Analytical Resources,Incorporated
Analytical Chemists and Consultants

05-10-11 (2)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC (Boat) INLET: Boat Sampler

Standards:	Source	Conc (ppm)
Calibration:	ARI 00115-7	5000
Verification:	ERA 05134-10-06	5000 tol 000 for CWS
SRM:	NIST 1941B	29900

10:02

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
SS93 B'	9.2	91.1	1.8			
B'	9.2	91.3	1.8			
B'	9.2	91.1	1.8			
MS B'	9.2	91.1	1.8	2500	10	No spike injected
CCV			40			
CCB			40			
SS93 MS B'	2.9	91.1	2.0	2500	10	
C'	~~12.0~~ 11.0	100.9	2.4			
D'	12.0	108.9	2.1			
E'			1.0			
F'			0.8			
G'			1.0			
H'			1.0			
I'			1.0			
J'			0.8			
K'			0.9			
CCV			40			
CCB			40			
SS93 L'			0.9			
M'			0.9			
N'			0.8			
O'			0.9			
P'			0.8			
NBS 1941B			2.8			
CCV			40			
CCB			40			
			5-10-11 (4)			

Detailed Analysis Report Print Date/Time: 2011/05/10 20:03:50

Sample ID: CVS BOAT 1000 | Mode: TOC
Method: Boat Sampler | Filename: 05100953
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 09:55
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	966.6596	38.6664	11968086	32.829	33.826	112

Sample ID: ICB BOAT | Mode: TOC
Method: Boat Sampler | Filename: 05100958
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 10:00
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	22.3562	0.8942	198613	32.189	33.182	54

Sample ID: NBS 1941B | Mode: TOC
Method: Boat Sampler | Filename: 05101004
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 10:08
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30133.4648	93.4137	29026894	31.999	32.999	179

Last Message: Over-range

Sample ID: SB 1 | Mode: TOC
Method: Boat Sampler | Filename: 05101030
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 10:38
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29.6808	1.5404	479986	32.768	33.765	80

Sample ID: SB 1 | Mode: TOC
Method: Boat Sampler | Filename: 05101051
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 10:53
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17.5395	0.8980	279816	34.802	35.796	60

Sample ID: SB 3 | Mode: TOC
Method: Boat Sampler | Filename: 05101100
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 11:02
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29.7204	1.7089	532486	35.202	36.185	62

Sample ID: SB 4 | Mode: TOC
Method: Boat Sampler | Filename: 05101118
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 11:20
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19.6998	1.0480	326557	33.895	34.882	59

Sample ID: SS83 O 16 | Mode: TOC
Method: Boat Sampler | Filename: 05101129
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 11:33
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5082.7671	20.8393	6493361	33.086	34.080	123

Sample ID: SS83 O 16 dup | Mode: TOC
Method: Boat Sampler | Filename: 05101136
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 11:39
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5567.5278	21.7134	6765697	33.049	34.048	106

Sample ID: SS83 O 16 TRIP | Mode: TOC
Method: Boat Sampler | Filename: 05101145
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 11:48
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4920.9351	20.6679	6439949	32.709	33.708	112

Sample ID: SS83 O 16 MS | Mode: TOC
Method: Boat Sampler | Filename: 05101152
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 11:55
Operator ID: TRINA | Sample Type: Sample

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Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9400.8135	38.5433	12009774	32.740	33.739	127

Sample ID: SS83 O 16 MS | Mode: TOC
Method: Boat Sampler | Filename: 05101201
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 12:04
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10064.8975	45.2920	14112612	32.853	33.850	135

Sample ID: CVS BOAT 1000 | Mode: TOC
Method: Boat Sampler | Filename: 05101211
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 12:15
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	924.6641	36.9866	11444669	32.475	33.474	133

Sample ID: ICB BOAT | Mode: TOC
Method: Boat Sampler | Filename: 05101217
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 12:19
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13.6639	0.5466	90274	32.463	33.452	48

Sample ID: SS83 A6 Mode: TOC
Method: Boat Sampler Filename: 05101223
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 12:26
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8430.7861	17.7047	5516618	32.551	33.542	117

Sample ID: SS83 B6 Mode: TOC
Method: Boat Sampler Filename: 05101234
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 12:38
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	70792.3359	77.8716	24264114	32.646	33.643	183

Last Message: Over-range

Sample ID: SS83 C6 Mode: TOC
Method: Boat Sampler Filename: 05101242
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 12:44
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5470.0811	13.6752	4261076	33.303	34.300	118

Sample ID: SS83 D6 Mode: TOC
Method: Boat Sampler Filename: 05101247
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 12:51
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20110.9531	26.1442	8146321	34.155	35.152	149

Sample ID: SS83 E6 Mode: TOC
Method: Boat Sampler Filename: 05101255
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 12:58
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6010.8452	20.4369	6367955	35.237	36.235	136

Sample ID: SS83 F6 Mode: TOC
Method: Boat Sampler Filename: 05101309
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 13:13
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5666.5576	27.7661	8651689	35.805	36.803	145

Sample ID: SS83 G6 Mode: TOC
Method: Boat Sampler Filename: 05101319
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 13:22
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	4903.3047	15.6906	4889049	35.259	36.255	107

Sample ID: SS83 H6 Mode: TOC
Method: Boat Sampler Filename: 05101325
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 13:29
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	99219.2344	89.2973	27824278	34.659	35.658	162

Last Message: Over-range

Sample ID: SS83 I 6 Mode: TOC
Method: Boat Sampler Filename: 05101350
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 13:53
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2529.0808	12.6454	3940200	33.219	34.216	96

Sample ID: SS83 J6 Mode: TOC
Method: Boat Sampler Filename: 05101400
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 14:04
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	82590.8281	82.5908	25734596	32.741	33.741	168

Last Message: Over-range

Sample ID: CVS BOAT 1000 Mode: TOC
Method: Boat Sampler Filename: 05101444
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 14:49
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	950.9727	38.0389	11772570	32.354	33.351	131

Sample ID: ICB BOAT Mode: TOC
Method: Boat Sampler Filename: 05101500
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 15:02
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28.4291	1.1372	274303	32.096	33.089	68

Sample ID: SS83 K6 Mode: TOC
Method: Boat Sampler Filename: 05101507
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 15:11
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	98220.9766	88.3989	27544332	32.172	33.172	181

Last Message: Over-range

Sample ID: SS83 L6 Mode: TOC
Method: Boat Sampler Filename: 05101516

Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Timestamp: 2011/05/10 15:19
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1645.5717	7.4051	2307357	32.530	33.524	101

Sample ID: SS83 M6
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101532
Timestamp: 2011/05/10 15:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12658.0469	18.9871	5916209	33.387	34.385	136

Sample ID: SS83 N6
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101541
Timestamp: 2011/05/10 15:45
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	54911.1992	60.4023	18820844	34.201	35.198	154

Sample ID: SS93 B1
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101547
Timestamp: 2011/05/10 15:52
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	62036.4805	86.8511	27062050	34.339	35.333	170

Last Message: Over-range

Sample ID: SS93 B1
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101603
Timestamp: 2011/05/10 16:08
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	79061.4141	102.7798	32025318	33.967	34.967	182

Last Message: Over-range

Sample ID: SS93 B1
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101641
Timestamp: 2011/05/10 16:44
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6766.4214	11.5029	3584210	32.516	33.512	90

Sample ID: SS93 B1 DUP
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101647
Timestamp: 2011/05/10 16:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8195.2500	14.7514	4596425	32.391	33.389	100

Sample ID: SS93 B1 TRIP | Mode: TOC
Method: Boat Sampler | Filename: 05101653
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 16:56
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5838.3950	10.5091	3274549	32.285	33.283	97

Sample ID: SS93 B1 ~~TRIP~~ MS | Mode: TOC
Method: Boat Sampler | Filename: 05101700
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 17:08
Operator ID: TRINA | Sample Type: Sample

NA No Spike injected 5-10-11

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6688.6377	12.0395	3751420	32.192	33.188	89

Sample ID: CVS BOAT 1000 | Mode: TOC
Method: Boat Sampler | Filename: 05101718
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 17:21
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	937.1154	37.4846	11599857	32.326	33.325	123

Sample ID: ICB BOAT | Mode: TOC
Method: Boat Sampler | Filename: 05101724
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 17:26
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11.9746	0.4790	69220	31.998	32.996	49

Sample ID: SS93 B1 MS | Mode: TOC
Method: Boat Sampler | Filename: 05101729
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 17:32
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19244.8750	38.4897	11993077	32.239	33.235	124

Sample ID: SS93 C1 | Mode: TOC
Method: Boat Sampler | Filename: 05101743
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 17:45
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6112.8765	14.6709	4571328	32.131	33.129	98

Sample ID: SS93 D1 | Mode: TOC
Method: Boat Sampler | Filename: 05101747
Cal. Curve: 041911 BOAT CAL | Timestamp: 2011/05/10 17:50
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7429.6494	15.6023	4861532	32.203	33.200	102

Sample ID: SS93 E1 Mode: TOC
Method: Boat Sampler Filename: 05101752
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 17:55
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	47875.6289	47.8756	14917636	32.452	33.450	157

Sample ID: SS93 F1 Mode: TOC
Method: Boat Sampler Filename: 05101757
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 18:01
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	64111.0898	51.2889	15981173	32.955	33.953	169

Sample ID: SS93 G1 Mode: TOC
Method: Boat Sampler Filename: 05101804
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 18:08
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	68985.0391	68.9850	21495148	33.806	34.806	199

Sample ID: SS93 H1 Mode: TOC
Method: Boat Sampler Filename: 05101811
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 18:15
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	54577.5352	54.5775	17005892	34.876	35.874	170

Sample ID: SS93 I 1 Mode: TOC
Method: Boat Sampler Filename: 05101817
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 18:21
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	55701.6875	55.7017	17356168	35.398	36.396	167

Sample ID: SS93 J1 Mode: TOC
Method: Boat Sampler Filename: 05101823
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 18:26
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	46957.6367	37.5661	11705278	35.484	36.480	135

Sample ID: SS93 K1 Mode: TOC
Method: Boat Sampler Filename: 05101829
Cal. Curve: 041911 BOAT CAL Timestamp: 2011/05/10 18:33
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	66713.2188	60.0419	18708540	35.322	36.318	151

Sample ID: CVS BOAT 1000 Mode: TOC

Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Filename: 05101837
Timestamp: 2011/05/10 18:42
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	974.2736	38.9709	12062984	34.884	35.880	121

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101844
Timestamp: 2011/05/10 18:47
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15.3022	0.6121	110693	34.030	35.015	52

Sample ID: SS93 L1
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101852
Timestamp: 2011/05/10 18:57
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	75505.4062	67.9549	21174154	33.359	34.357	160

Sample ID: SS93 M1
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101903
Timestamp: 2011/05/10 19:07
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	51437.8633	46.2941	14424838	33.201	34.199	156

Sample ID: SS93 N1
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101915
Timestamp: 2011/05/10 19:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	44519.0469	35.6152	11097403	33.713	34.709	148

Sample ID: SS93 O1
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101921
Timestamp: 2011/05/10 19:25
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	75880.6016	68.2925	21279372	34.286	35.282	170

Sample ID: SS93 P1
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101931
Timestamp: 2011/05/10 19:34
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	72354.8594	57.8839	18036124	34.699	35.697	158

Sample ID: NBS 1941B
Method: Boat Sampler
Mode: TOC
Filename: 05101938

Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Timestamp: 2011/05/10 19:42
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25795.3223	72.2269	22425256	34.513	35.512	165

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101945
Timestamp: 2011/05/10 19:48
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	929.6682	37.1867	11507038	34.589	35.588	121

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05101950
Timestamp: 2011/05/10 19:53
Sample Type: Cal. Verification

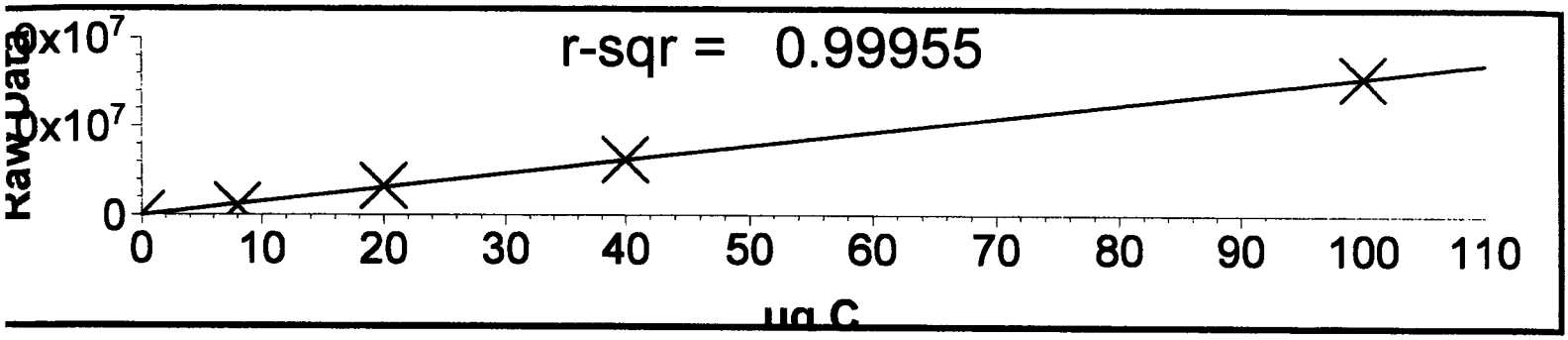
Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9.3048	0.3722	35944	34.011	33.899	120

Last Message: Low Sample Detected

Calibration Report Print Date/Time: 2011/04/19 18:22:42

Cal. Curve ID: 041911 BOAT CAL
Created: 2011/04/19 18:06
Calibration Factor (m): 3.116e+05
Y Intercept (b): -80028
r-squared: 0.99955

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI WATEER	30053	0.000	0.353	Low Sample De	2011/04/19 16:52
200 PPM	1996979	8.000	6.666		2011/04/19 16:57
500 PPM	6459582	20.000	20.988		2011/04/19 17:12
1000 PPM	12427234	40.000	40.140		2011/04/19 17:33
2500 PPM	31033376	100.000	99.853	Over-range	2011/04/19 17:52


r-sqr = 0.99955
Raw Data
2x10^7
1x10^7
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Detailed Analysis Report Print Date/Time: 2011/04/19 18:28:27

Sample ID: DI WATEER
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04191649
Timestamp: 2011/04/19 16:52
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			30053	49.055	49.144	120

Last Message: Low Sample Detected

Sample ID: 200 PPM
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04191655
Timestamp: 2011/04/19 16:57
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1996979	49.493	50.490	67

Sample ID: 500 PPM
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04191701
Timestamp: 2011/04/19 17:05
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			4483189	49.954	50.952	96

Sample ID: 500 PPM
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04191707
Timestamp: 2011/04/19 17:12
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			6459582	50.297	51.297	132

Sample ID: 500 PPM
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04191720
Timestamp: 2011/04/19 17:23
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			6064090	50.604	51.603	115

Sample ID: 1000 PPM
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04191730
Timestamp: 2011/04/19 17:33
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			12427234	50.569	51.567	154

Sample ID: 1000 PPM
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04191740
Timestamp: 2011/04/19 17:44
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1		12531159	50.184	51.182	164

Sample ID: 2500 PPM
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04191748
Timestamp: 2011/04/19 17:52
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			31033376	50.475	51.469	190

Last Message: Over-range

Sample ID: 2500 PPM
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04191758
Timestamp: 2011/04/19 18:04
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			31980592	49.823	50.820	230

Last Message: Over-range

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 041911 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04191817
Timestamp: 2011/04/19 18:21
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1072.8492	42.9140	13291597	50.282	51.281	156

FRONTIER
ANALYTICAL LABORATORY

May 13, 2011

Ms. Sue Dunnihoo
Analytical Resources Incorporated
4611 South 134th Place
Tukwila, WA 98168-3240

Dear Ms. Dunnihoo,

Enclosed are the results for Frontier Analytical Laboratory project **6735**. This corresponds to your **Lora Lake Parcel:DMA** project under ARI project number **SS83**. A total of fifteen soil samples were received on 4/22/2011 in good condition. Per your request, a matrix spike and matrix spike duplicate (MS/MSD) were analyzed on sample 6735-015-SA (ARI ID: DMA-TP3-5-6-042011). All samples were extracted and analyzed by EPA Method 1613 for tetra through octa chlorinated dibenzo dioxins and furans. The 2005 World Health Organizations toxic equivalency factors (TEFs) were used to calculate the toxic equivalents (TEQ) on your report. Analytical Resources Incorporated requested a Level IV data package and a turnaround time of fifteen business days for project **6735**.

Please note that due to high levels of OCDD, the extracts from samples 6735-008-SA, 6735-010-SA, 6735-011-0SA, and 6735-014-SA (ARI Sample IDs: DMA-TP4-0-1.5-042011, DMA-TP5-1.5-2-042011, DMA-TP5-1.5-2-042011-D, and DMA-TP3-3-4-042011 respectively) were diluted and reanalyzed. The results taken from the analysis of the diluted extracts have been identified with a "*" qualifier on their corresponding data sheets.

The following Level IV report consists of an Analytical Data section, a Sample Receipt section, a Laboratory Raw Data section, and an Instrument Raw Data section. The Analytical Data section contains our project-sample tracking log and the analytical results. The Sample Receipt section contains your chain of custodies, our sample login form and the sample photos. The Laboratory Raw Data section contains our project request sheet, a percent solids sheet, an extraction bench sheet and the cleanup bench sheet. The instrument raw data section contains three sub-sections; the sample results section, the initial calibration section and the continuing/ending calibration section. The sample results sub-section consists of the quantitation summary forms with chromatograms for all samples and QC. The initial calibration sub-section consists of the individual quantitation summary forms and chromatograms for each point of the initial calibration curve as well as an overall quantitation summary form of the initial calibration curve. The continuing/ending calibration sub-section consists of the quantitation summary forms and chromatograms for all beginning and ending calibration injections associated with the samples and QC. You also requested Electronic Data Deliverables (EDD) for this project. The EDD and Level I summary have been sent to you via email. The Level IV report has been sent to you on compact disk. A hardcopy of the data package will not be forwarded unless specifically requested. The attached results are specifically for the samples referenced in this report only. These results meet all NELAC requirements and shall not be reproduced except in full.

If you have any questions regarding project **6735**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Bradley B. Silverbush
Director of Operations

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **6735**

Received on: **04/22/2011** Project Due: **05/16/2011** Storage: **R2**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
6735-001-SA	0	SS83	DMA-TP1-0-3-041911	EPA 1613 D/F	Soil	04/19/2011	11:00 am	04/18/2012
6735-002-SA	0	SS83	DMA-TP1-3-4.5-041911	EPA 1613 D/F	Soil	04/19/2011	10:50 am	04/18/2012
6735-003-SA	0	SS83	DMA-TP1-4.5-5.5-041911	EPA 1613 D/F	Soil	04/19/2011	10:25 am	04/18/2012
6735-004-SA	0	SS83	DMA-TP2-1.5-3-041911	EPA 1613 D/F	Soil	04/19/2011	12:05 pm	04/18/2012
6735-005-SA	0	SS83	DMA-TP2-3-4-041911	EPA 1613 D/F	Soil	04/19/2011	12:00 pm	04/18/2012
6735-006-SA	0	SS83	DMA-TP6-0-2.5-041911	EPA 1613 D/F	Soil	04/19/2011	03:10 pm	04/18/2012
6735-007-SA	0	SS83	DMA-TP6-2.5-5-041911	EPA 1613 D/F	Soil	04/19/2011	03:05 pm	04/18/2012
6735-008-SA	0	SS83	DMA-TP4-0-1.5-042011	EPA 1613 D/F	Soil	04/20/2011	08:15 am	04/19/2012
6735-009-SA	0	SS83	DMA-TP4-1.5-2-042011	EPA 1613 D/F	Soil	04/20/2011	08:20 am	04/19/2012
6735-010-SA	0	SS83	DMA-TP5-1.5-2-042011	EPA 1613 D/F	Soil	04/20/2011	09:15 am	04/19/2012
6735-011-SA	0	SS83	DMA-TP5-1.5-2-042011-D	EPA 1613 D/F	Soil	04/20/2011	09:20 am	04/19/2012
6735-012-SA	0	SS83	DMA-TP5-2-3-042011	EPA 1613 D/F	Soil	04/20/2011	09:25 am	04/19/2012
6735-013-SA	0	SS83	DMA-TP3-2-3-042011	EPA 1613 D/F	Soil	04/20/2011	10:35 am	04/19/2012
6735-014-SA	0	SS83	DMA-TP3-3-4-042011	EPA 1613 D/F	Soil	04/20/2011	10:40 am	04/19/2012
6735-015-SA	0	SS83	DMA-TP3-5-6-042011	EPA 1613 D/F	Soil	04/20/2011	10:45 am	04/19/2012
6735-015-MS	0	SS83	DMA-TP3-5-6-042011	EPA 1613 D/F	Soil	04/20/2011	10:45 am	04/19/2012
6735-015-MSD	0	SS83	DMA-TP3-5-6-042011	EPA 1613 D/F	Soil	04/20/2011	10:45 am	04/19/2012

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-001-MB
Client ID: Method Blank
Matrix: Soil
Batch No: X2286

Date Extracted: 05-06-2011
Date Received: NA
Amount: 5.00 g

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-10-2011
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.148		-	0.0259				
1,2,3,7,8-PeCDD	ND	0.203		-	0.0434				
1,2,3,4,7,8-HxCDD	ND	0.188		-	0.0467				
1,2,3,6,7,8-HxCDD	ND	0.247		-	0.0587	Total TCDD	ND	0.148	
1,2,3,7,8,9-HxCDD	ND	0.212		-	0.0529	Total PeCDD	ND	0.203	
1,2,3,4,6,7,8-HpCDD	ND	0.238		-	0.0742	Total HxCDD	ND	0.247	
OCDD	ND	0.827		-	0.144	Total HpCDD	ND	0.238	
2,3,7,8-TCDF	ND	0.121		-	0.0200				
1,2,3,7,8-PeCDF	ND	0.158		-	0.0304				
2,3,4,7,8-PeCDF	ND	0.164		-	0.0322				
1,2,3,4,7,8-HxCDF	ND	0.146		-	0.0365				
1,2,3,6,7,8-HxCDF	ND	0.151		-	0.0357				
2,3,4,6,7,8-HxCDF	ND	0.157		-	0.0399				
1,2,3,7,8,9-HxCDF	ND	0.137		-	0.0386	Total TCDF	ND	0.121	
1,2,3,4,6,7,8-HpCDF	ND	0.161		-	0.0393	Total PeCDF	ND	0.164	
1,2,3,4,7,8,9-HpCDF	ND	0.186		-	0.0418	Total HxCDF	ND	0.157	
OCDF	ND	0.392		-	0.105	Total HpCDF	ND	0.186	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	93.5	25.0 - 164	
13C-1,2,3,7,8-PeCDD	90.0	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	87.6	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	95.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	107	23.0 - 140	
13C-OCDD	78.8	17.0 - 157	
13C-2,3,7,8-TCDF	98.2	24.0 - 169	
13C-1,2,3,7,8-PeCDF	108	24.0 - 185	
13C-2,3,4,7,8-PeCDF	105	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	92.7	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	89.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	90.6	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	95.4	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	105	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	127	26.0 - 138	
13C-OCDF	83.1	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	85.6	35.0 - 197	

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

Analyst: [signature]
Date: 5/12/11

Reviewed By: DPJ
Date: 5/12/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-001-OPR
Client ID: OPR
Matrix: Soil
Batch No: X2286

Date Extracted: 05-06-2011
Date Received: NA
Amount: 5.00 g

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: ng/ml

Acquired: 05-10-2011
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	10.5	6.70 - 15.8	
1,2,3,7,8-PeCDD	55.8	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	52.9	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	54.2	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	51.3	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	54.6	35.0 - 70.0	
OCDD	109	78.0 - 144	
2,3,7,8-TCDF	12.2	7.50 - 15.8	
1,2,3,7,8-PeCDF	54.2	40.0 - 67.0	
2,3,4,7,8-PeCDF	54.3	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	51.9	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	52.2	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	51.0	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	51.8	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	51.5	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	53.3	39.0 - 69.0	
OCDF	105	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	94.8	20.0 - 175	
13C-1,2,3,7,8-PeCDD	87.1	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	95.6	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	101	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	108	26.0 - 166	
13C-OCDD	69.8	13.0 - 198	
13C-2,3,7,8-TCDF	98.4	22.0 - 152	
13C-1,2,3,7,8-PeCDF	105	21.0 - 192	
13C-2,3,4,7,8-PeCDF	98.3	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	101	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	100	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	90.2	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	95.6	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	107	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	119	20.0 - 186	
13C-OCDF	76.5	13.0 - 198	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	87.6	31.0 - 191	

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

Analyst: _____
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-001-MB
Client ID: Method Blank
Matrix: Soil
Batch No: X2287

Date Extracted: 05-09-2011
Date Received: NA
Amount: 5.00 g

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-11-2011
2005 WHO TEQ: 0.00

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.118		-	0.0259				
1,2,3,7,8-PeCDD	ND	0.158		-	0.0434				
1,2,3,4,7,8-HxCDD	ND	0.229		-	0.0467				
1,2,3,6,7,8-HxCDD	ND	0.300		-	0.0587	Total TCDD	ND	0.118	
1,2,3,7,8,9-HxCDD	ND	0.258		-	0.0529	Total PeCDD	ND	0.158	
1,2,3,4,6,7,8-HpCDD	ND	0.359		-	0.0742	Total HxCDD	ND	0.300	
OCDD	ND	0.834		-	0.144	Total HpCDD	ND	0.359	
2,3,7,8-TCDF	ND	0.103		-	0.0200				
1,2,3,7,8-PeCDF	ND	0.116		-	0.0304				
2,3,4,7,8-PeCDF	ND	0.122		-	0.0322				
1,2,3,4,7,8-HxCDF	ND	0.108		-	0.0365				
1,2,3,6,7,8-HxCDF	ND	0.109		-	0.0357				
2,3,4,6,7,8-HxCDF	ND	0.113		-	0.0399				
1,2,3,7,8,9-HxCDF	ND	0.108		-	0.0386	Total TCDF	ND	0.103	
1,2,3,4,6,7,8-HpCDF	ND	0.146		-	0.0393	Total PeCDF	ND	0.122	
1,2,3,4,7,8,9-HpCDF	ND	0.201		-	0.0418	Total HxCDF	ND	0.113	
OCDF	ND	0.403		-	0.105	Total HpCDF	ND	0.201	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	96.6	25.0 - 164	
13C-1,2,3,7,8-PeCDD	94.3	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	93.6	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	98.8	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	113	23.0 - 140	
13C-OCDD	103	17.0 - 157	
13C-2,3,7,8-TCDF	97.9	24.0 - 169	
13C-1,2,3,7,8-PeCDF	112	24.0 - 185	
13C-2,3,4,7,8-PeCDF	111	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	98.2	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	97.5	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	97.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	94.6	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	112	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	113	26.0 - 138	
13C-OCDF	99.0	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	90.6	35.0 - 197	

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

Analyst: _____
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-001-OPR
Client ID: OPR
Matrix: Soil
Batch No: X2287

Date Extracted: 05-09-2011
Date Received: NA
Amount: 5.00 g

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: ng/ml

Acquired: 05-11-2011
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	10.3	6.70 - 15.8	
1,2,3,7,8-PeCDD	54.5	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	50.6	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	52.9	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	53.4	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	52.1	35.0 - 70.0	
OCDD	104	78.0 - 144	
2,3,7,8-TCDF	11.8	7.50 - 15.8	
1,2,3,7,8-PeCDF	52.2	40.0 - 67.0	
2,3,4,7,8-PeCDF	52.4	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	50.5	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	50.4	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	49.5	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	51.2	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	49.9	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	51.0	39.0 - 69.0	
OCDF	101	63.0 - 170	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	93.7	20.0 - 175	
13C-1,2,3,7,8-PeCDD	90.4	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	86.0	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	88.2	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	107	26.0 - 166	
13C-OCDD	99.4	13.0 - 198	
13C-2,3,7,8-TCDF	97.6	22.0 - 152	
13C-1,2,3,7,8-PeCDF	108	21.0 - 192	
13C-2,3,4,7,8-PeCDF	107	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	88.3	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	89.3	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	90.1	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	90.2	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	105	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	107	20.0 - 186	
13C-OCDF	95.7	13.0 - 198	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	85.2	31.0 - 191	

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

Analyst: _____
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-001-SA
Client ID: DMA-TP1-0-3-041911
Matrix: Soil
Batch No: X2286

Date Extracted: 05-06-2011
Date Received: 04-22-2011
Amount: 5.01 g
% Solids: 84.53

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-10-2011
2005 WHO TEQ: 0.867

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.112		-	0.0259				
1,2,3,7,8-PeCDD	0.288	-	J	0.288	0.0434				
1,2,3,4,7,8-HxCDD	0.253	-	J	0.0253	0.0467				
1,2,3,6,7,8-HxCDD	0.641	-	J	0.0641	0.0587	Total TCDD	2.60	-	
1,2,3,7,8,9-HxCDD	0.413	-	J	0.0413	0.0529	Total PeCDD	4.39	-	J
1,2,3,4,6,7,8-HpCDD	10.2	-		0.102	0.0742	Total HxCDD	6.50	-	
OCDD	73.5	-		0.0220	0.144	Total HpCDD	19.7	-	
2,3,7,8-TCDF	0.675	-	J	0.0675	0.0200				
1,2,3,7,8-PeCDF	0.313	-	J	0.00939	0.0304				
2,3,4,7,8-PeCDF	0.308	-	J	0.0924	0.0322				
1,2,3,4,7,8-HxCDF	0.316	-	J	0.0316	0.0365				
1,2,3,6,7,8-HxCDF	0.256	-	J	0.0256	0.0357				
2,3,4,6,7,8-HxCDF	0.442	-	J	0.0442	0.0399				
1,2,3,7,8,9-HxCDF	ND	0.0762		-	0.0386	Total TCDF	10.6	-	
1,2,3,4,6,7,8-HpCDF	4.50	-	J	0.0450	0.0393	Total PeCDF	6.10	-	
1,2,3,4,7,8,9-HpCDF	0.394	-	J	0.00394	0.0418	Total HxCDF	6.36	-	
OCDF	15.5	-		0.00465	0.105	Total HpCDF	17.1	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	102	25.0 - 164	
13C-1,2,3,7,8-PeCDD	101	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	95.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	102	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	113	23.0 - 140	
13C-OCDD	83.5	17.0 - 157	
13C-2,3,7,8-TCDF	109	24.0 - 169	
13C-1,2,3,7,8-PeCDF	125	24.0 - 185	
13C-2,3,4,7,8-PeCDF	119	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	104	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	100	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	94.3	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	99.4	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	112	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	130	26.0 - 138	
13C-OCDF	89.5	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	94.4	35.0 - 197	

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

Analyst: _____
Date: 5/12/11

Reviewed By: DW
Date: 5/12/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-002-SA
Client ID: DMA-TP1-3-4.5-041911
Matrix: Soil
Batch No: X2286

Date Extracted: 05-06-2011
Date Received: 04-22-2011
Amount: 5.01 g
% Solids: 68.25

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-10-2011
2005 WHO TEQ: 4.94

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	0.480	-	J	0.480	0.0259				
1,2,3,7,8-PeCDD	0.861	-	J	0.861	0.0434				
1,2,3,4,7,8-HxCDD	1.51	-	J	0.151	0.0467				
1,2,3,6,7,8-HxCDD	5.37	-		0.537	0.0587	Total TCDD	4.01	-	
1,2,3,7,8,9-HxCDD	2.93	-	J	0.293	0.0529	Total PeCDD	15.5	-	
1,2,3,4,6,7,8-HpCDD	119	-		1.19	0.0742	Total HxCDD	43.3	-	
OCDD	945	-		0.284	0.144	Total HpCDD	229	-	
2,3,7,8-TCDF	0.880	-	J	0.0880	0.0200				
1,2,3,7,8-PeCDF	0.498	-	J	0.0149	0.0304				
2,3,4,7,8-PeCDF	0.615	-	J	0.184	0.0322				
1,2,3,4,7,8-HxCDF	2.16	-	J	0.216	0.0365				
1,2,3,6,7,8-HxCDF	1.17	-	J	0.117	0.0357				
2,3,4,6,7,8-HxCDF	1.65	-	J	0.165	0.0399				
1,2,3,7,8,9-HxCDF	0.344	-	J	0.0344	0.0386	Total TCDF	15.4	-	
1,2,3,4,6,7,8-HpCDF	28.7	-		0.287	0.0393	Total PeCDF	15.6	-	
1,2,3,4,7,8,9-HpCDF	1.66	-	J	0.0166	0.0418	Total HxCDF	32.7	-	
OCDF	76.0	-		0.0228	0.105	Total HpCDF	78.1	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	102	25.0 - 164	
13C-1,2,3,7,8-PeCDD	102	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	95.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	102	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	121	23.0 - 140	
13C-OCDD	102	17.0 - 157	
13C-2,3,7,8-TCDF	104	24.0 - 169	
13C-1,2,3,7,8-PeCDF	122	24.0 - 185	
13C-2,3,4,7,8-PeCDF	119	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	100	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	98.6	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	99.0	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	104	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	121	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	138	26.0 - 138	
13C-OCDF	101	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	93.8	35.0 - 197	

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

Analyst: _____
Date: 5/12/11

Reviewed By: DPJ
Date: 5/12/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-003-SA
Client ID: DMA-TP1-4.5-5.5-041911
Matrix: Soil
Batch No: X2286

Date Extracted: 05-06-2011
Date Received: 04-22-2011
Amount: 5.00 g
% Solids: 77.59

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-10-2011
2005 WHO TEQ: 4.15

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	0.380	-	J	0.380	0.0259				
1,2,3,7,8-PeCDD	0.678	-	J	0.678	0.0434				
1,2,3,4,7,8-HxCDD	1.01	-	J	0.101	0.0467				
1,2,3,6,7,8-HxCDD	5.04	-		0.504	0.0587	Total TCDD	1.91	-	
1,2,3,7,8,9-HxCDD	2.05	-	J	0.205	0.0529	Total PeCDD	5.41	-	
1,2,3,4,6,7,8-HpCDD	109	-		1.09	0.0742	Total HxCDD	29.5	-	
OCDD	984	-		0.295	0.144	Total HpCDD	208	-	
2,3,7,8-TCDF	0.330	-	J	0.0330	0.0200				
1,2,3,7,8-PeCDF	0.259	-	J	0.00777	0.0304				
2,3,4,7,8-PeCDF	0.366	-	J	0.110	0.0322				
1,2,3,4,7,8-HxCDF	2.17	-	J	0.217	0.0365				
1,2,3,6,7,8-HxCDF	0.784	-	J	0.0784	0.0357				
2,3,4,6,7,8-HxCDF	1.30	-	J	0.130	0.0399				
1,2,3,7,8,9-HxCDF	0.331	-	J	0.0331	0.0386	Total TCDF	6.15	-	
1,2,3,4,6,7,8-HpCDF	25.2	-		0.252	0.0393	Total PeCDF	11.0	-	
1,2,3,4,7,8,9-HpCDF	1.73	-	J	0.0173	0.0418	Total HxCDF	33.2	-	
OCDF	73.2	-		0.0220	0.105	Total HpCDF	78.1	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	98.8	25.0 - 164	
13C-1,2,3,7,8-PeCDD	96.0	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	98.6	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	103	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	121	23.0 - 140	
13C-OCDD	93.6	17.0 - 157	
13C-2,3,7,8-TCDF	101	24.0 - 169	
13C-1,2,3,7,8-PeCDF	118	24.0 - 185	
13C-2,3,4,7,8-PeCDF	111	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	104	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	101	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	95.7	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	102	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	124	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	134	26.0 - 138	
13C-OCDF	96.4	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	90.4	35.0 - 197	

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

Analyst: _____
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-004-SA
Client ID: DMA-TP2-1.5-3-041911
Matrix: Soil
Batch No: X2286

Date Extracted: 05-06-2011
Date Received: 04-22-2011
Amount: 5.02 g
% Solids: 67.54

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-10-2011
2005 WHO TEQ: 7.08

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	0.726	-	J	0.726	0.0259				
1,2,3,7,8-PeCDD	1.00	-	J	1.00	0.0434				
1,2,3,4,7,8-HxCDD	2.09	-	J	0.209	0.0467				
1,2,3,6,7,8-HxCDD	8.29	-		0.829	0.0587	Total TCDD	5.17	-	
1,2,3,7,8,9-HxCDD	3.92	-	J	0.392	0.0529	Total PeCDD	20.4	-	
1,2,3,4,6,7,8-HpCDD	187	-		1.87	0.0742	Total HxCDD	66.5	-	
OCDD	1680	-		0.504	0.144	Total HpCDD	375	-	
2,3,7,8-TCDF	0.819	-	J	0.0819	0.0200				
1,2,3,7,8-PeCDF	0.461	-	J	0.0138	0.0304				
2,3,4,7,8-PeCDF	0.668	-	J	0.200	0.0322				
1,2,3,4,7,8-HxCDF	3.14	-	J	0.314	0.0365				
1,2,3,6,7,8-HxCDF	1.62	-	J	0.162	0.0357				
2,3,4,6,7,8-HxCDF	2.44	-	J	0.244	0.0399				
1,2,3,7,8,9-HxCDF	0.401	-	J	0.0401	0.0386	Total TCDF	16.3	-	
1,2,3,4,6,7,8-HpCDF	43.7	-		0.437	0.0393	Total PeCDF	21.1	-	
1,2,3,4,7,8,9-HpCDF	2.31	-	J	0.0231	0.0418	Total HxCDF	51.9	-	
OCDF	123	-		0.0369	0.105	Total HpCDF	122	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	96.7	25.0 - 164	
13C-1,2,3,7,8-PeCDD	95.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	94.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	98.8	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	116	23.0 - 140	
13C-OCDD	95.5	17.0 - 157	
13C-2,3,7,8-TCDF	101	24.0 - 169	
13C-1,2,3,7,8-PeCDF	117	24.0 - 185	
13C-2,3,4,7,8-PeCDF	112	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	101	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	96.5	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	93.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	97.9	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	113	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	134	26.0 - 138	
13C-OCDF	94.5	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	89.1	35.0 - 197	

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

Analyst: [signature]
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-005-SA
Client ID: DMA-TP2-3-4-041911
Matrix: Soil
Batch No: X2286

Date Extracted: 05-06-2011
Date Received: 04-22-2011
Amount: 5.03 g
% Solids: 76.62

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-10-2011
2005 WHO TEQ: 0.0179

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.128		-	0.0259				
1,2,3,7,8-PeCDD	ND	0.219		-	0.0434				
1,2,3,4,7,8-HxCDD	ND	0.210		-	0.0467				
1,2,3,6,7,8-HxCDD	ND	0.271		-	0.0587	Total TCDD	0.403	-	J
1,2,3,7,8,9-HxCDD	ND	0.234		-	0.0529	Total PeCDD	ND	0.219	
1,2,3,4,6,7,8-HpCDD	1.26	-	J	0.0126	0.0742	Total HxCDD	0.542	-	J
OCDD	8.68	-	J	0.00260	0.144	Total HpCDD	2.72	-	J
2,3,7,8-TCDF	ND	0.113		-	0.0200				
1,2,3,7,8-PeCDF	ND	0.141		-	0.0304				
2,3,4,7,8-PeCDF	ND	0.154		-	0.0322				
1,2,3,4,7,8-HxCDF	ND	0.123		-	0.0365				
1,2,3,6,7,8-HxCDF	ND	0.123		-	0.0357				
2,3,4,6,7,8-HxCDF	ND	0.127		-	0.0399				
1,2,3,7,8,9-HxCDF	ND	0.115		-	0.0386	Total TCDF	ND	0.113	
1,2,3,4,6,7,8-HpCDF	0.251	-	J	0.00251	0.0393	Total PeCDF	ND	0.154	
1,2,3,4,7,8,9-HpCDF	ND	0.166		-	0.0418	Total HxCDF	ND	0.127	
OCDF	0.522	-	J	0.000157	0.105	Total HpCDF	0.576	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	96.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	94.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	94.3	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	97.7	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	115	23.0 - 140	
13C-OCDD	91.6	17.0 - 157	
13C-2,3,7,8-TCDF	103	24.0 - 169	
13C-1,2,3,7,8-PeCDF	118	24.0 - 185	
13C-2,3,4,7,8-PeCDF	115	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	100	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	96.9	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	97.5	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	99.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	114	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	133	26.0 - 138	
13C-OCDF	94.0	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	93.5	35.0 - 197	

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

Analyst: [signature]
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-006-SA
Client ID: DMA-TP6-0-2.5-041911
Matrix: Soil
Batch No: X2286

Date Extracted: 05-06-2011
Date Received: 04-22-2011
Amount: 5.00 g
% Solids: 75.51

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-10-2011
2005 WHO TEQ: 0.829

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.115		-	0.0259				
1,2,3,7,8-PeCDD	0.224	-	J	0.224	0.0434				
1,2,3,4,7,8-HxCDD	0.214	-	J	0.0214	0.0467				
1,2,3,6,7,8-HxCDD	0.667	-	J	0.0667	0.0587	Total TCDD	1.88	-	
1,2,3,7,8,9-HxCDD	0.456	-	J	0.0456	0.0529	Total PeCDD	3.31	-	J
1,2,3,4,6,7,8-HpCDD	11.1	-		0.111	0.0742	Total HxCDD	6.34	-	
OCDD	72.1	-		0.0216	0.144	Total HpCDD	20.9	-	
2,3,7,8-TCDF	0.488	-	J	0.0488	0.0200				
1,2,3,7,8-PeCDF	0.239	-	J	0.00717	0.0304				
2,3,4,7,8-PeCDF	0.383	-	J	0.115	0.0322				
1,2,3,4,7,8-HxCDF	0.635	-	J	0.0635	0.0365				
1,2,3,6,7,8-HxCDF	0.278	-	J	0.0278	0.0357				
2,3,4,6,7,8-HxCDF	0.348	-	J	0.0348	0.0399				
1,2,3,7,8,9-HxCDF	0.145	-	J	0.0145	0.0386	Total TCDF	8.94	-	
1,2,3,4,6,7,8-HpCDF	2.30	-	J	0.0230	0.0393	Total PeCDF	6.45	-	
1,2,3,4,7,8,9-HpCDF	0.309	-	J	0.00309	0.0418	Total HxCDF	5.50	-	
OCDF	4.56	-	J	0.00137	0.105	Total HpCDF	6.39	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	99.7	25.0 - 164	
13C-1,2,3,7,8-PeCDD	99.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	93.6	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	98.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	122	23.0 - 140	
13C-OCDD	103	17.0 - 157	
13C-2,3,7,8-TCDF	104	24.0 - 169	
13C-1,2,3,7,8-PeCDF	121	24.0 - 185	
13C-2,3,4,7,8-PeCDF	120	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	101	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	95.2	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	96.3	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	102	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	117	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	137	26.0 - 138	
13C-OCDF	103	17.0 - 157	

Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	95.6	35.0 - 197

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

Analyst: [signature]
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-007-SA
Client ID: DMA-TP6-2.5-5-041911
Matrix: Soil
Batch No: X2286

Date Extracted: 05-06-2011
Date Received: 04-22-2011
Amount: 5.06 g
% Solids: 78.68

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-10-2011
2005 WHO TEQ: 0.631

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.158		-	0.0259				
1,2,3,7,8-PeCDD	ND	0.187		-	0.0434				
1,2,3,4,7,8-HxCDD	ND	0.167		-	0.0467				
1,2,3,6,7,8-HxCDD	0.672	-	J	0.0672	0.0587	Total TCDD	1.62	-	
1,2,3,7,8,9-HxCDD	0.436	-	J	0.0436	0.0529	Total PeCDD	1.94	-	J
1,2,3,4,6,7,8-HpCDD	11.8	-		0.118	0.0742	Total HxCDD	5.55	-	
OCDD	79.4	-		0.0238	0.144	Total HpCDD	22.5	-	
2,3,7,8-TCDF	0.420	-	J	0.0420	0.0200				
1,2,3,7,8-PeCDF	ND	0.166		-	0.0304				
2,3,4,7,8-PeCDF	0.357	-	J	0.107	0.0322				
1,2,3,4,7,8-HxCDF	1.02	-	J	0.102	0.0365				
1,2,3,6,7,8-HxCDF	0.306	-	J	0.0306	0.0357				
2,3,4,6,7,8-HxCDF	0.461	-	J	0.0461	0.0399				
1,2,3,7,8,9-HxCDF	0.174	-	J	0.0174	0.0386	Total TCDF	6.93	-	
1,2,3,4,6,7,8-HpCDF	2.74	-	J	0.0274	0.0393	Total PeCDF	5.17	-	
1,2,3,4,7,8,9-HpCDF	0.450	-	J	0.00450	0.0418	Total HxCDF	8.18	-	
OCDF	4.80	-	J	0.00144	0.105	Total HpCDF	8.23	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	95.3	25.0 - 164	
13C-1,2,3,7,8-PeCDD	91.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	89.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	96.5	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	113	23.0 - 140	
13C-OCDD	91.7	17.0 - 157	
13C-2,3,7,8-TCDF	100	24.0 - 169	
13C-1,2,3,7,8-PeCDF	113	24.0 - 185	
13C-2,3,4,7,8-PeCDF	109	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	97.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	94.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	93.7	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	97.8	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	114	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	128	26.0 - 138	
13C-OCDF	93.0	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	93.0	35.0 - 197	

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

Analyst: [signature]
Date: 5/12/11

Reviewed By: DPJ
Date: 5/12/11

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-008-SA
Client ID: DMA-TP4-0-1.5-042011
Matrix: Soil
Batch No: X2286

Date Extracted: 05-06-2011
Date Received: 04-22-2011
Amount: 4.99 g
% Solids: 27.31

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-10-2011
2005 WHO TEQ: 64.5

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	5.61	-		5.61	0.0259				
1,2,3,7,8-PeCDD	9.00	-		9.00	0.0434				
1,2,3,4,7,8-HxCDD	18.2	-		1.82	0.0467				
1,2,3,6,7,8-HxCDD	72.5	-		7.25	0.0587	Total TCDD	47.3	-	
1,2,3,7,8,9-HxCDD	35.1	-		3.51	0.0529	Total PeCDD	180	-	
1,2,3,4,6,7,8-HpCDD	1820	-		18.2	0.0742	Total HxCDD	582	-	
OCDD	16800	-	*	5.04	0.144	Total HpCDD	3470	-	
2,3,7,8-TCDF	5.48	-	F	0.548	0.0200				
1,2,3,7,8-PeCDF	4.44	-	J	0.133	0.0304				
2,3,4,7,8-PeCDF	7.17	-		2.15	0.0322				
1,2,3,4,7,8-HxCDF	27.5	-		2.75	0.0365				
1,2,3,6,7,8-HxCDF	13.7	-		1.37	0.0357				
2,3,4,6,7,8-HxCDF	20.4	-		2.04	0.0399				
1,2,3,7,8,9-HxCDF	3.41	-	J	0.341	0.0386	Total TCDF	133	-	
1,2,3,4,6,7,8-HpCDF	412	-		4.12	0.0393	Total PeCDF	150	-	
1,2,3,4,7,8,9-HpCDF	23.1	-		0.231	0.0418	Total HxCDF	421	-	
OCDF	1150	-		0.345	0.105	Total HpCDF	1320	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	98.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	107	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	85.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	92.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	127	23.0 - 140	
13C-OCDD	113	17.0 - 157	*
13C-2,3,7,8-TCDF	106	24.0 - 169	
13C-1,2,3,7,8-PeCDF	130	24.0 - 185	
13C-2,3,4,7,8-PeCDF	127	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	101	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	93.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	95.1	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	94.3	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	108	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	135	26.0 - 138	
13C-OCDF	113	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	101	35.0 - 197	

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

Analyst: _____
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-009-SA
Client ID: DMA-TP4-1.5-2-042011
Matrix: Soil
Batch No: X2286

Date Extracted: 05-06-2011
Date Received: 04-22-2011
Amount: 4.98 g
% Solids: 74.41

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-10-2011
2005 WHO TEQ: 0.0161

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.102		-	0.0259				
1,2,3,7,8-PeCDD	ND	0.157		-	0.0434				
1,2,3,4,7,8-HxCDD	ND	0.154		-	0.0467				
1,2,3,6,7,8-HxCDD	ND	0.194		-	0.0587	Total TCDD	0.196	-	J
1,2,3,7,8,9-HxCDD	ND	0.170		-	0.0529	Total PeCDD	ND	0.157	
1,2,3,4,6,7,8-HpCDD	1.09	-	J	0.0109	0.0742	Total HxCDD	0.444	-	J
OCDD	8.93	-	J	0.00268	0.144	Total HpCDD	2.70	-	J
2,3,7,8-TCDF	ND	0.103		-	0.0200				
1,2,3,7,8-PeCDF	ND	0.118		-	0.0304				
2,3,4,7,8-PeCDF	ND	0.123		-	0.0322				
1,2,3,4,7,8-HxCDF	ND	0.0961		-	0.0365				
1,2,3,6,7,8-HxCDF	ND	0.0986		-	0.0357				
2,3,4,6,7,8-HxCDF	ND	0.108		-	0.0399				
1,2,3,7,8,9-HxCDF	ND	0.0921		-	0.0386	Total TCDF	ND	0.103	
1,2,3,4,6,7,8-HpCDF	0.237	-	J	0.00237	0.0393	Total PeCDF	ND	0.123	
1,2,3,4,7,8,9-HpCDF	ND	0.132		-	0.0418	Total HxCDF	ND	0.108	
OCDF	0.561	-	J	0.000168	0.105	Total HpCDF	0.568	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	95.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	94.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	91.6	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	96.1	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	112	23.0 - 140	
13C-OCDD	89.7	17.0 - 157	
13C-2,3,7,8-TCDF	101	24.0 - 169	
13C-1,2,3,7,8-PeCDF	115	24.0 - 185	
13C-2,3,4,7,8-PeCDF	112	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	97.3	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	92.7	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	91.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	96.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	111	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	128	26.0 - 138	
13C-OCDF	92.9	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	90.3	35.0 - 197	

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

Analyst: _____
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-010-SA
Client ID: DMA-TP5-1.5-2-042011
Matrix: Soil
Batch No: X2287

Date Extracted: 05-09-2011
Date Received: 04-22-2011
Amount: 5.03 g
% Solids: 38.10

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-11-2011
2005 WHO TEQ: 59.4

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	5.69	-		5.69	0.0259				
1,2,3,7,8-PeCDD	8.52	-		8.52	0.0434				
1,2,3,4,7,8-HxCDD	17.0	-		1.70	0.0467				
1,2,3,6,7,8-HxCDD	66.7	-		6.67	0.0587	Total TCDD	47.2	-	
1,2,3,7,8,9-HxCDD	33.6	-		3.36	0.0529	Total PeCDD	193	-	
1,2,3,4,6,7,8-HpCDD	1600	-		16.0	0.0742	Total HxCDD	562	-	
OCDD	14700	-	*	4.41	0.144	Total HpCDD	3200	-	
2,3,7,8-TCDF	5.88	-	F	0.588	0.0200				
1,2,3,7,8-PeCDF	4.20	-	J	0.126	0.0304				
2,3,4,7,8-PeCDF	7.29	-		2.19	0.0322				
1,2,3,4,7,8-HxCDF	24.6	-		2.46	0.0365				
1,2,3,6,7,8-HxCDF	13.3	-		1.33	0.0357				
2,3,4,6,7,8-HxCDF	19.4	-		1.94	0.0399				
1,2,3,7,8,9-HxCDF	3.40	-	J	0.340	0.0386	Total TCDF	150	-	D,M
1,2,3,4,6,7,8-HpCDF	364	-		3.64	0.0393	Total PeCDF	178	-	D,M
1,2,3,4,7,8,9-HpCDF	20.5	-		0.205	0.0418	Total HxCDF	402	-	D,M
OCDF	914	-		0.274	0.105	Total HpCDF	1040	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	104	25.0 - 164	
13C-1,2,3,7,8-PeCDD	107	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	94.3	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	98.1	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	131	23.0 - 140	
13C-OCDD	124	17.0 - 157	*
13C-2,3,7,8-TCDF	105	24.0 - 169	
13C-1,2,3,7,8-PeCDF	125	24.0 - 185	
13C-2,3,4,7,8-PeCDF	122	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	99.6	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	96.4	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	96.7	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	102	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	115	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	129	26.0 - 138	
13C-OCDF	118	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	93.4	35.0 - 197	

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

Analyst: [signature]
Date: 5/12/11

Reviewed By: [signature]
Date: 5/12/11

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-011-SA
Client ID: DMA-TP5-1.5-2-042011-D
Matrix: Soil
Batch No: X2287

Date Extracted: 05-09-2011
Date Received: 04-22-2011
Amount: 4.99 g
% Solids: 38.90

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-11-2011
2005 WHO TEQ: 71.9

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	7.13	-		7.13	0.0259				
1,2,3,7,8-PeCDD	10.6	-		10.6	0.0434				
1,2,3,4,7,8-HxCDD	20.4	-		2.04	0.0467				
1,2,3,6,7,8-HxCDD	79.2	-		7.92	0.0587	Total TCDD	56.9	-	
1,2,3,7,8,9-HxCDD	39.1	-		3.91	0.0529	Total PeCDD	231	-	
1,2,3,4,6,7,8-HpCDD	1910	-		19.1	0.0742	Total HxCDD	689	-	
OCDD	17400	-	*	5.22	0.144	Total HpCDD	3820	-	
2,3,7,8-TCDF	6.99	-	F	0.699	0.0200				
1,2,3,7,8-PeCDF	5.09	-		0.153	0.0304				
2,3,4,7,8-PeCDF	9.22	-		2.77	0.0322				
1,2,3,4,7,8-HxCDF	29.8	-		2.98	0.0365				
1,2,3,6,7,8-HxCDF	16.3	-		1.63	0.0357				
2,3,4,6,7,8-HxCDF	23.0	-		2.30	0.0399				
1,2,3,7,8,9-HxCDF	4.04	-	J	0.404	0.0386	Total TCDF	180	-	D,M
1,2,3,4,6,7,8-HpCDF	448	-		4.48	0.0393	Total PeCDF	222	-	D,M
1,2,3,4,7,8,9-HpCDF	25.2	-		0.252	0.0418	Total HxCDF	506	-	D,M
OCDF	1140	-		0.342	0.105	Total HpCDF	1240	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	97.1	25.0 - 164	
13C-1,2,3,7,8-PeCDD	98.4	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	92.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	97.4	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	129	23.0 - 140	
13C-OCDD	107	17.0 - 157	*
13C-2,3,7,8-TCDF	101	24.0 - 169	
13C-1,2,3,7,8-PeCDF	117	24.0 - 185	
13C-2,3,4,7,8-PeCDF	114	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	95.9	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	93.1	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	93.6	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	101	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	114	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	134	26.0 - 138	
13C-OCDF	111	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	89.6	35.0 - 197	

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

Analyst: [signature]
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-012-SA
Client ID: DMA-TP5-2-3-042011
Matrix: Soil
Batch No: X2287

Date Extracted: 05-09-2011
Date Received: 04-22-2011
Amount: 5.06 g
% Solids: 72.61

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-11-2011
2005 WHO TEQ: 0.0261

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.204		-	0.0259				
1,2,3,7,8-PeCDD	ND	0.215		-	0.0434				
1,2,3,4,7,8-HxCDD	ND	0.203		-	0.0467				
1,2,3,6,7,8-HxCDD	ND	0.252		-	0.0587	Total TCDD	ND	0.204	
1,2,3,7,8,9-HxCDD	ND	0.222		-	0.0529	Total PeCDD	ND	0.215	
1,2,3,4,6,7,8-HpCDD	1.85	-	J	0.0185	0.0742	Total HxCDD	0.637	-	J
OCDD	14.2	-		0.00426	0.144	Total HpCDD	4.01	-	J
2,3,7,8-TCDF	ND	0.147		-	0.0200				
1,2,3,7,8-PeCDF	ND	0.185		-	0.0304				
2,3,4,7,8-PeCDF	ND	0.200		-	0.0322				
1,2,3,4,7,8-HxCDF	ND	0.214		-	0.0365				
1,2,3,6,7,8-HxCDF	ND	0.225		-	0.0357				
2,3,4,6,7,8-HxCDF	ND	0.234		-	0.0399				
1,2,3,7,8,9-HxCDF	ND	0.196		-	0.0386	Total TCDF	ND	0.147	
1,2,3,4,6,7,8-HpCDF	0.299	-	J	0.00299	0.0393	Total PeCDF	ND	0.200	
1,2,3,4,7,8,9-HpCDF	ND	0.173		-	0.0418	Total HxCDF	ND	0.234	
OCDF	1.04	-	J	0.000312	0.105	Total HpCDF	0.812	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	96.1	25.0 - 164	
13C-1,2,3,7,8-PeCDD	92.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	81.2	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	84.4	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	99.4	23.0 - 140	
13C-OCDD	81.8	17.0 - 157	
13C-2,3,7,8-TCDF	104	24.0 - 169	
13C-1,2,3,7,8-PeCDF	112	24.0 - 185	
13C-2,3,4,7,8-PeCDF	111	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	89.4	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	85.0	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	85.3	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	93.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	92.8	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	112	26.0 - 138	
13C-OCDF	81.7	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	90.7	35.0 - 197	

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

Analyst: [signature]
Date: 5/12/11

Reviewed By: DAJ
Date: 5/12/11

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-013-SA
Client ID: DMA-TP3-2-3-042011
Matrix: Soil
Batch No: X2287

Date Extracted: 05-09-2011
Date Received: 04-22-2011
Amount: 4.99 g
% Solids: 63.46

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-11-2011
2005 WHO TEQ: 7.34

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	0.714	-	J	0.714	0.0259				
1,2,3,7,8-PeCDD	1.18	-	J	1.18	0.0434				
1,2,3,4,7,8-HxCDD	2.27	-	J	0.227	0.0467				
1,2,3,6,7,8-HxCDD	7.99	-		0.799	0.0587	Total TCDD	6.80	-	
1,2,3,7,8,9-HxCDD	4.24	-	J	0.424	0.0529	Total PeCDD	24.8	-	
1,2,3,4,6,7,8-HpCDD	185	-		1.85	0.0742	Total HxCDD	71.7	-	
OCDD	1560	-		0.468	0.144	Total HpCDD	365	-	
2,3,7,8-TCDF	1.32	-		0.132	0.0200				
1,2,3,7,8-PeCDF	0.639	-	J	0.0192	0.0304				
2,3,4,7,8-PeCDF	0.869	-	J	0.261	0.0322				
1,2,3,4,7,8-HxCDF	3.34	-	J	0.334	0.0365				
1,2,3,6,7,8-HxCDF	1.76	-	J	0.176	0.0357				
2,3,4,6,7,8-HxCDF	2.43	-	J	0.243	0.0399				
1,2,3,7,8,9-HxCDF	0.468	-	J	0.0468	0.0386	Total TCDF	20.3	-	
1,2,3,4,6,7,8-HpCDF	41.5	-		0.415	0.0393	Total PeCDF	22.9	-	
1,2,3,4,7,8,9-HpCDF	2.43	-	J	0.0243	0.0418	Total HxCDF	48.7	-	
OCDF	98.5	-		0.0296	0.105	Total HpCDF	112	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	93.0	25.0 - 164	
13C-1,2,3,7,8-PeCDD	94.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	89.6	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	93.5	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	117	23.0 - 140	
13C-OCDD	110	17.0 - 157	
13C-2,3,7,8-TCDF	101	24.0 - 169	
13C-1,2,3,7,8-PeCDF	112	24.0 - 185	
13C-2,3,4,7,8-PeCDF	112	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	94.8	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	92.3	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	92.9	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	98.4	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	108	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	126	26.0 - 138	
13C-OCDF	104	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	88.6	35.0 - 197	

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

Analyst: _____
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-014-SA
Client ID: DMA-TP3-3-4-042011
Matrix: Soil
Batch No: X2287

Date Extracted: 05-09-2011
Date Received: 04-22-2011
Amount: 5.01 g
% Solids: 35.29

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-11-2011
2005 WHO TEQ: 41.1

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	3.32	-		3.32	0.0259				
1,2,3,7,8-PeCDD	5.53	-		5.53	0.0434				
1,2,3,4,7,8-HxCDD	11.2	-		1.12	0.0467				
1,2,3,6,7,8-HxCDD	45.9	-		4.59	0.0587	Total TCDD	27.5	-	
1,2,3,7,8,9-HxCDD	22.0	-		2.20	0.0529	Total PeCDD	114	-	
1,2,3,4,6,7,8-HpCDD	1170	-		11.7	0.0742	Total HxCDD	369	-	
OCDD	11300	-	*	3.39	0.144	Total HpCDD	2290	-	
2,3,7,8-TCDF	3.39	-	F	0.339	0.0200				
1,2,3,7,8-PeCDF	2.80	-	J	0.0840	0.0304				
2,3,4,7,8-PeCDF	4.77	-	J	1.43	0.0322				
1,2,3,4,7,8-HxCDF	18.2	-		1.82	0.0365				
1,2,3,6,7,8-HxCDF	9.43	-		0.943	0.0357				
2,3,4,6,7,8-HxCDF	13.4	-		1.34	0.0399				
1,2,3,7,8,9-HxCDF	2.29	-	J	0.229	0.0386	Total TCDF	83.7	-	D,M
1,2,3,4,6,7,8-HpCDF	274	-		2.74	0.0393	Total PeCDF	119	-	D,M
1,2,3,4,7,8,9-HpCDF	14.3	-		0.143	0.0418	Total HxCDF	289	-	D,M
OCDF	732	-		0.220	0.105	Total HpCDF	790	-	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	89.5	25.0 - 164	
13C-1,2,3,7,8-PeCDD	93.5	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	90.3	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	93.2	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	126	23.0 - 140	
13C-OCDD	106	17.0 - 157	*
13C-2,3,7,8-TCDF	98.3	24.0 - 169	
13C-1,2,3,7,8-PeCDF	107	24.0 - 185	
13C-2,3,4,7,8-PeCDF	110	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	92.8	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	90.6	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	91.9	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	97.9	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	109	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	129	26.0 - 138	
13C-OCDF	113	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	84.6	35.0 - 197	

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

Analyst: _____
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-015-SA
Client ID: DMA-TP3-5-6-042011
Matrix: Soil
Batch No: X2287

Date Extracted: 05-09-2011
Date Received: 04-22-2011
Amount: 5.01 g
% Solids: 82.82

ICal: PCDDFAL3-3-7-11
GC Column: DB5
Units: pg/g

Acquired: 05-11-2011
2005 WHO TEQ: 0.0211

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.112		-	0.0259				
1,2,3,7,8-PeCDD	ND	0.179		-	0.0434				
1,2,3,4,7,8-HxCDD	ND	0.134		-	0.0467				
1,2,3,6,7,8-HxCDD	ND	0.174		-	0.0587	Total TCDD	ND	0.112	
1,2,3,7,8,9-HxCDD	ND	0.149		-	0.0529	Total PeCDD	ND	0.179	
1,2,3,4,6,7,8-HpCDD	1.43	-	J	0.0143	0.0742	Total HxCDD	0.381	-	J
OCDD	10.9	-		0.00327	0.144	Total HpCDD	2.98	-	J
2,3,7,8-TCDF	ND	0.112		-	0.0200				
1,2,3,7,8-PeCDF	ND	0.113		-	0.0304				
2,3,4,7,8-PeCDF	ND	0.125		-	0.0322				
1,2,3,4,7,8-HxCDF	ND	0.166		-	0.0365				
1,2,3,6,7,8-HxCDF	ND	0.155		-	0.0357				
2,3,4,6,7,8-HxCDF	ND	0.168		-	0.0399				
1,2,3,7,8,9-HxCDF	ND	0.139		-	0.0386	Total TCDF	ND	0.112	
1,2,3,4,6,7,8-HpCDF	0.325	-	J	0.00325	0.0393	Total PeCDF	ND	0.125	
1,2,3,4,7,8,9-HpCDF	ND	0.111		-	0.0418	Total HxCDF	ND	0.168	
OCDF	0.874	-	J	0.000262	0.105	Total HpCDF	0.826	-	J

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	81.7	25.0 - 164	
13C-1,2,3,7,8-PeCDD	84.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	80.7	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	82.0	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	102	23.0 - 140	
13C-OCDD	83.4	17.0 - 157	
13C-2,3,7,8-TCDF	87.1	24.0 - 169	
13C-1,2,3,7,8-PeCDF	104	24.0 - 185	
13C-2,3,4,7,8-PeCDF	103	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	80.5	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	80.2	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	80.4	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	85.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	95.2	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	111	26.0 - 138	
13C-OCDF	83.6	17.0 - 157	

Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	79.2	35.0 - 197	

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

Analyst: _____
Date: 5/10/11

Reviewed By: DN
Date: 5/12/11

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EPA Method 1613
PCDD/F

FRONTIER ANALYTICAL LABORATORY

FAL ID: 6735-015-MS/MSD
Client ID: DMA-TP3-5-6-042011
Matrix: Soil

Date Extracted: 05-09-2011
Date Received: 04-22-2011
Sample Amount: 5.01 g
MS Amount: 5.05 g
MSD Amount: 4.99 g

ICal: PCDDFAL3-3-7-11
Batch No: X2287
Units: pg/g

MS Acquired: 2011-05-11
MSD Acquired: 2011-05-11
GC Column: DB5

Compound	Amount Spiked (pg)	Sample Amount	MS Amount	MSD Amount	% RSD	Qual
2,3,7,8-TCDD	200	-	42.5	46.3	7.17	
1,2,3,7,8-PeCDD	1000	-	218	246	11.2	
1,2,3,4,7,8-HxCDD	1000	-	200	231	13.0	
1,2,3,6,7,8-HxCDD	1000	-	214	231	6.28	
1,2,3,7,8,9-HxCDD	1000	-	217	239	7.86	
1,2,3,4,6,7,8-HpCDD	1000	1.43	214	234	8.07	
OCDD	2000	10.9	435	488	11.0	
2,3,7,8-TCDF	200	-	44.9	50.3	10.0	
1,2,3,7,8-PeCDF	1000	-	213	238	9.69	
2,3,4,7,8-PeCDF	1000	-	218	242	9.52	
1,2,3,4,7,8-HxCDF	1000	-	206	231	10.0	
1,2,3,6,7,8-HxCDF	1000	-	208	230	9.09	
2,3,4,6,7,8-HxCDF	1000	-	203	228	10.1	
1,2,3,7,8,9-HxCDF	1000	-	210	232	9.01	
1,2,3,4,6,7,8-HpCDF	1000	0.325	204	226	9.26	
1,2,3,4,7,8,9-HpCDF	1000	-	210	229	7.27	
OCDF	2000	0.874	422	463	8.11	

Internal Standards		% Rec	% Rec	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	2000	81.7	87.2	84.6	25.0 - 164	
13C-1,2,3,7,8-PeCDD	2000	84.6	97.9	94.1	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	2000	80.7	92.7	83.6	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	2000	82.0	94.0	89.4	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	2000	102	106	99.6	23.0 - 140	
13C-OCDD	4000	83.4	85.1	79.1	17.0 - 157	
13C-2,3,7,8-TCDF	2000	87.1	95.2	94.8	24.0 - 169	
13C-1,2,3,7,8-PeCDF	2000	104	110	109	24.0 - 185	
13C-2,3,4,7,8-PeCDF	2000	103	108	108	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	2000	80.5	93.8	84.5	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	2000	80.2	92.1	81.9	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	2000	80.4	91.3	82.8	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	2000	85.0	95.7	87.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	2000	95.2	105	98.4	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	2000	111	117	107	26.0 - 138	
13C-OCDF	4000	83.6	85.0	79.7	17.0 - 157	

Cleanup Surrogate						
37Cl-2,3,7,8-TCDD	800	79.2	83.4	84.2	35.0 - 197	

Analyst: [signature]
Date: 5/12/11

Reviewed By: DN
Date: 5/12/11

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SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 04/20/11

ANALYTICAL RESOURCES INCORPORATED

le 7.3 5 0°C

ARI Project: SS83

Laboratory: Frontier Analytical Laboratory
Lab Contact: BRAD SILVERBUSH
Lab Address: 5172 Hillsdale Circle
El Dorado Hills, CA 95762
Phone: 916-934-0900
Fax: 916-934-0999

ARI Client: Floyd Snider
Project ID: Lora Lake Parcel:DMA
ARI PM: Sue Dunnihoo
Phone: 206-695-6207
Fax: 206-695-6201

Analytical Protocol: In-house
Special Instructions:

Requested Turn Around:
Email Results (Y/N): **Yes**

Limits of Liability. *Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employees, or sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

	ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
1	11-8711-SS83A	DMA-TP1-0-3-041911	04/19/11 11:00	Soil	1	Dioxin/Furans 1613(Sub)
	Special Instructions: None					
2	11-8712-SS83B	DMA-TP1-3-4.5-041911	04/19/11 10:50	Soil	1	Dioxin/Furans 1613(Sub)
	Special Instructions: None					
3	11-8713-SS83C	DMA-TP1-4.5-5.5-041911	04/19/11 10:25	Soil	1	Dioxin/Furans 1613(Sub)
	Special Instructions: None					
4	11-8714-SS83D	DMA-TP2-1.5-3-041911	04/19/11 12:05	Soil	1	Dioxin/Furans 1613(Sub)
	Special Instructions: None					
5	11-8715-SS83E	DMA-TP2-3-4-041911	04/19/11 12:00	Soil	1	Dioxin/Furans 1613(Sub)
	Special Instructions: None					
6	11-8716-SS83F	DMA-TP6-0-2.5-041911	04/19/11 15:10	Soil	1	Dioxin/Furans 1613(Sub)
	Special Instructions: None					
7	11-8717-SS83G	DMA-TP6-2.5-5-041911	04/19/11 15:05	Soil	1	Dioxin/Furans 1613(Sub)
	Special Instructions: None					

L4 & EDD

Carrier UPS	Airbill		Date 4/21/11
Relinquished by	Company ARI	Date 4/21/11	Time 1543
Received by	Company Frontier	Date 4/22/11	Time 1020

SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 04/20/11

ANALYTICAL RESOURCES INCORPORATED

ARI Project: SS83

Laboratory: Frontier Analytical Laboratory
Lab Contact: BRAD SILVERBUSH

ARI Client: Floyd Snider
Project ID: POS-LL

ARI Sample ID	Client Sample ID/ Add'l Sample ID	Sampled	Matrix	Bottles	Analyses
11-8718-SS83H	DMA-TP4-0-1.5-042011	04/20/11 08:15	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
11-8719-SS83I	DMA-TP4-1.5-2-042011	04/20/11 08:20	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
11-8720-SS83J	DMA-TP5-1.5-2-042011	04/20/11 09:15	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
11-8721-SS83K	DMA-TP5-1.5-2-042011-D	04/20/11 09:20	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
11-8722-SS83L	DMA-TP5-2-3-042011	04/20/11 09:25	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
11-8723-SS83M	DMA-TP3-2-3-042011	04/20/11 10:35	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
11-8724-SS83N	DMA-TP3-3-4-042011	04/20/11 10:40	Soil	1	Dioxin/Furans 1613(Sub)
Special Instructions: None					
11-8725-SS83O	DMA-TP3-5-6-042011	04/20/11 10:45	Soil	3	Dioxin/Furans 1613(Sub)
Special Instructions: MS/MSD					

L4 = EDD

Carrier UPS	Airbill		Date 4/21/11
Relinquished by	Company AKT	Date 4/21/11	Time 1545
Received by	Company frontier	Date 4/22/11	Time 1020

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **6735**

Client:	Analytical Resources Inc. Sue Dunnihoo
Client Project ID:	SS83
Date Received:	04/22/2011
Time Received:	10:20 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	15
Duplicates:	0
Storage Location:	R2

Method of Delivery:	UPS
Tracking Number:	1Z8326950150018695
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test for residual Chlorine	No
Thiosulfate Added	No
Earliest Sample Hold Time Expiration	04/18/2012
Adequate Sample Volume	Yes
pH Range	N/A
Anomalies or additional comments:	
L4 & EDD	

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SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 04/20/11
SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 04/20/11
ANALYTICAL RESOURCES INCORPORATED
ARI Project: 6883
Laboratory: Frontier Analytical Laboratory
Lab Contact: BRAD SILVERMOON
Lab Address: 5172 Hillsdale Circle
El Dorado Hills, CA 95762
Phone: 916-934-0900
Fax: 916-934-0999
Analytical Protocol: In-house
Special Instructions:
Limits of Liability.
Frontier Analytical Laboratory
6735-006-SA
Client ID: DMA-TP6-0-2.5-041911
Storage: R2 (01 of 01)
Frontier Analytical Laboratory
6735-007-SA
Client ID:DMA-TP6-2.5-5-041911
Storage: R2 (01 of 01)
Frontier Analytical Laboratory
6735-008-SA
Client ID: DMA-TP4-0-1.5-042011
Storage: R2 (01 of 01)
Frontier Analytical Laboratory
6735-009-SA
Client ID: DMA-TP4-1.5-2-042011
Storage: R2 (01 of 01)
Frontier Analytical Laboratory
6735-010-SA
Client ID:DMA-TP5-1.5-2-042011
Storage: R2 (01 of 01)
Frontier Analytical Laboratory
6735-001-SA
Client ID:DMA-TP1-0-3-041911
Storage: R2 (01 of 01)
Frontier Analytical Laboratory
6735-002-SA
Client ID: DMA-TP1-3-4.5-041911
Storage: R2 (01 of 01)
Frontier Analytical Laboratory
6735-003-SA
Client ID: DMA-TP1-4.5-5.5-041911
Storage: R2 (01 of 01)
Frontier Analytical Laboratory
6735-004-SA
Client ID:DMA-TP2-1.5-3-041911
Storage: R2 (01 of 01)
Frontier Analytical Laboratory
6735-005-SA
Client ID: DMA-TP2-3-4-041911
Storage: R2 (01 of 01)


SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 04/20/11
ANALYTICAL RESOURCES INCORPORATED
Laboratory: Frontier Analytical Laboratory
Lab Contact: BRAD SILVERBUSH
ARI Project: SS83
ARI Client: Floyd Snider
Project ID: Lora Lake Parcel:DMA
ARI PM: Sue Dunnihoo
Phone: 206-695-6207
Fax: 206-695-6201
Lab Address: 5172 Hillsdale Circle
El Dorado Hills, CA 95762
Phone: 916-934-0900
Fax: 916-934-0999
Analytical Protocol: In-house
Special Instructions:
Requested Turn Around:
Email Results (Y/N): Yes
Limits of Liability: Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employes, or sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any
Frontier Analytical Laboratory
6735-015-SA
Client ID: DMA-TP3-5-6-042011
6735-015-MS
Client ID:DMA-TP3-5-6-042011
6735-015-MSD
Client ID: DMA-TP3-5-6-042011
6735-011-SA
Client ID: DMA-TP5-1.5-2-042011-D
6735-012-SA
Client ID: DMA-TP5-2-3-042011
6735-013-SA
Client ID:DMA-TP3-2-3-042011
6735-014-SA
Client ID: DMA-TP3-3-4-042011

Frontier Analytical Laboratory

PROJECT REQUEST SHEET

Project #:	6735	Sample #:	1-9 ~~1-15~~ 5/6/11	Client Manager:	BS
Client:	Analytical Resources Inc. Sue Dunnihoo			Hold Time:	04/18/2012
Matrix:	Soil	Extraction Batch:	2286	Due Date:	05/16/2011
Method:	EPA 1613 D/F			Storage:	R2
SOP:	SOPs: EP2A Rev.9 IP2A Rev.10				

COMMENTS/INSTRUCTIONS:

MS.MSD on Sample 6735-015-SA.

Results: 6735

Extract/s located in box: "Wind Mill"

Standards: 6735

Instrument:	
DB5	FAL3
DB225	FAL-1
DB1	____
Other	____

Frontier Analytical Laboratory
Percent Solids

FAL Project: 6735

	Sample ID	Chemist	Date	Wet Sample Weight (g)	Dry Sample Weight (g)	% Solids	10g Equiv
-1.31	6735-001-0001-SA	WM	04-27-11	8.47	7.16	84.53	11.83
-1.33	6735-002-0001-SA			7.59	5.18	68.25	14.65
-1.32	6735-003-0001-SA			9.55	7.41	77.59	12.89
-1.33	6735-004-0001-SA			6.50	4.39	67.54	14.81
-1.33	6735-005-0001-SA			8.34	6.39	76.62	13.05
-1.34	6735-006-0001-SA			10.21	7.71	75.51	13.24
-1.34	6735-007-0001-SA			12.85	10.11	78.68	12.71
-1.34	6735-008-0001-SA			7.14	1.95	27.31	36.62
-1.33	6735-009-0001-SA			10.98	8.17	74.41	13.44
-1.32	6735-010-0001-SA			5.67	2.16	38.10	26.25
-1.34	6735-011-0001-SA			7.30	2.84	38.90	25.70
-1.32	6735-012-0001-SA			14.64	10.63	72.61	13.77
-1.33	6735-013-0001-SA			7.58	4.81	63.46	15.76
-1.33	6735-014-0001-SA			7.14	2.52	35.29	28.33
-1.33	6735-015-0001-SA			15.72	13.02	82.82	12.07
-1.33	6735-015-0002-MS			10.19	7.72	75.76	13.20
-1.34	6735-015-0002-MSD	↓	↓	13.99	11.26	80.49	12.42

% Solids Summary:

Non-Filtered Determination

1. Place an aliquot of sample into a pre-weighed aluminum weighing boat. Use approximately two to ten grams for solid samples, approximately 10 mL for aqueous samples.
2. Record the weight.
3. Dry sample overnight at approximately 110 C.

Filtered Determination

1. Pre-weigh a glass fiber filter of appropriate pore size and pressure filter a sample aliquot (200-1000mL) through it.
2. Air dry the filter and record the dry weight.

Frontier Analytical Laboratory
EXTRACTION SHEET

Project #: 6735 Extraction Date: 2011-05-06 Extraction Chemist: DV

Method/Analysis: EPA 1613 D/F

Procedure: SOX/SDS Solvent: Toluene

Sample ID	Wet wt. (g/L)	Dry wt. (g/L)	IS Amt: 10.0uL ID: 100511A Vial: 5 Chemist/Witness/Date	NS Amt: 10.0uL ID: 100511B Vial: 6 Chemist/Witness/Date	CSS Amt: 10.0uL ID: 100511C Vial: 5 Chemist/Witness/Date
2286-001-0001-MB	(5.00g)	(5.00g)	DN WM 5.6.11	N/A	DN WM 5.9.11
2286-001-0001-OPR	(5.00g)	(5.00g)		DN WM 5.6.11	
6735-001-0001-SA	5.93g	5.01g		N/A	
6735-002-0001-SA	7.34g	5.01g			
6735-003-0001-SA	6.45g	5.00g			
6735-004-0001-SA	7.44g	5.02g			
6735-005-0001-SA	6.57g	5.03g			
6735-006-0001-SA	6.62g	5.00g			
6735-007-0001-SA	6.43g	5.06g			
6735-008-0001-SA	18.29g	4.99g			
6735-009-0001-SA	6.69g	4.98g			

AX-21 Charcoal Cleaned	082510	Acetone	107203	Acid Alumina	A0284730	Hexane	110182
Hydrochloric Acid	B08505	Methanol	106063	Methylene Chloride (DCM)	51042	Silica Gel	TA1592834
Sodium Hydroxide	0062836	Sodium Sulfate	1750C277	Sulfuric Acid	110205	Tetradecane	086237
Toluene	108273	Water	50321	C-18 Empore Discs	320555	Cyclohexane	50204

Comments:

Frontier Analytical Laboratory

CLEANUP SHEET

Project #: 6735

Method/Analysis: EPA 1613 D/F

Splits: 0 Split Date: N/A Final Volume: 20.0uL

Sample ID	Cleanup 1 MSG. AA Chemist/Date	Cleanup 2 CC Chemist/Date	Cleanup 3 N/A Chemist/Date	RS Amt: 10.0uL ID: 100511D Vial: 8 Chemist/Witness/Date
2286-001-0001-MB	DN 5.9.11	DN 5.9.11	N/A	DN WM 5/9/11
2286-001-0001-OPR	↓	↓	↓	↓
6735-001-0001-SA				
6735-002-0001-SA				
6735-003-0001-SA				
6735-004-0001-SA				
6735-005-0001-SA				
6735-006-0001-SA				
6735-007-0001-SA				
6735-008-0001-SA				
6735-009-0001-SA				

Comments:

Frontier Analytical Laboratory

PROJECT REQUEST SHEET

Project #:	6735	Sample #:	~~1-15~~ 10-15 ON 5/6/11	Client Manager:	BS
Client:	Analytical Resources Inc. Sue Dunnihoo			Hold Time:	04/18/2012
Matrix:	Soil	Extraction Batch:	2287	Due Date:	05/16/2011
Method:	EPA 1613 D/F			Storage:	R2
SOP:	SOPs: EP2A Rev.9 IP2A Rev.10				

COMMENTS/INSTRUCTIONS:

MS.MSD on Sample 6735-015-SA.

Results: 6735
6735MS

Extract/s located in box: "Transisters"

Standards: 6735

Instrument:

DB5	FAL-)
DB225	FAL-1
DB1	____
Other	____

Frontier Analytical Laboratory
Percent Solids

FAL Project: 6735

	Sample ID	Chemist	Date	Wet Sample Weight (g)	Dry Sample Weight (g)	% Solids	10g Equiv
-1.31	6735-001-0001-SA	WM	04-27-11	8.47	7.16	84.53	11.83
-1.33	6735-002-0001-SA	↓	↓	7.59	5.18	68.25	14.65
-1.32	6735-003-0001-SA			9.55	7.41	77.59	12.89
-1.33	6735-004-0001-SA			6.50	4.39	67.54	14.81
-1.33	6735-005-0001-SA			8.34	6.39	76.62	13.05
-1.34	6735-006-0001-SA			10.21	7.71	75.51	13.24
-1.34	6735-007-0001-SA			12.85	10.11	78.68	12.71
-1.34	6735-008-0001-SA			7.14	1.95	27.31	36.62
-1.33	6735-009-0001-SA			10.98	8.17	74.41	13.44
-1.32	6735-010-0001-SA			5.67	2.16	38.10	26.25
-1.34	6735-011-0001-SA			7.30	2.84	38.90	25.70
-1.32	6735-012-0001-SA			14.64	10.63	72.61	13.77
-1.33	6735-013-0001-SA			7.58	4.81	63.46	15.76
-1.33	6735-014-0001-SA			7.14	2.52	35.29	28.33
-1.33	6735-015-0001-SA			15.72	13.02	82.82	12.07
-1.33	6735-015-0002-MS			10.19	7.72	75.76	13.20
-1.34	6735-015-0002-MSD	↓	↓	13.99	11.26	80.49	12.42

% Solids Summary:

Non-Filtered Determination

1. Place an aliquot of sample into a pre-weighed aluminum weighing boat. Use approximately two to ten grams for solid samples, approximately 10 mL for aqueous samples.
2. Record the weight.
3. Dry sample overnight at approximately 110 C.

Filtered Determination

1. Pre-weigh a glass fiber filter of appropriate pore size and pressure filter a sample aliquot (200-1000mL) through it.
2. Air dry the filter and record the dry weight.

Frontier Analytical Laboratory
EXTRACTION SHEET

Project #: 6735 Extraction Date: 2011-05-09 Extraction Chemist: GN

Method/Analysis: EPA 1613 D/F

Procedure: SOX/SDS Solvent: Toluene

Sample ID	Wet wt. (g/L)	Dry wt. (g/L)	IS Amt: 10.0uL ID: 100511A Vial: 5 Chemist/Witness/Date	NS Amt: 10.0uL ID: 100511B Vial: 6 Chemist/Witness/Date	CSS Amt: 10.0uL ID: 100511C Vial: 5 Chemist/Witness/Date
2287-001-0001-MB	(5.00 g)	(5.00g)	GN WM 5/9/11	NA	GN WM 5/10/11
2287-001-0001-OPR	(5.00g)	(5.00g)		GN WM 5/9/11	
6735-010-0001-SA	13.20	5.03		NA	
6735-011-0001-SA	12.82	~~5.00~~ 4.99	DW 5/12/11		
6735-012-0001-SA	6.97	5.06			
6735-013-0001-SA	7.87	4.99			
6735-014-0001-SA	14.20	5.01			
6735-015-0001-SA	6.05	5.01			
6735-015-0002-MS	6.66	5.05		GN WM 5/9/11	
6735-015-0002-MSD	6.20	4.99			

AX-21 Charcoal Cleaned	082510	Acetone	107203	Acid Alumina	A0284730	Hexane	110182
Hydrochloric Acid	B08505	Methanol	106063	Methylene Chloride (DCM)	51042	Silica Gel	TA1592834
Sodium Hydroxide	0062836	Sodium Sulfate	1750C277	Sulfuric Acid	110205	Tetradecane	086237
Toluene	108273	Water	50321	C-18 Empore Discs	320555	Cyclohexane	50204

Comments:

Frontier Analytical Laboratory

CLEANUP SHEET

Project #: 6735

Method/Analysis: EPA 1613 D/F

Splits: 0 Split Date: N/A Final Volume: 20.0uL

Sample ID	Cleanup 1 MSG/AA Chemist/Date	Cleanup 2 Charcoal Chemist/Date	Cleanup 3 NA Chemist/Date	RS Amt: 10.0uL ID: 100511D Vial: 8 Chemist/Witness/Date
2287-001-0001-MB	GN 5/10/11	GN 5/10/11	NA	GN WM 5/10/11
2287-001-0001-OPR				
6735-010-0001-SA				
6735-011-0001-SA				
6735-012-0001-SA				
6735-013-0001-SA				
6735-014-0001-SA				
6735-015-0001-SA				
6735-015-0002-MS				
6735-015-0002-MSD				

Comments:

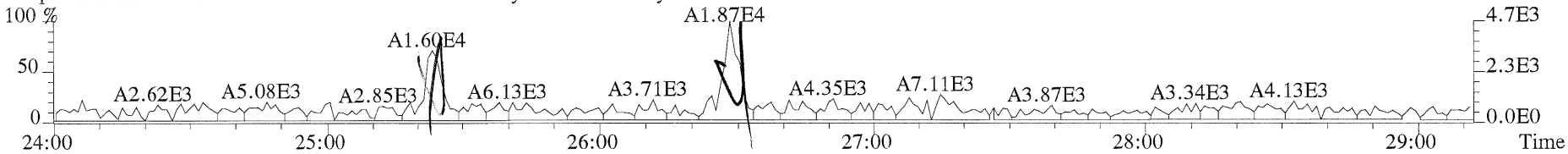
FAL ID: 2286-001-0001-MB Filename: 10MAY11M Sam:3 Acquired: 10-MAY-11 12:10:22 ICal: PCDDFAL3-3-7-11
Client ID: Method Blank ConCal: ST051011M1 EndCal: ST051011M2
Results: 2286 GC Column: DB5 Amount: 5.000 NATO 1989 Tox: 0.00
WHO 1998 Tox: 0.00 WHO 2005 Tox: 0.00

Name	Resp	RA		RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	*	*	n	NotFnd	1.13	*		2.50	776	768	0.148
1,2,3,7,8-PeCDD	*	*	n	NotFnd	1.02	*		2.50	868	620	0.203
1,2,3,4,7,8-HxCDD	*	*	n	NotFnd	1.45	*		2.50	828	864	0.188
1,2,3,6,7,8-HxCDD	*	*	n	NotFnd	1.45	*		2.50	828	864	0.247
1,2,3,7,8,9-HxCDD	*	*	n	NotFnd	1.47	*		2.50	828	864	0.212
1,2,3,4,6,7,8-HpCDD	*	*	n	NotFnd	1.30	*		2.50	708	740	0.238
OCDD	*	*	n	NotFnd	1.45	*		2.50	1310	1200	0.827
2,3,7,8-TCDF	*	*	n	NotFnd	1.15	*		2.50	852	1370	0.121
1,2,3,7,8-PeCDF	*	*	n	NotFnd	0.89	*		2.50	688	1050	0.158
2,3,4,7,8-PeCDF	*	*	n	NotFnd	0.89	*		2.50	688	1050	0.164
1,2,3,4,7,8-HxCDF	*	*	n	NotFnd	1.01	*		2.50	796	680	0.146
1,2,3,6,7,8-HxCDF	*	*	n	NotFnd	0.89	*		2.50	796	680	0.151
2,3,4,6,7,8-HxCDF	*	*	n	NotFnd	1.02	*		2.50	796	680	0.157
1,2,3,7,8,9-HxCDF	*	*	n	NotFnd	1.10	*		2.50	796	680	0.137
1,2,3,4,6,7,8-HpCDF	*	*	n	NotFnd	1.48	*		2.50	692	624	0.161
1,2,3,4,7,8,9-HpCDF	*	*	n	NotFnd	1.43	*		2.50	692	624	0.186
OCDF	*	*	n	NotFnd	0.84	*		2.50	688	708	0.392
											Rec
13C-2,3,7,8-TCDD	4.13e+07	0.78	y	27:14	1.03	374					93.5
13C-1,2,3,7,8-PeCDD	3.91e+07	1.77	y	33:05	1.01	360					90.0
13C-1,2,3,4,7,8-HxCDD	3.30e+07	1.26	y	38:28	1.19	350					87.6
13C-1,2,3,6,7,8-HxCDD	2.82e+07	1.26	y	38:38	0.94	380					95.0
13C-1,2,3,4,6,7,8-HpCDD	2.80e+07	1.07	y	44:04	0.83	427					107
13C-OCDD	3.03e+07	0.97	y	49:37	0.61	630					78.8
13C-2,3,7,8-TCDF	6.96e+07	0.88	y	26:28	0.98	393					98.2
13C-1,2,3,7,8-PeCDF	6.46e+07	1.65	y	31:20	0.83	431					108
13C-2,3,4,7,8-PeCDF	6.08e+07	1.65	y	32:39	0.80	418					105
13C-1,2,3,4,7,8-HxCDF	5.41e+07	0.49	y	37:04	1.84	371					92.7
13C-1,2,3,6,7,8-HxCDF	6.48e+07	0.49	y	37:16	2.29	357					89.3
13C-2,3,4,6,7,8-HxCDF	5.34e+07	0.49	y	38:12	1.86	362					90.6
13C-1,2,3,7,8,9-HxCDF	5.99e+07	0.48	y	39:38	1.98	381					95.4
13C-1,2,3,4,6,7,8-HpCDF	3.29e+07	0.46	y	42:10	0.99	421					105
13C-1,2,3,4,7,8,9-HpCDF	3.07e+07	0.45	y	45:00	0.77	507					127
13C-OCDF	6.13e+07	0.95	y	49:59	1.17	664					83.1
37Cl-2,3,7,8-TCDD	1.07e+07			27:16	0.73	137					85.6
13C-1,2,3,4-TCDD	4.30e+07	0.79	y	26:40	-	22.6					
13C-1,2,3,4-TCDF	7.23e+07	0.88	y	25:24	-	20.1					
13C-1,2,3,7,8,9-HxCDD	3.17e+07	1.25	y	39:04	-	25.5					

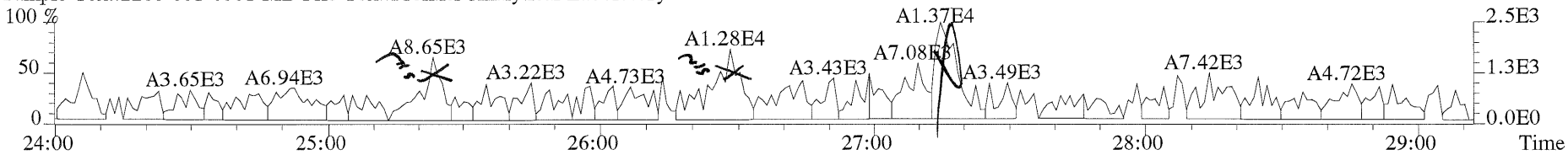
					Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	*	NotFnd	1.13	*	2.50	776	768	0.148		0
Total Penta-Dioxins	*	NotFnd	1.02	*	2.50	868	620	0.203		0
Total Hexa-Dioxins	*	NotFnd	1.46	*	2.50	828	864	0.247		0
Total Hepta-Dioxins	*	NotFnd	1.30	*	2.50	708	740	0.238		0
Total Tetra-Furans	*	NotFnd	1.15	*	2.50	852	1370	0.121		0
1st Fn. Tot Penta-Furans	*	NotFnd	0.89	*	2.50	688	1050	0.164	PeCDF	0
Total Penta-Furans	*	NotFnd	0.89	*	2.50	688	1050	0.164	*	0
Total Hexa-Furans	*	NotFnd	1.00	*	2.50	796	680	0.157		0
Total Hepta-Furans	*	NotFnd	1.46	*	2.50	692	624	0.186		0

Analyst: _____ Date: 5/11/11

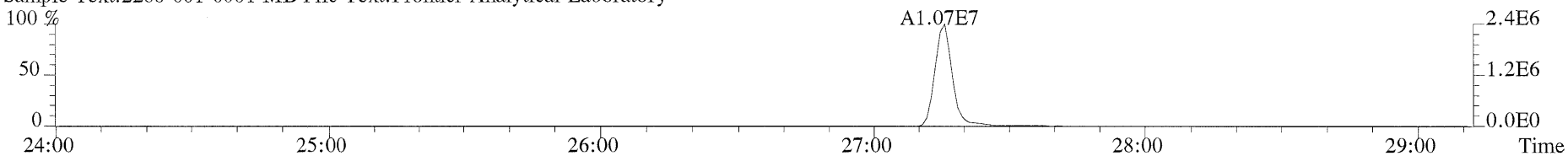
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



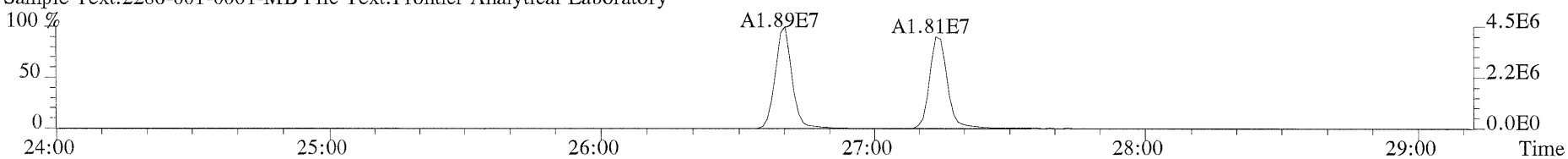
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



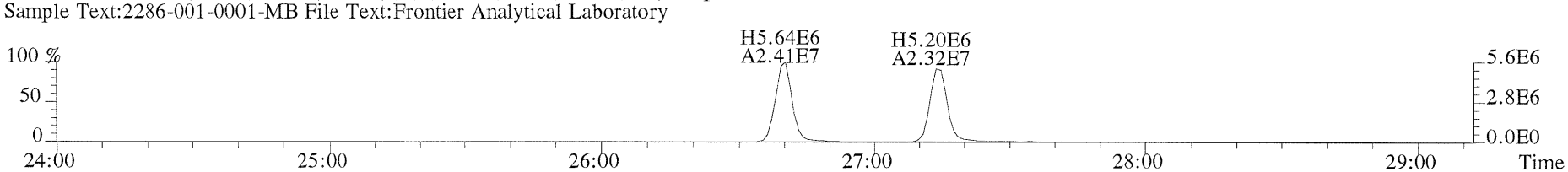
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



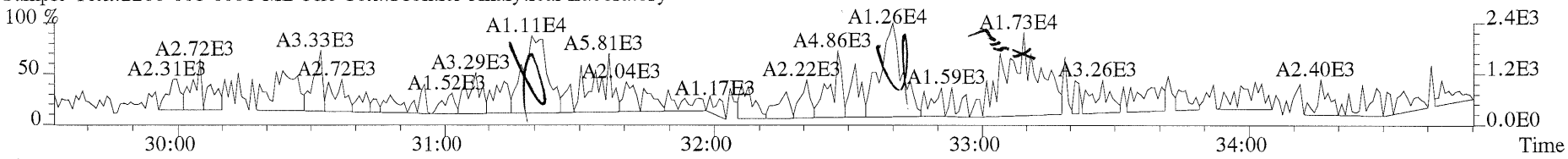
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



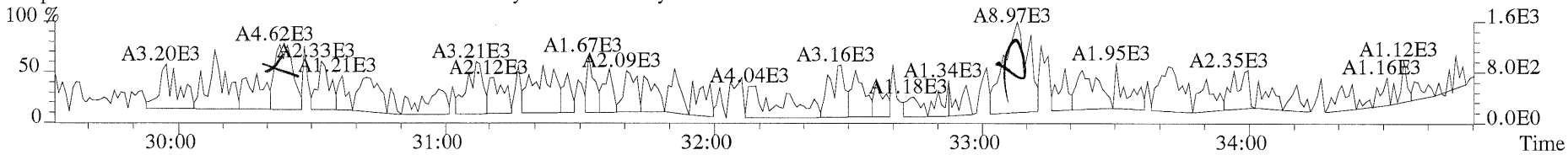
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



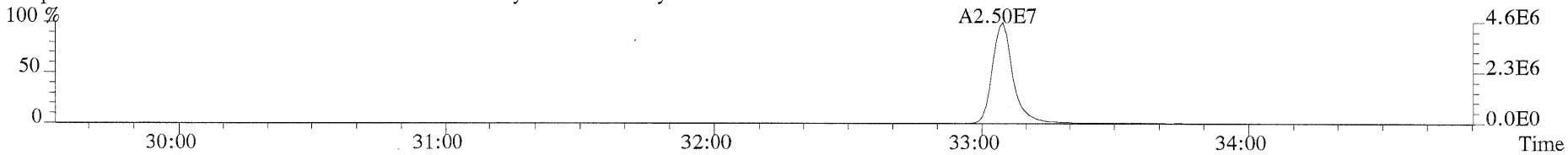
File:10MAY11M #1-411 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



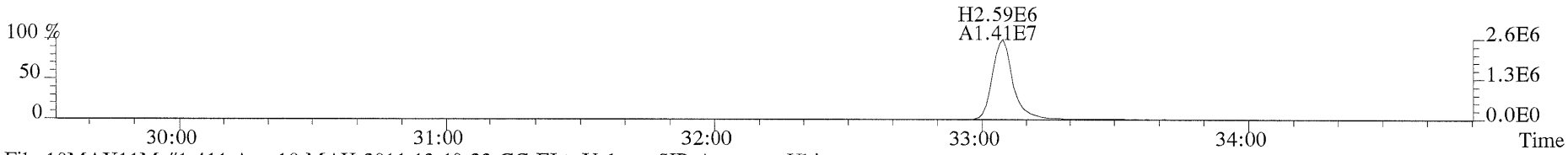
File:10MAY11M #1-411 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



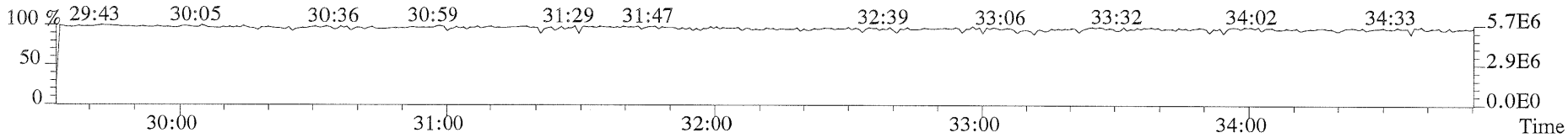
File:10MAY11M #1-411 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:3 F:2 BSUB(10000,15,-3.0) BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



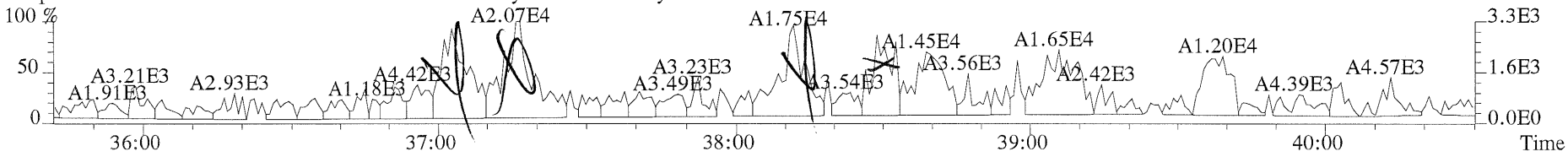
File:10MAY11M #1-411 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:3 F:2 BSUB(10000,15,-3.0) BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



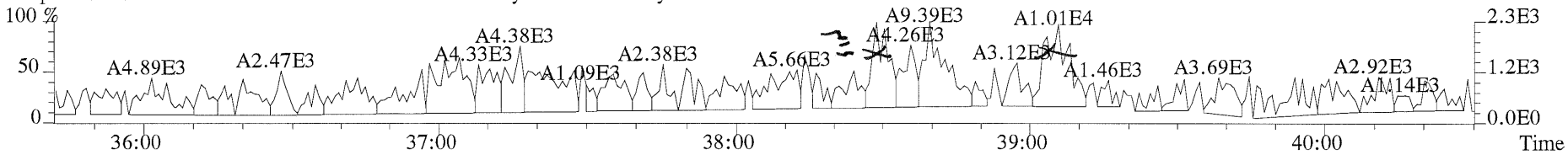
File:10MAY11M #1-411 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:3 F:2 Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



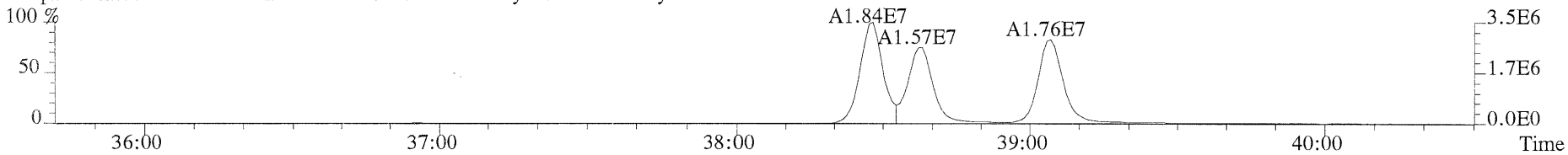
File:10MAY11M #1-477 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



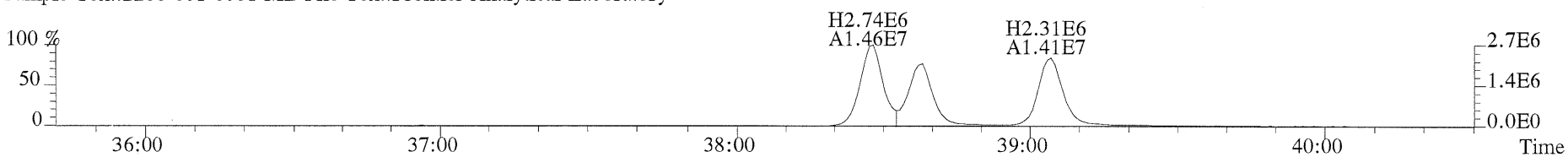
File:10MAY11M #1-477 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



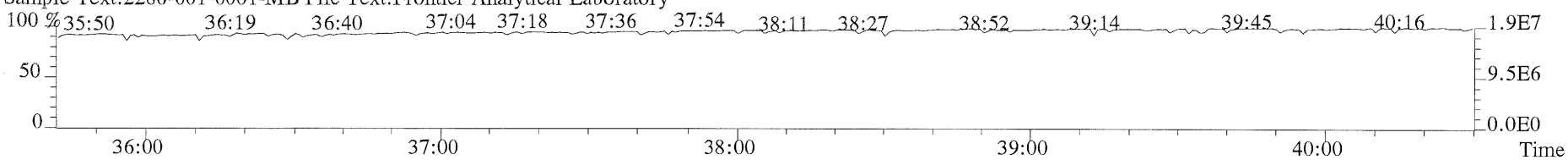
File:10MAY11M #1-477 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



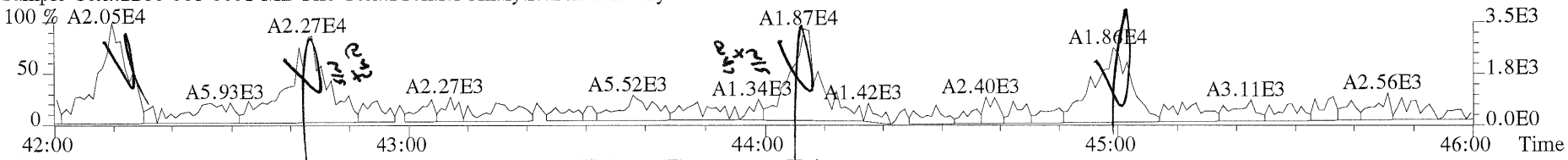
File:10MAY11M #1-477 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



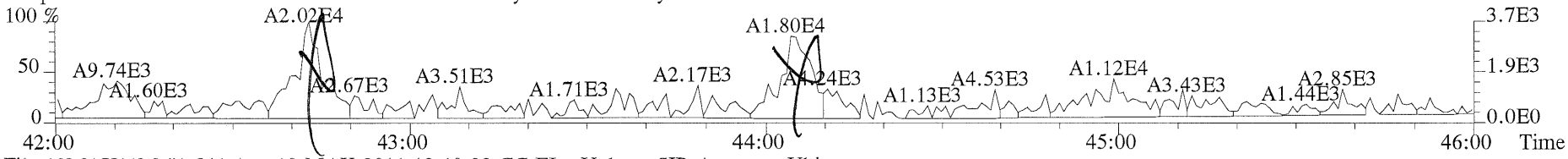
File:10MAY11M #1-477 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:3 F:3 Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



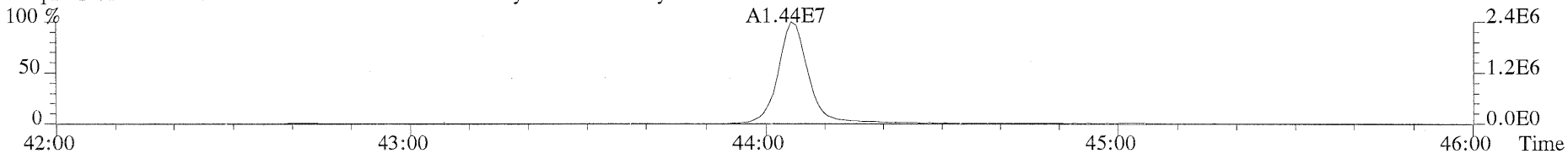
File:10MAY11M #1-541 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



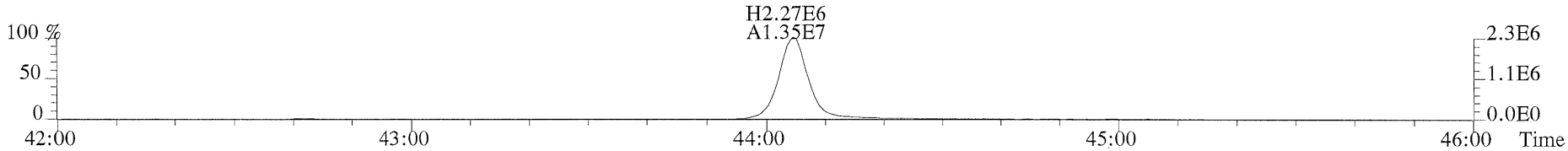
File:10MAY11M #1-541 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



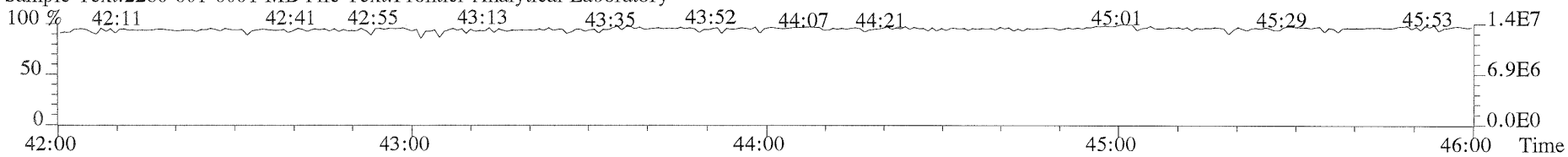
File:10MAY11M #1-541 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



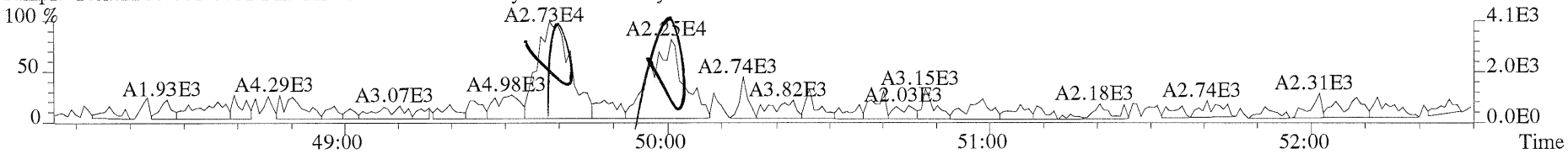
File:10MAY11M #1-541 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



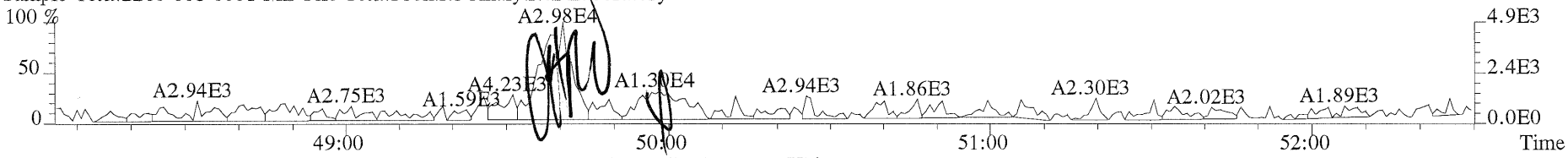
File:10MAY11M #1-541 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:3 F:4 Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



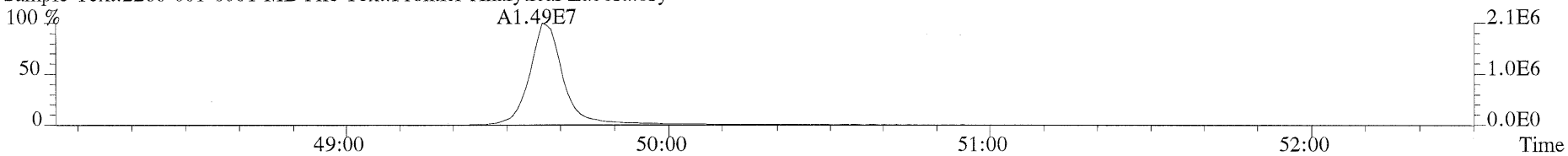
File:10MAY11M #1-347 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



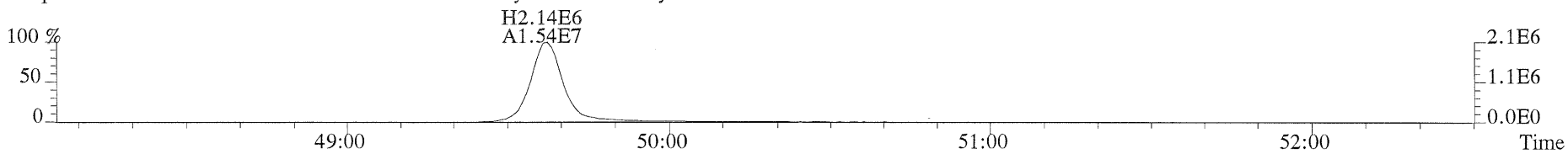
File:10MAY11M #1-347 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



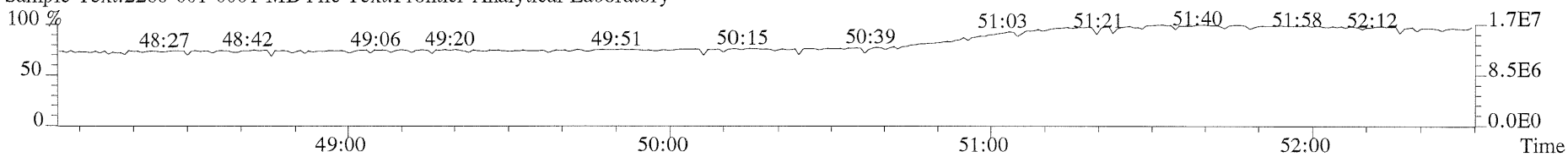
File:10MAY11M #1-347 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



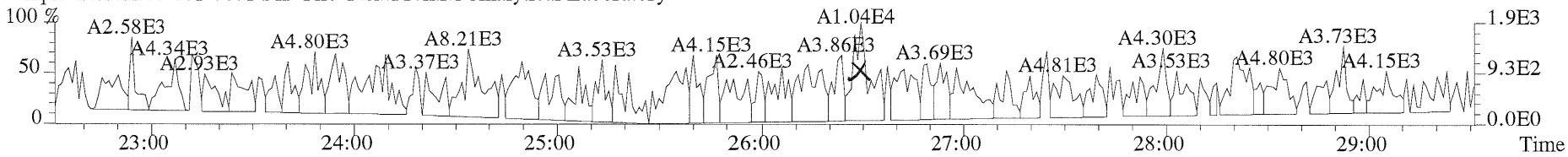
File:10MAY11M #1-347 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



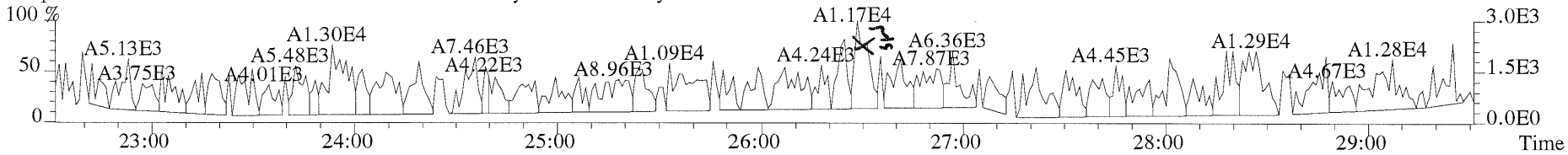
File:10MAY11M #1-347 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:3 F:5 Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



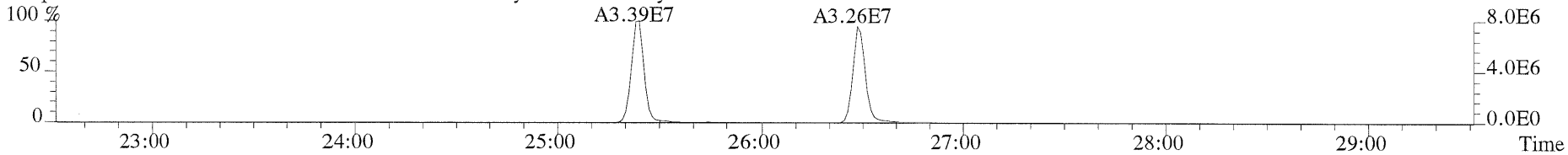
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



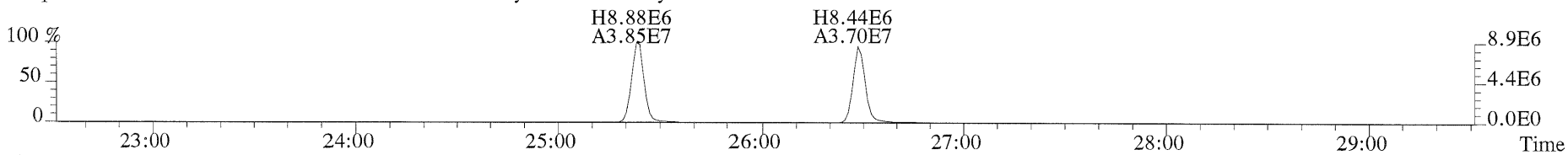
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



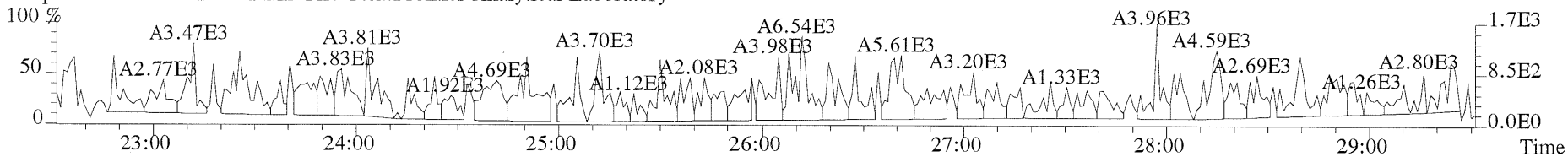
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:3 BSUB(10000,15,-3.0) BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



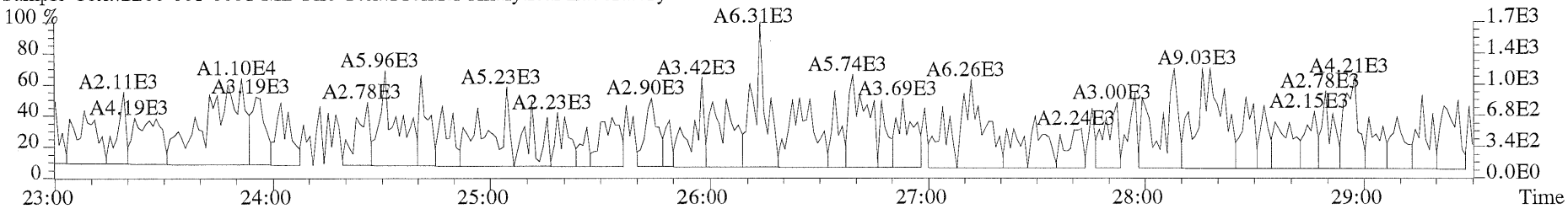
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:3 BSUB(10000,15,-3.0) BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



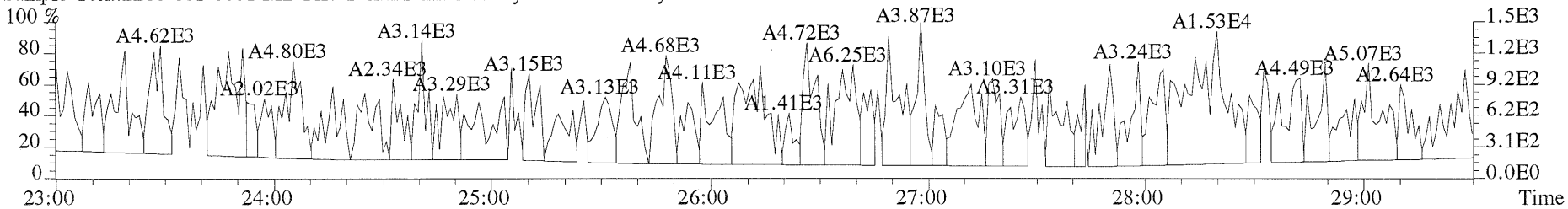
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:3 BSUB(10000,15,-3.0) BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



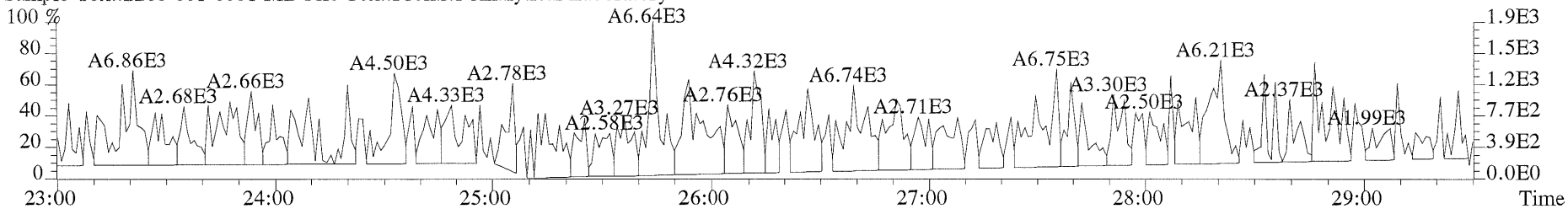
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



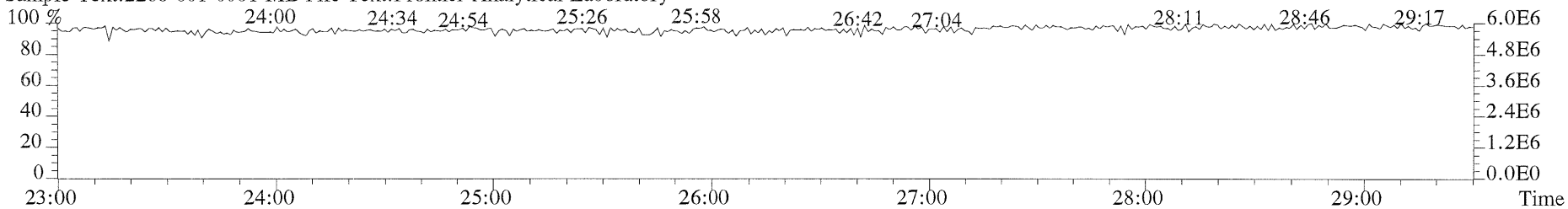
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



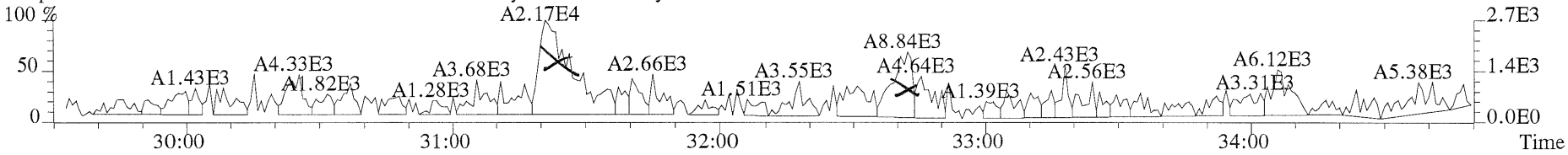
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



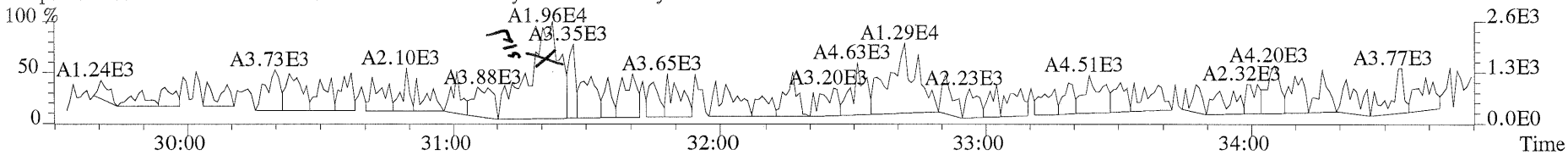
File:10MAY11M #1-426 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
316.9824 S:3 Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



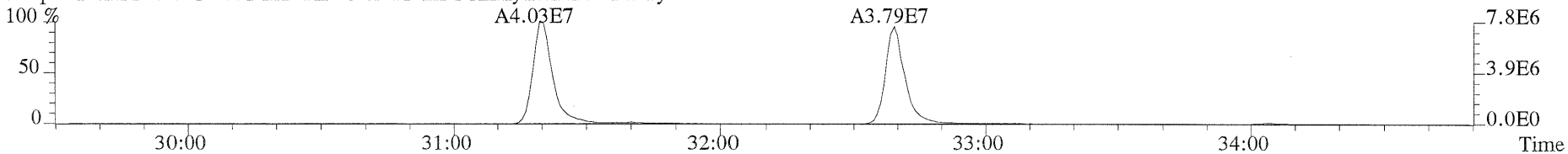
File:10MAY11M #1-411 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



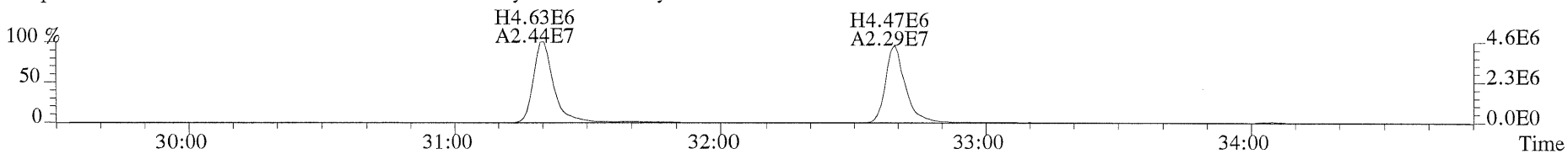
File:10MAY11M #1-411 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



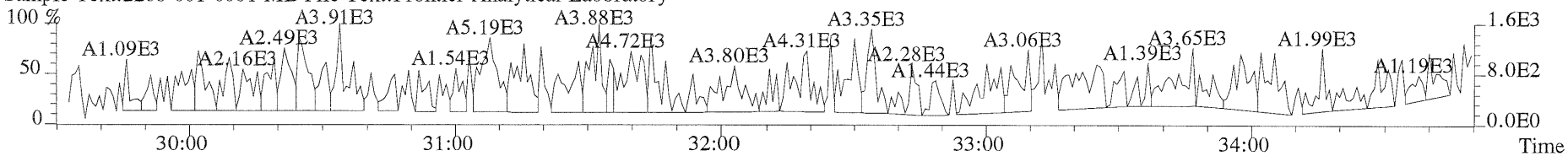
File:10MAY11M #1-411 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



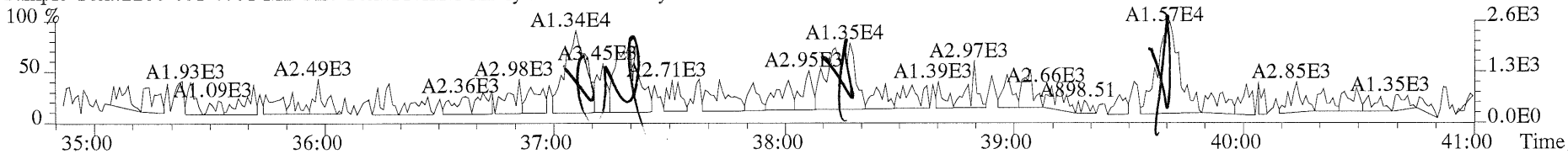
File:10MAY11M #1-411 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



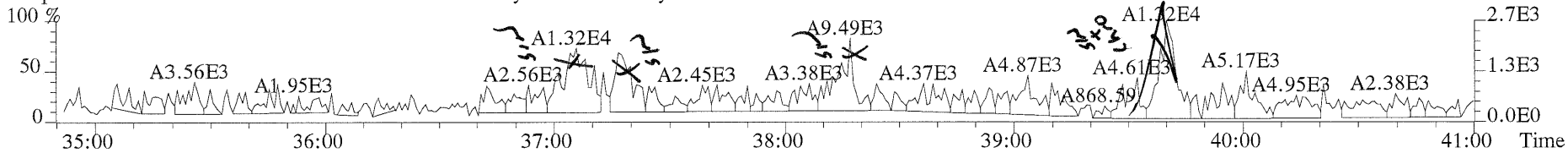
File:10MAY11M #1-411 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



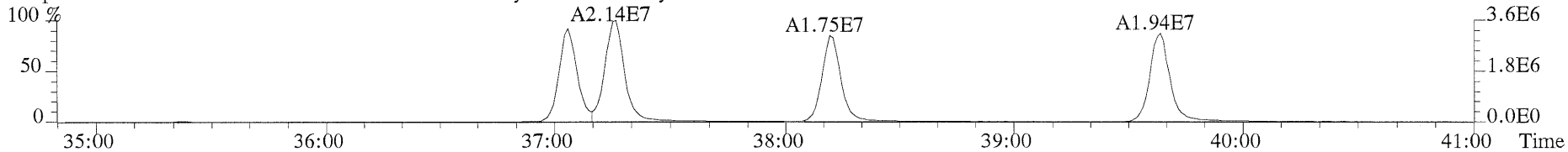
File:10MAY11M #1-477 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



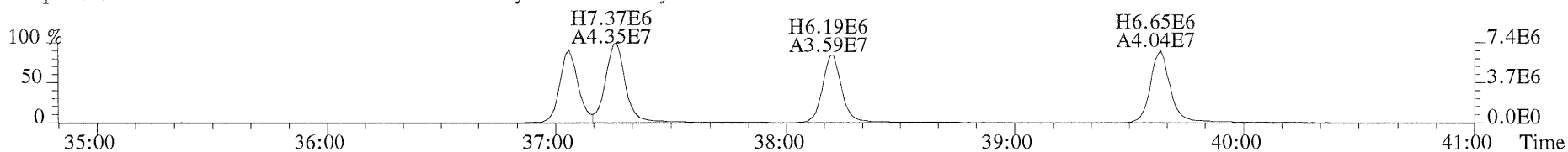
File:10MAY11M #1-477 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



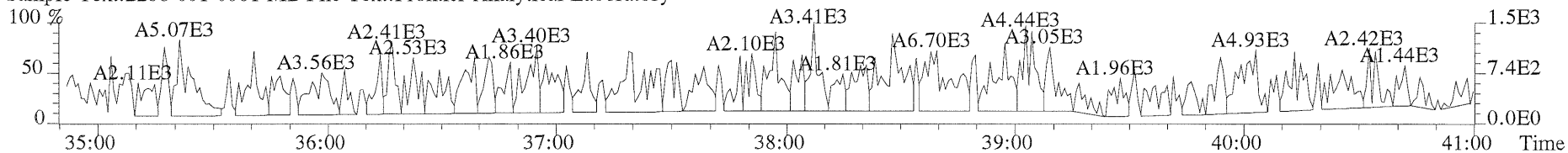
File:10MAY11M #1-477 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



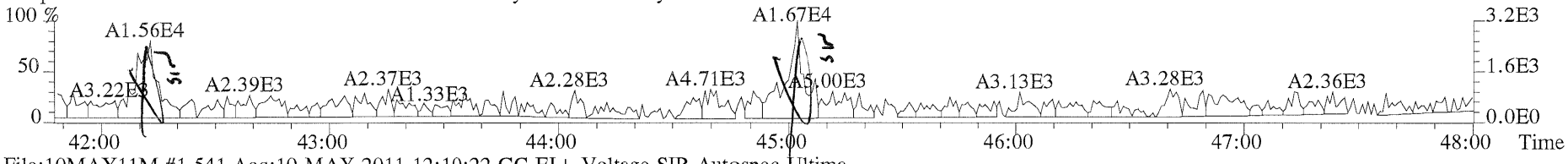
File:10MAY11M #1-477 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



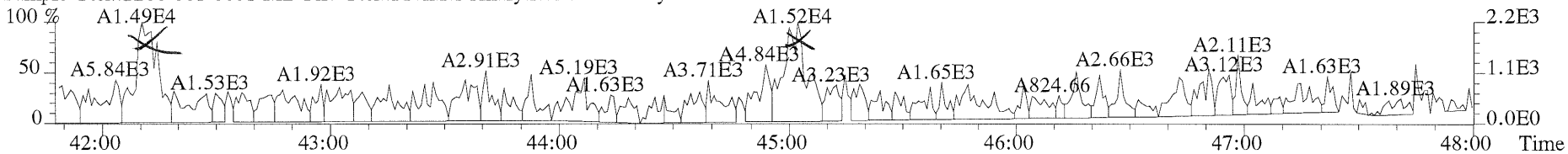
File:10MAY11M #1-477 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



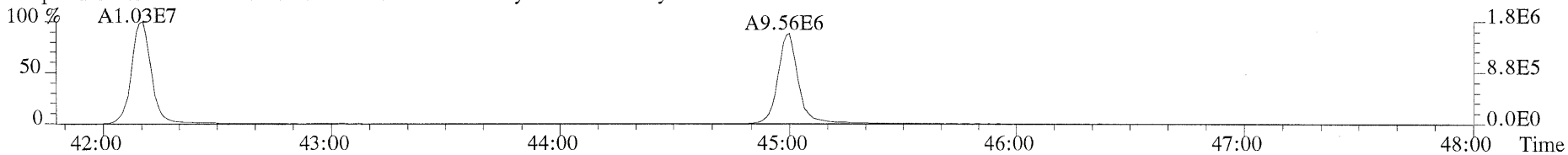
File:10MAY11M #1-541 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



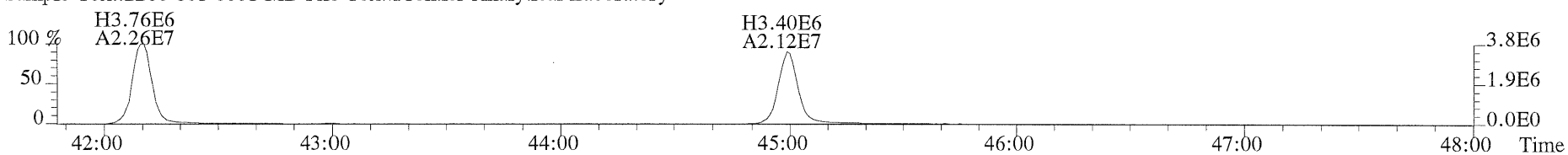
File:10MAY11M #1-541 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



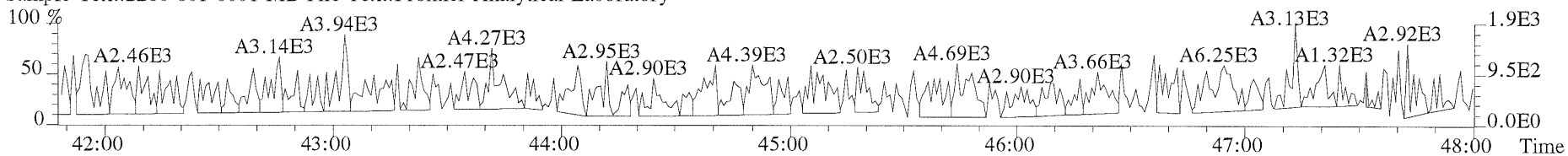
File:10MAY11M #1-541 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



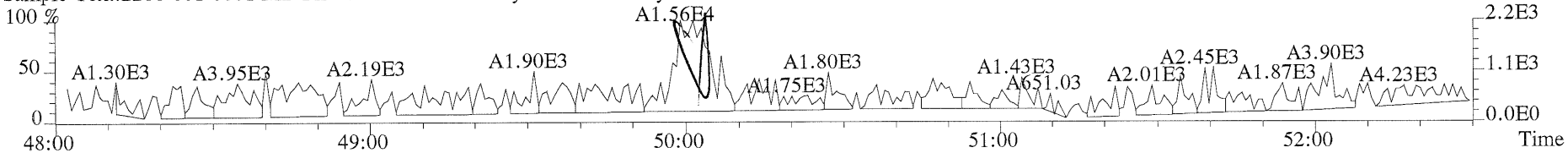
File:10MAY11M #1-541 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



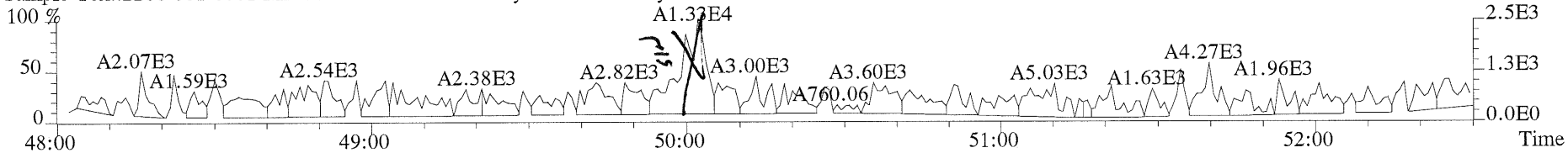
File:10MAY11M #1-541 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



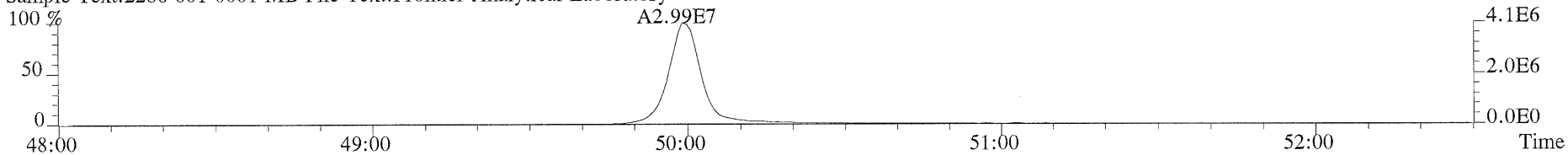
File:10MAY11M #1-347 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



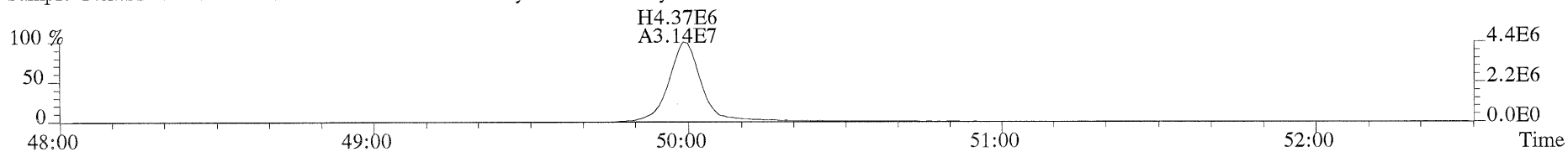
File:10MAY11M #1-347 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



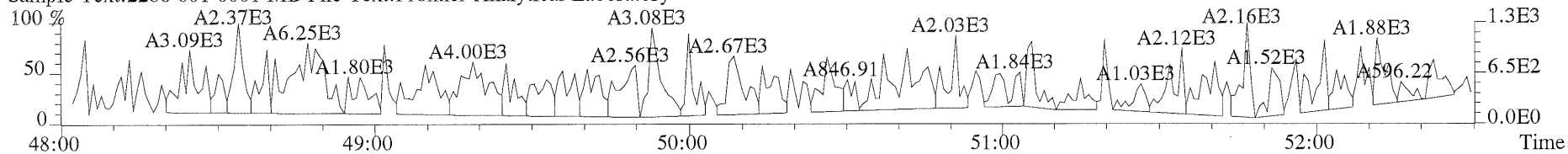
File:10MAY11M #1-347 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



File:10MAY11M #1-347 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



File:10MAY11M #1-347 Acq:10-MAY-2011 12:10:22 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-MB File Text:Frontier Analytical Laboratory



2286.001.0001.OPR

USEPA - ITD

FORM 8A
PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): Soil OPR Data Filename: 10MAY11M Sam:2

Ext. Date: 5/6/11 Shift: Day Analysis Date: 10-MAY-11 11:15:00

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
NATIVE ANALYTES			
2,3,7,8-TCDD	10	10.5	6.70 - 15.8 ✓
1,2,3,7,8-PeCDD	50	55.8	35.0 - 71.0 ✓
1,2,3,4,7,8-HxCDD	50	52.9	35.0 - 82.0 ✓
1,2,3,6,7,8-HxCDD	50	54.2	38.0 - 67.0 ✓
1,2,3,7,8,9-HxCDD	50	51.3	32.0 - 81.0 ✓
1,2,3,4,6,7,8-HpCDD	50	54.6	35.0 - 70.0 ✓
OCDD	100	109	78.0 - 144 ✓
2,3,7,8-TCDF	10	12.2	7.50 - 15.8 ✓
1,2,3,7,8-PeCDF	50	54.2	40.0 - 67.0 ✓
2,3,4,7,8-PeCDF	50	54.3	34.0 - 80.0 ✓
1,2,3,4,7,8-HxCDF	50	51.9	36.0 - 67.0 ✓
1,2,3,6,7,8-HxCDF	50	52.2	42.0 - 65.0 ✓
2,3,4,6,7,8-HxCDF	50	51.0	35.0 - 78.0 ✓
1,2,3,7,8,9-HxCDF	50	51.8	39.0 - 65.0 ✓
1,2,3,4,6,7,8-HpCDF	50	51.5	41.0 - 61.0 ✓
1,2,3,4,7,8,9-HpCDF	50	53.3	39.0 - 69.0 ✓
OCDF	100	105	63.0 - 170 ✓

(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613

Analyst: _____ Date: 5/11/11

USEPA - ITD

FORM 8B

PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

Lab Name: Frontier Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Matrix (aqueous/solid/leachate): Soil OPR Data Filename: 10MAY11M Sam:2

Ext. Date: 5/6/11 Shift: Day Analysis Date: 10-MAY-11 11:15:00

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT.

	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (1) (ng/mL)
LABELED COMPOUNDS			
13C-2,3,7,8-TCDD	100	94.8	20.0 - 175
13C-1,2,3,7,8-PeCDD	100	87.1	21.0 - 227
13C-1,2,3,4,7,8-HxCDD	100	95.6	21.0 - 193
13C-1,2,3,6,7,8-HxCDD	100	101	25.0 - 163
13C-1,2,3,4,6,7,8-HpCDD	100	108	26.0 - 166
13C-OCDD	200	140	26.0 - 397
13C-2,3,7,8-TCDF	100	98.4	22.0 - 152
13C-1,2,3,7,8-PeCDF	100	105	21.0 - 192
13C-2,3,4,7,8-PeCDF	100	98.3	13.0 - 328
13C-1,2,3,4,7,8-HxCDF	100	101	19.0 - 202
13C-1,2,3,6,7,8-HxCDF	100	100	21.0 - 159
13C-2,3,4,6,7,8-HxCDF	100	90.2	22.0 - 176
13C-1,2,3,7,8,9-HxCDF	100	95.6	17.0 - 205
13C-1,2,3,4,6,7,8-HpCDF	100	107	21.0 - 158
13C-1,2,3,4,7,8,9-HpCDF	100	119	20.0 - 186
13C-OCDF	200	153	26.0 - 397
CLEANUP STANDARD			
37Cl-2,3,7,8-TCDD	40	35.0	12.4 - 76.4

(1) Contract-required concentration limits for OPR as specified in Table 6, Method 1613
Labeled compound concentration limits are based on required percent recovery of 25%-150%.

Analyst: _____ Date: 5/11/11

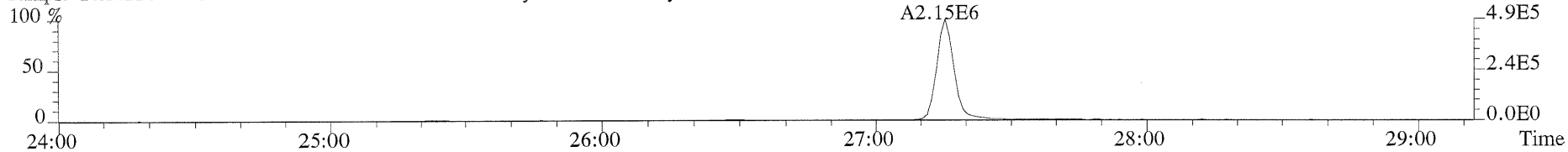
FAL ID: 2286-001-0001-OPR Filename: 10MAY11M Sam:2 Acquired: 10-MAY-11 11:15:00 ICal: PCDDFAL3-3-7-11
Client ID: OPR ConCal: ST051011M1 EndCal: ST051011M2
Results: 2286 GC Column: DB5 Amount: 1.000 NATO 1989 Tox: 108
WHO 1998 Tox: 136 WHO 2005 Tox: 124

Name	Resp	RA	RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	4.89e+06	0.78 y	27:15	1.13	10.5		2.50	-	-	*
1,2,3,7,8-PeCDD	2.10e+07	1.56 y	33:06	1.02	55.8		2.50	-	-	*
1,2,3,4,7,8-HxCDD	2.38e+07	1.31 y	38:28	1.45	52.9		2.50	-	-	*
1,2,3,6,7,8-HxCDD	2.03e+07	1.31 y	38:38	1.45	54.2		2.50	-	-	*
1,2,3,7,8,9-HxCDD	2.14e+07	1.29 y	39:06	1.47	51.3		2.50	-	-	*
1,2,3,4,6,7,8-HpCDD	1.73e+07	0.91 y	44:05	1.30	54.6		2.50	-	-	*
OCDD	1.82e+07	0.94 y	49:39	1.45	109		2.50	-	-	*
2,3,7,8-TCDF	9.38e+06	0.69 y	26:30	1.15	12.2		2.50	-	-	*
1,2,3,7,8-PeCDF	2.93e+07	1.52 y	31:22	0.89	54.2		2.50	-	-	*
2,3,4,7,8-PeCDF	2.67e+07	1.50 y	32:40	0.89	54.3		2.50	-	-	*
1,2,3,4,7,8-HxCDF	2.66e+07	1.24 y	37:05	1.01	51.9		2.50	-	-	*
1,2,3,6,7,8-HxCDF	2.91e+07	1.22 y	37:17	0.89	52.2		2.50	-	-	*
2,3,4,6,7,8-HxCDF	2.38e+07	1.19 y	38:13	1.02	51.0		2.50	-	-	*
1,2,3,7,8,9-HxCDF	2.95e+07	1.24 y	39:40	1.10	51.8		2.50	-	-	*
1,2,3,4,6,7,8-HpCDF	2.19e+07	1.05 y	42:11	1.48	51.5		2.50	-	-	*
1,2,3,4,7,8,9-HpCDF	1.89e+07	1.07 y	45:00	1.43	53.3		2.50	-	-	*
OCDF	2.16e+07	0.92 y	50:00	0.84	105		2.50	-	-	*
										Rec
13C-2,3,7,8-TCDD	4.10e+07	0.78 y	27:14	1.03	94.8					94.8
13C-1,2,3,7,8-PeCDD	3.70e+07	1.75 y	33:05	1.01	87.1					87.1
13C-1,2,3,4,7,8-HxCDD	3.11e+07	1.28 y	38:28	1.19	95.6					95.6
13C-1,2,3,6,7,8-HxCDD	2.57e+07	1.22 y	38:37	0.94	101					101
13C-1,2,3,4,6,7,8-HpCDD	2.44e+07	1.03 y	44:05	0.83	108					108
13C-OCDD	2.31e+07	0.96 y	49:37	0.61	140					69.8
13C-2,3,7,8-TCDF	6.72e+07	0.88 y	26:29	0.98	98.4					98.4
13C-1,2,3,7,8-PeCDF	6.09e+07	1.64 y	31:20	0.83	105					105
13C-2,3,4,7,8-PeCDF	5.51e+07	1.66 y	32:40	0.80	98.3					98.3
13C-1,2,3,4,7,8-HxCDF	5.09e+07	0.49 y	37:03	1.84	101					101
13C-1,2,3,6,7,8-HxCDF	6.26e+07	0.49 y	37:16	2.29	100					100
13C-2,3,4,6,7,8-HxCDF	4.58e+07	0.50 y	38:12	1.86	90.2					90.2
13C-1,2,3,7,8,9-HxCDF	5.17e+07	0.48 y	39:38	1.98	95.6					95.6
13C-1,2,3,4,6,7,8-HpCDF	2.88e+07	0.45 y	42:10	0.99	107					107
13C-1,2,3,4,7,8,9-HpCDF	2.48e+07	0.45 y	44:59	0.77	119					119
13C-OCDF	4.87e+07	0.95 y	49:59	1.17	153					76.5
37Cl-2,3,7,8-TCDD	1.07e+07		27:15	0.73	35.0					87.6
13C-1,2,3,4-TCDD	4.21e+07	0.78 y	26:40	-	111					
13C-1,2,3,4-TCDF	6.97e+07	0.88 y	25:24	-	96.9					
13C-1,2,3,7,8,9-HxCDD	2.73e+07	1.26 y	39:04	-	110					

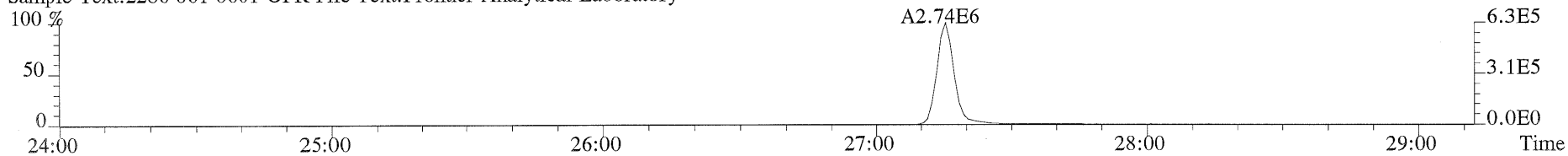
						Fac	Noise-1	Noise-2	DL		#Hom
Total Tetra-Dioxins	4.96e+06		25:47	1.13	10.7	2.50	-	-	*		8
Total Penta-Dioxins	2.11e+07		33:06	1.02	56.1	2.50	-	-	*		4
Total Hexa-Dioxins	6.60e+07		38:28	1.46	160	2.50	-	-	*		11
Total Hepta-Dioxins	1.76e+07		42:43	1.30	55.5	2.50	-	-	*		10
Total Tetra-Furans	9.50e+06		23:41	1.15	12.3	2.50	-	-	*		5
1st Fn. Tot Penta-Furans	1.72e+05		22:40	0.89	0.334	2.50	-	-	*	PeCDF	29
Total Penta-Furans	5.73e+07		30:06	0.89	111	2.50	-	-	*	111	10
Total Hexa-Furans	1.09e+08		35:25	1.00	207	2.50	-	-	*		5
Total Hepta-Furans	4.12e+07		42:11	1.46	106	2.50	-	-	*		9

Analyst: _____ Date: 5/11/11

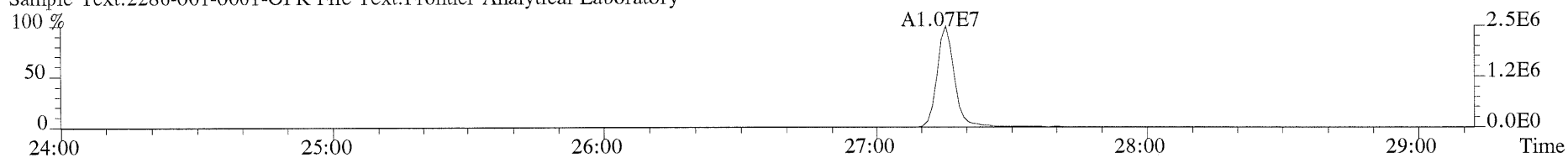
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



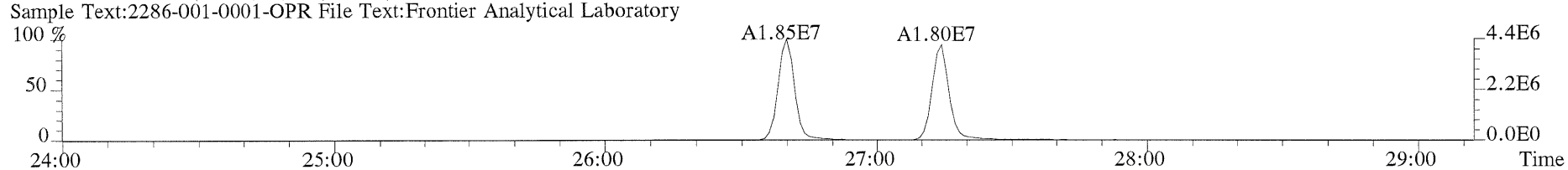
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
321.8936 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



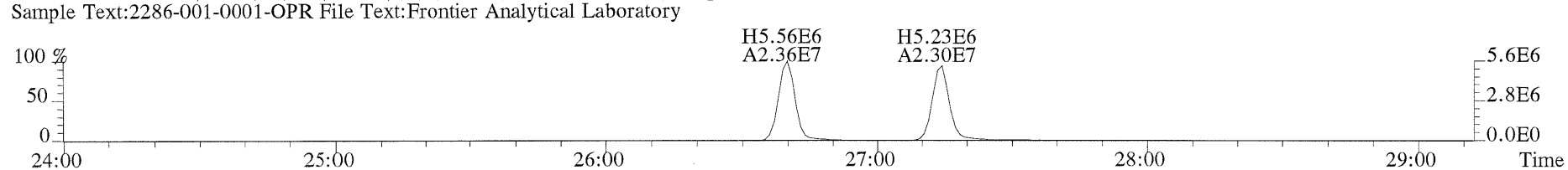
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
327.8847 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



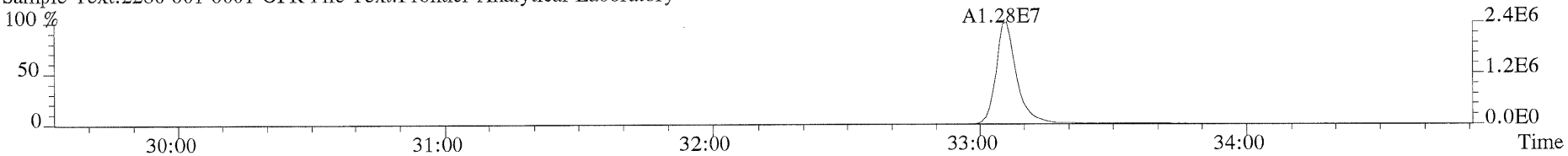
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
331.9368 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



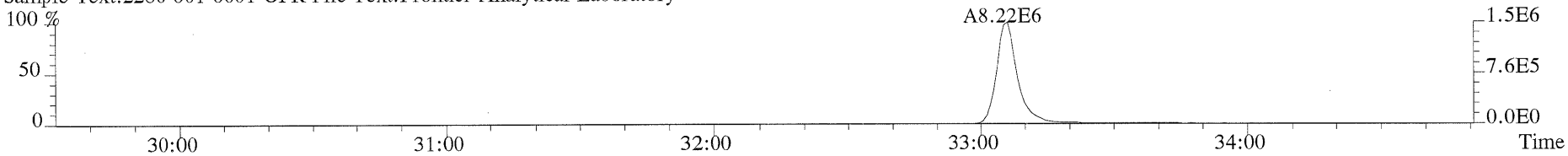
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
333.9339 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



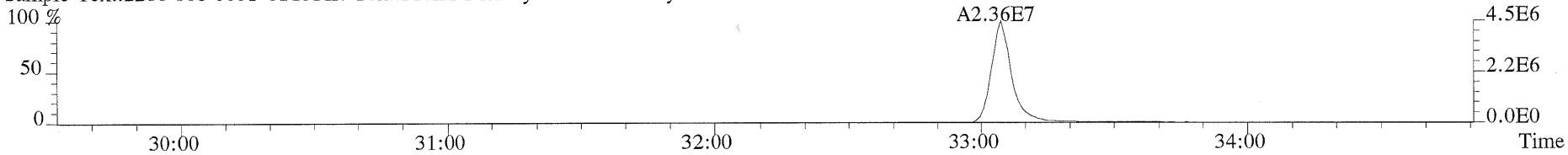
File:10MAY11M #1-412 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
355.8546 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



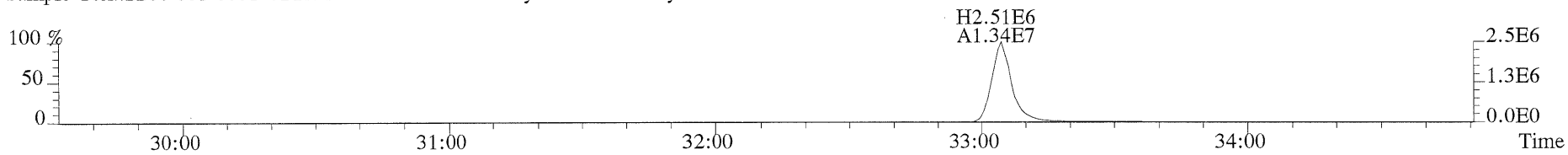
File:10MAY11M #1-412 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
357.8517 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



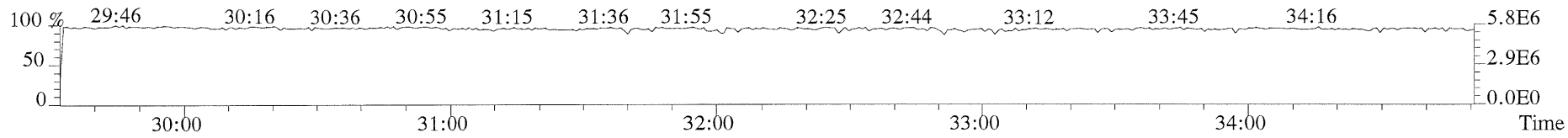
File:10MAY11M #1-412 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
367.8949 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



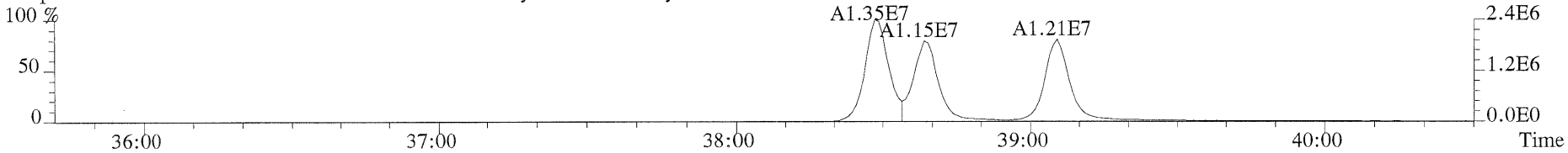
File:10MAY11M #1-412 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
369.8919 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



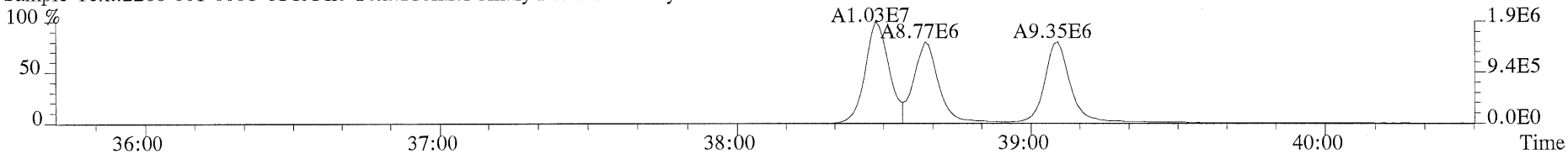
File:10MAY11M #1-412 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
366.9792 S:2 F:2 Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



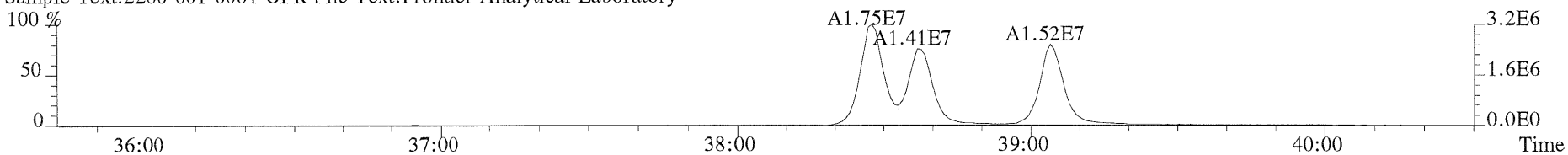
File:10MAY11M #1-476 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



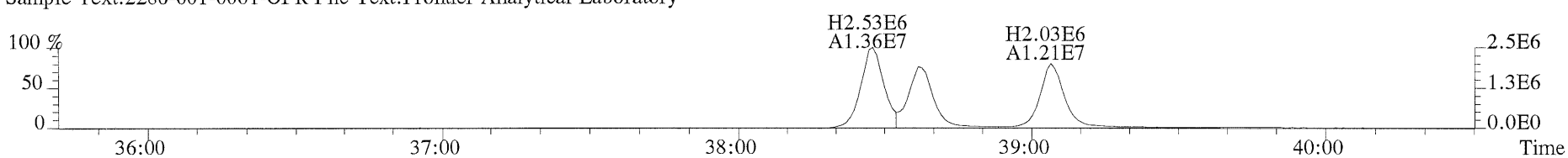
File:10MAY11M #1-476 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
391.8127 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



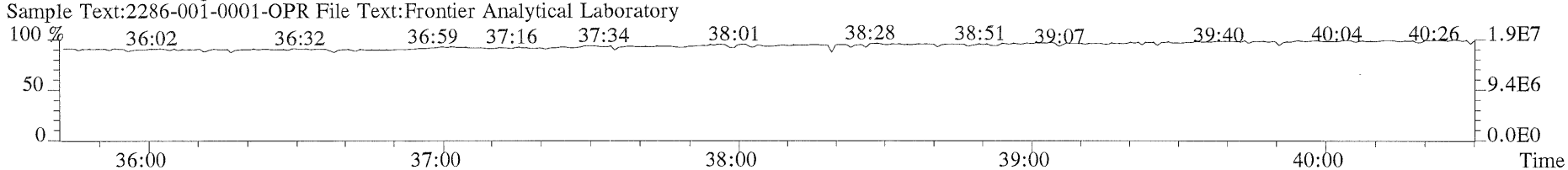
File:10MAY11M #1-476 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
401.8559 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



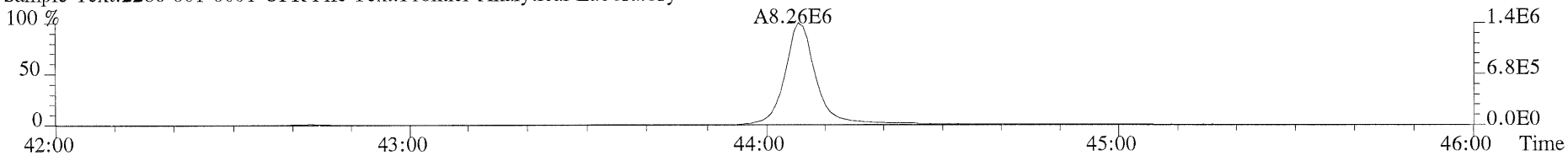
File:10MAY11M #1-476 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
403.8530 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



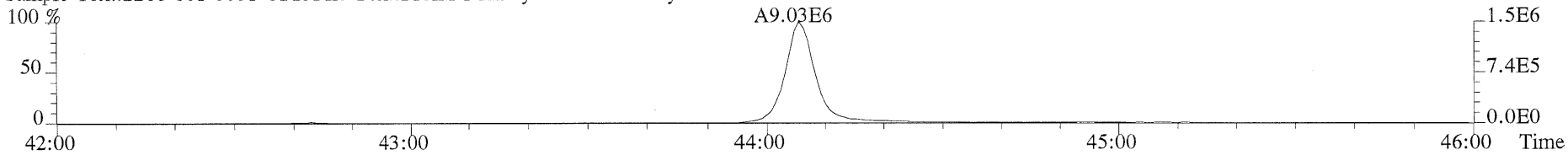
File:10MAY11M #1-476 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
380.9760 S:2 F:3 Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



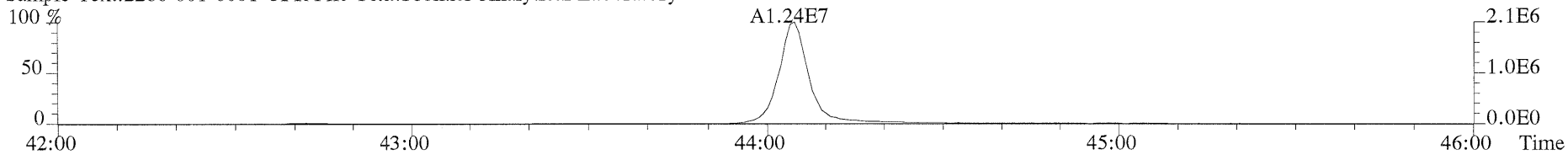
File:10MAY11M #1-541 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



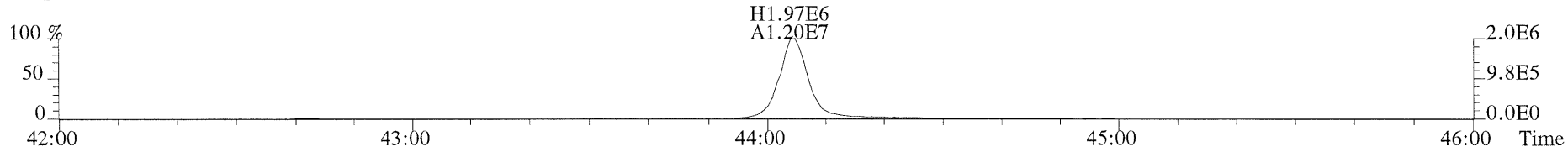
File:10MAY11M #1-541 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
425.7737 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



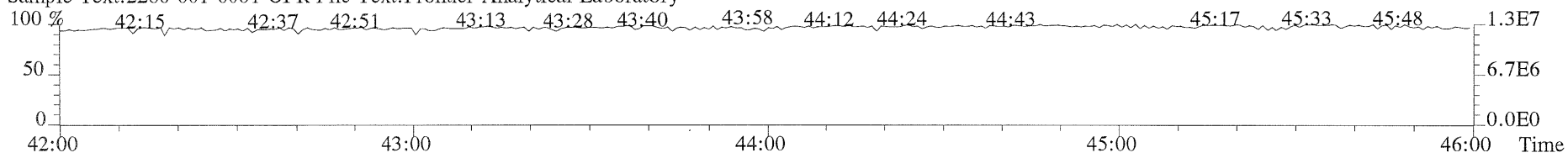
File:10MAY11M #1-541 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
435.8169 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



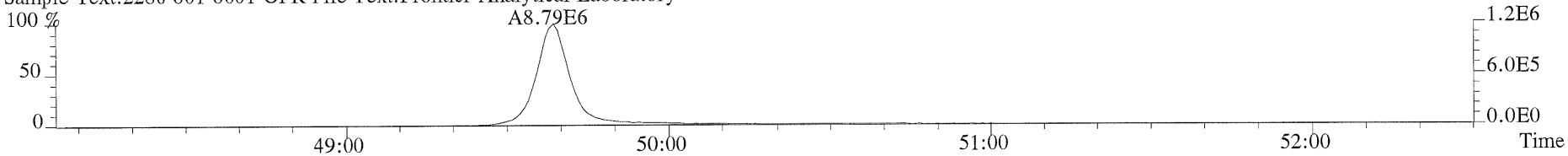
File:10MAY11M #1-541 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
437.8140 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



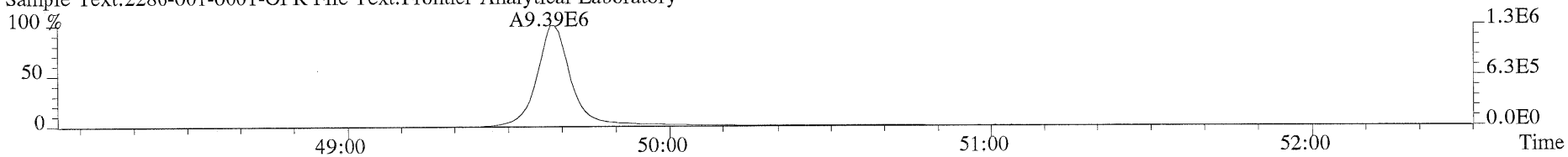
File:10MAY11M #1-541 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
430.9728 S:2 F:4 Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



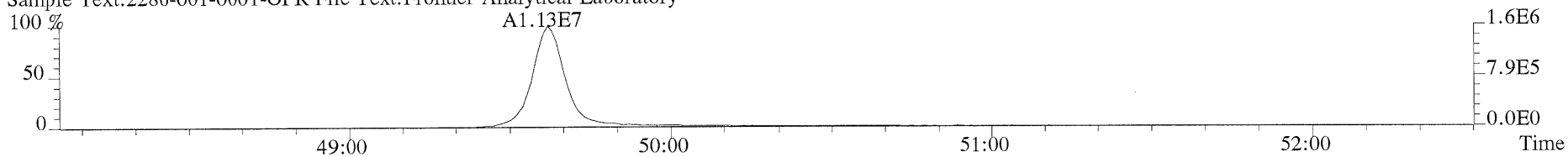
File:10MAY11M #1-348 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



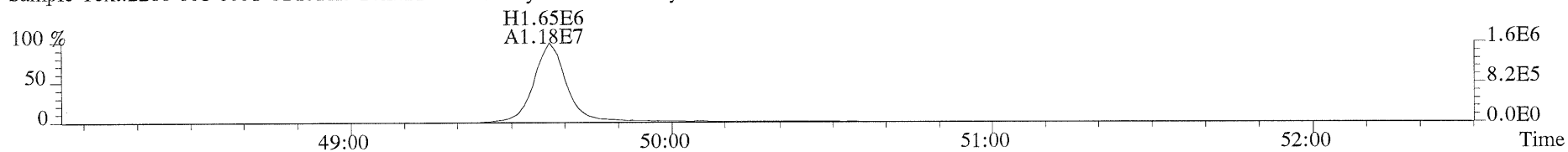
File:10MAY11M #1-348 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
459.7348 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



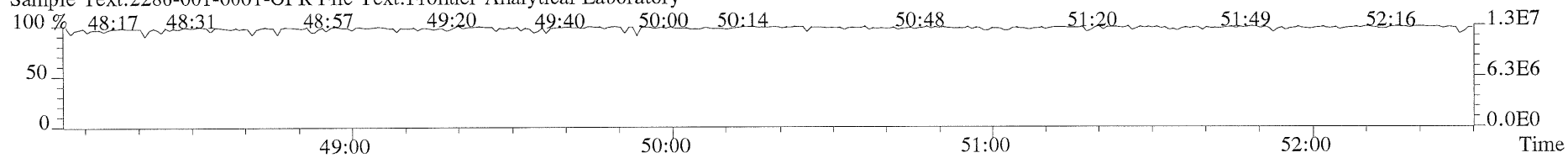
File:10MAY11M #1-348 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
469.7780 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



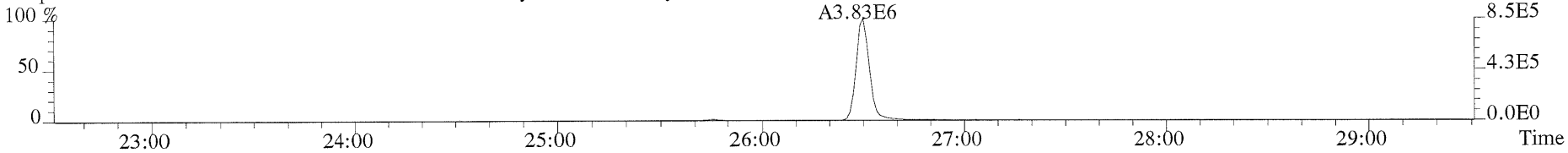
File:10MAY11M #1-348 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
471.7750 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



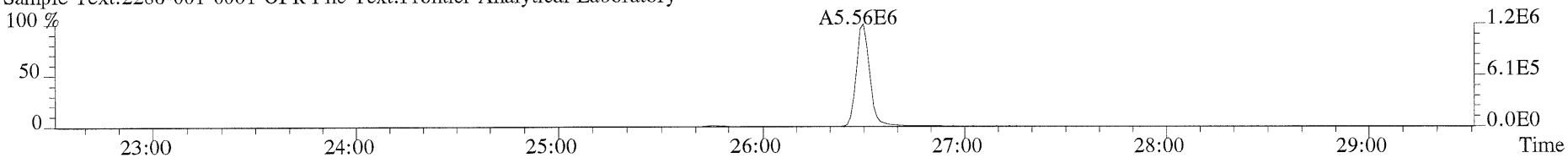
File:10MAY11M #1-348 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
454.9728 S:2 F:5 Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



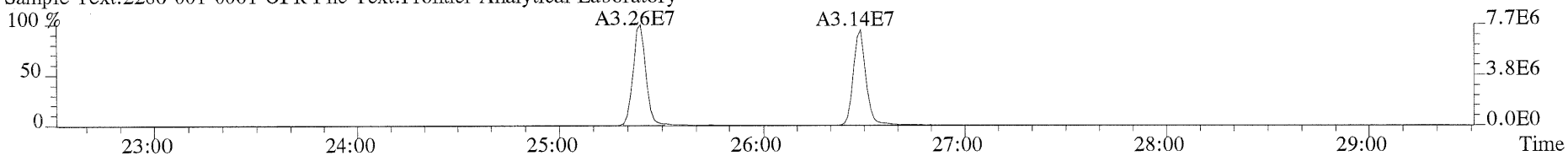
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



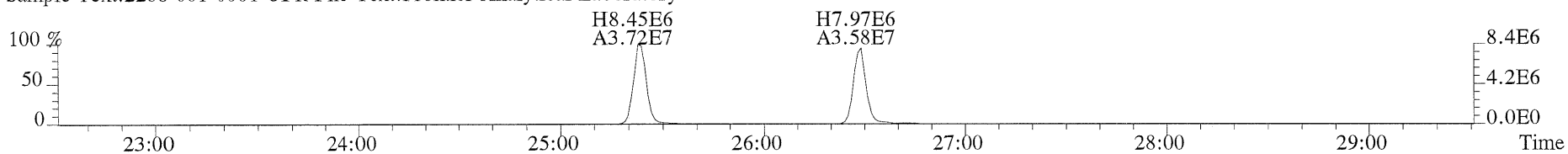
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
305.8987 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



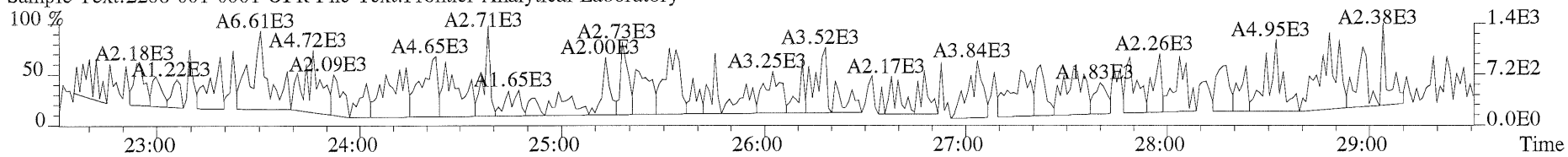
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
315.9419 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



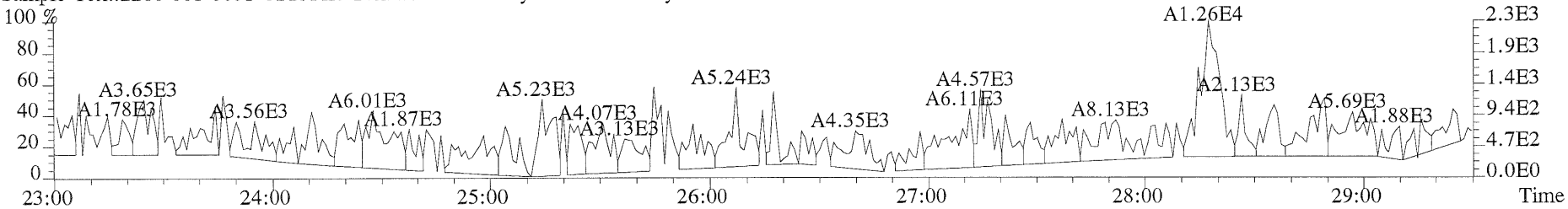
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
317.9389 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



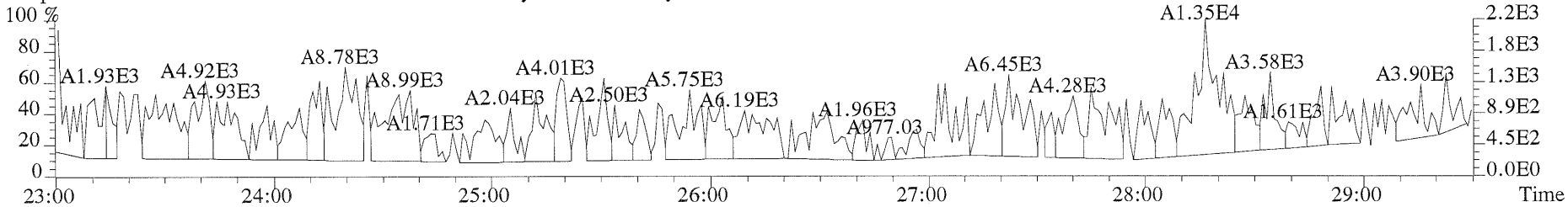
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



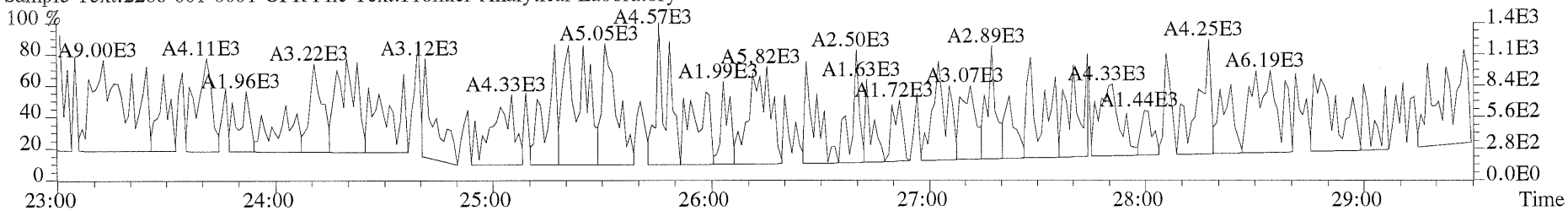
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



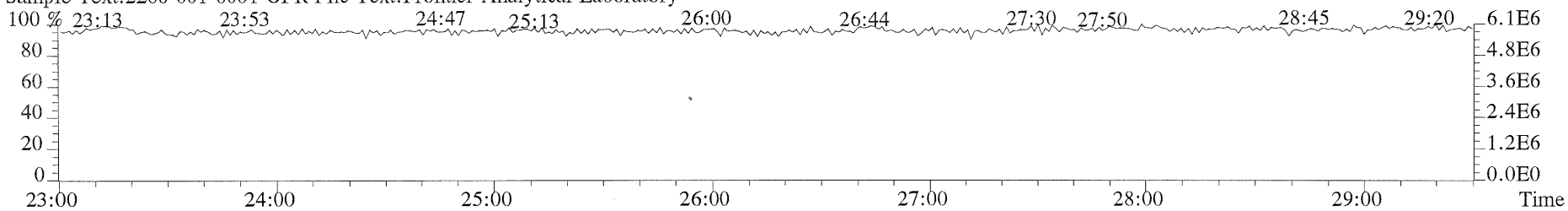
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



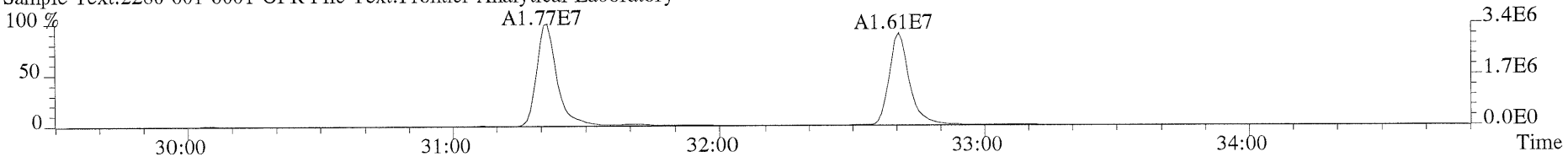
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



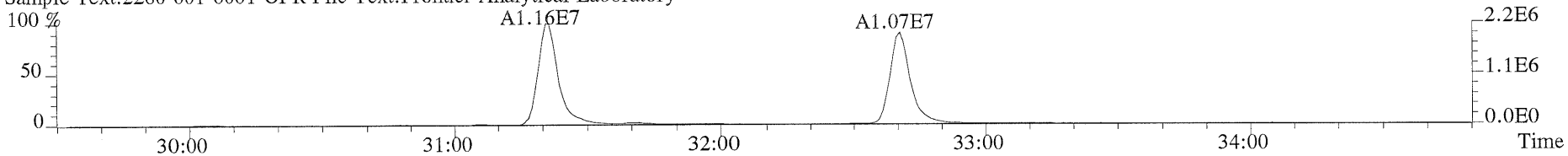
File:10MAY11M #1-426 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
316.9824 S:2 Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



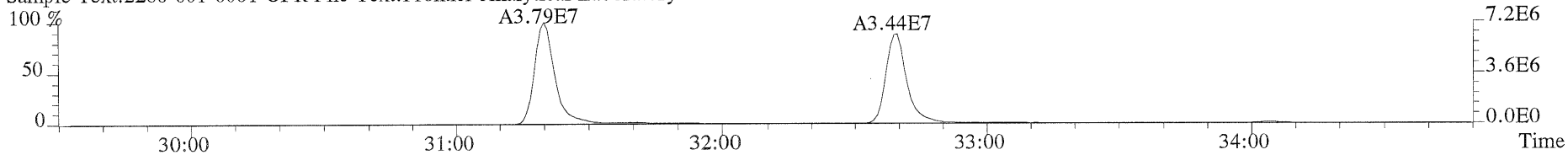
File:10MAY11M #1-412 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



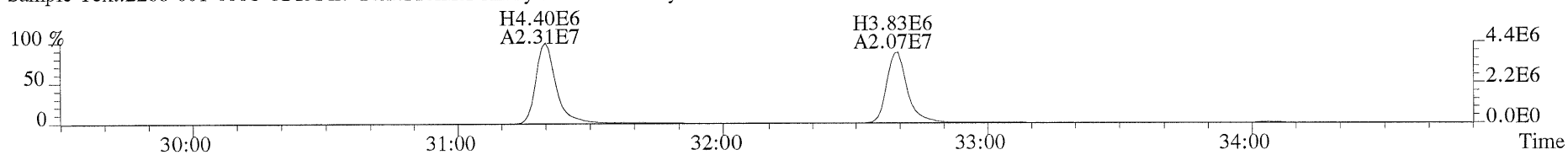
File:10MAY11M #1-412 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
341.8568 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



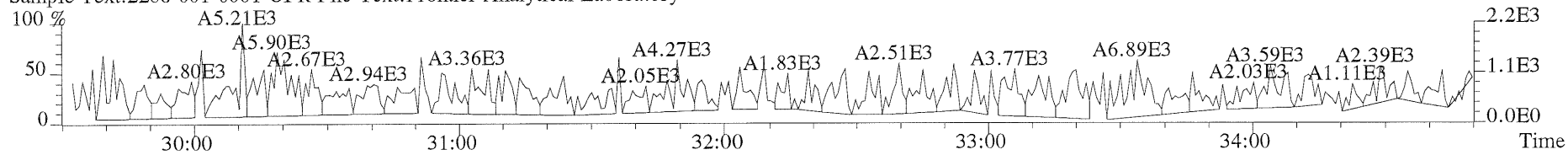
File:10MAY11M #1-412 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
351.9000 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



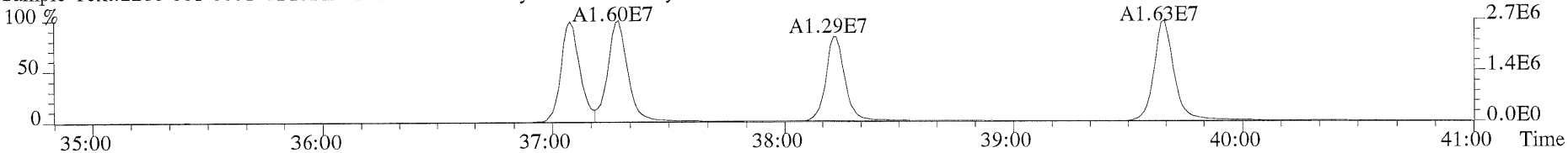
File:10MAY11M #1-412 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
353.8970 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



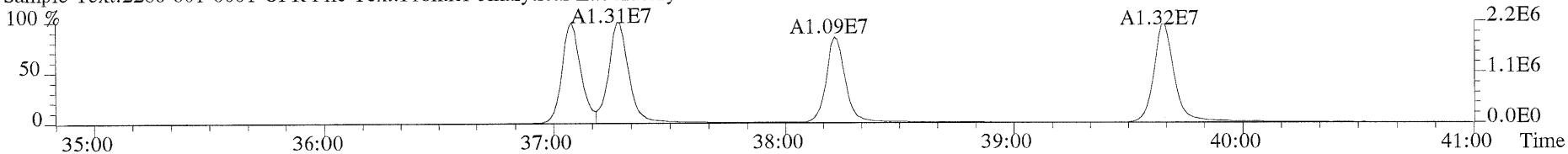
File:10MAY11M #1-412 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
409.7974 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



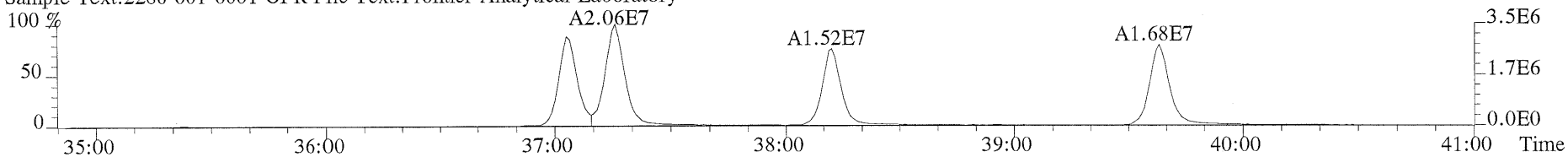
File:10MAY11M #1-476 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



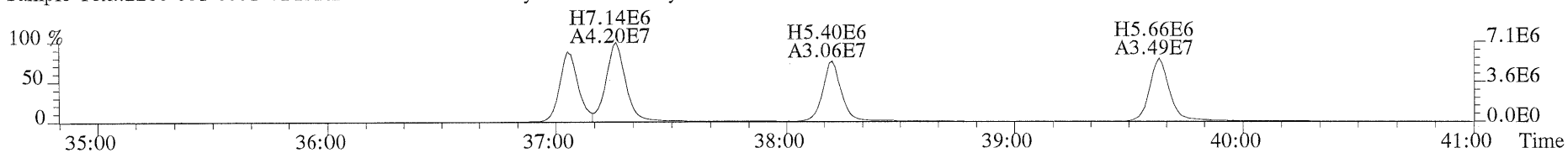
File:10MAY11M #1-476 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
375.8178 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



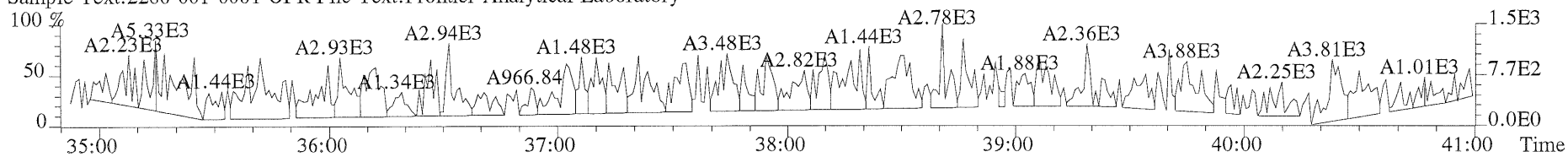
File:10MAY11M #1-476 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



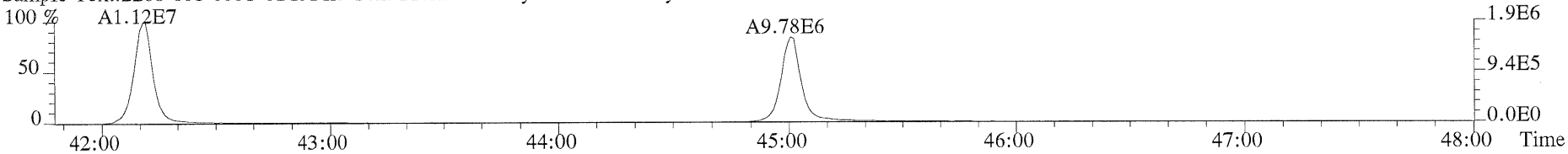
File:10MAY11M #1-476 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
385.8610 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



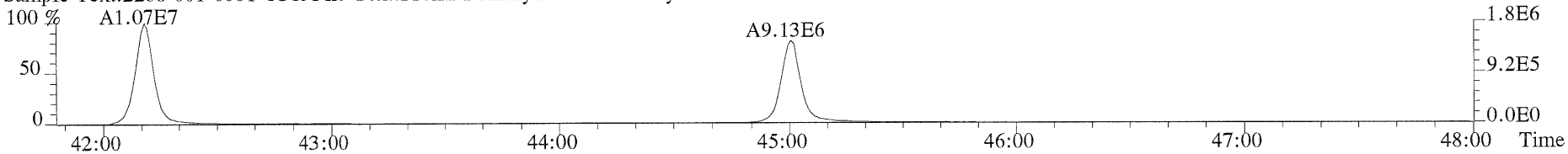
File:10MAY11M #1-476 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



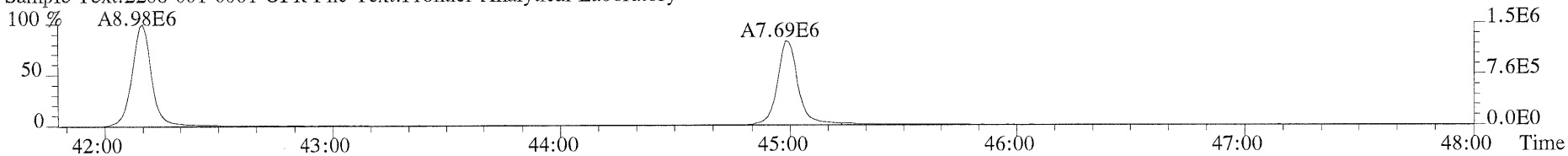
File:10MAY11M #1-541 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



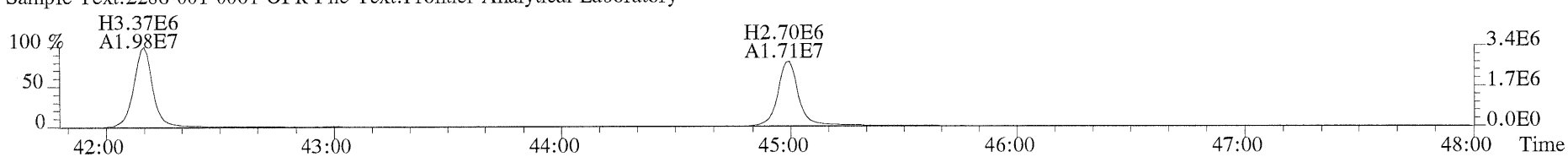
File:10MAY11M #1-541 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
409.7788 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



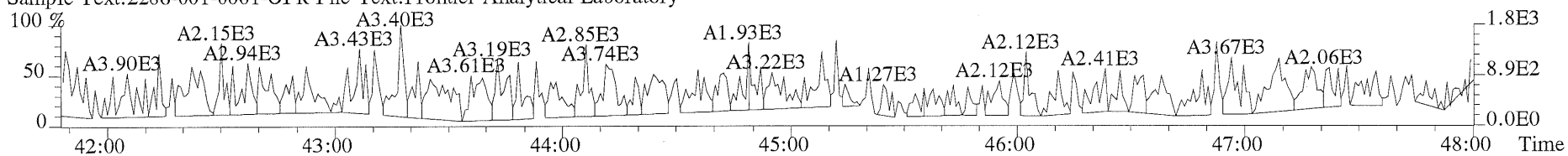
File:10MAY11M #1-541 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
417.8253 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



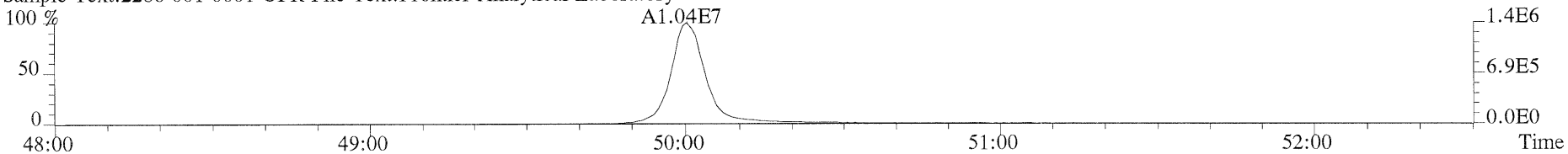
File:10MAY11M #1-541 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
419.8220 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



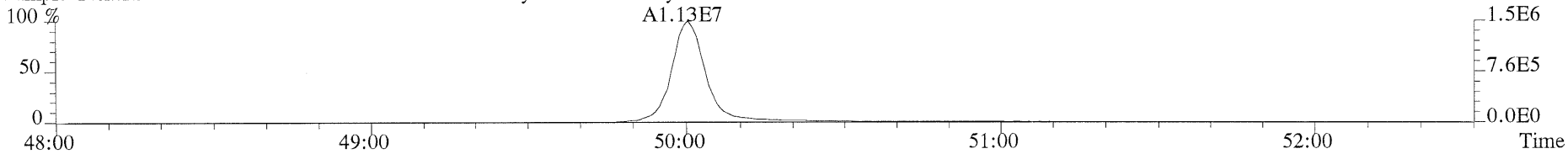
File:10MAY11M #1-541 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
479.7165 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



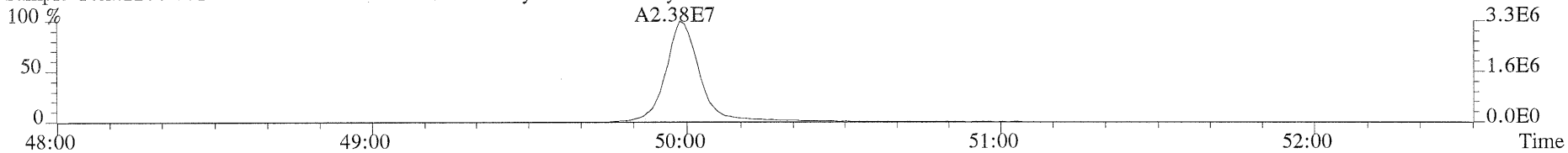
File:10MAY11M #1-348 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



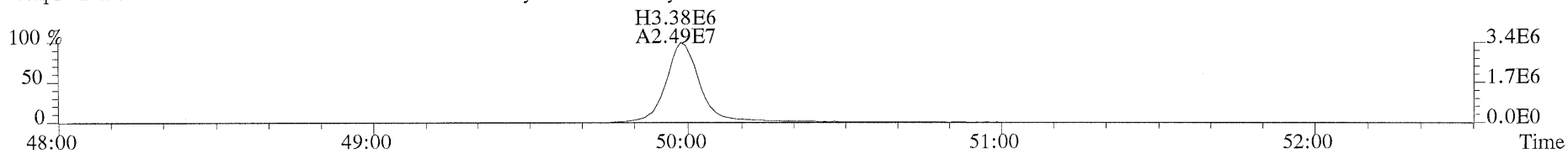
File:10MAY11M #1-348 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
443.7398 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



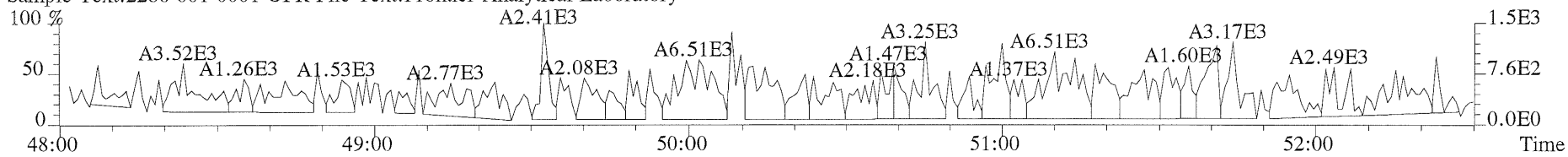
File:10MAY11M #1-348 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
453.7831 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



File:10MAY11M #1-348 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
455.7801 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



File:10MAY11M #1-348 Acq:10-MAY-2011 11:15:00 GC EI+ Voltage SIR Autospec-Ultima
513.6775 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F) Exp:OCDD
Sample Text:2286-001-0001-OPR File Text:Frontier Analytical Laboratory



FAL ID: 2287-001-0001-MB Filename: 10MAY11M Sam:18 Acquired: 11-MAY-11 02:00:32 ICal: PCDDFAL3-3-7-11
Client ID: Method Blank ConCal: ST051011M2 EndCal: ST051011M3
Results: 2286 GC Column: DB5 Amount: 5.000 NATO 1989 Tox: 0.00
WHO 1998 Tox: 0.00 WHO 2005 Tox: 0.00

Name	Resp	RA		RT	RRF	Conc	Qual	Fac	Noise-1	Noise-2	DL
2,3,7,8-TCDD	*	*	n	NotFnd	1.13	*		2.50	696	728	0.118
1,2,3,7,8-PeCDD	*	*	n	NotFnd	1.02	*		2.50	748	572	0.158
1,2,3,4,7,8-HxCDD	*	*	n	NotFnd	1.45	*		2.50	1370	903	0.229
1,2,3,6,7,8-HxCDD	*	*	n	NotFnd	1.45	*		2.50	1370	903	0.300
1,2,3,7,8,9-HxCDD	*	*	n	NotFnd	1.47	*		2.50	1370	903	0.258
1,2,3,4,6,7,8-HpCDD	*	*	n	NotFnd	1.30	*		2.50	1250	1220	0.359
OCDD	*	*	n	NotFnd	1.45	*		2.50	1840	1680	0.834
2,3,7,8-TCDF	*	*	n	NotFnd	1.15	*		2.50	776	1220	0.103
1,2,3,7,8-PeCDF	*	*	n	NotFnd	0.89	*		2.50	632	840	0.116
2,3,4,7,8-PeCDF	*	*	n	NotFnd	0.89	*		2.50	632	840	0.122
1,2,3,4,7,8-HxCDF	*	*	n	NotFnd	1.01	*		2.50	588	624	0.108
1,2,3,6,7,8-HxCDF	*	*	n	NotFnd	0.89	*		2.50	588	624	0.109
2,3,4,6,7,8-HxCDF	*	*	n	NotFnd	1.02	*		2.50	588	624	0.113
1,2,3,7,8,9-HxCDF	*	*	n	NotFnd	1.10	*		2.50	588	624	0.108
1,2,3,4,6,7,8-HpCDF	*	*	n	NotFnd	1.48	*		2.50	712	644	0.146
1,2,3,4,7,8,9-HpCDF	*	*	n	NotFnd	1.43	*		2.50	712	644	0.201
OCDF	*	*	n	NotFnd	0.84	*		2.50	841	881	0.403
											Rec
13C-2,3,7,8-TCDD	4.62e+07	0.79	y	27:14	1.03	387					96.6
13C-1,2,3,7,8-PeCDD	4.43e+07	1.76	y	33:03	1.01	377					94.3
13C-1,2,3,4,7,8-HxCDD	3.72e+07	1.25	y	38:27	1.19	375					93.6
13C-1,2,3,6,7,8-HxCDD	3.08e+07	1.25	y	38:37	0.94	395					98.8
13C-1,2,3,4,6,7,8-HpCDD	3.12e+07	1.07	y	44:04	0.83	453					113
13C-OCDD	4.15e+07	0.98	y	49:37	0.61	820					103
13C-2,3,7,8-TCDF	7.40e+07	0.87	y	26:29	0.98	392					97.9
13C-1,2,3,7,8-PeCDF	7.20e+07	1.65	y	31:20	0.83	450					112
13C-2,3,4,7,8-PeCDF	6.90e+07	1.66	y	32:39	0.80	445					111
13C-1,2,3,4,7,8-HxCDF	6.03e+07	0.49	y	37:03	1.84	393					98.2
13C-1,2,3,6,7,8-HxCDF	7.45e+07	0.49	y	37:15	2.29	390					97.5
13C-2,3,4,6,7,8-HxCDF	6.07e+07	0.49	y	38:11	1.86	391					97.8
13C-1,2,3,7,8,9-HxCDF	6.25e+07	0.49	y	39:38	1.98	378					94.6
13C-1,2,3,4,6,7,8-HpCDF	3.69e+07	0.46	y	42:09	0.99	449					112
13C-1,2,3,4,7,8,9-HpCDF	2.88e+07	0.45	y	44:59	0.77	452					113
13C-OCDF	7.69e+07	0.95	y	49:59	1.17	792					99.0
37Cl-2,3,7,8-TCDD	1.23e+07			27:15	0.73	145					90.6
13C-1,2,3,4-TCDD	4.65e+07	0.80	y	26:40	-	24.4					
13C-1,2,3,4-TCDF	7.72e+07	0.88	y	25:24	-	21.4					
13C-1,2,3,7,8,9-HxCDD	3.33e+07	1.26	y	39:04	-	26.9					

									#Hom
Total Tetra-Dioxins	*	NotFnd	1.13	*	2.50	696	728	0.118	0
Total Penta-Dioxins	*	NotFnd	1.02	*	2.50	748	572	0.158	0
Total Hexa-Dioxins	*	NotFnd	1.46	*	2.50	1370	903	0.300	0
Total Hepta-Dioxins	*	NotFnd	1.30	*	2.50	1250	1220	0.359	0
Total Tetra-Furans	*	NotFnd	1.15	*	2.50	776	1220	0.103	0
1st Fn. Tot Penta-Furans	*	NotFnd	0.89	*	2.50	632	840	0.122 PeCDF	0
Total Penta-Furans	*	NotFnd	0.89	*	2.50	632	840	0.122 *	0
Total Hexa-Furans	*	NotFnd	1.00	*	2.50	588	624	0.113	0
Total Hepta-Furans	*	NotFnd	1.46	*	2.50	712	644	0.201	0

Analyst: _____ Date: 5/11/11