Manager	Thomas K. Graham
Phone Number	(918) 307-8865
Fax Number	(918) 307-9131

METHOD 1 - SAMPLE AND VELOCITY TRAVERSES FOR CIRCULAR SOURCES

Plant Name	Fibrominn Biomass Power Plant	**Date**	07/04/07
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP/TKG	**# of Ports Available**	4
Stack Type	Circular	**# of Ports Used**	4
Stack Size	Large	**Port Inside Diameter**	5.00

Circular Stack or Duct Diameter			
Distance to Far Wall of Stack	(L_{fw})	129.00	in
Distance to Near Wall of Stack	(L_{nw})	21.00	in
Diameter of Stack	(D)	108.00	in
Area of Stack	(A_s)	63.62	ft2

Distance from Port to Disturbances			
Distance Upstream	(A)	2358.00	in
Diameters Upstream	(A_D)	21.83	diameters
Distance Downstream	(B)	910.00	in
Diameters Downstream	(B_D)	8.43	diameters



Number of Traverse Points Required			
Diameters to Flow Disturbance		**Minimum Number of[1] Traverse Points**	
Down Stream	**Up Stream**	**Particulate Points**	**Velocity Points**
2.00-4.99	0.50-1.24	24	16
5.00-5.99	1.25-1.49	20	16
6.00-6.99	1.50-1.74	16	12
7.00-7.99	1.75-1.99	12	12
>= 8.00	>=2.00	8 or 12[2]	8 or 12[2]
Upstream Spec		12	12
Downstream Spec		12	12
Traverse Pts Required		12	12

[1] Check Minimum Number of Points for the Upstream and Downstream conditions, then use the largest.

[2] 8 for Circular Stacks 12 to 24 inches
12 for Circular Stacks over 24 inches

Number of Traverse Points Used			
4	**Ports by**	3	**Across**
12	**Pts Used**	12	**Required**
		Particulate Traverse	

Location of Traverse Points in Circular Stacks									
Traverse	(Fraction of Stack Dimension from Inside Wall to Traverse Point)								
Point	**Number of Traverse Points Across the Stack**								
Number	**2**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**
1	.146	.067	.044	.032	.026	.021	.018	.016	.014
2	.854	.250	.146	.105	.082	.067	.057	.049	.044
3		.750	.296	.194	.146	.118	.099	.085	.075
4		.933	.704	.323	.226	.177	.146	.125	.109
5			.854	.677	.342	.250	.201	.169	.146
6			.956	.806	.658	.356	.269	.220	.188
7				.895	.774	.644	.366	.283	.236
8				.968	.854	.750	.634	.375	.296
9					.918	.823	.731	.625	.382
10					.974	.882	.799	.717	.618
11						.933	.854	.780	.704
12						.979	.901	.831	.764

Traverse Point Number	**Fraction of Stack Diameter**	**Distance from Inside Wall**	**Distance Including Reference Length**
		in	in
1	0.04	4 6/8	25 6/8
2	0.15	15 6/8	36 6/8
3	0.30	32	53
4			
5			
6			
7			
8			
9			
10			
11			
12			

METHOD 2 - DETERMINATION OF STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE

Plant Name	Fibrominn Biomass Power Plant				**Date**	06/30/07
Sampling Location	Stack Outlet				**Project #**	snc-07-benson.mn-comp#1
Operator	TP/TKG				**# of Ports Used**	4
Stack Type	Circular				**Pitot Identification**	SAMP-HP-0034
Pitot Leak Check	☑	**PreTest**	☑	**PostTest**	**Pitot Coefficient (C_p)**	0.84

Stack Dimensions			
Diameter or Length of Stack	(D)	108.00	in
Width of Stack	(W)		in
Area of Stack	(A_s)	63.62	ft2

Pressures			
Barometric Pressure	(P_b)	29.92	in Hg
Static Pressure	(P_{static})	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.90	in Hg

Stack Gas Composition			
Composition Data:		**Estimated Composition**	
Carbon Dioxide Concentration	($\%CO_2$)	14.4	%
Oxygen Concentration	($\%O_2$)	4.8	%
Carbon Monoxide Concentration	(%CO)	0.0	%
Nitrogen Concentration	($\%N_2$)	80.8	%
Stack Moisture Content	(B_{ws})	30.000	%
Stack Dry Molecular Weight	(M_d)	30.50	lb/lb-mole
Stack Wet Molecular Weight	(M_s)	26.75	lb/lb-mole

Results			
Avg Stack Gas Velocity	(v_s)	72.7	ft/sec
Avg Stack Dry Std Flow Rate	(Q_{sd})	8,192,279	dscf/hr
Avg Stack Dry Std Flow Rate	(Q_{sd})	136,538	dscf/min
Avg Stack Wet Flow Rate	(Q_{aw})	277,654	acf/min
Avg Stack Wet Std Flow Rate	(Q_{sw})	11,703,256	ascf/hr

Stack Cross Section Schematic

Velocity Traverse Data				
Run Number		OUT-Diox-V1		
Run Time	**12:00**	**Start**	**12:10**	**End**
Traverse Point	**Velocity Head** (Δp)	**Null Angle** (N_a)	**Stack Temp** (t_s)	**Local Velocity** ($v_{s(l)}$)
	in H2O	deg	oF	ft/sec
A-1	1.00	0	291	69.6
A-2	1.30	-10	291	79.3
A-3	1.30	0	290	79.3
B-1	1.10	-5	290	72.9
B-2	1.30	0	290	79.3
B-3	0.14	0	290	26.0
C-1	1.30	0	293	79.4
C-2	1.00	0	293	69.7
C-3	1.20	0	293	76.3
D-1	1.30	0	292	79.4
D-2	1.30	-10	291	79.3
D-3	1.40	-15	290	82.3
Average	1.14	3	291	
	1.05	**= Square roots of Δp**		

METHOD 3a - DETERMINATION OF DRY MOLECULAR WEIGHT BY ANALYZER

Plant Name	Fibrominn Biomass Power Plant				**Date**	07/04/07	
Sampling Location	Stack Outlet				**Project #**	snc-07-benson.mn-comp#1	
Operator	TP/TKG				**# of Ports Used**	4	
Fuel Type	Biomass		**Minimum Fuel Factor**	1.000	**Maximum Fuel Factor**	1.120	
Orsat Leak Check	☑	**PreTest**	☑	**PostTest**	**Orsat Identification**	N/A	

Gas Analysis Data									
Run Number		OUT-Diox-1		**Run Start Time**		14:52	**Run Stop Time**		20:00
Sample Analysis Time	**Carbon Dioxide Conc.** (%CO2)	**Oxygen Conc.** (%O2)	**Carbon Monoxide Conc.** (ppmCO)	**Carbon Dioxide Conc.** ($\%CO_2$)	**Oxygen Conc.** ($\%O_2$)	**Carbon Monoxide Conc.** (%CO)	**Nitrogen Conc.** ($\%N_2$)	**Dry Molecular Weight** (M_d)	**Molecular Weight Deviation** (ΔM_d)
hh:mm	percent	percent	ppm	percent	percent	percent	percent	lb/lb-mole	lb/lb-mole
5:08	14.0	5.0	100.0	14.0	5.0	0.0	81.0	30.44	0.00
Results			**Averages**	14.0	5.0	0.0	81.0	30.44	
Average Calculated Fuel Factor			$(F_o)_{avg}$	1.135		**Molecular Wt Deviation < 0.3?**			☑
Average Excess Air			$(\%EA)_{avg}$	30.5	percent	**Fuel Factor in Handbook Range?**			☑

Gas Analysis Data									
Run Number		OUT-Diox-2		**Run Start Time**		22:34	**Run Stop Time**		2:47
Sample Analysis Time	**Carbon Dioxide Conc.** (%CO2)	**Oxygen Conc.** (%O2)	**Carbon Monoxide Conc.** (ppmCO)	**Carbon Dioxide Conc.** ($\%CO_2$)	**Oxygen Conc.** ($\%O_2$)	**Carbon Monoxide Conc.** (%CO)	**Nitrogen Conc.** ($\%N_2$)	**Dry Molecular Weight** (M_d)	**Molecular Weight Deviation** (ΔM_d)
hh:mm	percent	percent	ppm	percent	percent	percent	percent	lb/lb-mole	lb/lb-mole
4:13	14.0	5.0	100.0	14.0	5.0	0.0	81.0	30.44	0.00
Results			**Averages**	14.0	5.0	0.0	81.0	30.44	
Average Calculated Fuel Factor			$(F_o)_{avg}$	1.135		**Molecular Wt Deviation < 0.3?**			☑
Average Excess Air			$(\%EA)_{avg}$	30.5	percent	**Fuel Factor in Handbook Range?**			☑

Gas Analysis Data									
Run Number		OUT-Diox-3		**Run Start Time**		3:15	**Run Stop Time**		7:26
Sample Analysis Time	**Carbon Dioxide Conc.** (%CO2)	**Oxygen Conc.** (%O2)	**Carbon Monoxide Conc.** (ppmCO)	**Carbon Dioxide Conc.** ($\%CO_2$)	**Oxygen Conc.** ($\%O_2$)	**Carbon Monoxide Conc.** (%CO)	**Nitrogen Conc.** ($\%N_2$)	**Dry Molecular Weight** (M_d)	**Molecular Weight Deviation** (ΔM_d)
hh:mm	percent	percent	ppm	percent	percent	percent	percent	lb/lb-mole	lb/lb-mole
4:11	14.0	5.0	100.0	14.0	5.0	0.0	81.0	30.44	0.00
Results			**Averages**	14.0	5.0	0.0	81.0	30.44	
Average Calculated Fuel Factor			$(F_o)_{avg}$	1.135		**Molecular Wt Deviation < 0.3?**			☑
Average Excess Air			$(\%EA)_{avg}$	30.5	percent	**Fuel Factor in Handbook Range?**			☑

Fuel Factor Fo		
Fuel Type	**Minimum**	**Maximum**
Coal, Anthracite	1.016	1.130
Coal, Lignite	1.016	1.130
Coal, Bituminous	1.083	1.230
Oil, Distillate	1.260	1.413
Oil, Residual	1.210	1.370
Gas, Natural	1.600	1.836
Gas, Propane	1.434	1.586
Gas, Butane	1.405	1.553
Biomass	1.000	1.120
Wood Bark	1.003	1.130

METHOD 4 - DETERMINATION OF MOISTURE CONTENT IN STACK GASES

Plant Name	Fibrominn Biomass Power Plant				**Date**	07/04/07	
Sampling Location	Stack Outlet				**Project #**	snc-07-benson.mn-comp#1	
Operator	TP/TKG				**# of Ports Used**	4	
Stack Type	Circular				**Meter Box Number**	SAMP-CP-0017	
Train Leak Check	☑	**PreTest**	☑	**PostTest**	**Meter Cal Factor (Y)**	1.005	

Moisture Content Data									
Run Number		OUT-Diox-1			**Run Start Time**	14:52	**Run Stop Time**		20:00
Total Meter Volume	(V_m)	121.408	dcf		**Barometric Press.**	(P_b)	29.53		in Hg
Avg Stack Temp	$(t_s)_{avg}$	298	oF		**Stack Static Press.**	(P_{static})	-0.23		in H2O
Avg Meter Temp	$(t_m)_{avg}$	84	oF		**Avg Orifice Press.**	$(\Delta H)_{avg}$	0.80		in H2O
	Impinger 1	**Impinger 2**	**Impinger 3**	**Impinger 4**	**Impinger 5**	**Impinger 6**	**Impinger 7**	**Impinger 8**	
	g	g	g	g	g	g	g	g	
Contents		DI	DI			Sil Gel			
Final Value (V_f),(W_f)	1027.60	961.00	908.10	646.50	653.50	941.30			
Initial Value (V_i),(W_i)	622.40	731.30	774.00	641.70	651.40	903.40			
Net Value (V_n),(W_n)	405.2	229.7	134.1	4.8	2.1	37.9			
Results									
Total Weight	(W_t)	813.80	g	**Water Vol Weighed**		($V_{wsg(std)}$)	38.371	scf	
Std Meter Volume	($V_{m(std)}$)	117.170	dscf	**Sat. Moisture Content**		($B_{ws(svp)}$)	100.0	%	
Calc Moisture Content	($B_{ws(calc)}$)	24.7	%	**Final Moisture Content**		(B_{ws})	24.7	%	

Moisture Content Data									
Run Number		OUT-Diox-2			**Run Start Time**	22:34	**Run Stop Time**		2:47
Total Meter Volume	(V_m)	112.508	dcf		**Barometric Press.**	(P_b)	29.52		in Hg
Avg Stack Temp	$(t_s)_{avg}$	300	oF		**Stack Static Press.**	(P_{static})	-0.23		in H2O
Avg Meter Temp	$(t_m)_{avg}$	81	oF		**Avg Orifice Press.**	$(\Delta H)_{avg}$	0.68		in H2O
	Impinger 1	**Impinger 2**	**Impinger 3**	**Impinger 4**	**Impinger 5**	**Impinger 6**	**Impinger 7**	**Impinger 8**	
	g	g	g	g	g	g	g	g	
Contents		DI	DI			Sil Gel			
Final Value (V_f),(W_f)	1003.80	640.50	746.40	756.90	638.60	974.10			
Initial Value (V_i),(W_i)	362.90	638.40	747.60	757.50	637.30	931.40			
Net Value (V_n),(W_n)	640.9	2.1	-1.2	-0.6	1.3	42.7			
Results									
Total Weight	(W_t)	685.20	g	**Water Vol Weighed**		($V_{wsg(std)}$)	32.307	scf	
Std Meter Volume	($V_{m(std)}$)	109.163	dscf	**Sat. Moisture Content**		($B_{ws(svp)}$)	100.0	%	
Calc Moisture Content	(B_{ws})	22.8	%	**Final Moisture Content**		(B_{ws})	22.8	%	

Moisture Content Data									
Run Number		OUT-Diox-3			**Run Start Time**	3:15	**Run Stop Time**		7:26
Total Meter Volume	(V_m)	118.508	dcf		**Barometric Press.**	(P_b)	29.52		in Hg
Avg Stack Temp	$(t_s)_{avg}$	298	oF		**Stack Static Press.**	(P_{static})	-0.23		in H2O
Avg Meter Temp	$(t_m)_{avg}$	81	oF		**Avg Orifice Press.**	$(\Delta H)_{avg}$	0.83		in H2O
	Impinger 1	**Impinger 2**	**Impinger 3**	**Impinger 4**	**Impinger 5**	**Impinger 6**	**Impinger 7**	**Impinger 8**	
	g	g	g	g	g	g	g	g	
Contents		DI	DI			Sil Gel			
Final Value (V_f),(W_f)	1213.80	756.20	771.10	643.40	645.50	963.30			
Initial Value (V_i),(W_i)	503.30	733.60	772.10	641.40	645.50	917.30			
Net Value (V_n),(W_n)	710.5	22.6	-1.0	2.0	0.0	46.0			
Results									
Total Weight	(W_t)	780.10	g	**Water Vol Weighed**		($V_{wsg(std)}$)	36.782	scf	
Std Meter Volume	($V_{m(std)}$)	115.010	dscf	**Sat. Moisture Content**		($B_{ws(svp)}$)	100.0	%	
Calc Moisture Content	(B_{ws})	24.2	%	**Final Moisture Content**		(B_{ws})	24.2	%	

METHOD 23 (DIOXINS) ISOKINETIC SAMPLING DATA

Plant Name	Fibrominn Biomass Power Plant	**Date**	7/4/2007
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP/TKG	**Run #**	OUT-Diox-1
# of Points Across	3	**# of Ports Used**	4

Leak Checks					
Train	**Pre**	0.01	ft3/min @	15	in Hg
OK? ☑	**Post**	0.0025	ft3/min @	15	in Hg
Pitot	**Pre**	5.1/5.5	in. H_2O for	15	sec
OK? ☑	**Post**	6.2/7.4	in. H_2O for	15	sec
Orsat	OK? ☑				

Nozzle Measurements				
Pre	0.184	0.185	0.184	**PASS**
Post	0.184	0.185	0.184	**PASS**

Sampling Equipment			
Meter #	SAMP-CP-0017		
Meterbox Cal. Factor	(Y)	1.005	
Nozzle #	#6B-2		
Average Nozzle Diameter	(D_{na})	0.1843	in
Rec. Nozzle Diameter	(D_{ni})	0.2371	in
Probe # / Length	SAMP-HP-0034	/ 60	in
Liner Material	glass		
Sample Case / Oven #	SAMP-BH-0004		
Impinger Case #	SAMP-BC-0032		

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.84	
Avg Stack Temp	(t_s)	298	oF
Avg Gas Meter Temp	(t_m)	84	
DH @ 0.75 SCFM	($\Delta H@$)	1.81	in H2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})	1.19	in H2O
Stack Moisture Content	(B_{ws})	24.67	%
Stack Dry Molecular Weight	(M_d)	30.44	lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.750	acfm
DP to DH Isokinetic Factor	(K)	0.57	

Pressures			
Barometric Pressure	(P_b)	29.53	in Hg
Stack Static Pressure	(P_{static})	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.51	in Hg
Absolute Meter Pressure	(P_m)	29.66	in Hg

Run Time			
Start	14:52	**End**	20:00

Weights	**Imp 1**	**Imp 2**	**Imp 3**	**Imp 4**	**Imp 5**	**Imp 6**	**Imp 7**	**Imp 8**
Pre	622.40	731.30	774.00	641.70	651.40	903.40		
Post	1027.60	961.00	908.10	646.50	653.50	941.30		

Wash Volume	**H_2O**	50.0	ml
	MeCl		ml

Filter #
OUT-Diox-1-F

Traverse Point #	**Sampling Time (Θ)**	**Timer Time**	**Dry Gas Meter Reading (V_m)**	**Velocity Head (Δp)**	**Desired Orifice ΔH (ΔH_d)**	**Actual Orifice ΔH (ΔH_a)**	**Stack Temp (t_s)**	**Probe Temp**	**Filter Temp**	**Impinger Exit Temp**	**Aux Temp**	**Meter Inlet Temp (t_{mi})**	**Meter Outlet Temp (t_{mo})**	**Pump Vacuum**	**Square Root ΔP ($\Delta p^{1/2}$)**	**Local Stack Velocity (v_s)$_l$**	**Cumulative Meter Volume (V_m)$_{std}$**	**Cumulative Percent IsoKinetic (I)**	**Est-Run Meter Volume (V_m)$_{std}$**
	min	hh:mm:ss	ft3	in H2O	in H2O	in H2O	oF	oF	oF	oF	oF	oF	oF	in Hg	(in H2O)1/2	ft/sec	scf	%	scf
A-1	0.0	0:00:00	357.914	1.700	0.962	0.960	297	259	254	68		79	79	12.5	1.30	90.64	11.799	113.0	141.586
A-2	20.0	0:20:00	370.028	1.500	0.849	0.850	295	257	246	68		80	80	10.0	1.22	85.03	21.850	108.1	131.102
A-3	40.0	0:40:00	380.370	1.600	0.905	0.910	295	254	250	65		82	82	10.0	1.26	87.82	31.765	104.9	127.058
B-1	60.0	1:00:00	390.607	1.100	0.622	0.620	295	253	247	68		83	83	8.5	1.05	72.81	40.703	105.2	122.108
B-2	80.0	1:20:00	399.860	1.400	0.792	0.790	297	248	248	62		84	84	10.0	1.18	82.25	50.243	104.3	120.583
B-3	100.0	1:40:00	409.750	1.200	0.679	0.680	299	238	246	67		86	86	9.5	1.10	76.25	59.014	103.7	118.029
C-1	120.0	2:00:00	418.879	1.500	0.849	0.850	295	249	234	68		86	86	10.5	1.22	85.03	68.777	103.1	117.903
C-2	140.0	2:20:00	429.035	1.500	0.849	0.850	299	252	245	67		87	87	10.5	1.22	85.25	78.707	102.9	118.061
C-3	160.0	2:40:00	439.385	1.400	0.792	0.790	300	249	247	68		87	87	10.5	1.18	82.42	88.278	102.7	117.704
D-1	180.0	3:00:00	449.362	1.300	0.735	0.740	306	234	223	68		84	84	10.0	1.14	79.73	97.444	102.5	116.933
D-2	200.0	3:20:00	458.865	1.400	0.792	0.790	298	255	242	65		83	83	10.5	1.18	82.31	107.214	102.6	116.961
D-3	220.0	3:40:00	468.975	1.400	0.792	0.790	299	252	247	63		84	84	10.5	1.18	82.36	117.195	102.8	117.195
Last Pt	240.0	4:00:00	479.322																
Final Val	240.0	4:00:00	479.322										**Max Vac**	12.5	**Final Values**		117.195	102.8	
Average Values				1.42		0.80	298	250	244	66		84	84		1.19	82.66			
												84							

METHOD 23 (DIOXINS) ISOKINETIC SAMPLING DATA

Plant Name	Fibrominn Biomass Power Plant	**Date**	7/4/2007
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP/TKG	**Run #**	OUT-Diox-2
# of Points Across	3	**# of Ports Used**	4

Leak Checks					
Train	**Pre**	0	ft3/min @	15	in Hg
OK? ☑	**Post**	0	ft3/min @	15	in Hg
Pitot	**Pre**	4/4	in. H_2O for	15	sec
OK? ☑	**Post**	4/4	in. H_2O for	15	sec
Orsat	OK? ☑				

Nozzle Measurements				
Pre	0.174	0.175	0.175	**PASS**
Post	0.174	0.175	0.175	**PASS**

Run Time			
Start	22:34	**End**	2:47

Sampling Equipment			
Meter #	SAMP-CP-0017		
Meterbox Cal. Factor	(Y)	1.005	
Nozzle #	#6B-2		
Average Nozzle Diameter	(D_{na})	0.1747	in
Rec. Nozzle Diameter	(D_{ni})	0.1930	in
Probe # / Length	SAMP-HP-0033	/ 60	in
Liner Material	glass		
Sample Case / Oven #	SAMP-BH-0004		
Impinger Case #	SAMP-BC-0031		

Weights	**Imp 1**	**Imp 2**	**Imp 3**	**Imp 4**	**Imp 5**	**Imp 6**	**Imp 7**	**Imp 8**
Pre	362.90	638.40	747.60	757.50	637.30	931.40		
Post	1003.80	640.50	746.40	756.90	638.60	974.10		

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.84	
Avg Stack Temp	(t_s)	300	oF
Avg Gas Meter Temp	(t_m)	81	
DH @ 0.75 SCFM	($\Delta H@$)	1.81	in H2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})	1.20	in H2O
Stack Moisture Content	(B_{ws})	22.84	%
Stack Dry Molecular Weight	(M_d)	30.44	lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.506	acfm
DP to DH Isokinetic Factor	(K)	0.47	

Pressures			
Barometric Pressure	(P_b)	29.52	in Hg
Stack Static Pressure	(P_{static})	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.50	in Hg
Absolute Meter Pressure	(P_m)	29.65	in Hg

Wash Volume	**H_2O**	50.0	ml
	MeCl		ml

Filter #
OUT-Diox-2-F

Traverse Point #	**Sampling Time (Θ)**	**Timer Time**	**Dry Gas Meter Reading (V_m)**	**Velocity Head (Δp)**	**Desired Orifice ΔH (ΔH_d)**	**Actual Orifice ΔH (ΔH_a)**	**Stack Temp (t_s)**	**Probe Temp**	**Filter Temp**	**Impinger Exit Temp**	**Aux Temp**	**Meter Inlet Temp (t_{mi})**	**Meter Outlet Temp (t_{mo})**	**Pump Vacuum**	**Square Root ΔP ($\Delta p^{1/2}$)**	**Local Stack Velocity (v_s)$_l$**	**Cumulative Meter Volume (V_m)$_{std}$**	**Cumulative Percent IsoKinetic (I)**	**Est-Run Meter Volume (V_m)$_{std}$**
	min	hh:mm:ss	ft3	in H2O	in H2O	in H2O	oF	oF	oF	oF	oF	oF	oF	in Hg	(in H2O)1/2	ft/sec	scf	%	scf
A-1	0.0	0:00:00	480.392	1.500	0.706	0.710	295	238	246	67		79	79	5.0	1.22	84.69	9.355	104.0	112.258
A-2	20.0	0:20:00	490.006	1.600	0.753	0.750	299	249	234	62		80	80	6.0	1.26	87.70	18.915	103.6	113.489
A-3	40.0	0:40:00	499.848	1.500	0.706	0.710	300	252	245	55		80	80	5.0	1.22	84.97	28.275	103.9	113.099
B-1	60.0	1:00:00	509.485	1.400	0.659	0.660	306	249	247	56		80	80	4.0	1.18	82.41	37.163	103.7	111.490
B-2	80.0	1:20:00	518.638	1.400	0.659	0.660	298	248	248	57		80	80	4.0	1.18	81.98	45.991	103.3	110.378
B-3	100.0	1:40:00	527.728	1.300	0.612	0.610	299	238	246	58		81	81	4.0	1.14	79.05	53.966	102.2	107.933
C-1	120.0	2:00:00	535.957	1.400	0.659	0.660	295	249	234	61		81	81	4.0	1.18	81.82	62.939	102.3	107.895
C-2	140.0	2:20:00	545.213	1.500	0.706	0.710	299	252	247	62		81	81	5.0	1.22	84.91	72.972	103.6	109.459
C-3	160.0	2:40:00	555.563	1.400	0.659	0.660	300	249	247	60		81	81	4.0	1.18	82.09	81.868	103.5	109.157
D-1	180.0	3:00:00	564.740	1.300	0.612	0.610	306	234	223	58		81	81	4.0	1.14	79.41	91.078	104.3	109.294
D-2	200.0	3:20:00	574.243	1.500	0.706	0.710	298	255	242	58		81	81	5.0	1.22	84.86	99.134	103.1	108.147
D-3	220.0	3:40:00	582.553	1.500	0.706	0.710	299	252	247	57		81	81	5.0	1.22	84.91	109.165	103.9	109.165
Last Pt	240.0	4:00:00	592.900																
Final Val	240.0	4:00:00	592.900										**Max Vac**	6.0	**Final Values**		109.165	103.9	
Average Values				1.44		0.68	300	247	242	59		81	81		1.20	83.23			
												81							

METHOD 23 (DIOXINS) ISOKINETIC SAMPLING DATA

Plant Name	Fibrominn Biomass Power Plant	**Date**	7/5/2007
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP/TKG	**Run #**	OUT-Diox-3
# of Points Across	3	**# of Ports Used**	4

Leak Checks					
Train	**Pre**	0	ft3/min @	15	in Hg
OK? ☑	**Post**	0	ft3/min @	15	in Hg
Pitot	**Pre**	4/4	in. H_2O for	15	sec
OK? ☑	**Post**	4/4	in. H_2O for	15	sec
Orsat	OK? ☑				

Nozzle Measurements				
Pre	0.184	0.185	0.184	**PASS**
Post	0.184	0.185	0.184	**PASS**

Run Time			
Start	3:15	**End**	7:26

Sampling Equipment			
Meter #	SAMP-CP-0017		
Meterbox Cal. Factor	(Y)	1.005	
Nozzle #	#5B-2		
Average Nozzle Diameter	(D_{na})	0.1843	in
Rec. Nozzle Diameter	(D_{ni})	0.1868	in
Probe # / Length	SAMP-HP-0034	/ 60	in
Liner Material	glass		
Sample Case / Oven #	SAMP-BH-0004		
Impinger Case #	SAMP-BC-0032		

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.84	
Avg Stack Temp	(t_s)	298	oF
Avg Gas Meter Temp	(t_m)	81	
DH @ 0.75 SCFM	($\Delta H@$)	1.81	in H2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})	1.21	in H2O
Stack Moisture Content	(B_{ws})	24.23	%
Stack Dry Molecular Weight	(M_d)	30.44	lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.469	acfm
DP to DH Isokinetic Factor	(K)	0.57	

Pressures			
Barometric Pressure	(P_b)	29.52	in Hg
Stack Static Pressure	(P_{static})	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.50	in Hg
Absolute Meter Pressure	(P_m)	29.65	in Hg

Weights	**Imp 1**	**Imp 2**	**Imp 3**	**Imp 4**	**Imp 5**	**Imp 6**	**Imp 7**	**Imp 8**
Pre	503.30	733.60	772.10	641.40	645.50	917.30		
Post	1213.80	756.20	771.10	643.40	645.50	963.30		

Wash Volume			
	H_2O	50.0	ml
	MeCl		ml

Filter #
OUT-Diox-3-F

Traverse Point #	**Sampling Time (Θ)**	**Timer Time**	**Dry Gas Meter Reading (V_m)**	**Velocity Head (Δp)**	**Desired Orifice ΔH (ΔH_d)**	**Actual Orifice ΔH (ΔH_a)**	**Stack Temp (t_s)**	**Probe Temp**	**Filter Temp**	**Impinger Exit Temp**	**Aux Temp**	**Meter Inlet Temp (t_{mi})**	**Meter Outlet Temp (t_{mo})**	**Pump Vacuum**	**Square Root ΔP ($\Delta p^{1/2}$)**	**Local Stack Velocity (v_s)$_l$**	**Cumulative Meter Volume (V_m)$_{std}$**	**Cumulative Percent IsoKinetic (I)**	**Est-Run Meter Volume (V_m)$_{std}$**
	min	hh:mm:ss	ft3	in H2O	in H2O	in H2O	oF	oF	oF	oF	oF	oF	oF	in Hg	(in H2O)1/2	ft/sec	scf	%	scf
A-1	0.0	0:00:00	602.870	1.600	0.909	0.910	297	238	246	61		80	80	5.0	1.26	87.86	10.120	99.4	121.435
A-2	20.0	0:20:00	613.284	1.400	0.795	0.800	299	249	234	59		80	80	4.0	1.18	82.29	19.681	100.0	118.084
A-3	40.0	0:40:00	623.126	1.400	0.795	0.800	297	252	247	59		80	80	4.0	1.18	82.19	29.528	101.1	118.114
B-1	60.0	1:00:00	633.263	1.300	0.738	0.740	299	249	247	58		81	81	4.0	1.14	79.30	38.402	100.2	115.207
B-2	80.0	1:20:00	642.416	1.200	0.682	0.680	295	234	223	63		81	81	4.0	1.10	75.99	47.796	101.4	114.710
B-3	100.0	1:40:00	652.106	1.600	0.909	0.910	299	255	242	64		81	81	5.0	1.26	87.98	56.553	99.0	113.106
C-1	120.0	2:00:00	661.135	1.600	0.909	0.910	295	252	247	66		82	82	5.0	1.26	87.74	66.289	98.5	113.638
C-2	140.0	2:20:00	671.191	1.500	0.852	0.850	299	252	245	60		80	80	5.0	1.22	85.18	76.248	98.9	114.371
C-3	160.0	2:40:00	681.441	1.600	0.909	0.910	299	249	247	57		80	80	5.0	1.26	87.98	85.942	98.5	114.590
D-1	180.0	3:00:00	691.418	1.400	0.795	0.800	295	234	223	55		80	80	4.0	1.18	82.08	95.174	98.3	114.209
D-2	200.0	3:20:00	700.921	1.400	0.795	0.800	299	255	242	58		81	81	4.0	1.18	82.29	104.978	98.8	114.521
D-3	220.0	3:40:00	711.031	1.500	0.852	0.850	299	252	247	58		81	81	5.0	1.22	85.18	115.012	99.1	115.012
Last Pt	240.0	4:00:00	721.378																
Final Val	240.0	4:00:00	721.378										**Max Vac**	5.0	**Final Values**		115.012	99.1	
Average Values				1.458		0.830	298	248	241	60		81	81		1.21	83.84			
												81							

METHOD 23 (DIOXINS) - SAMPLE RECOVERY AND INTEGRITY DATA SHEET

Plant Name	Fibrominn Biomass Power Plant	**Date**	07/04/07
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP/TKG	**Acetone Lot Number**	C38B11

Run History Data				
Run Number	OUT-Diox-1	OUT-Diox-2	OUT-Diox-3	
Run Start Time	14:52	22:34	3:15	(hh:mm)
Run Stop Time	20:00	2:47	7:26	(hh:mm)
Train Prepared By	KV/SK	KV/SK	KV/SK	
Train Recovered By	KV/SK	KV/SK	KV/SK	
Recovery Date	7/4/2007	7/4/2007	7/5/2007	(mm/dd/yy)
Relinquished By	TG	TG	TG	
Received By	PS	PS	PS	
Relinquished Date	7/7/2007	7/7/2007	7/7/2007	(mm/dd/yy)
Relinquished Time	19:00	19:00	19:00	(hh:mm)

Equipment Identification Numbers			
Filter	OUT-Diox-1-F	OUT-Diox-2-F	OUT-Diox-3-F
Acetone Wash	ok	ok	ok
Silica Gel	ok	ok	ok
Impinger Case	SAMP-BC-0032	SAMP-BC-0031	SAMP-BC-0032
Sample Box	SAMP-BH-0004	SAMP-BH-0004	SAMP-BH-0004
Oven	ok	ok	ok

Sample Blank Taken ☑ YES

Moisture Content Data					
Impingers 1, 2, 3, 4 and 5 - Liquid Volume					
Final Volume	(V_f)	4204.3	3793.0	4037.3	ml
Initial Volume	(V_i)	3427.0	3149.4	3301.8	ml
Net Volume	(V_n)	777.3	643.7	735.4	ml
Comments					
Impinger 6 - Silica Gel Weight					
Final Weight	(W_f)	941.3	974.1	963.3	g
Initial Weight	(W_i)	903.4	931.4	917.3	g
Net Weight	(W_n)	37.9	42.7	46.0	g
Comments					
Total Water Collected					
Total Volume	(V_{lc})	815.3	686.4	781.5	ml

EXAMPLE CALCULATIONS (Reference Method 1 - Circular Stack)

L_{fw} = distance to far wall of stack (in.)
L_{nw} = distance to near wall of stack (in.) [reference]
D = diameter of stack (in.)
A_s = area of stack (ft^2)
B = distance downstream (in.)
B_D = stack diameters downstream (dia.)
A = distance upstream (in.)
A_D = stack diameters upstream (dia.)

Diameter of Stack (in.)

$$D(in.) = L_{fw} - L_{nw}$$

D (in.) = 129 in. - 21 in. = 108 in.

Area of Stack (ft^2)

$$A_s(ft^2) = \pi \times \left(\frac{D}{2 \times 12}\right)^2$$

A_s (ft^2) = 3.14 x $\left(\frac{108.0 \text{ in.}}{2 \text{ x } 12\text{in./ft}}\right)^2$ = 63.62 ft^2

Stack Diameters Downstream

$$B_D(dia.) = \frac{B}{D}$$

B_D (dia.) = $\frac{910 \text{ in.}}{108 \text{ in.}}$ = 8.43 diameters

Stack Diameters Upstream

$$A_D(dia.) = \frac{A}{D}$$

A_D (dia.) = $\frac{2358 \text{ in.}}{108 \text{ in.}}$ = 21.83 diameters

Number of Traverse Points

Based on 40 CFR Part 60, Appendix A, Method 1, Section 2.2

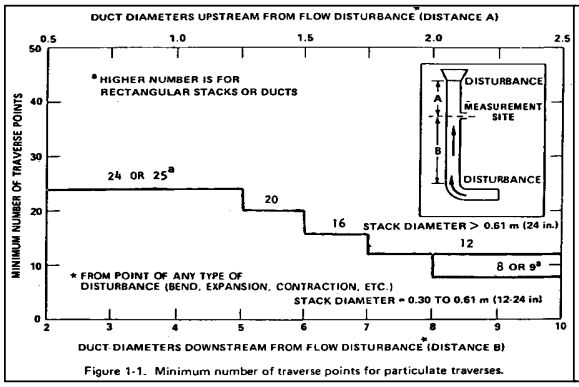


Figure 1-1. Minimum number of traverse points for particulate traverses.

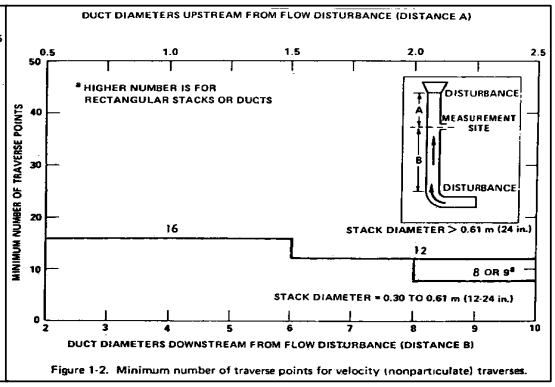


Figure 1-2. Minimum number of traverse points for velocity (nonparticulate) traverses.

Traverse Point Locations

Based on 40 CFR Part 60, Appendix A, Method 1, Section 2.3

Location of Traverse Points in Circular Stacks

(Fraction of Stack Dimension from Inside Wall to Traverse Point)

Traverse Point Number	Number of Traverse Points Across the Stack											
	2	4	6	8	10	12	14	16	18	20	22	24
1	.146	.067	.044	.032	.026	.021	.018	.016	.014	.013	.011	.011
2	.854	.250	.146	.105	.082	.067	.057	.049	.044	.039	.035	.032
3		.750	.296	.194	.146	.118	.099	.085	.075	.067	.060	.055
4		.933	.704	.323	.226	.177	.146	.125	.109	.097	.087	.079
5			.854	.677	.342	.250	.201	.169	.146	.129	.116	.105
6			.956	.806	.658	.356	.269	.220	.188	.165	.146	.132
7				.895	.774	.644	.366	.283	.236	.204	.180	.161
8				.968	.854	.750	.634	.375	.296	.250	.218	.194
9					.918	.823	.731	.625	.382	.306	.262	.230
10					.974	.882	.799	.717	.618	.388	.315	.272
11						.933	.854	.780	.704	.612	.393	.323
12						.979	.901	.831	.764	.694	.607	.398
13							.943	.875	.812	.750	.685	.602
14							.982	.915	.854	.796	.738	.677
15								.951	.891	.835	.782	.728
16								.984	.925	.871	.820	.770
17									.956	.903	.854	.806
18									.986	.933	.884	.839
19										.961	.913	.868
20										.987	.940	.895
21											.965	.921
22											.989	.945
23												.968
24												.989

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 2)

P_b = barometric pressure (in. Hg)
P_{static} = static pressure (in. H_20)
P_s = absolute stack pressure (in. Hg)
$\%N_2$ = nitrogen concentration (%)
$\%CO_2$ = carbon dioxide concentration (%)
$\%O_2$ = oxygen concentration (%)
%CO = carbon monoxide concentration (%)
MW = molecular weight (lb/lb-mole)
B_{ws} = stack moisture content (%)
M_d = stack dry molecular weight (lb/lb-mole)
M_s = stack wet molecular weight (lb/lb-mole)
T_{std} = standard temperature, 68°F, 528°R
P_{std} = standard pressure, 29.92 in. Hg
v_{sl} = local velocity (ft/sec)
v_s = average stack gas velocity (ft/sec)
Q_{sd} = average stack dry standard flow rate (dscf/hr)
Q_{aw} = average stack wet flow rate (ascf/min)

C_p = pitot tube coefficient
Δp = velocity head (in. H_2O)
A_s = area of stack (ft^2)
N_a = null angle (deg.)
t_s = stack temperature (°F)
T_u = temperature offset, 460°R
K_p = pitot tube constant,
85.49 (ft/sec)(((lb/lb-mole)(in. Hg))/((°R)(in. Hg)))$^{1/2}$

Absolute Stack Pressure (in. Hg)

$$P_S\,(in.Hg) = P_b + \frac{P_{static}}{13.6}$$

P_s (in. Hg) = 29.92 in. Hg + $\frac{\text{-0.23 in. } H_2O}{\text{13.6 in. } H_2O/\text{in. Hg}}$ = 29.90 in. Hg

Nitrogen Concentration (%)

$$\%N_2 = 100 - \%CO_2 - \%O_2 - \%CO$$

$\%N_2$ (%) = 100 - 14.39 % - 4.83 % - 0 % = 80.78 %

Stack Dry Molecular Weight (lb/lb-mole)

$$M_d\,(lb/lb-mol) = \sum\left(\frac{MW_{comp}}{100} \times \%component\right)$$

M_d (lb/lb-mol) = $\left(\frac{\text{44 lb/lb-mol}}{100} \text{ x } 14.39\ \%\right) + \left(\frac{\text{32 lb/lb-mol}}{100} \text{ x } 4.83\ \%\right)$ + etc. = $\frac{30.5 \text{ lb}}{\text{lb-mol}}$

Stack Wet Molecular Weight (lb/lb-mole)

$$M_S\,(lb/lb-mol) = \left[M_d \times \left(1 - \frac{B_{WS}}{100}\right)\right] + \left[MW_{H_2O} \times \frac{B_{WS}}{100}\right]$$

M_S (lb/lb-mol) = $\left\{\frac{30.5 \text{ lb}}{\text{lb-mol}} \text{ x} \left(1 - \frac{30\ \%}{100}\right)\right\} + \left\{\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } \frac{30\ \%}{100}\right\} = \frac{26.75 \text{ lb}}{\text{lb-mol}}$

Local Velocity (ft/sec)

$$v_{s(l)}(ft/\sec) = K_p \times C_p \times \sqrt{\Delta p} \times \sqrt{\frac{t_s + T_u}{P_s \times M_s}}$$

v_{sl} (ft/sec) = $\frac{85.49 \text{ ft}}{\text{sec}} \left(\frac{\text{(lb/lb-mol)(in. Hg)}}{(^oR)(\text{in. } H_2O)}\right)^{1/2}$ x 0.84 x $\sqrt{1.00 \text{ in.} H_2O}$ x $\sqrt{\frac{291 + 460\ ^oR}{29.9 \text{ in. Hg x } 26.75 \text{ lb/lb-mol}}}$ = $\frac{69.59 \text{ ft}}{\text{sec}}$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 2)

P_b = barometric pressure (in. Hg)
P_{static} = static pressure (in. H_20)
P_s = absolute stack pressure (in. Hg)
$\%N_2$ = nitrogen concentration (%)
$\%CO_2$ = carbon dioxide concentration (%)
$\%O_2$ = oxygen concentration (%)
%CO = carbon monoxide concentration (%)
MW = molecular weight (lb/lb-mole)
B_{ws} = stack moisture content (%)
M_d = stack dry molecular weight (lb/lb-mole)
M_s = stack wet molecular weight (lb/lb-mole)
K_p = pitot tube constant,
85.49 (ft/sec)(((lb/lb-mole)(in. Hg))/((^oR)(in. Hg)))$^{1/2}$
T_{STD} = standard temperature, 68^oF
P_{STD} = standard pressure, 29.92 in. Hg
v_{sl} = local velocity (ft/sec)
v_s = average stack gas velocity (ft/sec)
Q_{SD} = average stack dry standard flow rate (dscf/hr)
Q_{AW} = average stack wet flow rate (ascf/min)

C_p = pitot tube coefficient
Δp = velocity head (in. H_2O)
A_s = area of stack (ft^2)
N_A = null angle (deg.)
t_s = stack temperature (^oF)
T_u = temperature offset, 460^oR

Average Stack Gas Velocity (ft/sec)

$$v_s(ft/\sec) = K_p \times C_p \times \left(\sqrt{\Delta p}\right)_{avg} \times \sqrt{\frac{(t_s)_{avg} + T_u}{P_s \times M_s}}$$

$$v_{sl}\ (ft/sec) = \frac{85.49\ ft}{sec}\left(\frac{(lb/lb\text{-}mol)(in.\ Hg)}{(^oR)(in.\ H_2O)}\right)^{1/2} \times 0.84 \times 1.05\ in.H_2O^{1/2} \times \sqrt{\frac{291}{29.9}\ \frac{+\ 460\ ^oR}{in.\ Hg} \times \frac{}{26.75}\ \frac{}{lb/lb\text{-}mol}} = \frac{72.74\ ft}{sec}$$

Average Stack Dry Standard Flow Rate (dscfh)

$$Q_{sd}(dscfh) = \frac{60 \times 60 \times \left(1 - \frac{B_{ws}}{100}\right) \times v_s \times A_s \times T_{std} \times P_s}{(t_s + T_u) \times P_{std}}$$

$$Q_{sd}\ (dscf/hr) = \frac{3600\ sec}{hr} \times \left(1 - \frac{30.0\ \%}{100}\right) \times \frac{72.74\ ft}{sec} \times 63.62\ ft^2 \times \frac{68\ +\ 460\ ^oR}{291\ +\ 460\ ^oR} \times \frac{29.90\ in.\ Hg}{29.92\ in.\ Hg} = \frac{8,192,279\ dscf}{hr}$$

Average Stack Wet Flow Rate (acfm)

$$Q_{aw}(acfm) = 60 \times v_s \times A_s$$

$$Q_{aw}\ (acf/min) = \frac{60\ sec}{min} \times \frac{72.74\ ft}{sec} \times 63.62\ ft^2 = \frac{277,654\ acf}{min}$$

Average Stack Wet Standard Flow Rate (ascfh)

$$Q_{sw}(ascfh) = \frac{60 \times Q_{aw} \times T_{std} \times P_s}{(t_s + T_u) \times P_{std}}$$

$$Q_{sw}\ (ascf/hr) = \frac{60\ min}{hr} \times \frac{277,654\ acf}{min} \times \frac{68\ +\ 460\ ^oR}{291\ +\ 460\ ^oR} \times \frac{29.90\ in.\ Hg}{29.92\ in.\ Hg} = \frac{11,703,256\ ascf}{hr}$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 3a)

$\%N_2$ = nitrogen concentration (%)
$\%CO_2$ = carbon dioxide concentration (%)
$\%O_2$ = oxygen concentration (%)
ppmCO = carbon monoxide concentration (ppm)
%CO = carbon monoxide concentration (%)
M_d = stack dry molecular weight (lb/lb-mole)
$(F_o)_{avg}$ = average calculated fuel factor
$(\%EA)_{avg}$ = average excess air (%)

Carbon Monoxide Concentration (%)

$$\%CO = \frac{ppmCO}{10{,}000}$$

%CO (%) = 100.00 ppm / 10,000 ppm/% = 1.0E-02 %

Nitrogen Concentration (%)

$$\%N_2 = 100 - \%CO_2 - \%O_2 - \%CO$$

%N$_2$ (%) = 100 - 14 % - 5 % - 0.01 % = 80.99 %

Stack Dry Molecular Weight (lb/lb-mole)

$$M_d\,(lb/lb-mol) = \sum\left(\frac{MW_{comp}}{100} \times \%component\right)$$

M_d (lb/lb-mol) = (44 lb/lb-mol / 100 x 14 %) + (32 lb/lb-mol / 100 x 5 %) + etc. = 30.44 lb/lb-mol

Average Calculated Fuel Factor

$$F_{o(avg)} = \frac{\left[20.9 - (\%O_2)_{avg} - (0.5 \times (\%CO)_{avg})\right]}{(\%CO_2)_{avg} + (\%CO)_{avg}}$$

$F_{o(avg)}$ = (20.9% - 5 % - [0.5 x 0.01 %]) / (14 % + 0.01 %) = 1.135

Average Excess Air (%)

$$\%EA_{avg}(\%) = \frac{100 \times \left[(\%O_2)_{avg} - (0.5 \times (\%CO)_{avg})\right]}{(0.264 \times (N_2)_{avg}) - \left[(\%O_2)_{avg} - (0.5 \times (\%CO)_{avg})\right]}$$

$(\%EA)_{AVG}$ = 100 x{ 5 % - [0.5 x 0.01 %] } / [0.264 x 80.99 %] - { 5 % - [0.5 x 0.01 %] } = 30.5 %

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 4)

V_{mf} = final dry gas meter reading (dcf)
V_{mi} = initial dry gas meter reading (dcf)
V_m = total meter volume (dcf)
$t_{m(avg)}$ = average meter temp. (^oF)
$t_{s(avg)}$ = average stack temp. (^oF)
P_b = barometric pressure (in. Hg)
P_{static} = static pressure (in. H_2O)
ΔH_{avg} = average orifice pressure (in. H_2O)
V_i = initial impinger volume (ml)
V_f = final impinger volume (ml)
W_i = initial impinger weight (g)
W_f = final impinger weight (g)
V_t = total impinger volume (ml) = $\Sigma(V_f-V_i)$
W_t = total impinger weight (g) = $\Sigma(W_f-W_i)$
K_5 = water mass to std water vapor, 0.04715 ft^3/g
K_1 = standard volume correction, 17.65^oR/in. Hg
Y = meter calibration factor
T_u = absolute temperature offset, 460^oR
B_{ws} = final moisture content (%) = min of $B_{ws(calc)}$ and $B_{ws(svp)}$

Water Volume Weighed (dscf)

$$V_{wsg(std)}(dscf) = W_t \times K_5$$

$V_{wsg(std)}$ = 813.80 g x 0.04715 ft^3/g = 38.371 dscf

Standard Meter Volume (dscf)

$$V_{m(std)}(dscf) = \frac{K_1 \times Y \times V_m \times \left(P_b + \frac{\Delta H_{avg}}{13.6}\right)}{(t_m)_{avg} + T_u}$$

$$V_{m(std)} = \frac{\frac{17.65\ ^oR}{in.\ Hg} \times 1.01 \times 121.408\ dcf \times \left(29.53\ in.\ Hg + \frac{0.80\ in.\ H_2O}{13.6\ in.\ H_2O / in.\ Hg}\right)}{84\ ^oF + 460\ ^oR} = 117.17\ dscf$$

Calculated Moisture Content (%)

$$B_{ws(calc)}(\%) = 100 \times \frac{V_{wsg(std)}}{V_{wsg(std)} + V_{m(std)}}$$

$$B_{ws(calc)} = 100 \times \frac{38.37067\ dscf}{38.37067\ dscf + 117.1699\ dscf} = 24.66924\ \%$$

Saturated Moisture Content (%)

$$B_{ws(svp)}(\%) = 100 \times \frac{10^{6.691 - \frac{3144}{t_{s(avg)} + 390.86}}}{P_b + \frac{P_{static}}{13.6}} \leq 100$$

$$B_{ws(svp)} = 100 \times \frac{10^{\left(6.691 - \frac{3144}{298\ ^oF + 390.86}\right)}}{29.53\ in.\ Hg + \frac{-0.23\ in.\ H_2O}{13.6\ in.\ H_2O / in.\ Hg}} \leq 100 = 100\ \%$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Isokinetic Sampling)

C_n = nozzle diameter constant, 0.03575
Q_m = estimated orifice flow rate, 0.750 acfm
else Vm/Θ from previous run
V_m = total meter volume (acf)
Θ = total sampling time (min)
t_m = average gas meter temperature (°F)
T_u = absolute temperature offset, 460°R
C_p = pitot tube coefficient
B_{wm} = meter moisture content (%)
B_{ws} = stack moisture content (%)
t_s = average stack temperature (°F)
M_d = stack dry molecular weight (lb/lb-mole)
P_s = absolute stack pressure (in. Hg)
C_k = K Factor Constant, 849.8

Δp_{avg} = average pitot tube differential pressure (in. H_2O)
ΔH@ = DH @ 0.75 SCFM (in. H_2O)
D_{na} = actual nozzle diameter (in.)
Δp = velocity head (in. H_2O)

Desired Orifice (in. H_2O)

$$\Delta H_d\,(in.H_2O) = K \times \Delta p$$

ΔH_d (in. H_2O) = 0.57 x 1.7 in. H_2O = 0.962 in. H_2O

Absolute Meter Pressure (in. Hg)

$$P_m\,(in.Hg) = P_b + \frac{\Delta H\,@}{13.6}$$

P_m (in. Hg) = 29.53 in. Hg + $\dfrac{1.81 \text{ in. } H_2O}{13.6 \text{ in. } H_2O/\text{in. Hg}}$ = 29.66 in. Hg

Recommended Nozzle Diameter (in.)

$$D_{ni}\,(in.) = \sqrt{\frac{C_n \times Q_m \times P_m}{(t_m + T_u) \times C_p} \times \left(\frac{1 - \frac{B_{wm}}{100}}{1 - \frac{B_{ws}}{100}}\right)} \times \sqrt{(t_s + T_u) \times \left[\frac{M_d \times \left(1 - \frac{B_{ws}}{100}\right) + (18 \times B_{ws})}{P_s \times \Delta p_{avg}}\right]}$$

$$D_{ni}\text{ (in.)} = \sqrt{\frac{0.03575 \text{ (lb-mole•°R•in. } H_2O)^{1/2}\text{•min•in.}^2}{\text{acf•in. Hg}^{3/4}\text{•lb}^{1/2}} \text{ x } 0.75 \text{ acf x } 29.66 \text{ in. Hg} \times \left(\frac{1 - \frac{0.0\ \%}{100}}{1 - \frac{24.7\ \%}{100}}\right) \text{ x } \left[(84\ ^\circ\text{F} + 460^\circ\text{R}) \text{ x } 0.84\right]} \times \sqrt{\left[(298\ ^\circ\text{F} + 460^\circ\text{R}) \text{ x } \frac{\frac{30.44 \text{ lb}}{\text{lb-mole}} \text{ x } \left(1 - \frac{24.7\ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } 24.7\ \%\right)}{29.51 \text{ in. Hg x } 1.19 \text{ in. } H_2O}\right]} = 0.237 \text{ in.}$$

DP to DH Isokinetic Factor

$$K = C_k \times C_p^2 \times \Delta H\,@ \times D_{na}^4 \times \left[\frac{M_d \times \left(1 - \frac{B_{wm}}{100}\right) + \left(18 \times \frac{B_{wm}}{100}\right)}{M_d \times \left(1 - \frac{B_{ws}}{100}\right) + \left(18 \times \frac{B_{ws}}{100}\right)}\right] \times \left(\frac{1 - \frac{B_{ws}}{100}}{1 - \frac{B_{wm}}{100}}\right)^2 \times \left(\frac{t_m + T_u}{ts + T_u}\right) \times \frac{P_s}{P_m}$$

$$K = \frac{849.8}{\text{in. } H_2O\text{•in.}^4} \text{ x } 0.84^2 \text{ x } 1.81 \text{ in. } H_2O \text{ x } 0.184333^4 \text{ x } \left(\frac{1 - \frac{24.7\ \%}{100}}{1 - \frac{0.0\ \%}{100}}\right)^2 \text{ x } \left(\frac{84\ ^\circ\text{F} + 460^\circ\text{R}}{298\ ^\circ\text{F} + 460^\circ\text{R}}\right) \text{ x}$$

$$\left(\frac{\frac{30.44 \text{ lb}}{\text{lb/mole}} \text{ x } \left(1 - \frac{0.0\ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } \frac{0.0\ \%}{100}\right)}{\frac{30.44 \text{ lb}}{\text{lb/mole}} \text{ x } \left(1 - \frac{24.7\ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } \frac{24.7\ \%}{100}\right)}\right) \text{ x } \frac{29.51 \text{ in. Hg}}{29.66 \text{ in. Hg}} = 0.57$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 23)

Total Dioxin and Furan Emissions Rate (ng/dscm@7%O_2)

$$E(ng/dscm\ @\ \%) = C_{PE} \times \left(\frac{20.9\% - 7\%}{20.9\% - CRA_{O_2}} \right)$$

E (ng/dscm@7%O_2) = $\frac{0.489\ ng}{114\ \ dscf} \times \frac{35.3\ ft^3}{m^3} \times \left\{ \frac{20.9\% - 7\%}{20.9\% - \ \ 5\ \%} \right\} = \frac{0.133\ ng}{dscm}$ @7%O_2

Total Dioxin and Furan Emissions Rate (lb/hr)

$$E'(lb/hr) = \frac{M_n \times Q_{sd}}{V_{m(std)}} \times \frac{60}{453.592 \times 1000}$$

E' (lb/hr) = $\frac{g}{1000\ mg} \times \frac{60\ min}{hr} \times \frac{lb}{453.592\ g} \times \frac{4.89E\text{-}07\ mg}{113.79\ dscf} \times \frac{165{,}998\ \ dscf}{min} = \frac{9.39E\text{-}08\ lb}{hr}$

Total Dioxin and Furan Emissions Rate (ton/yr)

$$E''(ton/yr) = E' \times \frac{8760}{2000}$$

E" (ton/yr) = $\frac{ton}{2000\ lb} \times \frac{8760\ hr}{yr} \times \frac{9.39E\text{-}08\ lb}{hr} = \frac{4.11E\text{-}07\ ton}{yr}$

Total Dioxin and Furan Emissions Rate (lb/MMBtu)

$$E'''(lb/MMBtu) = \frac{M_n \times F_d}{V_{m(std)} \times 1000 \times 453.592} \times \left(\frac{20.9}{20.9 - \%O_2} \right)$$

E''' (lb/MMBtu) = $\frac{g}{1000\ mg} \times \frac{lb}{453.592\ g} \times \frac{4.89E\text{-}07\ mg}{113.79\ dscf} \times \frac{1{,}890\ \ \ dscf}{MMBtu} \times \left(\frac{20.9}{20.9 - \ \ 5.0\ \%} \right) = \frac{2.35E\text{-}11\ lb}{MMBtu}$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

SGS

Table of Contents

Section 1: Cover Letter/Case Narrative

Contains the Table of Contents, a project narrative, the client and PAL project identifiers, the number and type of samples, the methodology used to process the samples, and a summary table of sample results. A listing of current certifications by state, a table of abbreviations and qualifiers and the Toxic Equivalent Factors (TEF) are also supplied.

Section 2: Project Information

Contains the chain-of-custody(s), internal chain-of-custody(s) if applicable, sample login summary, sample receipt checklist, and any other project/client specific information.

Section 3: Sample Analytical Results

Contains results for client samples. Sample results include two pages of summarized analytical data and the associated raw data. The raw data includes a quantitation report from the instrumentation used that lists, ion areas, ratios, retention times, concentrations, and signal-to-noise ratios. It also has the selected ion current profiles (SICPs) for all homolog groups and any manual integrations.

Section 4: Quality Control Analytical Results

Contains results for each analytical workgroup associated with the submitted samples. A workgroup consists of the Lab Method Blank (LMB) and the Ongoing Precision and Recovery sample (OPR). All sample preparation data, including dry weight determinations, extraction logs, clean-up logs and observation notes are also documented. Any other supporting QC data will be documented here upon client request.

Section 5: Initial Calibration

Contains a table summarizing calibration data such as relative response factors, concentrations, and percent relative standard deviation. This section also contains related daily instrument QC information: GC performance data, mass resolution check, windows defining mix, and SICPs for all homolog groups and any manual integrations as well as the injection prep and instrument run logs.

Section 6: Continuing Calibration Data

Contains all daily instrument quality control information. This includes mass resolution checks, a table summarizing the window defining peaks, SICPs for the first and last eluters for each homolog group, SICPs documenting GC performance, a summary quantitation report showing RRFs for the Ccal and Ical, and SICPs for all homolog groups and any manual integrations, injection prep and instrumentation runlogs.

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List of Qualifiers: Dioxin's

B Analyte was detected in the Lab Method Blank at a level above the Reporting Limit.

EDL "Estimated Detection Limit"

EMPC "Estimated Maximum Possible Concentration"

ppt Parts-per-trillion (pg/g; ng/L)

V Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit.

Outside quality control limits

* Indicates that the ion-ratio fails high or low; analyte reported as an EMPC

An average uncertainty of 30% can be routinely achieved as concluded from the evaluation of HRGC-HRMS standard operating procedures. The following flags warn the data user of situations where the uncertainty may be greater than stated.

A Amount detected is less than the Lower Method Calibration Limit.

J Amount detected is between the Method Detection Limit and the Lower Calibration Limit.

O The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high.

E Amount detected is greater than the Upper Calibration Limit.

S The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s).

Q Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s).

I Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s).

DPE Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s).

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Toxic Equivalency Factors

Analyte	WHO* 1998	WHO* 2005	International-89	MADEP+
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	1	1	0.5	0.5
1,2,3,4,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.01	0.1
OCDD	0.0001	0.0003	0.001	0.001
2,3,7,8-TCDF	0.1	0.1	0.1	0.1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.5
2,3,4,7,8-PeCDF	0.5	0.3	0.5	0.5
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01	0.1
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.1
OCDF	0.0001	0.0003	0.001	0.001

* World Health Organization
+ Massachusetts Department of Environmental Protection

SAMPLE DESCRIPTION AND CHAIN OF CUSTODY RECORD

6431-15

Air Hygiene International, Inc.
5634 S. 122nd East Ave, Suite F
Tulsa, Oklahoma 74146
(888) 461-8778
www.airhygiene.com

Project Number:	snc-07-benson.mn-comp#1	Laboratory Analysis Requested:	
Person Taking Samples:	TP/TKG	Reference Method 23 (Dioxins)	

Sample Number	Location	Date	Volume	Analysis Method			
				RM 23			
OUT-Diox-1-F	Outlet-Dioxins-Run 1-Filter	7/4/2007	N/A	X			
OUT-Diox-2-F	Outlet-Dioxins-Run 2-Filter	7/4/2007	N/A	X			
OUT-Diox-3-F	Outlet-Dioxins-Run 3-Filter	7/4/2007	N/A	X			
OUT-Diox-1-#2	Outlet-Dioxins-Run 1-Acetone&MeCl Rinse	7/4/2007	as marked	X			
OUT-Diox-2-#2	Outlet-Dioxins-Run 2-Acetone&MeCl Rinse	7/4/2007	as marked	X			
OUT-Diox-1-#2	Outlet-Dioxins-Run 3-Acetone&MeCl Rinse	7/4/2007	as marked	X			
OUT-Diox-1-#3	Outlet-Dioxins-Run 1-Toluene Rinse	7/4/2007	as marked	X			
OUT-Diox-2-#3	Outlet-Dioxins-Run 2-Toluene Rinse	7/4/2007	as marked	X			
OUT-Diox-3-#3	Outlet-Dioxins-Run 3-Toluene Rinse	7/4/2007	as marked	X			
OUT-Diox-1-XAD	Outlet-Dioxins-Run 1-Cartridge	7/4/2007	as marked	X			
OUT-Diox-2-XAD	Outlet-Dioxins-Run 2-Cartridge	7/4/2007	as marked	X			
OUT-Diox-3-XAD	Outlet-Dioxins-Run 3-Cartridge	7/4/2007	as marked	X			
A-B	Acetone Blank	7/4/2007	as marked	X			
MC-B	MeCl Blank	7/4/2007	as marked	X			
T-B	Toluene Blank	7/4/2007	as marked	X			
X-B	XAD Blank	7/4/2007		X			

Relinquished by: (Signature)	Date: 07/07/07	Time: 19:00	Received by: (Signature)	Date: 07/07/07	Time: 19:00
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date: 7/11/07	Time: 1000 4.2, 4.8°C

snc-07-benson.mn-comp#1-Outlet-Dioxins

SGS Environmental Services, Inc.

Cust Proj ID: snc-07-benson.mn-comp#1
Client Name: Air Hygiene

G431-15

Due Date: 2007-08-01 17:00:00
Login Date: 2007-07-11 15:26:35

Sample ID		Cust Sample ID	PRI	Date Collected	Date Received	Date Due	Matrix	LOC	Report	Analysis	Status
G431-15-1	A	OUT-Diox-1-F	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	Filter	W2	Full	M23 Ext Prep	LG::REVW
G431-15-2	A	OUT-Diox-1-#2	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	DCM/Acetone Rinse	W2	Full	M23 Ext Prep	LG::REVW
G431-15-3	A	OUT-Diox-1-#3	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	Toluene Rinse	W2	Full	M23 Ext Prep	LG::REVW
G431-15-4	A	OUT-Diox-1-XAD	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	XAD	W2	Full	M23 Ext Prep	LG::REVW
G431-15-5	A	OUT-Diox-1	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	Air	W2	Full	M23	LG::REVW
G431-15-6	A	OUT-Diox-2-F	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	Filter	W2	Full	M23 Ext Prep	LG::REVW
G431-15-7	A	OUT-Diox-2-#2	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	DCM/Acetone Rinse	W2	Full	M23 Ext Prep	LG::REVW
G431-15-8	A	OUT-Diox-2-#3	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	Toluene Rinse	W2	Full	M23 Ext Prep	LG::REVW
G431-15-9	A	OUT-Diox-2-XAD	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	XAD	W2	Full	M23 Ext Prep	LG::REVW
G431-15-10	A	OUT-Diox-2	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	Air	W2	Full	M23	LG::REVW
G431-15-11	A	OUT-Diox-3-F	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	Filter	W2	Full	M23 Ext Prep	LG::REVW
G431-15-12	A	OUT-Diox-3-#2	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	DCM/Acetone Rinse	W2	Full	M23 Ext Prep	LG::REVW
G431-15-13	A	OUT-Diox-3-#3	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	Toluene Rinse	W2	Full	M23 Ext Prep	LG::REVW
G431-15-14	A	OUT-Diox-3-XAD	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	XAD	W2	Full	M23 Ext Prep	LG::REVW
G431-15-15	A	OUT-Diox-3	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	Air	W2	Full	M23	LG::REVW
G431-15-16	A	A-B	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	DCM/Acetone Rinse	W2	Full	M23 Ext Prep	LG::REVW
G431-15-17	A	MC-B	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	DCM/Acetone Rinse	W2	Full	M23 Ext Prep	LG::REVW
G431-15-18	A	T-B	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	Toluene Rinse	W2	Full	M23 Ext Prep	LG::REVW
G431-15-19	A	X-B	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	XAD	W2	Full	M23 Ext Prep	LG::REVW
G431-15-20	A	B	STD	2007-07-04 00:00:00	2007-07-11	2007-08-01	Air	W2	Full	M23	LG::REVW

Sample Receipt Checklist (SRC)

SGS Environmental Services

Client: **Air Hygiene** Lab Proj. ID: **G431-15**

Client Proj. ID: **snc-07-benson.mn-comp#1**

1. X Shipped
   __ Hand Delivered
   Notes:

2. X Proper, full, and complete documentation
   (unique sample identification on durable label with indelible ink, location of collection, date/time of collection, collector's name, preservation type, sample type (method/matrix))
   __ Acceptable documentation (but, incomplete)
   __ Unacceptable documentation
   Notes:

3. __ Custody Tape on Container
   X No Custody Tape
   Notes:

4. X Samples Intact*
   (are in appropriate container, are not damaged, and do not show signs of contamination)
   __ Samples Broken / Leaking
   __ VOA Vials Checked for Air Bubbles
   Notes:

5. X Chilled on Receipt* Actual Temp.(s) in °C: 4.2 4.8
   __ Ambient on Receipt
   __ Walk-in on Ice; Coming down to temp.
   __ Received out of temperature protocol
   Notes:

6. X Sufficient Sample Submitted
   __ Insufficient Sample Submitted
   Notes:

7. X Samples Preserved Correctly*
   (see preservative checklist where applicable)
   __ Improper Preservative(s)
   __ None recommended (N/A)
   Notes:

8. X Received Within Holding Time
   __ Not Received Within Holding Time
   __ N/A
   Notes:

9. X No Discrepancies Noted
   __ Discrepancies Noted
   Notes:

Comments: Received three unmarked XADs, one designated as Blank.
Received several unmarked filters, not used.
No COC with samples, COC received by fax.

* = Rejection of sample is required when not marked; Contact client services immediately for a resolution.

Inspected and Logged in by: [signature]
Date / Time: Wed-7/11/07 15:47

DC27.040307.4

Method M23
OUT-Diox-1
Air Hygiene

Analytical Data Summary Sheet

Analyte	Amount (ng)	EDL (ng)	EMPC (ng)	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	ND	0.00449					
1,2,3,7,8-PeCDD	ND	0.00500					
1,2,3,4,7,8-HxCDD	ND	0.00658					
1,2,3,6,7,8-HxCDD	ND	0.00670					
1,2,3,7,8,9-HxCDD	ND	0.00680					
1,2,3,4,6,7,8-HpCDD	0.0240			40:37	1.05		A
OCDD	EMPC	0.0216	0.0527	45:07	1.11	*	A
2,3,7,8-TCDF	0.00804			31:09	0.82		A
1,2,3,7,8-PeCDF	0.00608			33:37	1.75		A
2,3,4,7,8-PeCDF	EMPC	0.00500	0.00852	34:15	1.07	*	A
1,2,3,4,7,8-HxCDF	0.0202			36:22	1.28		A
1,2,3,6,7,8-HxCDF	EMPC	0.00500	0.00780	36:28	1.47	*	A
2,3,4,6,7,8-HxCDF	EMPC	0.00500	0.00604	37:00	0.88	*	A
1,2,3,7,8,9-HxCDF	ND	0.00510					
1,2,3,4,6,7,8-HpCDF	0.0781			39:21	0.92		A
1,2,3,4,7,8,9-HpCDF	ND	0.00798					
OCDF	0.0729			45:25	0.82		A
Total TCDDs	0.0264						
Total PeCDDs	0.110		0.124				
Total HxCDDs	0.0614						
Total HpCDDs	0.0240		0.0438				
Total TCDFs	0.0978		0.106				
Total PeCDFs	0.0608		0.0933				
Total HxCDFs	0.0600		0.0769				
Total HpCDFs	0.0781						
WHO-2005 TEQ (ND=0)	0.00405		0.00801				
WHO-2005 TEQ (ND=½)	0.0113		0.0140				

Client Information			**Sample Information**		
Project Name:	snc-07-benson.mn-comp#1				
			Matrix:	Air	
Sample ID:	OUT-Diox-1		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14370	
Project ID:	G431-15		Instrument:	HRMS1	
Sample ID:	G431-15-5B		Filename:	a24jul07a-5	
Collection Date/Time:	07/04/07		Retchk:	a24jul07a-1	
Receipt Date/Time:	07/11/07	10:00	Begin ConCal:	a24jul07a-1	
Extraction Date:	07/22/07		End ConCal:	a24jul07a-11	
Analysis Date/Time:	07/24/07	19:19	Initial Cal:	m8290-071007a	

Method M23
OUT-Diox-1
Air Hygiene

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	4.0	3.57	89.3	31:39	0.79	
13C12-1,2,3,7,8-PeCDD	4.0	3.32	83.0	34:25	1.57	
13C12-1,2,3,6,7,8-HxCDD	4.0	4.00	99.9	37:10	1.24	
13C12-1,2,3,4,6,7,8-HpCDD	4.0	3.76	94.1	40:37	1.06	
13C12-OCDD	8.0	5.82	72.8	45:06	0.90	
13C12-2,3,7,8-TCDF	4.0	3.97	99.3	31:07	0.79	
13C12-1,2,3,7,8-PeCDF	4.0	3.10	77.6	33:37	1.58	
13C12-1,2,3,6,7,8-HxCDF	4.0	3.53	88.2	36:28	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	4.0	3.32	83.0	39:19	0.45	
Sampling Standards						
37Cl4-2,3,7,8-TCDD	4.0	4.29	107	31:40	-	
13C12-2,3,4,7,8-PeCDF	4.0	3.87	96.8	34:15	1.57	
13C12-1,2,3,4,7,8-HxCDD	4.0	3.92	98.0	37:07	1.26	
13C12-1,2,3,4,7,8-HxCDF	4.0	4.07	102	36:22	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	3.52	88.1	41:19	0.45	
Injection Standards						
13C12-1,2,3,4-TCDD	2.0	-	-	31:15	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-	-	37:27	1.26	

Client Information			**Sample Information**		
Project Name:	snc-07-benson.mn-comp#1				
			Matrix:	Air	
Sample ID:	OUT-Diox-1		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14370	
Project ID:	G431-15		Instrument:	HRMS1	
Sample ID:	G431-15-5B		Filename:	a24jul07a-5	
Collection Date/Time:	07/04/07		Retchk:	a24jul07a-1	
Receipt Date/Time:	07/11/07	10:00	Begin ConCal:	a24jul07a-1	
Extraction Date:	07/22/07		End ConCal:	a24jul07a-11	
Analysis Date/Time:	07/24/07	19:19	Initial Cal:	m8290-071007a	

Form Version:[8290_DB_2.14]Report

Analyzed by: HMP
Date: 26Jul07

Reviewed by: GW
Date: 7/24/07

Filename ; a24jul07a ;*8290*
Sample ; 5 ;Inst: HRMS1
Acquired ; 24-JUL-07 19:19:49
Processed ; 25-JUL-07 08:10:45
Sample ID ; G431-15-5B
Cal Table ; m8290-071007a
Results Table ; m8290-072407a
Comments ;

$\frac{(.127)(4)}{(20.8)(1.0183)} = 0.12387$

Ent;	Name;	Resp;	Ion 1;	Ion 2;	RA;?;	RT;	Conc;	EDL;	S/N1;?;	S/N2;?;M; Signal1; Noise 1; Signal2; Noise 2
1 ;	2,3,7,8-TCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.2243;	*;n;	*;n;n; *;4.90e+03; *;5.19e+03
2 ;	1,2,3,7,8-PeCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.2287;	*;n;	*;n;n; *;5.74e+03; *;3.91e+03
3 ;	1,2,3,4,7,8-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3291;	*;n;	*;n;n; *;4.92e+03; *;5.18e+03
4 ;	1,2,3,6,7,8-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3350;	*;n;	*;n;n; *;4.92e+03; *;5.18e+03
5 ;	1,2,3,7,8,9-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3399;	*;n;	*;n;n; *;4.92e+03; *;5.18e+03
6 ;	1,2,3,4,6,7,8-HpCDD;	1.31e+05;	6.73e+04;	6.42e+04;	1.05;y;	40:38;	0.599;	0.4946;	4;y;	4;y;y;1.89e+04;5.26e+03;1.77e+04;4.18e+03
7 ;	OCDD;	1.90e+05;	1.00e+05;	8.99e+04;	1.11;n;	45:07;	1.317;	1.0805;	3;y;	3;y;y;1.41e+04;4.39e+03;1.53e+04;4.75e+03
8 ;	2,3,7,8-TCDF;	1.19e+05;	5.36e+04;	6.54e+04;	0.82;y;	31:09;	0.201;	0.2018;	2;n;	3;y;y;1.35e+04;6.43e+03;1.87e+04;5.71e+03
9 ;	1,2,3,7,8-PeCDF;	6.51e+04;	4.14e+04;	2.37e+04;	1.75;y;	33:38;	0.152;	0.1635;	3;y;	2;n;y;1.69e+04;5.29e+03;9.55e+03;5.09e+03
10 ;	2,3,4,7,8-PeCDF;	9.45e+04;	4.88e+04;	4.57e+04;	1.07;n;	34:15;	0.213;	0.1577;	3;y;	3;n;y;1.83e+04;5.29e+03;1.52e+04;5.09e+03
11 ;	1,2,3,4,7,8-HxCDF;	1.85e+05;	1.04e+05;	8.12e+04;	1.28;y;	36:23;	0.505;	0.2204;	8;y;	7;y;y;3.86e+04;4.72e+03;3.22e+04;4.93e+03
12 ;	1,2,3,6,7,8-HxCDF;	7.55e+04;	4.49e+04;	3.06e+04;	1.47;n;	36:29;	0.195;	0.2076;	3;y;	3;n;n;1.54e+04;4.72e+03;1.24e+04;4.93e+03
13 ;	2,3,4,6,7,8-HxCDF;	5.56e+04;	2.60e+04;	2.95e+04;	0.88;n;	37:00;	0.151;	0.2189;	2;n;	3;n;y;9.76e+03;4.72e+03;1.29e+04;4.93e+03
14 ;	1,2,3,7,8,9-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2550;	*;n;	*;n;n; *;4.72e+03; *;4.93e+03
15 ;	1,2,3,4,6,7,8-HpCDF;	6.35e+05;	3.04e+05;	3.31e+05;	0.92;y;	39:21;	1.952;	0.3146;	19;y;	19;y;n;9.20e+04;4.96e+03;9.69e+04;5.02e+03
16 ;	1,2,3,4,7,8,9-HpCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.3991;	*;n;	*;n;n; *;4.96e+03; *;5.02e+03
17 ;	OCDF;	3.19e+05;	1.44e+05;	1.76e+05;	0.82;y;	45:25;	1.823;	0.8306;	6;y;	7;y;y;2.73e+04;4.21e+03;3.16e+04;4.32e+03
Extraction Standards										
18 ;	13C-2,3,7,8-TCDD;	3.64e+07;	1.60e+07;	2.04e+07;	0.79;y;	31:39;	89.332;	0.1941;	1400;y;	1770;y;n;6.03e+06;4.31e+03;7.91e+06;4.47e+03
19 ;	13C-1,2,3,7,8-PeCDD;	2.79e+07;	1.71e+07;	1.08e+07;	1.57;y;	34:26;	82.966;	0.2265;	1746;y;	1120;y;n;7.42e+06;4.25e+03;4.72e+06;4.22e+03
20 ;	13C-1,2,3,6,7,8-HxCDD;	2.83e+07;	1.57e+07;	1.26e+07;	1.24;y;	37:11;	99.931;	0.2897;	1170;y;	905;y;n;5.14e+06;4.39e+03;4.21e+06;4.65e+03
21 ;	13C-1,2,3,4,6,7,8-HpCDD;	2.08e+07;	1.07e+07;	1.01e+07;	1.06;y;	40:38;	94.107;	0.3262;	830;y;	577;y;n;2.77e+06;3.34e+03;2.64e+06;4.58e+03
22 ;	13C-OCDD;	2.68e+07;	1.27e+07;	1.41e+07;	0.90;y;	45:06;	145.612;	0.4394;	563;y;	504;y;n;2.21e+06;3.92e+03;2.50e+06;4.97e+03
23 ;	13C-2,3,7,8-TCDF;	5.27e+07;	2.32e+07;	2.95e+07;	0.79;y;	31:07;	99.338;	0.1746;	1430;y;	1692;y;n;7.19e+06;5.03e+03;8.91e+06;5.26e+03
24 ;	13C-1,2,3,7,8-PeCDF;	4.29e+07;	2.63e+07;	1.66e+07;	1.58;y;	33:38;	77.608;	0.2060;	2057;y;	1064;y;n;1.15e+07;5.60e+03;7.49e+06;7.04e+03
25 ;	13C-1,2,3,6,7,8-HxCDF;	3.35e+07;	1.15e+07;	2.19e+07;	0.52;y;	36:29;	88.219;	0.2519;	775;y;	1525;y;n;4.18e+06;5.39e+03;7.81e+06;5.12e+03
26 ;	13C-1,2,3,4,6,7,8-HpCDF;	2.34e+07;	7.27e+06;	1.61e+07;	0.45;y;	39:20;	83.023;	0.3027;	436;y;	1048;y;n;2.14e+06;4.90e+03;4.70e+06;4.48e+03
Injection Standards										
27 ;	13C-1,2,3,4-TCDD;	3.85e+07;	1.70e+07;	2.15e+07;	0.79;y;	31:15;	47.284;	-;	1323;y;	1594;y;n;5.70e+06;4.31e+03;7.12e+06;4.47e+03
28 ;	13C-1,2,3,7,8,9-HxCDD;	2.72e+07;	1.52e+07;	1.20e+07;	1.26;y;	37:27;	38.289;	-;	1154;y;	845;y;n;5.07e+06;4.39e+03;3.93e+06;4.65e+03
Cleanup Standards										
29 ;	37Cl-2,3,7,8-TCDD;	3.98e+07;	3.98e+07;	-;	-;-;	31:40;	95.821;	0.0920;	3806;y;	-;-;n;1.62e+07;4.25e+03; -; -
30 ;	13C-2,3,4,7,8-PeCDF;	4.08e+07;	2.49e+07;	1.58e+07;	1.57;y;	34:15;	75.200;	0.2099;	1919;y;	953;y;n;1.08e+07;5.60e+03;6.71e+06;7.04e+03
31 ;	13C-1,2,3,4,7,8-HxCDD;	2.64e+07;	1.47e+07;	1.17e+07;	1.26;y;	37:07;	97.893;	0.3049;	1128;y;	861;y;n;4.95e+06;4.39e+03;4.00e+06;4.65e+03
32 ;	13C-1,2,3,4,7,8-HxCDF;	3.06e+07;	1.05e+07;	2.02e+07;	0.52;y;	36:23;	89.705;	0.2800;	699;y;	1400;y;n;3.77e+06;5.39e+03;7.17e+06;5.12e+03
33 ;	13C-1,2,3,4,7,8,9-HpCDF;	1.84e+07;	5.69e+06;	1.27e+07;	0.45;y;	41:20;	73.105;	0.3394;	277;y;	673;y;n;1.36e+06;4.90e+03;3.01e+06;4.48e+03
Sampling Standards										
34 ;	37Cl-2,3,7,8-TCDD;	3.98e+07;	3.98e+07;	-;	-;-;	31:40;	107.273;	0.0897;	3806;y;	-;-;n;1.62e+07;4.25e+03; -; -
35 ;	13C-2,3,4,7,8-PeCDF;	4.08e+07;	2.49e+07;	1.58e+07;	1.57;y;	34:15;	96.848;	0.2025;	1919;y;	953;y;n;1.08e+07;5.60e+03;6.71e+06;7.04e+03
36 ;	13C-1,2,3,4,7,8-HxCDD;	2.64e+07;	1.47e+07;	1.17e+07;	1.26;y;	37:07;	97.959;	0.3052;	1128;y;	861;y;n;4.95e+06;4.39e+03;4.00e+06;4.65e+03
37 ;	13C-1,2,3,4,7,8-HxCDF;	3.06e+07;	1.05e+07;	2.02e+07;	0.52;y;	36:23;	101.634;	0.2915;	699;y;	1400;y;n;3.77e+06;5.39e+03;7.17e+06;5.12e+03
38 ;	13C-1,2,3,4,7,8,9-HpCDF;	1.84e+07;	5.69e+06;	1.27e+07;	0.45;y;	41:20;	88.058;	0.4611;	277;y;	673;y;n;1.36e+06;4.90e+03;3.01e+06;4.48e+03

Totals Report

SGS Environmental Services, INC.	Thu Jul 26 14:46:08 EDT 2007	
Filename: a24jul07a-5	Acquired: 2007-07-24 19:19:49	Processed: 2007-07-25 08:10:45
Results:	Cal: m8290-071007a	
Sample Text: G431-15-5B		

Total Tetra-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		2378-TCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.2243	S2N	0.00E+00	4900	0	0.00E+00	5190	0	n
		Tetradioxins	2.33E+05	9.95E+04	1.34E+05	0.74	Y	28:40	0.661	0.2243	OK	2.03E+04	4904	4.1	2.73E+04	5192	5.3	n
		Tetradioxins	1.35E+04	6.70E+03	6.80E+03	0.99	N	28:46	0.038	0.2243	S2N	3.40E+03	4904	0.7	3.35E+03	5192	0.6	n
		Tetradioxins	4.38E+04	9.65E+03	3.42E+04	0.28	N	31:31	0.124	0.2243	S2N	4.43E+03	4904	0.9	7.47E+03	5192	1.4	n
									EDL	0.2243								
									Total EMPC Tetra-Dioxins	0.661	Peaks	1						
									Total Tetra-Dioxins	0.661	Peaks	1						

Total Tetra-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		Tetrafurans	2.82E+05	1.17E+05	1.65E+05	0.71	Y	26:57	0.477	0.2018	OK	2.76E+04	6432	4.3	3.67E+04	5712	6.4	n
		Tetrafurans	9.83E+04	4.35E+04	5.48E+04	0.79	Y	27:55	0.166	0.2018	~~S2N~~	9.52E+03	6432	1.5	1.32E+04	5712	2.3	n
		Tetrafurans	2.46E+05	1.09E+05	1.36E+05	0.8	Y	28:18	0.416	0.2018	OK	1.86E+04	6432	2.9	2.10E+04	5712	3.7	y
		Tetrafurans	8.21E+04	3.44E+04	4.77E+04	0.72	Y	28:30	0.139	0.2018	~~S2N~~	7.32E+03	6432	1.1	1.28E+04	5712	2.2	y
		Tetrafurans	1.42E+05	7.37E+04	6.78E+04	1.09	N	28:37	0.24	0.2018	~~S2N~~	1.21E+04	6432	1.9	1.68E+04	5712	2.9	y
		Tetrafurans	7.72E+04	2.97E+04	4.75E+04	0.63	N	29:42	0.131	0.2018	S2N	6.36E+03	6432	1	1.13E+04	5712	2	y
		Tetrafurans	2.47E+05	1.14E+05	1.33E+05	0.85	Y	29:54	0.418	0.2018	OK	2.02E+04	6432	3.1	2.67E+04	5712	4.7	y
		Tetrafurans	1.39E+05	6.54E+04	7.33E+04	0.89	N	30:22	0.235	0.2018	~~S2N~~	1.12E+04	6432	1.7	1.62E+04	5712	2.8	y
		Tetrafurans	9.04E+04	4.38E+04	4.65E+04	0.94	N	30:37	0.153	0.2018	~~S2N~~	8.50E+03	6432	1.3	8.85E+03	5712	1.5	y
		Tetrafurans	7.50E+04	4.06E+04	3.44E+04	1.18	N	30:48	0.127	0.2018	S2N	8.11E+03	6432	1.3	7.85E+03	5712	1.4	y
		Tetrafurans	8.08E+04	3.28E+04	4.81E+04	0.68	Y	30:58	0.137	0.2018	S2N	1.12E+04	6432	1.7	1.16E+04	5712	2	y
		Tetrafurans	6.28E+04	2.91E+04	3.37E+04	0.86	Y	31:04	0.106	0.2018	S2N	7.53E+03	6432	1.2	1.16E+04	5712	2	y
		2378-TCDF	1.19E+05	5.36E+04	6.54E+04	0.82	Y	31:09	0.201	0.2018	~~S2N~~	1.35E+04	6430	2	1.87E+04	5710	3	y
		Tetrafurans	1.16E+05	4.36E+04	7.20E+04	0.61	N	31:22	0.196	0.2018	EMPC	1.65E+04	6432	2.6	2.48E+04	5712	4.3	n
									EDL	0.2018								
									Total Tetra-Furans	1.311	Peaks	3						
									Total EMPC Tetra-Furans	1.507	Peaks	4						

Total Penta-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		12378-PeCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.2287	S2N	0.00E+00	5740	0	0.00E+00	3910	0	n
		Pentadioxins	5.34E+05	3.15E+05	2.20E+05	1.43	Y	33:04	1.835	0.2287	OK	1.20E+05	5744	20.8	8.07E+04	3912	20.6	n
		Pentadioxins	2.04E+05	1.23E+05	8.12E+04	1.52	Y	33:39	0.702	0.2287	OK	5.84E+04	5744	10.2	3.82E+04	3912	9.8	n
		Pentadioxins	9.77E+04	6.56E+04	3.21E+04	2.04	N	33:49	0.336	0.2287	EMPC	2.81E+04	5744	4.9	1.61E+04	3912	4.1	n
		Pentadioxins	6.46E+04	3.76E+04	2.70E+04	1.4	Y	34:10	0.222	0.2287	OK	1.49E+04	5744	2.6	1.25E+04	3912	3.2	n
									EDL	0.2287								
									Total Penta-Dioxins	2.759	Peaks	3						
									Total EMPC Penta-Dioxins	3.095	Peaks	4						

Total Penta-Furans

Totals Report

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		Pentafurans	1.82E+05	7.76E+04	1.04E+05	0.74	N	32:13	0.417	0.1507	EMPC	3.24E+04	5052	6.4	5.11E+04	4692	10.9	n
		Pentafurans	1.50E+05	9.08E+04	5.93E+04	1.53	Y	32:58	0.344	0.1605	OK	2.73E+04	5288	5.2	1.93E+04	5092	3.8	n
		Pentafurans	2.50E+05	1.46E+05	1.04E+05	1.41	Y	33:04	0.573	0.1605	OK	4.68E+04	5288	8.9	2.95E+04	5092	5.8	n
		Pentafurans	1.16E+05	6.50E+04	5.05E+04	1.29	N	33:24	0.265	0.1605	~~S2N~~	1.96E+04	5288	3.7	1.15E+04	5092	2.3	y
		Pentafurans	3.21E+04	1.83E+04	1.38E+04	1.33	Y	33:31	0.074	0.1605	S2N	8.99E+03	5288	1.7	8.54E+03	5092	1.7	n
		12378-PeCDF	6.51E+04	4.14E+04	2.37E+04	1.75	Y	33:37	0.152	0.1635	~~S2N~~	1.69E+04	5290	3	9.55E+03	5090	2	y
		Pentafurans	8.08E+04	4.75E+04	3.33E+04	1.43	Y	33:46	0.185	0.1605	~~S2N~~	1.60E+04	5288	3	1.01E+04	5092	2	n
		Pentafurans	8.04E+04	4.08E+04	3.96E+04	1.03	N	34:10	0.184	0.1605	EMPC	1.85E+04	5288	3.5	1.61E+04	5092	3.2	n
		23478-PeCDF	9.45E+04	4.88E+04	4.57E+04	1.07	N	34:15	0.213	0.1577	EMPC	1.83E+04	5290	3	1.52E+04	5090	3	y
									EDL	0.1635								
									Total Penta-Furans	0.917	Peaks	2						
									Total EMPC Penta-Furans	1.731	Peaks	5						

Total Hexa-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		123789-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3399	S2N	0.00E+00	4920	0	0.00E+00	5180	0	n
		123678-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.335	S2N	0.00E+00	4920	0	0.00E+00	5180	0	n
		123478-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3291	S2N	0.00E+00	4920	0	0.00E+00	5180	0	n
		Hexadioxins	3.48E+04	2.28E+04	1.20E+04	1.9	N	35:51	0.127	0.3346	S2N	8.79E+03	4920	1.8	5.81E+03	5176	1.1	n
		Hexadioxins	3.27E+05	1.84E+05	1.42E+05	1.29	Y	36:19	1.191	0.3346	OK	6.25E+04	4920	12.7	4.57E+04	5176	8.8	n
		Hexadioxins	9.40E+04	5.80E+04	3.59E+04	1.62	N	36:31	0.343	0.3346	~~S2N~~	1.46E+04	4920	3	1.11E+04	5176	2.2	n
									EDL	0.3399								
									Total Hexa-Dioxins	1.191	Peaks	1						
									Total EMPC Hexa-Dioxins	1.191	Peaks	1						

Total Hexa-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		123789-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.255	S2N	0.00E+00	4720	0	0.00E+00	4930	0	n
		Hexafurans	8.17E+04	4.02E+04	4.16E+04	0.97	N	35:25	0.227	0.2242	EMPC	1.42E+04	4720	3	1.61E+04	4928	3.3	n
		Hexafurans	2.48E+05	1.40E+05	1.08E+05	1.3	Y	35:31	0.689	0.2242	OK	5.30E+04	4720	11.2	3.76E+04	4928	7.6	y
		Hexafurans	5.60E+04	3.41E+04	2.18E+04	1.56	N	36:18	0.156	0.2242	~~S2N~~	1.22E+04	4720	2.6	8.08E+03	4928	1.6	y
		123478-HxCDF	1.85E+05	1.04E+05	8.12E+04	1.28	Y	36:22	0.505	0.2204	OK	3.86E+04	4720	8	3.22E+04	4930	7	y
		123678-HxCDF	7.55E+04	4.49E+04	3.06E+04	1.47	N	36:28	0.195	0.2076	EMPC	1.54E+04	4720	3	1.24E+04	4930	3	n
		234678-HxCDF	5.56E+04	2.60E+04	2.95E+04	0.88	N	37:00	0.151	0.2189	~~S2N~~	9.76E+03	4720	2	1.29E+04	4930	3	y
									EDL	0.255								
									Total Hexa-Furans	1.194	Peaks	2						
									Total EMPC Hexa-Furans	1.616	Peaks	4						

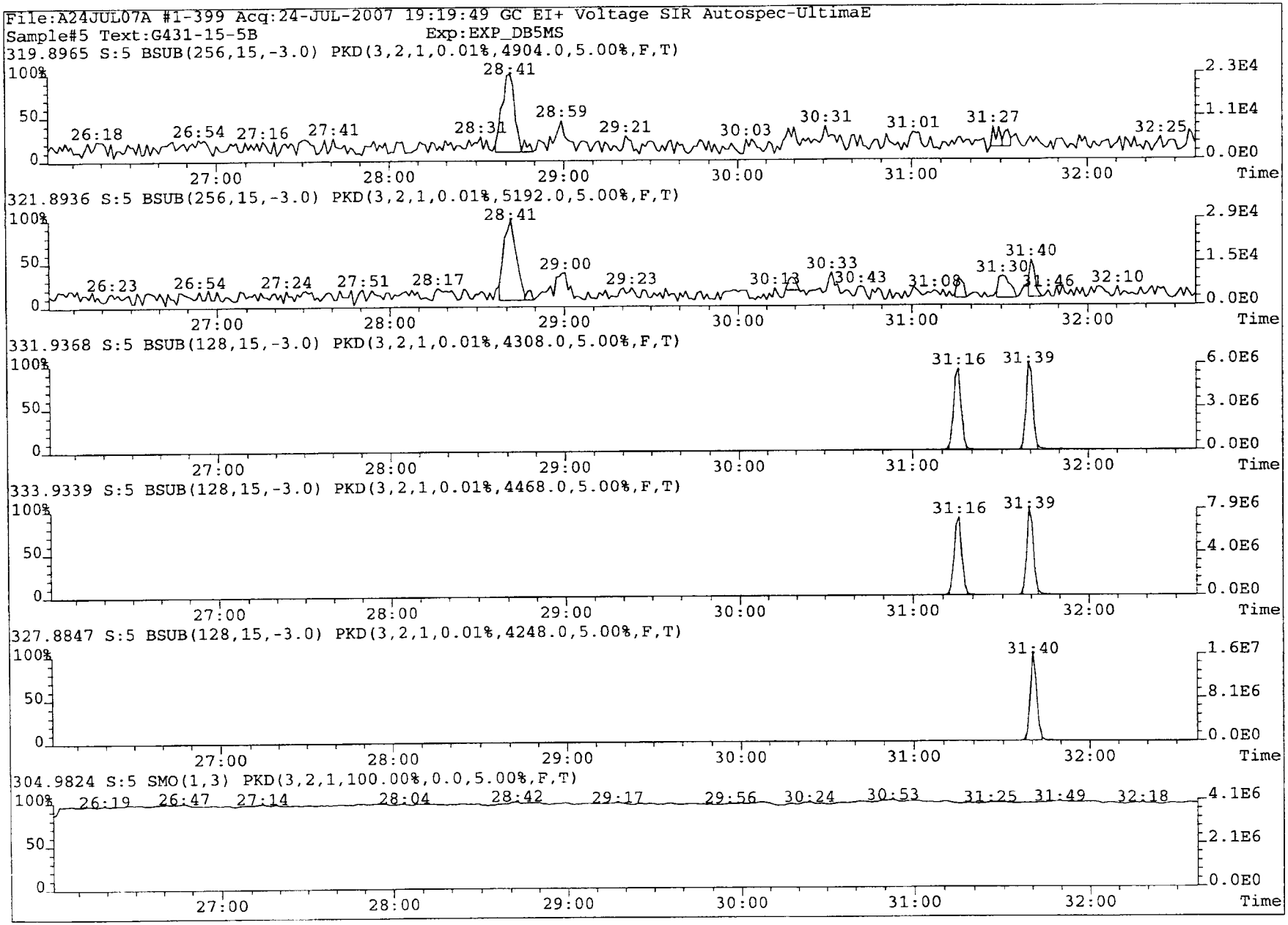
Total Hepta-Dioxins

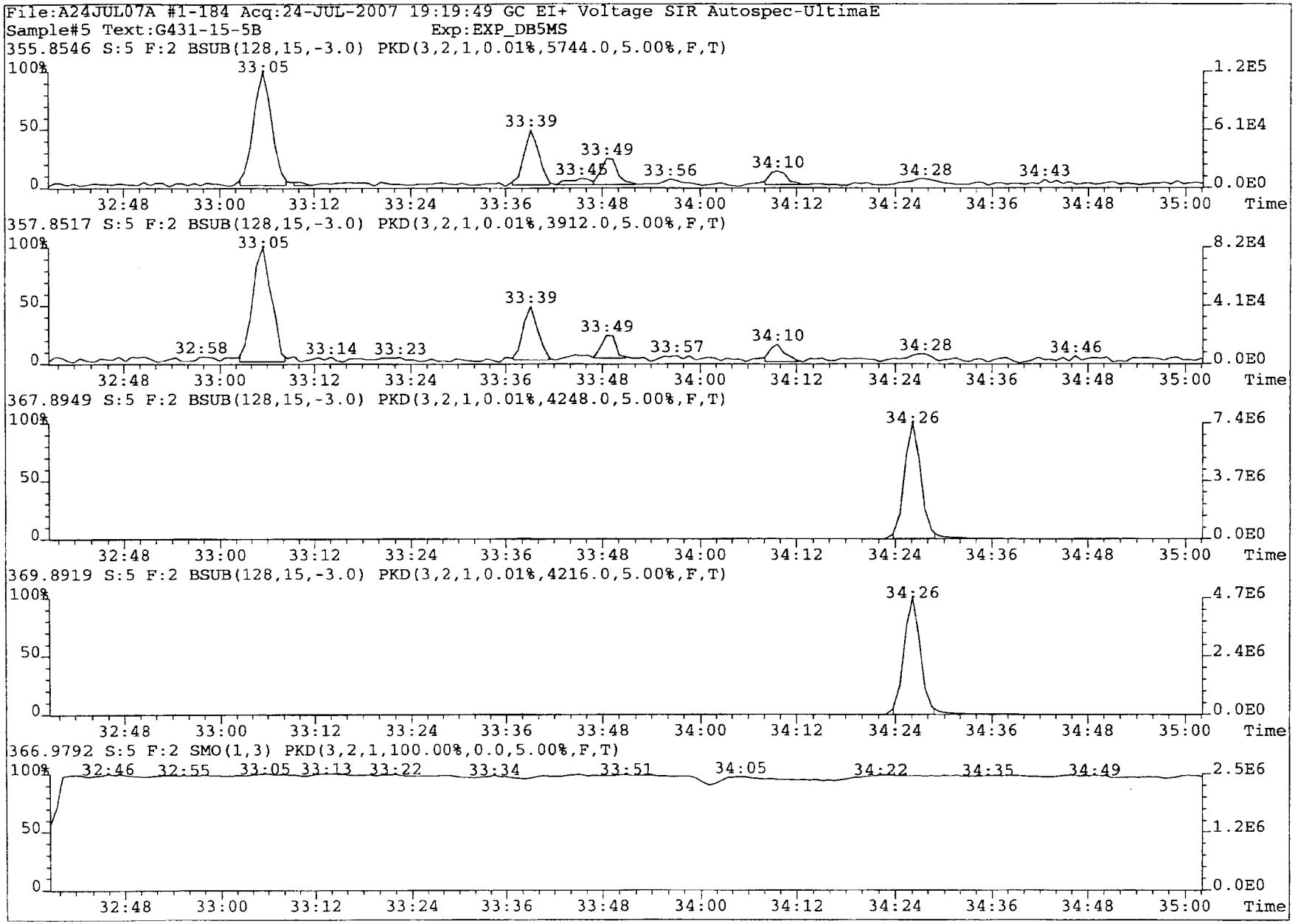
Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		Heptadioxins	1.09E+05	6.18E+04	4.71E+04	1.31	N	39:40	0.496	0.4946	EMPC	1.61E+04	5264	3.1	1.33E+04	4180	3.2	y
		1234678-HpCDD	1.31E+05	6.73E+04	6.42E+04	1.05	Y	40:37	0.599	0.4946	OK	1.89E+04	5260	4	1.77E+04	4180	4	y
									EDL	0.4946								
									Total Hepta-Dioxins	0.599	Peaks	1						
									Total EMPC Hepta-Dioxins	1.095	Peaks	2						

Totals Report

Total Hepta-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		1234789-HpCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3991	S2N	0.00E+00	4960	0	0.00E+00	5020	0	n
		1234678-HpCDF	6.35E+05	3.04E+05	3.31E+05	0.92	Y	39:21	1.952	0.3146	OK	9.20E+04	4960	19	9.69E+04	5020	19	n
										EDL		0.3991						
									Total EMPC Hepta-Furans		1.952	Peaks	1					
									Total Hepta-Furans		1.952	Peaks	1					


File:A24JUL07A #1-399 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
319.8965 S:5 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4904.0,5.00%,F,T)
321.8936 S:5 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5192.0,5.00%,F,T)
331.9368 S:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4308.0,5.00%,F,T)
333.9339 S:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4468.0,5.00%,F,T)
327.8847 S:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4248.0,5.00%,F,T)
304.9824 S:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time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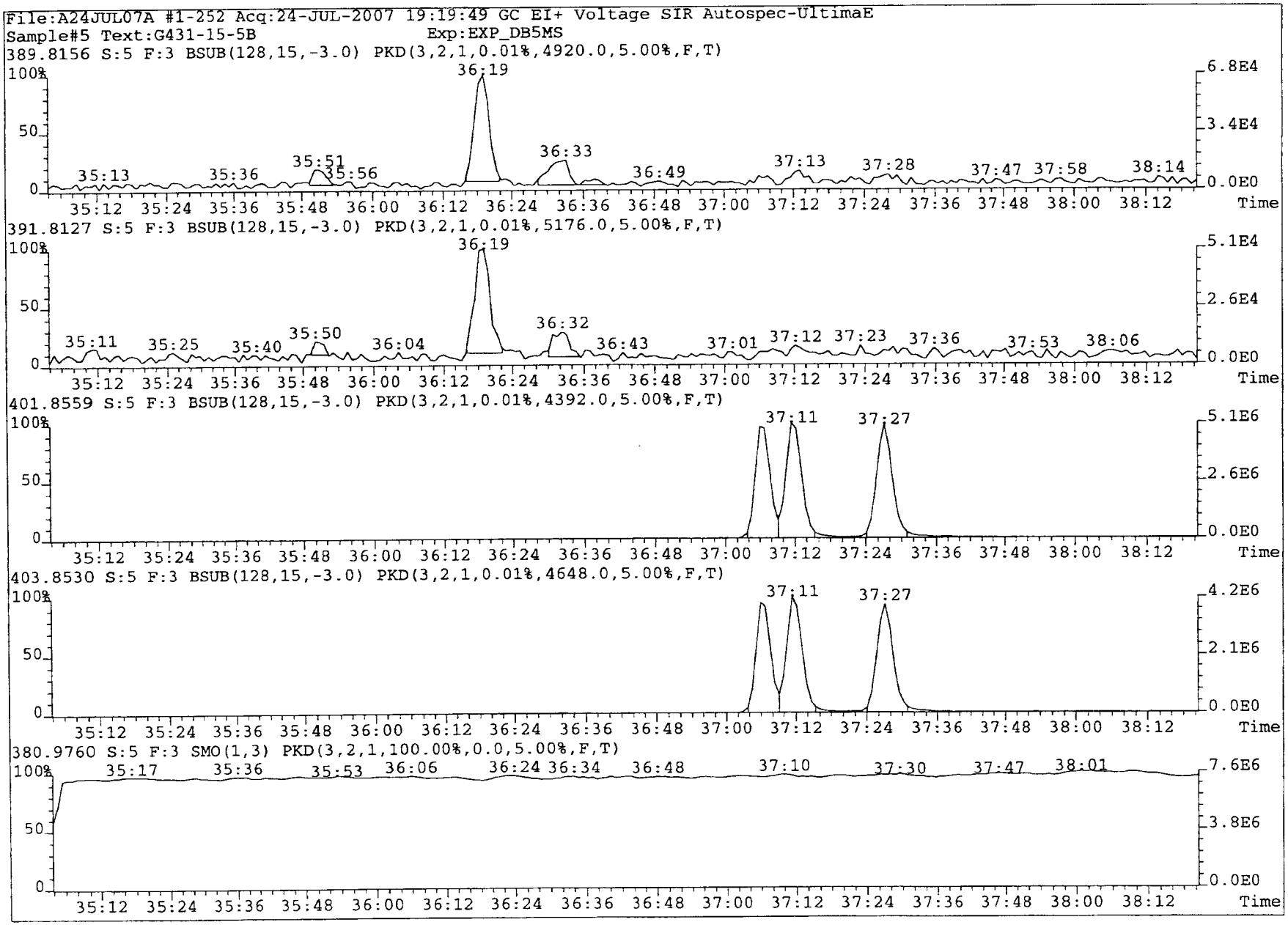
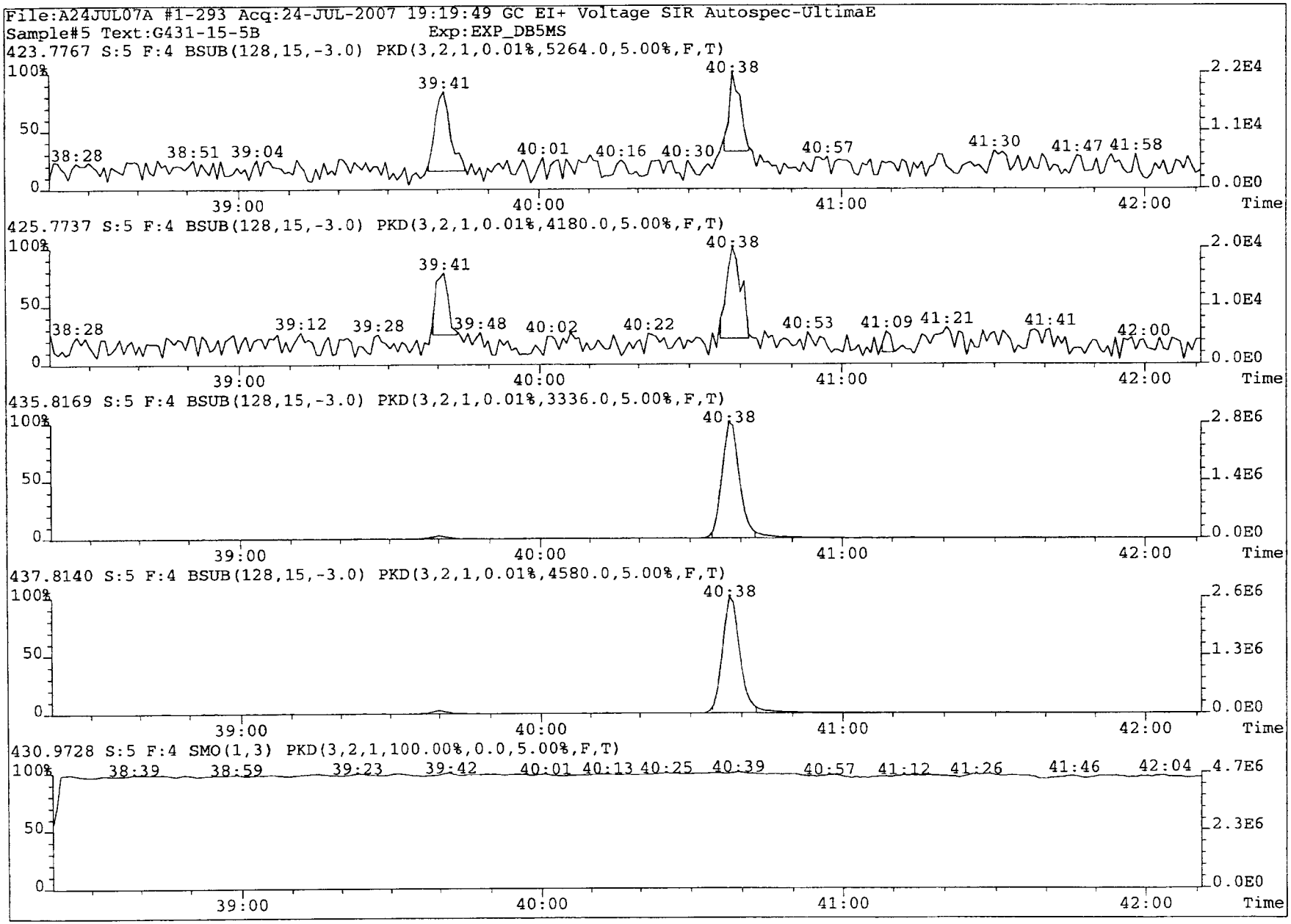
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
355.8546 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5744.0,5.00%,F,T)
33:05
33:39
33:49
33:45
33:56
34:10
34:28
34:43
1.2E5
6.1E4
0.0E0
357.8517 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3912.0,5.00%,F,T)
33:05
33:39
33:49
32:58
33:14
33:23
33:57
34:10
34:28
34:46
8.2E4
4.1E4
0.0E0
367.8949 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4248.0,5.00%,F,T)
34:26
7.4E6
3.7E6
0.0E0
369.8919 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4216.0,5.00%,F,T)
34:26
4.7E6
2.4E6
0.0E0
366.9792 S:5 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:46
32:55
33:05
33:13
33:22
33:34
33:51
34:05
34:22
34:35
34:49
2.5E6
1.2E6
0.0E0
100%
50
0
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time


File:A24JUL07A #1-252 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
389.8156 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4920.0,5.00%,F,T)
391.8127 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5176.0,5.00%,F,T)
401.8559 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4392.0,5.00%,F,T)
403.8530 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4648.0,5.00%,F,T)
380.9760 S:5 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time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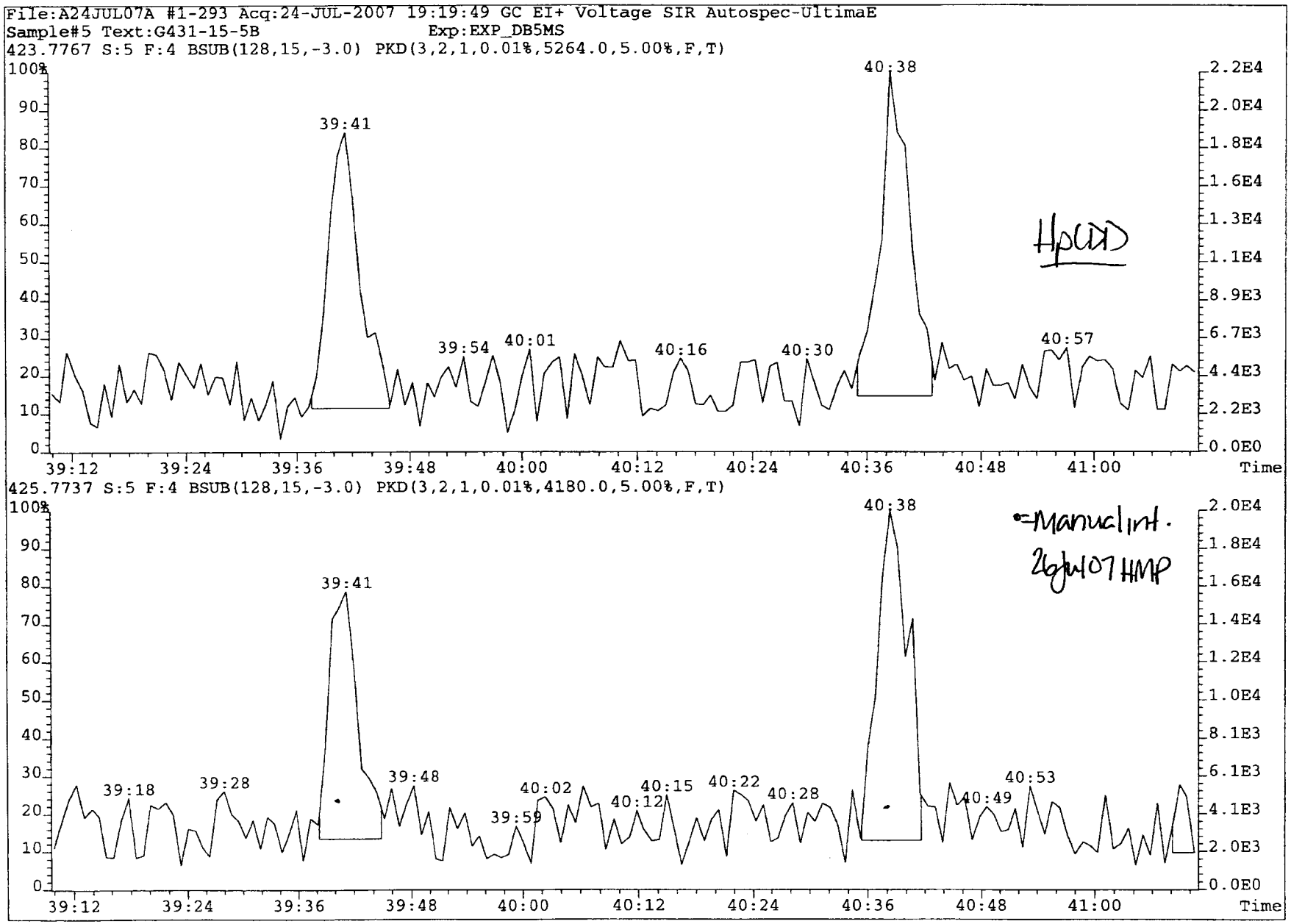
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
423.7767 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5264.0,5.00%,F,T)
425.7737 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4180.0,5.00%,F,T)
435.8169 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3336.0,5.00%,F,T)
437.8140 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4580.0,5.00%,F,T)
430.9728 S:5 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time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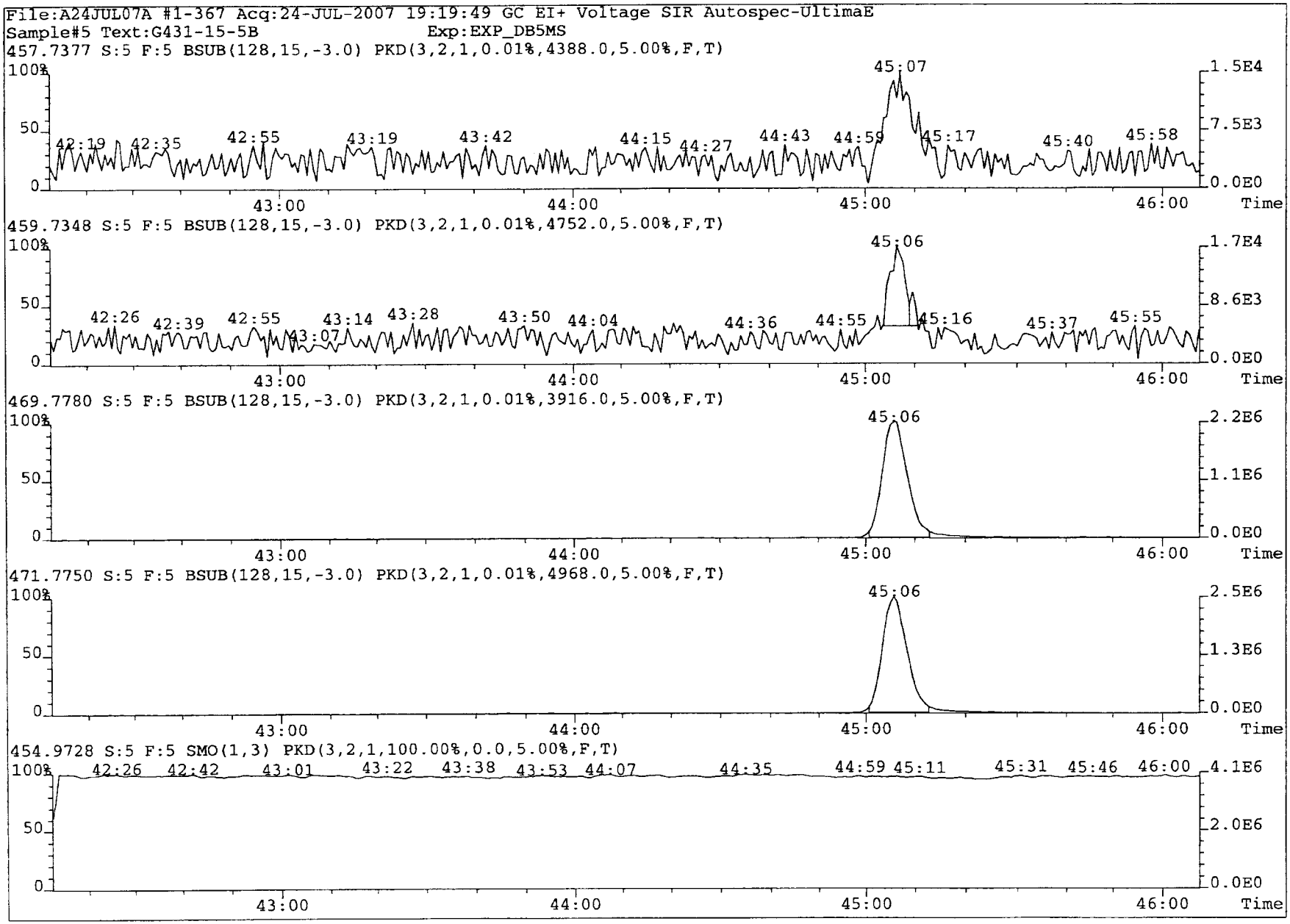
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
423.7767 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5264.0,5.00%,F,T)
100%
90
80
70
60
50
40
30
20
10
0
39:41
39:54
40:01
40:16
40:30
40:38
40:57
2.2E4
2.0E4
1.8E4
1.6E4
1.3E4
1.1E4
8.9E3
6.7E3
4.4E3
2.2E3
0.0E0
39:12
39:24
39:36
39:48
40:00
40:12
40:24
40:36
40:48
41:00
Time
HpCD
425.7737 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4180.0,5.00%,F,T)
100%
90
80
70
60
50
40
30
20
10
0
39:18
39:28
39:41
39:48
39:59
40:02
40:12
40:15
40:22
40:28
40:38
40:49
40:53
2.0E4
1.8E4
1.6E4
1.4E4
1.2E4
1.0E4
8.1E3
6.1E3
4.1E3
2.0E3
0.0E0
39:12
39:24
39:36
39:48
40:00
40:12
40:24
40:36
40:48
41:00
Time
•=Manual int.
26Jul07 HMP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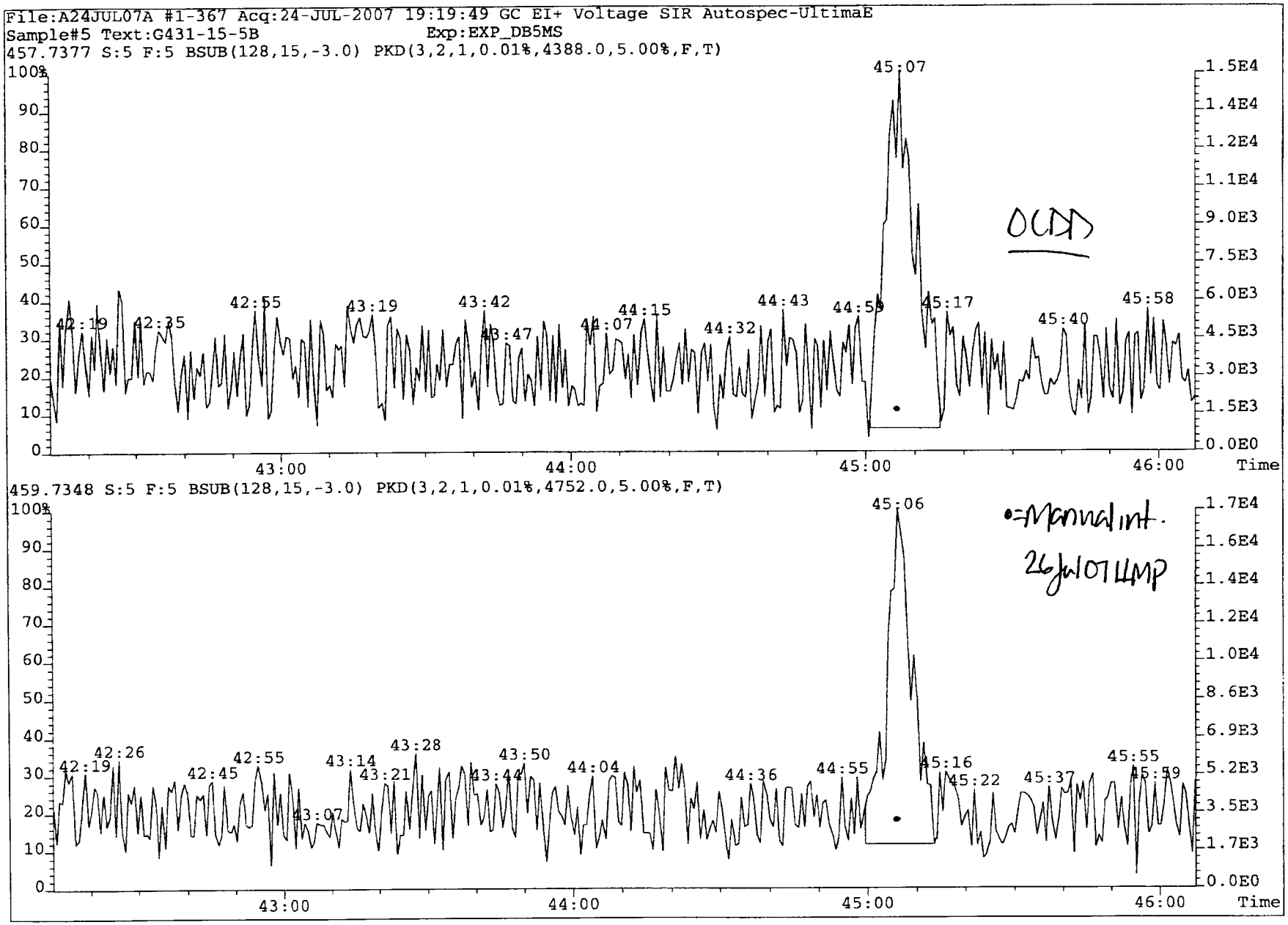
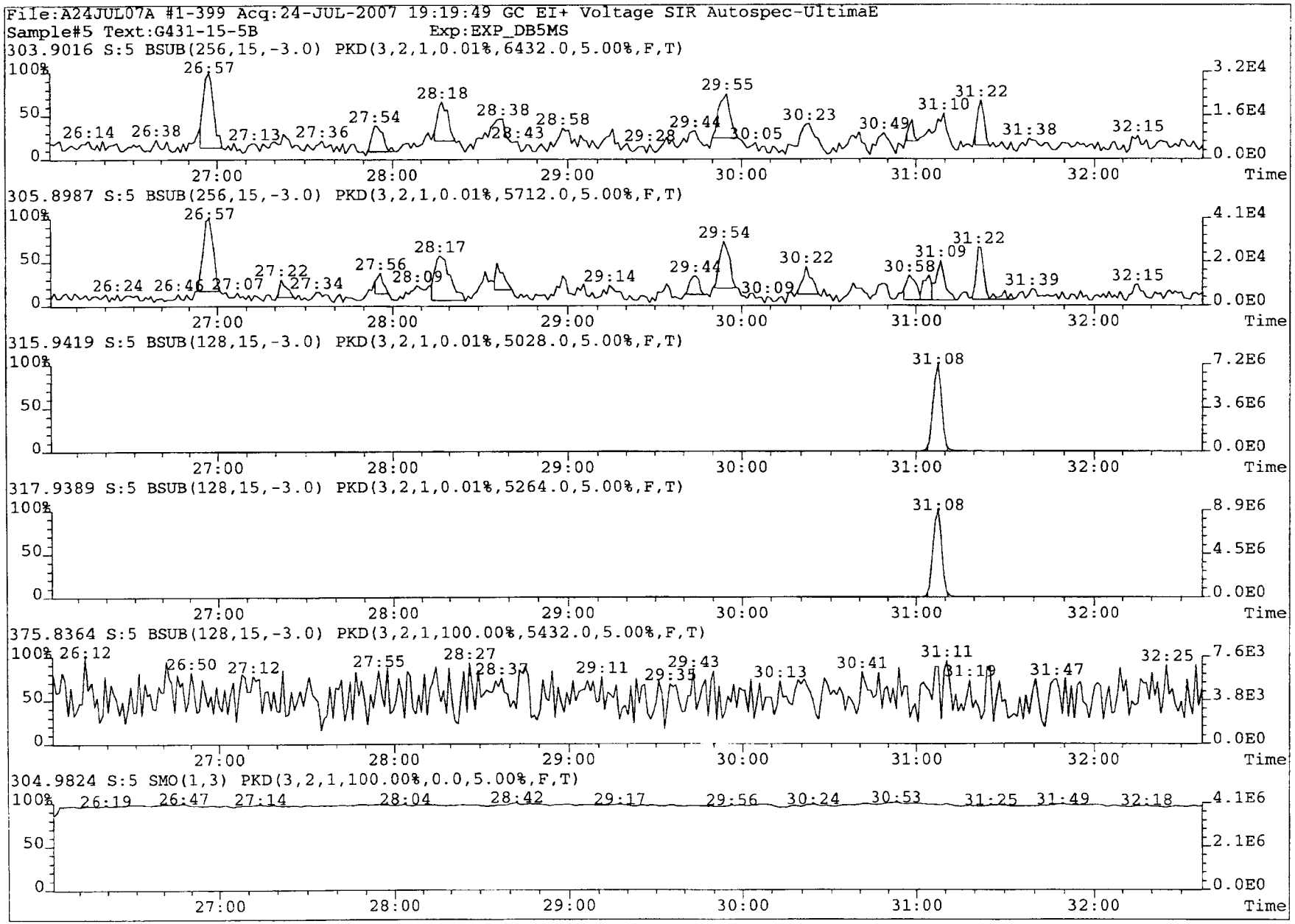
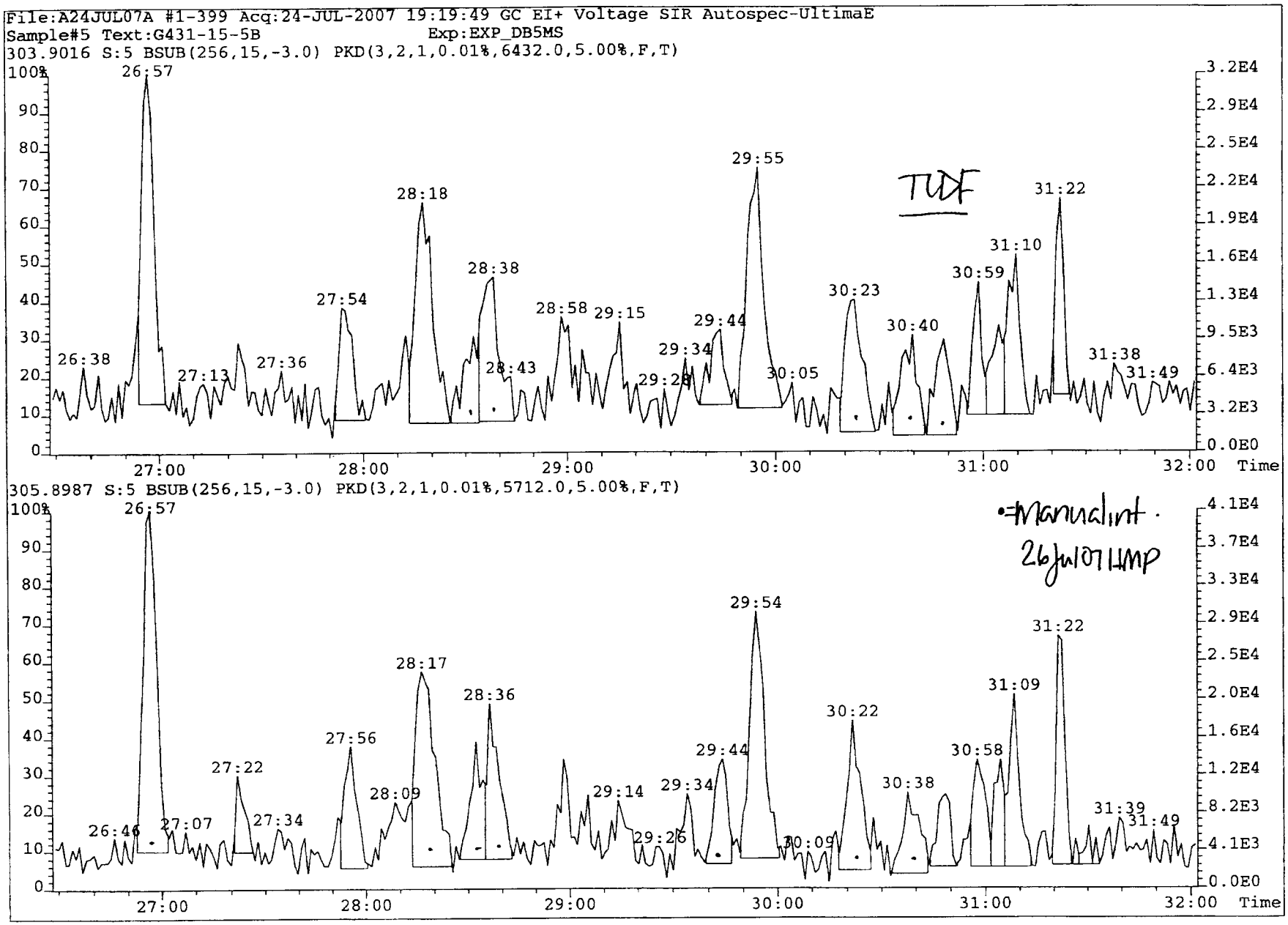
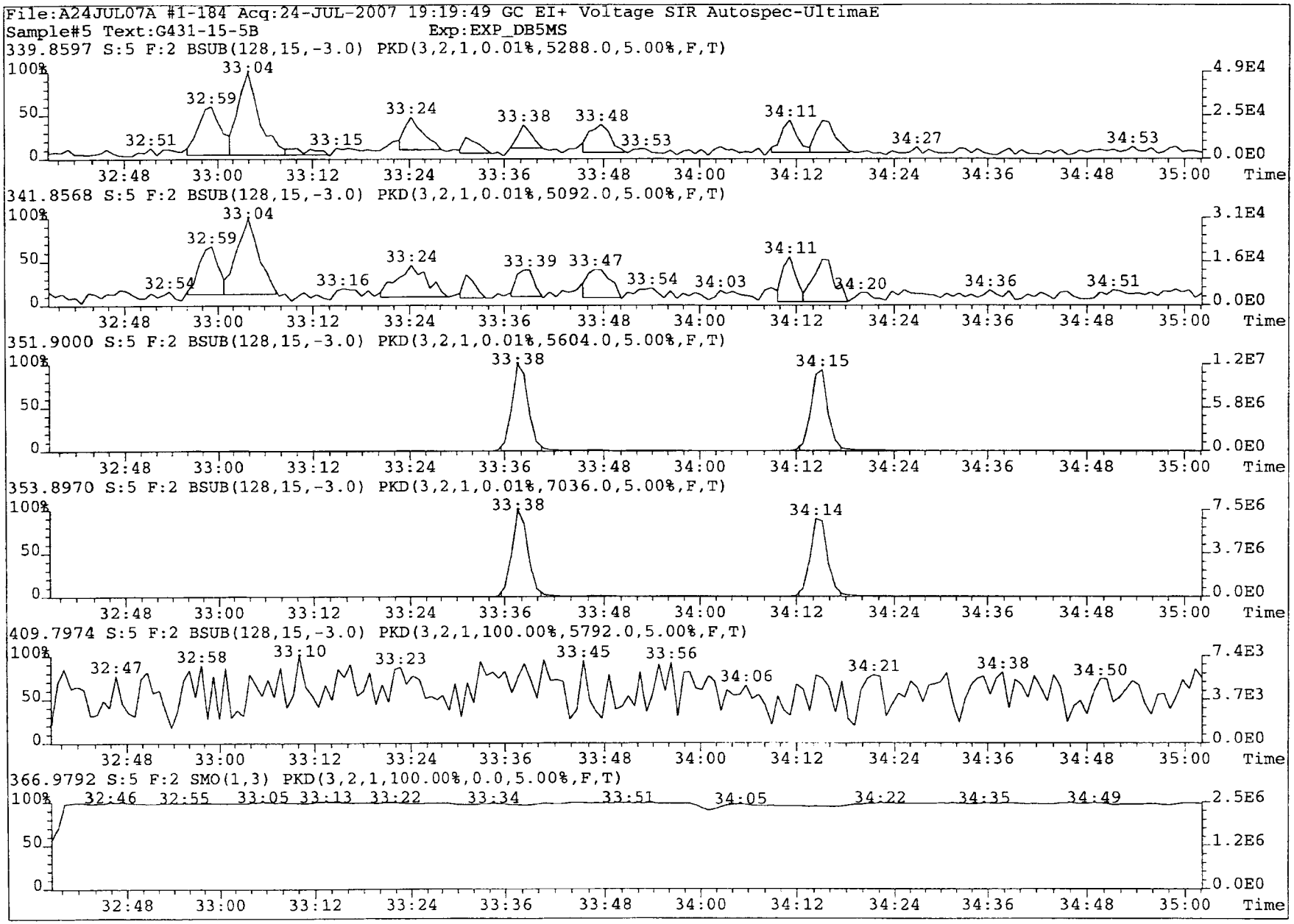
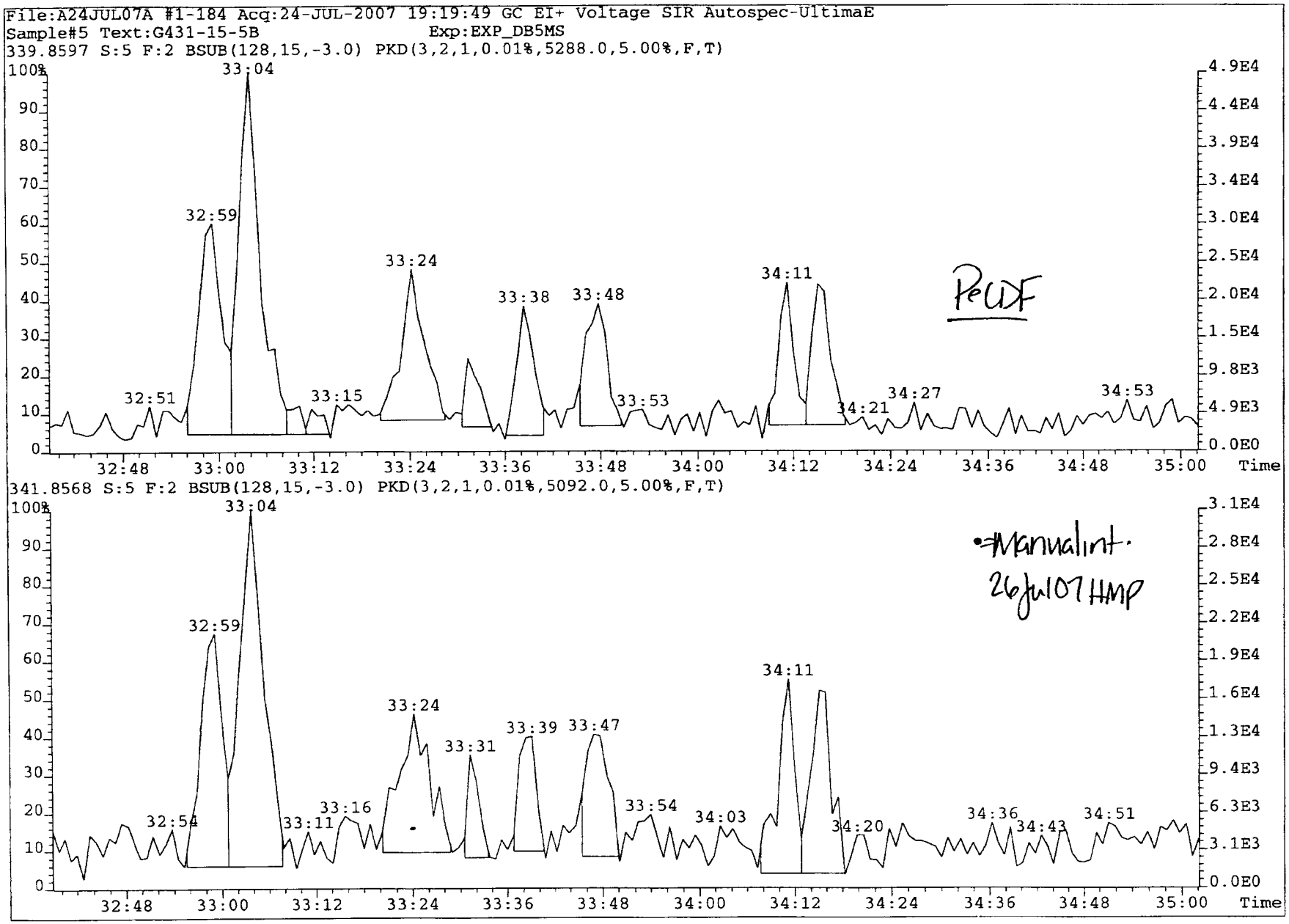
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
457.7377 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4388.0,5.00%,F,T)
459.7348 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4752.0,5.00%,F,T)
469.7780 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3916.0,5.00%,F,T)
471.7750 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4968.0,5.00%,F,T)
454.9728 S:5 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

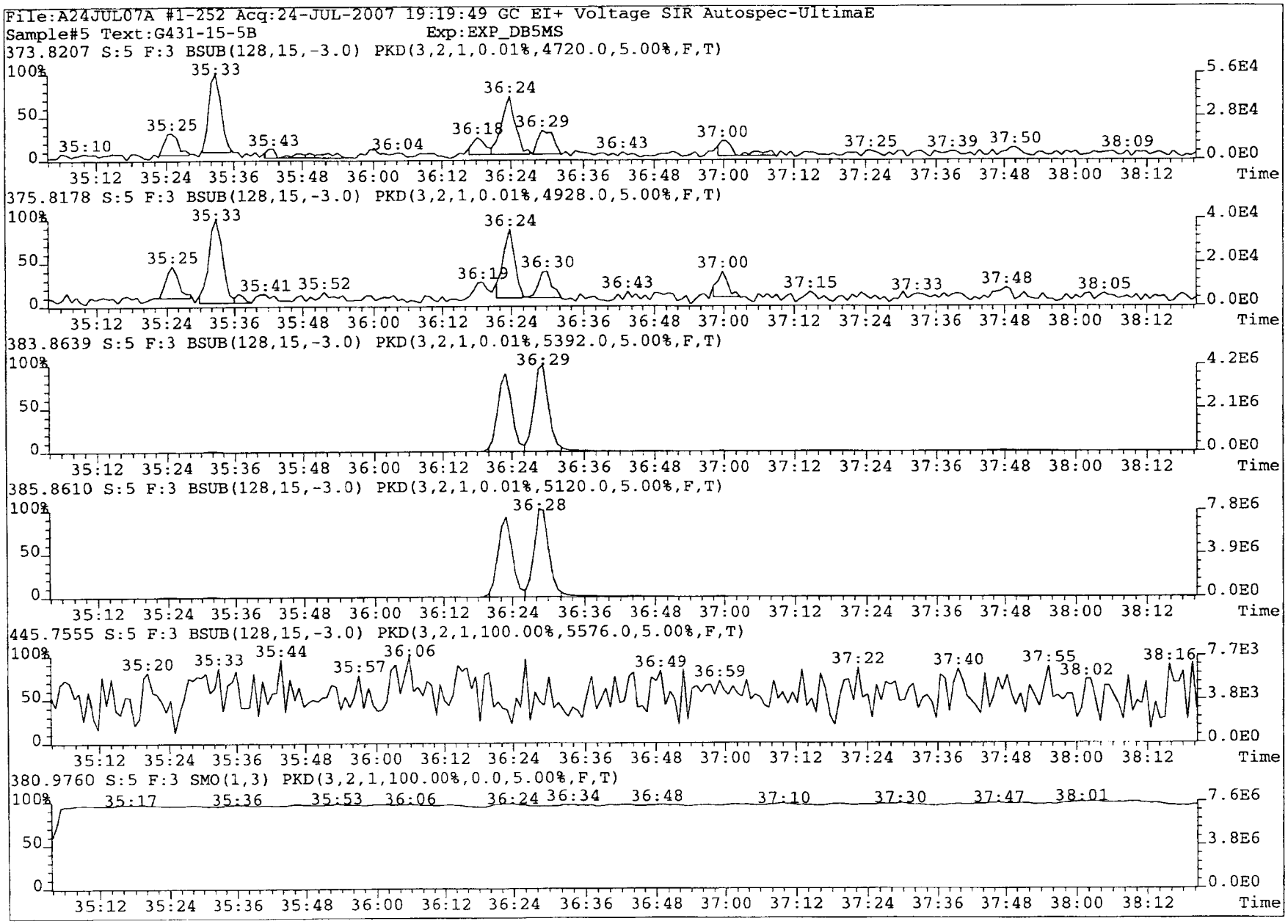

File:A24JUL07A #1-367 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
457.7377 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4388.0,5.00%,F,T)
45:07
OCDD
42:19
42:35
42:55
43:19
43:42
43:47
44:07
44:15
44:32
44:43
44:59
45:17
45:40
45:58
Time
459.7348 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4752.0,5.00%,F,T)
45:06
•=Manual int.
26Jul07 LMP
42:19
42:26
42:45
42:55
43:07
43:14
43:21
43:28
43:44
43:50
44:04
44:36
44:55
45:16
45:22
45:37
45:55
45:59
Time

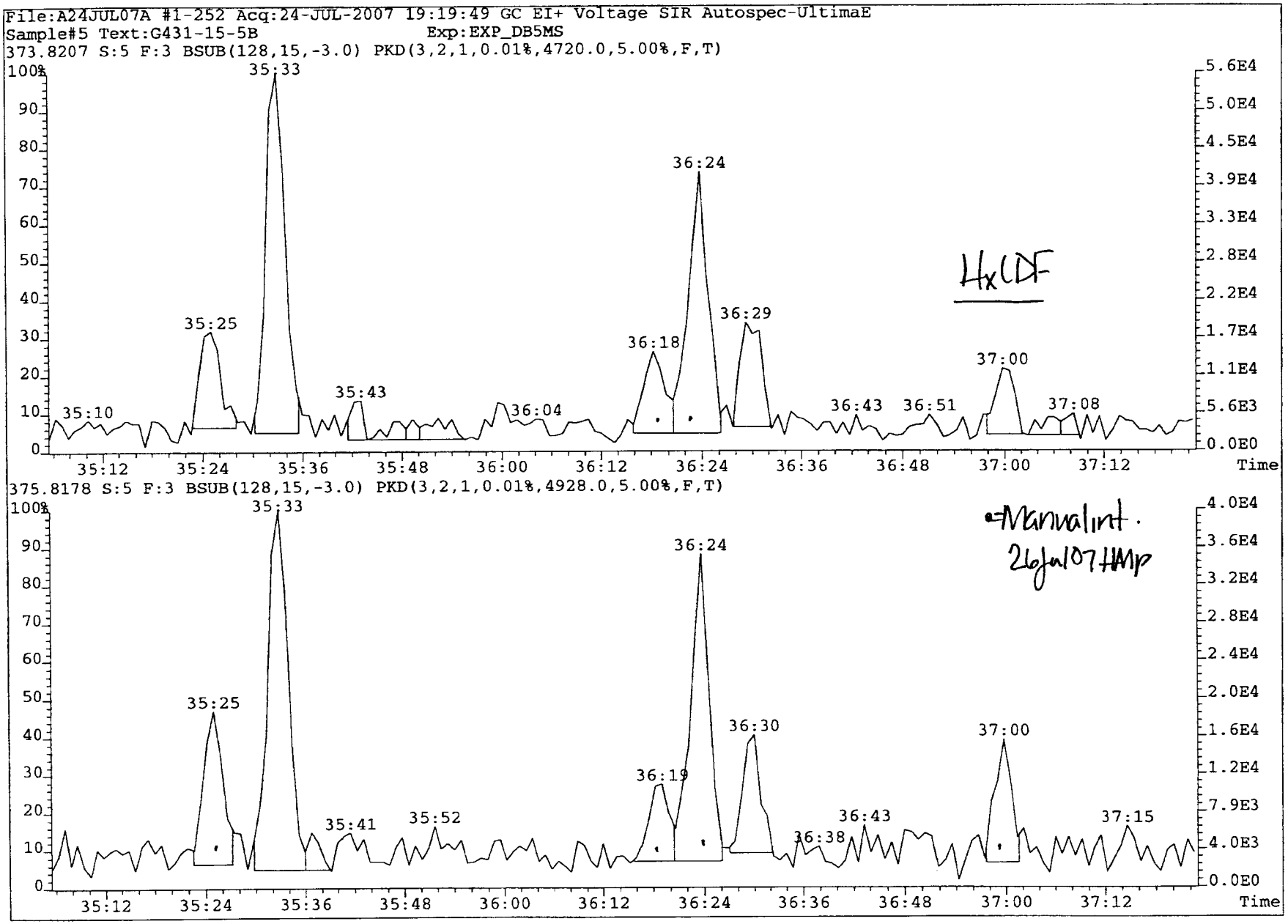

File:A24JUL07A #1-399 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
303.9016 S:5 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,6432.0,5.00%,F,T)
305.8987 S:5 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5712.0,5.00%,F,T)
315.9419 S:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5028.0,5.00%,F,T)
317.9389 S:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5264.0,5.00%,F,T)
375.8364 S:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5432.0,5.00%,F,T)
304.9824 S:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

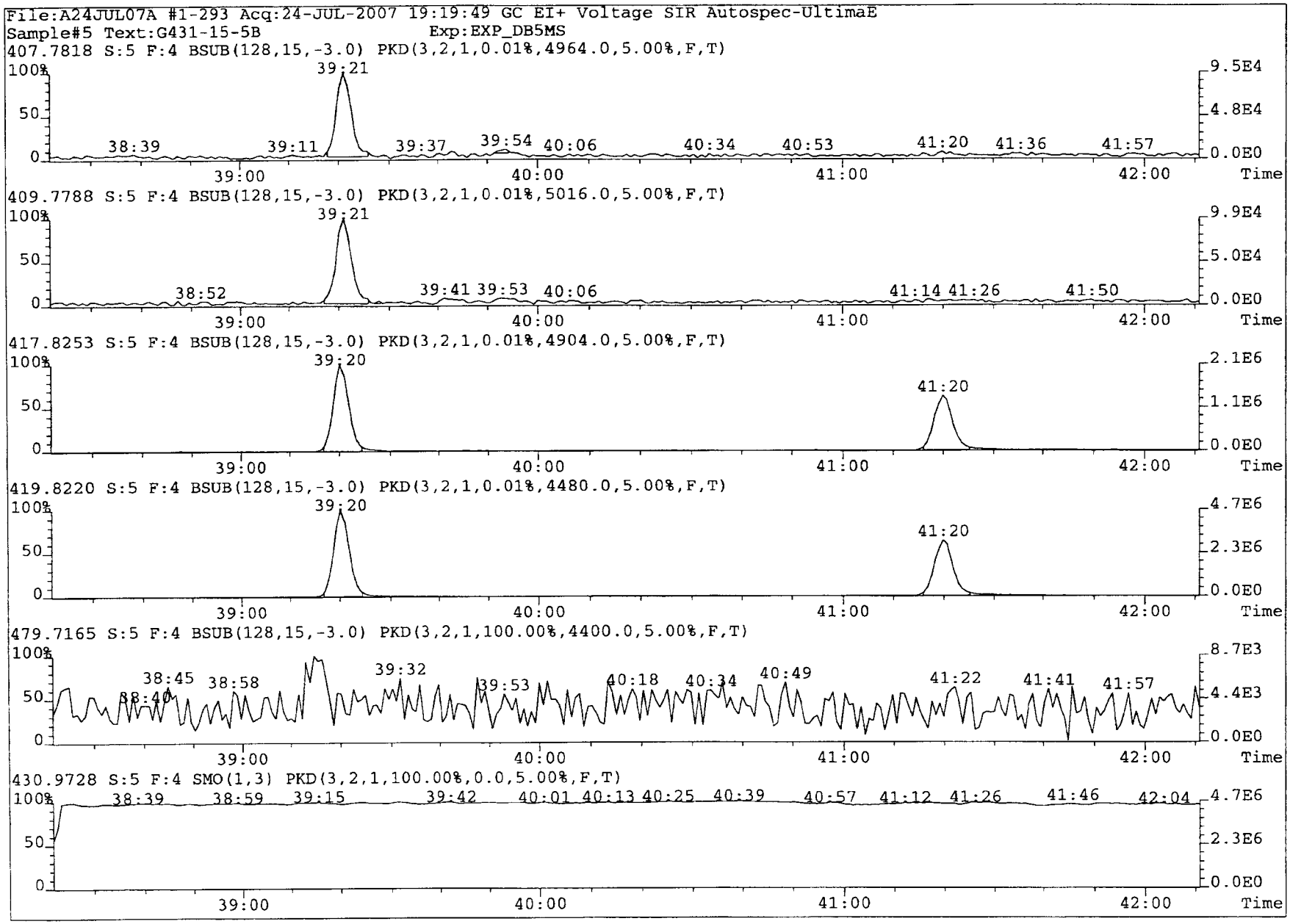

File:A24JUL07A #1-399 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
303.9016 S:5 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,6432.0,5.00%,F,T)
TUF
305.8987 S:5 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5712.0,5.00%,F,T)
•=manual int.
26Jul07 LMP
Time

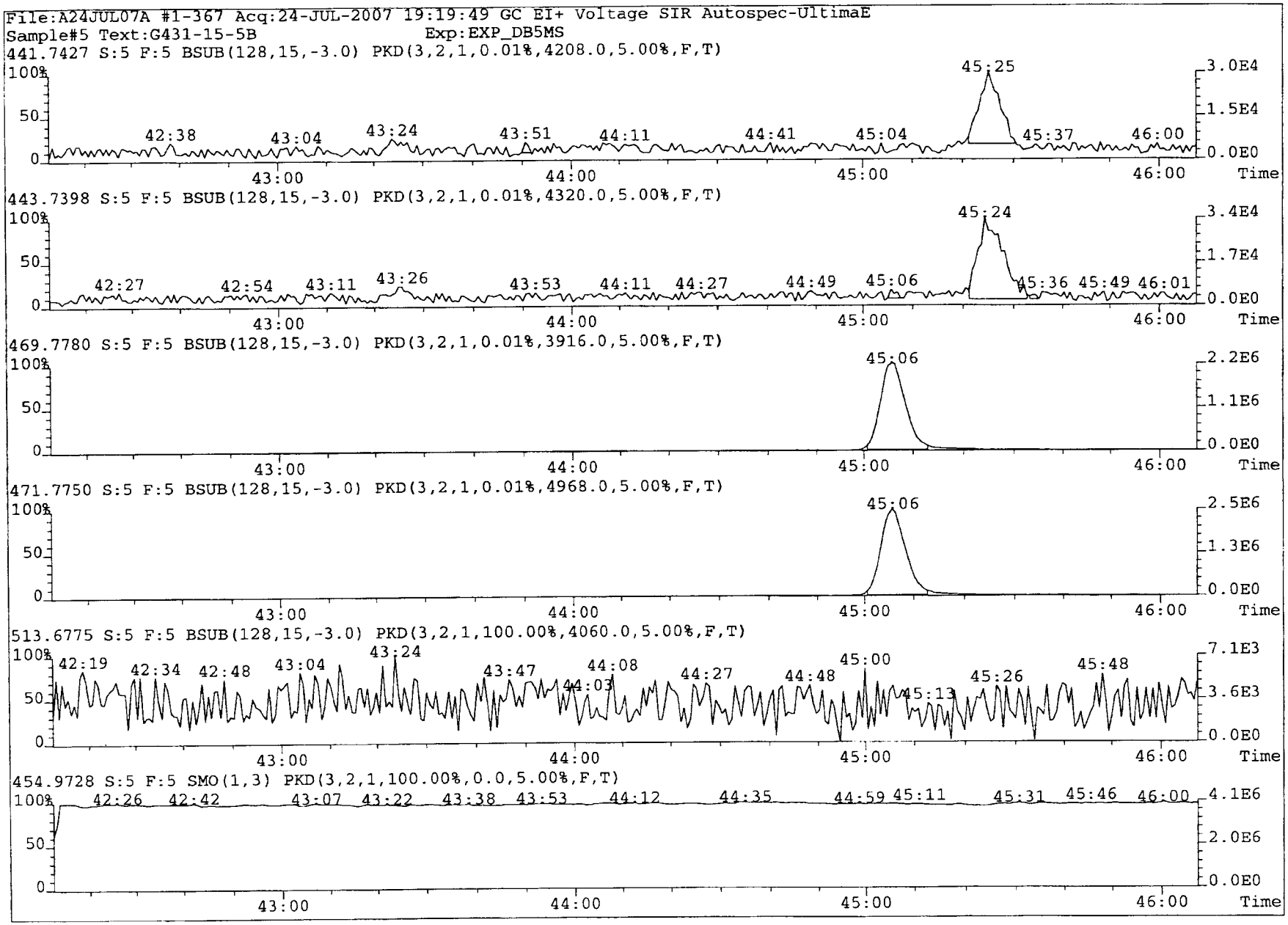

File:A24JUL07A #1-184 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
339.8597 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5288.0,5.00%,F,T)
341.8568 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5092.0,5.00%,F,T)
351.9000 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5604.0,5.00%,F,T)
353.8970 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,7036.0,5.00%,F,T)
409.7974 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5792.0,5.00%,F,T)
366.9792 S:5 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

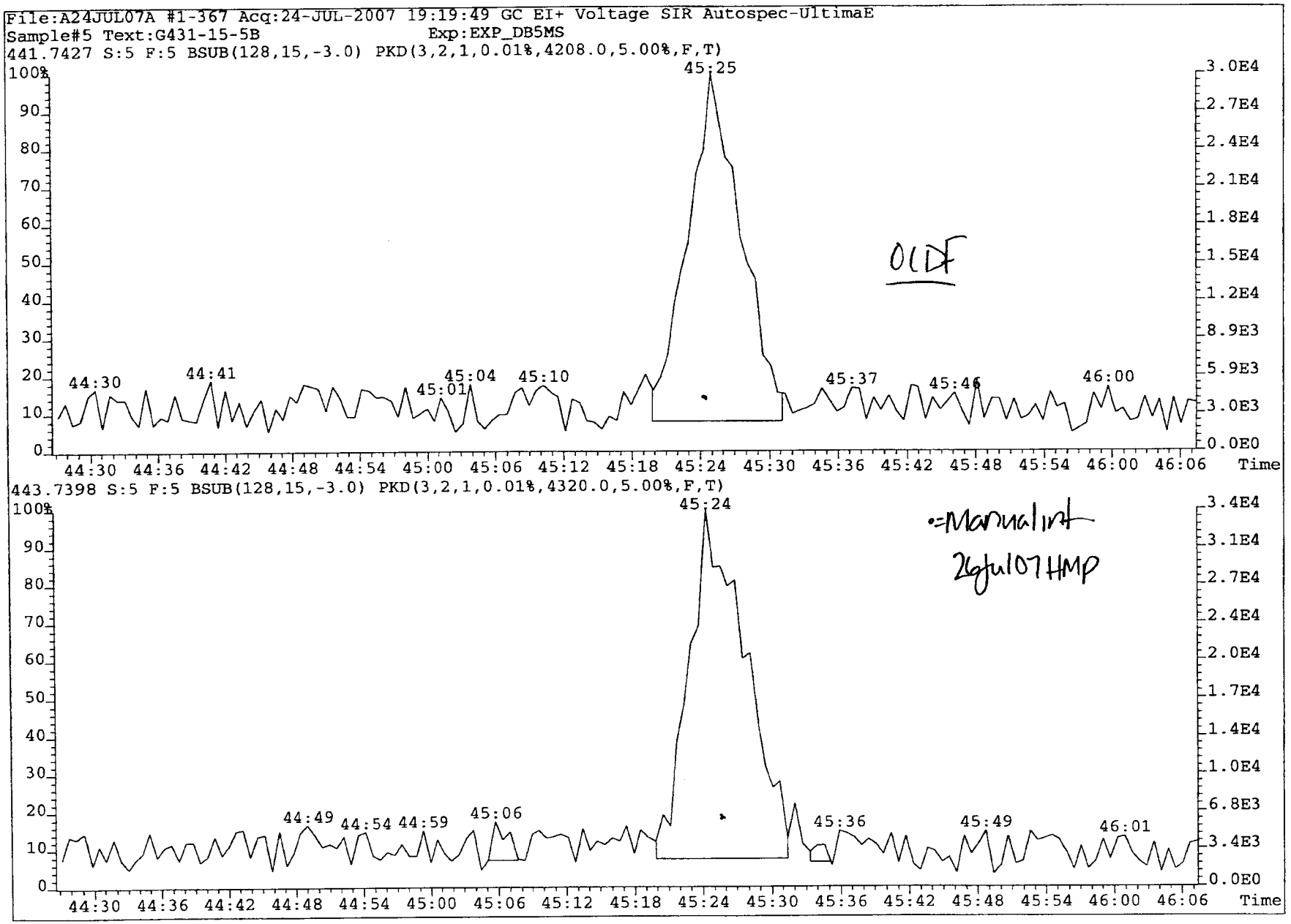

File:A24JUL07A #1-184 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
339.8597 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5288.0,5.00%,F,T)
33:04
32:59
33:24
33:38
33:48
34:11
32:51
33:15
33:53
34:21
34:27
34:53
PeCDF
341.8568 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5092.0,5.00%,F,T)
33:04
32:59
33:24
33:31
33:39
33:47
34:11
32:54
33:11
33:16
33:54
34:03
34:20
34:36
34:43
34:51
Manual int.
26jul07 HMP
Time

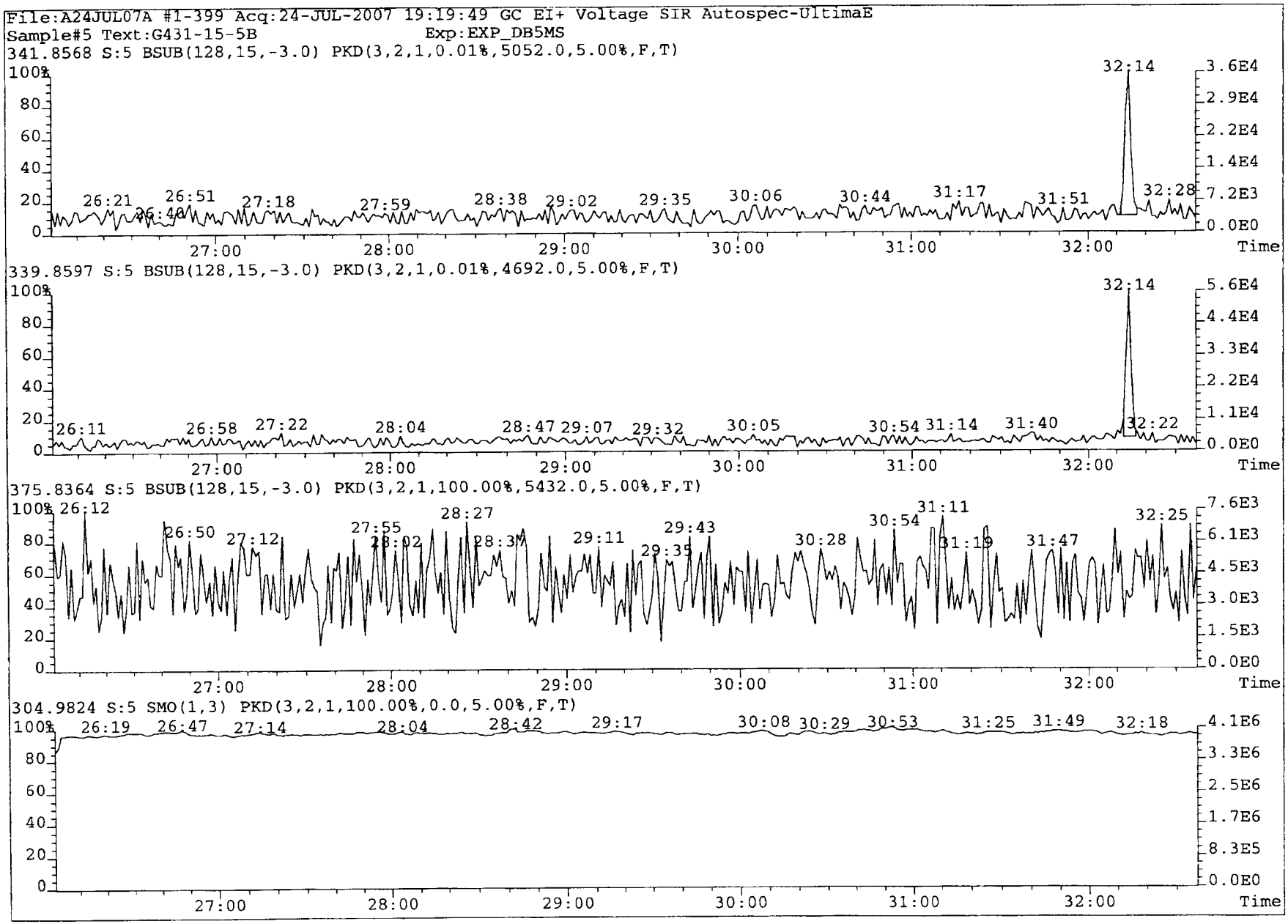

File:A24JUL07A #1-252 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
373.8207 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4720.0,5.00%,F,T)
375.8178 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4928.0,5.00%,F,T)
383.8639 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5392.0,5.00%,F,T)
385.8610 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5120.0,5.00%,F,T)
445.7555 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5576.0,5.00%,F,T)
380.9760 S:5 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-252 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
373.8207 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4720.0,5.00%,F,T)
35:33
36:24
35:25
36:29
36:18
35:43
37:00
35:10
36:04
36:43
36:51
37:08
HxCDF
375.8178 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4928.0,5.00%,F,T)
Manual int.
26jul07 HMP
35:33
36:24
35:25
36:30
36:19
37:00
35:41
35:52
36:43
36:38
37:15
Time


File:A24JUL07A #1-293 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
407.7818 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4964.0,5.00%,F,T)
409.7788 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5016.0,5.00%,F,T)
417.8253 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4904.0,5.00%,F,T)
419.8220 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4480.0,5.00%,F,T)
479.7165 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4400.0,5.00%,F,T)
430.9728 S:5 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-367 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
441.7427 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4208.0,5.00%,F,T)
45:25
3.0E4
1.5E4
0.0E0
42:38 43:04 43:24 43:51 44:11 44:41 45:04 45:37 46:00
443.7398 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4320.0,5.00%,F,T)
45:24
3.4E4
1.7E4
0.0E0
42:27 42:54 43:11 43:26 43:53 44:11 44:27 44:49 45:06 45:36 45:49 46:01
469.7780 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3916.0,5.00%,F,T)
45:06
2.2E6
1.1E6
0.0E0
471.7750 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4968.0,5.00%,F,T)
45:06
2.5E6
1.3E6
0.0E0
513.6775 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4060.0,5.00%,F,T)
42:19 42:34 42:48 43:04 43:24 43:47 44:03 44:08 44:27 44:48 45:00 45:13 45:26 45:48
7.1E3
3.6E3
0.0E0
454.9728 S:5 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:26 42:42 43:07 43:22 43:38 43:53 44:12 44:35 44:59 45:11 45:31 45:46 46:00
4.1E6
2.0E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time


File:A24JUL07A #1-367 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
441.7427 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4208.0,5.00%,F,T)
45:25
44:30
44:41
45:01
45:04
45:10
45:37
45:46
46:00
OLF
443.7398 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4320.0,5.00%,F,T)
45:24
44:49
44:54
44:59
45:06
45:36
45:49
46:01
=Manual int
26jul07HMP
Time


File:A24JUL07A #1-399 Acq:24-JUL-2007 19:19:49 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:G431-15-5B Exp:EXP_DB5MS
341.8568 S:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5052.0,5.00%,F,T)
339.8597 S:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4692.0,5.00%,F,T)
375.8364 S:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5432.0,5.00%,F,T)
304.9824 S:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

Method M23
OUT-Diox-2
Air Hygiene

Analytical Data Summary Sheet

Analyte	Amount (ng)	EDL (ng)	EMPC (ng)	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	ND	0.00359					
1,2,3,7,8-PeCDD	ND	0.00500					
1,2,3,4,7,8-HxCDD	ND	0.00658					
1,2,3,6,7,8-HxCDD	ND	0.00670					
1,2,3,7,8,9-HxCDD	ND	0.00680					
1,2,3,4,6,7,8-HpCDD	ND	0.0103					
OCDD	ND	0.0191					
2,3,7,8-TCDF	ND	0.00386					
1,2,3,7,8-PeCDF	ND	0.00500					
2,3,4,7,8-PeCDF	EMPC	0.00500	0.00488	34:15	0.98	*	A
1,2,3,4,7,8-HxCDF	0.0189			36:24	1.35		A
1,2,3,6,7,8-HxCDF	0.00760			36:28	1.14		A
2,3,4,6,7,8-HxCDF	ND	0.00500					
1,2,3,7,8,9-HxCDF	ND	0.00566					
1,2,3,4,6,7,8-HpCDF	0.133			39:21	1.05		
1,2,3,4,7,8,9-HpCDF	ND	0.00846					
OCDF	0.210			45:25	0.82		
Total TCDDs	ND	0.00359	0.0140				
Total PeCDDs	0.0245						
Total HxCDDs	0.0266						
Total HpCDDs	ND	0.0103					
Total TCDFs	0.0155						
Total PeCDFs	0.0237		0.0301				
Total HxCDFs	0.0495						
Total HpCDFs	0.133						
WHO-2005 TEQ (ND=0)	0.00404		0.00551				
WHO-2005 TEQ (ND=½)	0.0110		0.0117				

Client Information			**Sample Information**	
Project Name:	snc-07-benson.mn-comp#1			
			Matrix:	Air
Sample ID:	OUT-Diox-2		Weight / Volume:	1 train
			Solids / Lipids:	NA %
			Original pH :	NA
Laboratory Information			Batch ID:	WG14370
Project ID:	G431-15		Instrument:	HRMS1
Sample ID:	G431-15-10B		Filename:	a24jul07a-6
Collection Date/Time:	07/04/07		Retchk:	a24jul07a-1
Receipt Date/Time:	07/11/07	10:00	Begin ConCal:	a24jul07a-1
Extraction Date:	07/22/07		End ConCal:	a24jul07a-11
Analysis Date/Time:	07/24/07	20:08	Initial Cal:	m8290-071007a

Method M23
OUT-Diox-2
Air Hygiene

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	4.0	3.65	91.2	31:39	0.79	
13C12-1,2,3,7,8-PeCDD	4.0	3.19	79.8	34:25	1.56	
13C12-1,2,3,6,7,8-HxCDD	4.0	3.93	98.2	37:12	1.27	
13C12-1,2,3,4,6,7,8-HpCDD	4.0	3.72	93.0	40:37	1.05	
13C12-OCDD	8.0	6.02	75.2	45:06	0.89	
13C12-2,3,7,8-TCDF	4.0	3.97	99.2	31:07	0.78	
13C12-1,2,3,7,8-PeCDF	4.0	3.08	77.1	33:37	1.59	
13C12-1,2,3,6,7,8-HxCDF	4.0	3.52	88.1	36:28	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	4.0	3.41	85.2	39:19	0.45	
Sampling Standards						
37Cl4-2,3,7,8-TCDD	4.0	4.25	106	31:40	-	
13C12-2,3,4,7,8-PeCDF	4.0	4.03	101	34:13	1.58	
13C12-1,2,3,4,7,8-HxCDD	4.0	3.96	99.0	37:06	1.26	
13C12-1,2,3,4,7,8-HxCDF	4.0	4.11	103	36:22	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	3.91	97.7	41:19	0.45	
Injection Standards						
13C12-1,2,3,4-TCDD	2.0	-	-	31:15	0.78	
13C12-1,2,3,7,8,9-HxCDD	2.0	-	-	37:27	1.25	

Client Information			**Sample Information**		
Project Name:	snc-07-benson.mn-comp#1				
			Matrix:	Air	
Sample ID:	OUT-Diox-2		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14370	
Project ID:	G431-15		Instrument:	HRMS1	
Sample ID:	G431-15-10B		Filename:	a24jul07a-6	
Collection Date/Time:	07/04/07		Retchk:	a24jul07a-1	
Receipt Date/Time:	07/11/07	10:00	Begin ConCal:	a24jul07a-1	
Extraction Date:	07/22/07		End ConCal:	a24jul07a-11	
Analysis Date/Time:	07/24/07	20:08	Initial Cal:	m8290-071007a	

Form Version:[8290_DB_2.14]Report

Analyzed by: HMP
Date: 26jul07

Reviewed by: [signature]
Date: 7/24/07

Filename ; a24jul07a
Sample ; 6
Acquired ; 24-JUL-07 20:08:10
Processed ; 25-JUL-07 08:11:06
Sample ID ; G431-15-10B
Cal Table ; m8290-071007a
Results Table ; m8290-072407a
Comments ;

;*8290*
;Inst: HRMS1

$\frac{(1.877)(8)}{(25.0)(1.3088)} = 0.76940$

Ent;	Name;	Resp;	Ion 1;	Ion 2;	RA;?;	RT;	Conc;	EDL;	S/N1;?;	S/N2;?;M;	Signal1;	Noise 1;	Signal2;	Noise 2
1 ;	2,3,7,8-TCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.1797;	*;n;	*;n;n;		*;4.56e+03;		*;3.84e+03
2 ;	1,2,3,7,8-PeCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.2455;	*;n;	*;n;n;		*;4.66e+03;		*;5.27e+03
3 ;	1,2,3,4,7,8-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3290;	*;n;	*;n;n;		*;4.90e+03;		*;4.30e+03
4 ;	1,2,3,6,7,8-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3348;	*;n;	*;n;n;		*;4.90e+03;		*;4.30e+03
5 ;	1,2,3,7,8,9-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3398;	*;n;	*;n;n;		*;4.90e+03;		*;4.30e+03
6 ;	1,2,3,4,6,7,8-HpCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.5141;	*;n;	*;n;n;		*;4.81e+03;		*;4.22e+03
7 ;	OCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.9538;	*;n;	*;n;n;		*;3.63e+03;		*;4.48e+03
8 ;	2,3,7,8-TCDF;	8.27e+04;	5.01e+04;	3.26e+04;	1.54;n;	31:08;	0.147;	0.1928;	2;n;	2;n;y;	1.34e+04;	5.93e+03;	1.14e+04;	5.75e+03
9 ;	1,2,3,7,8-PeCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.1945;	*;n;	*;n;n;		*;5.26e+03;		*;6.62e+03
10 ;	2,3,4,7,8-PeCDF;	5.12e+04;	2.53e+04;	2.59e+04;	0.98;n;	34:15;	0.122;	0.1875;	2;n;	2;n;y;	1.17e+04;	5.26e+03;	1.02e+04;	6.62e+03
11 ;	1,2,3,4,7,8-HxCDF;	1.60e+05;	9.20e+04;	6.79e+04;	1.35;y;	36:24;	0.473;	0.2448;	7;y;	4;y;y;	3.26e+04;	4.48e+03;	2.24e+04;	5.02e+03
12 ;	1,2,3,6,7,8-HxCDF;	6.81e+04;	3.63e+04;	3.18e+04;	1.14;y;	36:29;	0.190;	0.2306;	3;n;	2;n;y;	1.24e+04;	4.48e+03;	9.12e+03;	5.02e+03
13 ;	2,3,4,6,7,8-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2432;	*;n;	*;n;n;		*;4.48e+03;		*;5.02e+03
14 ;	1,2,3,7,8,9-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2832;	*;n;	*;n;n;		*;4.48e+03;		*;5.02e+03
15 ;	1,2,3,4,6,7,8-HpCDF;	1.03e+06;	5.27e+05;	5.00e+05;	1.05;y;	39:21;	3.326;	0.3333;	30;y;	28;y;n;	1.45e+05;	4.86e+03;	1.41e+05;	5.01e+03
16 ;	1,2,3,4,7,8,9-HpCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.4229;	*;n;	*;n;n;		*;4.86e+03;		*;5.01e+03
17 ;	OCDF;	8.77e+05;	3.94e+05;	4.83e+05;	0.82;y;	45:25;	5.244;	0.9338;	18;y;	17;y;n;	7.77e+04;	4.38e+03;	8.69e+04;	5.27e+03
Extraction Standards														
18 ;	13C-2,3,7,8-TCDD;	3.55e+07;	1.56e+07;	1.98e+07;	0.79;y;	31:39;	91.184;	0.2194;	1205;y;	2161;y;n;	6.38e+06;	5.29e+03;	8.07e+06;	3.74e+03
19 ;	13C-1,2,3,7,8-PeCDD;	2.57e+07;	1.56e+07;	1.00e+07;	1.56;y;	34:26;	79.811;	0.2204;	2618;y;	952;y;n;	7.05e+06;	2.69e+03;	4.57e+06;	4.80e+03
20 ;	13C-1,2,3,6,7,8-HxCDD;	2.58e+07;	1.44e+07;	1.14e+07;	1.27;y;	37:12;	98.194;	0.3253;	1079;y;	809;y;n;	4.73e+06;	4.38e+03;	3.80e+06;	4.70e+03
21 ;	13C-1,2,3,4,6,7,8-HpCDD;	1.90e+07;	9.72e+06;	9.26e+06;	1.05;y;	40:38;	93.022;	0.4196;	570;y;	525;y;n;	2.55e+06;	4.46e+03;	2.43e+06;	4.64e+03
22 ;	13C-OCDD;	2.56e+07;	1.21e+07;	1.35e+07;	0.89;y;	45:06;	150.404;	0.4267;	683;y;	564;y;n;	2.22e+06;	3.24e+03;	2.52e+06;	4.47e+03
23 ;	13C-2,3,7,8-TCDF;	5.03e+07;	2.21e+07;	2.83e+07;	0.78;y;	31:07;	99.224;	0.1730;	1659;y;	1823;y;n;	7.15e+06;	4.31e+03;	9.07e+06;	4.98e+03
24 ;	13C-1,2,3,7,8-PeCDF;	4.07e+07;	2.49e+07;	1.57e+07;	1.59;y;	33:38;	77.059;	0.2168;	1778;y;	1226;y;n;	1.12e+07;	6.28e+03;	7.14e+06;	5.82e+03
25 ;	13C-1,2,3,6,7,8-HxCDF;	3.09e+07;	1.06e+07;	2.03e+07;	0.53;y;	36:29;	88.109;	0.2547;	798;y;	1424;y;n;	3.65e+06;	4.58e+03;	7.01e+06;	4.92e+03
26 ;	13C-1,2,3,4,6,7,8-HpCDF;	2.22e+07;	6.84e+06;	1.54e+07;	0.45;y;	39:20;	85.221;	0.3681;	379;y;	883;y;n;	1.97e+06;	5.19e+03;	4.42e+06;	5.01e+03
Injection Standards														
27 ;	13C-1,2,3,4-TCDD;	3.68e+07;	1.61e+07;	2.06e+07;	0.78;y;	31:15;	45.171;	-;	958;y;	1772;y;n;	5.07e+06;	5.29e+03;	6.62e+06;	3.74e+03
28 ;	13C-1,2,3,7,8,9-HxCDD;	2.52e+07;	1.40e+07;	1.12e+07;	1.25;y;	37:27;	35.412;	-;	1023;y;	756;y;n;	4.48e+06;	4.38e+03;	3.55e+06;	4.70e+03
Cleanup Standards														
29 ;	37Cl-2,3,7,8-TCDD;	3.85e+07;	3.85e+07;	-;	-;-;	31:40;	96.957;	0.0852;	4339;y;	-;-;n;	1.55e+07;	3.58e+03;	-;	-
30 ;	13C-2,3,4,7,8-PeCDF;	4.02e+07;	2.46e+07;	1.56e+07;	1.58;y;	34:14;	77.653;	0.2209;	1596;y;	1116;y;n;	1.00e+07;	6.28e+03;	6.50e+06;	5.82e+03
31 ;	13C-1,2,3,4,7,8-HxCDD;	2.42e+07;	1.35e+07;	1.07e+07;	1.26;y;	37:06;	97.241;	0.3424;	1082;y;	815;y;n;	4.74e+06;	4.38e+03;	3.83e+06;	4.70e+03
32 ;	13C-1,2,3,4,7,8-HxCDF;	2.86e+07;	9.79e+06;	1.88e+07;	0.52;y;	36:23;	90.682;	0.2832;	743;y;	1323;y;n;	3.40e+06;	4.58e+03;	6.51e+06;	4.92e+03
33 ;	13C-1,2,3,4,7,8,9-HpCDF;	1.93e+07;	6.00e+06;	1.33e+07;	0.45;y;	41:20;	83.225;	0.4126;	280;y;	651;y;n;	1.46e+06;	5.19e+03;	3.26e+06;	5.01e+03
Sampling Standards														
34 ;	37Cl-2,3,7,8-TCDD;	3.85e+07;	3.85e+07;	-;	-;-;	31:40;	106.340;	0.0728;	4339;y;	-;-;n;	1.55e+07;	3.58e+03;	-;	-
35 ;	13C-2,3,4,7,8-PeCDF;	4.02e+07;	2.46e+07;	1.56e+07;	1.58;y;	34:14;	100.720;	0.2016;	1596;y;	1116;y;n;	1.00e+07;	6.28e+03;	6.50e+06;	5.82e+03
36 ;	13C-1,2,3,4,7,8-HxCDD;	2.42e+07;	1.35e+07;	1.07e+07;	1.26;y;	37:06;	99.027;	0.3358;	1082;y;	815;y;n;	4.74e+06;	4.38e+03;	3.83e+06;	4.70e+03
37 ;	13C-1,2,3,4,7,8-HxCDF;	2.86e+07;	9.79e+06;	1.88e+07;	0.52;y;	36:23;	102.869;	0.2974;	743;y;	1323;y;n;	3.40e+06;	4.58e+03;	6.51e+06;	4.92e+03
38 ;	13C-1,2,3,4,7,8,9-HpCDF;	1.93e+07;	6.00e+06;	1.33e+07;	0.45;y;	41:20;	97.663;	0.5369;	280;y;	651;y;n;	1.46e+06;	5.19e+03;	3.26e+06;	5.01e+03

Totals Report

SGS Environmental Services, INC.	Thu Jul 26 15:04:28 EDT 2007	
Filename: a24jul07a-6	Acquired: 2007-07-24 20:08:10	Processed: 2007-07-25 08:11:06
Results:	Cal: m8290-071007a	
Sample Text: G431-15-10B		

Total Tetra-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		2378-TCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.1797	S2N	0.00E+00	4560	0	0.00E+00	3840	0	n
		Tetradioxins	1.20E+05	4.74E+04	7.30E+04	0.65	N	28:39	0.35	0.1797	EMPC	1.27E+04	4556	2.8	1.43E+04	3844	3.7	y
									EDL	0.1797								
									Total Tetra-Dioxins	0	Peaks	0						
									Total EMPC Tetra-Dioxins	0.35	Peaks	1						

Total Tetra-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		Tetrafurans	2.18E+05	9.52E+04	1.23E+05	0.78	Y	26:55	0.387	0.1928	OK	2.23E+04	5932	3.8	2.82E+04	5748	4.9	y
		Tetrafurans	7.82E+04	3.83E+04	4.00E+04	0.96	N	27:54	0.139	0.1928	S2N	6.89E+03	5932	1.2	8.68E+03	5748	1.5	y
		Tetrafurans	1.30E+05	6.20E+04	6.78E+04	0.92	N	28:16	0.23	0.1928	S2N	1.08E+04	5932	1.8	1.34E+04	5748	2.3	y
		Tetrafurans	1.05E+05	5.12E+04	5.41E+04	0.95	N	28:36	0.187	0.1928	S2N	7.29E+03	5932	1.2	9.72E+03	5748	1.7	y
		Tetrafurans	1.74E+05	7.81E+04	9.58E+04	0.81	Y	29:54	0.309	0.1928	S2N	1.21E+04	5932	2	1.46E+04	5748	2.5	y
		Tetrafurans	8.29E+04	3.74E+04	4.55E+04	0.82	Y	30:22	0.147	0.1928	S2N	6.44E+03	5932	1.1	9.16E+03	5748	1.6	y
		Tetrafurans	6.14E+04	3.31E+04	2.82E+04	1.17	N	30:57	0.109	0.1928	S2N	8.40E+03	5932	1.4	7.63E+03	5748	1.3	y
		2378-TCDF	8.27E+04	5.01E+04	3.26E+04	1.54	N	31:07	0.147	0.1928	S2N	1.34E+04	5930	2	1.14E+04	5750	2	y
		Tetrafurans	8.52E+04	4.16E+04	4.36E+04	0.95	N	31:22	0.151	0.1928	S2N	1.30E+04	5932	2.2	1.43E+04	5748	2.5	y
									EDL	0.1928								
									Total Tetra-Furans	0.387	Peaks	1						
									Total EMPC Tetra-Furans	0.387	Peaks	1						

Total Penta-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		12378-PeCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.2455	S2N	0.00E+00	4660	0	0.00E+00	5270	0	n
		Pentadioxins	8.18E+04	5.00E+04	3.18E+04	1.57	Y	33:04	0.306	0.2455	~~S2N~~	1.68E+04	4664	3.6	1.28E+04	5272	2.4	n
		Pentadioxins	8.18E+04	5.01E+04	3.17E+04	1.58	Y	33:37	0.306	0.2455	~~S2N~~	1.84E+04	4664	4	1.17E+04	5272	2.2	n
		Pentadioxins	4.37E+04	2.36E+04	2.02E+04	1.17	N	33:49	0.163	0.2455	S2N	1.14E+04	4664	2.4	5.97E+03	5272	1.1	y
		Pentadioxins	3.49E+04	2.14E+04	1.35E+04	1.59	Y	34:09	0.13	0.2455	S2N	7.71E+03	4664	1.7	6.08E+03	5272	1.2	y
									EDL	0.2455								
									Total EMPC Penta-Dioxins	0	Peaks	0						
									Total Penta-Dioxins	0	Peaks	0						

Total Penta-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		12378-PeCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.1945	S2N	0.00E+00	5260	0	0.00E+00	6620	0	n
		Pentafurans	6.62E+04	3.78E+04	2.84E+04	1.33	N	32:13	0.16	0.1406	EMPC	1.55E+04	4792	3.2	1.40E+04	3952	3.5	n
		Pentafurans	7.72E+04	4.55E+04	3.17E+04	1.43	Y	32:58	0.187	0.191	~~S2N~~	1.34E+04	5256	2.6	9.24E+03	6620	1.4	y
		Pentafurans	1.17E+05	6.53E+04	5.22E+04	1.25	N	33:03	0.284	0.191	~~S2N~~	1.85E+04	5256	3.5	1.62E+04	6620	2.4	y
		Pentafurans	4.23E+04	2.13E+04	2.11E+04	1.01	N	34:10	0.102	0.191	S2N	6.43E+03	5256	1.2	8.07E+03	6620	1.2	y
		23478-PeCDF	5.12E+04	2.53E+04	2.59E+04	0.98	N	34:15	0.122	0.1875	~~S2N~~	1.17E+04	5260	2	1.02E+04	6620	2	y

Totals Report

EDL	0.1945		
Total EMPC Penta-Furans	0.16	Peaks	1
Total Penta-Furans	0	Peaks	0

Total Hexa-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		123789-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3398	S2N	0.00E+00	4900	0	0.00E+00	4300	0	n
		123478-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.329	S2N	0.00E+00	4900	0	0.00E+00	4300	0	n
		123678-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3348	S2N	0.00E+00	4900	0	0.00E+00	4300	0	n
		Hexadioxins	1.65E+05	9.72E+04	6.83E+04	1.42	Y	36:19	0.664	0.3345	OK	3.27E+04	4904	6.7	2.57E+04	4304	6	n

EDL	0.3398		
Total EMPC Hexa-Dioxins	0.664	Peaks	1
Total Hexa-Dioxins	0.664	Peaks	1

Total Hexa-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		234678-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.2432	S2N	0.00E+00	4480	0	0.00E+00	5020	0	n
		123789-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.2832	S2N	0.00E+00	4480	0	0.00E+00	5020	0	n
		Hexafurans	3.82E+04	1.81E+04	2.01E+04	0.9	N	35:24	0.115	0.249	S2N	9.30E+03	4476	2.1	8.37E+03	5020	1.7	n
		Hexafurans	1.49E+05	7.72E+04	7.21E+04	1.07	Y	35:31	0.45	0.249	OK	3.15E+04	4476	7	2.28E+04	5020	4.5	n
		Hexafurans	4.13E+04	1.80E+04	2.33E+04	0.77	N	36:18	0.124	0.249	~~S2N~~	6.33E+03	4476	1.4	7.59E+03	5020	1.5	n
		123478-HxCDF	1.60E+05	9.20E+04	6.79E+04	1.35	Y	36:24	0.473	0.2448	OK	3.26E+04	4480	7	2.24E+04	5020	4	y
		123678-HxCDF	6.81E+04	3.63E+04	3.18E+04	1.14	Y	36:28	0.19	0.2306	~~S2N~~	1.24E+04	4480	3	9.12E+03	5020	2	y

EDL	0.2832		
Total EMPC Hexa-Furans	0.923	Peaks	2
Total Hexa-Furans	0.923	Peaks	2

Total Hepta-Dioxins

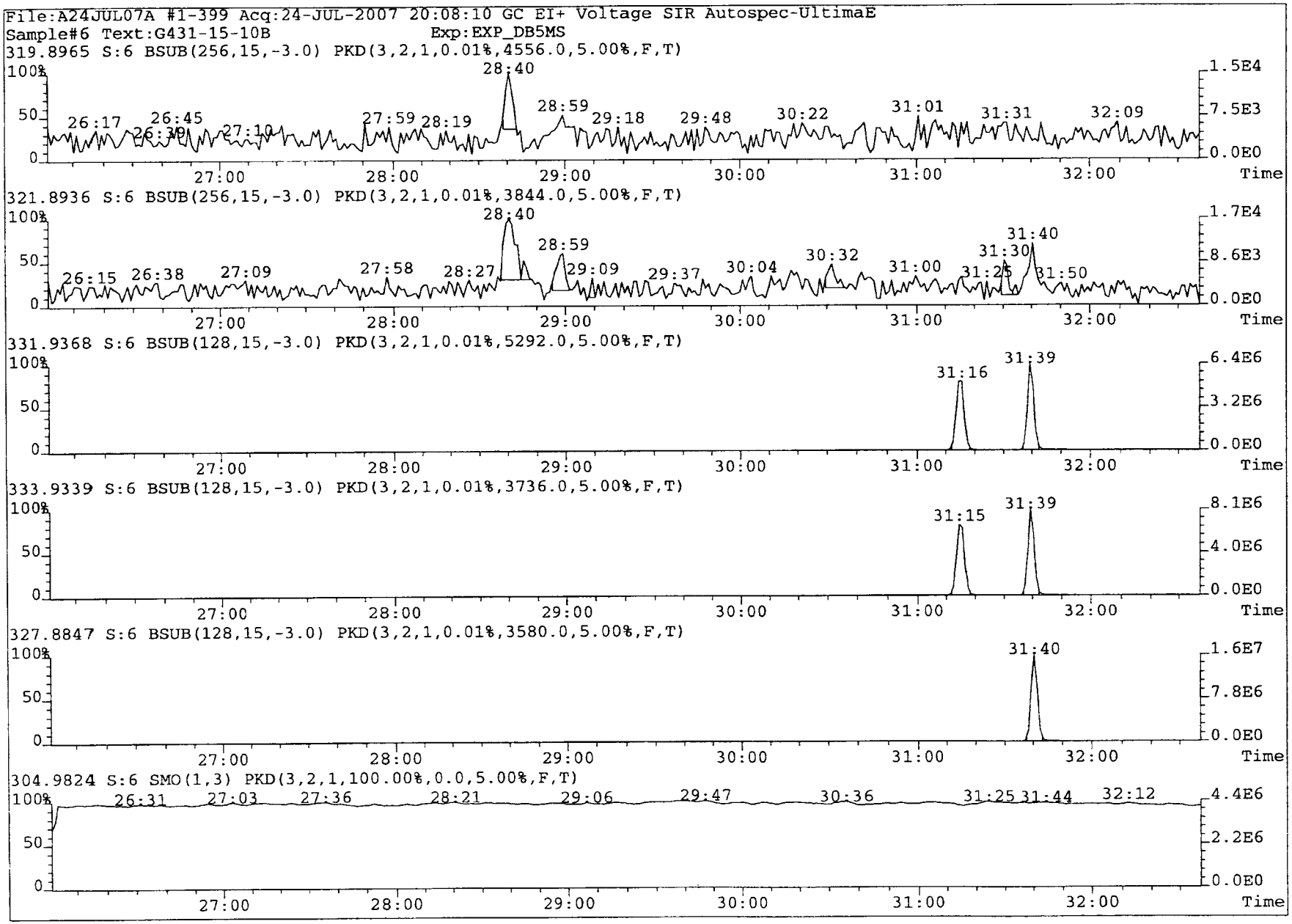
Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		1234678-HpCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.5141	S2N	0.00E+00	4810	0	0.00E+00	4220	0	n

EDL	0.5141		
Total Hepta-Dioxins	0	Peaks	0
Total EMPC Hepta-Dioxins	0	Peaks	0

Total Hepta-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		1234789-HpCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.4229	S2N	0.00E+00	4860	0	0.00E+00	5010	0	n
		1234678-HpCDF	1.03E+06	5.27E+05	5.00E+05	1.05	Y	39:21	3.326	0.3333	OK	1.45E+05	4860	30	1.41E+05	5010	28	n

EDL	0.4229		
Total EMPC Hepta-Furans	3.326	Peaks	1
Total Hepta-Furans	3.326	Peaks	1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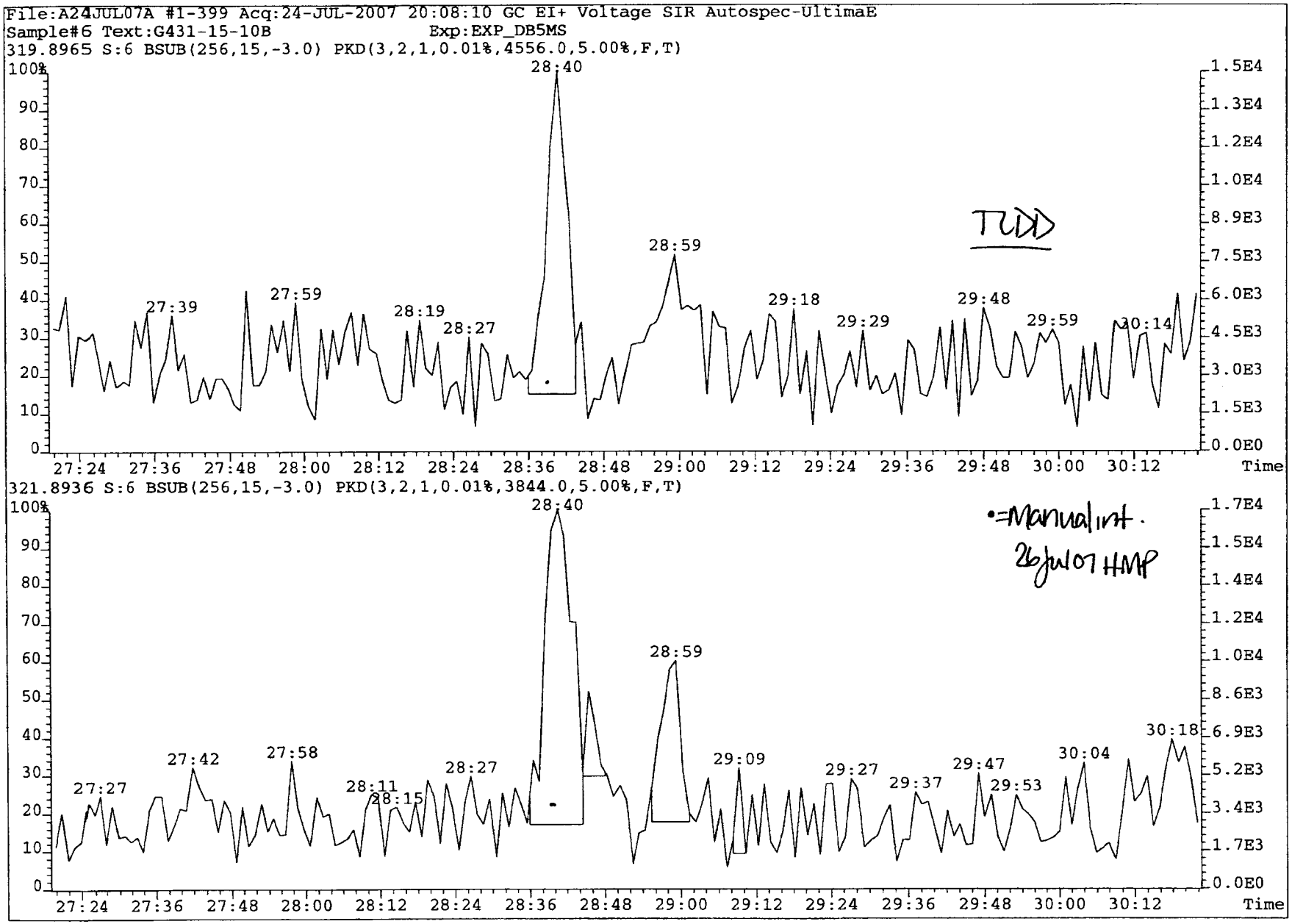
319.8965 S:6 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4556.0,5.00%,F,T)
321.8936 S:6 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,3844.0,5.00%,F,T)
331.9368 S:6 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5292.0,5.00%,F,T)
333.9339 S:6 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3736.0,5.00%,F,T)
327.8847 S:6 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3580.0,5.00%,F,T)
304.9824 S:6 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time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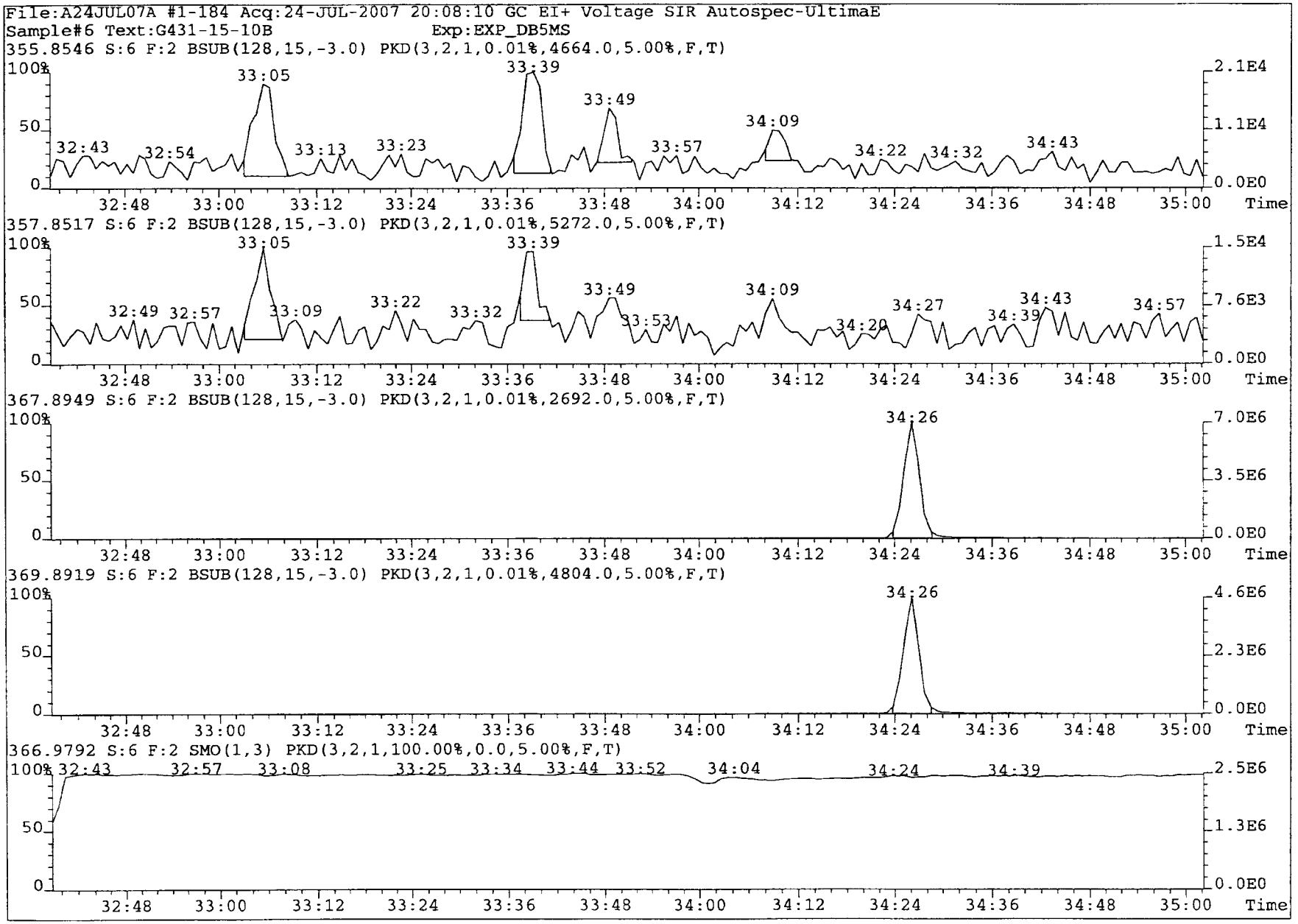
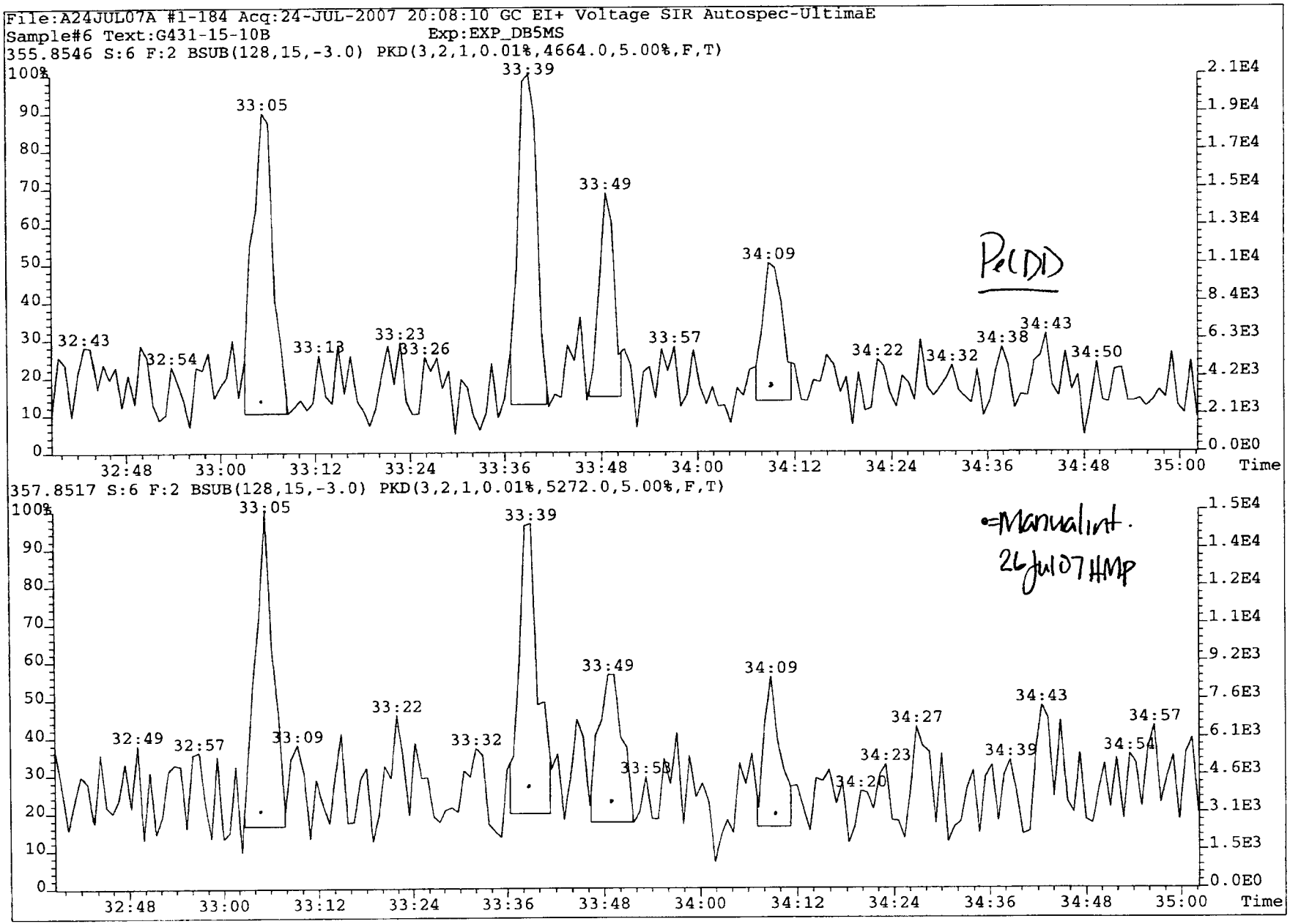
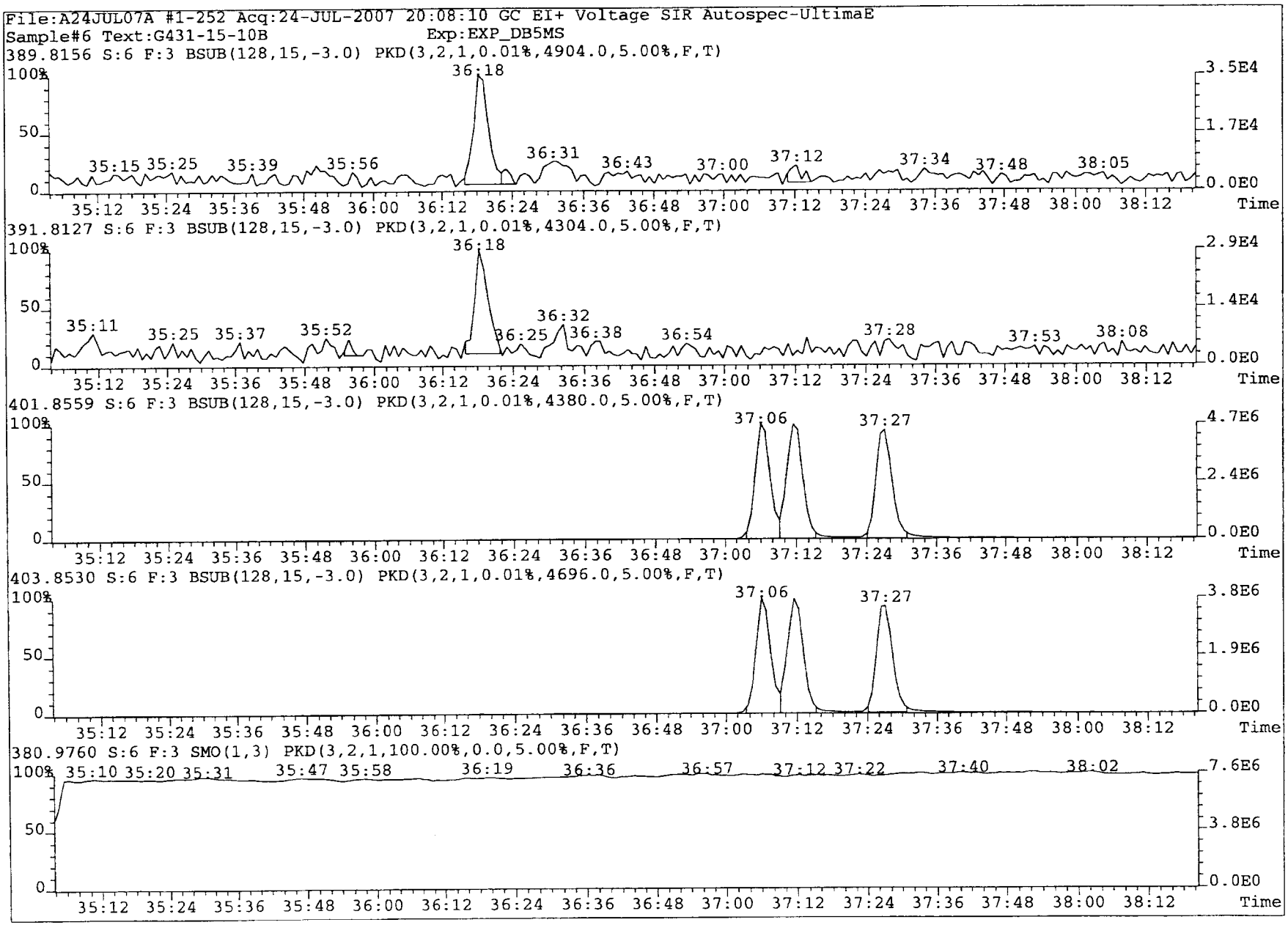
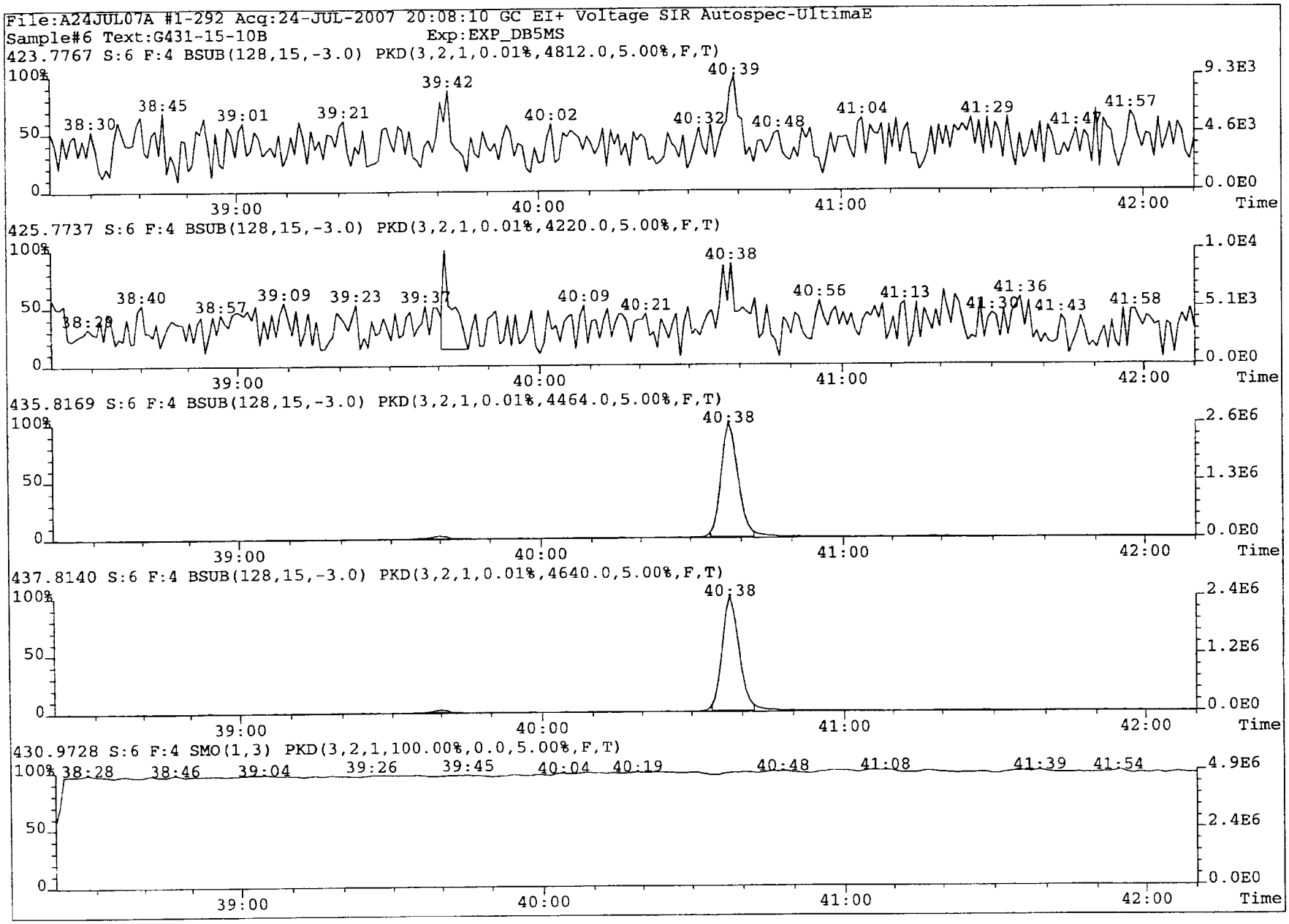
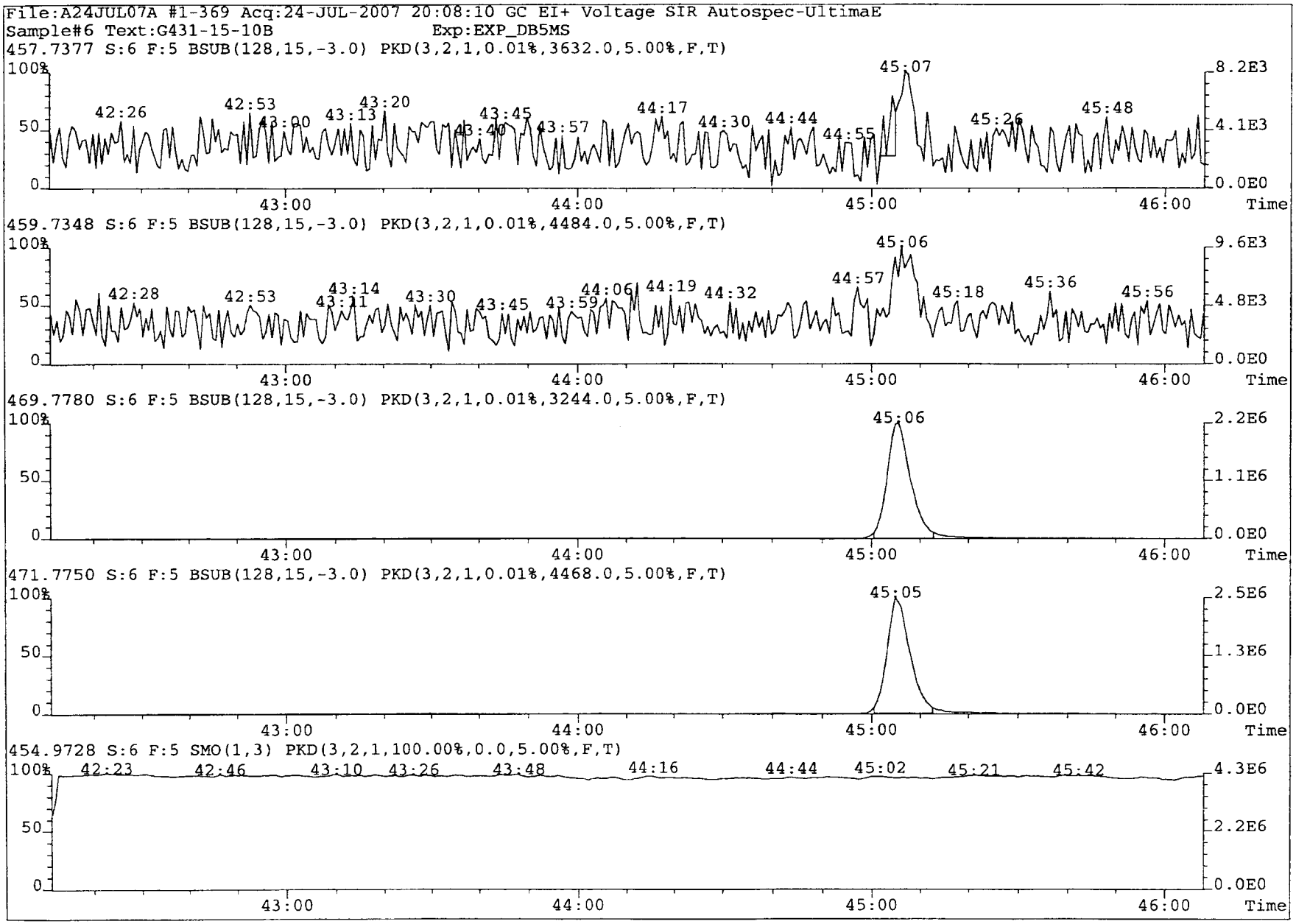
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
319.8965 S:6 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4556.0,5.00%,F,T)
TCDD
321.8936 S:6 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,3844.0,5.00%,F,T)
•=Manual int.
26jul07 HMP
Time

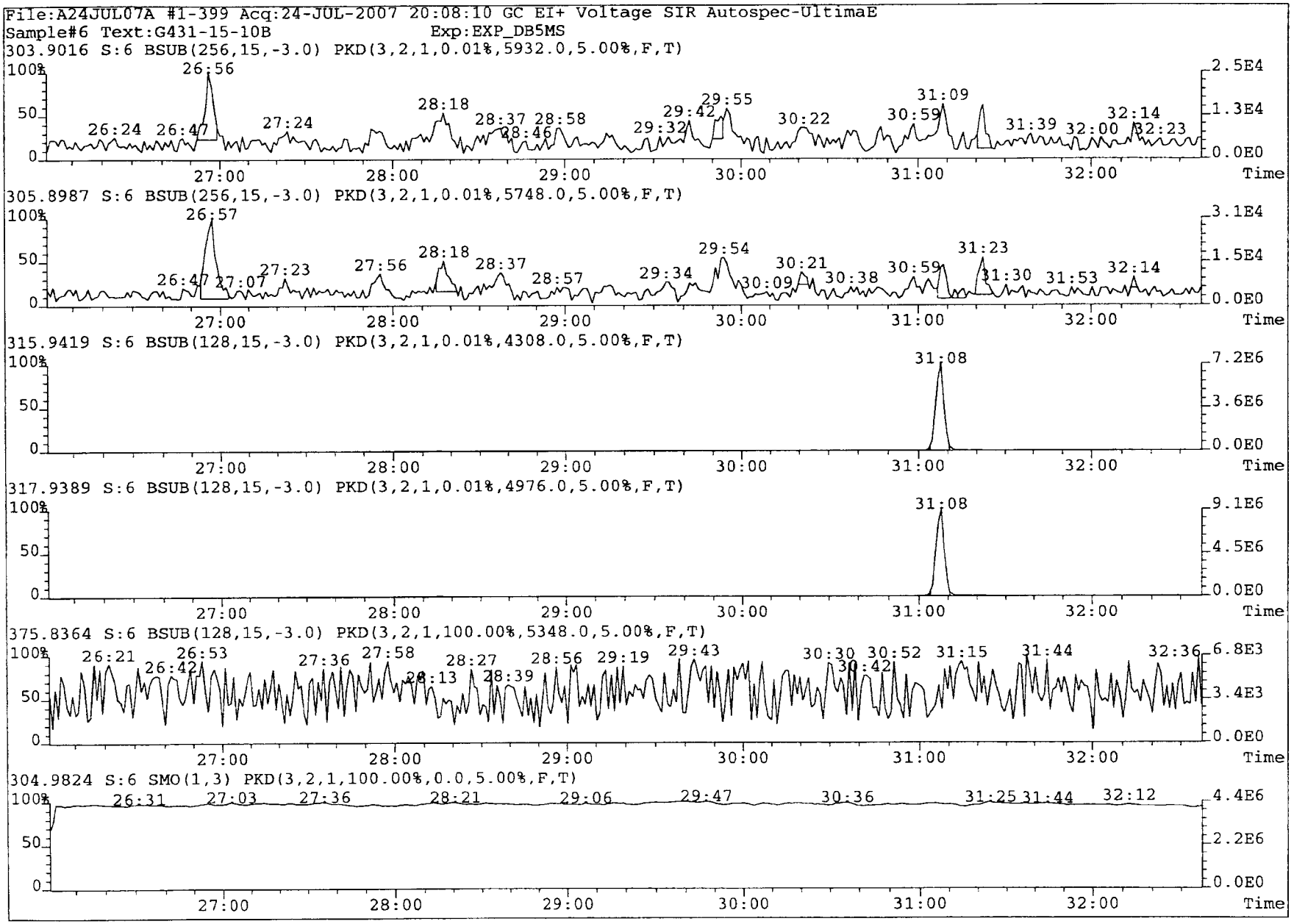

File:A24JUL07A #1-184 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
355.8546 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4664.0,5.00%,F,T)
357.8517 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5272.0,5.00%,F,T)
367.8949 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2692.0,5.00%,F,T)
369.8919 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4804.0,5.00%,F,T)
366.9792 S:6 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

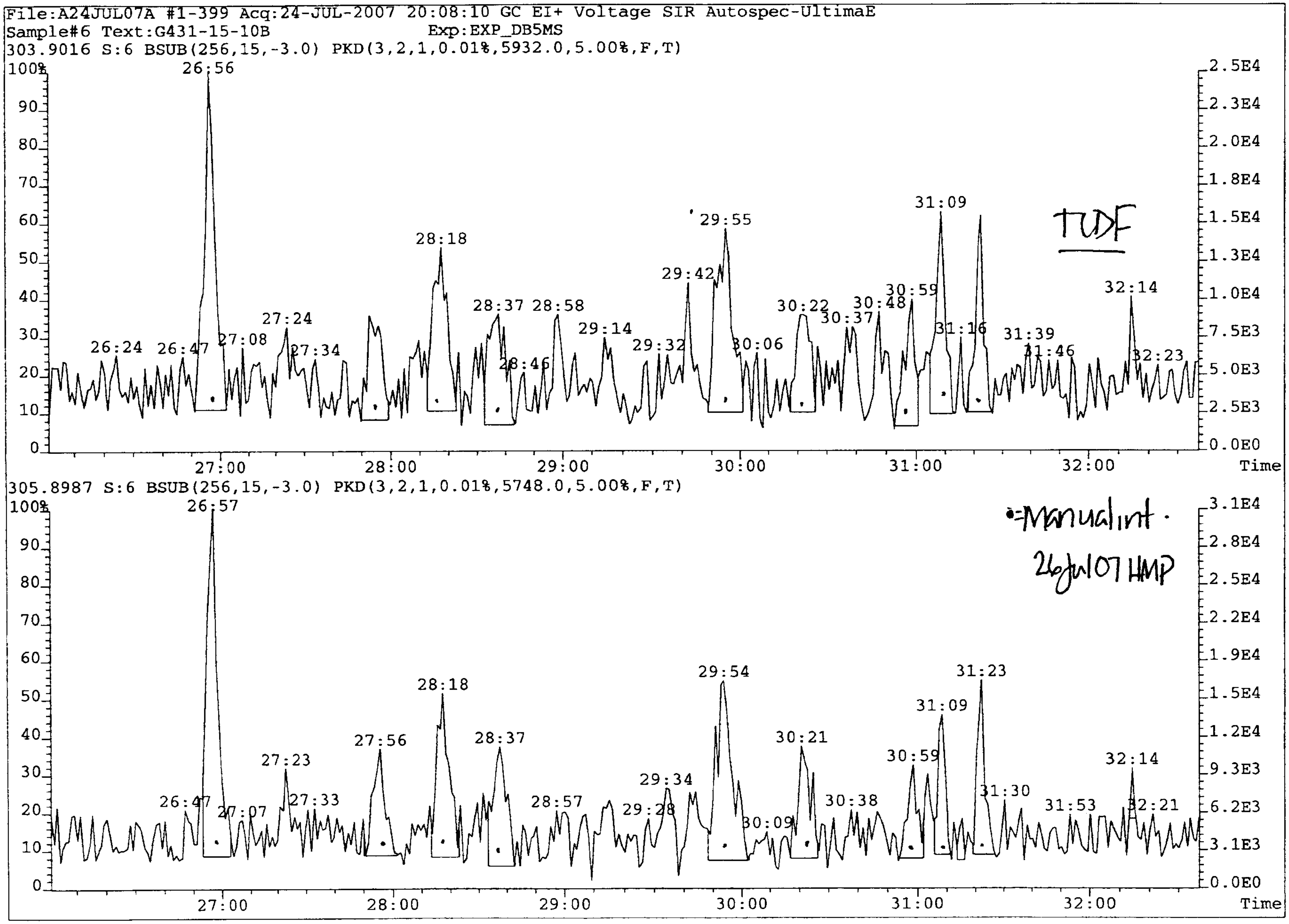

File:A24JUL07A #1-184 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
355.8546 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4664.0,5.00%,F,T)
33:05
33:39
33:49
34:09
32:43
32:54
33:13
33:23
33:26
33:57
34:22
34:32
34:38
34:43
34:50
Pe(DD
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time
357.8517 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5272.0,5.00%,F,T)
33:05
33:39
33:49
34:09
32:49
32:57
33:09
33:22
33:32
33:58
34:20
34:23
34:27
34:39
34:43
34:54
34:57
=Manual int.
26Jul07 HMP
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time

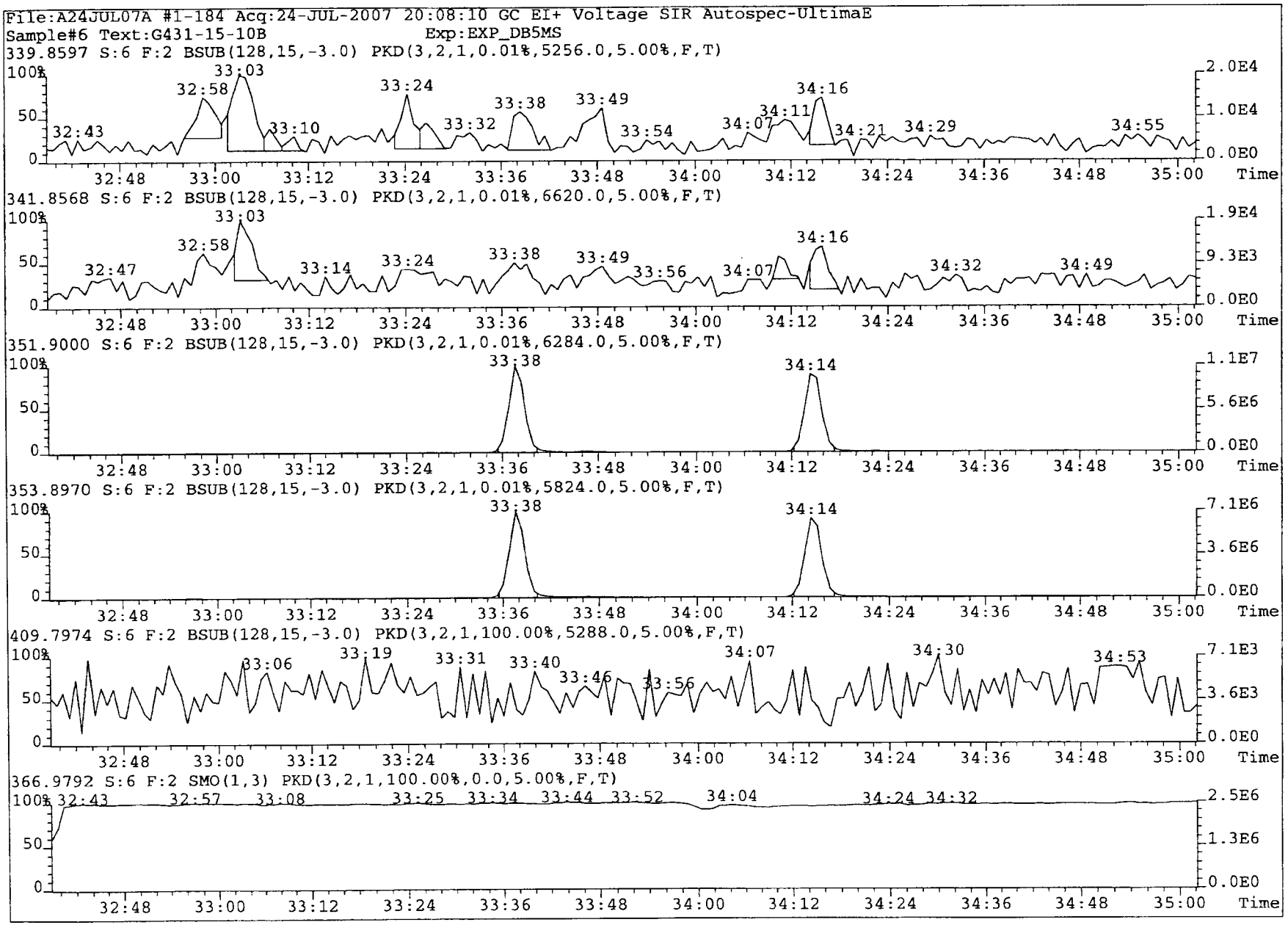

File:A24JUL07A #1-252 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
389.8156 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4904.0,5.00%,F,T)
391.8127 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4304.0,5.00%,F,T)
401.8559 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4380.0,5.00%,F,T)
403.8530 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4696.0,5.00%,F,T)
380.9760 S:6 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

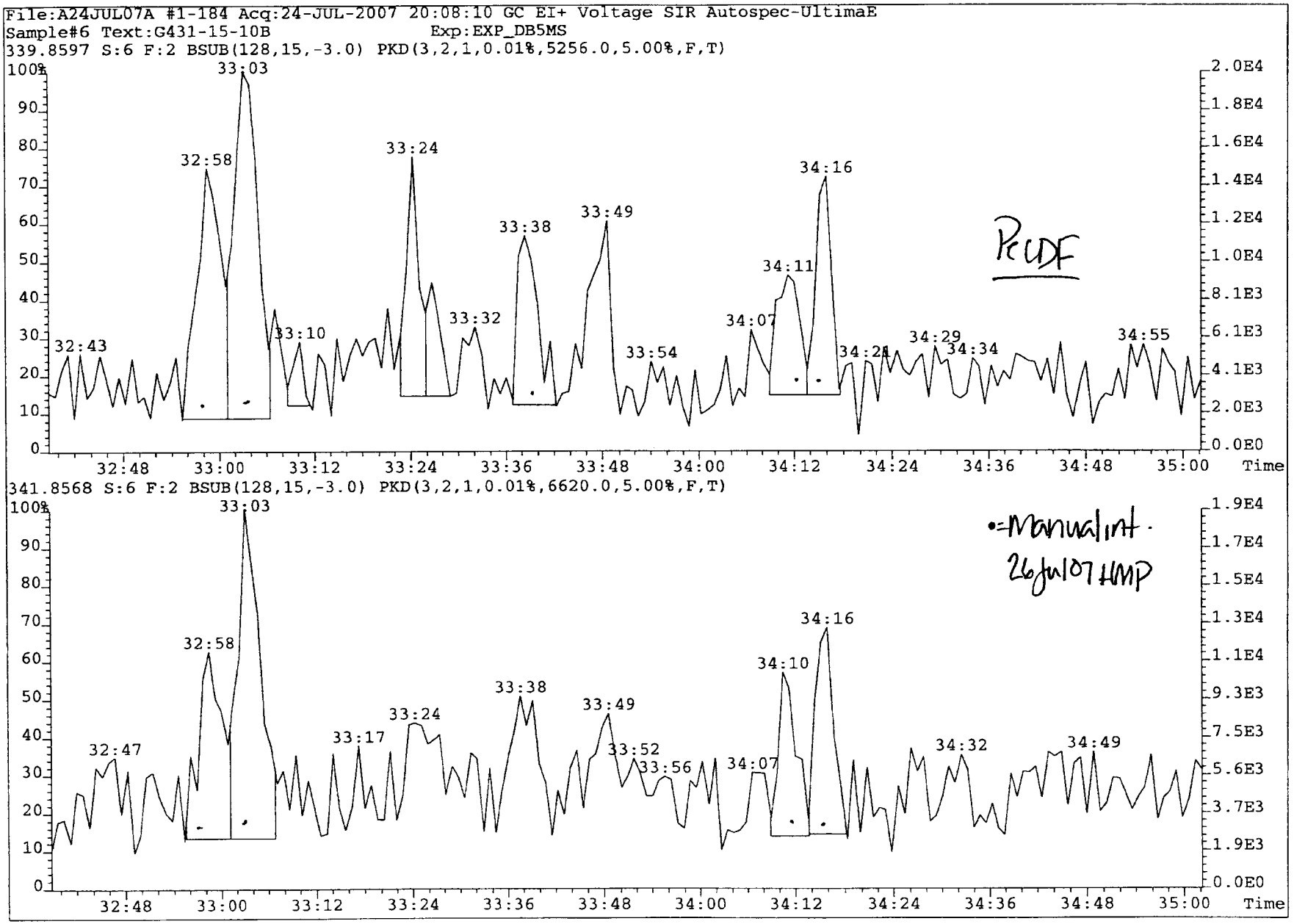

File:A24JUL07A #1-292 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
423.7767 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4812.0,5.00%,F,T)
425.7737 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4220.0,5.00%,F,T)
435.8169 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4464.0,5.00%,F,T)
437.8140 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4640.0,5.00%,F,T)
430.9728 S:6 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

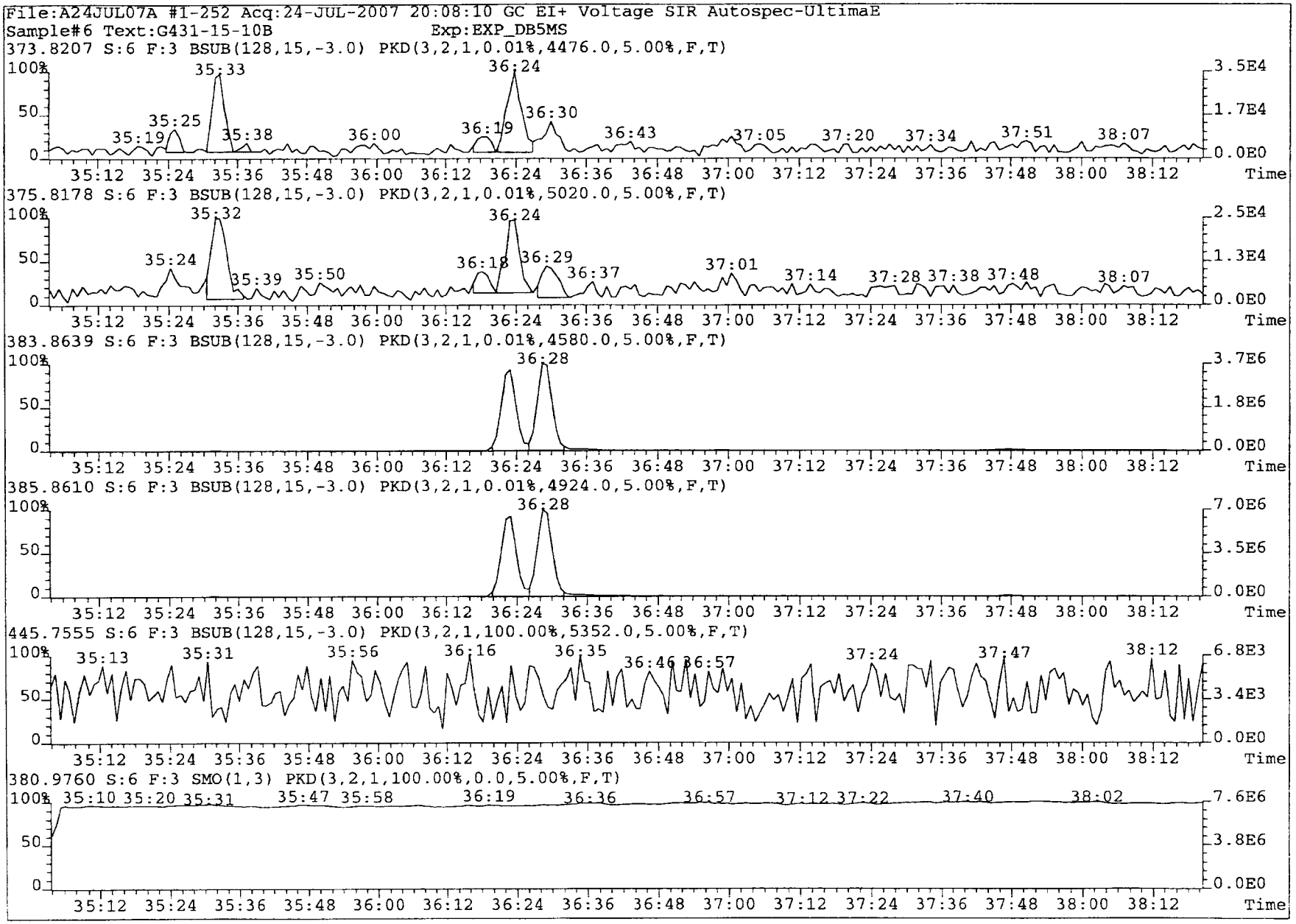

File:A24JUL07A #1-369 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
457.7377 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3632.0,5.00%,F,T)
459.7348 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4484.0,5.00%,F,T)
469.7780 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3244.0,5.00%,F,T)
471.7750 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4468.0,5.00%,F,T)
454.9728 S:6 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

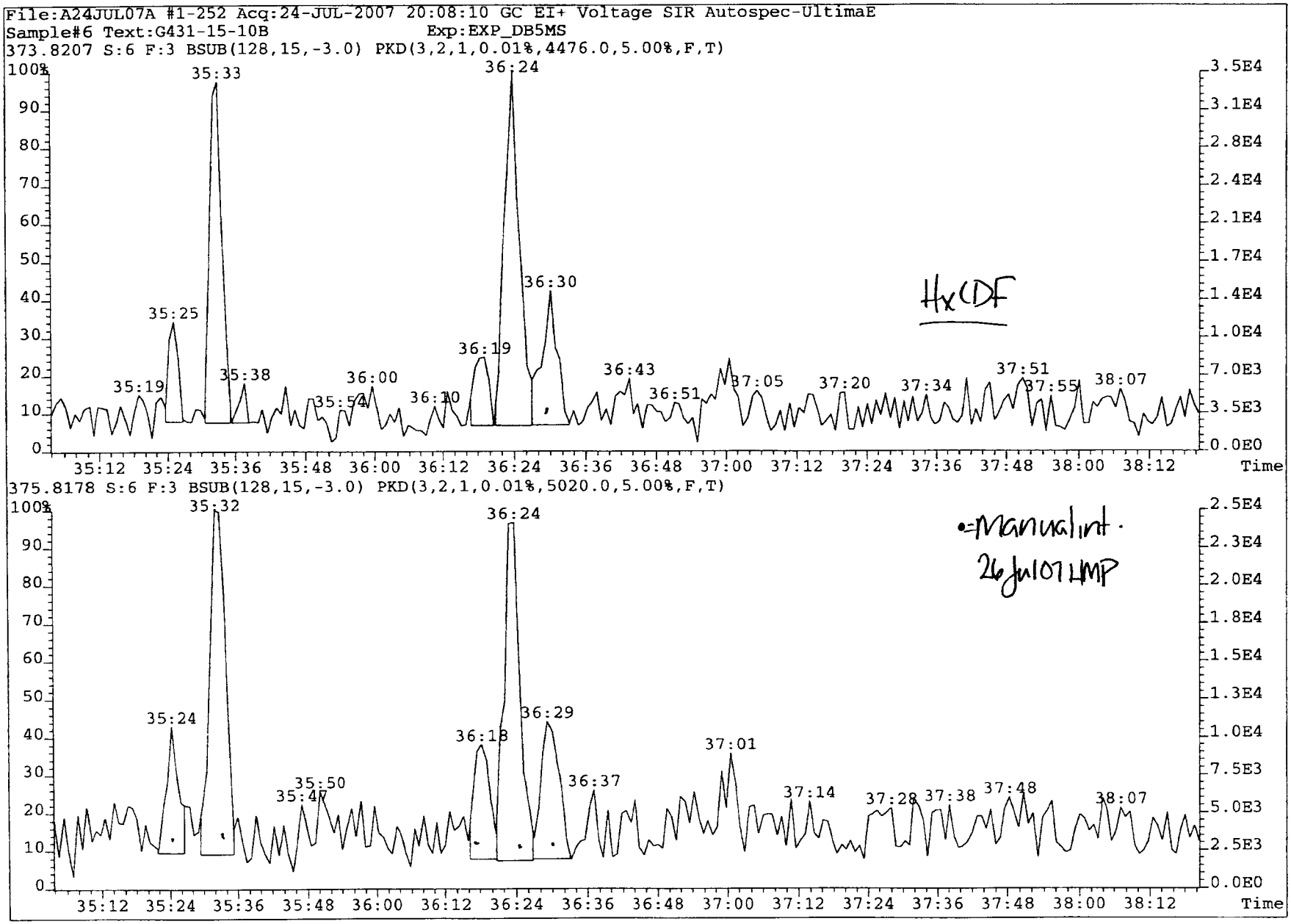

File:A24JUL07A #1-399 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
303.9016 S:6 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5932.0,5.00%,F,T)
305.8987 S:6 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5748.0,5.00%,F,T)
315.9419 S:6 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4308.0,5.00%,F,T)
317.9389 S:6 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4976.0,5.00%,F,T)
375.8364 S:6 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5348.0,5.00%,F,T)
304.9824 S:6 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

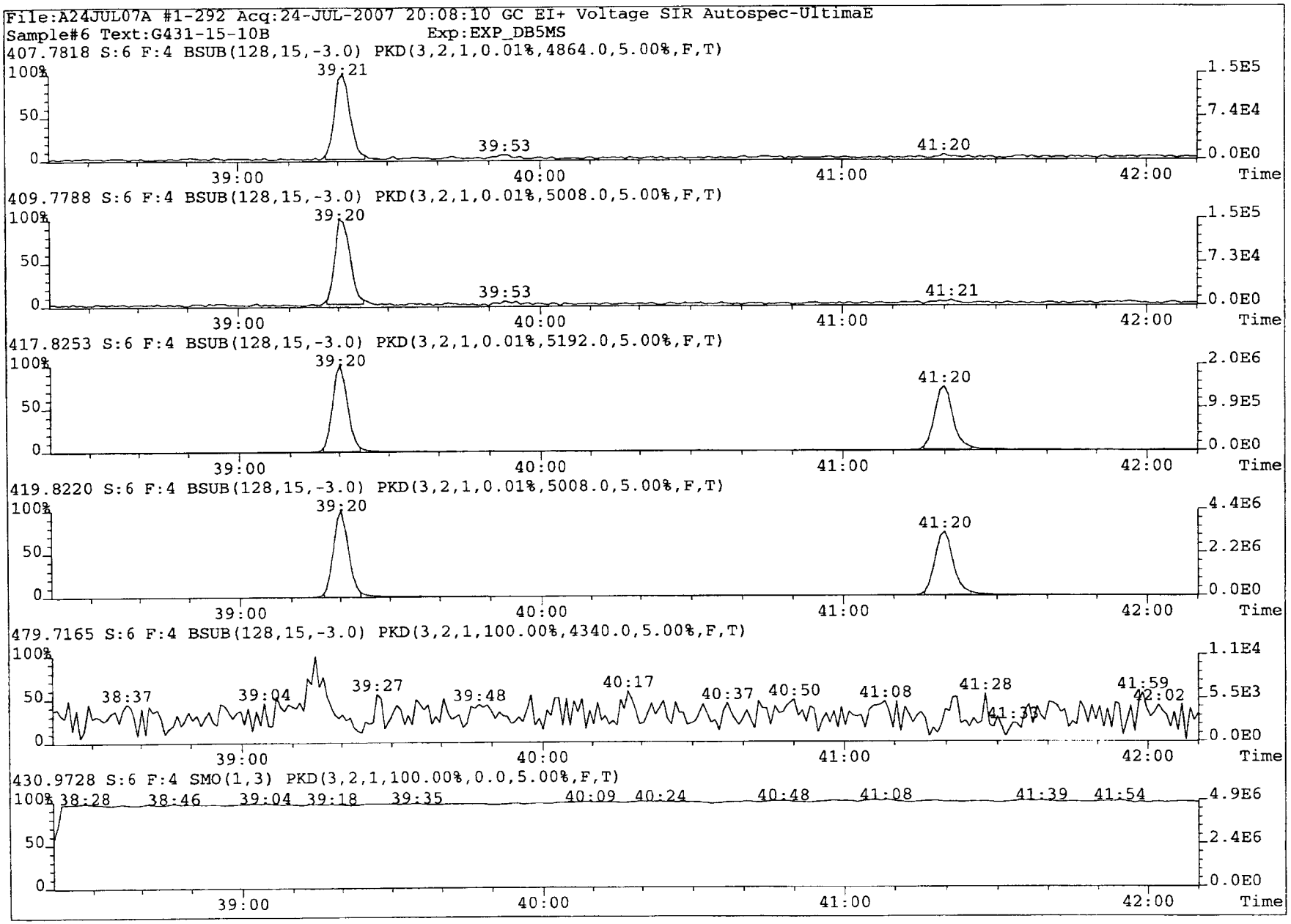

File:A24JUL07A #1-399 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
303.9016 S:6 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5932.0,5.00%,F,T)
26:56
26:24
26:47
27:08
27:24
27:34
28:18
28:37
28:58
28:46
29:14
29:32
29:42
29:55
30:06
30:22
30:37
30:48
30:59
31:09
31:16
31:39
31:46
32:14
32:23
TUDF
100%
90
80
70
60
50
40
30
20
10
0
2.5E4
2.3E4
2.0E4
1.8E4
1.5E4
1.3E4
1.0E4
7.5E3
5.0E3
2.5E3
0.0E0
27:00
28:00
29:00
30:00
31:00
32:00
Time
305.8987 S:6 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5748.0,5.00%,F,T)
26:57
26:47
27:07
27:23
27:33
27:56
28:18
28:37
28:57
29:28
29:34
29:54
30:09
30:21
30:38
30:59
31:09
31:23
31:30
31:53
32:14
32:21
•=Manual int.
26Jul07 HMP
100%
90
80
70
60
50
40
30
20
10
0
3.1E4
2.8E4
2.5E4
2.2E4
1.9E4
1.5E4
1.2E4
9.3E3
6.2E3
3.1E3
0.0E0
27:00
28:00
29:00
30:00
31:00
32:00
Time

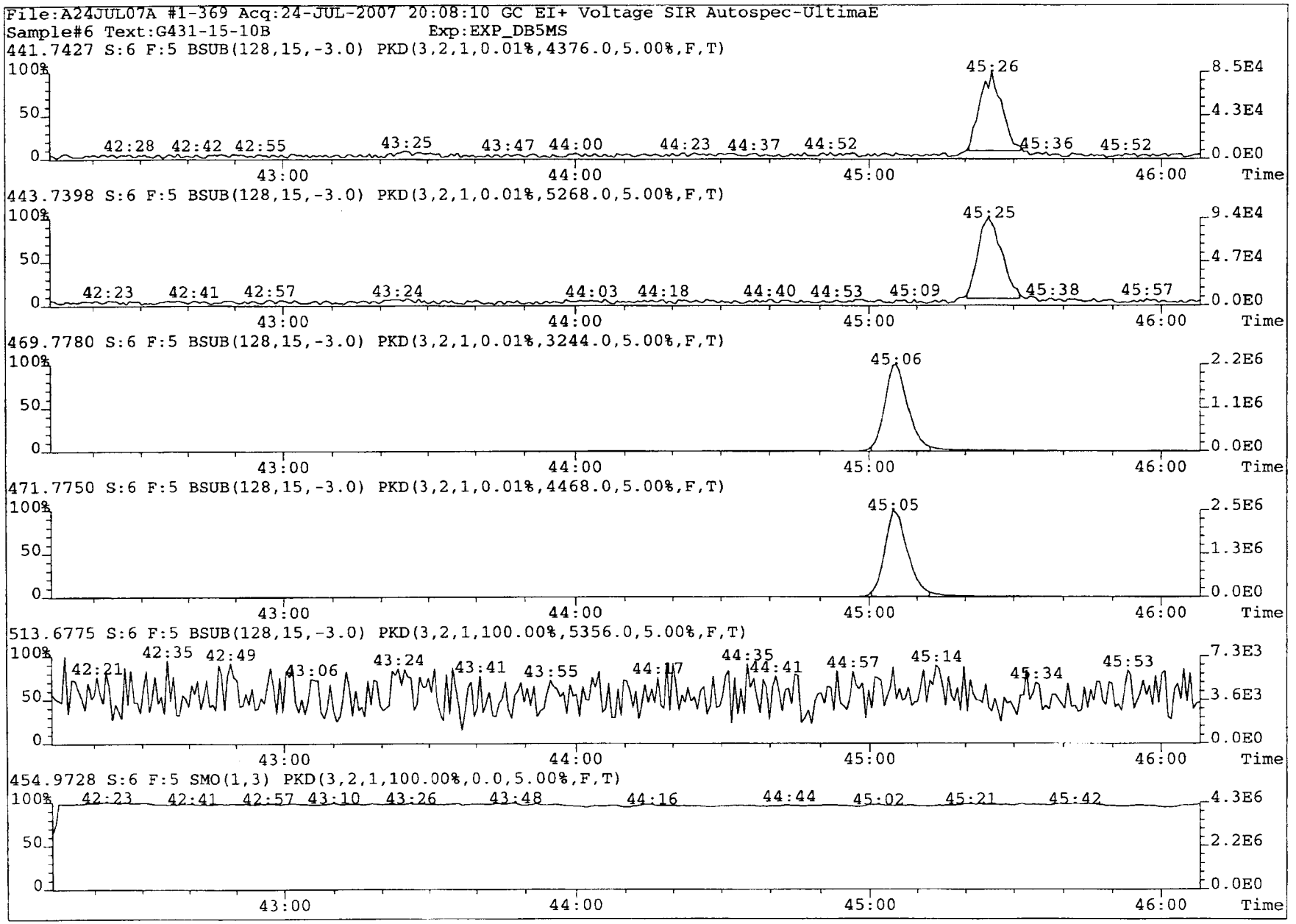

File:A24JUL07A #1-184 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
339.8597 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5256.0,5.00%,F,T)
341.8568 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6620.0,5.00%,F,T)
351.9000 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6284.0,5.00%,F,T)
353.8970 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5824.0,5.00%,F,T)
409.7974 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5288.0,5.00%,F,T)
366.9792 S:6 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

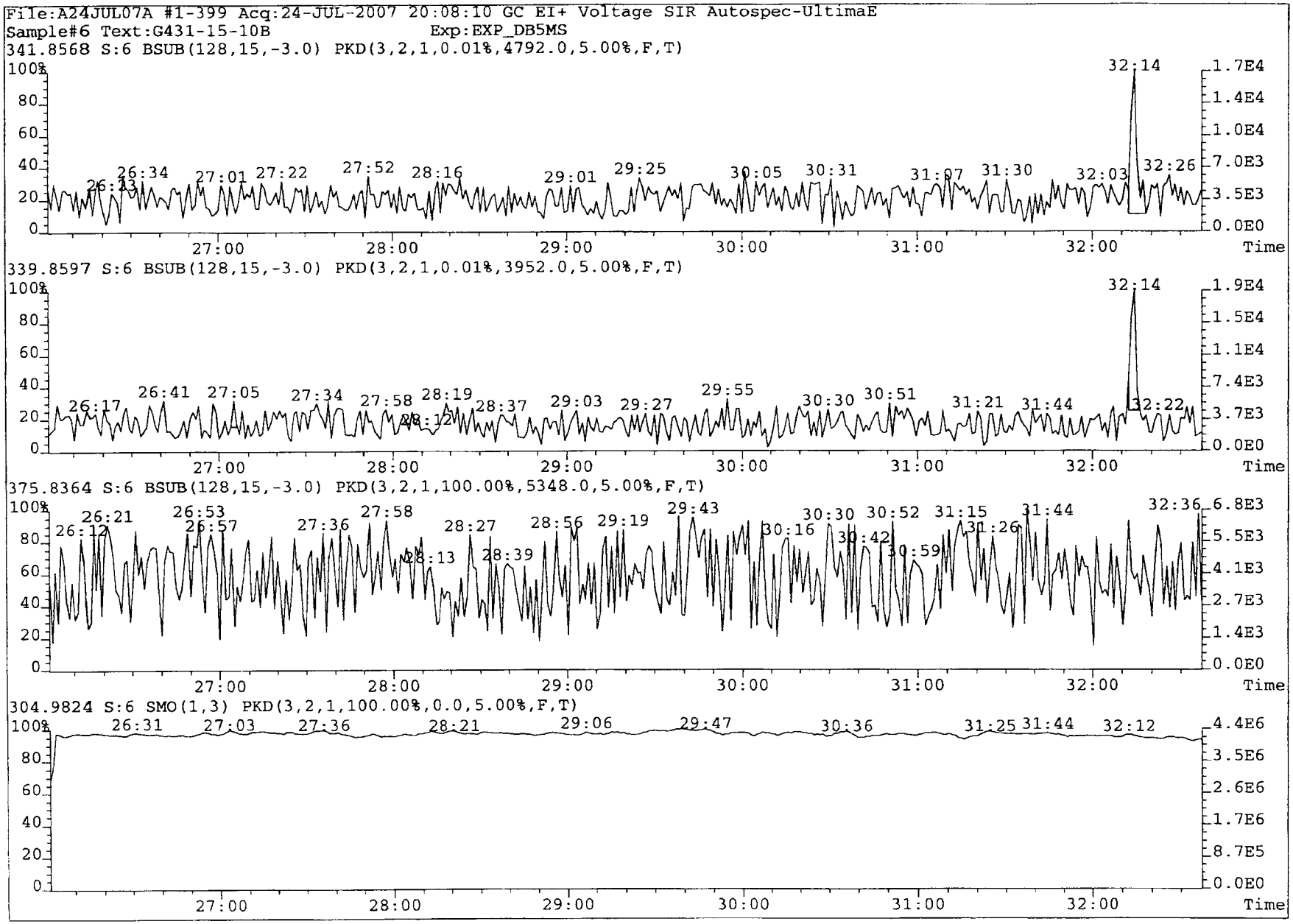

File:A24JUL07A #1-184 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
339.8597 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5256.0,5.00%,F,T)
33:03
32:58
33:24
34:16
33:38
33:49
34:11
32:43
33:10
33:32
34:07
34:29
34:34
34:55
33:54
34:24
PeCDF
341.8568 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6620.0,5.00%,F,T)
33:03
32:58
34:16
34:10
33:38
33:49
33:24
32:47
33:17
33:52
33:56
34:07
34:32
34:49
•=manual int.
26jul07 HMP
Time


File:A24JUL07A #1-252 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
373.8207 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4476.0,5.00%,F,T)
375.8178 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5020.0,5.00%,F,T)
383.8639 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4580.0,5.00%,F,T)
385.8610 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4924.0,5.00%,F,T)
445.7555 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5352.0,5.00%,F,T)
380.9760 S:6 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-252 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
373.8207 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4476.0,5.00%,F,T)
HxCDF
375.8178 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5020.0,5.00%,F,T)
•=manual int.
26Jul07 LMP
Time


File:A24JUL07A #1-292 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
407.7818 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4864.0,5.00%,F,T)
39:21
39:53
41:20
409.7788 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5008.0,5.00%,F,T)
39:20
39:53
41:21
417.8253 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5192.0,5.00%,F,T)
39:20
41:20
419.8220 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5008.0,5.00%,F,T)
39:20
41:20
479.7165 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4340.0,5.00%,F,T)
38:37
39:04
39:27
39:48
40:17
40:37
40:50
41:08
41:28
41:59
42:02
430.9728 S:6 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:28
38:46
39:04
39:18
39:35
40:09
40:24
40:48
41:08
41:39
41:54
Time


File:A24JUL07A #1-369 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
441.7427 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4376.0,5.00%,F,T)
45:26
8.5E4
4.3E4
0.0E0
443.7398 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5268.0,5.00%,F,T)
45:25
9.4E4
4.7E4
0.0E0
469.7780 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3244.0,5.00%,F,T)
45:06
2.2E6
1.1E6
0.0E0
471.7750 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4468.0,5.00%,F,T)
45:05
2.5E6
1.3E6
0.0E0
513.6775 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5356.0,5.00%,F,T)
7.3E3
3.6E3
0.0E0
454.9728 S:6 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
4.3E6
2.2E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time


File:A24JUL07A #1-399 Acq:24-JUL-2007 20:08:10 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:G431-15-10B Exp:EXP_DB5MS
341.8568 S:6 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4792.0,5.00%,F,T)
339.8597 S:6 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3952.0,5.00%,F,T)
375.8364 S:6 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5348.0,5.00%,F,T)
304.9824 S:6 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

Method M23
OUT-Diox-3
Air Hygiene

Analytical Data Summary Sheet

Analyte	Amount (ng)	EDL (ng)	EMPC (ng)	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	ND	0.00883					
1,2,3,7,8-PeCDD	ND	0.0108					
1,2,3,4,7,8-HxCDD	ND	0.0115					
1,2,3,6,7,8-HxCDD	ND	0.0117					
1,2,3,7,8,9-HxCDD	ND	0.0119					
1,2,3,4,6,7,8-HpCDD	ND	0.0201					
OCDD	ND	0.0378					
2,3,7,8-TCDF	ND	0.00680					
1,2,3,7,8-PeCDF	ND	0.00679					
2,3,4,7,8-PeCDF	ND	0.00654					
1,2,3,4,7,8-HxCDF	EMPC	0.00686	0.0126	36:24	0.98	*	A
1,2,3,6,7,8-HxCDF	ND	0.00647					
2,3,4,6,7,8-HxCDF	ND	0.00682					
1,2,3,7,8,9-HxCDF	ND	0.00794					
1,2,3,4,6,7,8-HpCDF	0.0849			39:22	1.01		A
1,2,3,4,7,8,9-HpCDF	ND	0.0133					
OCDF	0.169			45:27	0.98		A
Total TCDDs	ND	0.00883					
Total PeCDDs	0.0204						
Total HxCDDs	ND	0.0119	0.0530				
Total HpCDDs	ND	0.0201					
Total TCDFs	0.0189						
Total PeCDFs	ND	0.00679					
Total HxCDFs	0.0217		0.0387				
Total HpCDFs	0.0849						
WHO-2005 TEQ (ND=0)	0.000900		0.00216				
WHO-2005 TEQ (ND=½)	0.0155		0.0164				

Client Information			**Sample Information**		
Project Name:	snc-07-benson.mn-comp#1				
			Matrix:	Air	
Sample ID:	OUT-Diox-3		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14370	
Project ID:	G431-15		Instrument:	HRMS1	
Sample ID:	G431-15-15B		Filename:	a24jul07a-7	
Collection Date/Time:	07/04/07		Retchk:	a24jul07a-1	
Receipt Date/Time:	07/11/07	10:00	Begin ConCal:	a24jul07a-1	
Extraction Date:	07/22/07		End ConCal:	a24jul07a-11	
Analysis Date/Time:	07/24/07	20:56	Initial Cal:	m8290-071007a	

Method M23
OUT-Diox-3
Air Hygiene

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	4.0	3.11	77.7	31:39	0.78	
13C12-1,2,3,7,8-PeCDD	4.0	2.93	73.2	34:25	1.58	
13C12-1,2,3,6,7,8-HxCDD	4.0	3.73	93.3	37:12	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	4.0	3.38	84.5	40:37	1.06	
13C12-OCDD	8.0	5.43	67.9	45:07	0.91	
13C12-2,3,7,8-TCDF	4.0	3.49	87.3	31:07	0.81	
13C12-1,2,3,7,8-PeCDF	4.0	2.82	70.5	33:37	1.59	
13C12-1,2,3,6,7,8-HxCDF	4.0	3.43	85.6	36:28	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	4.0	3.26	81.4	39:21	0.45	
Sampling Standards						
37Cl4-2,3,7,8-TCDD	4.0	4.22	106	31:40	-	
13C12-2,3,4,7,8-PeCDF	4.0	3.88	97.0	34:15	1.57	
13C12-1,2,3,4,7,8-HxCDD	4.0	3.70	92.5	37:07	1.27	
13C12-1,2,3,4,7,8-HxCDF	4.0	3.97	99.4	36:22	0.53	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	3.66	91.6	41:21	0.45	
Injection Standards						
13C12-1,2,3,4-TCDD	2.0	-	-	31:15	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-	-	37:27	1.23	

Client Information			**Sample Information**		
Project Name:	snc-07-benson.mn-comp#1				
			Matrix:	Air	
Sample ID:	OUT-Diox-3		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14370	
Project ID:	G431-15		Instrument:	HRMS1	
Sample ID:	G431-15-15B		Filename:	a24jul07a-7	
Collection Date/Time:	07/04/07		Retchk:	a24jul07a-1	
Receipt Date/Time:	07/11/07	10:00	Begin ConCal:	a24jul07a-1	
Extraction Date:	07/22/07		End ConCal:	a24jul07a-11	
Analysis Date/Time:	07/24/07	20:56	Initial Cal:	m8290-071007a	

Form Version:[8290_DB_2.14]Report

Analyzed by: HMP
Date: 26jul07

Reviewed by: [signature]
Date: 7/24/07

Filename ; a24jul07a ;*8290*
Sample ; 7 ;Inst: HRMS1
Acquired ; 24-JUL-07 20:56:31
Processed ; 25-JUL-07 08:11:27
Sample ID ; G431-15-15B
Cal Table ; m8290-071007a
Results Table ; m8290-072407a
Comments ;

(.383)(8)
(93.9)(1.3088)
= 0.1484

Ent;	Name;	Resp;	Ion 1;	Ion 2;	RA;?;	RT;	Conc;	EDL;	S/N1;?;	S/N2;?;M;	Signal1;	Noise 1;	Signal2;	Noise 2
1 ;	2,3,7,8-TCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.4414;	*;n;	*;n;n;	*;	4.86e+03;	*;	4.43e+03
2 ;	1,2,3,7,8-PeCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.5415;	*;n;	*;n;n;	*;	5.84e+03;	*;	5.12e+03
3 ;	1,2,3,4,7,8-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.5772;	*;n;	*;n;n;	*;	4.71e+03;	*;	4.49e+03
4 ;	1,2,3,6,7,8-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.5875;	*;n;	*;n;n;	*;	4.71e+03;	*;	4.49e+03
5 ;	1,2,3,7,8,9-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.5962;	*;n;	*;n;n;	*;	4.71e+03;	*;	4.49e+03
6 ;	1,2,3,4,6,7,8-HpCDD;	*;	*;	*;	*;n;	NotFnd;	*;	1.0069;	*;n;	*;n;n;	*;	4.49e+03;	*;	4.78e+03
7 ;	OCDD;	*;	*;	*;	*;n;	NotFnd;	*;	1.8876;	*;n;	*;n;n;	*;	4.78e+03;	*;	3.52e+03
8 ;	2,3,7,8-TCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.3399;	*;n;	*;n;n;	*;	4.57e+03;	*;	5.78e+03
9 ;	1,2,3,7,8-PeCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.3394;	*;n;	*;n;n;	*;	5.26e+03;	*;	5.21e+03
10 ;	2,3,4,7,8-PeCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.3272;	*;n;	*;n;n;	*;	5.26e+03;	*;	5.21e+03
11 ;	1,2,3,4,7,8-HxCDF;	6.22e+04;	3.08e+04;	3.15e+04;	0.98;n;	36:24;	0.315;	0.3432;	2;n;	3;y;y;	9.76e+03;	4.35e+03;	1.40e+04;	4.08e+03
12 ;	1,2,3,6,7,8-HxCDF;	3.87e+04;	2.17e+04;	1.70e+04;	1.28;y;	36:29;	0.185;	0.3233;	2;n;	2;n;y;	8.49e+03;	4.35e+03;	6.34e+03;	4.08e+03
13 ;	2,3,4,6,7,8-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.3409;	*;n;	*;n;n;	*;	4.35e+03;	*;	4.08e+03
14 ;	1,2,3,7,8,9-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.3971;	*;n;	*;n;n;	*;	4.35e+03;	*;	4.08e+03
15 ;	1,2,3,4,6,7,8-HpCDF;	3.77e+05;	1.90e+05;	1.87e+05;	1.01;y;	39:22;	2.122;	0.5246;	11;y;	12;y;n;	5.35e+04;	4.68e+03;	5.54e+04;	4.49e+03
16 ;	1,2,3,4,7,8,9-HpCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.6656;	*;n;	*;n;n;	*;	4.68e+03;	*;	4.49e+03
17 ;	OCDF;	3.83e+05;	1.90e+05;	1.93e+05;	0.98;y;	45:27;	4.220;	1.9679;	7;y;	8;y;n;	3.79e+04;	5.44e+03;	3.91e+04;	5.08e+03
Extraction Standards														
18 ;	13C-2,3,7,8-TCDD;	1.81e+07;	7.95e+06;	1.02e+07;	0.78;y;	31:39;	77.712;	0.3884;	537;y;	720;y;n;	2.85e+06;	5.31e+03;	3.66e+06;	5.08e+03
19 ;	13C-1,2,3,7,8-PeCDD;	1.41e+07;	8.65e+06;	5.48e+06;	1.58;y;	34:26;	73.225;	0.4056;	782;y;	512;y;n;	3.49e+06;	4.47e+03;	2.30e+06;	4.50e+03
20 ;	13C-1,2,3,6,7,8-HxCDD;	1.47e+07;	8.20e+06;	6.53e+06;	1.26;y;	37:12;	93.314;	0.4902;	672;y;	473;y;n;	2.69e+06;	4.00e+03;	2.17e+06;	4.58e+03
21 ;	13C-1,2,3,4,6,7,8-HpCDD;	1.04e+07;	5.34e+06;	5.03e+06;	1.06;y;	40:38;	84.493;	0.6742;	273;y;	297;y;n;	1.35e+06;	4.95e+03;	1.26e+06;	4.22e+03
22 ;	13C-OCDD;	1.39e+07;	6.60e+06;	7.29e+06;	0.91;y;	45:07;	135.733;	0.7594;	250;y;	325;y;n;	1.17e+06;	4.69e+03;	1.28e+06;	3.92e+03
23 ;	13C-2,3,7,8-TCDF;	2.66e+07;	1.18e+07;	1.47e+07;	0.81;y;	31:08;	87.278;	0.2611;	733;y;	1089;y;n;	3.62e+06;	4.94e+03;	4.54e+06;	4.17e+03
24 ;	13C-1,2,3,7,8-PeCDF;	2.23e+07;	1.37e+07;	8.61e+06;	1.59;y;	33:38;	70.454;	0.2949;	924;y;	784;y;n;	5.64e+06;	6.10e+03;	3.61e+06;	4.60e+03
25 ;	13C-1,2,3,6,7,8-HxCDF;	1.81e+07;	6.24e+06;	1.18e+07;	0.53;y;	36:29;	85.629;	0.3228;	724;y;	1018;y;n;	2.34e+06;	3.23e+03;	4.40e+06;	4.32e+03
26 ;	13C-1,2,3,4,6,7,8-HpCDF;	1.28e+07;	3.97e+06;	8.79e+06;	0.45;y;	39:21;	81.375;	0.6002;	227;y;	492;y;n;	1.17e+06;	5.16e+03;	2.60e+06;	5.28e+03
Injection Standards														
27 ;	13C-1,2,3,4-TCDD;	2.21e+07;	9.71e+06;	1.24e+07;	0.79;y;	31:15;	27.105;	-;	629;y;	836;y;n;	3.34e+06;	5.31e+03;	4.25e+06;	5.08e+03
28 ;	13C-1,2,3,7,8,9-HxCDD;	1.51e+07;	8.37e+06;	6.78e+06;	1.23;y;	37:27;	21.315;	-;	688;y;	498;y;n;	2.75e+06;	4.00e+03;	2.28e+06;	4.58e+03
Cleanup Standards														
29 ;	37Cl-2,3,7,8-TCDD;	1.95e+07;	1.95e+07;	-;	-;-;	31:40;	82.016;	0.1515;	1958;y;	-;-;n;	8.10e+06;	4.14e+03;	-;	-
30 ;	13C-2,3,4,7,8-PeCDF;	2.13e+07;	1.30e+07;	8.27e+06;	1.57;y;	34:15;	68.407;	0.3004;	927;y;	768;y;n;	5.66e+06;	6.10e+03;	3.54e+06;	4.60e+03
31 ;	13C-1,2,3,4,7,8-HxCDD;	1.29e+07;	7.25e+06;	5.70e+06;	1.27;y;	37:07;	86.334;	0.5160;	646;y;	435;y;n;	2.59e+06;	4.00e+03;	1.99e+06;	4.58e+03
32 ;	13C-1,2,3,4,7,8-HxCDF;	1.62e+07;	5.62e+06;	1.06e+07;	0.53;y;	36:23;	85.123;	0.3588;	652;y;	922;y;n;	2.11e+06;	3.23e+03;	3.99e+06;	4.32e+03
33 ;	13C-1,2,3,4,7,8,9-HpCDF;	1.04e+07;	3.22e+06;	7.21e+06;	0.45;y;	41:21;	74.525;	0.6729;	155;y;	341;y;n;	8.01e+05;	5.16e+03;	1.80e+06;	5.28e+03
Sampling Standards														
34 ;	37Cl-2,3,7,8-TCDD;	1.95e+07;	1.95e+07;	-;	-;-;	31:40;	105.547;	0.1870;	1958;y;	-;-;n;	8.10e+06;	4.14e+03;	-;	-
35 ;	13C-2,3,4,7,8-PeCDF;	2.13e+07;	1.30e+07;	8.27e+06;	1.57;y;	34:15;	97.046;	0.3529;	927;y;	768;y;n;	5.66e+06;	6.10e+03;	3.54e+06;	4.60e+03
36 ;	13C-1,2,3,4,7,8-HxCDD;	1.29e+07;	7.25e+06;	5.70e+06;	1.27;y;	37:07;	92.517;	0.5574;	646;y;	435;y;n;	2.59e+06;	4.00e+03;	1.99e+06;	4.58e+03
37 ;	13C-1,2,3,4,7,8-HxCDF;	1.62e+07;	5.62e+06;	1.06e+07;	0.53;y;	36:23;	99.360;	0.3732;	652;y;	922;y;n;	2.11e+06;	3.23e+03;	3.99e+06;	4.32e+03
38 ;	13C-1,2,3,4,7,8,9-HpCDF;	1.04e+07;	3.22e+06;	7.21e+06;	0.45;y;	41:21;	91.586;	0.9315;	155;y;	341;y;n;	8.01e+05;	5.16e+03;	1.80e+06;	5.28e+03

Totals Report

SGS Environmental Services, INC.	Thu Jul 26 15:25:49 EDT 2007	
Filename: a24jul07a-7	Acquired: 2007-07-24 20:56:31	Processed: 2007-07-25 08:11:27
Results:	Cal: m8290-071007a	
Sample Text: G431-15-15B		

Total Tetra-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		2378-TCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.4414	S2N	0.00E+00	4860	0	0.00E+00	4430	0	n
									EDL	0.4414								
									Total EMPC Tetra-Dioxins	0	Peaks	0						
									Total Tetra-Dioxins	0	Peaks	0						

Total Tetra-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		2378-TCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3399	S2N	0.00E+00	4570	0	0.00E+00	5780	0	n
		Tetrafurans	1.41E+05	6.04E+04	8.04E+04	0.75	Y	26:55	0.473	0.3399	OK	1.47E+04	4572	3.2	1.75E+04	5780	3	y
		Tetrafurans	8.47E+04	4.15E+04	4.32E+04	0.96	N	28:18	0.285	0.3399	S2N	6.29E+03	4572	1.4	8.44E+03	5780	1.5	y
		Tetrafurans	8.01E+04	3.69E+04	4.32E+04	0.85	Y	29:54	0.269	0.3399	S2N	7.67E+03	4572	1.7	1.16E+04	5780	2	y
		Tetrafurans	7.51E+04	4.03E+04	3.49E+04	1.16	N	30:22	0.253	0.3399	S2N	8.20E+03	4572	1.8	8.16E+03	5780	1.4	y
		Tetrafurans	4.87E+04	2.09E+04	2.78E+04	0.75	Y	31:22	0.164	0.3399	S2N	6.16E+03	4572	1.3	1.03E+04	5780	1.8	y
									EDL	0.3399								
									Total EMPC Tetra-Furans	0.473	Peaks	1						
									Total Tetra-Furans	0.473	Peaks	1						

Total Penta-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		12378-PeCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.5415	S2N	0.00E+00	5840	0	0.00E+00	5120	0	n
		Pentadioxins	7.51E+04	4.77E+04	2.74E+04	1.74	Y	33:06	0.51	0.5415	S2N	1.96E+04	5840	3.4	1.19E+04	5120	2.3	y
		Pentadioxins	9.86E+04	5.44E+04	4.42E+04	1.23	N	33:39	0.669	0.5415	G	2.31E+04	5840	4	1.81E+04	5120	3.5	y
		Pentadioxins	4.47E+04	2.61E+04	1.86E+04	1.4	Y	33:49	0.304	0.5415	S2N	1.00E+04	5840	1.7	7.15E+03	5120	1.4	n
		Pentadioxins	4.01E+04	2.38E+04	1.62E+04	1.47	Y	34:09	0.272	0.5415	S2N	1.01E+04	5840	1.7	5.91E+03	5120	1.2	y
									EDL	0.669								
									Total EMPC Penta-Dioxins	0	Peaks	0						
									Total Penta-Dioxins	0	Peaks	0						

Total Penta-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		23478-PeCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3272	S2N	0.00E+00	5260	0	0.00E+00	5210	0	n
		12378-PeCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3394	S2N	0.00E+00	5260	0	0.00E+00	5210	0	n
									EDL	0.3394								
									Total Penta-Furans	0	Peaks	0						
									Total EMPC Penta-Furans	0	Peaks	0						

Total Hexa-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod

123478-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.5772	S2N	0.00E+00	4710	0	0.00E+00	4490	0	n
123789-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.5962	S2N	0.00E+00	4710	0	0.00E+00	4490	0	n
123678-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.5875	S2N	0.00E+00	4710	0	0.00E+00	4490	0	n
Hexadioxins	1.89E+05	9.34E+04	9.54E+04	0.98	N	36:19	1.324	0.5868	EMPC	3.53E+04	4708	7.5	3.41E+04	4492	7.6	n

EDL	0.5962		
Total EMPC Hexa-Dioxins	1.324	Peaks	1
Total Hexa-Dioxins	0	Peaks	0

Total Hexa-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		234678-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3409	S2N	0.00E+00	4350	0	0.00E+00	4080	0	n
		123789-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3971	S2N	0.00E+00	4350	0	0.00E+00	4080	0	n
		Hexafurans	4.42E+04	2.25E+04	2.18E+04	1.03	N	35:24	0.228	0.3491	S2N	1.10E+04	4352	2.5	8.79E+03	4084	2.2	y
		Hexafurans	8.25E+04	4.15E+04	4.09E+04	1.02	N	35:31	0.425	0.3491	EMPC	1.51E+04	4352	3.5	1.16E+04	4084	2.8	y
		123478-HxCDF	6.22E+04	3.08E+04	3.15E+04	0.98	N	36:24	0.315	0.3432	S2N	9.76E+03	4350	2	1.40E+04	4080	3	y
		123678-HxCDF	3.87E+04	2.17E+04	1.70E+04	1.28	Y	36:28	0.185	0.3233	S2N	8.49E+03	4350	2	6.34E+03	4080	2	y

EDL	0.3971		
Total Hexa-Furans	0	Peaks	0
Total EMPC Hexa-Furans	0.425	Peaks	1

Total Hepta-Dioxins

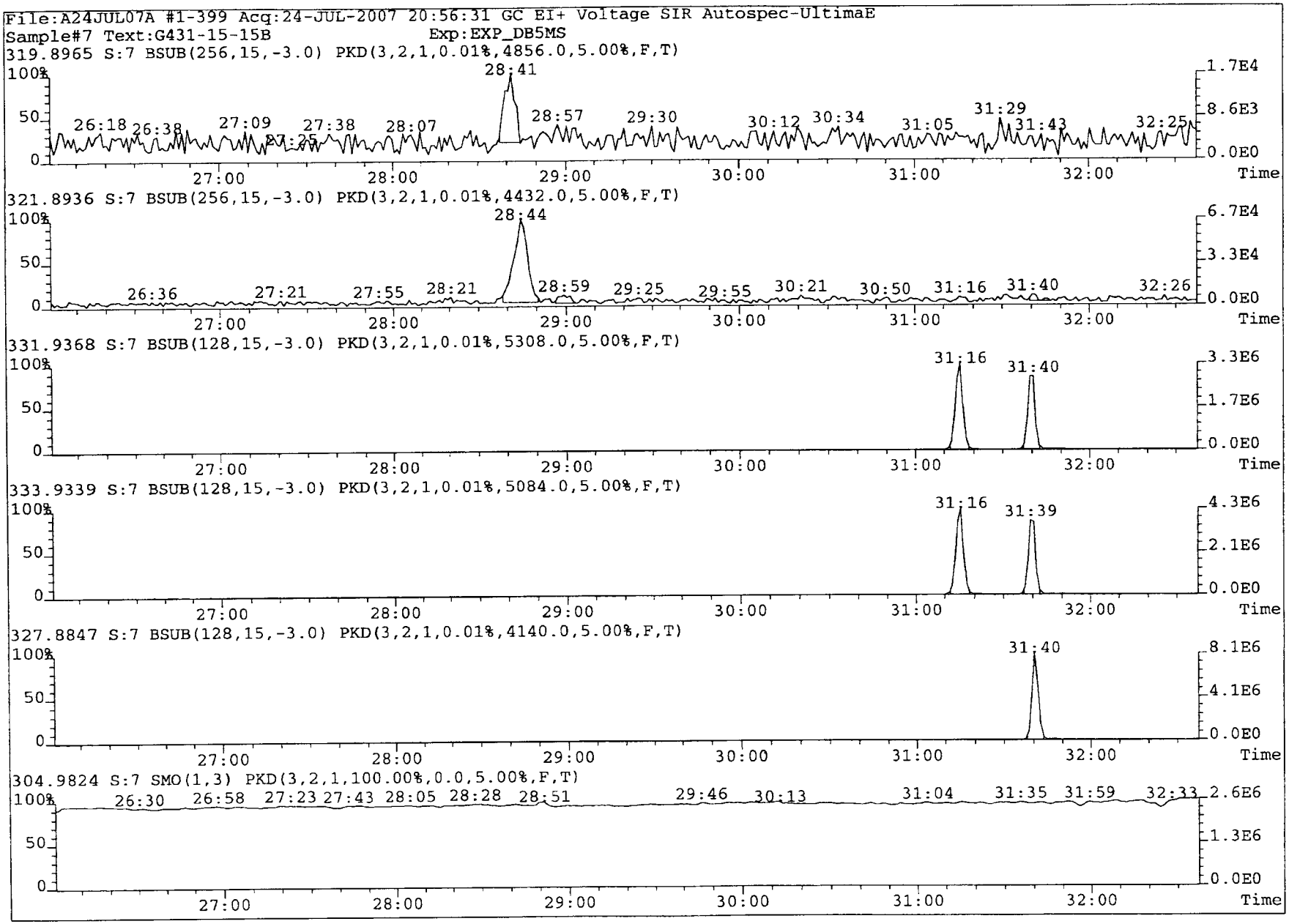
Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		1234678-HpCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	1.0069	S2N	0.00E+00	4490	0	0.00E+00	4780	0	n

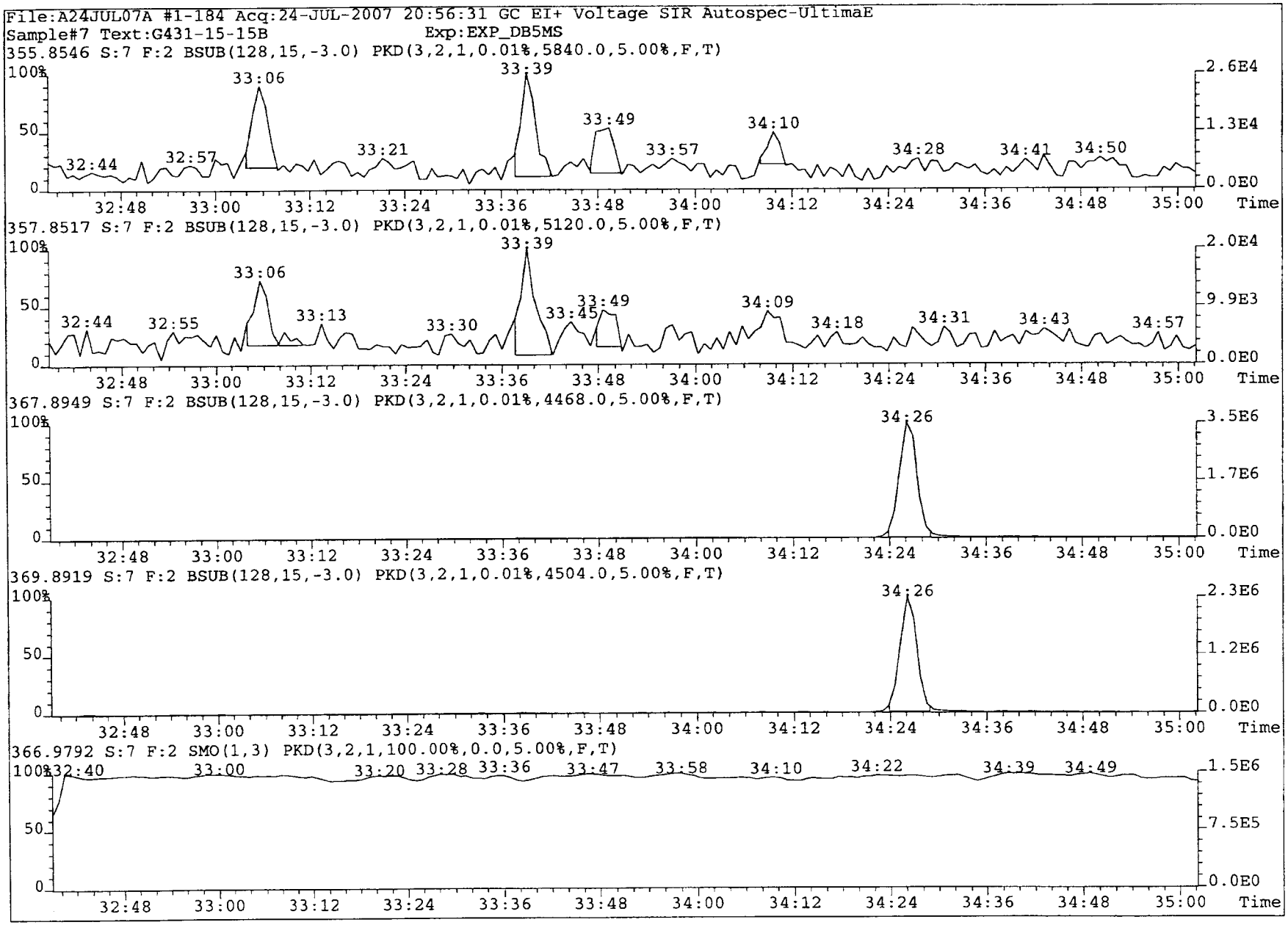
EDL	1.0069		
Total EMPC Hepta-Dioxins	0	Peaks	0
Total Hepta-Dioxins	0	Peaks	0

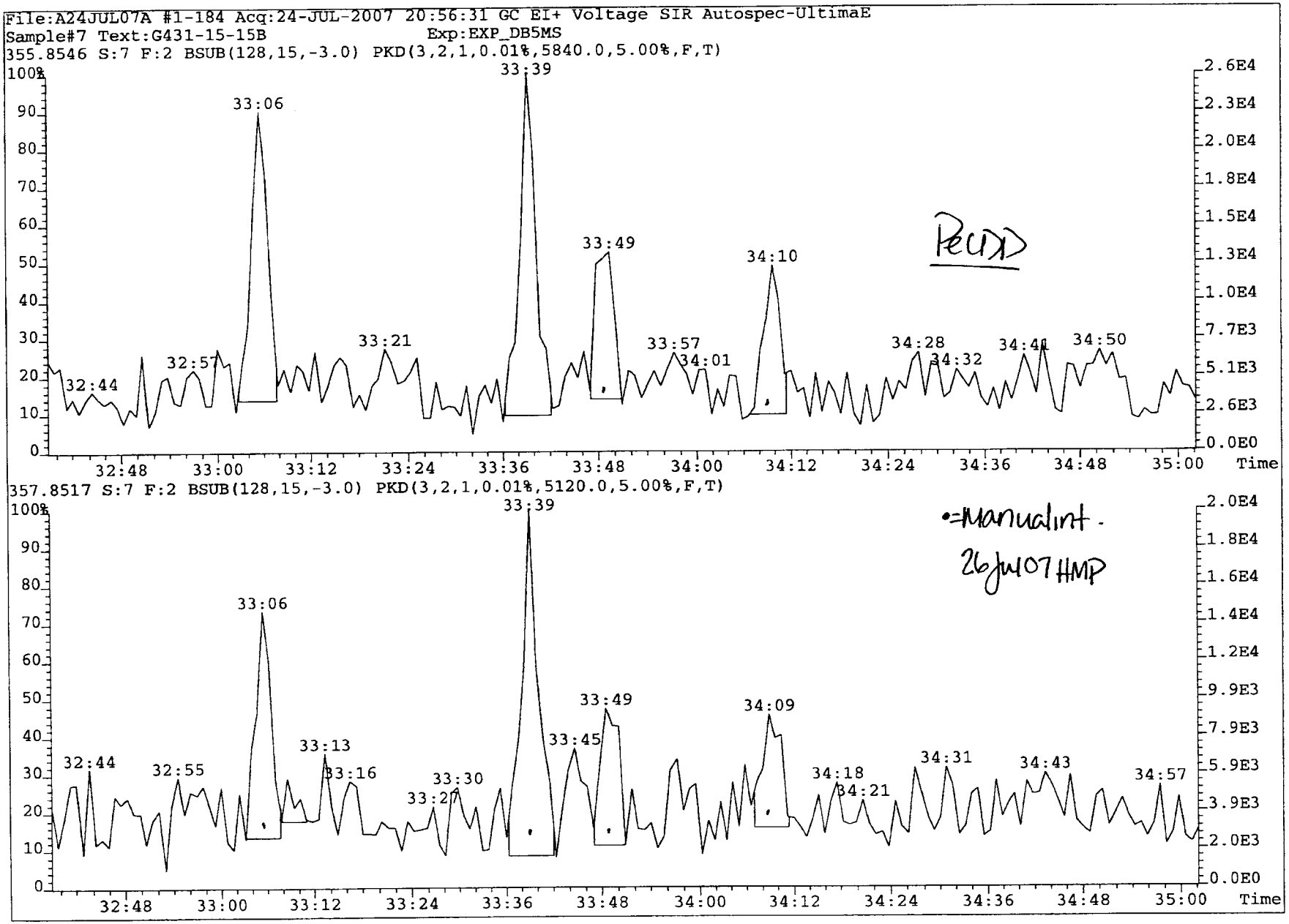
Total Hepta-Furans

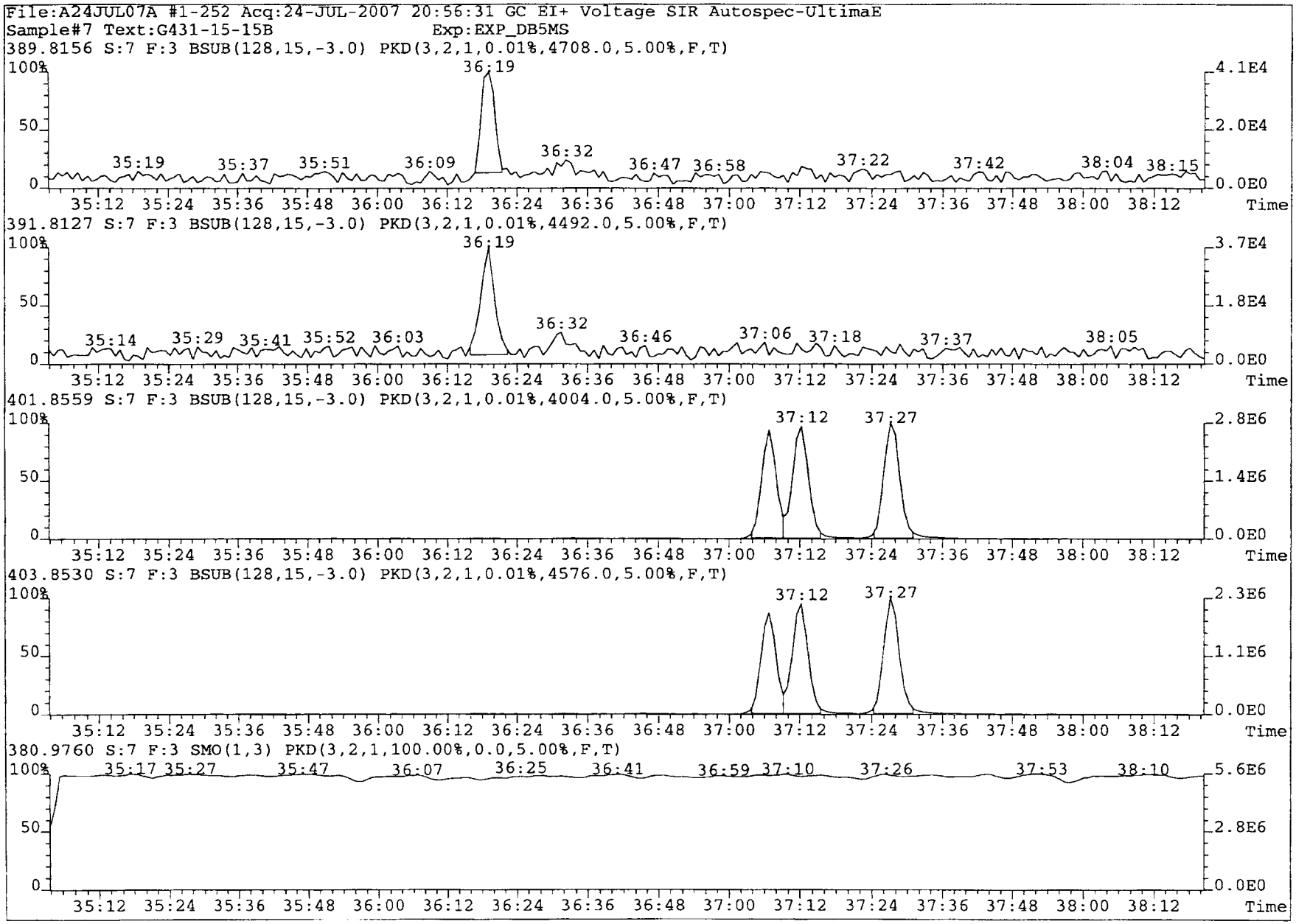
Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		1234789-HpCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.6656	S2N	0.00E+00	4680	0	0.00E+00	4490	0	n
		1234678-HpCDF	3.77E+05	1.90E+05	1.87E+05	1.01	Y	39:22	2.122	0.5246	OK	5.35E+04	4680	11	5.54E+04	4490	12	n

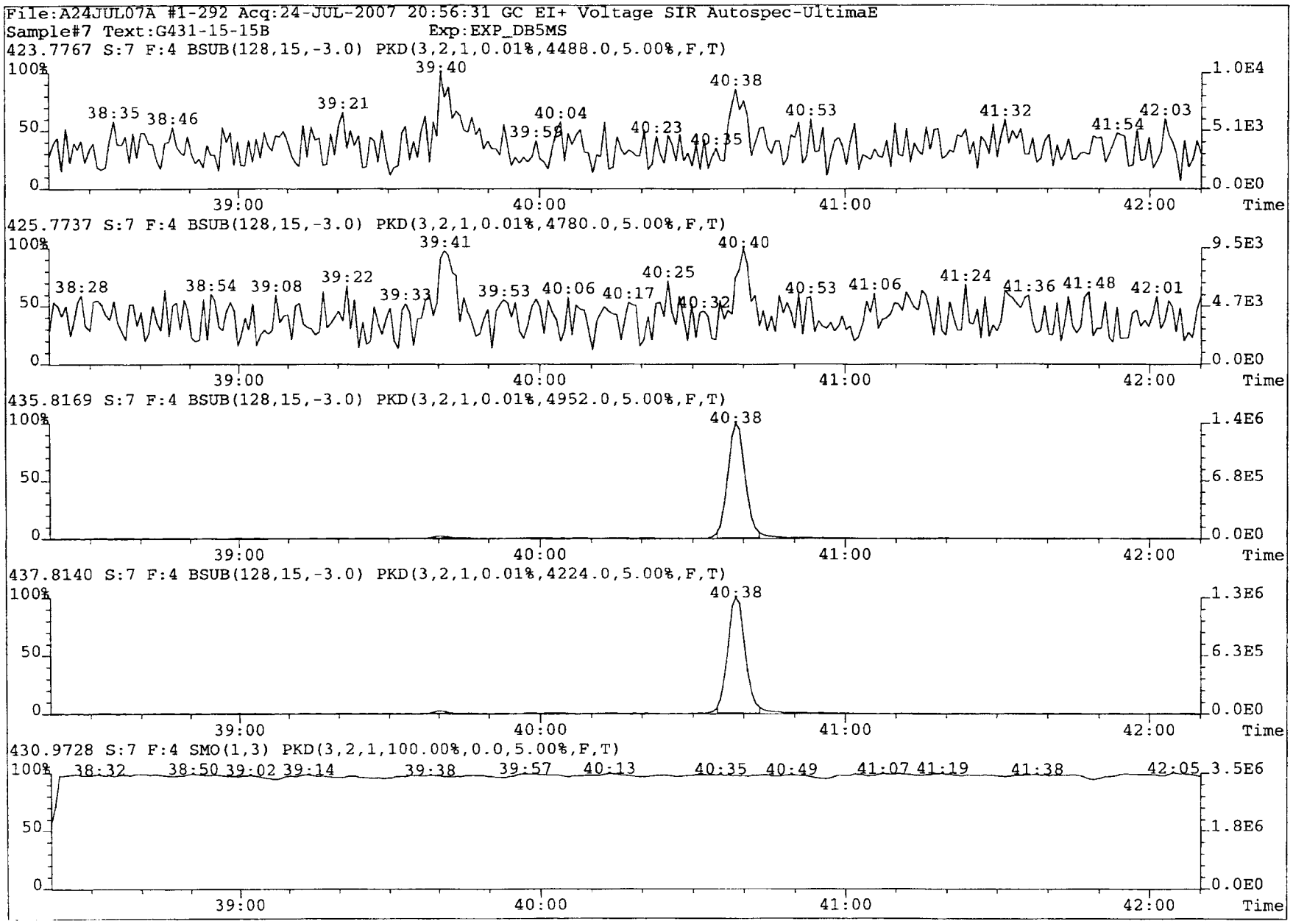
EDL	0.6656		
Total EMPC Hepta-Furans	2.122	Peaks	1
Total Hepta-Furans	2.122	Peaks	1

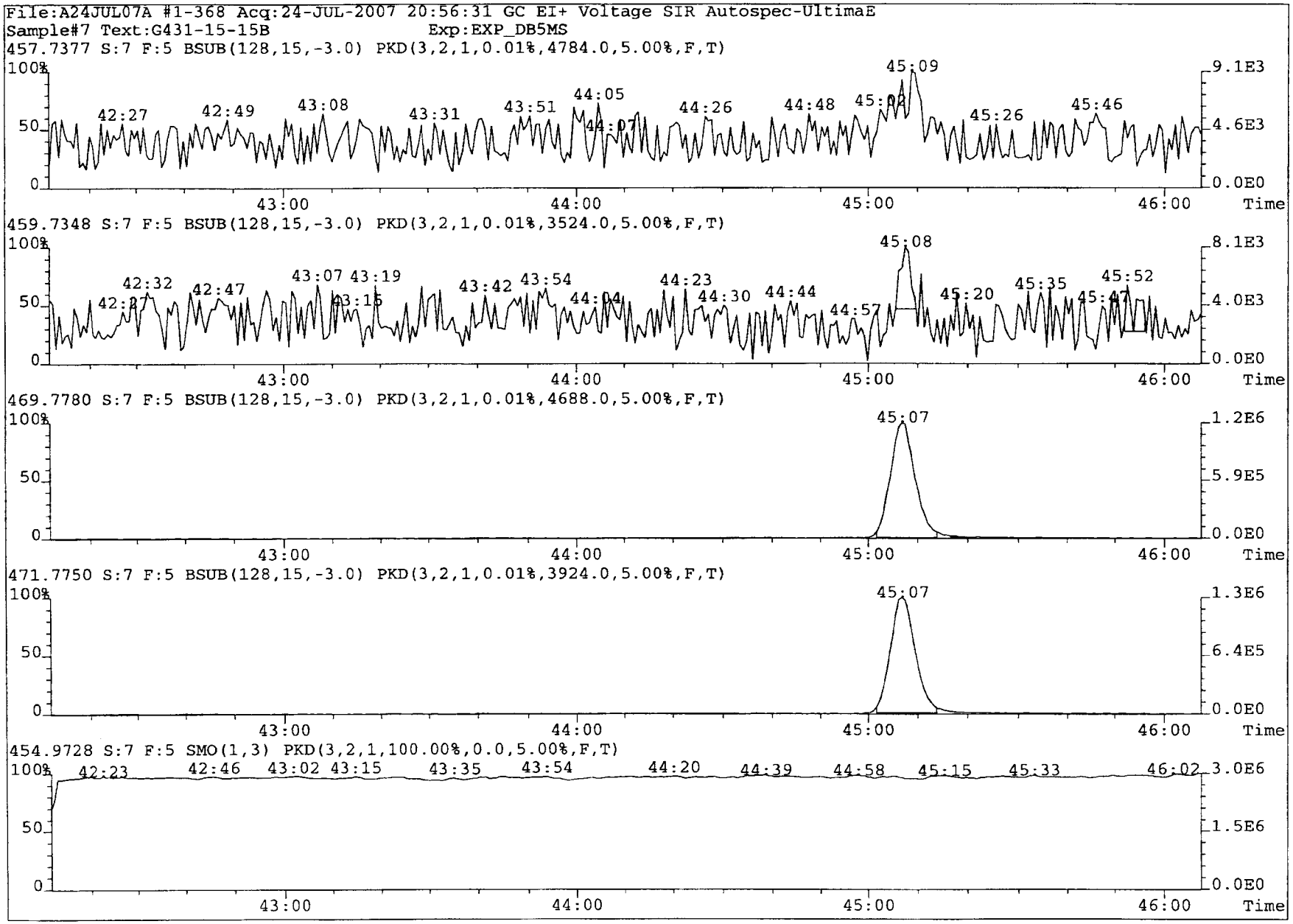

File:A24JUL07A #1-399 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
319.8965 S:7 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4856.0,5.00%,F,T)
28:41
321.8936 S:7 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4432.0,5.00%,F,T)
28:44
331.9368 S:7 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5308.0,5.00%,F,T)
31:16
31:40
333.9339 S:7 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5084.0,5.00%,F,T)
31:16
31:39
327.8847 S:7 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4140.0,5.00%,F,T)
31:40
304.9824 S:7 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

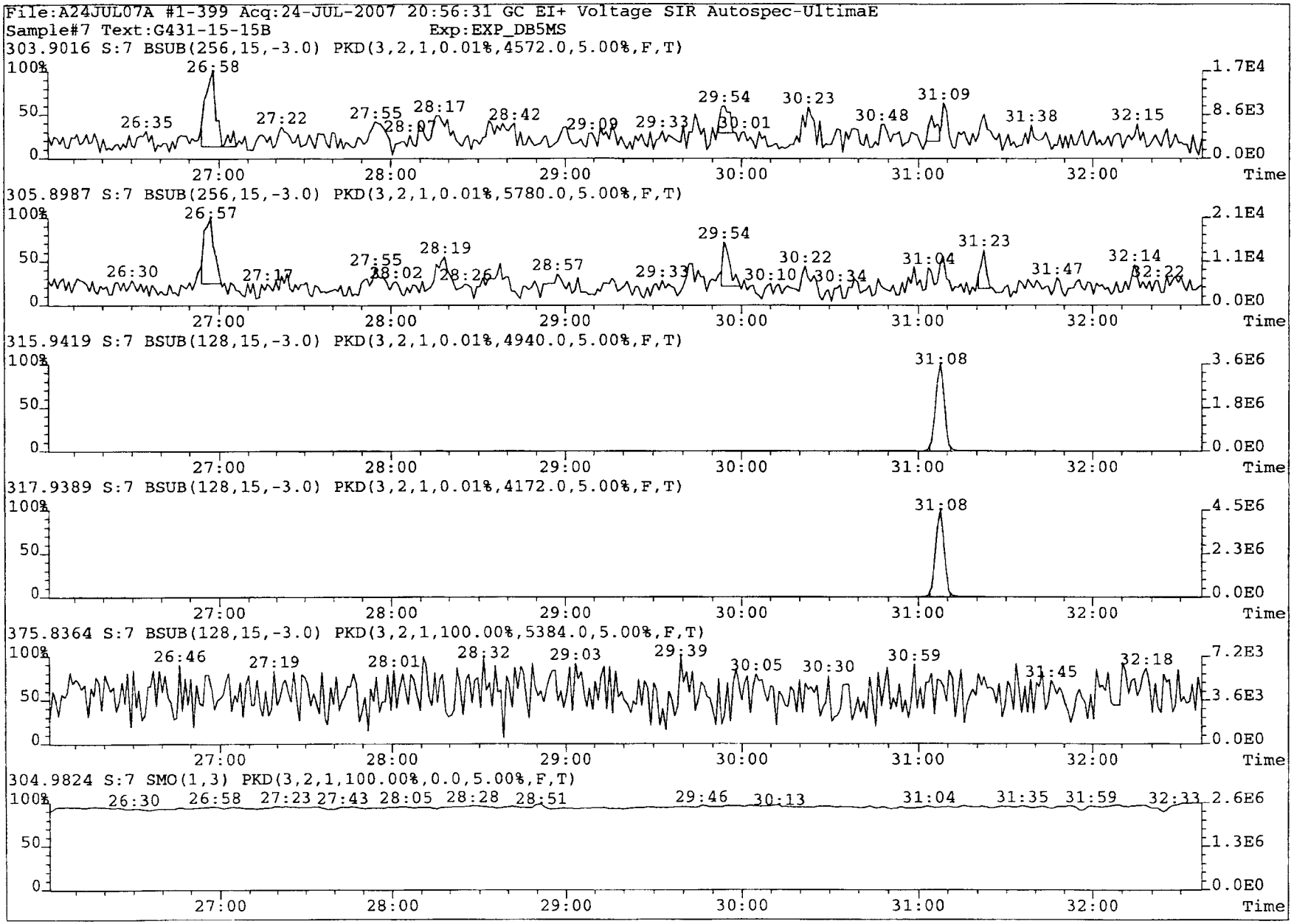

File:A24JUL07A #1-184 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
355.8546 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5840.0,5.00%,F,T)
357.8517 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5120.0,5.00%,F,T)
367.8949 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4468.0,5.00%,F,T)
369.8919 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4504.0,5.00%,F,T)
366.9792 S:7 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

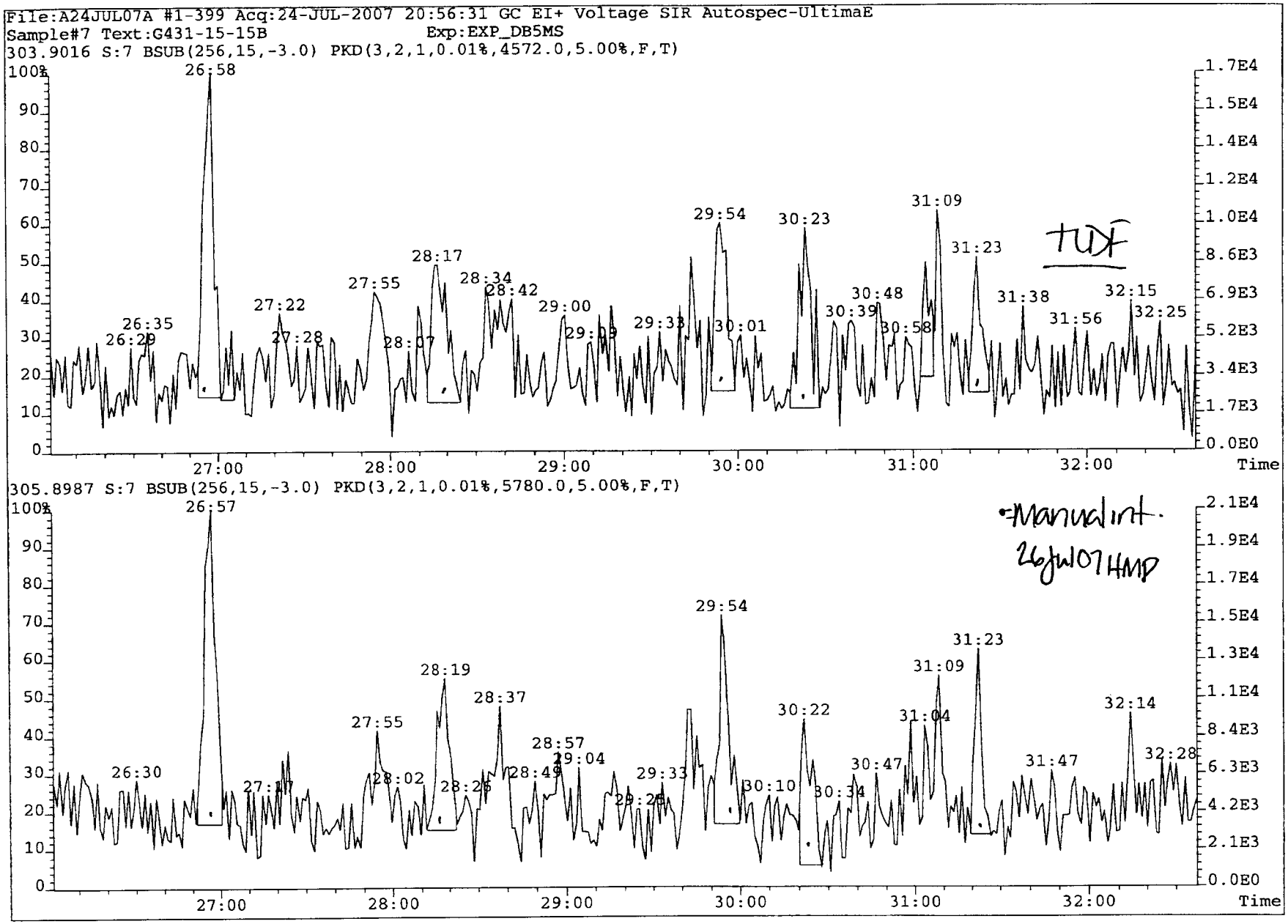

File:A24JUL07A #1-184 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
355.8546 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5840.0,5.00%,F,T)
33:39
33:06
33:49
34:10
33:21
33:57
34:01
32:57
32:44
34:28
34:32
34:41
34:50
PKD
Time
357.8517 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5120.0,5.00%,F,T)
33:39
33:06
33:49
34:09
33:13
33:45
32:44
32:55
33:16
33:30
33:27
34:18
34:21
34:31
34:43
34:57
*=Manual int.
26Jul07 HMP
Time

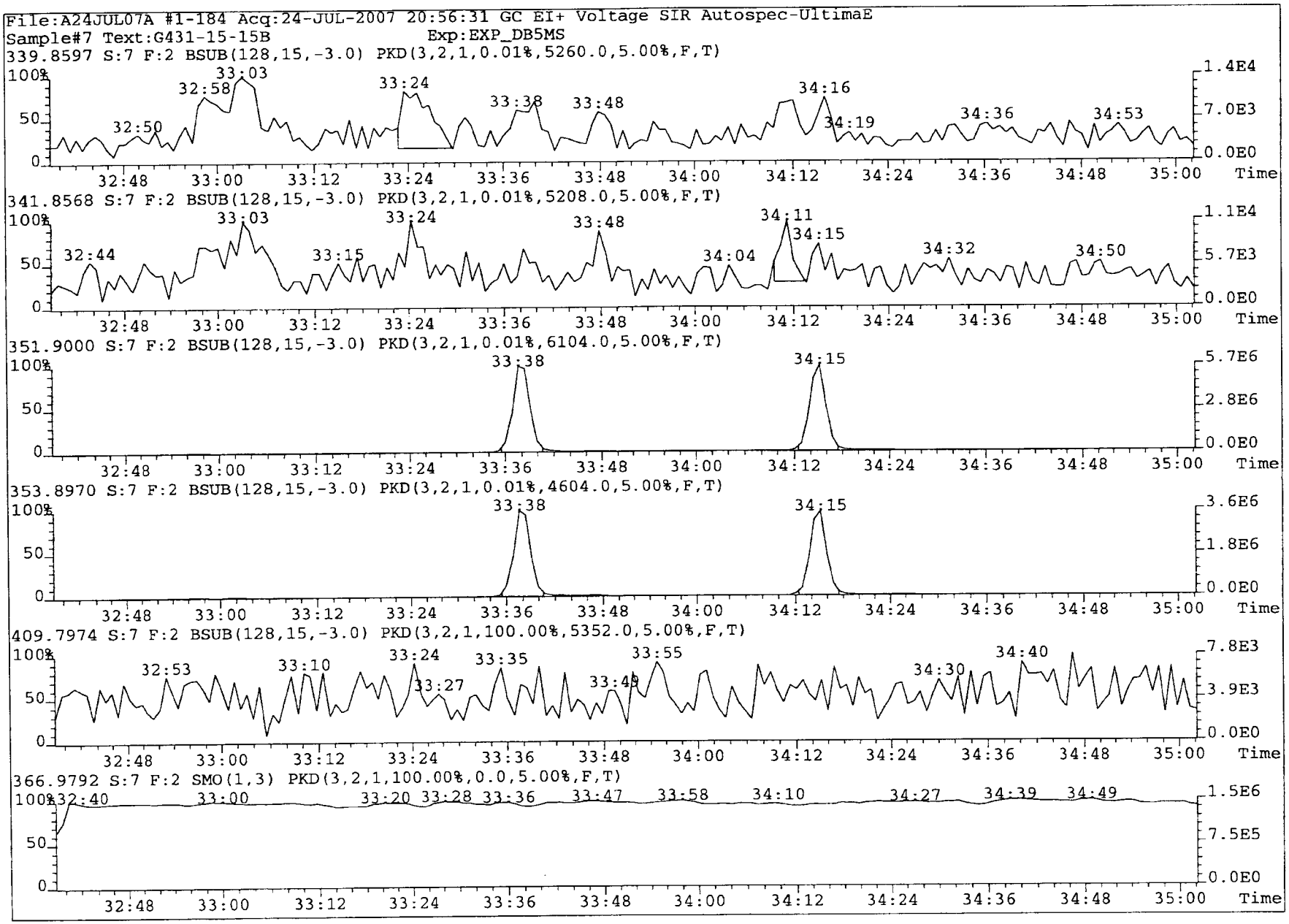

File:A24JUL07A #1-252 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
389.8156 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4708.0,5.00%,F,T)
391.8127 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4492.0,5.00%,F,T)
401.8559 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4004.0,5.00%,F,T)
403.8530 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4576.0,5.00%,F,T)
380.9760 S:7 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

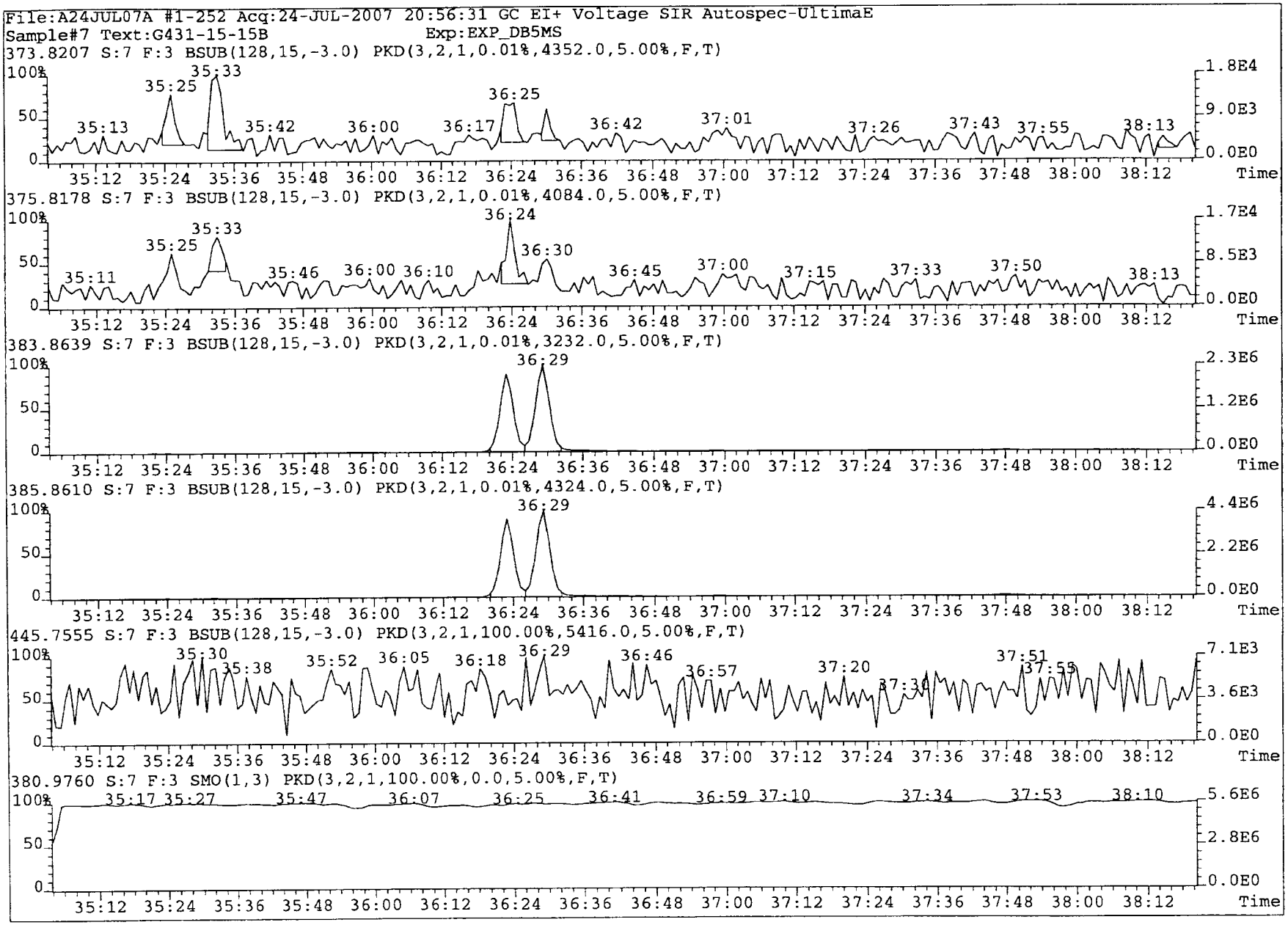

File:A24JUL07A #1-292 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
423.7767 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4488.0,5.00%,F,T)
425.7737 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4780.0,5.00%,F,T)
435.8169 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4952.0,5.00%,F,T)
437.8140 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4224.0,5.00%,F,T)
430.9728 S:7 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

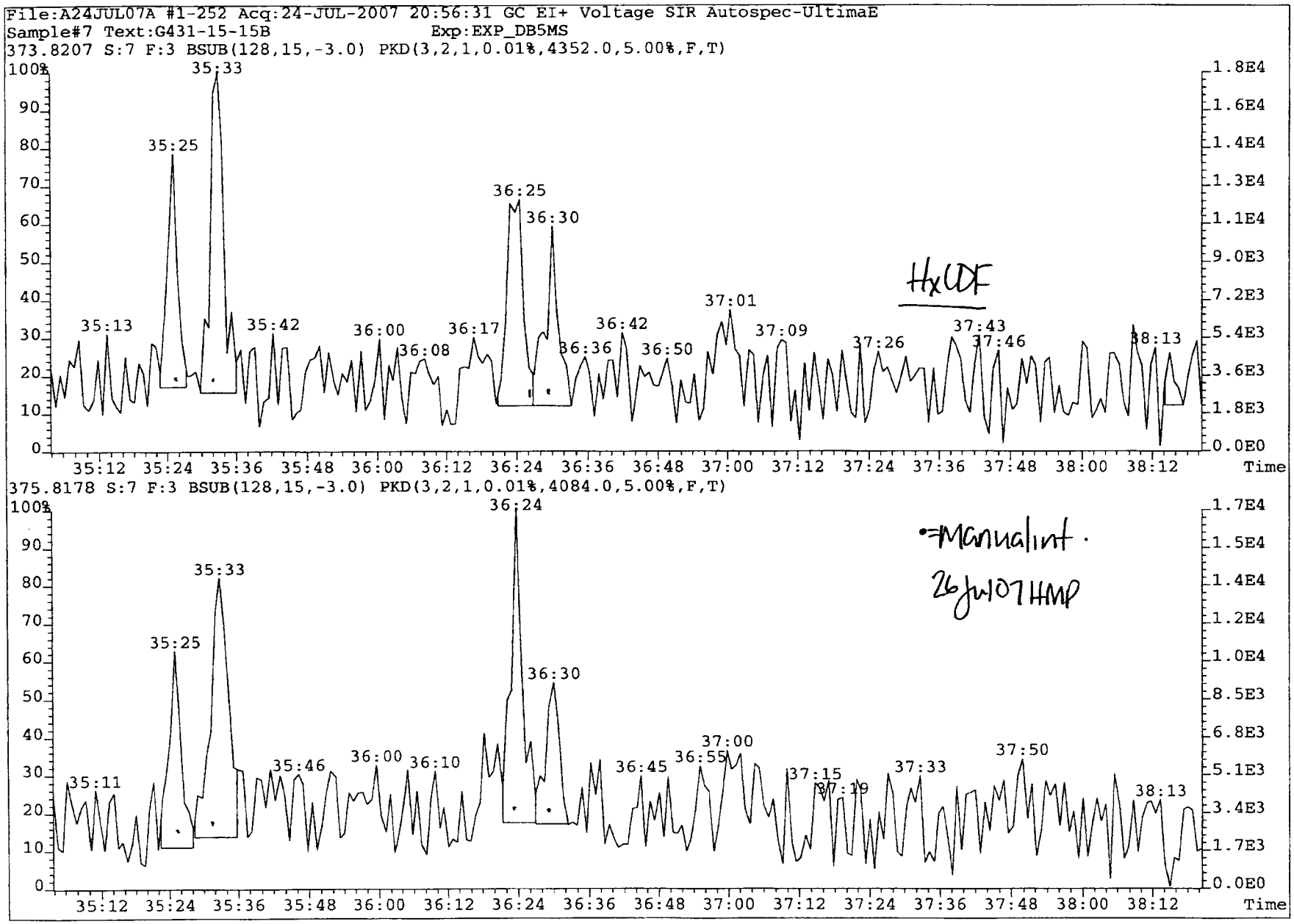

File:A24JUL07A #1-368 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
457.7377 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4784.0,5.00%,F,T)
459.7348 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3524.0,5.00%,F,T)
469.7780 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4688.0,5.00%,F,T)
471.7750 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3924.0,5.00%,F,T)
454.9728 S:7 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

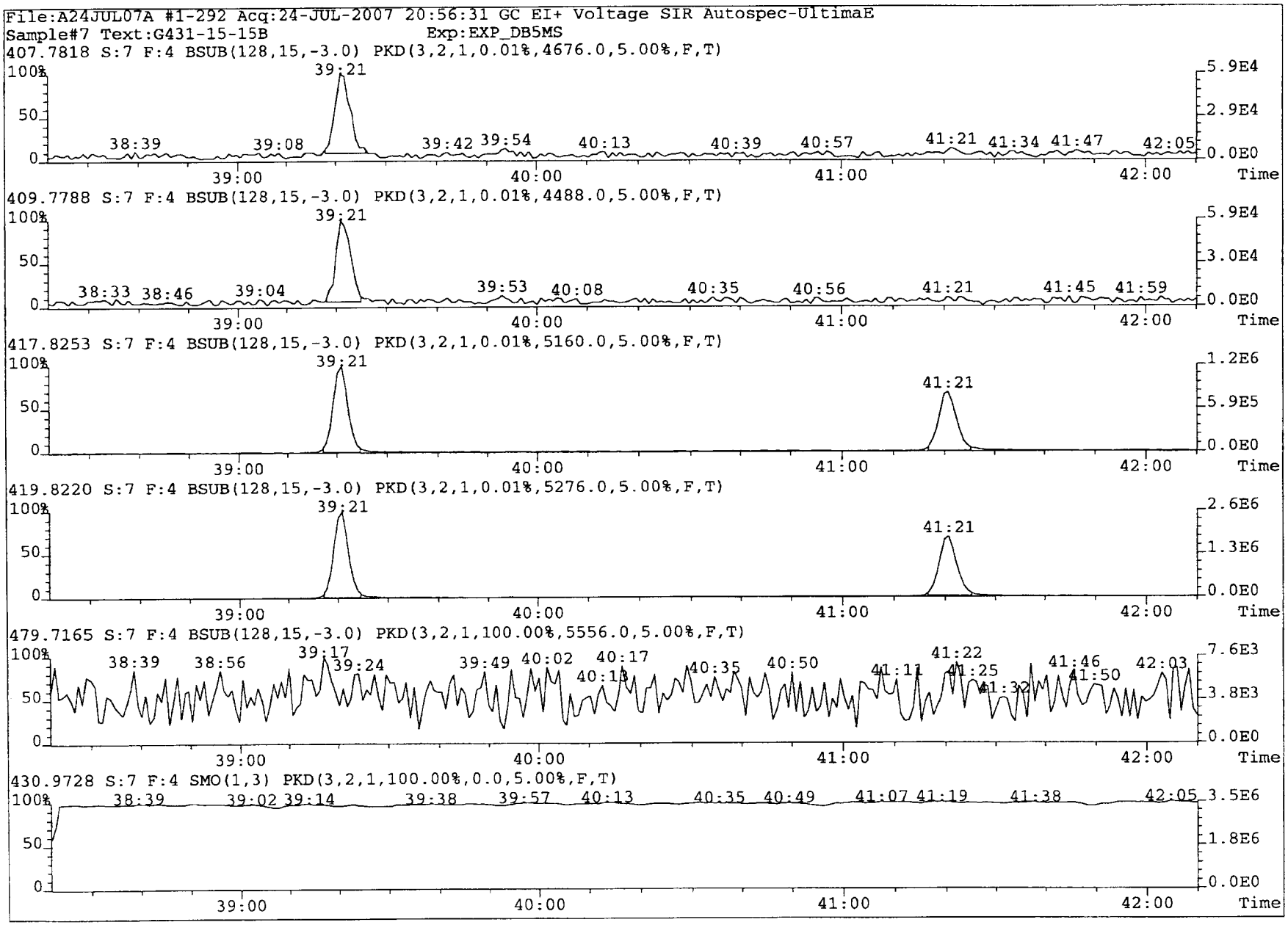

File:A24JUL07A #1-399 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
303.9016 S:7 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4572.0,5.00%,F,T)
305.8987 S:7 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5780.0,5.00%,F,T)
315.9419 S:7 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4940.0,5.00%,F,T)
317.9389 S:7 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4172.0,5.00%,F,T)
375.8364 S:7 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5384.0,5.00%,F,T)
304.9824 S:7 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

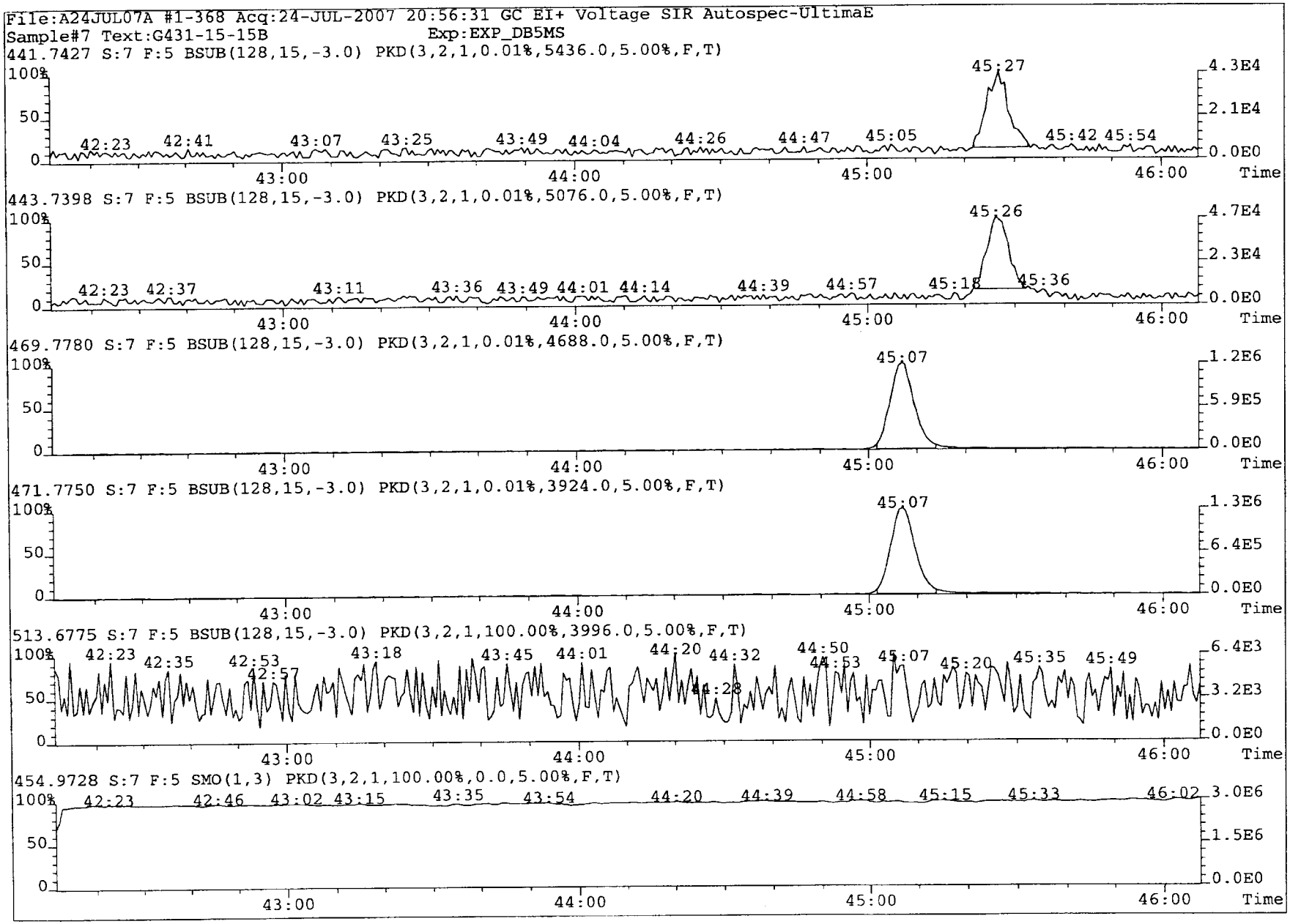

File:A24JUL07A #1-399 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
303.9016 S:7 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4572.0,5.00%,F,T)
26:58
26:35
26:29
27:22
27:28
27:55
28:17
28:07
28:34
28:42
29:00
29:54
29:33
30:01
30:23
31:09
31:23
30:48
30:39
30:58
31:38
31:56
32:15
32:25
TUF
27:00
28:00
29:00
30:00
31:00
32:00
Time
305.8987 S:7 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5780.0,5.00%,F,T)
26:57
26:30
27:55
28:19
28:37
28:57
29:04
28:49
29:54
29:33
30:22
30:10
30:34
31:09
31:04
31:23
30:47
31:47
32:14
32:28
Manual int.
26jul07 HMD
27:00
28:00
29:00
30:00
31:00
32:00
Time

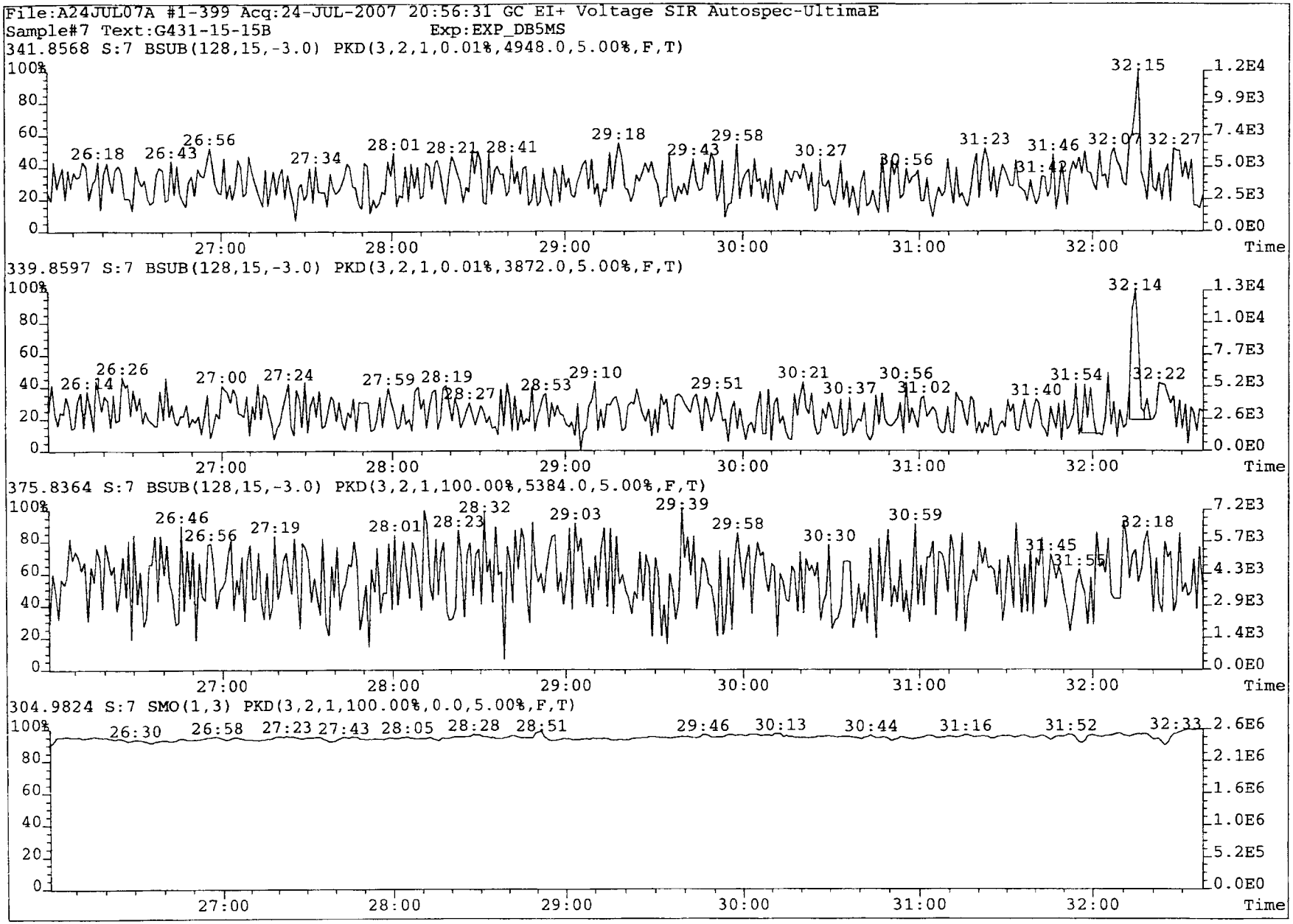

File:A24JUL07A #1-184 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
339.8597 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5260.0,5.00%,F,T)
341.8568 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5208.0,5.00%,F,T)
351.9000 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6104.0,5.00%,F,T)
353.8970 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4604.0,5.00%,F,T)
409.7974 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5352.0,5.00%,F,T)
366.9792 S:7 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-252 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
373.8207 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4352.0,5.00%,F,T)
375.8178 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4084.0,5.00%,F,T)
383.8639 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3232.0,5.00%,F,T)
385.8610 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4324.0,5.00%,F,T)
445.7555 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5416.0,5.00%,F,T)
380.9760 S:7 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-252 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
373.8207 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4352.0,5.00%,F,T)
35:33
35:25
36:25
36:30
35:13
35:42
36:00
36:17
36:08
36:36
36:42
36:50
37:01
37:09
37:26
37:43
37:46
38:13
HxCDF
375.8178 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4084.0,5.00%,F,T)
36:24
35:33
35:25
36:30
35:11
35:46
36:00
36:10
36:45
37:00
36:55
37:15
37:19
37:33
37:50
38:13
•=Manual int.
26Jul07 HMP
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time


File:A24JUL07A #1-292 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
407.7818 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4676.0,5.00%,F,T)
409.7788 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4488.0,5.00%,F,T)
417.8253 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5160.0,5.00%,F,T)
419.8220 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5276.0,5.00%,F,T)
479.7165 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5556.0,5.00%,F,T)
430.9728 S:7 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-368 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
441.7427 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5436.0,5.00%,F,T)
45:27
4.3E4
2.1E4
0.0E0
443.7398 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5076.0,5.00%,F,T)
45:26
4.7E4
2.3E4
0.0E0
469.7780 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4688.0,5.00%,F,T)
45:07
1.2E6
5.9E5
0.0E0
471.7750 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3924.0,5.00%,F,T)
45:07
1.3E6
6.4E5
0.0E0
513.6775 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,3996.0,5.00%,F,T)
6.4E3
3.2E3
0.0E0
454.9728 S:7 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
3.0E6
1.5E6
0.0E0
Time


File:A24JUL07A #1-399 Acq:24-JUL-2007 20:56:31 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:G431-15-15B Exp:EXP_DB5MS
341.8568 S:7 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4948.0,5.00%,F,T)
339.8597 S:7 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3872.0,5.00%,F,T)
375.8364 S:7 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5384.0,5.00%,F,T)
304.9824 S:7 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

Method M23
B
Air Hygiene

Analytical Data Summary Sheet

Analyte	Amount (ng)	EDL (ng)	EMPC (ng)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00550				
1,2,3,7,8-PeCDD	ND	0.00704				
1,2,3,4,7,8-HxCDD	ND	0.00718				
1,2,3,6,7,8-HxCDD	ND	0.00730				
1,2,3,7,8,9-HxCDD	ND	0.00741				
1,2,3,4,6,7,8-HpCDD	ND	0.0134				
OCDD	ND	0.0231				
2,3,7,8-TCDF	ND	0.00365				
1,2,3,7,8-PeCDF	ND	0.00500				
2,3,4,7,8-PeCDF	ND	0.00500				
1,2,3,4,7,8-HxCDF	ND	0.00693				
1,2,3,6,7,8-HxCDF	ND	0.00653				
2,3,4,6,7,8-HxCDF	ND	0.00688				
1,2,3,7,8,9-HxCDF	ND	0.00802				
1,2,3,4,6,7,8-HpCDF	0.0387			39:19	1.02	A
1,2,3,4,7,8,9-HpCDF	ND	0.0103				
OCDF	0.0688			45:25	0.97	A
Total TCDDs	ND	0.00550				
Total PeCDDs	ND	0.00704				
Total HxCDDs	ND	0.00741				
Total HpCDDs	ND	0.0134				
Total TCDFs	ND	0.00365				
Total PeCDFs	ND	0.00500				
Total HxCDFs	ND	0.00802				
Total HpCDFs	0.0387					
WHO-2005 TEQ (ND=0)	0.000408		0.000408			
WHO-2005 TEQ (ND=½)	0.0103		0.0103			

Client Information			**Sample Information**		
Project Name:	snc-07-benson.mn-comp#1				
			Matrix:	Air	
Sample ID:	B		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14370	
Project ID:	G431-15		Instrument:	HRMS1	
Sample ID:	G431-15-20B		Filename:	a24jul07a-8	
Collection Date/Time:	07/04/07		Retchk:	a24jul07a-1	
Receipt Date/Time:	07/11/07	10:00	Begin ConCal:	a24jul07a-1	
Extraction Date:	07/22/07		End ConCal:	a24jul07a-11	
Analysis Date/Time:	07/24/07	21:44	Initial Cal:	m8290-071007a	

Method M23
B
Air Hygiene

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	4.0	3.11	77.8	31:39	0.79	
13C12-1,2,3,7,8-PeCDD	4.0	2.32	58.1	34:25	1.58	
13C12-1,2,3,6,7,8-HxCDD	4.0	3.49	87.4	37:12	1.27	
13C12-1,2,3,4,6,7,8-HpCDD	4.0	3.45	86.2	40:37	1.04	
13C12-OCDD	8.0	6.12	76.5	45:06	0.89	
13C12-2,3,7,8-TCDF	4.0	3.58	89.5	31:07	0.80	
13C12-1,2,3,7,8-PeCDF	4.0	2.29	57.2	33:37	1.57	
13C12-1,2,3,6,7,8-HxCDF	4.0	2.98	74.6	36:28	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	4.0	2.91	72.7	39:19	0.45	
Sampling Standards						
37Cl4-2,3,7,8-TCDD	4.0	4.70	117	31:40	-	
13C12-2,3,4,7,8-PeCDF	4.0	4.05	101	34:15	1.57	
13C12-1,2,3,4,7,8-HxCDD	4.0	4.21	105	37:06	1.28	
13C12-1,2,3,4,7,8-HxCDF	4.0	4.60	115	36:22	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	4.83	121	41:19	0.45	
Injection Standards						
13C12-1,2,3,4-TCDD	2.0	-	-	31:15	0.78	
13C12-1,2,3,7,8,9-HxCDD	2.0	-	-	37:27	1.24	

Client Information			**Sample Information**		
Project Name:	snc-07-benson.mn-comp#1				
			Matrix:	Air	
Sample ID:	B		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14370	
Project ID:	G431-15		Instrument:	HRMS1	
Sample ID:	G431-15-20B		Filename:	a24jul07a-8	
Collection Date/Time:	07/04/07		Retchk:	a24jul07a-1	
Receipt Date/Time:	07/11/07	10:00	Begin ConCal:	a24jul07a-1	
Extraction Date:	07/22/07		End ConCal:	a24jul07a-11	
Analysis Date/Time:	07/24/07	21:44	Initial Cal:	m8290-071007a	

Form Version:[8290_DB_2.14]Report

Analyzed by: HMP
Date: 26jul07

Reviewed by: [signature]
Date: 7/24/07

Filename ; a24jul07a
Sample ; 8
Acquired ; 24-JUL-07 21:44:52
Processed ; 25-JUL-07 08:11:48
Sample ID ; G431-15-20B
Cal Table ; m8290-071007a
Results Table ; m8290-072407a
Comments ;

;*8290*
;Inst: HRMS1

$\frac{(.259)(40)}{(23)(1.3088)} = 0.0488$

Ent;	Name;	Resp;	Ion 1;	Ion 2;	RA;?;	RT;	Conc;	EDL;	S/N1;?;	S/N2;?;M;	Signal1;	Noise 1;	Signal2;	Noise 2
1 ;	2,3,7,8-TCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.2748;	*;n;	*;n;n;	*;	4.87e+03;	*;	5.26e+03
2 ;	1,2,3,7,8-PeCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3519;	*;n;	*;n;n;	*;	4.82e+03;	*;	4.84e+03
3 ;	1,2,3,4,7,8-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3588;	*;n;	*;n;n;	*;	4.67e+03;	*;	3.50e+03
4 ;	1,2,3,6,7,8-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3651;	*;n;	*;n;n;	*;	4.67e+03;	*;	3.50e+03
5 ;	1,2,3,7,8,9-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3706;	*;n;	*;n;n;	*;	4.67e+03;	*;	3.50e+03
6 ;	1,2,3,4,6,7,8-HpCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.6689;	*;n;	*;n;n;	*;	4.05e+03;	*;	5.22e+03
7 ;	OCDD;	*;	*;	*;	*;n;	NotFnd;	*;	1.1531;	*;n;	*;n;n;	*;	4.64e+03;	*;	3.97e+03
8 ;	2,3,7,8-TCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.1825;	*;n;	*;n;n;	*;	4.04e+03;	*;	5.24e+03
9 ;	1,2,3,7,8-PeCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2300;	*;n;	*;n;n;	*;	5.30e+03;	*;	4.22e+03
10 ;	2,3,4,7,8-PeCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2217;	*;n;	*;n;n;	*;	5.30e+03;	*;	4.22e+03
11 ;	1,2,3,4,7,8-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.3464;	*;n;	*;n;n;	*;	4.77e+03;	*;	5.42e+03
12 ;	1,2,3,6,7,8-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.3264;	*;n;	*;n;n;	*;	4.77e+03;	*;	5.42e+03
13 ;	2,3,4,6,7,8-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.3442;	*;n;	*;n;n;	*;	4.77e+03;	*;	5.42e+03
14 ;	1,2,3,7,8,9-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.4008;	*;n;	*;n;n;	*;	4.77e+03;	*;	5.42e+03
15 ;	1,2,3,4,6,7,8-HpCDF;	2.26e+05;	1.14e+05;	1.12e+05;	1.02;y;	39:20;	0.968;	0.4051;	8;y;	7;y;y;	3.22e+04;	4.02e+03;	3.32e+04;	4.88e+03
16 ;	1,2,3,4,7,8,9-HpCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.5139;	*;n;	*;n;n;	*;	4.02e+03;	*;	4.88e+03
17 ;	OCDF;	2.59e+05;	1.27e+05;	1.31e+05;	0.97;y;	45:25;	1.720;	0.9033;	6;y;	6;y;y;	2.43e+04;	4.23e+03;	2.27e+04;	3.96e+03
Extraction Standards														
18 ;	13C-2,3,7,8-TCDD;	2.89e+07;	1.27e+07;	1.62e+07;	0.79;y;	31:39;	77.844;	0.2216;	1369;y;	1235;y;n;	4.96e+06;	3.62e+03;	6.45e+06;	5.22e+03
19 ;	13C-1,2,3,7,8-PeCDD;	1.78e+07;	1.09e+07;	6.91e+06;	1.58;y;	34:26;	58.094;	0.2065;	1396;y;	914;y;n;	4.82e+06;	3.45e+03;	3.07e+06;	3.36e+03
20 ;	13C-1,2,3,6,7,8-HxCDD;	2.03e+07;	1.13e+07;	8.94e+06;	1.27;y;	37:12;	87.372;	0.3553;	807;y;	695;y;n;	3.86e+06;	4.79e+03;	3.08e+06;	4.44e+03
21 ;	13C-1,2,3,4,6,7,8-HpCDD;	1.55e+07;	7.93e+06;	7.61e+06;	1.04;y;	40:38;	86.176;	0.4362;	437;y;	456;y;n;	1.99e+06;	4.56e+03;	1.94e+06;	4.25e+03
22 ;	13C-OCDD;	2.30e+07;	1.08e+07;	1.21e+07;	0.89;y;	45:06;	152.996;	0.5445;	443;y;	464;y;n;	1.99e+06;	4.49e+03;	2.17e+06;	4.67e+03
23 ;	13C-2,3,7,8-TCDF;	4.34e+07;	1.93e+07;	2.41e+07;	0.80;y;	31:07;	89.528;	0.1825;	1465;y;	1410;y;n;	6.07e+06;	4.14e+03;	7.55e+06;	5.35e+03
24 ;	13C-1,2,3,7,8-PeCDF;	2.89e+07;	1.76e+07;	1.12e+07;	1.57;y;	33:38;	57.241;	0.2031;	1303;y;	936;y;n;	7.51e+06;	5.76e+03;	4.90e+06;	5.23e+03
25 ;	13C-1,2,3,6,7,8-HxCDF;	2.31e+07;	7.98e+06;	1.51e+07;	0.53;y;	36:29;	74.554;	0.2435;	419;y;	3011;y;n;	2.81e+06;	6.71e+03;	5.25e+06;	1.74e+03
26 ;	13C-1,2,3,4,6,7,8-HpCDF;	1.68e+07;	5.18e+06;	1.16e+07;	0.45;y;	39:20;	72.722;	0.3624;	330;y;	667;y;n;	1.48e+06;	4.48e+03;	3.25e+06;	4.87e+03
Injection Standards														
27 ;	13C-1,2,3,4-TCDD;	3.51e+07;	1.54e+07;	1.98e+07;	0.78;y;	31:15;	43.165;	-;	1360;y;	1226;y;n;	4.92e+06;	3.62e+03;	6.41e+06;	5.22e+03
28 ;	13C-1,2,3,7,8,9-HxCDD;	2.23e+07;	1.23e+07;	9.91e+06;	1.24;y;	37:27;	31.313;	-;	878;y;	740;y;n;	4.20e+06;	4.79e+03;	3.28e+06;	4.44e+03
Cleanup Standards														
29 ;	37Cl-2,3,7,8-TCDD;	3.47e+07;	3.47e+07;	-;	-;-;	31:40;	91.440;	0.1187;	2830;y;	-;-;n;	1.37e+07;	4.84e+03;	-;	-
30 ;	13C-2,3,4,7,8-PeCDF;	2.87e+07;	1.75e+07;	1.11e+07;	1.57;y;	34:15;	57.914;	0.2069;	1246;y;	896;y;n;	7.18e+06;	5.76e+03;	4.69e+06;	5.23e+03
31 ;	13C-1,2,3,4,7,8-HxCDD;	2.03e+07;	1.14e+07;	8.89e+06;	1.28;y;	37:06;	91.922;	0.3739;	812;y;	703;y;n;	3.89e+06;	4.79e+03;	3.12e+06;	4.44e+03
32 ;	13C-1,2,3,4,7,8-HxCDF;	2.39e+07;	8.19e+06;	1.57e+07;	0.52;y;	36:23;	85.750;	0.2707;	430;y;	3222;y;n;	2.88e+06;	6.71e+03;	5.62e+06;	1.74e+03
33 ;	13C-1,2,3,4,7,8,9-HpCDF;	1.80e+07;	5.60e+06;	1.24e+07;	0.45;y;	41:20;	87.795;	0.4063;	314;y;	623;y;n;	1.40e+06;	4.48e+03;	3.04e+06;	4.87e+03
Sampling Standards														
34 ;	37Cl-2,3,7,8-TCDD;	3.47e+07;	3.47e+07;	-;	-;-;	31:40;	117.475;	0.1248;	2830;y;	-;-;n;	1.37e+07;	4.84e+03;	-;	-
35 ;	13C-2,3,4,7,8-PeCDF;	2.87e+07;	1.75e+07;	1.11e+07;	1.57;y;	34:15;	101.125;	0.2700;	1246;y;	896;y;n;	7.18e+06;	5.76e+03;	4.69e+06;	5.23e+03
36 ;	13C-1,2,3,4,7,8-HxCDD;	2.03e+07;	1.14e+07;	8.89e+06;	1.28;y;	37:06;	105.205;	0.4191;	812;y;	703;y;n;	3.89e+06;	4.79e+03;	3.12e+06;	4.44e+03
37 ;	13C-1,2,3,4,7,8-HxCDF;	2.39e+07;	8.19e+06;	1.57e+07;	0.52;y;	36:23;	114.961;	0.3489;	430;y;	3222;y;n;	2.88e+06;	6.71e+03;	5.62e+06;	1.74e+03
38 ;	13C-1,2,3,4,7,8,9-HpCDF;	1.80e+07;	5.60e+06;	1.24e+07;	0.45;y;	41:20;	120.732;	0.6633;	314;y;	623;y;n;	1.40e+06;	4.48e+03;	3.04e+06;	4.87e+03

Totals Report

SGS Environmental Services, INC.	Thu Jul 26 15:28:52 EDT 2007	
Filename: a24jul07a-8	Acquired: 2007-07-24 21:44:52	Processed: 2007-07-25 08:11:48
Results:	Cal: m8290-071007a	
Sample Text: G431-15-20B		

Total Tetra-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		2378-TCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.2748	S2N	0.00E+00	4870	0	0.00E+00	5260	0	n
									EDL	0.2748								
									Total Tetra-Dioxins	0	Peaks	0						
									Total EMPC Tetra-Dioxins	0	Peaks	0						

Total Tetra-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		2378-TCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.1825	S2N	0.00E+00	4040	0	0.00E+00	5240	0	n
									EDL	0.1825								
									Total Tetra-Furans	0	Peaks	0						
									Total EMPC Tetra-Furans	0	Peaks	0						

Total Penta-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		12378-PeCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3519	S2N	0.00E+00	4820	0	0.00E+00	4840	0	n
									EDL	0.3519								
									Total EMPC Penta-Dioxins	0	Peaks	0						
									Total Penta-Dioxins	0	Peaks	0						

Total Penta-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		23478-PeCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.2217	S2N	0.00E+00	5300	0	0.00E+00	4220	0	n
		12378-PeCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.23	S2N	0.00E+00	5300	0	0.00E+00	4220	0	n
									EDL	0.23								
									Total Penta-Furans	0	Peaks	0						
									Total EMPC Penta-Furans	0	Peaks	0						

Total Hexa-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		123789-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3706	S2N	0.00E+00	4670	0	0.00E+00	3500	0	n
		123678-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3651	S2N	0.00E+00	4670	0	0.00E+00	3500	0	n
		123478-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3588	S2N	0.00E+00	4670	0	0.00E+00	3500	0	n
									EDL	0.3706								
									Total Hexa-Dioxins	0	Peaks	0						
									Total EMPC Hexa-Dioxins	0	Peaks	0						

Totals Report

Total Hexa-Furans

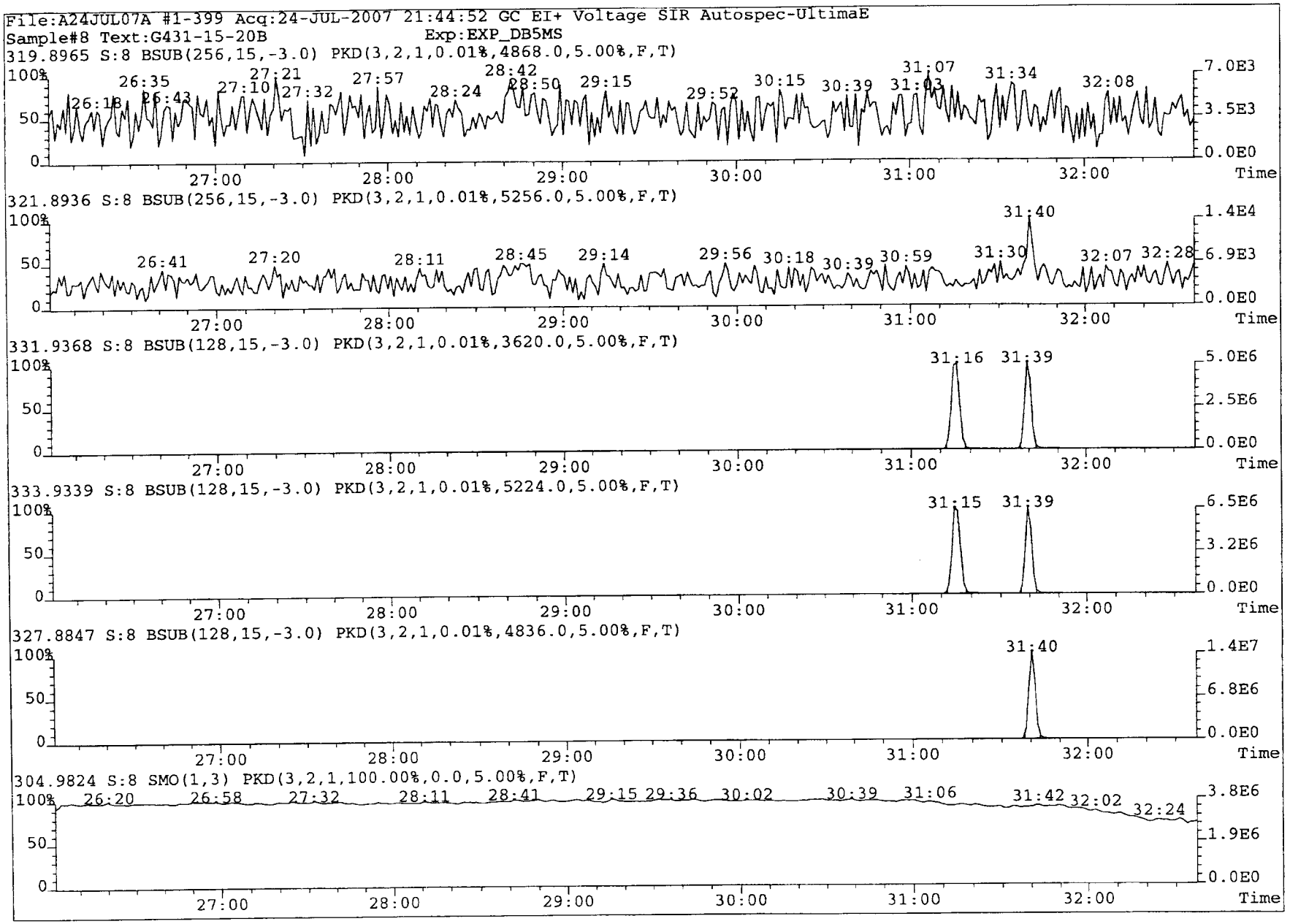
Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		234678-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3442	S2N	0.00E+00	4770	0	0.00E+00	5420	0	n
		123478-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3464	S2N	0.00E+00	4770	0	0.00E+00	5420	0	n
		123789-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.4008	S2N	0.00E+00	4770	0	0.00E+00	5420	0	n
		123678-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3264	S2N	0.00E+00	4770	0	0.00E+00	5420	0	n
									EDL	0.4008								
									Total Hexa-Furans	0	Peaks	0						
									Total EMPC Hexa-Furans	0	Peaks	0						

Total Hepta-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		1234678-HpCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.6689	S2N	0.00E+00	4050	0	0.00E+00	5220	0	n
									EDL	0.6689								
									Total Hepta-Dioxins	0	Peaks	0						
									Total EMPC Hepta-Dioxins	0	Peaks	0						

Total Hepta-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		1234789-HpCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.5139	S2N	0.00E+00	4020	0	0.00E+00	4880	0	n
		1234678-HpCDF	2.26E+05	1.14E+05	1.12E+05	1.02	Y	39:19	0.968	0.4051	OK	3.22E+04	4020	8	3.32E+04	4880	7	y
									EDL	0.5139								
									Total EMPC Hepta-Furans	0.968	Peaks	1						
									Total Hepta-Furans	0.968	Peaks	1						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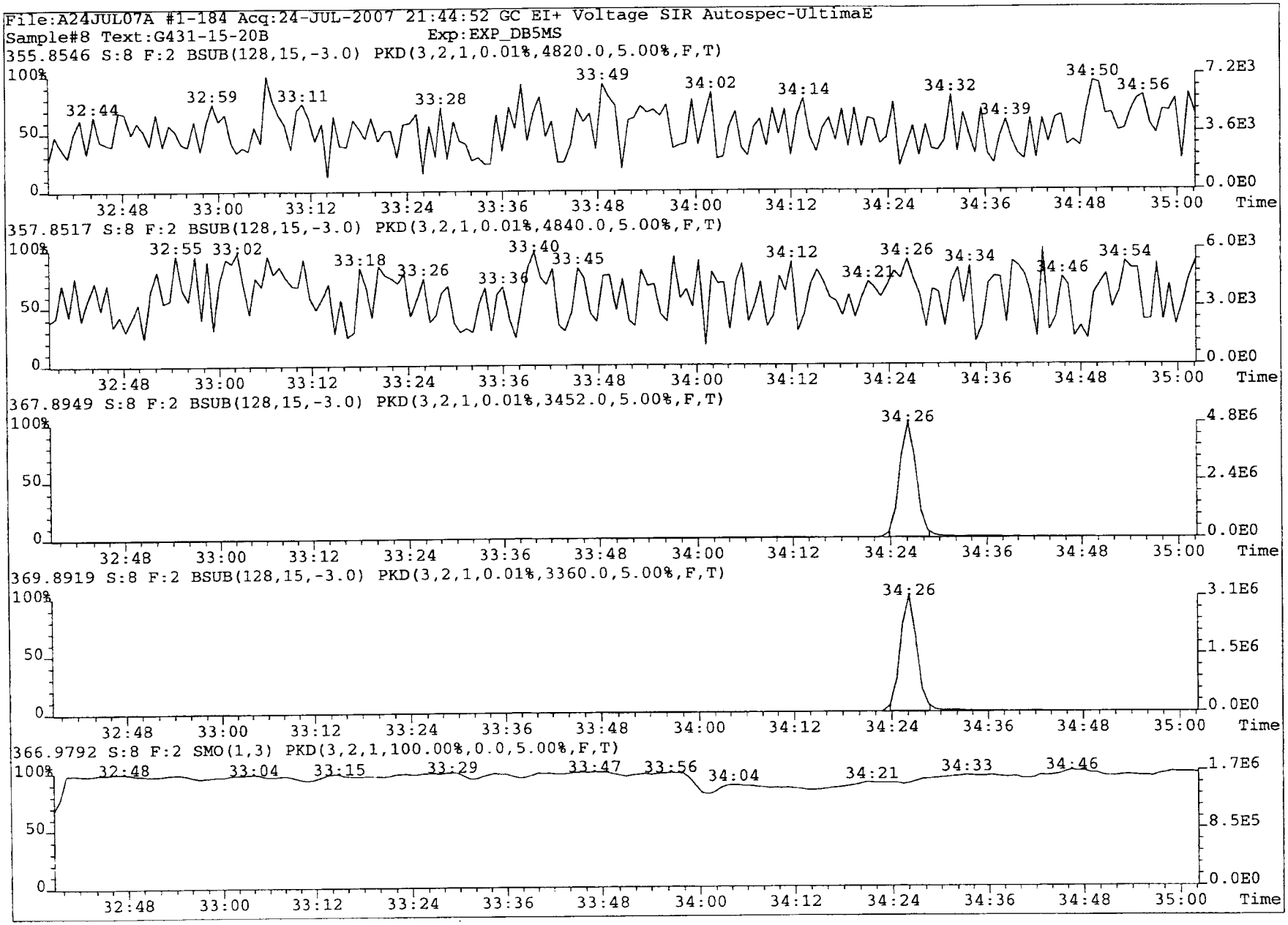
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
319.8965 S:8 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4868.0,5.00%,F,T)
321.8936 S:8 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5256.0,5.00%,F,T)
331.9368 S:8 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3620.0,5.00%,F,T)
333.9339 S:8 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5224.0,5.00%,F,T)
327.8847 S:8 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4836.0,5.00%,F,T)
304.9824 S:8 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time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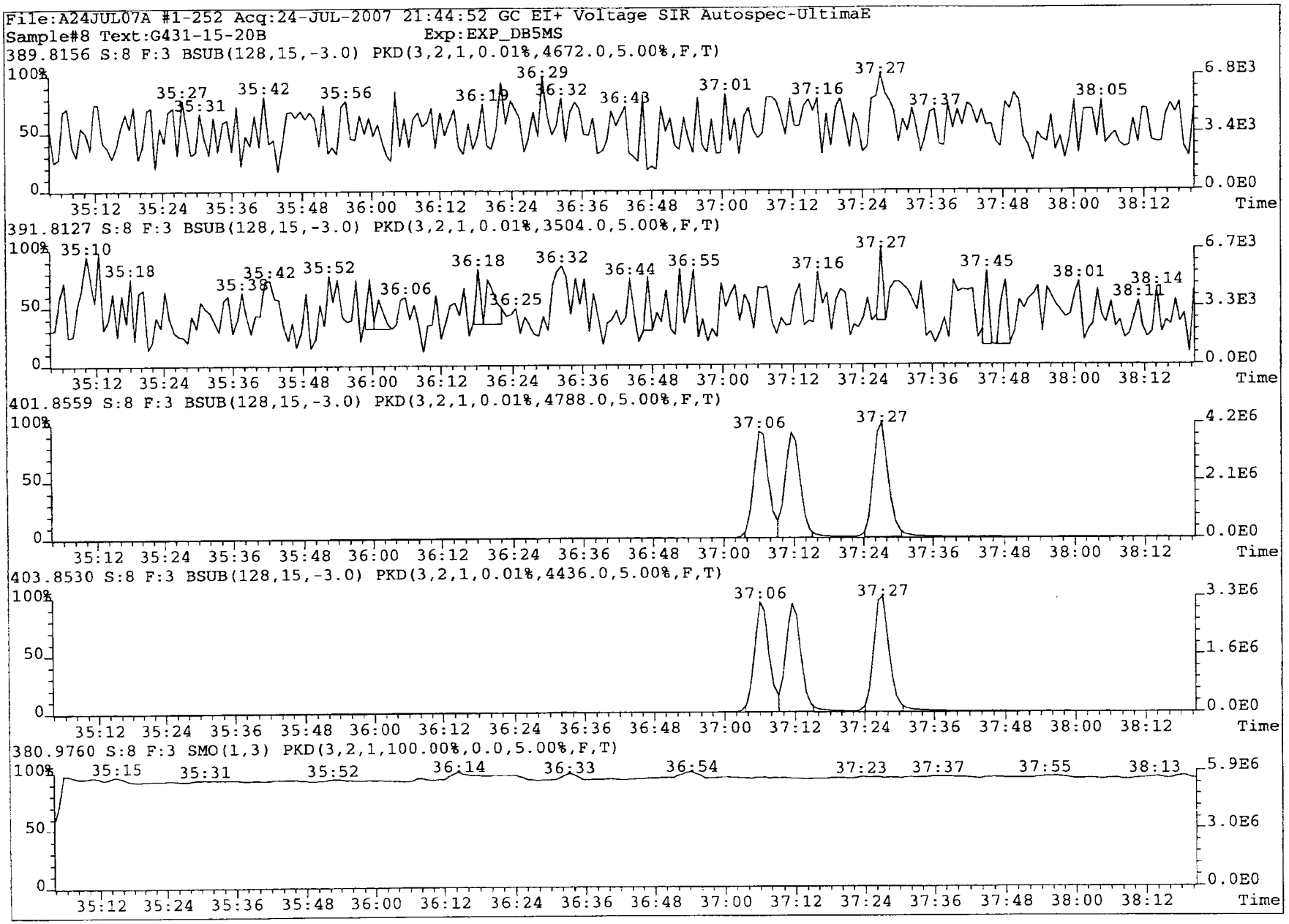
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
355.8546 S:8 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4820.0,5.00%,F,T)
357.8517 S:8 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4840.0,5.00%,F,T)
367.8949 S:8 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3452.0,5.00%,F,T)
369.8919 S:8 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3360.0,5.00%,F,T)
366.9792 S:8 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time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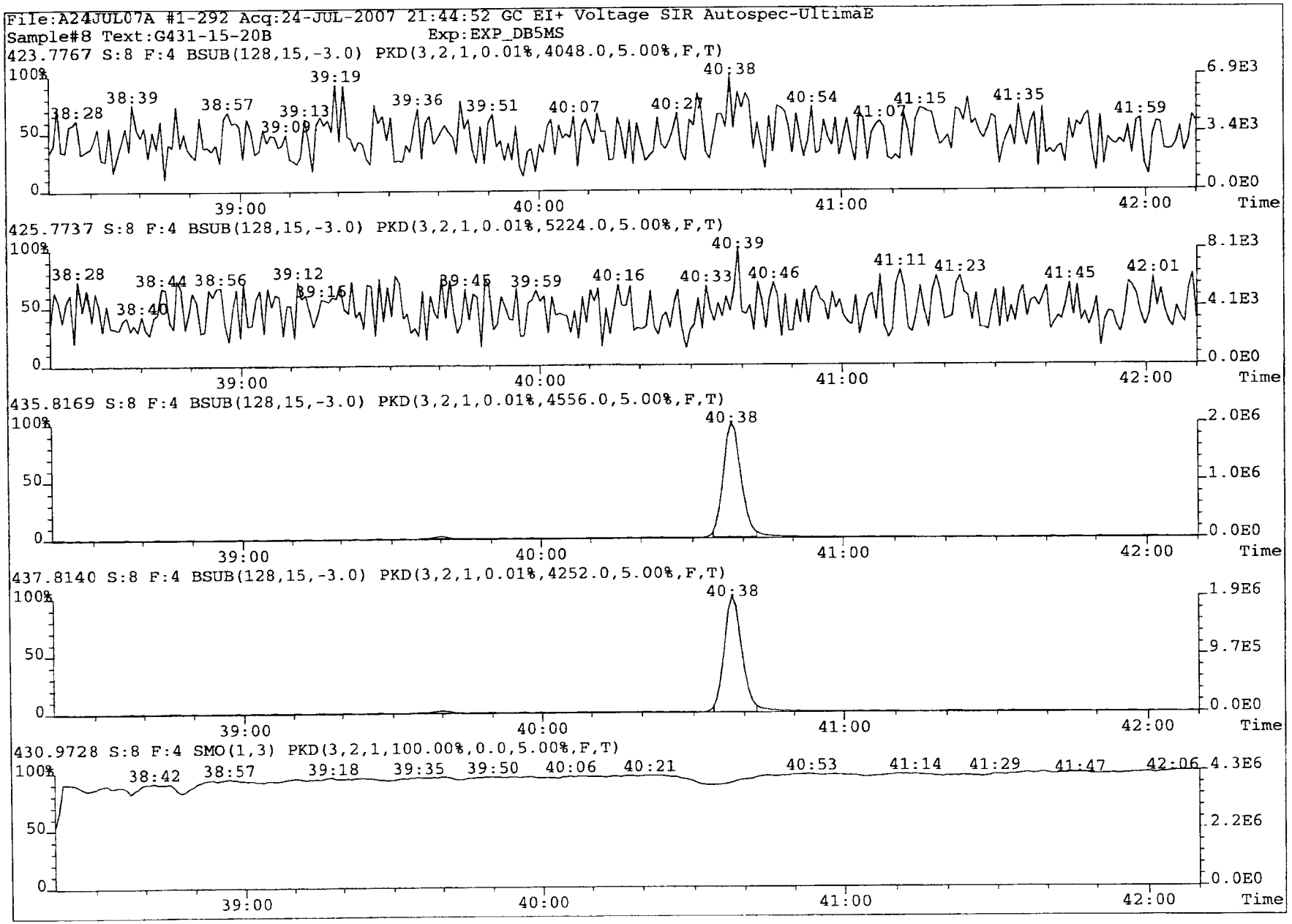
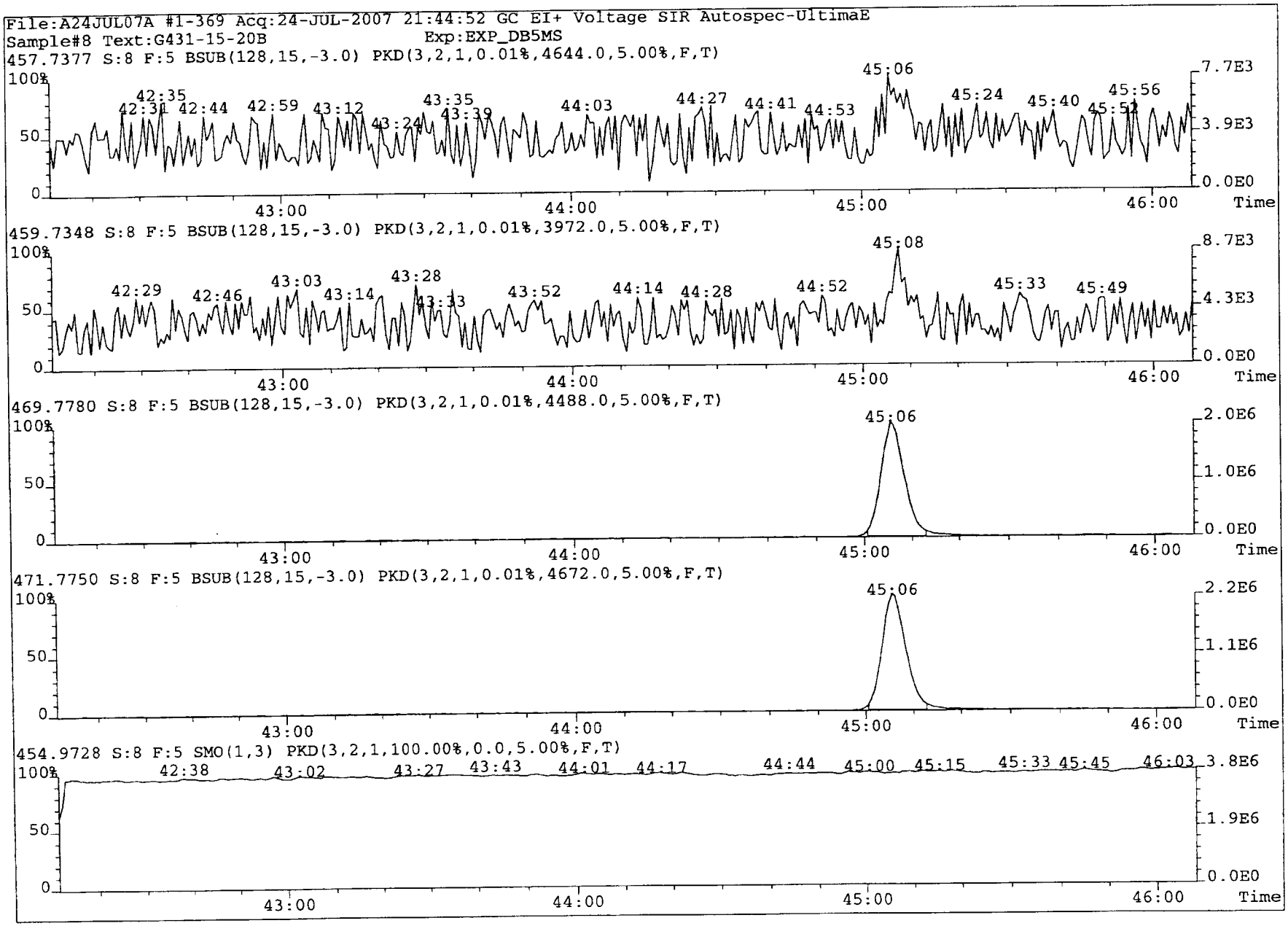
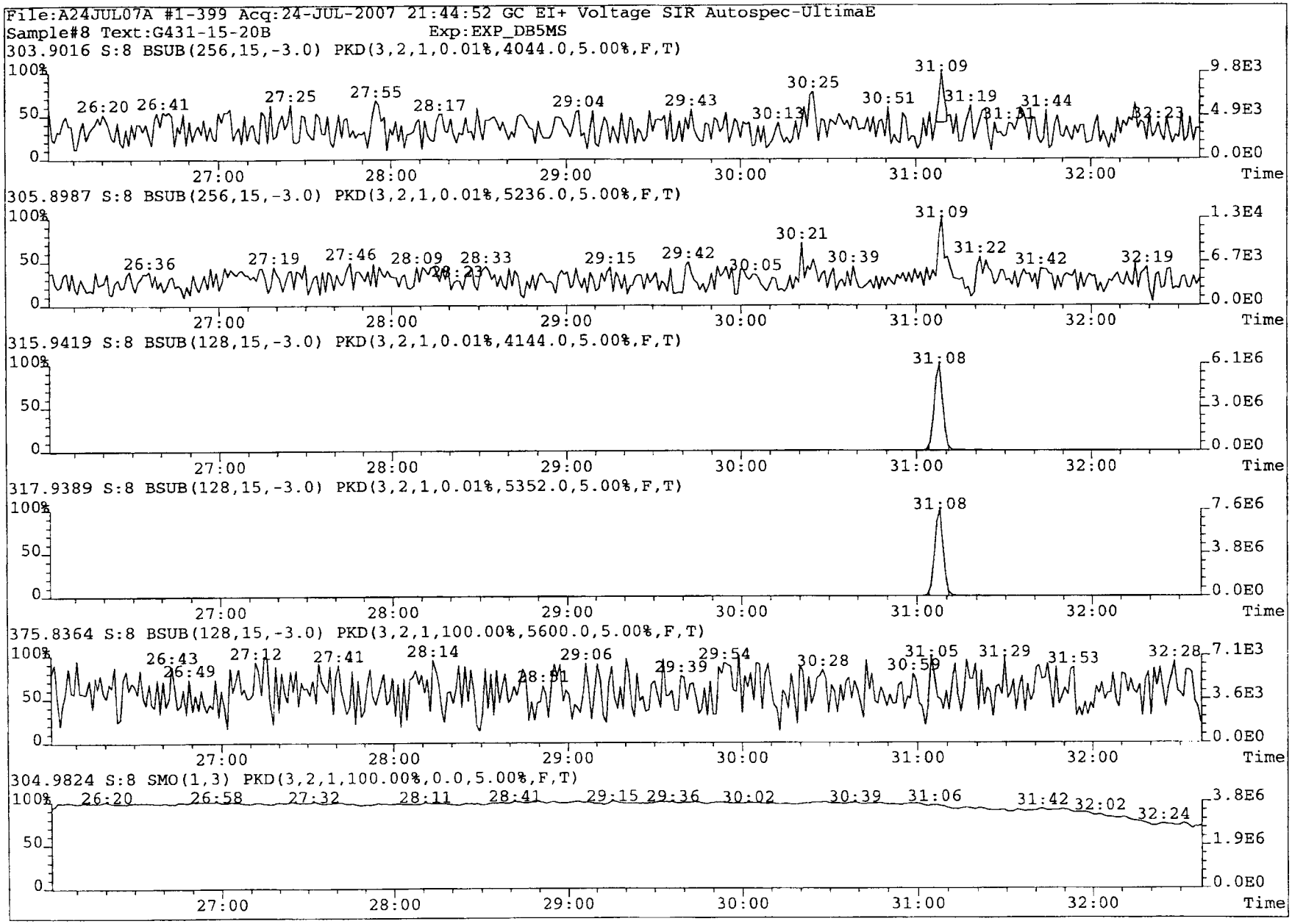
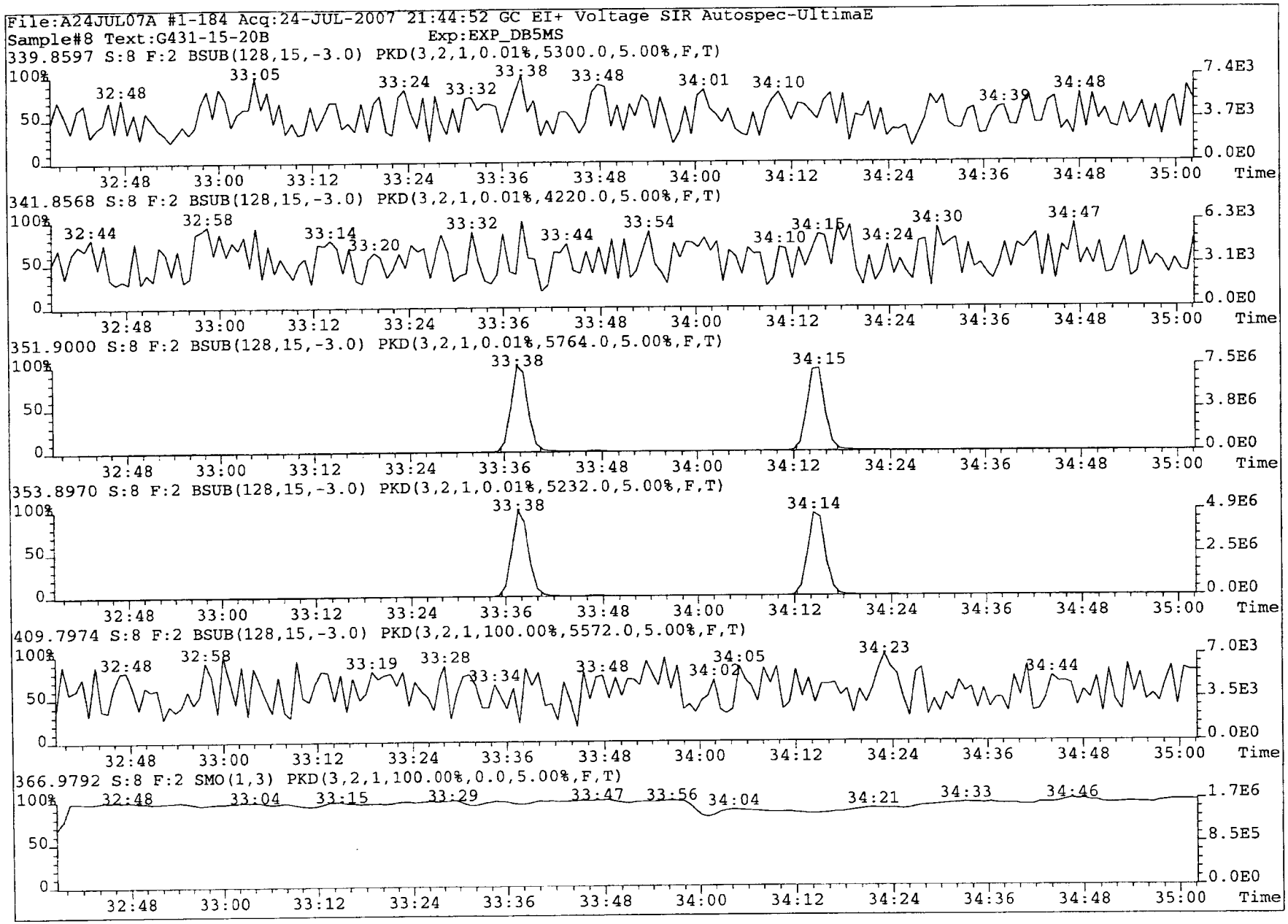
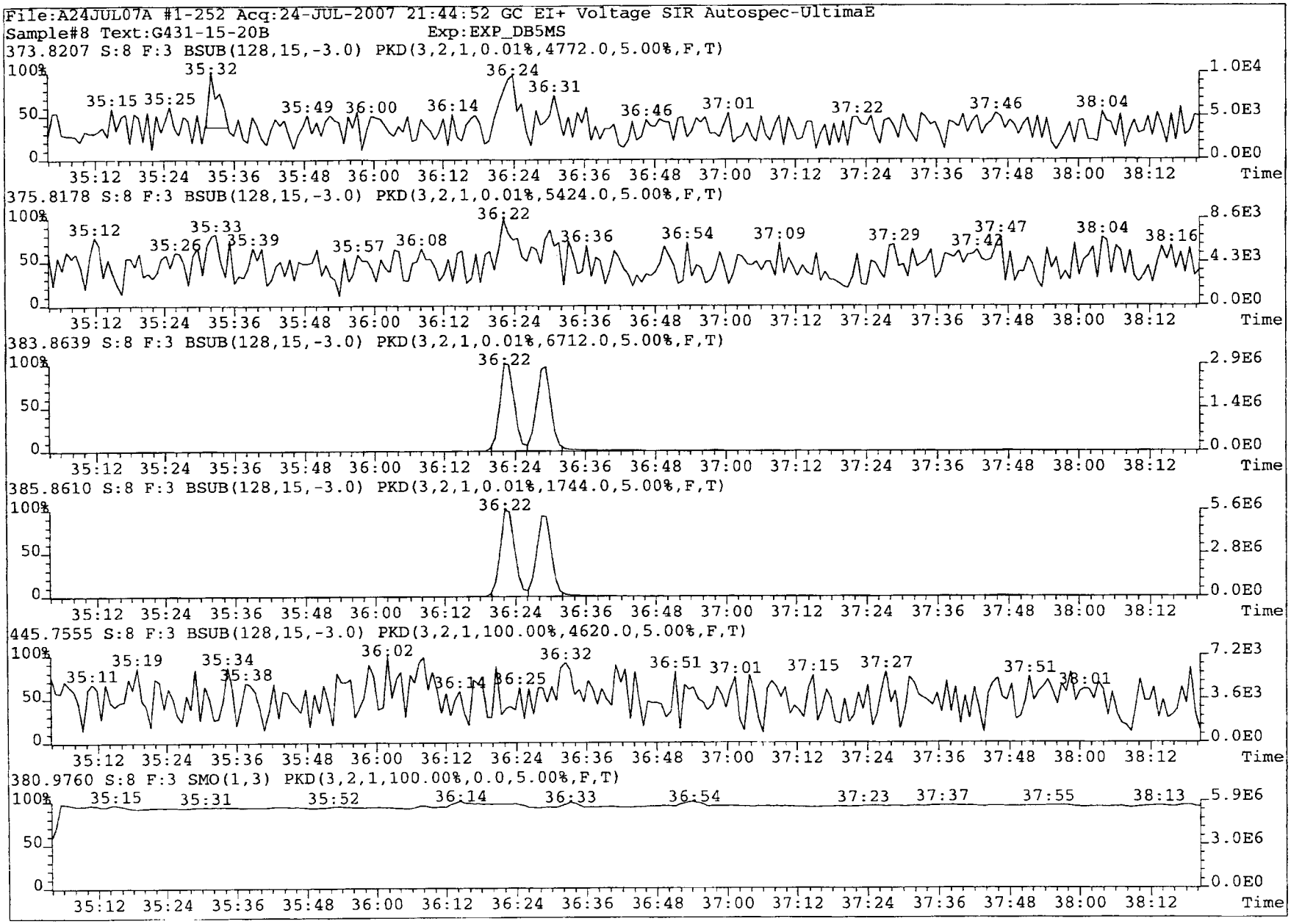
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
389.8156 S:8 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4672.0,5.00%,F,T)
391.8127 S:8 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3504.0,5.00%,F,T)
401.8559 S:8 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4788.0,5.00%,F,T)
403.8530 S:8 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4436.0,5.00%,F,T)
380.9760 S:8 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

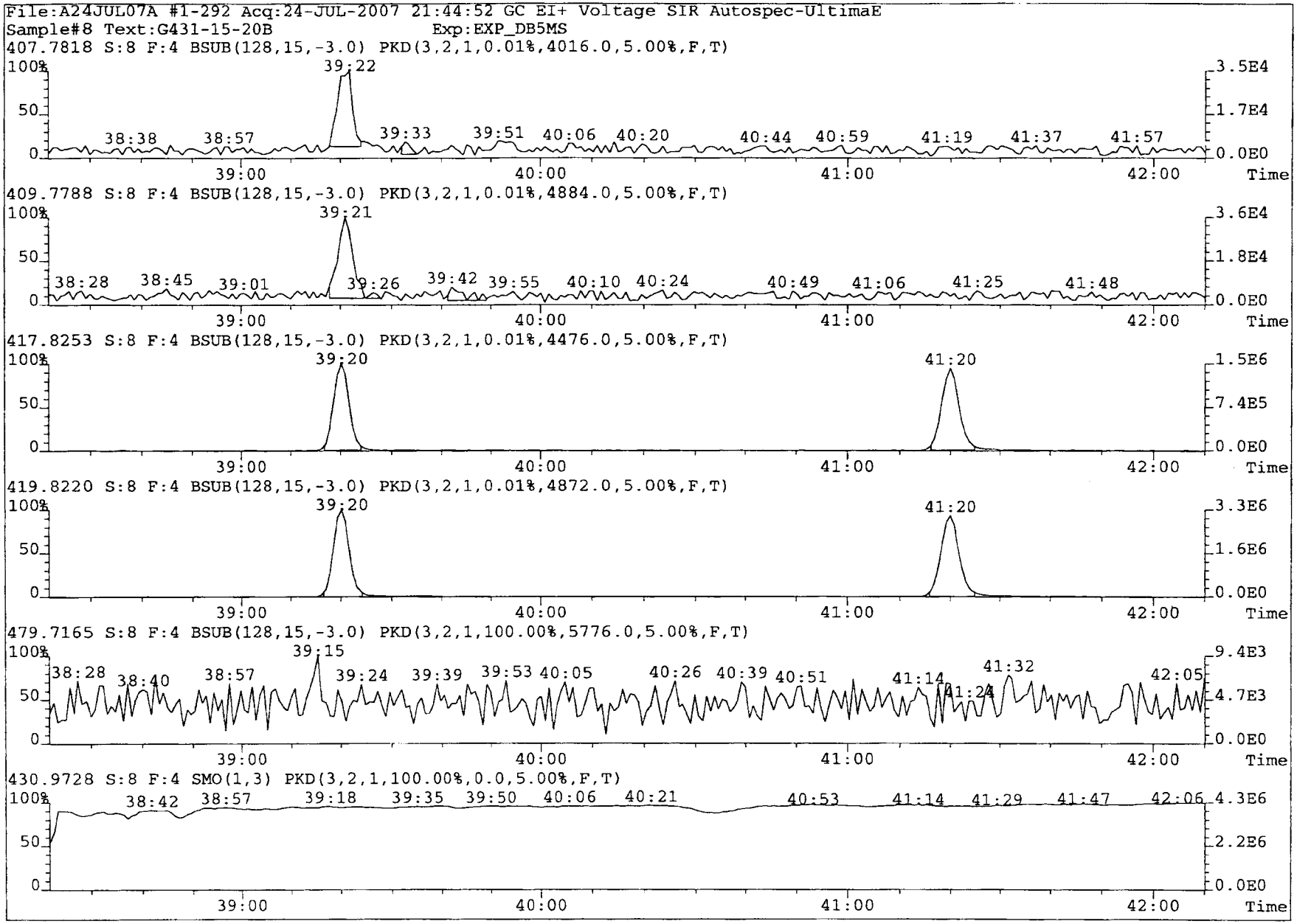

File:A24JUL07A #1-292 Acq:24-JUL-2007 21:44:52 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
423.7767 S:8 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4048.0,5.00%,F,T)
425.7737 S:8 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5224.0,5.00%,F,T)
435.8169 S:8 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4556.0,5.00%,F,T)
437.8140 S:8 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4252.0,5.00%,F,T)
430.9728 S:8 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

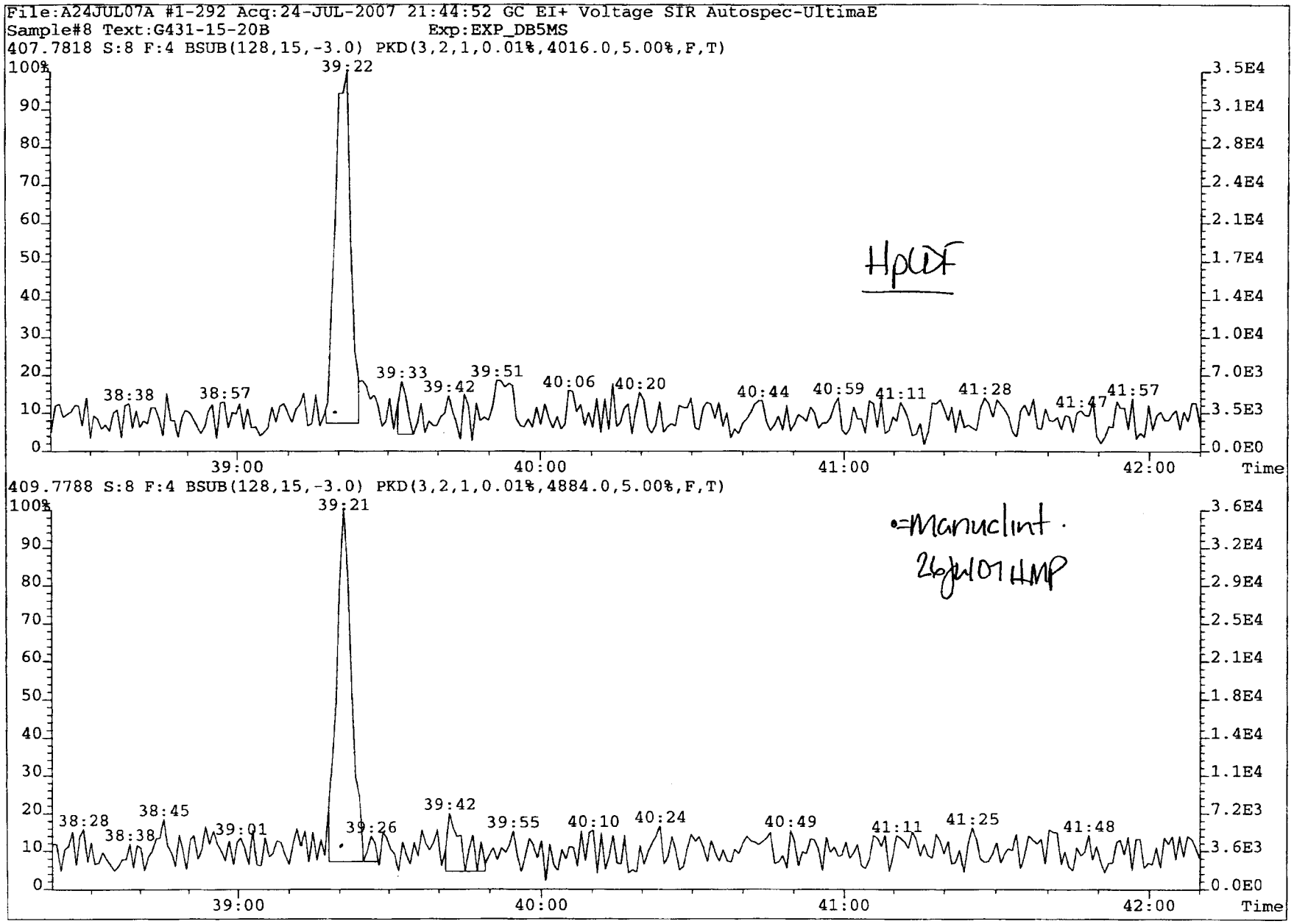

File:A24JUL07A #1-369 Acq:24-JUL-2007 21:44:52 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
457.7377 S:8 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4644.0,5.00%,F,T)
459.7348 S:8 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3972.0,5.00%,F,T)
469.7780 S:8 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4488.0,5.00%,F,T)
471.7750 S:8 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4672.0,5.00%,F,T)
454.9728 S:8 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

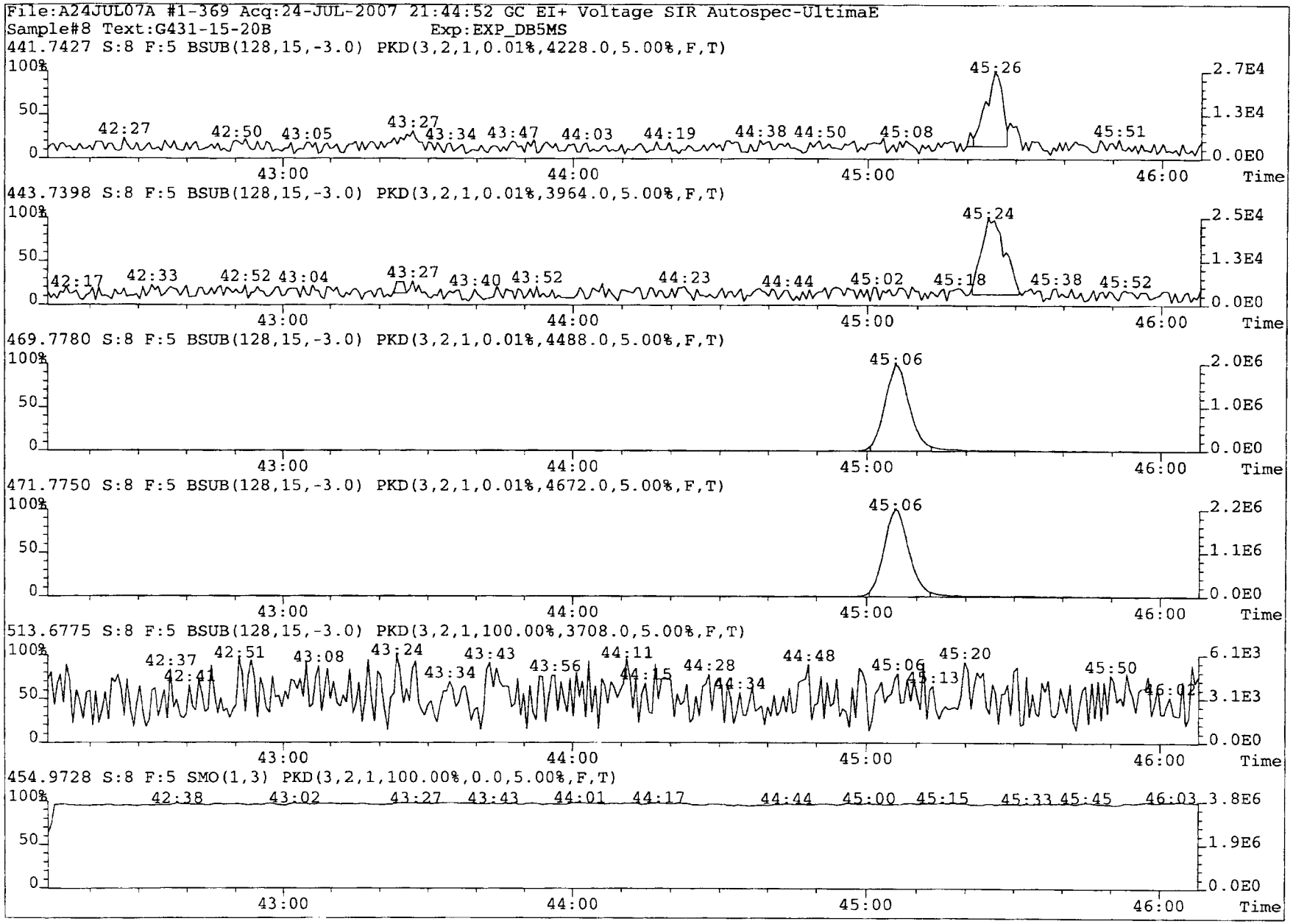

File:A24JUL07A #1-399 Acq:24-JUL-2007 21:44:52 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
303.9016 S:8 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4044.0,5.00%,F,T)
305.8987 S:8 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5236.0,5.00%,F,T)
315.9419 S:8 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4144.0,5.00%,F,T)
317.9389 S:8 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5352.0,5.00%,F,T)
375.8364 S:8 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5600.0,5.00%,F,T)
304.9824 S:8 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

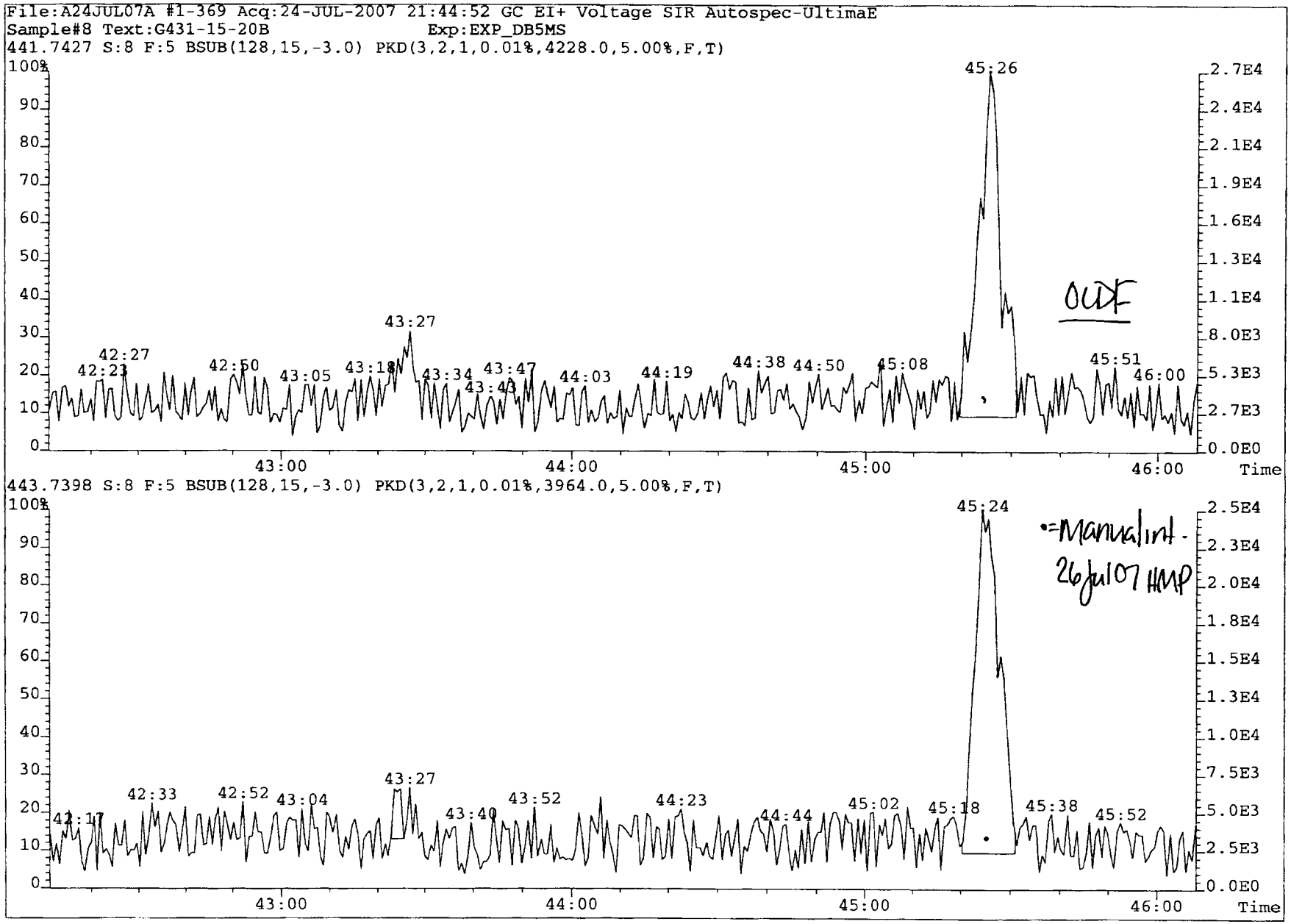

File:A24JUL07A #1-184 Acq:24-JUL-2007 21:44:52 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
339.8597 S:8 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5300.0,5.00%,F,T)
341.8568 S:8 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4220.0,5.00%,F,T)
351.9000 S:8 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5764.0,5.00%,F,T)
353.8970 S:8 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5232.0,5.00%,F,T)
409.7974 S:8 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5572.0,5.00%,F,T)
366.9792 S:8 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

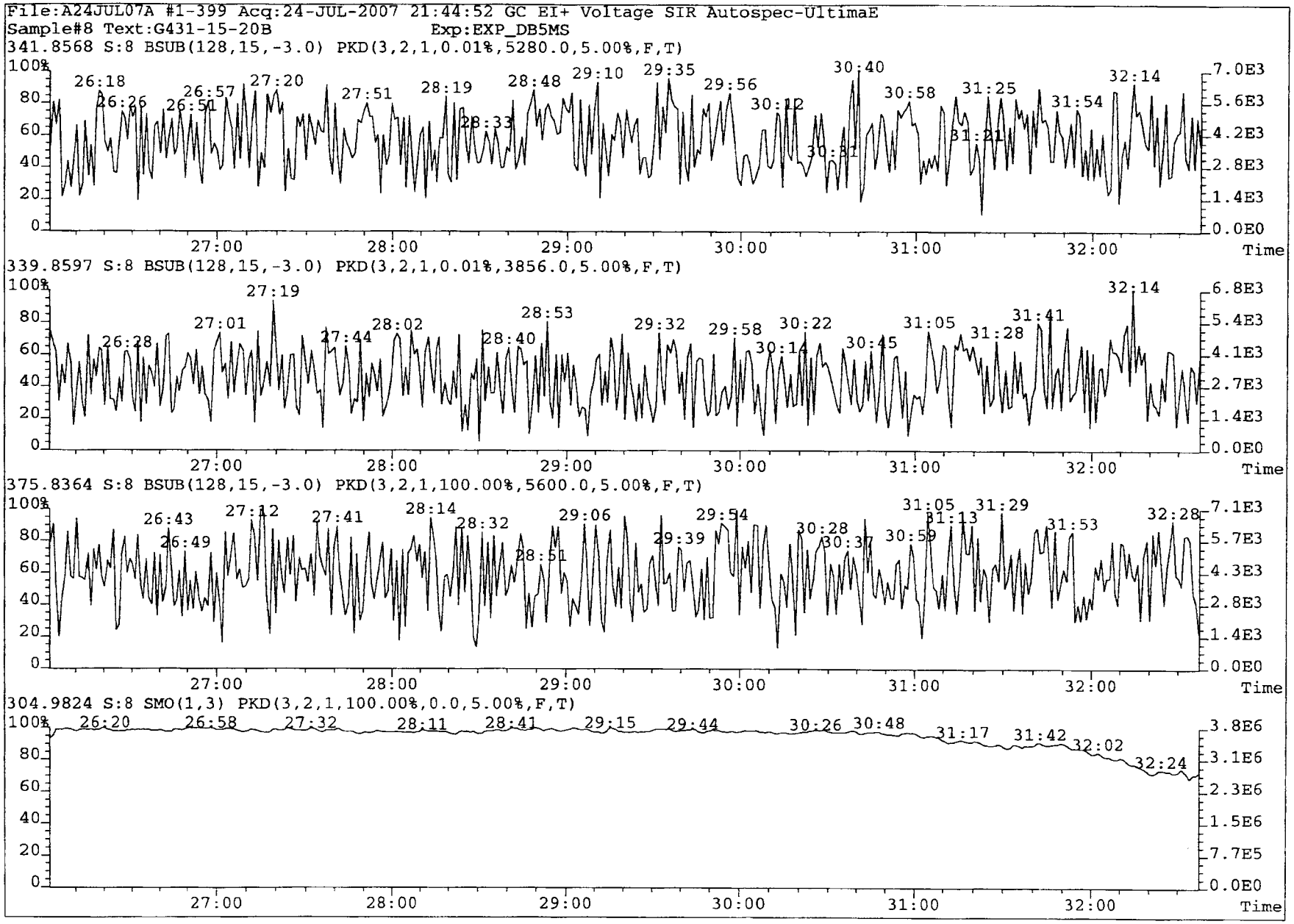

File:A24JUL07A #1-252 Acq:24-JUL-2007 21:44:52 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
373.8207 S:8 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4772.0,5.00%,F,T)
375.8178 S:8 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5424.0,5.00%,F,T)
383.8639 S:8 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6712.0,5.00%,F,T)
385.8610 S:8 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1744.0,5.00%,F,T)
445.7555 S:8 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4620.0,5.00%,F,T)
380.9760 S:8 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-292 Acq:24-JUL-2007 21:44:52 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
407.7818 S:8 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4016.0,5.00%,F,T)
39:22
38:38 38:57 39:33 39:51 40:06 40:20 40:44 40:59 41:19 41:37 41:57
3.5E4
1.7E4
0.0E0
409.7788 S:8 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4884.0,5.00%,F,T)
39:21
38:28 38:45 39:01 39:26 39:42 39:55 40:10 40:24 40:49 41:06 41:25 41:48
3.6E4
1.8E4
0.0E0
417.8253 S:8 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4476.0,5.00%,F,T)
39:20
41:20
1.5E6
7.4E5
0.0E0
419.8220 S:8 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4872.0,5.00%,F,T)
39:20
41:20
3.3E6
1.6E6
0.0E0
479.7165 S:8 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5776.0,5.00%,F,T)
39:15
38:28 38:40 38:57 39:24 39:39 39:53 40:05 40:26 40:39 40:51 41:14 41:24 41:32 42:05
9.4E3
4.7E3
0.0E0
430.9728 S:8 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:42 38:57 39:18 39:35 39:50 40:06 40:21 40:53 41:14 41:29 41:47 42:06
4.3E6
2.2E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time


File:A24JUL07A #1-292 Acq:24-JUL-2007 21:44:52 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
407.7818 S:8 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4016.0,5.00%,F,T)
100%
39:22
38:38
38:57
39:33
39:42
39:51
40:06
40:20
40:44
40:59
41:11
41:28
41:47
41:57
3.5E4
3.1E4
2.8E4
2.4E4
2.1E4
1.7E4
1.4E4
1.0E4
7.0E3
3.5E3
0.0E0
39:00
40:00
41:00
42:00
Time
HpCDF
409.7788 S:8 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4884.0,5.00%,F,T)
100%
39:21
38:28
38:38
38:45
39:01
39:26
39:42
39:55
40:10
40:24
40:49
41:11
41:25
41:48
3.6E4
3.2E4
2.9E4
2.5E4
2.1E4
1.8E4
1.4E4
1.1E4
7.2E3
3.6E3
0.0E0
39:00
40:00
41:00
42:00
Time
•=Manuclint.
26jul07 HMP


File:A24JUL07A #1-369 Acq:24-JUL-2007 21:44:52 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
441.7427 S:8 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4228.0,5.00%,F,T)
443.7398 S:8 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3964.0,5.00%,F,T)
469.7780 S:8 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4488.0,5.00%,F,T)
471.7750 S:8 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4672.0,5.00%,F,T)
513.6775 S:8 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,3708.0,5.00%,F,T)
454.9728 S:8 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-369 Acq:24-JUL-2007 21:44:52 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
441.7427 S:8 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4228.0,5.00%,F,T)
45:26
OUT
43:27
42:27
42:23
42:50
43:05
43:18
43:34
43:47
44:03
44:19
44:38
44:50
45:08
45:51
46:00
43:00
44:00
45:00
46:00
Time
443.7398 S:8 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3964.0,5.00%,F,T)
45:24
•=manual int.
26jul07 HMP
43:27
42:33
42:52
43:04
43:40
43:52
44:23
44:44
45:02
45:18
45:38
45:52
43:00
44:00
45:00
46:00
Time


File:A24JUL07A #1-399 Acq:24-JUL-2007 21:44:52 GC EI+ Voltage SIR Autospec-UltimaE
Sample#8 Text:G431-15-20B Exp:EXP_DB5MS
341.8568 S:8 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5280.0,5.00%,F,T)
339.8597 S:8 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3856.0,5.00%,F,T)
375.8364 S:8 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5600.0,5.00%,F,T)
304.9824 S:8 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

Method M23
Lab Method Blank

Analytical Data Summary Sheet

Analyte	Amount (ng)	EDL (ng)	EMPC (ng)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00478				
1,2,3,7,8-PeCDD	ND	0.00523				
1,2,3,4,7,8-HxCDD	ND	0.00732				
1,2,3,6,7,8-HxCDD	ND	0.00745				
1,2,3,7,8,9-HxCDD	ND	0.00756				
1,2,3,4,6,7,8-HpCDD	ND	0.0138				
OCDD	ND	0.0230				
2,3,7,8-TCDF	ND	0.00374				
1,2,3,7,8-PeCDF	ND	0.00500				
2,3,4,7,8-PeCDF	ND	0.00500				
1,2,3,4,7,8-HxCDF	ND	0.00525				
1,2,3,6,7,8-HxCDF	ND	0.00500				
2,3,4,6,7,8-HxCDF	ND	0.00522				
1,2,3,7,8,9-HxCDF	ND	0.00607				
1,2,3,4,6,7,8-HpCDF	0.0176			39:21	1.00	A
1,2,3,4,7,8,9-HpCDF	ND	0.00731				
OCDF	ND	0.0236				
Total TCDDs	ND	0.00478				
Total PeCDDs	ND	0.00523				
Total HxCDDs	ND	0.00756				
Total HpCDDs	ND	0.0138				
Total TCDFs	ND	0.00374				
Total PeCDFs	ND	0.00500				
Total HxCDFs	ND	0.00607				
Total HpCDFs	0.0176					
WHO-2005 TEQ (ND=0)	0.000176		0.000176			
WHO-2005 TEQ (ND=½)	0.00850		0.00850			

Client Information			**Sample Information**		
Project Name:					
			Matrix:	Air	
Sample ID:	Lab Method Blank		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14370	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a24jul07a-4	
Collection Date/Time:			Retchk:	a24jul07a-1	
Receipt Date/Time:			Begin ConCal:	a24jul07a-1	
Extraction Date:	07/22/07		End ConCal:	a24jul07a-11	
Analysis Date/Time:	07/24/07	18:31	Initial Cal:	m8290-071007a	

Method M23
Lab Method Blank

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	4.0	3.42	85.4	31:39	0.78	
13C12-1,2,3,7,8-PeCDD	4.0	3.22	80.4	34:25	1.58	
13C12-1,2,3,6,7,8-HxCDD	4.0	3.87	96.7	37:12	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	4.0	3.52	87.9	40:37	1.04	
13C12-OCDD	8.0	5.63	70.4	45:06	0.89	
13C12-2,3,7,8-TCDF	4.0	3.78	94.6	31:07	0.79	
13C12-1,2,3,7,8-PeCDF	4.0	2.87	71.8	33:37	1.58	
13C12-1,2,3,6,7,8-HxCDF	4.0	3.57	89.2	36:28	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	4.0	3.17	79.3	39:19	0.44	
Sampling Standards						
37Cl4-2,3,7,8-TCDD	4.0	4.54	113	31:40	-	
13C12-2,3,4,7,8-PeCDF	4.0	4.55	114	34:15	1.57	
13C12-1,2,3,4,7,8-HxCDD	4.0	4.22	105	37:07	1.26	
13C12-1,2,3,4,7,8-HxCDF	4.0	4.31	108	36:22	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	3.93	98.4	41:19	0.45	
Injection Standards						
13C12-1,2,3,4-TCDD	2.0	-	-	31:15	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-	-	37:27	1.24	

Client Information			**Sample Information**		
Project Name:					
			Matrix:	Air	
Sample ID:	Lab Method Blank		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14370	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a24jul07a-4	
Collection Date/Time:			Retchk:	a24jul07a-1	
Receipt Date/Time:			Begin ConCal:	a24jul07a-1	
Extraction Date:	07/22/07		End ConCal:	a24jul07a-11	
Analysis Date/Time:	07/24/07	18:31	Initial Cal:	m8290-071007a	

Form Version:[8290_DB_2.14]Report

Analyzed by: HMP
Date: 26jul07

Reviewed by:
Date: 7/26/07

Filename ; a24jul07a ;*8290*
Sample ; 4 ;Inst: HRMS1
Acquired ; 24-JUL-07 18:31:27
Processed ; 25-JUL-07 08:10:24
Sample ID ; LMB14370
Cal Table ; m8290-071007a
Results Table ; m8290-072407a
Comments ;

Ent;	Name;	Resp;	Ion 1;	Ion 2;	RA;?;	RT;	Conc;	EDL;	S/N1;?;	S/N2;?;M;	Signal1;	Noise 1;	Signal2;	Noise 2
1 ;	2,3,7,8-TCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.2392;	*;n;	*;n;n;	*;	4.71e+03;	*;	5.21e+03
2 ;	1,2,3,7,8-PeCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.2614;	*;n;	*;n;n;	*;	5.65e+03;	*;	5.00e+03
3 ;	1,2,3,4,7,8-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3658;	*;n;	*;n;n;	*;	4.94e+03;	*;	5.05e+03
4 ;	1,2,3,6,7,8-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3723;	*;n;	*;n;n;	*;	4.94e+03;	*;	5.05e+03
5 ;	1,2,3,7,8,9-HxCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.3779;	*;n;	*;n;n;	*;	4.94e+03;	*;	5.05e+03
6 ;	1,2,3,4,6,7,8-HpCDD;	*;	*;	*;	*;n;	NotFnd;	*;	0.6875;	*;n;	*;n;n;	*;	5.19e+03;	*;	5.28e+03
7 ;	OCDD;	2.55e+04;	4.99e+03;	2.05e+04;	0.24;n;	45:07;	0.210;	1.1476;	1;n;	1;n;n;	4.65e+03;	4.25e+03;	5.88e+03;	4.00e+03
8 ;	2,3,7,8-TCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.1870;	*;n;	*;n;n;	*;	5.42e+03;	*;	5.17e+03
9 ;	1,2,3,7,8-PeCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.1673;	*;n;	*;n;n;	*;	4.48e+03;	*;	4.66e+03
10 ;	2,3,4,7,8-PeCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.1613;	*;n;	*;n;n;	*;	4.48e+03;	*;	4.66e+03
11 ;	1,2,3,4,7,8-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2625;	*;n;	*;n;n;	*;	5.11e+03;	*;	4.53e+03
12 ;	1,2,3,6,7,8-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2473;	*;n;	*;n;n;	*;	5.11e+03;	*;	4.53e+03
13 ;	2,3,4,6,7,8-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.2608;	*;n;	*;n;n;	*;	5.11e+03;	*;	4.53e+03
14 ;	1,2,3,7,8,9-HxCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.3037;	*;n;	*;n;n;	*;	5.11e+03;	*;	4.53e+03
15 ;	1,2,3,4,6,7,8-HpCDF;	1.19e+05;	5.95e+04;	5.97e+04;	1.00;y;	39:21;	0.441;	0.2881;	5;y;	5;y;y;	1.89e+04;	3.66e+03;	1.87e+04;	3.83e+03
16 ;	1,2,3,4,7,8,9-HpCDF;	*;	*;	*;	*;n;	NotFnd;	*;	0.3655;	*;n;	*;n;n;	*;	3.66e+03;	*;	3.83e+03
17 ;	OCDF;	1.31e+05;	5.74e+04;	7.37e+04;	0.78;y;	45:26;	0.891;	1.1799;	2;n;	3;n;y;	9.39e+03;	5.20e+03;	1.33e+04;	5.10e+03
Extraction Standards														
18 ;	13C-2,3,7,8-TCDD;	3.21e+07;	1.40e+07;	1.81e+07;	0.78;y;	31:39;	85.443;	0.2007;	1247;y;	1758;y;n;	5.55e+06;	4.46e+03;	7.28e+06;	4.14e+03
19 ;	13C-1,2,3,7,8-PeCDD;	2.50e+07;	1.53e+07;	9.68e+06;	1.58;y;	34:26;	80.432;	0.2420;	1818;y;	981;y;n;	7.21e+06;	3.96e+03;	4.52e+06;	4.60e+03
20 ;	13C-1,2,3,6,7,8-HxCDD;	2.38e+07;	1.32e+07;	1.06e+07;	1.25;y;	37:12;	96.679;	0.3697;	897;y;	761;y;n;	4.60e+06;	5.12e+03;	3.73e+06;	4.90e+03
21 ;	13C-1,2,3,4,6,7,8-HpCDD;	1.68e+07;	8.60e+06;	8.24e+06;	1.04;y;	40:38;	87.885;	0.4454;	461;y;	458;y;n;	2.21e+06;	4.78e+03;	2.11e+06;	4.61e+03
22 ;	13C-OCDD;	2.25e+07;	1.06e+07;	1.19e+07;	0.89;y;	45:06;	140.709;	0.5441;	389;y;	449;y;n;	1.90e+06;	4.88e+03;	2.10e+06;	4.68e+03
23 ;	13C-2,3,7,8-TCDF;	4.64e+07;	2.05e+07;	2.59e+07;	0.79;y;	31:07;	94.621;	0.1638;	1223;y;	2325;y;n;	6.79e+06;	5.56e+03;	8.36e+06;	3.60e+03
24 ;	13C-1,2,3,7,8-PeCDF;	3.66e+07;	2.24e+07;	1.42e+07;	1.58;y;	33:38;	71.796;	0.2106;	1332;y;	1344;y;n;	9.89e+06;	7.42e+03;	6.47e+06;	4.82e+03
25 ;	13C-1,2,3,6,7,8-HxCDF;	2.94e+07;	1.01e+07;	1.93e+07;	0.52;y;	36:29;	89.219;	0.2892;	619;y;	1352;y;n;	3.49e+06;	5.63e+03;	6.57e+06;	4.86e+03
26 ;	13C-1,2,3,4,6,7,8-HpCDF;	1.94e+07;	5.92e+06;	1.35e+07;	0.44;y;	39:20;	79.338;	0.3562;	351;y;	824;y;n;	1.72e+06;	4.90e+03;	3.87e+06;	4.69e+03
Injection Standards														
27 ;	13C-1,2,3,4-TCDD;	3.56e+07;	1.58e+07;	1.98e+07;	0.80;y;	31:15;	43.690;	-;	1228;y;	1611;y;n;	5.47e+06;	4.46e+03;	6.67e+06;	4.14e+03
28 ;	13C-1,2,3,7,8,9-HxCDD;	2.36e+07;	1.31e+07;	1.06e+07;	1.24;y;	37:27;	33.277;	-;	848;y;	707;y;n;	4.35e+06;	5.12e+03;	3.47e+06;	4.90e+03
Cleanup Standards														
29 ;	37Cl-2,3,7,8-TCDD;	3.72e+07;	3.72e+07;	-;	-;-;	31:40;	96.889;	0.1236;	2803;y;	-;-;n;	1.52e+07;	5.41e+03;	-;	-
30 ;	13C-2,3,4,7,8-PeCDF;	4.09e+07;	2.50e+07;	1.59e+07;	1.57;y;	34:15;	81.718;	0.2145;	1434;y;	1440;y;n;	1.06e+07;	7.42e+03;	6.93e+06;	4.82e+03
31 ;	13C-1,2,3,4,7,8-HxCDD;	2.39e+07;	1.33e+07;	1.06e+07;	1.26;y;	37:07;	101.984;	0.3891;	847;y;	703;y;n;	4.34e+06;	5.12e+03;	3.44e+06;	4.90e+03
32 ;	13C-1,2,3,4,7,8-HxCDF;	2.85e+07;	9.74e+06;	1.88e+07;	0.52;y;	36:23;	96.271;	0.3215;	622;y;	1368;y;n;	3.50e+06;	5.63e+03;	6.64e+06;	4.86e+03
33 ;	13C-1,2,3,4,7,8,9-HpCDF;	1.70e+07;	5.26e+06;	1.18e+07;	0.45;y;	41:20;	78.039;	0.3994;	271;y;	611;y;n;	1.33e+06;	4.90e+03;	2.87e+06;	4.69e+03
Sampling Standards														
34 ;	37Cl-2,3,7,8-TCDD;	3.72e+07;	3.72e+07;	-;	-;-;	31:40;	113.405;	0.1240;	2803;y;	-;-;n;	1.52e+07;	5.41e+03;	-;	-
35 ;	13C-2,3,4,7,8-PeCDF;	4.09e+07;	2.50e+07;	1.59e+07;	1.57;y;	34:15;	113.762;	0.2277;	1434;y;	1440;y;n;	1.06e+07;	7.42e+03;	6.93e+06;	4.82e+03
36 ;	13C-1,2,3,4,7,8-HxCDD;	2.39e+07;	1.33e+07;	1.06e+07;	1.26;y;	37:07;	105.485;	0.3800;	847;y;	703;y;n;	4.34e+06;	5.12e+03;	3.44e+06;	4.90e+03
37 ;	13C-1,2,3,4,7,8-HxCDF;	2.85e+07;	9.74e+06;	1.88e+07;	0.52;y;	36:23;	107.851;	0.3468;	622;y;	1368;y;n;	3.50e+06;	5.63e+03;	6.64e+06;	4.86e+03
38 ;	13C-1,2,3,4,7,8,9-HpCDF;	1.70e+07;	5.26e+06;	1.18e+07;	0.45;y;	41:20;	98.367;	0.5756;	271;y;	611;y;n;	1.33e+06;	4.90e+03;	2.87e+06;	4.69e+03

Totals Report

SGS Environmental Services, INC.	Thu Jul 26 14:36:57 EDT 2007	
Filename: a24jul07a-4	Acquired: 2007-07-24 18:31:27	Processed: 2007-07-25 08:10:24
Results:	Cal: m8290-071007a	
Sample Text: LMB14370		

Total Tetra-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		2378-TCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.2392	S2N	0.00E+00	4710	0	0.00E+00	5210	0	n
									EDL	0.2392								
									Total Tetra-Dioxins	0	Peaks	0						
									Total EMPC Tetra-Dioxins	0	Peaks	0						

Total Tetra-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		2378-TCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.187	S2N	0.00E+00	5420	0	0.00E+00	5170	0	n
									EDL	0.187								
									Total EMPC Tetra-Furans	0	Peaks	0						
									Total Tetra-Furans	0	Peaks	0						

Total Penta-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		12378-PeCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.2614	S2N	0.00E+00	5650	0	0.00E+00	5000	0	n
									EDL	0.2614								
									Total EMPC Penta-Dioxins	0	Peaks	0						
									Total Penta-Dioxins	0	Peaks	0						

Total Penta-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		12378-PeCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.1673	S2N	0.00E+00	4480	0	0.00E+00	4660	0	n
		23478-PeCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.1613	S2N	0.00E+00	4480	0	0.00E+00	4660	0	n
									EDL	0.1673								
									Total Penta-Furans	0	Peaks	0						
									Total EMPC Penta-Furans	0	Peaks	0						

Total Hexa-Dioxins

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		123678-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3723	S2N	0.00E+00	4940	0	0.00E+00	5050	0	n
		123789-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3779	S2N	0.00E+00	4940	0	0.00E+00	5050	0	n
		123478-HxCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3658	S2N	0.00E+00	4940	0	0.00E+00	5050	0	n
									EDL	0.3779								
									Total Hexa-Dioxins	0	Peaks	0						
									Total EMPC Hexa-Dioxins	0	Peaks	0						

Totals Report

Total Hexa-Furans

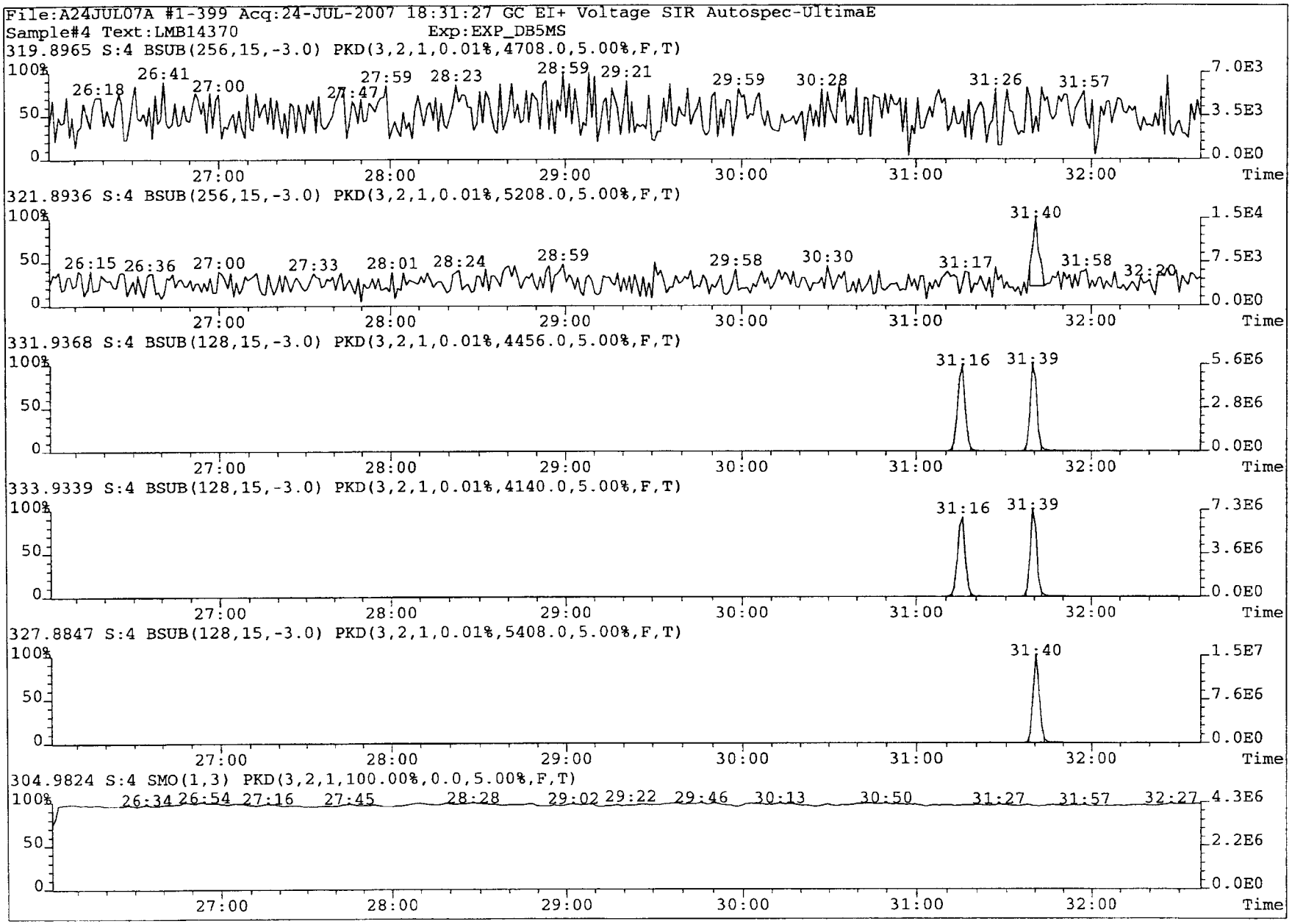
Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		234678-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.2608	S2N	0.00E+00	5110	0	0.00E+00	4530	0	n
		123678-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.2473	S2N	0.00E+00	5110	0	0.00E+00	4530	0	n
		123478-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.2625	S2N	0.00E+00	5110	0	0.00E+00	4530	0	n
		123789-HxCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3037	S2N	0.00E+00	5110	0	0.00E+00	4530	0	n
									EDL	0.3037								
									Total Hexa-Furans	0	Peaks	0						
									Total EMPC Hexa-Furans	0	Peaks	0						

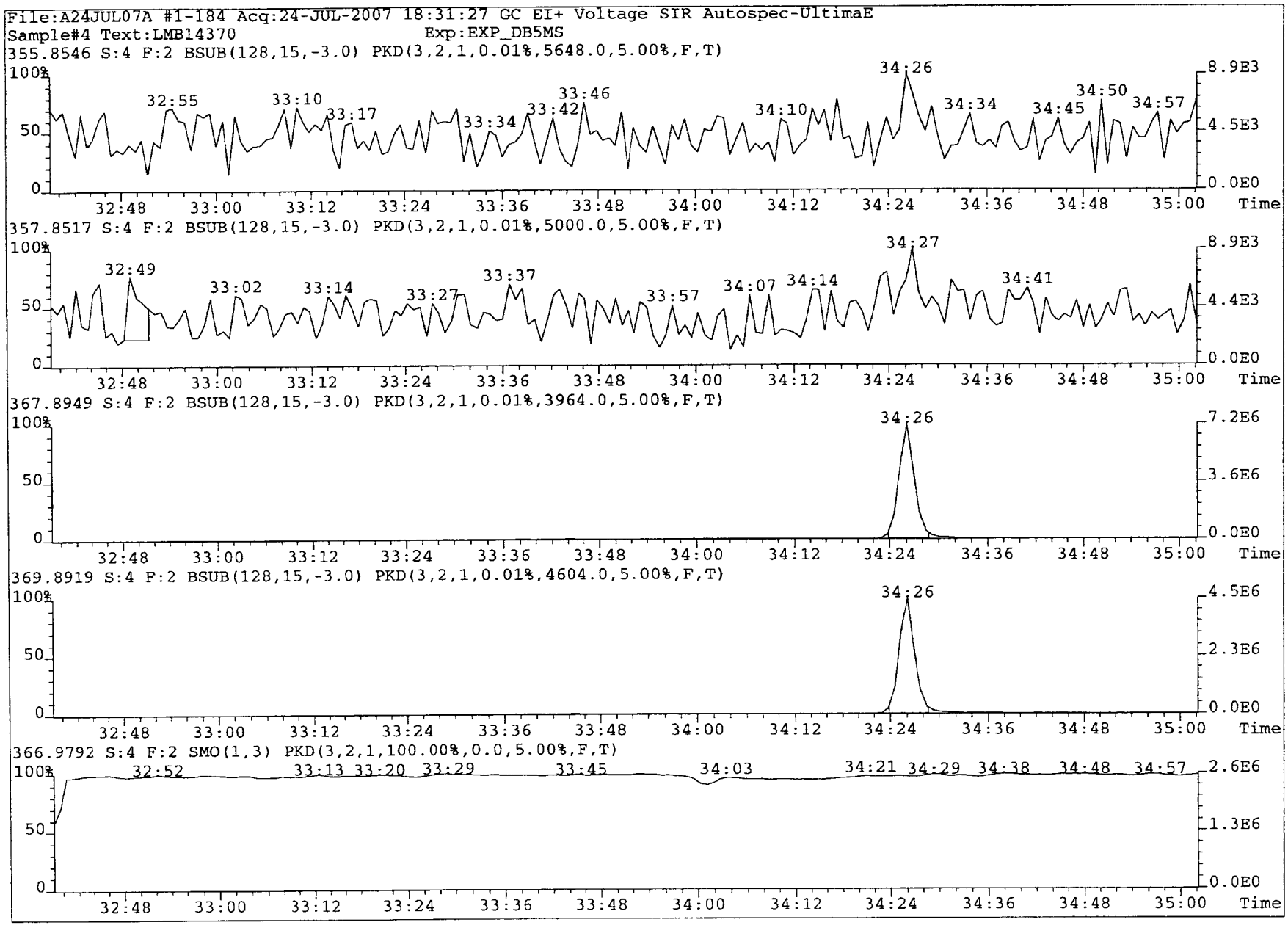
Total Hepta-Dioxins

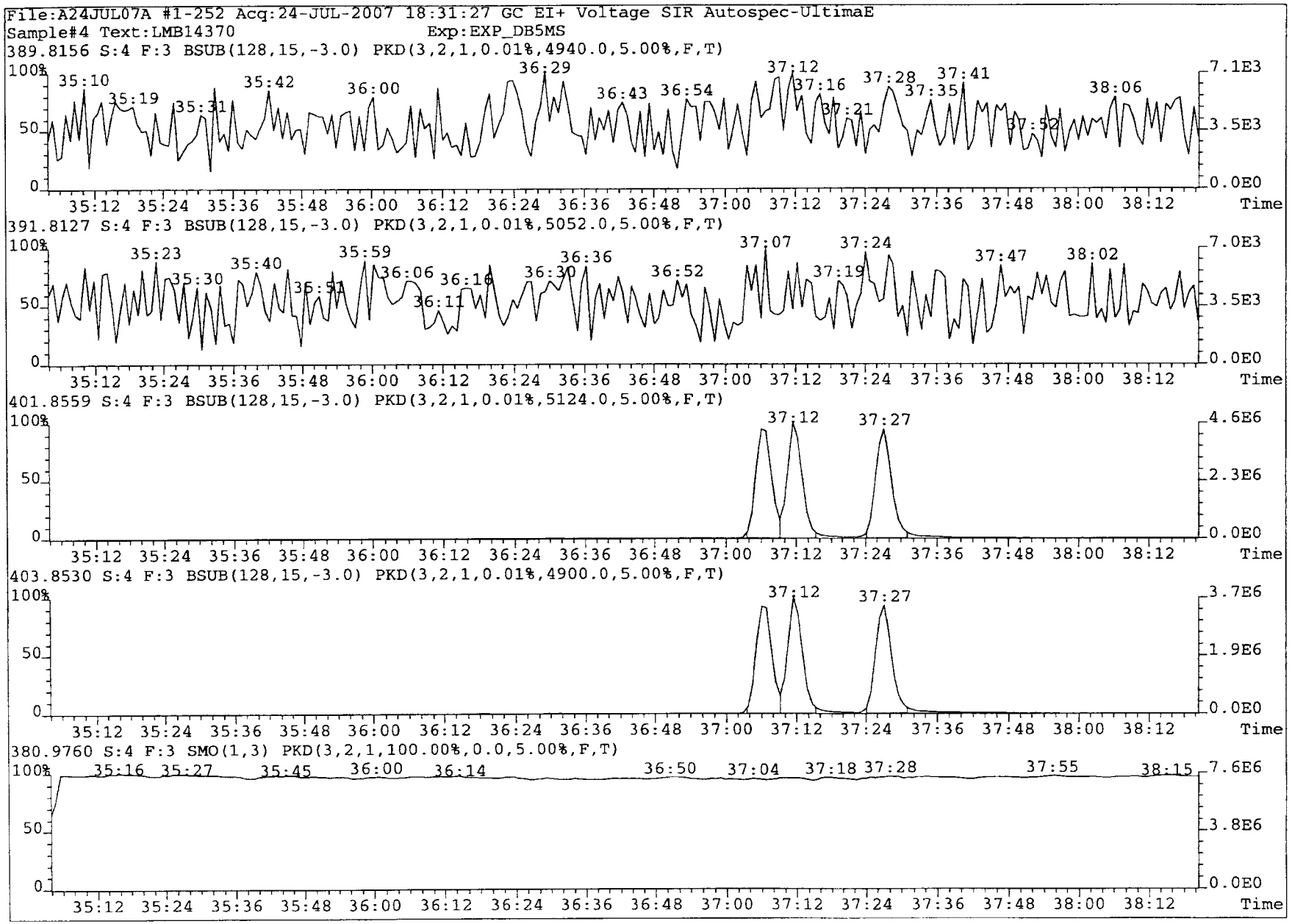
Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		1234678-HpCDD	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.6875	S2N	0.00E+00	5190	0	0.00E+00	5280	0	n
									EDL	0.6875								
									Total Hepta-Dioxins	0	Peaks	0						
									Total EMPC Hepta-Dioxins	0	Peaks	0						

Total Hepta-Furans

Ent	Type	Name	AreaSum	Ion1Area	Ion2Area	IR	?	RT	Conc	EDL	Status	Height1	Noise1	SN1	Height2	Noise2	SN2	Mod
		1234789-HpCDF	0.00E+00	0.00E+00	0.00E+00	0	N	0:00	0	0.3655	S2N	0.00E+00	3660	0	0.00E+00	3830	0	n
		1234678-HpCDF	1.19E+05	5.95E+04	5.97E+04	1	Y	39:21	0.441	0.2881	OK	1.89E+04	3660	5	1.87E+04	3830	5	y
									EDL	0.3655								
									Total EMPC Hepta-Furans	0.441	Peaks	1						
									Total Hepta-Furans	0.441	Peaks	1						


File:A24JUL07A #1-399 Acq:24-JUL-2007 18:31:27 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
319.8965 S:4 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4708.0,5.00%,F,T)
321.8936 S:4 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5208.0,5.00%,F,T)
331.9368 S:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4456.0,5.00%,F,T)
333.9339 S:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4140.0,5.00%,F,T)
327.8847 S:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5408.0,5.00%,F,T)
304.9824 S:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-184 Acq:24-JUL-2007 18:31:27 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
355.8546 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5648.0,5.00%,F,T)
357.8517 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5000.0,5.00%,F,T)
367.8949 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3964.0,5.00%,F,T)
369.8919 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4604.0,5.00%,F,T)
366.9792 S:4 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time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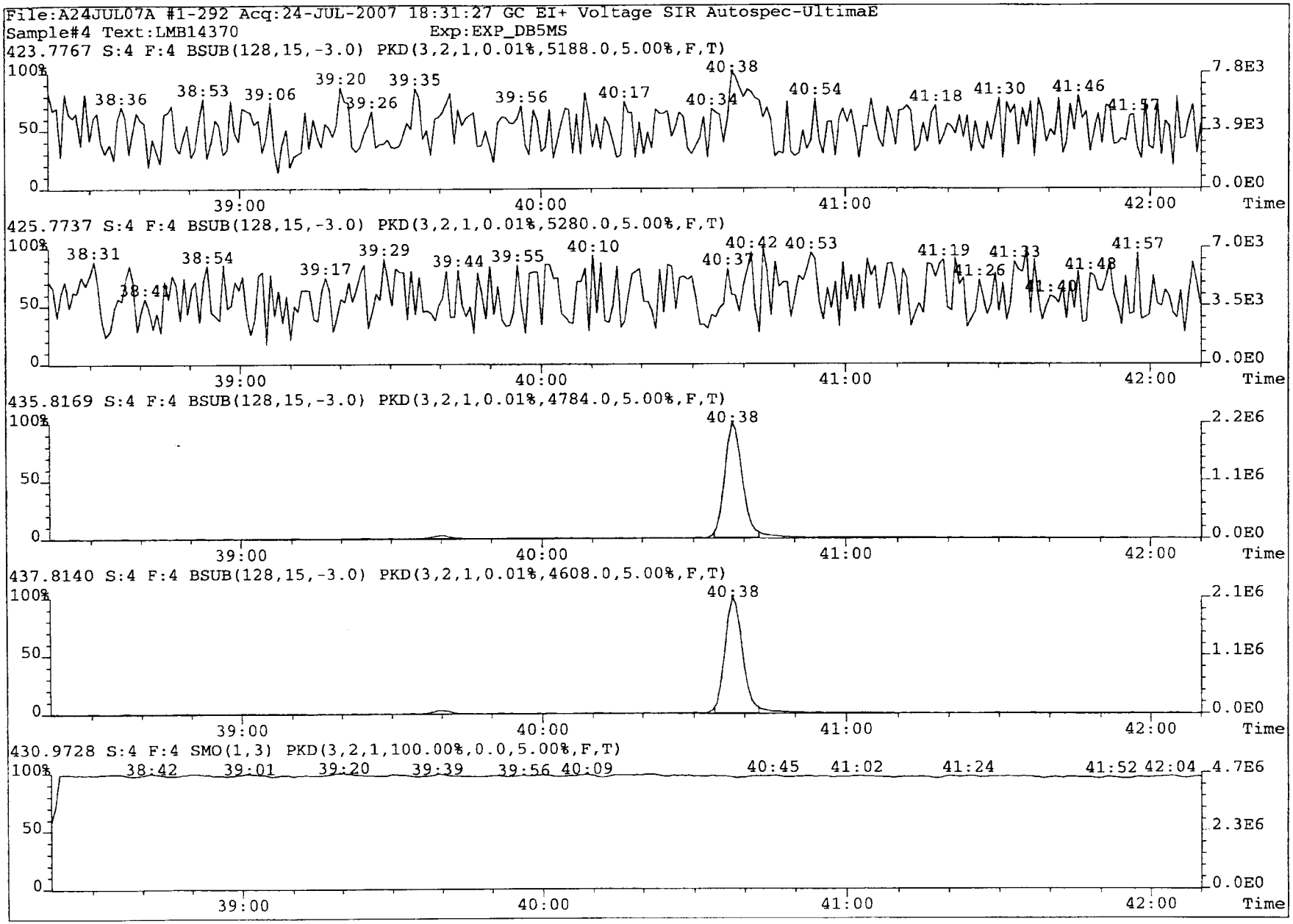
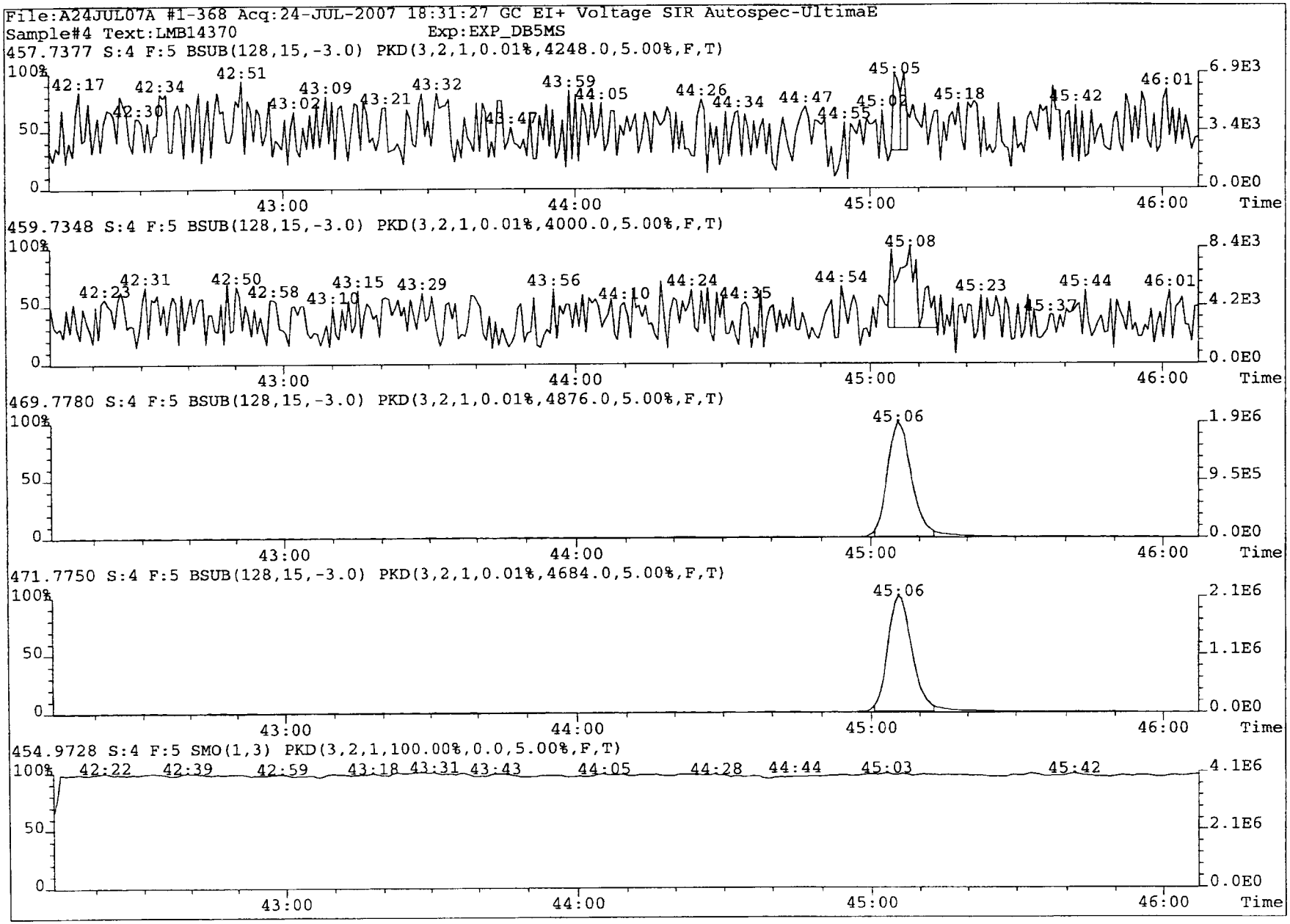
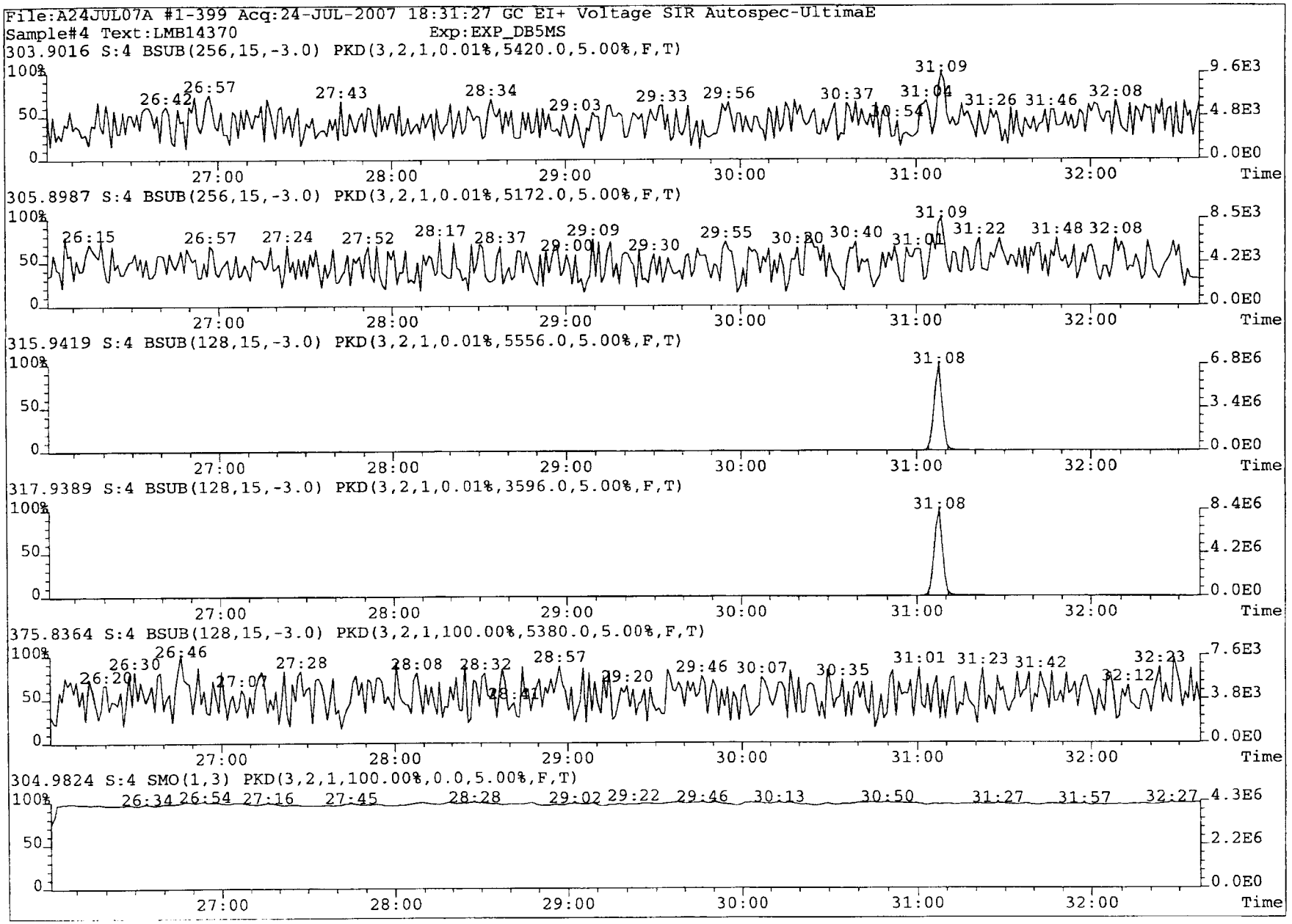
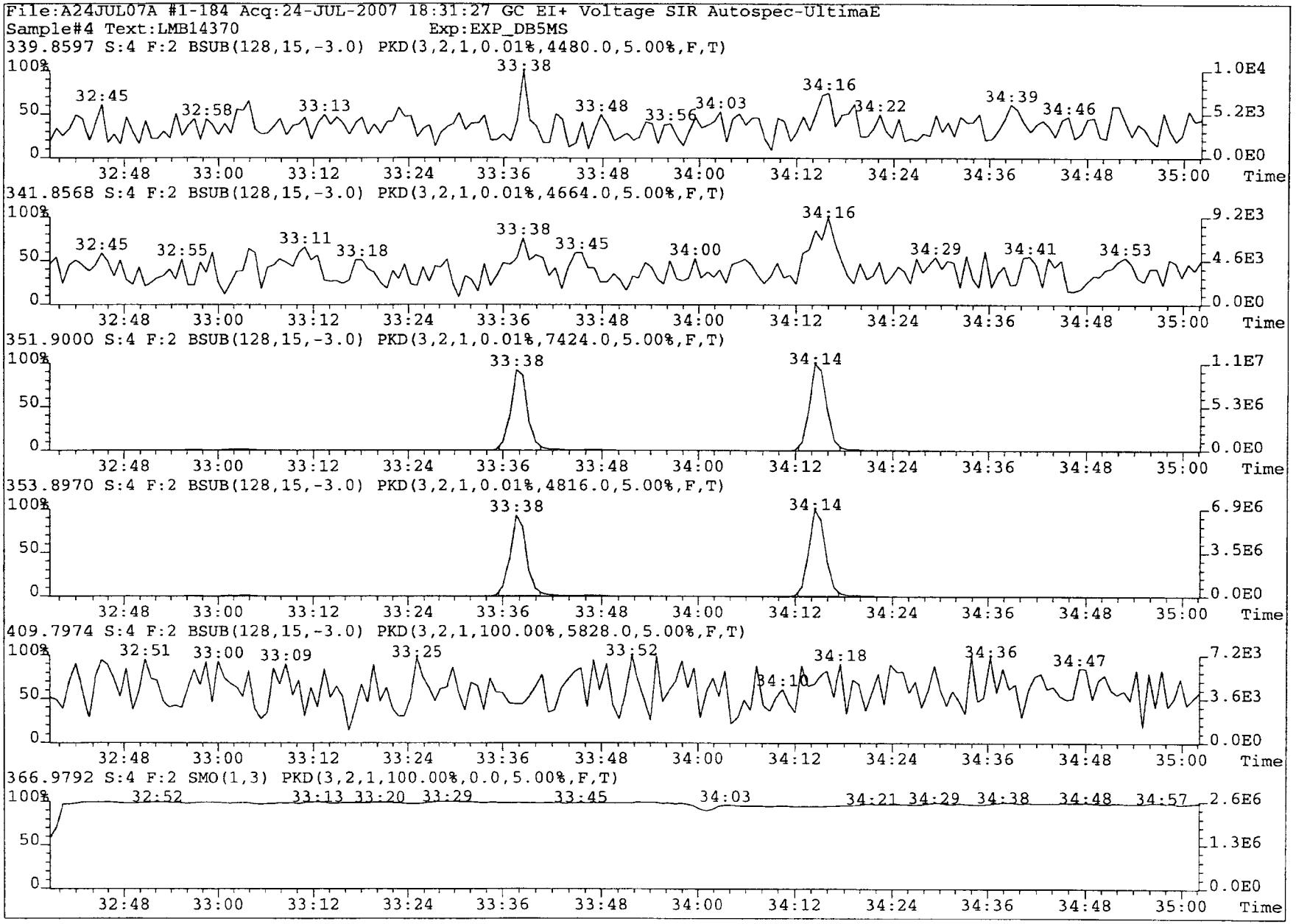
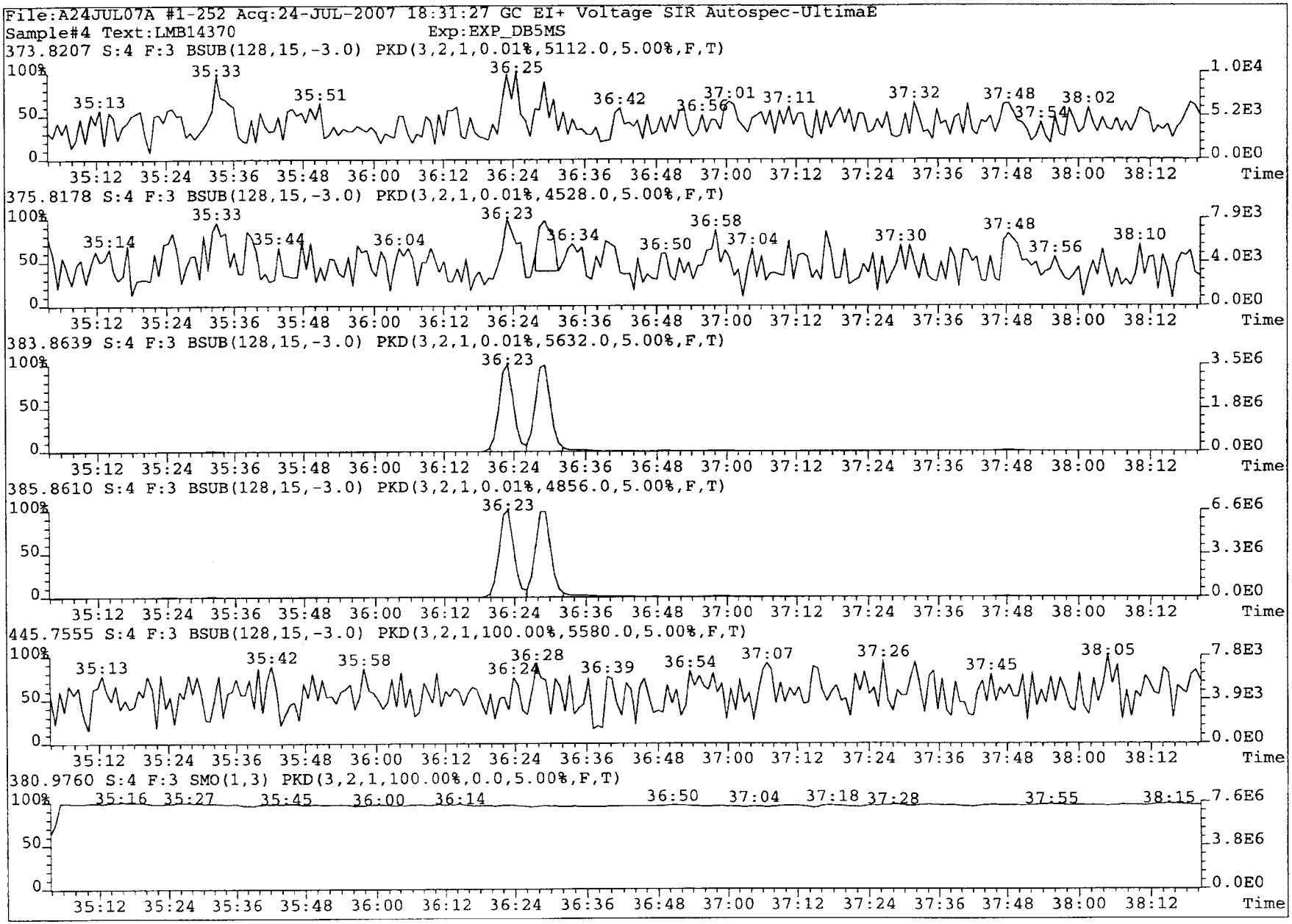
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
389.8156 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4940.0,5.00%,F,T)
391.8127 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5052.0,5.00%,F,T)
401.8559 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5124.0,5.00%,F,T)
403.8530 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4900.0,5.00%,F,T)
380.9760 S:4 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

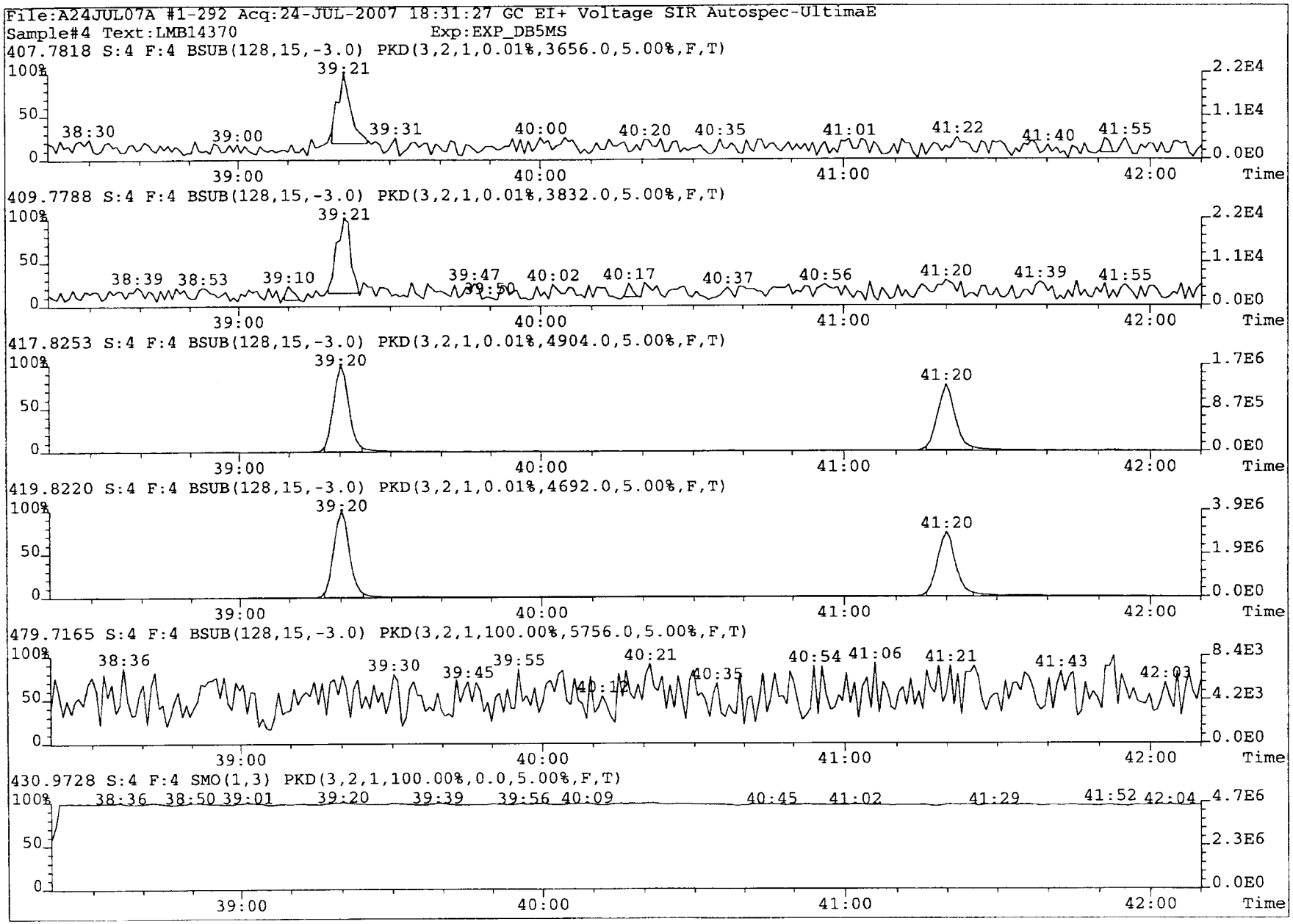

File:A24JUL07A #1-292 Acq:24-JUL-2007 18:31:27 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
423.7767 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5188.0,5.00%,F,T)
425.7737 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5280.0,5.00%,F,T)
435.8169 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4784.0,5.00%,F,T)
437.8140 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4608.0,5.00%,F,T)
430.9728 S:4 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
100%
50
0
39:00
40:00
41:00
42:00
Time
7.8E3
3.9E3
0.0E0
7.0E3
3.5E3
2.2E6
1.1E6
2.1E6
4.7E6
2.3E6

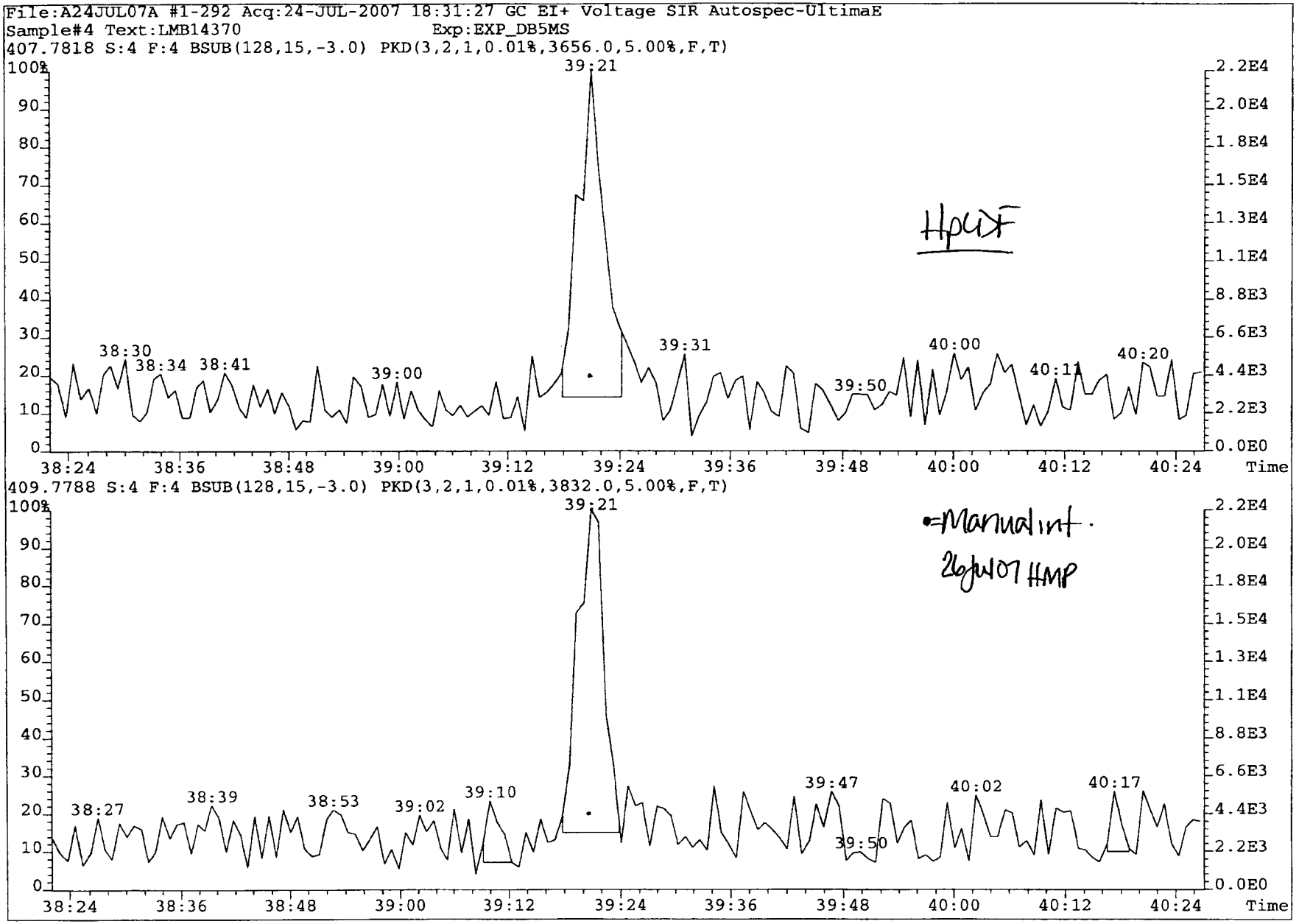

File:A24JUL07A #1-368 Acq:24-JUL-2007 18:31:27 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
457.7377 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4248.0,5.00%,F,T)
459.7348 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4000.0,5.00%,F,T)
469.7780 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4876.0,5.00%,F,T)
471.7750 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4684.0,5.00%,F,T)
454.9728 S:4 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
100%
50
0
43:00
44:00
45:00
46:00
Time
6.9E3
3.4E3
0.0E0
8.4E3
4.2E3
1.9E6
9.5E5
2.1E6
1.1E6
4.1E6
2.1E6

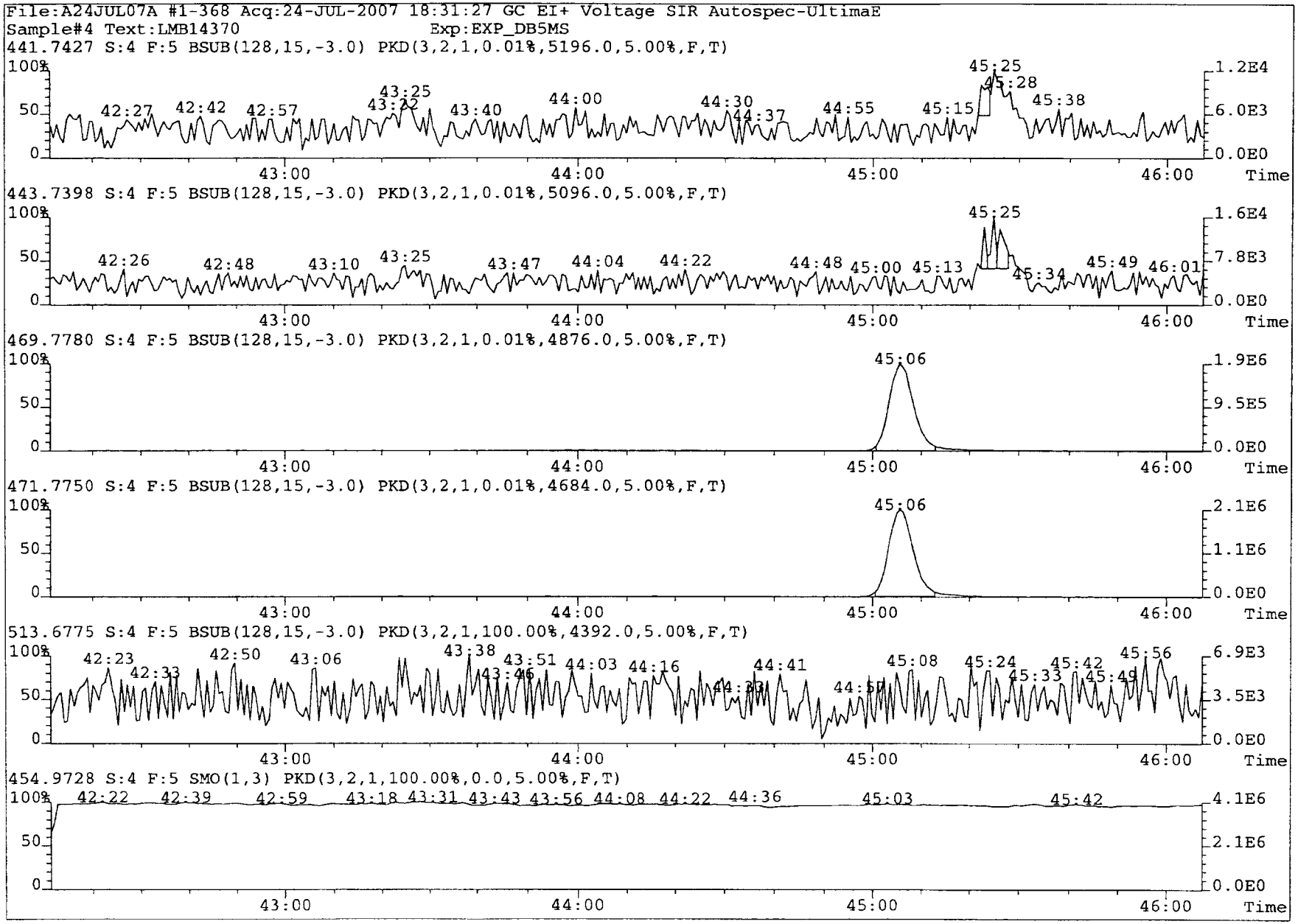

File:A24JUL07A #1-399 Acq:24-JUL-2007 18:31:27 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
303.9016 S:4 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5420.0,5.00%,F,T)
305.8987 S:4 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5172.0,5.00%,F,T)
315.9419 S:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5556.0,5.00%,F,T)
317.9389 S:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3596.0,5.00%,F,T)
375.8364 S:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5380.0,5.00%,F,T)
304.9824 S:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

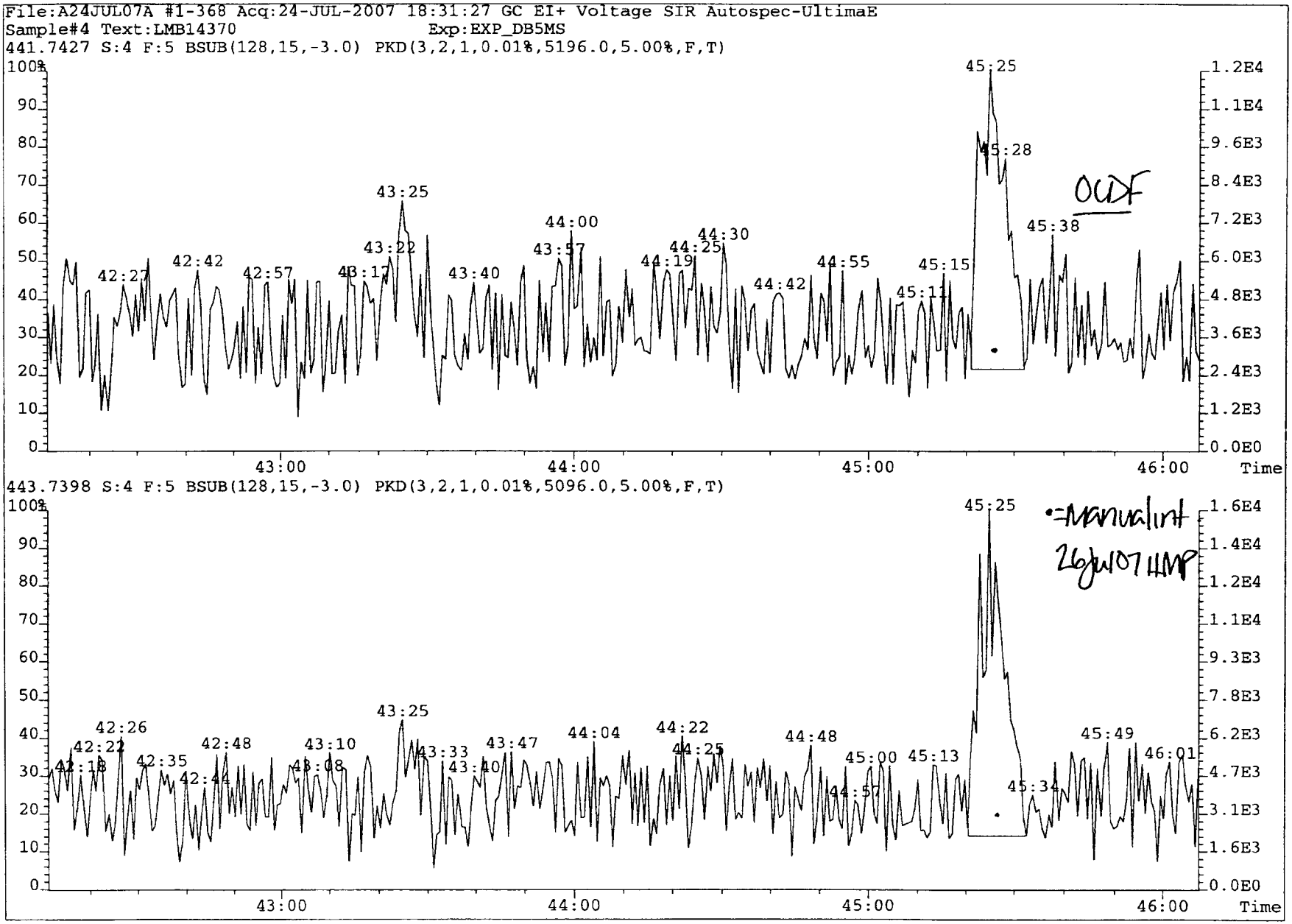

File:A24JUL07A #1-184 Acq:24-JUL-2007 18:31:27 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
339.8597 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4480.0,5.00%,F,T)
341.8568 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4664.0,5.00%,F,T)
351.9000 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,7424.0,5.00%,F,T)
353.8970 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4816.0,5.00%,F,T)
409.7974 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5828.0,5.00%,F,T)
366.9792 S:4 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

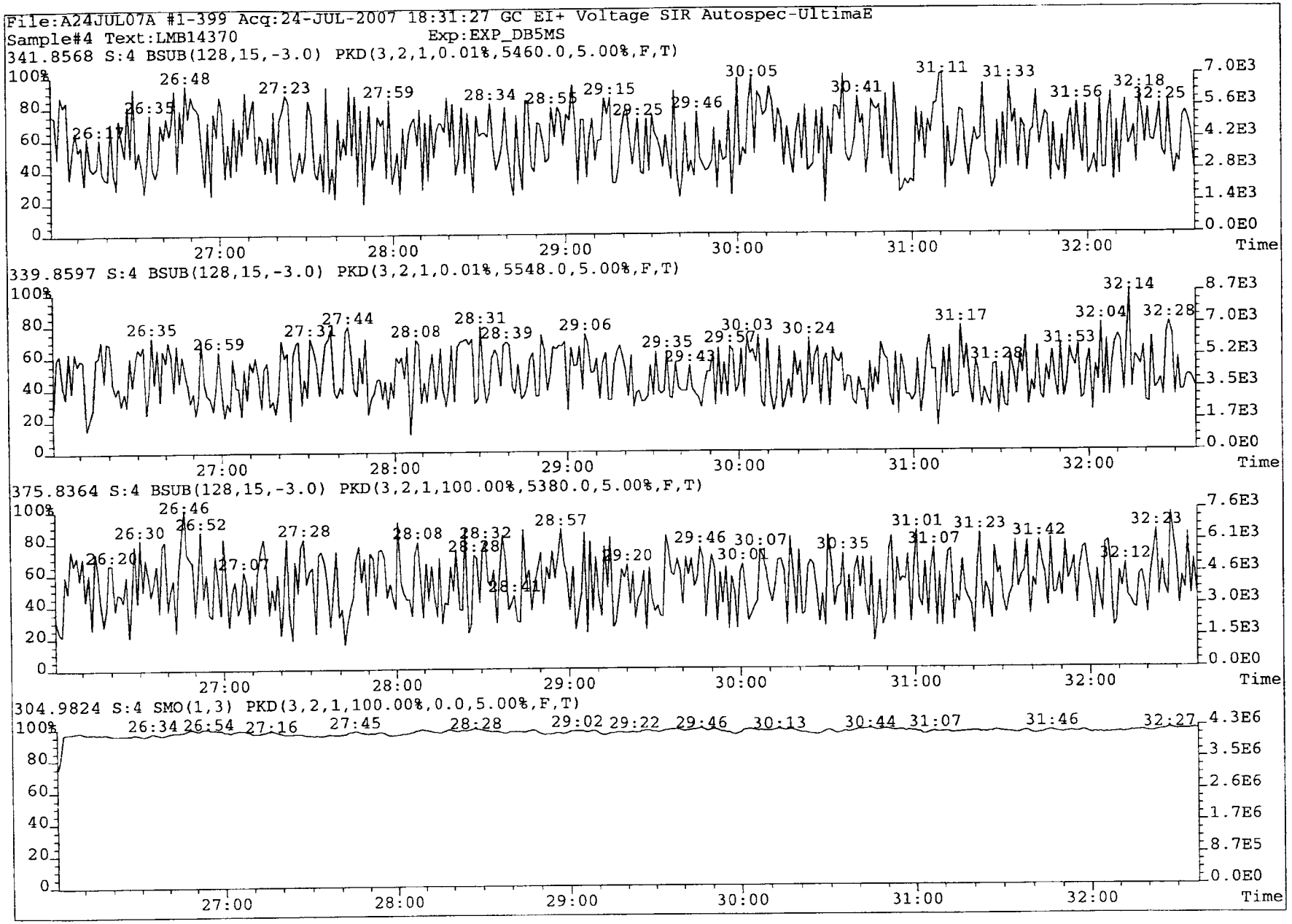

File:A24JUL07A #1-252 Acq:24-JUL-2007 18:31:27 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
373.8207 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5112.0,5.00%,F,T)
375.8178 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4528.0,5.00%,F,T)
383.8639 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5632.0,5.00%,F,T)
385.8610 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4856.0,5.00%,F,T)
445.7555 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5580.0,5.00%,F,T)
380.9760 S:4 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-292 Acq:24-JUL-2007 18:31:27 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
407.7818 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3656.0,5.00%,F,T)
409.7788 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3832.0,5.00%,F,T)
417.8253 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4904.0,5.00%,F,T)
419.8220 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4692.0,5.00%,F,T)
479.7165 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5756.0,5.00%,F,T)
430.9728 S:4 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-292 Acq:24-JUL-2007 18:31:27 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
407.7818 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3656.0,5.00%,F,T)
100%
39:21
38:30
38:34
38:41
39:00
39:31
39:50
40:00
40:11
40:20
38:24
38:36
38:48
39:00
39:12
39:24
39:36
39:48
40:00
40:12
40:24
Time
2.2E4
2.0E4
1.8E4
1.5E4
1.3E4
1.1E4
8.8E3
6.6E3
4.4E3
2.2E3
0.0E0
HpCiF
409.7788 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3832.0,5.00%,F,T)
100%
39:21
38:27
38:39
38:53
39:02
39:10
39:47
39:50
40:02
40:17
38:24
38:36
38:48
39:00
39:12
39:24
39:36
39:48
40:00
40:12
40:24
Time
2.2E4
2.0E4
1.8E4
1.5E4
1.3E4
1.1E4
8.8E3
6.6E3
4.4E3
2.2E3
0.0E0
•=Manual int.
26jul07 HMP


File:A24JUL07A #1-368 Acq:24-JUL-2007 18:31:27 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
441.7427 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5196.0,5.00%,F,T)
443.7398 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5096.0,5.00%,F,T)
469.7780 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4876.0,5.00%,F,T)
471.7750 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4684.0,5.00%,F,T)
513.6775 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4392.0,5.00%,F,T)
454.9728 S:4 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-368 Acq:24-JUL-2007 18:31:27 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
441.7427 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5196.0,5.00%,F,T)
OCDF
443.7398 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5096.0,5.00%,F,T)
•=manual int
26Jul07 HMP
Time


File:A24JUL07A #1-399 Acq:24-JUL-2007 18:31:27 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:LMB14370 Exp:EXP_DB5MS
341.8568 S:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5460.0,5.00%,F,T)
339.8597 S:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5548.0,5.00%,F,T)
375.8364 S:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5380.0,5.00%,F,T)
304.9824 S:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

Analytical Results
for
Ongoing Precision Result (OPR)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	REC %	Range % Lower	Range % Upper	Qualifier
2,3,7,8-TCDD	10	10.7	107	70.0	130	
1,2,3,7,8-PeCDD	50	49.9	99.7	70.0	130	
1,2,3,4,7,8-HxCDD	50	48.2	96.3	70.0	130	
1,2,3,6,7,8-HxCDD	50	49.8	99.7	70.0	130	
1,2,3,7,8,9-HxCDD	50	48.8	97.7	70.0	130	
1,2,3,4,6,7,8-HpCDD	50	50.5	101	70.0	130	
OCDD	100	100	100	70.0	130	
2,3,7,8-TCDF	10	9.26	92.6	70.0	130	
1,2,3,7,8-PeCDF	50	50.6	101	70.0	130	
2,3,4,7,8-PeCDF	50	47.6	95.2	70.0	130	
1,2,3,4,7,8-HxCDF	50	49.5	98.9	70.0	130	
1,2,3,6,7,8-HxCDF	50	49.3	98.6	70.0	130	
2,3,4,6,7,8-HxCDF	50	47.6	95.2	70.0	130	
1,2,3,7,8,9-HxCDF	50	44.7	89.4	70.0	130	
1,2,3,4,6,7,8-HpCDF	50	51.7	103	70.0	130	
1,2,3,4,7,8,9-HpCDF	50	47.1	94.2	70.0	130	
OCDF	100	91.4	91.4	70.0	130	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No:	OPR14370
Extraction Date:	22-Jul-07
Analysis Date:	24-Jul-07
Method:	M23

Sample Information

Matrix:	Air

File Information

OPR Filename:	a24jul07a-2
Retchk:	a24jul07a-1
Begin ConCal:	a24jul07a-1
End ConCal:	a24jul07a-11
Initial Cal:	m8290-071007a

Analytical Results
for
Ongoing Precision Result (OPR)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	4	3.48	86.9	31:39	0.78	
13C12-1,2,3,7,8-PeCDD	4	3.13	78.3	34:25	1.58	
13C12-1,2,3,6,7,8-HxCDD	4	3.97	99.2	37:12	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	4	3.66	91.4	40:37	1.05	
13C12-OCDD	8	5.93	74.2	45:06	0.89	
13C12-2,3,7,8-TCDF	4	3.90	97.6	31:07	0.79	
13C12-1,2,3,7,8-PeCDF	4	3.03	75.7	33:37	1.58	
13C12-1,2,3,6,7,8-HxCDF	4	3.73	93.4	36:28	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	4	3.37	84.3	39:19	0.45	
Sampling Standards						
37Cl4-2,3,7,8-TCDD	4.0	4.62	116	31:40	-	
13C12-2,3,4,7,8-PeCDF	4.0	4.21	105	34:15	1.58	
13C12-1,2,3,4,7,8-HxCDD	4.0	4.12	103	37:07	1.26	
13C12-1,2,3,4,7,8-HxCDF	4.0	4.36	109	36:22	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	4.19	105	41:19	0.46	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	31:15	0.78	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	37:27	1.24	

QC Information

OPR Project No:	OPR14370
Extraction Date:	22-Jul-07
Analysis Date:	24-Jul-07
Method:	M23

Sample Information

Matrix:	Air

File Information

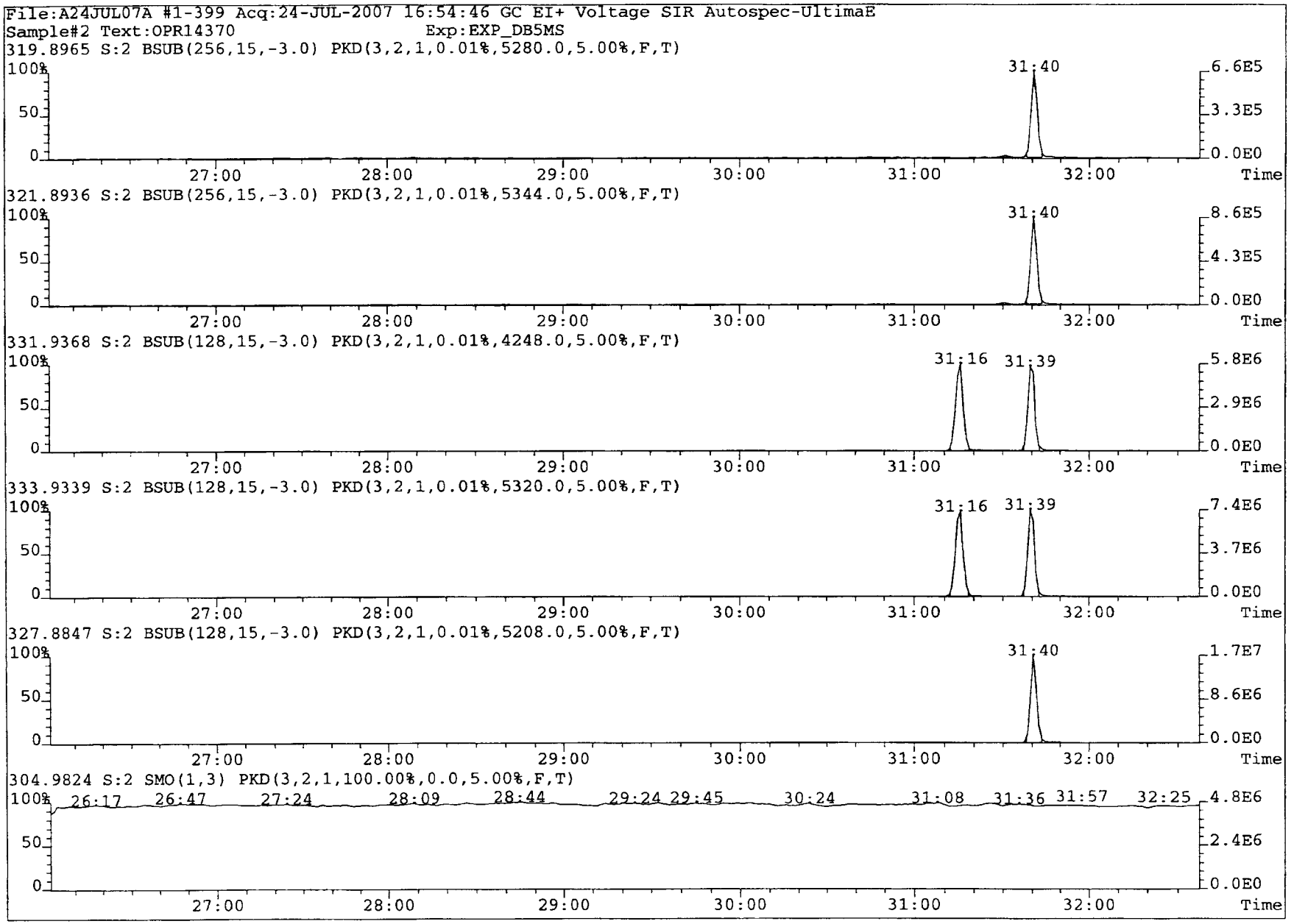
OPR Filename :	a24jul07a-2
Retchk:	a24jul07a-1
Begin ConCal:	a24jul07a-1
End ConCal:	a24jul07a-11
Initial Cal:	m8290-071007a

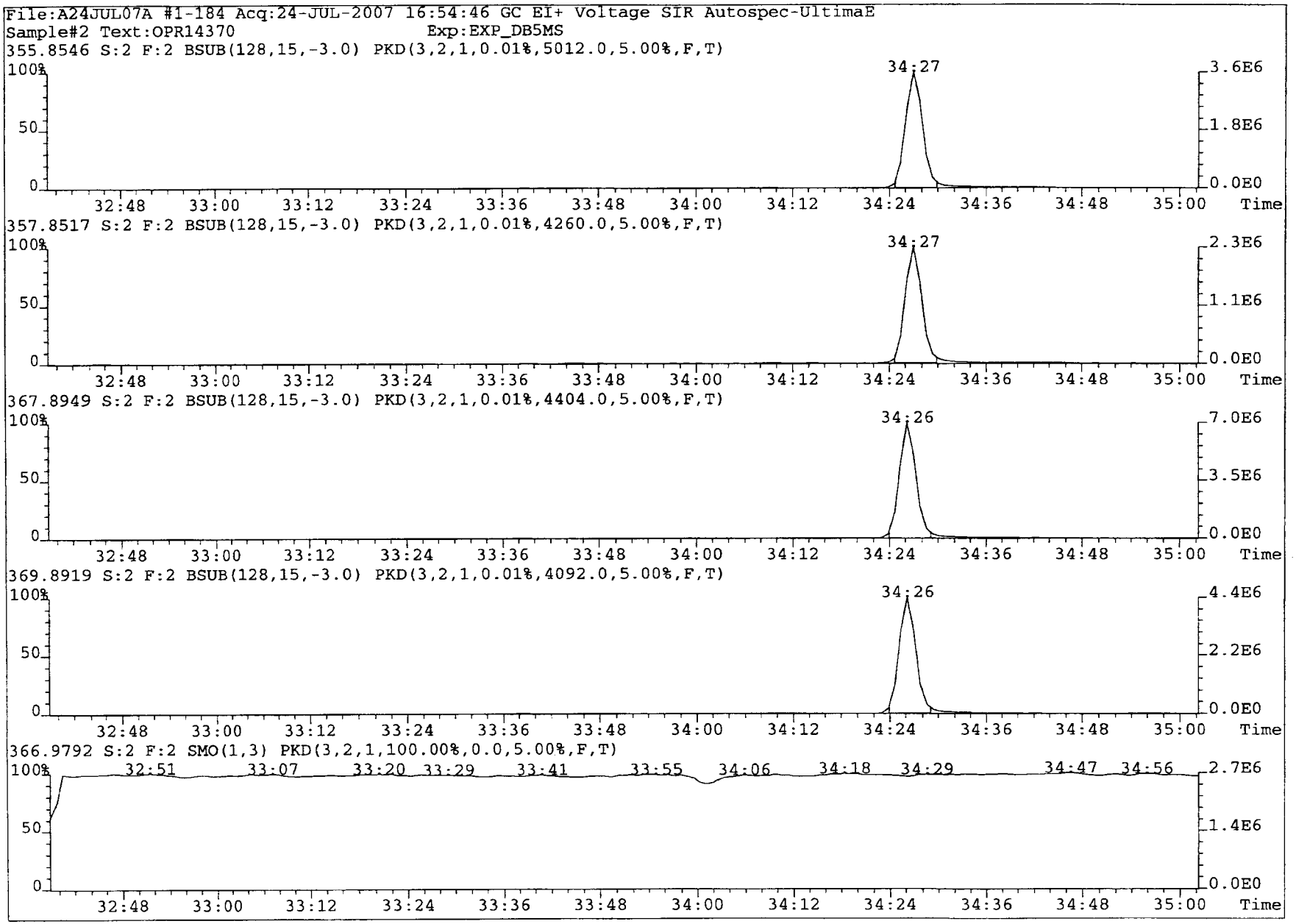
Form Version:[8290_DB_2.14]OPR

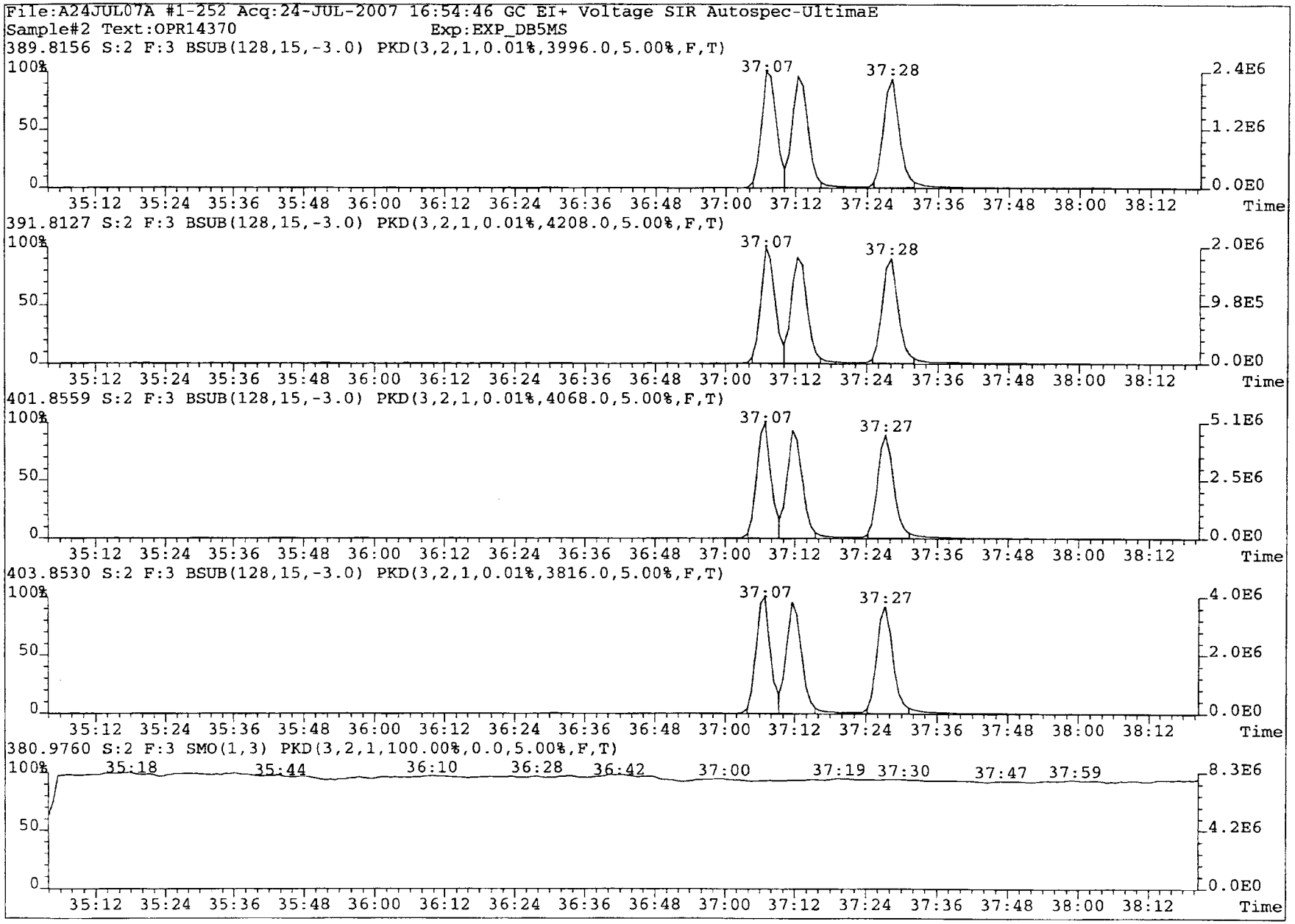
Reviewed By: _____ Date Reviewed: 7/24/07

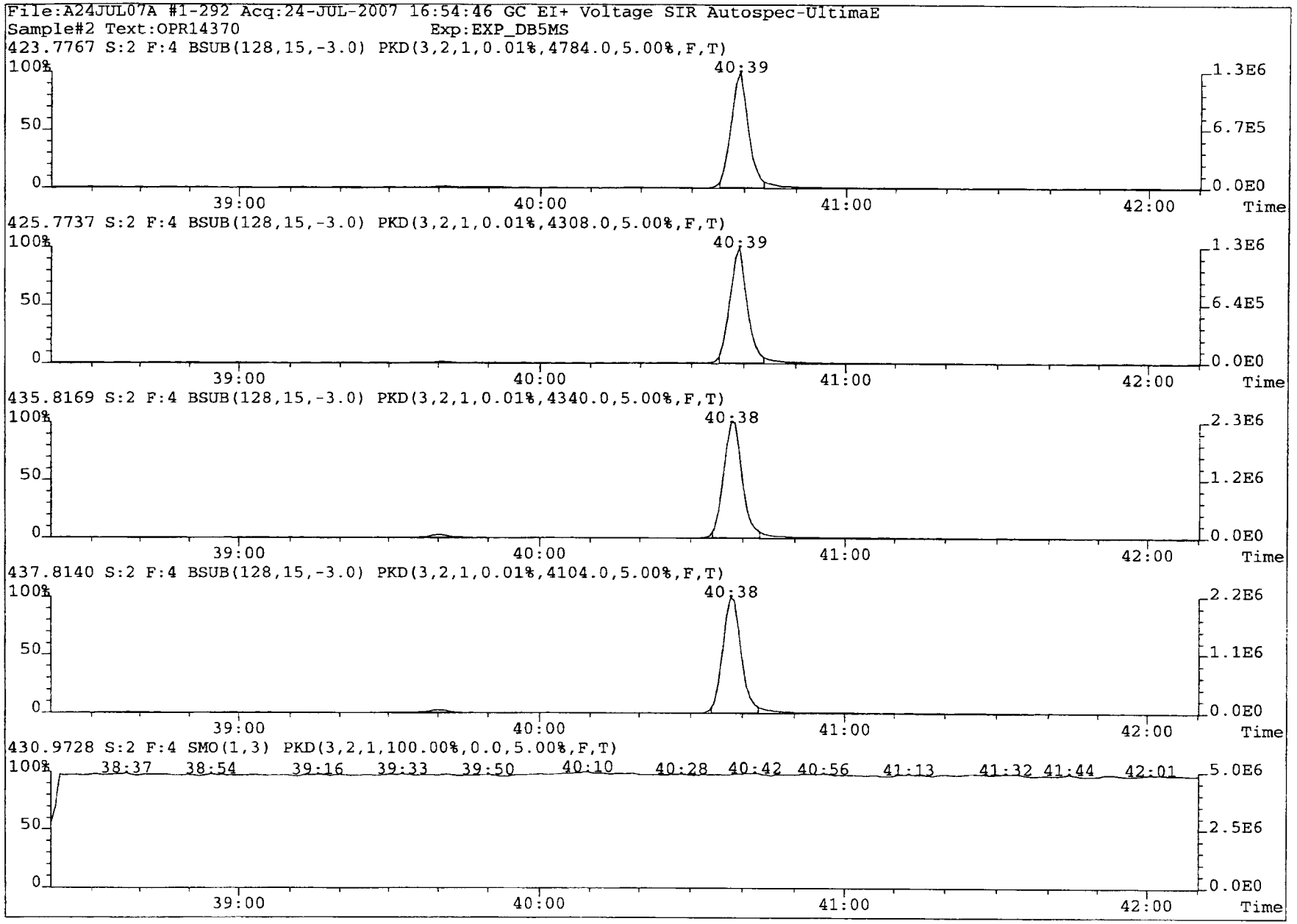
Filename ; a24jul07a ;*8290*
Sample ; 2
Acquired ; 24-JUL-07 16:54:46
Processed ; 25-JUL-07 08:09:42
Sample ID ; OPR14370
Cal Table ; m8290-071007a
Results Table ; M8290-072407A
Comments ;

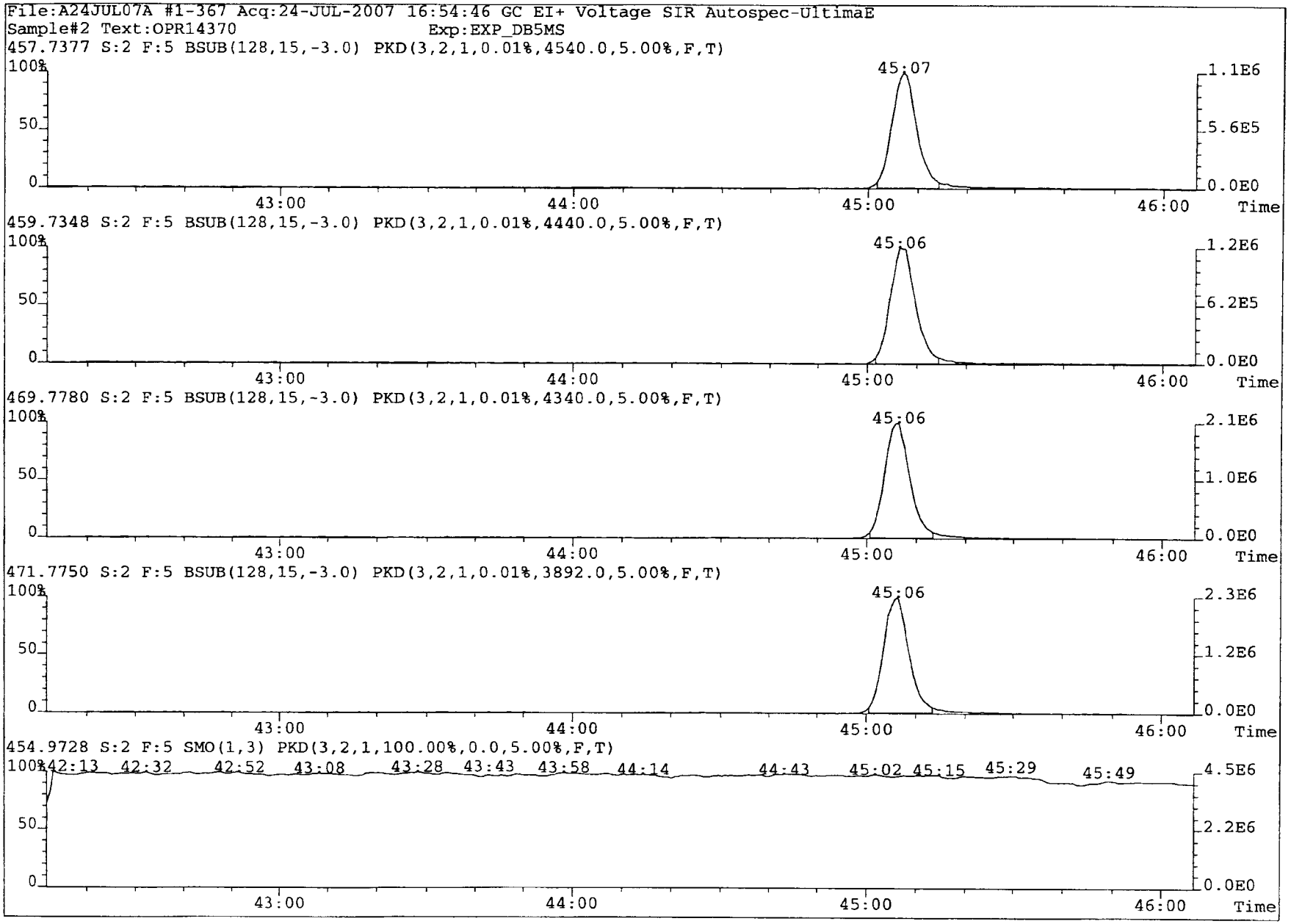
Ent;	Name;	Resp;	Ion 1;	Ion 2;	RA;?;	RT;	Conc;	EDL;	S/N1;?;	S/N2;?;M; Signal1; Noise 1; Signal2; Noise 2
1 ;	2,3,7,8-TCDD;	3.65e+06;	1.61e+06;	2.04e+06;	0.79;y;	31:40;	10.709;	0.2533;	125;y;	159;y;n;6.59e+05;5.28e+03;8.49e+05;5.34e+03
2 ;	1,2,3,7,8-PeCDD;	1.36e+07;	8.35e+06;	5.29e+06;	1.58;y;	34:27;	49.863;	0.2351;	711;y;	535;y;n;3.57e+06;5.01e+03;2.28e+06;4.26e+03
3 ;	1,2,3,4,7,8-HxCDD;	1.22e+07;	6.80e+06;	5.38e+06;	1.26;y;	37:07;	48.165;	0.2924;	592;y;	464;y;n;2.36e+06;4.00e+03;1.95e+06;4.21e+03
4 ;	1,2,3,6,7,8-HxCDD;	1.24e+07;	6.89e+06;	5.49e+06;	1.25;y;	37:12;	49.828;	0.2976;	572;y;	425;y;n;2.28e+06;4.00e+03;1.79e+06;4.21e+03
5 ;	1,2,3,7,8,9-HxCDD;	1.20e+07;	6.60e+06;	5.35e+06;	1.23;y;	37:28;	48.844;	0.3020;	556;y;	422;y;n;2.22e+06;4.00e+03;1.77e+06;4.21e+03
6 ;	1,2,3,4,6,7,8-HpCDD;	9.84e+06;	5.05e+06;	4.79e+06;	1.05;y;	40:39;	50.478;	0.5667;	280;y;	296;y;n;1.34e+06;4.78e+03;1.27e+06;4.31e+03
7 ;	OCDD;	1.34e+07;	6.35e+06;	7.08e+06;	0.90;y;	45:07;	99.977;	1.1473;	247;y;	277;y;n;1.12e+06;4.54e+03;1.23e+06;4.44e+03
8 ;	2,3,7,8-TCDF;	5.34e+06;	2.41e+06;	2.93e+06;	0.82;y;	31:09;	9.257;	0.1722;	140;y;	194;y;n;7.65e+05;5.48e+03;9.51e+05;4.90e+03
9 ;	1,2,3,7,8-PeCDF;	2.10e+07;	1.30e+07;	8.04e+06;	1.61;y;	33:38;	50.615;	0.1755;	1003;y;	739;y;n;5.62e+06;5.60e+03;3.53e+06;4.78e+03
10 ;	2,3,4,7,8-PeCDF;	2.05e+07;	1.26e+07;	7.88e+06;	1.60;y;	34:15;	47.575;	0.1692;	981;y;	731;y;n;5.50e+06;5.60e+03;3.50e+06;4.78e+03
11 ;	1,2,3,4,7,8-HxCDF;	1.75e+07;	9.71e+06;	7.77e+06;	1.25;y;	36:24;	49.453;	0.2208;	653;y;	797;y;n;3.63e+06;5.55e+03;2.83e+06;3.55e+03
12 ;	1,2,3,6,7,8-HxCDF;	1.85e+07;	1.03e+07;	8.25e+06;	1.24;y;	36:30;	49.322;	0.2081;	635;y;	785;y;n;3.52e+06;5.55e+03;2.79e+06;3.55e+03
13 ;	2,3,4,6,7,8-HxCDF;	1.69e+07;	9.37e+06;	7.56e+06;	1.24;y;	37:00;	47.585;	0.2194;	615;y;	779;y;n;3.41e+06;5.55e+03;2.77e+06;3.55e+03
14 ;	1,2,3,7,8,9-HxCDF;	1.37e+07;	7.68e+06;	5.97e+06;	1.29;y;	37:48;	44.689;	0.2555;	412;y;	499;y;n;2.29e+06;5.55e+03;1.77e+06;3.55e+03
15 ;	1,2,3,4,6,7,8-HpCDF;	1.56e+07;	7.98e+06;	7.62e+06;	1.05;y;	39:21;	51.709;	0.2936;	522;y;	541;y;n;2.37e+06;4.55e+03;2.23e+06;4.13e+03
16 ;	1,2,3,4,7,8,9-HpCDF;	1.12e+07;	5.75e+06;	5.45e+06;	1.05;y;	41:21;	47.114;	0.3725;	287;y;	308;y;n;1.31e+06;4.55e+03;1.27e+06;4.13e+03
17 ;	OCDF;	1.49e+07;	7.15e+06;	7.74e+06;	0.92;y;	45:26;	91.372;	0.6611;	771;y;	287;y;n;1.22e+06;1.58e+03;1.35e+06;4.70e+03
Extraction Standards										
18 ;	13C-2,3,7,8-TCDD;	3.52e+07;	1.55e+07;	1.97e+07;	0.78;y;	31:39;	86.886;	0.2080;	1323;y;	1386;y;n;5.62e+06;4.25e+03;7.37e+06;5.32e+03
19 ;	13C-1,2,3,7,8-PeCDD;	2.62e+07;	1.61e+07;	1.02e+07;	1.58;y;	34:26;	78.333;	0.2234;	1588;y;	1067;y;n;6.99e+06;4.40e+03;4.37e+06;4.09e+03
20 ;	13C-1,2,3,6,7,8-HxCDD;	2.57e+07;	1.43e+07;	1.14e+07;	1.25;y;	37:12;	99.202;	0.2765;	1164;y;	1000;y;n;4.74e+06;4.07e+03;3.82e+06;3.82e+03
21 ;	13C-1,2,3,4,6,7,8-HpCDD;	1.84e+07;	9.43e+06;	8.98e+06;	1.05;y;	40:38;	91.403;	0.3808;	531;y;	546;y;n;2.31e+06;4.34e+03;2.24e+06;4.10e+03
22 ;	13C-OCDD;	2.49e+07;	1.17e+07;	1.32e+07;	0.89;y;	45:06;	148.357;	0.4455;	472;y;	592;y;n;2.05e+06;4.34e+03;2.30e+06;3.89e+03
23 ;	13C-2,3,7,8-TCDF;	5.15e+07;	2.28e+07;	2.87e+07;	0.79;y;	31:08;	97.598;	0.1550;	1645;y;	1811;y;n;7.20e+06;4.38e+03;8.92e+06;4.92e+03
24 ;	13C-1,2,3,7,8-PeCDF;	4.16e+07;	2.55e+07;	1.61e+07;	1.58;y;	33:38;	75.676;	0.1674;	2167;y;	1271;y;n;1.07e+07;4.96e+03;6.98e+06;5.49e+03
25 ;	13C-1,2,3,6,7,8-HxCDF;	3.23e+07;	1.11e+07;	2.12e+07;	0.52;y;	36:29;	93.360;	0.2123;	789;y;	2364;y;n;3.93e+06;4.99e+03;7.35e+06;3.11e+03
26 ;	13C-1,2,3,4,6,7,8-HpCDF;	2.17e+07;	6.75e+06;	1.49e+07;	0.45;y;	39:20;	84.279;	0.2652;	571;y;	1087;y;n;1.99e+06;3.48e+03;4.39e+06;4.04e+03
Injection Standards										
27 ;	13C-1,2,3,4-TCDD;	3.83e+07;	1.68e+07;	2.15e+07;	0.78;y;	31:15;	47.021;	-;	1367;y;	1359;y;n;5.81e+06;4.25e+03;7.23e+06;5.32e+03
28 ;	13C-1,2,3,7,8,9-HxCDD;	2.49e+07;	1.38e+07;	1.11e+07;	1.24;y;	37:27;	34.975;	-;	1118;y;	960;y;n;4.55e+06;4.07e+03;3.66e+06;3.82e+03
Cleanup Standards										
29 ;	37Cl-2,3,7,8-TCDD;	4.15e+07;	4.15e+07;	-;	-;-;	31:40;	100.429;	0.1109;	3294;y;	-;-;n;1.72e+07;5.21e+03; -; -
30 ;	13C-2,3,4,7,8-PeCDF;	4.30e+07;	2.63e+07;	1.67e+07;	1.58;y;	34:15;	79.781;	0.1705;	2279;y;	1278;y;n;1.13e+07;4.96e+03;7.02e+06;5.49e+03
31 ;	13C-1,2,3,4,7,8-HxCDD;	2.52e+07;	1.40e+07;	1.11e+07;	1.26;y;	37:07;	102.204;	0.2910;	1247;y;	1042;y;n;5.07e+06;4.07e+03;3.98e+06;3.82e+03
32 ;	13C-1,2,3,4,7,8-HxCDF;	3.18e+07;	1.08e+07;	2.10e+07;	0.52;y;	36:23;	101.916;	0.2360;	808;y;	2449;y;n;4.03e+06;4.99e+03;7.61e+06;3.11e+03
33 ;	13C-1,2,3,4,7,8,9-HpCDF;	2.03e+07;	6.34e+06;	1.39e+07;	0.46;y;	41:20;	88.358;	0.2973;	430;y;	802;y;n;1.49e+06;3.48e+03;3.24e+06;4.04e+03
Sampling Standards										
34 ;	37Cl-2,3,7,8-TCDD;	4.15e+07;	4.15e+07;	-;	-;-;	31:40;	115.596;	0.1180;	3294;y;	-;-;n;1.72e+07;5.21e+03; -; -
35 ;	13C-2,3,4,7,8-PeCDF;	4.30e+07;	2.63e+07;	1.67e+07;	1.58;y;	34:15;	105.372;	0.1795;	2279;y;	1278;y;n;1.13e+07;4.96e+03;7.02e+06;5.49e+03
36 ;	13C-1,2,3,4,7,8-HxCDD;	2.52e+07;	1.40e+07;	1.11e+07;	1.26;y;	37:07;	103.024;	0.2910;	1247;y;	1042;y;n;5.07e+06;4.07e+03;3.98e+06;3.82e+03
37 ;	13C-1,2,3,4,7,8-HxCDF;	3.18e+07;	1.08e+07;	2.10e+07;	0.52;y;	36:23;	109.110;	0.2385;	808;y;	2449;y;n;4.03e+06;4.99e+03;7.61e+06;3.11e+03
38 ;	13C-1,2,3,4,7,8,9-HpCDF;	2.03e+07;	6.34e+06;	1.39e+07;	0.46;y;	41:20;	104.845;	0.3963;	430;y;	802;y;n;1.49e+06;3.48e+03;3.24e+06;4.04e+03

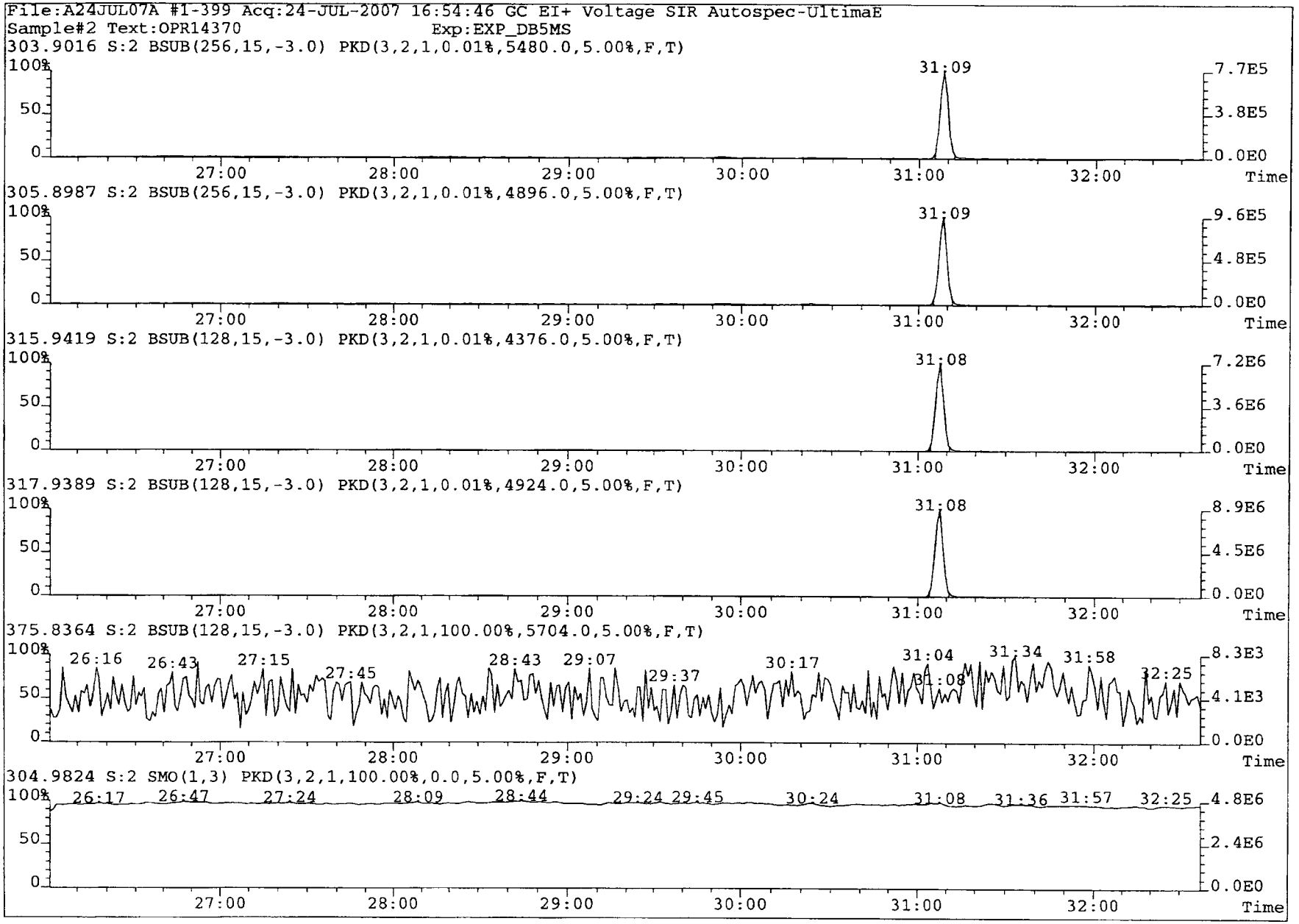

File:A24JUL07A #1-399 Acq:24-JUL-2007 16:54:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:OPR14370 Exp:EXP_DB5MS
319.8965 S:2 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5280.0,5.00%,F,T)
31:40
6.6E5
3.3E5
0.0E0
321.8936 S:2 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5344.0,5.00%,F,T)
31:40
8.6E5
4.3E5
0.0E0
331.9368 S:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4248.0,5.00%,F,T)
31:16
31:39
5.8E6
2.9E6
0.0E0
333.9339 S:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5320.0,5.00%,F,T)
31:16
31:39
7.4E6
3.7E6
0.0E0
327.8847 S:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5208.0,5.00%,F,T)
31:40
1.7E7
8.6E6
0.0E0
304.9824 S:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:17
26:47
27:24
28:09
28:44
29:24
29:45
30:24
31:08
31:36
31:57
32:25
4.8E6
2.4E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time

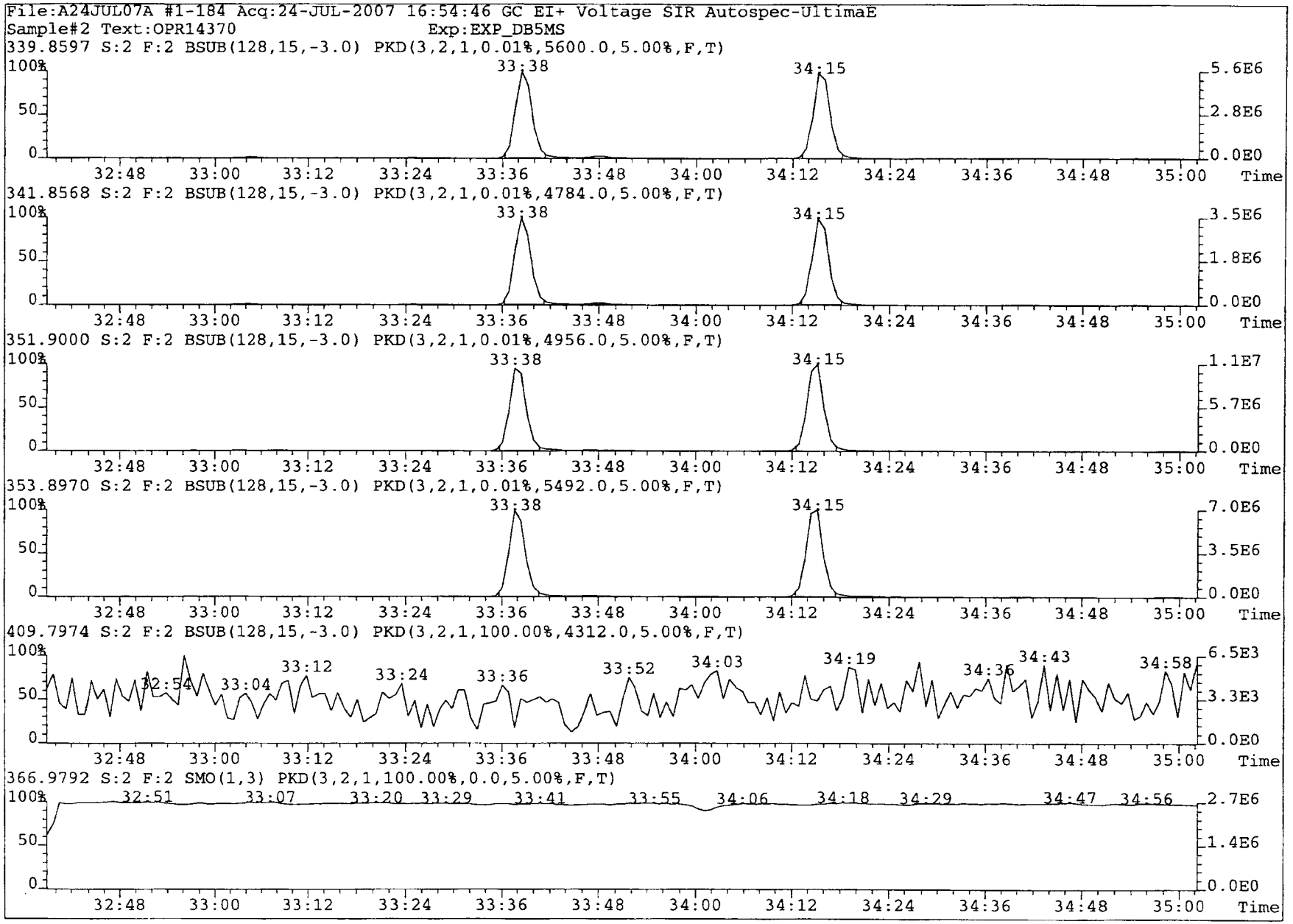

File:A24JUL07A #1-184 Acq:24-JUL-2007 16:54:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:OPR14370 Exp:EXP_DB5MS
355.8546 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5012.0,5.00%,F,T)
34:27
3.6E6
1.8E6
0.0E0
357.8517 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4260.0,5.00%,F,T)
34:27
2.3E6
1.1E6
0.0E0
367.8949 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4404.0,5.00%,F,T)
34:26
7.0E6
3.5E6
0.0E0
369.8919 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4092.0,5.00%,F,T)
34:26
4.4E6
2.2E6
0.0E0
366.9792 S:2 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:51 33:07 33:20 33:29 33:41 33:55 34:06 34:18 34:29 34:47 34:56
2.7E6
1.4E6
0.0E0
100%
50
0
32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00
Time

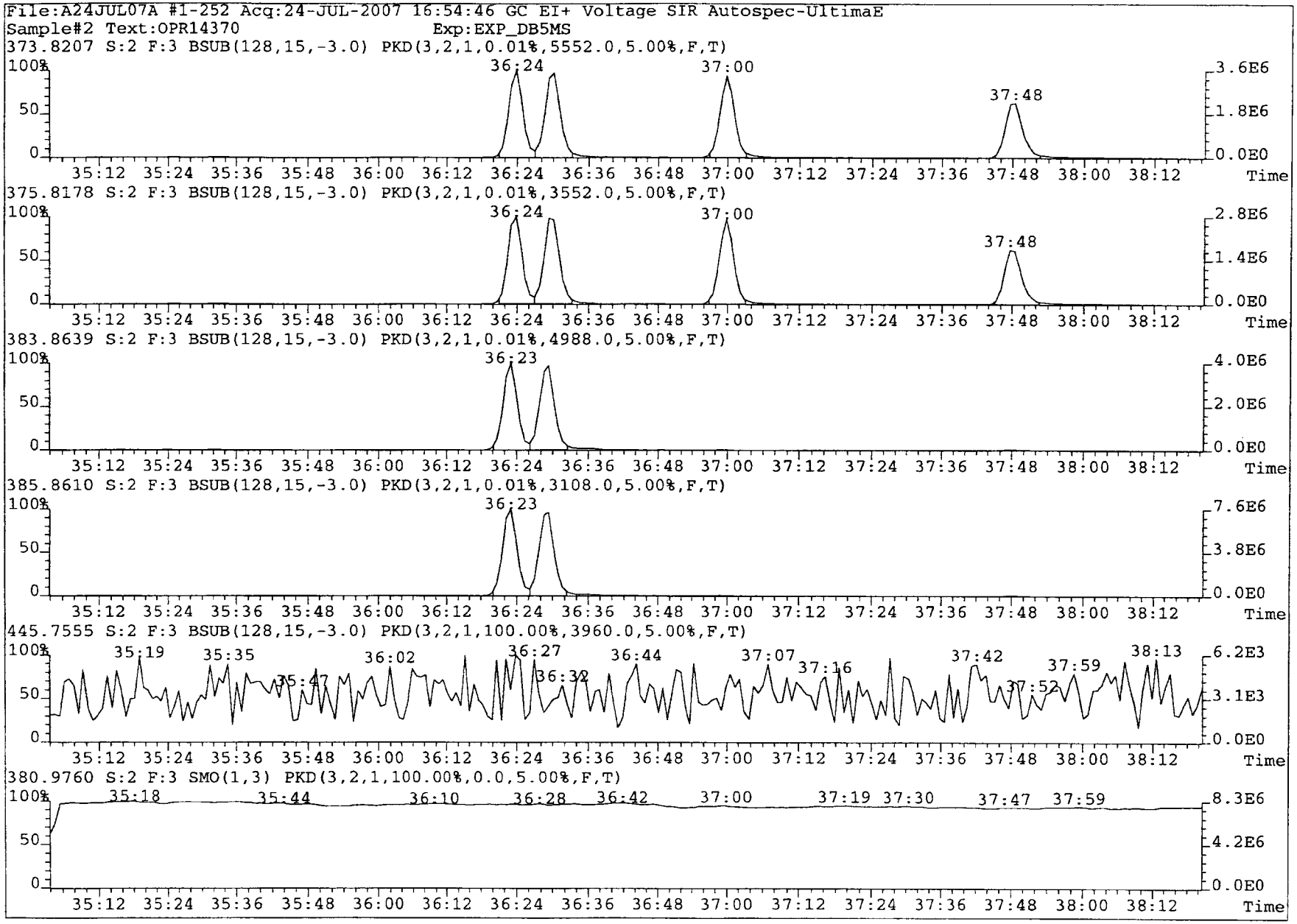

File:A24JUL07A #1-252 Acq:24-JUL-2007 16:54:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:OPR14370 Exp:EXP_DB5MS
389.8156 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3996.0,5.00%,F,T)
37:07
37:28
2.4E6
1.2E6
0.0E0
391.8127 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4208.0,5.00%,F,T)
37:07
37:28
2.0E6
9.8E5
0.0E0
401.8559 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4068.0,5.00%,F,T)
37:07
37:27
5.1E6
2.5E6
0.0E0
403.8530 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3816.0,5.00%,F,T)
37:07
37:27
4.0E6
2.0E6
0.0E0
380.9760 S:2 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:18 35:44 36:10 36:28 36:42 37:00 37:19 37:30 37:47 37:59
8.3E6
4.2E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

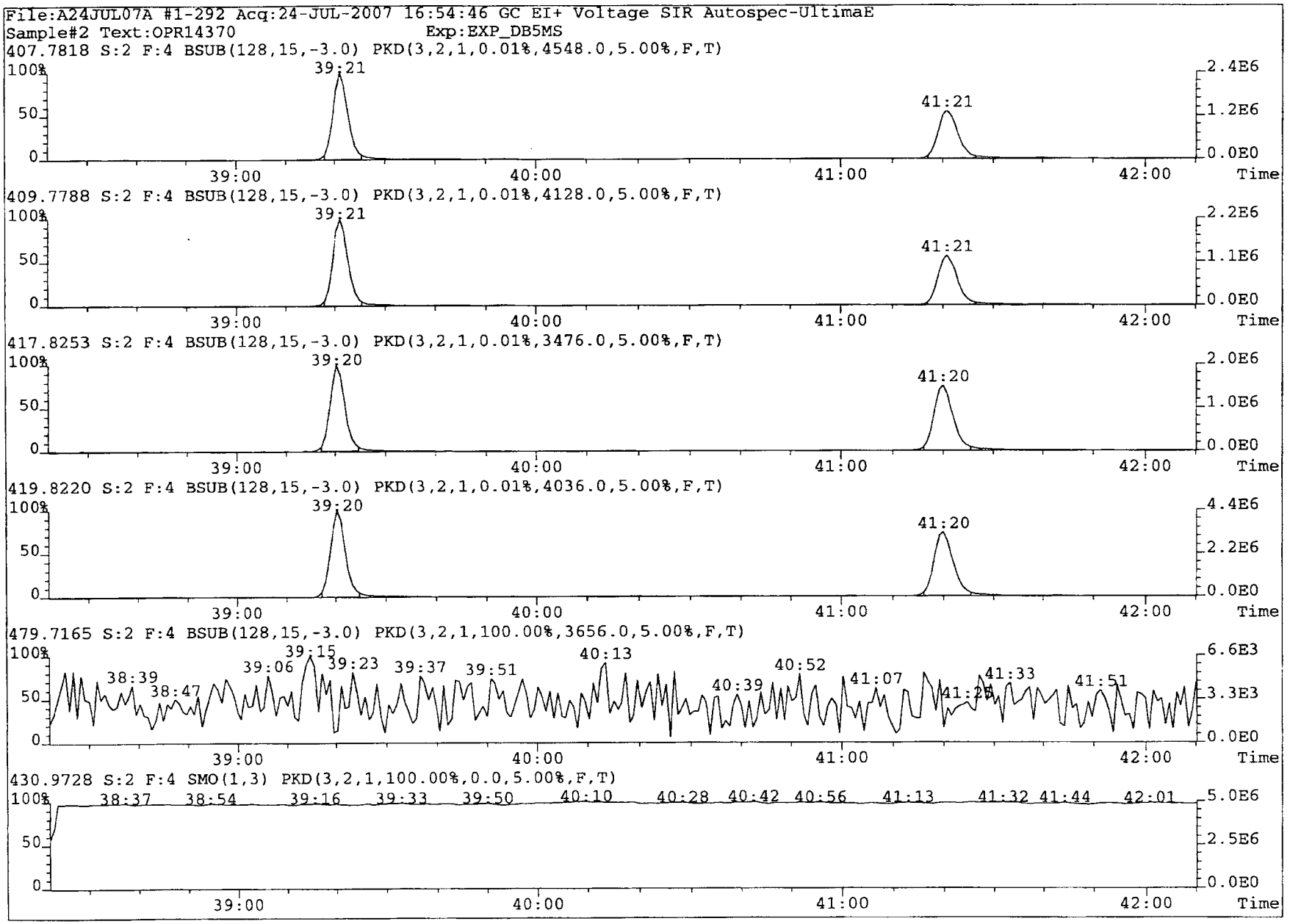

File:A24JUL07A #1-292 Acq:24-JUL-2007 16:54:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:OPR14370 Exp:EXP_DB5MS
423.7767 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4784.0,5.00%,F,T)
40:39
1.3E6
6.7E5
0.0E0
425.7737 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4308.0,5.00%,F,T)
40:39
1.3E6
6.4E5
0.0E0
435.8169 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4340.0,5.00%,F,T)
40:38
2.3E6
1.2E6
0.0E0
437.8140 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4104.0,5.00%,F,T)
40:38
2.2E6
1.1E6
0.0E0
430.9728 S:2 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:37 38:54 39:16 39:33 39:50 40:10 40:28 40:42 40:56 41:13 41:32 41:44 42:01
5.0E6
2.5E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

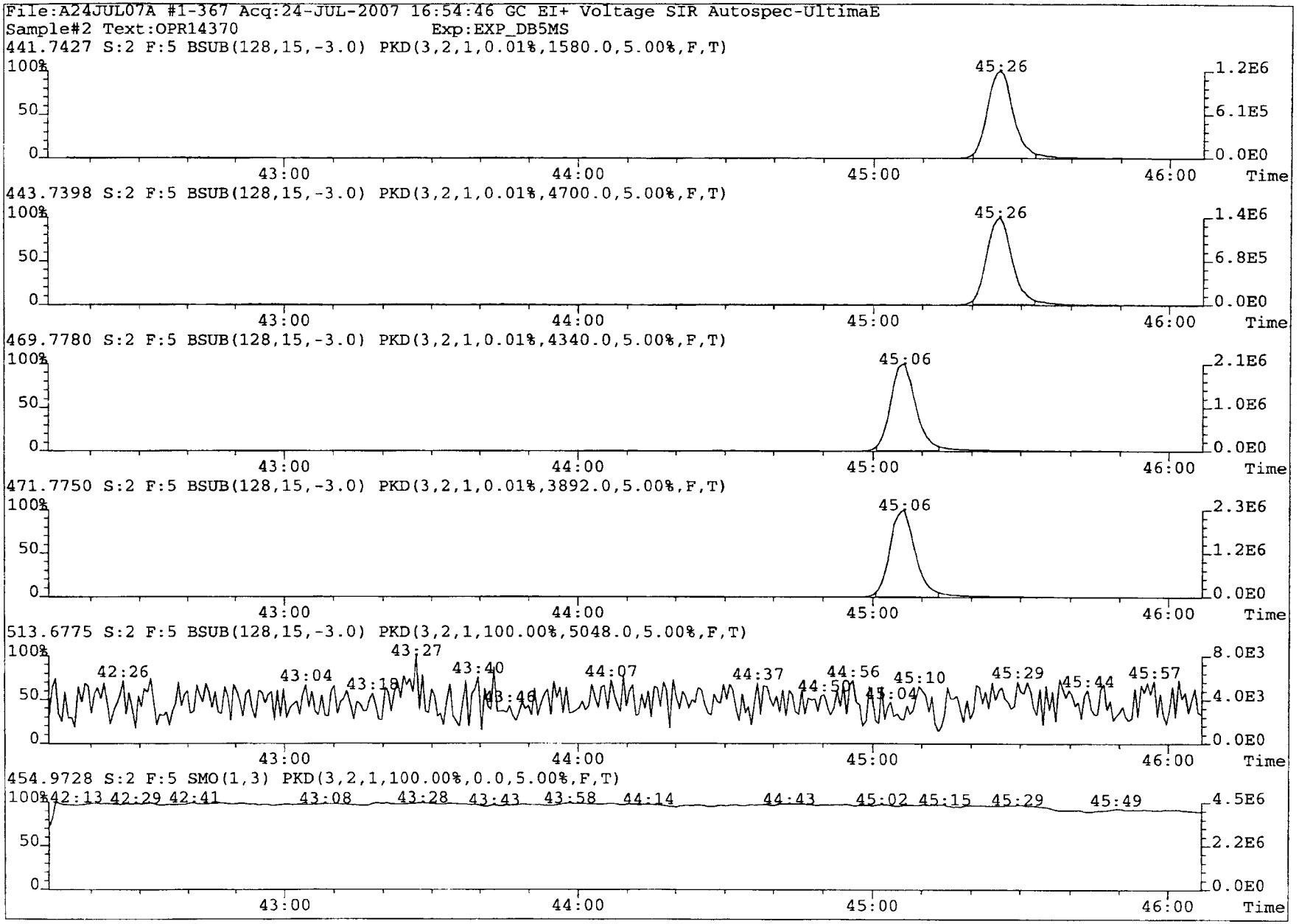

File:A24JUL07A #1-367 Acq:24-JUL-2007 16:54:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:OPR14370 Exp:EXP_DB5MS
457.7377 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4540.0,5.00%,F,T)
45:07
1.1E6
5.6E5
0.0E0
459.7348 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4440.0,5.00%,F,T)
45:06
1.2E6
6.2E5
0.0E0
469.7780 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4340.0,5.00%,F,T)
45:06
2.1E6
1.0E6
0.0E0
471.7750 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3892.0,5.00%,F,T)
45:06
2.3E6
1.2E6
0.0E0
454.9728 S:2 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:13 42:32 42:52 43:08 43:28 43:43 43:58 44:14 44:43 45:02 45:15 45:29 45:49
4.5E6
2.2E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

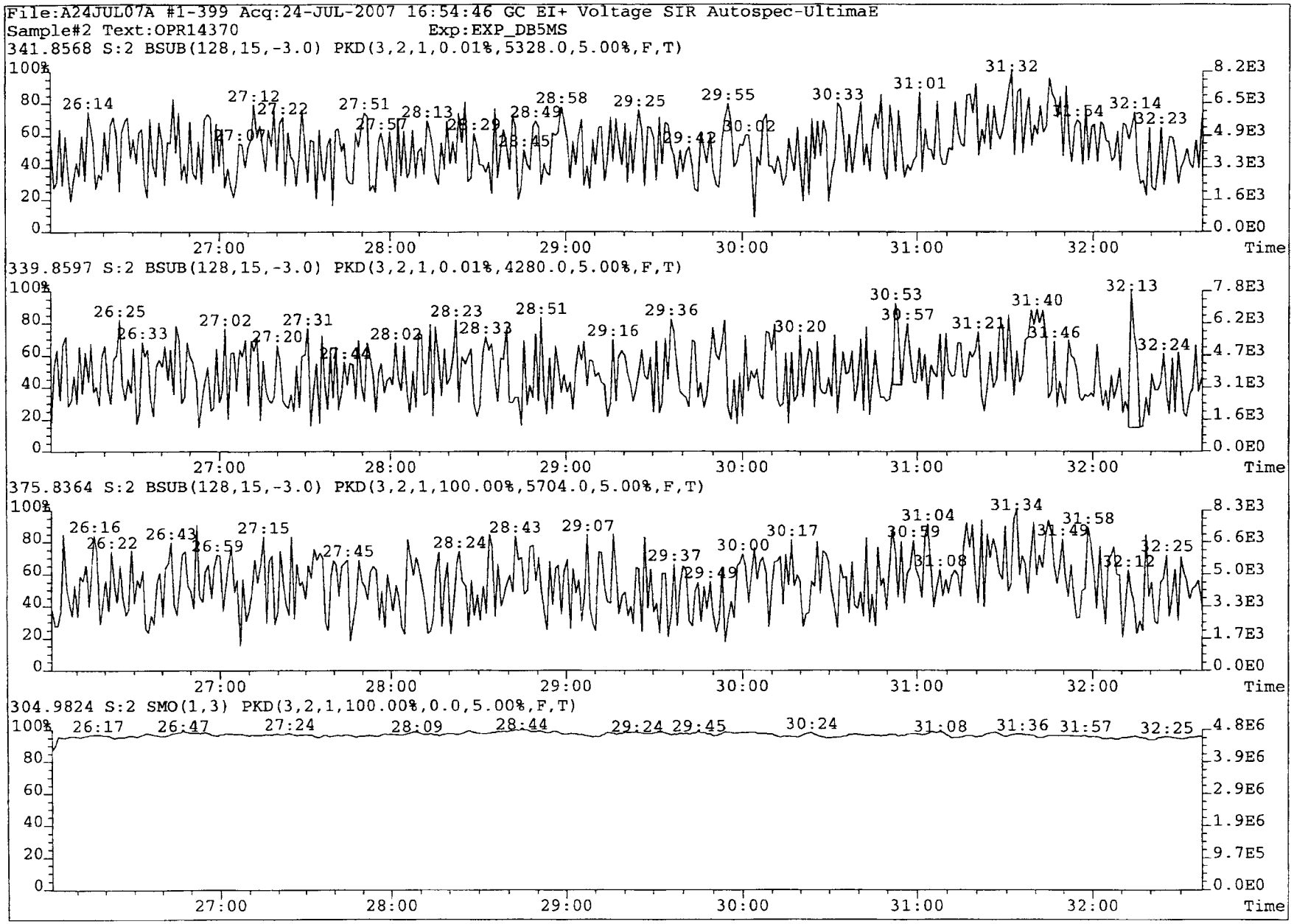

File:A24JUL07A #1-399 Acq:24-JUL-2007 16:54:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:OPR14370 Exp:EXP_DB5MS
303.9016 S:2 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5480.0,5.00%,F,T)
31:09
7.7E5
3.8E5
0.0E0
305.8987 S:2 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4896.0,5.00%,F,T)
31:09
9.6E5
4.8E5
0.0E0
315.9419 S:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4376.0,5.00%,F,T)
31:08
7.2E6
3.6E6
0.0E0
317.9389 S:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4924.0,5.00%,F,T)
31:08
8.9E6
4.5E6
0.0E0
375.8364 S:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5704.0,5.00%,F,T)
26:16 26:43 27:15 27:45 28:43 29:07 29:37 30:17 31:04 31:08 31:34 31:58 32:25
8.3E3
4.1E3
0.0E0
304.9824 S:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:17 26:47 27:24 28:09 28:44 29:24 29:45 30:24 31:08 31:36 31:57 32:25
4.8E6
2.4E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time


File:A24JUL07A #1-184 Acq:24-JUL-2007 16:54:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:OPR14370 Exp:EXP_DB5MS
339.8597 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5600.0,5.00%,F,T)
33:38
34:15
5.6E6
2.8E6
0.0E0
341.8568 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4784.0,5.00%,F,T)
33:38
34:15
3.5E6
1.8E6
0.0E0
351.9000 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4956.0,5.00%,F,T)
33:38
34:15
1.1E7
5.7E6
0.0E0
353.8970 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5492.0,5.00%,F,T)
33:38
34:15
7.0E6
3.5E6
0.0E0
409.7974 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4312.0,5.00%,F,T)
32:54
33:04
33:12
33:24
33:36
33:52
34:03
34:19
34:36
34:43
34:58
6.5E3
3.3E3
0.0E0
366.9792 S:2 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:51
33:07
33:20
33:29
33:41
33:55
34:06
34:18
34:29
34:47
34:56
2.7E6
1.4E6
0.0E0
100%
50
0
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time


File:A24JUL07A #1-252 Acq:24-JUL-2007 16:54:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:OPR14370 Exp:EXP_DB5MS
373.8207 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5552.0,5.00%,F,T)
375.8178 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3552.0,5.00%,F,T)
383.8639 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4988.0,5.00%,F,T)
385.8610 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3108.0,5.00%,F,T)
445.7555 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,3960.0,5.00%,F,T)
380.9760 S:2 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time


File:A24JUL07A #1-292 Acq:24-JUL-2007 16:54:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:OPR14370 Exp:EXP_DB5MS
407.7818 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4548.0,5.00%,F,T)
39:21
41:21
2.4E6
1.2E6
0.0E0
409.7788 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4128.0,5.00%,F,T)
39:21
41:21
2.2E6
1.1E6
0.0E0
417.8253 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3476.0,5.00%,F,T)
39:20
41:20
2.0E6
1.0E6
0.0E0
419.8220 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4036.0,5.00%,F,T)
39:20
41:20
4.4E6
2.2E6
0.0E0
479.7165 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,3656.0,5.00%,F,T)
38:39
38:47
39:06
39:15
39:23
39:37
39:51
40:13
40:39
40:52
41:07
41:33
41:51
6.6E3
3.3E3
0.0E0
430.9728 S:2 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:37
38:54
39:16
39:33
39:50
40:10
40:28
40:42
40:56
41:13
41:32
41:44
42:01
5.0E6
2.5E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time


File:A24JUL07A #1-367 Acq:24-JUL-2007 16:54:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:OPR14370 Exp:EXP_DB5MS
441.7427 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1580.0,5.00%,F,T)
45:26
1.2E6
6.1E5
0.0E0
443.7398 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4700.0,5.00%,F,T)
45:26
1.4E6
6.8E5
0.0E0
469.7780 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4340.0,5.00%,F,T)
45:06
2.1E6
1.0E6
0.0E0
471.7750 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3892.0,5.00%,F,T)
45:06
2.3E6
1.2E6
0.0E0
513.6775 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5048.0,5.00%,F,T)
42:26
43:04
43:27
43:40
44:07
44:37
44:56
45:10
45:29
45:44
45:57
8.0E3
4.0E3
0.0E0
454.9728 S:2 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:13 42:29 42:41
43:08
43:28 43:43 43:58
44:14
44:43
45:02 45:15 45:29
45:49
4.5E6
2.2E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time


File:A24JUL07A #1-399 Acq:24-JUL-2007 16:54:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:OPR14370 Exp:EXP_DB5MS
341.8568 S:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5328.0,5.00%,F,T)
339.8597 S:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4280.0,5.00%,F,T)
375.8364 S:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5704.0,5.00%,F,T)
304.9824 S:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	Recovery %	#	Range Lower	Upper	OPR Rec(%)	#	RPD (±20%)	Qualifier
2,3,7,8-TCDD	10.0	10.3	103		70.0	130	107		3.68	
1,2,3,7,8-PeCDD	50.0	48.7	97.4		70.0	130	99.7		2.41	
1,2,3,4,7,8-HxCDD	50.0	47.5	94.9		70.0	130	96.3		1.46	
1,2,3,6,7,8-HxCDD	50.0	49.3	98.7		70.0	130	99.7		1.03	
1,2,3,7,8,9-HxCDD	50.0	48.7	97.4		70.0	130	97.7		0.351	
1,2,3,4,6,7,8-HpCDD	50.0	49.6	99.2		70.0	130	101		1.80	
OCDD	100	99.9	99.9		70.0	130	100		0.0550	
2,3,7,8-TCDF	10.0	9.02	90.2		70.0	130	92.6		2.66	
1,2,3,7,8-PeCDF	50.0	49.8	99.6		70.0	130	101		1.39	
2,3,4,7,8-PeCDF	50.0	47.0	94.1		70.0	130	95.2		1.21	
1,2,3,4,7,8-HxCDF	50.0	48.3	96.7		70.0	130	98.9		2.28	
1,2,3,6,7,8-HxCDF	50.0	49.5	99.0		70.0	130	98.6		0.420	
2,3,4,6,7,8-HxCDF	50.0	48.7	97.4		70.0	130	95.2		2.21	
1,2,3,7,8,9-HxCDF	50.0	44.5	89.1		70.0	130	89.4		0.391	
1,2,3,4,6,7,8-HpCDF	50.0	52.1	104		70.0	130	103		1.13	
1,2,3,4,7,8,9-HpCDF	50.0	44.8	89.6		70.0	130	94.2		5.12	
OCDF	100	92.0	92.0		70.0	130	91.4		0.627	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No:	OPRD14370
Extraction Date:	22-Jul-07
Analysis Date:	24-Jul-07
Method:	M23

Sample Information

Matrix:	Air

File Information

OPRD Filename :	a24jul07a-3
Retchk:	a24jul07a-1
Begin ConCal:	a24jul07a-1
End ConCal:	a24jul07a-11
Initial Cal:	m8290-071007a

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards			(40-135%)			
13C12-2,3,7,8-TCDD	4	2.89	72.2	31:39	0.78	
13C12-1,2,3,7,8-PeCDD	4	2.67	66.8	34:25	1.58	
13C12-1,2,3,6,7,8-HxCDD	4	3.22	80.5	37:12	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	4	2.96	73.9	40:37	1.06	
13C12-OCDD	8	4.74	59.2	45:06	0.90	
13C12-2,3,7,8-TCDF	4	3.20	80.1	31:07	0.78	
13C12-1,2,3,7,8-PeCDF	4	2.51	62.8	33:37	1.59	
13C12-1,2,3,6,7,8-HxCDF	4	2.94	73.6	36:28	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	4	2.75	68.8	39:19	0.45	
Sampling Standards			(70-130%)			
37Cl4-2,3,7,8-TCDD	4.0	4.51	113	31:40	-	
13C12-2,3,4,7,8-PeCDF	4.0	4.18	104	34:15	1.59	
13C12-1,2,3,4,7,8-HxCDD	4.0	4.04	101	37:07	1.28	
13C12-1,2,3,4,7,8-HxCDF	4.0	4.22	105	36:22	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	4.06	101	41:19	0.45	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	31:15	0.78	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	37:27	1.25	

QC Information

OPR Project No:	OPRD14370
Extraction Date:	22-Jul-07
Analysis Date:	24-Jul-07
Method:	M23

Sample Information

Matrix:	Air

File Information

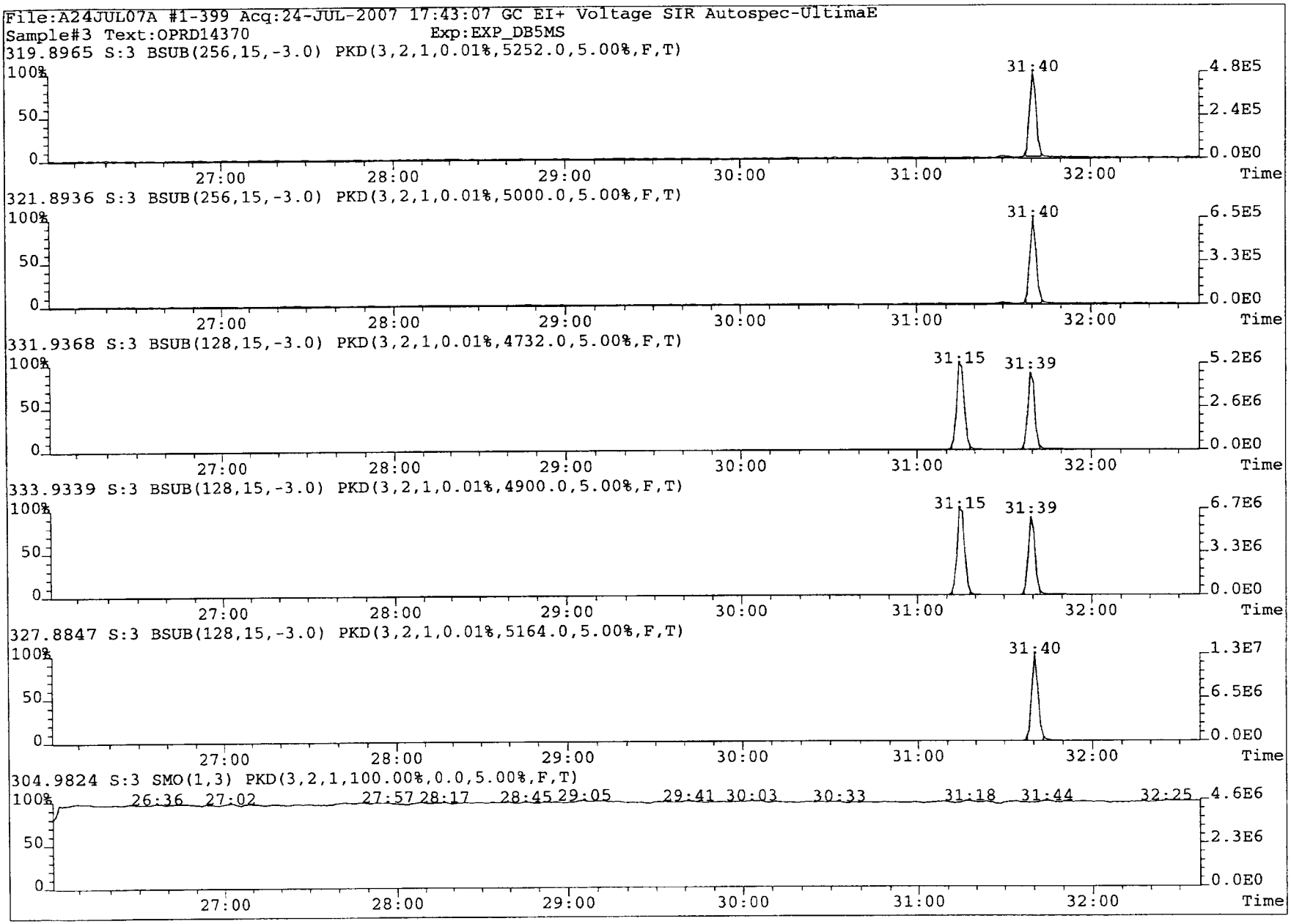
OPRD Filename :	a24jul07a-3
Retchk:	a24jul07a-1
Begin ConCal:	a24jul07a-1
End ConCal:	a24jul07a-11
Initial Cal:	m8290-071007a

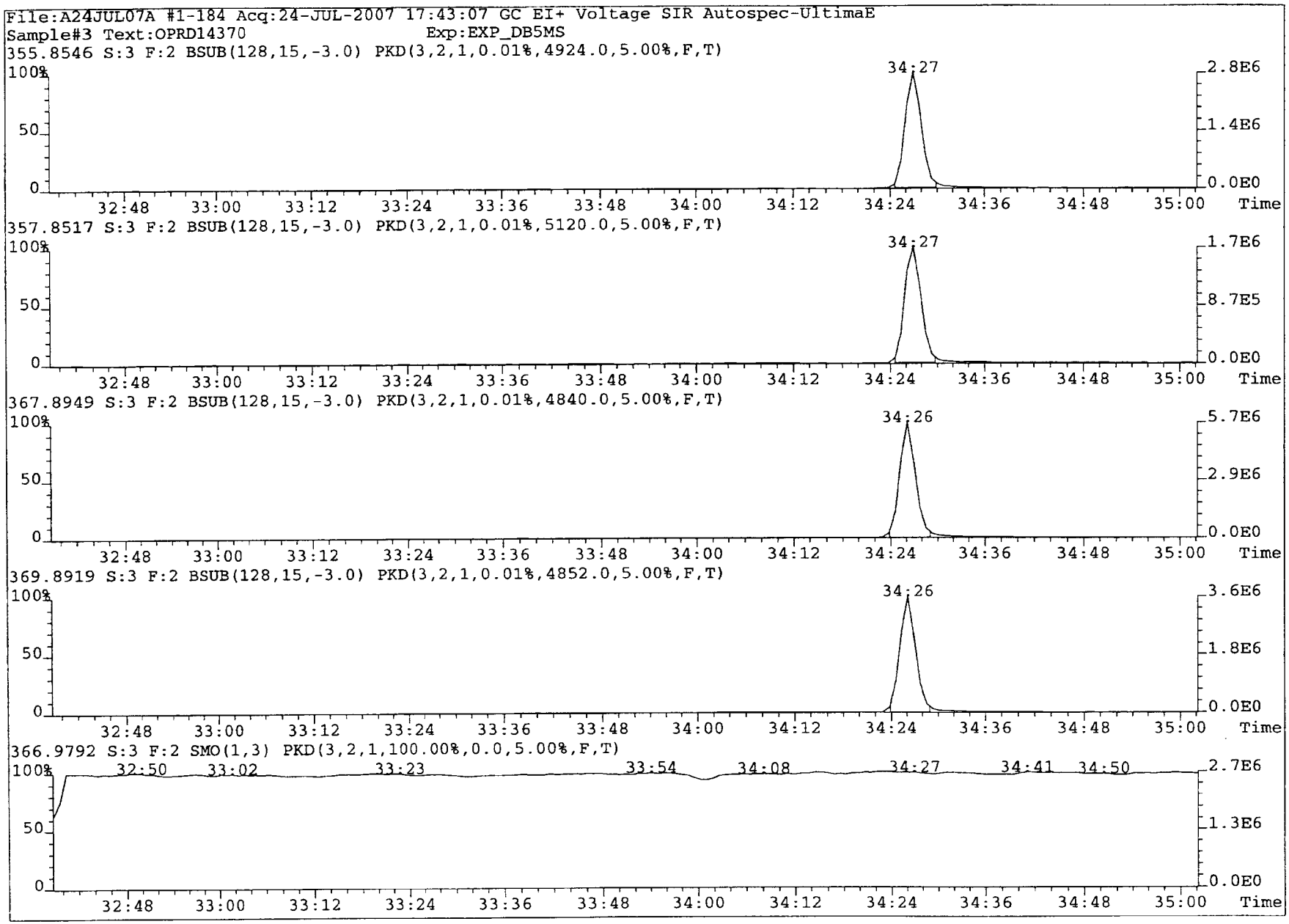
Form Version:[8290_DB_2.14]OPRD

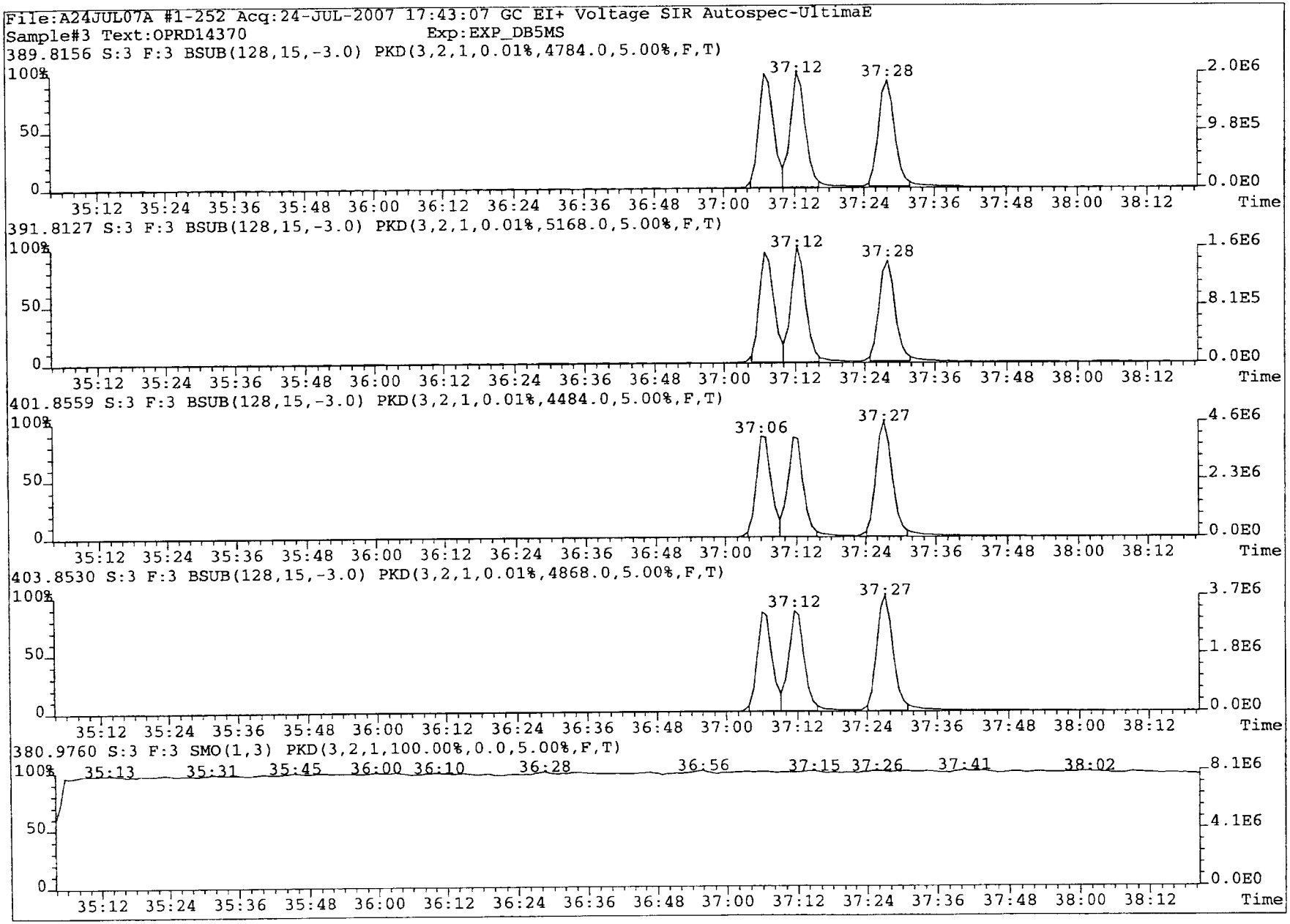
Reviewed By: _____ Date Reviewed: 7/26/07

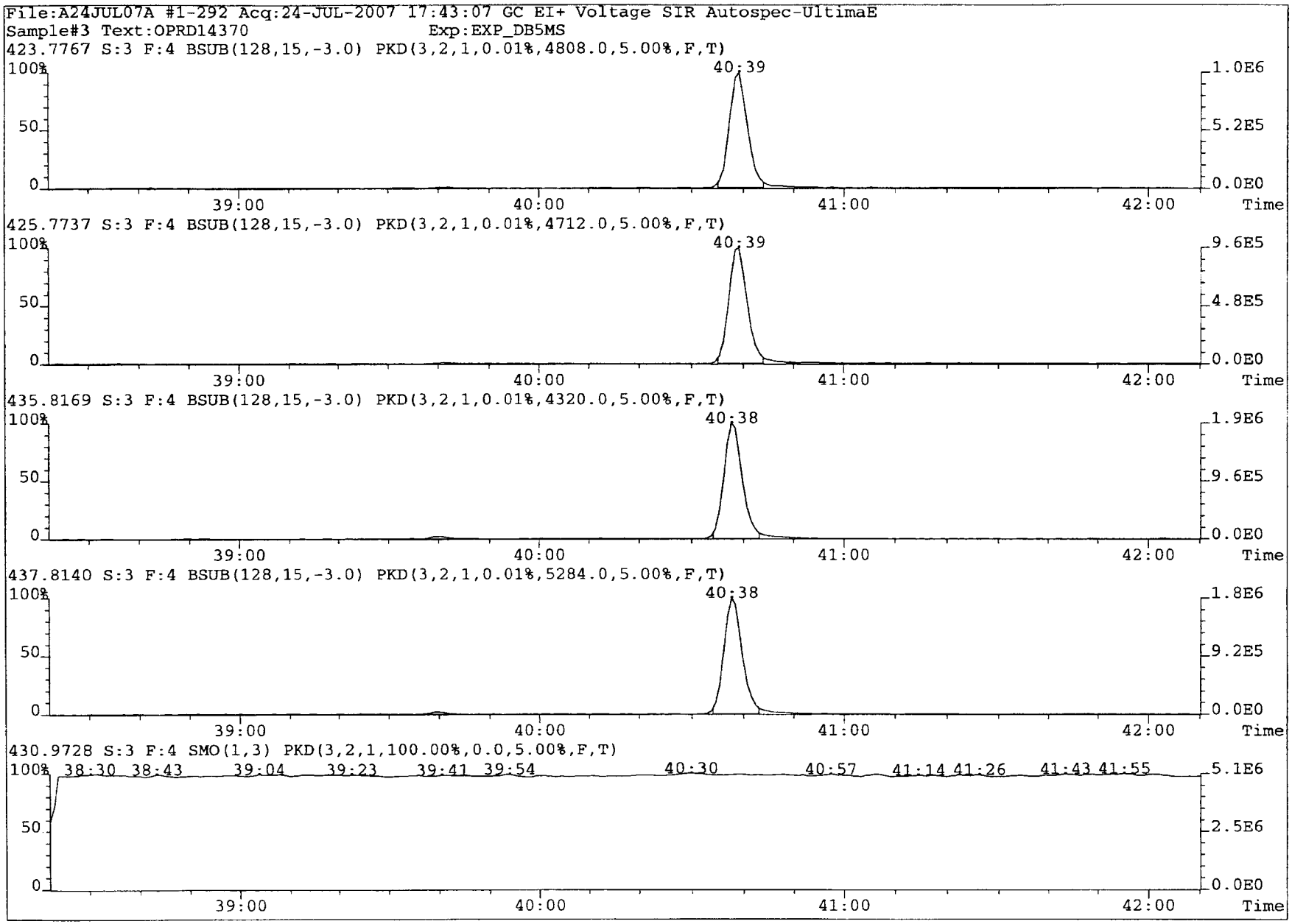
Filename ; a24jul07a ;*8290*
Sample ; 3
Acquired ; 24-JUL-07 17:43:07
Processed ; 25-JUL-07 08:10:03
Sample ID ; OPRD14370
Cal Table ; m8290-071007a
Results Table ; M8290-072407A
Comments ;

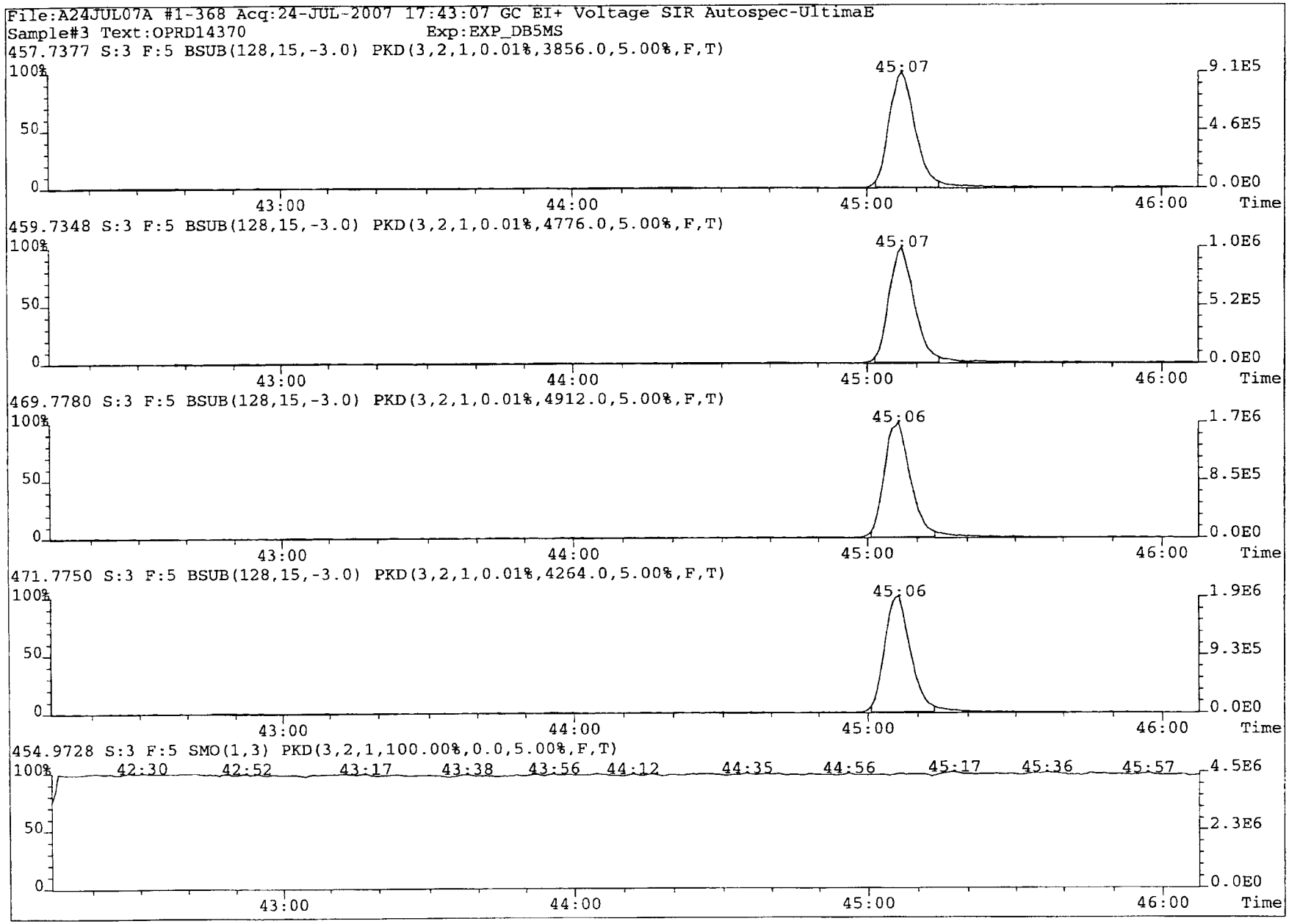
Ent;	Name;	Resp;	Ion 1;	Ion 2;	RA;?;	RT;	Conc;	EDL;	S/N1;?;	S/N2;?;M; Signal1; Noise 1; Signal2; Noise 2
1 ;	2,3,7,8-TCDD;	2.79e+06;	1.19e+06;	1.59e+06;	0.75;y;	31:40;	10.320;	0.2987;	90;y;	129;y;n;4.75e+05;5.25e+03;6.45e+05;5.00e+03
2 ;	1,2,3,7,8-PeCDD;	1.08e+07;	6.65e+06;	4.16e+06;	1.60;y;	34:27;	48.679;	0.3104;	573;y;	340;y;n;2.82e+06;4.92e+03;1.74e+06;5.12e+03
3 ;	1,2,3,4,7,8-HxCDD;	1.01e+07;	5.58e+06;	4.47e+06;	1.25;y;	37:07;	47.459;	0.4257;	403;y;	299;y;n;1.93e+06;4.78e+03;1.55e+06;5.17e+03
4 ;	1,2,3,6,7,8-HxCDD;	1.03e+07;	5.68e+06;	4.59e+06;	1.24;y;	37:12;	49.340;	0.4332;	407;y;	313;y;n;1.95e+06;4.78e+03;1.62e+06;5.17e+03
5 ;	1,2,3,7,8,9-HxCDD;	9.98e+06;	5.58e+06;	4.40e+06;	1.27;y;	37:28;	48.679;	0.4397;	377;y;	274;y;n;1.81e+06;4.78e+03;1.42e+06;5.17e+03
6 ;	1,2,3,4,6,7,8-HpCDD;	8.07e+06;	4.15e+06;	3.92e+06;	1.06;y;	40:39;	49.608;	0.7180;	215;y;	203;y;n;1.03e+06;4.81e+03;9.55e+05;4.71e+03
7 ;	OCDD;	1.11e+07;	5.21e+06;	5.84e+06;	0.89;y;	45:07;	99.945;	1.3538;	236;y;	218;y;n;9.10e+05;3.86e+03;1.04e+06;4.78e+03
8 ;	2,3,7,8-TCDF;	4.06e+06;	1.78e+06;	2.29e+06;	0.78;y;	31:09;	9.020;	0.2151;	117;y;	136;y;n;5.69e+05;4.86e+03;7.42e+05;5.46e+03
9 ;	1,2,3,7,8-PeCDF;	1.63e+07;	1.00e+07;	6.31e+06;	1.59;y;	33:38;	49.810;	0.2792;	642;y;	484;y;n;4.40e+06;6.84e+03;2.81e+06;5.80e+03
10 ;	2,3,4,7,8-PeCDF;	1.60e+07;	9.89e+06;	6.10e+06;	1.62;y;	34:15;	47.029;	0.2691;	637;y;	480;y;n;4.36e+06;6.84e+03;2.78e+06;5.80e+03
11 ;	1,2,3,4,7,8-HxCDF;	1.39e+07;	7.76e+06;	6.14e+06;	1.26;y;	36:24;	48.347;	0.4139;	371;y;	360;y;n;2.82e+06;7.59e+03;2.24e+06;6.24e+03
12 ;	1,2,3,6,7,8-HxCDF;	1.51e+07;	8.38e+06;	6.73e+06;	1.25;y;	36:30;	49.508;	0.3900;	382;y;	379;y;n;2.90e+06;7.59e+03;2.37e+06;6.24e+03
13 ;	2,3,4,6,7,8-HxCDF;	1.41e+07;	7.88e+06;	6.21e+06;	1.27;y;	37:00;	48.678;	0.4112;	349;y;	329;y;n;2.65e+06;7.59e+03;2.05e+06;6.24e+03
14 ;	1,2,3,7,8,9-HxCDF;	1.11e+07;	6.16e+06;	4.91e+06;	1.26;y;	37:48;	44.526;	0.4789;	247;y;	239;y;n;1.87e+06;7.59e+03;1.49e+06;6.24e+03
15 ;	1,2,3,4,6,7,8-HpCDF;	1.32e+07;	6.78e+06;	6.45e+06;	1.05;y;	39:21;	52.091;	0.4216;	441;y;	320;y;n;1.88e+06;4.26e+03;1.82e+06;5.68e+03
16 ;	1,2,3,4,7,8,9-HpCDF;	8.97e+06;	4.58e+06;	4.38e+06;	1.05;y;	41:21;	44.806;	0.5350;	261;y;	184;y;n;1.11e+06;4.26e+03;1.04e+06;5.68e+03
17 ;	OCDF;	1.23e+07;	5.85e+06;	6.49e+06;	0.90;y;	45:26;	91.977;	1.1624;	218;y;	270;y;n;1.03e+06;4.75e+03;1.14e+06;4.25e+03
Extraction Standards										
18 ;	13C-2,3,7,8-TCDD;	2.78e+07;	1.22e+07;	1.56e+07;	0.78;y;	31:39;	72.223;	0.2309;	974;y;	1228;y;n;4.61e+06;4.73e+03;6.02e+06;4.90e+03
19 ;	13C-1,2,3,7,8-PeCDD;	2.13e+07;	1.30e+07;	8.25e+06;	1.58;y;	34:26;	66.848;	0.2811;	1177;y;	744;y;n;5.70e+06;4.84e+03;3.61e+06;4.85e+03
20 ;	13C-1,2,3,6,7,8-HxCDD;	2.15e+07;	1.20e+07;	9.56e+06;	1.25;y;	37:12;	80.524;	0.3270;	877;y;	656;y;n;3.93e+06;4.48e+03;3.19e+06;4.87e+03
21 ;	13C-1,2,3,4,6,7,8-HpCDD;	1.54e+07;	7.90e+06;	7.46e+06;	1.06;y;	40:38;	73.926;	0.4318;	446;y;	347;y;n;1.93e+06;4.32e+03;1.83e+06;5.28e+03
22 ;	13C-OCDD;	2.05e+07;	9.73e+06;	1.08e+07;	0.90;y;	45:06;	118.432;	0.4952;	343;y;	437;y;n;1.68e+06;4.91e+03;1.86e+06;4.26e+03
23 ;	13C-2,3,7,8-TCDF;	4.02e+07;	1.77e+07;	2.26e+07;	0.78;y;	31:07;	80.092;	0.1648;	1327;y;	1528;y;n;5.68e+06;4.28e+03;7.16e+06;4.68e+03
24 ;	13C-1,2,3,7,8-PeCDF;	3.28e+07;	2.02e+07;	1.27e+07;	1.59;y;	33:38;	62.804;	0.2183;	1305;y;	882;y;n;8.25e+06;6.32e+03;5.32e+06;6.03e+03
25 ;	13C-1,2,3,6,7,8-HxCDF;	2.63e+07;	9.11e+06;	1.72e+07;	0.53;y;	36:29;	73.590;	0.2470;	611;y;	1411;y;n;3.18e+06;5.20e+03;5.99e+06;4.25e+03
26 ;	13C-1,2,3,4,6,7,8-HpCDF;	1.83e+07;	5.64e+06;	1.26e+07;	0.45;y;	39:20;	68.771;	0.3721;	329;y;	605;y;n;1.57e+06;4.78e+03;3.50e+06;5.79e+03
Injection Standards										
27 ;	13C-1,2,3,4-TCDD;	3.64e+07;	1.60e+07;	2.04e+07;	0.78;y;	31:15;	44.744;	-;	1092;y;	1362;y;n;5.17e+06;4.73e+03;6.68e+06;4.90e+03
28 ;	13C-1,2,3,7,8,9-HxCDD;	2.56e+07;	1.42e+07;	1.14e+07;	1.25;y;	37:27;	36.092;	-;	1015;y;	755;y;n;4.55e+06;4.48e+03;3.68e+06;4.87e+03
Cleanup Standards										
29 ;	37Cl-2,3,7,8-TCDD;	3.20e+07;	3.20e+07;	-;	-;-;	31:40;	81.406;	0.1212;	2516;y;	-;-;n;1.30e+07;5.16e+03; -; -
30 ;	13C-2,3,4,7,8-PeCDF;	3.37e+07;	2.07e+07;	1.30e+07;	1.59;y;	34:15;	65.600;	0.2224;	1388;y;	882;y;n;8.78e+06;6.32e+03;5.32e+06;6.03e+03
31 ;	13C-1,2,3,4,7,8-HxCDD;	2.07e+07;	1.16e+07;	9.09e+06;	1.28;y;	37:07;	81.406;	0.3442;	886;y;	646;y;n;3.97e+06;4.48e+03;3.14e+06;4.87e+03
32 ;	13C-1,2,3,4,7,8-HxCDF;	2.50e+07;	8.52e+06;	1.64e+07;	0.52;y;	36:23;	77.608;	0.2746;	589;y;	1362;y;n;3.06e+06;5.20e+03;5.79e+06;4.25e+03
33 ;	13C-1,2,3,4,7,8,9-HpCDF;	1.65e+07;	5.14e+06;	1.14e+07;	0.45;y;	41:20;	69.733;	0.4172;	262;y;	473;y;n;1.25e+06;4.78e+03;2.74e+06;5.79e+03
Sampling Standards										
34 ;	37Cl-2,3,7,8-TCDD;	3.20e+07;	3.20e+07;	-;	-;-;	31:40;	112.724;	0.1430;	2516;y;	-;-;n;1.30e+07;5.16e+03; -; -
35 ;	13C-2,3,4,7,8-PeCDF;	3.37e+07;	2.07e+07;	1.30e+07;	1.59;y;	34:15;	104.400;	0.2774;	1388;y;	882;y;n;8.78e+06;6.32e+03;5.32e+06;6.03e+03
36 ;	13C-1,2,3,4,7,8-HxCDD;	2.07e+07;	1.16e+07;	9.09e+06;	1.28;y;	37:07;	101.093;	0.4142;	886;y;	646;y;n;3.97e+06;4.48e+03;3.14e+06;4.87e+03
37 ;	13C-1,2,3,4,7,8-HxCDF;	2.50e+07;	8.52e+06;	1.64e+07;	0.52;y;	36:23;	105.407;	0.3434;	589;y;	1362;y;n;3.06e+06;5.20e+03;5.79e+06;4.25e+03
38 ;	13C-1,2,3,4,7,8,9-HpCDF;	1.65e+07;	5.14e+06;	1.14e+07;	0.45;y;	41:20;	101.404;	0.6997;	262;y;	473;y;n;1.25e+06;4.78e+03;2.74e+06;5.79e+03

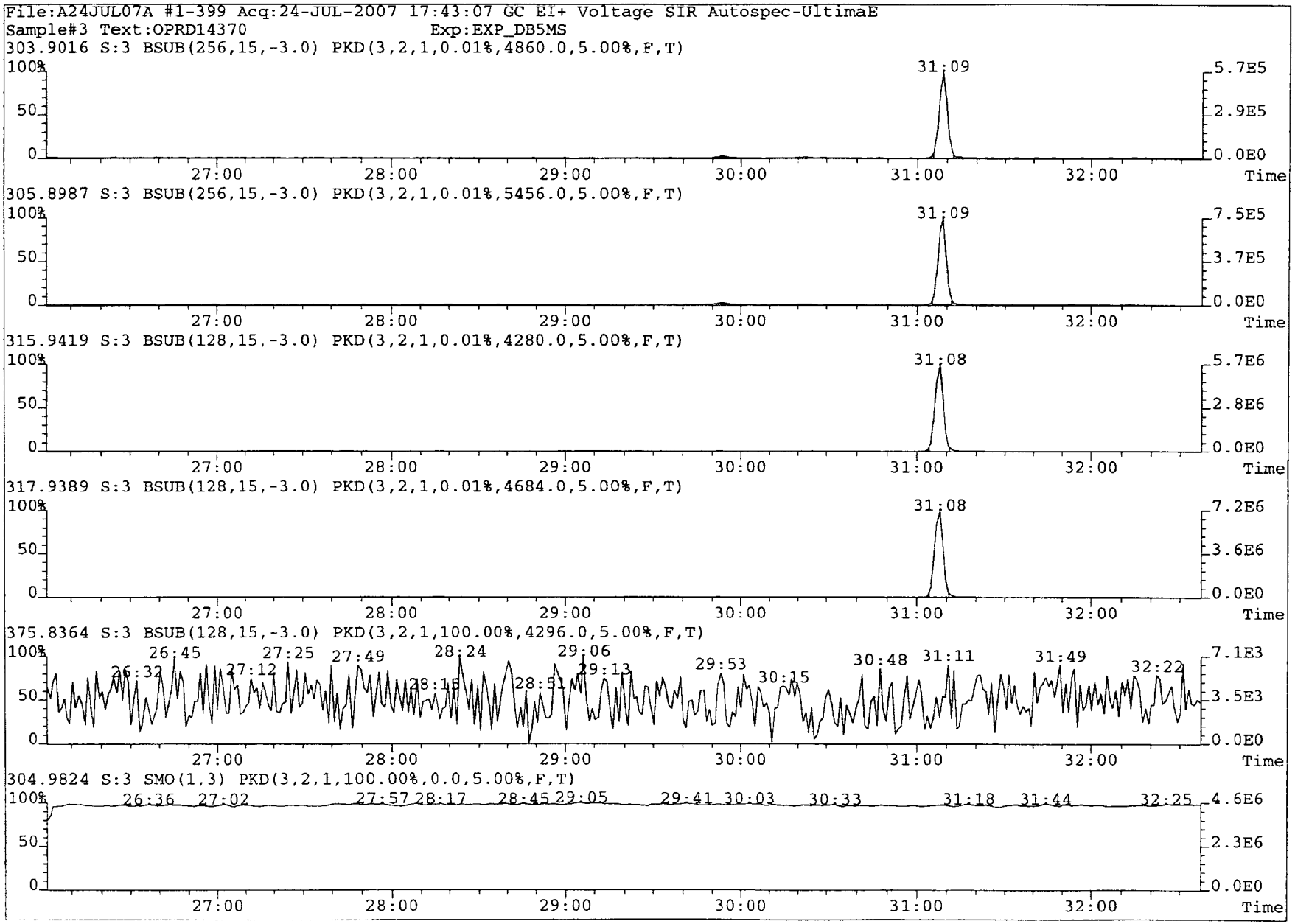

File:A24JUL07A #1-399 Acq:24-JUL-2007 17:43:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 Text:OPRD14370 Exp:EXP_DB5MS
319.8965 S:3 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5252.0,5.00%,F,T)
31:40
4.8E5
2.4E5
0.0E0
321.8936 S:3 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5000.0,5.00%,F,T)
31:40
6.5E5
3.3E5
0.0E0
331.9368 S:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4732.0,5.00%,F,T)
31:15
31:39
5.2E6
2.6E6
0.0E0
333.9339 S:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4900.0,5.00%,F,T)
31:15
31:39
6.7E6
3.3E6
0.0E0
327.8847 S:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5164.0,5.00%,F,T)
31:40
1.3E7
6.5E6
0.0E0
304.9824 S:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:36 27:02 27:57 28:17 28:45 29:05 29:41 30:03 30:33 31:18 31:44 32:25
4.6E6
2.3E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time

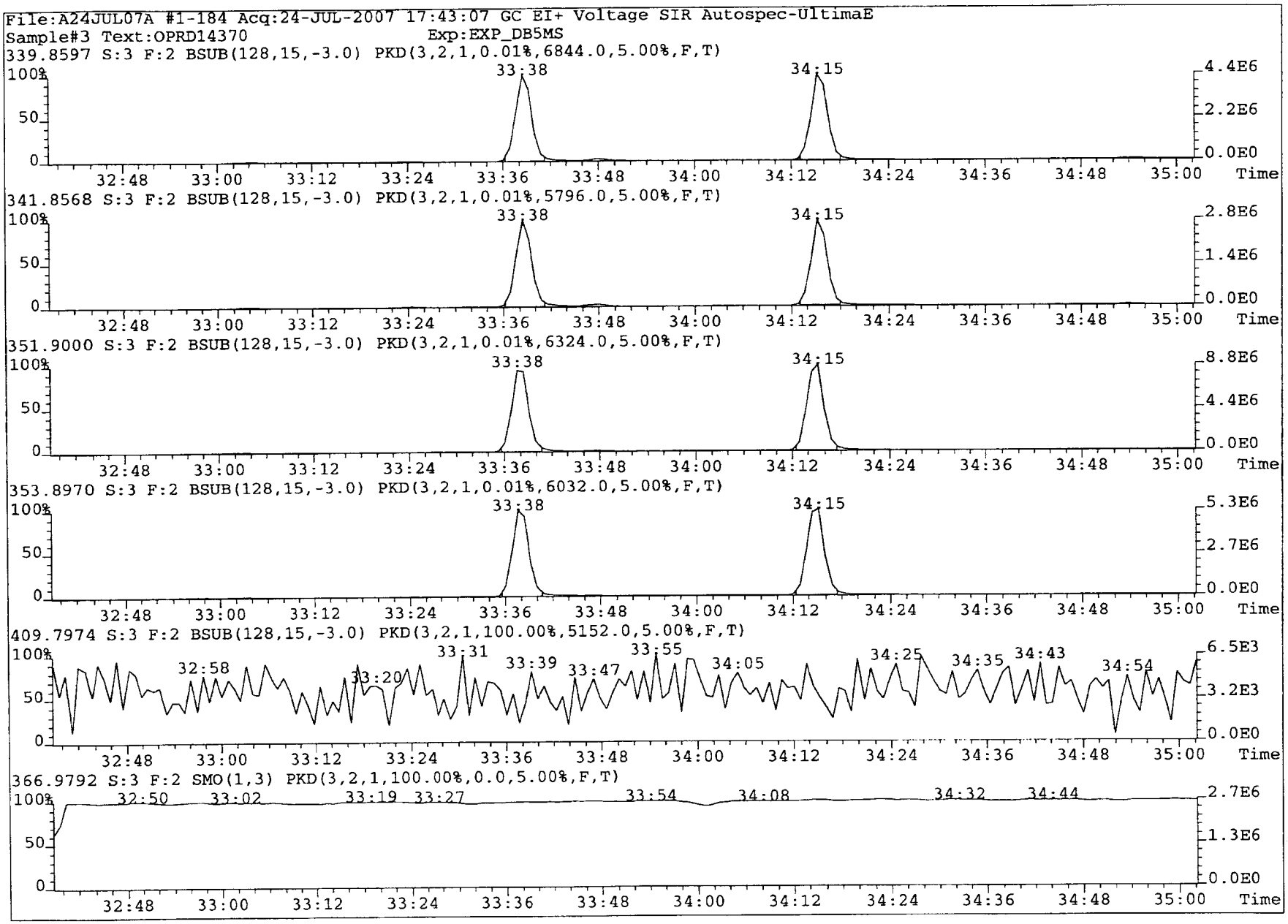

File:A24JUL07A #1-184 Acq:24-JUL-2007 17:43:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 Text:OPRD14370 Exp:EXP_DB5MS
355.8546 S:3 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4924.0,5.00%,F,T)
34:27
2.8E6
1.4E6
0.0E0
357.8517 S:3 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5120.0,5.00%,F,T)
34:27
1.7E6
8.7E5
0.0E0
367.8949 S:3 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4840.0,5.00%,F,T)
34:26
5.7E6
2.9E6
0.0E0
369.8919 S:3 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4852.0,5.00%,F,T)
34:26
3.6E6
1.8E6
0.0E0
366.9792 S:3 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:50 33:02 33:23 33:54 34:08 34:27 34:41 34:50
2.7E6
1.3E6
0.0E0
100%
50
0
32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 Time

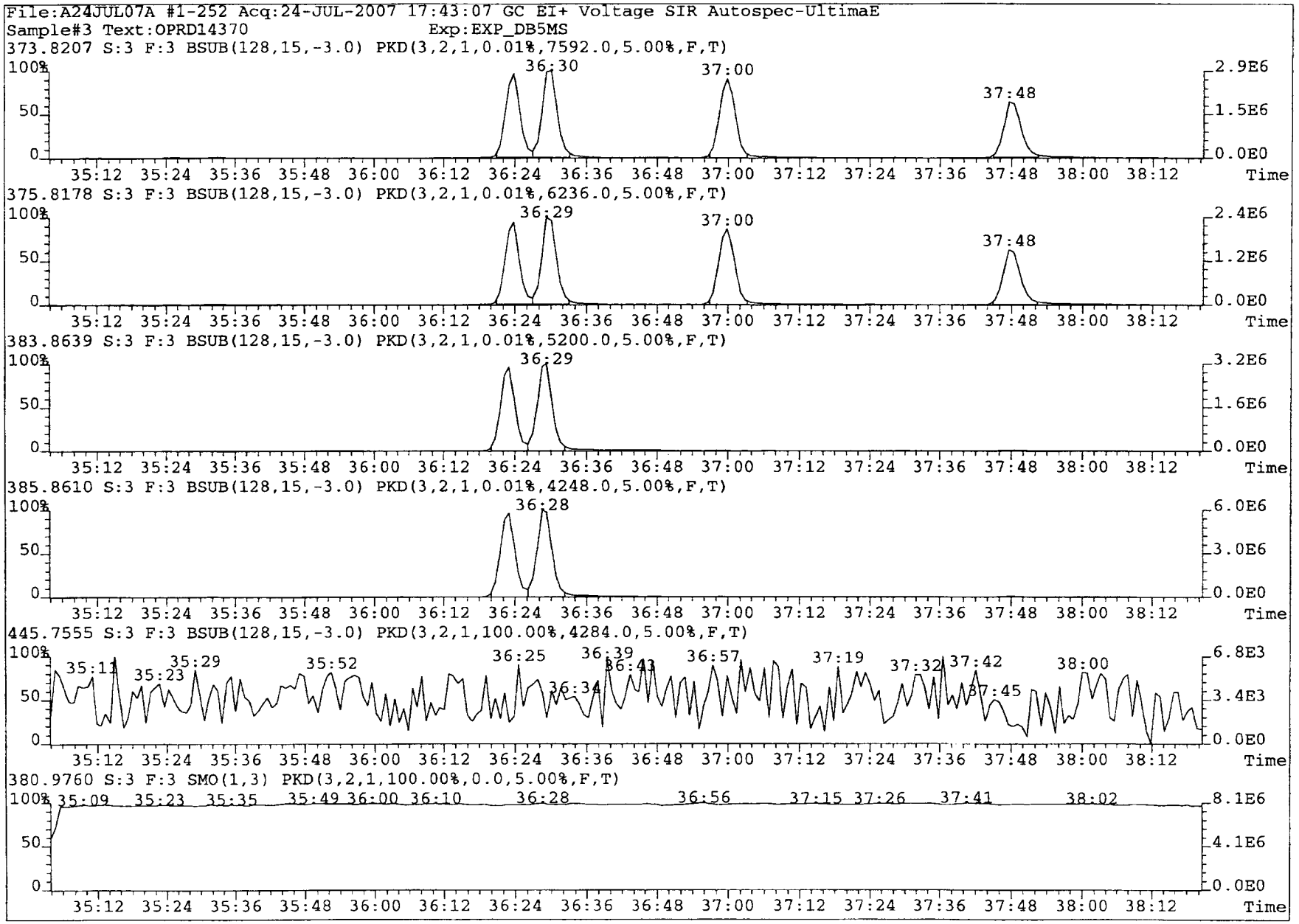

File:A24JUL07A #1-252 Acq:24-JUL-2007 17:43:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 Text:OPRD14370 Exp:EXP_DB5MS
389.8156 S:3 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4784.0,5.00%,F,T)
37:12
37:28
2.0E6
9.8E5
0.0E0
391.8127 S:3 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5168.0,5.00%,F,T)
37:12
37:28
1.6E6
8.1E5
0.0E0
401.8559 S:3 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4484.0,5.00%,F,T)
37:06
37:27
4.6E6
2.3E6
0.0E0
403.8530 S:3 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4868.0,5.00%,F,T)
37:12
37:27
3.7E6
1.8E6
0.0E0
380.9760 S:3 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:13 35:31 35:45 36:00 36:10 36:28 36:56 37:15 37:26 37:41 38:02
8.1E6
4.1E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

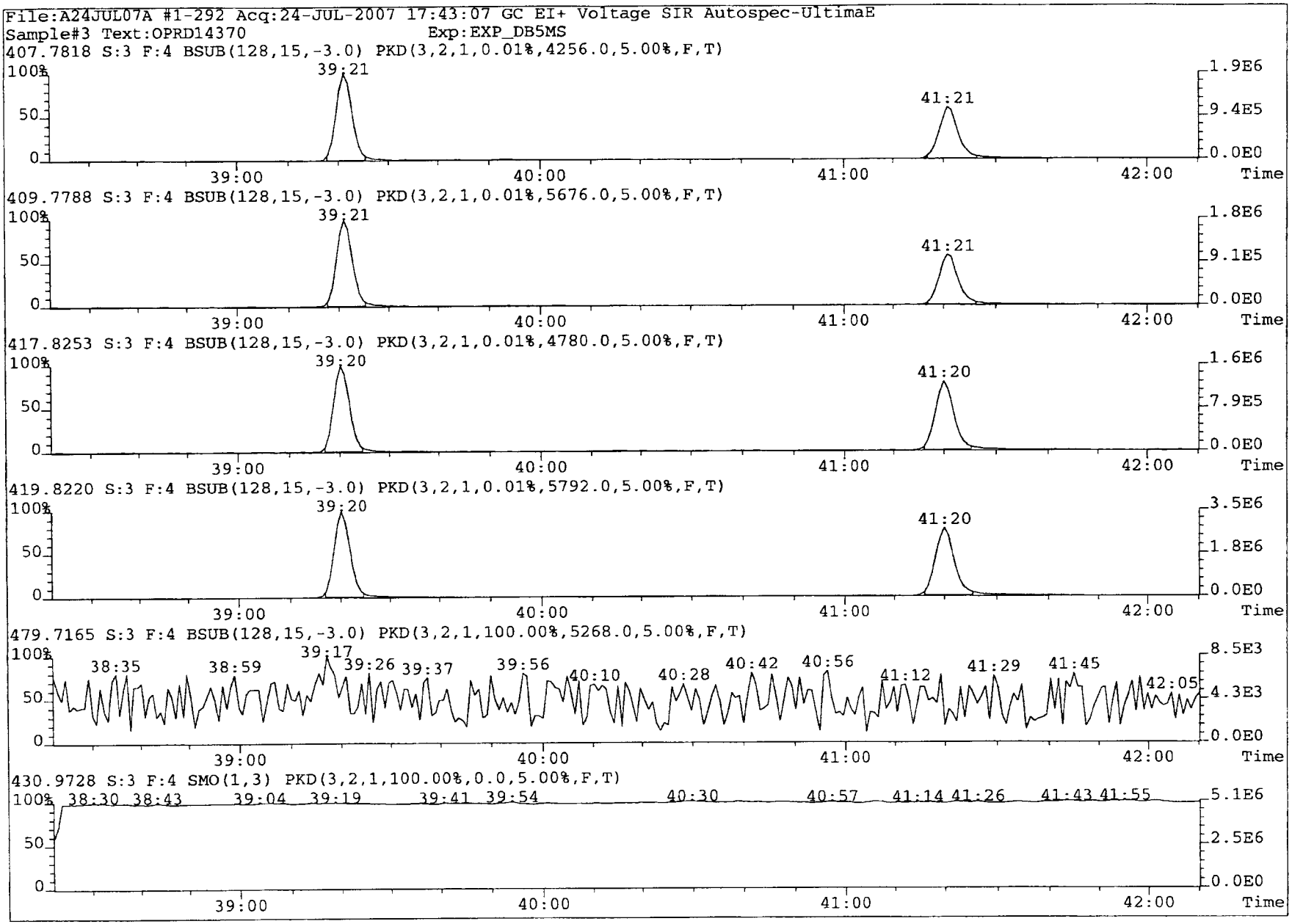

File:A24JUL07A #1-292 Acq:24-JUL-2007 17:43:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 Text:OPRD14370 Exp:EXP_DB5MS
423.7767 S:3 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4808.0,5.00%,F,T)
40:39
1.0E6
5.2E5
0.0E0
425.7737 S:3 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4712.0,5.00%,F,T)
40:39
9.6E5
4.8E5
0.0E0
435.8169 S:3 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4320.0,5.00%,F,T)
40:38
1.9E6
9.6E5
0.0E0
437.8140 S:3 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5284.0,5.00%,F,T)
40:38
1.8E6
9.2E5
0.0E0
430.9728 S:3 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:30 38:43 39:04 39:23 39:41 39:54 40:30 40:57 41:14 41:26 41:43 41:55
5.1E6
2.5E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

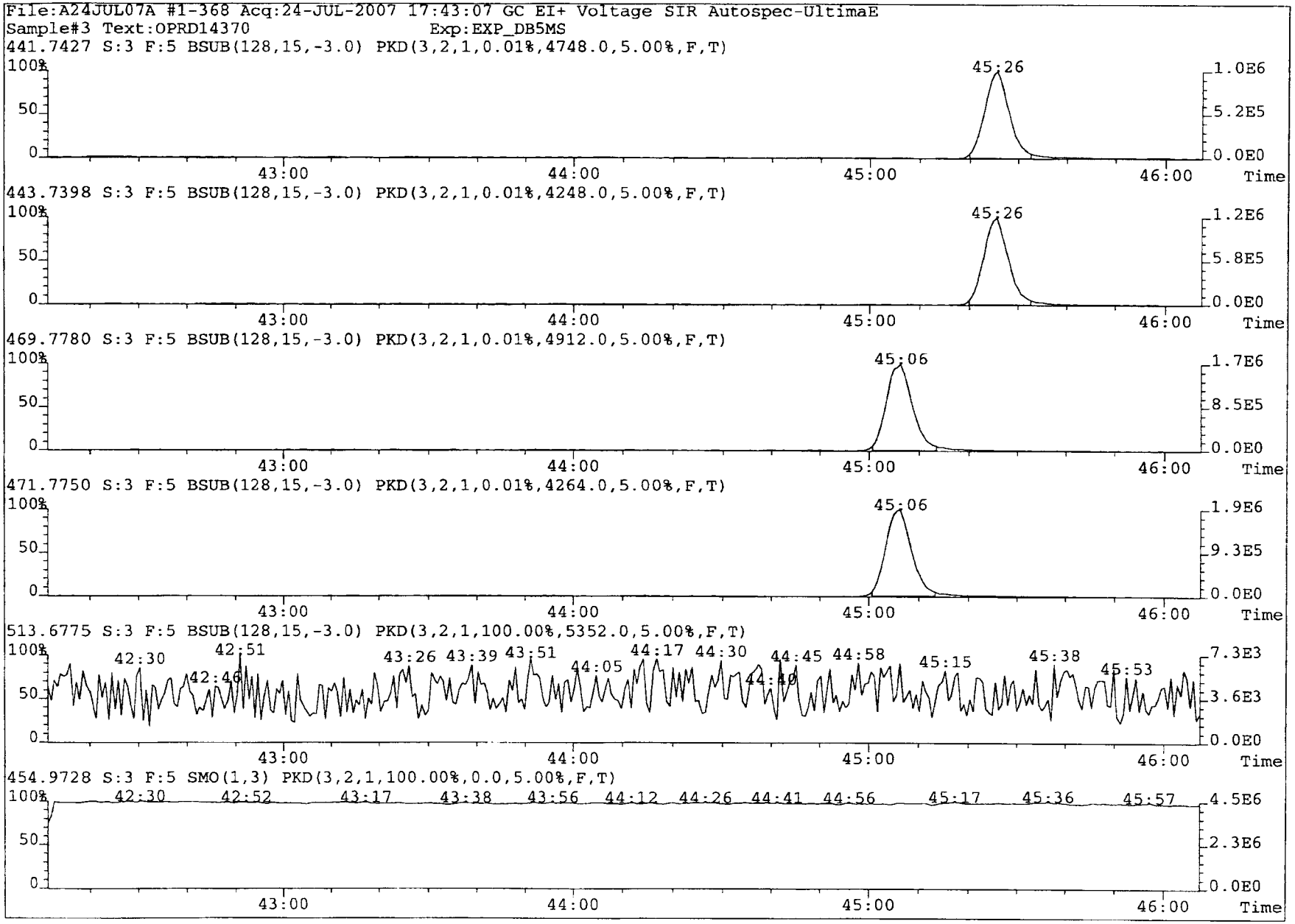

File:A24JUL07A #1-368 Acq:24-JUL-2007 17:43:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 Text:OPRD14370 Exp:EXP_DB5MS
457.7377 S:3 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3856.0,5.00%,F,T)
45:07
9.1E5
4.6E5
0.0E0
459.7348 S:3 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4776.0,5.00%,F,T)
45:07
1.0E6
5.2E5
0.0E0
469.7780 S:3 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4912.0,5.00%,F,T)
45:06
1.7E6
8.5E5
0.0E0
471.7750 S:3 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4264.0,5.00%,F,T)
45:06
1.9E6
9.3E5
0.0E0
454.9728 S:3 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:30 42:52 43:17 43:38 43:56 44:12 44:35 44:56 45:17 45:36 45:57
4.5E6
2.3E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

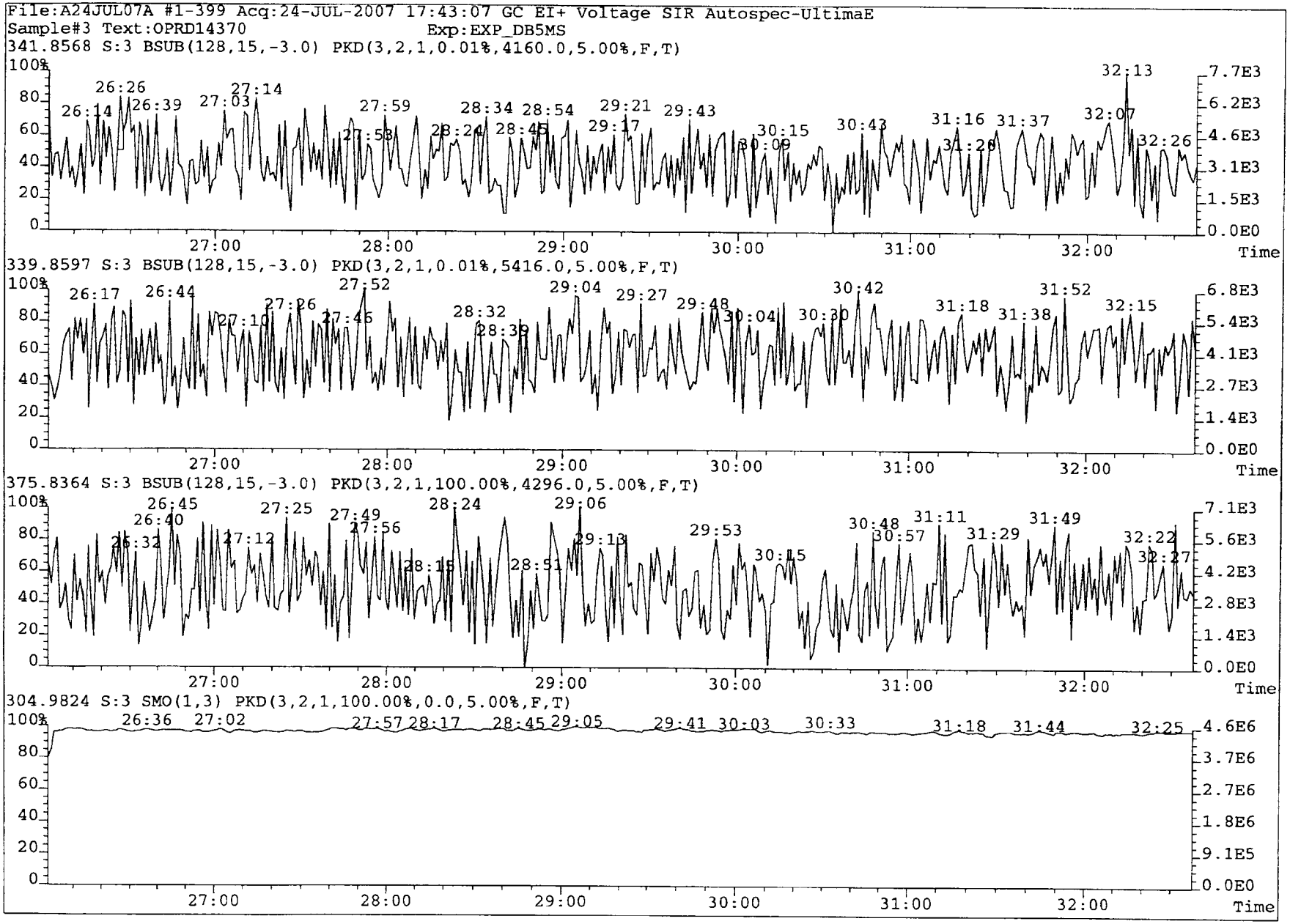

File:A24JUL07A #1-399 Acq:24-JUL-2007 17:43:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 Text:OPRD14370 Exp:EXP_DB5MS
303.9016 S:3 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4860.0,5.00%,F,T)
31:09
5.7E5
2.9E5
0.0E0
305.8987 S:3 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5456.0,5.00%,F,T)
31:09
7.5E5
3.7E5
0.0E0
315.9419 S:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4280.0,5.00%,F,T)
31:08
5.7E6
2.8E6
0.0E0
317.9389 S:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4684.0,5.00%,F,T)
31:08
7.2E6
3.6E6
0.0E0
375.8364 S:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4296.0,5.00%,F,T)
26:32 26:45 27:12 27:25 27:49 28:15 28:24 28:51 29:06 29:13 29:53 30:15 30:48 31:11 31:49 32:22
7.1E3
3.5E3
0.0E0
304.9824 S:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:36 27:02 27:57 28:17 28:45 29:05 29:41 30:03 30:33 31:18 31:44 32:25
4.6E6
2.3E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time


File:A24JUL07A #1-184 Acq:24-JUL-2007 17:43:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 Text:OPRD14370 Exp:EXP_DB5MS
339.8597 S:3 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6844.0,5.00%,F,T)
341.8568 S:3 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5796.0,5.00%,F,T)
351.9000 S:3 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6324.0,5.00%,F,T)
353.8970 S:3 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6032.0,5.00%,F,T)
409.7974 S:3 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5152.0,5.00%,F,T)
366.9792 S:3 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
33:38
34:15
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time
4.4E6
2.2E6
0.0E0
2.8E6
1.4E6
8.8E6
5.3E6
2.7E6
6.5E3
3.2E3
32:58
33:20
33:31
33:39
33:47
33:55
34:05
34:25
34:35
34:43
34:54
32:50
33:02
33:19
33:27
33:54
34:08
34:32
34:44
1.3E6


File:A24JUL07A #1-252 Acq:24-JUL-2007 17:43:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 Text:OPRD14370 Exp:EXP_DB5MS
373.8207 S:3 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,7592.0,5.00%,F,T)
36:30
37:00
37:48
2.9E6
1.5E6
0.0E0
375.8178 S:3 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6236.0,5.00%,F,T)
36:29
37:00
37:48
2.4E6
1.2E6
0.0E0
383.8639 S:3 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5200.0,5.00%,F,T)
36:29
3.2E6
1.6E6
0.0E0
385.8610 S:3 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4248.0,5.00%,F,T)
36:28
6.0E6
3.0E6
0.0E0
445.7555 S:3 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4284.0,5.00%,F,T)
35:11
35:23
35:29
35:52
36:25
36:34
36:39
36:43
36:57
37:19
37:32
37:42
37:45
38:00
6.8E3
3.4E3
0.0E0
380.9760 S:3 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:09
35:23
35:35
35:49
36:00
36:10
36:28
36:56
37:15
37:26
37:41
38:02
8.1E6
4.1E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time


File:A24JUL07A #1-292 Acq:24-JUL-2007 17:43:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 Text:OPRD14370 Exp:EXP_DB5MS
407.7818 S:3 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4256.0,5.00%,F,T)
39:21
41:21
1.9E6
9.4E5
0.0E0
409.7788 S:3 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5676.0,5.00%,F,T)
39:21
41:21
1.8E6
9.1E5
0.0E0
417.8253 S:3 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4780.0,5.00%,F,T)
39:20
41:20
1.6E6
7.9E5
0.0E0
419.8220 S:3 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5792.0,5.00%,F,T)
39:20
41:20
3.5E6
1.8E6
0.0E0
479.7165 S:3 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5268.0,5.00%,F,T)
38:35 38:59 39:17 39:26 39:37 39:56 40:10 40:28 40:42 40:56 41:12 41:29 41:45 42:05
8.5E3
4.3E3
0.0E0
430.9728 S:3 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:30 38:43 39:04 39:19 39:41 39:54 40:30 40:57 41:14 41:26 41:43 41:55
5.1E6
2.5E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time


File:A24JUL07A #1-368 Acq:24-JUL-2007 17:43:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 Text:OPRD14370 Exp:EXP_DB5MS
441.7427 S:3 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4748.0,5.00%,F,T)
45:26
1.0E6
5.2E5
0.0E0
443.7398 S:3 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4248.0,5.00%,F,T)
45:26
1.2E6
5.8E5
0.0E0
469.7780 S:3 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4912.0,5.00%,F,T)
45:06
1.7E6
8.5E5
0.0E0
471.7750 S:3 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4264.0,5.00%,F,T)
45:06
1.9E6
9.3E5
0.0E0
513.6775 S:3 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5352.0,5.00%,F,T)
42:30 42:46 42:51 43:26 43:39 43:51 44:05 44:17 44:30 44:45 44:58 45:15 45:38 45:53
7.3E3
3.6E3
0.0E0
454.9728 S:3 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:30 42:52 43:17 43:38 43:56 44:12 44:26 44:41 44:56 45:17 45:36 45:57
4.5E6
2.3E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time


File:A24JUL07A #1-399 Acq:24-JUL-2007 17:43:07 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 Text:OPRD14370 Exp:EXP_DB5MS
341.8568 S:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4160.0,5.00%,F,T)
339.8597 S:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5416.0,5.00%,F,T)
375.8364 S:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4296.0,5.00%,F,T)
304.9824 S:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

Extraction by Modified Method 3540
(Soxhlet with Dean-Stark Adapter - SDS)

Analytical Method: (M23) TO-9A
1668A 680

QC Batch*	Prev. WG	Workgroup*	Logbook#	Page#
22-Jul-07	N/A	WG	14	370

		Sample Identification								
Glassware #	QC #/20	Client* ID	Project* ID	Sample* ID	Container* ID	ES Amt. (µL)	MX Amt. (µL)	Tridecane (µL)	Analyst (Initials)	Sample Matrix
		N/A	N/A	LMB14370	A	80 ✓		500 ✓	NIO	XAD
	1	G431	15	5	A	80 ✓		✓	NIO	XAD
	2	G431	15	10	A	80 ✓		✓	NIO	XAD
	3	G431	15	15	A	80 ✓		✓	NIO	XAD
	4	G431	15	20	A	80 ✓		✓	NIO	XAD
		N/A	N/A	OPR14370	A	80 ✓	80 ✓	✓	NIO	XAD
		N/A	N/A	OPRD14370	A	80 ✓	80 ✓	✓ ✓	NIO	XAD

Start Date/Time: 22 July 07 1600

Finish Date/Time: 23 July 07 0800

Comments: Filter not present for 15-20. Trap Prep no.: G431-14.

Item	Lot #'s	Conc. (ng/µL)	Witness
Toluene	CS800		
Tridecane	SPL2-021		
Salt	SPL2-020		
Thimbles	6180360		
Extraction Std.	S27-333	0.05	CRN
Matrix Spk.	S27-338	0.005	CRN

DC6.121503.5

* = To be entered in the Prep Table.

Data in prep table? ✓

Air Sample Witness Program Guide

SOX Position	PAL ID	Client ID verified	Tridecane	Boiling Chips	Stopcock Position	Standard Additions	
						ES	MX
1	LMB14370	CKC	✓	✓	✓	80 ✓	
2	431-15-5		✓	✓	✓	80 ✓	
3	431-15-10		✓	✓	✓	80 ✓	
4	431-15-15		✓	✓	✓	80 ✓	
5	431-15-20		✓	✓	✓	80 ✓	
6	OPR14370		✓	✓	✓	80 ✓	80 ✓
7	OPRD14370		✓	✓	✓	80 ✓	80 ✓
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
Witness			MD	MD	MD	CN	CN

Chiller temperature: 14 Mantle Percentage Verified: 65%

DCxxx.012903.0

Extract cleanup by modified method 3630/3620
Silica/florisil

	Sample Identification				Train	CS Amt.* (µL)	Witness (initials)	Analyzed (%)	Analyst (initials)	Date	Method	Matrix
	Client ID	Project ID	Sample ID	Container ID								
A	N/A	N/A	LMB14370	B	1	0	N/A	50		23-Jul-07	M23	Air
	G431	15	5	B	2	0	N/A	50		23-Jul-07	M23	Air
	G431	15	10	B	3	0	N/A	50		23-Jul-07	M23	Air
	G431	15	15	B	4	0	N/A	50		23-Jul-07	M23	Air
B	G431	15	20	B	5	0	N/A	50		23-Jul-07	M23	Air
	N/A	N/A	OPR14370	B	6	0	N/A	50		23-Jul-07	M23	Air
	N/A	N/A	OPRD14370	B	7	0	N/A	50		23-Jul-07	M23	Air
					8							
C					9							
					10							
					11							
					12							

Item	Lot #'s
Hexane	CU073
Methylene Chloride	CS851
Acid Silica	SPL2-025
Base Silica	SPL1-226
Silica	SPL1-199
Florisil	SP8350
Salt	SPL2-028
Tridecane	N/A
Cleanup Std.	N/A

Conc. (ng/µL)

☐ PCU 1
☑ PCU 2

Comments: _____

* = to be entered in the Prep table.

Log Book: 24 Page: 242

Cleanup Observation Form

Reference: PCU Log

Log:	Page:
24	272

	Train 1	Train 2	Train 3	Train 4	Train 5	Train 6
Silica	☐ Clear/Colorless ☐ yellow 1 ☐ ☐ Travel 1	☐ Clear/Colorless ☐ yellow 1 ☐ ☐ Travel 1	☐ Clear/Colorless ☐ yellow 1 ☐ ☐ Travel 1	☐ Clear/Colorless ☐ yellow 1 ☐ ☐ Travel 1	☐ Clear/Colorless ☐ yellow 1 ☐ ☐ Travel 1	☐ Clear/Colorless ☐ yellow 1 ☐ ☐ Travel 1
Acid	☑ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ yellow 1 ☐ ☐ Travel 2	☐ Clear/Colorless ☐ yellow 1 ☐ ☐ Travel 2	☐ Clear/Colorless ☐ yellow 1 ☐ ☐ Travel 1	☐ Clear/Colorless ☐ yellow 1 ☐ ☐ Travel 2	☑ Clear/Colorless ☐ ☐ ☐ Travel
Base	☑ Clear/Colorless ☐ ☐ ☐ Travel	☑ Clear/Colorless ☐ ☐ ☐ Travel	☑ Clear/Colorless ☐ ☐ ☐ Travel	☑ Clear/Colorless ☐ ☐ ☐ Travel	☑ Clear/Colorless ☐ ☐ ☐ Travel	☑ Clear/Colorless ☐ ☐ ☐ Travel
Florisil	☑ Clear/Colorless ☐ ☐ ☐ Travel	☑ Clear/Colorless ☐ ☐ ☐ Travel	☑ Clear/Colorless ☐ ☐ ☐ Travel	☑ Clear/Colorless ☐ ☐ ☐ Travel	☑ Clear/Colorless ☐ ☐ ☐ Travel	☑ Clear/Colorless ☐ ☐ ☐ Travel
Extract	☑ Clear/Colorless ☐	☑ Clear/Colorless ☐	☑ Clear/Colorless ☐	☑ Clear/Colorless ☐	☑ Clear/Colorless ☐	☑ Clear/Colorless ☐
Sx	LMB14370-B	G431-15-5B	G431-15-10B	G431-15-15B	G431-15-20B	OPR14370-B
Comments						

DC29.071105.4

☐ Continued on next page.

Cleanup Observation Form

Reference: PCU Log

Log:	Page:
24	242

	Train 7	8	9	10	11	12
Silica	☐ Clear/Colorless ☐ yellow 1 ☐ ☐ Travel 1	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel
Acid	☑ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel
Base	☑ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel
Florisil	☑ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel	☐ Clear/Colorless ☐ ☐ ☐ Travel
Extract	☑ Clear/Colorless ☐	☐ Clear/Colorless ☐	☐ Clear/Colorless ☐	☐ Clear/Colorless ☐	☐ Clear/Colorless ☐	☐ Clear/Colorless ☐
Sx	OPRD14370-B	--	--	--	--	--
Comments						h 7.23.07

DC29.071105.4

Cal: m8290-071007a Results: Version: V3.6 17-MAR-2000 13:37:51

Ent	Name	Mean RRF	Std	%RSD	a10jul07a-2 RRF#1	a10jul07a-4 RRF#2	a10jul07a-5 RRF#3	a10jul07a-6 RRF#4	a10jul07a-7 RRF#5
1	2,3,7,8-TCDD	0.9703	18	3.23 %	0.95	0.94	0.96	1.00	1.01
2	1,2,3,7,8-PeCDD	1.0431	19	3.99 %	0.99	1.02	1.05	1.09	1.07
3	1,2,3,4,7,8-HxCDD	0.9838	20	4.92 %	0.91	0.96	1.00	1.04	1.01
4	1,2,3,6,7,8-HxCDD	0.9667	20	3.39 %	0.92	0.94	1.00	0.99	0.99
5	1,2,3,7,8,9-HxCDD	0.9525	20	3.52 %	0.92	0.92	0.97	0.99	0.97
6	1,2,3,4,6,7,8-HpCDD	1.0583	21	3.53 %	1.03	1.01	1.06	1.09	1.09
7	OCDD	1.0783	22	5.40 %	1.00	1.03	1.11	1.12	1.13
8	2,3,7,8-TCDF	1.1201	23	4.96 %	1.06	1.08	1.11	1.18	1.17
9	1,2,3,7,8-PeCDF	0.9985	24	1.67 %	0.98	0.98	1.01	1.01	1.02
10	2,3,4,7,8-PeCDF	1.0357	24	2.88 %	0.99	1.02	1.07	1.05	1.05
11	1,2,3,4,7,8-HxCDF	1.0927	25	2.18 %	1.10	1.06	1.08	1.10	1.12
12	1,2,3,6,7,8-HxCDF	1.1598	25	2.71 %	1.14	1.11	1.17	1.20	1.17
13	2,3,4,6,7,8-HxCDF	1.0999	25	2.74 %	1.08	1.06	1.11	1.12	1.13
14	1,2,3,7,8,9-HxCDF	0.9444	25	2.51 %	0.93	0.91	0.96	0.96	0.96
15	1,2,3,4,6,7,8-HpCDF	1.3907	26	3.31 %	1.32	1.37	1.41	1.41	1.44
16	1,2,3,4,7,8,9-HpCDF	1.0961	26	2.78 %	1.06	1.07	1.10	1.12	1.13
17	OCDF	1.3088	22	7.86 %	1.21	1.21	1.30	1.40	1.43
18	13C-2,3,7,8-TCDD	1.0572	27	4.39 %	1.13	1.01	1.02	1.06	1.07
19	13C-1,2,3,7,8-PeCDD	0.8739	27	7.50 %	0.99	0.85	0.83	0.84	0.87
20	13C-1,2,3,6,7,8-HxCDD	1.0423	28	1.06 %	1.03	1.05	1.03	1.04	1.06
21	13C-1,2,3,4,6,7,8-HpCDD	0.8106	28	2.16 %	0.78	0.81	0.82	0.81	0.83
22	13C-OCDD	0.6753	28	5.10 %	0.63	0.66	0.69	0.68	0.72
23	13C-2,3,7,8-TCDF	1.3787	27	1.48 %	1.39	1.35	1.37	1.40	1.38
24	13C-1,2,3,7,8-PeCDF	1.4346	27	6.91 %	1.60	1.40	1.34	1.40	1.43
25	13C-1,2,3,6,7,8-HxCDF	1.3941	28	2.97 %	1.32	1.42	1.41	1.43	1.39
26	13C-1,2,3,4,6,7,8-HpCDF	1.0354	28	2.79 %	0.99	1.03	1.04	1.06	1.05
27	13C-1,2,3,4-TCDD	-		- %	-	-	-	-	-
28	13C-1,2,3,7,8,9-HxCDD	-		- %	-	-	-	-	-
29	37Cl-2,3,7,8-TCDD	1.0795	27	5.30 %	1.13	1.01	1.02	1.11	1.13
30	13C-2,3,4,7,8-PeCDF	1.4082	27	6.08 %	1.56	1.37	1.35	1.36	1.40
31	13C-1,2,3,4,7,8-HxCDD	0.9902	28	1.73 %	0.96	0.99	1.00	1.01	1.00
32	13C-1,2,3,4,7,8-HxCDF	1.2540	28	1.66 %	1.23	1.25	1.24	1.28	1.28
33	13C-1,2,3,4,7,8,9-HpCDF	0.9236	28	3.21 %	0.87	0.94	0.92	0.94	0.94
34	37Cl-2,3,7,8-TCDD	1.0210	18	2.73 %	1.00	1.00	1.01	1.04	1.06
35	13C-2,3,4,7,8-PeCDF	0.9821	24	1.42 %	0.97	0.98	1.01	0.97	0.98
36	13C-1,2,3,4,7,8-HxCDD	0.9501	20	1.58 %	0.93	0.94	0.97	0.97	0.94
37	13C-1,2,3,4,7,8-HxCDF	0.8999	25	2.49 %	0.93	0.88	0.88	0.89	0.91
38	13C-1,2,3,4,7,8,9-HpCDF	0.8920	26	1.24 %	0.88	0.91	0.89	0.89	0.89
39	Total Tetra-Furans	1.1201		4.96 %	1.06	1.08	1.11	1.18	1.17
40	Total Tetra-Dioxins	0.9703		3.23 %	0.95	0.94	0.96	1.00	1.01
41	Total Penta-Furans Fn1	1.0171	9 10	2.20 %	0.99	1.00	1.04	1.03	1.04
42	Total Penta-Furans Fn2	1.0171		2.20 %	0.99	1.00	1.04	1.03	1.04
43	Total Penta-Dioxins	1.0431		3.99 %	0.99	1.02	1.05	1.09	1.07
44	Total Hexa-Furans	1.0742		2.36 %	1.06	1.04	1.08	1.10	1.10
45	Total Hexa-Dioxins	0.9677		3.84 %	0.92	0.94	0.99	1.01	0.99

$\overline{RF5} = 1.058281$

7/11/07

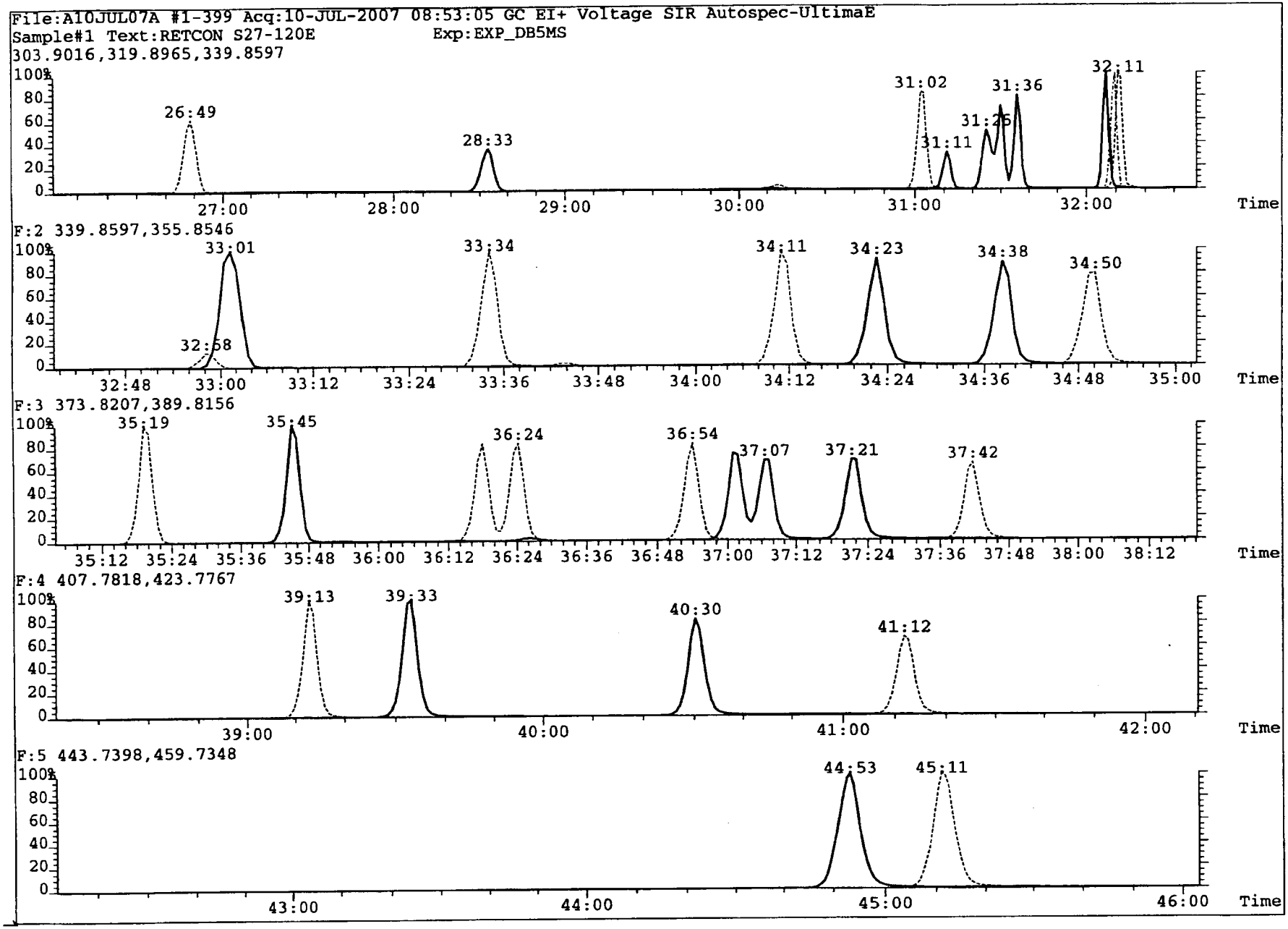
Paradigm Sample Log

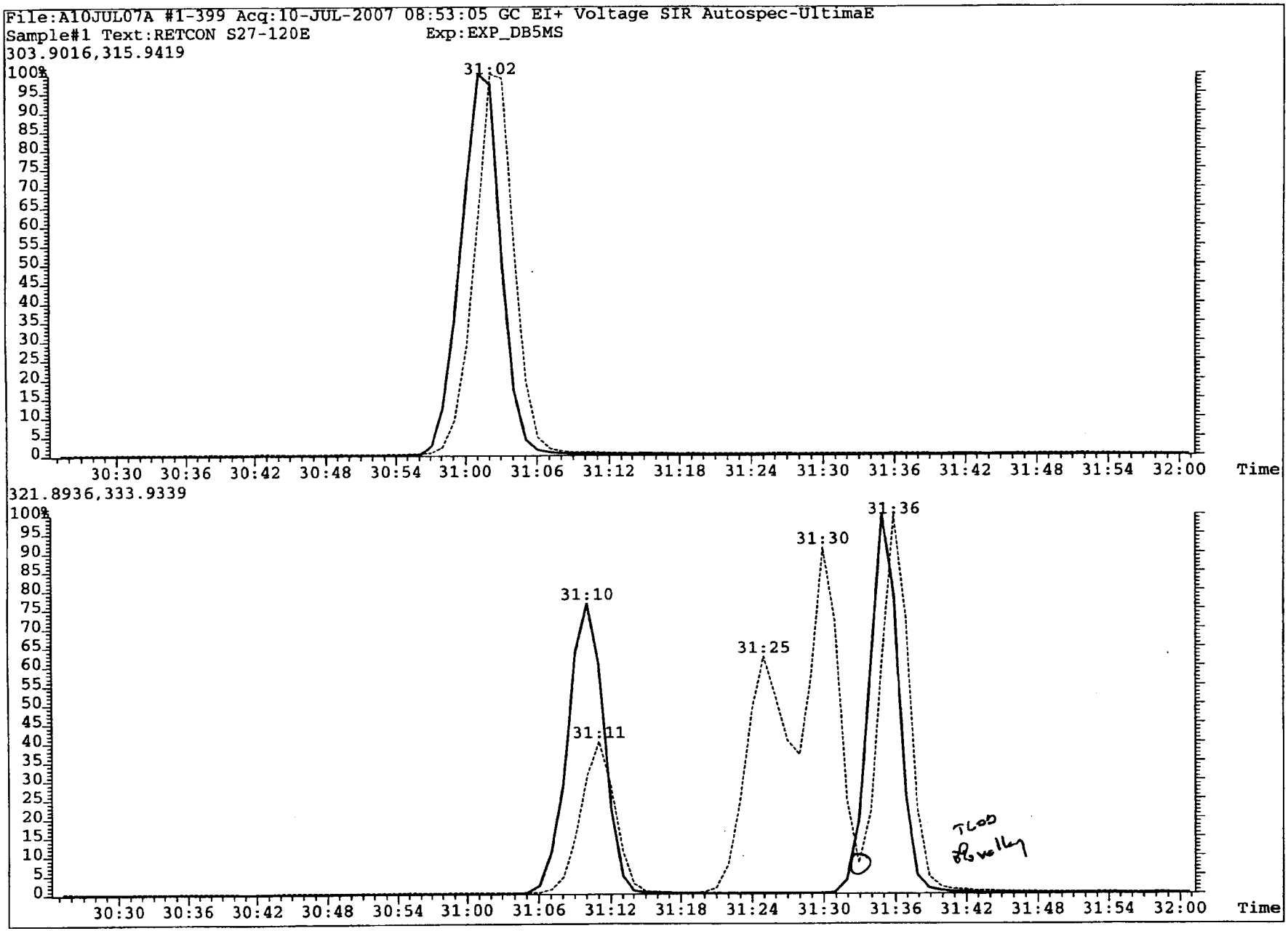
Data File S	Sample ID	Analyst	Acq. Date	Time
a10jul07a;1	;RETCON S27-120E	;JWP	10-JUL-07	08:53:05
a10jul07a;2	;CS0.5 S25-26L	;JWP	10-JUL-07	09:41:26
a10jul07a;3	;CS1 S25-26A	;JWP	10-JUL-07	10:29:49
a10jul07a;4	;CS2 S25-26B	;JWP	10-JUL-07	11:18:06
a10jul07a;5	;CS3 S25-26C	;JWP	10-JUL-07	12:06:23
a10jul07a;6	;CS4 S25-26D	;JWP	10-JUL-07	12:54:41
a10jul07a;7	;CS5 S25-26E	;JWP	10-JUL-07	13:42:57

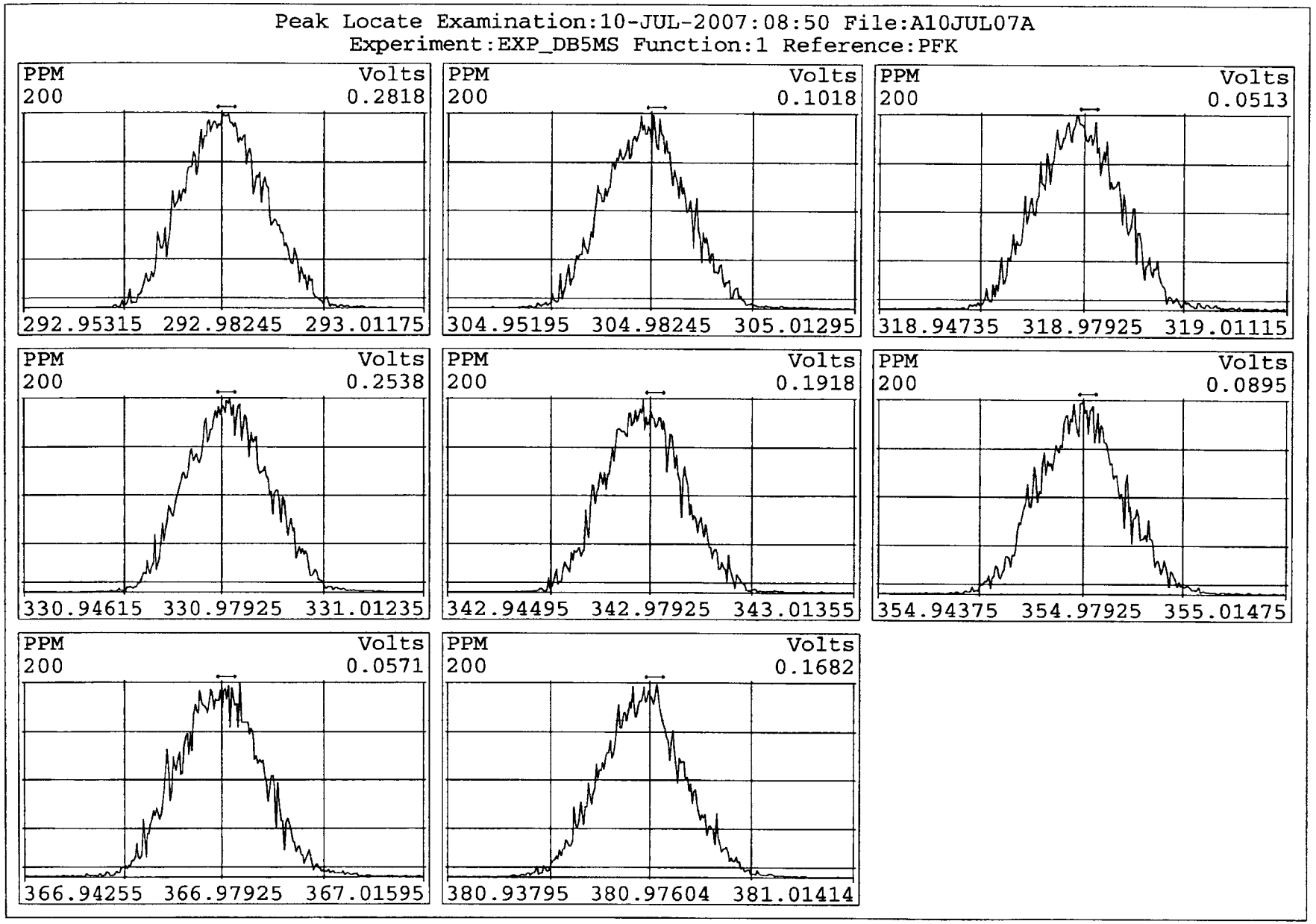
Ical passes

Filename ; a10jul07a
Sample ; 1
Acquired ; 10-JUL-07 08:53:05
Processed ; 10-JUL-07 14:44:41
Sample ID ; RETCON S27-120E

Name	First Eluter RT	Last Eluter RT
TCDD	28:33	32:07
PeCDD	33:01	34:38
HxCDD	35:45	37:21
HpCDD	39:33	40:30
OCDD	44:53	
TCDF	26:49	32:11
PeCDF	32:10	34:50
HxCDF	35:19	37:42
HpCDF	39:13	41:12
OCDF	45:11	


File:A10JUL07A #1-399 Acq:10-JUL-2007 08:53:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120E Exp:EXP_DB5MS
303.9016,319.8965,339.8597
26:49
28:33
31:02
31:11
31:25
31:36
32:11
Time
F:2 339.8597,355.8546
32:58
33:01
33:34
34:11
34:23
34:38
34:50
Time
F:3 373.8207,389.8156
35:19
35:45
36:24
36:54
37:07
37:21
37:42
Time
F:4 407.7818,423.7767
39:13
39:33
40:30
41:12
Time
F:5 443.7398,459.7348
44:53
45:11
Time


File:A10JUL07A #1-399 Acq:10-JUL-2007 08:53:05 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120E Exp:EXP_DB5MS
303.9016,315.9419
31:02
321.8936,333.9339
31:10
31:11
31:25
31:30
31:36
TLOD
Time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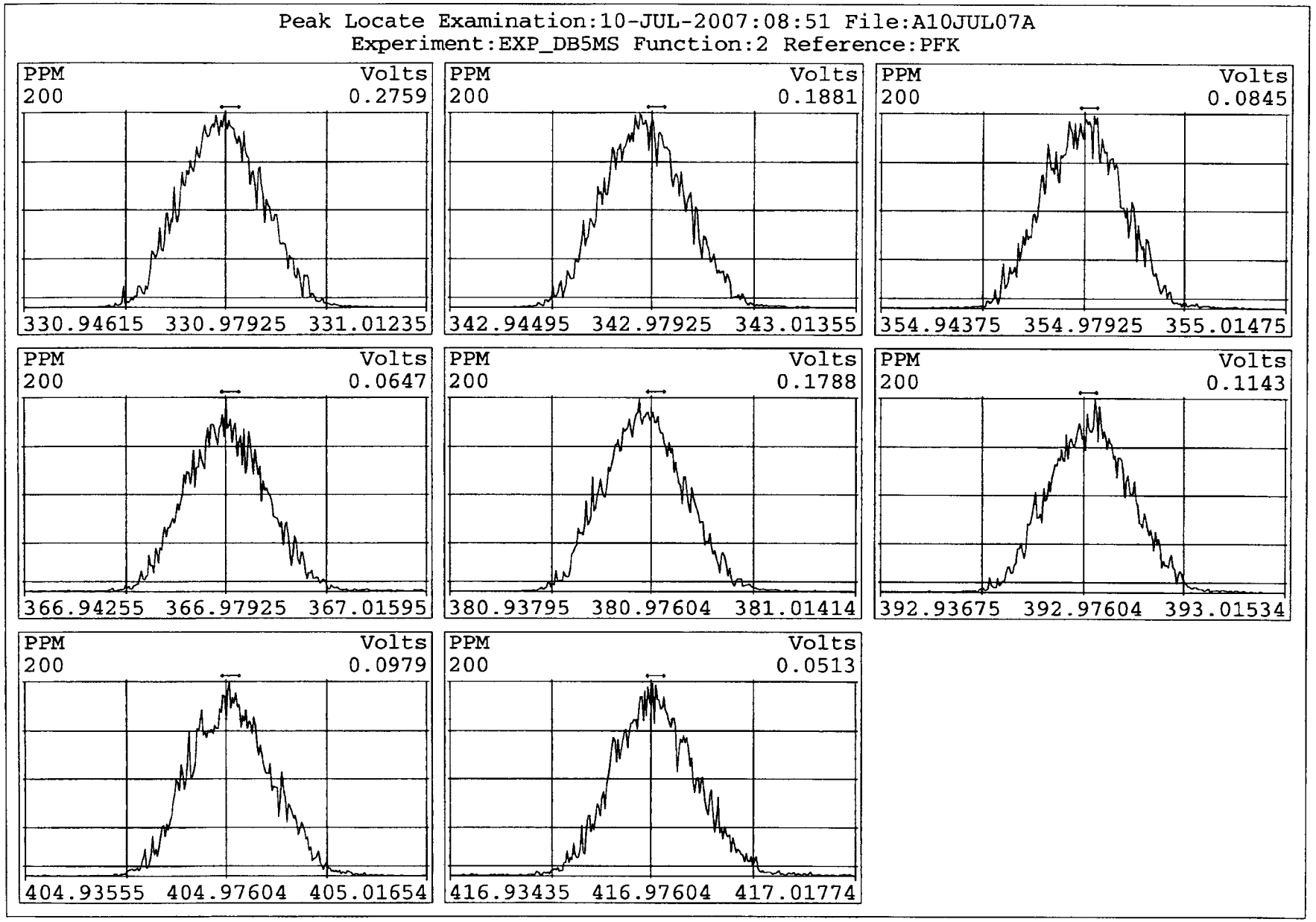
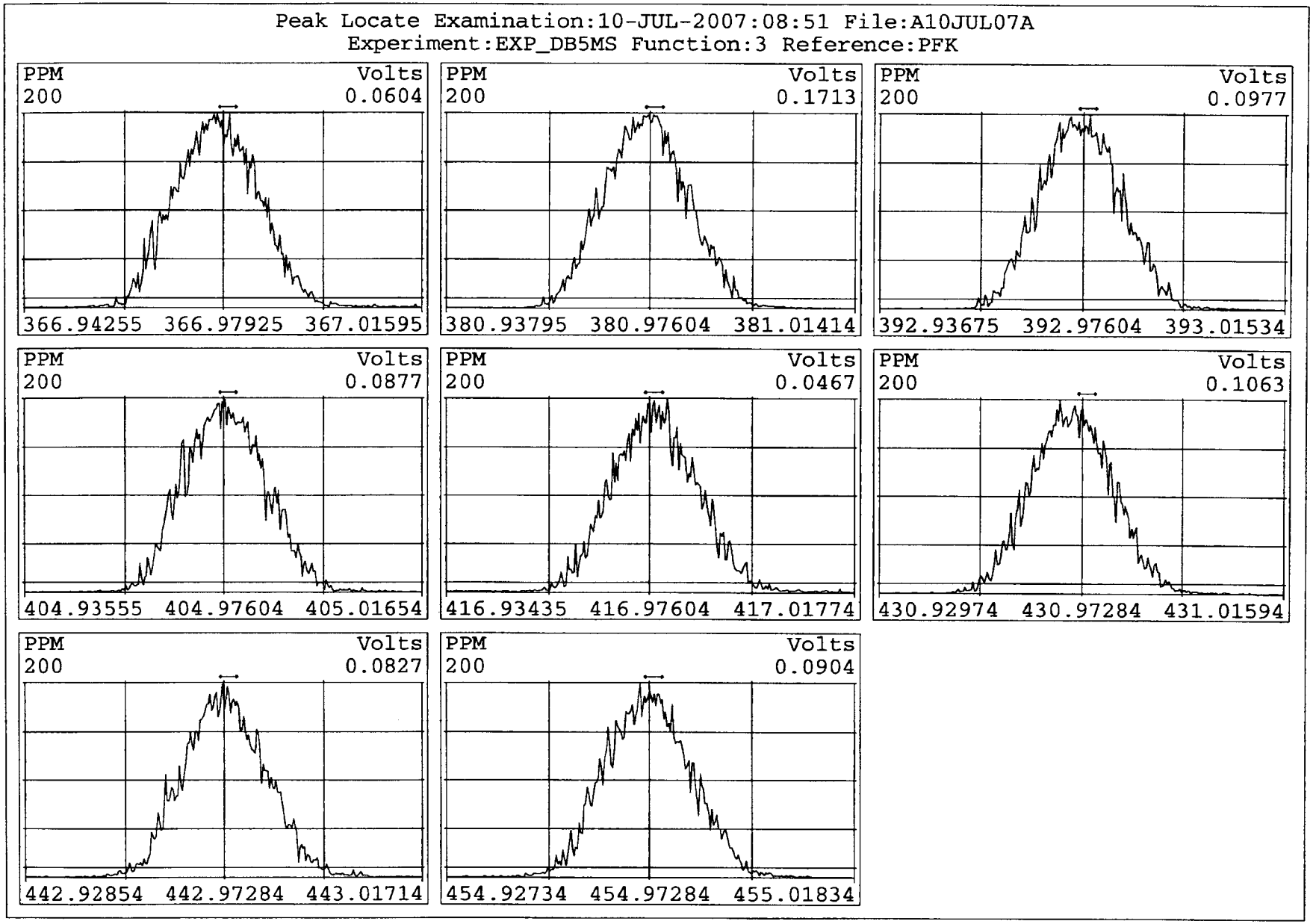
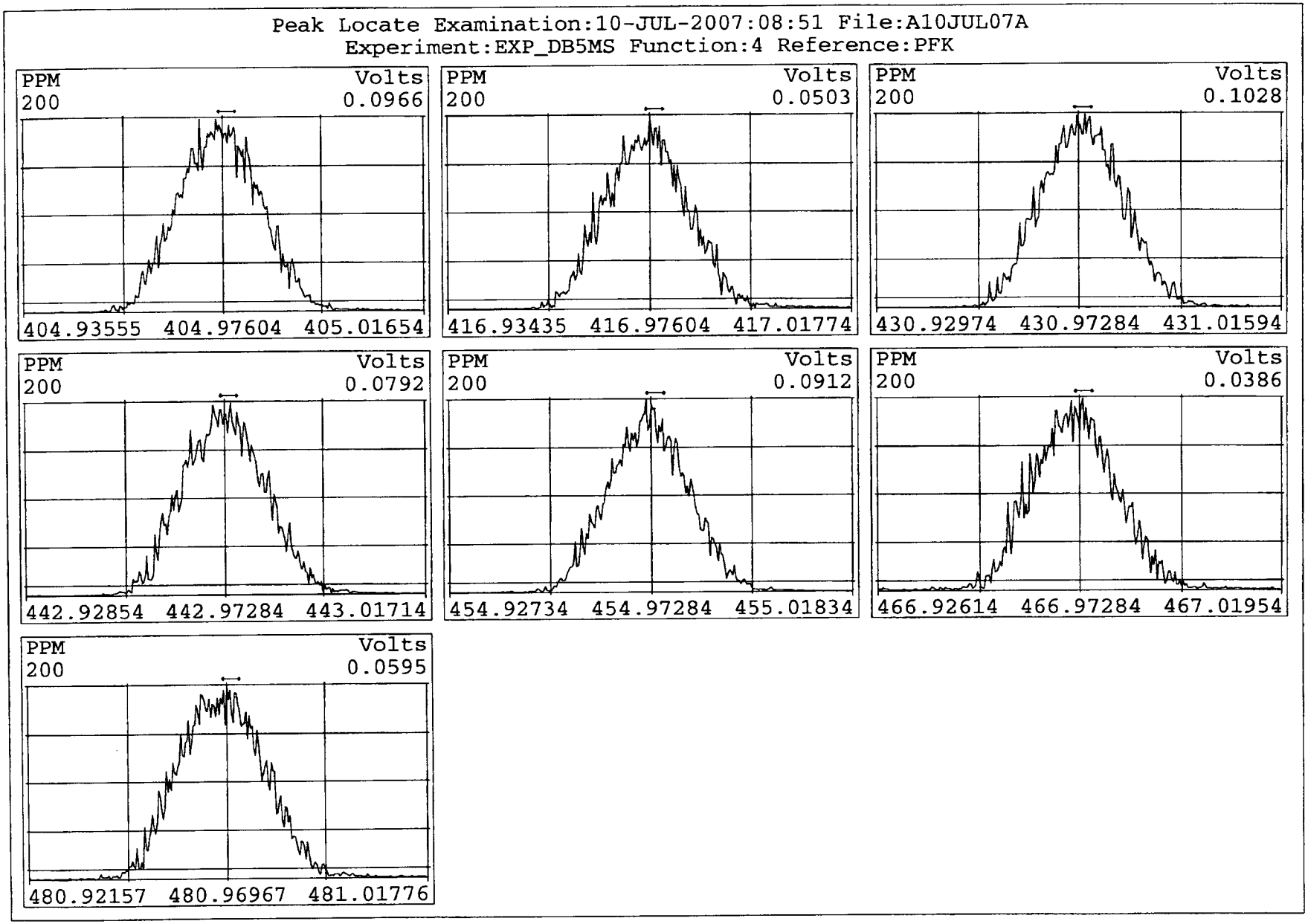
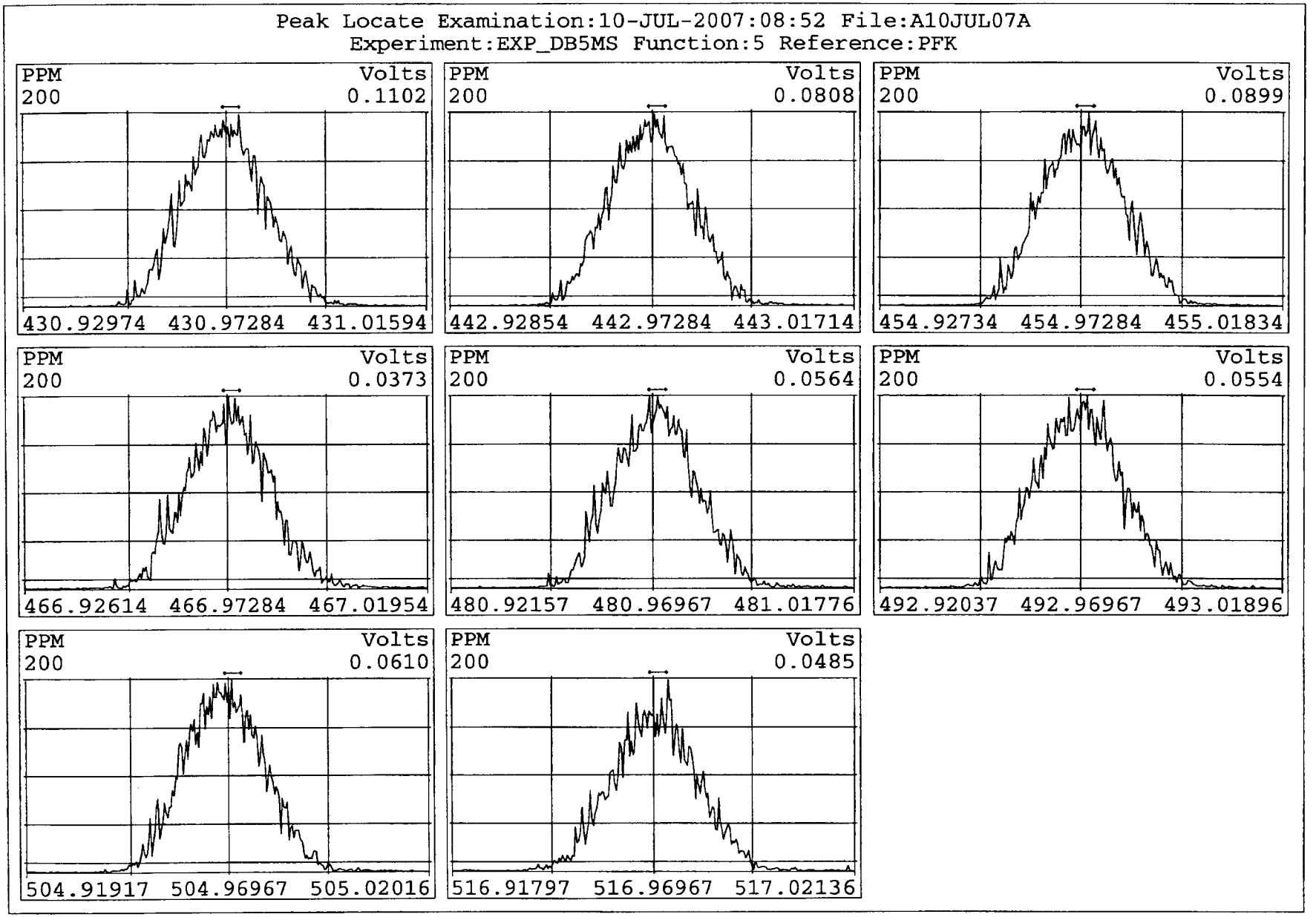
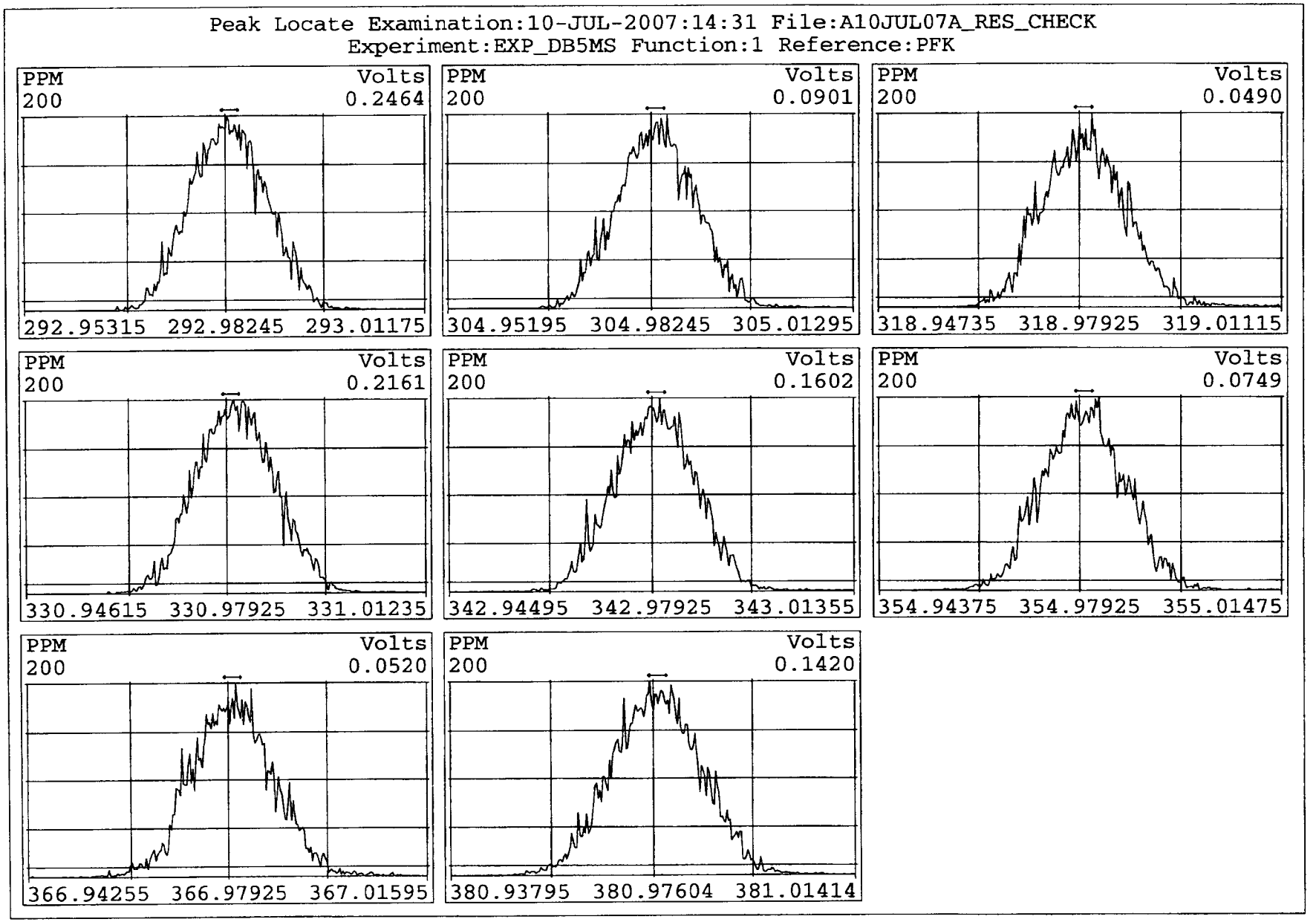
Experiment:EXP_DB5MS Function:1 Reference:PFK
PPM
200
Volts
0.2818
292.95315 292.98245 293.01175
PPM
200
Volts
0.1018
304.95195 304.98245 305.01295
PPM
200
Volts
0.0513
318.94735 318.97925 319.01115
PPM
200
Volts
0.2538
330.94615 330.97925 331.01235
PPM
200
Volts
0.1918
342.94495 342.97925 343.01355
PPM
200
Volts
0.0895
354.94375 354.97925 355.01475
PPM
200
Volts
0.0571
366.94255 366.97925 367.01595
PPM
200
Volts
0.1682
380.93795 380.97604 381.01414

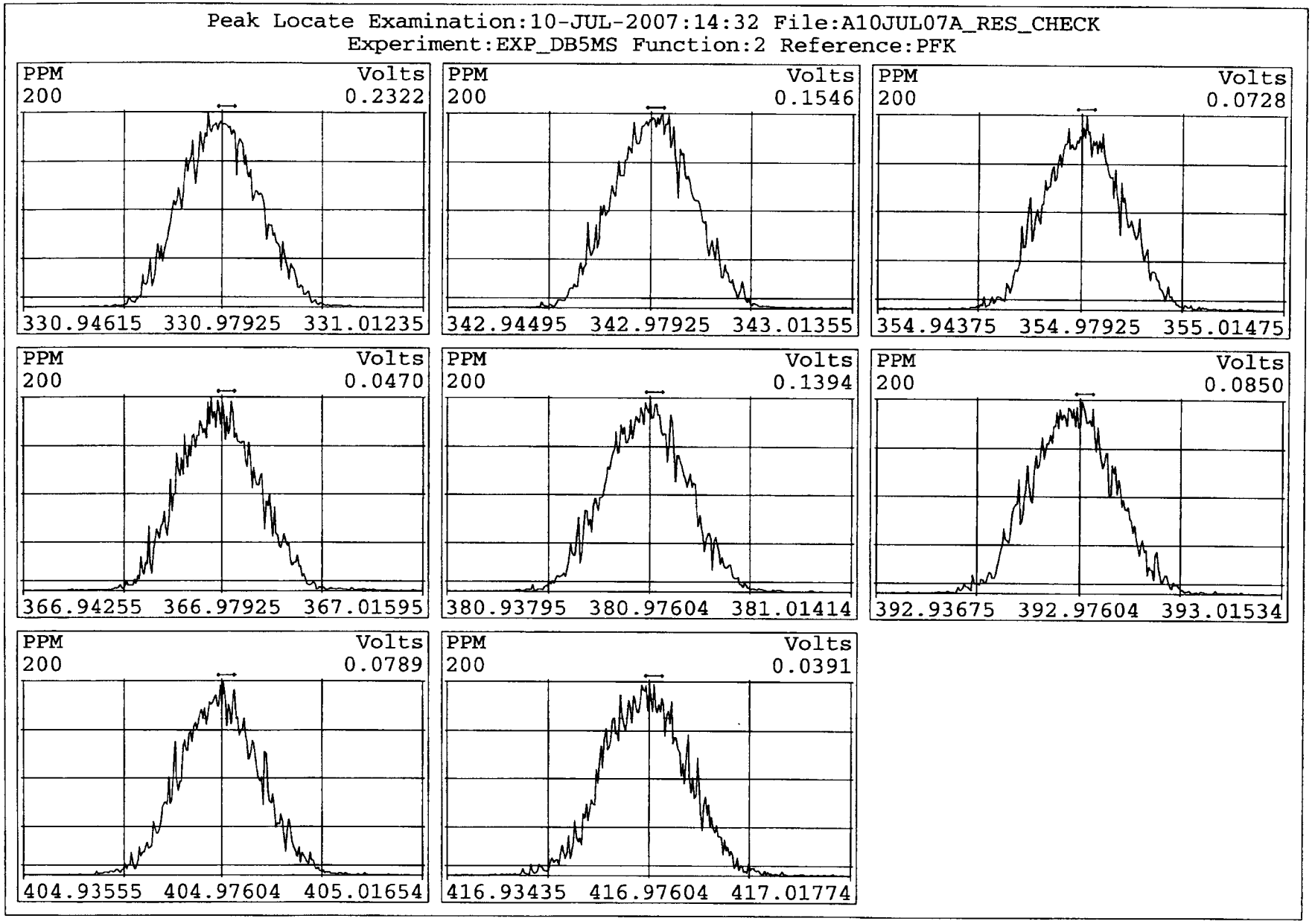

Peak Locate Examination:10-JUL-2007:08:51 File:A10JUL07A
Experiment:EXP_DB5MS Function:2 Reference:PFK
PPM
200
Volts
0.2759
330.94615 330.97925 331.01235
PPM
200
Volts
0.1881
342.94495 342.97925 343.01355
PPM
200
Volts
0.0845
354.94375 354.97925 355.01475
PPM
200
Volts
0.0647
366.94255 366.97925 367.01595
PPM
200
Volts
0.1788
380.93795 380.97604 381.01414
PPM
200
Volts
0.1143
392.93675 392.97604 393.01534
PPM
200
Volts
0.0979
404.93555 404.97604 405.01654
PPM
200
Volts
0.0513
416.93435 416.97604 417.01774

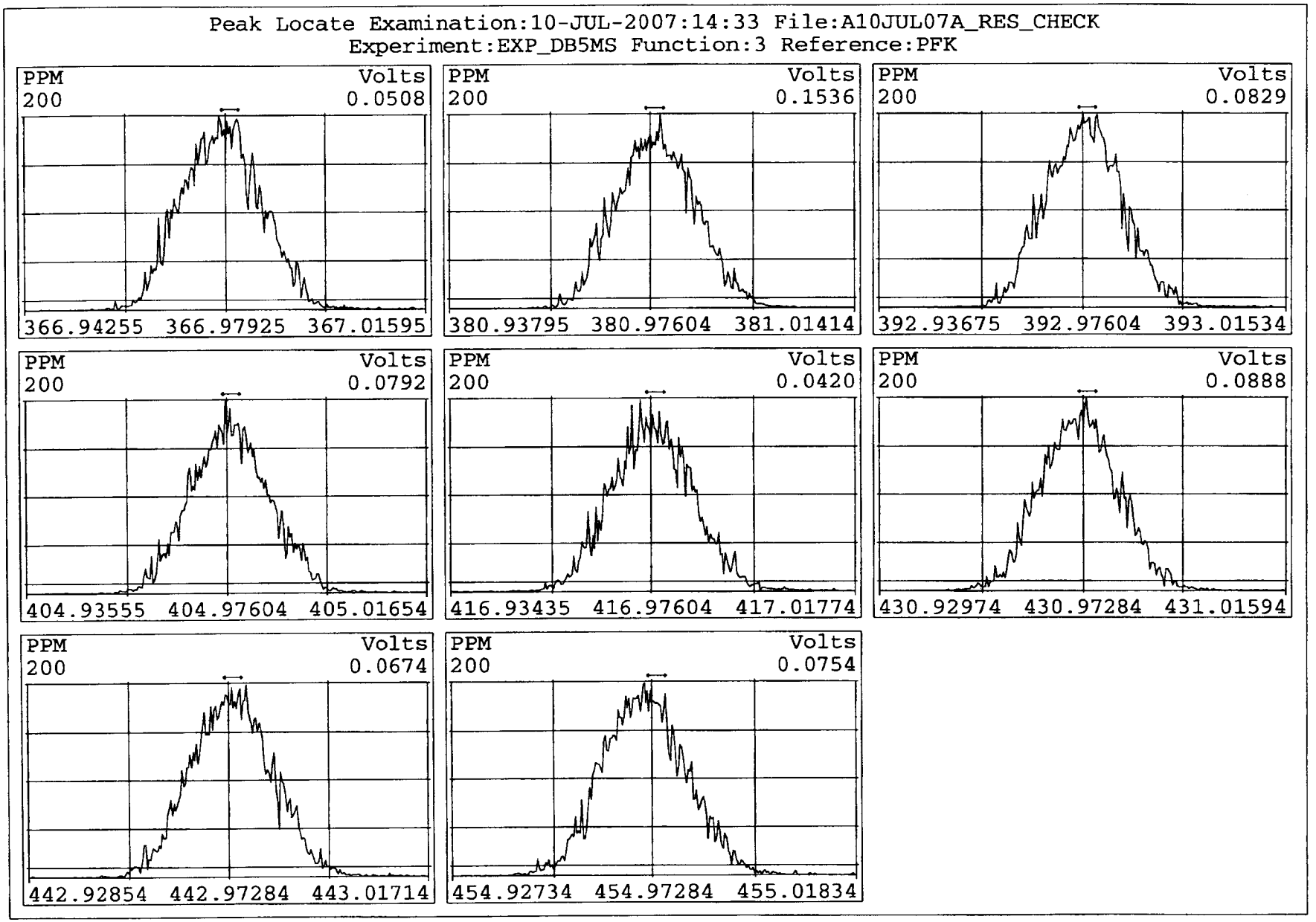

Peak Locate Examination:10-JUL-2007:08:51 File:A10JUL07A
Experiment:EXP_DB5MS Function:3 Reference:PFK
PPM
200
Volts
0.0604
366.94255 366.97925 367.01595
PPM
200
Volts
0.1713
380.93795 380.97604 381.01414
PPM
200
Volts
0.0977
392.93675 392.97604 393.01534
PPM
200
Volts
0.0877
404.93555 404.97604 405.01654
PPM
200
Volts
0.0467
416.93435 416.97604 417.01774
PPM
200
Volts
0.1063
430.92974 430.97284 431.01594
PPM
200
Volts
0.0827
442.92854 442.97284 443.01714
PPM
200
Volts
0.0904
454.92734 454.97284 455.01834

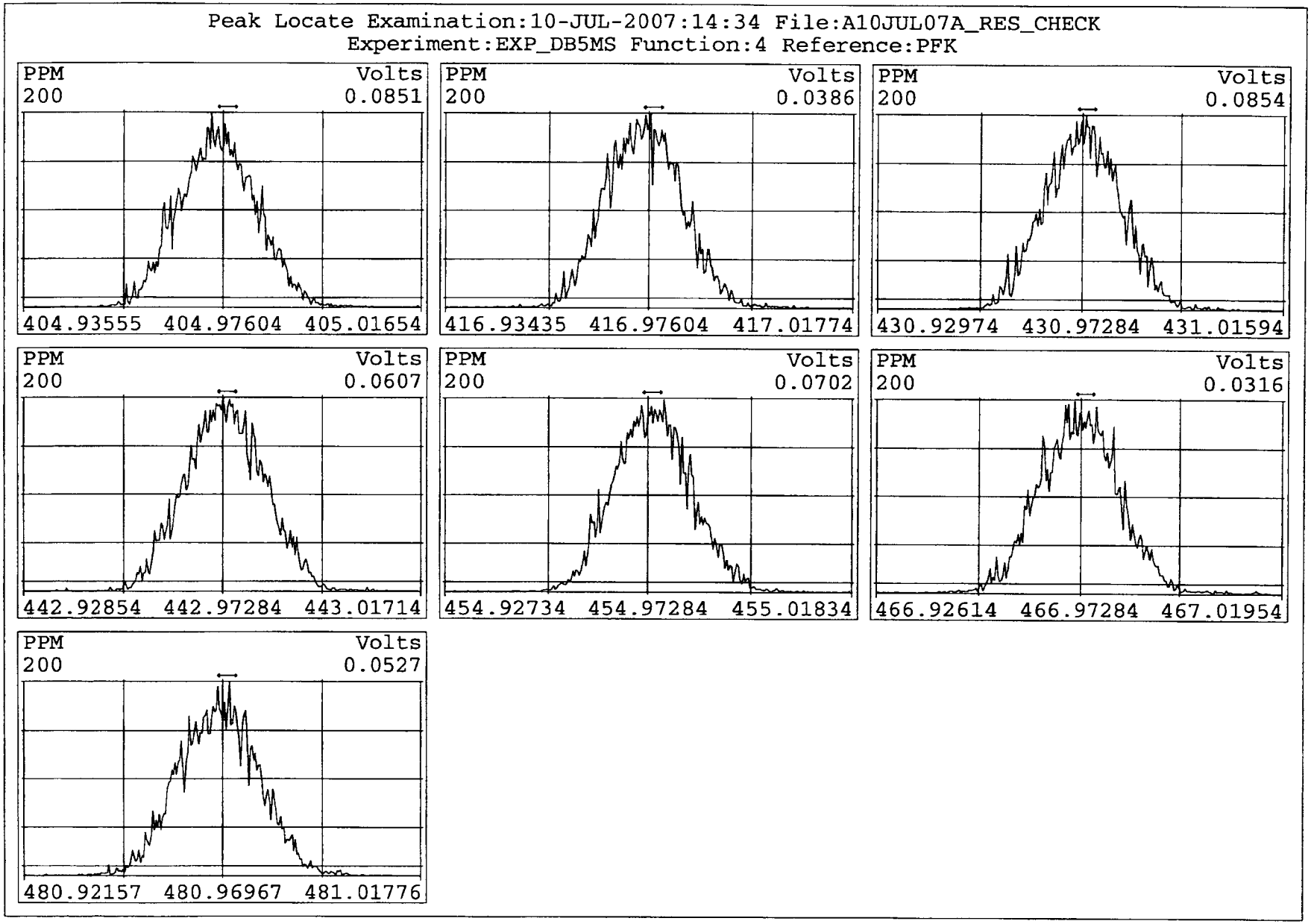

Peak Locate Examination:10-JUL-2007:08:51 File:A10JUL07A
Experiment:EXP_DB5MS Function:4 Reference:PFK
PPM
200
Volts
0.0966
404.93555 404.97604 405.01654
PPM
200
Volts
0.0503
416.93435 416.97604 417.01774
PPM
200
Volts
0.1028
430.92974 430.97284 431.01594
PPM
200
Volts
0.0792
442.92854 442.97284 443.01714
PPM
200
Volts
0.0912
454.92734 454.97284 455.01834
PPM
200
Volts
0.0386
466.92614 466.97284 467.01954
PPM
200
Volts
0.0595
480.92157 480.96967 481.01776

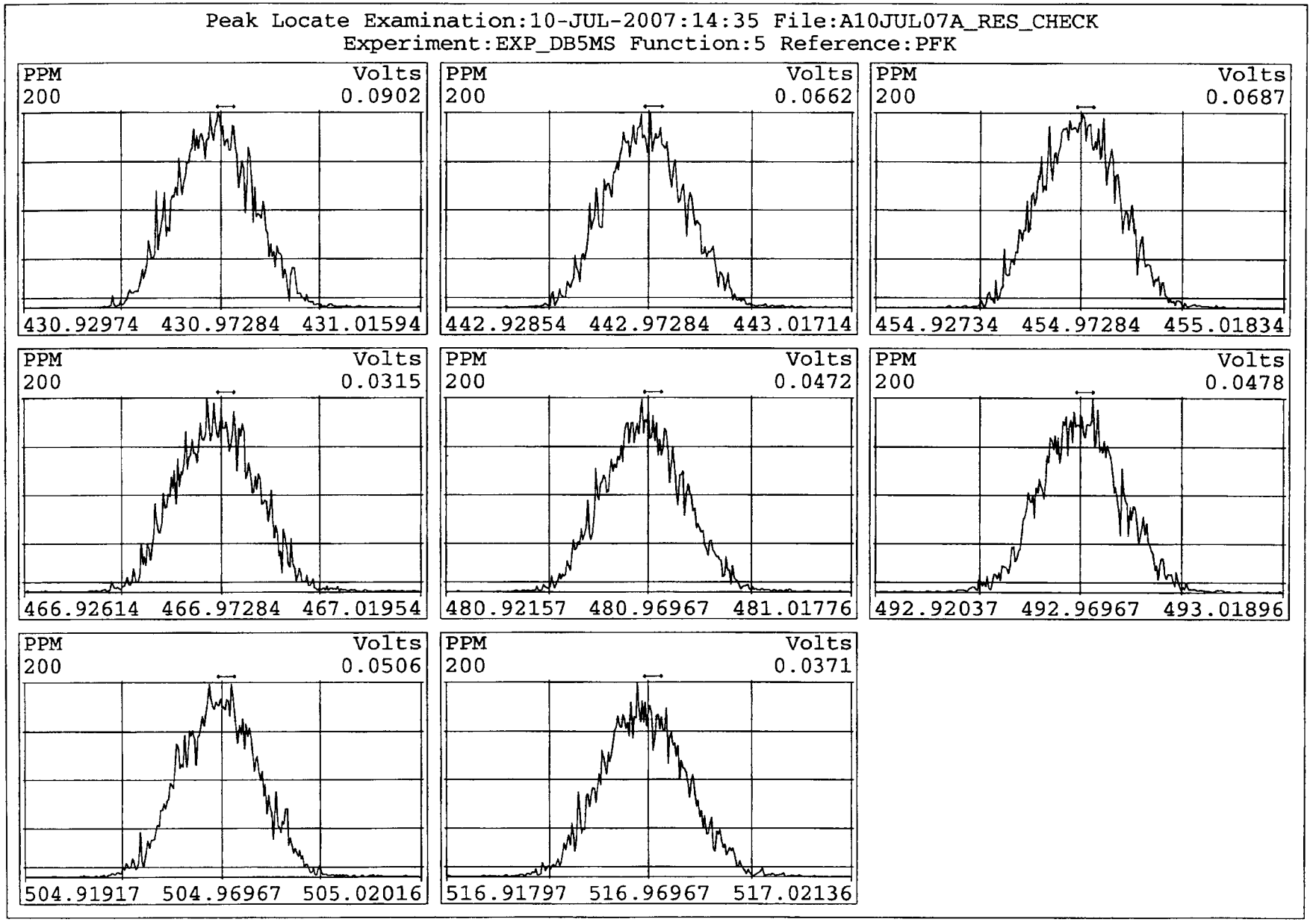

Peak Locate Examination:10-JUL-2007:08:52 File:A10JUL07A
Experiment:EXP_DB5MS Function:5 Reference:PFK
PPM
200
Volts
0.1102
430.92974 430.97284 431.01594
PPM
200
Volts
0.0808
442.92854 442.97284 443.01714
PPM
200
Volts
0.0899
454.92734 454.97284 455.01834
PPM
200
Volts
0.0373
466.92614 466.97284 467.01954
PPM
200
Volts
0.0564
480.92157 480.96967 481.01776
PPM
200
Volts
0.0554
492.92037 492.96967 493.01896
PPM
200
Volts
0.0610
504.91917 504.96967 505.02016
PPM
200
Volts
0.0485
516.91797 516.96967 517.02136


Peak Locate Examination:10-JUL-2007:14:31 File:A10JUL07A_RES_CHECK
Experiment:EXP_DB5MS Function:1 Reference:PFK
PPM
200
Volts
0.2464
292.95315 292.98245 293.01175
PPM
200
Volts
0.0901
304.95195 304.98245 305.01295
PPM
200
Volts
0.0490
318.94735 318.97925 319.01115
PPM
200
Volts
0.2161
330.94615 330.97925 331.01235
PPM
200
Volts
0.1602
342.94495 342.97925 343.01355
PPM
200
Volts
0.0749
354.94375 354.97925 355.01475
PPM
200
Volts
0.0520
366.94255 366.97925 367.01595
PPM
200
Volts
0.1420
380.93795 380.97604 381.01414


Peak Locate Examination:10-JUL-2007:14:32 File:A10JUL07A_RES_CHECK
Experiment:EXP_DB5MS Function:2 Reference:PFK
PPM
Volts
200
0.2322
330.94615 330.97925 331.01235
PPM
Volts
200
0.1546
342.94495 342.97925 343.01355
PPM
Volts
200
0.0728
354.94375 354.97925 355.01475
PPM
Volts
200
0.0470
366.94255 366.97925 367.01595
PPM
Volts
200
0.1394
380.93795 380.97604 381.01414
PPM
Volts
200
0.0850
392.93675 392.97604 393.01534
PPM
Volts
200
0.0789
404.93555 404.97604 405.01654
PPM
Volts
200
0.0391
416.93435 416.97604 417.01774


Peak Locate Examination:10-JUL-2007:14:33 File:A10JUL07A_RES_CHECK
Experiment:EXP_DB5MS Function:3 Reference:PFK
PPM
200
Volts
0.0508
366.94255 366.97925 367.01595
PPM
200
Volts
0.1536
380.93795 380.97604 381.01414
PPM
200
Volts
0.0829
392.93675 392.97604 393.01534
PPM
200
Volts
0.0792
404.93555 404.97604 405.01654
PPM
200
Volts
0.0420
416.93435 416.97604 417.01774
PPM
200
Volts
0.0888
430.92974 430.97284 431.01594
PPM
200
Volts
0.0674
442.92854 442.97284 443.01714
PPM
200
Volts
0.0754
454.92734 454.97284 455.01834


Peak Locate Examination:10-JUL-2007:14:34 File:A10JUL07A_RES_CHECK
Experiment:EXP_DB5MS Function:4 Reference:PFK
PPM
200
Volts
0.0851
404.93555 404.97604 405.01654
PPM
200
Volts
0.0386
416.93435 416.97604 417.01774
PPM
200
Volts
0.0854
430.92974 430.97284 431.01594
PPM
200
Volts
0.0607
442.92854 442.97284 443.01714
PPM
200
Volts
0.0702
454.92734 454.97284 455.01834
PPM
200
Volts
0.0316
466.92614 466.97284 467.01954
PPM
200
Volts
0.0527
480.92157 480.96967 481.01776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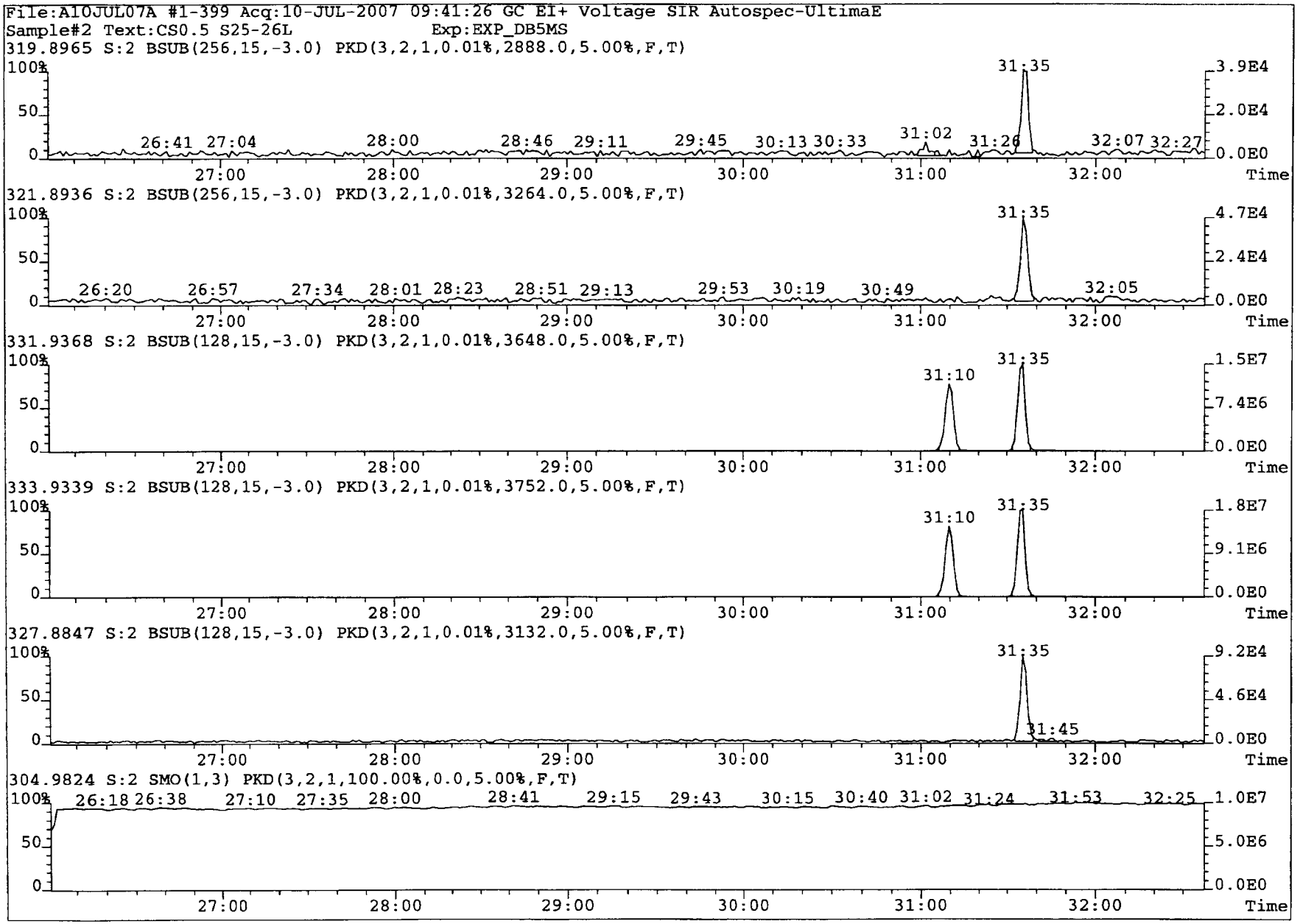
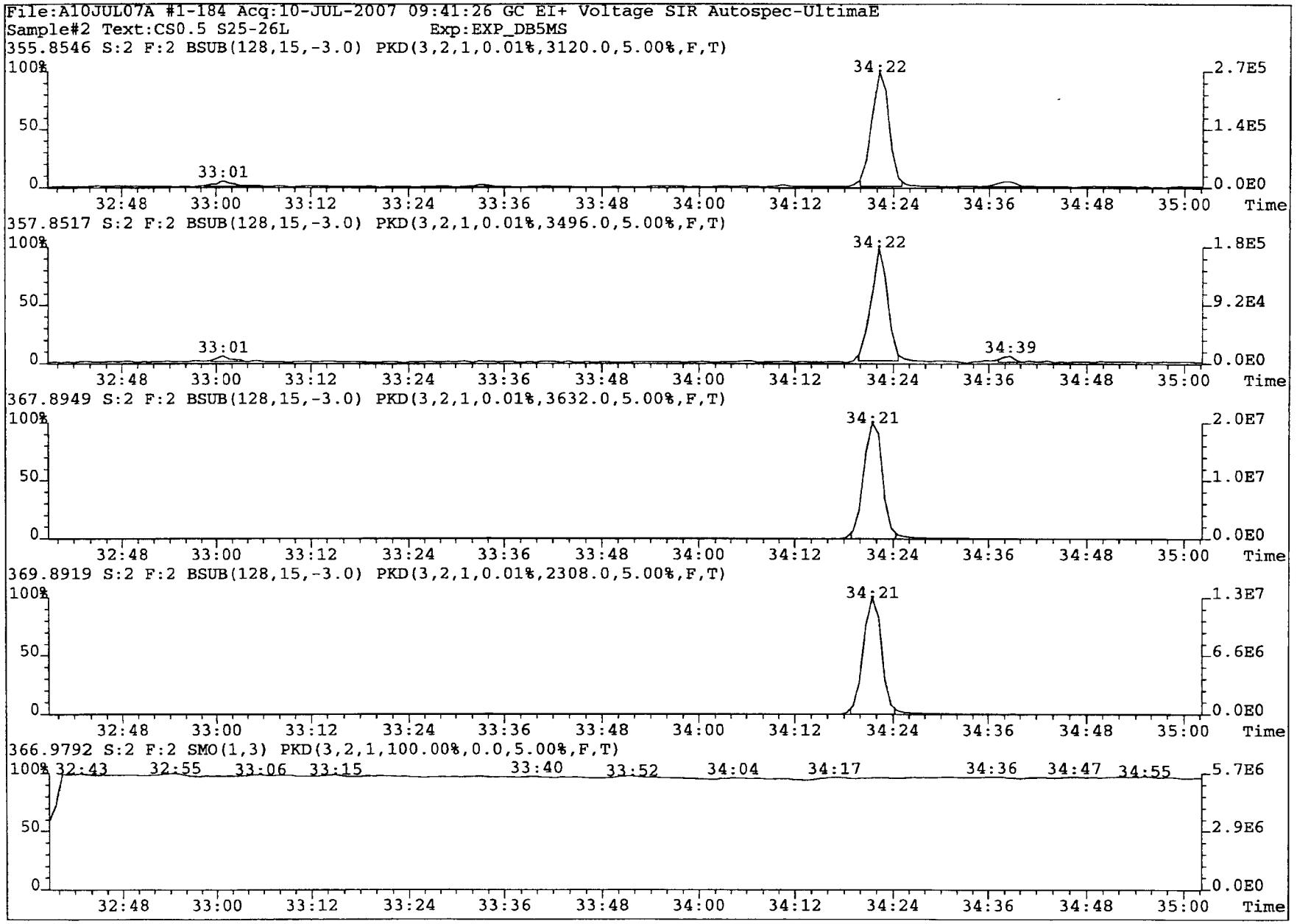
Experiment:EXP_DB5MS Function:5 Reference:PFK
PPM
Volts
200
0.0902
430.92974 430.97284 431.01594
PPM
Volts
200
0.0662
442.92854 442.97284 443.01714
PPM
Volts
200
0.0687
454.92734 454.97284 455.01834
PPM
Volts
200
0.0315
466.92614 466.97284 467.01954
PPM
Volts
200
0.0472
480.92157 480.96967 481.01776
PPM
Volts
200
0.0478
492.92037 492.96967 493.01896
PPM
Volts
200
0.0506
504.91917 504.96967 505.02016
PPM
Volts
200
0.0371
516.91797 516.96967 517.02136

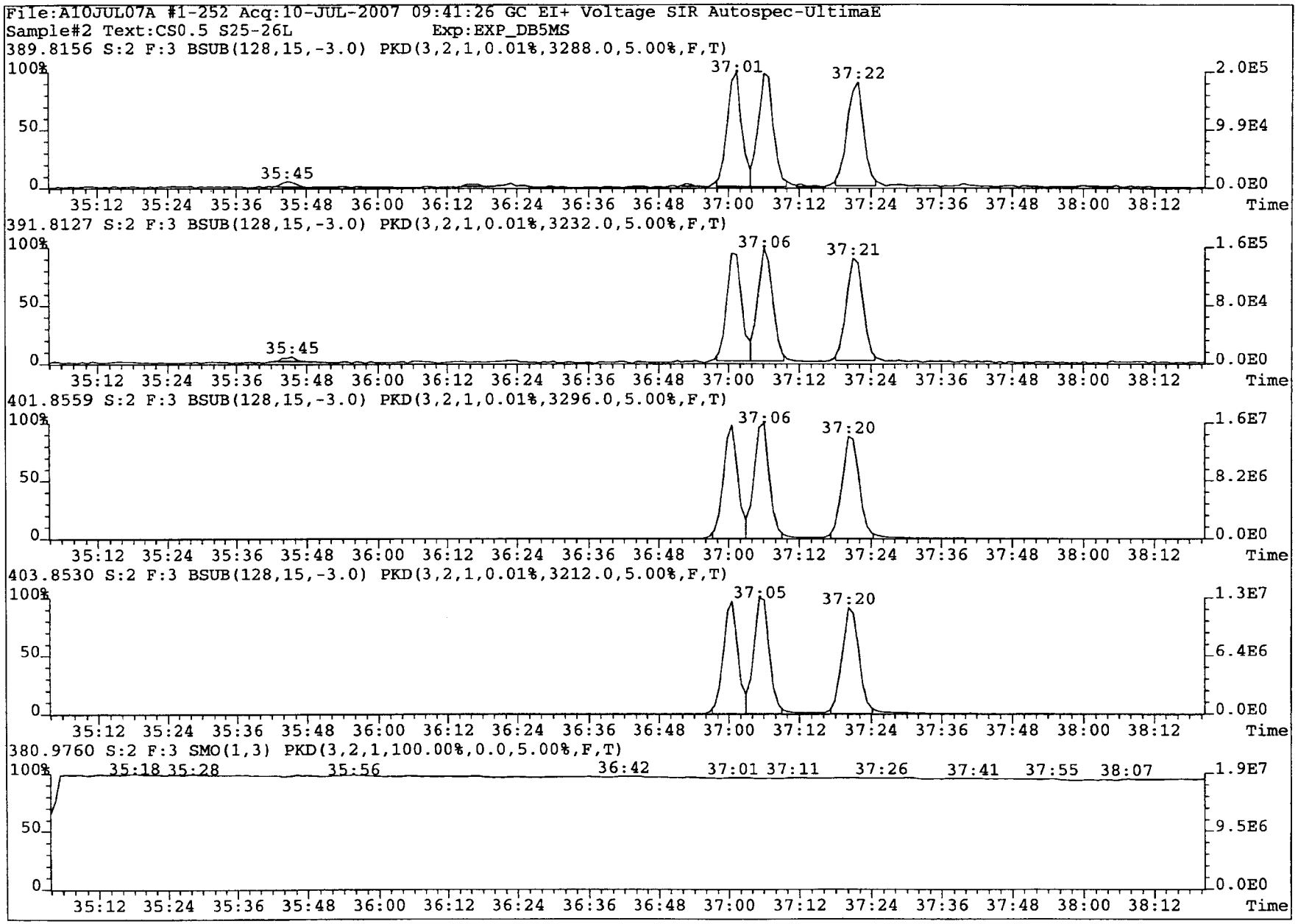
Filename a10jul07a - 2 Acquired: 10-JUL-07 09:41:26 Processed: 10-JUL-07 14:08:59
Analyte: m8290-070507a Cal: m8290-071007a
Sample text: CS0.5 S25-26L

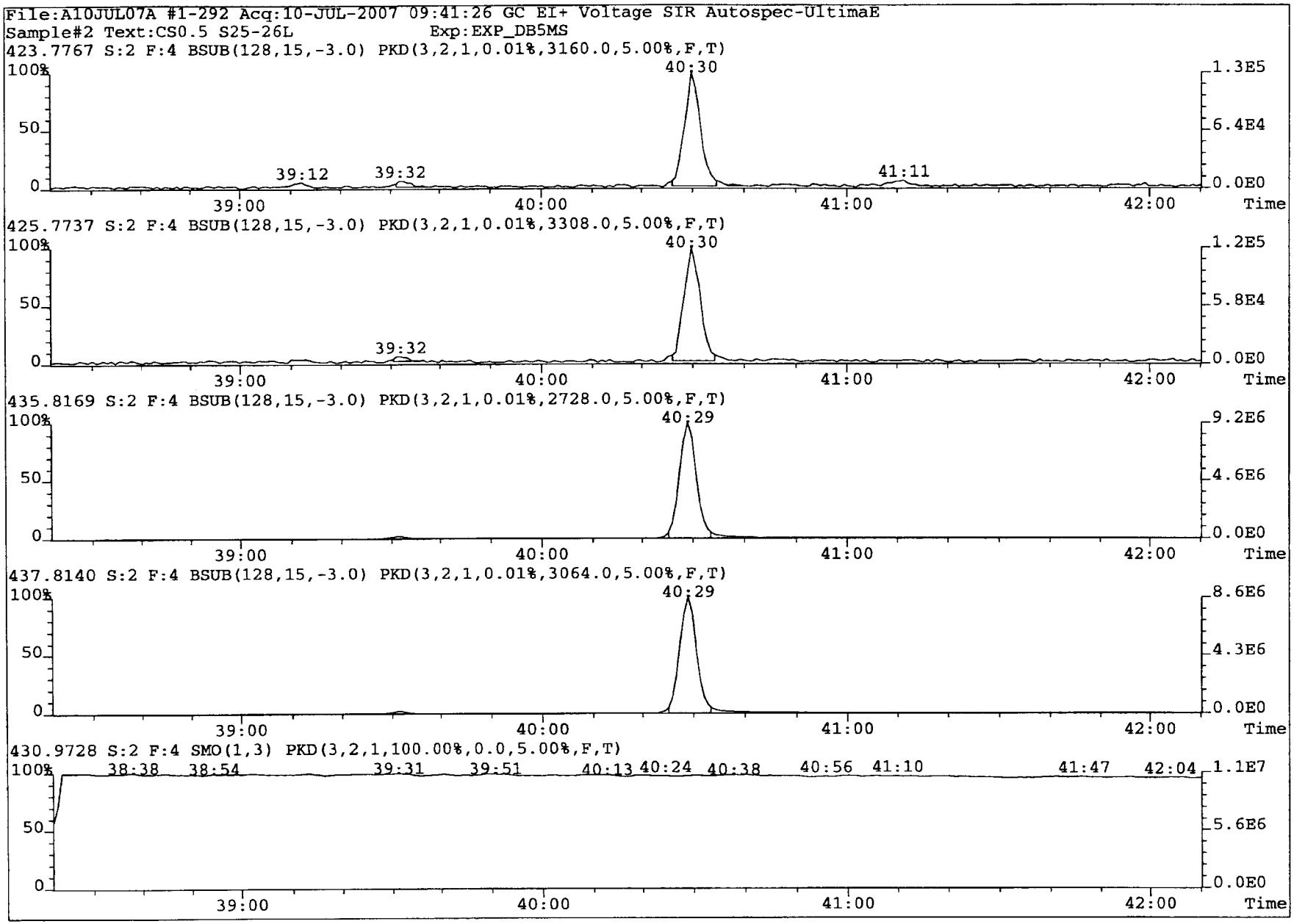
	Typ	Name	Amount	Resp	Ion1	Ion2	RA	RT	S/N1?	S/N2?	RRF	Mod?
1	Unk	2,3,7,8-TCDD	0.25	2.32e+05	1.05e+05	1.27e+05	0.82 y	31:35	13 y	14 y	0.9454	n
2	Unk	1,2,3,7,8-PeCDD	1.25	1.06e+06	6.49e+05	4.09e+05	1.58 y	34:22	86 y	51 y	0.9862	n
3	Unk	1,2,3,4,7,8-HxCDD	1.25	9.93e+05	5.56e+05	4.37e+05	1.27 y	37:01	59 y	46 y	0.9116	n
4	Unk	1,2,3,6,7,8-HxCDD	1.25	1.01e+06	5.65e+05	4.43e+05	1.28 y	37:06	59 y	48 y	0.9246	n
5	Unk	1,2,3,7,8,9-HxCDD	1.25	9.98e+05	5.53e+05	4.46e+05	1.24 y	37:21	54 y	43 y	0.9162	n
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	8.56e+05	4.46e+05	4.10e+05	1.09 y	40:30	40 y	34 y	1.0338	n
7	Unk	OCDD	2.50	1.33e+06	6.30e+05	7.02e+05	0.90 y	44:53	44 y	48 y	1.0018	n
8	Unk	2,3,7,8-TCDF	0.25	3.19e+05	1.40e+05	1.79e+05	0.78 y	31:02	17 y	17 y	1.0554	n
9	Unk	1,2,3,7,8-PeCDF	1.25	1.71e+06	1.04e+06	6.69e+05	1.56 y	33:34	141 y	95 y	0.9832	n
10	Unk	2,3,4,7,8-PeCDF	1.25	1.73e+06	1.06e+06	6.70e+05	1.58 y	34:11	146 y	93 y	0.9940	n
11	Unk	1,2,3,4,7,8-HxCDF	1.25	1.54e+06	8.40e+05	6.96e+05	1.21 y	36:18	81 y	63 y	1.0972	n
12	Unk	1,2,3,6,7,8-HxCDF	1.25	1.60e+06	8.81e+05	7.19e+05	1.22 y	36:24	93 y	67 y	1.1424	n
13	Unk	2,3,4,6,7,8-HxCDF	1.25	1.51e+06	8.58e+05	6.49e+05	1.32 y	36:53	82 y	59 y	1.0758	n
14	Unk	1,2,3,7,8,9-HxCDF	1.25	1.31e+06	7.52e+05	5.56e+05	1.35 y	37:41	68 y	50 y	0.9346	n
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	1.38e+06	7.10e+05	6.69e+05	1.06 y	39:12	64 y	57 y	1.3209	n
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	1.10e+06	5.62e+05	5.41e+05	1.04 y	41:11	44 y	37 y	1.0563	n
17	Unk	OCDF	2.50	1.61e+06	7.69e+05	8.39e+05	0.92 y	45:11	43 y	65 y	1.2084	n
18	ES/RT	13C-2,3,7,8-TCDD	100.00	9.80e+07	4.32e+07	5.49e+07	0.79 y	31:34	4031 y	4826 y	1.1279	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	8.58e+07	5.26e+07	3.33e+07	1.58 y	34:21	5582 y	5693 y	0.9873	n
20	ES	13C-1,2,3,6,7,8-HxCDD	100.00	8.72e+07	4.86e+07	3.86e+07	1.26 y	37:05	4962 y	4009 y	1.0303	n
21	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	6.62e+07	3.42e+07	3.21e+07	1.07 y	40:29	3363 y	2816 y	0.7828	n
22	ES	13C-OCDD	200.00	1.06e+08	5.04e+07	5.61e+07	0.90 y	44:52	3795 y	3462 y	0.6289	n
23	ES/RT	13C-2,3,7,8-TCDF	100.00	1.21e+08	5.32e+07	6.77e+07	0.79 y	31:01	4804 y	5802 y	1.3899	n
24	ES	13C-1,2,3,7,8-PeCDF	100.00	1.39e+08	8.56e+07	5.36e+07	1.60 y	33:33	2936 y	2536 y	1.6013	n
25	ES	13C-1,2,3,6,7,8-HxCDF	100.00	1.12e+08	3.88e+07	7.32e+07	0.53 y	36:23	3462 y	7424 y	1.3239	n
26	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	8.35e+07	2.58e+07	5.77e+07	0.45 y	39:12	1779 y	3443 y	0.9871	n
27	JS	13C-1,2,3,4-TCDD	100.00	8.69e+07	3.81e+07	4.88e+07	0.78 y	31:10	3121 y	3931 y	-	n
28	JS	13C-1,2,3,7,8,9-HxCDD	100.00	8.46e+07	4.70e+07	3.77e+07	1.25 y	37:21	4385 y	3662 y	-	n
29	CS	37Cl-2,3,7,8-TCDD	0.25	2.45e+05	2.45e+05			31:35	29 y		1.1265	n
30	CS	13C-2,3,4,7,8-PeCDF	100.00	1.35e+08	8.29e+07	5.25e+07	1.58 y	34:10	3024 y	2583 y	1.5568	n
31	CS	13C-1,2,3,4,7,8-HxCDD	100.00	8.14e+07	4.56e+07	3.58e+07	1.27 y	37:00	4859 y	3889 y	0.9623	n
32	CS	13C-1,2,3,4,7,8-HxCDF	100.00	1.04e+08	3.59e+07	6.84e+07	0.52 y	36:17	3273 y	7086 y	1.2326	n
33	CS	13C-1,2,3,4,7,8,9-HpCDF	100.00	7.38e+07	2.29e+07	5.09e+07	0.45 y	41:11	1409 y	2689 y	0.8721	n
34	SS	37Cl-2,3,7,8-TCDD	0.25	2.45e+05	2.45e+05			31:35	29 y		0.9988	n
35	SS	13C-2,3,4,7,8-PeCDF	100.00	1.35e+08	8.29e+07	5.25e+07	1.58 y	34:10	3024 y	2583 y	0.9722	n
36	SS	13C-1,2,3,4,7,8-HxCDD	100.00	8.14e+07	4.56e+07	3.58e+07	1.27 y	37:00	4859 y	3889 y	0.9340	n
37	SS	13C-1,2,3,4,7,8-HxCDF	100.00	1.04e+08	3.59e+07	6.84e+07	0.52 y	36:17	3273 y	7086 y	0.9310	n
38	SS	13C-1,2,3,4,7,8,9-HpCDF	100.00	7.38e+07	2.29e+07	5.09e+07	0.45 y	41:11	1409 y	2689 y	0.8835	n
39	Tot	Total Tetra-Furans	0.00	-	-	-	- n	-	- n	- n	1.0554	n
40	Tot	Total Tetra-Dioxins	0.00	-	-	-	- n	-	- n	- n	0.9454	n
41	Tot	Total Penta-Furans Fn1	0.00	-	-	-	- n	-	- n	- n	0.9886	n
42	Tot	Total Penta-Furans Fn2	0.00	-	-	-	- n	-	- n	- n	0.9886	n
43	Tot	Total Penta-Dioxins	0.00	-	-	-	- n	-	- n	- n	0.9862	n
44	Tot	Total Hexa-Furans	0.00	-	-	-	- n	-	- n	- n	1.0625	n

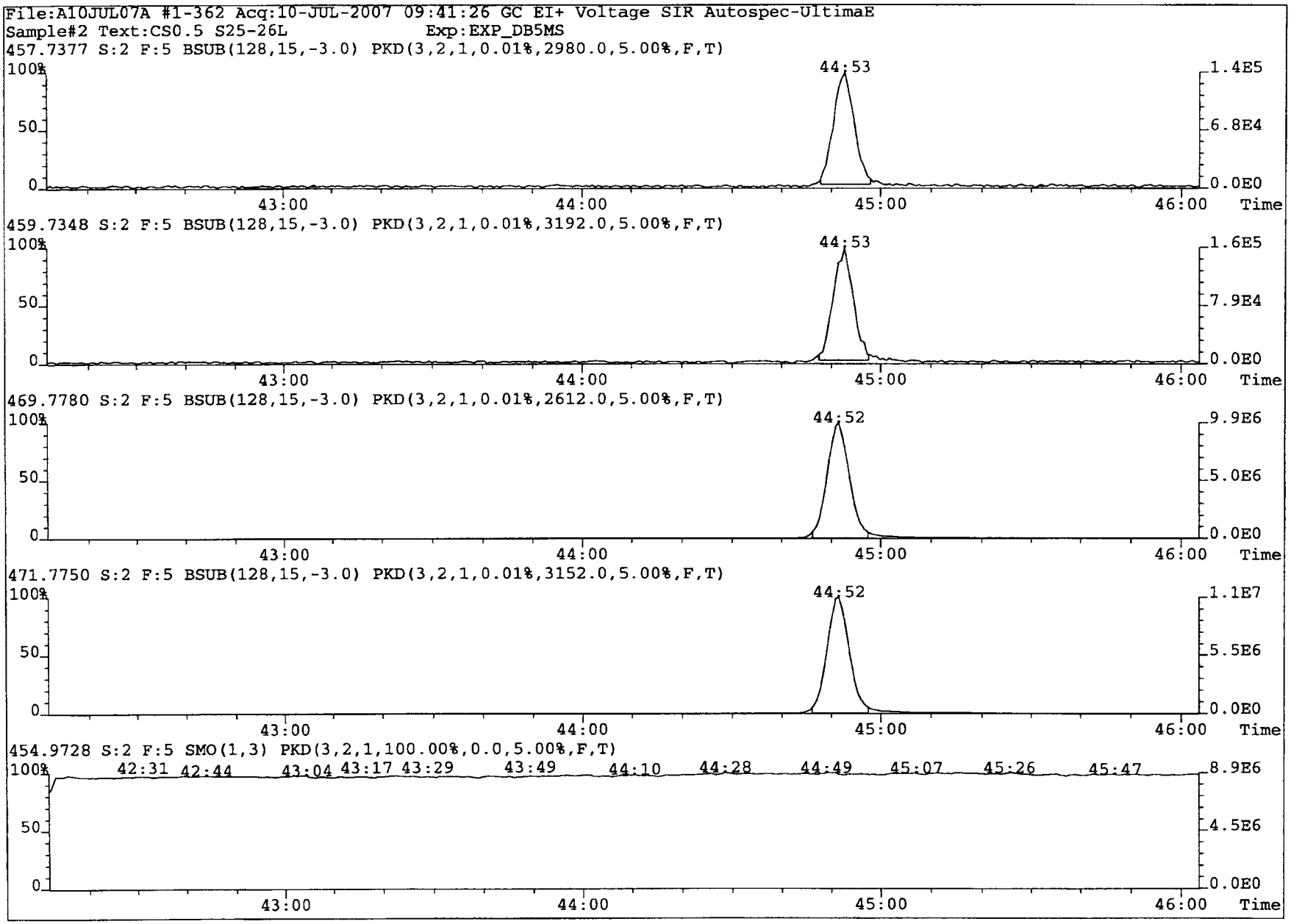
= 1.03441

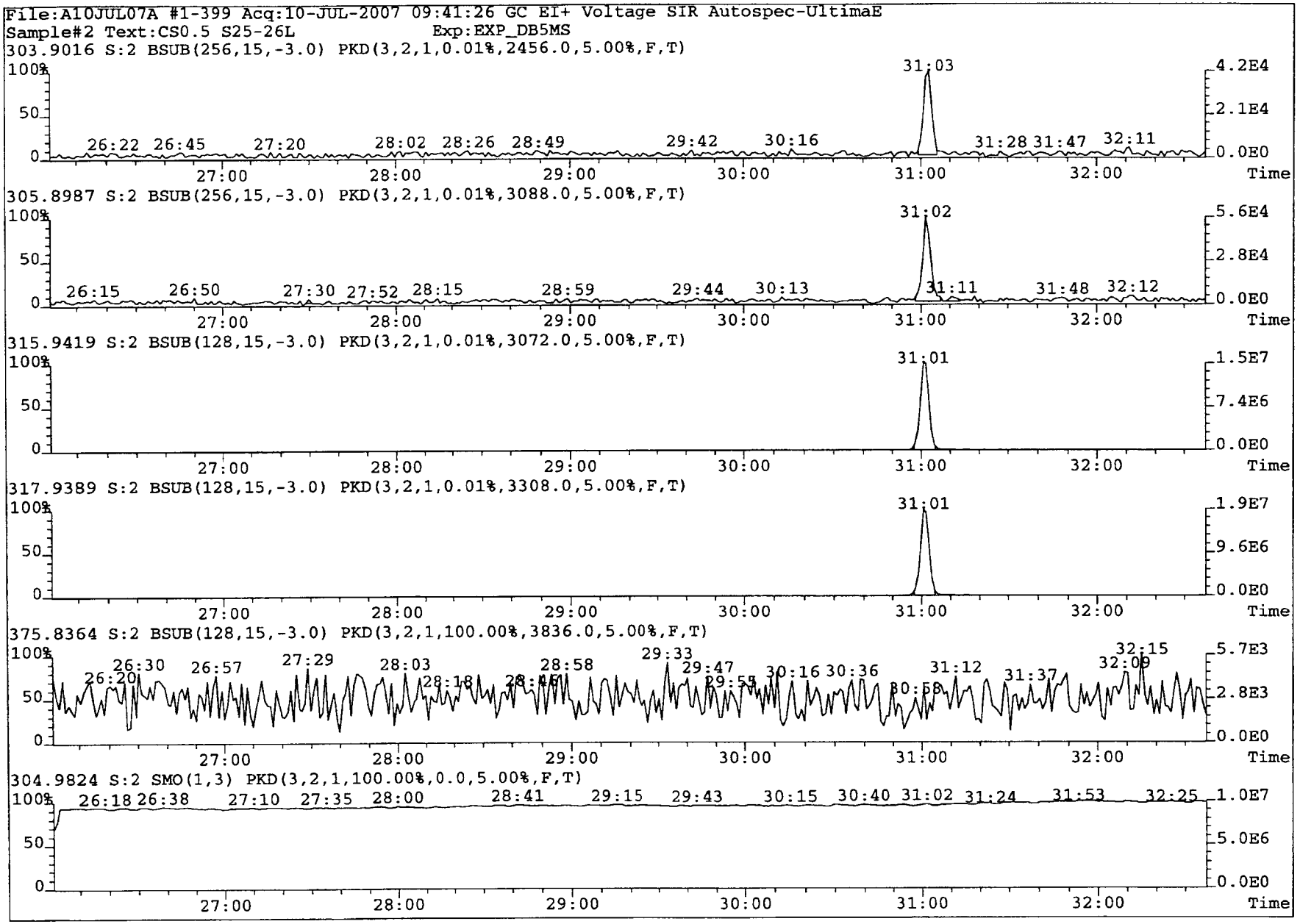

File:A10JUL07A #1-399 Acq:10-JUL-2007 09:41:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 S25-26L Exp:EXP_DB5MS
319.8965 S:2 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,2888.0,5.00%,F,T)
31:35
26:41 27:04 28:00 28:46 29:11 29:45 30:13 30:33 31:02 31:26 32:07 32:27
3.9E4
2.0E4
0.0E0
321.8936 S:2 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,3264.0,5.00%,F,T)
31:35
26:20 26:57 27:34 28:01 28:23 28:51 29:13 29:53 30:19 30:49 32:05
4.7E4
2.4E4
0.0E0
331.9368 S:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3648.0,5.00%,F,T)
31:10
31:35
1.5E7
7.4E6
0.0E0
333.9339 S:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3752.0,5.00%,F,T)
31:10
31:35
1.8E7
9.1E6
0.0E0
327.8847 S:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3132.0,5.00%,F,T)
31:35
31:45
9.2E4
4.6E4
0.0E0
304.9824 S:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:18 26:38 27:10 27:35 28:00 28:41 29:15 29:43 30:15 30:40 31:02 31:24 31:53 32:25
1.0E7
5.0E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time

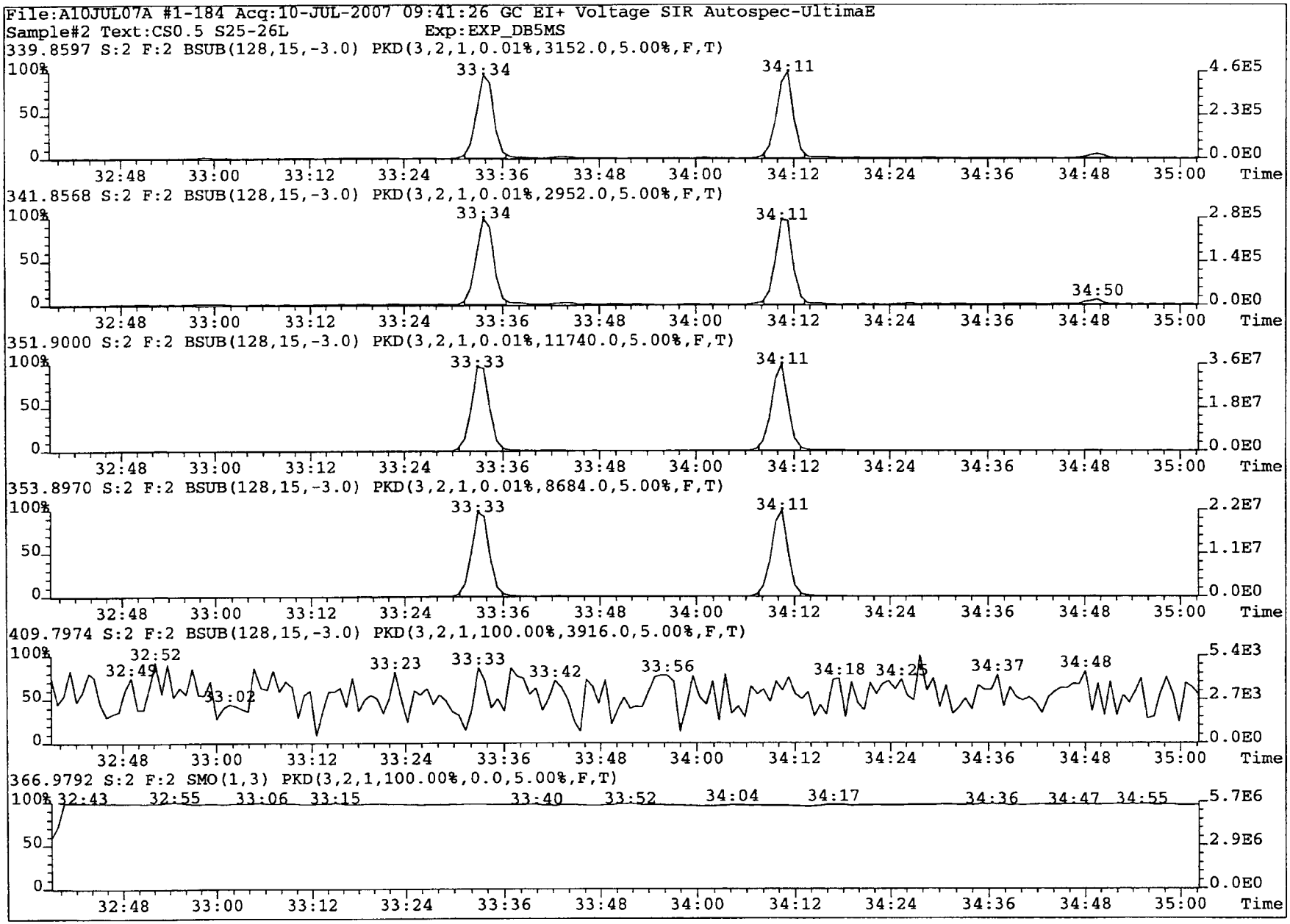

File:A10JUL07A #1-184 Acq:10-JUL-2007 09:41:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 S25-26L Exp:EXP_DB5MS
355.8546 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3120.0,5.00%,F,T)
34:22
33:01
2.7E5
1.4E5
0.0E0
357.8517 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3496.0,5.00%,F,T)
34:22
33:01
34:39
1.8E5
9.2E4
0.0E0
367.8949 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3632.0,5.00%,F,T)
34:21
2.0E7
1.0E7
0.0E0
369.8919 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2308.0,5.00%,F,T)
34:21
1.3E7
6.6E6
0.0E0
366.9792 S:2 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:43 32:55 33:06 33:15 33:40 33:52 34:04 34:17 34:36 34:47 34:55
5.7E6
2.9E6
0.0E0
100%
50
0
32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00
Time

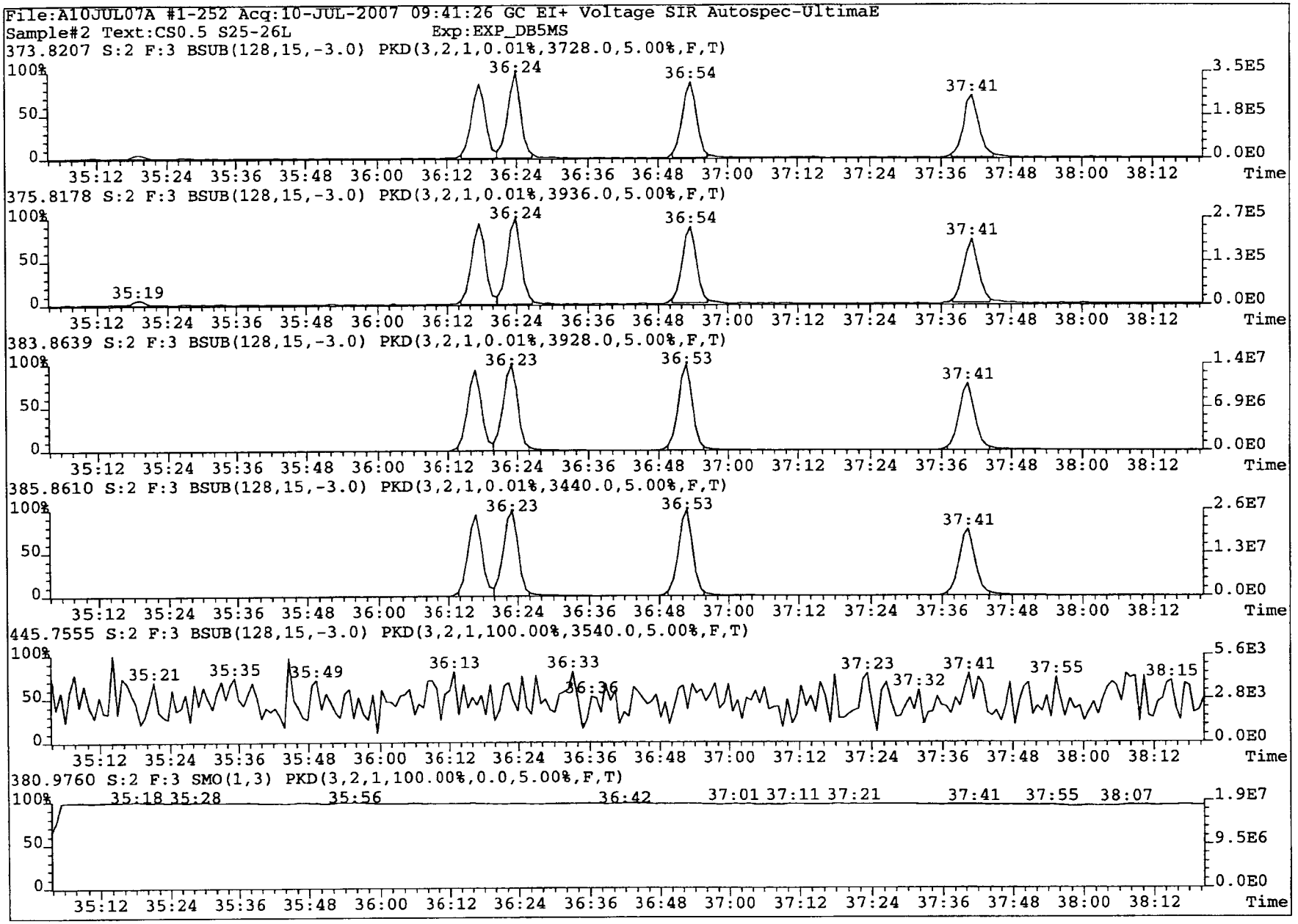

File:A10JUL07A #1-252 Acq:10-JUL-2007 09:41:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 S25-26L Exp:EXP_DB5MS
389.8156 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3288.0,5.00%,F,T)
37:01
37:22
35:45
2.0E5
9.9E4
0.0E0
391.8127 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3232.0,5.00%,F,T)
37:06
37:21
35:45
1.6E5
8.0E4
0.0E0
401.8559 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3296.0,5.00%,F,T)
37:06
37:20
1.6E7
8.2E6
0.0E0
403.8530 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3212.0,5.00%,F,T)
37:05
37:20
1.3E7
6.4E6
0.0E0
380.9760 S:2 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:18 35:28
35:56
36:42
37:01 37:11
37:26
37:41
37:55
38:07
1.9E7
9.5E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

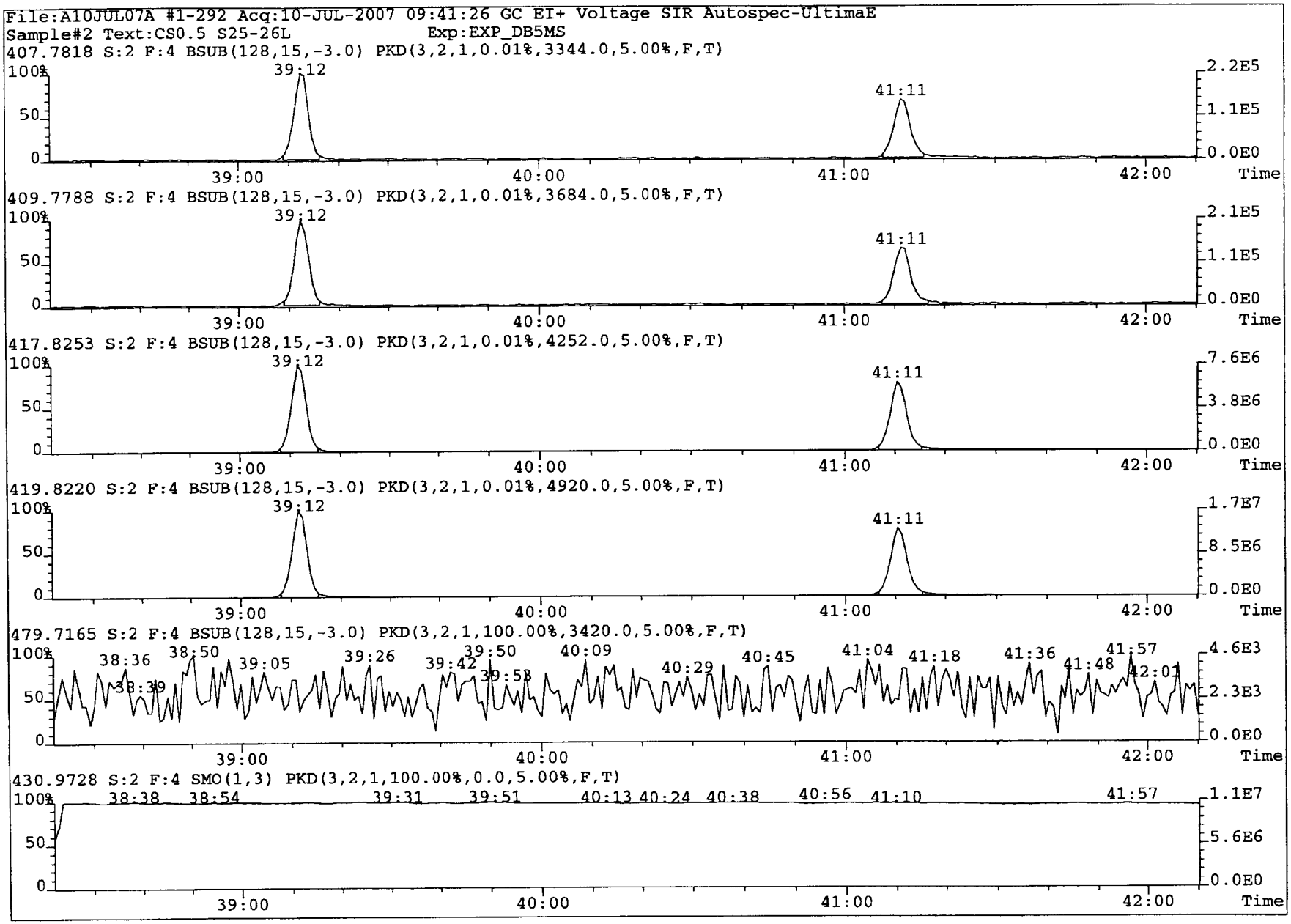

File:A10JUL07A #1-292 Acq:10-JUL-2007 09:41:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 S25-26L Exp:EXP_DB5MS
423.7767 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3160.0,5.00%,F,T)
40:30
39:12
39:32
41:11
1.3E5
6.4E4
0.0E0
425.7737 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3308.0,5.00%,F,T)
40:30
39:32
1.2E5
5.8E4
0.0E0
435.8169 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2728.0,5.00%,F,T)
40:29
9.2E6
4.6E6
0.0E0
437.8140 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3064.0,5.00%,F,T)
40:29
8.6E6
4.3E6
0.0E0
430.9728 S:2 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:38 38:54 39:31 39:51 40:13 40:24 40:38 40:56 41:10 41:47 42:04
1.1E7
5.6E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

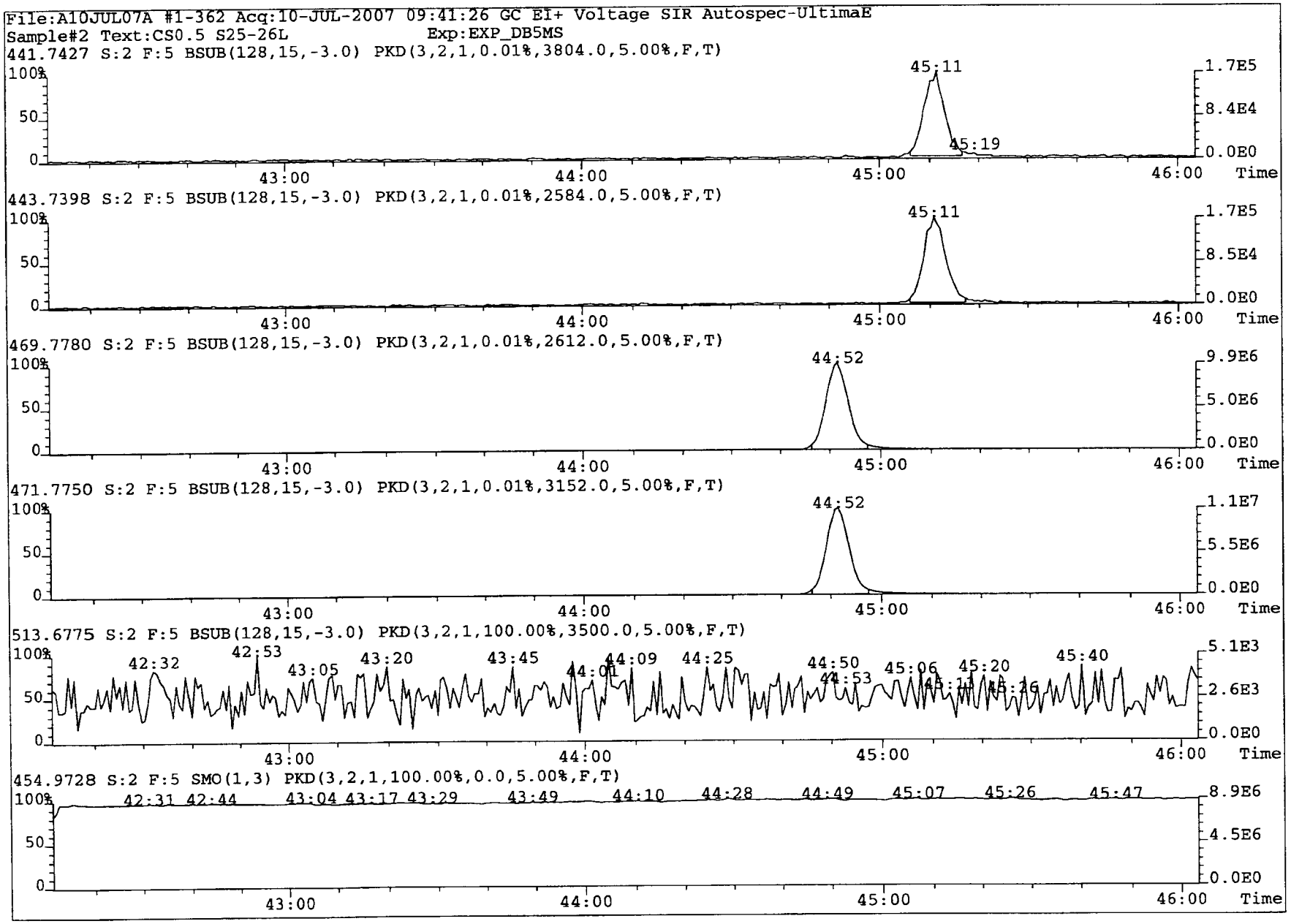

File:A10JUL07A #1-362 Acq:10-JUL-2007 09:41:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 S25-26L Exp:EXP_DB5MS
457.7377 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2980.0,5.00%,F,T)
44:53
1.4E5
6.8E4
0.0E0
459.7348 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3192.0,5.00%,F,T)
44:53
1.6E5
7.9E4
0.0E0
469.7780 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2612.0,5.00%,F,T)
44:52
9.9E6
5.0E6
0.0E0
471.7750 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3152.0,5.00%,F,T)
44:52
1.1E7
5.5E6
0.0E0
454.9728 S:2 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:31 42:44 43:04 43:17 43:29 43:49 44:10 44:28 44:49 45:07 45:26 45:47
8.9E6
4.5E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time


File:A10JUL07A #1-399 Acq:10-JUL-2007 09:41:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 S25-26L Exp:EXP_DB5MS
303.9016 S:2 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,2456.0,5.00%,F,T)
31:03
4.2E4
2.1E4
0.0E0
26:22 26:45 27:20 28:02 28:26 28:49 29:42 30:16 31:28 31:47 32:11
305.8987 S:2 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,3088.0,5.00%,F,T)
31:02
5.6E4
2.8E4
0.0E0
26:15 26:50 27:30 27:52 28:15 28:59 29:44 30:13 31:11 31:48 32:12
315.9419 S:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3072.0,5.00%,F,T)
31:01
1.5E7
7.4E6
0.0E0
317.9389 S:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3308.0,5.00%,F,T)
31:01
1.9E7
9.6E6
0.0E0
375.8364 S:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,3836.0,5.00%,F,T)
26:20 26:30 26:57 27:29 28:03 28:18 28:58 29:33 29:47 29:55 30:16 30:36 31:12 31:37 32:09 32:15
5.7E3
2.8E3
0.0E0
304.9824 S:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:18 26:38 27:10 27:35 28:00 28:41 29:15 29:43 30:15 30:40 31:02 31:24 31:53 32:25
1.0E7
5.0E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time


File:A10JUL07A #1-184 Acq:10-JUL-2007 09:41:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 S25-26L Exp:EXP_DB5MS
339.8597 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3152.0,5.00%,F,T)
33:34
34:11
4.6E5
2.3E5
0.0E0
341.8568 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2952.0,5.00%,F,T)
33:34
34:11
34:50
2.8E5
1.4E5
0.0E0
351.9000 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,11740.0,5.00%,F,T)
33:33
34:11
3.6E7
1.8E7
0.0E0
353.8970 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,8684.0,5.00%,F,T)
33:33
34:11
2.2E7
1.1E7
0.0E0
409.7974 S:2 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,3916.0,5.00%,F,T)
32:52
32:49
33:02
33:23
33:33
33:42
33:56
34:18
34:25
34:37
34:48
5.4E3
2.7E3
0.0E0
366.9792 S:2 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:43
32:55
33:06
33:15
33:40
33:52
34:04
34:17
34:36
34:47
34:55
5.7E6
2.9E6
0.0E0
100%
50
0
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time


File:A10JUL07A #1-252 Acq:10-JUL-2007 09:41:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 S25-26L Exp:EXP_DB5MS
373.8207 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3728.0,5.00%,F,T)
375.8178 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3936.0,5.00%,F,T)
383.8639 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3928.0,5.00%,F,T)
385.8610 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3440.0,5.00%,F,T)
445.7555 S:2 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,3540.0,5.00%,F,T)
380.9760 S:2 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

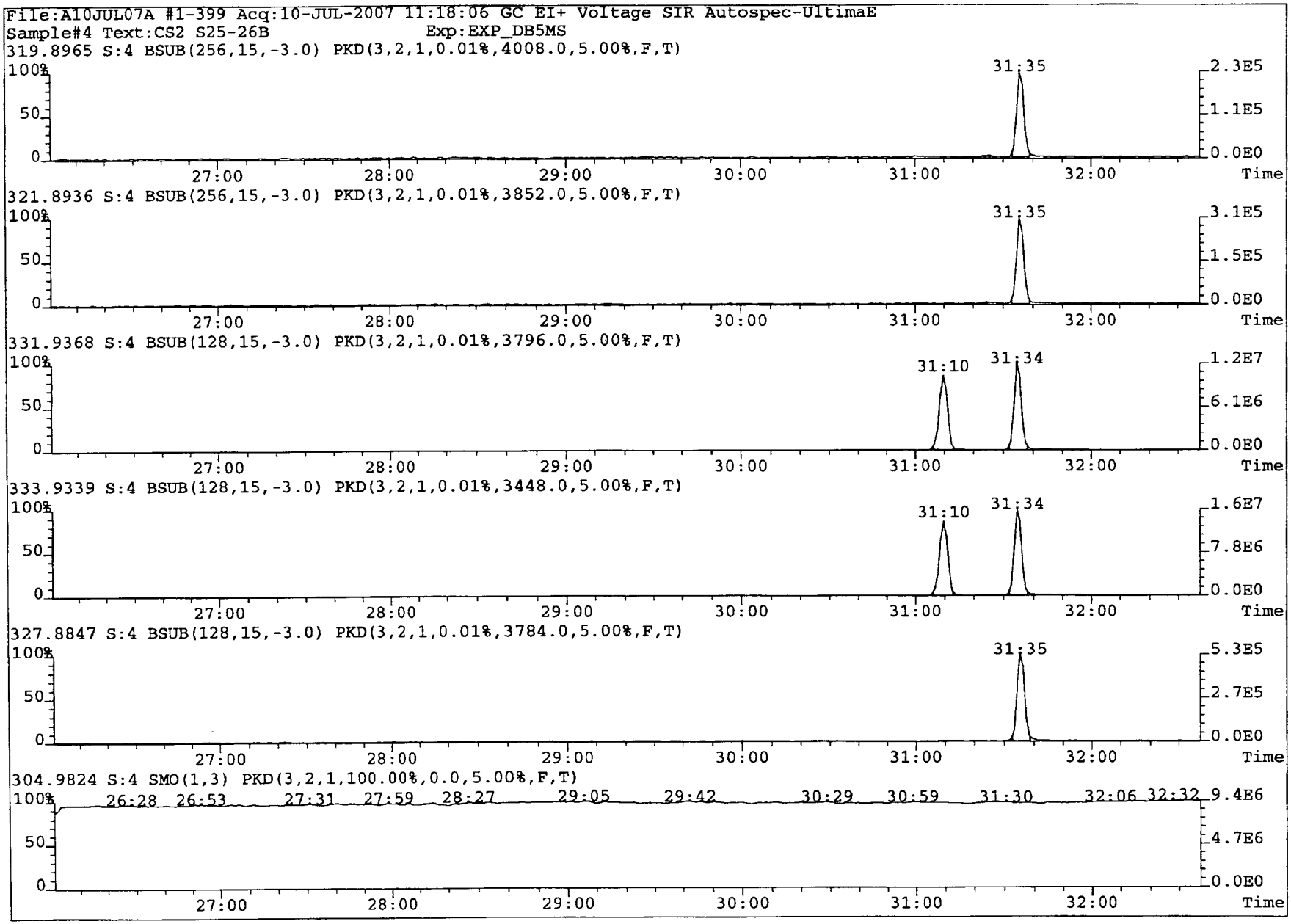

File:A10JUL07A #1-292 Acq:10-JUL-2007 09:41:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 S25-26L Exp:EXP_DB5MS
407.7818 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3344.0,5.00%,F,T)
39:12
41:11
2.2E5
1.1E5
0.0E0
409.7788 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3684.0,5.00%,F,T)
2.1E5
417.8253 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4252.0,5.00%,F,T)
7.6E6
3.8E6
419.8220 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4920.0,5.00%,F,T)
1.7E7
8.5E6
479.7165 S:2 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,3420.0,5.00%,F,T)
38:36
38:50
39:05
39:26
39:42
39:50
40:09
40:29
40:45
41:04
41:18
41:36
41:48
41:57
42:01
4.6E3
2.3E3
430.9728 S:2 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:38
38:54
39:31
39:51
40:13
40:24
40:38
40:56
41:10
41:57
1.1E7
5.6E6
39:00
40:00
41:00
42:00
Time

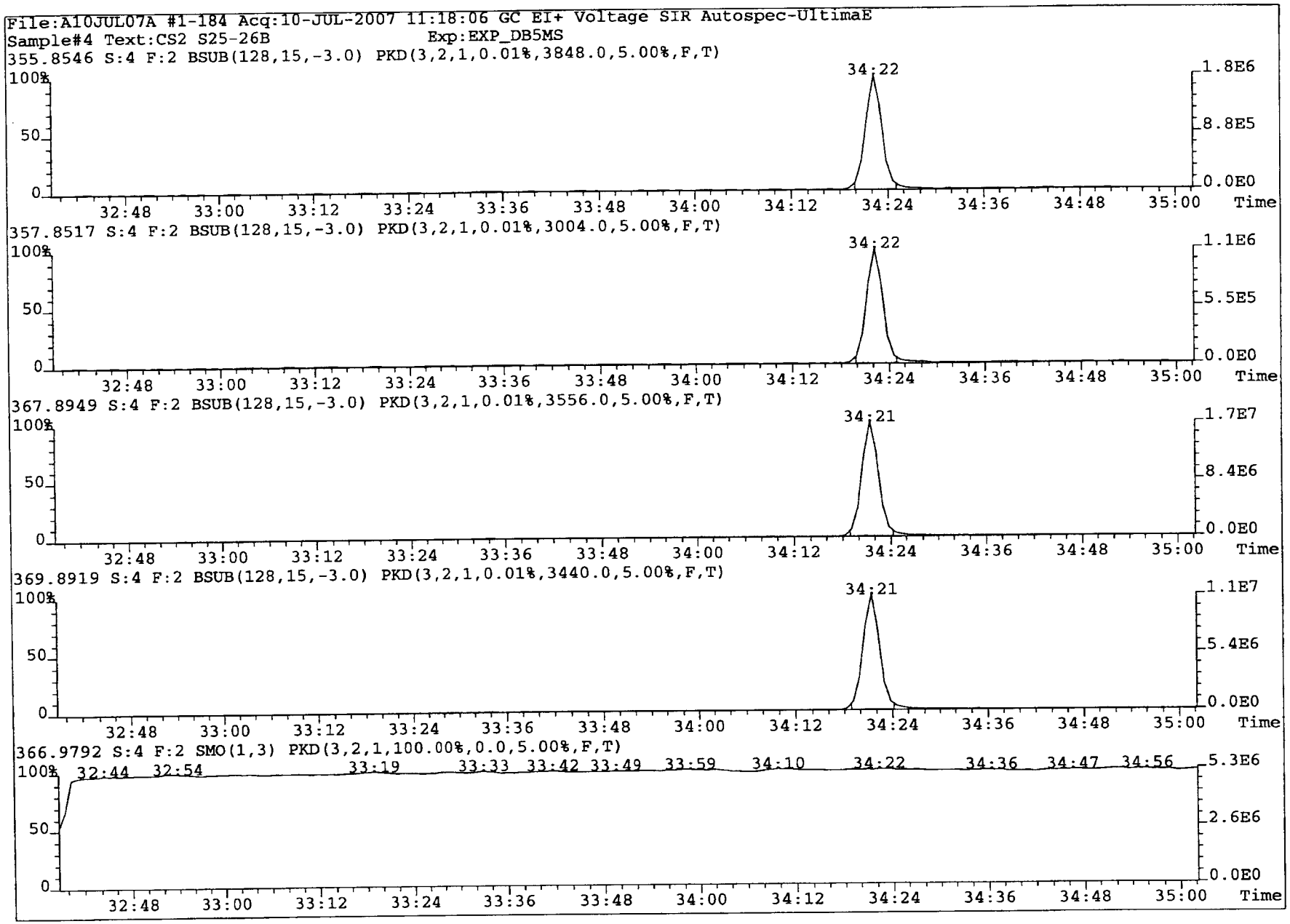

File:A10JUL07A #1-362 Acq:10-JUL-2007 09:41:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 Text:CS0.5 S25-26L Exp:EXP_DB5MS
441.7427 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3804.0,5.00%,F,T)
45:11
45:19
1.7E5
8.4E4
0.0E0
443.7398 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2584.0,5.00%,F,T)
45:11
1.7E5
8.5E4
0.0E0
469.7780 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2612.0,5.00%,F,T)
44:52
9.9E6
5.0E6
0.0E0
471.7750 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3152.0,5.00%,F,T)
44:52
1.1E7
5.5E6
0.0E0
513.6775 S:2 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,3500.0,5.00%,F,T)
42:32
42:53
43:05
43:20
43:45
44:09
44:25
44:50
45:06
45:20
45:40
5.1E3
2.6E3
0.0E0
454.9728 S:2 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:31 42:44 43:04 43:17 43:29 43:49 44:10 44:28 44:49 45:07 45:26 45:47
8.9E6
4.5E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

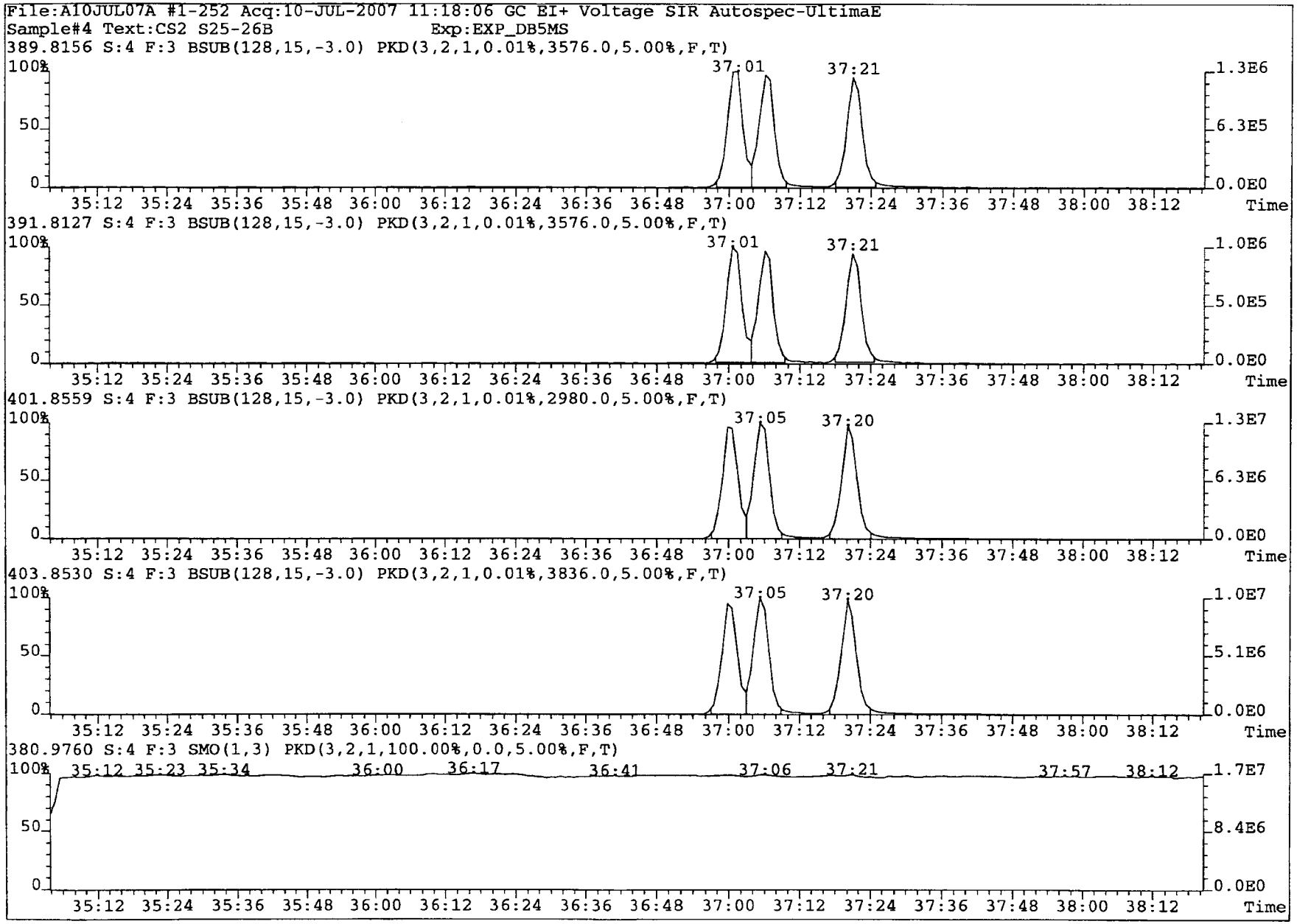
Filename a10jul07a - 4 Acquired: 10-JUL-07 11:18:06 Processed: 10-JUL-07 14:13:16
Analyte: m8290-070507a Cal: m8290-071007a
Sample text: CS2 S25-26B

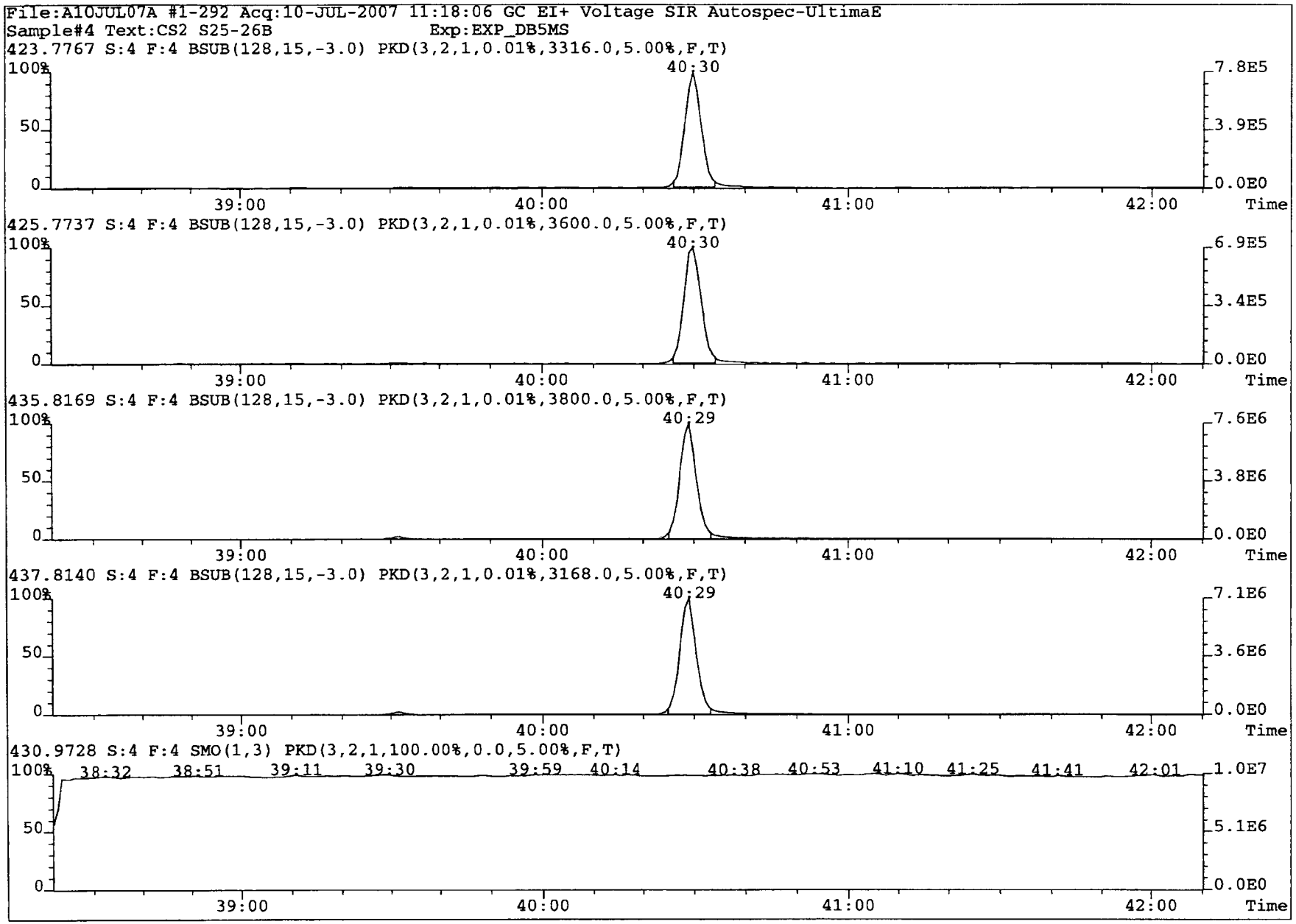
	Typ	Name	Amount	Resp	Ion1	Ion2	RA	RT	S/N1?	S/N2?	RRF	Mod?
1	Unk	2,3,7,8-TCDD	2.00	1.46e+06	6.19e+05	8.43e+05	0.73 y	31:35	56 y	79 y	0.9429	n
2	Unk	1,2,3,7,8-PeCDD	10.00	6.62e+06	4.05e+06	2.57e+06	1.58 y	34:22	458 y	368 y	1.0180	n
3	Unk	1,2,3,4,7,8-HxCDD	10.00	6.67e+06	3.73e+06	2.94e+06	1.27 y	37:01	350 y	277 y	0.9645	n
4	Unk	1,2,3,6,7,8-HxCDD	10.00	6.49e+06	3.67e+06	2.82e+06	1.30 y	37:06	341 y	268 y	0.9381	n
5	Unk	1,2,3,7,8,9-HxCDD	10.00	6.35e+06	3.55e+06	2.79e+06	1.27 y	37:21	331 y	261 y	0.9180	n
6	Unk	1,2,3,4,6,7,8-HpCDD	10.00	5.42e+06	2.80e+06	2.62e+06	1.07 y	40:30	234 y	189 y	1.0076	n
7	Unk	OCDD	20.00	8.96e+06	4.24e+06	4.72e+06	0.90 y	44:53	433 y	394 y	1.0305	n
8	Unk	2,3,7,8-TCDF	2.00	2.23e+06	1.01e+06	1.22e+06	0.82 y	31:02	79 y	97 y	1.0841	n
9	Unk	1,2,3,7,8-PeCDF	10.00	1.05e+07	6.42e+06	4.07e+06	1.58 y	33:34	621 y	340 y	0.9782	n
10	Unk	2,3,4,7,8-PeCDF	10.00	1.09e+07	6.67e+06	4.24e+06	1.57 y	34:10	618 y	330 y	1.0173	n
11	Unk	1,2,3,4,7,8-HxCDF	10.00	9.94e+06	5.57e+06	4.36e+06	1.28 y	36:17	296 y	348 y	1.0628	n
12	Unk	1,2,3,6,7,8-HxCDF	10.00	1.04e+07	5.72e+06	4.70e+06	1.22 y	36:24	300 y	356 y	1.1148	n
13	Unk	2,3,4,6,7,8-HxCDF	10.00	9.92e+06	5.55e+06	4.37e+06	1.27 y	36:53	282 y	321 y	1.0610	n
14	Unk	1,2,3,7,8,9-HxCDF	10.00	8.48e+06	4.73e+06	3.75e+06	1.26 y	37:41	211 y	251 y	0.9073	n
15	Unk	1,2,3,4,6,7,8-HpCDF	10.00	9.34e+06	4.82e+06	4.52e+06	1.07 y	39:12	327 y	313 y	1.3702	n
16	Unk	1,2,3,4,7,8,9-HpCDF	10.00	7.33e+06	3.76e+06	3.57e+06	1.05 y	41:11	223 y	217 y	1.0743	n
17	Unk	OCDF	20.00	1.05e+07	5.02e+06	5.52e+06	0.91 y	45:11	316 y	375 y	1.2113	n
18	ES/RT	13C-2,3,7,8-TCDD	100.00	7.75e+07	3.42e+07	4.33e+07	0.79 y	31:34	3217 y	4506 y	1.0145	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	6.50e+07	3.98e+07	2.52e+07	1.58 y	34:21	4722 y	3127 y	0.8515	n
20	ES	13C-1,2,3,6,7,8-HxCDD	100.00	6.92e+07	3.86e+07	3.05e+07	1.26 y	37:05	4212 y	2643 y	1.0473	n
21	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	5.38e+07	2.77e+07	2.60e+07	1.06 y	40:29	1993 y	2249 y	0.8145	n
22	ES	13C-OCDD	200.00	8.70e+07	4.11e+07	4.59e+07	0.90 y	44:51	3441 y	4386 y	0.6585	n
23	ES/RT	13C-2,3,7,8-TCDF	100.00	1.03e+08	4.55e+07	5.75e+07	0.79 y	31:01	3583 y	4665 y	1.3486	n
24	ES	13C-1,2,3,7,8-PeCDF	100.00	1.07e+08	6.58e+07	4.15e+07	1.59 y	33:33	2125 y	2354 y	1.4039	n
25	ES	13C-1,2,3,6,7,8-HxCDF	100.00	9.35e+07	3.23e+07	6.12e+07	0.53 y	36:23	3792 y	5764 y	1.4158	n
26	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	6.82e+07	2.10e+07	4.72e+07	0.45 y	39:12	1484 y	2578 y	1.0328	n
27	JS	13C-1,2,3,4-TCDD	100.00	7.64e+07	3.37e+07	4.27e+07	0.79 y	31:10	2787 y	3882 y	-	n
28	JS	13C-1,2,3,7,8,9-HxCDD	100.00	6.60e+07	3.68e+07	2.93e+07	1.26 y	37:20	4110 y	2607 y	-	n
29	CS	37Cl-2,3,7,8-TCDD	2.00	1.55e+06	1.55e+06			31:35	141 y		1.0127	n
30	CS	13C-2,3,4,7,8-PeCDF	100.00	1.05e+08	6.43e+07	4.06e+07	1.58 y	34:10	1970 y	2211 y	1.3728	n
31	CS	13C-1,2,3,4,7,8-HxCDD	100.00	6.51e+07	3.65e+07	2.87e+07	1.27 y	37:00	4067 y	2524 y	0.9866	n
32	CS	13C-1,2,3,4,7,8-HxCDF	100.00	8.22e+07	2.84e+07	5.39e+07	0.53 y	36:17	3561 y	5417 y	1.2452	n
33	CS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.21e+07	1.92e+07	4.29e+07	0.45 y	41:11	1125 y	1961 y	0.9402	n
34	SS	37Cl-2,3,7,8-TCDD	2.00	1.55e+06	1.55e+06			31:35	141 y		0.9982	n
35	SS	13C-2,3,4,7,8-PeCDF	100.00	1.05e+08	6.43e+07	4.06e+07	1.58 y	34:10	1970 y	2211 y	0.9779	n
36	SS	13C-1,2,3,4,7,8-HxCDD	100.00	6.51e+07	3.65e+07	2.87e+07	1.27 y	37:00	4067 y	2524 y	0.9420	n
37	SS	13C-1,2,3,4,7,8-HxCDF	100.00	8.22e+07	2.84e+07	5.39e+07	0.53 y	36:17	3561 y	5417 y	0.8795	n
38	SS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.21e+07	1.92e+07	4.29e+07	0.45 y	41:11	1125 y	1961 y	0.9104	n
39	Tot	Total Tetra-Furans	0.00	-	-	-	- n	-	- n	- n	1.0841	n
40	Tot	Total Tetra-Dioxins	0.00	-	-	-	- n	-	- n	- n	0.9429	n
41	Tot	Total Penta-Furans Fn1	0.00	-	-	-	- n	-	- n	- n	0.9978	n
42	Tot	Total Penta-Furans Fn2	0.00	-	-	-	- n	-	- n	- n	0.9978	n
43	Tot	Total Penta-Dioxins	0.00	-	-	-	- n	-	- n	- n	1.0180	n
44	Tot	Total Hexa-Furans	0.00	-	-	-	- n	-	- n	- n	1.0365	n

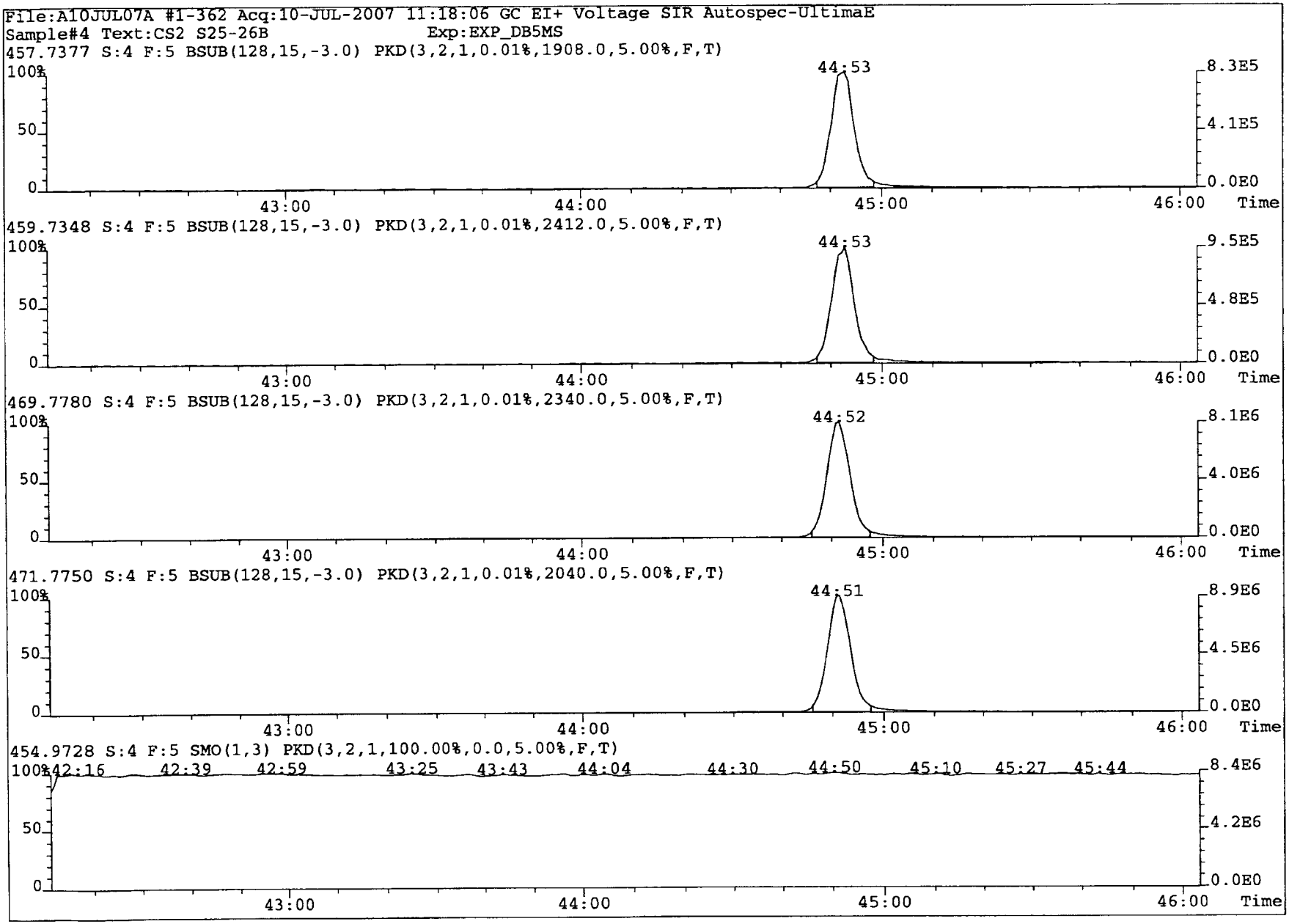
= 1.0074/35

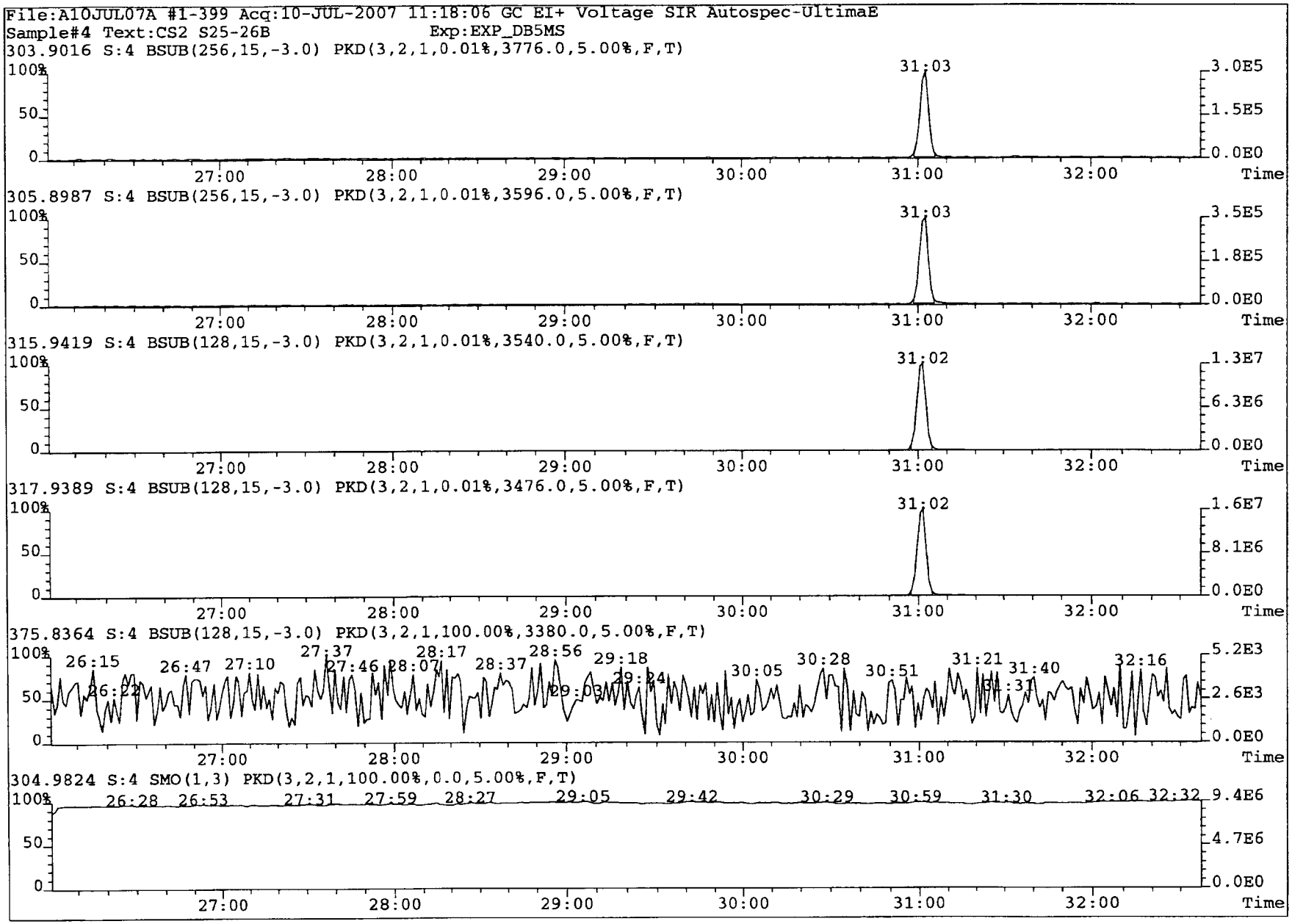

File:A10JUL07A #1-399 Acq:10-JUL-2007 11:18:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 S25-26B Exp:EXP_DB5MS
319.8965 S:4 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4008.0,5.00%,F,T)
31:35
2.3E5
1.1E5
0.0E0
321.8936 S:4 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,3852.0,5.00%,F,T)
31:35
3.1E5
1.5E5
0.0E0
331.9368 S:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3796.0,5.00%,F,T)
31:10
31:34
1.2E7
6.1E6
0.0E0
333.9339 S:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3448.0,5.00%,F,T)
31:10
31:34
1.6E7
7.8E6
0.0E0
327.8847 S:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3784.0,5.00%,F,T)
31:35
5.3E5
2.7E5
0.0E0
304.9824 S:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:28 26:53 27:31 27:59 28:27 29:05 29:42 30:29 30:59 31:30 32:06 32:32
9.4E6
4.7E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time

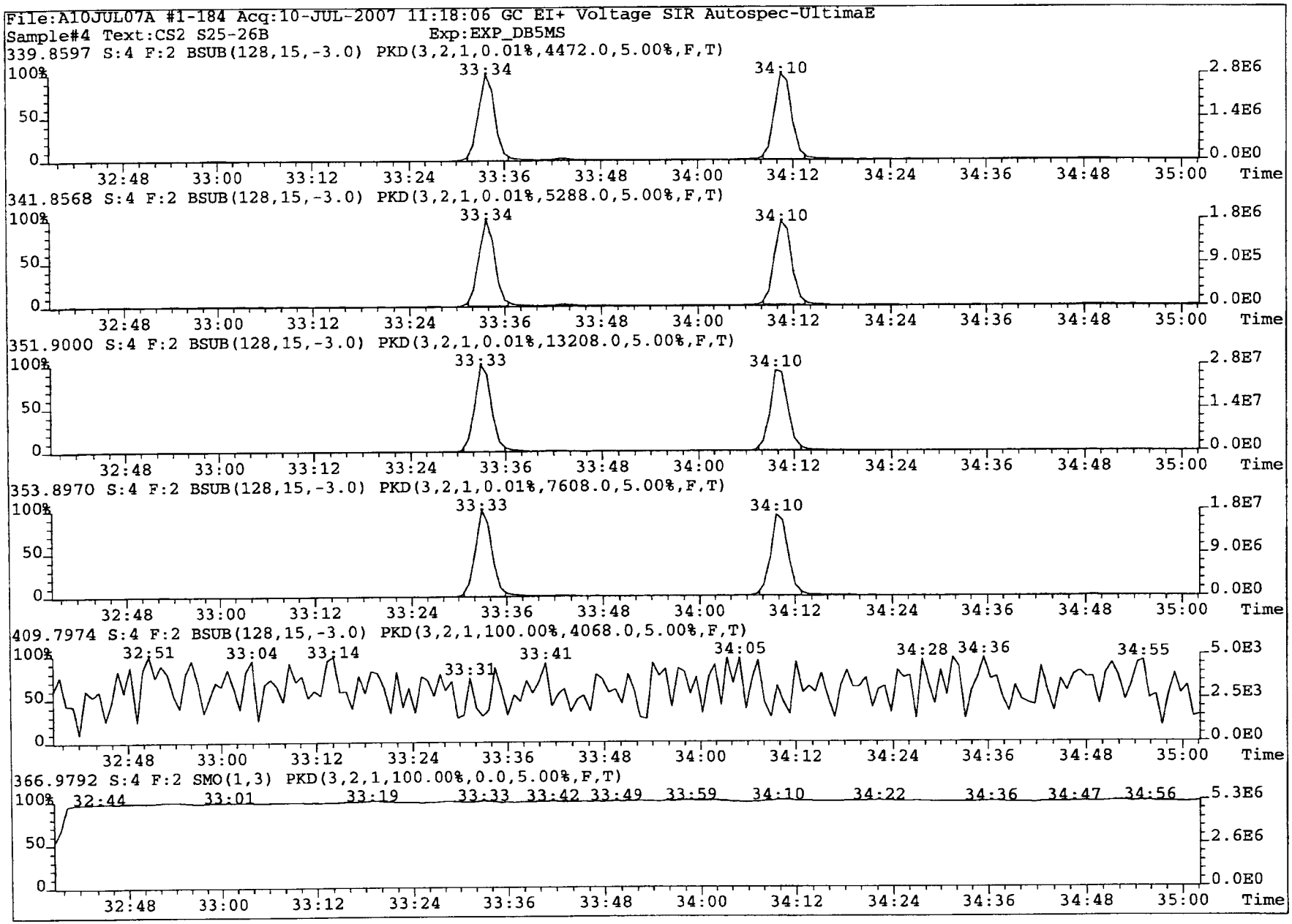

File:A10JUL07A #1-184 Acq:10-JUL-2007 11:18:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 S25-26B Exp:EXP_DB5MS
355.8546 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3848.0,5.00%,F,T)
34:22
1.8E6
8.8E5
0.0E0
357.8517 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3004.0,5.00%,F,T)
34:22
1.1E6
5.5E5
0.0E0
367.8949 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3556.0,5.00%,F,T)
34:21
1.7E7
8.4E6
0.0E0
369.8919 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3440.0,5.00%,F,T)
34:21
1.1E7
5.4E6
0.0E0
366.9792 S:4 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:44 32:54 33:19 33:33 33:42 33:49 33:59 34:10 34:22 34:36 34:47 34:56
5.3E6
2.6E6
0.0E0
100%
50
0
32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 Time

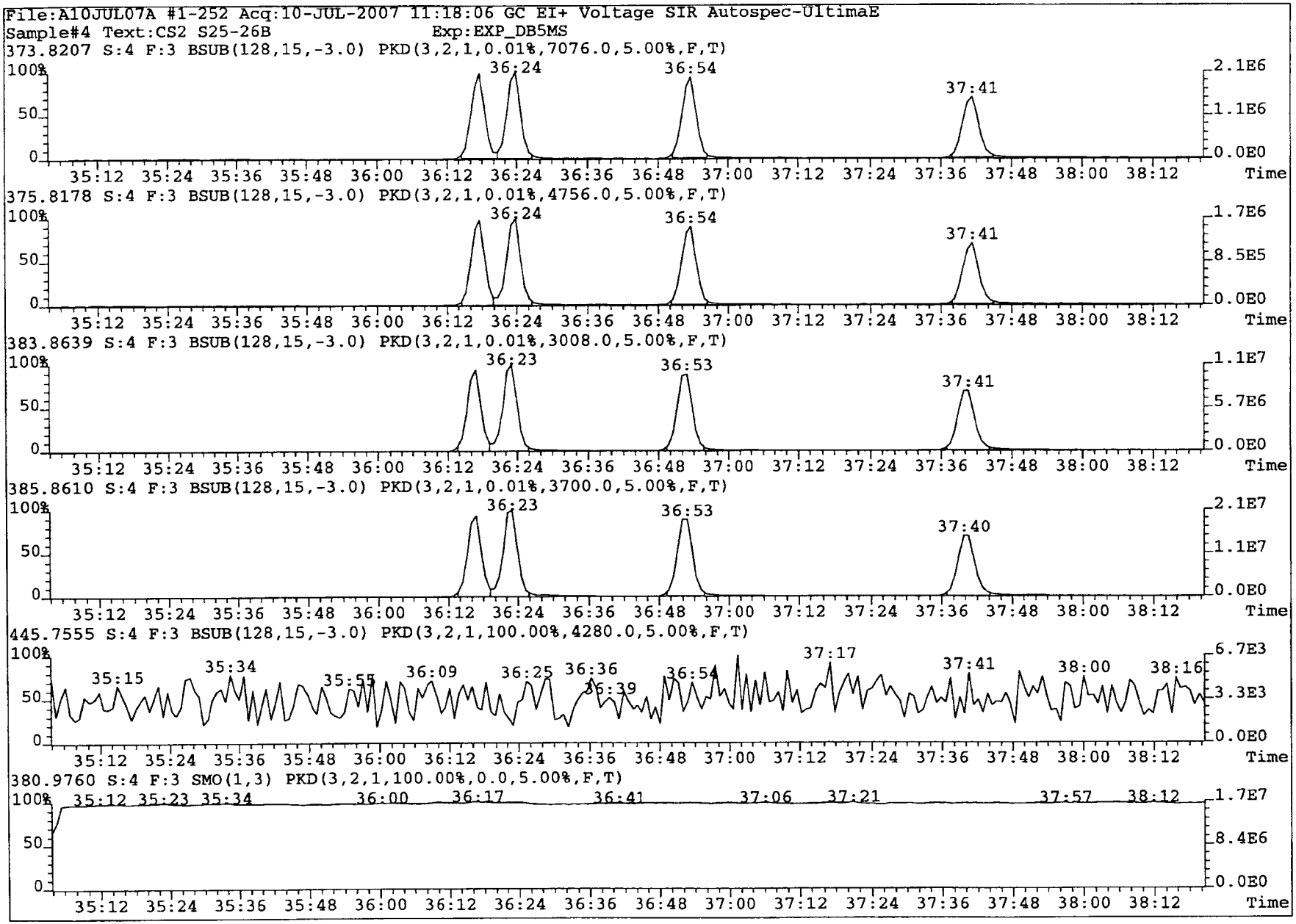

File:A10JUL07A #1-252 Acq:10-JUL-2007 11:18:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 S25-26B Exp:EXP_DB5MS
389.8156 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3576.0,5.00%,F,T)
37:01
37:21
1.3E6
6.3E5
0.0E0
391.8127 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3576.0,5.00%,F,T)
37:01
37:21
1.0E6
5.0E5
0.0E0
401.8559 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2980.0,5.00%,F,T)
37:05
37:20
1.3E7
6.3E6
0.0E0
403.8530 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3836.0,5.00%,F,T)
37:05
37:20
1.0E7
5.1E6
0.0E0
380.9760 S:4 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:12 35:23 35:34 36:00 36:17 36:41 37:06 37:21 37:57 38:12
1.7E7
8.4E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

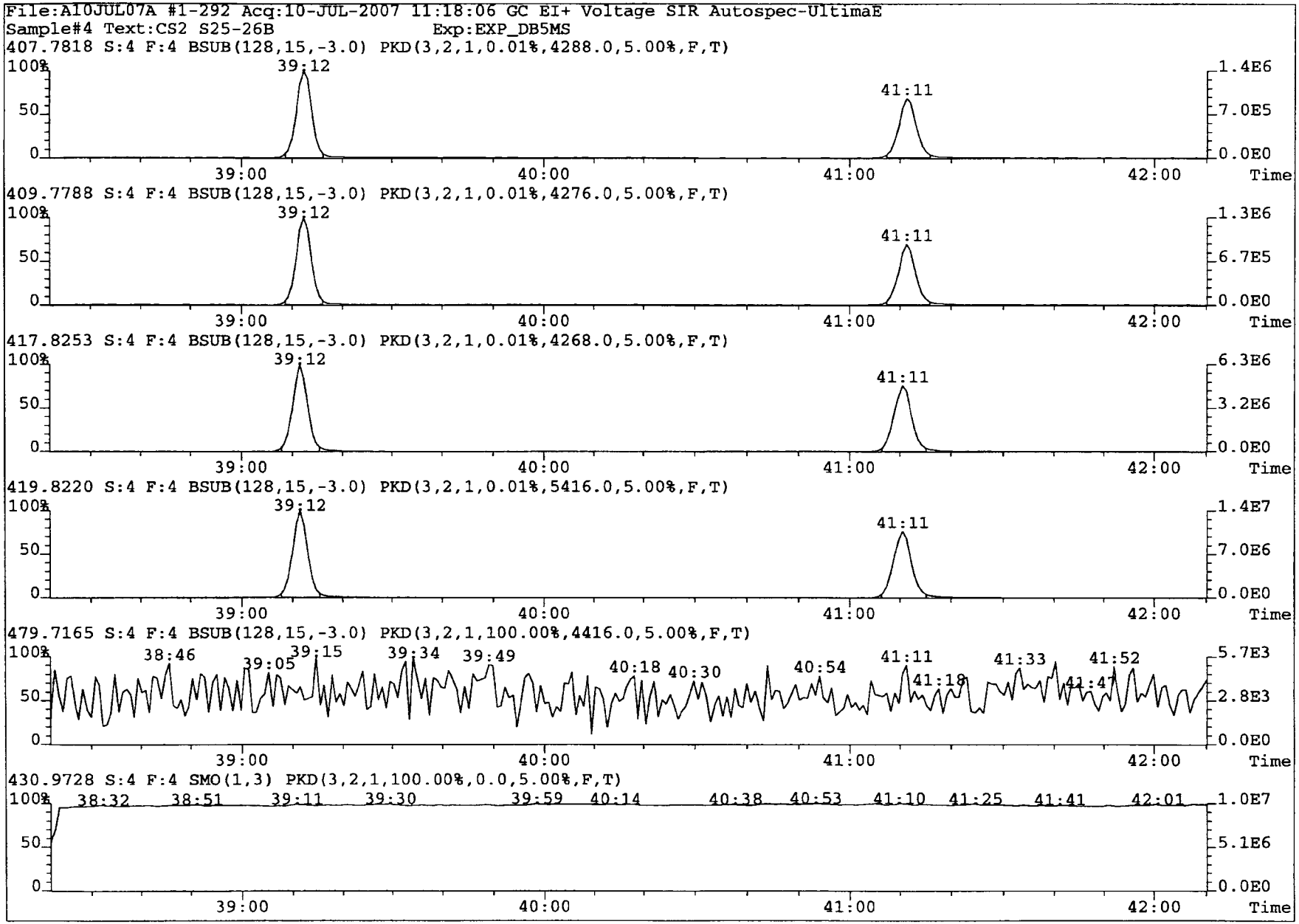

File:A10JUL07A #1-292 Acq:10-JUL-2007 11:18:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 S25-26B Exp:EXP_DB5MS
423.7767 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3316.0,5.00%,F,T)
40:30
7.8E5
3.9E5
0.0E0
425.7737 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3600.0,5.00%,F,T)
40:30
6.9E5
3.4E5
0.0E0
435.8169 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3800.0,5.00%,F,T)
40:29
7.6E6
3.8E6
0.0E0
437.8140 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3168.0,5.00%,F,T)
40:29
7.1E6
3.6E6
0.0E0
430.9728 S:4 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:32 38:51 39:11 39:30 39:59 40:14 40:38 40:53 41:10 41:25 41:41 42:01
1.0E7
5.1E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

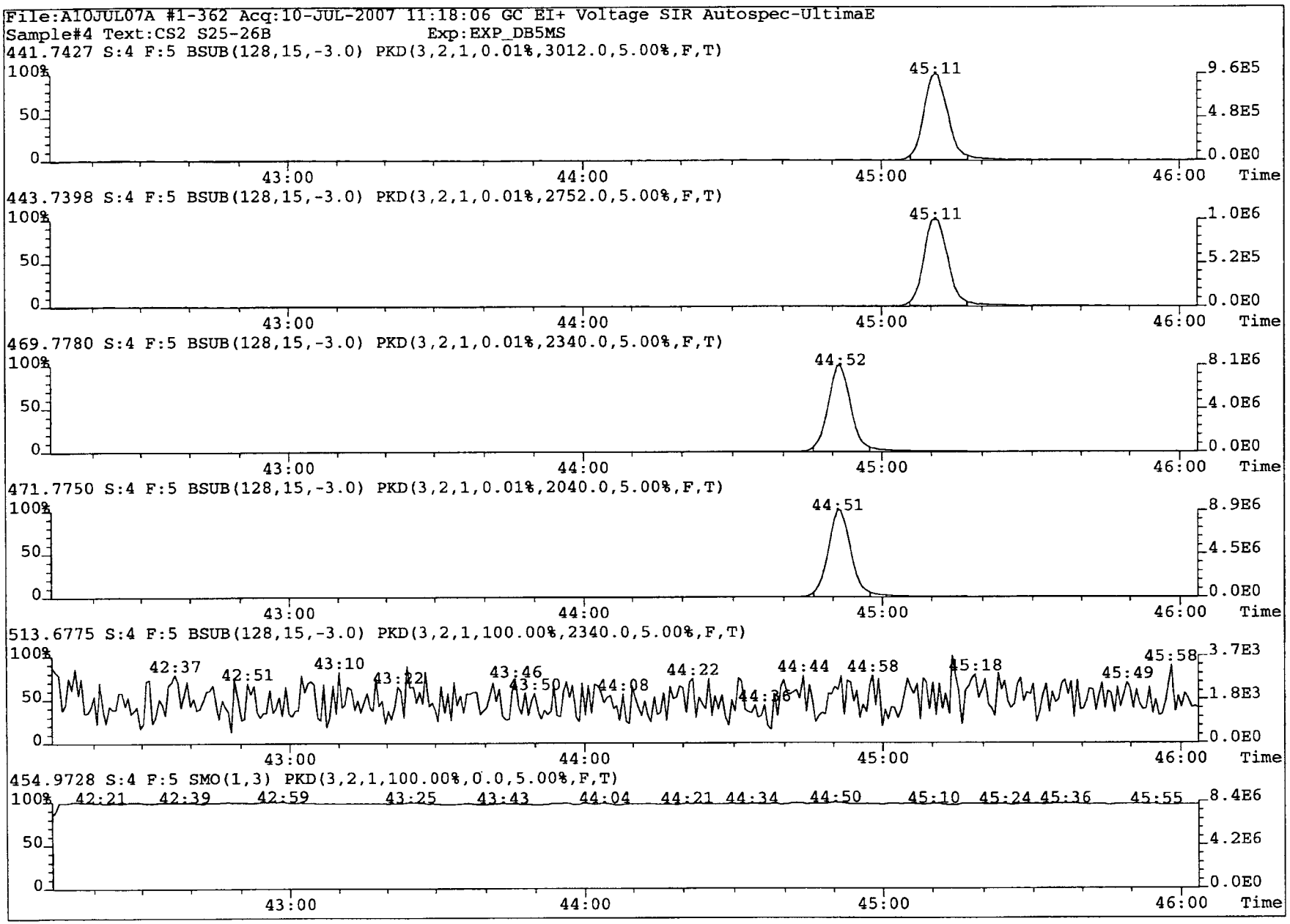

File:A10JUL07A #1-362 Acq:10-JUL-2007 11:18:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 S25-26B Exp:EXP_DB5MS
457.7377 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1908.0,5.00%,F,T)
44:53
8.3E5
4.1E5
0.0E0
459.7348 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2412.0,5.00%,F,T)
44:53
9.5E5
4.8E5
0.0E0
469.7780 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2340.0,5.00%,F,T)
44:52
8.1E6
4.0E6
0.0E0
471.7750 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2040.0,5.00%,F,T)
44:51
8.9E6
4.5E6
0.0E0
454.9728 S:4 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:16 42:39 42:59 43:25 43:43 44:04 44:30 44:50 45:10 45:27 45:44
8.4E6
4.2E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time


File:A10JUL07A #1-399 Acq:10-JUL-2007 11:18:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 S25-26B Exp:EXP_DB5MS
303.9016 S:4 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,3776.0,5.00%,F,T)
31:03
3.0E5
1.5E5
0.0E0
305.8987 S:4 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,3596.0,5.00%,F,T)
31:03
3.5E5
1.8E5
0.0E0
315.9419 S:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3540.0,5.00%,F,T)
31:02
1.3E7
6.3E6
0.0E0
317.9389 S:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3476.0,5.00%,F,T)
31:02
1.6E7
8.1E6
0.0E0
375.8364 S:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,3380.0,5.00%,F,T)
26:15
26:22
26:47
27:10
27:37
27:46
28:07
28:17
28:37
28:56
29:18
29:24
30:05
30:28
30:51
31:21
31:40
32:16
5.2E3
2.6E3
0.0E0
304.9824 S:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:28
26:53
27:31
27:59
28:27
29:05
29:42
30:29
30:59
31:30
32:06
32:32
9.4E6
4.7E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time


File:A10JUL07A #1-184 Acq:10-JUL-2007 11:18:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 S25-26B Exp:EXP_DB5MS
339.8597 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4472.0,5.00%,F,T)
33:34
34:10
2.8E6
1.4E6
0.0E0
341.8568 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5288.0,5.00%,F,T)
33:34
34:10
1.8E6
9.0E5
0.0E0
351.9000 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,13208.0,5.00%,F,T)
33:33
34:10
2.8E7
1.4E7
0.0E0
353.8970 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,7608.0,5.00%,F,T)
33:33
34:10
1.8E7
9.0E6
0.0E0
409.7974 S:4 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4068.0,5.00%,F,T)
32:51
33:04
33:14
33:31
33:41
34:05
34:28
34:36
34:55
5.0E3
2.5E3
0.0E0
366.9792 S:4 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:44
33:01
33:19
33:33
33:42
33:49
33:59
34:10
34:22
34:36
34:47
34:56
5.3E6
2.6E6
0.0E0
100%
50
0
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time


File:A10JUL07A #1-252 Acq:10-JUL-2007 11:18:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 S25-26B Exp:EXP_DB5MS
373.8207 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,7076.0,5.00%,F,T)
36:24
36:54
37:41
2.1E6
1.1E6
0.0E0
375.8178 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4756.0,5.00%,F,T)
36:24
36:54
37:41
1.7E6
8.5E5
0.0E0
383.8639 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3008.0,5.00%,F,T)
36:23
36:53
37:41
1.1E7
5.7E6
0.0E0
385.8610 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3700.0,5.00%,F,T)
36:23
36:53
37:40
2.1E7
1.1E7
0.0E0
445.7555 S:4 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4280.0,5.00%,F,T)
35:15
35:34
35:55
36:09
36:25
36:36
36:39
36:54
37:17
37:41
38:00
38:16
6.7E3
3.3E3
0.0E0
380.9760 S:4 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:12 35:23 35:34
36:00
36:17
36:41
37:06
37:21
37:57
38:12
1.7E7
8.4E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

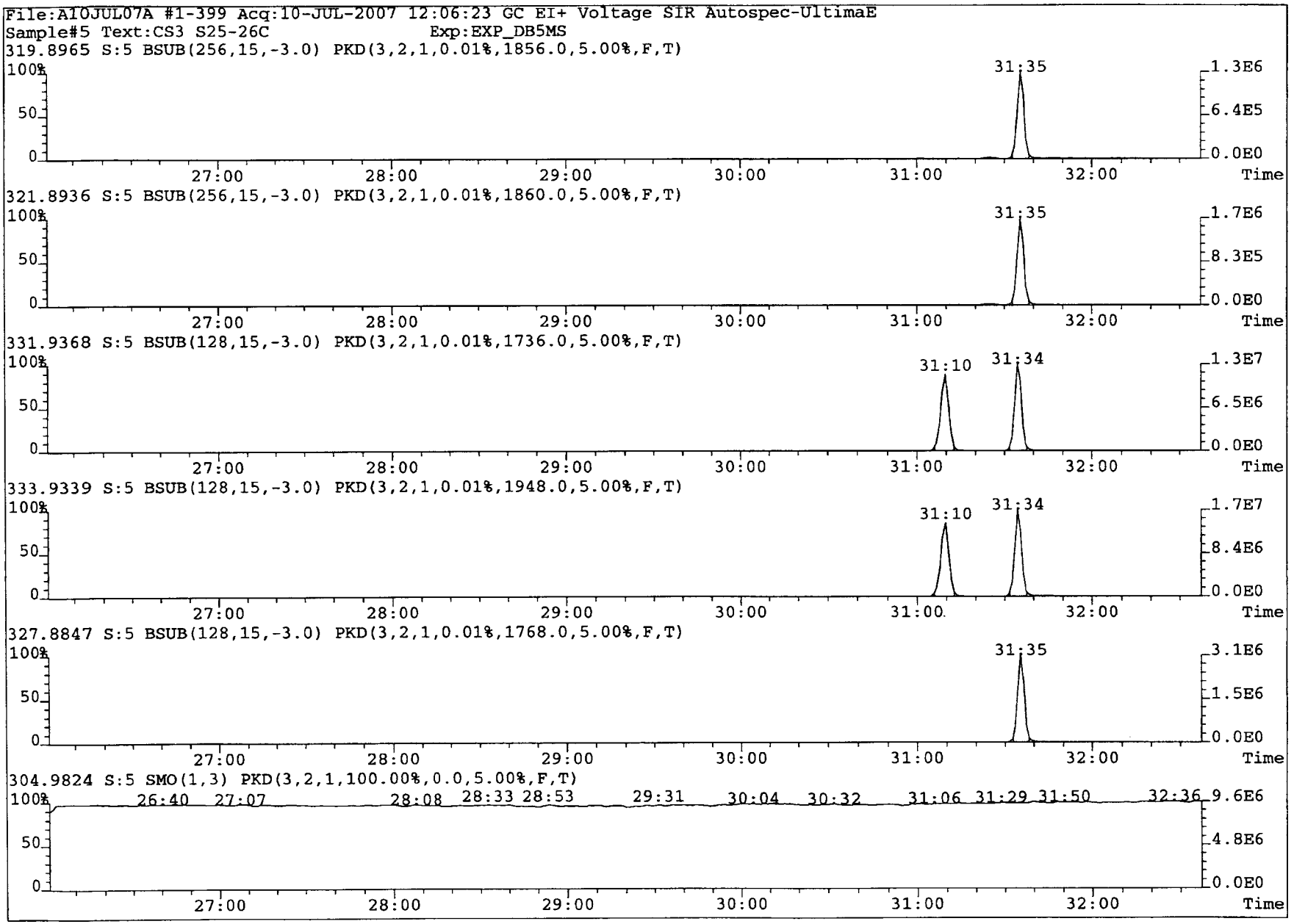

File:A10JUL07A #1-292 Acq:10-JUL-2007 11:18:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 S25-26B Exp:EXP_DB5MS
407.7818 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4288.0,5.00%,F,T)
39:12
41:11
1.4E6
7.0E5
0.0E0
409.7788 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4276.0,5.00%,F,T)
39:12
41:11
1.3E6
6.7E5
0.0E0
417.8253 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4268.0,5.00%,F,T)
39:12
41:11
6.3E6
3.2E6
0.0E0
419.8220 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5416.0,5.00%,F,T)
39:12
41:11
1.4E7
7.0E6
0.0E0
479.7165 S:4 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4416.0,5.00%,F,T)
38:46
39:05
39:15
39:34
39:49
40:18
40:30
40:54
41:11
41:18
41:33
41:52
5.7E3
2.8E3
0.0E0
430.9728 S:4 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:32
38:51
39:11
39:30
39:59
40:14
40:38
40:53
41:10
41:25
41:41
42:01
1.0E7
5.1E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

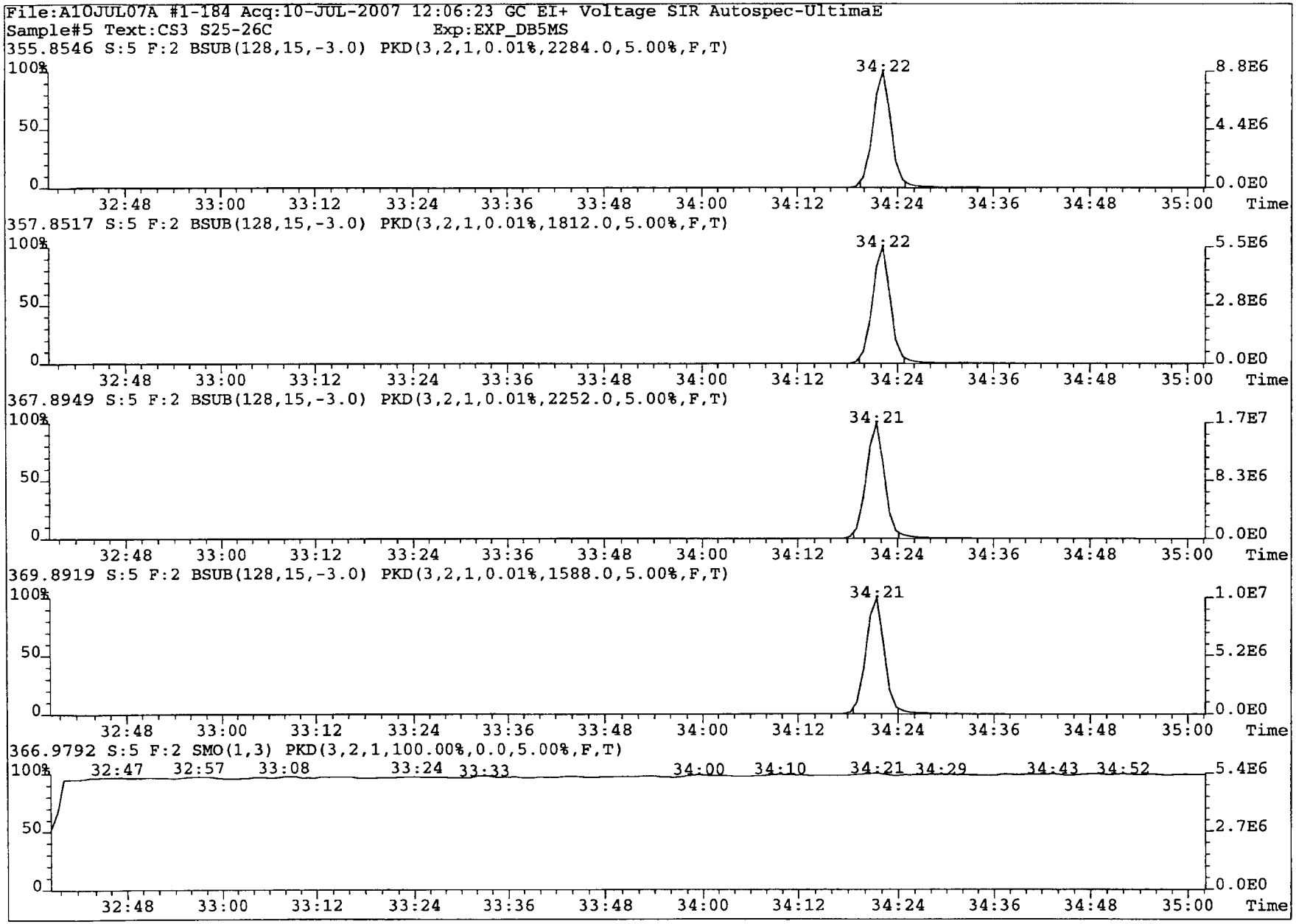

File:A10JUL07A #1-362 Acq:10-JUL-2007 11:18:06 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 Text:CS2 S25-26B Exp:EXP_DB5MS
441.7427 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3012.0,5.00%,F,T)
45:11
9.6E5
4.8E5
0.0E0
443.7398 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2752.0,5.00%,F,T)
45:11
1.0E6
5.2E5
0.0E0
469.7780 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2340.0,5.00%,F,T)
44:52
8.1E6
4.0E6
0.0E0
471.7750 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2040.0,5.00%,F,T)
44:51
8.9E6
4.5E6
0.0E0
513.6775 S:4 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2340.0,5.00%,F,T)
42:37
42:51
43:10
43:22
43:46
43:50
44:08
44:22
44:44
44:58
45:18
45:49
45:58
3.7E3
1.8E3
0.0E0
454.9728 S:4 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:21
42:39
42:59
43:25
43:43
44:04
44:21
44:34
44:50
45:10
45:24
45:36
45:55
8.4E6
4.2E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

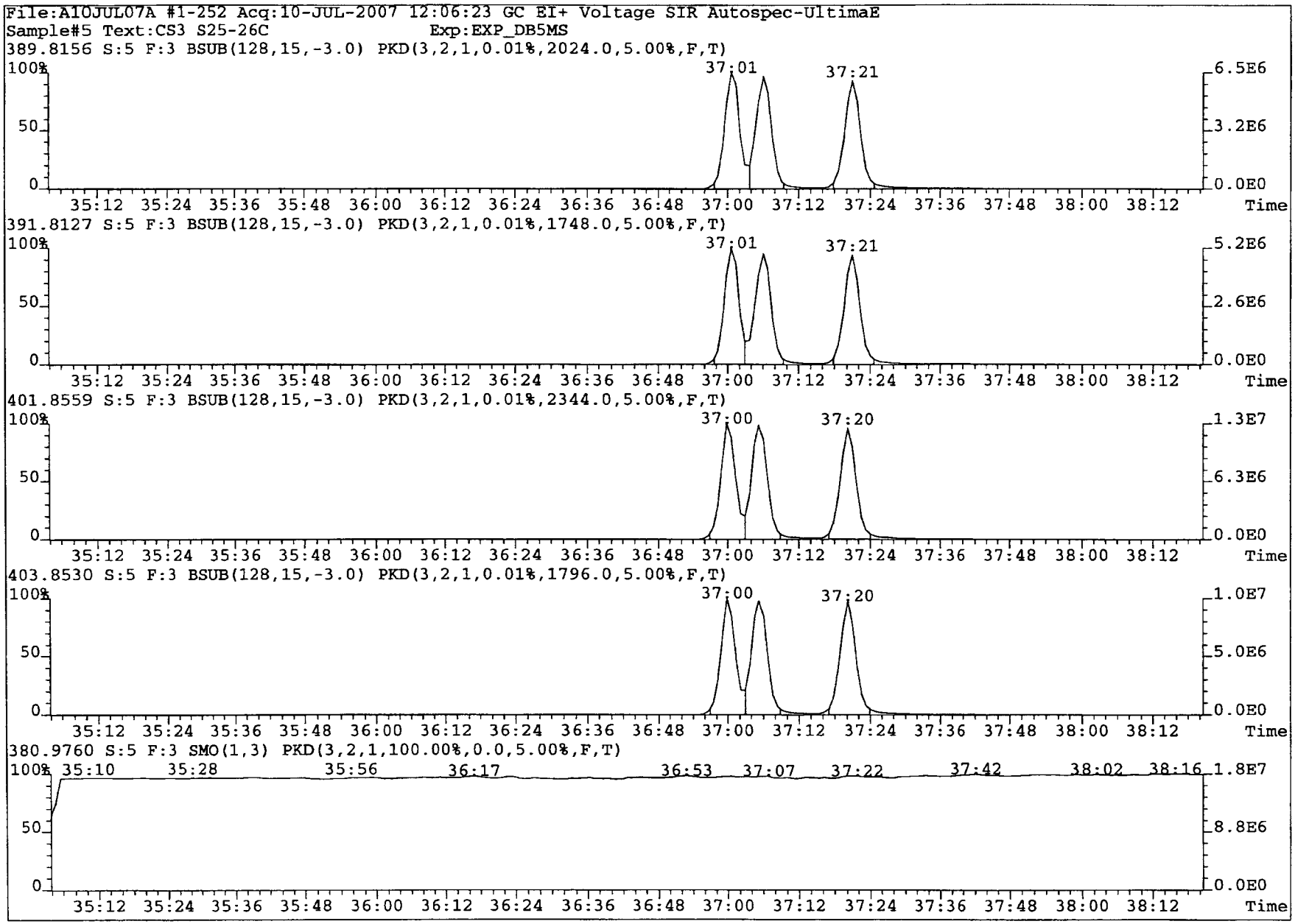
Filename a10jul07a - 5 Acquired: 10-JUL-07 12:06:23 Processed: 10-JUL-07 14:15:11
Analyte: m8290-070507a Cal: m8290-071007a
Sample text: CS3 S25-26C

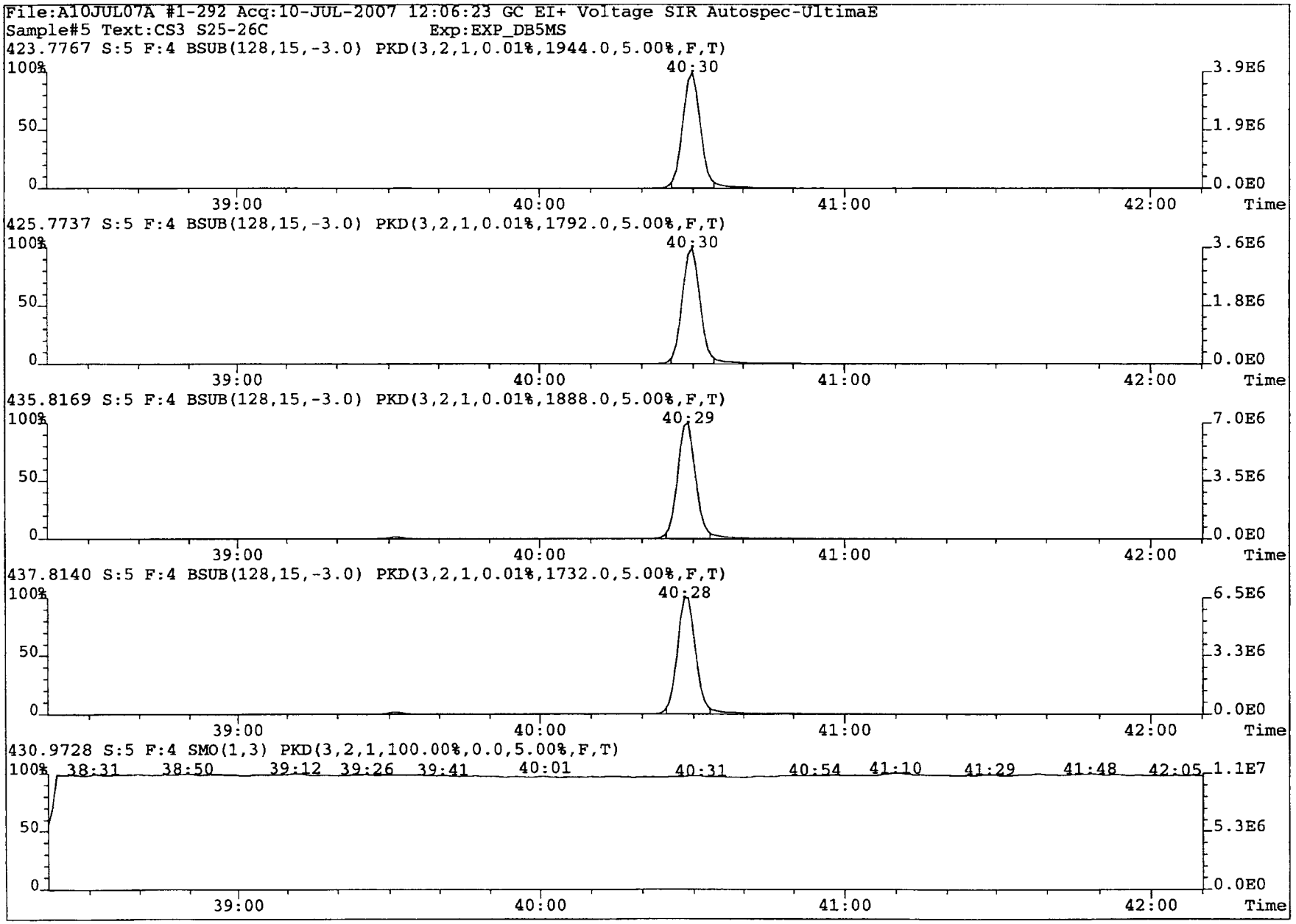
	Typ	Name	Amount	Resp	Ion1	Ion2	RA	RT	S/N1?	S/N2?	RRF	Mod?
1	Unk	2,3,7,8-TCDD	10.00	7.74e+06	3.39e+06	4.36e+06	0.78 y	31:35	689 y	892 y	0.9557	n
2	Unk	1,2,3,7,8-PeCDD	50.00	3.47e+07	2.13e+07	1.34e+07	1.58 y	34:22	3834 y	3052 y	1.0536	n
3	Unk	1,2,3,4,7,8-HxCDD	50.00	3.39e+07	1.93e+07	1.45e+07	1.33 y	37:01	3211 y	2958 y	0.9955	n
4	Unk	1,2,3,6,7,8-HxCDD	50.00	3.39e+07	1.85e+07	1.54e+07	1.20 y	37:06	3107 y	2817 y	0.9965	n
5	Unk	1,2,3,7,8,9-HxCDD	50.00	3.29e+07	1.82e+07	1.47e+07	1.24 y	37:21	2983 y	2784 y	0.9663	n
6	Unk	1,2,3,4,6,7,8-HpCDD	50.00	2.88e+07	1.48e+07	1.40e+07	1.06 y	40:30	1981 y	2013 y	1.0644	n
7	Unk	OCDD	100.00	5.01e+07	2.37e+07	2.65e+07	0.89 y	44:52	3167 y	3045 y	1.1075	n
8	Unk	2,3,7,8-TCDF	10.00	1.21e+07	5.24e+06	6.87e+06	0.76 y	31:02	743 y	1034 y	1.1056	n
9	Unk	1,2,3,7,8-PeCDF	50.00	5.36e+07	3.29e+07	2.08e+07	1.58 y	33:34	2165 y	1897 y	1.0058	n
10	Unk	2,3,4,7,8-PeCDF	50.00	5.70e+07	3.50e+07	2.20e+07	1.59 y	34:10	2311 y	2028 y	1.0679	n
11	Unk	1,2,3,4,7,8-HxCDF	50.00	4.98e+07	2.76e+07	2.22e+07	1.25 y	36:17	4425 y	3284 y	1.0760	n
12	Unk	1,2,3,6,7,8-HxCDF	50.00	5.42e+07	3.03e+07	2.39e+07	1.27 y	36:23	4720 y	3576 y	1.1720	n
13	Unk	2,3,4,6,7,8-HxCDF	50.00	5.15e+07	2.88e+07	2.27e+07	1.26 y	36:53	4490 y	3360 y	1.1128	n
14	Unk	1,2,3,7,8,9-HxCDF	50.00	4.42e+07	2.46e+07	1.96e+07	1.26 y	37:41	3415 y	2568 y	0.9555	n
15	Unk	1,2,3,4,6,7,8-HpCDF	50.00	4.84e+07	2.49e+07	2.36e+07	1.05 y	39:12	2254 y	2274 y	1.4113	n
16	Unk	1,2,3,4,7,8,9-HpCDF	50.00	3.78e+07	1.93e+07	1.85e+07	1.04 y	41:11	1487 y	1533 y	1.1023	n
17	Unk	OCDF	100.00	5.87e+07	2.80e+07	3.06e+07	0.91 y	45:11	2452 y	2619 y	1.2961	n
18	ES/RT	13C-2,3,7,8-TCDD	100.00	8.10e+07	3.55e+07	4.56e+07	0.78 y	31:34	7429 y	8646 y	1.0158	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	6.59e+07	4.04e+07	2.55e+07	1.59 y	34:21	7381 y	6556 y	0.8260	n
20	ES	13C-1,2,3,6,7,8-HxCDD	100.00	6.80e+07	3.80e+07	3.00e+07	1.26 y	37:05	5328 y	5465 y	1.0341	n
21	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	5.42e+07	2.79e+07	2.63e+07	1.06 y	40:29	3709 y	3758 y	0.8232	n
22	ES	13C-OCDD	200.00	9.05e+07	4.29e+07	4.76e+07	0.90 y	44:51	6169 y	6348 y	0.6877	n
23	ES/RT	13C-2,3,7,8-TCDF	100.00	1.10e+08	4.85e+07	6.10e+07	0.80 y	31:01	10427 y	11634 y	1.3734	n
24	ES	13C-1,2,3,7,8-PeCDF	100.00	1.07e+08	6.53e+07	4.13e+07	1.58 y	33:33	2475 y	4397 y	1.3373	n
25	ES	13C-1,2,3,6,7,8-HxCDF	100.00	9.26e+07	3.21e+07	6.05e+07	0.53 y	36:22	5723 y	10972 y	1.4067	n
26	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	6.87e+07	2.12e+07	4.74e+07	0.45 y	39:11	2444 y	4497 y	1.0434	n
27	JS	13C-1,2,3,4-TCDD	100.00	7.98e+07	3.52e+07	4.46e+07	0.79 y	31:09	6536 y	7344 y	-	n
28	JS	13C-1,2,3,7,8,9-HxCDD	100.00	6.58e+07	3.66e+07	2.92e+07	1.25 y	37:20	5176 y	5449 y	-	n
29	CS	37Cl-2,3,7,8-TCDD	10.00	8.15e+06	8.15e+06			31:35	1730 y		1.0220	n
30	CS	13C-2,3,4,7,8-PeCDF	100.00	1.07e+08	6.59e+07	4.15e+07	1.59 y	34:10	2447 y	4424 y	1.3454	n
31	CS	13C-1,2,3,4,7,8-HxCDD	100.00	6.57e+07	3.68e+07	2.89e+07	1.27 y	37:00	5393 y	5577 y	0.9990	n
32	CS	13C-1,2,3,4,7,8-HxCDF	100.00	8.16e+07	2.80e+07	5.35e+07	0.52 y	36:16	5003 y	9603 y	1.2397	n
33	CS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.09e+07	1.89e+07	4.20e+07	0.45 y	41:10	1801 y	3296 y	0.9249	n
34	SS	37Cl-2,3,7,8-TCDD	10.00	8.15e+06	8.15e+06			31:35	1730 y		1.0061	n
35	SS	13C-2,3,4,7,8-PeCDF	100.00	1.07e+08	6.59e+07	4.15e+07	1.59 y	34:10	2447 y	4424 y	1.0060	n
36	SS	13C-1,2,3,4,7,8-HxCDD	100.00	6.57e+07	3.68e+07	2.89e+07	1.27 y	37:00	5393 y	5577 y	0.9661	n
37	SS	13C-1,2,3,4,7,8-HxCDF	100.00	8.16e+07	2.80e+07	5.35e+07	0.52 y	36:16	5003 y	9603 y	0.8813	n
38	SS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.09e+07	1.89e+07	4.20e+07	0.45 y	41:10	1801 y	3296 y	0.8864	n
39	Tot	Total Tetra-Furans	0.00	-	-	-	- n	-	- n	- n	1.1056	n
40	Tot	Total Tetra-Dioxins	0.00	-	-	-	- n	-	- n	- n	0.9557	n
41	Tot	Total Penta-Furans Fn1	0.00	-	-	-	- n	-	- n	- n	1.0369	n
42	Tot	Total Penta-Furans Fn2	0.00	-	-	-	- n	-	- n	- n	1.0369	n
43	Tot	Total Penta-Dioxins	0.00	-	-	-	- n	-	- n	- n	1.0536	n
44	Tot	Total Hexa-Furans	0.00	-	-	-	- n	-	- n	- n	1.0791	n

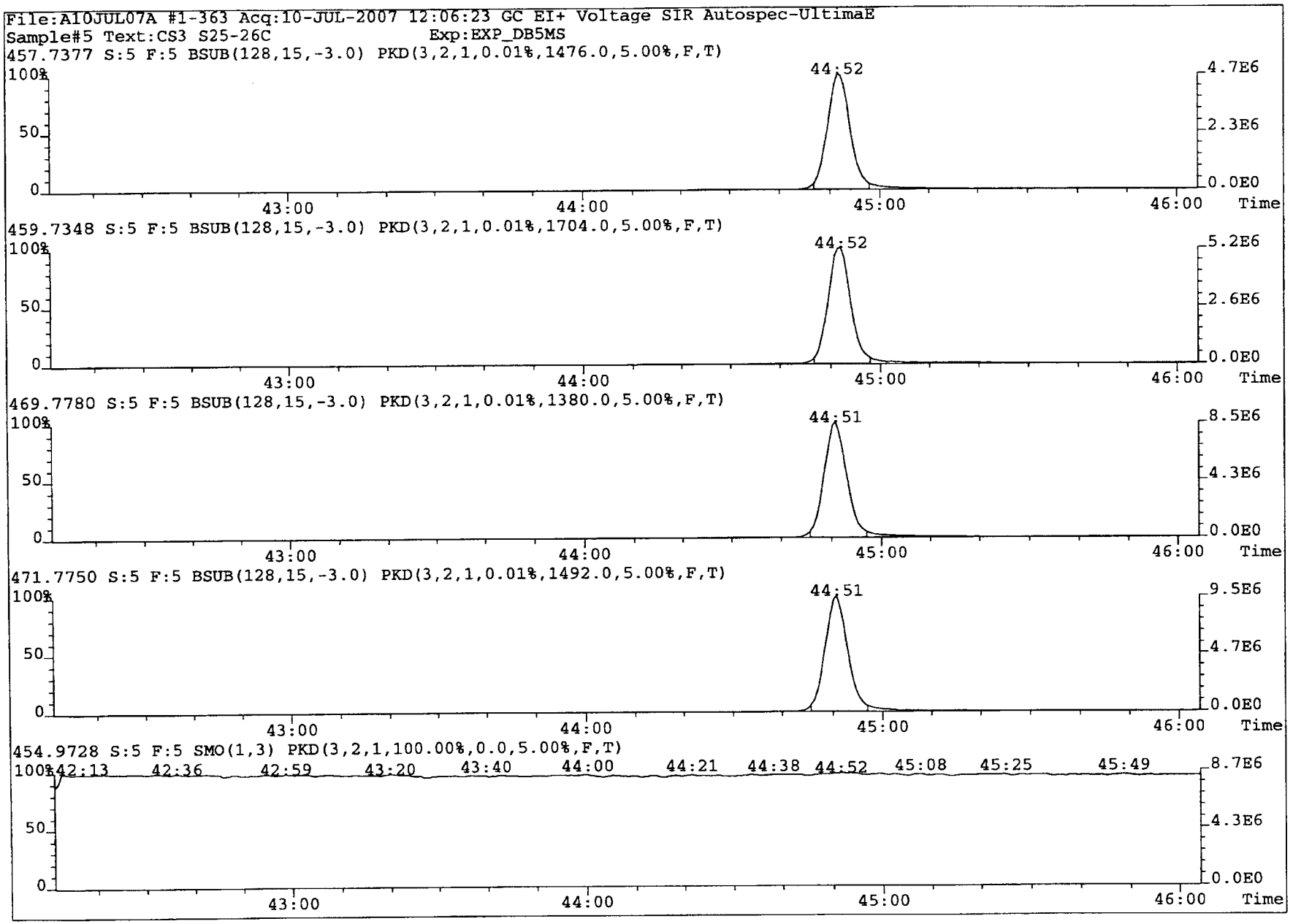
=1.042731

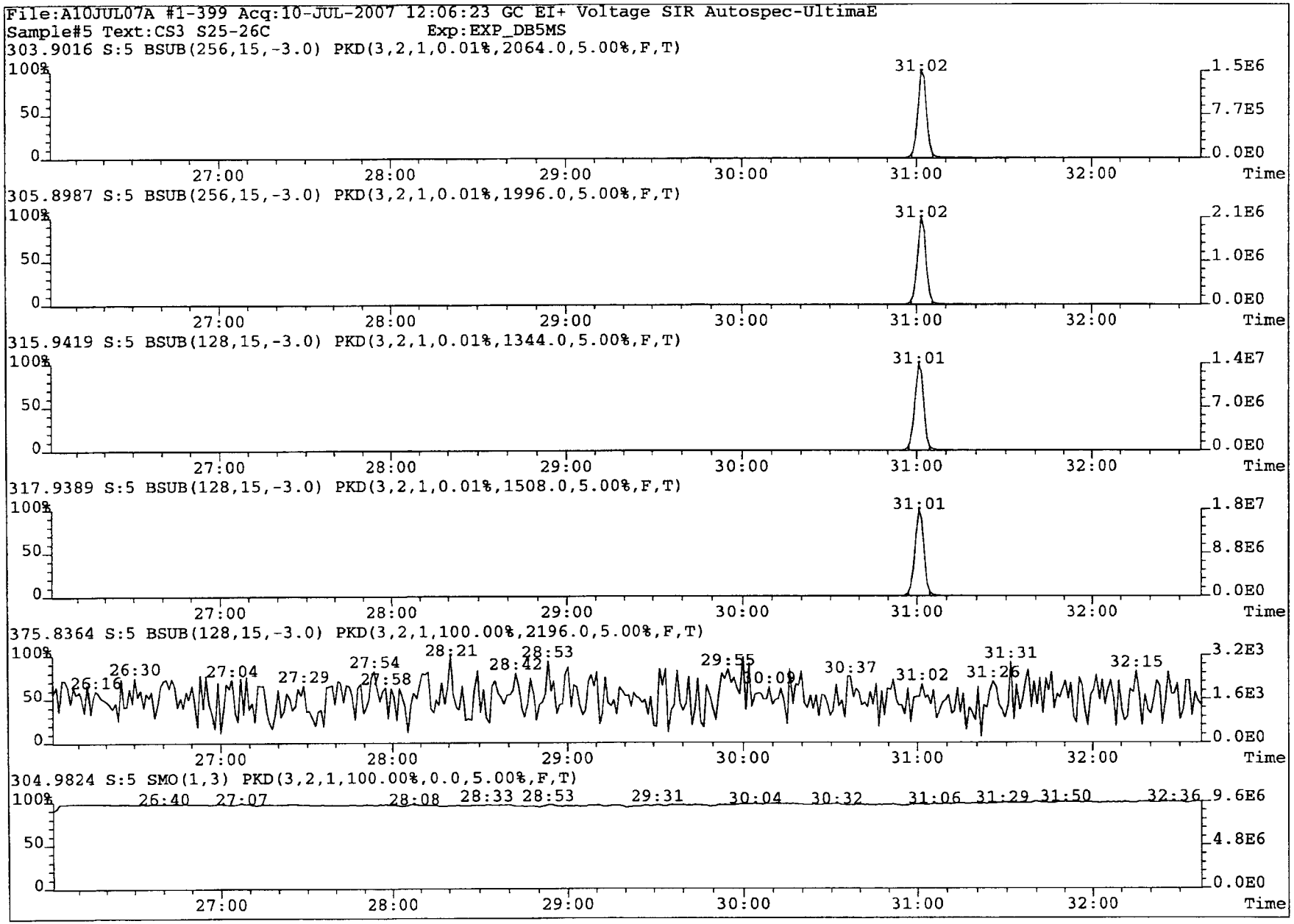

File:A10JUL07A #1-399 Acq:10-JUL-2007 12:06:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS3 S25-26C Exp:EXP_DB5MS
319.8965 S:5 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,1856.0,5.00%,F,T)
31:35
1.3E6
6.4E5
0.0E0
321.8936 S:5 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,1860.0,5.00%,F,T)
31:35
1.7E6
8.3E5
0.0E0
331.9368 S:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1736.0,5.00%,F,T)
31:10
31:34
1.3E7
6.5E6
0.0E0
333.9339 S:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1948.0,5.00%,F,T)
31:10
31:34
1.7E7
8.4E6
0.0E0
327.8847 S:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1768.0,5.00%,F,T)
31:35
3.1E6
1.5E6
0.0E0
304.9824 S:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:40 27:07 28:08 28:33 28:53 29:31 30:04 30:32 31:06 31:29 31:50 32:36
9.6E6
4.8E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time

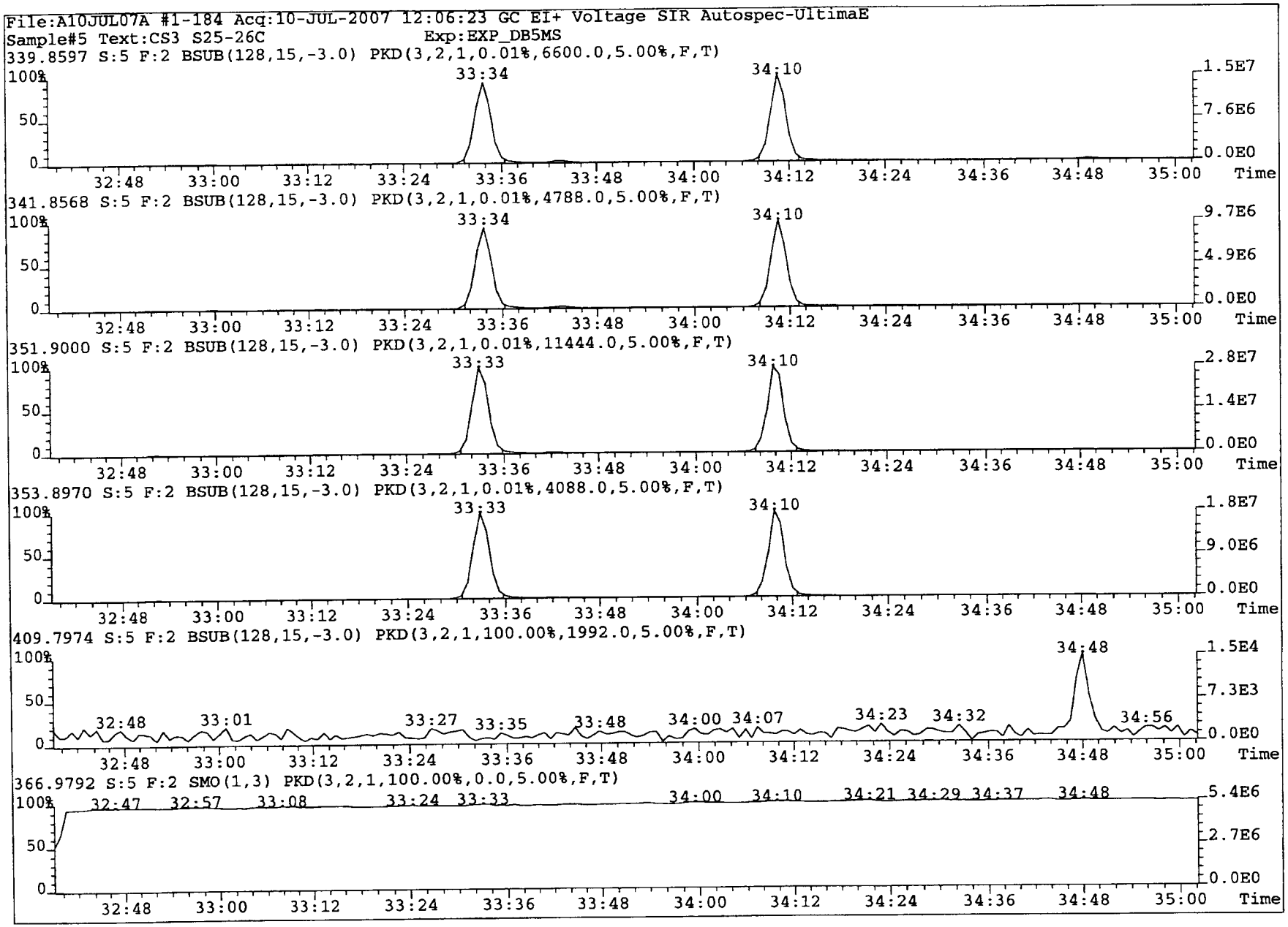

File:A10JUL07A #1-184 Acq:10-JUL-2007 12:06:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS3 S25-26C Exp:EXP_DB5MS
355.8546 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2284.0,5.00%,F,T)
34:22
8.8E6
4.4E6
0.0E0
357.8517 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1812.0,5.00%,F,T)
34:22
5.5E6
2.8E6
0.0E0
367.8949 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2252.0,5.00%,F,T)
34:21
1.7E7
8.3E6
0.0E0
369.8919 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1588.0,5.00%,F,T)
34:21
1.0E7
5.2E6
0.0E0
366.9792 S:5 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:47 32:57 33:08 33:24 33:33 34:00 34:10 34:21 34:29 34:43 34:52
5.4E6
2.7E6
0.0E0
100%
50
0
32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 Time

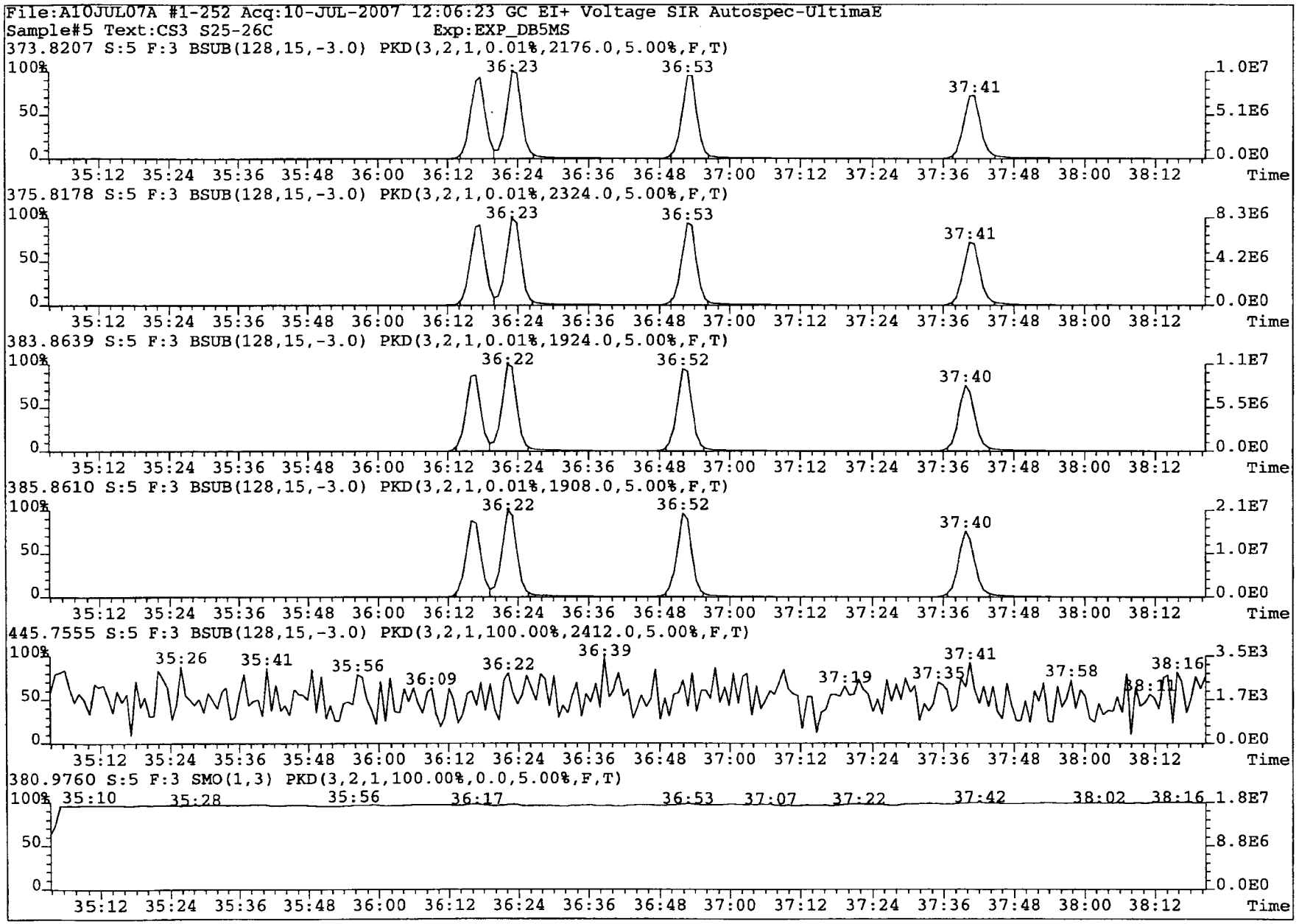

File:A10JUL07A #1-252 Acq:10-JUL-2007 12:06:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS3 S25-26C Exp:EXP_DB5MS
389.8156 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2024.0,5.00%,F,T)
100%
50
0
37:01
37:21
6.5E6
3.2E6
0.0E0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time
391.8127 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1748.0,5.00%,F,T)
100%
50
0
37:01
37:21
5.2E6
2.6E6
0.0E0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time
401.8559 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2344.0,5.00%,F,T)
100%
50
0
37:00
37:20
1.3E7
6.3E6
0.0E0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time
403.8530 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1796.0,5.00%,F,T)
100%
50
0
37:00
37:20
1.0E7
5.0E6
0.0E0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time
380.9760 S:5 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
100%
50
0
35:10 35:28 35:56 36:17 36:53 37:07 37:22 37:42 38:02 38:16
1.8E7
8.8E6
0.0E0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

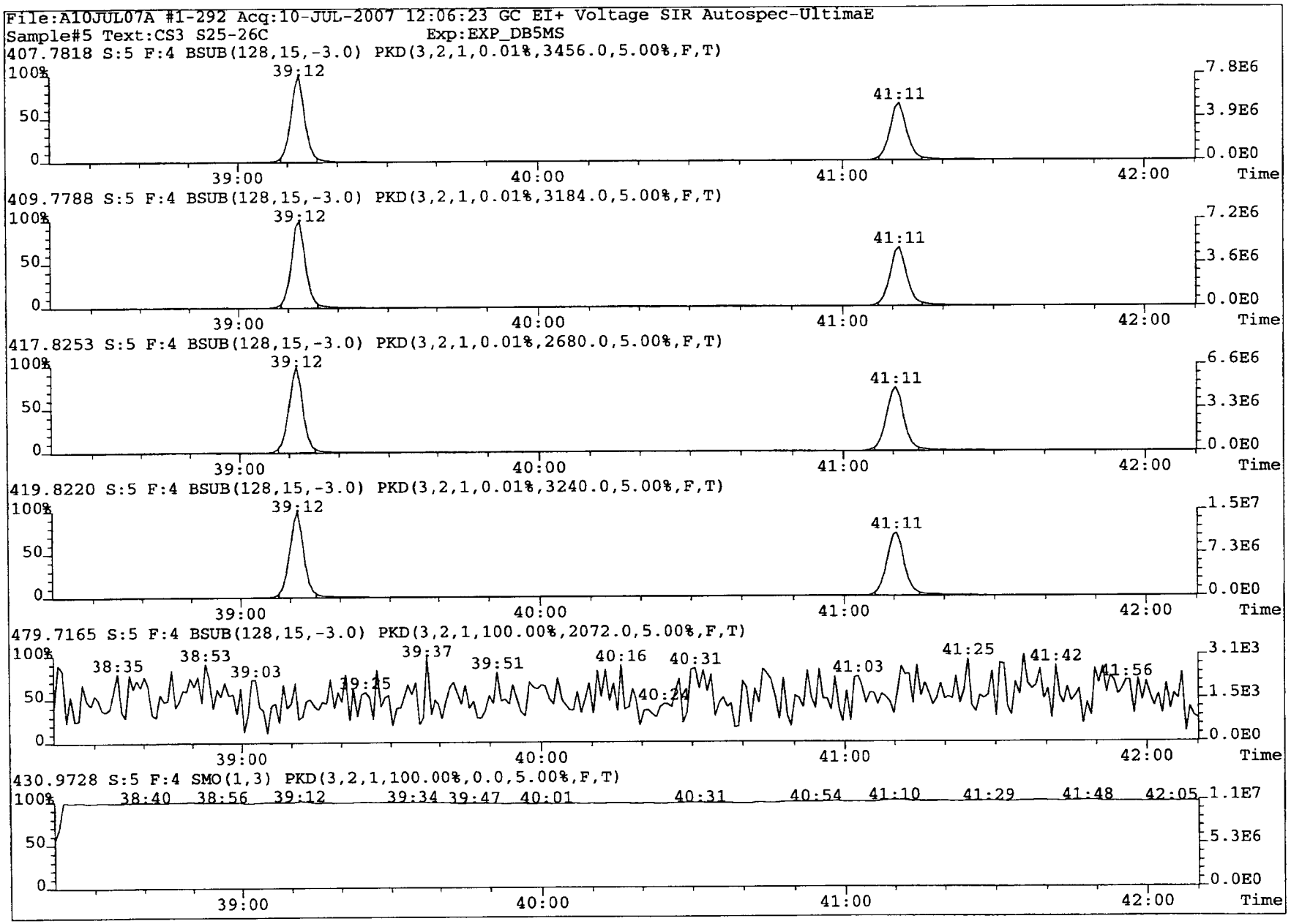

File:A10JUL07A #1-292 Acq:10-JUL-2007 12:06:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS3 S25-26C Exp:EXP_DB5MS
423.7767 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1944.0,5.00%,F,T)
40:30
3.9E6
1.9E6
0.0E0
425.7737 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1792.0,5.00%,F,T)
40:30
3.6E6
1.8E6
0.0E0
435.8169 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1888.0,5.00%,F,T)
40:29
7.0E6
3.5E6
0.0E0
437.8140 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1732.0,5.00%,F,T)
40:28
6.5E6
3.3E6
0.0E0
430.9728 S:5 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:31 38:50 39:12 39:26 39:41 40:01 40:31 40:54 41:10 41:29 41:48 42:05
1.1E7
5.3E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

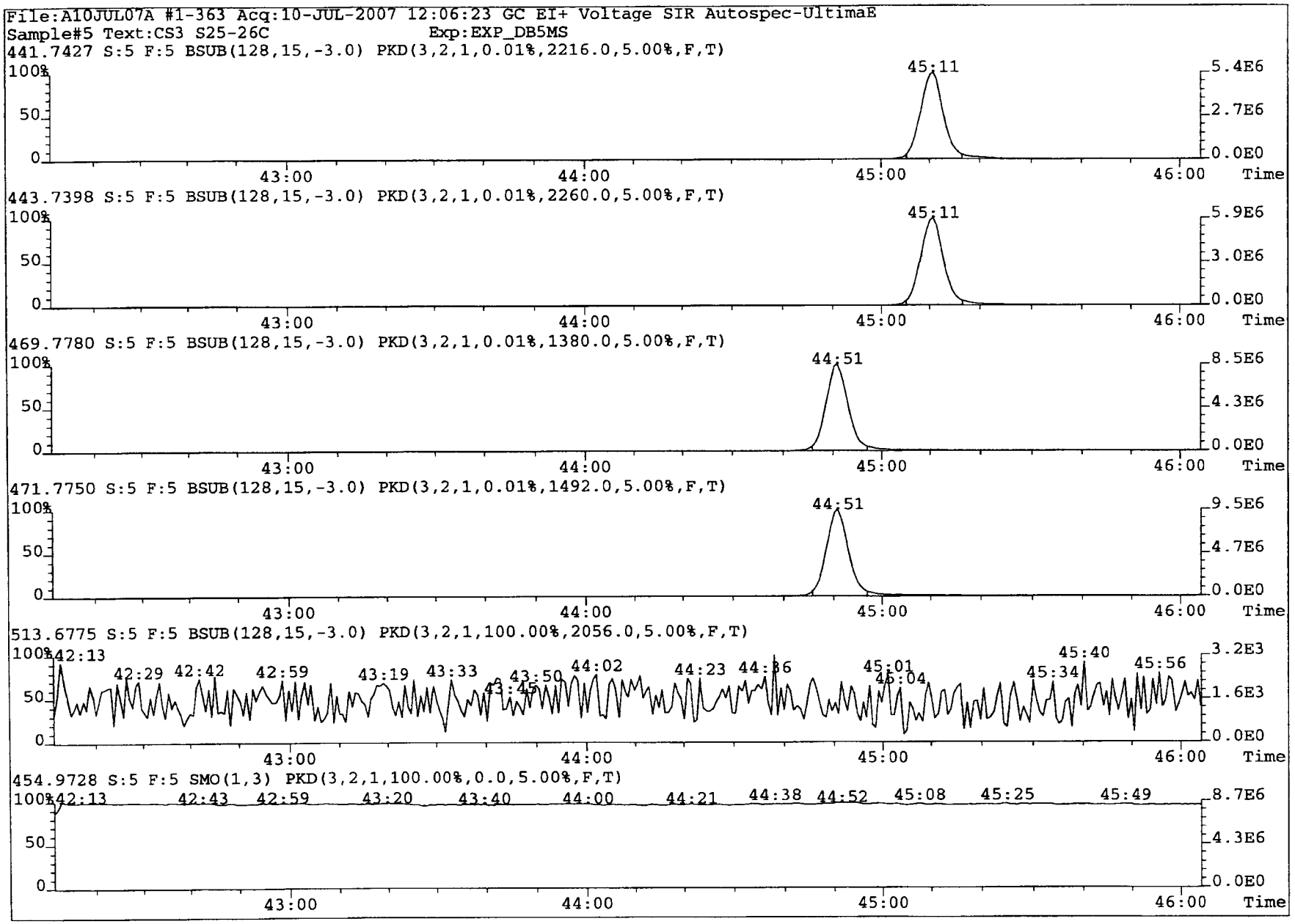

File:A10JUL07A #1-363 Acq:10-JUL-2007 12:06:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS3 S25-26C Exp:EXP_DB5MS
457.7377 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1476.0,5.00%,F,T)
44:52
4.7E6
2.3E6
0.0E0
459.7348 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1704.0,5.00%,F,T)
44:52
5.2E6
2.6E6
0.0E0
469.7780 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1380.0,5.00%,F,T)
44:51
8.5E6
4.3E6
0.0E0
471.7750 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1492.0,5.00%,F,T)
44:51
9.5E6
4.7E6
0.0E0
454.9728 S:5 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:13 42:36 42:59 43:20 43:40 44:00 44:21 44:38 44:52 45:08 45:25 45:49
8.7E6
4.3E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time


File:A10JUL07A #1-399 Acq:10-JUL-2007 12:06:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS3 S25-26C Exp:EXP_DB5MS
303.9016 S:5 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,2064.0,5.00%,F,T)
31:02
1.5E6
7.7E5
0.0E0
305.8987 S:5 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,1996.0,5.00%,F,T)
31:02
2.1E6
1.0E6
0.0E0
315.9419 S:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1344.0,5.00%,F,T)
31:01
1.4E7
7.0E6
0.0E0
317.9389 S:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1508.0,5.00%,F,T)
31:01
1.8E7
8.8E6
0.0E0
375.8364 S:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2196.0,5.00%,F,T)
26:16 26:30 27:04 27:29 27:54 27:58 28:21 28:42 28:53 29:55 30:09 30:37 31:02 31:26 31:31 32:15
3.2E3
1.6E3
0.0E0
304.9824 S:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:40 27:07 28:08 28:33 28:53 29:31 30:04 30:32 31:06 31:29 31:50 32:36
9.6E6
4.8E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time


File:A10JUL07A #1-184 Acq:10-JUL-2007 12:06:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS3 S25-26C Exp:EXP_DB5MS
339.8597 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6600.0,5.00%,F,T)
33:34
34:10
1.5E7
7.6E6
0.0E0
341.8568 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4788.0,5.00%,F,T)
33:34
34:10
9.7E6
4.9E6
0.0E0
351.9000 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,11444.0,5.00%,F,T)
33:33
34:10
2.8E7
1.4E7
0.0E0
353.8970 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4088.0,5.00%,F,T)
33:33
34:10
1.8E7
9.0E6
0.0E0
409.7974 S:5 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,1992.0,5.00%,F,T)
34:48
1.5E4
7.3E3
0.0E0
32:48 33:01 33:27 33:35 33:48 34:00 34:07 34:23 34:32 34:56
366.9792 S:5 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:47 32:57 33:08 33:24 33:33 34:00 34:10 34:21 34:29 34:37 34:48
5.4E6
2.7E6
0.0E0
100%
50
0
32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 Time


File:A10JUL07A #1-252 Acq:10-JUL-2007 12:06:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS3 S25-26C Exp:EXP_DB5MS
373.8207 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2176.0,5.00%,F,T)
36:23
36:53
37:41
1.0E7
5.1E6
0.0E0
375.8178 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2324.0,5.00%,F,T)
36:23
36:53
37:41
8.3E6
4.2E6
0.0E0
383.8639 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1924.0,5.00%,F,T)
36:22
36:52
37:40
1.1E7
5.5E6
0.0E0
385.8610 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1908.0,5.00%,F,T)
36:22
36:52
37:40
2.1E7
1.0E7
0.0E0
445.7555 S:5 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2412.0,5.00%,F,T)
35:26
35:41
35:56
36:09
36:22
36:39
37:19
37:35
37:41
37:58
38:16
3.5E3
1.7E3
0.0E0
380.9760 S:5 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:10
35:28
35:56
36:17
36:53
37:07
37:22
37:42
38:02
38:16
1.8E7
8.8E6
0.0E0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

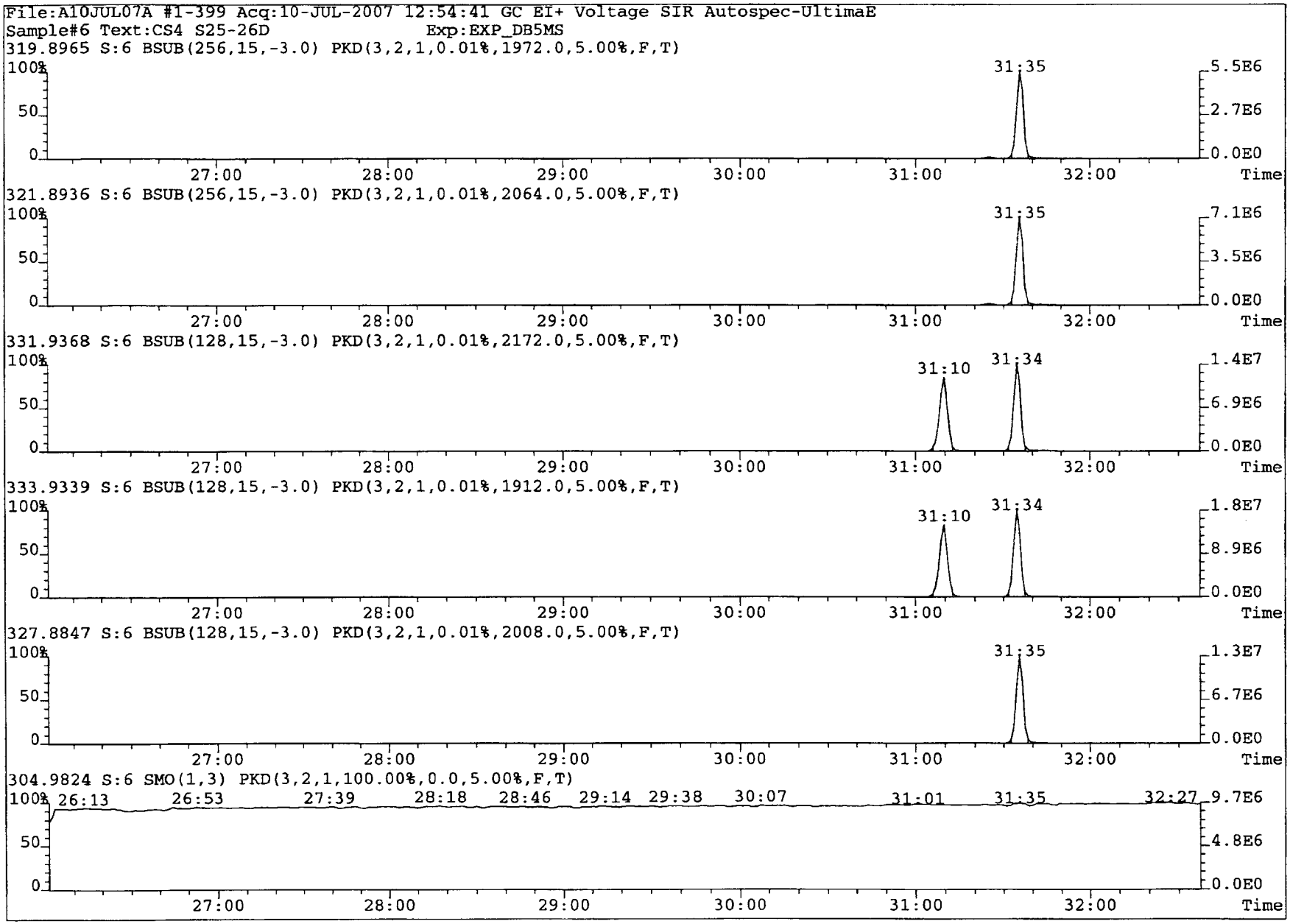

File:A10JUL07A #1-292 Acq:10-JUL-2007 12:06:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS3 S25-26C Exp:EXP_DB5MS
407.7818 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3456.0,5.00%,F,T)
39:12
41:11
7.8E6
3.9E6
0.0E0
409.7788 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3184.0,5.00%,F,T)
39:12
41:11
7.2E6
3.6E6
0.0E0
417.8253 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2680.0,5.00%,F,T)
39:12
41:11
6.6E6
3.3E6
0.0E0
419.8220 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3240.0,5.00%,F,T)
39:12
41:11
1.5E7
7.3E6
0.0E0
479.7165 S:5 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2072.0,5.00%,F,T)
38:35
38:53
39:03
39:25
39:37
39:51
40:16
40:24
40:31
41:03
41:25
41:42
41:56
3.1E3
1.5E3
0.0E0
430.9728 S:5 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:40
38:56
39:12
39:34
39:47
40:01
40:31
40:54
41:10
41:29
41:48
42:05
1.1E7
5.3E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

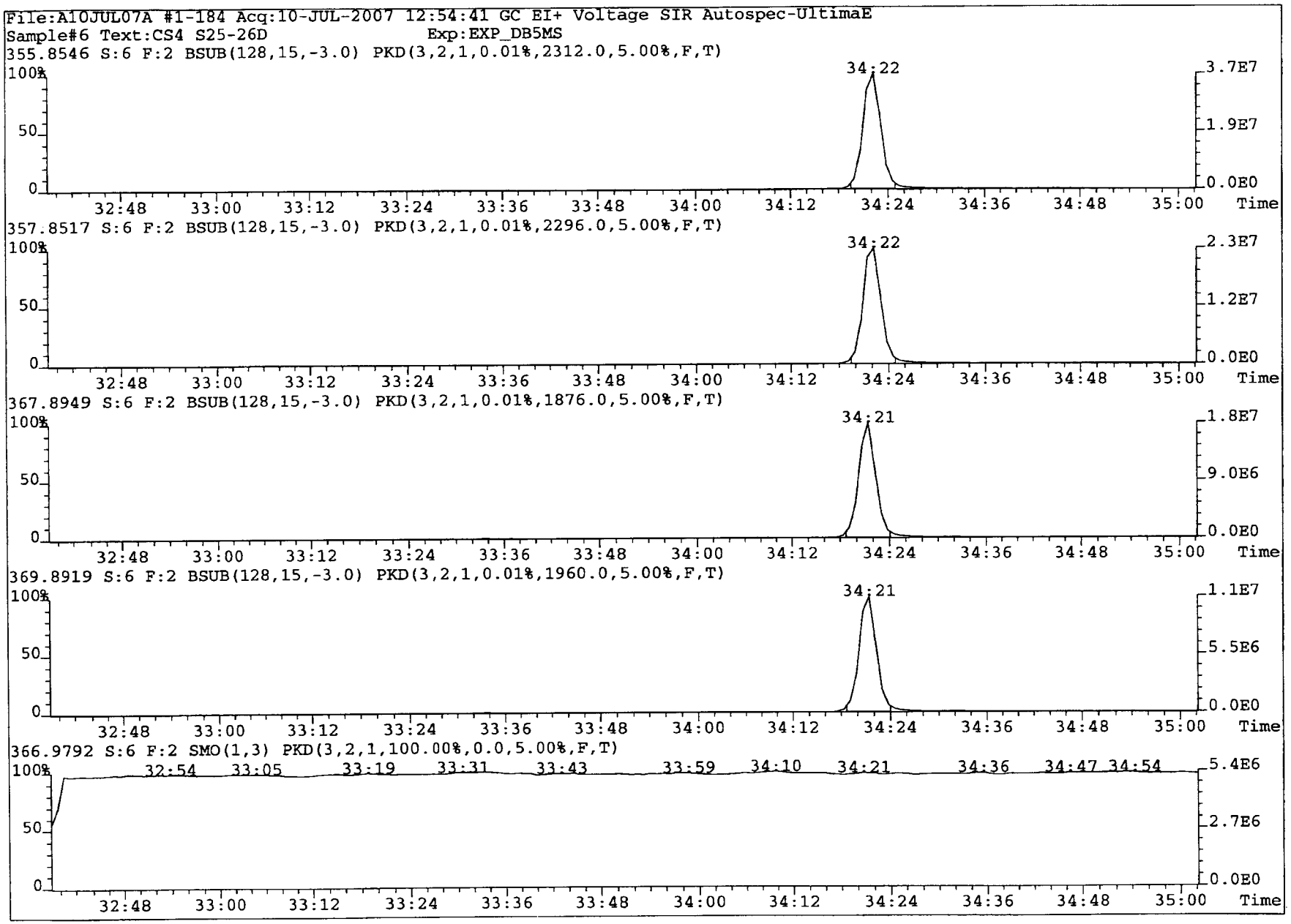

File:A10JUL07A #1-363 Acq:10-JUL-2007 12:06:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 Text:CS3 S25-26C Exp:EXP_DB5MS
441.7427 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2216.0,5.00%,F,T)
45:11
5.4E6
2.7E6
0.0E0
443.7398 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2260.0,5.00%,F,T)
45:11
5.9E6
3.0E6
0.0E0
469.7780 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1380.0,5.00%,F,T)
44:51
8.5E6
4.3E6
0.0E0
471.7750 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1492.0,5.00%,F,T)
44:51
9.5E6
4.7E6
0.0E0
513.6775 S:5 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2056.0,5.00%,F,T)
42:13
42:29 42:42 42:59 43:19 43:33 43:45 43:50 44:02 44:23 44:36 45:01 45:04 45:34 45:40 45:56
3.2E3
1.6E3
0.0E0
454.9728 S:5 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:13 42:43 42:59 43:20 43:40 44:00 44:21 44:38 44:52 45:08 45:25 45:49
8.7E6
4.3E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

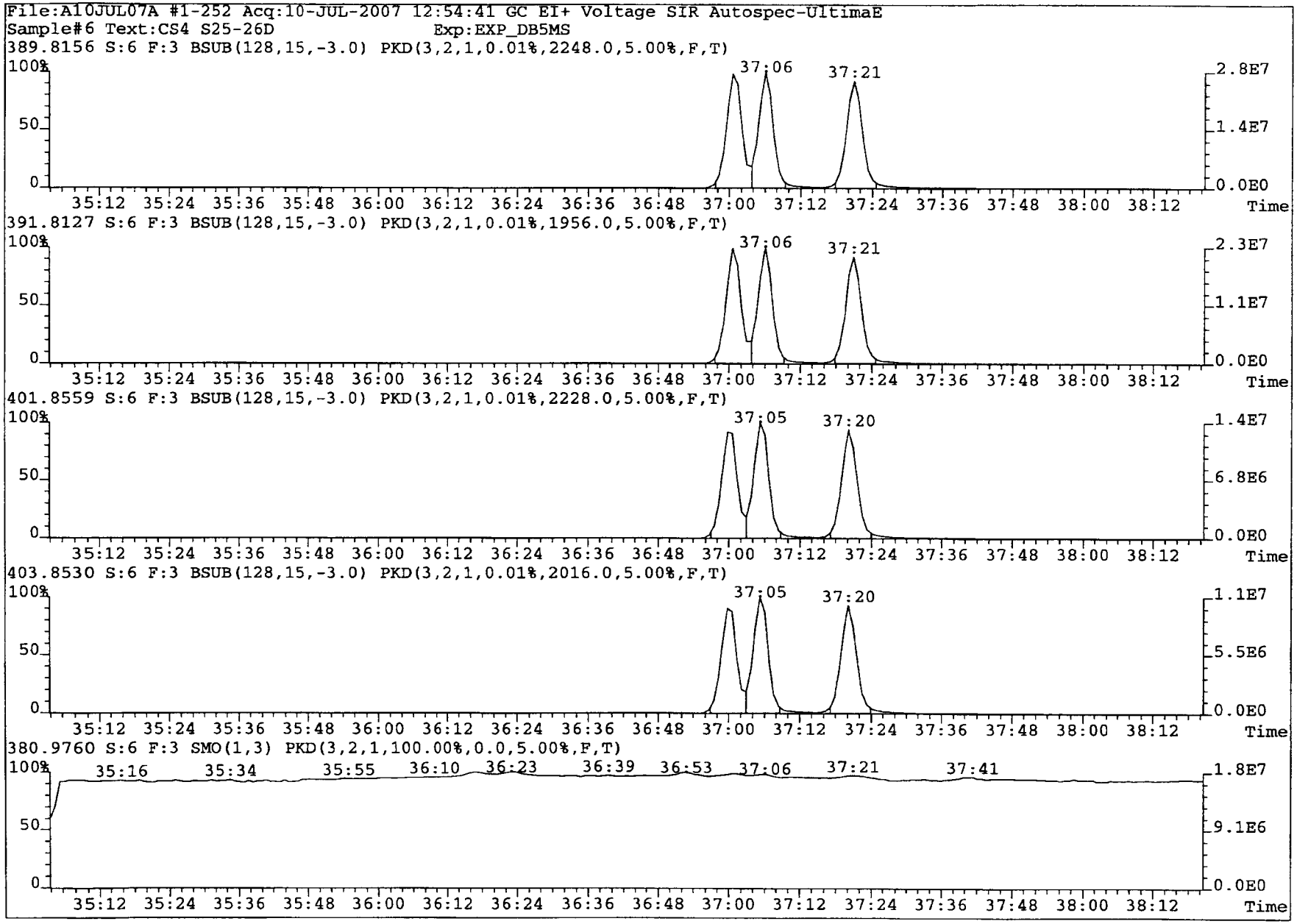
Filename a10jul07a - 6 Acquired: 10-JUL-07 12:54:41 Processed: 10-JUL-07 14:16:58
Analyte: m8290-070507a Cal: m8290-071007a
Sample text: CS4 S25-26D

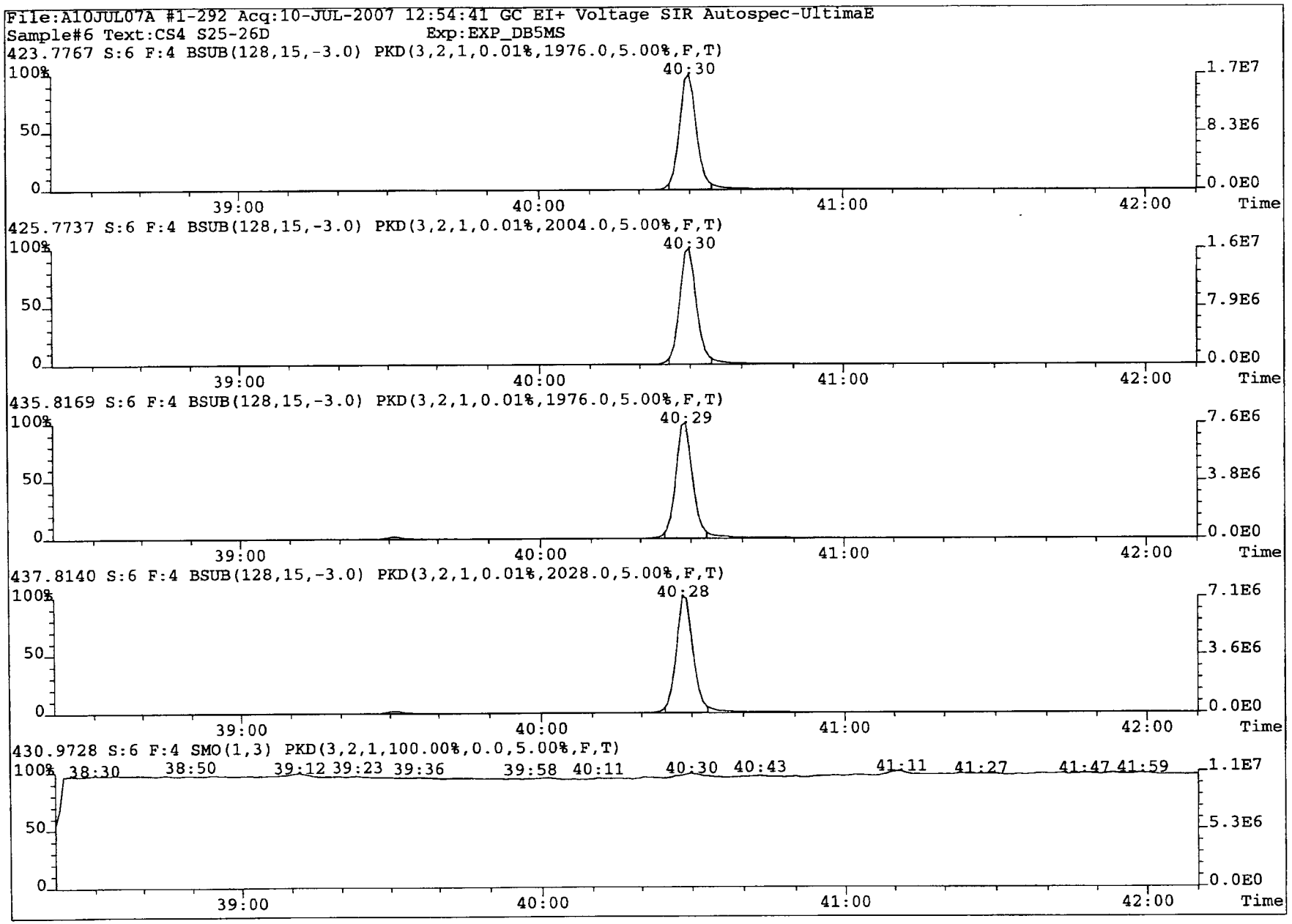
	Typ	Name	Amount	Resp	Ion1	Ion2	RA	RT	S/N1?	S/N2?	RRF	Mod?
1	Unk	2,3,7,8-TCDD	40.00	3.45e+07	1.52e+07	1.93e+07	0.79 y	31:35	2786 y	3422 y	0.9955	n
2	Unk	1,2,3,7,8-PeCDD	200.00	1.49e+08	9.09e+07	5.79e+07	1.57 y	34:22	16046 y	10200 y	1.0924	n
3	Unk	1,2,3,4,7,8-HxCDD	200.00	1.48e+08	8.27e+07	6.55e+07	1.26 y	37:01	12435 y	11562 y	1.0388	n
4	Unk	1,2,3,6,7,8-HxCDD	200.00	1.41e+08	7.87e+07	6.22e+07	1.27 y	37:06	12650 y	11637 y	0.9874	n
5	Unk	1,2,3,7,8,9-HxCDD	200.00	1.41e+08	7.87e+07	6.26e+07	1.26 y	37:21	11709 y	10698 y	0.9904	n
6	Unk	1,2,3,4,6,7,8-HpCDD	200.00	1.21e+08	6.18e+07	5.87e+07	1.05 y	40:30	8414 y	7855 y	1.0925	n
7	Unk	OCDD	400.00	2.09e+08	9.89e+07	1.10e+08	0.90 y	44:52	12286 y	12189 y	1.1241	n
8	Unk	2,3,7,8-TCDF	40.00	5.40e+07	2.39e+07	3.02e+07	0.79 y	31:02	3336 y	4311 y	1.1806	n
9	Unk	1,2,3,7,8-PeCDF	200.00	2.31e+08	1.41e+08	9.02e+07	1.56 y	33:34	2853 y	2298 y	1.0091	n
10	Unk	2,3,4,7,8-PeCDF	200.00	2.39e+08	1.46e+08	9.32e+07	1.56 y	34:10	2849 y	2332 y	1.0452	n
11	Unk	1,2,3,4,7,8-HxCDF	200.00	2.16e+08	1.20e+08	9.60e+07	1.25 y	36:17	22334 y	17124 y	1.1041	n
12	Unk	1,2,3,6,7,8-HxCDF	200.00	2.34e+08	1.31e+08	1.03e+08	1.26 y	36:23	21552 y	17322 y	1.1952	n
13	Unk	2,3,4,6,7,8-HxCDF	200.00	2.19e+08	1.22e+08	9.71e+07	1.25 y	36:53	20627 y	16789 y	1.1173	n
14	Unk	1,2,3,7,8,9-HxCDF	200.00	1.89e+08	1.06e+08	8.33e+07	1.27 y	37:41	16265 y	12834 y	0.9646	n
15	Unk	1,2,3,4,6,7,8-HpCDF	200.00	2.05e+08	1.05e+08	9.99e+07	1.05 y	39:12	5861 y	7840 y	1.4133	n
16	Unk	1,2,3,4,7,8,9-HpCDF	200.00	1.62e+08	8.33e+07	7.88e+07	1.06 y	41:11	3773 y	4991 y	1.1183	n
17	Unk	OCDF	400.00	2.61e+08	1.24e+08	1.36e+08	0.91 y	45:11	13016 y	12237 y	1.3988	n
18	ES/RT	13C-2,3,7,8-TCDD	100.00	8.67e+07	3.79e+07	4.88e+07	0.78 y	31:34	6373 y	9300 y	1.0625	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	6.81e+07	4.18e+07	2.63e+07	1.59 y	34:21	9561 y	5609 y	0.8352	n
20	ES	13C-1,2,3,6,7,8-HxCDD	100.00	7.13e+07	3.97e+07	3.16e+07	1.26 y	37:05	6146 y	5455 y	1.0415	n
21	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	5.52e+07	2.83e+07	2.68e+07	1.06 y	40:29	3843 y	3518 y	0.8056	n
22	ES	13C-OCDD	200.00	9.31e+07	4.41e+07	4.91e+07	0.90 y	44:51	4258 y	5110 y	0.6800	n
23	ES/RT	13C-2,3,7,8-TCDF	100.00	1.14e+08	5.08e+07	6.37e+07	0.80 y	31:01	6656 y	12119 y	1.4032	n
24	ES	13C-1,2,3,7,8-PeCDF	100.00	1.14e+08	7.01e+07	4.42e+07	1.58 y	33:33	2748 y	2736 y	1.4016	n
25	ES	13C-1,2,3,6,7,8-HxCDF	100.00	9.79e+07	3.39e+07	6.40e+07	0.53 y	36:22	5372 y	13629 y	1.4302	n
26	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	7.25e+07	2.24e+07	5.01e+07	0.45 y	39:11	1998 y	5599 y	1.0589	n
27	JS	13C-1,2,3,4-TCDD	100.00	8.16e+07	3.61e+07	4.54e+07	0.80 y	31:09	5404 y	7715 y	-	n
28	JS	13C-1,2,3,7,8,9-HxCDD	100.00	6.85e+07	3.81e+07	3.03e+07	1.26 y	37:20	5783 y	5067 y	-	n
29	CS	37Cl-2,3,7,8-TCDD	40.00	3.62e+07	3.62e+07			31:35	6634 y		1.1097	n
30	CS	13C-2,3,4,7,8-PeCDF	100.00	1.11e+08	6.83e+07	4.29e+07	1.59 y	34:10	2617 y	2597 y	1.3633	n
31	CS	13C-1,2,3,4,7,8-HxCDD	100.00	6.89e+07	3.86e+07	3.03e+07	1.27 y	37:00	5653 y	4919 y	1.0064	n
32	CS	13C-1,2,3,4,7,8-HxCDF	100.00	8.74e+07	3.00e+07	5.74e+07	0.52 y	36:16	5402 y	13308 y	1.2771	n
33	CS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.42e+07	1.99e+07	4.42e+07	0.45 y	41:10	1514 y	4190 y	0.9373	n
34	SS	37Cl-2,3,7,8-TCDD	40.00	3.62e+07	3.62e+07			31:35	6634 y		1.0444	n
35	SS	13C-2,3,4,7,8-PeCDF	100.00	1.11e+08	6.83e+07	4.29e+07	1.59 y	34:10	2617 y	2597 y	0.9726	n
36	SS	13C-1,2,3,4,7,8-HxCDD	100.00	6.89e+07	3.86e+07	3.03e+07	1.27 y	37:00	5653 y	4919 y	0.9663	n
37	SS	13C-1,2,3,4,7,8-HxCDF	100.00	8.74e+07	3.00e+07	5.74e+07	0.52 y	36:16	5402 y	13308 y	0.8929	n
38	SS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.42e+07	1.99e+07	4.42e+07	0.45 y	41:10	1514 y	4190 y	0.8852	n
39	Tot	Total Tetra-Furans	0.00	-	-	-	- n	-	- n	- n	1.1806	n
40	Tot	Total Tetra-Dioxins	0.00	-	-	-	- n	-	- n	- n	0.9955	n
41	Tot	Total Penta-Furans Fn1	0.00	-	-	-	- n	-	- n	- n	1.0271	n
42	Tot	Total Penta-Furans Fn2	0.00	-	-	-	- n	-	- n	- n	1.0271	n
43	Tot	Total Penta-Dioxins	0.00	-	-	-	- n	-	- n	- n	1.0924	n
44	Tot	Total Hexa-Furans	0.00	-	-	-	- n	-	- n	- n	1.0953	n

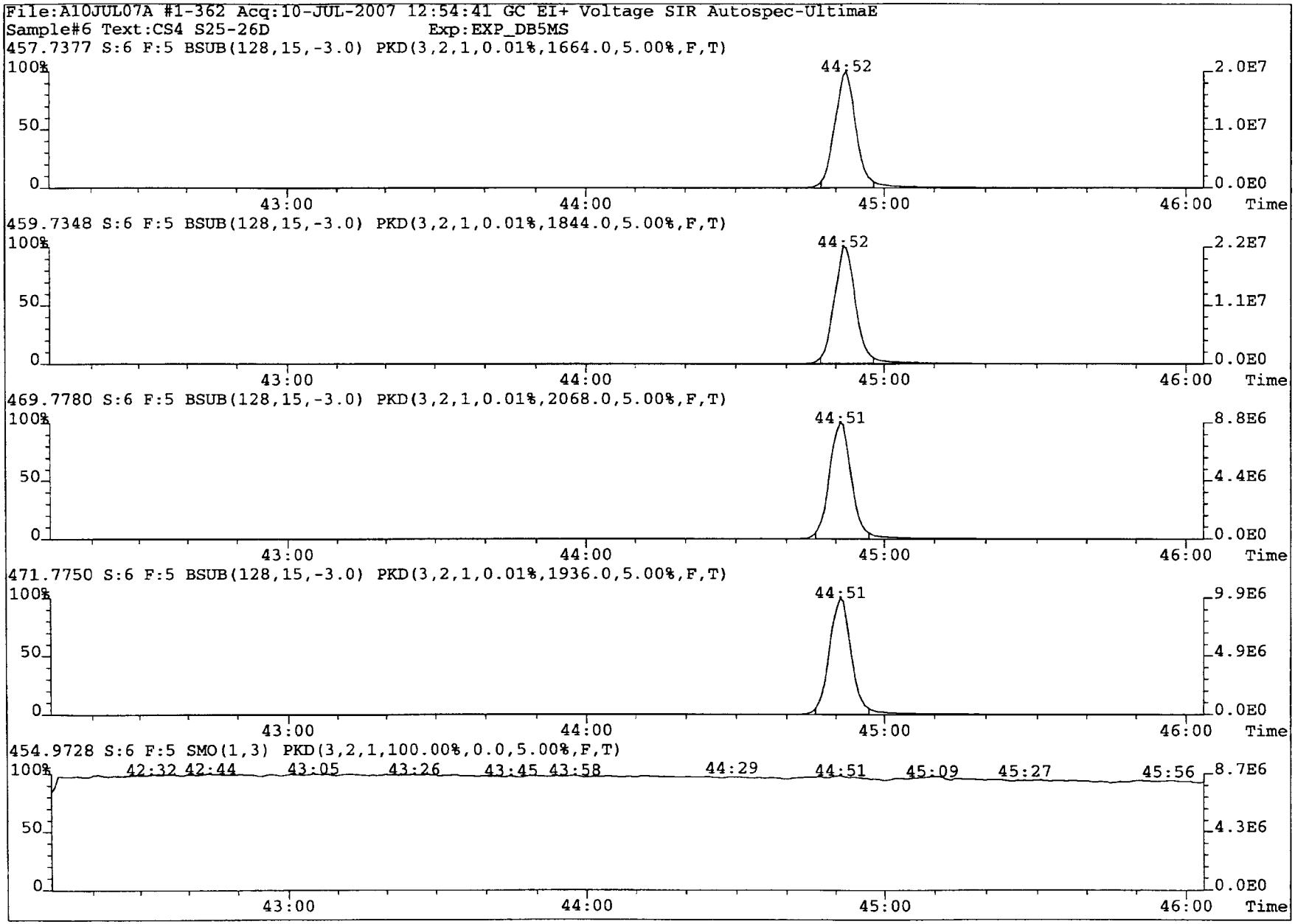
$= 1.094014$

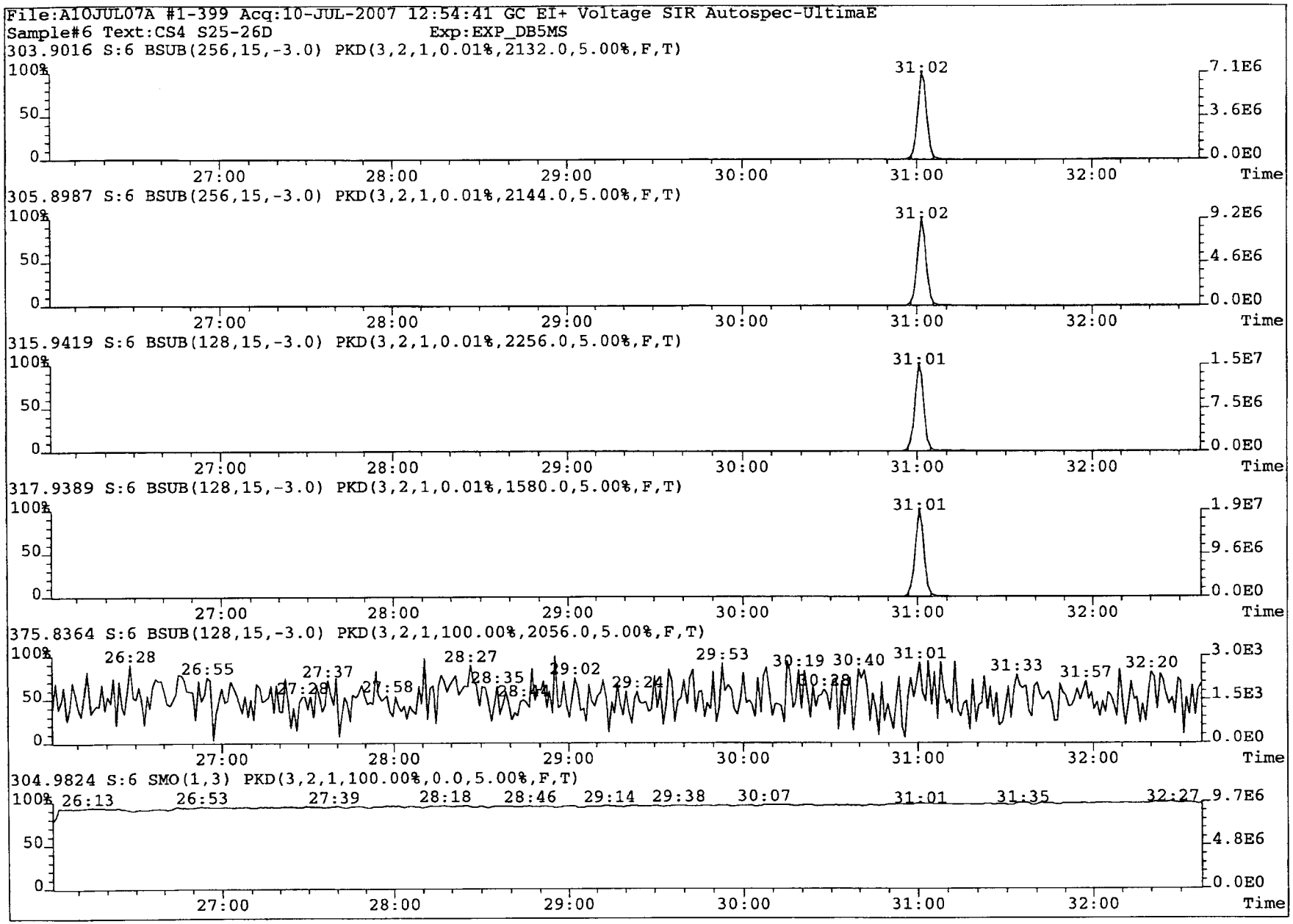

File:A10JUL07A #1-399 Acq:10-JUL-2007 12:54:41 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS4 S25-26D Exp:EXP_DB5MS
319.8965 S:6 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,1972.0,5.00%,F,T)
31:35
5.5E6
2.7E6
0.0E0
321.8936 S:6 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,2064.0,5.00%,F,T)
31:35
7.1E6
3.5E6
0.0E0
331.9368 S:6 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2172.0,5.00%,F,T)
31:10
31:34
1.4E7
6.9E6
0.0E0
333.9339 S:6 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1912.0,5.00%,F,T)
31:10
31:34
1.8E7
8.9E6
0.0E0
327.8847 S:6 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2008.0,5.00%,F,T)
31:35
1.3E7
6.7E6
0.0E0
304.9824 S:6 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:13
26:53
27:39
28:18
28:46
29:14
29:38
30:07
31:01
31:35
32:27
9.7E6
4.8E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time

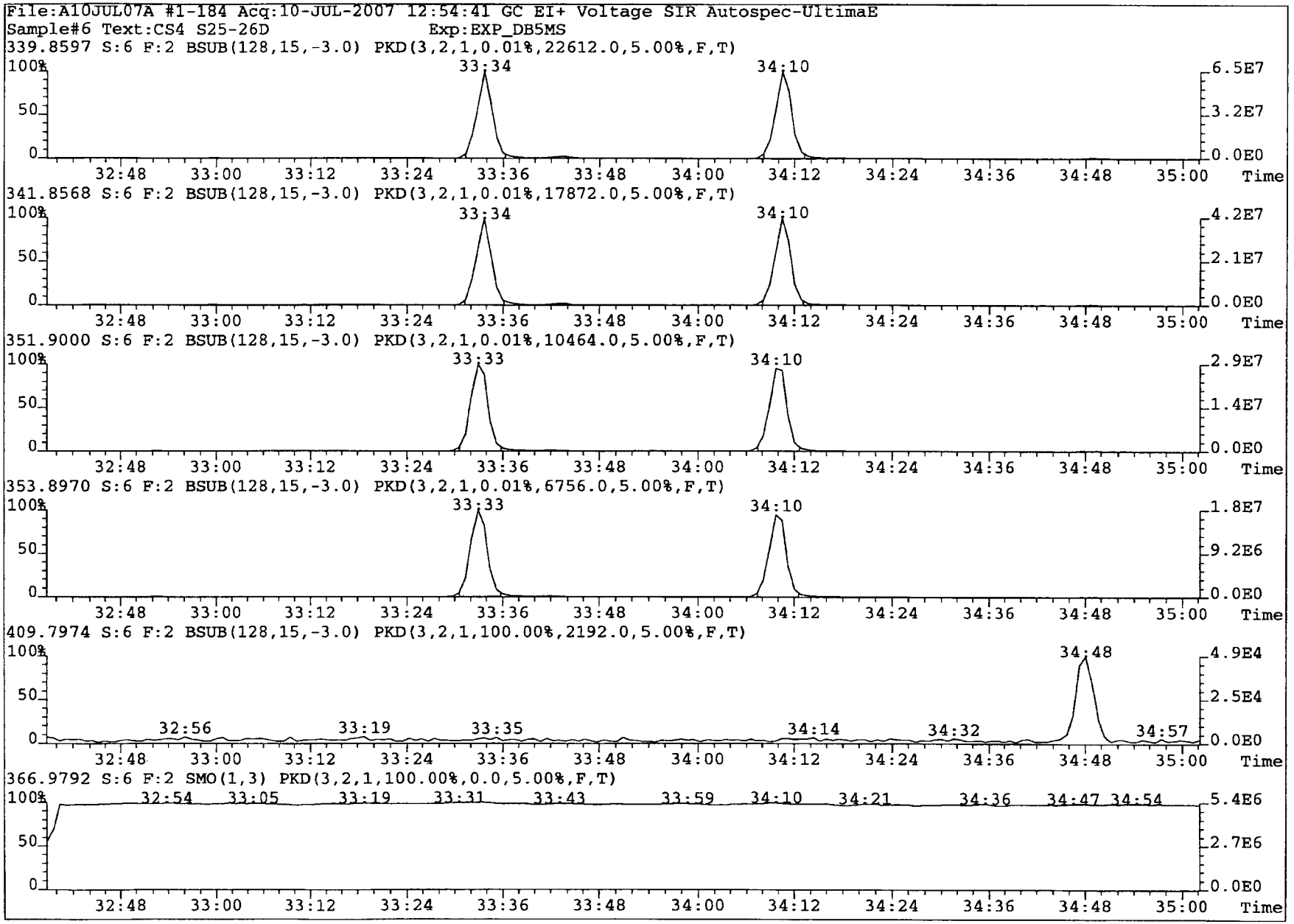

File:A10JUL07A #1-184 Acq:10-JUL-2007 12:54:41 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS4 S25-26D Exp:EXP_DB5MS
355.8546 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2312.0,5.00%,F,T)
34:22
3.7E7
1.9E7
0.0E0
357.8517 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2296.0,5.00%,F,T)
34:22
2.3E7
1.2E7
0.0E0
367.8949 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1876.0,5.00%,F,T)
34:21
1.8E7
9.0E6
0.0E0
369.8919 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1960.0,5.00%,F,T)
34:21
1.1E7
5.5E6
0.0E0
366.9792 S:6 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:54 33:05 33:19 33:31 33:43 33:59 34:10 34:21 34:36 34:47 34:54
5.4E6
2.7E6
0.0E0
100%
50
0
32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00 Time

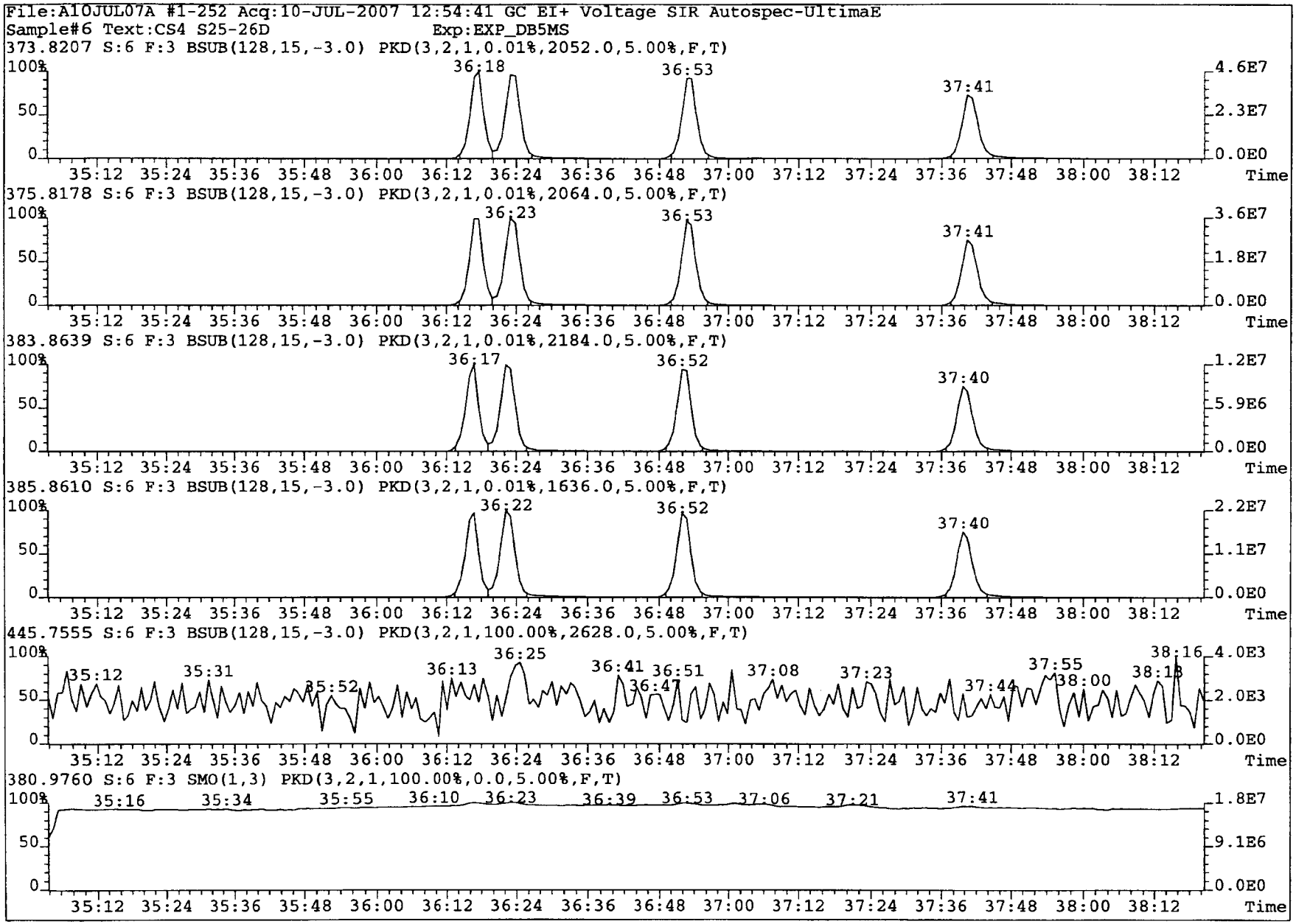

File:A10JUL07A #1-252 Acq:10-JUL-2007 12:54:41 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS4 S25-26D Exp:EXP_DB5MS
389.8156 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2248.0,5.00%,F,T)
37:06
37:21
2.8E7
1.4E7
0.0E0
391.8127 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1956.0,5.00%,F,T)
37:06
37:21
2.3E7
1.1E7
0.0E0
401.8559 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2228.0,5.00%,F,T)
37:05
37:20
1.4E7
6.8E6
0.0E0
403.8530 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2016.0,5.00%,F,T)
37:05
37:20
1.1E7
5.5E6
0.0E0
380.9760 S:6 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:16
35:34
35:55
36:10
36:23
36:39
36:53
37:06
37:21
37:41
1.8E7
9.1E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

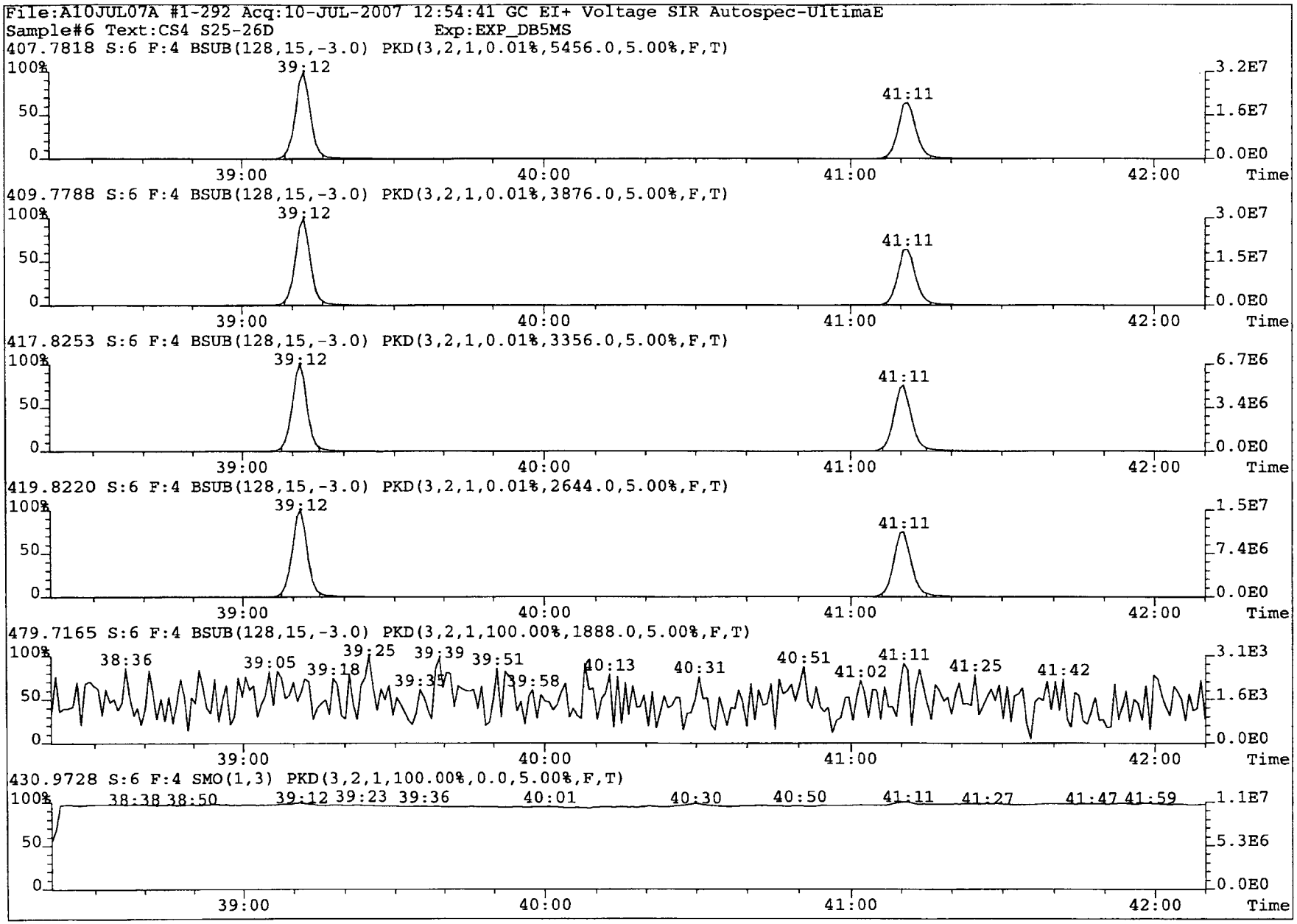

File:A10JUL07A #1-292 Acq:10-JUL-2007 12:54:41 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS4 S25-26D Exp:EXP_DB5MS
423.7767 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1976.0,5.00%,F,T)
40:30
1.7E7
8.3E6
0.0E0
425.7737 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2004.0,5.00%,F,T)
40:30
1.6E7
7.9E6
0.0E0
435.8169 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1976.0,5.00%,F,T)
40:29
7.6E6
3.8E6
0.0E0
437.8140 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2028.0,5.00%,F,T)
40:28
7.1E6
3.6E6
0.0E0
430.9728 S:6 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:30 38:50 39:12 39:23 39:36 39:58 40:11 40:30 40:43 41:11 41:27 41:47 41:59
1.1E7
5.3E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

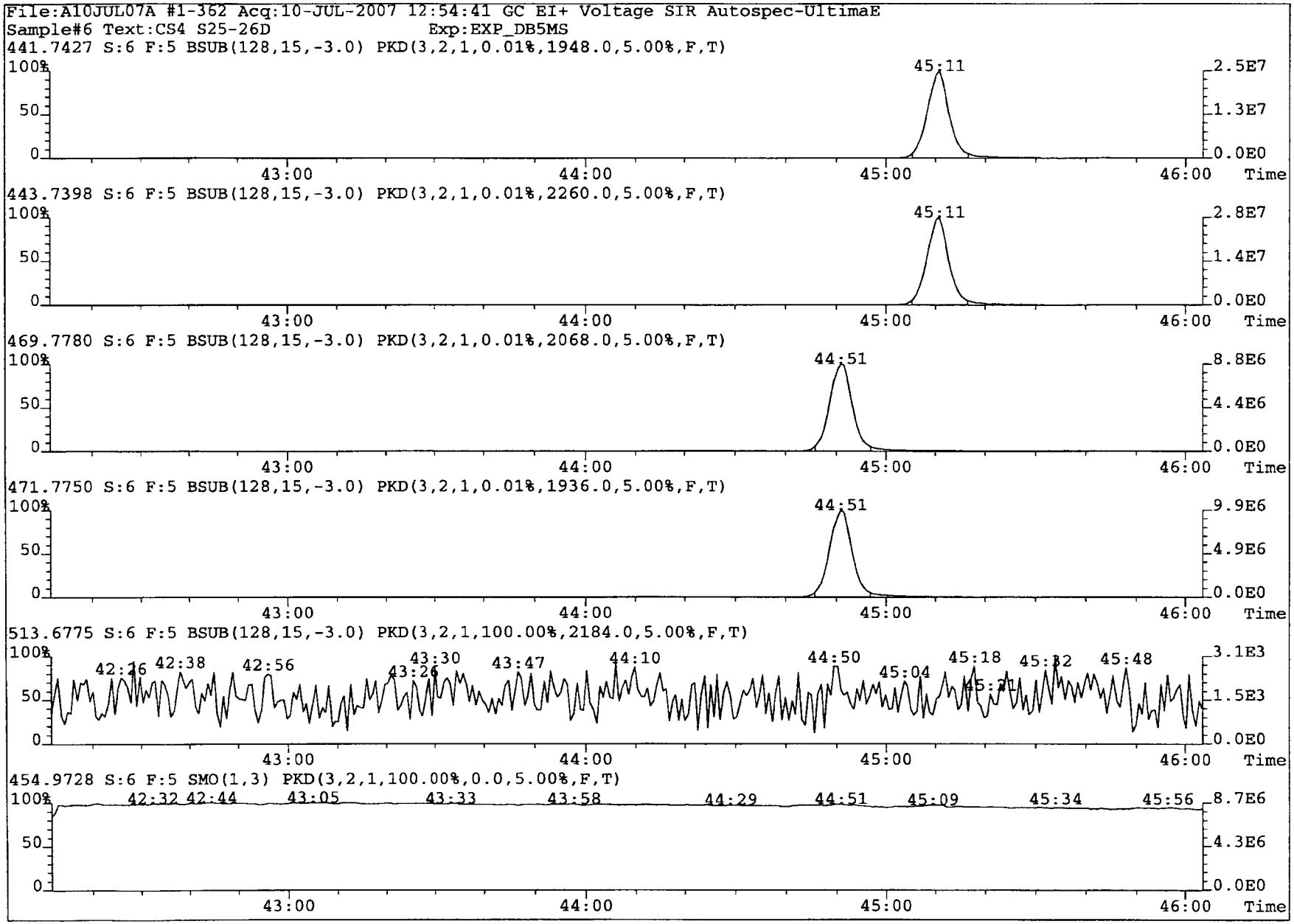

File:A10JUL07A #1-362 Acq:10-JUL-2007 12:54:41 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS4 S25-26D Exp:EXP_DB5MS
457.7377 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1664.0,5.00%,F,T)
44:52
2.0E7
1.0E7
0.0E0
459.7348 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1844.0,5.00%,F,T)
44:52
2.2E7
1.1E7
0.0E0
469.7780 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2068.0,5.00%,F,T)
44:51
8.8E6
4.4E6
0.0E0
471.7750 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1936.0,5.00%,F,T)
44:51
9.9E6
4.9E6
0.0E0
454.9728 S:6 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:32 42:44 43:05 43:26 43:45 43:58 44:29 44:51 45:09 45:27 45:56
8.7E6
4.3E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time


File:A10JUL07A #1-399 Acq:10-JUL-2007 12:54:41 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS4 S25-26D Exp:EXP_DB5MS
303.9016 S:6 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,2132.0,5.00%,F,T)
31:02
7.1E6
3.6E6
0.0E0
305.8987 S:6 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,2144.0,5.00%,F,T)
31:02
9.2E6
4.6E6
0.0E0
315.9419 S:6 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2256.0,5.00%,F,T)
31:01
1.5E7
7.5E6
0.0E0
317.9389 S:6 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1580.0,5.00%,F,T)
31:01
1.9E7
9.6E6
0.0E0
375.8364 S:6 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2056.0,5.00%,F,T)
26:28
26:55
27:37
27:28
27:58
28:27
28:35
28:44
29:02
29:24
29:53
30:19
30:40
30:28
31:01
31:33
31:57
32:20
3.0E3
1.5E3
0.0E0
304.9824 S:6 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:13
26:53
27:39
28:18
28:46
29:14
29:38
30:07
31:01
31:35
32:27
9.7E6
4.8E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time


File:A10JUL07A #1-184 Acq:10-JUL-2007 12:54:41 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS4 S25-26D Exp:EXP_DB5MS
339.8597 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,22612.0,5.00%,F,T)
33:34
34:10
6.5E7
3.2E7
0.0E0
341.8568 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,17872.0,5.00%,F,T)
33:34
34:10
4.2E7
2.1E7
0.0E0
351.9000 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,10464.0,5.00%,F,T)
33:33
34:10
2.9E7
1.4E7
0.0E0
353.8970 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6756.0,5.00%,F,T)
33:33
34:10
1.8E7
9.2E6
0.0E0
409.7974 S:6 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2192.0,5.00%,F,T)
34:48
32:56
33:19
33:35
34:14
34:32
34:57
4.9E4
2.5E4
0.0E0
366.9792 S:6 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:54
33:05
33:19
33:31
33:43
33:59
34:10
34:21
34:36
34:47
34:54
5.4E6
2.7E6
0.0E0
100%
50
0
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time


File:A10JUL07A #1-252 Acq:10-JUL-2007 12:54:41 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS4 S25-26D Exp:EXP_DB5MS
373.8207 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2052.0,5.00%,F,T)
36:18
36:53
37:41
4.6E7
2.3E7
0.0E0
375.8178 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2064.0,5.00%,F,T)
36:23
36:53
37:41
3.6E7
1.8E7
0.0E0
383.8639 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2184.0,5.00%,F,T)
36:17
36:52
37:40
1.2E7
5.9E6
0.0E0
385.8610 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1636.0,5.00%,F,T)
36:22
36:52
37:40
2.2E7
1.1E7
0.0E0
445.7555 S:6 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2628.0,5.00%,F,T)
35:12
35:31
35:52
36:13
36:25
36:41
36:47
36:51
37:08
37:23
37:44
37:55
38:00
38:16
4.0E3
2.0E3
0.0E0
380.9760 S:6 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:16
35:34
35:55
36:10
36:23
36:39
36:53
37:06
37:21
37:41
1.8E7
9.1E6
0.0E0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

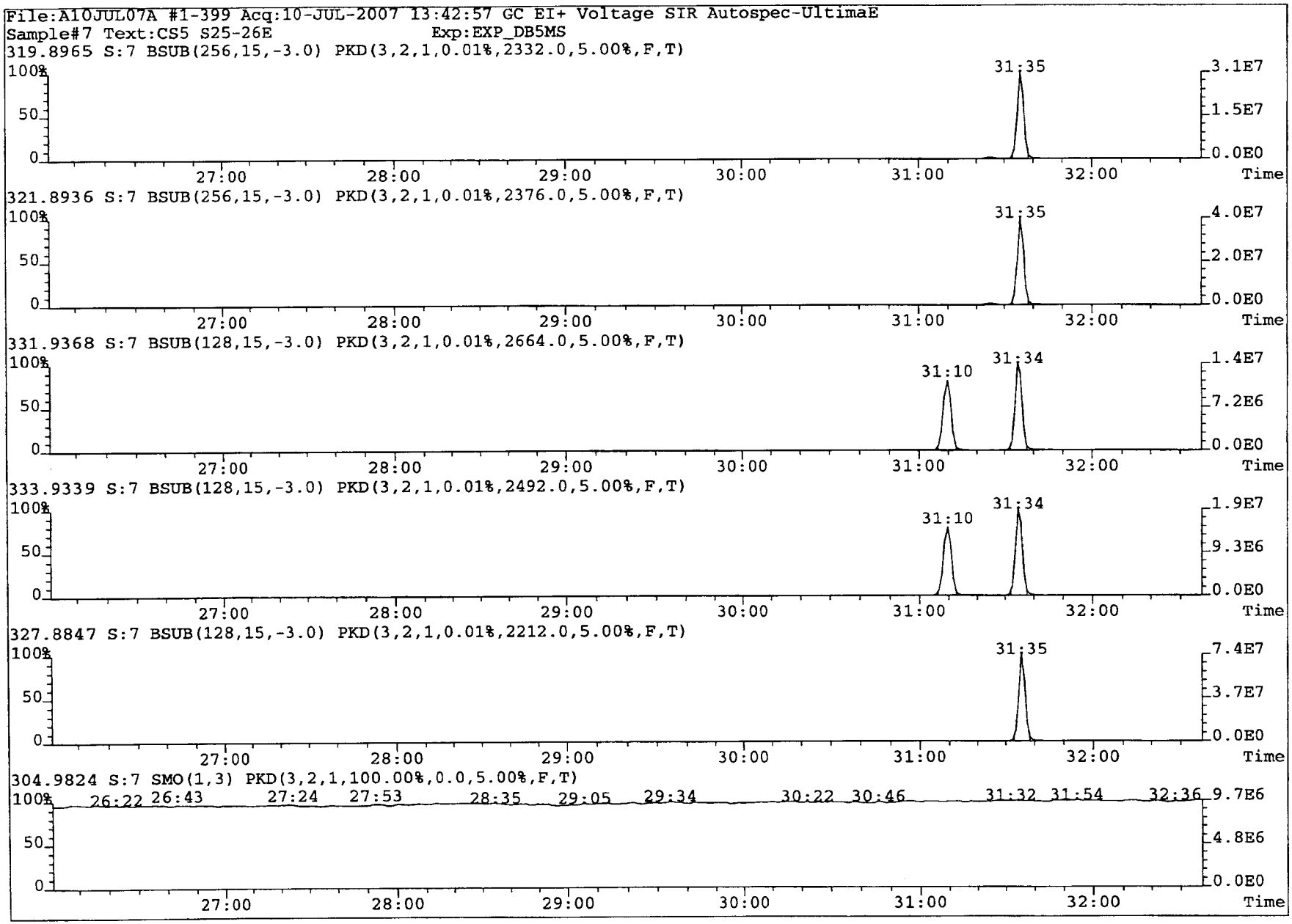

File:A10JUL07A #1-292 Acq:10-JUL-2007 12:54:41 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS4 S25-26D Exp:EXP_DB5MS
407.7818 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5456.0,5.00%,F,T)
39:12
41:11
3.2E7
1.6E7
0.0E0
409.7788 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3876.0,5.00%,F,T)
39:12
41:11
3.0E7
1.5E7
0.0E0
417.8253 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3356.0,5.00%,F,T)
39:12
41:11
6.7E6
3.4E6
0.0E0
419.8220 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2644.0,5.00%,F,T)
39:12
41:11
1.5E7
7.4E6
0.0E0
479.7165 S:6 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,1888.0,5.00%,F,T)
38:36
39:05
39:18
39:25
39:35
39:39
39:51
39:58
40:13
40:31
40:51
41:02
41:11
41:25
41:42
3.1E3
1.6E3
0.0E0
430.9728 S:6 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:38
38:50
39:12
39:23
39:36
40:01
40:30
40:50
41:11
41:27
41:47
41:59
1.1E7
5.3E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

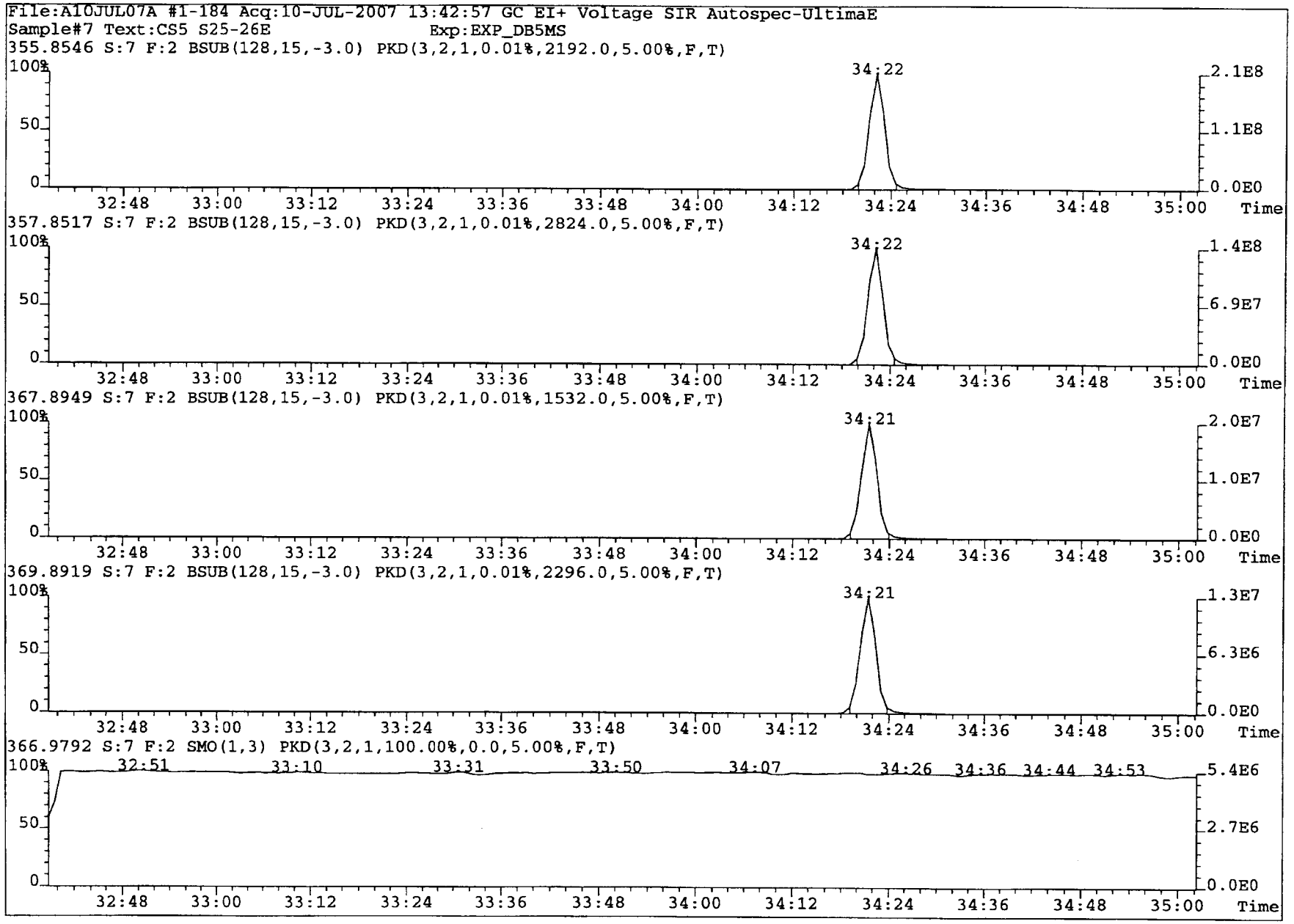

File:A10JUL07A #1-362 Acq:10-JUL-2007 12:54:41 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CS4 S25-26D Exp:EXP_DB5MS
441.7427 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1948.0,5.00%,F,T)
45:11
2.5E7
1.3E7
0.0E0
443.7398 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2260.0,5.00%,F,T)
45:11
2.8E7
1.4E7
0.0E0
469.7780 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2068.0,5.00%,F,T)
44:51
8.8E6
4.4E6
0.0E0
471.7750 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1936.0,5.00%,F,T)
44:51
9.9E6
4.9E6
0.0E0
513.6775 S:6 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2184.0,5.00%,F,T)
42:16 42:38 42:56 43:26 43:30 43:47 44:10 44:50 45:04 45:18 45:32 45:48
3.1E3
1.5E3
0.0E0
454.9728 S:6 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:32 42:44 43:05 43:33 43:58 44:29 44:51 45:09 45:34 45:56
8.7E6
4.3E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

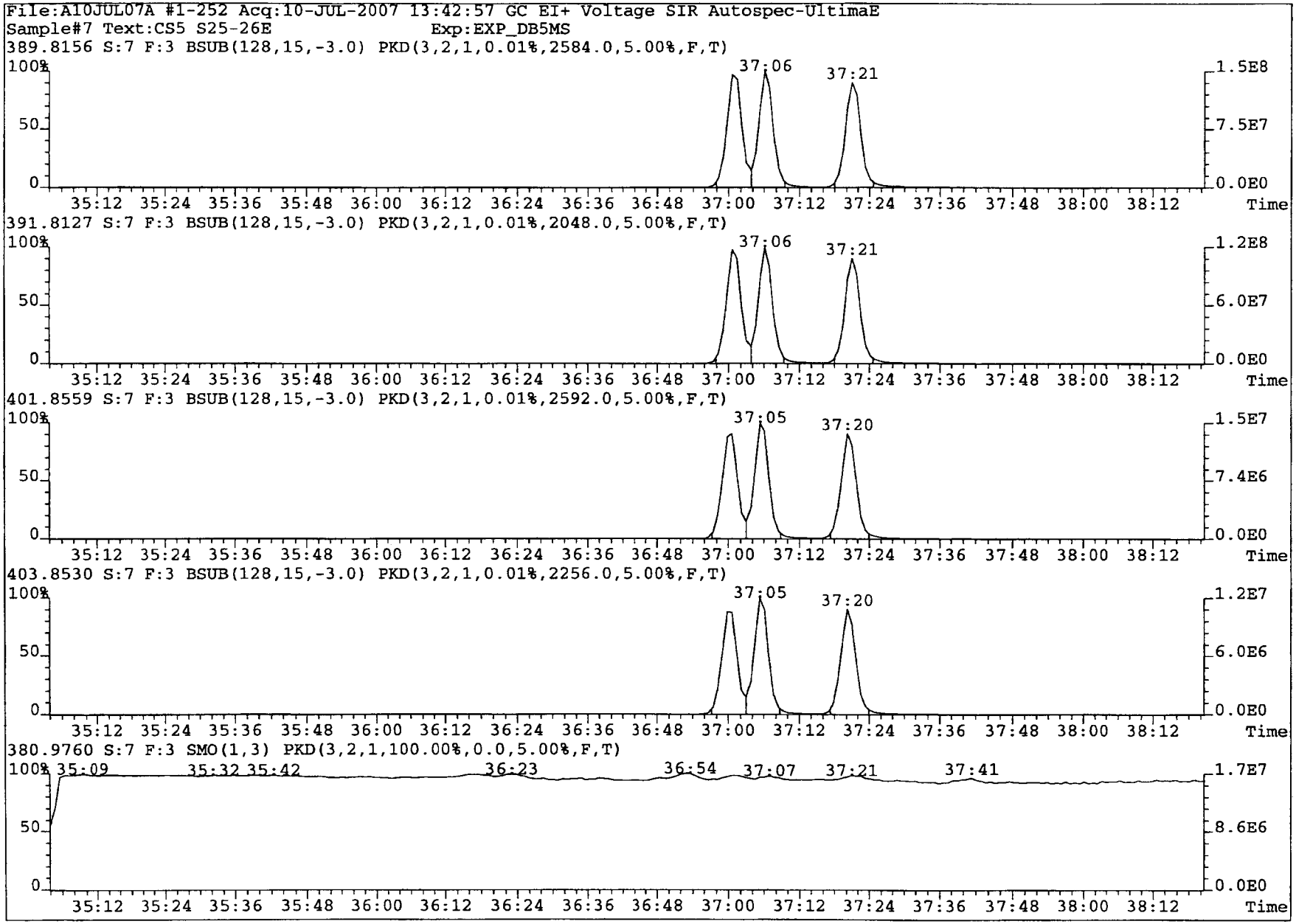
Filename a10jul07a - 7 Acquired: 10-JUL-07 13:42:57 Processed: 10-JUL-07 14:31:03
Analyte: m8290-070507a Cal: m8290-071007a
Sample text: CS5 S25-26E

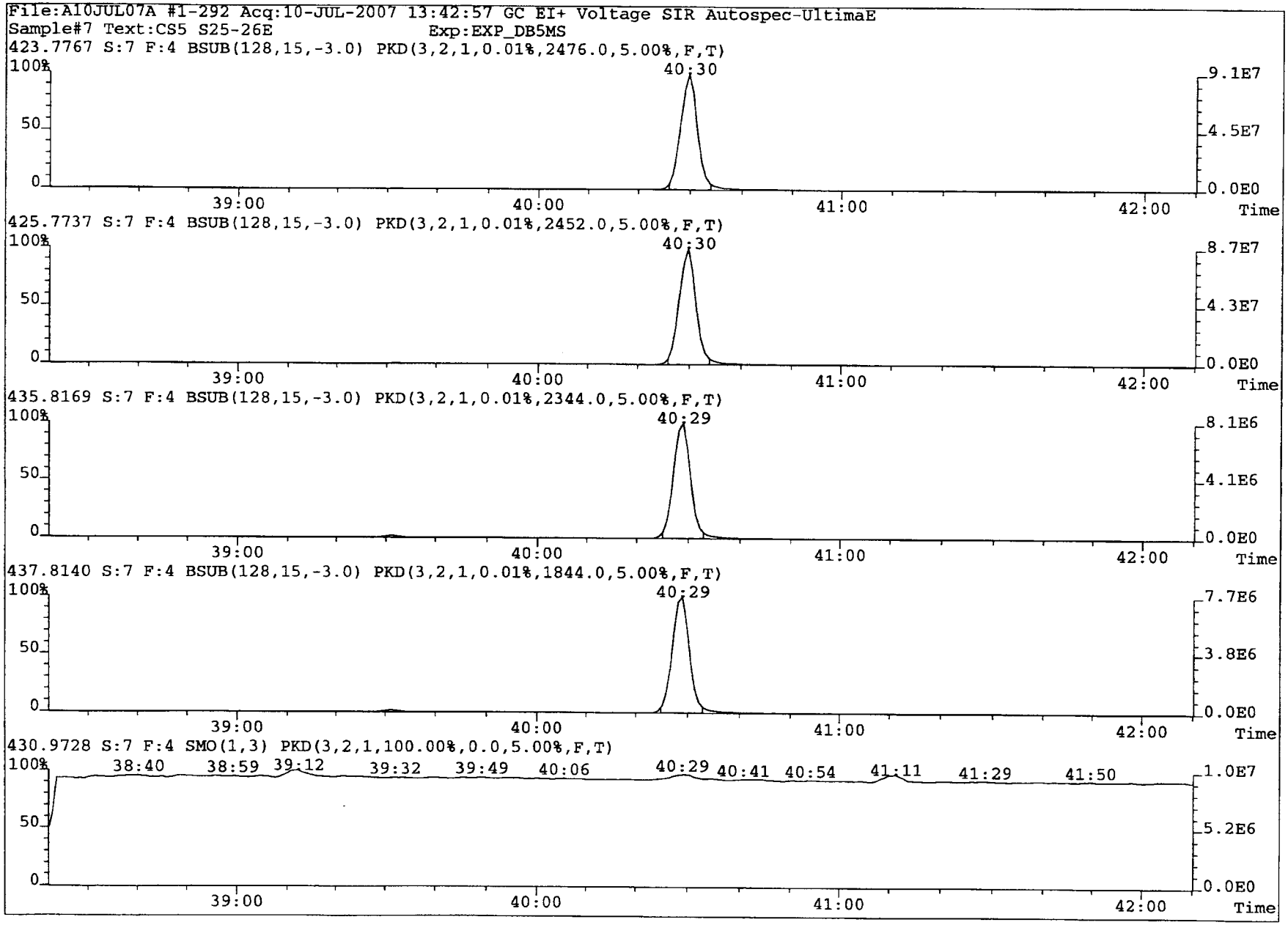
	Typ	Name	Amount	Resp	Ion1	Ion2	RA	RT	S/N1?	S/N2?	RRF	Mod?
1	Unk	2,3,7,8-TCDD	200.00	1.78e+08	7.75e+07	1.00e+08	0.77 y	31:35	13174 y	16902 y	1.0117	n
2	Unk	1,2,3,7,8-PeCDD	1000.00	7.64e+08	4.67e+08	2.97e+08	1.57 y	34:22	98056 y	48706 y	1.0653	n
3	Unk	1,2,3,4,7,8-HxCDD	1000.00	7.51e+08	4.18e+08	3.33e+08	1.25 y	37:01	56120 y	57255 y	1.0088	n
4	Unk	1,2,3,6,7,8-HxCDD	1000.00	7.35e+08	4.09e+08	3.26e+08	1.26 y	37:06	57894 y	58518 y	0.9866	n
5	Unk	1,2,3,7,8,9-HxCDD	1000.00	7.24e+08	4.03e+08	3.21e+08	1.25 y	37:21	52312 y	52819 y	0.9719	n
6	Unk	1,2,3,4,6,7,8-HpCDD	1000.00	6.36e+08	3.26e+08	3.10e+08	1.05 y	40:30	36731 y	35299 y	1.0930	n
7	Unk	OCDD	2000.00	1.15e+09	5.41e+08	6.04e+08	0.90 y	44:53	58457 y	55088 y	1.1278	n
8	Unk	2,3,7,8-TCDF	200.00	2.67e+08	1.17e+08	1.50e+08	0.78 y	31:02	13662 y	17441 y	1.1748	n
9	Unk	1,2,3,7,8-PeCDF	1000.00	1.20e+09	7.32e+08	4.65e+08	1.57 y	33:34	5655 y	5579 y	1.0159	n
10	Unk	2,3,4,7,8-PeCDF	1000.00	1.24e+09	7.58e+08	4.85e+08	1.56 y	34:11	5688 y	5680 y	1.0544	n
11	Unk	1,2,3,4,7,8-HxCDF	1000.00	1.10e+09	6.14e+08	4.88e+08	1.26 y	36:17	66812 y	65789 y	1.1234	n
12	Unk	1,2,3,6,7,8-HxCDF	1000.00	1.15e+09	6.43e+08	5.09e+08	1.26 y	36:24	66643 y	64771 y	1.1745	n
13	Unk	2,3,4,6,7,8-HxCDF	1000.00	1.11e+09	6.19e+08	4.92e+08	1.26 y	36:53	65282 y	64812 y	1.1325	n
14	Unk	1,2,3,7,8,9-HxCDF	1000.00	9.42e+08	5.26e+08	4.16e+08	1.26 y	37:41	49271 y	50237 y	0.9602	n
15	Unk	1,2,3,4,6,7,8-HpCDF	1000.00	1.07e+09	5.47e+08	5.21e+08	1.05 y	39:12	25854 y	15160 y	1.4380	n
16	Unk	1,2,3,4,7,8,9-HpCDF	1000.00	8.38e+08	4.31e+08	4.08e+08	1.06 y	41:11	18194 y	10477 y	1.1294	n
17	Unk	OCDF	2000.00	1.45e+09	6.93e+08	7.59e+08	0.91 y	45:11	79875 y	93001 y	1.4294	n
18	ES/RT	13C-2,3,7,8-TCDD	100.00	8.79e+07	3.85e+07	4.94e+07	0.78 y	31:34	5386 y	7452 y	1.0654	n
19	ES	13C-1,2,3,7,8-PeCDD	100.00	7.17e+07	4.39e+07	2.78e+07	1.58 y	34:21	13131 y	5491 y	0.8697	n
20	ES	13C-1,2,3,6,7,8-HxCDD	100.00	7.45e+07	4.15e+07	3.30e+07	1.26 y	37:05	5712 y	5276 y	1.0581	n
21	ES	13C-1,2,3,4,6,7,8-HpCDD	100.00	5.82e+07	2.99e+07	2.83e+07	1.06 y	40:29	3457 y	4148 y	0.8266	n
22	ES	13C-OCDD	200.00	1.02e+08	4.79e+07	5.36e+07	0.89 y	44:52	4433 y	5122 y	0.7215	n
23	ES/RT	13C-2,3,7,8-TCDF	100.00	1.14e+08	5.03e+07	6.34e+07	0.79 y	31:01	7109 y	7796 y	1.3785	n
24	ES	13C-1,2,3,7,8-PeCDF	100.00	1.18e+08	7.21e+07	4.57e+07	1.58 y	33:33	5578 y	3692 y	1.4287	n
25	ES	13C-1,2,3,6,7,8-HxCDF	100.00	9.81e+07	3.40e+07	6.41e+07	0.53 y	36:23	6378 y	10176 y	1.3940	n
26	ES	13C-1,2,3,4,6,7,8-HpCDF	100.00	7.42e+07	2.30e+07	5.12e+07	0.45 y	39:12	3527 y	3043 y	1.0547	n
27	JS	13C-1,2,3,4-TCDD	100.00	8.25e+07	3.63e+07	4.62e+07	0.79 y	31:10	4357 y	5873 y	-	n
28	JS	13C-1,2,3,7,8,9-HxCDD	100.00	7.04e+07	3.92e+07	3.12e+07	1.26 y	37:20	5189 y	4771 y	-	n
29	CS	37Cl-2,3,7,8-TCDD	200.00	1.86e+08	1.86e+08			31:35	33281 y		1.1264	n
30	CS	13C-2,3,4,7,8-PeCDF	100.00	1.16e+08	7.10e+07	4.47e+07	1.59 y	34:10	5500 y	3414 y	1.4027	n
31	CS	13C-1,2,3,4,7,8-HxCDD	100.00	7.02e+07	3.92e+07	3.10e+07	1.26 y	37:00	5182 y	4637 y	0.9968	n
32	CS	13C-1,2,3,4,7,8-HxCDF	100.00	8.98e+07	3.09e+07	5.89e+07	0.52 y	36:17	5977 y	9813 y	1.2753	n
33	CS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.64e+07	2.07e+07	4.57e+07	0.45 y	41:11	2799 y	2394 y	0.9433	n
34	SS	37Cl-2,3,7,8-TCDD	200.00	1.86e+08	1.86e+08			31:35	33281 y		1.0573	n
35	SS	13C-2,3,4,7,8-PeCDF	100.00	1.16e+08	7.10e+07	4.47e+07	1.59 y	34:10	5500 y	3414 y	0.9818	n
36	SS	13C-1,2,3,4,7,8-HxCDD	100.00	7.02e+07	3.92e+07	3.10e+07	1.26 y	37:00	5182 y	4637 y	0.9421	n
37	SS	13C-1,2,3,4,7,8-HxCDF	100.00	8.98e+07	3.09e+07	5.89e+07	0.52 y	36:17	5977 y	9813 y	0.9149	n
38	SS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.64e+07	2.07e+07	4.57e+07	0.45 y	41:11	2799 y	2394 y	0.8944	n
39	Tot	Total Tetra-Furans	0.00	-	-	-	- n	-	- n	- n	1.1748	n
40	Tot	Total Tetra-Dioxins	0.00	-	-	-	- n	-	- n	- n	1.0117	n
41	Tot	Total Penta-Furans Fn1	0.00	-	-	-	- n	-	- n	- n	1.0352	n
42	Tot	Total Penta-Furans Fn2	0.00	-	-	-	- n	-	- n	- n	1.0352	n
43	Tot	Total Penta-Dioxins	0.00	-	-	-	- n	-	- n	- n	1.0653	n
44	Tot	Total Hexa-Furans	0.00	-	-	-	- n	-	- n	- n	1.0977	n

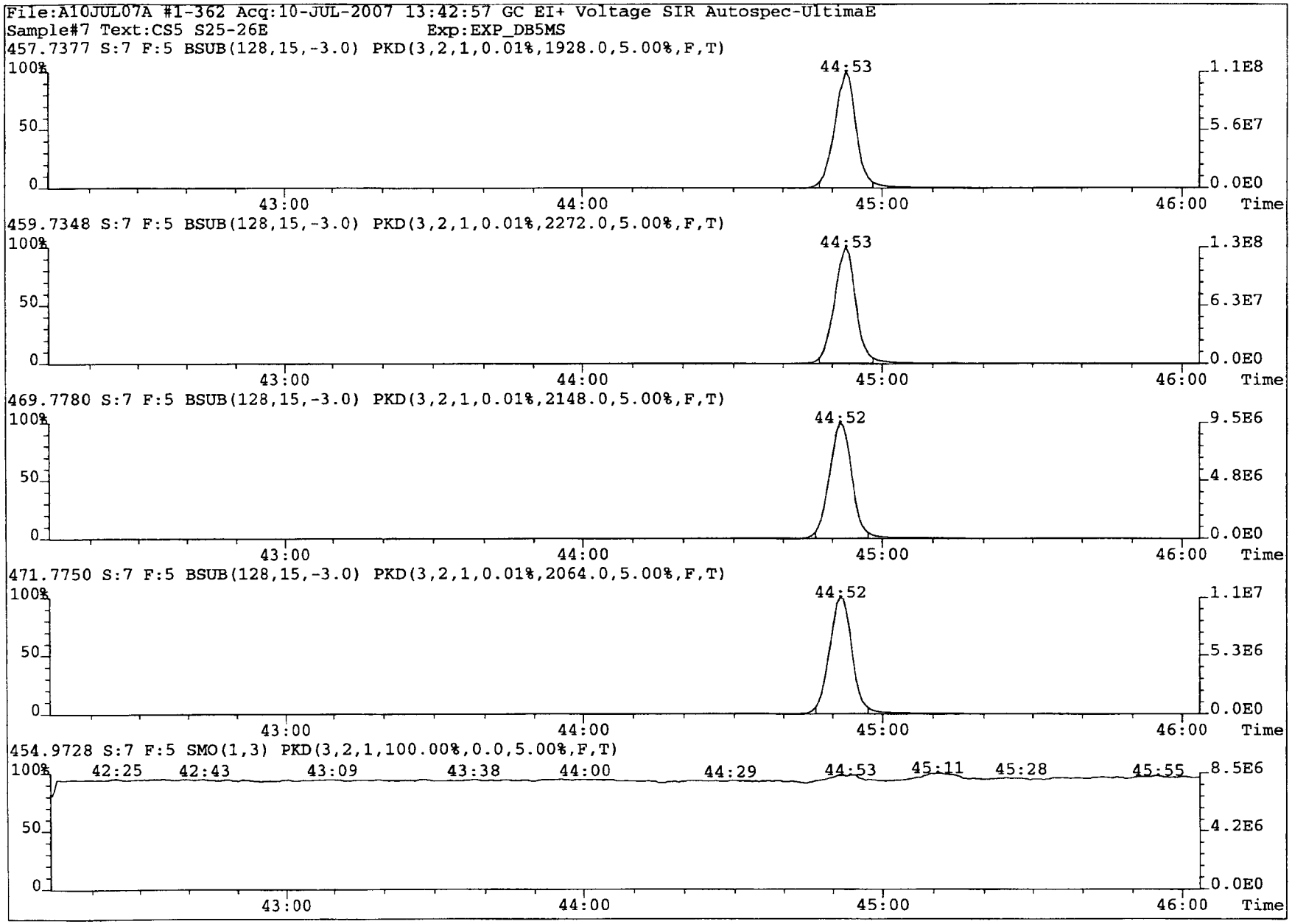
$= 1.092784$

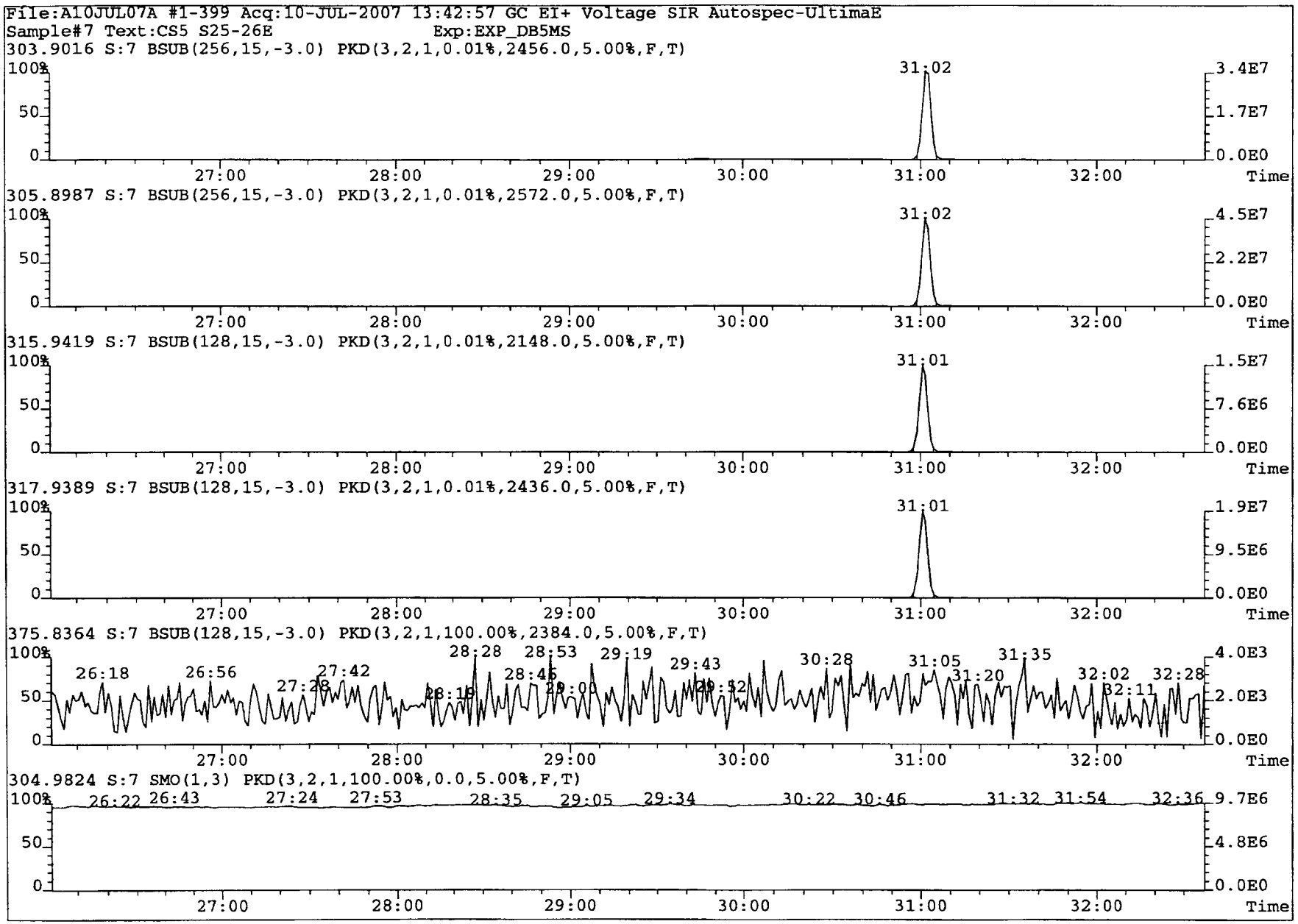

File:A10JUL07A #1-399 Acq:10-JUL-2007 13:42:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:CS5 S25-26E Exp:EXP_DB5MS
319.8965 S:7 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,2332.0,5.00%,F,T)
31:35
3.1E7
1.5E7
0.0E0
321.8936 S:7 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,2376.0,5.00%,F,T)
31:35
4.0E7
2.0E7
0.0E0
331.9368 S:7 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2664.0,5.00%,F,T)
31:10
31:34
1.4E7
7.2E6
0.0E0
333.9339 S:7 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2492.0,5.00%,F,T)
31:10
31:34
1.9E7
9.3E6
0.0E0
327.8847 S:7 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2212.0,5.00%,F,T)
31:35
7.4E7
3.7E7
0.0E0
304.9824 S:7 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:22 26:43 27:24 27:53 28:35 29:05 29:34 30:22 30:46 31:32 31:54 32:36
9.7E6
4.8E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time

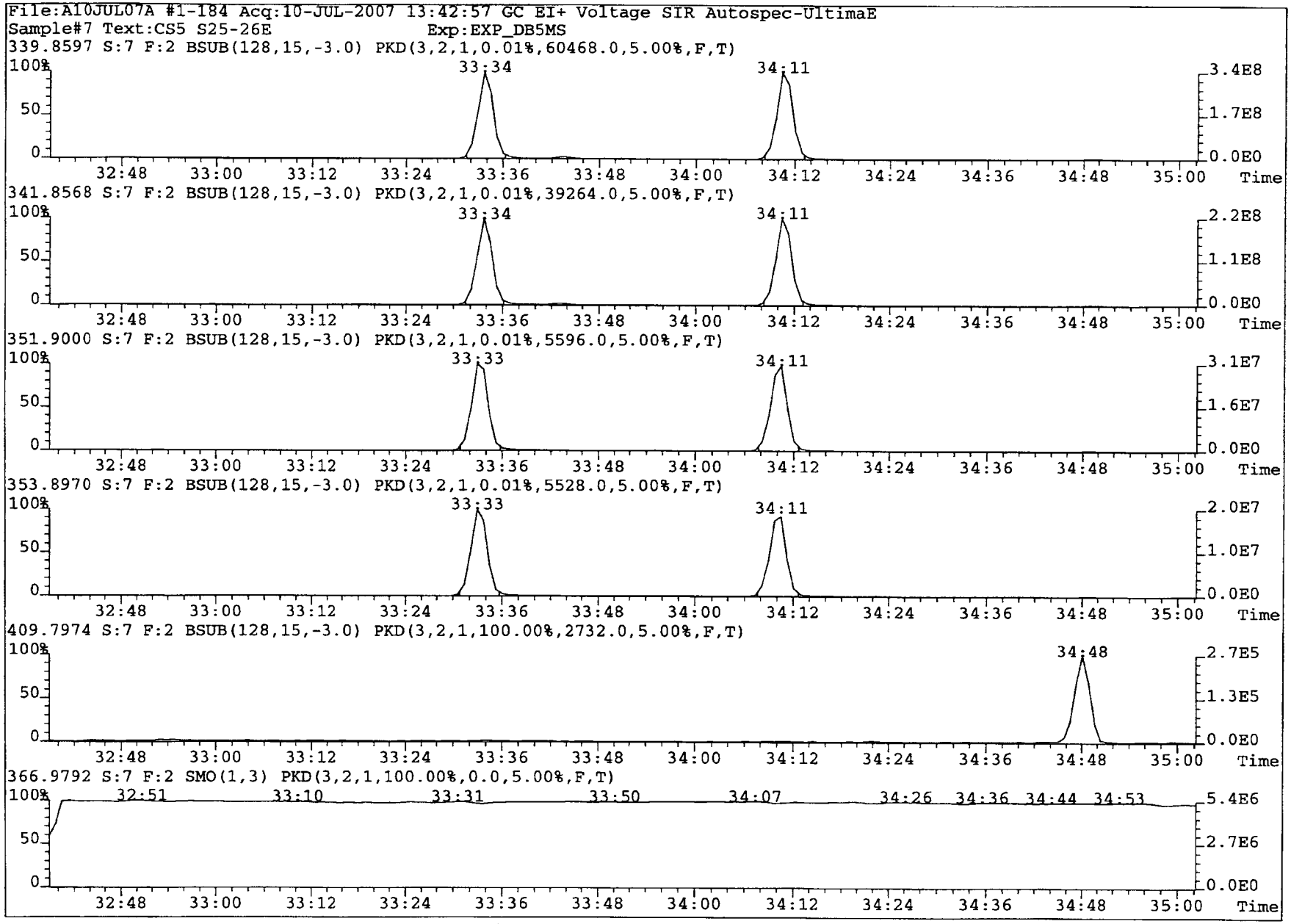

File:A10JUL07A #1-184 Acq:10-JUL-2007 13:42:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:CS5 S25-26E Exp:EXP_DB5MS
355.8546 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2192.0,5.00%,F,T)
34:22
2.1E8
1.1E8
0.0E0
357.8517 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2824.0,5.00%,F,T)
34:22
1.4E8
6.9E7
0.0E0
367.8949 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1532.0,5.00%,F,T)
34:21
2.0E7
1.0E7
0.0E0
369.8919 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2296.0,5.00%,F,T)
34:21
1.3E7
6.3E6
0.0E0
366.9792 S:7 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:51 33:10 33:31 33:50 34:07 34:26 34:36 34:44 34:53
5.4E6
2.7E6
0.0E0
100%
50
0
32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00
Time

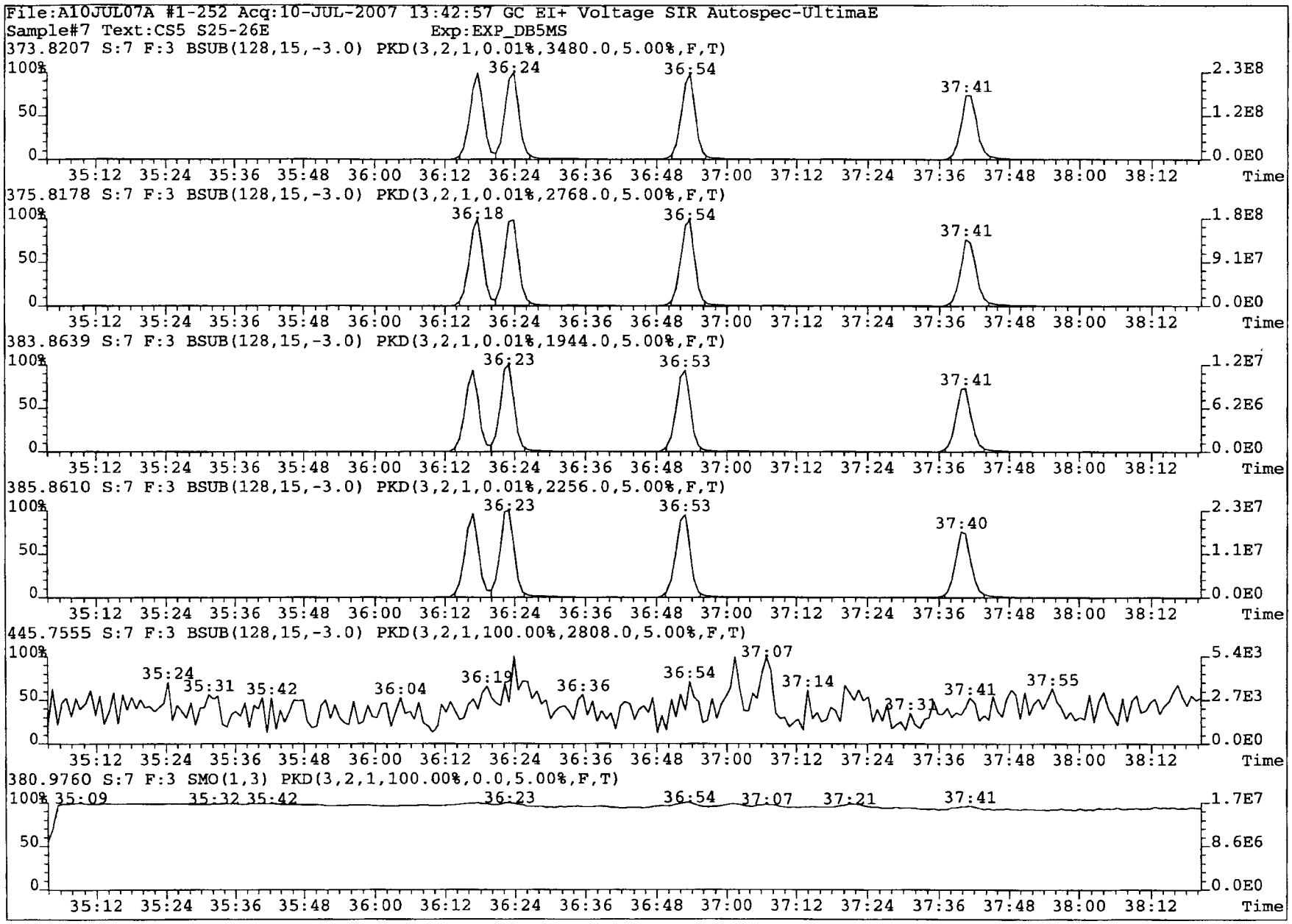

File:A10JUL07A #1-252 Acq:10-JUL-2007 13:42:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:CS5 S25-26E Exp:EXP_DB5MS
389.8156 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2584.0,5.00%,F,T)
37:06
37:21
1.5E8
7.5E7
0.0E0
391.8127 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2048.0,5.00%,F,T)
37:06
37:21
1.2E8
6.0E7
0.0E0
401.8559 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2592.0,5.00%,F,T)
37:05
37:20
1.5E7
7.4E6
0.0E0
403.8530 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2256.0,5.00%,F,T)
37:05
37:20
1.2E7
6.0E6
0.0E0
380.9760 S:7 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:09
35:32
35:42
36:23
36:54
37:07
37:21
37:41
1.7E7
8.6E6
0.0E0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

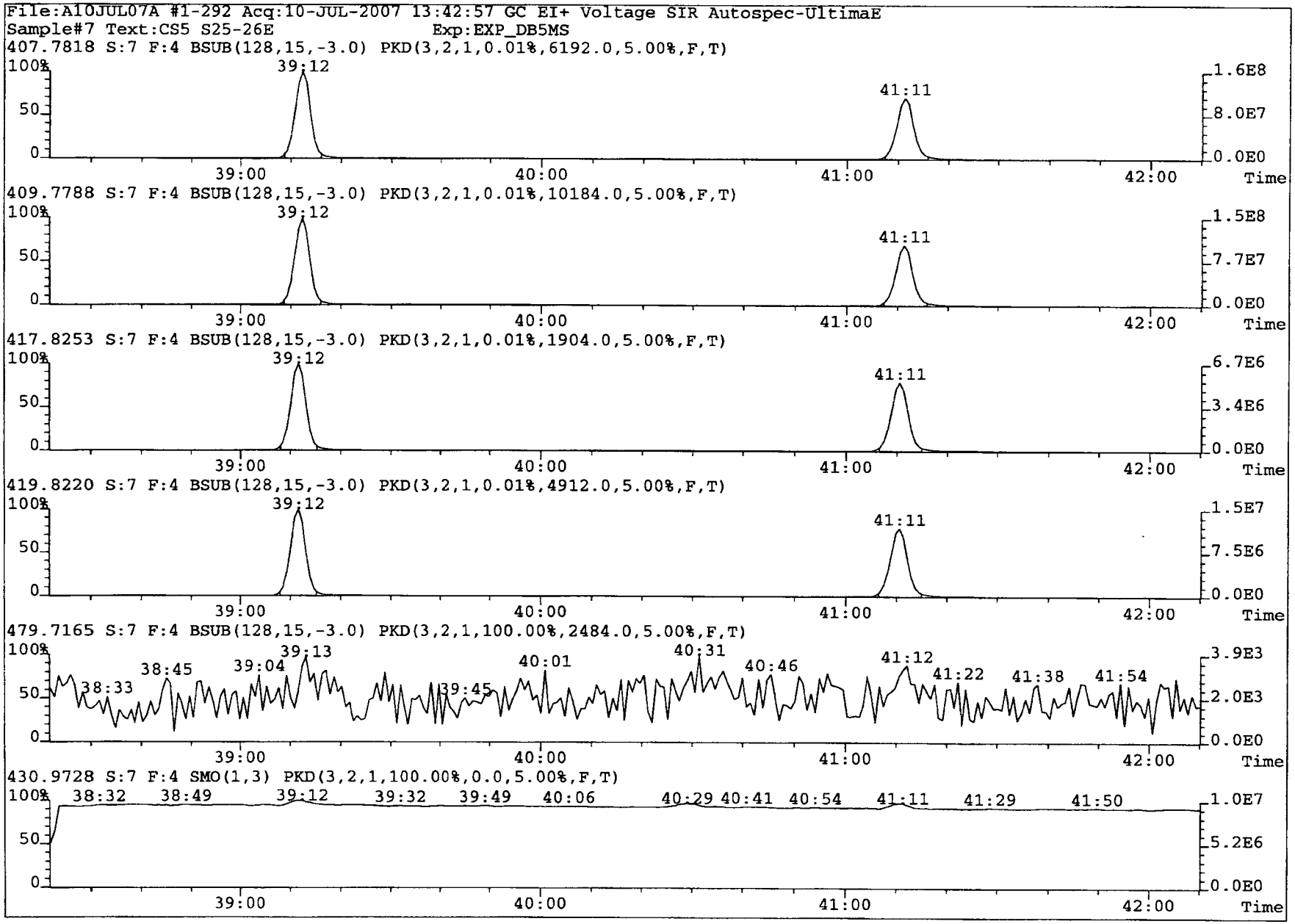

File:A10JUL07A #1-292 Acq:10-JUL-2007 13:42:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:CS5 S25-26E Exp:EXP_DB5MS
423.7767 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2476.0,5.00%,F,T)
40:30
9.1E7
4.5E7
0.0E0
425.7737 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2452.0,5.00%,F,T)
40:30
8.7E7
4.3E7
0.0E0
435.8169 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2344.0,5.00%,F,T)
40:29
8.1E6
4.1E6
0.0E0
437.8140 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1844.0,5.00%,F,T)
40:29
7.7E6
3.8E6
0.0E0
430.9728 S:7 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:40 38:59 39:12 39:32 39:49 40:06 40:29 40:41 40:54 41:11 41:29 41:50
1.0E7
5.2E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

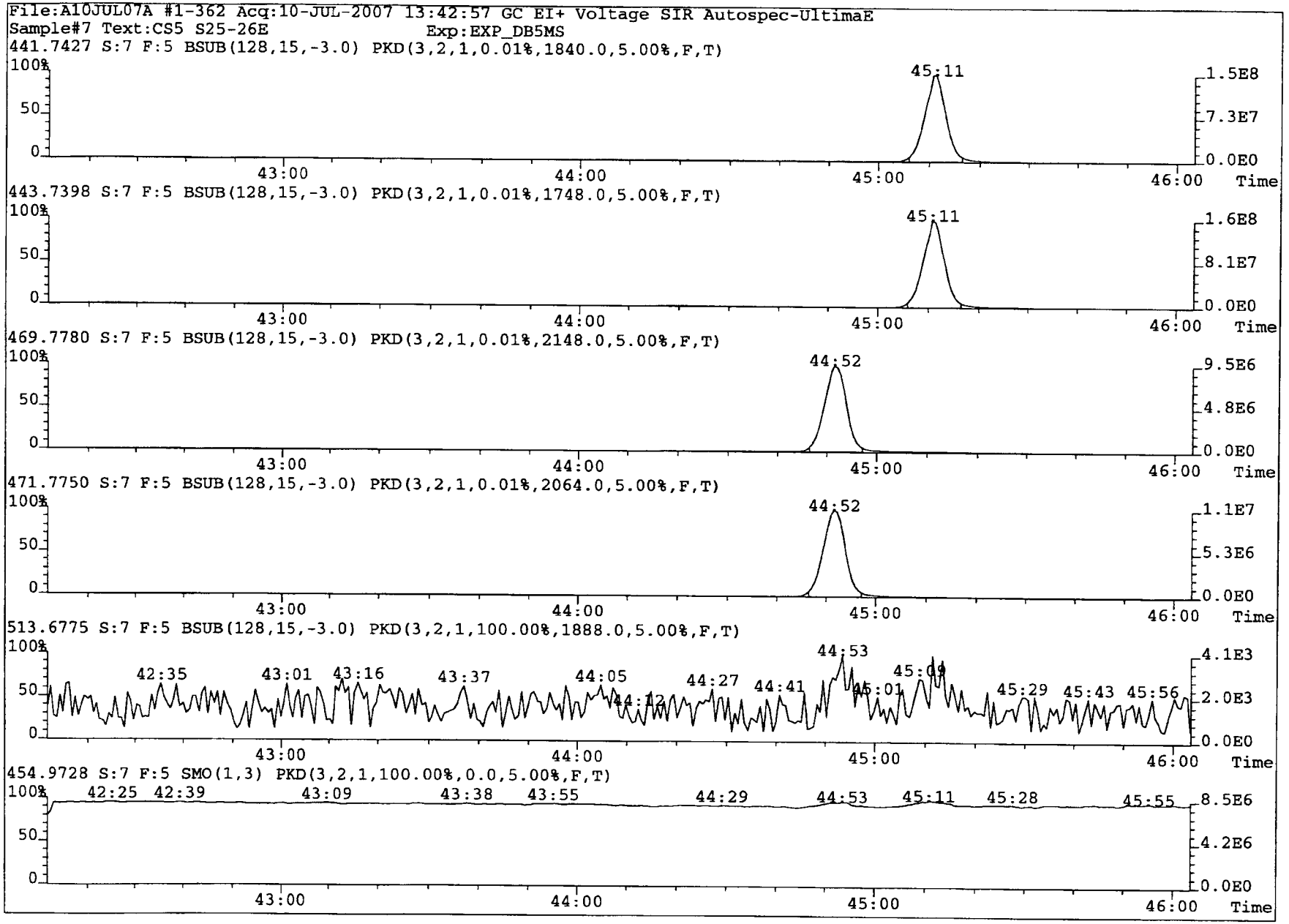

File:A10JUL07A #1-362 Acq:10-JUL-2007 13:42:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:CS5 S25-26E Exp:EXP_DB5MS
457.7377 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1928.0,5.00%,F,T)
44:53
1.1E8
5.6E7
0.0E0
459.7348 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2272.0,5.00%,F,T)
44:53
1.3E8
6.3E7
0.0E0
469.7780 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2148.0,5.00%,F,T)
44:52
9.5E6
4.8E6
0.0E0
471.7750 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2064.0,5.00%,F,T)
44:52
1.1E7
5.3E6
0.0E0
454.9728 S:7 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:25 42:43 43:09 43:38 44:00 44:29 44:53 45:11 45:28 45:55
8.5E6
4.2E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time


File:A10JUL07A #1-399 Acq:10-JUL-2007 13:42:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:CS5 S25-26E Exp:EXP_DB5MS
303.9016 S:7 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,2456.0,5.00%,F,T)
31:02
3.4E7
1.7E7
0.0E0
305.8987 S:7 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,2572.0,5.00%,F,T)
31:02
4.5E7
2.2E7
0.0E0
315.9419 S:7 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2148.0,5.00%,F,T)
31:01
1.5E7
7.6E6
0.0E0
317.9389 S:7 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2436.0,5.00%,F,T)
31:01
1.9E7
9.5E6
0.0E0
375.8364 S:7 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2384.0,5.00%,F,T)
26:18 26:56 27:42 28:28 28:53 29:19 29:43 30:28 31:05 31:35 31:20 32:02 32:28 32:11
4.0E3
2.0E3
0.0E0
304.9824 S:7 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:22 26:43 27:24 27:53 28:35 29:05 29:34 30:22 30:46 31:32 31:54 32:36
9.7E6
4.8E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time


File:A10JUL07A #1-184 Acq:10-JUL-2007 13:42:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:CS5 S25-26E Exp:EXP_DB5MS
339.8597 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,60468.0,5.00%,F,T)
33:34
34:11
3.4E8
1.7E8
0.0E0
341.8568 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,39264.0,5.00%,F,T)
33:34
34:11
2.2E8
1.1E8
0.0E0
351.9000 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5596.0,5.00%,F,T)
33:33
34:11
3.1E7
1.6E7
0.0E0
353.8970 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5528.0,5.00%,F,T)
33:33
34:11
2.0E7
1.0E7
0.0E0
409.7974 S:7 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2732.0,5.00%,F,T)
34:48
2.7E5
1.3E5
0.0E0
366.9792 S:7 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:51
33:10
33:31
33:50
34:07
34:26
34:36
34:44
34:53
5.4E6
2.7E6
0.0E0
100%
50
0
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time


File:A10JUL07A #1-252 Acq:10-JUL-2007 13:42:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:CS5 S25-26E Exp:EXP_DB5MS
373.8207 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3480.0,5.00%,F,T)
36:24
36:54
37:41
2.3E8
1.2E8
0.0E0
375.8178 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2768.0,5.00%,F,T)
36:18
36:54
37:41
1.8E8
9.1E7
0.0E0
383.8639 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1944.0,5.00%,F,T)
36:23
36:53
37:41
1.2E7
6.2E6
0.0E0
385.8610 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2256.0,5.00%,F,T)
36:23
36:53
37:40
2.3E7
1.1E7
0.0E0
445.7555 S:7 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2808.0,5.00%,F,T)
35:24
35:31
35:42
36:04
36:19
36:36
36:54
37:07
37:14
37:31
37:41
37:55
5.4E3
2.7E3
0.0E0
380.9760 S:7 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:09
35:32
35:42
36:23
36:54
37:07
37:21
37:41
1.7E7
8.6E6
0.0E0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time


File:A10JUL07A #1-292 Acq:10-JUL-2007 13:42:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:CS5 S25-26E Exp:EXP_DB5MS
407.7818 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6192.0,5.00%,F,T)
39:12
41:11
1.6E8
8.0E7
0.0E0
409.7788 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,10184.0,5.00%,F,T)
39:12
41:11
1.5E8
7.7E7
0.0E0
417.8253 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1904.0,5.00%,F,T)
39:12
41:11
6.7E6
3.4E6
0.0E0
419.8220 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4912.0,5.00%,F,T)
39:12
41:11
1.5E7
7.5E6
0.0E0
479.7165 S:7 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,2484.0,5.00%,F,T)
38:33
38:45
39:04
39:13
39:45
40:01
40:31
40:46
41:12
41:22
41:38
41:54
3.9E3
2.0E3
0.0E0
430.9728 S:7 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:32
38:49
39:12
39:32
39:49
40:06
40:29
40:41
40:54
41:11
41:29
41:50
1.0E7
5.2E6
0.0E0
39:00
40:00
41:00
42:00
Time


File:A10JUL07A #1-362 Acq:10-JUL-2007 13:42:57 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 Text:CS5 S25-26E Exp:EXP_DB5MS
441.7427 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1840.0,5.00%,F,T)
45:11
1.5E8
7.3E7
0.0E0
443.7398 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,1748.0,5.00%,F,T)
45:11
1.6E8
8.1E7
0.0E0
469.7780 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2148.0,5.00%,F,T)
44:52
9.5E6
4.8E6
0.0E0
471.7750 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,2064.0,5.00%,F,T)
44:52
1.1E7
5.3E6
0.0E0
513.6775 S:7 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,1888.0,5.00%,F,T)
42:35 43:01 43:16 43:37 44:05 44:27 44:41 44:53 45:01 45:29 45:43 45:56
4.1E3
2.0E3
0.0E0
454.9728 S:7 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:25 42:39 43:09 43:38 43:55 44:29 44:53 45:11 45:28 45:55
8.5E6
4.2E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

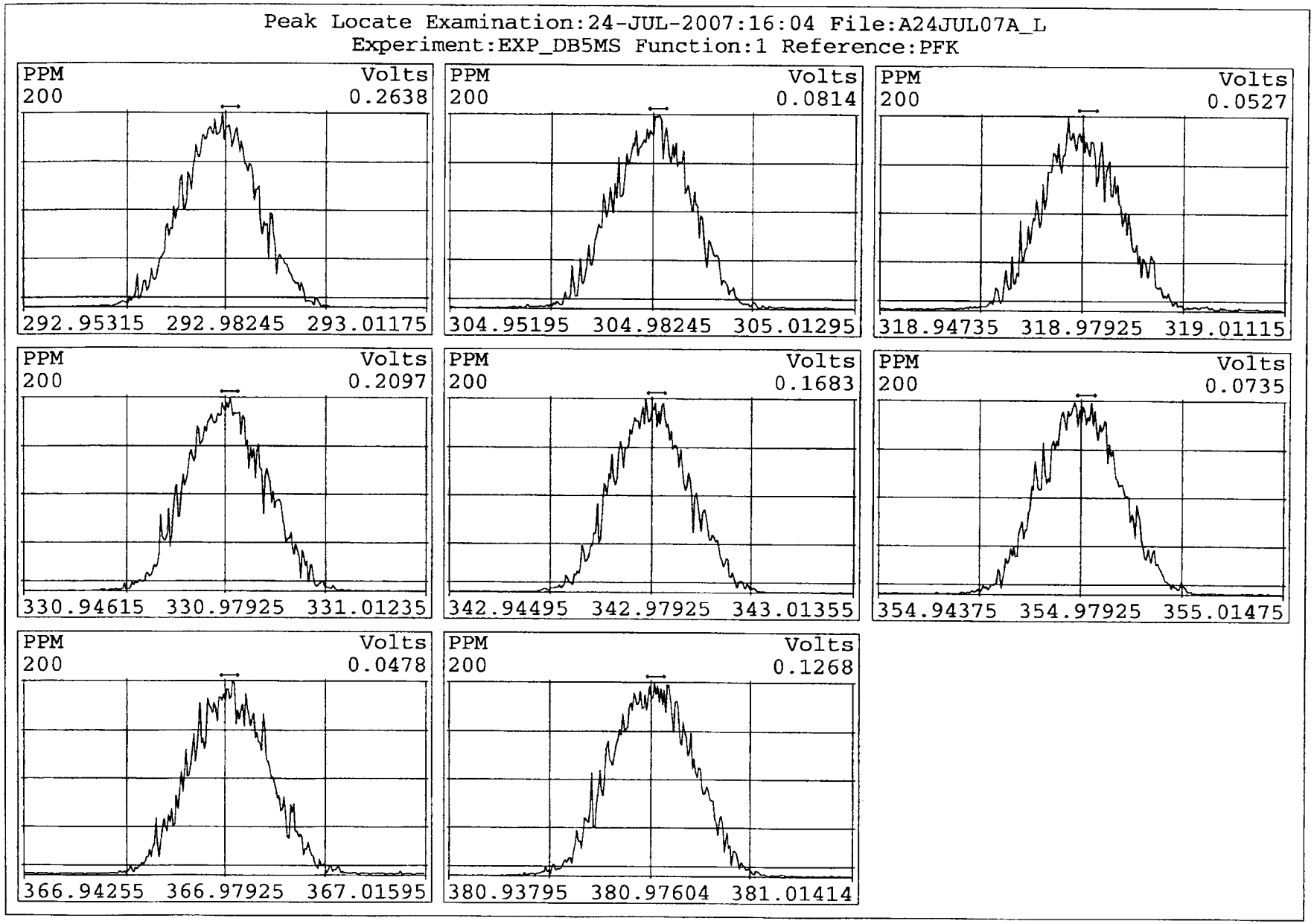
Paradigm Sample Log

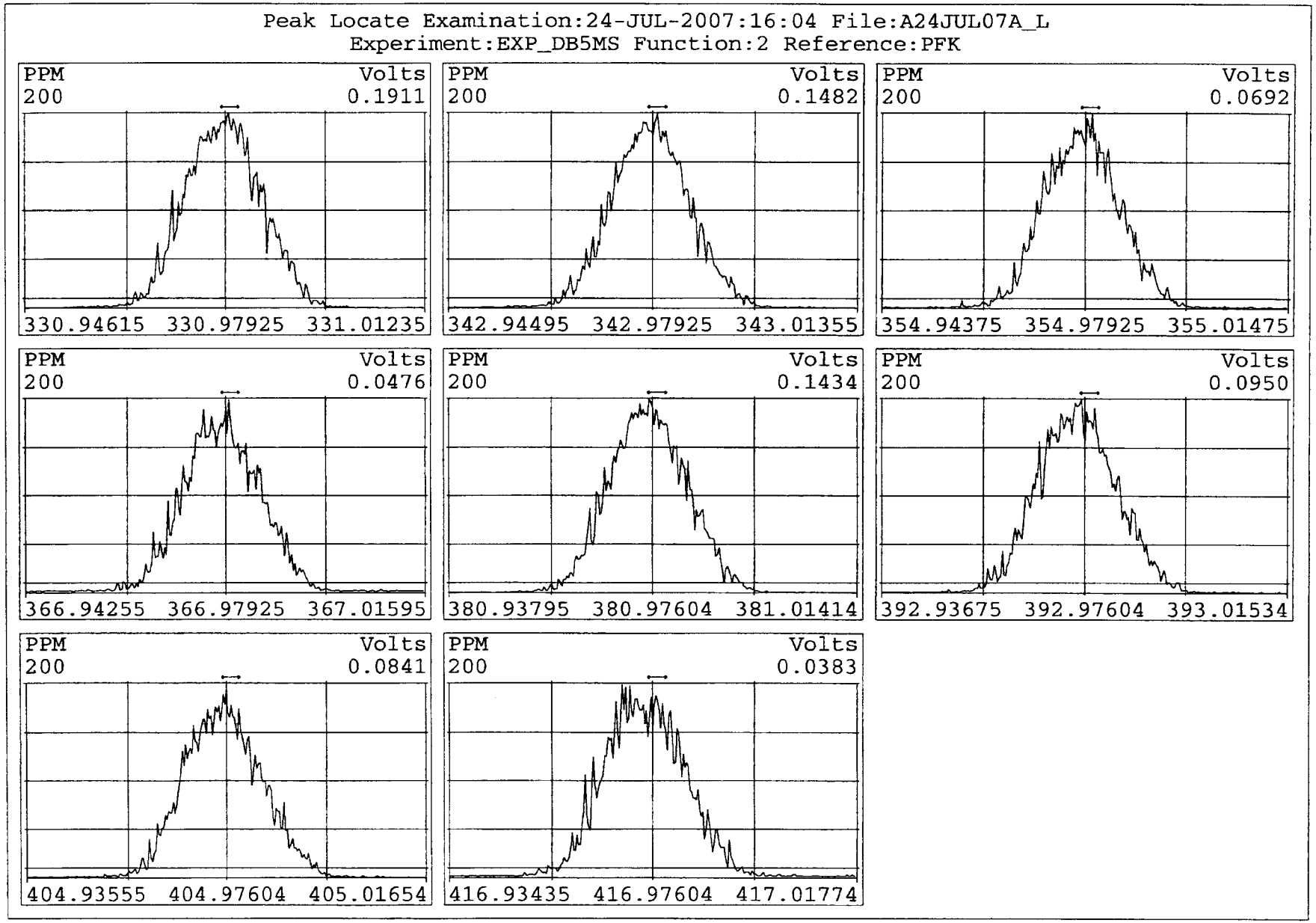
Data File S	Sample ID	Analyst	Acq. Date	Time
a24jul07a;1	;RETCON S27-120F	;JWP	24-JUL-07	16:06:26
a24jul07a;2	;OPR14370	;JWP	24-JUL-07	16:54:46
a24jul07a;3	;OPRD14370	;JWP	24-JUL-07	17:43:07
a24jul07a;4	;LMB14370	;JWP	24-JUL-07	18:31:27
a24jul07a;5	;G431-15-5B	;JWP	24-JUL-07	19:19:49
a24jul07a;6	;G431-15-10B	;JWP	24-JUL-07	20:08:10
a24jul07a;7	;G431-15-15B	;JWP	24-JUL-07	20:56:31
a24jul07a;8	;G431-15-20B	;JWP	24-JUL-07	21:44:52
a24jul07a;9	;G371-161-9B	;JWP	24-JUL-07	22:33:13
a24jul07a;10	;G100-950-3B	;JWP	24-JUL-07	23:21:34
a24jul07a;11	;RETCON S27-120F	;JWP	25-JUL-07	00:09:55

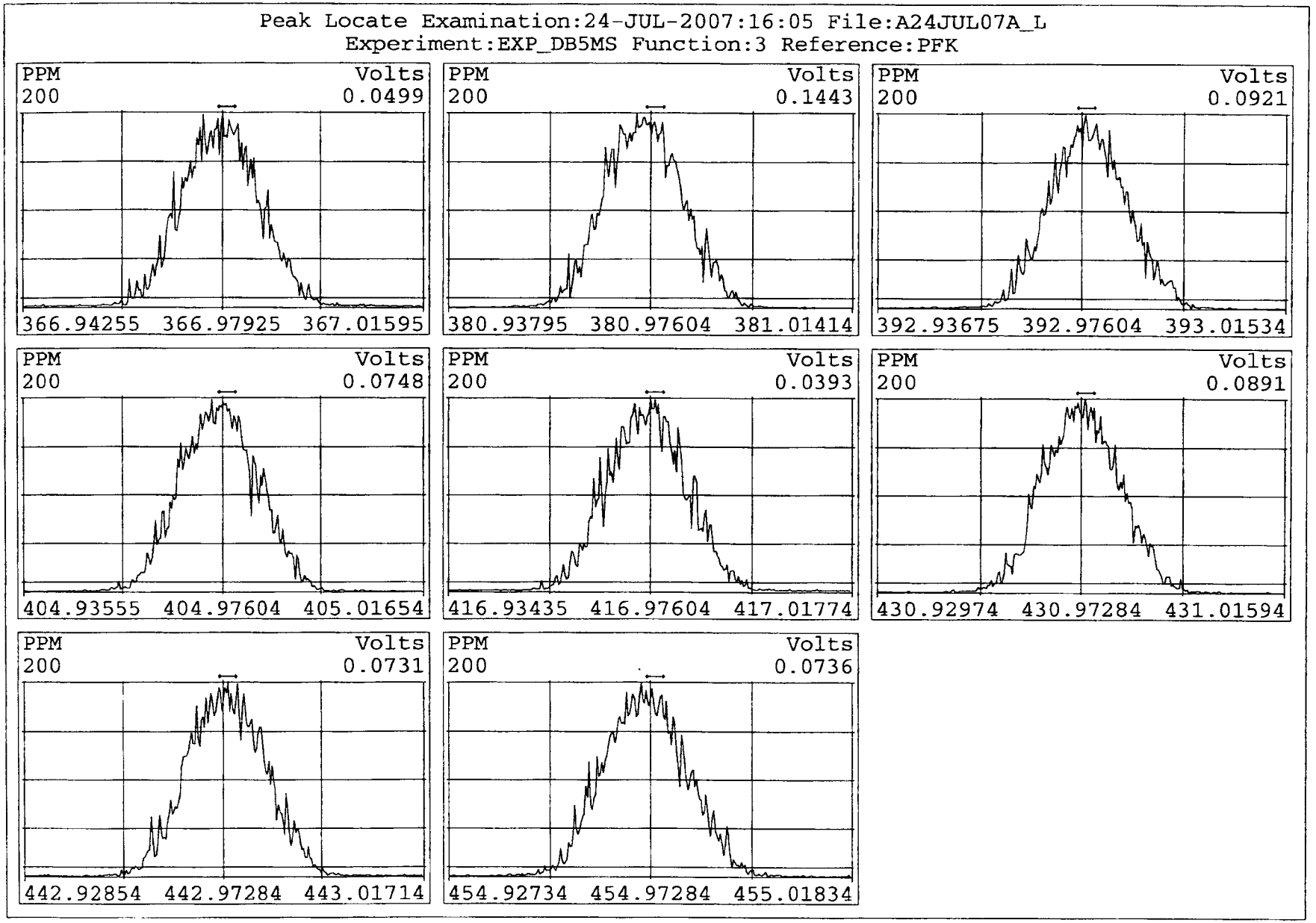
7/25/07

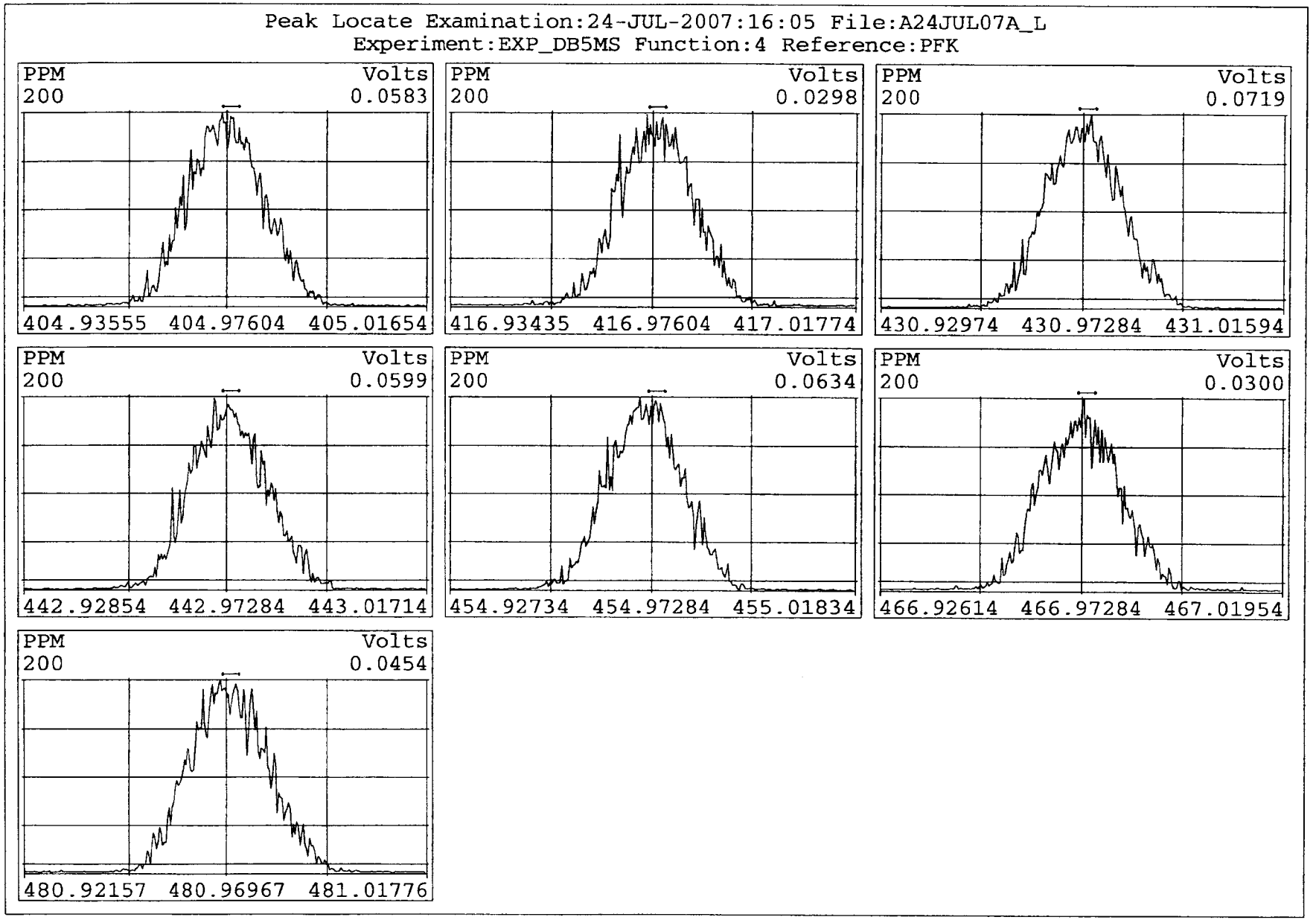
Paradigm Sample Log

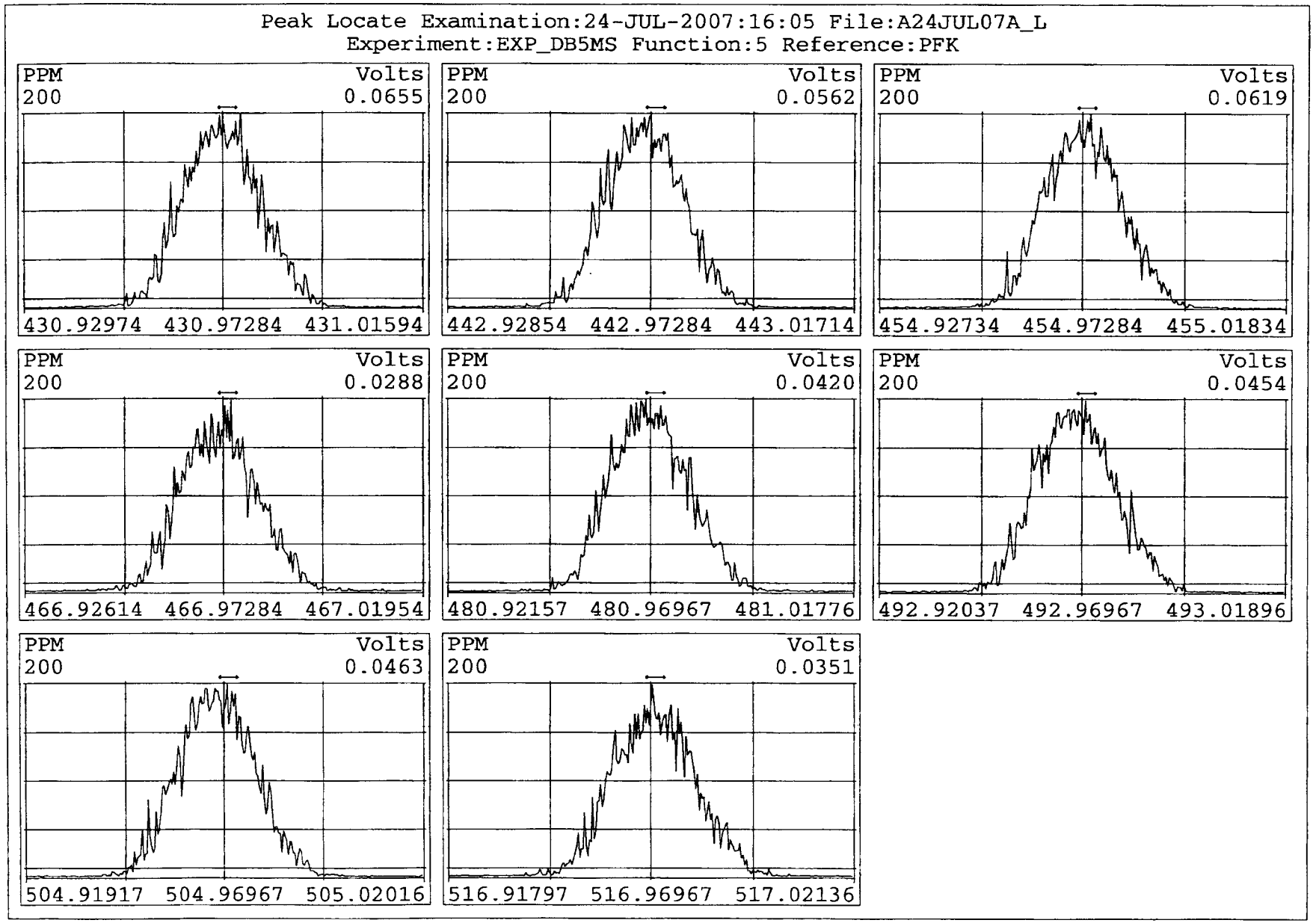
Data File S	Sample ID	Analyst	Acq. Date	Time
a24jul07a_2;1	;OPR14371	;JWP	25-JUL-07	01:02:41
a24jul07a_2;2	;OPRD14371	;JWP	25-JUL-07	01:51:02
a24jul07a_2;3	;LMB14371	;JWP	25-JUL-07	02:39:24
a24jul07a_2;4	;G676-33-5B	;JWP	25-JUL-07	03:27:47
a24jul07a_2;5	;G676-33-10B	;JWP	25-JUL-07	04:16:10
a24jul07a_2;6	;G676-33-15B	;JWP	25-JUL-07	05:04:33
a24jul07a_2;7	;G676-33-20B	;JWP	25-JUL-07	05:52:54
a24jul07a_2;8	;BLK070207A	;JWP	25-JUL-07	06:41:17
a24jul07a_2;9	;RETCON S27-120F	;JWP	25-JUL-07	07:29:38

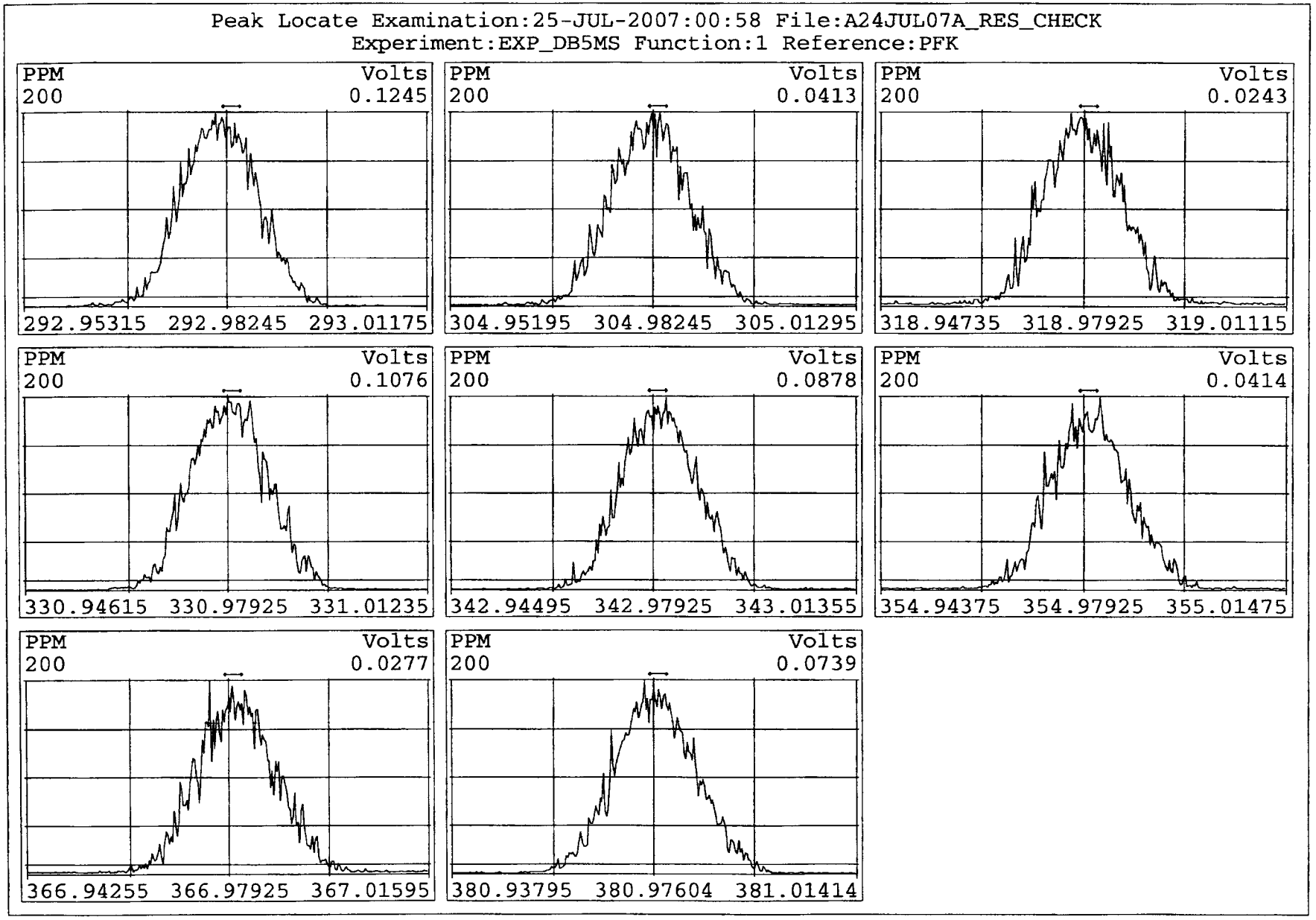

Peak Locate Examination:24-JUL-2007:16:04 File:A24JUL07A_L
Experiment:EXP_DB5MS Function:1 Reference:PFK
PPM
200
Volts
0.2638
292.95315 292.98245 293.01175
PPM
200
Volts
0.0814
304.95195 304.98245 305.01295
PPM
200
Volts
0.0527
318.94735 318.97925 319.01115
PPM
200
Volts
0.2097
330.94615 330.97925 331.01235
PPM
200
Volts
0.1683
342.94495 342.97925 343.01355
PPM
200
Volts
0.0735
354.94375 354.97925 355.01475
PPM
200
Volts
0.0478
366.94255 366.97925 367.01595
PPM
200
Volts
0.1268
380.93795 380.97604 381.01414

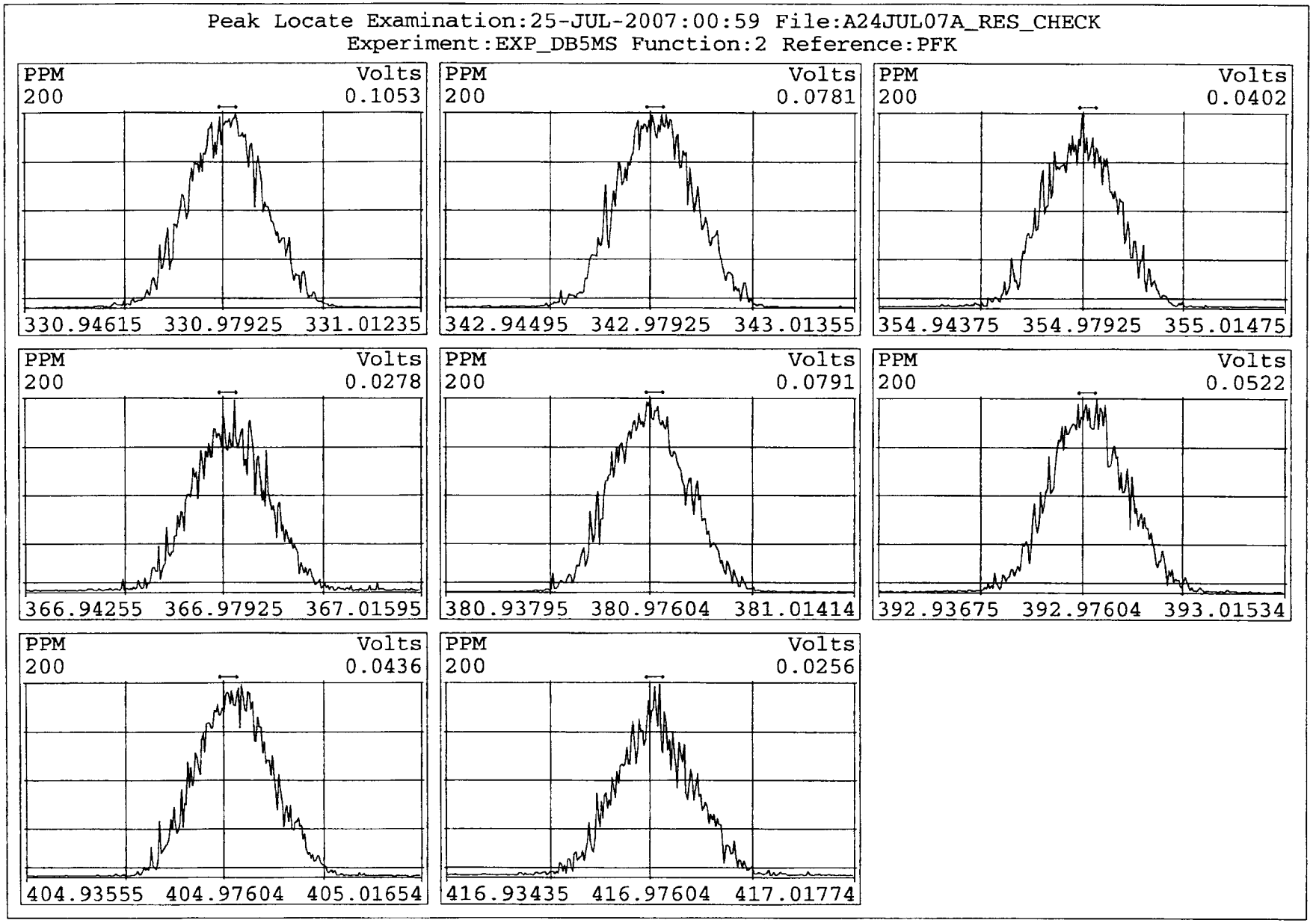

Peak Locate Examination:24-JUL-2007:16:04 File:A24JUL07A_L
Experiment:EXP_DB5MS Function:2 Reference:PFK
PPM
Volts
200
0.1911
330.94615 330.97925 331.01235
PPM
Volts
200
0.1482
342.94495 342.97925 343.01355
PPM
Volts
200
0.0692
354.94375 354.97925 355.01475
PPM
Volts
200
0.0476
366.94255 366.97925 367.01595
PPM
Volts
200
0.1434
380.93795 380.97604 381.01414
PPM
Volts
200
0.0950
392.93675 392.97604 393.01534
PPM
Volts
200
0.0841
404.93555 404.97604 405.01654
PPM
Volts
200
0.0383
416.93435 416.97604 417.01774

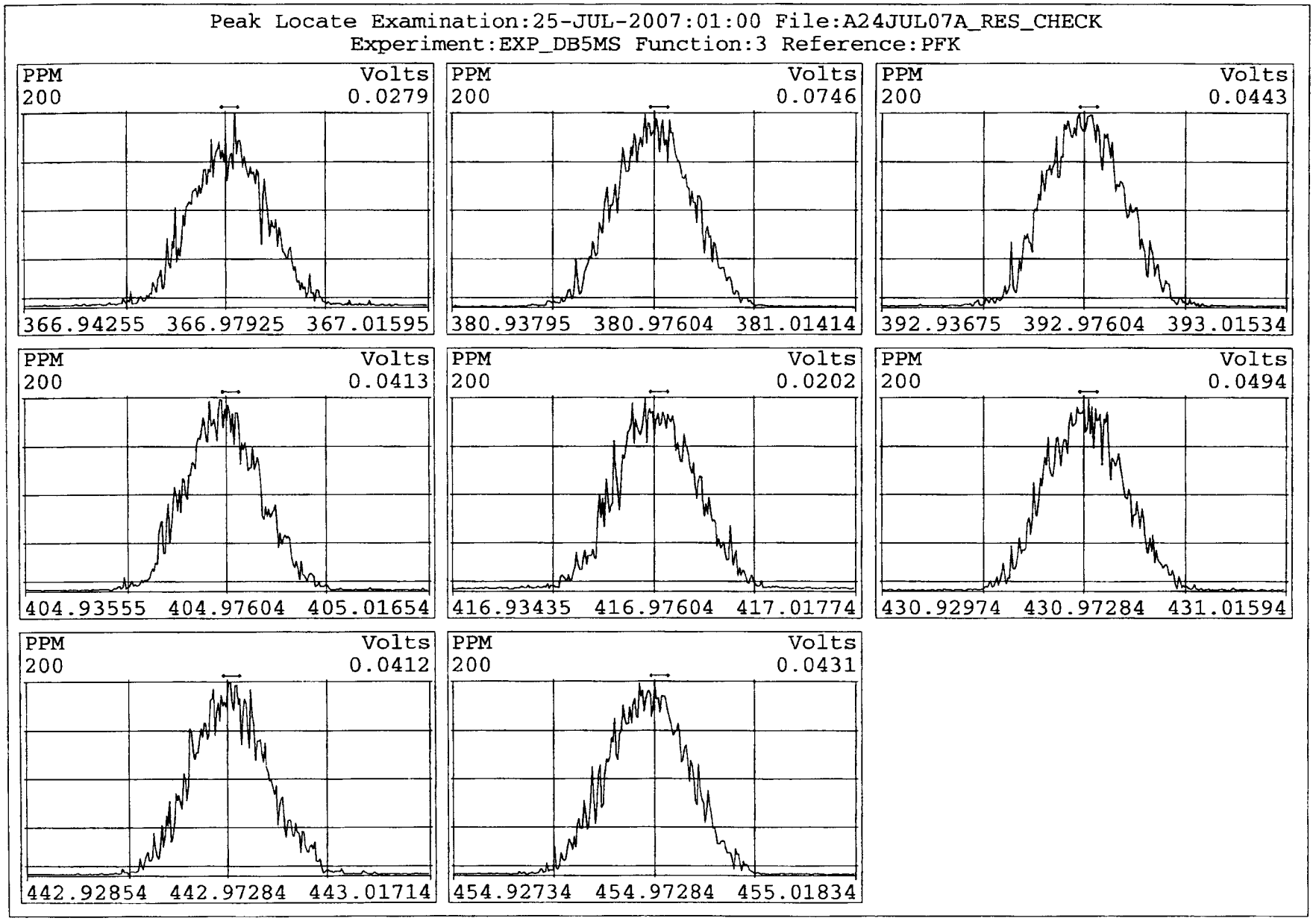

Peak Locate Examination:24-JUL-2007:16:05 File:A24JUL07A_L
Experiment:EXP_DB5MS Function:3 Reference:PFK
PPM
200
Volts
0.0499
366.94255 366.97925 367.01595
PPM
200
Volts
0.1443
380.93795 380.97604 381.01414
PPM
200
Volts
0.0921
392.93675 392.97604 393.01534
PPM
200
Volts
0.0748
404.93555 404.97604 405.01654
PPM
200
Volts
0.0393
416.93435 416.97604 417.01774
PPM
200
Volts
0.0891
430.92974 430.97284 431.01594
PPM
200
Volts
0.0731
442.92854 442.97284 443.01714
PPM
200
Volts
0.0736
454.92734 454.97284 455.01834

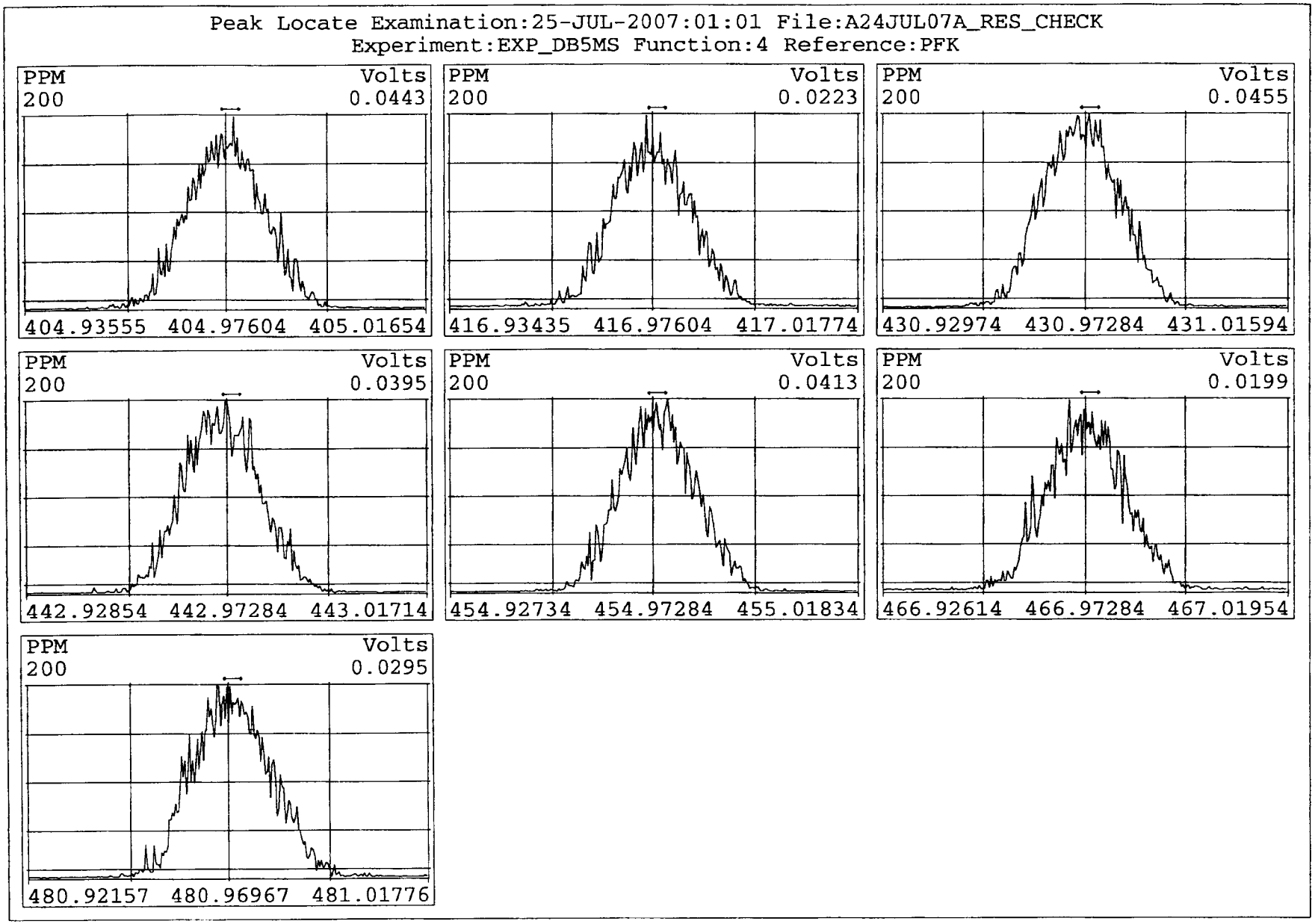

Peak Locate Examination:24-JUL-2007:16:05 File:A24JUL07A_L
Experiment:EXP_DB5MS Function:4 Reference:PFK
PPM
200
Volts
0.0583
404.93555 404.97604 405.01654
PPM
200
Volts
0.0298
416.93435 416.97604 417.01774
PPM
200
Volts
0.0719
430.92974 430.97284 431.01594
PPM
200
Volts
0.0599
442.92854 442.97284 443.01714
PPM
200
Volts
0.0634
454.92734 454.97284 455.01834
PPM
200
Volts
0.0300
466.92614 466.97284 467.01954
PPM
200
Volts
0.0454
480.92157 480.96967 481.01776

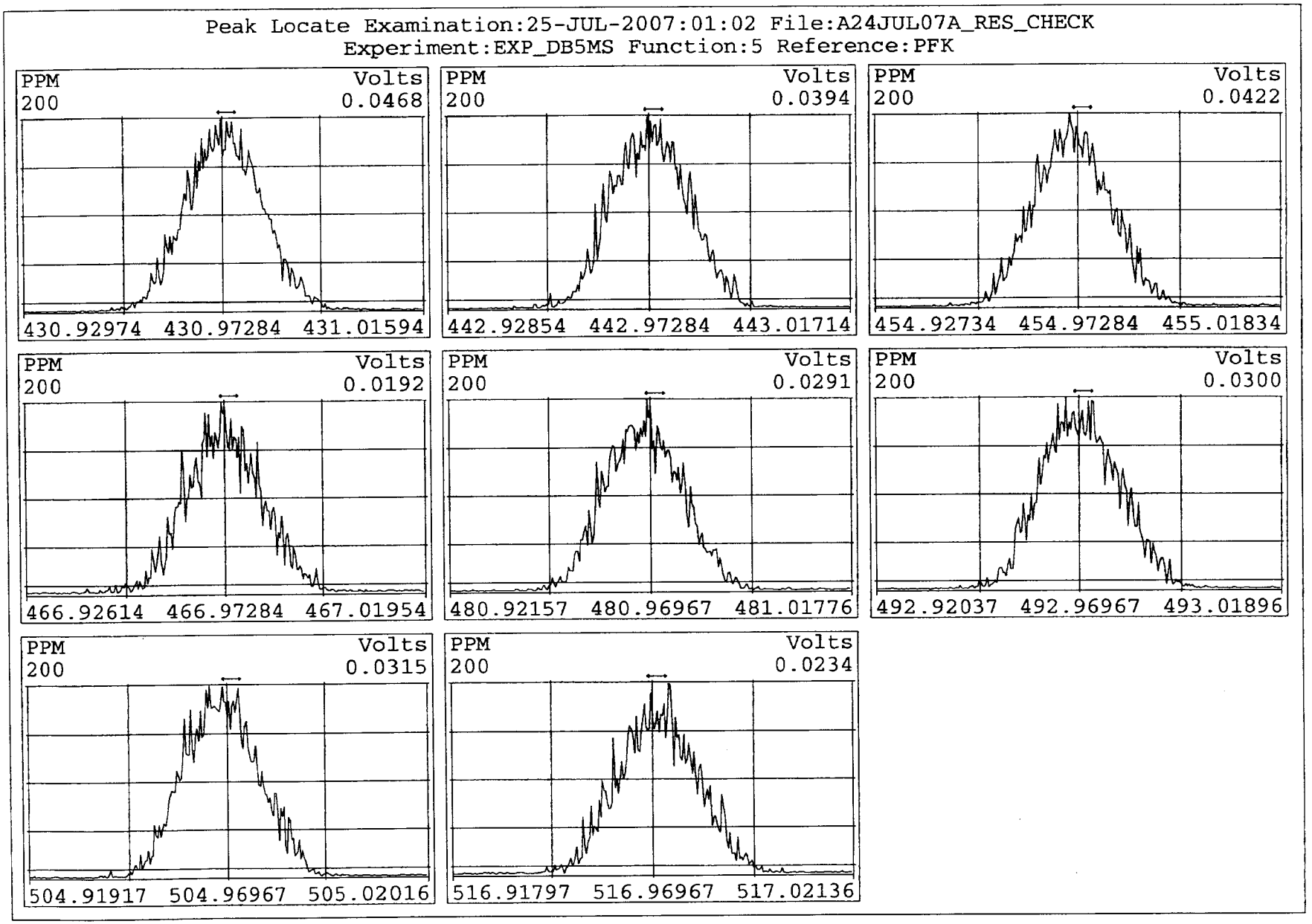

Peak Locate Examination:24-JUL-2007:16:05 File:A24JUL07A_L
Experiment:EXP_DB5MS Function:5 Reference:PFK
PPM
200
Volts
0.0655
430.92974 430.97284 431.01594
PPM
200
Volts
0.0562
442.92854 442.97284 443.01714
PPM
200
Volts
0.0619
454.92734 454.97284 455.01834
PPM
200
Volts
0.0288
466.92614 466.97284 467.01954
PPM
200
Volts
0.0420
480.92157 480.96967 481.01776
PPM
200
Volts
0.0454
492.92037 492.96967 493.01896
PPM
200
Volts
0.0463
504.91917 504.96967 505.02016
PPM
200
Volts
0.0351
516.91797 516.96967 517.02136

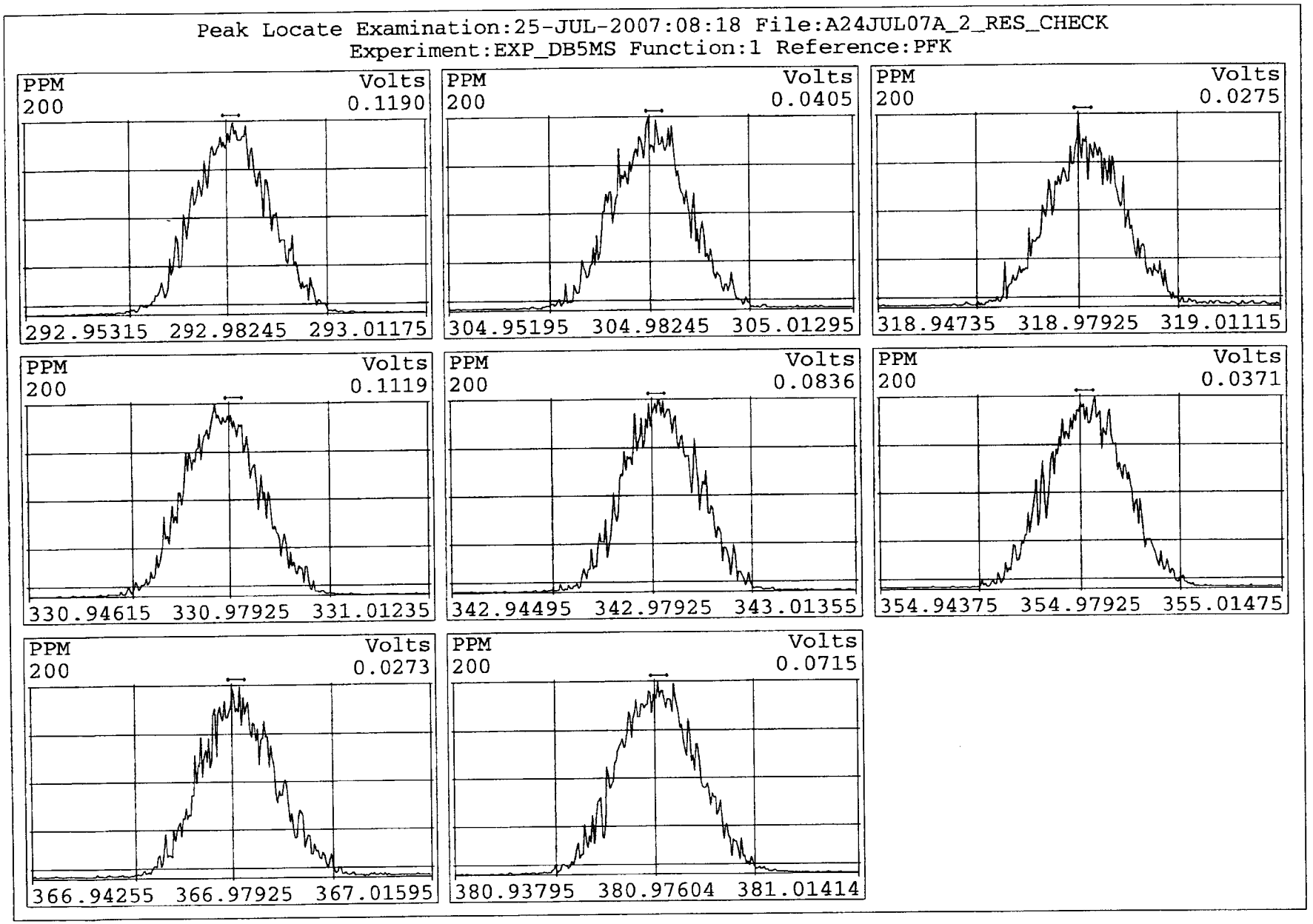

Peak Locate Examination:25-JUL-2007:00:58 File:A24JUL07A_RES_CHECK
Experiment:EXP_DB5MS Function:1 Reference:PFK
PPM
Volts
200
0.1245
292.95315 292.98245 293.01175
PPM
Volts
200
0.0413
304.95195 304.98245 305.01295
PPM
Volts
200
0.0243
318.94735 318.97925 319.01115
PPM
Volts
200
0.1076
330.94615 330.97925 331.01235
PPM
Volts
200
0.0878
342.94495 342.97925 343.01355
PPM
Volts
200
0.0414
354.94375 354.97925 355.01475
PPM
Volts
200
0.0277
366.94255 366.97925 367.01595
PPM
Volts
200
0.0739
380.93795 380.97604 381.01414

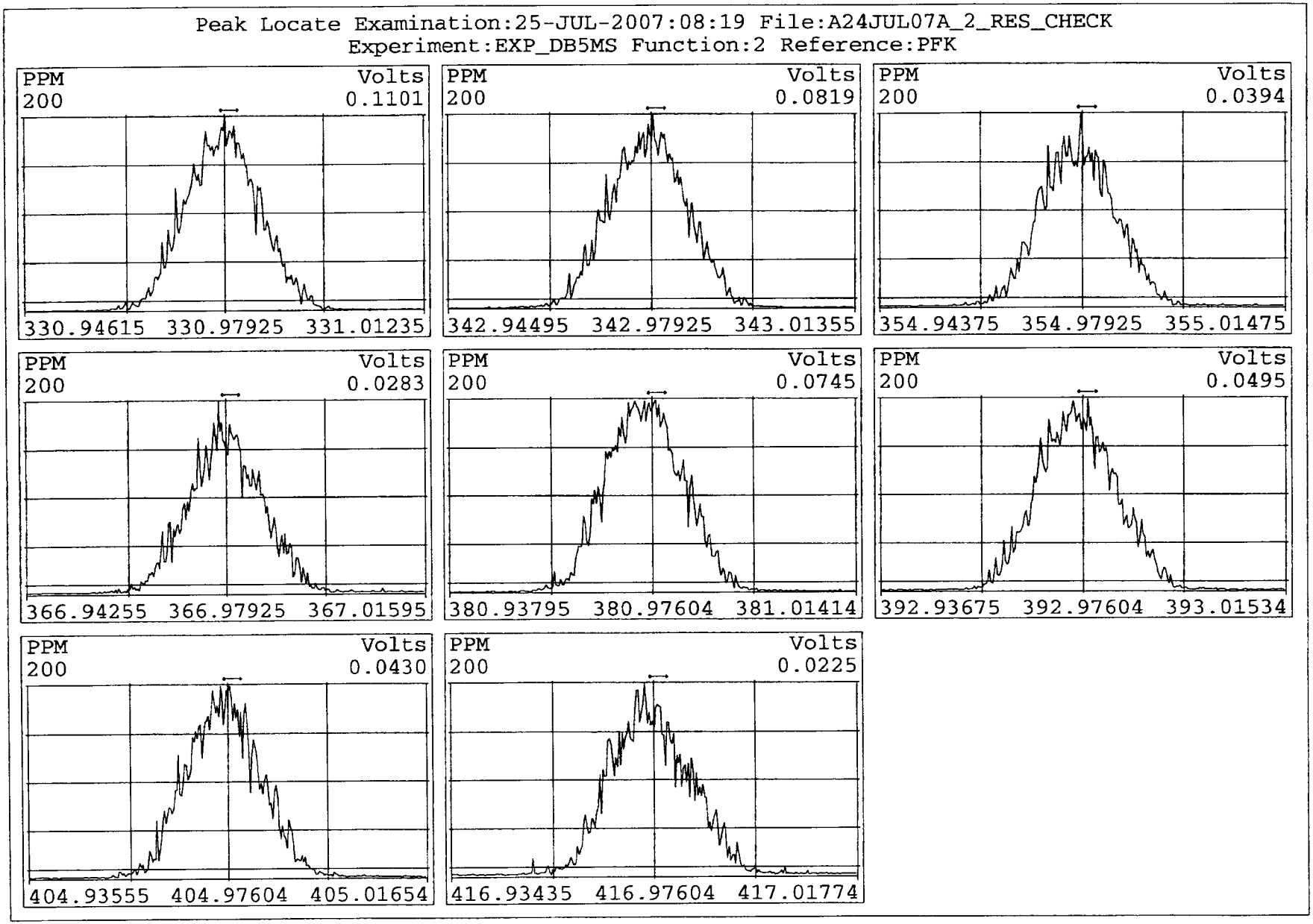

Peak Locate Examination:25-JUL-2007:00:59 File:A24JUL07A_RES_CHECK
Experiment:EXP_DB5MS Function:2 Reference:PFK
PPM
200
Volts
0.1053
330.94615 330.97925 331.01235
PPM
200
Volts
0.0781
342.94495 342.97925 343.01355
PPM
200
Volts
0.0402
354.94375 354.97925 355.01475
PPM
200
Volts
0.0278
366.94255 366.97925 367.01595
PPM
200
Volts
0.0791
380.93795 380.97604 381.01414
PPM
200
Volts
0.0522
392.93675 392.97604 393.01534
PPM
200
Volts
0.0436
404.93555 404.97604 405.01654
PPM
200
Volts
0.0256
416.93435 416.97604 417.01774

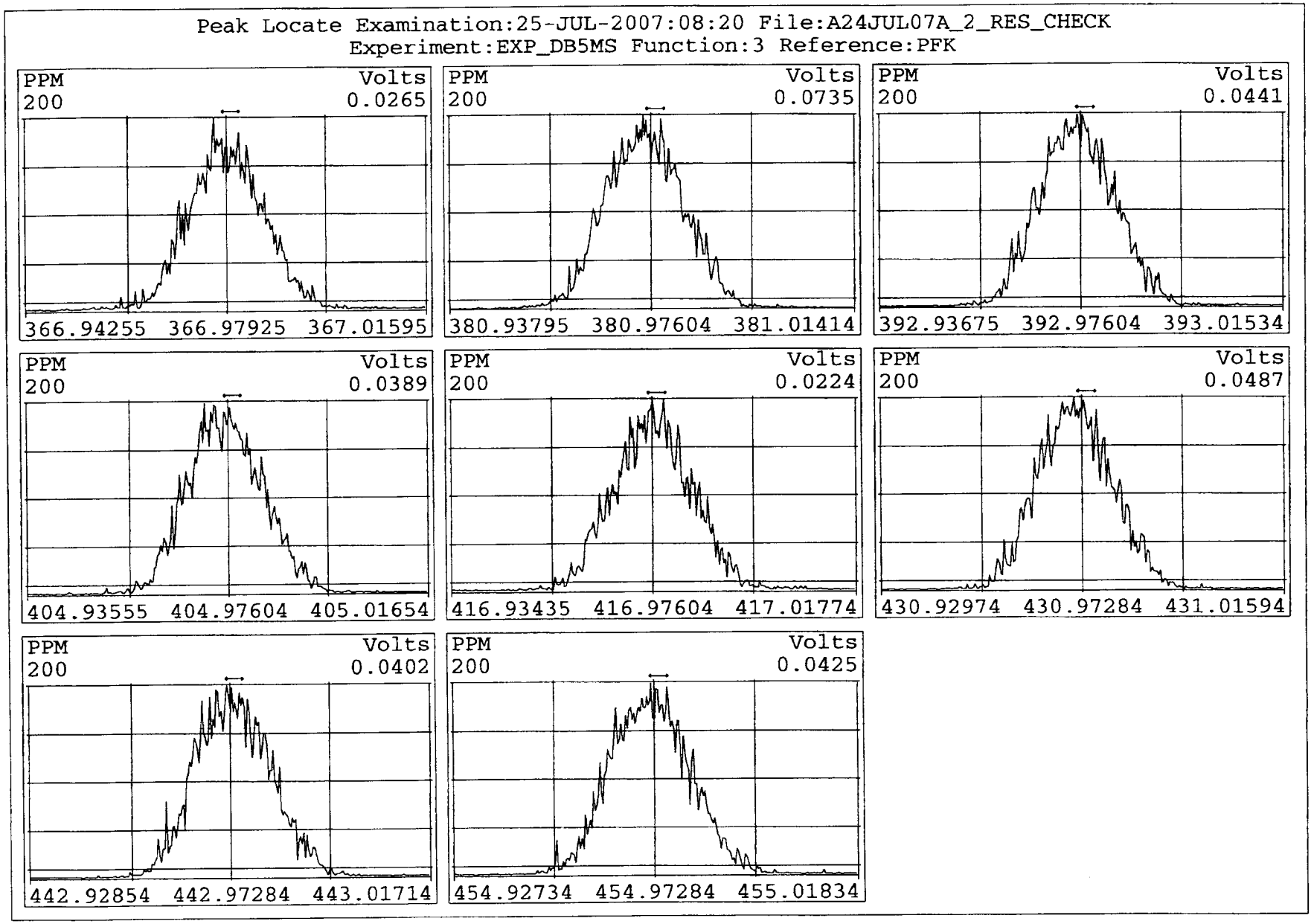

Peak Locate Examination:25-JUL-2007:01:00 File:A24JUL07A_RES_CHECK
Experiment:EXP_DB5MS Function:3 Reference:PFK
PPM
Volts
200
0.0279
366.94255 366.97925 367.01595
PPM
Volts
200
0.0746
380.93795 380.97604 381.01414
PPM
Volts
200
0.0443
392.93675 392.97604 393.01534
PPM
Volts
200
0.0413
404.93555 404.97604 405.01654
PPM
Volts
200
0.0202
416.93435 416.97604 417.01774
PPM
Volts
200
0.0494
430.92974 430.97284 431.01594
PPM
Volts
200
0.0412
442.92854 442.97284 443.01714
PPM
Volts
200
0.0431
454.92734 454.97284 455.01834

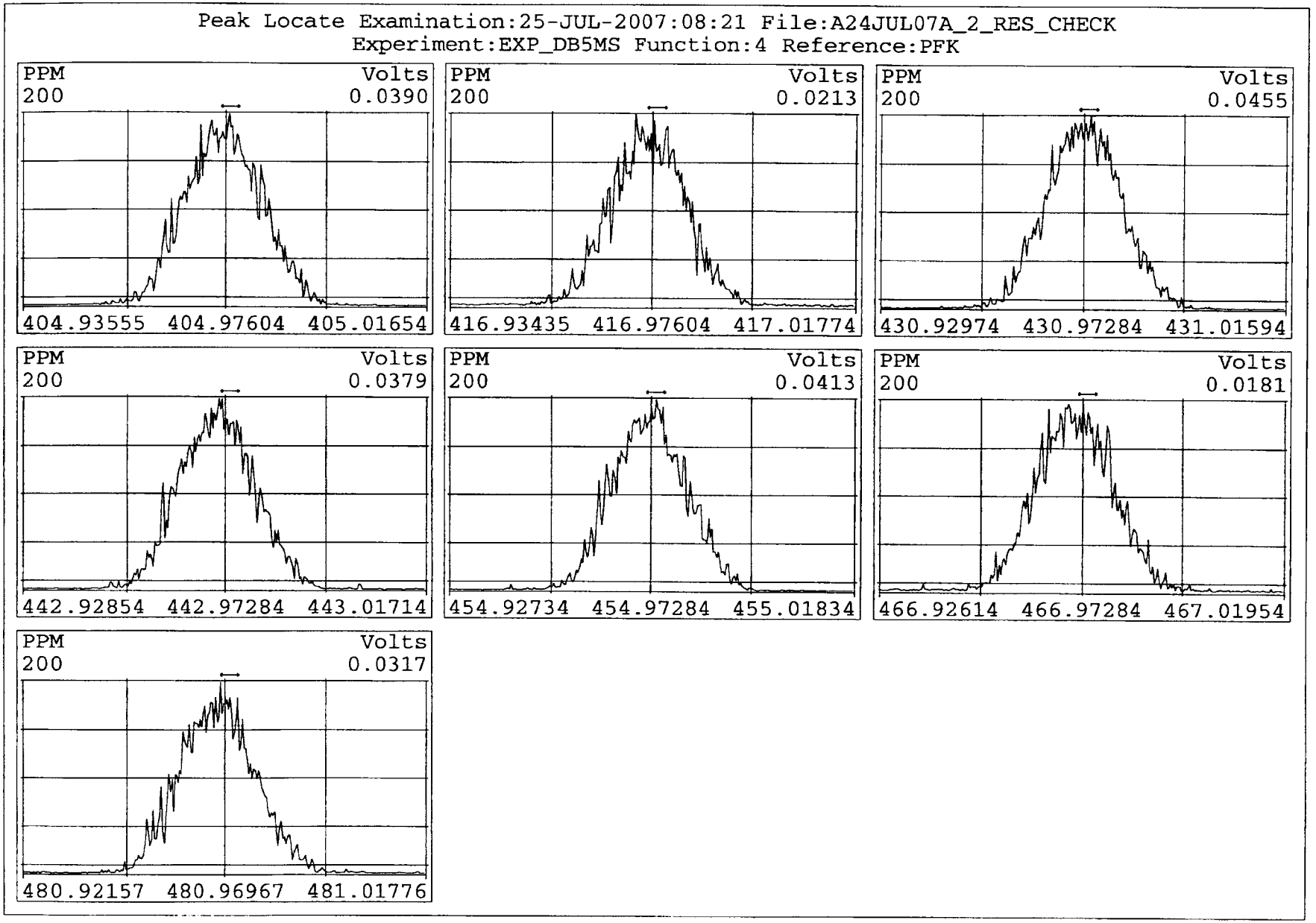

Peak Locate Examination:25-JUL-2007:01:01 File:A24JUL07A_RES_CHECK
Experiment:EXP_DB5MS Function:4 Reference:PFK
PPM
200
Volts
0.0443
404.93555 404.97604 405.01654
PPM
200
Volts
0.0223
416.93435 416.97604 417.01774
PPM
200
Volts
0.0455
430.92974 430.97284 431.01594
PPM
200
Volts
0.0395
442.92854 442.97284 443.01714
PPM
200
Volts
0.0413
454.92734 454.97284 455.01834
PPM
200
Volts
0.0199
466.92614 466.97284 467.01954
PPM
200
Volts
0.0295
480.92157 480.96967 481.01776

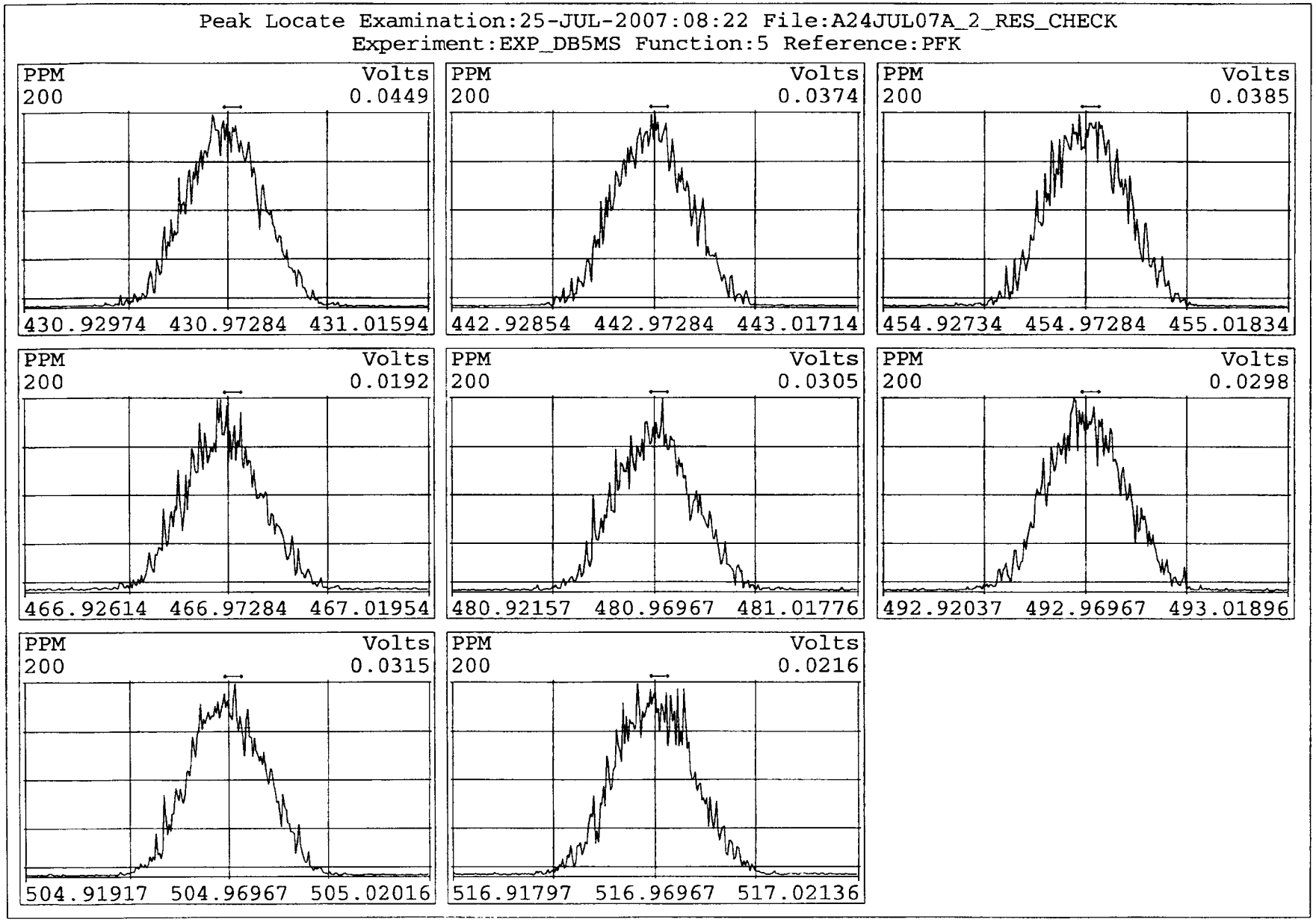

Peak Locate Examination:25-JUL-2007:01:02 File:A24JUL07A_RES_CHECK
Experiment:EXP_DB5MS Function:5 Reference:PFK
PPM
200
Volts
0.0468
430.92974 430.97284 431.01594
PPM
200
Volts
0.0394
442.92854 442.97284 443.01714
PPM
200
Volts
0.0422
454.92734 454.97284 455.01834
PPM
200
Volts
0.0192
466.92614 466.97284 467.01954
PPM
200
Volts
0.0291
480.92157 480.96967 481.01776
PPM
200
Volts
0.0300
492.92037 492.96967 493.01896
PPM
200
Volts
0.0315
504.91917 504.96967 505.02016
PPM
200
Volts
0.0234
516.91797 516.96967 517.02136


Peak Locate Examination:25-JUL-2007:08:18 File:A24JUL07A_2_RES_CHECK
Experiment:EXP_DB5MS Function:1 Reference:PFK
PPM
200
Volts
0.1190
292.95315 292.98245 293.01175
PPM
200
Volts
0.0405
304.95195 304.98245 305.01295
PPM
200
Volts
0.0275
318.94735 318.97925 319.01115
PPM
200
Volts
0.1119
330.94615 330.97925 331.01235
PPM
200
Volts
0.0836
342.94495 342.97925 343.01355
PPM
200
Volts
0.0371
354.94375 354.97925 355.01475
PPM
200
Volts
0.0273
366.94255 366.97925 367.01595
PPM
200
Volts
0.0715
380.93795 380.97604 381.01414


Peak Locate Examination:25-JUL-2007:08:19 File:A24JUL07A_2_RES_CHECK
Experiment:EXP_DB5MS Function:2 Reference:PFK
PPM
200
Volts
0.1101
330.94615 330.97925 331.01235
PPM
200
Volts
0.0819
342.94495 342.97925 343.01355
PPM
200
Volts
0.0394
354.94375 354.97925 355.01475
PPM
200
Volts
0.0283
366.94255 366.97925 367.01595
PPM
200
Volts
0.0745
380.93795 380.97604 381.01414
PPM
200
Volts
0.0495
392.93675 392.97604 393.01534
PPM
200
Volts
0.0430
404.93555 404.97604 405.01654
PPM
200
Volts
0.0225
416.93435 416.97604 417.01774

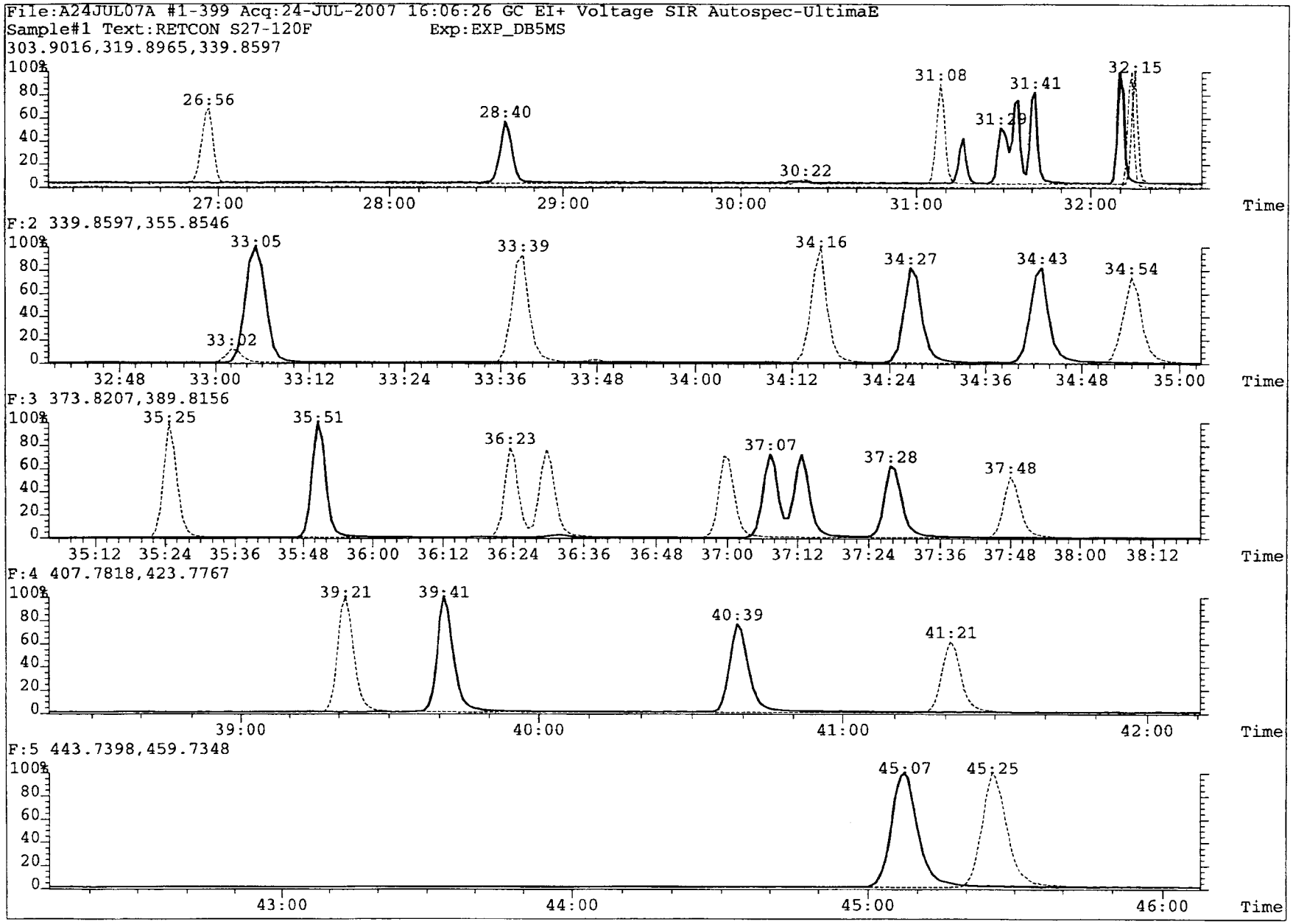

Peak Locate Examination:25-JUL-2007:08:20 File:A24JUL07A_2_RES_CHECK
Experiment:EXP_DB5MS Function:3 Reference:PFK
PPM
200
Volts
0.0265
366.94255 366.97925 367.01595
PPM
200
Volts
0.0735
380.93795 380.97604 381.01414
PPM
200
Volts
0.0441
392.93675 392.97604 393.01534
PPM
200
Volts
0.0389
404.93555 404.97604 405.01654
PPM
200
Volts
0.0224
416.93435 416.97604 417.01774
PPM
200
Volts
0.0487
430.92974 430.97284 431.01594
PPM
200
Volts
0.0402
442.92854 442.97284 443.01714
PPM
200
Volts
0.0425
454.92734 454.97284 455.01834

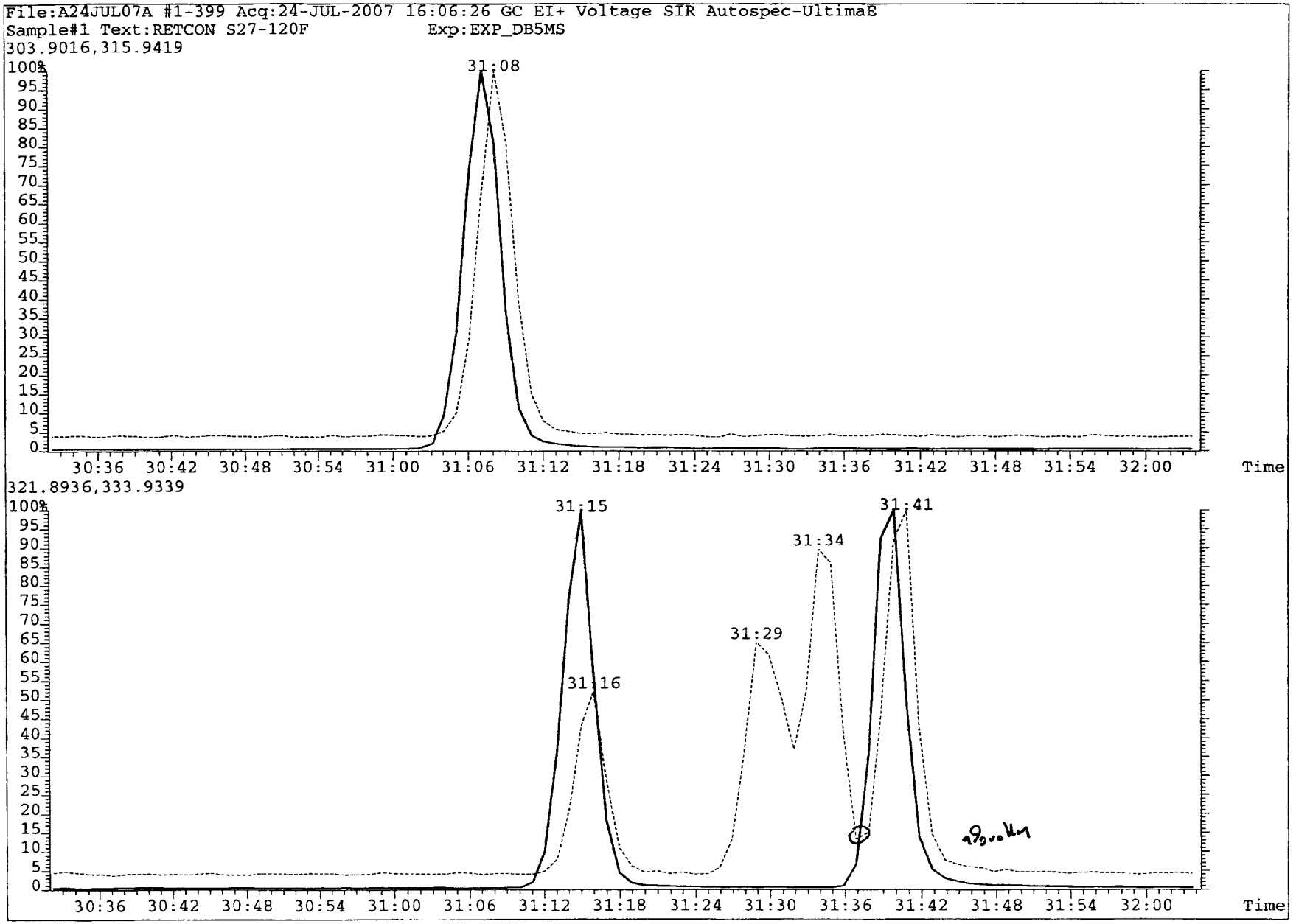

Peak Locate Examination:25-JUL-2007:08:21 File:A24JUL07A_2_RES_CHECK
Experiment:EXP_DB5MS Function:4 Reference:PFK
PPM
200
Volts
0.0390
404.93555 404.97604 405.01654
PPM
200
Volts
0.0213
416.93435 416.97604 417.01774
PPM
200
Volts
0.0455
430.92974 430.97284 431.01594
PPM
200
Volts
0.0379
442.92854 442.97284 443.01714
PPM
200
Volts
0.0413
454.92734 454.97284 455.01834
PPM
200
Volts
0.0181
466.92614 466.97284 467.01954
PPM
200
Volts
0.0317
480.92157 480.96967 481.01776


Peak Locate Examination:25-JUL-2007:08:22 File:A24JUL07A_2_RES_CHECK
Experiment:EXP_DB5MS Function:5 Reference:PFK
PPM
200
Volts
0.0449
430.92974 430.97284 431.01594
PPM
200
Volts
0.0374
442.92854 442.97284 443.01714
PPM
200
Volts
0.0385
454.92734 454.97284 455.01834
PPM
200
Volts
0.0192
466.92614 466.97284 467.01954
PPM
200
Volts
0.0305
480.92157 480.96967 481.01776
PPM
200
Volts
0.0298
492.92037 492.96967 493.01896
PPM
200
Volts
0.0315
504.91917 504.96967 505.02016
PPM
200
Volts
0.0216
516.91797 516.96967 517.02136

Filename ; a24jul07a
Sample ; 1
Acquired ; 24-JUL-07 16:06:26
Processed ; 25-JUL-07 15:50:11
Sample ID ; RETCON S27-120F

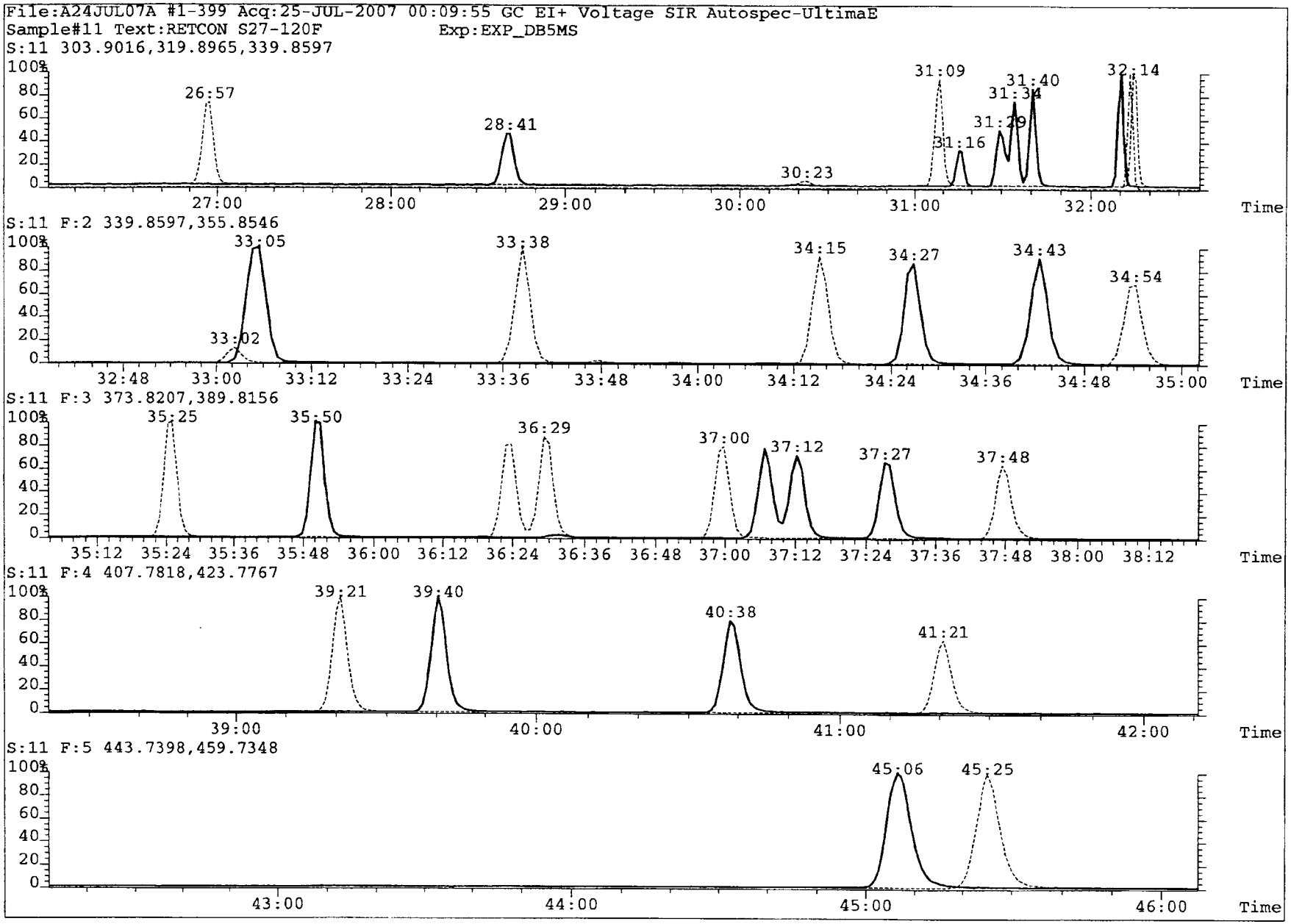
Name	First Eluter RT	Last Eluter RT
TCDD	28:40	32:10
PeCDD	33:05	34:43
HxCDD	35:51	37:28
HpCDD	39:41	40:39
OCDD	45:07	
TCDF	26:56	32:15
PeCDF	32:14	34:54
HxCDF	35:25	37:48
HpCDF	39:21	41:21
OCDF	45:25	

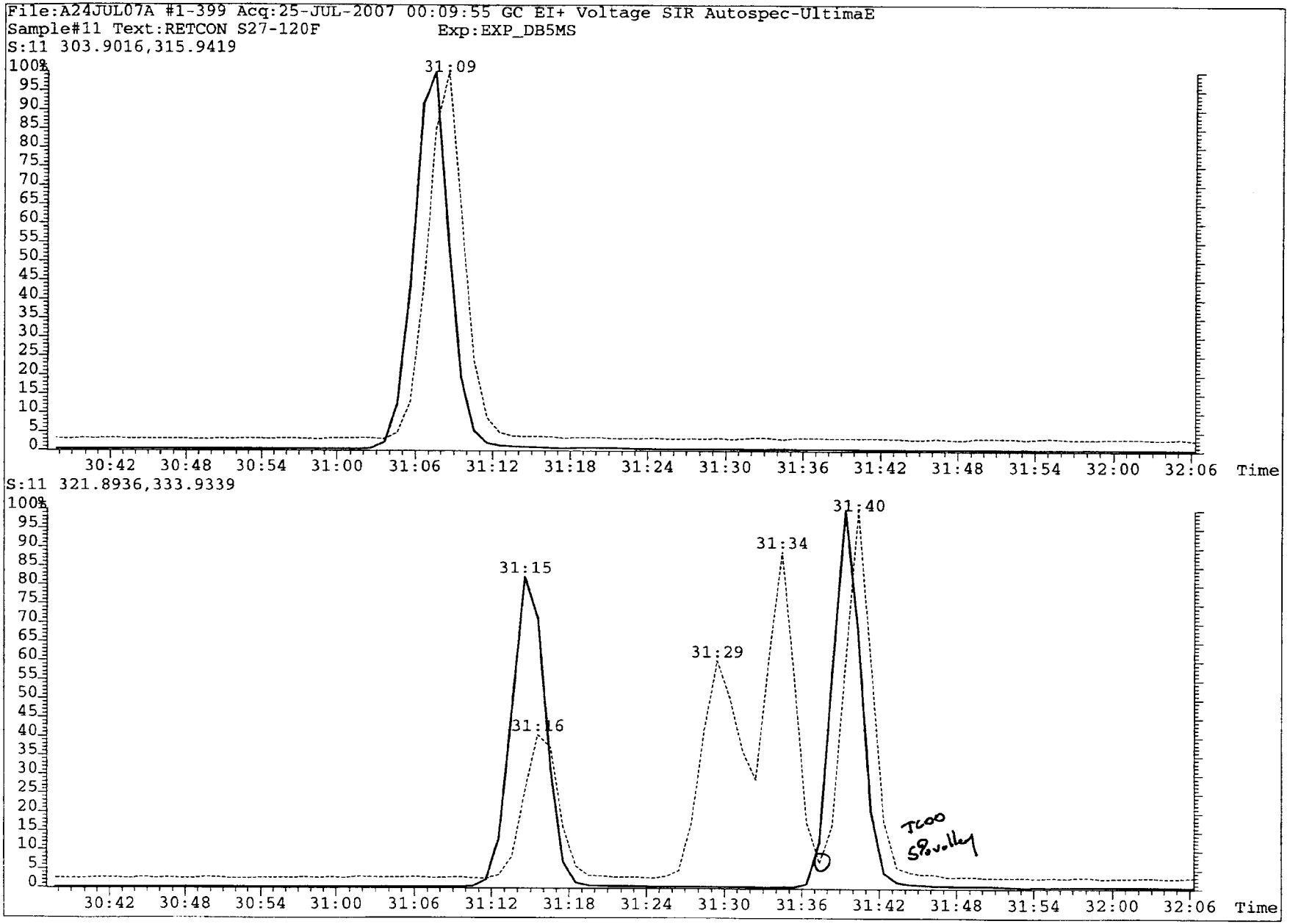

File:A24JUL07A #1-399 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
303.9016,319.8965,339.8597
26:56
28:40
30:22
31:08
31:29
31:41
32:15
Time
F:2 339.8597,355.8546
33:02
33:05
33:39
34:16
34:27
34:43
34:54
Time
F:3 373.8207,389.8156
35:25
35:51
36:23
37:07
37:28
37:48
Time
F:4 407.7818,423.7767
39:21
39:41
40:39
41:21
Time
F:5 443.7398,459.7348
45:07
45:25
Time


File:A24JUL07A #1-399 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
303.9016,315.9419
31:08
321.8936,333.9339
31:15
31:16
31:29
31:34
31:41
30:36 30:42 30:48 30:54 31:00 31:06 31:12 31:18 31:24 31:30 31:36 31:42 31:48 31:54 32:00
Time

Filename ; a24jul07a
Sample ; 11
Acquired ; 25-JUL-07 00:09:55
Processed ; 25-JUL-07 15:50:22
Sample ID ; RETCON S27-120F

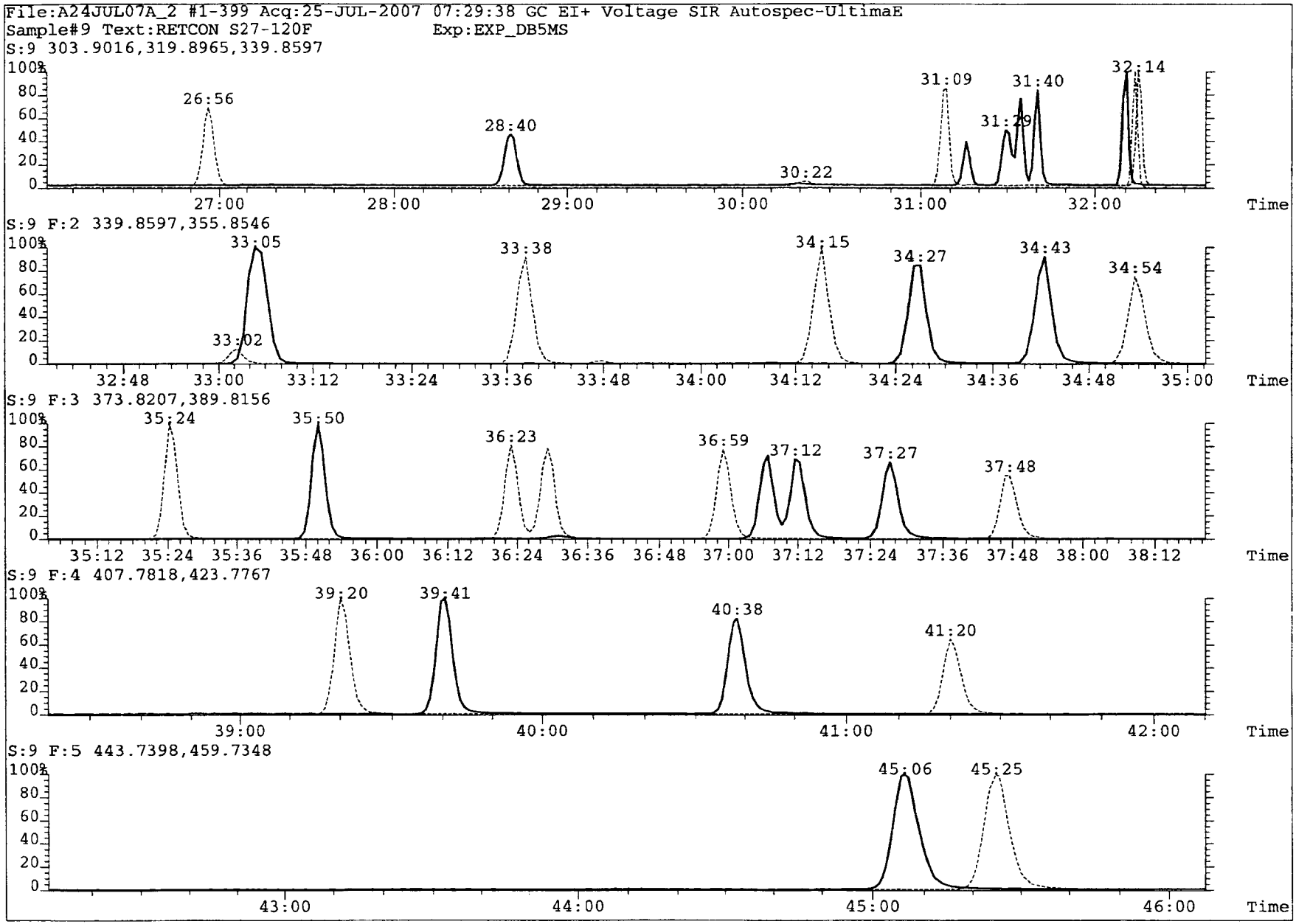
Name	First Eluter RT	Last Eluter RT
TCDD	28:41	32:10
PeCDD	33:05	34:43
HxCDD	35:50	37:27
HpCDD	39:40	40:38
OCDD	45:06	
TCDF	26:57	32:14
PeCDF	32:13	34:54
HxCDF	35:25	37:48
HpCDF	39:21	41:21
OCDF	45:25	

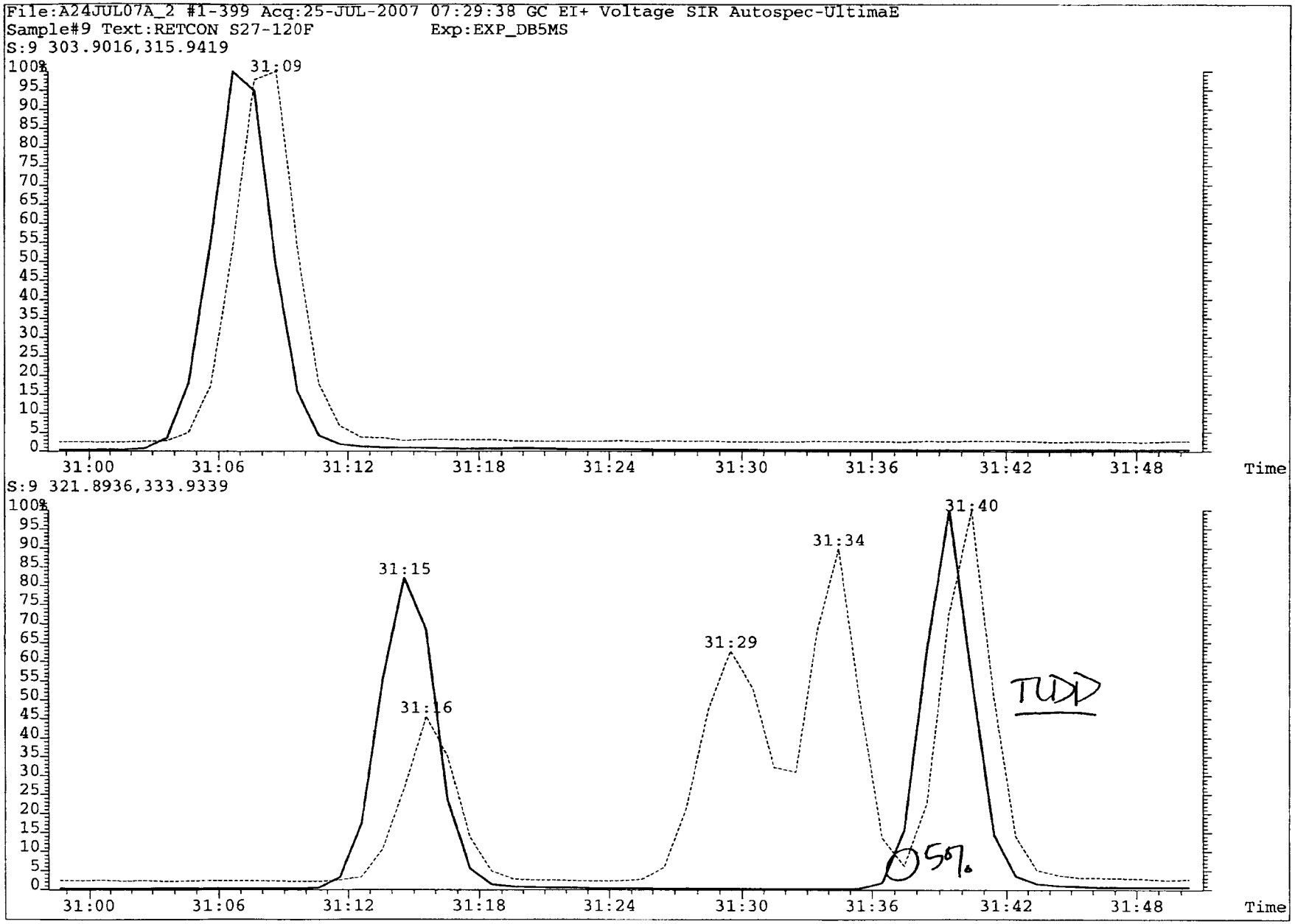

File:A24JUL07A #1-399 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F Exp:EXP_DB5MS
S:11 303.9016,319.8965,339.8597
26:57
28:41
30:23
31:09
31:16
31:29
31:34
31:40
32:14
27:00
28:00
29:00
30:00
31:00
32:00
Time
S:11 F:2 339.8597,355.8546
33:02
33:05
33:38
34:15
34:27
34:43
34:54
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time
S:11 F:3 373.8207,389.8156
35:25
35:50
36:29
37:00
37:12
37:27
37:48
35:12
35:24
35:36
35:48
36:00
36:12
36:24
36:36
36:48
37:00
37:12
37:24
37:36
37:48
38:00
38:12
Time
S:11 F:4 407.7818,423.7767
39:21
39:40
40:38
41:21
39:00
40:00
41:00
42:00
Time
S:11 F:5 443.7398,459.7348
45:06
45:25
43:00
44:00
45:00
46:00
Time


File:A24JUL07A #1-399 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F
Exp:EXP_DB5MS
S:11 303.9016,315.9419
31:09
S:11 321.8936,333.9339
31:15
31:16
31:29
31:34
31:40
TCDD
58 valley
30:42 30:48 30:54 31:00 31:06 31:12 31:18 31:24 31:30 31:36 31:42 31:48 31:54 32:00 32:06 Time

Filename ; a24jul07a_2
Sample ; 9
Acquired ; 25-JUL-07 07:29:38
Processed ; 25-JUL-07 15:50:45
Sample ID ; RETCON S27-120F

Name	First Eluter RT	Last Eluter RT
TCDD	28:40	32:10
PeCDD	33:05	34:43
HxCDD	35:50	37:27
HpCDD	39:41	40:38
OCDD	45:06	
TCDF	26:56	32:14
PeCDF	32:13	34:54
HxCDF	35:24	37:48
HpCDF	39:20	41:20
OCDF	45:25	


File:A24JUL07A_2 #1-399 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
S:9 303.9016,319.8965,339.8597
26:56
28:40
30:22
31:09
31:29
31:40
32:14
Time
S:9 F:2 339.8597,355.8546
33:02
33:05
33:38
34:15
34:27
34:43
34:54
Time
S:9 F:3 373.8207,389.8156
35:24
35:50
36:23
36:59
37:12
37:27
37:48
Time
S:9 F:4 407.7818,423.7767
39:20
39:41
40:38
41:20
Time
S:9 F:5 443.7398,459.7348
45:06
45:25
Time


File:A24JUL07A_2 #1-399 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
S:9 303.9016,315.9419
31:09
S:9 321.8936,333.9339
31:15
31:16
31:29
31:34
31:40
TUD
5%
Time

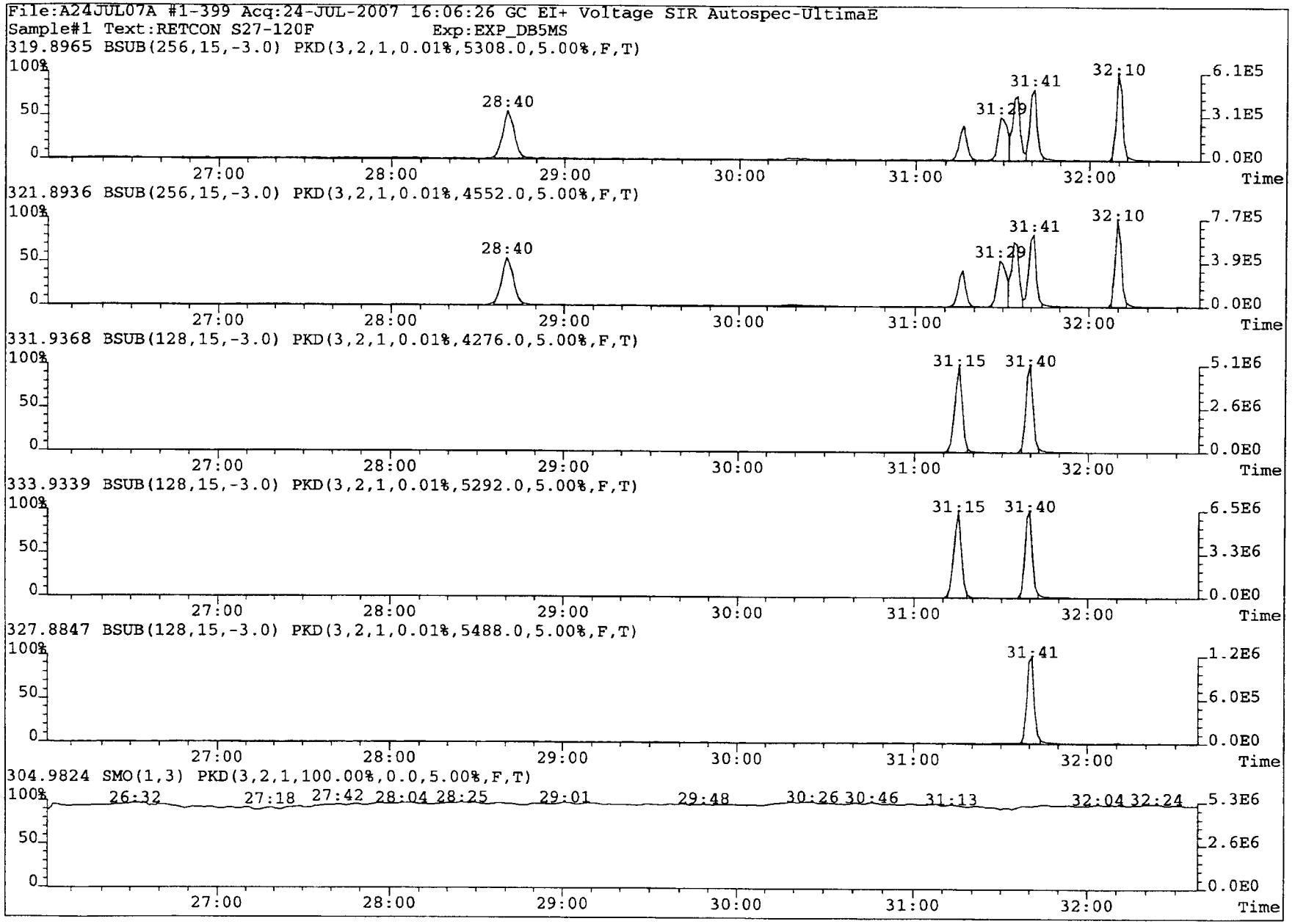
Filename ; a24jul07a
Sample ; 1
Acquired ; 24-JUL-07 16:06:26
Processed ; 25-JUL-07 15:20:52
Sample ID ; RETCON S27-120F
Cal Table ; m1613-071007a
Results Table ;
Comments ;

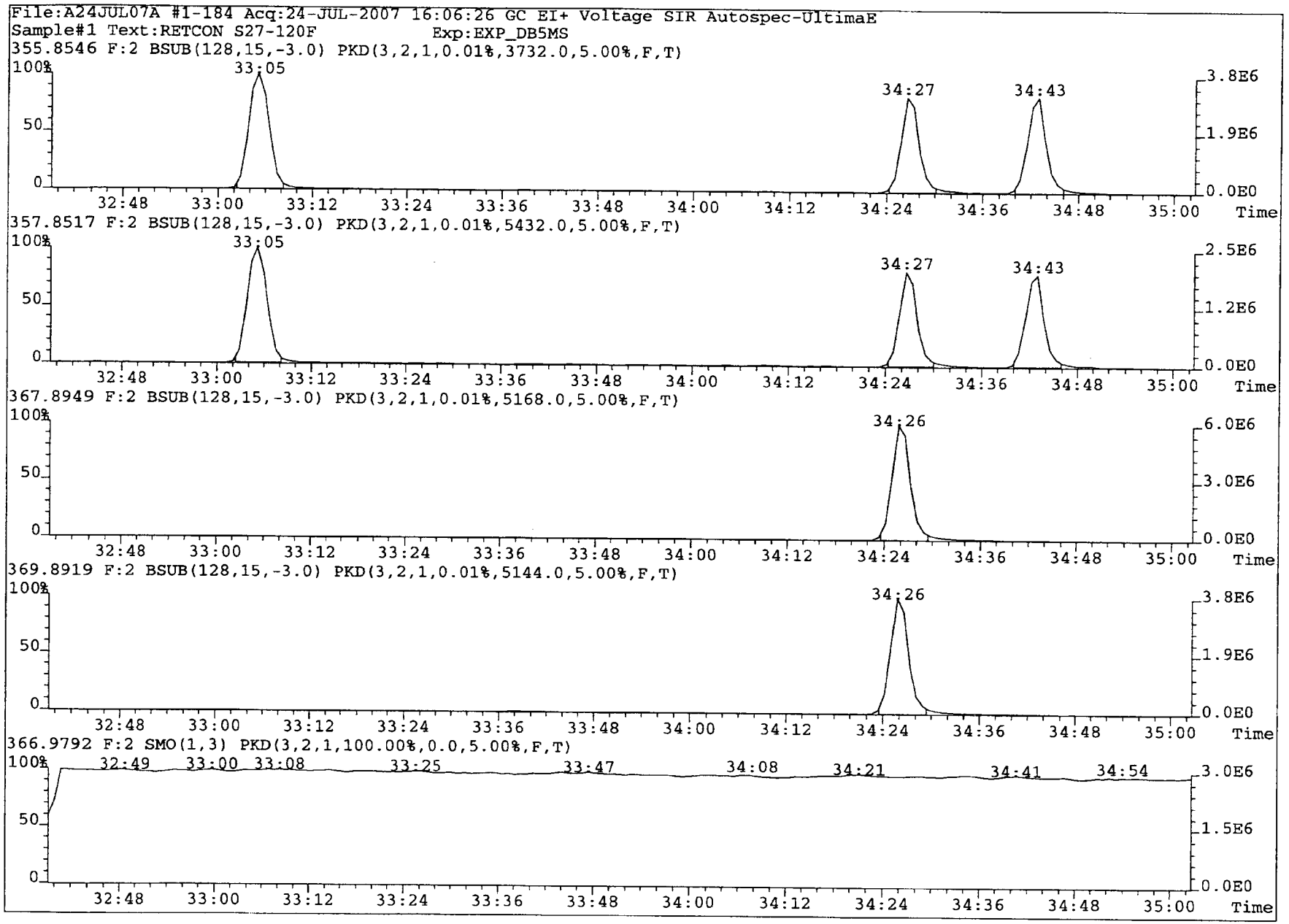
Typ	Name	Resp	RA;?;	RT;	S/N1;?;	S/N;?;	Conc	Limits	mod?
Unk	2,3,7,8-TCDD	3.33e+06	0.75;y;	31:40;	94;y;	14;y;	10.254	7.8 - 12.9	no
Unk	1,2,3,7,8-PeCDD	1.28e+07	1.57;y;	34:27;	836;y;	37;y;	49.380	39 - 65	no
Unk	1,2,3,4,7,8-HxCDD	1.17e+07	1.27;y;	37:07;	352;y;	38;y;	49.124	39 - 64	no
Unk	1,2,3,6,7,8-HxCDD	1.31e+07	1.26;y;	37:13;	351;y;	37;y;	51.434	39 - 64	no
Unk	1,2,3,7,8,9-HxCDD	1.17e+07	1.21;y;	37:28;	300;y;	33;y;	48.755	41 - 61	no
Unk	1,2,3,4,6,7,8-HpCDD	9.59e+06	1.04;y;	40:39;	248;y;	20;y;	50.054	43 - 58	no
Unk	OCDD	1.52e+07	0.89;y;	45:08;	298;y;	32;y;	101.718	79 - 126	no
Unk	2,3,7,8-TCDF	4.92e+06	0.78;y;	31:08;	129;y;	17;y;	9.882	8.4 - 12.0	no
Unk	1,2,3,7,8-PeCDF	2.03e+07	1.59;y;	33:39;	572;y;	55;y;	49.233	41 - 60	no
Unk	2,3,4,7,8-PeCDF	1.98e+07	1.61;y;	34:15;	616;y;	60;y;	48.055	41 - 61	no
Unk	1,2,3,4,7,8-HxCDF	1.71e+07	1.26;y;	36:23;	306;y;	34;y;	48.722	45 - 56	no
Unk	1,2,3,6,7,8-HxCDF	1.91e+07	1.25;y;	36:30;	299;y;	33;y;	49.114	44 - 57	no
Unk	2,3,4,6,7,8-HxCDF	1.76e+07	1.25;y;	36:60;	275;y;	31;y;	49.605	45 - 56	no
Unk	1,2,3,7,8,9-HxCDF	1.42e+07	1.25;y;	37:48;	208;y;	22;y;	49.469	44 - 57	no
Unk	1,2,3,4,6,7,8-HpCDF	1.57e+07	1.05;y;	39:21;	431;y;	35;y;	49.227	45 - 55	no
Unk	1,2,3,4,7,8,9-HpCDF	1.17e+07	1.04;y;	41:21;	268;y;	22;y;	48.706	43 - 58	no
Unk	OCDF	1.81e+07	0.91;y;	45:26;	316;y;	39;y;	99.392	63 - 159	no
ES/RT	13C-2,3,7,8-TCDD	3.35e+07	0.78;y;	31:40;	1201;y;	122;y;	92.931	82 - 121	no
ES	13C-1,2,3,7,8-PeCDD	2.48e+07	1.58;y;	34:26;	1157;y;	74;y;	83.194	62 - 160	no
ES	13C-1,2,3,4,7,8-HxCDD	2.30e+07	1.36;y;	37:06;	892;y;	64;y;	98.733	85 - 117	no
ES	13C-1,2,3,6,7,8-HxCDD	2.63e+07	1.19;y;	37:12;	973;y;	72;y;	107.174	85 - 118	no
ES	13C-1,2,3,4,6,7,8-HpCDD	1.81e+07	1.06;y;	40:38;	496;y;	46;y;	94.950	72 - 138	no
ES	13C-OCDD	2.78e+07	0.90;y;	45:07;	456;y;	66;y;	174.868	96 - 415	no
ES/RT	13C-2,3,7,8-TCDF	4.45e+07	0.79;y;	31:07;	1230;y;	140;y;	94.686	71 - 140	no
ES	13C-1,2,3,7,8-PeCDF	4.13e+07	1.58;y;	33:38;	1078;y;	92;y;	84.435	76 - 130	no
ES	13C-2,3,4,7,8-PeCDF	3.90e+07	1.58;y;	34:15;	1060;y;	92;y;	81.270	77 - 130	no
ES	13C-1,2,3,4,7,8-HxCDF	2.88e+07	0.52;y;	36:23;	753;y;	140;y;	97.711	76 - 131	no
ES	13C-1,2,3,6,7,8-HxCDF	3.35e+07	0.52;y;	36:29;	809;y;	145;y;	102.125	70 - 143	no
ES	13C-2,3,4,6,7,8-HxCDF	3.07e+07	0.52;y;	36:59;	742;y;	137;y;	98.376	73 - 137	no
ES	13C-1,2,3,7,8,9-HxCDF	2.49e+07	0.52;y;	37:47;	531;y;	96;y;	92.401	74 - 135	no
ES	13C-1,2,3,4,6,7,8-HpCDF	2.30e+07	0.45;y;	39:21;	405;y;	91;y;	94.383	78 - 129	no
ES	13C-1,2,3,4,7,8,9-HpCDF	1.96e+07	0.45;y;	41:20;	276;y;	62;y;	90.127	77 - 129	no
JS	13C-1,2,3,4-TCDD	3.41e+07	0.79;y;	31:15;	1202;y;	122;y;	41.857		no
JS	13C-1,2,3,7,8,9-HxCDD	2.35e+07	1.25;y;	37:27;	799;y;	59;y;	33.100		no
CS	37Cl-2,3,7,8-TCDD	3.48e+06		31:40;	219;y		9.465	7.9 - 12.7	no
Tot	Total Tetra-Furans	1.44e+07	0.78;y;	26:55;	96;y;	12;y;	28.926		no
Tot	Total Tetra-Dioxins	1.74e+07	0.80;y;	28:40;	63;y;	9;y;	53.706		no
Tot	Total Penta-Furans Fn1	2.09e+07	0.64;y;	32:13;	623;y;	135;y;	50.618		no
Tot	Total Penta-Furans Fn2	6.02e+07	1.57;y;	33:02;	74;y;	7;y;	146.064		no
Tot	Total Penta-Dioxins	4.42e+07	1.57;y;	33:05;	1014;y;	45;y;	170.947		no
Tot	Total Hexa-Furans	8.86e+07	1.25;y;	35:25;	390;y;	44;y;	257.132		no
Tot	Total Hexa-Dioxins	5.22e+07	1.25;y;	35:51;	482;y;	52;y;	213.662		no

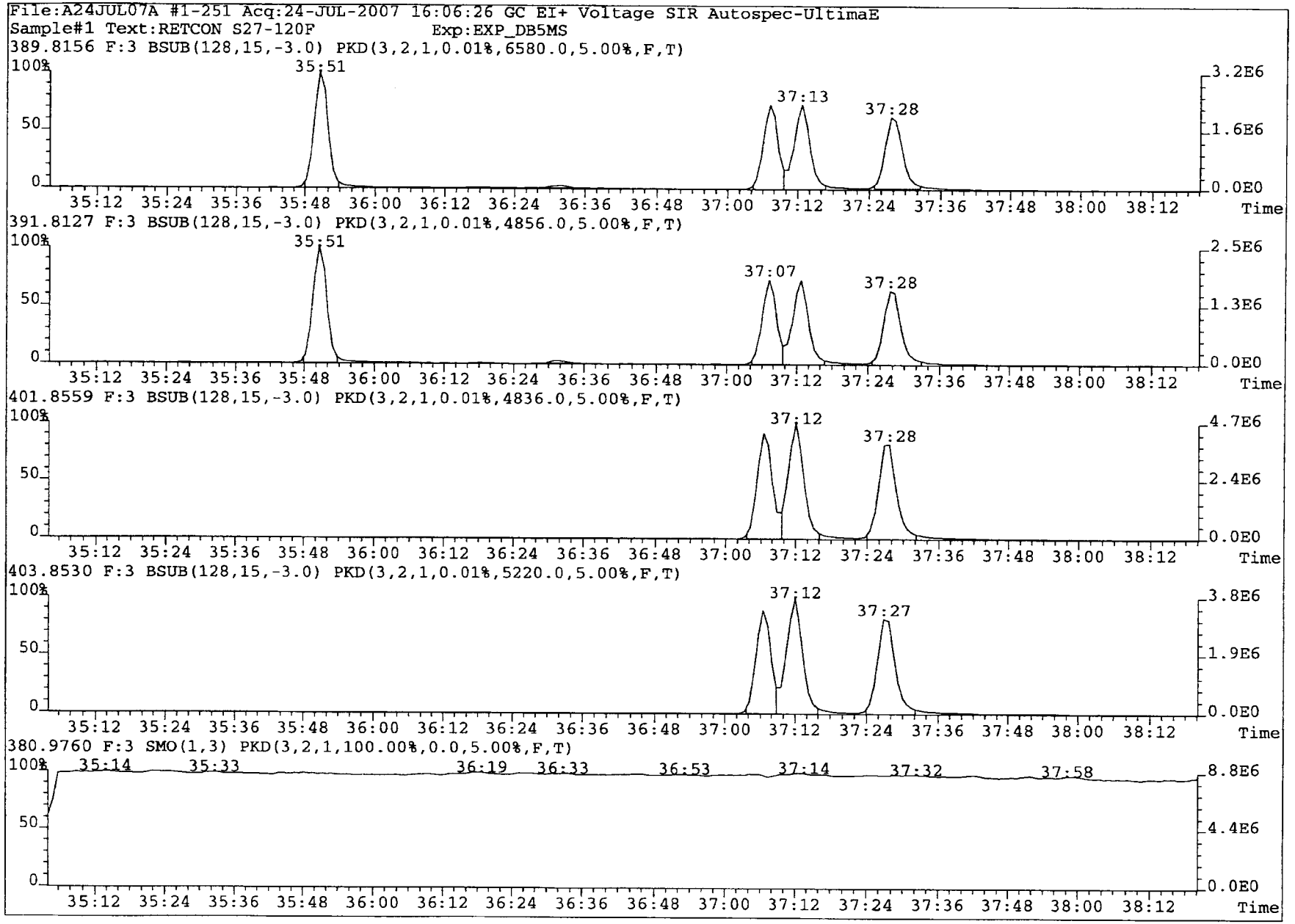
8290 CCAL

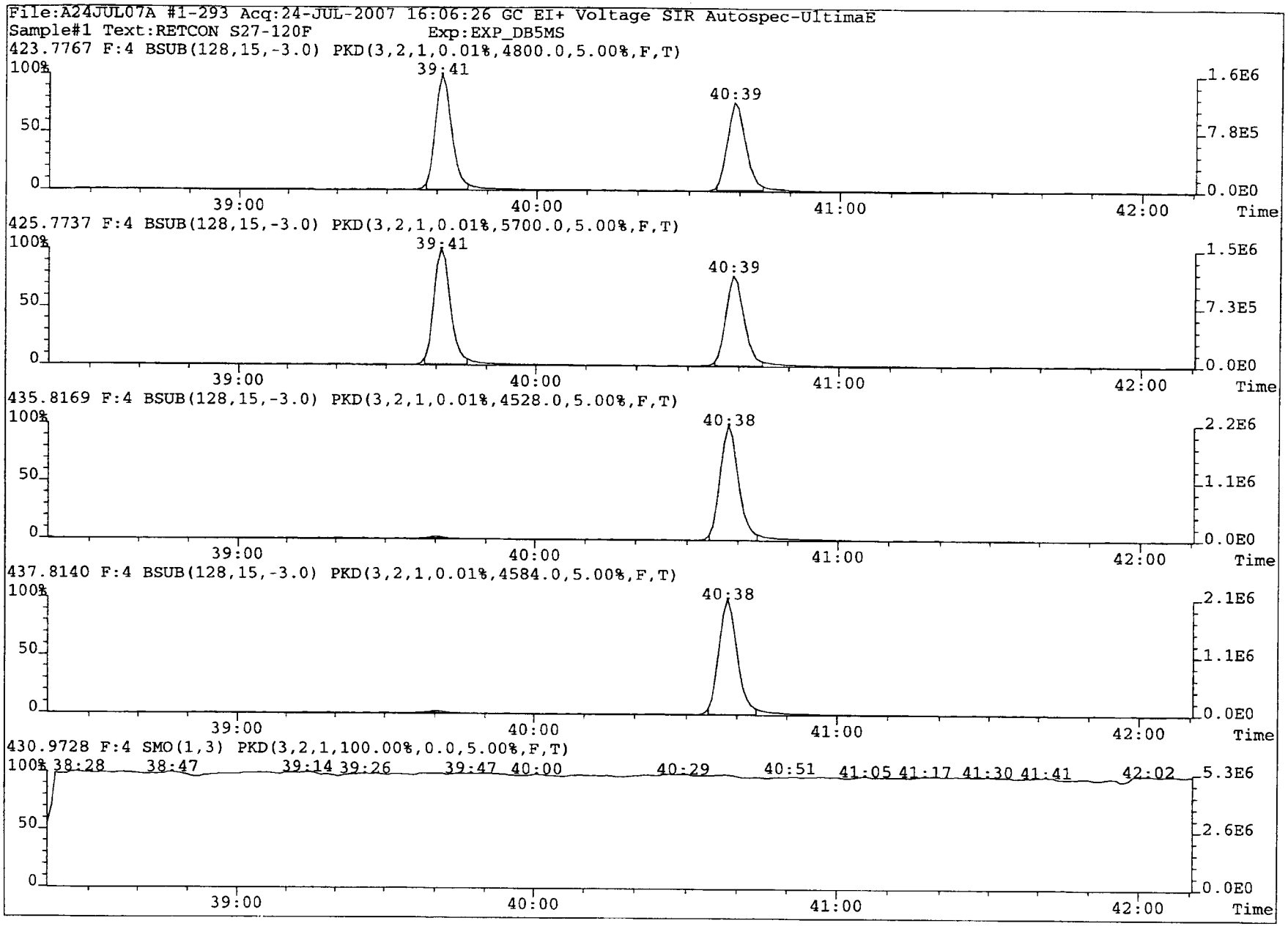
Sample text; RETCON S27-120F
Filename; a24jul07a -1 Acquired; 24-JUL-07 16:06:26 Processed; 24-JUL-07 16:58:09
ICAL; m8290-071007a Results;

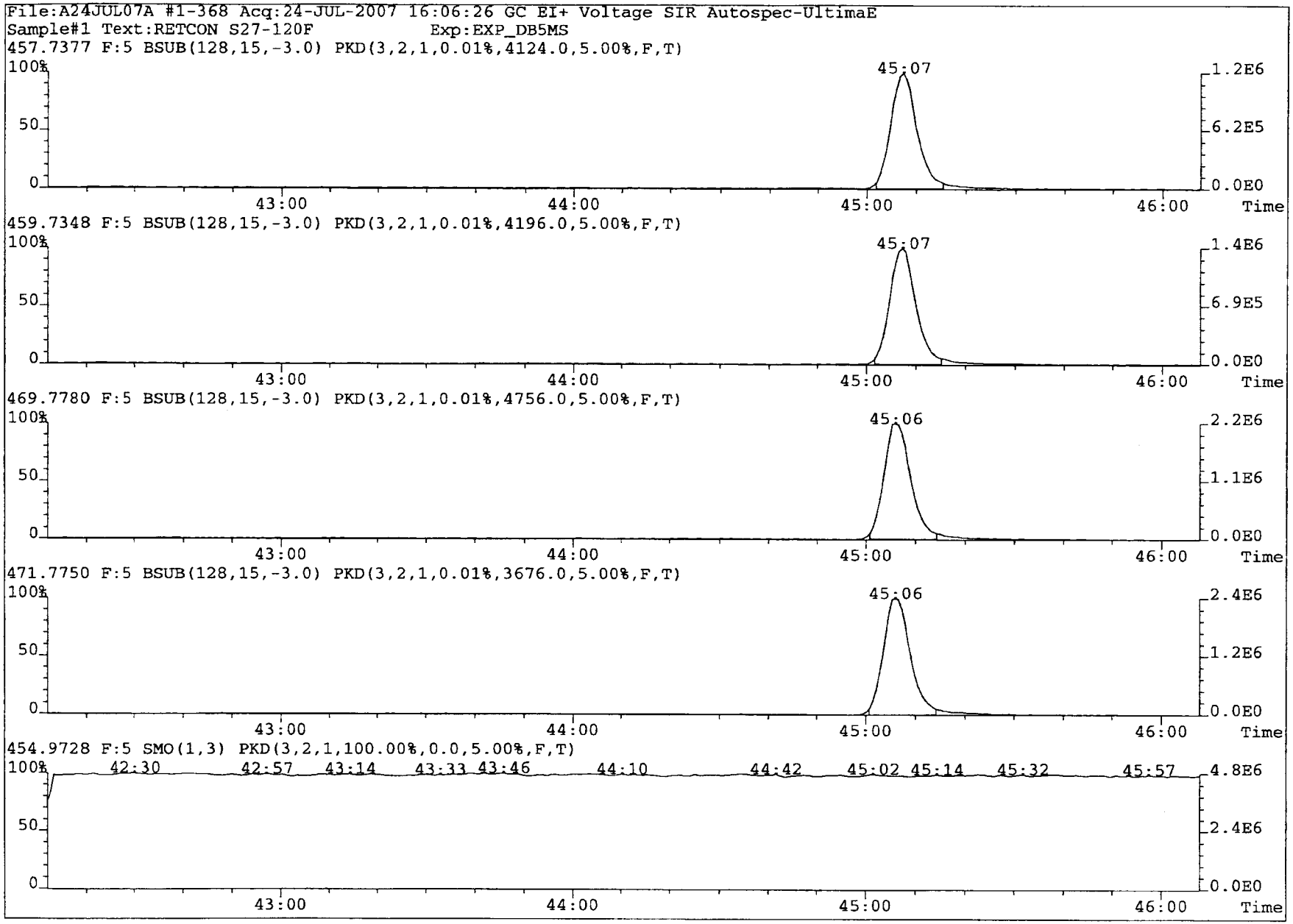
Name;	Resp;	Ion 1;	Ion 2	; RA ;? ;	RT ;	Conc ;	Dev'n;	CCAL RRF;	ICAL RRF	;Mod
2,3,7,8-TCDD;	3.3e+06;	1.43e+06;	1.90e+06	; 0.75 ;y ;	31:40 ;	10.25 ;	2.5;	0.9949;	0.9703	;n
1,2,3,7,8-PeCDD;	1.3e+07;	7.80e+06;	4.96e+06	; 1.57 ;y ;	34:27 ;	49.38 ;	-1.2;	1.0302;	1.0431	;n
1,2,3,4,7,8-HxCDD;	1.2e+07;	6.53e+06;	5.16e+06	; 1.27 ;y ;	37:07 ;	45.24 ;	-9.5;	0.8902;	0.9838	;n
1,2,3,6,7,8-HxCDD;	1.3e+07;	7.28e+06;	5.78e+06	; 1.26 ;y ;	37:13 ;	51.43 ;	2.9;	0.9944;	0.9667	;n
1,2,3,7,8,9-HxCDD;	1.2e+07;	6.43e+06;	5.30e+06	; 1.21 ;y ;	37:28 ;	46.88 ;	-6.2;	0.8931;	0.9525	;n
1,2,3,4,6,7,8-HpCDD;	9.6e+06;	4.88e+06;	4.71e+06	; 1.04 ;y ;	40:39 ;	50.05 ;	0.1;	1.0594;	1.0583	;n
OCDD;	1.5e+07;	7.19e+06;	8.04e+06	; 0.89 ;y ;	45:08 ;	101.7 ;	1.7;	1.0969;	1.0783	;n
2,3,7,8-TCDF;	4.9e+06;	2.16e+06;	2.77e+06	; 0.78 ;y ;	31:08 ;	9.882 ;	-1.2;	1.1068;	1.1201	;n
1,2,3,7,8-PeCDF;	2.0e+07;	1.25e+07;	7.83e+06	; 1.59 ;y ;	33:39 ;	49.23 ;	-1.5;	0.9831;	0.9985	;n
2,3,4,7,8-PeCDF;	2.0e+07;	1.22e+07;	7.58e+06	; 1.61 ;y ;	34:15 ;	46.23 ;	-7.5;	0.9576;	1.0357	;n
1,2,3,4,7,8-HxCDF;	1.7e+07;	9.51e+06;	7.54e+06	; 1.26 ;y ;	36:23 ;	46.60 ;	-6.8;	1.0185;	1.0927	;n
1,2,3,6,7,8-HxCDF;	1.9e+07;	1.06e+07;	8.48e+06	; 1.25 ;y ;	36:30 ;	49.11 ;	-1.8;	1.1392;	1.1598	;n
2,3,4,6,7,8-HxCDF;	1.8e+07;	9.77e+06;	7.82e+06	; 1.25 ;y ;	36:60 ;	47.78 ;	-4.4;	1.0510;	1.0999	;n
1,2,3,7,8,9-HxCDF;	1.4e+07;	7.88e+06;	6.28e+06	; 1.25 ;y ;	37:48 ;	44.75 ;	-10.5;	0.8453;	0.9444	;n
1,2,3,4,6,7,8-HpCDF;	1.6e+07;	8.07e+06;	7.67e+06	; 1.05 ;y ;	39:21 ;	49.23 ;	-1.5;	1.3692;	1.3907	;n
1,2,3,4,7,8,9-HpCDF;	1.2e+07;	5.99e+06;	5.73e+06	; 1.04 ;y ;	41:21 ;	46.52 ;	-7.0;	1.0198;	1.0961	;n
OCDF;	1.8e+07;	8.61e+06;	9.46e+06	; 0.91 ;y ;	45:26 ;	99.39 ;	-0.6;	1.3008;	1.3088	;n
Extraction Standards										
13C-2,3,7,8-TCDD;	3.3e+07;	1.46e+07;	1.88e+07	; 0.78 ;y ;	31:40 ;	92.93 ;	-7.1;	0.9825;	1.0572	;n
13C-1,2,3,7,8-PeCDD;	2.5e+07;	1.52e+07;	9.60e+06	; 1.58 ;y ;	34:26 ;	83.19 ;	-16.8;	0.7270;	0.8739	;n
13C-1,2,3,6,7,8-HxCDD;	2.6e+07;	1.43e+07;	1.20e+07	; 1.19 ;y ;	37:12 ;	107.2 ;	7.2;	1.1170;	1.0423	;n
13C-1,2,3,4,6,7,8-HpCDD;	1.8e+07;	9.30e+06;	8.80e+06	; 1.06 ;y ;	40:38 ;	94.95 ;	-5.0;	0.7696;	0.8106	;n
13C-OCDD;	2.8e+07;	1.31e+07;	1.47e+07	; 0.90 ;y ;	45:07 ;	174.9 ;	-12.6;	0.5905;	0.6753	;n
13C-2,3,7,8-TCDF;	4.4e+07;	1.96e+07;	2.49e+07	; 0.79 ;y ;	31:07 ;	94.69 ;	-5.3;	1.3055;	1.3787	;n
13C-1,2,3,7,8-PeCDF;	4.1e+07;	2.53e+07;	1.60e+07	; 1.58 ;y ;	33:38 ;	84.44 ;	-15.6;	1.2113;	1.4346	;n
13C-1,2,3,6,7,8-HxCDF;	3.3e+07;	1.15e+07;	2.20e+07	; 0.52 ;y ;	36:29 ;	102.1 ;	2.1;	1.4237;	1.3941	;n
13C-1,2,3,4,6,7,8-HpCDF;	2.3e+07;	7.14e+06;	1.58e+07	; 0.45 ;y ;	39:21 ;	94.38 ;	-5.6;	0.9772;	1.0354	;n
Injection Standards										
13C-1,2,3,4-TCDD;	3.4e+07;	1.51e+07;	1.90e+07	; 0.79 ;y ;	31:15 ;	41.86 ;	-;	-;	-	;n
13C-1,2,3,7,8,9-HxCDD;	2.4e+07;	1.31e+07;	1.04e+07	; 1.25 ;y ;	37:27 ;	33.10 ;	-;	-;	-	;n
Cleanup Standards										
37Cl-2,3,7,8-TCDD;	3.5e+06;	3.48e+06;	-	; - ;- ;	31:40 ;	9.465 ;	-5.4;	1.0217;	1.0795	;n
13C-2,3,4,7,8-PeCDF;	3.9e+07;	2.39e+07;	1.51e+07	; 1.58 ;y ;	34:15 ;	81.27 ;	-18.7;	1.1444;	1.4082	;n
13C-1,2,3,4,7,8-HxCDD;	2.3e+07;	1.32e+07;	9.75e+06	; 1.36 ;y ;	37:06 ;	98.73 ;	-1.3;	0.9777;	0.9902	;n
13C-1,2,3,4,7,8-HxCDF;	2.9e+07;	9.86e+06;	1.90e+07	; 0.52 ;y ;	36:23 ;	97.71 ;	-2.3;	1.2253;	1.2540	;n
13C-1,2,3,4,7,8,9-HpCDF;	2.0e+07;	6.10e+06;	1.35e+07	; 0.45 ;y ;	41:20 ;	90.13 ;	-9.9;	0.8324;	0.9236	;n
Sampling Standards										
37Cl-2,3,7,8-TCDD;	3.5e+06;	3.48e+06;	-	; - ;- ;	31:40 ;	10.19 ;	1.9;	1.0399;	1.0210	;n
13C-2,3,4,7,8-PeCDF;	3.9e+07;	2.39e+07;	1.51e+07	; 1.58 ;y ;	34:15 ;	96.20 ;	-3.8;	0.9448;	0.9821	;n
13C-1,2,3,4,7,8-HxCDD;	2.3e+07;	1.32e+07;	9.75e+06	; 1.36 ;y ;	37:06 ;	92.12 ;	-7.9;	0.8753;	0.9501	;n
13C-1,2,3,4,7,8-HxCDF;	2.9e+07;	9.86e+06;	1.90e+07	; 0.52 ;y ;	36:23 ;	95.63 ;	-4.4;	0.8606;	0.8999	;n
13C-1,2,3,4,7,8,9-HpCDF;	2.0e+07;	6.10e+06;	1.35e+07	; 0.45 ;y ;	41:20 ;	95.49 ;	-4.5;	0.8518;	0.8920	;n

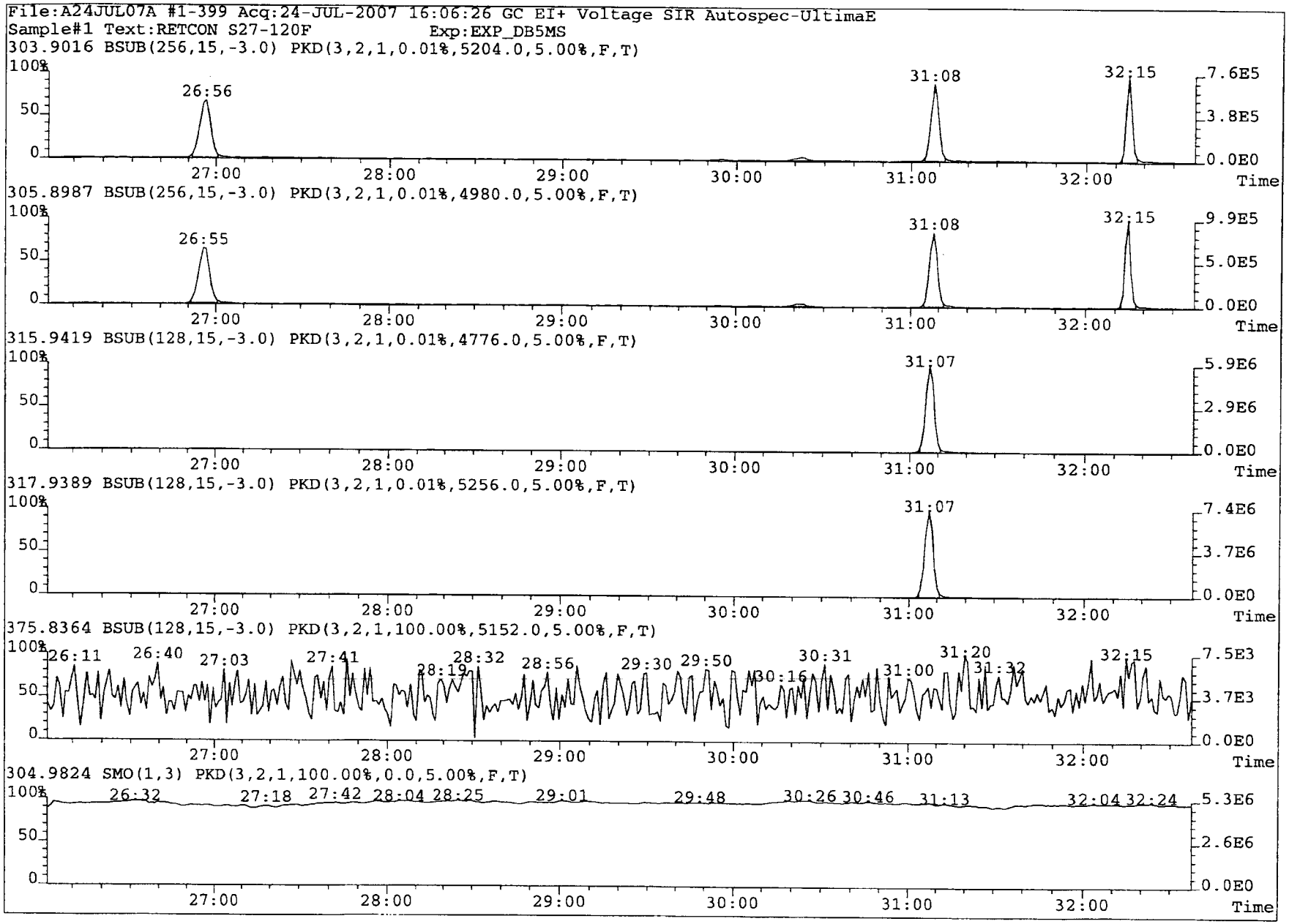

File:A24JUL07A #1-399 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
319.8965 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5308.0,5.00%,F,T)
28:40
31:29
31:41
32:10
6.1E5
3.1E5
0.0E0
321.8936 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4552.0,5.00%,F,T)
28:40
31:29
31:41
32:10
7.7E5
3.9E5
0.0E0
331.9368 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4276.0,5.00%,F,T)
31:15
31:40
5.1E6
2.6E6
0.0E0
333.9339 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5292.0,5.00%,F,T)
31:15
31:40
6.5E6
3.3E6
0.0E0
327.8847 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5488.0,5.00%,F,T)
31:41
1.2E6
6.0E5
0.0E0
304.9824 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:32
27:18
27:42
28:04
28:25
29:01
29:48
30:26
30:46
31:13
32:04
32:24
5.3E6
2.6E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time

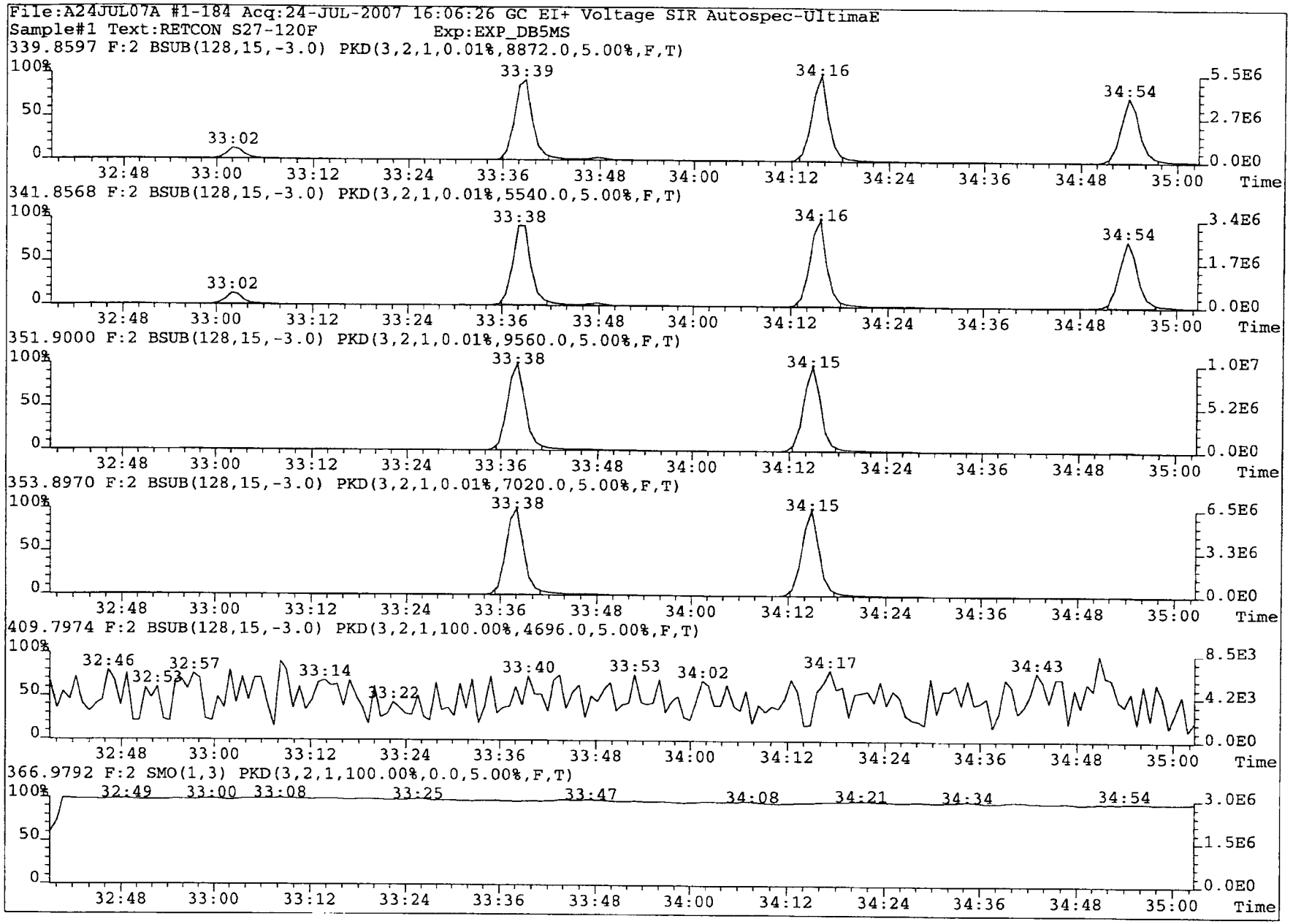

File:A24JUL07A #1-184 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
355.8546 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3732.0,5.00%,F,T)
33:05
34:27
34:43
3.8E6
1.9E6
0.0E0
357.8517 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5432.0,5.00%,F,T)
33:05
34:27
34:43
2.5E6
1.2E6
0.0E0
367.8949 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5168.0,5.00%,F,T)
34:26
6.0E6
3.0E6
0.0E0
369.8919 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5144.0,5.00%,F,T)
34:26
3.8E6
1.9E6
0.0E0
366.9792 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:49 33:00 33:08 33:25 33:47 34:08 34:21 34:41 34:54
3.0E6
1.5E6
0.0E0
100%
50
0
32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00
Time

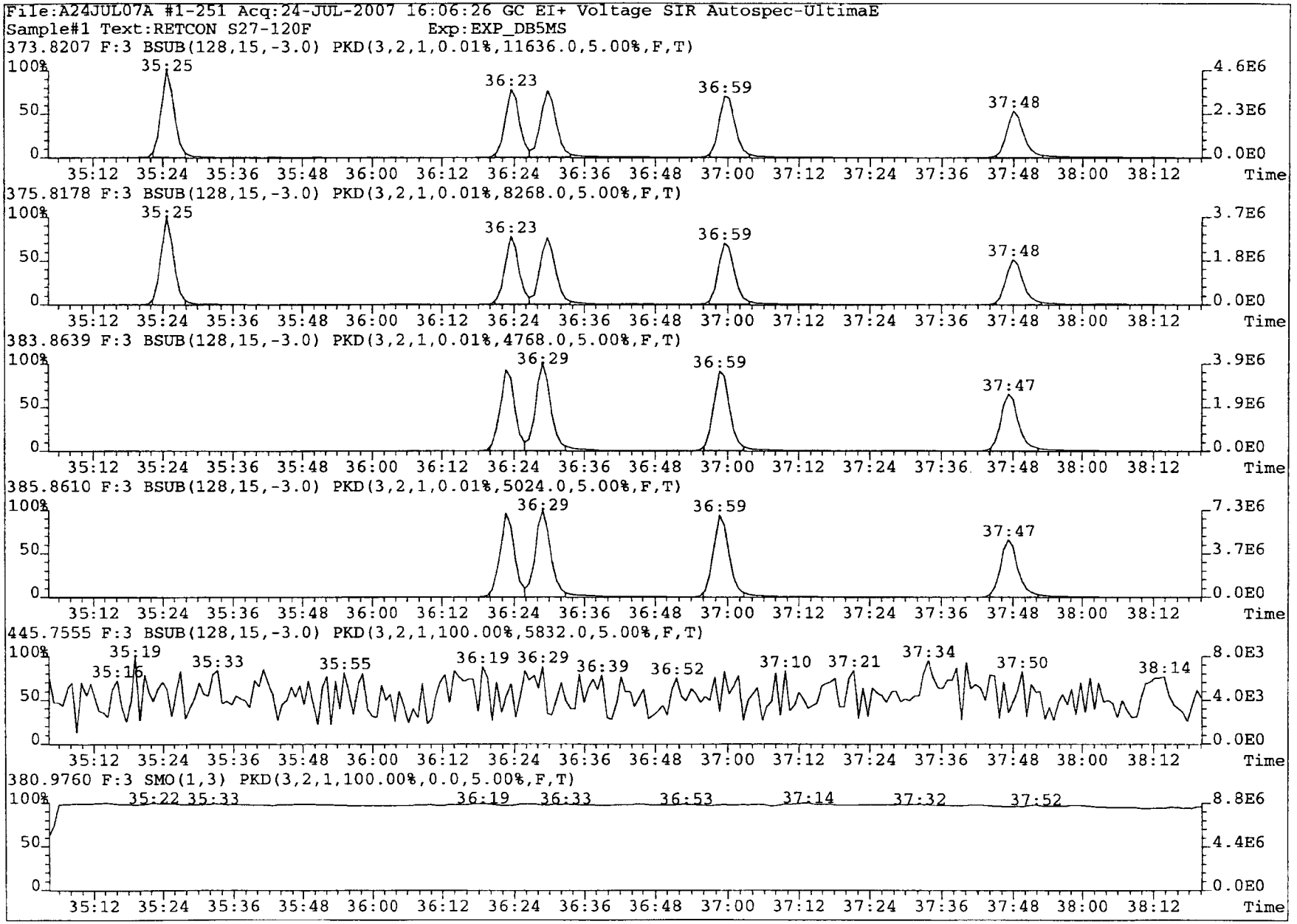

File:A24JUL07A #1-251 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
389.8156 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6580.0,5.00%,F,T)
35:51
37:13
37:28
3.2E6
1.6E6
0.0E0
391.8127 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4856.0,5.00%,F,T)
35:51
37:07
37:28
2.5E6
1.3E6
0.0E0
401.8559 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4836.0,5.00%,F,T)
37:12
37:28
4.7E6
2.4E6
0.0E0
403.8530 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5220.0,5.00%,F,T)
37:12
37:27
3.8E6
1.9E6
0.0E0
380.9760 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:14
35:33
36:19
36:33
36:53
37:14
37:32
37:58
8.8E6
4.4E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

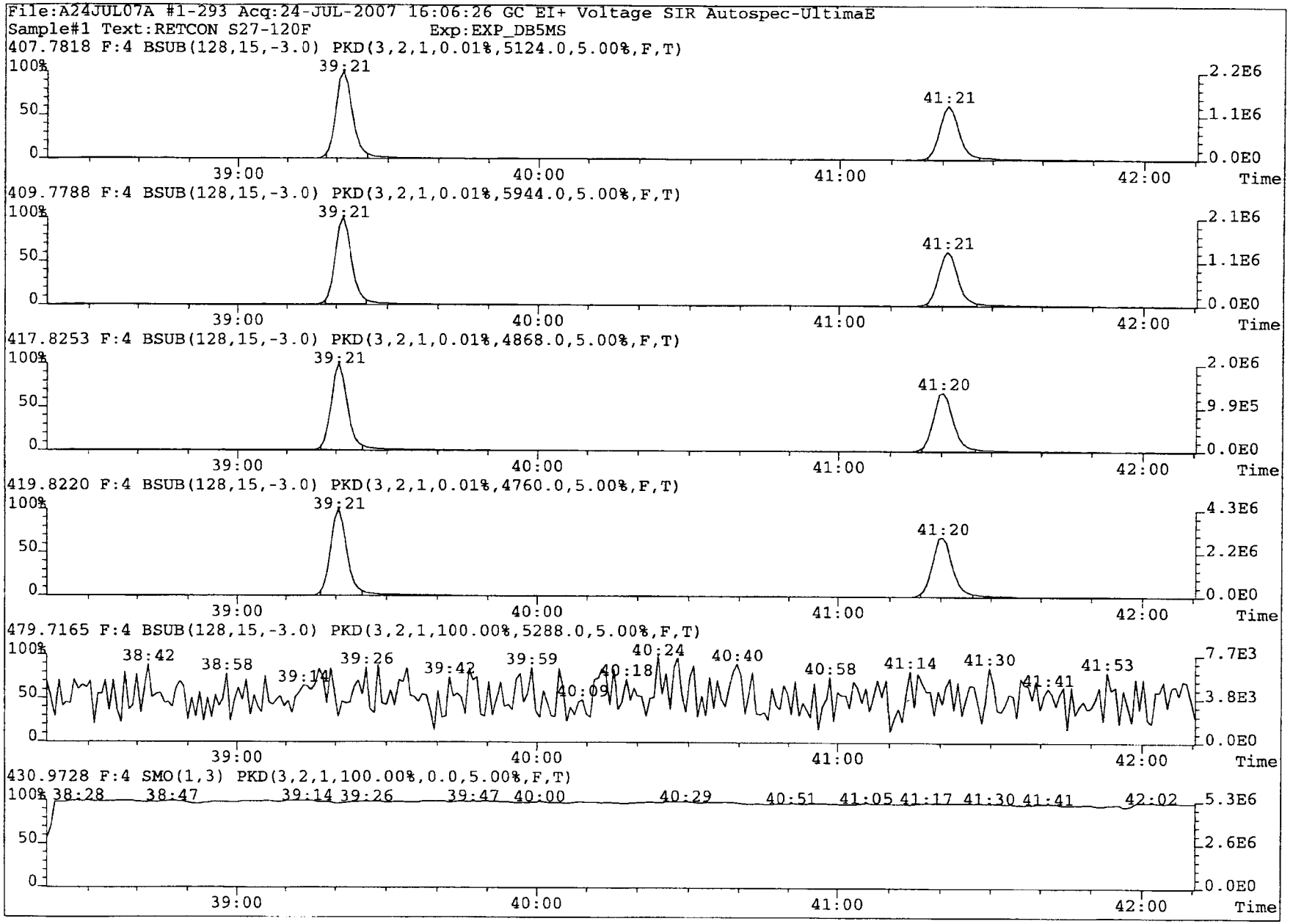

File:A24JUL07A #1-293 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
423.7767 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4800.0,5.00%,F,T)
39:41
40:39
1.6E6
7.8E5
0.0E0
425.7737 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5700.0,5.00%,F,T)
39:41
40:39
1.5E6
7.3E5
0.0E0
435.8169 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4528.0,5.00%,F,T)
40:38
2.2E6
1.1E6
0.0E0
437.8140 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4584.0,5.00%,F,T)
40:38
2.1E6
1.1E6
0.0E0
430.9728 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:28 38:47 39:14 39:26 39:47 40:00 40:29 40:51 41:05 41:17 41:30 41:41 42:02
5.3E6
2.6E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

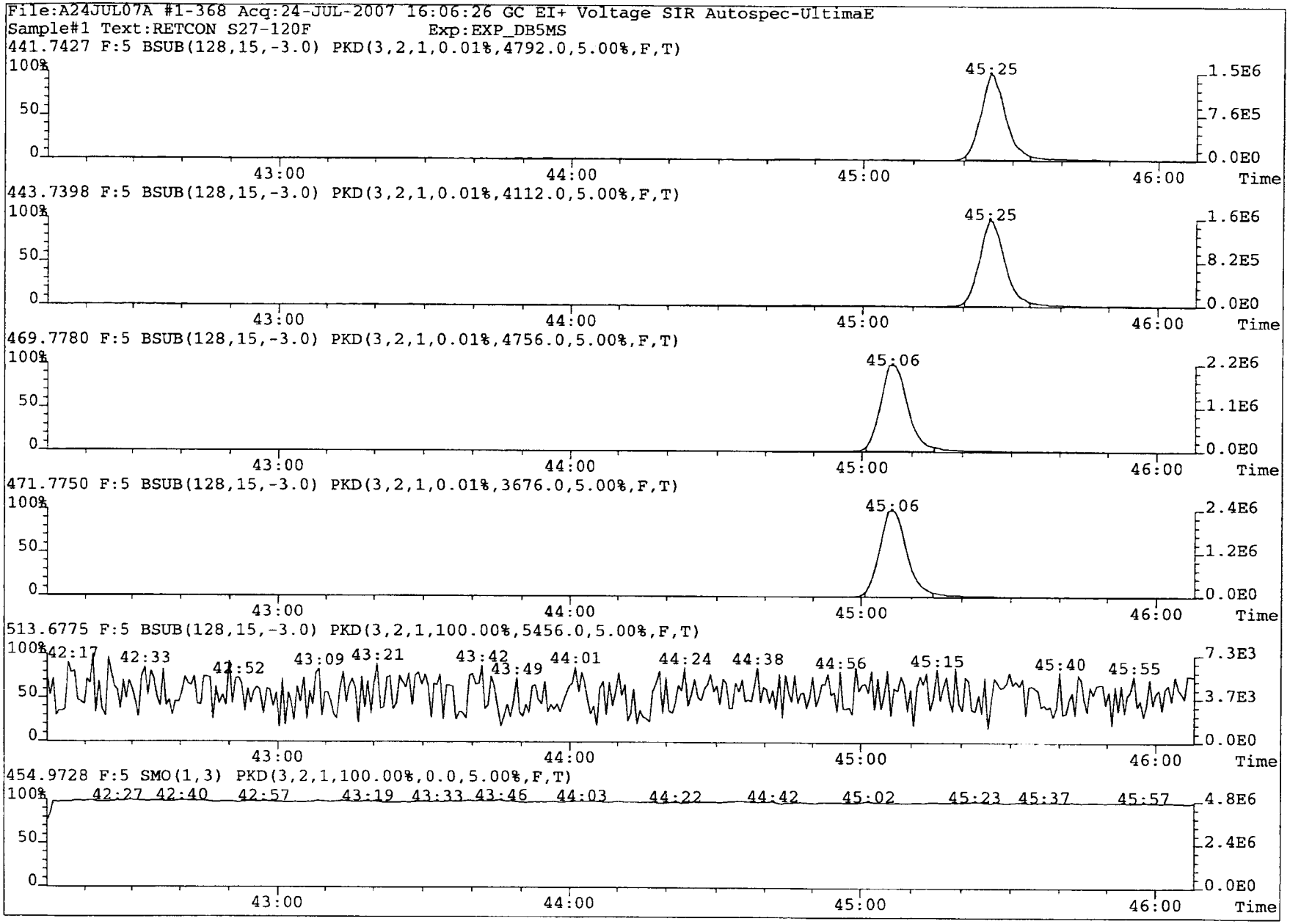

File:A24JUL07A #1-368 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
457.7377 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4124.0,5.00%,F,T)
45:07
1.2E6
6.2E5
0.0E0
459.7348 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4196.0,5.00%,F,T)
45:07
1.4E6
6.9E5
0.0E0
469.7780 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4756.0,5.00%,F,T)
45:06
2.2E6
1.1E6
0.0E0
471.7750 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3676.0,5.00%,F,T)
45:06
2.4E6
1.2E6
0.0E0
454.9728 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:30 42:57 43:14 43:33 43:46 44:10 44:42 45:02 45:14 45:32 45:57
4.8E6
2.4E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

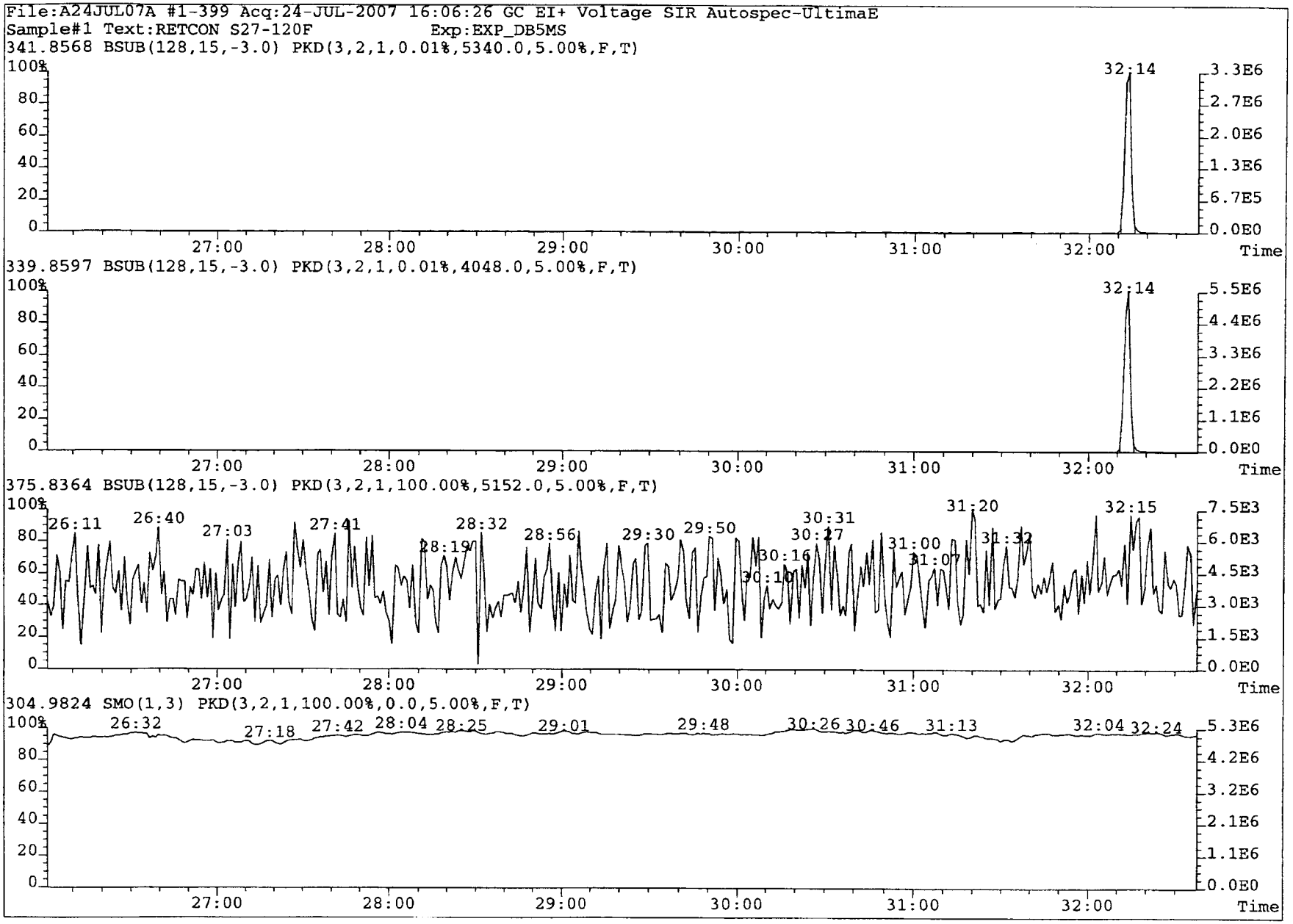

File:A24JUL07A #1-399 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
303.9016 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5204.0,5.00%,F,T)
26:56
31:08
32:15
7.6E5
3.8E5
0.0E0
305.8987 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4980.0,5.00%,F,T)
26:55
31:08
32:15
9.9E5
5.0E5
0.0E0
315.9419 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4776.0,5.00%,F,T)
31:07
5.9E6
2.9E6
0.0E0
317.9389 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5256.0,5.00%,F,T)
31:07
7.4E6
3.7E6
0.0E0
375.8364 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5152.0,5.00%,F,T)
26:11 26:40 27:03 27:41 28:19 28:32 28:56 29:30 29:50 30:16 30:31 31:00 31:20 31:32 32:15
7.5E3
3.7E3
0.0E0
304.9824 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:32 27:18 27:42 28:04 28:25 29:01 29:48 30:26 30:46 31:13 32:04 32:24
5.3E6
2.6E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time


File:A24JUL07A #1-184 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
339.8597 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,8872.0,5.00%,F,T)
33:02
33:39
34:16
34:54
5.5E6
2.7E6
0.0E0
341.8568 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5540.0,5.00%,F,T)
33:02
33:38
34:16
34:54
3.4E6
1.7E6
0.0E0
351.9000 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,9560.0,5.00%,F,T)
33:38
34:15
1.0E7
5.2E6
0.0E0
353.8970 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,7020.0,5.00%,F,T)
33:38
34:15
6.5E6
3.3E6
0.0E0
409.7974 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4696.0,5.00%,F,T)
32:46
32:53
32:57
33:14
33:22
33:40
33:53
34:02
34:17
34:43
8.5E3
4.2E3
0.0E0
366.9792 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:49
33:00
33:08
33:25
33:47
34:08
34:21
34:34
34:54
3.0E6
1.5E6
0.0E0
100%
50
0
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time


File:A24JUL07A #1-251 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
373.8207 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,11636.0,5.00%,F,T)
35:25
36:23
36:59
37:48
4.6E6
2.3E6
0.0E0
375.8178 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,8268.0,5.00%,F,T)
35:25
36:23
36:59
37:48
3.7E6
1.8E6
0.0E0
383.8639 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4768.0,5.00%,F,T)
36:29
36:59
37:47
3.9E6
1.9E6
0.0E0
385.8610 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5024.0,5.00%,F,T)
36:29
36:59
37:47
7.3E6
3.7E6
0.0E0
445.7555 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5832.0,5.00%,F,T)
35:19
35:16
35:33
35:55
36:19 36:29
36:39
36:52
37:10 37:21
37:34
37:50
38:14
8.0E3
4.0E3
0.0E0
380.9760 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:22 35:33
36:19 36:33
36:53
37:14
37:32
37:52
8.8E6
4.4E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time


File:A24JUL07A #1-293 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
407.7818 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5124.0,5.00%,F,T)
39:21
41:21
2.2E6
1.1E6
0.0E0
409.7788 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5944.0,5.00%,F,T)
39:21
41:21
2.1E6
1.1E6
0.0E0
417.8253 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4868.0,5.00%,F,T)
39:21
41:20
2.0E6
9.9E5
0.0E0
419.8220 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4760.0,5.00%,F,T)
39:21
41:20
4.3E6
2.2E6
0.0E0
479.7165 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5288.0,5.00%,F,T)
38:42
38:58
39:14
39:26
39:42
39:59
40:09
40:18
40:24
40:40
40:58
41:14
41:30
41:41
41:53
7.7E3
3.8E3
0.0E0
430.9728 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:28
38:47
39:14
39:26
39:47
40:00
40:29
40:51
41:05
41:17
41:30
41:41
42:02
5.3E6
2.6E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

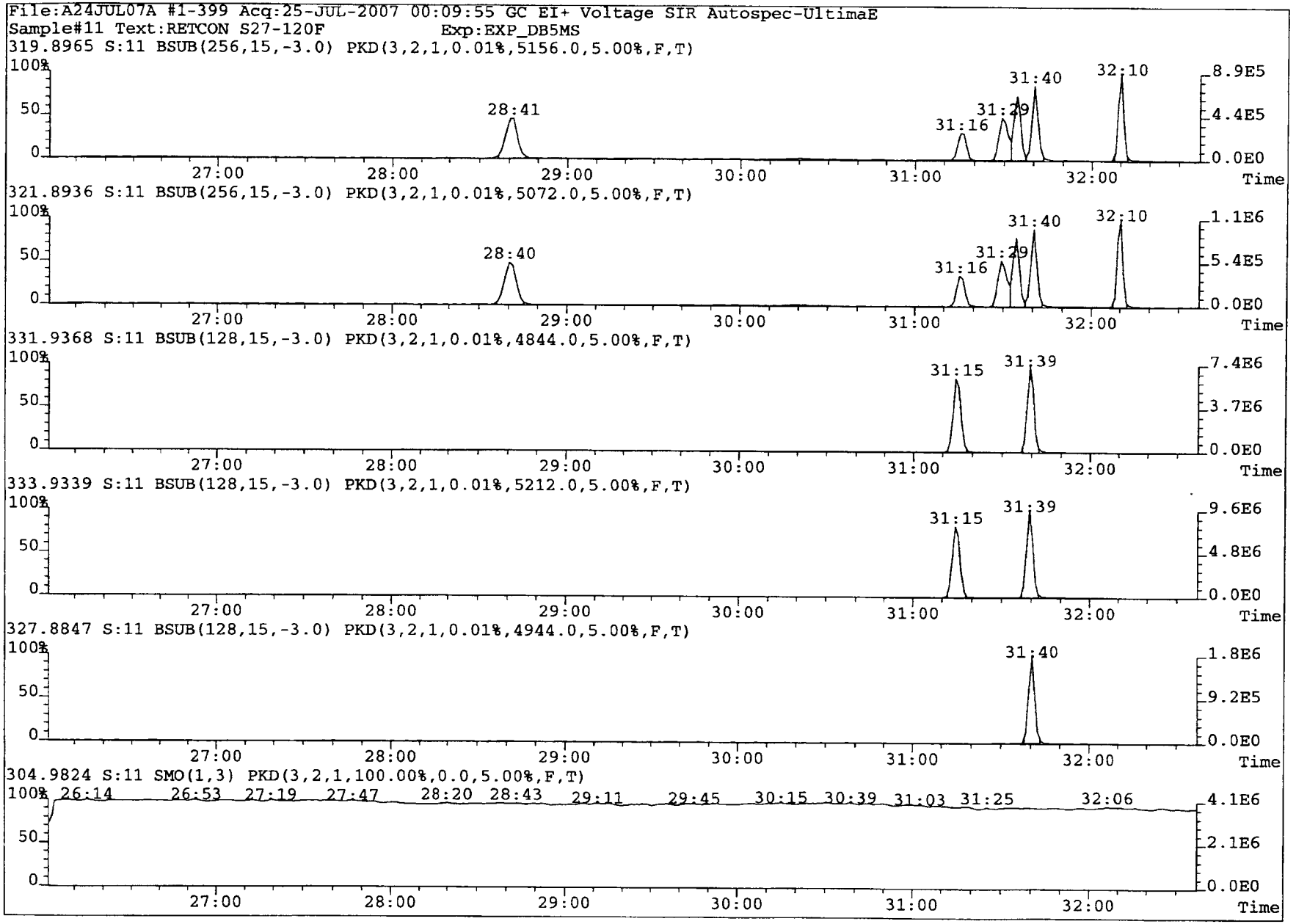

File:A24JUL07A #1-368 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
441.7427 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4792.0,5.00%,F,T)
45:25
1.5E6
7.6E5
0.0E0
443.7398 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4112.0,5.00%,F,T)
45:25
1.6E6
8.2E5
0.0E0
469.7780 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4756.0,5.00%,F,T)
45:06
2.2E6
1.1E6
0.0E0
471.7750 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3676.0,5.00%,F,T)
45:06
2.4E6
1.2E6
0.0E0
513.6775 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5456.0,5.00%,F,T)
42:17 42:33 42:52 43:09 43:21 43:42 43:49 44:01 44:24 44:38 44:56 45:15 45:40 45:55
7.3E3
3.7E3
0.0E0
454.9728 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:27 42:40 42:57 43:19 43:33 43:46 44:03 44:22 44:42 45:02 45:23 45:37 45:57
4.8E6
2.4E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

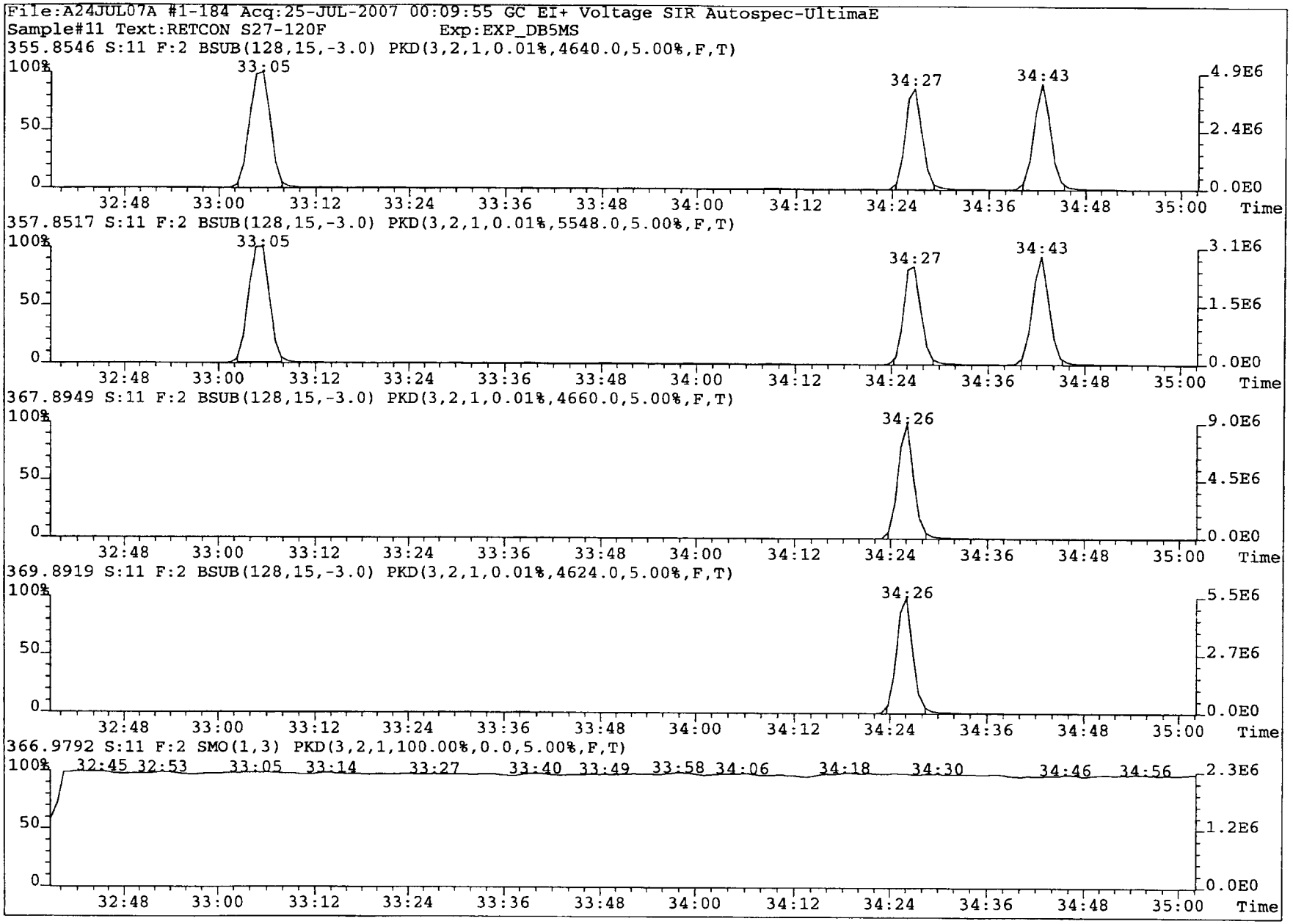

File:A24JUL07A #1-399 Acq:24-JUL-2007 16:06:26 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 Text:RETCON S27-120F Exp:EXP_DB5MS
341.8568 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5340.0,5.00%,F,T)
339.8597 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4048.0,5.00%,F,T)
375.8364 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5152.0,5.00%,F,T)
304.9824 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
Time

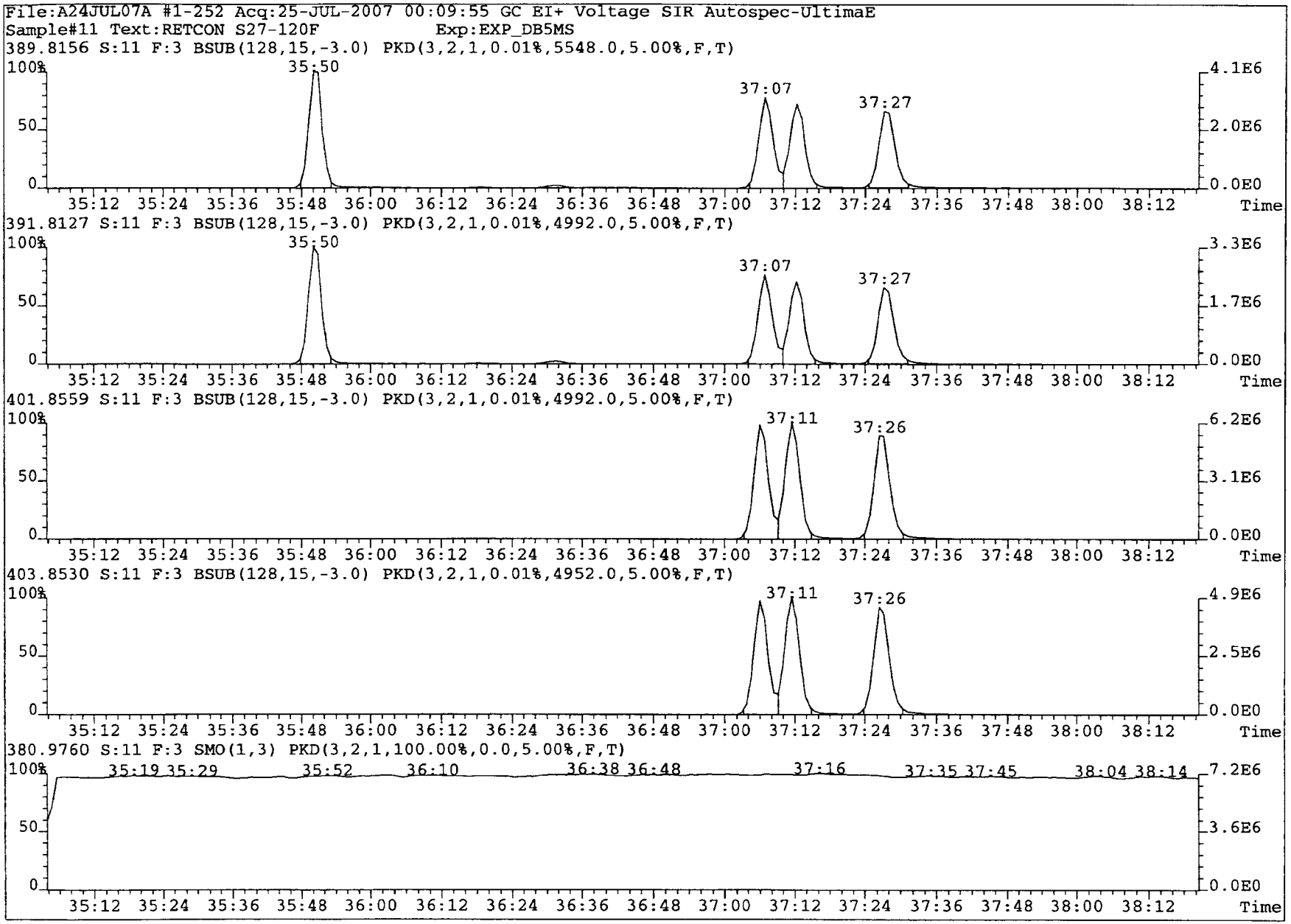
8290 CCAL

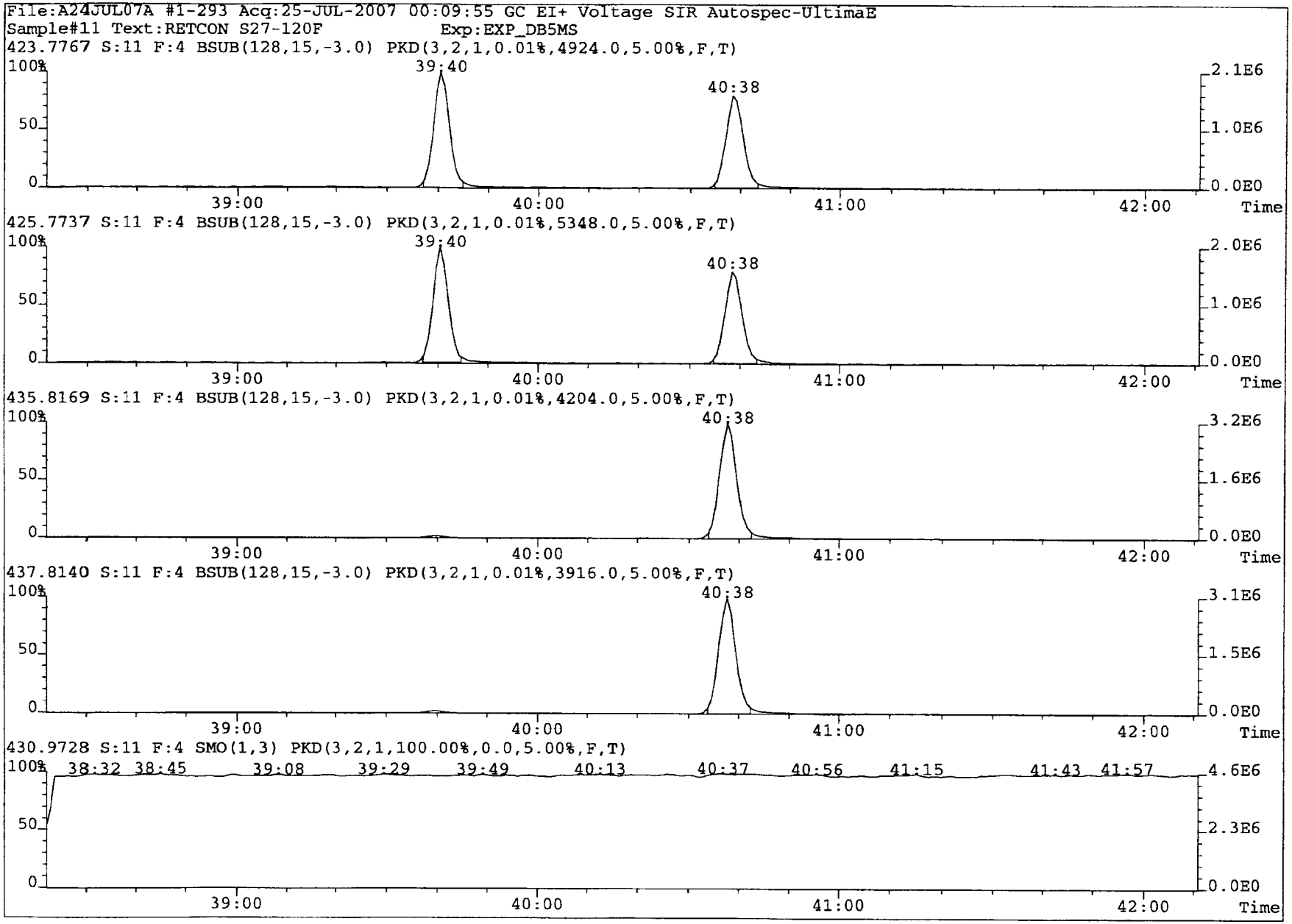
Sample text; RETCON S27-120F
Filename; a24jul07a -11 Acquired; 25-JUL-07 00:09:55 Processed; 25-JUL-07 08:00:04
ICAL; m8290-071007a Results;

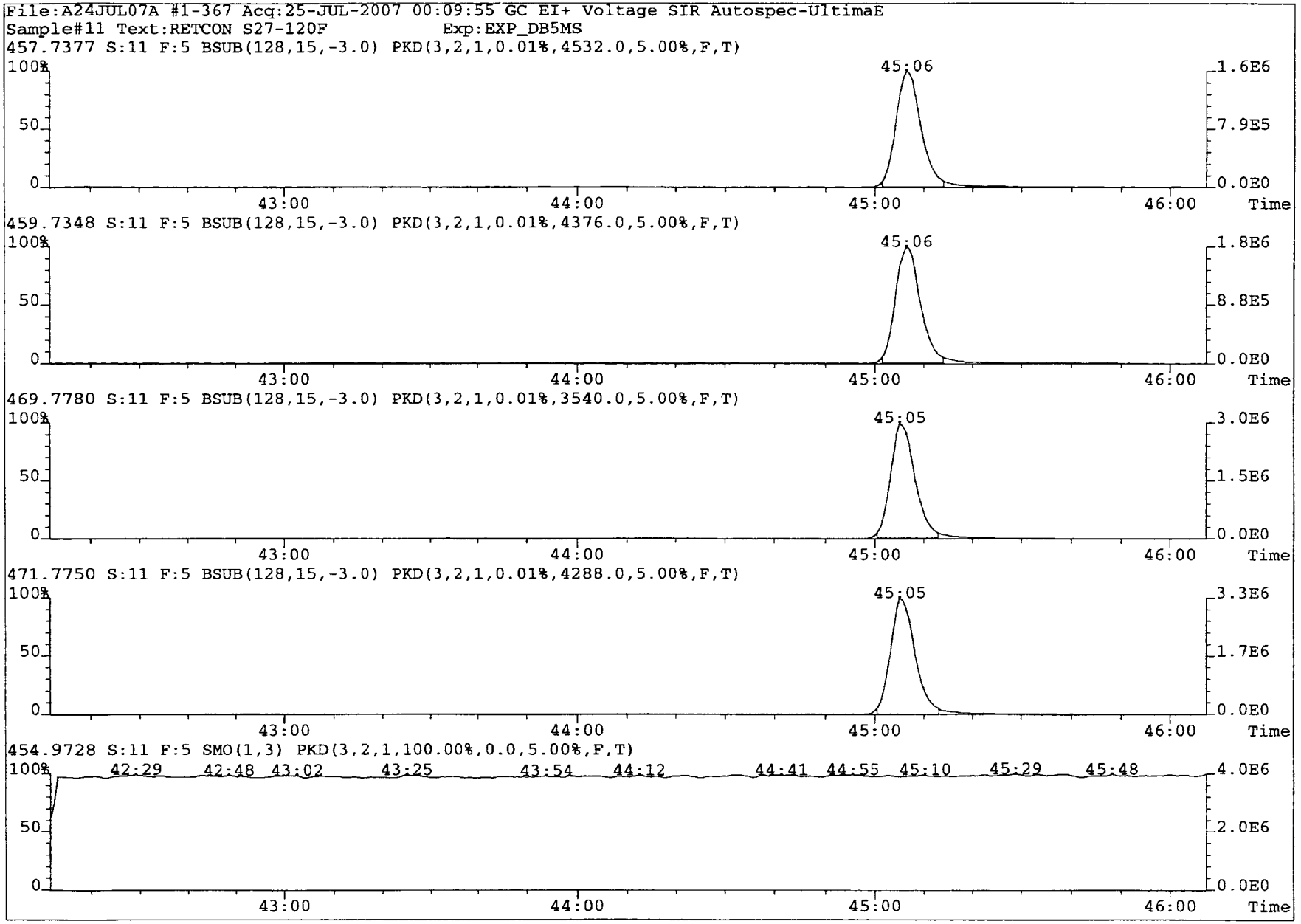
Name;	Resp;	Ion 1;	Ion 2	;	RA	;? ;	RT	;	Conc	;	Dev'n;	CCAL RRF;	ICAL RRF	;Mod
2,3,7,8-TCDD;	4.2e+06;	1.84e+06;	2.35e+06	;	0.79	;y ;	31:40	;	9.963	;	-0.4;	0.9667;	0.9703	;n
1,2,3,7,8-PeCDD;	1.6e+07;	1.01e+07;	6.35e+06	;	1.58	;y ;	34:27	;	48.43	;	-3.1;	1.0103;	1.0431	;n
1,2,3,4,7,8-HxCDD;	1.6e+07;	8.80e+06;	7.07e+06	;	1.24	;y ;	37:07	;	50.44	;	0.9;	0.9925;	0.9838	;n
1,2,3,6,7,8-HxCDD;	1.5e+07;	8.44e+06;	6.68e+06	;	1.26	;y ;	37:12	;	48.92	;	-2.2;	0.9458;	0.9667	;n
1,2,3,7,8,9-HxCDD;	1.5e+07;	8.26e+06;	6.62e+06	;	1.25	;y ;	37:28	;	48.84	;	-2.3;	0.9305;	0.9525	;n
1,2,3,4,6,7,8-HpCDD;	1.2e+07;	6.37e+06;	6.09e+06	;	1.05	;y ;	40:39	;	49.09	;	-1.8;	1.0391;	1.0583	;n
OCDD;	1.9e+07;	9.04e+06;	1.01e+07	;	0.89	;y ;	45:07	;	99.66	;	-0.3;	1.0746;	1.0783	;n
2,3,7,8-TCDF;	5.8e+06;	2.55e+06;	3.26e+06	;	0.78	;y ;	31:08	;	9.664	;	-3.4;	1.0824;	1.1201	;n
1,2,3,7,8-PeCDF;	2.4e+07;	1.48e+07;	9.35e+06	;	1.59	;y ;	33:38	;	47.98	;	-4.0;	0.9580;	0.9985	;n
2,3,4,7,8-PeCDF;	2.4e+07;	1.48e+07;	9.34e+06	;	1.58	;y ;	34:15	;	46.13	;	-7.7;	0.9556;	1.0357	;n
1,2,3,4,7,8-HxCDF;	2.1e+07;	1.18e+07;	9.39e+06	;	1.25	;y ;	36:23	;	48.71	;	-2.6;	1.0646;	1.0927	;n
1,2,3,6,7,8-HxCDF;	2.3e+07;	1.25e+07;	1.01e+07	;	1.24	;y ;	36:29	;	49.11	;	-1.8;	1.1392;	1.1598	;n
2,3,4,6,7,8-HxCDF;	2.2e+07;	1.19e+07;	9.59e+06	;	1.24	;y ;	36:60	;	49.20	;	-1.6;	1.0822;	1.0999	;n
1,2,3,7,8,9-HxCDF;	1.8e+07;	9.91e+06;	7.81e+06	;	1.27	;y ;	37:48	;	47.15	;	-5.7;	0.8906;	0.9444	;n
1,2,3,4,6,7,8-HpCDF;	1.9e+07;	9.74e+06;	9.39e+06	;	1.04	;y ;	39:21	;	47.98	;	-4.0;	1.3347;	1.3907	;n
1,2,3,4,7,8,9-HpCDF;	1.4e+07;	7.35e+06;	6.97e+06	;	1.05	;y ;	41:21	;	45.55	;	-8.9;	0.9986;	1.0961	;n
OCDF;	2.2e+07;	1.05e+07;	1.15e+07	;	0.91	;y ;	45:26	;	94.55	;	-5.4;	1.2375;	1.3088	;n
Extraction Standards														
13C-2,3,7,8-TCDD;	4.3e+07;	1.89e+07;	2.44e+07	;	0.77	;y ;	31:39	;	96.59	;	-3.4;	1.0212;	1.0572	;n
13C-1,2,3,7,8-PeCDD;	3.3e+07;	1.99e+07;	1.26e+07	;	1.58	;y ;	34:26	;	87.72	;	-12.3;	0.7666;	0.8739	;n
13C-1,2,3,6,7,8-HxCDD;	3.2e+07;	1.77e+07;	1.43e+07	;	1.24	;y ;	37:11	;	100.9	;	0.9;	1.0515;	1.0423	;n
13C-1,2,3,4,6,7,8-HpCDD;	2.4e+07;	1.23e+07;	1.17e+07	;	1.05	;y ;	40:38	;	97.30	;	-2.7;	0.7887;	0.8106	;n
13C-OCDD;	3.6e+07;	1.68e+07;	1.89e+07	;	0.89	;y ;	45:06	;	173.5	;	-13.3;	0.5858;	0.6753	;n
13C-2,3,7,8-TCDF;	5.4e+07;	2.37e+07;	3.00e+07	;	0.79	;y ;	31:07	;	91.88	;	-8.1;	1.2667;	1.3787	;n
13C-1,2,3,7,8-PeCDF;	5.0e+07;	3.09e+07;	1.96e+07	;	1.58	;y ;	33:38	;	83.00	;	-17.0;	1.1906;	1.4346	;n
13C-1,2,3,6,7,8-HxCDF;	4.0e+07;	1.37e+07;	2.61e+07	;	0.53	;y ;	36:28	;	93.84	;	-6.2;	1.3082;	1.3941	;n
13C-1,2,3,4,6,7,8-HpCDF;	2.9e+07;	8.89e+06;	1.98e+07	;	0.45	;y ;	39:20	;	91.01	;	-9.0;	0.9423;	1.0354	;n
Injection Standards														
13C-1,2,3,4-TCDD;	4.2e+07;	1.87e+07;	2.37e+07	;	0.79	;y ;	31:15	;	52.08	;	-;	-;	-	;n
13C-1,2,3,7,8,9-HxCDD;	3.0e+07;	1.69e+07;	1.36e+07	;	1.24	;y ;	37:27	;	42.80	;	-;	-;	-	;n
Cleanup Standards														
37Cl-2,3,7,8-TCDD;	4.4e+06;	4.43e+06;	-	;	-	;- ;	31:40	;	9.674	;	-3.3;	1.0442;	1.0795	;n
13C-2,3,4,7,8-PeCDF;	4.9e+07;	2.99e+07;	1.89e+07	;	1.58	;y ;	34:14	;	81.62	;	-18.4;	1.1494;	1.4082	;n
13C-1,2,3,4,7,8-HxCDD;	3.1e+07;	1.71e+07;	1.35e+07	;	1.27	;y ;	37:06	;	101.8	;	1.8;	1.0081;	0.9902	;n
13C-1,2,3,4,7,8-HxCDF;	3.6e+07;	1.22e+07;	2.34e+07	;	0.52	;y ;	36:22	;	93.28	;	-6.7;	1.1697;	1.2540	;n
13C-1,2,3,4,7,8,9-HpCDF;	2.4e+07;	7.59e+06;	1.68e+07	;	0.45	;y ;	41:20	;	86.78	;	-13.2;	0.8015;	0.9236	;n
Sampling Standards														
37Cl-2,3,7,8-TCDD;	4.4e+06;	4.43e+06;	-	;	-	;- ;	31:40	;	10.02	;	0.2;	1.0226;	1.0210	;n
13C-2,3,4,7,8-PeCDF;	4.9e+07;	2.99e+07;	1.89e+07	;	1.58	;y ;	34:14	;	98.30	;	-1.7;	0.9654;	0.9821	;n
13C-1,2,3,4,7,8-HxCDD;	3.1e+07;	1.71e+07;	1.35e+07	;	1.27	;y ;	37:06	;	100.9	;	0.9;	0.9587;	0.9501	;n
13C-1,2,3,4,7,8-HxCDF;	3.6e+07;	1.22e+07;	2.34e+07	;	0.52	;y ;	36:22	;	99.35	;	-0.6;	0.8941;	0.8999	;n
13C-1,2,3,4,7,8,9-HpCDF;	2.4e+07;	7.59e+06;	1.68e+07	;	0.45	;y ;	41:20	;	95.35	;	-4.6;	0.8505;	0.8920	;n

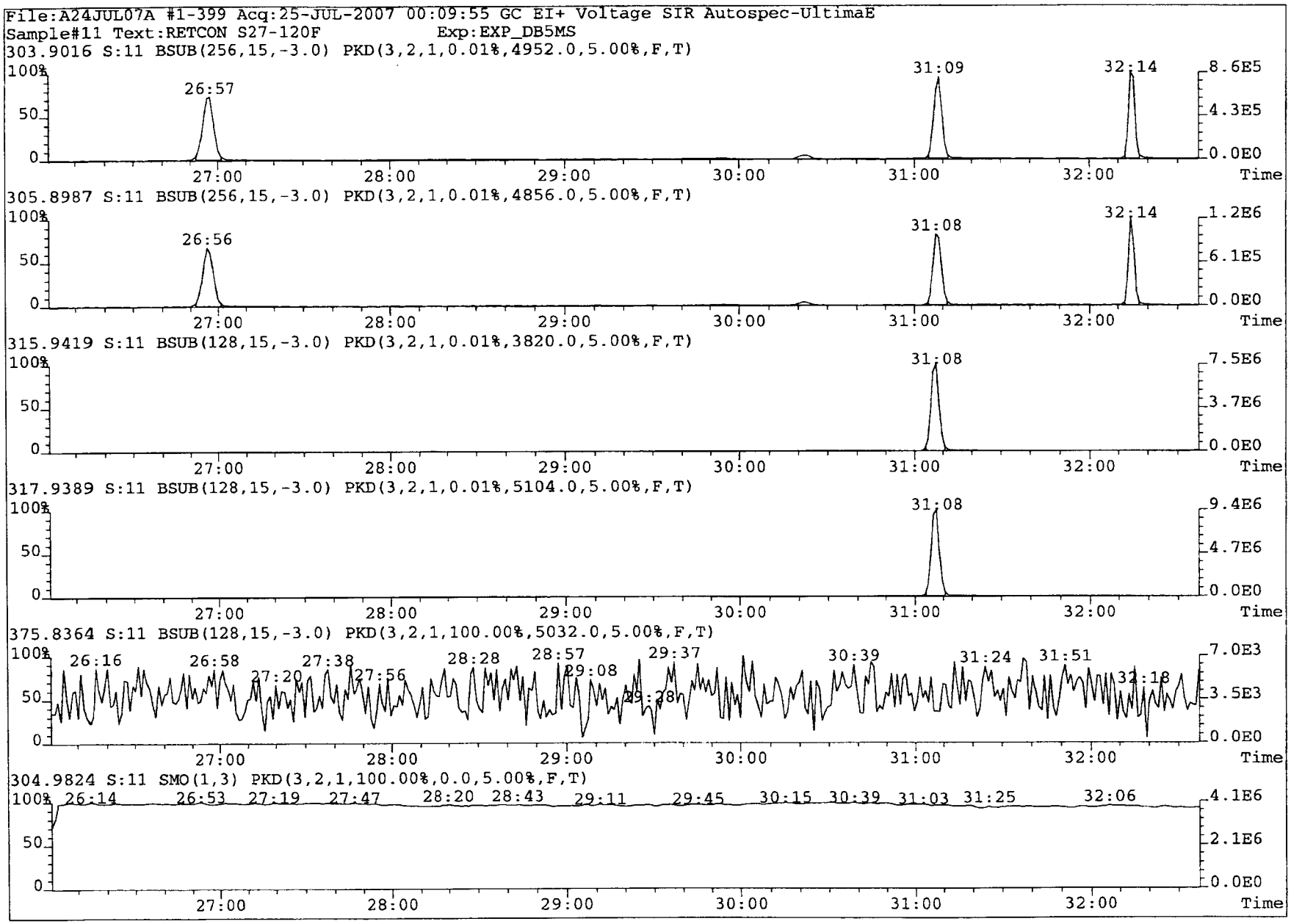

File:A24JUL07A #1-399 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F Exp:EXP_DB5MS
319.8965 S:11 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5156.0,5.00%,F,T)
28:41
31:16
31:29
31:40
32:10
8.9E5
4.4E5
0.0E0
321.8936 S:11 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5072.0,5.00%,F,T)
28:40
31:16
31:29
31:40
32:10
1.1E6
5.4E5
0.0E0
331.9368 S:11 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4844.0,5.00%,F,T)
31:15
31:39
7.4E6
3.7E6
0.0E0
333.9339 S:11 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5212.0,5.00%,F,T)
31:15
31:39
9.6E6
4.8E6
0.0E0
327.8847 S:11 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4944.0,5.00%,F,T)
31:40
1.8E6
9.2E5
0.0E0
304.9824 S:11 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:14 26:53 27:19 27:47 28:20 28:43 29:11 29:45 30:15 30:39 31:03 31:25 32:06
4.1E6
2.1E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time

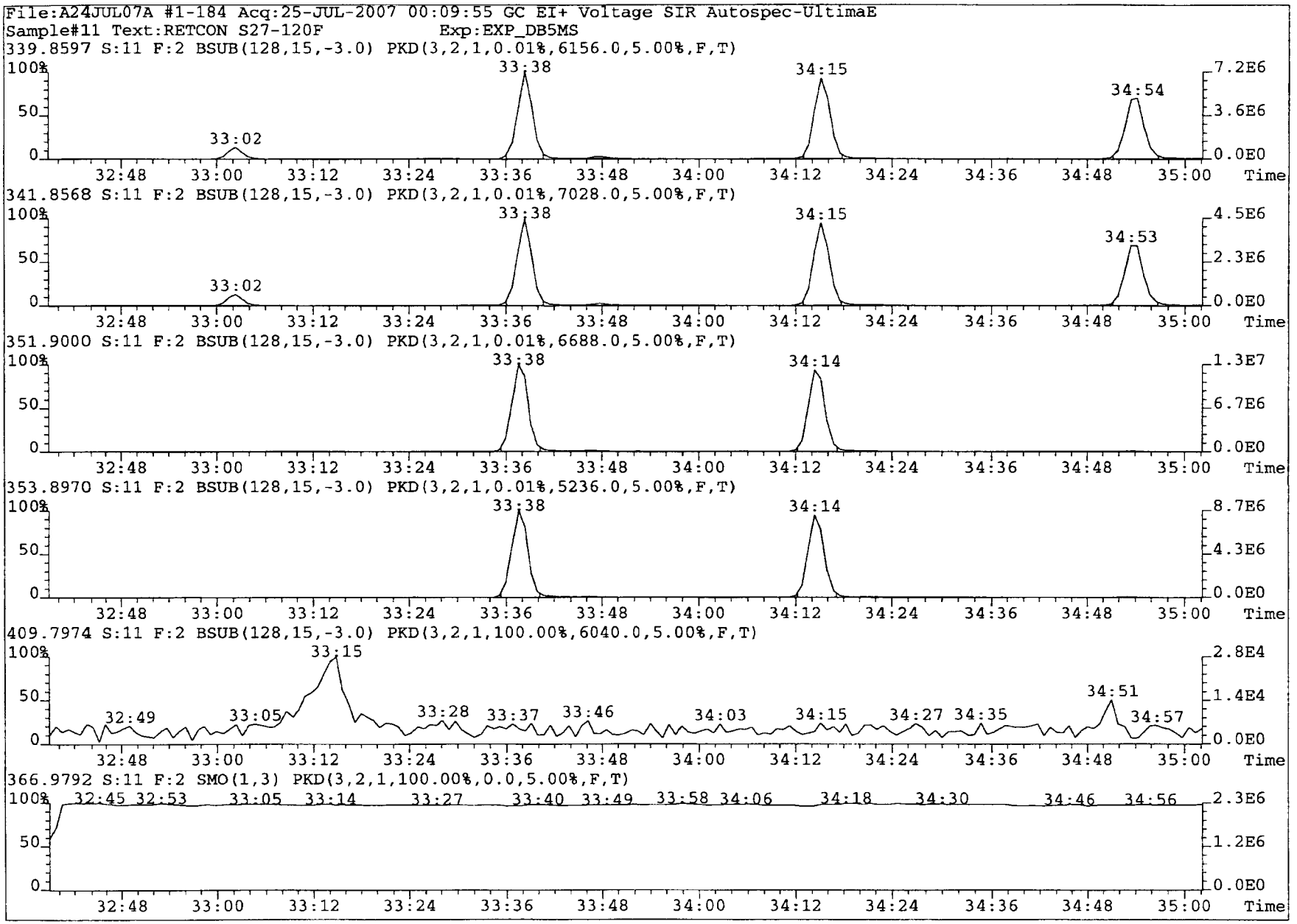

File:A24JUL07A #1-184 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F Exp:EXP_DB5MS
355.8546 S:11 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4640.0,5.00%,F,T)
33:05
34:27
34:43
4.9E6
2.4E6
0.0E0
357.8517 S:11 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5548.0,5.00%,F,T)
33:05
34:27
34:43
3.1E6
1.5E6
0.0E0
367.8949 S:11 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4660.0,5.00%,F,T)
34:26
9.0E6
4.5E6
0.0E0
369.8919 S:11 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4624.0,5.00%,F,T)
34:26
5.5E6
2.7E6
0.0E0
366.9792 S:11 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:45 32:53 33:05 33:14 33:27 33:40 33:49 33:58 34:06 34:18 34:30 34:46 34:56
2.3E6
1.2E6
0.0E0
100%
50
0
32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00
Time

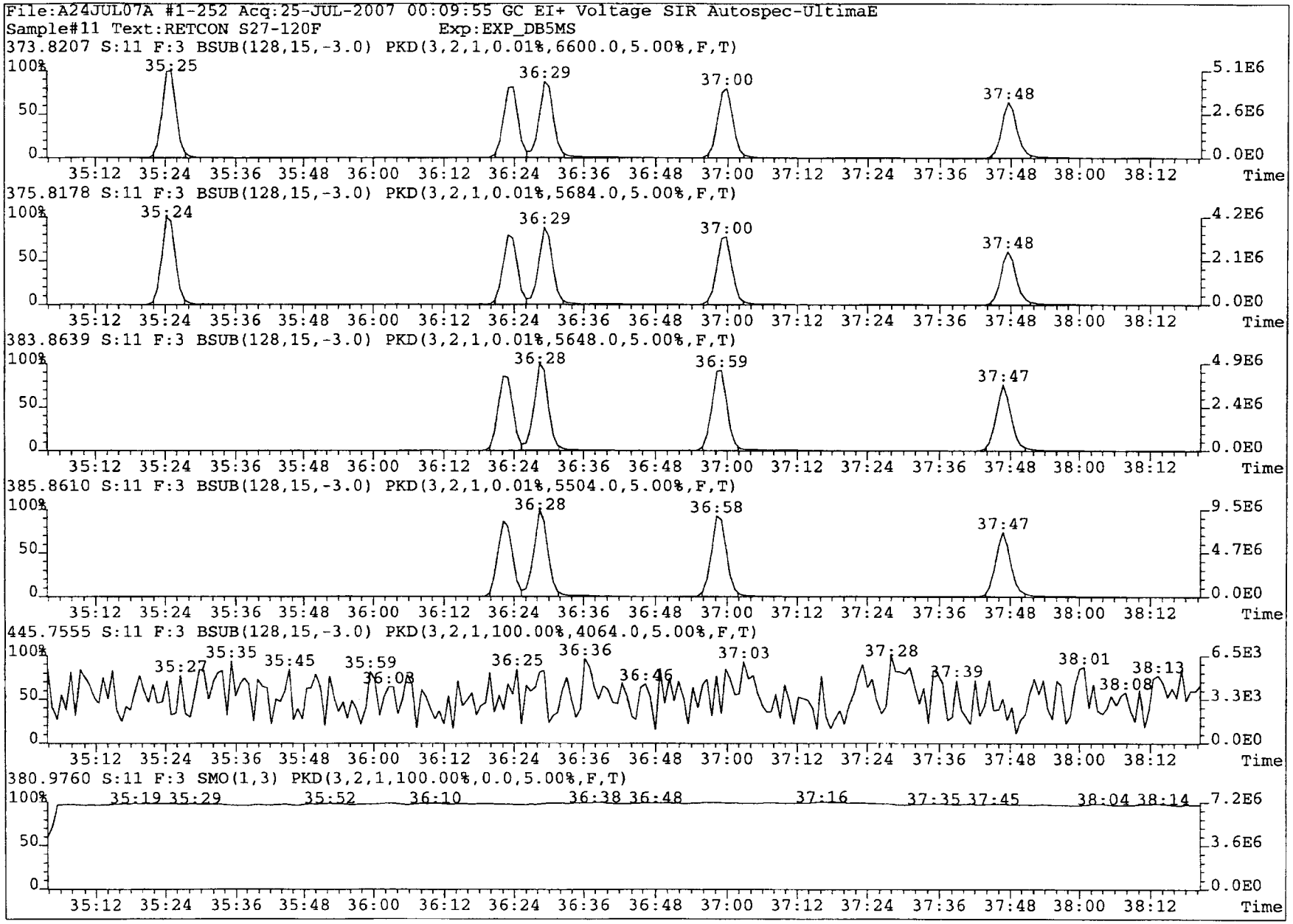

File:A24JUL07A #1-252 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F Exp:EXP_DB5MS
389.8156 S:11 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5548.0,5.00%,F,T)
35:50
37:07
37:27
4.1E6
2.0E6
0.0E0
391.8127 S:11 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4992.0,5.00%,F,T)
35:50
37:07
37:27
3.3E6
1.7E6
0.0E0
401.8559 S:11 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4992.0,5.00%,F,T)
37:11
37:26
6.2E6
3.1E6
0.0E0
403.8530 S:11 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4952.0,5.00%,F,T)
37:11
37:26
4.9E6
2.5E6
0.0E0
380.9760 S:11 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:19 35:29
35:52
36:10
36:38 36:48
37:16
37:35 37:45
38:04 38:14
7.2E6
3.6E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

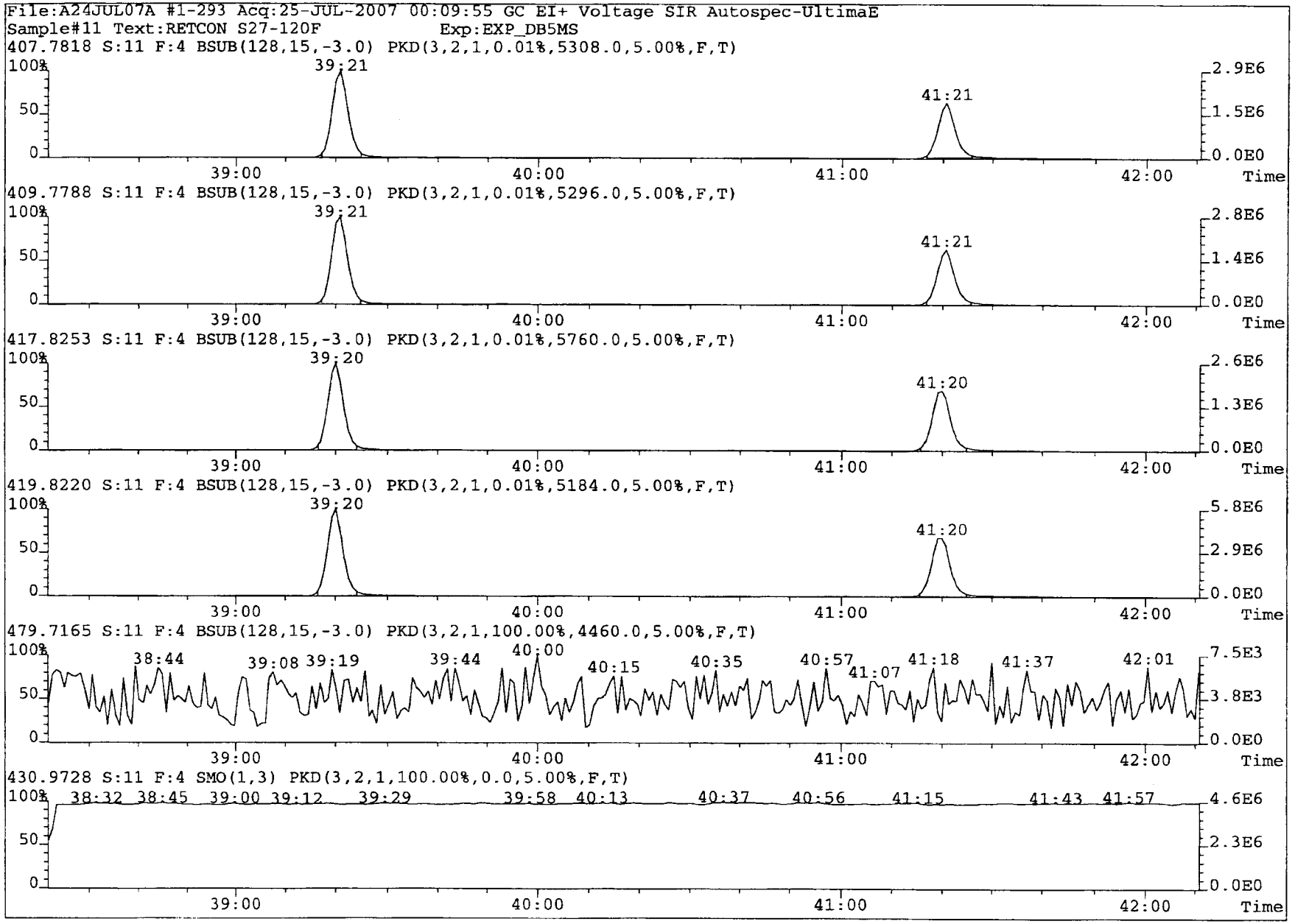

File:A24JUL07A #1-293 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F Exp:EXP_DB5MS
423.7767 S:11 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4924.0,5.00%,F,T)
39:40
40:38
2.1E6
1.0E6
0.0E0
425.7737 S:11 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5348.0,5.00%,F,T)
39:40
40:38
2.0E6
1.0E6
0.0E0
435.8169 S:11 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4204.0,5.00%,F,T)
40:38
3.2E6
1.6E6
0.0E0
437.8140 S:11 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3916.0,5.00%,F,T)
40:38
3.1E6
1.5E6
0.0E0
430.9728 S:11 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:32 38:45 39:08 39:29 39:49 40:13 40:37 40:56 41:15 41:43 41:57
4.6E6
2.3E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

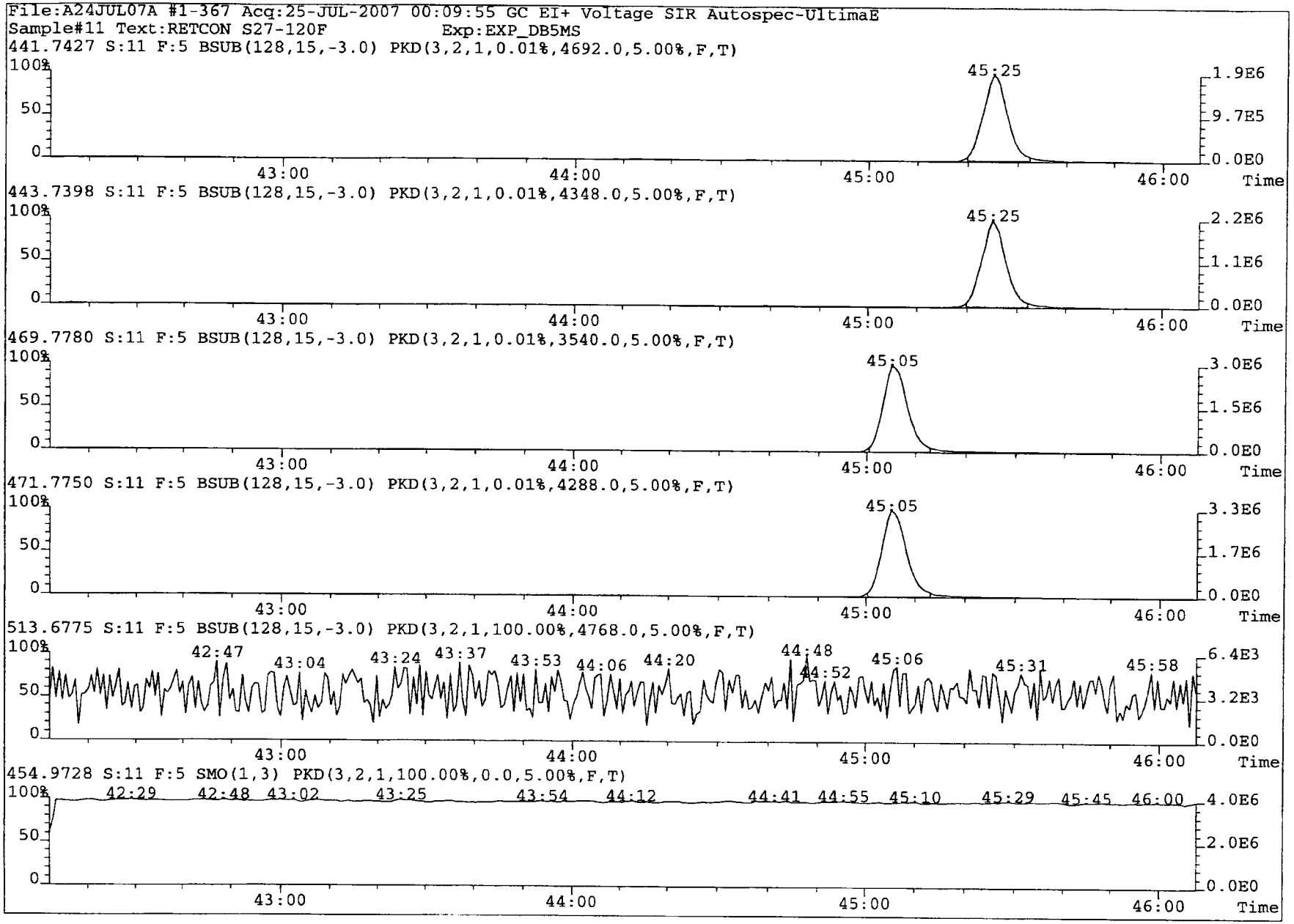

File:A24JUL07A #1-367 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F Exp:EXP_DB5MS
457.7377 S:11 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4532.0,5.00%,F,T)
45:06
1.6E6
7.9E5
0.0E0
459.7348 S:11 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4376.0,5.00%,F,T)
45:06
1.8E6
8.8E5
0.0E0
469.7780 S:11 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3540.0,5.00%,F,T)
45:05
3.0E6
1.5E6
0.0E0
471.7750 S:11 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4288.0,5.00%,F,T)
45:05
3.3E6
1.7E6
0.0E0
454.9728 S:11 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:29 42:48 43:02 43:25 43:54 44:12 44:41 44:55 45:10 45:29 45:48
4.0E6
2.0E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

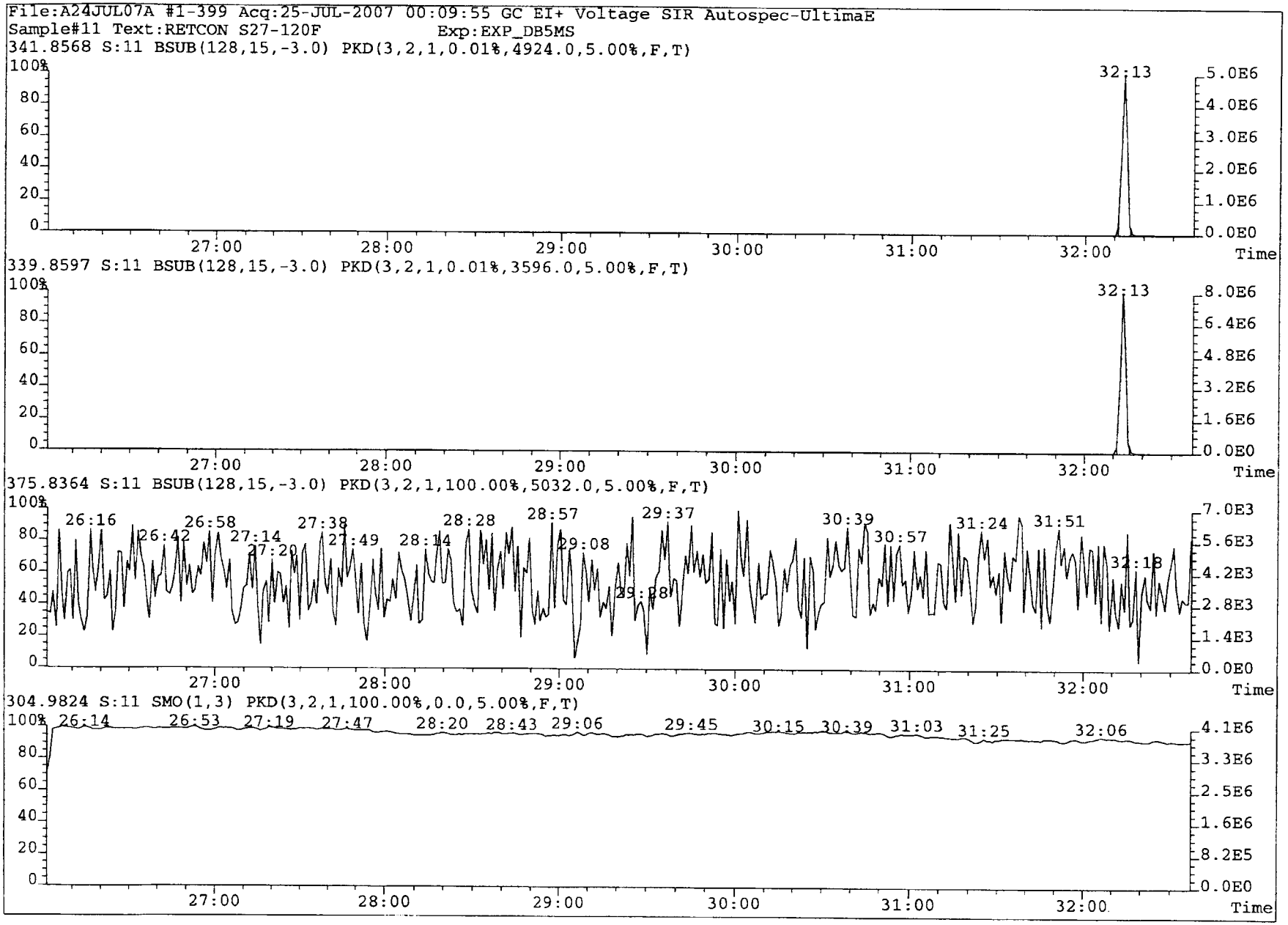

File:A24JUL07A #1-399 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F Exp:EXP_DB5MS
303.9016 S:11 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4952.0,5.00%,F,T)
26:57
31:09
32:14
8.6E5
4.3E5
0.0E0
305.8987 S:11 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4856.0,5.00%,F,T)
26:56
31:08
32:14
1.2E6
6.1E5
0.0E0
315.9419 S:11 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3820.0,5.00%,F,T)
31:08
7.5E6
3.7E6
0.0E0
317.9389 S:11 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5104.0,5.00%,F,T)
31:08
9.4E6
4.7E6
0.0E0
375.8364 S:11 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5032.0,5.00%,F,T)
26:16 26:58 27:20 27:38 27:56 28:28 28:57 29:08 29:28 29:37 30:39 31:24 31:51 32:18
7.0E3
3.5E3
0.0E0
304.9824 S:11 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:14 26:53 27:19 27:47 28:20 28:43 29:11 29:45 30:15 30:39 31:03 31:25 32:06
4.1E6
2.1E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time


File:A24JUL07A #1-184 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F Exp:EXP_DB5MS
339.8597 S:11 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6156.0,5.00%,F,T)
33:38
34:15
34:54
33:02
7.2E6
3.6E6
0.0E0
341.8568 S:11 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,7028.0,5.00%,F,T)
33:38
34:15
34:53
33:02
4.5E6
2.3E6
0.0E0
351.9000 S:11 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6688.0,5.00%,F,T)
33:38
34:14
1.3E7
6.7E6
0.0E0
353.8970 S:11 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5236.0,5.00%,F,T)
33:38
34:14
8.7E6
4.3E6
0.0E0
409.7974 S:11 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,6040.0,5.00%,F,T)
33:15
32:49
33:05
33:28
33:37
33:46
34:03
34:15
34:27
34:35
34:51
34:57
2.8E4
1.4E4
0.0E0
366.9792 S:11 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:45 32:53 33:05 33:14 33:27 33:40 33:49 33:58 34:06 34:18 34:30 34:46 34:56
2.3E6
1.2E6
0.0E0
100%
50
0
32:48 33:00 33:12 33:24 33:36 33:48 34:00 34:12 34:24 34:36 34:48 35:00
Time


File:A24JUL07A #1-252 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F Exp:EXP_DB5MS
373.8207 S:11 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6600.0,5.00%,F,T)
35:25
36:29
37:00
37:48
5.1E6
2.6E6
0.0E0
375.8178 S:11 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5684.0,5.00%,F,T)
35:24
36:29
37:00
37:48
4.2E6
2.1E6
0.0E0
383.8639 S:11 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5648.0,5.00%,F,T)
36:28
36:59
37:47
4.9E6
2.4E6
0.0E0
385.8610 S:11 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5504.0,5.00%,F,T)
36:28
36:58
37:47
9.5E6
4.7E6
0.0E0
445.7555 S:11 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4064.0,5.00%,F,T)
35:27
35:35
35:45
35:59
36:08
36:25
36:36
36:46
37:03
37:28
37:39
38:01
38:08
38:13
6.5E3
3.3E3
0.0E0
380.9760 S:11 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:19 35:29
35:52
36:10
36:38 36:48
37:16
37:35 37:45
38:04 38:14
7.2E6
3.6E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time


File:A24JUL07A #1-293 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F Exp:EXP_DB5MS
407.7818 S:11 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5308.0,5.00%,F,T)
39:21
41:21
2.9E6
1.5E6
0.0E0
409.7788 S:11 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5296.0,5.00%,F,T)
39:21
41:21
2.8E6
1.4E6
0.0E0
417.8253 S:11 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5760.0,5.00%,F,T)
39:20
41:20
2.6E6
1.3E6
0.0E0
419.8220 S:11 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5184.0,5.00%,F,T)
39:20
41:20
5.8E6
2.9E6
0.0E0
479.7165 S:11 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4460.0,5.00%,F,T)
38:44 39:08 39:19 39:44 40:00 40:15 40:35 40:57 41:07 41:18 41:37 42:01
7.5E3
3.8E3
0.0E0
430.9728 S:11 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:32 38:45 39:00 39:12 39:29 39:58 40:13 40:37 40:56 41:15 41:43 41:57
4.6E6
2.3E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

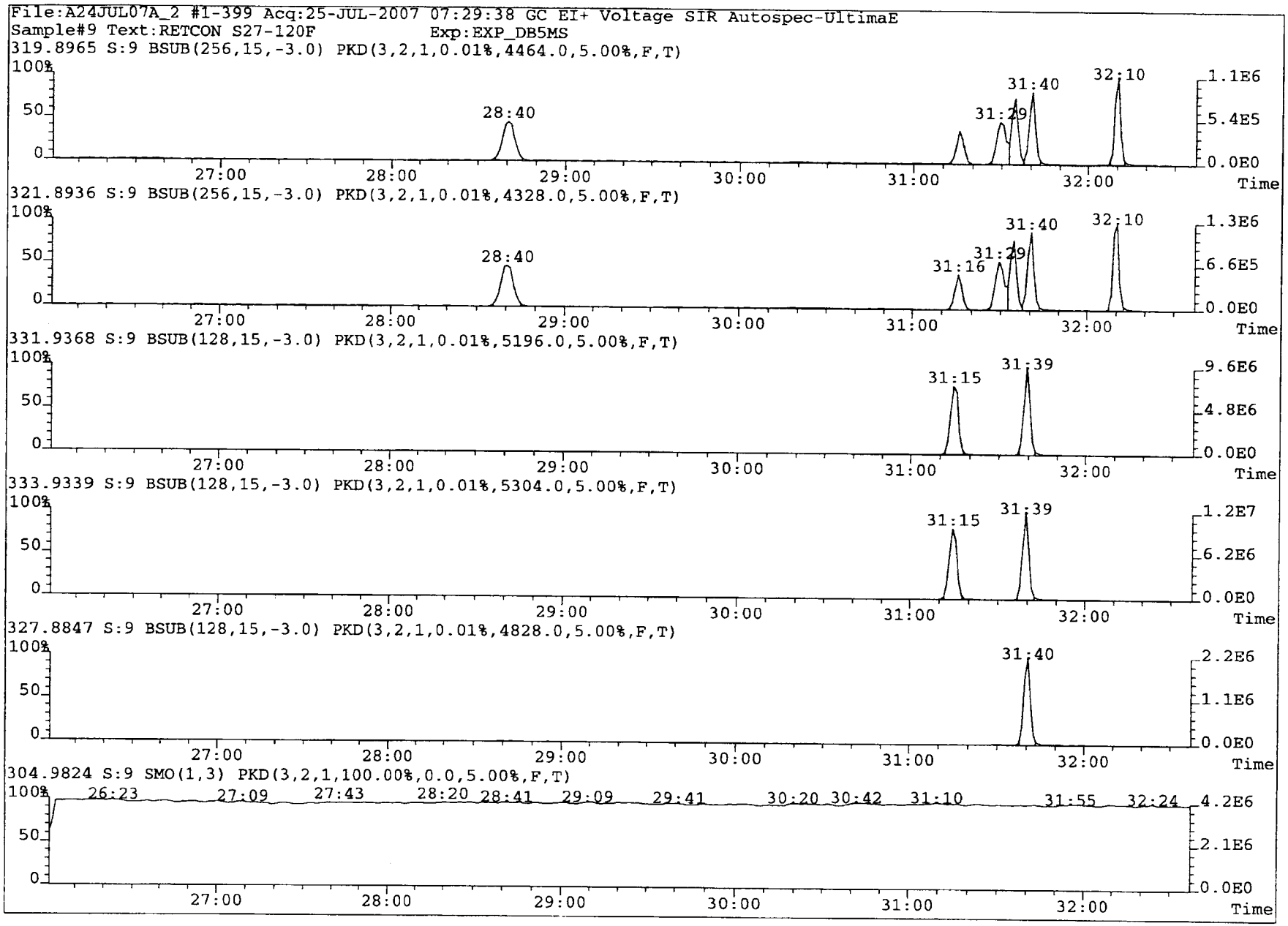

File:A24JUL07A #1-367 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F Exp:EXP_DB5MS
441.7427 S:11 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4692.0,5.00%,F,T)
45:25
1.9E6
9.7E5
0.0E0
443.7398 S:11 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4348.0,5.00%,F,T)
45:25
2.2E6
1.1E6
0.0E0
469.7780 S:11 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3540.0,5.00%,F,T)
45:05
3.0E6
1.5E6
0.0E0
471.7750 S:11 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4288.0,5.00%,F,T)
45:05
3.3E6
1.7E6
0.0E0
513.6775 S:11 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4768.0,5.00%,F,T)
42:47 43:04 43:24 43:37 43:53 44:06 44:20 44:48 44:52 45:06 45:31 45:58
6.4E3
3.2E3
0.0E0
454.9728 S:11 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:29 42:48 43:02 43:25 43:54 44:12 44:41 44:55 45:10 45:29 45:45 46:00
4.0E6
2.0E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

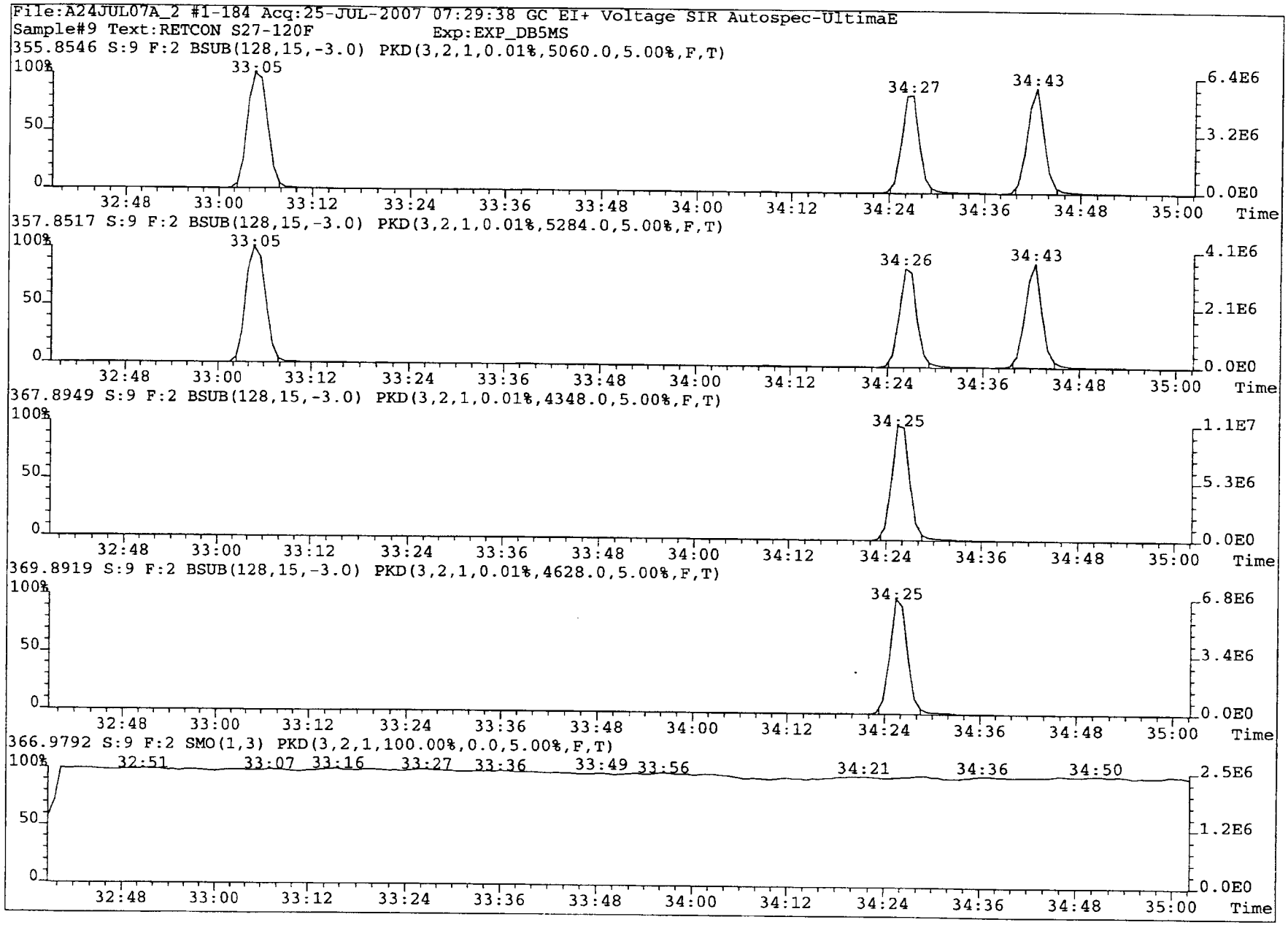

File:A24JUL07A #1-399 Acq:25-JUL-2007 00:09:55 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 Text:RETCON S27-120F Exp:EXP_DB5MS
341.8568 S:11 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4924.0,5.00%,F,T)
32:13
339.8597 S:11 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3596.0,5.00%,F,T)
32:13
375.8364 S:11 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5032.0,5.00%,F,T)
26:16 26:42 26:58 27:14 27:20 27:38 27:49 28:14 28:28 28:57 29:08 29:28 29:37 30:39 30:57 31:24 31:51 32:18
304.9824 S:11 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:14 26:53 27:19 27:47 28:20 28:43 29:06 29:45 30:15 30:39 31:03 31:25 32:06
27:00 28:00 29:00 30:00 31:00 32:00
Time

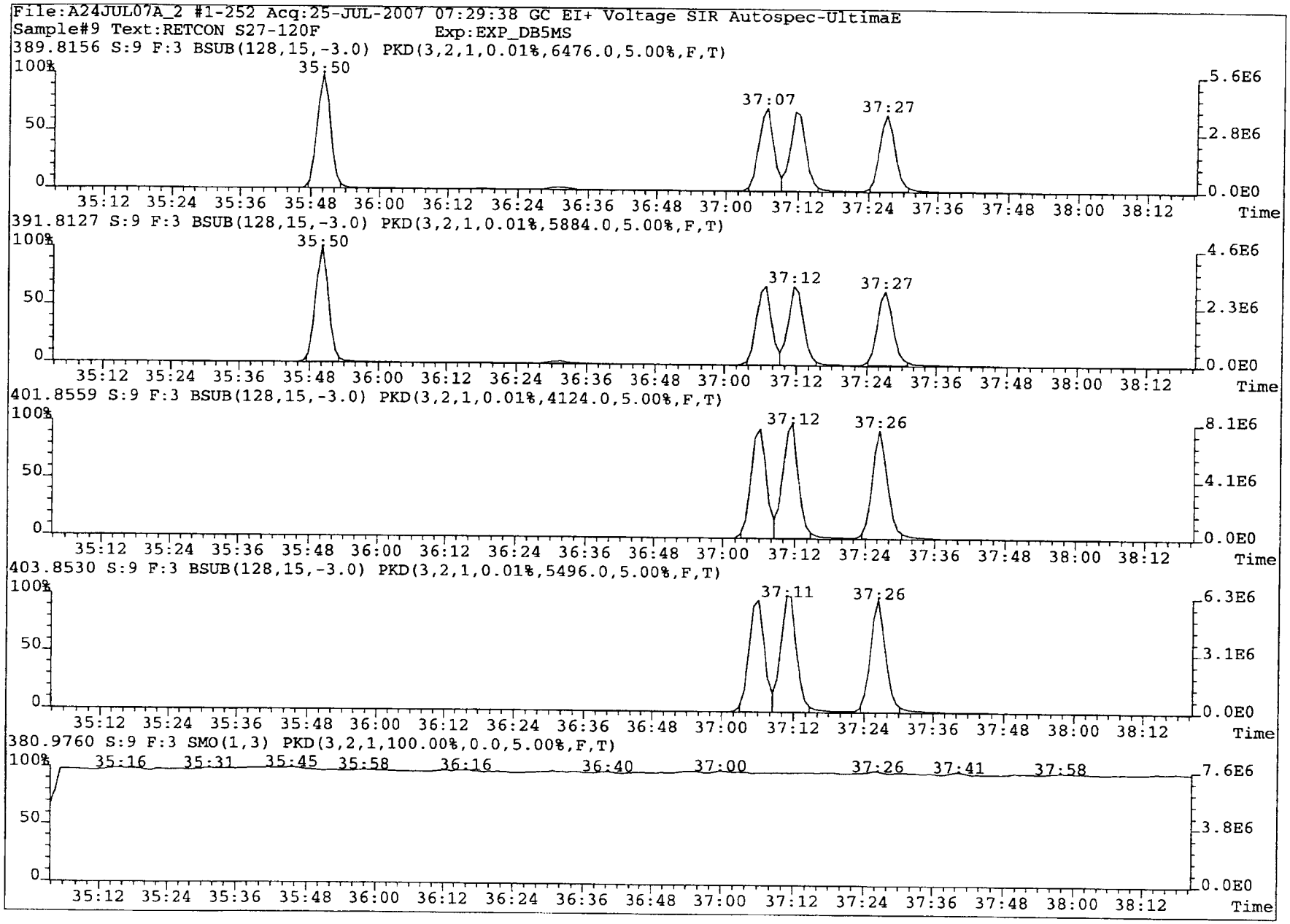
Page 1 of 1
8290 CCAL

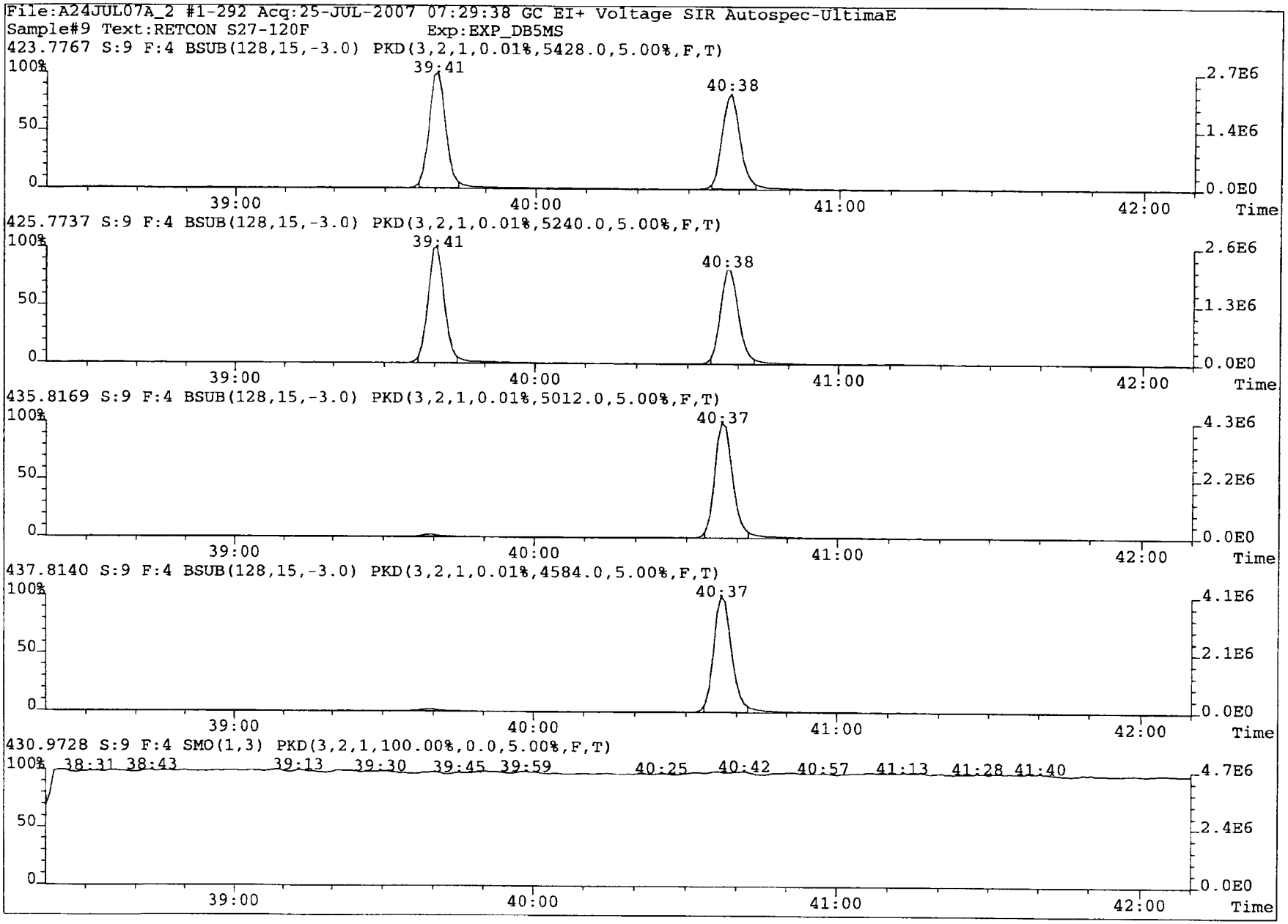
Sample text; RETCON S27-120F
Filename; a24jul07a_2 -9 Acquired; 25-JUL-07 07:29:38 Processed; 25-JUL-07 15:11:34
ICAL; m8290-071007a Results;

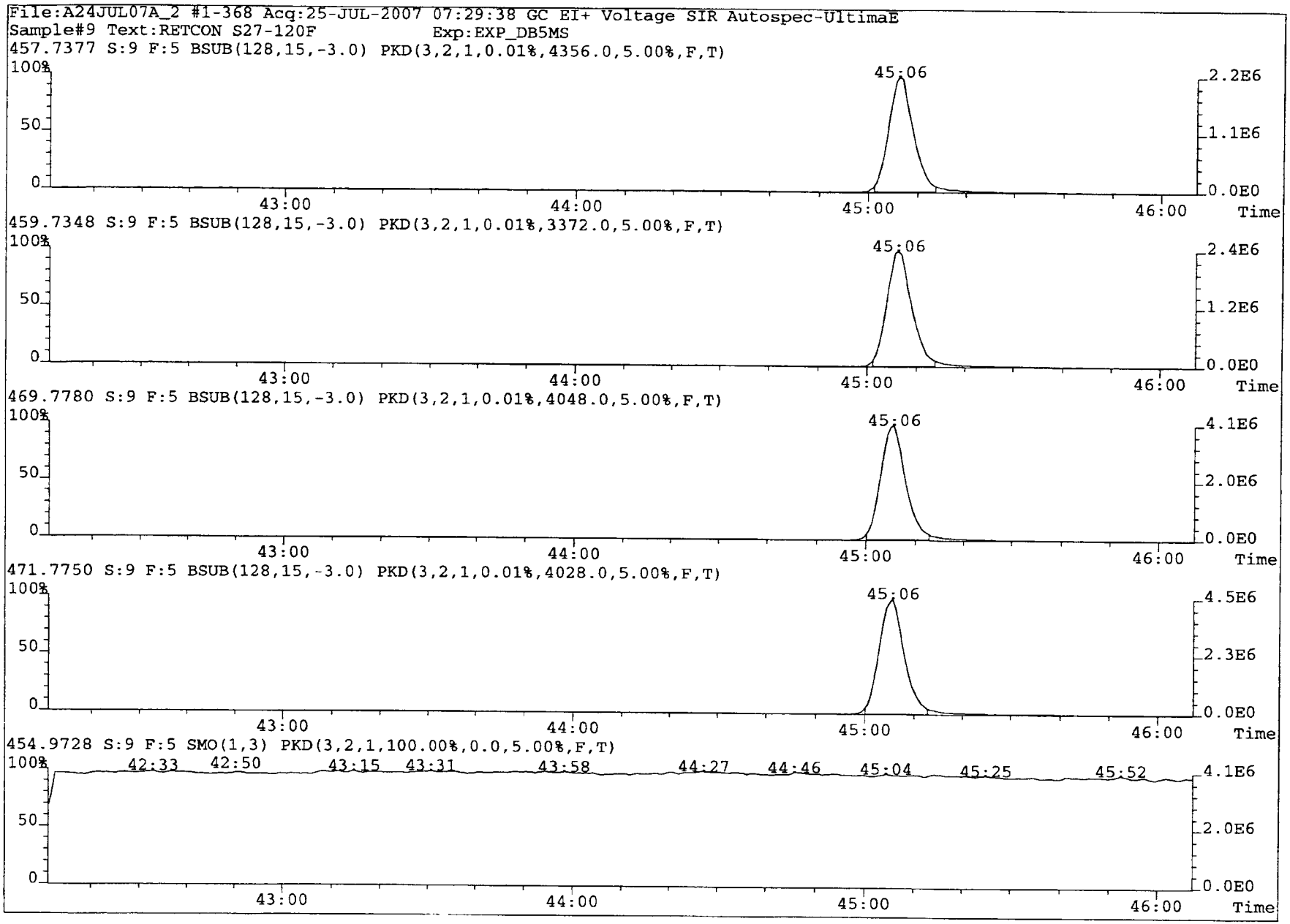
Name;	Resp;	Ion 1;	Ion 2	; RA ;? ;	RT ;	Conc ;	Dev'n;	CCAL RRF;	ICAL RRF	;Mod
2,3,7,8-TCDD;	5.3e+06;	2.27e+06;	2.99e+06	; 0.76 ;y ;	31:40 ;	10.11 ;	1.1;	0.9807;	0.9703	;n
1,2,3,7,8-PeCDD;	2.2e+07;	1.35e+07;	8.62e+06	; 1.56 ;y ;	34:27 ;	49.23 ;	-1.5;	1.0271;	1.0431	;n
1,2,3,4,7,8-HxCDD;	2.0e+07;	1.13e+07;	8.92e+06	; 1.27 ;y ;	37:07 ;	47.20 ;	-5.6;	0.9287;	0.9838	;n
1,2,3,6,7,8-HxCDD;	2.1e+07;	1.15e+07;	9.14e+06	; 1.26 ;y ;	37:12 ;	49.16 ;	-1.7;	0.9504;	0.9667	;n
1,2,3,7,8,9-HxCDD;	2.0e+07;	1.10e+07;	8.82e+06	; 1.25 ;y ;	37:27 ;	47.77 ;	-4.5;	0.9100;	0.9525	;n
1,2,3,4,6,7,8-HpCDD;	1.8e+07;	9.06e+06;	8.72e+06	; 1.04 ;y ;	40:38 ;	49.26 ;	-1.5;	1.0426;	1.0583	;n
OCDD;	2.6e+07;	1.24e+07;	1.39e+07	; 0.89 ;y ;	45:07 ;	99.46 ;	-0.5;	1.0725;	1.0783	;n
2,3,7,8-TCDF;	7.9e+06;	3.49e+06;	4.43e+06	; 0.79 ;y ;	31:08 ;	10.22 ;	2.2;	1.1450;	1.1201	;n
1,2,3,7,8-PeCDF;	3.3e+07;	2.04e+07;	1.30e+07	; 1.57 ;y ;	33:38 ;	49.41 ;	-1.2;	0.9866;	0.9985	;n
2,3,4,7,8-PeCDF;	3.4e+07;	2.07e+07;	1.32e+07	; 1.57 ;y ;	34:15 ;	48.30 ;	-3.4;	1.0006;	1.0357	;n
1,2,3,4,7,8-HxCDF;	2.9e+07;	1.62e+07;	1.29e+07	; 1.25 ;y ;	36:23 ;	49.38 ;	-1.2;	1.0793;	1.0927	;n
1,2,3,6,7,8-HxCDF;	3.0e+07;	1.68e+07;	1.34e+07	; 1.25 ;y ;	36:29 ;	48.33 ;	-3.3;	1.1211;	1.1598	;n
2,3,4,6,7,8-HxCDF;	2.9e+07;	1.62e+07;	1.29e+07	; 1.25 ;y ;	36:59 ;	49.02 ;	-2.0;	1.0783;	1.0999	;n
1,2,3,7,8,9-HxCDF;	2.4e+07;	1.36e+07;	1.08e+07	; 1.27 ;y ;	37:47 ;	47.86 ;	-4.3;	0.9040;	0.9444	;n
1,2,3,4,6,7,8-HpCDF;	2.7e+07;	1.41e+07;	1.34e+07	; 1.05 ;y ;	39:20 ;	49.03 ;	-1.9;	1.3636;	1.3907	;n
1,2,3,4,7,8,9-HpCDF;	2.1e+07;	1.09e+07;	1.05e+07	; 1.04 ;y ;	41:20 ;	48.41 ;	-3.2;	1.0612;	1.0961	;n
OCDF;	3.0e+07;	1.44e+07;	1.57e+07	; 0.92 ;y ;	45:25 ;	93.59 ;	-6.4;	1.2249;	1.3088	;n
Extraction Standards										
13C-2,3,7,8-TCDD;	5.4e+07;	2.34e+07;	3.03e+07	; 0.77 ;y ;	31:39 ;	94.05 ;	-5.9;	0.9943;	1.0572	;n
13C-1,2,3,7,8-PeCDD;	4.3e+07;	2.63e+07;	1.67e+07	; 1.58 ;y ;	34:26 ;	91.20 ;	-8.8;	0.7970;	0.8739	;n
13C-1,2,3,6,7,8-HxCDD;	4.4e+07;	2.43e+07;	1.93e+07	; 1.26 ;y ;	37:11 ;	103.1 ;	3.1;	1.0748;	1.0423	;n
13C-1,2,3,4,6,7,8-HpCDD;	3.4e+07;	1.74e+07;	1.67e+07	; 1.04 ;y ;	40:37 ;	104.0 ;	4.0;	0.8429;	0.8106	;n
13C-OCDD;	4.9e+07;	2.32e+07;	2.59e+07	; 0.89 ;y ;	45:06 ;	179.4 ;	-10.3;	0.6058;	0.6753	;n
13C-2,3,7,8-TCDF;	6.9e+07;	3.05e+07;	3.86e+07	; 0.79 ;y ;	31:07 ;	92.92 ;	-7.1;	1.2812;	1.3787	;n
13C-1,2,3,7,8-PeCDF;	6.8e+07;	4.16e+07;	2.62e+07	; 1.59 ;y ;	33:38 ;	87.52 ;	-12.5;	1.2555;	1.4346	;n
13C-1,2,3,6,7,8-HxCDF;	5.4e+07;	1.86e+07;	3.54e+07	; 0.53 ;y ;	36:28 ;	95.64 ;	-4.4;	1.3334;	1.3941	;n
13C-1,2,3,4,6,7,8-HpCDF;	4.0e+07;	1.25e+07;	2.78e+07	; 0.45 ;y ;	39:19 ;	96.14 ;	-3.9;	0.9954;	1.0354	;n
Injection Standards										
13C-1,2,3,4-TCDD;	5.4e+07;	2.35e+07;	3.05e+07	; 0.77 ;y ;	31:15 ;	66.28 ;	-;	-;	-	;n
13C-1,2,3,7,8,9-HxCDD;	4.0e+07;	2.25e+07;	1.80e+07	; 1.25 ;y ;	37:26 ;	56.96 ;	-;	-;	-	;n
Cleanup Standards										
37Cl-2,3,7,8-TCDD;	5.5e+06;	5.47e+06;	-	; - ;- ;	31:40 ;	9.396 ;	-6.0;	1.0142;	1.0795	;n
13C-2,3,4,7,8-PeCDF;	6.7e+07;	4.09e+07;	2.57e+07	; 1.59 ;y ;	34:14 ;	87.63 ;	-12.4;	1.2341;	1.4082	;n
13C-1,2,3,4,7,8-HxCDD;	3.9e+07;	2.21e+07;	1.74e+07	; 1.26 ;y ;	37:06 ;	98.51 ;	-1.5;	0.9755;	0.9902	;n
13C-1,2,3,4,7,8-HxCDF;	4.9e+07;	1.69e+07;	3.22e+07	; 0.53 ;y ;	36:22 ;	96.84 ;	-3.2;	1.2144;	1.2540	;n
13C-1,2,3,4,7,8,9-HpCDF;	3.6e+07;	1.11e+07;	2.46e+07	; 0.45 ;y ;	41:20 ;	95.41 ;	-4.6;	0.8812;	0.9236	;n
Sampling Standards										
37Cl-2,3,7,8-TCDD;	5.5e+06;	5.47e+06;	-	; - ;- ;	31:40 ;	9.991 ;	-0.1;	1.0200;	1.0210	;n
13C-2,3,4,7,8-PeCDF;	6.7e+07;	4.09e+07;	2.57e+07	; 1.59 ;y ;	34:14 ;	100.1 ;	0.1;	0.9829;	0.9821	;n
13C-1,2,3,4,7,8-HxCDD;	3.9e+07;	2.21e+07;	1.74e+07	; 1.26 ;y ;	37:06 ;	95.53 ;	-4.5;	0.9076;	0.9501	;n
13C-1,2,3,4,7,8-HxCDF;	4.9e+07;	1.69e+07;	3.22e+07	; 0.53 ;y ;	36:22 ;	101.2 ;	1.2;	0.9108;	0.8999	;n
13C-1,2,3,4,7,8,9-HpCDF;	3.6e+07;	1.11e+07;	2.46e+07	; 0.45 ;y ;	41:20 ;	99.24 ;	-0.8;	0.8852;	0.8920	;n

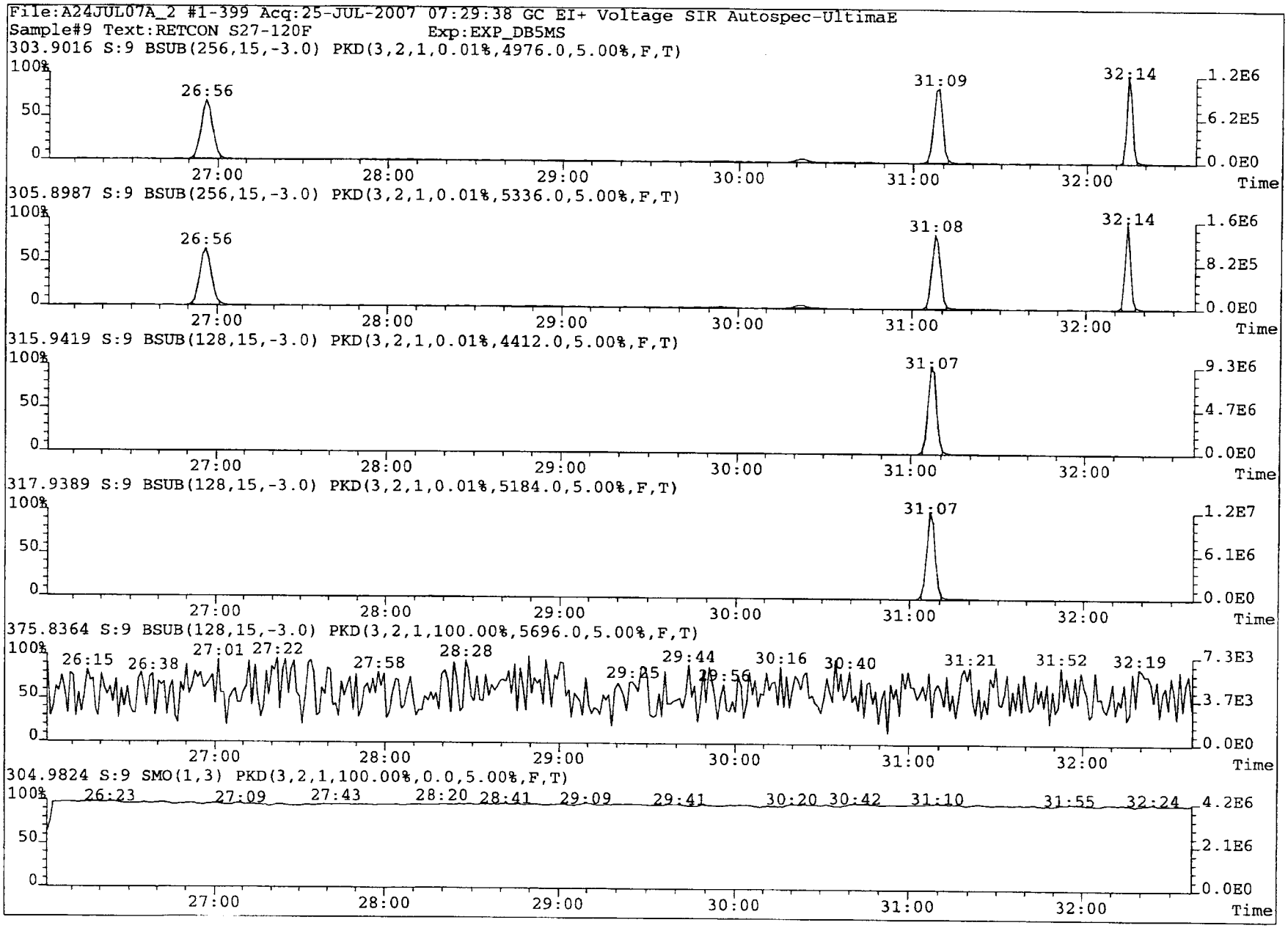

File:A24JUL07A_2 #1-399 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
319.8965 S:9 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4464.0,5.00%,F,T)
28:40
31:29
31:40
32:10
1.1E6
5.4E5
0.0E0
321.8936 S:9 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4328.0,5.00%,F,T)
28:40
31:16
31:29
31:40
32:10
1.3E6
6.6E5
0.0E0
331.9368 S:9 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5196.0,5.00%,F,T)
31:15
31:39
9.6E6
4.8E6
0.0E0
333.9339 S:9 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5304.0,5.00%,F,T)
31:15
31:39
1.2E7
6.2E6
0.0E0
327.8847 S:9 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4828.0,5.00%,F,T)
31:40
2.2E6
1.1E6
0.0E0
304.9824 S:9 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:23
27:09
27:43
28:20
28:41
29:09
29:41
30:20
30:42
31:10
31:55
32:24
4.2E6
2.1E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time

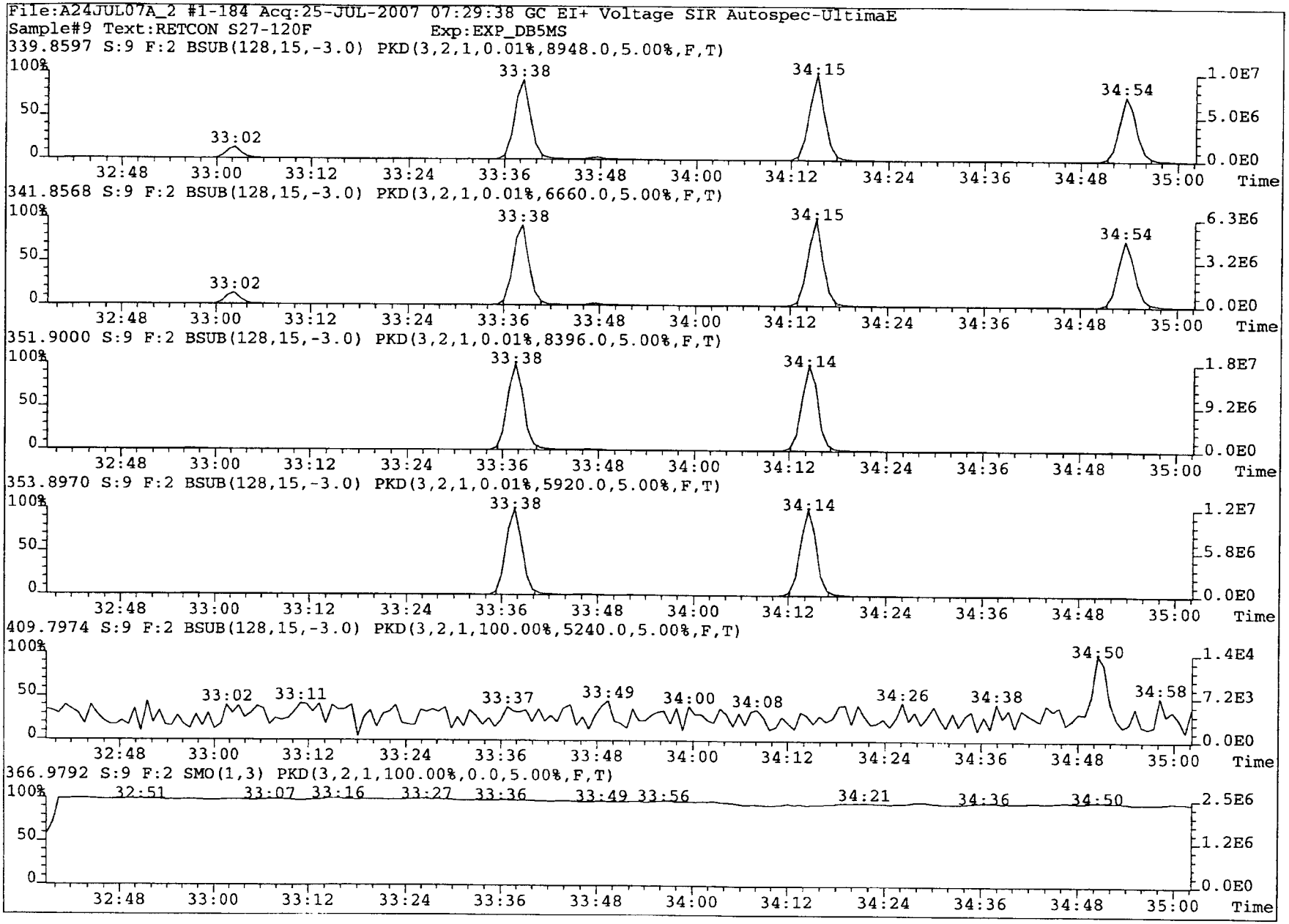

File:A24JUL07A_2 #1-184 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
355.8546 S:9 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5060.0,5.00%,F,T)
33:05
34:27
34:43
6.4E6
3.2E6
0.0E0
357.8517 S:9 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5284.0,5.00%,F,T)
33:05
34:26
34:43
4.1E6
2.1E6
0.0E0
367.8949 S:9 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4348.0,5.00%,F,T)
34:25
1.1E7
5.3E6
0.0E0
369.8919 S:9 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4628.0,5.00%,F,T)
34:25
6.8E6
3.4E6
0.0E0
366.9792 S:9 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
32:51
33:07
33:16
33:27
33:36
33:49
33:56
34:21
34:36
34:50
2.5E6
1.2E6
0.0E0
100%
50
0
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time

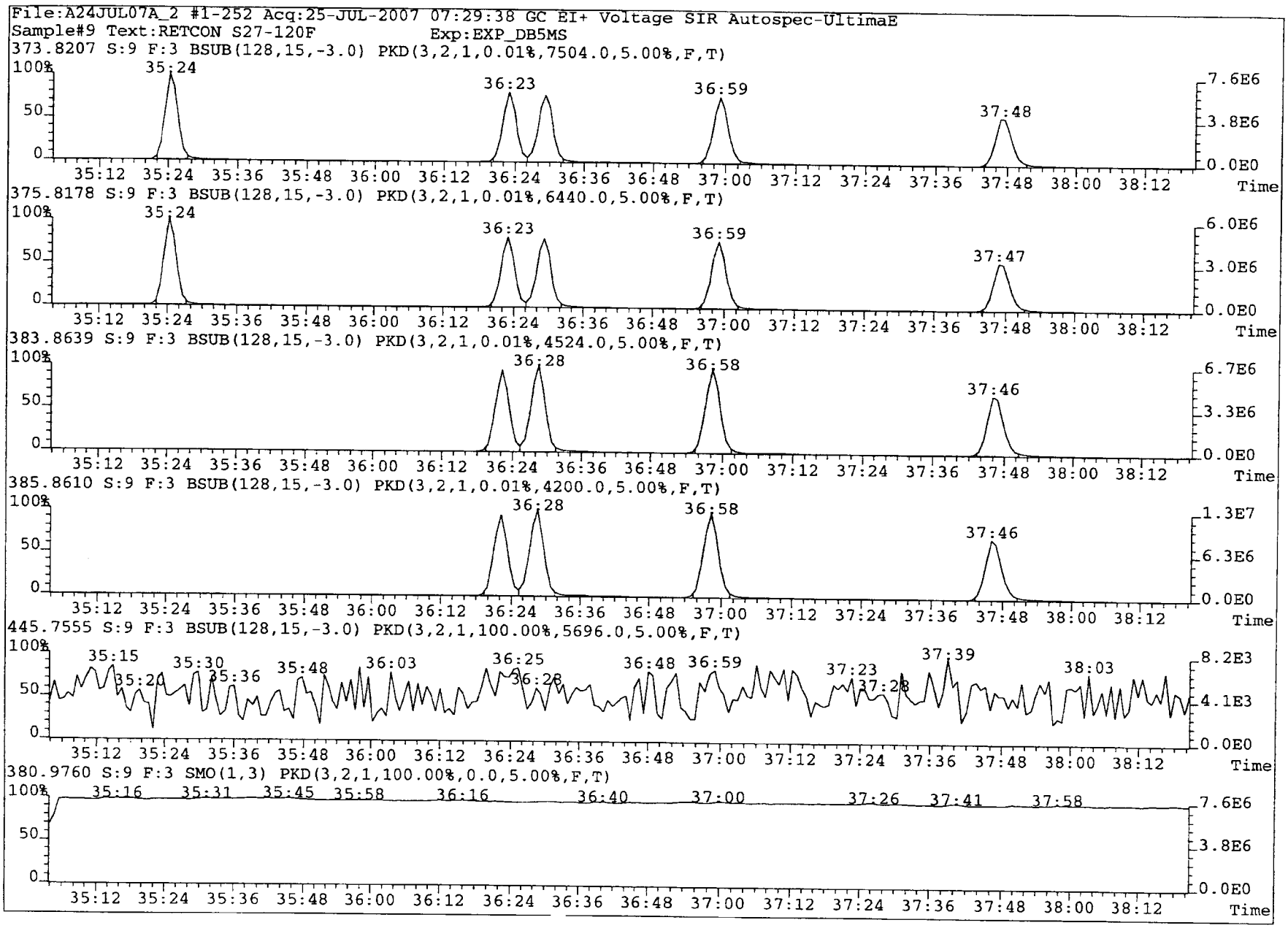

File:A24JUL07A_2 #1-252 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
389.8156 S:9 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6476.0,5.00%,F,T)
35:50
37:07
37:27
5.6E6
2.8E6
0.0E0
391.8127 S:9 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5884.0,5.00%,F,T)
35:50
37:12
37:27
4.6E6
2.3E6
0.0E0
401.8559 S:9 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4124.0,5.00%,F,T)
37:12
37:26
8.1E6
4.1E6
0.0E0
403.8530 S:9 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5496.0,5.00%,F,T)
37:11
37:26
6.3E6
3.1E6
0.0E0
380.9760 S:9 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:16 35:31 35:45 35:58 36:16 36:40 37:00 37:26 37:41 37:58
7.6E6
3.8E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time

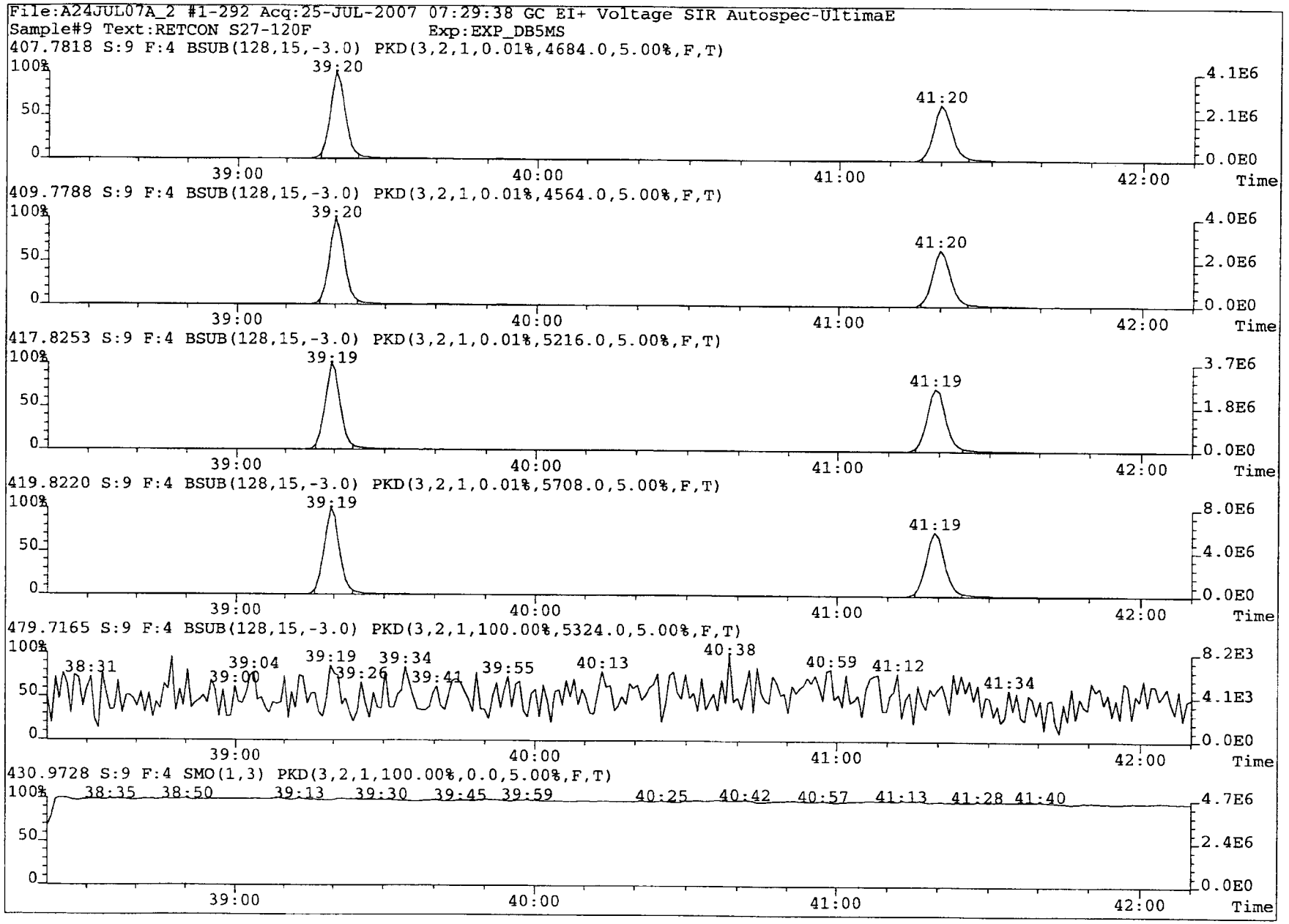

File:A24JUL07A_2 #1-292 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
423.7767 S:9 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5428.0,5.00%,F,T)
39:41
40:38
2.7E6
1.4E6
0.0E0
425.7737 S:9 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5240.0,5.00%,F,T)
39:41
40:38
2.6E6
1.3E6
0.0E0
435.8169 S:9 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5012.0,5.00%,F,T)
40:37
4.3E6
2.2E6
0.0E0
437.8140 S:9 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4584.0,5.00%,F,T)
40:37
4.1E6
2.1E6
0.0E0
430.9728 S:9 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:31 38:43 39:13 39:30 39:45 39:59 40:25 40:42 40:57 41:13 41:28 41:40
4.7E6
2.4E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time

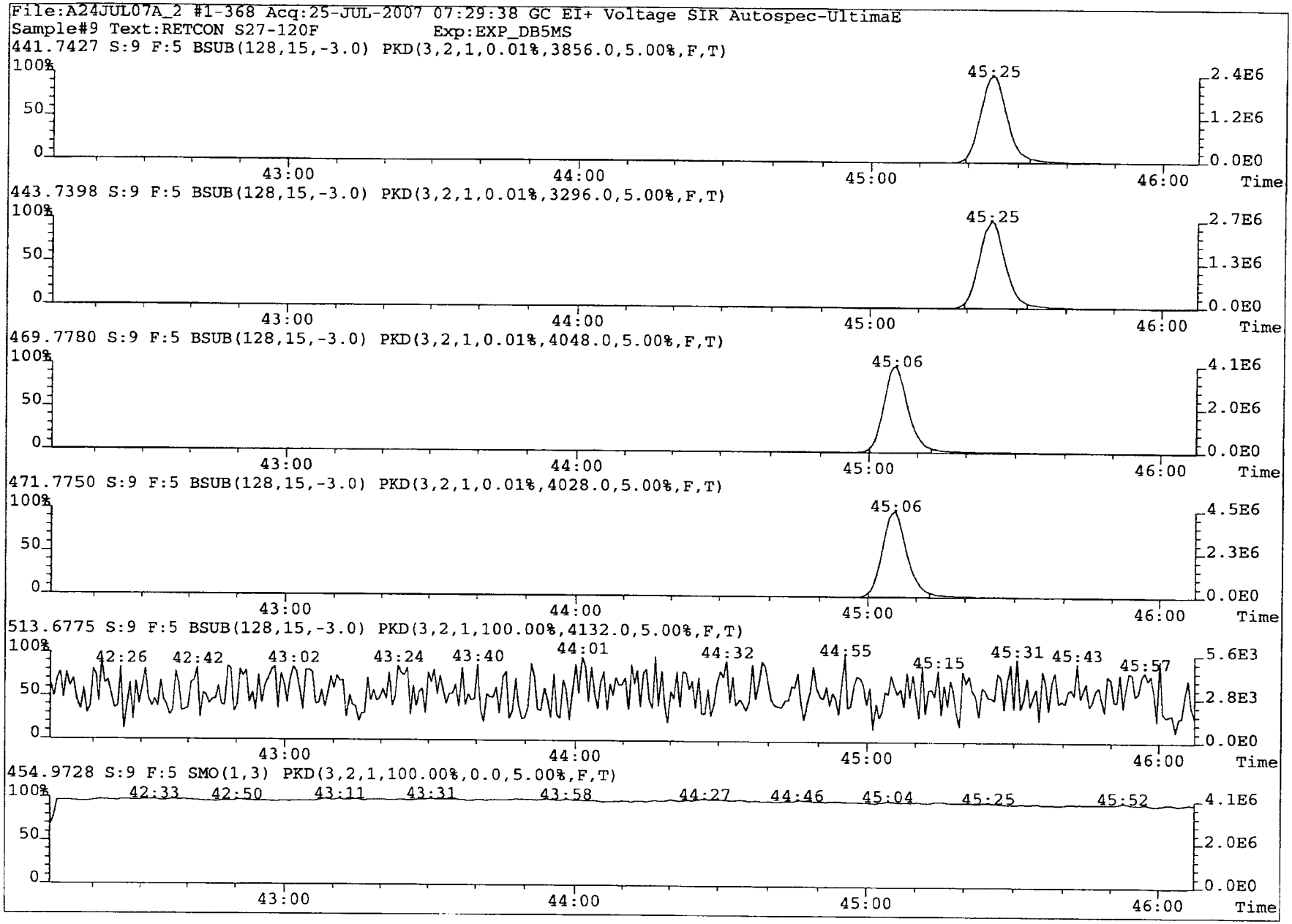

File:A24JUL07A_2 #1-368 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
457.7377 S:9 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4356.0,5.00%,F,T)
45:06
2.2E6
1.1E6
0.0E0
459.7348 S:9 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3372.0,5.00%,F,T)
45:06
2.4E6
1.2E6
0.0E0
469.7780 S:9 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4048.0,5.00%,F,T)
45:06
4.1E6
2.0E6
0.0E0
471.7750 S:9 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4028.0,5.00%,F,T)
45:06
4.5E6
2.3E6
0.0E0
454.9728 S:9 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:33 42:50 43:15 43:31 43:58 44:27 44:46 45:04 45:25 45:52
4.1E6
2.0E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time

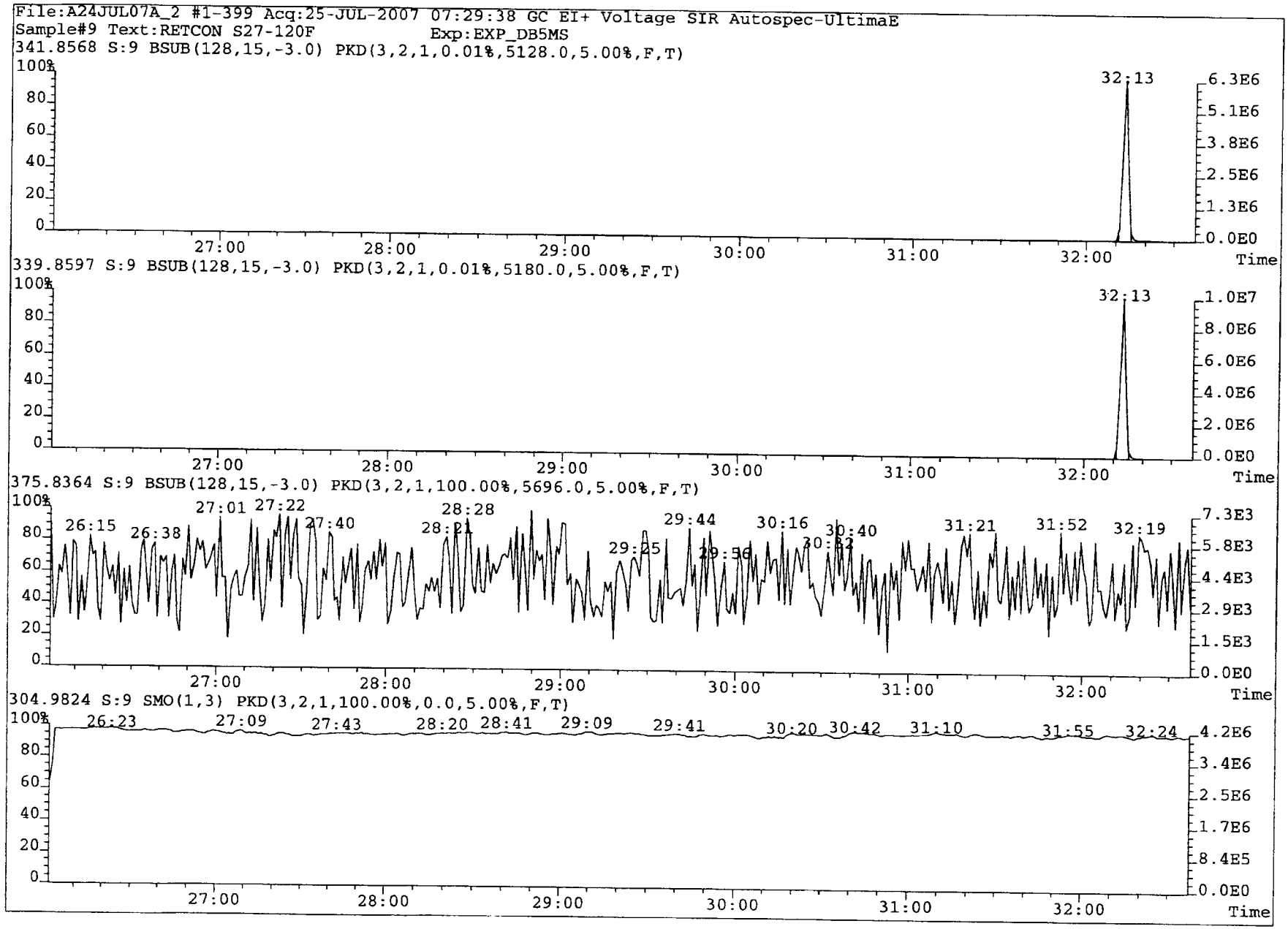

File:A24JUL07A_2 #1-399 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
303.9016 S:9 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,4976.0,5.00%,F,T)
26:56
31:09
32:14
1.2E6
6.2E5
0.0E0
305.8987 S:9 BSUB(256,15,-3.0) PKD(3,2,1,0.01%,5336.0,5.00%,F,T)
26:56
31:08
32:14
1.6E6
8.2E5
0.0E0
315.9419 S:9 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4412.0,5.00%,F,T)
31:07
9.3E6
4.7E6
0.0E0
317.9389 S:9 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5184.0,5.00%,F,T)
31:07
1.2E7
6.1E6
0.0E0
375.8364 S:9 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5696.0,5.00%,F,T)
26:15 26:38 27:01 27:22 27:58 28:28 29:25 29:44 29:56 30:16 30:40 31:21 31:52 32:19
7.3E3
3.7E3
0.0E0
304.9824 S:9 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:23 27:09 27:43 28:20 28:41 29:09 29:41 30:20 30:42 31:10 31:55 32:24
4.2E6
2.1E6
0.0E0
100%
50
0
27:00
28:00
29:00
30:00
31:00
32:00
Time


File:A24JUL07A_2 #1-184 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
339.8597 S:9 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,8948.0,5.00%,F,T)
341.8568 S:9 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6660.0,5.00%,F,T)
351.9000 S:9 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,8396.0,5.00%,F,T)
353.8970 S:9 F:2 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5920.0,5.00%,F,T)
409.7974 S:9 F:2 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5240.0,5.00%,F,T)
366.9792 S:9 F:2 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
100%
50
0
33:02
33:38
34:15
34:54
34:14
33:11
33:37
33:49
34:00
34:08
34:26
34:38
34:50
34:58
32:51
33:07
33:16
33:27
33:36
33:49
33:56
34:21
34:36
34:50
1.0E7
5.0E6
0.0E0
6.3E6
3.2E6
1.8E7
9.2E6
1.2E7
5.8E6
1.4E4
7.2E3
2.5E6
1.2E6
32:48
33:00
33:12
33:24
33:36
33:48
34:00
34:12
34:24
34:36
34:48
35:00
Time


File:A24JUL07A_2 #1-252 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
373.8207 S:9 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,7504.0,5.00%,F,T)
35:24
36:23
36:59
37:48
7.6E6
3.8E6
0.0E0
375.8178 S:9 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,6440.0,5.00%,F,T)
35:24
36:23
36:59
37:47
6.0E6
3.0E6
0.0E0
383.8639 S:9 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4524.0,5.00%,F,T)
36:28
36:58
37:46
6.7E6
3.3E6
0.0E0
385.8610 S:9 F:3 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4200.0,5.00%,F,T)
36:28
36:58
37:46
1.3E7
6.3E6
0.0E0
445.7555 S:9 F:3 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5696.0,5.00%,F,T)
35:15
35:30
35:48
36:03
36:25
36:48
36:59
37:23
37:39
38:03
8.2E3
4.1E3
0.0E0
380.9760 S:9 F:3 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
35:16
35:31
35:45
35:58
36:16
36:40
37:00
37:26
37:41
37:58
7.6E6
3.8E6
0.0E0
100%
50
0
35:12 35:24 35:36 35:48 36:00 36:12 36:24 36:36 36:48 37:00 37:12 37:24 37:36 37:48 38:00 38:12
Time


File:A24JUL07A_2 #1-292 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
407.7818 S:9 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4684.0,5.00%,F,T)
39:20
41:20
4.1E6
2.1E6
0.0E0
409.7788 S:9 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4564.0,5.00%,F,T)
39:20
41:20
4.0E6
2.0E6
0.0E0
417.8253 S:9 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5216.0,5.00%,F,T)
39:19
41:19
3.7E6
1.8E6
0.0E0
419.8220 S:9 F:4 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5708.0,5.00%,F,T)
39:19
41:19
8.0E6
4.0E6
0.0E0
479.7165 S:9 F:4 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5324.0,5.00%,F,T)
38:31
39:00
39:04
39:19
39:26
39:34
39:41
39:55
40:13
40:38
40:59
41:12
41:34
8.2E3
4.1E3
0.0E0
430.9728 S:9 F:4 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
38:35
38:50
39:13
39:30
39:45
39:59
40:25
40:42
40:57
41:13
41:28
41:40
4.7E6
2.4E6
0.0E0
100%
50
0
39:00
40:00
41:00
42:00
Time


File:A24JUL07A_2 #1-368 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
441.7427 S:9 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3856.0,5.00%,F,T)
45:25
2.4E6
1.2E6
0.0E0
443.7398 S:9 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,3296.0,5.00%,F,T)
45:25
2.7E6
1.3E6
0.0E0
469.7780 S:9 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4048.0,5.00%,F,T)
45:06
4.1E6
2.0E6
0.0E0
471.7750 S:9 F:5 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,4028.0,5.00%,F,T)
45:06
4.5E6
2.3E6
0.0E0
513.6775 S:9 F:5 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,4132.0,5.00%,F,T)
42:26 42:42 43:02 43:24 43:40 44:01 44:32 44:55 45:15 45:31 45:43 45:57
5.6E3
2.8E3
0.0E0
454.9728 S:9 F:5 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
42:33 42:50 43:11 43:31 43:58 44:27 44:46 45:04 45:25 45:52
4.1E6
2.0E6
0.0E0
100%
50
0
43:00
44:00
45:00
46:00
Time


File:A24JUL07A_2 #1-399 Acq:25-JUL-2007 07:29:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 Text:RETCON S27-120F Exp:EXP_DB5MS
341.8568 S:9 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5128.0,5.00%,F,T)
32:13
339.8597 S:9 BSUB(128,15,-3.0) PKD(3,2,1,0.01%,5180.0,5.00%,F,T)
32:13
375.8364 S:9 BSUB(128,15,-3.0) PKD(3,2,1,100.00%,5696.0,5.00%,F,T)
26:15 26:38 27:01 27:22 27:40 28:21 28:28 29:25 29:44 29:56 30:16 30:32 30:40 31:21 31:52 32:19
304.9824 S:9 SMO(1,3) PKD(3,2,1,100.00%,0.0,5.00%,F,T)
26:23 27:09 27:43 28:20 28:41 29:09 29:41 30:20 30:42 31:10 31:55 32:24
27:00 28:00 29:00 30:00 31:00 32:00
Time

Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	OPR14360	527-331	20	0.1	20	JWS	07.17.07	
2	OPR0414360							
3	LM0014360							
4	6754-10-4C							
5	6754-10-9D							
6	6895-2-1D							
7	6579-253-2B							
8	6579-254-2B							
9	6383-576-1B							
10	6349-218-21C							
11	6349-218-21D							
12	6349-218-22B							
13	BLK070207A							
14	6579-253-1C	527-331	20	0.1	20	JWS	07.18.07	
15	6579-254-1C							
16	6008-2-1C							
17	6371-159-1C							
18	6552-434-1C							
19					JWS 07.18.07			
20								

DC17.021800.1

* = to be entered in the Prep table.

Logbook: 12 Page: 208

Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	6676-33-1SB	S27-341	20	0.1	20	JW	07-24-07	
2	6676-33-1SB	↓	↓	↓	↓	↓	↓	
3	6676-33-20B	↓	↓	↓	↓	↓	↓	
4	OPRA372	S27-353	100	0.5	100	HMP	25Jul07	
5	OPRDA372	↓	↓	↓	↓	↓	↓	
6	LMBA372	↓	↓	↓	↓	↓	↓	
7	G291-92-1B	↓	↓	↓	↓	↓	↓	
8	G291-92-2B	↓	↓	↓	↓	↓	↓	
9	G291-92-3B	↓	↓	↓	↓	↓	↓	
10	G291-92-4B	↓	↓	↓	↓	↓	↓	
11	G291-92-5B	↓	↓	↓	↓	↓	↓	
12	G291-92-6B	↓	↓	↓	↓	↓	↓	
13	G657-49-1C	↓	↓	↓	↓	↓	↓	
14	G657-49-2C	↓	↓	↓	↓	↓	↓	
15	G657-49-3C	↓	↓	↓	↓	↓	↓	
16	G657-49-4C	↓	↓	↓	↓	↓	↓	
17								
18								
19								
20								

DC17.021800.1

* = to be entered in the Prep table.

Logbook: 12 Page: 213

Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	OPR14365	527-279	20	6.1	20	JWP	07-24-07	
2	OPRD14365	↓	↓	↓	↓	↓	↓	
3	LMB14365							
4	6371-157-1C							
5	6371-157-2C							
6	6378-158-1C							
7	6371-158-2C							
8	6371-160-1B							
9	6371160-2B	↓	↓	↓	↓	↓	↓	
10	OPR14367	527-343	180	0.5	100	JWP	07-24-07	
11	OPRD14367	↓	↓	↓	↓	↓	↓	
12	LMB14367							
13	6100-950-3C							
14	6341-299-1B	↓						
15	6341-299-1C	527-353						
16	6341-299-1D	↓	↓	↓	↓	↓	↓	
17	OPR14371	527-279	20	0.1	20	JWP	07-24-07	
18	OPRD14371	↓	↓	↓	↓	↓	↓	
19	LMB14371							
20	6676-33-5B	↓	↓	↓	↓	↓	↓	

DC17.021800.1

* = to be entered in the Prep table.

Logbook: 12 Page: 212

Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	6100-939-1B	527-343	10.0	0.5	100	JW	07-18-07	
2	6100-939-2B	↓	↓	↓	↓	↓	↓	
3	6100-939-3B							
4	6100-939-4B							
5	DPR14363	527-279	2	1.0	20	JW	07-18-07	
6	DPRD14363	↓	↓	↓	↓	↓	↓	
7	LMBN363							
8	6220-61-2B							
9	6220-61-3B							
10	6220-60-4B							
11	6220-60-5B							
12	6220-60-6B							
13	6100-950-1B	↓	↓	↓	↓	↓	↓	
14	DPR14364	527-341	20	0.1	20	JW	07.19.07	
15	DPRDN4364	↓	↓	↓	↓	↓	↓	
16	LMBN14364							
17	6371-162-1C							
18	6371-162-9B (161)							
19	6100-950-2B							
20	6100-937-1C	↓	↓	↓	↓	↓	↓	

DC17.021800.1

* = to be entered in the Prep table.

Logbook: 12 Page: 210

Injection Prep Log

	Sample ID	IJ STD Lot#	IJ Amt (µL)	IJ Conc. (ng/µL)	Final Vol.* (µL)	Analyst (initials)	Date	Comments
1	6100-937-2C	527-341	20	0.1	20	JW	07.19.07	
2	6100-937-3C	↓	↓	↓	↓	↓	↓	
3	6100-937-4C	↓	↓	↓	↓	↓	↓	
4	OPR14366	527-341	20	0.1	20	JW	07.19.07	
5	OPR014366	↓	↓	↓	↓	↓	↓	
6	LMB14366	↓	↓	↓	↓	↓	↓	
7	6349-218-17C	↓	↓	↓	↓	↓	↓	
8	OPR14368	↓	↓	↓	↓	↓	↓	
9	OPR014368	↓	↓	↓	↓	↓	↓	
10	LMB14368	↓	↓	↓	↓	↓	↓	
11	6185-281-1B	↓	↓	↓	↓	↓	↓	
12	6185-282-1C	↓	↓	↓	↓	↓	↓	
13	OPR14370	527-341	20	0.1	20	JW	07.23.07	
14	OPR014370	↓	↓	↓	↓	↓	↓	
15	LMB14370	↓	↓	↓	↓	↓	↓	
16	6431-15-6D	↓	↓	↓	↓	↓	↓	
17	6431-15-10B	↓	↓	↓	↓	↓	↓	
18	6431-15-15D	↓	↓	↓	↓	↓	↓	
19	6431-15-20B	↓	↓	↓	↓	↓	↓	
20						JW 07-24-07		

DC17.021800.1

* = to be entered in the Prep table.

Logbook: 12 Page: 211

TEST RESULTS AND CALCULATIONS

Inlet Hg Emissions Data

ONTARIO HYDRO - RESULTS

Plant Name	Fibrominn Biomass Power Plant	**Date**	07/05/07
Sampling Location	SDA Inlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP	**Stack Type**	Circular

Historical Data						
Run Number		IN-OHM-1	IN-OHM-2	IN-OHM-3	**Average**	
Run Start Time		18:02	21:12	0:43		hh:mm
Run Stop Time		20:20	23:30	3:00		hh:mm
Meter Calibration Factor	(Y)	1.007	1.007	1.007		
Pitot Tube Coefficient	(C_p)	0.840	0.840	0.840		
Average Nozzle Diameter	(D_{na})	0.251	0.232	0.222		in
Stack Test Data						
Initial Meter Volume	($V_m)_i$	109.850	149.015	184.550		ft3
Final Meter Volume	($V_m)_f$	148.836	182.820	210.595		ft3
Total Meter Volume	(V_m)	38.986	33.805	26.045	32.945	ft3
Total Sampling Time	(Θ)	120.0	120.0	120.0	120.0	min
Average Meter Temperature	($t_m)_{avg}$	104.5	104.0	99.5	102.7	oF
Average Stack Temperature	($t_s)_{avg}$	338.5	348.2	341.3	342.7	oF
Barometric Pressure	(P_b)	29.53	29.52	29.57	29.54	in Hg
Stack Static Pressure	(P_{static})	-0.23	-0.23	-0.23	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.51	29.50	29.55	29.52	in Hg
Average Orifice Pressure Drop	($\Delta H)_{avg}$	2.09	0.96	1.36	1.47	in H2O
Absolute Meter Pressure	(P_m)	29.65	29.64	29.69	29.66	in Hg
Avg Square Root Pitot Pressure	($\Delta p^{1/2})_{avg}$	0.91	0.86	1.05	0.94	(in H2O)1/2
Moisture Content Data						
Impingers 1-3 Water Volume Gain	(V_n)	157.3	192.9	119.3	156.5	ml
Impinger 4 Silica Gel Weight Gain	(W_n)	10.1	12.7	18.4	13.7	g
Total Water Volume Collected	(V_{lc})	167.4	205.7	137.7	170.3	ml
Standard Water Vapor Volume	($V_w)_{std}$	7.880	9.681	6.484	8.015	scf
Standard Meter Volume	($V_m)_{std}$	36.322	31.476	24.484	30.761	dscf
Calculated Stack Moisture	($B_{ws(calc)}$)	17.78	23.50	20.90	20.72	%
Saturated Stack Moisture	($B_{ws(svp)}$)	100.0	100.0	100.0	100.0	%
Reported Stack Moisture Content	(B_{ws})	17.78	23.50	20.90	20.72	%
Gas Analysis Data						
Carbon Dioxide Percentage	(%CO_2)	14.0	14.0	14.0	14.0	%
Oxygen Percentage	(%O_2)	5.0	5.0	5.0	5.0	%
Carbon Monoxide Percentage	(%CO)	0.0	0.0	0.0	0.0	%
Nitrogen Percentage	(%N_2)	81.0	81.0	81.0	81.0	%
Dry Gas Molecular Weight	(M_d)	30.44	30.44	30.44	30.44	lb/lb-mole
Wet Stack Gas Molecular Weight	(M_s)	28.23	27.52	27.84	27.86	lb/lb-mole
Calculated Fuel Factor	(F_o)	1.135	1.135	1.135	1.135	
Fuel F-Factor	(F_c)	1890	1890	1890	1890	dscf/MMBtu
Percent Excess Air	(%EA)	30.5	30.5	30.5	30.5	%
Volumetric Flow Rate Data						
Average Stack Gas Velocity	(v_s)	65.38	61.68	75.04	67.37	ft/sec
Stack Cross-Sectional Area	(A_s)	90.76	90.76	90.76	90.76	ft2
Actual Stack Flow Rate	(Q_{aw})	356,041	335,878	408,658	366,859	acfm
Wet Standard Stack Flow Rate	(Q_{sw})	13,934	12,983	15,958	14,291	wkscfh
Dry Standard Stack Flow Rate	(Q_{sd})	190,931	165,540	210,390	188,954	dscfm
Percent of Isokinetic Rate	(I)	100.5	103.7	95.6	99.9	%
Emission Rate Data						
Total Mass of Hg	(part. bound)	0.00001	0.00000	0.00000	0.00000	mg
	(oxidized)	0.00000	0.00000	0.00000	0.00000	mg
	(elemental)	0.00050	0.00000	0.00000	0.00017	mg
	(all forms)	0.00052	0.00000	0.00000	0.00017	mg
Emission Rate of Hg	(part. bound)	0.00001	0.00000	0.00000	0.00000	lbs/hr
	(oxidized)	0.00000	0.00000	0.00000	0.00000	lbs/hr
	(elemental)	0.00035	0.00000	0.00000	0.00012	lbs/hr
	(all forms)	0.00036	0.00000	0.00000	0.00012	lbs/hr
Emission Rate of Hg	(part. bound)	0.00004	0.00000	0.00000	0.00001	tons/yr
	(oxidized)	0.00000	0.00000	0.00000	0.00000	tons/yr
	(elemental)	0.00153	0.00000	0.00000	0.00051	tons/yr
	(all forms)	0.00156	0.00000	0.00000	0.00052	tons/yr
Emission Rate of Hg	(part. bound)	9.83E-09	0.00E+00	0.00E+00	3.28E-09	lbs/MMBtu
	(oxidized)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	lbs/MMBtu
	(elemental)	4.13E-07	0.00E+00	0.00E+00	1.38E-07	lbs/MMBtu
	(all forms)	4.23E-07	0.00E+00	0.00E+00	1.41E-07	lbs/MMBtu

Note: Results reported below pratical quantitation limit (BPQL) set to non-detect (ND) for calculations.

Air Hygiene International, Inc.
5634 S. 122nd East Ave, Suite F
Tulsa, Oklahoma 74146
(888) 461-8778
www.airhygiene.com

MERCURY ANALYSIS DATASHEET

Paramter	Units	Run 1				
		Particle Bound Hg		Oxidized Hg	Elemental Hg	
		Filter	Probe Wash	KCl (Imp 1-3)	HNO_3-H_2O_2 (Imp 4)	$KMNO_4$ (Imp 5-7)
Sample		IN-OHM-1-CON1	IN-OHM-1-CON2	IN-OHM-1-CON3	IN-OHM-1-CON4	IN-OHM-1-CON5
Log Number		20073701	20073708	20073709	20073710	20073711
Solids PQL	µg	0.007				
Ash Hg Content Weight	µg	0.012				
Liquid Results	mg/L		0.000000	0.000000	0.000000	0.000770
Liquids PQL	mg/L		0.00140	0.00014	0.00140	0.00014
Sample Volume	mL		430	510	120	535
Dry Std. Stack Flow Rate (Q_{sd})	dscfm	190,931				
DGM Volume	dscf	36.322				
DGM Volume	dscm	1.03				
Carbon Dioxide Concentration	%	14.00				
Total Hg (ea. form)	mg	0.0000		0.0000	0.0005	
Total Hg		0.0005				
Hg (ea. form)	lb/MMBtu	9.83E-09		0.00E+00	4.13E-07	
Hg		4.23E-07				
Hg (ea. form)	lb/hr	0.0000		0.0000	0.0004	
Hg		0.0004				
Hg (ea. form)	ton/yr	0.0000		0.0000	0.0015	
Hg		0.0016				

Paramter	Units	Run 2				
		Particle Bound Hg		Oxidized Hg	Elemental Hg	
		Filter	Probe Wash	KCl (Imp 1-3)	HNO_3-H_2O_2 (Imp 4)	$KMNO_4$ (Imp 5-7)
Sample		IN-OHM-2-CON1	IN-OHM-2-CON2	IN-OHM-2-CON3	IN-OHM-2-CON4	IN-OHM-2-CON5
Log Number		20073702	20073712	20073713	20073714	20073715
Solids PQL	µg	0.007				
Ash Sample Weight	µg	0.000				
Liquid Results	mg/L		0.000000	0.000000	0.000000	0.000000
Liquids PQL	mg/L		0.00140	0.00014	0.00140	0.00014
Sample Volume	mL		415	280	430	510
Dry Std. Stack Flow Rate (Q_{sd})	dscfm	165,540				
DGM Volume	dscf	31.476				
DGM Volume	dscm	0.89				
Carbon Dioxide Concentration	%	14.00				
Total Hg (ea. form)	mg	0.0000		0.0000	0.0000	
Total Hg		0.0000				
Hg (ea. form)	lb/MMBtu	0.00E+00		0.00E+00	0.00E+00	
Hg		0.00E+00				
Hg (ea. form)	lb/hr	0.0000		0.0000	0.0000	
Hg		0.0000				
Hg (ea. form)	ton/yr	0.0000		0.0000	0.0000	
Hg		0.0000				

Paramter	Units	Run 3				
		Particle Bound Hg		Oxidized Hg	Elemental Hg	
		Filter	Probe Wash	KCl (Imp 1-3)	HNO_3-H_2O_2 (Imp 4)	$KMNO_4$ (Imp 5-7)
Sample		IN-OHM-3-CON1	IN-OHM-3-CON2	IN-OHM-3-CON3	IN-OHM-3-CON4	IN-OHM-3-CON5
Log Number		20073703	20073716	20073717	20073718	20073719
Solids PQL	µg	0.007				
Ash Sample Weight	µg	0.000				
Liquid Results	mg/L		0.000000	0.000000	0.000000	0.000000
Liquids PQL	mg/L		0.00140	0.00014	0.00140	0.00014
Sample Volume	mL		440	465	140	510
Dry Std. Stack Flow Rate (Q_{sd})	dscfm	210,390				
DGM Volume	dscf	24.484				
DGM Volume	dscm	0.69				
Carbon Dioxide Concentration	%	14.00				
Total Hg (ea. form)	mg	0.0000		0.0000	0.0000	
Total Hg		0.0000				
Hg (ea. form)	lb/MMBtu	0.00E+00		0.00E+00	0.00E+00	
Hg		0.00E+00				
Hg (ea. form)	lb/hr	0.0000		0.0000	0.0000	
Hg		0.0000				
Hg (ea. form)	ton/yr	0.0000		0.0000	0.0000	
Hg		0.0000				

ONTARIO HYDRO SOURCE SAMPLING TITLE PAGE

Source Information				
Plant Name	Fibrominn Biomass Power Plant			
Sampling Location	SDA Inlet			
Fuel or Source Type	Biomass			
Fuel F-Factor	1890	1890	1890	

Test Information			
Starting Test Date		07/05/07	
Project #		snc-07-benson.mn-comp#1	
Operator		TP	
Standard Temperature		68	oF
Standard Pressure		29.92	in Hg
Minimum Required Sample Vol.	Sec 10.1.5	35.3	scf
Run Duration	Sec 10.1.5	120	minutes
Unit Number		IN-OHM	
Load	% or w/DB	100%	
Base Run Number		IN-OHM	
Number of Ports Available		2	
Number of Ports Used		2	
Port Inside Diameter		5.00	in
Circular Stack			

Test Equipment Information					
Run		**1**	**2**	**3**	
Meter Box Number	from ACS	SAMP-CP-0002	SAMP-CP-0002	SAMP-CP-0002	
Meter Calibration Factor	(Y)	1.007	1.007	1.007	
Orifice Meter Coefficient	(ΔH@)	1.667	1.667	1.667	in H_2O
Pitot Identification	from ACS	SAMP-HP-0021	SAMP-HP-0021	SAMP-HP-0036	
Pitot Tube Coefficient	(C_p)	0.840	0.840	0.840	
Orsat Identification	from ACS	N/A	N/A	N/A	
Nozzle Number	from ACS	D4	D7	A7	
Nozzle Diameter	(D_n)	0.251	0.232	0.222	in
Probe Number	from ACS	SAMP-HP-0021	SAMP-HP-0021	SAMP-HP-0036	
Probe Length		96.00	96.00	96.00	in
(SS, Glass ….) Liner Material	from list	glass	glass	glass	
Sample Case / Oven Number	from ACS	SAMP-BH-0009	SAMP-BH-0009	SAMP-BH-0009	
Impinger Case Number	from ACS	SAMP-BC-0015	SAMP-BC-0021	SAMP-BC-0015	
Acetone Lot Number	from bottle	C38B11	C38B11	C38B11	

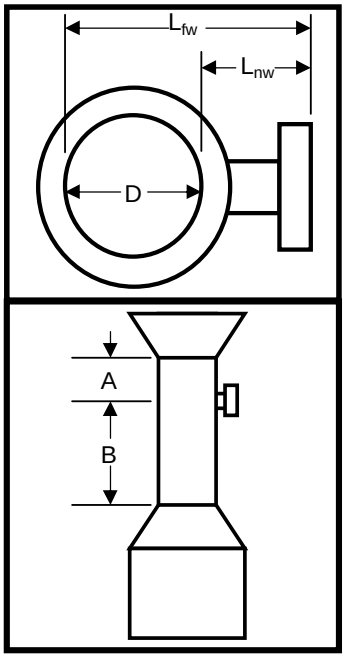
Testing Company Information	
Company Name	Air Hygiene International, Inc. (Tulsa, Oklahoma)
Address	5634 S. 122nd East Ave., Suite F
City, State Country Zip	Tulsa, Oklahoma 74146
Project Manager	Thomas K. Graham
Phone Number	(918) 307-8865
Fax Number	(918) 307-9131

METHOD 1 - SAMPLE AND VELOCITY TRAVERSES FOR CIRCULAR SOURCES

Plant Name	Fibrominn Biomass Power Plant	**Date**	07/05/07
Sampling Location	SDA Inlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP	**# of Ports Available**	2
Stack Type	Circular	**# of Ports Used**	2
Stack Size	Large	**Port Inside Diameter**	5.00

Circular Stack or Duct Diameter			
Distance to Far Wall of Stack	(L_{fw})	136.00	in
Distance to Near Wall of Stack	(L_{nw})	7.00	in
Diameter of Stack	(D)	129.00	in
Area of Stack	(A_s)	90.76	ft2

Distance from Port to Disturbances			
Distance Upstream	(A)	350.00	in
Diameters Upstream	(A_D)	2.71	diameters
Distance Downstream	(B)	1222.00	in
Diameters Downstream	(B_D)	9.47	diameters



Number of Traverse Points Required			
Diameters to Flow Disturbance		**Minimum Number of[1] Traverse Points**	
Down Stream	**Up Stream**	**Particulate Points**	**Velocity Points**
2.00-4.99	0.50-1.24	24	16
5.00-5.99	1.25-1.49	20	16
6.00-6.99	1.50-1.74	16	12
7.00-7.99	1.75-1.99	12	12
>= 8.00	>=2.00	8 or 12[2]	8 or 12[2]
Upstream Spec		12	12
Downstream Spec		12	12
Traverse Pts Required		12	12

[1] Check Minimum Number of Points for the Upstream and Downstream conditions, then use the largest.

[2] 8 for Circular Stacks 12 to 24 inches
12 for Circular Stacks over 24 inches

Number of Traverse Points Used			
2	**Ports by**	6	**Across**
12	**Pts Used**	12	**Required**
		Particulate Traverse	

Location of Traverse Points in Circular Stacks									
Traverse	(Fraction of Stack Dimension from Inside Wall to Traverse Point)								
Point	**Number of Traverse Points Across the Stack**								
Number	**2**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**
1	.146	.067	.044	.032	.026	.021	.018	.016	.014
2	.854	.250	.146	.105	.082	.067	.057	.049	.044
3		.750	.296	.194	.146	.118	.099	.085	.075
4		.933	.704	.323	.226	.177	.146	.125	.109
5			.854	.677	.342	.250	.201	.169	.146
6			.956	.806	.658	.356	.269	.220	.188
7				.895	.774	.644	.366	.283	.236
8				.968	.854	.750	.634	.375	.296
9					.918	.823	.731	.625	.382
10					.974	.882	.799	.717	.618
11						.933	.854	.780	.704
12						.979	.901	.831	.764

Traverse Point Number	**Fraction of Stack Diameter**	**Distance from Inside Wall**	**Distance Including Reference Length**
		in	in
1	0.04	5 5/8	12 5/8
2	0.15	18 7/8	25 7/8
3	0.30	38 1/8	45 1/8
4	0.70	90 7/8	97 7/8
5	0.85	110 1/8	117 1/8
6	0.96	123 3/8	130 3/8
7			
8			
9			
10			
11			
12			

METHOD 2 - DETERMINATION OF STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE

Plant Name	Fibrominn Biomass Power Plant				**Date**	06/30/07
Sampling Location	SDA Inlet				**Project #**	snc-07-benson.mn-comp#1
Operator	TP				**# of Ports Used**	2
Stack Type	Circular				**Pitot Identification**	SAMP-HP-0021
Pitot Leak Check	☑	**PreTest**	☑	**PostTest**	**Pitot Coefficient (C_p)**	0.84

Stack Dimensions			
Diameter or Length of Stack	(D)	129.00	in
Width of Stack	(W)		in
Area of Stack	(A_s)	90.76	ft2

Pressures			
Barometric Pressure	(P_b)	29.92	in Hg
Static Pressure	(P_{static})	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.90	in Hg

Stack Gas Composition			
Composition Data:		**Estimated Composition**	
Carbon Dioxide Concentration	($\%CO_2$)	14.4	%
Oxygen Concentration	($\%O_2$)	4.8	%
Carbon Monoxide Concentration	(%CO)	0.0	%
Nitrogen Concentration	($\%N_2$)	80.8	%
Stack Moisture Content	(B_{ws})	30.000	%
Stack Dry Molecular Weight	(M_d)	30.50	lb/lb-mole
Stack Wet Molecular Weight	(M_s)	26.75	lb/lb-mole

Results			
Avg Stack Gas Velocity	(v_s)	94.8	ft/sec
Avg Stack Dry Std Flow Rate	(Q_{sd})	17,271,132	dscf/hr
Avg Stack Dry Std Flow Rate	(Q_{sd})	287,852	dscf/min
Avg Stack Wet Flow Rate	(Q_{aw})	516,261	acf/min
Avg Stack Wet Std Flow Rate	(Q_{sw})	24,673,046	ascf/hr

Stack Cross Section Schematic

Velocity Traverse Data

Run Number		IN-OHM-V1		
Run Time	**12:00**	**Start**	**12:10**	**End**
Traverse Point	**Velocity Head** (Δp)	**Null Angle** (N_a)	**Stack Temp** (t_s)	**Local Velocity** ($v_{s(l)}$)
	in H2O	deg	oF	ft/sec
A-1	2.10	-5	219	95.9
A-2	2.10	5	219	95.9
A-3	1.70	5	192	84.5
A-4	2.30	0	207	99.5
A-5	2.20	0	215	97.9
A-6	1.90	0	197	89.7
B-1	2.30	-5	196	98.6
B-2	2.40	5	202	101.2
B-3	2.10	0	200	94.5
B-4	1.90	0	183	88.8
B-5	2.10	10	198	94.4
B-6	2.20	-5	202	96.9
Average	2.11	3	203	
	1.45	**= Square roots of Δp**		

METHOD 3a - DETERMINATION OF DRY MOLECULAR WEIGHT BY ANALYZER

Plant Name	Fibrominn Biomass Power Plant				**Date**	07/05/07	
Sampling Location	SDA Inlet				**Project #**	snc-07-benson.mn-comp#1	
Operator	TP				**# of Ports Used**	2	
Fuel Type	Biomass		**Minimum Fuel Factor**	1.000	**Maximum Fuel Factor**	1.120	
Orsat Leak Check	☑	**PreTest**	☑	**PostTest**	**Orsat Identification**	N/A	

Gas Analysis Data

Run Number	IN-OHM-1			**Run Start Time**	18:02		**Run Stop Time**	20:20
Sample Analysis Time	**Carbon Dioxide Conc.** (%CO2)	**Oxygen Conc.** (%O2)	**Carbon Monoxide Conc.** (ppmCO)	**Carbon Dioxide Conc.** ($\%CO_2$)	**Oxygen Conc.** ($\%O_2$)	**Carbon Monoxide Conc.** (%CO)	**Nitrogen Conc.** ($\%N_2$)	**Dry Molecular Weight** (M_d)	**Molecular Weight Deviation** (ΔM_d)
hh:mm	percent	percent	ppm	percent	percent	percent	percent	lb/lb-mole	lb/lb-mole
2:18	14.0	5.0	100.0	14.0	5.0	0.0	81.0	30.44	0.00
Results			**Averages**	14.0	5.0	0.0	81.0	30.44	
Average Calculated Fuel Factor			$(F_o)_{avg}$	1.135		**Molecular Wt Deviation < 0.3?**			☑
Average Excess Air			$(\%EA)_{avg}$	30.5	percent	**Fuel Factor in Handbook Range?**			☑

Gas Analysis Data

Run Number	IN-OHM-2			**Run Start Time**	21:12		**Run Stop Time**	23:30
Sample Analysis Time	**Carbon Dioxide Conc.** (%CO2)	**Oxygen Conc.** (%O2)	**Carbon Monoxide Conc.** (ppmCO)	**Carbon Dioxide Conc.** ($\%CO_2$)	**Oxygen Conc.** ($\%O_2$)	**Carbon Monoxide Conc.** (%CO)	**Nitrogen Conc.** ($\%N_2$)	**Dry Molecular Weight** (M_d)	**Molecular Weight Deviation** (ΔM_d)
hh:mm	percent	percent	ppm	percent	percent	percent	percent	lb/lb-mole	lb/lb-mole
2:18	14.0	5.0	100.0	14.0	5.0	0.0	81.0	30.44	0.00
Results			**Averages**	14.0	5.0	0.0	81.0	30.44	
Average Calculated Fuel Factor			$(F_o)_{avg}$	1.135		**Molecular Wt Deviation < 0.3?**			☑
Average Excess Air			$(\%EA)_{avg}$	30.5	percent	**Fuel Factor in Handbook Range?**			☑

Gas Analysis Data

Run Number	IN-OHM-3			**Run Start Time**	0:43		**Run Stop Time**	3:00
Sample Analysis Time	**Carbon Dioxide Conc.** (%CO2)	**Oxygen Conc.** (%O2)	**Carbon Monoxide Conc.** (ppmCO)	**Carbon Dioxide Conc.** ($\%CO_2$)	**Oxygen Conc.** ($\%O_2$)	**Carbon Monoxide Conc.** (%CO)	**Nitrogen Conc.** ($\%N_2$)	**Dry Molecular Weight** (M_d)	**Molecular Weight Deviation** (ΔM_d)
hh:mm	percent	percent	ppm	percent	percent	percent	percent	lb/lb-mole	lb/lb-mole
2:17	14.0	5.0	100.0	14.0	5.0	0.0	81.0	30.44	0.00
Results			**Averages**	14.0	5.0	0.0	81.0	30.44	
Average Calculated Fuel Factor			$(F_o)_{avg}$	1.135		**Molecular Wt Deviation < 0.3?**			☑
Average Excess Air			$(\%EA)_{avg}$	30.5	percent	**Fuel Factor in Handbook Range?**			☑

Fuel Factor Fo		
Fuel Type	**Minimum**	**Maximum**
Coal, Anthracite	1.016	1.130
Coal, Lignite	1.016	1.130
Coal, Bituminous	1.083	1.230
Oil, Distillate	1.260	1.413
Oil, Residual	1.210	1.370
Gas, Natural	1.600	1.836
Gas, Propane	1.434	1.586
Gas, Butane	1.405	1.553
Biomass	1.000	1.120
Wood Bark	1.003	1.130

METHOD 4 - DETERMINATION OF MOISTURE CONTENT IN STACK GASES

Plant Name	Fibrominn Biomass Power Plant				**Date**	07/05/07	
Sampling Location	SDA Inlet				**Project #**	snc-07-benson.mn-comp#1	
Operator	TP				**# of Ports Used**	2	
Stack Type	Circular				**Meter Box Number**	SAMP-CP-0002	
Train Leak Check	☑	**PreTest**	☑	**PostTest**	**Meter Cal Factor (Y)**	1.007	

Moisture Content Data									
Run Number		IN-OHM-1			**Run Start Time**	18:02		**Run Stop Time**	20:20
Total Meter Volume	(V_m)	38.986	dcf		**Barometric Press.**	(P_b)	29.53		in Hg
Avg Stack Temp	(t_s)$_{avg}$	339	oF		**Stack Static Press.**	(P_{static})	-0.23		in H2O
Avg Meter Temp	(t_m)$_{avg}$	105	oF		**Avg Orifice Press.**	(ΔH)$_{avg}$	2.09		in H2O
		Impinger 1	**Impinger 2**	**Impinger 3**	**Impinger 4**	**Impinger 5**	**Impinger 6**	**Impinger 7**	**Impinger 8**
		g	g	g	g	g	g	g	g
Contents		KCl	KCl	KCl	HNO3-H2O2	H2SO4-KMnO4	H2SO4-KMnO4	H2SO4-KMnO4	Sil Gel
Final Value	(V_f),(W_f)	846.90	800.50	739.90	718.30	748.10	778.30	731.90	943.90
Initial Value	(V_i),(W_i)	729.30	770.40	733.90	716.60	747.40	778.00	731.30	933.80
Net Value	(V_n),(W_n)	117.6	30.1	6.0	1.7	0.7	0.3	0.6	10.1
Results									
Total Weight	(W_t)	167.10	g		**Water Vol Weighed**	($V_{wsg(std)}$)	7.879	scf	
Std Meter Volume	($V_{m(std)}$)	36.428	dscf		**Sat. Moisture Content**	($B_{ws(svp)}$)	100.0	%	
Calc Moisture Content	($B_{ws(calc)}$)	17.8	%		**Final Moisture Content**	(B_{ws})	17.8	%	

Moisture Content Data									
Run Number		IN-OHM-2			**Run Start Time**	21:12		**Run Stop Time**	23:30
Total Meter Volume	(V_m)	33.805	dcf		**Barometric Press.**	(P_b)	29.52		in Hg
Avg Stack Temp	(t_s)$_{avg}$	348	oF		**Stack Static Press.**	(P_{static})	-0.23		in H2O
Avg Meter Temp	(t_m)$_{avg}$	104	oF		**Avg Orifice Press.**	(ΔH)$_{avg}$	0.96		in H2O
		Impinger 1	**Impinger 2**	**Impinger 3**	**Impinger 4**	**Impinger 5**	**Impinger 6**	**Impinger 7**	**Impinger 8**
		g	g	g	g	g	g	g	g
Contents		KCl	KCl	KCl	HNO3-H2O2	H2SO4-KMnO4	H2SO4-KMnO4	H2SO4-KMnO4	Sil Gel
Final Value	(V_f),(W_f)	776.50	731.30	742.10	759.20	795.80	783.10	789.70	921.90
Initial Value	(V_i),(W_i)	742.30	711.50	727.40	756.70	731.40	775.50	740.30	909.20
Net Value	(V_n),(W_n)	34.2	19.8	14.7	2.5	64.4	7.6	49.4	12.7
Results									
Total Weight	(W_t)	205.30	g		**Water Vol Weighed**	($V_{wsg(std)}$)	9.680	scf	
Std Meter Volume	($V_{m(std)}$)	31.518	dscf		**Sat. Moisture Content**	($B_{ws(svp)}$)	100.0	%	
Calc Moisture Content	(B_{ws})	23.5	%		**Final Moisture Content**	(B_{ws})	23.5	%	

Moisture Content Data									
Run Number		IN-OHM-3			**Run Start Time**	0:43		**Run Stop Time**	3:00
Total Meter Volume	(V_m)	26.045	dcf		**Barometric Press.**	(P_b)	29.57		in Hg
Avg Stack Temp	(t_s)$_{avg}$	341	oF		**Stack Static Press.**	(P_{static})	-0.23		in H2O
Avg Meter Temp	(t_m)$_{avg}$	100	oF		**Avg Orifice Press.**	(ΔH)$_{avg}$	1.36		in H2O
		Impinger 1	**Impinger 2**	**Impinger 3**	**Impinger 4**	**Impinger 5**	**Impinger 6**	**Impinger 7**	**Impinger 8**
		g	g	g	g	g	g	g	g
Contents		KCl	KCl	KCl	HNO3-H2O2	H2SO4-KMnO4	H2SO4-KMnO4	H2SO4-KMnO4	Sil Gel
Final Value	(V_f),(W_f)	828.60	799.10	746.50	723.30	762.00	781.10	730.30	982.30
Initial Value	(V_i),(W_i)	729.30	781.30	744.20	723.20	762.30	781.30	730.20	963.90
Net Value	(V_n),(W_n)	99.3	17.8	2.3	0.1	-0.3	-0.2	0.1	18.4
Results									
Total Weight	(W_t)	137.50	g		**Water Vol Weighed**	($V_{wsg(std)}$)	6.483	scf	
Std Meter Volume	($V_{m(std)}$)	24.544	dscf		**Sat. Moisture Content**	($B_{ws(svp)}$)	100.0	%	
Calc Moisture Content	(B_{ws})	20.9	%		**Final Moisture Content**	(B_{ws})	20.9	%	

ONTARIO HYDRO ISOKINETIC SAMPLING DATA

Plant Name	Fibrominn Biomass Power Plant	**Date**	7/5/2007
Sampling Location	SDA Inlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP	**Run #**	IN-OHM-1
# of Points Across	6	**# of Ports Used**	2

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.84	
Avg Stack Temp	(t_s)	203	oF
Avg Gas Meter Temp	(t_m)	81	
DH @ 0.75 SCFM	($\Delta H@$)	1.67	in H2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})	1.45	in H2O
Stack Moisture Content	(B_{ws})	25.00	%
Stack Dry Molecular Weight	(M_d)	30.44	lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.750	acfm
DP to DH Isokinetic Factor	(K)	2.03	

Leak Checks					
Train	**Pre**	0	ft3/min @	15	in Hg
OK? ☑	**Post**	0	ft3/min @	15	in Hg
Pitot	**Pre**	6.7/5.4	in. H_2O for	15	sec
OK? ☑	**Post**	7.3/5.6	in. H_2O for	15	sec
Orsat	OK? ☑				

Sampling Equipment			
Meter #	SAMP-CP-0002		
Meterbox Cal. Factor	(Y)	1.007	
Nozzle #	D4		
Average Nozzle Diameter	(D_{na})	0.2513	in
Rec. Nozzle Diameter	(D_{ni})	0.2190	in
Probe # / Length	SAMP-HP-0021	/ 96	in
Liner Material	glass		
Sample Case / Oven #	SAMP-BH-0009		
Impinger Case #	SAMP-BC-0015		

Pressures			
Barometric Pressure	(P_b)	29.53	in Hg
Stack Static Pressure	(P_{static})	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.51	in Hg
Absolute Meter Pressure	(P_m)	29.65	in Hg

Nozzle Measurements				
Pre	0.250	0.252	0.252	**PASS**
Post	0.250	0.252	0.252	**PASS**

Run Time			
Start	18:02	**End**	20:20

Weights	**Imp 1**	**Imp 2**	**Imp 3**	**Imp 4**	**Imp 5**	**Imp 6**	**Imp 7**	**Imp 8**				
Pre	729.30	770.40	733.90	716.60	747.40	778.00	731.30	933.80	**Wash**	**H_2O**	50.0	ml
Post	846.90	800.50	739.90	718.30	748.10	778.30	731.90	943.90	**Volume**	**MeCl**		ml

Filter #
M-1976

Traverse Point #	**Sampling Time (Θ)**	**Timer Time**	**Dry Gas Meter Reading (V_m)**	**Velocity Head (Δp)**	**Desired Orifice ΔH (ΔH_d)**	**Actual Orifice ΔH (ΔH_a)**	**Stack Temp (t_s)**	**Probe Temp**	**Filter Temp**	**Impinger Exit Temp**	**Aux Temp**	**Meter Inlet Temp (t_{mi})**	**Meter Outlet Temp (t_{mo})**	**Pump Vacuum**	**Square Root ΔP ($\Delta p^{1/2}$)**	**Local Stack Velocity (v_s)$_l$**	**Cumulative Meter Volume (V_m)$_{std}$**	**Cumulative Percent IsoKinetic (I)**	**Est-Run Meter Volume (V_m)$_{std}$**
	min	hh:mm:ss	ft3	in H2O	in H2O	in H2O	oF	oF	oF	oF	oF	oF	oF	in Hg	(in H2O)1/2	ft/sec	scf	%	scf
A-1	0.0	0:00:00	109.850	0.760	1.544	1.500	336	223	256	68	223	104	104	4.0	0.87	62.19	4.894	77.6	58.724
A-2	10.0	0:10:00	115.090	0.800	1.625	1.600	340	224	246	52	225	104	104	7.5	0.89	63.97	10.368	81.4	62.207
A-3	20.0	0:20:00	120.950	0.790	1.604	1.600	340	236	241	48	228	105	105	9.5	0.89	63.57	15.552	81.2	62.210
A-4	30.0	0:30:00	126.510	0.300	0.609	0.600	336	238	238	47	229	105	105	11.5	0.55	39.07	20.222	89.7	60.666
A-5	40.0	0:40:00	131.530	0.530	1.076	1.100	335	240	237	46	226	105	106	14.0	0.73	51.90	25.582	92.2	61.396
A-6	50.0	0:50:00	137.290	0.140	0.284	0.280	338	230	235	47	224	106	106	14.0	0.37	26.73	30.276	104.9	60.553
B-1	60.0	1:00:00	142.350	0.130	0.264	0.260	338	240	235	48	226	105	105	15.0	0.36	25.75	33.617	107.2	57.630
B-2	70.0	1:10:00	145.945	0.350	0.711	0.710	339	235	234	53	223	104	104	17.5	0.59	42.28	34.815	104.5	52.223
B-3	80.0	1:20:00	147.230	0.930	1.889	1.900	338	230	234	60	225	104	104	18.0	0.96	68.88	35.717	102.1	47.623
B-4	90.0	1:30:00	148.195	1.900	3.859	3.900	339	225	235	68	224	104	104	18.5	1.38	98.52	35.865	101.7	43.038
B-5	100.0	1:40:00	148.352	2.800	5.687	5.700	340	229	237	67	226	104	104	19.0	1.67	119.67	36.020	101.3	39.295
B-6	110.0	1:50:00	148.517	2.900	5.890	5.900	343	225	237	67	223	104	104	20.0	1.70	122.02	36.322	100.5	36.322
Last Pt	120.0	2:00:00	148.836																
Final Val	120.0	2:00:00	148.836										**Max Vac**	20.0	**Final Values**		36.322	100.5	
Average Values				1.03		2.09	339	231	239	56	225	105	105		0.91	65.38			
												105							

ONTARIO HYDRO ISOKINETIC SAMPLING DATA

Plant Name	Fibrominn Biomass Power Plant	**Date**	7/5/2007
Sampling Location	SDA Inlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP	**Run #**	IN-OHM-2
# of Points Across	6	**# of Ports Used**	2

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.84	
Avg Stack Temp	(t_s)	339	oF
Avg Gas Meter Temp	(t_m)	105	
DH @ 0.75 SCFM	($\Delta H@$)	1.67	in H2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})	0.91	in H2O
Stack Moisture Content	(B_{ws})	25.00	%
Stack Dry Molecular Weight	(M_d)	30.44	lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.325	acfm
DP to DH Isokinetic Factor	(K)	1.27	

Leak Checks					
Train	**Pre**	0	ft3/min @	15	in Hg
OK? ☑	**Post**	0	ft3/min @	15	in Hg
Pitot	**Pre**	5.9/6.1	in. H_2O for	15	sec
OK? ☑	**Post**	6.6/7	in. H_2O for	15	sec
Orsat	OK? ☑				

Sampling Equipment			
Meter #	SAMP-CP-0002		
Meterbox Cal. Factor	(Y)	1.007	
Nozzle #	D7		
Average Nozzle Diameter	(D_{na})	0.2317	in
Rec. Nozzle Diameter	(D_{ni})	0.1659	in
Probe # / Length	SAMP-HP-0021	/ 96	in
Liner Material	glass		
Sample Case / Oven #	SAMP-BH-0009		
Impinger Case #	SAMP-BC-0021		

Pressures			
Barometric Pressure	(P_b)	29.52	in Hg
Stack Static Pressure	(P_{static})	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.50	in Hg
Absolute Meter Pressure	(P_m)	29.64	in Hg

Nozzle Measurements				
Pre	0.231	0.232	0.232	**PASS**
Post	0.231	0.232	0.232	**PASS**

Run Time			
Start	21:12	**End**	23:30

Weights	**Imp 1**	**Imp 2**	**Imp 3**	**Imp 4**	**Imp 5**	**Imp 6**	**Imp 7**	**Imp 8**				
Pre	742.30	711.50	727.40	756.70	731.40	775.50	740.30	909.20	**Wash**	**H_2O**	50.0	ml
Post	776.50	731.30	742.10	759.20	795.80	783.10	789.70	921.90	**Volume**	**MeCl**		ml

Filter #
M-1915

Traverse Point #	**Sampling Time (Θ)**	**Timer Time**	**Dry Gas Meter Reading (V_m)**	**Velocity Head (Δp)**	**Desired Orifice ΔH (ΔH_d)**	**Actual Orifice ΔH (ΔH_a)**	**Stack Temp (t_s)**	**Probe Temp**	**Filter Temp**	**Impinger Exit Temp**	**Aux Temp**	**Meter Inlet Temp (t_{mi})**	**Meter Outlet Temp (t_{mo})**	**Pump Vacuum**	**Square Root ΔP ($\Delta p^{1/2}$)**	**Local Stack Velocity (v_s)$_l$**	**Cumulative Meter Volume (V_m)$_{std}$**	**Cumulative Percent IsoKinetic (I)**	**Est-Run Meter Volume (V_m)$_{std}$**
	min	hh:mm:ss	ft3	in H2O	in H2O	in H2O	oF	oF	oF	oF	oF	oF	oF	in Hg	(in H2O)1/2	ft/sec	scf	%	scf
A-1	0.0	0:00:00	149.015	0.900	1.142	1.100	352	223	256	63	224	104	104	5.5	0.95	68.37	7.037	121.9	84.444
A-2	10.0	0:10:00	156.560	0.920	1.168	1.200	353	229	254	52	226	105	105	8.0	0.96	69.16	10.674	101.6	64.041
A-3	20.0	0:20:00	160.465	0.930	1.180	1.200	351	235	254	51	229	105	105	12.0	0.96	69.45	16.703	102.0	66.813
A-4	30.0	0:30:00	166.940	0.680	0.863	0.860	351	241	256	52	230	105	105	16.0	0.82	59.39	22.547	105.8	67.640
A-5	40.0	0:40:00	173.220	0.540	0.685	0.690	349	244	251	56	228	105	105	16.0	0.73	52.86	27.569	106.9	66.166
A-6	50.0	0:50:00	178.620	0.510	0.647	0.650	348	252	256	59	227	105	105	18.0	0.71	51.34	31.280	104.3	62.559
B-1	60.0	1:00:00	182.610	0.480	0.609	0.610	347	248	261	62	224	104	104	20.0	0.69	49.77	31.363	104.1	53.766
B-2	70.0	1:10:00	182.700	0.680	0.863	0.860	349	240	266	63	223	103	103	20.0	0.82	59.32	31.386	104.0	47.079
B-3	80.0	1:20:00	182.724	0.840	1.066	1.100	349	339	261	62	224	103	103	20.0	0.92	65.93	31.410	103.9	41.880
B-4	90.0	1:30:00	182.750	0.860	1.092	1.100	348	235	261	62	226	103	103	20.0	0.93	66.66	31.443	103.8	37.731
B-5	100.0	1:40:00	182.785	0.620	0.787	0.790	342	243	263	63	225	103	103	20.0	0.79	56.39	31.462	103.8	34.322
B-6	110.0	1:50:00	182.805	1.000	1.269	1.300	339	246	263	65	227	103	103	20.0	1.00	71.48	31.476	103.7	31.476
Last Pt	120.0	2:00:00	182.820																
Final Val	120.0	2:00:00	182.820										**Max Vac**	20.0	**Final Values**		31.476	103.7	
Average Values				0.75		0.96	348	248	259	59	226	104	104		0.86	61.68			
												104							

ONTARIO HYDRO ISOKINETIC SAMPLING DATA

Plant Name	Fibrominn Biomass Power Plant	**Date**	7/6/2007
Sampling Location	SDA Inlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP	**Run #**	IN-OHM-3
# of Points Across	6	**# of Ports Used**	2

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.84	
Avg Stack Temp	(t_s)	348	oF
Avg Gas Meter Temp	(t_m)	104	
DH @ 0.75 SCFM	($\Delta H@$)	1.67	in H2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})	0.86	in H2O
Stack Moisture Content	(B_{ws})	25.00	%
Stack Dry Molecular Weight	(M_d)	30.44	lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.282	acfm
DP to DH Isokinetic Factor	(K)	1.06	

Leak Checks					
Train	**Pre**	0	ft3/min @	15	in Hg
OK? ☑	**Post**	0	ft3/min @	15	in Hg
Pitot	**Pre**	5.3/7.6	in. H_2O for	15	sec
OK? ☑	**Post**	7.2/6.9	in. H_2O for	15	sec
Orsat	OK? ☑				

Sampling Equipment			
Meter #	SAMP-CP-0002		
Meterbox Cal. Factor	(Y)	1.007	
Nozzle #	A7		
Average Nozzle Diameter	(D_{na})	0.2223	in
Rec. Nozzle Diameter	(D_{ni})	0.1576	in
Probe # / Length	SAMP-HP-0036	/ 96	in
Liner Material	glass		
Sample Case / Oven #	SAMP-BH-0009		
Impinger Case #	SAMP-BC-0015		

Pressures			
Barometric Pressure	(P_b)	29.57	in Hg
Stack Static Pressure	(P_{static})	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.55	in Hg
Absolute Meter Pressure	(P_m)	29.69	in Hg

Nozzle Measurements				
Pre	0.222	0.223	0.222	**PASS**
Post	0.222	0.223	0.222	**PASS**

Run Time			
Start	0:43	**End**	3:00

Weights	**Imp 1**	**Imp 2**	**Imp 3**	**Imp 4**	**Imp 5**	**Imp 6**	**Imp 7**	**Imp 8**				
Pre	729.30	781.30	744.20	723.20	762.30	781.30	730.20	963.90	**Wash**	**H_2O**	50.0	ml
Post	828.60	799.10	746.50	723.30	762.00	781.10	730.30	982.30	**Volume**	**MeCl**		ml

Filter #
M-1954

Traverse Point #	**Sampling Time (Θ)**	**Timer Time**	**Dry Gas Meter Reading (V_m)**	**Velocity Head (Δp)**	**Desired Orifice ΔH (ΔH_d)**	**Actual Orifice ΔH (ΔH_a)**	**Stack Temp (t_s)**	**Probe Temp**	**Filter Temp**	**Impinger Exit Temp**	**Aux Temp**	**Meter Inlet Temp (t_{mi})**	**Meter Outlet Temp (t_{mo})**	**Pump Vacuum**	**Square Root ΔP ($\Delta p^{1/2}$)**	**Local Stack Velocity (v_s)$_l$**	**Cumulative Meter Volume (V_m)$_{std}$**	**Cumulative Percent IsoKinetic (I)**	**Est-Run Meter Volume (V_m)$_{std}$**
	min	hh:mm:ss	ft3	in H2O	in H2O	in H2O	oF	oF	oF	oF	oF	oF	oF	in Hg	(in H2O)1/2	ft/sec	scf	%	scf
A-1	0.0	0:00:00	184.550	0.720	0.765	0.770	337	232	263	60	224	99	99	5.0	0.85	60.53	5.693	118.5	68.320
A-2	10.0	0:10:00	190.595	0.690	0.733	0.730	338	255	254	43	227	100	100	7.5	0.83	59.29	10.929	115.1	65.577
A-3	20.0	0:20:00	196.165	0.760	0.808	0.810	338	255	252	45	229	101	101	12.5	0.87	62.23	15.815	110.2	63.259
A-4	30.0	0:30:00	201.370	0.610	0.648	0.650	339	257	247	51	226	101	101	16.5	0.78	55.78	20.135	107.5	60.405
A-5	40.0	0:40:00	205.975	0.510	0.542	0.540	340	264	249	54	225	100	100	18.0	0.71	51.04	22.724	102.6	54.537
A-6	50.0	0:50:00	208.730	0.510	0.542	0.540	342	253	253	58	223	99	99	22.0	0.71	51.10	23.110	101.0	46.219
B-1	60.0	1:00:00	209.140	0.510	0.542	0.540	342	249	247	59	224	99	99	22.0	0.71	51.10	23.445	99.7	40.191
B-2	70.0	1:10:00	209.496	0.710	0.755	0.750	346	237	251	61	227	99	99	22.0	0.84	60.45	23.480	99.6	35.219
B-3	80.0	1:20:00	209.533	1.000	1.063	1.100	344	225	252	61	229	99	99	22.0	1.00	71.65	23.755	98.5	31.673
B-4	90.0	1:30:00	209.825	2.500	2.657	2.700	343	239	255	61	228	99	99	22.0	1.58	113.21	24.029	97.4	28.835
B-5	100.0	1:40:00	210.115	3.500	3.720	3.700	343	242	254	63	227	99	99	22.0	1.87	133.96	24.214	96.7	26.416
B-6	110.0	1:50:00	210.310	3.300	3.508	3.500	344	243	256	65	224	99	99	22.0	1.82	130.15	24.484	95.6	24.484
Last Pt	120.0	2:00:00	210.595																
Final Val	120.0	2:00:00	210.595										**Max Vac**	22.0	**Final Values**		24.484	95.6	
Average Values				1.277		1.361	341	246	253	57	226	100	100		1.05	75.04			
												100							

ONTARIO HYDRO - SAMPLE RECOVERY AND INTEGRITY DATA SHEET

Plant Name	Fibrominn Biomass Power Plant	**Date**	07/05/07
Sampling Location	SDA Inlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP	**Acetone Lot Number**	C38B11

Run History Data				
Run Number	IN-OHM-1	IN-OHM-2	IN-OHM-3	
Run Start Time	18:02	21:12	0:43	(hh:mm)
Run Stop Time	20:20	23:30	3:00	(hh:mm)
Train Prepared By	KV/SK	KV/SK	KV/SK	
Train Recovered By	KV/SK	KV/SK	KV/SK	
Recovery Date	7/5/2007	7/5/2007	7/5/2007	(mm/dd/yy)
Relinquished By	TG	TG	TG	
Received By	PS	PS	PS	
Relinquished Date	7/6/2007	7/6/2007	7/6/2007	(mm/dd/yy)
Relinquished Time	12:00	12:00	12:00	(hh:mm)

Equipment Identification Numbers			
Filter	M-1976	M-1915	M-1954
Acetone Wash	ok	ok	ok
Silica Gel	ok	ok	ok
Impinger Case	SAMP-BC-0015	SAMP-BC-0021	SAMP-BC-0015
Sample Box	SAMP-BH-0009	SAMP-BH-0009	SAMP-BH-0009
Oven	ok	ok	ok

Sample Blank Taken ☑ YES

Moisture Content Data					
Impingers 1, 2, 3, 4, 5, 6 and 7 - Liquid Volume					
Final Volume	(V_f)	5373.6	5387.4	5380.6	ml
Initial Volume	(V_i)	5216.3	5194.5	5261.3	ml
Net Volume	(V_n)	157.3	192.9	119.3	ml
Comments					
Impinger 8 - Silica Gel Weight					
Final Weight	(W_f)	943.9	921.9	982.3	g
Initial Weight	(W_i)	933.8	909.2	963.9	g
Net Weight	(W_n)	10.1	12.7	18.4	g
Comments					
Total Water Collected					
Total Volume	(V_{lc})	167.4	205.7	137.7	ml

EXAMPLE CALCULATIONS (Reference Method 1 - Circular Stack)

L_{fw} = distance to far wall of stack (in.)
L_{nw} = distance to near wall of stack (in.) [reference]
D = diameter of stack (in.)
A_s = area of stack (ft^2)
B = distance downstream (in.)
B_D = stack diameters downstream (dia.)
A = distance upstream (in.)
A_D = stack diameters upstream (dia.)

Diameter of Stack (in.)

$$D(in.) = L_{fw} - L_{nw}$$

D (in.) = 136 in. - 7 in. = 129 in.

Area of Stack (ft^2)

$$A_s(ft^2) = \pi \times \left(\frac{D}{2 \times 12}\right)^2$$

A_s (ft^2) = 3.14 x $\left(\frac{129.0 \text{ in.}}{2 \text{ x } 12\text{in./ft}}\right)^2$ = 90.76 ft^2

Stack Diameters Downstream

$$B_D(dia.) = \frac{B}{D}$$

B_D (dia.) = $\frac{1222 \text{ in.}}{129 \text{ in.}}$ = 9.47 diameters

Stack Diameters Upstream

$$A_D(dia.) = \frac{A}{D}$$

A_D (dia.) = $\frac{350 \text{ in.}}{129 \text{ in.}}$ = 2.71 diameters

Number of Traverse Points

Based on 40 CFR Part 60, Appendix A, Method 1, Section 2.2

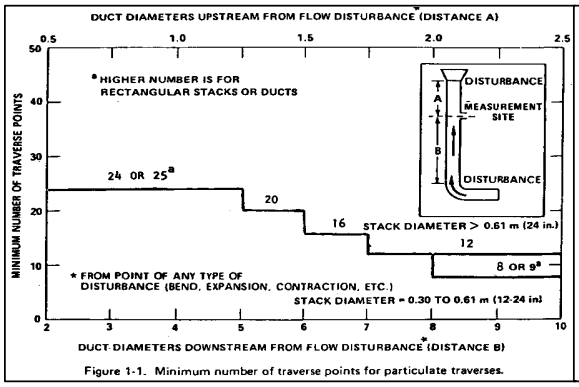


Figure 1-1. Minimum number of traverse points for particulate traverses.

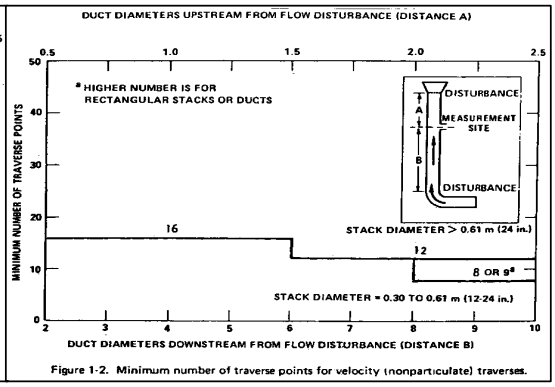


Figure 1-2. Minimum number of traverse points for velocity (nonparticulate) traverses.

Traverse Point Locations

Based on 40 CFR Part 60, Appendix A, Method 1, Section 2.3

Location of Traverse Points in Circular Stacks												
Traverse Point Number	(Fraction of Stack Dimension from Inside Wall to Traverse Point) Number of Traverse Points Across the Stack											
	2	4	6	8	10	12	14	16	18	20	22	24
1	.146	.067	.044	.032	.026	.021	.018	.016	.014	.013	.011	.011
2	.854	.250	.146	.105	.082	.067	.057	.049	.044	.039	.035	.032
3		.750	.296	.194	.146	.118	.099	.085	.075	.067	.060	.055
4		.933	.704	.323	.226	.177	.146	.125	.109	.097	.087	.079
5			.854	.677	.342	.250	.201	.169	.146	.129	.116	.105
6			.956	.806	.658	.356	.269	.220	.188	.165	.146	.132
7				.895	.774	.644	.366	.283	.236	.204	.180	.161
8				.968	.854	.750	.634	.375	.296	.250	.218	.194
9					.918	.823	.731	.625	.382	.306	.262	.230
10					.974	.882	.799	.717	.618	.388	.315	.272
11						.933	.854	.780	.704	.612	.393	.323
12						.979	.901	.831	.764	.694	.607	.398
13							.943	.875	.812	.750	.685	.602
14							.982	.915	.854	.796	.738	.677
15								.951	.891	.835	.782	.728
16								.984	.925	.871	.820	.770
17									.956	.903	.854	.806
18									.986	.933	.884	.839
19										.961	.913	.868
20										.987	.940	.895
21											.965	.921
22											.989	.945
23												.968
24												.989

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 2)

P_b = barometric pressure (in. Hg)
P_{static} = static pressure (in. H_20)
P_s = absolute stack pressure (in. Hg)
$\%N_2$ = nitrogen concentration (%)
$\%CO_2$ = carbon dioxide concentration (%)
$\%O_2$ = oxygen concentration (%)
%CO = carbon monoxide concentration (%)
MW = molecular weight (lb/lb-mole)
B_{ws} = stack moisture content (%)
M_d = stack dry molecular weight (lb/lb-mole)
M_s = stack wet molecular weight (lb/lb-mole)
T_{std} = standard temperature, 68°F, 528°R
P_{std} = standard pressure, 29.92 in. Hg
v_{sl} = local velocity (ft/sec)
v_s = average stack gas velocity (ft/sec)
Q_{sd} = average stack dry standard flow rate (dscf/hr)
Q_{aw} = average stack wet flow rate (ascf/min)

C_p = pitot tube coefficient
Δp = velocity head (in. H_2O)
A_s = area of stack (ft^2)
N_a = null angle (deg.)
t_s = stack temperature (°F)
T_u = temperature offset, 460°R
K_p = pitot tube constant,
85.49 (ft/sec)(((lb/lb-mole)(in. Hg))/((°R)(in. Hg)))$^{1/2}$

Absolute Stack Pressure (in. Hg)

$$P_S\,(in.Hg) = P_b + \frac{P_{static}}{13.6}$$

P_s (in. Hg) = 29.92 in. Hg + $\frac{\text{-0.23 in. } H_2O}{\text{13.6 in. } H_2O/\text{in. Hg}}$ = 29.90 in. Hg

Nitrogen Concentration (%)

$$\%N_2 = 100 - \%CO_2 - \%O_2 - \%CO$$

$\%N_2$ (%) = 100 - 14.39 % - 4.83 % - 0 % = 80.78 %

Stack Dry Molecular Weight (lb/lb-mole)

$$M_d\,(lb/lb-mol) = \sum\left(\frac{MW_{comp}}{100} \times \%component\right)$$

M_d (lb/lb-mol) = $\left(\frac{\text{44 lb/lb-mol}}{100} \text{ x } 14.39\ \%\right) + \left(\frac{\text{32 lb/lb-mol}}{100} \text{ x } 4.83\ \%\right)$ + etc. = $\frac{30.5 \text{ lb}}{\text{lb-mol}}$

Stack Wet Molecular Weight (lb/lb-mole)

$$M_S\,(lb/lb-mol) = \left[M_d \times \left(1 - \frac{B_{WS}}{100}\right)\right] + \left[MW_{H_2O} \times \frac{B_{WS}}{100}\right]$$

M_S (lb/lb-mol) = $\left\{\frac{30.5 \text{ lb}}{\text{lb-mol}} \text{ x} \left(1 - \frac{30\ \%}{100}\right)\right\} + \left\{\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } \frac{30\ \%}{100}\right\} = \frac{26.75 \text{ lb}}{\text{lb-mol}}$

Local Velocity (ft/sec)

$$v_{s(l)}(ft/\sec) = K_p \times C_p \times \sqrt{\Delta p} \times \sqrt{\frac{t_s + T_u}{P_s \times M_s}}$$

v_{sl} (ft/sec) = $\frac{85.49 \text{ ft}}{\text{sec}} \left(\frac{\text{(lb/lb-mol)(in. Hg)}}{(^oR)(\text{in. } H_2O)}\right)^{1/2}$ x 0.84 x $\sqrt{2.10 \text{ in.} H_2O}$ x $\sqrt{\frac{219 \quad + 460\ ^oR}{29.9 \text{ in. Hg x } 26.75 \text{ lb/lb-mol}}}$ = $\frac{95.88 \text{ ft}}{\text{sec}}$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 2)

P_b = barometric pressure (in. Hg)
P_{static} = static pressure (in. H_20)
P_s = absolute stack pressure (in. Hg)
$\%N_2$ = nitrogen concentration (%)
$\%CO_2$ = carbon dioxide concentration (%)
$\%O_2$ = oxygen concentration (%)
%CO = carbon monoxide concentration (%)
MW = molecular weight (lb/lb-mole)
B_{ws} = stack moisture content (%)
M_d = stack dry molecular weight (lb/lb-mole)
M_s = stack wet molecular weight (lb/lb-mole)
K_p = pitot tube constant,
85.49 (ft/sec)(((lb/lb-mole)(in. Hg))/((^oR)(in. Hg)))$^{1/2}$
T_{STD} = standard temperature, 68^oF
P_{STD} = standard pressure, 29.92 in. Hg
v_{sl} = local velocity (ft/sec)
v_s = average stack gas velocity (ft/sec)
Q_{SD} = average stack dry standard flow rate (dscf/hr)
Q_{AW} = average stack wet flow rate (ascf/min)

C_p = pitot tube coefficient
Δp = velocity head (in. H_2O)
A_s = area of stack (ft^2)
N_A = null angle (deg.)
t_s = stack temperature (^oF)
T_u = temperature offset, 460^oR

Average Stack Gas Velocity (ft/sec)

$$v_s(ft/\sec) = K_p \times C_p \times \left(\sqrt{\Delta p}\right)_{avg} \times \sqrt{\frac{(t_s)_{avg} + T_u}{P_s \times M_s}}$$

$$v_{sl}\ (ft/sec) = \frac{85.49\ ft}{sec}\left(\frac{(lb/lb\text{-}mol)(in.\ Hg)}{(^oR)(in.\ H_2O)}\right)^{1/2} \times 0.84 \times 1.45\ in.H_2O^{1/2} \times \sqrt{\frac{203 + 460\ ^oR}{29.9\ in.\ Hg \times 26.75\ lb/lb\text{-}mol}} = \frac{94.8\ ft}{sec}$$

Average Stack Dry Standard Flow Rate (dscfh)

$$Q_{sd}(dscfh) = \frac{60 \times 60 \times \left(1 - \frac{B_{ws}}{100}\right) \times v_s \times A_s \times T_{std} \times P_s}{(t_s + T_u) \times P_{std}}$$

$$Q_{sd}\ (dscf/hr) = \frac{3600\ sec}{hr} \times \left(1 - \frac{30.0\ \%}{100}\right) \times \frac{94.80\ ft}{sec} \times 90.76\ ft^2 \times \frac{68 + 460\ ^oR}{203 + 460\ ^oR} \times \frac{29.90\ in.\ Hg}{29.92\ in.\ Hg} = \frac{17{,}271{,}132\ dscf}{hr}$$

Average Stack Wet Flow Rate (acfm)

$$Q_{aw}(acfm) = 60 \times v_s \times A_s$$

$$Q_{aw}\ (acf/min) = \frac{60\ sec}{min} \times \frac{94.80\ ft}{sec} \times 90.76\ ft^2 = \frac{516{,}261\ acf}{min}$$

Average Stack Wet Standard Flow Rate (ascfh)

$$Q_{sw}(ascfh) = \frac{60 \times Q_{aw} \times T_{std} \times P_s}{(t_s + T_u) \times P_{std}}$$

$$Q_{sw}\ (ascf/hr) = \frac{60\ min}{hr} \times \frac{516{,}261\ acf}{min} \times \frac{68 + 460\ ^oR}{203 + 460\ ^oR} \times \frac{29.90\ in.\ Hg}{29.92\ in.\ Hg} = \frac{24{,}673{,}046\ ascf}{hr}$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 3a)

$\%N_2$ = nitrogen concentration (%)
$\%CO_2$ = carbon dioxide concentration (%)
$\%O_2$ = oxygen concentration (%)
ppmCO = carbon monoxide concentration (ppm)
%CO = carbon monoxide concentration (%)
M_d = stack dry molecular weight (lb/lb-mole)
$(F_o)_{avg}$ = average calculated fuel factor
$(\%EA)_{avg}$ = average excess air (%)

Carbon Monoxide Concentration (%)

$$\%CO = \frac{ppmCO}{10{,}000}$$

%CO (%) = 100.00 ppm / 10,000 ppm/% = 1.0E-02 %

Nitrogen Concentration (%)

$$\%N_2 = 100 - \%CO_2 - \%O_2 - \%CO$$

%N2 (%) = 100 - 14 % - 5 % - 0.01 % = 80.99 %

Stack Dry Molecular Weight (lb/lb-mole)

$$M_d\,(lb/lb-mol) = \sum\left(\frac{MW_{comp}}{100} \times \%component\right)$$

M_d (lb/lb-mol) = (44 lb/lb-mol / 100 x 14 %) + (32 lb/lb-mol / 100 x 5 %) + etc. = 30.44 lb/lb-mol

Average Calculated Fuel Factor

$$F_{o(avg)} = \frac{\left[20.9 - (\%O_2)_{avg} - (0.5 \times (\%CO)_{avg})\right]}{(\%CO_2)_{avg} + (\%CO)_{avg}}$$

$F_{o(avg)}$ = (20.9% - 5 % - [0.5 x 0.01 %]) / (14 % + 0.01 %) = 1.135

Average Excess Air (%)

$$\%EA_{avg}(\%) = \frac{100 \times \left[(\%O_2)_{avg} - (0.5 \times (\%CO)_{avg})\right]}{(0.264 \times (N_2)_{avg}) - \left[(\%O_2)_{avg} - (0.5 \times (\%CO)_{avg})\right]}$$

$(\%EA)_{AVG}$ = 100 x { 5 % - [0.5 x 0.01 %] } / [0.264 x 80.99 %] - { 5 % - [0.5 x 0.01 %] } = 30.5 %

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 4)

V_{mf} = final dry gas meter reading (dcf)
V_{mi} = initial dry gas meter reading (dcf)
V_m = total meter volume (dcf)
$t_{m(avg)}$ = average meter temp. (^oF)
$t_{s(avg)}$ = average stack temp. (^oF)
P_b = barometric pressure (in. Hg)
P_{static} = static pressure (in. H_2O)
ΔH_{avg} = average orifice pressure (in. H_2O)
V_i = initial impinger volume (ml)
V_f = final impinger volume (ml)
W_i = initial impinger weight (g)
W_f = final impinger weight (g)
V_t = total impinger volume (ml) = $\Sigma(V_f-V_i)$
W_t = total impinger weight (g) = $\Sigma(W_f-W_i)$
K_5 = water mass to std water vapor, 0.04715 ft^3/g
K_1 = standard volume correction, 17.65^oR/in. Hg
Y = meter calibration factor
T_u = absolute temperature offset, 460^oR
B_{ws} = final moisture content (%) = min of $B_{ws(calc)}$ and $B_{ws(svp)}$

Water Volume Weighed (dscf)

$$V_{wsg(std)}(dscf) = W_t \times K_5$$

$V_{wsg(std)}$ = 167.10 g x 0.04715 ft^3/g = 7.879 dscf

Standard Meter Volume (dscf)

$$V_{m(std)}(dscf) = \frac{K_1 \times Y \times V_m \times \left(P_b + \frac{\Delta H_{avg}}{13.6}\right)}{(t_m)_{avg} + T_u}$$

$$V_{m(std)} = \frac{\frac{17.65\ ^oR}{in.\ Hg} \times 1.01 \times 38.986\ dcf \times \left(29.53\ in.\ Hg + \frac{2.09\ in.\ H_2O}{13.6\ in.\ H_2O / in.\ Hg}\right)}{105\ ^oF + 460\ ^oR} = 36.43\ dscf$$

Calculated Moisture Content (%)

$$B_{ws(calc)}(\%) = 100 \times \frac{V_{wsg(std)}}{V_{wsg(std)} + V_{m(std)}}$$

$$B_{ws(calc)} = 100 \times \frac{7.878765\ dscf}{7.878765\ dscf + 36.42751\ dscf} = 17.7825\ \%$$

Saturated Moisture Content (%)

$$B_{ws(svp)}(\%) = 100 \times \frac{10^{6.691 - \frac{3144}{t_{s(avg)} + 390.86}}}{P_b + \frac{P_{static}}{13.6}} \leq 100$$

$$B_{ws(svp)} = 100 \times \frac{10^{\left(6.691 - \frac{3144}{339\ ^oF + 390.86}\right)}}{29.53\ in.\ Hg + \frac{-0.23\ in.\ H_2O}{13.6\ in.\ H_2O / in.\ Hg}} \leq 100 = 100\ \%$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Isokinetic Sampling)

C_n = nozzle diameter constant, 0.03575
Q_m = estimated orifice flow rate, 0.750 acfm
else Vm/Θ from previous run
V_m = total meter volume (acf)
Θ = total sampling time (min)
t_m = average gas meter temperature (°F)
T_u = absolute temperature offset, 460°R
C_p = pitot tube coefficient
B_{wm} = meter moisture content (%)
B_{ws} = stack moisture content (%)
t_s = average stack temperature (°F)
M_d = stack dry molecular weight (lb/lb-mole)
P_s = absolute stack pressure (in. Hg)
C_k = K Factor Constant, 849.8

Δp_{avg} = average pitot tube differential pressure (in. H_2O)
ΔH@ = DH @ 0.75 SCFM (in. H_2O)
D_{na} = actual nozzle diameter (in.)
Δp = velocity head (in. H_2O)

Desired Orifice (in. H_2O)

$$\Delta H_d\,(in.H_2O) = K \times \Delta p$$

ΔH_d (in. H_2O) = 2.03 x 0.76 in. H_2O = 1.544 in. H_2O

Absolute Meter Pressure (in. Hg)

$$P_m\,(in.Hg) = P_b + \frac{\Delta H\,@}{13.6}$$

P_m (in. Hg) = 29.53 in. Hg + $\dfrac{1.67 \text{ in. } H_2O}{13.6 \text{ in. } H_2O/\text{in. Hg}}$ = 29.65 in. Hg

Recommended Nozzle Diameter (in.)

$$D_{ni}\,(in.) = \sqrt{\frac{C_n \times Q_m \times P_m}{(t_m + T_u) \times C_p} \times \left(\frac{1 - \frac{B_{wm}}{100}}{1 - \frac{B_{ws}}{100}}\right)} \times \sqrt{(t_s + T_u) \times \left[\frac{M_d \times \left(1 - \frac{B_{ws}}{100}\right) + (18 \times B_{ws})}{P_s \times \Delta p_{avg}}\right]}$$

$$D_{ni}\text{ (in.)} = \sqrt{\frac{0.03575 \text{ (lb-mole•°R•in. } H_2O)^{1/2}\text{•min•in.}^2}{\text{acf•in. Hg}^{3/4}\text{•lb}^{1/2}} \text{ x } 0.75 \text{ acf x } 29.65 \text{ in. Hg} \times \left(\frac{1 - \frac{0.0\ \%}{100}}{1 - \frac{25.0\ \%}{100}}\right) \text{x}} \sqrt{\frac{(81\ ^\circ\text{F} + 460^\circ\text{R}) \text{ x } 0.84}{\text{x } (203\ ^\circ\text{F} + 460^\circ\text{R}) \text{ x } \dfrac{\frac{30.44 \text{ lb}}{\text{lb-mole}} \text{ x } \left(1 - \frac{25.0\ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } 25.0\ \%\right)}{29.51 \text{ in. Hg x } 1.45 \text{ in. } H_2O}}} = 0.219 \text{ in.}$$

DP to DH Isokinetic Factor

$$K = C_k \times C_p^2 \times \Delta H\,@ \times D_{na}^4 \times \left[\frac{M_d \times \left(1 - \frac{B_{wm}}{100}\right) + \left(18 \times \frac{B_{wm}}{100}\right)}{M_d \times \left(1 - \frac{B_{ws}}{100}\right) + \left(18 \times \frac{B_{ws}}{100}\right)}\right] \times \left(\frac{1 - \frac{B_{ws}}{100}}{1 - \frac{B_{wm}}{100}}\right)^2 \times \left(\frac{t_m + T_u}{ts + T_u}\right) \times \frac{P_s}{P_m}$$

$$K = \frac{849.8}{\text{in. } H_2O\text{•in.}^4} \text{ x } 0.84^2 \text{ x } 1.67 \text{ in. } H_2O \text{ x } 0.251333^4 \text{ x } \left(\frac{1 - \frac{25.0\ \%}{100}}{1 - \frac{0.0\ \%}{100}}\right)^2 \text{x } \left(\frac{81\ ^\circ\text{F} + 460^\circ\text{R}}{203\ ^\circ\text{F} + 460^\circ\text{R}}\right) \text{ x}$$

$$\left(\frac{\frac{30.44 \text{ lb}}{\text{lb/mole}} \text{ x } \left(1 - \frac{0.0\ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } \frac{0.0\ \%}{100}\right)}{\frac{30.44 \text{ lb}}{\text{lb/mole}} \text{ x } \left(1 - \frac{25.0\ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } \frac{25.0\ \%}{100}\right)}\right) \text{x } \frac{29.51 \text{ in. Hg}}{29.65 \text{ in. Hg}} = 2.03$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 29, Run 1)

Mercury Emissions Rate (lb/hr)

$$E^{'}(lb/hr) = \frac{M_n \times Q_{sd}}{V_{m(std)}} \times \frac{60}{453.592 \times 1000}$$

$$E' \text{ (lb/hr)} = \frac{\text{g}}{\text{1000 mg}} \text{ x } \frac{\text{60 min}}{\text{hr}} \text{ x } \frac{\text{lb}}{\text{453.592 g}} \text{ x } \frac{\text{0.00052 mg}}{\text{36.32 dscf}} \text{ x } \frac{\text{190,931 dscf}}{\text{min}} = \frac{\text{0.00036 lb}}{\text{hr}}$$

Mercury Emissions Rate (ton/yr)

$$E^{''}(ton/yr) = E^{'} \times \frac{8760}{2000}$$

$$E'' \text{ (ton/yr)} = \frac{\text{ton}}{\text{2000 lb}} \text{ x } \frac{\text{8760 hr}}{\text{yr}} \text{ x } \frac{\text{0.00036 lb}}{\text{hr}} = \frac{\text{0.00157 ton}}{\text{yr}}$$

Mercury Emissions Rate (lb/MMBtu)

$$E^{'''}(lb/MMBtu) = \frac{M_n \times F_d}{V_{m(std)} \times 1000 \times 453.592} \times \left(\frac{100}{\%CO_2} \right)$$

$$E''' \text{ (lb/MMBtu)} = \frac{\text{g}}{\text{1000 mg}} \text{ x } \frac{\text{lb}}{\text{453.592 g}} \text{ x } \frac{\text{0.00052 mg}}{\text{36.32 dscf}} \text{ x } \frac{\text{1,890 dscf (CO}_2\text{)}}{\text{MMBtu}} \text{ x } \left(\frac{\text{100\%}}{\text{14.0 \%}} \right) = \frac{\text{4.23E-07 lb}}{\text{MMBtu}}$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

TEST RESULTS AND CALCULATIONS

Outlet Hg Emissions Data

ONTARIO HYDRO - RESULTS

Plant Name	Fibrominn Biomass Power Plant	**Date**	07/05/07
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP	**Stack Type**	Circular

Historical Data						
Run Number		OUT-OHM-1	OUT-OHM-2	OUT-OHM-3	**Average**	
Run Start Time		18:02	21:12	0:43		hh:mm
Run Stop Time		22:10	23:22	2:55		hh:mm
Meter Calibration Factor	(Y)	1.005	1.005	1.005		
Pitot Tube Coefficient	(C_p)	0.840	0.840	0.840		
Average Nozzle Diameter	(D_{na})	0.174	0.176	0.174		in
Stack Test Data						
Initial Meter Volume	($V_m)_i$	707.020	757.850	813.500		ft3
Final Meter Volume	($V_m)_f$	757.110	812.030	863.450		ft3
Total Meter Volume	(V_m)	50.090	54.180	49.950	51.407	ft3
Total Sampling Time	(Θ)	120.0	120.0	120.0	120.0	min
Average Meter Temperature	$(t_m)_{avg}$	82.0	81.1	77.4	80.2	oF
Average Stack Temperature	$(t_s)_{avg}$	297.8	302.2	297.6	299.2	oF
Barometric Pressure	(P_b)	29.53	29.52	29.57	29.54	in Hg
Stack Static Pressure	(P_{static})	-0.23	-0.23	-0.23	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.51	29.50	29.55	29.52	in Hg
Average Orifice Pressure Drop	$(\Delta H)_{avg}$	0.58	0.67	0.58	0.61	in H2O
Absolute Meter Pressure	(P_m)	29.66	29.65	29.70	29.67	in Hg
Avg Square Root Pitot Pressure	$(\Delta p^{1/2})_{avg}$	1.13	1.19	1.13	1.15	(in H2O)1/2
Moisture Content Data						
Impingers 1-3 Water Volume Gain	(V_n)	299.9	374.2	329.3	334.5	ml
Impinger 4 Silica Gel Weight Gain	(W_n)	11.9	14.8	9.3	12.0	g
Total Water Volume Collected	(V_{lc})	311.9	389.0	338.6	346.5	ml
Standard Water Vapor Volume	$(V_w)_{std}$	14.679	18.310	15.938	16.309	scf
Standard Meter Volume	$(V_m)_{std}$	48.469	52.518	48.814	49.933	dscf
Calculated Stack Moisture	$(B_{ws(calc)})$	23.24	25.85	24.61	24.57	%
Saturated Stack Moisture	$(B_{ws(svp)})$	100.0	100.0	100.0	100.0	%
Reported Stack Moisture Content	(B_{ws})	23.24	25.85	24.61	24.57	%
Gas Analysis Data						
Carbon Dioxide Percentage	($\%CO_2$)	14.0	14.0	14.0	14.0	%
Oxygen Percentage	($\%O_2$)	5.0	5.0	5.0	5.0	%
Carbon Monoxide Percentage	(%CO)	0.0	0.0	0.0	0.0	%
Nitrogen Percentage	($\%N_2$)	81.0	81.0	81.0	81.0	%
Dry Gas Molecular Weight	(M_d)	30.44	30.44	30.44	30.44	lb/lb-mole
Wet Stack Gas Molecular Weight	(M_s)	27.55	27.22	27.38	27.38	lb/lb-mole
Calculated Fuel Factor	(F_o)	1.135	1.135	1.135	1.135	
Fuel F-Factor	(F_c)	1890	1890	1890	1890	dscf/MMBtu
Percent Excess Air	(%EA)	30.5	30.5	30.5	30.5	%
Volumetric Flow Rate Data						
Average Stack Gas Velocity	(v_s)	78.83	83.31	78.89	80.34	ft/sec
Stack Cross-Sectional Area	(A_s)	63.62	63.62	63.62	63.62	ft2
Actual Stack Flow Rate	(Q_{aw})	300,898	317,986	301,116	306,667	acfm
Wet Standard Stack Flow Rate	(Q_{sw})	12,407	13,033	12,437	12,626	wkscfh
Dry Standard Stack Flow Rate	(Q_{sd})	158,727	161,063	156,271	158,687	dscfm
Percent of Isokinetic Rate	(I)	100.3	101.3	100.7	100.8	%
Emission Rate Data						
Total Mass of Hg	(part. bound)	0.00000	0.00000	0.00000	0.00000	mg
	(oxidized)	0.00000	0.00000	0.00000	0.00000	mg
	(elemental)	0.00000	0.00000	0.00000	0.00000	mg
	(all forms)	0.00000	0.00000	0.00000	0.00000	mg
Emission Rate of Hg	(part. bound)	0.00000	0.00000	0.00000	0.00000	lbs/hr
	(oxidized)	0.00000	0.00000	0.00000	0.00000	lbs/hr
	(elemental)	0.00000	0.00000	0.00000	0.00000	lbs/hr
	(all forms)	0.00000	0.00000	0.00000	0.00000	lbs/hr
Emission Rate of Hg	(part. bound)	0.00000	0.00000	0.00000	0.00000	tons/yr
	(oxidized)	0.00000	0.00000	0.00000	0.00000	tons/yr
	(elemental)	0.00000	0.00000	0.00000	0.00000	tons/yr
	(all forms)	0.00000	0.00000	0.00000	0.00000	tons/yr
Emission Rate of Hg	(part. bound)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	lbs/MMBtu
	(oxidized)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	lbs/MMBtu
	(elemental)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	lbs/MMBtu
	(all forms)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	lbs/MMBtu

Note: Results reported below pratical quantitation limit (BPQL) set to non-detect (ND) for calculations.

Air Hygiene International, Inc.
5634 S. 122nd East Ave, Suite F
Tulsa, Oklahoma 74146
(888) 461-8778
www.airhygiene.com

MERCURY ANALYSIS DATASHEET

Paramter	Units	Run 1				
		Particle Bound Hg		Oxidized Hg	Elemental Hg	
		Filter	Probe Wash	KCl (Imp 1-3)	HNO_3-H_2O_2 (Imp 4)	$KMNO_4$ (Imp 5-7)
Sample		OUT-OHM-1-CON1	OUT-OHM-1-CON2	OUT-OHM-1-CON3	OUT-OHM-1-CON4	OUT-OHM-1-CON5
Log Number		20073704	20073720	20073721	20073722	20073723
Solids PQL	µg	0.007				
Ash Hg Content Weight	µg	0.000				
Liquid Results	mg/L		0.000000	0.000000	0.000000	0.000000
Liquids PQL	mg/L		0.00140	0.00014	0.00140	0.00014
Sample Volume	mL		235	645	145	380
Dry Std. Stack Flow Rate (Q_{sd})	dscfm	158,727				
DGM Volume	dscf	48.469				
DGM Volume	dscm	1.37				
Carbon Dioxide Concentration	%	14.00				
Total Hg (ea. form)	mg	0.0000		0.0000	0.0000	
Total Hg		0.0000				
Hg (ea. form)	lb/MMBtu	0.00E+00		0.00E+00	0.00E+00	
Hg		0.00E+00				
Hg (ea. form)	lb/hr	0.0000		0.0000	0.0000	
Hg		0.0000				
Hg (ea. form)	ton/yr	0.0000		0.0000	0.0000	
Hg		0.0000				

Paramter	Units	Run 2				
		Particle Bound Hg		Oxidized Hg	Elemental Hg	
		Filter	Probe Wash	KCl (Imp 1-3)	HNO_3-H_2O_2 (Imp 4)	$KMNO_4$ (Imp 5-7)
Sample		OUT-OHM-2-CON1	OUT-OHM-2-CON2	OUT-OHM-2-CON3	OUT-OHM-2-CON4	OUT-OHM-2-CON5
Log Number		20073705	20073724	20073725	20073726	20073727
Solids PQL	µg	0.007				
Ash Sample Weight	µg	0.000				
Liquid Results	mg/L		0.000000	0.000000	0.000000	0.000000
Liquids PQL	mg/L		0.00140	0.00014	0.00140	0.00014
Sample Volume	mL		150	645	130	380
Dry Std. Stack Flow Rate (Q_{sd})	dscfm	161,063				
DGM Volume	dscf	52.518				
DGM Volume	dscm	1.49				
Carbon Dioxide Concentration	%	14.00				
Total Hg (ea. form)	mg	0.0000		0.0000	0.0000	
Total Hg		0.0000				
Hg (ea. form)	lb/MMBtu	0.00E+00		0.00E+00	0.00E+00	
Hg		0.00E+00				
Hg (ea. form)	lb/hr	0.0000		0.0000	0.0000	
Hg		0.0000				
Hg (ea. form)	ton/yr	0.0000		0.0000	0.0000	
Hg		0.0000				

Paramter	Units	Run 3				
		Particle Bound Hg		Oxidized Hg	Elemental Hg	
		Filter	Probe Wash	KCl (Imp 1-3)	HNO_3-H_2O_2 (Imp 4)	$KMNO_4$ (Imp 5-7)
Sample		OUT-OHM-3-CON1	OUT-OHM-3-CON2	OUT-OHM-3-CON3	OUT-OHM-3-CON4	OUT-OHM-3-CON5
Log Number		20073706	20073728	20073729	20073730	20073731
Solids PQL	µg	0.007				
Ash Sample Weight	µg	0.000				
Liquid Results	mg/L		0.000000	0.000000	0.000000	0.000000
Liquids PQL	mg/L		0.00140	0.00014	0.00140	0.00014
Sample Volume	mL		190	645	160	380
Dry Std. Stack Flow Rate (Q_{sd})	dscfm	156,271				
DGM Volume	dscf	48.814				
DGM Volume	dscm	1.38				
Carbon Dioxide Concentration	%	14.00				
Total Hg (ea. form)	mg	0.0000		0.0000	0.0000	
Total Hg		0.0000				
Hg (ea. form)	lb/MMBtu	0.00E+00		0.00E+00	0.00E+00	
Hg		0.00E+00				
Hg (ea. form)	lb/hr	0.0000		0.0000	0.0000	
Hg		0.0000				
Hg (ea. form)	ton/yr	0.0000		0.0000	0.0000	
Hg		0.0000				

ONTARIO HYDRO SOURCE SAMPLING TITLE PAGE

Source Information				
Plant Name	Fibrominn Biomass Power Plant			
Sampling Location	Stack Outlet			
Fuel or Source Type	Biomass			
Fuel F-Factor	1890	1890	1890	

Test Information			
Starting Test Date		07/05/07	
Project #		snc-07-benson.mn-comp#1	
Operator		TP	
Standard Temperature		68	oF
Standard Pressure		29.92	in Hg
Minimum Required Sample Vol.	Sec 10.1.5	35.3	scf
Run Duration	Sec 10.1.5	120	minutes
Unit Number		OUT-OHM	
Load	% or w/DB	100%	
Base Run Number		OUT-OHM	
Number of Ports Available		4	
Number of Ports Used		4	
Port Inside Diameter		5.00	in
Circular Stack			

Test Equipment Information					
Run		**1**	**2**	**3**	
Meter Box Number	from ACS	SAMP-CP-0017	SAMP-CP-0017	SAMP-CP-0017	
Meter Calibration Factor	(Y)	1.005	1.005	1.005	
Orifice Meter Coefficient	(ΔH@)	1.814	1.814	1.814	in H_2O
Pitot Identification	from ACS	SAMP-HP-0011	SAMP-HP-0034	SAMP-HP-0011	
Pitot Tube Coefficient	(C_p)	0.840	0.840	0.840	
Orsat Identification	from ACS	N/A	N/A	N/A	
Nozzle Number	from ACS	#6B-3	#A-1	#6B-3	
Nozzle Diameter	(D_n)	0.174	0.176	0.174	in
Probe Number	from ACS	SAMP-HP-0011	SAMP-HP-0034	SAMP-HP-0011	
Probe Length		60.00	60.00	60.00	in
(SS, Glass ….) Liner Material	from list	glass	glass	glass	
Sample Case / Oven Number	from ACS	SAMP-BH-0013	SAMP-BH-0023	SAMP-BH-0013	
Impinger Case Number	from ACS	SAMP-BC-0019	SAMP-BC-0015	SAMP-BC-0019	
Acetone Lot Number	from bottle	C38B11	C38B11	C38B11	

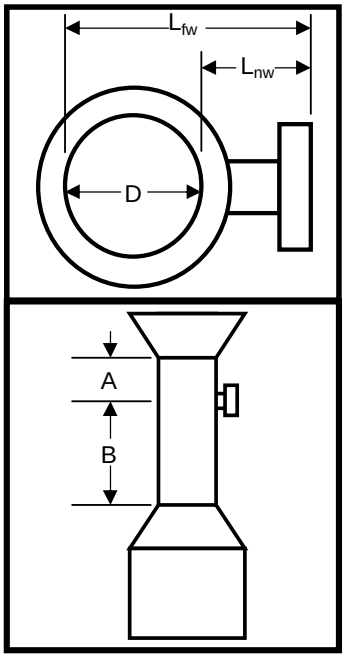
Testing Company Information	
Company Name	Air Hygiene International, Inc. (Tulsa, Oklahoma)
Address	5634 S. 122nd East Ave., Suite F
City, State Country Zip	Tulsa, Oklahoma 74146
Project Manager	Thomas K. Graham
Phone Number	(918) 307-8865
Fax Number	(918) 307-9131

METHOD 1 - SAMPLE AND VELOCITY TRAVERSES FOR CIRCULAR SOURCES

Plant Name	Fibrominn Biomass Power Plant	**Date**	07/05/07
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP	**# of Ports Available**	4
Stack Type	Circular	**# of Ports Used**	4
Stack Size	Large	**Port Inside Diameter**	5.00

Circular Stack or Duct Diameter			
Distance to Far Wall of Stack	(L_{fw})	129.00	in
Distance to Near Wall of Stack	(L_{nw})	21.00	in
Diameter of Stack	(D)	108.00	in
Area of Stack	(A_s)	63.62	ft2

Distance from Port to Disturbances			
Distance Upstream	(A)	2358.00	in
Diameters Upstream	(A_D)	21.83	diameters
Distance Downstream	(B)	910.00	in
Diameters Downstream	(B_D)	8.43	diameters



Number of Traverse Points Required			
Diameters to Flow Disturbance		**Minimum Number of[1] Traverse Points**	
Down Stream	**Up Stream**	**Particulate Points**	**Velocity Points**
2.00-4.99	0.50-1.24	24	16
5.00-5.99	1.25-1.49	20	16
6.00-6.99	1.50-1.74	16	12
7.00-7.99	1.75-1.99	12	12
>= 8.00	>=2.00	8 or 12[2]	8 or 12[2]
Upstream Spec		12	12
Downstream Spec		12	12
Traverse Pts Required		12	12

[1] Check Minimum Number of Points for the Upstream and Downstream conditions, then use the largest.

[2] 8 for Circular Stacks 12 to 24 inches
12 for Circular Stacks over 24 inches

Number of Traverse Points Used			
4	**Ports by**	3	**Across**
12	**Pts Used**	12	**Required**
		Particulate Traverse	

Location of Traverse Points in Circular Stacks									
Traverse Point Number	(Fraction of Stack Dimension from Inside Wall to Traverse Point) Number of Traverse Points Across the Stack								
	2	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**
1	.146	.067	.044	.032	.026	.021	.018	.016	.014
2	.854	.250	.146	.105	.082	.067	.057	.049	.044
3		.750	.296	.194	.146	.118	.099	.085	.075
4		.933	.704	.323	.226	.177	.146	.125	.109
5			.854	.677	.342	.250	.201	.169	.146
6			.956	.806	.658	.356	.269	.220	.188
7				.895	.774	.644	.366	.283	.236
8				.968	.854	.750	.634	.375	.296
9					.918	.823	.731	.625	.382
10					.974	.882	.799	.717	.618
11						.933	.854	.780	.704
12						.979	.901	.831	.764

Traverse Point Locations			
Traverse Point Number	**Fraction of Stack Diameter**	**Distance from Inside Wall**	**Distance Including Reference Length**
		in	in
1	0.04	4 6/8	25 6/8
2	0.15	15 6/8	36 6/8
3	0.30	32	53
4			
5			
6			
7			
8			
9			
10			
11			
12			

METHOD 2 - DETERMINATION OF STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE

Plant Name	Fibrominn Biomass Power Plant				**Date**	06/30/07	
Sampling Location	Stack Outlet				**Project #**	snc-07-benson.mn-comp#1	
Operator	TP				**# of Ports Used**	4	
Stack Type	Circular				**Pitot Identification**	SAMP-HP-0011	
Pitot Leak Check	☑	**PreTest**	☑	**PostTest**	**Pitot Coefficient (C_p)**	0.84	

Stack Dimensions			
Diameter or Length of Stack	(D)	108.00	in
Width of Stack	(W)		in
Area of Stack	(A_s)	63.62	ft2

Pressures			
Barometric Pressure	(P_b)	29.92	in Hg
Static Pressure	(P_{static})	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.90	in Hg

Stack Gas Composition			
Composition Data:		**Estimated Composition**	
Carbon Dioxide Concentration	($\%CO_2$)	14.4	%
Oxygen Concentration	($\%O_2$)	4.8	%
Carbon Monoxide Concentration	(%CO)	0.0	%
Nitrogen Concentration	($\%N_2$)	80.8	%
Stack Moisture Content	(B_{ws})	30.000	%
Stack Dry Molecular Weight	(M_d)	30.50	lb/lb-mole
Stack Wet Molecular Weight	(M_s)	26.75	lb/lb-mole

Results			
Avg Stack Gas Velocity	(v_s)	72.7	ft/sec
Avg Stack Dry Std Flow Rate	(Q_{sd})	8,192,279	dscf/hr
Avg Stack Dry Std Flow Rate	(Q_{sd})	136,538	dscf/min
Avg Stack Wet Flow Rate	(Q_{aw})	277,654	acf/min
Avg Stack Wet Std Flow Rate	(Q_{sw})	11,703,256	ascf/hr

Stack Cross Section Schematic

Velocity Traverse Data				
Run Number		OUT-OHM-V1		
Run Time	**12:00**	**Start**	**12:10**	**End**
Traverse Point	**Velocity Head** (Δp)	**Null Angle** (N_a)	**Stack Temp** (t_s)	**Local Velocity** ($v_{s(l)}$)
	in H2O	deg	oF	ft/sec
A-1	1.00	0	291	69.6
A-2	1.30	-10	291	79.3
A-3	1.30	0	290	79.3
B-1	1.10	-5	290	72.9
B-2	1.30	0	290	79.3
B-3	0.14	0	290	26.0
C-1	1.30	0	293	79.4
C-2	1.00	0	293	69.7
C-3	1.20	0	293	76.3
D-1	1.30	0	292	79.4
D-2	1.30	-10	291	79.3
D-3	1.40	-15	290	82.3
Average	1.14	3	291	
	1.05	**= Square roots of Δp**		

METHOD 3a - DETERMINATION OF DRY MOLECULAR WEIGHT BY ANALYZER

Plant Name	Fibrominn Biomass Power Plant				**Date**	07/05/07	
Sampling Location	Stack Outlet				**Project #**	snc-07-benson.mn-comp#1	
Operator	TP				**# of Ports Used**	4	
Fuel Type	Biomass		**Minimum Fuel Factor**	1.000	**Maximum Fuel Factor**	1.120	
Orsat Leak Check	☑	**PreTest**	☑	**PostTest**	**Orsat Identification**	N/A	

Gas Analysis Data									
Run Number		OUT-OHM-1		**Run Start Time**		18:02	**Run Stop Time**		22:10
Sample Analysis Time	**Carbon Dioxide Conc.** (%CO2)	**Oxygen Conc.** (%O2)	**Carbon Monoxide Conc.** (ppmCO)	**Carbon Dioxide Conc.** ($\%CO_2$)	**Oxygen Conc.** ($\%O_2$)	**Carbon Monoxide Conc.** (%CO)	**Nitrogen Conc.** ($\%N_2$)	**Dry Molecular Weight** (M_d)	**Molecular Weight Deviation** (ΔM_d)
hh:mm	percent	percent	ppm	percent	percent	percent	percent	lb/lb-mole	lb/lb-mole
4:08	14.0	5.0	100.0	14.0	5.0	0.0	81.0	30.44	0.00
Results			**Averages**	14.0	5.0	0.0	81.0	30.44	
Average Calculated Fuel Factor			$(F_o)_{avg}$	1.135		**Molecular Wt Deviation < 0.3?**			☑
Average Excess Air			$(\%EA)_{avg}$	30.5	percent	**Fuel Factor in Handbook Range?**			☑

Gas Analysis Data									
Run Number		OUT-OHM-2		**Run Start Time**		21:12	**Run Stop Time**		23:22
Sample Analysis Time	**Carbon Dioxide Conc.** (%CO2)	**Oxygen Conc.** (%O2)	**Carbon Monoxide Conc.** (ppmCO)	**Carbon Dioxide Conc.** ($\%CO_2$)	**Oxygen Conc.** ($\%O_2$)	**Carbon Monoxide Conc.** (%CO)	**Nitrogen Conc.** ($\%N_2$)	**Dry Molecular Weight** (M_d)	**Molecular Weight Deviation** (ΔM_d)
hh:mm	percent	percent	ppm	percent	percent	percent	percent	lb/lb-mole	lb/lb-mole
2:10	14.0	5.0	100.0	14.0	5.0	0.0	81.0	30.44	0.00
Results			**Averages**	14.0	5.0	0.0	81.0	30.44	
Average Calculated Fuel Factor			$(F_o)_{avg}$	1.135		**Molecular Wt Deviation < 0.3?**			☑
Average Excess Air			$(\%EA)_{avg}$	30.5	percent	**Fuel Factor in Handbook Range?**			☑

Gas Analysis Data									
Run Number		OUT-OHM-3		**Run Start Time**		0:43	**Run Stop Time**		2:55
Sample Analysis Time	**Carbon Dioxide Conc.** (%CO2)	**Oxygen Conc.** (%O2)	**Carbon Monoxide Conc.** (ppmCO)	**Carbon Dioxide Conc.** ($\%CO_2$)	**Oxygen Conc.** ($\%O_2$)	**Carbon Monoxide Conc.** (%CO)	**Nitrogen Conc.** ($\%N_2$)	**Dry Molecular Weight** (M_d)	**Molecular Weight Deviation** (ΔM_d)
hh:mm	percent	percent	ppm	percent	percent	percent	percent	lb/lb-mole	lb/lb-mole
2:12	14.0	5.0	100.0	14.0	5.0	0.0	81.0	30.44	0.00
Results			**Averages**	14.0	5.0	0.0	81.0	30.44	
Average Calculated Fuel Factor			$(F_o)_{avg}$	1.135		**Molecular Wt Deviation < 0.3?**			☑
Average Excess Air			$(\%EA)_{avg}$	30.5	percent	**Fuel Factor in Handbook Range?**			☑

Fuel Factor Fo		
Fuel Type	**Minimum**	**Maximum**
Coal, Anthracite	1.016	1.130
Coal, Lignite	1.016	1.130
Coal, Bituminous	1.083	1.230
Oil, Distillate	1.260	1.413
Oil, Residual	1.210	1.370
Gas, Natural	1.600	1.836
Gas, Propane	1.434	1.586
Gas, Butane	1.405	1.553
Biomass	1.000	1.120
Wood Bark	1.003	1.130

METHOD 4 - DETERMINATION OF MOISTURE CONTENT IN STACK GASES

Plant Name	Fibrominn Biomass Power Plant				**Date**	07/05/07	
Sampling Location	Stack Outlet				**Project #**	snc-07-benson.mn-comp#1	
Operator	TP				**# of Ports Used**	4	
Stack Type	Circular				**Meter Box Number**	SAMP-CP-0017	
Train Leak Check	☑	**PreTest**	☑	**PostTest**	**Meter Cal Factor (Y)**	1.005	

Moisture Content Data									
Run Number		OUT-OHM-1			**Run Start Time**	18:02		**Run Stop Time**	22:10
Total Meter Volume	(V_m)	50.090	dcf		**Barometric Press.**	(P_b)	29.53		in Hg
Avg Stack Temp	(t_s)$_{avg}$	298	oF		**Stack Static Press.**	(P_{static})	-0.23		in H2O
Avg Meter Temp	(t_m)$_{avg}$	82	oF		**Avg Orifice Press.**	(ΔH)$_{avg}$	0.58		in H2O
		Impinger 1	**Impinger 2**	**Impinger 3**	**Impinger 4**	**Impinger 5**	**Impinger 6**	**Impinger 7**	**Impinger 8**
		g	g	g	g	g	g	g	g
Contents		KCl	KCl	KCl	HNO3-H2O2	H2SO4-KMnO4	H2SO4-KMnO4	H2SO4-KMnO4	Sil Gel
Final Value	(V_f),(W_f)	961.80	801.70	748.50	696.10	735.20	733.20	747.90	928.20
Initial Value	(V_i),(W_i)	737.00	732.90	744.10	696.30	734.00	733.40	747.30	916.30
Net Value	(V_n),(W_n)	224.8	68.8	4.4	-0.2	1.2	-0.2	0.6	11.9
Results									
Total Weight	(W_t)	311.30	g		**Water Vol Weighed**	($V_{wsg(std)}$)	14.678	scf	
Std Meter Volume	($V_{m(std)}$)	48.471	dscf		**Sat. Moisture Content**	($B_{ws(svp)}$)	100.0	%	
Calc Moisture Content	($B_{ws(calc)}$)	23.2	%		**Final Moisture Content**	(B_{ws})	23.2	%	

Moisture Content Data									
Run Number		OUT-OHM-2			**Run Start Time**	21:12		**Run Stop Time**	23:22
Total Meter Volume	(V_m)	54.180	dcf		**Barometric Press.**	(P_b)	29.52		in Hg
Avg Stack Temp	(t_s)$_{avg}$	302	oF		**Stack Static Press.**	(P_{static})	-0.23		in H2O
Avg Meter Temp	(t_m)$_{avg}$	81	oF		**Avg Orifice Press.**	(ΔH)$_{avg}$	0.67		in H2O
		Impinger 1	**Impinger 2**	**Impinger 3**	**Impinger 4**	**Impinger 5**	**Impinger 6**	**Impinger 7**	**Impinger 8**
		g	g	g	g	g	g	g	g
Contents		KCl	KCl	KCl	HNO3-H2O2	H2SO4-KMnO4	H2SO4-KMnO4	H2SO4-KMnO4	Sil Gel
Final Value	(V_f),(W_f)	988.50	867.20	754.70	741.10	765.60	730.40	765.20	908.00
Initial Value	(V_i),(W_i)	739.80	753.70	750.40	737.80	764.10	729.60	763.80	893.20
Net Value	(V_n),(W_n)	248.7	113.5	4.3	3.3	1.5	0.8	1.4	14.8
Results									
Total Weight	(W_t)	388.30	g		**Water Vol Weighed**	($V_{wsg(std)}$)	18.308	scf	
Std Meter Volume	($V_{m(std)}$)	52.511	dscf		**Sat. Moisture Content**	($B_{ws(svp)}$)	100.0	%	
Calc Moisture Content	(B_{ws})	25.9	%		**Final Moisture Content**	(B_{ws})	25.9	%	

Moisture Content Data									
Run Number		OUT-OHM-3			**Run Start Time**	0:43		**Run Stop Time**	2:55
Total Meter Volume	(V_m)	49.950	dcf		**Barometric Press.**	(P_b)	29.57		in Hg
Avg Stack Temp	(t_s)$_{avg}$	298	oF		**Stack Static Press.**	(P_{static})	-0.23		in H2O
Avg Meter Temp	(t_m)$_{avg}$	77	oF		**Avg Orifice Press.**	(ΔH)$_{avg}$	0.58		in H2O
		Impinger 1	**Impinger 2**	**Impinger 3**	**Impinger 4**	**Impinger 5**	**Impinger 6**	**Impinger 7**	**Impinger 8**
		g	g	g	g	g	g	g	g
Contents		KCl	KCl	KCl	HNO3-H2O2	H2SO4-KMnO4	H2SO4-KMnO4	H2SO4-KMnO4	Sil Gel
Final Value	(V_f),(W_f)	965.00	831.60	739.00	697.30	739.60	750.40	735.50	937.50
Initial Value	(V_i),(W_i)	738.50	739.80	733.30	695.20	738.10	750.30	734.50	928.20
Net Value	(V_n),(W_n)	226.5	91.8	5.7	2.1	1.5	0.1	1.0	9.3
Results									
Total Weight	(W_t)	338.00	g		**Water Vol Weighed**	($V_{wsg(std)}$)	15.937	scf	
Std Meter Volume	($V_{m(std)}$)	48.813	dscf		**Sat. Moisture Content**	($B_{ws(svp)}$)	100.0	%	
Calc Moisture Content	(B_{ws})	24.6	%		**Final Moisture Content**	(B_{ws})	24.6	%	

ONTARIO HYDRO ISOKINETIC SAMPLING DATA

Plant Name	Fibrominn Biomass Power Plant	**Date**	7/5/2007
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP	**Run #**	OUT-OHM-1
# of Points Across	3	**# of Ports Used**	4

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.84	
Avg Stack Temp	(t_s)	291	oF
Avg Gas Meter Temp	(t_m)	81	
DH @ 0.75 SCFM	($\Delta H@$)	1.81	in H2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})	1.05	in H2O
Stack Moisture Content	(B_{ws})	25.00	%
Stack Dry Molecular Weight	(M_d)	30.44	lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.750	acfm
DP to DH Isokinetic Factor	(K)	0.45	

Leak Checks					
Train	**Pre**	0.0175	ft3/min @	15	in Hg
OK? ☑	**Post**	0	ft3/min @	15	in Hg
Pitot	**Pre**	3/4	in. H_2O for	15	sec
OK? ☑	**Post**	4/5	in. H_2O for	15	sec
Orsat	OK? ☑				

Sampling Equipment			
Meter #	SAMP-CP-0017		
Meterbox Cal. Factor	(Y)	1.005	
Nozzle #	#6B-3		
Average Nozzle Diameter	(D_{na})	0.1743	in
Rec. Nozzle Diameter	(D_{ni})	0.2454	in
Probe # / Length	SAMP-HP-0011	/ 60	in
Liner Material	glass		
Sample Case / Oven #	SAMP-BH-0013		
Impinger Case #	SAMP-BC-0019		

Pressures			
Barometric Pressure	(P_b)	29.53	in Hg
Stack Static Pressure	(P_{static})	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.51	in Hg
Absolute Meter Pressure	(P_m)	29.66	in Hg

Nozzle Measurements				
Pre	0.174	0.174	0.175	**PASS**
Post	0.174	0.174	0.175	**PASS**

Run Time			
Start	18:02	**End**	22:10

Weights	**Imp 1**	**Imp 2**	**Imp 3**	**Imp 4**	**Imp 5**	**Imp 6**	**Imp 7**	**Imp 8**				
Pre	737.00	732.90	744.10	696.30	734.00	733.40	747.30	916.30	**Wash**	**H_2O**	50.0	ml
Post	961.80	801.70	748.50	696.10	735.20	733.20	747.90	928.20	**Volume**	**MeCl**		ml

Filter #
M-1986

Traverse Point #	**Sampling Time (Θ)**	**Timer Time**	**Dry Gas Meter Reading (V_m)**	**Velocity Head (Δp)**	**Desired Orifice ΔH (ΔH_d)**	**Actual Orifice ΔH (ΔH_a)**	**Stack Temp (t_s)**	**Probe Temp**	**Filter Temp**	**Impinger Exit Temp**	**Aux Temp**	**Meter Inlet Temp (t_{mi})**	**Meter Outlet Temp (t_{mo})**	**Pump Vacuum**	**Square Root ΔP ($\Delta p^{1/2}$)**	**Local Stack Velocity (v_s)$_l$**	**Cumulative Meter Volume (V_m)$_{std}$**	**Cumulative Percent IsoKinetic (I)**	**Est-Run Meter Volume (V_m)$_{std}$**
	min	hh:mm:ss	ft3	in H2O	in H2O	in H2O	oF	oF	oF	oF	oF	oF	oF	in Hg	(in H2O)1/2	ft/sec	scf	%	scf
A-1	0.0	0:00:00	707.020	1.000	0.451	0.450	296	241	258	68		80	80	2.0	1.00	69.52	3.592	100.6	43.110
A-2	10.0	0:10:00	710.720	1.000	0.451	0.450	297	249	256	63		80	80	3.0	1.00	69.57	6.534	92.4	39.207
A-3	20.0	0:20:00	713.750	1.500	0.677	0.680	297	249	256	63		80	80	3.0	1.22	85.20	11.042	96.8	44.169
B-1	30.0	0:30:00	718.390	1.500	0.677	0.680	296	245	246	57		80	80	4.0	1.22	85.15	15.356	97.3	46.067
B-2	40.0	0:40:00	722.830	1.500	0.677	0.680	296	251	263	58		82	82	4.0	1.22	85.15	19.721	97.9	47.330
B-3	50.0	0:50:00	727.340	1.400	0.631	0.630	297	248	260	57		83	83	4.0	1.18	82.32	24.029	98.6	48.059
C-1	60.0	1:00:00	731.800	1.300	0.586	0.590	298	256	260	52		83	83	4.0	1.14	79.37	28.241	99.4	48.413
C-2	70.0	1:10:00	736.160	1.200	0.541	0.540	300	255	259	50		83	83	4.0	1.10	76.36	32.133	99.4	48.199
C-3	80.0	1:20:00	740.190	1.000	0.451	0.450	298	258	261	62		83	83	4.0	1.00	69.61	35.870	100.0	47.826
D-1	90.0	1:30:00	744.060	1.400	0.631	0.630	298	249	257	60		83	83	4.0	1.18	82.37	40.130	100.1	48.156
D-2	100.0	1:40:00	748.470	1.600	0.722	0.720	301	252	261	62		83	83	4.0	1.26	88.23	44.613	100.0	48.669
D-3	110.0	1:50:00	753.110	1.100	0.496	0.500	300	256	256	64		84	84	4.0	1.05	73.11	48.469	100.3	48.469
Last Pt	120.0	2:00:00	757.110																
Final Val	120.0	2:00:00	757.110										**Max Vac**	4.0	**Final Values**		48.469	100.3	
Average Values				1.29		0.58	298	251	258	60		82	82		1.13	78.83			
												82							

ONTARIO HYDRO ISOKINETIC SAMPLING DATA

Plant Name	Fibrominn Biomass Power Plant	**Date**	7/5/2007
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP	**Run #**	OUT-OHM-2
# of Points Across	3	**# of Ports Used**	4

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.84	
Avg Stack Temp	(t_s)	298	oF
Avg Gas Meter Temp	(t_m)	82	
DH @ 0.75 SCFM	($\Delta H@$)	1.81	in H2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})	1.13	in H2O
Stack Moisture Content	(B_{ws})	25.00	%
Stack Dry Molecular Weight	(M_d)	30.44	lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.417	acfm
DP to DH Isokinetic Factor	(K)	0.47	

Leak Checks					
Train	**Pre**	0	ft3/min @	15	in Hg
OK? ☑	**Post**	0	ft3/min @	15	in Hg
Pitot	**Pre**	3/4	in. H_2O for	15	sec
OK? ☑	**Post**	4/5	in. H_2O for	15	sec
Orsat	OK? ☑				

Sampling Equipment			
Meter #	SAMP-CP-0017		
Meterbox Cal. Factor	(Y)	1.005	
Nozzle #	#A-1		
Average Nozzle Diameter	(D_{na})	0.1760	in
Rec. Nozzle Diameter	(D_{ni})	0.1796	in
Probe # / Length	SAMP-HP-0034	/ 60	in
Liner Material	glass		
Sample Case / Oven #	SAMP-BH-0023		
Impinger Case #	SAMP-BC-0015		

Pressures			
Barometric Pressure	(P_b)	29.52	in Hg
Stack Static Pressure	(P_{static})	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.50	in Hg
Absolute Meter Pressure	(P_m)	29.65	in Hg

Nozzle Measurements				
Pre	0.176	0.176	0.176	**PASS**
Post	0.176	0.176	0.176	**PASS**

Run Time			
Start	21:12	**End**	23:22

Weights	**Imp 1**	**Imp 2**	**Imp 3**	**Imp 4**	**Imp 5**	**Imp 6**	**Imp 7**	**Imp 8**				
Pre	739.80	753.70	750.40	737.80	764.10	729.60	763.80	893.20	**Wash**	**H_2O**	50.0	ml
Post	988.50	867.20	754.70	741.10	765.60	730.40	765.20	908.00	**Volume**	**MeCl**		ml

Filter #
M-1937

Traverse Point #	**Sampling Time (Θ)**	**Timer Time**	**Dry Gas Meter Reading (V_m)**	**Velocity Head (Δp)**	**Desired Orifice ΔH (ΔH_d)**	**Actual Orifice ΔH (ΔH_a)**	**Stack Temp (t_s)**	**Probe Temp**	**Filter Temp**	**Impinger Exit Temp**	**Aux Temp**	**Meter Inlet Temp (t_{mi})**	**Meter Outlet Temp (t_{mo})**	**Pump Vacuum**	**Square Root ΔP ($\Delta p^{1/2}$)**	**Local Stack Velocity (v_s)$_l$**	**Cumulative Meter Volume (V_m)$_{std}$**	**Cumulative Percent IsoKinetic (I)**	**Est-Run Meter Volume (V_m)$_{std}$**
	min	hh:mm:ss	ft3	in H2O	in H2O	in H2O	oF	oF	oF	oF	oF	oF	oF	in Hg	(in H2O)1/2	ft/sec	scf	%	scf
A-1	0.0	0:00:00	757.850	1.700	0.791	0.790	302	255	242	68		79	79	4.0	1.30	91.02	4.837	102.4	58.044
A-2	10.0	0:10:00	762.820	1.900	0.884	0.880	304	254	249	66		79	79	4.0	1.38	96.35	9.987	102.8	59.920
A-3	20.0	0:20:00	768.110	1.300	0.605	0.600	304	253	252	63		80	80	3.0	1.14	79.70	14.172	102.4	56.686
B-1	30.0	0:30:00	772.420	1.600	0.744	0.740	303	254	252	66		81	81	4.0	1.26	88.36	18.699	101.5	56.098
B-2	40.0	0:40:00	777.090	1.500	0.698	0.700	304	250	251	65		81	81	4.0	1.22	85.61	23.159	101.3	55.580
B-3	50.0	0:50:00	781.690	1.100	0.512	0.510	304	250	248	65		81	81	3.0	1.05	73.31	27.005	101.3	54.011
C-1	60.0	1:00:00	785.660	1.600	0.744	0.740	303	248	247	68		82	82	4.0	1.26	88.36	31.902	102.2	54.689
C-2	70.0	1:10:00	790.720	1.400	0.651	0.650	303	254	248	63		82	82	3.0	1.18	82.65	36.246	102.1	54.369
C-3	80.0	1:20:00	795.210	1.200	0.558	0.560	303	256	248	65		82	82	3.0	1.10	76.52	40.267	102.0	53.690
D-1	90.0	1:30:00	799.367	1.500	0.698	0.700	298	260	251	63		82	82	4.0	1.22	85.27	44.591	101.6	53.509
D-2	100.0	1:40:00	803.835	1.300	0.605	0.600	298	261	251	60		82	82	3.5	1.14	79.39	48.804	101.6	53.240
D-3	110.0	1:50:00	808.190	1.100	0.512	0.510	300	260	253	60		82	82	3.0	1.05	73.12	52.518	101.3	52.518
Last Pt	120.0	2:00:00	812.030																
Final Val	120.0	2:00:00	812.030										**Max Vac**	4.0	**Final Values**		52.518	101.3	
Average Values				1.43		0.67	302	255	249	64		81	81		1.19	83.31			
												81							

ONTARIO HYDRO ISOKINETIC SAMPLING DATA

Plant Name	Fibrominn Biomass Power Plant	**Date**	7/6/2007
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP	**Run #**	OUT-OHM-3
# of Points Across	3	**# of Ports Used**	4

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.84	
Avg Stack Temp	(t_s)	302	oF
Avg Gas Meter Temp	(t_m)	81	
DH @ 0.75 SCFM	($\Delta H@$)	1.81	in H2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})	1.19	in H2O
Stack Moisture Content	(B_{ws})	25.00	%
Stack Dry Molecular Weight	(M_d)	30.44	lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.452	acfm
DP to DH Isokinetic Factor	(K)	0.44	

Leak Checks					
Train	**Pre**	0	ft3/min @	15	in Hg
OK? ☑	**Post**	0	ft3/min @	15	in Hg
Pitot	**Pre**	3/4	in. H_2O for	15	sec
OK? ☑	**Post**	4/5	in. H_2O for	15	sec
Orsat	OK? ☑				

Sampling Equipment			
Meter #	SAMP-CP-0017		
Meterbox Cal. Factor	(Y)	1.005	
Nozzle #	#6B-3		
Average Nozzle Diameter	(D_{na})	0.1743	in
Rec. Nozzle Diameter	(D_{ni})	0.1849	in
Probe # / Length	SAMP-HP-0011	/ 60	in
Liner Material	glass		
Sample Case / Oven #	SAMP-BH-0013		
Impinger Case #	SAMP-BC-0019		

Pressures			
Barometric Pressure	(P_b)	29.57	in Hg
Stack Static Pressure	(P_{static})	-0.23	in H2O
Absolute Stack Pressure	(P_s)	29.55	in Hg
Absolute Meter Pressure	(P_m)	29.70	in Hg

Nozzle Measurements				
Pre	0.174	0.174	0.175	**PASS**
Post	0.174	0.174	0.175	**PASS**

Run Time			
Start	0:43	**End**	2:55

Weights	**Imp 1**	**Imp 2**	**Imp 3**	**Imp 4**	**Imp 5**	**Imp 6**	**Imp 7**	**Imp 8**				
Pre	738.50	739.80	733.30	695.20	738.10	750.30	734.50	928.20	**Wash**	**H_2O**	50.0	ml
Post	965.00	831.60	739.00	697.30	739.60	750.40	735.50	937.50	**Volume**	**MeCl**		ml

Filter #
M-1936

Traverse Point #	**Sampling Time (Θ)**	**Timer Time**	**Dry Gas Meter Reading (V_m)**	**Velocity Head (Δp)**	**Desired Orifice ΔH (ΔH_d)**	**Actual Orifice ΔH (ΔH_a)**	**Stack Temp (t_s)**	**Probe Temp**	**Filter Temp**	**Impinger Exit Temp**	**Aux Temp**	**Meter Inlet Temp (t_{mi})**	**Meter Outlet Temp (t_{mo})**	**Pump Vacuum**	**Square Root ΔP ($\Delta p^{1/2}$)**	**Local Stack Velocity (v_s)$_l$**	**Cumulative Meter Volume (V_m)$_{std}$**	**Cumulative Percent IsoKinetic (I)**	**Est-Run Meter Volume (V_m)$_{std}$**
	min	hh:mm:ss	ft3	in H2O	in H2O	in H2O	oF	oF	oF	oF	oF	oF	oF	in Hg	(in H2O)1/2	ft/sec	scf	%	scf
A-1	0.0	0:00:00	813.500	1.500	0.667	0.670	303	254	223	64		75	75	2.5	1.22	85.48	3.839	88.1	46.070
A-2	10.0	0:10:00	817.410	1.300	0.578	0.580	304	254	257	62		75	75	2.5	1.14	79.63	8.188	98.3	49.127
A-3	20.0	0:20:00	821.840	1.400	0.622	0.620	296	256	259	63		76	76	2.5	1.18	82.21	12.411	98.9	49.646
B-1	30.0	0:30:00	826.150	0.850	0.378	0.380	295	256	257	66		77	77	2.5	0.92	64.01	15.901	100.4	47.703
B-2	40.0	0:40:00	829.720	0.980	0.436	0.440	295	256	257	65		77	77	2.5	0.99	68.73	19.548	100.9	46.915
B-3	50.0	0:50:00	833.450	1.200	0.534	0.530	297	256	258	66		78	78	3.0	1.10	76.16	23.530	101.0	47.060
C-1	60.0	1:00:00	837.530	1.500	0.667	0.670	297	261	255	65		78	78	3.0	1.22	85.15	28.002	101.2	48.004
C-2	70.0	1:10:00	842.110	1.500	0.667	0.670	297	262	262	57		78	78	3.0	1.22	85.15	32.376	101.1	48.565
C-3	80.0	1:20:00	846.590	1.500	0.667	0.670	296	262	260	55		79	79	3.0	1.22	85.09	36.752	100.9	49.003
D-1	90.0	1:30:00	851.080	1.600	0.711	0.710	297	262	259	57		78	78	3.0	1.26	87.94	41.225	100.7	49.470
D-2	100.0	1:40:00	855.660	1.400	0.622	0.620	297	263	259	51		79	79	3.0	1.18	82.26	45.425	100.6	49.554
D-3	110.0	1:50:00	859.970	0.870	0.387	0.390	297	263	259	53		79	79	3.0	0.93	64.85	48.814	100.7	48.814
Last Pt	120.0	2:00:00	863.450																
Final Val	120.0	2:00:00	863.450										**Max Vac**	3.0	**Final Values**		48.814	100.7	
Average Values				1.300		0.579	298	259	255	60		77	77		1.13	78.89			

ONTARIO HYDRO - SAMPLE RECOVERY AND INTEGRITY DATA SHEET

Plant Name	Fibrominn Biomass Power Plant	**Date**	07/05/07
Sampling Location	Stack Outlet	**Project #**	snc-07-benson.mn-comp#1
Operator	TP	**Acetone Lot Number**	C38B11

Run History Data				
Run Number	OUT-OHM-1	OUT-OHM-2	OUT-OHM-3	
Run Start Time	18:02	21:12	0:43	(hh:mm)
Run Stop Time	22:10	23:22	2:55	(hh:mm)
Train Prepared By	KV/SK	KV/SK	KV/SK	
Train Recovered By	KV/SK	KV/SK	KV/SK	
Recovery Date	7/5/2007	7/5/2007	7/6/2007	(mm/dd/yy)
Relinquished By	TG	TG	TG	
Received By	PS	PS	PS	
Relinquished Date	7/7/2007	7/7/2007	7/7/2007	(mm/dd/yy)
Relinquished Time	19:00	19:00	19:00	(hh:mm)

Equipment Identification Numbers			
Filter	M-1986	M-1937	M-1936
Acetone Wash	ok	ok	ok
Silica Gel	ok	ok	ok
Impinger Case	SAMP-BC-0019	SAMP-BC-0015	SAMP-BC-0019
Sample Box	SAMP-BH-0013	SAMP-BH-0023	SAMP-BH-0013
Oven	ok	ok	ok

Sample Blank Taken ☑ YES

Moisture Content Data					
Impingers 1, 2, 3, 4, 5, 6 and 7 - Liquid Volume					
Final Volume	(V_f)	5434.2	5622.8	5468.2	ml
Initial Volume	(V_i)	5134.2	5248.6	5139.0	ml
Net Volume	(V_n)	299.9	374.2	329.3	ml
Comments					
Impinger 8 - Silica Gel Weight					
Final Weight	(W_f)	928.2	908.0	937.5	g
Initial Weight	(W_i)	916.3	893.2	928.2	g
Net Weight	(W_n)	11.9	14.8	9.3	g
Comments					
Total Water Collected					
Total Volume	(V_{lc})	311.9	389.0	338.6	ml

EXAMPLE CALCULATIONS (Reference Method 1 - Circular Stack)

L_{fw} = distance to far wall of stack (in.)
L_{nw} = distance to near wall of stack (in.) [reference]
D = diameter of stack (in.)
A_s = area of stack (ft^2)
B = distance downstream (in.)
B_D = stack diameters downstream (dia.)
A = distance upstream (in.)
A_D = stack diameters upstream (dia.)

Diameter of Stack (in.)

$$D(in.) = L_{fw} - L_{nw}$$

D (in.) = 129 in. - 21 in. = 108 in.

Area of Stack (ft^2)

$$A_s(ft^2) = \pi \times \left(\frac{D}{2 \times 12}\right)^2$$

A_s (ft^2) = 3.14 x $\left(\frac{108.0 \text{ in.}}{2 \text{ x } 12 \text{in./ft}}\right)^2$ = 63.62 ft^2

Stack Diameters Downstream

$$B_D(dia.) = \frac{B}{D}$$

B_D (dia.) = $\frac{910 \text{ in.}}{108 \text{ in.}}$ = 8.43 diameters

Stack Diameters Upstream

$$A_D(dia.) = \frac{A}{D}$$

A_D (dia.) = $\frac{2358 \text{ in.}}{108 \text{ in.}}$ = 21.83 diameters

Number of Traverse Points

Based on 40 CFR Part 60, Appendix A, Method 1, Section 2.2

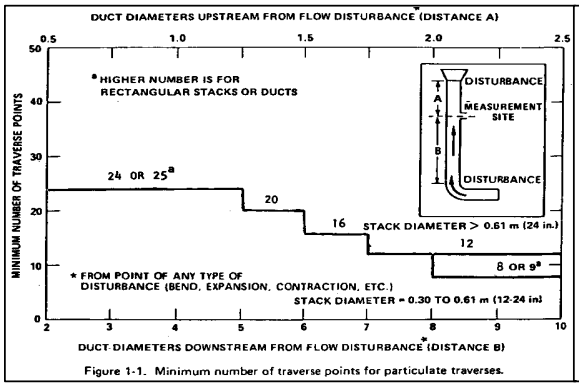


Figure 1-1. Minimum number of traverse points for particulate traverses.

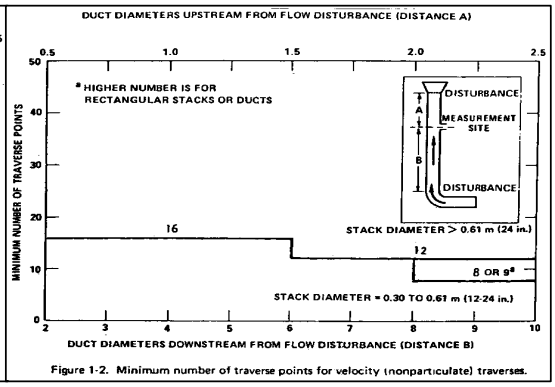


Figure 1-2. Minimum number of traverse points for velocity (nonparticulate) traverses.

Traverse Point Locations

Based on 40 CFR Part 60, Appendix A, Method 1, Section 2.3

Location of Traverse Points in Circular Stacks												
Traverse Point Number	(Fraction of Stack Dimension from Inside Wall to Traverse Point) Number of Traverse Points Across the Stack											
	2	4	6	8	10	12	14	16	18	20	22	24
1	.146	.067	.044	.032	.026	.021	.018	.016	.014	.013	.011	.011
2	.854	.250	.146	.105	.082	.067	.057	.049	.044	.039	.035	.032
3		.750	.296	.194	.146	.118	.099	.085	.075	.067	.060	.055
4		.933	.704	.323	.226	.177	.146	.125	.109	.097	.087	.079
5			.854	.677	.342	.250	.201	.169	.146	.129	.116	.105
6			.956	.806	.658	.356	.269	.220	.188	.165	.146	.132
7				.895	.774	.644	.366	.283	.236	.204	.180	.161
8				.968	.854	.750	.634	.375	.296	.250	.218	.194
9					.918	.823	.731	.625	.382	.306	.262	.230
10					.974	.882	.799	.717	.618	.388	.315	.272
11						.933	.854	.780	.704	.612	.393	.323
12						.979	.901	.831	.764	.694	.607	.398
13							.943	.875	.812	.750	.685	.602
14							.982	.915	.854	.796	.738	.677
15								.951	.891	.835	.782	.728
16								.984	.925	.871	.820	.770
17									.956	.903	.854	.806
18									.986	.933	.884	.839
19										.961	.913	.868
20										.987	.940	.895
21											.965	.921
22											.989	.945
23												.968
24												.989

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 2)

P_b = barometric pressure (in. Hg)
P_{static} = static pressure (in. H_20)
P_s = absolute stack pressure (in. Hg)
$\%N_2$ = nitrogen concentration (%)
$\%CO_2$ = carbon dioxide concentration (%)
$\%O_2$ = oxygen concentration (%)
%CO = carbon monoxide concentration (%)
MW = molecular weight (lb/lb-mole)
B_{ws} = stack moisture content (%)
M_d = stack dry molecular weight (lb/lb-mole)
M_s = stack wet molecular weight (lb/lb-mole)
T_{std} = standard temperature, 68°F, 528°R
P_{std} = standard pressure, 29.92 in. Hg
v_{sl} = local velocity (ft/sec)
v_s = average stack gas velocity (ft/sec)
Q_{sd} = average stack dry standard flow rate (dscf/hr)
Q_{aw} = average stack wet flow rate (ascf/min)

C_p = pitot tube coefficient
Δp = velocity head (in. H_2O)
A_s = area of stack (ft^2)
N_a = null angle (deg.)
t_s = stack temperature (°F)
T_u = temperature offset, 460°R
K_p = pitot tube constant,
85.49 (ft/sec)(((lb/lb-mole)(in. Hg))/((°R)(in. Hg)))$^{1/2}$

Absolute Stack Pressure (in. Hg)

$$P_S\,(in.Hg) = P_b + \frac{P_{static}}{13.6}$$

P_s (in. Hg) = 29.92 in. Hg + $\frac{\text{-0.23 in. } H_2O}{\text{13.6 in. } H_2O/\text{in. Hg}}$ = 29.90 in. Hg

Nitrogen Concentration (%)

$$\%N_2 = 100 - \%CO_2 - \%O_2 - \%CO$$

$\%N_2$ (%) = 100 - 14.39 % - 4.83 % - 0 % = 80.78 %

Stack Dry Molecular Weight (lb/lb-mole)

$$M_d\,(lb/lb-mol) = \sum\left(\frac{MW_{comp}}{100} \times \%component\right)$$

M_d (lb/lb-mol) = $\left(\frac{\text{44 lb/lb-mol}}{100} \text{ x } 14.39\ \%\right) + \left(\frac{\text{32 lb/lb-mol}}{100} \text{ x } 4.83\ \%\right)$ + etc. = $\frac{30.5 \text{ lb}}{\text{lb-mol}}$

Stack Wet Molecular Weight (lb/lb-mole)

$$M_S\,(lb/lb-mol) = \left[M_d \times \left(1 - \frac{B_{WS}}{100}\right)\right] + \left[MW_{H_2O} \times \frac{B_{WS}}{100}\right]$$

M_S (lb/lb-mol) = $\left\{\frac{30.5 \text{ lb}}{\text{lb-mol}} \text{ x} \left(1 - \frac{30\ \%}{100}\right)\right\} + \left\{\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } \frac{30\ \%}{100}\right\} = \frac{26.75 \text{ lb}}{\text{lb-mol}}$

Local Velocity (ft/sec)

$$v_{s(l)}\,(ft/\sec) = K_p \times C_p \times \sqrt{\Delta p} \times \sqrt{\frac{t_s + T_u}{P_s \times M_s}}$$

v_{sl} (ft/sec) = $\frac{85.49 \text{ ft}}{\text{sec}} \left(\frac{\text{(lb/lb-mol)(in. Hg)}}{(^\circ R)(\text{in. } H_2O)}\right)^{1/2}$ x 0.84 x $\sqrt{1.00 \text{ in.} H_2O}$ x $\sqrt{\frac{291 + 460\ ^\circ R}{29.9 \text{ in. Hg x } 26.75 \text{ lb/lb-mol}}}$ = $\frac{69.59 \text{ ft}}{\text{sec}}$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 2)

P_b = barometric pressure (in. Hg)
P_{static} = static pressure (in. H_20)
P_s = absolute stack pressure (in. Hg)
$\%N_2$ = nitrogen concentration (%)
$\%CO_2$ = carbon dioxide concentration (%)
$\%O_2$ = oxygen concentration (%)
%CO = carbon monoxide concentration (%)
MW = molecular weight (lb/lb-mole)
B_{ws} = stack moisture content (%)
M_d = stack dry molecular weight (lb/lb-mole)
M_s = stack wet molecular weight (lb/lb-mole)
K_p = pitot tube constant,
85.49 (ft/sec)(((lb/lb-mole)(in. Hg))/((^oR)(in. Hg)))$^{1/2}$
T_{STD} = standard temperature, 68^oF
P_{STD} = standard pressure, 29.92 in. Hg
v_{sl} = local velocity (ft/sec)
v_s = average stack gas velocity (ft/sec)
Q_{SD} = average stack dry standard flow rate (dscf/hr)
Q_{AW} = average stack wet flow rate (ascf/min)

C_p = pitot tube coefficient
Δp = velocity head (in. H_2O)
A_s = area of stack (ft^2)
N_A = null angle (deg.)
t_s = stack temperature (^oF)
T_u = temperature offset, 460^oR

Average Stack Gas Velocity (ft/sec)

$$v_s(ft/\sec) = K_p \times C_p \times \left(\sqrt{\Delta p}\right)_{avg} \times \sqrt{\frac{(t_s)_{avg} + T_u}{P_s \times M_s}}$$

$$v_{sl}\ (ft/sec) = \frac{85.49\ ft}{sec}\left(\frac{(lb/lb\text{-}mol)(in.\ Hg)}{(^oR)(in.\ H_2O)}\right)^{1/2} \times 0.84 \times 1.05 \times in.H_2O^{1/2} \times \sqrt{\frac{291}{29.9}\ \frac{+\ 460\ ^oR}{in.\ Hg \times 26.75\ lb/lb\text{-}mol}} = \frac{72.74\ ft}{sec}$$

Average Stack Dry Standard Flow Rate (dscfh)

$$Q_{sd}(dscfh) = \frac{60 \times 60 \times \left(1 - \frac{B_{ws}}{100}\right) \times v_s \times A_s \times T_{std} \times P_s}{(t_s + T_u) \times P_{std}}$$

$$Q_{sd}\ (dscf/hr) = \frac{3600\ sec}{hr} \times \left(1 - \frac{30.0\ \%}{100}\right) \times \frac{72.74\ ft}{sec} \times 63.62\ ft^2 \times \frac{68}{291}\ \frac{+\ 460\ ^oR}{+\ 460\ ^oR} \times \frac{29.90\ in.\ Hg}{29.92\ in.\ Hg} = \frac{8,192,279\ dscf}{hr}$$

Average Stack Wet Flow Rate (acfm)

$$Q_{aw}(acfm) = 60 \times v_s \times A_s$$

$$Q_{aw}\ (acf/min) = \frac{60\ sec}{min} \times \frac{72.74\ ft}{sec} \times 63.62\ ft^2 = \frac{277,654\ acf}{min}$$

Average Stack Wet Standard Flow Rate (ascfh)

$$Q_{sw}(ascfh) = \frac{60 \times Q_{aw} \times T_{std} \times P_s}{(t_s + T_u) \times P_{std}}$$

$$Q_{sw}\ (ascf/hr) = \frac{60\ min}{hr} \times \frac{277,654\ acf}{min} \times \frac{68}{291}\ \frac{+\ 460\ ^oR}{+\ 460\ ^oR} \times \frac{29.90\ in.\ Hg}{29.92\ in.\ Hg} = \frac{11,703,256\ ascf}{hr}$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 3a)

$\%N_2$ = nitrogen concentration (%)
$\%CO_2$ = carbon dioxide concentration (%)
$\%O_2$ = oxygen concentration (%)
ppmCO = carbon monoxide concentration (ppm)
%CO = carbon monoxide concentration (%)
M_d = stack dry molecular weight (lb/lb-mole)
$(F_o)_{avg}$ = average calculated fuel factor
$(\%EA)_{avg}$ = average excess air (%)

Carbon Monoxide Concentration (%)

$$\%CO = \frac{ppmCO}{10{,}000}$$

%CO (%) = 100.00 ppm / 10,000 ppm/% = 1.0E-02 %

Nitrogen Concentration (%)

$$\%N_2 = 100 - \%CO_2 - \%O_2 - \%CO$$

%N$_2$ (%) = 100 - 14 % - 5 % - 0.01 % = 80.99 %

Stack Dry Molecular Weight (lb/lb-mole)

$$M_d\,(lb/lb-mol) = \sum\left(\frac{MW_{comp}}{100} \times \%component\right)$$

M_d (lb/lb-mol) = (44 lb/lb-mol / 100 x 14 %) + (32 lb/lb-mol / 100 x 5 %) + etc. = 30.44 lb/lb-mol

Average Calculated Fuel Factor

$$F_{o(avg)} = \frac{\left[20.9 - (\%O_2)_{avg} - (0.5 \times (\%CO)_{avg})\right]}{(\%CO_2)_{avg} + (\%CO)_{avg}}$$

$F_{o(avg)}$ = (20.9% - 5 % - [0.5 x 0.01 %]) / (14 % + 0.01 %) = 1.135

Average Excess Air (%)

$$\%EA_{avg}(\%) = \frac{100 \times \left[(\%O_2)_{avg} - (0.5 \times (\%CO)_{avg})\right]}{(0.264 \times (N_2)_{avg}) - \left[(\%O_2)_{avg} - (0.5 \times (\%CO)_{avg})\right]}$$

$(\%EA)_{AVG}$ = 100 x{ 5 % - [0.5 x 0.01 %] } / [0.264 x 80.99 %] - { 5 % - [0.5 x 0.01 %] } = 30.5 %

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 4)

V_{mf} = final dry gas meter reading (dcf)
V_{mi} = initial dry gas meter reading (dcf)
V_m = total meter volume (dcf)
$t_{m(avg)}$ = average meter temp. (^oF)
$t_{s(avg)}$ = average stack temp. (^oF)
P_b = barometric pressure (in. Hg)
P_{static} = static pressure (in. H_2O)
ΔH_{avg} = average orifice pressure (in. H_2O)
V_i = initial impinger volume (ml)
V_f = final impinger volume (ml)
W_i = initial impinger weight (g)
W_f = final impinger weight (g)
V_t = total impinger volume (ml) = $\Sigma(V_f-V_i)$
W_t = total impinger weight (g) = $\Sigma(W_f-W_i)$
K_5 = water mass to std water vapor, 0.04715 ft^3/g
K_1 = standard volume correction, 17.65^oR/in. Hg
Y = meter calibration factor
T_u = absolute temperature offset, 460^oR
B_{ws} = final moisture content (%) = min of $B_{ws(calc)}$ and $B_{ws(svp)}$

Water Volume Weighed (dscf)

$$V_{wsg(std)}(dscf) = W_t \times K_5$$

$V_{wsg(std)}$ = 311.30 g x 0.04715 ft^3/g = 14.678 dscf

Standard Meter Volume (dscf)

$$V_{m(std)}(dscf) = \frac{K_1 \times Y \times V_m \times \left(P_b + \frac{\Delta H_{avg}}{13.6}\right)}{(t_m)_{avg} + T_u}$$

$$V_{m(std)} = \frac{\frac{17.65\ ^oR}{in.\ Hg} \times 1.01 \times 50.09\ dcf \times \left(29.53\ in.\ Hg + \frac{0.58\ in.\ H_2O}{13.6\ in.\ H_2O / in.\ Hg}\right)}{82\ ^oF + 460\ ^oR} = 48.47\ dscf$$

Calculated Moisture Content (%)

$$B_{ws(calc)}(\%) = 100 \times \frac{V_{wsg(std)}}{V_{wsg(std)} + V_{m(std)}}$$

$$B_{ws(calc)} = 100 \times \frac{14.6778\ dscf}{14.6778\ dscf + 48.47122\ dscf} = 23.24311\ \%$$

Saturated Moisture Content (%)

$$B_{ws(svp)}(\%) = 100 \times \frac{10^{6.691 - \frac{3144}{t_{s(avg)} + 390.86}}}{P_b + \frac{P_{static}}{13.6}} \leq 100$$

$$B_{ws(svp)} = 100 \times \frac{10^{\left(6.691 - \frac{3144}{298\ ^oF + 390.86}\right)}}{29.53\ in.\ Hg + \frac{-0.23\ in.\ H_2O}{13.6\ in.\ H_2O / in.\ Hg}} \leq 100 = 100\ \%$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Isokinetic Sampling)

C_n = nozzle diameter constant, 0.03575
Q_m = estimated orifice flow rate, 0.750 acfm
else Vm/Θ from previous run
V_m = total meter volume (acf)
Θ = total sampling time (min)
t_m = average gas meter temperature (°F)
T_u = absolute temperature offset, 460°R
C_p = pitot tube coefficient
B_{wm} = meter moisture content (%)
B_{ws} = stack moisture content (%)
t_s = average stack temperature (°F)
M_d = stack dry molecular weight (lb/lb-mole)
P_s = absolute stack pressure (in. Hg)
C_k = K Factor Constant, 849.8

Δp_{avg} = average pitot tube differential pressure (in. H_2O)
ΔH@ = DH @ 0.75 SCFM (in. H_2O)
D_{na} = actual nozzle diameter (in.)
Δp = velocity head (in. H_2O)

Desired Orifice (in. H_2O)

$$\Delta H_d\,(in.H_2O) = K \times \Delta p$$

ΔH_d (in. H_2O) = 0.45 x 1 in. H_2O = 0.451 in. H_2O

Absolute Meter Pressure (in. Hg)

$$P_m\,(in.Hg) = P_b + \frac{\Delta H\,@}{13.6}$$

P_m (in. Hg) = 29.53 in. Hg + $\dfrac{1.81 \text{ in. } H_2O}{13.6 \text{ in. } H_2O/\text{in. Hg}}$ = 29.66 in. Hg

Recommended Nozzle Diameter (in.)

$$D_{ni}\,(in.) = \sqrt{\frac{C_n \times Q_m \times P_m}{(t_m + T_u) \times C_p} \times \left(\frac{1 - \frac{B_{wm}}{100}}{1 - \frac{B_{ws}}{100}}\right)} \times \sqrt{(t_s + T_u) \times \left[\frac{M_d \times \left(1 - \frac{B_{ws}}{100}\right) + (18 \times B_{ws})}{P_s \times \Delta p_{avg}}\right]}$$

$$D_{ni}\text{ (in.)} = \sqrt{\frac{0.03575 \text{ (lb-mole•°R•in. } H_2O)^{1/2}\text{•min•in.}^2}{\text{acf•in. Hg}^{3/4}\text{•lb}^{1/2}} \text{ x } 0.75 \text{ acf x } 29.66 \text{ in. Hg} \times \left(\frac{1 - \frac{0.0\ \%}{100}}{1 - \frac{25.0\ \%}{100}}\right) \text{ x}} \sqrt{\frac{(81\ ^\circ\text{F} + 460^\circ\text{R}) \text{ x } 0.84}{(291\ ^\circ\text{F} + 460^\circ\text{R}) \text{ x } \frac{30.44 \text{ lb}}{\text{lb-mole}} \text{ x } \left(1 - \frac{25.0\ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } 25.0\ \%\right)}{29.51 \text{ in. Hg x } 1.05 \text{ in. } H_2O}} = 0.245 \text{ in.}$$

DP to DH Isokinetic Factor

$$K = C_k \times C_p^2 \times \Delta H\,@ \times D_{na}^4 \times \left[\frac{M_d \times \left(1 - \frac{B_{wm}}{100}\right) + \left(18 \times \frac{B_{wm}}{100}\right)}{M_d \times \left(1 - \frac{B_{ws}}{100}\right) + \left(18 \times \frac{B_{ws}}{100}\right)}\right] \times \left(\frac{1 - \frac{B_{ws}}{100}}{1 - \frac{B_{wm}}{100}}\right)^2 \times \left(\frac{t_m + T_u}{ts + T_u}\right) \times \frac{P_s}{P_m}$$

$$K = \frac{849.8}{\text{in. } H_2O\text{•in.}^4} \text{ x } 0.84^2 \text{ x } 1.81 \text{ in. } H_2O \text{ x } 0.174333^4 \text{ x } \left(\frac{1 - \frac{25.0\ \%}{100}}{1 - \frac{0.0\ \%}{100}}\right)^2 \text{ x } \left(\frac{81\ ^\circ\text{F} + 460^\circ\text{R}}{291\ ^\circ\text{F} + 460^\circ\text{R}}\right) \text{ x}$$

$$\left(\frac{\frac{30.44 \text{ lb}}{\text{lb/mole}} \text{ x } \left(1 - \frac{0.0\ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } \frac{0.0\ \%}{100}\right)}{\frac{30.44 \text{ lb}}{\text{lb/mole}} \text{ x } \left(1 - \frac{25.0\ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } \frac{25.0\ \%}{100}\right)}\right) \text{ x } \frac{29.51 \text{ in. Hg}}{29.66 \text{ in. Hg}} = 0.45$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 29, Run 1)

Mercury Emissions Rate (lb/hr)

$$E'(lb/hr) = \frac{M_n \times Q_{sd}}{V_{m(std)}} \times \frac{60}{453.592 \times 1000}$$

$$\text{E' (lb/hr)} = \frac{\text{g}}{\text{1000 mg}} \text{ x } \frac{\text{60 min}}{\text{hr}} \text{ x } \frac{\text{lb}}{\text{453.592 g}} \text{ x } \frac{\text{0.00000 mg}}{\text{48.47 dscf}} \text{ x } \frac{\text{158,727 dscf}}{\text{min}} = \frac{\text{0.00000 lb}}{\text{hr}}$$

Mercury Emissions Rate (ton/yr)

$$E''(ton/yr) = E' \times \frac{8760}{2000}$$

$$\text{E'' (ton/yr)} = \frac{\text{ton}}{\text{2000 lb}} \text{ x } \frac{\text{8760 hr}}{\text{yr}} \text{ x } \frac{\text{0.00000 lb}}{\text{hr}} = \frac{\text{0.00000 ton}}{\text{yr}}$$

Mercury Emissions Rate (lb/MMBtu)

$$E'''(lb/MMBtu) = \frac{M_n \times F_d}{V_{m(std)} \times 1000 \times 453.592} \times \left(\frac{100}{\%CO_2} \right)$$

$$\text{E''' (lb/MMBtu)} = \frac{\text{g}}{\text{1000 mg}} \text{ x } \frac{\text{lb}}{\text{453.592 g}} \text{ x } \frac{\text{0.00000 mg}}{\text{48.47 dscf}} \text{ x } \frac{\text{1,890 dscf } (CO_2)}{\text{MMBtu}} \text{ x} \left(\frac{\text{100\%}}{\text{14.0 \%}} \right) = \frac{\text{0.00E+00 lb}}{\text{MMBtu}}$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

CONSOL ENERGY

Air Hygiene International

AHI Project: **scn-07-benson.mn-comp#1**
CONSOL Project: **1650-030-1**
Date: **07/27/07**

Results - Impingers, Rinses, Blanks

Lab No.	Description	Sample	Hg (µg/L)	Impinger Volume (L)	Hg (µg)
20073708	RUN 1 GLASS LINER & FRONT HALF 7/5/07	IN-OHM-1-CON2	<1.40	0.430	<0.602
20073709	RUN 1 IMPINGERS 1, 2, AND 3 7/5/07	IN-OHM-1-CON3	0.36	0.510	0.184
20073710	RUN 1 IMPINGER 4 7/5/07	IN-OHM-1-CON4	< 1.40	0.120	<0.168
20073711	RUN 1 IMPINGERS 5, 6, AND 7 7/5/07	IN-OHM-1-CON5	1.96	0.535	1.049
20073712	RUN 2 NOZZLE, GLASS LINER & FRONT HALF 7/5/07	IN-OHM-2-CON2	< 1.40	0.415	<0.581
20073713	RUN 2 IMPINGERS 1, 2, AND 3 7/5/07	IN-OHM-2-CON3	0.35	0.280	0.098
20073714	RUN 2 IMPINGER 4 7/5/07	IN-OHM-2-CON4	< 1.40	0.430	<0.602
20073715	RUN 2 IMPINGERS 5, 6, AND 7 7/5/07	IN-OHM-2-CON5	0.76	0.510	0.388
20073716	RUN 3 NOZZLE, GLASS LINER & FRONT HALF 7/5/07	IN-OHM-3-CON2	< 1.40	0.440	<0.616
20073717	RUN 3 IMPINGERS 1, 2, AND 3 7/5/07	IN-OHM-3-CON3	0.35	0.465	0.163
20073718	RUN 3 IMPINGER 4 7/5/07	IN-OHM-3-CON4	< 1.40	0.140	<0.196
20073719	RUN 3 IMPINGERS 5, 6, AND 7 7/5/07	IN-OHM-3-CON5	0.76	0.510	0.388
20073720	RUN 1 NOZZLE, GLASS LINER & FRONT HALF 7/5/07	OUT-OHM-1-CON2	< 1.40	0.235	<0.329
20073721	RUN 1 IMPINGERS 1, 2, AND 3 7/5/07	OUT-OHM-1-CON3	0.51	0.645	0.329
20073722	RUN 1 IMPINGER 4 7/5/07	OUT-OHM-1-CON4	< 1.40	0.145	<0.203
20073723	RUN 1 IMPINGERS 5, 6, AND 7 7/5/07	OUT-OHM-1-CON5	0.74	0.380	0.281
20073724	RUN 2 NOZZLE, GLASS LINER & FRONT HALF 7/5/07	OUT-OHM-2-CON2	< 1.40	0.150	<0.210
20073725	RUN 2 IMPINGERS 1, 2, AND 3 7/5/07	OUT-OHM-2-CON3	0.51	0.645	0.329
20073726	RUN 2 IMPINGER 4 7/5/07	OUT-OHM-2-CON4	< 1.40	0.130	<0.182
20073727	RUN 2 IMPINGERS 5, 6, AND 7 7/5/07	OUT-OHM-2-CON5	0.74	0.380	0.281
20073728	RUN 3 NOZZLE, GLASS LINER & FRONT HALF 7/5/07	OUT-OHM-3-CON2	< 1.40	0.190	<0.266
20073729	RUN 3 IMPINGERS 1, 2, AND 3 7/5/07	OUT-OHM-3-CON3	0.51	0.645	0.329
20073730	RUN 3 IMPINGER 4 7/5/07	OUT-OHM-3-CON4	< 1.40	0.160	<0.224
20073731	RUN 3 IMPINGERS 5, 6, AND 7 7/5/07	OUT-OHM-3-CON5	0.74	0.380	0.281
20073732	50 ML OF 0.1 N HNO3 BLANK 7/5/07	H-B-OHM-CON7	< 1.40	0.110	<0.154
20073733	50 ML OF 1 N KCL BLANK	K-B-OHM-CON8	1.82	0.095	0.173
20073734	50 ML OF HNO3-H2O2 BLANK	HH-B-OHM-CON9	< 1.40	0.085	< 0.119
20073735	50 ML OF H2SO4-KMNO4 BLANK	HK-B-OHM-CON10	0.33	0.065	0.021
20073736	100 ML OF HYDROXYLAMINE BLANK	HXM-B-OHM-CON11	0.86	0.150	0.129

Results - Filters

ANALNUM	DESCR	SAMPLE	Hg (ug/filter)	Filter	Hg (ug)
20073701	RUN 1 FILTER 7/5/07	IN-OHM-1-CON1	0.012	1	0.012
20073702	RUN 2 FILTER	IN-OH-2-CON1	< 0.007	1	< 0.007
20073703	RUN 3 FILTER	IN-OHM-3-CONT1	< 0.007	1	< 0.007
20073704	RUN 1 FILTER	OUT-OHM-1-CON1	< 0.007	1	< 0.007
20073705	RUN 2 FILTER	OUT-OHM-2-CON1	< 0.007	1	< 0.007
20073706	RUN 3 FILTER	OUT-OHM-3-CON1	< 0.007	1	< 0.007
20073707	SAMPLE BLANK FILTER	F-B-OHM-CON12	< 0.007	1	< 0.007

CONSOL ENERGY

Air Hygiene International

AHI Project: scn-07-benson.mn-comp#1
CONSOL Project: 1650-030-1
Date: 7/27/2007

QAQC

Mercury Duplicate Analyses RPD (Limit of 10%)…Impingers, Rinses, Blanks

Lab No.	Description		Hg (µg/L)	Hg (µg/L)	Hg ave(µg/L)	RPD, %
20073708	RUN 1 GLASS LINER & FRONT HALF 7/5/07	IN-OHM-1-CON2	<1.40	<1.40	<1.40	0.0
20073709	RUN 1 IMPINGERS 1, 2, AND 3 7/5/07	IN-OHM-1-CON3	0.37	0.35	0.36	5.6
20073710	RUN 1 IMPINGER 4 7/5/07	IN-OHM-1-CON4	< 1.40	< 1.40	< 1.40	0.0
20073711	RUN 1 IMPINGERS 5, 6, AND 7 7/5/07	IN-OHM-1-CON5	2.02	1.90	1.96	6.1
20073712	RUN 2 NOZZLE, GLASS LINER & FRONT HALF 7/5/07	IN-OHM-2-CON2	< 1.40	< 1.40	< 1.40	0.0
20073713	RUN 2 IMPINGERS 1, 2, AND 3 7/5/07	IN-OHM-2-CON3	0.33	0.37	0.35	11.4
20073714	RUN 2 IMPINGER 4 7/5/07	IN-OHM-2-CON4	< 1.40	< 1.40	< 1.40	0.0
20073715	RUN 2 IMPINGERS 5, 6, AND 7 7/5/07	IN-OHM-2-CON5	0.76	0.76	0.76	0.0
20073716	RUN 3 NOZZLE, GLASS LINER & FRONT HALF 7/5/07	IN-OHM-3-CON2	< 1.40	< 1.40	< 1.40	0.0
20073717	RUN 3 IMPINGERS 1, 2, AND 3 7/5/07	IN-OHM-3-CON3	0.33	0.37	0.35	11.4
20073718	RUN 3 IMPINGER 4 7/5/07	IN-OHM-3-CON4	< 1.40	< 1.40	< 1.40	0.0
20073719	RUN 3 IMPINGERS 5, 6, AND 7 7/5/07	IN-OHM-3-CON5	0.76	0.76	0.76	0.0
20073720	RUN 1 NOZZLE, GLASS LINER & FRONT HALF 7/5/07	OUT-OHM-1-CON2	< 1.40	< 1.40	< 1.40	0.0
20073721	RUN 1 IMPINGERS 1, 2, AND 3 7/5/07	OUT-OHM-1-CON3	0.49	0.52	0.51	5.6
20073722	RUN 1 IMPINGER 4 7/5/07	OUT-OHM-1-CON4	< 1.40	< 1.40	< 1.40	0.0
20073723	RUN 1 IMPINGERS 5, 6, AND 7 7/5/07	OUT-OHM-1-CON5	0.77	0.71	0.74	8.1
20073724	RUN 2 NOZZLE, GLASS LINER & FRONT HALF 7/5/07	OUT-OHM-2-CON2	< 1.40	< 1.40	< 1.40	0.0
20073725	RUN 2 IMPINGERS 1, 2, AND 3 7/5/07	OUT-OHM-2-CON3	0.49	0.52	0.51	5.6
20073726	RUN 2 IMPINGER 4 7/5/07	OUT-OHM-2-CON4	< 1.40	< 1.40	< 1.40	0.0
20073727	RUN 2 IMPINGERS 5, 6, AND 7 7/5/07	OUT-OHM-2-CON5	0.77	0.71	0.74	8.1
20073728	RUN 3 NOZZLE, GLASS LINER & FRONT HALF 7/5/07	OUT-OHM-3-CON2	< 1.40	< 1.40	< 1.40	0.0
20073729	RUN 3 IMPINGERS 1, 2, AND 3 7/5/07	OUT-OHM-3-CON3	0.49	0.52	0.51	5.6
20073730	RUN 3 IMPINGER 4 7/5/07	OUT-OHM-3-CON4	< 1.40	< 1.40	< 1.40	0.0
20073731	RUN 3 IMPINGERS 5, 6, AND 7 7/5/07	OUT-OHM-3-CON5	0.77	0.71	0.74	8.1
20073732	50 ML OF 0.1 N HNO3 BLANK 7/5/07	H-B-OHM-CON7	< 1.40	< 1.40	< 1.40	0.0
20073733	50 ML OF 1 N KCL BLANK	K-B-OHM-CON8	1.84	1.80	1.82	2.2
20073734	50 ML OF HNO3-H2O2 BLANK	HH-B-OHM-CON9	< 1.40	< 1.40	< 1.40	0.0
20073735	50 ML OF H2SO4-KMNO4 BLANK	HK-B-OHM-CON10	0.36	0.30	0.33	18.2
20073736	100 ML OF HYDROXYLAMINE BLANK	HXM-B-OHM-CON11	0.78	0.93	0.86	17.4

Mercury Duplicate Analyses RPD (Limit of 10%)..Filters

Lab No.	Description		Hg (ug/filter)	Hg (ug/filter)	Hg ave(µg/L)	RPD, %
20073701	RUN 1 FILTER 7/5/07	IN-OHM-1-CON1	0.012	0.012	0.012	0.0
20073702	RUN 2 FILTER	IN-OH-2-CON1	< 0.007	< 0.007	< 0.007	0.0
20073703	RUN 3 FILTER	IN-OHM-3-CONT1	< 0.007	< 0.007	< 0.007	0.0
20073704	RUN 1 FILTER	OUT-OHM-1-CON1	< 0.007	< 0.007	< 0.007	0.0
20073705	RUN 2 FILTER	OUT-OHM-2-CON1	< 0.007	< 0.007	< 0.007	0.0
20073706	RUN 3 FILTER	OUT-OHM-3-CON1	< 0.007	< 0.007	< 0.007	0.0
20073707	SAMPLE BLANK FILTER	F-B-OHM-CON12	< 0.007	< 0.007	< 0.007	0.0

Mercury Triplicate Analyses - Filters..... RSD (Limit of 10%)

Lab No.	Description		Hg (ug/filter)	Hg (ug/filter)	Hg (ug/filter)	RSD, %
20073704	RUN 1 FILTER	OUT-OHM-1-CON1	< 0.007	< 0.007	< 0.007	0.0

Mercury Triplicate Analyses RSD (Limit of 10%)

Lab No.	Description		Hg (µg/L)	Hg (µg/L)	Hg (µg/L)	RSD, %
20073731	RUN 3 IMPINGERS 5, 6, AND 7 7/5/07	OUT-OHM-3-CON5	0.77	0.71	0.83	7.8
20073718	RUN 3 IMPINGER 4 7/5/07	IN-OHM-3-CON4	< 1.40	< 1.40	< 1.40	0.0
20073724	RUN 2 NOZZLE, GLASS LINER & FRONT HALF 7/5/07	OUT-OHM-2-CON2	< 1.40	< 1.40	< 1.40	0.0
20073732	50 ML OF 0.1 N HNO3 BLANK 7/5/07	H-B-OHM-CON7	< 1.40	< 1.40	< 1.40	0.0

Matrix (Standard Addition) Spikes (recovery of 90 - 110%)

The following samples were spiked with a standard solution of 2ppb.

Lab No.	Description		% Recovery
20073711	RUN 1 IMPINGERS 5, 6, AND 7 7/5/07	IN-OHM-1-CON5	93.0%
20073710	RUN 1 IMPINGER 4 7/5/07	IN-OHM-1-CON4	103.0%
20073716	RUN 3 NOZZLE, GLASS LINER & FRONT HALF 7/5/07	IN-OHM-3-CON2	99.0%
20073705	RUN 2 FILTER	OUT-OHM-2-CON1	116.0%

NIST SRM 1633B Fly Ash…Digested/Analyzed with Filters (90 -110% of Certified Value)

NIST SRM has a cerrtified value of 141 ng/g.

Lab No.	Description	Hg (ng/mg)	% RECOVERY
NIST SRM 1633B Fly Ash		135	95.7%

Digestion Duplicates and Digestion Spikes…Impingers

Digestion 1 and 2 results represent an average of duplicate analyses.

Lab No.	Description	Sample	Digestion 1	Digestion 2	RPD, %
20073715	RUN 2 IMPINGERS 5, 6, AND 7 7/5/07	IN-OHM-2-CON5	0.76	0.79	3.8
20073709	RUN 1 IMPINGERS 1, 2, AND 3 7/5/07	IN-OHM-1-CON3	0.31	0.36	15.2

The following samples were spiked with a standard solution of 2 ppb before digestion.

Lab No.	Description		% Recovery
20073715	RUN 2 IMPINGERS 5, 6, AND 7 7/5/07	IN-OHM-2-CON5	92.5%
20073709	RUN 1 IMPINGERS 1, 2, AND 3 7/5/07	IN-OHM-1-CON3	92.0%

Analytical Narrative

Summary

Samples were prepared and analyzed as outlined in ASTM D 6784-02 (Ontario Hydro Method).

Detection Limits

For samples determined to be less than the detection limit, results were reported as a less than value, based on the Thermo Unicam 969 detection limit of 0.14 µg/L mutilplied with any sample dilution.

QAQC Summary

R2 for all calibration curves were > 0.999. NIST SRM 1641D, prepared to a concentration of 4.0 µg/L, was analyzed immediately after calibration (independent calibration verification sample). The recovery criteria was 90-110% or the run was stopped and the analyzer was re-calibrated. NIST 1641D (4.0 µg/L), was also used as the continuing calibration verification sample and analyzed after every 10 samples. The recovery was 90 -110% or the run was stopped, the analyzer was recalibrated, and the affected samples were re-analyzed. All samples were analyzed in duplicate with a limit of a 10% (RPD). One in 10 samples were analyzed in triplicate with a criteria limit of 10% (RSD). Matrix spikes were included at a 1 in 10 sample frequency with a criteria of 90 - 110 % spike recovery. Although not required by D 6784-02, (1) digestion duplicates and (1) digestion spikes, were included to assess the efficiency of the digestions. NIST SRM1633B was digested and analyzed with the filters with a criteria of 90 - 110%. There were a few exceptions; samples 20073713, 20073717, 20073735, and 20073736 had RPD's slighlty above 10%. However, these samples were determined to be slightly above detection limits. As such, the values were reported. Using the average should minimize any concerns. Sample 20073705 matrix spike was slightly above the 10% recovery criteria. All exceptions were noted in red font. Please refer to the QAQC worksheet for all QAQC data.

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APPENDIX B

UNIT OPERATION PARAMETERS

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/4/07 14:00	62.78	489,145.91	368.82	502,439.19	73.18	0.00	272.41	542.17	970.96	1,501.12	863.38	807.00
7/4/07 14:01	62.65	488,163.09	368.66	502,047.31	73.84	0.00	272.48	542.37	971.12	1,500.36	861.48	805.42
7/4/07 14:02	62.34	486,790.41	368.49	501,655.41	74.41	0.00	272.57	542.12	970.38	1,497.16	860.47	804.34
7/4/07 14:03	62.31	486,211.19	368.35	501,263.50	74.13	0.00	272.68	541.82	969.86	1,498.21	860.38	804.16
7/4/07 14:04	62.19	485,853.41	368.18	500,871.69	75.43	0.00	272.74	541.49	969.37	1,497.67	860.75	803.91
7/4/07 14:05	62.06	484,247.09	367.96	500,479.81	75.58	0.00	272.76	541.33	969.51	1,495.76	861.30	803.79
7/4/07 14:06	62.00	484,535.31	367.74	500,087.91	74.21	0.00	272.73	541.39	970.01	1,496.43	862.04	804.29
7/4/07 14:07	62.14	486,740.69	367.51	500,110.69	73.75	0.00	272.72	541.72	971.04	1,500.13	863.03	804.83
7/4/07 14:08	62.23	487,253.00	367.24	500,635.41	74.16	0.00	272.72	542.10	972.91	1,501.64	864.22	805.69
7/4/07 14:09	62.22	486,457.81	366.84	500,448.81	78.60	0.00	272.67	542.06	973.41	1,502.33	865.14	806.02
7/4/07 14:10	62.37	488,654.19	366.51	500,262.19	79.78	0.00	272.66	541.93	974.41	1,508.24	866.05	806.40
7/4/07 14:11	62.56	491,341.31	366.01	500,075.59	79.52	0.00	272.57	542.18	975.50	1,511.44	866.91	807.09
7/4/07 14:12	61.96	486,055.31	365.58	499,889.00	77.09	0.00	272.58	542.06	973.14	1,499.44	867.20	806.84
7/4/07 14:13	62.01	488,325.81	364.99	499,702.41	76.19	0.00	272.53	541.99	971.29	1,502.83	867.10	806.59
7/4/07 14:14	61.94	487,674.91	364.42	499,515.81	77.62	0.00	272.43	542.41	971.45	1,501.83	867.71	807.28
7/4/07 14:15	62.09	490,114.91	363.76	499,329.09	79.56	0.00	272.41	542.52	969.10	1,506.46	867.94	807.40
7/4/07 14:16	61.85	489,138.09	363.24	499,142.50	79.96	0.00	272.38	542.56	966.96	1,503.16	868.14	807.44
7/4/07 14:17	61.51	487,789.09	362.84	498,955.91	81.51	0.00	272.37	542.66	966.94	1,498.55	869.07	808.52
7/4/07 14:18	61.38	488,479.19	362.61	498,819.59	80.18	0.00	272.35	542.70	965.55	1,498.50	868.71	809.06
7/4/07 14:19	61.58	487,085.09	362.46	499,097.50	80.39	0.00	272.37	543.25	967.35	1,502.48	866.92	807.98
7/4/07 14:20	61.39	485,830.69	362.46	499,375.31	78.63	0.00	272.32	543.79	970.08	1,497.22	867.55	809.68
7/4/07 14:21	60.98	482,591.50	362.42	499,653.19	77.27	0.00	272.32	543.65	969.71	1,490.77	867.91	809.94
7/4/07 14:22	61.26	485,604.19	362.37	499,931.00	77.16	0.00	272.34	543.60	970.05	1,498.96	868.39	810.24
7/4/07 14:23	60.82	481,911.41	362.27	500,208.91	77.42	0.00	272.33	543.72	971.34	1,492.75	868.84	810.71
7/4/07 14:24	61.17	485,229.59	362.13	500,486.69	78.72	0.00	272.30	543.61	970.73	1,499.23	868.58	810.33
7/4/07 14:25	60.83	481,636.69	361.92	500,764.59	78.63	0.00	272.31	543.79	971.42	1,495.59	868.80	810.60
7/4/07 14:26	60.59	480,039.19	361.77	501,042.41	80.46	0.00	272.36	543.92	971.04	1,493.83	868.93	810.46
7/4/07 14:27	60.52	479,593.00	361.53	501,320.31	81.93	0.00	272.36	543.80	969.53	1,498.52	868.62	809.92
7/4/07 14:28	60.82	482,839.91	361.33	501,598.09	85.43	0.00	272.32	543.91	970.34	1,502.50	868.80	810.20
7/4/07 14:29	60.88	480,974.31	361.12	501,876.00	84.15	0.00	272.21	544.03	971.10	1,500.42	869.16	810.45
7/4/07 14:30	60.97	483,346.00	360.92	502,153.81	82.88	0.00	272.16	544.00	971.43	1,502.09	869.64	810.64
7/4/07 14:31	61.39	488,103.69	360.70	502,431.69	86.17	0.00	272.12	544.05	972.08	1,508.73	870.02	810.74
7/4/07 14:32	61.05	484,237.91	360.51	501,678.00	80.68	0.00	272.19	544.22	972.60	1,502.72	870.57	811.14
7/4/07 14:33	61.31	487,092.59	360.22	500,759.91	79.11	0.00	272.22	544.30	972.64	1,505.87	870.85	811.70
7/4/07 14:34	61.36	487,530.41	359.97	499,841.81	79.56	0.00	272.23	544.26	971.44	1,506.61	871.07	811.89
7/4/07 14:35	61.38	488,583.19	359.73	498,923.69	79.55	0.00	272.27	544.08	970.22	1,506.31	871.05	811.97
7/4/07 14:36	61.21	486,957.69	359.54	498,005.59	76.31	0.00	272.32	544.01	968.39	1,502.65	870.86	812.35
7/4/07 14:37	61.87	493,062.31	359.47	497,087.50	76.37	0.00	272.42	544.00	967.19	1,513.86	870.71	812.25
7/4/07 14:38	61.57	491,064.00	359.38	496,169.41	73.20	0.00	272.44	544.16	966.41	1,508.77	870.95	812.90
7/4/07 14:39	61.11	487,819.59	359.43	495,251.31	70.88	0.00	272.56	544.21	963.93	1,498.61	871.00	813.00
7/4/07 14:40	60.92	487,533.19	359.46	494,406.91	71.80	0.00	272.64	544.08	960.25	1,498.19	870.61	812.72
7/4/07 14:41	61.12	491,134.09	359.51	493,724.69	72.30	0.00	272.69	544.28	958.63	1,504.17	870.35	812.67
7/4/07 14:42	61.35	492,658.81	359.60	493,042.50	74.10	0.00	272.70	544.63	958.99	1,507.55	870.60	812.71
7/4/07 14:43	61.03	490,152.31	359.78	492,360.31	76.17	0.00	272.76	544.94	961.03	1,503.28	871.64	813.76
7/4/07 14:44	60.78	487,502.50	359.97	491,678.00	76.64	0.00	272.80	545.00	962.05	1,496.51	872.37	814.95
7/4/07 14:45	61.08	489,841.31	360.14	490,995.81	78.59	0.00	272.86	544.97	963.13	1,502.21	872.78	815.83
7/4/07 14:46	61.05	489,222.91	360.28	490,313.59	73.72	0.00	272.91	544.98	964.85	1,501.64	872.74	815.64
7/4/07 14:47	60.66	485,055.69	360.33	489,631.31	75.95	0.00	272.96	544.68	964.22	1,493.61	871.74	814.79
7/4/07 14:48	60.84	485,220.91	360.28	488,949.09	75.08	0.00	273.02	544.55	963.93	1,497.62	870.72	813.89
7/4/07 14:49	60.76	486,383.19	360.25	488,266.91	73.95	0.00	273.01	544.57	964.80	1,496.28	870.17	814.39

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/4/07 14:50	60.47	482,487.19	360.21	487,584.69	71.55	0.00	273.00	544.51	964.33	1,491.40	869.55	813.97
7/4/07 14:51	60.19	482,032.00	360.14	487,088.41	72.31	0.00	273.04	544.19	962.77	1,493.55	868.50	812.74
7/4/07 14:52	60.70	482,881.31	360.08	487,845.69	71.33	0.00	272.97	544.20	964.14	1,499.02	868.15	812.31
7/4/07 14:53	60.83	485,801.50	360.06	488,603.00	73.46	0.00	272.82	544.11	965.22	1,503.48	868.05	812.24
7/4/07 14:54	61.02	487,219.31	360.08	489,360.31	71.25	0.00	272.77	544.12	966.64	1,503.95	868.32	812.73
7/4/07 14:55	60.91	486,026.91	360.01	490,117.69	70.78	0.00	272.76	543.87	966.97	1,502.91	868.03	812.27
7/4/07 14:56	61.11	487,196.59	359.99	490,875.00	73.27	0.00	272.76	543.60	967.34	1,505.21	867.75	812.26
7/4/07 14:57	61.58	491,887.91	359.95	491,632.31	71.54	0.00	272.74	543.50	967.64	1,512.86	867.63	811.94
7/4/07 14:58	61.16	487,569.31	359.91	492,389.59	73.91	0.00	272.79	543.24	966.43	1,504.61	867.22	811.55
7/4/07 14:59	61.17	489,610.09	359.87	493,146.91	74.50	0.00	272.87	543.04	966.17	1,503.80	866.84	810.95
7/4/07 15:00	61.51	492,102.91	359.84	493,904.19	74.15	0.00	272.91	542.94	965.60	1,509.53	866.69	810.64
7/4/07 15:01	61.16	488,448.91	359.74	494,661.50	76.32	0.00	272.95	542.67	965.24	1,502.21	866.41	809.90
7/4/07 15:02	60.79	487,400.19	359.66	495,418.81	80.38	0.00	272.98	542.30	964.88	1,496.47	865.85	809.85
7/4/07 15:03	61.19	489,247.50	359.62	496,008.09	81.76	0.00	272.94	542.21	966.68	1,503.07	865.77	810.23
7/4/07 15:04	60.91	486,203.00	359.55	496,388.50	81.76	0.00	272.87	542.02	967.87	1,500.80	865.60	809.85
7/4/07 15:05	60.43	482,023.81	359.55	496,769.00	81.50	0.00	272.86	541.90	968.55	1,492.56	865.29	809.85
7/4/07 15:06	59.77	478,129.81	359.39	497,149.41	81.37	0.00	272.80	541.32	966.47	1,487.99	864.34	808.64
7/4/07 15:07	60.56	483,896.81	359.35	497,529.81	80.55	0.00	272.74	541.01	965.62	1,500.11	863.39	807.51
7/4/07 15:08	60.64	484,267.81	359.25	497,910.31	82.78	0.00	272.54	541.01	966.72	1,498.93	863.22	807.15
7/4/07 15:09	59.72	475,710.00	359.18	498,290.69	81.35	0.00	272.42	540.70	966.04	1,492.80	862.75	806.29
7/4/07 15:10	60.28	479,886.09	359.08	498,671.09	78.55	0.00	272.36	540.18	965.66	1,498.88	861.90	805.01
7/4/07 15:11	61.16	487,732.09	358.93	499,051.50	80.80	0.00	272.30	539.99	968.60	1,507.70	861.40	804.25
7/4/07 15:12	60.85	484,772.09	358.78	498,283.00	82.59	0.00	272.20	539.56	970.46	1,501.08	860.78	803.21
7/4/07 15:13	60.73	482,274.19	358.63	497,356.69	87.09	0.00	272.26	538.81	970.21	1,501.97	859.47	802.57
7/4/07 15:14	61.06	486,555.59	358.39	496,430.31	88.74	0.00	272.27	538.38	971.33	1,506.16	858.93	802.46
7/4/07 15:15	61.19	486,426.19	358.27	495,503.91	94.82	0.00	272.29	538.12	972.70	1,507.57	858.99	802.79
7/4/07 15:16	61.31	486,981.81	358.25	494,577.50	93.02	0.00	272.35	537.85	972.91	1,506.46	859.38	803.54
7/4/07 15:17	60.43	482,367.59	358.21	493,651.09	94.99	0.00	272.45	537.26	970.87	1,495.97	859.35	803.41
7/4/07 15:18	60.58	482,673.09	358.09	492,724.69	95.86	0.00	272.53	536.66	969.24	1,499.59	858.84	802.90
7/4/07 15:19	60.21	479,483.50	357.95	491,798.31	92.61	0.00	272.47	536.43	968.78	1,494.68	858.57	802.51
7/4/07 15:20	59.41	473,648.59	357.82	490,871.91	89.35	0.00	272.42	536.16	967.12	1,491.06	858.16	802.55
7/4/07 15:21	58.95	471,852.81	357.69	489,322.00	89.64	0.00	272.34	535.80	965.40	1,492.30	857.33	801.46
7/4/07 15:22	59.23	474,418.50	357.56	487,595.41	90.15	0.00	272.17	535.72	966.64	1,495.62	856.98	801.72
7/4/07 15:23	58.53	467,840.19	357.44	485,868.81	93.90	0.00	271.93	535.53	966.31	1,492.15	856.63	801.27
7/4/07 15:24	58.33	467,743.00	357.29	484,142.19	93.20	0.00	271.79	535.25	965.80	1,496.60	855.78	800.77
7/4/07 15:25	58.82	470,640.19	357.19	482,415.50	90.54	0.00	271.53	535.35	967.11	1,501.84	855.59	800.60
7/4/07 15:26	58.00	463,844.00	357.15	482,264.69	86.90	0.00	271.25	535.64	969.80	1,492.77	856.38	801.40
7/4/07 15:27	58.29	465,920.31	357.13	482,204.09	84.14	0.00	270.99	535.62	969.68	1,499.05	856.74	801.54
7/4/07 15:28	57.85	463,640.41	357.10	482,143.50	82.54	0.00	270.84	535.41	969.48	1,498.93	856.66	801.19
7/4/07 15:29	58.76	469,439.31	357.06	481,819.59	82.48	0.00	270.62	535.79	971.77	1,503.01	857.04	802.19
7/4/07 15:30	58.09	465,798.41	357.08	480,916.59	81.08	0.00	270.55	535.91	971.42	1,497.72	857.53	802.36
7/4/07 15:31	57.38	459,719.41	357.10	480,013.69	79.95	0.00	270.61	535.95	969.77	1,492.31	857.48	802.71
7/4/07 15:32	57.40	459,621.69	357.15	479,110.69	78.67	0.00	270.64	536.02	967.98	1,496.21	857.45	802.62
7/4/07 15:33	57.57	460,186.50	357.14	478,207.69	74.77	0.00	270.59	536.43	968.23	1,496.08	857.74	802.71
7/4/07 15:34	58.10	465,306.19	357.22	477,304.69	73.07	0.00	270.47	536.70	968.00	1,504.40	857.96	802.39
7/4/07 15:35	57.95	462,978.50	357.18	476,401.69	74.90	0.00	270.37	536.73	968.70	1,500.33	857.91	802.08
7/4/07 15:36	59.19	473,245.41	357.14	478,646.19	76.86	0.00	270.35	536.76	970.07	1,510.81	857.63	801.80
7/4/07 15:37	59.68	477,969.59	357.07	481,698.31	74.12	0.00	270.38	536.86	973.05	1,511.25	857.89	802.03
7/4/07 15:38	59.66	477,315.91	356.99	484,750.31	74.79	0.00	270.54	536.93	975.25	1,507.21	858.21	802.13
7/4/07 15:39	59.97	479,360.91	356.91	487,708.50	79.06	0.00	270.73	536.64	974.63	1,509.35	858.07	801.91

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/4/07 15:40	61.03	487,222.50	356.86	490,513.09	78.77	0.00	270.94	536.87	976.97	1,512.97	858.72	803.53
7/4/07 15:41	60.96	486,776.59	356.90	493,317.69	76.77	0.00	271.26	536.85	977.17	1,508.12	859.62	803.99
7/4/07 15:42	61.01	487,016.59	356.84	496,122.31	77.19	0.00	271.57	536.62	975.74	1,508.18	859.93	803.88
7/4/07 15:43	61.28	489,204.50	356.86	497,815.81	74.67	0.00	271.87	536.55	973.83	1,509.57	860.43	804.13
7/4/07 15:44	61.05	486,865.09	356.96	497,689.81	74.60	0.00	272.16	536.67	972.02	1,502.85	861.39	805.33
7/4/07 15:45	60.84	486,493.91	357.10	497,564.00	76.14	0.00	272.32	536.62	968.82	1,502.20	862.04	805.54
7/4/07 15:46	60.76	486,784.69	357.24	497,438.09	79.82	0.00	272.41	536.78	968.13	1,502.53	862.85	806.35
7/4/07 15:47	60.59	486,367.19	357.37	497,312.19	77.85	0.00	272.41	536.79	967.97	1,499.95	863.55	807.28
7/4/07 15:48	60.76	486,538.31	357.44	497,186.31	77.01	0.00	272.42	536.59	968.48	1,502.51	863.43	807.49
7/4/07 15:49	60.68	486,114.91	357.49	497,060.31	77.97	0.00	272.38	536.53	969.68	1,499.94	863.52	807.70
7/4/07 15:50	60.67	484,179.41	357.62	496,934.41	77.79	0.00	272.39	536.58	970.46	1,499.28	864.19	808.04
7/4/07 15:51	60.73	485,171.91	357.80	496,808.50	81.90	0.00	272.45	536.77	971.00	1,499.51	865.12	809.19
7/4/07 15:52	60.07	478,203.31	357.95	496,682.59	87.56	0.00	272.48	536.74	969.88	1,491.94	865.90	809.24
7/4/07 15:53	59.78	476,992.69	358.13	496,556.69	89.76	0.00	272.46	536.76	969.58	1,492.83	866.61	809.59
7/4/07 15:54	60.79	483,563.41	358.33	496,430.81	92.07	0.00	272.41	536.98	969.92	1,503.99	867.23	809.97
7/4/07 15:55	60.53	483,053.00	358.49	496,304.91	90.36	0.00	272.29	537.35	970.79	1,500.78	867.98	810.87
7/4/07 15:56	60.56	483,207.91	358.67	496,179.00	86.96	0.00	272.37	537.65	971.00	1,503.58	868.63	811.58
7/4/07 15:57	60.41	480,433.41	358.96	496,053.09	86.58	0.00	272.43	537.92	971.54	1,499.19	869.53	812.52
7/4/07 15:58	61.21	488,645.19	359.18	495,927.19	88.19	0.00	272.47	538.13	971.80	1,511.10	870.01	813.41
7/4/07 15:59	61.25	487,947.50	359.47	497,291.81	88.46	0.00	272.55	538.41	972.94	1,510.46	870.86	814.04
7/4/07 16:00	61.28	488,285.00	359.66	498,799.31	90.63	0.00	272.70	538.52	972.88	1,507.04	871.23	814.40
7/4/07 16:01	61.53	490,071.69	359.77	500,306.81	90.51	0.00	272.81	538.45	971.50	1,510.54	871.12	813.81
7/4/07 16:02	61.76	492,250.81	359.90	501,814.31	94.19	0.00	272.96	538.82	972.11	1,513.71	871.39	814.00
7/4/07 16:03	61.71	492,463.91	360.06	503,321.91	91.10	0.00	273.05	539.23	972.39	1,514.32	871.99	813.99
7/4/07 16:04	61.42	490,135.19	360.23	504,829.41	90.70	0.00	273.21	539.63	973.53	1,507.82	872.51	814.57
7/4/07 16:05	61.83	493,580.59	360.40	506,336.91	85.54	0.00	273.24	539.94	973.48	1,514.61	873.05	814.98
7/4/07 16:06	62.01	494,904.91	360.60	507,844.41	82.25	0.00	273.36	540.34	973.69	1,518.10	873.77	815.65
7/4/07 16:07	63.08	503,991.09	360.82	509,351.91	79.57	0.00	273.38	541.07	975.58	1,525.96	875.05	817.82
7/4/07 16:08	62.58	500,313.50	361.01	509,866.69	78.90	0.00	273.47	541.50	975.05	1,511.63	876.06	818.44
7/4/07 16:09	62.89	502,742.31	361.14	510,245.00	82.09	0.00	273.67	541.30	972.07	1,514.95	875.73	818.28
7/4/07 16:10	63.44	508,654.19	361.25	510,623.31	82.58	0.00	273.76	541.48	971.49	1,518.54	876.07	818.35
7/4/07 16:11	63.32	508,682.00	361.47	511,001.59	81.68	0.00	273.91	541.74	970.40	1,511.36	876.43	819.09
7/4/07 16:12	62.97	507,364.91	361.63	511,379.91	83.64	0.00	274.22	541.43	967.85	1,506.60	876.21	818.15
7/4/07 16:13	63.24	510,616.31	361.74	511,758.19	85.29	0.00	274.36	541.23	966.83	1,510.78	875.84	817.88
7/4/07 16:14	62.54	505,049.59	361.91	512,136.50	87.15	0.00	274.56	541.23	966.80	1,499.97	876.01	818.15
7/4/07 16:15	61.78	499,274.19	361.99	511,996.91	84.22	0.00	274.71	540.86	964.59	1,493.29	875.27	817.37
7/4/07 16:16	62.21	502,945.59	362.09	511,009.09	81.70	0.00	274.71	540.89	965.52	1,502.49	875.19	818.56
7/4/07 16:17	61.93	498,739.91	362.23	510,021.31	84.19	0.00	274.55	540.99	968.01	1,497.14	875.76	819.17
7/4/07 16:18	61.89	497,313.00	362.28	509,033.50	85.59	0.00	274.53	540.62	968.90	1,497.21	875.47	818.17
7/4/07 16:19	61.43	493,389.91	362.23	508,045.81	85.84	0.00	274.42	540.11	970.07	1,494.45	874.70	816.76
7/4/07 16:20	61.47	491,853.59	362.12	507,058.00	87.02	0.00	274.30	539.69	970.70	1,494.50	873.64	815.12
7/4/07 16:21	61.54	491,909.00	362.05	506,070.19	88.84	0.00	274.15	539.61	971.68	1,496.67	873.01	813.93
7/4/07 16:22	61.27	488,888.69	362.04	505,082.41	86.11	0.00	274.09	539.47	970.98	1,496.36	872.70	813.36
7/4/07 16:23	60.76	484,871.31	362.07	504,094.59	86.27	0.00	273.98	539.36	970.20	1,487.89	872.63	813.21
7/4/07 16:24	61.15	488,406.69	362.01	503,106.81	86.80	0.00	273.79	539.21	969.44	1,496.24	872.15	812.49
7/4/07 16:25	61.08	487,537.91	362.01	502,119.09	86.97	0.00	273.52	539.35	971.06	1,498.50	872.19	812.50
7/4/07 16:26	60.58	484,348.09	362.00	501,131.31	87.63	0.00	273.35	539.29	970.88	1,487.73	871.96	812.23
7/4/07 16:27	60.56	483,839.09	362.00	500,143.50	88.43	0.00	273.24	539.21	969.86	1,488.87	871.69	812.10
7/4/07 16:28	61.04	488,088.00	362.02	499,155.69	88.33	0.00	273.16	539.43	971.41	1,498.75	872.16	812.69
7/4/07 16:29	60.83	485,523.00	362.18	498,167.91	87.52	0.00	273.09	539.98	973.28	1,496.14	872.30	814.17

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/4/07 16:30	59.84	478,459.91	362.35	497,180.19	90.95	0.00	273.15	540.48	973.22	1,480.68	869.82	811.68
7/4/07 16:31	60.14	481,530.31	362.44	496,192.41	89.12	0.00	273.12	540.71	971.75	1,489.22	869.10	811.04
7/4/07 16:32	60.30	481,705.91	362.58	495,204.59	88.54	0.00	273.00	541.14	973.09	1,493.30	869.34	811.43
7/4/07 16:33	59.98	479,589.31	362.73	494,216.81	86.54	0.00	272.87	541.63	972.82	1,495.07	870.46	812.31
7/4/07 16:34	58.78	470,660.50	362.86	493,229.00	83.13	0.00	272.80	541.98	972.43	1,488.90	871.44	813.16
7/4/07 16:35	59.29	474,804.59	362.91	492,241.19	84.50	0.00	272.66	542.53	972.22	1,497.93	872.42	813.73
7/4/07 16:36	59.14	472,216.09	362.99	491,253.41	81.43	0.00	272.40	543.44	972.94	1,497.13	873.85	814.39
7/4/07 16:37	58.98	472,513.91	363.03	490,265.69	80.26	0.00	272.18	544.45	972.46	1,496.28	875.07	814.65
7/4/07 16:38	58.79	471,821.91	363.05	490,870.00	85.12	0.00	271.99	545.05	971.09	1,497.44	876.28	815.63
7/4/07 16:39	59.26	476,110.81	363.08	491,693.19	82.02	0.00	271.82	545.81	970.85	1,505.06	877.36	816.50
7/4/07 16:40	59.30	476,510.00	363.00	492,516.31	81.36	0.00	271.67	546.35	971.21	1,502.43	878.46	817.04
7/4/07 16:41	58.89	470,541.81	362.85	493,339.50	83.82	0.00	271.57	546.49	970.35	1,495.42	878.93	817.13
7/4/07 16:42	59.17	475,406.00	362.65	494,162.69	79.81	0.00	271.61	546.59	969.14	1,502.81	879.01	816.85
7/4/07 16:43	59.64	477,960.59	362.42	495,482.91	77.46	0.00	271.59	547.30	970.66	1,504.01	879.76	817.27
7/4/07 16:44	59.63	479,067.91	362.11	497,677.31	76.62	0.00	271.57	547.71	970.64	1,502.57	880.09	817.18
7/4/07 16:45	59.56	478,255.09	361.74	499,871.81	74.58	0.00	271.67	547.71	968.73	1,502.47	879.51	816.32
7/4/07 16:46	60.95	489,373.09	361.47	502,066.31	74.42	0.00	271.70	547.83	969.18	1,511.94	879.48	816.48
7/4/07 16:47	60.74	485,938.50	361.32	502,675.81	76.11	0.00	271.77	548.20	970.29	1,506.00	880.35	817.20
7/4/07 16:48	60.93	488,680.50	361.29	501,966.59	77.53	0.00	271.94	548.19	969.88	1,508.28	881.12	817.76
7/4/07 16:49	60.63	486,103.91	361.39	501,257.50	77.96	0.00	272.20	548.30	968.86	1,503.81	881.79	818.02
7/4/07 16:50	61.21	491,400.81	361.45	500,548.31	79.43	0.00	272.33	548.42	969.42	1,512.48	882.29	818.45
7/4/07 16:51	61.34	491,575.09	361.58	499,839.09	79.41	0.00	272.48	548.63	970.69	1,513.48	882.82	818.96
7/4/07 16:52	60.66	487,314.31	361.62	499,129.91	80.13	0.00	272.62	548.66	969.43	1,501.74	882.69	818.78
7/4/07 16:53	60.70	487,903.41	361.69	498,420.81	81.78	0.00	272.73	548.67	967.90	1,502.72	882.43	818.66
7/4/07 16:54	60.86	489,911.69	361.75	497,711.59	80.92	0.00	272.86	549.00	968.36	1,506.14	882.72	819.11
7/4/07 16:55	60.85	488,951.91	361.95	497,002.41	81.38	0.00	272.93	549.17	967.77	1,502.81	883.13	819.58
7/4/07 16:56	60.18	482,711.59	362.13	496,293.31	81.69	0.00	272.93	549.16	966.88	1,490.08	883.23	819.96
7/4/07 16:57	60.63	486,351.31	362.27	495,584.09	81.12	0.00	272.97	549.04	966.18	1,497.31	883.05	820.43
7/4/07 16:58	60.36	484,796.00	362.44	494,874.91	81.73	0.00	272.97	549.18	966.17	1,495.31	882.97	820.61
7/4/07 16:59	60.51	484,794.09	362.60	494,165.69	81.71	0.00	272.89	549.46	967.08	1,497.10	883.02	820.52
7/4/07 17:00	60.00	480,556.50	362.72	493,456.50	83.87	0.00	272.84	549.49	967.70	1,491.45	882.76	820.03
7/4/07 17:01	60.48	484,031.19	362.78	492,747.41	85.17	0.00	272.83	549.26	968.42	1,500.39	882.03	819.32
7/4/07 17:02	60.48	483,371.09	362.80	492,038.19	83.54	0.00	272.73	549.17	971.03	1,500.81	881.38	818.67
7/4/07 17:03	59.83	477,459.41	362.79	491,329.00	79.85	0.00	272.71	548.85	971.48	1,494.07	879.82	815.98
7/4/07 17:04	59.88	479,473.00	362.76	490,619.81	76.08	0.00	272.75	548.37	971.74	1,501.17	875.97	814.48
7/4/07 17:05	60.25	482,797.41	362.86	490,366.69	78.90	0.00	272.72	548.45	973.93	1,504.78	871.91	814.38
7/4/07 17:06	60.41	484,518.69	362.96	491,512.50	81.25	0.00	272.59	548.31	973.56	1,504.46	870.06	812.74
7/4/07 17:07	60.05	483,069.19	363.09	492,658.31	82.39	0.00	272.61	547.78	971.88	1,501.09	869.43	812.82
7/4/07 17:08	60.30	486,066.00	363.15	493,804.09	80.07	0.00	272.68	547.20	971.25	1,504.74	869.82	814.39
7/4/07 17:09	59.93	482,858.09	363.23	494,949.91	81.58	0.00	272.69	546.75	972.17	1,499.51	869.36	816.37
7/4/07 17:10	60.13	484,093.69	363.24	496,095.81	79.85	0.00	272.78	546.53	973.61	1,501.61	868.21	819.39
7/4/07 17:11	60.16	484,833.69	363.35	497,241.59	79.61	0.00	272.79	546.18	972.15	1,503.20	868.71	821.46
7/4/07 17:12	60.42	487,669.00	363.43	498,387.41	80.84	0.00	272.77	545.99	971.41	1,507.93	869.59	821.96
7/4/07 17:13	60.46	487,901.81	363.47	499,533.19	82.30	0.00	272.77	545.70	971.96	1,507.95	869.80	820.19
7/4/07 17:14	60.11	484,397.59	363.59	500,679.00	84.34	0.00	272.73	545.36	973.42	1,499.33	868.25	819.30
7/4/07 17:15	59.65	481,698.59	363.60	501,748.81	86.70	0.00	272.75	544.69	970.69	1,495.81	865.37	816.96
7/4/07 17:16	59.94	484,901.19	363.62	501,934.59	84.65	0.00	272.69	544.53	969.76	1,502.66	864.13	814.53
7/4/07 17:17	60.41	487,466.31	363.73	502,120.31	82.58	0.00	272.56	544.56	969.85	1,506.51	865.31	815.17
7/4/07 17:18	58.91	476,144.09	363.73	502,301.00	81.81	0.00	272.45	544.09	968.31	1,489.97	866.40	815.96
7/4/07 17:19	59.37	479,215.19	363.71	502,310.91	79.41	0.00	272.40	543.52	969.13	1,499.52	865.70	817.28

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/4/07 17:20	58.97	473,922.59	363.76	502,320.81	80.49	0.00	272.20	543.45	971.49	1,493.87	865.87	819.43
7/4/07 17:21	59.46	478,726.59	363.72	502,330.59	77.45	0.00	272.07	543.31	971.25	1,501.32	866.98	820.47
7/4/07 17:22	58.74	472,935.81	363.80	502,340.50	77.78	0.00	271.90	543.17	970.59	1,494.20	867.83	820.18
7/4/07 17:23	58.39	469,868.00	363.82	502,350.41	77.30	0.00	271.79	542.90	970.59	1,491.84	867.77	819.27
7/4/07 17:24	58.78	474,147.69	363.80	502,360.31	74.07	0.00	271.67	542.59	970.57	1,500.25	866.56	818.17
7/4/07 17:25	58.67	472,044.81	363.86	502,370.19	74.42	0.00	271.53	542.63	972.61	1,498.81	865.89	817.03
7/4/07 17:26	58.53	471,859.50	363.86	502,380.09	78.44	0.00	271.37	542.57	972.54	1,498.17	865.79	815.23
7/4/07 17:27	58.88	474,626.31	363.90	502,390.00	80.99	0.00	271.29	542.37	971.88	1,503.03	866.58	814.97
7/4/07 17:28	59.77	480,318.69	363.95	502,399.81	79.23	0.00	271.22	542.50	971.98	1,509.25	867.81	816.57
7/4/07 17:29	59.42	477,406.31	364.05	502,370.41	77.26	0.00	271.21	542.61	972.89	1,501.69	868.50	818.50
7/4/07 17:30	60.09	484,093.19	364.19	502,325.09	76.79	0.00	271.37	542.70	972.96	1,507.18	869.87	820.24
7/4/07 17:31	59.58	478,225.91	364.52	502,279.81	78.31	0.00	271.49	543.09	972.70	1,499.48	872.44	822.12
7/4/07 17:32	59.22	476,480.91	364.84	502,234.50	77.67	0.00	271.64	543.47	972.11	1,498.34	874.23	823.16
7/4/07 17:33	59.23	476,760.41	365.13	502,189.19	74.43	0.00	271.75	543.81	970.82	1,497.71	874.80	823.33
7/4/07 17:34	59.42	477,044.41	365.34	502,143.81	78.90	0.00	271.70	544.03	969.74	1,502.89	873.81	823.15
7/4/07 17:35	60.03	483,056.19	365.51	502,098.50	78.64	0.00	271.68	544.45	970.62	1,505.94	873.61	822.93
7/4/07 17:36	59.80	481,965.41	365.65	500,064.19	79.65	0.00	271.68	544.81	971.77	1,501.35	874.47	823.55
7/4/07 17:37	59.82	480,683.69	365.80	497,798.50	76.42	0.00	271.81	544.80	970.14	1,500.46	874.60	823.56
7/4/07 17:38	59.74	481,889.91	365.82	495,532.91	76.26	0.00	271.87	544.79	967.71	1,501.60	874.34	823.26
7/4/07 17:39	59.70	483,051.31	365.95	493,267.19	76.99	0.00	271.89	545.00	966.62	1,503.23	874.00	823.44
7/4/07 17:40	59.67	481,107.50	366.00	491,001.59	78.98	0.00	271.94	545.20	966.42	1,499.43	874.17	823.54
7/4/07 17:41	58.57	474,923.09	366.05	488,735.91	80.87	0.00	271.98	545.26	965.85	1,494.74	874.38	822.36
7/4/07 17:42	58.51	472,520.81	366.12	486,809.91	79.44	0.00	271.97	545.32	966.89	1,495.31	874.46	819.06
7/4/07 17:43	58.35	468,576.59	366.15	487,173.41	78.56	0.00	271.91	545.61	971.44	1,494.57	872.78	818.70
7/4/07 17:44	57.89	464,748.41	366.25	487,537.00	76.74	0.00	271.70	546.03	974.45	1,491.54	870.44	818.20
7/4/07 17:45	57.74	463,084.09	366.31	487,900.59	80.30	0.00	271.51	546.10	973.03	1,495.72	869.21	815.36
7/4/07 17:46	58.23	467,014.09	366.35	488,264.09	79.87	0.00	271.25	546.43	973.68	1,501.61	870.06	815.14
7/4/07 17:47	58.83	470,995.50	366.44	488,241.59	79.38	0.00	270.94	546.91	975.43	1,502.66	872.22	817.32
7/4/07 17:48	58.94	470,692.09	366.55	487,974.81	78.94	0.00	270.88	547.11	977.11	1,501.34	872.50	818.64
7/4/07 17:49	59.16	473,085.59	366.63	487,707.91	77.01	0.00	270.89	547.12	977.30	1,505.27	872.13	820.24
7/4/07 17:50	59.15	473,491.81	366.71	487,441.09	79.98	0.00	270.97	547.26	976.51	1,502.01	873.34	821.42
7/4/07 17:51	59.27	475,180.41	366.78	487,174.31	80.62	0.00	271.04	547.41	974.73	1,503.04	874.67	820.95
7/4/07 17:52	59.08	473,408.09	366.77	486,907.41	80.19	0.00	271.17	547.24	971.93	1,502.13	874.75	819.26
7/4/07 17:53	58.70	470,985.91	366.83	486,640.59	79.45	0.00	271.29	547.26	971.60	1,498.25	872.61	818.53
7/4/07 17:54	58.92	473,328.31	366.82	486,600.09	79.49	0.00	271.32	547.57	970.55	1,500.77	870.27	816.96
7/4/07 17:55	58.53	470,086.00	366.85	487,596.19	79.61	0.00	271.30	547.79	969.78	1,496.51	869.86	814.68
7/4/07 17:56	58.63	471,773.00	366.79	488,592.31	76.73	0.00	271.27	547.71	967.72	1,500.07	870.33	814.01
7/4/07 17:57	58.80	471,522.50	366.83	489,588.50	75.34	0.00	271.24	547.85	968.76	1,497.32	871.34	814.68
7/4/07 17:58	58.69	472,081.31	366.83	490,584.59	77.13	0.00	271.19	547.80	969.45	1,501.66	870.57	815.19
7/4/07 17:59	58.04	467,234.59	366.80	491,580.81	81.50	0.00	271.14	547.70	969.71	1,496.34	869.91	815.89
7/4/07 18:00	58.39	470,444.59	366.79	492,576.91	85.35	0.00	271.10	547.72	969.53	1,501.08	870.80	816.82
7/4/07 18:01	59.64	479,580.91	366.77	493,573.00	83.02	0.00	270.97	547.91	970.81	1,511.07	872.12	816.53
7/4/07 18:02	59.31	476,134.31	366.83	493,683.91	80.05	0.00	270.83	548.18	973.30	1,503.58	873.18	816.53
7/4/07 18:03	58.26	467,610.69	366.85	495,311.59	79.70	0.00	270.94	547.78	971.96	1,494.11	871.08	815.71
7/4/07 18:04	59.01	471,665.91	366.79	497,363.41	80.48	0.00	271.06	547.48	971.73	1,501.55	869.07	814.02
7/4/07 18:05	59.96	479,809.41	366.76	499,415.19	81.86	0.00	271.03	547.76	973.09	1,507.69	869.97	813.87
7/4/07 18:06	58.43	469,949.41	366.78	496,624.50	79.32	0.00	271.06	547.81	971.12	1,494.85	871.33	814.66
7/4/07 18:07	58.49	469,980.69	366.75	493,464.59	76.51	0.00	271.16	547.30	967.84	1,497.98	871.25	814.97
7/4/07 18:08	58.85	473,275.59	366.68	490,489.91	72.68	0.00	271.17	547.14	968.46	1,499.93	870.52	815.97
7/4/07 18:09	58.75	471,809.91	366.60	488,763.19	76.26	0.00	271.13	546.93	968.37	1,499.77	870.53	816.84

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/4/07 18:10	58.90	475,630.59	366.60	487,036.41	73.55	0.00	271.10	546.82	968.91	1,501.02	871.65	817.28
7/4/07 18:11	58.20	468,205.81	366.57	485,309.69	71.99	0.00	271.13	546.51	967.84	1,495.75	872.34	814.39
7/4/07 18:12	58.60	471,941.81	366.56	483,583.00	76.44	0.00	271.18	546.28	967.90	1,500.80	870.74	811.56
7/4/07 18:13	58.29	469,272.09	366.66	481,856.19	75.13	0.00	271.11	546.21	968.72	1,498.56	867.52	810.56
7/4/07 18:14	57.12	460,681.41	366.76	480,129.50	79.74	0.00	271.05	546.21	967.58	1,490.15	866.08	808.82
7/4/07 18:15	57.52	463,413.41	366.84	479,664.59	77.35	0.00	270.96	546.29	966.85	1,496.58	866.22	807.07
7/4/07 18:16	57.68	464,571.09	366.93	482,203.19	74.96	0.00	270.75	546.57	968.19	1,497.22	867.63	808.73
7/4/07 18:17	57.10	459,821.00	366.98	484,741.81	74.73	0.00	270.63	546.50	968.43	1,493.21	867.33	809.76
7/4/07 18:18	57.77	465,017.81	366.99	487,280.41	74.94	0.00	270.51	546.46	969.48	1,503.01	865.37	810.28
7/4/07 18:19	58.85	470,950.09	367.04	489,294.59	75.48	0.00	270.34	546.76	973.23	1,503.99	866.36	812.64
7/4/07 18:20	58.09	465,366.09	367.03	490,155.31	75.57	0.00	270.34	546.46	971.90	1,500.87	867.26	812.09
7/4/07 18:21	58.02	465,762.50	366.92	491,015.81	73.30	0.00	270.38	546.07	971.13	1,502.45	867.24	808.75
7/4/07 18:22	58.57	470,240.09	366.81	491,876.41	71.03	0.00	270.42	546.06	972.58	1,505.39	865.69	807.66
7/4/07 18:23	59.01	471,821.00	366.82	493,332.81	70.50	0.00	270.42	546.03	973.01	1,504.80	863.38	806.97
7/4/07 18:24	58.93	471,891.91	366.80	494,926.81	72.16	0.00	270.47	545.87	971.94	1,501.56	862.99	805.07
7/4/07 18:25	58.67	470,513.81	366.71	496,520.69	78.03	0.00	270.58	545.47	970.32	1,498.57	863.40	803.78
7/4/07 18:26	59.49	477,855.00	366.61	498,114.59	78.14	0.00	270.70	544.99	969.68	1,506.72	863.85	804.37
7/4/07 18:27	59.78	478,536.41	366.48	499,150.31	79.88	0.00	270.78	544.71	971.34	1,505.99	863.26	806.09
7/4/07 18:28	59.26	475,288.81	366.38	499,048.31	82.60	0.00	270.91	544.26	970.77	1,499.00	861.96	807.27
7/4/07 18:29	59.48	479,007.81	366.31	498,946.31	85.57	0.00	271.10	544.00	969.35	1,504.03	862.51	808.69
7/4/07 18:30	59.36	477,221.69	366.29	498,844.31	81.74	0.00	271.21	543.91	969.60	1,501.21	864.08	808.72
7/4/07 18:31	58.90	472,745.91	366.17	498,742.31	84.90	0.00	271.31	543.38	968.37	1,496.47	864.17	805.70
7/4/07 18:32	59.38	476,531.69	366.05	498,640.31	85.49	0.00	271.31	542.92	968.61	1,504.05	861.46	804.12
7/4/07 18:33	59.44	477,048.00	366.11	498,604.91	83.12	0.00	271.26	542.84	971.00	1,501.52	859.22	803.63
7/4/07 18:34	59.60	477,074.59	366.02	498,705.41	83.67	0.00	271.31	542.64	970.35	1,503.21	859.68	800.72
7/4/07 18:35	58.89	472,769.91	366.05	498,806.00	81.73	0.00	271.26	542.39	969.66	1,497.76	860.72	800.46
7/4/07 18:36	60.02	483,291.91	366.03	498,906.50	84.85	0.00	271.21	542.08	970.24	1,507.45	861.73	801.77
7/4/07 18:37	59.64	477,848.91	365.96	499,500.69	84.33	0.00	271.15	541.78	971.98	1,500.04	861.36	803.72
7/4/07 18:38	59.98	479,615.81	365.85	500,142.19	85.43	0.00	271.24	541.26	971.64	1,503.66	860.74	805.09
7/4/07 18:39	60.39	483,743.91	365.77	500,783.69	82.40	0.00	271.29	540.91	971.03	1,506.47	861.88	806.89
7/4/07 18:40	60.47	481,174.81	365.72	501,425.19	79.38	0.00	271.36	540.88	973.10	1,502.16	863.86	805.70
7/4/07 18:41	60.46	483,798.59	365.73	502,066.69	79.95	0.00	271.56	540.24	973.26	1,504.18	863.32	801.33
7/4/07 18:42	59.89	475,491.19	365.79	502,670.00	81.46	0.00	271.70	539.63	973.22	1,495.93	859.54	800.02
7/4/07 18:43	60.26	482,632.41	365.77	503,087.91	81.86	0.00	271.80	539.03	972.20	1,505.17	856.33	797.34
7/4/07 18:44	59.88	477,661.00	365.74	503,309.69	85.01	0.00	271.77	538.80	972.68	1,497.44	856.13	795.02
7/4/07 18:45	59.63	476,608.41	365.61	502,519.81	88.13	0.00	271.79	538.44	971.38	1,497.80	856.69	792.88
7/4/07 18:46	59.34	474,966.69	365.45	501,730.00	90.31	0.00	271.83	537.96	969.27	1,498.72	855.57	789.65
7/4/07 18:47	60.27	481,039.09	365.41	500,437.81	89.08	0.00	271.78	537.98	970.66	1,504.67	852.74	790.42
7/4/07 18:48	59.20	474,830.91	365.42	497,604.69	84.30	0.00	271.70	537.83	968.76	1,496.11	851.54	790.09
7/4/07 18:49	59.40	475,674.81	365.50	494,771.59	81.49	0.00	271.68	537.91	967.72	1,498.59	852.87	789.26
7/4/07 18:50	59.61	476,592.91	365.58	495,214.81	79.95	0.00	271.53	538.14	968.43	1,503.33	854.91	792.15
7/4/07 18:51	58.73	470,638.31	365.67	493,409.00	79.21	0.00	271.42	538.31	969.42	1,492.25	856.34	795.55
7/4/07 18:52	59.19	474,848.81	365.67	490,366.19	79.13	0.00	271.40	538.14	968.58	1,500.79	855.37	797.47
7/4/07 18:53	58.89	471,348.81	365.71	489,142.81	80.84	0.00	271.28	538.26	968.26	1,498.85	855.78	799.73
7/4/07 18:54	59.34	478,452.69	365.71	491,972.41	81.58	0.00	271.20	538.79	969.82	1,505.82	857.69	801.76
7/4/07 18:55	58.49	467,314.19	365.75	489,215.19	81.20	0.00	271.11	538.83	970.73	1,492.37	859.50	797.15
7/4/07 18:56	58.50	468,534.81	365.72	485,516.19	80.15	0.00	271.12	538.50	970.76	1,497.86	856.69	793.88
7/4/07 18:57	58.87	470,559.50	365.61	488,061.50	78.37	0.00	271.03	538.38	971.52	1,503.52	852.14	792.73
7/4/07 18:58	58.89	469,627.00	365.62	491,536.59	79.21	0.00	270.91	538.75	974.20	1,498.40	850.70	789.96
7/4/07 18:59	59.03	470,532.69	365.60	489,695.91	76.19	0.00	270.84	538.71	973.70	1,499.55	851.70	788.82

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/4/07 19:00	59.32	472,737.81	365.59	489,426.91	78.64	0.00	270.88	538.65	973.20	1,501.84	853.18	790.90
7/4/07 19:01	59.75	475,501.19	365.50	491,007.50	79.23	0.00	270.95	538.42	972.81	1,505.57	852.79	792.64
7/4/07 19:02	59.48	472,902.09	365.49	491,303.59	78.87	0.00	270.97	538.18	971.95	1,500.39	851.33	793.84
7/4/07 19:03	59.28	474,385.59	365.41	491,054.41	79.99	0.00	271.00	538.05	970.89	1,501.10	851.53	795.45
7/4/07 19:04	59.15	473,128.31	365.33	491,076.19	79.37	0.00	271.11	538.18	969.25	1,501.15	852.44	795.78
7/4/07 19:05	59.58	474,903.81	365.30	491,790.00	81.10	0.00	271.11	538.35	970.93	1,501.88	853.26	792.47
7/4/07 19:06	59.39	473,792.41	365.23	492,503.91	83.36	0.00	271.12	538.18	970.76	1,499.31	851.61	791.54
7/4/07 19:07	60.05	479,490.69	365.17	493,929.00	79.36	0.00	271.17	538.08	970.64	1,507.68	849.18	790.69
7/4/07 19:08	60.80	484,009.81	365.16	496,591.31	75.09	0.00	271.19	538.27	973.51	1,508.07	850.19	788.74
7/4/07 19:09	60.58	482,684.69	365.14	499,253.59	77.81	0.00	271.29	538.24	973.29	1,504.06	851.74	790.24
7/4/07 19:10	61.08	487,192.31	365.17	502,621.31	77.27	0.00	271.41	538.03	973.08	1,509.94	852.67	792.43
7/4/07 19:11	61.58	490,414.09	365.16	506,551.19	78.35	0.00	271.56	537.91	973.93	1,514.61	852.26	794.44
7/4/07 19:12	61.34	488,002.69	365.14	508,945.19	79.16	0.00	271.71	537.80	974.42	1,507.74	852.15	796.01
7/4/07 19:13	61.81	492,106.69	365.08	509,437.69	81.18	0.00	271.90	537.46	974.20	1,514.52	852.91	797.44
7/4/07 19:14	61.57	490,091.00	364.96	509,930.19	79.66	0.00	272.07	537.01	972.64	1,509.09	852.49	795.39
7/4/07 19:15	61.88	491,448.81	364.82	510,422.69	77.43	0.00	272.29	536.59	972.40	1,513.96	850.94	791.98
7/4/07 19:16	61.62	490,793.81	364.73	510,133.59	76.85	0.00	272.41	536.32	972.44	1,508.29	849.85	790.62
7/4/07 19:17	61.26	488,481.41	364.64	508,246.09	78.26	0.00	272.55	535.84	970.81	1,500.74	848.58	788.75
7/4/07 19:18	61.79	493,333.91	364.62	508,840.59	81.83	0.00	272.65	535.43	969.93	1,512.37	848.19	787.87
7/4/07 19:19	61.41	490,468.69	364.58	509,053.81	82.25	0.00	272.69	535.42	970.70	1,504.73	849.67	790.33
7/4/07 19:20	61.33	489,108.19	364.75	509,266.91	78.60	0.00	272.68	535.21	969.65	1,502.53	850.32	791.81
7/4/07 19:21	61.12	487,890.81	364.86	509,480.00	79.55	0.00	272.68	534.98	968.45	1,496.83	850.46	792.48
7/4/07 19:22	61.19	487,550.91	364.96	509,693.19	76.79	0.00	272.61	534.84	968.35	1,498.33	850.67	794.07
7/4/07 19:23	61.05	486,257.19	365.02	509,906.31	73.90	0.00	272.58	534.71	967.70	1,495.94	851.89	795.32
7/4/07 19:24	61.11	487,683.59	365.11	510,119.41	78.20	0.00	272.55	534.65	967.99	1,498.17	853.10	794.21
7/4/07 19:25	61.18	487,714.69	365.17	510,332.50	76.09	0.00	272.53	534.81	970.30	1,498.64	854.29	795.29
7/4/07 19:26	60.99	485,082.19	365.23	510,545.69	72.31	0.00	272.51	534.80	970.92	1,495.54	855.24	795.31
7/4/07 19:27	61.23	487,307.09	365.29	510,758.81	72.81	0.00	272.52	534.85	971.96	1,501.92	855.90	794.24
7/4/07 19:28	61.55	489,288.09	365.39	510,971.91	74.66	0.00	272.54	535.16	974.22	1,506.11	857.57	795.31
7/4/07 19:29	61.71	489,069.59	365.48	511,185.09	81.92	0.00	272.55	535.36	975.98	1,507.91	859.01	797.50
7/4/07 19:30	61.87	489,495.59	365.51	511,398.19	82.89	0.00	272.61	535.39	975.38	1,510.18	859.29	798.12
7/4/07 19:31	61.73	489,070.00	365.63	511,611.31	84.53	0.00	272.72	535.43	974.46	1,506.43	859.33	798.86
7/4/07 19:32	62.08	492,464.91	365.69	511,824.50	84.54	0.00	272.84	535.47	973.16	1,512.40	859.55	800.22
7/4/07 19:33	62.16	494,005.81	365.73	512,037.59	84.76	0.00	272.83	535.85	972.19	1,514.65	860.49	801.52
7/4/07 19:34	61.66	490,302.50	365.76	512,250.81	88.04	0.00	272.99	536.00	968.28	1,505.32	860.51	801.68
7/4/07 19:35	62.23	497,056.59	365.83	512,463.91	86.78	0.00	273.07	536.20	964.58	1,515.60	860.08	802.43
7/4/07 19:36	61.81	493,286.31	365.97	512,341.00	83.05	0.00	273.12	536.69	964.26	1,504.88	860.02	804.10
7/4/07 19:37	61.76	494,583.50	366.02	511,739.41	80.14	0.00	273.22	536.61	961.27	1,504.39	859.10	803.37
7/4/07 19:38	61.70	494,031.31	366.04	511,137.81	81.93	0.00	273.41	536.73	962.62	1,504.44	858.99	804.73
7/4/07 19:39	61.94	496,131.69	366.12	510,536.31	85.46	0.00	273.41	537.07	965.70	1,504.82	859.78	808.40
7/4/07 19:40	61.55	491,474.69	366.14	509,934.81	83.34	0.00	273.44	537.18	965.15	1,499.39	859.98	810.76
7/4/07 19:41	61.99	496,351.31	366.20	509,333.19	80.46	0.00	273.44	537.18	965.79	1,505.82	859.85	812.82
7/4/07 19:42	61.22	488,656.19	366.19	508,731.69	80.88	0.00	273.38	537.28	966.53	1,496.21	860.11	815.48
7/4/07 19:43	61.07	487,603.09	366.11	508,130.09	80.04	0.00	273.36	537.13	965.41	1,493.07	860.18	815.53
7/4/07 19:44	61.14	488,238.50	366.03	507,528.59	76.22	0.00	273.29	537.05	964.73	1,494.32	860.16	814.71
7/4/07 19:45	60.87	486,819.19	365.87	506,927.00	75.58	0.00	273.18	537.03	964.26	1,490.85	860.26	813.78
7/4/07 19:46	61.41	491,787.09	365.74	506,325.50	79.54	0.00	273.07	537.03	964.81	1,502.04	860.52	812.74
7/4/07 19:47	60.88	485,933.91	365.67	505,723.91	79.61	0.00	272.92	537.05	966.27	1,490.37	861.03	812.21
7/4/07 19:48	61.16	487,810.91	365.57	505,122.41	79.75	0.00	272.92	536.79	966.09	1,495.86	860.92	810.78
7/4/07 19:49	61.21	488,000.81	365.45	504,520.81	82.20	0.00	272.87	536.71	967.58	1,497.06	861.10	810.07

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/4/07 19:50	61.42	490,140.00	365.34	503,919.31	79.53	0.00	272.84	536.85	969.33	1,503.54	861.61	809.65
7/4/07 19:51	61.26	487,624.81	365.30	503,317.69	77.61	0.00	272.85	536.83	969.80	1,497.98	861.88	808.80
7/4/07 19:52	61.47	489,033.09	365.16	502,716.19	75.78	0.00	272.93	536.81	970.01	1,500.90	861.95	808.11
7/4/07 19:53	61.49	487,742.69	365.10	502,114.59	76.55	0.00	272.94	536.86	970.27	1,500.85	862.21	807.66
7/4/07 19:54	61.36	485,070.00	365.04	501,513.09	78.86	0.00	273.00	536.97	970.83	1,498.92	862.47	807.61
7/4/07 19:55	61.39	487,074.59	364.93	500,911.50	78.80	0.00	273.10	536.88	969.35	1,498.56	862.28	806.83
7/4/07 19:56	61.29	486,975.59	364.82	500,310.00	75.08	0.00	273.16	536.93	968.77	1,497.10	862.03	806.95
7/4/07 19:57	61.20	486,620.69	364.75	499,708.41	73.04	0.00	273.15	537.36	968.85	1,497.32	860.04	806.41
7/4/07 19:58	60.81	482,155.81	364.78	499,106.91	72.06	0.00	273.10	538.10	969.04	1,490.49	858.03	803.98
7/4/07 19:59	61.22	485,967.81	364.80	498,505.31	69.66	0.00	273.09	538.48	969.45	1,498.97	857.64	803.92
7/4/07 20:00	60.93	483,016.81	364.82	497,903.81	71.67	0.00	273.08	538.65	970.53	1,494.95	858.12	804.45
7/4/07 20:01	61.42	486,464.81	364.85	497,302.31	72.04	0.00	273.05	538.83	972.37	1,504.30	858.97	805.32
7/4/07 20:02	60.92	482,819.59	364.81	496,993.50	70.26	0.00	272.97	538.96	972.57	1,495.33	860.08	805.95
7/4/07 20:03	61.36	484,757.81	364.76	496,897.50	69.11	0.00	272.92	539.06	972.29	1,504.02	860.58	805.51
7/4/07 20:04	61.68	488,163.31	364.62	496,801.59	67.68	0.00	272.86	539.69	973.35	1,508.89	861.66	806.31
7/4/07 20:05	61.30	483,439.31	364.49	496,705.59	65.64	0.00	272.77	540.21	973.94	1,499.74	862.68	806.98
7/4/07 20:06	61.72	489,041.41	364.16	496,609.59	67.01	0.00	272.81	540.09	971.76	1,507.84	862.91	806.66
7/4/07 20:07	61.20	484,739.19	363.86	496,513.59	67.00	0.00	272.83	540.09	972.03	1,498.32	863.37	807.44
7/4/07 20:08	61.75	489,018.31	363.45	496,417.59	70.40	0.00	272.82	539.86	970.68	1,507.26	863.42	807.48
7/4/07 20:09	61.20	485,879.31	363.08	496,321.69	72.08	0.00	272.84	539.74	969.66	1,498.67	863.64	807.58
7/4/07 20:10	61.40	487,017.00	362.60	496,225.69	74.28	0.00	272.80	539.57	968.34	1,501.33	863.74	807.39
7/4/07 20:11	60.88	483,560.69	362.12	496,129.69	73.53	0.00	272.79	539.54	967.35	1,495.33	863.81	806.88
7/4/07 20:12	60.94	482,988.50	361.52	494,775.59	72.39	0.00	272.73	539.74	968.15	1,495.75	864.06	806.86
7/4/07 20:13	60.80	482,341.31	360.92	493,192.19	70.37	0.00	272.66	539.57	966.26	1,496.24	863.66	806.76
7/4/07 20:14	60.29	478,738.19	360.39	491,608.81	70.62	0.00	272.57	539.49	966.54	1,493.94	863.59	807.15
7/4/07 20:15	60.20	479,545.09	359.98	490,025.31	69.34	0.00	272.50	539.47	966.70	1,496.91	862.24	807.28
7/4/07 20:16	60.42	478,772.19	359.68	489,556.09	69.21	0.00	272.35	539.96	969.01	1,497.86	859.73	805.88
7/4/07 20:17	60.56	478,767.81	359.50	489,171.69	69.07	0.00	272.16	540.14	970.59	1,498.75	859.65	807.08
7/4/07 20:18	59.55	471,801.91	359.34	488,789.41	68.08	0.00	272.12	539.85	969.62	1,495.37	859.55	807.41
7/4/07 20:19	60.63	480,487.50	359.22	488,415.09	65.34	0.00	272.02	540.07	970.93	1,506.07	860.14	808.31
7/4/07 20:20	59.69	471,892.09	359.14	488,040.69	66.28	0.00	271.85	540.44	971.39	1,495.16	861.14	809.28
7/4/07 20:21	59.55	471,354.59	358.98	487,666.31	67.25	0.00	271.79	540.52	969.56	1,496.10	861.53	808.82
7/4/07 20:22	59.91	472,816.59	358.88	488,800.09	68.17	0.00	271.70	540.79	969.19	1,499.57	862.01	809.42
7/4/07 20:23	58.86	466,654.81	358.72	490,281.91	66.09	0.00	271.59	541.16	969.27	1,493.12	862.65	809.74
7/4/07 20:24	59.24	470,485.09	358.56	491,763.81	66.10	0.00	271.47	541.11	968.31	1,499.38	862.88	810.07
7/4/07 20:25	59.32	469,960.41	358.33	493,245.59	67.70	0.00	271.34	541.29	969.63	1,499.39	863.58	811.13
7/4/07 20:26	59.68	472,670.69	358.13	494,727.41	69.43	0.00	271.27	541.25	969.81	1,503.82	863.89	811.36
7/4/07 20:27	60.28	475,905.50	357.94	496,209.31	70.02	0.00	271.19	541.40	970.97	1,507.43	864.33	811.58
7/4/07 20:28	59.85	473,426.41	357.73	497,691.09	73.25	0.00	271.19	541.50	971.46	1,499.99	864.82	812.55
7/4/07 20:29	60.18	475,348.31	357.49	499,172.91	71.06	0.00	271.16	541.47	970.28	1,505.05	864.59	812.40
7/4/07 20:30	61.20	485,378.69	357.21	500,654.81	72.46	0.00	271.25	541.82	971.72	1,510.88	865.17	812.68
7/4/07 20:31	60.94	481,831.91	356.95	499,171.00	71.95	0.00	271.30	541.86	971.19	1,503.93	865.78	813.59
7/4/07 20:32	61.02	482,043.50	356.72	497,402.81	73.64	0.00	271.46	541.50	969.19	1,505.45	865.72	813.76
7/4/07 20:33	61.66	487,920.41	356.51	495,634.69	74.22	0.00	271.60	541.40	969.34	1,511.01	865.93	814.09
7/4/07 20:34	61.38	485,614.81	356.34	493,866.50	78.49	0.00	271.71	541.31	969.48	1,504.42	866.31	814.34
7/4/07 20:35	60.49	476,110.09	356.15	492,098.41	81.01	0.00	271.85	540.93	967.48	1,491.21	865.96	813.78
7/4/07 20:36	60.48	479,211.00	355.98	490,284.41	82.55	0.00	272.00	540.46	964.35	1,497.62	864.98	813.35
7/4/07 20:37	59.90	475,521.81	355.80	488,453.31	80.02	0.00	272.01	540.41	963.66	1,494.30	864.66	813.37
7/4/07 20:38	59.43	471,458.09	355.66	486,622.31	78.13	0.00	271.90	540.48	963.19	1,492.33	864.41	813.50
7/4/07 20:39	58.62	464,335.00	355.53	484,791.31	79.11	0.00	271.78	540.49	962.91	1,489.55	864.06	814.26

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/4/07 20:40	58.83	466,654.41	355.38	482,960.31	77.55	0.00	271.60	540.42	962.82	1,494.81	863.49	814.06
7/4/07 20:41	59.02	467,792.41	355.28	481,129.19	83.00	0.00	271.43	540.44	964.26	1,499.43	862.94	814.19
7/4/07 20:42	58.94	465,174.91	355.20	480,774.09	83.83	0.00	271.14	540.58	966.03	1,495.64	862.86	814.17
7/4/07 20:43	60.35	477,154.69	355.15	484,565.81	86.80	0.00	270.88	540.52	966.97	1,509.73	862.50	813.69
7/4/07 20:44	61.73	487,206.81	355.07	487,766.91	89.52	0.00	270.77	540.69	969.61	1,515.95	862.95	814.01
7/4/07 20:45	61.90	487,551.31	355.03	489,669.00	86.47	0.00	270.92	540.56	971.02	1,511.09	863.50	814.48
7/4/07 20:46	61.86	487,497.50	355.02	491,571.09	82.39	0.00	271.26	540.01	969.20	1,509.56	863.29	813.91
7/4/07 20:47	62.86	496,086.31	354.91	493,473.19	80.19	0.00	271.64	539.63	968.97	1,523.46	863.21	815.36
7/4/07 20:48	62.65	493,953.50	354.85	495,375.31	79.46	0.00	272.01	539.50	970.22	1,518.11	863.63	817.02
7/4/07 20:49	62.59	494,399.59	354.81	497,277.41	83.76	0.00	272.43	538.98	968.84	1,515.53	863.47	817.58
7/4/07 20:50	62.86	496,090.69	354.75	499,179.50	89.51	0.00	272.81	538.53	968.22	1,520.62	863.44	818.15
7/4/07 20:51	63.68	504,862.50	354.68	501,677.19	88.93	0.00	273.07	538.14	968.25	1,529.33	863.62	818.49
7/4/07 20:52	63.66	504,162.19	354.67	505,485.31	87.20	0.00	273.33	537.88	968.97	1,523.28	864.23	819.81
7/4/07 20:53	63.82	506,957.41	354.65	509,293.41	86.08	0.00	273.62	537.29	968.00	1,517.89	864.48	820.28
7/4/07 20:54	64.31	511,293.00	354.57	513,101.41	83.71	0.00	273.89	536.68	967.07	1,521.31	864.62	820.20
7/4/07 20:55	65.13	518,925.00	354.63	516,909.50	84.24	0.00	274.09	536.38	968.85	1,524.04	865.36	820.79
7/4/07 20:56	64.82	516,920.31	354.66	520,717.59	81.87	0.00	274.36	535.79	968.53	1,514.53	865.76	821.37
7/4/07 20:57	64.33	512,839.31	354.58	524,249.91	81.33	0.00	274.69	534.85	965.95	1,506.48	865.09	820.55
7/4/07 20:58	64.79	517,726.81	354.43	522,040.91	86.84	0.00	274.95	533.96	965.18	1,513.46	864.05	819.44
7/4/07 20:59	64.11	511,784.00	354.34	519,831.81	89.38	0.00	275.06	533.55	965.16	1,501.46	863.43	818.99
7/4/07 21:00	64.28	513,433.31	354.31	517,622.81	89.48	0.00	275.23	532.97	963.62	1,505.27	862.88	818.64
7/4/07 21:01	63.54	507,959.19	354.39	515,413.81	91.17	0.00	275.25	532.71	963.77	1,496.01	863.35	819.24
7/4/07 21:02	63.69	508,373.50	354.52	513,204.81	89.63	0.00	275.24	532.46	964.56	1,500.14	864.30	819.71
7/4/07 21:03	62.69	498,616.19	354.70	510,995.81	86.61	0.00	275.14	532.06	964.62	1,489.79	865.08	819.38
7/4/07 21:04	62.72	499,041.81	354.79	510,178.41	85.31	0.00	275.02	531.53	965.26	1,492.40	865.11	818.42
7/4/07 21:05	62.91	499,007.00	354.86	512,197.09	85.69	0.00	274.79	531.16	968.41	1,498.44	865.02	818.98
7/4/07 21:06	62.84	497,042.59	354.86	514,215.91	86.60	0.00	274.46	530.99	972.12	1,497.47	865.16	819.17
7/4/07 21:07	62.78	495,135.81	354.78	516,234.59	88.77	0.00	274.21	530.36	973.34	1,497.93	864.40	817.91
7/4/07 21:08	63.36	499,921.00	354.69	518,253.31	88.21	0.00	274.08	530.12	975.86	1,506.37	863.82	817.75
7/4/07 21:09	64.81	510,332.59	354.76	520,272.09	89.20	0.00	273.98	530.22	978.23	1,519.12	863.80	818.19
7/4/07 21:10	64.77	510,009.59	354.79	520,526.50	85.15	0.00	273.96	530.44	979.26	1,514.33	864.20	819.03
7/4/07 21:11	64.59	509,102.50	354.83	520,231.50	80.58	0.00	274.21	530.06	976.13	1,510.59	863.82	818.28
7/4/07 21:12	64.64	510,566.19	354.81	519,936.50	77.97	0.00	274.46	529.94	973.71	1,509.73	863.58	817.51
7/4/07 21:13	64.74	511,696.19	354.84	519,641.50	77.35	0.00	274.75	529.96	972.40	1,506.67	863.76	817.75
7/4/07 21:14	64.15	506,456.09	354.86	519,346.41	80.16	0.00	275.02	529.81	969.89	1,500.64	863.53	817.53
7/4/07 21:15	64.10	506,516.59	354.87	519,051.41	80.25	0.00	275.26	529.62	967.94	1,501.57	863.39	817.32
7/4/07 21:16	64.44	512,042.09	354.99	518,756.41	77.57	0.00	275.32	529.86	969.06	1,508.47	863.85	818.16
7/4/07 21:17	64.69	513,569.50	355.14	518,461.31	79.83	0.00	275.40	530.20	970.79	1,507.18	864.96	818.92
7/4/07 21:18	64.24	510,072.81	355.25	518,166.31	79.43	0.00	275.47	530.32	971.04	1,500.79	865.38	819.24
7/4/07 21:19	64.08	508,204.50	355.33	517,871.31	78.65	0.00	275.48	530.34	970.06	1,500.62	865.48	819.03
7/4/07 21:20	64.59	511,400.09	355.50	517,576.31	76.80	0.00	275.42	530.80	971.03	1,507.75	866.10	819.97
7/4/07 21:21	64.27	509,003.19	355.65	517,281.31	77.74	0.00	275.33	531.25	971.25	1,502.71	866.87	820.65
7/4/07 21:22	64.02	507,066.41	355.80	516,986.19	77.93	0.00	275.21	531.56	970.64	1,501.68	867.29	820.80
7/4/07 21:23	64.59	510,949.19	356.01	516,691.19	79.66	0.00	275.11	531.96	971.00	1,507.71	867.96	821.26
7/4/07 21:24	64.69	511,949.00	356.21	516,396.19	79.90	0.00	274.98	532.26	971.67	1,507.47	868.85	822.11
7/4/07 21:25	64.51	510,564.69	356.43	516,101.09	77.52	0.00	274.92	532.59	971.37	1,504.53	869.51	823.05
7/4/07 21:26	64.30	508,399.59	356.57	515,806.09	76.76	0.00	274.94	532.59	969.69	1,501.77	869.76	822.85
7/4/07 21:27	64.84	513,271.81	356.80	515,511.09	78.10	0.00	274.94	532.69	968.71	1,508.12	870.06	822.95
7/4/07 21:28	64.62	512,167.81	356.98	515,216.00	79.10	0.00	274.93	532.91	968.89	1,505.98	870.87	823.79
7/4/07 21:29	63.77	503,593.69	357.22	514,921.00	82.08	0.00	275.00	532.88	968.11	1,496.01	871.49	824.05

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/4/07 21:30	64.09	507,579.81	357.41	513,941.81	81.11	0.00	275.10	532.90	967.26	1,502.59	872.12	824.67
7/4/07 21:31	63.29	499,251.81	357.70	511,988.00	80.41	0.00	275.09	533.43	968.59	1,491.84	873.30	826.67
7/4/07 21:32	62.84	496,841.09	358.02	510,034.31	80.02	0.00	275.07	533.87	967.56	1,490.57	874.13	827.77
7/4/07 21:33	62.58	492,831.31	358.33	508,080.59	78.13	0.00	274.91	534.37	966.75	1,490.33	874.70	828.32
7/4/07 21:34	62.57	493,177.19	358.60	506,126.81	77.81	0.00	274.68	535.20	966.88	1,494.19	875.06	829.24
7/4/07 21:35	62.15	487,648.31	358.82	504,173.09	78.40	0.00	274.53	535.96	966.36	1,490.79	875.26	829.13
7/4/07 21:36	62.71	492,246.19	359.08	502,219.31	78.91	0.00	274.33	536.93	967.68	1,499.53	875.53	829.51
7/4/07 21:37	62.08	486,931.59	359.27	502,767.41	78.47	0.00	274.00	537.63	967.44	1,492.98	875.68	830.23
7/4/07 21:38	62.24	488,931.69	359.44	503,555.31	78.73	0.00	273.86	538.23	967.09	1,496.24	875.29	830.01
7/4/07 21:39	62.41	489,787.59	359.63	504,343.19	75.34	0.00	273.71	539.04	969.32	1,499.81	875.70	830.91
7/4/07 21:40	62.19	486,540.09	359.81	505,131.19	78.69	0.00	273.56	539.76	971.03	1,494.44	876.17	831.24
7/4/07 21:41	62.72	491,440.50	360.01	505,919.09	79.65	0.00	273.57	540.22	970.71	1,505.83	876.01	830.35
7/4/07 21:42	62.66	489,807.69	360.15	506,707.00	81.44	0.00	273.54	540.84	971.85	1,504.39	876.51	830.80
7/4/07 21:43	62.86	492,456.41	360.36	507,494.91	85.20	0.00	273.50	541.35	971.68	1,506.81	876.96	832.19
7/4/07 21:44	62.89	493,630.19	360.47	508,282.81	87.34	0.00	273.51	541.65	970.81	1,506.26	877.20	832.04
7/4/07 21:45	63.32	497,119.09	360.62	509,070.81	91.89	0.00	273.57	542.05	970.24	1,509.44	877.40	831.78
7/4/07 21:46	62.88	494,085.19	360.78	509,858.69	90.49	0.00	273.57	542.25	968.28	1,504.41	877.25	831.18
7/4/07 21:47	63.34	497,648.69	360.88	510,646.59	92.10	0.00	273.61	542.62	968.72	1,508.19	877.60	831.75
7/4/07 21:48	63.33	497,723.81	361.03	511,434.50	91.65	0.00	273.60	542.92	968.08	1,507.26	877.99	831.59
7/4/07 21:49	63.22	496,761.31	361.18	512,222.50	87.97	0.00	273.64	543.08	967.71	1,503.86	878.06	831.78
7/4/07 21:50	63.95	503,252.81	361.32	513,010.41	88.74	0.00	273.66	543.33	968.74	1,513.80	878.14	832.02
7/4/07 21:51	64.10	502,177.50	361.50	513,207.09	89.54	0.00	273.64	543.83	971.50	1,510.03	878.64	833.11
7/4/07 21:52	64.19	504,279.59	361.72	512,841.41	92.88	0.00	273.79	543.90	970.61	1,509.95	878.95	832.96
7/4/07 21:53	64.33	505,984.19	361.92	512,475.69	90.78	0.00	273.92	543.99	970.14	1,511.59	879.44	833.00
7/4/07 21:54	64.39	508,040.09	362.17	512,110.00	86.47	0.00	274.02	544.33	970.19	1,510.12	880.34	833.82
7/4/07 21:55	63.74	501,833.31	362.52	511,744.31	84.43	0.00	274.10	544.35	968.95	1,499.94	881.19	833.64
7/4/07 21:56	63.64	502,054.00	362.76	511,378.59	87.56	0.00	274.28	544.30	967.81	1,499.69	881.84	833.80
7/4/07 21:57	63.13	495,199.41	362.98	511,012.91	86.71	0.00	274.29	544.22	967.34	1,492.75	882.33	833.92
7/4/07 21:58	62.97	495,871.31	363.23	510,405.81	85.26	0.00	274.29	544.15	966.76	1,493.99	882.29	834.43
7/4/07 21:59	63.22	498,248.09	363.44	509,775.59	85.85	0.00	274.18	544.19	967.67	1,498.46	882.73	834.67
7/4/07 22:00	62.21	489,334.41	363.64	509,145.31	88.59	0.00	274.09	543.91	967.27	1,488.81	882.38	834.60
7/4/07 22:01	62.30	490,926.50	363.79	508,515.09	86.80	0.00	274.00	543.65	965.91	1,494.30	881.39	833.58
7/4/07 22:02	63.01	495,753.00	363.96	507,884.91	83.55	0.00	273.74	543.89	967.99	1,504.91	881.27	834.43
7/4/07 22:03	62.41	490,561.19	364.15	508,376.59	83.93	0.00	273.50	543.89	968.23	1,496.90	881.20	833.92
7/4/07 22:04	62.31	489,651.09	364.32	509,285.09	84.25	0.00	273.39	543.77	968.94	1,497.46	881.01	833.52
7/4/07 22:05	63.04	493,225.91	364.50	510,193.59	81.13	0.00	273.32	543.93	970.44	1,505.86	881.02	833.53
7/4/07 22:06	63.39	497,372.91	364.69	511,102.00	81.76	0.00	273.24	544.19	973.70	1,508.26	881.82	833.98
7/4/07 22:07	63.45	496,357.81	364.96	512,010.50	79.56	0.00	273.28	544.31	975.06	1,508.81	882.26	834.44
7/4/07 22:08	63.50	496,504.19	365.19	511,727.69	79.57	0.00	273.38	544.56	975.56	1,504.71	883.18	835.10
7/4/07 22:09	63.37	495,729.09	365.48	510,636.69	78.83	0.00	273.50	544.50	973.77	1,502.69	883.53	835.54
7/4/07 22:10	63.20	493,984.19	365.74	509,545.69	77.17	0.00	273.63	544.57	972.50	1,500.31	883.96	836.10
7/4/07 22:11	62.25	486,458.00	365.91	508,454.69	80.64	0.00	273.73	544.46	969.00	1,491.47	883.52	835.31
7/4/07 22:12	62.03	487,524.31	366.03	507,363.69	81.02	0.00	273.72	544.31	965.62	1,489.90	882.38	834.23
7/4/07 22:13	62.28	488,835.09	366.09	506,272.69	78.15	0.00	273.59	544.52	964.92	1,496.91	881.87	834.09
7/4/07 22:14	62.06	487,978.31	366.22	505,181.81	81.37	0.00	273.35	544.83	965.76	1,492.55	881.77	834.53
7/4/07 22:15	62.08	487,303.91	366.35	504,090.81	79.65	0.00	273.17	544.86	966.07	1,493.78	881.44	834.10
7/4/07 22:16	62.03	486,893.91	366.45	502,999.81	78.31	0.00	272.98	544.92	966.61	1,492.31	880.93	833.62
7/4/07 22:17	62.04	485,846.31	366.52	501,908.81	81.24	0.00	272.87	545.01	967.79	1,491.83	880.62	832.47
7/4/07 22:18	61.39	481,258.19	366.62	500,817.81	80.78	0.00	272.75	545.09	968.08	1,482.88	879.95	832.24
7/4/07 22:19	61.68	483,952.19	366.67	499,726.81	83.22	0.00	272.61	545.24	968.82	1,489.09	879.66	832.20

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/4/07 22:20	61.44	479,371.19	366.76	498,635.81	83.64	0.00	272.50	545.38	970.13	1,488.24	879.75	832.24
7/4/07 22:21	61.67	482,160.91	366.79	497,527.81	82.23	0.00	272.32	545.55	971.78	1,494.69	880.04	832.15
7/4/07 22:22	61.19	479,126.19	366.88	495,853.50	79.91	0.00	272.19	545.56	972.19	1,494.30	880.25	831.72
7/4/07 22:23	60.97	477,367.69	366.90	494,179.19	78.91	0.00	272.12	545.60	972.43	1,497.69	880.25	831.31
7/4/07 22:24	61.65	480,166.59	366.90	492,504.81	81.88	0.00	271.93	545.75	972.24	1,503.39	880.26	830.71
7/4/07 22:25	62.08	480,685.19	366.99	491,811.41	83.92	0.00	271.77	546.07	973.77	1,501.26	880.96	830.56
7/4/07 22:26	62.15	486,347.31	366.99	491,830.91	85.51	0.00	271.72	546.05	973.46	1,508.79	881.35	830.37
7/4/07 22:27	62.49	485,104.19	367.07	491,850.31	86.94	0.00	271.77	546.20	975.14	1,507.08	882.18	831.02
7/4/07 22:28	62.76	487,661.31	367.16	491,869.81	84.55	0.00	271.89	546.12	974.82	1,510.55	882.61	831.36
7/4/07 22:29	62.38	484,477.91	367.22	491,889.19	82.90	0.00	272.07	546.13	975.24	1,500.87	883.16	831.69
7/4/07 22:30	62.70	488,203.91	367.27	491,908.59	82.35	0.00	272.25	545.83	972.09	1,508.04	882.98	831.48
7/4/07 22:31	62.91	489,457.19	367.35	491,928.00	82.50	0.00	272.36	546.12	971.89	1,510.28	883.28	831.50
7/4/07 22:32	62.67	488,446.31	367.43	491,947.50	85.66	0.00	272.52	546.36	971.66	1,505.32	883.83	832.09
7/4/07 22:33	62.32	486,486.31	367.44	491,966.91	86.55	0.00	272.61	546.24	969.78	1,498.62	883.70	831.93
7/4/07 22:34	62.45	487,126.31	367.48	491,986.31	85.42	0.00	272.64	546.17	968.85	1,501.50	883.19	833.09
7/4/07 22:35	62.11	483,952.00	367.52	492,011.00	87.94	0.00	272.67	546.66	969.84	1,495.95	881.12	832.86
7/4/07 22:36	62.06	483,416.59	367.67	492,037.91	87.43	0.00	272.64	547.31	970.70	1,494.49	879.42	831.31
7/4/07 22:37	61.57	479,222.09	367.76	492,064.91	82.97	0.00	272.58	547.29	969.99	1,491.28	878.95	831.93
7/4/07 22:38	61.52	477,307.31	367.80	492,091.91	78.69	0.00	272.46	547.25	970.53	1,493.57	879.15	832.44
7/4/07 22:39	61.84	482,905.00	367.85	492,118.81	76.52	0.00	272.27	547.37	972.04	1,501.41	879.97	832.72
7/4/07 22:40	61.53	478,390.91	367.91	492,145.81	77.77	0.00	272.09	547.51	973.81	1,496.55	881.15	833.15
7/4/07 22:41	60.75	473,585.31	367.94	492,713.31	80.82	0.00	272.01	547.49	972.41	1,495.03	881.60	832.53
7/4/07 22:42	61.34	476,991.81	367.87	493,828.19	80.47	0.00	271.90	547.90	972.78	1,500.22	882.09	833.27
7/4/07 22:43	61.48	481,760.19	367.80	494,942.91	81.87	0.00	271.71	548.50	973.74	1,505.36	882.89	834.12
7/4/07 22:44	61.53	479,113.41	367.66	496,057.81	79.73	0.00	271.60	548.53	973.57	1,499.58	883.54	834.76
7/4/07 22:45	61.45	473,653.31	367.43	497,172.50	78.40	0.00	271.63	548.29	972.58	1,494.26	883.61	834.91
7/4/07 22:46	61.46	478,860.91	367.14	498,287.31	75.71	0.00	271.68	547.96	971.04	1,502.90	883.24	834.64
7/4/07 22:47	61.72	482,532.69	366.83	499,509.41	77.46	0.00	271.69	548.09	972.05	1,505.10	883.66	835.35
7/4/07 22:48	61.25	476,497.31	366.52	501,032.69	81.28	0.00	271.64	548.10	972.06	1,497.72	883.92	835.47
7/4/07 22:49	61.93	480,324.19	366.14	502,556.00	81.46	0.00	271.71	547.96	970.82	1,503.93	883.89	835.06
7/4/07 22:50	62.78	488,695.09	365.68	503,933.00	79.72	0.00	271.70	548.16	972.63	1,511.38	884.57	835.55
7/4/07 22:51	62.54	487,622.09	365.27	504,155.81	77.06	0.00	271.68	548.04	972.15	1,507.24	884.80	835.21
7/4/07 22:52	62.80	488,613.31	364.85	504,378.69	77.01	0.00	271.78	547.58	971.46	1,509.55	884.26	834.24
7/4/07 22:53	63.08	490,694.31	364.39	505,133.09	78.01	0.00	271.88	546.93	970.91	1,513.81	883.20	832.95
7/4/07 22:54	62.77	488,953.31	363.96	504,521.41	79.57	0.00	271.97	546.33	971.00	1,505.67	881.04	831.81
7/4/07 22:55	62.75	489,238.31	363.51	502,851.59	80.73	0.00	272.07	546.04	970.14	1,506.39	876.67	828.59
7/4/07 22:56	62.21	483,588.09	363.16	505,084.59	77.67	0.00	272.18	545.82	969.98	1,495.02	874.98	828.21
7/4/07 22:57	62.01	484,589.81	362.94	499,405.31	78.53	0.00	272.23	545.39	967.71	1,494.72	874.32	828.11
7/4/07 22:58	61.92	483,687.09	362.80	500,636.50	79.37	0.00	272.20	545.31	967.54	1,495.30	875.06	828.99
7/4/07 22:59	61.67	478,530.50	362.72	500,101.81	82.20	0.00	272.03	545.31	968.42	1,491.74	876.34	829.82
7/4/07 23:00	61.54	479,786.59	362.62	497,409.31	82.71	0.00	271.88	545.11	968.02	1,495.15	877.24	830.00
7/4/07 23:01	61.80	480,401.19	362.48	497,597.59	78.34	0.00	271.72	545.14	969.74	1,499.75	878.42	831.22
7/4/07 23:02	62.06	479,300.19	362.36	497,202.00	79.26	0.00	271.53	545.20	970.78	1,498.24	879.48	831.57
7/4/07 23:03	62.32	484,352.09	362.21	497,177.19	75.86	0.00	271.43	545.13	971.84	1,506.01	880.24	831.71
7/4/07 23:04	62.22	482,860.50	362.04	497,183.91	74.38	0.00	271.37	545.19	974.33	1,500.73	881.47	832.67
7/4/07 23:05	62.06	478,260.19	361.80	497,190.59	74.99	0.00	271.40	544.75	973.50	1,498.30	882.03	832.43
7/4/07 23:06	62.43	483,720.31	361.61	497,197.19	77.93	0.00	271.48	544.54	973.14	1,503.15	882.31	832.40
7/4/07 23:07	62.45	483,835.69	361.37	497,203.91	80.34	0.00	271.53	544.58	973.12	1,503.21	883.05	832.88
7/4/07 23:08	62.20	482,298.19	361.11	497,210.59	80.91	0.00	271.62	544.56	972.39	1,498.10	883.51	832.59
7/4/07 23:09	62.28	484,076.69	360.77	497,217.19	81.51	0.00	271.76	544.38	970.58	1,503.88	883.49	832.91

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/4/07 23:10	62.31	483,974.91	360.49	497,223.91	81.98	0.00	271.76	544.35	970.50	1,501.15	883.87	834.02
7/4/07 23:11	62.65	487,150.81	360.16	497,230.59	82.04	0.00	271.76	544.08	968.78	1,507.54	884.02	834.33
7/4/07 23:12	62.61	486,728.09	360.00	497,237.19	83.14	0.00	271.76	544.20	970.34	1,504.55	884.71	835.30
7/4/07 23:13	62.58	486,323.00	359.84	497,243.91	79.55	0.00	271.78	543.87	969.67	1,503.35	884.51	835.20
7/4/07 23:14	62.77	487,004.50	359.60	497,250.59	82.01	0.00	271.81	543.49	970.10	1,505.38	883.95	835.05
7/4/07 23:15	63.04	489,412.69	359.35	497,257.19	80.60	0.00	271.86	543.17	970.67	1,508.37	883.23	834.93
7/4/07 23:16	62.46	483,873.69	359.12	497,263.91	75.94	0.00	271.96	543.03	971.10	1,496.14	882.62	834.23
7/4/07 23:17	62.80	487,368.09	358.90	495,927.69	74.59	0.00	272.06	542.78	969.56	1,503.30	881.61	833.14
7/4/07 23:18	62.73	487,685.59	358.76	493,474.31	74.71	0.00	272.14	542.83	968.56	1,503.20	881.37	832.98
7/4/07 23:19	62.75	487,340.00	358.73	491,020.81	80.85	0.00	272.18	543.26	968.98	1,504.97	882.17	833.74
7/4/07 23:20	61.77	480,690.41	358.68	488,567.31	78.93	0.00	272.20	543.37	968.15	1,489.86	882.74	834.90
7/4/07 23:21	62.09	483,783.41	358.69	486,113.81	77.84	0.00	272.19	543.34	966.54	1,497.64	882.83	835.29
7/4/07 23:22	61.79	475,704.59	358.69	483,660.41	80.42	0.00	272.06	543.57	966.33	1,492.15	882.82	834.79
7/4/07 23:23	60.86	473,633.09	358.75	483,427.81	78.09	0.00	271.98	543.94	966.66	1,491.28	882.17	832.26
7/4/07 23:24	60.43	470,406.19	358.85	483,500.59	71.93	0.00	271.88	544.11	967.03	1,491.23	879.22	830.98
7/4/07 23:25	60.52	470,559.59	358.96	483,573.31	70.06	0.00	271.72	544.48	968.03	1,495.84	875.72	830.68
7/4/07 23:26	60.52	470,297.50	359.13	483,646.00	68.94	0.00	271.51	544.55	966.78	1,499.83	873.94	828.02
7/4/07 23:27	60.44	469,450.81	359.20	483,718.69	68.34	0.00	271.22	544.75	966.39	1,498.86	873.74	828.19
7/4/07 23:28	60.01	463,901.91	359.28	483,791.41	67.49	0.00	271.09	544.65	965.32	1,495.42	874.06	829.16
7/4/07 23:29	60.54	470,707.41	359.33	483,864.19	67.75	0.00	270.92	544.89	968.98	1,503.60	873.10	831.91
7/4/07 23:30	61.63	476,988.81	359.44	484,869.31	66.98	0.00	270.70	545.41	973.61	1,509.84	872.59	836.06
7/4/07 23:31	61.09	471,600.69	359.56	486,385.81	64.63	0.00	270.65	545.63	974.19	1,500.72	873.82	838.26
7/4/07 23:32	61.57	473,435.81	359.59	488,187.81	66.15	0.00	270.71	545.35	972.03	1,503.08	874.10	837.16
7/4/07 23:33	61.58	476,352.59	359.71	490,280.41	65.16	0.00	270.81	545.42	973.16	1,502.71	874.22	835.35
7/4/07 23:34	61.79	478,448.19	359.79	492,372.91	64.81	0.00	270.88	545.37	973.18	1,506.54	872.63	834.07
7/4/07 23:35	62.58	484,378.59	359.90	494,465.41	69.15	0.00	270.92	545.58	974.22	1,510.03	871.60	832.97
7/4/07 23:36	62.51	481,943.41	359.97	496,558.00	69.27	0.00	271.02	545.42	972.55	1,504.89	871.48	830.96
7/4/07 23:37	62.54	483,736.59	359.97	498,650.50	68.48	0.00	271.13	545.05	970.56	1,505.73	872.15	831.24
7/4/07 23:38	63.04	488,457.81	359.94	500,743.00	70.91	0.00	271.19	544.62	970.96	1,512.72	872.72	832.87
7/4/07 23:39	62.62	485,450.81	359.93	502,835.59	70.52	0.00	271.27	544.32	972.68	1,502.72	871.71	834.95
7/4/07 23:40	62.60	486,045.19	359.82	504,152.31	70.89	0.00	271.40	543.99	972.32	1,503.28	870.97	836.54
7/4/07 23:41	62.54	485,310.81	359.77	503,887.91	69.82	0.00	271.45	543.77	970.91	1,502.53	871.64	837.24
7/4/07 23:42	62.35	485,071.09	359.70	503,623.59	71.25	0.00	271.47	543.52	968.88	1,501.37	871.81	835.77
7/4/07 23:43	62.35	484,741.31	359.66	503,359.31	75.53	0.00	271.42	543.14	967.05	1,502.09	871.17	833.73
7/4/07 23:44	61.80	483,826.59	359.65	503,094.91	74.73	0.00	271.39	542.89	967.19	1,500.22	870.14	832.70
7/4/07 23:45	61.65	476,088.69	359.62	502,830.59	72.46	0.00	271.31	542.47	967.08	1,493.73	868.84	830.75
7/4/07 23:46	61.81	481,949.31	359.62	502,566.19	71.25	0.00	271.21	542.40	968.43	1,501.65	869.06	829.67
7/4/07 23:47	61.68	479,521.91	359.72	504,247.81	73.11	0.00	271.04	542.66	970.05	1,497.03	871.01	831.34
7/4/07 23:48	61.50	473,801.31	359.85	500,799.41	73.34	0.00	270.92	542.56	969.96	1,494.76	872.23	833.20
7/4/07 23:49	61.58	479,668.91	359.98	497,762.41	76.56	0.00	270.87	542.29	970.52	1,501.60	872.51	834.47
7/4/07 23:50	61.83	479,221.31	360.08	500,488.09	78.34	0.00	270.80	542.29	972.63	1,500.19	873.97	836.49
7/4/07 23:51	62.08	481,752.50	360.23	501,654.09	75.69	0.00	270.82	542.27	973.46	1,503.50	875.85	837.71
7/4/07 23:52	62.62	485,404.19	360.24	502,820.09	74.51	0.00	270.84	541.98	973.31	1,506.99	876.40	837.96
7/4/07 23:53	62.99	486,740.19	360.35	503,896.69	75.41	0.00	270.99	541.87	972.39	1,508.23	876.39	838.63
7/4/07 23:54	62.58	484,431.41	360.46	504,781.09	79.44	0.00	271.20	541.46	969.86	1,502.22	875.17	838.18
7/4/07 23:55	62.24	482,524.59	360.47	503,991.41	78.26	0.00	271.41	541.07	968.06	1,497.58	874.27	837.20
7/4/07 23:56	61.73	477,597.69	360.50	501,414.91	78.22	0.00	271.57	540.78	966.49	1,495.60	873.89	836.93
7/4/07 23:57	61.06	474,178.50	360.55	498,838.41	82.12	0.00	271.64	540.80	964.83	1,493.13	873.70	835.94
7/4/07 23:58	61.53	479,323.31	360.64	496,261.91	79.01	0.00	271.64	541.19	964.37	1,499.85	874.12	835.86
7/4/07 23:59	60.63	471,278.91	360.82	493,685.41	76.19	0.00	271.51	541.39	964.94	1,493.11	874.44	836.65

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 0:00	60.18	471,285.41	360.95	491,108.91	78.54	0.00	271.36	541.51	965.63	1,496.61	874.93	836.98
7/5/07 0:01	59.72	464,522.91	361.08	488,532.31	79.31	0.00	271.12	541.79	967.12	1,491.55	875.85	835.74
7/5/07 0:02	59.53	463,848.69	361.18	485,955.81	79.80	0.00	270.91	542.17	970.27	1,492.24	876.28	832.34
7/5/07 0:03	59.39	457,583.50	361.30	483,379.31	82.83	0.00	270.50	542.61	973.37	1,492.27	874.31	830.93
7/5/07 0:04	59.71	458,163.19	361.49	480,802.81	87.39	0.00	270.06	543.40	977.98	1,496.59	872.48	831.17
7/5/07 0:05	60.08	463,669.09	361.58	480,397.19	84.45	0.00	269.67	544.04	978.39	1,503.64	872.28	828.48
7/5/07 0:06	61.12	470,208.41	361.66	482,878.91	82.46	0.00	269.44	544.42	978.86	1,508.35	873.60	828.42
7/5/07 0:07	61.48	473,236.41	361.70	485,360.69	82.34	0.00	269.24	544.48	978.76	1,509.58	875.00	829.95
7/5/07 0:08	61.87	475,932.81	361.72	487,842.41	85.13	0.00	269.36	544.47	979.41	1,509.46	874.31	831.73
7/5/07 0:09	62.04	479,753.59	361.69	490,324.19	82.86	0.00	269.61	544.48	978.28	1,509.91	873.47	833.17
7/5/07 0:10	62.27	479,012.91	361.67	492,805.91	85.76	0.00	269.82	544.40	974.93	1,507.70	874.18	834.12
7/5/07 0:11	62.98	486,604.69	361.68	495,287.69	86.06	0.00	270.08	544.33	972.07	1,510.69	875.31	833.19
7/5/07 0:12	62.59	483,544.50	361.69	497,769.41	83.74	0.00	270.42	544.01	970.53	1,504.20	875.41	830.77
7/5/07 0:13	62.48	482,486.09	361.65	499,843.81	84.49	0.00	270.71	543.51	969.97	1,501.74	873.02	829.87
7/5/07 0:14	62.23	482,390.81	361.67	500,051.81	83.19	0.00	271.00	543.35	971.36	1,499.60	870.95	828.57
7/5/07 0:15	62.80	486,155.59	361.72	500,259.91	80.40	0.00	271.17	543.23	971.37	1,506.61	871.02	826.55
7/5/07 0:16	63.22	488,890.59	361.80	500,468.00	80.54	0.00	271.28	543.22	972.46	1,510.46	872.77	827.70
7/5/07 0:17	62.41	483,546.19	361.87	500,676.09	82.84	0.00	271.37	542.83	971.20	1,498.42	873.85	828.71
7/5/07 0:18	62.60	483,797.50	361.97	500,462.09	82.13	0.00	271.50	542.56	971.92	1,500.82	873.20	830.25
7/5/07 0:19	62.79	485,612.31	362.13	500,150.59	85.27	0.00	271.47	542.70	972.72	1,504.65	873.72	832.85
7/5/07 0:20	62.84	485,971.31	362.28	499,839.19	85.47	0.00	271.47	543.04	972.12	1,504.29	875.79	835.19
7/5/07 0:21	62.76	487,411.81	362.56	499,527.81	86.38	0.00	271.43	543.15	971.24	1,505.02	877.41	834.87
7/5/07 0:22	62.81	486,762.59	362.79	499,216.31	85.32	0.00	271.44	543.01	971.48	1,500.98	877.36	834.03
7/5/07 0:23	63.09	487,813.91	362.91	498,904.91	85.79	0.00	271.44	542.66	971.88	1,506.03	875.15	833.33
7/5/07 0:24	62.80	484,954.91	363.01	498,593.50	86.64	0.00	271.47	542.34	971.71	1,502.45	873.54	831.81
7/5/07 0:25	62.80	485,909.09	363.09	498,282.00	87.20	0.00	271.44	542.14	971.76	1,502.01	873.91	830.45
7/5/07 0:26	62.89	486,478.41	363.15	497,970.59	84.05	0.00	271.49	541.89	970.57	1,502.05	874.99	831.33
7/5/07 0:27	62.35	481,891.00	363.28	497,659.19	82.14	0.00	271.52	541.49	969.78	1,494.49	875.26	832.53
7/5/07 0:28	62.01	476,084.59	363.33	497,354.69	80.64	0.00	271.57	540.93	968.42	1,493.07	874.00	833.56
7/5/07 0:29	62.48	483,569.69	363.40	497,131.31	79.54	0.00	271.52	540.79	969.89	1,499.17	874.41	834.68
7/5/07 0:30	61.77	478,749.81	363.52	496,907.91	80.81	0.00	271.45	540.61	969.14	1,497.22	875.65	834.77
7/5/07 0:31	62.30	476,819.41	363.66	496,684.59	79.33	0.00	271.43	540.66	969.17	1,498.18	876.71	832.80
7/5/07 0:32	62.71	479,671.50	363.83	496,461.19	81.37	0.00	271.37	540.73	970.22	1,502.13	875.07	830.48
7/5/07 0:33	62.88	483,217.09	364.04	496,237.81	78.14	0.00	271.31	540.97	973.18	1,503.78	872.41	829.64
7/5/07 0:34	62.22	479,814.31	364.28	496,014.41	79.39	0.00	271.33	541.20	973.87	1,498.87	871.76	828.03
7/5/07 0:35	62.55	477,805.81	364.43	495,791.00	83.44	0.00	271.41	541.13	971.76	1,497.87	872.40	826.78
7/5/07 0:36	62.90	486,100.91	364.59	495,787.50	84.50	0.00	271.43	541.50	971.42	1,506.77	874.01	828.81
7/5/07 0:37	62.42	477,909.81	364.76	495,840.50	84.84	0.00	271.42	541.86	972.53	1,496.58	874.43	831.28
7/5/07 0:38	61.82	477,945.91	364.94	495,661.31	85.84	0.00	271.45	541.90	971.24	1,499.72	873.18	832.41
7/5/07 0:39	62.05	480,594.19	365.08	495,102.31	86.96	0.00	271.43	542.22	970.81	1,503.36	874.06	833.92
7/5/07 0:40	62.44	482,393.69	365.23	494,543.19	86.61	0.00	271.30	542.83	972.76	1,503.40	876.35	834.83
7/5/07 0:41	61.43	474,635.41	365.37	493,984.09	88.28	0.00	271.27	542.82	972.15	1,495.40	877.01	831.81
7/5/07 0:42	61.92	478,935.31	365.50	495,529.59	88.27	0.00	271.21	542.81	972.06	1,501.95	874.88	830.28
7/5/07 0:43	61.94	477,709.19	365.64	497,924.31	88.27	0.00	271.13	543.04	972.15	1,500.59	872.30	829.08
7/5/07 0:44	61.96	479,597.41	365.81	500,319.00	86.37	0.00	271.06	543.37	971.45	1,501.24	872.12	826.13
7/5/07 0:45	61.98	479,281.91	365.91	502,713.69	87.24	0.00	270.98	543.46	969.58	1,502.15	873.05	824.56
7/5/07 0:46	62.26	480,882.09	366.01	505,108.31	89.01	0.00	270.99	543.65	969.28	1,503.61	874.46	825.70
7/5/07 0:47	63.34	489,369.59	366.13	507,503.00	87.20	0.00	270.98	543.97	971.63	1,513.08	874.59	827.68
7/5/07 0:48	63.07	486,561.31	366.33	507,979.09	87.20	0.00	271.03	544.11	973.27	1,505.35	874.66	830.30
7/5/07 0:49	62.94	486,480.00	366.51	506,963.09	82.53	0.00	271.21	543.99	971.61	1,504.36	875.77	832.05

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 0:50	63.20	487,718.31	366.58	505,947.00	78.76	0.00	271.31	544.03	971.37	1,507.66	877.18	831.75
7/5/07 0:51	63.40	489,613.19	366.66	504,930.91	77.52	0.00	271.45	544.31	973.18	1,512.54	878.14	830.75
7/5/07 0:52	62.90	485,048.19	366.82	503,914.81	81.36	0.00	271.60	544.17	972.71	1,499.77	875.48	830.09
7/5/07 0:53	63.21	487,629.31	366.92	502,898.69	81.32	0.00	271.72	543.94	970.54	1,505.77	872.67	828.63
7/5/07 0:54	63.49	489,332.91	367.07	501,882.59	82.42	0.00	271.80	544.19	971.06	1,508.15	873.76	827.00
7/5/07 0:55	62.82	483,024.69	367.17	500,866.50	81.58	0.00	271.82	544.04	968.18	1,497.43	875.21	827.21
7/5/07 0:56	62.91	486,794.31	367.22	500,508.19	81.38	0.00	271.92	543.84	965.71	1,499.97	875.89	827.54
7/5/07 0:57	63.17	488,743.69	367.28	501,490.19	77.58	0.00	271.90	543.77	967.12	1,504.81	874.97	829.13
7/5/07 0:58	63.29	489,335.59	367.27	502,472.19	74.21	0.00	271.89	543.66	968.50	1,505.78	874.88	830.67
7/5/07 0:59	63.24	487,360.00	367.21	503,454.19	77.66	0.00	271.85	543.61	969.02	1,504.84	876.36	832.09
7/5/07 1:00	63.24	485,799.00	367.25	504,436.31	79.29	0.00	271.88	543.60	970.27	1,497.39	877.82	828.79
7/5/07 1:01	63.12	486,690.09	367.25	505,418.31	77.91	0.00	271.88	543.26	971.43	1,501.04	876.20	824.10
7/5/07 1:02	63.19	488,787.00	367.26	506,400.31	75.56	0.00	271.88	542.87	972.82	1,504.98	871.57	822.21
7/5/07 1:03	62.96	484,341.41	367.19	507,382.31	79.72	0.00	271.83	542.45	972.46	1,497.08	868.05	818.25
7/5/07 1:04	63.32	488,144.31	367.08	508,364.31	83.49	0.00	271.84	542.09	971.27	1,504.79	867.28	815.09
7/5/07 1:05	63.59	490,350.31	366.98	509,346.41	81.65	0.00	271.78	542.22	972.93	1,509.79	868.57	812.72
7/5/07 1:06	63.47	489,480.91	366.95	510,328.41	82.08	0.00	271.83	541.91	971.70	1,505.94	867.55	810.43
7/5/07 1:07	63.59	489,469.31	366.94	511,310.41	80.22	0.00	271.96	541.49	971.19	1,508.05	864.02	810.56
7/5/07 1:08	63.85	493,225.59	366.89	512,292.41	81.60	0.00	271.91	541.28	972.03	1,512.94	862.98	809.38
7/5/07 1:09	63.97	492,447.09	366.89	512,215.41	80.96	0.00	272.00	541.33	972.71	1,514.70	864.69	809.12
7/5/07 1:10	63.63	489,934.31	366.99	512,351.91	77.23	0.00	272.05	541.39	972.93	1,506.63	867.00	812.25
7/5/07 1:11	63.96	493,222.41	367.13	512,109.69	77.65	0.00	272.11	541.27	972.98	1,513.77	868.09	815.85
7/5/07 1:12	63.79	490,814.81	367.27	512,889.69	76.51	0.00	272.18	541.23	973.71	1,510.16	868.08	819.36
7/5/07 1:13	63.85	492,363.69	367.42	509,715.50	76.42	0.00	272.23	541.16	971.61	1,509.59	869.19	821.66
7/5/07 1:14	63.40	488,336.31	367.44	507,223.00	81.42	0.00	272.30	541.30	970.14	1,500.32	871.11	822.70
7/5/07 1:15	63.57	490,826.81	367.51	508,270.81	78.84	0.00	272.29	541.15	969.77	1,502.73	872.46	816.78
7/5/07 1:16	63.48	489,186.19	367.61	508,619.09	76.94	0.00	272.27	540.98	970.63	1,500.70	869.69	814.01
7/5/07 1:17	63.46	489,187.91	367.69	508,967.41	75.21	0.00	272.22	540.91	971.75	1,501.11	865.53	813.25
7/5/07 1:18	63.76	490,894.31	367.77	509,315.59	75.92	0.00	272.13	540.87	972.82	1,506.44	864.22	809.59
7/5/07 1:19	63.82	490,011.09	367.85	509,663.91	80.42	0.00	272.07	541.10	976.09	1,506.26	866.28	809.73
7/5/07 1:20	63.69	489,921.91	367.90	510,012.19	82.03	0.00	272.05	540.98	976.19	1,505.65	868.12	812.58
7/5/07 1:21	63.80	489,342.41	368.00	510,360.41	85.38	0.00	272.04	540.71	976.15	1,503.03	867.76	814.89
7/5/07 1:22	64.68	498,967.41	368.04	510,708.69	89.65	0.00	272.08	540.58	975.47	1,514.91	866.79	817.06
7/5/07 1:23	64.49	496,630.69	368.17	511,056.91	89.54	0.00	272.11	540.80	976.61	1,506.75	868.45	819.89
7/5/07 1:24	64.51	498,008.69	368.31	511,405.19	84.94	0.00	272.33	540.80	973.94	1,508.01	870.29	820.13
7/5/07 1:25	64.45	496,123.41	368.53	511,753.50	79.73	0.00	272.47	540.80	973.43	1,503.76	871.52	817.90
7/5/07 1:26	64.57	497,969.69	368.67	512,101.69	80.61	0.00	272.58	540.79	972.55	1,504.99	870.00	818.13
7/5/07 1:27	64.38	496,157.81	368.87	512,450.00	79.02	0.00	272.72	540.75	970.88	1,501.79	868.35	818.16
7/5/07 1:28	63.85	492,388.09	368.95	512,454.31	80.31	0.00	272.77	540.72	968.49	1,497.51	868.91	815.62
7/5/07 1:29	63.96	492,883.91	369.09	511,701.69	79.86	0.00	272.72	540.96	967.21	1,499.55	870.34	817.45
7/5/07 1:30	63.82	492,061.59	369.13	510,949.19	77.32	0.00	272.59	541.22	967.79	1,497.85	871.55	820.21
7/5/07 1:31	63.39	489,579.91	369.27	510,196.69	74.95	0.00	272.52	541.17	966.42	1,495.18	870.56	821.72
7/5/07 1:32	63.49	491,309.50	369.28	509,444.19	75.37	0.00	272.47	541.15	965.40	1,499.83	870.23	823.55
7/5/07 1:33	63.28	489,096.41	369.32	508,691.69	76.12	0.00	272.32	541.49	966.12	1,496.97	871.45	825.87
7/5/07 1:34	63.28	489,997.41	369.27	507,939.19	74.00	0.00	272.19	541.73	965.23	1,499.29	871.64	823.60
7/5/07 1:35	63.02	487,556.19	369.34	507,186.69	75.81	0.00	272.05	541.94	965.74	1,494.78	870.80	820.09
7/5/07 1:36	63.24	489,188.19	369.47	506,434.09	78.14	0.00	271.93	542.13	966.68	1,498.46	869.75	817.80
7/5/07 1:37	62.97	485,286.00	369.54	505,681.59	79.97	0.00	271.83	542.40	967.89	1,492.29	868.79	815.33
7/5/07 1:38	62.99	484,612.69	369.59	504,929.09	82.07	0.00	271.82	542.53	967.84	1,491.74	868.40	814.31
7/5/07 1:39	62.77	484,155.00	369.62	504,176.59	80.63	0.00	271.77	542.49	967.42	1,488.88	868.36	815.25

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 1:40	63.22	488,453.09	369.59	503,424.09	80.10	0.00	271.72	542.80	969.27	1,501.11	868.15	816.68
7/5/07 1:41	63.01	486,037.50	369.60	503,654.19	79.82	0.00	271.63	542.81	969.43	1,493.73	867.66	817.03
7/5/07 1:42	63.00	486,170.91	369.72	503,998.50	77.70	0.00	271.67	542.71	968.93	1,496.96	866.96	819.02
7/5/07 1:43	63.24	486,890.41	369.69	504,342.81	77.98	0.00	271.71	542.83	969.43	1,500.87	867.54	821.07
7/5/07 1:44	63.12	486,149.31	369.66	504,687.19	76.01	0.00	271.69	542.96	970.94	1,499.07	868.48	821.24
7/5/07 1:45	63.19	487,428.81	369.70	505,031.50	76.20	0.00	271.69	542.90	969.65	1,500.89	868.48	820.21
7/5/07 1:46	63.06	484,445.09	369.64	505,375.81	75.92	0.00	271.66	542.89	969.49	1,495.34	868.64	818.48
7/5/07 1:47	63.49	490,164.09	369.57	505,720.19	76.78	0.00	271.65	542.87	968.87	1,507.10	868.58	815.67
7/5/07 1:48	63.27	487,968.91	369.51	506,064.50	75.76	0.00	271.69	542.92	969.69	1,502.69	868.99	815.34
7/5/07 1:49	63.26	488,077.81	369.38	506,408.81	74.75	0.00	271.67	542.80	969.26	1,502.41	868.70	815.64
7/5/07 1:50	63.34	488,339.09	369.26	506,753.19	75.64	0.00	271.67	542.79	968.97	1,504.14	868.23	814.96
7/5/07 1:51	63.36	488,082.19	369.15	507,097.50	78.77	0.00	271.68	542.75	969.55	1,505.21	867.80	815.47
7/5/07 1:52	63.16	487,181.91	369.09	507,441.91	80.24	0.00	271.66	542.57	968.55	1,500.28	867.44	816.55
7/5/07 1:53	63.17	487,805.19	368.86	507,786.19	78.86	0.00	271.67	542.39	967.50	1,502.17	866.99	815.66
7/5/07 1:54	63.93	493,174.50	368.79	508,130.50	76.90	0.00	271.62	542.41	966.96	1,516.01	866.23	814.88
7/5/07 1:55	63.74	492,268.69	368.68	508,474.81	76.14	0.00	271.54	542.52	967.03	1,510.80	865.76	815.06
7/5/07 1:56	63.58	491,812.59	368.63	508,818.81	80.18	0.00	271.60	542.25	964.96	1,507.29	864.49	814.51
7/5/07 1:57	63.47	491,928.81	368.52	509,162.81	81.53	0.00	271.73	541.77	963.11	1,506.67	863.02	812.72
7/5/07 1:58	63.60	492,506.09	368.44	509,506.81	80.96	0.00	271.77	541.51	964.40	1,507.31	862.81	813.58
7/5/07 1:59	63.23	490,403.81	368.30	509,850.69	80.49	0.00	271.83	541.01	963.25	1,500.36	862.12	815.20
7/5/07 2:00	63.08	489,808.00	368.03	510,194.69	80.66	0.00	271.84	540.37	961.44	1,497.87	860.64	816.02
7/5/07 2:01	63.47	493,176.31	367.81	510,538.69	80.56	0.00	271.80	539.89	961.60	1,506.48	859.39	817.06
7/5/07 2:02	63.09	489,151.09	367.57	510,573.69	78.92	0.00	271.78	539.48	963.94	1,498.83	859.02	818.86
7/5/07 2:03	63.18	489,850.81	367.26	507,014.69	78.30	0.00	271.79	538.69	964.00	1,499.02	858.74	818.75
7/5/07 2:04	62.87	486,160.91	367.00	503,455.81	79.63	0.00	271.75	538.19	966.67	1,492.74	858.96	818.37
7/5/07 2:05	63.05	488,638.69	366.66	499,896.81	82.22	0.00	271.70	537.50	967.20	1,498.15	859.00	817.93
7/5/07 2:06	62.84	485,018.09	366.40	496,337.81	80.28	0.00	271.61	537.22	969.63	1,493.18	859.62	817.28
7/5/07 2:07	62.33	480,718.19	366.08	492,778.91	78.40	0.00	271.51	536.62	968.09	1,486.28	859.55	816.56
7/5/07 2:08	62.35	481,053.69	365.79	489,219.91	77.46	0.00	271.39	536.17	967.23	1,488.84	859.54	816.69
7/5/07 2:09	61.54	475,213.81	365.52	485,661.00	79.85	0.00	271.22	536.04	967.52	1,487.28	859.97	816.32
7/5/07 2:10	60.61	464,965.41	365.27	482,126.00	80.52	0.00	271.08	535.82	966.50	1,477.84	859.82	814.55
7/5/07 2:11	59.75	461,347.69	364.91	479,390.31	80.41	0.00	270.91	535.55	965.25	1,485.25	859.20	812.61
7/5/07 2:12	60.08	464,064.81	364.57	476,654.69	76.65	0.00	270.46	535.67	965.85	1,493.39	858.90	811.40
7/5/07 2:13	59.81	461,429.91	364.31	473,919.00	73.59	0.00	270.10	535.99	967.51	1,491.84	858.91	810.40
7/5/07 2:14	59.00	454,989.81	364.00	471,183.31	75.06	0.00	269.80	536.03	967.86	1,486.89	858.72	809.60
7/5/07 2:15	58.91	454,726.81	363.72	468,447.59	74.18	0.00	269.52	536.12	968.02	1,491.22	857.41	808.68
7/5/07 2:16	58.80	452,911.91	363.47	465,711.91	74.38	0.00	269.19	536.95	969.82	1,493.21	854.52	806.20
7/5/07 2:17	59.10	453,951.81	363.38	462,976.19	79.35	0.00	268.92	538.09	972.11	1,496.61	854.34	806.35
7/5/07 2:18	58.32	446,567.41	363.35	462,681.00	79.04	0.00	268.72	538.80	972.85	1,490.78	854.94	806.70
7/5/07 2:19	58.49	449,695.59	363.31	463,217.41	82.57	0.00	268.64	539.16	972.08	1,496.58	855.79	806.87
7/5/07 2:20	58.68	450,354.59	363.20	463,753.81	81.50	0.00	268.51	539.51	971.93	1,498.80	856.41	807.02
7/5/07 2:21	58.83	452,664.09	362.98	464,290.19	78.56	0.00	268.36	539.94	972.44	1,499.86	857.21	807.35
7/5/07 2:22	58.23	448,977.31	362.64	464,826.59	76.61	0.00	268.29	540.18	970.23	1,495.64	857.24	806.88
7/5/07 2:23	58.55	450,313.59	362.29	465,363.00	77.06	0.00	268.22	540.90	969.90	1,500.67	857.68	807.01
7/5/07 2:24	58.67	450,881.09	361.91	465,703.81	75.32	0.00	268.10	541.81	970.85	1,497.95	858.52	807.34
7/5/07 2:25	58.62	451,123.59	361.46	465,320.09	72.47	0.00	268.00	542.05	970.06	1,497.95	858.83	807.14
7/5/07 2:26	59.17	456,029.81	360.98	464,936.31	76.61	0.00	267.95	542.21	970.03	1,504.29	859.29	807.56
7/5/07 2:27	58.41	449,413.31	360.54	464,552.50	74.59	0.00	267.84	542.54	969.96	1,493.78	860.31	808.28
7/5/07 2:28	58.32	449,305.50	360.11	464,168.69	76.60	0.00	267.78	542.76	968.38	1,496.28	861.02	808.76
7/5/07 2:29	58.18	448,142.31	359.67	463,784.91	75.92	0.00	267.63	543.38	968.51	1,494.61	862.02	810.01

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 2:30	58.32	449,171.81	359.09	463,401.09	74.95	0.00	267.49	543.92	967.98	1,495.39	862.71	810.61
7/5/07 2:31	57.88	446,448.09	358.45	463,017.31	73.13	0.00	267.35	544.36	967.00	1,494.36	863.12	810.91
7/5/07 2:32	58.15	448,450.91	357.94	462,633.59	70.41	0.00	267.25	544.91	966.78	1,498.39	863.65	811.99
7/5/07 2:33	57.72	445,063.69	357.51	462,249.81	71.10	0.00	267.11	545.40	966.09	1,493.31	864.27	812.37
7/5/07 2:34	58.12	447,690.31	357.21	461,866.00	71.46	0.00	267.04	545.96	965.96	1,498.81	864.45	812.98
7/5/07 2:35	57.82	445,376.09	357.02	461,482.19	73.06	0.00	266.96	546.75	967.01	1,495.15	862.28	811.46
7/5/07 2:36	57.92	448,434.81	356.90	461,098.41	74.92	0.00	266.88	547.23	968.43	1,499.80	861.31	810.92
7/5/07 2:37	58.00	446,321.19	356.77	460,714.59	78.33	0.00	266.85	547.32	969.31	1,498.57	860.94	810.40
7/5/07 2:38	58.20	447,839.69	356.65	460,330.81	77.12	0.00	266.84	547.37	970.71	1,501.09	860.99	810.40
7/5/07 2:39	58.63	452,203.00	356.53	460,602.81	73.52	0.00	266.83	547.53	972.17	1,504.57	861.26	810.03
7/5/07 2:40	58.89	451,766.09	356.44	463,879.00	72.30	0.00	266.91	547.63	972.99	1,503.80	861.80	810.27
7/5/07 2:41	59.83	461,013.69	356.30	467,155.31	73.08	0.00	267.03	547.64	973.33	1,512.10	862.09	809.88
7/5/07 2:42	60.09	461,400.31	356.19	470,431.50	74.14	0.00	267.19	547.54	974.00	1,509.34	862.23	809.48
7/5/07 2:43	61.20	469,395.00	355.98	473,707.69	74.05	0.00	267.34	547.29	974.77	1,512.57	862.38	809.17
7/5/07 2:44	61.19	469,868.69	355.72	476,983.91	76.87	0.00	267.58	546.64	973.79	1,508.75	862.38	808.89
7/5/07 2:45	60.84	466,733.69	355.49	480,005.31	73.48	0.00	267.94	545.95	972.35	1,502.75	862.10	808.60
7/5/07 2:46	61.49	471,289.41	355.14	481,015.41	72.02	0.00	268.26	545.35	970.93	1,506.87	861.56	807.91
7/5/07 2:47	61.94	475,951.91	354.95	482,025.69	71.44	0.00	268.53	545.07	971.29	1,508.34	861.77	808.32
7/5/07 2:48	61.80	473,701.31	354.67	483,035.91	70.49	0.00	268.75	544.55	970.99	1,503.30	861.80	808.21
7/5/07 2:49	61.86	476,805.69	354.39	484,046.09	68.78	0.00	268.95	544.06	970.62	1,504.24	861.91	807.93
7/5/07 2:50	61.94	478,153.09	354.09	485,056.31	68.77	0.00	269.09	543.74	970.87	1,502.88	862.18	807.71
7/5/07 2:51	61.89	476,601.00	353.81	486,066.50	66.25	0.00	269.20	543.16	969.48	1,501.99	861.92	807.05
7/5/07 2:52	61.30	471,538.69	353.56	486,294.50	66.85	0.00	269.32	542.59	968.41	1,495.96	861.53	806.43
7/5/07 2:53	61.27	472,030.91	353.32	485,146.81	69.50	0.00	269.37	542.11	967.01	1,498.34	860.82	804.07
7/5/07 2:54	60.94	468,911.31	353.19	483,999.19	68.46	0.00	269.35	541.76	967.26	1,494.79	859.64	802.67
7/5/07 2:55	60.03	462,306.91	353.15	482,851.50	65.87	0.00	269.31	541.25	967.12	1,491.01	856.11	802.59
7/5/07 2:56	60.38	465,718.00	353.16	481,703.81	65.71	0.00	269.24	540.85	966.60	1,498.12	853.20	801.23
7/5/07 2:57	59.68	460,351.19	353.17	481,765.50	67.74	0.00	269.07	540.56	965.81	1,493.17	852.09	800.04
7/5/07 2:58	60.36	465,044.41	353.17	482,903.19	69.23	0.00	268.90	540.28	966.29	1,500.82	852.48	801.91
7/5/07 2:59	60.43	463,904.31	353.16	484,040.81	69.14	0.00	268.70	540.09	968.80	1,499.56	853.47	804.52
7/5/07 3:00	60.78	466,681.09	353.20	485,178.41	71.05	0.00	268.66	539.72	972.09	1,502.75	852.69	808.10
7/5/07 3:01	61.11	468,080.09	353.22	486,316.09	72.12	0.00	268.70	539.39	973.90	1,504.38	853.05	811.32
7/5/07 3:02	60.71	465,144.69	353.18	486,417.59	71.86	0.00	268.77	538.94	972.82	1,497.39	854.25	813.04
7/5/07 3:03	60.80	465,488.41	353.19	486,225.50	70.96	0.00	268.88	538.32	970.60	1,500.54	854.62	811.18
7/5/07 3:04	61.46	473,280.50	353.25	486,033.41	69.84	0.00	269.02	538.06	971.92	1,507.39	854.34	809.89
7/5/07 3:05	61.21	469,815.91	353.31	485,841.31	69.52	0.00	269.08	538.04	974.46	1,499.76	853.35	809.74
7/5/07 3:06	61.20	469,215.31	353.36	485,649.19	69.51	0.00	269.23	537.66	973.80	1,499.24	852.28	807.67
7/5/07 3:07	61.46	471,574.19	353.39	485,457.09	70.86	0.00	269.32	537.38	972.36	1,502.78	852.69	806.65
7/5/07 3:08	61.29	470,436.50	353.47	485,265.00	73.11	0.00	269.36	537.48	971.11	1,499.82	854.78	807.91
7/5/07 3:09	61.36	472,093.41	353.61	485,072.91	75.68	0.00	269.40	537.64	970.58	1,501.87	856.28	810.61
7/5/07 3:10	61.26	470,305.31	353.83	484,880.81	75.06	0.00	269.37	537.94	971.68	1,499.91	856.99	814.46
7/5/07 3:11	61.39	475,884.19	353.97	484,688.69	74.21	0.00	269.34	538.27	971.84	1,506.56	858.36	817.97
7/5/07 3:12	61.82	475,932.69	354.10	484,496.59	76.51	0.00	269.26	538.58	971.56	1,504.54	860.55	819.43
7/5/07 3:13	61.69	473,515.41	354.24	484,304.50	74.98	0.00	269.26	538.92	971.92	1,498.31	861.99	819.10
7/5/07 3:14	61.13	470,519.91	354.33	484,301.81	72.74	0.00	269.28	538.85	968.89	1,499.00	861.56	817.52
7/5/07 3:15	61.25	473,561.59	354.41	484,609.41	75.66	0.00	269.31	539.20	969.26	1,500.91	860.70	816.95
7/5/07 3:16	61.28	470,958.50	354.49	484,917.09	77.81	0.00	269.25	539.62	969.52	1,501.10	860.67	815.64
7/5/07 3:17	61.76	473,817.91	354.61	485,224.69	79.74	0.00	269.19	540.04	971.05	1,503.05	861.93	816.03
7/5/07 3:18	62.08	475,235.50	354.71	485,532.31	79.53	0.00	269.23	540.29	971.33	1,502.46	863.57	817.12
7/5/07 3:19	62.23	475,991.00	354.78	485,839.91	80.70	0.00	269.30	540.23	970.72	1,502.26	864.08	817.73

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 3:20	62.61	480,398.31	354.90	486,147.50	82.70	0.00	269.43	540.30	971.19	1,506.66	864.15	818.92
7/5/07 3:21	62.53	478,676.50	354.98	486,455.19	82.39	0.00	269.61	540.40	971.89	1,501.75	865.20	820.10
7/5/07 3:22	61.83	473,755.81	355.01	486,758.50	86.91	0.00	269.79	540.18	970.75	1,495.05	865.57	819.51
7/5/07 3:23	61.86	473,851.50	355.03	486,972.69	86.86	0.00	270.02	539.91	968.69	1,499.91	864.78	818.81
7/5/07 3:24	61.82	476,852.59	355.06	487,186.91	87.02	0.00	270.09	539.88	967.25	1,500.07	863.67	818.63
7/5/07 3:25	62.10	479,759.31	355.14	487,401.09	88.50	0.00	270.13	539.85	966.55	1,506.15	862.36	818.03
7/5/07 3:26	62.25	479,776.81	355.24	487,615.31	87.65	0.00	270.10	539.95	968.77	1,501.96	862.43	817.95
7/5/07 3:27	62.03	476,570.50	355.30	487,829.50	86.56	0.00	270.15	539.70	969.00	1,501.79	862.45	817.99
7/5/07 3:28	62.02	477,216.50	355.30	488,043.69	86.47	0.00	270.21	539.57	969.08	1,498.63	862.41	817.35
7/5/07 3:29	61.94	476,676.31	355.29	488,257.81	84.35	0.00	270.22	539.43	966.86	1,500.65	861.92	816.77
7/5/07 3:30	61.88	479,026.50	355.30	487,413.69	81.04	0.00	270.25	539.41	966.49	1,502.03	861.85	816.89
7/5/07 3:31	62.06	478,914.50	355.31	486,546.91	83.74	0.00	270.24	539.36	966.14	1,501.94	862.31	816.49
7/5/07 3:32	61.16	469,129.09	355.28	485,680.19	84.10	0.00	270.28	539.28	967.68	1,491.80	863.10	814.39
7/5/07 3:33	60.67	466,078.00	355.27	484,813.50	81.25	0.00	270.24	539.12	970.00	1,491.84	862.40	811.56
7/5/07 3:34	60.56	465,051.00	355.31	483,946.69	78.92	0.00	270.14	539.20	973.06	1,495.79	859.87	810.66
7/5/07 3:35	59.98	460,012.09	355.37	483,080.00	77.02	0.00	269.94	539.56	974.96	1,492.43	858.73	809.49
7/5/07 3:36	59.63	457,341.81	355.51	482,213.31	77.14	0.00	269.56	539.81	974.13	1,492.40	859.27	808.12
7/5/07 3:37	59.80	458,508.59	355.66	481,346.59	77.54	0.00	269.23	540.18	974.08	1,496.42	861.51	810.13
7/5/07 3:38	60.44	463,451.31	355.83	480,479.81	77.58	0.00	268.93	540.74	976.23	1,502.76	863.54	813.53
7/5/07 3:39	60.13	460,318.41	356.03	481,455.91	79.98	0.00	268.63	541.10	977.81	1,498.43	863.57	815.98
7/5/07 3:40	60.94	466,205.41	356.18	483,965.31	83.48	0.00	268.49	541.32	977.90	1,504.43	864.47	818.28
7/5/07 3:41	62.12	473,922.50	356.32	486,474.81	76.56	0.00	268.46	541.62	978.13	1,510.76	866.45	819.70
7/5/07 3:42	62.50	477,436.50	356.40	488,984.19	73.74	0.00	268.50	541.55	978.27	1,510.26	867.82	818.26
7/5/07 3:43	62.47	476,854.19	356.42	491,493.59	72.86	0.00	268.80	541.37	978.75	1,505.37	867.02	816.31
7/5/07 3:44	62.69	477,980.31	356.43	493,821.00	75.82	0.00	269.05	541.12	977.88	1,505.16	864.37	815.30
7/5/07 3:45	62.73	482,037.09	356.53	493,417.81	76.29	0.00	269.39	540.96	976.53	1,508.19	862.98	812.90
7/5/07 3:46	62.92	482,923.19	356.60	493,014.69	75.48	0.00	269.63	540.88	973.15	1,505.90	863.48	811.26
7/5/07 3:47	63.00	483,751.09	356.75	492,611.59	74.48	0.00	269.90	540.93	971.65	1,505.06	865.08	813.21
7/5/07 3:48	62.71	480,338.69	356.82	492,208.41	74.22	0.00	270.12	540.77	970.78	1,498.48	865.62	815.06
7/5/07 3:49	62.13	478,616.81	356.95	491,647.81	78.08	0.00	270.23	540.40	969.55	1,499.60	864.42	816.02
7/5/07 3:50	62.08	477,415.31	357.07	490,644.69	79.73	0.00	270.28	540.34	969.67	1,498.57	865.00	817.49
7/5/07 3:51	61.52	472,697.19	357.13	489,641.50	82.43	0.00	270.21	540.35	967.74	1,493.55	865.98	817.82
7/5/07 3:52	61.15	472,171.81	357.18	488,638.41	81.67	0.00	270.16	540.16	966.24	1,495.02	866.15	816.51
7/5/07 3:53	61.05	474,684.09	357.27	487,635.31	81.11	0.00	270.04	540.15	967.81	1,498.95	865.09	815.72
7/5/07 3:54	60.80	469,124.31	357.37	486,632.19	77.90	0.00	269.81	540.07	968.59	1,494.95	862.93	814.67
7/5/07 3:55	61.27	472,221.31	357.48	485,629.09	75.48	0.00	269.59	540.12	969.69	1,502.45	862.39	812.82
7/5/07 3:56	60.32	464,397.31	357.60	484,625.91	70.10	0.00	269.36	540.23	970.21	1,494.02	863.06	812.08
7/5/07 3:57	60.49	464,515.00	357.65	483,622.81	75.46	0.00	269.24	540.25	969.46	1,497.50	863.75	811.96
7/5/07 3:58	60.42	464,354.09	357.65	482,619.69	75.95	0.00	269.09	540.28	970.12	1,496.67	863.40	812.89
7/5/07 3:59	60.06	462,059.41	357.67	481,616.59	79.37	0.00	268.98	540.07	969.27	1,494.54	862.28	813.76
7/5/07 4:00	59.99	461,496.69	357.61	480,613.41	83.68	0.00	268.96	539.84	968.06	1,494.78	862.44	814.09
7/5/07 4:01	59.89	460,947.69	357.55	479,610.31	80.88	0.00	268.91	539.97	967.62	1,496.35	863.48	813.53
7/5/07 4:02	59.61	458,863.31	357.67	478,607.19	78.47	0.00	268.85	539.99	967.05	1,494.62	863.84	810.97
7/5/07 4:03	59.86	460,849.41	357.73	477,604.09	80.08	0.00	268.86	539.92	968.49	1,499.65	861.19	809.50
7/5/07 4:04	59.79	459,694.19	357.87	476,601.00	80.84	0.00	268.77	539.86	970.36	1,498.31	858.74	807.92
7/5/07 4:05	59.85	459,273.09	357.95	477,375.09	83.91	0.00	268.71	539.70	970.01	1,499.22	857.97	805.39
7/5/07 4:06	60.83	466,558.41	357.93	478,515.31	89.39	0.00	268.72	539.79	971.45	1,507.87	858.81	805.37
7/5/07 4:07	61.25	469,751.19	357.98	479,655.59	87.18	0.00	268.67	540.00	973.98	1,508.19	860.25	807.60
7/5/07 4:08	61.42	469,789.31	358.07	480,795.91	85.62	0.00	268.71	540.09	975.50	1,503.54	859.20	808.73
7/5/07 4:09	61.52	472,431.91	358.06	481,936.19	84.36	0.00	268.87	539.75	973.72	1,505.24	858.20	809.86

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 4:10	61.23	469,161.50	358.04	483,076.41	81.31	0.00	268.99	540.00	973.29	1,500.46	859.36	811.94
7/5/07 4:11	61.46	473,348.59	358.07	482,536.31	81.79	0.00	269.11	540.15	971.06	1,503.88	860.41	809.49
7/5/07 4:12	61.33	470,789.81	358.06	480,287.50	83.40	0.00	269.13	540.35	970.43	1,499.98	860.39	807.02
7/5/07 4:13	60.23	463,074.09	358.13	478,038.69	83.75	0.00	269.20	540.18	968.16	1,491.95	857.58	805.85
7/5/07 4:14	60.18	464,973.09	358.06	475,179.19	81.54	0.00	269.19	540.03	965.46	1,495.60	855.07	803.15
7/5/07 4:15	59.86	462,300.91	358.04	471,776.31	82.00	0.00	269.00	540.24	964.51	1,493.09	855.14	800.04
7/5/07 4:16	59.23	457,935.19	358.05	468,373.41	83.59	0.00	268.82	540.31	962.39	1,492.66	856.03	800.21
7/5/07 4:17	58.99	456,858.41	358.10	467,362.91	84.53	0.00	268.63	540.58	962.64	1,494.10	856.91	801.90
7/5/07 4:18	58.89	456,301.41	358.21	467,865.91	84.23	0.00	268.33	540.87	964.60	1,494.78	856.35	803.76
7/5/07 4:19	58.19	449,016.50	358.33	468,369.00	83.10	0.00	268.02	541.17	965.93	1,489.34	857.05	805.88
7/5/07 4:20	58.53	451,890.09	358.40	468,872.00	84.52	0.00	267.87	541.50	966.70	1,495.27	858.97	807.83
7/5/07 4:21	58.44	450,281.09	358.50	469,375.00	84.44	0.00	267.59	541.85	968.09	1,494.94	860.93	806.47
7/5/07 4:22	58.89	452,946.09	358.72	469,878.00	81.73	0.00	267.42	542.28	969.43	1,502.68	861.07	805.10
7/5/07 4:23	58.44	449,676.41	358.80	470,381.00	80.53	0.00	267.36	542.55	970.89	1,495.56	858.71	805.26
7/5/07 4:24	58.75	451,392.00	358.85	470,884.09	79.55	0.00	267.38	542.69	970.36	1,498.50	857.51	803.00
7/5/07 4:25	58.84	453,262.00	358.92	471,387.09	76.98	0.00	267.37	542.89	969.53	1,501.06	858.25	800.23
7/5/07 4:26	58.57	449,610.31	358.93	471,890.09	79.88	0.00	267.40	543.24	969.19	1,494.84	860.01	801.30
7/5/07 4:27	59.21	454,996.59	358.92	472,393.09	78.44	0.00	267.47	543.38	969.05	1,505.19	860.74	803.28
7/5/07 4:28	59.73	459,284.59	358.98	472,896.19	76.64	0.00	267.48	543.63	970.55	1,507.63	860.12	805.21
7/5/07 4:29	60.11	464,134.31	359.00	473,120.81	81.21	0.00	267.56	543.73	970.57	1,510.24	861.25	807.03
7/5/07 4:30	59.88	460,298.50	359.05	471,714.81	77.56	0.00	267.67	543.82	970.00	1,502.89	863.17	808.06
7/5/07 4:31	59.73	459,826.31	359.05	470,308.81	76.11	0.00	267.83	543.58	969.86	1,499.52	864.01	803.74
7/5/07 4:32	61.21	470,754.41	359.05	473,625.19	78.80	0.00	267.94	543.51	972.07	1,511.94	861.23	801.42
7/5/07 4:33	60.23	463,011.41	359.09	480,771.69	79.89	0.00	268.01	543.43	972.90	1,500.07	857.57	800.87
7/5/07 4:34	60.59	464,902.91	359.14	484,620.69	82.62	0.00	268.15	543.27	971.88	1,503.20	856.00	797.52
7/5/07 4:35	61.49	473,530.81	359.19	488,469.69	81.76	0.00	268.25	543.49	971.84	1,509.73	856.91	796.99
7/5/07 4:36	61.64	473,042.91	359.21	491,238.50	79.96	0.00	268.26	543.76	972.15	1,505.10	858.59	794.98
7/5/07 4:37	61.56	473,590.69	359.27	492,664.50	75.77	0.00	268.35	543.54	971.20	1,503.32	856.98	795.16
7/5/07 4:38	61.91	475,993.50	359.36	494,090.59	68.91	0.00	268.55	543.43	970.56	1,503.85	854.44	796.30
7/5/07 4:39	61.64	474,551.81	359.41	495,516.69	76.68	0.00	268.71	543.38	969.15	1,501.28	854.43	794.38
7/5/07 4:40	61.89	477,092.00	359.47	496,942.69	79.81	0.00	268.88	543.31	968.34	1,504.43	855.77	795.25
7/5/07 4:41	62.58	481,047.19	359.51	498,368.81	84.68	0.00	268.99	543.27	969.52	1,507.36	857.59	799.12
7/5/07 4:42	62.39	479,886.09	359.59	499,794.81	84.60	0.00	269.13	543.00	970.91	1,502.78	857.80	802.72
7/5/07 4:43	62.80	482,572.50	359.62	501,220.91	86.09	0.00	269.30	542.53	971.21	1,506.94	857.52	806.37
7/5/07 4:44	62.70	481,203.31	359.68	502,646.91	86.11	0.00	269.45	542.20	971.98	1,501.85	859.16	809.69
7/5/07 4:45	62.73	482,496.50	359.75	504,073.00	87.34	0.00	269.60	541.79	972.37	1,503.03	860.88	808.07
7/5/07 4:46	63.69	489,699.69	359.81	505,499.00	87.99	0.00	269.79	541.32	974.36	1,513.90	861.38	803.73
7/5/07 4:47	63.49	485,846.50	359.95	506,925.09	85.80	0.00	269.90	540.96	978.24	1,506.36	858.34	803.66
7/5/07 4:48	64.07	489,810.91	360.09	508,351.19	83.19	0.00	270.13	540.35	978.72	1,514.78	855.39	802.76
7/5/07 4:49	64.23	489,041.59	360.20	509,777.19	79.25	0.00	270.33	539.95	979.77	1,515.15	856.08	799.78
7/5/07 4:50	64.48	492,860.59	360.36	511,203.31	81.66	0.00	270.54	539.68	980.43	1,519.43	858.45	802.60
7/5/07 4:51	64.47	492,089.19	360.46	512,629.31	82.24	0.00	270.81	539.20	979.70	1,517.69	860.14	805.48
7/5/07 4:52	64.52	493,827.91	360.58	514,055.41	82.36	0.00	271.06	538.76	979.00	1,518.12	859.65	808.92
7/5/07 4:53	65.29	500,833.19	360.72	515,481.41	81.92	0.00	271.21	538.40	977.35	1,522.12	859.66	811.24
7/5/07 4:54	65.75	506,158.00	360.85	519,159.31	81.97	0.00	271.37	538.24	976.56	1,521.68	861.58	814.32
7/5/07 4:55	65.46	503,724.31	360.98	518,288.00	81.77	0.00	271.66	537.84	974.80	1,513.03	863.31	811.97
7/5/07 4:56	65.82	507,757.59	361.10	516,580.91	82.71	0.00	271.93	537.38	973.61	1,515.27	862.95	809.47
7/5/07 4:57	65.65	505,941.91	361.27	524,596.19	83.17	0.00	272.18	537.10	973.81	1,508.45	860.60	809.59
7/5/07 4:58	65.52	505,797.41	361.38	521,965.81	82.68	0.00	272.41	536.66	972.44	1,505.89	859.75	807.64
7/5/07 4:59	65.60	507,537.59	361.51	520,961.00	86.04	0.00	272.57	536.35	971.17	1,507.70	860.82	807.05

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 5:00	66.01	509,742.91	361.66	523,686.31	89.04	0.00	272.65	536.38	971.76	1,511.11	862.78	810.29
7/5/07 5:01	65.67	508,460.00	361.83	525,458.31	93.87	0.00	272.73	536.25	972.16	1,503.28	863.67	812.90
7/5/07 5:02	65.27	504,530.19	361.94	517,384.00	86.54	0.00	272.84	535.70	969.99	1,500.73	862.89	814.56
7/5/07 5:03	65.45	505,769.31	362.04	519,759.50	84.19	0.00	273.03	535.62	970.63	1,503.00	863.71	817.21
7/5/07 5:04	65.10	503,921.91	362.17	516,242.09	83.58	0.00	273.06	535.76	969.62	1,500.22	865.02	818.61
7/5/07 5:05	64.30	495,989.50	362.32	515,129.31	79.76	0.00	273.00	535.60	969.13	1,490.72	865.07	815.22
7/5/07 5:06	64.07	495,746.19	362.38	514,016.50	82.98	0.00	272.99	535.59	967.39	1,491.85	863.86	813.52
7/5/07 5:07	64.05	494,812.09	362.53	512,903.69	82.90	0.00	272.82	535.67	967.26	1,495.10	862.89	811.97
7/5/07 5:08	63.61	489,103.19	362.63	511,790.91	82.45	0.00	272.61	536.00	967.87	1,490.96	862.57	810.51
7/5/07 5:09	63.66	491,115.19	362.80	510,678.19	84.64	0.00	272.40	536.22	967.41	1,496.20	862.98	810.72
7/5/07 5:10	63.74	490,713.31	362.93	509,565.31	86.26	0.00	272.19	536.57	968.32	1,499.04	863.41	812.51
7/5/07 5:11	64.04	492,416.81	363.06	508,452.59	86.70	0.00	271.92	536.81	969.43	1,503.73	863.68	812.90
7/5/07 5:12	63.89	491,168.59	363.25	507,339.81	89.64	0.00	271.87	537.11	970.22	1,500.91	863.50	813.41
7/5/07 5:13	63.72	489,515.69	363.39	506,338.31	89.02	0.00	271.87	537.42	971.29	1,499.34	864.22	815.04
7/5/07 5:14	63.87	491,069.69	363.53	506,214.91	88.14	0.00	271.86	537.69	970.62	1,502.31	865.35	814.47
7/5/07 5:15	63.99	490,474.59	363.64	506,091.50	91.99	0.00	271.88	537.96	970.45	1,503.07	866.20	813.52
7/5/07 5:16	63.82	490,516.69	363.74	505,968.09	92.65	0.00	271.84	538.28	970.63	1,499.73	867.00	812.73
7/5/07 5:17	64.14	493,483.91	363.83	505,844.69	91.93	0.00	271.89	538.50	969.50	1,505.54	867.44	811.85
7/5/07 5:18	64.44	496,104.00	363.99	505,721.31	90.53	0.00	271.92	539.00	971.16	1,507.67	868.76	811.90
7/5/07 5:19	64.25	494,475.69	364.13	505,597.91	92.21	0.00	271.98	539.25	971.01	1,504.59	870.05	813.46
7/5/07 5:20	64.47	496,242.91	364.25	505,474.50	90.72	0.00	272.01	539.54	971.28	1,507.07	870.18	814.86
7/5/07 5:21	64.29	494,525.69	364.36	505,351.09	89.84	0.00	272.04	539.89	971.64	1,503.02	870.33	815.31
7/5/07 5:22	64.54	496,843.81	364.45	505,227.69	91.88	0.00	272.08	540.27	970.90	1,506.49	870.34	816.10
7/5/07 5:23	64.32	494,643.69	364.71	505,104.31	92.95	0.00	272.07	540.99	972.27	1,501.10	871.74	817.82
7/5/07 5:24	64.06	493,896.19	364.92	504,945.41	91.49	0.00	272.12	541.26	968.83	1,499.24	872.06	818.07
7/5/07 5:25	64.48	499,010.19	365.16	504,603.69	92.38	0.00	272.12	541.75	966.69	1,506.83	871.94	818.25
7/5/07 5:26	64.40	499,386.19	365.47	504,262.00	94.88	0.00	272.03	542.33	964.00	1,503.96	871.66	819.02
7/5/07 5:27	64.15	497,892.50	365.73	503,920.31	92.10	0.00	272.03	542.56	960.95	1,500.27	870.73	818.62
7/5/07 5:28	64.06	496,969.41	365.92	503,578.59	95.38	0.00	272.09	542.81	960.17	1,500.32	870.22	818.19
7/5/07 5:29	64.11	497,281.81	366.12	503,236.91	93.47	0.00	272.11	543.11	962.64	1,501.69	870.50	820.70
7/5/07 5:30	64.06	497,052.00	366.21	502,895.31	89.85	0.00	272.09	543.00	962.51	1,501.41	869.92	822.76
7/5/07 5:31	64.04	496,219.09	366.30	502,553.59	87.39	0.00	272.07	542.97	963.14	1,501.74	869.01	824.44
7/5/07 5:32	64.09	496,621.59	366.38	502,211.91	87.71	0.00	272.09	542.94	963.97	1,501.31	868.47	826.30
7/5/07 5:33	63.68	491,729.59	366.46	501,870.19	86.92	0.00	272.10	542.75	964.32	1,497.10	868.35	827.32
7/5/07 5:34	64.02	495,582.31	366.42	501,528.50	86.03	0.00	272.13	542.53	964.96	1,503.27	868.66	827.09
7/5/07 5:35	63.68	490,784.19	366.42	501,186.81	81.85	0.00	272.08	542.30	965.61	1,498.67	869.21	826.92
7/5/07 5:36	63.43	489,325.41	366.37	500,845.09	85.50	0.00	272.02	542.15	966.31	1,496.41	869.67	826.27
7/5/07 5:37	63.33	488,009.09	366.35	500,224.19	85.25	0.00	271.95	541.84	965.23	1,495.05	869.88	825.62
7/5/07 5:38	62.97	485,541.69	366.22	498,882.09	82.82	0.00	271.86	541.80	965.72	1,489.06	870.39	826.06
7/5/07 5:39	63.19	488,023.59	366.23	497,540.00	82.64	0.00	271.72	541.79	965.46	1,494.36	870.87	825.75
7/5/07 5:40	63.26	487,431.50	366.20	496,197.91	81.45	0.00	271.57	542.04	968.07	1,494.51	872.01	826.07
7/5/07 5:41	63.03	485,707.00	366.17	494,855.81	81.26	0.00	271.49	542.04	968.68	1,490.74	872.71	825.69
7/5/07 5:42	63.05	484,593.09	366.15	493,513.81	81.26	0.00	271.44	541.95	969.09	1,490.97	873.13	825.58
7/5/07 5:43	62.90	482,842.69	366.15	492,171.69	78.37	0.00	271.39	542.13	970.77	1,491.11	873.90	826.97
7/5/07 5:44	62.78	481,661.50	366.17	490,829.59	82.18	0.00	271.35	542.31	970.33	1,489.72	874.03	828.48
7/5/07 5:45	62.91	483,266.41	366.10	489,487.59	82.95	0.00	271.29	542.40	970.72	1,493.04	873.82	828.77
7/5/07 5:46	62.27	479,944.50	365.98	488,145.50	80.84	0.00	271.19	542.21	969.48	1,490.54	872.94	827.58
7/5/07 5:47	62.43	481,023.91	365.77	486,803.41	81.75	0.00	271.13	542.20	969.51	1,496.85	872.13	826.25
7/5/07 5:48	62.40	479,462.69	365.64	485,461.31	81.02	0.00	271.01	542.39	970.66	1,498.18	872.02	826.18
7/5/07 5:49	62.90	481,787.00	365.55	484,119.31	81.35	0.00	270.90	542.66	971.77	1,501.50	872.16	827.31

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 5:50	62.73	480,629.91	365.56	482,777.19	80.27	0.00	270.82	542.86	971.21	1,500.51	872.65	827.90
7/5/07 5:51	62.03	475,236.00	365.55	481,435.09	77.54	0.00	270.85	542.90	970.23	1,496.64	872.86	829.04
7/5/07 5:52	62.34	478,501.41	365.57	480,093.09	77.67	0.00	270.86	542.94	968.36	1,500.61	872.79	830.00
7/5/07 5:53	62.16	477,727.50	365.65	478,751.00	82.90	0.00	270.81	543.18	968.54	1,498.90	873.33	830.82
7/5/07 5:54	62.31	479,998.69	365.69	477,408.91	84.55	0.00	270.78	543.37	967.94	1,500.89	873.79	830.63
7/5/07 5:55	61.27	471,815.81	365.70	476,066.81	84.36	0.00	270.77	543.38	966.98	1,493.12	873.89	830.08
7/5/07 5:56	61.64	474,221.59	365.75	474,172.31	80.29	0.00	270.75	543.48	966.01	1,497.91	873.77	830.29
7/5/07 5:57	61.36	474,251.41	365.74	471,434.69	78.90	0.00	270.65	543.62	965.28	1,498.83	873.66	830.10
7/5/07 5:58	60.89	469,039.81	365.79	468,697.00	75.54	0.00	270.60	544.21	967.13	1,493.43	872.24	830.51
7/5/07 5:59	60.10	462,128.31	365.90	466,022.31	72.32	0.00	270.45	544.98	966.94	1,489.92	869.99	828.90
7/5/07 6:00	60.02	461,541.69	366.09	468,317.31	73.51	0.00	270.33	545.79	967.80	1,491.49	870.14	830.46
7/5/07 6:01	59.90	460,675.41	366.33	470,612.41	75.25	0.00	270.03	546.40	967.70	1,494.60	870.76	832.48
7/5/07 6:02	59.91	460,704.09	366.57	472,907.41	75.54	0.00	269.74	547.03	968.43	1,496.76	871.98	834.73
7/5/07 6:03	60.20	463,125.19	366.80	475,202.50	77.81	0.00	269.48	547.66	970.84	1,500.03	873.52	837.22
7/5/07 6:04	60.26	463,484.50	366.92	477,497.50	78.07	0.00	269.32	547.87	971.13	1,500.84	874.07	837.98
7/5/07 6:05	60.97	467,987.69	366.84	479,792.50	78.03	0.00	269.23	548.11	971.53	1,505.32	874.19	837.53
7/5/07 6:06	61.38	472,067.81	366.72	482,087.59	80.85	0.00	269.16	548.72	972.84	1,508.21	874.32	837.27
7/5/07 6:07	62.02	475,780.50	366.49	484,192.69	78.67	0.00	269.16	549.30	973.66	1,508.58	874.89	837.79
7/5/07 6:08	61.92	475,330.31	366.31	485,402.09	78.18	0.00	269.25	549.46	973.84	1,505.63	875.74	839.39
7/5/07 6:09	62.20	476,857.81	366.07	486,611.59	76.74	0.00	269.48	549.42	973.09	1,505.17	876.37	839.43
7/5/07 6:10	62.30	478,040.69	365.80	487,821.00	73.57	0.00	269.67	549.10	971.75	1,504.19	876.52	838.25
7/5/07 6:11	62.64	482,271.81	365.41	489,030.50	72.95	0.00	269.76	548.81	971.27	1,506.45	876.31	836.65
7/5/07 6:12	62.50	479,593.19	364.92	490,240.00	73.10	0.00	269.88	548.46	970.83	1,501.79	875.75	834.94
7/5/07 6:13	62.46	479,985.50	364.27	491,449.41	76.60	0.00	270.08	548.27	969.89	1,502.81	874.91	833.41
7/5/07 6:14	63.31	487,111.81	363.67	492,658.91	77.21	0.00	270.13	548.20	970.08	1,509.38	874.72	832.64
7/5/07 6:15	62.59	481,376.00	363.25	493,868.31	77.34	0.00	270.16	548.12	970.49	1,497.74	875.16	832.74
7/5/07 6:16	62.96	485,591.59	362.89	493,921.00	75.78	0.00	270.31	547.66	968.78	1,504.78	875.33	832.02
7/5/07 6:17	63.26	488,313.31	362.70	493,133.00	77.66	0.00	270.38	547.31	969.09	1,508.95	875.95	832.35
7/5/07 6:18	62.65	482,968.41	362.62	492,345.00	78.84	0.00	270.35	547.36	969.59	1,496.78	876.00	832.92
7/5/07 6:19	62.46	481,471.41	362.48	491,425.59	76.35	0.00	270.36	547.14	967.75	1,499.18	873.24	830.96
7/5/07 6:20	62.41	481,939.91	362.50	490,403.91	72.58	0.00	270.30	547.55	969.09	1,496.99	872.71	830.90
7/5/07 6:21	61.29	471,962.00	362.53	489,382.19	69.42	0.00	270.25	547.51	966.96	1,490.75	872.78	830.35
7/5/07 6:22	61.19	472,174.19	362.61	488,360.50	67.39	0.00	270.26	547.38	965.92	1,493.77	873.16	830.17
7/5/07 6:23	60.71	470,343.09	362.63	487,338.81	69.80	0.00	270.02	547.50	967.05	1,493.10	874.11	830.78
7/5/07 6:24	60.77	468,851.69	362.61	486,317.09	71.54	0.00	269.86	547.39	967.26	1,497.96	874.74	830.43
7/5/07 6:25	60.83	468,574.59	362.61	485,437.91	72.25	0.00	269.72	547.56	969.72	1,496.43	875.75	831.00
7/5/07 6:26	60.88	469,150.81	362.59	486,215.59	69.83	0.00	269.56	547.67	970.71	1,497.81	876.53	831.55
7/5/07 6:27	60.88	469,527.91	362.53	486,993.31	67.03	0.00	269.53	547.57	971.00	1,498.89	877.14	831.45
7/5/07 6:28	61.50	473,205.31	362.42	487,770.91	68.94	0.00	269.52	547.41	972.37	1,504.89	877.65	831.80
7/5/07 6:29	61.90	475,566.91	362.31	488,548.59	68.72	0.00	269.52	547.12	972.89	1,506.45	877.97	831.83
7/5/07 6:30	61.42	471,330.19	362.14	489,326.31	70.16	0.00	269.59	546.85	972.46	1,498.35	878.08	831.81
7/5/07 6:31	61.56	473,806.09	361.99	490,103.91	69.43	0.00	269.71	546.60	971.32	1,501.52	877.98	831.65
7/5/07 6:32	61.12	468,600.19	361.83	490,881.59	73.38	0.00	269.81	546.65	970.74	1,496.63	878.06	832.13
7/5/07 6:33	61.85	475,255.81	361.62	491,659.31	74.71	0.00	269.86	546.83	970.58	1,505.37	878.20	832.44
7/5/07 6:34	61.81	475,791.00	361.46	491,669.91	72.18	0.00	269.86	547.05	970.47	1,502.14	878.56	832.49
7/5/07 6:35	61.19	470,859.09	361.28	491,042.31	70.61	0.00	269.84	546.87	969.74	1,496.03	878.67	832.73
7/5/07 6:36	61.94	477,474.50	361.06	490,414.69	69.79	0.00	269.82	546.64	968.52	1,505.23	878.44	831.91
7/5/07 6:37	61.68	476,284.31	360.95	489,787.09	68.69	0.00	269.82	546.84	969.06	1,500.94	878.89	832.07
7/5/07 6:38	61.19	472,362.81	360.91	489,159.50	70.97	0.00	269.77	546.93	967.97	1,496.83	879.03	832.34
7/5/07 6:39	60.88	470,861.19	360.88	488,531.91	72.08	0.00	269.74	546.89	965.96	1,497.34	878.87	831.64

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 6:40	61.51	474,374.91	360.93	487,904.31	73.21	0.00	269.67	547.21	966.74	1,504.07	879.22	831.57
7/5/07 6:41	61.18	471,184.59	360.96	487,276.69	74.26	0.00	269.51	547.56	967.19	1,498.68	879.65	832.12
7/5/07 6:42	61.49	474,517.41	361.03	486,649.09	77.55	0.00	269.43	547.89	967.98	1,502.45	879.95	832.32
7/5/07 6:43	61.97	478,957.69	361.10	486,021.50	79.09	0.00	269.35	548.22	969.59	1,506.58	880.58	832.53
7/5/07 6:44	62.30	479,172.91	361.18	485,939.31	80.38	0.00	269.39	548.62	971.51	1,505.40	881.46	833.12
7/5/07 6:45	61.69	474,031.50	361.27	485,909.31	79.35	0.00	269.49	548.54	971.10	1,497.37	881.65	833.59
7/5/07 6:46	62.06	478,277.91	361.29	485,879.41	75.96	0.00	269.69	548.50	970.46	1,503.34	881.46	833.22
7/5/07 6:47	62.49	478,852.41	361.37	485,476.69	73.01	0.00	269.76	548.75	971.59	1,502.24	881.96	833.53
7/5/07 6:48	61.53	473,815.41	361.44	484,314.19	71.77	0.00	269.94	548.56	969.83	1,495.30	882.02	833.75
7/5/07 6:49	61.93	476,853.69	361.49	483,151.81	71.89	0.00	270.12	548.39	968.39	1,501.81	881.72	833.84
7/5/07 6:50	61.72	475,688.69	361.59	481,989.31	73.75	0.00	270.18	548.39	967.72	1,499.53	881.70	833.17
7/5/07 6:51	61.62	474,097.69	361.63	480,826.91	73.82	0.00	270.26	548.38	967.44	1,498.76	881.63	832.81
7/5/07 6:52	60.93	468,880.09	361.60	479,664.41	72.35	0.00	270.29	548.16	965.97	1,493.97	880.74	832.32
7/5/07 6:53	61.29	473,159.91	361.58	478,502.00	70.58	0.00	270.28	547.97	966.40	1,501.20	879.78	831.85
7/5/07 6:54	62.33	479,699.09	361.52	477,961.41	69.83	0.00	270.17	547.96	968.74	1,509.12	879.28	831.33
7/5/07 6:55	62.03	476,450.41	361.49	478,900.91	68.75	0.00	270.19	547.84	971.28	1,500.32	879.19	831.34
7/5/07 6:56	62.19	476,164.59	361.40	479,840.50	67.70	0.00	270.27	547.41	970.90	1,501.53	878.37	830.67
7/5/07 6:57	62.57	479,765.31	361.40	480,780.09	67.51	0.00	270.38	547.31	972.29	1,506.20	878.21	830.85
7/5/07 6:58	62.68	481,143.19	361.41	481,719.59	69.82	0.00	270.41	547.37	973.26	1,502.99	878.41	831.20
7/5/07 6:59	62.79	483,141.31	361.40	482,659.19	74.00	0.00	270.48	546.92	971.87	1,505.74	878.11	831.82
7/5/07 7:00	63.51	487,078.31	361.40	483,598.81	73.97	0.00	270.53	546.79	973.15	1,509.55	878.35	833.12
7/5/07 7:01	63.59	487,464.50	361.45	484,538.31	71.87	0.00	270.58	546.57	973.43	1,509.32	878.68	833.59
7/5/07 7:02	63.05	484,785.09	361.46	485,477.91	72.50	0.00	270.75	546.16	972.31	1,499.42	878.49	833.83
7/5/07 7:03	63.43	487,081.19	361.47	486,417.50	71.48	0.00	270.94	545.70	970.48	1,506.83	877.84	834.36
7/5/07 7:04	63.56	488,866.81	361.46	487,357.09	73.47	0.00	270.97	545.54	970.74	1,508.16	878.01	834.65
7/5/07 7:05	63.33	487,452.31	361.49	488,296.59	74.39	0.00	271.02	545.25	969.77	1,503.07	878.13	834.55
7/5/07 7:06	63.16	487,050.50	361.52	489,236.19	74.71	0.00	271.09	544.88	968.76	1,501.19	878.08	834.41
7/5/07 7:07	63.28	487,147.91	361.54	490,175.81	76.29	0.00	271.14	544.50	968.97	1,503.42	878.29	834.41
7/5/07 7:08	63.54	488,854.50	361.54	491,115.31	73.27	0.00	271.14	544.26	969.55	1,506.85	878.73	834.54
7/5/07 7:09	62.82	483,792.59	361.59	492,054.91	72.26	0.00	271.20	544.01	969.71	1,493.23	878.97	833.88
7/5/07 7:10	62.81	484,085.59	361.59	488,426.31	71.58	0.00	271.20	543.54	967.94	1,496.53	878.25	832.88
7/5/07 7:11	62.91	484,411.50	361.58	484,778.50	71.82	0.00	271.22	543.43	969.23	1,497.13	878.49	833.22
7/5/07 7:12	61.73	475,054.69	361.56	481,130.81	71.39	0.00	271.17	543.26	967.73	1,489.45	878.65	833.13
7/5/07 7:13	61.71	476,649.00	361.67	478,438.91	70.98	0.00	271.16	543.26	966.92	1,494.30	878.91	833.38
7/5/07 7:14	61.20	471,499.00	361.73	476,310.41	71.07	0.00	271.00	543.55	967.76	1,491.34	879.75	835.22
7/5/07 7:15	60.65	468,562.41	361.79	474,181.91	71.69	0.00	270.79	543.55	966.22	1,491.61	879.83	835.90
7/5/07 7:16	60.88	469,998.81	361.87	476,166.50	73.03	0.00	270.53	543.73	967.24	1,496.41	880.24	836.63
7/5/07 7:17	60.83	468,238.00	361.94	478,209.91	73.70	0.00	270.22	544.02	968.29	1,495.94	880.74	836.80
7/5/07 7:18	60.64	466,675.00	362.00	480,253.19	75.77	0.00	269.98	544.10	968.85	1,496.19	881.06	836.29
7/5/07 7:19	61.48	472,717.41	362.10	482,296.50	77.13	0.00	269.84	544.47	970.61	1,505.07	881.65	836.95
7/5/07 7:20	61.75	474,357.69	362.16	484,339.91	77.74	0.00	269.74	544.80	972.87	1,505.25	882.47	837.87
7/5/07 7:21	62.43	478,272.00	362.27	486,383.19	80.10	0.00	269.69	544.96	974.22	1,509.05	883.20	838.77
7/5/07 7:22	62.29	477,147.00	362.35	487,733.31	82.52	0.00	269.81	545.17	975.35	1,503.92	883.89	839.25
7/5/07 7:23	63.16	481,653.19	362.42	488,644.81	83.60	0.00	269.90	545.17	974.46	1,507.83	884.24	838.97
7/5/07 7:24	62.79	483,808.19	362.44	489,556.41	81.28	0.00	270.07	545.43	974.79	1,505.07	884.76	838.93
7/5/07 7:25	62.31	477,579.81	362.50	486,185.09	78.92	0.00	270.26	545.38	972.57	1,499.01	884.60	838.82
7/5/07 7:26	63.22	485,547.81	362.54	484,224.19	78.33	0.00	270.45	545.39	970.60	1,507.80	884.35	838.71
7/5/07 7:27	63.01	484,465.91	362.63	484,015.81	75.93	0.00	270.50	545.81	971.45	1,504.05	884.90	840.26
7/5/07 7:28	62.33	478,489.31	362.71	483,859.50	75.98	0.00	270.59	545.66	969.57	1,498.52	884.77	840.96
7/5/07 7:29	62.35	479,435.00	362.74	484,788.31	78.92	0.00	270.65	545.80	968.95	1,500.33	884.66	841.27

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 7:30	63.24	487,045.41	362.84	485,717.00	82.78	0.00	270.61	546.17	970.48	1,508.69	885.08	842.17
7/5/07 7:31	62.35	477,624.41	362.89	486,645.81	83.31	0.00	270.52	546.42	970.90	1,495.52	885.49	841.86
7/5/07 7:32	62.11	477,478.81	362.95	486,800.69	80.78	0.00	270.57	546.16	968.41	1,495.89	884.93	841.23
7/5/07 7:33	62.67	484,187.41	362.99	486,817.09	82.08	0.00	270.54	546.37	968.76	1,503.74	884.90	841.58
7/5/07 7:34	62.63	483,452.50	363.05	486,833.50	78.26	0.00	270.45	546.73	969.99	1,501.20	885.59	841.95
7/5/07 7:35	62.29	479,425.81	363.18	487,276.69	77.02	0.00	270.47	546.79	969.52	1,498.43	885.82	841.39
7/5/07 7:36	61.20	472,356.41	363.20	473,709.31	75.87	0.00	270.48	546.62	967.86	1,493.31	883.96	840.55
7/5/07 7:37	61.35	471,850.31	363.28	479,380.81	76.76	0.00	270.45	547.20	968.96	1,496.61	880.75	837.71
7/5/07 7:38	60.92	468,625.59	363.38	475,907.59	75.71	0.00	270.34	547.72	969.57	1,493.05	880.10	837.55
7/5/07 7:39	61.00	469,521.81	363.48	478,063.00	77.62	0.00	270.20	547.84	969.57	1,496.42	880.12	837.43
7/5/07 7:40	61.43	473,320.59	363.58	479,882.59	74.27	0.00	270.02	548.08	971.32	1,502.75	881.19	838.22
7/5/07 7:41	61.10	469,878.50	363.70	479,795.59	76.43	0.00	269.90	548.06	972.00	1,497.83	882.42	838.30
7/5/07 7:42	60.63	466,302.81	363.67	480,139.41	79.47	0.00	269.89	547.66	971.28	1,495.74	882.79	838.88
7/5/07 7:43	61.88	477,822.09	363.68	483,827.81	79.65	0.00	269.83	547.77	972.23	1,507.48	883.32	840.07
7/5/07 7:44	61.70	473,787.31	363.62	489,742.81	81.33	0.00	269.77	548.25	974.26	1,500.89	884.48	841.49
7/5/07 7:45	61.43	472,682.41	363.54	484,802.31	81.85	0.00	269.83	548.31	973.25	1,499.13	885.09	841.68
7/5/07 7:46	61.41	473,120.81	363.42	486,527.59	81.91	0.00	269.87	547.95	971.72	1,502.63	885.24	842.24
7/5/07 7:47	61.84	476,291.59	363.28	490,499.41	82.29	0.00	269.91	548.10	972.75	1,504.51	885.85	843.68
7/5/07 7:48	61.28	472,753.00	363.16	487,006.31	79.69	0.00	269.83	547.94	971.03	1,498.03	886.15	844.28
7/5/07 7:49	61.10	472,298.31	362.94	484,152.91	78.07	0.00	269.87	547.88	969.01	1,497.80	885.88	844.69
7/5/07 7:50	61.51	474,824.91	362.69	488,685.91	79.16	0.00	269.82	548.14	969.46	1,503.32	886.18	845.13
7/5/07 7:51	61.23	473,078.59	362.44	489,327.31	80.47	0.00	269.73	548.47	969.41	1,499.69	886.62	845.40
7/5/07 7:52	61.92	480,749.31	362.16	491,224.00	81.65	0.00	269.64	548.56	969.32	1,506.24	886.97	845.65
7/5/07 7:53	62.13	478,950.00	361.97	495,850.81	82.09	0.00	269.56	548.58	969.81	1,506.39	887.35	846.53
7/5/07 7:54	62.37	481,820.50	361.79	496,663.19	80.06	0.00	269.55	548.38	970.59	1,505.05	887.65	847.75
7/5/07 7:55	62.59	482,959.59	361.68	495,728.69	81.23	0.00	269.66	548.22	970.79	1,505.28	887.66	848.44
7/5/07 7:56	63.22	487,894.91	361.58	498,145.09	88.10	0.00	269.79	548.08	971.21	1,511.32	888.08	848.09
7/5/07 7:57	63.44	489,453.50	361.53	502,706.69	91.21	0.00	269.94	548.35	973.45	1,511.43	889.06	849.00
7/5/07 7:58	63.69	490,058.59	361.56	503,047.41	92.45	0.00	270.13	548.16	974.22	1,512.56	889.63	850.01
7/5/07 7:59	64.14	493,612.69	361.55	503,802.00	91.53	0.00	270.33	548.12	974.59	1,520.72	890.13	850.84
7/5/07 8:00	64.38	495,658.00	361.61	505,841.69	91.82	0.00	270.56	548.10	975.45	1,524.70	890.96	852.29
7/5/07 8:01	64.89	500,269.59	361.75	507,191.41	94.45	0.00	270.81	548.10	974.95	1,526.82	891.59	853.26
7/5/07 8:02	64.68	500,865.91	361.83	506,818.69	90.87	0.00	271.12	547.86	972.89	1,518.83	891.92	853.65
7/5/07 8:03	65.44	508,690.41	361.89	511,827.50	88.93	0.00	271.38	547.61	971.31	1,522.53	892.24	854.52
7/5/07 8:04	65.00	504,857.81	362.02	512,281.41	87.21	0.00	271.74	547.25	969.85	1,512.83	892.62	855.42
7/5/07 8:05	64.81	503,586.09	362.15	509,298.31	85.23	0.00	272.01	546.80	967.26	1,508.68	892.41	855.66
7/5/07 8:06	64.91	504,163.69	362.23	506,721.09	84.95	0.00	272.28	546.51	966.04	1,509.26	892.20	855.78
7/5/07 8:07	64.39	500,812.19	362.36	508,977.00	83.90	0.00	272.48	546.50	966.88	1,499.95	892.60	855.65
7/5/07 8:08	64.19	498,685.50	362.46	503,467.81	85.01	0.00	272.67	546.31	965.43	1,497.99	892.48	855.01
7/5/07 8:09	64.21	499,857.31	362.58	501,698.09	84.22	0.00	272.74	546.03	965.95	1,500.60	892.23	854.61
7/5/07 8:10	64.17	498,711.81	362.67	503,354.00	88.57	0.00	272.77	546.12	968.44	1,499.76	892.08	853.53
7/5/07 8:11	63.72	494,421.59	362.67	499,187.00	88.58	0.00	272.76	545.62	968.32	1,495.74	890.80	851.76
7/5/07 8:12	63.61	493,422.91	362.55	497,341.81	87.43	0.00	272.76	545.14	969.13	1,495.91	889.38	849.70
7/5/07 8:13	63.32	490,265.09	362.46	497,605.69	90.04	0.00	272.68	544.97	970.21	1,494.69	888.57	849.13
7/5/07 8:14	63.27	488,266.09	362.41	493,964.59	88.94	0.00	272.54	544.90	970.97	1,496.10	888.43	849.23
7/5/07 8:15	63.02	486,548.41	362.41	493,633.69	87.98	0.00	272.38	544.80	971.26	1,493.63	888.09	848.87
7/5/07 8:16	63.31	489,594.50	362.36	492,172.81	87.00	0.00	272.30	544.48	971.15	1,499.06	887.53	848.33
7/5/07 8:17	63.41	489,407.00	362.38	494,953.81	89.17	0.00	272.14	544.43	972.51	1,503.61	887.49	848.00
7/5/07 8:18	63.34	488,727.41	362.38	495,119.81	87.55	0.00	272.00	544.40	972.49	1,502.50	887.40	848.25
7/5/07 8:19	63.24	487,809.09	362.37	495,942.00	84.33	0.00	271.97	544.17	971.59	1,498.27	887.09	848.52

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 8:20	63.27	488,408.31	362.37	493,380.91	81.15	0.00	271.99	544.27	971.10	1,500.44	887.03	849.44
7/5/07 8:21	63.29	489,211.91	362.39	494,086.41	78.88	0.00	271.98	544.31	970.51	1,500.19	886.99	849.61
7/5/07 8:22	63.15	487,758.00	362.40	492,576.69	76.51	0.00	272.01	544.31	968.73	1,497.12	886.89	849.35
7/5/07 8:23	63.47	491,252.91	362.44	493,675.50	78.78	0.00	272.02	544.51	968.85	1,505.09	887.31	850.21
7/5/07 8:24	62.81	486,278.31	362.54	493,815.81	76.00	0.00	272.01	544.83	968.41	1,492.23	887.99	851.10
7/5/07 8:25	62.65	486,661.91	362.63	490,851.50	74.07	0.00	271.99	545.03	966.29	1,491.78	888.24	852.11
7/5/07 8:26	62.65	487,405.41	362.75	490,360.31	75.04	0.00	271.93	545.40	966.13	1,492.40	888.58	853.89
7/5/07 8:27	62.47	485,322.41	362.91	489,600.31	77.07	0.00	271.84	545.98	965.97	1,491.44	889.31	855.18
7/5/07 8:28	62.40	485,460.81	363.10	489,096.50	79.29	0.00	271.76	546.51	965.32	1,491.65	890.19	856.08
7/5/07 8:29	62.47	486,586.81	363.31	488,874.50	82.23	0.00	271.68	546.93	965.52	1,495.37	890.64	857.09
7/5/07 8:30	62.38	485,283.19	363.47	489,559.41	83.98	0.00	271.66	547.24	966.50	1,494.37	890.71	857.44
7/5/07 8:31	62.51	486,794.41	363.53	488,141.31	83.06	0.00	271.63	547.45	966.11	1,497.05	890.04	856.71
7/5/07 8:32	62.49	485,995.50	363.56	488,959.81	83.66	0.00	271.54	547.68	966.44	1,497.68	889.40	856.40
7/5/07 8:33	62.51	487,026.00	363.58	487,763.59	85.70	0.00	271.52	547.85	965.97	1,499.08	888.79	856.21
7/5/07 8:34	62.44	485,909.31	363.61	489,658.31	83.32	0.00	271.51	547.95	965.09	1,498.73	888.30	855.95
7/5/07 8:35	62.38	485,738.69	363.64	488,986.59	83.66	0.00	271.45	547.95	964.08	1,498.16	887.69	856.30
7/5/07 8:36	62.88	490,455.31	363.70	489,593.69	82.65	0.00	271.50	548.00	963.46	1,509.00	887.36	856.93
7/5/07 8:37	62.21	485,194.81	363.83	493,311.59	84.25	0.00	271.53	548.21	964.18	1,494.99	887.74	856.97
7/5/07 8:38	62.11	484,909.09	363.96	488,105.00	83.20	0.00	271.57	547.98	961.73	1,495.50	887.18	856.42
7/5/07 8:39	61.72	482,687.69	364.01	485,996.09	81.29	0.00	271.63	547.77	960.12	1,494.64	886.49	855.91
7/5/07 8:40	62.25	487,580.41	364.12	490,653.59	86.01	0.00	271.58	547.94	960.77	1,503.91	886.41	856.09
7/5/07 8:41	60.91	478,429.31	364.27	485,007.50	84.16	0.00	271.53	547.84	960.63	1,492.22	886.14	855.28
7/5/07 8:42	60.35	473,596.09	364.37	477,467.00	86.36	0.00	271.51	547.50	959.94	1,492.04	885.13	854.03
7/5/07 8:43	61.06	478,460.41	364.46	481,858.81	86.56	0.00	271.37	547.60	961.79	1,501.72	884.85	853.67
7/5/07 8:44	60.75	475,251.41	364.58	483,945.19	86.47	0.00	271.10	547.99	964.36	1,496.99	885.15	853.69
7/5/07 8:45	61.18	479,662.31	364.73	485,105.19	82.34	0.00	270.89	547.99	965.06	1,503.97	885.08	854.00
7/5/07 8:46	61.17	477,766.69	364.87	488,368.81	79.47	0.00	270.83	548.13	967.09	1,500.12	885.11	854.24
7/5/07 8:47	61.50	482,886.31	364.99	488,767.41	84.69	0.00	270.75	548.03	967.11	1,503.13	884.93	854.09
7/5/07 8:48	61.29	478,779.91	365.10	485,420.41	83.77	0.00	270.76	547.77	967.05	1,500.13	884.37	853.67
7/5/07 8:49	61.31	481,675.31	365.13	490,439.91	82.97	0.00	270.80	547.51	966.01	1,502.62	883.28	852.74
7/5/07 8:50	61.78	485,237.81	365.13	492,524.31	81.23	0.00	270.82	547.39	966.61	1,505.02	882.75	852.70
7/5/07 8:51	61.28	481,032.09	365.09	492,257.31	78.11	0.00	270.85	546.95	966.16	1,499.30	882.16	851.72
7/5/07 8:52	60.51	475,021.41	365.01	485,864.81	79.75	0.00	270.94	546.44	965.61	1,494.43	881.11	851.00
7/5/07 8:53	60.79	476,669.41	364.98	488,522.09	76.58	0.00	270.91	546.12	966.25	1,500.18	880.36	850.60
7/5/07 8:54	61.19	479,447.81	364.94	491,571.59	75.80	0.00	270.74	546.08	968.16	1,504.10	880.63	850.99
7/5/07 8:55	60.13	469,631.59	364.99	489,596.41	77.29	0.00	270.63	545.96	969.34	1,491.12	880.87	851.72
7/5/07 8:56	60.21	472,171.50	365.00	483,363.50	76.80	0.00	270.61	545.56	967.61	1,495.95	880.38	851.72
7/5/07 8:57	60.36	473,646.31	365.03	483,547.69	77.90	0.00	270.45	545.39	967.66	1,497.50	880.22	852.12
7/5/07 8:58	60.36	472,898.31	365.11	483,243.69	79.11	0.00	270.22	545.49	967.55	1,499.28	880.15	852.65
7/5/07 8:59	59.63	467,837.81	365.20	479,856.00	77.02	0.00	270.09	545.37	966.73	1,495.52	879.84	852.28
7/5/07 9:00	60.27	473,041.59	365.23	484,432.19	77.75	0.00	269.95	545.42	967.22	1,502.57	879.85	852.29
7/5/07 9:01	59.63	468,978.31	365.35	477,625.09	77.57	0.00	269.76	545.43	967.00	1,497.15	879.82	851.94
7/5/07 9:02	59.76	468,040.41	365.35	479,151.81	79.24	0.00	269.63	545.38	967.70	1,498.36	879.49	851.22
7/5/07 9:03	60.08	470,159.69	365.34	482,068.19	76.43	0.00	269.47	545.38	969.43	1,502.68	879.30	850.56
7/5/07 9:04	59.85	467,260.31	365.33	483,404.81	75.30	0.00	269.41	545.27	970.74	1,498.65	878.80	849.76
7/5/07 9:05	60.73	472,681.59	365.26	484,324.19	77.50	0.00	269.43	545.11	971.83	1,506.27	878.43	849.72
7/5/07 9:06	60.91	475,199.19	365.28	488,415.91	77.11	0.00	269.43	544.97	973.15	1,503.81	878.59	849.32
7/5/07 9:07	61.37	479,456.00	365.25	489,752.59	80.36	0.00	269.52	544.63	972.84	1,508.15	878.49	848.96
7/5/07 9:08	61.26	478,733.50	365.14	490,528.91	81.24	0.00	269.67	544.03	971.94	1,503.86	877.89	848.11
7/5/07 9:09	61.41	478,743.09	364.99	492,014.31	79.74	0.00	269.88	543.36	970.46	1,504.14	877.18	847.22

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 9:10	61.34	478,489.91	364.88	489,039.91	78.15	0.00	270.08	542.86	969.05	1,502.71	876.55	846.62
7/5/07 9:11	61.35	480,912.09	364.78	489,533.09	79.47	0.00	270.26	542.45	967.77	1,503.29	876.09	845.72
7/5/07 9:12	61.40	481,887.00	364.71	490,269.81	79.43	0.00	270.37	542.14	967.87	1,503.38	875.99	845.44
7/5/07 9:13	60.28	473,659.91	364.61	488,205.19	78.22	0.00	270.50	541.59	966.45	1,493.98	875.46	844.48
7/5/07 9:14	60.11	473,056.69	364.49	480,673.50	79.96	0.00	270.57	540.96	964.80	1,494.69	874.58	843.95
7/5/07 9:15	59.39	467,223.31	364.37	480,596.09	79.91	0.00	270.51	540.85	964.25	1,491.05	873.85	843.24
7/5/07 9:16	59.73	469,790.31	364.23	479,575.50	76.12	0.00	270.44	540.74	964.38	1,497.18	873.47	842.86
7/5/07 9:17	59.67	469,946.00	364.10	479,870.09	80.74	0.00	270.24	540.85	966.02	1,495.82	873.82	842.57
7/5/07 9:18	59.16	465,318.50	364.07	477,121.19	85.13	0.00	269.98	540.62	967.32	1,493.92	873.99	842.51
7/5/07 9:19	59.11	464,627.59	364.01	472,710.31	85.35	0.00	269.81	540.39	968.78	1,497.39	873.86	842.75
7/5/07 9:20	59.35	465,298.81	363.93	479,490.91	83.10	0.00	269.57	540.73	971.55	1,498.55	874.80	844.38
7/5/07 9:21	59.07	462,920.00	363.90	473,319.00	80.93	0.00	269.36	540.73	971.65	1,497.24	875.21	845.41
7/5/07 9:22	59.35	466,002.09	363.96	476,587.31	78.85	0.00	269.23	540.82	971.40	1,501.73	875.26	846.60
7/5/07 9:23	60.18	471,364.19	363.98	478,923.59	80.49	0.00	269.13	541.08	972.64	1,506.19	876.14	847.69
7/5/07 9:24	60.03	470,198.19	364.07	480,792.00	79.96	0.00	269.14	541.24	972.25	1,503.27	876.87	847.21
7/5/07 9:25	60.57	473,725.81	364.18	482,697.50	84.16	0.00	269.24	541.22	971.45	1,505.94	877.82	847.32
7/5/07 9:26	60.41	473,333.50	364.28	484,467.19	84.37	0.00	269.39	541.26	970.58	1,501.84	878.41	848.06
7/5/07 9:27	60.63	477,069.31	364.44	482,049.41	81.70	0.00	269.58	541.22	969.31	1,502.46	878.77	848.89
7/5/07 9:28	60.32	473,711.00	364.48	481,851.41	83.06	0.00	269.76	541.15	968.24	1,500.21	878.66	849.33
7/5/07 9:29	60.62	475,865.59	364.59	483,293.31	80.03	0.00	270.00	541.26	967.80	1,502.75	878.87	850.18
7/5/07 9:30	60.43	474,936.19	364.71	484,003.09	78.48	0.00	270.11	541.28	968.10	1,501.37	879.20	850.49
7/5/07 9:31	60.47	474,839.00	364.75	482,734.91	79.20	0.00	270.20	541.21	968.06	1,500.81	879.37	850.66
7/5/07 9:32	60.18	473,724.41	364.84	478,855.09	79.46	0.00	270.25	541.33	968.18	1,498.58	879.49	851.00
7/5/07 9:33	59.64	469,701.59	364.90	476,999.00	80.78	0.00	270.24	541.58	967.38	1,495.90	879.55	849.38
7/5/07 9:34	59.96	472,431.41	365.00	475,264.09	80.79	0.00	270.18	542.11	968.06	1,501.58	880.17	848.40
7/5/07 9:35	58.93	466,695.00	365.06	473,529.31	80.32	0.00	270.05	542.39	967.62	1,492.44	880.56	847.91
7/5/07 9:36	59.42	468,580.69	365.09	475,195.81	76.53	0.00	270.00	542.68	967.51	1,499.75	880.72	848.31
7/5/07 9:37	59.96	472,697.91	365.17	479,348.69	75.36	0.00	269.80	543.22	969.13	1,502.64	881.21	848.77
7/5/07 9:38	59.95	473,125.41	365.28	479,422.50	73.75	0.00	269.64	543.76	969.56	1,502.26	881.96	848.29
7/5/07 9:39	60.65	479,380.41	365.45	479,798.91	71.55	0.00	269.67	544.24	970.48	1,507.44	882.71	847.99
7/5/07 9:40	61.01	479,972.50	365.66	486,140.09	74.35	0.00	269.74	544.81	971.73	1,506.77	883.93	849.10
7/5/07 9:41	61.66	484,933.41	365.89	489,524.81	76.71	0.00	269.90	545.01	971.88	1,510.04	884.84	849.89
7/5/07 9:42	62.27	489,212.31	366.11	493,132.59	77.28	0.00	270.09	545.19	972.05	1,514.51	885.81	850.94
7/5/07 9:43	62.16	488,344.00	366.29	494,753.00	78.27	0.00	270.43	545.35	972.55	1,508.49	886.89	852.54
7/5/07 9:44	62.35	490,602.50	366.47	495,061.81	76.72	0.00	270.75	545.15	971.22	1,512.98	887.52	852.95
7/5/07 9:45	62.25	490,509.81	366.65	495,370.50	80.83	0.00	271.03	545.01	970.93	1,511.22	888.19	854.10
7/5/07 9:46	62.12	490,894.00	366.85	496,490.00	81.12	0.00	271.33	545.06	969.84	1,510.09	888.52	854.86
7/5/07 9:47	62.33	493,071.09	367.05	497,513.31	80.30	0.00	271.55	545.15	970.47	1,514.20	889.31	855.74
7/5/07 9:48	62.42	493,118.81	367.27	498,536.59	77.47	0.00	271.75	545.22	970.04	1,515.46	889.69	856.07
7/5/07 9:49	62.09	491,535.31	367.45	499,559.81	74.01	0.00	271.87	545.24	969.79	1,510.09	890.11	856.05
7/5/07 9:50	61.92	492,601.09	367.67	500,583.09	75.53	0.00	271.97	545.17	968.17	1,508.45	889.76	855.53
7/5/07 9:51	62.47	496,289.81	367.82	501,606.41	77.72	0.00	272.05	545.27	967.83	1,517.87	889.85	855.76
7/5/07 9:52	62.24	494,890.91	367.96	501,639.31	80.36	0.00	272.09	545.46	968.15	1,507.98	890.10	855.94
7/5/07 9:53	62.29	494,547.59	368.11	498,882.00	78.26	0.00	272.18	545.10	966.22	1,507.45	889.31	854.94
7/5/07 9:54	62.16	493,847.50	368.16	498,225.50	77.59	0.00	272.26	544.85	966.93	1,503.69	888.81	854.16
7/5/07 9:55	62.46	496,910.31	368.14	497,568.91	76.25	0.00	272.31	544.64	967.46	1,508.20	887.95	851.93
7/5/07 9:56	62.51	498,138.00	368.19	496,912.41	73.23	0.00	272.34	544.56	969.17	1,507.63	887.82	851.36
7/5/07 9:57	61.67	490,455.09	368.22	496,255.91	75.52	0.00	272.39	544.11	969.94	1,496.70	887.51	851.28
7/5/07 9:58	61.65	489,491.09	368.23	495,599.31	73.37	0.00	272.41	543.69	969.40	1,498.11	886.79	851.47
7/5/07 9:59	61.76	490,091.91	368.19	495,100.31	71.26	0.00	272.40	543.49	969.66	1,500.57	886.49	852.09

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 10:00	61.84	490,478.59	368.24	494,723.69	72.67	0.00	272.30	543.43	970.71	1,499.76	886.70	852.01
7/5/07 10:01	61.84	490,218.09	368.32	494,347.19	72.47	0.00	272.30	543.04	970.09	1,500.69	886.63	852.07
7/5/07 10:02	61.95	490,411.19	368.36	493,970.59	73.98	0.00	272.28	542.92	970.32	1,501.95	886.94	852.56
7/5/07 10:03	61.66	489,021.09	368.43	493,594.09	74.27	0.00	272.26	542.80	969.85	1,498.58	887.23	853.37
7/5/07 10:04	61.51	487,450.41	368.57	493,217.50	76.38	0.00	272.21	542.63	968.36	1,495.68	887.05	853.57
7/5/07 10:05	61.47	486,838.91	368.69	492,840.91	76.98	0.00	272.18	542.65	968.04	1,495.96	887.34	854.49
7/5/07 10:06	61.22	486,334.91	368.77	492,464.41	74.40	0.00	272.20	542.54	966.71	1,492.21	886.83	854.59
7/5/07 10:07	61.11	485,100.50	368.84	492,087.81	71.26	0.00	272.14	542.61	967.00	1,488.83	886.76	853.95
7/5/07 10:08	61.09	485,344.00	368.96	491,711.31	71.82	0.00	272.07	542.70	967.73	1,490.09	886.98	853.40
7/5/07 10:09	60.93	483,544.69	368.97	491,334.69	74.63	0.00	271.94	542.75	969.23	1,488.24	886.93	851.90
7/5/07 10:10	60.81	482,631.69	368.93	490,958.19	75.91	0.00	271.87	542.66	970.64	1,488.97	886.68	850.04
7/5/07 10:11	60.83	480,809.81	368.87	490,581.59	75.93	0.00	271.77	542.68	973.43	1,490.61	886.77	849.68
7/5/07 10:12	60.95	481,389.41	368.75	490,205.09	75.84	0.00	271.70	542.53	974.42	1,494.45	886.73	849.26
7/5/07 10:13	61.65	487,695.09	368.73	489,828.50	75.95	0.00	271.63	542.61	976.03	1,506.55	887.09	849.62
7/5/07 10:14	61.51	485,077.00	368.72	489,452.00	73.33	0.00	271.60	542.74	976.75	1,502.04	887.72	849.89
7/5/07 10:15	61.22	483,503.41	368.69	489,075.41	75.24	0.00	271.62	542.62	975.21	1,498.74	887.74	849.30
7/5/07 10:16	61.51	486,638.81	368.63	488,698.81	75.12	0.00	271.62	542.50	973.72	1,503.69	887.72	849.18
7/5/07 10:17	61.20	484,846.69	368.58	488,322.31	75.51	0.00	271.65	542.42	971.67	1,498.25	887.59	849.06
7/5/07 10:18	61.51	486,854.59	368.56	487,945.81	73.13	0.00	271.65	542.51	970.53	1,503.25	887.58	848.91
7/5/07 10:19	61.38	485,990.59	368.51	487,569.19	72.48	0.00	271.72	542.52	969.92	1,502.90	887.72	849.25
7/5/07 10:20	61.24	484,533.31	368.52	487,192.59	72.76	0.00	271.71	542.59	970.02	1,499.83	887.96	848.49
7/5/07 10:21	60.89	483,500.31	368.51	486,816.09	78.54	0.00	271.78	542.56	969.05	1,497.93	887.84	846.99
7/5/07 10:22	60.48	478,532.19	368.53	486,439.50	75.92	0.00	271.75	542.56	969.26	1,494.29	887.81	845.68
7/5/07 10:23	60.51	482,171.31	368.51	485,700.69	76.55	0.00	271.73	542.58	969.34	1,498.62	887.87	844.91
7/5/07 10:24	60.29	478,070.50	368.58	483,944.00	78.65	0.00	271.66	542.69	969.81	1,496.02	888.05	844.73
7/5/07 10:25	60.03	475,168.31	368.63	482,187.31	83.33	0.00	271.63	542.89	970.61	1,494.70	888.46	844.33
7/5/07 10:26	60.31	475,793.50	368.73	480,430.59	81.73	0.00	271.56	543.07	971.02	1,499.15	888.81	844.87
7/5/07 10:27	60.46	477,758.00	368.78	478,673.91	82.10	0.00	271.48	543.44	972.13	1,501.40	889.58	845.67
7/5/07 10:28	59.71	474,341.19	368.92	476,917.31	82.92	0.00	271.37	543.73	972.10	1,494.48	890.58	846.88
7/5/07 10:29	58.90	467,707.41	369.10	475,064.81	82.74	0.00	271.32	543.84	970.06	1,491.25	890.82	847.43
7/5/07 10:30	58.94	467,888.69	369.23	473,066.19	83.63	0.00	271.21	544.21	969.27	1,494.62	891.04	847.63
7/5/07 10:31	58.00	460,848.50	369.12	471,067.69	80.53	0.00	270.96	544.57	968.54	1,490.10	890.93	847.05
7/5/07 10:32	57.97	460,252.59	369.12	469,069.09	80.45	0.00	270.72	544.55	967.18	1,493.68	890.12	845.89
7/5/07 10:33	57.53	458,658.91	368.99	467,070.50	78.61	0.00	270.41	544.91	968.13	1,490.34	889.83	845.48
7/5/07 10:34	57.50	456,804.81	368.93	465,071.91	77.57	0.00	270.18	545.18	968.00	1,493.28	889.41	845.19
7/5/07 10:35	57.36	456,443.09	368.89	463,073.31	74.32	0.00	269.93	545.62	968.58	1,492.91	888.01	844.68
7/5/07 10:36	56.67	451,265.41	368.85	461,074.81	69.92	0.00	269.72	546.43	969.44	1,488.91	884.88	841.98
7/5/07 10:37	56.52	450,474.59	368.74	459,076.19	72.71	0.00	269.50	546.91	969.01	1,494.14	883.51	841.20
7/5/07 10:38	55.84	445,510.19	368.67	457,496.91	74.18	0.00	269.29	547.45	970.66	1,486.86	883.32	840.58
7/5/07 10:39	55.94	444,623.69	368.52	457,471.41	71.85	0.00	269.02	547.66	969.91	1,493.35	882.93	840.09
7/5/07 10:40	55.82	444,859.31	368.37	457,445.81	70.40	0.00	268.76	548.18	971.26	1,491.94	883.22	840.03
7/5/07 10:41	56.11	445,129.31	368.25	457,420.31	69.72	0.00	268.55	548.59	971.75	1,498.03	883.46	841.33
7/5/07 10:42	55.64	441,983.31	368.01	457,394.81	68.43	0.00	268.28	548.95	970.90	1,493.20	883.49	841.13
7/5/07 10:43	55.84	443,752.69	367.75	457,369.31	69.39	0.00	268.18	549.44	970.29	1,498.65	882.98	840.06
7/5/07 10:44	55.90	444,772.81	367.39	457,060.59	71.31	0.00	267.95	549.89	970.62	1,498.91	882.48	840.58
7/5/07 10:45	54.84	436,635.19	366.90	456,216.31	69.82	0.00	267.80	549.94	970.07	1,487.43	881.58	840.76
7/5/07 10:46	55.39	440,554.19	366.32	455,372.00	67.09	0.00	267.66	549.78	968.25	1,496.89	880.22	840.21
7/5/07 10:47	55.59	442,299.59	365.75	454,771.31	66.21	0.00	267.48	549.93	968.99	1,499.22	879.70	839.85
7/5/07 10:48	55.26	439,527.69	365.20	455,597.09	66.82	0.00	267.22	549.84	968.90	1,494.65	879.41	839.83
7/5/07 10:49	54.49	434,573.00	364.64	456,422.91	68.30	0.00	267.09	549.65	967.95	1,490.23	878.93	839.89

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 10:50	54.71	436,808.69	364.00	457,248.81	71.42	0.00	266.96	549.79	968.13	1,494.17	878.77	840.34
7/5/07 10:51	54.34	434,101.91	363.34	458,074.69	73.18	0.00	266.77	549.92	967.92	1,491.70	878.44	840.45
7/5/07 10:52	55.47	443,048.31	362.72	458,900.50	74.81	0.00	266.60	549.88	967.93	1,506.07	877.91	840.43
7/5/07 10:53	56.31	449,613.59	362.20	460,341.59	75.84	0.00	266.40	550.13	970.66	1,508.82	878.38	840.40
7/5/07 10:54	56.78	453,306.09	361.76	462,367.91	74.97	0.00	266.36	549.72	971.54	1,509.81	878.58	839.41
7/5/07 10:55	57.35	456,417.59	361.32	464,394.19	75.08	0.00	266.51	549.10	972.34	1,510.28	878.63	839.38
7/5/07 10:56	57.65	458,246.00	360.92	466,420.59	78.27	0.00	266.68	548.50	972.56	1,508.81	878.68	839.18
7/5/07 10:57	58.27	463,598.69	360.62	468,446.91	76.34	0.00	266.98	547.95	972.08	1,511.06	878.66	839.21
7/5/07 10:58	57.33	456,062.09	360.28	470,473.19	75.54	0.00	267.20	547.48	971.51	1,497.02	878.82	839.08
7/5/07 10:59	56.93	452,243.09	359.98	468,778.19	72.62	0.00	267.47	546.77	968.83	1,492.14	878.31	838.58
7/5/07 11:00	56.59	451,876.31	359.71	463,299.31	71.09	0.00	267.73	546.38	967.26	1,492.87	877.68	837.42
7/5/07 11:01	56.50	450,264.50	359.49	457,820.31	70.04	0.00	267.79	546.09	966.87	1,492.78	877.38	836.39
7/5/07 11:02	55.33	440,603.91	359.30	452,439.50	70.65	0.00	267.78	545.54	965.81	1,484.90	876.57	833.16
7/5/07 11:03	55.04	439,946.91	359.18	450,323.81	70.55	0.00	267.74	545.21	965.75	1,486.99	875.23	829.53
7/5/07 11:04	54.58	435,601.19	359.19	448,208.09	71.16	0.00	267.48	545.11	967.51	1,487.04	872.53	828.05
7/5/07 11:05	53.19	424,902.91	359.15	446,092.41	70.97	0.00	267.19	544.84	968.04	1,480.50	868.92	825.59
7/5/07 11:06	53.02	425,574.41	359.07	443,976.81	68.57	0.00	266.87	544.60	967.53	1,484.18	866.56	821.86
7/5/07 11:07	52.79	422,870.09	358.91	441,655.50	67.39	0.00	266.34	544.55	967.65	1,485.65	865.67	821.37
7/5/07 11:08	51.81	414,379.69	358.86	439,281.59	69.16	0.00	265.87	544.58	968.18	1,481.82	865.86	822.17
7/5/07 11:09	52.31	418,864.81	358.74	436,907.69	68.94	0.00	265.52	544.60	969.59	1,492.61	864.67	823.95
7/5/07 11:10	52.49	420,226.41	358.66	435,539.81	69.58	0.00	265.09	544.96	972.81	1,494.75	864.33	826.95
7/5/07 11:11	52.33	419,547.69	358.55	436,566.91	71.69	0.00	264.88	545.09	972.88	1,492.60	864.80	828.57
7/5/07 11:12	53.15	426,196.59	358.45	437,594.00	68.75	0.00	264.76	545.09	973.03	1,502.52	864.97	827.69
7/5/07 11:13	52.54	420,076.81	358.38	438,621.09	67.51	0.00	264.63	545.09	973.68	1,493.32	864.69	825.36
7/5/07 11:14	52.63	423,383.09	358.34	439,648.09	67.45	0.00	264.63	544.91	973.46	1,495.06	862.79	823.57
7/5/07 11:15	52.66	421,250.19	358.22	440,675.19	68.64	0.00	264.66	544.91	973.30	1,491.85	861.15	821.76
7/5/07 11:16	51.90	417,904.00	358.07	438,198.19	62.78	0.00	264.66	544.64	970.83	1,487.07	860.10	818.82
7/5/07 11:17	51.47	414,795.41	357.92	435,162.69	62.46	0.00	264.67	544.39	968.52	1,486.71	860.06	818.76
7/5/07 11:18	50.98	414,009.31	357.77	432,127.09	61.90	0.00	264.56	544.31	967.62	1,487.12	860.38	819.44
7/5/07 11:19	50.67	413,145.50	357.60	429,091.50	62.01	0.00	264.40	544.23	968.39	1,487.38	859.56	820.46
7/5/07 11:20	50.35	412,394.19	357.46	426,056.00	60.26	0.00	264.14	544.35	969.99	1,486.56	859.60	823.00
7/5/07 11:21	49.59	406,999.31	357.33	423,020.41	59.24	0.00	263.88	544.37	970.16	1,481.33	859.96	824.06
7/5/07 11:22	49.50	407,216.00	357.08	419,900.59	61.68	0.00	263.70	544.18	969.00	1,485.48	858.97	821.93
7/5/07 11:23	48.88	401,587.19	356.89	416,746.69	61.19	0.00	263.42	544.29	968.95	1,480.60	857.49	819.80
7/5/07 11:24	47.45	394,328.69	356.71	413,604.00	61.77	0.00	263.18	544.13	966.81	1,474.27	854.79	817.35
7/5/07 11:25	47.16	393,409.31	356.49	411,338.59	62.72	0.00	263.02	544.09	965.75	1,478.19	851.86	813.48
7/5/07 11:26	47.07	394,032.50	356.31	409,073.31	63.81	0.00	262.60	544.39	966.44	1,485.18	850.26	810.80
7/5/07 11:27	45.56	386,328.91	356.08	406,807.91	63.23	0.00	262.28	544.65	967.67	1,477.30	849.63	810.39
7/5/07 11:28	44.84	379,143.91	355.89	404,542.59	63.18	0.00	262.02	544.51	966.54	1,476.68	848.17	808.69
7/5/07 11:29	45.03	379,568.81	355.68	402,277.19	63.26	0.00	261.67	544.46	966.66	1,488.41	846.55	807.74
7/5/07 11:30	44.51	376,394.69	355.54	400,538.91	64.40	0.00	261.11	544.74	968.80	1,480.74	846.14	807.64
7/5/07 11:31	44.29	373,393.59	355.35	399,210.50	65.08	0.00	260.69	544.64	968.86	1,483.24	845.42	807.49
7/5/07 11:32	44.91	378,293.50	355.19	397,882.19	62.71	0.00	260.36	544.64	970.96	1,495.72	844.36	807.39
7/5/07 11:33	45.39	382,571.50	355.05	395,926.41	59.00	0.00	260.04	544.66	972.02	1,499.33	843.44	807.84
7/5/07 11:34	44.61	376,267.50	354.92	393,856.31	61.68	0.00	259.83	544.05	969.61	1,485.31	841.41	806.67
7/5/07 11:35	44.57	376,103.00	354.73	392,058.19	63.80	0.00	259.80	543.27	966.64	1,488.70	839.17	804.62
7/5/07 11:36	44.23	374,641.69	354.55	390,388.50	64.11	0.00	259.72	542.82	965.91	1,486.82	837.77	802.58
7/5/07 11:37	43.33	369,350.69	354.33	388,718.81	62.42	0.00	259.50	542.36	965.52	1,481.19	836.43	800.63
7/5/07 11:38	42.98	366,236.91	354.12	386,786.09	63.37	0.00	259.33	541.84	964.39	1,483.20	834.87	799.30
7/5/07 11:39	42.87	364,686.41	353.93	384,738.41	67.98	0.00	259.10	541.52	964.44	1,486.18	833.63	798.90

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 11:40	43.26	367,916.41	353.77	382,690.81	74.15	0.00	258.67	541.50	966.65	1,493.55	833.14	798.20
7/5/07 11:41	42.13	359,051.69	353.65	380,643.09	81.36	0.00	258.20	541.15	968.61	1,478.27	833.06	795.92
7/5/07 11:42	42.00	356,440.31	353.45	379,040.00	82.90	0.00	257.96	540.60	968.89	1,483.04	831.75	791.39
7/5/07 11:43	42.62	361,014.09	353.26	378,277.91	82.01	0.00	257.64	540.52	971.95	1,496.20	828.75	788.61
7/5/07 11:44	42.29	358,513.81	353.16	377,515.81	81.61	0.00	257.20	540.54	974.80	1,488.05	826.14	786.14
7/5/07 11:45	42.20	356,785.31	353.07	376,753.69	84.23	0.00	256.92	540.26	974.23	1,486.87	824.73	782.18
7/5/07 11:46	41.90	354,658.00	352.86	375,991.59	82.33	0.00	256.69	540.08	973.92	1,483.41	824.72	781.42
7/5/07 11:47	41.92	354,850.41	352.89	376,034.81	82.10	0.00	256.43	540.44	974.24	1,484.92	826.58	783.68
7/5/07 11:48	41.38	351,396.31	352.94	376,171.50	84.49	0.00	256.18	540.85	974.23	1,483.48	827.26	785.50
7/5/07 11:49	41.80	352,971.09	353.03	376,308.31	82.75	0.00	256.00	541.31	974.71	1,492.77	828.04	787.48
7/5/07 11:50	41.78	353,402.41	353.01	376,850.09	81.12	0.00	255.75	541.69	975.61	1,493.69	829.96	789.71
7/5/07 11:51	41.86	353,836.19	352.92	376,893.19	77.88	0.00	255.56	541.90	975.27	1,495.09	831.39	789.80
7/5/07 11:52	41.72	351,823.91	352.85	375,906.09	79.08	0.00	255.45	541.90	973.45	1,490.48	831.19	786.84
7/5/07 11:53	42.02	353,622.91	352.76	369,867.00	81.04	0.00	255.40	542.16	973.60	1,495.76	829.27	785.70
7/5/07 11:54	41.94	353,070.19	352.68	370,929.00	77.21	0.00	255.34	542.59	973.81	1,489.93	827.88	784.26
7/5/07 11:55	41.78	353,016.31	352.56	371,092.31	75.46	0.00	255.31	542.94	973.25	1,488.01	827.98	782.82
7/5/07 11:56	42.02	355,782.00	352.45	370,840.19	73.63	0.00	255.31	542.85	971.66	1,494.68	828.41	783.55
7/5/07 11:57	42.07	356,757.59	352.30	368,428.19	75.30	0.00	255.28	542.87	971.11	1,494.43	828.94	785.45
7/5/07 11:58	42.20	357,143.31	352.17	368,802.19	74.94	0.00	255.30	542.91	971.70	1,494.41	828.24	786.96
7/5/07 11:59	41.90	356,133.59	352.07	369,174.81	73.54	0.00	255.33	542.96	970.43	1,491.22	828.11	788.96
7/5/07 12:00	41.88	355,534.91	352.08	366,972.59	71.77	0.00	255.35	543.31	970.42	1,490.89	829.38	791.93
7/5/07 12:01	41.77	354,236.19	352.03	364,770.50	71.84	0.00	255.38	543.55	969.85	1,488.69	830.25	791.06
7/5/07 12:02	41.70	354,142.59	351.91	366,286.19	67.06	0.00	255.40	543.86	968.81	1,486.70	829.69	788.95
7/5/07 12:03	41.77	355,234.00	351.84	367,880.91	64.81	0.00	255.34	543.67	969.15	1,490.44	827.63	788.70
7/5/07 12:04	41.87	355,508.41	351.73	368,697.59	64.10	0.00	255.32	543.72	970.51	1,492.28	826.65	787.69
7/5/07 12:05	42.24	358,282.59	351.62	369,009.69	65.78	0.00	255.31	543.72	970.98	1,498.01	827.09	786.46
7/5/07 12:06	43.30	366,861.91	351.56	371,254.69	69.75	0.00	255.32	543.95	972.77	1,506.31	828.62	788.65
7/5/07 12:07	43.54	366,669.50	351.52	374,669.59	72.36	0.00	255.34	544.21	974.74	1,499.25	830.11	791.22
7/5/07 12:08	44.07	370,552.19	351.42	378,084.41	72.01	0.00	255.55	544.03	974.72	1,501.92	830.15	792.14
7/5/07 12:09	44.00	371,922.41	351.38	381,499.31	70.42	0.00	255.76	543.84	974.44	1,491.44	831.10	793.85
7/5/07 12:10	43.83	370,470.91	351.26	384,516.81	69.31	0.00	256.03	543.63	971.28	1,489.18	831.73	794.29
7/5/07 12:11	43.85	370,726.81	351.15	385,714.31	72.64	0.00	256.41	543.51	968.73	1,489.81	832.22	790.98
7/5/07 12:12	44.03	371,648.91	351.04	386,911.81	73.10	0.00	256.69	543.46	967.74	1,492.76	830.20	789.46
7/5/07 12:13	43.83	370,387.00	350.95	388,109.31	71.65	0.00	256.88	543.33	967.11	1,489.60	826.97	788.52
7/5/07 12:14	44.02	371,585.69	350.89	389,306.69	74.67	0.00	257.03	543.40	966.62	1,494.07	826.37	786.64
7/5/07 12:15	44.83	378,641.00	350.94	391,803.19	75.36	0.00	257.13	543.78	968.79	1,504.40	828.23	786.18
7/5/07 12:16	44.78	378,409.19	351.08	395,535.19	72.22	0.00	257.20	544.21	971.77	1,497.02	830.94	788.62
7/5/07 12:17	45.64	383,555.59	351.20	399,267.19	74.82	0.00	257.38	544.26	973.08	1,502.21	831.56	790.45
7/5/07 12:18	46.61	391,293.59	351.36	402,999.31	71.39	0.00	257.57	544.15	974.85	1,506.08	831.40	792.01
7/5/07 12:19	47.07	394,012.00	351.43	405,722.09	50.66	0.00	257.79	544.23	976.49	1,500.92	833.37	795.08
7/5/07 12:20	47.09	394,474.50	351.51	408,003.81	43.57	0.00	258.21	543.98	975.14	1,501.18	835.16	796.36
7/5/07 12:21	47.85	400,565.09	351.61	410,285.50	52.31	0.00	258.61	543.96	975.56	1,499.15	836.83	795.87
7/5/07 12:22	49.00	409,141.09	351.71	412,567.31	66.48	0.00	259.08	543.80	975.71	1,506.38	836.34	795.46
7/5/07 12:23	48.84	409,472.19	351.94	414,849.00	73.06	0.00	259.60	543.63	975.27	1,500.42	835.29	794.98
7/5/07 12:24	48.75	408,347.31	352.12	417,130.69	78.59	0.00	260.14	543.43	973.45	1,496.38	836.13	792.83
7/5/07 12:25	49.36	413,989.69	352.35	419,908.50	82.22	0.00	260.69	543.29	972.26	1,501.98	838.37	793.16
7/5/07 12:26	48.90	409,672.41	352.60	423,262.81	81.51	0.00	261.13	543.43	972.11	1,491.49	841.31	795.90
7/5/07 12:27	48.97	410,930.19	352.88	423,711.19	81.26	0.00	261.54	543.46	970.83	1,493.22	842.12	798.09
7/5/07 12:28	48.92	409,417.50	353.22	424,046.31	78.75	0.00	261.87	543.61	970.55	1,492.28	843.42	800.76
7/5/07 12:29	49.12	412,087.19	353.56	424,381.50	79.44	0.00	262.16	544.09	969.75	1,496.32	846.61	804.24

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 12:30	48.35	406,018.41	353.94	424,716.59	80.99	0.00	262.37	544.56	968.55	1,488.24	849.98	804.97
7/5/07 12:31	48.76	409,116.50	354.31	425,051.81	85.15	0.00	262.55	545.10	969.30	1,495.13	852.49	804.87
7/5/07 12:32	48.61	407,547.41	354.70	425,386.91	84.06	0.00	262.56	545.60	970.80	1,493.81	852.08	805.58
7/5/07 12:33	48.38	407,138.00	355.10	425,722.09	87.12	0.00	262.64	546.02	971.40	1,490.96	851.39	805.32
7/5/07 12:34	48.72	409,174.91	355.42	426,057.31	85.15	0.00	262.68	546.47	970.65	1,498.14	852.90	803.26
7/5/07 12:35	49.35	413,324.19	355.71	426,392.41	82.68	0.00	262.75	547.13	971.51	1,503.45	855.76	804.90
7/5/07 12:36	50.44	421,528.91	355.92	427,921.31	78.65	0.00	262.84	547.64	973.28	1,507.04	858.45	807.47
7/5/07 12:37	50.46	422,397.50	356.11	432,076.41	77.39	0.00	262.99	547.73	973.59	1,504.62	858.56	810.18
7/5/07 12:38	51.05	426,112.91	356.24	436,231.59	76.67	0.00	263.31	547.87	974.32	1,504.79	859.50	813.15
7/5/07 12:39	52.20	435,454.00	356.39	440,386.69	76.87	0.00	263.69	548.12	974.40	1,510.34	861.72	816.74
7/5/07 12:40	52.65	439,266.31	356.54	444,541.81	80.07	0.00	264.11	548.35	976.23	1,506.58	864.44	815.51
7/5/07 12:41	53.35	443,938.09	356.74	448,697.00	82.57	0.00	264.60	548.06	977.17	1,507.37	863.67	811.85
7/5/07 12:42	53.83	446,652.81	356.90	452,852.09	81.15	0.00	265.20	547.49	976.77	1,506.99	859.60	810.62
7/5/07 12:43	54.22	450,566.19	357.06	457,007.31	79.76	0.00	265.70	547.28	977.14	1,502.65	857.44	808.31
7/5/07 12:44	53.73	447,124.31	357.26	460,208.00	78.55	0.00	266.22	546.97	974.16	1,496.84	857.96	806.18
7/5/07 12:45	53.11	444,338.50	357.45	459,871.91	77.31	0.00	266.81	546.83	971.64	1,493.75	859.47	803.35
7/5/07 12:46	53.42	446,546.59	357.70	459,535.91	74.83	0.00	267.13	546.74	970.14	1,498.10	859.22	802.60
7/5/07 12:47	52.76	442,135.59	357.97	459,199.81	69.76	0.00	267.32	546.49	968.44	1,491.03	856.52	803.02
7/5/07 12:48	52.88	443,191.81	358.21	458,863.81	66.76	0.00	267.46	546.37	967.38	1,493.83	855.49	801.53
7/5/07 12:49	52.69	441,127.00	358.40	458,527.69	66.41	0.00	267.47	546.40	967.65	1,493.01	856.96	801.01
7/5/07 12:50	52.24	437,907.41	358.59	458,191.59	69.22	0.00	267.44	546.49	968.50	1,492.67	858.90	803.61
7/5/07 12:51	52.54	438,668.69	358.76	457,855.59	71.64	0.00	267.37	546.61	970.67	1,498.37	860.01	806.55
7/5/07 12:52	53.03	442,821.81	359.01	457,519.50	71.56	0.00	267.26	546.72	973.01	1,502.37	859.81	809.28
7/5/07 12:53	54.74	455,450.59	359.23	459,860.31	71.75	0.00	267.24	546.90	975.28	1,511.79	861.27	812.22
7/5/07 12:54	54.16	451,075.31	359.47	464,016.81	74.20	0.00	267.33	547.04	977.60	1,500.32	864.02	814.69
7/5/07 12:55	54.45	452,243.59	359.63	469,706.09	72.30	0.00	267.62	546.60	978.32	1,503.42	865.59	809.71
7/5/07 12:56	55.73	461,763.81	359.79	476,119.59	70.60	0.00	267.91	546.26	979.52	1,511.24	863.03	807.66
7/5/07 12:57	56.30	463,198.41	360.01	481,373.81	73.59	0.00	268.21	546.27	982.37	1,511.67	859.92	807.85
7/5/07 12:58	55.33	463,959.59	360.17	479,819.09	75.38	0.00	268.58	545.81	981.95	1,507.61	859.17	804.49
7/5/07 12:59	56.70	455,730.81	360.28	478,264.31	74.21	0.00	269.06	545.19	980.91	1,518.58	860.46	804.62
7/5/07 13:00	58.85	470,224.59	360.30	477,376.69	72.06	0.00	269.34	544.92	981.52	1,531.90	862.18	807.97
7/5/07 13:01	58.42	463,835.59	360.36	480,396.41	73.36	0.00	269.42	544.24	979.80	1,519.83	861.69	810.94
7/5/07 13:02	59.21	471,504.09	360.37	483,416.09	72.10	0.00	269.55	543.36	976.28	1,516.98	860.14	812.64
7/5/07 13:03	60.31	483,028.31	360.43	486,435.81	69.07	0.00	269.62	542.69	973.53	1,523.38	860.86	814.72
7/5/07 13:04	59.62	476,689.19	360.48	489,455.59	66.33	0.00	269.68	542.10	971.93	1,506.93	862.19	813.69
7/5/07 13:05	60.18	480,099.19	360.44	491,375.09	64.68	0.00	269.93	540.88	968.98	1,510.97	861.43	808.36
7/5/07 13:06	61.08	488,445.69	360.43	493,012.50	67.05	0.00	270.16	540.07	970.61	1,513.39	858.85	807.35
7/5/07 13:07	60.64	485,257.50	360.54	494,649.81	67.80	0.00	270.36	539.23	971.34	1,506.52	856.86	806.22
7/5/07 13:08	60.05	481,876.81	360.64	496,106.59	69.48	0.00	270.53	538.31	970.57	1,501.65	857.44	803.05
7/5/07 13:09	60.06	481,640.19	360.80	493,805.69	70.42	0.00	270.63	537.62	970.72	1,501.57	859.07	804.81
7/5/07 13:10	60.00	481,570.69	360.92	491,504.69	68.91	0.00	270.77	536.96	970.79	1,501.43	860.03	807.28
7/5/07 13:11	59.13	473,283.69	360.98	489,203.69	66.76	0.00	270.87	536.22	971.10	1,493.47	859.02	808.35
7/5/07 13:12	59.28	474,617.41	361.03	486,902.81	65.39	0.00	270.96	535.47	969.41	1,497.20	858.41	809.18
7/5/07 13:13	59.23	474,491.41	361.03	484,601.81	65.26	0.00	270.86	535.13	970.08	1,498.10	859.59	810.74
7/5/07 13:14	59.11	474,315.81	361.04	482,300.81	61.27	0.00	270.85	534.90	970.31	1,496.93	860.08	808.41
7/5/07 13:15	57.74	463,095.19	361.15	479,999.81	58.20	0.00	270.80	534.44	969.51	1,488.46	859.11	804.96
7/5/07 13:16	57.28	460,041.69	361.27	479,214.59	59.17	0.00	270.73	533.97	968.25	1,489.57	857.91	803.56
7/5/07 13:17	57.04	458,238.59	361.35	479,871.19	65.32	0.00	270.57	533.74	967.29	1,491.82	856.57	801.56
7/5/07 13:18	57.12	459,476.31	361.42	480,527.81	70.12	0.00	270.26	533.75	967.50	1,495.59	856.47	800.85
7/5/07 13:19	57.58	461,827.19	361.52	481,184.50	72.36	0.00	269.94	533.79	969.20	1,500.58	857.17	803.00

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 13:20	57.87	462,671.09	361.71	481,841.09	75.58	0.00	269.76	533.72	970.35	1,503.57	857.53	803.90
7/5/07 13:21	57.91	465,238.19	361.89	482,497.69	83.96	0.00	269.66	533.80	971.81	1,500.65	858.10	805.02
7/5/07 13:22	57.84	464,390.00	362.22	483,154.31	89.34	0.00	269.65	533.92	971.51	1,499.93	859.01	807.13
7/5/07 13:23	58.74	471,200.81	362.49	483,811.00	89.14	0.00	269.71	534.06	970.79	1,508.25	860.54	807.84
7/5/07 13:24	59.13	474,570.91	362.73	484,959.50	87.78	0.00	269.76	534.40	971.71	1,508.39	862.27	806.70
7/5/07 13:25	59.77	480,124.81	362.90	486,419.31	85.94	0.00	269.87	534.81	971.80	1,510.68	863.11	806.56
7/5/07 13:26	59.23	474,312.59	363.07	487,879.19	83.87	0.00	270.07	535.47	971.58	1,501.51	863.91	806.18
7/5/07 13:27	59.50	476,777.91	363.22	489,339.00	83.18	0.00	270.33	536.40	970.84	1,502.90	864.27	804.04
7/5/07 13:28	59.51	477,544.31	363.31	490,798.81	80.15	0.00	270.52	537.35	969.98	1,503.56	865.14	803.68
7/5/07 13:29	59.21	475,269.81	363.45	492,258.59	79.54	0.00	270.70	538.05	968.15	1,500.47	865.33	804.33
7/5/07 13:30	59.96	483,437.31	363.61	493,718.41	77.88	0.00	270.81	538.70	967.97	1,507.85	865.50	805.25
7/5/07 13:31	60.64	488,390.59	363.77	495,178.19	75.72	0.00	270.85	539.22	968.15	1,510.02	865.46	805.92
7/5/07 13:32	61.26	491,794.19	364.00	496,007.31	78.98	0.00	270.98	539.80	970.25	1,514.72	866.47	807.50
7/5/07 13:33	61.28	492,136.69	364.20	496,311.50	84.34	0.00	271.18	540.27	971.20	1,516.49	867.20	808.15
7/5/07 13:34	61.69	495,992.00	364.32	496,615.69	94.43	0.00	271.47	540.39	969.52	1,522.82	866.54	807.30
7/5/07 13:35	61.52	494,956.50	364.42	496,919.91	96.89	0.00	271.75	540.32	966.74	1,515.88	865.04	806.79
7/5/07 13:36	61.79	498,063.31	364.35	497,224.19	97.58	0.00	272.03	540.08	963.00	1,520.94	862.74	805.63
7/5/07 13:37	61.17	495,841.59	364.31	497,528.41	93.51	0.00	272.27	539.86	960.00	1,512.06	860.57	803.97
7/5/07 13:38	60.59	490,936.50	364.18	497,832.69	94.11	0.00	272.51	539.22	958.42	1,498.22	859.18	804.26
7/5/07 13:39	60.51	490,619.59	364.08	497,275.50	64.03	0.00	272.71	538.58	955.67	1,496.57	857.65	805.76
7/5/07 13:40	60.18	488,774.59	363.98	494,075.59	19.06	0.00	272.69	538.20	954.63	1,489.57	856.41	807.58
7/5/07 13:41	59.76	486,009.09	363.93	490,875.81	4.78	0.00	272.66	537.73	954.84	1,485.17	855.45	809.55
7/5/07 13:42	58.96	478,653.91	363.90	487,676.00	14.70	0.00	272.57	537.23	955.99	1,474.96	855.08	811.40
7/5/07 13:43	57.52	465,143.50	363.90	484,476.09	49.77	0.00	272.40	536.80	958.44	1,472.23	855.21	811.23
7/5/07 13:44	57.23	463,749.41	363.90	475,163.50	75.68	0.00	272.18	536.53	961.28	1,480.21	855.43	810.03
7/5/07 13:45	55.19	446,668.19	363.92	463,384.31	78.82	0.00	271.75	536.32	963.00	1,467.90	855.04	808.04
7/5/07 13:46	52.69	424,917.19	363.81	451,502.31	76.58	0.00	271.34	535.90	961.39	1,456.79	852.71	804.62
7/5/07 13:47	50.39	410,023.69	363.50	437,481.41	70.73	0.00	270.56	535.62	959.10	1,450.67	849.66	800.92
7/5/07 13:48	48.21	383,389.59	363.17	423,460.59	66.83	0.00	269.23	535.78	957.14	1,437.83	846.34	797.29
7/5/07 13:49	44.30	388,664.50	362.70	407,230.91	69.53	0.00	267.66	535.92	953.45	1,430.63	842.04	793.30
7/5/07 13:50	40.83	358,327.50	362.24	389,502.91	75.27	0.00	266.06	536.19	951.80	1,423.38	838.10	789.39
7/5/07 13:51	37.86	331,839.59	361.66	367,113.00	77.70	0.00	264.46	536.49	951.25	1,422.55	833.98	785.62
7/5/07 13:52	36.52	321,847.31	360.99	347,261.81	75.36	0.00	262.26	537.12	951.86	1,440.71	829.68	781.68
7/5/07 13:53	36.49	319,946.91	360.39	341,600.91	83.06	0.00	259.43	538.26	956.68	1,459.83	826.52	779.07
7/5/07 13:54	36.43	318,308.81	359.84	335,508.09	88.63	0.00	256.88	539.76	962.19	1,469.81	824.17	777.20
7/5/07 13:55	35.77	311,629.50	359.33	331,044.81	87.31	0.00	255.16	540.72	965.15	1,476.14	821.46	774.85
7/5/07 13:56	35.97	311,267.00	358.74	329,908.00	85.90	0.00	254.11	541.68	968.82	1,481.24	819.09	772.73
7/5/07 13:57	36.66	316,597.50	358.20	329,854.91	89.02	0.00	253.04	542.52	971.17	1,494.57	817.08	770.87
7/5/07 13:58	37.30	320,898.81	357.71	332,882.81	91.26	0.00	252.41	543.37	972.98	1,501.53	815.53	769.31
7/5/07 13:59	39.25	332,734.41	357.26	345,857.91	90.26	0.00	252.02	544.26	974.34	1,510.17	814.43	768.47
7/5/07 14:00	42.33	357,238.81	356.95	358,832.91	88.92	0.00	251.71	545.17	976.22	1,526.15	814.48	768.49
7/5/07 14:01	43.30	367,080.81	356.71	371,808.00	88.30	0.00	251.77	545.94	977.38	1,519.08	815.38	769.08
7/5/07 14:02	45.29	381,927.81	356.44	385,010.50	88.62	0.00	252.12	546.02	975.30	1,525.15	815.60	768.61
7/5/07 14:03	48.29	405,805.81	356.22	398,249.31	89.89	0.00	252.78	546.09	974.93	1,530.64	816.29	768.75
7/5/07 14:04	49.77	418,183.09	356.07	411,488.09	86.44	0.00	253.61	546.16	974.82	1,525.45	818.05	769.88
7/5/07 14:05	50.10	421,569.69	356.01	420,758.91	82.23	0.00	254.65	545.89	972.65	1,517.47	819.53	770.47
7/5/07 14:06	51.16	429,525.50	355.98	420,584.81	80.70	0.00	256.37	545.67	971.20	1,516.19	821.01	771.28
7/5/07 14:07	51.05	428,681.19	355.96	420,410.59	76.73	0.00	258.00	545.49	970.38	1,508.26	822.80	772.47
7/5/07 14:08	50.30	424,649.59	355.97	420,236.50	76.33	0.00	259.61	545.30	968.82	1,496.40	824.32	773.13
7/5/07 14:09	50.10	422,248.41	355.94	420,062.31	73.40	0.00	260.73	545.02	966.54	1,493.03	825.40	773.57

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 14:10	50.13	422,219.09	355.99	420,134.59	73.15	0.00	261.77	544.87	965.74	1,493.35	826.48	773.92
7/5/07 14:11	49.85	419,859.00	355.98	420,290.91	68.88	0.00	262.41	544.76	965.68	1,491.69	827.81	774.98
7/5/07 14:12	49.57	418,722.50	355.95	420,447.09	66.31	0.00	262.87	544.66	966.29	1,490.42	828.77	775.37
7/5/07 14:13	50.01	421,101.69	355.95	420,603.41	64.46	0.00	263.19	544.67	968.02	1,498.76	829.84	775.80
7/5/07 14:14	49.91	419,742.19	356.00	420,759.59	62.19	0.00	263.40	544.75	970.99	1,494.36	831.19	776.74
7/5/07 14:15	49.90	419,334.31	355.98	420,915.91	62.07	0.00	263.68	544.50	971.54	1,493.99	831.72	776.76
7/5/07 14:16	50.62	423,917.31	355.93	421,072.09	63.53	0.00	263.93	544.19	972.59	1,503.18	832.38	777.13
7/5/07 14:17	50.55	422,004.81	355.90	421,228.41	62.69	0.00	264.16	543.99	973.84	1,497.98	833.32	777.58
7/5/07 14:18	50.48	421,378.50	355.89	421,384.59	64.25	0.00	264.43	543.54	973.58	1,496.29	833.64	777.63
7/5/07 14:19	50.36	420,634.59	355.79	421,540.81	68.70	0.00	264.72	542.78	972.50	1,496.29	834.04	777.75
7/5/07 14:20	50.69	424,101.59	355.82	421,697.09	71.60	0.00	264.97	542.14	972.70	1,501.14	834.89	778.11
7/5/07 14:21	50.68	425,580.00	355.76	421,853.31	70.52	0.00	265.16	541.38	972.60	1,499.99	835.74	778.68
7/5/07 14:22	50.12	419,647.81	355.74	422,009.59	72.83	0.00	265.39	540.61	972.28	1,488.98	836.40	779.26
7/5/07 14:23	49.54	415,514.91	355.66	420,293.50	71.83	0.00	265.57	540.30	970.08	1,483.07	836.32	778.87
7/5/07 14:24	48.92	410,243.19	355.53	415,719.69	74.77	0.00	265.69	540.59	967.96	1,482.55	835.75	778.16
7/5/07 14:25	47.77	401,848.59	355.41	411,145.91	72.93	0.00	265.67	541.25	966.42	1,478.15	835.01	777.63
7/5/07 14:26	47.14	397,059.81	355.32	406,572.09	70.46	0.00	265.51	541.80	964.28	1,482.15	834.04	776.97
7/5/07 14:27	45.86	389,051.69	355.20	401,998.31	69.21	0.00	265.04	542.32	964.02	1,477.90	833.41	776.65
7/5/07 14:28	45.54	386,018.91	355.07	397,424.41	72.49	0.00	264.45	542.64	964.09	1,484.55	832.70	776.00
7/5/07 14:29	45.61	388,097.09	355.01	394,008.59	73.24	0.00	263.65	543.02	965.47	1,487.11	832.69	776.16
7/5/07 14:30	44.44	377,853.31	355.04	391,938.59	71.89	0.00	263.02	543.24	967.37	1,477.51	833.36	776.75
7/5/07 14:31	44.06	374,158.09	355.02	389,868.59	70.58	0.00	262.44	543.03	966.49	1,481.54	832.76	776.01
7/5/07 14:32	44.22	375,791.09	354.94	387,798.59	72.48	0.00	261.91	543.12	967.84	1,486.00	832.84	776.17
7/5/07 14:33	43.92	373,636.09	354.91	385,728.59	69.20	0.00	261.25	543.19	968.61	1,484.83	833.09	776.42
7/5/07 14:34	44.01	373,232.59	354.82	383,658.50	71.05	0.00	260.85	543.42	969.21	1,490.03	833.23	776.31
7/5/07 14:35	44.00	372,491.59	354.81	383,198.00	72.47	0.00	260.46	543.63	969.92	1,490.71	833.38	776.32
7/5/07 14:36	44.02	373,014.81	354.67	384,373.91	72.45	0.00	260.18	543.80	970.73	1,490.10	833.33	776.36
7/5/07 14:37	44.33	375,438.31	354.55	385,549.91	69.71	0.00	259.96	543.89	970.35	1,496.04	833.00	775.99
7/5/07 14:38	45.07	380,195.50	354.47	386,725.91	67.81	0.00	259.90	544.29	971.81	1,504.95	833.08	776.07
7/5/07 14:39	45.49	383,748.41	354.41	387,901.81	58.98	0.00	259.78	544.58	972.06	1,503.44	833.34	776.18
7/5/07 14:40	45.27	382,250.81	354.38	389,077.81	67.21	0.00	259.83	544.74	971.02	1,498.89	833.33	776.09
7/5/07 14:41	44.98	380,906.41	354.28	390,253.81	71.87	0.00	259.95	544.79	969.11	1,493.42	832.80	775.54
7/5/07 14:42	45.38	382,852.41	354.17	391,429.69	71.54	0.00	260.00	544.97	968.05	1,493.88	832.24	775.06
7/5/07 14:43	44.78	380,080.31	354.10	392,605.69	71.36	0.00	260.03	544.98	966.44	1,484.81	831.55	774.57
7/5/07 14:44	45.16	381,572.81	353.98	393,781.69	72.93	0.00	260.09	545.02	965.28	1,493.49	830.72	774.03
7/5/07 14:45	45.97	389,923.09	353.94	394,957.59	72.27	0.00	260.02	545.24	966.76	1,501.36	830.62	774.29
7/5/07 14:46	46.07	390,683.09	353.96	396,553.00	74.13	0.00	259.94	545.46	968.81	1,498.03	831.07	774.67
7/5/07 14:47	46.14	390,781.81	353.93	398,432.91	73.60	0.00	259.95	545.43	969.56	1,497.17	831.13	774.59
7/5/07 14:48	46.74	395,471.00	353.82	400,312.69	74.41	0.00	260.11	545.23	970.52	1,498.85	831.04	774.64
7/5/07 14:49	46.69	394,448.31	353.66	402,192.59	68.72	0.00	260.20	544.95	971.12	1,496.45	830.53	774.15
7/5/07 14:50	47.05	397,650.09	353.47	404,072.50	68.30	0.00	260.35	544.63	971.24	1,497.14	829.92	773.65
7/5/07 14:51	47.49	400,861.41	353.33	405,952.31	64.90	0.00	260.64	544.49	971.56	1,498.68	829.58	773.47
7/5/07 14:52	47.47	400,757.81	353.22	407,832.19	62.21	0.00	260.87	544.33	971.88	1,492.78	829.47	773.50
7/5/07 14:53	48.64	408,692.09	353.14	409,712.09	62.55	0.00	261.07	544.09	972.07	1,503.83	829.56	773.40
7/5/07 14:54	48.82	410,120.31	353.10	411,591.91	63.07	0.00	261.36	543.97	973.75	1,496.18	830.44	774.02
7/5/07 14:55	49.59	416,602.81	353.08	413,471.81	61.34	0.00	261.73	543.59	973.77	1,505.76	830.98	774.43
7/5/07 14:56	49.62	416,323.00	353.12	415,351.69	60.54	0.00	262.10	543.41	974.45	1,498.21	831.91	775.28
7/5/07 14:57	49.87	417,743.81	353.18	417,231.50	63.39	0.00	262.60	543.17	973.94	1,499.85	832.94	776.41
7/5/07 14:58	49.85	417,792.41	353.25	419,111.41	66.17	0.00	263.01	543.04	973.54	1,499.29	833.80	777.24
7/5/07 14:59	49.97	419,585.59	353.34	420,991.31	67.48	0.00	263.31	542.91	974.10	1,496.89	834.66	777.61

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 15:00	50.49	424,312.41	353.36	422,871.19	66.37	0.00	263.56	542.63	973.81	1,503.13	835.38	777.80
7/5/07 15:01	50.37	423,529.00	353.39	424,751.00	65.78	0.00	263.88	542.31	973.23	1,496.01	836.02	778.16
7/5/07 15:02	49.97	418,450.31	353.38	426,112.31	66.38	0.00	264.18	541.93	972.49	1,489.40	836.20	778.37
7/5/07 15:03	50.06	420,537.50	353.44	427,296.81	67.28	0.00	264.47	541.86	971.68	1,493.77	835.89	779.15
7/5/07 15:04	49.92	418,950.81	353.60	428,481.31	67.54	0.00	264.60	542.44	972.84	1,491.51	833.90	778.34
7/5/07 15:05	50.33	422,707.09	353.81	429,665.81	63.13	0.00	264.69	542.86	973.60	1,499.50	834.03	779.00
7/5/07 15:06	50.20	421,122.59	354.03	430,850.31	61.10	0.00	264.79	542.84	974.76	1,495.58	834.75	779.77
7/5/07 15:07	50.17	421,128.50	354.19	432,034.91	60.23	0.00	264.90	542.74	975.77	1,494.93	836.66	781.74
7/5/07 15:08	50.21	421,067.31	354.34	433,219.41	61.78	0.00	264.92	542.49	975.12	1,497.04	838.09	782.77
7/5/07 15:09	50.33	421,434.91	354.42	434,403.91	62.36	0.00	265.02	542.43	975.59	1,498.08	839.38	783.12
7/5/07 15:10	50.20	421,172.31	354.39	435,588.41	61.81	0.00	265.10	542.17	974.00	1,494.80	840.12	783.18
7/5/07 15:11	50.60	424,674.19	354.27	436,773.00	64.41	0.00	265.16	542.25	973.16	1,500.68	840.73	783.29
7/5/07 15:12	50.18	421,625.50	354.07	437,957.50	65.84	0.00	265.19	542.40	971.94	1,494.33	841.08	783.07
7/5/07 15:13	50.35	422,120.81	353.80	439,142.00	66.93	0.00	265.28	542.39	971.01	1,498.45	841.43	783.19
7/5/07 15:14	50.63	424,257.69	353.54	440,411.31	72.08	0.00	265.31	542.38	971.05	1,500.10	842.05	783.69
7/5/07 15:15	50.98	428,674.41	353.29	441,918.69	72.68	0.00	265.32	542.30	971.32	1,499.90	843.40	784.88
7/5/07 15:16	50.70	427,161.31	353.06	443,426.00	74.55	0.00	265.39	542.14	970.84	1,496.04	844.87	785.87
7/5/07 15:17	51.04	428,441.81	352.79	444,933.41	74.03	0.00	265.56	542.07	970.40	1,500.82	846.09	786.44
7/5/07 15:18	51.51	432,477.59	352.48	446,440.81	74.71	0.00	265.67	542.31	971.13	1,500.83	847.63	787.42
7/5/07 15:19	51.40	431,222.59	352.10	446,461.09	73.32	0.00	265.75	542.47	970.06	1,497.53	848.78	787.88
7/5/07 15:20	52.09	435,949.81	351.80	446,338.69	72.60	0.00	265.84	542.56	969.65	1,502.98	849.56	788.08
7/5/07 15:21	53.04	443,772.00	351.64	446,216.41	76.13	0.00	265.96	542.70	970.64	1,505.86	850.68	788.77
7/5/07 15:22	52.88	443,454.41	351.49	446,094.09	77.35	0.00	266.12	542.79	971.10	1,502.20	851.72	789.52
7/5/07 15:23	52.19	428,974.41	351.46	445,652.69	80.27	0.00	266.41	542.56	970.54	1,500.56	852.25	789.91
7/5/07 15:24	52.83	431,162.59	351.39	444,757.00	80.16	0.00	266.70	542.47	970.06	1,504.98	852.44	789.77
7/5/07 15:25	54.04	438,725.81	351.38	443,861.31	76.61	0.00	266.72	542.68	969.91	1,510.89	852.69	789.80
7/5/07 15:26	54.02	437,782.50	351.40	442,965.50	77.46	0.00	266.62	542.80	968.70	1,507.54	852.94	789.98
7/5/07 15:27	54.81	442,240.31	351.52	443,797.09	77.55	0.00	266.60	542.95	968.91	1,506.81	853.26	790.23
7/5/07 15:28	55.86	450,034.41	351.62	444,984.50	73.17	0.00	266.58	543.01	968.77	1,512.51	853.66	790.62
7/5/07 15:29	55.07	443,850.09	351.71	446,171.91	71.77	0.00	266.70	543.03	969.07	1,498.53	854.07	790.94
7/5/07 15:30	55.16	442,697.59	351.84	445,089.09	70.78	0.00	266.90	542.77	967.46	1,504.48	853.77	790.63
7/5/07 15:31	55.61	447,091.91	351.93	442,356.69	75.65	0.00	267.09	542.84	968.43	1,504.79	854.07	791.03
7/5/07 15:32	54.93	440,922.59	352.00	439,624.31	74.49	0.00	267.23	542.73	967.88	1,493.89	853.85	790.80
7/5/07 15:33	54.11	434,137.69	352.11	436,939.31	75.54	0.00	267.35	542.44	965.17	1,489.65	853.03	789.89
7/5/07 15:34	53.19	427,712.41	352.18	434,350.69	75.59	0.00	267.42	542.39	963.84	1,483.11	852.29	789.38
7/5/07 15:35	52.88	424,674.09	352.24	431,762.09	74.70	0.00	267.28	542.40	962.58	1,486.19	851.44	788.61
7/5/07 15:36	52.00	420,858.19	352.25	429,173.50	72.96	0.00	267.15	542.57	962.50	1,481.61	850.78	787.98
7/5/07 15:37	51.38	415,542.00	352.34	426,584.91	70.13	0.00	266.87	542.77	962.96	1,482.90	850.22	787.80
7/5/07 15:38	51.26	415,421.09	352.36	423,996.31	72.40	0.00	266.57	542.98	963.80	1,487.58	849.60	787.37
7/5/07 15:39	51.56	418,083.19	352.41	421,407.69	70.39	0.00	266.14	543.29	965.77	1,493.11	849.25	787.29
7/5/07 15:40	52.15	421,734.19	352.45	422,286.00	68.93	0.00	265.81	543.66	968.35	1,500.77	849.41	787.56
7/5/07 15:41	51.72	418,004.69	352.49	424,244.19	67.56	0.00	265.53	543.76	969.84	1,493.56	849.35	787.37
7/5/07 15:42	52.61	424,224.09	352.54	426,202.41	65.04	0.00	265.39	543.81	970.74	1,503.57	849.03	787.30
7/5/07 15:43	53.46	429,967.00	352.56	428,160.50	65.86	0.00	265.25	544.00	972.35	1,507.76	849.18	787.63
7/5/07 15:44	53.93	432,104.81	352.65	430,118.69	67.07	0.00	265.27	544.11	973.30	1,505.55	849.50	788.11
7/5/07 15:45	53.43	428,603.91	352.67	431,860.00	65.98	0.00	265.32	543.78	971.71	1,500.06	849.23	787.93
7/5/07 15:46	53.73	432,614.09	352.72	430,347.41	64.89	0.00	265.52	543.66	971.03	1,503.72	849.17	788.01
7/5/07 15:47	52.76	426,532.81	352.72	428,834.81	62.87	0.00	265.66	543.34	969.06	1,491.29	848.91	787.58
7/5/07 15:48	52.91	427,867.81	352.70	429,525.69	63.44	0.00	265.82	542.99	966.81	1,494.93	847.99	786.65
7/5/07 15:49	52.80	426,731.59	352.64	430,618.31	64.41	0.00	265.87	542.95	967.02	1,493.20	847.77	786.73

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 15:50	52.08	420,730.31	352.65	431,710.81	64.77	0.00	265.84	542.80	966.74	1,486.49	847.53	786.36
7/5/07 15:51	52.33	423,572.31	352.59	432,803.41	64.85	0.00	265.80	542.66	966.43	1,492.41	846.96	785.93
7/5/07 15:52	52.76	425,642.09	352.60	433,895.91	66.55	0.00	265.64	542.89	968.31	1,498.27	847.06	787.00
7/5/07 15:53	52.68	424,052.50	352.68	434,777.59	69.33	0.00	265.42	543.35	970.54	1,495.28	847.62	787.67
7/5/07 15:54	52.13	420,514.19	352.76	433,995.69	70.82	0.00	265.38	543.58	970.28	1,491.59	847.40	787.59
7/5/07 15:55	52.36	423,393.50	352.77	433,213.81	69.74	0.00	265.33	543.88	970.12	1,498.36	847.07	787.58
7/5/07 15:56	52.94	426,009.19	352.86	432,431.81	69.62	0.00	265.29	544.19	970.87	1,502.49	847.13	787.71
7/5/07 15:57	52.93	426,642.00	352.93	436,480.31	70.54	0.00	265.20	544.32	969.98	1,499.56	847.00	787.62
7/5/07 15:58	53.58	431,780.09	353.00	442,033.41	68.01	0.00	265.25	544.24	968.87	1,505.47	846.75	787.38
7/5/07 15:59	54.64	440,174.41	353.04	447,586.41	66.57	0.00	265.32	544.32	969.47	1,510.02	847.07	787.85
7/5/07 16:00	53.89	435,406.00	353.16	448,761.00	64.19	0.00	265.41	544.21	969.02	1,496.75	847.63	788.24
7/5/07 16:01	54.86	442,766.41	353.29	446,965.50	63.94	0.00	265.71	543.96	968.39	1,507.45	848.06	788.90
7/5/07 16:02	54.84	440,703.41	353.48	448,035.91	66.90	0.00	265.85	543.92	969.25	1,504.01	848.85	789.56
7/5/07 16:03	54.56	437,565.00	353.59	450,262.81	65.95	0.00	266.21	543.47	968.61	1,498.25	848.83	789.44
7/5/07 16:04	54.83	441,357.50	353.64	452,489.59	67.25	0.00	266.41	542.83	967.24	1,501.60	848.15	788.67
7/5/07 16:05	55.80	448,634.09	353.72	454,716.41	67.31	0.00	266.47	542.44	967.79	1,508.51	848.24	789.69
7/5/07 16:06	55.63	446,907.09	353.78	456,114.50	69.68	0.00	266.61	542.06	969.33	1,501.64	848.97	790.25
7/5/07 16:07	55.30	445,056.81	353.89	457,121.09	67.21	0.00	266.76	541.30	968.93	1,497.89	848.98	790.07
7/5/07 16:08	55.29	445,060.19	353.96	458,127.69	66.61	0.00	266.89	540.55	968.35	1,500.78	848.72	789.81
7/5/07 16:09	55.18	444,474.19	354.04	459,134.31	67.29	0.00	267.09	540.08	969.51	1,503.14	848.98	790.27
7/5/07 16:10	55.60	447,647.50	354.12	460,140.91	68.45	0.00	267.17	539.60	968.73	1,506.77	849.01	790.32
7/5/07 16:11	55.63	447,736.41	354.18	461,147.59	66.83	0.00	267.19	539.30	968.39	1,504.63	848.98	790.47
7/5/07 16:12	55.89	450,089.59	354.28	461,914.19	67.57	0.00	267.26	539.15	968.80	1,500.62	849.43	791.27
7/5/07 16:13	55.47	447,240.31	354.38	461,443.81	66.44	0.00	267.33	538.58	966.65	1,498.14	849.07	790.67
7/5/07 16:14	56.09	451,736.00	354.46	460,973.41	65.77	0.00	267.44	538.44	965.96	1,505.77	849.15	791.24
7/5/07 16:15	55.31	445,062.19	354.60	456,288.50	68.94	0.00	267.46	538.38	966.84	1,491.00	849.91	791.62
7/5/07 16:16	54.48	438,262.59	354.69	453,645.00	69.36	0.00	267.61	537.89	964.79	1,486.93	849.53	790.93
7/5/07 16:17	54.97	441,290.19	354.76	453,055.81	69.80	0.00	267.66	537.67	964.54	1,494.73	849.15	790.29
7/5/07 16:18	55.03	443,021.69	354.81	452,466.59	69.71	0.00	267.52	537.72	967.13	1,497.08	849.57	791.43
7/5/07 16:19	54.42	437,626.50	354.90	451,877.41	71.42	0.00	267.39	537.68	969.05	1,490.33	850.14	792.05
7/5/07 16:20	54.28	436,339.69	355.00	451,288.09	73.61	0.00	267.36	537.53	969.32	1,492.95	850.10	792.16
7/5/07 16:21	54.72	440,026.59	355.14	450,698.91	72.28	0.00	267.26	537.69	971.19	1,499.57	850.68	793.03
7/5/07 16:22	54.41	437,032.59	355.29	451,523.50	71.30	0.00	267.14	537.85	972.03	1,495.76	851.46	793.47
7/5/07 16:23	54.83	440,296.69	355.48	452,403.09	71.63	0.00	266.97	538.07	971.96	1,501.34	851.89	793.46
7/5/07 16:24	55.29	443,021.09	355.65	453,282.81	72.47	0.00	266.91	538.32	972.13	1,504.71	852.73	793.80
7/5/07 16:25	55.14	442,210.09	355.81	454,162.41	68.57	0.00	266.86	538.58	971.66	1,498.26	853.55	794.09
7/5/07 16:26	55.07	442,643.31	355.92	455,042.09	66.07	0.00	266.93	538.53	969.89	1,501.58	853.75	793.71
7/5/07 16:27	55.93	449,211.19	355.98	455,921.69	65.13	0.00	267.01	538.94	971.09	1,508.12	854.48	794.65
7/5/07 16:28	55.79	447,709.81	356.08	455,099.41	65.95	0.00	267.06	539.17	971.78	1,501.45	854.99	794.64
7/5/07 16:29	55.54	446,172.00	356.09	453,590.31	67.34	0.00	267.18	538.88	970.41	1,500.79	854.08	794.34
7/5/07 16:30	55.45	445,458.50	355.99	452,081.19	69.13	0.00	267.34	538.93	970.69	1,496.61	853.60	793.98
7/5/07 16:31	55.95	448,547.00	355.93	450,572.19	69.42	0.00	267.45	538.88	970.20	1,503.18	853.01	793.64
7/5/07 16:32	55.05	442,193.41	355.93	449,063.09	73.08	0.00	267.49	538.98	969.48	1,490.45	852.92	793.59
7/5/07 16:33	54.82	440,959.91	355.96	448,141.91	76.61	0.00	267.56	539.02	967.26	1,492.86	852.70	793.35
7/5/07 16:34	55.14	444,756.41	356.03	447,592.81	79.57	0.00	267.55	539.34	967.47	1,499.63	853.16	793.81
7/5/07 16:35	54.89	442,158.09	356.10	447,043.50	81.68	0.00	267.41	539.66	967.63	1,496.81	853.68	793.91
7/5/07 16:36	54.86	441,349.19	356.22	446,494.31	83.99	0.00	267.35	539.80	967.75	1,497.63	853.88	794.20
7/5/07 16:37	54.60	438,031.31	356.26	445,945.19	82.34	0.00	267.28	539.92	968.06	1,493.58	854.05	794.18
7/5/07 16:38	54.56	439,319.09	356.32	445,396.00	81.55	0.00	267.25	540.05	967.93	1,495.46	853.94	794.23
7/5/07 16:39	54.97	443,917.81	356.38	444,846.81	81.48	0.00	267.18	540.19	968.13	1,502.71	853.80	793.84

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 16:40	55.11	441,855.00	356.43	444,297.59	80.03	0.00	267.09	540.52	969.06	1,501.35	854.00	794.31
7/5/07 16:41	55.06	441,114.91	356.50	443,748.41	75.35	0.00	267.10	540.74	969.17	1,499.65	854.32	794.58
7/5/07 16:42	54.72	438,641.41	356.58	443,199.19	76.27	0.00	267.14	540.75	968.24	1,494.28	854.20	794.36
7/5/07 16:43	54.70	439,756.50	356.59	442,650.00	77.27	0.00	267.22	540.77	966.88	1,496.34	853.90	794.01
7/5/07 16:44	54.89	440,463.59	356.68	442,100.81	77.54	0.00	267.20	540.99	967.33	1,496.85	854.02	794.60
7/5/07 16:45	54.76	439,488.81	356.80	441,551.59	73.88	0.00	267.17	541.14	966.71	1,495.70	853.76	794.81
7/5/07 16:46	54.34	437,483.41	356.94	441,002.41	73.28	0.00	267.19	541.19	966.89	1,494.07	853.75	794.89
7/5/07 16:47	53.63	430,295.91	357.09	440,453.19	67.82	0.00	267.17	541.29	967.22	1,487.89	853.64	795.41
7/5/07 16:48	53.40	428,363.19	357.21	441,669.41	67.14	0.00	267.07	541.15	966.17	1,492.83	852.95	794.41
7/5/07 16:49	54.14	435,169.69	357.32	443,338.41	65.48	0.00	266.85	541.57	968.32	1,500.51	853.10	794.75
7/5/07 16:50	54.44	437,258.69	357.46	442,861.00	63.17	0.00	266.54	542.04	970.14	1,501.46	853.84	795.34
7/5/07 16:51	54.41	436,838.19	357.58	441,832.91	62.48	0.00	266.42	541.98	970.60	1,501.16	854.07	795.41
7/5/07 16:52	54.28	435,995.59	357.66	440,804.81	63.46	0.00	266.36	542.06	970.63	1,498.96	854.15	795.02
7/5/07 16:53	54.43	438,465.91	357.76	439,776.81	64.98	0.00	266.30	542.10	970.55	1,499.69	853.94	794.75
7/5/07 16:54	53.94	433,974.69	357.73	438,748.69	65.16	0.00	266.30	541.99	969.60	1,494.65	853.35	794.04
7/5/07 16:55	53.78	432,818.41	357.69	437,720.59	64.59	0.00	266.31	542.06	969.35	1,494.21	852.51	793.37
7/5/07 16:56	53.86	433,286.41	357.63	436,692.50	63.49	0.00	266.30	542.27	969.66	1,493.18	852.31	793.93
7/5/07 16:57	53.34	429,516.00	357.53	435,665.50	63.58	0.00	266.22	542.18	968.61	1,491.41	851.39	793.03
7/5/07 16:58	53.56	431,406.69	357.40	434,721.09	65.19	0.00	266.16	542.21	969.10	1,497.12	850.50	792.16
7/5/07 16:59	53.83	432,868.50	357.26	433,776.81	64.54	0.00	266.01	542.38	970.17	1,499.67	850.03	791.63
7/5/07 17:00	53.39	430,414.91	357.21	432,832.41	62.09	0.00	265.90	542.32	969.86	1,494.85	849.50	790.93
7/5/07 17:01	52.87	425,561.50	357.18	431,888.00	65.24	0.00	265.81	542.46	969.58	1,489.12	849.17	790.64
7/5/07 17:02	52.53	423,801.81	357.18	430,943.69	71.44	0.00	265.75	542.46	968.52	1,486.90	848.74	790.11
7/5/07 17:03	51.57	416,574.91	357.17	430,301.91	73.14	0.00	265.70	542.44	967.04	1,484.71	848.09	789.37
7/5/07 17:04	51.65	419,427.91	357.12	429,989.09	75.82	0.00	265.50	542.64	966.94	1,485.33	847.66	788.97
7/5/07 17:05	52.03	420,503.09	357.08	429,676.31	73.02	0.00	265.24	542.87	967.13	1,496.57	847.50	788.68
7/5/07 17:06	51.58	415,203.59	357.08	429,363.41	71.86	0.00	264.93	543.09	968.27	1,488.66	847.37	788.15
7/5/07 17:07	51.54	416,410.91	356.99	429,050.59	73.81	0.00	264.76	543.10	968.57	1,491.06	846.82	787.42
7/5/07 17:08	51.39	417,882.69	356.94	428,737.81	73.49	0.00	264.66	543.18	968.95	1,494.95	846.35	786.97
7/5/07 17:09	51.75	419,383.81	356.83	428,425.00	73.48	0.00	264.50	543.28	969.66	1,497.75	845.90	786.59
7/5/07 17:10	51.40	413,714.81	356.69	427,183.50	74.12	0.00	264.43	543.34	970.80	1,488.17	845.54	786.11
7/5/07 17:11	50.81	413,140.81	356.53	423,898.81	71.20	0.00	264.35	543.07	969.31	1,490.65	844.29	784.87
7/5/07 17:12	50.76	414,040.50	356.32	420,614.19	74.03	0.00	264.34	543.07	969.31	1,489.74	843.57	784.27
7/5/07 17:13	49.16	400,999.69	356.17	417,329.59	73.52	0.00	264.27	543.08	968.20	1,475.46	842.80	783.64
7/5/07 17:14	48.89	402,080.81	356.00	414,045.00	76.76	0.00	264.15	542.85	965.98	1,481.44	841.36	782.49
7/5/07 17:15	47.75	398,110.00	355.85	410,760.41	76.90	0.00	263.95	542.93	965.32	1,475.77	840.34	781.77
7/5/07 17:16	46.51	389,616.31	355.70	407,475.81	78.70	0.00	263.72	542.85	964.37	1,471.87	839.13	780.85
7/5/07 17:17	46.41	392,183.00	355.54	404,191.09	81.50	0.00	263.37	542.84	964.01	1,479.04	837.93	780.05
7/5/07 17:18	45.87	389,605.81	355.42	400,906.50	82.00	0.00	262.96	543.04	965.68	1,480.32	837.28	779.50
7/5/07 17:19	44.73	379,871.91	355.28	392,012.00	78.74	0.00	262.51	543.14	966.88	1,477.35	836.58	778.84
7/5/07 17:20	43.58	370,247.91	355.11	380,853.91	75.84	0.00	262.23	543.03	966.74	1,472.61	835.21	777.47
7/5/07 17:21	42.06	358,436.59	354.83	369,695.81	73.85	0.00	261.70	542.91	966.08	1,467.26	833.28	775.81
7/5/07 17:22	39.72	339,405.31	354.41	361,663.59	69.74	0.00	261.05	542.62	963.99	1,457.74	830.38	773.31
7/5/07 17:23	39.27	334,787.81	353.92	351,601.81	70.80	0.00	260.17	542.47	962.31	1,469.73	827.05	770.70
7/5/07 17:24	40.14	342,524.81	353.46	346,316.19	74.00	0.00	258.75	542.95	964.00	1,487.86	824.82	769.32
7/5/07 17:25	40.11	342,228.59	353.04	352,745.50	72.15	0.00	257.40	543.42	966.15	1,485.05	823.11	768.20
7/5/07 17:26	40.72	345,950.69	352.61	358,422.19	71.22	0.00	256.32	543.40	968.01	1,496.01	821.21	767.01
7/5/07 17:27	41.21	349,249.59	352.26	363,885.50	64.38	0.00	255.74	543.45	970.89	1,499.59	820.06	766.81
7/5/07 17:28	42.00	356,474.81	351.96	369,348.81	61.49	0.00	255.39	543.50	973.10	1,504.39	819.46	766.79
7/5/07 17:29	43.27	366,214.31	351.82	373,080.41	64.01	0.00	255.25	543.55	974.42	1,509.70	819.42	767.16

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 17:30	43.19	365,541.41	351.62	373,046.69	60.12	0.00	255.25	543.55	974.60	1,502.72	819.67	767.64
7/5/07 17:31	43.65	368,796.81	351.48	372,418.69	56.15	0.00	255.47	543.48	973.52	1,502.60	819.61	767.79
7/5/07 17:32	43.60	368,484.19	351.35	371,790.69	56.17	0.00	255.68	543.30	971.67	1,499.10	819.63	767.92
7/5/07 17:33	43.83	370,918.69	351.22	371,162.59	53.84	0.00	256.02	543.16	970.05	1,497.55	819.62	768.02
7/5/07 17:34	43.11	365,972.31	351.05	370,534.59	54.59	0.00	256.25	542.97	968.06	1,484.96	819.55	768.12
7/5/07 17:35	43.38	369,695.41	350.95	369,836.09	55.56	0.00	256.54	542.74	965.77	1,494.05	819.43	768.08
7/5/07 17:36	43.33	369,198.19	350.85	368,662.41	55.97	0.00	256.71	542.91	966.62	1,490.31	820.12	768.92
7/5/07 17:37	43.05	366,432.81	350.77	367,488.69	58.72	0.00	256.83	542.75	966.61	1,484.86	820.37	768.98
7/5/07 17:38	42.70	364,400.00	350.61	366,841.31	57.48	0.00	256.92	542.36	965.85	1,486.93	820.06	768.71
7/5/07 17:39	42.80	363,643.09	350.46	371,159.59	57.19	0.00	256.89	542.36	967.33	1,488.16	820.21	769.14
7/5/07 17:40	43.26	366,916.09	350.35	375,477.91	56.84	0.00	256.84	542.55	969.41	1,495.99	820.63	769.60
7/5/07 17:41	43.56	368,595.81	350.19	379,796.19	60.44	0.00	256.81	542.66	971.53	1,497.04	821.36	770.09
7/5/07 17:42	44.03	372,401.59	350.10	384,114.50	61.74	0.00	256.77	542.57	972.39	1,502.34	821.57	770.33
7/5/07 17:43	46.31	389,840.69	349.98	388,526.19	58.28	0.00	256.90	542.66	974.23	1,511.84	822.25	771.10
7/5/07 17:44	46.69	392,806.09	349.98	393,091.09	61.71	0.00	257.01	542.64	975.45	1,507.05	823.58	772.34
7/5/07 17:45	47.16	397,109.31	350.06	397,655.91	61.07	0.00	257.43	542.44	974.39	1,504.66	824.87	773.44
7/5/07 17:46	48.42	406,211.00	350.20	402,220.69	63.04	0.00	257.93	542.33	974.02	1,506.70	826.80	774.84
7/5/07 17:47	48.17	405,410.41	350.41	406,785.50	67.90	0.00	258.58	542.19	972.36	1,500.08	828.62	775.78
7/5/07 17:48	48.33	406,756.41	350.63	409,855.19	70.16	0.00	259.35	541.94	970.42	1,500.42	830.13	776.84
7/5/07 17:49	48.33	408,069.81	350.93	410,642.69	69.93	0.00	260.02	542.04	969.52	1,497.65	832.17	779.14
7/5/07 17:50	47.92	405,468.41	351.25	411,430.31	72.77	0.00	260.61	542.33	968.70	1,490.12	834.40	780.89
7/5/07 17:51	47.37	401,376.91	351.63	412,217.81	79.97	0.00	261.03	542.48	967.21	1,486.44	835.91	782.13
7/5/07 17:52	47.72	402,770.50	351.99	413,005.41	82.64	0.00	261.42	542.86	967.05	1,493.35	837.57	783.04
7/5/07 17:53	47.89	403,984.81	352.34	413,792.91	83.42	0.00	261.57	543.39	968.41	1,495.58	839.50	784.46
7/5/07 17:54	47.86	403,134.41	352.69	414,580.50	81.33	0.00	261.69	543.86	969.30	1,494.98	840.89	785.11
7/5/07 17:55	49.85	418,197.69	352.98	415,368.00	77.80	0.00	261.80	544.43	971.27	1,511.56	842.56	786.56
7/5/07 17:56	49.45	415,599.81	353.30	416,623.69	78.21	0.00	261.87	545.03	973.60	1,501.05	844.66	788.43
7/5/07 17:57	49.08	413,283.91	353.59	417,881.41	80.69	0.00	262.15	545.10	973.70	1,496.79	845.93	789.08
7/5/07 17:58	49.47	413,847.31	353.85	419,139.00	81.33	0.00	262.42	545.33	974.71	1,500.03	847.06	790.17
7/5/07 17:59	48.97	410,324.50	354.12	420,396.69	78.32	0.00	262.68	545.42	973.80	1,492.15	847.69	790.13
7/5/07 18:00	49.28	412,580.91	354.35	421,654.31	75.90	0.00	262.98	545.57	973.40	1,496.44	848.61	791.87
7/5/07 18:01	50.69	422,958.69	354.64	424,301.50	74.22	0.00	263.17	546.13	974.64	1,506.93	850.52	794.07
7/5/07 18:02	52.13	433,934.00	354.98	429,577.00	70.53	0.00	263.32	546.66	976.13	1,513.00	852.59	796.02
7/5/07 18:03	51.83	431,923.31	355.33	434,852.59	68.89	0.00	263.63	546.79	975.68	1,502.31	854.12	796.71
7/5/07 18:04	52.46	437,734.59	355.63	436,559.59	69.43	0.00	264.13	546.56	973.94	1,506.68	854.93	796.96
7/5/07 18:05	52.05	431,230.00	355.92	436,309.59	70.48	0.00	264.61	546.53	972.33	1,501.30	855.68	797.44
7/5/07 18:06	52.18	425,822.00	356.20	434,514.19	70.94	0.00	265.17	546.53	970.75	1,504.27	856.00	797.18
7/5/07 18:07	53.05	430,562.59	356.48	432,590.31	70.62	0.00	265.55	547.09	970.50	1,507.95	856.95	798.06
7/5/07 18:08	52.56	424,899.69	356.84	430,505.00	68.45	0.00	265.67	547.58	969.76	1,498.97	857.82	798.46
7/5/07 18:09	52.67	426,800.00	357.21	428,419.81	73.89	0.00	265.70	547.84	968.25	1,501.25	858.56	799.14
7/5/07 18:10	52.91	428,922.00	357.62	426,334.59	76.42	0.00	265.64	548.25	968.39	1,502.32	859.67	799.70
7/5/07 18:11	52.32	423,027.09	358.01	424,249.31	77.47	0.00	265.49	548.72	969.12	1,494.51	860.71	800.10
7/5/07 18:12	52.33	423,060.00	358.33	422,164.09	82.08	0.00	265.45	549.01	969.34	1,494.09	861.24	799.88
7/5/07 18:13	52.06	421,454.31	358.65	420,078.91	88.10	0.00	265.38	549.29	969.35	1,491.71	861.12	799.24
7/5/07 18:14	51.93	420,452.59	358.88	417,993.69	89.13	0.00	265.29	549.61	969.29	1,491.70	861.00	798.92
7/5/07 18:15	51.41	417,069.41	359.13	415,908.41	92.18	0.00	265.24	549.91	969.27	1,489.55	860.84	798.66
7/5/07 18:16	50.48	410,169.81	359.27	413,823.19	92.93	0.00	265.16	550.10	968.78	1,483.44	860.25	798.08
7/5/07 18:17	49.81	406,652.00	359.41	411,738.00	90.93	0.00	265.07	550.40	968.28	1,480.40	859.33	797.25
7/5/07 18:18	49.62	406,290.41	359.54	409,652.81	91.28	0.00	264.91	551.04	968.49	1,483.22	856.73	796.11
7/5/07 18:19	48.79	401,692.09	359.73	408,515.00	87.56	0.00	264.66	552.10	969.63	1,479.90	854.86	794.67

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 18:20	47.85	395,302.09	359.99	408,726.81	86.02	0.00	264.44	552.90	969.75	1,476.94	854.05	794.14
7/5/07 18:21	48.20	399,950.91	360.22	408,938.50	86.76	0.00	264.15	553.30	969.66	1,487.40	853.58	793.70
7/5/07 18:22	47.72	396,214.59	360.40	409,150.19	92.08	0.00	263.83	553.90	971.79	1,483.97	854.01	794.06
7/5/07 18:23	46.75	388,620.50	360.51	409,361.91	92.64	0.00	263.52	554.09	971.64	1,479.27	853.91	793.69
7/5/07 18:24	47.11	393,442.59	360.49	409,573.59	90.21	0.00	263.30	554.31	970.91	1,489.00	853.46	792.95
7/5/07 18:25	46.89	393,377.31	360.47	409,785.31	90.55	0.00	262.98	554.90	971.58	1,489.69	853.67	792.91
7/5/07 18:26	47.06	394,597.69	360.38	409,997.09	84.94	0.00	262.73	555.55	972.01	1,492.31	853.69	792.48
7/5/07 18:27	47.84	401,067.41	360.21	410,208.81	84.68	0.00	262.54	556.18	972.55	1,503.69	854.10	792.62
7/5/07 18:28	47.94	400,815.19	359.97	415,686.69	80.65	0.00	262.37	556.66	973.97	1,502.89	855.00	793.21
7/5/07 18:29	49.23	407,478.09	359.69	422,004.09	77.10	0.00	262.26	556.89	974.87	1,509.11	855.76	793.74
7/5/07 18:30	50.78	416,118.59	359.40	428,321.59	75.74	0.00	262.25	557.02	975.79	1,516.14	857.00	794.94
7/5/07 18:31	51.44	418,984.00	359.14	434,639.00	73.85	0.00	262.36	557.07	976.15	1,514.31	858.28	795.80
7/5/07 18:32	52.14	422,538.81	358.80	440,956.41	72.41	0.00	262.58	556.90	975.21	1,513.05	858.88	795.96
7/5/07 18:33	54.31	436,887.59	358.46	447,273.91	69.89	0.00	262.93	556.90	974.93	1,521.96	859.97	797.01
7/5/07 18:34	53.77	432,984.91	358.10	446,529.31	71.71	0.00	263.29	556.91	973.43	1,510.00	860.93	797.71
7/5/07 18:35	53.97	434,995.00	357.83	444,329.81	69.72	0.00	263.85	556.78	971.07	1,505.95	861.16	797.60
7/5/07 18:36	54.34	436,812.59	357.66	442,130.19	66.89	0.00	264.26	556.77	969.23	1,507.17	861.50	797.90
7/5/07 18:37	54.24	436,280.00	357.51	439,930.69	63.80	0.00	264.57	556.71	967.70	1,501.71	861.51	797.59
7/5/07 18:38	53.92	434,048.50	357.45	437,731.09	64.71	0.00	264.90	556.49	966.53	1,496.70	861.67	797.89
7/5/07 18:39	53.66	432,816.81	357.39	435,531.50	65.61	0.00	265.10	556.13	965.28	1,493.55	861.78	798.19
7/5/07 18:40	53.52	431,568.50	357.40	433,332.00	63.63	0.00	265.24	555.69	964.78	1,494.92	861.73	798.24
7/5/07 18:41	53.20	428,650.59	357.41	431,132.41	68.26	0.00	265.27	555.47	965.96	1,490.46	862.04	798.70
7/5/07 18:42	52.60	424,676.81	357.44	428,932.91	67.95	0.00	265.29	555.17	966.01	1,488.52	862.05	798.88
7/5/07 18:43	52.62	424,347.19	357.51	426,733.31	68.23	0.00	265.27	555.07	967.41	1,490.64	862.21	799.24
7/5/07 18:44	51.50	415,887.09	357.57	425,191.69	70.04	0.00	265.13	554.86	968.06	1,485.14	862.25	799.65
7/5/07 18:45	51.33	413,306.50	357.62	426,088.00	70.02	0.00	265.09	554.79	969.55	1,484.86	862.47	800.45
7/5/07 18:46	51.29	413,978.69	357.65	426,984.31	69.72	0.00	264.95	554.56	970.04	1,489.18	861.76	800.14
7/5/07 18:47	51.43	416,399.50	357.61	427,880.59	72.20	0.00	264.81	554.33	970.88	1,491.77	860.95	799.71
7/5/07 18:48	51.43	416,072.31	357.59	428,776.91	74.99	0.00	264.67	554.10	971.55	1,492.68	860.20	799.37
7/5/07 18:49	52.00	420,258.09	357.58	429,673.31	76.10	0.00	264.62	554.04	972.63	1,501.56	859.85	799.32
7/5/07 18:50	51.83	417,824.00	357.62	430,569.59	74.38	0.00	264.63	553.97	972.93	1,496.82	859.81	799.22
7/5/07 18:51	52.10	421,407.09	357.63	431,465.91	76.04	0.00	264.72	553.68	971.93	1,501.41	859.41	798.81
7/5/07 18:52	52.62	422,782.41	357.67	431,812.69	76.26	0.00	264.78	553.74	972.55	1,500.19	859.91	799.41
7/5/07 18:53	52.51	423,559.59	357.84	429,903.09	77.59	0.00	264.85	553.87	972.17	1,498.89	860.80	800.51
7/5/07 18:54	52.58	424,715.41	358.03	427,993.50	80.32	0.00	264.95	553.99	971.30	1,500.31	861.74	801.03
7/5/07 18:55	52.58	424,553.91	358.29	426,083.91	77.17	0.00	265.04	554.22	970.30	1,499.18	862.82	802.03
7/5/07 18:56	52.12	421,137.50	358.62	424,174.31	77.05	0.00	265.07	554.47	969.47	1,492.30	864.30	803.41
7/5/07 18:57	51.33	415,424.31	358.90	422,264.69	78.27	0.00	265.14	554.67	968.11	1,487.00	865.41	804.69
7/5/07 18:58	51.54	418,930.81	359.17	420,439.31	82.18	0.00	265.11	554.96	966.98	1,493.08	865.94	805.09
7/5/07 18:59	50.87	412,822.91	359.49	418,627.31	83.92	0.00	264.93	555.63	968.07	1,485.81	867.29	806.37
7/5/07 19:00	50.32	409,309.91	359.75	416,815.31	86.36	0.00	264.73	555.97	967.05	1,486.24	867.26	805.87
7/5/07 19:01	50.78	413,476.09	359.99	415,003.31	84.62	0.00	264.61	556.40	967.26	1,493.21	867.06	805.55
7/5/07 19:02	50.00	408,197.41	360.11	413,191.41	86.69	0.00	264.33	556.91	967.81	1,485.85	867.17	806.24
7/5/07 19:03	50.15	410,547.69	360.19	411,379.41	85.08	0.00	264.12	557.21	967.18	1,489.87	866.48	805.49
7/5/07 19:04	50.20	409,273.69	360.33	409,567.41	83.59	0.00	264.04	557.62	967.78	1,491.97	866.44	806.90
7/5/07 19:05	49.31	402,320.50	360.41	407,755.41	84.62	0.00	263.93	557.87	967.30	1,483.83	865.93	806.46
7/5/07 19:06	49.63	406,168.00	360.51	407,708.81	81.62	0.00	263.91	558.13	966.59	1,491.54	865.23	806.07
7/5/07 19:07	49.61	407,818.50	360.53	408,025.81	77.99	0.00	263.78	558.37	966.22	1,490.94	864.58	805.25
7/5/07 19:08	48.76	401,594.81	360.47	408,342.81	75.12	0.00	263.71	558.39	965.51	1,485.52	863.79	804.41
7/5/07 19:09	48.80	401,917.69	360.58	408,659.81	76.82	0.00	263.68	558.55	965.12	1,490.18	863.22	803.63

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 19:10	49.33	406,777.19	360.69	408,976.81	82.58	0.00	263.56	558.81	966.62	1,499.94	863.32	803.97
7/5/07 19:11	49.30	406,138.09	360.74	409,293.81	83.45	0.00	263.46	559.17	968.71	1,497.81	863.77	804.96
7/5/07 19:12	49.57	408,302.00	360.84	409,610.81	79.69	0.00	263.41	559.21	969.77	1,500.28	863.94	804.79
7/5/07 19:13	50.07	410,121.69	360.94	409,927.81	74.81	0.00	263.41	559.25	971.34	1,501.91	864.37	805.60
7/5/07 19:14	49.43	405,025.91	360.98	410,244.81	73.82	0.00	263.48	559.39	971.94	1,490.92	861.81	803.97
7/5/07 19:15	50.05	410,282.31	361.09	410,561.81	75.50	0.00	263.53	559.55	971.79	1,501.08	859.98	802.34
7/5/07 19:16	49.84	407,261.31	361.26	410,878.81	77.52	0.00	263.52	559.89	972.37	1,497.06	859.65	802.22
7/5/07 19:17	49.30	404,767.31	361.31	411,195.91	78.32	0.00	263.52	559.78	971.37	1,489.27	859.38	801.76
7/5/07 19:18	49.27	405,945.81	361.42	411,512.91	78.52	0.00	263.49	559.82	971.09	1,490.79	859.43	801.87
7/5/07 19:19	48.90	401,774.50	361.45	411,829.91	79.01	0.00	263.38	559.71	970.00	1,486.20	859.61	801.59
7/5/07 19:20	48.19	397,909.09	361.44	412,187.59	72.05	0.00	263.29	559.65	968.83	1,482.64	859.20	800.65
7/5/07 19:21	47.99	397,148.19	361.35	413,480.69	70.36	0.00	263.11	559.86	968.09	1,483.83	858.82	799.78
7/5/07 19:22	47.82	395,760.81	361.22	414,773.81	69.28	0.00	262.93	560.20	968.00	1,489.11	858.61	799.20
7/5/07 19:23	47.48	394,000.31	361.07	416,066.81	69.07	0.00	262.68	560.53	968.77	1,485.52	858.50	798.84
7/5/07 19:24	47.76	397,517.41	360.85	417,360.00	70.94	0.00	262.39	560.62	969.24	1,493.00	858.29	798.49
7/5/07 19:25	47.57	394,992.69	360.65	418,653.09	71.09	0.00	262.19	560.63	970.43	1,490.40	858.55	798.55
7/5/07 19:26	47.78	396,916.00	360.42	419,946.19	68.72	0.00	262.11	560.46	970.64	1,495.22	858.66	798.45
7/5/07 19:27	48.81	403,835.69	360.19	421,239.31	68.94	0.00	261.99	560.56	972.76	1,506.09	859.71	799.48
7/5/07 19:28	49.53	407,335.91	359.99	423,279.09	69.84	0.00	261.96	560.73	974.46	1,507.70	861.08	800.65
7/5/07 19:29	50.98	416,766.81	359.77	427,417.19	67.48	0.00	262.09	560.79	975.95	1,514.97	862.52	801.98
7/5/07 19:30	52.53	426,278.50	359.59	431,555.19	69.43	0.00	262.23	560.64	976.57	1,518.73	863.97	803.07
7/5/07 19:31	53.29	428,298.81	359.49	435,693.19	67.81	0.00	262.53	560.20	975.58	1,517.71	865.20	804.30
7/5/07 19:32	54.48	436,516.59	359.44	439,831.19	68.73	0.00	262.95	559.87	975.56	1,518.09	866.68	805.73
7/5/07 19:33	55.22	441,389.00	359.49	443,969.19	66.61	0.00	263.42	559.59	974.56	1,517.43	868.26	807.26
7/5/07 19:34	55.49	442,976.59	359.52	448,107.31	68.30	0.00	263.96	559.13	972.92	1,514.57	869.48	807.98
7/5/07 19:35	56.24	448,389.19	359.58	452,245.31	71.15	0.00	264.48	558.62	972.21	1,512.46	870.40	808.74
7/5/07 19:36	56.59	450,861.59	359.67	456,383.31	72.57	0.00	265.00	557.90	971.83	1,506.00	871.17	809.21
7/5/07 19:37	56.49	447,346.69	359.66	456,487.81	69.18	0.00	265.40	556.96	970.24	1,507.32	871.21	809.73
7/5/07 19:38	56.79	450,015.19	359.62	453,003.41	69.64	0.00	265.78	556.55	971.00	1,503.05	871.59	810.46
7/5/07 19:39	56.79	449,953.41	359.52	449,519.00	70.49	0.00	266.17	556.04	970.30	1,501.69	871.50	810.19
7/5/07 19:40	56.11	445,420.59	359.72	446,034.59	73.04	0.00	266.43	555.52	969.26	1,494.81	871.84	811.10
7/5/07 19:41	55.78	442,541.09	359.81	442,550.19	76.95	0.00	266.65	555.34	969.59	1,492.19	872.99	812.66
7/5/07 19:42	55.00	435,739.19	359.93	439,065.81	77.68	0.00	266.74	555.18	969.28	1,488.87	874.40	814.43
7/5/07 19:43	54.98	436,153.09	360.10	437,240.81	80.33	0.00	266.73	555.00	968.52	1,493.46	875.10	814.99
7/5/07 19:44	54.58	431,589.31	360.20	437,478.69	77.08	0.00	266.61	555.26	969.67	1,489.16	876.21	816.18
7/5/07 19:45	54.23	430,089.00	360.31	437,716.41	78.81	0.00	266.49	555.26	969.24	1,491.71	876.72	816.64
7/5/07 19:46	54.71	432,263.09	360.40	437,954.31	76.28	0.00	266.37	555.56	970.07	1,499.13	877.45	817.83
7/5/07 19:47	54.25	429,390.09	360.46	438,192.09	76.85	0.00	266.23	555.89	971.52	1,491.92	878.21	817.29
7/5/07 19:48	54.49	431,791.31	360.65	438,429.91	78.61	0.00	266.19	555.93	971.84	1,498.41	877.80	815.64
7/5/07 19:49	53.54	424,385.50	360.88	438,667.69	78.40	0.00	266.19	556.11	973.75	1,487.61	875.37	816.72
7/5/07 19:50	53.93	426,431.00	361.11	438,905.50	80.70	0.00	266.19	556.31	973.71	1,496.05	873.02	816.12
7/5/07 19:51	54.03	428,594.50	361.47	439,169.59	80.13	0.00	266.12	556.76	973.63	1,497.66	873.18	815.66
7/5/07 19:52	54.68	432,822.00	361.85	441,512.19	81.60	0.00	266.07	557.20	973.12	1,505.90	874.92	818.19
7/5/07 19:53	55.22	435,339.69	362.22	443,854.91	83.03	0.00	266.01	557.58	974.51	1,503.11	877.71	821.70
7/5/07 19:54	55.84	440,440.19	362.60	446,197.50	84.74	0.00	266.08	557.56	974.94	1,507.32	878.02	825.09
7/5/07 19:55	55.88	441,659.00	362.94	448,540.19	81.95	0.00	266.13	557.70	975.55	1,502.96	879.01	828.75
7/5/07 19:56	56.39	444,844.81	363.24	450,882.81	82.67	0.00	266.24	557.72	973.61	1,506.26	880.50	830.85
7/5/07 19:57	56.94	450,877.00	363.49	453,225.41	85.42	0.00	266.36	557.93	972.85	1,506.23	881.88	830.78
7/5/07 19:58	56.49	446,191.00	363.78	455,568.09	78.60	0.00	266.53	557.99	972.24	1,498.08	881.73	828.98
7/5/07 19:59	56.47	447,042.31	364.02	457,350.59	78.38	0.00	266.73	557.87	972.32	1,499.33	879.94	829.36

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 20:00	56.06	443,843.00	364.21	458,278.31	86.69	0.00	266.88	557.81	972.13	1,493.95	878.44	828.10
7/5/07 20:01	55.65	441,829.81	364.30	459,205.91	90.44	0.00	266.90	557.59	970.30	1,502.84	877.38	825.92
7/5/07 20:02	56.17	444,872.50	364.38	460,133.59	87.56	0.00	266.80	557.61	970.17	1,503.85	878.00	825.97
7/5/07 20:03	56.28	446,120.59	364.40	461,849.91	87.10	0.00	266.70	557.57	970.25	1,503.94	878.53	826.60
7/5/07 20:04	56.09	445,395.00	364.56	463,728.59	82.18	0.00	266.61	557.65	971.63	1,500.23	878.38	827.81
7/5/07 20:05	56.54	448,081.59	364.74	465,607.41	80.60	0.00	266.59	557.82	972.96	1,503.61	879.79	830.27
7/5/07 20:06	56.13	444,116.19	364.99	467,486.09	80.95	0.00	266.56	558.00	972.37	1,495.65	881.61	831.68
7/5/07 20:07	57.27	454,137.09	365.21	469,364.91	83.25	0.00	266.63	557.96	971.96	1,507.59	882.68	831.78
7/5/07 20:08	56.59	447,351.19	365.45	469,735.41	84.12	0.00	266.62	558.07	972.01	1,496.73	883.19	832.24
7/5/07 20:09	56.62	448,647.19	365.68	468,231.31	85.02	0.00	266.74	557.87	970.90	1,498.42	882.07	831.08
7/5/07 20:10	56.65	448,049.09	365.92	466,727.19	90.08	0.00	266.85	557.84	971.35	1,498.08	881.75	829.57
7/5/07 20:11	56.20	445,615.41	366.16	465,223.09	93.97	0.00	266.93	557.69	971.26	1,492.49	882.29	828.84
7/5/07 20:12	55.70	440,738.31	366.34	463,718.91	96.39	0.00	266.99	557.40	969.28	1,489.16	882.99	828.52
7/5/07 20:13	55.88	443,066.31	366.46	462,214.81	90.29	0.00	267.00	557.15	968.32	1,496.73	883.04	828.64
7/5/07 20:14	55.28	438,068.50	366.55	460,710.69	84.81	0.00	266.90	556.92	968.49	1,490.85	882.29	828.98
7/5/07 20:15	55.85	442,749.00	366.59	459,206.59	85.57	0.00	266.76	556.52	968.45	1,501.51	881.89	828.57
7/5/07 20:16	56.09	442,845.19	366.60	459,876.00	82.45	0.00	266.60	556.58	970.55	1,501.82	882.32	828.06
7/5/07 20:17	55.39	438,454.09	366.63	461,826.50	79.53	0.00	266.54	556.19	971.11	1,492.52	881.14	826.02
7/5/07 20:18	56.56	447,404.31	366.63	463,777.00	77.49	0.00	266.51	555.71	970.08	1,506.96	879.24	824.28
7/5/07 20:19	56.31	444,836.91	366.68	463,065.69	75.97	0.00	266.47	555.45	970.54	1,501.70	877.57	823.64
7/5/07 20:20	56.88	450,420.31	366.80	461,869.19	74.10	0.00	266.51	554.97	970.06	1,505.93	876.33	821.95
7/5/07 20:21	56.94	448,540.69	366.88	460,672.69	75.41	0.00	266.52	554.67	971.53	1,501.82	876.65	823.38
7/5/07 20:22	56.34	443,140.91	366.89	459,476.31	76.35	0.00	266.61	554.07	969.68	1,493.67	876.25	823.18
7/5/07 20:23	56.85	449,722.91	366.93	458,679.50	78.05	0.00	266.73	553.81	968.04	1,503.50	875.81	823.51
7/5/07 20:24	56.52	447,229.81	367.05	457,891.19	76.45	0.00	266.78	553.68	967.34	1,498.04	876.05	825.02
7/5/07 20:25	56.09	443,932.50	367.23	457,102.91	77.41	0.00	266.79	553.52	966.39	1,492.82	876.81	825.92
7/5/07 20:26	56.14	444,606.19	367.40	456,314.69	80.73	0.00	266.84	553.53	967.10	1,493.41	878.52	825.78
7/5/07 20:27	54.00	427,410.00	367.62	453,040.50	78.90	0.00	266.84	553.23	968.26	1,478.81	878.99	824.56
7/5/07 20:28	53.76	428,294.81	367.71	446,459.81	79.68	0.00	266.79	553.15	969.57	1,482.32	876.41	823.83
7/5/07 20:29	54.10	428,818.91	367.88	443,653.91	80.51	0.00	266.46	553.70	972.66	1,490.52	875.04	823.54
7/5/07 20:30	53.22	421,993.31	368.13	441,917.81	79.31	0.00	265.96	554.12	973.85	1,485.66	875.19	821.16
7/5/07 20:31	53.96	426,743.69	368.27	440,181.69	78.79	0.00	265.64	554.48	974.67	1,495.98	876.81	822.14
7/5/07 20:32	54.22	428,444.09	368.48	438,445.59	74.40	0.00	265.31	555.10	977.56	1,500.79	879.40	825.40
7/5/07 20:33	53.69	424,406.59	368.64	436,709.50	73.66	0.00	265.11	554.92	977.57	1,493.33	879.15	826.70
7/5/07 20:34	54.71	430,872.31	368.77	440,129.81	75.73	0.00	265.04	555.36	977.69	1,506.24	879.54	828.07
7/5/07 20:35	55.60	437,870.50	368.83	445,630.69	76.53	0.00	264.90	555.79	978.24	1,509.29	881.49	829.75
7/5/07 20:36	55.69	438,010.91	368.89	451,131.59	78.14	0.00	264.93	555.89	977.88	1,505.32	882.87	828.35
7/5/07 20:37	56.89	445,985.31	368.90	456,632.50	76.37	0.00	265.13	555.77	978.28	1,513.78	882.42	827.90
7/5/07 20:38	56.43	441,727.59	368.86	462,133.41	71.77	0.00	265.29	555.58	979.31	1,502.61	880.22	828.47
7/5/07 20:39	56.60	443,851.81	368.90	463,217.19	71.27	0.00	265.62	555.18	977.70	1,503.71	878.41	826.61
7/5/07 20:40	57.12	448,918.81	368.91	463,964.09	72.26	0.00	265.94	554.95	976.73	1,504.64	879.15	826.47
7/5/07 20:41	56.63	445,583.00	368.93	464,204.09	71.77	0.00	266.12	554.53	972.67	1,499.17	880.32	827.69
7/5/07 20:42	57.10	449,559.31	368.99	463,993.00	72.46	0.00	266.29	554.37	972.45	1,502.96	881.50	830.05
7/5/07 20:43	56.77	447,052.69	369.05	463,781.91	72.04	0.00	266.38	554.18	972.24	1,498.16	881.30	832.40
7/5/07 20:44	57.17	449,683.81	369.14	463,570.81	73.04	0.00	266.54	554.03	972.34	1,502.77	882.15	834.17
7/5/07 20:45	57.07	448,447.00	369.25	463,359.81	79.39	0.00	266.59	554.11	972.74	1,496.42	884.32	835.76
7/5/07 20:46	56.79	447,871.31	369.34	463,148.69	77.09	0.00	266.67	553.78	971.64	1,495.91	885.10	835.14
7/5/07 20:47	57.27	451,081.81	369.40	462,937.59	73.70	0.00	266.71	553.67	972.48	1,502.92	884.38	835.94
7/5/07 20:48	57.16	448,896.50	369.51	462,726.50	73.36	0.00	266.71	553.90	973.89	1,498.12	882.93	838.17
7/5/07 20:49	57.05	450,682.59	369.71	462,515.41	77.70	0.00	266.77	553.91	972.81	1,497.19	882.30	838.86

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 20:50	57.39	452,493.91	369.96	462,304.31	75.76	0.00	266.86	554.27	973.26	1,501.92	883.96	840.85
7/5/07 20:51	56.94	447,001.09	370.18	462,093.31	75.58	0.00	266.90	554.74	973.41	1,492.31	886.16	845.51
7/5/07 20:52	56.34	442,825.69	370.33	461,615.59	75.66	0.00	266.99	554.59	970.30	1,490.33	886.26	848.11
7/5/07 20:53	56.97	446,415.31	370.52	461,076.41	77.17	0.00	267.05	554.83	970.18	1,499.37	886.08	851.89
7/5/07 20:54	56.11	440,325.69	370.66	460,537.19	78.06	0.00	267.03	555.10	970.35	1,489.44	887.25	854.75
7/5/07 20:55	56.16	441,587.69	370.80	459,997.91	77.33	0.00	267.03	555.36	969.95	1,491.34	888.49	854.78
7/5/07 20:56	55.94	439,180.59	370.96	459,458.81	78.04	0.00	267.01	555.25	969.62	1,493.30	888.72	852.31
7/5/07 20:57	56.06	441,193.41	371.08	458,919.50	78.04	0.00	266.96	555.11	970.16	1,497.08	885.85	850.97
7/5/07 20:58	56.07	439,531.69	371.24	458,380.31	78.95	0.00	266.82	555.07	970.63	1,497.50	882.64	850.55
7/5/07 20:59	56.14	440,182.59	371.41	457,841.09	79.75	0.00	266.75	555.14	970.80	1,500.21	882.02	849.05
7/5/07 21:00	56.23	441,340.41	371.55	457,301.91	84.96	0.00	266.68	555.30	971.09	1,498.70	883.40	849.93
7/5/07 21:01	57.02	447,728.41	371.73	456,762.69	84.19	0.00	266.66	555.50	971.74	1,507.16	885.22	852.87
7/5/07 21:02	56.61	443,046.59	371.86	457,019.59	89.26	0.00	266.71	555.66	972.49	1,500.44	885.28	855.18
7/5/07 21:03	57.30	449,153.00	372.01	457,337.31	86.72	0.00	266.71	555.85	972.73	1,505.04	885.34	857.30
7/5/07 21:04	57.11	447,875.00	372.15	457,654.91	83.09	0.00	266.79	556.07	972.22	1,500.90	886.71	859.14
7/5/07 21:05	56.79	445,512.59	372.27	457,972.50	77.73	0.00	266.88	556.26	970.84	1,497.63	887.65	858.42
7/5/07 21:06	57.59	452,072.81	372.32	458,290.19	77.16	0.00	267.00	556.47	970.49	1,504.47	887.19	856.09
7/5/07 21:07	57.11	447,477.31	372.42	458,607.81	81.90	0.00	267.09	556.47	970.15	1,497.42	884.52	855.25
7/5/07 21:08	57.66	452,671.81	372.52	458,639.59	82.49	0.00	267.16	556.50	969.57	1,503.25	881.70	853.92
7/5/07 21:09	57.89	454,539.59	372.67	458,632.00	83.22	0.00	267.23	556.54	969.23	1,504.88	881.82	851.82
7/5/07 21:10	57.17	450,152.09	372.72	458,624.50	82.73	0.00	267.31	556.53	968.08	1,494.87	883.07	852.40
7/5/07 21:11	56.67	445,738.91	372.76	458,616.91	85.20	0.00	267.43	556.49	966.78	1,490.62	883.98	853.96
7/5/07 21:12	56.62	445,760.09	372.80	457,880.19	86.71	0.00	267.47	556.50	966.12	1,492.39	883.29	855.20
7/5/07 21:13	56.14	441,339.41	372.81	456,975.19	90.06	0.00	267.40	556.61	965.69	1,491.81	883.12	856.48
7/5/07 21:14	56.40	443,343.09	372.86	456,070.19	92.62	0.00	267.27	557.03	966.52	1,495.92	884.44	858.42
7/5/07 21:15	55.67	436,722.19	372.91	455,165.09	91.71	0.00	267.11	557.29	968.32	1,489.50	885.83	855.72
7/5/07 21:16	55.96	438,914.31	372.93	454,260.09	88.29	0.00	266.98	557.18	969.02	1,496.77	884.71	852.63
7/5/07 21:17	56.64	443,842.81	372.92	453,355.09	87.51	0.00	266.86	557.22	972.35	1,504.59	881.22	852.26
7/5/07 21:18	57.03	445,590.59	372.89	455,290.31	87.01	0.00	266.68	557.24	974.90	1,503.72	878.88	850.61
7/5/07 21:19	57.62	450,293.19	372.87	457,497.91	86.91	0.00	266.69	557.12	974.57	1,506.92	879.38	848.38
7/5/07 21:20	57.45	448,856.81	372.91	459,705.50	88.38	0.00	266.77	557.02	973.34	1,503.38	880.96	850.31
7/5/07 21:21	58.29	455,979.59	372.96	461,913.00	88.66	0.00	266.93	557.10	973.12	1,508.40	882.71	853.32
7/5/07 21:22	58.20	453,736.00	373.09	464,120.59	92.51	0.00	267.10	556.98	972.42	1,503.50	882.93	856.04
7/5/07 21:23	58.95	460,985.31	373.16	466,328.19	91.02	0.00	267.30	556.67	971.13	1,508.25	883.93	858.46
7/5/07 21:24	58.68	458,460.00	373.21	468,535.81	89.04	0.00	267.47	556.55	971.33	1,502.20	885.58	860.23
7/5/07 21:25	58.23	455,553.81	373.18	470,081.81	88.28	0.00	267.73	555.81	969.83	1,495.64	885.47	855.62
7/5/07 21:26	58.00	454,933.09	373.09	467,167.50	89.40	0.00	267.98	555.00	968.85	1,496.17	881.45	850.10
7/5/07 21:27	57.85	453,357.59	373.00	464,253.31	89.17	0.00	268.05	554.42	967.82	1,496.03	875.90	847.35
7/5/07 21:28	57.79	452,451.91	372.94	461,339.00	83.68	0.00	268.04	554.04	967.46	1,495.92	872.75	842.93
7/5/07 21:29	56.89	446,490.50	372.83	458,424.81	83.53	0.00	267.98	553.62	966.71	1,488.19	872.26	840.43
7/5/07 21:30	57.10	447,770.19	372.73	456,556.91	79.37	0.00	267.87	553.11	965.58	1,493.32	872.02	836.44
7/5/07 21:31	56.69	446,521.31	372.62	457,179.69	76.17	0.00	267.67	552.82	966.00	1,491.01	869.72	835.00
7/5/07 21:32	56.37	442,675.91	372.61	457,802.41	73.22	0.00	267.50	552.69	966.34	1,491.12	866.47	835.52
7/5/07 21:33	56.07	442,328.50	372.60	458,425.19	70.91	0.00	267.29	552.65	966.51	1,491.98	865.64	832.96
7/5/07 21:34	56.15	439,755.19	372.58	459,047.91	70.47	0.00	267.12	552.64	967.07	1,494.53	867.04	833.76
7/5/07 21:35	56.48	442,046.19	372.64	459,670.69	70.95	0.00	266.89	552.86	968.65	1,500.18	869.33	836.66
7/5/07 21:36	57.01	444,093.41	372.73	460,519.81	71.82	0.00	266.74	553.11	971.79	1,504.09	870.82	840.01
7/5/07 21:37	58.09	452,299.69	372.89	462,894.59	72.94	0.00	266.68	553.23	974.71	1,509.68	871.79	843.81
7/5/07 21:38	57.89	450,859.69	373.01	465,269.50	74.29	0.00	266.69	553.13	975.14	1,504.45	873.64	846.58
7/5/07 21:39	58.38	454,566.59	373.07	467,644.41	73.55	0.00	266.86	553.06	975.60	1,506.24	875.76	845.98

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 21:40	58.53	456,222.91	373.16	470,019.19	74.17	0.00	267.08	552.62	976.02	1,504.52	876.61	839.56
7/5/07 21:41	58.45	454,334.59	373.19	472,394.09	73.94	0.00	267.27	551.99	974.94	1,501.74	872.78	837.20
7/5/07 21:42	58.60	455,638.91	373.22	474,769.00	76.72	0.00	267.50	551.30	973.65	1,503.29	868.23	835.91
7/5/07 21:43	59.23	462,191.50	373.18	477,143.81	80.94	0.00	267.65	550.65	973.99	1,507.82	866.88	831.38
7/5/07 21:44	59.38	462,835.41	373.10	479,518.69	83.37	0.00	267.78	550.21	974.51	1,506.14	868.06	830.80
7/5/07 21:45	59.76	466,390.81	373.01	481,893.59	80.62	0.00	267.96	549.64	974.46	1,508.43	869.26	830.83
7/5/07 21:46	60.56	471,783.69	373.00	484,268.41	83.59	0.00	268.02	549.11	975.57	1,509.54	868.53	830.83
7/5/07 21:47	60.04	467,717.31	372.99	486,643.31	84.65	0.00	268.20	548.39	974.68	1,502.83	867.68	830.07
7/5/07 21:48	60.37	470,073.81	372.85	488,619.81	82.21	0.00	268.47	547.74	973.47	1,505.33	868.00	828.79
7/5/07 21:49	61.70	481,537.09	372.74	490,494.19	86.34	0.00	268.56	547.42	974.03	1,514.19	868.96	824.90
7/5/07 21:50	61.56	479,361.41	372.71	492,368.50	87.30	0.00	268.70	547.08	976.29	1,507.32	869.21	820.69
7/5/07 21:51	61.29	475,334.41	372.65	494,242.91	90.52	0.00	268.96	546.28	975.43	1,504.19	866.35	819.07
7/5/07 21:52	62.04	482,013.09	372.53	493,909.59	90.55	0.00	269.17	545.69	976.03	1,508.39	864.64	816.87
7/5/07 21:53	61.18	476,062.59	372.43	493,224.31	88.98	0.00	269.39	545.14	975.49	1,499.03	865.17	814.01
7/5/07 21:54	61.99	482,499.91	372.29	492,539.09	86.54	0.00	269.60	544.67	973.56	1,505.77	866.34	813.89
7/5/07 21:55	61.89	480,120.59	372.21	491,853.91	87.54	0.00	269.78	544.19	973.06	1,503.31	867.29	815.16
7/5/07 21:56	61.21	478,327.19	372.11	491,168.69	91.26	0.00	269.87	543.60	972.43	1,496.74	866.61	816.32
7/5/07 21:57	60.84	473,862.59	372.01	490,233.69	95.06	0.00	270.02	542.90	970.48	1,496.48	866.89	817.44
7/5/07 21:58	60.72	472,982.41	371.97	488,154.31	91.48	0.00	270.09	542.64	970.26	1,496.42	868.38	819.14
7/5/07 21:59	60.11	468,084.31	371.96	486,075.00	89.37	0.00	270.12	542.41	970.11	1,492.23	869.04	817.93
7/5/07 22:00	59.52	463,827.41	371.94	483,995.69	91.04	0.00	270.10	541.97	968.76	1,490.56	868.08	816.04
7/5/07 22:01	59.20	461,287.81	371.92	481,916.31	88.34	0.00	269.94	541.58	968.16	1,494.56	866.63	815.37
7/5/07 22:02	58.88	458,569.69	371.90	479,837.00	86.69	0.00	269.78	541.68	969.35	1,490.60	866.17	815.80
7/5/07 22:03	58.13	453,411.31	371.91	477,757.69	87.75	0.00	269.54	541.50	968.25	1,488.03	866.15	817.16
7/5/07 22:04	58.55	456,530.81	371.88	475,678.31	93.06	0.00	269.24	541.79	968.68	1,495.81	866.65	820.15
7/5/07 22:05	58.17	452,043.19	371.91	473,203.69	88.99	0.00	268.99	542.11	969.84	1,491.65	866.69	822.23
7/5/07 22:06	57.59	447,148.69	371.83	468,063.69	91.77	0.00	268.80	542.14	968.89	1,489.22	865.92	823.42
7/5/07 22:07	57.27	445,856.91	371.73	462,923.81	89.71	0.00	268.62	542.29	967.88	1,492.55	865.26	825.15
7/5/07 22:08	57.18	444,569.00	371.67	457,783.81	90.73	0.00	268.38	542.81	968.26	1,490.95	866.08	825.72
7/5/07 22:09	57.17	444,524.19	371.57	452,643.81	87.19	0.00	268.14	543.15	967.73	1,494.81	866.32	822.91
7/5/07 22:10	55.92	435,078.31	371.43	447,503.91	85.00	0.00	267.92	543.45	967.17	1,484.69	865.77	819.91
7/5/07 22:11	55.72	434,324.31	371.29	447,064.19	82.21	0.00	267.77	543.73	966.21	1,487.29	865.14	816.39
7/5/07 22:12	55.99	435,714.00	371.19	449,202.00	82.42	0.00	267.48	544.25	966.25	1,493.41	864.86	811.99
7/5/07 22:13	56.14	437,195.00	371.09	451,339.81	85.82	0.00	267.14	544.93	966.76	1,498.07	865.15	810.86
7/5/07 22:14	56.31	438,116.81	371.04	453,477.59	85.50	0.00	266.92	545.65	968.91	1,497.82	865.14	810.62
7/5/07 22:15	56.61	440,384.69	370.97	455,615.31	83.23	0.00	266.77	545.95	969.12	1,502.38	864.42	809.10
7/5/07 22:16	56.82	441,432.59	370.88	457,753.19	81.11	0.00	266.68	546.44	970.48	1,503.00	863.62	808.65
7/5/07 22:17	57.14	443,133.41	370.75	459,890.91	80.02	0.00	266.62	547.00	971.77	1,499.56	864.01	808.96
7/5/07 22:18	57.51	446,381.81	370.67	462,028.81	75.71	0.00	266.65	547.33	970.58	1,505.05	863.86	808.27
7/5/07 22:19	57.92	449,879.19	370.56	464,166.50	75.62	0.00	266.71	547.87	969.82	1,506.38	863.54	807.97
7/5/07 22:20	58.13	451,795.19	370.51	466,304.31	76.96	0.00	266.77	548.39	968.08	1,504.77	862.95	808.17
7/5/07 22:21	58.29	454,438.31	370.42	468,442.09	77.64	0.00	266.83	548.59	965.90	1,504.98	861.95	807.76
7/5/07 22:22	58.42	454,749.81	370.36	470,579.91	75.28	0.00	266.92	548.87	965.62	1,504.66	861.59	807.46
7/5/07 22:23	58.84	458,052.31	370.40	472,290.69	74.64	0.00	267.12	549.36	967.93	1,502.99	862.94	809.95
7/5/07 22:24	58.81	458,276.50	370.48	472,691.09	74.72	0.00	267.26	549.45	967.67	1,503.58	863.93	812.50
7/5/07 22:25	58.75	458,557.69	370.63	473,091.59	74.84	0.00	267.42	549.74	968.14	1,499.41	864.81	815.45
7/5/07 22:26	58.83	458,575.31	370.78	473,492.09	73.34	0.00	267.54	549.91	967.99	1,499.78	865.65	818.04
7/5/07 22:27	58.18	453,740.41	370.91	473,892.59	75.25	0.00	267.62	549.80	966.55	1,495.78	866.38	819.79
7/5/07 22:28	58.73	458,266.09	371.02	474,293.09	71.38	0.00	267.75	549.90	966.99	1,501.52	867.65	821.51
7/5/07 22:29	58.43	455,595.41	370.96	474,693.59	72.90	0.00	267.75	549.79	968.08	1,496.39	868.29	820.97

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 22:30	58.57	458,295.19	370.89	475,094.09	71.90	0.00	267.77	549.39	967.72	1,500.55	867.97	819.06
7/5/07 22:31	59.71	466,918.59	370.71	475,494.59	73.88	0.00	267.79	549.21	969.45	1,509.82	867.97	817.78
7/5/07 22:32	59.69	464,649.59	370.57	476,529.31	75.63	0.00	267.82	549.04	971.21	1,505.48	868.17	816.54
7/5/07 22:33	59.48	463,111.59	370.39	477,780.19	73.48	0.00	267.96	548.55	970.75	1,502.82	867.84	814.53
7/5/07 22:34	60.02	466,133.59	370.26	479,031.00	72.41	0.00	268.12	548.21	971.34	1,504.27	867.68	813.37
7/5/07 22:35	60.74	471,501.81	370.13	480,281.91	73.83	0.00	268.28	547.89	972.08	1,507.36	867.84	812.49
7/5/07 22:36	59.98	466,226.19	370.01	477,808.59	73.42	0.00	268.51	547.42	971.80	1,498.30	868.05	811.40
7/5/07 22:37	60.25	468,231.31	369.88	474,279.81	74.13	0.00	268.76	546.96	970.52	1,502.80	867.99	810.52
7/5/07 22:38	59.73	464,006.41	369.76	470,751.00	73.17	0.00	268.93	546.59	970.28	1,496.07	868.06	809.98
7/5/07 22:39	59.18	459,938.19	369.69	467,222.31	74.40	0.00	269.09	546.16	968.62	1,492.70	867.76	809.16
7/5/07 22:40	58.99	459,397.50	369.55	463,693.50	74.97	0.00	269.17	545.79	967.43	1,492.78	867.41	808.08
7/5/07 22:41	58.01	450,876.59	369.48	460,164.69	77.23	0.00	269.10	545.58	966.32	1,485.84	866.18	807.36
7/5/07 22:42	57.27	446,095.81	369.39	456,635.91	79.37	0.00	269.00	545.87	965.52	1,485.20	862.26	804.30
7/5/07 22:43	57.22	447,167.09	369.39	453,107.19	85.39	0.00	268.78	546.44	965.94	1,490.49	860.93	803.51
7/5/07 22:44	56.08	435,516.69	369.32	449,578.41	87.75	0.00	268.42	546.73	966.55	1,482.94	860.21	802.71
7/5/07 22:45	55.95	435,403.31	369.25	446,049.59	85.98	0.00	268.14	546.93	967.39	1,486.67	860.06	802.28
7/5/07 22:46	55.80	432,189.00	369.15	442,520.81	84.96	0.00	267.84	547.14	968.67	1,489.38	860.30	801.87
7/5/07 22:47	55.63	430,929.91	369.01	442,339.19	82.19	0.00	267.39	547.57	970.36	1,489.40	860.88	801.94
7/5/07 22:48	55.95	433,155.50	368.83	444,589.59	82.96	0.00	267.04	547.99	971.11	1,495.34	861.32	801.87
7/5/07 22:49	56.09	435,111.19	368.59	446,840.09	85.11	0.00	266.70	548.75	972.18	1,497.25	862.10	802.18
7/5/07 22:50	56.07	433,392.00	368.29	449,090.50	85.74	0.00	266.48	549.45	972.80	1,497.51	862.83	802.44
7/5/07 22:51	56.09	433,829.31	367.87	451,340.91	85.90	0.00	266.37	549.82	972.24	1,497.72	862.97	802.19
7/5/07 22:52	57.37	442,342.81	367.43	453,591.31	83.95	0.00	266.30	550.14	973.15	1,508.50	863.68	802.86
7/5/07 22:53	56.87	436,963.91	366.92	454,658.81	82.10	0.00	266.24	550.19	972.71	1,495.75	864.16	802.78
7/5/07 22:54	56.69	438,213.69	366.37	455,391.00	79.53	0.00	266.31	549.97	970.56	1,498.50	863.68	801.89
7/5/07 22:55	57.00	441,011.50	365.78	456,123.19	76.19	0.00	266.32	549.99	969.84	1,501.94	863.72	801.79
7/5/07 22:56	56.43	436,929.09	365.11	456,855.31	75.01	0.00	266.31	550.06	968.53	1,494.82	863.60	801.45
7/5/07 22:57	56.68	439,439.69	364.45	457,587.50	72.72	0.00	266.23	550.19	967.40	1,499.65	863.34	801.07
7/5/07 22:58	57.23	443,023.09	363.87	458,120.81	71.73	0.00	266.15	550.60	968.01	1,500.76	863.67	801.42
7/5/07 22:59	56.72	439,028.69	363.36	456,777.69	69.73	0.00	266.08	550.44	966.92	1,494.09	863.47	801.09
7/5/07 23:00	56.61	438,756.59	362.91	455,434.59	70.74	0.00	266.07	550.23	965.90	1,495.67	862.75	800.09
7/5/07 23:01	56.72	441,137.19	362.49	454,091.50	69.45	0.00	266.01	550.28	966.08	1,500.02	862.41	799.81
7/5/07 23:02	56.82	441,799.81	362.17	452,710.50	70.97	0.00	265.94	550.51	967.38	1,498.28	862.60	799.94
7/5/07 23:03	56.28	436,818.00	361.87	451,155.41	71.29	0.00	265.86	550.38	967.01	1,492.42	862.23	799.51
7/5/07 23:04	56.53	438,305.00	361.60	449,600.41	70.96	0.00	265.93	550.28	966.70	1,497.27	861.70	799.18
7/5/07 23:05	57.06	441,235.91	361.35	449,328.09	70.29	0.00	265.84	550.64	968.66	1,501.43	861.98	799.54
7/5/07 23:06	57.05	442,905.59	361.19	449,419.31	67.88	0.00	265.80	550.94	969.40	1,501.19	862.23	799.79
7/5/07 23:07	57.32	443,364.91	361.03	449,510.50	66.97	0.00	265.89	551.31	971.07	1,501.73	860.79	800.12
7/5/07 23:08	57.92	447,007.69	360.97	449,601.69	63.47	0.00	265.98	551.69	972.07	1,506.70	858.87	798.66
7/5/07 23:09	56.94	439,382.91	360.90	449,692.91	66.29	0.00	266.05	551.76	972.90	1,491.47	858.86	799.04
7/5/07 23:10	56.78	437,706.31	360.81	450,646.81	64.28	0.00	266.22	551.23	971.32	1,492.29	858.63	798.74
7/5/07 23:11	57.72	445,699.41	360.68	451,799.69	65.36	0.00	266.33	550.83	970.94	1,504.28	858.58	798.54
7/5/07 23:12	57.61	444,023.31	360.58	452,952.69	66.58	0.00	266.35	550.72	972.32	1,500.35	859.18	799.04
7/5/07 23:13	56.95	438,798.59	360.41	453,502.09	67.71	0.00	266.36	550.17	971.00	1,492.41	859.28	798.86
7/5/07 23:14	56.59	437,121.59	360.22	451,248.09	67.21	0.00	266.44	549.87	969.91	1,492.56	859.49	798.68
7/5/07 23:15	56.52	439,070.00	360.09	448,994.19	66.28	0.00	266.45	549.99	969.69	1,493.04	860.22	799.29
7/5/07 23:16	55.38	427,110.31	359.92	446,740.19	69.03	0.00	266.36	549.84	968.27	1,485.61	860.37	799.01
7/5/07 23:17	55.22	428,354.00	359.70	444,486.19	70.40	0.00	266.14	549.66	967.34	1,488.12	860.18	798.78
7/5/07 23:18	55.64	432,525.31	359.51	442,597.41	70.53	0.00	265.82	549.70	968.73	1,495.49	860.84	799.49
7/5/07 23:19	55.24	428,865.41	359.23	444,543.09	70.78	0.00	265.52	549.59	968.92	1,491.91	860.97	799.36

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/5/07 23:20	55.55	431,474.81	358.99	446,488.81	69.87	0.00	265.34	549.49	969.65	1,499.03	861.02	799.33
7/5/07 23:21	56.11	432,646.81	358.73	448,434.50	71.89	0.00	265.17	549.79	972.56	1,503.18	861.94	800.27
7/5/07 23:22	56.40	434,514.69	358.46	450,380.09	74.93	0.00	265.04	549.92	973.30	1,503.32	862.72	801.16
7/5/07 23:23	56.97	439,041.00	358.19	452,325.81	76.40	0.00	265.05	549.97	973.36	1,506.55	863.33	801.48
7/5/07 23:24	58.14	447,391.09	357.99	454,271.50	80.64	0.00	265.11	549.99	974.14	1,511.98	864.31	802.43
7/5/07 23:25	58.45	451,262.81	357.87	456,217.19	80.77	0.00	265.24	549.78	973.49	1,509.84	864.84	802.90
7/5/07 23:26	58.53	451,523.59	357.72	458,162.81	81.61	0.00	265.56	549.32	971.78	1,505.53	864.64	802.51
7/5/07 23:27	58.47	451,744.91	357.45	460,108.50	83.14	0.00	265.83	548.69	969.79	1,501.90	863.77	801.79
7/5/07 23:28	58.11	448,388.41	357.17	460,563.00	81.59	0.00	266.13	547.90	967.22	1,498.41	862.17	800.41
7/5/07 23:29	58.29	450,134.31	356.92	459,690.59	77.41	0.00	266.42	547.42	966.65	1,500.45	861.26	800.59
7/5/07 23:30	58.48	452,395.50	356.76	458,818.31	74.43	0.00	266.59	547.29	967.72	1,501.81	861.55	802.26
7/5/07 23:31	57.52	445,403.41	356.63	457,945.91	76.16	0.00	266.69	546.69	966.59	1,491.81	860.80	802.03
7/5/07 23:32	58.01	448,950.31	356.47	457,073.59	77.57	0.00	266.75	546.31	967.29	1,499.30	860.06	801.67
7/5/07 23:33	58.18	450,190.50	356.40	456,189.41	80.76	0.00	266.72	546.16	968.96	1,500.38	859.93	801.71
7/5/07 23:34	58.31	450,266.19	356.34	456,664.81	82.19	0.00	266.65	545.88	969.30	1,502.89	859.69	801.46
7/5/07 23:35	59.55	460,385.09	356.32	464,227.00	81.37	0.00	266.62	545.76	970.44	1,509.54	859.87	801.40
7/5/07 23:36	59.21	457,957.59	356.33	466,127.09	82.77	0.00	266.72	545.45	970.94	1,502.92	860.30	801.86
7/5/07 23:37	58.70	453,516.41	356.30	461,257.19	82.49	0.00	266.90	544.85	969.57	1,494.56	859.97	801.37
7/5/07 23:38	59.19	457,331.00	356.22	459,060.31	84.59	0.00	267.13	544.29	967.79	1,503.33	859.46	801.56
7/5/07 23:39	59.18	457,942.91	356.15	462,504.00	83.54	0.00	267.33	544.14	967.96	1,501.90	859.43	801.71
7/5/07 23:40	58.59	452,178.09	356.13	463,613.00	83.12	0.00	267.49	543.96	968.11	1,492.51	859.51	802.17
7/5/07 23:41	58.81	453,359.69	356.08	456,618.19	84.93	0.00	267.63	543.47	966.50	1,496.26	859.25	802.93
7/5/07 23:42	57.88	447,296.50	356.04	453,850.69	83.89	0.00	267.74	543.12	966.12	1,490.18	859.28	804.67
7/5/07 23:43	58.23	450,253.59	356.00	456,852.91	82.48	0.00	267.73	542.79	966.06	1,495.78	859.58	806.05
7/5/07 23:44	57.53	444,955.50	355.97	450,320.81	80.99	0.00	267.67	542.37	965.58	1,490.60	859.66	806.58
7/5/07 23:45	56.86	439,753.00	355.91	446,329.91	79.41	0.00	267.62	541.95	965.09	1,488.44	859.15	806.12
7/5/07 23:46	57.80	447,384.41	355.87	447,985.19	78.00	0.00	267.49	541.78	966.23	1,502.84	859.06	806.10
7/5/07 23:47	57.62	445,150.81	355.84	452,323.31	74.50	0.00	267.21	541.67	967.35	1,493.17	859.30	806.59
7/5/07 23:48	57.94	444,969.69	355.84	449,494.91	75.85	0.00	267.10	541.36	967.36	1,500.38	859.06	805.85
7/5/07 23:49	58.80	454,377.81	355.84	459,993.69	76.68	0.00	266.98	541.30	969.80	1,507.76	859.63	806.75
7/5/07 23:50	58.14	448,060.91	355.86	457,161.50	77.36	0.00	266.90	541.00	970.12	1,499.16	860.11	807.10
7/5/07 23:51	58.32	450,542.41	355.85	455,424.81	77.82	0.00	267.00	540.54	968.74	1,500.80	859.71	806.51
7/5/07 23:52	59.00	455,865.19	355.83	460,290.50	75.71	0.00	267.08	540.31	968.03	1,507.71	859.76	807.33
7/5/07 23:53	58.37	449,923.31	355.81	459,755.00	75.16	0.00	267.15	540.42	968.76	1,496.45	860.25	808.03
7/5/07 23:54	57.30	442,875.59	355.80	454,857.31	72.40	0.00	267.26	540.06	966.11	1,488.22	859.65	806.76
7/5/07 23:55	57.74	446,498.00	355.74	452,105.59	70.56	0.00	267.35	539.98	965.45	1,497.43	859.31	806.61
7/5/07 23:56	57.96	447,715.41	355.75	457,334.41	68.06	0.00	267.26	540.18	967.51	1,498.41	860.10	808.20
7/5/07 23:57	57.72	445,521.69	355.76	454,123.31	69.71	0.00	267.13	540.15	968.25	1,496.21	860.62	809.08
7/5/07 23:58	57.76	445,299.81	355.79	455,529.81	71.82	0.00	267.05	540.06	968.84	1,496.29	860.99	810.24
7/5/07 23:59	57.70	445,467.00	355.72	453,425.81	75.16	0.00	266.94	539.87	969.34	1,498.43	861.30	810.63
7/6/07 0:00	57.55	443,326.59	355.74	453,640.31	75.73	0.00	266.86	540.00	970.83	1,496.61	861.70	810.34
7/6/07 0:01	57.57	443,935.41	355.75	450,729.69	73.28	0.00	266.75	540.01	971.24	1,497.14	861.59	809.56
7/6/07 0:02	57.52	443,404.50	355.78	450,832.19	74.00	0.00	266.69	540.12	971.59	1,496.17	861.60	809.97
7/6/07 0:03	57.08	438,548.19	355.81	453,366.31	74.10	0.00	266.61	540.31	971.57	1,491.20	861.54	809.39
7/6/07 0:04	57.16	441,189.00	355.82	447,695.31	72.15	0.00	266.55	540.19	969.94	1,497.71	860.79	809.00
7/6/07 0:05	56.50	436,244.91	355.81	446,397.41	71.63	0.00	266.52	540.41	968.81	1,491.23	860.41	808.94
7/6/07 0:06	56.77	438,686.00	355.82	443,354.09	72.76	0.00	266.37	540.59	967.95	1,496.22	859.83	808.21
7/6/07 0:07	56.65	439,089.91	355.87	446,128.81	72.10	0.00	266.27	540.98	967.73	1,498.70	859.59	807.15
7/6/07 0:08	56.17	429,846.31	355.90	441,351.41	72.29	0.00	266.13	541.14	967.32	1,486.91	859.30	806.26
7/6/07 0:09	56.20	434,479.19	355.93	441,340.50	71.34	0.00	266.06	541.36	967.12	1,496.79	859.27	805.90

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/6/07 0:10	56.04	435,145.41	356.08	441,410.81	72.52	0.00	265.91	541.73	968.29	1,493.50	860.07	806.67
7/6/07 0:11	56.32	434,439.09	356.26	443,610.19	73.82	0.00	265.76	542.19	969.58	1,498.26	861.11	807.58
7/6/07 0:12	56.47	434,903.50	356.40	440,782.31	71.17	0.00	265.67	542.40	969.86	1,499.91	861.73	807.64
7/6/07 0:13	56.41	434,659.41	356.51	444,443.59	74.11	0.00	265.65	542.74	971.10	1,496.11	862.54	808.68
7/6/07 0:14	57.07	440,200.00	356.62	444,483.50	75.13	0.00	265.62	542.91	971.23	1,505.26	862.94	808.55
7/6/07 0:15	56.75	436,279.00	356.74	444,872.59	76.24	0.00	265.61	543.17	971.41	1,498.94	863.39	808.76
7/6/07 0:16	57.52	442,716.69	356.87	448,646.19	77.60	0.00	265.66	543.42	971.53	1,505.06	864.00	809.10
7/6/07 0:17	57.60	443,440.59	356.99	453,639.59	76.92	0.00	265.72	543.82	972.27	1,501.48	864.82	809.53
7/6/07 0:18	58.32	449,828.41	357.14	454,907.19	75.60	0.00	265.83	543.96	971.62	1,507.86	865.39	809.45
7/6/07 0:19	58.34	450,494.91	357.21	454,320.00	78.26	0.00	265.97	544.09	970.82	1,505.79	865.91	810.08
7/6/07 0:20	58.76	453,229.81	357.35	458,414.69	79.63	0.00	266.07	544.25	969.77	1,506.73	866.19	810.05
7/6/07 0:21	59.70	460,647.50	357.44	463,302.69	77.19	0.00	266.24	544.42	969.60	1,510.68	866.35	810.33
7/6/07 0:22	59.81	462,965.09	357.62	468,516.19	75.45	0.00	266.44	544.45	969.30	1,510.97	866.94	811.92
7/6/07 0:23	60.37	466,184.19	357.72	467,098.59	77.68	0.00	266.67	544.39	969.58	1,510.08	867.67	813.67
7/6/07 0:24	60.11	463,670.09	357.82	467,871.69	78.08	0.00	266.98	544.05	968.36	1,503.54	867.87	813.86
7/6/07 0:25	60.45	466,924.31	357.96	466,073.09	76.71	0.00	267.34	543.68	967.11	1,506.70	867.61	813.20
7/6/07 0:26	59.71	461,231.69	358.04	469,617.00	73.93	0.00	267.63	543.59	966.55	1,495.67	867.84	812.66
7/6/07 0:27	59.37	458,638.69	358.14	464,018.91	75.41	0.00	267.83	543.26	964.95	1,492.27	867.33	811.60
7/6/07 0:28	58.33	449,444.41	358.19	458,697.31	80.02	0.00	267.94	542.98	964.41	1,484.32	866.73	811.53
7/6/07 0:29	58.90	456,365.91	358.25	459,511.00	78.58	0.00	267.99	542.90	965.12	1,499.16	866.77	813.28
7/6/07 0:30	57.95	447,176.41	358.35	457,358.50	78.10	0.00	267.80	543.12	967.63	1,487.68	867.49	815.81
7/6/07 0:31	56.70	436,563.19	358.50	448,853.09	78.15	0.00	267.66	543.01	967.30	1,479.30	867.57	817.20
7/6/07 0:32	56.77	436,319.50	358.63	441,884.09	78.38	0.00	267.52	543.02	967.20	1,486.78	867.20	817.52
7/6/07 0:33	57.03	440,363.69	358.69	445,033.69	77.15	0.00	267.15	543.30	968.31	1,496.29	866.90	816.83
7/6/07 0:34	56.98	439,354.19	358.79	447,667.50	74.07	0.00	266.80	543.50	969.91	1,494.45	866.80	815.94
7/6/07 0:35	57.34	440,765.91	358.79	446,517.00	76.17	0.00	266.57	543.48	969.82	1,499.90	866.32	814.82
7/6/07 0:36	57.24	438,859.81	358.85	449,202.31	75.26	0.00	266.36	543.49	970.88	1,496.51	866.27	814.10
7/6/07 0:37	58.12	447,371.00	358.88	452,545.59	75.30	0.00	266.27	543.52	971.64	1,506.62	866.23	813.76
7/6/07 0:38	58.02	446,616.19	358.91	450,204.59	75.49	0.00	266.29	543.47	971.82	1,503.14	866.11	813.00
7/6/07 0:39	58.16	446,623.31	358.92	458,360.59	79.30	0.00	266.31	543.35	972.30	1,502.06	865.89	812.99
7/6/07 0:40	59.00	457,336.31	358.90	459,828.31	82.98	0.00	266.39	543.07	972.66	1,511.66	865.73	814.60
7/6/07 0:41	59.58	456,975.41	358.75	468,083.50	84.12	0.00	266.50	542.84	974.51	1,507.23	866.01	815.66
7/6/07 0:42	59.95	458,049.19	358.70	465,934.91	82.77	0.00	266.74	542.40	973.41	1,504.99	865.50	814.33
7/6/07 0:43	59.96	460,481.50	358.64	468,467.91	72.54	0.00	266.99	541.99	972.83	1,506.10	865.02	813.76
7/6/07 0:44	59.26	455,565.81	358.58	468,972.91	70.76	0.00	267.25	541.62	971.22	1,496.25	864.63	813.08
7/6/07 0:45	58.93	453,365.50	358.47	461,814.00	76.55	0.00	267.46	541.04	968.56	1,493.16	863.58	811.55
7/6/07 0:46	58.74	453,402.91	358.38	461,827.81	79.34	0.00	267.52	540.67	965.87	1,495.42	862.66	810.57
7/6/07 0:47	58.45	449,966.00	358.28	460,399.81	80.04	0.00	267.48	540.50	965.28	1,492.60	862.03	809.73
7/6/07 0:48	58.36	450,317.31	358.27	460,069.19	81.00	0.00	267.37	540.36	964.66	1,495.05	861.51	809.92
7/6/07 0:49	58.34	450,101.09	358.25	459,482.09	85.15	0.00	267.22	540.32	966.30	1,494.92	861.79	811.93
7/6/07 0:50	58.10	448,485.69	358.18	456,824.31	85.25	0.00	267.06	540.19	966.71	1,494.72	861.68	812.50
7/6/07 0:51	58.52	451,058.91	358.23	458,113.69	86.62	0.00	266.91	540.25	968.10	1,500.95	861.76	812.07
7/6/07 0:52	58.36	449,931.59	358.26	461,096.50	86.21	0.00	266.77	540.37	969.77	1,498.57	862.19	812.20
7/6/07 0:53	57.92	446,902.09	358.25	456,183.81	83.33	0.00	266.78	540.22	969.54	1,494.49	861.98	811.34
7/6/07 0:54	58.11	447,298.91	358.13	455,867.91	81.01	0.00	266.76	540.16	970.01	1,497.46	861.85	811.51
7/6/07 0:55	58.28	448,439.81	358.20	457,447.59	79.58	0.00	266.70	540.16	970.53	1,499.36	862.29	813.19
7/6/07 0:56	58.34	449,316.00	358.22	459,800.81	77.68	0.00	266.68	540.08	971.47	1,500.57	862.99	814.85
7/6/07 0:57	58.43	448,853.81	358.26	461,622.31	75.71	0.00	266.70	539.92	971.74	1,498.03	863.40	815.93
7/6/07 0:58	57.95	443,903.00	358.18	454,928.59	74.13	0.00	266.76	539.37	970.13	1,492.54	862.81	814.56
7/6/07 0:59	58.45	450,452.00	358.16	456,789.41	75.98	0.00	266.84	539.03	969.57	1,503.82	862.34	813.52

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/6/07 1:00	58.22	447,358.41	358.22	462,357.81	78.47	0.00	266.80	539.00	970.35	1,495.29	862.69	813.09
7/6/07 1:01	57.37	443,357.81	358.14	451,452.00	77.75	0.00	266.91	538.40	967.96	1,492.08	861.99	811.84
7/6/07 1:02	57.71	447,145.31	358.18	451,783.59	79.42	0.00	266.92	538.30	967.89	1,498.39	862.15	811.68
7/6/07 1:03	57.51	443,452.19	358.34	451,874.00	80.23	0.00	266.79	538.53	968.84	1,495.28	863.03	812.19
7/6/07 1:04	57.27	442,161.50	358.43	452,666.81	82.07	0.00	266.67	538.77	969.26	1,494.50	863.93	812.33
7/6/07 1:05	57.66	445,726.09	358.60	451,856.19	80.64	0.00	266.52	538.96	969.92	1,501.34	864.84	813.11
7/6/07 1:06	57.31	440,801.69	358.74	452,853.69	80.58	0.00	266.38	539.26	971.14	1,495.37	865.99	814.93
7/6/07 1:07	58.03	447,051.09	358.85	451,714.59	80.13	0.00	266.24	539.56	971.90	1,504.46	867.04	815.79
7/6/07 1:08	58.48	449,823.81	359.02	456,484.31	79.44	0.00	266.17	540.24	973.47	1,506.92	868.19	816.46
7/6/07 1:09	58.83	449,793.81	359.18	460,433.00	75.84	0.00	266.13	540.81	973.95	1,502.89	869.00	816.43
7/6/07 1:10	60.17	462,981.50	359.27	467,488.41	73.53	0.00	266.19	541.21	974.45	1,517.09	870.06	818.07
7/6/07 1:11	60.20	460,979.31	359.56	472,607.59	72.48	0.00	266.31	541.69	976.07	1,506.14	871.65	819.93
7/6/07 1:12	60.18	461,547.91	359.67	469,819.59	72.02	0.00	266.58	541.66	974.00	1,503.88	871.89	819.66
7/6/07 1:13	60.29	463,522.31	359.74	472,305.91	76.72	0.00	266.90	541.65	972.11	1,504.73	872.02	821.46
7/6/07 1:14	60.69	466,640.69	359.89	469,824.09	76.59	0.00	267.17	541.66	970.54	1,505.69	871.97	822.49
7/6/07 1:15	60.10	462,546.09	359.96	471,370.59	78.31	0.00	267.44	541.46	968.65	1,496.86	871.34	821.03
7/6/07 1:16	60.42	466,264.59	359.92	466,249.69	80.94	0.00	267.78	541.05	966.98	1,503.32	870.25	819.57
7/6/07 1:17	60.52	466,402.59	359.88	471,148.00	82.87	0.00	267.96	540.94	967.47	1,502.34	869.79	819.06
7/6/07 1:18	60.28	472,412.59	359.93	472,648.31	84.14	0.00	268.09	540.79	968.40	1,505.26	869.76	818.54
7/6/07 1:19	60.27	465,067.81	359.93	469,804.81	83.08	0.00	268.20	540.51	969.23	1,499.05	869.68	818.22
7/6/07 1:20	60.80	467,324.91	359.98	471,471.41	80.41	0.00	268.30	540.29	969.92	1,504.06	869.28	817.08
7/6/07 1:21	61.33	470,624.31	360.08	477,167.69	79.51	0.00	268.33	540.33	971.53	1,505.73	869.25	817.35
7/6/07 1:22	60.26	462,777.19	360.15	472,693.59	81.16	0.00	268.38	540.01	971.13	1,495.22	869.12	816.39
7/6/07 1:23	60.32	463,631.31	360.14	471,230.31	79.50	0.00	268.58	539.66	969.43	1,500.10	868.20	815.70
7/6/07 1:24	60.81	468,128.19	360.22	472,496.00	79.86	0.00	268.59	539.80	970.02	1,501.68	868.24	815.77
7/6/07 1:25	60.48	466,061.41	360.40	472,213.59	80.32	0.00	268.58	539.88	969.55	1,499.38	868.38	815.95
7/6/07 1:26	60.89	469,556.00	360.53	476,963.59	78.40	0.00	268.63	540.08	970.25	1,501.81	869.43	816.49
7/6/07 1:27	61.80	475,407.91	360.86	479,216.41	80.30	0.00	268.67	540.29	970.92	1,508.41	871.01	817.40
7/6/07 1:28	61.03	469,203.91	361.14	480,022.19	83.49	0.00	268.77	540.48	971.24	1,498.96	872.38	818.37
7/6/07 1:29	62.41	480,576.91	361.49	481,655.31	83.94	0.00	268.92	540.61	972.78	1,511.07	873.85	819.45
7/6/07 1:30	62.48	480,972.31	361.77	486,084.31	80.54	0.00	269.05	540.86	975.01	1,508.56	875.66	820.74
7/6/07 1:31	62.18	474,886.31	362.12	486,217.69	81.17	0.00	269.27	540.77	974.59	1,499.77	876.80	821.06
7/6/07 1:32	62.60	480,412.31	362.31	487,020.09	81.52	0.00	269.55	540.58	973.66	1,506.64	877.61	822.10
7/6/07 1:33	63.44	487,442.91	362.59	489,040.19	80.72	0.00	269.74	540.93	974.65	1,512.48	879.15	823.57
7/6/07 1:34	62.93	482,498.09	362.88	486,645.50	81.39	0.00	269.87	541.04	974.18	1,500.38	880.29	824.26
7/6/07 1:35	62.46	479,326.00	363.15	485,179.41	80.46	0.00	270.05	540.83	971.10	1,500.76	880.23	823.74
7/6/07 1:36	63.06	485,725.19	363.36	484,166.00	81.49	0.00	270.18	541.00	970.25	1,506.04	880.49	823.71
7/6/07 1:37	62.90	483,856.59	363.58	483,152.59	87.64	0.00	270.24	541.40	969.31	1,500.61	881.08	824.29
7/6/07 1:38	62.61	481,123.00	363.82	482,139.19	90.54	0.00	270.32	541.56	967.81	1,499.21	881.28	823.96
7/6/07 1:39	62.14	479,971.41	364.02	481,125.81	93.35	0.00	270.36	541.70	967.02	1,498.08	881.27	824.08
7/6/07 1:40	61.71	476,859.81	364.18	480,112.41	94.42	0.00	270.38	541.94	966.80	1,495.34	881.27	823.96
7/6/07 1:41	61.29	467,813.00	364.35	479,316.50	92.22	0.00	270.33	542.16	966.51	1,488.36	881.00	824.01
7/6/07 1:42	61.04	469,946.00	364.48	478,601.31	91.90	0.00	270.24	542.44	966.83	1,495.15	880.75	824.06
7/6/07 1:43	61.20	471,235.09	364.64	477,886.31	90.25	0.00	270.08	542.88	968.57	1,498.95	881.43	825.03
7/6/07 1:44	60.86	469,880.69	364.78	476,763.31	87.43	0.00	269.84	543.33	970.73	1,496.72	882.47	825.82
7/6/07 1:45	60.24	460,844.81	364.93	474,450.31	85.38	0.00	269.63	543.39	970.35	1,489.96	882.27	824.84
7/6/07 1:46	61.08	469,709.19	364.99	477,553.00	83.22	0.00	269.52	543.55	970.82	1,503.85	882.06	824.43
7/6/07 1:47	61.61	473,979.00	365.20	480,655.59	79.49	0.00	269.36	544.32	972.87	1,505.41	883.12	825.55
7/6/07 1:48	61.18	469,712.31	365.40	480,160.69	79.36	0.00	269.24	544.79	972.48	1,501.89	884.13	826.20
7/6/07 1:49	61.72	475,099.81	365.63	479,459.69	77.85	0.00	269.33	545.13	972.38	1,506.18	884.91	827.80

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/6/07 1:50	61.97	474,568.91	365.87	478,758.81	79.21	0.00	269.36	545.51	973.12	1,503.94	885.88	829.57
7/6/07 1:51	61.90	474,728.69	366.02	478,690.41	79.22	0.00	269.45	545.61	972.08	1,503.46	885.72	829.01
7/6/07 1:52	61.41	472,747.19	366.13	479,021.19	78.24	0.00	269.59	546.10	971.57	1,498.43	883.53	828.20
7/6/07 1:53	60.76	466,458.59	366.33	479,351.91	78.10	0.00	269.72	546.92	970.89	1,492.79	881.43	825.94
7/6/07 1:54	61.21	468,283.09	366.48	479,682.69	78.00	0.00	269.78	547.37	969.79	1,495.57	880.91	825.40
7/6/07 1:55	61.46	474,611.19	366.69	480,013.41	80.72	0.00	269.77	547.87	970.24	1,505.63	881.42	825.90
7/6/07 1:56	60.44	464,940.00	366.92	480,344.19	83.25	0.00	269.67	548.37	971.07	1,493.09	882.65	826.35
7/6/07 1:57	60.75	467,190.69	367.11	480,674.91	82.54	0.00	269.62	548.66	970.30	1,499.33	883.62	826.77
7/6/07 1:58	61.05	467,143.69	367.30	481,005.69	83.21	0.00	269.48	549.32	972.03	1,497.57	885.19	828.69
7/6/07 1:59	61.64	474,623.41	367.44	481,336.41	82.64	0.00	269.35	550.24	972.09	1,506.10	886.39	829.58
7/6/07 2:00	61.66	474,246.69	367.56	482,436.59	78.67	0.00	269.22	551.14	972.80	1,504.60	887.47	830.50
7/6/07 2:01	61.49	471,520.00	367.53	483,626.19	75.82	0.00	269.19	551.53	973.19	1,499.54	888.56	831.11
7/6/07 2:02	61.98	475,796.31	367.42	484,815.81	75.18	0.00	269.26	551.59	972.09	1,505.60	889.04	830.85
7/6/07 2:03	62.77	484,010.31	367.30	486,005.31	73.20	0.00	269.30	551.71	972.27	1,511.55	889.67	830.78
7/6/07 2:04	62.65	481,798.31	367.07	487,194.91	71.74	0.00	269.37	551.78	972.47	1,508.25	890.09	830.42
7/6/07 2:05	62.90	484,435.69	366.80	488,384.50	70.58	0.00	269.52	551.64	972.11	1,506.02	890.16	831.03
7/6/07 2:06	63.24	485,235.91	366.47	489,574.09	74.21	0.00	269.69	551.68	972.35	1,506.74	890.52	831.69
7/6/07 2:07	63.27	483,707.00	366.09	490,763.69	73.20	0.00	269.90	551.68	971.52	1,501.12	890.87	831.78
7/6/07 2:08	63.34	487,781.59	365.77	491,953.31	73.11	0.00	270.04	551.53	970.18	1,507.51	891.13	831.83
7/6/07 2:09	63.03	484,082.41	365.63	493,142.81	73.06	0.00	270.18	551.44	970.03	1,499.54	892.02	832.62
7/6/07 2:10	63.19	484,286.69	365.51	494,332.41	74.22	0.00	270.31	551.03	968.59	1,501.04	892.44	832.85
7/6/07 2:11	63.12	485,600.81	365.54	495,522.00	73.33	0.00	270.47	550.75	968.50	1,500.18	892.95	834.04
7/6/07 2:12	62.29	480,700.00	365.52	494,160.09	74.66	0.00	270.52	550.36	967.05	1,495.18	893.04	835.30
7/6/07 2:13	61.65	476,207.41	365.52	491,398.91	76.82	0.00	270.50	550.26	966.59	1,492.13	893.09	836.22
7/6/07 2:14	61.98	477,398.09	365.54	488,637.69	75.79	0.00	270.42	550.36	966.35	1,498.36	892.84	835.89
7/6/07 2:15	61.44	471,551.31	365.54	485,876.50	72.91	0.00	270.28	550.48	966.86	1,491.82	892.37	834.94
7/6/07 2:16	61.67	472,100.69	365.51	483,115.31	70.97	0.00	270.14	550.17	966.51	1,496.55	890.39	833.07
7/6/07 2:17	62.12	478,751.69	365.40	480,895.50	71.05	0.00	269.97	550.41	969.04	1,504.22	886.37	830.07
7/6/07 2:18	62.39	478,115.31	365.40	482,325.41	69.30	0.00	269.83	550.65	971.97	1,503.81	884.51	828.24
7/6/07 2:19	62.21	477,370.91	365.37	483,755.31	73.89	0.00	269.78	550.30	973.21	1,502.06	883.39	826.92
7/6/07 2:20	62.98	478,465.09	365.34	485,185.09	74.55	0.00	269.82	549.89	973.96	1,503.50	883.24	826.57
7/6/07 2:21	63.26	486,736.31	365.33	486,615.00	77.75	0.00	269.88	549.52	974.96	1,508.58	883.69	827.55
7/6/07 2:22	63.26	484,173.41	365.41	488,044.81	77.63	0.00	270.00	549.27	974.89	1,505.47	884.88	828.90
7/6/07 2:23	63.18	480,930.00	365.45	489,474.69	77.39	0.00	270.18	549.24	974.34	1,499.56	886.27	830.02
7/6/07 2:24	63.33	485,009.41	365.50	490,904.59	78.84	0.00	270.34	549.23	973.02	1,505.22	887.31	830.50
7/6/07 2:25	63.23	483,828.81	365.59	492,334.50	79.82	0.00	270.51	549.24	972.26	1,502.81	888.84	832.17
7/6/07 2:26	63.19	485,795.59	365.61	493,764.31	79.27	0.00	270.60	549.12	971.68	1,503.07	890.24	834.74
7/6/07 2:27	63.18	485,507.09	365.62	495,194.19	79.50	0.00	270.71	548.91	970.93	1,502.60	891.26	836.21
7/6/07 2:28	63.28	485,688.81	365.65	496,189.31	78.46	0.00	270.77	548.81	970.91	1,504.53	892.00	836.49
7/6/07 2:29	62.98	483,873.69	365.64	496,061.91	79.63	0.00	270.74	548.73	970.27	1,501.68	892.31	835.99
7/6/07 2:30	63.44	487,435.69	365.60	495,934.59	79.00	0.00	270.69	548.92	971.92	1,507.23	892.87	836.32
7/6/07 2:31	63.44	487,995.91	365.55	495,807.19	76.76	0.00	270.60	549.12	972.81	1,505.68	893.62	836.53
7/6/07 2:32	63.53	489,367.31	365.46	495,679.81	77.15	0.00	270.60	549.19	972.76	1,508.28	894.46	837.28
7/6/07 2:33	63.59	489,282.41	365.43	495,552.41	78.36	0.00	270.58	549.23	971.80	1,507.31	894.93	837.39
7/6/07 2:34	63.84	490,248.09	365.43	495,425.00	80.01	0.00	270.60	549.24	971.26	1,509.52	895.56	838.41
7/6/07 2:35	63.71	489,744.09	365.46	495,297.59	76.44	0.00	270.64	549.14	970.03	1,506.00	896.24	840.14
7/6/07 2:36	63.92	492,479.31	365.50	495,170.19	71.44	0.00	270.73	548.93	967.81	1,511.62	896.14	841.47
7/6/07 2:37	63.75	491,338.81	365.55	495,042.81	68.53	0.00	270.78	548.90	967.24	1,506.99	896.36	843.09
7/6/07 2:38	63.86	491,098.31	365.61	494,915.41	74.50	0.00	270.89	548.92	967.36	1,507.09	896.57	844.72
7/6/07 2:39	63.71	491,595.09	365.66	494,788.00	75.90	0.00	271.00	548.81	967.10	1,508.38	896.32	844.25

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/6/07 2:40	63.71	489,623.41	365.70	494,660.59	78.25	0.00	271.08	548.49	966.01	1,505.29	895.68	842.98
7/6/07 2:41	63.88	493,873.00	365.70	494,533.19	79.90	0.00	271.17	548.34	965.75	1,508.99	895.13	841.85
7/6/07 2:42	63.92	492,252.91	365.81	494,405.81	77.92	0.00	271.22	548.29	966.90	1,508.08	895.32	841.65
7/6/07 2:43	63.83	492,372.31	365.86	494,278.41	81.45	0.00	271.31	548.13	966.78	1,506.79	895.09	840.99
7/6/07 2:44	63.32	487,332.19	365.87	494,151.09	79.91	0.00	271.45	547.79	966.05	1,497.26	894.50	840.43
7/6/07 2:45	63.69	489,775.81	365.92	493,568.00	80.19	0.00	271.51	547.78	966.37	1,501.30	894.07	840.33
7/6/07 2:46	63.40	488,769.81	365.94	492,730.50	80.37	0.00	271.49	547.97	967.79	1,498.87	894.21	839.89
7/6/07 2:47	63.39	488,863.00	365.94	491,893.00	79.53	0.00	271.51	547.92	966.54	1,497.61	893.61	838.95
7/6/07 2:48	63.00	485,245.69	365.94	491,055.41	80.40	0.00	271.50	547.92	966.18	1,490.83	893.36	838.90
7/6/07 2:49	62.86	483,672.09	365.97	490,217.91	80.72	0.00	271.48	547.94	966.10	1,487.40	893.18	839.38
7/6/07 2:50	62.23	479,558.09	366.00	489,380.41	81.35	0.00	271.42	547.90	965.44	1,481.10	892.69	838.33
7/6/07 2:51	61.86	478,230.19	365.96	488,542.91	81.76	0.00	271.35	547.73	964.16	1,485.12	891.65	836.96
7/6/07 2:52	61.74	475,142.81	365.86	487,705.41	81.22	0.00	271.20	547.75	965.12	1,488.49	890.78	836.08
7/6/07 2:53	61.68	474,934.09	365.77	486,867.81	81.74	0.00	270.96	547.63	966.48	1,492.69	889.79	834.95
7/6/07 2:54	61.91	473,128.31	365.68	486,030.31	78.06	0.00	270.76	547.36	967.26	1,492.57	888.66	834.84
7/6/07 2:55	62.14	475,568.69	365.55	485,192.81	78.38	0.00	270.54	547.22	968.00	1,501.45	887.46	833.78
7/6/07 2:56	62.72	479,506.19	365.50	484,166.31	80.89	0.00	270.35	547.42	970.20	1,501.63	887.18	833.90
7/6/07 2:57	61.82	474,841.41	365.40	482,851.31	81.27	0.00	270.22	547.07	969.78	1,497.24	886.55	832.65
7/6/07 2:58	61.64	476,527.41	365.35	481,536.41	80.44	0.00	270.24	546.75	968.97	1,500.61	885.73	831.04
7/6/07 2:59	61.50	478,822.41	365.25	480,221.41	79.88	0.00	270.18	546.64	968.49	1,501.93	885.18	830.07
7/6/07 3:00	61.29	471,816.19	365.16	478,906.50	83.29	0.00	270.13	546.47	967.79	1,492.92	884.53	828.81
7/6/07 3:01	61.17	473,683.31	365.03	477,510.19	83.79	0.00	270.12	546.07	966.50	1,498.59	883.49	827.30
7/6/07 3:02	61.08	470,178.09	364.97	475,980.81	83.75	0.00	270.04	546.24	967.67	1,495.60	883.15	826.60
7/6/07 3:03	60.69	463,651.91	364.89	474,451.41	82.64	0.00	269.93	546.16	967.58	1,490.48	882.63	825.62
7/6/07 3:04	60.33	465,020.69	364.81	472,922.00	82.59	0.00	269.78	546.03	967.32	1,495.65	882.08	824.39
7/6/07 3:05	60.82	467,987.81	364.81	471,392.69	83.54	0.00	269.64	546.54	969.15	1,500.28	882.77	824.92
7/6/07 3:06	60.56	465,088.31	364.92	469,863.31	83.34	0.00	269.36	547.00	970.46	1,496.92	884.03	825.94
7/6/07 3:07	60.56	461,285.50	365.05	468,333.91	85.55	0.00	269.17	547.19	970.67	1,492.89	884.83	826.74
7/6/07 3:08	60.56	466,411.81	365.08	466,804.50	85.18	0.00	269.09	547.34	970.39	1,500.76	884.86	826.44
7/6/07 3:09	60.25	462,781.00	365.13	465,275.09	88.52	0.00	268.93	547.57	970.50	1,496.62	885.22	826.50
7/6/07 3:10	59.91	458,335.50	365.11	463,745.69	84.24	0.00	268.79	547.97	969.91	1,491.38	885.39	826.49
7/6/07 3:11	59.60	458,735.69	365.11	463,218.31	81.89	0.00	268.74	548.09	968.43	1,496.44	884.87	825.63
7/6/07 3:12	59.76	459,719.09	365.07	463,470.09	82.00	0.00	268.61	548.57	969.24	1,497.71	885.22	825.82
7/6/07 3:13	59.74	460,389.91	365.11	463,721.91	78.61	0.00	268.43	548.98	969.96	1,498.11	885.67	826.11
7/6/07 3:14	59.36	456,158.09	365.11	463,973.69	78.20	0.00	268.31	549.00	969.10	1,494.73	885.36	825.24
7/6/07 3:15	58.87	455,268.31	365.09	464,225.50	80.28	0.00	268.26	549.25	969.30	1,495.46	885.21	825.11
7/6/07 3:16	59.28	455,360.31	365.06	464,477.31	79.95	0.00	268.15	549.44	968.64	1,500.00	884.86	824.50
7/6/07 3:17	59.38	457,575.91	365.03	463,865.09	79.10	0.00	268.01	549.91	969.85	1,499.76	884.97	824.45
7/6/07 3:18	58.66	450,198.09	365.01	461,838.09	74.75	0.00	267.90	550.03	969.66	1,489.59	884.82	824.41
7/6/07 3:19	58.58	451,124.00	364.97	459,811.09	75.03	0.00	267.88	549.92	968.13	1,496.04	883.94	823.50
7/6/07 3:20	58.67	456,622.69	364.91	457,784.00	72.76	0.00	267.77	550.23	968.92	1,504.29	883.92	823.25
7/6/07 3:21	58.30	455,772.91	364.87	459,091.69	71.29	0.00	267.63	550.73	969.93	1,497.35	884.14	823.28
7/6/07 3:22	58.29	449,540.81	364.85	461,344.41	71.25	0.00	267.59	550.62	968.65	1,495.58	883.59	822.43
7/6/07 3:23	58.94	455,936.19	364.84	463,597.09	69.66	0.00	267.52	551.12	970.15	1,504.41	884.02	823.03
7/6/07 3:24	59.35	455,809.19	364.91	465,849.91	69.61	0.00	267.40	551.56	971.35	1,501.67	884.82	823.83
7/6/07 3:25	60.27	463,499.81	364.99	468,102.59	70.31	0.00	267.40	552.01	972.42	1,510.91	885.42	823.22
7/6/07 3:26	60.06	460,783.69	365.13	470,341.81	71.90	0.00	267.41	552.18	973.20	1,503.45	885.10	822.47
7/6/07 3:27	59.91	458,990.50	365.30	472,575.09	71.40	0.00	267.58	552.26	974.33	1,500.99	882.33	823.98
7/6/07 3:28	59.96	461,647.91	365.44	474,808.41	71.36	0.00	267.67	552.27	972.69	1,503.45	879.71	823.22
7/6/07 3:29	60.73	471,341.09	365.64	476,822.69	70.83	0.00	267.81	552.50	972.21	1,508.38	879.44	822.57

	5250-JI-013 TURBINE OUTPUT (gross MW)	3311-FI-015 STEAM FLOW (LB/HR)	3223-TIC-036 SDA INLET TEMP (DEGF)	4331-FIC-078 TOAL FEEDWATER FLOW (LB/HR)	8243-SCI-211 BIOMASS FUEL FLOW (TPH)	3233-FI-510 PROPANE FLOW (SCFH)	4331-TI-071 FWP DISCH TEMP (DEGF)	4331-TI-100 ECONOMIZER OUT FW TEMP (DEGF)	3311-TIC-010 SH OUT STEAM TEMP	3311-PI-012 SH OUTLET STEAM PRESS (PSI)	3223-TI-015A SH OUTLET FLUE GAS TEMP (DEGF)	3223-TI-015B SH OUTLET FLUE GAS TEMP (DEGF)
7/6/07 3:30	60.97	469,327.50	365.80	478,221.59	71.75	0.00	267.86	552.53	971.81	1,501.97	880.52	824.62
7/6/07 3:31	60.93	469,358.09	365.94	479,620.50	75.94	0.00	268.10	552.03	970.80	1,501.86	881.35	826.53
7/6/07 3:32	61.66	476,047.41	366.04	481,019.41	77.22	0.00	268.22	551.78	973.01	1,509.37	880.76	830.30
7/6/07 3:33	61.48	472,580.50	366.25	482,418.31	75.95	0.00	268.33	551.84	974.68	1,501.81	881.83	833.99
7/6/07 3:34	61.30	471,777.09	366.41	483,817.19	73.06	0.00	268.47	551.38	972.09	1,500.05	882.64	835.41
7/6/07 3:35	61.19	472,310.91	366.51	483,699.91	71.10	0.00	268.66	550.84	970.22	1,498.24	882.84	833.60
7/6/07 3:36	61.34	472,100.09	366.58	482,970.81	74.82	0.00	268.65	550.55	970.61	1,500.49	882.09	831.99
7/6/07 3:37	60.54	469,243.41	366.74	482,241.59	78.68	0.00	268.71	550.39	972.92	1,496.63	880.40	832.23
7/6/07 3:38	59.93	461,780.19	366.86	481,628.09	78.40	0.00	268.71	549.69	971.04	1,491.91	878.82	830.39
7/6/07 3:39	60.13	464,528.59	366.90	481,268.81	75.27	0.00	268.61	549.39	970.18	1,495.86	878.74	829.51
7/6/07 3:40	59.93	463,200.19	367.00	480,909.69	76.66	0.00	268.39	549.19	969.36	1,496.97	880.08	830.46
7/6/07 3:41	59.76	459,235.09	367.09	480,550.41	75.50	0.00	268.16	549.06	970.02	1,492.17	880.83	831.33
7/6/07 3:42	59.56	457,109.19	367.21	480,191.19	75.79	0.00	267.95	548.68	971.03	1,492.18	880.26	832.99
7/6/07 3:43	59.37	453,731.19	367.27	479,832.00	75.77	0.00	267.83	548.51	971.12	1,492.42	880.69	835.37
7/6/07 3:44	59.59	460,984.31	367.35	479,472.81	77.17	0.00	267.63	548.63	971.86	1,504.84	882.10	836.39
7/6/07 3:45	59.88	461,364.09	367.46	480,002.41	75.63	0.00	267.36	548.84	972.98	1,502.48	883.30	835.70
7/6/07 3:46	59.43	457,794.81	367.57	480,654.19	77.66	0.00	267.25	548.54	972.40	1,495.19	883.04	835.31
7/6/07 3:47	59.89	462,005.81	367.67	481,305.91	77.05	0.00	267.27	548.30	972.54	1,503.00	881.86	835.15
7/6/07 3:48	60.12	461,599.00	367.79	481,957.69	77.58	0.00	267.32	548.39	973.49	1,501.55	881.77	833.95
7/6/07 3:49	60.47	460,192.50	367.87	482,609.50	80.28	0.00	267.36	548.38	973.22	1,498.41	882.58	833.63
7/6/07 3:50	60.64	463,270.31	367.91	483,261.19	83.49	0.00	267.44	548.16	970.52	1,503.52	882.98	833.39
7/6/07 3:51	59.96	462,213.81	367.98	483,167.50	81.28	0.00	267.52	548.31	970.73	1,498.25	883.55	834.29
7/6/07 3:52	59.77	460,404.50	368.04	481,935.91	82.26	0.00	267.61	548.20	969.73	1,497.49	883.10	834.19
7/6/07 3:53	59.70	461,161.59	368.11	480,704.31	80.23	0.00	267.67	548.16	969.34	1,499.49	883.47	833.77
7/6/07 3:54	59.31	458,254.50	368.13	479,472.69	81.40	0.00	267.68	548.14	969.59	1,493.21	883.91	833.41
7/6/07 3:55	59.08	456,291.09	368.14	478,241.09	80.11	0.00	267.63	548.07	968.56	1,494.10	883.02	833.06
7/6/07 3:56	59.41	459,144.09	368.20	477,009.50	79.65	0.00	267.52	548.25	968.13	1,500.73	881.82	833.45
7/6/07 3:57	58.45	451,386.91	368.25	475,777.91	79.38	0.00	267.34	548.40	967.73	1,490.35	880.47	833.20
7/6/07 3:58	58.78	453,611.09	368.29	474,546.31	79.23	0.00	267.27	548.43	967.65	1,495.21	879.80	832.66
7/6/07 3:59	58.40	450,776.09	368.29	473,314.69	65.75	0.00	267.14	548.55	967.83	1,492.53	879.75	832.82
7/6/07 4:00	59.27	457,314.31	368.30	472,083.09	71.32	0.00	267.00	548.81	967.52	1,502.90	879.58	831.96

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/4/07 14:00	848.58	344,679.41	254,343.59	72,370.91	2.52	33.56	8.60	273.98	0.00	56.00	31.15	8,337.73
7/4/07 14:01	848.61	344,555.31	255,638.41	72,436.90	3.14	33.69	8.50	274.34	0.00	59.30	31.30	6,206.45
7/4/07 14:02	849.05	340,786.59	253,874.91	71,897.48	3.59	33.73	8.40	274.62	0.00	58.60	31.70	5,559.05
7/4/07 14:03	849.33	358,741.91	258,247.41	72,356.36	3.36	33.75	8.19	274.62	0.00	58.70	32.00	5,724.52
7/4/07 14:04	849.35	366,835.81	258,583.80	71,831.88	3.43	32.50	8.16	275.32	0.00	65.00	34.85	6,095.61
7/4/07 14:05	849.67	354,540.91	255,209.09	71,904.16	3.43	32.00	8.12	275.70	0.00	65.00	35.38	8,291.20
7/4/07 14:06	849.81	367,032.81	252,268.41	72,577.79	3.43	32.69	8.08	275.70	0.00	64.70	35.20	8,414.27
7/4/07 14:07	850.47	364,433.81	250,326.59	72,267.28	3.43	32.75	8.04	275.36	0.00	64.90	35.20	7,318.65
7/4/07 14:08	851.20	356,573.09	249,685.50	72,630.64	4.48	33.00	8.00	275.70	0.00	64.30	34.15	6,750.76
7/4/07 14:09	851.53	352,537.41	251,095.00	72,201.34	3.71	33.75	7.96	275.70	0.00	63.00	33.80	6,841.02
7/4/07 14:10	851.77	360,057.09	251,289.91	71,840.61	3.62	33.75	7.92	275.03	0.00	62.10	32.80	7,266.26
7/4/07 14:11	852.46	362,228.09	253,776.59	73,870.94	3.68	34.00	7.88	274.62	0.00	60.70	33.15	5,848.04
7/4/07 14:12	852.24	349,925.50	251,229.50	73,181.59	5.70	34.19	7.84	273.98	0.00	59.80	32.40	5,669.35
7/4/07 14:13	851.64	351,122.59	251,790.50	71,799.22	3.66	34.25	7.81	273.67	0.00	58.80	31.20	5,625.97
7/4/07 14:14	851.83	356,347.09	254,446.91	72,766.88	2.10	33.94	7.50	272.72	0.00	58.40	31.75	0.00
7/4/07 14:15	852.24	360,855.31	256,111.09	72,446.92	5.91	34.25	7.18	272.31	0.00	58.00	31.85	0.00
7/4/07 14:16	852.93	353,812.19	254,803.20	71,784.85	6.11	34.81	6.85	272.03	0.00	58.70	30.90	0.00
7/4/07 14:17	853.69	370,187.91	253,856.20	71,442.00	3.97	34.75	6.44	272.31	0.00	58.50	31.80	4,497.96
7/4/07 14:18	852.23	364,270.41	257,737.50	71,692.04	7.19	34.56	6.38	272.31	0.00	58.40	31.30	5,402.11
7/4/07 14:19	852.69	369,633.09	252,189.30	71,502.79	5.50	34.56	6.31	272.98	0.00	58.90	31.40	5,816.15
7/4/07 14:20	853.80	380,961.19	250,944.91	71,145.41	4.95	34.75	6.25	273.36	0.00	58.20	31.95	6,395.26
7/4/07 14:21	854.26	358,902.81	251,544.91	71,729.62	6.95	34.75	6.18	273.67	0.00	58.40	31.50	8,323.62
7/4/07 14:22	854.25	366,511.41	251,989.00	72,075.68	4.70	35.00	6.11	273.65	0.00	58.60	31.35	9,142.55
7/4/07 14:23	854.06	344,065.59	248,282.80	71,264.29	5.45	34.50	6.05	273.38	0.00	58.40	30.95	8,198.10
7/4/07 14:24	853.80	363,422.81	254,177.70	72,437.66	7.01	34.69	5.98	274.31	0.00	64.70	34.45	8,484.93
7/4/07 14:25	853.68	349,179.59	250,089.59	71,263.64	7.01	34.75	5.92	275.01	0.00	65.00	34.65	5,959.39
7/4/07 14:26	853.53	349,245.09	252,186.59	71,623.80	7.01	34.94	5.85	275.34	0.00	65.30	34.70	6,137.78
7/4/07 14:27	853.27	355,971.81	254,294.09	71,326.16	7.01	34.56	5.79	275.01	0.00	65.10	34.85	4,897.98
7/4/07 14:28	853.69	355,196.41	252,835.00	71,508.81	3.14	34.50	5.72	275.01	0.00	64.00	34.35	5,418.01
7/4/07 14:29	854.31	358,413.41	253,923.00	72,358.38	2.98	34.50	5.65	275.34	0.00	63.00	34.00	5,668.73
7/4/07 14:30	854.68	374,451.50	255,324.80	72,417.36	4.57	34.75	5.59	275.01	0.00	61.90	33.05	7,379.66
7/4/07 14:31	855.24	368,351.50	255,930.59	71,646.28	6.50	34.69	5.52	275.01	0.00	61.10	32.80	8,579.08
7/4/07 14:32	855.78	354,721.59	253,512.09	71,773.49	4.92	34.75	5.46	275.34	0.00	59.70	31.90	8,595.05
7/4/07 14:33	855.92	373,980.69	254,524.59	71,814.80	4.27	34.75	5.39	274.62	0.00	59.10	31.05	0.00
7/4/07 14:34	855.75	359,882.19	253,473.50	71,810.60	7.01	34.00	5.33	274.31	0.00	58.70	31.15	0.00
7/4/07 14:35	855.63	367,889.50	254,925.59	71,263.89	5.22	34.19	5.26	273.98	0.00	58.90	31.20	5,650.74
7/4/07 14:36	854.67	348,784.59	252,255.91	70,267.41	6.14	34.00	5.19	273.67	0.00	59.00	31.05	0.00
7/4/07 14:37	854.73	363,859.59	256,167.70	71,379.92	3.47	33.75	5.13	274.31	0.00	58.50	31.00	9,778.21
7/4/07 14:38	855.15	361,217.09	254,031.91	70,974.16	5.90	33.75	5.06	275.01	0.00	58.10	31.95	0.00
7/4/07 14:39	855.52	359,270.50	255,960.91	71,126.66	4.92	33.94	5.00	275.01	0.00	58.40	31.80	0.00
7/4/07 14:40	855.19	360,240.59	253,474.00	70,680.56	6.48	33.81	4.93	275.01	0.00	58.40	30.90	0.00
7/4/07 14:41	855.71	357,173.31	253,529.20	71,142.30	4.90	33.94	4.86	275.34	0.00	58.60	31.90	0.00
7/4/07 14:42	856.73	358,575.41	253,534.00	71,084.87	5.04	34.00	4.80	276.01	0.00	58.40	31.50	3,239.08
7/4/07 14:43	857.57	358,028.41	251,240.91	70,906.91	5.38	33.73	4.73	275.98	0.00	58.70	31.05	0.00
7/4/07 14:44	857.12	344,971.31	256,592.59	72,160.78	7.33	33.79	4.67	276.34	0.00	65.20	34.35	5,584.04
7/4/07 14:45	856.50	357,373.50	260,357.41	71,664.24	7.33	34.15	4.60	276.34	0.00	65.10	34.80	0.00
7/4/07 14:46	856.66	358,713.69	256,383.91	70,688.84	7.33	33.14	4.68	276.34	0.00	64.80	34.50	5,989.79
7/4/07 14:47	855.60	343,794.50	256,640.80	71,504.80	7.33	33.45	4.78	276.32	0.00	65.00	34.60	0.00
7/4/07 14:48	855.23	362,155.59	257,078.30	70,959.52	5.23	33.75	4.88	276.34	0.00	64.40	34.90	8,546.55
7/4/07 14:49	854.10	348,095.81	254,575.91	70,568.75	6.71	32.94	4.98	276.01	0.00	63.50	33.65	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/4/07 14:50	854.03	345,835.69	254,744.80	70,969.38	5.06	33.19	5.09	276.01	0.00	62.20	33.40	3,476.07
7/4/07 14:51	853.21	345,529.50	252,659.20	70,409.15	6.67	32.81	5.19	275.82	0.00	60.90	33.10	0.00
7/4/07 14:52	853.47	344,165.19	251,527.91	70,446.65	3.88	32.81	5.29	276.01	0.00	59.90	31.75	0.00
7/4/07 14:53	853.30	342,162.31	253,159.41	70,788.78	4.49	32.00	5.39	276.34	0.00	58.90	31.95	1,191.63
7/4/07 14:54	853.16	343,929.81	252,424.00	70,610.48	3.12	31.50	5.49	276.65	0.00	58.20	31.95	0.00
7/4/07 14:55	852.77	338,330.41	251,096.41	70,063.84	4.83	31.88	5.59	276.67	0.00	58.20	31.95	5,540.76
7/4/07 14:56	852.19	344,519.00	252,728.80	70,947.08	4.01	31.97	5.69	276.67	0.00	58.10	31.05	0.00
7/4/07 14:57	852.57	356,341.91	256,322.80	71,763.38	5.13	32.00	5.79	276.34	0.00	58.70	31.20	6,371.88
7/4/07 14:58	851.96	347,608.69	250,968.59	70,273.70	7.14	32.00	5.89	276.34	0.00	58.40	31.75	0.00
7/4/07 14:59	852.18	343,348.81	251,802.00	70,824.98	5.02	31.38	5.99	275.70	0.00	58.50	31.50	8,168.31
7/4/07 15:00	852.02	369,998.41	256,699.59	70,968.44	5.63	31.07	6.09	275.70	0.00	58.10	31.20	0.00
7/4/07 15:01	852.31	349,300.41	250,562.30	70,017.52	8.31	31.00	6.19	275.98	0.00	58.70	31.95	923.04
7/4/07 15:02	851.25	339,733.81	249,939.50	70,795.09	5.85	30.91	6.29	275.34	0.00	58.80	31.30	0.00
7/4/07 15:03	851.15	350,983.81	250,506.50	71,468.84	3.80	29.78	6.39	275.34	0.00	59.00	31.30	0.00
7/4/07 15:04	851.57	339,364.91	249,252.20	71,214.01	6.17	29.80	6.49	275.34	0.00	65.00	34.90	4,157.11
7/4/07 15:05	851.48	337,471.81	247,916.50	70,929.11	6.17	30.13	6.59	275.34	0.00	65.10	34.70	0.00
7/4/07 15:06	851.02	333,795.59	247,400.50	70,324.77	6.17	29.97	6.69	275.32	0.00	65.20	34.70	5,399.92
7/4/07 15:07	851.14	347,463.09	249,826.41	70,600.81	6.17	28.84	6.79	275.70	0.00	65.00	34.80	0.00
7/4/07 15:08	852.21	336,818.69	247,389.50	70,770.02	4.90	29.06	6.90	275.98	0.00	64.50	35.05	6,087.05
7/4/07 15:09	852.21	353,218.00	248,223.80	71,798.42	5.10	28.63	7.01	276.32	0.00	63.30	34.15	0.00
7/4/07 15:10	852.03	338,086.59	248,289.00	70,562.62	5.12	29.14	7.13	276.65	0.00	62.30	34.05	8,735.53
7/4/07 15:11	851.78	350,388.19	248,245.91	70,554.91	3.94	29.13	7.22	276.65	0.00	61.10	33.45	0.00
7/4/07 15:12	852.19	336,472.31	246,525.00	70,917.30	5.50	28.22	7.39	276.34	0.00	60.00	32.30	8,908.47
7/4/07 15:13	850.93	346,462.59	248,598.00	70,907.90	5.34	27.75	7.56	276.34	0.00	58.50	31.35	0.00
7/4/07 15:14	850.17	337,992.50	246,554.00	70,320.81	4.81	27.88	7.73	276.34	0.00	58.40	31.15	5,470.75
7/4/07 15:15	850.16	358,202.09	251,289.00	71,621.45	3.21	27.75	7.90	276.34	0.00	58.30	31.67	0.00
7/4/07 15:16	850.48	358,171.50	250,950.80	71,070.00	6.87	28.00	8.07	276.34	0.00	58.40	32.03	0.00
7/4/07 15:17	849.68	333,752.91	247,234.30	69,837.84	6.93	27.72	8.17	275.98	0.00	58.00	31.20	5,272.33
7/4/07 15:18	849.07	345,395.59	248,398.59	71,169.68	3.99	27.25	8.26	275.32	0.00	58.50	31.00	0.00
7/4/07 15:19	849.18	339,498.41	247,600.59	69,762.20	4.20	26.63	8.36	275.70	0.00	58.30	31.70	6,834.83
7/4/07 15:20	847.88	336,351.81	246,963.00	70,423.65	5.23	26.72	8.37	275.70	0.00	58.30	31.70	0.00
7/4/07 15:21	847.32	329,398.19	247,337.00	69,769.22	4.82	26.50	8.47	275.70	0.00	58.70	31.10	8,576.06
7/4/07 15:22	846.61	348,925.50	251,183.30	71,669.27	2.60	26.41	8.57	275.70	0.00	58.70	31.90	0.00
7/4/07 15:23	846.48	336,651.00	249,666.91	70,431.27	6.09	26.25	8.67	275.70	0.00	58.50	31.45	8,942.30
7/4/07 15:24	845.66	344,159.81	251,646.41	70,753.36	5.31	26.17	8.77	275.34	0.00	64.60	34.55	0.00
7/4/07 15:25	845.73	354,120.00	253,309.30	71,413.63	5.31	25.84	8.87	275.34	0.00	64.70	34.75	0.00
7/4/07 15:26	846.40	347,418.59	249,353.59	70,220.22	5.31	25.69	8.97	275.70	0.00	64.50	35.35	1,981.89
7/4/07 15:27	846.47	338,116.69	254,731.80	71,792.09	5.31	25.53	9.07	275.70	0.00	64.90	35.40	0.00
7/4/07 15:28	846.01	336,172.19	247,417.09	69,181.17	8.30	25.16	9.17	275.70	0.00	64.30	34.00	5,748.62
7/4/07 15:29	846.49	347,164.31	249,286.30	70,819.96	3.56	24.78	9.28	276.65	0.00	62.90	34.05	0.00
7/4/07 15:30	847.72	343,495.50	250,843.09	70,483.20	5.31	24.14	9.38	277.01	0.00	61.00	33.25	7,101.76
7/4/07 15:31	847.69	338,835.91	248,923.80	70,796.27	6.12	25.89	9.48	277.01	0.00	59.90	31.70	0.00
7/4/07 15:32	847.65	354,883.19	248,638.20	70,697.93	5.35	25.13	9.58	277.01	0.00	58.50	31.55	8,606.49
7/4/07 15:33	848.84	343,351.59	248,899.41	71,277.64	3.57	25.00	9.68	276.63	0.00	58.80	31.85	0.00
7/4/07 15:34	849.51	338,322.81	249,408.50	71,805.18	4.54	25.05	9.78	276.34	0.00	58.60	31.15	777.91
7/4/07 15:35	849.20	328,987.19	246,527.00	70,937.73	5.01	25.00	9.88	276.34	0.00	58.40	31.60	0.00
7/4/07 15:36	849.44	345,783.91	249,889.20	71,582.27	2.55	25.01	9.98	275.98	0.00	58.60	31.60	0.00
7/4/07 15:37	850.00	352,006.81	247,933.91	70,665.85	4.80	24.75	10.09	275.98	0.00	58.30	31.20	1,859.45
7/4/07 15:38	850.33	355,433.00	249,691.41	70,917.95	5.43	24.90	10.17	275.98	0.00	58.10	31.95	0.00
7/4/07 15:39	849.89	339,130.81	247,669.09	70,764.72	7.67	25.63	10.19	275.70	0.00	58.40	31.10	6,167.57

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/4/07 15:40	850.01	348,100.81	246,014.00	70,787.70	3.43	25.23	10.20	275.34	0.00	58.30	31.25	0.00
7/4/07 15:41	850.78	328,106.91	245,126.41	70,485.68	5.03	25.00	10.08	274.62	0.00	58.30	32.00	8,054.67
7/4/07 15:42	851.24	334,982.19	248,337.91	70,783.33	3.00	25.59	9.94	274.65	0.00	58.30	31.60	0.00
7/4/07 15:43	851.91	347,055.00	248,457.91	70,022.06	5.20	26.00	9.80	274.62	0.00	58.40	31.30	6,703.42
7/4/07 15:44	852.30	349,441.59	252,459.30	72,118.71	4.73	25.94	9.65	274.62	0.00	65.00	34.50	0.00
7/4/07 15:45	853.03	362,348.41	250,011.41	70,747.38	4.73	25.75	9.62	274.65	0.00	64.80	34.85	6,490.85
7/4/07 15:46	853.66	348,371.59	251,694.50	71,491.01	4.73	25.88	9.58	275.01	0.00	65.20	35.25	0.00
7/4/07 15:47	853.73	337,074.41	248,414.09	71,537.92	4.73	25.78	9.55	275.34	0.00	65.20	35.45	0.00
7/4/07 15:48	853.71	325,944.19	247,585.20	70,621.72	4.17	26.13	9.52	275.01	0.00	64.10	34.55	4,248.27
7/4/07 15:49	853.81	348,368.31	249,902.91	70,016.33	3.39	26.00	9.48	275.01	0.00	62.80	33.35	0.00
7/4/07 15:50	854.34	343,430.41	248,916.30	70,916.81	5.46	25.88	9.45	275.01	0.00	61.70	33.45	7,550.14
7/4/07 15:51	854.89	349,178.31	251,738.50	71,353.34	3.93	26.00	9.42	275.98	0.00	60.50	33.15	0.00
7/4/07 15:52	855.35	328,533.81	247,110.50	70,362.19	6.10	26.83	9.38	275.32	0.00	59.30	32.35	8,859.03
7/4/07 15:53	855.24	338,391.81	248,990.70	70,832.18	2.74	26.88	9.35	275.67	0.00	58.40	31.75	0.00
7/4/07 15:54	856.03	347,617.19	251,615.91	71,264.15	3.82	27.09	9.31	275.67	0.00	58.50	31.55	8,399.46
7/4/07 15:55	856.89	340,814.09	249,938.09	70,699.02	5.00	26.78	9.28	275.32	0.00	58.70	31.30	0.00
7/4/07 15:56	857.84	345,700.81	251,766.80	70,780.16	5.18	27.77	9.25	275.70	0.00	58.70	31.65	0.00
7/4/07 15:57	859.17	355,901.81	249,846.41	71,063.04	5.33	27.89	9.21	275.70	0.00	58.80	31.05	3,163.32
7/4/07 15:58	860.07	351,541.09	252,865.91	71,786.42	5.87	28.09	9.18	275.70	0.00	58.30	31.95	0.00
7/4/07 15:59	861.30	334,495.31	247,843.50	70,459.83	5.71	28.00	9.15	275.70	0.00	58.10	31.60	5,878.79
7/4/07 16:00	861.83	350,481.00	250,800.59	71,227.39	4.08	28.63	9.15	275.70	0.00	58.50	31.20	0.00
7/4/07 16:01	862.00	345,265.59	249,730.50	70,556.16	6.57	29.13	9.09	275.34	0.00	58.70	31.95	6,192.87
7/4/07 16:02	862.47	346,263.00	251,340.50	71,433.34	4.34	29.02	9.02	275.34	0.00	58.80	31.40	0.00
7/4/07 16:03	863.31	336,451.19	250,284.20	70,347.48	4.60	28.75	8.96	275.36	0.00	58.70	31.15	9,788.79
7/4/07 16:04	863.92	333,414.00	248,454.30	70,358.84	3.21	29.05	8.89	275.34	0.00	64.90	34.40	0.00
7/4/07 16:05	864.36	338,723.91	251,056.80	70,675.64	3.21	29.75	8.83	275.34	0.00	65.50	35.45	0.00
7/4/07 16:06	864.93	344,635.81	251,239.20	71,058.23	3.21	30.22	8.76	275.70	0.00	65.00	35.20	3,903.18
7/4/07 16:07	865.23	343,958.50	250,373.70	70,786.25	3.21	30.76	8.70	275.70	0.00	64.60	35.15	0.00
7/4/07 16:08	865.89	337,311.19	251,171.30	71,442.13	4.22	30.00	8.63	275.34	0.00	64.50	34.25	6,422.61
7/4/07 16:09	865.37	355,564.81	251,253.80	70,681.61	5.94	31.03	8.57	274.62	0.00	63.30	34.05	0.00
7/4/07 16:10	865.97	346,366.41	250,370.59	70,568.27	5.38	30.50	8.50	274.62	0.00	62.10	33.50	8,493.19
7/4/07 16:11	866.43	353,629.69	251,295.30	71,939.56	3.15	30.63	8.44	275.34	0.00	60.90	33.15	0.00
7/4/07 16:12	866.60	342,868.69	248,337.59	70,361.44	6.80	31.13	8.32	275.34	0.00	59.50	32.50	9,143.35
7/4/07 16:13	866.48	349,686.50	251,353.59	70,926.41	4.38	30.38	8.34	275.01	0.00	58.50	31.85	0.00
7/4/07 16:14	866.73	348,027.81	249,725.30	71,320.04	4.42	30.53	8.37	275.34	0.00	58.60	31.30	5,741.26
7/4/07 16:15	866.12	340,701.09	249,859.41	70,708.75	6.08	30.38	8.39	275.34	0.00	58.40	31.05	1,441.01
7/4/07 16:16	865.05	366,123.19	251,951.80	71,294.17	3.79	30.38	8.41	275.70	0.00	58.30	31.95	0.00
7/4/07 16:17	865.06	338,537.50	250,421.70	70,888.80	4.65	30.63	8.43	275.70	0.00	58.60	31.50	0.00
7/4/07 16:18	864.61	338,211.19	250,957.20	70,619.62	3.55	30.68	8.45	275.70	0.00	58.80	31.15	0.00
7/4/07 16:19	864.06	334,018.50	249,086.30	70,128.40	4.03	30.29	8.53	275.01	0.00	58.70	49.75	0.00
7/4/07 16:20	863.65	336,863.69	252,418.80	70,735.20	2.16	30.25	8.51	274.62	0.00	58.60	50.75	0.00
7/4/07 16:21	864.14	356,091.91	253,028.59	71,386.67	3.11	30.09	8.48	274.62	0.00	58.50	49.15	0.00
7/4/07 16:22	864.05	351,978.31	256,927.91	71,633.75	6.43	29.91	8.46	275.01	0.00	58.40	0.00	0.00
7/4/07 16:23	863.74	340,592.00	252,844.20	71,436.22	5.24	30.13	8.44	274.62	0.00	58.50	0.00	0.00
7/4/07 16:24	863.71	361,052.00	256,528.50	71,419.66	4.47	30.13	8.42	274.98	0.00	65.20	0.00	0.00
7/4/07 16:25	864.41	355,256.91	252,630.70	70,932.23	4.47	29.81	8.39	275.70	0.00	65.00	0.00	0.00
7/4/07 16:26	864.57	345,569.41	254,559.59	70,471.72	4.47	31.59	8.37	275.34	0.00	65.00	0.00	0.00
7/4/07 16:27	864.10	351,387.50	254,747.30	70,931.16	4.47	30.99	8.35	274.98	0.00	65.20	0.00	0.00
7/4/07 16:28	864.70	348,215.50	255,246.59	70,597.01	3.63	30.63	8.32	274.65	0.00	64.70	0.00	9,478.57
7/4/07 16:29	863.10	325,955.59	255,396.70	70,451.83	5.19	29.72	8.30	275.01	0.00	64.70	0.00	7,505.18

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/4/07 16:30	862.58	352,861.81	252,679.80	70,866.78	4.17	29.63	8.28	275.01	0.00	64.40	0.00	6,471.89
7/4/07 16:31	862.66	354,007.41	255,059.30	70,389.13	3.09	29.84	8.26	276.01	0.00	64.10	0.00	5,796.00
7/4/07 16:32	864.19	344,665.69	255,829.00	70,941.13	3.67	30.25	8.23	275.98	0.00	63.50	0.00	6,236.05
7/4/07 16:33	865.36	338,848.50	260,587.91	71,952.70	5.06	30.63	8.21	277.03	0.00	62.60	0.00	7,053.81
7/4/07 16:34	865.58	341,995.41	255,074.09	70,680.73	6.07	30.88	8.19	277.03	0.00	62.60	0.00	7,959.23
7/4/07 16:35	865.74	358,602.41	258,453.91	70,709.45	4.84	30.88	8.16	276.36	0.00	63.10	0.00	8,455.19
7/4/07 16:36	867.04	359,382.31	256,301.20	71,169.32	5.70	31.09	8.14	275.98	0.00	63.00	33.65	6,461.66
7/4/07 16:37	868.40	352,532.69	255,650.91	70,533.64	6.34	30.88	8.12	275.70	0.00	63.00	33.40	6,788.06
7/4/07 16:38	868.41	356,534.69	255,474.80	70,937.16	7.29	30.75	8.10	275.70	0.00	62.60	33.60	8,129.43
7/4/07 16:39	869.14	358,334.59	257,977.09	71,497.96	5.62	31.00	8.07	275.34	0.00	61.90	33.25	6,097.33
7/4/07 16:40	870.20	342,828.69	254,185.20	70,152.11	5.80	30.88	8.05	275.70	0.00	61.40	32.80	6,034.92
7/4/07 16:41	870.25	341,611.81	255,170.20	70,627.93	4.45	31.84	8.03	275.34	0.00	60.80	33.25	5,676.98
7/4/07 16:42	870.09	348,770.31	256,506.59	70,553.43	4.20	31.97	8.01	275.01	0.00	59.90	32.65	5,898.14
7/4/07 16:43	871.38	341,556.59	252,816.30	69,872.86	3.96	31.63	7.98	274.65	0.00	58.30	31.90	6,194.47
7/4/07 16:44	872.23	339,612.81	255,965.41	71,420.63	6.04	31.95	7.96	274.31	0.00	64.30	35.25	0.00
7/4/07 16:45	872.26	337,516.31	253,128.80	70,152.95	6.04	32.00	7.94	273.65	0.00	64.90	35.20	0.00
7/4/07 16:46	872.60	353,056.81	255,668.80	70,930.80	6.04	31.25	7.86	273.00	0.00	65.10	35.00	0.00
7/4/07 16:47	874.16	351,820.91	252,697.41	70,533.05	6.04	31.00	7.74	273.38	0.00	64.80	34.55	0.00
7/4/07 16:48	875.12	351,006.59	255,631.09	71,029.69	5.69	31.89	7.62	273.67	0.00	64.80	34.90	0.00
7/4/07 16:49	875.22	351,616.81	253,890.30	70,674.19	7.21	31.97	7.50	273.98	0.00	63.80	34.45	0.00
7/4/07 16:50	875.56	351,389.19	253,982.09	71,546.23	4.73	31.63	7.38	274.31	0.00	63.20	33.75	0.00
7/4/07 16:51	876.20	351,594.59	251,631.70	71,270.49	5.23	31.97	7.26	274.31	0.00	61.80	33.10	0.00
7/4/07 16:52	875.70	348,165.50	251,211.91	70,817.73	7.83	32.25	7.14	274.62	0.00	61.20	35.95	0.00
7/4/07 16:53	874.94	342,801.50	250,055.09	70,124.71	6.23	32.81	7.02	274.62	0.00	60.30	35.05	0.00
7/4/07 16:54	875.43	347,389.50	250,771.30	71,341.41	4.13	32.25	6.90	275.01	0.00	59.40	34.35	0.00
7/4/07 16:55	875.80	340,644.81	251,193.80	70,842.73	5.74	32.25	6.79	275.01	0.00	58.50	34.30	0.00
7/4/07 16:56	875.18	330,983.91	247,377.50	70,685.06	5.02	32.00	6.67	275.01	0.00	58.30	34.40	0.00
7/4/07 16:57	874.09	349,460.50	251,917.70	72,139.44	2.66	32.19	6.55	275.34	0.00	58.70	34.35	0.00
7/4/07 16:58	873.95	362,493.09	248,520.59	70,799.84	6.54	32.19	6.48	275.34	0.00	58.50	33.70	0.00
7/4/07 16:59	874.20	344,715.09	249,883.91	71,519.55	4.22	32.69	6.56	275.34	0.00	58.10	33.85	0.00
7/4/07 17:00	873.98	335,534.91	247,933.00	71,243.31	5.36	31.69	6.70	276.01	0.00	58.90	33.90	0.00
7/4/07 17:01	873.04	352,640.69	251,381.59	71,431.91	5.76	31.91	6.84	275.98	0.00	58.30	34.60	0.00
7/4/07 17:02	872.64	341,146.31	248,667.41	71,107.03	4.88	31.28	6.97	276.34	0.00	58.40	34.65	13,854.42
7/4/07 17:03	872.87	345,673.00	246,513.70	70,402.52	5.39	31.75	7.11	276.65	0.00	58.40	34.45	13,633.75
7/4/07 17:04	872.51	354,207.00	252,224.30	71,772.88	6.42	31.75	7.25	276.34	0.00	64.90	37.65	13,499.04
7/4/07 17:05	873.59	350,375.91	249,506.80	71,019.34	6.42	30.13	7.39	276.34	0.00	65.10	37.85	13,691.40
7/4/07 17:06	875.51	340,681.19	251,354.80	71,624.19	6.42	31.13	7.57	276.34	0.00	65.00	38.10	4,097.30
7/4/07 17:07	873.94	339,226.91	248,547.80	70,621.15	6.42	31.75	7.77	276.65	0.00	65.10	37.70	11,311.08
7/4/07 17:08	868.39	343,147.91	250,572.50	70,477.22	3.50	31.09	7.97	276.65	0.00	64.40	37.50	12,040.08
7/4/07 17:09	864.14	332,664.00	251,026.30	70,543.08	3.67	30.00	8.10	276.65	0.00	62.80	36.40	12,101.56
7/4/07 17:10	860.23	346,570.91	251,642.70	70,186.29	2.86	30.75	8.31	276.63	0.00	61.10	35.20	12,032.95
7/4/07 17:11	855.19	336,205.81	252,042.09	70,593.70	4.03	29.88	8.51	276.65	0.00	59.40	35.00	4,857.63
7/4/07 17:12	854.04	349,354.50	256,067.70	72,030.33	2.18	29.97	8.71	276.65	0.00	58.50	34.00	11,008.20
7/4/07 17:13	856.00	350,342.50	254,025.70	70,495.36	5.67	30.19	8.92	276.65	0.00	58.20	34.60	10,634.84
7/4/07 17:14	858.40	348,622.19	255,753.00	71,128.23	4.02	29.75	9.12	276.65	0.00	57.90	34.65	10,620.46
7/4/07 17:15	859.99	351,054.50	256,664.50	70,540.06	7.03	30.00	9.33	276.34	0.00	58.40	34.25	10,610.04
7/4/07 17:16	862.73	357,288.81	255,037.50	70,683.73	4.77	29.38	9.53	276.32	0.00	58.70	33.80	4,292.50
7/4/07 17:17	862.53	371,142.09	260,803.30	71,997.27	4.04	28.97	9.73	276.34	0.00	58.50	33.95	9,148.20
7/4/07 17:18	859.18	340,355.00	253,689.80	70,181.96	7.85	29.75	9.94	276.34	0.00	58.60	34.00	8,965.75
7/4/07 17:19	856.21	360,053.09	260,233.41	70,703.38	3.85	29.63	10.14	276.34	0.00	58.40	34.55	8,990.67

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/4/07 17:20	854.12	345,169.31	254,277.30	70,907.07	5.20	29.25	10.34	276.34	0.00	58.80	34.65	9,171.27
7/4/07 17:21	851.61	348,781.09	257,035.30	70,572.96	3.75	29.38	10.55	276.34	0.00	58.10	34.25	11,372.30
7/4/07 17:22	851.95	345,765.69	256,236.09	71,207.70	4.48	29.49	10.75	276.34	0.00	57.90	34.10	10,515.39
7/4/07 17:23	852.80	352,847.69	255,656.09	69,879.33	4.78	29.75	10.96	275.70	0.00	58.30	33.70	10,515.35
7/4/07 17:24	854.19	355,524.59	260,242.41	71,302.69	7.35	29.50	11.03	275.01	0.00	65.20	37.75	10,398.33
7/4/07 17:25	857.24	358,263.50	257,262.41	70,325.58	7.35	29.72	10.90	274.31	0.00	65.10	37.90	10,331.93
7/4/07 17:26	859.80	346,158.50	258,299.70	70,855.50	7.35	29.50	10.77	273.98	0.00	65.00	38.00	8,884.78
7/4/07 17:27	859.55	351,155.41	260,665.91	70,228.76	7.35	28.16	10.64	273.96	0.00	64.80	38.00	8,608.29
7/4/07 17:28	858.36	335,057.41	260,037.20	70,596.38	4.47	28.88	10.64	273.96	0.00	64.00	37.60	8,661.25
7/4/07 17:29	857.98	345,053.31	259,903.70	70,283.27	4.14	28.63	10.69	273.96	0.00	63.40	36.80	8,958.94
7/4/07 17:30	857.14	365,835.00	263,216.00	71,095.22	5.15	28.88	10.74	275.01	0.00	62.70	36.55	8,765.29
7/4/07 17:31	857.59	359,911.69	261,153.91	70,417.13	7.38	29.22	10.78	275.98	0.00	61.60	36.05	11,757.49
7/4/07 17:32	858.87	359,490.59	261,764.50	70,657.62	6.58	29.88	10.83	276.34	0.00	61.10	35.35	10,426.74
7/4/07 17:33	860.44	359,044.91	257,970.59	69,910.35	5.99	29.78	10.88	275.98	0.00	59.80	34.80	10,344.44
7/4/07 17:34	861.59	360,717.91	259,438.09	69,621.91	5.99	30.00	10.92	275.98	0.00	59.50	34.45	10,385.70
7/4/07 17:35	863.13	353,153.50	258,708.41	70,034.23	5.28	30.00	10.97	276.01	0.00	58.70	34.10	10,461.47
7/4/07 17:36	863.43	341,960.31	257,871.50	71,451.28	4.62	30.00	11.02	276.34	0.00	59.10	33.80	8,589.53
7/4/07 17:37	862.04	355,055.69	259,604.59	70,770.33	4.78	29.88	12.50	275.98	0.00	58.10	34.10	8,832.24
7/4/07 17:38	860.68	345,361.69	257,194.09	70,564.08	6.10	29.88	12.45	275.01	0.00	58.80	34.35	8,594.82
7/4/07 17:39	860.22	345,744.81	259,429.50	70,716.38	3.76	29.78	12.43	274.34	0.00	58.60	34.70	8,837.40
7/4/07 17:40	859.37	359,181.81	258,740.09	70,693.43	5.30	30.25	12.09	273.65	0.00	59.00	34.55	8,443.55
7/4/07 17:41	859.24	344,233.19	258,244.59	71,438.63	6.18	29.63	11.74	273.38	0.00	58.30	34.00	12,742.41
7/4/07 17:42	861.26	362,708.41	261,586.30	71,982.80	5.35	30.12	11.40	273.41	0.00	58.30	33.80	12,567.95
7/4/07 17:43	863.03	354,491.50	256,966.91	70,578.28	6.26	29.84	11.05	273.65	0.00	58.40	34.05	12,499.54
7/4/07 17:44	865.41	368,389.09	258,484.00	70,796.11	6.31	30.00	10.75	273.98	0.00	64.60	37.45	12,721.27
7/4/07 17:45	867.43	354,336.59	258,453.70	71,785.23	6.31	30.00	10.49	273.98	0.00	64.70	37.85	4,100.09
7/4/07 17:46	868.10	347,532.81	257,364.70	71,263.02	6.32	29.88	10.42	274.62	0.00	64.90	37.75	11,183.47
7/4/07 17:47	865.67	348,570.59	256,371.91	70,393.64	6.31	29.98	10.56	275.01	0.00	65.20	38.15	11,311.49
7/4/07 17:48	863.95	347,399.41	258,073.91	71,070.27	4.25	30.00	10.69	275.34	0.00	65.10	37.65	11,672.31
7/4/07 17:49	861.43	339,547.81	255,842.00	70,574.46	5.27	30.38	10.68	275.34	0.00	64.10	37.50	11,267.33
7/4/07 17:50	859.03	338,949.50	257,002.00	71,103.16	2.91	29.88	10.67	275.34	0.00	63.60	37.30	4,505.44
7/4/07 17:51	859.33	355,568.31	260,779.30	72,043.87	3.47	29.95	10.66	275.01	0.00	63.10	36.58	11,321.95
7/4/07 17:52	860.13	347,046.69	259,311.80	71,645.66	7.93	29.78	10.64	275.01	0.00	61.50	36.05	11,252.74
7/4/07 17:53	861.71	353,017.41	259,257.59	71,953.90	5.39	30.13	10.63	274.98	0.00	60.90	35.05	11,059.89
7/4/07 17:54	863.98	366,376.41	258,176.00	71,391.10	6.73	30.09	10.62	275.34	0.00	59.50	35.05	10,934.87
7/4/07 17:55	866.84	354,749.00	251,871.00	69,819.71	7.07	29.88	10.60	275.34	0.00	58.70	34.15	2,857.98
7/4/07 17:56	865.75	357,004.81	259,396.80	72,138.45	5.70	29.75	10.59	275.70	0.00	59.00	34.55	8,908.88
7/4/07 17:57	863.36	353,211.81	252,299.09	70,845.96	6.47	29.88	10.58	275.70	0.00	58.10	34.45	9,410.66
7/4/07 17:58	861.53	358,541.69	260,347.59	72,151.07	5.15	30.13	10.56	275.70	0.00	58.50	34.10	9,139.37
7/4/07 17:59	859.18	338,807.09	254,200.41	70,188.95	7.11	29.84	10.55	275.34	0.00	58.80	34.10	9,391.08
7/4/07 18:00	856.81	340,148.41	254,819.80	70,821.05	3.63	30.00	10.54	275.01	0.00	58.30	34.70	10,123.16
7/4/07 18:01	858.33	353,311.31	256,173.30	71,122.18	3.92	29.13	10.53	275.34	0.00	58.50	34.55	9,606.18
7/4/07 18:02	860.97	341,019.91	254,351.41	71,289.77	5.02	29.00	10.51	275.70	0.00	58.70	34.20	9,587.89
7/4/07 18:03	862.13	333,009.50	251,855.80	69,968.23	5.97	29.72	10.57	276.01	0.00	58.50	33.80	9,332.51
7/4/07 18:04	863.12	348,007.41	256,044.09	71,774.84	5.33	29.88	10.62	275.70	0.00	65.20	37.60	9,602.71
7/4/07 18:05	864.31	368,110.31	255,814.09	71,294.70	5.33	29.44	10.64	275.70	0.00	65.20	37.85	8,355.73
7/4/07 18:06	862.99	342,042.19	253,107.50	70,798.82	5.33	30.25	10.65	275.32	0.00	65.30	38.35	8,098.88
7/4/07 18:07	859.69	351,628.81	254,144.91	71,207.91	5.33	30.00	10.62	275.32	0.00	65.20	37.95	8,413.32
7/4/07 18:08	858.23	363,647.19	252,770.91	70,725.91	5.77	29.01	10.59	275.34	0.00	64.30	38.00	8,326.94
7/4/07 18:09	855.84	337,386.09	250,358.50	70,646.55	6.32	29.13	10.53	275.34	0.00	63.40	37.20	8,450.59

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/4/07 18:10	855.05	345,795.91	251,695.59	71,013.55	3.09	28.88	10.65	275.70	0.00	63.10	37.10	12,402.93
7/4/07 18:11	856.94	337,007.81	249,956.91	70,105.00	5.77	28.94	10.77	275.70	0.00	61.80	36.65	11,477.70
7/4/07 18:12	859.89	352,287.00	254,222.80	71,383.06	4.00	29.03	10.89	276.01	0.00	61.30	35.85	11,208.71
7/4/07 18:13	862.28	355,259.50	252,588.30	70,311.19	6.98	29.03	11.02	276.34	0.00	60.90	35.40	11,150.99
7/4/07 18:14	864.52	337,430.69	249,506.50	70,371.84	6.47	28.88	11.14	276.34	0.00	60.30	35.00	11,440.91
7/4/07 18:15	866.18	342,340.91	249,367.20	70,356.55	4.56	29.72	11.26	276.34	0.00	59.80	34.70	10,272.00
7/4/07 18:16	864.41	344,452.09	253,010.80	72,210.62	3.83	28.74	11.43	276.01	0.00	59.20	34.75	10,360.72
7/4/07 18:17	860.49	337,548.09	249,012.59	70,700.95	6.73	29.25	11.47	275.98	0.00	59.00	34.20	10,272.61
7/4/07 18:18	857.55	334,025.69	249,807.70	70,339.40	3.98	28.64	11.63	275.70	0.00	58.40	34.65	10,029.87
7/4/07 18:19	855.29	374,202.50	252,468.30	71,867.52	3.06	28.88	11.84	276.01	0.00	58.20	34.05	9,909.02
7/4/07 18:20	854.13	341,435.19	250,510.59	71,141.30	10.63	28.88	11.69	275.01	0.00	58.80	33.90	10,743.08
7/4/07 18:21	855.58	345,470.19	251,178.70	71,253.10	6.22	29.23	11.58	274.62	0.00	58.30	33.75	10,366.63
7/4/07 18:22	857.44	348,796.31	248,569.70	70,622.44	5.21	29.04	11.46	274.31	0.00	58.10	34.20	10,331.24
7/4/07 18:23	859.81	342,519.41	247,726.30	71,060.94	4.71	27.95	11.34	274.31	0.00	58.40	34.65	10,259.53
7/4/07 18:24	862.37	354,392.19	247,395.91	70,873.20	5.41	28.50	11.22	274.98	0.00	65.10	37.45	6,036.42
7/4/07 18:25	863.00	327,271.50	245,098.70	70,571.66	5.41	28.13	11.10	274.65	0.00	65.10	37.80	8,570.64
7/4/07 18:26	859.87	342,406.09	248,559.50	71,485.87	5.41	27.88	11.10	275.03	0.00	65.00	37.90	8,916.14
7/4/07 18:27	856.57	340,280.41	247,482.09	72,539.06	5.41	28.00	11.09	275.34	0.00	65.00	38.15	8,930.79
7/4/07 18:28	853.43	342,791.81	248,255.80	71,206.66	5.15	28.00	11.09	276.01	0.00	64.30	37.75	8,763.14
7/4/07 18:29	850.38	351,900.69	249,690.91	71,544.57	5.58	29.23	11.08	276.34	0.00	64.10	37.85	4,235.06
7/4/07 18:30	850.32	342,225.50	248,868.59	71,315.14	5.08	28.67	11.07	275.70	0.00	63.90	37.25	10,411.56
7/4/07 18:31	852.00	332,778.19	246,971.41	70,879.41	5.88	28.03	11.07	275.34	0.00	63.20	36.80	10,333.80
7/4/07 18:32	854.08	339,674.91	248,022.41	71,285.13	3.51	27.75	11.06	275.01	0.00	62.80	37.05	10,316.70
7/4/07 18:33	857.20	344,564.91	251,030.59	72,270.04	3.42	27.88	11.05	275.01	0.00	62.30	36.25	10,348.21
7/4/07 18:34	860.34	353,206.59	251,410.20	71,416.88	6.21	28.13	11.05	274.96	0.00	61.40	35.60	0.00
7/4/07 18:35	860.56	333,708.69	247,101.59	71,467.53	5.55	28.03	11.04	274.62	0.00	60.70	35.70	8,769.47
7/4/07 18:36	857.09	347,281.09	248,844.91	70,706.35	3.00	27.88	11.03	275.01	0.00	60.20	34.90	9,060.06
7/4/07 18:37	854.16	345,269.00	247,536.30	70,778.73	4.49	27.50	11.03	274.98	0.00	59.30	34.30	9,044.59
7/4/07 18:38	850.04	343,907.31	249,128.91	70,985.02	4.87	27.42	11.02	275.01	0.00	58.60	34.20	8,822.41
7/4/07 18:39	847.29	343,015.41	248,875.80	70,393.41	4.66	28.05	11.01	275.34	0.00	58.80	34.50	10,574.94
7/4/07 18:40	848.72	353,371.91	248,719.09	70,574.54	4.11	27.00	11.01	275.70	0.00	58.40	34.35	11,183.85
7/4/07 18:41	851.39	372,364.41	254,021.91	71,516.73	6.00	27.75	11.00	275.70	0.00	58.90	34.05	11,303.44
7/4/07 18:42	853.20	341,446.91	249,203.20	71,239.30	7.12	27.75	10.99	275.70	0.00	58.90	33.75	11,235.60
7/4/07 18:43	854.69	338,101.59	249,539.50	70,609.42	4.69	27.93	10.99	275.70	0.00	58.40	34.15	11,265.70
7/4/07 18:44	856.67	333,759.69	248,228.30	70,444.87	2.84	28.13	10.98	275.70	0.00	65.30	37.70	10,686.29
7/4/07 18:45	857.62	330,436.81	249,332.09	70,317.64	2.84	27.75	10.97	275.70	0.00	65.00	37.75	10,657.58
7/4/07 18:46	858.94	322,712.69	250,404.00	70,003.77	2.84	27.88	10.97	275.32	0.00	64.70	38.00	10,807.46
7/4/07 18:47	860.32	369,826.91	253,931.09	71,591.18	2.84	28.88	11.08	275.67	0.00	65.00	38.05	10,698.14
7/4/07 18:48	861.81	343,060.91	252,841.00	71,087.94	7.87	28.45	11.19	275.98	0.00	64.70	37.60	10,886.80
7/4/07 18:49	863.57	351,236.31	252,514.09	71,335.70	5.41	28.84	11.31	275.98	0.00	63.70	37.45	8,929.26
7/4/07 18:50	862.23	347,738.91	250,852.09	70,166.25	6.05	27.88	11.42	276.01	0.00	64.00	37.00	9,193.27
7/4/07 18:51	857.95	346,575.69	249,930.70	70,621.93	4.65	27.63	11.54	276.34	0.00	63.70	36.85	9,096.36
7/4/07 18:52	853.48	357,808.09	253,973.91	70,867.53	5.87	28.03	11.65	276.34	0.00	63.00	36.65	8,835.72
7/4/07 18:53	849.20	335,786.59	251,004.50	70,678.72	6.39	28.02	11.77	276.01	0.00	62.70	36.70	8,958.72
7/4/07 18:54	848.21	356,195.31	254,375.50	72,097.90	3.68	28.00	11.88	275.98	0.00	61.90	36.35	12,506.70
7/4/07 18:55	849.54	342,430.00	249,598.00	70,192.78	7.56	27.64	11.88	275.98	0.00	62.00	35.80	11,421.71
7/4/07 18:56	850.65	355,658.69	254,680.20	71,166.16	5.30	28.13	11.83	275.34	0.00	61.50	36.00	11,263.84
7/4/07 18:57	851.98	343,367.81	251,107.30	70,425.55	7.74	27.13	11.78	275.01	0.00	60.70	36.10	11,254.43
7/4/07 18:58	854.59	337,060.81	248,364.30	69,933.08	3.25	26.88	11.73	275.01	0.00	60.30	35.05	11,353.44
7/4/07 18:59	855.71	339,170.91	248,460.59	69,860.13	4.03	27.09	11.69	275.70	0.00	60.20	35.20	10,026.13

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/4/07 19:00	853.04	337,577.91	247,764.80	70,572.41	4.29	26.88	11.64	275.70	0.00	59.70	34.50	9,879.32
7/4/07 19:01	848.35	350,778.69	251,745.70	72,113.59	4.23	26.91	11.59	275.70	0.00	59.70	34.55	9,761.61
7/4/07 19:02	844.35	347,695.31	247,873.20	70,044.23	7.10	26.88	11.54	275.34	0.00	58.40	34.30	10,359.23
7/4/07 19:03	841.08	350,642.09	251,037.00	72,251.38	5.10	27.13	11.49	275.01	0.00	58.20	34.00	5,747.13
7/4/07 19:04	840.38	341,465.31	248,660.70	70,190.64	6.19	26.98	11.44	275.01	0.00	64.90	37.50	10,480.83
7/4/07 19:05	842.25	347,979.91	250,554.50	71,826.89	6.19	27.13	11.39	275.01	0.00	65.00	38.20	10,511.70
7/4/07 19:06	843.84	346,968.00	251,157.20	70,713.48	6.19	27.75	11.34	275.01	0.00	64.90	37.90	10,365.79
7/4/07 19:07	845.49	333,832.31	248,674.00	70,104.13	6.19	28.59	11.30	274.31	0.00	64.90	37.90	10,416.19
7/4/07 19:08	848.44	347,546.19	249,698.20	71,431.97	2.78	27.91	11.25	274.62	0.00	64.85	38.30	541.03
7/4/07 19:09	849.02	340,733.69	246,971.91	70,454.23	6.17	27.84	11.20	275.01	0.00	64.95	37.60	8,952.39
7/4/07 19:10	846.55	338,578.19	248,848.41	71,548.33	3.46	27.84	11.11	275.01	0.00	64.90	38.30	8,918.78
7/4/07 19:11	844.67	352,570.09	247,937.20	71,038.88	4.47	28.06	11.06	275.32	0.00	64.55	37.40	9,345.10
7/4/07 19:12	842.25	333,017.81	245,777.80	70,573.34	2.50	27.75	11.02	275.70	0.00	64.45	38.30	9,459.16
7/4/07 19:13	840.78	346,113.19	252,374.59	71,764.53	2.50	29.13	11.03	275.70	0.00	64.20	37.80	11,383.11
7/4/07 19:14	840.74	338,115.31	248,661.70	71,087.04	6.80	28.16	11.03	274.98	0.00	62.88	36.80	10,856.91
7/4/07 19:15	841.57	358,684.69	250,790.70	70,672.16	4.76	28.28	11.07	275.34	0.00	63.30	36.70	10,640.52
7/4/07 19:16	842.00	352,355.50	250,703.50	71,084.10	5.04	27.88	11.04	274.98	0.00	62.30	36.00	10,590.86
7/4/07 19:17	842.28	333,650.09	247,959.80	70,739.75	6.44	28.75	11.00	275.34	0.00	61.65	35.90	10,819.60
7/4/07 19:18	843.14	354,627.81	254,655.80	71,788.39	4.59	28.06	10.96	275.32	0.00	60.75	35.95	9,946.64
7/4/07 19:19	843.69	349,150.91	250,300.00	70,261.84	5.94	28.02	10.93	275.34	0.00	59.70	34.80	9,282.12
7/4/07 19:20	843.72	339,149.31	250,749.00	71,444.62	4.32	29.86	10.89	276.32	0.00	59.50	34.50	9,684.37
7/4/07 19:21	842.66	330,706.31	249,337.91	70,718.66	4.49	29.13	10.85	275.70	0.00	59.25	34.30	9,650.42
7/4/07 19:22	841.69	343,584.41	250,621.00	71,310.03	3.61	29.16	10.81	275.32	0.00	58.95	34.70	10,054.68
7/4/07 19:23	841.70	343,476.09	252,982.80	71,399.80	5.17	28.87	10.78	274.98	0.00	58.35	33.90	9,365.64
7/4/07 19:24	843.23	342,071.59	251,061.50	70,727.24	3.31	29.22	10.74	274.60	0.00	64.80	37.90	8,730.44
7/4/07 19:25	844.62	354,687.19	252,716.20	71,556.31	3.31	28.75	10.70	274.62	0.00	65.20	37.70	8,787.72
7/4/07 19:26	845.06	346,275.50	251,191.59	70,679.43	3.31	29.50	10.67	274.62	0.00	65.10	38.00	8,693.07
7/4/07 19:27	846.08	354,221.31	252,225.50	70,985.81	3.31	29.84	10.63	274.62	0.00	65.00	38.00	5,083.65
7/4/07 19:28	847.37	345,327.50	251,924.30	70,625.13	4.79	30.17	10.59	275.01	0.00	64.90	37.70	9,059.29
7/4/07 19:29	847.87	353,703.59	252,497.30	70,753.38	4.50	30.00	10.56	275.01	0.00	65.10	38.10	9,289.27
7/4/07 19:30	847.82	338,452.09	252,157.91	70,925.09	5.35	29.97	10.52	274.62	0.00	65.35	37.60	8,934.88
7/4/07 19:31	847.39	343,413.41	253,250.50	71,286.63	4.22	29.88	10.48	274.98	0.00	65.15	38.50	9,245.42
7/4/07 19:32	847.28	356,802.50	254,543.59	70,646.49	4.90	29.88	10.45	274.98	0.00	65.15	37.80	3,934.65
7/4/07 19:33	848.65	358,666.59	255,909.41	71,007.83	5.21	29.84	10.41	275.70	0.00	64.65	37.80	10,479.34
7/4/07 19:34	849.61	338,955.19	251,420.00	70,091.52	7.88	29.91	10.37	275.70	0.00	64.65	38.00	10,354.30
7/4/07 19:35	849.86	339,267.81	252,354.20	70,614.03	3.68	30.31	10.34	275.70	0.00	63.45	36.70	10,504.44
7/4/07 19:36	850.97	341,253.50	249,130.70	69,944.95	2.37	29.63	10.30	275.70	0.00	62.85	36.90	10,417.14
7/4/07 19:37	851.74	343,438.91	252,970.80	71,168.26	4.37	30.11	10.26	275.70	0.00	61.80	35.90	4,595.95
7/4/07 19:38	850.91	336,009.50	250,977.00	69,795.65	4.82	30.61	10.16	275.34	0.00	59.95	35.60	8,999.71
7/4/07 19:39	848.48	356,107.81	254,323.59	71,625.23	3.12	30.72	10.21	275.34	0.00	59.35	35.30	9,373.13
7/4/07 19:40	845.40	345,079.59	248,516.00	70,338.01	7.66	30.63	10.26	275.34	0.00	58.90	33.90	9,588.36
7/4/07 19:41	842.29	361,360.41	253,342.70	71,899.92	4.99	30.67	10.31	275.34	0.00	58.35	34.30	9,951.19
7/4/07 19:42	839.33	350,090.31	249,212.80	70,324.03	7.26	30.09	10.40	275.32	0.00	58.75	34.60	0.00
7/4/07 19:43	837.94	346,548.09	249,364.30	70,815.11	5.67	29.78	10.29	275.32	0.00	58.25	34.40	0.00
7/4/07 19:44	838.03	347,123.50	249,778.09	70,670.58	5.83	29.59	10.19	274.62	0.00	64.75	37.30	0.00
7/4/07 19:45	838.61	335,782.19	248,328.30	70,832.77	5.83	29.72	10.08	275.01	0.00	65.00	38.20	0.00
7/4/07 19:46	840.14	350,186.19	251,982.30	71,997.89	5.83	29.53	9.97	274.62	0.00	64.95	37.50	0.00
7/4/07 19:47	841.78	329,523.00	246,089.59	70,630.32	5.83	29.68	9.86	274.62	0.00	65.25	38.40	0.00
7/4/07 19:48	842.85	340,016.09	249,154.50	71,428.29	3.28	29.25	9.89	274.31	0.00	65.30	37.90	0.00
7/4/07 19:49	844.35	338,362.69	248,182.41	70,863.70	5.24	28.81	9.90	274.65	0.00	65.20	37.80	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/4/07 19:50	845.66	346,572.50	254,525.41	72,622.02	3.10	28.63	9.86	275.34	0.00	64.80	37.80	0.00
7/4/07 19:51	846.83	342,437.59	247,932.91	71,364.74	7.37	28.47	9.94	276.34	0.00	64.95	38.10	0.00
7/4/07 19:52	847.80	345,944.59	248,106.80	71,160.81	5.06	28.26	10.12	276.34	0.00	64.45	38.00	0.00
7/4/07 19:53	848.40	347,567.31	246,207.50	70,592.52	5.61	28.25	10.30	276.34	0.00	64.60	37.50	0.00
7/4/07 19:54	848.89	344,508.19	245,748.20	70,831.02	5.14	28.03	10.47	277.03	0.00	64.95	38.30	0.00
7/4/07 19:55	848.97	342,169.91	247,792.80	71,462.51	6.35	28.22	10.65	276.34	0.00	64.80	37.60	0.00
7/4/07 19:56	848.22	335,293.41	246,266.30	70,356.14	5.80	28.13	10.83	275.98	0.00	64.30	37.50	7,766.60
7/4/07 19:57	846.32	331,705.31	246,708.50	70,764.89	4.28	28.08	11.01	275.70	0.00	64.25	37.70	5,582.92
7/4/07 19:58	846.64	332,455.41	244,853.59	70,439.93	3.69	27.22	11.18	275.70	0.00	64.50	37.40	5,897.66
7/4/07 19:59	847.37	345,778.91	248,349.09	71,559.27	3.88	27.75	11.36	276.01	0.00	63.65	37.50	7,851.76
7/4/07 20:00	848.30	333,133.19	245,234.70	71,080.42	6.44	26.59	11.62	276.01	0.00	63.60	36.90	8,333.24
7/4/07 20:01	848.97	353,715.00	248,097.41	71,681.23	3.33	27.88	11.52	275.98	0.00	63.55	37.30	8,055.47
7/4/07 20:02	849.46	334,446.09	245,508.30	71,057.77	6.47	27.63	11.43	276.01	0.00	63.20	36.90	8,419.06
7/4/07 20:03	850.09	344,245.69	244,714.30	70,887.80	4.59	28.13	11.34	275.34	0.00	63.35	36.50	8,176.54
7/4/07 20:04	850.95	348,359.09	249,561.30	71,917.20	5.33	27.22	11.25	275.34	0.00	64.65	37.40	7,496.80
7/4/07 20:05	851.67	341,290.09	243,446.30	70,549.59	5.33	27.50	11.16	275.34	0.00	65.20	38.50	5,768.07
7/4/07 20:06	851.28	344,763.09	249,040.59	71,193.02	5.33	28.08	11.07	275.34	0.00	65.15	38.00	5,549.27
7/4/07 20:07	851.29	332,562.81	242,640.20	70,657.93	5.33	27.13	10.97	274.62	0.00	65.20	37.70	5,543.24
7/4/07 20:08	851.29	343,663.09	246,124.20	71,328.69	3.37	28.09	10.88	274.31	0.00	65.00	38.10	6,478.78
7/4/07 20:09	851.64	331,243.81	244,879.59	70,776.20	5.16	28.13	10.79	274.29	0.00	64.65	37.50	6,945.18
7/4/07 20:10	851.23	340,403.59	245,354.20	70,882.55	4.18	27.91	10.70	273.36	0.00	64.50	38.10	8,177.58
7/4/07 20:11	850.96	330,710.41	245,924.50	71,587.67	4.61	28.03	10.61	273.36	0.00	64.25	37.90	8,183.31
7/4/07 20:12	851.39	347,148.50	243,059.00	70,861.95	3.99	27.91	10.28	273.38	0.00	63.75	37.40	0.00
7/4/07 20:13	850.77	341,164.41	247,546.80	71,621.93	6.64	27.84	9.98	272.98	0.00	63.30	36.60	0.00
7/4/07 20:14	850.16	343,078.59	244,027.00	70,267.67	6.11	28.24	9.75	272.98	0.00	62.40	36.40	9,232.21
7/4/07 20:15	847.56	334,573.59	245,087.91	69,875.25	5.65	27.88	9.53	272.69	0.00	62.50	36.30	6,785.75
7/4/07 20:16	847.41	340,488.31	245,194.80	70,321.95	2.93	27.88	9.31	273.38	0.00	62.10	36.20	5,699.54
7/4/07 20:17	847.21	347,007.31	244,157.41	70,514.21	4.79	27.88	9.08	274.31	0.00	62.00	36.60	5,607.92
7/4/07 20:18	846.59	331,567.50	244,846.80	70,679.14	7.15	27.78	8.86	274.98	0.00	61.10	35.40	6,374.65
7/4/07 20:19	846.94	351,453.69	249,906.41	71,738.52	3.92	28.11	8.63	275.34	0.00	61.25	35.60	7,346.33
7/4/07 20:20	847.56	338,483.00	245,940.80	70,922.16	6.86	27.96	8.57	275.32	0.00	60.65	35.70	7,746.42
7/4/07 20:21	847.34	343,114.69	247,221.80	70,870.27	6.06	28.00	8.50	275.34	0.00	60.25	34.90	8,430.86
7/4/07 20:22	847.29	349,708.00	247,010.41	69,770.10	5.90	27.88	8.43	275.01	0.00	60.35	34.60	5,974.56
7/4/07 20:23	847.42	330,035.59	243,580.80	70,523.84	5.13	28.04	8.34	275.01	0.00	60.00	35.50	6,935.18
7/4/07 20:24	847.07	338,182.69	247,125.91	71,032.88	6.32	28.13	8.28	275.01	0.00	64.80	37.40	7,915.95
7/4/07 20:25	847.13	331,936.41	246,247.70	70,991.10	6.32	28.06	8.22	275.01	0.00	64.90	38.00	6,063.08
7/4/07 20:26	847.31	346,478.19	249,868.00	71,675.48	6.32	28.09	8.16	274.62	0.00	64.95	38.10	5,683.69
7/4/07 20:27	848.04	339,694.31	246,929.50	71,219.21	6.32	27.59	8.16	274.62	0.00	64.90	37.90	5,607.68
7/4/07 20:28	848.11	342,902.31	249,024.59	71,411.07	5.14	27.88	8.11	274.98	0.00	64.90	38.30	5,730.67
7/4/07 20:29	847.97	344,633.09	245,079.59	70,733.12	7.57	27.94	8.06	274.62	0.00	64.60	37.40	6,257.83
7/4/07 20:30	848.99	349,846.09	247,500.59	71,107.30	4.24	28.97	8.01	274.62	0.00	64.20	37.10	0.00
7/4/07 20:31	849.05	345,579.41	245,279.91	71,093.16	6.96	28.63	7.96	274.62	0.00	64.40	37.20	0.00
7/4/07 20:32	848.01	331,685.09	244,224.09	70,696.90	7.37	28.59	7.91	273.98	0.00	64.25	37.70	0.00
7/4/07 20:33	847.98	349,777.41	247,039.30	71,141.81	4.27	28.53	7.86	273.98	0.00	63.95	37.80	0.00
7/4/07 20:34	848.41	326,550.50	241,454.41	70,932.21	5.91	27.66	7.81	273.96	0.00	63.78	37.30	0.00
7/4/07 20:35	847.76	326,206.00	241,243.50	70,891.55	4.53	27.88	7.76	273.96	0.00	63.80	37.90	0.00
7/4/07 20:36	846.02	333,996.09	243,765.09	71,054.45	4.71	27.69	7.71	274.31	0.00	63.80	37.00	0.00
7/4/07 20:37	845.03	334,200.09	243,361.91	71,178.33	4.86	26.88	7.66	275.01	0.00	63.10	36.90	0.00
7/4/07 20:38	844.42	334,706.09	245,462.50	72,116.83	4.36	27.09	7.61	275.01	0.00	63.15	36.90	5,821.55
7/4/07 20:39	842.61	335,763.69	242,656.50	70,968.39	6.61	26.97	7.56	275.01	0.00	62.65	36.90	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/4/07 20:40	841.73	349,049.00	244,745.41	71,161.15	5.61	25.78	7.51	275.34	0.00	61.75	36.20	6,299.36
7/4/07 20:41	841.38	346,288.31	244,612.30	71,005.52	6.50	26.00	7.46	275.98	0.00	61.70	35.80	0.00
7/4/07 20:42	841.60	329,374.00	241,474.09	71,559.02	5.72	25.78	7.41	276.01	0.00	60.95	36.00	8,485.44
7/4/07 20:43	841.91	344,156.31	244,882.70	70,505.54	4.06	26.25	7.36	277.01	0.00	61.25	35.30	0.00
7/4/07 20:44	842.66	335,026.59	241,235.91	71,160.38	5.11	25.35	7.42	277.34	0.00	64.85	38.00	582.42
7/4/07 20:45	843.40	341,094.81	245,221.30	72,568.95	5.11	25.75	7.60	277.34	0.00	65.20	37.70	0.00
7/4/07 20:46	843.07	332,361.59	239,975.00	70,939.46	5.11	25.91	7.78	276.65	0.00	64.80	38.40	0.00
7/4/07 20:47	841.19	337,626.91	242,308.59	71,856.03	5.11	25.63	7.96	275.98	0.00	65.15	37.90	0.00
7/4/07 20:48	840.39	331,470.31	241,300.80	70,495.42	4.47	25.59	8.14	276.34	0.00	64.50	37.60	0.00
7/4/07 20:49	839.42	325,877.81	237,555.41	70,300.13	4.76	25.22	8.32	276.01	0.00	64.05	37.70	5,833.61
7/4/07 20:50	838.80	334,458.09	239,913.50	70,840.21	3.37	25.13	8.50	275.70	0.00	63.40	37.40	0.00
7/4/07 20:51	839.12	337,874.81	242,601.91	70,979.43	5.23	23.91	8.68	275.01	0.00	62.55	36.20	6,978.77
7/4/07 20:52	839.15	329,676.00	237,216.80	70,651.73	5.91	24.00	8.86	275.70	0.00	62.20	36.10	0.00
7/4/07 20:53	838.95	329,826.91	236,603.80	70,209.77	4.56	24.09	9.04	275.98	0.00	61.20	35.40	6,394.75
7/4/07 20:54	838.84	333,025.59	236,545.80	70,656.88	5.00	23.78	9.22	276.32	0.00	60.65	36.20	0.00
7/4/07 20:55	839.97	345,741.59	238,091.41	70,420.01	2.35	23.00	9.40	276.65	0.00	59.85	34.90	7,787.60
7/4/07 20:56	839.45	336,770.69	238,290.00	71,256.37	4.51	23.00	9.58	276.34	0.00	59.35	35.00	0.00
7/4/07 20:57	838.21	294,466.69	234,801.30	70,503.02	5.29	22.75	9.76	276.32	0.00	58.40	34.10	0.00
7/4/07 20:58	837.35	334,808.09	238,513.70	70,966.26	2.87	22.75	9.94	276.34	0.00	58.55	34.60	0.00
7/4/07 20:59	837.47	335,333.41	238,052.50	70,474.67	4.82	21.75	10.12	276.32	0.00	58.45	34.00	0.00
7/4/07 21:00	837.56	333,733.59	239,449.80	69,878.63	4.48	21.81	10.30	276.65	0.00	57.95	33.70	5,171.82
7/4/07 21:01	838.32	328,427.59	237,078.91	69,866.80	4.60	21.88	10.48	277.32	0.00	58.35	34.50	0.00
7/4/07 21:02	839.98	341,355.31	242,963.70	71,407.82	2.45	22.00	10.66	277.34	0.00	58.65	34.60	6,418.51
7/4/07 21:03	841.27	323,287.31	237,535.09	69,694.30	6.36	21.34	10.84	277.32	0.00	58.35	34.60	0.00
7/4/07 21:04	842.03	352,953.91	240,520.59	70,890.26	4.95	20.63	11.02	277.34	0.00	65.40	36.90	6,322.29
7/4/07 21:05	841.98	346,033.81	242,200.00	69,898.31	4.95	20.97	11.20	276.65	0.00	65.15	38.50	0.00
7/4/07 21:06	842.37	333,222.50	238,842.80	70,575.55	4.95	20.91	11.38	276.34	0.00	65.00	37.70	3,759.49
7/4/07 21:07	841.92	334,369.91	241,932.00	71,203.07	4.95	21.00	11.56	276.01	0.00	64.95	38.20	0.00
7/4/07 21:08	841.74	334,327.59	240,635.20	69,916.22	3.88	20.44	11.74	275.34	0.00	64.50	37.50	0.00
7/4/07 21:09	842.76	349,023.31	243,714.80	71,069.02	2.44	19.75	11.92	274.98	0.00	63.00	37.40	1,081.73
7/4/07 21:10	843.79	338,633.81	243,497.91	71,193.08	4.89	21.01	12.10	276.01	0.00	61.85	36.20	0.00
7/4/07 21:11	843.87	334,803.69	244,171.30	70,226.80	5.84	22.84	12.16	275.70	0.00	60.90	35.50	5,096.82
7/4/07 21:12	844.43	335,879.91	243,528.50	71,346.27	2.88	21.75	12.11	275.01	0.00	60.10	35.40	0.00
7/4/07 21:13	844.85	342,817.31	245,274.59	71,317.83	2.65	21.63	12.07	274.31	0.00	59.60	34.40	6,787.31
7/4/07 21:14	844.89	336,085.09	245,162.80	70,292.45	4.96	21.05	12.02	274.31	0.00	58.90	33.90	0.00
7/4/07 21:15	844.61	331,647.91	245,323.30	70,677.32	3.41	20.91	11.97	274.31	0.00	58.70	33.80	7,999.75
7/4/07 21:16	844.97	346,882.41	246,861.00	70,836.51	1.94	20.88	11.93	274.98	0.00	58.45	33.90	0.00
7/4/07 21:17	845.99	331,941.00	246,754.59	70,506.48	2.86	21.94	11.88	276.01	0.00	58.40	34.40	8,582.00
7/4/07 21:18	846.32	341,112.41	247,944.70	71,127.30	3.64	22.69	11.83	275.98	0.00	58.25	34.60	0.00
7/4/07 21:19	846.53	335,359.81	248,308.41	71,088.13	4.22	21.88	11.78	275.70	0.00	58.40	34.20	5,879.91
7/4/07 21:20	846.56	354,412.69	254,346.30	72,037.05	2.59	22.00	11.74	275.34	0.00	58.55	33.70	0.00
7/4/07 21:21	847.27	346,890.59	250,952.20	71,214.26	5.29	21.56	11.69	275.70	0.00	58.40	33.90	0.00
7/4/07 21:22	847.58	339,882.59	252,010.30	70,796.95	4.03	22.89	11.64	275.70	0.00	58.25	33.90	2,838.70
7/4/07 21:23	848.07	359,155.91	255,380.80	71,429.81	1.88	23.13	11.65	276.01	0.00	58.40	34.60	0.00
7/4/07 21:24	848.72	346,918.19	255,151.00	71,894.94	5.05	22.41	11.68	275.98	0.00	64.35	37.70	6,242.26
7/4/07 21:25	849.10	355,817.59	256,897.70	71,106.03	5.05	23.75	11.72	276.01	0.00	65.10	37.90	0.00
7/4/07 21:26	849.62	346,875.69	255,397.80	71,313.76	5.04	23.13	11.75	275.70	0.00	65.10	38.00	8,482.64
7/4/07 21:27	849.71	367,803.50	259,709.00	71,792.06	5.04	21.88	11.78	275.70	0.00	64.75	38.30	0.00
7/4/07 21:28	850.57	359,633.09	259,958.00	71,047.50	6.53	22.13	11.81	276.01	0.00	64.15	37.40	9,862.52
7/4/07 21:29	850.49	337,369.09	256,392.59	70,385.77	6.23	22.00	11.84	276.65	0.00	63.30	36.80	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/4/07 21:30	850.67	364,552.09	261,682.09	70,216.48	3.36	22.63	11.87	277.03	0.00	62.80	37.20	0.00
7/4/07 21:31	851.26	358,981.31	258,744.80	70,165.05	5.47	23.63	11.91	277.34	0.00	61.95	36.00	3,095.69
7/4/07 21:32	851.24	358,624.19	262,187.59	70,815.37	5.34	24.75	11.94	277.03	0.00	61.60	35.80	0.00
7/4/07 21:33	851.37	351,813.41	261,722.20	71,167.76	6.17	25.00	11.97	276.34	0.00	61.30	36.50	5,614.37
7/4/07 21:34	851.50	368,992.81	266,177.91	72,245.69	5.17	24.88	12.00	275.34	0.00	61.20	35.20	0.00
7/4/07 21:35	851.92	343,241.09	259,485.50	70,273.29	7.97	24.84	12.03	275.34	0.00	60.90	35.50	6,893.17
7/4/07 21:36	852.88	382,250.50	269,255.81	71,353.70	3.62	24.91	12.06	274.62	0.00	60.65	36.10	0.00
7/4/07 21:37	852.07	349,462.41	258,873.41	70,134.52	8.97	25.00	12.10	274.29	0.00	60.70	35.00	6,572.26
7/4/07 21:38	851.80	355,635.09	258,765.80	70,648.75	5.06	25.13	12.13	274.31	0.00	60.00	34.80	0.00
7/4/07 21:39	852.38	348,611.91	258,763.00	70,189.27	4.04	25.09	12.16	274.31	0.00	59.75	35.20	8,520.70
7/4/07 21:40	853.06	345,625.81	257,607.91	69,295.99	2.99	25.03	11.99	274.31	0.00	59.30	35.00	0.00
7/4/07 21:41	853.63	352,056.31	259,901.59	70,518.17	3.10	25.88	11.79	274.31	0.00	58.95	34.60	0.00
7/4/07 21:42	853.96	345,597.81	257,428.70	69,753.15	4.94	26.00	11.73	274.62	0.00	58.10	33.90	562.91
7/4/07 21:43	852.68	343,208.81	258,636.91	70,787.40	3.06	25.88	11.66	275.01	0.00	58.15	33.80	0.00
7/4/07 21:44	852.50	348,835.81	258,313.91	70,192.58	2.99	26.13	11.67	275.01	0.00	64.90	37.50	4,275.62
7/4/07 21:45	852.96	350,250.31	260,244.80	71,479.27	2.99	27.05	11.61	275.34	0.00	64.75	37.60	0.00
7/4/07 21:46	853.19	339,438.09	258,154.00	70,708.28	2.99	26.00	11.54	275.33	0.00	64.95	38.20	6,003.72
7/4/07 21:47	853.08	355,318.00	258,382.41	70,900.28	2.98	25.88	11.48	275.34	0.00	64.90	37.80	0.00
7/4/07 21:48	853.73	350,115.69	260,590.00	71,440.16	5.44	26.67	11.42	275.34	0.00	64.85	38.30	9,054.50
7/4/07 21:49	853.70	357,047.50	260,830.20	71,374.56	6.57	26.88	11.36	275.01	0.00	64.90	37.90	0.00
7/4/07 21:50	854.16	354,848.19	257,188.59	70,324.88	5.76	26.78	11.30	275.01	0.00	64.15	37.90	10,529.28
7/4/07 21:51	855.19	355,538.31	257,351.50	70,765.10	4.31	26.63	11.28	275.01	0.00	63.95	37.10	0.00
7/4/07 21:52	856.14	353,512.50	258,399.80	70,842.82	7.01	27.13	11.30	275.01	0.00	63.65	36.70	0.00
7/4/07 21:53	857.03	357,183.31	259,237.41	70,701.20	7.15	27.09	11.34	275.01	0.00	62.95	37.10	1,496.88
7/4/07 21:54	858.06	356,256.31	259,707.00	71,219.03	5.54	25.91	11.39	275.32	0.00	62.45	36.50	0.00
7/4/07 21:55	858.85	348,265.91	254,676.70	70,807.69	7.21	26.33	11.41	275.96	0.00	62.70	36.70	6,592.15
7/4/07 21:56	858.64	349,212.69	255,559.91	70,628.32	4.32	26.91	11.57	276.34	0.00	62.45	36.10	0.00
7/4/07 21:57	858.71	343,352.91	253,947.80	70,349.26	4.79	26.03	11.73	276.65	0.00	61.85	36.20	8,410.34
7/4/07 21:58	858.10	348,552.91	251,715.91	70,140.06	4.06	26.00	11.89	277.01	0.00	61.80	36.30	0.00
7/4/07 21:59	858.22	346,913.31	254,326.20	70,509.76	3.95	25.88	12.05	276.65	0.00	61.10	36.00	9,125.04
7/4/07 22:00	857.63	336,615.69	253,193.59	70,839.13	5.56	26.98	12.21	276.67	0.00	61.20	35.00	0.00
7/4/07 22:01	857.16	342,666.91	252,608.00	70,691.41	5.11	26.66	12.37	275.98	0.00	60.70	35.80	0.00
7/4/07 22:02	857.28	359,962.31	258,214.41	72,513.44	2.77	26.00	12.53	275.70	0.00	60.30	35.50	516.34
7/4/07 22:03	857.73	341,665.19	252,857.70	71,245.20	8.65	26.00	12.69	275.33	0.00	60.00	34.60	0.00
7/4/07 22:04	858.13	341,747.91	252,381.30	70,678.90	4.60	27.16	12.85	275.34	0.00	64.90	37.50	4,538.81
7/4/07 22:05	858.64	354,589.91	252,303.20	70,305.54	4.60	26.00	12.91	275.34	0.00	65.15	38.00	0.00
7/4/07 22:06	860.21	349,669.59	252,323.20	70,876.70	4.60	26.13	13.01	275.70	0.00	65.05	37.60	8,287.80
7/4/07 22:07	861.13	345,258.81	251,799.00	70,780.41	4.60	26.28	13.11	276.01	0.00	64.95	38.50	0.00
7/4/07 22:08	862.53	354,176.19	252,212.50	71,494.12	4.22	26.88	13.22	276.01	0.00	64.80	37.60	9,663.37
7/4/07 22:09	862.18	341,349.31	251,458.80	71,060.78	6.25	26.50	13.32	276.01	0.00	65.35	38.40	0.00
7/4/07 22:10	861.57	340,279.91	250,041.70	71,603.61	4.47	26.09	13.42	276.00	0.00	65.20	38.40	0.00
7/4/07 22:11	860.53	339,731.69	249,763.70	70,314.95	5.50	25.92	13.53	275.70	0.00	65.00	37.60	1,985.10
7/4/07 22:12	859.13	338,858.69	249,840.30	70,851.55	4.30	25.66	13.57	275.34	0.00	65.05	38.50	0.00
7/4/07 22:13	858.40	342,317.41	249,423.80	70,239.40	4.21	26.00	13.54	275.34	0.00	64.80	37.80	6,010.64
7/4/07 22:14	858.11	345,283.69	249,539.70	70,833.93	3.48	25.45	13.51	275.01	0.00	64.50	38.10	0.00
7/4/07 22:15	857.75	348,253.19	248,735.20	70,532.29	6.26	25.78	13.53	275.02	0.00	64.20	37.50	6,337.88
7/4/07 22:16	857.39	335,637.50	249,115.91	70,512.62	4.68	26.13	13.55	275.01	0.00	64.05	37.10	0.00
7/4/07 22:17	857.97	340,977.50	249,222.30	70,476.18	5.53	26.16	13.56	275.70	0.00	63.40	36.60	8,617.75
7/4/07 22:18	857.39	333,238.41	247,411.41	70,226.23	5.60	25.50	13.58	275.35	0.00	63.55	37.20	0.00
7/4/07 22:19	857.11	343,766.00	249,984.91	72,649.30	3.39	25.88	13.60	275.34	0.00	63.05	36.50	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/4/07 22:20	856.94	339,462.59	246,681.70	70,350.57	7.06	25.20	13.61	275.32	0.00	62.75	36.50	0.00
7/4/07 22:21	857.47	349,825.00	250,622.91	71,507.05	4.38	26.00	13.63	276.32	0.00	61.90	36.80	0.00
7/4/07 22:22	857.72	354,405.31	251,946.00	72,453.57	8.28	26.50	11.65	275.98	0.00	62.20	36.10	0.00
7/4/07 22:23	857.59	354,029.50	251,507.91	70,752.43	8.31	25.95	11.84	275.69	0.00	61.85	35.50	0.00
7/4/07 22:24	857.77	338,860.09	248,970.70	71,514.82	6.50	26.00	12.02	276.32	0.00	65.30	37.30	0.00
7/4/07 22:25	859.10	349,944.91	246,442.59	70,706.94	6.50	26.78	12.20	277.34	0.00	65.15	38.40	0.00
7/4/07 22:26	859.37	339,554.09	246,063.09	71,453.64	6.50	27.89	12.38	277.34	0.00	64.80	37.90	0.00
7/4/07 22:27	860.31	346,825.41	246,372.30	71,096.84	6.50	28.00	12.56	277.34	0.00	64.70	38.20	0.00
7/4/07 22:28	860.39	338,247.50	244,973.09	70,839.43	6.33	27.88	12.66	276.66	0.00	65.15	38.20	0.00
7/4/07 22:29	860.65	337,279.50	243,562.91	70,917.24	4.11	27.88	12.60	275.70	0.00	65.35	37.80	0.00
7/4/07 22:30	859.76	338,331.41	245,096.70	70,977.79	6.01	28.60	12.54	275.34	0.00	65.15	38.40	0.00
7/4/07 22:31	860.30	337,075.81	244,634.09	70,816.98	3.90	28.00	12.48	275.01	0.00	64.50	37.50	0.00
7/4/07 22:32	860.60	335,631.41	243,960.91	70,749.14	3.77	28.00	12.42	274.62	0.00	64.65	37.90	0.00
7/4/07 22:33	860.14	333,079.41	244,626.91	71,051.74	5.21	28.45	12.36	274.62	0.00	64.20	37.60	0.00
7/4/07 22:34	857.47	335,392.81	245,001.30	70,973.29	4.42	28.65	12.30	273.97	0.00	63.85	37.80	8,939.12
7/4/07 22:35	855.67	334,644.31	243,915.41	70,445.98	4.79	28.47	12.24	273.98	0.00	63.60	37.40	8,753.59
7/4/07 22:36	855.35	352,922.59	247,854.50	71,515.82	3.38	28.81	12.18	274.31	0.00	63.20	37.40	5,845.45
7/4/07 22:37	854.42	339,773.41	243,729.30	70,887.15	7.95	28.50	12.12	274.62	0.00	63.15	36.20	6,271.15
7/4/07 22:38	854.03	333,571.91	244,194.70	71,312.94	4.70	28.38	12.06	274.62	0.00	62.05	36.00	5,845.41
7/4/07 22:39	855.03	344,661.19	244,504.00	71,199.78	3.82	28.38	12.00	275.01	0.00	61.20	35.90	7,307.11
7/4/07 22:40	856.69	332,559.50	244,471.50	71,603.30	5.53	28.03	11.94	275.35	0.00	60.80	36.10	8,458.06
7/4/07 22:41	857.22	329,504.81	243,969.41	71,560.42	5.14	29.09	11.88	275.34	0.00	60.95	35.00	8,389.24
7/4/07 22:42	857.41	335,960.00	242,728.20	70,428.08	4.00	28.25	11.82	275.34	0.00	60.45	35.80	8,471.66
7/4/07 22:43	857.93	339,012.69	243,285.80	71,105.95	2.86	27.88	11.76	275.35	0.00	59.80	35.30	6,597.26
7/4/07 22:44	858.15	333,879.41	243,056.70	71,281.48	4.57	28.66	11.70	276.01	0.00	64.80	37.10	6,958.07
7/4/07 22:45	858.04	337,382.00	241,381.91	70,856.82	4.57	28.69	11.61	276.01	0.00	64.60	38.10	6,208.07
7/4/07 22:46	857.65	334,533.91	243,010.30	71,286.28	4.57	28.63	11.48	275.34	0.00	65.05	37.80	5,757.52
7/4/07 22:47	858.16	335,510.19	242,517.91	71,210.29	4.57	28.38	11.35	275.01	0.00	65.20	38.40	5,645.15
7/4/07 22:48	858.43	325,006.31	240,663.41	70,964.49	4.07	28.75	11.22	274.64	0.00	64.65	37.40	6,166.07
7/4/07 22:49	858.24	336,485.50	243,683.00	71,498.05	3.21	29.16	11.10	274.31	0.00	64.65	38.20	5,764.46
7/4/07 22:50	858.92	358,165.69	243,347.00	72,126.19	3.56	28.91	10.97	273.66	0.00	63.90	37.60	0.00
7/4/07 22:51	858.94	339,992.19	243,532.00	71,757.42	7.01	29.09	10.76	273.40	0.00	63.95	37.50	0.00
7/4/07 22:52	858.02	334,520.69	243,261.20	72,102.74	4.59	29.16	10.50	272.69	0.00	63.45	36.90	0.00
7/4/07 22:53	856.67	339,638.81	245,768.91	71,470.20	5.75	28.13	10.24	272.70	0.00	62.95	37.00	0.00
7/4/07 22:54	853.46	340,470.31	240,270.41	70,644.70	5.83	28.04	9.98	272.31	0.00	62.15	36.40	7,835.67
7/4/07 22:55	851.11	326,213.91	244,700.59	71,997.09	4.65	28.05	9.73	272.70	0.00	60.65	35.30	8,610.94
7/4/07 22:56	850.05	343,236.69	242,407.00	70,827.73	5.71	28.28	9.47	273.00	0.00	60.10	35.45	7,515.63
7/4/07 22:57	849.36	341,975.09	243,521.50	70,573.27	5.50	27.88	9.21	273.66	0.00	59.25	34.40	6,401.94
7/4/07 22:58	850.15	339,202.91	242,176.41	71,688.96	4.58	28.35	8.95	274.62	0.00	58.85	34.40	5,944.23
7/4/07 22:59	851.54	338,364.81	241,706.50	71,468.19	3.68	27.97	8.69	275.01	0.00	58.25	34.00	5,714.27
7/4/07 23:00	852.38	340,531.91	244,588.91	71,310.73	4.21	28.91	8.40	275.70	0.00	58.20	33.70	5,985.38
7/4/07 23:01	853.01	358,681.41	245,938.30	70,979.49	4.68	28.77	8.41	275.70	0.00	58.95	33.80	7,526.89
7/4/07 23:02	853.83	339,560.31	243,161.20	70,704.23	6.82	28.75	8.43	275.98	0.00	58.40	34.10	6,736.58
7/4/07 23:03	854.59	337,876.41	246,940.80	71,430.99	3.52	29.00	8.44	276.00	0.00	58.25	34.30	6,838.71
7/4/07 23:04	855.73	336,961.09	242,836.00	70,727.14	3.18	28.91	8.46	276.01	0.00	65.10	37.90	7,447.65
7/4/07 23:05	855.90	328,673.41	242,432.30	71,332.09	3.18	29.53	8.48	275.70	0.00	65.10	37.60	8,687.99
7/4/07 23:06	856.26	331,494.69	243,799.41	71,086.59	3.18	29.50	8.49	275.35	0.00	65.20	38.40	7,350.05
7/4/07 23:07	856.62	333,391.91	244,622.91	72,127.39	3.18	29.50	8.51	274.99	0.00	65.10	37.50	6,600.62
7/4/07 23:08	857.46	334,945.91	244,127.00	71,363.12	4.55	29.97	8.41	275.01	0.00	65.00	38.20	5,557.37
7/4/07 23:09	856.73	347,246.81	248,921.59	72,420.37	5.16	30.00	8.24	274.31	0.00	65.30	37.70	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/4/07 23:10	856.51	343,890.81	246,689.80	71,616.99	6.44	29.00	8.07	273.97	0.00	65.05	38.20	0.00
7/4/07 23:11	856.21	337,851.00	246,097.20	71,518.28	6.88	28.88	7.90	273.97	0.00	64.75	38.10	0.00
7/4/07 23:12	857.00	354,474.41	246,963.70	72,026.63	3.71	29.22	7.73	274.31	0.00	64.55	37.50	0.00
7/4/07 23:13	856.40	332,244.81	245,452.09	71,989.34	5.50	29.72	7.55	274.31	0.00	64.45	37.70	0.00
7/4/07 23:14	855.84	336,888.41	245,863.41	71,918.95	2.95	30.13	7.38	274.31	0.00	64.00	37.70	0.00
7/4/07 23:15	854.89	342,232.50	245,891.00	71,706.03	4.50	29.25	7.21	273.96	0.00	63.40	36.90	0.00
7/4/07 23:16	854.56	315,184.41	243,236.59	70,830.08	4.26	29.33	7.04	273.65	0.00	62.95	36.80	0.00
7/4/07 23:17	854.29	350,937.81	247,265.91	70,855.96	2.53	29.16	7.01	273.96	0.00	62.45	36.00	0.00
7/4/07 23:18	854.60	344,585.00	248,490.70	71,262.81	6.02	29.00	6.88	273.96	0.00	61.95	35.80	0.00
7/4/07 23:19	855.48	345,983.00	252,779.91	72,815.09	3.70	29.88	6.76	274.61	0.00	61.85	35.80	0.00
7/4/07 23:20	855.41	331,193.00	245,295.09	71,809.80	6.72	29.72	6.64	274.99	0.00	61.25	36.10	0.00
7/4/07 23:21	854.99	343,754.50	247,393.59	71,485.45	3.31	30.38	6.51	274.99	0.00	60.80	35.60	0.00
7/4/07 23:22	855.44	329,223.69	246,838.00	71,612.63	4.38	30.00	6.60	274.99	0.00	60.65	35.70	13,661.83
7/4/07 23:23	857.48	346,546.00	247,776.20	71,653.46	2.54	29.78	6.72	275.70	0.00	60.35	35.10	13,514.73
7/4/07 23:24	859.36	344,252.81	248,870.09	72,135.30	6.09	29.75	6.84	276.00	0.00	65.30	37.80	13,660.91
7/4/07 23:25	861.02	348,470.69	252,068.70	71,929.66	6.09	29.13	6.95	275.98	0.00	65.00	38.00	13,599.41
7/4/07 23:26	862.68	350,745.59	250,679.59	72,247.66	6.09	28.25	7.07	276.65	0.00	64.90	38.20	1,140.02
7/4/07 23:27	861.22	353,213.41	253,430.50	72,912.92	6.09	27.91	7.19	277.02	0.00	65.10	37.70	13,175.84
7/4/07 23:28	855.94	332,504.09	247,890.30	71,717.00	8.64	28.75	7.31	277.34	0.00	64.45	38.30	10,403.28
7/4/07 23:29	852.39	349,201.09	251,879.41	72,267.17	3.91	28.91	7.61	277.33	0.00	64.05	37.70	12,657.19
7/4/07 23:30	849.55	350,226.69	250,477.41	72,138.02	5.44	28.88	7.82	277.32	0.00	63.30	36.70	12,513.87
7/4/07 23:31	845.93	347,421.19	250,783.20	71,502.62	6.25	29.13	8.02	277.68	0.00	62.05	36.10	11,000.71
7/4/07 23:32	844.88	338,144.41	247,557.30	71,228.20	6.57	29.00	8.18	276.65	0.00	61.40	35.50	11,145.74
7/4/07 23:33	846.76	355,185.81	247,457.20	71,129.91	3.65	28.75	8.27	276.29	0.00	60.75	35.80	10,712.83
7/4/07 23:34	849.20	343,528.69	248,272.91	71,512.36	6.05	28.88	8.37	275.70	0.00	60.45	35.80	10,633.03
7/4/07 23:35	852.82	367,011.41	251,854.59	72,286.12	3.36	28.66	8.46	275.70	0.00	59.95	35.30	10,716.73
7/4/07 23:36	854.93	334,998.69	247,681.00	71,977.41	5.65	29.09	8.55	275.70	0.00	60.15	35.60	9,413.78
7/4/07 23:37	852.88	335,017.31	247,672.70	71,538.88	3.40	29.19	8.64	275.34	0.00	59.30	34.70	8,522.12
7/4/07 23:38	848.91	345,647.31	249,945.80	72,666.43	2.99	28.13	8.73	274.99	0.00	58.45	34.30	9,759.87
7/4/07 23:39	846.05	346,266.41	248,058.20	71,273.34	6.38	27.73	8.82	275.01	0.00	58.15	34.20	9,565.67
7/4/07 23:40	842.52	343,099.19	248,964.30	71,036.23	4.85	27.78	8.91	274.99	0.00	58.25	34.60	9,256.27
7/4/07 23:41	839.77	344,219.09	250,748.91	71,547.54	4.20	27.99	9.01	275.01	0.00	58.30	34.60	12,042.79
7/4/07 23:42	839.98	357,627.31	253,649.41	71,684.76	5.33	27.41	9.10	275.01	0.00	58.85	34.00	10,508.11
7/4/07 23:43	841.37	350,775.09	253,046.00	71,949.03	6.21	26.75	9.19	275.33	0.00	58.65	33.80	10,400.51
7/4/07 23:44	842.70	347,965.00	255,685.20	72,082.84	4.39	26.88	9.28	275.33	0.00	64.95	37.00	10,432.42
7/4/07 23:45	844.05	339,062.31	250,214.09	70,403.49	4.39	26.91	9.37	275.70	0.00	65.15	38.00	10,493.46
7/4/07 23:46	845.84	361,297.41	253,440.50	71,693.94	4.39	26.81	9.46	276.33	0.00	65.05	37.60	9,174.63
7/4/07 23:47	846.14	351,121.41	250,981.59	70,859.76	4.39	26.88	9.55	276.33	0.00	64.95	38.50	9,097.90
7/4/07 23:48	844.81	338,640.50	251,190.09	71,996.57	5.05	28.41	9.65	277.02	0.00	65.05	38.10	8,815.20
7/4/07 23:49	843.94	356,231.41	253,104.70	72,088.00	4.84	27.00	9.74	277.01	0.00	65.15	38.10	8,986.43
7/4/07 23:50	842.73	341,430.09	250,781.09	70,705.44	5.41	26.88	9.83	277.03	0.00	64.75	37.90	8,964.90
7/4/07 23:51	842.30	348,062.19	253,651.80	71,798.52	3.31	26.85	9.92	277.02	0.00	64.20	37.10	11,027.08
7/4/07 23:52	842.10	344,252.81	250,923.20	71,387.02	6.10	27.13	10.01	276.66	0.00	64.00	37.35	10,490.12
7/4/07 23:53	843.05	342,558.09	254,003.30	72,855.93	3.35	26.75	10.09	276.34	0.00	63.45	37.00	10,491.64
7/4/07 23:54	843.81	340,427.91	249,784.80	71,292.98	6.58	26.84	10.17	276.01	0.00	63.55	36.60	10,350.49
7/4/07 23:55	844.11	335,879.31	250,326.09	71,564.88	4.11	26.88	10.24	275.34	0.00	62.95	36.85	10,190.34
7/4/07 23:56	843.46	353,420.50	251,649.20	71,560.24	4.90	26.72	10.32	275.34	0.00	62.25	37.10	8,788.19
7/4/07 23:57	843.15	343,356.19	251,277.41	71,708.27	5.87	25.88	10.40	275.01	0.00	62.30	36.40	8,768.27
7/4/07 23:58	843.82	350,186.69	251,672.20	71,810.71	4.33	25.88	10.36	275.34	0.00	61.95	36.80	8,619.32
7/4/07 23:59	843.78	339,172.91	250,980.59	71,413.02	6.34	25.75	10.41	275.70	0.00	62.10	36.00	8,636.97

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 0:00	842.87	348,217.69	254,537.80	72,838.72	4.44	25.95	10.47	275.70	0.00	62.15	36.60	5,042.60
7/5/07 0:01	843.89	346,428.81	251,252.80	72,127.09	7.09	25.88	10.52	275.98	0.00	62.05	36.60	12,692.77
7/5/07 0:02	847.11	350,014.09	253,596.91	72,122.76	5.80	25.88	10.63	276.01	0.00	61.90	35.90	12,724.69
7/5/07 0:03	849.42	341,584.59	252,290.80	72,344.55	7.07	25.97	10.81	276.00	0.00	62.35	36.50	12,784.05
7/5/07 0:04	851.91	361,398.91	254,188.41	72,163.74	3.52	25.63	11.00	275.98	0.00	65.05	37.80	12,605.70
7/5/07 0:05	854.80	341,682.91	252,005.59	72,051.46	3.52	24.88	11.21	275.98	0.00	65.10	38.10	0.00
7/5/07 0:06	855.13	345,869.41	248,567.59	71,140.39	3.52	24.71	11.38	276.65	0.00	65.20	37.80	11,520.18
7/5/07 0:07	851.38	339,499.50	249,716.70	72,136.77	3.52	25.09	11.56	276.33	0.00	65.15	38.20	11,883.12
7/5/07 0:08	848.16	345,194.00	250,694.59	72,430.65	4.45	25.13	11.73	275.70	0.00	65.20	37.70	11,838.75
7/5/07 0:09	845.12	352,462.41	253,640.20	72,984.66	6.10	23.88	11.90	275.69	0.00	65.00	38.40	11,479.58
7/5/07 0:10	842.35	346,845.09	250,715.80	72,781.92	7.63	23.88	12.08	275.70	0.00	65.45	38.10	9,921.88
7/5/07 0:11	842.85	355,573.09	251,213.59	72,039.84	5.41	23.88	12.25	276.34	0.00	65.85	38.10	11,078.09
7/5/07 0:12	844.71	345,712.09	249,929.41	71,869.31	7.15	22.91	12.42	276.34	0.00	66.40	38.60	10,998.39
7/5/07 0:13	845.82	340,121.69	249,093.59	71,563.11	5.29	22.75	12.60	276.08	0.00	66.50	38.70	11,254.61
7/5/07 0:14	848.09	339,052.09	247,303.80	71,558.63	4.21	23.00	12.77	276.65	0.00	66.70	38.80	11,084.63
7/5/07 0:15	850.29	346,016.59	246,730.80	71,588.64	4.03	22.84	12.97	276.65	0.00	66.95	39.00	8,281.39
7/5/07 0:16	850.11	354,492.50	249,966.09	72,452.26	3.89	22.88	13.26	276.66	0.00	67.30	39.10	9,071.14
7/5/07 0:17	847.38	339,583.91	246,715.00	71,357.01	8.26	22.97	13.48	276.66	0.00	67.05	39.70	9,106.91
7/5/07 0:18	845.59	340,291.81	248,158.70	71,306.02	3.21	23.13	13.66	276.34	0.00	66.85	39.50	9,254.25
7/5/07 0:19	843.24	343,589.31	248,858.41	71,773.55	3.35	22.88	13.83	276.33	0.00	66.25	39.20	9,803.15
7/5/07 0:20	841.91	342,375.59	247,467.91	71,979.09	3.74	22.84	13.96	275.98	0.00	65.85	38.30	10,852.10
7/5/07 0:21	843.34	335,717.69	247,995.00	72,484.67	4.24	22.85	13.98	275.34	0.00	65.90	38.60	9,973.00
7/5/07 0:22	844.92	337,948.41	248,371.00	71,757.75	5.58	23.00	14.01	275.34	0.00	65.70	38.00	9,596.58
7/5/07 0:23	846.38	347,769.59	249,482.70	72,265.23	4.90	23.09	14.04	275.33	0.00	65.00	38.10	9,375.39
7/5/07 0:24	847.47	344,515.31	249,383.30	72,542.96	4.79	21.94	14.06	275.34	0.00	64.95	37.70	9,325.28
7/5/07 0:25	848.63	349,065.59	248,005.80	72,068.16	4.79	21.88	14.09	275.01	0.00	64.85	37.90	8,611.56
7/5/07 0:26	847.38	352,451.50	250,109.41	71,820.34	4.79	22.03	14.12	275.70	0.00	65.35	38.40	8,677.50
7/5/07 0:27	845.00	351,546.81	250,058.80	71,923.23	4.79	22.00	14.15	275.98	0.00	65.20	37.80	8,640.32
7/5/07 0:28	842.37	338,309.69	247,755.20	71,309.42	6.58	22.25	14.17	276.34	0.00	65.00	38.20	8,611.46
7/5/07 0:29	840.39	356,790.91	250,267.00	72,420.47	1.94	21.88	14.20	276.66	0.00	64.90	37.40	8,551.60
7/5/07 0:30	840.08	340,310.81	248,867.80	71,810.27	7.45	21.09	14.23	276.34	0.00	64.70	37.50	11,811.81
7/5/07 0:31	842.17	342,185.50	248,576.70	71,878.93	3.76	22.84	14.25	276.32	0.00	64.40	37.20	11,505.49
7/5/07 0:32	845.02	343,134.69	250,411.80	71,514.25	3.26	23.13	14.28	275.70	0.00	64.30	37.40	11,398.16
7/5/07 0:33	848.37	345,647.41	247,686.30	71,210.38	2.63	23.00	14.31	275.70	0.00	65.10	38.50	11,330.90
7/5/07 0:34	850.63	343,287.50	248,879.80	72,104.29	3.74	22.88	14.33	275.69	0.00	65.15	37.90	10,967.67
7/5/07 0:35	850.97	339,593.41	249,672.00	71,670.55	5.22	23.53	14.36	275.70	0.00	65.05	37.70	9,663.09
7/5/07 0:36	848.22	351,836.69	251,442.30	71,954.48	4.07	23.09	14.39	275.33	0.00	65.00	37.90	9,582.24
7/5/07 0:37	844.73	342,313.50	252,186.50	72,064.09	5.27	22.66	14.41	274.62	0.00	64.45	37.80	10,067.13
7/5/07 0:38	842.02	352,452.09	253,227.41	72,040.94	5.26	23.88	14.44	274.62	0.00	63.95	37.70	10,299.92
7/5/07 0:39	839.85	346,193.81	252,875.20	72,183.13	4.87	24.09	14.47	274.31	0.00	64.10	37.10	6,661.94
7/5/07 0:40	840.89	354,575.09	249,597.70	71,274.70	4.62	24.09	14.38	274.62	0.00	63.75	37.30	10,485.63
7/5/07 0:41	843.12	340,251.41	249,295.91	71,885.05	5.86	24.22	14.26	274.98	0.00	63.80	37.30	10,464.86
7/5/07 0:42	844.74	350,156.31	253,529.59	72,361.29	2.52	24.88	14.15	275.01	0.00	63.60	37.40	10,446.13
7/5/07 0:43	846.89	348,631.19	252,242.59	72,275.97	5.35	24.76	14.04	275.01	0.00	63.40	37.50	10,259.92
7/5/07 0:44	850.31	352,221.91	255,576.20	73,044.12	5.30	25.07	13.93	274.31	0.00	64.95	38.10	2,243.75
7/5/07 0:45	851.62	351,201.50	253,911.80	72,485.95	5.30	25.09	13.82	274.33	0.00	64.90	37.70	8,678.16
7/5/07 0:46	849.67	343,280.41	252,197.50	72,225.52	5.30	24.97	13.71	274.31	0.00	65.05	38.30	9,004.22
7/5/07 0:47	848.65	359,262.31	254,877.30	72,160.56	5.30	24.79	13.60	274.64	0.00	65.05	38.20	8,963.19
7/5/07 0:48	846.69	343,655.59	252,282.59	71,937.01	5.64	25.03	13.49	275.01	0.00	65.15	37.90	9,060.47
7/5/07 0:49	843.91	346,691.09	253,555.30	71,935.43	5.14	26.63	13.38	275.70	0.00	65.25	38.50	5,258.19

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 0:50	843.90	347,308.50	252,616.30	72,775.67	4.90	26.13	13.27	275.34	0.00	65.30	37.90	10,505.43
7/5/07 0:51	846.22	359,976.91	256,696.20	72,537.63	2.91	25.91	13.12	275.70	0.00	65.60	38.50	10,465.97
7/5/07 0:52	848.33	350,785.09	252,812.80	71,815.89	7.07	26.68	13.04	275.70	0.00	65.55	38.20	10,265.63
7/5/07 0:53	849.36	347,984.59	253,204.30	71,836.46	5.36	26.75	12.96	275.70	0.00	65.50	38.00	10,286.79
7/5/07 0:54	851.62	359,217.00	251,971.91	72,071.89	4.41	26.71	12.88	275.34	0.00	65.35	38.60	5,992.69
7/5/07 0:55	850.94	343,322.00	253,088.20	72,069.35	6.57	26.88	12.80	275.34	0.00	65.35	38.10	9,226.33
7/5/07 0:56	847.96	356,620.41	254,401.30	72,648.41	5.47	27.93	12.72	275.34	0.00	65.25	38.20	8,709.66
7/5/07 0:57	845.54	348,966.69	252,024.41	72,192.38	4.60	27.03	12.64	274.99	0.00	65.05	38.20	8,903.96
7/5/07 0:58	842.37	341,428.91	255,103.41	72,351.45	3.68	26.88	12.56	274.99	0.00	64.40	37.70	9,060.79
7/5/07 0:59	840.60	347,551.09	252,488.09	71,946.17	5.11	26.84	12.48	275.01	0.00	64.50	37.70	12,653.70
7/5/07 1:00	842.13	346,539.09	252,553.50	71,972.70	3.77	27.13	12.40	274.98	0.00	64.50	38.20	11,560.95
7/5/07 1:01	844.08	349,396.31	254,145.80	73,031.37	2.55	27.22	12.31	275.34	0.00	64.50	38.00	11,465.56
7/5/07 1:02	845.28	343,785.69	253,763.00	72,855.94	3.76	27.53	12.23	275.01	0.00	64.20	37.10	11,359.07
7/5/07 1:03	846.51	342,825.59	254,186.30	72,631.83	5.03	28.00	12.15	274.99	0.00	63.70	37.40	11,393.72
7/5/07 1:04	847.88	344,694.00	254,238.20	72,228.23	3.71	28.00	12.07	274.62	0.00	64.80	38.10	12,340.61
7/5/07 1:05	850.47	359,974.91	255,887.09	72,405.04	3.71	27.25	11.99	274.64	0.00	65.10	37.80	10,986.10
7/5/07 1:06	852.01	354,133.81	256,352.80	73,486.32	3.71	28.97	11.91	274.64	0.00	65.00	38.30	10,680.09
7/5/07 1:07	853.00	350,481.41	255,746.09	73,284.81	3.71	28.88	11.83	274.31	0.00	64.95	37.70	10,711.14
7/5/07 1:08	854.59	353,095.81	256,689.09	72,645.09	4.50	28.03	11.75	274.31	0.00	65.00	38.40	10,845.65
7/5/07 1:09	856.76	350,805.59	257,091.00	73,580.60	4.79	27.89	11.67	274.64	0.00	64.70	37.50	9,418.44
7/5/07 1:10	855.39	344,481.50	255,705.30	73,008.59	5.03	28.78	11.59	275.01	0.00	65.80	38.30	8,749.76
7/5/07 1:11	851.28	359,552.81	257,986.50	73,575.20	3.73	29.09	11.51	274.62	0.00	66.65	38.60	9,343.68
7/5/07 1:12	847.92	361,519.31	258,490.70	72,899.20	5.72	28.88	11.43	274.99	0.00	66.60	39.00	8,936.12
7/5/07 1:13	844.61	355,107.59	258,675.50	73,016.02	6.19	29.78	11.30	274.99	0.00	67.45	39.60	9,187.58
7/5/07 1:14	843.55	349,529.41	255,022.80	72,433.42	6.17	29.24	11.32	275.01	0.00	67.35	39.55	11,878.54
7/5/07 1:15	844.71	353,006.09	257,361.50	72,755.45	4.46	28.84	11.34	275.01	0.00	68.20	39.90	11,413.55
7/5/07 1:16	846.73	353,056.00	259,001.09	73,244.56	4.47	28.88	11.36	275.35	0.00	67.90	40.10	11,448.14
7/5/07 1:17	848.24	352,614.50	257,951.20	72,875.52	5.74	29.88	11.38	275.70	0.00	68.30	39.65	11,300.88
7/5/07 1:18	850.15	349,635.69	258,057.09	72,582.79	5.97	29.88	11.40	276.34	0.00	68.45	40.25	8,477.65
7/5/07 1:19	851.91	362,109.00	257,879.30	72,504.44	3.72	29.94	11.42	276.01	0.00	68.30	40.10	10,214.44
7/5/07 1:20	849.14	350,084.00	255,580.80	72,185.00	7.08	30.50	11.44	276.00	0.00	68.30	39.80	10,468.79
7/5/07 1:21	844.82	337,492.09	254,424.00	72,013.44	4.48	30.91	11.46	275.34	0.00	67.25	39.55	10,413.23
7/5/07 1:22	840.55	353,503.00	256,980.41	72,333.72	4.86	29.84	11.34	274.62	0.00	68.70	39.75	10,352.17
7/5/07 1:23	839.28	360,783.59	255,899.20	72,262.84	4.99	30.27	11.25	275.01	0.00	67.15	39.65	4,053.01
7/5/07 1:24	839.25	351,457.09	256,843.41	73,092.11	7.63	31.00	11.14	274.99	0.00	65.10	38.25	10,530.22
7/5/07 1:25	840.69	344,925.19	254,892.09	72,807.92	7.62	30.13	11.21	275.34	0.00	64.85	37.85	10,522.21
7/5/07 1:26	842.62	350,694.69	255,342.30	72,635.88	7.62	29.88	11.29	275.34	0.00	65.00	38.30	10,511.70
7/5/07 1:27	843.78	358,654.69	257,923.09	74,028.72	7.62	29.94	11.31	276.33	0.00	65.10	38.00	10,513.57
7/5/07 1:28	844.80	348,231.09	252,208.30	72,589.86	7.24	30.19	11.32	276.34	0.00	65.70	38.35	6,181.46
7/5/07 1:29	844.38	343,178.69	252,453.91	72,112.66	3.93	30.88	11.33	276.33	0.00	66.65	38.85	9,530.65
7/5/07 1:30	841.91	352,591.19	253,159.30	72,209.20	3.11	30.97	11.35	275.98	0.00	67.15	39.35	9,504.42
7/5/07 1:31	839.50	343,328.31	252,071.70	71,809.35	4.73	30.88	11.36	275.70	0.00	67.55	39.20	9,541.85
7/5/07 1:32	836.05	348,231.19	253,656.09	72,359.50	4.90	30.84	11.37	275.34	0.00	68.55	40.45	9,349.89
7/5/07 1:33	834.92	354,135.59	254,450.30	73,110.23	4.77	31.13	11.38	275.20	0.00	69.35	40.75	12,339.05
7/5/07 1:34	835.68	349,694.91	255,389.91	72,863.86	7.15	31.13	11.40	274.62	0.00	69.20	41.10	11,109.18
7/5/07 1:35	836.81	356,631.91	253,423.41	72,381.92	7.18	31.13	11.41	275.01	0.00	70.80	41.60	10,765.97
7/5/07 1:36	837.61	349,860.41	251,449.70	71,435.76	5.96	30.97	11.42	275.01	0.00	71.70	41.50	10,812.10
7/5/07 1:37	839.04	349,230.19	253,184.41	72,394.11	4.44	30.75	11.43	275.34	0.00	72.65	41.60	11,067.62
7/5/07 1:38	840.09	343,692.31	250,064.80	72,244.42	6.25	30.96	11.45	275.34	0.00	70.75	41.70	9,947.59
7/5/07 1:39	839.79	337,109.50	249,391.30	71,917.89	4.52	31.25	11.46	275.01	0.00	71.85	41.80	9,545.70

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 1:40	838.77	362,726.00	253,673.70	73,284.73	2.65	31.09	11.47	274.99	0.00	71.70	41.75	9,594.79
7/5/07 1:41	837.36	342,243.41	251,032.30	72,913.86	9.45	30.63	11.50	275.01	0.00	71.95	41.70	9,804.93
7/5/07 1:42	834.61	345,743.50	252,814.30	73,503.49	5.51	31.00	11.47	275.01	0.00	71.20	41.55	9,844.58
7/5/07 1:43	832.89	340,919.69	249,414.59	72,439.65	6.54	30.84	11.44	275.01	0.00	70.55	41.55	8,991.13
7/5/07 1:44	833.36	345,670.59	249,510.00	72,372.70	3.78	31.13	11.41	275.01	0.00	65.60	38.85	8,997.31
7/5/07 1:45	834.01	339,584.81	247,655.20	72,200.07	3.78	31.13	11.38	275.01	0.00	65.05	38.05	8,844.47
7/5/07 1:46	835.05	339,446.81	246,315.30	72,303.52	3.78	29.29	11.34	275.35	0.00	64.95	38.30	8,853.25
7/5/07 1:47	835.83	346,268.19	248,423.09	72,719.60	3.78	30.00	11.31	275.01	0.00	65.05	38.10	2,636.54
7/5/07 1:48	837.27	339,550.00	246,187.70	71,987.16	5.61	29.64	11.28	275.34	0.00	65.25	38.10	9,269.67
7/5/07 1:49	837.39	344,678.81	249,407.20	72,846.35	5.81	29.88	11.25	275.34	0.00	65.85	38.85	9,225.13
7/5/07 1:50	837.44	351,556.91	248,754.00	72,526.84	6.13	30.03	11.22	275.35	0.00	67.15	39.30	8,945.72
7/5/07 1:51	836.62	351,265.00	248,664.70	72,981.05	5.93	28.96	11.27	275.34	0.00	67.85	39.70	9,441.17
7/5/07 1:52	835.70	344,380.91	247,306.91	71,969.48	6.86	29.03	11.44	275.70	0.00	68.15	40.10	7,001.71
7/5/07 1:53	836.71	340,130.09	246,409.20	72,545.45	5.23	28.88	11.49	275.70	0.00	69.35	40.30	10,458.16
7/5/07 1:54	839.04	350,422.59	247,333.59	72,442.87	4.64	29.00	11.55	275.70	0.00	69.55	40.60	10,499.44
7/5/07 1:55	841.29	337,099.19	243,250.80	71,711.61	3.86	28.88	11.60	276.34	0.00	69.10	40.60	10,492.79
7/5/07 1:56	842.68	334,175.19	245,399.20	72,212.65	4.17	29.69	11.65	275.98	0.00	68.95	40.60	10,563.46
7/5/07 1:57	844.37	345,966.41	244,425.50	71,075.97	5.87	30.13	11.71	275.34	0.00	69.25	40.50	8,350.16
7/5/07 1:58	844.24	352,984.09	245,741.91	72,658.26	3.72	28.94	11.65	275.33	0.00	68.75	40.00	9,848.94
7/5/07 1:59	841.36	337,679.91	248,469.80	72,367.70	6.12	28.97	11.55	275.01	0.00	67.30	39.85	9,822.84
7/5/07 2:00	837.55	332,076.69	243,767.41	71,853.79	5.04	28.88	11.45	274.62	0.00	66.75	38.90	9,391.31
7/5/07 2:01	834.20	340,357.81	247,339.50	72,220.20	2.08	27.88	11.34	274.31	0.00	64.70	37.80	9,504.05
7/5/07 2:02	831.68	346,240.69	247,019.00	73,139.55	3.00	27.88	11.24	274.35	0.00	63.15	36.65	0.00
7/5/07 2:03	830.03	333,932.91	245,870.59	72,249.08	5.22	28.69	11.13	274.31	0.00	61.50	35.80	0.00
7/5/07 2:04	829.71	344,587.31	248,250.00	72,645.09	2.15	28.63	10.94	274.31	0.00	64.35	37.90	0.00
7/5/07 2:05	829.20	347,982.50	248,757.59	72,371.48	2.15	28.59	10.74	273.65	0.00	64.95	37.70	0.00
7/5/07 2:06	830.57	355,337.31	249,344.00	73,369.13	2.15	28.61	10.54	273.65	0.00	64.80	38.10	0.00
7/5/07 2:07	830.13	340,594.09	247,871.70	72,441.34	2.15	28.66	10.34	273.65	0.00	64.80	38.00	0.00
7/5/07 2:08	829.73	348,895.69	250,177.41	72,085.53	5.05	27.04	10.16	273.66	0.00	65.00	38.10	0.00
7/5/07 2:09	830.61	345,875.81	249,437.50	73,056.56	4.20	27.00	10.16	274.31	0.00	65.40	38.15	0.00
7/5/07 2:10	831.38	332,682.09	246,997.00	72,144.08	5.80	27.00	10.16	274.62	0.00	65.85	38.40	0.00
7/5/07 2:11	831.68	347,487.69	250,423.00	72,401.28	3.61	26.88	10.16	275.32	0.00	66.15	38.65	0.00
7/5/07 2:12	832.66	351,065.81	253,278.80	72,586.81	4.57	26.00	10.16	275.33	0.00	65.95	38.55	0.00
7/5/07 2:13	834.56	352,226.31	253,619.41	73,477.66	5.04	25.94	10.16	276.00	0.00	66.35	39.05	0.00
7/5/07 2:14	835.20	341,774.69	250,791.59	72,435.52	6.56	26.81	10.16	275.98	0.00	67.30	39.45	0.00
7/5/07 2:15	833.57	356,990.19	253,449.50	72,645.05	5.40	26.97	10.16	275.70	0.00	67.05	39.10	8,010.88
7/5/07 2:16	833.47	350,423.69	252,511.00	73,014.36	6.92	26.00	10.16	276.00	0.00	66.95	39.35	8,592.05
7/5/07 2:17	835.31	348,137.91	252,972.00	72,798.09	4.77	25.91	10.31	276.64	0.00	67.30	39.50	8,551.44
7/5/07 2:18	836.97	341,440.69	253,180.80	72,766.98	5.23	25.75	10.38	277.00	0.00	68.60	39.25	7,527.76
7/5/07 2:19	837.75	333,878.31	252,394.41	73,081.16	3.86	27.00	10.46	277.12	0.00	68.55	40.00	7,175.22
7/5/07 2:20	838.08	352,156.59	257,735.00	73,651.41	4.68	25.91	10.53	276.65	0.00	68.80	40.25	5,798.54
7/5/07 2:21	838.73	362,142.69	256,898.91	73,295.40	5.78	25.99	10.61	276.65	0.00	68.25	40.10	5,926.59
7/5/07 2:22	838.36	354,059.50	261,044.50	74,136.41	8.65	26.00	10.68	275.70	0.00	67.85	39.50	6,382.04
7/5/07 2:23	837.76	360,050.81	255,235.09	72,677.31	7.12	26.50	10.76	274.61	0.00	67.55	39.70	5,860.90
7/5/07 2:24	838.29	343,472.50	251,618.20	72,529.25	6.49	26.09	10.84	274.31	0.00	65.15	38.55	6,910.22
7/5/07 2:25	838.69	347,245.69	255,037.91	72,623.76	6.49	26.76	10.91	273.66	0.00	65.10	37.75	7,314.76
7/5/07 2:26	838.80	360,254.81	255,112.41	72,612.71	6.49	26.59	10.69	273.38	0.00	65.05	38.15	8,687.83
7/5/07 2:27	839.68	352,435.09	254,897.20	73,021.78	6.49	26.00	10.41	273.00	0.00	64.75	37.90	7,876.40
7/5/07 2:28	840.20	347,953.91	253,868.20	72,523.45	6.75	27.22	10.12	273.66	0.00	64.90	38.00	7,087.55
7/5/07 2:29	841.11	338,875.19	251,078.50	72,658.53	5.76	27.77	9.83	273.65	0.00	65.45	38.00	6,001.48

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 2:30	841.58	345,271.91	251,185.70	72,690.95	4.62	27.46	9.55	272.69	0.00	66.55	38.75	0.00
7/5/07 2:31	841.63	342,310.00	252,998.20	73,141.89	4.93	27.91	9.26	272.69	0.00	67.25	37.45	0.00
7/5/07 2:32	841.32	351,846.19	252,110.70	72,220.03	5.82	27.53	8.97	272.01	0.00	67.25	38.80	0.00
7/5/07 2:33	841.77	341,675.09	252,647.91	73,321.99	6.59	27.75	8.68	272.00	0.00	67.80	37.40	0.00
7/5/07 2:34	841.03	374,927.91	251,571.91	73,133.35	6.50	27.91	8.40	272.99	0.00	67.35	39.10	5,741.15
7/5/07 2:35	840.83	347,888.50	251,224.00	73,040.20	7.73	27.84	8.11	273.37	0.00	68.15	38.25	6,425.18
7/5/07 2:36	841.14	353,576.41	252,106.80	73,485.81	6.07	27.63	7.82	273.96	0.00	69.00	39.38	6,699.32
7/5/07 2:37	841.30	341,567.09	247,547.20	72,294.27	8.61	27.07	7.54	274.31	0.00	70.18	39.05	8,187.46
7/5/07 2:38	841.93	345,605.09	250,329.80	73,215.92	5.16	26.88	7.25	274.98	0.00	69.15	39.40	7,976.67
7/5/07 2:39	843.14	349,673.69	248,838.30	72,403.68	5.91	26.75	6.99	275.33	0.00	70.35	41.20	8,146.38
7/5/07 2:40	843.75	343,877.31	249,953.00	72,848.20	6.56	26.97	7.06	275.70	0.00	70.70	41.65	8,671.69
7/5/07 2:41	844.05	347,963.00	247,891.70	72,753.73	5.82	27.00	7.13	275.70	0.00	70.90	41.40	7,344.34
7/5/07 2:42	844.39	333,560.09	245,800.91	72,661.07	5.69	27.00	7.12	276.00	0.00	71.25	41.55	6,110.61
7/5/07 2:43	845.05	346,908.19	244,365.09	72,577.37	3.39	26.75	7.16	276.01	0.00	69.80	41.65	5,087.62
7/5/07 2:44	844.99	345,931.41	245,537.80	72,621.95	6.65	27.00	7.19	276.34	0.00	65.50	38.00	5,687.31
7/5/07 2:45	844.87	335,973.00	242,129.91	72,001.46	6.65	27.03	7.23	276.34	0.00	65.05	38.15	6,193.82
7/5/07 2:46	845.25	332,781.41	243,778.00	72,139.95	6.65	27.00	7.27	275.34	0.00	65.10	38.10	7,748.40
7/5/07 2:47	845.90	346,042.09	246,396.30	72,873.46	6.65	26.03	7.30	275.34	0.00	64.95	37.75	8,352.46
7/5/07 2:48	846.54	332,922.31	242,306.80	72,456.73	5.46	26.81	7.34	274.99	0.00	65.30	38.35	6,688.62
7/5/07 2:49	846.70	342,888.50	244,129.09	72,053.73	3.53	27.13	7.29	274.99	0.00	65.80	38.50	1,334.68
7/5/07 2:50	847.18	346,850.81	243,487.00	72,598.01	4.65	26.69	7.18	274.30	0.00	65.80	38.70	0.00
7/5/07 2:51	847.55	346,032.31	244,964.59	72,655.14	6.83	26.88	7.06	273.97	0.00	66.05	38.50	0.00
7/5/07 2:52	847.78	340,271.19	242,704.30	71,590.98	6.23	26.98	6.98	273.98	0.00	66.55	38.90	15,508.34
7/5/07 2:53	848.53	349,329.69	247,560.91	72,671.66	5.50	26.97	6.83	273.97	0.00	66.45	38.90	13,477.79
7/5/07 2:54	849.61	339,938.50	245,685.00	72,227.51	5.58	26.97	6.67	273.97	0.00	66.25	38.65	13,595.50
7/5/07 2:55	849.82	337,067.41	246,253.09	73,065.59	4.95	26.00	6.52	274.30	0.00	66.05	38.85	13,623.95
7/5/07 2:56	850.70	344,667.81	246,551.30	72,489.89	4.44	26.13	6.37	274.61	0.00	66.10	38.50	13,640.27
7/5/07 2:57	851.38	329,436.19	245,308.00	72,757.24	4.48	26.00	6.38	275.33	0.00	66.05	38.40	11,794.91
7/5/07 2:58	847.51	348,456.59	247,223.70	72,449.10	3.68	25.98	6.41	276.00	0.00	65.40	38.15	10,798.90
7/5/07 2:59	842.75	338,264.50	247,293.09	73,313.35	4.59	25.88	6.45	275.98	0.00	64.60	37.90	11,718.55
7/5/07 3:00	839.25	348,014.50	246,744.00	71,763.66	5.00	25.75	6.63	276.65	0.00	64.90	37.95	12,016.15
7/5/07 3:01	834.96	346,133.81	248,675.91	72,959.11	5.31	26.03	6.81	277.01	0.00	64.30	37.70	12,158.11
7/5/07 3:02	831.93	344,887.69	248,066.80	72,466.63	5.19	26.00	6.99	277.01	0.00	63.75	37.15	12,553.75
7/5/07 3:03	832.23	342,416.81	246,671.70	71,873.15	5.90	25.97	7.16	276.65	0.00	63.45	37.15	11,077.18
7/5/07 3:04	834.81	342,648.41	249,549.70	72,739.73	4.25	25.25	7.34	276.33	0.00	64.85	37.65	10,814.89
7/5/07 3:05	838.07	333,817.09	245,779.70	72,334.26	4.26	25.09	7.52	276.65	0.00	65.05	38.10	10,936.92
7/5/07 3:06	841.23	331,992.91	246,898.00	72,188.50	4.25	26.48	7.70	276.66	0.00	65.10	38.00	10,835.28
7/5/07 3:07	842.67	345,109.81	247,969.70	72,790.84	4.26	26.38	7.87	276.33	0.00	65.05	37.80	9,106.36
7/5/07 3:08	841.27	352,143.50	248,790.91	71,782.42	5.53	26.25	8.05	276.34	0.00	64.85	38.05	9,107.04
7/5/07 3:09	839.33	347,407.81	248,811.91	72,286.18	4.87	26.22	8.23	276.01	0.00	65.30	38.05	9,329.59
7/5/07 3:10	837.65	351,709.31	249,157.41	72,430.84	5.20	25.66	8.41	276.32	0.00	65.70	38.70	9,112.31
7/5/07 3:11	834.61	351,701.59	253,405.59	73,546.85	6.16	25.84	8.49	276.32	0.00	65.95	38.55	9,531.72
7/5/07 3:12	833.56	339,665.91	247,686.09	72,727.45	7.02	26.00	8.53	275.98	0.00	65.55	38.50	11,160.39
7/5/07 3:13	835.27	357,214.00	248,399.41	72,532.82	3.93	25.97	8.56	275.34	0.00	65.55	38.45	10,501.20
7/5/07 3:14	836.12	336,630.69	247,804.20	72,326.60	8.71	26.03	8.60	275.34	0.00	66.65	38.80	10,424.27
7/5/07 3:15	837.93	347,294.81	248,685.50	72,767.41	4.64	26.13	8.64	275.34	0.00	65.90	38.60	10,457.36
7/5/07 3:16	840.49	339,527.00	247,569.80	72,480.77	5.77	25.88	8.56	275.34	0.00	65.85	38.75	3,949.97
7/5/07 3:17	842.04	339,380.81	244,908.41	72,277.28	3.46	25.91	8.58	275.33	0.00	66.40	38.75	9,109.32
7/5/07 3:18	841.17	347,496.91	243,690.80	71,951.84	4.79	25.75	8.63	275.34	0.00	66.80	38.90	8,611.13
7/5/07 3:19	839.88	335,334.19	244,175.00	73,153.84	5.36	25.78	8.59	274.99	0.00	66.90	39.15	8,674.20

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 3:20	838.46	342,514.50	242,449.80	71,794.52	4.08	26.00	8.54	275.01	0.00	66.90	39.25	9,096.39
7/5/07 3:21	836.84	335,859.41	244,177.00	72,064.52	3.84	26.25	8.50	275.35	0.00	67.30	39.15	3,715.91
7/5/07 3:22	836.73	332,158.31	245,057.50	72,111.36	4.78	26.00	8.46	275.01	0.00	67.75	39.45	10,691.04
7/5/07 3:23	836.47	342,918.81	244,510.09	72,550.09	5.77	26.00	8.42	275.01	0.00	67.85	39.65	10,401.45
7/5/07 3:24	836.97	340,703.50	246,513.00	73,593.66	5.76	25.84	8.37	275.01	0.00	65.65	38.20	10,328.64
7/5/07 3:25	838.03	345,659.59	246,273.30	72,869.92	5.76	26.00	8.33	275.34	0.00	65.05	37.70	10,415.95
7/5/07 3:26	839.42	349,087.31	244,736.30	72,867.34	5.76	26.00	8.29	275.32	0.00	64.80	38.05	3,386.86
7/5/07 3:27	838.47	335,830.81	241,313.70	72,202.23	5.76	26.97	8.24	275.35	0.00	65.05	38.00	8,963.96
7/5/07 3:28	837.84	338,247.69	241,229.20	72,675.32	4.44	26.88	8.20	274.62	0.00	65.00	38.10	8,328.37
7/5/07 3:29	836.95	341,265.91	241,096.80	72,418.36	5.15	26.25	8.16	274.31	0.00	64.85	37.90	8,472.13
7/5/07 3:30	836.20	342,423.19	243,944.80	72,738.52	4.43	26.63	8.12	274.31	0.00	65.35	38.10	8,557.71
7/5/07 3:31	835.26	345,315.41	244,429.70	73,149.16	6.08	26.63	8.07	274.31	0.00	66.10	38.60	13,279.29
7/5/07 3:32	836.88	326,000.41	240,517.30	71,609.26	6.83	26.31	8.03	274.31	0.00	66.65	38.80	12,852.62
7/5/07 3:33	839.15	337,868.59	241,922.50	72,281.11	3.76	26.95	7.99	274.31	0.00	67.10	39.15	12,576.60
7/5/07 3:34	841.30	343,236.81	244,766.59	72,906.91	5.47	26.41	7.95	275.01	0.00	67.35	39.45	12,680.29
7/5/07 3:35	843.91	339,898.69	244,821.70	72,848.88	6.52	26.59	7.90	275.34	0.00	69.05	40.05	12,792.85
7/5/07 3:36	845.97	335,778.00	244,726.59	72,881.82	6.24	26.50	7.86	275.70	0.00	69.55	40.95	11,448.62
7/5/07 3:37	844.47	337,062.31	244,398.70	72,744.77	5.09	26.63	7.82	276.00	0.00	70.60	41.05	11,896.58
7/5/07 3:38	841.39	349,544.19	244,712.59	72,769.98	4.14	26.50	7.87	276.66	0.00	70.75	41.40	12,014.74
7/5/07 3:39	840.12	349,297.50	243,622.91	72,716.30	4.95	26.25	8.03	276.66	0.00	71.35	41.90	11,041.69
7/5/07 3:40	837.37	330,364.69	241,558.00	72,326.88	5.43	26.99	8.19	276.33	0.00	71.25	41.75	11,293.84
7/5/07 3:41	835.75	343,195.19	243,188.59	73,296.22	4.32	26.63	8.35	275.99	0.00	69.85	41.58	12,620.10
7/5/07 3:42	837.52	337,723.41	239,516.09	72,110.47	6.16	26.47	8.29	275.70	0.00	72.40	41.85	11,107.97
7/5/07 3:43	839.81	329,802.81	241,366.50	73,074.52	2.95	26.96	8.26	275.70	0.00	72.15	41.75	11,214.07
7/5/07 3:44	841.35	331,801.81	238,591.80	71,975.53	3.37	26.61	8.23	275.01	0.00	66.10	38.50	10,914.97
7/5/07 3:45	844.46	351,004.91	249,078.09	73,297.65	3.37	26.28	8.20	274.64	0.00	65.00	38.25	10,932.67
7/5/07 3:46	846.34	335,446.19	240,902.41	72,537.77	3.37	26.38	8.35	275.34	0.00	65.00	38.00	9,034.21
7/5/07 3:47	844.28	339,810.50	243,919.59	73,240.26	3.37	26.38	8.39	275.33	0.00	65.05	37.85	9,500.17
7/5/07 3:48	841.34	344,702.31	241,318.59	72,674.02	5.91	26.50	8.43	275.34	0.00	65.20	38.25	9,502.35
7/5/07 3:49	838.75	339,717.41	240,868.20	72,280.09	6.57	26.38	8.46	275.35	0.00	65.50	38.25	9,595.86
7/5/07 3:50	835.69	340,175.00	242,954.41	72,550.97	4.33	26.34	8.50	275.33	0.00	65.40	38.25	9,407.74
7/5/07 3:51	834.50	340,542.19	242,784.30	72,775.91	6.06	26.50	8.54	275.34	0.00	65.75	38.25	10,131.50
7/5/07 3:52	834.98	335,648.09	241,983.30	72,530.73	5.87	26.50	8.58	275.70	0.00	65.95	38.50	9,758.15
7/5/07 3:53	836.47	336,715.91	243,736.70	72,680.40	3.23	26.38	8.62	275.98	0.00	65.85	38.45	9,485.02
7/5/07 3:54	838.22	336,353.50	242,992.80	72,373.13	4.94	25.78	8.65	275.98	0.00	65.65	38.50	9,413.12
7/5/07 3:55	841.03	345,455.09	246,980.00	74,203.20	3.99	25.97	8.69	276.48	0.00	65.60	38.25	3,533.46
7/5/07 3:56	842.43	340,387.41	241,876.59	72,687.02	7.23	25.25	8.73	276.63	0.00	65.75	38.45	8,610.13
7/5/07 3:57	840.93	340,542.69	243,774.41	72,033.83	5.26	25.75	8.77	276.65	0.00	65.50	38.80	8,535.26
7/5/07 3:58	838.87	338,631.41	243,718.70	72,651.88	3.73	26.00	8.81	276.32	0.00	65.30	38.10	8,442.58
7/5/07 3:59	835.78	338,553.31	243,620.20	72,135.19	5.33	24.94	8.84	275.70	0.00	65.40	38.20	8,474.45
7/5/07 4:00	833.07	341,962.69	246,255.59	72,642.98	4.75	24.91	8.88	275.72	0.00	65.30	38.35	3,478.01
7/5/07 4:01	833.43	345,528.50	244,515.80	72,735.61	5.03	25.00	8.92	275.84	0.00	65.40	37.80	11,378.41
7/5/07 4:02	835.79	338,965.19	247,293.80	72,806.95	5.98	24.92	8.96	276.34	0.00	65.35	38.35	11,383.50
7/5/07 4:03	838.71	341,373.09	245,583.91	72,710.56	4.37	25.75	9.00	276.32	0.00	65.65	38.25	11,391.69
7/5/07 4:04	841.35	343,891.50	243,209.30	71,993.27	4.33	25.63	9.04	276.33	0.00	64.90	37.95	11,348.13
7/5/07 4:05	844.29	340,330.41	245,789.70	72,554.89	4.33	25.94	9.07	275.70	0.00	64.80	37.95	3,970.89
7/5/07 4:06	845.30	347,716.69	247,516.80	72,599.09	4.33	25.03	9.11	275.70	0.00	64.55	38.00	9,609.42
7/5/07 4:07	842.50	333,664.81	244,829.20	72,154.97	4.33	25.28	9.15	275.70	0.00	65.20	37.95	10,366.54
7/5/07 4:08	840.97	353,471.50	248,990.20	72,098.37	2.34	25.78	9.19	275.70	0.00	65.25	37.85	9,795.60
7/5/07 4:09	837.54	338,850.19	246,100.80	72,371.64	7.30	25.88	9.23	274.98	0.00	65.40	38.50	10,349.27

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 4:10	835.36	345,874.81	248,266.59	72,241.80	4.03	26.13	9.26	274.99	0.00	65.30	38.10	10,612.48
7/5/07 4:11	836.87	348,397.09	249,201.70	72,973.78	5.82	26.13	9.30	274.65	0.00	65.40	38.20	10,400.69
7/5/07 4:12	840.02	350,208.31	246,864.30	72,430.57	5.00	25.91	9.34	274.62	0.00	65.30	38.35	10,340.17
7/5/07 4:13	840.97	342,792.81	246,436.20	72,217.88	6.34	25.88	9.38	274.62	0.00	65.80	38.45	10,310.14
7/5/07 4:14	842.97	349,355.31	251,057.30	72,330.80	4.86	25.88	9.42	274.62	0.00	66.10	38.40	10,345.29
7/5/07 4:15	845.67	337,828.00	249,210.59	72,002.74	5.13	24.88	9.45	274.64	0.00	66.30	38.65	8,686.62
7/5/07 4:16	845.11	357,940.81	253,970.41	73,276.14	6.63	25.00	9.48	274.62	0.00	67.25	39.30	8,928.65
7/5/07 4:17	842.54	349,330.19	252,597.20	73,115.59	8.00	25.38	9.50	275.34	0.00	66.95	39.55	8,888.89
7/5/07 4:18	841.09	356,424.00	252,147.50	72,615.88	6.25	25.88	9.62	276.01	0.00	67.40	39.20	8,712.46
7/5/07 4:19	838.77	334,585.91	247,046.70	72,268.10	6.50	25.78	9.74	276.01	0.00	68.15	39.35	8,815.67
7/5/07 4:20	837.82	343,582.50	249,486.30	72,238.84	3.62	25.75	9.86	276.32	0.00	67.55	39.80	11,666.04
7/5/07 4:21	840.34	352,281.00	251,170.80	72,723.29	5.59	25.94	9.98	276.33	0.00	67.85	39.95	10,393.82
7/5/07 4:22	843.94	349,186.91	253,761.80	73,487.79	6.19	26.00	10.10	276.65	0.00	68.45	40.40	10,442.96
7/5/07 4:23	846.26	337,293.50	249,540.00	72,921.08	6.94	25.88	10.22	276.65	0.00	69.60	40.60	10,331.88
7/5/07 4:24	849.10	356,667.41	250,376.09	72,663.96	4.96	25.88	10.34	276.33	0.00	65.30	38.15	10,379.03
7/5/07 4:25	851.60	339,938.41	248,138.80	72,970.38	4.96	25.13	10.46	276.33	0.00	64.95	38.10	9,184.66
7/5/07 4:26	850.33	345,400.09	246,884.80	71,968.73	4.96	25.25	10.57	275.85	0.00	64.95	38.00	9,210.99
7/5/07 4:27	846.78	339,182.31	250,480.30	74,043.00	4.96	25.25	10.69	275.70	0.00	64.85	37.95	9,103.33
7/5/07 4:28	844.45	342,662.09	250,049.30	73,501.70	5.45	25.38	10.71	275.69	0.00	64.95	38.05	8,886.83
7/5/07 4:29	841.54	345,179.00	251,861.00	73,454.02	6.03	25.13	10.70	275.70	0.00	65.45	37.90	8,896.88
7/5/07 4:30	840.62	341,375.81	247,539.30	74,249.21	6.98	25.13	10.68	275.34	0.00	65.75	38.60	11,808.85
7/5/07 4:31	841.88	338,374.09	242,632.30	72,383.62	6.47	25.25	10.67	275.34	0.00	65.90	38.35	11,549.53
7/5/07 4:32	843.83	348,488.59	248,975.91	73,235.07	2.89	25.25	10.66	275.32	0.00	66.35	38.60	11,328.22
7/5/07 4:33	844.74	331,954.81	245,672.80	73,077.84	6.62	25.00	10.60	275.34	0.00	66.25	38.60	11,388.38
7/5/07 4:34	845.55	341,630.31	244,448.20	73,079.46	4.97	26.13	10.59	275.01	0.00	66.40	38.85	6,545.36
7/5/07 4:35	847.04	339,313.09	246,940.91	73,712.16	3.96	25.00	10.59	274.99	0.00	66.85	39.15	10,960.55
7/5/07 4:36	849.04	336,088.09	242,658.00	73,223.34	4.89	25.16	10.58	275.34	0.00	67.50	39.35	10,745.15
7/5/07 4:37	849.72	338,149.91	243,711.30	73,735.38	4.33	25.38	10.57	275.34	0.00	68.25	39.55	10,678.94
7/5/07 4:38	850.12	349,830.69	245,374.09	72,235.45	5.13	25.88	10.56	275.34	0.00	68.45	39.65	10,726.75
7/5/07 4:39	850.89	343,433.09	244,688.50	72,263.06	5.65	25.06	10.55	275.34	0.00	68.40	39.65	4,033.96
7/5/07 4:40	851.03	332,916.31	243,448.00	72,867.51	4.01	24.75	10.54	275.34	0.00	68.80	40.55	8,861.82
7/5/07 4:41	847.62	348,051.31	245,092.91	73,261.02	4.40	25.00	10.54	275.70	0.00	69.15	40.95	8,837.45
7/5/07 4:42	843.13	339,497.50	240,756.09	72,446.11	5.10	25.91	10.53	275.70	0.00	69.05	40.30	9,092.16
7/5/07 4:43	838.35	339,749.91	242,942.09	72,781.71	4.18	26.03	10.48	275.34	0.00	68.85	40.78	8,916.33
7/5/07 4:44	834.99	327,975.41	240,822.20	72,335.38	4.18	26.00	10.41	276.00	0.00	64.82	38.08	4,026.10
7/5/07 4:45	834.77	344,657.31	248,658.00	72,604.60	4.18	25.75	10.33	275.34	0.00	64.75	38.20	11,432.43
7/5/07 4:46	836.07	344,365.59	246,324.80	71,856.65	4.18	25.97	10.26	275.34	0.00	65.05	37.85	11,241.69
7/5/07 4:47	838.66	332,816.00	241,391.80	72,631.68	4.18	26.75	10.19	275.34	0.00	65.00	37.90	11,325.77
7/5/07 4:48	840.40	336,667.00	242,911.80	72,627.78	3.13	27.88	10.11	275.34	0.00	65.25	37.95	11,371.07
7/5/07 4:49	842.01	330,376.81	243,531.09	72,069.02	3.31	27.75	10.04	274.62	0.00	65.30	38.50	7,860.55
7/5/07 4:50	842.00	346,373.50	244,238.20	72,855.02	3.28	26.75	9.97	274.31	0.00	65.30	38.50	10,472.60
7/5/07 4:51	838.28	334,548.31	240,004.70	71,570.81	5.15	27.01	9.89	274.31	0.00	66.40	38.55	10,499.10
7/5/07 4:52	834.22	334,804.81	241,982.91	72,361.20	2.27	27.84	9.82	274.31	0.00	66.55	39.05	10,188.37
7/5/07 4:53	830.93	342,585.19	245,368.20	72,396.54	3.28	27.81	9.75	274.31	0.00	66.80	39.15	10,504.45
7/5/07 4:54	829.85	345,156.09	249,464.80	72,902.84	3.81	27.88	9.67	275.33	0.00	66.85	38.80	11,901.38
7/5/07 4:55	831.25	340,077.09	239,416.70	72,213.99	6.40	27.81	9.60	275.33	0.00	67.10	39.30	10,537.13
7/5/07 4:56	833.28	336,270.69	243,441.00	73,187.78	2.91	27.88	9.53	274.99	0.00	66.60	39.10	10,545.01
7/5/07 4:57	835.42	336,903.09	241,557.59	71,897.59	3.76	28.88	9.49	275.98	0.00	67.40	39.10	10,560.42
7/5/07 4:58	836.51	340,769.19	243,979.00	72,641.44	3.40	28.97	9.43	275.34	0.00	67.00	38.80	10,540.11
7/5/07 4:59	837.10	344,910.81	243,159.50	72,637.56	4.95	28.88	9.37	275.33	0.00	67.45	39.70	9,487.83

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 5:00	836.18	339,281.09	244,548.50	73,243.41	3.03	29.00	9.32	275.01	0.00	67.45	39.25	9,520.55
7/5/07 5:01	834.21	341,542.81	240,706.41	72,718.68	3.69	28.94	9.26	275.01	0.00	66.80	38.95	9,588.39
7/5/07 5:02	831.37	331,730.91	243,846.70	72,470.98	4.76	30.03	9.20	274.64	0.00	67.15	39.70	9,216.43
7/5/07 5:03	828.52	356,584.91	252,109.30	73,389.23	3.69	29.00	9.15	274.99	0.00	66.90	39.00	9,333.56
7/5/07 5:04	828.47	349,290.91	248,112.09	73,209.63	6.98	29.13	9.09	274.65	0.00	65.10	37.90	11,408.59
7/5/07 5:05	829.96	347,175.81	243,736.30	72,598.11	6.98	29.38	9.05	275.34	0.00	65.10	38.50	10,940.71
7/5/07 5:06	830.16	354,427.41	250,338.09	73,410.62	6.98	30.22	9.05	275.34	0.00	65.15	37.60	10,981.30
7/5/07 5:07	830.81	339,687.00	246,093.70	72,788.73	6.98	28.91	9.06	275.34	0.00	65.05	38.10	10,899.79
7/5/07 5:08	832.54	338,974.59	245,775.20	73,398.84	3.21	29.59	9.07	275.33	0.00	65.15	38.00	2,404.22
7/5/07 5:09	833.74	341,106.69	246,131.59	72,494.13	3.87	30.00	9.07	275.34	0.00	65.15	37.80	9,668.93
7/5/07 5:10	833.80	341,383.81	249,907.41	73,303.34	3.11	30.00	9.08	275.70	0.00	65.85	38.90	9,486.06
7/5/07 5:11	833.45	350,347.81	256,020.20	73,794.88	5.35	29.56	9.09	275.70	0.00	65.80	38.50	10,147.23
7/5/07 5:12	833.24	338,880.69	249,981.30	73,607.97	6.10	30.00	9.10	275.98	0.00	66.40	39.00	10,138.59
7/5/07 5:13	832.98	351,675.50	254,283.00	72,928.95	4.39	30.19	9.10	276.00	0.00	67.00	39.30	7,096.50
7/5/07 5:14	834.22	350,816.31	248,195.70	73,098.71	4.96	29.63	9.11	276.32	0.00	67.00	39.20	8,753.83
7/5/07 5:15	835.74	351,240.91	251,009.30	73,947.35	4.55	29.84	9.12	276.32	0.00	67.30	39.70	8,754.40
7/5/07 5:16	836.57	345,730.50	248,753.41	72,964.08	5.07	30.24	9.12	276.34	0.00	67.55	38.90	8,864.45
7/5/07 5:17	836.69	343,154.19	248,132.70	73,758.02	4.71	29.88	9.13	276.01	0.00	68.35	39.60	8,851.77
7/5/07 5:18	838.09	345,895.00	250,908.70	73,865.94	3.71	30.00	9.14	276.34	0.00	67.85	39.60	9,108.76
7/5/07 5:19	838.69	339,950.81	249,494.70	73,387.93	5.91	30.63	9.15	276.34	0.00	68.05	39.40	9,025.38
7/5/07 5:20	839.03	347,879.19	252,093.41	73,526.26	3.57	30.84	9.15	275.70	0.00	68.85	40.10	9,268.90
7/5/07 5:21	838.89	342,643.19	247,894.09	73,815.21	5.67	30.63	9.16	275.34	0.00	69.00	40.90	9,238.01
7/5/07 5:22	839.10	344,627.31	250,832.59	73,434.55	4.17	31.16	9.17	275.34	0.00	69.05	40.30	9,163.33
7/5/07 5:23	840.47	352,260.91	252,242.80	72,942.73	3.66	30.83	9.18	274.62	0.00	69.40	41.00	11,408.75
7/5/07 5:24	842.14	339,010.31	247,957.80	72,933.90	8.04	31.00	9.18	274.62	0.00	65.10	38.30	10,621.00
7/5/07 5:25	844.77	355,022.19	251,144.20	73,207.24	8.04	31.34	9.19	274.31	0.00	64.80	38.10	10,426.22
7/5/07 5:26	846.86	346,466.31	248,395.70	72,861.08	8.04	30.91	9.20	275.01	0.00	64.70	38.10	10,446.71
7/5/07 5:27	848.69	340,550.81	250,442.70	73,215.58	8.04	30.88	9.21	275.33	0.00	65.05	37.70	10,399.38
7/5/07 5:28	850.09	339,348.09	247,450.09	73,075.02	6.26	31.06	9.21	275.01	0.00	64.90	38.20	9,831.94
7/5/07 5:29	848.87	354,940.00	250,694.59	72,715.14	3.00	30.82	9.22	275.70	0.00	65.05	37.40	9,146.74
7/5/07 5:30	845.86	342,000.09	250,054.80	73,837.74	5.66	29.85	9.23	275.98	0.00	63.65	36.90	9,701.18
7/5/07 5:31	843.17	342,263.19	246,891.70	73,002.45	5.55	30.88	9.23	275.70	0.00	62.50	36.90	9,523.72
7/5/07 5:32	840.24	340,020.50	249,779.00	73,215.55	3.05	30.88	9.24	275.67	0.00	61.05	35.60	9,513.90
7/5/07 5:33	838.03	347,217.69	248,264.50	72,867.74	6.12	31.72	9.25	275.98	0.00	60.50	35.30	0.00
7/5/07 5:34	837.81	354,132.59	250,873.30	73,030.26	3.67	31.88	9.26	275.51	0.00	59.85	34.50	0.00
7/5/07 5:35	837.44	346,031.50	253,403.50	73,552.98	6.97	31.63	9.26	275.34	0.00	59.30	34.90	0.00
7/5/07 5:36	837.48	353,191.69	249,127.20	72,619.09	5.42	31.84	9.27	275.01	0.00	59.30	34.50	0.00
7/5/07 5:37	836.66	346,150.50	252,531.41	73,536.13	6.04	31.78	9.28	274.64	0.00	59.85	35.40	0.00
7/5/07 5:38	836.30	342,011.31	247,845.80	73,005.97	5.68	31.34	9.29	274.65	0.00	59.60	35.20	0.00
7/5/07 5:39	836.16	344,755.81	248,869.41	73,077.29	5.54	31.26	9.29	274.65	0.00	59.70	34.50	0.00
7/5/07 5:40	837.00	350,343.00	249,809.80	73,192.73	3.81	30.66	9.30	275.33	0.00	59.05	35.20	0.00
7/5/07 5:41	837.53	344,207.81	248,668.09	72,918.22	5.72	31.09	9.31	275.34	0.00	59.50	35.10	0.00
7/5/07 5:42	837.51	338,947.41	247,002.50	73,168.16	5.10	31.00	9.32	275.70	0.00	59.65	34.20	0.00
7/5/07 5:43	837.16	362,827.81	248,976.00	72,526.96	3.36	30.00	9.32	275.70	0.00	59.13	34.20	0.00
7/5/07 5:44	835.69	344,002.41	247,289.70	72,991.12	6.36	30.75	8.90	276.31	0.00	64.80	37.80	0.00
7/5/07 5:45	835.20	346,928.00	254,730.59	73,686.86	6.36	31.03	9.00	276.65	0.00	65.20	37.80	0.00
7/5/07 5:46	834.26	339,958.19	247,730.00	73,926.98	6.36	30.13	10.52	276.33	0.00	64.75	38.10	0.00
7/5/07 5:47	833.82	344,162.19	250,119.59	73,301.99	6.36	30.03	10.53	276.00	0.00	64.95	37.50	0.00
7/5/07 5:48	833.66	332,876.81	250,825.80	73,054.71	5.76	28.75	10.53	275.70	0.00	64.60	38.10	0.00
7/5/07 5:49	833.29	352,918.31	250,051.50	73,110.03	4.05	29.66	10.54	275.01	0.00	63.55	37.00	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 5:50	833.26	346,281.81	250,366.20	73,712.41	5.59	30.05	10.54	274.62	0.00	63.00	36.40	0.00
7/5/07 5:51	832.76	341,023.59	247,105.20	72,654.55	5.19	30.13	10.55	274.64	0.00	62.40	35.90	0.00
7/5/07 5:52	831.95	346,881.59	250,366.20	73,509.83	5.19	28.83	10.55	274.48	0.00	62.30	36.00	0.00
7/5/07 5:53	832.39	342,724.31	247,552.00	73,277.52	4.41	29.03	10.56	275.01	0.00	62.10	36.80	0.00
7/5/07 5:54	833.07	346,940.19	247,484.20	73,500.26	4.99	28.75	10.56	274.99	0.00	62.30	35.90	0.00
7/5/07 5:55	833.01	333,471.09	248,237.41	74,172.73	5.32	29.00	10.57	275.01	0.00	61.60	35.90	0.00
7/5/07 5:56	832.59	358,159.19	251,713.70	74,134.05	4.58	28.61	10.57	274.62	0.00	61.25	36.40	0.00
7/5/07 5:57	832.26	337,362.50	249,147.00	73,390.18	7.12	28.78	10.58	274.82	0.00	61.05	35.00	8,360.44
7/5/07 5:58	831.28	349,121.19	248,071.70	73,740.69	5.14	28.70	10.58	275.34	0.00	60.55	35.40	8,478.90
7/5/07 5:59	830.61	343,371.91	247,570.91	73,964.91	6.60	28.63	10.59	275.70	0.00	60.25	35.30	8,478.38
7/5/07 6:00	830.12	353,606.09	252,494.41	73,722.30	4.38	28.53	10.59	275.70	0.00	59.95	35.40	9,432.13
7/5/07 6:01	829.44	344,686.81	247,260.59	74,237.95	7.87	28.28	10.69	276.34	0.00	58.95	34.80	8,140.53
7/5/07 6:02	829.22	340,433.31	248,762.00	73,187.57	5.57	28.47	10.81	276.95	0.00	58.40	34.70	7,144.57
7/5/07 6:03	829.65	347,216.31	248,189.00	74,247.84	3.80	28.28	10.93	277.01	0.00	58.45	34.20	6,172.19
7/5/07 6:04	829.35	342,753.69	245,714.80	73,342.18	6.66	28.13	11.05	277.01	0.00	64.75	37.90	6,075.33
7/5/07 6:05	829.36	346,350.00	248,128.70	74,122.21	6.66	27.66	11.17	276.00	0.00	64.90	38.10	5,482.50
7/5/07 6:06	830.02	343,280.69	246,548.30	72,920.16	6.66	27.00	11.29	275.98	0.00	65.20	38.00	6,865.40
7/5/07 6:07	830.73	348,376.91	249,589.59	74,625.36	6.66	27.00	11.41	275.98	0.00	65.00	37.90	8,667.79
7/5/07 6:08	830.63	345,087.41	247,244.00	74,900.80	6.02	26.97	11.53	275.70	0.00	64.55	38.10	7,248.46
7/5/07 6:09	831.38	347,875.59	241,442.59	73,265.13	5.06	26.84	11.65	275.70	0.00	63.60	37.40	7,393.14
7/5/07 6:10	832.44	342,717.69	243,655.09	73,535.41	3.32	26.84	11.77	275.70	0.00	63.70	36.90	7,643.54
7/5/07 6:11	833.33	338,208.59	243,118.20	73,711.02	4.02	26.84	11.90	275.34	0.00	63.10	36.50	6,639.44
7/5/07 6:12	833.33	341,954.91	245,934.50	73,901.73	3.88	26.91	12.02	275.01	0.00	62.45	37.10	5,972.65
7/5/07 6:13	833.17	329,982.91	244,874.09	73,330.71	5.26	26.50	12.14	273.98	0.00	61.90	36.50	0.00
7/5/07 6:14	833.83	351,962.91	243,459.09	73,434.15	5.09	25.75	12.05	273.67	0.00	60.95	35.50	0.00
7/5/07 6:15	834.99	337,111.50	239,987.50	73,620.15	4.42	26.13	11.85	272.98	0.00	60.60	35.60	0.00
7/5/07 6:16	835.97	350,975.19	245,910.09	74,061.26	3.94	26.63	11.65	272.99	0.00	60.05	35.60	0.00
7/5/07 6:17	836.77	332,617.50	243,216.80	73,660.44	5.88	26.88	11.45	273.12	0.00	59.75	34.70	0.00
7/5/07 6:18	836.50	338,481.59	243,155.00	73,924.73	4.66	27.00	11.25	273.66	0.00	59.70	34.30	5,763.94
7/5/07 6:19	835.88	334,425.00	242,985.20	73,239.25	6.18	27.00	11.05	273.53	0.00	58.85	34.00	6,283.73
7/5/07 6:20	837.23	347,669.41	245,501.00	74,172.94	3.12	26.82	10.85	274.62	0.00	59.10	33.90	6,255.03
7/5/07 6:21	838.08	342,849.09	246,654.91	74,282.28	7.35	26.84	10.65	275.70	0.00	58.80	34.80	7,984.51
7/5/07 6:22	838.57	341,048.31	244,859.80	74,287.29	6.10	26.88	10.45	276.34	0.00	59.00	34.90	8,028.09
7/5/07 6:23	838.91	358,567.19	248,873.59	73,225.57	5.88	26.50	10.70	276.34	0.00	59.20	34.90	8,301.34
7/5/07 6:24	839.00	341,017.81	243,055.09	73,450.98	8.95	26.64	10.95	276.64	0.00	64.65	36.90	8,674.51
7/5/07 6:25	839.72	341,235.81	240,509.59	73,477.75	8.95	26.47	11.00	276.34	0.00	64.90	38.40	7,904.71
7/5/07 6:26	840.17	343,023.31	244,086.80	73,599.83	8.95	26.38	11.06	276.34	0.00	65.15	37.60	6,668.71
7/5/07 6:27	840.42	334,691.31	242,977.91	73,305.00	8.95	25.88	11.11	276.00	0.00	65.10	38.00	5,411.49
7/5/07 6:28	840.48	341,535.50	249,373.70	74,234.01	3.41	26.03	11.16	275.70	0.00	64.90	38.00	5,557.52
7/5/07 6:29	841.11	342,960.69	247,302.30	74,571.30	6.63	26.00	11.22	275.83	0.00	64.60	37.90	6,154.46
7/5/07 6:30	841.40	332,240.31	241,659.91	73,993.34	5.71	25.13	11.27	275.33	0.00	64.70	37.60	7,872.63
7/5/07 6:31	841.27	354,303.69	251,832.20	74,514.59	4.69	26.05	11.33	274.99	0.00	64.55	38.30	8,056.29
7/5/07 6:32	841.43	340,402.31	240,819.09	73,914.82	7.16	25.88	11.38	275.01	0.00	64.70	38.00	7,110.07
7/5/07 6:33	841.57	351,786.31	247,460.50	73,934.31	3.98	25.88	11.43	274.61	0.00	64.80	37.90	1,593.81
7/5/07 6:34	841.98	327,657.31	238,630.59	73,891.64	5.61	25.97	11.35	274.62	0.00	64.60	38.00	0.00
7/5/07 6:35	841.49	329,014.41	239,810.20	73,603.67	3.59	26.84	11.13	274.33	0.00	64.45	37.70	0.00
7/5/07 6:36	841.89	347,167.09	243,962.59	74,165.16	4.61	26.75	10.91	274.31	0.00	63.75	37.10	0.00
7/5/07 6:37	842.74	342,464.19	241,827.30	73,825.40	6.37	26.50	10.69	274.31	0.00	63.60	37.10	0.00
7/5/07 6:38	842.69	339,842.50	241,839.41	74,665.43	5.94	26.64	10.47	273.98	0.00	63.65	36.90	0.00
7/5/07 6:39	842.70	335,249.81	240,471.09	74,178.19	6.74	26.63	10.25	273.97	0.00	64.35	37.70	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 6:40	843.44	343,910.91	244,306.59	75,524.09	4.30	26.41	10.19	274.62	0.00	64.73	37.50	0.00
7/5/07 6:41	843.83	340,405.81	240,792.80	73,975.68	7.24	26.63	10.28	275.34	0.00	64.85	38.40	0.00
7/5/07 6:42	844.45	335,503.00	237,516.59	74,291.91	4.81	26.38	10.38	275.34	0.00	64.80	37.70	0.00
7/5/07 6:43	845.18	342,191.41	242,873.41	74,087.12	3.72	26.53	10.47	275.60	0.00	65.85	38.30	0.00
7/5/07 6:44	845.61	341,898.91	239,907.80	74,040.88	6.51	26.38	10.56	276.00	0.00	65.05	38.20	0.00
7/5/07 6:45	845.03	328,820.69	238,520.70	73,825.20	6.51	26.63	10.65	276.01	0.00	64.95	37.90	0.00
7/5/07 6:46	844.79	336,111.00	237,189.30	73,081.83	6.51	26.63	10.74	276.01	0.00	65.00	38.30	0.00
7/5/07 6:47	845.75	339,446.09	236,768.20	73,231.02	6.51	25.38	10.83	276.35	0.00	64.75	37.50	0.00
7/5/07 6:48	845.09	328,566.41	235,465.00	73,584.14	5.78	24.75	10.92	276.65	0.00	64.90	38.40	0.00
7/5/07 6:49	844.43	338,173.19	239,018.70	74,665.26	4.30	24.63	11.01	276.35	0.00	64.75	37.50	0.00
7/5/07 6:50	844.41	335,525.91	236,419.50	73,417.10	7.21	24.99	11.22	276.35	0.00	64.50	37.80	0.00
7/5/07 6:51	845.07	357,557.50	243,863.59	75,050.65	5.45	24.84	11.48	276.34	0.00	65.05	37.70	0.00
7/5/07 6:52	843.51	318,841.19	232,886.50	73,461.63	8.66	24.16	11.74	276.11	0.00	65.45	38.60	0.00
7/5/07 6:53	842.13	328,813.31	234,309.91	73,170.06	2.54	23.88	12.01	276.33	0.00	64.30	37.70	0.00
7/5/07 6:54	842.26	333,523.00	235,696.91	73,847.33	3.14	23.88	12.14	276.34	0.00	64.05	37.80	0.00
7/5/07 6:55	842.43	330,360.59	235,441.30	73,950.35	4.21	22.88	12.26	276.01	0.00	63.50	36.80	0.00
7/5/07 6:56	841.52	330,165.81	235,511.91	72,985.33	5.15	24.13	12.37	276.34	0.00	63.05	37.10	0.00
7/5/07 6:57	841.19	332,817.59	236,600.50	74,143.65	2.48	23.03	12.49	276.00	0.00	62.55	36.60	0.00
7/5/07 6:58	841.64	338,292.50	238,860.50	73,201.27	5.02	22.75	12.61	275.70	0.00	62.05	36.70	0.00
7/5/07 6:59	840.40	334,310.09	236,710.41	73,280.13	6.02	23.13	12.73	275.70	0.00	61.60	35.80	0.00
7/5/07 7:00	840.05	344,371.50	241,479.91	73,428.19	3.43	22.88	12.93	275.98	0.00	60.65	35.50	0.00
7/5/07 7:01	840.19	341,958.81	241,202.41	73,783.56	6.35	21.88	13.07	275.98	0.00	59.20	34.30	0.00
7/5/07 7:02	839.50	327,191.09	232,268.80	72,541.14	6.47	22.91	13.14	275.98	0.00	58.95	34.20	0.00
7/5/07 7:03	838.09	334,445.81	236,371.30	72,590.08	3.65	23.00	13.33	276.00	0.00	59.05	34.10	0.00
7/5/07 7:04	838.64	329,896.00	237,978.30	73,659.38	3.58	22.50	13.56	276.00	0.00	62.25	36.60	0.00
7/5/07 7:05	838.79	332,240.81	235,902.80	73,760.74	3.58	22.38	13.55	275.34	0.00	64.90	37.90	0.00
7/5/07 7:06	838.61	333,079.59	237,096.50	73,384.45	3.58	22.50	13.43	275.34	0.00	65.10	38.00	0.00
7/5/07 7:07	838.85	338,542.81	237,976.59	73,206.00	3.58	21.41	13.56	275.34	0.00	65.15	38.20	0.00
7/5/07 7:08	839.27	333,551.91	237,094.30	73,587.27	4.89	21.53	13.63	275.34	0.00	64.60	37.90	0.00
7/5/07 7:09	839.83	327,309.19	236,059.41	73,500.34	4.40	21.72	13.70	275.17	0.00	64.30	37.80	0.00
7/5/07 7:10	839.34	324,204.09	236,187.20	72,543.99	5.96	21.63	13.77	275.01	0.00	64.10	37.60	0.00
7/5/07 7:11	839.74	351,963.00	238,993.91	72,987.57	3.74	20.95	13.84	275.34	0.00	63.50	37.70	0.00
7/5/07 7:12	839.82	330,181.59	235,831.70	72,636.59	8.40	20.75	13.91	275.70	0.00	63.10	37.40	0.00
7/5/07 7:13	840.27	334,871.00	238,538.80	73,445.79	4.02	21.16	13.99	276.34	0.00	63.65	36.90	0.00
7/5/07 7:14	840.30	334,061.09	235,652.41	73,620.53	5.52	20.41	14.06	276.65	0.00	63.65	37.50	0.00
7/5/07 7:15	839.42	332,676.91	236,734.91	73,712.50	5.84	20.25	14.38	277.01	0.00	63.10	37.20	0.00
7/5/07 7:16	839.39	335,243.50	236,925.00	73,773.67	5.20	20.25	14.60	276.65	0.00	63.55	36.40	0.00
7/5/07 7:17	840.47	336,224.41	236,249.91	73,531.93	4.97	20.00	14.82	276.65	0.00	63.30	36.70	0.00
7/5/07 7:18	841.42	328,472.59	235,152.59	73,265.50	5.34	20.00	15.03	276.34	0.00	64.00	36.80	0.00
7/5/07 7:19	841.77	335,307.31	237,233.59	74,060.43	3.99	19.13	15.25	276.34	0.00	64.20	37.50	0.00
7/5/07 7:20	842.80	329,840.41	234,972.50	73,637.25	6.07	18.59	15.46	276.65	0.00	63.90	37.30	0.00
7/5/07 7:21	843.34	338,584.69	235,660.00	73,153.46	5.20	18.88	15.68	276.66	0.00	64.55	37.40	0.00
7/5/07 7:22	844.11	329,676.19	232,700.41	73,181.34	5.34	18.90	15.90	276.65	0.00	64.55	37.70	0.00
7/5/07 7:23	844.20	335,525.41	233,053.30	72,436.24	5.56	19.13	16.11	276.00	0.00	64.60	37.50	0.00
7/5/07 7:24	844.98	330,363.50	235,573.70	74,097.48	5.48	18.91	16.33	275.98	0.00	64.85	37.90	0.00
7/5/07 7:25	844.77	326,810.81	233,497.00	72,933.38	5.48	18.75	16.54	275.34	0.00	64.95	38.20	0.00
7/5/07 7:26	844.95	331,832.69	232,749.20	73,186.25	5.48	18.75	16.76	275.34	0.00	65.20	37.50	0.00
7/5/07 7:27	845.32	339,879.81	235,609.41	74,362.89	5.48	17.88	16.84	274.62	0.00	65.05	38.40	0.00
7/5/07 7:28	844.24	328,065.81	231,681.20	73,058.87	8.36	19.00	16.77	275.01	0.00	64.50	37.40	0.00
7/5/07 7:29	843.17	326,908.19	230,434.00	72,777.73	5.28	19.09	16.71	274.80	0.00	64.30	37.10	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 7:30	843.59	332,303.09	231,978.00	72,754.09	2.91	19.91	16.65	275.34	0.00	63.60	37.30	0.00
7/5/07 7:31	844.63	321,781.59	229,150.09	73,490.84	4.77	19.66	16.59	275.01	0.00	63.30	36.40	0.00
7/5/07 7:32	843.60	326,477.19	233,217.50	73,471.73	5.60	20.09	16.53	274.31	0.00	63.00	36.70	0.00
7/5/07 7:33	843.46	332,685.91	233,056.59	73,253.34	4.12	19.97	16.47	274.31	0.00	63.05	37.10	0.00
7/5/07 7:34	844.37	328,402.00	233,834.09	73,382.09	4.32	19.09	16.40	274.47	0.00	62.70	36.70	0.00
7/5/07 7:35	845.09	333,326.41	233,784.20	73,875.73	5.94	19.78	16.34	275.01	0.00	63.30	37.40	2,953.87
7/5/07 7:36	842.64	325,371.81	233,625.00	72,816.02	7.71	20.22	16.28	275.01	0.00	63.30	37.30	5,653.67
7/5/07 7:37	842.49	339,444.31	234,350.00	73,174.52	4.85	19.03	16.22	275.02	0.00	63.30	37.30	6,582.59
7/5/07 7:38	843.03	332,232.31	233,442.00	72,986.19	6.35	19.13	16.16	275.70	0.00	62.92	36.40	8,244.07
7/5/07 7:39	843.63	327,637.00	230,869.30	72,941.86	5.42	19.00	16.10	276.29	0.00	62.85	37.20	8,404.51
7/5/07 7:40	844.87	329,200.50	233,582.41	73,098.09	3.32	18.88	16.11	277.03	0.00	62.75	36.70	8,864.32
7/5/07 7:41	845.76	329,631.19	233,814.91	73,965.59	5.49	18.77	16.31	277.02	0.00	62.75	36.90	8,098.95
7/5/07 7:42	844.94	323,503.91	230,759.80	72,581.93	6.66	19.13	16.51	276.65	0.00	63.05	36.50	8,136.63
7/5/07 7:43	844.32	333,781.59	234,786.91	73,392.47	3.65	19.13	16.71	275.85	0.00	62.60	36.30	5,834.06
7/5/07 7:44	845.20	323,743.69	230,195.91	72,847.53	4.31	18.97	16.91	275.70	0.00	62.35	37.00	5,906.09
7/5/07 7:45	845.24	334,084.41	235,148.20	73,953.17	4.31	19.78	17.01	275.01	0.00	65.00	38.40	5,562.06
7/5/07 7:46	844.23	330,080.81	234,369.91	72,463.75	4.31	19.34	16.78	274.62	0.00	64.85	37.60	6,239.25
7/5/07 7:47	844.13	339,887.00	236,482.50	73,708.89	4.31	18.13	16.56	274.33	0.00	65.10	38.50	7,628.69
7/5/07 7:48	843.67	335,368.69	235,643.59	73,107.80	7.82	18.75	16.33	274.31	0.00	65.20	38.10	8,033.18
7/5/07 7:49	842.82	330,134.19	236,772.00	73,666.00	6.60	19.88	16.11	274.31	0.00	65.20	38.30	8,080.65
7/5/07 7:50	842.89	335,329.00	236,310.30	73,743.30	5.38	19.25	15.89	274.31	0.00	65.40	38.50	7,827.01
7/5/07 7:51	843.18	327,138.91	231,331.70	72,777.72	6.63	18.97	15.68	274.62	0.00	65.25	37.80	0.00
7/5/07 7:52	843.60	335,051.09	234,050.50	73,780.29	4.11	19.84	15.45	274.31	0.00	65.20	38.60	0.00
7/5/07 7:53	843.22	321,477.50	230,595.30	73,043.20	5.63	20.00	15.22	274.31	0.00	64.70	37.50	0.00
7/5/07 7:54	842.84	324,173.50	231,707.41	73,613.27	3.50	20.13	14.99	274.34	0.00	64.40	38.00	0.00
7/5/07 7:55	842.62	331,929.50	232,795.91	73,457.36	5.53	19.75	14.91	274.31	0.00	63.85	37.10	0.00
7/5/07 7:56	843.82	335,265.81	232,169.30	72,863.64	5.69	20.88	14.64	274.62	0.00	63.05	37.30	0.00
7/5/07 7:57	845.22	326,301.91	230,678.30	73,452.83	4.64	20.47	14.41	274.62	0.00	63.00	37.40	0.00
7/5/07 7:58	845.38	323,930.31	229,470.91	72,295.38	4.43	21.13	14.19	274.98	0.00	62.85	36.80	0.00
7/5/07 7:59	845.84	329,238.81	234,032.70	72,827.88	2.73	20.75	14.27	275.01	0.00	61.75	36.80	0.00
7/5/07 8:00	846.31	334,039.81	235,445.91	72,788.74	3.79	21.00	14.25	274.98	0.00	61.45	35.70	0.00
7/5/07 8:01	846.49	339,363.19	237,850.70	73,562.42	5.21	20.84	14.22	275.34	0.00	61.40	35.60	0.00
7/5/07 8:02	846.63	325,286.19	234,948.09	72,721.86	5.83	20.88	14.20	275.70	0.00	61.70	36.70	0.00
7/5/07 8:03	846.80	341,043.81	239,444.30	73,346.41	3.41	20.97	14.14	275.70	0.00	62.05	35.80	0.00
7/5/07 8:04	846.65	331,587.50	236,581.59	73,047.51	5.46	20.75	14.11	275.70	0.00	63.00	37.00	0.00
7/5/07 8:05	846.24	336,297.81	234,531.09	72,181.66	5.46	22.00	14.15	275.85	0.00	64.90	38.30	0.00
7/5/07 8:06	846.22	327,492.69	233,050.50	73,143.49	5.46	21.38	14.19	275.70	0.00	65.15	37.60	0.00
7/5/07 8:07	847.38	328,629.19	232,330.91	72,730.73	5.46	20.88	14.23	276.01	0.00	65.15	38.30	0.00
7/5/07 8:08	847.63	340,250.31	233,927.30	73,018.51	4.45	22.88	14.27	276.01	0.00	65.55	37.90	0.00
7/5/07 8:09	847.66	324,847.69	234,653.20	73,679.31	4.83	22.13	14.30	275.34	0.00	65.20	38.30	0.00
7/5/07 8:10	848.79	338,609.81	236,861.59	73,166.84	3.20	19.88	14.34	275.01	0.00	64.70	37.70	0.00
7/5/07 8:11	848.20	329,705.09	234,059.70	72,927.58	5.31	20.88	14.38	275.16	0.00	64.70	37.80	0.00
7/5/07 8:12	847.56	329,880.41	234,557.00	72,652.59	3.65	20.91	14.42	275.34	0.00	63.35	37.00	0.00
7/5/07 8:13	846.70	337,146.81	239,640.59	72,766.84	4.02	20.50	14.46	275.34	0.00	63.00	37.20	0.00
7/5/07 8:14	845.97	331,853.41	237,373.80	73,320.01	4.00	20.59	14.50	275.34	0.00	61.20	35.80	0.00
7/5/07 8:15	845.61	325,571.41	235,741.91	72,375.84	3.79	20.78	14.50	275.70	0.00	60.05	35.60	0.00
7/5/07 8:16	845.06	336,872.81	240,994.00	72,677.25	3.12	21.34	14.41	275.35	0.00	59.35	34.10	0.00
7/5/07 8:17	845.30	332,321.31	238,425.59	72,661.45	3.83	20.25	14.39	275.01	0.00	58.30	34.20	0.00
7/5/07 8:18	844.90	337,164.69	240,675.30	72,029.93	3.72	19.88	14.38	275.70	0.00	58.30	34.00	0.00
7/5/07 8:19	843.93	337,327.50	241,424.50	72,179.66	4.70	20.03	14.53	275.70	0.00	58.55	33.80	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 8:20	842.99	347,605.50	241,946.20	72,275.52	4.20	18.97	14.86	276.34	0.00	58.25	34.40	0.00
7/5/07 8:21	842.94	323,898.81	241,546.59	72,974.81	4.81	19.38	15.19	276.65	0.00	58.30	34.70	0.00
7/5/07 8:22	842.66	331,976.69	240,613.80	72,220.64	4.75	20.69	15.52	276.65	0.00	58.70	34.60	0.00
7/5/07 8:23	842.94	348,213.91	246,390.91	73,161.58	2.65	19.22	15.84	276.34	0.00	58.40	34.10	0.00
7/5/07 8:24	843.61	330,566.59	241,525.50	72,697.33	4.99	18.78	16.24	276.33	0.00	61.25	36.00	0.00
7/5/07 8:25	842.93	335,451.09	242,447.80	71,574.33	4.99	19.00	16.46	276.16	0.00	65.10	38.10	0.00
7/5/07 8:26	842.30	338,600.19	245,669.41	72,256.34	4.99	17.88	16.68	276.34	0.00	65.00	38.30	5,662.03
7/5/07 8:27	842.48	339,273.31	242,359.09	72,400.73	4.99	17.88	16.90	276.65	0.00	65.15	37.60	0.00
7/5/07 8:28	842.90	342,159.81	245,543.20	73,132.45	4.75	18.75	17.12	276.65	0.00	65.30	38.60	6,758.32
7/5/07 8:29	842.62	340,064.69	241,167.41	73,545.11	5.26	19.78	17.34	276.65	0.00	64.65	37.60	0.00
7/5/07 8:30	842.23	341,034.59	241,290.59	72,335.66	5.13	19.88	17.56	276.34	0.00	63.95	37.50	5,930.85
7/5/07 8:31	841.94	341,708.59	242,962.00	73,293.70	5.15	19.84	17.78	275.70	0.00	63.60	36.70	0.00
7/5/07 8:32	841.60	342,996.19	245,343.00	73,399.66	5.76	20.00	17.64	274.62	0.00	62.95	37.40	5,832.85
7/5/07 8:33	841.48	345,962.09	242,866.91	73,370.25	5.56	19.13	17.37	274.33	0.00	62.75	36.10	0.00
7/5/07 8:34	840.96	332,612.31	240,647.30	72,124.74	6.23	18.91	17.10	274.31	0.00	60.90	35.90	0.00
7/5/07 8:35	839.89	336,973.91	240,198.59	72,972.71	3.95	18.95	17.11	274.63	0.00	60.58	35.10	0.00
7/5/07 8:36	839.43	337,630.31	241,897.59	72,115.84	4.65	18.99	17.17	275.01	0.00	59.60	34.30	0.00
7/5/07 8:37	840.47	332,696.41	237,046.50	72,845.44	3.98	19.00	17.22	275.01	0.00	59.00	34.70	3,967.41
7/5/07 8:38	839.53	339,632.09	245,045.50	74,075.10	5.40	18.88	17.28	276.00	0.00	58.85	34.90	0.00
7/5/07 8:39	838.23	336,682.41	239,903.80	72,829.03	6.29	18.88	17.34	276.34	0.00	58.80	34.30	7,033.03
7/5/07 8:40	838.15	354,075.81	250,487.00	74,519.36	3.52	18.80	17.40	276.34	0.00	58.45	34.70	0.00
7/5/07 8:41	838.08	338,615.09	240,999.50	72,971.84	9.75	18.00	17.50	276.34	0.00	58.20	34.40	6,814.74
7/5/07 8:42	837.51	340,108.31	240,877.91	72,574.37	7.22	19.00	17.61	276.01	0.00	58.75	34.00	0.00
7/5/07 8:43	837.75	340,943.31	243,233.41	73,019.80	5.59	18.50	17.73	275.70	0.00	58.65	33.90	10,279.26
7/5/07 8:44	838.41	335,069.69	236,848.20	73,460.22	5.98	18.50	17.92	275.70	0.00	61.60	36.80	0.00
7/5/07 8:45	838.03	335,702.91	239,513.50	73,045.48	5.98	18.84	17.98	275.70	0.00	64.85	37.70	3,196.03
7/5/07 8:46	838.32	330,160.19	235,603.80	72,181.23	5.98	19.00	18.05	275.70	0.00	65.05	38.20	0.00
7/5/07 8:47	838.30	338,686.19	239,464.09	72,478.06	5.98	18.88	18.11	275.01	0.00	64.95	37.70	0.00
7/5/07 8:48	837.78	325,669.09	237,612.80	72,515.55	4.84	18.91	17.94	275.01	0.00	64.80	38.20	3,627.43
7/5/07 8:49	837.20	330,284.31	236,230.50	72,560.44	5.08	19.50	17.72	275.01	0.00	63.35	36.90	0.00
7/5/07 8:50	836.60	343,873.00	240,146.00	73,269.62	4.26	19.96	17.50	274.31	0.00	62.50	36.90	6,305.16
7/5/07 8:51	836.19	338,337.41	239,603.80	72,813.33	6.81	19.75	17.32	274.64	0.00	61.15	36.10	0.00
7/5/07 8:52	834.54	322,471.09	236,359.00	72,335.20	6.24	19.63	17.16	274.31	0.00	59.85	35.60	6,019.80
7/5/07 8:53	833.48	342,346.41	239,514.30	72,415.37	4.28	20.00	17.00	274.31	0.00	58.40	34.70	0.00
7/5/07 8:54	833.64	329,374.91	235,277.20	72,215.45	5.29	19.22	16.84	274.99	0.00	58.65	34.70	6,727.30
7/5/07 8:55	833.80	329,922.59	235,111.20	72,368.97	3.95	19.03	16.74	275.34	0.00	58.85	34.20	0.00
7/5/07 8:56	832.46	332,911.69	236,648.80	71,959.33	4.91	19.13	16.85	275.33	0.00	58.65	33.80	0.00
7/5/07 8:57	832.54	334,616.81	238,206.91	72,679.61	3.37	20.00	16.96	275.70	0.00	58.65	33.80	0.00
7/5/07 8:58	832.84	335,640.91	244,038.91	73,586.86	5.99	19.91	17.06	276.00	0.00	58.25	33.90	0.00
7/5/07 8:59	833.17	332,328.31	238,433.59	71,828.87	7.60	19.84	17.17	276.00	0.00	58.35	34.50	3,713.04
7/5/07 9:00	833.94	353,444.59	248,429.30	73,097.55	5.03	19.88	17.28	276.67	0.00	58.60	34.60	0.00
7/5/07 9:01	834.16	337,508.91	237,574.70	73,669.17	9.13	19.81	17.47	277.03	0.00	58.20	34.50	5,749.35
7/5/07 9:02	834.40	330,113.41	238,477.50	72,844.02	4.69	19.84	17.56	276.50	0.00	58.70	34.00	0.00
7/5/07 9:03	834.38	341,493.81	241,134.00	72,391.96	5.13	20.91	17.71	275.70	0.00	58.40	33.90	6,468.43
7/5/07 9:04	834.31	327,932.00	235,079.00	72,716.52	6.34	20.13	17.69	275.70	0.00	62.15	36.20	0.00
7/5/07 9:05	833.72	333,973.59	236,584.91	72,087.46	6.34	20.00	17.59	274.62	0.00	65.35	37.90	8,754.77
7/5/07 9:06	834.35	331,395.00	235,165.41	72,277.23	6.34	19.78	17.50	274.62	0.00	65.35	38.10	0.00
7/5/07 9:07	833.95	334,350.81	241,809.70	73,484.48	6.34	19.63	17.40	274.62	0.00	65.00	37.40	9,056.03
7/5/07 9:08	833.32	336,377.50	238,140.00	71,878.53	5.72	19.13	17.30	274.31	0.00	63.95	37.90	0.00
7/5/07 9:09	832.22	338,875.00	236,937.30	71,697.65	4.84	18.75	17.10	274.64	0.00	62.05	36.20	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 9:10	831.16	338,946.31	239,223.09	72,461.80	4.11	18.91	17.07	274.62	0.00	60.50	35.70	1,322.48
7/5/07 9:11	831.15	335,774.91	239,789.00	72,475.70	5.16	19.00	17.20	275.34	0.00	58.75	34.10	0.00
7/5/07 9:12	831.36	331,577.91	239,665.50	72,834.08	3.54	18.88	17.33	275.34	0.00	58.75	34.60	5,935.06
7/5/07 9:13	831.27	335,634.69	239,561.80	72,597.23	5.38	18.16	17.47	275.70	0.00	58.70	34.60	0.00
7/5/07 9:14	829.84	336,987.81	240,947.20	72,507.97	4.95	18.00	17.60	276.00	0.00	58.80	34.20	7,580.47
7/5/07 9:15	829.43	329,916.81	241,970.59	72,795.67	3.85	18.13	17.74	275.98	0.00	58.45	33.80	0.00
7/5/07 9:16	829.09	339,082.59	244,218.30	73,082.14	3.64	17.97	17.87	276.35	0.00	58.75	33.70	9,476.62
7/5/07 9:17	829.56	345,630.00	247,084.30	73,038.20	4.21	17.78	18.01	276.66	0.00	58.60	34.20	0.00
7/5/07 9:18	829.74	340,467.59	244,045.80	71,854.85	6.98	17.84	18.15	276.65	0.00	58.55	34.40	2,718.34
7/5/07 9:19	829.03	345,613.81	245,361.00	72,117.53	5.06	17.93	18.30	276.34	0.00	58.30	34.50	627.71
7/5/07 9:20	828.98	352,173.69	247,597.50	72,931.84	3.40	18.52	18.50	276.34	0.00	58.50	34.70	0.00
7/5/07 9:21	828.49	351,996.31	245,764.41	71,918.41	6.14	20.88	18.29	275.70	0.00	58.30	33.70	5,217.40
7/5/07 9:22	828.15	344,211.19	242,272.70	72,308.58	5.45	21.95	17.96	274.62	0.00	58.90	33.80	0.00
7/5/07 9:23	829.23	352,474.00	241,907.30	72,429.33	4.88	21.47	17.73	273.67	0.00	58.45	33.90	5,798.78
7/5/07 9:24	831.69	341,930.19	239,467.20	72,104.57	4.91	20.97	17.42	273.00	0.00	60.65	36.70	0.00
7/5/07 9:25	833.41	347,926.31	243,114.20	72,022.97	4.91	20.88	17.11	273.40	0.00	64.80	37.50	7,322.22
7/5/07 9:26	834.23	346,061.91	239,891.41	72,206.59	4.91	19.88	16.80	273.83	0.00	65.05	38.60	0.00
7/5/07 9:27	834.06	353,368.41	242,530.80	71,899.20	4.91	19.63	16.49	274.33	0.00	64.80	37.80	10,512.85
7/5/07 9:28	833.78	349,092.09	240,708.41	71,956.98	6.34	18.88	16.18	275.70	0.00	64.45	38.00	0.00
7/5/07 9:29	833.36	345,363.31	240,315.20	72,465.39	4.59	18.75	15.97	276.65	0.00	63.25	36.80	4,919.81
7/5/07 9:30	833.26	339,954.09	249,721.70	72,603.38	4.93	18.88	16.31	277.02	0.00	62.45	36.10	0.00
7/5/07 9:31	832.44	342,323.69	238,561.80	72,002.99	6.57	20.63	16.65	277.02	0.00	61.05	35.80	0.00
7/5/07 9:32	832.37	364,881.91	247,200.41	71,957.30	5.45	20.97	16.99	276.33	0.00	59.55	35.40	1,551.59
7/5/07 9:33	834.22	349,021.59	242,161.70	71,228.72	7.14	20.88	17.33	275.70	0.00	58.40	34.40	0.00
7/5/07 9:34	836.80	359,406.09	250,886.80	72,854.48	3.66	20.13	17.55	275.70	0.00	58.60	34.60	6,965.35
7/5/07 9:35	837.65	340,234.41	239,478.91	71,137.88	8.29	19.03	17.70	275.32	0.00	58.65	34.30	0.00
7/5/07 9:36	837.13	343,003.19	241,097.41	71,625.35	3.84	19.88	17.89	275.33	0.00	58.55	34.10	8,582.89
7/5/07 9:37	838.37	354,378.81	241,807.59	71,174.69	3.64	19.75	17.90	275.70	0.00	58.65	33.80	0.00
7/5/07 9:38	840.62	344,972.19	240,779.70	71,379.06	4.88	19.66	17.93	275.69	0.00	58.45	34.00	9,472.32
7/5/07 9:39	843.32	353,487.41	241,581.80	71,913.35	4.42	20.00	17.96	275.32	0.00	58.85	34.00	0.00
7/5/07 9:40	845.08	354,804.09	238,874.59	71,012.48	6.26	19.91	17.99	275.34	0.00	58.75	34.50	0.00
7/5/07 9:41	845.89	357,244.81	240,837.00	72,433.46	5.35	19.88	18.05	275.41	0.00	58.75	34.70	0.00
7/5/07 9:42	846.55	349,152.81	238,222.30	71,306.54	5.54	19.91	18.11	275.70	0.00	58.15	34.20	0.00
7/5/07 9:43	846.62	343,157.09	237,053.09	71,202.54	5.09	19.68	18.17	275.70	0.00	58.50	34.00	6,019.41
7/5/07 9:44	846.22	350,018.50	239,439.91	72,074.23	4.91	19.93	18.30	275.70	0.00	59.70	35.30	0.00
7/5/07 9:45	845.86	342,829.50	236,091.30	71,453.28	4.91	20.03	18.18	275.70	0.00	64.90	38.25	6,547.82
7/5/07 9:46	845.22	342,576.31	237,536.70	73,010.10	4.91	20.20	18.07	275.34	0.00	65.00	37.70	0.00
7/5/07 9:47	845.61	344,568.31	241,062.91	72,533.21	4.91	20.88	17.95	275.35	0.00	65.10	37.95	6,847.23
7/5/07 9:48	846.18	347,896.19	239,578.80	72,562.65	4.91	21.00	17.83	275.01	0.00	64.80	38.05	0.00
7/5/07 9:49	847.07	348,139.41	235,843.41	71,251.66	4.91	21.63	17.72	274.64	0.00	65.20	37.90	6,589.32
7/5/07 9:50	846.75	341,617.50	233,701.91	71,878.63	4.91	20.84	17.60	274.31	0.00	64.70	38.20	0.00
7/5/07 9:51	846.59	345,164.41	234,741.80	72,722.80	4.91	21.00	17.48	274.98	0.00	65.30	37.75	0.00
7/5/07 9:52	847.12	346,746.31	235,135.09	72,315.80	4.91	20.89	17.37	274.98	0.00	65.10	38.25	2,725.45
7/5/07 9:53	846.17	331,347.59	233,062.09	71,848.51	4.91	21.91	17.25	274.99	0.00	65.10	38.00	0.00
7/5/07 9:54	845.59	342,618.00	230,879.00	72,094.64	4.91	21.13	17.14	274.99	0.00	65.10	37.95	7,633.41
7/5/07 9:55	846.32	350,465.59	238,651.30	72,539.06	4.91	20.91	17.18	275.34	0.00	65.20	38.05	0.00
7/5/07 9:56	847.50	351,043.31	242,283.70	73,601.36	4.91	20.75	17.31	276.01	0.00	65.10	37.95	7,134.95
7/5/07 9:57	846.96	348,094.00	235,927.30	71,874.83	4.91	20.75	17.44	276.00	0.00	65.20	38.00	0.00
7/5/07 9:58	845.17	344,849.00	235,272.00	72,586.90	4.91	21.91	17.57	275.98	0.00	64.90	37.75	6,355.95
7/5/07 9:59	843.94	343,801.81	234,874.20	71,993.70	4.91	20.88	17.70	276.34	0.00	65.10	38.25	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 10:00	844.98	340,400.31	232,109.20	71,685.26	4.91	21.00	17.83	276.34	0.00	64.90	38.40	0.00
7/5/07 10:01	844.61	342,396.50	234,404.50	72,412.86	4.91	21.99	18.04	276.00	0.00	64.80	37.90	4,015.04
7/5/07 10:02	844.73	343,621.69	236,607.50	72,115.82	4.91	21.13	18.24	275.70	0.00	65.10	38.15	0.00
7/5/07 10:03	844.57	344,671.31	235,309.30	71,886.88	5.40	21.63	18.43	275.70	0.00	64.50	37.80	6,371.00
7/5/07 10:04	844.57	337,976.59	234,442.00	71,828.92	5.04	21.34	18.44	274.99	0.00	64.80	37.70	0.00
7/5/07 10:05	844.20	355,129.31	241,317.00	72,651.60	5.04	19.65	18.55	274.82	0.00	65.10	37.75	6,903.81
7/5/07 10:06	843.86	347,852.00	233,462.91	72,080.51	5.04	19.88	18.94	275.33	0.00	65.00	38.15	0.00
7/5/07 10:07	844.34	353,281.41	235,627.50	72,768.63	5.04	21.55	19.33	275.33	0.00	65.20	38.15	0.00
7/5/07 10:08	844.72	346,027.50	235,812.50	72,090.76	6.42	-0.01	22.88	277.99	0.00	64.50	38.10	0.00
7/5/07 10:09	846.17	337,375.81	234,516.70	71,939.80	4.74	0.02	24.18	283.02	0.00	64.10	37.35	0.00
7/5/07 10:10	847.08	333,974.09	234,390.70	71,742.66	4.94	6.94	26.89	285.71	0.00	64.20	37.60	0.00
7/5/07 10:11	847.38	337,042.81	232,552.70	71,655.91	2.79	10.73	29.88	284.18	0.00	63.80	37.20	0.00
7/5/07 10:12	847.20	340,711.69	237,951.80	71,723.27	2.91	10.77	29.82	279.35	0.00	62.90	36.65	0.00
7/5/07 10:13	846.98	349,328.31	235,998.70	72,289.73	3.02	9.88	29.77	275.01	0.00	61.50	36.05	0.00
7/5/07 10:14	847.37	341,214.19	236,078.50	72,312.32	4.56	9.75	29.71	272.03	0.00	60.70	35.00	0.00
7/5/07 10:15	847.23	339,357.31	233,612.20	72,176.10	5.37	11.19	28.19	269.16	0.00	59.40	34.60	0.00
7/5/07 10:16	846.77	350,714.00	240,647.91	73,117.49	3.91	11.94	25.72	267.67	0.00	59.00	34.90	0.00
7/5/07 10:17	846.06	344,231.00	235,020.00	71,581.23	6.65	12.30	23.25	268.00	0.00	58.40	33.95	0.00
7/5/07 10:18	846.29	351,425.09	242,537.70	72,739.92	3.62	14.02	21.47	269.31	0.00	58.70	34.20	0.00
7/5/07 10:19	846.10	359,150.19	244,041.09	72,659.05	7.21	14.02	20.39	271.48	0.00	59.00	34.40	0.00
7/5/07 10:20	847.67	346,239.69	235,293.80	72,279.84	6.72	16.13	19.31	273.00	0.00	58.50	34.55	0.00
7/5/07 10:21	849.04	346,361.41	237,146.80	72,252.14	5.39	16.38	18.76	274.65	0.00	57.90	34.35	0.00
7/5/07 10:22	850.60	336,695.91	234,469.50	71,924.71	4.83	16.88	19.04	275.70	0.00	58.40	33.80	0.00
7/5/07 10:23	851.33	350,396.31	237,951.09	71,780.34	3.55	18.00	19.32	276.19	0.00	58.10	33.85	0.00
7/5/07 10:24	852.15	344,504.81	238,061.50	73,266.35	5.69	17.88	19.59	276.66	0.00	59.00	35.20	0.00
7/5/07 10:25	853.22	342,512.41	236,539.09	71,737.68	5.69	18.72	19.87	277.01	0.00	64.70	38.05	0.00
7/5/07 10:26	853.50	329,104.41	237,107.50	72,036.55	5.69	18.03	20.00	276.65	0.00	64.90	38.30	0.00
7/5/07 10:27	854.12	346,764.31	237,617.50	72,524.37	5.69	18.88	19.81	276.33	0.00	64.90	37.80	0.00
7/5/07 10:28	854.12	351,555.91	244,611.50	72,737.99	6.05	19.72	19.61	275.70	0.00	64.80	38.35	0.00
7/5/07 10:29	853.48	356,325.09	235,599.50	71,927.98	8.90	21.00	19.42	274.64	0.00	64.60	37.65	0.00
7/5/07 10:30	853.02	355,439.09	238,977.59	73,777.20	5.40	21.47	19.22	273.38	0.00	64.20	37.45	0.00
7/5/07 10:31	852.66	344,905.00	234,456.09	71,612.96	6.93	20.75	18.73	272.38	0.00	63.30	36.80	0.00
7/5/07 10:32	851.60	336,802.41	237,764.30	72,651.31	5.25	21.09	17.97	272.32	0.00	63.50	37.20	0.00
7/5/07 10:33	851.34	348,122.09	237,408.20	72,532.91	4.44	20.78	17.67	273.00	0.00	63.10	36.50	0.00
7/5/07 10:34	851.00	346,104.81	236,545.80	72,448.93	6.76	21.00	17.37	273.00	0.00	62.90	36.95	4,464.23
7/5/07 10:35	849.21	343,725.50	235,036.59	72,347.34	5.18	20.91	17.06	273.66	0.00	62.60	36.80	5,575.96
7/5/07 10:36	848.21	347,941.69	242,791.41	72,244.57	5.22	20.88	16.76	274.33	0.00	62.40	36.75	6,140.84
7/5/07 10:37	847.19	344,160.09	237,184.09	71,781.98	7.52	20.88	16.46	274.62	0.00	61.70	36.15	7,534.58
7/5/07 10:38	847.90	343,653.00	231,937.41	71,825.05	5.30	20.78	15.98	275.35	0.00	61.70	34.40	8,429.81
7/5/07 10:39	847.22	332,891.91	225,608.00	71,707.01	7.32	22.08	16.09	276.01	0.00	60.40	33.75	8,824.91
7/5/07 10:40	848.08	326,608.09	223,366.80	71,897.34	3.70	22.00	15.84	275.70	0.00	59.60	32.05	8,031.11
7/5/07 10:41	846.89	337,530.81	225,477.91	72,430.27	5.52	21.88	15.71	275.33	0.00	59.10	33.55	8,371.13
7/5/07 10:42	846.29	336,481.59	231,150.70	72,288.25	6.02	21.91	15.58	275.34	0.00	58.60	31.10	6,002.77
7/5/07 10:43	846.31	344,947.59	229,844.50	72,401.16	6.13	21.88	15.44	274.62	0.00	58.10	32.45	5,894.15
7/5/07 10:44	845.10	330,423.09	223,813.41	72,223.00	6.74	21.14	15.31	274.31	0.00	59.10	33.15	5,439.31
7/5/07 10:45	842.84	319,208.31	221,659.50	71,243.81	6.74	22.00	15.18	274.33	0.00	64.70	32.05	5,859.35
7/5/07 10:46	840.35	332,757.41	227,259.30	71,445.61	6.74	21.69	14.96	273.37	0.00	65.20	33.20	6,837.84
7/5/07 10:47	839.93	322,653.31	229,038.20	72,118.53	6.74	21.25	14.57	273.00	0.00	65.50	34.20	7,845.73
7/5/07 10:48	838.99	326,194.19	229,949.59	71,872.00	6.34	21.41	14.17	273.66	0.00	64.70	33.95	7,910.94
7/5/07 10:49	837.69	319,757.69	228,205.30	71,682.84	7.03	21.50	13.92	273.66	0.00	64.20	31.55	7,826.53

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 10:50	836.85	332,343.69	233,325.91	71,738.80	3.93	21.00	13.85	273.83	0.00	63.70	31.15	0.00
7/5/07 10:51	835.71	316,139.41	222,244.80	71,050.14	6.86	20.84	13.77	274.31	0.00	63.60	31.00	0.00
7/5/07 10:52	834.74	329,529.31	229,768.20	71,536.41	4.84	20.88	13.70	274.64	0.00	63.20	34.00	0.00
7/5/07 10:53	836.24	332,899.31	232,852.30	71,322.14	4.85	20.96	13.62	275.35	0.00	62.10	35.90	0.00
7/5/07 10:54	837.67	323,885.59	231,263.41	71,184.81	7.16	20.90	13.55	275.70	0.00	61.20	35.85	0.00
7/5/07 10:55	837.71	324,317.31	231,643.00	71,214.30	5.44	21.25	13.47	275.70	0.00	60.80	35.50	0.00
7/5/07 10:56	838.10	326,054.09	226,004.70	71,655.50	5.60	20.78	13.40	275.34	0.00	59.60	34.65	0.00
7/5/07 10:57	838.14	325,287.09	230,842.59	71,651.99	5.90	20.75	13.33	274.64	0.00	59.10	33.95	0.00
7/5/07 10:58	838.47	338,597.59	228,289.41	71,449.61	5.74	21.25	13.25	274.62	0.00	58.70	33.80	0.00
7/5/07 10:59	837.65	321,280.81	224,015.30	71,292.38	6.95	20.88	13.18	274.62	0.00	58.60	34.15	0.00
7/5/07 11:00	838.22	298,513.50	230,252.30	71,002.82	3.91	20.88	13.10	274.62	0.00	57.90	34.50	0.00
7/5/07 11:01	839.27	315,444.19	223,122.80	72,096.22	4.44	21.22	13.03	274.31	0.00	58.40	34.30	0.00
7/5/07 11:02	841.40	315,813.00	228,121.91	71,905.47	5.37	21.00	12.95	274.62	0.00	58.90	30.60	13,548.44
7/5/07 11:03	844.29	332,025.59	232,534.80	71,513.82	4.78	20.78	12.88	274.99	0.00	58.60	31.15	13,462.34
7/5/07 11:04	847.09	335,032.00	230,435.59	72,326.63	6.69	19.88	12.80	275.34	0.00	58.60	28.60	13,531.74
7/5/07 11:05	849.19	335,351.81	229,074.00	71,220.41	6.69	19.88	12.73	275.70	0.00	64.80	27.70	13,458.40
7/5/07 11:06	850.88	330,749.69	226,898.50	71,128.70	6.69	19.95	12.65	275.98	0.00	65.10	27.65	4,821.27
7/5/07 11:07	849.09	324,619.19	233,069.20	71,843.35	6.69	19.88	12.58	276.00	0.00	64.90	26.45	11,400.47
7/5/07 11:08	844.64	318,852.50	227,367.59	72,068.56	6.11	19.88	12.62	276.65	0.00	59.10	23.60	11,303.78
7/5/07 11:09	841.25	330,336.19	232,255.50	72,173.68	5.04	20.00	12.89	276.65	0.00	62.60	24.15	12,145.63
7/5/07 11:10	838.08	333,513.31	233,899.80	72,145.41	6.02	19.84	13.15	276.33	0.00	62.60	24.40	12,113.79
7/5/07 11:11	834.20	321,722.69	228,694.91	71,586.45	6.98	19.88	13.41	276.34	0.00	61.10	23.60	11,586.13
7/5/07 11:12	834.45	330,394.59	231,369.50	71,756.10	5.06	19.75	13.64	275.98	0.00	60.10	26.20	11,126.10
7/5/07 11:13	836.72	318,652.50	228,259.50	71,103.24	6.43	19.63	13.64	275.70	0.00	59.50	23.40	11,110.37
7/5/07 11:14	838.92	320,910.69	228,944.91	71,324.79	5.27	19.70	13.70	275.69	0.00	59.00	23.55	10,687.16
7/5/07 11:15	841.23	323,591.31	227,339.70	70,704.52	5.40	19.50	13.72	275.34	0.00	58.40	23.65	10,905.90
7/5/07 11:16	842.72	319,024.91	228,227.80	70,970.99	5.92	19.75	13.67	274.65	0.00	56.70	22.30	8,921.07
7/5/07 11:17	840.12	328,130.69	229,217.80	72,209.39	6.07	18.59	13.49	274.62	0.00	53.50	21.45	9,297.89
7/5/07 11:18	836.47	331,158.41	235,210.00	71,977.71	6.38	18.63	13.26	274.47	0.00	56.60	21.90	9,470.20
7/5/07 11:19	834.09	314,338.00	218,926.41	71,911.85	7.51	18.53	13.38	274.99	0.00	52.90	21.15	9,146.71
7/5/07 11:20	830.69	305,857.91	214,482.30	71,542.30	5.16	18.66	13.84	275.01	0.00	52.90	20.90	9,173.44
7/5/07 11:21	827.41	304,660.41	210,141.09	71,425.31	6.19	17.15	14.30	275.34	0.00	46.50	20.15	11,985.90
7/5/07 11:22	826.38	307,078.81	206,551.50	72,196.89	7.19	0.02	0.05	277.18	0.00	48.00	19.15	10,670.46
7/5/07 11:23	826.92	304,577.31	206,518.00	71,795.62	5.77	0.02	18.00	289.00	0.00	43.60	18.20	10,314.94
7/5/07 11:24	826.03	297,938.59	201,914.09	71,187.34	8.90	0.84	23.32	295.33	0.00	40.50	18.55	10,555.93
7/5/07 11:25	826.62	305,725.19	208,874.30	71,542.20	8.90	4.74	28.76	293.90	0.00	45.10	19.35	10,648.55
7/5/07 11:26	827.66	301,303.09	206,715.20	72,301.84	8.90	4.58	31.65	287.00	0.00	45.10	20.55	9,086.83
7/5/07 11:27	825.82	294,828.50	203,405.00	71,108.48	8.90	4.16	32.80	277.68	0.00	44.50	19.45	8,926.44
7/5/07 11:28	822.96	297,159.19	203,221.59	71,494.11	6.70	3.03	31.74	270.02	0.00	44.70	20.25	8,765.59
7/5/07 11:29	820.21	299,022.41	199,519.80	70,724.47	7.48	3.11	30.48	264.49	0.00	43.70	19.10	8,748.68
7/5/07 11:30	817.62	293,210.50	194,043.20	70,846.77	5.88	2.97	26.45	261.00	0.00	43.20	17.45	8,843.75
7/5/07 11:31	814.97	287,267.31	193,782.59	71,249.01	8.12	3.49	21.76	261.01	0.00	42.30	15.75	11,117.37
7/5/07 11:32	813.43	286,150.19	195,164.09	71,289.64	4.63	4.94	17.81	263.63	0.00	41.80	18.05	10,847.56
7/5/07 11:33	812.37	304,004.59	186,161.30	71,530.32	4.48	6.11	16.18	268.00	0.00	40.90	17.98	10,486.63
7/5/07 11:34	810.75	297,296.59	185,670.50	71,359.66	7.42	7.90	14.55	272.31	0.00	40.50	15.60	10,528.97
7/5/07 11:35	809.30	310,122.69	189,030.30	73,046.48	6.72	8.14	14.74	275.33	0.00	40.60	15.85	5,421.68
7/5/07 11:36	808.94	301,493.91	180,320.20	70,718.89	8.60	8.00	15.49	277.99	0.00	40.60	16.50	8,983.94
7/5/07 11:37	808.35	294,962.59	179,611.30	72,226.86	7.30	8.30	16.23	279.65	0.00	37.10	5.95	8,938.44
7/5/07 11:38	806.65	298,294.09	177,083.91	71,121.08	7.18	8.94	16.98	280.01	0.00	35.70	51.15	8,837.98
7/5/07 11:39	804.31	289,155.81	176,018.09	71,169.38	6.55	8.95	18.10	280.02	0.00	35.40	50.60	8,846.81

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 11:40	803.36	294,548.31	175,061.09	71,127.74	4.95	9.94	19.22	279.35	0.00	37.10	9.30	4,350.41
7/5/07 11:41	804.76	283,213.69	171,423.41	71,012.78	7.13	9.83	19.98	278.00	0.00	32.70	0.00	12,719.73
7/5/07 11:42	807.47	282,397.00	172,113.50	71,217.22	6.37	9.98	20.29	275.85	0.00	29.90	0.00	12,671.29
7/5/07 11:43	810.69	298,528.00	174,617.00	72,008.08	3.68	10.00	19.58	274.31	0.00	33.00	0.00	12,612.40
7/5/07 11:44	813.74	286,670.09	166,890.50	70,571.66	6.99	10.14	18.86	272.69	0.00	31.70	0.00	12,782.66
7/5/07 11:45	816.55	296,141.81	178,037.91	71,031.93	6.99	10.02	18.14	271.48	0.00	34.60	0.00	1,751.27
7/5/07 11:46	816.55	342,356.09	204,076.00	70,506.77	6.99	10.00	17.22	271.33	0.00	33.30	0.00	11,586.05
7/5/07 11:47	814.33	320,294.81	197,070.91	71,344.94	6.99	10.04	16.32	272.00	0.00	33.30	0.00	12,032.90
7/5/07 11:48	813.16	307,077.69	190,151.30	71,252.34	7.36	10.15	15.78	273.38	0.00	31.60	0.00	11,829.73
7/5/07 11:49	811.60	293,570.81	187,207.59	71,680.52	7.78	10.90	15.56	274.62	0.00	33.20	0.00	11,778.58
7/5/07 11:50	809.27	297,032.69	185,597.20	71,494.45	5.53	11.00	15.53	275.34	0.00	33.70	0.00	10,741.42
7/5/07 11:51	809.07	303,072.09	185,205.30	72,053.13	7.35	10.94	15.76	276.35	0.00	33.40	0.00	11,340.12
7/5/07 11:52	810.51	303,119.41	185,807.91	72,515.94	8.16	10.92	15.95	276.34	0.00	32.50	0.00	11,104.54
7/5/07 11:53	812.44	305,445.31	182,017.41	71,779.58	8.30	11.06	16.22	276.65	0.00	34.10	0.00	11,136.10
7/5/07 11:54	814.71	288,494.00	176,091.30	71,027.70	8.39	11.00	16.61	276.65	0.00	33.50	0.00	11,025.47
7/5/07 11:55	815.66	292,708.91	176,983.70	71,659.64	5.95	11.92	16.78	276.33	0.00	34.20	0.00	8,776.85
7/5/07 11:56	813.28	291,858.81	177,160.20	71,086.42	8.55	11.88	16.52	274.99	0.00	35.20	0.00	9,870.11
7/5/07 11:57	808.92	286,339.31	186,571.50	72,047.77	6.15	11.88	16.26	274.30	0.00	35.00	0.00	9,329.06
7/5/07 11:58	806.30	303,488.31	198,683.70	71,281.84	6.70	11.94	16.00	273.65	0.00	36.70	0.00	9,332.57
7/5/07 11:59	802.53	305,836.91	203,069.91	71,003.21	10.02	11.88	15.74	273.65	0.00	34.80	0.00	9,397.75
7/5/07 12:00	799.73	302,779.19	198,059.30	70,885.57	9.38	11.68	15.48	273.65	0.00	35.60	0.00	11,000.58
7/5/07 12:01	800.55	299,497.69	197,583.30	70,930.58	8.92	11.77	15.23	274.30	0.00	34.80	0.00	9,954.99
7/5/07 12:02	802.23	291,903.31	198,458.91	72,052.72	8.51	11.94	15.03	274.62	0.00	33.90	0.00	9,705.15
7/5/07 12:03	802.44	294,687.59	196,672.00	70,584.13	7.31	12.08	14.81	275.01	0.00	35.40	0.00	9,440.04
7/5/07 12:04	803.91	293,571.69	205,063.20	70,817.12	6.20	12.11	14.75	275.51	0.00	35.80	0.00	9,584.98
7/5/07 12:05	806.29	297,284.09	207,185.80	70,867.30	6.20	12.06	14.70	275.34	0.00	34.90	0.00	8,570.96
7/5/07 12:06	805.77	308,737.41	210,753.80	71,423.91	6.20	12.81	14.64	275.70	0.00	39.20	0.00	8,617.15
7/5/07 12:07	804.31	304,472.31	203,315.91	70,149.96	6.20	12.98	14.62	275.70	0.00	41.30	0.00	8,460.27
7/5/07 12:08	803.32	301,654.59	204,616.50	70,022.90	8.90	13.90	14.59	275.70	0.00	44.30	0.00	8,591.55
7/5/07 12:09	801.16	293,377.19	203,136.91	70,329.51	7.08	14.00	14.56	275.70	0.00	43.30	0.00	8,287.76
7/5/07 12:10	799.80	304,131.50	204,421.30	70,289.68	8.12	13.94	14.60	274.62	0.00	43.20	0.00	11,811.64
7/5/07 12:11	802.00	298,635.91	205,254.80	70,932.30	6.52	14.25	14.32	274.30	0.00	42.80	0.00	11,449.75
7/5/07 12:12	803.38	303,708.69	206,421.00	70,900.80	6.59	13.97	14.05	273.98	0.00	42.90	0.00	11,485.66
7/5/07 12:13	804.68	309,524.81	207,992.50	70,029.06	7.83	14.66	13.77	273.97	0.00	42.40	0.00	11,388.37
7/5/07 12:14	807.46	314,680.91	216,276.80	70,797.29	7.69	14.94	13.49	274.30	0.00	43.20	0.00	10,507.08
7/5/07 12:15	811.42	316,615.41	216,149.41	70,490.82	7.67	15.00	13.22	274.62	0.00	44.80	0.00	9,792.41
7/5/07 12:16	811.49	318,318.69	214,815.00	70,567.77	7.47	16.00	12.94	274.62	0.00	45.50	19.10	10,198.21
7/5/07 12:17	809.86	311,404.50	216,266.30	71,339.97	6.54	16.88	12.69	274.62	0.00	45.30	19.65	9,981.76
7/5/07 12:18	808.53	310,154.31	214,960.91	70,386.44	6.95	17.00	12.60	274.62	0.00	45.40	20.20	10,092.63
7/5/07 12:19	806.46	322,533.19	218,370.30	71,734.30	5.71	17.00	12.54	274.99	0.00	44.70	19.30	5,814.44
7/5/07 12:20	805.22	311,306.91	214,658.09	70,594.48	9.07	17.53	12.37	274.62	0.00	44.20	19.55	10,594.76
7/5/07 12:21	806.27	311,967.31	222,949.59	70,489.64	4.07	17.85	12.12	274.64	0.00	44.10	19.90	10,484.48
7/5/07 12:22	808.95	321,849.41	226,672.00	71,512.20	3.65	19.10	12.05	275.01	0.00	50.30	20.80	10,484.75
7/5/07 12:23	812.34	317,350.81	227,033.41	71,063.54	6.74	18.97	11.75	275.01	0.00	49.60	19.95	10,380.42
7/5/07 12:24	816.32	325,673.91	232,642.80	70,800.97	4.78	19.72	11.53	274.62	0.00	47.60	19.50	1,500.94
7/5/07 12:25	818.86	348,732.41	241,133.80	70,626.84	4.78	19.22	11.32	274.79	0.00	60.00	23.60	8,997.35
7/5/07 12:26	818.55	340,879.19	242,889.80	70,511.86	4.78	19.13	10.15	274.99	0.00	56.00	22.85	8,924.31
7/5/07 12:27	817.89	331,839.09	244,448.70	71,300.19	4.78	21.13	10.33	276.00	0.00	55.40	22.85	8,719.18
7/5/07 12:28	817.35	340,146.59	243,385.80	71,701.24	5.39	20.88	10.51	276.33	0.00	55.00	22.70	8,908.66
7/5/07 12:29	817.16	349,583.69	253,297.30	72,393.91	5.77	21.90	10.68	277.02	0.00	55.90	22.90	6,801.21

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 12:30	818.93	340,892.31	248,069.59	71,432.80	9.12	21.88	10.86	276.64	0.00	50.10	21.10	10,373.43
7/5/07 12:31	821.90	348,171.91	251,098.80	71,551.42	6.56	21.88	11.04	276.65	0.00	52.60	21.25	10,341.64
7/5/07 12:32	825.65	339,686.09	248,462.41	71,741.48	8.06	22.50	11.18	277.03	0.00	51.80	21.50	10,347.64
7/5/07 12:33	829.34	341,714.91	247,961.50	71,835.13	6.72	22.84	11.09	276.64	0.00	50.70	20.40	10,229.79
7/5/07 12:34	831.88	349,207.09	249,269.59	71,545.70	7.69	23.13	11.18	275.98	0.00	51.80	20.92	6,819.71
7/5/07 12:35	832.10	334,753.19	240,514.09	71,240.17	6.72	23.00	11.27	275.51	0.00	54.10	21.60	9,098.14
7/5/07 12:36	830.22	342,017.50	249,503.70	71,757.94	4.67	22.88	11.36	275.01	0.00	59.90	24.15	9,135.66
7/5/07 12:37	827.49	344,101.09	246,417.91	71,110.07	9.08	22.97	11.44	275.01	0.00	59.60	23.75	8,859.78
7/5/07 12:38	824.22	337,333.81	239,145.09	71,870.25	6.21	23.00	11.24	274.64	0.00	59.20	25.05	8,978.05
7/5/07 12:39	822.06	337,403.19	242,455.30	71,036.39	6.52	23.03	11.07	274.62	0.00	58.70	27.85	12,695.06
7/5/07 12:40	823.87	325,556.50	237,435.41	71,070.70	4.12	23.84	10.89	274.62	0.00	58.90	29.95	11,574.77
7/5/07 12:41	826.44	329,725.09	241,414.30	71,568.79	3.90	24.13	10.72	273.96	0.00	58.90	31.10	11,546.99
7/5/07 12:42	827.62	335,213.91	238,529.91	70,664.07	5.78	24.13	10.55	274.31	0.00	58.70	32.90	11,296.10
7/5/07 12:43	830.33	340,194.81	241,673.59	71,729.63	4.44	24.13	10.37	274.64	0.00	58.20	33.95	11,297.22
7/5/07 12:44	832.64	333,941.19	242,327.00	71,310.57	7.52	24.41	10.20	274.64	0.00	58.60	32.70	12,430.25
7/5/07 12:45	835.15	329,127.81	241,050.09	70,981.85	7.52	25.00	10.07	274.65	0.00	64.90	35.50	11,196.89
7/5/07 12:46	836.97	344,128.19	246,371.70	71,193.46	7.52	23.91	10.05	275.01	0.00	65.00	37.10	10,696.79
7/5/07 12:47	838.81	329,178.19	240,056.30	71,021.39	7.52	24.88	10.03	275.34	0.00	65.10	34.30	10,777.98
7/5/07 12:48	840.88	341,282.59	248,856.91	71,910.35	4.55	24.88	10.00	275.70	0.00	64.40	34.65	10,937.44
7/5/07 12:49	842.84	343,316.59	247,599.91	71,373.82	7.26	24.88	9.98	275.70	0.00	63.50	34.30	9,286.93
7/5/07 12:50	841.45	344,487.59	243,943.80	71,340.45	7.79	24.88	9.96	275.70	0.00	62.50	31.85	8,700.92
7/5/07 12:51	837.94	342,966.09	249,695.30	71,368.08	6.95	24.88	9.96	275.70	0.00	61.90	31.85	9,038.89
7/5/07 12:52	835.10	339,524.81	244,312.50	71,051.40	6.54	24.91	9.94	275.34	0.00	60.80	32.35	8,926.37
7/5/07 12:53	833.29	342,497.41	248,683.91	71,674.75	4.75	26.00	9.93	275.70	0.00	59.90	34.95	9,030.58
7/5/07 12:54	832.43	329,254.69	239,995.50	71,199.73	6.51	26.00	9.91	275.70	0.00	59.20	35.00	11,977.95
7/5/07 12:55	832.28	338,294.59	242,576.20	71,484.00	5.15	26.03	9.89	275.33	0.00	58.20	34.60	11,578.49
7/5/07 12:56	834.35	342,213.00	244,674.30	71,833.62	4.65	26.00	9.78	274.99	0.00	58.80	34.00	11,370.55
7/5/07 12:57	837.56	353,446.50	243,520.00	71,490.14	4.84	26.00	9.68	274.99	0.00	58.50	33.85	11,118.30
7/5/07 12:58	839.31	327,064.09	241,879.00	72,080.83	5.95	26.50	9.58	274.99	0.00	58.70	33.90	7,362.10
7/5/07 12:59	838.64	328,414.50	238,682.59	71,253.86	4.76	26.78	9.48	274.99	0.00	57.90	34.10	10,048.83
7/5/07 13:00	835.35	347,963.50	248,947.80	72,392.72	2.96	27.03	9.39	274.65	0.00	58.50	34.50	10,519.02
7/5/07 13:01	830.19	336,795.19	241,891.50	72,129.50	7.14	26.05	9.29	274.62	0.00	58.00	34.45	10,443.71
7/5/07 13:02	825.20	345,719.69	246,503.30	71,142.06	5.23	27.00	9.28	274.64	0.00	58.50	34.30	10,467.82
7/5/07 13:03	821.99	352,395.81	247,072.80	72,678.97	6.30	27.13	9.35	274.65	0.00	59.10	34.05	4,092.67
7/5/07 13:04	823.08	334,247.00	240,463.50	71,513.52	4.61	26.49	9.43	274.65	0.00	58.80	33.85	10,492.97
7/5/07 13:05	824.42	333,588.59	242,082.80	71,766.82	4.61	26.34	9.51	274.62	0.00	64.70	38.05	10,555.46
7/5/07 13:06	826.78	342,998.19	244,272.70	71,311.69	4.61	25.53	9.59	275.34	0.00	65.20	37.80	10,470.09
7/5/07 13:07	829.08	338,146.50	243,646.00	72,257.63	4.61	26.25	9.66	275.34	0.00	64.80	38.20	10,438.60
7/5/07 13:08	830.75	335,433.81	244,229.09	71,304.54	5.19	25.97	9.74	276.01	0.00	64.80	37.40	6,458.08
7/5/07 13:09	830.55	346,766.31	249,779.50	71,524.33	4.69	25.75	9.82	276.34	0.00	63.90	37.50	9,140.36
7/5/07 13:10	827.16	338,859.41	246,211.09	71,860.45	5.86	24.97	9.90	276.66	0.00	62.60	36.35	9,501.84
7/5/07 13:11	825.03	340,590.81	243,502.09	72,211.51	3.73	24.97	9.97	276.65	0.00	61.00	35.75	9,170.47
7/5/07 13:12	821.86	349,734.81	252,698.09	71,357.45	5.28	24.75	10.05	276.65	0.00	60.20	35.25	9,271.68
7/5/07 13:13	821.59	343,482.19	247,154.00	71,566.38	4.93	24.96	10.14	276.66	0.00	59.90	34.25	12,306.42
7/5/07 13:14	823.50	342,423.69	247,973.50	71,151.24	3.87	24.88	10.22	276.34	0.00	58.20	34.65	11,109.93
7/5/07 13:15	824.74	336,665.91	250,419.91	71,545.89	4.08	24.91	10.31	276.64	0.00	58.60	34.55	11,263.90
7/5/07 13:16	824.42	362,964.50	259,311.91	71,440.64	4.55	25.00	10.40	276.66	0.00	58.80	33.75	10,857.70
7/5/07 13:17	825.01	359,023.81	256,550.80	71,639.41	7.37	25.00	10.49	276.34	0.00	58.20	33.80	10,912.73
7/5/07 13:18	826.27	323,676.59	253,430.00	71,138.75	6.34	25.09	10.58	276.00	0.00	58.30	33.85	10,164.11
7/5/07 13:19	826.34	350,956.50	256,655.30	72,224.75	4.55	25.03	10.67	275.70	0.00	58.50	34.25	9,401.54

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 13:20	826.30	351,240.31	254,652.00	71,071.48	6.60	24.88	10.76	275.70	0.00	58.60	34.70	9,997.35
7/5/07 13:21	826.76	351,029.50	254,897.50	70,973.93	4.86	24.97	10.85	276.01	0.00	58.80	34.45	10,143.20
7/5/07 13:22	827.52	362,182.81	262,693.31	71,841.83	5.10	24.88	10.93	276.01	0.00	59.10	34.30	9,870.28
7/5/07 13:23	829.01	346,595.19	256,674.91	71,607.57	7.21	25.09	11.02	276.02	0.00	58.20	33.75	9,019.87
7/5/07 13:24	832.36	348,787.19	255,198.80	71,267.83	4.36	24.83	11.11	276.01	0.00	58.40	33.80	8,762.02
7/5/07 13:25	834.50	361,329.69	263,497.50	72,819.68	4.36	25.67	11.20	275.70	0.00	65.30	38.00	8,708.00
7/5/07 13:26	835.49	343,788.19	252,905.09	71,071.77	4.36	25.88	11.29	276.01	0.00	64.90	37.90	8,687.72
7/5/07 13:27	837.18	353,897.31	255,896.09	71,386.65	4.36	25.66	11.38	276.00	0.00	65.00	37.90	2,497.49
7/5/07 13:28	839.34	353,479.50	259,216.30	71,253.79	5.66	25.38	11.47	275.34	0.00	64.60	37.90	9,227.34
7/5/07 13:29	840.42	347,305.59	255,534.50	71,025.97	6.71	24.91	11.56	275.34	0.00	65.00	37.65	9,035.44
7/5/07 13:30	840.38	352,640.91	254,201.20	71,021.59	4.95	25.00	11.64	275.35	0.00	64.80	38.20	9,456.83
7/5/07 13:31	841.17	348,661.81	253,530.59	70,916.78	5.60	25.00	11.73	275.34	0.00	64.30	37.75	9,352.95
7/5/07 13:32	842.84	371,155.59	253,675.09	71,751.17	4.38	24.63	11.82	275.34	0.00	64.20	37.70	7,074.43
7/5/07 13:33	845.40	345,733.31	252,412.00	71,827.13	5.18	25.09	11.91	275.70	0.00	63.70	37.10	10,519.96
7/5/07 13:34	847.29	351,711.00	257,250.09	71,444.22	5.03	25.77	12.00	275.70	0.00	63.40	36.70	10,413.89
7/5/07 13:35	847.87	341,969.50	248,295.91	70,749.25	6.05	25.66	12.07	275.33	0.00	61.40	36.10	10,468.20
7/5/07 13:36	847.90	343,076.91	250,666.41	71,600.36	3.86	25.73	12.12	275.35	0.00	60.60	35.70	10,509.67
7/5/07 13:37	848.49	343,303.69	251,080.91	70,654.87	4.11	24.38	12.02	275.01	0.00	59.20	34.30	8,225.80
7/5/07 13:38	846.44	341,631.19	251,243.80	71,355.76	4.29	24.53	12.04	274.64	0.00	58.40	34.50	9,170.36
7/5/07 13:39	842.07	355,076.09	253,949.30	71,567.28	6.37	24.66	12.06	274.62	0.00	58.10	34.55	9,650.68
7/5/07 13:40	838.23	349,229.31	259,562.50	72,066.41	6.28	23.75	12.08	274.64	0.00	58.50	34.35	9,423.55
7/5/07 13:41	834.72	350,651.09	251,195.30	71,563.90	6.22	23.88	12.10	274.65	0.00	58.10	33.80	9,881.64
7/5/07 13:42	831.66	353,841.00	255,983.09	71,031.62	7.12	23.25	12.12	275.32	0.00	58.70	33.85	0.00
7/5/07 13:43	831.56	345,304.69	250,981.20	71,096.23	6.47	22.63	12.13	275.70	0.00	58.30	34.10	0.00
7/5/07 13:44	833.63	363,230.91	261,109.91	72,332.13	5.69	22.72	12.15	275.70	0.00	57.90	34.45	0.00
7/5/07 13:45	835.51	347,491.50	257,434.80	71,611.23	5.69	22.53	12.17	276.00	0.00	65.10	36.75	0.00
7/5/07 13:46	836.45	345,376.31	250,943.70	71,090.27	5.69	22.59	12.19	276.34	0.00	64.80	28.85	0.00
7/5/07 13:47	836.31	345,871.59	255,208.30	71,318.48	5.69	22.50	12.21	275.70	0.00	55.80	22.55	0.00
7/5/07 13:48	836.12	336,129.09	254,345.09	71,208.91	7.56	22.47	12.22	275.70	0.00	44.50	20.55	0.00
7/5/07 13:49	835.23	358,894.00	257,382.09	72,364.75	8.48	21.50	12.24	275.01	0.00	44.30	19.15	0.00
7/5/07 13:50	834.15	339,496.31	244,948.91	71,946.03	10.02	21.63	12.26	274.62	0.00	35.90	52.25	0.00
7/5/07 13:51	832.19	327,550.69	233,884.80	71,211.40	10.06	20.75	12.28	274.30	0.00	29.10	49.30	0.00
7/5/07 13:52	829.73	325,850.09	236,672.20	71,301.50	9.86	20.75	12.07	273.65	0.00	28.80	49.95	0.00
7/5/07 13:53	828.69	331,957.00	240,619.70	71,943.88	6.08	19.97	11.82	273.65	0.00	27.80	0.00	0.00
7/5/07 13:54	828.26	351,331.69	242,678.50	72,509.68	8.30	19.88	11.57	273.96	0.00	27.50	0.00	0.00
7/5/07 13:55	826.86	324,530.50	230,210.09	71,492.60	11.77	19.88	11.56	274.31	0.00	27.70	0.00	0.00
7/5/07 13:56	825.57	321,515.81	230,721.91	71,315.13	8.57	18.66	11.73	274.30	0.00	27.70	0.00	0.00
7/5/07 13:57	824.69	332,385.00	232,010.50	72,484.88	9.01	18.50	11.90	274.62	0.00	28.20	0.00	0.00
7/5/07 13:58	824.15	327,366.41	227,736.20	71,416.10	9.54	17.38	12.07	275.34	0.00	28.50	0.00	0.00
7/5/07 13:59	824.32	316,925.50	224,365.30	71,469.17	8.47	17.50	12.24	276.00	0.00	28.30	0.00	0.00
7/5/07 14:00	824.96	321,907.41	222,713.91	71,028.30	6.38	17.38	12.41	276.65	0.00	30.80	0.00	0.00
7/5/07 14:01	826.19	314,214.19	219,079.41	70,991.25	6.01	16.00	12.58	277.34	0.00	37.50	0.00	0.00
7/5/07 14:02	826.30	316,289.09	223,655.41	71,126.54	6.59	16.00	12.83	277.69	0.00	42.50	0.00	0.00
7/5/07 14:03	826.81	324,303.81	230,368.50	70,995.26	6.09	16.34	13.27	278.30	0.00	47.00	19.35	0.00
7/5/07 14:04	827.63	322,799.81	227,506.50	71,444.10	5.59	15.89	13.71	278.33	0.00	59.60	23.10	0.00
7/5/07 14:05	828.03	323,508.69	228,956.30	71,042.57	5.59	16.72	13.99	278.30	0.00	64.80	25.55	0.00
7/5/07 14:06	828.55	342,465.31	242,254.91	71,294.38	5.59	17.00	14.18	277.68	0.00	64.90	28.85	0.00
7/5/07 14:07	829.11	339,437.81	241,550.41	71,268.50	5.59	16.00	14.36	277.01	0.00	65.50	29.40	0.00
7/5/07 14:08	829.56	328,784.81	232,871.30	70,655.30	7.83	16.25	14.54	276.33	0.00	64.40	26.95	0.00
7/5/07 14:09	829.89	321,863.00	234,198.20	71,560.76	6.46	16.75	14.72	275.98	0.00	63.10	25.20	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 14:10	830.56	336,588.91	238,241.50	70,784.60	4.58	17.00	14.90	274.99	0.00	62.00	25.35	0.00
7/5/07 14:11	830.42	336,560.91	244,055.20	71,469.24	7.00	16.75	15.08	275.01	0.00	60.10	23.85	0.00
7/5/07 14:12	830.81	338,186.81	239,024.09	71,363.97	7.35	16.84	15.08	274.31	0.00	58.20	22.45	0.00
7/5/07 14:13	831.76	341,795.31	242,003.20	71,717.22	6.65	16.88	14.89	274.33	0.00	58.50	22.85	0.00
7/5/07 14:14	833.21	339,247.41	235,886.20	70,546.59	6.51	16.59	14.71	274.31	0.00	58.70	23.05	0.00
7/5/07 14:15	833.88	335,779.50	238,898.50	71,629.97	7.80	17.00	14.53	274.34	0.00	57.70	22.65	0.00
7/5/07 14:16	834.70	343,202.59	240,301.91	70,823.37	6.51	17.09	14.34	274.33	0.00	58.50	24.30	0.00
7/5/07 14:17	835.53	338,411.09	246,583.91	71,444.73	6.22	16.50	14.16	275.01	0.00	58.10	23.80	0.00
7/5/07 14:18	836.25	344,066.50	243,520.41	71,097.46	6.91	17.00	13.98	275.01	0.00	58.70	23.05	0.00
7/5/07 14:19	836.46	339,874.31	245,519.00	70,797.84	7.25	17.13	13.88	275.01	0.00	58.60	22.95	0.00
7/5/07 14:20	837.23	339,294.19	242,310.59	70,755.41	6.13	16.97	13.89	275.34	0.00	58.70	23.15	0.00
7/5/07 14:21	838.22	347,025.50	248,558.09	71,818.68	5.86	16.97	13.85	275.70	0.00	58.20	23.55	0.00
7/5/07 14:22	838.67	342,975.00	245,423.41	71,019.51	7.14	17.38	13.79	275.34	0.00	58.90	22.50	0.00
7/5/07 14:23	838.41	346,504.41	245,556.00	70,361.23	8.26	17.81	13.74	275.34	0.00	55.80	21.75	0.00
7/5/07 14:24	838.19	334,632.19	242,017.70	71,231.28	8.53	18.25	13.72	274.62	0.00	50.40	20.15	0.00
7/5/07 14:25	838.25	341,377.09	248,340.80	71,024.02	8.53	18.00	13.55	274.65	0.00	49.40	20.80	0.00
7/5/07 14:26	837.90	350,348.31	252,155.20	71,617.09	8.53	17.97	13.38	274.22	0.00	44.90	19.95	0.00
7/5/07 14:27	837.70	337,706.19	248,433.50	70,841.50	8.53	17.75	13.21	273.98	0.00	44.80	20.20	0.00
7/5/07 14:28	837.57	348,435.91	245,090.59	70,865.01	9.68	17.75	13.05	273.98	0.00	44.80	19.70	0.00
7/5/07 14:29	838.21	341,921.31	243,421.70	70,812.46	8.48	17.91	12.88	274.62	0.00	44.00	18.95	0.00
7/5/07 14:30	838.54	331,226.59	241,987.00	71,742.30	6.35	18.13	12.71	274.99	0.00	43.50	19.35	0.00
7/5/07 14:31	838.00	338,405.19	246,539.20	70,518.41	9.18	18.72	12.55	274.99	0.00	42.70	15.35	0.00
7/5/07 14:32	838.08	337,197.50	242,647.80	71,722.38	7.40	18.88	12.45	275.67	0.00	42.10	16.20	0.00
7/5/07 14:33	837.80	330,880.69	244,807.59	71,404.39	7.74	19.00	12.40	275.69	0.00	41.30	15.40	0.00
7/5/07 14:34	837.62	348,085.09	248,213.59	72,288.56	7.44	19.00	12.41	275.33	0.00	41.10	14.55	0.00
7/5/07 14:35	837.69	345,758.41	240,006.91	70,694.77	9.76	19.00	12.30	275.01	0.00	40.70	15.75	0.00
7/5/07 14:36	837.54	340,960.41	238,669.09	71,325.34	9.22	19.00	12.19	275.01	0.00	39.50	14.90	0.00
7/5/07 14:37	837.17	325,266.09	236,329.00	70,634.63	9.67	19.88	12.08	275.01	0.00	40.80	14.75	0.00
7/5/07 14:38	838.00	334,270.31	242,451.80	71,885.27	5.44	19.88	11.97	274.62	0.00	40.60	17.25	0.00
7/5/07 14:39	838.72	337,488.09	240,753.50	71,879.94	7.50	20.05	11.86	274.64	0.00	40.40	17.25	0.00
7/5/07 14:40	838.65	340,339.91	243,057.00	71,765.20	8.33	20.03	11.75	274.62	0.00	39.90	17.65	0.00
7/5/07 14:41	838.24	326,111.69	233,578.30	70,528.68	9.37	19.91	11.64	274.62	0.00	40.90	18.40	0.00
7/5/07 14:42	838.14	323,766.59	234,495.80	71,031.07	7.11	19.78	11.46	273.96	0.00	41.10	18.65	0.00
7/5/07 14:43	837.98	316,400.69	228,592.09	70,303.51	7.28	19.97	11.29	273.98	0.00	40.80	18.30	0.00
7/5/07 14:44	837.69	334,035.50	236,978.41	70,702.30	7.07	20.09	11.03	273.96	0.00	40.10	17.83	0.00
7/5/07 14:45	838.36	331,407.31	235,363.41	70,940.12	7.07	19.75	10.90	274.31	0.00	45.10	20.60	0.00
7/5/07 14:46	839.24	348,608.41	232,769.59	70,853.22	7.07	21.00	10.77	275.01	0.00	45.00	19.75	0.00
7/5/07 14:47	839.40	330,544.50	233,961.41	71,213.16	7.07	20.88	10.72	274.99	0.00	45.00	20.25	0.00
7/5/07 14:48	839.03	324,946.81	232,335.30	71,038.88	7.35	20.78	10.55	274.33	0.00	44.60	19.45	0.00
7/5/07 14:49	838.31	313,325.81	224,287.80	70,141.45	7.27	20.59	10.38	273.97	0.00	44.00	19.75	0.00
7/5/07 14:50	837.73	326,223.19	228,671.09	70,629.55	4.48	20.75	10.24	273.98	0.00	44.10	18.65	0.00
7/5/07 14:51	837.32	328,534.09	232,410.80	71,003.13	6.33	20.50	10.02	273.66	0.00	43.20	19.20	0.00
7/5/07 14:52	837.41	324,418.00	229,057.00	70,287.42	6.25	20.50	9.80	274.31	0.00	42.70	19.55	0.00
7/5/07 14:53	837.44	325,950.69	234,939.50	70,730.43	6.57	20.38	9.58	274.31	0.00	49.70	20.25	0.00
7/5/07 14:54	838.04	322,400.19	229,926.59	70,192.23	4.91	20.53	9.56	274.99	0.00	50.30	20.80	0.00
7/5/07 14:55	838.39	336,202.19	242,181.59	71,451.76	5.77	20.84	9.59	275.34	0.00	56.30	21.70	0.00
7/5/07 14:56	839.39	334,032.59	237,553.70	71,019.25	7.05	20.84	9.62	275.34	0.00	55.60	21.70	0.00
7/5/07 14:57	840.19	355,636.19	242,569.00	72,177.21	7.82	21.00	9.65	276.00	0.00	58.20	22.75	0.00
7/5/07 14:58	840.88	326,242.19	230,595.20	70,662.37	9.17	21.00	9.68	276.34	0.00	57.60	22.10	0.00
7/5/07 14:59	841.64	320,852.69	232,023.41	70,824.11	4.77	21.13	9.81	276.00	0.00	57.60	22.20	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 15:00	842.21	330,456.81	238,854.80	71,829.05	4.23	21.00	9.78	275.69	0.00	58.50	23.30	0.00
7/5/07 15:01	842.66	337,620.69	242,100.91	71,265.08	4.89	20.84	9.76	275.69	0.00	58.40	23.05	0.00
7/5/07 15:02	842.86	327,600.69	234,545.80	70,421.81	6.87	21.13	9.74	275.84	0.00	58.00	22.80	6,208.87
7/5/07 15:03	840.46	334,029.41	236,284.59	70,663.00	6.76	21.00	9.72	275.98	0.00	58.30	22.55	6,236.32
7/5/07 15:04	840.35	327,355.81	239,589.59	71,126.77	4.94	20.91	9.69	276.28	0.00	58.40	22.35	6,061.88
7/5/07 15:05	841.65	342,678.59	238,902.50	71,139.82	4.94	21.61	9.67	276.34	0.00	64.40	25.50	6,017.74
7/5/07 15:06	842.79	327,739.09	234,341.59	71,018.09	4.94	21.75	9.65	276.00	0.00	65.10	25.20	7,674.28
7/5/07 15:07	842.92	337,662.81	242,784.41	71,545.08	4.94	22.28	9.63	275.34	0.00	64.70	24.75	8,754.71
7/5/07 15:08	843.14	335,322.00	241,701.70	71,722.91	6.68	22.13	9.60	275.01	0.00	64.40	25.25	8,332.17
7/5/07 15:09	844.13	329,262.91	234,134.80	71,107.29	5.45	22.72	9.58	275.01	0.00	63.30	24.70	8,522.44
7/5/07 15:10	844.20	326,559.81	235,597.70	70,678.77	5.95	22.06	9.56	274.77	0.00	62.10	24.30	6,454.87
7/5/07 15:11	844.39	335,030.00	240,704.50	71,965.88	4.97	22.88	9.53	274.62	0.00	60.90	24.05	6,610.52
7/5/07 15:12	844.80	328,751.31	233,409.41	71,318.36	6.44	22.75	9.51	273.97	0.00	60.00	23.15	6,197.75
7/5/07 15:13	845.51	314,415.91	233,046.70	70,776.27	5.99	22.88	9.49	273.66	0.00	59.00	23.00	5,727.58
7/5/07 15:14	846.87	321,542.00	231,045.80	71,554.27	5.25	23.25	9.29	273.54	0.00	58.40	23.20	5,826.47
7/5/07 15:15	848.44	334,228.69	233,214.00	72,165.77	3.75	22.91	9.02	273.66	0.00	58.60	23.70	6,228.78
7/5/07 15:16	850.05	331,814.91	238,872.80	72,687.60	6.62	23.55	8.74	273.65	0.00	58.30	23.60	7,827.01
7/5/07 15:17	851.86	330,303.41	238,121.00	71,850.59	7.06	24.13	8.47	273.81	0.00	58.00	23.85	8,196.81
7/5/07 15:18	853.85	341,694.41	238,123.50	72,115.41	5.84	24.00	8.18	273.65	0.00	58.30	24.45	0.00
7/5/07 15:19	854.72	330,289.19	230,779.41	71,231.71	9.07	25.00	7.91	273.65	0.00	58.20	24.25	0.00
7/5/07 15:20	855.46	330,366.81	236,340.09	71,714.59	6.42	24.50	7.64	273.38	0.00	58.50	24.55	0.00
7/5/07 15:21	856.50	329,934.69	236,571.80	71,504.98	6.10	24.70	7.37	273.00	0.00	58.10	26.00	0.00
7/5/07 15:22	857.41	328,388.00	233,346.09	71,067.59	6.24	24.88	7.10	273.18	0.00	58.40	25.70	0.00
7/5/07 15:23	857.65	325,004.31	228,362.20	71,605.02	6.78	25.00	6.83	273.38	0.00	58.50	23.95	0.00
7/5/07 15:24	857.82	323,987.09	231,335.80	71,379.64	5.75	25.16	6.56	273.97	0.00	58.40	24.15	0.00
7/5/07 15:25	858.64	339,911.81	239,278.59	71,557.66	5.75	24.88	6.43	273.97	0.00	65.20	28.70	0.00
7/5/07 15:26	858.86	321,660.00	229,024.80	70,768.98	5.75	24.88	6.45	273.96	0.00	64.70	28.05	0.00
7/5/07 15:27	859.49	326,445.50	232,374.91	70,846.34	5.75	26.00	6.46	274.31	0.00	64.90	28.15	0.00
7/5/07 15:28	859.70	333,649.31	235,215.50	72,369.35	6.46	26.22	6.48	274.62	0.00	64.30	29.90	0.00
7/5/07 15:29	859.88	325,701.31	232,931.09	71,590.89	6.89	25.63	6.49	274.99	0.00	63.00	28.35	0.00
7/5/07 15:30	859.25	324,490.91	226,038.00	71,142.59	7.76	26.22	6.51	274.99	0.00	62.80	27.15	0.00
7/5/07 15:31	859.27	327,940.50	231,144.30	71,666.54	5.09	25.88	6.52	275.34	0.00	60.90	27.40	0.00
7/5/07 15:32	859.05	321,383.31	232,619.30	71,707.63	6.71	26.03	6.54	275.34	0.00	61.70	27.10	0.00
7/5/07 15:33	858.23	323,770.19	229,650.30	71,078.77	6.42	25.63	6.55	275.01	0.00	60.80	25.95	0.00
7/5/07 15:34	857.38	315,425.91	225,544.20	70,794.31	6.65	26.00	6.57	275.33	0.00	58.70	24.05	0.00
7/5/07 15:35	856.58	322,701.81	229,523.50	70,752.27	5.37	26.13	6.58	274.99	0.00	58.80	23.10	0.00
7/5/07 15:36	856.02	322,604.91	230,986.20	71,861.08	5.72	25.97	6.60	274.82	0.00	58.80	22.50	0.00
7/5/07 15:37	854.95	320,432.09	225,337.80	70,498.19	6.21	25.59	6.61	275.01	0.00	56.00	21.50	0.00
7/5/07 15:38	854.14	322,901.41	225,979.41	71,531.23	6.75	25.47	6.63	275.34	0.00	55.20	21.65	0.00
7/5/07 15:39	854.00	319,861.00	230,392.50	71,168.98	5.45	25.34	6.64	275.34	0.00	56.90	22.10	0.00
7/5/07 15:40	854.28	345,705.41	232,641.41	71,695.21	5.16	25.36	6.66	275.70	0.00	58.70	22.90	0.00
7/5/07 15:41	853.83	316,858.59	223,927.41	71,291.86	10.06	24.63	6.68	275.98	0.00	57.50	22.20	0.00
7/5/07 15:42	853.61	318,137.00	225,174.20	71,247.10	5.62	25.06	6.69	275.98	0.00	58.40	22.85	0.00
7/5/07 15:43	854.01	318,392.41	227,488.09	71,673.27	4.89	23.84	6.71	276.32	0.00	58.50	23.75	0.00
7/5/07 15:44	854.36	327,608.69	229,638.41	71,244.27	4.30	23.91	6.72	277.32	0.00	58.60	24.50	0.00
7/5/07 15:45	854.09	317,934.50	222,510.70	71,133.56	4.30	24.00	6.74	277.34	0.00	64.80	26.35	0.00
7/5/07 15:46	854.13	317,187.69	224,127.80	71,140.30	4.30	23.88	6.75	277.68	0.00	65.40	26.80	0.00
7/5/07 15:47	853.50	314,224.31	224,522.59	71,770.85	4.30	23.00	6.97	277.32	0.00	65.00	26.10	0.00
7/5/07 15:48	852.71	324,777.00	227,169.09	70,885.34	5.84	23.38	7.22	276.65	0.00	64.20	25.85	0.00
7/5/07 15:49	852.83	325,939.00	219,858.09	70,856.85	7.40	22.88	7.47	276.65	0.00	63.60	25.55	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 15:50	852.24	312,096.91	219,533.00	71,115.27	8.27	23.00	7.72	276.63	0.00	62.20	24.40	0.00
7/5/07 15:51	851.63	318,850.91	224,921.80	71,261.97	5.06	22.91	7.97	276.64	0.00	61.70	24.30	6,361.56
7/5/07 15:52	850.84	324,852.81	225,406.09	71,586.11	6.06	21.88	8.22	277.03	0.00	59.50	23.77	0.00
7/5/07 15:53	851.19	322,604.31	223,098.91	71,871.13	6.80	21.97	8.47	276.65	0.00	58.80	23.10	8,374.70
7/5/07 15:54	850.78	326,206.81	222,909.09	70,462.59	8.89	22.05	8.58	277.02	0.00	58.20	22.35	0.00
7/5/07 15:55	850.50	315,299.41	223,422.30	70,908.92	7.96	21.99	8.85	277.01	0.00	58.50	23.00	2,016.54
7/5/07 15:56	850.94	313,968.50	221,000.09	71,348.55	4.91	21.88	9.13	276.65	0.00	58.40	23.25	0.00
7/5/07 15:57	850.92	313,284.91	222,964.00	71,362.46	5.22	21.72	9.39	276.34	0.00	58.80	23.80	0.00
7/5/07 15:58	850.62	321,021.91	221,398.41	71,172.08	5.06	21.75	9.58	276.34	0.00	58.00	24.35	2,450.28
7/5/07 15:59	850.93	316,626.50	216,563.70	71,642.19	6.49	20.91	9.77	276.34	0.00	58.50	25.35	0.00
7/5/07 16:00	851.13	307,727.19	216,749.00	70,866.43	6.34	20.63	9.95	276.34	0.00	58.40	24.80	4,592.13
7/5/07 16:01	851.14	330,814.31	225,798.80	71,704.15	4.21	20.63	10.14	276.01	0.00	58.60	25.50	0.00
7/5/07 16:02	852.00	306,982.91	218,053.80	71,057.23	6.13	20.47	10.33	276.65	0.00	58.20	25.25	5,863.40
7/5/07 16:03	851.91	311,851.41	218,202.50	71,226.00	5.76	20.38	10.53	276.32	0.00	58.30	25.35	0.00
7/5/07 16:04	851.61	315,304.31	219,304.59	71,030.19	6.19	20.38	10.65	276.34	0.00	58.40	25.50	8,637.67
7/5/07 16:05	850.82	315,427.19	219,155.20	71,223.58	6.18	20.38	10.76	275.98	0.00	65.30	30.05	0.00
7/5/07 16:06	851.07	309,888.00	218,556.20	72,174.77	6.18	20.40	10.88	275.98	0.00	64.80	29.55	6,814.70
7/5/07 16:07	850.77	327,016.69	221,105.41	70,969.84	6.18	20.75	10.96	275.98	0.00	65.30	29.50	0.00
7/5/07 16:08	850.29	313,216.19	215,089.70	70,788.63	8.79	20.78	11.08	275.01	0.00	63.90	29.05	0.00
7/5/07 16:09	850.16	312,430.81	219,453.41	71,027.11	4.67	20.75	11.02	274.98	0.00	62.20	28.55	570.68
7/5/07 16:10	850.38	320,823.19	223,791.20	71,559.70	5.27	20.75	10.95	274.98	0.00	60.70	27.90	0.00
7/5/07 16:11	850.61	312,984.81	218,525.09	71,043.09	6.77	20.78	10.89	275.01	0.00	59.60	27.70	3,970.21
7/5/07 16:12	850.59	320,398.50	223,876.20	71,689.91	3.90	19.13	10.94	274.98	0.00	58.30	27.10	0.00
7/5/07 16:13	850.38	313,523.41	224,077.80	71,487.71	7.58	18.91	11.04	275.70	0.00	58.70	26.85	6,290.48
7/5/07 16:14	850.14	322,581.09	226,832.50	71,129.20	4.11	19.50	11.15	275.98	0.00	58.60	26.60	0.00
7/5/07 16:15	851.05	334,070.69	225,547.80	71,352.51	5.00	19.03	11.26	276.65	0.00	58.20	26.15	8,397.11
7/5/07 16:16	850.10	295,656.81	226,335.41	71,026.40	6.60	19.03	11.36	276.64	0.00	58.50	25.25	0.00
7/5/07 16:17	850.00	317,290.09	224,253.80	71,672.13	3.69	19.13	11.68	276.65	0.00	58.50	25.90	4,859.00
7/5/07 16:18	850.21	322,355.31	223,048.20	70,830.68	5.39	18.88	11.76	276.65	0.00	58.90	25.75	0.00
7/5/07 16:19	850.72	318,343.69	229,611.80	71,185.88	5.45	18.72	12.01	276.64	0.00	58.10	25.30	0.00
7/5/07 16:20	850.89	323,634.41	229,846.50	71,446.30	5.27	18.75	12.26	276.65	0.00	58.70	24.95	3,035.86
7/5/07 16:21	851.80	335,820.50	236,023.59	70,397.84	5.11	18.88	12.51	276.66	0.00	58.60	25.50	0.00
7/5/07 16:22	853.15	330,683.91	233,446.41	71,124.45	7.65	19.09	12.76	276.34	0.00	58.30	25.15	4,406.65
7/5/07 16:23	854.26	324,913.50	230,482.59	71,007.20	6.58	19.09	12.98	276.33	0.00	58.80	25.45	0.00
7/5/07 16:24	855.62	325,659.19	233,936.91	71,732.65	4.99	19.00	13.11	276.34	0.00	58.30	26.05	5,525.11
7/5/07 16:25	856.40	327,587.91	232,102.70	71,239.06	4.99	18.88	13.25	275.98	0.00	64.60	28.70	0.00
7/5/07 16:26	856.55	321,616.09	233,366.70	71,503.63	4.99	18.22	13.39	276.01	0.00	64.90	29.15	8,767.94
7/5/07 16:27	856.73	327,748.19	232,242.41	71,603.61	4.99	17.75	13.52	275.70	0.00	65.10	30.20	0.00
7/5/07 16:28	857.53	339,669.81	237,294.91	71,403.48	4.86	17.88	13.66	276.00	0.00	64.80	30.10	6,705.46
7/5/07 16:29	856.35	321,264.41	229,070.70	71,001.72	9.40	17.88	13.80	275.34	0.00	63.00	28.15	0.00
7/5/07 16:30	856.17	320,880.50	227,786.80	70,847.30	4.80	18.13	13.78	275.34	0.00	61.50	28.10	8,106.76
7/5/07 16:31	856.31	333,245.09	236,431.59	71,825.59	4.87	17.88	13.78	275.34	0.00	60.10	27.05	0.00
7/5/07 16:32	856.86	328,691.69	228,955.50	70,809.32	6.67	18.00	13.77	275.34	0.00	59.00	26.05	0.00
7/5/07 16:33	856.78	329,381.59	233,466.00	70,792.06	7.47	18.13	13.76	275.01	0.00	58.20	25.65	3,990.74
7/5/07 16:34	857.41	330,201.59	233,696.30	71,565.73	6.37	17.88	13.75	275.34	0.00	58.70	26.15	0.00
7/5/07 16:35	858.05	326,858.59	232,161.70	72,363.46	5.96	18.00	13.74	275.34	0.00	58.20	25.85	6,550.54
7/5/07 16:36	858.11	325,253.81	233,315.00	71,783.43	6.87	18.00	13.73	275.70	0.00	58.90	26.10	0.00
7/5/07 16:37	858.53	312,271.00	230,560.09	70,986.03	6.52	17.91	13.72	275.16	0.00	58.20	25.40	8,282.45
7/5/07 16:38	857.92	321,933.19	227,381.30	71,188.96	3.39	17.88	13.58	275.01	0.00	58.80	25.65	0.00
7/5/07 16:39	858.12	326,126.69	232,835.70	71,543.93	5.58	16.88	13.66	275.35	0.00	58.80	26.20	9,791.67

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 16:40	858.05	322,943.50	230,535.09	71,714.91	6.23	16.89	13.74	276.01	0.00	58.20	25.70	0.00
7/5/07 16:41	858.51	323,303.91	228,863.70	71,359.08	5.60	17.13	13.82	276.01	0.00	58.80	26.20	965.99
7/5/07 16:42	858.26	319,426.09	228,057.91	71,754.84	6.31	16.88	14.02	276.34	0.00	58.10	25.50	572.00
7/5/07 16:43	858.03	320,586.50	226,391.09	70,901.67	5.48	16.84	14.13	276.34	0.00	58.70	25.20	0.00
7/5/07 16:44	858.54	331,125.81	232,153.00	71,651.29	4.44	16.88	14.23	276.00	0.00	58.50	25.95	5,730.78
7/5/07 16:45	858.66	322,485.31	230,874.41	71,683.19	4.44	17.16	14.34	276.34	0.00	65.00	27.90	0.00
7/5/07 16:46	859.27	320,606.41	229,991.20	71,609.38	4.44	16.89	14.45	276.65	0.00	64.60	28.40	6,693.33
7/5/07 16:47	859.24	335,167.81	229,441.30	71,375.12	4.44	16.75	14.57	276.65	0.00	65.00	27.30	0.00
7/5/07 16:48	858.92	325,410.41	231,881.00	70,771.98	9.47	16.72	14.71	276.65	0.00	64.10	26.45	6,383.65
7/5/07 16:49	859.77	335,514.91	236,531.50	71,337.93	4.62	15.83	14.84	276.65	0.00	62.80	26.65	0.00
7/5/07 16:50	860.71	333,689.81	235,692.20	72,475.79	6.44	15.75	14.98	276.65	0.00	61.10	26.50	6,740.59
7/5/07 16:51	861.09	338,142.41	240,165.70	71,279.02	7.03	16.00	15.12	275.98	0.00	60.30	25.85	0.00
7/5/07 16:52	861.63	323,544.00	231,808.70	71,719.09	7.62	16.75	15.25	276.01	0.00	58.10	25.25	0.00
7/5/07 16:53	861.74	340,991.59	241,852.20	71,632.21	4.75	16.00	15.39	275.70	0.00	58.60	25.20	0.00
7/5/07 16:54	861.15	329,721.69	233,153.30	70,771.84	7.51	15.81	15.52	275.34	0.00	58.50	24.80	0.00
7/5/07 16:55	860.90	334,747.59	232,882.59	70,717.21	6.29	15.92	15.66	274.62	0.00	58.50	24.45	4,874.83
7/5/07 16:56	859.67	330,443.19	236,625.59	72,258.56	3.88	16.00	15.54	274.62	0.00	58.50	24.40	0.00
7/5/07 16:57	859.05	326,415.09	232,267.20	71,210.73	7.15	15.92	15.40	274.62	0.00	58.30	24.10	0.00
7/5/07 16:58	859.13	318,825.19	236,442.70	70,808.92	5.92	16.00	15.29	274.14	0.00	58.80	24.45	0.00
7/5/07 16:59	859.95	336,869.41	238,336.50	72,161.43	5.96	16.00	15.12	274.62	0.00	58.30	24.40	0.00
7/5/07 17:00	860.60	330,011.00	230,954.20	70,226.70	7.75	15.98	15.01	275.01	0.00	58.60	24.20	0.00
7/5/07 17:01	861.46	322,960.91	229,226.80	70,767.04	6.39	16.13	15.03	275.12	0.00	58.70	23.70	0.00
7/5/07 17:02	862.09	332,211.09	234,745.70	71,115.63	5.83	16.00	15.05	276.26	0.00	58.60	23.33	0.00
7/5/07 17:03	862.18	319,421.81	232,020.91	70,854.31	7.61	15.95	15.33	276.34	0.00	55.10	21.63	0.00
7/5/07 17:04	862.18	318,466.00	228,286.91	70,842.13	4.33	15.75	15.39	276.34	0.00	55.70	21.65	0.00
7/5/07 17:05	862.24	330,020.81	230,615.09	71,459.12	4.33	16.00	15.45	275.70	0.00	64.90	25.10	0.00
7/5/07 17:06	862.63	323,838.59	220,477.80	70,706.54	4.33	16.88	15.50	275.32	0.00	61.30	24.20	0.00
7/5/07 17:07	862.39	324,399.00	221,302.20	70,598.02	4.33	16.88	15.56	274.65	0.00	61.30	24.15	0.00
7/5/07 17:08	862.01	339,074.59	227,198.30	73,153.97	5.49	16.75	15.62	273.98	0.00	62.40	24.05	0.00
7/5/07 17:09	861.63	331,473.50	220,443.09	70,890.59	7.40	16.88	15.44	273.66	0.00	61.40	24.15	0.00
7/5/07 17:10	861.06	314,173.81	215,161.59	70,192.11	6.80	16.88	15.24	273.66	0.00	55.70	22.45	0.00
7/5/07 17:11	859.52	330,054.09	220,618.59	71,100.78	7.03	16.88	15.04	272.99	0.00	53.60	21.10	0.00
7/5/07 17:12	858.70	334,512.31	220,206.30	71,875.83	7.07	16.63	14.84	273.65	0.00	53.80	20.95	0.00
7/5/07 17:13	857.84	314,562.00	214,353.09	70,181.01	8.50	14.82	14.64	273.96	0.00	42.70	18.90	0.00
7/5/07 17:14	856.54	330,258.50	219,517.80	70,610.20	7.41	16.34	14.45	275.01	0.00	43.50	18.70	0.00
7/5/07 17:15	855.86	325,363.91	221,173.09	72,284.55	7.72	14.94	14.25	275.84	0.00	40.60	18.55	0.00
7/5/07 17:16	854.98	319,418.59	210,919.30	70,819.81	7.59	15.06	14.05	276.33	0.00	40.50	18.75	0.00
7/5/07 17:17	854.04	321,335.31	212,813.50	71,735.12	7.49	14.88	14.31	277.01	0.00	40.30	17.65	0.00
7/5/07 17:18	854.06	323,085.41	216,501.50	71,345.02	6.77	14.94	14.64	277.02	0.00	40.80	17.10	0.00
7/5/07 17:19	853.70	311,041.69	205,659.41	71,504.22	7.19	14.94	14.97	276.65	0.00	40.90	18.05	0.00
7/5/07 17:20	851.80	304,911.31	201,132.09	72,330.71	8.15	15.00	15.29	275.70	0.00	38.70	13.05	0.00
7/5/07 17:21	849.10	323,097.59	197,383.20	70,819.09	8.27	15.19	15.31	275.01	0.00	33.10	51.60	0.00
7/5/07 17:22	845.24	296,245.81	194,318.20	71,403.98	9.97	14.17	14.94	273.97	0.00	27.00	50.70	0.00
7/5/07 17:23	840.97	291,039.81	193,091.80	71,423.56	8.27	13.98	14.54	272.70	0.00	26.70	49.80	0.00
7/5/07 17:24	838.37	296,323.69	189,267.00	71,057.80	6.20	12.86	14.13	272.69	0.00	26.90	0.00	0.00
7/5/07 17:25	836.25	284,609.41	200,454.91	71,728.95	6.19	13.00	13.73	272.69	0.00	29.80	0.00	0.00
7/5/07 17:26	834.23	305,938.19	210,891.80	71,093.61	6.19	13.23	13.26	273.37	0.00	29.50	0.00	0.00
7/5/07 17:27	833.54	308,589.81	212,785.50	70,421.05	6.19	13.00	12.91	273.38	0.00	29.30	0.00	0.00
7/5/07 17:28	833.40	312,060.41	215,787.80	71,186.69	8.10	12.86	12.89	274.33	0.00	33.00	0.00	0.00
7/5/07 17:29	833.79	321,112.31	220,582.70	71,901.21	7.27	12.81	12.93	275.34	0.00	38.50	0.00	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 17:30	834.23	306,802.41	216,138.50	71,023.35	7.90	12.94	12.95	276.34	0.00	38.50	0.00	0.00
7/5/07 17:31	834.58	319,338.00	217,905.30	71,682.63	6.94	14.17	12.97	276.34	0.00	40.40	0.00	0.00
7/5/07 17:32	834.62	285,671.81	213,920.80	70,962.23	8.82	13.88	13.23	276.33	0.00	38.80	0.00	0.00
7/5/07 17:33	834.91	311,110.59	215,662.50	70,371.95	6.02	13.91	13.51	276.34	0.00	41.00	0.00	0.00
7/5/07 17:34	835.20	314,554.50	214,594.41	69,947.79	7.66	13.84	13.66	275.98	0.00	37.50	0.00	0.00
7/5/07 17:35	834.96	311,371.81	213,688.41	70,418.42	8.61	13.84	13.64	276.00	0.00	37.90	0.00	3,144.42
7/5/07 17:36	835.29	312,900.59	215,979.70	70,846.03	6.23	14.09	13.67	276.00	0.00	38.10	0.00	0.00
7/5/07 17:37	835.41	313,503.41	214,403.50	70,772.61	8.20	14.00	13.69	275.70	0.00	36.30	0.00	6,347.42
7/5/07 17:38	834.08	306,499.59	213,305.80	70,143.97	9.95	14.00	13.72	274.77	0.00	34.90	0.00	0.00
7/5/07 17:39	833.90	320,900.91	218,791.80	71,769.25	7.19	14.15	13.65	274.62	0.00	34.50	0.00	8,916.53
7/5/07 17:40	834.04	321,130.09	207,358.70	70,601.09	8.25	13.13	13.43	274.62	0.00	36.60	0.00	0.00
7/5/07 17:41	834.33	304,613.41	204,704.09	70,508.59	8.74	13.19	13.39	275.01	0.00	37.70	0.00	10,156.62
7/5/07 17:42	833.79	312,876.09	209,829.50	71,217.98	6.13	14.06	13.35	274.99	0.00	38.40	0.00	0.00
7/5/07 17:43	834.65	320,451.81	208,754.59	71,270.45	5.97	14.05	13.30	275.34	0.00	40.30	18.10	0.00
7/5/07 17:44	835.94	327,177.31	207,916.70	70,790.98	6.91	14.05	13.26	275.34	0.00	40.70	18.40	1,155.71
7/5/07 17:45	837.01	340,468.19	211,193.30	70,988.04	6.92	14.81	13.22	276.34	0.00	44.90	19.80	0.00
7/5/07 17:46	838.64	315,898.19	215,067.80	71,095.73	6.92	14.34	14.76	276.33	0.00	51.50	21.90	5,928.14
7/5/07 17:47	839.73	345,107.31	223,545.41	71,011.20	6.92	14.01	14.93	275.70	0.00	51.10	21.05	0.00
7/5/07 17:48	840.85	350,112.91	230,399.30	70,599.22	9.24	15.00	15.10	275.70	0.00	51.40	21.20	7,941.89
7/5/07 17:49	842.04	357,131.31	232,463.70	71,338.38	6.41	14.84	15.03	275.01	0.00	52.70	21.10	0.00
7/5/07 17:50	844.47	342,688.91	228,018.20	70,398.90	7.80	14.95	14.84	274.62	0.00	48.00	21.05	8,141.66
7/5/07 17:51	846.01	344,801.31	229,060.70	71,208.66	7.33	15.04	14.65	274.62	0.00	43.20	18.75	0.00
7/5/07 17:52	848.07	346,047.50	226,870.20	70,408.12	6.56	14.94	14.47	274.62	0.00	45.40	19.70	6,479.38
7/5/07 17:53	850.02	352,993.50	232,383.80	70,341.12	6.29	15.89	14.28	274.98	0.00	45.50	18.80	0.00
7/5/07 17:54	851.84	343,776.09	228,767.59	71,341.84	7.47	15.96	14.38	275.01	0.00	43.20	18.15	0.00
7/5/07 17:55	853.61	366,830.19	240,872.70	73,010.79	6.41	15.98	14.43	274.61	0.00	56.10	21.75	2,908.49
7/5/07 17:56	855.43	350,296.91	232,285.59	71,448.81	8.40	17.45	14.48	275.34	0.00	56.00	22.10	0.00
7/5/07 17:57	856.26	345,090.69	232,282.20	72,440.88	8.37	16.91	14.36	274.62	0.00	52.30	20.40	8,191.88
7/5/07 17:58	856.77	357,385.50	233,847.80	71,594.84	5.21	17.13	14.13	274.64	0.00	53.30	21.15	0.00
7/5/07 17:59	857.79	349,202.09	231,599.30	71,307.71	8.86	17.00	13.94	274.31	0.00	50.50	20.45	8,343.04
7/5/07 18:00	857.63	348,887.69	227,518.00	71,457.16	7.87	17.72	13.88	274.62	0.00	52.40	20.75	0.00
7/5/07 18:01	858.53	344,987.81	229,941.30	71,944.42	5.68	18.13	13.82	275.34	0.00	58.10	22.65	5,563.64
7/5/07 18:02	860.49	362,671.69	232,965.41	71,461.39	4.42	18.03	13.76	275.70	0.00	58.40	24.60	0.00
7/5/07 18:03	862.31	346,569.69	227,530.59	70,698.26	8.14	18.88	13.71	276.33	0.00	58.10	24.60	0.00
7/5/07 18:04	863.09	350,148.91	232,206.59	71,220.72	7.40	19.75	13.72	275.98	0.00	58.60	25.45	4,216.71
7/5/07 18:05	863.70	351,146.69	238,380.30	71,326.34	7.31	19.00	13.71	275.70	0.00	64.40	26.50	0.00
7/5/07 18:06	864.77	361,767.00	243,153.41	71,692.56	7.31	19.75	13.69	275.34	0.00	64.80	25.85	6,068.81
7/5/07 18:07	866.23	369,924.31	242,258.50	71,360.27	7.31	20.00	13.68	275.35	0.00	65.70	26.75	0.00
7/5/07 18:08	867.98	359,797.31	245,207.50	71,452.08	7.98	19.88	13.66	275.01	0.00	64.30	25.85	7,567.91
7/5/07 18:09	868.53	373,773.19	249,264.80	72,542.73	7.89	20.72	13.64	274.99	0.00	62.90	25.30	0.00
7/5/07 18:10	870.09	369,003.19	246,476.50	71,580.47	7.98	20.38	13.63	274.99	0.00	62.10	25.00	0.00
7/5/07 18:11	871.87	360,379.81	244,367.50	71,970.99	7.97	20.09	13.63	275.34	0.00	59.90	24.15	0.00
7/5/07 18:12	873.20	359,538.81	237,960.20	71,351.73	7.62	20.84	13.57	275.70	0.00	58.90	23.50	0.00
7/5/07 18:13	874.12	362,750.31	241,443.80	71,509.02	7.48	20.88	13.57	275.70	0.00	58.50	23.00	0.00
7/5/07 18:14	874.67	371,068.09	242,742.00	71,384.61	8.28	20.91	13.60	275.34	0.00	58.20	22.85	0.00
7/5/07 18:15	874.88	361,732.41	236,809.20	71,097.24	9.16	20.88	13.57	275.34	0.00	57.30	22.25	0.00
7/5/07 18:16	874.64	352,639.41	240,214.50	70,810.14	7.80	20.88	13.55	275.01	0.00	49.90	20.95	0.00
7/5/07 18:17	873.66	351,406.41	235,194.59	71,008.80	7.09	21.01	13.52	274.33	0.00	46.50	19.10	8,751.09
7/5/07 18:18	871.48	359,843.41	235,341.70	70,474.31	7.49	20.88	13.49	274.64	0.00	47.80	19.85	7,617.14
7/5/07 18:19	870.99	364,864.91	236,563.09	70,666.49	7.49	20.94	13.47	275.01	0.00	42.70	19.15	5,819.08

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 18:20	871.34	353,473.69	236,054.59	71,452.20	7.70	20.88	13.44	275.70	0.00	40.80	17.60	6,239.20
7/5/07 18:21	871.57	350,748.69	234,277.91	70,699.70	6.83	20.75	13.41	276.01	0.00	40.70	18.50	6,500.13
7/5/07 18:22	872.36	352,934.91	233,966.80	70,885.88	5.14	20.88	13.39	276.34	0.00	40.60	18.40	8,305.31
7/5/07 18:23	872.23	348,676.81	232,999.00	71,019.59	7.57	20.75	13.36	276.00	0.00	40.50	17.60	8,389.40
7/5/07 18:24	871.83	354,905.09	237,929.80	71,170.67	6.99	20.91	13.33	275.70	0.00	40.40	17.50	8,376.49
7/5/07 18:25	872.11	360,912.19	236,153.09	69,490.99	7.01	21.13	13.31	275.34	0.00	45.60	20.05	8,346.44
7/5/07 18:26	872.46	353,535.09	236,571.50	70,938.85	7.01	20.88	13.28	275.70	0.00	44.90	19.75	6,306.96
7/5/07 18:27	872.79	354,029.19	236,834.30	71,920.20	7.01	21.68	13.25	275.34	0.00	45.80	20.65	6,568.13
7/5/07 18:28	873.52	347,747.91	232,098.50	70,717.95	6.47	21.25	13.23	274.64	0.00	46.90	20.20	5,741.03
7/5/07 18:29	874.03	349,594.00	228,568.91	69,998.68	7.02	21.13	13.15	273.67	0.00	50.70	21.25	6,066.19
7/5/07 18:30	874.79	354,351.69	234,020.41	71,947.81	6.05	20.84	12.92	273.67	0.00	57.90	22.60	5,942.50
7/5/07 18:31	875.53	360,596.31	232,559.80	71,323.33	7.31	22.91	12.34	273.83	0.00	60.00	23.50	7,292.81
7/5/07 18:32	876.05	350,125.69	227,572.50	70,192.11	8.71	23.03	12.05	273.66	0.00	60.20	23.70	7,220.50
7/5/07 18:33	876.81	364,494.50	236,865.50	72,365.52	6.24	22.88	11.74	273.38	0.00	58.60	25.25	0.00
7/5/07 18:34	877.17	350,191.31	230,845.09	70,694.13	7.54	22.78	11.43	272.99	0.00	58.70	24.60	0.00
7/5/07 18:35	876.94	347,416.59	225,416.20	70,729.79	7.48	23.92	11.12	272.99	0.00	59.10	25.05	0.00
7/5/07 18:36	876.14	349,222.41	231,267.30	72,287.30	7.16	22.84	10.81	272.31	0.00	58.80	25.05	0.00
7/5/07 18:37	875.94	343,541.50	230,189.91	71,063.87	5.98	23.34	10.50	272.69	0.00	58.50	24.75	0.00
7/5/07 18:38	875.35	352,209.69	228,106.20	70,736.45	5.90	23.62	10.19	273.00	0.00	58.60	24.55	0.00
7/5/07 18:39	874.29	347,660.31	232,296.80	71,992.95	7.93	24.00	9.88	273.38	0.00	58.20	24.50	0.00
7/5/07 18:40	873.72	349,706.50	231,712.30	71,790.98	6.51	23.54	9.57	273.97	0.00	58.40	24.00	0.00
7/5/07 18:41	873.69	349,195.00	229,322.91	71,304.19	5.35	23.63	9.26	274.62	0.00	58.60	23.60	0.00
7/5/07 18:42	873.14	344,939.91	228,860.41	71,508.70	7.59	23.75	8.95	275.70	0.00	58.50	23.05	0.00
7/5/07 18:43	873.01	352,965.81	231,520.09	72,099.35	6.27	23.97	8.88	276.34	0.00	58.20	23.20	2,619.78
7/5/07 18:44	871.83	354,261.91	231,167.09	71,408.19	7.62	23.78	9.01	276.66	0.00	54.80	21.65	1,141.08
7/5/07 18:45	870.40	346,414.81	227,541.30	71,239.73	7.74	23.95	9.15	277.01	0.00	60.20	23.65	0.00
7/5/07 18:46	868.99	346,666.81	229,783.20	71,113.13	7.73	23.25	9.28	276.65	0.00	60.30	23.85	4,170.76
7/5/07 18:47	867.88	348,902.91	231,554.70	71,799.88	7.73	23.53	9.41	276.33	0.00	60.40	23.80	0.00
7/5/07 18:48	867.46	349,333.00	228,939.59	71,223.14	5.96	23.38	9.54	275.70	0.00	61.30	23.90	5,667.37
7/5/07 18:49	867.65	352,286.59	227,537.70	71,060.37	6.11	23.38	9.67	274.99	0.00	62.80	24.30	0.00
7/5/07 18:50	867.68	343,032.81	231,497.00	72,043.93	6.95	23.34	9.80	275.01	0.00	59.40	23.15	6,259.22
7/5/07 18:51	866.77	343,933.50	234,014.50	71,444.34	5.14	23.25	9.84	274.64	0.00	59.50	23.10	0.00
7/5/07 18:52	867.55	365,941.00	234,935.59	70,531.78	6.15	23.38	9.82	275.01	0.00	58.50	23.65	8,633.47
7/5/07 18:53	867.98	362,686.41	242,049.80	71,115.69	8.01	23.38	9.90	275.70	0.00	58.30	23.10	0.00
7/5/07 18:54	869.47	368,721.81	245,609.09	71,467.43	6.75	24.00	9.99	276.34	0.00	58.40	23.05	8,927.06
7/5/07 18:55	870.91	366,952.69	238,690.41	71,146.95	8.08	23.78	10.06	276.65	0.00	58.70	23.40	0.00
7/5/07 18:56	871.77	355,817.19	239,541.80	71,129.96	7.06	24.00	10.34	277.22	0.00	58.60	22.60	624.59
7/5/07 18:57	871.62	357,714.50	242,176.59	71,944.35	6.42	23.88	10.67	277.03	0.00	54.10	21.60	611.25
7/5/07 18:58	872.05	355,657.91	239,030.50	71,014.45	7.58	23.84	11.05	277.34	0.00	58.00	22.05	0.00
7/5/07 18:59	872.72	357,715.50	238,062.09	71,916.80	5.58	23.00	11.40	277.33	0.00	52.80	21.45	5,674.29
7/5/07 19:00	872.45	363,607.91	244,994.80	72,890.18	7.28	22.75	11.74	277.02	0.00	49.90	20.00	0.00
7/5/07 19:01	872.52	359,329.50	240,184.59	72,086.17	7.24	22.75	12.04	276.34	0.00	53.20	21.25	6,871.04
7/5/07 19:02	871.50	354,894.91	234,934.59	71,134.46	7.09	23.00	12.10	275.70	0.00	48.80	19.85	0.00
7/5/07 19:03	871.00	360,563.31	237,338.20	71,044.41	7.42	23.00	12.15	275.35	0.00	50.00	20.30	8,349.10
7/5/07 19:04	869.53	363,077.59	241,404.41	70,976.22	7.51	23.00	12.20	275.35	0.00	50.30	20.00	0.00
7/5/07 19:05	868.99	348,389.50	231,637.00	71,240.51	7.54	22.98	12.03	275.01	0.00	49.00	20.85	9,620.72
7/5/07 19:06	867.80	357,349.31	234,327.09	70,644.89	7.54	22.11	11.93	274.65	0.00	52.70	22.30	0.00
7/5/07 19:07	867.48	358,930.19	238,760.80	71,948.19	7.54	22.03	11.83	274.65	0.00	53.00	22.25	1,633.74
7/5/07 19:08	866.55	350,903.31	237,490.20	71,093.85	7.63	21.97	11.73	274.62	0.00	46.00	19.80	1,382.90
7/5/07 19:09	865.83	351,919.81	236,240.50	71,066.27	6.33	22.00	11.75	274.98	0.00	44.50	19.55	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 19:10	865.82	357,631.81	237,238.59	71,658.63	6.34	21.91	11.88	275.01	0.00	48.80	19.95	5,646.57
7/5/07 19:11	865.47	354,505.19	234,995.70	70,790.59	7.42	21.59	12.02	275.34	0.00	47.20	19.50	0.00
7/5/07 19:12	865.98	352,188.81	234,642.80	71,015.93	7.81	21.75	12.16	275.70	0.00	48.60	20.25	0.00
7/5/07 19:13	864.78	366,123.59	237,065.59	71,395.89	7.05	21.69	12.30	276.34	0.00	50.90	20.30	7,268.21
7/5/07 19:14	863.20	352,725.41	231,691.59	70,532.23	9.54	21.09	12.44	276.34	0.00	46.00	19.55	9,599.86
7/5/07 19:15	863.08	356,470.41	236,517.20	72,130.65	7.74	20.88	12.57	276.65	0.00	50.10	20.85	8,376.91
7/5/07 19:16	864.14	359,030.69	235,343.50	71,653.56	6.21	20.82	12.71	276.65	0.00	48.00	20.20	8,373.25
7/5/07 19:17	864.94	341,700.41	228,501.59	70,602.00	8.39	20.88	12.85	276.34	0.00	46.10	18.60	7,247.36
7/5/07 19:18	865.47	347,190.00	235,230.00	71,515.48	6.00	21.00	12.91	276.65	0.00	45.50	18.85	6,223.35
7/5/07 19:19	865.48	353,497.91	232,577.30	71,795.19	6.40	22.00	13.12	276.34	0.00	42.80	18.70	5,973.95
7/5/07 19:20	865.49	346,163.81	225,308.50	70,540.70	8.78	21.84	13.23	275.70	0.00	40.70	17.25	6,092.28
7/5/07 19:21	865.86	352,407.19	233,332.30	71,405.92	7.23	20.88	13.42	275.32	0.00	40.40	18.33	6,127.88
7/5/07 19:22	866.05	364,794.69	233,091.41	71,605.28	8.57	21.22	13.35	275.01	0.00	40.50	18.80	6,521.33
7/5/07 19:23	866.47	346,161.41	225,600.30	71,460.30	9.45	21.00	13.14	274.31	0.00	40.10	18.40	7,472.75
7/5/07 19:24	866.92	346,850.09	225,769.70	71,356.16	7.14	20.66	12.92	274.31	0.00	40.60	17.20	7,575.94
7/5/07 19:25	867.57	344,843.69	229,656.41	71,938.03	7.07	20.91	12.70	274.33	0.00	45.00	20.50	8,106.72
7/5/07 19:26	867.84	342,180.00	223,178.20	70,921.78	7.07	22.00	12.48	274.33	0.00	44.80	19.40	8,183.73
7/5/07 19:27	868.77	349,594.19	226,278.70	72,132.84	7.07	20.75	12.26	274.33	0.00	47.40	21.10	6,168.65
7/5/07 19:28	869.58	343,685.81	228,237.09	72,996.55	5.56	21.66	12.04	274.64	0.00	51.30	22.00	4,090.34
7/5/07 19:29	870.47	343,834.91	226,104.41	71,635.15	5.83	21.98	11.82	274.31	0.00	60.60	23.50	0.00
7/5/07 19:30	871.17	359,953.31	230,988.30	72,343.95	6.78	22.13	11.60	274.31	0.00	62.50	24.65	0.00
7/5/07 19:31	870.60	342,988.50	224,971.20	71,842.34	8.96	22.25	11.38	274.36	0.00	60.90	24.45	0.00
7/5/07 19:32	871.02	355,914.91	231,071.09	72,273.82	6.10	22.88	11.27	275.01	0.00	59.50	25.75	0.00
7/5/07 19:33	871.66	354,084.09	228,128.09	72,171.34	6.94	22.75	11.20	275.01	0.00	58.10	25.45	0.00
7/5/07 19:34	872.24	346,570.09	229,531.80	71,790.05	6.62	22.91	11.14	275.01	0.00	58.80	26.10	0.00
7/5/07 19:35	872.65	341,666.59	223,058.91	71,644.52	4.97	23.00	11.08	275.01	0.00	58.40	26.70	0.00
7/5/07 19:36	872.39	347,347.91	228,298.20	72,060.30	6.01	23.00	10.96	274.98	0.00	58.80	27.10	0.00
7/5/07 19:37	870.52	355,820.19	233,225.00	71,533.91	6.12	24.09	10.95	274.62	0.00	58.40	26.90	0.00
7/5/07 19:38	870.01	350,874.31	235,879.50	71,903.90	5.18	22.50	10.79	274.31	0.00	58.60	27.20	0.00
7/5/07 19:39	870.29	376,328.31	250,351.80	72,138.34	4.29	23.53	10.60	274.31	0.00	58.30	27.25	0.00
7/5/07 19:40	869.79	364,007.81	246,478.80	71,376.68	7.50	24.00	10.37	274.62	0.00	58.20	26.35	0.00
7/5/07 19:41	869.74	372,460.50	248,480.70	70,902.91	4.69	24.13	10.35	274.62	0.00	58.20	26.30	0.00
7/5/07 19:42	868.86	380,556.50	251,095.50	71,411.63	6.75	24.88	10.09	274.62	0.00	58.60	25.20	0.00
7/5/07 19:43	868.85	370,717.31	255,432.09	72,179.13	8.38	24.88	9.99	274.62	0.00	58.30	24.85	0.00
7/5/07 19:44	869.56	378,875.59	250,093.41	71,559.14	5.88	24.79	9.99	275.01	0.00	58.70	24.40	0.00
7/5/07 19:45	869.07	372,653.19	252,543.20	71,377.81	6.10	24.88	9.88	275.01	0.00	64.90	26.10	0.00
7/5/07 19:46	869.09	376,547.69	253,591.20	72,429.91	6.10	25.00	9.84	275.01	0.00	65.00	27.00	8,316.24
7/5/07 19:47	870.64	368,369.41	250,075.80	70,968.05	6.10	24.97	9.86	275.34	0.00	64.70	26.65	13,528.53
7/5/07 19:48	872.11	353,116.31	252,876.70	71,359.55	6.39	24.88	9.87	275.36	0.00	64.40	26.90	13,628.04
7/5/07 19:49	873.63	368,828.09	249,461.91	71,341.27	5.69	24.88	9.87	276.01	0.00	62.40	24.85	13,543.80
7/5/07 19:50	875.84	375,289.91	251,329.09	70,481.80	6.92	24.75	9.93	276.65	0.00	61.10	25.00	13,686.83
7/5/07 19:51	878.14	374,359.59	250,374.80	71,730.58	6.91	24.88	10.31	277.01	0.00	59.50	24.60	10,017.30
7/5/07 19:52	876.07	375,433.81	251,074.30	71,004.69	7.22	24.89	10.82	277.99	0.00	58.30	24.40	11,274.67
7/5/07 19:53	872.35	366,447.91	248,925.30	71,149.16	6.72	24.97	11.38	278.01	0.00	58.60	24.95	12,088.87
7/5/07 19:54	868.97	365,189.19	249,982.41	71,349.89	5.99	24.83	11.82	278.03	0.00	58.30	25.50	11,485.88
7/5/07 19:55	865.41	361,557.31	248,267.80	70,919.53	4.96	24.97	12.20	277.68	0.00	58.40	26.05	11,606.34
7/5/07 19:56	861.62	366,576.81	248,087.50	70,818.63	4.66	24.84	12.50	277.01	0.00	58.60	26.05	12,539.42
7/5/07 19:57	862.91	375,522.00	254,616.41	72,900.11	5.39	24.88	12.68	276.01	0.00	58.30	26.95	11,091.48
7/5/07 19:58	865.73	395,056.91	251,665.50	71,053.07	6.74	25.13	12.71	275.70	0.00	58.40	26.45	10,710.24
7/5/07 19:59	866.93	379,281.31	252,450.80	72,330.91	8.28	25.09	12.74	275.70	0.00	58.60	26.25	10,845.37

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 20:00	868.35	371,083.31	249,822.20	71,622.02	7.85	24.81	12.76	275.01	0.00	58.20	26.10	10,842.03
7/5/07 20:01	868.69	371,533.19	248,586.59	71,688.06	7.94	24.88	12.68	274.31	0.00	58.50	25.50	9,382.81
7/5/07 20:02	865.83	360,700.50	247,655.00	71,453.52	6.29	24.88	12.45	274.31	0.00	58.80	26.00	9,063.56
7/5/07 20:03	862.47	371,733.50	255,027.80	73,394.17	6.75	24.72	12.33	274.62	0.00	58.50	26.40	9,349.09
7/5/07 20:04	861.41	372,857.50	246,771.20	71,303.91	4.67	24.88	12.20	275.34	0.00	58.10	26.05	9,168.80
7/5/07 20:05	859.57	370,522.81	248,436.09	72,011.85	5.30	24.65	12.19	275.70	0.00	64.90	29.40	9,384.79
7/5/07 20:06	858.54	362,436.41	246,928.50	71,001.26	5.30	25.13	12.17	276.01	0.00	65.00	28.50	11,556.23
7/5/07 20:07	859.72	378,623.09	255,665.59	73,215.88	5.30	24.66	12.40	276.01	0.00	64.50	29.85	10,507.23
7/5/07 20:08	861.30	370,426.00	248,429.20	71,474.93	7.02	25.13	12.61	276.67	0.00	64.20	29.30	10,354.08
7/5/07 20:09	863.25	364,657.31	250,512.50	71,985.76	7.35	25.88	12.82	276.65	0.00	63.00	28.55	10,509.55
7/5/07 20:10	866.00	366,876.19	250,732.00	72,232.37	4.36	24.88	13.05	276.65	0.00	60.90	28.00	10,411.52
7/5/07 20:11	867.29	368,101.19	253,000.70	72,264.38	5.67	25.19	13.18	276.34	0.00	59.80	27.10	9,020.73
7/5/07 20:12	865.64	380,165.91	247,145.91	71,983.83	7.02	25.75	13.20	275.70	0.00	58.40	25.60	8,924.79
7/5/07 20:13	863.50	375,590.41	251,392.20	72,091.16	6.42	25.34	13.12	275.01	0.00	58.70	25.95	8,911.26
7/5/07 20:14	861.50	370,574.00	248,095.09	72,276.98	7.21	24.86	13.13	274.62	0.00	58.20	25.40	8,804.79
7/5/07 20:15	858.66	377,099.50	250,448.00	72,279.13	7.66	24.84	12.99	274.31	0.00	58.40	25.75	7,167.58
7/5/07 20:16	858.66	371,376.81	250,686.80	71,764.50	5.86	25.00	12.84	274.62	0.00	58.60	26.05	10,698.62
7/5/07 20:17	859.57	374,564.50	250,286.41	71,813.79	6.18	25.41	12.60	274.62	0.00	58.50	25.25	10,671.70
7/5/07 20:18	860.36	381,006.19	252,197.59	72,044.79	8.55	26.00	12.54	274.62	0.00	58.70	27.00	10,382.79
7/5/07 20:19	862.14	372,933.69	248,130.09	71,688.55	6.30	25.63	12.53	274.62	0.00	58.40	26.35	10,525.41
7/5/07 20:20	863.58	375,735.41	249,962.91	71,875.91	7.53	26.00	12.51	274.62	0.00	58.90	26.75	1,697.31
7/5/07 20:21	862.39	382,113.50	250,202.80	72,434.81	6.39	26.13	12.49	274.62	0.00	58.90	26.90	8,622.58
7/5/07 20:22	859.65	341,814.31	248,883.70	71,656.83	8.79	25.88	12.47	274.62	0.00	58.40	26.05	8,484.27
7/5/07 20:23	858.11	371,527.59	249,371.20	71,328.33	3.79	26.00	12.46	274.65	0.00	58.80	27.05	8,456.11
7/5/07 20:24	856.39	367,688.09	250,789.00	71,766.70	7.42	26.00	12.44	275.01	0.00	58.80	26.65	8,826.04
7/5/07 20:25	855.10	371,801.69	250,755.41	71,394.18	7.26	26.56	12.42	274.98	0.00	65.00	29.70	8,613.69
7/5/07 20:26	855.73	385,024.31	255,557.59	72,844.63	7.26	26.00	12.41	275.70	0.00	65.10	28.85	12,570.79
7/5/07 20:27	855.71	368,894.31	247,740.30	71,525.58	7.26	25.88	12.39	276.01	0.00	65.20	26.50	12,624.78
7/5/07 20:28	856.27	367,183.19	249,637.09	71,332.34	7.85	26.63	12.37	276.01	0.00	64.30	25.80	12,801.13
7/5/07 20:29	858.81	375,242.69	253,106.91	71,593.13	4.92	26.88	12.36	276.34	0.00	62.60	25.75	12,639.12
7/5/07 20:30	862.23	363,367.69	251,543.00	71,528.25	6.89	26.09	12.34	276.34	0.00	61.50	23.75	9,657.13
7/5/07 20:31	861.62	369,883.31	250,105.59	71,138.03	5.76	26.40	12.33	276.34	0.00	60.10	23.92	11,047.00
7/5/07 20:32	858.83	382,026.50	251,370.80	72,630.36	6.37	26.16	12.34	276.34	0.00	58.60	23.65	10,485.94
7/5/07 20:33	856.21	384,930.19	252,597.20	72,238.05	7.57	26.96	12.34	276.34	0.00	58.60	23.05	11,653.60
7/5/07 20:34	853.44	380,262.59	248,870.00	71,566.35	6.23	27.03	12.35	276.01	0.00	58.60	24.05	11,541.17
7/5/07 20:35	851.53	364,392.19	247,074.59	71,607.31	7.17	26.48	12.36	275.34	0.00	58.20	24.65	12,611.97
7/5/07 20:36	852.43	363,515.09	248,680.20	71,646.45	5.20	26.25	12.36	275.01	0.00	58.70	25.50	11,267.78
7/5/07 20:37	852.42	381,974.31	249,793.80	71,780.38	5.99	26.82	12.37	274.34	0.00	59.00	26.15	11,065.08
7/5/07 20:38	853.45	362,331.50	249,643.50	72,247.66	7.05	26.66	12.37	274.62	0.00	58.40	26.00	11,180.68
7/5/07 20:39	854.81	368,348.50	249,162.91	71,452.78	6.11	27.03	12.38	274.31	0.00	58.40	25.60	11,235.25
7/5/07 20:40	854.83	384,192.31	249,853.59	71,425.77	5.23	26.53	12.43	274.34	0.00	58.20	26.30	9,657.26
7/5/07 20:41	851.73	363,190.50	249,725.70	70,878.72	9.19	26.88	12.31	274.65	0.00	58.40	26.55	9,004.28
7/5/07 20:42	849.17	375,817.09	249,786.20	70,744.52	3.98	27.00	12.19	275.01	0.00	59.00	27.25	9,064.52
7/5/07 20:43	846.76	364,659.59	249,468.20	72,127.89	7.17	26.63	12.07	275.01	0.00	58.30	27.00	9,650.73
7/5/07 20:44	844.61	379,903.09	251,736.09	72,035.34	5.42	27.00	11.91	275.98	0.00	58.70	27.25	9,786.47
7/5/07 20:45	843.92	365,457.91	250,757.30	72,340.45	5.38	27.00	11.94	275.98	0.00	65.50	30.05	10,777.60
7/5/07 20:46	843.31	353,429.31	251,038.30	72,097.45	5.38	26.88	12.00	275.70	0.00	65.10	29.15	9,877.36
7/5/07 20:47	843.21	380,097.19	253,549.50	71,962.80	5.38	27.00	12.05	275.70	0.00	64.80	30.45	9,511.41
7/5/07 20:48	843.51	373,582.31	251,608.80	71,967.41	5.69	26.84	12.17	276.34	0.00	64.40	29.90	9,642.38
7/5/07 20:49	843.02	366,795.81	251,468.09	72,270.25	6.30	27.75	12.33	276.36	0.00	63.20	28.80	9,674.15

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 20:50	843.58	369,977.09	251,180.70	71,794.98	4.85	27.89	12.57	276.65	0.00	60.90	28.60	8,572.96
7/5/07 20:51	841.55	365,383.31	251,241.30	72,416.41	6.54	28.19	12.76	276.36	0.00	59.30	27.05	8,303.29
7/5/07 20:52	837.40	367,566.19	251,885.91	71,754.68	6.98	27.92	12.94	276.01	0.00	58.80	26.10	8,327.88
7/5/07 20:53	833.82	374,329.09	254,165.50	73,589.55	5.39	27.75	13.21	275.70	0.00	58.30	27.05	8,588.51
7/5/07 20:54	830.99	367,267.09	249,554.30	71,033.11	5.39	27.86	13.31	275.70	0.00	58.30	25.55	7,981.46
7/5/07 20:55	830.52	370,036.81	250,963.50	72,443.77	6.55	28.00	13.42	275.70	0.00	58.60	26.30	11,579.54
7/5/07 20:56	831.08	375,876.41	251,435.59	72,325.79	6.94	27.13	13.52	275.70	0.00	58.40	25.75	11,382.92
7/5/07 20:57	831.85	381,341.31	253,622.50	73,007.71	6.87	26.91	13.63	275.70	0.00	58.70	25.80	11,283.04
7/5/07 20:58	832.40	372,863.09	252,310.91	73,053.47	7.61	26.97	13.74	275.01	0.00	58.60	25.40	11,519.44
7/5/07 20:59	833.24	370,527.50	252,651.41	72,629.63	5.83	27.13	13.84	275.34	0.00	58.50	25.25	2,714.87
7/5/07 21:00	832.88	367,340.41	251,115.70	72,598.22	5.42	26.91	13.95	276.01	0.00	58.70	26.00	10,307.31
7/5/07 21:01	829.98	379,130.19	252,535.80	73,001.06	6.93	26.63	14.05	276.34	0.00	58.30	26.40	10,010.48
7/5/07 21:02	827.19	368,213.41	250,315.91	71,606.45	6.34	27.13	14.16	276.67	0.00	58.70	26.25	10,347.03
7/5/07 21:03	824.77	386,573.91	251,348.00	71,930.50	6.50	26.63	14.27	276.67	0.00	58.60	26.90	10,364.19
7/5/07 21:04	822.74	371,886.09	251,687.80	72,385.97	8.40	27.00	14.37	276.67	0.00	58.40	26.65	4,966.31
7/5/07 21:05	822.41	358,721.91	248,776.50	71,555.15	8.38	26.88	14.48	276.01	0.00	65.30	29.60	10,468.10
7/5/07 21:06	823.62	376,189.09	251,474.30	71,953.37	8.38	26.47	14.58	275.70	0.00	65.30	29.65	10,478.60
7/5/07 21:07	824.69	362,409.19	248,115.59	71,909.34	8.38	26.50	14.69	275.70	0.00	65.00	29.20	10,454.96
7/5/07 21:08	825.77	373,500.50	248,764.80	71,809.74	5.88	26.84	14.80	275.34	0.00	64.60	29.85	10,455.41
7/5/07 21:09	827.52	376,763.81	252,157.00	72,363.22	7.08	26.20	14.89	275.34	0.00	62.90	29.30	5,541.69
7/5/07 21:10	827.16	365,770.50	248,367.30	71,496.39	7.15	26.88	14.98	275.01	0.00	60.80	28.10	8,745.38
7/5/07 21:11	824.25	363,611.59	248,342.41	71,181.65	6.60	26.47	15.06	275.01	0.00	59.40	26.75	9,059.61
7/5/07 21:12	821.44	382,470.41	251,941.50	72,207.25	6.48	26.63	15.15	274.62	0.00	58.30	26.55	8,881.36
7/5/07 21:13	818.46	371,706.31	248,042.50	71,576.27	8.02	26.15	15.24	275.01	0.00	58.40	25.70	9,040.47
7/5/07 21:14	817.10	373,095.19	250,282.41	71,985.84	6.49	25.13	15.33	275.34	0.00	58.90	26.00	11,214.20
7/5/07 21:15	819.21	376,504.59	247,415.70	71,639.87	6.45	24.75	15.42	275.34	0.00	58.70	25.35	10,433.17
7/5/07 21:16	820.53	370,828.00	248,054.41	71,834.90	7.95	24.88	15.51	276.34	0.00	58.20	25.45	10,427.85
7/5/07 21:17	822.06	353,617.91	245,751.70	71,053.98	6.38	24.75	15.60	276.34	0.00	58.40	26.15	10,375.83
7/5/07 21:18	824.09	366,447.00	248,344.20	71,265.61	5.93	24.63	15.68	276.34	0.00	58.40	25.95	10,472.24
7/5/07 21:19	825.39	392,215.69	252,225.20	72,547.98	6.20	25.16	15.77	276.34	0.00	58.30	26.65	9,291.32
7/5/07 21:20	824.40	357,329.69	247,528.30	71,348.27	8.46	24.88	15.87	276.36	0.00	58.10	27.05	9,198.94
7/5/07 21:21	822.19	365,275.31	247,961.80	71,779.40	4.45	24.95	16.00	276.36	0.00	58.70	27.10	9,077.55
7/5/07 21:22	820.49	358,323.31	248,099.50	71,845.70	5.02	24.53	16.33	276.67	0.00	58.40	27.05	9,029.38
7/5/07 21:23	818.05	372,137.81	250,034.70	72,336.48	5.12	24.75	16.68	276.67	0.00	58.20	27.10	8,959.98
7/5/07 21:24	817.21	366,417.91	244,815.50	71,590.98	6.07	24.00	17.02	276.34	0.00	58.40	27.05	12,623.06
7/5/07 21:25	817.45	370,615.91	249,319.80	71,917.05	6.36	23.84	17.18	275.70	0.00	64.90	29.90	11,654.35
7/5/07 21:26	818.88	377,928.81	249,778.00	71,842.36	6.36	23.00	17.31	275.01	0.00	65.10	29.65	11,264.88
7/5/07 21:27	819.29	371,742.69	248,516.80	72,418.82	6.36	22.50	17.21	275.01	0.00	64.60	29.70	11,283.07
7/5/07 21:28	820.42	362,694.31	247,935.09	72,281.96	5.99	22.75	17.20	275.27	0.00	64.70	29.55	11,458.47
7/5/07 21:29	821.12	350,488.00	245,848.20	71,265.73	5.74	23.03	17.20	275.34	0.00	62.10	28.95	11,647.62
7/5/07 21:30	821.27	372,792.09	248,910.59	72,365.66	6.64	22.63	17.20	275.03	0.00	60.60	27.60	11,059.55
7/5/07 21:31	821.79	365,124.91	248,781.70	71,993.51	6.61	22.88	17.32	274.98	0.00	59.00	26.80	10,905.24
7/5/07 21:32	822.26	374,188.31	250,348.80	72,384.86	5.37	23.50	17.23	275.70	0.00	58.30	26.05	10,981.71
7/5/07 21:33	823.25	385,024.81	250,613.41	72,424.16	7.25	23.03	17.14	276.01	0.00	58.40	25.75	10,726.43
7/5/07 21:34	823.40	377,057.91	250,500.80	73,514.33	8.32	22.88	17.05	276.01	0.00	58.80	25.55	9,335.74
7/5/07 21:35	821.59	367,208.31	248,530.50	72,438.06	7.09	22.75	17.24	276.32	0.00	58.80	25.85	9,312.09
7/5/07 21:36	819.18	371,142.81	248,690.09	72,542.34	5.12	22.75	17.46	277.03	0.00	58.60	26.10	9,330.08
7/5/07 21:37	817.27	381,040.81	249,002.00	72,403.73	5.52	22.88	17.68	276.65	0.00	58.30	26.90	9,152.98
7/5/07 21:38	815.37	358,273.41	247,507.00	72,346.97	7.61	22.88	17.89	276.65	0.00	58.60	26.95	8,909.24
7/5/07 21:39	815.39	362,431.09	248,774.80	73,343.20	4.48	23.09	18.11	276.65	0.00	58.80	26.85	11,529.88

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 21:40	817.00	392,786.91	247,406.20	71,830.83	4.83	23.00	18.33	276.01	0.00	58.40	26.90	11,396.73
7/5/07 21:41	818.26	367,248.59	246,871.30	72,398.79	7.78	22.84	18.55	275.70	0.00	58.20	27.02	11,362.12
7/5/07 21:42	819.07	368,940.00	244,658.20	71,800.09	5.99	22.84	18.77	275.01	0.00	58.90	26.90	11,215.90
7/5/07 21:43	820.31	375,973.50	245,692.70	72,083.21	6.56	22.28	18.94	274.62	0.00	58.30	27.17	1,398.41
7/5/07 21:44	821.68	372,816.91	247,768.00	73,491.64	5.88	22.50	18.66	274.65	0.00	58.70	26.95	10,018.08
7/5/07 21:45	820.98	367,702.41	246,592.09	72,379.84	5.92	23.03	18.37	274.31	0.00	64.90	30.15	9,854.03
7/5/07 21:46	820.25	385,823.81	250,552.91	72,965.91	5.92	21.91	18.22	274.31	0.00	64.40	30.45	9,913.15
7/5/07 21:47	818.67	375,962.50	250,876.20	72,881.55	5.92	21.95	18.23	274.62	0.00	64.70	30.05	10,287.27
7/5/07 21:48	818.99	373,373.69	248,401.41	72,309.36	5.81	22.49	18.02	274.29	0.00	64.20	30.00	10,023.91
7/5/07 21:49	822.32	369,312.50	246,764.80	72,058.62	5.27	21.88	17.80	274.98	0.00	62.70	28.90	10,494.42
7/5/07 21:50	826.94	375,458.91	248,508.09	73,307.23	2.71	22.47	17.59	275.01	0.00	61.00	28.10	10,453.67
7/5/07 21:51	829.07	364,294.31	248,401.41	72,000.70	5.72	23.88	17.37	275.32	0.00	58.80	27.55	10,551.02
7/5/07 21:52	831.16	377,798.09	250,247.91	72,782.37	3.86	23.88	17.16	274.98	0.00	58.60	26.65	10,484.30
7/5/07 21:53	833.66	355,157.19	247,002.80	71,872.19	4.96	23.78	16.94	274.29	0.00	58.50	26.80	9,206.95
7/5/07 21:54	834.39	375,147.41	250,685.20	72,583.38	4.96	24.13	16.72	273.96	0.00	57.90	26.60	8,983.89
7/5/07 21:55	832.78	376,396.69	250,359.41	72,550.06	3.90	24.06	16.51	273.96	0.00	58.70	26.75	9,430.14
7/5/07 21:56	831.26	353,346.31	247,570.41	73,087.44	4.96	24.63	16.29	274.31	0.00	58.50	26.75	9,097.17
7/5/07 21:57	828.97	368,181.50	248,690.41	71,696.23	5.74	24.88	16.08	274.31	0.00	58.50	26.80	9,194.25
7/5/07 21:58	829.44	384,705.50	251,061.80	72,551.14	3.80	24.91	15.86	275.01	0.00	58.20	26.60	11,578.28
7/5/07 21:59	829.30	358,366.09	249,463.30	71,698.29	5.00	25.70	15.65	275.01	0.00	58.70	26.70	11,210.42
7/5/07 22:00	828.53	374,767.41	250,451.41	72,595.73	6.40	25.88	15.43	275.01	0.00	58.70	26.50	10,872.50
7/5/07 22:01	827.30	370,455.31	253,469.50	72,246.13	5.54	26.00	15.24	275.01	0.00	58.20	26.60	11,209.11
7/5/07 22:02	827.15	385,920.81	253,495.70	72,822.87	3.58	26.00	15.06	275.01	0.00	58.60	26.85	10,616.96
7/5/07 22:03	825.83	363,521.41	250,159.59	72,580.61	8.20	26.66	14.88	275.34	0.00	58.70	26.70	9,959.32
7/5/07 22:04	823.73	379,802.81	253,787.30	72,691.37	4.42	26.88	14.70	274.62	0.00	58.60	26.65	9,559.14
7/5/07 22:05	821.88	380,167.41	251,026.50	72,793.32	4.41	27.25	14.52	274.65	0.00	65.20	30.30	10,228.95
7/5/07 22:06	819.12	380,161.19	253,026.80	72,235.78	4.41	27.50	14.34	273.98	0.00	65.00	30.05	9,792.67
7/5/07 22:07	816.45	376,881.19	253,486.59	73,011.88	4.41	26.80	14.16	273.67	0.00	65.10	29.35	4,727.96
7/5/07 22:08	816.77	370,369.31	250,751.59	71,875.13	5.27	26.95	13.99	273.96	0.00	64.50	29.50	8,727.17
7/5/07 22:09	819.57	377,865.09	252,076.00	72,704.50	6.91	26.75	13.81	273.98	0.00	62.90	28.15	8,718.76
7/5/07 22:10	822.24	367,171.41	250,332.91	71,771.30	6.93	26.88	13.73	274.31	0.00	61.70	26.35	8,683.64
7/5/07 22:11	824.29	370,936.50	250,490.50	72,197.96	7.22	27.00	13.65	274.62	0.00	60.30	25.75	8,780.55
7/5/07 22:12	827.25	381,914.31	252,535.80	72,261.85	6.47	26.22	13.56	274.62	0.00	58.50	25.30	4,312.38
7/5/07 22:13	830.02	369,455.09	249,106.20	72,184.47	7.41	26.09	13.48	274.62	0.00	58.80	24.90	8,851.96
7/5/07 22:14	833.17	368,373.19	249,854.30	72,629.98	5.35	26.74	13.39	275.34	0.00	58.50	25.10	9,354.75
7/5/07 22:15	834.30	367,899.09	250,109.50	73,712.83	6.65	26.91	13.31	275.70	0.00	58.10	25.75	9,065.81
7/5/07 22:16	835.89	365,002.59	249,936.70	72,739.62	4.64	27.25	13.23	275.70	0.00	58.70	26.00	9,412.44
7/5/07 22:17	837.85	368,475.81	246,413.91	73,045.43	5.59	26.84	13.18	275.70	0.00	58.50	26.20	11,001.34
7/5/07 22:18	839.67	362,627.19	249,080.00	72,637.84	7.50	26.88	13.11	275.34	0.00	58.50	26.35	10,480.60
7/5/07 22:19	841.75	369,702.41	248,476.20	72,687.49	4.42	26.88	13.04	275.01	0.00	58.60	27.15	10,460.07
7/5/07 22:20	843.15	369,066.69	248,231.80	73,736.25	6.18	27.03	12.98	275.01	0.00	58.70	27.05	10,464.69
7/5/07 22:21	844.25	365,913.09	247,123.50	72,412.98	6.31	27.06	12.91	274.62	0.00	58.10	27.10	10,460.11
7/5/07 22:22	846.11	365,038.00	246,435.20	72,174.40	5.39	26.88	12.85	275.01	0.00	58.20	27.00	9,859.87
7/5/07 22:23	846.22	371,587.81	246,378.59	72,577.85	5.18	26.69	12.92	275.01	0.00	58.70	26.85	9,232.45
7/5/07 22:24	844.31	369,243.91	246,131.91	72,063.77	7.71	27.00	12.85	275.34	0.00	58.70	27.00	9,917.97
7/5/07 22:25	842.34	365,721.00	243,889.41	72,499.71	7.54	27.00	12.79	275.34	0.00	64.90	30.40	9,863.32
7/5/07 22:26	840.25	363,432.31	245,309.30	72,950.97	7.54	27.00	12.72	275.98	0.00	64.90	30.20	9,960.67
7/5/07 22:27	837.85	363,112.91	244,758.00	72,877.04	7.54	27.75	12.66	276.01	0.00	65.00	29.75	0.00
7/5/07 22:28	836.56	368,154.50	242,880.70	72,306.60	5.62	27.58	12.60	276.01	0.00	64.20	29.75	0.00
7/5/07 22:29	837.33	345,695.31	240,905.59	72,650.57	6.33	27.13	12.53	275.34	0.00	63.00	29.10	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 22:30	837.92	350,528.69	242,093.00	72,265.22	5.84	27.03	12.47	275.01	0.00	61.00	28.15	0.00
7/5/07 22:31	839.69	378,856.00	243,950.91	72,765.63	3.77	27.69	12.40	274.98	0.00	59.80	27.60	0.00
7/5/07 22:32	842.41	390,147.69	240,769.30	73,018.59	6.36	28.75	12.34	275.01	0.00	58.50	26.55	0.00
7/5/07 22:33	844.22	348,150.50	240,037.70	72,185.51	6.55	29.41	12.22	273.96	0.00	58.20	26.80	0.00
7/5/07 22:34	845.68	362,619.50	238,280.20	72,556.30	4.71	29.00	12.03	273.96	0.00	58.30	26.80	0.00
7/5/07 22:35	847.55	362,418.50	239,356.41	72,356.54	5.84	28.98	11.85	273.67	0.00	58.90	26.80	0.00
7/5/07 22:36	848.99	366,502.81	241,209.41	72,714.27	5.42	28.85	11.66	273.98	0.00	58.40	26.80	0.00
7/5/07 22:37	849.38	365,159.31	240,578.00	72,565.97	7.55	29.88	11.48	273.38	0.00	58.20	26.75	0.00
7/5/07 22:38	850.68	354,543.81	238,545.09	72,275.42	5.52	29.11	11.29	273.38	0.00	58.40	26.80	0.00
7/5/07 22:39	851.39	355,087.19	241,354.59	72,694.58	5.31	29.53	11.11	273.38	0.00	58.70	26.65	0.00
7/5/07 22:40	851.51	361,296.50	241,467.70	72,366.55	5.63	29.72	10.92	273.38	0.00	58.00	26.75	0.00
7/5/07 22:41	849.58	360,812.91	240,425.20	72,441.91	5.27	29.19	10.74	273.65	0.00	58.30	26.70	7,885.96
7/5/07 22:42	848.61	360,307.00	240,455.09	73,299.23	6.35	28.74	10.55	274.62	0.00	58.80	26.25	8,527.18
7/5/07 22:43	849.32	367,281.69	242,277.00	72,457.82	5.89	28.95	10.37	275.01	0.00	58.10	26.45	8,448.53
7/5/07 22:44	850.11	350,564.31	240,690.80	72,276.95	5.14	28.88	10.18	275.98	0.00	58.60	24.95	7,350.20
7/5/07 22:45	850.49	367,556.91	243,591.41	72,398.05	5.53	29.88	10.00	276.34	0.00	64.80	27.27	7,647.93
7/5/07 22:46	850.99	375,244.00	243,169.50	72,279.60	5.53	29.13	9.88	276.65	0.00	65.00	26.95	5,884.86
7/5/07 22:47	851.46	365,055.81	239,487.30	70,562.95	5.53	29.13	9.79	276.65	0.00	64.70	27.20	5,833.27
7/5/07 22:48	851.85	358,668.50	242,768.80	72,283.54	7.64	29.79	9.71	275.70	0.00	64.70	27.05	5,970.90
7/5/07 22:49	852.13	364,381.91	242,055.30	72,600.72	5.07	30.00	9.63	275.70	0.00	62.90	26.40	5,637.51
7/5/07 22:50	852.77	365,109.19	241,036.00	71,963.44	6.18	30.00	9.54	274.62	0.00	61.40	26.15	7,116.63
7/5/07 22:51	853.27	348,310.50	240,266.30	71,917.34	7.62	30.25	9.46	273.96	0.00	60.10	25.20	7,427.20
7/5/07 22:52	853.90	374,854.81	244,046.00	73,218.72	4.35	29.91	9.37	273.96	0.00	58.70	26.05	8,660.78
7/5/07 22:53	854.61	363,631.19	239,618.41	72,231.59	6.83	30.30	9.29	273.38	0.00	58.60	25.60	8,058.82
7/5/07 22:54	854.56	355,723.59	240,713.59	71,870.63	8.22	31.00	9.20	273.00	0.00	58.50	25.20	7,608.25
7/5/07 22:55	854.93	368,591.00	242,858.00	72,869.46	4.44	31.00	8.80	273.00	0.00	58.50	25.75	6,720.74
7/5/07 22:56	855.14	368,452.41	240,902.20	72,517.25	6.58	31.00	8.40	272.31	0.00	58.70	25.20	0.00
7/5/07 22:57	855.17	358,729.19	239,299.70	71,277.05	7.87	30.95	7.99	272.03	0.00	58.70	25.60	0.00
7/5/07 22:58	855.54	357,812.00	239,142.41	71,435.51	6.19	31.13	7.59	271.64	0.00	58.50	26.35	0.00
7/5/07 22:59	854.95	359,011.19	240,457.70	72,574.55	7.54	30.97	7.19	271.62	0.00	58.70	25.55	0.00
7/5/07 23:00	854.46	370,321.91	240,491.09	73,071.76	6.72	31.03	6.79	271.62	0.00	58.40	25.55	0.00
7/5/07 23:01	854.26	355,701.41	238,321.80	71,752.35	7.26	30.97	6.38	272.00	0.00	58.60	25.70	0.00
7/5/07 23:02	854.83	348,360.81	238,175.00	72,644.72	5.44	30.99	5.98	272.69	0.00	58.30	25.70	0.00
7/5/07 23:03	854.70	350,212.41	238,658.09	73,029.70	5.68	31.53	5.58	273.38	0.00	58.60	25.15	0.00
7/5/07 23:04	854.00	360,137.59	239,363.09	72,277.13	5.38	31.66	5.17	273.65	0.00	58.80	25.20	0.00
7/5/07 23:05	854.46	380,013.09	239,048.50	72,447.63	5.57	31.75	4.77	273.98	0.00	64.70	28.75	0.00
7/5/07 23:06	853.65	354,716.00	236,898.80	72,132.40	5.57	31.88	4.37	274.65	0.00	65.00	29.15	6,701.77
7/5/07 23:07	852.20	359,154.19	238,199.50	72,040.74	5.57	32.00	4.15	275.01	0.00	64.80	28.70	5,431.13
7/5/07 23:08	852.26	372,040.50	241,997.80	73,277.20	6.05	31.78	4.13	275.34	0.00	64.70	29.00	6,005.44
7/5/07 23:09	852.87	357,080.31	233,321.00	71,574.05	5.95	32.25	4.11	275.70	0.00	62.90	27.70	8,689.79
7/5/07 23:10	852.70	352,631.41	236,375.09	71,837.01	8.41	31.63	4.09	275.70	0.00	61.80	26.50	8,377.79
7/5/07 23:11	852.87	331,276.59	237,105.70	72,734.38	5.32	31.88	4.07	275.34	0.00	59.40	26.55	8,358.48
7/5/07 23:12	853.46	359,812.50	237,123.80	72,044.13	3.53	31.42	4.05	275.34	0.00	58.30	26.50	7,947.84
7/5/07 23:13	852.82	359,034.09	237,308.20	71,826.64	7.05	31.75	4.03	275.34	0.00	58.70	25.50	7,476.39
7/5/07 23:14	852.74	355,220.19	234,642.91	71,798.96	6.74	31.46	4.01	275.34	0.00	58.70	25.20	6,558.37
7/5/07 23:15	853.12	359,359.91	237,426.41	73,359.71	5.53	30.61	3.99	276.01	0.00	58.40	25.30	5,293.02
7/5/07 23:16	853.20	356,441.31	235,924.70	71,118.04	6.28	31.13	3.97	275.70	0.00	58.50	23.95	5,565.35
7/5/07 23:17	852.90	348,048.69	234,425.50	71,098.11	7.31	30.75	3.94	275.98	0.00	58.80	24.00	5,865.22
7/5/07 23:18	853.01	361,862.00	239,739.30	72,774.03	5.57	31.09	3.92	275.98	0.00	58.40	24.15	7,256.98
7/5/07 23:19	853.08	367,742.00	240,893.50	72,878.13	5.24	31.44	3.90	276.01	0.00	58.00	23.95	7,915.25

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/5/07 23:20	853.06	361,029.19	235,858.70	71,456.45	7.06	31.91	3.88	275.98	0.00	58.20	24.10	8,036.56
7/5/07 23:21	853.99	366,179.41	236,667.30	72,240.66	6.26	31.63	3.86	276.01	0.00	58.50	24.35	8,289.63
7/5/07 23:22	853.81	347,916.81	234,540.30	71,583.05	7.74	31.91	3.84	275.01	0.00	58.30	24.40	0.00
7/5/07 23:23	853.75	344,429.50	233,642.59	71,294.03	4.96	31.88	3.82	274.65	0.00	58.80	25.25	0.00
7/5/07 23:24	854.11	379,395.41	233,823.30	71,395.16	5.22	32.00	3.80	274.31	0.00	58.70	27.10	0.00
7/5/07 23:25	854.65	355,860.59	233,215.20	72,319.23	4.76	31.81	3.78	274.31	0.00	64.80	30.45	0.00
7/5/07 23:26	854.50	345,022.31	232,286.30	72,701.41	4.76	32.50	3.76	274.31	0.00	64.90	30.40	0.00
7/5/07 23:27	853.44	358,540.69	232,716.91	70,860.27	4.75	32.00	3.74	273.38	0.00	64.90	30.00	0.00
7/5/07 23:28	852.37	351,453.41	230,040.50	71,395.20	7.49	29.47	3.72	272.69	0.00	64.40	30.10	5,203.25
7/5/07 23:29	850.46	350,644.41	229,966.91	70,848.83	5.20	30.88	3.70	272.69	0.00	63.10	29.30	0.00
7/5/07 23:30	848.25	359,973.31	234,819.59	72,707.13	4.17	30.72	3.68	273.38	0.00	61.70	28.05	0.00
7/5/07 23:31	846.89	344,425.00	230,939.30	71,405.48	5.95	31.13	3.66	273.98	0.00	59.80	27.10	3,097.55
7/5/07 23:32	846.37	353,416.31	231,920.70	72,042.71	5.03	32.25	3.64	273.96	0.00	58.60	26.90	0.00
7/5/07 23:33	847.01	359,261.00	233,292.41	72,070.78	4.98	31.13	3.62	274.31	0.00	58.50	26.90	5,597.55
7/5/07 23:34	847.49	348,461.81	231,422.70	71,592.50	5.90	31.13	3.60	274.31	0.00	58.30	26.50	0.00
7/5/07 23:35	848.26	365,627.81	234,987.59	73,126.17	4.95	30.75	3.58	274.62	0.00	58.70	26.70	6,035.30
7/5/07 23:36	848.53	352,213.69	229,539.00	71,903.48	5.48	30.97	3.56	274.98	0.00	58.40	26.80	0.00
7/5/07 23:37	848.29	332,038.31	228,641.20	71,745.63	6.76	31.75	3.54	275.01	0.00	58.10	26.80	8,529.36
7/5/07 23:38	846.50	354,608.31	235,001.91	73,052.24	5.02	31.13	3.52	274.98	0.00	58.20	26.75	0.00
7/5/07 23:39	846.49	352,259.41	230,462.30	71,082.16	2.52	30.56	3.50	275.01	0.00	58.70	26.85	8,225.72
7/5/07 23:40	846.29	357,345.81	232,508.91	71,965.31	5.57	30.63	3.48	275.34	0.00	58.20	26.55	0.00
7/5/07 23:41	843.86	356,901.19	231,527.20	72,105.95	8.68	31.09	3.46	275.70	0.00	58.40	26.70	3,099.27
7/5/07 23:42	841.30	349,729.59	231,579.20	72,026.37	5.86	30.63	3.44	275.34	0.00	58.10	26.50	0.00
7/5/07 23:43	839.29	370,833.31	236,057.00	73,275.39	5.25	29.75	3.42	275.70	0.00	58.70	26.70	0.00
7/5/07 23:44	837.54	358,640.00	234,676.70	73,161.55	7.20	29.76	3.40	276.01	0.00	58.60	26.35	4,631.54
7/5/07 23:45	836.74	344,584.00	231,882.50	71,739.37	7.67	29.00	3.38	275.98	0.00	65.10	28.63	0.00
7/5/07 23:46	836.71	364,812.09	237,826.00	74,033.27	7.67	29.03	3.36	277.01	0.00	64.70	29.55	6,515.48
7/5/07 23:47	836.30	359,702.69	234,425.00	72,515.21	7.67	29.13	3.34	277.01	0.00	65.10	29.00	0.00
7/5/07 23:48	836.76	351,504.81	232,909.20	72,691.45	7.10	29.38	3.32	277.68	0.00	64.00	28.95	7,248.36
7/5/07 23:49	837.27	365,046.50	235,717.20	72,907.27	4.84	28.63	3.42	277.99	0.00	63.00	28.30	0.00
7/5/07 23:50	837.40	340,441.31	231,953.50	71,895.77	6.31	29.13	3.61	277.99	0.00	60.60	27.85	8,595.71
7/5/07 23:51	836.85	351,940.59	234,952.09	72,091.15	5.30	28.72	3.80	277.32	0.00	59.00	27.20	0.00
7/5/07 23:52	835.58	368,430.59	239,118.30	73,828.80	4.24	27.81	3.99	277.01	0.00	58.40	26.90	4,704.29
7/5/07 23:53	835.31	354,471.00	232,664.59	72,489.93	3.99	28.01	4.19	277.01	0.00	59.00	26.90	0.00
7/5/07 23:54	835.03	345,494.31	231,208.00	72,629.86	7.89	27.72	4.38	277.01	0.00	58.50	25.90	0.00
7/5/07 23:55	834.57	354,584.00	234,822.50	73,052.63	5.44	28.23	4.57	277.03	0.00	58.60	26.45	5,043.61
7/5/07 23:56	833.86	359,956.50	236,090.30	72,973.44	3.39	27.28	4.76	277.01	0.00	58.50	26.70	0.00
7/5/07 23:57	832.85	350,719.50	233,921.00	72,111.70	6.16	26.90	4.95	277.01	0.00	58.40	26.15	0.00
7/5/07 23:58	831.40	353,005.59	234,895.09	73,052.69	5.61	27.00	5.16	276.65	0.00	58.40	26.45	0.00
7/5/07 23:59	830.90	357,799.00	237,594.70	74,064.43	4.96	27.00	5.25	276.65	0.00	58.70	26.60	0.00
7/6/07 0:00	832.10	357,309.59	234,020.30	72,590.59	3.53	26.91	5.41	276.65	0.00	58.60	25.85	0.00
7/6/07 0:01	833.70	356,482.81	234,677.50	72,720.38	6.32	26.78	5.57	276.67	0.00	58.30	26.00	5,758.50
7/6/07 0:02	834.17	352,988.00	234,644.20	72,207.19	5.78	26.41	5.72	276.65	0.00	58.40	26.25	0.00
7/6/07 0:03	835.65	346,525.31	233,998.59	72,358.58	5.48	26.56	5.87	276.01	0.00	58.80	25.90	6,130.83
7/6/07 0:04	835.83	367,825.31	238,814.59	73,354.21	6.85	26.59	6.09	276.01	0.00	58.50	25.55	0.00
7/6/07 0:05	835.66	348,464.19	235,618.50	72,980.20	6.42	26.38	6.25	275.70	0.00	65.00	27.15	7,721.31
7/6/07 0:06	836.38	365,051.19	238,776.00	73,097.43	6.42	25.88	6.41	276.01	0.00	65.10	27.70	0.00
7/6/07 0:07	837.78	354,115.41	236,318.59	72,124.67	6.42	25.50	6.57	275.98	0.00	65.10	28.70	0.00
7/6/07 0:08	838.78	351,941.69	232,770.91	71,405.48	6.80	25.34	6.73	276.65	0.00	64.60	26.15	0.00
7/6/07 0:09	840.04	364,951.59	238,606.80	73,032.51	7.25	25.13	6.89	276.67	0.00	63.00	25.95	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/6/07 0:10	841.37	361,956.50	234,602.59	71,934.33	5.82	24.97	7.05	277.34	0.00	61.00	25.90	1,718.27
7/6/07 0:11	842.35	360,555.19	237,086.80	73,159.08	7.20	25.52	7.21	277.34	0.00	59.50	25.30	0.00
7/6/07 0:12	843.36	355,610.00	235,428.70	73,461.94	7.42	25.58	7.38	277.32	0.00	58.60	24.70	6,009.24
7/6/07 0:13	843.60	348,602.31	233,940.20	72,680.88	5.34	26.13	7.54	277.32	0.00	58.30	24.65	0.00
7/6/07 0:14	844.52	368,406.91	237,389.70	73,492.13	5.59	25.88	7.70	276.65	0.00	58.80	25.70	7,523.65
7/6/07 0:15	844.95	344,485.50	228,991.80	72,285.42	6.66	25.00	7.86	276.34	0.00	58.50	24.90	0.00
7/6/07 0:16	845.80	347,667.81	232,747.80	73,524.88	5.54	25.88	8.02	276.01	0.00	58.80	25.70	8,654.88
7/6/07 0:17	846.95	352,899.50	231,219.30	72,953.85	4.14	25.00	8.18	276.01	0.00	58.20	26.50	0.00
7/6/07 0:18	847.54	351,390.91	232,495.59	73,405.35	7.40	25.92	8.27	275.98	0.00	58.30	26.90	4,101.92
7/6/07 0:19	847.18	359,551.31	231,211.20	72,740.60	4.96	25.88	8.25	275.34	0.00	58.90	27.15	0.00
7/6/07 0:20	847.38	352,659.00	230,034.80	72,499.79	6.43	26.09	8.24	275.01	0.00	58.70	27.10	0.00
7/6/07 0:21	847.99	366,500.81	231,968.59	73,041.33	5.10	25.50	8.22	275.01	0.00	58.90	27.25	553.32
7/6/07 0:22	846.89	348,432.59	229,046.50	73,058.29	7.16	25.75	8.21	274.98	0.00	58.60	27.05	0.00
7/6/07 0:23	845.54	349,203.00	231,299.70	73,817.69	3.97	25.97	8.20	274.98	0.00	58.40	27.05	5,779.72
7/6/07 0:24	844.83	346,763.00	227,994.09	72,344.34	4.08	25.88	8.18	274.98	0.00	58.30	26.95	0.00
7/6/07 0:25	845.08	353,396.59	230,863.70	72,975.36	4.96	26.23	8.17	275.32	0.00	64.90	30.10	6,852.74
7/6/07 0:26	845.51	348,407.91	228,690.00	72,361.95	4.96	26.13	8.16	275.32	0.00	65.20	30.30	0.00
7/6/07 0:27	845.79	335,583.09	233,608.80	72,409.73	4.96	25.88	8.14	275.32	0.00	64.80	29.95	8,403.92
7/6/07 0:28	844.70	333,376.91	232,566.91	72,218.07	5.57	25.91	8.13	274.98	0.00	64.50	30.00	0.00
7/6/07 0:29	842.55	349,181.81	237,948.59	72,883.54	6.49	26.00	8.11	274.62	0.00	63.00	29.10	0.00
7/6/07 0:30	841.38	354,196.91	238,687.30	73,197.37	4.20	25.25	8.10	275.34	0.00	60.80	27.65	0.00
7/6/07 0:31	839.40	341,115.19	234,560.30	72,130.92	8.50	26.50	8.09	275.34	0.00	58.90	25.55	0.00
7/6/07 0:32	838.32	345,493.19	236,749.59	72,716.64	7.53	25.97	8.07	275.34	0.00	58.90	25.10	2,105.57
7/6/07 0:33	839.19	341,605.91	238,392.20	73,608.86	5.81	25.88	8.06	275.32	0.00	58.90	25.45	0.00
7/6/07 0:34	841.10	352,322.91	237,771.00	72,931.91	3.44	25.88	8.04	275.34	0.00	58.80	25.65	5,581.68
7/6/07 0:35	841.81	349,291.91	237,507.50	72,667.03	7.43	25.88	8.03	275.70	0.00	58.40	25.60	0.00
7/6/07 0:36	842.85	332,558.00	235,836.09	71,941.85	5.20	25.88	8.02	275.98	0.00	58.60	25.30	7,887.45
7/6/07 0:37	843.46	381,277.91	239,832.70	73,814.45	5.43	26.13	8.00	275.70	0.00	58.20	26.60	0.00
7/6/07 0:38	844.42	340,546.81	237,367.50	72,734.72	5.89	26.09	7.98	275.34	0.00	58.60	26.50	8,107.74
7/6/07 0:39	844.24	339,587.19	236,728.00	72,594.89	4.40	25.97	7.99	275.34	0.00	58.60	26.90	0.00
7/6/07 0:40	842.07	340,580.19	235,670.41	72,572.81	5.26	25.22	7.99	275.36	0.00	58.80	27.10	8,970.05
7/6/07 0:41	841.14	353,915.59	239,962.59	72,778.49	3.38	24.66	7.99	275.34	0.00	58.60	27.35	0.00
7/6/07 0:42	841.60	339,699.09	234,349.09	72,257.38	5.96	25.84	8.00	275.34	0.00	58.40	27.15	3,126.19
7/6/07 0:43	842.09	357,226.81	239,062.80	73,074.55	5.01	25.02	8.00	275.70	0.00	58.50	27.15	0.00
7/6/07 0:44	842.03	338,455.09	234,014.50	71,642.63	5.78	25.69	8.01	276.01	0.00	58.40	27.25	0.00
7/6/07 0:45	841.92	341,251.31	236,664.20	72,917.66	6.31	25.13	8.01	275.34	0.00	64.60	29.77	3,796.26
7/6/07 0:46	841.23	344,517.31	236,882.91	72,205.88	6.31	24.83	8.01	275.70	0.00	65.00	29.40	0.00
7/6/07 0:47	841.94	343,043.81	238,295.00	73,446.16	6.31	25.00	8.02	275.70	0.00	65.10	29.45	6,438.55
7/6/07 0:48	841.05	347,788.50	236,820.50	72,520.69	5.32	25.00	8.02	275.98	0.00	64.30	29.20	0.00
7/6/07 0:49	839.24	344,091.59	238,601.30	72,770.64	5.23	24.91	8.03	275.70	0.00	62.90	28.90	8,403.49
7/6/07 0:50	838.02	350,130.81	238,144.41	72,629.13	5.13	24.88	8.03	275.70	0.00	60.70	27.35	0.00
7/6/07 0:51	838.65	336,440.69	238,080.70	73,185.82	4.57	24.83	8.03	276.01	0.00	59.60	27.25	9,169.48
7/6/07 0:52	839.20	358,946.09	242,669.41	74,194.45	3.50	25.25	8.04	276.01	0.00	58.30	27.00	0.00
7/6/07 0:53	839.60	349,305.81	239,621.59	72,641.93	5.84	24.88	8.04	275.70	0.00	58.30	26.30	0.00
7/6/07 0:54	839.66	351,657.41	240,128.91	73,436.24	6.38	25.00	8.05	275.70	0.00	58.30	26.60	3,789.20
7/6/07 0:55	838.50	340,130.69	238,943.00	73,656.78	5.65	24.97	8.07	275.70	0.00	58.20	26.50	0.00
7/6/07 0:56	837.15	352,178.69	241,353.59	72,993.42	3.43	24.73	8.13	275.46	0.00	58.40	26.45	5,680.32
7/6/07 0:57	835.96	367,688.81	240,636.00	73,024.07	5.77	25.09	8.20	275.70	0.00	58.60	26.75	0.00
7/6/07 0:58	836.12	341,993.31	237,694.30	72,431.14	9.37	23.84	8.26	275.70	0.00	58.40	26.25	7,288.50
7/6/07 0:59	837.44	351,419.50	241,688.50	73,407.96	5.71	25.13	8.32	275.70	0.00	57.90	27.20	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/6/07 1:00	839.41	330,240.09	239,741.70	72,893.99	4.12	24.13	8.39	276.01	0.00	58.60	26.95	7,993.70
7/6/07 1:01	839.94	353,403.50	244,139.80	73,939.13	7.53	24.75	8.45	275.98	0.00	58.90	26.45	0.00
7/6/07 1:02	841.36	359,244.00	243,092.59	73,242.05	4.90	24.37	8.52	276.34	0.00	58.80	26.65	6,202.47
7/6/07 1:03	843.17	351,725.31	243,053.09	72,817.80	5.41	24.22	8.58	276.67	0.00	58.20	26.20	0.00
7/6/07 1:04	844.95	339,075.81	240,959.00	72,645.90	5.28	24.75	8.65	277.34	0.00	58.00	25.80	0.00
7/6/07 1:05	845.95	359,685.09	244,987.50	73,093.31	5.44	24.63	8.85	277.34	0.00	65.20	29.55	1,472.86
7/6/07 1:06	845.47	346,766.41	241,005.00	72,874.44	5.43	24.38	9.20	277.34	0.00	64.70	28.35	0.00
7/6/07 1:07	845.75	359,500.31	243,469.70	73,877.46	5.44	24.88	9.54	277.32	0.00	65.00	30.05	5,166.85
7/6/07 1:08	847.31	350,003.41	241,072.00	73,545.27	5.37	24.90	9.60	276.65	0.00	64.50	30.20	0.00
7/6/07 1:09	849.28	343,885.91	239,712.20	72,848.37	5.50	24.88	9.61	276.65	0.00	62.80	28.55	6,088.16
7/6/07 1:10	849.33	354,026.59	240,910.09	73,934.48	6.50	25.00	9.61	276.34	0.00	61.80	28.25	0.00
7/6/07 1:11	850.26	354,167.41	238,149.80	72,943.55	3.90	24.97	9.62	275.98	0.00	60.20	27.70	9,017.71
7/6/07 1:12	850.62	348,941.50	239,207.50	73,005.31	6.40	26.00	9.62	275.34	0.00	58.40	27.05	0.00
7/6/07 1:13	848.61	349,465.69	239,771.80	72,436.00	7.98	25.00	9.63	275.01	0.00	58.50	27.50	10,258.83
7/6/07 1:14	847.28	353,415.50	240,594.00	73,917.34	4.79	25.00	9.63	274.62	0.00	58.50	27.30	0.00
7/6/07 1:15	847.66	348,277.91	237,765.91	72,503.95	4.88	25.03	9.64	274.31	0.00	58.50	27.40	0.00
7/6/07 1:16	847.17	347,479.31	241,318.59	73,480.10	7.29	24.68	9.64	274.31	0.00	58.40	27.15	2,985.86
7/6/07 1:17	847.29	350,689.19	241,791.20	73,814.95	2.93	24.66	9.69	274.31	0.00	58.70	27.20	0.00
7/6/07 1:18	848.07	377,708.09	246,199.91	74,935.12	4.52	24.75	9.67	274.62	0.00	58.70	27.25	6,871.92
7/6/07 1:19	847.88	351,583.50	241,038.91	73,358.44	7.01	25.00	9.65	274.62	0.00	58.80	27.15	0.00
7/6/07 1:20	848.86	342,432.81	241,519.91	72,574.56	5.34	24.91	9.63	274.62	0.00	58.10	27.30	7,553.60
7/6/07 1:21	850.06	355,953.19	243,854.00	73,822.05	1.92	25.00	9.61	274.62	0.00	58.90	27.20	0.00
7/6/07 1:22	850.77	346,836.50	242,714.20	73,130.36	4.48	25.88	9.59	274.60	0.00	58.70	27.10	9,040.91
7/6/07 1:23	850.75	354,901.31	242,100.80	72,663.82	5.23	26.00	9.57	275.01	0.00	58.70	27.10	0.00
7/6/07 1:24	851.95	336,730.91	243,167.09	72,963.06	4.45	25.63	9.55	274.98	0.00	58.20	27.35	0.00
7/6/07 1:25	852.93	346,763.59	242,455.50	72,973.92	4.09	25.72	9.53	274.98	0.00	65.40	29.85	0.00
7/6/07 1:26	854.95	362,728.81	243,944.00	72,582.48	4.09	25.97	9.51	274.98	0.00	65.10	29.55	0.00
7/6/07 1:27	856.66	368,332.09	247,423.50	73,831.15	4.09	25.88	9.50	275.70	0.00	65.00	29.55	4,242.74
7/6/07 1:28	858.04	339,187.31	241,843.09	72,553.70	5.80	25.97	9.48	276.65	0.00	64.50	29.15	0.00
7/6/07 1:29	859.65	350,120.59	243,198.30	72,569.71	4.62	27.09	9.46	277.01	0.00	62.90	29.15	8,227.31
7/6/07 1:30	861.63	359,049.50	244,186.30	73,989.41	3.70	26.22	9.65	277.03	0.00	61.60	28.25	0.00
7/6/07 1:31	863.14	343,273.19	242,186.50	72,749.70	5.48	27.75	9.80	276.65	0.00	59.80	28.10	9,642.12
7/6/07 1:32	863.12	355,332.31	246,499.50	73,387.59	4.88	26.91	9.94	276.65	0.00	58.75	27.00	0.00
7/6/07 1:33	864.10	362,494.00	246,830.50	73,709.48	3.79	26.96	10.09	276.65	0.00	58.55	27.10	0.00
7/6/07 1:34	865.28	366,527.09	245,730.30	73,260.13	4.78	26.97	10.31	276.34	0.00	58.80	27.30	1,600.25
7/6/07 1:35	865.32	352,669.19	244,403.50	73,390.90	8.31	27.64	10.31	275.70	0.00	58.65	27.20	0.00
7/6/07 1:36	865.97	354,109.41	246,180.00	73,095.06	4.17	27.50	10.30	275.70	0.00	58.35	27.20	5,727.85
7/6/07 1:37	866.41	356,211.69	246,529.20	73,532.23	3.95	27.30	10.30	275.70	0.00	58.20	27.50	0.00
7/6/07 1:38	866.44	347,302.31	245,462.80	72,977.95	5.71	28.32	10.30	275.34	0.00	58.75	27.30	6,197.93
7/6/07 1:39	866.31	365,380.09	249,762.20	74,477.55	3.46	27.13	10.29	275.01	0.00	58.85	27.10	0.00
7/6/07 1:40	866.48	355,548.81	246,015.91	72,216.59	6.14	27.00	10.29	275.01	0.00	58.30	27.00	8,638.36
7/6/07 1:41	866.17	350,220.81	246,787.41	72,573.98	6.12	26.81	10.28	275.01	0.00	58.55	27.10	0.00
7/6/07 1:42	865.73	355,001.81	247,962.30	72,684.76	5.38	26.84	10.30	274.98	0.00	58.55	27.00	0.00
7/6/07 1:43	865.35	354,615.91	250,141.41	73,649.77	4.11	27.09	10.40	275.34	0.00	58.50	27.20	0.00
7/6/07 1:44	865.70	366,381.50	248,555.59	72,682.10	4.68	27.88	10.44	275.34	0.00	58.35	27.20	0.00
7/6/07 1:45	865.76	343,222.00	246,992.50	72,000.51	5.15	28.03	10.47	275.01	0.00	65.00	30.40	0.00
7/6/07 1:46	866.00	356,304.09	249,610.20	73,128.23	5.15	27.31	10.50	275.01	0.00	65.00	30.40	0.00
7/6/07 1:47	867.81	367,682.81	250,332.80	73,566.23	5.15	27.38	10.53	275.70	0.00	65.15	30.50	0.00
7/6/07 1:48	868.38	367,522.81	251,255.80	73,778.69	6.83	28.06	10.56	276.01	0.00	64.60	30.20	0.00
7/6/07 1:49	867.70	356,069.50	248,970.41	73,488.27	5.68	27.59	10.59	276.65	0.00	63.70	29.40	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/6/07 1:50	867.04	356,731.31	247,714.41	73,155.64	4.38	27.83	10.62	276.65	0.00	62.30	29.00	0.00
7/6/07 1:51	866.39	353,846.59	247,593.30	73,237.13	6.35	27.88	10.71	276.34	0.00	60.90	27.60	7,887.60
7/6/07 1:52	864.79	354,712.69	248,217.00	73,405.63	4.52	28.34	10.84	276.34	0.00	60.00	27.30	5,596.19
7/6/07 1:53	864.78	351,795.69	245,812.30	72,175.77	4.70	27.75	10.90	276.65	0.00	58.80	26.60	6,305.92
7/6/07 1:54	865.31	348,356.81	246,411.00	72,690.00	6.05	27.88	10.96	276.65	0.00	58.65	26.60	8,480.59
7/6/07 1:55	866.64	366,732.59	250,615.59	74,020.12	5.03	27.78	11.01	276.34	0.00	58.25	26.70	8,516.74
7/6/07 1:56	868.51	358,641.50	247,189.30	72,582.46	5.95	27.91	11.07	276.34	0.00	58.35	26.60	8,206.41
7/6/07 1:57	869.00	351,069.19	247,846.59	73,289.35	8.27	28.44	11.13	276.34	0.00	58.55	26.50	8,073.89
7/6/07 1:58	869.53	350,681.19	246,511.20	72,814.22	3.91	28.19	11.19	276.34	0.00	58.25	26.70	8,079.85
7/6/07 1:59	870.41	359,801.19	250,161.41	74,112.73	5.21	28.63	11.25	276.32	0.00	58.75	26.70	7,104.25
7/6/07 2:00	871.25	356,854.09	247,028.20	72,729.02	5.10	28.98	11.31	275.34	0.00	58.70	26.50	5,634.85
7/6/07 2:01	871.82	344,967.91	246,563.09	73,209.90	5.89	28.94	11.36	275.32	0.00	58.55	26.70	5,699.74
7/6/07 2:02	872.28	357,424.41	247,505.59	73,152.63	4.71	29.47	11.42	274.65	0.00	58.50	26.70	5,501.73
7/6/07 2:03	873.16	359,204.00	249,830.91	73,935.25	4.82	29.55	11.48	273.65	0.00	58.40	26.60	6,713.85
7/6/07 2:04	874.35	362,291.91	247,796.50	73,595.05	4.59	30.25	11.31	273.65	0.00	58.80	26.60	7,508.29
7/6/07 2:05	873.58	355,110.59	248,505.59	74,620.73	5.70	29.64	11.03	273.00	0.00	64.80	29.40	8,226.17
7/6/07 2:06	873.48	362,547.00	246,036.20	72,635.30	5.70	30.04	10.75	272.72	0.00	65.10	29.80	7,929.48
7/6/07 2:07	873.43	346,691.31	245,784.59	73,297.15	5.71	29.88	10.46	272.69	0.00	65.05	29.60	0.00
7/6/07 2:08	873.98	355,365.59	246,252.80	72,382.05	5.40	30.42	10.18	272.69	0.00	64.75	29.40	0.00
7/6/07 2:09	874.71	349,177.59	244,759.80	72,474.95	4.67	30.78	9.90	272.69	0.00	63.25	28.80	0.00
7/6/07 2:10	874.67	351,559.31	245,735.20	73,162.01	6.16	31.06	9.62	273.00	0.00	62.80	29.60	0.00
7/6/07 2:11	874.16	360,499.69	246,592.00	74,064.69	5.38	31.09	9.34	273.00	0.00	61.35	28.00	0.00
7/6/07 2:12	872.34	354,214.09	244,443.91	73,110.49	6.89	30.66	9.06	273.38	0.00	60.20	28.20	0.00
7/6/07 2:13	871.13	375,985.81	243,293.20	73,590.41	6.62	30.88	8.78	273.38	0.00	59.10	27.10	0.00
7/6/07 2:14	870.95	357,923.31	245,876.70	73,560.88	7.75	31.03	8.49	273.38	0.00	58.40	27.60	0.00
7/6/07 2:15	871.16	352,526.19	244,627.50	73,167.73	5.82	30.65	8.21	273.67	0.00	58.55	27.60	0.00
7/6/07 2:16	869.01	346,568.59	245,460.30	72,723.53	5.72	31.88	7.93	273.96	0.00	58.85	27.60	5,511.23
7/6/07 2:17	867.67	355,205.91	246,976.50	72,836.73	3.48	31.07	7.65	273.98	0.00	58.25	27.60	8,232.88
7/6/07 2:18	868.44	362,549.59	247,089.80	72,786.88	3.90	31.03	7.37	274.62	0.00	58.65	27.60	8,765.42
7/6/07 2:19	869.24	351,629.09	245,174.41	73,009.44	6.21	30.88	7.09	275.01	0.00	58.65	27.50	8,719.58
7/6/07 2:20	869.76	345,731.19	245,039.30	72,564.57	4.31	30.88	6.96	275.34	0.00	58.50	27.60	8,326.64
7/6/07 2:21	869.80	356,844.00	247,950.59	74,122.50	3.55	30.75	6.97	275.98	0.00	58.70	27.60	7,441.19
7/6/07 2:22	869.61	357,354.91	247,520.41	73,265.38	3.33	31.75	6.98	276.34	0.00	58.35	27.60	6,557.08
7/6/07 2:23	869.69	353,502.19	247,322.41	72,582.68	4.33	31.77	6.99	276.34	0.00	58.65	27.70	5,898.54
7/6/07 2:24	870.08	358,099.91	247,839.50	73,396.17	5.96	32.25	7.00	276.34	0.00	58.35	27.70	5,719.42
7/6/07 2:25	870.05	352,542.41	248,147.00	73,190.26	5.27	31.75	7.00	275.98	0.00	65.05	30.40	5,627.24
7/6/07 2:26	868.49	362,698.41	250,546.30	73,691.75	5.27	32.15	7.01	276.34	0.00	65.10	30.40	7,325.16
7/6/07 2:27	867.97	359,018.41	248,792.59	73,543.16	5.27	31.66	7.02	275.70	0.00	65.15	30.10	7,281.21
7/6/07 2:28	868.87	363,201.00	251,418.59	74,076.63	5.55	32.75	7.03	275.70	0.00	64.65	30.00	8,323.29
7/6/07 2:29	869.79	335,889.31	249,384.70	72,801.93	4.90	32.75	7.04	275.70	0.00	63.50	29.00	8,319.65
7/6/07 2:30	871.06	359,539.69	248,499.41	73,407.05	3.82	33.00	7.05	275.67	0.00	62.55	28.90	6,566.44
7/6/07 2:31	872.26	365,275.59	249,686.70	73,454.95	4.66	33.00	7.06	275.32	0.00	60.90	28.20	3,370.75
7/6/07 2:32	873.12	359,317.31	252,179.91	74,765.81	5.39	33.75	7.06	274.65	0.00	59.65	28.10	0.00
7/6/07 2:33	874.03	360,005.19	249,913.20	73,629.59	4.48	33.77	7.07	273.96	0.00	58.70	27.60	6,705.33
7/6/07 2:34	873.51	354,575.41	248,175.00	73,117.49	5.25	33.94	7.08	273.98	0.00	58.40	26.50	0.00
7/6/07 2:35	871.83	354,231.50	250,380.20	74,455.90	4.61	33.00	7.07	273.67	0.00	58.50	26.50	8,509.22
7/6/07 2:36	869.58	375,587.09	253,024.91	73,858.87	6.33	33.00	6.87	273.38	0.00	58.60	26.50	0.00
7/6/07 2:37	868.11	361,553.31	247,470.59	73,487.88	6.35	32.75	6.68	273.98	0.00	58.45	26.40	0.00
7/6/07 2:38	866.86	357,351.81	246,687.91	73,197.37	6.74	33.06	6.57	273.98	0.00	58.40	26.60	0.00
7/6/07 2:39	867.42	363,378.09	249,817.91	73,823.64	6.13	33.31	6.57	274.62	0.00	58.45	26.70	0.00

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/6/07 2:40	867.88	361,104.09	247,178.20	73,140.60	6.84	33.50	6.58	274.31	0.00	58.15	26.40	2,754.57
7/6/07 2:41	868.94	359,551.81	249,955.00	73,324.63	5.78	34.00	6.59	275.34	0.00	58.75	26.30	0.00
7/6/07 2:42	870.23	362,801.19	248,214.50	73,559.16	4.77	33.50	6.59	275.34	0.00	58.55	26.50	4,949.55
7/6/07 2:43	870.77	376,114.69	251,371.50	74,185.31	6.68	33.75	6.60	275.70	0.00	58.50	26.30	0.00
7/6/07 2:44	870.15	354,908.00	247,294.41	72,835.01	7.33	33.50	6.61	275.70	0.00	58.80	26.50	5,747.70
7/6/07 2:45	869.49	347,674.69	246,563.30	73,489.30	8.24	33.25	6.61	275.70	0.00	64.65	29.60	0.00
7/6/07 2:46	870.65	356,321.09	246,893.91	73,138.39	8.24	33.50	6.62	275.70	0.00	65.25	29.60	8,380.64
7/6/07 2:47	870.15	355,137.19	249,540.41	74,183.99	8.24	34.00	6.63	276.01	0.00	64.95	30.00	0.00
7/6/07 2:48	869.46	354,805.50	247,091.30	73,839.94	3.74	34.00	6.63	275.70	0.00	64.45	29.50	6,884.70
7/6/07 2:49	868.39	359,833.09	246,086.70	73,058.38	6.49	33.50	6.64	275.70	0.00	63.30	29.70	0.00
7/6/07 2:50	868.47	372,676.59	248,373.00	74,008.66	6.53	33.50	6.65	275.70	0.00	62.15	28.10	0.00
7/6/07 2:51	867.77	356,837.50	247,188.41	73,230.23	6.02	33.44	6.65	275.70	0.00	60.65	28.50	0.00
7/6/07 2:52	867.39	353,325.00	246,094.80	73,359.91	5.42	32.75	6.66	275.70	0.00	58.95	27.70	0.00
7/6/07 2:53	866.96	356,394.00	247,541.70	74,231.05	5.56	32.56	6.67	275.70	0.00	58.80	27.00	3,890.49
7/6/07 2:54	865.27	364,499.31	249,067.80	74,503.80	4.75	32.50	6.67	275.70	0.00	58.60	26.30	0.00
7/6/07 2:55	864.68	359,795.50	248,947.70	73,715.56	6.52	32.00	6.68	275.34	0.00	58.75	26.50	6,398.32
7/6/07 2:56	865.24	363,992.81	248,304.50	73,585.11	4.45	31.75	6.69	276.01	0.00	58.60	26.70	0.00
7/6/07 2:57	865.61	341,713.91	247,980.91	73,634.36	7.29	31.53	6.69	276.01	0.00	58.40	26.60	8,383.00
7/6/07 2:58	865.58	363,385.91	250,098.20	73,963.99	3.15	31.91	6.70	276.03	0.00	58.60	26.40	0.00
7/6/07 2:59	866.21	360,634.69	250,206.50	73,573.43	5.64	31.25	6.71	276.65	0.00	58.85	26.60	0.00
7/6/07 3:00	867.21	353,558.81	249,731.70	73,119.09	4.74	31.06	6.78	276.65	0.00	58.45	26.70	0.00
7/6/07 3:01	867.58	363,708.09	252,338.00	74,125.74	5.82	30.59	6.91	277.03	0.00	58.50	26.40	0.00
7/6/07 3:02	868.80	362,681.41	249,639.70	73,499.41	3.68	30.03	7.03	277.06	0.00	58.70	26.70	0.00
7/6/07 3:03	869.33	346,278.00	249,052.80	72,899.78	6.61	30.25	7.15	277.01	0.00	58.55	26.60	0.00
7/6/07 3:04	869.96	355,693.09	252,032.00	73,415.48	6.10	30.28	7.27	276.65	0.00	58.45	26.50	0.00
7/6/07 3:05	871.79	367,199.19	251,944.30	73,565.02	5.48	29.88	7.39	277.01	0.00	64.95	29.80	0.00
7/6/07 3:06	873.32	362,368.69	250,017.09	73,286.16	5.48	30.00	7.51	277.34	0.00	65.00	29.40	0.00
7/6/07 3:07	873.79	342,651.41	249,238.70	73,181.83	5.48	30.88	7.64	277.03	0.00	64.90	29.60	0.00
7/6/07 3:08	874.22	362,493.41	251,425.70	73,989.73	4.60	30.91	7.76	276.65	0.00	64.75	29.60	0.00
7/6/07 3:09	874.92	355,927.69	251,324.91	73,553.15	5.85	30.73	7.88	275.98	0.00	63.30	29.70	0.00
7/6/07 3:10	875.26	365,858.69	249,256.70	72,701.96	5.58	30.63	8.00	275.70	0.00	62.35	28.10	0.00
7/6/07 3:11	875.34	358,608.91	250,496.50	72,983.87	8.42	30.63	8.12	275.70	0.00	61.25	28.80	0.00
7/6/07 3:12	875.86	357,988.19	250,461.00	73,077.98	5.14	30.53	8.24	275.34	0.00	59.70	27.80	0.00
7/6/07 3:13	876.64	356,296.41	250,938.20	74,006.48	5.62	29.93	8.37	275.34	0.00	58.85	27.50	0.00
7/6/07 3:14	876.57	351,209.41	252,318.59	73,916.92	5.62	29.66	8.49	275.01	0.00	58.70	26.40	0.00
7/6/07 3:15	876.41	377,432.31	251,033.50	73,671.11	4.49	29.59	8.61	275.70	0.00	58.40	26.60	0.00
7/6/07 3:16	876.11	358,557.81	250,544.09	73,824.45	8.08	29.63	8.73	275.34	0.00	58.40	26.70	0.00
7/6/07 3:17	876.83	359,032.00	251,238.91	74,299.69	4.56	29.63	8.85	275.70	0.00	58.45	26.50	0.00
7/6/07 3:18	876.59	347,308.31	248,142.41	74,066.85	5.78	29.53	8.96	275.70	0.00	58.15	26.40	0.00
7/6/07 3:19	875.80	364,942.41	252,057.59	74,435.44	5.84	29.47	9.07	275.70	0.00	58.10	26.60	0.00
7/6/07 3:20	876.00	360,147.69	250,199.30	74,066.41	5.09	28.89	9.18	275.70	0.00	58.70	26.50	0.00
7/6/07 3:21	876.63	365,850.91	248,543.00	74,322.04	5.12	28.72	9.29	275.70	0.00	58.60	26.60	0.00
7/6/07 3:22	875.88	349,228.41	246,894.80	73,851.63	8.02	28.84	9.40	275.70	0.00	58.65	26.30	0.00
7/6/07 3:23	876.13	365,442.31	250,071.59	73,534.75	4.11	28.66	9.51	276.01	0.00	58.35	26.50	0.00
7/6/07 3:24	876.97	349,396.31	246,558.09	73,585.58	5.58	28.63	9.62	275.98	0.00	58.30	26.60	15,056.63
7/6/07 3:25	878.63	362,873.59	248,210.91	73,561.12	5.83	28.91	9.74	276.65	0.00	65.00	29.40	13,571.89
7/6/07 3:26	879.81	349,873.59	246,280.80	73,121.90	5.83	28.78	9.87	277.03	0.00	64.90	30.10	13,576.82
7/6/07 3:27	880.13	356,936.31	246,592.20	73,586.13	5.83	28.97	10.06	277.01	0.00	64.90	30.00	13,663.62
7/6/07 3:28	880.95	353,064.69	246,244.30	73,924.76	6.45	28.97	10.24	277.01	0.00	64.80	30.20	13,621.81
7/6/07 3:29	882.36	353,105.41	244,700.80	73,309.54	4.22	28.84	10.42	276.65	0.00	63.50	29.20	11,439.12

	3223-TI-015C SH OUTLET FLUE GAS TEMP (DEGF)	3222-FI-002 SECONDARY AIR FLOW (LB/HR)	3221-FI-002 PRIMARY AIR FLOW (LB/HR)	3221-FI-052 DISTRIBUTION AIR FLOW (LB/HR)	3591-FI-011 CEMS STACK FLOW (SCFM)	LS_FLOW SDA TOTAL SLURRY FLOW (GPM)	QW_FLOW SDA QUENCH WATER FLOW (GPM)	3521-TI-005 SDA OUTLET TEMP (DEGF)	3561-FI-501A UREA INJECTION PUMP 1	3561-FI-501B UREA INJECTION PUMP 2	3561-FI-501C UREA INJECTION PUMP 3	3241-FI-005 SOOTBLOWER STEAM FLOW (LB/HR)
7/6/07 3:30	879.25	351,753.19	245,734.50	73,361.85	5.08	28.63	10.60	276.65	0.00	61.95	28.60	12,095.29
7/6/07 3:31	873.88	349,385.00	246,354.80	73,293.55	6.48	28.84	10.77	276.34	0.00	60.60	28.00	11,734.25
7/6/07 3:32	870.51	359,820.50	245,894.30	74,507.41	4.84	27.75	10.86	276.34	0.00	59.30	26.90	11,865.78
7/6/07 3:33	867.17	345,973.31	242,688.41	73,275.78	4.44	27.91	10.95	276.67	0.00	58.35	26.60	12,056.25
7/6/07 3:34	863.20	342,750.19	245,570.00	73,807.02	6.21	28.19	11.04	275.98	0.00	58.35	26.60	12,673.12
7/6/07 3:35	862.83	344,235.69	243,572.91	73,847.02	3.63	27.80	11.13	275.70	0.00	58.40	26.60	11,083.43
7/6/07 3:36	864.61	352,898.69	242,985.20	73,507.81	4.55	27.75	11.22	275.34	0.00	58.55	26.70	10,941.22
7/6/07 3:37	866.66	365,351.09	246,157.50	74,418.72	5.40	28.00	11.31	275.70	0.00	58.35	26.70	11,079.72
7/6/07 3:38	867.18	346,643.91	245,662.50	73,593.12	7.88	28.00	11.40	275.70	0.00	58.70	26.50	11,165.75
7/6/07 3:39	867.36	361,393.09	245,796.30	73,067.98	4.38	28.00	11.50	274.98	0.00	58.30	26.60	9,363.12
7/6/07 3:40	864.76	352,516.69	248,186.30	73,804.84	6.94	27.09	11.59	276.01	0.00	58.15	26.70	8,805.33
7/6/07 3:41	862.52	354,608.91	250,321.41	73,816.63	4.27	27.00	11.68	276.01	0.00	58.63	26.70	8,938.62
7/6/07 3:42	860.67	353,444.41	247,395.00	73,645.46	5.35	26.75	11.85	276.01	0.00	58.35	26.50	9,544.21
7/6/07 3:43	857.05	351,582.19	250,329.20	73,684.70	5.24	26.84	11.94	276.36	0.00	58.50	26.60	9,131.85
7/6/07 3:44	856.26	368,051.31	251,360.80	74,355.03	4.23	27.22	12.05	275.98	0.00	58.35	26.40	11,148.68
7/6/07 3:45	858.37	368,466.31	249,747.30	73,945.68	4.41	27.03	12.29	276.34	0.00	65.15	29.60	10,539.25
7/6/07 3:46	859.63	351,817.59	248,362.80	73,697.73	4.41	27.83	12.34	275.70	0.00	64.95	29.40	10,365.19
7/6/07 3:47	860.54	356,890.41	252,802.41	74,575.38	4.41	27.38	12.39	275.70	0.00	65.00	29.70	10,588.88
7/6/07 3:48	862.70	360,890.91	249,798.09	73,445.08	3.70	27.28	12.44	275.70	0.00	64.90	29.80	5,357.42
7/6/07 3:49	863.27	362,449.81	249,647.80	73,792.45	5.92	27.28	12.48	275.70	0.00	63.45	29.70	9,083.99
7/6/07 3:50	861.59	354,674.59	249,793.09	72,474.04	7.53	27.44	12.52	275.34	0.00	62.00	28.20	9,033.14
7/6/07 3:51	861.25	361,637.69	252,867.41	74,927.41	4.06	27.26	12.51	275.36	0.00	60.65	27.50	9,044.37
7/6/07 3:52	860.38	370,120.09	250,913.50	73,311.38	6.53	28.19	12.49	275.36	0.00	59.55	27.00	8,735.74
7/6/07 3:53	859.33	364,033.09	250,612.80	74,103.77	7.89	26.88	12.47	275.34	0.00	58.35	27.40	4,280.87
7/6/07 3:54	859.55	351,123.31	249,523.20	73,869.35	5.17	27.25	12.46	275.01	0.00	58.30	27.60	10,686.41
7/6/07 3:55	859.11	358,807.69	251,019.30	73,944.59	5.13	26.97	12.44	275.01	0.00	58.25	27.60	10,392.91
7/6/07 3:56	859.44	379,693.31	252,489.30	73,456.77	5.91	26.80	12.42	274.98	0.00	58.10	27.40	10,344.11
7/6/07 3:57	859.67	347,423.50	250,146.30	73,619.83	7.93	26.93	12.41	275.34	0.00	58.85	27.50	10,629.73
7/6/07 3:58	859.25	365,704.09	252,005.00	73,684.42	5.43	27.38	12.39	275.70	0.00	58.30	27.40	0.00
7/6/07 3:59	858.23	353,838.00	249,092.20	74,039.69	6.55	26.90	12.37	275.98	0.00	58.20	27.40	8,511.51
7/6/07 4:00	857.88	356,504.81	252,321.80	73,499.46	5.00	26.81	12.43	276.01	0.00	58.10	27.60	8,906.41

APPENDIX C

CALIBRATION GAS CERTIFICATIONS

AIR LIQUIDE™

CERTIFICATE of ANALYSIS

Interference-Free Multi-Component EPA Protocol Gases

NOTE: Analytical uncertainty and NIST traceability are in compliance with EPA-600/R-97/121

Section 2.2 Procedure: G-1

Cylinder Number: CC162006

Customer:	Air Hygiene	**Shipping Order #:**	24669211
P.O. Number:		**Transfer #:**	24669211
Item Number:	SGZCAH094	**LOT #:**	LPX218867
Notes:		**Valve:**	CGA590
		Cyl. Pressure:*	1900psig

*Cylinder should not be used when gas pressure is below 150 psig

Assay Date: 26-Mar-07 **Expiration Date: 25-Mar-10**

Component	Requested Concentration	Assay Concentration
Carbon Dioxide	**9 %**	**8.97 ±0.05 %**
Oxygen	**12 %**	**12.0 ±0.1 %**
Nitrogen	**Balance**	**Balance**

Reference Standard(s) Employed For Analysis:

Std name	Std #	Conc.	Units	Std. Error	Comp.	Balance	Cyl. No.	Exp. Date	Sample No.
GMIS328	GMIS328	14.01	%	0.06	CO2	N2	CC203023	7/24/2008	N.A.
GMIS203	GMIS203	19.0	%	0.2	O2	N2	CC57985	5/12/2007	N.A.

Analysis Information:

Component 1: Carbon Dioxide

Analyzer Information	
Manufacturer:	KVB/Analect
Model Number:	EN3024
Serial Number:	3024
Analytical Principle:	FTIR
MPC Calibrated:	03/01/07

	First Triad Analysis On: 3/26/2007			
	Trial 1	Trial 2	Trial 3	Units
Zero	**0.27**	**0.28**	**0.28**	
Reference	**14.46**	**14.49**	**14.45**	
Candidate	**9.39**	**9.36**	**9.32**	
Result	**8.99**	**8.97**	**8.93**	%
Mean Result:			8.97	%

	Second Triad Analysis On:			
	Trial 1	Trial 2	Trial 3	Units
Zero				
Reference				
Candidate				
Result				
Mean Result:				

Component 2: Oxygen

Analyzer Information	
Manufacturer:	Servomex
Model Number:	4605C
Serial Number:	1101
Analytical Principle:	Paramag.
MPC Calibrated:	03/14/07

	First Triad Analysis On: 3/26/2007			
	Trial 1	Trial 2	Trial 3	Units
Zero	**-0.01**	**-0.01**	**-0.01**	
Reference	**18.70**	**18.69**	**18.70**	
Candidate	**11.82**	**11.82**	**11.82**	
Result	**12.02**	**12.02**	**12.02**	%
Mean Result:			12.02	%

	Second Triad Analysis On:			
	Trial 1	Trial 2	Trial 3	Units
Zero				
Reference				
Candidate				
Result				
Mean Result:				

Analyst Signature: Warren Pereira **Calculated by:** Warren Pereira

Mix Assayed At: Air Liquide America 11426 Fairmont Pkwy, La Porte, TX, 77571 Phone:(281)474-8400 Fax:(281)474-8419

AIR LIQUIDE™

CERTIFICATE of ANALYSIS

Interference-Free Multi-Component EPA Protocol Gases

NOTE: Analytical uncertainty and NIST traceability are in compliance with EPA-600/R-97/121

Section 2.2 Procedure: G-1

Cylinder Number: CC16039

Customer:	Air Hygiene	**Shipping Order #:**	18651280
P.O. Number:		**Transfer #:**	18651280
Item Number:	AH095	**LOT #:**	LPX129537
Notes:		**Valve:**	CGA590
		Cyl. Pressure:*	1900psig

*Cylinder should not be used when gas pressure is below 150 psig

Assay Date: 23-Nov-05 **Expiration Date: 22-Nov-08**

Component	Requested Concentration	Assay Concentration
Carbon Dioxide	**19 %**	**19.0 ±0.2 %**
Oxygen	**21 %**	**21.0 ±0.2 %**
Nitrogen	**Balance**	**Balance**

Reference Standard(s) Employed For Analysis:

Std name	Std #	Conc.	Units	Std. Error	Comp.	Balance	Cyl. No.	Exp. Date	Sample No.
GMIS301	GMIS301	14.0	%	0.1	CO2	N2	CC71493	8/24/2007	N.A.
GMIS204	GMIS204	19.0	%	0.2	O2	N2	CC115413	5/12/2007	N.A.

Analysis Information:

Component 1:	Carbon Dioxide
Analyzer Information	
Manufacturer:	KVB/Analect
Model Number:	EN3024
Serial Number:	3024
Analytical Principle:	FTIR
MPC Calibrated:	11/10/05

	First Triad Analysis On: 11/18/2005			
	Trial 1	Trial 2	Trial 3	Units
Zero	**0.19**	**0.29**	**0.27**	
Reference	**13.26**	**13.42**	**13.39**	
Candidate	**17.99**	**18.05**	**18.07**	
Result	**18.94**	**19.01**	**19.03**	%
		Mean Result:	19.00	%

	Second Triad Analysis On:			
	Trial 1	Trial 2	Trial 3	Units
Zero				
Reference				
Candidate				
Result				
		Mean Result:		

Component 2:	Oxygen
Analyzer Information	
Manufacturer:	Servomex
Model Number:	4605C
Serial Number:	1101
Analytical Principle:	Paramag.
MPC Calibrated:	11/03/05

	First Triad Analysis On: 11/23/2005			
	Trial 1	Trial 2	Trial 3	Units
Zero	**0.03**	**0.03**	**0.04**	
Reference	**18.61**	**18.61**	**18.62**	
Candidate	**20.56**	**20.57**	**20.57**	
Result	**20.99**	**21.00**	**21.00**	%
		Mean Result:	21.00	%

	Second Triad Analysis On:			
	Trial 1	Trial 2	Trial 3	Units
Zero				
Reference				
Candidate				
Result				
		Mean Result:		

Analyst Signature: Warren Pereira **Calculated by:** Warren Pereira

Mix Assayed At: Air Liquide America **11426 Fairmont Pkwy, La Porte, TX, 77571** **Phone:(281)474-8400 Fax:(281)474-8419**

AIR LIQUIDE

015900360

CERTIFICATE of ANALYSIS

Interference-Free Multi-Component EPA Protocol Gases

NOTE: Analytical uncertainty and NIST traceability are in compliance with EPA-600/R-97/121

Section 2.2 Procedure: G-1

Cyl. Number: CC17607

Customer:	AIR HYGIENE	**Shipping Order #:**	24745990
P.O. Number:		**Transfer #:**	24745990
Item Number:	SGZCAH045	**LOT #:**	LPX219434
Notes:		**Valve**	CGA350
		Cyl. Pressure:*	1900psig

*Cylinder should not be used when gas pressure is below 150 psig

Assay Date: 17-Apr-07 **Expiration Date: 16-Apr-10**

Component	Requested Concentration	Assay Concentration
Carbon Monoxide	**210 ppm**	**220 ±2 ppm**
Nitrogen	**Balance**	**Balance**

Reference Standard(s) Employed For Analysis:

Std name	Std #	Conc.	Units	Std. Error	Comp.	Balance	Cyl. No.	Exp. Date	Sample No.
GMIS339	GMIS339	99.44	ppm	0.48	CO	N2	CC82421	11/14/2008	N.A.

Analysis Information:

Component 1:	Carbon Monoxide										
Analyzer Information			First Triad Analysis On:		4/10/2007			Second Triad Analysis On:		4/17/2007	
Manufacturer:	KVB/Analect		Trial 1	Trial 2	Trial 3	Units		Trial 1	Trial 2	Trial 3	Units
Model Number:	EN3024	Zero	**-0.14**	**-0.01**	**0.17**		Zero	**-0.12**	**-0.05**	**-0.17**	
Serial Number:	3024	Reference	**105.21**	**104.57**	**103.96**		Reference	**105.44**	**105.12**	**104.85**	
Analytical Principle:	FTIR	Candidate	**230.54**	**231.66**	**231.12**		Candidate	**231.16**	**232.51**	**232.81**	
MPC Calibrated:	03/15/07 & 04/12/07	Result	**219.22**	**220.28**	**219.77**	ppm	Result	**218.50**	**219.77**	**220.06**	ppm
				Mean Result:	219.76	ppm			Mean Result:	219.44	ppm

Analyst Signature: Bryan Leger Bryan Leger **Calculated by:** M. Adnane

Mix Assayed At: Air Liquide America 11426 Fairmont Pkwy, La Porte, TX, 77571 Phone:(281)474-8400 Fax:(281)474-8419

AIR LIQUIDE™

CERTIFICATE of ANALYSIS

EPA Protocol Gases

Cyl. Number:	Cyl. Pressure:*	Lot Number:
CC148606	2000 PSIG	SFS75790
Assay Date:	**Expiration Date:**	**Document Number:**
01/14/05	01/14/08	14680051
Customer:	**P.O. Number:**	**Item Number:**
ALA-CSL-CENTENNIAL CENTENNIAL, CO	CONSIGNMENT	

COMPONENT Name	REQUESTED Concentration	ASSAY Concentration
Carbon Monoxide	450 ppm	457 ± 6 ppm
Nitrogen	Balance	Balance

*Mixture is valid only to 150 psig

EPA Protocol
Section No. 2.2, Procedure . G-1

Analyst: Eric Barron
Approved by: Thuan Tran

REFERENCE STANDARD EMPLOYED FOR ANALYSIS

Concentration	Component	Balance	SRM or GMIS Cyl. No.	NTRM No.	Exp. Date	Sample No.	Type
500 ± 4 ppm	Carbon Monoxide	Nitrogen	CC 150327	SFS48669	04/02/05	LU	GMIS

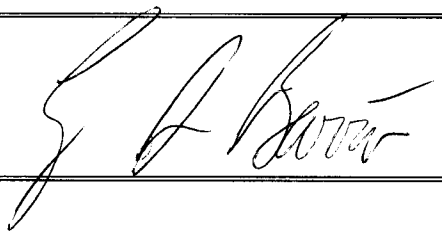
Carbon Monoxide
GAS ANALYZER EMPLOYED

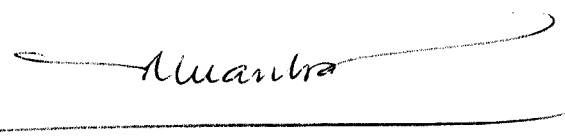
Manufacturer:	Varian(A)
Model Number:	3400
Serial Number:	2805
MPR Last Calibrated:	12/22/04
Analytical Principle:	FID & TCD

ANALYSIS SUMMARY

	01/07/05 Triad 1	01/07/05 Triad 2	01/07/05 Triad 3	Carbon Monoxide Units
Zero	0	0	0	Area
Reference	20715159	20739129	20771211	Area
Candidate	18925811	18984831	19018555	Area
Result	456.8	457.7	457.8	ppm
Evaluation	VALID	VALID	VALID	
MEAN ANALYTICAL RESULT:				457.4 ppm

	01/14/05 Triad 4	01/14/05 Triad 5	01/14/05 Triad 6	Carbon Monoxide Units
Zero	0	0	0	Area
Reference	21588952	21601768	21615114	Area
Candidate	19769458	19740611	19750175	Area
Result	457.9	456.9	456.9	ppm
Evaluation	VALID	VALID	VALID	
MEAN ANALYTICAL RESULT:				457.2 ppm

Analyst: 

Approved by: 

AIR LIQUIDE AMERICA, L.P. Region Office • 8832 Dice Road, Santa Fe Springs, CA 90670-2516
Phone: (562) 945-1383 • Fax: (562) 693-1156

AIR LIQUIDE

CERTIFICATE OF ANALYSIS

Interference-Free Multi-Component EPA Protocol Gases

Note: Analytical uncertainty and NIST traceability are in compliance with EPA-600/R-97/121
Section No. 2.2, Procedure . G-1

Cylinder Number: CC171920

Customer: AIR HYGIENE
HUMBLE, TX
P.O. Number: RECERTIFICATION
Item Number: AH043

Shipping Order Number 16169268
Transfer Number:
Lot Number: SFS85767
Valve: CGA 350
Cyl. Pressure:* 1667 PSIG
*Cylinder should not be used when gas pressure is below 150 psig

Assay Date: 25-Jul-05

Expiration Date: 25-Jul-08

Component	REQUESTED Concentration	ASSAY Concentration		
Carbon Monoxide	**4000 ppm**	**4010**	**± 60**	**ppm**
Nitrogen	**Balance**	**Balance**		

Reference Standard Employed For Analysis:

Concentration				Component	Balance	Cyl. No.	SRM or GMIS NTRM No.	Exp. Date	Sample No.	Type
4980	±	50	ppm	Carbon Monoxide	Nitrogen	AL-1927	12223	06/02/07	BY	GMIS

Analysis Information:

Component: Carbon Monoxide			First Triad Analysis 07/18/05				Second Triad Analysis 07/25/05			
Analyzer Information			Trial 1	Trial 2	Trial 3	Units	Trial 4	Trial 5	Trial 6	Units
Manufacturer:	Varian(B)	Zero	0	0	0	ppm	0	0	0	ppm
Model Number:	3400	Reference	5000	5008	5000	ppm	5004	5010	4994	ppm
Serial Number:	2806	Candidate	4024	4027	4025	ppm	4023	4024	4018	ppm
MPR Last Calibrated:	06/27/05	Result	4008	4004	4009	ppm	4004	4000	4007	ppm
Analytical Principle:	FID & TCD	Evaluation	VALID	VALID	VALID		VALID	VALID	VALID	
		MEAN ANALYTICAL RESULT:				4007 ppm	MEAN ANALYTICAL RESULT:			4003 ppm

Analyst Signature: Eric Barron

Approved by: David Connolly

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Phone: (562) 945-1383 • Fax: (562) 693-1156

AIR LIQUIDE

CERTIFICATE of ANALYSIS

Interference-Free Multi-Component EPA Protocol Gases

NOTE: Analytical uncertainty and NIST traceability are in compliance with EPA-600/R-97/121

Section 2.2 Procedure: G-1

Cyl. Number: CC178135

Customer:	Air Hygiene	**Shipping Order #:**	15321147
P.O. Number:	5021102	**Transfer #:**	15321147
Item Number:	AH-042	**LOT #:**	LPX114669
Notes:		**Valve**	CGA350
		Cyl. Pressure:*	1900psig
Assay Date:	8-Mar-05	**Expiration Date: 7-Mar-08**	*Cylinder should not be used when gas pressure is below 150 psig

Component	Requested Concentration	Assay Concentration
Carbon Monoxide	**1800 ppm**	**1810 ±10 ppm**
Nitrogen	**Balance**	**Balance**

Reference Standard(s) Employed For Analysis:

Std name	Std #	Conc.	Units	Std. Error	Comp.	Balance	Cyl. No.	Exp. Date	Sample No.
GMIS233	GMIS233	2452.0	ppm	10.0	CO	N2	CC108277	4/17/2005	N.A.

Analysis Information:

Component 1: Carbon Monoxide

Analyzer Information	
Manufacturer:	KVB/Analect
Model Number:	EN3024
Serial Number:	3024
Analytical Principle:	FTIR
MPC Calibrated:	02/21/05

	First Triad Analysis On:		3/1/2005	
	Trial 1	Trial 2	Trial 3	Units
Zero	**-0.54**	**0.50**	**0.17**	
Reference	**2359.69**	**2367.34**	**2371.32**	
Candidate	**1748.98**	**1748.03**	**1741.12**	
Result	**1812.45**	**1811.46**	**1804.30**	ppm
		Mean Result:	1809.40	ppm

	Second Triad Analysis On:		3/8/2005	
	Trial 1	Trial 2	Trial 3	Units
Zero	**-0.02**	**0.13**	**0.11**	
Reference	**2344.65**	**2347.36**	**2352.17**	
Candidate	**1737.56**	**1730.56**	**1734.16**	
Result	**1814.45**	**1807.14**	**1810.90**	ppm
		Mean Result:	1810.83	ppm

Analyst Signature: Bryan Leger

Calculated by: Yang Qin

Mix Assayed At: Air Liquide America 11426 Fairmont Pkwy, La Porte, TX, 77571 Phone:(281)474-8400 Fax:(281)474-8419

APPENDIX D

QUALITY ASSURANCE AND QUALITY CONTROL DATA

QA/QC PROGRAM

Air Hygiene ensures the quality and validity of its emission measurement and reporting procedures through a rigorous quality assurance (QA) program. The program is developed and administered by an internal QA team and encompasses five major areas:

1. QA reviews of reports, laboratory work, and field testing
2. Equipment calibration and maintenance
3. Chain-of-custody
4. Training
5. Knowledge of current test methods

Each of these areas is discussed individually below.

QA Reviews

Air Hygiene's review procedure includes review of each source test report, along with laboratory and fieldwork, by the QA Team. The most important review is the one that takes place before a test program begins. The QA Team works closely with technical division personnel to prepare and review test protocols. Test protocol review includes selection of appropriate test procedures, evaluation of interferences or other restrictions that might preclude use of standard test procedures, and evaluation and/or development of alternate procedures.

Equipment Calibration and Maintenance

The equipment used to conduct the emission measurements is maintained according to the manufacturer's instructions to ensure proper operation. In addition to the maintenance program, calibrations are carried out on each measurement device according to the schedule outlined by the Environmental Protection Agency. Quality control checks are also conducted in the field for each test program.

Chain-of-Custody

Air Hygiene maintains full chain-of-custody documentation on all samples and data sheets. In addition to normal documentation of changes between field sample custodians, laboratory personnel, and field test personnel, Air Hygiene documents every individual who handles any test component in the field (e.g., probe wash, impinger loading and recovery, filter loading and recovery, etc.). Samples are stored in a locked area to which only Air Hygiene personnel have access. Field data sheets are secured at Air Hygiene's offices upon return from the field.

Training

Personnel's training is essential to ensure quality testing. Air Hygiene has formal and informal training programs, which include:

1. Attendance at EPA-sponsored training courses
2. Enrollment in EPA correspondence courses
3 A requirement for all technicians to read and understand Air Hygiene's QA manual
4. In-house training and QA meetings on a regular basis
5. Maintenance of training records

Knowledge of Current Test Methods

With the constant updating of standard test methods and the wide variety of emerging test procedures, it is essential that any qualified source tester keep abreast of new developments. Air Hygiene subscribes to services, which provide updates on EPA reference methods, rules, and regulations. Additionally, source test personnel regularly attend and present papers at testing and emission-related seminars and conferences. Air Hygiene personnel maintain membership in the Air and Waste Management Association and the American Industrial Hygiene Association.

COMBUSTION TESTING QUALITY ASSURANCE ACTIVITIES

A number of quality assurance activities were undertaken before, during, and after this testing project. This section of the report combined with the documentation in Appendix C describe each of those activities.

Each instrument's response was checked and adjusted in the field prior to the collection of data via multi-point calibration. The instrument's linearity was checked by adjusting its zero and span responses to zero nitrogen and an upscale calibration gas in the range of the expected concentrations. The instrument response was then challenged with other calibration gases of known concentration and accepted as being linear if the response of the other calibration gases agreed within ± two percent of the range of predicted values. NO_2 to NO conversion was checked via direct connect with an EPA Protocol certified concentration of NO_2 in a balance of nitrogen. Conversion was verified to be between 90 and 110 percent.

After each test run, the analyzers were checked for zero and span drift. This allowed each test run to be bracketed by calibrations and documents the precision of the data just collected. The criterion for acceptable data is that the instrument drift is no more than three percent of the full-scale response. The quality assurance worksheets in the following pages summarize all multipoint calibration checks and zero to span checks performed during the tests. These worksheets (as prepared from the data records of Appendix A) show that no drifts in excess of three percent occurred in the zero to span checks following each test run.

The sampling systems were leak checked by demonstrating that a vacuum greater than 10 in Hg could be held for at least one minute with a decline of less than one in. Hg. A leak test was conducted after the sample system was set up and before the system was dismantled. This test was conducted to ensure that ambient air had not diluted the sample. Any leakage detected prior to the tests would be repaired and another leak check conducted before testing commenced. No leaks were found during the pre or post-test leak checks.

The absence of leaks in the sampling system was also verified by a sampling system bias check. The sampling system's integrity was tested by comparing the responses of the analyzers to the calibration gases introduced via two paths. The first path was directly into the analyzer and the second path via the sample system at the sample probe. Any difference in the instrument responses by these two methods was attributed to sampling system bias or leakage. The criterion for acceptance is agreement within five percent of the span of the analyzer.

The control gases used to calibrate the instruments were analyzed and certified by the compressed gas vendors to plus or minus one percent accuracy for all gases. EPA Protocol No. 1 was used, where applicable to assign the concentration values traceable to the National Institute of Standards and Technology (NIST), Standard Reference Materials (SRM's). The gas calibration sheets as prepared by the vendor are contained in Appendix C.

Air Hygiene collected and reported the enclosed test data in accordance with the procedures and quality assurance activities described in this test report. Air Hygiene makes no warranty as to the suitability of the test methods. Air Hygiene also assumes no liability relating to the interpretation and use of the test data.

INSTRUMENTAL ANALYSIS
QUALITY ASSURANCE DATA

Date: July 4-6, 2007
Company: Fibrominn, LLC
Location: Benson, Minnesota
Techs: TKG

Sample System Leak Check

Date	Sample System	Leak Rate (l/min)
July 4-6, 2007	1	0
July 4-6, 2007	2	0

SAMPLE DESCRIPTION AND CHAIN OF CUSTODY RECORD

Air Hygiene International, Inc.
5634 S. 122nd East Ave, Suite F
Tulsa, Oklahoma 74146
(888) 461-8778
www.airhygiene.com

Project Number:	snc-07-benson.mn-comp#1	Laboratory Analysis Requested:	
Person Taking Samples:	TP/TKG	Reference Method 23 (Dioxins)	

Sample Number	Location	Date	Volume	Analysis Method			
				RM 23			
OUT-Diox-1-F	Outlet-Dioxins-Run 1-Filter	7/4/2007	N/A	X			
OUT-Diox-2-F	Outlet-Dioxins-Run 2-Filter	7/4/2007	N/A	X			
OUT-Diox-3-F	Outlet-Dioxins-Run 3-Filter	7/4/2007	N/A	X			
OUT-Diox-1-#2	Outlet-Dioxins-Run 1-Acetone&MeCl Rinse	7/4/2007	as marked	X			
OUT-Diox-2-#2	Outlet-Dioxins-Run 2-Acetone&MeCl Rinse	7/4/2007	as marked	X			
OUT-Diox-1-#2	Outlet-Dioxins-Run 3-Acetone&MeCl Rinse	7/4/2007	as marked	X			
OUT-Diox-1-#3	Outlet-Dioxins-Run 1-Toluene Rinse	7/4/2007	as marked	X			
OUT-Diox-2-#3	Outlet-Dioxins-Run 2-Toluene Rinse	7/4/2007	as marked	X			
OUT-Diox-3-#3	Outlet-Dioxins-Run 3-Toluene Rinse	7/4/2007	as marked	X			
OUT-Diox-1-XAD	Outlet-Dioxins-Run 1-Cartridge	7/4/2007	as marked	X			
OUT-Diox-2-XAD	Outlet-Dioxins-Run 2-Cartridge	7/4/2007	as marked	X			
OUT-Diox-3-XAD	Outlet-Dioxins-Run 3-Cartridge	7/4/2007	as marked	X			
A-B	Acetone Blank	7/4/2007	as marked	X			
MC-B	MeCl Blank	7/4/2007	as marked	X			
T-B	Toluene Blank	7/4/2007	as marked	X			

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snc-07-benson.mn-comp#1-Outlet-Dioxins

SAMPLE DESCRIPTION AND CHAIN OF CUSTODY RECORD

Air Hygiene International, Inc.
5634 S. 122nd East Ave, Suite F
Tulsa, Oklahoma 74146
(888) 461-8778
www.airhygiene.com

Project Number:	snc-07-benson.mn-comp#1	Laboratory Analysis Requested:	
Person Taking Samples:	TP	Dioxin Analysis (Reference Method 23)	

Sample Number	Location	Date	Volume	Analysis Method
				RM 23
in-ohm-1-container1	Run 1 - Filter	7/5/2007	N/A	X
in-ohm-1-container2	Run 1 - Nozzle, Glass liner and Front half of filter housing and connecting glasswares rinsed with 0.1 N HNO3	7/5/2007	as marked	X
in-ohm-1-container3	Run 1 - Impingers 1, 2, and 3 contents (KCl) + Back half of the filter housing, impingers and connecting glasswares rinsed with 10% HNO3	7/5/2007	as marked	X
in-ohm-1-container4	Run 1 - Impinger 4 contents (HNO3 - H2O2 solution) + impinger and connecting glassware rinsed with 0.1 N HNO3	7/5/2007	as marked	X
in-ohm-1-container5	Run 1 - Impingers 5, 6, and 7 contents (H2SO4 - KMnO4) + impingers and connecting glasswares rinsed with 0.1N HNO3	7/5/2007	as marked	X
in-ohm-2-container1	Run 2 -Filter	7/5/2007	N/A	X
in-ohm-2-container2	Run 2 -Nozzle, Glass liner and Front half of filter housing and connecting glasswares rinsed with 0.1 N HNO3	7/5/2007	as marked	X
in-ohm-2-container3	Run 2 -Impingers 1, 2, and 3 contents (KCl) + Back half of the filter housing, impingers and connecting glasswares rinsed with 10% HNO3	7/5/2007	as marked	X
in-ohm-2-container4	Run 2 -Impinger 4 contents (HNO3 - H2O2 solution) + impinger and connecting glassware rinsed with 0.1 N HNO3	7/5/2007	as marked	X
in-ohm-2-container5	Run 2 -Impingers 5, 6, and 7 contents (H2SO4 - KMnO4) + impingers and connecting glasswares rinsed with 0.1N HNO3	7/5/2007	as marked	X
in-ohm-3-container1	Run 3 -Filter	7/5/2007	N/A	X
in-ohm-3-container3	Run 3 -Nozzle, Glass liner and Front half of filter housing and connecting glasswares rinsed with 0.1 N HNO3	7/5/2007	as marked	X
in-ohm-3-container3	Run 3 -Impingers 1, 3, and 3 contents (KCl) + Back half of the filter housing, impingers and connecting glasswares rinsed with 10% HNO3	7/5/2007	as marked	X
in-ohm-3-container4	Run 3 -Impinger 4 contents (HNO3 - H3O3 solution) + impinger and connecting glassware rinsed with 0.1 N HNO3	7/5/2007	as marked	X
in-ohm-3-container5	Run 3 -Impingers 5, 6, and 7 contents (H3SO4 - KMnO4) + impingers and connecting glasswares rinsed with 0.1N HNO3	7/5/2007	as marked	X

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snc-07-benson.mn-comp#1-Inlet-Hg

SAMPLE DESCRIPTION AND CHAIN OF CUSTODY RECORD

Air Hygiene International, Inc.
5634 S. 122nd East Ave, Suite F
Tulsa, Oklahoma 74146
(888) 461-8778
www.airhygiene.com

Project Number:	snc-07-benson.mn-comp#1	Laboratory Analysis Requested:	
Person Taking Samples:	TP	Dioxin Analysis (Reference Method 23)	

Sample Number	Location	Date	Volume	Analysis Method
				RM 23
out-ohm-1-container1	Run 1 - Filter	7/5/2007	N/A	X
out-ohm-1-container2	Run 1 - Nozzle, Glass liner and Front half of filter housing and connecting glasswares rinsed with 0.1 N HNO3	7/5/2007	as marked	X
out-ohm-1-container3	Run 1 - Impingers 1, 2, and 3 contents (KCl) + Back half of the filter housing, impingers and connecting glasswares rinsed with 10% HNO3	7/5/2007	as marked	X
out-ohm-1-container4	Run 1 - Impinger 4 contents (HNO3 - H2O2 solution) + impinger and connecting glassware rinsed with 0.1 N HNO3	7/5/2007	as marked	X
out-ohm-1-container5	Run 1 - Impingers 5, 6, and 7 contents (H2SO4 - KMnO4) + impingers and connecting glasswares rinsed with 0.1N HNO3	7/5/2007	as marked	X
out-ohm-2-container1	Run 2 -Filter	7/5/2007	N/A	X
out-ohm-2-container2	Run 2 -Nozzle, Glass liner and Front half of filter housing and connecting glasswares rinsed with 0.1 N HNO3	7/5/2007	as marked	X
out-ohm-2-container3	Run 2 -Impingers 1, 2, and 3 contents (KCl) + Back half of the filter housing, impingers and connecting glasswares rinsed with 10% HNO3	7/5/2007	as marked	X
out-ohm-2-container4	Run 2 -Impinger 4 contents (HNO3 - H2O2 solution) + impinger and connecting glassware rinsed with 0.1 N HNO3	7/5/2007	as marked	X
out-ohm-2-container5	Run 2 -Impingers 5, 6, and 7 contents (H2SO4 - KMnO4) + impingers and connecting glasswares rinsed with 0.1N HNO3	7/5/2007	as marked	X
out-ohm-3-container1	Run 3 -Filter	7/5/2007	N/A	X
out-ohm-3-container3	Run 3 -Nozzle, Glass liner and Front half of filter housing and connecting glasswares rinsed with 0.1 N HNO3	7/5/2007	as marked	X
out-ohm-3-container3	Run 3 -Impingers 1, 3, and 3 contents (KCl) + Back half of the filter housing, impingers and connecting glasswares rinsed with 10% HNO3	7/5/2007	as marked	X
out-ohm-3-container4	Run 3 -Impinger 4 contents (HNO3 - H3O3 solution) + impinger and connecting glassware rinsed with 0.1 N HNO3	7/5/2007	as marked	X
out-ohm-3-container5	Run 3 -Impingers 5, 6, and 7 contents (H3SO4 - KMnO4) + impingers and connecting glasswares rinsed with 0.1N HNO3	7/5/2007	as marked	X
h-b-ohm-container7	50 ml of 0.1 N HNO3 blank	7/5/2007	as marked	X
k-b-ohm-container8	50 ml of 1 N KCl blank	7/5/2007	as marked	X
hh-b-ohm-container9	50 ml of HNO3-H2O2 blank	7/5/2007	as marked	X
hk-b-ohm-container10	50 ml of H2SO4 - KMnO4 blank	7/5/2007	as marked	X
hxm-b-ohm-container11	100 ml of Hydroxylamine blank	7/5/2007	as marked	X
f-b-ohm-container12	Sample blank filter	7/5/2007	N/A	X

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APPENDIX E

FUEL ANALYSIS

Client: Fibrominn, LLC
Location: Fibrominn Biomass Power Plant
Date: July 3, 2007
Project #: snc-07-benson.mn-comp#1

Biomass - Fuel Analysis

Characteristics of Fuel Gas		
Btu per lb. of biomass =	4,372	gross (HHV)
Btu per lb. of biomass =	4,415	gross (HHV)
Btu per lb. of biomass =	4,203	gross (HHV)
Btu per lb. of biomass =	4,346	gross (HHV)
Btu per lb. of biomass =	**4,334**	**gross (HHV)**

Component	Wt%	Sample
carbon	25.65	LOT 10
carbon	25.50	LOT 11
carbon	25.34	LOT 12
carbon	25.60	LOT 13
carbon	**25.52**	**AVERAGE**

F_c-Factor (SCF dry exhaust per MMBtu [HHV]) =	1,883.27	LOT 10
F_c-Factor (SCF dry exhaust per MMBtu [HHV]) =	1,854.02	LOT 11
F_c-Factor (SCF dry exhaust per MMBtu [HHV]) =	1,935.32	LOT 12
F_c-Factor (SCF dry exhaust per MMBtu [HHV]) =	1,890.84	LOT 13
F_c-Factor (SCF dry exhaust per MMBtu [HHV]) =	**1,890.34**	**AVERAGE**
(Based on EPA RM-19) at 68 deg F and 14.696 psia		

Hazen Research, Inc.
4601 Indiana Street
Golden, CO 80403 USA
Tel: (303) 279-4501
Fax: (303) 278-1528

Date July 11 2007
HRI Project 002-UD9
HRI Series No. G30/07-1
Date Rec'd. 07/06/07
Cust. P.O.#

McHale & Associates, Inc.
Gary Anderson
1635 235th Ave SE
Sammamish, WA 98075

Sample Identification
Turkey Litter Sample 10

Reporting Basis >	As Rec'd	Dry	Air Dry
Proximate (%)			
Moisture	37.60	0.00	5.26
Ash	12.51	20.05	19.00
Volatile			
Fixed C			
Total			
Sulfur	0.31	0.50	0.47
Btu/lb (HHV)	4372	7007	6639
MMF Btu/lb	5048	8944	
MAF Btu/lb		8765	
Air Dry Loss (%)	34.14		
Ultimate (%)			
Moisture	37.60	0.00	5.26
Carbon	25.65	41.10	38.94
Hydrogen	3.26	5.23	4.95
Nitrogen	2.66	4.26	4.04
Sulfur	0.31	0.50	0.47
Ash	12.51	20.05	19.00
Oxygen*	18.01	28.86	27.34
Total	100.00	100.00	100.00
Chlorine**	0.450	0.721	0.683
Forms of Sulfur (as S,%)			
Sulfate			
Pyritic			
Organic			
Total	0.31	0.50	
Water Soluble Alkalies (%)			
Na2O			
K2O			

Lb. Alkali/MM Btu=
Lb. Ash/MM Btu= 28.62
Lb. SO2/MM Btu= 1.42
HGI= @ % Moisture
As Rec'd. Sp.Gr.=
Free Swelling Index=
F-Factor(dry),DSCF/MM BTU= 9,920

Report Prepared By:

Vickie Buster for
Gerard H. Cunningham
Fuels Laboratory Supervisor

* Oxygen by Difference.
** Not usually reported as part of the ultimate analysis.

Hazen Research, Inc.
4601 Indiana Street
Golden, CO 80403 USA
Tel: (303) 279-4501
Fax: (303) 278-1528

Date July 11 2007
HRI Project 002-UD9
HRI Series No. G30/07-2
Date Rec'd. 07/06/07
Cust. P.O.#

McHale & Associates, Inc.
Gary Anderson
1635 235th Ave SE
Sammamish, WA 98075

Sample Identification
Turkey Litter Sample 11

Reporting Basis >	As Rec'd	Dry	Air Dry
Proximate (%)			
Moisture	34.00	0.00	0.64
Ash	14.35	21.74	21.60
Volatile			
Fixed C			
Total			
Sulfur	0.30	0.45	0.45
Btu/lb (HHV)	4415	6689	6646
MMF Btu/lb	5217	8740	
MAF Btu/lb		8547	
Air Dry Loss (%)	33.57		
Ultimate (%)			
Moisture	34.00	0.00	0.64
Carbon	25.50	38.64	38.39
Hydrogen	3.45	5.22	5.19
Nitrogen	2.76	4.18	4.15
Sulfur	0.30	0.45	0.45
Ash	14.35	21.74	21.60
Oxygen*	19.64	29.77	29.58
Total	100.00	100.00	100.00
Chlorine**	0.428	0.648	0.644

Lb. Alkali/MM Btu=
Lb. Ash/MM Btu= 32.50
Lb. SO2/MM Btu= 1.35
HGI= @ % Moisture
As Rec'd. Sp.Gr.=
Free Swelling Index=
F-Factor(dry),DSCF/MM BTU= 9,758

Forms of Sulfur (as S,%)		
Sulfate		
Pyritic		
Organic		
Total	0.30	0.45

Report Prepared By:

Victoria Buster for
Gerard H. Cunningham
Fuels Laboratory Supervisor

Water Soluble Alkalies (%)

Na2O
K2O

* Oxygen by Difference.
** Not usually reported as part of the ultimate analysis.

Hazen Research, Inc.
4601 Indiana Street
Golden, CO 80403 USA
Tel: (303) 279-4501
Fax: (303) 278-1528

Date July 11 2007
HRI Project 002-UD9
HRI Series No. G30/07-3
Date Rec'd. 07/06/07
Cust. P.O.#

McHale & Associates, Inc.
Gary Anderson
1635 235th Ave SE
Sammamish, WA 98075

Sample Identification
Turkey Litter Sample 12

Reporting Basis >	As Rec'd	Dry	Air Dry
Proximate (%)			
Moisture	33.32	0.00	2.86
Ash	15.51	23.27	22.60
Volatile			
Fixed C			
Total			
Sulfur	0.34	0.51	0.50
Btu/lb (HHV)	4203	6303	6123
MMF Btu/lb	5040	8416	
MAF Btu/lb		8215	
Air Dry Loss (%)	31.36		
Ultimate (%)			
Moisture	33.32	0.00	2.86
Carbon	25.34	38.01	36.92
Hydrogen	3.51	5.26	5.11
Nitrogen	2.92	4.38	4.25
Sulfur	0.34	0.51	0.50
Ash	15.51	23.27	22.60
Oxygen*	19.06	28.57	27.76
Total	100.00	100.00	100.00
Chlorine**	0.499	0.748	0.727

Lb. Alkali/MM Btu=
Lb. Ash/MM Btu= 36.91
Lb. SO2/MM Btu= 1.63
HGI= @ % Moisture
As Rec'd. Sp.Gr.=
Free Swelling Index=
F-Factor(dry),DSCF/MM BTU= 10,321

Forms of Sulfur (as S,%)		
Sulfate		
Pyritic		
Organic		
Total	0.34	0.51

Water Soluble Alkalies (%)

Na2O
K2O

Report Prepared By:

Vickie Buster for
Gerard H. Cunningham
Fuels Laboratory Supervisor

* Oxygen by Difference.
** Not usually reported as part of the ultimate analysis.

Hazen Research, Inc.
4601 Indiana Street
Golden, CO 80403 USA
Tel: (303) 279-4501
Fax: (303) 278-1528

Date July 11 2007
HRI Project 002-UD9
HRI Series No. G30/07-4
Date Rec'd. 07/06/07
Cust. P.O.#

McHale & Associates, Inc.
Gary Anderson
1635 235th Ave SE
Sammamish, WA 98075

Sample Identification
Turkey Litter Sample 13

Reporting Basis >	As Rec'd	Dry	Air Dry
Proximate (%)			
Moisture	34.95	0.00	3.59
Ash	13.15	20.22	19.49
Volatile			
Fixed C			
Total			
Sulfur	0.36	0.55	0.53
Btu/lb (HHV)	4346	6681	6441
MMF Btu/lb	5056	8545	
MAF Btu/lb		8374	
Air Dry Loss (%)	32.53		
Ultimate (%)			
Moisture	34.95	0.00	3.59
Carbon	25.60	39.35	37.94
Hydrogen	3.57	5.49	5.29
Nitrogen	3.22	4.95	4.77
Sulfur	0.36	0.55	0.53
Ash	13.15	20.22	19.49
Oxygen*	19.15	29.44	28.39
Total	100.00	100.00	100.00
Chlorine**	0.462	0.711	0.685
Forms of Sulfur (as S,%)			
Sulfate			
Pyritic			
Organic			
Total	0.36	0.55	
Water Soluble Alkalies (%)			
Na2O			
K2O			

Lb. Alkali/MM Btu=
Lb. Ash/MM Btu= 30.26
Lb. SO2/MM Btu= 1.65
HGI= @ % Moisture
As Rec'd. Sp.Gr.=
Free Swelling Index=
F-Factor(dry),DSCF/MM BTU= 10,123

Report Prepared By:

Vickie Buster for
Gerard H. Cunningham
Fuels Laboratory Supervisor

* Oxygen by Difference.
** Not usually reported as part of the ultimate analysis.

APPENDIX F

TEST PROTOCOL

COMPLIANCE TEST PROTOCOL

FOR
ONE BIOMASS BOILER
(SPRAY DRYER ABSORBER INLET AND STACK OUTLET)

PREPARED FOR
SNC – LAVALIN, POWERMINN 9090 LLC, AND FIBROMINN LLC

AT THE
FIBROMINN BIOMASS POWER PLANT
BENSON, MINNESOTA

Minnesota Pollution Control Agency
Permit No: 15100038-004

April 25, 2007

COMPLIANCE TEST PROTOCOL

FOR
ONE BIOMASS BOILER
(SPRAY DRYER ABSORBER INLET AND STACK OUTLET)

PREPARED FOR
SNC – LAVALIN, POWERMINN 9090 LLC, AND FIBROMINN LLC

AT THE
FIBROMINN BIOMASS POWER PLANT
BENSON, MINNESOTA

Minnesota Pollution Control Agency
Permit No: 15100038-004

April 25, 2007

Prepared By:

Thomas K. Graham, PE, Director of Operations

rev - 0

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1.0 INTRODUCTION

1.1 General Facility Description

PowerMinn 9090, LLC (PowerMinn) owns and Fibrominn, LLC (Fibrominn) operates the Fibrominn Biomass Power Plant (FBPP) in Swift County, Benson, Minnesota. FBPP comprises one boiler, fueled principally with poultry litter. Vegetative biomass may also be burned. The facility generates an average of 50 megawatts (MW) of electricity for export and has a peak electrical export capacity of 55 MW.

Emissions from the boiler are controlled by a baghouse spray dryer to control particulate matter and particulate matter less than 10 micron in diameter (PM/PM_{10}), sulfur dioxide (SO_2), sulfuric acid mist (H_2SO_4), and hydrochloric acid (HCl). Selective non-catalytic reduction (SNCR) is used to control nitrogen oxides (NOx). Good combustion practices are used to control carbon monoxide (CO) and volatile organic compounds (VOCs).

Air emissions testing on the unit will occur at the spray dryer absorber (SDA) inlet and the stack outlet. The SDA inlet duct is circular and measures 10.8 feet (ft) (129 inches) in diameter at the test ports which are approximately 120 ft above grade level. The test ports are located approximately 101.8 ft (1,222 inches) downstream and approximately 29.2 ft (350 inches) upstream from the nearest disturbances.

The stack exhaust is circular and measures 9 feet (ft) (108 inches) in diameter at the test ports which are approximately 104 ft above grade level with an exit elevation of approximately 300 ft above grade level. The test ports are located approximately 75.8 ft (910 inches) downstream and approximately 196.5 ft (2,358 inches) upstream from the nearest disturbances.

1.2 Reason for Testing

FBPP is required to perform air emissions testing in conjunction with the requirements of the Minnesota Pollution Control Agency (MPCA) air emissions permit (Permit No. 15100038-004) and the requirements of the United States Environmental Protection Agency (EPA); to determine the concentrations, rates, and reductions of certain pollutants. Pollutants measured at the stack exhaust will include HCl, mercury (Hg), PM/PM_{10}, dioxins/furans (PCDD/PCDF), SO_2, NOx, CO, opacity, carbon dioxide (CO_2), and oxygen (O_2). A reduced number of pollutants will be measured at the SDA inlet (SO_2, HCl, and Hg) to calculate capture efficiencies. All common stack exhaust and SDA pollutant tests will be performed simultaneously.

This protocol will be submitted to the MPCA at least 30 days before the first test.

2.0 SUMMARY

2.1 Owner Information

Company:	PowerMinn 9090, LLC
Mailing address:	2295 Corporate Boulevard, Suite 222 Boca Raton, Florida 33431

2.2 Operator Information

Company:	Fibrominn, LLC
Contact Person:	Chuck Wagoner, Owners Site Construction Rep.
Mailing address:	900 Industrial Drive PO Box 265 Benson, Minnesota 56215
Office:	(320) 843-9013
Fax:	(320) 843-9014
Email:	chuck.wagoner@fibrowattusa.com

2.3 Site Information

Site Name:	Fibrominn Biomass Power Plant
Contact Person:	Victor Myers, Commissioning Manager
Location:	900 Industry Drive Benson Swift County, Minnesota 56215
Office:	(320) 843-5170
Cell:	(425) 922-9018
Fax:	(320) 843-4193
Email:	victor.myers@slthermal.com

2.4 Engineering Consultant Information

Company:	SNC – Lavalin (SNC)
Contact Person:	Robert Dolesky, Project Engineer
Mailing Address:	1200-1075 West Georgia St Vancouver, British Columbia Canada V6E 3C9
Office:	(604) 605-4927
Fax:	(604) 683-1672
E-mail:	robert.dolesky@snclavalin.com

2.5 Test Contractor Information

Company:	Air Hygiene International, Inc.
Contact Person:	Thomas K. Graham, PE, Director of Operations
Mailing Address:	5634 South 122nd East Ave., Suite F Tulsa, Oklahoma 74146
Office:	(918) 307-8865
Cell:	(918) 407-5168
Fax:	(918) 307-9131
E-mail:	tom@airhygiene.com
Website:	www.airhygiene.com

2.6 Expected Test Start Date

Thursday, June 14, 2007

2.7 Testing Schedule

The following schedule indicates specific activities required to be done each day; however, the schedule may require flexibility and will be extended as necessary. If there are no operational delays, this schedule can be completed as detailed by the testing crew on the two sources (stack outlet and SDA inlet). The details below describe the activities to be conducted on each source.

Pre-test Activities	**Due Date**
1. Conduct site inspection	per SNC and Air Hygiene
2. Prepare draft test protocol (Air Hygiene)	prior to testing
3. Submit final approved test plan to SNC (Air Hygiene)	3 days after comments on draft
4. Pre-test meeting with SNC, MPCA, etc.	Prior to testing
5. Receive site safety training	Day of arrival for setup

On-Site Pre-testing Schedule	**Time**
Day 0 – Initial Site Mobilization and Setup	
• Arrive at site	09:00
• Attend safety training class	09:00 – 10:00
• Setup on inlet and outlet	10:00 – 18:00

Activities below will be conducted at the SDA inlet and stack exhaust outlet. Testing will be conducted as appropriate run conditions are available and the testing schedule may move up each day if conditions permit. The schedule assumes 12 hour days with no overtime.

All tests will be conducted under representative operation conditions with the biomass fired boiler steam load between 90 and 100 percent of the nominal rating (490,000 lb/hr). Operation during periods of boiler and air pollution control system malfunctions or upset conditions will not be considered representative conditions and will be reason for delaying, interrupting, aborting, or invalidating a test run. The following are typical malfunctions or upset conditions that will be reason for delaying, interrupting, or invalidating a test run.

1. Crane outage
2. Fan outage
3. Spray dryer absorber or lime slaker problem
4. Carbon system malfunction
5. Broken or frozen grate bar
6. Plugged feed chute
7. Plugged ash discharge
8. Plugged ash conveyor system
9. Turbine trip
10. Hydraulic failure of system
11. Fabric filter malfunction
12. Steam flow not within 10 percent of steam flow set point
13. Boiler tube leak or rupture
14. Plug or bridge in refuse feed hopper

When the malfunction or upset condition has been cleared, testing will resume from that point at which it was stopped. If the malfunction or upset condition results in an extended test delay, then the affected test run(s) may be aborted and a new run(s) conducted when the malfunction has been corrected or process upset cleared. The above list represents but not entirely encompasses the most typical malfunctions or process upsets potentially encountered.

On-site Testing Activities	**Time**
Day 1 – Compliance / Performance Testing	
• Daily setup and calibrations	06:00 – 07:00
• Conduct stratification test	07:00 – 09:00
o Collect outlet data for NOx and O_2 to determine sample collection location(s)	
• Conduct preliminary cyclonic testing and flow measurements	07:00 – 09:00
o Collect inlet and outlet data for differential pressures, temperatures, and null angles	
• Conduct testing for NOx, CO, SO_2, CO_2, and O_2	09:00 – 13:00
o Collect outlet data for NOx, CO, SO_2, CO_2, and O_2 (3, 60-minute runs)	
o Collect simultaneous inlet data for SO_2 and O_2 (3, 60-minute runs)	
• Conduct testing for opacity	09:00 – 13:00
o Collect outlet data for opacity (3, 60-minute runs)	
• Conduct simultaneous testing for HCl	09:00 – 14:00
o Collect inlet data for HCl (3, 60-minute runs with setup)	
• O_2, CO_2, and CO data will be monitored by periodic Tedlar bag collection	
o Collect outlet data for HCl (3, 60-minute runs with setup)	
• O_2, CO_2, and CO data will be monitored by the RM analyzers	
Day 2 – Compliance / Performance Testing	
• Daily setup and calibrations	06:00 – 07:00
• Conduct simultaneous testing for Hg	07:00 – 16:00
o Collect inlet data for Hg (3, 120-minute runs with setup)	
• O_2, CO_2, and CO data will be monitored by periodic Tedlar bag collection	
o Collect outlet data for Hg (3, 120-minute runs with setup)	
• O_2, CO_2, and CO data will be monitored by the RM analyzers	
Day 3 – Compliance / Performance Testing	
• Daily setup and calibrations	06:00 – 07:00
• Conduct testing for PCDD/PCDF (Runs 1 and 2)	07:00 – 18:00
o Collect outlet data for PCDD/PCDF (2, 240-min runs with setup)	
• O_2, CO_2, and CO data will be monitored by the RM analyzers	
Day 4 – Compliance / Performance Testing	
• Daily setup and calibrations	06:00 – 07:00
• Conduct testing for PCDD/PCDF (Run 3)	07:00 – 13:00
o Collect outlet data for PCDD/PCDF (1, 240-min run with setup)	
• O_2, CO_2, and CO data will be monitored by the RM analyzers	
Day 5 – Compliance / Performance Testing	
• Daily setup and calibrations	06:00 – 07:00
• Conduct testing for PM/PM_{10}	07:00 – 18:00
o Collect outlet data for PM/PM_{10} (3, approx. 150-min, min. 100dscf runs with setup)	
• O_2, CO_2, and CO data will be monitored by the RM analyzers	

Activities after Testing

• Demobilization of Testing Crew (Air Hygiene)	Day 5
• Preparation of draft test report (Air Hygiene)	Days 6 – 14*
• Submit for review to SNC (Air Hygiene)	Day 15
• Review and comment on draft (SNC)	Days 16 – 17
• Prepare final hard copy test reports (Air Hygiene)	Days 17 – 18
• Final reports delivered to SNC (Air Hygiene)	Day 19

* Draft report timeline may depend on out-sourced laboratory analysis timeline. PCDD/PCDF analysis in particular typically takes from 17 to 21 days to complete a full analysis.

2.8 Test Report Content

The test report methods and content will meet the requirements of the MPCA and the EPA for compliance and certification testing. The reports will include discussion of the following:

- Introduction
- Plant and Sampling Location Description
- Summary and Discussion of Test Results Relative to Acceptance Criteria
- Sampling and Analytical Procedures
- QA/QC Activities
- Test Results and Related Calculations
- Stack and Testing Equipment Drawings
- Raw Field Data and Calibration Data Sheets
- Sampling Log and Chain-of-Custody Records
- Audit Data Sheets

2.9 Equipment and Procedures

Test Methods and Parameters to Satisfy 40 CFR Part 60

EPA Method 1 for sample location [inlet and outlet]
EPA Method 2 for exhaust flow [inlet and outlet]
EPA Method 3a for oxygen (O_2) [inlet and outlet]
EPA Method 3a for carbon dioxide (CO_2) [inlet and outlet]
EPA Method 4 for exhaust gas moisture [inlet and outlet]
EPA Method 5 for particulate matter (PM – front half filterable) [outlet]
EPA Method 6c for sulfur dioxide (SO_2) [inlet and outlet, simultaneous]
EPA Method 7e for nitrogen oxides (NOx) [outlet]
EPA Method 9 for opacity [outlet]
EPA Method 10 for carbon monoxide (CO) [outlet]
EPA Method 23 for dioxins and furans (PCDD/PCDF) [outlet]
EPA Method 26a for hydrogen chloride (HCl) [inlet and outlet, simultaneous]
EPA Method 202 for particulate matter (PM_{10} – back half condensable) [outlet]
Ontario Hydro Method for mercury (Hg) [inlet and outlet, simultaneous]

2.10 Proposed Variations

- Stainless steel nozzles and inconel liners will be used instead of borosilicate glass (to prevent breakage) in the Method 5/202 sampling assembly.

- Due to test matrix restrictions, schedule, and operations availability; wet chemistry (isokinetic) runs may be stopped before a run is complete. In this case a delay of more than two hours will constitute cooling and capping off the impinger train. Also, wet chemistry test runs may not be run consecutively.
- Method 26a testing will be from a single point.

2.11 Compliance Sampling Strategy

All compliance testing will be performed while the unit is operating between 90 and 100 percent of the nominal throughput. During the dioxin/furan testing, the temperature (^{o}F) at the inlet to the baghouse spray dryer will be recorded by the plant. In addition to this parameter, for all testing, plant personnel will also track boiler measurements including: turbine output (MW), steam flow (lb/hr), feed water flow (gpm), ambient temperature (^{o}F), ambient relative humidity (%), barometric pressure (in. Hg), fuel flow (tph), feed water temperature (^{o}F), super heater outlet steam temperature (^{o}F), super heater outlet steam pressure (psig), super heater outlet flue gas temperature (^{o}F), total over fire and under fire combustion air flow (Kacfm); and spray dryer absorber measurements including: total slurry feed (gpm), dilution water feed (gpm), inlet and outlet flue gas temperature (^{o}F), slurry concentration (%).

A. Gases (NOx, SO_2, CO, CO_2, and O_2) – EPA Methods 7e, 6c, 10, and 3a
NOx, SO_2, CO, CO_2, and O_2 testing will be conducted on the stack outlet. Each test run will be 60 minutes in duration. Simultaneously, SO_2 and O_2 testing will be conducted on the SDA inlet to calculate control efficiency.

B. PM/PM_{10} Testing – EPA Methods 5/202
Total Particulate matter (PM) and particulate matter less than 10 microns in diameter (PM_{10}) testing will be conducted on the stack outlet. Each test run will be approximately 150 minutes in duration pulling at least 100 dry standard cubic feet (dscf) of sample volume. An S-type pitot tube will be used to measure cyclonic flow and velocity pressure in accordance with EPA Method 2. This data will be correlated with meter coefficients, temperatures, barometric pressure, and stack gas moisture (EPA Method 4) to determine the stack gas dry exhaust flow rate. PM/PM_{10} samples will be collected following EPA Method 5 (front half filterables) and EPA Method 202 (back half condensables) with an isokinetic sampling train utilizing a stainless steel nozzle and inconel probe liner. A scale will be used to measure net weight gain from each impinger to determine moisture gain. Gravimetric analysis by Air Hygiene's in-house laboratory will provide PM/PM_{10} results.

The exit of the filter holder is connected to a series of four full size impingers. The first three impingers each contain 100 milliliters of de-ionized water. The fourth contains a tared quantity of silica gel. The impingers are maintained at a temperature below 68 ^{o}F for the duration of each test. In accordance with EPA Method 202 requirements, all glassware is cleaned prior to testing with soap and water, rinsed with de-ionized water, acetone and finally methylene chloride.

Procedures for selecting sampling locations and for operation of the apparatus are derived from EPA Method 5/202 and associated EPA Methods 1 though 4. The sampling apparatus is leak-cheaked before and after each test run. Sampling is performed at an isokinetic rate greater than 90 percent and less than 110 percent.

At the conclusion of each test run, the filter is removed from the filter holder and placed in a labeled Petri dish (container No. 1). Any particles adhering to the filter holder gasket are also transferred to the dish. The probe liner, nozzle, probe fittings and front half of the filter holder are washed three times with acetone to remove any particulate matter or condensate. These rinses are saved in a pre-cleaned glass sample jar (container No. 2).

As soon as possible after the post-test leak check the probe and filter will be detached from the impinger train and the nitrogen (N_2) purge will begin. During the purge, N_2 will flow through the back half of the sample train at 20 liters per min for one hour. The purge will effectively remove any SO_2 in the sample train which may solidify and cause the laboratory to over-report the amount of particulate matter.

The first three impinger catches are measured, their weights recorded, and the catches transferred to container No. 3. The weight gain is added to the silica gel weight gain of the forth impinger to determine the stack gas moisture content. The impingers and all connecting glassware are then rinsed twice with de-ionized water. These rinses are added to container No. 3. A final rinse, of the above components, with methylene chloride is saved in glass sample container No. 4.

Sample bottles are sealed, shaken and labeled, and the liquid level is marked. At that time, approximately 200-ml each of de-ionized water, acetone and methylene chloride are prepared for analysis as reagent blanks.

Particulate samples collected on the glass fiber filters are analyzed gravimetrically to a constant weight. The front half wastes are transferred to tared beakers, evaporated to dryness, and brought to constant weights.

The impinger water is extracted by adding the contents of the methylene chloride rinse to the impinger water, and separating the layers in a separatory funnel. Two additional 75 milliliter portions of methylene chloride are added to the funnel to complete the extraction. The organic extract fraction is then placed into a tared beaker and evaporated at room temperature to dryness. It is then desiccated for 24 hours and brought to a constant weight. The aqueous inorganic fraction is taken to dryness at a slightly elevated temperature and allowed to air dry at room temperature. The residue is then desiccated for 24 hours and brought to a constant weight. The weight differentials for the organic and inorganic fractions are combined to determine the total condensable particulate matter.

The particulate analysis is performed by Air Hygiene's in house laboratory.

C. Mercury Testing – Ontario Hydro Method

Mercury (Hg) testing will be conducted simultaneously on the SDA inlet and stack outlet. Each test run will be 120 minutes in duration. An S-type pitot tube will be used to measure cyclonic flow and velocity pressure in accordance with EPA Method 2. This data will be correlated with meter coefficients, temperatures, barometric pressure, and stack gas moisture (EPA Method 4) to determine the stack gas dry exhaust flow rate. Mercury samples will be collected following the Ontario Hydro Method (ASTM D6784-02) with an isokinetic sampling train utilizing a glass nozzle and probe liner.

The exit of the filter holder is connected to a series of eight full size impingers. The first three impingers each contain 100 mL of 1.0 N potassium chloride (KCl). The fourth impinger contains 100 mL of 5% nitric acid (HNO_3) / 10% hydrogen peroxide (H_2O_2). The fifth, sixth, and seventh impinger contain 100 mL of 10% sulfuric acid (H_2SO_4) / 4% potassium permangate ($KMnO_4$). The eighth contains a tared quantity of silica gel. The impingers are maintained at a temperature below 68 ^oF for the duration of each test.

Procedures for selecting sampling locations and for operation of the apparatus are derived from Ontario Hydro Method and associated EPA RMs 1 though 4. The sampling apparatus is leak-checked before and after each test run. Sampling is performed at an isokinetic rate greater than 90 percent and less than 110 percent.

At the conclusion of each test run, the probe and nozzle will be rinsed and brushed with 0.1 normal nitric acid to remove any particulate matter. These rinses will be collected into polyethylene sample containers. The quartz fiber filter will be recovered and placed into a polyethylene sample container. The volume of liquid collected in each of the impingers will be quantified.

The liquid from the first three impingers will be transferred to a leak-free polyethylene storage container. The first three impingers and all connecting glassware will be rinsed with 0.1 normal nitric acid which will be added to the storage container. The liquid from the fourth impinger will be transferred to a separate polyethylene container, and the impinger will be rinsed into the container with 0.1 normal nitric acid. The contents of impingers 5, 6, and 7 will be collected into an amber glass container. All impingers 5, 6, and 7 and the connecting glassware will then be rinsed with 0.1 normal nitric acid and 8.0 normal hydrochloric acid. These rinses will also be collected in the glass container.

All containers will be sealed, labeled and liquid levels marked prior to transport to the laboratory. The silica gel weight and the volume of condensate collected in the impingers will be used to determine moisture content of the stack gas. A scale will be used to measure net weight gain from each impinger to determine moisture gain. An out-sourced laboratory will be used to provide mercury results.

D. Dioxin/Furan Testing – EPA Method 23

Dioxin/Furan (PCDD/PCDF) testing will be conducted on the stack outlet. Each test run will be 240 minutes in duration. An S-type pitot tube will be used to measure cyclonic flow and velocity pressure in accordance with EPA Method 2. This data will be correlated with meter coefficients, temperatures, barometric pressure, and stack gas moisture (EPA Method 4) to determine the stack gas dry exhaust flow rate. Dioxin/Furan samples will be collected following EPA Method 23 with an isokinetic sampling train utilizing a glass nozzle and probe liner. Particulate will be collected on a filter and a sorbent cartridge will retain vaporous emissions. Following sampling, the appropriate components of the train will be recovered and transferred to the laboratory for analysis. The components will be extracted and the extracts will be cleaned to remove excessive levels of potential interference. A scale will be used to measure net weight gain from each impinger to determine moisture gain. An out-sourced laboratory will be used to provide dioxin/furan results.

All sampling train components that contact the recovered sample will be composed of borosilicate glass, polytetrafluoroethylene (PTFE) or similar materials to avoid potential sample contamination or reactions with PCDDs and PCDFs.

The exit of the filter holder will be connected to a water jacketed glass coil condenser and adsorbent trap unit, configured such that the flue gas and condensed moisture will flow down through the resin in the cartridge. The adsorbent trap will contain an XAD resin cartridge to adsorb the PCDDs and PCDFs present in the vapor and condensed portion of the sample. The resin cartridges will be pre-cleaned and spiked with isotopically labeled surrogates by an outsourced laboratory prior to use in the field. During operation, a leak-free submersible pump will be used to re-circulate cooling water through the coil condenser to ensure proper cooling of the condenser and resin cartridge unit.

Immediately following the adsorbent cartridge will be a series of four full size leak-free glass impingers. All impingers will be of the Greenburg-Smith design, with the first impinger being further modified to have a short stem, to prevent the sample gas from bubbling through the collected condensate. The first impinger will be empty, the second and third impingers each contained 100 milliliters of HPLC-grade distilled water, the fourth empty and the firth will be charge with silica gel. The impingers will be immersed in an ice bath for the duration of the test.

All train components will be cleaned before use to avoid organic contamination. This cleaning will include a hot soapy wash, three dionized water rinses, two hours of heating at 450 ^{o}F, three acetone rinses, and three methylene chloride rinses. All glassware components are then covered with hexane rinsed aluminum foil until assembled at the site.

The impingers will be connected to the metering system via an umbilical. The metering system includes a vacuum gauge, a leak-free pump, thermometers accurate to within ±5.4 ^{o}F, and a dry gas meter accurate to within two percent.

Procedures for selecting sampling locations and for operation of the train will be derived from EPA Method 23 and associated Methods 1 through 5. The flue gas sample will be collected by operating the train according to the Method 5 specifications, including leak-checking, isokinetic sampling rates, and stack traversing. Sampling will be performed isokinetically (within plus or minus 10 percent).

At the conclusion of each test run, the probe and umbilical will be carefully removed from the sampling train. The inlet to the sampling train will be removed to a clean field laboratory for sample recovery. The sample from the probe nozzle and probe liner will be recovered at the sampling location. The recovered sample will consist of the following components:

- Glass fiber filter and particulate catch;
- Adsorbent trap containing the XAD-2 resin;
- Acetone/Methylene chloride rinse: Probe liner and nozzle rinsed and brushed three times with acetone and rinsed three times with methylene chloride combined with three rinses of the filter holder, coil condenser and all interconnecting glassware, with three soaks of the condenser with acetone and methylene chloride each;

- Toluene rinse: Probe liner and nozzle rinsed three times combined with three rinses of the filter holder, coil condenser and all interconnecting glassware with three soaks of the condenser with toluene;
- The volume of water collected in the impinger train will be measured gravimetrically.

One field train blank will be assembled, recovered and analyzed in the same manner as a sample train.

The samples will be analyzed for PCDDs and PCDFs in accordance with EPA Method 23 protocol using high resolution gas chromatography and high resolution mass spectrometry (GC/MS). All Method 23 samples will be analyzed with the DB-5S column with modified calibration and additional quality assurance procedures as a direct substitute for the DB-5 and DB-225 columns. Confirmation of the 2,3,7,8 TCDF and 2,3,7,8 isomers will be performed on the DB-5S column and modified calibration procedures meets the column separation requirement and can be used as a direct substitute for the DB-5 and DB-225 columns in accordance with Method 23 as approved by the USEPA.

All of the organic analytical work will be performed by an outsourced laboratory. All components of the recovered sampling train, including the toluene rinse, will be pooled and extracted for one analysis.

E. Hydrogen Chloride Testing – EPA Method 26/26a

Hydrogen chloride (HCl) testing will be conducted simultaneously on the SDA inlet and stack outlet. Each test run will be 60 minutes in duration. Each test will be conducted from a single point in the stack. This data will be correlated with meter coefficients, temperatures, barometric pressure, and stack gas moisture (EPA Method 4) to determine the stack gas dry exhaust flow rate. HCl samples will be collected following EPA Method 26a with an isokinetic sampling train utilizing a glass nozzle and probe liner. A scale will be used to measure net weight gain from each impinger to determine moisture gain. An out-sourced laboratory will be used to provide HCl results.

The train components will include a glass nozzle, heated glass lined probe, heated quartz fiber filter, and four full size impingers. The first impinger will have 50 milliliters of 0.1 N sulfuric acid solution and a short stem. The second and third impingers will each have 100 milliliters of 0.1 N sulfuric acid solution. The forth impinger will be empty and the fifth will contain silica gel. The soldium hydroxide impingers will not be used as chlorine (Cl_2), does not need to be determined.

An integrated sample of at least 30 dry standard cubic feet will be extracted from the gas stream and passed through the dilute sulfuric acid. In the dilute acid, the HCl gas dissolves and forms chloride (Cl^-) ions. The train will be leak checked as described in Method 5 from the end of the glass probe liner after testing. After the one hour test the first four impingers, all connecting glassware and back half of the filter housing will be rinsed into one polyethylene container. The probe liner, filter and filter housing will not be recovered. The liquid level of the one sample container will be marked. The Cl^- concentration will be determined by ion chromatoghraphy.

As part of the quality assurance program, one duplicate analysis will be performed as specified in Method 26a. In addition, a spike analysis will be performed on one of the

samples. Three runs will be performed for each unit. The hydrogen chloride removal efficiency will be calculated using the ppmdv @ 7% O_2 concentration at the SDA inlet and stack outlet.

F. Opacity – EPA Method 9

Visual opacity from the stack outlet will be determined using EPA Method 9. This method determines the level of any visible emissions that occur during the observation period. It requires that the opacity of emission be determined by a trained and certified individual. Three one hour runs will be observed from the proper location(s) on the stack outlet. The opacity level is recorded every 15 seconds.

APPENDIX A
QA/QC PROGRAM

QA/QC PROGRAM

AIR HYGIENE ensures the quality and validity of its emission measurement and reporting procedures through a rigorous quality assurance (QA) program. The program is developed and administered by an internal QA team and encompasses five major areas:

1. QA reviews of reports, laboratory work, and field testing;
2. Equipment calibration and maintenance;
3. Chain-of-custody;
4. Training; and
5. Knowledge of current test methods.

QA Reviews

AIR HYGIENE's review procedure includes a review of each source test report, along with laboratory and fieldwork by the QA Team.

The most important review is the one that takes place before a test program begins. The QA Team works closely with technical division personnel to prepare and review test protocols. Test protocol review includes selection of appropriate test procedures, evaluation of interferences or other restrictions that might preclude use of standard test procedures, and evaluation and/or development of alternate procedures.

Equipment Calibration and Maintenance

The equipment used to conduct the emission measurements is maintained according to the manufacturer's instructions to ensure proper operation. In addition to the maintenance program, calibrations are carried out on each measurement device according to the schedule outlined by the Environmental Protection Agency. Quality control checks are also conducted in the field for each test program.

Chain-of-Custody

AIR HYGIENE maintains full chain-of-custody documentation on all samples and data sheets. In addition to normal documentation of changes between field sample custodians, laboratory personnel, and field test personnel, AIR HYGIENE documents every individual who handles any test component in the field (e.g., probe wash, impinger loading and recovery, filter loading and recovery, etc.). Samples are stored in a locked area to which only AIR HYGIENE personnel have access. Field data sheets are secured at AIR HYGIENE's offices upon return from the field.

Training

Personnel training is essential to ensure quality testing. AIR HYGIENE has formal and informal training programs, which include:

1. Attendance at EPA-sponsored training courses;
2. Enrollment in EPA correspondence courses;
3. A requirement for all technicians to read and understand Air Hygiene Incorporated's QA manual;
4. In-house training and QA meetings on a regular basis; and
5. Maintenance of training records.

Knowledge of Current Test Methods

With the constant updating of standard test methods and the wide variety of emerging test procedures, it is essential that any qualified source tester keep abreast of new developments. AIR HYGIENE subscribes to services, which provide updates on EPA reference methods, rules, and regulations. Additionally, source test personnel regularly attend and present papers at testing and emission-related seminars and conferences.

COMBUSTION TESTING QUALITY ASSURANCE ACTIVITIES

A number of quality assurance activities are undertaken before, during, and after each testing project. The following paragraphs detail the quality control techniques, which are rigorously followed during testing projects.

Each instrument's response is checked and adjusted in the field prior to the collection of data via multi-point calibration. The instrument's linearity is checked by first adjusting its zero and span responses to zero nitrogen and an upscale calibration gas in the range of the expected concentrations. The instrument response is then challenged with other calibration gases of known concentration and accepted as being linear if the response of the other calibration gases agreed within ± 2 percent of range of the predicted values.

After each test run, the analyzers are checked for zero and span drift. This allowed each test run to be bracketed by calibrations and documents the precision of the data just collected. The criteria for acceptable data are that the instrument drift is no more than 3 percent of the full-scale response. Quality assurance worksheets are prepared to document the multipoint calibration checks and zero to span checks performed during the tests.

The sampling systems are leak checked by demonstrating that a vacuum greater than 10 in Hg could be held for at least 1 minute with a decline of less than 1 in. Hg. A leak test is conducted after the sample system is set up and before the system is dismantled. This test was conducted to ensure that ambient air had not diluted the sample. Any leakage detected prior to the tests would be repaired and another leak check conducted before testing commenced.

The absence of leaks in the sampling system is also verified by a sampling system bias check. The sampling system's integrity is tested by comparing the responses of the analyzers to the calibration gases introduced via two paths. The first path was directly into the analyzer and the second path via the sample system at the sample probe. Any difference in the instrument responses by these two methods is attributed to sampling system bias or leakage. The criteria for acceptance are agreement within 5% of the span of the analyzer.

The control gases used to calibrate the instruments are analyzed and certified by the compressed gas vendors to ± 1% accuracy for all gases. EPA Protocol No. 1 was used where applicable to assign the concentration values traceable to the National Institute of Standards and Technology (NIST), Standard Reference Materials.

AIR HYGIENE maintains a large variety of calibration gases to allow the flexibility to accurately test emissions over a wide range of concentrations.

APPENDIX B
TEST EQUIPMENT CONFIGURATION and DESCRIPTION

INSTRUMENT CONFIGURATION AND OPERATIONS FOR GAS ANALYSIS

The sampling and analysis procedures to be used conform in principle with the methods outlined in the Code of Federal Regulations, Title 40, Part 60, Appendix A, Methods 1, 2, 3a, 4, 5, 6c, 7e, 9, 10, 23, 26a; 40 CFR 51, Appendix M, Method 202; and the Ontario Hydro Method.

The sample system to be used for the NOx, SO_2, CO_2, CO, and O_2 tests is configured per the following description. A stainless steel probe will be inserted into the sample port of the stack. The gas sample will be continuously pulled through the probe and transported via 3/8 inch heat-traced Teflon® tubing to a stainless steel, minimum-contact condenser designed to dry the sample and then through Teflon® tubing via a stainless steel/Teflon® diaphragm pump and into the sample manifold within the mobile laboratory. From the manifold, the sample is partitioned to the NOx, SO_2, CO_2, CO, and O_2 analyzers through rotameters that control the flow rate of the sample.

The schematic (Figure 1) shows that the sample system is also equipped with a separate path through which a calibration gas could be delivered to the probe and back through the entire sampling system. This allows for convenient performance of system bias checks as required by the testing methods.

All instruments are housed in an air-conditioned, trailer-mounted mobile laboratory. Gaseous calibration standards are provided in aluminum cylinders with the concentrations certified by the vendor according to EPA Protocol No. 1.

This general schematic also illustrates the analyzers to be used for the tests (i.e., O_2, CO). All data from the Reference Method continuous monitoring instruments are recorded on a Logic Beach Hyperlogger. The Hyperlogger retrieves calibrated emissions data from each instrument every second. An average value is recorded every 30 seconds.

The stack gas analysis for O_2 and CO_2 concentrations will be performed in accordance with procedures set forth in EPA Method 3a. The O_2 analyzer uses a paramagnetic cell detector. The CO_2 analyzer uses a continuous nondispersive infrared (NDIR) analyzer.

EPA Method 6c will be used to determine the concentrations of SO_2. An ultraviolet analyzer will be used to determine the sulfur dioxide concentrations in the gas stream.

EPA Method 7e will be used to determine concentrations of NOx. A chemiluminescence analyzer will be used to determine the nitrogen oxides concentration in the gas stream. A NO_2 in nitrogen certified gas cylinder will be used to verify at least a 90 percent NO_2 conversion on the day of the test.

CO emission concentrations will be quantified in accordance with procedures set forth in EPA Method 10. A continuous nondispersive infrared (NDIR) analyzer was used for this purpose.

Figure 2 represents the sample train setup for all of the wet chemistry (isokinetic) sampling. An S-type pitot tube will be used to measure cyclonic flow and velocity pressure in accordance with EPA Method 2. This data will be correlated with meter coefficients, temperatures, barometric pressure, and stack gas moisture (EPA Method 4) to determine the stack gas dry exhaust flow rate. Samples will be collected following EPA Methods with an isokinetic sampling train utilizing a stainless steel or glass nozzles and inconel or glass probe liners as appropriate. A scale will be used to measure net weight gain from each impinger to determine moisture gain.

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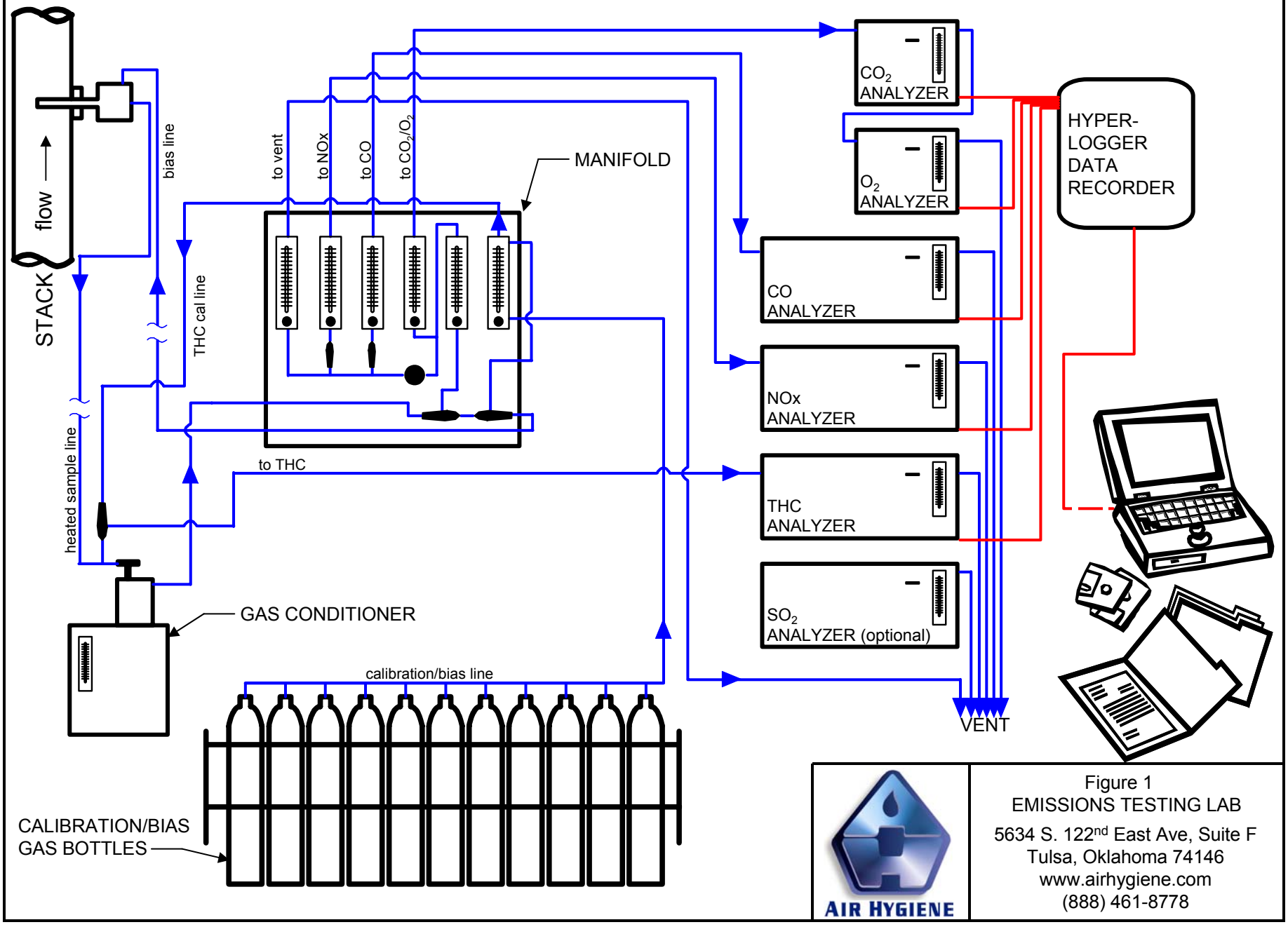

AIR HYGIENE

Figure 1
EMISSIONS TESTING LAB

5634 S. 122nd East Ave, Suite F
Tulsa, Oklahoma 74146
www.airhygiene.com
(888) 461-8778

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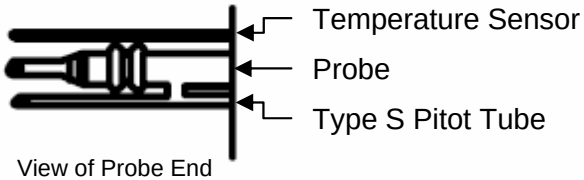

View of Probe End
(from the bottom)

Wet Chemistry Assembly
(photo)

Temperature Sensor

Temperature Sensor

Stack Wall

Liner
(glass, stainless steel, or inconel)

Probe Housing
(heated opt.)

could add more impingers or other components to system

Temperature Sensor

Impingers

Nozzle

Type S Pitot Tube

Glass Filter Holder

Ice Water Bath

Vacuum Line

Heated Area

Oil-Filler Manometer

Hot Box

Filled with water or other various chemicals to cause capture of condensed liquid or reaction with target compounds

Cold Box

Vacuum Gauge

Temperature Sensor

Temperature Sensor

Orifice

By-pass Valve

Main Valve

Dry Gas Meter

Air-Tight Pump

Oil-Filler Manometer

Figure 2
WET CHEMISTRY ASSEMBLY

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Tulsa, Oklahoma 74146
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(888) 461-8778

TABLE #1: TESTING MATRIX

Target Emission	EPA Test Method	Location	Test Length
O_2	3a	Inlet / Outlet	3, 60 minute runs [inlet] 3, 60 minute runs [outlet]
SO_2	6c	Inlet / Outlet	3, 60 minute runs [inlet] 3, 60 minute runs [outlet]
NOx	7e	Outlet	3, 60 minute runs
CO	10	Inlet / Outlet	3, 60 minute runs [inlet] 3, 60 minute runs [outlet]
CO_2	3a	Inlet / Outlet	3, 60 minute runs [inlet] 3, 60 minute runs [outlet]
PM (front half filterable)	5	Outlet	3, 150-minute runs
PM_{10} (back half condensable)	202	Outlet	3, 150-minute runs
Opacity	9	Outlet	3, 60-minute runs
Hg	Ontario Hydro	Outlet	3, 120-minute runs
HCl	26/26a	Inlet / Outlet	3, 60 minute runs [inlet] 3, 60 minute runs [outlet]
Dioxins/Furans	23	Outlet	3, 240-minute runs

TABLE #2: ANALYTICAL INSTRUMENTATION

Parameter	Model and Manufacturer	Common Use Ranges	Sensitivity	Detection Principle
NOx	API 200AH or equivalent	User may select up to 5,000 ppm	0.1 ppm	Thermal reduction of NO_2 to NO Chemilumines-cence of reaction of NO with O_3. Detection by PMT. Inherently linear for listed ranges.
SO_2	Ametek 721M or equivalent	User may select up to 10,000 ppm	0.1 ppm	Ultraviolet
CO	TECO 48C or equivalent	0-10,000 ppm	0.1 ppm	Infrared absorption, gas filter correlation detector, microprocessor based linearization.
CO_2	Servomex or equivalent	0-20%	0.1%	Nondispersive infrared
O_2	Servomex or equivalent	0-25%	0.1%	Oxygen - Paramagnetic cell

TABLE #3: ANALYTICAL INSTRUMENTATION TESTING CONFIGURATION

Parameter	Sample Methodology	Example Range	Sensitivity	Calibration Gases (based on example range)
NOx	7e	0-500 ppm	0.1 ppm	Zero = 0 ppm nitrogen Mid = 200 – 300 ppm High = 500 ppm
SO_2	6c	0-200 ppm	0.1 ppm	Zero = 0 ppm nitrogen Mid = 80 – 120 ppm High = 200 ppm
CO	10	0-200 ppm	0.1 ppm	Zero = 0 ppm nitrogen Mid = 80 – 120 ppm High = 200 ppm
CO_2	3a	0-20%	0.1%	Zero = 0 ppm nitrogen Mid = 8 – 12% High = 20%
O_2	3a	0-21%	0.1%	Zero = 0 ppm nitrogen Mid = 8.4 – 12.6% High = 21%

APPENDIX C
STACK DRAWINGS

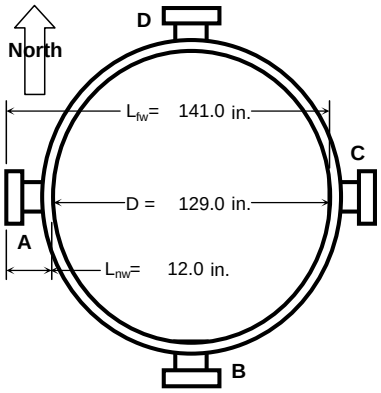
METHOD 1 - ISOKINETIC TRAVERSE FOR A CIRCULAR SOURCE

Company	SNC - Lavalin	**Date**	2007
Plant Name	Fibrominn Biomass Power Plant	**Project #**	snc-07-benson.mn-comp#1
Equipment	Biomass Boiler, SDA Inlet	**# of Ports Available**	4
Location	Benson, Minnesota	**# of Ports Used**	4

Circular Stack or Duct Diameter			
Distance to Far Wall of Stack	(L_{fw})	141.00	in.
Distance to Near Wall of Stack	(L_{nw})	12.00	in.*
Diameter of Stack	(D)	129.00	in.
Area of Stack	(A_s)	90.76	ft^2

*assume 12 in. reference

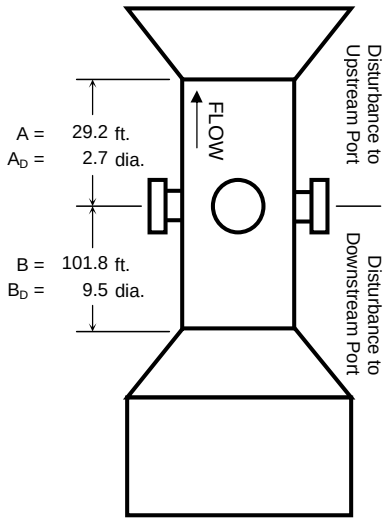
Distance from Disturbances to Port			
Distance Upstream	(A)	350.00	in.
Diameters Upstream	(A_D)	2.71	diameters
Distance Downstream	(B)	1222.00	in.
Diameters Downstream	(B_D)	9.47	diameters



Number of Traverse Points Required					
Diameters to Flow Disturbance		**Minimum Number of[1] Traverse Points**		Minimum Number of Traverse Points	
Down (B_D)	**Up (A_D)**	**Particulate**	Velocity	Comp Stratification	
Stream	**Stream**	**Points**	Points	Criteria	Points
2.00-4.99	0.50-1.24	24	16	☐ RM 7E 8.1.2	12 RM1 pts
5.00-5.99	1.25-1.49	20	16	☐ Alt 7E 8.1.2	3 points
6.00-6.99	1.50-1.74	16	12	12 points	
7.00-7.99	1.75-1.99	12	12		
>= 8.00	>=2.00	8 or 12[2]	8 or 12[2]	Minimum Number of Traverse Points	
Upstream Spec		12	12		
Downstream Spec		12	12	RATA Stratification	
Traverse Pts Required		12	12	Criteria	Points
				☐ Part75/60	12 RM1 pts
				☐ 75 abrv (a)	3 points
				☐ 75 abrv (b)	6 points
				12 points	

[1] Check Minimum Number of Points for the Upstream and Downstream conditions, then use the largest.

[2] 8 for Circular Stacks 12 to 24 inches
12 for Circular Stacks over 24 inches



Number of Traverse Points Used				
4	**Ports by**	3	**Pts / port**	**Isokinetic Traverse (Wet Chemistry**
12	**Pts Used**	12	**Required**	

Traverse Point Locations			
Traverse Point Number	**Percent of Stack Diameter**	**Distance from Inside Wall**	**Distance Including Reference Length**
	%	in.	in.
1	4.4%	5 5/8	17 5/8
2	14.6%	18 7/8	30 7/8
3	29.6%	38 1/8	50 1/8
4			
5			
6			
7			
8			
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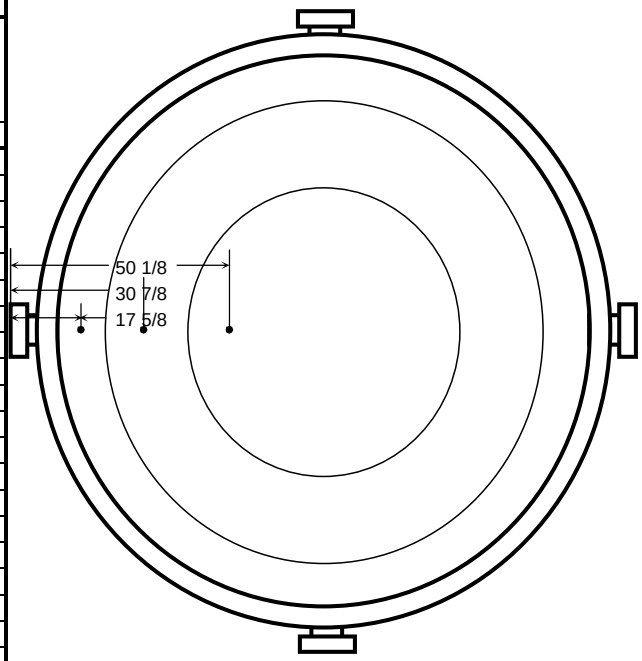


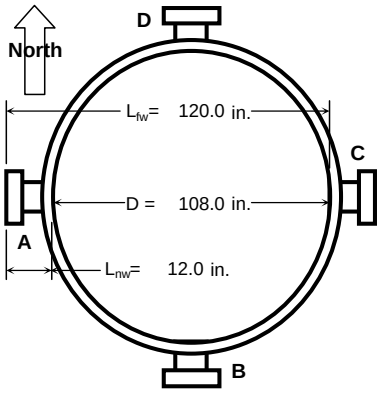
METHOD 1 - ISOKINETIC TRAVERSE FOR A CIRCULAR SOURCE

Company	SNC - Lavalin	**Date**	2007
Plant Name	Fibrominn Biomass Power Plant	**Project #**	snc-07-benson.mn-comp#1
Equipment	Biomass Boiler, Stack Exhaust	**# of Ports Available**	4
Location	Benson, Minnesota	**# of Ports Used**	4

Circular Stack or Duct Diameter			
Distance to Far Wall of Stack	(L_{fw})	120.00	in.
Distance to Near Wall of Stack	(L_{nw})	12.00	in.*
Diameter of Stack	(D)	108.00	in.
Area of Stack	(A_s)	63.62	ft^2

*assume 12 in. reference

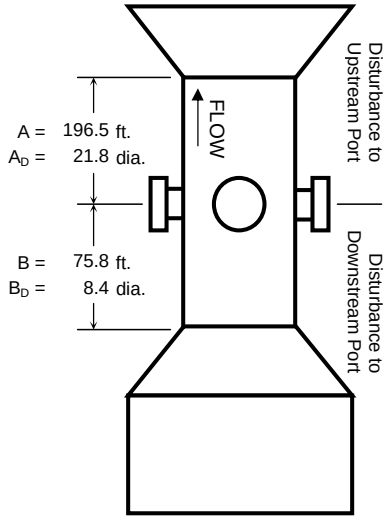
Distance from Disturbances to Port			
Distance Upstream	(A)	2358.00	in.
Diameters Upstream	(A_D)	21.83	diameters
Distance Downstream	(B)	910.00	in.
Diameters Downstream	(B_D)	8.43	diameters



Number of Traverse Points Required					
Diameters to Flow Disturbance		**Minimum Number of[1] Traverse Points**		Minimum Number of Traverse Points	
Down (B_D)	**Up (A_D)**	**Particulate**	Velocity	Comp Stratification	
Stream	**Stream**	**Points**	Points	Criteria	Points
2.00-4.99	0.50-1.24	24	16	☐ RM 7E 8.1.2	12 RM1 pts
5.00-5.99	1.25-1.49	20	16	☐ Alt 7E 8.1.2	3 points
6.00-6.99	1.50-1.74	16	12	12 points	
7.00-7.99	1.75-1.99	12	12		
>= 8.00	>=2.00	8 or 12[2]	8 or 12[2]	Minimum Number of Traverse Points	
Upstream Spec		12	12		
Downstream Spec		12	12	RATA Stratification	
Traverse Pts Required		12	12	Criteria	Points
				☐ Part75/60	12 RM1 pts
				☐ 75 abrv (a)	3 points
				☐ 75 abrv (b)	6 points
				12 points	

[1] Check Minimum Number of Points for the Upstream and Downstream conditions, then use the largest.

[2] 8 for Circular Stacks 12 to 24 inches
12 for Circular Stacks over 24 inches



Number of Traverse Points Used				
4	**Ports by**	3	**Pts / port**	**Isokinetic Traverse (Wet Chemistry**
12	**Pts Used**	12	**Required**	

Traverse Point Locations			
Traverse Point Number	**Percent of Stack Diameter**	**Distance from Inside Wall**	**Distance Including Reference Length**
	%	in.	in.
1	4.4%	4 6/8	16 6/8
2	14.6%	15 6/8	27 6/8
3	29.6%	32	44
4			
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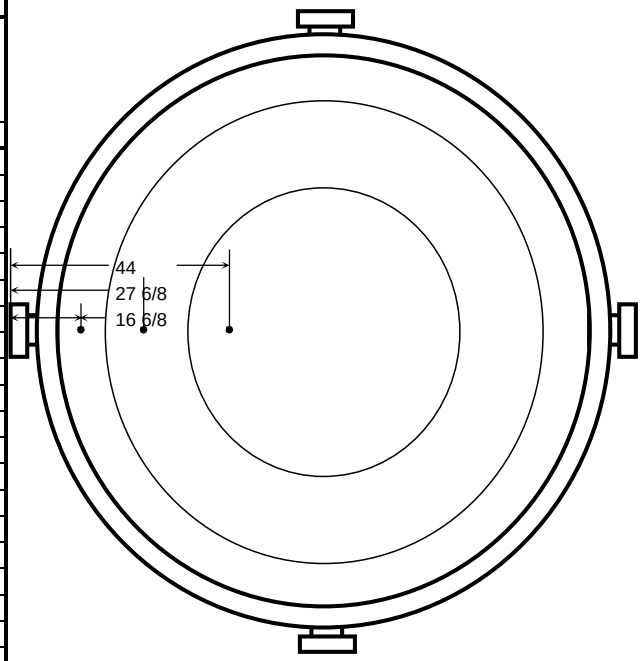


APPENDIX D
EXAMPLE TEMPLATES AND CALCULATIONS

SINGLE LOAD TEST - FIELD DATA SHEET

AIR HYGIENE

Company:		
Location:		
Date:		
Unit Make and Model:		
Unit Number:		
Serial Number:		
Data Recorded By:		
Tested With AHI Unit(s):	Truck(s):	Trailer(s):
LDEQ Warmup/Cal Req:	On (Day/Time):	Cal (Day/Time):

CYLINDER SERIAL NUMBERS		O_2	NOx	CO
	Low			
	Mid			
	High			

CYLINDER SERIAL NUMBERS		THC	CO_2	SO_2
	Low			
	Mid			
	High			

RUN INFORMATION	Load		
	_____% #1	_____% #2	_____% #3
Time Start (hh:mm:ss)			
Time Stop (hh:mm:ss)			
Rated Power (MW or hp)			
Actual Power (MW or hp)			
Barometric Pressure (in. Hg)			
Ambient Temperature (^oF)			
Relative Humidity (%)			
Fuel Flow (lb/min)			
Fuel Flow (SCF/hr)=(lb/min)*21.7			
Specific Humidity (gr/lb)			
Spec. Hum. (lb H_2O/lb air)=(gr/lb)/7000			
PCD (psi)			
PCD (mm Hg)=(psi+14.24)*51.71493			
NOx Water Injection (gpm)			

NO_2 CONVERSION	
NO_2 Gas (ppm)	
NO Reading (ppm)	
NOx Reading (ppm)	
Cylinder Num	

REPORT INFORMATION		
	INSTRUMENT	SERIAL #
O_2		
NOx		
CO		
THC		
CO_2		
SO_2		

RESPONSE TIME		
	TIME (hh:mm)	RESP (min)
1st Gas Inject		
1st Inst. @ 95%		
2nd Inst. @ 95%		
3rd Inst. @ 95%		
2nd Gas Inject		
1st Inst. @ 95%		
2nd Inst. @ 95%		
3rd Inst. @ 95%		
3rd Gas Inject		
1st Inst. @ 95%		
2nd Inst. @ 95%		
3rd Inst. @ 95%		

CALIBRATION	O_2		NOx		CO		THC		CO_2		SO_2	
	Conc.	Actual	Conc.	Actual	Conc.	Actual	Conc.	Actual	Conc.	Actual	Conc.	Actual
Zero Gas												
Low Gas												
Mid Gas												
High Gas												

BIAS	O_2		NOx		CO		THC		CO_2		SO_2	
	Zero	Mid	Zero	Mid	Zero	Mid	Zero	Mid	Zero	Mid	Zero	Mid
Initial Run #1												
Run #1 / Run #2												
Run #2 / Run #3												
Run #3 / Final												

Bias Gas Actual Conc. _____ _____ _____ _____ _____ _____

VISUAL EMISSIONS OBSERVATION FORM

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

Company Name

Facility Name

Street Address

City State Zip

Process Unit # Operating Mode

Control Equipment Operating Mode

Describe Emissions Pont

Height of Emiss. Pt. Start End
Height of Emiss. Pt. Rel. to Observer Start End

Distance to Emiss. Pt. Start End
Direction to Emiss. Pt. (Degrees) Start End

Vetical Angle to Obs. Pt. Start End
Direction to Obs. Pt. (Degrees) Start End

Distance and Direction to Observation Point from Emission Point Start End

Describe Emissions Start End

Emission Color Start End
Water Droplet Plume Start End

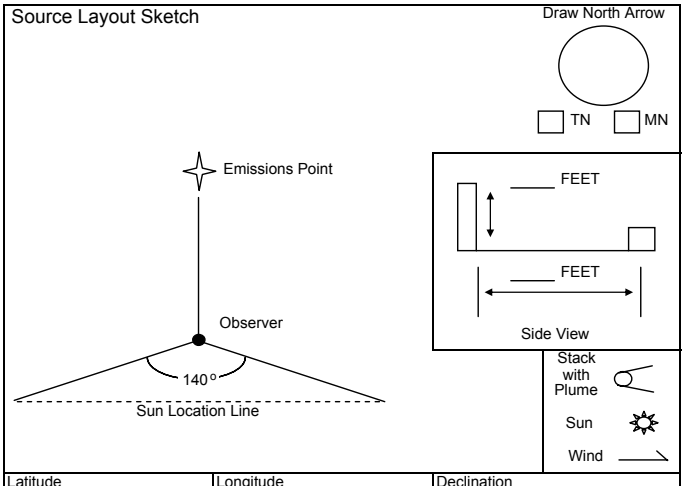
Describe Plume Background Start End

Background Color Start End
Sky Conditions Start End

Wind Speed Start End
Wind Direction Start End

Ambient Temp. Start End
Wet Bulb Temp.
RH Percent

Source Layout Sketch



Latitude | Longitude | Declination

Additional Information

Form Number Page of

Continued on Form Number

Observation Date | Time Zone | Start Time | End Time

Min. \ Sec.	0	15	30	45	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
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25					
26					
27					
28					
29					
30					

Observer's Name (Print)

Observer's Signature Date

Organization

Certified By Date

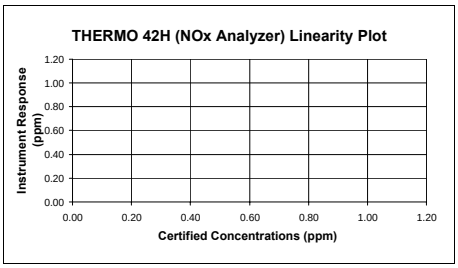
Air Permit # :	
Plant Name or Location:	
Date:	
Project Number:	
Manufacturer & Equipment:	
Model:	
Serial Number:	
Unit Number:	
Test Load:	
Tester(s) / Test Unit(s):	

		RUN																
	UNITS	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**
Start Time	hh:mm:ss																		
End Time	hh:mm:ss																		
Bar. Pressure	in. Hg																		
Amb. Temp.	°F																		
Rel. Humidity	%																		
Spec. Humidity	lb water / lb air																		
Comb. Inlet Pres.	psig																		
NOx Water Inj.	gpm																		
Total Fuel Flow	SCFH																		
Heat Input	MMBtu/hr																		
Power Output	megawatts																		
Steam Rate	lb/hr																		

Calibration Date:
Client:

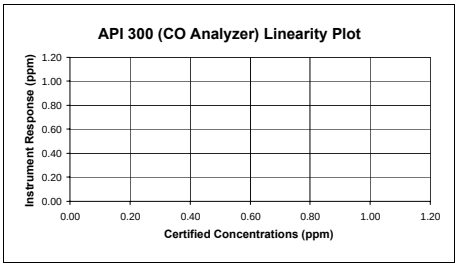
NOx Span (ppm) =

THERMO 42H (NOx Analyzer)				
Certified Concentration (ppm)	Instrument Response (ppm)	Calibration Error (%)	Absolute Conc. (ppm)	Pass or Fail (±2%, ≤0.5ppm)
Linearity =				



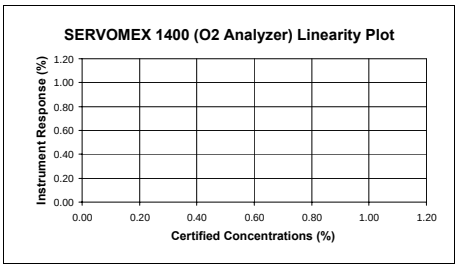
CO Span (ppm) =

API 300 (CO Analyzer)				
Certified Concentration (ppm)	Instrument Response (ppm)	Calibration Error (%)	Absolute Conc. (ppm)	Pass or Fail (±2%, ≤0.5ppm)
Linearity =				



O2 Span (%) =

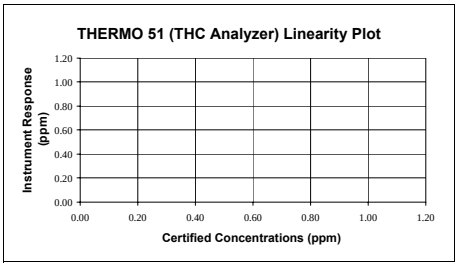
SERVOMEX 1400 (O_2 Analyzer)				
Certified Concentration (ppm)	Instrument Response (ppm)	Calibration Error (%)	Absolute Conc. (ppm)	Pass or Fail (±2%, ≤0.5%)
Linearity =				



THC Range (ppm) =

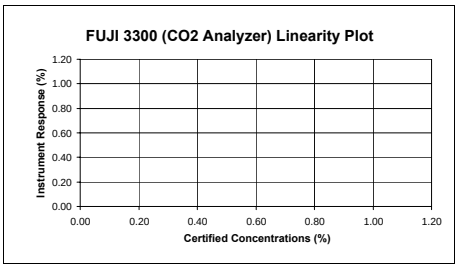
THERMO 51 (THC Analyzer)				
Certified Concentration (ppm)	Instrument Response (ppm)	Calibration Error (%)	Estimated Point (ppm)	Pass or Fail (±2,5%)[1]
Linearity =				

[1]-zero/high based on 2% of spanlow/mid based on 5% of concentration



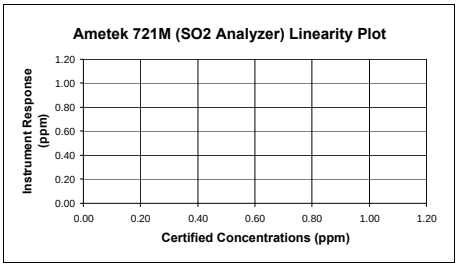
CO2 Span (%) =

FUJI 3300 (CO_2 Analyzer)				
Certified Concentration (ppm)	Instrument Response (ppm)	Calibration Error (%)	Absolute Conc. (ppm)	Pass or Fail (±2%, ≤0.5%)
Linearity =				



SO2 Span (ppm) =

Ametek 721M (SO_2 Analyzer)				
Certified Concentration (ppm)	Instrument Response (ppm)	Calibration Error (%)	Absolute Conc. (ppm)	Pass or Fail (±2%, ≤0.5ppm)
Linearity =				



NOx Converter Efficiency

Date:

Analyzer:

RM 7E, (08-15-06), 8.2.4.1 Introduce a concentration of 40 to 60 ppmv NO_2 to the analyzer in direct calibration mode and record the NOx concentration displayed by the analyzer. ... Calculate the converter efficiency using Equation 7E-7 in Section 12.7. The specification for converter efficiency in Section 13.5 must be met. ... The NO_2 must be prepared according to the EPA Traceability Protocol and have an accuracy within 2.0 percent.

Audit Gas: NO_2 Concentration (C_v), ppmvd

Converter Efficiency Calculations:

Analyzer Reading, NO Channel, ppmvd

Analyzer Reading, NOx Channel, ppmvd

Analyzer Reading, NO_2 Channel ($C_{Dir(NO2)}$), ppmvd

Converter Efficiency, %

RM 7E, (08-15-06), 13.5 NO2 to NO Conversion Efficiency Test (as applicable). The NO2 to NO conversion efficiency, calculated according to Equation 7E-7 or Equation 7E-9, must be greater than or equal to 90 percent.

$$Eff_{NO2} = \left(\frac{C_{Dir}}{C_V} \right) \times 100$$

Eq. 7E-7 = $\frac{\text{ppmvd}}{\text{ppmvd}}$ x 100 =

Date/Time	Elapsed Time	NOx	NO
mm/dd/yy hh:mm:ss	Seconds	ppmvd	ppmvd

Fuel Data

Fuel F_d factor		SCF/MMBtu
Fuel Heating Value (HHV)		Btu/SCF

Weather Data

Barometric Pressure		in. Hg
Relative Humidity		%
Ambient Temperature		° F
Specific Humidity		lb H_2O / lb air

Unit Data

Unit Load		megawatts
Heat Input		lb/MMBtu
Steam Rate		Steam lb/hr
Combustor Inlet Pres.		psig
NOx Control Water Injection		gpm
Est. Stack Moisture		%
Stack Exhaust Flow (M2)		SCFH
Stack Exhaust Flow (M19)		SCFH

Run - 1

Date/Time (mm/dd/yy hh:mm:ss)	Elapsed Time (seconds)	O_2 (%)	NOx (ppmvd)	CO (ppmvd)

RAW AVERAGE

	Serial Number:	O_2 (%)	NOx (ppmvd)	CO (ppmvd)
Bias	Initial Zero			
	Final Zero			
	Avg. Zero			
	Initial UpScale			
	Final UpScale			
	Avg. UpScale			

Upscale Cal Gas

EMISSIONS DATA	O_2	NOx	CO
Corrected Raw Average (ppm/% dry basis)			
Corrected Raw Average (ppm/% wet basis)			
Concentration (ppm@ %O_2)			
Concentration (ppm@ %O_2 &ISO)			
Emission Rate (lb/hr)			
Emission Rate (tons/day) at 24 hr/day			
Emission Rate (tons/year) at 8760 hr/yr			
Emission Rate (lb/MMBtu)			
Emission Rate (g/hp*hr)			

DRIFT AND BIAS CHECK			
Run - 1	**O2**	**NOx**	**CO**
Raw Average			
Corrected Average			
Initial Zero			
Final Zero			
Avg. Zero			
Initial UpScale			
Final UpScale			
Avg. UpScale			
Sys Resp (Zero)			
Sys Resp (Upscale)			
Upscale Cal Gas			
Initial Zero Bias			
Final Zero Bias			
Zero Drift			
Initial Upscale Bias			
Final Upscale Bias			
Upscale Drift			
Alternative Specification Abs Diff **Initial Zero**			
Final Zero			
Initial Upscale			
Final Upscale			
Calibration Span			
3% of Range (drift)			
5% of Range (bias)			

DRIFT AND BIAS CHECK			
Run - 2	**O2**	**NOx**	**CO**
Raw Average			
Corrected Average			
Initial Zero			
Final Zero			
Avg. Zero			
Initial UpScale			
Final UpScale			
Avg. UpScale			
Sys Resp (Zero)			
Sys Resp (Upscale)			
Upscale Cal Gas			
Initial Zero Bias			
Final Zero Bias			
Zero Drift			
Initial Upscale Bias			
Final Upscale Bias			
Upscale Drift			
Alternative Specification Abs Diff **Initial Zero**			
Final Zero			
Initial Upscale			
Final Upscale			
Calibration Span			
3% of Range (drift)			
5% of Range (bias)			

TABLE A.2
LOAD 1 DATA SUMMARY

Parameter	Run - 1	Run - 2	Run - 3	Average
Start Time (hh:mm:ss)				
End Time (hh:mm:ss)				
Run Duration (min)				
Bar. Pressure (in. Hg)				
Amb. Temp. (°F)				
Rel. Humidity (%)				
Spec. Humidity (lb water / lb air)				
Turbine Fuel Flow (SCFH)				
Stack Flow (RM19) (SCFH)				
Power Output (megawatts)				
NOx (ppmvd)				
NOx (lb/hr)				
NOx (lb/MMBtu)				
NOx (g/hp*hr)				
CO (ppmvd)				
CO (lb/hr)				
CO (lb/MMBtu)				
CO (g/hp*hr)				
O_2 (%)				

TABLE A.3
LOAD 2 DATA SUMMARY

Parameter	Run - 4	Run - 5	Run - 6	Average
Start Time (hh:mm:ss)				
End Time (hh:mm:ss)				
Run Duration (min)				
Bar. Pressure (in. Hg)				
Amb. Temp. (°F)				
Rel. Humidity (%)				
Spec. Humidity (lb water / lb air)				
Turbine Fuel Flow (SCFH)				
Stack Flow (RM19) (SCFH)				
Power Output (megawatts)				
NOx (ppmvd)				
NOx (lb/hr)				
NOx (lb/MMBtu)				
NOx (g/hp*hr)				
CO (ppmvd)				
CO (lb/hr)				
CO (lb/MMBtu)				
CO (g/hp*hr)				
O_2 (%)				

EXAMPLE CALCULATIONS (INFORMATION)

Specific Humidity (RH_{sp})

Note: RHsp (gr/lb) calculated using temperature, relative humidity, and barometric pressure with psychrometric chart, psychrometric calculator, or built in psychrometric algorithm.

$$RH_{sp}(lb/lb) = \left[\left(\frac{gr}{lb}\right) \times \frac{lb}{7000\ gr}\right]$$

RH_{sp}= $\frac{gr}{lb}$ x $\frac{1\ lb}{7000\ gr}$ = $\frac{lb\ H_2O}{lb\ Air}$

Fuel Flow Conversion (Q_f)

Note: Qf(lb/min) is a value uptained from the source operator.

$$Q_f = \left[Q_f \times G \times \left(\frac{1}{MW_{Fuel}}\right)\right]$$

Q_f = $\frac{lb}{min}$ x $\frac{60\ min}{hr}$ x $\frac{ft^3}{lb\text{-}mol}$ x $\frac{lb\text{-}mol}{lb}$ = SCFH

Combustor Inlet Pressure / Compressor Discharge Pressure (CIP / CDP)

(corrected from gauge to atmospheric pres. and conv. to mm Hg.)

Note: CIP / CDP (psig) is a value obtained from the source operator.

$$CIP/CDP = \left[(psig + P) \times \frac{51.71493\ mmHg}{1\ psi}\right]$$

CIP / CDP = (psig +) x $\frac{51.71493\ mmHg}{1\ psia}$ = mmHg (abs)

Heat Rate (MMBtu/hr)

$$HR = \frac{HHV_{DRY} \times Q_f}{1{,}000{,}000}$$

Heat Rate = $\frac{Btu}{SCF}$ x $\frac{SCF}{hr}$ x $\frac{MMBtu}{10^6\ Btu}$ = $\frac{MMBtu}{hr}$

Estimated Stack Gas Moisture Content (B_{ws})

$$B_{ws}(\%) = \frac{2 \times Q_f}{Q_s} \times 100$$

B_{ws} = 2 x $\frac{SCF}{hr}$ x $\frac{hr}{SCF}$ x 100 = %

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (CALIBRATION)

Analyzer Calibration Error

RM 7E, (08-15-06), 12.2 Analyzer Calibration Error. For non-dilution systems, use Equation 7E-1 to calculate the analyzer calibration error for the low-, mid-, and high-level calibration gases. (calc for analyzer mid gas, if applicable)

$$ACE = \left(\frac{C_{Dir} - C_V}{CS}\right) \times 100$$ Eq. 7E-1

ACE = $\frac{ppm\ -\ ppm}{ppm}$ x 100 = %

Calibration Error and Estimated Point, RM 25A, THC Analyzer

RM 25A, (07-19-06), 8.4 Calibration Error Test. Immediately prior to the test series (within 2 hours of the start of the test), introduce zero gas and high-level calibration gas at the calibration valve assembly. Adjust the analyzer output to the appropriate levels, if necessary. Calculate the predicted response for the low-level and mid-level gases based on a linear response line between the zero and high-level response. Then introduce low-level and mid-level calibration gases successively to the measurement system. ... These differences must be less than 5 percent of the respective calibration gas value. (calc for THC analyzer mid gas, if applicable)

$$E_P = \frac{C_{Dir(H)} - C_{Dir(Z)}}{C_{V(H)} - C_{V(Z)}} \times C_{Dir(M)} + C_{Dir(Z)}$$

Eq. of a line y=mx+b

E_p = $\frac{ppm\ -\ ppm}{ppm\ -\ ppm}$ x ppm + = ppm

$$ACE = \left(\frac{C_{Dir} - C_V}{CS}\right) \times 100$$ Eq. 7E-1

ACE_{THC} = $\frac{ppm\ -\ ppm}{ppm}$ x 100 = %

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (BIAS, DRIFT, AND CORRECTED RAW AVERAGE)

System Bias

RM 7E, (08-15-06), 12.3 System Bias. For non-dilution systems, use Equation 7E-2 to calculate the system bias separately for the low-level and upscale calibration gases. (calc for analyzer upscale gas, Run 1 initial bias, if applicable)

$$SB = \left(\frac{C_S - C_{Dir}}{CS}\right) \times 100$$ Eq. 7E-2

SB = (ppm - ppm) / ppm x 100 = %

Drift Assessment

RM 7E, (08-15-06), 12.5 Drift Assessment. Use Equation 7E-4 to separately calculate the low-level and upscale drift over each test run. (calc for analyzer upscale drift, Run 1, if applicable)

$$D = \left|SB_{final} - SB_i\right|$$ Eq. 7E-4

D = | % - % | = %

Alternative Drift and Bias

RM 7E, (08-15-06), 13.2 / 13.3 System Bias and Drift. Alternatively, the results are acceptable if |Cs – Cdir| is≤ 0.5 ppmv or if |Cs – Cv| is ≤ 0.5 ppmv (as applicable). (calc for analyzer initial upscale, Run 1, if applicable)

$$SB / D_{Alt} = \left|C_S - C_{Dir}\right|$$ Eq. Section 13.2 and 13.3

SB / D_{Alt} = | ppm - ppm | = ppm

Bias Adjusted Average

RM 7E, (08-15-06), 12.6 Effluent Gas Concentration. For each test run, calculate Cavg, the arithmetic average of all valid concentration values (e.g., 1-minute averages). Then adjust the value of Cavg for bias, using Equation 7E-5. (calc for analyzer, Run 1, if applicable)

$$C_{Gas} = \left(C_{Avg} - C_O\right) \times \left(\frac{C_{MA}}{C_M - C_O}\right)$$ Eq. 7E-5

C_{Gas} = (ppm - ppm) x (ppm / (ppm - ppm)) = ppm

EXAMPLE CALCULATIONS (BSFC)

Using LHV with Q_f (Btu/hp*hr)

$$BSFC\ (Btu / hp \cdot hr) = Q_f$$

BSFC = Btu / hp*hr = Btu / hp*hr

Using HHV with Q_f (SCFH)

$$BSFC\ (Btu / hp \cdot hr) = \frac{HHV \times Q_f}{bhp}$$

BSFC = Btu / SCF x SCF / hr x 1 / hp = Btu / hp*hr

Using LHV with Q_f (SCFH)

$$BSFC\ (Btu / hp \cdot hr) = \frac{LHV \times Q_f}{bhp}$$

BSFC = Btu / SCF x SCF / hr x 1 / hp = Btu / hp*hr

Using HHV with Q_f (Btu/hp*hr)

$$BSFC\ (Btu / hp \cdot hr) = \frac{Q_f \times HHV}{LHV}$$

BSFC = N/A Btu / hp*hr x Btu / SCF x scf / Btu = Btu / hp*hr

EXAMPLE CALCULATIONS (Emissions based on Table 29 values)

Emission Rate (lb/hr)
Q_f (Btu/hp*hr))

$$E(lb / hr) = \frac{E_{g / hp \cdot hr} \times bhp}{453.6}$$

E (lb/hr) = g / hp*hr x lb / 453.6 g x hp = lb / hr

Emission Rate (g/hp-hr)
Q_f (Btu/hp*hr))

$$E\ (g / hp \cdot hr) = CRA \times Q_f \times FFactor \times MW \times \frac{1}{10^6} \times \frac{1}{10^6} \times \frac{453.6}{G} \times \frac{20.9\%}{20.9\% - CRA_{O_2}}$$

E (g/hp-hr) = ppm x Btu / hp*hr x SCF / MMBtu x lb / lb-mol x 1 parts / 10^6 ppm x 1 MMBtu / 10^6 Btu x 453.6 g / lb x lb-mol / SCF x 20.9% / (20.9% - %) = g / hp*hr

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (RUNS)

Stack Exhaust Flow (Q_S) - RM19

$$Q_S = \left(\frac{FFactor \times Q_f \times HHV}{1{,}000{,}000}\right) \times \left(\frac{20.9\%}{20.9\% - C_{Gas(O2)}}\right)$$

Q_S = SCF/MMBtu x SCF/hr x Btu/SCF x MMBtu/10^6 Btu x [20.90% / (20.9% - %)] = SCFH

NO_2 Conversion Efficiency Correction

RM 7E, (08-15-06), 12.8 NO2 - NO Conversion Efficiency Correction. If desired, calculate the total NOX concentration with a correction for converter efficiency using Equations 7E-8. (calc for non-bias corrected (raw) NOx gas, Run 1, if applicable)

$$NOx_{Corr} = NO + \frac{NOx - NO}{Eff_{NO2}} \times 100$$ Eq. 7E-8

NOx_{Corr} = ppm + (ppm - ppm) / % x 100 = ppm

Moisture Correction

RM 7E, (08-15-06), RM7E, (08-15-06), 12.10 Moisture Correction. Use Equation 7E-10 if your measurements need to be corrected to a dry basis. (calc for THC analyzer, Run 1, if applicable) Note: Calculations may not match as Run 1 results are typically also bias adjusted

$$C_D = \frac{C_W}{1 - B_{WS}}$$ Eq. 7E-10

C_D = ppmvw / (1 -) = ppmvd

Diluent-Corrected Polutant Concentration, O_2 Based

RM 20, (11-26-02), 7.3.1 Correction of Pollutant Concentration Using O2 Concentration. Calculate the O2 corrected pollutant concentration, as follows: (calc for gas, Run 1, if applicable)

$$C_{adj} = C_{Gas(T\,arget)} \times \left(\frac{20.9\% - AdjFactor}{20.9\% - C_{Gas(O2)}}\right)$$ Eq. 20-4

C_{adj} = ppm x [20.9% - % / 20.9% - %] = ppm@%O_2

Diluent-Corrected Polutant Concentration, CO_2 Based

RM 20, (11-26-02), 7.3.2 Correction of Pollutant Concentration Using CO2 Concentration. Calculate the CO2 corrected pollutant concentration, as follows: (calc for gas, Run 1, if applicable)

$$C_{adj} = C_{Gas(T\,arget)} \times \frac{X_{CO2}}{C_{Gas(CO2)}}$$ Eq. 20-5

C_{adj} = ppm x % / % =

7.2 CO_2 Correction Factor. If pollutant concentrations are to be corrected to percent O_2 and CO_2 concentration is measured in lieu of O_2 concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as follows: 7.2.1 Calculate the fuel specific F_o, as follows:

$$F_0 = \frac{0.209\,F_d}{F_c}$$ Eq. 20-2

F_0 = 0.209 x SCF/MMBtu / SCF/MMBtu =

7.2.2. Calculate the CO_2 correction factor for correcting measurement data to percent oxygen, as follows:

$$X_{CO2} = \frac{20.9\% - AdjFactor}{F_0}$$ Eq. 20-3

X_{CO2} = 20.9% - % = %

Diluent-Corrected Polutant Concentration Corrected to ISO Conditions

40CFR60.335(b)(1), Conversion for conc. at ISO Conditions (68°F, 1 atm). Calculate, as follows: (calc for @% with Run 1 data, if applicable)

$$C_{ISO} = C_{Adj} \times \sqrt{\frac{P_r}{P_o}} \times e^{(19 \times (H_O - 0.00633))} \times \left(\frac{288}{T_a}\right)^{1.53}$$

C_{ISO} = ppm@%O_2 x $\sqrt{(\text{psig} + 14.69232\ \text{psi}) / (0.01933677\ \text{psi/mm Hg.})}$ / $\sqrt{(\text{psig} + \text{psi}) / (0.01933677\ \text{psi/mm Hg.})}$ x 2.718 (19x(lb/lb-0.00633)) x (288 K / K)$^{1.53}$ = ppm@% and ISO

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (RUNS)

Emissions Rate (lb/hr)

Calculation for pound per hour emission rate. Calculate, as follows: (calc for gas Run 1, if applicable)

$$E_{lb/hr} = \frac{C_{Gas}}{10^6} \times \frac{Q_S \times MW}{G}$$

$$E_{lb/hr} = \frac{\text{ppm}}{10^6 \text{ ppm/part}} \text{ x } \frac{\text{SCFH x lb/lb-mol}}{\text{SCF/lb-mol}} = \frac{\text{lb}}{\text{hr}}$$

Emissions Rate (ton/year)

Calculation for tons per year emission rate based on 8760 hours per year. Calculate, as follows: (calc for gas Run 1, if applicable)

$$E_{ton/yr} = \frac{E_{lb/hr} \times hr_{year}}{2000}$$

$$E_{ton/yr} = \frac{\text{lb}}{\text{hr}} \text{ x } \frac{\text{hr}}{\text{year}} \text{ x } \frac{\text{ton}}{\text{2000 lb}} = \frac{\text{ton}}{\text{year}}$$

Emissions Rate (lb/MMBtu)

RM 19, (07-19-06), 12.2 Emission Rates of PM, SO2, and NOx. Select from the following sections the applicable procedure to compute the PM, SO2, or NOx emission rate (E) in ng/J (lb/million Btu). (calc for gas Run 1, if applicable)

Oxygen Based

12.2.1 Oxygen-Based F Factor, Dry Basis. When measurements are on a dry basis for both O_2 (%O_2d) and pollutant (Cd) concentrations, use the following equation:

$$E_{lb/MMBtu} = \frac{C_{Gas} \times F_d Factor \times Conv_C \times 20.9\%}{20.9\% - C_{Gas(O2)}}$$ Eq. 19-1

$$E_{lb/MMBtu} = \frac{\text{ppm x SCF/MMBtu x lb/ppm*ft}^3 \text{ x 20.9\%}}{\text{20.9\% - \%}} = \frac{\text{lb}}{\text{MMBtu}}$$

Carbon Dioxide Based

12.2.4 Carbon Dioxide-Based F Factor, Dry Basis. When measurements are on a dry basis for both CO_2 (%CO_2d) and pollutant (Cd) concentrations, use the following equation:

$$E_{lb/MMBtu} = \frac{C_{Gas} \times F_d Factor \times Conv_C \times 100\%}{C_{Gas(CO2)}}$$ Eq. 19-6

$$E_{lb/MMBtu} = \frac{\text{ppm x SCF/MMBtu x lb/ppm*ft}^3 \text{ x 100\%}}{\text{\%}} = \frac{\text{lb}}{\text{MMBtu}}$$

Conversion Constant

Convc for

$$Conv_c(lb/ppm \cdot ft^3) = \frac{\frac{MW}{G}}{10^6}$$

$$Conv_c = \frac{\text{lb}}{\text{lb•mole}} \text{ x } \frac{\text{lb•mole}}{\text{SCF}} = \frac{\text{lb}}{\text{ppm-ft}^3}$$

Sulfur Dioxide Rate (lb/MMBtu), 40CFR60, App. A, RM 19, Eq. 19-25 (11/20/03)

$$SO_2(lb/MMBtu) = 0.97 \times K \times \frac{S(wt\%)}{GCV}$$

$$SO_2 = 0.97 \text{ x } \frac{\text{2x10}^4 \text{ Btu}}{\text{wt\%•MMBtu}} \text{ x } \frac{\text{wt\%}}{\text{Btu/lb}} = \frac{\text{lb}}{\text{MMBtu}}$$

Emissions Rate (g/hp-hr)

Calculation for grams per horsepower-hour. Calculate, as follows: (calc for gas Run 1, if applicable)

$$E_{g/hp \cdot hr} = \frac{E_{lb/hr} \times 453.6}{mw \times 1314.022} \text{ or } \frac{E_{lb/hr} \times 453.6}{hp}$$

$$E_{g/hp-hr} = \frac{\text{lb}}{\text{hr}} \text{ x } \frac{\text{453.6 g}}{\text{lb}} \text{ x } \frac{\text{1}}{\text{mw}} \text{ x } \frac{\text{mw}}{\text{1314.022 hp}} = \frac{\text{g}}{\text{hp*hr}}$$

$$E_{g/hp-hr} = \frac{\text{lb}}{\text{hr}} \text{ x } \frac{\text{453.6 g}}{\text{lb}} \text{ x } \frac{\text{1}}{\text{hp}} = \frac{\text{g}}{\text{hp*hr}}$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

RM 7E, (08-15-06), 12.1 Nomenclature. The terms used in the equations are defined as follows:

ACE = Analyzer calibration error, percent of calibration span.
B_{WS} = Moisture content of sample gas as measured by Method 4 or other approved method, percent/100.
C_{Avg} = Average unadjusted gas concentration indicated by data recorder for the test run.
C_D = Pollutant concentration adjusted to dry conditions.
C_{Dir} = Measured concentration of a calibration gas (low, mid, or high) when introduced in direct calibration mode.
C_{Gas} = Average effluent gas concentration adjusted for bias.
C_M = Average of initial and final system calibration bias (or 2-point system calibration error) check responses for the upscale calibration gas.
C_{MA} = Actual concentration of the upscale calibration gas, ppmv.
C_O = Average of the initial and final system calibration bias (or 2-point system calibration error) check responses from the low-level (or zero) calibration gas.
C_S = Measured concentration of a calibration gas (low, mid, or high) when introduced in system calibration mode.
C_{SS} = Concentration of NOx measured in the spiked sample.
C_{Spike} = Concentration of NOx in the undiluted spike gas.
C_{Calc} = Calculated concentration of NOx in the spike gas diluted in the sample.
C_V = Manufacturer certified concentration of a calibration gas (low, mid, or high).
C_W = Pollutant concentration measured under moist sample conditions, wet basis.
CS = Calibration span.
D = Drift assessment, percent of calibration span.
E_p = The predicted response for the low-level and mid-level gases based on a linear response line between the zero and high-level response.
Eff_{NO2} = NO_2 to NO converter efficiency, percent.
H = High calibration gas, designator.
L = Low calibration gas, designator.
M = Mid calibration gas, designator.
NOFinal = The average NO concentration observed with the analyzer in the NO mode during the converter efficiency test in Section 16.2.2.
NOxCorr = The NOx concentration corrected for the converter efficiency.
NOxFinal = The final NOx concentration observed during the converter efficiency test in Section 16.2.2.
NOxPeak = The highest NOx concentration observed during the converter efficiency test in Section 16.2.2.
Q_{Spike} = Flow rate of spike gas introduced in system calibration mode, L/min.
Q_{Total} = Total sample flow rate during the spike test, L/min.
R = Spike recovery, percent.
SB = System bias, percent of calibration span.
SB_i = Pre-run system bias, percent of calibration span.
SB_f = Post-run system bias, percent of calibration span.
SB / D_{Alt} = Alternative absolute difference criteria to pass bias and/or drift checks.
SCE = System calibration error, percent of calibration span.
SCE_i = Pre-run system calibration error, percent of calibration span.
SCE_{final} = Post-run system calibration error, percent of calibration span.
Z = Zero calibration gas, designator.

40CFR60.355(b)(1), (09-20-06), Nomenclature. The terms used in the equations are defined as follows:

P_r = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg
P_o = observed combustor inlet absolute pressure at test, mm Hg
H_o = observed humidity of ambient air, g H_2O/g air
e = transcendental constant, 2.718
T_a = ambient temperature, K

Small Engine and FTIR Nomenclature. The terms used in the equations are defined as follows:

bhp = brake horsepower
hp = horsepower
Q_{sys} = system flow (lpm)
Q_m = matrix spike flow (lpm)

RM 19, (07-29-06), 12.1 Nomenclature. The terms used in the equations are defined as follows:

AdjFactor = percent oxygen or carbon dioxide adjustment applied to a target polltant
B_{wa} = Moisture fraction of ambient air, percent.
Btu = British thermal unit
$\%_C$ = Concentration of carbon from an ultimate analysis of fuel, weight percent.
$\%_{CO2d}$,$\%_{CO2w}$ = Concentration of carbon dioxide on a dry and wet basis, respectively, percent.
CIP / CDP = Combustor inlet pressure / compressor discharge pressure (mm Hg); note, some manufactures reference as PCD.
E = Pollutant emission rate, ng/J (lb/million Btu).
E_a = Average pollutant rate for the specified performance test period, ng/J (lb/million Btu).
E_{ao}, E_{ai} = Average pollutant rate of the control device, outlet and inlet, respectively, for the performance test period, ng/J (lb/million Btu).
E_{bi} = Pollutant rate from the steam generating unit, ng/J (lb/million Btu).
E_{bo} = Pollutant emission rate from the steam generating unit, ng/J (lb/million Btu).
E_{ci} = Pollutant rate in combined effluent, ng/J (lb/million Btu).
E_{co} = Pollutant emission rate in combined effluent, ng/J (lb/million Btu).
E_d = Average pollutant rate for each sampling period (e.g.,24-hr Method 6B sample or 24-hr fuel sample) or for each fuel lot (e.g., amount of fuel bunkered), ng/J (lb/million Btu).
E_{di} = Average inlet SO_2 rate for each sampling period d, ng/J (lb/million Btu).
E_g = Pollutant rate from gas turbine, ng/J (lb/million Btu).
E_{ga} = Daily geometric average pollutant rate, ng/J (lbs/million Btu) or ppm corrected to 7 percent O_2.
E_{jo},E_{ji} = Matched pair hourly arithmetic average pollutant rate, outlet and inlet, respectively, ng/J (lb/million Btu) or ppm corrected to 7 percent O_2.
E_h = Hourly average pollutant, ng/J (lb/million Btu).
E_{hj} = Hourly arithmetic average pollutant rate for hour "j," ng/J (lb/million Btu) or ppm corrected to 7 percent O_2.
EXP = Natural logarithmic base (2.718) raised to the value enclosed by brackets.
Fc = Ratio of the volume of carbon dioxide produced to the gross calorific value of the fuel from Method 19
F_d, F_w, F_c = Volumes of combustion components per unit of heat content, scm/J (scf/million Btu).
ft^3 = cubic feet
G = ideal gas conversion factor
(385.23 SCF/lb-mol at 68 deg F & 14.696 psia)
GCM = gross Btu per SCF (constant, compound based)
GCV = Gross calorific value of the fuel consistent with the ultimate analysis, kJ/kg (Btu/lb).
GCV_p, GCV_r = Gross calorific value for the product and raw fuel lots, respectively, dry basis, kJ/kg (Btu/lb).
$\%_H$ = Concentration of hydrogen from an ultimate analysis of fuel, weight percent.
H_b = Heat input rate to the steam generating unit from fuels fired in the steam generating unit, J/hr (million Btu/hr).
H_g = Heat input rate to gas turbine from all fuels fired in the gas turbine, J/hr (million Btu/hr).
$\%_{H2O}$ = Concentration of water from an ultimate analysis of fuel, weight percent.
H_r = Total numbers of hours in the performance test period (e.g., 720 hours for 30-day performance test period).
K = volume of combustion component per pound of component (constant)
K = Conversion factor, 10^{-5} (kJ/J)/(%) [10^6 Btu/million Btu].
K_c = (9.57 scm/kg)/% [(1.53 scf/lb)/%].
K_{cc} = (2.0 scm/kg)/% [(0.321 scf/lb)/%].
K_{hd} = (22.7 scm/kg)/% [(3.64 scf/lb)/%].
K_{hw} = (34.74 scm/kg)/% [(5.57 scf/lb)/%].
K_n = (0.86 scm/kg)/% [(0.14 scf/lb)/%].
K_o = (2.85 scm/kg)/% [(0.46 scf/lb)/%].
K_s = (3.54 scm/kg)/% [(0.57 scf/lb)/%].
K_{sulfur} = $2x10^4$ Btu/wt%-MMBtu
K_w = (1.30 scm/kg)/% [(0.21 scf/lb)/%].
lb = pound
ln = Natural log of indicated value.
L_p,L_r = Weight of the product and raw fuel lots, respectively, metric ton (ton).
$\%_N$ = Concentration of nitrogen from an ultimate analysis of fuel, weight percent.
$M_\%$ = mole percent
mol = mole
MW = molecular weight (lb/lb-mol)
MW_{AIR} = molecular weight of air (28.9625 lb/lb-mole)[1]
NCM = net Btu per SCF (constant based on compound)
$\%_O$ = Concentration of oxygen from an ultimate analysis of fuel, weight percent.
$\%_{O2d}$, $\%_{O2w}$ = Concentration of oxygen on a dry and wet basis, respectively, percent.
P_B = barometirc pressure, in Hg
P_s = Potential SO2 emissions, percent.
$\%_S$ = Sulfur content of as-fired fuel lot, dry basis, weight percent.
S_e = Standard deviation of the hourly average pollutant rates for each performance test period, ng/J (lb/million Btu).
$\%_{Sf}$ = Concentration of sulfur from an ultimate analysis of fuel, weight percent.
S(wt%) = weight percent of sulfur, per lab analysis by appropriate ASTM standard
S_i = Standard deviation of the hourly average inlet pollutant rates for each performance test period, ng/J (lb/million Btu).
S_o = Standard deviation of the hourly average emission rates for each performance test period, ng/J (lb/million Btu).
$\%S_p$, $\%S_r$ = Sulfur content of the product and raw fuel lots respectively, dry basis, weight percent.
SCF = standard cubic feet
SH = specific humidity, pounds of water per pound of air
$t_{0.95}$ = Values shown in Table 19-3 for the indicated number of data points n.
T_{amb} = ambient temperature, ^oF
W/D Factor = 1.0236 = conv. at 14.696 psia and
68 deg F (ref. Civil Eng. Ref. Manual, 7th Ed.)
X_{CO2}=CO_2 Correction factor, percent.
X_k = Fraction of total heat input from each type of fuel k.

ALARMS EXIST !!! - Check Alarm Sheet

	English Units	○ ◉	Cells Unprotected

Source Information				
Plant Name				
Sampling Location				
Fuel or Source Type	Gas, Natural			
Fuel F-Factor				

Test Information			
Starting Test Date			
Project #			
Operator			
Standard Temperature		68	oF
Standard Pressure		29.92	in Hg
Minimum Required Sample Vol.	indust. spec.	100	scf
Run Duration	chk Subpart	180	minutes
Unit Number			
Load	% or w/DB		
Base Run Number			
Number of Ports Available			
Number of Ports Used			
Port Inside Diameter			in
Circular Stack			

Test Equipment Information					
Run		**1**	**2**	**3**	
Meter Box Number	from ACS				
Meter Calibration Factor	(Y)				
Orifice Meter Coefficient	($\Delta H_@$)				in H_2O
Pitot Identification	from ACS				
Pitot Tube Coefficient	(C_p)	0.840	0.840	0.840	
Orsat Identification	from ACS				
Nozzle Number	from ACS				
Nozzle Diameter	(D_n)				in
Probe Number	from ACS				
Probe Length					in
(SS, Glass ….) Liner Material	from list	inconel	inconel	inconel	
Sample Case / Oven Number	from ACS				
Impinger Case Number	from ACS				
Acetone Lot Number	from bottle				

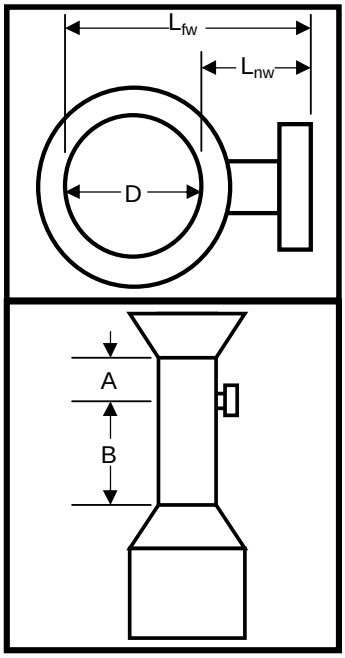
Testing Company Information	
Company Name	Air Hygiene International, Inc. (Tulsa, Oklahoma)
Address	5634 S. 122nd East Ave., Suite F
City, State Country Zip	Tulsa, Oklahoma 74146
Project Manager	
Phone Number	(918) 307-8865
Fax Number	(918) 307-9131

METHOD 1 - SAMPLE AND VELOCITY TRAVERSES FOR CIRCULAR SOURCES

Plant Name		**Date**	
Sampling Location		**Project #**	
Operator		**# of Ports Available**	
Stack Type	Circular	**# of Ports Used**	
Stack Size		**Port Inside Diameter**	

Circular Stack or Duct Diameter			
Distance to Far Wall of Stack	(L_{fw})		in
Distance to Near Wall of Stack	(L_{nw})		in
Diameter of Stack	(D)		in
Area of Stack	(A_s)		ft2

Distance from Port to Disturbances			
Distance Downstream	(B)		in
Diameters Downstream	(B_D)		diameters
Distance Upstream	(A)		in
Diameters Upstream	(A_D)		diameters



Number of Traverse Points Required			
Diameters to Flow Disturbance		**Minimum Number of[1] Traverse Points**	
Down Stream	**Up Stream**	**Particulate Points**	**Velocity Points**
2.00-4.99	0.50-1.24	24	16
5.00-5.99	1.25-1.49	20	16
6.00-6.99	1.50-1.74	16	12
7.00-7.99	1.75-1.99	12	12
>= 8.00	>=2.00	8 or 12[2]	8 or 12[2]
Upstream Spec			
Downstream Spec			
Traverse Pts Required			

[1] Check Minimum Number of Points for the Upstream and Downstream conditions, then use the largest.

[2] 8 for Circular Stacks 12 to 24 inches
12 for Circular Stacks over 24 inches

Number of Traverse Points Used			
	Ports by		**Across**
	Pts Used		**Required**
		Particulate Traverse	

Location of Traverse Points in Circular Stacks									
Traverse	(Fraction of Stack Dimension from Inside Wall to Traverse Point)								
Point	**Number of Traverse Points Across the Stack**								
Number	**2**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**
1	.146	.067	.044	.032	.026	.021	.018	.016	.014
2	.854	.250	.146	.105	.082	.067	.057	.049	.044
3		.750	.296	.194	.146	.118	.099	.085	.075
4		.933	.704	.323	.226	.177	.146	.125	.109
5			.854	.677	.342	.250	.201	.169	.146
6			.956	.806	.658	.356	.269	.220	.188
7				.895	.774	.644	.366	.283	.236
8				.968	.854	.750	.634	.375	.296
9					.918	.823	.731	.625	.382
10					.974	.882	.799	.717	.618
11						.933	.854	.780	.704
12						.979	.901	.831	.764

Traverse Point Locations			
Traverse Point Number	**Fraction of Stack Diameter**	**Distance from Inside Wall**	**Distance Including Reference Length**
		in	in
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

METHOD 2 - DETERMINATION OF STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE

Plant Name					**Date**		
Sampling Location					**Project #**		
Operator					**# of Ports Used**		
Stack Type	Circular				**Pitot Identification**		
Pitot Leak Check	☐	**PreTest**	☐	**PostTest**	**Pitot Coefficient (C_p)**	0.84	

Stack Dimensions			
Diameter or Length of Stack	(D)		in
Width of Stack	(W)		in
Area of Stack	(A_s)		ft2

Pressures			
Barometric Pressure	(P_b)		in Hg
Static Pressure	(P_{static})		in H2O
Absolute Stack Pressure	(P_s)		in Hg

Alarms Exist - Enter Static Pressure (see below)!!!

Stack Gas Composition			
Composition Data:		**Estimated Composition**	
Carbon Dioxide Concentration	(%CO_2)		%
Oxygen Concentration	(%O_2)		%
Carbon Monoxide Concentration	(%CO)		%
Nitrogen Concentration	(%N_2)		%
Stack Moisture Content	(B_{ws})		%
Stack Dry Molecular Weight	(M_d)		lb/lb-mole
Stack Wet Molecular Weight	(M_s)		lb/lb-mole

Results			
Avg Stack Gas Velocity	(v_s)		ft/sec
Avg Stack Dry Std Flow Rate	(Q_{sd})		dscf/hr
Avg Stack Dry Std Flow Rate	(Q_{sd})		dscf/min
Avg Stack Wet Flow Rate	(Q_{aw})		acf/min
Avg Stack Wet Std Flow Rate	(Q_{sw})		ascf/hr

Stack Cross Section Schematic

Velocity Traverse Data				
Run Number		V1		
Run Time		**Start**		**End**
Traverse Point	**Velocity Head** (Δp)	**Null Angle** (N_a)	**Stack Temp** (t_s)	**Local Velocity** ($v_{s(l)}$)
	in H2O	deg	oF	ft/sec
Average				

= Square roots of Δp

Alarms Exist - Measure Static Pressure, turn side-to side, unplug to get positive reading!!!

METHOD 3a - DETERMINATION OF DRY MOLECULAR WEIGHT BY ANALYZER

Plant Name					**Date**		
Sampling Location					**Project #**		
Operator					**# of Ports Used**		
Fuel Type	N/A		**Minimum Fuel Factor**	1.600	**Maximum Fuel Factor**	1.836	
Orsat Leak Check	☐	**PreTest**	☐	**PostTest**	**Orsat Identification**		

Gas Analysis Data									
Run Number		1		**Run Start Time**			**Run Stop Time**		
Sample Analysis Time	**Carbon Dioxide Conc.** (%CO2)	**Oxygen Conc.** (%O2)	**Carbon Monoxide Conc.** (ppmCO)	**Carbon Dioxide Conc.** ($\%CO_2$)	**Oxygen Conc.** ($\%O_2$)	**Carbon Monoxide Conc.** (%CO)	**Nitrogen Conc.** ($\%N_2$)	**Dry Molecular Weight** (M_d)	**Molecular Weight Deviation** (ΔM_d)
hh:mm	percent	percent	ppm	percent	percent	percent	percent	lb/lb-mole	lb/lb-mole
Results			**Averages**						
Average Calculated Fuel Factor			$(F_o)_{avg}$			**Molecular Wt Deviation < 0.3?**			☐
Average Excess Air			$(\%EA)_{avg}$		percent	**Fuel Factor in Handbook Range?**			☐

Gas Analysis Data									
Run Number		2		**Run Start Time**			**Run Stop Time**		
Sample Analysis Time	**Carbon Dioxide Conc.** (%CO2)	**Oxygen Conc.** (%O2)	**Carbon Monoxide Conc.** (ppmCO)	**Carbon Dioxide Conc.** ($\%CO_2$)	**Oxygen Conc.** ($\%O_2$)	**Carbon Monoxide Conc.** (%CO)	**Nitrogen Conc.** ($\%N_2$)	**Dry Molecular Weight** (M_d)	**Molecular Weight Deviation** (ΔM_d)
hh:mm	percent	percent	ppm	percent	percent	percent	percent	lb/lb-mole	lb/lb-mole
Results			**Averages**						
Average Calculated Fuel Factor			$(F_o)_{avg}$			**Molecular Wt Deviation < 0.3?**			☐
Average Excess Air			$(\%EA)_{avg}$		percent	**Fuel Factor in Handbook Range?**			☐

Gas Analysis Data									
Run Number		3		**Run Start Time**			**Run Stop Time**		
Sample Analysis Time	**Carbon Dioxide Conc.** (%CO2)	**Oxygen Conc.** (%O2)	**Carbon Monoxide Conc.** (ppmCO)	**Carbon Dioxide Conc.** ($\%CO_2$)	**Oxygen Conc.** ($\%O_2$)	**Carbon Monoxide Conc.** (%CO)	**Nitrogen Conc.** ($\%N_2$)	**Dry Molecular Weight** (M_d)	**Molecular Weight Deviation** (ΔM_d)
hh:mm	percent	percent	ppm	percent	percent	percent	percent	lb/lb-mole	lb/lb-mole
Results			**Averages**						
Average Calculated Fuel Factor			$(F_o)_{avg}$			**Molecular Wt Deviation < 0.3?**			☐
Average Excess Air			$(\%EA)_{avg}$		percent	**Fuel Factor in Handbook Range?**			☐

Fuel Factor Fo		
Fuel Type	**Minimum**	**Maximum**
Coal, Anthracite	1.016	1.130
Coal, Lignite	1.016	1.130
Coal, Bituminous	1.083	1.230
Oil, Distillate	1.260	1.413
Oil, Residual	1.210	1.370
Gas, Natural	1.600	1.836
Gas, Propane	1.434	1.586
Gas, Butane	1.405	1.553
Wood	1.000	1.120
Wood Bark	1.003	1.130

METHOD 4 - DETERMINATION OF MOISTURE CONTENT IN STACK GASES

Plant Name					**Date**		
Sampling Location					**Project #**		
Operator					**# of Ports Used**		
Stack Type	Circular				**Meter Box Number**		
Train Leak Check	☐	**PreTest**	☐	**PostTest**	**Meter Cal Factor (Y)**		

Moisture Content Data									
Run Number	1		**Run Start Time**			**Run Stop Time**			
Total Meter Volume	(V_m)		dcf	**Barometric Press.**		(P_b)		in Hg	
Avg Meter Temp	$(t_m)_{avg}$		oF	**Stack Static Press.**		(P_{static})		in H2O	
Avg Stack Temp	$(t_s)_{avg}$		oF	**Avg Orifice Press.**		$(\Delta H)_{avg}$		in H2O	
	Impinger 1	**Impinger 2**	**Impinger 3**	**Impinger 4**	**Impinger 5**	**Impinger 6**	**Impinger 7**	**Impinger 8**	
	g	g	g	g	g	g	g	g	
Contents	DI	DI	DI	Sil Gel					
Final Value $(V_f),(W_f)$									
Initial Value $(V_i),(W_i)$									
Net Value $(V_n),(W_n)$									
Results									
Total Weight	(W_t)		g	**Water Vol Weighed**		$(V_{wsg(std)})$		scf	
Std Meter Volume	$(V_{m(std)})$		dscf	**Sat. Moisture Content**		$(B_{ws(svp)})$		%	
Calc Moisture Content	$(B_{ws(calc)})$		%	**Final Moisture Content**		(B_{ws})		%	

Moisture Content Data									
Run Number	2		**Run Start Time**			**Run Stop Time**			
Total Meter Volume	(V_m)		dcf	**Barometric Press.**		(P_b)		in Hg	
Avg Meter Temp	$(t_m)_{avg}$		oF	**Stack Static Press.**		(P_{static})		in H2O	
Avg Stack Temp	$(t_s)_{avg}$		oF	**Avg Orifice Press.**		$(\Delta H)_{avg}$		in H2O	
	Impinger 1	**Impinger 2**	**Impinger 3**	**Impinger 4**	**Impinger 5**	**Impinger 6**	**Impinger 7**	**Impinger 8**	
	g	g	g	g	g	g	g	g	
Contents	DI	DI	DI	Sil Gel					
Final Value $(V_f),(W_f)$									
Initial Value $(V_i),(W_i)$									
Net Value $(V_n),(W_n)$									
Results									
Total Weight	(W_t)		g	**Water Vol Weighed**		$(V_{wsg(std)})$		scf	
Std Meter Volume	$(V_{m(std)})$		dscf	**Sat. Moisture Content**		$(B_{ws(svp)})$		%	
Calc Moisture Content	(B_{ws})		%	**Final Moisture Content**		(B_{ws})		%	

Moisture Content Data									
Run Number	3		**Run Start Time**			**Run Stop Time**			
Total Meter Volume	(V_m)		dcf	**Barometric Press.**		(P_b)		in Hg	
Avg Meter Temp	$(t_m)_{avg}$		oF	**Stack Static Press.**		(P_{static})		in H2O	
Avg Stack Temp	$(t_s)_{avg}$		oF	**Avg Orifice Press.**		$(\Delta H)_{avg}$		in H2O	
	Impinger 1	**Impinger 2**	**Impinger 3**	**Impinger 4**	**Impinger 5**	**Impinger 6**	**Impinger 7**	**Impinger 8**	
	g	g	g	g	g	g	g	g	
Contents	DI	DI	DI	Sil Gel					
Final Value $(V_f),(W_f)$									
Initial Value $(V_i),(W_i)$									
Net Value $(V_n),(W_n)$									
Results									
Total Weight	(W_t)		g	**Water Vol Weighed**		$(V_{wsg(std)})$		scf	
Std Meter Volume	$(V_{m(std)})$		dscf	**Sat. Moisture Content**		$(B_{ws(svp)})$		%	
Calc Moisture Content	(B_{ws})		%	**Final Moisture Content**		(B_{ws})		%	

ISOKINETIC SAMPLING DATA

Plant Name		**Date**	
Sampling Location		**Project #**	
Operator		**Run #**	1
# of Points Across		**# of Ports Used**	

Ideal Nozzle Diameter and IsoKinetic Factor Setup			
Pitot Tube Coefficient	(C_p)	0.84	
Avg Stack Temp	(t_s)		oF
Avg Gas Meter Temp	(t_m)		
DH @ 0.75 SCFM	($\Delta H@$)		in H2O
Avg Pitot Tube Diff. Pressure	(Δp_{avg})		in H2O
Stack Moisture Content	(B_{ws})		%
Stack Dry Molecular Weight	(M_d)		lb/lb-mole
Estimated Orifice Flow Rate	(Q_m)	0.750	acfm
DP to DH Isokinetic Factor	(K)		

Leak Checks					
Train	**Pre**		ft3/min @		in Hg
OK? ☐	**Post**		ft3/min @		in Hg
Pitot	**Pre**		in. H_2O for		sec
OK? ☐	**Post**		in. H_2O for		sec
Orsat	OK? ☐				

Sampling Equipment			
Meter #			
Meterbox Cal. Factor	(Y)		
Nozzle #			
Average Nozzle Diameter	(D_{na})		in
Rec. Nozzle Diameter	(D_{ni})		in
Probe # / Length			in
Liner Material	inconel		
Sample Case / Oven #			
Impinger Case #			

Pressures			
Barometric Pressure	(P_b)		in Hg
Stack Static Pressure	(P_{static})		in H2O
Absolute Stack Pressure	(P_s)		in Hg
Absolute Meter Pressure	(P_m)		in Hg

Nozzle Measurements				
Pre				**PASS**
Post				**PASS**

Run Time			
Start		**End**	

Weights	**Imp 1**	**Imp 2**	**Imp 3**	**Imp 4**	**Imp 5**	**Imp 6**	**Imp 7**	**Imp 8**
Pre								
Post								

Wash Volume	**H_2O**	50.0	ml	**Filter #**
	MeCl		ml	

Alarms Exist - Enter Run Times!!!

Traverse Point #	**Sampling Time (Θ)**	**Timer Time**	**Dry Gas Meter Reading (V_m)**	**Velocity Head (Δp)**	**Desired Orifice ΔH (ΔH_d)**	**Actual Orifice ΔH (ΔH_a)**	**Stack Temp (t_s)**	**Probe Temp**	**Filter Temp**	**Impinger Exit Temp**	**Aux Temp**	**Meter Inlet Temp (t_{mi})**	**Meter Outlet Temp (t_{mo})**	**Pump Vacuum**	**Square Root ΔP ($\Delta p^{1/2}$)**	**Local Stack Velocity (v_s)$_l$**	**Cumulative Meter Volume (V_m)$_{std}$**	**Cumulative Percent IsoKinetic (I)**	**Est-Run Meter Volume (V_m)$_{std}$**
	min	hh:mm:ss	ft3	in H2O	in H2O	in H2O	oF	oF	oF	oF	oF	oF	oF	in Hg	(in H2O)1/2	ft/sec	scf	%	scf
	0.0	0:00:00																	
	#VALUE!																		
Final Val	0.0	0:00:00											**Max Vac**		**Final Values**				
Average Values																			

- SAMPLE RECOVERY AND INTEGRITY DATA SHEET

Plant Name		**Date**	
Sampling Location		**Project #**	
Operator		**Acetone Lot Number**	

Run History Data				
Run Number	1	2	3	
Run Start Time				(hh:mm)
Run Stop Time				(hh:mm)
Train Prepared By				
Train Recovered By				
Recovery Date				(mm/dd/yy)
Relinquished By				
Received By				
Relinquished Date				(mm/dd/yy)
Relinquished Time				(hh:mm)

Equipment Identification Numbers			
Filter			
Acetone Wash			
Silica Gel			
Impinger Case			
Sample Box			
Oven			

Alarms Exist - Enter Filter Numbers!!!

Sample Blank Taken ☐ NO

Alarms Exist - Collect Sample Blanks of at least 75ml each!!!

Moisture Content Data					
Impingers 1, 2, and 3 - Liquid Volume					
Final Volume	(V_f)				ml
Initial Volume	(V_i)				ml
Net Volume	(V_n)				ml
Comments					
Impinger 4 - Silica Gel Weight					
Final Weight	(W_f)				g
Initial Weight	(W_i)				g
Net Weight	(W_n)				g
Comments					
Total Water Collected					
Total Volume	(V_{lc})				ml

METHOD 5 (FRONTHALF) AND 202 (BACKHALF) - SAMPLE ANALYTICAL DATA SHEET

Plant Name		**Date**	
Sampling Location		**Project #**	
Operator		**Acetone Lot Number**	

Analytical Data							
Placed in Desiccator				**Run**	1	**Start Time**	
	Number	**Date**	**Time**	**Leakage Evident?**		☐	
Filter				**Estimated Volume**		0.00	
Probe Wash Beaker #							
Water Beaker #							
MeCl (org) Beaker #							

Weight Data							
Filter and Beaker Weight		**Filter**	**Date**	**Time**	**Humidity**	**Temp**	**Cal Audit**
		g	mm/dd/yy	hh:mm	%RH	oF	g
Measurement 1	(m_{1f})						
Measurement 2	(m_{2f})						
Measurement 3	(m_{3f})						
Measurement 4	(m_{4f})						
Probe Wash and Beaker Weight		**Acetone**	**Date**	**Time**	**Humidity**	**Temp**	**Cal Audit**
		g	mm/dd/yy	hh:mm	%RH	oF	g
Measurement 1	(m_{1a})						
Measurement 2	(m_{2a})						
Measurement 3	(m_{3a})						
Measurement 4	(m_{4a})						
Imp Content and Beaker Weight		**Imp Water**	**Date**	**Time**	**Humidity**	**Temp**	**Cal Audit**
		g	mm/dd/yy	hh:mm	%RH	oF	g
Measurement 1	(m_{1ino})						
Measurement 2	(m_{2ino})						
Measurement 3	(m_{3ino})						
Measurement 4	(m_{4ino})						
Organics and Beaker Weight		**MeCl Org**	**Date**	**Time**	**Humidity**	**Temp**	**Cal Audit**
		g	mm/dd/yy	hh:mm	%RH	oF	g
Measurement 1	(m_{1org})						
Measurement 2	(m_{2org})						
Measurement 3	(m_{3org})						
Measurement 4	(m_{4org})						

METHOD 5 (FRONTHALF) AND 202 (BACKHALF) - SAMPLE ANALYTICAL DATA SHEET

Plant Name		**Date**	
Sampling Location		**Project #**	
Operator		**Acetone Lot Number**	

Tare (Pre-Particulate) Weights						
Tare	**Filter**	**Filter Beaker**	**Acetone Beaker**	**Imp Content Beaker**		
						g
Tare		**Organics Beaker**	**PM_{10} Beaker**			
				g	**Run**	1

Sample Volume and Blank Concentrations			
Probe Wash Volume	(v_a)		ml
Impinger Content Volume	(v_{ino})		ml
Organics Wash Volume	(v_{org})		ml
Net Wash Volume	(v_n)		ml
Acetone Blank Weight of Solids	(w_{ab})		g
Imp Cont Blank Weight of Solids	(w_{inob})		g
MeCl Blank Weight of Solids	(w_{orgb})		g
Acetone Blank Volume	(v_{ab})		ml
Imp Content Blank Volume	(v_{inob})		ml
MeCl Blank Volume	(v_{orgb})		ml
Acetone Blank Concentration	(C_a)		mg/ml
Imp Content Blank Concentration	(C_{ino})		mg/ml
MeCl Blank Concentration	(C_{org})		mg/ml

Results							
		$Filter_f$	**$PM10_{a1'}$**	**$Probe_{a'}$**	**$Imp\ Cont_{ino'}$**	**$Organics_{org'}$**	
Final Weight	(m_{fx})						g
Tare Weight	(m_{tx})						g
Weight Gain	(m_x)						mg
Blank Adjustment	(W_x)						mg
Total Particulates	(M_n)						mg

METHOD 5 (FRONTHALF) AND 202 (BACKHALF) - RESULTS

Plant Name		**Date**	
Sampling Location		**Project #**	
Operator		**Stack Type**	Circular

Historical Data						
Run Number		1	2	3	**Average**	
Run Start Time						hh:mm
Run Stop Time						hh:mm
Meter Calibration Factor	(Y)					
Pitot Tube Coefficient	(C_p)	0.840	0.840	0.840		
Average Nozzle Diameter	(D_{na})		#DIV/0!	#DIV/0!		in
Stack Test Data						
Initial Meter Volume	(V_m)$_i$					ft3
Final Meter Volume	(V_m)$_f$					ft3
Total Meter Volume	(V_m)					ft3
Total Sampling Time	(Θ)	0.0	0.0	0.0	0.0	min
Average Meter Temperature	(t_m)$_{avg}$					oF
Average Stack Temperature	(t_s)$_{avg}$					oF
Barometric Pressure	(P_b)					in Hg
Stack Static Pressure	(P_{static})					in H2O
Absolute Stack Pressure	(P_s)					in Hg
Average Orifice Pressure Drop	(ΔH)$_{avg}$					in H2O
Absolute Meter Pressure	(P_m)					in Hg
Avg Square Root Pitot Pressure	($\Delta p^{1/2}$)$_{avg}$					(in H2O)1/2
Moisture Content Data						
Impingers 1-3 Water Volume Gain	(V_n)					ml
Impinger 4 Silica Gel Weight Gain	(W_n)					g
Total Water Volume Collected	(V_{lc})					ml
Standard Water Vapor Volume	(V_w)$_{std}$					scf
Standard Meter Volume	(V_m)$_{std}$					dscf
Calculated Stack Moisture	($B_{ws(calc)}$)					%
Saturated Stack Moisture	($B_{ws(svp)}$)					%
Reported Stack Moisture Content	(B_{ws})					%
Gas Analysis Data						
Carbon Dioxide Percentage	(%CO_2)					%
Oxygen Percentage	(%O_2)					%
Carbon Monoxide Percentage	(%CO)					%
Nitrogen Percentage	(%N_2)					%
Dry Gas Molecular Weight	(M_d)					lb/lb-mole
Wet Stack Gas Molecular Weight	(M_s)					lb/lb-mole
Calculated Fuel Factor	(F_o)					
Fuel F-Factor	(F_d)					dscf/MMBtu
Percent Excess Air	(%EA)					%
Volumetric Flow Rate Data						
Average Stack Gas Velocity	(v_s)					ft/sec
Stack Cross-Sectional Area	(A_s)					ft2
Actual Stack Flow Rate	(Q_{aw})					acfm
Wet Standard Stack Flow Rate	(Q_{sw})					wkscfh
Dry Standard Stack Flow Rate	(Q_{sd})					dscfm
Percent of Isokinetic Rate	(I)					%
Emission Rate Data						
Mass of Particulate on Filter	(M_f)					mg
Mass of Particulate in Acetone	(M_a')					mg
Mass of Particulate in Imp Content	(M_{ino}')					mg
Mass of Particulate in Org Rinse	(M_{org}')					mg
Total Mass of Particulates	(M_n)					mg
Stack Particulate Concentration	(c_s)					g/dscf
	(c_s')					gr/dscf
Particulate Emission Rate	(E)					kg/hr
	(E')					lbs/hr
	(E")					tons/yr
	(E"')					lbs/MMBtu
(Pt 75 App F Sect. 5.2.1) **Heat Input**	(HI)					MMBtu/hr

SAMPLE DESCRIPTION AND CHAIN OF CUSTODY RECORD

Air Hygiene International, Inc.
5634 S. 122nd East Ave, Suite F
Tulsa, Oklahoma 74146
(888) 461-8778
www.airhygiene.com

Project Number:		Laboratory Analysis Requested:	
Person Taking Samples:			

Sample Number	Location	Date	Volume	Analysis Method			

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

EXAMPLE CALCULATIONS (Reference Method 1 - Circular Stack)

L_{fw} = distance to far wall of stack (in.)
L_{nw} = distance to near wall of stack (in.) [reference]
D = diameter of stack (in.)
A_s = area of stack (ft^2)
B = distance downstream (in.)
B_D = stack diameters downstream (dia.)
A = distance upstream (in.)
A_D = stack diameters upstream (dia.)

Diameter of Stack (in.)

$$D(in.) = L_{fw} - L_{nw}$$

D (in.) = 0 in. - 0 in. = in.

Area of Stack (ft^2)

$$A_s(ft^2) = \pi \times \left(\frac{D}{2 \times 12}\right)^2$$

A_s (ft^2) = 3.14 x (in. / 2 x 12in./ft)^2 = ft^2

Stack Diameters Downstream

$$B_D(dia.) = \frac{B}{D}$$

B_D (dia.) = 0 in. / in. = diameters

Stack Diameters Upstream

$$A_D(dia.) = \frac{A}{D}$$

A_D (dia.) = 0 in. / in. = diameters

Number of Traverse Points

Based on 40 CFR Part 60, Appendix A, Method 1, Section 2.2

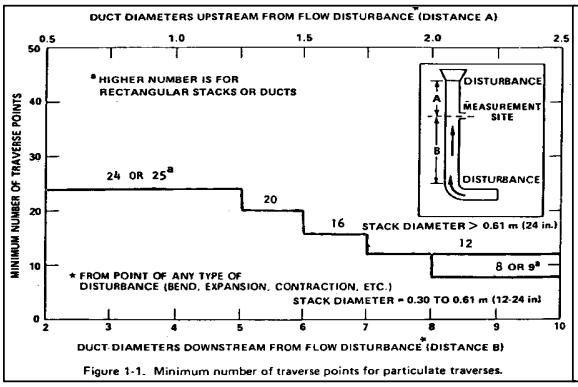


Figure 1-1. Minimum number of traverse points for particulate traverses.

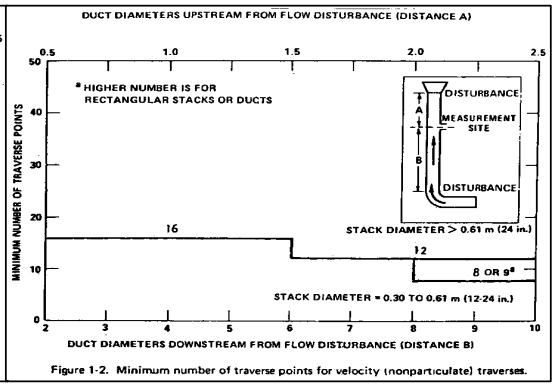


Figure 1-2. Minimum number of traverse points for velocity (nonparticulate) traverses.

Traverse Point Locations

Based on 40 CFR Part 60, Appendix A, Method 1, Section 2.3

Location of Traverse Points in Circular Stacks												
Traverse Point Number	(Fraction of Stack Dimension from Inside Wall to Traverse Point) Number of Traverse Points Across the Stack											
	2	4	6	8	10	12	14	16	18	20	22	24
1	.146	.067	.044	.032	.026	.021	.018	.016	.014	.013	.011	.011
2	.854	.250	.146	.105	.082	.067	.057	.049	.044	.039	.035	.032
3		.750	.296	.194	.146	.118	.099	.085	.075	.067	.060	.055
4		.933	.704	.323	.226	.177	.146	.125	.109	.097	.087	.079
5			.854	.677	.342	.250	.201	.169	.146	.129	.116	.105
6			.956	.806	.658	.356	.269	.220	.188	.165	.146	.132
7				.895	.774	.644	.366	.283	.236	.204	.180	.161
8				.968	.854	.750	.634	.375	.296	.250	.218	.194
9					.918	.823	.731	.625	.382	.306	.262	.230
10					.974	.882	.799	.717	.618	.388	.315	.272
11						.933	.854	.780	.704	.612	.393	.323
12						.979	.901	.831	.764	.694	.607	.398
13							.943	.875	.812	.750	.685	.602
14							.982	.915	.854	.796	.738	.677
15								.951	.891	.835	.782	.728
16								.984	.925	.871	.820	.770
17									.956	.903	.854	.806
18									.986	.933	.884	.839
19										.961	.913	.868
20										.987	.940	.895
21											.965	.921
22											.989	.945
23												.968
24												.989

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 2)

P_b = barometric pressure (in. Hg)
P_{static} = static pressure (in. H_20)
P_s = absolute stack pressure (in. Hg)
$\%N_2$ = nitrogen concentration (%)
$\%CO_2$ = carbon dioxide concentration (%)
$\%O_2$ = oxygen concentration (%)
%CO = carbon monoxide concentration (%)
MW = molecular weight (lb/lb-mole)
B_{ws} = stack moisture content (%)
M_d = stack dry molecular weight (lb/lb-mole)
M_s = stack wet molecular weight (lb/lb-mole)
T_{std} = standard temperature, 68°F, 528°R
P_{std} = standard pressure, 29.92 in. Hg
v_{sl} = local velocity (ft/sec)
v_s = average stack gas velocity (ft/sec)
Q_{sd} = average stack dry standard flow rate (dscf/hr)
Q_{aw} = average stack wet flow rate (ascf/min)

C_p = pitot tube coefficient
Δp = velocity head (in. H_2O)
A_s = area of stack (ft^2)
N_a = null angle (deg.)
t_s = stack temperature (°F)
T_u = temperature offset, 460°R
K_p = pitot tube constant,
85.49 (ft/sec)(((lb/lb-mole)(in. Hg))/((°R)(in. Hg)))$^{1/2}$

Absolute Stack Pressure (in. Hg)

$$P_S\,(in.Hg) = P_b + \frac{P_{static}}{13.6}$$

P_s (in. Hg) = 0 in. Hg + $\frac{0.00 \text{ in. } H_2O}{13.6 \text{ in. } H_2O/\text{in. Hg}}$ = in. Hg

Nitrogen Concentration (%)

$$\%N_2 = 100 - \%CO_2 - \%O_2 - \%CO$$

$\%N_2$ (%) = 100 - 0 % - 0 % - 0 % = %

Stack Dry Molecular Weight (lb/lb-mole)

$$M_d\,(lb/lb-mol) = \sum\left(\frac{MW_{comp}}{100} \times \%component\right)$$

M_d (lb/lb-mol) = $\left(\frac{44 \text{ lb/lb-mol}}{100} \text{ x } 0 \text{ \%}\right) + \left(\frac{32 \text{ lb/lb-mol}}{100} \text{ x } 0 \text{ \%}\right)$ + etc. = $\frac{\text{lb}}{\text{lb-mol}}$

Stack Wet Molecular Weight (lb/lb-mole)

$$M_S\,(lb/lb-mol) = \left[M_d \times \left(1 - \frac{B_{WS}}{100}\right)\right] + \left[MW_{H_2O} \times \frac{B_{WS}}{100}\right]$$

M_S (lb/lb-mol) = $\left\{\frac{\text{lb}}{\text{lb-mol}} \text{ x } \left(1 - \frac{0 \text{ \%}}{100}\right)\right\} + \left\{\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } \frac{0 \text{ \%}}{100}\right\} = \frac{\text{lb}}{\text{lb-mol}}$

Local Velocity (ft/sec)

$$v_{s(l)}(ft/\sec) = K_p \times C_p \times \sqrt{\Delta p} \times \sqrt{\frac{t_s + T_u}{P_s \times M_s}}$$

v_{sl} (ft/sec) = $\frac{85.49 \text{ ft}}{\text{sec}} \left(\frac{(\text{lb/lb-mol})(\text{in. Hg})}{(^\circ R)(\text{in. } H_2O)}\right)^{1/2}$ x 0.84 x $\sqrt{0.00 \text{ in.} H_2O}$ x $\sqrt{\frac{0 + 460\ ^\circ R}{\text{in. Hg x lb/lb-mol}}}$ = $\frac{\text{ft}}{\text{sec}}$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 2)

P_b = barometric pressure (in. Hg)
P_{static} = static pressure (in. H_20)
P_s = absolute stack pressure (in. Hg)
$\%N_2$ = nitrogen concentration (%)
$\%CO_2$ = carbon dioxide concentration (%)
$\%O_2$ = oxygen concentration (%)
%CO = carbon monoxide concentration (%)
MW = molecular weight (lb/lb-mole)
B_{ws} = stack moisture content (%)
M_d = stack dry molecular weight (lb/lb-mole)
M_s = stack wet molecular weight (lb/lb-mole)
K_p = pitot tube constant,
85.49 (ft/sec)(((lb/lb-mole)(in. Hg))/((^{o}R)(in. Hg)))$^{1/2}$
T_{STD} = standard temperature, 68^{o}F
P_{STD} = standard pressure, 29.92 in. Hg
v_{sl} = local velocity (ft/sec)
v_s = average stack gas velocity (ft/sec)
Q_{SD} = average stack dry standard flow rate (dscf/hr)
Q_{AW} = average stack wet flow rate (ascf/min)

C_p = pitot tube coefficient
Δp = velocity head (in. H_2O)
A_s = area of stack (ft^2)
N_A = null angle (deg.)
t_s = stack temperature (^{o}F)
T_u = temperature offset, 460^{o}R

Average Stack Gas Velocity (ft/sec)

$$v_s(ft/\sec) = K_p \times C_p \times \left(\sqrt{\Delta p}\right)_{avg} \times \sqrt{\frac{(t_s)_{avg} + T_u}{P_s \times M_s}}$$

$$v_{sl}\ (\text{ft/sec}) = \frac{85.49\ \text{ft}}{\text{sec}} \left(\frac{(\text{lb/lb-mol})(\text{in. Hg})}{(^o\text{R})(\text{in. H}_2\text{O})}\right)^{1/2} \times\ 0.84\ \times\ \text{in.H}_2\text{O} \times \sqrt{\frac{+\ 460\ ^o\text{R}}{\text{in. Hg} \times \text{lb/lb-mol}}} = \frac{\text{ft}}{\text{sec}}$$

Average Stack Dry Standard Flow Rate (dscfh)

$$Q_{sd}(dscfh) = \frac{60 \times 60 \times \left(1 - \frac{B_{ws}}{100}\right) \times v_s \times A_s \times T_{std} \times P_s}{(t_s + T_u) \times P_{std}}$$

$$Q_{sd}\ (\text{dscf/hr}) = \frac{3600\ \text{sec}}{\text{hr}} \times \left(1 - \frac{0.0\ \%}{100}\right) \times \frac{\text{ft}}{\text{sec}} \times \text{ft}^2 \times \frac{68\ +\ 460\ ^o\text{R}}{+\ 460\ ^o\text{R}} \times \frac{\text{in. Hg}}{29.92\ \text{in. Hg}} = \frac{\text{dscf}}{\text{hr}}$$

Average Stack Wet Flow Rate (acfm)

$$Q_{aw}(acfm) = 60 \times v_s \times A_s$$

$$Q_{aw}\ (\text{acf/min}) = \frac{60\ \text{sec}}{\text{min}} \times \frac{\text{ft}}{\text{sec}} \times \text{ft}^2 = \frac{\text{ascf}}{\text{min}}$$

Average Stack Wet Standard Flow Rate (dscfh)

$$Q_{sw}(ascfh) = \frac{60 \times Q_{aw} \times T_{std} \times P_s}{(t_s + T_u) \times P_{std}}$$

$$Q_{sw}\ (\text{ascf/hr}) = \frac{60\ \text{min}}{\text{hr}} \times \frac{\text{acf}}{\text{min}} \times \frac{68\ +\ 460\ ^o\text{R}}{+\ 460\ ^o\text{R}} \times \frac{\text{in. Hg}}{29.92\ \text{in. Hg}} = \frac{\text{ascf}}{\text{hr}}$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 3a)

$\%N_2$ = nitrogen concentration (%)
$\%CO_2$ = carbon dioxide concentration (%)
$\%O_2$ = oxygen concentration (%)
ppmCO = carbon monoxide concentration (ppm)
%CO = carbon monoxide concentration (%)
M_d = stack dry molecular weight (lb/lb-mole)
$(F_o)_{avg}$ = average calculated fuel factor
$(\%EA)_{avg}$ = average excess air (%)

Carbon Monoxide Concentration (%)

$$\%CO = \frac{ppmCO}{10{,}000}$$

%CO (%) = 0.00 ppm / 10,000 ppm/% = %

Nitrogen Concentration (%)

$$\%N_2 = 100 - \%CO_2 - \%O_2 - \%CO$$

%N$_2$ (%) = 100 - % - % - % = %

Stack Dry Molecular Weight (lb/lb-mole)

$$M_d\,(lb/lb-mol) = \sum\left(\frac{MW_{comp}}{100} \times \%component\right)$$

M_d (lb/lb-mol) = (44 lb/lb-mol / 100 x %) + (32 lb/lb-mol / 100 x %) + etc. = lb / lb-mol

Average Calculated Fuel Factor

$$F_{o(avg)} = \frac{\left[20.9 - (\%O_2)_{avg} - (0.5 \times (\%CO)_{avg})\right]}{(\%CO_2)_{avg} + (\%CO)_{avg}}$$

$F_{o(avg)}$ = (20.9% - % - [0.5 x %]) / (% + %) =

Average Excess Air (%)

$$\%EA_{avg}(\%) = \frac{100 \times \left[(\%O_2)_{avg} - (0.5 \times (\%CO)_{avg})\right]}{(0.264 \times (N_2)_{avg}) - \left[(\%O_2)_{avg} - (0.5 \times (\%CO)_{avg})\right]}$$

$(\%EA)_{AVG}$ = 100 x{ % - [0.5 x %] } / [0.264 x %] - { % - [0.5 x %] } = %

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 4)

V_{mf} = final dry gas meter reading (dcf)
V_{mi} = initial dry gas meter reading (dcf)
V_m = total meter volume (dcf)
$t_{m(avg)}$ = average meter temp. (^oF)
$t_{s(avg)}$ = average stack temp. (^oF)
P_b = barometric pressure (in. Hg)
P_{static} = static pressure (in. H_2O)
ΔH_{avg} = average orifice pressure (in. H_2O)
V_i = initial impinger volume (ml)
V_f = final impinger volume (ml)
W_i = initial impinger weight (g)
W_f = final impinger weight (g)
V_t = total impinger volume (ml) = $\Sigma(V_f-V_i)$
W_t = total impinger weight (g) = $\Sigma(W_f-W_i)$
K_5 = water mass to std water vapor, 0.04715 ft^3/g
K_1 = standard volume correction, 17.65^oR/in. Hg
Y = meter calibration factor
T_u = absolute temperature offset, 460^oR
B_{ws} = final moisture content (%) = min of $B_{ws(calc)}$ and $B_{ws(svp)}$

Water Volume Weighed (dscf)

$$V_{wsg(std)}(dscf) = W_t \times K_5$$

$V_{wsg(std)}$ = g x 0.04715 ft^3/g = dscf

Standard Meter Volume (dscf)

$$V_{m(std)}(dscf) = \frac{K_1 \times Y \times V_m \times \left(P_b + \frac{\Delta H_{avg}}{13.6}\right)}{(t_m)_{avg} + T_u}$$

$$V_{m(std)} = \frac{\frac{17.65\ ^oR}{\text{in. Hg}} \text{ x } \quad \text{x } \quad \text{dcf x} \left(\quad \text{in. Hg} + \frac{\text{in. } H_2O}{13.6 \text{ in. } H_2O / \text{in. Hg}} \right)}{^oF + \quad 460 \quad ^oR} = \quad \text{dscf}$$

Calculated Moisture Content (%)

$$B_{ws(calc)}(\%) = 100 \times \frac{V_{wsg(std)}}{V_{wsg(std)} + V_{m(std)}}$$

$$B_{ws(calc)} = 100 \text{ x } \frac{\text{dscf}}{\text{dscf} + \quad \text{dscf}} = \quad \%$$

Saturated Moisture Content (%)

$$B_{ws(svp)}(\%) = 100 \times \frac{10^{6.691 - \frac{3144}{t_{s(avg)} + 390.86}}}{P_b + \frac{P_{static}}{13.6}} \le 100$$

$$B_{ws(svp)} = 100 \text{ x } \frac{10^{\left(6.691 \text{ - } \frac{3144}{^oF + 390.86}\right)}}{\text{in. Hg} + \frac{\text{in. } H_2O}{13.6 \text{ in. } H_2O / \text{in. Hg}}} \le 100 = \quad \%$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Isokinetic Sampling)

C_n = nozzle diameter constant, 0.03575
Q_m = estimated orifice flow rate, 0.750 acfm
else Vm/Θ from previous run
V_m = total meter volume (acf)
Θ = total sampling time (min)
t_m = average gas meter temperature (°F)
T_u = absolute temperature offset, 460°R
C_p = pitot tube coefficient
B_{wm} = meter moisture content (%)
B_{ws} = stack moisture content (%)
t_s = average stack temperature (°F)
M_d = stack dry molecular weight (lb/lb-mole)
P_s = absolute stack pressure (in. Hg)
C_k = K Factor Constant, 849.8

Δp_{avg} = average pitot tube differential pressure (in. H_2O)
ΔH@ = DH @ 0.75 SCFM (in. H_2O)
D_{na} = actual nozzle diameter (in.)
Δp = velocity head (in. H_2O)

Desired Orifice (in. H_2O)

$$\Delta H_d\,(in.H_2O) = K \times \Delta p$$

ΔH_d (in. H_2O) = x 0 in. H_2O = in. H_2O

Absolute Meter Pressure (in. Hg)

$$P_m\,(in.Hg) = P_b + \frac{\Delta H\,@}{13.6}$$

P_m (in. Hg) = 0.00 in. Hg + $\frac{\text{in. } H_2O}{13.6 \text{ in. } H_2O/\text{in. Hg}}$ = in. Hg

Recommended Nozzle Diameter (in.)

$$D_{ni}\,(in.) = \sqrt{\frac{C_n \times Q_m \times P_m}{(t_m + T_u) \times C_p} \times \left(\frac{1 - \frac{B_{wm}}{100}}{1 - \frac{B_{ws}}{100}}\right)} \times \sqrt{(t_s + T_u) \times \left[\frac{M_d \times \left(1 - \frac{B_{ws}}{100}\right) + (18 \times B_{ws})}{P_s \times \Delta p_{avg}}\right]}$$

$$D_{ni}\,(in.) = \sqrt{\frac{0.03575 \text{ (lb-mole•°R•in. } H_2O)^{1/2}\text{•min•in.}^2}{\text{acf•in. Hg}^{3/4}\text{•lb}^{1/2}} \text{ x } 0.75 \text{ acf x in. Hg} \times \left(\frac{1 - \frac{0.0\ \%}{100}}{1 - \frac{0.0\ \%}{100}}\right) \text{ x } \sqrt{(0\ ^\circ\text{F} + 460^\circ\text{R}) \text{ x } 0.84 \times \frac{\frac{\text{lb}}{\text{lb-mole}} \text{ x } \left(1 - \frac{0.0\ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } 0.0\ \%\right)}{\text{in. Hg x } 0.00 \text{ in. } H_2O}}} = \text{in.}$$

DP to DH Isokinetic Factor

$$K = C_k \times C_p^2 \times \Delta H\,@ \times D_{na}^4 \times \left[\frac{M_d \times \left(1 - \frac{B_{wm}}{100}\right) + \left(18 \times \frac{B_{wm}}{100}\right)}{M_d \times \left(1 - \frac{B_{ws}}{100}\right) + \left(18 \times \frac{B_{ws}}{100}\right)}\right] \times \left(\frac{1 - \frac{B_{ws}}{100}}{1 - \frac{B_{wm}}{100}}\right)^2 \times \left(\frac{t_m + T_u}{ts + T_u}\right) \times \frac{P_s}{P_m}$$

$$K = \frac{849.8}{\text{in. } H_2O\text{•in.}^4} \text{ x } 0.84^2 \text{ x in. } H_2O \text{ x } 4 \text{ x } \left(\frac{1 - \frac{0.0\ \%}{100}}{1 - \frac{0.0\ \%}{100}}\right)^2 \text{ x } \left(\frac{0\ ^\circ\text{F} + 460^\circ\text{R}}{0\ ^\circ\text{F} + 460^\circ\text{R}}\right) \text{ x } \left(\frac{\frac{\text{lb}}{\text{lb/mole}} \text{ x } \left(1 - \frac{0.0\ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } \frac{0.0\ \%}{100}\right)}{\frac{\text{lb}}{\text{lb/mole}} \text{ x } \left(1 - \frac{0.0\ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \text{ x } \frac{0.0\ \%}{100}\right)}\right) \text{ x } \frac{\text{in. Hg}}{\text{in. Hg}} =$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 5)

K_4 = isokinetic conversion constant, 0.0945min•in.Hg/sec•°R
$m_{\#x}$ = weight measurements (g)
v_a = acetone volume (ml)
v_{ino} = impinger content volume (ml)
v_{org} = organics wash volume (ml)
w_x = blank weight of solids (g)
v_x = blank volume (ml)
m_{fx} = final weight, avg of last two measurements (g)
m_{tx} = tare weight (g)

Total Particulates (mg)

$$M_n(mg) = \Sigma(m_x - W_x)$$

M_n (mg) = Σ(mg - mg)+ etc… = mg

Local Stack Velocity (ft/sec)

$$v_{s(l)}(ft/\sec) = K_p \times C_p \times \sqrt{\Delta p} \times \sqrt{\frac{t_s + T_u}{P_s \times \left[M_d \times \left(1 - \frac{B_{ws}}{100}\right) + \left(18 \times \frac{B_{ws}}{100}\right)\right]}}$$

$v_{s(l)}$ (ft/sec) = $\frac{85.49 \text{ ft}}{\text{sec}} \left(\frac{\text{(lb/lb-mol)(in. Hg)}}{(^\circ\text{R})(\text{in. } H_2O)}\right)^{1/2}$ x 0.84 x $\sqrt{0.00 \text{ in.} H_2O}$ x

$$\sqrt{\frac{0 \ ^\circ\text{F} + 460 \ ^\circ\text{R}}{\text{in. Hg} \times \left(\frac{\text{lb}}{\text{lb/mole}} \times \left(1 - \frac{0.0 \ \%}{100}\right) + \left(\frac{18 \text{ lb}}{\text{lb-mol}} \times \frac{0.0 \ \%}{100}\right)\right)}} = \frac{\text{ft}}{\text{sec}}$$

Cumulative Percent Isokinetic (%)

$$I(\%) = \frac{K_4 \times \left((t_s)_{avg} + T_u\right) \times V_m}{\left(\Theta \times \left(v_{s(l)}\right)_{avg} \times P_s \times \pi \times \left(\frac{D_{na}}{2} \times \frac{1}{12}\right)^2\right) \times \left(1 - \frac{B_{ws}}{100}\right)}$$

I (%) =

$$\frac{\frac{0.0945 \text{ min•in. Hg}}{\text{sec•}^\circ\text{R}} \times \left(\#\text{DIV/0!} \ ^\circ\text{F} + 460 \ ^\circ\text{R}\right) \times \text{scf}}{\#\#\#\#\# \text{ min} \times \frac{\#\text{DIV/0!} \ \text{ft}}{\text{sec}} \times \text{in. Hg} \times 3.14 \times \left(\frac{\text{in.}}{2} \times \frac{\text{ft.}}{12 \text{ in.}}\right)^2 \times \left(1 - \frac{0 \ \%}{100}\right)} = \%$$

Net Wash Volume (ml)

$$v_n(ml) = v_a + v_{ino} + v_{org}$$

v_n (ml) = ml + ml + ml = ml

Blank Concentration (mg/ml)

$$C_x(mg/ml) = \frac{1000 \times w_x}{v_x}$$

C_x (mg/ml) = $\frac{1000 \text{ x} \quad \text{g}}{\text{ml}} = \frac{\text{mg}}{\text{ml}}$

Blank Adjustment (lesser of)

$$W_x(mg) = m_x \cdots or \cdots v_x \times C_x$$

W_x (mg) = mg or

ml x $\frac{\text{mg}}{\text{ml}}$ = mg

Weight Gain (mg)

$$m_x(mg) = \left(m_{fx} - m_{tx}\right) \times 1000$$

m_x (mg) = (mg - mg) x 1000 = mg

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

EXAMPLE CALCULATIONS (Reference Method 5)

M_n = total particulates (mg)
$V_{m(std)}$ = standard meter volume (dscf)
Q_{sd} = dry standard stack flow rate (dscfm)
F_d = fuel f-factor (dscf/MMBtu)
$\%O_2$ = oxygen percentage (%)
Q_{sw} = wet standard stack flow rate (ascfm)

Stack Particulate Concentration (g/dscf)

$$c_s(g/dscf) = 0.001 \times \frac{M_n}{V_{m(std)}}$$

$$c_s \text{ (g/dscf)} = \frac{\text{g}}{1000\text{ mg}} \times \frac{\text{mg}}{\text{dscf}} = \frac{\text{g}}{\text{dscf}}$$

Stack Particulate Concentration (gr/dscf)

$$c'_s(gr/dscf) = 0.001 \times \frac{M_n}{V_{m(std)}} \times \frac{7000}{453.592}$$

$$c'_s \text{ (gr/dscf)} = \frac{\text{g}}{1000\text{ mg}} \times \frac{\text{mg}}{\text{dscf}} \times \frac{7000\text{ gr}}{\text{lb}} \times \frac{\text{lb}}{453.592\text{ g}} = \frac{\text{gr}}{\text{dscf}}$$

Particulate Emissions Rate (kg/hr)

$$E(kg/hr) = c_s \times Q_{sd} \times \frac{60}{1000}$$

$$E \text{ (kg/hr)} = \frac{\text{kg}}{1000\text{ g}} \times \frac{60\text{ min}}{\text{hr}} \times \frac{\text{g}}{\text{dscf}} \times \frac{\text{dscf}}{\text{min}} = \frac{\text{kg}}{\text{hr}}$$

Particulate Emissions Rate (lb/hr)

$$E'(lb/hr) = \frac{M_n \times Q_{sd}}{V_{m(std)}} \times \frac{60}{453.592 \times 1000}$$

$$E' \text{ (lb/hr)} = \frac{\text{g}}{1000\text{ mg}} \times \frac{60\text{ min}}{\text{hr}} \times \frac{\text{lb}}{453.592\text{ g}} \times \frac{\text{mg}}{\text{dscf}} \times \frac{\text{dscf}}{\text{min}} = \frac{\text{lb}}{\text{hr}}$$

Particulate Emissions Rate (ton/yr)

$$E''(ton/yr) = E' \times \frac{8760}{2000}$$

$$E'' \text{ (ton/yr)} = \frac{\text{ton}}{2000\text{ lb}} \times \frac{8760\text{ hr}}{\text{yr}} \times \frac{\text{lb}}{\text{hr}} = \frac{\text{ton}}{\text{yr}}$$

Particulate Emissions Rate (lb/MMBtu)

$$E'''(lb/MMBtu) = \frac{M_n \times F_d}{V_{m(std)} \times 1000 \times 453.592} \times \left(\frac{20.9}{20.9 - \%O_2}\right)$$

$$E''' \text{ (lb/MMBtu)} = \frac{\text{g}}{1000\text{ mg}} \times \frac{\text{lb}}{453.592\text{ g}} \times \frac{\text{mg}}{\text{dscf}} \times \frac{\text{dscf}}{\text{MMBtu}} \times \left(\frac{20.9}{20.9 - \quad \%}\right) = \frac{\text{lb}}{\text{MMBtu}}$$

Heat Input (MMBtu/hr)

$$HI(MMBtu/hr) = Q_{sw} \times 1000 \times \left(\frac{100 - B_{ws}}{100 \times F_d}\right) \times \left(\frac{20.9 - \%O_2}{20.9}\right)$$

$$HI \text{ (MMBtu/hr)} = \frac{\text{wkscf}}{\text{hr}} \times \frac{10^3\text{ scf}}{\text{kscf}} \times \left(\frac{100 - \quad \%}{100 \times \quad \text{dscf/MMBtu}}\right) \times \left(\frac{20.9 - \quad \%}{20.9}\right) = \frac{\text{MMBtu}}{\text{hr}}$$

Note: Lack of significant figures may cause rounding errors between actual calculations and example calculations.

APPENDIX E
AIR HYGIENE STATEMENT OF QUALIFICATIONS

Air Hygiene International, Inc.

The Clear Choice

STATEMENT OF QUALIFICATIONS
POWERPLANT EMISSIONS TESTING – 2006

AIR HYGIENE INT'L

Corporate Headquarters
5634 S. 122nd E. Ave. Ste. F
Tulsa, OK 74146
918-307-8865 or 888-461-8778

Houston, TX Office
1920 Treble Drive, Suite E-5
Humble, TX 77338

Las Vegas Office
5925 E. Lake Mead Blvd
Las Vegas, NV 89156

Philadelphia, PA Office
8900 State Road
Philadelphia, PA 19136

STATEMENT OF QUALIFICATIONS

AIR HYGIENE

AIR TESTING SERVICES FOR POWER PLANTS

www.airhygiene.com

January, 2005

INTRODUCTION

AIR HYGIENE INTERNATIONAL, INC. (**AIR HYGIENE**) is a professional air emission testing services firm with fixed offices in Tulsa, Oklahoma; Houston, Texas; Denver, Colorado; and Orlando, Florida. Additional mobilization points are located in Philadelphia, Atlanta, Chicago, Los Angeles, and Seattle to serve all 50 United States. **AIR HYGIENE** specializes in air emission testing services for combustion sources in both simple and combined cycle operation burning multiple fuels with multiple control devices and supporting equipment.

AIR HYGIENE has testing laboratories which serve all fifty (50) of the United States and North America. Each mobile laboratory can be equipped with the following equipment and capabilities:

1. State-of-the-Art air emission analyzers, computers, and datalogging software. All designed into an efficient system to provide the fastest, most reliable information possible!
2. Dual racks for multiple source testing simultaneously or multiple points on a single source (in/out SCR, etc.)!
3. NIST traceable gases for the most accurate calibration. Ranges as low as 5 ppm!
4. PM_{10}, NH_3, mercury, sulfuric acid mist (H_2SO_4), SO_3, and formaldehyde sampling equipment!
5. VOC testing with on-board gas chromatograph to remove methane and ethane!
6. On-board printers to provide hard copies of testing information on-site!
7. Networking capabilities to provide real-time emission data directly into the control room!

AIR HYGIENE is known for providing professional services which include the following:

- Providing superior, cost saving services to our clients!
- High quality emission testing personnel with service oriented, friendly attitude!
- Meeting our client's needs whether it is 24 hour a day testing or short notice mobilization!
- Using great equipment that is maintained and dependable!
- Understanding the unique startup and operational needs associated with combustion turbines!

MISSION STATEMENT

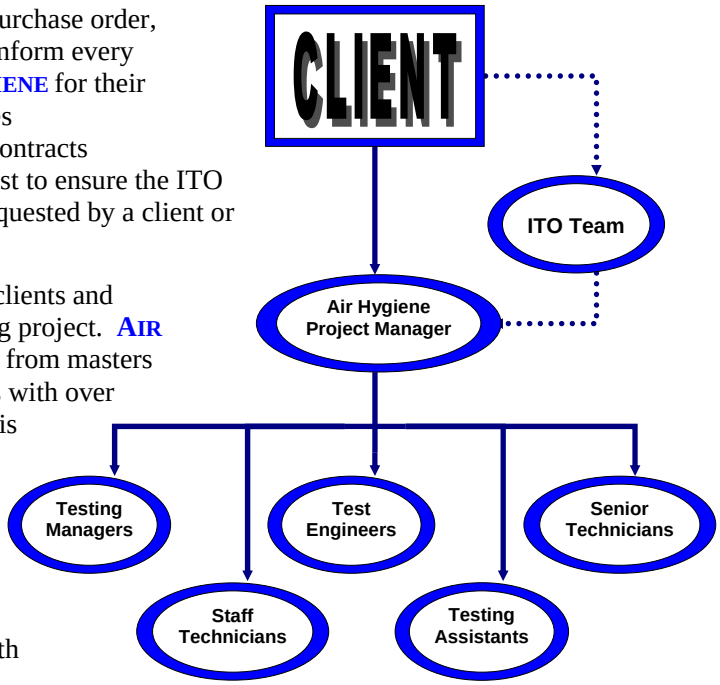
Our mission is to provide innovative, practical, top-quality services allowing our clients to increase operating efficiency, save money, and comply with federal/state requirements. We believe our first responsibility is to the client. In providing our unique services, the owners of **AIR HYGIENE** demand ethical conduct from each employee of the company. The character and integrity of **AIR HYGIENE** employees allows our clients to feel confidence in the air testing services of **AIR HYGIENE**. Through a long-term commitment to this mission, **AIR HYGIENE** is known as a company committed to improving our clients' operations.

AIR HYGIENE … Does work worth paying for every time!
… Is well known for our emission testing services and uncompromising efforts to serve our clients!
… Does work that matters!
… Is proud of our emission testing capabilities!
… Provides exciting growth opportunities for energetic individuals!

EMISSION TESTING TEAM

Air Hygiene International, Inc. (**AIR HYGIENE**) intends to exceed your expectations on every project. From project management to field-testing teams, we're committed to hard work on your behalf. The job descriptions and flowchart below outline **AIR HYGIENE**'s client management strategy for your testing services.

From the initial request through receipt of the purchase order, the Inquisition To Order (ITO) team strives to inform every client of the benefits gained by using **AIR HYGIENE** for their emission testing project. The ITO team includes representatives from the sales, marketing, and contracts divisions. In addition, several support staff assist to ensure the ITO team provides the support for client needs as requested by a client or project manager.



Project Managers are the primary contact for clients and ultimately responsible for every emission testing project. **AIR HYGIENE**'s Project Managers experience range from masters level, professional engineers to industry experts with over 5,000 testing projects completed. Each project is assigned a Project Manager based primarily upon geographic location, then industry experience, contact history, and availability. The Project Manager prepares the testing strategy and organization for the project. This includes preparation of testing protocol; coordination with state agencies, client representatives, and any interested third parties. The site testing and report preparation are executed under the direction of the Project Manager from start to finish.

Testing Managers have completed Air Hygiene's rigorous demonstration of capability training program and are capable of operating all testing equipment and performing all test methods required for your testing project. Testing Managers assist Project Managers by leading the field testing when required, preparing draft reports, calibrating equipment, and overseeing testing team on-site.

Test Engineers have significant background and understanding of emission testing or related services. Test Engineers prepare pre-test drawings for port location, ensure on-site logistics for electrical and mechanical/structural needs, and conduct on site testing as directed by the Project Manager and/or Testing Manager. Test Engineers often have special understanding of process and/or regulations applicable to specific testing jobs, which provide great value to both the client and Project Manager in testing strategies.

Testing Specialists have performed over 500 emission tests and have a basic understanding of both particulate and gaseous sampling strategies. Testing Specialists have significant testing experience with **AIR HYGIENE** equipment along with a variety of industries and source equipment. Testing Specialists often operate isokinetic sampling trains or gas analyzers on-site under the direction of the Project Manager and assist with preparation of field reports and quality assurance procedures.

Staff Technicians are entry-level personnel who have performed 100 to 500 emission tests. Staff Technicians perform pre-test equipment preparation, on-site test preparation, and testing assistance under the direction of Project Manager and/or Testing Manager. At least one Staff Technician is assigned to every project to assist on-site. Staff Technicians connect sampling probes to ports, assist with leak checks, raise and lower equipment to and from sampling platform, and other support activities under the direction of the Project Manager and/or Testing Manager.

Testing Assistants are entry-level personnel who have performed less than 100 emission tests. Testing Assistants help with equipment set-up, teardown, and simple testing procedures (i.e. move probe, fill ice bath, clean impingers, etc.) as directed.

AIR HYGIENE Emission Services Summary

Air Hygiene International, Inc. (**AIR HYGIENE**) is a privately-held professional services firm headquartered in Tulsa, Oklahoma with additional offices in Denver, Colorado; Houston, Texas; and Orlando, Florida. **AIR HYGIENE** specializes in emission testing services for a variety of industries including natural gas companies, utilities, refineries, printers, glass plants, bulk fuel loading stations, chemical plants, pulp & paper mills, various manufacturers and related industries.

AIR HYGIENE provides turn-key emission testing services which include:

1. Pre-test site visit and consulting for port locations and setup;
2. Preparation of test plan for state agency;
3. Coordination with state agency regarding emission testing;
4. On-site emission testing services; and
5. Preparation of draft and final reports.

AIR HYGIENE has mobile laboratories that serve all 50 United States and around the world. **AIR HYGIENE** employees have performed over 15,000 emission tests on a variety of sources.

AIR HYGIENE performs air emission certification compliance testing on combustion sources (natural gas, coal, fuel oil, jet fuel, etc), NSPS sources, and Title V compliance sites. Our experience ranges from emission testing for new PSD facilities, MACT and RACT required performance certification testing to Relative Accuracy Test Audits (RATA Tests) for Continuous Emission Monitoring Systems (CEMS) and Parametric Emission Monitoring Systems (PEMS).

Air Hygiene has conducted numerous emission testing projects, which involved multiple groups relying upon instantaneous reporting of important test data. These projects relied upon **Air Hygiene**'s **SPIDER** network. The **SPIDER** network provides Simultaneously Produced Information During Emission Readings (**SPIDER**) between the emission monitoring system and multiple locations (i.e. control room, test center, office, etc.). Hence, you can view real-time emission testing data on-demand from any location you choose!

AIR HYGIENE performs FTIR testing by EPA Method 320 for Hazardous Air Pollutants (HAPS) including formaldehyde, benzene, xylene, toluene, hexane, ammonia, hydrogen chloride, etc. This methodology provides real-time analysis of these critical pollutants.

AIR HYGIENE specializes in the following types of pollutants and EPA Reference Methods (RM):

- Nitrogen Oxides (NOx) – RM 7e &/or 20
- Sulfur Dioxide (SO_2) – RM 6c
- Total Hydrocarbons (THC) – RM 25a
- Volatile Organic Compounds (VOC) RM 25a & RM 18
- Particulates (PM) – RM 5(filterable) & 202(condensable)
- PM < 10 microns (PM_{10}) – RM 201a
- PM < 2.5 microns ($PM_{2.5}$) – RM 201b
- Opacity – RM 9
- Exhaust Flow – RM 2 &/or 19
- Moisture – RM 4
- Carbon Monoxide (CO) – RM 10
- Carbon Dioxide (CO_2) – RM 3a
- Oxygen (O_2) – RM 3a &/or 20
- Dioxin & Furans – RM 23
- Metals – RM 29
- Chrome – RM 306
- Lead – RM 12
- Formaldehyde – RM 320 (FTIR), SW-846 0011, CARB 429, or CTM-037
- H_2S – RM 11
- BTEX – RM 18
- HAPS – FTIR – RM 320 (FTIR)
- Ammonia – CTM-027 or BAAQMD ST-1B
- Mercury – Ontario Hydro Method or RM 29

TESTING EXPERIENCE

AIR HYGIENE testing personnel account for more than sixty-five (65) years of testing experience and over 15,000 emission tests. Our testing services have involved dealings with all 50 state agencies and EPA regional offices. **AIR HYGIENE** testing personnel are rigorously trained on EPA reference test methods from 40 CFR Part 51, 60, 63, and 75. All testing personnel are instructed and tested on test responsibilities and must complete a "Demonstration of Capability" test per the **AIR HYGIENE** Quality Assurance Manual and the **AIR HYGIENE** Emission Testing Standard Operating Procedures Handbook.

AIR HYGIENE has completed testing on over 134 power plants including 315 combustion turbines, 21 coal fired boilers, 17 gas fired boilers representing 64,876 megawatts (MW). ***Let us add your project to our list of satisfied customers!***

TESTING SUCCESS STORIES

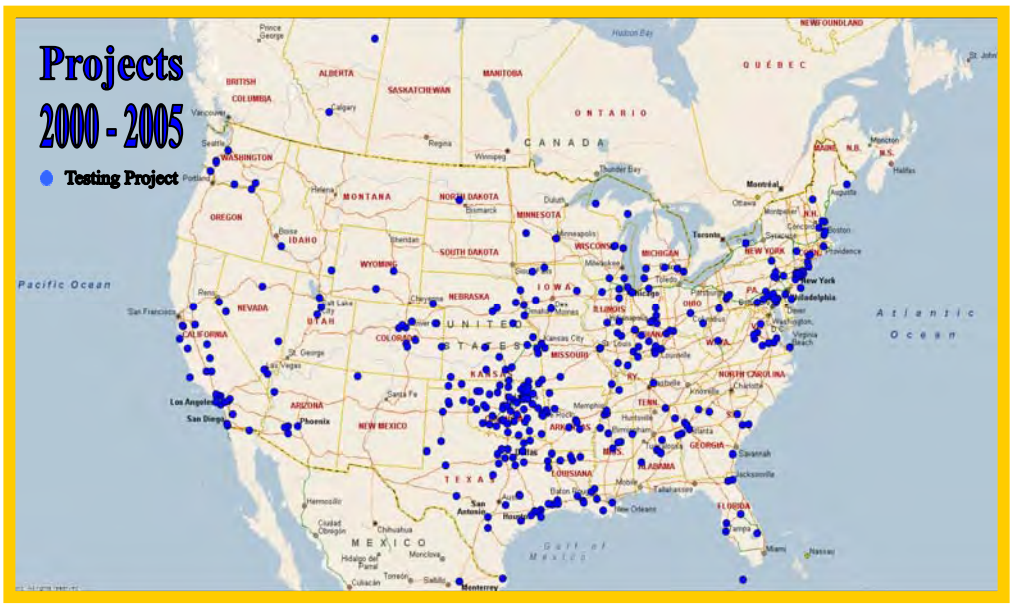
AIR HYGIENE personnel have performed thousands of testing projects which have yielded significant benefits for our clients. The following project descriptions briefly discuss some of these emission testing projects.

- Conducted numerous projects optimizing SCR performance by conducting inlet & outlet SCR analysis for NH_3, NOx, flow, and Oxygen. Used information to assist with flow optimization and AIG tuning.
- Conducted federal and state required compliance testing for NOx, CO, PM-10 (front & back-half), SO_2, VOC, Ammonia, Formaldehyde, Opacity, RATA testing (NOx and CO) for new and updated power plants with both simple and combined cycle turbines firing natural gas and fuel oil.
- Conducted dry low NOx burner tuning and performance testing for various models of GE, Siemens Westinghouse, Mitsubishi, Pratt & Whitney, and ABB combustion turbines to verify manufacturer's emission guarantees for clients in preparation for compliance testing.
- Conducted emission testing for NOx, CO, and VOC to assist tuning by performance engineers for meeting low-level NOx emissions and balancing combustion turbine performance.
- Performed power plant emission testing for natural gas fired combustion turbines. Tests included federal required testing per 40 CFR Part 75, state air permit requirements, RATA testing, and emission testing to verify manufacturer's guarantee's during electric/heat output performance testing. Other services for combustion turbine testing included preparation of the QA/QC manual, monitoring plan, seven-day drift test report, system linearity test, and cycle time test.

TESTING LOCATIONS

AIR HYGIENE bases mobilization charges on the distance from your site to the closest of nine (9) regional starting points covering all 50 United States. These include Seattle, Los Angeles, Denver, Tulsa, Houston, Chicago, Orlando, Atlanta, and Philadelphia.

Each start point is located such that the **AIR HYGIENE** test teams can mobilize to your site at affordable costs to ensure we are price competitive to any U.S. location.



COMBUSTION TURBINE TESTING SERVICES SUMMARY

Thank you for your consideration of the power and energy industry testing services of Air Hygiene International, Inc. (**AIR HYGIENE**). The following list details some of the testing services and extras **AIR HYGIENE** includes with each testing job.

Types of Air Testing Services for Combustion Turbines:

- Turbine tuning/mapping for NOx & NH_3 emissions
- Pollutant testing to verify EPC contractual emission guarantees
- Research and Development (R&D) emission data research and turbine optimization
- 40 CFR Part 60 Subpart GG – Turbine Compliance Testing
- 40 CFR Part 75 – Acid Rain Classified Equipment Testing
- 40 CFR Part 75 Appendix E – Peaking Plant CEMS alternative NOx emissions versus Heat Input mapping
- RATA Testing on CEMS systems for NOx, CO, SO_2, CO_2 or O_2, Flow (3-D & Wall effects)
- QA/QC Plans, Monitoring Plans, Linearity Checks, Testing Protocols, etc. are provided with our high quality, service oriented emission testing services
- Initial permit compliance testing for PM, PM-10, PM-2.5, SO_2, NOx, CO, exhaust flow, moisture, O_2, CO_2, Ammonia, Formaldehyde, other HAPs

AIR HYGIENE will provide the following testing services:

- On-site, real-time test data
- Fuel F-Factor calculation data sheet
- Experienced turbine testing personnel
- Flexible testing schedules to meet your needs
- Electronic reports provided on CD upon request
- Extensive experience with all 50 state agencies in the U.S.
- EPA Protocol 1 Certified Gases (one percent accuracy) for precise calibration
- Low range (0-10 ppm) equipment calibration and measurement available
- Test protocol preparation, coordination with state agency, and site personnel
- Numerous mobile testing labs, which may be used for your projects across the U.S.
- State-of-the-art data logging technology to allow real-time examination of meaningful emission data
- Monitor your emissions data measured in our test lab from your control room via our datalogging network system

AIR HYGIENE is committed to providing testing teams that will take the time to meet your needs. We ensure the job is completed on time with the least amount of interruption to your job and site operation as possible. Thank you for considering our services.

AIR HYGIENE's Synergistic Approach to Power Plant Air Emissions Testing

Power plants continue to be built, modified, and improved across the United States. These new or modified facilities are at the forefront of clean energy. These units are very efficient yet environmentally friendly, and must be to meet the stringent requirements set forth by the Environmental Protection Agency (EPA) and relevant state agencies. Air Hygiene International, Inc. (**AIR HYGIENE**) has developed a unique strategy to help owners deal with these complicated requirements.

Unique Testing Strategy

AIR HYGIENE has developed a synergistic approach to assisting the various groups involved in the completion of a commissioning/startup unit or modification project. **AIR HYGIENE** strives to combine the multiple testing aspects involved with bringing a combustion unit to commercial service. By conducting the various emission tests required for a new combustion unit using one test company, the following benefits are a given:

1. Save money by…
    a. Reduced mobilizations
    b. Combined tests yield reduced fuel usage and site time
    c. Bulk projects receive quantity discounts
2. Improve efficiency through familiarity with site needs
3. Site personnel and testing team are comfortable working together

These projects typically involve some or all of the following groups. There is not a defined set of responsibilities that will match every project. The table below simply suggests a typical list of testing responsibilities.

Responsible Party	**Testing Responsibilities**
Owner	Initial and on-going federal and state compliance testing (i.e. NSPS Sub GG, Part 75, Operating Air Permit, etc.)
Operator	Initial and on-going federal and state compliance testing (i.e. NSPS Sub GG, Part 75, Operating Air Permit, etc.)
Turbine/Boiler manufacturer	Contractual emission guarantees of unit (i.e. NOx, SO2, CO, VOC, PM-10, NH3, H2SO4)
EPC & Construction Company	Contractual emission guarantees including control devices (i.e. NOx, SO2, CO, VOC, PM-10, NH3, H2SO4)
CEMS Supplier	Initial RATA testing (i.e. NOx, CO, SO2, CO2, O2, flow)
Lending Party (i.e. bank)	No responsibility, but concerned with outcome of all tests
Environmental Consultant	Concerned with air permit and overall compliance; may select the test contractor and provide oversight for testing

Example Project:

A recent project provides a prime example of the synergistic benefits of using **AIR HYGIENE** to perform your commissioning/startup or remodification testing needs for performance and compliance. Eight GE Frame 7FA turbines were taken from performance testing through compliance testing in 20 days. The following tests were performed on each turbine:

- NOx tuning and mapping
- Contractual performance testing for NOx, CO, VOC, SO_2, NH_3, & PM_{10}
- 40 CFR Part 60 Subpart GG: testing for NOx and CO at max load
- 40 CFR Part 75: NOx & CO RATA certification on CEMS
- State required compliance testing for NOx, CO, VOC, NH_3(on-site analysis), formaldehyde (on-site analysis by FTIR), opacity and SO_2 burning natural gas

Test data was provided on-site for all tests, except PM-10. Electronic files were e-mailed for review to the turbine manufacturer, owner & operator, and environmental consultant within 24 hours following completion of site work. Complete reports including PM-10 were submitted to interested parties within 10 days following each blocks completion.

Power Plant Testing Experience

AIR HYGIENE personnel have over sixty-five (65) years of testing experience on combustion turbines, coal fired boilers, gas fired boilers, landfill gas, wood fired, & diesel fired engines across the United States. **AIR HYGIENE** has 10 combustion labs serving all 50 states from four permanent offices (Tulsa, OK; Houston, TX; Denver, CO; & Orlando, FL) and five mobilization points (Los Angeles, CA; Seattle, WA; Chicago, IL; Atlanta, GA; & Philadelphia, PA). **AIR HYGIENE** has tested plants ranging from 50 to 2,000 megawatts in both simple and combined cycle operation with controls including:

- Selective Catalytic Reduction - Ammonia injection
- Steam/Water injection
- Sprint injection
- Dry Low NOx burners (DLN)

AIR HYGIENE has completed testing at 134 plants on 315 combustion turbines, 21 coal fired boilers, 17 gas fired boilers, and others representing 64,876 megawatts (MW). **AIR HYGIENE** tested 5 power plants in 2000 and we have grown since testing 8 in 2001, 19 in 2002, 41 in 2003, and 52 in 2004. ***Let us add your upcoming project to our list of satisfied customers!***

INSTRUMENT CONFIGURATION AND OPERATIONS FOR GAS ANALYSIS

The sampling and analysis procedures used by **AIR HYGIENE** during tests conform in principle with the methods outlined in the Code of Federal Regulations, Title 40, Part 60, Appendix A, Methods 3a, 6c, 7e, 10, 18, 19, 20, and 25a.

The flowchart on the next page depicts the sample system used by **AIR HYGIENE** for analysis of oxygen (O_2), carbon dioxide (CO_2), sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen oxides (NOx), and volatile organic compounds (VOC) tests. A heated stainless steel probe is inserted into the sample ports of the stack to extract gas measurements from the emission stream. The gas sample is continuously pulled through the probe and transported via 3/8 inch heat-traced Teflon® tubing to a stainless steel minimum-contact condenser designed to dry the sample through Teflon® tubing via a stainless steel/Teflon® diaphragm pump and into the sample manifold within the mobile laboratory. From the manifold, the sample is partitioned to the O_2, CO_2, SO_2, CO, and NOx analyzers through glass and stainless steel rotameters that control the flow rate of the sample. The VOC sample is measured as a wet gas.

The flowchart shows that the sample system is also equipped with a separate path through which a calibration gas can be delivered to the probe and back through the entire sampling system. This allows for convenient performance of system bias checks as required by the testing methods.

All instruments are housed in an air-conditioned trailer which serves as a mobile laboratory. Gaseous calibration standards are provided in aluminum cylinders with the concentrations certified by the vendor. EPA Protocol No. 1 is used to determine the cylinder concentrations where applicable (i.e. NO_x calibration gases).

All data from the continuous monitoring instruments are recorded on a Logic Beach Hyperlogger which retrieves calibrated electronic data from each instrument every second and reports an average of the collected data every 30 seconds and 10 seconds. The averaging time can be selected to meet the clients needs. **This data is available instantaneously for printout, statistical analysis, viewable by actual values, or examined by a trending graph!**

The number of test runs, test loads, and length of runs is based upon federal and state requirements for the facility. Typical run times associated with emission testing are as follows:

Type of Test	# of runs	Length of runs
O_2 Traverse (GG)	1 run @ low load (8 – 48 points)	2 minutes per point
NOx Stratification Test	1 run @ base load (12 points)	2 – 4 minutes per point
Subpart GG	3 runs @ 4 loads (30%, 50%, 75%, & 100%)	15 – 60 minutes per run
RATA	9 – 12 runs @ normal load	21 minutes per run
State Permit Test (gases)	3 runs @ base load	1 hour per run
State Permit Test (particulates)	3 runs @ base load	2 – 4 hours per run

The stack gas analysis for O_2 and CO_2 concentrations are performed in accordance with procedures set forth in EPA Method 3a (EPA Method 20 for O_2 on combustion turbines). The O_2 analyzer uses a paramagnetic cell detector. The CO_2 analyzer uses an infrared detector.

CO emission concentrations are quantified in accordance with procedures set forth in EPA Method 10. A continuous nondispersive infrared (NDIR) analyzer is used for this purpose.

NOx emission concentrations are measured in accordance with procedures set fort in EPA Method 7e and/or 20. A chemiluminescence analyzer is used to determine the nitrogen oxides concentration in the gas stream.

Total hydrocarbons (THC), non-methane, non-ethane hydrocarbons also known as volatile organic compounds (VOC) are analyzed in accordance with procedures set forth in EPA Methods 18 & 25a. A flame ionization detector calibrated with methane is used to determine the THC concentration in the gas stream and VOCs analyzed by GC to determine methane, ethane, and remaining VOCs per EPA Method 18 determination with gas chromatograph using FID detector.

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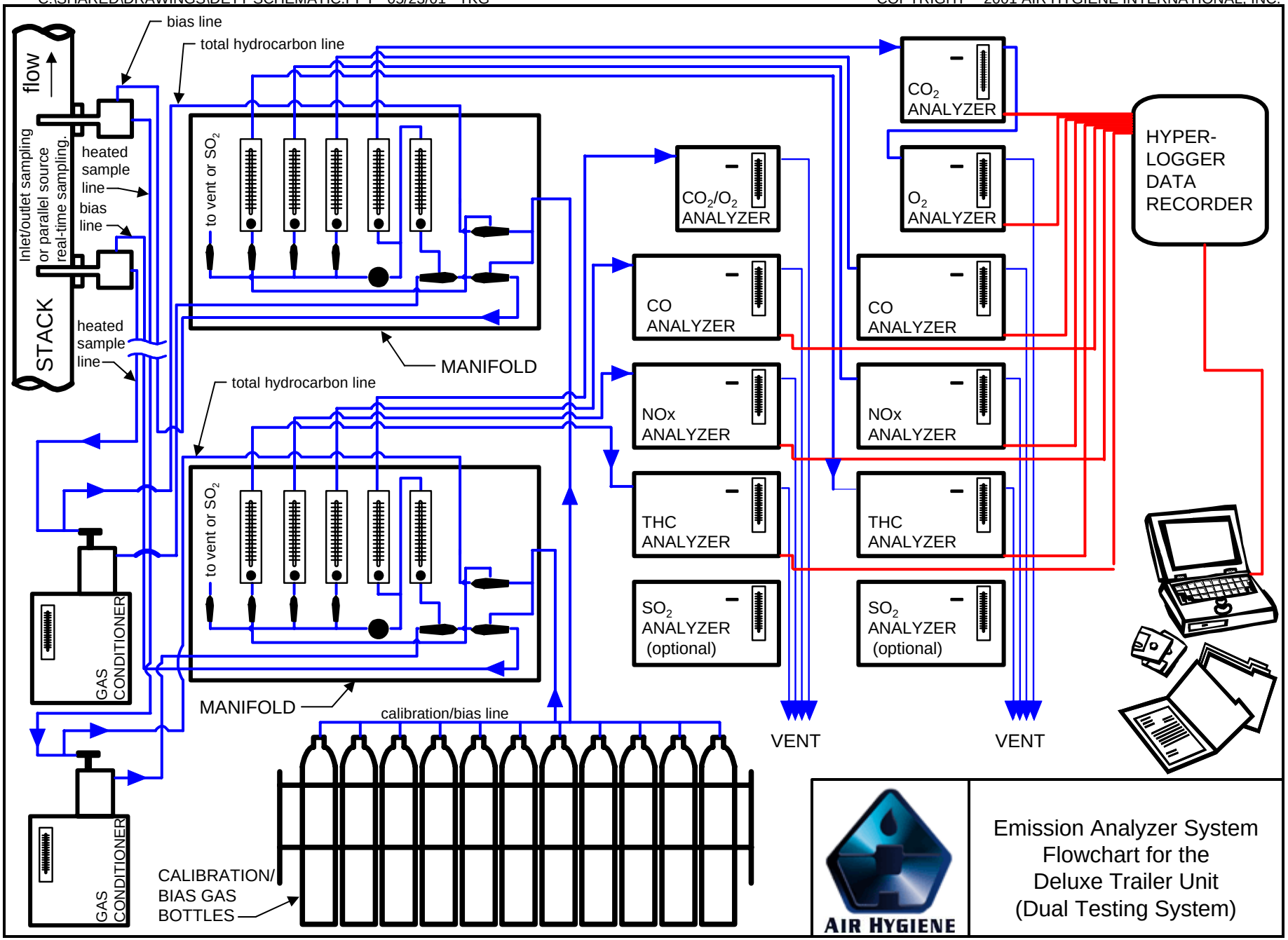

AIR HYGIENE

Emission Analyzer System
Flowchart for the
Deluxe Trailer Unit
(Dual Testing System)

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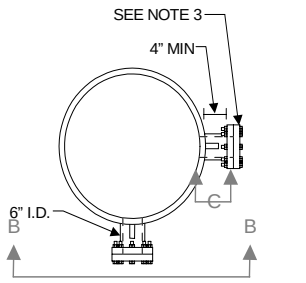

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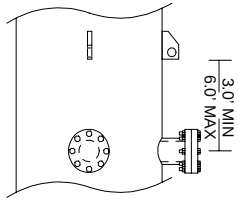
not to scale



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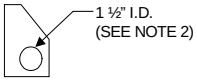

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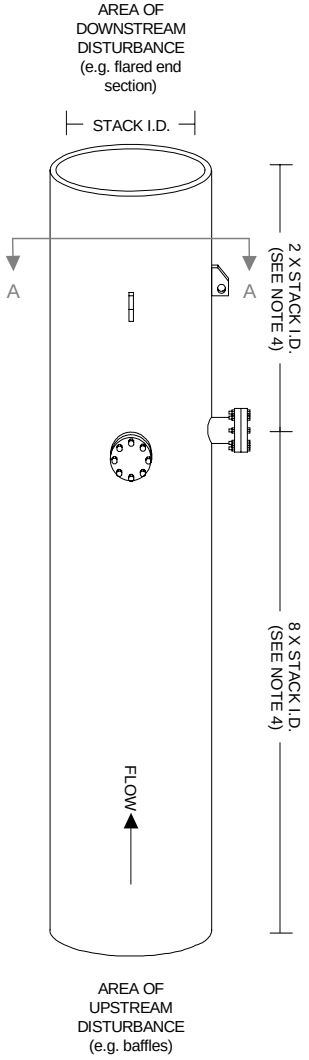

PARTIAL STACK
not to scale

NOTES

1. TWO PORTS WITH CENTERLINES AT 90° ANGLES
2. 3/8 INCH THICK STEEL, WELDED TO STACK EXTERIOR, PROVIDES PLACE TO HOOK CHAIN FOR RAIL ASSEMBLY
3. MINIMUM THREE INCH INNER DIAMETER STEEL PIPE, WELDED TO STACK EXTERIOR, HOLE CUT INTO STACK WALL, NO POTRUSIONS OR OBSTRUCTIONS INSIDE STACK WALL
4. IF TOTAL STACK LENGTH IS NOT AVAILABLE, EPA MINIMUM REQUIREMENTS ARE ½ X STACK I.D. FROM PORTS TO TOP AND 2 X STACK I.D. FROM PORTS TO BOTTOM

AIR HYGIENE

PORT INSTALLATION DIAGRAM
5634 S. 122nd East Ave, Suite F
Tulsa, Oklahoma 74146
www.airhygiene.com
(888) 461-8778

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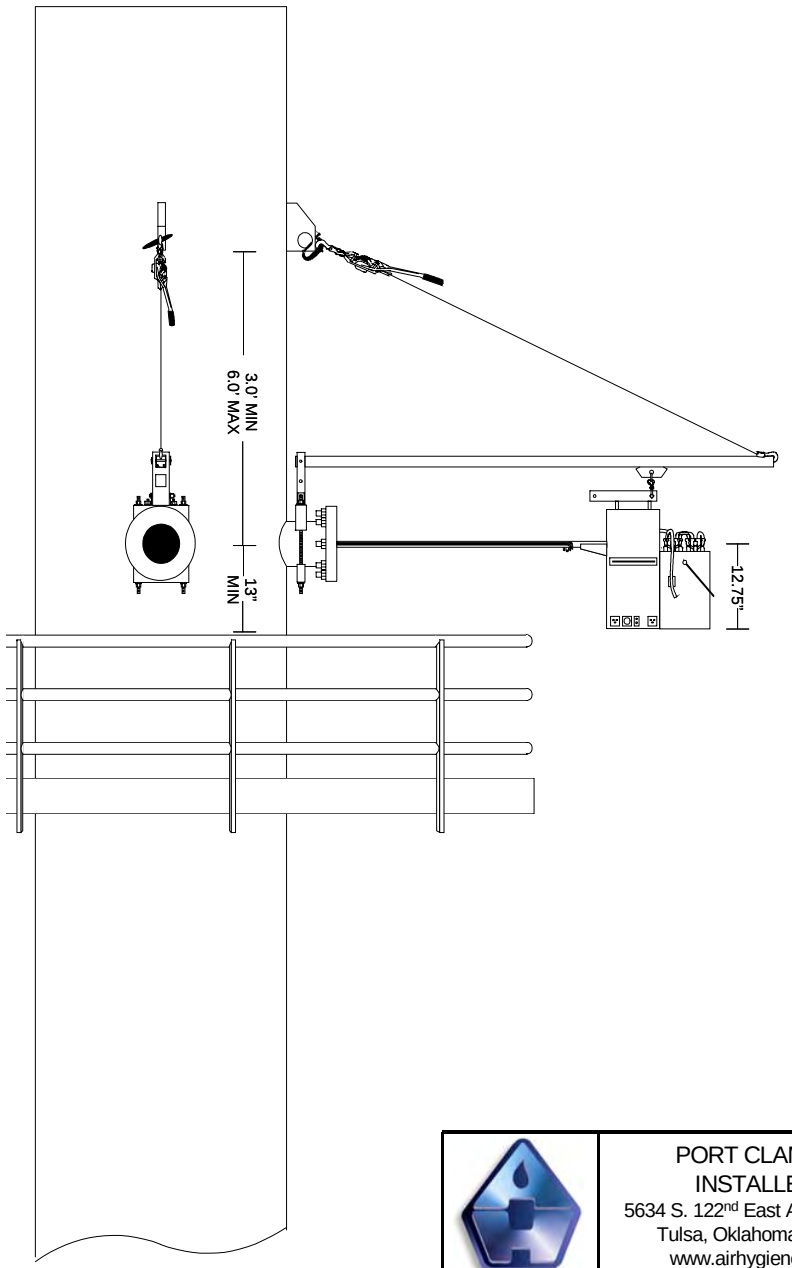

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PORT CLAMPS INSTALLED
5634 S. 122nd East Ave, Suite F
Tulsa, Oklahoma 74146
www.airhygiene.com
(888) 461-8778

TURBINE TESTING QUALITY ASSURANCE ACTIVITIES

A number of quality assurance activities are undertaken before, during, and after turbine testing projects. This section describes each of those activities.

Each instrument's response is checked and adjusted in the field prior to the collection of data via multi-point calibration. The instrument's linearity is checked by first adjusting its zero and span responses to zero nitrogen and an upscale calibration gas in the range of the expected concentrations. The instrument response is then challenged with other calibration gases of known concentration and accepted as being linear if the response of the other calibration gases agreed within ± two percent of range of the predicted values.

NO_2 to NO conversion is checked via direct connect with a EPA Protocol certified concentration of NO_2 in a balance of nitrogen. Conversion is verified to be above 90 percent.

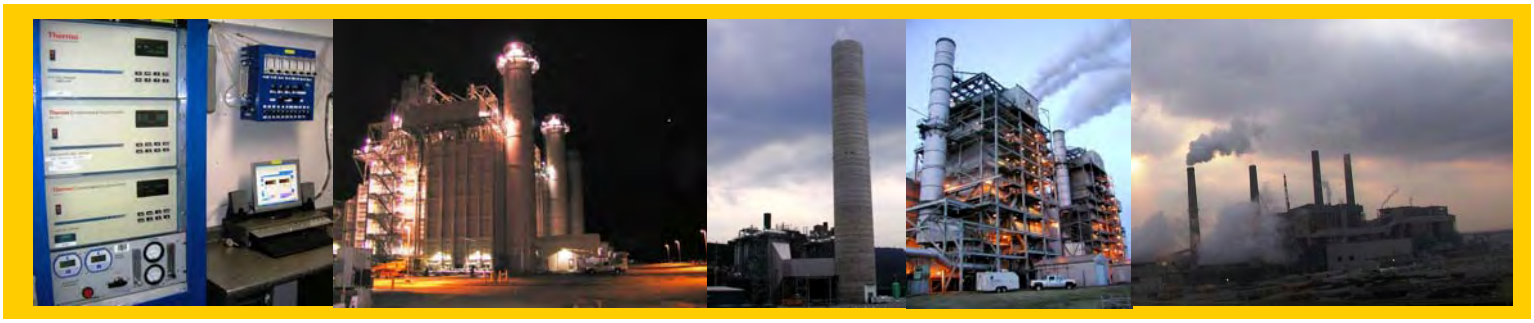
Instruments are both factory tested and periodically field challenged with interference gases to verify the instruments have less than a two percent interference from CO_2, SO_2, CO, NO, and O_2.

After each test run, the analyzers are checked for zero and span drift. This allows each test run to be bracketed by calibrations and documents the precision of the data collected. The criterion for acceptable data is that the instrument drift is no more than three percent of the full-scale response. Quality assurance worksheets summarize all multipoint calibration linearity checks and the zero to span checks performed during the tests are included in the test report.

The sampling systems is leak-checked by demonstrating that a vacuum greater than 10 in. Hg can be held for at least one minute with a decline of less than one in. Hg. A leak test is conducted after the sample system is set up and before the system is dismantled. This test is conducted to ensure that ambient air does not dilute the sample. Any leakage detected prior to the tests is repaired and another leak check conducted before testing will commence.

The absence of leaks in the sampling system is also verified by a sampling system bias check. The sampling system's integrity is tested by comparing the responses of the analyzers to the responses of the calibration gases introduced via two paths. The first path is directly into the analyzers and the second path includes the complete sample system with injection at the sample probe. Any difference in the instrument responses by these two methods is attributed to sampling system bias or leakage. The criterion for acceptance is agreement within five percent of the span of the analyzer.

The control gases used to calibrate the instruments are analyzed and certified by the compressed gas vendors to ± one percent accuracy for all gases. EPA Protocol No. 1 is used, where applicable, to assign the concentration values traceable to the National Institute of Standards and Technology (NIST), Standard Reference Materials (SRM). The gas calibration sheets as prepared by the vendor are included in the test report.



TURBINE QUALITY ASSURANCE PROGRAM SUMMARY

AIR HYGIENE ensures the quality and validity of its emission measurement and reporting procedures through a rigorous quality assurance (QA) program. The program is developed and administered by an internal QA team and encompasses five major areas:

1. QA reviews of reports, laboratory work, and field testing;
2. Equipment calibration and maintenance;
3. Chain-of-custody;
4. Training; and
5. Knowledge of current test methods.

QA Reviews

AIR HYGIENE's review procedure includes review of each source test report, along with laboratory and fieldwork, by the QA Team. The most important review is the one that takes place before a test program begins. The QA Team works closely with technical division personnel to prepare and review test protocols. Test protocol review includes selection of appropriate test procedures, evaluation of interferences or other restrictions that might preclude use of standard test procedures, and evaluation and/or development of alternate procedures.

Equipment Calibration and Maintenance

The equipment used to conduct the emission measurements is maintained according to the manufacturer's instructions to ensure proper operation. In addition to the maintenance program, calibrations are carried out on each measurement device according to the schedule outlined by the Environmental Protection Agency. Quality control checks are also conducted in the field for each test program. Finally, **AIR HYGIENE** participates in a PT gas program by analyzing blind gases semi-annually to ensure continued quality.

Chain-of-Custody

AIR HYGIENE maintains full chain-of-custody documentation on all samples and data sheets. In addition to normal documentation of changes between field sample custodians, laboratory personnel, and field test personnel, **AIR HYGIENE** documents every individual who handles any test component in the field (e.g., probe wash, impinger loading and recovery, filter loading and recovery, etc.). Samples are stored in a locked area to which only **AIR HYGIENE** personnel have access. Field data sheets are secured at **AIR HYGIENE**'s offices upon return from the field.

Training

Personnel's training is essential to ensure quality testing. **AIR HYGIENE** has formal and informal training programs, which include:

1. Participation in EPA-sponsored training courses;
2. A requirement for all technicians to read and understand Air Hygiene Incorporated's QA manual;
3. In-house training relating to 40 CFR Part 60 Appendix A methods and QA meetings on a regular basis;
4. OSHA 40 hour Hazwopper Training;
5. Visible Emission (Opacity) Training; and
6. Maintenance of training records.

Knowledge of Current Test Methods

With the constant updating of standard test methods and the wide variety of emerging test procedures, it is essential that any qualified source tester keep abreast of new developments. **AIR HYGIENE** subscribes to services, which provide updates on EPA reference methods, rules, and regulations. Additionally, source test personnel regularly attend and present papers at testing and emission-related seminars and conferences. **AIR HYGIENE** personnel maintain membership in various relevant organizations associated with gas fired turbines.

AIR HYGIENE INT'L Experience

F-Factor Datasheet and Fuel Gas Analysis

Company: XYZ Power
Location: XYZ Power Plant
Date: April 9, 2001

Values to enter from fuel gas analysis by GPA 2166.

Font Scheme:
Blue Font = enter new data
Black Font = calculated data
Green Font = Labels for columns & rows
Red Font = Important results with notes

Gas Component		Mole (%)	Molecular Weight (lb/lb-mole)	lb Component per lb-Mole of Gas	Weight % of Component	Fuel Heat Value [HHV] (Btu/scf)[1]	Fuel Heat Value [LHV] (Btu/scf)[1]
Methane	CH4	96.491	16.04	15.477	92.97	974.27	877.20
Ethane	C2H6	2.115	30.07	0.636	3.82	37.41	34.22
Propane	C3H8	0.186	44.1	0.082	0.49	4.68	4.31
iso-Butane	iC4H10	0.019	58.12	0.011	0.07	0.62	0.57
n-Butane	nC4H10	0.023	58.12	0.013	0.08	0.75	0.69
Iso-Pentane	iC5H12	0.008	72.15	0.006	0.03	0.32	0.30
n-Pentane	nC5H12	0.005	72.15	0.004	0.02	0.20	0.19
Hexanes	C6H14	0.025	86.18	0.022	0.13	1.19	1.10
Heptanes	C7H16	0.000	100.21	0.000	0.00	0.00	0.00
Octanes	C8H18	0.000	114.23	0.000	0.00	0.00	0.00
Carbon Dioxide	CO2	0.510	44.01	0.224	1.35	0.00	0.00
Nitrogen	N2	0.618	28.01	0.173	1.04	0.00	0.00
Hydrogen Sulfide	H2S	0.000	34.08	0.000	0.00	0.00	0.00
Oxygen	O2	0.000	32	0.000	0.00	0.00	0.00
Helium	He	0.000	4	0.000	0.00	0.00	0.00
Hydrogen	H2	0.000	2	0.000	0.00	0.00	0.00
Totals (dry)		100.000		16.648	100.00	1019.44	918.57
Totals (wet)						1001.66	902.55

[1] Standardized to 60°F and 1 atm to match fuel flow data

If total is not 100.000 then the mol% data was either entered incorrectly or the gas analysis is incomplete. Sometimes small differences are due to rounding error.

High Heat Value of dry gas (HHV-dry) This is the primary fuel heat value used in emission testing calculations.

Low Heat Value of dry gas. LHV-dry

High Heat Value of wet Gas. HHV-wet

Low Heat Value of wet gas. LHV-wet

Characteristics of Fuel Gas		
Molecular Weight of gas =	16.648	lb/lb-mole
Btu per lb. of gas =	23239.7689	gross (HHV)
Btu per lb. of gas =	20940.2961	net (LHV)
wt % VOC in fuel gas =	0.83	%
Specific Gravity =	0.5749	

Value used to convert THC readings to VOC.

Component	Weight %
carbon	73.71
oxygen	0.98
hydrogen	24.27
nitrogen	1.04
helium	0.00
sulfur	0.00
Total	100.00

F-Factor (scf dry exhaust per MMBtu [HHV] = 8641.17
(Based on EPA RM-19) at 68°F and 1 atm

Fuel Specific F-Factor. Note that EPA Method 19 lists natural gas's F-factor as 8710.

F-Factor Calculation:

F-Factor = 1,000,000*((3.64*%H)+(1.53*%C)+(0.57*%S)+(0.14*%N)-(0.46*%O))/GCV

%H, %C, %S, %N, & %O are percent weight values calculated from fuel analysis and have units of (scf/lb)/%

GCV = Gross Btu per lb. of gas (HHV)

EXAMPLE TESTING DATASHEET FOR GASES
XYZ Power Plant
GE GTG Frame 7FA Combustion Turbine
Fuel: Natural Gas

Fuel Data

Fuel F-Factor	8,671.5	SCF/MMBtu
Generator Output	172.0	MW
Fuel Flow	515,040.8	SCFH
Fuel Heating Value (HHV)	1,076.5	Btu/SCF
Combustor Inlet Pressure	6,166.5	mm Hg
Heat Input (LHV)	500.6	MMBtu/hr
Stack Moisture Content	8.4	%
Stack Exhaust Flow	13,600,266.4	SCFH

Weather Data

Barometric Pressure	29.11	in. Hg
Relative Humidity	82	%
Dry Bulb Temperature	72	F
Specific Humidity	0.0142443	lb H2O/lb air
Wet Bulb Temperature	68	F

yellow - supporting information
gray - raw testing data
green - final results

Run #1 - 100% High Load

Date/Time (mm/dd/yy hh:mm:ss)	Elapsed Time (seconds)	O_2 (%)	NOx (ppmvd)	CO (ppmvd)	VOC (ppmvw)	SO_2 (ppmvd)	CO_2 (%)
06/27/01 11:47:32	16770	13.57	5.05	-0.38	0.59	0.59	5.09
06/27/01 11:48:02	16800	13.57	5.85	-0.26	0.63	0.63	4.83
06/27/01 11:48:32	16830	13.55	6.37	-0.44	0.71	0.71	4.71
06/27/01 11:49:02	16860	13.54	6.83	0.60	0.83	0.83	4.33
06/27/01 11:49:32	16890	13.55	7.26	0.25	0.99	0.99	4.49
06/27/01 11:50:02	16920	13.55	6.44	-0.24	1.14	1.14	4.64
06/27/01 11:50:32	16950	13.54	6.28	-0.75	1.29	1.29	4.79
06/27/01 11:51:02	16980	13.55	5.68	-0.68	1.46	1.46	4.96
06/27/01 11:51:32	17010	13.58	6.01	-1.14	1.60	1.60	5.10
06/27/01 11:52:02	17040	13.49	5.05	1.36	1.69	1.69	5.19
06/27/01 11:52:32	17070	13.60	5.14	-0.47	1.70	1.70	5.20
06/27/01 11:53:02	17100	13.61	4.58	0.69	1.69	1.69	5.19
06/27/01 11:53:32	17130	13.62	4.93	0.90	1.65	1.65	5.15
06/27/01 11:54:02	17160	13.62	4.69	0.54	1.64	1.64	5.14
06/27/01 11:54:32	17190	13.61	4.83	0.64	1.59	1.59	5.09
06/27/01 11:55:02	17220	13.61	4.76	-0.07	1.60	1.60	5.10
06/27/01 11:55:32	17250	13.64	4.86	-0.02	1.59	1.59	5.09
06/27/01 11:56:02	17280	13.63	4.38	0.92	1.51	1.51	5.01
06/27/01 11:56:32	17310	13.61	4.94	-0.01	1.47	1.47	4.97
06/27/01 11:57:02	17340	13.61	4.89	0.27	1.47	1.47	4.97
06/27/01 11:57:32	17370	13.61	4.82	1.28	1.46	1.46	4.96
06/27/01 11:58:02	17400	13.61	4.69	1.55	1.46	1.46	4.96
06/27/01 11:58:32	17430	13.60	4.23	1.16	1.46	1.46	4.96
06/27/01 11:59:02	17460	13.59	4.69	-0.26	1.46	1.46	4.96
06/27/01 11:59:32	17490	13.57	4.89	-1.46	1.49	1.49	4.99
06/27/01 12:00:02	17520	13.58	4.86	-1.49	1.53	1.53	5.03
06/27/01 12:00:32	17550	13.59	4.79	-0.79	1.53	1.53	5.03
06/27/01 12:01:02	17580	13.58	4.76	-1.57	1.54	1.54	5.04
06/27/01 12:01:32	17610	13.57	4.65	1.17	1.53	1.53	5.03
06/27/01 12:02:02	17640	14.24	4.69	0.01	1.52	1.52	5.02
06/27/01 12:02:32	17670	13.54	4.83	1.68	1.52	1.52	5.02
06/27/01 12:03:02	17700	13.55	5.70	1.31	1.53	1.53	5.03
06/27/01 12:03:32	17730	13.55	5.66	-0.73	1.53	1.53	5.03
06/27/01 12:03:32	17760	13.55	5.04	-0.48	1.53	1.53	5.03
RAW AVERAGE		**13.6**	**5.2**	**0.1**	**1.4**	**1.4**	**5.0**

QA/QC Data Control

		O_2 (%)	NOx (ppmvd)	CO (ppmvd)	VOC (ppmvw)	SO_2 (ppmvd)	CO_2 (%)
Bias & Drift Checks	**Initial Zero**	0.2	0.3	-0.2	0.0	0.1	0.1
	Final Zero	0.2	0.5	-0.2	0.2	0.2	0.1
	Avg. Zero	0.2	0.4	-0.2	0.1	0.2	0.1
	Initial UpScale	12.1	5.8	4.0	3.4	28.3	9.0
	Final UpScale	12.1	5.7	4.0	3.3	28.2	8.8
	Avg. UpScale	12.1	5.8	4.0	3.4	28.3	8.9
Upscale Cal Gas		12.0	5.7	4.0	3.5	28.0	9.0

Emissions Data

	O_2 (%)	NOx (ppmvd)	CO (ppmvd)	VOC (ppmvd)*	SO_2 (ppmvd)	CO_2 (%)
Corrected Raw Averages	13.5	5.1	0.3	1.5	1.3	5.0
ppm @ 15% O_2	N/A	4.2	0.2	1.2	1.0	N/A
ppm @ 15% O_2 & ISO	N/A	4.7	0.2	1.4	1.1	N/A
Emission Rate (lb/MMBtu)	N/A	0.015	0.000	0.004	0.005	N/A
Emission Rate (lb/hr)	N/A	8.46	0.27	2.40	2.84	N/A
Emission Rate (ton/year) @ 8760 hr/yr	N/A	37.07	1.20	10.49	12.43	N/A
Emission Rate (g/MW*hr)	N/A	0.06	0.00	0.02	0.02	N/A

*VOC data in Emissions Data Table has been converted to dry values by the equation below.

*VOC uncorrected raw average * (100/100-stack moisture content)

CLIENT REFERENCES

The following are current clients who represent the various companies for whom **AIR HYGIENE** has performed testing services. Please feel free to call and discuss our services with them.

Brian Kearney
Reliant Energy
(814) 533-8261

Linda Boyer
Pennsylvania Power & Light
(610) 774-4400

David Sloat
Sargent & Lundy
(312) 269-2784

Kathy Waxman
Keyspan Energy
(516) 545-2579

Rex Lee
Kiewit
(434) 589-7224

Sheila Wheeler
Burns & McDonnell
(816) 822-3250

Jose P. Lozada
Burns and Roe
(201) 986-4261

Kevin Kellie
Calpine
(918) 486-1830

Mark Chrisos
Intergen
(781) 993-3036

Gush Singh
Bechtel
(301) 228-7281

Ron Sigur
Fresh Meadow Mechanical
(516) 546-1656

Tom Price
Calpine - Oregon
(541) 667-3222

Don Fritz
Mirant
(702) 632-8630

Jordan M. Haywood
Siemens Westinghouse
(407) 736-3045

Ken Welch
Universal Energy
(281) 335-9811

Richard Winch
PowerTek (A Subsidiary of Power Technological Services)
(417) 538-9013

Charles Spell
Arizona Public Service Co.
(602) 250-1383

Glenn Atkinson
Zachry Construction
(770) 251-7915

Roosevelt Huggins
Black & Veatch
(913) 458-7864

Steve Brooks
Aquila
(816) 387-6266

Tim Travers
Florida Power & Light
(610) 859-9591

Tracy Patterson
Cogentrix
(804) 541-4246

Rod Klauer
Peerless Manufacturing
(972) 559-6308

Terrie Blackburn
Williams Power
(918) 573-9766

PK Chelian
Foster Wheeler
(908) 713-2159

Mary Kate Grossman
AES
(817) 579-8201

Sam Faghih
SNC-Lavalin
(425) 896-3916

Tim Mordhorst
Black Hills
(605) 721-2181

Mark Finnlay
Alstrom
mark.finlay@power.alstom.com

David Stackhouse
KM Power (Kinder Morgan)
(303) 914-7517

Darin Watson
Transalta
(360) 807-3002

Mike Geers
Cinergy
(513) 287-3839

Monty Wiggins
Modern Continental
(864) 243-0519

Satoru (Scott) Shishido
Hitachi
(914) 524-6614

Karst Postma
TIC
(970) 879-2561

Chris Jacobsen
Tenaska Power Partners
(402) 691-9500

Robert Van Engelenhoven
Pacificorp
(801) 220-4402

John Davis
LG Constructors
(702) 644-5896

J. Neely Ashe
Duke Energy
(713) 989-8325

Jammie Bowen
Utility Engineering
(806) 359-2497

Joe Elliot
Nooter Erickson
(636) 651-1198

Richard Hooper
Stone & Webster
(303) 741-7409

Marilyn Teague
Sempra Energy
(949) 387-5712

William Stark
RW Beck
(303) 299-5200

Robert Farmer
URS Corporation
(602) 371-1100

Lewis Schuessler
BE&K Engineering
(205) 972-6522

Charles Gibbs
PIC World
(678) 627-4467

Mike Brown
AEP
(724) 449-9700

APPENDIX G

MPCA APPROVALS AND REQUESTED FORMS

Thomas Graham

From: Gorg, Steven [Steven.Gorg@state.mn.us]
Sent: Tuesday, May 29, 2007 3:02 PM
To: chuck.wagoner@fibrowattusa.com
Cc: Terry Walmsley; victor.myers@slthermal.com; robert.dolesky@snclavalin.com; Magee-Hill, Heather; Kilgriff, Sarah; Stock, Curtis; Place, Andrew; tom@airhygiene.com
Subject: Fibrominn, LLC (SV 001): Test Plan Approval Letter (May 29, 2007)
Attachments: Fibrominn (SV 001).pdf; Performance Test Report Completeness Criteria (PTRCC).pdf

Hello Chuck. Attached is the approval letter and referenced form (Performance Test Report Completeness Criteria (PTRCC).pdf) for your recently submitted test plans.

Thanks - Steve

Steven J. Gorg, M.S., P.E.
Environmental Engineer
Industrial Division
Minnesota Pollution Control Agency (MPCA)
520 Lafayette Road, St. Paul, MN 55155-4194
Phone: 651-296-8766
Fax: 651-296-8717
Email: steven.gorg@pca.state.mn.us
MPCA web site: http://www.pca.state.mn.us

Performance Test Plan Approval

Minnesota Pollution Control Agency
520 Lafayette Rd. N. Saint Paul, MN 55155-4194 (651) 296-6300
www.pca.state.mn.us

AQ#4065

Facility Name: **Fibrominn, LLC**
Facility Contact: Chuck Wagoner
Address: 900 Industry Drive
Phone: 320-843-9013
Test Locations: SV 001 (EU 001, MR 001-007; CE 001, 003 and 004)
Scheduled For: June 04 through June 11, 2007, at your facility located in Benson, Minnesota.

Your test plan received on May 07, 2007, and discussed on May 29, 2007, is approved by the Minnesota Pollution Control Agency (MPCA) as follows:

☐ Shortened test notification approved

☐ Test plan approved without modification

☒ Test plan approved with the following provisions:

The performance tests are being performed to measure emissions for determining the compliance status with permitted emission limits/requirements (see the relevant permit requirements for limits/requirements/parameters). Emission units and control equipment associated with the results of the performance test must be operated at maximum capacity/worse case conditions to avoid the establishment of new operational limits. The control equipment operational parameters may change based on the averages recorded during testing.

Include in the final test report(s) the full reference method data record (strip chart and/or datalogger output) used to calculate emissions. The data record should include calibration values for any instrumental analyzer used for emissions compliance testing.

Include in the final test report(s) all process and pollution control equipment operating data collected at 15 minute intervals and averaged for each test period. This information should be easily understood by individuals not familiar with the process.

Include in the final test report and CD-ROM copy; a signed certifications form, the test plan, this test plan approval letter (TPAL) and the email to which the TPAL was attached. The CD-ROM test report copy must be labeled with the AQ File Number, Company Name, Emission Unit Tested and Test Dates as stated on the submittal form. Only one paper copy and one CD-ROM/Microfiche copy of the test report are to be submitted.

Include in the final test report a simplified drawing of the test locations including pollution control equipment, stack orientation and test port locations.

Include the process rates and control equipment rates on the Operating Data Summary Form.

Obtain the required submittal and operating data forms from the website noted below[1].

Required Forms:

☒ Operating Data Summary- Combustion ☐ Operating Data Summary- Waste

Sources[1] Combustors[1]

☐ Operating Data Summary- Process Sources[1] ☐ Operating Data Summary- Asphalt Plants[1]
☒ Certifications Form[1] ☒ Microfiche/CD-ROM Submittal Form[1]
☒ Performance Test Report Completeness Criteria (PTRCC) (attached)
1 – Available at: www.pca.state.mn.us/air/performancetest.html

Approved by: **Date: May 29, 2007**

Steven J. Gorg, M.S., P.E.
Environmental Engineer
Industrial Division
Compliance and Enforcement Section

Please contact me at (651) 296-8766 if you have any questions regarding this approval.

Please be aware that enforcement action will be taken for performance test failures indicating emissions above applicable limits (excess actual emissions to the environment). Failures commonly result in assessment of a monetary penalty. Upon the first test failure, the Company should take immediate measures to minimize emissions. The measures taken should be documented, as they will become part of the record of corrective actions.

Hard Copy Performance Test Reports and Microfiche or CD Copy submittals will be addressed to: Compliance Tracking Coordinator, Compliance and Enforcement Unit, Industrial Division, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194

cc: Terry Walmsley, Fibrowatt (email)
Victor Myers, Fibrominn (email)
Robert Dolesky, SNC Lavalin (email)
Thomas Graham, P.E., Air Hygiene International (email)
Heather Magee-Hill, MPCA St. Paul (email)
Sarah Kilgriff, MPCA St. Paul (email)
Curt Stock, MPCA St. Paul (email)
Andy Place, MPCA St. Paul (email)
AQ Correspondense File No. 4065

Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155-4194

Air Performance Test Form

Operating Data Summary for Combustion Sources

Facility Information (please print)

Company name: Fibrominn, LLC Furnace(s) No: 1

Test date(s): July 2-4, 2007

A. Fuel Input and Operating Capacities: Itemize fuels and materials added to the combustion process during the test period. Attach ultimate/proximate analysis of the fuel, if applicable. **List appropriate units.**

Run No.	Fuel type & origin (e.g. Bituminous/Eastern)	Fuel input (list units)	Heat content (list units)	Steam (10^3 lbs/hr)	Gross MW/hr	Heat input (10^6 Btu/hr)
1	Biomass (turkey litter)	83.9 ton/hr	4,334 Btu/lb	487	61	784.4
2	Biomass (turkey litter)	83.3 ton/hr	4,334 Btu/lb	487	62	774.1
3	Biomass (turkey litter)	88.5 ton/hr	4,334 Btu/lb	490	63	777.9
Avg.	Biomass (turkey litter)	85.22 ton/hr	4,334 Btu/lb	488	62	778.8

B. Operating Data for Furnace and Air Pollution Control Equipment

1. Were the furnace(s) and control equipment operated consistent with normal procedures? ☒ Yes ☐ No If no, explain

2. Date(s) and procedure(s) of last maintenance/cleaning within 6 months:
   ☒ Remains unchanged from information provided in test plan

3. Include a copy of chart/data log records during test for the combustion efficiency indices: carbon monoxide (CO), oxygen (O_2), carbon dioxide, (CO_2), combustibles, steam flow, air flow, etc. (Label as appropriate.)

4. Soot blowing and ash pulling information: ☐ No soot blowing or ash pulling conducted, go to Item 5.

   What is the normal soot blowing frequency for unit(s)? ☐ Continuous, no further information required for this column.

   a) minutes/shift: 240 b) shifts/day: 2

   What were the soot blowing times during the test?

   Start: periodic End:

   Start: End:

   Last time before testing when soot blown? (date and time)

   What is the normal ash pulling frequency for unit(s)? ☒ Continuous, no further information required for this column.

   a) minutes/shift: b) shifts/day:

   What were the soot blowing times during the test?

   Start: End:

   Start: End:

   Last time before testing when soot blown? (date and time)

5. Summarize control equipment operating data documented during testing. Values reported should reflect maximum, minimum, averages, or as approved in the test plan. (See test plan and approval letter)

Examples of APC equipment and parameters generally monitored. Monitor as in the test plan and/or approval letter.

- Scrubber (list type of scrubber): ΔP (in. w.c.) and feed rate (gpm and psig)
- Baghouse, Cyclone, and Multi-clone: ΔP (in. w.c.)
- Catalytic Incinerator :($°F_{inlet}$,$°F_{outlet}$) and Thermal Incinerator: ($°F_{operating}$)
- ESP: Number and identity of operating field(s)

	APC equipment and parameter monitored	**Run 1**	**Run 2**	**Run 3**	**Average**
	SDA Slurry Flow (GPM)	27.1	22.3	30.9	26.8
	SDA Quench Flow (GPM)	14.4	14.5	8.6	12.5
	SH Steam Temp (°F)	968	971	969	969.2
	SH Steam Pres. (psi)	1,500	1,504	1,499	1,501
	List pollutant & averaging basis—should reflect permit	**Run 1**	**Run 2**	**Run 3**	**Average**
	Continuous Opacity Monitor(list hourly average): (%)	**2.69**	**2.94**	**0.83**	2.15
	NOx Monitor (list averaging basis): lb/MMBtu	**0.141**	**0.118**	**0.160**	0.140
	SO2 Monitor (list averaging basis): % reduction	**80.88**	**81.23**	**80.47**	80.86

Abbreviations:

APC = air pollution control
Btu = British thermal units
gpm = gallons per minute
in. w.c. = inches of water column
lbs. = pounds
MW = megawatts
Psig = pressure per square inch gauge
ΔP = pressure drop

NOTE: *This form provides only a summary of the operating conditions during the performance test. Additional and more detailed records are required to meet the requirements of Minn. R. 7017.2035. This form is to be submitted as part of the performance test report.*

Hard Copy Performance Test Reports and Microfiche or CD Copy submittals will be addressed to:

Air Quality Compliance Tracking Coordinator
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155-4194

Air Performance Test Form

Performance Test Report Completeness Criteria

The owner or operator of an emissions facility is responsible for submitting a complete test report as defined by Minn. R. 7017.2035. A test report may be rejected if it is deemed incomplete. As a result, this form is designed to ensure that your submittal is complete.

1) Facility name: Fibrominn Biomass Power Plant

2) Air quality facility ID number (first 8 digits of permit number): 15100038

3) Air quality file number:

4) Facility location address: 900 Industry Drive

City: Benson State: MN Zip code: 56215

5) Date of performance test: July 2-4, 2007

6) Facility contact person (Individual who is designated to receive agency correspondence related to this test):

Mr./Ms: Robert Dolesky Phone: (604) 605-4927

Title: Project Engineer Fax: (604) 683-1672

Mailing address: 1200-1075 West Georgia St

City: Vancouver, British Columbia State: Canada Zip code: V6E 3C9

e-mail address: robert.dolesky@snclavalin.com

7) Test report checklist:

Cover:

☒	Name and location (address) of the emission facility	☒	Date(s) of the performance test
☒	Identification of emission unit(s) tested (i.e. GP002, EU031, SV028, or CE001 – Identification of the tested unit which has the emission limit as designated by your permit [source designators])	☒	Name and address of the testing company or agency
☒	AQ Facility ID Number (first 8 digits of permit number) and AQ File Number	☒	Facility contact person (individual designated to receive agency correspondence), and contact information including title, address, phone number, fax number, and email address

Certification:

☒	Signed and dated certification statements as defined by Minn R. 7017.2040 (An exact duplicate must be included in the CD-ROM copy of the test report)

Introduction:

☒	Reason for testing (i.e. Permit condition, notice of violation, etc., including permit number or name of other applicable compliance document, include correct Rule citation as outlined in permit)	☒	Pollutants tested (for each emission unit tested)
☒	Test location and type of process including source designators as outlined in permit	☒	Observers names including industry and agency observers
☒	Test date(s)	☒	Changes from test plan, problems experienced during test and any other relevant background information

Summary of Results: (see attached Table 1: Summary of Performance Test Results)

☒	Emission results expressed in the same units as the emission limits	☒	Description of collected samples
☒	Process data as related to determination of compliance (must include process rates, process parameters and pollution control equipment parameters that will be used to determine worst case operating conditions and pollution control equipment limitations during the test [see the relevant operator data forms at http://www.pca.state.mn.us/air/performancetest.html])	☒	Visible emissions summary if applicable
☒	Emission limits (as stated in your permit or applicable regulations) and applicable regulations citations as stated in your permit	☒	Discussion of errors, both real and apparent (If no errors occurred, verify by including statement)

Operating Parameters: (see the relevant operator data forms at http://www.pca.state.mn.us/air/performancetest.html)

*Note: *Readings of discrete data from monitoring instruments must be recorded at least every 15 minutes, or other reasonable time interval as approved, during the test and strip charts or retrieved electronic data from continuous monitors must be included in the test report.*

☒	Description of process and air pollution control devices including emission unit(s) tested (i.e. GP002, EU031, SV028, or CE001 – Identification of the tested unit which has the emission limit as designated by your permit [source designators])	☒	Process data and results, with example calculations (Process data must be collected and averaged for each test run and averaged for each series of tests for each unit tested. Process data must be displayed in the same units that were used to determine worst case operating conditions during the test. Process data must be easily understood by personnel not familiar with the process.)
☒	Process and control equipment flow diagrams	☒	Any specially required operation demonstrations

Maintenance:

☒	Description including dates of all maintenance and operational inspections, including major cleaning operations and replacement, repair, or modification of functional components of process or control equipment done in the month prior to the test (Include a statement if no maintenance was performed)

Sampling and Analysis Procedures:

☒	Sampling port location and dimensioned cross section showing all flow disturbances including fans, elbows, dampers, constrictions and pollution control equipment. Measurements should be included on diagram(s).	☒	Brief description of sampling procedures and analytical methods, with discussion of deviations from standard methods (include a statement if no deviations were made), including a statement of source methods used, but not including complete copies of reference methods
☒	Description of sampling point (including duct orientation, number of test ports, number of sampling points, distances to upstream and downstream flow disturbances)	☒	If a method other than a US EPA reference method was used: a statement of the detection limit and the level of accuracy of the method under the conditions of the test and at the concentration of air pollutant that is reported.
☒	Description of sampling train	☐	

Appendix:

☒	Complete results, including any fuel analysis, with example calculations, showing equations used and actual results in equation form on same or adjacent pages, using applicable equations shown in the reference method	☒	Test log (include test times, test interruptions and causes, and any other significant events related to the testing)

☒	Copies of raw field data	☒	Calibration procedures and results including pitot tube, nozzle, meter box, thermometer, barometer calibrations and any other equipment used to collect emissions samples. Instrument calibrations must be performed in accordance to the reference method used and calibration values must be displayed on the same data recorder from which emissions results are calculated.
☒	Laboratory report with chain of custody record	☒	Project participants and titles
☒	Raw production data, signed by plant official who can interpret, and be held accountable for the data	☒	A copy of the most recent version of the test plan and a copy of the commissioner's written approval of the test plan

Additional Information:

☒	Any other special requirement of the test method, test plan, applicable requirement or compliance document	☒	Any other information necessary to evaluate compliance with Minn R. 7017.2020 and 7017.2025 as requested by the commissioner.

REFERENCED TABLE

Table 1: Summary of Performance Test Results

1(a) Emission Unit Tested	1(b) Limitation Basis	1(c) Pollutant and Emission Limit	1(d) Test Result
EXAMPLE Boiler No. 3 (EU 042/ SV 440)	Minn. Stat. 116.07, subd. 4a	Particulate (B): 12 lbs/hour	Particulate (B): 4.1 lbs/hour
		VOC: 13 lbs/hour as carbon	VOC: 2.3 lbs/hour as carbon
	Title I Condition: 40 CFR § 52.21(j) (BACT limit); Minn. R. 7007.3000	Carbon Monoxide: 0.090 lbs/MMBtu	Carbon Monoxide: 0.00078 lbs/MMBtu
		Volatile Organic Compounds: 0.0090 lbs/MMBtu	Volatile Organic Compounds: 0.00050 lbs/MMBtu
	Title I Condition: 40 CFR § 52.21(k) (modeling); Minn. R. 7007.3000	Carbon Monoxide: 33.6 lbs/hour	Carbon Monoxide: 0.26 lbs/hour

Table References:
(A) Filterable particulate matter as determined by U.S. Environmental Protection Agency (EPA) Method 5.
(B) Filterable plus organic condensable particulate matter as determined by EPA Method 5 and Method 202/ Minn. R. 7011.0725.
(C) Particles with an aerodynamic diameter less than or equal to a nominal ten micrometers (PM_{10}) as determined by EPA Methods 5 and 202.

Instructions for Completing this Form:

1) Facility Name -- Enter your facility name.
2) AQ Facility ID No. -- Fill in your Air Quality Facility ID Number. This is the first eight digits of the permit number for all new permits issued under the new operating permit program. In the future, this number will replace the AQ File Number in item 3) below.
3) AQ File No. -- Fill in your AQ File Number. This is the first group of characters in your current Air Emission Facility Permit. For example, for permit number 1899AB-93-OT-1, the AQ Facility ID number would be 1899AB. Can be found in the upper right hand corner of the Test Plan Approval.
4) Facility Location -- Fill in the facility's street address and the city and county where the facility is located.
5) Date of Performance Test -- Enter the date of your performance test.
6) Facility Contact Person -- Fill in the contact information for the person that the MPCA may contact regarding this performance test.
7) Test Report Check List: This checklist is to ensure that your test submittal includes all of the required information.

Reference Table:

1) Summary of Performance Test Results:
   1a) Emission Unit Tested: As designated by permit (i.e. EU, SV, etc.)
   1b) Limitation Basis: All applicable rule citations from permit that apply to tested unit(s).
   1c) Pollutant and Emission Limit: Pollutant to be tested and emission limit as outlined in permit
   1d) Test Result: State test result.