

REMEDIAL INVESTIGATION REPORT

Addendum Appendix D - 1

**ALUMINUM LOUVRE CORPORATION
161 SWEET HOLLOW ROAD
OLD BETHPAGE, NEW YORK 11804**

LABORATORY REPORTS



**lab
Inc.**

In Business for the Environment

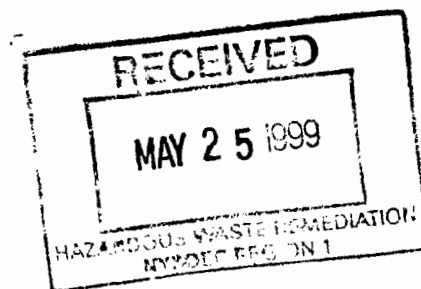
ANALYTICAL DATA REPORT PACKAGE

April 19, 1999

GCI

960285

VOLUME 1 OF 2



ANALab, Inc. - Randolph Facility
1152 Route 10
Randolph, NJ 07869
973-584-0330, FAX: 973-584-0515
APRIL 19, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
NJ #14116 NY #11376
US EPA CLP Lab

QUALITY ASSURANCE DATA
GC/MS Volatile
Matrix Spike Recovery

Batch number:	QV5853	Sample	MS
Spike Sample:	BLANK	Initial wt/vol:	5
Method:	8240	Final vol:	5
Matrix:	Water	Unit:	ug/L

For samples: 306389 306399

Compound	Conc Added	Sample Conc	Matrix Conc	Spike %	Limits Recovery
1,1-Dichloroethene	50	U	53	106	61-145
Trichloroethene	50	U	52	104	71-120
Benzene	50	U	55	110	76-127
Toluene	50	U	45	90	76-125
Chlorobenzene	50	U	44	88	75-130

* Values outside QC Limits.

** Spike recovery does not meet quality control limits due to a high concentration of this parameter in the spiked sample.

*** Recovery is determined from Blank Spike.

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KAT

QUANT REPORT

Operator ID: AT1446 Quant Rev: 7 Quant Time: 990316 21:07
 Output File: ^A3663::X1 Injected at: 990316 20:36
 Data File: >A3663::B1 Dilution Factor: 1.00000
 Name: INST 59701, BLK MS Instrument ID: INST "A"
 Misc: BLANK MS ,L,S,S, 0.53mm X 75m DB-624

ID File: ID86AL::RS
 Title: Method 8260B IDFILE
 Last Calibration: 990315 18:22

Last Qcal Time: <none>

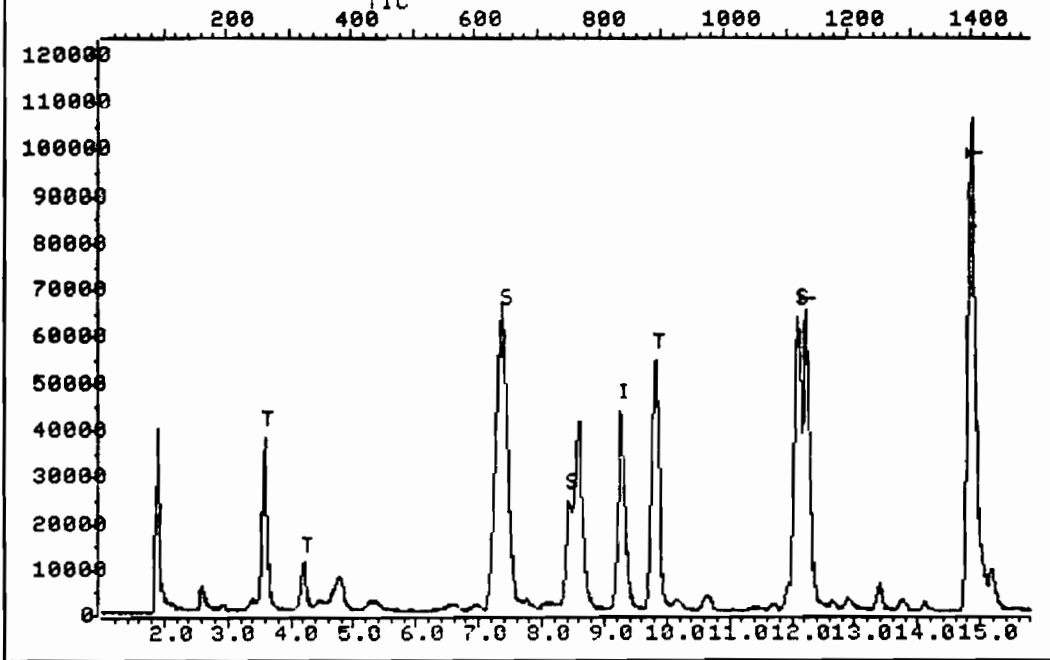
Compound	R.T.	Q ion	Area	Conc	Units	q
1) *Pentafluorobenzene	7.30	168.0	157636	50.00	ug/L	9
10) 1,1-Dichloroethene	3.57	61.0	84566	53.35	ug/L	8
12) Methylene Chloride	4.20	49.0	17892	9.40	ug/L	8
26) Dibromofluoromethane	7.39	113.0	126980	57.28	ug/L	10
28) 1,2-Dichloroethane-d4	8.42	65.0	68112	56.34	ug/L	8
32) *1,4-Difluorobenzene	9.26	114.0	142612	50.00	ug/L	9
37) Trichloroethene	9.80	95.0	76766	51.73	ug/L	9
52) *Chlorobenzene-d5	14.81	117.0	148893	50.00	ug/L	9
54) Toluene-d8	12.07	98.0	171059	46.80	ug/L	9
55) Toluene	12.22	92.0	104058	44.91	ug/L	9
61) Chlorobenzene	14.89	112.0	152492	43.87	ug/L	9
67) Bromofluorobenzene	17.05	95.0	170172	43.76	ug/L	9
84) *1,4-Dichlorobenzene-d4	19.20	152.0	108928	50.00	ug/L	9

* Compound is ISTD

AT 3-17-99

TOTAL ION CHROMATOGRAM

File >A3663 35.0-260.01801, BLK MS BLANK MS , , , 0.53mm X



Data File: >A3663::B1

Quant Output File: ^A3663::X1

Name: INST 59701, BLK MS

Instrument ID: INST "A"

Misc: BLANK MS ,L,S,S, 0.53mm X 75m DB-624

Id File: ID86AL::RS

Title: Method 8260B IDFILE

Last Calibration: 990315 18:22

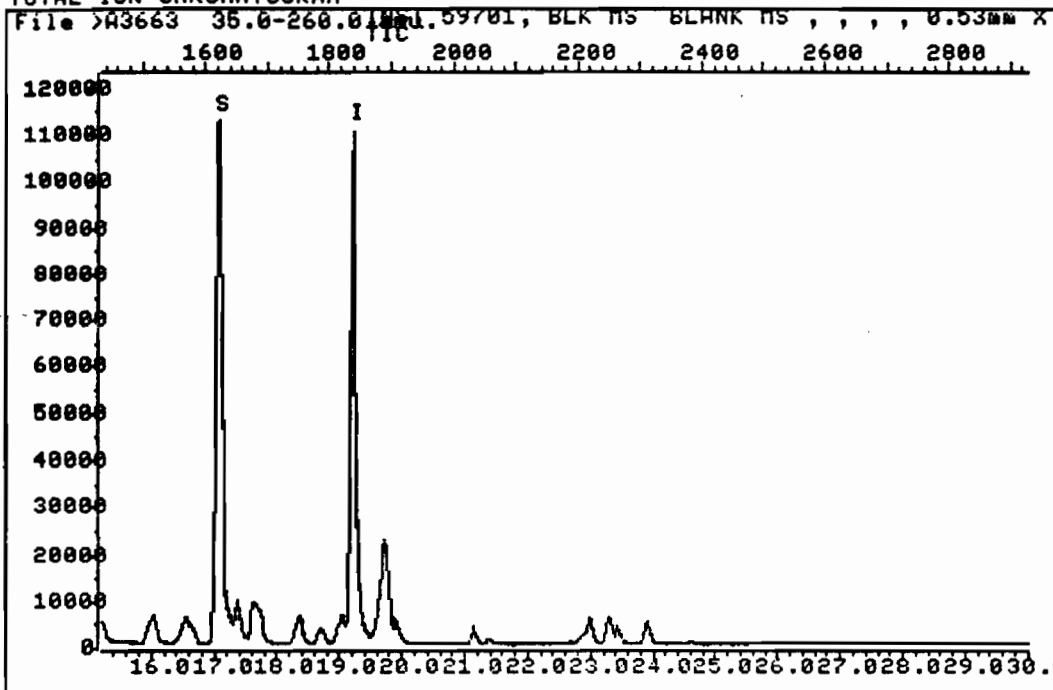
Last Qcal Time: <none>

Operator ID: AT1446

Quant Time : 990316 21:07

Injected at: 990316 20:36

TOTAL ION CHROMATOGRAM



Data File: >A3663::B1 Quant Output File: ^A3663::X1
Name: INST 59701, BLK MS Instrument ID: INST "A"
Misc: BLANK MS , 2,5,5, 0.53mm X 75m DB-624

Id File: ID86AL::RS
Title: Method 8260B IDFILE
Last Calibration: 990315 18:22 Last Qcal Time: <none>

Operator ID: AT1446
Quant Time : 990316 21:07
Injected at: 990316 20:36

ANALab, Inc. - Randolph Facility
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 973-584-0330, FAX: 973-584-0515
 APRIL 1, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
 NJ #14116 NY #11376
 US EPA CLP Lab

QUALITY ASSURANCE DATA

GC/MS Volatile

Matrix Spike/Matrix Spike Duplicate Recovery

Batch number:	QV5854	Sample	MS	
Spike Sample:	306333	Initial wt/vol:	5	5
Method:	8240	Final vol:	5	5
Matrix:	Soil/Sludge	Unit:	ug/Kg	
Moisture:	52.2%			

For samples: 306390 306391 306392 306393 306394 306395 306396 306397 306398

Compound	Conc Added	Sample Conc	Matrix Conc	Spike %	Spike Dup Conc	Spike Dup %	QC RPD	RPD	Limits Recovery
1,1-Dichloroethene	100	U	150	150	150	150	22	0	59-172
Trichloroethene	100	U	130	130	130	130	24	0	62-137
Benzene	100	U	140	140	150	150 *	21	7	66-142
Toluene	100	U	120	120	120	120	21	0	59-139
Chlorobenzene	100	U	110	110	110	110	21	0	60-133

* Values outside QC Limits.

** Spike recovery does not meet quality control limits due to a high concentration of this parameter in the spiked sample.

*** Recovery is determined from Blank Spike.

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QUANT REPORT

Page 1

Operator ID: AT1446
 Output File: ^A3686::X1
 Data File: >A3686::C1
 Name: INST 59701 SAMPLE
 Disc: 306333MSD,S,5,5 ,0.53mm x75m db-624

Quant Rev: 7 Quant Time: 990317 18:41
 Injected at: 990317 18:10
 Dilution Factor: 1.00000
 Instrument ID: INST "A"

Method File: ID86AS::RS
 Title: Method 8260B IDFILE
 Last Calibration: 990312 14:07

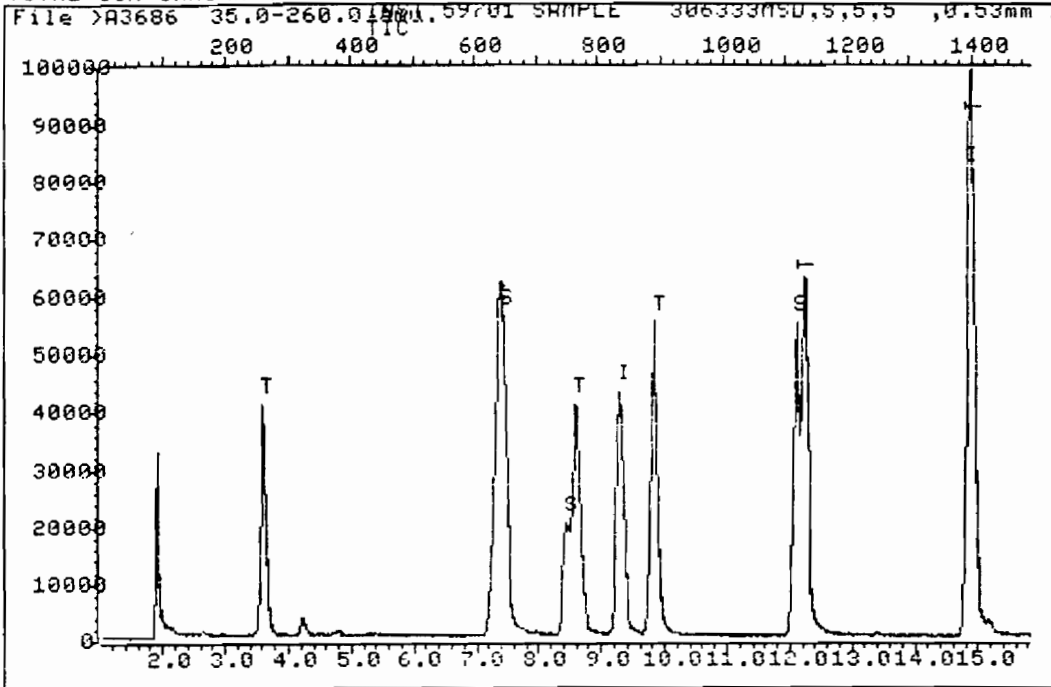
Last Qcal Time: <none>

Compound	R.T.	Q ion	Area	Conc	Units	q
1) *Pentafluorobenzene	7.33	168.0	151354	50.00	ug/L	93
10) 1,1-Dichloroethene	3.59	61.0	90902	72.52	ug/L	85
26) Dibromofluoromethane	7.41	113.0	114233	61.37	ug/L	100
28) 1,2-Dichloroethane-d4	8.44	65.0	54657	55.28	ug/L	
32) *1,4-Difluorobenzene	9.28	114.0	137208	50.00	ug/L	
35) Benzene	8.59	78.0	158918	70.93	ug/L	89
37) Trichloroethene	9.81	95.0	77658	63.85	ug/L	94
52) *Chlorobenzene-d5	14.82	117.0	133014	50.00	ug/L	93
54) Toluene-d8	12.08	98.0	148430	55.52	ug/L	91
55) Toluene	12.23	92.0	100927	59.42	ug/L	95
61) Chlorobenzene	14.89	112.0	144779	54.62	ug/L	93
67) Bromofluorobenzene	17.06	95.0	131174	48.59	ug/L	94
84) *1,4-Dichlorobenzene-d4	19.20	152.0	88457	50.00	ug/L	95

* Compound is ISTD

AT 3-18-99

TOTAL ION CHROMATOGRAM

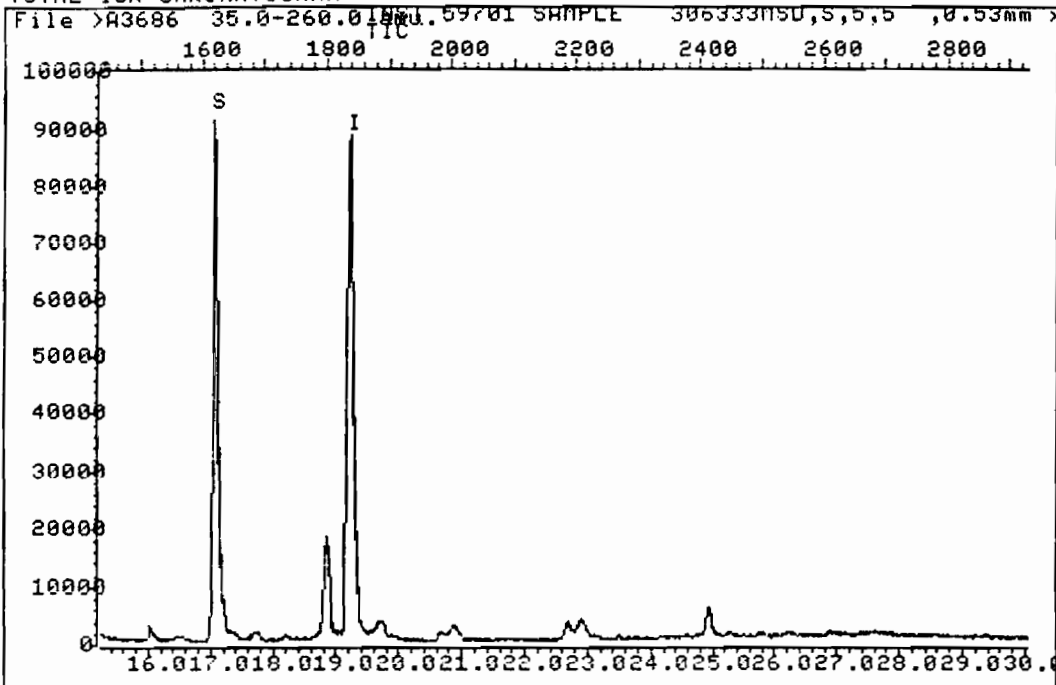


Data File: >A3686::C1 Quant Output File: ^A3686::X1
Name: INST 59701 SAMPLE Instrument ID: INST "A"
Misc: 306333MSD,S,5,5 ,0.53mm x75m db-624

Id File: ID86AS::RS
Title: Method 8260B IDFILE
Last Calibration: 990312 14:07 Last Qcal Time: <none>

Operator ID: AT1446
Quant Time : 990317 18:41
Injected at: 990317 18:10

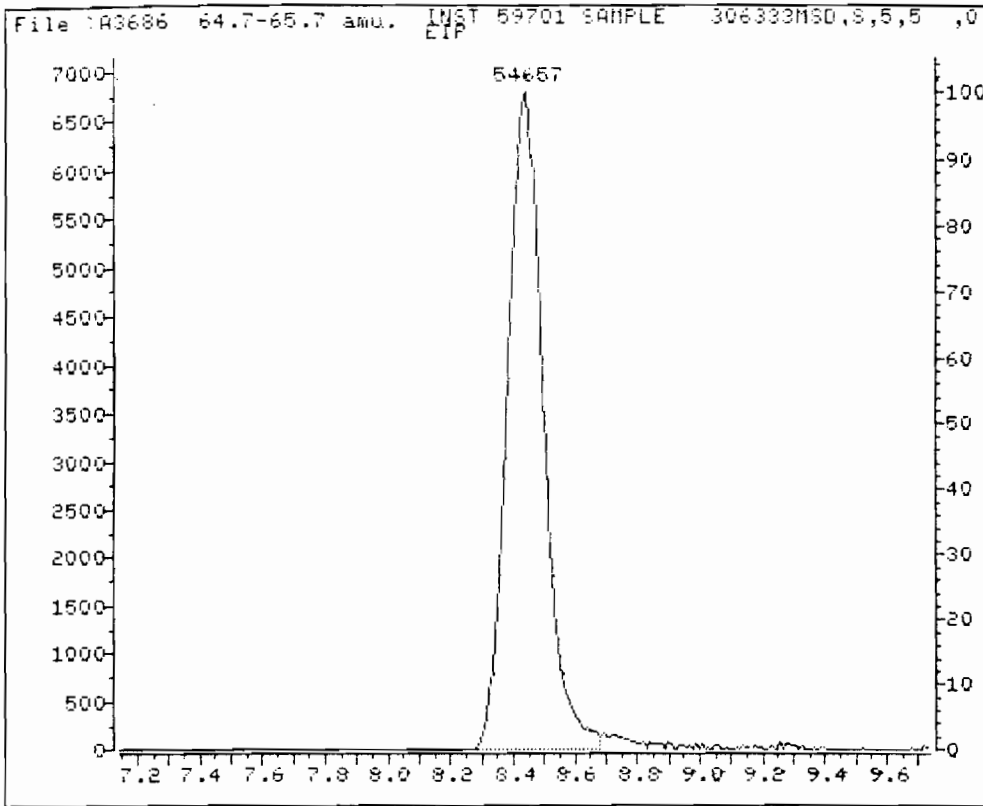
TOTAL ION CHROMATOGRAM



Data File: >A3686::C1 Quant Output File: ^A3686::X1
 Name: INST 59701 SAMPLE Instrument ID: INST "A"
 Misc: 306333MSD,S,5,5 ,0.53mm x75m db-624

Id File: ID86AS::RS
 Title: Method 8260B IDFILE
 Last Calibration: 990312 14:07 Last Qcal Time: <none>

Operator ID: AT1446
 Quant Time : 990317 18:41
 Injected at: 990317 18:10

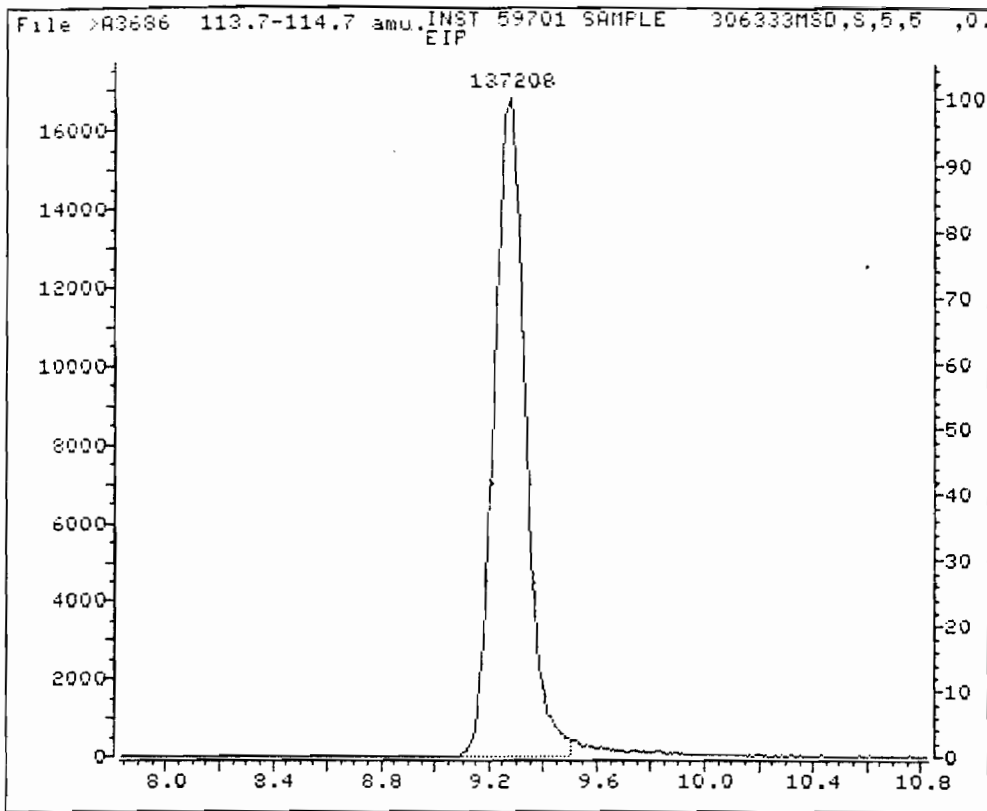


AT

Data File: >A3686::C1 Quant Output File: ^A3686::X1
 Name: INST 59701 SAMPLE Instrument ID: INST "A"
 Misc: 306333MSD,S,5,5 ,0.53mm x75m db-624
 Quant Time: 990317 18:41 Quant ID File: ID86AS::RS
 Injected at: 990317 18:10 Last Calibration: 990312 14:07

Compound No: 28
 Compound Name: 1,2-Dichloroethane-d4
 Scan Number: 750
 Retention Time: 8.44 min.
 Quant Ion: 65.0
 Area: 54657M
 Concentration: 55.28 ug/L

This report was produced by QAREA on: 990401 14:19



AT

Data File: >A3686::CT Quant Output File: ^A3686::X1
 Name: INST 59701 SAMPLE Instrument ID: INST "A"
 Misc: 306333MSD,S,5,5 ,0.53mm x75m db-624
 Quant Time: 990317 18:41 Quant ID File: ID86AS::RS
 Injected at: 990317 18:10 Last Calibration: 990312 14:07

Compound No: 32 (ISTD)
 Compound Name: 1,4-Difluorobenzene
 Scan Number: 834
 Retention Time: 9.28 min.
 Quant Ion: 114.0
 Area: 137208M
 Concentration: 50.00 ug/L

This report was produced by QAREA on: 990401 14:21

QUANT REPORT

Page 1

Operator ID: AT1446
 Output File: ^A3685::X1
 Data File: >A3685::C1
 Name: INST 59701 SAMPLE
 Disc: 306333MS ,S,5,5 ,0.53mm x75m db-624

Quant Rev: 7 Quant Time: 990317 18:03
 Injected at: 990317 17:32
 Dilution Factor: 1.00000
 Instrument ID: INST "A"

Method File: ID86AS::RS
 Title: Method 8260B IDFILE
 Last Calibration: 990312 14:07

Last Qcal Time: <none>

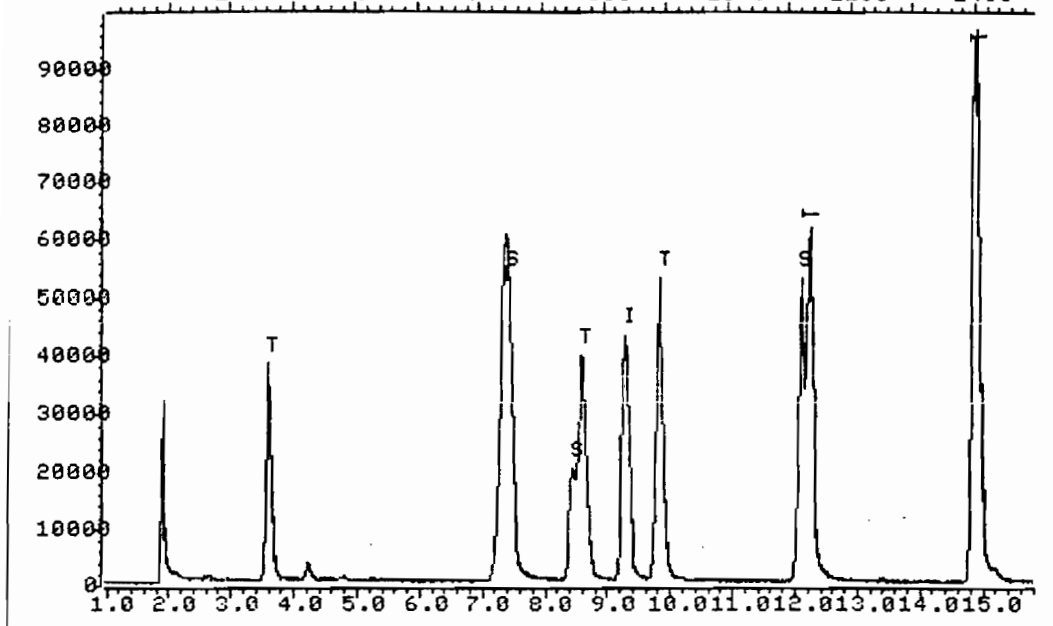
Compound	R.T.	Q ion	Area	Conc	Units	q
1) *Pentafluorobenzene	7.30	168.0	147879	50.00	ug/L	92
10) 1,1-Dichloroethene	3.58	61.0	87208	71.21	ug/L	83
26) Dibromofluoromethane	7.40	113.0	110643	60.84	ug/L	100
28) 1,2-Dichloroethane-d4	8.42	65.0	54202	56.11	ug/L	89
32) *1,4-Difluorobenzene	9.27	114.0	138250	50.00	ug/L	97
35) Benzene	8.57	78.0	154422	68.40	ug/L	86
37) Trichloroethene	9.80	95.0	74961	61.17	ug/L	94
52) *Chlorobenzene-d5	14.82	117.0	132122	50.00	ug/L	93
54) Toluene-d8	12.08	98.0	143609	54.08	ug/L	91
55) Toluene	12.22	92.0	97244	57.64	ug/L	96
61) Chlorobenzene	14.88	112.0	140225	53.26	ug/L	94
67) Bromofluorobenzene	17.06	95.0	123942	46.22	ug/L	96
84) *1,4-Dichlorobenzene-d4	19.20	152.0	84621	50.00	ug/L	93

* Compound is ISTD

AT 3-18-99

TOTAL ION CHROMATOGRAM

File >A3685 35.0-260.0180, 59701 SAMPLE 306333MS ,S,5,5 ,0.53mm
200 400 600 800 1000 1200 1400



Data File: >A3685::C1

Quant Output File: ^A3685::X1

Name: INST 59701 SAMPLE

Instrument ID: INST "A"

Misc: 306333MS ,S,5,5 ,0.53mm x75m db-624

Id File: ID86AS::RS

Title: Method 8260B IDFILE

Last Calibration: 990312 14:07

Last Qcal Time: <none>

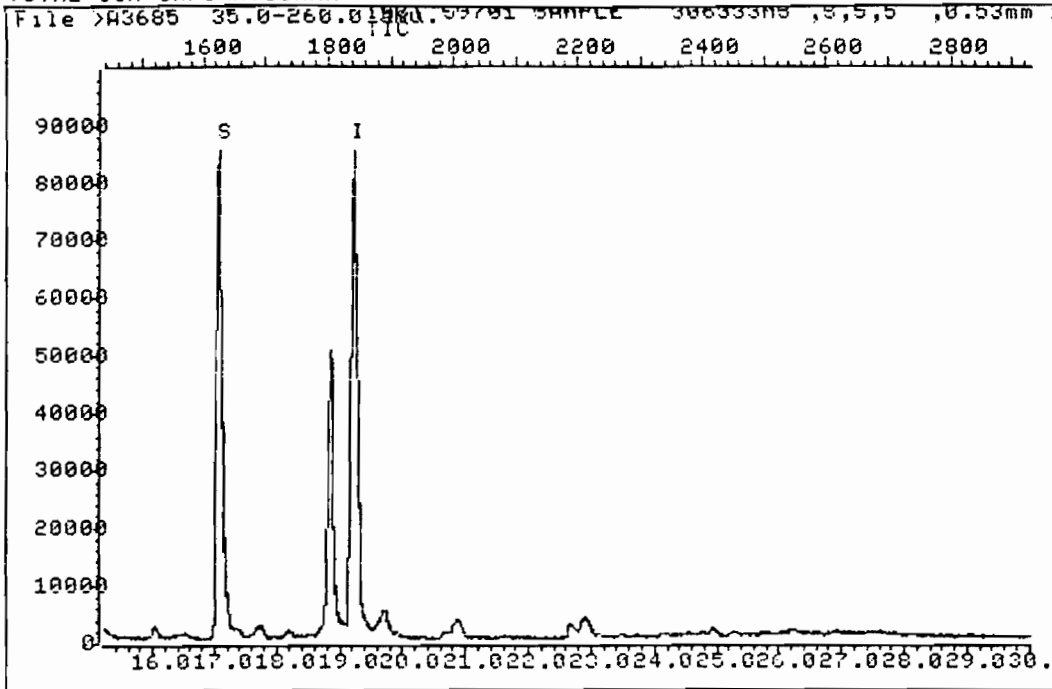
Operator ID: AT1446

Quant Time : 990317 18:03

Injected at: 990317 17:32

Page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A3685::C1 Quant Output File: ^A3685::X1
Name: INST 59701 SAMPLE Instrument ID: INST "A"
Misc: 306333MS ,S,5,5 ,0.53mm x75m db-624

Id File: ID86AS::RS
Title: Method 8260B IDFILE
Last Calibration: 990312 14:07 Last Qcal Time: <none>

Operator ID: AT1446
Quant Time : 990317 18:03
Injected at: 990317 17:32

ANALab, Inc. - Randolph Facility
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 APRIL 19, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
 NJ #14116 NY #11376
 US EPA CLP Lab

QUALITY ASSURANCE DATA
 GC/MS Volatile
 Matrix Spike Recovery

Batch number:	QV5854	Sample	MS
Spike Sample:	BLANK	Initial wt/vol:	5
Method:	8240	Final vol:	5
Matrix:	Soil/Sludge	Unit:	ug/Kg
Moisture:	0%		

For samples: 306390 306391 306392 306393 306394 306395 306396 306397 306398

Compound	Conc Added	Sample Conc	Matrix Conc	Spike %	Limits Recovery
1,1-Dichloroethene	50	U	69	138	59-172
Trichloroethene	50	U	62	124	62-137
Benzene	50	U	69	138	66-142
Toluene	50	U	56	112	59-139
Chlorobenzene	50	U	54	108	60-133

- * Values outside QC Limits.
- ** Spike recovery does not meet quality control limits due to a high concentration of this parameter in the spiked sample.
- *** Recovery is determined from Blank Spike.

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 KAT

QUANT REPORT

Page 1

Operator ID: AT1446
 Output File: ^A3683::X1
 Data File: ^A3683::C1
 Name: INST 59701 BLANK SPK
 Desc: BLANK SPK,S,5,5 ,0.53mm x75m db-624

Quant Rev: 7 Quant Time: 990317 16:49
 Injected at: 990317 16:18
 Dilution Factor: 1.00000
 Instrument ID: INST "A"

File: ID86AS::RS
 Title: Method 8260B IDFILE
 Last Calibration: 990312 14:07

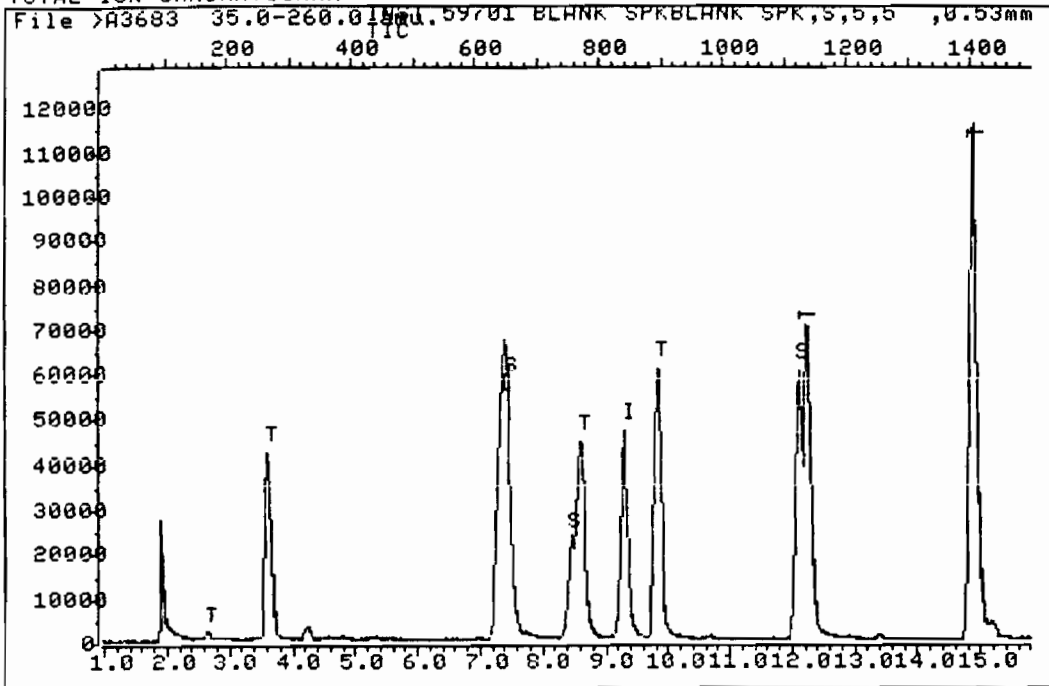
Last Qcal Time: <none>

Compound	R.T.	Q ion	Area	Conc	Units	q
1) *Pentafluorobenzene	7.32	168.0	167914	50.00	ug/L	92
6) Bromomethane	2.64	94.0	1404	0.00	ug/L	93
10) 1,1-Dichloroethene	3.60	61.0	96086	69.10	ug/L	83
26) Dibromofluoromethane	7.43	113.0	122474	59.31	ug/L	100
28) 1,2-Dichloroethane-d4	8.44	65.0	62644M	57.11	ug/L	
32) *1,4-Difluorobenzene	9.28	114.0	153248	50.00	ug/L	98
35) Benzene	8.60	78.0	171611	68.58	ug/L	88
37) Trichloroethene	9.82	95.0	84781	62.41	ug/L	91
52) *Chlorobenzene-d5	14.82	117.0	157290	50.00	ug/L	95
54) Toluene-d8	12.08	98.0	160569	50.79	ug/L	93
55) Toluene	12.23	92.0	113143	56.33	ug/L	95
61) Chlorobenzene	14.89	112.0	167869	53.55	ug/L	93
67) Bromofluorobenzene	17.06	95.0	159642	50.00	ug/L	94
71) 1,2,3-Trichloropropane	19.20	75.0	11950	11.13	ug/L	50
84) *1,4-Dichlorobenzene-d4	19.20	152.0	119433	50.00	ug/L	91

* Compound is ISTD

AT 3-17-99

TOTAL ION CHROMATOGRAM



Data File: >A3683::C1

Quant Output File: ^A3683::X1

Name: INST 59701 BLANK SPK

Instrument ID: INST "A"

Misc: BLANK SPK,S,5,5 ,0.53mm x75m db-624

Id File: ID86AS::RS

Title: Method 8260B IDFILE

Last Calibration: 990312 14:07

Last Qcal Time: <none>

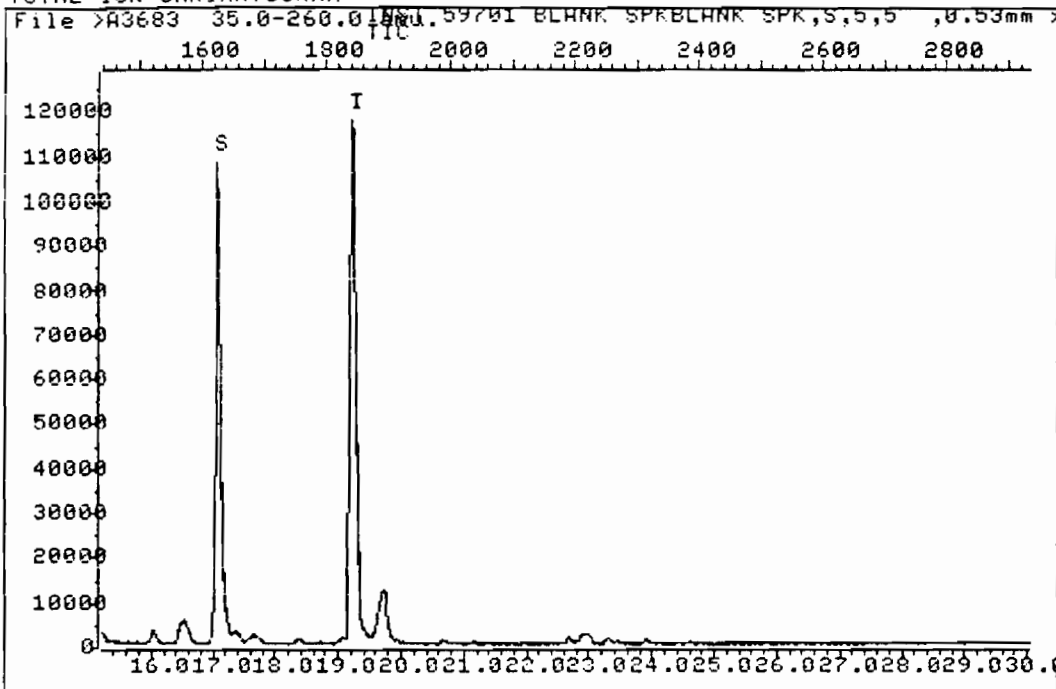
Operator ID: AT1446

Quant Time : 990317 16:49

Injected at: 990317 16:18

Page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A3683::C1 Quant Output File: ^A3683::X1
Name: INST 59701 BLANK SPK Instrument ID: INST "A"
Misc: BLANK SPK,S,5,5 ,0.53mm x75m db-624

Id File: ID86AS::RS
Title: Method 8260B IDFILE
Last Calibration: 990312 14:07 Last Qcal Time: <none>

Operator ID: AT1446
Quant Time : 990317 16:49
Injected at: 990317 16:18

Page 2 of 2

ANALab, INC.
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Certified for: NJ, PA, DE, CT, NY(DOH)
 NJ #14116 NY #11376
 US EPA CLP Lab

QUALITY ASSURANCE DATA
 GC/MS VOLATILE QA SAMPLE

QV5845
 Method: 8260B
 Matrix: soil
 Data File: >A3682 3/17/99

Initial wt/vol: 5 G
 Final vol: 5 mls
 Unit: ug/mg

COMPOUND NAME	CONC ADDED	CONC FOUND	%REC	QC Limits
Chloromethane	10	8.94	89.4	55 - 120
Bromomethane	10	5.68	56.8	55 - 120
Vinyl Chloride	10	9.36	93.6	55 - 120
Chloroethane	10	9.04	90.4	55 - 120
Methylen Chloride	10	13.91	139.1	55 - 120
Carbon Disulfide	10	10.05	100.5	55 - 120
Acetone	10	14.14	141.4	55 - 120
1,1-Dichloroethene	10	10.82	108.2	55 - 120
1,1-Dichloroethane	10	10.8	108	55 - 120
1,2-Dichloroethene-trans	10	10.18	101.8	55 - 120
1,2-Dichloroethene-cis	10	10	100	55 - 120
Chloroform	10	10.75	107.5	55 - 120
1,2-Dichloroethane	10	11.18	111.8	55 - 120
1,1,1-Trichloroethane	10	5.03	50.3	55 - 120
Carbon Tetrachloride	10	10.6	106	55 - 120
1,2-Dichloropropane	10	11.31	113.1	55 - 120
cis-1,3-Dichloropropene	10	9.99	99.9	55 - 120
Trichloroethene	10	10.52	105.2	55 - 120
Dibromochloromethane	10	10.95	109.5	55 - 120
1,1,2-Trichloroethane	10	11.26	112.6	55 - 120
Benzene	10	11.3	113	55 - 120
trans-1,3-Dichloropropene	10	12.8	128	55 - 120
1,1,2,2-Tetrachloroethane	10	11.79	117.9	55 - 120
Toluene	10	8.51	85.1	55 - 120
Chlorobenzene	10	9.31	93.1	55 - 120
Ethylbenzene	10	8.84	88.4	55 - 120
Styrene	10	9.19	91.9	55 - 120
Xylene p+m	20	17.89	89.5	55 - 120
Xylene o	10	9.17	91.7	55 - 120

QUANT REPORT

Operator ID: AT1446
 Output File: ^A3682::X1
 Data File: >A3682::C1
 Name: INST 59701 QA SAMPLE
 Disc: QA SAMPLE,S,5,5 ,0.53mm x75m db-624

Quant Rev: 7 Quant Time: 990317 16:11
 Injected at: 990317 15:40
 Dilution Factor: 1.00000
 Instrument ID: INST "A"

D File: ID86AS::RS
 Title: Method 8260B IDFILE
 Last Calibration: 990312 14:07

Last Qcal Time: <none>

Compound	R.T.	Q ion	Area	Conc	Units	q
1) *Pentafluorobenzene	7.33	168.0	167280M AT	50.00	ug/L	
2) Chlorodifluoromethane	1.99	51.0	15629 3/17	11.10	ug/L	95
3) Dichlorodifluoromethane	2.00	85.0	12535	9.02	ug/L	93
4) Chloromethane	2.19	50.0	4459M 9/9	8.94	ug/L	
5) Vinyl Chloride	2.26	62.0	5241M AT	9.36	ug/L	
6) Bromomethane	2.64	94.0	8550M	5.68	ug/L	92
7) Chloroethane	2.71	64.0	3800M	9.04	ug/L	
8) Trichlorofluoromethane	2.95	101.0	17738	9.37	ug/L	96
10) 1,1-Dichloroethene	3.60	61.0	14991	10.82	ug/L	84
11) Carbon Disulfide	4.18	76.0	16204	10.05	ug/L	100
12) Methylene Chloride	4.23	49.0	18434	13.91	ug/L	76
13) Acetone	5.32	43.0	19917	14.14	ug/L	100
15) trans-1,2-Dichloroethene	4.66	96.0	9620	10.18	ug/L	89
18) t-Butyl methyl ether	4.51	73.0	20666	12.78	ug/L	95
19) Diisopropyl ether	5.30	45.0	33046	13.82	ug/L	75
20) 1,1-Dichloroethane	5.39	63.0	20928	10.80	ug/L	97
22) 2,2-Dichloropropane	6.53	77.0	15226	10.19	ug/L	89
23) cis-1,2-Dichloroethene	6.64	96.0	10537	10.00	ug/L	89
25) Chloroform	6.97	83.0	23857	10.75	ug/L	95
26) Dibromofluoromethane	7.42	113.0	22801	11.08	ug/L	100
27) 1,1,1-Trichloroethane	7.75	97.0	9316	5.03	ug/L	61
28) 1,2-Dichloroethane-d4	8.44	65.0	12633	11.56	ug/L	88
32) *1,4-Difluorobenzene	9.28	114.0	150022M AT	50.00	ug/L	
33) Carbon Tetrachloride	8.22	117.0	19104 3/17	10.60	ug/L	90
34) 1,1-Dichloropropene	8.10	75.0	14459 9/9	10.65	ug/L	87
35) Benzene	8.60	78.0	27688	11.30	ug/L	94
36) 1,2-Dichloroethane	8.63	62.0	13873	11.18	ug/L	94
37) Trichloroethene	9.83	95.0	13991	10.52	ug/L	94
38) 1,2-Dichloropropane	10.19	63.0	13208	11.31	ug/L	96
39) Bromodichloromethane	10.61	83.0	23554	11.18	ug/L	93
41) cis-1,3-Dichloropropene	11.69	75.0	15330	9.99	ug/L	95
42) Vinyl Acetate	11.42	43.0	11788	18.51	ug/L	100
43) trans-1,3-Dichloropropene	12.66	75.0	12161M AT	12.80	ug/L	
44) 1,1,2-Trichloroethane	12.92	97.0	12180 3/17	11.26	ug/L	88
46) 1,3-Dichloropropane	13.38	76.0	17241 5/9	11.61	ug/L	83
47) Dibromochloromethane	13.76	129.0	23187	10.95	ug/L	96
48) Bromoform	16.54	173.0	19805	12.29	ug/L	95
52) *Chlorobenzene-d5	14.83	117.0	163838	50.00	ug/L	96
53) 4-Methyl-2-Pentanone	11.42	43.0	11788	13.63	ug/L	62
54) Toluene-d8	12.09	98.0	29021	8.81	ug/L	93

QUANT REPORT

Page 2

Operator ID: AT1446
 Output File: ^A3682::X1
 Data File: >A3682::C1
 Sample Name: INST 59701 QA SAMPLE
 Sample Desc: QA SAMPLE,S,5,5 ,0.53mm x75m db-624

Quant Rev: 7 Quant Time: 990317 16:11
 Injected at: 990317 15:40
 Dilution Factor: 1.00000
 Instrument ID: INST "A"

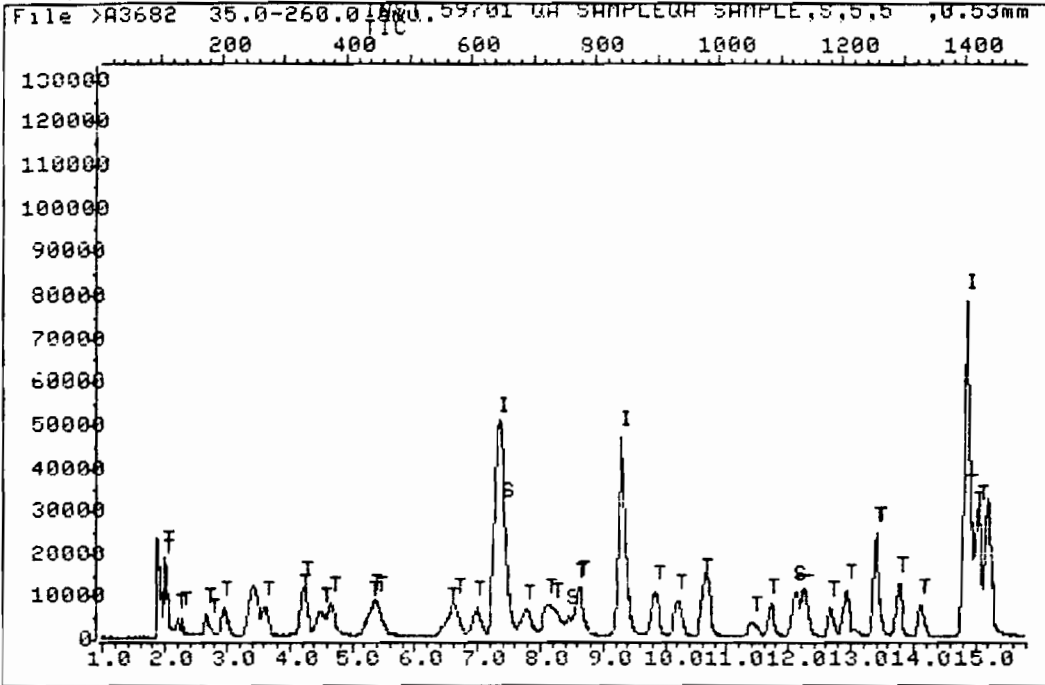
Output File: ID86AS::RS
 Method Title: Method 8260B IDFILE
 Last Calibration: 990312 14:07

Last Qual Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
55)	Toluene	12.24	92.0	17801	8.51	ug/L	94
56)	Tetrachloroethene	13.40	164.0	16125	9.12	ug/L	96
57)	Isopropylbenzene	16.64	105.0	32549	8.69	ug/L	77
58)	1,1,2,2-Tetrachloroethane	16.98	83.0	20190	11.79	ug/L	83
60)	1,2-Dibromoethane	14.12	107.0	17310	11.84	ug/L	97
61)	Chlorobenzene	14.90	112.0	30383	9.31	ug/L	89
62)	1,1,1,2-Tetrachloroethane	15.00	131.0	17159	9.57	ug/L	93
63)	Ethylbenzene	15.04	91.0	36255	8.84	ug/L	94
64)	m+p-Xylenes	15.18	91.0	112993	17.89	ug/L	47
65)	o-Xylene	15.96	91.0	35624	9.17	ug/L	94
66)	Styrene	16.02	104.0	26618	9.19	ug/L	90
67)	Bromofluorobenzene	17.06	95.0	32418	9.75	ug/L	97
68)	p-ethyltoluene	17.60	105.0	86518	9.01	ug/L	98
69)	Bromobenzene	17.35	156.0	18862	9.25	ug/L	96
71)	1,2,3-Trichloropropane	19.91	75.0	11112	9.94	ug/L	64
72)	n-Propylbenzene	17.37	91.0	53916	8.97	ug/L	96
73)	2-Chlorotoluene	17.64	91.0	40627	8.79	ug/L	83
74)	1,3,5-Trimethylbenzene	18.37	105.0	37928	8.98	ug/L	90
75)	4-Chlorotoluene	17.64	91.0	36766	6.66	ug/L	86
76)	tert-Butylbenzene	18.98	119.0	46825	9.92	ug/L	88
77)	1,2,4-Trimethylbenzene	18.37	105.0	37928	8.97	ug/L	87
79)	1,2,4,5-tetramethylbenzene	18.98	119.0	46825	9.17	ug/L	67
80)	p-Isopropyltoluene	21.13	119.0	43254	8.46	ug/L	69
84)	*1,4-Dichlorobenzene-d4	19.21	152.0	115265	50.00	ug/L	93
85)	1,3-Dichlorobenzene	19.05	146.0	32779	10.66	ug/L	86
86)	1,4-Dichlorobenzene	19.26	146.0	35685	10.62	ug/L	90
87)	n-Butylbenzene	19.73	92.0	27861	9.93	ug/L	85
88)	1,2-Dichlorobenzene	19.90	146.0	30790	10.00	ug/L	85
90)	1,2,4-Trichlorobenzene	22.99	180.0	30019	9.95	ug/L	99
92)	Naphthalene	23.42	128.0	36939	11.25	ug/L	100
93)	1,2,3-Trichlorobenzene	23.90	180.0	27756	10.29	ug/L	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM

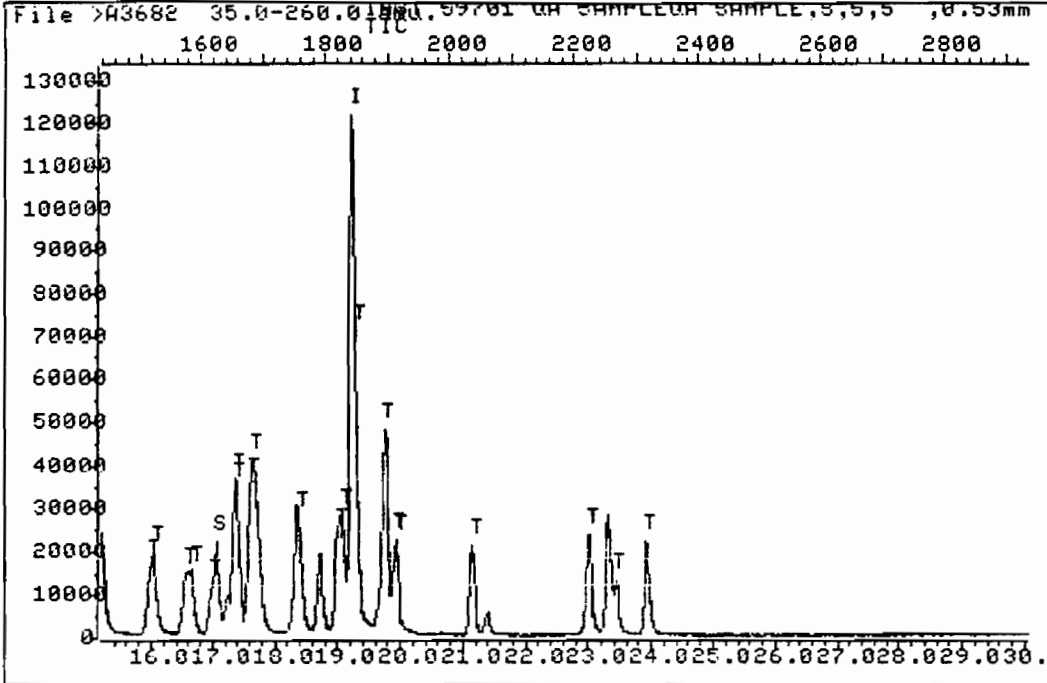


Data File: >A3682::C1 Quant Output File: ^A3682::X1
 Name: INST 59701 QA SAMPLE Instrument ID: INST "A"
 Misc: QA SAMPLE,S,5,5 ,0.53mm x75m db-624

Id File: ID86AS::RS
 Title: Method 8260B IDFILE
 Last Calibration: 990312 14:07 Last Qcal Time: <none>

Operator ID: AT1446
 Quant Time : 990317 16:11
 Injected at: 990317 15:40

TOTAL ION CHROMATOGRAM



Data File: >A3682::C1

Quant Output File: ^A3682::X1

Name: INST 59701 QA SAMPLE

Instrument ID: INST "A"

Misc: QA SAMPLE,S,5,5 ,0.53mm x75m db-624

Id File: ID86AS::RS

Title: Method 8260B IDFILE

Last Calibration: 990312 14:07

Last Qcal Time: <none>

Operator ID: AT1446

Quant Time : 990317 16:11

Injected at: 990317 15:40

Page 2 of 2

ANALab LABORATORIES QUALITY CONTROL REPORT

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALab Laboratories

Date Analyzed: 3/16/99

Lab File ID (Standard): A3658

Time Analyzed: 17:30

Instrument ID: 5970-1

	IS1(PNT) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CHB) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	200040	7.35	182774	9.30	150318	14.82	121929	19.19
UPPER LIMIT	400080	7.85	365548	9.80	300636	15.32	243858	19.69
LOWER LIMIT	100020	6.85	91387	8.80	75159	14.32	60965	18.69
LABORATORY SAMPLE NAME								
01 BLANK QV5853I4	130652	7.33	122268	9.28	130504	14.81	97554	19.19
02 QA SAMPLE	168934	7.32	156562	9.28	168868	14.81	115625	19.19
03 BLANK MS	157636	7.30	142612	9.26	148893	14.81	108928	19.20
04 306187	157844	7.29	143345	9.26	144760	14.82	101413	19.20
05 306187MS	163195	7.31	154718	9.27	154685	14.82	115640	19.19
06 301187MSD	160148	7.28	150543	9.26	152316	14.81	111511	19.19
07 306389	156248	7.30	143991	9.25	146976	14.80	109648	19.10
08 306399TB	155744	7.28	145465	9.25	142257	14.82	108958	19.19
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								

IS1 (PNT) = Pentafluorobenzene
 IS2 (DBF) = 1,4-Difluorobenzene
 IS3 (CLB) = Chlorobenzene-d5
 IS3 (DCB) = 1,4-Dichlorobenzene-d4

CONCENTRATION OF EACH INTERNAL
 STANDARD = 50 PPB

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
 * Values outside of QC limits.

QV5853I4

ANALab LABORATORIES QUALITY CONTROL REPORT

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALab Laboratories

Date Analyzed: 3/17/99

Lab File ID (Standard): >A3680

Time Analyzed: 13:45:00 PM

Instrument ID: 5970-1

	IS1(PNT) AREA #	RT #	IS2(DBF) AREA #	RT #	IS3(CHB) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	174662	7.36	166045	9.30	153205	14.82	121711	19.20
UPPER LIMIT	349324	7.86	332090	9.80	306410	15.32	243422	19.70
LOWER LIMIT	87331	6.86	83023	8.80	76603	14.32	60856	18.70
LABORATORY SAMPLE NAME								
01 BLANK QV5854	176136	7.33	159857	9.28	158723	14.83	121632	19.20
02 306390	161668	7.32	149243	9.27	137016	14.81	93009	19.19
03 306391	153584	7.32	140888	9.27	125173	14.81	76954	19.19
04 306392	144575	7.29	132088	9.27	117031	14.82	64999	19.19
05 306393	160857	7.32	146932	9.27	135138	14.82	82295	19.20
06 306394	167668	7.30	150538	9.26	147659	14.82	102723	19.20
07 306395	170667	7.30	155426	9.26	146817	14.81	96781	19.20
08 306396	163761	7.30	147500	9.25	141216	14.82	98416	19.20
09 306397	171579	7.28	150998	9.24	151530	14.81	106094	19.20
10 306398	173920	7.26	157737	9.23	159520	14.81	117214	19.20
11 BLANK MS	167914	7.32	153248	9.28	157290	14.82	119433	19.20
12 QA SAMPLE	167280	7.33	150022	9.28	163838	14.83	115265	19.21
13 306333MS	147879	7.30	138250	9.27	132122	14.82	84621	19.20
14 306333MSD	151354	7.33	137208	9.28	133014	14.82	88457	19.20
15								
16								
17								
18								
19								
20								
21								
22								

IS1 (PNT) = Pentafluorobenzene

CONCENTRATION OF EACH INTERNAL

IS2 (DBF) = 1,4-Difluorobenzene

STANDARD = 50 PPB

IS3 (CLB) = Chlorobenzene-d5

IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

qv5854i3

ANALab

GC/MS LAB CHRONICLE VOLATILE ORGANICS

2454

DATE: 3/15/99

SHIFT: am

INSTRUMENT/MODEL: 1A/59701

ANALYSIS: 524.2 624 8240 8260 CLP TCLP
 MATRIX: WATER SOIL SLUDGE LEACHATE MeQH
 TUNE FILE: APE101
 HEAT PURGED: Y/N

STANDARDS LOT#
 BFB
 CAL STD
 INTERNAL STD
 SURROGATE
 SPIKE

METHOD FILES: BFBA VCLPA VA8260 OTHER:
 ID FILES: IDCLAL IDCLAS ID86AL ID86AS
 ID624A ID524A
 SEQUENCE FILES: ATA
 CALIBRATION FILES: CA 3632

ANALYST AT
 SUPERVISOR Analyt
 BATCH #: QV

SAMPLE	FILE	PORT	VOLUME	TIME	COMMENTS
1 5000 BFB	>A 3631	7	2ul	10:03	on 563 FID. 1:
2 1502050	>A 32	8	5ul	10:49	a
3 010	>A 33	3		12:16	on
4 200	>A 34	4		-	NG
5 100	>A 35	5		13:31	on
6 020	>A 36	6		14:08	on
7 200	>A 37	5		15:13	on
8 Blank	>A 38	6	5ul	-	sur ↓
9 Blank	>A 39	7	100ul	16:52	on
10 305475	>A 40	8		18:07	sur ↓
11 305977TB	>A 41	9	100ul	18:07	on Rush
12 977TB	>A 42	10			not needed
13 972	>A 43	11		19:22	on
14 972	>A 44	12			not needed ↓
15 653	>A 45	13	250ul		48/1
16 306265	>A 46	14	5ul	21:13	sur ↓
17 266	>A 47	15		21:50	sur ↓
18 QA Sample	>A 48	16		22:27	out of BFB
19 R. Blank	>A 49	1		-	-
20	>A				
21	>A				
22	>A				
23	>A				
24	>A				
25	>A				
26	>A				
27	>A				
28	>A				
29	>A				
30	>A				
31	>A				
32	>A				

ANALab

GC/MS LAB CHRONICLE VOLATILE ORGANICS

2456

DATE: 3-16-99

SHIFT: PM

INSTRUMENT/MODEL: 1A/59701

ANALYSIS: 524.2 624 8240 (8260) CLP TCLP
MATRIX: (WATER) SOIL SLUDGE (LEACHATE) (MeOH)
TUNE FILE: APEI01
HEAT PURGED: Y/(N)

METHOD FILES: (BFBA) VCLPA (VA8260) OTHER:
ID FILES: IDCLAL IDCLAS (D86AL) ID86AS
ID624A ID524A
SEQUENCE FILES: AFA
CALIBRATION FILES: CA3632

STANDARDS	LOT#
BFB	
CAL STD	
INTERNAL STD	
SURROGATE	
SPIKE	
ANALYST AT	
SUPERVISOR Analyd	
BATCH #: QV	

SAMPLE	FILE	PORT	VOLUME	TIME	COMMENTS
1 BFB050	>A 3656	8	2ul	16:03	OK 564 EMU, -1.1
2 VSTD050	>A 3657	8	5ml		Power Failure
3 VSTD050	>A 3658	8	5ml	17:30	OK
4 Blank (L)	>A 3659	7	5ml	18:07	OK
5 Blank (S)	>A 3660	6	100ul	18:44	OK
6 BLK TCLP 3/12	>A 3661	7	5ml	19:22	OK
7 QA sample	>A 3662	8		19:59	OK
8 BLK-MS	>A 3663	9		20:36	OK
9 306399TB	>A 3664	10		21:13	OK
10 389	>A 3665	11		21:50	OK
11 306187	>A 3666	12		22:27	OK
12 187-MS	>A 3667	13		23:04	OK
13 187-MSD	>A 3668	14		23:41	OK
14 306265	>A 3669	15		00:18	OK
15 266	>A 3670	16		00:55	OK
16 305475T	>A 3671	1		01:32	OK
17 306399TB	>A 3672	2			} not needed
18 389	>A 3673	3			
19 305475T	>A 3674	4		03:23	
20 Blank	>A 3675	5			
21	>A				
22	>A				
23	>A				
24	>A				
25	>A				
26	>A				
27	>A				
28	>A				
29	>A				
30	>A				
31	>A				
32	>A				

ANALab

GC/MS LAB CHRONICLE VOLATILE ORGANICS

2451

DATE: 3/11/99

SHIFT: Am

INSTRUMENT/MODEL: 1A/59701

ANALYSIS: 524.2 624 8240 8260 CLP TCLP
 MATRIX: WATER SOIL SLUDGE LEACHATE MeOH
 TUNE FILE: APEI01
 HEAT PURGED: (Y) N

STANDARDS LOT#
 BFB
 CAL STD
 INTERNAL STD
 SURROGATE
 SPIKE

METHOD FILES: (B) BFBA VCLPA VA8260 OTHER:
 ID FILES: IDCLAL IDCLAS ID86AL (ID86AS)
 ID624A ID524A
 SEQUENCE FILES: AT.7 AT
 CALIBRATION FILES: CA 273 c.93593

ANALYST: AT
 SUPERVISOR: study P
 BATCH #: QV

SAMPLE	FILE	PORT	VOLUME	TIME	COMMENTS
1 BFB050	>A 3592	7	2ul	9:01	on scan 560 E.H.
2 r51d050	>A 3593	8	5ul	9:41	on
3 10	>A 3594	1		10:49	on
4 200	>A 3595	2		11:26	on
5 100	>A 3596	3		12:03	on
6 020	>A 3597	4		12:40	on
7 Blank	>A 3598	7	50	14:24	on not for rep
8 Blank	>A 3599	7		15:24	on Rep
9 Blank spk	>A 3600	8		16:01	on
10 305908	>A 3601	9		16:38	on
11 908MS	>A 3602	10		17:16	on
12 908MSd	>A 3603	11		17:53	on
13 306090	>A 3604	12		18:30	on
14 091	>A 3605	13		19:07	on
15 092	>A 3606	14		19:44	on
16 093	>A 3607	15		20:21	on
17 158	>A 3608	16		20:58	on
18 159	>A 3609	1			out of B.F. in
19 160	>A 3610	2			
20 161	>A 3611	3			
21 306203	>A 3612	4	oers		R 50 ↓
22 305724 N	>A 3613	5	5ul		
23	>A				
24	>A				
25	>A				
26	>A				
27	>A				
28	>A				
29	>A				
30	>A				
31	>A				
32	>A				

ANALab

GC/MS LAB CHRONICLE VOLATILE ORGANICS

2458

DATE: 3/17/99

SHIFT: Pm

INSTRUMENT/MODEL: 1A/59701

ANALYSIS: 524.2 624 8240 8260 CLP TCLP
 MATRIX: WATER SOIL SLUDGE LEACHATE MeOH
 TUNE FILE: APEION
 HEAT PURGED: Y/N

STANDARDS LOT#
 BFB
 CAL STD
 INTERNAL STD
 SURROGATE
 SPIKE

METHOD FILES: BFBA VCLPA VA8260 OTHER:
 ID FILES: IDCLAL IDCLAS ID86AL ID86AS
 ID624A ID524A
 SEQUENCE FILES: ATA
 CALIBRATION FILES: CA 3593

ANALYST AT
 SUPERVISOR *Andy*
 BATCH #: QV

SAMPLE	FILE	PORT	VOLUME	TIME	COMMENTS
1 BFB 050	>A 3679	6	2ul	13:07	on 565 ENH-1:1
2 VSTD 050	>A 3680	8	5ml	13:45	on
3 Blank	>A 3681	7	50	14:46	on
4 QA Sample	>A 82	8		15:40	on
5 Blank SPK	>A 83	9		16:18	on
6 306323	>A 84	10		16:55	on
7 333ms	>A 85	11		17:32	on
8 333ms d	>A 86	12		18:10	on
9 334	>A 87	13		18:47	on
10 390	>A 88	14		19:29	on
11 391	>A 89	15		20:01	on
12 392	>A 90	16		20:37	on
13 393	>A 91	1		21:14	on
14 394	>A 92	2		21:50	on
15 395	>A 93	3		22:27	on
16 396	>A 94	4		23:03	on
17 397	>A 95	5		23:40	on
18 398	>A 96	9		00:16	on
19 337	>A 97	10	10 SLU.	00:53	on
20	>A				
21	>A				
22	>A				
23	>A				
24	>A				
25	>A				
26	>A				
27	>A				
28	>A				
29	>A				
30	>A				
31	>A				
32	>A				

ICM LABORATORIES QUALITY CONTROL REPORT

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

TUNING AND MASS CALIBRATION SUMMARY

INSTRUMENT ID: 5970_4

DATA FILE: F4188.D

GC COLUMNS USED: DB-5

METHOD: 8270

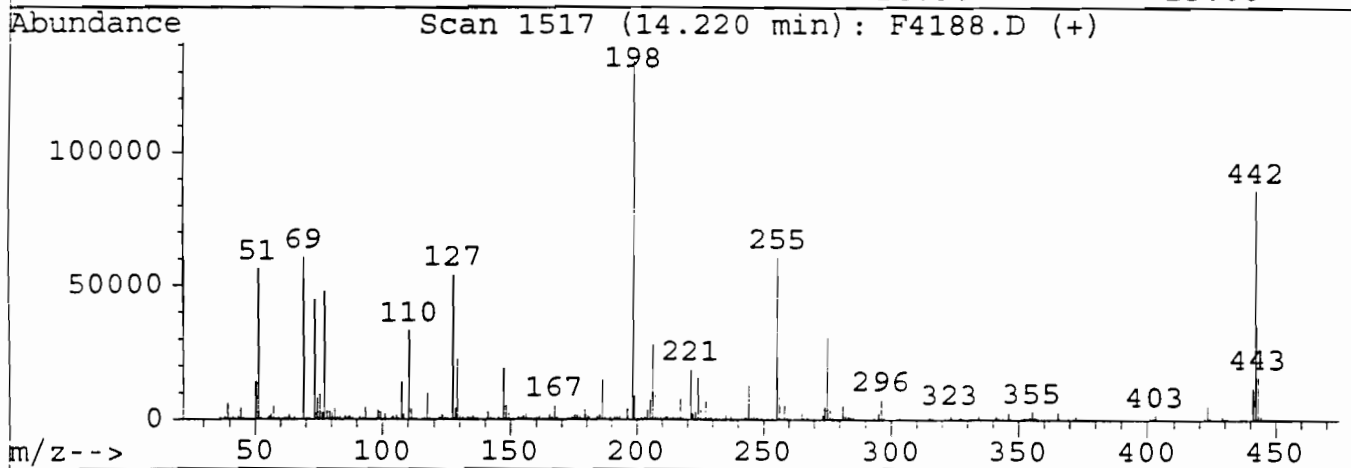
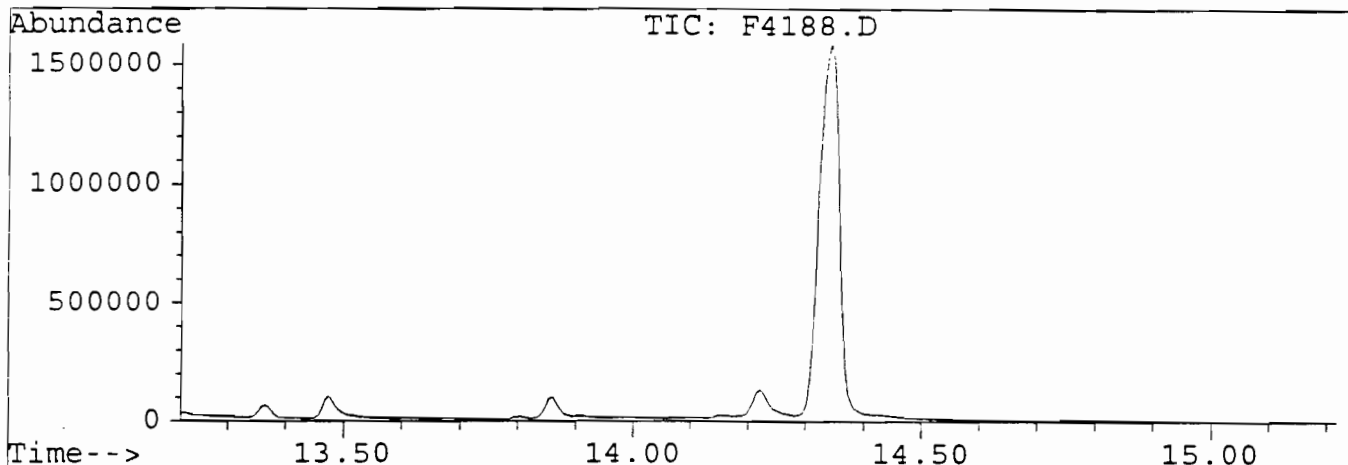
INJECTION DATE: 03/22/99

INJECT TIME: 15:24

SAMPLE NUMBER	DATA FILE	DATE OF ANALYSIS	TIME OF ANALYSIS
SSTD160 30M SPB-5	F4189.D	3/22/99	15:48
SSTD120 30M SPB-5	F4190.D	3/22/99	16:34
SSTD080 30M SPB-5	F4191.D	3/22/99	17:20
SSTD050 30M SPB-5	F4192.D	3/22/99	18:06
SSTD020 30M SPB-5	F4193.D	3/22/99	18:52

S= Spike Sample
SD= Spike duplicate sample
DL= Dilution

Data File : F:\RTE\BNA\F41_D\F4188.D
 Acq Time : Data Taken: 3/22/99 @ 15:24 Operator: AM9951
 Sample : Inst :
 Misc : DFTPP050 30M SPB-5 CAP COLUMN Multiplr: 1.00
 Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION



Peak Apex is scan: 1517

Arji meger

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	42.0	56499	PASS
68	69	0	2	0.4	222	PASS
69	198	0	100	45.2	60727	PASS
70	69	0	2	0.7	450	PASS
127	198	40	60	40.3	54098	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	134383	PASS
199	198	5	9	6.7	9056	PASS
275	198	10	30	22.7	30565	PASS
365	198	1	100	2.1	2768	PASS
441	443	0	100	74.5	11967	PASS
442	198	40	100	63.8	85707	PASS
443	442	17	23	18.7	16056	PASS

Scan 1517 (14.220 min): F4188.D

Modified:added

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	814	49.10	352	61.15	604	73.15	44652
37.15	264	50.15	14113	62.10	794	74.10	8006
38.15	1139	51.15	56499	63.10	1998	75.10	9397
39.10	6068	52.15	2975	64.15	232	76.15	2699
40.15	497	53.10	82	65.10	1027	77.15	47786
41.20	970	55.15	940	66.00	43	78.10	3277
42.10	132	56.10	2040	67.00	98	79.10	3306
43.10	1253	57.10	4950	68.15	222	80.10	2474
44.15	4097	58.15	322	69.05	60727	81.10	3852
45.15	886	59.10	722	70.15	450	82.10	1108
48.15	10	60.00	250	71.15	817	83.20	1166

Scan 1517 (14.220 min): F4188.D

Modified:added

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
84.10	294	95.15	133	106.05	600	117.15	9827
85.15	1408	96.10	493	107.15	14023	118.10	665
86.10	1018	97.10	489	108.15	2137	119.20	269
87.10	1438	98.10	3654	109.10	176	120.20	171
88.10	1005	99.10	3312	110.10	33202	121.10	55
89.10	56	100.10	459	111.10	4739	122.15	1114
90.10	9	101.05	2144	112.10	505	123.15	1973
91.05	1242	102.15	92	113.15	537	124.10	905
92.10	1038	103.10	583	114.10	14	125.15	789
93.15	5043	104.05	1275	115.10	59	126.15	170
94.15	344	105.20	1674	116.15	789	127.15	54098

Scan 1517 (14.220 min): F4188.D

Modified:added

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
128.15	4131	139.20	160	150.20	528	161.15	1345
129.10	22622	140.15	257	151.15	536	162.10	318
130.15	2036	141.15	2973	152.00	248	163.20	158
131.20	1304	142.20	1060	153.10	1028	164.05	153
132.15	474	143.15	551	154.15	747	165.15	1907
133.15	1146	144.15	120	155.15	1510	166.20	954
134.15	810	145.15	972	156.20	2170	167.15	5265
135.15	1809	146.15	448	157.15	416	168.15	2186
136.15	906	147.15	19391	158.05	527	169.15	386
137.20	885	148.10	5466	159.15	347	170.10	146
138.05	128	149.15	2551	160.10	709	171.10	202

Scan 1517 (14.220 min): F4188.D

Modified:added

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
172.10	443	183.15	306	194.20	240	206.20	27880
173.15	533	184.20	1351	195.20	198	207.20	9340
174.15	988	185.15	2069	196.15	4153	208.15	2383
175.15	2059	186.15	14826	198.10	134383	209.20	995
176.20	1687	187.15	4314	199.05	9056	210.25	602
177.15	1589	188.15	409	200.10	616	211.15	1355
178.15	553	189.15	1302	201.50	398	212.10	2170
179.10	4060	190.15	138	201.75	1079	213.20	439
180.15	2539	191.15	1245	203.15	896	214.25	708
181.15	1199	192.15	1398	204.20	3759	215.20	540
182.20	186	193.15	1580	205.20	7226	216.20	737

scan 1517 (14.220 min): F4188.D

Modified:added

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
217.15	7560	229.15	1219	239.10	483	250.15	298
218.15	869	230.15	193	240.10	345	251.15	318
219.30	249	231.20	723	241.15	622	252.15	72
221.20	18521	231.95	39	242.15	750	253.15	368
222.25	2306	232.20	47	243.20	836	255.15	60589
223.20	2978	233.15	100	244.15	12983	256.15	8758
224.15	15599	234.20	360	245.15	1777	257.15	623
225.15	3901	235.10	1950	246.15	2608	258.10	5395
226.20	372	236.10	233	247.10	906	259.15	846
227.15	6811	237.10	1468	248.05	326	260.10	739
228.15	827	238.15	15	249.10	929	261.15	80

scan 1517 (14.220 min): F4188.D

Modified:added

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
264.10	238	275.20	30565	285.95	480	298.10	28
265.20	2532	276.20	4185	286.20	424	301.15	75
266.05	837	277.15	3202	289.15	77	302.20	116
267.15	1476	278.15	346	290.15	38	303.20	989
268.05	625	279.20	562	291.10	30	304.15	202
269.05	232	280.20	196	292.15	84	308.10	72
270.05	673	281.20	5620	293.10	453	309.10	46
271.10	207	282.10	2662	294.10	112	310.10	80
272.15	151	283.20	1478	295.25	2441	312.15	10
273.15	1810	284.10	1286	296.10	7550	313.05	46
274.15	4829	285.20	1380	297.10	1227	314.20	287

Scan 1517 (14.220 min): F4188.D

Modified:added

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
315.15	714	332.15	158	346.05	2458	365.10	2768
316.15	796	333.15	220	346.85	14	366.10	354
317.10	38	334.15	1806	347.15	303	369.15	310
321.15	207	335.20	351	352.15	661	370.10	37
322.20	102	336.15	18	353.15	570	371.15	158
323.15	2639	339.05	144	354.20	1019	372.20	1530
324.20	424	339.35	190	355.20	3221	373.15	277
325.20	504	341.15	1470	356.20	1236	374.10	10
326.10	186	342.15	489	357.20	716	375.10	280
327.10	1311	343.15	248	358.10	202	383.10	324
328.15	480	344.15	220	359.20	22	384.15	66

Scan 1517 (14.220 min): F4188.D

Modified:added

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
390.10	142	415.05	262	439.95	26		
391.10	83	421.10	567	441.10	11967		
392.15	563	422.15	519	442.15	85707		
399.00	232	423.15	5281	443.10	16056		
400.20	112	424.10	1057	444.15	1675		
401.00	462	425.15	69	445.10	62		
402.15	670	429.20	1640	460.95	152		
403.10	1872	430.20	722				
404.10	440	431.20	504				
406.10	230	432.15	174				
413.25	116	439.35	15				

ICM LABORATORIES QUALITY CONTROL REPORT

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)
TUNING AND MASS CALIBRATION SUMMARY

INSTRUMENT ID: 5970_4
GC COLUMNS USED: DB-5
INJECTION DATE: 03/25/99

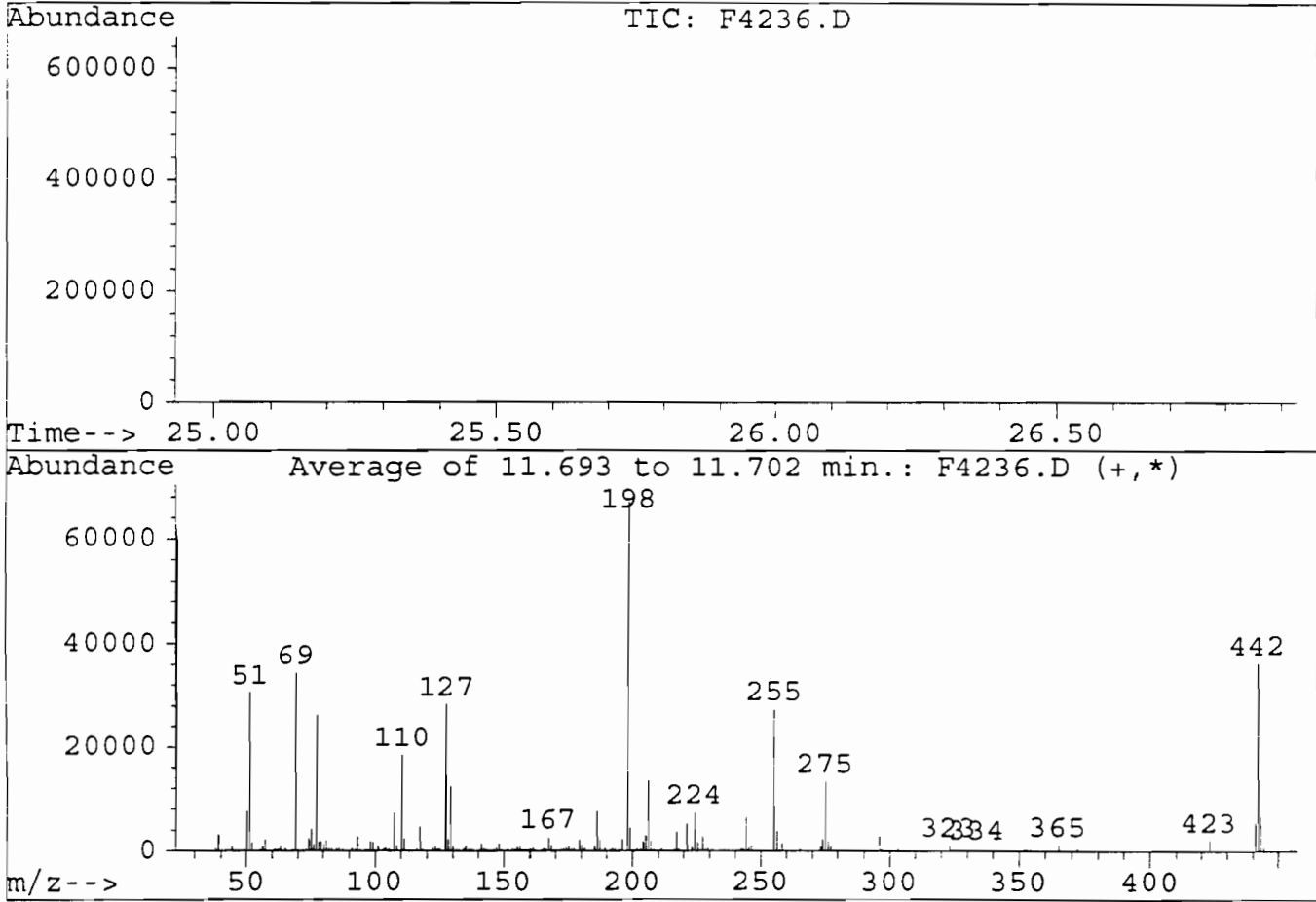
DATA FILE: F4236.D
METHOD: 8270
INJECT TIME: 10:59

SAMPLE NUMBER	DATA FILE	ANALYSIS	TIME OF ANALYSIS
SSTD050, CAL STD30	F4237.D	3/25/99	11:24
BLANK, QC8170	F4240.D	3/25/99	13:42
QA/QC, QC8170	F4241.D	3/25/99	14:28
BLANK SPIKE, QC8170	F4242.D	3/25/99	15:14
BL.SPK DUP, QC8170	F4243.D	3/25/99	16:00
306389, QC8170	F4244.D	3/25/99	16:46

S= Spike Sample
SD= Spike duplicate sample
DL= Dilution

DFTPP

Data File : F:\RTE\BNA\F42_D\F4236.D
 Acq Time : Data Taken: 3/25/99 @ 10:59 Operator: AM9951
 Sample : Inst :
 Misc : DFTPP050, 50NG 30M SPB-5 CAP COLUMN Multiplr: 1.00
 Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION



Peak Apex is scan: 202

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.6	30627	PASS
68	69	0	2	0.4	132	PASS
69	198	0	100	51.3	34408	PASS
70	69	0	2	0.5	158	PASS
127	198	40	60	42.2	28293	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	67104	PASS
199	198	5	9	6.6	4461	PASS
275	198	10	30	19.8	13313	PASS
365	198	1	100	1.7	1131	PASS
441	443	0	100	73.2	5171	PASS
442	198	40	100	54.1	36315	PASS
443	442	17	23	19.5	7067	PASS

verage of 11.693 to 11.702 min.: F4236.D

Modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	45	50.15	7544	64.15	172	77.15	26307
37.15	170	51.15	30627	65.15	537	78.15	1731
38.10	460	52.15	1568	67.15	47	79.05	1811
39.10	3149	53.15	30	68.15	132	80.10	1416
40.15	177	55.10	217	69.05	34408	81.10	1978
41.15	186	56.15	877	70.10	158	82.15	481
43.15	80	57.10	2154	70.95	21	83.05	455
44.15	890	58.10	151	73.10	220	84.15	103
45.15	72	61.05	386	74.15	2306	85.05	391
47.65	23	62.15	372	75.15	4248	86.05	495
49.25	222	63.10	1023	76.15	1258	87.10	263

verage of 11.693 to 11.702 min.: F4236.D

Modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.05	113	101.10	1051	116.10	440	129.10	12387
91.05	448	103.10	408	117.15	4583	130.15	1022
92.20	437	104.00	641	118.15	387	131.05	178
93.10	2669	105.15	572	119.15	24	132.15	107
94.20	197	106.20	89	120.05	36	133.10	33
95.05	54	107.10	7272	122.10	479	134.10	320
96.20	159	108.10	1115	123.10	896	135.05	946
97.00	73	110.10	18512	124.10	371	136.10	382
98.10	1886	111.10	2414	125.05	339	137.10	405
99.10	1717	112.10	283	127.10	28293	138.20	120
100.10	173	113.05	49	128.15	2176	139.20	20

verage of 11.693 to 11.702 min.: F4236.D

Modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.10	92	151.20	198	162.05	176	173.10	321
141.15	1332	151.85	78	163.10	26	174.10	587
142.15	490	153.15	436	164.20	83	175.15	950
143.10	327	154.20	352	165.10	493	176.15	357
144.20	71	155.15	764	166.15	422	177.15	485
145.10	64	156.15	1050	167.15	2636	178.05	162
146.10	257	157.15	292	168.15	1183	179.10	2091
147.10	639	158.10	292	169.10	215	180.15	1279
148.05	1404	159.10	205	170.10	65	181.15	652
149.05	339	160.05	408	171.05	116	182.15	120
150.10	91	161.10	662	172.10	252	183.05	87

Average of 11.693 to 11.702 min.: F4236.D

Modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
184.15	140	194.20	117	205.15	3013	221.15	5199
185.15	933	195.00	84	206.10	13565	223.10	792
186.10	7635	195.25	31	207.20	1792	224.15	7398
187.10	2061	196.05	2214	208.10	433	225.10	1775
188.10	194	198.05	67104	209.10	114	226.15	200
189.15	452	199.05	4461	210.30	87	227.10	2735
190.05	89	200.10	288	211.10	574	228.10	377
190.15	21	200.95	43	215.10	136	229.15	609
191.20	222	201.65	410	216.20	307	230.10	74
192.10	605	203.10	404	217.10	3592	231.15	266
193.20	620	204.15	1823	218.05	431	234.05	185

verage of 11.693 to 11.702 min.: F4236.D

modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
235.05	189	247.15	188	272.05	46	294.05	21
236.05	126	249.05	221	273.10	867	295.05	29
237.10	230	253.10	111	274.05	2217	296.05	2937
239.05	87	255.10	27379	275.10	13313	297.05	372
240.15	61	256.10	3863	276.10	1828	302.00	16
241.10	155	257.10	272	277.15	892	303.10	327
242.15	384	258.10	1453	278.05	138	304.15	91
243.20	370	259.05	244	283.05	55	314.10	149
244.15	6422	264.00	62	284.15	44	315.10	323
245.15	876	265.10	563	285.15	151	316.15	184
246.10	981	266.00	141	293.10	202	321.05	89

verage of 11.693 to 11.702 min.: F4236.D

modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
323.15	994	353.05	209	403.05	278		
324.20	177	354.10	290	404.00	35		
327.05	143	365.00	1131	421.05	249		
328.10	29	366.00	146	422.15	212		
332.05	53	371.15	35	423.10	2048		
333.10	50	372.10	466	424.10	407		
334.05	560	373.00	73	440.15	29		
335.15	145	383.05	104	441.05	5171		
341.10	70	390.05	49	442.05	36315		
346.05	164	391.15	17	443.05	7067		
352.05	271	402.05	182	444.10	640		

ICM LABORATORIES QUALITY CONTROL REPORT

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)
TUNING AND MASS CALIBRATION SUMMARY

INSTRUMENT ID: 5970_4
GC COLUMNS USED: DB-5
INJECTION DATE: 03/26/99

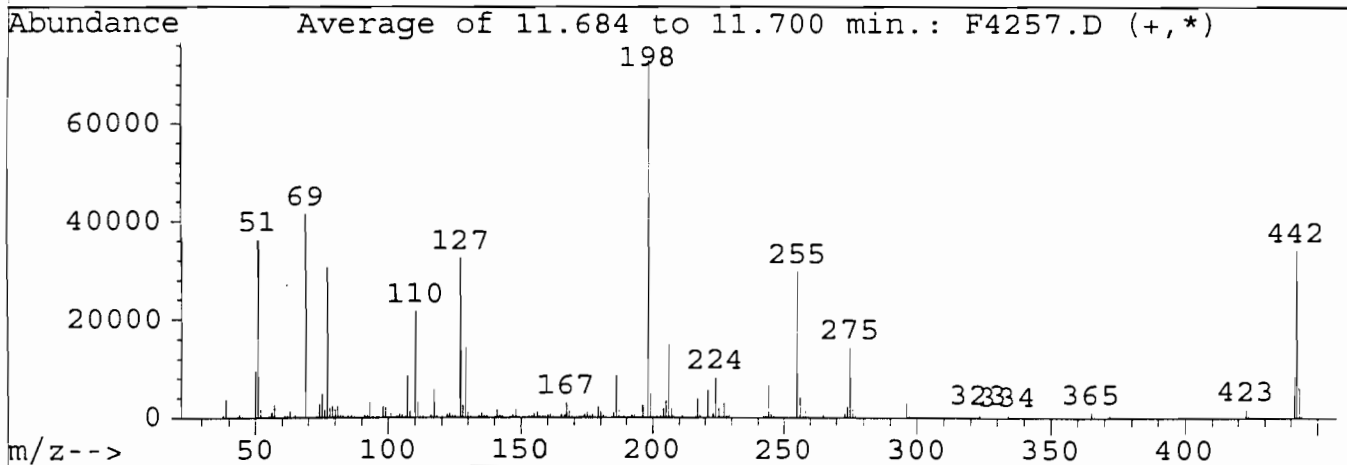
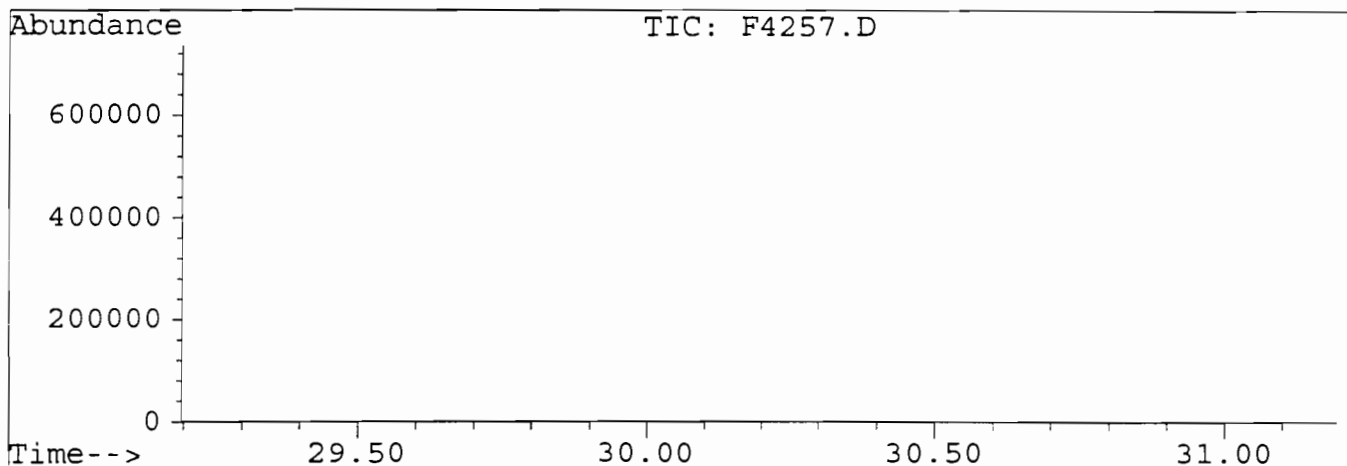
DATA FILE: F4257.D
METHOD: 8270
INJECT TIME: 17:49

SAMPLE NUMBER	DATA FILE	ANALYSIS	TIME OF ANALYSIS
SSTD050, CAL STD M	F4258.D	3/26/99	18:14
BLANK, QC8167 M SP	F4259.D	3/26/99	19:00
BL.SP, QC8167 M S	F4260.D	3/26/99	19:46
QA/QC, QC8167 M SP	F4261.D	3/26/99	20:31
306397, QC8167 M S	F4262.D	3/26/99	21:17
306398, QC8167 M S	F4263.D	3/26/99	22:03

S = Spike Sample
SD = Spike duplicate sample
DL = Dilution

DFTPP

Data File : F:\RTE\BNA\F42_D\F4257.D
 Acq Time : Data Taken: 3/26/99 @ 17:49 Operator: AM9951
 Sample : Inst :
 Misc : DFTPP050, 50NG M SPB-5 CAP COLUMN Multiplr: 1.00
 Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION



Peak Apex is scan: 2578

Arjun mehta

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	49.4	36160	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	56.7	41475	PASS
70	69	0	2	0.5	196	PASS
127	198	40	60	44.4	32485	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	73203	PASS
199	198	5	9	6.6	4822	PASS
275	198	10	30	19.3	14121	PASS
365	198	1	100	1.6	1193	PASS
441	443	0	100	73.2	4660	PASS
442	198	40	100	46.6	34120	PASS
443	442	17	23	18.7	6364	PASS

verage of 11.684 to 11.700 min.: F4257.D

Modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	72	51.15	36160	65.10	639	79.10	2261
37.10	180	52.15	1738	66.10	18	80.10	1746
38.15	543	53.15	44	67.20	104	81.10	2440
39.10	3772	55.10	228	69.05	41475	82.15	585
40.05	193	56.10	1148	70.10	196	83.15	563
41.20	165	57.10	2652	73.10	247	84.10	41
43.15	122	58.10	86	74.10	2811	85.10	436
44.15	614	61.10	426	75.15	4927	86.05	584
45.10	82	62.10	443	76.15	1571	87.15	301
48.95	65	63.10	1314	77.15	30688	88.10	133
50.15	9373	64.10	193	78.15	2096	91.05	595

verage of 11.684 to 11.700 min.: F4257.D

Modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.10	575	103.10	450	116.15	561	129.15	14244
93.10	3275	104.10	811	117.10	5731	130.15	1199
94.10	271	105.15	731	118.15	446	131.15	246
95.15	73	106.25	263	120.10	119	132.15	132
96.20	163	107.10	8645	121.15	24	132.95	85
97.15	70	108.10	1387	122.10	662	134.15	374
98.05	2331	110.10	21629	123.10	928	135.15	1017
99.10	2167	111.10	3044	124.10	454	136.10	391
100.10	202	112.10	323	125.15	403	137.15	456
101.05	1239	113.10	102	127.05	32485	138.05	121
102.05	55	115.30	17	128.15	2501	139.00	43

verage of 11.684 to 11.700 min.: F4257.D

Modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.00	154	151.10	192	161.15	754	172.10	266
141.15	1629	151.35	58	162.05	250	173.10	338
142.15	549	151.70	126	164.10	114	174.15	654
143.05	358	153.15	476	165.15	609	175.15	1044
144.15	60	154.15	413	166.20	491	176.10	400
145.15	64	155.10	887	167.15	3096	177.10	627
146.10	251	156.20	1229	168.15	1321	178.05	186
147.15	766	157.15	298	169.15	247	179.10	2338
148.10	1629	158.05	307	170.05	30	180.15	1489
149.10	347	159.05	273	170.35	59	181.10	761
150.05	36	160.10	481	171.10	157	182.15	133

verage of 11.684 to 11.700 min.: F4257.D

Modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
183.05	63	194.20	145	207.20	1950	223.10	897
184.10	136	195.10	129	208.10	484	224.15	8100
185.10	1121	196.15	2501	209.15	166	225.15	1999
186.10	8595	198.05	73203	210.20	89	226.20	217
187.10	2289	199.05	4822	211.15	592	227.10	2935
188.10	250	200.10	319	215.10	97	228.15	456
189.15	440	201.65	452	216.20	298	229.10	631
190.15	25	203.10	429	217.10	3947	230.05	97
191.10	239	204.15	1918	218.15	517	231.15	309
192.10	739	205.10	3558	219.15	16	233.10	23
193.15	662	206.15	14904	221.15	5660	234.10	189

verage of 11.684 to 11.700 min.: F4257.D

odified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
235.10	210	247.10	227	265.15	598	283.05	82
236.10	93	249.10	210	266.00	170	285.15	88
237.10	218	252.20	22	267.95	18	293.10	214
239.10	105	253.15	101	271.00	52	294.05	15
240.10	67	253.50	24	272.05	37	295.25	25
241.10	171	255.10	29635	273.05	888	296.05	3038
242.10	388	256.10	4146	274.05	2320	297.05	424
243.15	442	257.15	306	275.10	14121	303.10	342
244.15	6780	258.10	1476	276.10	1781	304.20	45
245.15	901	259.10	245	277.10	966	314.15	133
246.05	1033	264.05	51	278.15	136	315.10	287

verage of 11.684 to 11.700 min.: F4257.D

odified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
316.15	180	346.10	192	391.05	26	442.05	34120
321.10	90	352.05	262	402.10	166	443.05	6364
323.20	976	353.10	221	403.10	249	444.10	580
324.15	184	354.10	279	404.10	23		
327.10	189	365.05	1193	421.15	167		
328.15	83	366.00	127	422.10	199		
332.10	75	371.05	60	423.10	1855		
333.05	92	372.10	488	424.15	380		
334.10	601	373.15	92	439.90	59		
335.20	165	383.05	118	440.15	38		
341.10	126	390.15	21	441.05	4660		

ICM LABORATORIES QUALITY CONTROL REPORT

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP) TUNING AND MASS CALIBRATION SUMMARY

INSTRUMENT ID: 5970_4
GC COLUMNS USED: DB-5
INJECTION DATE: 03/29/99

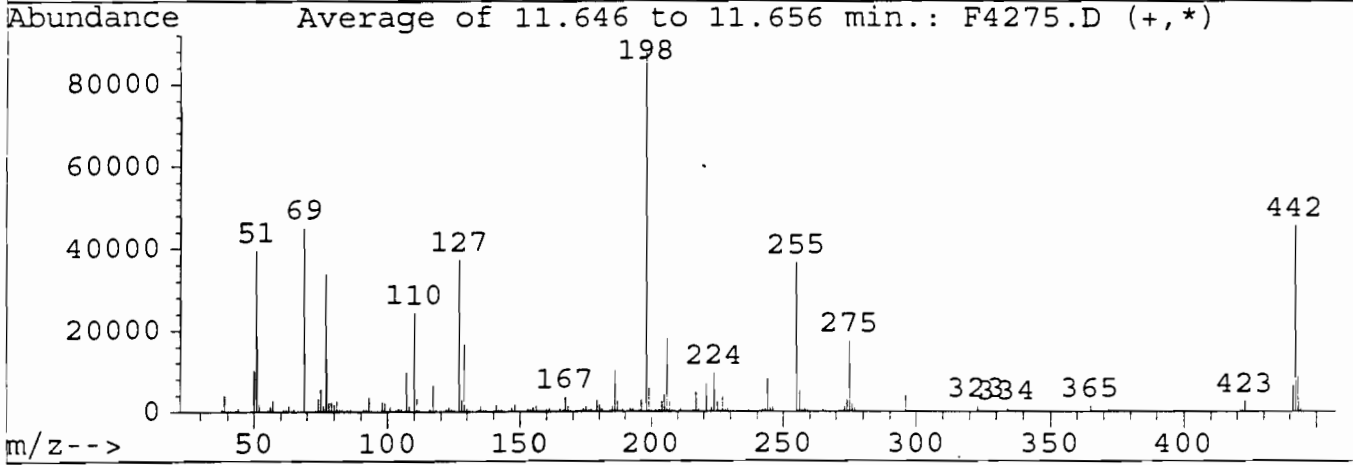
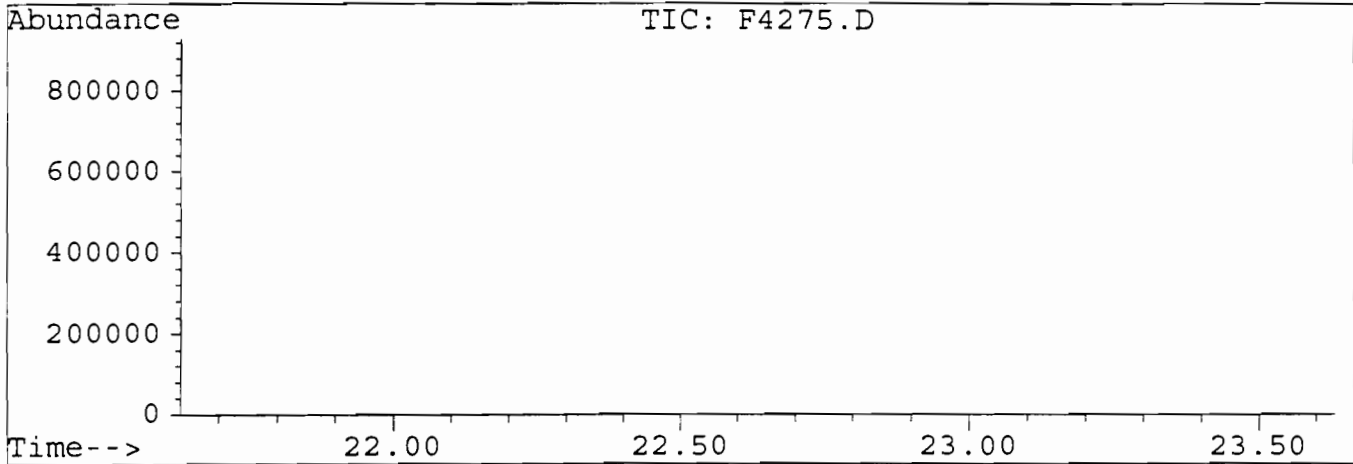
DATA FILE: F4275.D
METHOD: 8270
INJECT TIME: 11:07

SAMPLE NUMBER	DATA FILE	ANALYSIS	TIME OF ANALYSIS
SSTD050, CAL STD M	F4276.D	3/29/99	11:58
306393, QC8167 M S	F4277.D	3/29/99	13:56
306390, QC8167 M S	F4278.D	3/29/99	14:42
306390MS, QC8167 M	F4284.D	3/29/99	20:00
306390MSDQC8167 M	F4285.D	3/29/99	20:46

S = Spike Sample
SD = Spike duplicate sample
DL = Dilution

DFTPP

Data File : F:\RTE\BNA\F42_D\F4275.D
 Acq Time : Data Taken: 3/29/99 @ 11:07 Operator: AM9951
 Sample : Inst :
 Misc : DFTPP050, 50NG M SPB-5 CAP COLUMN Multiplr: 1.00
 Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION



Peak Apex is scan: 276

Anju Mehta

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.0	39477	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	51.2	44917	PASS
70	69	0	2	0.5	215	PASS
127	198	40	60	42.3	37109	PASS
197	198	0	1	0.2	132	PASS
198	198	100	100	100.0	87677	PASS
199	198	5	9	6.7	5907	PASS
275	198	10	30	19.7	17291	PASS
365	198	1	100	1.7	1451	PASS
441	443	0	100	73.9	6339	PASS
442	198	40	100	51.9	45528	PASS
443	442	17	23	18.8	8573	PASS

verage of 11.646 to 11.656 min.: F4275.D

odified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	110	50.10	10088	64.05	191	78.10	2239
37.15	234	51.10	39477	65.10	617	79.05	2400
38.05	599	52.10	1935	67.15	86	80.10	1821
39.10	4026	53.10	73	69.05	44917	81.10	2682
40.05	328	55.10	264	70.15	215	82.10	663
41.10	249	56.10	1239	71.15	35	83.10	610
42.10	23	57.10	2782	73.10	268	84.10	153
43.10	146	58.15	189	74.10	3206	85.10	480
44.10	1034	61.05	422	75.05	5671	86.05	710
45.10	89	62.10	481	76.15	1650	87.10	349
49.10	239	63.10	1433	77.15	33784	88.10	138

verage of 11.646 to 11.656 min.: F4275.D

Modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
89.00	44	100.20	214	112.15	391	127.05	37109
89.20	19	101.05	1315	113.10	70	128.10	2817
91.10	657	102.05	59	116.05	596	129.10	16414
92.10	620	103.05	491	117.10	6467	130.15	1343
93.10	3640	104.10	768	118.15	556	131.15	228
94.10	270	105.15	745	119.15	56	131.70	22
95.10	61	106.20	100	120.10	114	132.10	116
96.10	154	107.10	9633	122.05	623	133.10	63
97.25	43	108.10	1452	123.10	1126	134.10	402
98.10	2604	110.10	24304	124.10	521	135.10	1285
99.05	2296	111.10	3234	125.10	472	136.10	431

Average of 11.646 to 11.656 min.: F4275.D

Modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
137.15	547	148.05	1854	157.15	345	168.15	1399
138.05	134	149.10	395	158.05	337	169.10	273
139.05	76	150.05	103	159.10	246	170.20	97
140.05	183	151.15	240	160.10	606	171.00	169
141.15	1816	151.45	68	161.10	837	172.10	330
142.15	682	151.80	216	162.10	240	173.10	390
143.10	433	152.15	51	163.05	73	174.10	783
144.15	107	153.10	639	164.05	130	175.10	1338
145.15	35	154.15	425	165.10	724	176.05	476
146.10	292	155.10	1075	166.20	569	177.10	700
147.10	903	156.10	1509	167.15	3577	178.15	228

Average of 11.646 to 11.656 min.: F4275.D

Modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
179.10	2679	190.10	61	201.60	481	215.10	188
180.10	1741	191.15	288	203.10	459	216.10	341
181.10	903	192.10	835	204.10	2526	217.05	4800
182.20	152	193.15	838	205.10	4216	218.10	581
183.10	31	194.10	173	206.10	17856	221.15	6825
184.10	198	195.00	149	207.15	2447	223.10	1101
185.10	1278	196.15	2988	208.10	550	224.10	9502
186.10	9995	196.95	132	209.05	199	225.10	2395
187.10	2746	198.05	87677	210.40	147	226.15	285
188.15	262	199.05	5907	211.10	738	227.10	3787
189.05	591	200.10	400	213.05	37	228.15	504

verage of 11.646 to 11.656 min.: F4275.D

modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
229.10	802	241.15	232	253.10	151	272.15	100
230.15	100	242.15	491	255.10	36469	273.05	1100
231.10	389	243.15	583	256.10	5225	274.05	2908
232.00	23	244.15	8049	257.15	372	275.10	17291
233.10	34	245.15	1088	258.10	1920	276.10	2192
234.15	231	246.10	1335	259.10	336	277.10	1230
235.05	252	247.05	283	264.00	100	278.15	176
235.95	155	247.95	27	265.05	735	283.10	130
237.05	296	249.05	280	266.05	170	284.10	71
239.20	157	251.10	57	268.05	30	285.10	231
240.15	85	252.20	26	271.05	59	290.05	18

verage of 11.646 to 11.656 min.: F4275.D

modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
293.15	272	310.00	25	332.00	65	366.05	210
294.05	31	313.05	23	333.05	60	371.10	117
294.95	24	314.10	202	334.10	767	372.10	682
295.25	25	315.05	395	335.15	180	373.10	176
296.05	3846	316.20	221	341.10	150	383.10	157
297.05	549	321.10	136	346.05	245	384.05	27
301.00	34	322.05	29	352.10	369	390.05	30
302.10	27	323.15	1323	353.10	270	391.05	28
303.15	479	324.20	226	354.10	372	402.05	248
304.05	118	327.05	197	355.00	17	403.05	307
308.05	39	328.05	76	365.05	1451	404.05	107

Average of 11.646 to 11.656 min.: F4275.D

modified:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
421.10	268						
422.10	284						
423.10	2544						
424.05	487						
439.95	35						
441.05	6339						
442.05	45528						
443.05	8573						
444.10	742						

ICM LABORATORIES QUALITY CONTROL REPORT

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP) TUNING AND MASS CALIBRATION SUMMARY

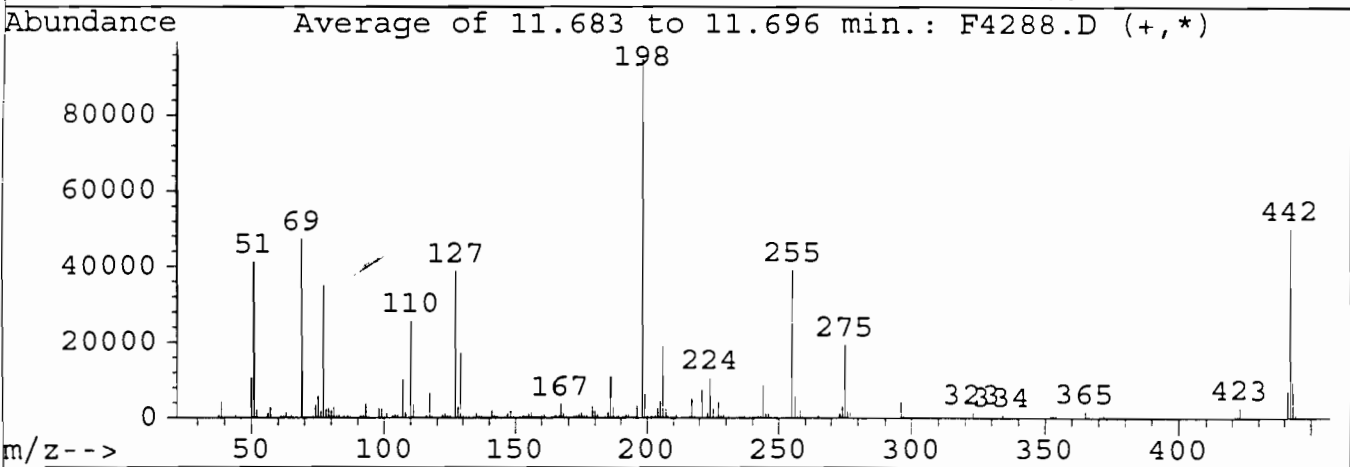
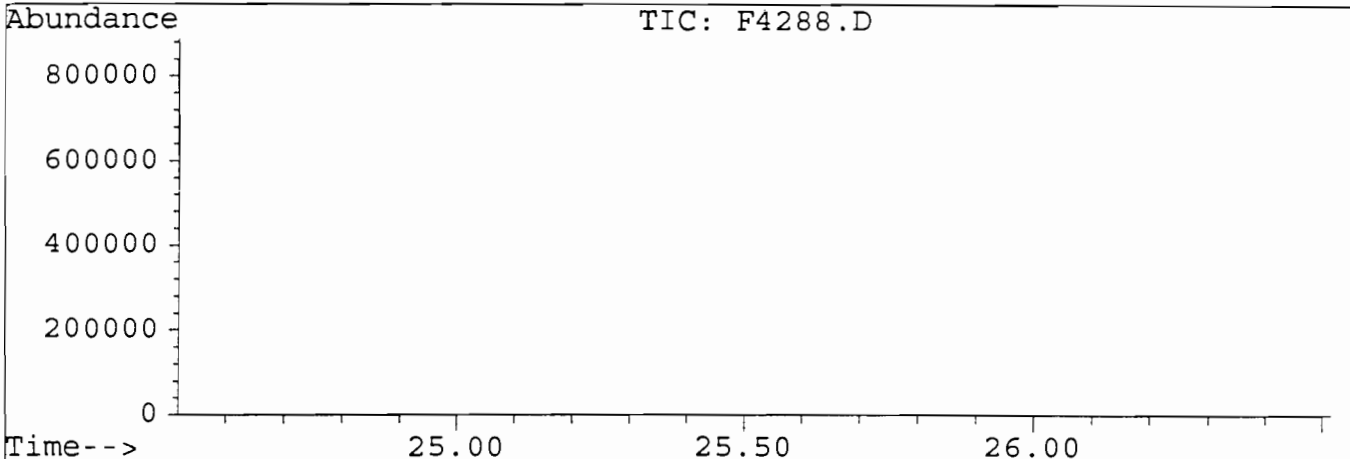
INSTRUMENT ID: 5970_4 DATA FILE: F4288.D
GC COLUMNS USED: DB-5 METHOD: 8270
INJECTION DATE: 03/30/99 INJECT TIME: 11:23

SAMPLE NUMBER	DATA FILE	ANALYSIS	TIME OF ANALYSIS
STD050, CAL STD M	F4289.D	3/30/99	13:19
306394 5X, QC8167 M	F4292.D	3/30/99	16:15
306392 10X, QC8167	F4293.D	3/30/99	17:00
306395 ,QC8167 M S	F4294.D	3/30/99	17:46
306391 ,QC8167 M S	F4295.D	3/30/99	18:31
306396 ,QC8167 M S	F4296.D	3/30/99	19:17

S = Spike Sample
SD = Spike duplicate sample
DL = Dilution

DFTPP

Data File : F:\RTE\BNA\F42_D\F4288.D
 Acq Time : Data Taken: 3/30/99 @ 11:23 Operator: AM9951
 Sample : Inst :
 Misc : DFTPP050, 50NG M SPB-5 CAP COLUMN Multiplr: 1.00
 Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION



Peak Apex is scan: 2136

Anju Mehta

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.6	41344	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	49.9	47350	PASS
70	69	0	2	0.4	210	PASS
127	198	40	60	40.9	38784	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	94924	PASS
199	198	5	9	6.6	6246	PASS
275	198	10	30	20.4	19319	PASS
365	198	1	100	1.8	1701	PASS
441	443	0	100	74.6	7043	PASS
442	198	40	100	52.7	50036	PASS
443	442	17	23	18.9	9437	PASS

average of 11.683 to 11.696 min.: F4288.D

normalized:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	85	50.10	10656	62.15	464	75.05	5726
37.15	204	51.15	41344	63.10	1449	76.15	1813
38.15	671	52.15	2040	64.15	205	77.15	35102
39.10	4366	53.00	50	65.10	696	78.10	2364
40.05	220	55.10	237	66.20	39	79.05	2596
41.15	238	56.15	1293	66.80	19	80.10	1942
43.15	87	57.15	2820	67.05	33	81.10	2734
44.10	682	58.15	162	69.05	47350	82.10	710
45.05	80	59.10	18	70.10	210	83.10	643
45.15	13	60.20	13	73.15	307	84.05	98
49.20	208	61.15	566	74.10	3286	85.10	552

average of 11.683 to 11.696 min.: F4288.D

normalized:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.10	678	98.10	2694	110.10	25680	121.05	32
87.10	355	99.10	2389	111.10	3494	121.35	13
88.05	87	100.10	228	112.05	375	122.10	683
89.15	39	101.05	1458	113.05	122	123.10	1165
91.10	652	102.00	34	114.10	14	124.10	520
92.15	695	103.05	538	115.30	18	125.10	460
93.10	3803	104.05	940	116.10	648	127.05	38784
94.15	294	105.10	831	117.10	6668	128.10	2970
95.15	120	106.20	153	118.10	551	129.10	17250
96.15	181	107.10	10203	119.10	79	130.10	1485
97.15	139	108.15	1637	120.10	148	131.10	249

average of 11.683 to 11.696 min.: F4288.D

normalized:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.20	133	142.15	673	152.20	75	163.15	59
132.95	70	143.15	449	153.10	673	164.10	151
134.05	426	144.15	42	154.15	471	165.10	743
135.10	1280	145.10	108	155.15	1050	166.20	632
136.10	494	146.10	342	156.15	1551	167.15	3668
137.15	599	147.15	982	157.15	393	168.10	1550
138.00	117	148.05	1898	158.05	383	169.10	300
138.30	30	149.10	416	159.15	258	170.15	122
139.15	71	150.10	97	160.05	596	171.10	181
140.10	178	151.30	287	161.10	939	172.10	363
141.10	1896	151.85	108	162.10	250	173.10	466

average of 11.683 to 11.696 min.: F4288.D

normalized:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.10	823	185.10	1345	196.10	3177	208.15	608
175.10	1376	186.10	10799	198.05	94924	209.15	181
176.10	505	187.10	2988	199.05	6246	210.40	91
177.10	762	188.05	287	200.10	457	211.15	864
178.15	261	189.05	637	201.55	557	213.10	17
179.10	3003	190.10	79	203.10	478	215.10	189
180.10	1856	191.15	294	203.20	86	216.10	399
181.15	873	192.15	915	204.15	2645	217.05	5089
182.15	154	193.15	934	205.15	4368	218.10	625
183.00	40	194.10	184	206.10	18951	219.05	16
184.05	183	195.20	134	207.20	2444	221.10	7251

average of 11.683 to 11.696 min.: F4288.D

normalized:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
223.10	1171	234.05	235	246.05	1438	259.05	322
224.10	10484	235.05	278	247.05	289	261.05	54
225.10	2519	236.15	188	249.10	289	264.05	97
226.15	262	237.10	306	250.10	16	265.10	784
227.10	4123	239.10	176	251.10	46	266.00	194
228.15	583	240.10	137	252.10	48	267.95	18
229.10	851	241.10	231	253.15	161	270.15	20
230.05	143	242.10	505	255.10	38948	271.00	52
231.15	377	243.15	591	256.10	5700	272.00	90
232.20	20	244.15	8784	257.10	443	273.10	1231
233.10	19	245.10	1179	258.05	2104	274.05	3127

average of 11.683 to 11.696 min.: F4288.D

normalized:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
275.10	19319	294.10	69	316.10	257	341.10	135
276.10	2520	296.05	4177	321.05	124	346.05	271
277.10	1384	297.00	541	322.20	81	347.10	27
278.05	231	298.05	14	323.15	1409	352.05	383
279.00	17	302.05	64	324.15	279	353.10	297
283.10	147	303.15	476	327.10	237	354.10	412
284.10	66	304.10	121	328.10	102	355.10	69
285.10	220	308.10	17	332.10	58	365.05	1701
289.15	24	313.15	18	333.10	110	366.00	198
292.05	18	314.10	210	334.10	878	371.10	98
293.10	296	315.10	430	335.20	199	372.10	722

average of 11.683 to 11.696 min.: F4288.D

normalized:added scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
373.15	190	424.05	536				
383.05	153	425.05	37				
384.05	36	439.35	16				
390.05	40	439.65	22				
391.05	50	439.85	22				
402.05	254	441.05	7043				
403.05	352	442.05	50036				
404.05	116	443.05	9437				
421.15	312	444.10	829				
422.10	328						
423.10	2690						

ICM LABORATORIES QUALITY CONTROL REPORT

METHOD BLANK SUMMARY OF INJECTIONS

INSTRUMENT ID: 5970_4
GC COLUMNS USED: DB-5
INJECTION DATE: 03/25/99

DATA FILE: F4240.D
METHOD: 8270
INJECT TIME: 13:42

SAMPLE NUMBER	DATA FILE	DATE OF ANALYSIS	TIME OF ANALYSIS
QA/QC, QC8170	F4241.D	3/25/99	14:28
BLANK SPIKE, QC8170	F4242.D	3/25/99	15:14
BL.SPK DUP, QC8170	F4243.D	3/25/99	16:00
306389, QC8170	F4244.D	3/25/99	16:46

S= Spike Sample
SD= Spike duplicate sample
DL= Dilution

ANALab, Inc. - Randolph Facility
 1152 Route 10
 Randolph, NJ 07869
 973-584-0330, FAX: 973-584-0515
 MARCH 26, 1999

Certified for: NJ, PA, DE, CT, NY (DOH)
 NJ #14116 NY #11376
 US EPA CLP Lab

TARGET COMPOUND LIST - BASE/NEUTRAL FRACTION ANALYSIS BY GC/MS

Sample ID: Method Blank Batch Number: QC8170
 Data File: >F4240 Dilution Factor: 1
 Analysis Date: 03/25/99 Column: 30m SPB-5
 Extracted Date: 03/16/99
 Matrix: Water Init Sample volume= 1000ml Final volume= 1ml

Conc. in Sample = (Conc. on Quant Report/Initial Volume)*Final Volume*1000

Parameter	Method Blank ug/l	Practical Quantitation Limit ug/l	Minimum Detection Limit ug/l
bis(2-Chloroethyl) ether	U	5	1
1,3-Dichlorobenzene	U	5	2.4
1,4-Dichlorobenzene	U	5	2.3
1,2-Dichlorobenzene	U	5	2.4
bis(2-Chloroisopropyl) ether	U	5	1.2
N-Nitroso-di-n-propylamine	U	5	1
Hexachloroethane	U	5	2.9
Nitrobenzene	U	5	1
Isophorone	U	5	1
bis(2-Chloroethoxy) methane	U	5	1
1,2,4-Trichlorobenzene	U	5	2.3
Naphthalene	U	5	2
4-Chloroaniline	U	5	1
Hexachlorobutadiene	U	5	1
2-Methylnaphthalene	U	5	2.1
Hexachlorocyclopentadiene	U	5	1.5
2-Chloronaphthalene	U	5	2
2-Nitroaniline	U	5	1
Dimethyl phthalate	U	5	4.6
Acenaphthylene	U	5	1.5
2,6-Dinitrotoluene	U	5	1
3-Nitroaniline	U	5	1
Acenaphthene	U	5	1.9
Dibenzofuran	U	5	1.5
2,4-Dinitrotoluene	U	5	1
Diethyl phthalate	U	5	2.3
4-Chlorophenyl phenyl ether	U	5	2
Fluorene	U	5	1.7
4-Nitroaniline	U	5	1
N-Nitrosodiphenylamine	U	5	1
4-Bromophenyl phenyl ether	U	5	1.9
Hexachlorobenzene	U	5	1.9
Phenanthrene	U	5	0.9
Anthracene	U	5	0.8

(continued on next page)

(continued from previous page)

Sample ID: Method Blank
Data File: >F4240

Batch Number: QC8170
Dilution Factor: 1

Parameter	Method Blank ug/l	Practical Quantitation Limit ug/l	Minimum Detection Limit ug/l
Di-n-butylphthalate	U	5	2.5
Fluoranthene	U	5	0.6
Pyrene	U	5	0.5
Butyl benzylphthalate	U	5	1.2
3,3'-Dichlorobenzidine	U	5	1
Benzo(a)anthracene	U	5	0.5
Chrysene	U	5	0.5
bis(2-Ethylhexyl)phthalate	U	5	3
Di-n-octylphthalate	U	5	1
Benzo(b)fluoranthene	U	5	0.7
Benzo(k)fluoranthene	U	5	0.7
Benzo(a)pyrene	U	5	0.5
Indeno(1,2,3-cd)pyrene	U	5	1.1
Dibenz(a,h)anthracene	U	5	0.5
Benzo(g,h,i)perylene	U	5	0.5
Carbazole	U	5	1

ug/l = micrograms/liter or ppb

ND: Not Determined.
IND: Indeterminable.

U: Indicates a compound was analyzed for but not detected at the PQL.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.

ANALab, Inc. - Randolph Facility
Thomas Mancuso, Lab Mgr.
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ANJ

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4240.D
 Acq Time : 25 MAR 99 1:42 PM Operator: AM9951
 Sample : *Blank QC8170 A.m.c.u* Inst :
 Misc : ~~BL-SPK~~, QC817030M SPB-5 CAP COLUMN Multiplr: 1.00
 Quant Time: Mar 23 22:50 1999

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-Dichlorobenzene	7.57	152	60327	40.00	ng/uL	-0.03
21) d8-Naphthalene	10.10	136	224398	40.00	ng/uL	-0.05
33) d10-Acenaphthene	13.83	164	102708	40.00	ng/uL	-0.06
57) d10-Phenanthrene	16.98	188	319077	40.00	ng/uL	-0.06
66) d12-Chrysene	22.68	240	285242	40.00	ng/uL	-0.08
75) d12-Perylene	25.90	264	187206	40.00	ng/uL	-0.09

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.44	112	209704	141.34	ng/uL	70.67%
6) Phenol-d6	7.14	99	311034	169.24	ng/uL	84.62%
19) Nitobenzene-d5	8.74	82	166719	82.64	ng/uL	82.64%
37) 2-Fluorobiphenyl	12.45	172	340339	89.68	ng/uL	89.68%
56) 2,4,6-Tribromophenol	15.57	330	148870	188.19	ng/uL	94.09%
69) Terphenyl-d14	20.48	244	522597	73.56	ng/uL	73.56%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
8) Phenol(5G)	7.15	94	4273	2.26	ng/uL#	72
17) n-Nitrosodipropyl Amine(16G)	8.74	70	25543	20.12	ng/uL#	48
42) 2,6-Dinitrotoluene(42G) <i>A.m</i>	13.83	165	12952	9.12	ng/uL#	72
54) n-Nitrosodiphenyl Amine(56) <i>CS</i>	15.57	169	4097	1.44	ng/uL#	30

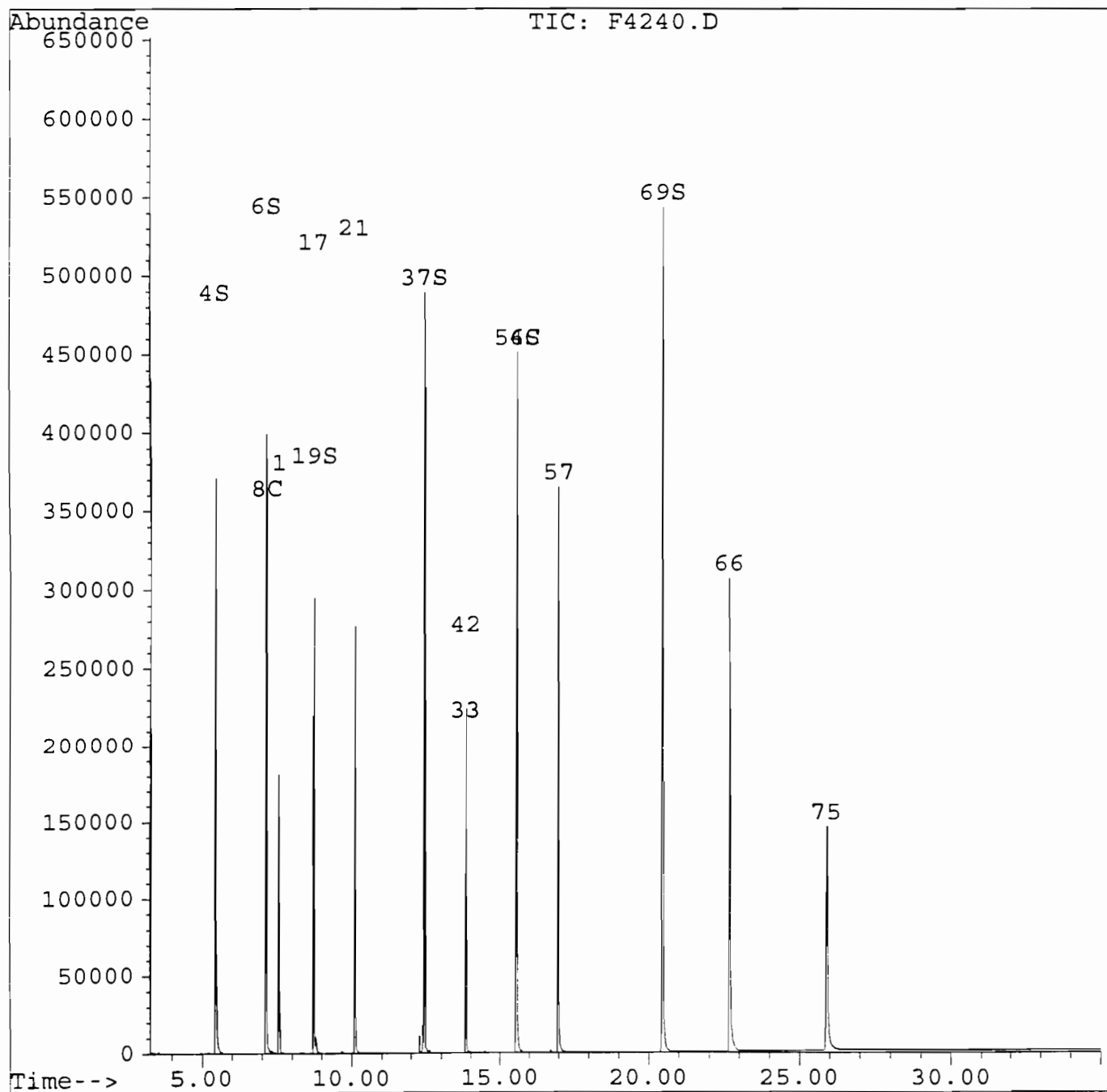
429

Peak#	Ret Time	Type	Width	Area	Start Time	End Time
1	3.344	rBV	0.135	3103	3.323	3.458
2	3.561	rBV	0.072	2345	3.530	3.602
3	3.861	rVB	0.052	399.00	3.830	3.882
4	3.892	rBV	0.041	527.00	3.882	3.923
5	4.027	rBV	0.072	426.00	3.975	4.047
6	4.161	rVV	0.083	734.00	4.110	4.192
7	4.234	rBV	0.031	384.00	4.223	4.254
8	4.927	rVB	0.093	1590	4.886	4.979
9	5.217	rBB	0.103	2202	5.165	5.269
10	5.445	rBV	0.218	795537	5.403	5.621
11	7.142	rBV	0.093	1005079	7.080	7.173
12	7.328	rVB	0.062	3019	7.308	7.370
13	7.453	rVB	0.052	345.00	7.442	7.494
14	7.566	rBV	0.156	353405	7.525	7.680
15	7.712	rVV	0.083	1713	7.680	7.763
16	8.291	rVB	0.041	848.00	8.281	8.322
17	8.394	rBB	0.041	749.00	8.374	8.415
18	8.736	rBV	0.083	570817	8.684	8.767
19	8.809	rVB	0.166	22178	8.788	8.954
20	9.668	rBV	0.072	3806	9.636	9.709
21	10.102	rBV	0.259	473650	10.061	10.320
22	10.516	rBB	0.052	361.00	10.496	10.547
23	11.655	rBV	0.052	358.00	11.624	11.675
24	12.255	rBV	0.073	16677	12.224	12.297
25	12.390	rBV	0.062	31204	12.348	12.410
26	12.452	rVB	0.083	964702	12.410	12.494
27	12.618	rVB	0.083	3387	12.597	12.680
28	13.840	rBV	0.187	424477	13.788	13.974
29	14.492	rVB	0.083	1791	14.461	14.543
30	15.569	rBV	0.218	1099590	15.506	15.724
31	15.890	rBV	0.052	383.00	15.859	15.911
32	16.718	rVB	0.104	3324	16.687	16.790
33	16.977	rBV	0.218	763638	16.914	17.132
34	20.134	rVB	0.062	602.00	20.113	20.175
35	20.476	rBV	0.405	1482013	20.403	20.808
36	21.646	rVB	0.072	768.00	21.625	21.698
37	22.536	rBV	0.052	667.00	22.515	22.567
38	22.681	rBV	0.322	810426	22.619	22.941
39	25.011	rBV	0.041	820.00	25.000	25.042
40	25.901	rBV	0.363	554904	25.818	26.181

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4240.D
Acq Time : Data Taken: 3/25/99 @ 13:42 Operator: AM9951
Sample : Inst :
Misc : BL.SPK, QC817030M SPB-5 CAP COLUMN Multiplr: 1.00
Quant Time: Mar 23 22:50 1999

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



ICM LABORATORIES QUALITY CONTROL REPORT

METHOD BLANK SUMMARY OF INJECTIONS

INSTRUMENT ID: 5970_4
GC COLUMNS USED: DB-5
INJECTION DATE: 03/26/99

DATA FILE: F42590D
METHOD: 8270
INJECT TIME: 19:00

SAMPLE NUMBER	DATA FILE	DATE OF ANALYSIS	TIME OF ANALYSIS
306392 5X, QC8167 M	F4293.D	3/30/99	17:00
306395 ,QC8167 M S	F4294.D	3/30/99	17:46
306391 ,QC8167 M S	F4295.D	3/30/99	18:31
306396 ,QC8167 M S	F4296.D	3/30/99	19:17
306394 5X, QC8167	F4292.D	3/30/99	16:15
BL.SPIKE	F4260.D	3/26/99	19:46
QA/QC	F4261.D	3/26/99	20:31
306397, QC8167	F4262.D	3/26/99	21:17
306398, QC8167	F4263.D	3/26/99	22:03
306393, QC8167	F4277.D	3/29/99	13:56
306390, QC8167	F4278.D	3/29/99	14:42
306390MS, QC8167	F4284.D	3/29/99	20:00
306390MSD, QC8167	F4285.D	3/29/99	20:46

S = Spike Sample
SD = Spike duplicate sample
DL = Dilution

ANALab, Inc. - Randolph Facility
 1152 Route 10
 Randolph, NJ 07869
 973-584-0330, FAX: 973-584-0515
 MARCH 31, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
 NJ #14116 NY #11376
 US EPA CLP Lab

TARGET COMPOUND LIST - BASE/NEUTRAL FRACTION ANALYSIS BY GC/MS

Sample ID: Method Blank Batch Number: QC8167
 Data File: >F4259 Dilution Factor: 1
 Analysis Date: 03/26/99 Column: 30m SPB-5
 Extracted Date: 03/19/99
 Matrix: Soil Init Sample Wght= 30.10g Final volume= 1ml
 Initial sample weight DWB= 30.1g

Conc. in Sample = (Conc. on Quant Report/Initial Sample Weight DWB)*Final Volume*1000

Parameter	Method Blank ug/kg	Practical Quantitation Limit ug/kg	Minimum Detection Limit ug/kg
bis(2-Chloroethyl) ether	U	170	33
1,3-Dichlorobenzene	U	170	80
1,4-Dichlorobenzene	U	170	76
1,2-Dichlorobenzene	U	170	80
bis(2-Chloroisopropyl) ether	U	170	40
N-Nitroso-di-n-propylamine	U	170	33
Hexachloroethane	U	170	96
Nitrobenzene	U	170	33
Isophorone	U	170	33
bis(2-Chloroethoxy) methane	U	170	33
1,2,4-Trichlorobenzene	U	170	76
Naphthalene	U	170	66
4-Chloroaniline	U	170	33
Hexachlorobutadiene	U	170	33
2-Methylnaphthalene	U	170	70
Hexachlorocyclopentadiene	U	170	50
2-Chloronaphthalene	U	170	66
2-Nitroaniline	U	170	33
Dimethyl phthalate	U	170	150
Acenaphthylene	U	170	50
2,6-Dinitrotoluene	U	170	33
3-Nitroaniline	U	170	33
Acenaphthene	U	170	63
Dibenzofuran	U	170	50
2,4-Dinitrotoluene	U	170	33
Diethyl phthalate	U	170	76
4-Chlorophenyl phenyl ether	U	170	66
Fluorene	U	170	56
4-Nitroaniline	U	170	33
N-Nitrosodiphenylamine	U	170	33
4-Bromophenyl phenyl ether	U	170	63
Hexachlorobenzene	U	170	63
Phenanthrene	U	170	30
Anthracene	U	170	27

(continued on next page)

(continued from previous page)

Sample ID: Method Blank
Data File: >F4259

Batch Number: QC8167
Dilution Factor: 1

Parameter	Method Blank ug/kg	Practical Quantitation Limit ug/kg	Minimum Detection Limit ug/kg
Di-n-butylphthalate	U	170	83
Fluoranthene	U	170	20
Pyrene	U	170	17
Butyl benzylphthalate	U	170	40
3,3'-Dichlorobenzidine	U	170	33
Benzo (a) anthracene	U	170	17
Chrysene	U	170	17
bis (2-Ethylhexyl) phthalate	U	170	100
Di-n-octylphthalate	U	170	33
Benzo (b) fluoranthene	U	170	23
Benzo (k) fluoranthene	U	170	23
Benzo (a) pyrene	U	170	17
Indeno (1,2,3-cd) pyrene	U	170	37
Dibenz (a,h) anthracene	U	170	17
Benzo (g,h,i) perylene	U	170	17
Carbazole	U	170	33

ug/kg = micrograms/kilogram or ppb

Results are in ug/kg (ppb); they are reported on a dry weight basis.

ND: Not Determined.
IND: Indeterminable.

U: Indicates a compound was analyzed for but not detected at the PQL.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.

ANALab, Inc. - Randolph Facility
Thomas Mancuso, Lab Mgr.
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ANJ

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4259.D
 Acq Time : Data Taken: 3/26/99 @ 19:00 Operator: AM9951
 Sample : Inst :
 Misc : BLANK, QC8167 M SPB-5 CAP COLUMN Multiplr: 1.00
 Quant Time: Mar 24 1:18 1999

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-Dichlorobenzene	7.56	152	79232	40.00	ng/uL	-0.04
21) d8-Naphthalene	10.10	136	275244	40.00	ng/uL	-0.05
33) d10-Acenaphthene	13.83	164	125250	40.00	ng/uL	-0.06
57) d10-Phenanthrene	16.97	188	371814	40.00	ng/uL	-0.07
66) d12-Chrysene	22.68	240	311718	40.00	ng/uL	-0.08
75) d12-Perylene	25.90	264	233881	40.00	ng/uL	-0.09

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.44	112	251447	129.04	ng/uL	64.52%
6) Phenol-d6	7.14	99	386148	159.98	ng/uL	79.99%
19) Nitobenzene-d5	8.73	82	212699	80.28	ng/uL	80.28%
37) 2-Fluorobiphenyl	12.45	172	400836	86.62	ng/uL	86.62%
56) 2,4,6-Tribromophenol	15.57	330	150520	156.03	ng/uL	78.01%
69) Terphenyl-d14	20.47	244	542183	69.83	ng/uL	69.83%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
8) Phenol (5G)	7.15	94	5128	2.07	ng/uL#	72
17) n-Nitrosodipropyl Amine (16G)	8.73	70	32193	19.30	ng/uL#	48
42) 2,6-Dinitrotoluene (42G)	13.83	165	15854	9.16	ng/uL#	72
54) n-Nitrosodiphenyl Amine (54G)	15.57	169	4635	1.34	ng/uL#	25

ak#	Ret Time	Type	Width	Area	Start Time	End Time
1	3.333	rBV	0.052	3106	3.302	3.354
2	3.550	rBV	0.093	5340	3.499	3.592
3	3.654	rVB	0.052	658.00	3.633	3.685
4	3.809	rVB	0.083	659.00	3.757	3.840
5	3.882	rVB	0.052	601.00	3.840	3.892
6	4.627	rBB	0.072	620.00	4.596	4.668
7	4.917	rVV	0.114	2240	4.844	4.958
8	5.196	rVB	0.145	3145	5.113	5.258
9	5.445	rBV	0.228	966275	5.393	5.621
10	7.142	rBV	0.104	1244637	7.069	7.173
11	7.328	rVB	0.083	4996	7.297	7.380
12	7.556	rBV	0.135	467810	7.514	7.649
13	7.680	rVB	0.145	3703	7.660	7.805
14	8.250	rVV	0.052	656.00	8.208	8.260
15	8.291	rVV	0.052	1262	8.260	8.312
16	8.384	rVV	0.062	1291	8.353	8.415
17	8.726	rBV	0.093	724965	8.674	8.767
18	8.809	rVB	0.124	27751	8.778	8.902
19	9.068	rVB	0.083	1287	9.047	9.130
20	9.171	rBV	0.062	721.00	9.130	9.192
21	9.657	rBV	0.062	6592	9.626	9.689
22	9.709	rVV	0.052	2160	9.689	9.740
23	10.103	rBV	0.197	599417	10.051	10.248
24	12.255	rBV	0.083	21815	12.224	12.307
25	12.390	rBV	0.052	36372	12.349	12.400
26	12.453	rVB	0.083	1132824	12.400	12.484
27	12.618	rVB	0.093	5237	12.587	12.680
28	13.829	rBV	0.135	526579	13.788	13.923
29	14.482	rBV	0.062	2279	14.461	14.523
30	15.569	rBV	0.104	1190783	15.506	15.611
31	16.708	rVB	0.083	3979	16.677	16.760
32	16.967	rBV	0.270	904383	16.915	17.184
33	20.134	rVB	0.062	3052	20.103	20.165
34	20.466	rBV	0.322	1565454	20.393	20.715
35	21.646	rBV	0.083	2239	21.605	21.688
36	21.709	rVV	0.041	652.00	21.688	21.729
37	22.091	rBV	0.062	558.00	22.060	22.123
38	22.423	rVB	0.062	549.00	22.402	22.464
39	22.682	rBV	0.446	913398	22.609	23.055
40	25.902	rBV	0.353	715681	25.808	26.161

ICM LABORATORIES QUALITY CONTROL REPORT

INITIAL CALIBRATION SUMMARY OF INJECTIONS

INSTRUMENT ID: 5970_4

GC COLUMNS USED: DB-5

METHOD: 8270

SAMPLE NUMBER	DATA FILE	DATE OF ANALYSIS	TIME OF ANALYSIS
SSTD160 30M SPB-5	F4189.D	3/22/99	15:48
SSTD120 30M SPB-5	F4190.D	3/22/99	16:34
SSTD080 30M SPB-5	F4191.D	3/22/99	17:20
SSTD050 30M SPB-5	F4192.D	3/22/99	18:06
SSTD020 30M SPB-5	F4193.D	3/22/99	18:52
DFTPP050, 50NG 30M	F4236.D	3/25/99	10:59
SSTD050, CAL STD30	F4237.D	3/25/99	11:24
BLANK, QC8170	F4240.D	3/25/99	13:42
QA/QC, QC8170	F4241.D	3/25/99	14:28
BLANK SPIKE, QC8170	F4242.D	3/25/99	15:14
BL.SPK DUP, QC8170	F4243.D	3/25/99	16:00
306389, QC8170	F4244.D	3/25/99	16:46

S = Spike Sample
 SD = Spike duplicate sample
 DL = Dilution

ICM LABORATORIES QUALITY CONTROL REPORT

INITIAL CALIBRATION SUMMARY OF INJECTIONS

INSTRUMENT ID: 5970_4

GC COLUMNS USED: DB-5

METHOD: 8270

SAMPLE NUMBER	DATA FILE	DATE OF ANALYSIS	TIME OF ANALYSIS
SSTD160 30M SPB-5	F4189.D	3/22/99	15:48
SSTD120 30M SPB-5	F4190.D	3/22/99	16:34
SSTD080 30M SPB-5	F4191.D	3/22/99	17:20
SSTD050 30M SPB-5	F4192.D	3/22/99	18:06
SSTD020 30M SPB-5	F4193.D	3/22/99	18:52
DFTPP050, 50NG M S	F4257.D	3/26/99	17:49
SSTD050, CAL STD M	F4258.D	3/26/99	18:14
BLANK, QC8167 M SP	F4259.D	3/26/99	19:00
BL.SPK, QC8167 M S	F4260.D	3/26/99	19:46
QA/QC, QC8167 M SP	F4261.D	3/26/99	20:31
306397, QC8167 M S	F4262.D	3/26/99	21:17
306398, QC8167 M S	F4263.D	3/26/99	22:03

S= Spike Sample

SD= Spike duplicate sample

DL= Dilution

ICM LABORATORIES QUALITY CONTROL REPORT

INITIAL CALIBRATION SUMMARY OF INJECTIONS

INSTRUMENT ID: 5970_4

GC COLUMNS USED: DB-5

METHOD: 8270

SAMPLE NUMBER	DATA FILE	DATE OF ANALYSIS	TIME OF ANALYSIS
SSTD160 30M SPB-5	F4189.D	3/22/99	15:48
SSTD120 30M SPB-5	F4190.D	3/22/99	16:34
SSTD080 30M SPB-5	F4191.D	3/22/99	17:20
SSTD050 30M SPB-5	F4192.D	3/22/99	18:06
SSTD020 30M SPB-5	F4193.D	3/22/99	18:52
DFTPP050, 50NG M S	F4275.D	3/29/99	11:07
SSTD050, CAL STD M	F4276.D	3/29/99	11:58
306393, QC8167 M S	F4277.D	3/29/99	13:56
306390, QC8167 M S	F4278.D	3/29/99	14:42
306390MS, QC8167 M	F4284.D	3/29/99	20:00
306390MSDQC8167 M	F4285.D	3/29/99	20:46

S = Spike Sample
 SD = Spike duplicate sample
 DL = Dilution

ICM LABORATORIES QUALITY CONTROL REPORT

INITIAL CALIBRATION SUMMARY OF INJECTIONS

INSTRUMENT ID: 5970_4
 GC COLUMNS USED: DB-5

METHOD: 8270

SAMPLE NUMBER	DATA FILE	DATE OF ANALYSIS	TIME OF ANALYSIS
SSTD160 30M SPB-5	F4189.D	3/22/99	15:48
SSTD120 30M SPB-5	F4190.D	3/22/99	16:34
SSTD080 30M SPB-5	F4191.D	3/22/99	17:20
SSTD050 30M SPB-5	F4192.D	3/22/99	18:06
SSTD020 30M SPB-5	F4193.D	3/22/99	18:52
DFTPP050, 50NG M S	F4288.D	3/30/99	11:23
STD050, CAL STD M	F4289.D	3/30/99	13:19
306394 5X,QC8167 M	F4292.D	3/30/99	16:15
306392 10X,QC8167	F4293.D	3/30/99	17:00
306395 ,QC8167 M S	F4294.D	3/30/99	17:46
306391 ,QC8167 M S	F4295.D	3/30/99	18:31
306396 ,QC8167 M S	F4296.D	3/30/99	19:17

S = Spike Sample
 SD = Spike duplicate sample
 DL = Dilution

8270 CURVE CF4189.M	
COMPOUNDS	%RSD
Pyridine	21.71
n-Nitosodimethylamine	8.4
Aniline	3.69
2-Chlorophenol(8G)	11.79
Phenol(5G)	15.98
Bis (2-Chloroethyl) Ethe	21.41
1,3-Dichlorobenzene(9G)	10.81
1,4-Dichlorobenzene(10G)	14.29
1,2-Dichlorobenzene(12G)	20.43
Benzyl Alcohol	11.37
Bis (2-Chloroisopropyl)	14.01
2-Methylphenol(13G)	19.15
Hexachloroethane(17G)	7.58
n-Nitosodipropyl Amine(1	22.9
3/4-Methylphenols(15G)	11.07
Nitrobenzene(20G)	9.06
Isophorone	2.17
2-Nitrophenol(22G)	10.31
2,4-Dimethylphenol(23G)	8.47
Bis (2-Chloroethoxy) Met	12.02
2,4-Dichlorophenol(26G)	14.93
1,2,4-Trichlorobenzene(2	10.52
Naphthalene(28)	20.33
4-Chloroaniline(29G)	12.07
Hexachlorobutadiene(30G)	14.52
p-Chloro-m-Cresol(31G)	10.98
2-Methylnaphthalene(32)	20.42
Hexachlorocyclopentadien	11.78
2,4,6-Trichlorophenol(35	11.22
2,4,5-Trichlorophenol(36	18.85
2-Fluorobiphenyl	19.62
2-Chloronaphthalene(37G)	16.16
2-Nitroaniline(39G)	8.99
Acenaphthylene(41G)	26.06
Dimethyl Phthalate(40G)	15.63
2,6-Dinitrotoluene(42G)	8.92
Acenaphthene(44G)	21
3-Nitroaniline(43G)	20.77
2,4-Dinitrophenol(45G)	8.87
Dibenzofuran(47G)	21.28
4-Nitrophenol(46g)	2.71
2,4-Dinitrotoluene(48G)	9.56
Fluorene(51G)	32.3

Diethyl Phthalate(49G)	34.82
4-Chlorophenyl Phenyl Et	21.52
4-Nitroaniline(52G)	6.93
4,6-Dinitro-2-Methylphen	19.53
n-Nitrosodiphenyl Amine(	23.17
Azobenzene	24.76
4-Bromophenyl Phenyl eth	10.41
Hexachlorobenzene(59G)	8.42
Pentachlorophenol(60G)	3.6
Phenanthrene(61G)	18.94
Anthracene(62G)	21.57
Carbazole(21S)	14.11
Di-n-butyl Phthalate(63G)	27.43
Fluoranthene(64G)	22.12
Benzidine	5.13
Pyrene(67G)	7.29
Terphenyl-d14	1.58
Butylbenzyl Phthalate(69	2.75
Benzo-(a)-Anthracene(71G)	3.56
3,3'-Dichlorobenzidine	15.17
Chrysene(72G)	4.68
Bis (2-Ethylhexyl) Phtha	5.31
Di-n-Octyl Phthalate(75G)	7.29
Benzo-(b)-Fluoranthene(7	3.88
Benzo-(k)-Fluoranthene(7	1.86
Benzo-(a)-Pyrene(78G)	4.01
Indeno-(1,2,3-cd)-Pyrene	12.45
Dibenzo-(a,h)-Anthracene	11.61
Benzo-(g,h,i)- Perylene(	13.57
AVERAGE %RSD	13.49417

Response Factor Report

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Initial Calibration

Calibration Files

160 =F4189.D 120 =F4190.D 80 =F4191.D
 50 =F4192.D 20 =F4193.D

Compound	160	120	80	50	20	Avg	%RSD
-----ISTD-----							
1) d4-Dichlorobenzene							
2) Pyridine	1.031	0.655	0.685	0.714	0.643	0.746	21.71
3) n-Nitosodimethylamine	0.610	0.536	0.660	0.659	0.646	0.622	8.40
4) S 2-Fluorophenol	0.932	0.911	1.004	1.043	1.028	0.984	5.97
5) Aniline	1.628	1.634	1.754	1.727	1.751	1.699	3.69
6) S Phenol-d6	1.058	1.085	1.226	1.331	1.393	1.219	12.07
7) 2-Chlorophenol (8G)	1.000	1.025	1.156	1.239	1.315	1.147	11.79
8) C Phenol (5G)	0.996	1.129	1.263	1.362	1.512	1.253	15.98
9) Bis (2-Chloroethyl) Ether	1.037	1.180	1.124	1.727	1.400	1.293	21.41
10) 1,3-Dichlorobenzene (9G)	1.214	1.242	1.368	1.474	1.560	1.372	10.81
11) C 1,4-Dichlorobenzene (10G)	1.108	1.132	1.260	1.432	1.530	1.292	14.29
12) 1,2-Dichlorobenzene (12G)	0.781	0.836	0.943	1.078	1.281	0.984	20.43
13) Benzyl Alcohol	0.787	0.961	1.048	0.982	1.063	0.968	11.37
14) Bis (2-Chloroisopropyl) E	1.750	1.794	1.669	1.683	2.288	1.837	14.01
15) 2-Methylphenol (13G)	0.938	0.951	1.076	1.247	1.451	1.133	19.15
16) Hexachloroethane (17G)	0.469	0.481	0.557	0.534	0.542	0.517	7.58
17) n-Nitosodipropyl Amine (16)	1.083	0.853	0.641	0.661	0.972	0.842	22.90
18) 3/4-Methylphenols (15G)	2.041	1.926	2.072	2.165	2.548	2.150	11.07
19) S Nitobenzene-d5	1.283	1.268	1.373	1.367	1.397	1.338	4.33
20) Nitrobenzene (20G)	1.115	1.114	1.222	1.255	1.379	1.217	9.06
-----ISTD-----							
21) d8-Naphthalene							
22) Isophorone	0.760	0.764	0.800	0.787	0.788	0.780	2.17
23) C 2-Nitrophenol (22G)	0.207	0.215	0.234	0.255	0.263	0.235	10.31
24) 2,4-Dimethylphenol (23G)	0.298	0.308	0.334	0.353	0.364	0.332	8.47
25) Bis (2-Chloroethoxy) Meth	0.338	0.350	0.383	0.420	0.448	0.388	12.02
26) C 2,4-Dichlorophenol (26G)	0.271	0.283	0.312	0.358	0.383	0.321	14.93
27) 1,2,4-Trichlorobenzene (27)	0.314	0.326	0.354	0.378	0.405	0.356	10.52
28) Naphthalene (28)	0.798	0.856	0.901	1.125	1.275	0.991	20.33
29) 4-Chloroaniline (29G)	0.423	0.482	0.405	0.486	0.548	0.469	12.07
30) C Hexachlorobutadiene (30G)	0.184	0.199	0.218	0.247	0.262	0.222	14.52
31) p-Chloro-m-Cresol (31G)	0.304	0.302	0.328	0.360	0.387	0.336	10.98
32) 2-Methylnaphthalene (32)	0.481	0.508	0.571	0.671	0.779	0.602	20.42
-----ISTD-----							
33) d10-Acenaphthene							
34) P Hexachlorocyclopentadiene	0.361	0.405	0.411	0.405	0.307	0.378	11.78#
35) 2,4,6-Trichlorophenol (35G)	0.514	0.540	0.571	0.634	0.672	0.586	11.22
36) 2,4,5-Trichlorophenol (36G)	0.625	0.686	0.751	0.902	0.980	0.789	18.85
37) S 2-Fluorobiphenyl	1.154	1.294	1.403	1.663	1.875	1.478	19.62
38) 2-Chloronaphthalene (37G)	1.154	1.243	1.332	1.547	1.703	1.396	16.16
39) 2-Nitroaniline (39G)	0.559	0.553	0.580	0.647	0.673	0.602	8.99
40) Acenaphthylene (41G)	1.735	2.017	2.326	2.892	3.302	2.454	26.06
41) Dimethyl Phthalate (40G)	1.578	1.701	1.839	2.092	2.314	1.905	15.63

Response Factor Report

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Initial Calibration

Calibration Files

160 =F4189.D 120 =F4190.D 80 =F4191.D
 50 =F4192.D 20 =F4193.D

Compound	160	120	80	50	20	Avg	%RSD
42) 2,6-Dinitrotoluene (42G)	0.483	0.600	0.524	0.565	0.593	0.553	8.92
43) C Acenaphthene (44G)	1.363	1.212	1.361	1.690	2.007	1.527	21.00
44) 3-Nitroaniline (43G)	0.332	0.368	0.358	0.454	0.539	0.410	20.77
45) P 2,4-Dinitrophenol (45G)	0.506	0.495	0.504	0.491	0.405	0.480	8.87#
46) Dibenzofuran (47G)	1.665	1.816	1.990	2.381	2.780	2.126	21.28
47) P 4-Nitrophenol (46g)	0.218	0.219	0.219	0.221	0.207	0.217	2.71#
48) 2,4-Dinitrotoluene (48G)	0.735	0.743	0.784	0.847	0.918	0.806	9.56
49) Fluorene (51G)	1.139	1.145	1.221	1.860	2.202	1.513	32.30
50) Diethyl Phthalate (49G)	0.924	1.061	1.273	1.867	2.057	1.436	34.82
51) 4-Chlorophenyl Phenyl Eth	0.614	0.641	0.664	0.890	0.971	0.756	21.52
52) 4-Nitroaniline (52G)	0.579	0.631	0.630	0.670	0.697	0.641	6.93
53) 4,6-Dinitro-2-Methylpheno	0.383	0.422	0.369	0.531	0.565	0.454	19.53
54) C n-Nitrosodiphenyl Amine (5	0.912	0.947	0.956	1.210	1.515	1.108	23.17
55) Azobenzene	1.693	1.438	1.671	2.185	2.619	1.921	24.76
56) S 2,4,6-Tribromophenol	0.290	0.295	0.307	0.321	0.327	0.308	5.19
57) d10-Phenanthrene	-----ISTD-----						
58) 4-Bromophenyl Phenyl ethe	0.176	0.187	0.190	0.209	0.228	0.198	10.41
59) Hexachlorobenzene (59G)	0.215	0.222	0.225	0.248	0.261	0.234	8.42
60) C Pentachlorophenol (60G)	0.168	0.164	0.161	0.160	0.153	0.161	3.60
61) Phenanthrene (61G)	0.799	0.862	0.903	1.105	1.245	0.983	18.94
62) Anthracene (62G)	0.784	0.861	0.931	1.154	1.308	1.008	21.57
63) Carbazole (21S)	0.766	0.830	0.878	0.986	1.088	0.910	14.11
64) Di-n-butyl Phthalate (63G)	0.758	0.832	0.890	1.195	1.422	1.019	27.43
65) C Fluoranthene (64G)	0.873	0.966	1.006	1.262	1.476	1.116	22.12
66) d12-Chrysene	-----ISTD-----						
67) Benzidine	0.403	0.397	0.421	0.401	0.448	0.414	5.13
68) Pyrene (67G)	1.460	1.486	1.479	1.686	1.677	1.558	7.29
69) S Terphenyl-d14	1.011	1.003	0.987	1.007	0.974	0.996	1.58
70) Butylbenzyl Phthalate (69G)	0.759	0.759	0.755	0.790	0.801	0.773	2.75
71) Benzo- (a) -Anthracene (71G)	1.232	1.252	1.255	1.325	1.331	1.279	3.56
72) 3,3'-Dichlorobenzidine	0.235	0.250	0.279	0.334	0.321	0.283	15.17
73) Chrysene (72G)	1.237	1.265	1.291	1.381	1.358	1.306	4.68
74) Bis (2-Ethylhexyl) Phthal	0.976	0.962	0.981	1.042	1.089	1.010	5.31
75) d12-Perylene	-----ISTD-----						
76) C Di-n-Octyl Phthalate (75G)	2.325	2.434	2.411	2.622	2.778	2.514	7.29
77) Benzo- (b) -Fluoranthene (76	1.487	1.503	1.430	1.494	1.592	1.501	3.88
78) Benzo- (k) -Fluoranthene (77	1.557	1.607	1.541	1.605	1.568	1.576	1.86
79) C Benzo- (a) -Pyrene (78G)	1.363	1.305	1.259	1.348	1.244	1.304	4.01
80) Indeno- (1,2,3-cd) -Pyrene (	0.911	0.927	0.848	0.859	0.664	0.842	12.45
81) Dibenzo- (a,h) -Anthracene (	0.729	0.763	0.695	0.714	0.555	0.691	11.61
82) Benzo- (g,h,i) - Perylene (8	0.688	0.733	0.644	0.666	0.501	0.647	13.57

Quantitation Report

Data File : F:\RTE\BNA\F41_D\F4189.D
 Acq Time : Data Taken: 3/22/99 @ 15:48
 Sample :
 Misc : SSTD160 30M SPB-5 CAP COLUMN
 Quant Time: Mar 23 13:07 1999

Operator: AM9951
 Inst :
 Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35) 2,4,6-Trichlorophenol (35G)	12.39	196	247840	139.06	ng/uL	100
36) 2,4,5-Trichlorophenol (36G)	12.49	196	301652	133.78	ng/uL	99
38) 2-Chloronaphthalene (37G)	12.71	162	556523	176.62	ng/uLm ^m	87
39) 2-Nitroaniline (39G)	13.09	65	269826	136.75	ng/uL	92
40) Acenaphthylene (41G)	13.61	152	837009	215.33	ng/uL	100
41) Dimethyl Phthalate (40G)	13.55	163	761494	206.31	ng/uL	99
42) 2,6-Dinitrotoluene (42G)	13.71	165	233059	138.03	ng/uL	92
43) Acenaphthene (44G)	14.01	153	657542	190.20	ng/uLm	83
44) 3-Nitroaniline (43G)	13.98	138	160293	127.57	ng/uLm ^m	100
45) 2,4-Dinitrophenol (45G)	14.23	184	244043	154.98	ng/uL#	78
46) Dibenzofuran (47G)	14.35	168	803319	211.27	ng/uL#	84
47) 4-Nitrophenol (46g)	14.48	109	104946	148.16	ng/uL#	26
48) 2,4-Dinitrotoluene (48G)	14.56	165	354651	145.88	ng/uL#	71
49) Fluorene (51G)	15.06	166	549507	145.88	ng/uLm	54
50) Diethyl Phthalate (49G)	15.08	149	445807	135.65	ng/uLm	98
51) 4-Chlorophenyl Phenyl Ethe	15.12	204	296448	149.00	ng/uLm	97
52) 4-Nitroaniline (52G)	15.40	138	279558	154.41	ng/uLm	55
53) 4,6-Dinitro-2-Methylphenol	15.46	198	184793	146.93	ng/uLm ^m	84
54) n-Nitrosodiphenyl Amine (56	15.42	169	439844	149.67	ng/uLm	25
55) Azobenzene	15.47	77	816580	185.31	ng/uLm	70
58) 4-Bromophenyl Phenyl ether	16.14	248	244228	104.05	ng/uL#	79
59) Hexachlorobenzene (59G)	16.44	284	298178	112.90	ng/uL#	91
60) Pentachlorophenol (60G)	16.86	266	233792	122.24	ng/uL#	78
61) Phenanthrene (61G)	17.14	178	1110810	185.28	ng/uL	99
62) Anthracene (62G)	17.23	178	1090074	169.84	ng/uLm ^m	99
63) Carbazole (21S)	17.64	167	1064216	157.14	ng/uL	99
64) Di-n-butyl Phthalate (63G)	18.50	149	1054184	180.06	ng/uLm ^m	98
65) Fluoranthene (64G)	19.70	202	1213862	171.75	ng/uL	100
67) Benzidine	20.02	184	334116	131.54	ng/uL	99
68) Pyrene (67G)	20.17	202	1210828	221.74	ng/uL	99
70) Butylbenzyl Phthalate (69G)	21.70	149	629192	166.29	ng/uL#	69
71) Benzo- (a) -Anthracene (71G)	22.75	228	1021311	192.76	ng/uL#	90
72) 3,3' -Dichlorobenzidine	22.78	252	194860	106.99	ng/uL	99
73) Chrysene (72G)	22.87	228	1025765	204.38	ng/uLm ^m	89
74) Bis (2-Ethylhexyl) Phthala	22.99	149	809075	186.69	ng/uL#	87
76) Di-n-Octyl Phthalate (75G)	24.29	149	1251207	254.80	ng/uL	100
77) Benzo- (b) -Fluoranthene (76G)	25.13	252	800429	197.87	ng/uLm	90
78) Benzo- (k) -Fluoranthene (77G)	25.18	252	837926	238.54	ng/uLm	98
79) Benzo- (a) -Pyrene (78G)	25.91	252	733352	186.15	ng/uLm ^m	87
80) Indeno- (1,2,3-cd) -Pyrene (7	29.43	276	490257	169.30	ng/uLm ^m	90
81) Dibenzo- (a,h) -Anthracene (8	29.56	278	392146	167.70	ng/uL#	93
82) Benzo- (g,h,i) - Perylene (81	30.46	276	370545	160.96	ng/uL#	91

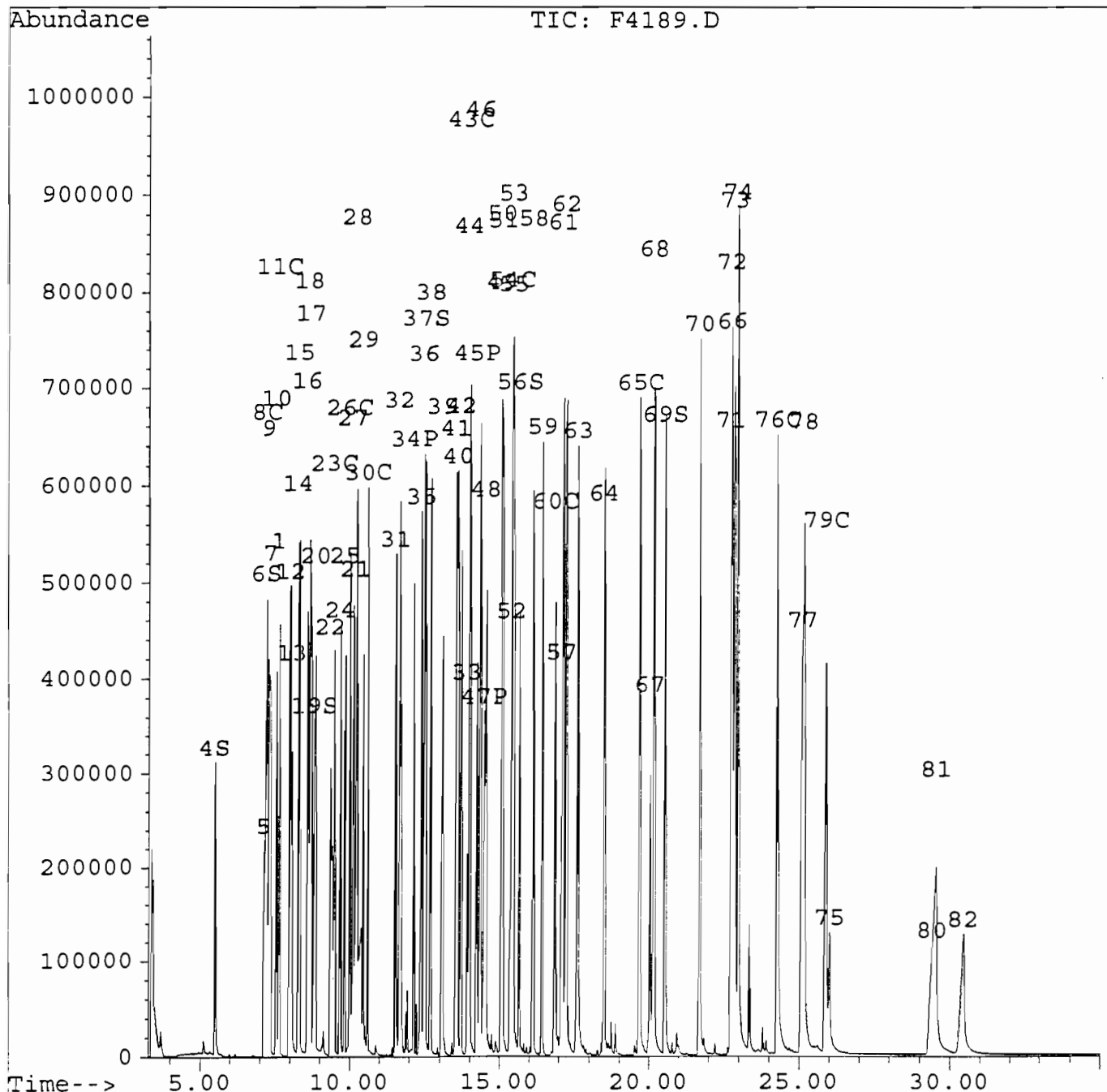
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F41 D\F4189.D
Acq Time : Data Taken: 3/22/99 @ 15:48
Sample :
Misc : SSTD160 30M SPB-5 CAP COLUMN
Quant Time: Mar 23 13:07 1999

Operator: AM9951
Inst :
Multiplr: 1.00

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



Quantitation Report

Data File : F:\RTE\BNA\F41_D\F4190.D
 Acq Time : Data Taken: 3/22/99 @ 16:34
 Sample :
 Misc : SSTD120 30M SPB-5 CAP COLUMN
 Quant Time: Mar 23 13:11 1999

Operator: AM9951
 Inst :
 Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

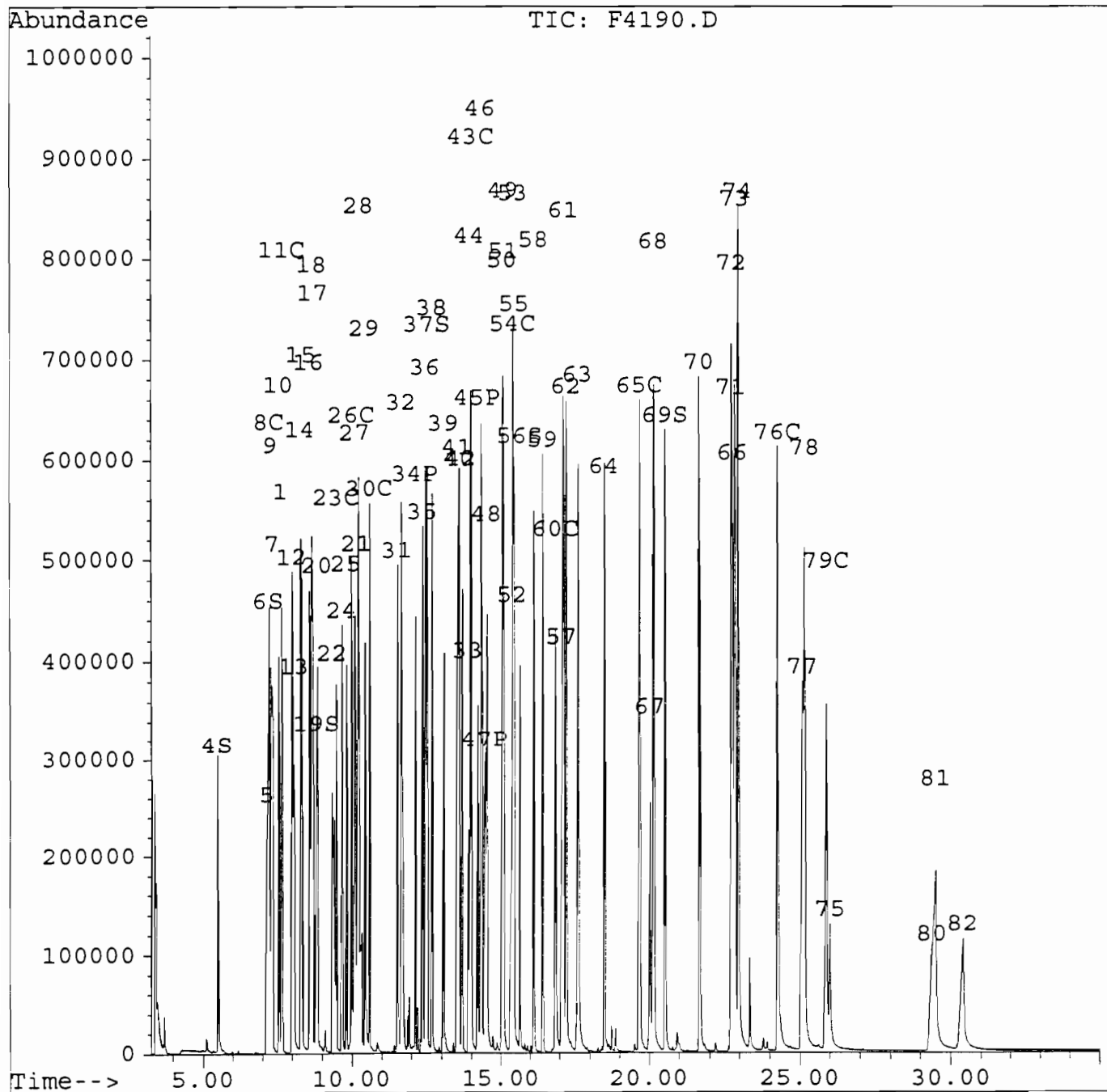
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35) 2,4,6-Trichlorophenol (35G)	12.38	196	207253	108.65	ng/uL	100
36) 2,4,5-Trichlorophenol (36G)	12.48	196	263207	106.93	ng/uL	99
38) 2-Chloronaphthalene (37G)	12.71	162	477230	133.33	ng/uL#	85
39) 2-Nitroaniline (39G)	13.08	65	212424	102.57	ng/uL	90
40) Acenaphthylene (41G)	13.59	152	774260	164.79	ng/uL	100
41) Dimethyl Phthalate (40G)	13.54	163	653052	149.79	ng/uL	99
42) 2,6-Dinitrotoluene (42G)	13.69	165	230459	128.70	ng/uLm ^m	88
43) Acenaphthene (44G)	14.00	153	465357	121.34	ng/uL#	83
44) 3-Nitroaniline (43G)	13.97	138	141135	105.62	ng/uLm	100
45) 2,4-Dinitrophenol (45G)	14.21	184	189940	112.25	ng/uL#	78
46) Dibenzofuran (47G)	14.34	168	697113	153.07	ng/uL#	84
47) 4-Nitrophenol (46g)	14.46	109	84222	112.98	ng/uL#	30
48) 2,4-Dinitrotoluene (48G)	14.53	165	285388	108.60	ng/uL#	71
49) Fluorene (51G)	15.09	166	439454	111.11	ng/uLm	54
50) Diethyl Phthalate (49G)	15.05	149	407404	114.94	ng/uLm	98
51) 4-Chlorophenyl Phenyl Ethe	15.11	204	246232	114.64	ng/uLm	75
52) 4-Nitroaniline (52G)	15.39	138	242282	126.34	ng/uLm	86
53) 4,6-Dinitro-2-Methylphenol	15.43	198	162008	121.79	ng/uLm	91
54) n-Nitrosodiphenyl Amine (56	15.41	169	363522	116.58	ng/uLm	25
55) Azobenzene	15.46	77	552173	119.25	ng/uLm	70
58) 4-Bromophenyl Phenyl ether	16.13	248	204479	82.79	ng/uL#	79
59) Hexachlorobenzene (59G)	16.43	284	242675	85.95	ng/uL	99
60) Pentachlorophenol (60G)	16.85	266	179847	87.72	ng/uL#	77
61) Phenanthrene (61G)	17.13	178	943623	134.99	ng/uL#	93
62) Anthracene (62G)	17.23	178	942303	126.55	ng/uLm	94
63) Carbazole (21S)	17.61	167	908744	117.67	ng/uL	99
64) Di-n-butyl Phthalate (63G)	18.49	149	910813	133.13	ng/uLm	97
65) Fluoranthene (64G)	19.69	202	1057343	129.01	ng/uL	100
67) Benzidine	20.02	184	277376	94.49	ng/uL#	96
68) Pyrene (67G)	20.17	202	1039146	151.11	ng/uL	99
70) Butylbenzyl Phthalate (69G)	21.68	149	530770	118.91	ng/uL#	69
71) Benzo- (a) -Anthracene (71G)	22.74	228	875865	133.72	ng/uL#	90
72) 3,3'-Dichlorobenzidine	22.76	252	174682	84.41	ng/uL	99
73) Chrysene (72G)	22.85	228	885005	142.96	ng/uLm	89
74) Bis (2-Ethylhexyl) Phthala	22.97	149	672738	128.79	ng/uL	97
76) Di-n-Octyl Phthalate (75G)	24.27	149	1061373	180.90	ng/uL	100
77) Benzo- (b) -Fluoranthene (76G)	25.09	252	655451	143.96	ng/uLm	0
78) Benzo- (k) -Fluoranthene (77G)	25.16	252	700744	164.89	ng/uLm	98
79) Benzo- (a) -Pyrene (78G)	25.88	252	569004	128.70	ng/uL	99
80) Indeno- (1,2,3-cd) -Pyrene (7	29.39	276	404269	127.57	ng/uL#	90
81) Dibenzo- (a,h) -Anthracene (8	29.52	278	332923	131.40	ng/uL	98
82) Benzo- (g,h,i) - Perylene (81	30.42	276	319818	128.66	ng/uL#	91

Quantitation Report

Data File : F:\RTE\BNA\F41_D\F4190.D
Acq Time : Data Taken: 3/22/99 @ 16:34
Sample :
Misc : SSTD120 30M SPB-5 CAP COLUMN
Quant Time: Mar 23 13:11 1999

Operator: AM9951
Inst :
Multiplr: 1.00

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



Quantitation Report

Data File : F:\RTE\BNA\F41_D\F4191.D
 Acq Time : Data Taken: 3/22/99 @ 17:20
 Sample :
 Misc : SSTD080 30M SPB-5 CAP COLUMN
 Quant Time: Mar 23 10:22 1999

Operator: AM9951
 Inst :
 Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-Dichlorobenzene	7.61	152	75812	40.00	ng/uL	0.00
21) d8-Naphthalene	10.17	136	296160	40.00	ng/uL	-0.01
33) d10-Acenaphthene	13.89	164	150261	40.00	ng/uL	-0.01
57) d10-Phenanthrene	17.06	188	448907	40.00	ng/uL	-0.02
66) d12-Chrysene	22.77	240	310373	40.00	ng/uL	-0.02
75) d12-Perylene	25.99	264	206401	40.00	ng/uL	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.48	112	152185	77.97	ng/uL	38.98%
6) Phenol-d6	7.19	99	185921	78.13	ng/uL	39.07%
19) Nitobenzene-d5	8.80	82	208125	77.19	ng/uL	77.19%
37) 2-Fluorobiphenyl	12.51	172	421703	101.24	ng/uL	101.24%
56) 2,4,6-Tribromophenol	15.64	330	92320	75.67	ng/uL	37.83%
69) Terphenyl-d14	20.53	244	612560	89.08	ng/uL	89.08%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Pyridine	3.39	79	103893	54.00	ng/uL#	100
3) n-Nitosodimethylamine	3.44	74	100110	77.69	ng/uL#	100
5) Aniline	7.12	93	265993	77.45	ng/uL	99
7) 2-Chlorophenol (8G)	7.32	128	175353	79.49	ng/uL#	77
8) Phenol (5G)	7.22	94	191530	83.38	ng/uL	99
9) Bis (2-Chloroethyl) Ether (	7.27	93	170403	75.59	ng/uL#	65
10) 1,3-Dichlorobenzene (9G)	7.54	146	207429	81.46	ng/uLm ²	99
11) 1,4-Dichlorobenzene (10G)	7.65	146	191062	81.56	ng/uL	99
12) 1,2-Dichlorobenzene (12G)	8.01	146	142968	78.56	ng/uL#	91
13) Benzyl Alcohol	8.04	79	158897	81.83	ng/uL#	79
14) Bis (2-Chloroisopropyl) Et	8.27	45	253013	75.59	ng/uL#	95
15) 2-Methylphenol (13G)	8.30	108	163206	73.38	ng/uL#	100
16) Hexachloroethane (17G)	8.57	117	84530	84.27	ng/uL	93
17) n-Nitosodipropyl Amine (16G)	8.68	70	97154	58.52	ng/uL#	49
18) 3/4-Methylphenols (15G)	8.64	108	314100	74.51	ng/uL	89
20) Nitrobenzene (20G)	8.84	77	185260	80.55	ng/uL#	92
22) Isophorone	9.32	82	473691	62.90	ng/uL	98
23) 2-Nitrophenol (22G)	9.47	139	138400	58.10	ng/uL	90
24) 2,4-Dimethylphenol (23G)	9.65	107	197983	59.02	ng/uL	94
25) Bis (2-Chloroethoxy) Metha	9.81	93	226747	61.66	ng/uL	100
26) 2,4-Dichlorophenol (26G)	9.98	162	184616	59.86	ng/uL#	89
27) 1,2,4-Trichlorobenzene (27G)	10.09	180	209687	60.18	ng/uL#	92
28) Naphthalene (28)	10.22	128	533422	90.84	ng/uL#	96
29) 4-Chloroaniline (29G)	10.43	127	240175	59.36	ng/uL	96
30) Hexachlorobutadiene (30G)	10.59	225	129226	61.45	ng/uL#	77
31) p-Chloro-m-Cresol (31G)	11.52	107	194344	58.03	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.66	142	337944	67.70	ng/uL	96
34) Hexachlorocyclopentadiene (	12.13	237	123649	87.17	ng/uL#	71

Quantitation Report

Data File : F:\RTE\BNA\F41_D\F4191.D
 Acq Time : Data Taken: 3/22/99 @ 17:20
 Sample :
 Misc : SSTD080 30M SPB-5 CAP COLUMN
 Quant Time: Mar 23 10:22 1999

Operator: AM9951
 Inst :
 Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

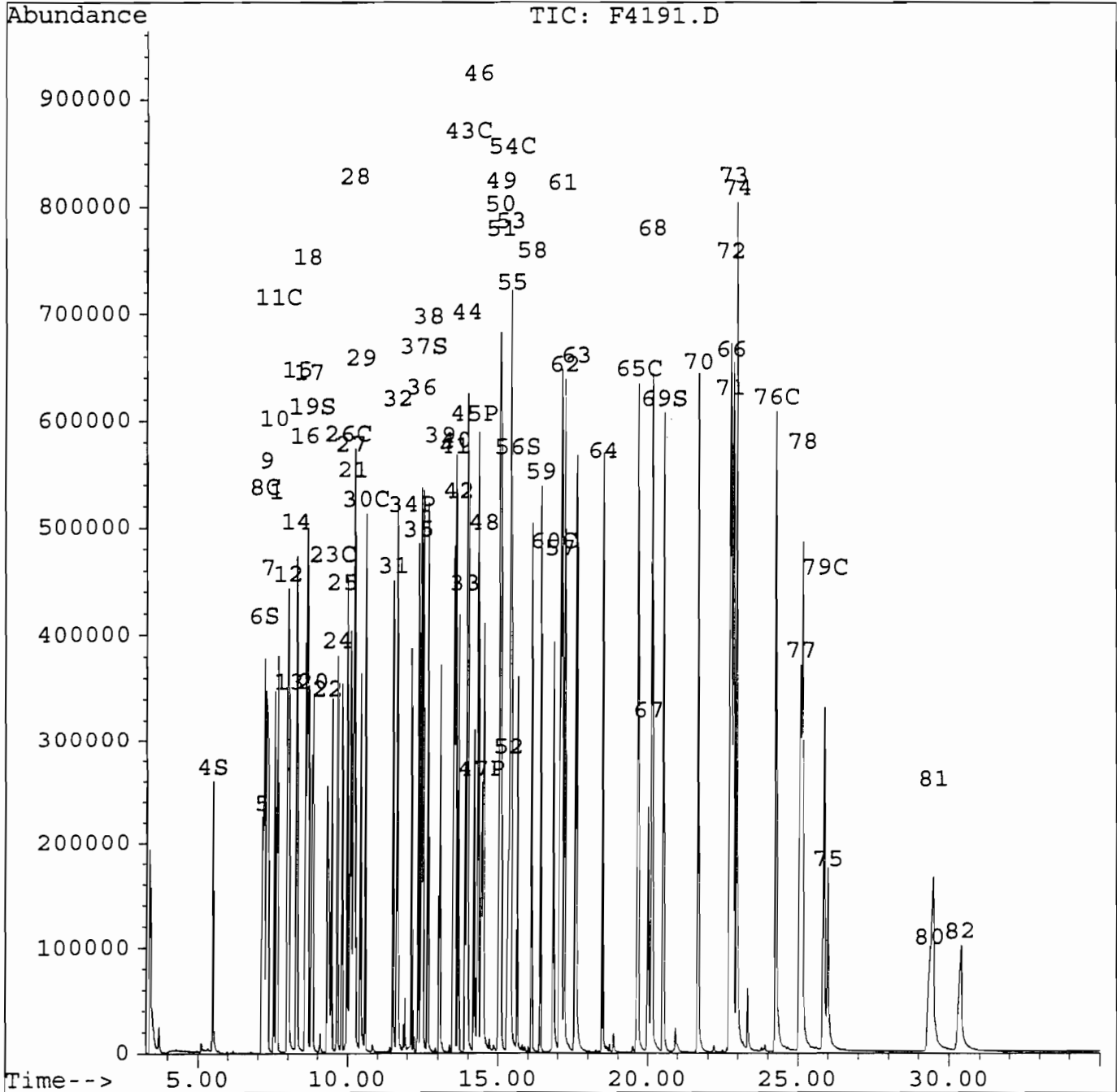
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35) 2,4,6-Trichlorophenol (35G)	12.37	196	171603	76.62	ng/uL	100
36) 2,4,5-Trichlorophenol (36G)	12.46	196	225674	78.09	ng/uL	97
38) 2-Chloronaphthalene (37G)	12.69	162	400178	95.23	ng/uL#	85
39) 2-Nitroaniline (39G)	13.06	65	174217	71.65	ng/uL	91
40) Acenaphthylene (41G)	13.58	152	699088	126.73	ng/uL	100
41) Dimethyl Phthalate (40G)	13.53	163	552788	107.99	ng/uL	99
42) 2,6-Dinitrotoluene (42G)	13.68	165	157337	74.84	ng/uL	92
43) Acenaphthene (44G)	13.99	153	408940	90.82	ng/uL#	83
44) 3-Nitroaniline (43G)	13.96	138	107519	68.53	ng/uLm ^m	100
45) 2,4-Dinitrophenol (45G)	14.20	184	151333	76.17	ng/uL	87
46) Dibenzofuran (47G)	14.33	168	598171	111.87	ng/uL	98
47) 4-Nitrophenol (46g)	14.45	109	65855	75.24	ng/uL#	10
48) 2,4-Dinitrotoluene (48G)	14.52	165	235700	76.39	ng/uL#	71
49) Fluorene (51G)	15.07	166	367075	79.05	ng/uL#	54
50) Diethyl Phthalate (49G)	15.05	149	382431	91.90	ng/uL	98
51) 4-Chlorophenyl Phenyl Ethe	15.09	204	199596	79.15	ng/uL#	75
52) 4-Nitroaniline (52G)	15.36	138	189458	84.15	ng/uL	86
53) 4,6-Dinitro-2-Methylphenol	15.41	198	110950	71.04	ng/uL#	17
54) n-Nitrosodiphenyl Amine (56	15.42	169	287156	78.44	ng/uLm	25
55) Azobenzene	15.44	77	502114	92.36	ng/uLm ^m	67
58) 4-Bromophenyl Phenyl ether	16.12	248	170448	56.09	ng/uL#	79
59) Hexachlorobenzene (59G)	16.42	284	201570	58.03	ng/uL	100
60) Pentachlorophenol (60G)	16.85	266	144341	57.22	ng/uL#	77
61) Phenanthrene (61G)	17.12	178	810394	94.22	ng/uLm	100
62) Anthracene (62G)	17.22	178	835934	91.24	ng/uLm ^m	100
63) Carbazole (21S)	17.61	167	787943	82.92	ng/uL	99
64) Di-n-butyl Phthalate (63G)	18.49	149	798782	94.89	ng/uL	100
65) Fluoranthene (64G)	19.68	202	903307	89.57	ng/uL	100
67) Benzidine	20.01	184	261415	66.90	ng/uL#	96
68) Pyrene (67G)	20.15	202	918209	100.31	ng/uL	99
70) Butylbenzyl Phthalate (69G)	21.67	149	468695	78.88	ng/uL	95
71) Benzo- (a) -Anthracene (71G)	22.73	228	779176	89.37	ng/uL#	90
72) 3,3'-Dichlorobenzidine	22.75	252	172938	62.78	ng/uL	99
73) Chrysene (72G)	22.85	228	801266	97.23	ng/uLm ^m	89
74) Bis (2-Ethylhexyl) Phthala	22.96	149	609045	87.59	ng/uL ^m	97
76) Di-n-Octyl Phthalate (75G)	24.27	149	995423	119.48	ng/uL	100
77) Benzo- (b) -Fluoranthene (76G)	25.08	252	590170	91.28	ng/uL#	97
78) Benzo- (k) -Fluoranthene (77G)	25.15	252	636203	105.42	ng/uL#	98
79) Benzo- (a) -Pyrene (78G)	25.87	252	519712	82.78	ng/uL	99
80) Indeno- (1,2,3-cd) -Pyrene (7	29.37	276	350252	77.83	ng/uL#	90
81) Dibenzo- (a,h) -Anthracene (8	29.49	278	286696	79.69	ng/uL#	93
82) Benzo- (g,h,i) - Perylene (81	30.39	276	265866	75.32	ng/uL#	91

Quantitation Report

Data File : F:\RTE\BNA\F41_D\F4191.D
Acq Time : Data Taken: 3/22/99 @ 17:20
Sample :
Misc : SSTD080 30M SPB-5 CAP COLUMN
Quant Time: Mar 23 10:22 1999

Operator: AM9951
Inst :
Multiplr: 1.00

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



Quantitation Report

Data File : F:\RTE\BNA\F41_D\F4192.D
 Acq Time : Data Taken: 3/22/99 @ 18:06
 Sample :
 Misc : SSTD050 30M SPB-5 CAP COLUMN
 Quant Time: Mar 23 10:37 1999

Operator: AM9951
 Inst :
 Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-Dichlorobenzene	7.61	152	74254	40.00	ng/uL	-0.01
21) d8-Naphthalene	10.15	136	277312	40.00	ng/uL	-0.02
33) d10-Acenaphthene	13.89	164	136173	40.00	ng/uL	-0.01
57) d10-Phenanthrene	17.04	188	410039	40.00	ng/uL	-0.03
66) d12-Chrysene	22.76	240	314943	40.00	ng/uL	-0.02
75) d12-Perylene	25.99	264	218213	40.00	ng/uL	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.47	112	96853	51.66	ng/uL	25.83%
6) Phenol-d6	7.17	99	123531	53.24	ng/uL	26.62%
19) Nitobenzene-d5	8.77	82	126927	49.40	ng/uL	49.40%
37) 2-Fluorobiphenyl	12.50	172	283026	60.81	ng/uL	60.81%
56) 2,4,6-Tribromophenol	15.61	330	54695	48.66	ng/uL	24.33%
69) Terphenyl-d14	20.52	244	396571	49.24	ng/uL	49.24%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Pyridine	3.39	79	66247	42.61	ng/uL#	100
3) n-Nitosodimethylamine	3.43	74	61186	51.89	ng/uL#	100
5) Aniline	7.11	93	160301	49.72	ng/uL#	74
7) 2-Chlorophenol (8G)	7.31	128	114986	52.62	ng/uL#	77
8) Phenol (5G)	7.19	94	126444	53.41	ng/uL#	72
9) Bis (2-Chloroethyl) Ether	7.11	93	160301	74.18	ng/uL#	57
10) 1,3-Dichlorobenzene (9G)	7.53	146	136819	52.75	ng/uL	98
11) 1,4-Dichlorobenzene (10G)	7.64	146	132936	54.56	ng/uLm	88
12) 1,2-Dichlorobenzene (12G)	8.00	146	100044	54.15	ng/uL#	90
13) Benzyl Alcohol	8.01	79	91123	49.88	ng/uL#	80
14) Bis (2-Chloroisopropyl) Et	8.27	45	156192	45.02	ng/uL#	91
15) 2-Methylphenol (13G)	8.29	108	115769	54.19	ng/uL#	100
16) Hexachloroethane (17G)	8.57	117	49569	51.22	ng/uL	93
17) n-Nitosodipropyl Amine (16G)	8.58	70	61322	43.96	ng/uL	91
18) 3/4-Methylphenols (15G)	8.61	108	200985	49.94	ng/uL#	51
20) Nitrobenzene (20G)	8.82	77	116453	50.27	ng/uL#	92
22) Isophorone	9.29	82	272821	41.60	ng/uL	98
23) 2-Nitrophenol (22G)	9.46	139	88507	42.84	ng/uL#	66
24) 2,4-Dimethylphenol (23G)	9.62	107	122355	42.35	ng/uL	93
25) Bis (2-Chloroethoxy) Metha	9.79	93	145682	42.75	ng/uL	100
26) 2,4-Dichlorophenol (26G)	9.96	162	124028	43.86	ng/uL#	89
27) 1,2,4-Trichlorobenzene (27G)	10.08	180	131192	42.61	ng/uL#	92
28) Naphthalene (28)	10.21	128	389852	59.61	ng/uL#	96
29) 4-Chloroaniline (29G)	10.41	127	168559	44.91	ng/uL#	83
30) Hexachlorobutadiene (30G)	10.58	225	85563	44.98	ng/uL#	77
31) p-Chloro-m-Cresol (31G)	11.50	107	124817	42.25	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.65	142	232497	47.80	ng/uL#	51
34) Hexachlorocyclopentadiene	12.12	237	68937	50.28	ng/uL#	71

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F41_D\F4192.D
 Acq Time : Data Taken: 3/22/99 @ 18:06
 Sample :
 Misc : SSTD050 30M SPB-5 CAP COLUMN
 Quant Time: Mar 23 10:37 1999

Operator: AM9951
 Inst :
 Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35) 2,4,6-Trichlorophenol (35G)	12.35	196	107995	51.61	ng/uLm ²	100
36) 2,4,5-Trichlorophenol (36G)	12.44	196	153606	54.43	ng/uL	99
38) 2-Chloronaphthalene (37G)	12.68	162	263283	57.77	ng/uL#	85
39) 2-Nitroaniline (39G)	13.04	65	110111	50.78	ng/uL	90
40) Acenaphthylene (41G)	13.57	152	492294	72.50	ng/uL#	89
41) Dimethyl Phthalate (40G)	13.50	163	356143	61.08	ng/uL	99
42) 2,6-Dinitrotoluene (42G)	13.65	165	96191	50.05	ng/uL	92
43) Acenaphthene (44G)	13.97	153	287583	61.13	ng/uL#	83
44) 3-Nitroaniline (43G)	13.94	138	77216	53.36	ng/uL#	100
45) 2,4-Dinitrophenol (45G)	14.17	184	83610	46.63	ng/uL#	61
46) Dibenzofuran (47G)	14.32	168	405220	64.90	ng/uL#	84
47) 4-Nitrophenol (46g)	14.41	109	37663	48.07	ng/uL#	27
48) 2,4-Dinitrotoluene (48G)	14.49	165	144103	49.82	ng/uL#	71
49) Fluorene (51G)	15.05	166	316608	69.25	ng/uL#	54
50) Diethyl Phthalate (49G)	15.02	149	317826	73.15	ng/uL	99
51) 4-Chlorophenyl Phenyl Ethe	15.07	204	151503	59.21	ng/uL#	75
52) 4-Nitroaniline (52G)	15.30	138	113962	51.71	ng/uL#	55
53) 4,6-Dinitro-2-Methylphenol	15.37	198	90432	60.10	ng/uL#	17
54) n-Nitrosodiphenyl Amine (56	15.40	169	206010	58.41	ng/uL#	25
55) Azobenzene	15.42	77	371911	66.24	ng/uL	92
58) 4-Bromophenyl Phenyl ether	16.10	248	106957	40.11	ng/uL#	79
59) Hexachlorobenzene (59G)	16.40	284	127197	41.03	ng/uL#	80
60) Pentachlorophenol (60G)	16.83	266	81797	38.13	ng/uL#	77
61) Phenanthrene (61G)	17.10	178	566289	59.48	ng/uL#	94
62) Anthracene (62G)	17.19	178	591294	58.04	ng/uLm	94
63) Carbazole (21S)	17.59	167	505539	49.62	ng/uL#	89
64) Di-n-butyl Phthalate (63G)	18.48	149	612710	64.70	ng/uL#	99
65) Fluoranthene (64G)	19.66	202	646635	58.08	ng/uL#	94
67) Benzidine	20.00	184	157779	40.98	ng/uL#	97
68) Pyrene (67G)	20.13	202	663692	58.97	ng/uL	100
70) Butylbenzyl Phthalate (69G)	21.67	149	311073	47.72	ng/uL#	67
71) Benzo- (a) -Anthracene (71G)	22.72	228	521458	50.74	ng/uLm ²	90
72) 3,3'-Dichlorobenzidine	22.74	252	131297	47.94	ng/uL#	97
73) Chrysene (72G)	22.82	228	543581	54.45	ng/uL#	89
74) Bis (2-Ethylhexyl) Phthala	22.95	149	410022	51.40	ng/uL	98
76) Di-n-Octyl Phthalate (75G)	24.24	149	715094	62.65	ng/uL	100
77) Benzo- (b) -Fluoranthene (76G)	25.05	252	407458	52.64	ng/uLm ²	97
78) Benzo- (k) -Fluoranthene (77G)	25.13	252	437789	54.06	ng/uL#	98
79) Benzo- (a) -Pyrene (78G)	25.85	252	367671	51.00	ng/uL#	96
80) Indeno- (1,2,3-cd) -Pyrene (7	29.33	276	234332	48.92	ng/uL#	90
81) Dibenzo- (a,h) -Anthracene (8	29.44	278	194764	50.94	ng/uL#	86
82) Benzo- (g,h,i) - Perylene (81	30.34	276	181657	49.21	ng/uL#	90

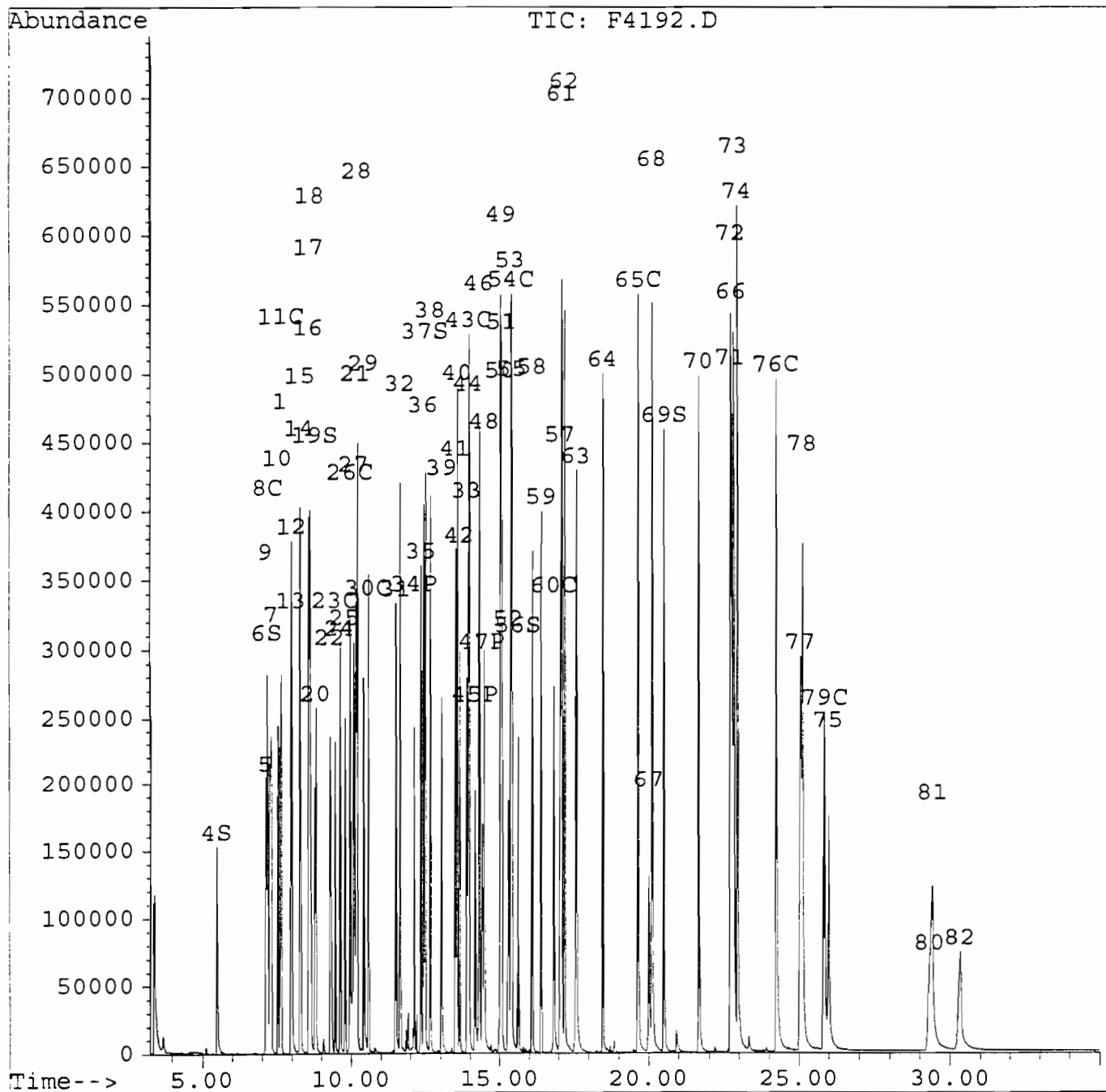
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F41_D\F4192.D
Acq Time : Data Taken: 3/22/99 @ 18:06
Sample :
Misc : SSTD050 30M SPB-5 CAP COLUMN
Quant Time: Mar 23 10:37 1999

Operator: AM9951
Inst :
Multiplr: 1.00

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



Quantitation Report

Data File : F:\RTE\BNA\F41_D\F4193.D
 Acq Time : Data Taken: 3/22/99 @ 18:52
 Sample :
 Misc : SSTD020 30M SPB-5 CAP COLUMN
 Quant Time: Mar 23 13:24 1999

Operator: AM9951
 Inst :
 Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-Dichlorobenzene	7.60	152	94248	40.00	ng/uL	0.00
21) d8-Naphthalene	10.15	136	356128	40.00	ng/uL	0.00
33) d10-Acenaphthene	13.89	164	173212	40.00	ng/uL	0.00
57) d10-Phenanthrene	17.04	188	538825	40.00	ng/uL	0.00
66) d12-Chrysene	22.76	240	489157	40.00	ng/uL	0.00
75) d12-Perylene	26.00	264	328014	40.00	ng/uL	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.45	112	48443	20.90	ng/uL	10.45%
6) Phenol-d6	7.14	99	65630	22.86	ng/uL	11.43%
19) Nitobenzene-d5	8.76	82	65812	20.88	ng/uL	20.88%
37) 2-Fluorobiphenyl	12.48	172	162417	25.38	ng/uL	25.38%
56) 2,4,6-Tribromophenol	15.60	330	28299	21.21	ng/uL	10.61%
69) Terphenyl-d14	20.50	244	238101	19.54	ng/uL	19.54%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Pyridine	3.38	79	30323	18.89	ng/uL#	100
3) n-Nitosodimethylamine	3.40	74	30425	20.75	ng/uL#	100
5) Aniline	7.10	93	82508	20.61	ng/uL#	74
7) 2-Chlorophenol (8G)	7.29	128	61947	22.92	ng/uL#	77
8) Phenol (5G)	7.16	94	71235	24.14	ng/uL#	72
9) Bis (2-Chloroethyl) Ether (	7.22	93	65954	21.61	ng/uLm ²	57
10) 1,3-Dichlorobenzene (9G)	7.52	146	73527	22.75	ng/uL	98
11) 1,4-Dichlorobenzene (10G)	7.63	146	72078	23.66	ng/uLm ²	99
12) 1,2-Dichlorobenzene (12G)	7.98	146	60352	26.04	ng/uL#	90
13) Benzyl Alchohol	7.97	79	50084	21.96	ng/uL#	79
14) Bis (2-Chloroisopropyl) Et	8.25	45	107820	24.91	ng/uL	88
15) 2-Methylphenol (13G)	8.26	108	68373	25.62	ng/uL#	100
16) Hexachloroethane (17G)	8.56	117	25518	20.96	ng/uL#	72
17) n-Nitosodipropyl Amine (16G)	8.55	70	45825	25.48	ng/uL#	49
18) 3/4-Methylphenols (15G)	8.57	108	120052	23.70	ng/uL#	62
20) Nitrobenzene (20G)	8.79	77	64972	22.66	ng/uL#	93
22) Isophorone	9.27	82	140384	20.22	ng/uL	98
23) 2-Nitrophenol (22G)	9.43	139	46743	22.36	ng/uL	89
24) 2,4-Dimethylphenol (23G)	9.60	107	64777	21.95	ng/uL	93
25) Bis (2-Chloroethoxy) Metha	9.78	93	79837	23.12	ng/uL	100
26) 2,4-Dichlorophenol (26G)	9.94	162	68165	23.83	ng/uL#	89
27) 1,2,4-Trichlorobenzene (27G)	10.08	180	72180	22.80	ng/uL#	92
28) Naphthalene (28)	10.19	128	227050	26.23	ng/uL#	96
29) 4-Chloroaniline (29G)	10.40	127	97561	26.26	ng/uL#	83
30) Hexachlorobutadiene (30G)	10.57	225	46623	23.58	ng/uL#	78
31) p-Chloro-m-Cresol (31G)	11.49	107	68898	23.02	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.63	142	138632	25.86	ng/uL#	51
34) Hexachlorocyclopentadiene (	12.12	237	26561	16.23	ng/uL#	71

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F41_D\F4193.D
 Acq Time : Data Taken: 3/22/99 @ 18:52
 Sample :
 Misc : SSTD020 30M SPB-5 CAP COLUMN
 Quant Time: Mar 23 13:24 1999

Operator: AM9951
 Inst :
 Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35) 2,4,6-Trichlorophenol (35G)	12.34	196	58178	22.92	ng/uLm ^p	99
36) 2,4,5-Trichlorophenol (36G)	12.42	196	84903	24.84	ng/uL	99
38) 2-Chloronaphthalene (37G)	12.66	162	147503	24.41	ng/uL#	85
39) 2-Nitroaniline (39G)	13.02	65	58267	22.34	ng/uL	91
40) Acenaphthylene (41G)	13.55	152	286005	26.91	ng/uL#	89
41) Dimethyl Phthalate (40G)	13.49	163	200371	24.29	ng/uL	100
42) 2,6-Dinitrotoluene (42G)	13.63	165	51344	22.26	ng/uL#	72
43) Acenaphthene (44G)	13.95	153	173849	27.25	ng/uL#	83
44) 3-Nitroaniline (43G)	13.92	138	46645	27.40	ng/uLm ^p	100
45) 2,4-Dinitrophenol (45G)	14.15	184	35037	16.86	ng/uL#	61
46) Dibenzofuran (47G)	14.30	168	240734	26.15	ng/uL#	84
47) 4-Nitrophenol (46g)	14.39	109	17885	19.05	ng/uL#	25
48) 2,4-Dinitrotoluene (48G)	14.46	165	79546	22.80	ng/uL	90
49) Fluorene (51G)	15.03	166	190727	29.17	ng/uLm	54
50) Diethyl Phthalate (49G)	15.00	149	178108	28.22	ng/uLm	99
51) 4-Chlorophenyl Phenyl Ethe	15.06	204	84111	27.08	ng/uLm	75
52) 4-Nitroaniline (52G)	15.26	138	60337	23.30	ng/uL#	55
53) 4,6-Dinitro-2-Methylphenol	15.34	198	48892	27.85	ng/uL#	17
54) n-Nitrosodiphenyl Amine (56	15.37	169	131169	29.20	ng/uL#	25
55) Azobenzene	15.40	77	226857	28.58	ng/uL	84
58) 4-Bromophenyl Phenyl ether	16.09	248	61394	23.04	ng/uL#	79
59) Hexachlorobenzene (59G)	16.38	284	70326	22.31	ng/uL#	90
60) Pentachlorophenol (60G)	16.82	266	41120	18.95	ng/uL#	78
61) Phenanthrene (61G)	17.09	178	335548	25.35	ng/uLm	94
62) Anthracene (62G)	17.17	178	352447	26.01	ng/uL#	94
63) Carbazole (21S)	17.58	167	293220	23.92	ng/uL#	89
64) Di-n-butyl Phthalate (63G)	18.47	149	383013	27.26	ng/uLm	99
65) Fluoranthene (64G)	19.64	202	397521	26.43	ng/uL#	94
67) Benzidine	19.99	184	109538	21.63	ng/uL#	96
68) Pyrene (67G)	20.12	202	410180	21.53	ng/uL#	92
70) Butylbenzyl Phthalate (69G)	21.65	149	195933	20.73	ng/uL#	70
71) Benzo- (a) -Anthracene (71G)	22.71	228	325451	20.82	ng/uLm	90
72) 3,3'-Dichlorobenzidine	22.73	252	78409	22.62	ng/uL#	97
73) Chrysene (72G)	22.81	228	332103	20.79	ng/uL#	89
74) Bis (2-Ethylhexyl) Phthala	22.94	149	266256	21.56	ng/uL	98
76) Di-n-Octyl Phthalate (75G)	24.23	149	455689	22.10	ng/uL	100
77) Benzo- (b) -Fluoranthene (76G)	25.03	252	261066	21.82	ng/uLm	97
78) Benzo- (k) -Fluoranthene (77G)	25.09	252	257213	19.89	ng/uL#	98
79) Benzo- (a) -Pyrene (78G)	25.82	252	204074	19.07	ng/uL	98
80) Indeno- (1,2,3-cd) -Pyrene (7	29.29	276	108930	15.74	ng/uL#	90
81) Dibenzo- (a,h) -Anthracene (8	29.37	278	90988	16.01	ng/uL#	93
82) Benzo- (g,h,i) - Perylene (81	30.27	276	82199	15.44	ng/uL#	90

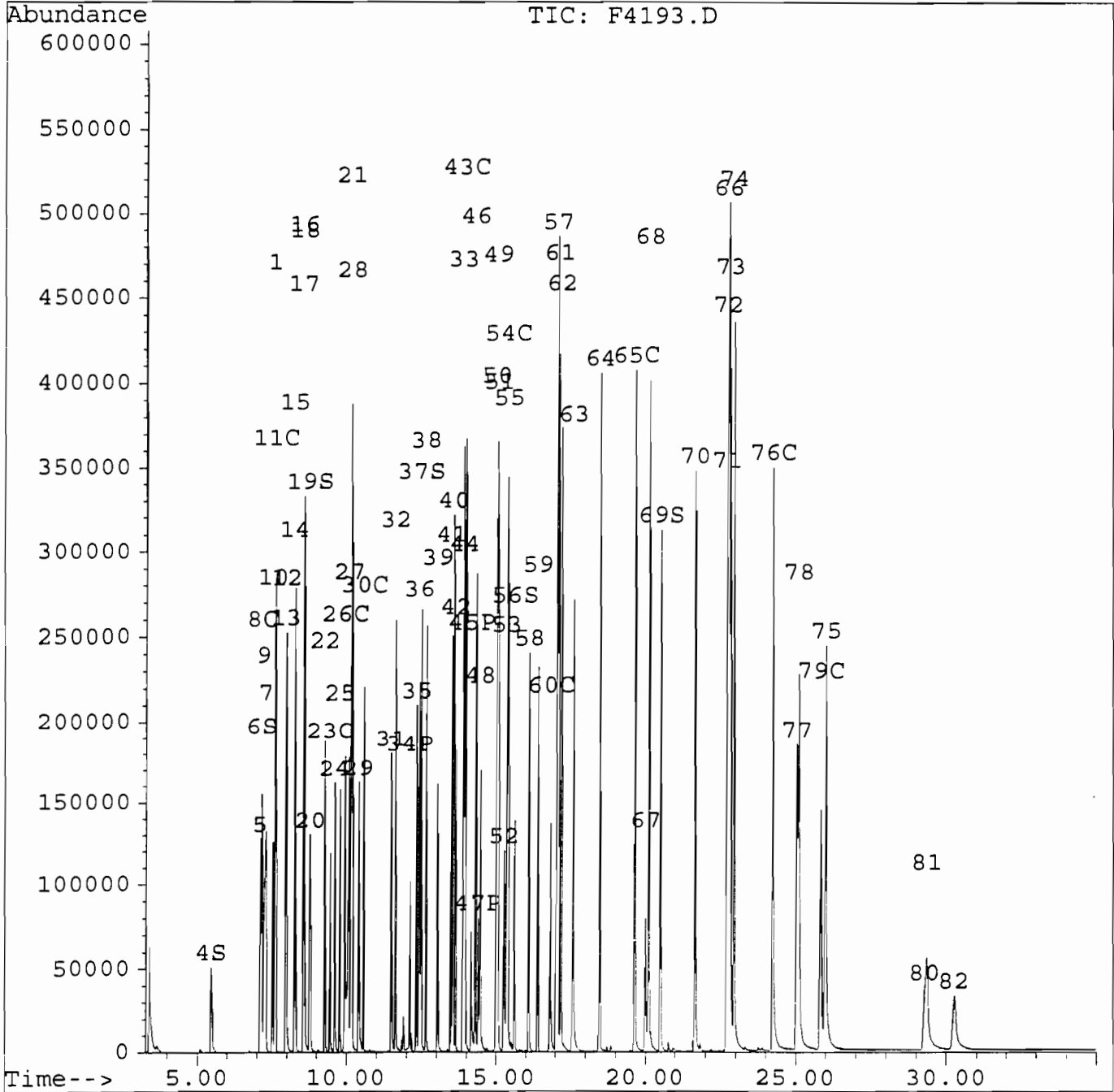
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F41_D\F4193.D
Acq Time : Data Taken: 3/22/99 @ 18:52
Sample :
Misc : SSTD020 30M SPB-5 CAP COLUMN
Quant Time: Mar 23 13:24 1999

Operator: AM9951
Inst :
Multiplr: 1.00

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



ICM LABORATORIES QUALITY CONTROL REPORT

CONTINUING CALIBRATION SUMMARY OF INJECTIONS

INSTRUMENT ID: 5970_4
GC COLUMNS USED: DB-5
INJECTION DATE: 03/25/99

DATA FILE: F4237.D
METHOD: 8270
INJECT TIME: 11:24

SAMPLE NUMBER	DATA FILE	DATE OF ANALYSIS	TIME OF ANALYSIS
BLANK, QC8170	F4240.D	3/25/99	13:42
QA/QC, QC8170	F4241.D	3/25/99	14:28
BLANK SPIKE, QC817	F4242.D	3/25/99	15:14
BL.SPK DUP, QC8170	F4243.D	3/25/99	16:00
306389, QC8170	F4244.D	3/25/99	16:46

S = Spike Sample

Evaluate Continuing Calibration Report

Data File : F:\RTE\BNA\F42_D\F4237.D
 Acq Time : 25 MAR 99 11:24 AM Operator: AM9951 REG
 Sample : Inst :
 Misc : SSTD050, CAL STD30M SPB-5 CAP COLUMN Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
1	d4-Dichlorobenzene	1.000	1.000	0.0	120	-0.02
2	Pyridine	0.746	0.776	-4.1	131	-0.02
3	n-Nitosodimethylamine	0.622	0.673	-8.2	123	0.00
4 S	2-Fluorophenol	0.984	1.092	-11.0	126	0.00
5	Aniline	1.699	1.848	-8.7	129	-0.02
6 S	Phenol-d6	1.219	1.367	-12.2	123	0.00
7	2-Chlorophenol (8G)	1.147	1.261	-9.9	122	0.00
8 C	Phenol (5G)	1.253	1.405	-12.2#	124	0.00
9	Bis (2-Chloroethyl) Ether (7	1.293	1.237	4.3	86	0.13
10	1,3-Dichlorobenzene (9G)	1.372	1.465	-6.8	119	0.00
11 C	1,4-Dichlorobenzene (10G)	1.292	1.381	-6.9#	116	0.09
12	1,2-Dichlorobenzene (12G)	0.984	1.025	-4.2	114	-0.02
13	Benzyl Alcohol	0.968	1.055	-9.0	129	0.01
14	Bis (2-Chloroisopropyl) Eth	1.837	1.898	-3.3	136	-0.02
15	2-Methylphenol (13G)	1.133	1.211	-6.9	117	0.00
16	Hexachloroethane (17G)	0.517	0.602	-16.5	136	-0.03
17	n-Nitosodipropyl Amine (16G)	0.842	0.566	32.8#	103	0.00
18	3/4-Methylphenols (15G)	2.150	2.232	-3.8	124	0.00
19 S	Nitobenzene-d5	1.338	1.464	-9.4	129	0.00
20	Nitrobenzene (20G)	1.217	1.328	-9.1	127	0.00
21	d8-Naphthalene	1.000	1.000	0.0	123	-0.03
22	Isophorone	0.780	0.845	-8.3	132	0.00
23 C	2-Nitrophenol (22G)	0.235	0.260	-10.8#	125	-0.01
24	2,4-Dimethylphenol (23G)	0.332	0.352	-6.2	122	0.00
25	Bis (2-Chloroethoxy) Methan	0.388	0.426	-9.8	124	-0.02
26 C	2,4-Dichlorophenol (26G)	0.321	0.344	-7.1#	118	-0.02
27	1,2,4-Trichlorobenzene (27G)	0.356	0.378	-6.3	122	-0.03
28	Naphthalene (28)	0.991	1.034	-4.3	113	-0.01
29	4-Chloroaniline (29G)	0.469	0.494	-5.5	125	-0.01
30 C	Hexachlorobutadiene (30G)	0.222	0.233	-4.9#	116	-0.02
31	p-Chloro-m-Cresol (31G)	0.336	0.367	-9.3	125	-0.01
32	2-Methylnaphthalene (32)	0.602	0.666	-10.7	122	-0.02
33	d10-Acenaphthene	1.000	1.000	0.0	126	-0.04
34 P	Hexachlorocyclopentadiene (3	0.378	0.432	-14.3	134	-0.03
35	2,4,6-Trichlorophenol (35G)	0.586	0.608	-3.8	121	-0.11
36	2,4,5-Trichlorophenol (36G)	0.789	0.811	-2.8	113	-0.01
37 S	2-Fluorobiphenyl	1.478	1.605	-8.6	122	-0.01
38	2-Chloronaphthalene (37G)	1.396	1.506	-7.9	123	-0.02
39	2-Nitroaniline (39G)	0.602	0.673	-11.7	131	-0.01
40	Acenaphthylene (41G)	2.454	2.759	-12.4	120	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : F:\RTE\BNA\F42_D\F4237.D
 Acq Time : 25 MAR 99 11:24 AM Operator: AM9951 REG
 Sample : Inst :
 Misc : SSTD050, CAL STD30M SPB-5 CAP COLUMN Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
41	Dimethyl Phthalate(40G)	1.905	2.079	-9.1	125	-0.01
42	2,6-Dinitrotoluene(42G)	0.553	0.574	-3.8	128	-0.01
43 C	Acenaphthene(44G)	1.527	1.556	-1.9#	116	-0.01
44	3-Nitroaniline(43G)	0.410	0.480	-17.0	133	-0.01
45 P	2,4-Dinitrophenol(45G)	0.480	0.560	-16.6	144	-0.01
46	Dibenzofuran(47G)	2.126	2.338	-10.0	124	-0.02
47 P	4-Nitrophenol(46g)	0.217	0.252	-16.4	144	-0.01
48	2,4-Dinitrotoluene(48G)	0.806	0.855	-6.1	127	0.00
49	Fluorene(51G)	1.513	1.569	-3.7	106	-0.02
50	Diethyl Phthalate(49G)	1.436	1.634	-13.8	110	-0.01
51	4-Chlorophenyl Phenyl Ether	0.756	0.801	-5.9	113	-0.03
52	4-Nitroaniline(52G)	0.641	0.759	-18.3	143	0.03
53	4,6-Dinitro-2-Methylphenol(	0.454	0.472	-3.9	112	0.01
54 C	n-Nitrosodiphenyl Amine(56G)	1.108	1.120	-1.1#	117	0.00
55	Azobenzene	1.921	2.070	-7.7	119	-0.01
56 S	2,4,6-Tribromophenol	0.308	0.300	2.7	118	-0.02
57	d10-Phenanthrene	1.000	1.000	0.0	124	-0.04
58	4-Bromophenyl Phenyl ether	0.198	0.206	-4.2	123	-0.03
59	Hexachlorobenzene(59G)	0.234	0.231	1.1	116	-0.02
60 C	Pentachlorophenol(60G)	0.161	0.169	-5.0#	132	-0.03
61	Phenanthrene(61G)	0.983	1.053	-7.1	118	-0.11
62	Anthracene(62G)	1.008	1.079	-7.1	116	0.00
63	Carbazole(21S)	0.910	0.985	-8.2	124	-0.03
64	Di-n-butyl Phthalate(63G)	1.019	1.117	-9.6	116	-0.03
65 C	Fluoranthene(64G)	1.116	1.204	-7.8#	118	-0.02
66	d12-Chrysene	1.000	1.000	0.0	109	-0.04
67	Benzidine	0.414	0.440	-6.3	120	-0.04
68	Pyrene(67G)	1.558	1.771	-13.7	115	-0.03
69 S	Terphenyl-d14	0.996	1.072	-7.6	116	-0.03
70	Butylbenzyl Phthalate(69G)	0.773	0.866	-12.1	119	-0.03
71	Benzo-(a)-Anthracene(71G)	1.279	1.347	-5.3	111	-0.14
72	3,3'-Dichlorobenzidine	0.283	0.338	-19.1	110	-0.03
73	Chrysene(72G)	1.306	1.355	-3.7	107	-0.03
74	Bis(2-Ethylhexyl) Phthalat	1.010	1.084	-7.3	113	-0.03
75	d12-Perylene	1.000	1.000	0.0	83	-0.07
76 C	Di-n-Octyl Phthalate(75G)	2.514	2.816	-12.0#	89	-0.03
77	Benzo-(b)-Fluoranthene(76G)	1.501	1.587	-5.7	88	-0.09
78	Benzo-(k)-Fluoranthene(77G)	1.576	1.809	-14.8	93	-0.02
79 C	Benzo-(a)-Pyrene(78G)	1.304	1.382	-6.0#	85	-0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : F:\RTE\BNA\F42_D\F4237.D
 Acq Time : 25 MAR 99 11:24 AM Operator: AM9951 REG
 Sample : Inst :
 Misc : SSTD050, CAL STD30M SPB-5 CAP COLUMN Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
80	Indeno-(1,2,3-cd)-Pyrene(79	0.842	0.662	21.4#	64	-0.05
81	Dibenzo-(a,h)-Anthracene(80	0.691	0.565	18.2	65	-0.04
82	Benzo-(g,h,i)-Perylene(81G	0.647	0.493	23.8#	61	-0.05

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4237.D

Acq Time : 25 MAR 99 11:24 AM

Operator: AM9951

Sample :

Inst :

Misc : SSTD050, CAL STD30M SPB-5 CAP COLUMN

Multiplr: 1.00

Quant Time: Mar 23 21:37 1999

Method : C:\METHODS\CF4189.M

Title : BNA STANDARDS FOR 5 POINT CALIBRATION

Last Update : Tue Mar 23 13:25:06 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-Dichlorobenzene	7.58	152	89256	40.00	ng/uL	-0.02
21) d8-Naphthalene	10.12	136	340170	40.00	ng/uL	-0.03
33) d10-Acenaphthene	13.85	164	171651	40.00	ng/uL	-0.04
57) d10-Phenanthrene	17.00	188	508772	40.00	ng/uL	-0.04
66) d12-Chrysene	22.72	240	343245	40.00	ng/uL	-0.04
75) d12-Perylene	25.93	264	180266	40.00	ng/uL	-0.07

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.45	112	121844	55.50	ng/uL	27.75%
6) Phenol-d6	7.15	99	152512	56.09	ng/uL	28.04%
19) Nitobenzene-d5	8.75	82	163315	54.72	ng/uL	54.72%
37) 2-Fluorobiphenyl	12.47	172	344477	54.31	ng/uL	54.31%
56) 2,4,6-Tribromophenol	15.58	330	64328	48.66	ng/uL	24.33%
69) Terphenyl-d14	20.47	244	459760	53.78	ng/uL	53.78%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Pyridine	3.37	79	86559	52.03	ng/uL#	100
3) n-Nitosodimethylamine	3.41	74	75118	54.10	ng/uL#	100
5) Aniline	7.08	93	206131	54.37	ng/uL#	74
7) 2-Chlorophenol (8G)	7.28	128	140694	54.97	ng/uL#	77
8) Phenol (5G)	7.17	94	156798	56.10	ng/uL#	72
9) Bis (2-Chloroethyl) Ether (	7.23	93	138045	47.83	ng/uLm	57
10) 1,3-Dichlorobenzene (9G)	7.51	146	163410	53.39	ng/uL#	91
11) 1,4-Dichlorobenzene (10G)	7.61	146	154103	53.43	ng/uLm	88
12) 1,2-Dichlorobenzene (12G)	7.97	146	114329	52.08	ng/uL#	90
13) Benzyl Alcohol	7.99	79	117746	54.50	ng/uL#	80
14) Bis (2-Chloroisopropyl) Et	8.24	45	211777	51.67	ng/uL#	95
15) 2-Methylphenol (13G)	8.26	108	135078	53.44	ng/uL#	100
16) Hexachloroethane (17G)	8.54	117	67175	58.27	ng/uL	96
17) n-Nitosodipropyl Amine (16G)	8.56	70	63138	33.61	ng/uL#	49
18) 3/4-Methylphenols (15G)	8.59	108	249014	51.90	ng/uL#	51
20) Nitrobenzene (20G)	8.79	77	148173	54.57	ng/uL#	92
22) Isophorone	9.27	82	359274	54.17	ng/uL	98
23) 2-Nitrophenol (22G)	9.43	139	110631	55.41	ng/uL#	66
24) 2,4-Dimethylphenol (23G)	9.60	107	149709	53.10	ng/uL	93
25) Bis (2-Chloroethoxy) Metha	9.76	93	181100	54.91	ng/uL	100
26) 2,4-Dichlorophenol (26G)	9.93	162	146240	53.53	ng/uL	99
27) 1,2,4-Trichlorobenzene (27G)	10.05	180	160684	53.14	ng/uL#	92
28) Naphthalene (28)	10.18	128	439606	52.17	ng/uL#	96
29) 4-Chloroaniline (29G)	10.38	127	210257	52.73	ng/uL#	83
30) Hexachlorobutadiene (30G)	10.55	225	99071	52.46	ng/uL#	78
31) p-Chloro-m-Cresol (31G)	11.47	107	156238	54.66	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.61	142	283320	55.36	ng/uL#	51
34) Hexachlorocyclopentadiene (	12.08	237	92673	57.16	ng/uL#	71

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4237.D

Acq Time : 25 MAR 99 11:24 AM

Operator: AM9951

Sample :

Inst :

Misc : SSTD050, CAL STD30M SPB-5 CAP COLUMN

Multiplr: 1.00

Quant Time: Mar 23 21:37 1999

Method : C:\METHODS\CF4189.M

Title : BNA STANDARDS FOR 5 POINT CALIBRATION

Last Update : Tue Mar 23 13:25:06 1999

Response via : Multiple Level Calibration

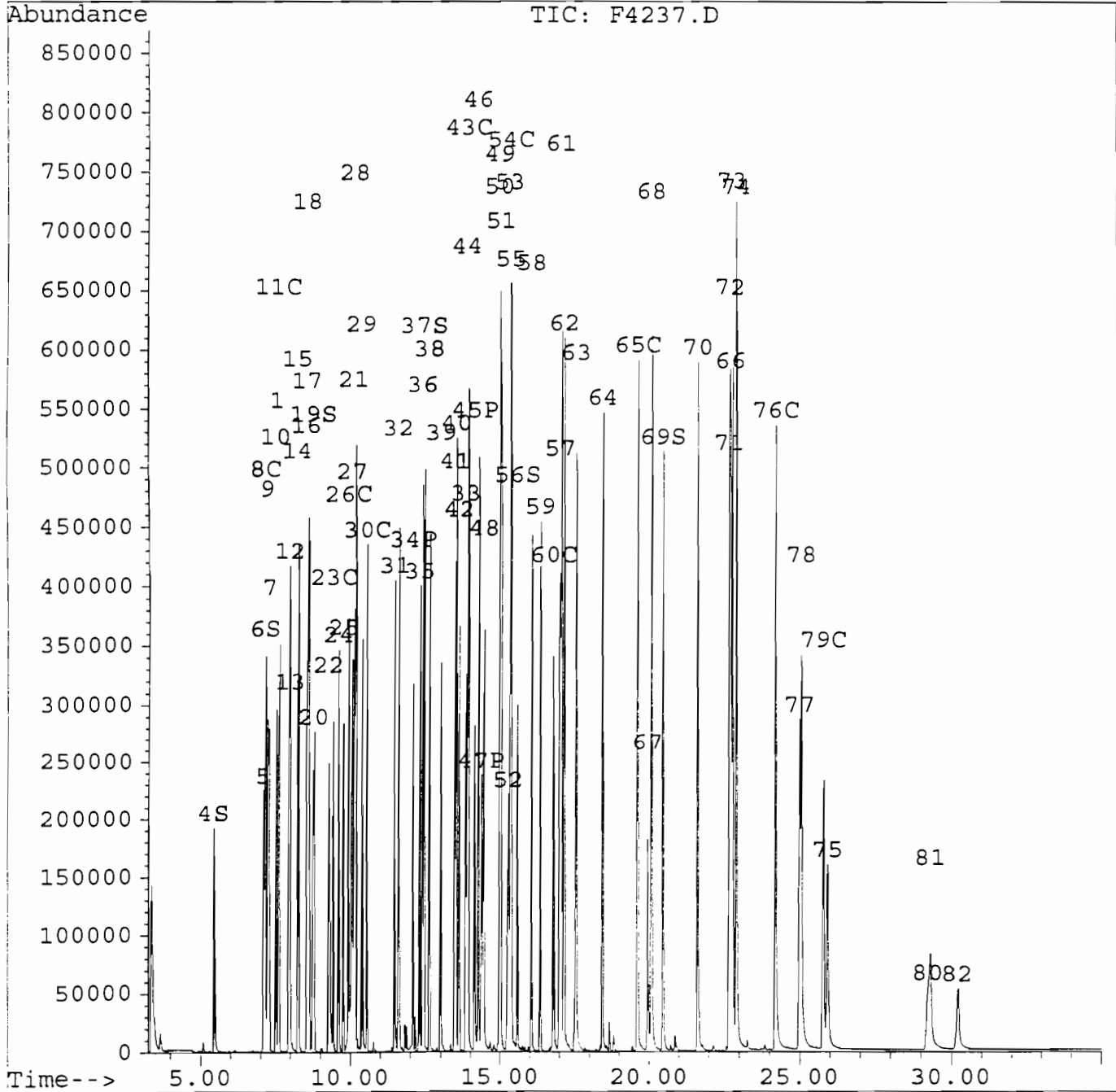
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35) 2,4,6-Trichlorophenol (35G)	12.31	196	130509	51.89	ng/uL ^m	100
36) 2,4,5-Trichlorophenol (36G)	12.41	196	174030	51.41	ng/uL ^m	98
38) 2-Chloronaphthalene (37G)	12.64	162	323142	53.96	ng/uL	98
39) 2-Nitroaniline (39G)	13.01	65	144314	55.83	ng/uL	91
40) Acenaphthylene (41G)	13.53	152	591936	56.20	ng/uL#	89
41) Dimethyl Phthalate (40G)	13.47	163	446091	54.57	ng/uL	99
42) 2,6-Dinitrotoluene (42G)	13.62	165	123165	51.90	ng/uL	92
43) Acenaphthene (44G)	13.94	153	333884	50.97	ng/uL#	83
44) 3-Nitroaniline (43G)	13.91	138	102943	58.51	ng/uL#	100
45) 2,4-Dinitrophenol (45G)	14.14	184	120057	58.29	ng/uL#	61
46) Dibenzofuran (47G)	14.27	168	501661	54.98	ng/uL#	84
47) 4-Nitrophenol (46g)	14.38	109	54142	58.21	ng/uL#	24
48) 2,4-Dinitrotoluene (48G)	14.46	165	183422	53.06	ng/uL#	71
49) Fluorene (51G)	15.01	166	336736	51.85	ng/uL#	54
50) Diethyl Phthalate (49G)	14.99	149	350574	56.88	ng/uL	98
51) 4-Chlorophenyl Phenyl Ethe	15.03	204	171788	52.94	ng/uL	96
52) 4-Nitroaniline (52G)	15.29	138	162809	59.15	ng/uL#	55
53) 4,6-Dinitro-2-Methylphenol	15.36	198	101244	51.97	ng/uL#	17
54) n-Nitrosodiphenyl Amine (56	15.37	169	240229	50.53	ng/uL#	25
55) Azobenzene	15.39	77	444110	53.87	ng/uL#	71
58) 4-Bromophenyl Phenyl ether	16.06	248	131073	52.10	ng/uL#	79
59) Hexachlorobenzene (59G)	16.36	284	147161	49.45	ng/uL#	80
60) Pentachlorophenol (60G)	16.79	266	107593	52.51	ng/uL#	77
61) Phenanthrene (61G)	17.06	178	669440	53.55	ng/uL#	94
62) Anthracene (62G)	17.16	178	686465	53.56	ng/uL ^m	94
63) Carbazole (21S)	17.55	167	626215	54.12	ng/uL#	89
64) Di-n-butyl Phthalate (63G)	18.44	149	710569	54.80	ng/uL#	99
65) Fluoranthene (64G)	19.62	202	765728	53.92	ng/uL#	94
67) Benzidine	19.95	184	188709	53.14	ng/uL#	96
68) Pyrene (67G)	20.09	202	760058	56.87	ng/uL#	96
70) Butylbenzyl Phthalate (69G)	21.62	149	371615	56.04	ng/uL#	69
71) Benzo- (a) -Anthracene (71G)	22.67	228	577917	52.66	ng/uL ^m	90
72) 3,3'-Dichlorobenzidine	22.70	252	144886	59.56	ng/uL#	97
73) Chrysene (72G)	22.78	228	581383	51.86	ng/uL#	89
74) Bis (2-Ethylhexyl) Phthala	22.91	149	464898	53.65	ng/uL	97
76) Di-n-Octyl Phthalate (75G)	24.21	149	634455	56.00	ng/uL ^m	100
77) Benzo- (b) -Fluoranthene (76G	25.01	252	357494	52.84	ng/uL ^m	97
78) Benzo- (k) -Fluoranthene (77G	25.07	252	407722	57.42	ng/uL#	98
79) Benzo- (a) -Pyrene (78G)	25.79	252	311335	52.99	ng/uL#	96
80) Indeno- (1,2,3-cd) -Pyrene (7	29.23	276	149102	39.30	ng/uL#	90
81) Dibenzo- (a,h) -Anthracene (8	29.33	278	127377	40.90	ng/uL#	86
82) Benzo- (g,h,i) - Perylene (81	30.22	276	110991	38.09	ng/uL#	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4237.D
Acq Time : Data Taken: 3/25/99 @ 11:24 Operator: AM9951
Sample : Inst :
Misc : SSTD050, CAL STD30M SPB-5 CAP COLUMN Multiplr: 1.00
Quant Time: Mar 23 21:37 1999

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



ICM LABORATORIES QUALITY CONTROL REPORT

CONTINUING CALIBRATION SUMMARY OF INJECTIONS

INSTRUMENT ID: 5970_4
 GC COLUMNS USED: DB-5
 INJECTION DATE: 03/26/99

DATA FILE: F4258.D
 METHOD: 8270
 INJECT TIME: 18:14

SAMPLE NUMBER	DATA FILE	DATE OF ANALYSIS	TIME OF ANALYSIS
BLANK, QC8167 M SP	F4259.D	3/26/99	19:00
BL.SP.K, QC8167 M S	F4260.D	3/26/99	19:46
QA/QC, QC8167 M SP	F4261.D	3/26/99	20:31
306397, QC8167 M S	F4262.D	3/26/99	21:17
306398, QC8167 M S	F4263.D	3/26/99	22:03

S = Spike Sample

Evaluate Continuing Calibration Report

Data File : F:\RTE\BNA\F42_D\F4258.D
 Acq Time : 26 MAR 99 6:14 PM Operator: AM9951 REG
 Sample : Inst :
 Misc : SSTD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
1	d4-Dichlorobenzene	1.000	1.000	0.0	130	-0.03
2	Pyridine	0.746	0.884	-18.6	161#	-0.04
3	n-Nitosodimethylamine	0.622	0.716	-15.1	141	0.00
4 S	2-Fluorophenol	0.984	1.141	-16.0	142	-0.02
5	Aniline	1.699	1.872	-10.2	141	-0.02
6 S	Phenol-d6	1.219	1.364	-12.0	133	0.00
7	2-Chlorophenol (8G)	1.147	1.272	-10.9	134	0.00
8 C	Phenol (5G)	1.253	1.386	-10.7#	132	0.00
9	Bis (2-Chloroethyl) Ether (7	1.293	1.242	4.0	94	0.12
10	1,3-Dichlorobenzene (9G)	1.372	1.512	-10.2	133	-0.02
11 C	1,4-Dichlorobenzene (10G)	1.292	1.385	-7.2#	126	0.08
12	1,2-Dichlorobenzene (12G)	0.984	1.035	-5.2	125	-0.03
13	Benzyl Alchohol	0.968	1.076	-11.1	143	0.00
14	Bis (2-Chloroisopropyl) Eth	1.837	1.777	3.3	137	-0.04
15	2-Methylphenol (13G)	1.133	1.201	-6.0	125	0.00
16	Hexachloroethane (17G)	0.517	0.626	-21.2#	153#	-0.04
17	n-Nitosodipropyl Amine (16G)	0.842	0.557	33.9#	110	0.00
18	3/4-Methylphenols (15G)	2.150	2.223	-3.4	134	0.00
19 S	Nitobenzene-d5	1.338	1.468	-9.8	140	-0.02
20	Nitrobenzene (20G)	1.217	1.332	-9.5	138	0.00
21	d8-Naphthalene	1.000	1.000	0.0	131	-0.03
22	Isophorone	0.780	0.840	-7.7	140	0.00
23 C	2-Nitrophenol (22G)	0.235	0.260	-10.9#	134	-0.02
24	2,4-Dimethylphenol (23G)	0.332	0.348	-5.0	129	0.00
25	Bis (2-Chloroethoxy) Methan	0.388	0.430	-10.9	134	0.00
26 C	2,4-Dichlorophenol (26G)	0.321	0.340	-5.7#	125	-0.02
27	1,2,4-Trichlorobenzene (27G)	0.356	0.369	-3.8	128	-0.03
28	Naphthalene (28)	0.991	1.029	-3.9	120	-0.03
29	4-Chloroaniline (29G)	0.469	0.494	-5.4	133	-0.02
30 C	Hexachlorobutadiene (30G)	0.222	0.220	0.9#	117	-0.03
31	p-Chloro-m-Cresol (31G)	0.336	0.356	-5.9	130	-0.02
32	2-Methylnaphthalene (32)	0.602	0.660	-9.7	129	-0.03
33	d10-Acenaphthene	1.000	1.000	0.0	127	-0.04
34 P	Hexachlorocyclopentadiene (3	0.378	0.425	-12.6	133	-0.04
35	2,4,6-Trichlorophenol (35G)	0.586	0.605	-3.2	121	-0.11
36	2,4,5-Trichlorophenol (36G)	0.789	0.833	-5.5	117	-0.02
37 S	2-Fluorobiphenyl	1.478	1.627	-10.1	124	-0.01
38	2-Chloronaphthalene (37G)	1.396	1.542	-10.5	127	-0.02
39	2-Nitroaniline (39G)	0.602	0.684	-13.6	134	-0.01
40	Acenaphthylene (41G)	2.454	2.787	-13.5	122	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : F:\RTE\BNA\F42_D\F4258.D
 Acq Time : 26 MAR 99 6:14 PM Operator: AM9951 REG
 Sample : Inst :
 Misc : SSTD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
41	Dimethyl Phthalate(40G)	1.905	2.042	-7.2	124	-0.01
42	2,6-Dinitrotoluene(42G)	0.553	0.556	-0.6	125	-0.01
43 C	Acenaphthene(44G)	1.527	1.590	-4.2#	119	-0.02
44	3-Nitroaniline(43G)	0.410	0.487	-18.9	136	-0.02
45 P	2,4-Dinitrophenol(45G)	0.480	0.522	-8.7	135	-0.02
46	Dibenzofuran(47G)	2.126	2.334	-9.8	124	-0.02
47 P	4-Nitrophenol(46g)	0.217	0.247	-13.9	142	-0.01
48	2,4-Dinitrotoluene(48G)	0.806	0.834	-3.6	125	-0.02
49	Fluorene(51G)	1.513	1.616	-6.8	110	-0.02
50	Diethyl Phthalate(49G)	1.436	1.628	-13.3	111	-0.02
51	4-Chlorophenyl Phenyl Ether	0.756	0.777	-2.7	111	-0.03
52	4-Nitroaniline(52G)	0.641	0.716	-11.6	136	0.02
53	4,6-Dinitro-2-Methylphenol(	0.454	0.450	0.9	107	0.00
54 C	n-Nitrosodiphenyl Amine(56G	1.108	1.079	2.6#	113	-0.01
55	Azobenzene	1.921	2.099	-9.3	122	-0.02
56 S	2,4,6-Tribromophenol	0.308	0.247	19.8	98	-0.03
57	d10-Phenanthrene	1.000	1.000	0.0	117	-0.04
58	4-Bromophenyl Phenyl ether	0.198	0.198	0.0	110	-0.04
59	Hexachlorobenzene(59G)	0.234	0.217	7.5	102	-0.04
60 C	Pentachlorophenol(60G)	0.161	0.154	4.3#	113	-0.04
61	Phenanthrene(61G)	0.983	1.086	-10.5	115	-0.11
62	Anthracene(62G)	1.008	1.114	-10.5	113	-0.02
63	Carbazole(21S)	0.910	0.997	-9.6	118	-0.04
64	Di-n-butyl Phthalate(63G)	1.019	1.127	-10.5	110	-0.04
65 C	Fluoranthene(64G)	1.116	1.166	-4.5#	108	-0.03
66	d12-Chrysene	1.000	1.000	0.0	98	-0.05
67	Benzidine	0.414	0.482	-16.3	118	-0.05
68	Pyrene(67G)	1.558	1.844	-18.4	108	-0.04
69 S	Terphenyl-d14	0.996	1.041	-4.5	102	-0.04
70	Butylbenzyl Phthalate(69G)	0.773	0.879	-13.8	110	-0.04
71	Benzo-(a)-Anthracene(71G)	1.279	1.370	-7.1	102	-0.15
72	3,3'-Dichlorobenzidine	0.283	0.358	-26.4#	106	-0.04
73	Chrysene(72G)	1.306	1.414	-8.3	101	-0.04
74	Bis(2-Ethylhexyl) Phthalat	1.010	1.122	-11.2	106	-0.04
75	d12-Perylene	1.000	1.000	0.0	98	-0.08
76 C	Di-n-Octyl Phthalate(75G)	2.514	2.705	-7.6#	101	-0.04
77	Benzo-(b)-Fluoranthene(76G)	1.501	1.575	-4.9	104	-0.10
78	Benzo-(k)-Fluoranthene(77G)	1.576	1.524	3.3	93	-0.02
79 C	Benzo-(a)-Pyrene(78G)	1.304	1.349	-3.5#	98	-0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : F:\RTE\BNA\F42_D\F4258.D
 Acq Time : 26 MAR 99 6:14 PM Operator: AM9951 REG
 Sample : Inst :
 Misc : SSTD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
80	Indeno-(1,2,3-cd)-Pyrene(79	0.842	0.905	-7.5	103	-0.02
81	Dibenzo-(a,h)-Anthracene(80	0.691	0.761	-10.1	105	0.00
82	Benzo-(g,h,i)-Perylene(81G	0.647	0.725	-12.1	107	0.00

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4258.D
 Acq Time : 26 MAR 99 6:14 PM Operator: AM9951
 Sample : Inst :
 Misc : SSTD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00
 Quant Time: Mar 24 1:15 1999

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-Dichlorobenzene	7.57	152	96669	40.00	ng/uL	-0.03
21) d8-Naphthalene	10.12	136	363865	40.00	ng/uL	-0.03
33) d10-Acenaphthene	13.85	164	172856	40.00	ng/uL	-0.04
57) d10-Phenanthrene	17.00	188	478003	40.00	ng/uL	-0.04
66) d12-Chrysene	22.71	240	309896	40.00	ng/uL	-0.05
75) d12-Perylene	25.92	264	214349	40.00	ng/uL	-0.08

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.43	112	137879	57.99	ng/uL	29.00%
6) Phenol-d6	7.14	99	164873	55.98	ng/uL	27.99%
19) Nitobenzene-d5	8.74	82	177401	54.88	ng/uL	54.88%
37) 2-Fluorobiphenyl	12.47	172	351454	55.03	ng/uL	55.03%
56) 2,4,6-Tribromophenol	15.57	330	53367	40.08	ng/uL	20.04%
69) Terphenyl-d14	20.46	244	403278	52.25	ng/uL	52.25%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Pyridine	3.34	79	106842	59.29	ng/uL#	100
3) n-Nitosodimethylamine	3.40	74	86562	57.57	ng/uL#	100
5) Aniline	7.08	93	226146	55.08	ng/uL#	74
7) 2-Chlorophenol(8G)	7.28	128	153648	55.43	ng/uL#	77
8) Phenol(5G)	7.16	94	167500	55.34	ng/uL#	72
9) Bis(2-Chloroethyl) Ether(	7.22	93	150024	47.99	ng/uLm	57
10) 1,3-Dichlorobenzene(9G)	7.50	146	182644	55.10	ng/uL#	91
11) 1,4-Dichlorobenzene(10G)	7.60	146	167399	53.59	ng/uLm	88
12) 1,2-Dichlorobenzene(12G)	7.95	146	125099	52.62	ng/uL#	90
13) Benzyl Alcohol	7.97	79	129961	55.55	ng/uL#	79
14) Bis(2-Chloroisopropyl) Et	8.22	45	214679	48.36	ng/uL#	95
15) 2-Methylphenol(13G)	8.25	108	145143	53.01	ng/uL#	100
16) Hexachloroethane(17G)	8.52	117	75647	60.59	ng/uL	97
17) n-Nitosodipropyl Amine(16G)	8.55	70	67259	33.06	ng/uL#	49
18) 3/4-Methylphenols(15G)	8.59	108	268670	51.70	ng/uL#	51
20) Nitrobenzene(20G)	8.78	77	160992	54.74	ng/uL#	93
22) Isophorone	9.27	82	382136	53.86	ng/uL#	98
23) 2-Nitrophenol(22G)	9.42	139	118420	55.45	ng/uL#	66
24) 2,4-Dimethylphenol(23G)	9.60	107	158334	52.50	ng/uL	93
25) Bis(2-Chloroethoxy) Metha	9.77	93	195624	55.45	ng/uL#	100
26) 2,4-Dichlorophenol(26G)	9.92	162	154446	52.85	ng/uL#	88
27) 1,2,4-Trichlorobenzene(27G)	10.05	180	167885	51.90	ng/uL#	92
28) Naphthalene(28)	10.16	128	468206	51.95	ng/uL#	96
29) 4-Chloroaniline(29G)	10.38	127	224678	52.68	ng/uL#	83
30) Hexachlorobutadiene(30G)	10.55	225	100091	49.55	ng/uL#	78
31) p-Chloro-m-Cresol(31G)	11.47	107	161928	52.96	ng/uL#	91
32) 2-Methylnaphthalene(32)	11.61	142	300206	54.84	ng/uL#	51
34) Hexachlorocyclopentadiene(	12.08	237	91889	56.28	ng/uL#	71

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4258.D

Acq Time : 26 MAR 99 6:14 PM

Sample :

Misc : SSTD050, CAL STD M SPB-5 CAP COLUMN

Quant Time: Mar 24 1:15 1999

Operator: AM9951

Inst :

Multiplr: 1.00

Method : C:\METHODS\CF4189.M

Title : BNA STANDARDS FOR 5 POINT CALIBRATION

Last Update : Tue Mar 23 13:25:06 1999

Response via : Multiple Level Calibration

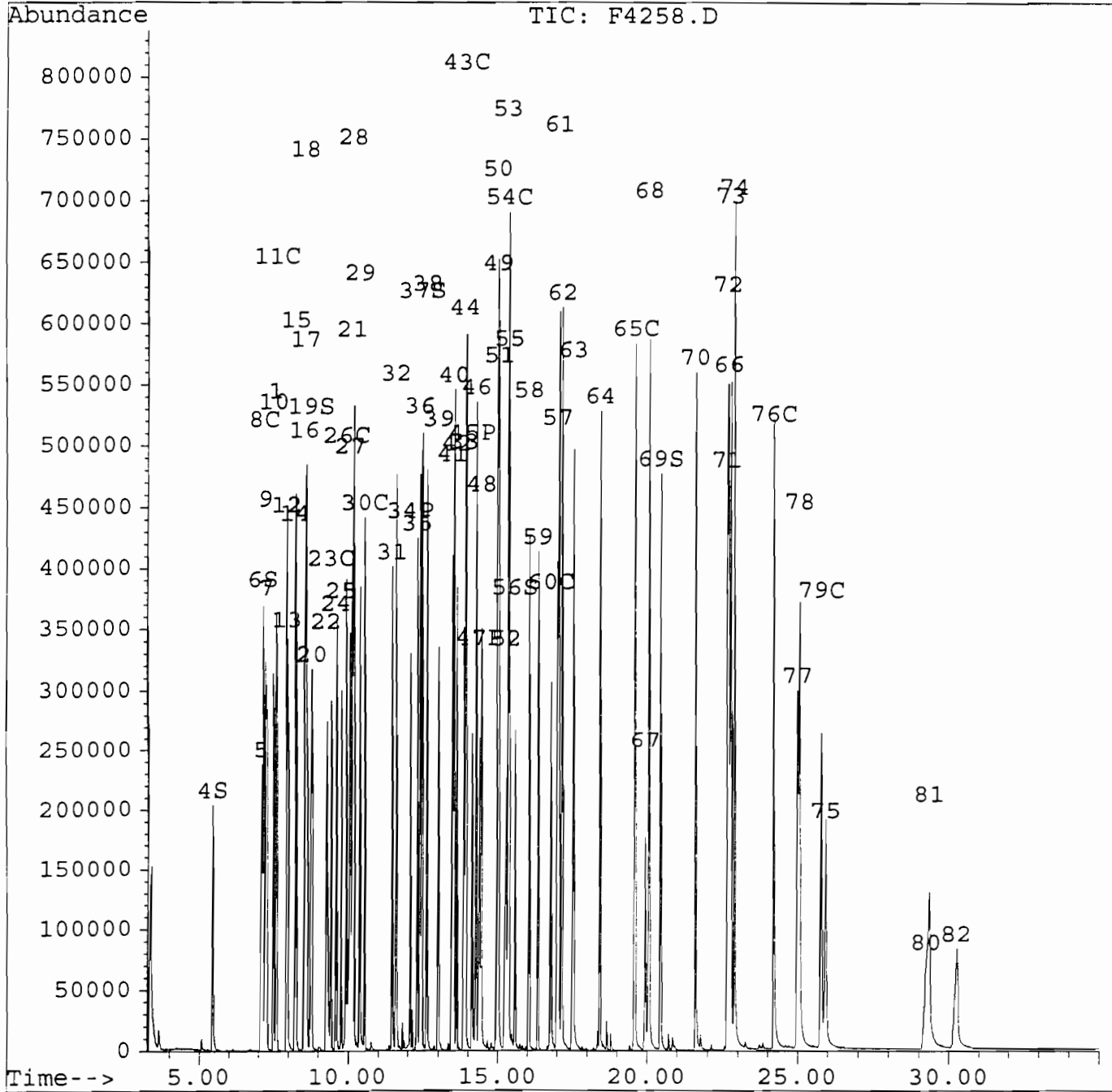
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35) 2,4,6-Trichlorophenol (35G)	12.31	196	130658	51.58	ng/uLm ²	98
36) 2,4,5-Trichlorophenol (36G)	12.39	196	179902	52.77	ng/uL	97
38) 2-Chloronaphthalene (37G)	12.63	162	333255	55.26	ng/uL#	85
39) 2-Nitroaniline (39G)	13.01	65	147852	56.80	ng/uL	92
40) Acenaphthylene (41G)	13.53	152	602096	56.77	ng/uL#	89
41) Dimethyl Phthalate (40G)	13.47	163	441236	53.60	ng/uL#	97
42) 2,6-Dinitrotoluene (42G)	13.62	165	120171	50.29	ng/uL#	72
43) Acenaphthene (44G)	13.93	153	343594	52.09	ng/uL#	83
44) 3-Nitroaniline (43G)	13.90	138	105330	59.45	ng/uL#	100
45) 2,4-Dinitrophenol (45G)	14.13	184	112769	54.37	ng/uL#	80
46) Dibenzofuran (47G)	14.27	168	504255	54.88	ng/uL#	84
47) 4-Nitrophenol (46g)	14.38	109	53345	56.95	ng/uL#	27
48) 2,4-Dinitrotoluene (48G)	14.45	165	180297	51.79	ng/uL#	71
49) Fluorene (51G)	15.01	166	349141	53.38	ng/uL#	54
50) Diethyl Phthalate (49G)	14.98	149	351713	56.67	ng/uL	99
51) 4-Chlorophenyl Phenyl Ethe	15.03	204	167885	51.37	ng/uL#	75
52) 4-Nitroaniline (52G)	15.28	138	154666	55.80	ng/uL#	55
53) 4,6-Dinitro-2-Methylphenol	15.34	198	97195	49.54	ng/uL#	17
54) n-Nitrosodiphenyl Amine (56	15.36	169	233125	48.70	ng/uL#	25
55) Azobenzene	15.38	77	453511	54.63	ng/uL#	71
58) 4-Bromophenyl Phenyl ether	16.05	248	118138	49.98	ng/uL	99
59) Hexachlorobenzene (59G)	16.35	284	129375	46.27	ng/uL#	88
60) Pentachlorophenol (60G)	16.78	266	92120	47.85	ng/uL#	77
61) Phenanthrene (61G)	17.06	178	649162	55.27	ng/uL#	90
62) Anthracene (62G)	17.15	178	665401	55.26	ng/uLm	90
63) Carbazole (21S)	17.54	167	595893	54.82	ng/uL#	92
64) Di-n-butyl Phthalate (63G)	18.43	149	673215	55.26	ng/uL#	99
65) Fluoranthene (64G)	19.61	202	696978	52.24	ng/uL#	94
67) Benzidine	19.94	184	186520	58.17	ng/uL#	96
68) Pyrene (67G)	20.08	202	714314	59.19	ng/uL#	95
70) Butylbenzyl Phthalate (69G)	21.61	149	340653	56.90	ng/uL#	70
71) Benzo- (a) -Anthracene (71G)	22.66	228	530591	53.55	ng/uLm ²	90
72) 3,3'-Dichlorobenzidine	22.69	252	138800	63.20	ng/uL#	97
73) Chrysene (72G)	22.77	228	547912	54.14	ng/uL#	89
74) Bis (2-Ethylhexyl) Phthala	22.90	149	434776	55.58	ng/uL	98
76) Di-n-Octyl Phthalate (75G)	24.20	149	724750	53.80	ng/uL	100
77) Benzo- (b) -Fluoranthene (76G	24.99	252	421870	52.45	ng/uL#	97
78) Benzo- (k) -Fluoranthene (77G	25.07	252	408338	48.36	ng/uLm ²	98
79) Benzo- (a) -Pyrene (78G)	25.78	252	361567	51.75	ng/uL ²	98
80) Indeno- (1,2,3-cd) -Pyrene (7	29.27	276	242428	53.73	ng/uL#	90
81) Dibenzo- (a,h) -Anthracene (8	29.37	278	203807	55.03	ng/uL	96
82) Benzo- (g,h,i) - Perylene (81	30.28	276	194150	56.03	ng/uL	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4258.D
Acq Time : Data Taken: 3/26/99 @ 18:14 Operator: AM9951
Sample : Inst :
Misc : SSTD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00
Quant Time: Mar 24 1:15 1999

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



ICM LABORATORIES QUALITY CONTROL REPORT

CONTINUING CALIBRATION SUMMARY OF INJECTIONS

INSTRUMENT ID: 5970_4
 GC COLUMNS USED: DB-5
 INJECTION DATE: 3/29/99

DATA FILE: F4276.D
 METHOD: 8270
 INJECT TIME: 11:58

SAMPLE NUMBER	DATA FILE	DATE OF ANALYSIS	TIME OF ANALYSIS
306393, QC8167 M S	F4277.D	3/29/99	13:56
306390, QC8167 M S	F4278.D	3/29/99	14:42
306390MS, QC8167 M	F4284.D	3/29/99	20:00
306390MSDQC8167 M	F4285.D	3/29/99	20:46

S = Spike Sample

Evaluate Continuing Calibration Report

Data File : F:\RTE\BNA\F42_D\F4276.D
 Acq Time : 29 MAR 99 11:58 AM Operator: AM9951 REG
 Sample : Inst :
 Misc : SSTD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
1	d4-Dichlorobenzene	1.000	1.000	0.0	135	-0.07
2	Pyridine	0.746	0.696	6.7	132	-0.06
3	n-Nitosodimethylamine	0.622	0.694	-11.6	142	-0.04
4 S	2-Fluorophenol	0.984	1.115	-13.4	144	-0.06
5	Aniline	1.699	1.889	-11.2	148	-0.06
6 S	Phenol-d6	1.219	1.378	-13.1	140	-0.04
7	2-Chlorophenol (8G)	1.147	1.266	-10.4	138	-0.05
8 C	Phenol (5G)	1.253	1.401	-11.9#	139	-0.04
9	Bis (2-Chloroethyl) Ether (7	1.293	1.232	4.7	96	0.07
10	1,3-Dichlorobenzene (9G)	1.372	1.475	-7.6	135	-0.06
11 C	1,4-Dichlorobenzene (10G)	1.292	1.384	-7.1#	131	0.04
12	1,2-Dichlorobenzene (12G)	0.984	1.022	-3.8	128	-0.07
13	Benzyl Alchohol	0.968	1.072	-10.7	148	-0.04
14	Bis (2-Chloroisopropyl) Eth	1.837	1.767	3.8	142	-0.08
15	2-Methylphenol (13G)	1.133	1.184	-4.5	128	-0.05
16	Hexachloroethane (17G)	0.517	0.626	-21.1#	158#	-0.08
17	n-Nitosodipropyl Amine (16G)	0.842	0.600	28.7#	123	0.03
18	3/4-Methylphenols (15G)	2.150	2.240	-4.2	140	-0.03
19 S	Nitobenzene-d5	1.338	1.475	-10.3	146	-0.06
20	Nitrobenzene (20G)	1.217	1.324	-8.8	143	-0.05
21	d8-Naphthalene	1.000	1.000	0.0	138	-0.07
22	Isophorone	0.780	0.861	-10.4	151#	-0.05
23 C	2-Nitrophenol (22G)	0.235	0.262	-11.6#	142	-0.07
24	2,4-Dimethylphenol (23G)	0.332	0.341	-3.0	134	-0.05
25	Bis (2-Chloroethoxy) Methan	0.388	0.428	-10.5	141	-0.06
26 C	2,4-Dichlorophenol (26G)	0.321	0.344	-7.0#	133	-0.06
27	1,2,4-Trichlorobenzene (27G)	0.356	0.377	-6.1	138	-0.08
28	Naphthalene (28)	0.991	1.026	-3.5	126	-0.07
29	4-Chloroaniline (29G)	0.469	0.497	-6.0	141	-0.06
30 C	Hexachlorobutadiene (30G)	0.222	0.222	0.0#	124	-0.08
31	p-Chloro-m-Cresol (31G)	0.336	0.360	-7.0	138	-0.07
32	2-Methylnaphthalene (32)	0.602	0.664	-10.4	137	-0.07
33	d10-Acenaphthene	1.000	1.000	0.0	139	-0.10
34 P	Hexachlorocyclopentadiene (3	0.378	0.427	-12.9	147	-0.09
35	2,4,6-Trichlorophenol (35G)	0.586	0.603	-2.9	132	-0.16
36	2,4,5-Trichlorophenol (36G)	0.789	0.814	-3.2	126	-0.07
37 S	2-Fluorobiphenyl	1.478	1.600	-8.2	134	-0.07
38	2-Chloronaphthalene (37G)	1.396	1.516	-8.6	137	-0.08
39	2-Nitroaniline (39G)	0.602	0.688	-14.3	148	-0.07
40	Acenaphthylene (41G)	2.454	2.668	-8.7	129	-0.08

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : F:\RTE\BNA\F42_D\F4276.D
 Acq Time : 29 MAR 99 11:58 AM Operator: AM9951 REG
 Sample : Inst :
 Misc : SSTD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
41	Dimethyl Phthalate (40G)	1.905	2.049	-7.6	136	-0.07
42	2,6-Dinitrotoluene (42G)	0.553	0.573	-3.6	141	-0.06
43 C	Acenaphthene (44G)	1.527	1.520	0.4#	125	-0.07
44	3-Nitroaniline (43G)	0.410	0.497	-21.2#	153#	-0.07
45 P	2,4-Dinitrophenol (45G)	0.480	0.562	-17.2	160#	-0.07
46	Dibenzofuran (47G)	2.126	2.333	-9.7	137	-0.08
47 P	4-Nitrophenol (46g)	0.217	0.254	-17.2	160#	-0.05
48	2,4-Dinitrotoluene (48G)	0.806	0.861	-6.8	142	-0.06
49	Fluorene (51G)	1.513	1.507	0.4	113	-0.07
50	Diethyl Phthalate (49G)	1.436	1.497	-4.2	112	-0.06
51	4-Chlorophenyl Phenyl Ether	0.756	0.796	-5.2	125	-0.08
52	4-Nitroaniline (52G)	0.641	0.773	-20.5#	161#	-0.02
53	4,6-Dinitro-2-Methylphenol (	0.454	0.448	1.3	118	-0.04
54 C	n-Nitrosodiphenyl Amine (56G	1.108	1.084	2.2#	125	-0.05
55	Azobenzene	1.921	2.004	-4.3	128	-0.07
56 S	2,4,6-Tribromophenol	0.308	0.272	11.6	118	-0.07
57	d10-Phenanthrene	1.000	1.000	0.0	133	-0.09
58	4-Bromophenyl Phenyl ether	0.198	0.200	-1.3	127	-0.08
59	Hexachlorobenzene (59G)	0.234	0.223	4.5	119	-0.08
60 C	Pentachlorophenol (60G)	0.161	0.166	-3.1#	138	-0.08
61	Phenanthrene (61G)	0.983	1.065	-8.3	128	-0.17
62	Anthracene (62G)	1.008	1.057	-4.9	121	-0.07
63	Carbazole (21S)	0.910	0.992	-9.1	133	-0.08
64	Di-n-butyl Phthalate (63G)	1.019	1.093	-7.2	121	-0.08
65 C	Fluoranthene (64G)	1.116	1.171	-4.9#	123	-0.08
66	d12-Chrysene	1.000	1.000	0.0	116	-0.10
67	Benzidine	0.414	0.464	-12.1	135	-0.10
68	Pyrene (67G)	1.558	1.817	-16.7	125	-0.08
69 S	Terphenyl-d14	0.996	1.062	-6.6	123	-0.08
70	Butylbenzyl Phthalate (69G)	0.773	0.899	-16.3	132	-0.08
71	Benzo- (a) -Anthracene (71G)	1.279	1.413	-10.5	124	-0.19
72	3,3'-Dichlorobenzidine	0.283	0.354	-24.8#	123	-0.09
73	Chrysene (72G)	1.306	1.365	-4.5	115	-0.08
74	Bis (2-Ethylhexyl) Phthalat	1.010	1.138	-12.7	127	-0.08
75	d12-Perylene	1.000	1.000	0.0	94	-0.15
76 C	Di-n-Octyl Phthalate (75G)	2.514	2.783	-10.7#	100	-0.08
77	Benzo- (b) -Fluoranthene (76G)	1.501	1.749	-16.5	110	-0.16
78	Benzo- (k) -Fluoranthene (77G)	1.576	1.616	-2.6	95	-0.09
79 C	Benzo- (a) -Pyrene (78G)	1.304	1.375	-5.5#	96	-0.11

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : F:\RTE\BNA\F42_D\F4276.D
 Acq Time : 29 MAR 99 11:58 AM Operator: AM9951 REG
 Sample : Inst :
 Misc : SSTD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
80	Indeno-(1,2,3-cd)-Pyrene(79	0.842	0.667	20.8#	73	-0.14
81	Dibenzo-(a,h)-Anthracene(80	0.691	0.563	18.6	74	-0.14
82	Benzo-(g,h,i)-Perylene(81G	0.647	0.579	10.4	82	-0.15

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4276.D
 Acq Time : Data Taken: 3/29/99 @ 11:58 Operator: AM9951
 Sample : Inst :
 Misc : SSTD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00
 Quant Time: Mar 24 2:59 1999

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-Dichlorobenzene	7.53	152	100366	40.00	ng/uL	-0.07
21) d8-Naphthalene	10.08	136	383271	40.00	ng/uL	-0.07
33) d10-Acenaphthene	13.80	164	189782	40.00	ng/uL	-0.10
57) d10-Phenanthrene	16.94	188	543517	40.00	ng/uL	-0.09
66) d12-Chrysene	22.66	240	366400	40.00	ng/uL	-0.10
75) d12-Perylene	25.85	264	205256	40.00	ng/uL	-0.15

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.39	112	139945	56.69	ng/uL	28.35%
6) Phenol-d6	7.10	99	172898	56.55	ng/uL	28.27%
19) Nitobenzene-d5	8.70	82	185104	55.15	ng/uL	55.15%
37) 2-Fluorobiphenyl	12.42	172	379471	54.12	ng/uL	54.12%
56) 2,4,6-Tribromophenol	15.53	330	64617	44.21	ng/uL	22.10%
69) Terphenyl-d14	20.42	244	486321	53.29	ng/uL	53.29%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Pyridine	3.32	79	87303	46.66	ng/uL#	100
3) n-Nitosodimethylamine	3.36	74	87089	55.78	ng/uL#	100
5) Aniline	7.04	93	237017	55.60	ng/uL#	74
7) 2-Chlorophenol (8G)	7.24	128	158881	55.21	ng/uL#	77
8) Phenol (5G)	7.12	94	175788	55.94	ng/uL#	72
9) Bis (2-Chloroethyl) Ether (	7.18	93	154606	47.64	ng/uLm ^{0.5}	57
10) 1,3-Dichlorobenzene (9G)	7.46	146	185084	53.78	ng/uL#	90
11) 1,4-Dichlorobenzene (10G)	7.56	146	173642	53.54	ng/uLm ^{0.5}	88
12) 1,2-Dichlorobenzene (12G)	7.91	146	128159	51.92	ng/uL#	90
13) Benzyl Alchohol	7.93	79	134507	55.37	ng/uL#	79
14) Bis (2-Chloroisopropyl) Et	8.18	45	221711	48.11	ng/uL#	95
15) 2-Methylphenol (13G)	8.21	108	148518	52.25	ng/uL#	100
16) Hexachloroethane (17G)	8.48	117	78490	60.55	ng/uL	96
17) n-Nitosodipropyl Amine (16G)	8.59	70	75315	35.65	ng/uL#	49
18) 3/4-Methylphenols (15G)	8.54	108	281083	52.10	ng/uL#	51
20) Nitrobenzene (20G)	8.74	77	166080	54.39	ng/uL#	92
22) Isophorone	9.22	82	412610	55.21	ng/uL	98
23) 2-Nitrophenol (22G)	9.37	139	125572	55.82	ng/uL#	66
24) 2,4-Dimethylphenol (23G)	9.55	107	163577	51.49	ng/uL	93
25) Bis (2-Chloroethoxy) Metha	9.72	93	205217	55.23	ng/uL	100
26) 2,4-Dichlorophenol (26G)	9.88	162	164751	53.52	ng/uL#	89
27) 1,2,4-Trichlorobenzene (27G)	10.00	180	180689	53.03	ng/uL	98
28) Naphthalene (28)	10.12	128	491502	51.77	ng/uL#	96
29) 4-Chloroaniline (29G)	10.34	127	238143	53.01	ng/uL#	83
30) Hexachlorobutadiene (30G)	10.50	225	106352	49.98	ng/uL#	78
31) p-Chloro-m-Cresol (31G)	11.42	107	172314	53.50	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.56	142	318254	55.20	ng/uL#	51
34) Hexachlorocyclopentadiene (	12.03	237	101192	56.45	ng/uL#	71

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4276.D
 Acq Time : Data Taken: 3/29/99 @ 11:58 Operator: AM9951
 Sample : Inst :
 Misc : SSTD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00
 Quant Time: Mar 24 2:59 1999

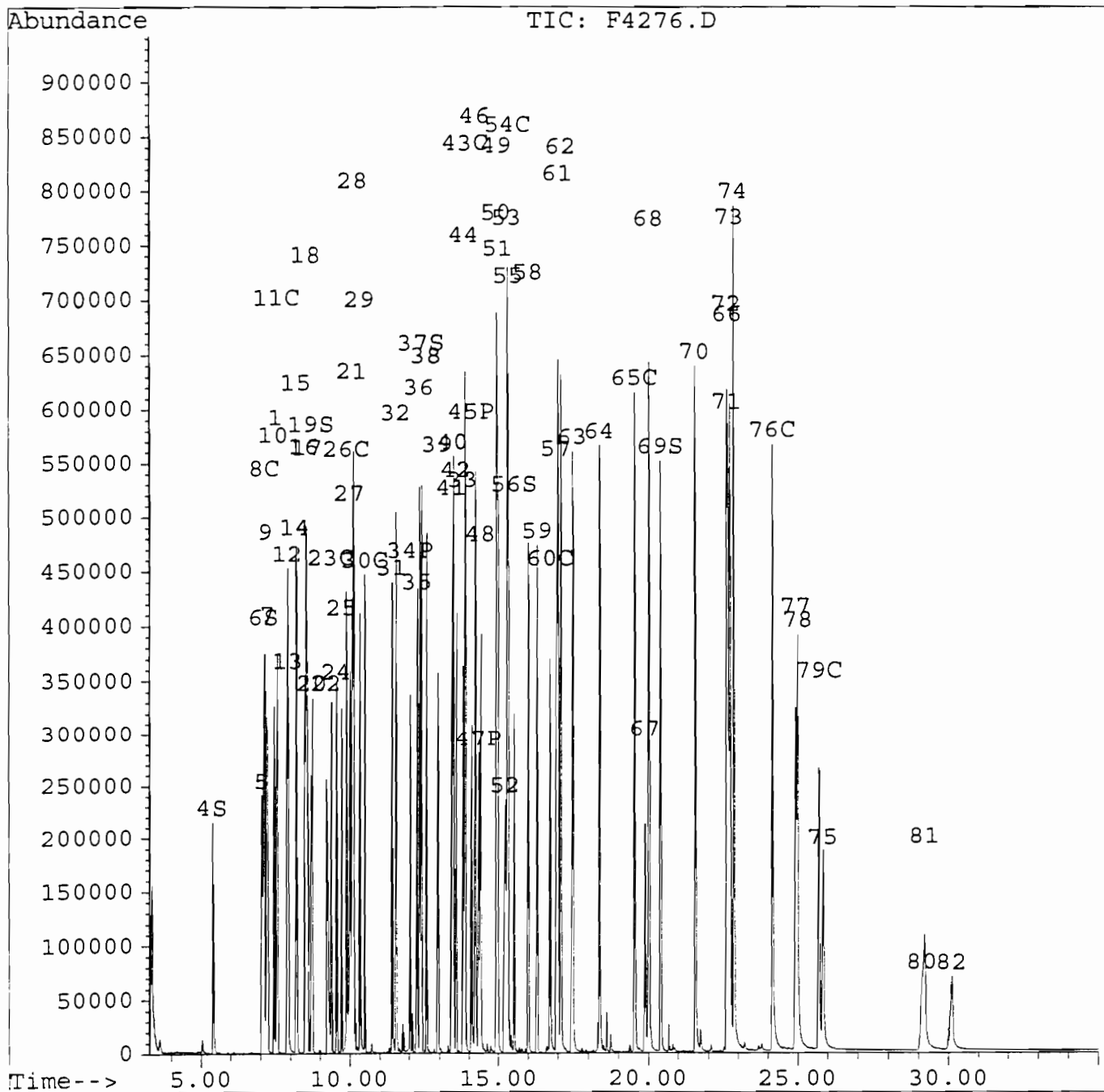
Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35) 2,4,6-Trichlorophenol (35G)	12.26	196	143057	51.44	ng/uLm	100
36) 2,4,5-Trichlorophenol (36G)	12.35	196	193122	51.60	ng/uL	99
38) 2-Chloronaphthalene (37G)	12.58	162	359558	54.30	ng/uL	98
39) 2-Nitroaniline (39G)	12.95	65	163308	57.14	ng/uL	91
40) Acenaphthylene (41G)	13.47	152	632815	54.34	ng/uL#	89
41) Dimethyl Phthalate (40G)	13.42	163	486066	53.78	ng/uL	99
42) 2,6-Dinitrotoluene (42G)	13.58	165	135886	51.79	ng/uL#	72
43) Acenaphthene (44G)	13.89	153	360577	49.79	ng/uL#	83
44) 3-Nitroaniline (43G)	13.86	138	117886	60.61	ng/uL#	100
45) 2,4-Dinitrophenol (45G)	14.09	184	133410	58.58	ng/uL#	61
46) Dibenzofuran (47G)	14.22	168	553530	54.87	ng/uL#	84
47) 4-Nitrophenol (46g)	14.34	109	60290	58.62	ng/uL#	23
48) 2,4-Dinitrotoluene (48G)	14.41	165	204144	53.41	ng/uL#	71
49) Fluorene (51G)	14.96	166	357433	49.78	ng/uL#	54
50) Diethyl Phthalate (49G)	14.94	149	355061	52.10	ng/uL	98
51) 4-Chlorophenyl Phenyl Ethe	14.98	204	188772	52.61	ng/uL	96
52) 4-Nitroaniline (52G)	15.24	138	183409	60.27	ng/uL#	55
53) 4,6-Dinitro-2-Methylphenol	15.30	198	106316	49.36	ng/uL#	17
54) n-Nitrosodiphenyl Amine (56	15.31	169	257066	48.91	ng/uL#	25
55) Azobenzene	15.33	77	475440	52.16	ng/uL#	71
58) 4-Bromophenyl Phenyl ether	16.01	248	136186	50.67	ng/uL#	79
59) Hexachlorobenzene (59G)	16.31	284	151736	47.73	ng/uL#	80
60) Pentachlorophenol (60G)	16.73	266	112847	51.55	ng/uL#	77
61) Phenanthrene (61G)	17.01	178	723488	54.17	ng/uL#	94
62) Anthracene (62G)	17.10	178	718402	52.47	ng/uLm	94
63) Carbazole (21S)	17.49	167	674175	54.55	ng/uL#	89
64) Di-n-butyl Phthalate (63G)	18.39	149	742706	53.62	ng/uL#	99
65) Fluoranthene (64G)	19.56	202	795409	52.43	ng/uL	100
67) Benzidine	19.89	184	212569	56.07	ng/uL#	97
68) Pyrene (67G)	20.03	202	832215	58.33	ng/uL#	92
70) Butylbenzyl Phthalate (69G)	21.57	149	411779	58.17	ng/uL#	70
71) Benzo- (a) -Anthracene (71G)	22.62	228	647145	55.24	ng/uL#	90
72) 3,3'-Dichlorobenzidine	22.64	252	162000	62.39	ng/uL#	98
73) Chrysene (72G)	22.73	228	625350	52.26	ng/uLm	89
74) Bis (2-Ethylhexyl) Phthala	22.86	149	521138	56.34	ng/uL	98
76) Di-n-Octyl Phthalate (75G)	24.16	149	713917	55.34	ng/uLm	100
77) Benzo- (b) -Fluoranthene (76G)	24.93	252	448860	58.27	ng/uL#	97
78) Benzo- (k) -Fluoranthene (77G)	25.01	252	414712	51.29	ng/uLm	98
79) Benzo- (a) -Pyrene (78G)	25.71	252	352879	52.75	ng/uL	98
80) Indeno- (1,2,3-cd) -Pyrene (7	29.14	276	171082	39.60	ng/uL#	96
81) Dibenzo- (a,h) -Anthracene (8	29.23	278	144384	40.72	ng/uL#	93
82) Benzo- (g,h,i) - Perylene (81	30.12	276	148630	44.79	ng/uLm	84

Quantitation Report

Data File : F:\RTE\BNA\F42 D\F4276.D
Acq Time : Data Taken: 3/29/99 @ 11:58 Operator: AM9951
Sample : Inst :
Misc : SSTD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00
Quant Time: Mar 24 2:59 1999

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



ICM LABORATORIES QUALITY CONTROL REPORT

CONTINUING CALIBRATION SUMMARY OF INJECTIONS

INSTRUMENT ID: 5970_4
GC COLUMNS USED: DB-5
INJECTION DATE: 3/30/99

DATA FILE: F4289.D
METHOD: 8270
INJECT TIME: 13:19

SAMPLE NUMBER	DATA FILE	DATE OF ANALYSIS	TIME OF ANALYSIS
306394 5X, QC8167 M	F4292.D	3/30/99	16:15
306392 10X, QC8167	F4293.D	3/30/99	17:00
306395 , QC8167 M S	F4294.D	3/30/99	17:46
306391 , QC8167 M S	F4295.D	3/30/99	18:31
306396 , QC8167 M S	F4296.D	3/30/99	19:17

S = Spike Sample

Evaluate Continuing Calibration Report

Data File : F:\RTE\BNA\F42_D\F4289.D
 Acq Time : Data Taken: 3/30/99 @ 13:19 Operator: AM9951 REG
 Sample : Inst :
 Misc : STD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
1	d4-Dichlorobenzene	1.000	1.000	0.0	124	-0.05
2	Pyridine	0.746	0.951	-27.5#	165#	0.00
3	n-Nitosodimethylamine	0.622	0.744	-19.7	140	0.02
4 S	2-Fluorophenol	0.984	1.119	-13.7	133	-0.03
5	Aniline	1.699	1.861	-9.5	133	-0.03
6 S	Phenol-d6	1.219	1.420	-16.5	132	-0.02
7	2-Chlorophenol (8G)	1.147	1.327	-15.7	133	-0.03
8 C	Phenol (5G)	1.253	1.472	-17.5#	134	-0.02
9	Bis (2-Chloroethyl) Ether (7	1.293	1.357	-4.9	97	0.11
10	1,3-Dichlorobenzene (9G)	1.372	1.624	-18.4	136	-0.04
11 C	1,4-Dichlorobenzene (10G)	1.292	1.541	-19.2#	133	0.07
12	1,2-Dichlorobenzene (12G)	0.984	1.166	-18.5	134	-0.04
13	Benzyl Alcohol	0.968	1.102	-13.8	139	0.00
14	Bis (2-Chloroisopropyl) Eth	1.837	2.285	-24.4#	168#	-0.05
15	2-Methylphenol (13G)	1.133	1.332	-17.6	132	-0.03
16	Hexachloroethane (17G)	0.517	0.658	-27.5#	153#	-0.05
17	n-Nitosodipropyl Amine (16G)	0.842	0.896	-6.4	168#	-0.02
18	3/4-Methylphenols (15G)	2.150	2.099	2.4	120	-0.01
19 S	Nitobenzene-d5	1.338	1.494	-11.7	135	-0.03
20	Nitrobenzene (20G)	1.217	1.369	-12.5	135	-0.03
21	d8-Naphthalene	1.000	1.000	0.0	117	-0.05
22	Isophorone	0.780	0.847	-8.6	126	-0.03
23 C	2-Nitrophenol (22G)	0.235	0.274	-16.5#	126	-0.04
24	2,4-Dimethylphenol (23G)	0.332	0.354	-6.8	118	-0.03
25	Bis (2-Chloroethoxy) Methan	0.388	0.405	-4.5	113	-0.04
26 C	2,4-Dichlorophenol (26G)	0.321	0.384	-19.5#	126	-0.04
27	1,2,4-Trichlorobenzene (27G)	0.356	0.416	-17.1	129	-0.05
28	Naphthalene (28)	0.991	1.246	-25.7#	130	-0.05
29	4-Chloroaniline (29G)	0.469	0.536	-14.2	129	-0.04
30 C	Hexachlorobutadiene (30G)	0.222	0.260	-17.1#	124	-0.05
31	p-Chloro-m-Cresol (31G)	0.336	0.369	-9.9	120	-0.04
32	2-Methylnaphthalene (32)	0.602	0.728	-21.0#	127	-0.05
33	d10-Acenaphthene	1.000	1.000	0.0	104	-0.06
34 P	Hexachlorocyclopentadiene (3	0.378	0.459	-21.5#	117	-0.06
35	2,4,6-Trichlorophenol (35G)	0.586	0.706	-20.4#	115	-0.13
36	2,4,5-Trichlorophenol (36G)	0.789	0.936	-18.7	107	-0.04
37 S	2-Fluorobiphenyl	1.478	1.907	-29.0#	119	-0.03
38	2-Chloronaphthalene (37G)	1.396	1.797	-28.8#	120	-0.04
39	2-Nitroaniline (39G)	0.602	0.720	-19.5	115	-0.03
40	Acenaphthylene (41G)	2.454	3.152	-28.4#	113	-0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : F:\RTE\BNA\F42_D\F4289.D
 Acq Time : Data Taken: 3/30/99 @ 13:19 Operator: AM9951 REG
 Sample : Inst :
 Misc : STD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
41	Dimethyl Phthalate (40G)	1.905	2.065	-8.4	102	-0.04
42	2,6-Dinitrotoluene (42G)	0.553	0.560	-1.3	103	-0.03
43 C	Acenaphthene (44G)	1.527	1.747	-14.4#	107	-0.04
44	3-Nitroaniline (43G)	0.410	0.553	-34.8#	126	-0.04
45 P	2,4-Dinitrophenol (45G)	0.480	0.475	1.1	100	-0.04
46	Dibenzofuran (47G)	2.126	2.618	-23.1#	114	-0.05
47 P	4-Nitrophenol (46g)	0.217	0.215	0.8	101	-0.04
48	2,4-Dinitrotoluene (48G)	0.806	0.818	-1.6	100	-0.04
49	Fluorene (51G)	1.513	1.910	-26.2#	106	-0.05
50	Diethyl Phthalate (49G)	1.436	1.759	-22.4#	97	-0.04
51	4-Chlorophenyl Phenyl Ether	0.756	0.897	-18.6	104	-0.05
52	4-Nitroaniline (52G)	0.641	0.629	2.0	97	-0.02
53	4,6-Dinitro-2-Methylphenol (	0.454	0.457	-0.8	89	-0.03
54 C	n-Nitrosodiphenyl Amine (56G	1.108	1.196	-7.9#	102	-0.04
55	Azobenzene	1.921	2.343	-22.0#	111	-0.05
56 S	2,4,6-Tribromophenol	0.308	0.262	14.9	84	-0.05
57	d10-Phenanthrene	1.000	1.000	0.0	86	-0.07
58	4-Bromophenyl Phenyl ether	0.198	0.235	-18.7	97	-0.05
59	Hexachlorobenzene (59G)	0.234	0.249	-6.5	87	-0.06
60 C	Pentachlorophenol (60G)	0.161	0.154	4.5#	83	-0.06
61	Phenanthrene (61G)	0.983	1.227	-24.9#	96	-0.14
62	Anthracene (62G)	1.008	1.250	-24.0#	94	-0.05
63	Carbazole (21S)	0.910	0.997	-9.6	87	-0.06
64	Di-n-butyl Phthalate (63G)	1.019	1.224	-20.1#	89	-0.06
65 C	Fluoranthene (64G)	1.116	1.087	2.7#	74	-0.06
66	d12-Chrysene	1.000	1.000	0.0	46#	-0.08
67	Benzidine	0.414	0.412	0.4	47#	-0.07
68	Pyrene (67G)	1.558	2.752	-76.7#	75	-0.06
69 S	Terphenyl-d14	0.996	1.453	-45.8#	67	-0.06
70	Butylbenzyl Phthalate (69G)	0.773	1.054	-36.4#	62	-0.06
71	Benzo- (a) -Anthracene (71G)	1.279	1.558	-21.8#	54	-0.18
72	3,3'-Dichlorobenzidine	0.283	0.346	-21.9#	48#	-0.07
73	Chrysene (72G)	1.306	1.505	-15.2	50	-0.08
74	Bis (2-Ethylhexyl) Phthalat	1.010	1.331	-31.8#	59	-0.06
75	d12-Perylene	1.000	1.000	0.0	38#	-0.11
76 C	Di-n-Octyl Phthalate (75G)	2.514	2.852	-13.5#	42#	-0.06
77	Benzo- (b) -Fluoranthene (76G)	1.501	1.769	-17.9	45#	-0.13
78	Benzo- (k) -Fluoranthene (77G)	1.576	1.647	-4.5	39#	-0.07
79 C	Benzo- (a) -Pyrene (78G)	1.304	1.500	-15.0#	43#	-0.08

(#) = Out of Range

484

Evaluate Continuing Calibration Report

Data File : F:\RTE\BNA\F42_D\F4289.D
 Acq Time : Data Taken: 3/30/99 @ 13:19 Operator: AM9951 REG
 Sample : Inst :
 Misc : STD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
80	Indeno-(1,2,3-cd)-Pyrene(79	0.842	1.084	-28.7#	48#	-0.09
81	Dibenzo-(a,h)-Anthracene(80	0.691	0.868	-25.6#	47#	-0.09
82	Benzo-(g,h,i)-Perylene(81G	0.647	0.870	-34.6#	50	-0.09

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4289.D
 Acq Time : Data Taken: 3/30/99 @ 13:19 Operator: AM9951
 Sample : Inst :
 Misc : STD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00
 Quant Time: Mar 30 14:27 1999

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-Dichlorobenzene	7.55	152	91987	40.00	ng/uL	-0.05
21) d8-Naphthalene	10.10	136	325602	40.00	ng/uL	-0.05
33) d10-Acenaphthene	13.83	164	140962	40.00	ng/uL	-0.06
57) d10-Phenanthrene	16.96	188	354565	40.00	ng/uL	-0.07
66) d12-Chrysene	22.68	240	145287	40.00	ng/uL	-0.08
75) d12-Perylene	25.88	264	83587	40.00	ng/uL	-0.11

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.42	112	128624	56.85	ng/uL	28.43%
6) Phenol-d6	7.12	99	163243	58.25	ng/uL	29.13%
19) Nitobenzene-d5	8.73	82	171735	55.83	ng/uL	55.83%
37) 2-Fluorobiphenyl	12.45	172	335979	64.51	ng/uL	64.51%
56) 2,4,6-Tribromophenol	15.55	330	46185	42.54	ng/uL	21.27%
69) Terphenyl-d14	20.44	244	263847	72.91	ng/uL	72.91%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Pyridine	3.37	79	109344	63.77	ng/uL#	100
3) n-Nitosodimethylamine	3.43	74	85605	59.83	ng/uL#	100
5) Aniline	7.07	93	213980	54.77	ng/uL#	74
7) 2-Chlorophenol (8G)	7.26	128	152620	57.86	ng/uL#	77
8) Phenol (5G)	7.14	94	169276	58.77	ng/uLm	72
9) Bis (2-Chloroethyl) Ether (	7.21	93	155987	52.44	ng/uLm	57
10) 1,3-Dichlorobenzene (9G)	7.48	146	186680	59.18	ng/uL	99
11) 1,4-Dichlorobenzene (10G)	7.59	146	177135	59.60	ng/uLm	88
12) 1,2-Dichlorobenzene (12G)	7.94	146	134041	59.25	ng/uL#	90
13) Benzyl Alchohol	7.96	79	126701	56.91	ng/uL#	54
14) Bis (2-Chloroisopropyl) Et	8.21	45	262715	62.20	ng/uL#	95
15) 2-Methylphenol (13G)	8.23	108	153185	58.80	ng/uL#	100
16) Hexachloroethane (17G)	8.51	117	75712	63.73	ng/uL	96
17) n-Nitosodipropyl Amine (16G)	8.53	70	102973	53.18	ng/uLm	49
18) 3/4-Methylphenols (15G)	8.57	108	241314	48.80	ng/uL#	51
20) Nitrobenzene (20G)	8.76	77	157380	56.24	ng/uL#	93
22) Isophorone	9.24	82	344884	54.32	ng/uL	98
23) 2-Nitrophenol (22G)	9.40	139	111335	58.26	ng/uLm	90
24) 2,4-Dimethylphenol (23G)	9.57	107	144103	53.40	ng/uL	93
25) Bis (2-Chloroethoxy) Metha	9.74	93	164888	52.23	ng/uL	100
26) 2,4-Dichlorophenol (26G)	9.90	162	156208	59.73	ng/uL#	89
27) 1,2,4-Trichlorobenzene (27G)	10.03	180	169431	58.54	ng/uL#	92
28) Naphthalene (28)	10.14	128	507118	62.87	ng/uL#	96
29) 4-Chloroaniline (29G)	10.36	127	218023	57.12	ng/uL#	83
30) Hexachlorobutadiene (30G)	10.53	225	105829	58.55	ng/uL#	77
31) p-Chloro-m-Cresol (31G)	11.45	107	150387	54.96	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.59	142	296379	60.51	ng/uL#	51
34) Hexachlorocyclopentadiene (	12.06	237	80894	60.75	ng/uL#	71

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4289.D
 Acq Time : Data Taken: 3/30/99 @ 13:19 Operator: AM9951
 Sample : Inst :
 Misc : STD050, CAL STD M SPB-5 CAP COLUMN Multiplr: 1.00
 Quant Time: Mar 30 14:27 1999

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35) 2,4,6-Trichlorophenol (35G)	12.29	196	124357	60.20	ng/uL ^m	100
36) 2,4,5-Trichlorophenol (36G)	12.37	196	165004	59.35	ng/uL ⁽³¹³⁾	98
38) 2-Chloronaphthalene (37G)	12.61	162	316632	64.38	ng/uL#	85
39) 2-Nitroaniline (39G)	12.99	65	126816	59.74	ng/uL#	46
40) Acenaphthylene (41G)	13.51	152	555317	64.20	ng/uL#	89
41) Dimethyl Phthalate (40G)	13.44	163	363910	54.21	ng/uL	99
42) 2,6-Dinitrotoluene (42G)	13.60	165	98724	50.66	ng/uL#	72
43) Acenaphthene (44G)	13.91	153	307816	57.22	ng/uL ^m	83
44) 3-Nitroaniline (43G)	13.88	138	97355	67.39	ng/uL# ⁽³¹³⁾	100
45) 2,4-Dinitrophenol (45G)	14.11	184	83661	49.46	ng/uL#	61
46) Dibenzofuran (47G)	14.24	168	461334	61.57	ng/uL	98
47) 4-Nitrophenol (46g)	14.35	109	37873	49.58	ng/uL#	65
48) 2,4-Dinitrotoluene (48G)	14.43	165	144221	50.80	ng/uL#	71
49) Fluorene (51G)	14.98	166	336493	63.09	ng/uL#	54
50) Diethyl Phthalate (49G)	14.96	149	309854	61.22	ng/uL	99
51) 4-Chlorophenyl Phenyl Ethe	15.01	204	158028	59.30	ng/uL#	75
52) 4-Nitroaniline (52G)	15.24	138	110786	49.01	ng/uL#	55
53) 4,6-Dinitro-2-Methylphenol	15.31	198	80606	50.38	ng/uL#	17
54) n-Nitrosodiphenyl Amine (56	15.32	169	210695	53.97	ng/uL#	25
55) Azobenzene	15.36	77	412927	60.99	ng/uL#	71
58) 4-Bromophenyl Phenyl ether	16.04	248	104035	59.34	ng/uL#	79
59) Hexachlorobenzene (59G)	16.33	284	110426	53.24	ng/uL#	80
60) Pentachlorophenol (60G)	16.76	266	68190	47.75	ng/uL#	77
61) Phenanthrene (61G)	17.03	178	543995	62.44	ng/uL#	94
62) Anthracene (62G)	17.12	178	553869	62.01	ng/uL ^m	94
63) Carbazole (21S)	17.52	167	441663	54.78	ng/uL# ⁽³¹³⁾	89
64) Di-n-butyl Phthalate (63G)	18.41	149	542521	60.04	ng/uL	100
65) Fluoranthene (64G)	19.58	202	481560	48.66	ng/uL#	94
67) Benzidine	19.92	184	74867	49.81	ng/uL#	96
68) Pyrene (67G)	20.05	202	499804	88.35	ng/uL#	92
70) Butylbenzyl Phthalate (69G)	21.59	149	191417	68.20	ng/uL#	70
71) Benzo- (a) -Anthracene (71G)	22.64	228	282927	60.91	ng/uL#	90
72) 3,3'-Dichlorobenzidine	22.66	252	62782	60.97	ng/uL#	97
73) Chrysene (72G)	22.73	228	273355	57.61	ng/uL ^m	89
74) Bis (2-Ethylhexyl) Phthala	22.88	149	241673	65.89	ng/uL	99
76) Di-n-Octyl Phthalate (75G)	24.17	149	298033	56.73	ng/uL ^m	100
77) Benzo- (b) -Fluoranthene (76G)	24.96	252	184874	58.94	ng/uL# ⁽³¹³⁾	97
78) Benzo- (k) -Fluoranthene (77G)	25.02	252	172035	52.25	ng/uL ^m	98
79) Benzo- (a) -Pyrene (78G)	25.74	252	156688	57.51	ng/uL ⁽³¹³⁾	98
80) Indeno- (1,2,3-cd) -Pyrene (7	29.20	276	113251	64.37	ng/uL#	87
81) Dibenzo- (a,h) -Anthracene (8	29.28	278	90671	62.79	ng/uL#	93
82) Benzo- (g,h,i) - Perylene (81	30.19	276	90951	67.31	ng/uL#	83

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4289.D

Acq Time : Data Taken: 3/30/99 @ 13:19

Operator: AM9951

Sample :

Inst :

Misc : STD050, CAL STD M SPB-5 CAP COLUMN

Multiplr: 1.00

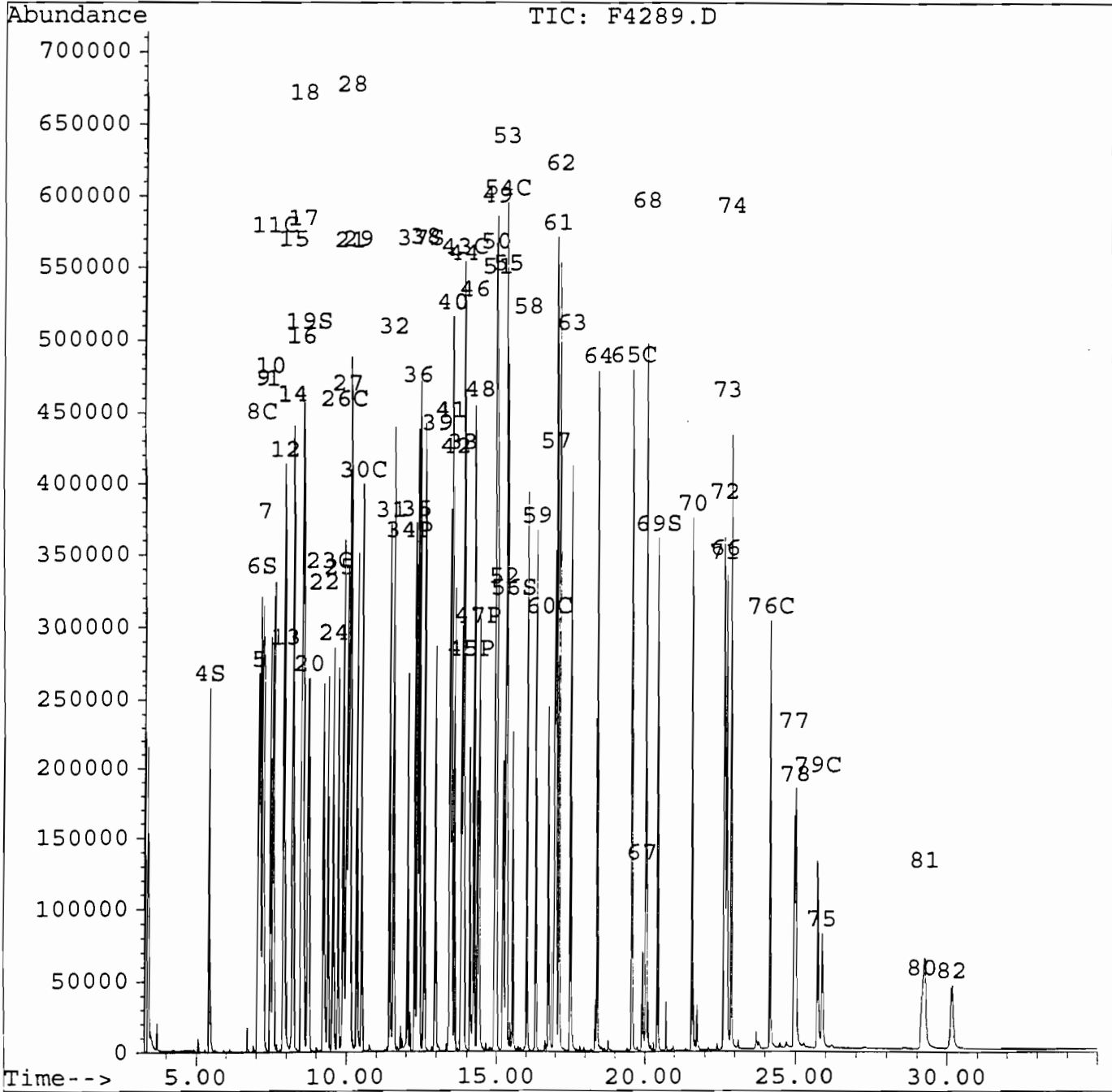
Quant Time: Mar 30 14:27 1999

Method : C:\METHODS\CF4189.M

Title : BNA STANDARDS FOR 5 POINT CALIBRATION

Last Update : Tue Mar 23 13:25:06 1999

Response via : Multiple Level Calibration



ICM LABORATORIES QUALITY CONTROL REPORT

GC/MS SEMIVOLATILE SURROGATE SUMMARY BASE NEUTRAL COMPOUNDS

INSTRUMENT ID: 5970_4
GC COLUMNS USED: DB-5

METHOD: 8270
MATRIX: WATER

SAMPLE NUMBER	DATA FILE	% REC NBZ	%REC. FBP	% REC TPH	# OUTSIDE QC LIMITS
BLANK, QC8170	F4240.D	83	90	74	0
QA/QC, QC8170	F4241.D	74	83	73	0
BLANK SPIKE, QC817	F4242.D	62	72	66	0
BL.SPK DUP, QC8170	F4243.D	66	80	66	0
306389, QC8170	F4244.D	79	83	71	0

QC Limits:

Compound	Percent Recovery limits
NBZ = Nitrobenzene-d5	44 - 101
FBP = 2-Fluorobiphenyl	38 - 126
TPH = Terphenyl-d14	38 - 143

S=Spike Sample
SD= Spike duplicate sample
DL=Dilution

** Surrogates are diluted out
* Values outside QC Limits

ICM LABORATORIES QUALITY CONTROL REPORT

GC/MS SEMIVOLATILE SURROGATE SUMMARY BASE NEUTRAL COMPOUNDS

INSTRUMENT ID: 5970_4
GC COLUMNS USED: DB-5

METHOD: 8270
MATRIX: SOIL

SAMPLE NUMBER	DATA FILE	% REC NBZ	% REC. FBP	% REC TPH	# OUTSIDE QC LIMITS
BLANK, QC8167 M SP	F4259.D	80	87	70	0
BL.SPK, QC8167 M S	F4260.D	53	80	64	0
QA/QC, QC8167 M SP	F4261.D	44	78	67	0
306397, QC8167 M S	F4262.D	77	84	67	0
306398, QC8167 M S	F4263.D	79	82	63	0

QC Limits:	Compound	Percent Recovery limits
	NBZ = Nitrobenzene-d5	23 - 120
	FBP = 2-Fluorobiphenyl	30 - 115
	TPH = Terphenyl-d14	18 - 137

S= Spike Sample
SD= Spike duplicate sample
DL= Dilution

** Surrogates are diluted out
* Values outside QC Limits

ICM LABORATORIES QUALITY CONTROL REPORT

GC/MS SEMIVOLATILE SURROGATE SUMMARY BASE NEUTRAL COMPOUNDS

INSTRUMENT ID: 5970_4
GC COLUMNS USED: DB-5

METHOD: 8270
MATRIX: SOIL

SAMPLE NUMBER	DATA FILE	% REC NBZ	%REC. FBP	% REC TPH	# OUTSIDE QC LIMITS
306393, QC8167 M S	F4277.D	80	69	60	0
306390, QC8167 M S	F4278.D	76	66	63	0
306390MS, QC8167 M	F4284.D	63	43	49	0
306390MSDQC8167 M	F4285.D	66	43	65	0

QC Limits:	Compound	Percent Recovery limits
	NBZ = Nitrobenzene-d5	23 - 120
	FBP = 2-Fluorobiphenyl	30 - 115
	TPH = Terphenyl-d14	18 - 137

S= Spike Sample
SD= Spike duplicate sample
DL= Dilution

** Surrogates are diluted out
* Values outside QC Limits

ICM LABORATORIES QUALITY CONTROL REPORT

GC/MS SEMIVOLATILE SURROGATE SUMMARY BASE NEUTRAL COMPOUNDS

INSTRUMENT ID: 5970_4
GC COLUMNS USED: DB-5

METHOD: 8270
MATRIX: SOIL

SAMPLE NUMBER	DATA FILE	% REC NBZ	%REC. FBP	% REC TPH	# OUTSIDE QC LIMITS
306394 5X, QC8167 M	F4292.D	56	57	36	0
306392 10X, QC8167	F4293.D	40	33	12 *	1
306395 , QC8167 M S	F4294.D	42	77	83	0
306391 , QC8167 M S	F4295.D	71	61	47	0
306396 , QC8167 M S	F4296.D	112	85	111	0

QC Limits:

Compound	Percent Recovery limits
NBZ = Nitrobenzene-d5	23 - 120
FBP = 2-Fluorobiphenyl	30 - 115
TPH = Terphenyl-d14	18 - 137

S= Spike Sample
SD= Spike duplicate sample
DL= Dilution

** Surrogates are diluted out
* Values outside QC Limits

ICM LABORATORIES QUALITY CONTROL REPORT

GC/MS MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY FOR SEMIVOLATILE ORGANIC COMPOUNDS

BATCH:	QC8170	SAMPLE	MS	MSD
SPIKE SAMPLE	BLANK	INITIAL WT:	1000 ML	1000 1000
INSTRUMENT ID:	5970-4	FINAL VOLUME:	1 ml	1 1
MATRIX : WATER				

COMPOUND NAME	SPIKE ADDED UG/L	SAMPLE CONC. UG/L	MS CONC. UG/L	MS % REC	QC LIMITS % REC.
1,4-Dichlorobenzene	100	U	78	78	36 - 97
N-Nitroso-di-n-propylamine	100	U	90	90	39 - 98
1,2,4-Trichlorobenzene	100	U	80	80	46 - 118
Acenaphthene	100	U	78	78	24 - 96
2,4-Dinitrotoluene	100	U	89	89	26 - 127
Pyrene	100	U	65	65	41 - 116

COMPOUND NAME	SPIKE ADDED UG/L	MSD CONC. UG/L	% REC MSD	% RPD	QC LIMITS	
					RPD	% REC.
1,4-Dichlorobenzene	100	81	81	4	28	36 - 97
N-Nitroso-di-n-propylamine	100	93	93	3	38	39 - 98
1,2,4-Trichlorobenzene	100	76	76	5	28	46 - 118
Acenaphthene	100	77	77	1	31	24 - 96
2,4-Dinitrotoluene	100	86	86	3	38	26 - 127
Pyrene	100	63	63	3	31	41 - 116

S = Spike Sample

SD = Spike duplicate sample

DL = Dilution

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4242.D
 Acq Time : 25 MAR 99 3:14 PM Operator: AM9951
 Sample : *Blank spike D.N. 4/18* Inst :
 Misc : ~~306389~~, QC8170 30M SPB-5 CAP COLUMN Multiplr: 1.00
 Quant Time: Mar 23 22:58 1999

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-Dichlorobenzene	7.59	152	62589	40.00	ng/uL	-0.01
21) d8-Naphthalene	10.11	136	223267	40.00	ng/uL	-0.04
33) d10-Acenaphthene	13.84	164	112858	40.00	ng/uL	-0.05
57) d10-Phenanthrene	16.99	188	358058	40.00	ng/uL	-0.04
66) d12-Chrysene	22.69	240	317770	40.00	ng/uL	-0.07
75) d12-Perylene	25.91	264	204503	40.00	ng/uL	-0.09

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.49	112	182529	118.58	ng/uL	59.29%
6) Phenol-d6	7.16	99	236865	124.22	ng/uL	62.11%
19) Nitobenzene-d5	8.74	82	129077	61.67	ng/uL	61.67%
37) 2-Fluorobiphenyl	12.45	172	302291	72.49	ng/uL	72.49%
56) 2,4,6-Tribromophenol	15.57	330	140262	161.36	ng/uL	80.68%
69) Terphenyl-d14	20.47	244	520208	65.73	ng/uL	65.73%

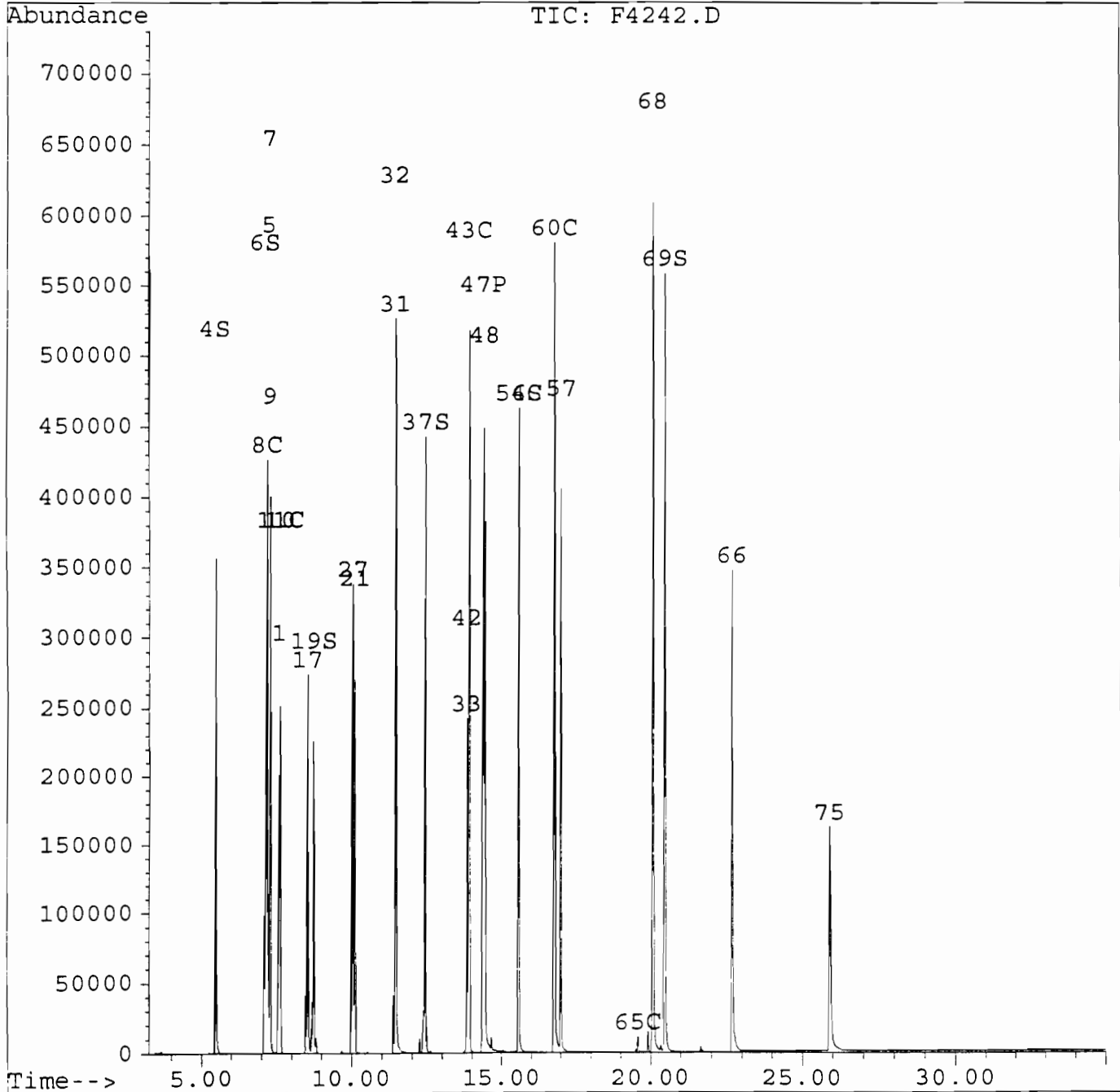
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Aniline	7.29	93	4423	1.66	ng/uLm	1
7) 2-Chlorophenol (8G)	7.29	128	210146	117.09	ng/uLm	98
8) Phenol (5G)	7.19	94	234921	119.87	ng/uLm	72
9) Bis (2-Chloroethyl) Ether (	7.29	93	4423	2.19	ng/uLm	1
10) 1,3-Dichlorobenzene (9G)	7.62	146	108928	50.75	ng/uLm	90
11) 1,4-Dichlorobenzene (10G)	7.62	146	157128	77.70	ng/uLm	88
17) n-Nitosodipropyl Amine (16G)	8.53	70	119048	90.37	ng/uLm	49
27) 1,2,4-Trichlorobenzene (27G)	10.04	180	158784	80.00	ng/uL#	92
31) p-Chloro-m-Cresol (31G)	11.47	107	273191	145.61	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.47	142	243728	72.56	ng/uL#	51
42) 2,6-Dinitrotoluene (42G)	13.84	165	14600	9.36	ng/uL#	72
43) Acenaphthene (44G)	13.91	153	336093	78.03	ng/uL#	83
47) 4-Nitrophenol (46g)	14.39	109	112667	184.22	ng/uL#	27
48) 2,4-Dinitrotoluene (48G)	14.44	165	202290	89.00	ng/uL#	71
54) n-Nitrosodiphenyl Amine (56)	15.57	169	4199	1.34	ng/uL#	34
60) Pentachlorophenol (60G)	16.77	266	237272	164.54	ng/uL#	78
65) Fluoranthene (64G)	19.57	202	11696	1.17	ng/uL	98
68) Pyrene (67G)	20.08	202	805177	65.07	ng/uL#	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4242.D
Acq Time : Data Taken: 3/25/99 @ 15:14 Operator: AM9951
Sample : Inst :
Misc : 306389, QC8170 30M SPB-5 CAP COLUMN Multiplr: 1.00
Quant Time: Mar 23 22:58 1999

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4243.D
 Acq Time : 25 MAR 99 4:00 PM Operator: AM9951
 Sample : *Bl. Spk Data (0810 4 May) 16* Inst :
 Misc : FL BLK III, QP8139M SPB-5 CAP COLUMN Multiplr: 1.00
 Quant Time: Mar 23 23:03 1999

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-Dichlorobenzene	7.59	152	62123	40.00	ng/uL	-0.01
21) d8-Naphthalene	10.11	136	245909	40.00	ng/uL	-0.04
33) d10-Acenaphthene	13.84	164	111564	40.00	ng/uL	-0.05
57) d10-Phenanthrene	16.99	188	346143	40.00	ng/uL	-0.04
66) d12-Chrysene	22.69	240	309351	40.00	ng/uL	-0.07
75) d12-Perylene	25.91	264	193154	40.00	ng/uL	-0.09

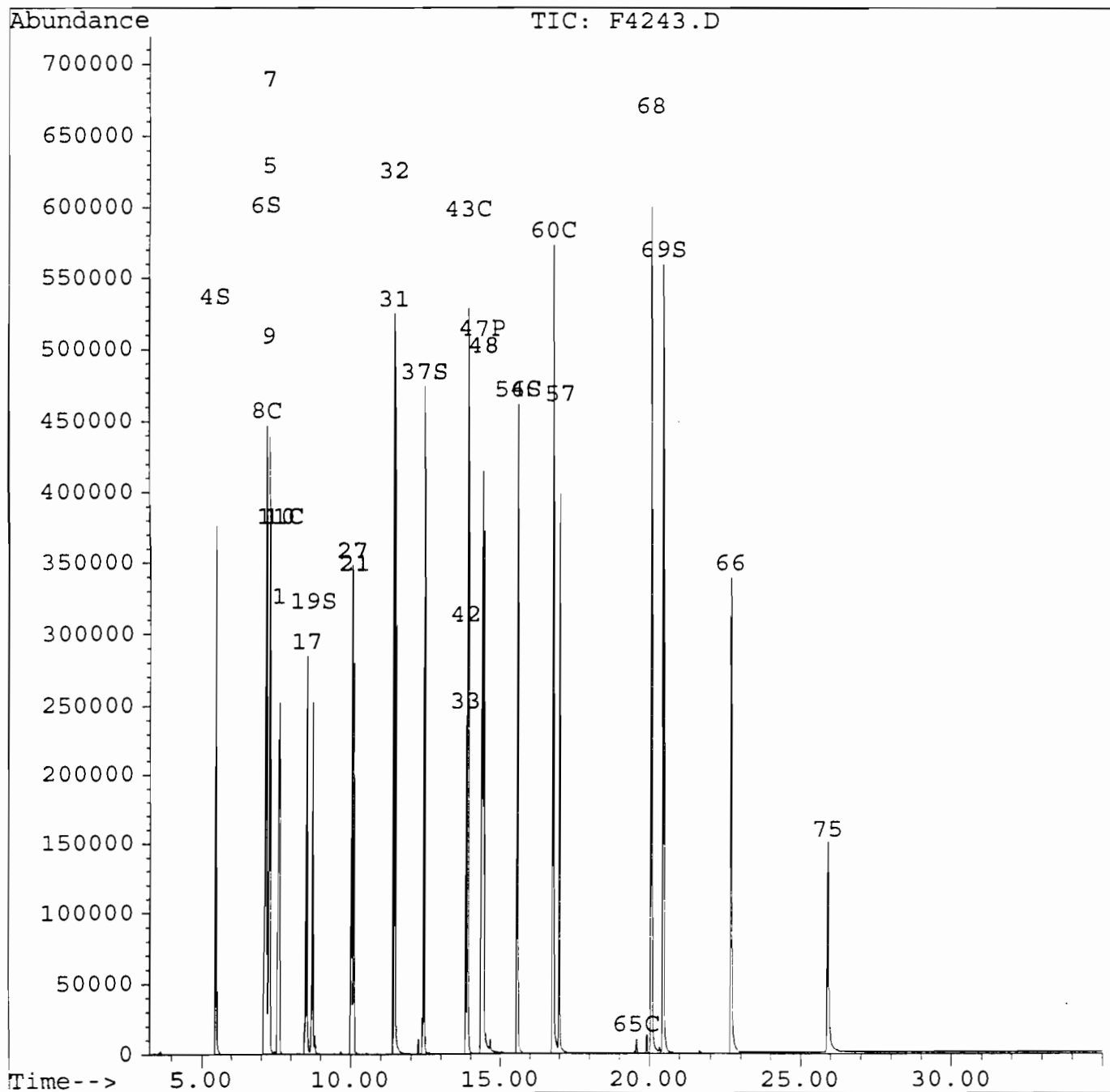
System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.47	112	194632	127.39	ng/uL	63.69%
6) Phenol-d6	7.16	99	267445	141.31	ng/uL	70.66%
19) Nitobenzene-d5	8.74	82	138044	66.45	ng/uL	66.45%
37) 2-Fluorobiphenyl	12.45	172	330384	80.15	ng/uL	80.15%
56) 2,4,6-Tribromophenol	15.57	330	137980	160.58	ng/uL	80.29%
69) Terphenyl-d14	20.47	244	507241	65.83	ng/uL	65.83%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Aniline	7.29	93	4914	1.86	ng/uL#	74
7) 2-Chlorophenol (8G)	7.29	128	226869	127.36	ng/uL#	77
8) Phenol (5G)	7.19	94	250710	128.88	ng/uL#	72
9) Bis (2-Chloroethyl) Ether(	7.29	93	4914	2.45	ng/uL#	57
10) 1,3-Dichlorobenzene (9G)	7.62	146	162675	76.37	ng/uL#	90
11) 1,4-Dichlorobenzene (10G)	7.62	146	162675	81.04	ng/uL#	88
17) n-Nitosodipropyl Amine (16G)	8.53	70	121421	92.86	ng/uL#	49
27) 1,2,4-Trichlorobenzene (27G)	10.04	180	165640	75.77	ng/uL#	92
31) p-Chloro-m-Cresol (31G)	11.47	107	270872	131.08	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.47	142	253032	68.40	ng/uL#	51
42) 2,6-Dinitrotoluene (42G)	13.84	165	14167	9.19	ng/uL#	72
43) Acenaphthene (44G)	13.92	153	327764	76.98	ng/uL#	83
47) 4-Nitrophenol (46g)	14.39	109	112346	185.83	ng/uL#	10
48) 2,4-Dinitrotoluene (48G)	14.44	165	192174	85.53	ng/uL#	71
54) n-Nitrosodiphenyl Amine (56)	15.57	169	4192	1.36	ng/uL#	25
60) Pentachlorophenol (60G)	16.77	266	220261	158.00	ng/uL#	77
65) Fluoranthene (64G)	19.58	202	10699	1.11	ng/uL#	94
68) Pyrene (67G)	20.08	202	763414	63.38	ng/uL	99

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4243.D
Acq Time : Data Taken: 3/25/99 @ 16:00 Operator: AM9951
Sample : *Blighting* (C.V.)
Misc : ~~FL.BLK III, OCT8139M~~ SPB-5 CAP COLUMN Inst :
Quant Time: Mar 23 23:03 1999 Multiplr: 1.00

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



INDUSTRIAL CORROSION MANAGEMENT, INC.
 1152 ROUTE 10
 Randolph, NJ 07869
 973-584-0330, FAX: 973-584-0515

Certified for: NJ, PA, DE, CT, NY(DOH)
 NJ #14116 NY #11376
 US EPA CLP Lab

QUALITY ASSURANCE DATA
 GC/MS SEMIVOLATILE QA SAMPLE

BATCH: QC8170 Initial wt/vol: 1000
 Final vol: 1
 Matrix: WATER Unit: ug/L

COMPOUND NAME	CONC ADDED	CONC FOUND	%REC	QC Limits
bis-(2-Chloroethyl)ether	40	30.68	77	50 - 140
2-Chlorophenol	40	33.49	84	50 - 140
1,3-Dichlorobenzene	40	32.52	81	50 - 140
1,4-Dichlorobenzene	40	32.23	81	50 - 140
1,2-Dichlorobenzene	40	45.34	113	50 - 140
N-Nitroso-di-n-propylamin	40	35.97	90	50 - 140
Hexachloroethane	40	35.29	88	50 - 140
Nitrobenzene	40	36.21	91	50 - 140
bis(2-Chloroethoxy)methan	40	32.91	82	50 - 140
2,4-Dichlorophenol	40	31.89	80	50 - 140
1,2,4-Trichlorobenzene	40	32.06	80	50 - 140
Naphthalene	40	25.69	64	50 - 140
Hexachlorobutadiene	40	28.08	70	50 - 140
2-Chloronaphthalene	40	40.37	101	50 - 140
Acenaphthylene	40	38.07	95	50 - 140
2,6-Dinitrotoluene	40	34.82	87	50 - 140
Acenaphthene	40	36.99	92	50 - 140
2,4-Dinitrotoluene	40	37.57	94	50 - 140
Fluorene	40	43.33	108	50 - 140
Phenanthrene	40	36.76	92	50 - 140
Anthracene	40	38.81	97	50 - 140
Carbazole	40	42.07	105	50 - 140
Di-n-butylphthalate	40	50.5	126	50 - 140
Fluoranthene	40	37.15	93	50 - 140
Pyrene	40	33.1	83	50 - 140
Benzo[a]anthracene	40	31.36	78	50 - 140
Chrysene	40	32.21	81	50 - 140
bis(2-Ethylhexyl)phthalat	40	40.12	100	50 - 140
Di-n-octylphthalate	40	40.87	102	50 - 140
Benzo[b]fluoranthene	40	29.6	74	50 - 140
Benzo[k]fluoranthene	40	32.34	81	50 - 140
Benzo[a]pyrene	40	30.18	75	50 - 140
Indeno[1,2,3-cd]pyrene	40	22.09	55	50 - 140
Dibenz[a,h]anthracene	40	23.53	59	50 - 140
Benzo[g,h,i]perylene	40	21.08	53	50 - 140

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4241.D

Acq Time : 25 MAR 99 2:28 PM

Operator: AM9951

Sample : QA/QC

Inst :

Misc : BL SPKDUP, QC8170 M SPB-5 CAP COLUMN

Multiplr: 1.00

Quant Time: Mar 23 22:55 1999

Method : C:\METHODS\CF4189.M

Title : BNA STANDARDS FOR 5 POINT CALIBRATION

Last Update : Tue Mar 23 13:25:06 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-Dichlorobenzene	7.58	152	63984	40.00	ng/uL	-0.02
21) d8-Naphthalene	10.11	136	253561	40.00	ng/uL	-0.04
33) d10-Acenaphthene	13.84	164	114966	40.00	ng/uL	-0.05
57) d10-Phenanthrene	16.98	188	357751	40.00	ng/uL	-0.05
66) d12-Chrysene	22.70	240	292018	40.00	ng/uL	-0.06
75) d12-Perylene	25.92	264	181438	40.00	ng/uL	-0.08

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.47	112	180050	114.42	ng/uL	57.21%
6) Phenol-d6	7.14	99	265196	136.05	ng/uL	68.03%
19) Nitobenzene-d5	8.74	82	159166	74.39	ng/uL	74.39%
37) 2-Fluorobiphenyl	12.45	172	354238	83.39	ng/uL	83.39%
56) 2,4,6-Tribromophenol	15.58	330	141992	160.36	ng/uL	80.18%
69) Terphenyl-d14	20.47	244	529482	72.80	ng/uL	72.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) n-Nitosodimethylamine	3.58	74	28811	28.95	ng/uL#	100
5) Aniline	7.21	93	63479	23.36	ng/uL#	74
7) 2-Chlorophenol (8G)	7.28	128	61451	33.49	ng/uL#	77
8) Phenol (5G)	7.16	94	72955	36.41	ng/uL#	72
9) Bis (2-Chloroethyl) Ether (	7.21	93	63479	30.68	ng/uL#	64
10) 1,3-Dichlorobenzene (9G)	7.50	146	71339	32.52	ng/uL#	91
11) 1,4-Dichlorobenzene (10G)	7.61	146	66625	32.23	ng/uL#	88
12) 1,2-Dichlorobenzene (12G)	7.96	146	71340	45.34	ng/uL#	91
14) Bis (2-Chloroisopropyl) Et	8.23	45	127492	43.39	ng/uL	99
16) Hexachloroethane (17G)	8.53	117	29162	35.29	ng/uL	97
17) n-Nitosodipropyl Amine (16G)	8.52	70	48438	35.97	ng/uL#	49
20) Nitrobenzene (20G)	8.77	77	70484	36.21	ng/uL#	93
22) Isophorone	9.23	82	142834	28.89	ng/uL	99
23) 2-Nitrophenol (22G)	9.40	139	46405	31.18	ng/uL	90
24) 2,4-Dimethylphenol (23G)	9.57	107	63766	30.34	ng/uL	93
25) Bis (2-Chloroethoxy) Metha	9.74	93	80912	32.91	ng/uL#	100
26) 2,4-Dichlorophenol (26G)	9.90	162	64939	31.89	ng/uL#	88
27) 1,2,4-Trichlorobenzene (27G)	10.03	180	72272	32.06	ng/uL#	92
28) Naphthalene (28)	10.15	128	161380	25.69	ng/uL#	96
29) 4-Chloroaniline (29G)	10.15	127	18678	6.28	ng/uL#	66
30) Hexachlorobutadiene (30G)	10.53	225	39525	28.08	ng/uL#	77
31) p-Chloro-m-Cresol (31G)	11.45	107	73718	34.60	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.45	142	64695	16.96	ng/uL#	51
34) Hexachlorocyclopentadiene (	12.07	237	25529	23.51	ng/uL#	71
35) 2,4,6-Trichlorophenol (35G)	12.29	196	61894	36.74	ng/uL	100
36) 2,4,5-Trichlorophenol (36G)	12.29	196	61894	27.30	ng/uL	98
38) 2-Chloronaphthalene (37G)	12.62	162	161911	40.37	ng/uL#	85
40) Acenaphthylene (41G)	13.51	152	268547	38.07	ng/uL#	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4241.D

Acq Time : 25 MAR 99 2:28 PM

Operator: AM9951

Sample : *CSA/SC*

Inst :

Misc : ~~BL-SPK~~DUP, QC8170 M SPB-5 CAP COLUMN

Multiplr: 1.00

Quant Time: Mar 23 22:55 1999

Method : C:\METHODS\CF4189.M

Title : BNA STANDARDS FOR 5 POINT CALIBRATION

Last Update : Tue Mar 23 13:25:06 1999

Response via : Multiple Level Calibration

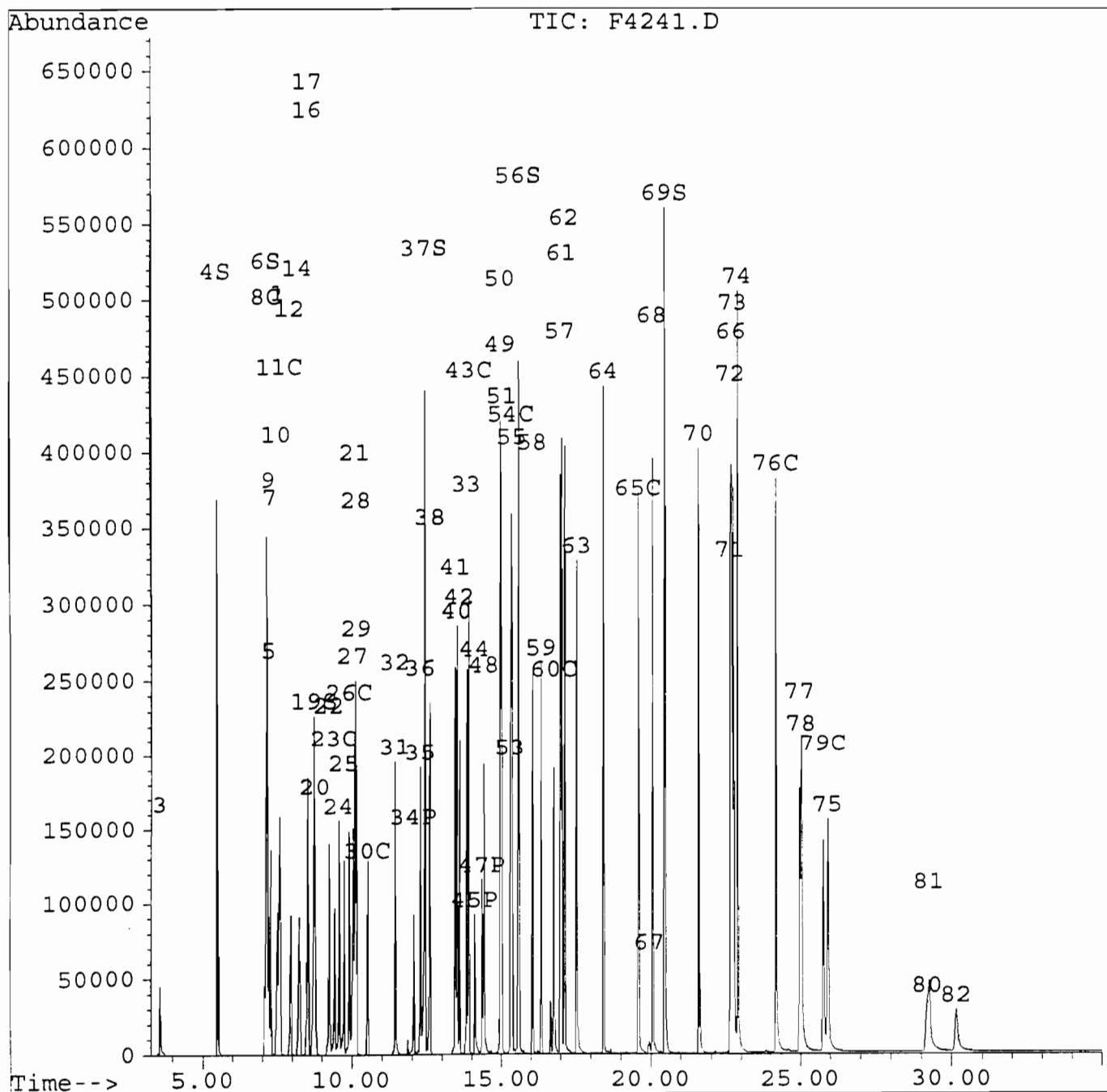
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Dimethyl Phthalate(40G)	13.44	163	216350	39.52	ng/uL	100
42) 2,6-Dinitrotoluene(42G)	13.59	165	55337	34.82	ng/uL#	72
43) Acenaphthene(44G)	13.91	153	162277	36.99	ng/uL#	83
44) 3-Nitroaniline(43G)	14.10	138	744	0.63	ng/uL#	100
45) 2,4-Dinitrophenol(45G)	14.10	184	39917	28.94	ng/uL#	61
47) 4-Nitrophenol(46g)	14.35	109	23342	37.47	ng/uL#	22
48) 2,4-Dinitrotoluene(48G)	14.42	165	86977	37.57	ng/uL	91
49) Fluorene(51G)	14.99	166	188496	43.33	ng/uL#	54
50) Diethyl Phthalate(49G)	14.97	149	214615	51.99	ng/uL	99
51) 4-Chlorophenyl Phenyl Ethe	15.02	204	97631	44.92	ng/uL#	75
53) 4,6-Dinitro-2-Methylphenol	15.30	198	55276	42.36	ng/uL#	17
54) n-Nitrosodiphenyl Amine(56	15.32	169	146926	46.15	ng/uL#	25
55) Azobenzene	15.35	77	265365	48.06	ng/uL#	72
58) 4-Bromophenyl Phenyl ether	16.05	248	61448	34.74	ng/uL#	79
59) Hexachlorobenzene(59G)	16.34	284	71590	34.21	ng/uL#	80
60) Pentachlorophenol(60G)	16.76	266	49368	34.26	ng/uL#	78
61) Phenanthrene(61G)	17.03	178	323160	36.76	ng/uLm ²	94
62) Anthracene(62G)	17.13	178	349724	38.81	ng/uL#	94
63) Carbazole(21S)	17.53	167	342298	42.07	ng/uL#	89
64) Di-n-butyl Phthalate(63G)	18.42	149	460444	50.50	ng/uL#	99
65) Fluoranthene(64G)	19.58	202	370944	37.15	ng/uL	99
67) Benzidine	19.94	184	11344	3.75	ng/uL#	96
68) Pyrene(67G)	20.06	202	376352	33.10	ng/uL#	92
70) Butylbenzyl Phthalate(69G)	21.60	149	215551	38.21	ng/uL#	70
71) Benzo-(a)-Anthracene(71G)	22.65	228	292786	31.36	ng/uLm ²	90
72) 3,3'-Dichlorobenzidine	22.67	252	91770	44.34	ng/uL#	97
73) Chrysene(72G)	22.75	228	307186	32.21	ng/uL#	89
74) Bis(2-Ethylhexyl) Phthala	22.89	149	295780	40.12	ng/uL	99
76) Di-n-Octyl Phthalate(75G)	24.18	149	466059	40.87	ng/uL	100
77) Benzo-(b)-Fluoranthene(76G)	24.97	252	201541	29.60	ng/uLm ²	97
78) Benzo-(k)-Fluoranthene(77G)	25.03	252	231110	32.34	ng/uL#	98
79) Benzo-(a)-Pyrene(78G)	25.76	252	178499	30.18	ng/uL#	96
80) Indeno-(1,2,3-cd)-Pyrene(7	29.21	276	84345	22.09	ng/uL#	90
81) Dibenzo-(a,h)-Anthracene(8	29.27	278	73767	23.53	ng/uL	96
82) Benzo-(g,h,i)-Perylene(81	30.16	276	61836	21.08	ng/uL	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4241.D
Acq Time : Data Taken: 3/25/99 @ 14:28 Operator: AM9951
Sample : *QALSC* Inst :
Misc : ~~BL SPK DUP~~, QC8170 M SPB-5 CAP COLUMN Multiplr: 1.00
Quant Time: Mar 23 22:55 1999

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



ANALAB-RANDOLPH FACILITY

GC/MS MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY FOR SEMIVOLATILE ORGANIC COMPOUNDS

BATCH NUMBER	QC8167	SAMPLE	MS	MSD
SPIKE SAMPLE	306390	INITIAL WT:	30 g	30.01 30.1
INSTRUMENT ID:	59704	FINAL VOLUME:	1 ml	1 1
MATRIX : SOIL/SLUDGE				

COMPOUND NAME	SPIKE ADDED UG/KG	SAMPLE CONC. UG/KG	MS CONC. UG/KG	MS % REC	QC LIMITS % REC.
1,4-Dichlorobenzene	3330	U	720	22 *	28 - 104
N-Nitroso-di-n-propylamine	3330	U	2980	89	41 - 126
1,2,4-Trichlorobenzene	3330	U	950	29 *	38 - 107
Acenaphthene	3330	U	1260	38	31 - 137
2,4-Dinitrotoluene	3330	U	1800	54	35 - 142
Pyrene	3330	U	2140	64	35 - 142
Phenol	6670	U	5370	81	26 - 90
2-Chlorophenol	6670	U	5510	83	25 - 102
4-Chloro-3-methylphenol	6670	U	4970	75	26 - 103
4-Nitrophenol	6670	U	6420	96	11 - 114
Pentachlorophenol	6670	U	6360	95	17 - 109

COMPOUND NAME	SPIKE ADDED UG/KG	MSD CONC. UG/KG	% REC MSD	% RPD	QC LIMITS	
					RPD	% REC.
1,4-Dichlorobenzene	3330	890	27 *	20	28	28 - 104
N-Nitroso-di-n-propylamine	3330	2380	71	23	41	41 - 126
1,2,4-Trichlorobenzene	3330	1610	48	49 *	38	38 - 107
Acenaphthene	3330	1230	37	3	31	31 - 137
2,4-Dinitrotoluene	3330	1510	45	18	35	35 - 142
Pyrene	3330	2510	75	16	35	35 - 142
Phenol	6670	5120	77	5	26	26 - 90
2-Chlorophenol	6670	5210	78	6	25	25 - 102
4-Chloro-3-methylphenol	6670	4740	71	5	26	26 - 103
4-Nitrophenol	6670	6190	93	3	11	11 - 114
Pentachlorophenol	6670	6080	91	4	17	17 - 109

S = Spike Sample

SD = Spike duplicate sample

DL = Dilution

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4284.D
 Acq Time : Data Taken: 3/29/99 @ 20:00 Operator: AM9951
 Sample : Inst :
 Misc : 306390MS, QC8167 M SPB-5 CAP COLUMN Multiplr: 1.00
 Quant Time: Mar 24 3:53 1999

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) d4-Dichlorobenzene	7.52	152	113818	40.00	ng/uL	-0.08
21) d8-Naphthalene	10.06	136	474951	40.00	ng/uL	-0.09
33) d10-Acenaphthene	13.79	164	261726	40.00	ng/uL	-0.11
57) d10-Phenanthrene	16.93	188	613129	40.00	ng/uL	-0.11
66) d12-Chrysene	22.60	240	165678	40.00	ng/uL	-0.16
75) d12-Perylene	25.79	264	86785	40.00	ng/uL	-0.20

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.46	112	447305	159.79	ng/uL	79.90%
6) Phenol-d6	7.19	99	281537	81.20	ng/uL	40.60%
19) Nitobenzene-d5	8.69	82	240327	63.14	ng/uL	63.14%
37) 2-Fluorobiphenyl	12.39	172	419415	43.37	ng/uL	43.37%
56) 2,4,6-Tribromophenol	15.51	330	184152	91.35	ng/uL	45.68%
69) Terphenyl-d14	20.38	244	201995	48.95	ng/uL	48.95%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Aniline	7.21	93	8937	1.85	ng/uL#	74
7) 2-Chlorophenol (8G)	7.24	128	393459	120.56	ng/uL#	77
8) Phenol (5G)	7.13	94	515357	144.60	ng/uL#	72
9) Bis (2-Chloroethyl) Ether	7.21	93	8937	2.43	ng/uL#	52
10) 1,3-Dichlorobenzene (9G)	7.54	146	79377	20.34	ng/uL	96
11) 1,4-Dichlorobenzene (10G)	7.54	146	79377	21.58	ng/uL#	88
17) n-Nitosodipropyl Amine (16G)	8.49	70	213968	89.31	ng/uL	95
27) 1,2,4-Trichlorobenzene (27G)	9.99	180	120687	28.58	ng/uL#	93
31) p-Chloro-m-Cresol (31G)	11.43	107	433449	108.60	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.43	142	359105	50.26	ng/uL#	51
42) 2,6-Dinitrotoluene (42G)	13.79	165	33926	9.38	ng/uL#	72
43) Acenaphthene (44G)	13.86	153	376463	37.69	ng/uL#	83
46) Dibenzofuran (47G)	14.17	168	8910	0.64	ng/uL#	84
47) 4-Nitrophenol (46g)	14.36	109	158301	111.61	ng/uL#	10
48) 2,4-Dinitrotoluene (48G)	14.39	165	285097	54.09	ng/uL#	71
49) Fluorene (51G)	14.91	166	14293	1.44	ng/uL#	53
54) n-Nitrosodiphenyl Amine (56)	15.52	169	6321	0.87	ng/uL#	27
60) Pentachlorophenol (60G)	16.70	266	107505	43.54	ng/uL#	77
61) Phenanthrene (61G)	16.96	178	138474	9.19	ng/uL#	94
62) Anthracene (62G)	16.96	178	138474	8.97	ng/uL#	94
63) Carbazole (21S)	17.44	167	20849	1.50	ng/uL#	89
64) Di-n-butyl Phthalate (63G)	18.34	149	47785	3.06	ng/uL#	99
65) Fluoranthene (64G)	19.51	202	124122	7.25	ng/uL#	94
68) Pyrene (67G)	19.99	202	414115	64.19	ng/uL#	92
71) Benzo- (a) -Anthracene (71G)	22.64	228	18150	3.43	ng/uL#	90
73) Chrysene (72G)	22.64	228	18150	3.35	ng/uL#	89
74) Bis (2-Ethylhexyl) Phthala	22.81	149	30137	7.21	ng/uL#	98
76) Di-n-Octyl Phthalate (75G)	24.09	149	9199	1.69	ng/uL	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4284.D
 Acq Time : Data Taken: 3/29/99 @ 20:00 Operator: AM9951
 Sample : Inst :
 Misc : 306390MS, QC8167 M SPB-5 CAP COLUMN Multiplr: 1.00
 Quant Time: Mar 24 3:53 1999

Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

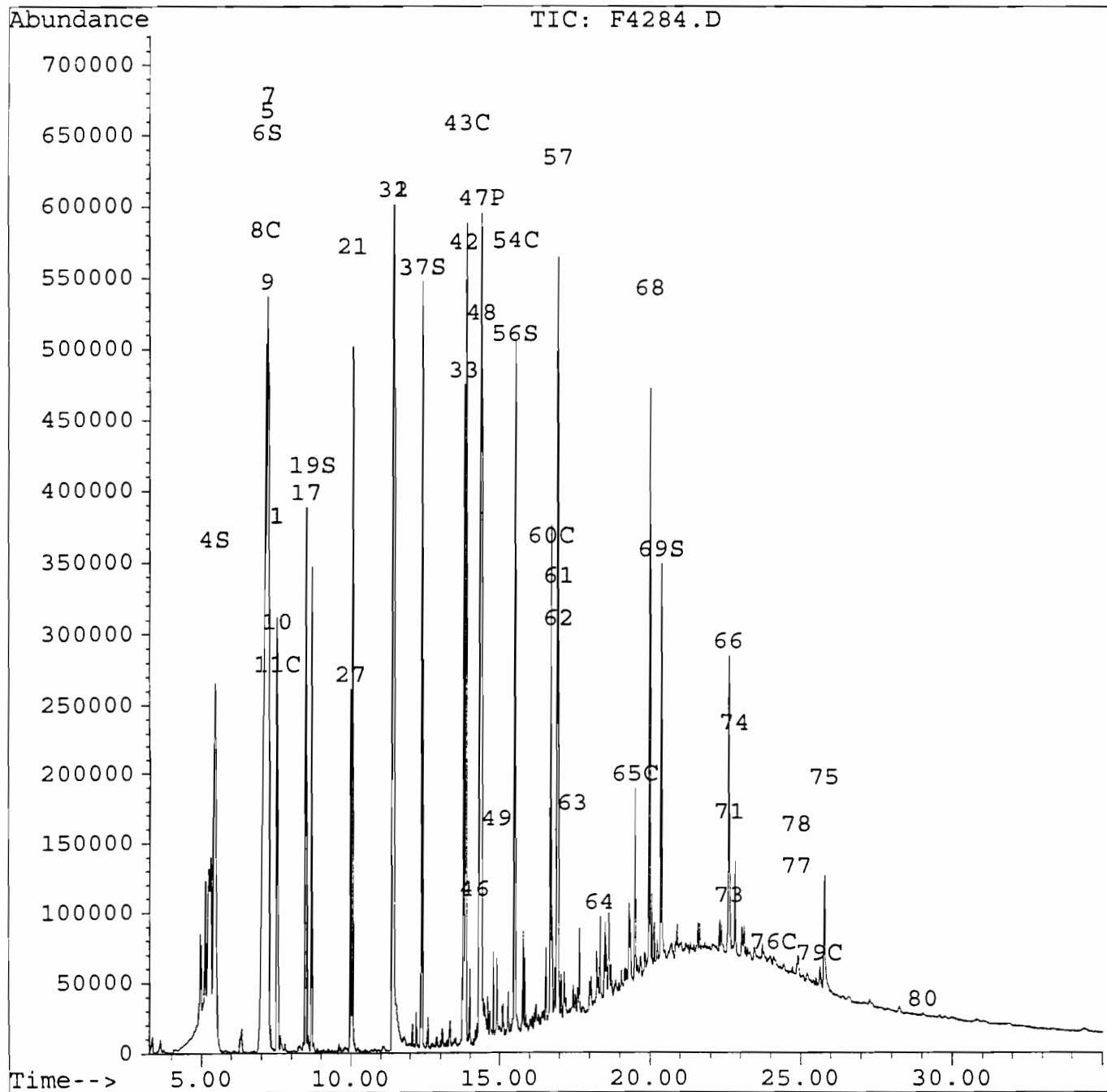
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77) Benzo-(b)-Fluoranthene(76G)	24.87	252	8411	2.58	ng/uL#	96
78) Benzo-(k)-Fluoranthene(77G)	24.87	252	8411	2.46	ng/uL#	96
79) Benzo-(a)-Pyrene(78G)	25.64	252	5429	1.92	ng/uL	95
80) Indeno-(1,2,3-cd)-Pyrene(7	29.04	276	1811	0.99	ng/uL#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4284.D
Acq Time : Data Taken: 3/29/99 @ 20:00 Operator: AM9951
Sample : Inst :
Misc : 306390MS, QC8167 M SPB-5 CAP COLUMN Multiplr: 1.00
Quant Time: Mar 24 3:53 1999

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4285.D

Acq Time : 29 MAR 99 8:46 PM

Operator: AM9951

Sample :

Inst :

Misc : 306390MSDQC8167 M SPB-5 CAP COLUMN

Multiplr: 1.00

Quant Time: Mar 24 4:45 1999

Method : C:\METHODS\CF4189.M

Title : BNA STANDARDS FOR 5 POINT CALIBRATION

Last Update : Tue Mar 23 13:25:06 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-Dichlorobenzene	7.53	152	228253	40.00	ng/uL	-0.07
21) d8-Naphthalene	10.08	136	840713	40.00	ng/uL	-0.06
33) d10-Acenaphthene	13.80	164	500294	40.00	ng/uL	-0.09
57) d10-Phenanthrene	16.95	188	976861	40.00	ng/uL	-0.08
66) d12-Chrysene	22.62	240	290489	40.00	ng/uL	-0.14
75) d12-Perylene	25.81	264	179188	40.00	ng/uL	-0.18

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.49	112	615373	109.62	ng/uL	54.81%
6) Phenol-d6	7.19	99	665110	95.65	ng/uL	47.82%
19) Nitobenzene-d5	8.74	82	505783	66.26	ng/uL	66.26%
37) 2-Fluorobiphenyl	12.44	172	795298	43.02	ng/uL	43.02%
56) 2,4,6-Tribromophenol	15.54	330	358564	93.05	ng/uL	46.53%
69) Terphenyl-d14	20.41	244	467755	64.65	ng/uL	64.65%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
5) Aniline	7.28	93	7517	0.78	ng/uL#	74
7) 2-Chlorophenol (8G)	7.30	128	387683	59.23	ng/uL#	77
8) Phenol (5G)	7.19	94	466959	65.33	ng/uL#	87
9) Bis (2-Chloroethyl) Ether	7.28	93	7517	1.02	ng/uL#	55
10) 1,3-Dichlorobenzene (9G)	7.57	146	197590	25.25	ng/uL#	90
11) 1,4-Dichlorobenzene (10G)	7.57	146	197590	26.79	ng/uL#	88
17) n-Nitosodipropyl Amine (16G)	8.56	70	342941	71.38	ng/uL#	49
27) 1,2,4-Trichlorobenzene (27G)	10.00	180	360507	48.24	ng/uL#	93
28) Naphthalene (28)	10.12	128	29837	1.43	ng/uL#	96
31) p-Chloro-m-Cresol (31G)	11.46	107	716447	101.41	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.46	142	641575	50.73	ng/uL#	55
42) 2,6-Dinitrotoluene (42G)	13.80	165	66022	9.55	ng/uL#	72
43) Acenaphthene (44G)	13.91	153	704845	36.92	ng/uL#	50
46) Dibenzofuran (47G)	14.18	168	55827	2.10	ng/uL#	84
47) 4-Nitrophenol (46g)	14.43	109	227966	84.09	ng/uL#	10
48) 2,4-Dinitrotoluene (48G)	14.44	165	455238	45.18	ng/uLm	71
49) Fluorene (51G)	14.93	166	69747	3.68	ng/uL#	54
54) n-Nitrosodiphenyl Amine (56)	15.52	169	7247	0.52	ng/uL#	25
60) Pentachlorophenol (60G)	16.74	266	250025	63.55	ng/uL#	77
61) Phenanthrene (61G)	16.99	178	419768	17.49	ng/uL#	94
62) Anthracene (62G)	16.99	178	419768	17.06	ng/uL#	94
63) Carbazole (21S)	17.46	167	66643	3.00	ng/uL#	89
64) Di-n-butyl Phthalate (63G)	18.34	149	18122	0.73	ng/uL#	99
65) Fluoranthene (64G)	19.53	202	359030	13.17	ng/uL#	94
68) Pyrene (67G)	20.02	202	850485	75.19	ng/uL#	92
70) Butylbenzyl Phthalate (69G)	21.52	149	3323	0.59	ng/uL	91
71) Benzo- (a) -Anthracene (71G)	22.66	228	61585	6.63	ng/uL#	89
73) Chrysene (72G)	22.66	228	61585	6.49	ng/uL#	88

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4285.D
 Acq Time : 29 MAR 99 8:46 PM Operator: AM9951
 Sample : Inst :
 Misc : 306390MSDQC8167 M SPB-5 CAP COLUMN Multiplr: 1.00
 Quant Time: Mar 24 4:45 1999

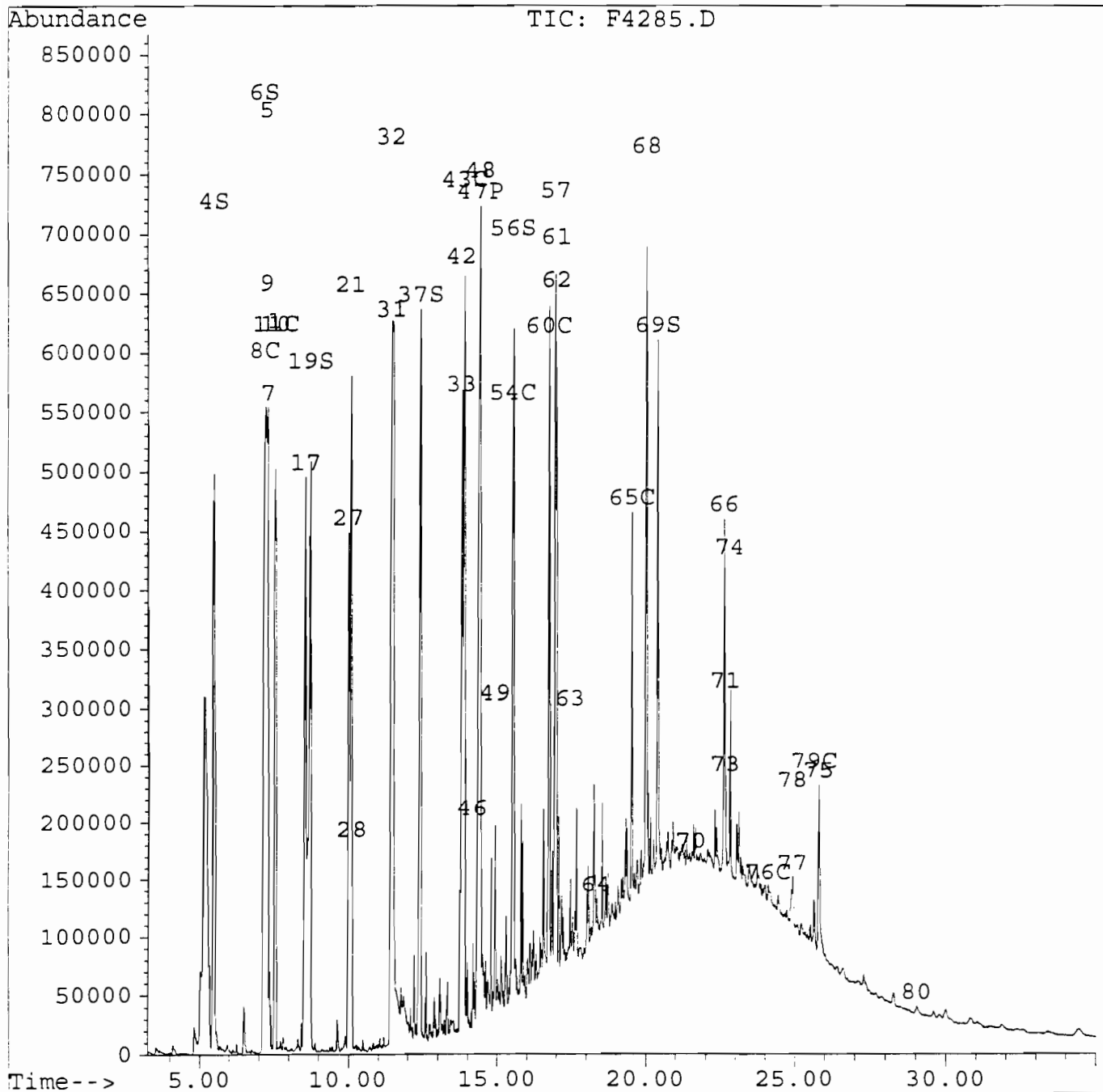
Method : C:\METHODS\CF4189.M
 Title : BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Mar 23 13:25:06 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74) Bis (2-Ethylhexyl) Phthala	22.82	149	86405	11.78	ng/uL#	97
76) Di-n-Octyl Phthalate(75G)	24.09	149	23983	2.13	ng/uL	99
77) Benzo- (b) -Fluoranthene(76G)	24.92	252	32519	4.84	ng/uL#	97
78) Benzo- (k) -Fluoranthene(77G)	24.92	252	32519	4.61	ng/uL#	98
79) Benzo- (a) -Pyrene(78G)	25.64	252	22277	3.81	ng/uL	97
80) Indeno- (1,2,3-cd) -Pyrene(7	29.05	276	9120	2.42	ng/uL#	91

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4285.D
Acq Time : Data Taken: 3/29/99 @ 20:46 Operator: AM9951
Sample : Inst :
Misc : 306390MSDQC8167 M SPB-5 CAP COLUMN Multiplr: 1.00
Quant Time: Mar 24 4:45 1999

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



INDUSTRIAL CORROSION MANAGEMENT, INC.
 1152 ROUTE 10
 Randolph, NJ 07869
 973-584-0330, FAX: 973-584-0515

Certified for: NJ, PA, DE, CT, NY(DOH)
 NJ #14116 NY #11376
 US EPA CLP Lab

QUALITY ASSURANCE DATA
 GC/MS SEMIVOLATILE BLANK SPIKE

Batch number: QC8167 Initial wt/vol: 30.1 grams
 Method: 8270 Final vol: 1 mls
 Matrix: soil Unit: ug/kg

COMPOUND NAME	CONC ADDED	CONC FOUND	%REC	QC Limits
Phenol	6600	2700	40.9	26 - 90
2-Chlorophenol	6600	3100	47	25 - 102
1,4-Dichlorobenzene	3300	2900	87.9	28 - 104
N-Nitroso-di-n-propylamine	3300	2300	69.7	41 - 126
1,2,4-Trichlorobenzene	3300	3000	90.9	38 - 107
4-Chloro-3-methylphenol	6600	4300	65.2	26 - 103
Acenaphthene	3300	2700	81.8	31 - 137
4-Nitrophenol	6600	7100	107.6	11 - 114
2,4-Dinitrotoluene	3300	3100	93.9	35 - 142
Pentachlorophenol	6600	4900	74.2	17 - 109
Pyrene	3300	2100	63.6	35 - 142

FOR SAMPLES: _____

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4260.D

Acq Time : 26 MAR 99 7:46 PM

Sample :

Misc : BL.SPK, QC8167 M SPB-5 CAP COLUMN

Quant Time: Mar 24 1:22 1999

Operator: AM9951

Inst :

Multiplr: 1.00

Method : C:\METHODS\CF4189.M

Title : BNA STANDARDS FOR 5 POINT CALIBRATION

Last Update : Tue Mar 23 13:25:06 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-Dichlorobenzene	7.58	152	84645	40.00	ng/uL	-0.02
21) d8-Naphthalene	10.11	136	224179	40.00	ng/uL	-0.04
33) d10-Acenaphthene	13.84	164	99049	40.00	ng/uL	-0.06
57) d10-Phenanthrene	16.99	188	365252	40.00	ng/uL	-0.05
66) d12-Chrysene	22.68	240	323237	40.00	ng/uL	-0.07
75) d12-Perylene	25.90	264	242816	40.00	ng/uL	-0.09

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.49	112	221175	106.24	ng/uL	53.12%
6) Phenol-d6	7.15	99	253308	98.23	ng/uL	49.12%
19) Nitobenzene-d5	8.74	82	151035	53.36	ng/uL	53.36%
37) 2-Fluorobiphenyl	12.45	172	291279	79.59	ng/uL	79.59%
56) 2,4,6-Tribromophenol	15.57	330	135421	177.51	ng/uL	88.76%
69) Terphenyl-d14	20.47	244	518219	64.37	ng/uL	64.37%

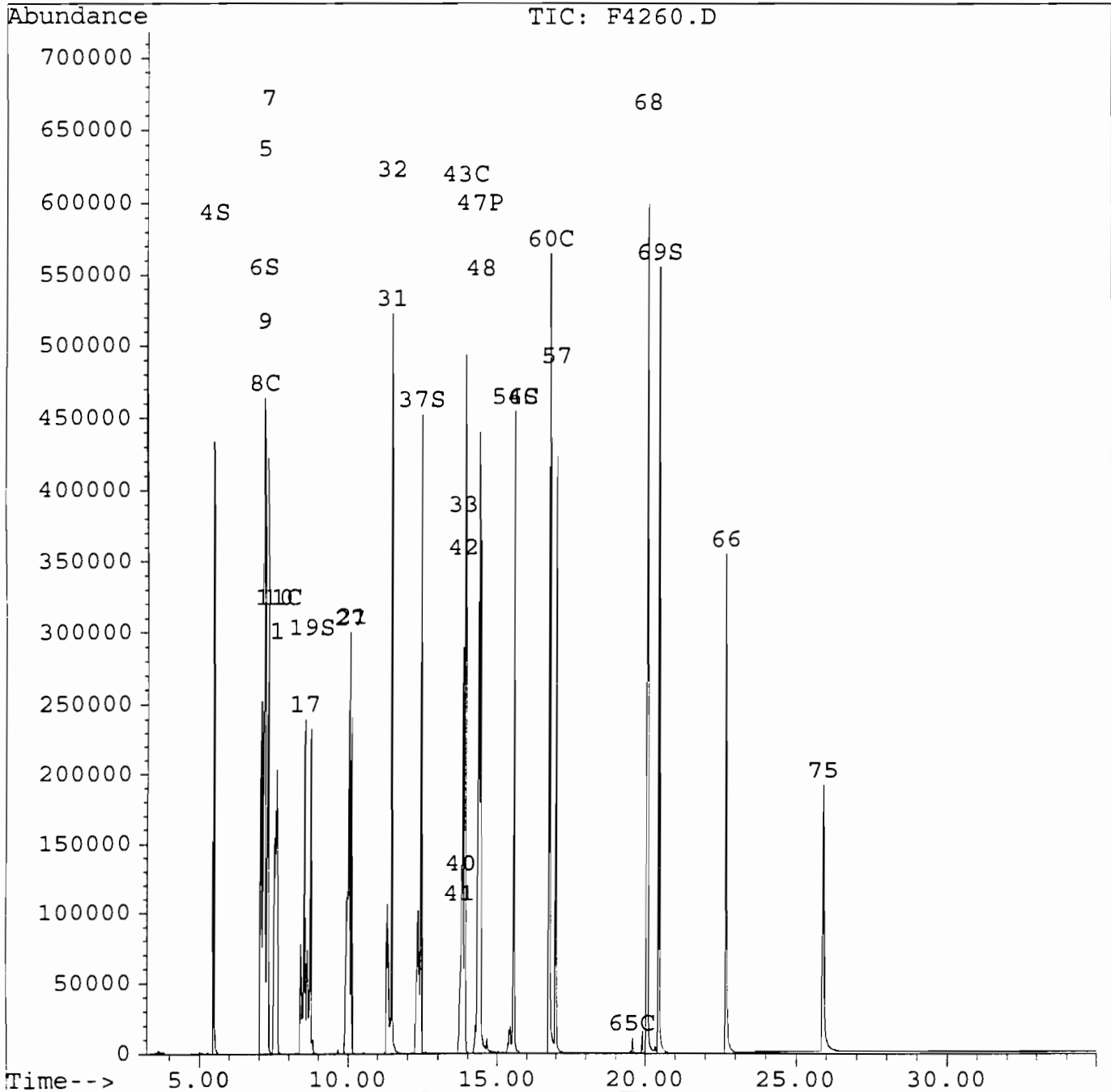
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Aniline	7.19	93	7875	2.19	ng/uLm	74
7) 2-Chlorophenol (8G)	7.29	128	222982	91.87	ng/uLm	77
8) Phenol (5G)	7.18	94	211591	79.83	ng/uLm	95
9) Bis (2-Chloroethyl) Ether (	7.19	93	7875	2.88	ng/uLm	57
10) 1,3-Dichlorobenzene (9G)	7.61	146	126900	43.72	ng/uLm	99
11) 1,4-Dichlorobenzene (10G)	7.61	146	240793	88.04	ng/uLm	100
17) n-Nitosodipropyl Amine (16G)	8.53	70	122533	68.78	ng/uLm	49
27) 1,2,4-Trichlorobenzene (27G)	10.03	180	180471	90.56	ng/uLm	93
31) p-Chloro-m-Cresol (31G)	11.47	107	241010	127.93	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.47	142	215186	63.80	ng/uL#	51
40) Acenaphthylene (41G)	13.79	152	34190	5.63	ng/uL#	89
41) Dimethyl Phthalate (40G)	13.73	163	3753	0.80	ng/uL#	1
42) 2,6-Dinitrotoluene (42G)	13.84	165	12576	9.18	ng/uL#	72
43) Acenaphthene (44G)	13.91	153	303567	80.31	ng/uL#	83
47) 4-Nitrophenol (46g)	14.39	109	114708	213.71	ng/uL#	27
48) 2,4-Dinitrotoluene (48G)	14.44	165	187185	93.84	ng/uL#	71
54) n-Nitrosodiphenyl Amine (56)	15.57	169	4424	1.61	ng/uL#	34
60) Pentachlorophenol (60G)	16.77	266	216845	147.41	ng/uL#	77
65) Fluoranthene (64G)	19.57	202	10959	1.07	ng/uL#	94
68) Pyrene (67G)	20.07	202	788112	62.61	ng/uL#	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4260.D
Acq Time : Data Taken: 3/26/99 @ 19:46 Operator: AM9951
Sample : Inst :
Misc : BL.SPK, QC8167 M SPB-5 CAP COLUMN Multiplr: 1.00
Quant Time: Mar 24 1:22 1999

Method : C:\METHODS\CF4189.M
Title : BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Mar 23 13:25:06 1999
Response via : Multiple Level Calibration



ANALAB-RANDOLPH FACILITY
 1152 ROUTE 10
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 973-584-0330, FAX: 973-584-0515

Certified for: NJ, PA, DE, CT, NY(DOH)
 NJ #14116 NY #11376
 US EPA CLP Lab

QUALITY ASSURANCE DATA
 GC/MS SEMIVOLATILE QA SAMPLE

BATCH: QC8167 Initial wt/vol: 30
 Final vol: 1
 Matrix: SOIL Unit: ug/L

COMPOUND NAME	CONC ADDED	CONC FOUND	%REC	QC Limits
2-Chlorophenol	40	36.71	92	50 - 140
1,3-Dichlorobenzene	40	20.28	51	50 - 140
1,4-Dichlorobenzene	40	22.58	56	50 - 140
N-Nitroso-di-n-propylamin	40	24.6	62	50 - 140
Hexachloroethane	40	37.63	94	50 - 140
Nitrobenzene	40	22.89	57	50 - 140
2-Nitrophenol	40	35.43	89	50 - 140
2,4-Dimethylphenol	40	39.92	100	50 - 140
bis(2-Chloroethoxy)methan	40	40.82	102	50 - 140
2,4-Dichlorophenol	40	41.74	104	50 - 140
1,2,4-Trichlorobenzene	40	32.18	80	50 - 140
Naphthalene	40	33.42	84	50 - 140
Hexachlorobutadiene	40	29.76	74	50 - 140
4-Chloro-3-methylphenol	40	48.06	120	50 - 140
2-Methylnaphthalene	40	24.37	61	50 - 140
2-Chloronaphthalene	40	39.63	99	50 - 140
Acenaphthylene	40	38.15	95	50 - 140
2,6-Dinitrotoluene	40	37.77	94	50 - 140
Acenaphthene	40	38.65	97	50 - 140
2,4-Dinitrotoluene	40	41.07	103	50 - 140
Fluorene	40	45.35	113	50 - 140
4-Bromophenyl-phenylether	40	33.53	84	50 - 140
Hexachlorobenzene	40	32.8	82	50 - 140
Pentachlorophenol	40	31.67	79	50 - 140
Phenanthrene	40	36.7	92	50 - 140
Anthracene	40	38.35	96	50 - 140
Carbazole	40	41.13	103	50 - 140
Fluoranthene	40	34.95	87	50 - 140
Pyrene	40	33.15	83	50 - 140
Benzo[a]anthracene	40	30.98	77	50 - 140
Chrysene	40	31.18	78	50 - 140
Benzo[b]fluoranthene	40	29.74	74	50 - 140
Benzo[k]fluoranthene	40	27.71	69	50 - 140
Benzo[a]pyrene	40	29.66	74	50 - 140
Indeno[1,2,3-cd]pyrene	40	28.28	71	50 - 140
Dibenz[a,h]anthracene	40	27.5	69	50 - 140

Benzo[g,h,i]perylene

40

27.62

69

50 - 140

tb01qa.XLS

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4261.D

Acq Time : 26 MAR 99 8:31 PM

Operator: AM9951

Sample :

Inst :

Misc : QA/QC, QC8167 M SPB-5 CAP COLUMN

Multiplr: 1.00

Quant Time: Mar 24 1:27 1999

Method : C:\METHODS\CF4189.M

Title : BNA STANDARDS FOR 5 POINT CALIBRATION

Last Update : Tue Mar 23 13:25:06 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-Dichlorobenzene	7.58	152	87346	40.00	ng/uL	-0.02
21) d8-Naphthalene	10.11	136	200685	40.00	ng/uL	-0.04
33) d10-Acenaphthene	13.83	164	110870	40.00	ng/uL	-0.06
57) d10-Phenanthrene	16.98	188	393336	40.00	ng/uL	-0.06
66) d12-Chrysene	22.69	240	304730	40.00	ng/uL	-0.07
75) d12-Perylene	25.92	264	217283	40.00	ng/uL	-0.08

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.49	112	226045	105.22	ng/uL	52.61%
6) Phenol-d6	7.15	99	252632	94.94	ng/uL	47.47%
19) Nitobenzene-d5	8.74	82	129523	44.34	ng/uL	44.34%
37) 2-Fluorobiphenyl	12.45	172	320754	78.30	ng/uL	78.30%
56) 2,4,6-Tribromophenol	15.58	330	139363	163.20	ng/uL	81.60%
69) Terphenyl-d14	20.46	244	508446	66.99	ng/uL	66.99%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) n-Nitosodimethylamine	3.69	74	41387	30.46	ng/uLm	0
5) Aniline	7.20	93	48292	13.02	ng/uLm	74
7) 2-Chlorophenol (8G)	7.28	128	91945	36.71	ng/uLm	77
8) Phenol (5G)	7.17	94	64410	23.55	ng/uLm	72
9) Bis (2-Chloroethyl) Ether(	7.22	93	51731	18.32	ng/uLm	65
10) 1,3-Dichlorobenzene (9G)	7.43	146	60726	20.28	ng/uLm	88
11) 1,4-Dichlorobenzene (10G)	7.61	146	63736	22.58	ng/uLm	80
12) 1,2-Dichlorobenzene (12G)	7.96	146	52143	24.27	ng/uLm	91
13) Benzyl Alcohol	8.18	79	5595	2.65	ng/uLm	54
14) Bis (2-Chloroisopropyl) Et	8.23	45	107806	26.88	ng/uLm	98
16) Hexachloroethane (17G)	8.53	117	42445	37.63	ng/uLm	98
17) n-Nitosodipropyl Amine (16G)	8.52	70	45225	24.60	ng/uLm	49
20) Nitrobenzene (20G)	8.77	77	60815	22.89	ng/uLm	93
22) Isophorone	9.24	82	134546	34.38	ng/uL	98
23) 2-Nitrophenol (22G)	9.40	139	41726	35.43	ng/uL#	66
24) 2,4-Dimethylphenol (23G)	9.57	107	66393	39.92	ng/uL	94
25) Bis (2-Chloroethoxy) Metha	9.74	93	79422	40.82	ng/uL	100
26) 2,4-Dichlorophenol (26G)	9.90	162	67269	41.74	ng/uL#	89
27) 1,2,4-Trichlorobenzene (27G)	10.04	180	57411	32.18	ng/uL#	92
28) Naphthalene (28)	10.14	128	166156	33.42	ng/uL#	96
29) 4-Chloroaniline (29G)	10.14	127	19957	8.48	ng/uL#	66
30) Hexachlorobutadiene (30G)	10.54	225	33152	29.76	ng/uL#	78
31) p-Chloro-m-Cresol (31G)	11.45	107	81056	48.06	ng/uL#	97
32) 2-Methylnaphthalene (32)	11.45	142	73567	24.37	ng/uL#	51
34) Hexachlorocyclopentadiene (	12.07	237	32069	30.62	ng/uL#	71
35) 2,4,6-Trichlorophenol (35G)	12.30	196	61544	37.88	ng/uL	99
36) 2,4,5-Trichlorophenol (36G)	12.30	196	61544	28.15	ng/uL	98
38) 2-Chloronaphthalene (37G)	12.62	162	153318	39.63	ng/uL#	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\RTE\BNA\F42_D\F4261.D

Acq Time : 26 MAR 99 8:31 PM

Operator: AM9951

Sample :

Inst :

Misc : QA/QC, QC8167 M SPB-5 CAP COLUMN

Multiplr: 1.00

Quant Time: Mar 24 1:27 1999

Method : C:\METHODS\CF4189.M

Title : BNA STANDARDS FOR 5 POINT CALIBRATION

Last Update : Tue Mar 23 13:25:06 1999

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Acenaphthylene (41G)	13.50	152	259536	38.15	ng/uL#	89
41) Dimethyl Phthalate (40G)	13.44	163	223571	42.34	ng/uL	100
42) 2,6-Dinitrotoluene (42G)	13.59	165	57890	37.77	ng/uL#	72
43) Acenaphthene (44G)	13.91	153	163531	38.65	ng/uL#	83
44) 3-Nitroaniline (43G)	14.10	138	809	0.71	ng/uL#	100
45) 2,4-Dinitrophenol (45G)	14.10	184	42779	32.16	ng/uL#	61
47) 4-Nitrophenol (46g)	14.34	109	26325	43.82	ng/uL#	24
48) 2,4-Dinitrotoluene (48G)	14.43	165	91691	41.07	ng/uL#	71
49) Fluorene (51G)	14.99	166	190257	45.35	ng/uL#	54
50) Diethyl Phthalate (49G)	14.97	149	229179	57.57	ng/uL	99
51) 4-Chlorophenyl Phenyl Ethe	15.02	204	103975	49.60	ng/uL#	75
53) 4,6-Dinitro-2-Methylphenol	15.30	198	55824	44.36	ng/uL#	17
54) n-Nitrosodiphenyl Amine (56	15.33	169	152115	49.54	ng/uL#	25
55) Azobenzene	15.35	77	303943	57.08	ng/uL	94
58) 4-Bromophenyl Phenyl ether	16.05	248	65212	33.53	ng/uL#	79
59) Hexachlorobenzene (59G)	16.34	284	75479	32.80	ng/uL#	80
60) Pentachlorophenol (60G)	16.76	266	50165	31.67	ng/uL#	77
61) Phenanthrene (61G)	17.03	178	354650	36.70	ng/uLm ³	94
62) Anthracene (62G)	17.13	178	379941	38.35	ng/uL#	94
63) Carbazole (21S)	17.52	167	367868	41.13	ng/uL#	89
64) Di-n-butyl Phthalate (63G)	18.42	149	487280	48.61	ng/uL#	99
65) Fluoranthene (64G)	19.58	202	383707	34.95	ng/uL	99
67) Benzidine	19.93	184	31417	9.96	ng/uL#	96
68) Pyrene (67G)	20.06	202	393374	33.15	ng/uL#	92
70) Butylbenzyl Phthalate (69G)	21.60	149	221069	37.55	ng/uL#	70
71) Benzo- (a) -Anthracene (71G)	22.65	228	301872	30.98	ng/uLm ³	90
72) 3,3'-Dichlorobenzidine	22.67	252	100125	46.36	ng/uL#	97
73) Chrysene (72G)	22.75	228	310323	31.18	ng/uL#	89
74) Bis (2-Ethylhexyl) Phthala	22.89	149	309149	40.19	ng/uL	99
76) Di-n-Octyl Phthalate (75G)	24.18	149	506539	37.09	ng/uL	100
77) Benzo- (b) -Fluoranthene (76G)	24.97	252	242540	29.74	ng/uL#	97
78) Benzo- (k) -Fluoranthene (77G)	25.03	252	237156	27.71	ng/uLm ³	98
79) Benzo- (a) -Pyrene (78G)	25.76	252	210022	29.66	ng/uL#	96
80) Indeno- (1,2,3-cd) -Pyrene (7	29.21	276	129340	28.28	ng/uL#	90
81) Dibenzo- (a,h) -Anthracene (8	29.29	278	103248	27.50	ng/uL	95
82) Benzo- (g,h,i) - Perylene (81	30.19	276	97020	27.62	ng/uL	91

(#) = qualifier out of range (m) = manual integration

ICM LABORATORIES QUALITY CONTROL REPORT

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY METHOD 8270

Lab Name: ICM Laboratories

Date Analyzed: 3/25/99

Lab File ID (Standard): F4237.D

Time Analyzed: 11:24

Instrument ID: 5970_4

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	89256	7.58	340170	10.12	171651	13.85
UPPER LIMIT	178512	8.08	680340	10.62	343302	14.35
LOWER LIMIT	44628	7.08	170085	9.62	85826	13.35
LABORATORY SAMPLE NAME						
01 BLANK, QC8170	60327	7.57	224398	10.10	102708	13.83
02 QA/QC, QC8170	63984	7.58	253561	10.11	114966	13.84
03 BLANK SPIKE, QC817	62589	7.59	223267	10.11	112858	13.84
04 BL.SPK DUP, QC8170	62123	7.59	245909	10.11	111564	13.84
05 306389, QC8170	63476	7.56	240035	10.10	117373	13.84
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

CONCENTRATION OF EACH INTERNAL
STANDARD = 40PPM IN EXTRACT

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

ICM LABORATORIES QUALITY CONTROL REPORT

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY METHOD 8270

Lab Name ICM Laboratories

Date Analyzed:

3/25/99

Lab File ID (Standard): F4237.D

Time Analyzed:

11:24

Instrument ID:

5970_4

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	508772	17.00	343245	22.72	180266	25.93
UPPER LIMIT	1017544	17.50	686490	23.22	360532	26.43
LOWER LIMIT	254386	16.50	171623	22.22	90133	25.43
SAMPLE NO.						
01 BLANK, QC8170	319077	16.98	285242	22.68	187206	25.90
02 QA/QC, QC8170	357751	16.98	292018	22.70	181438	25.92
03 BLANK SPIKE, QC81	358058	16.99	317770	22.69	204503	25.91
04 BL.SPK DUP, QC8170	346143	16.99	309351	22.69	193154	25.91
05 306389, QC8170	365233	16.97	326837	22.69	212770	25.91
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IS4 (PHN) = Phenanthrene-d10
 IS5 (CRY) = Chrysene-d12
 IS6 (PRY) = Perylene-d12

CONCENTRATION OF EACH INTERNAL
 STANDARD = 40PPM IN EXTRACT

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
 * Values outside of QC limits.

ICM LABORATORIES QUALITY CONTROL REPORT

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY METHOD 8270

Lab Name: ICM Laboratories

Date Analyzed: 3/26/99

Lab File ID (Standard): F4258.D

Time Analyzed: 18:14

Instrument ID: 5970_4

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	96669	7.57	363865	10.12	172856	13.85
UPPER LIMIT	193338	8.07	727730	10.62	345712	14.35
LOWER LIMIT	48335	7.07	181933	9.62	86428	13.35
LABORATORY SAMPLE NAME						
01 BLANK, QC8167 M SP	79232	7.56	275244	10.10	125250	13.83
02 BL.SPK, QC8167 M S	84645	7.58	224179	10.11	99049	13.84
03 QA/QC, QC8167 M SP	87346	7.58	200685	10.11	110870	13.83
04 306397, QC8167 M S	107702	7.57	404659	10.10	171269	13.84
05 306398, QC8167 M S	93192	7.56	365520	10.09	160761	13.83
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IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

CONCENTRATION OF EACH INTERNAL
STANDARD = 40PPM IN EXTRACT

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

ICM LABORATORIES QUALITY CONTROL REPORT

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

METHOD 8270

Lab Name ICM Laboratories

Date Analyzed:

3/26/99

Lab File ID (Standard): F4258.D

Time Analyzed:

18:14

Instrument ID: 5970_4

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	478003	17.00	309896	22.71	214349	25.92
UPPER LIMIT	956006	17.50	619792	23.21	428698	26.42
LOWER LIMIT	239002	16.50	154948	22.21	107175	25.42
SAMPLE NO.						
01 BLANK, QC8167 M S	371814	16.97	311718	22.68	233881	25.90
02 BL.SPK, QC8167 M S	365252	16.99	323237	22.68	242816	25.90
03 QA/QC, QC8167 M S	393336	16.98	304730	22.69	217283	25.92
04 306397, QC8167 M S	463536	16.97	394999	22.68	285699	25.91
05 306398, QC8167 M S	450893	16.97	392633	22.69	264657	25.91
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IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

CONCENTRATION OF EACH INTERNAL STANDARD = 40PPM IN EXTRACT

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

ICM LABORATORIES QUALITY CONTROL REPORT

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY METHOD 8270

Lab Name: ICM Laboratories

Date Analyzed: 3/29/99

Lab File ID (Standard): F4276.D

Time Analyzed: 11:58

Instrument ID: 5970_4

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	100366	7.53	383271	10.08	189782	13.80
UPPER LIMIT	200732	8.03	766542	10.58	379564	14.30
LOWER LIMIT	50183	7.03	191636	9.58	94891	13.30
LABORATORY SAMPLE NAME						
01 306393, QC8167 M S	32120 *	7.51	140500 *	10.05	72606 *	13.78
02 306390, QC8167 M S	56075	7.52	229446	10.05	106172	13.78
03 306390MS, QC8167 M	113818	7.52	474951	10.06	261726	13.79
04 306390MSDQC8167 M	228253 *	7.53	840713 *	10.08	500294 *	13.80
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
 IS2 (NPT) = Naphthalene-d8
 IS3 (ANT) = Acenaphthene-d10

CONCENTRATION OF EACH INTERNAL
 STANDARD = 40PPM IN EXTRACT

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
 * Values outside of QC limits.

ICM LABORATORIES QUALITY CONTROL REPORT

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

METHOD 8270

Lab Name ICM Laboratories

Date Analyzed: 3/29/99

Lab File ID (Standard): F4276.D

Time Analyzed: 11:58

Instrument ID: 5970_4

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	543517	16.94	366400	22.66	205256	25.85
UPPER LIMIT	1087034	17.44	732800	23.16	410512	26.35
LOWER LIMIT	271759	16.44	183200	22.16	102628	25.35
SAMPLE NO.						
01 306393, QC8167 M S	269989 *	16.92	196854	22.63	91916 *	25.83
02 306390, QC8167 M S	292700	16.91	108775 *	22.62	46263 *	25.81
03 306390MS, QC8167 M	613129	16.93	165678 *	22.60	86785 *	25.79
04 306390MSDQC8167	976861	16.95	290489	22.62	179188	25.81
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IS4 (PHN) = Phenanthrene-d10
 IS5 (CRY) = Chrysene-d12
 IS6 (PRY) = Perylene-d12

CONCENTRATION OF EACH INTERNAL
 STANDARD = 40PPM IN EXTRACT

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
 * Values outside of QC limits.

ICM LABORATORIES QUALITY CONTROL REPORT

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY METHOD 8270

Lab Name: ICM Laboratories

Date Analyzed: 3/30/99

Lab File ID (Standard): F4289.D

Time Analyzed: 13:19

Instrument ID: 5970_4

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	91987	7.55	325602	10.10	140962	13.83
UPPER LIMIT	183974	8.05	651204	10.60	281924	14.33
LOWER LIMIT	45994	7.05	162801	9.60	70481	13.33
LABORATORY SAMPLE NAME						
01 306394 5X, QC8167 M	120311	7.54	450823	10.08	189211	13.83
02 306392 10X, QC8167	122137	7.54	441117	10.08	179878	13.82
03 306395 , QC8167 M S	109019	7.54	535923	10.08	229387	13.81
04 306391 , QC8167 M S	146542	7.55	617843	10.10	273459	13.83
05 306396 , QC8167 M S	62317	7.54	313592	10.08	152579	13.82
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IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

CONCENTRATION OF EACH INTERNAL
STANDARD = 40PPM IN EXTRACT

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

ICM LABORATORIES QUALITY CONTROL REPORT

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY METHOD 8270

Lab Name ICM Laboratories

Date Analyzed: 3/30/99

Lab File ID (Standard): F4289.D

Time Analyzed: 13:19

Instrument ID: 5970_4

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	354565	16.96	145287	22.68	83587	25.88
UPPER LIMIT	709130	17.46	290574	23.18	167174	26.38
LOWER LIMIT	177283	16.46	72644	22.18	41794	25.38
SAMPLE NO.						
01 306394 5X, QC8167 M	399072	16.97	192515	22.68	128644	25.90
02 306392 10X, QC8167	421839	16.96	148058	22.66	84387	25.89
03 306395 , QC8167 M S	648436	16.96	176902	22.67	69442	25.88
04 306391 , QC8167 M S	440346	16.97	129922	22.69	67363	25.92
05 306396 , QC8167 M S	327735	16.95	106348	22.66	45191	25.88
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IS4 (PHN) = Phenanthrene-d10
 IS5 (CRY) = Chrysene-d12
 IS6 (PRY) = Perylene-d12

CONCENTRATION OF EACH INTERNAL
 STANDARD = 40PPM IN EXTRACT

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
 * Values outside of QC limits.

Sample #	Sample wt. or volume	Final Volume	Date Ext	Ext. Ini.	Date Conc.	Conc. Ini.	Comments
B	1000ml	1ml	3/16	JK	3/22	JK	
BS	↓	b	↓	b	b	b	
MSD	↓	b	↓	b	b	b	
366389	1000ml	1ml	3/16	JK	3/22	JK	
QA16L	↓	b	↓	b	b	b	625 spike
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	ml's added	concentration	standard ref#
Surrogate	1	AF 100ppm	3-E-42
625 Spike	1	40 ppm	3-F-4-3
6270 Spike	1		2-F-13-1

Relinquished By	Received By	Supervisor	Date	Reason
<i>[Signature]</i>	<i>[Signature]</i>	Tom Mascaro	3/16	GC/MS Analysis

(Circle One)

Matrix: Soil Water Sludge Liquid non-aqueous Other _____

Extraction Method: Separatory Funnel Liquid/Liquid Sonication ASE Soxhlet Waste Dilution



GC/MS LAB CHRONICLE SEMI-VOLATILE ORGANICS

DATE: 03/22/99	SHIFT:	STANDARDS	LOT #
INSTRUMENT #: 4F	MODEL: 5970	DFTPP	
ANALYSIS: <u>625</u>	FUEL OIL	<u>8270</u>	
CLP	TCLP	OTHER _____	INTERNAL STD 4-2-12-2
MATRIX: WATER	SOIL	SLUDGE	
LEACHATE	OTHER _____		
TUNE FILE: MTA004			
SEQUENCE FILES:			
METHOD FILES: BNP4 and DFTPP4		ANALYST: <i>Angie Rolta</i>	
ID FILES: ABNF		SUPERVISOR: <i>Tom Mancini</i>	
CALIBRATION FILES:	n62 - 1.338	BATCH #:	

NAME	DATA FILE	ALS #	DILUTION	SAMPLE DATE	TEST	TIME	COMMENTS
DFTPP050	F4188	1				15:24	OK
SSTD100	F4189	2				15:48	OK
SSTD120	F4190	3				16:34	OK
SSTD080	F4191	4				17:20	OK
SSTD050	F4192	5				18:06	OK
SSTD020	F4193	6				18:52	OK
Blank	F4195	8					QC 8154 OK
BS	F4196	9					OK
BSD	F4197	10					OK
QA/QC	F4198	11					OK
305571	F4199	12					QC 8144 OK
Blank II	F4200	13					OK
305887	F4201	14					OK
305890	F4202	15					OK
Blank	F4203	16					QC 8145 OK
305563	F4204	17					OK



GC/MS LAB CHRONICLE SEMI-VOLATILE ORGANICS

DATE: <u>01/20/19</u>	SHIFT: _____	STANDARDS	LOT #
INSTRUMENT #: <u>4F</u>	MODEL: <u>5970</u>	DFTPP	<u>11-12-1</u>
ANALYSIS: <u>625</u>	FUEL OIL	(<u>8270</u>)	CAL STD <u>11-11-4</u>
<u>CLP</u>	TCLP	OTHER _____	INTERNAL STD <u>4-12-12-2</u>
MATRIX: <u>WATER</u>	SOIL	SLUDGE	
<u>LEACHATE</u>	OTHER _____		
TUNE FILE: <u>MTA004</u>			
SEQUENCE FILES:			
METHOD FILES: <u>BNP4</u> and <u>DFTPP4</u>	ANALYST: <u>Aji melta</u>		
ID FILES: <u>ABNF</u>	SUPERVISOR: <u>Ton mouno</u>		
CALIBRATION FILES:	BATCH #:		

NAME	DATA FILE	ALS #	DILUTION	SAMPLE DATE	TEST	TIME	COMMENTS
DFTPP050	F4236	1				10:59	OK
STD050	F4237	2				11:24	OK
Blank	F4238 ⁴⁰	35				13:42	QC 8170
PA/OC	F4239	46				14:28	↓
BS	F4240	57				15:14	↓
BSD	F4241	68				16:00	↓
306359	F4242	79				16:46	↓
Fl. BIK III	F4243	810					QC 8139 OK
305775	F4244	911					↓ OK
Blank II	F4245	1612					QC 5128
305729	F4246	113					↓
Blank III	F4247	1254					↓ Remon
306337	F4248	130					↓

Sample #	Sample wt. or volume	Final Volume	Date Ext.	Ext. Ini.	Date Conc.	Conc. Ini.	Comments
B	30.10g	1ml	3/19/99	JK	3/19/99	JK	
BS	↓						
306390 MS	30.01g						
b MSD	30.07						
306390 1	30.00						
391 2	30.09						
392 3	30.07						
393 4	30.15						
394 5	30.12						
395 6	30.13						
396 7	30.02						
397 8	30.10						
↓ 398 9	30.02	↓	↓	↓	↓	↓	
GA/6C 10	30.00	↓	↓	↓	↓	↓	
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

	ml's added	concentration	standard ref#
Surrogate	1ml	1000 / 2000	
625 Spike	↓		
8270 Spike	↓		

Relinquished By	Resieved By	Supervisor	Date	Reason
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	3/19/99	GC/MS Analysis

(Circle One)

Matrix: Soil Water Sludge Liquid non-aqueous Other _____

Extraction Method: Separatory Funnel Liquid/Liquid Sonication ASE Soxhlet Waste Dilution



GC/MS LAB CHRONICLE

SEMI-VOLATILE ORGANICS

DATE: 03/26/99	SHIFT:	STANDARDS	LOT #
INSTRUMENT #: 4F	MODEL: 5970	DFTPP	11-12-1
ANALYSIS: 625	FUEL OIL	8270	CAL STD 11-11-4
CLP	TCLP	OTHER	INTERNAL STD 4-12-12-2
MATRIX: WATER	SOIL	SLUDGE	
LEACHATE	OTHER		
TUNE FILE: MTA004			
SEQUENCE FILES:			
METHOD FILES: BNP4 and DFTPP4		ANALYST: Ajai mehta	
ID FILES: ABNF		SUPERVISOR: Tom mason	
CALIBRATION FILES:		BATCH #:	

NAME	DATA FILE	ALS #	DILUTION	SAMPLE DATE	TEST	TIME	COMMENTS
DFTPP050	F4257	1				17:49	ok
SSTD050	F4258	2				18:14	ok
Blank	F4259	3				19:00	QC 8167 ok
BS	F4260	4				19:46	ok
QA/QC	F4261	5				20:31	ok
306397	F4262	6				21:17	ok
306398	F4263	7				22:03	ok
306393	F4264	8					<div style="border-left: 2px solid black; border-right: 2px solid black; border-bottom: 2px solid black; padding: 5px;"> Run stopped. Run OK 8160 500 </div>
306390	F4265	9					
306392	F4266	10					
306395	F4267	11					
306391	F4268	12					
306396	F4269	13					
306394	F4270	14					
306390 BS	F4271	15					
306390 MSD	F4272	16					
Blank V	F4273	17					
306751	F4274	18					



GC/MS LAB CHRONICLE SEMI-VOLATILE ORGANICS

DATE: <u>03/29/97</u>		SHIFT:		STANDARDS	LOT #
INSTRUMENT #: 4F		MODEL: 5970		DFTPP	11-12-1
ANALYSIS: 625		FUEL OIL		CAL STD	11-11-4
CLP		TCLP		INTERNAL STD	4-R-12-2
MATRIX: WATER		SOIL			
LEACHATE		OTHER _____			
TUNE FILE: MTA004					
SEQUENCE FILES:					
METHOD FILES: BNP4 and DFTPP4				ANALYST: <i>Angie mello</i>	
ID FILES: ABNF				SUPERVISOR: <i>Tom manson</i>	
CALIBRATION FILES: CF4189				BATCH #:	

NAME	DATA FILE	ALS #	DILUTION	SAMPLE DATE	TEST	TIME	COMMENTS
DFTPP000	F4275	1				11:07	ok
SDT050	F4276	2				11:58	ok
306393	F4277	3				13:56	QC 8167 ok ✓
306390	F4278	4				14:42	ok ✓
306392	F4279	5					needs lot
306395	F4280	6					ES low
306391	F4281	7					"
306396	F4282	8					"
306394	F4283	9					needs 5x
306390 ms	F4284	10				20:00	ES low ✓
306390 mSD	F4285	11				20:46	" ✓
Bknt IV	F4286	12					QC 8167, NYA 2 low ↓
306391	F4287	12					↓ ↓



GC/MS LAB CHRONICLE SEMI-VOLATILE ORGANICS

DATE: 05/20/99	SHIFT:	STANDARDS	LOT #
INSTRUMENT #: 4F	MODEL: 5970	DFTPP	11-12-1
ANALYSIS: 625	FUEL OIL 8270	CAL STD	11-11-4
CLP	TCLP	INTERNAL STD	4-12-1-4
MATRIX: WATER	SOIL		
LEACHATE	OTHER _____		
TUNE FILE: MTA004			
SEQUENCE FILES:			
METHOD FILES: BNP4 and DFTPP4		ANALYST: <i>Jim Meltz</i>	
ID FILES: ABNF		SUPERVISOR: <i>Jon Mauer</i>	
CALIBRATION FILES:		BATCH #:	

NAME	DATA FILE	ALS #	DILUTION	SAMPLE DATE	TEST	TIME	COMMENTS
DFTPP050	F4288	1				11:23	<i>etc</i>
STD050	F4289	2				13:19	<i>u</i>
Blank III	F4290	3					QC #128 <i>u</i>
306337	F4271	4					↓
306394	F4272	5	5X			16:15	QC #167
306392	F4293	6	10X			17:00	↓
306395	F4294	7				17:46	↓
306391	F4295	8				18:31	↓
306396	F4296	9				19:17	↓
							532

ANALab, Inc. - Randolph Facility
1152 Route 10
Randolph, NJ 07869
973-584-0330, FAX: 973-584-0515
APRIL 12, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
NJ #14116 NY #11376
US EPA CLP Lab

DIESEL RANGE ORGANIC PETROLEUM HYDROCARBONS BY GC
METHOD BLANK SUMMARY

Batch Number: QDR8159
Sample wt/vol: 25
Sample Matrix: Soil
Analysis Date: 04/09/99
Final volume: 1
Column used: RTX-5
Dilution Factor: 1
Extraction Date: 04/08/99

Parameter	Result mg/kg	Minimum Detection Limit mg/kg	Practical Quantitation Limit mg/kg
DRO Petroleum Hydrocarbons	U	4.0	4.0

U = Not detected
Results reported as mg/kg (ppm) are reported on a dry weight basis.

missing 306389

Associated Samples:

306390 306391 306392 306393 306394
306395 306396 306397 306398

ANALab, Inc. - Randolph Facility
Thomas Mancuso, Lab Mgr.
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LOU

Data File : E:\1\DATA\DA1544.D Vial: 7
 Acq On : 9 Apr 99 00:19 Operator:
 Sample : BLANK Inst : GC 5890_4
 Misc : QDR8195 Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Apr 12 11:14 1999 Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
 Title : GC TPH DRO METHOD - Total Area Quantitation
 Last Update : Mon Apr 12 09:21:56 1999
 Response via : Initial Calibration
 DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
 Signal Phase : Restek RTx-5
 Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Ortho-Terphenyl	18.04	1393716	19.829 µg/ml
Spiked Amount 20.000		Recovery =	99.15%
Target Compounds			
2) HM DIESEL RANGE	17.00	2729799	39.280 µg/ml

Handwritten signature

Quantitation Report

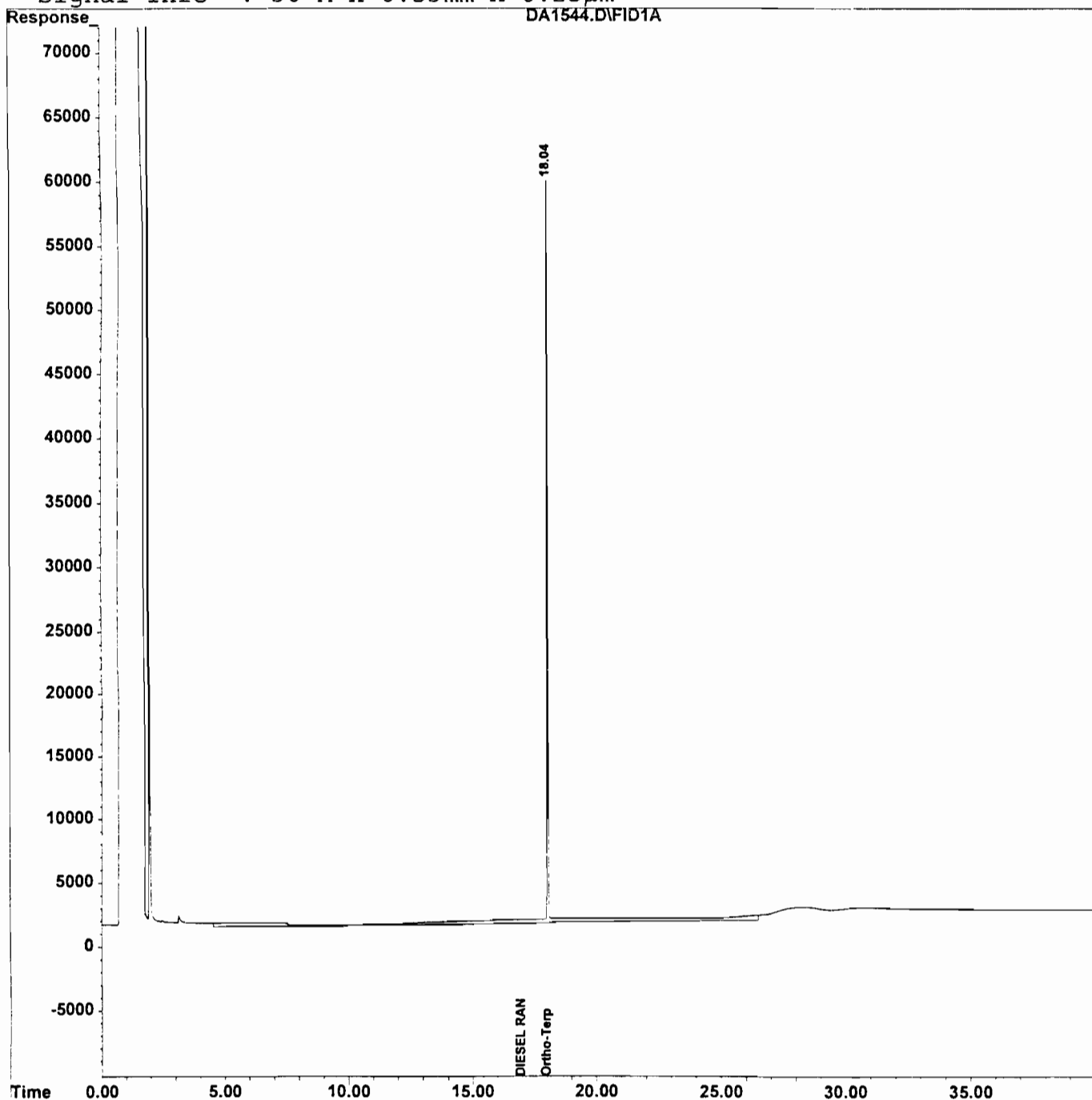
Data File : E:\1\DATA\DA1544.D
Acq On : 9 Apr 99 00:19
Sample : BLANK
Misc : QDR8195
IntFile : EVENTS1.E
Quant Time: Apr 12 11:14 1999

Vial: 7
Operator:
Inst : GC 5890_4
Multiplr: 1.00

Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
Title : GC TPH DRO METHOD - Total Area Quantitation
Last Update : Mon Apr 12 09:21:56 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
Signal Phase : Restek RTx-5
Signal Info : 30 M x 0.53mm x 0.25µm



ANALab Inc. Randolph Facility Quality Control Report

GC SEMIVOLATILE INITIAL CALIBRATION SUMMARY DIESEL RANGE ORGANICS

INSTRUMENT ID: 5890-4
GC COLUMN USED: RTX-5

PRIMARY: X

ANALYTE NAME	CF #1	CF #2	CF #3	CF #4	CF #5	AVERAGE	%RSD
						CF	
DIESEL RANGE	82618	76688	67640	62106	58425	69495	14.5
o-TERPHENYL	71427	70831	70102	70240	68827	70285	1.4

Diesel Range concentration are 100 ug/ml, 250 ug/ml, 500ug/ml, 1000 ug/ml, and 2000ug/ml respectively.

o-Terpheynyl concentrations are 5 ug/ml, 10 ug/ml, 20 ug/ml, 40ug/ml, and 80 ug/ml respectively.

Data File : E:\1\DATA\DA1538.D
 Acq On : 8 Apr 99 19:20
 Sample : DRO MIX 100 PPM
 Misc :
 IntFile : EVENTS1.E
 Quant Time: Apr 12 11:11 1999

Vial: 1
 Operator:
 Inst : GC 5890_4
 Multiplr: 1.00

Quant Results File: DROSOIL.RES

Quant Method : C:\HPCHEM\1\METHODS\DROSOIL.M (Chemstation Integrator)
 Title : GC TPH DRO METHOD - Total Area Quantitation
 Last Update : Mon Apr 12 09:21:56 1999
 Response via : Initial Calibration
 DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
 Signal Phase : Restek RTx-5
 Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Ortho-Terphenyl	18.04	357137	4.740 µg/ml
Spiked Amount 20.000		Recovery =	23.70%
Target Compounds			
2) HM DIESEL RANGE	17.00	8261770	114.002 µg/ml

Handwritten signature

Quantitation Report

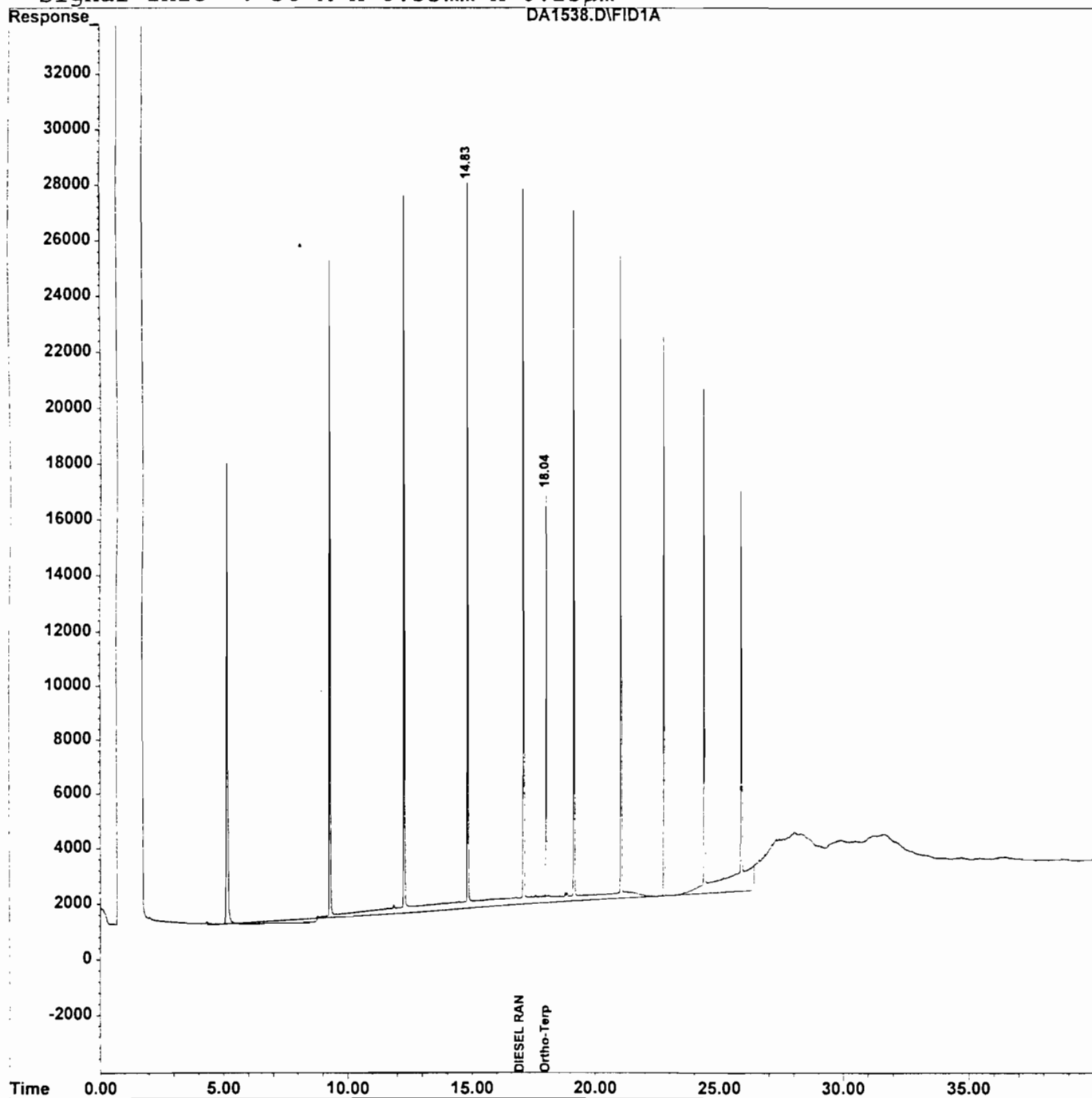
Data File : E:\1\DATA\DA1538.D
Acq On : 8 Apr 99 19:20
Sample : DRO MIX 100 PPM
Misc :
IntFile : EVENTS1.E
Quant Time: Apr 12 11:11 1999

Vial: 1
Operator:
Inst : GC 5890_4
Multiplr: 1.00

Quant Results File: DROSOIL.RES

Quant Method : C:\HPCHEM\1\METHODS\DROSOIL.M (Chemstation Integrator)
Title : GC TPH DRO METHOD - Total Area Quantitation
Last Update : Mon Apr 12 09:21:56 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROSOIL.M

Volume Inj. : 1 μ l injection
Signal Phase : Restek RTx-5
Signal Info : 30 M x 0.53mm x 0.25 μ m



Data File : E:\1\DATA\DA1539.D

Vial: 2

Acq On : 8 Apr 99 20:10

Operator:

Sample : DRO MIX 250 PPM

Inst : GC 5890_4

Misc :

Multiplr: 1.00

IntFile : EVENTS1.E

Quant Time: Apr 12 9:23 1999 Quant Results File: DROSOIL.RES

Quant Method : C:\HPCHEM\1\METHODS\DROSOIL.M (Chemstation Integrator)

Title : GC TPH DRO METHOD - Total Area Quantitation

Last Update : Mon Apr 12 09:21:56 1999

Response via : Initial Calibration

DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection

Signal Phase : Restek RTx-5

Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Ortho-Terphenyl	18.04	708313	9.400 µg/ml
Spiked Amount 20.000		Recovery =	47.00%
Target Compounds			
2) HM DIESEL RANGE	17.00	19171931	264.549 µg/ml

Quantitation Report

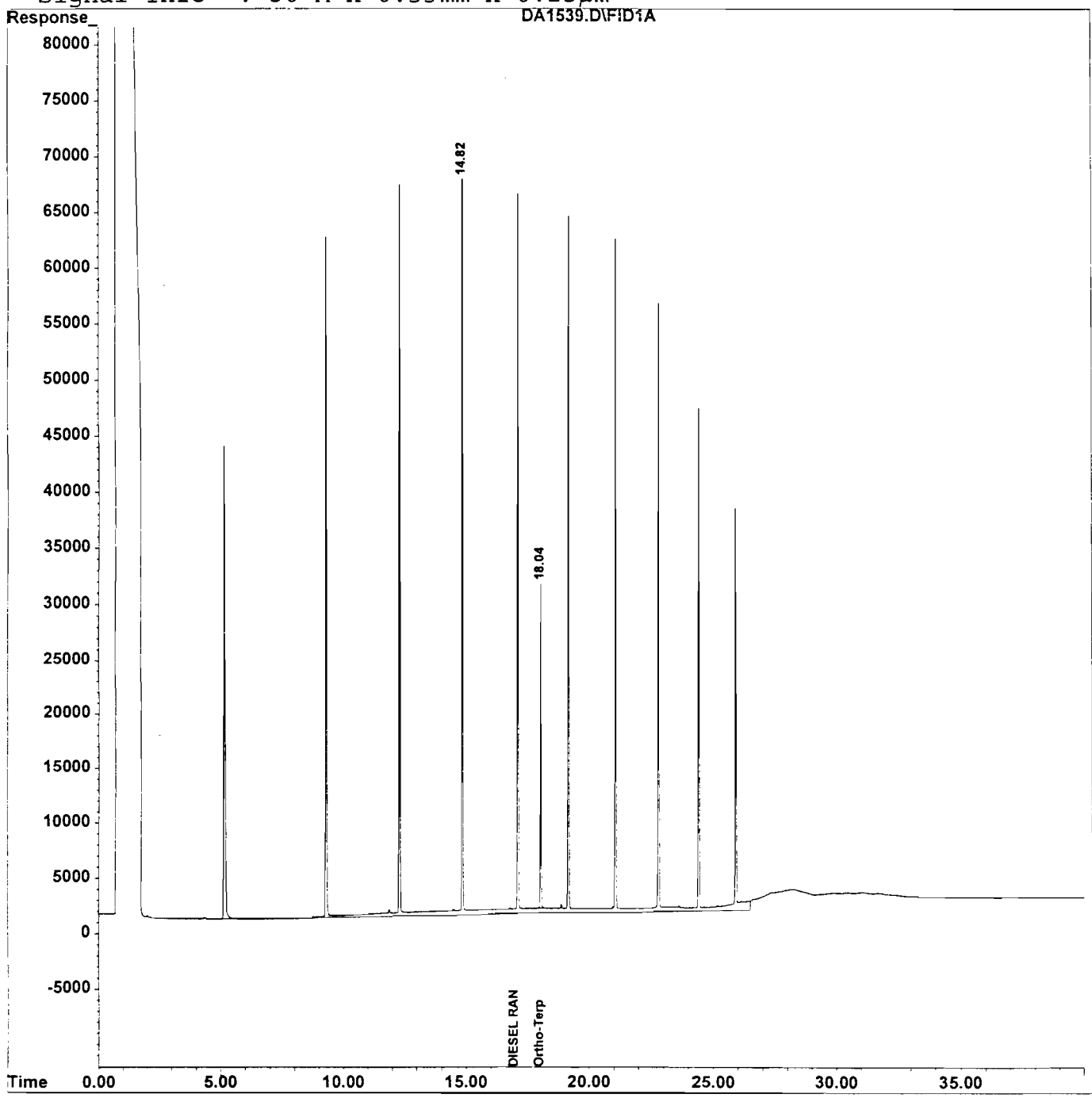
Data File : E:\1\DATA\DA1539.D
Acq On : 8 Apr 99 20:10
Sample : DRO MIX 250 PPM
Misc :
IntFile : EVENTS1.E

Vial: 2
Operator:
Inst : GC 5890_4
Multiplr: 1.00

Quant Time: Apr 12 9:23 1999 Quant Results File: DROSOIL.RES

Quant Method : C:\HPCHEM\1\METHODS\DROSOIL.M (Chemstation Integrator)
Title : GC TPH DRO METHOD - Total Area Quantitation
Last Update : Mon Apr 12 09:21:56 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
Signal Phase : Restek RTX-5
Signal Info : 30 M x 0.53mm x 0.25µm



Data File : E:\1\DATA\DA1540.D

Vial: 3

Acq On : 8 Apr 99 20:59

Operator:

Sample : DRO MIX 500 PPM

Inst : GC 5890_4

Misc :

Multiplr: 1.00

IntFile : EVENTS1.E

Quant Time: Apr 12 9:22 1999 Quant Results File: DROSOIL.RES

Quant Method : C:\HPCHEM\1\METHODS\DROSOIL.M (Chemstation Integrator)

Title : GC TPH DRO METHOD - Total Area Quantitation

Last Update : Mon Apr 12 09:21:56 1999

Response via : Initial Calibration

DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection

Signal Phase : Restek RTX-5

Signal Info : 30 M x 0.53mm x 0.25µm

Compound

R.T.

Response

Conc Units

System Monitoring Compounds

1) S Ortho-Terphenyl	18.05	1402034	18.607 µg/ml
Spiked Amount 20.000		Recovery =	93.04%

Target Compounds

2) HM DIESEL RANGE	17.00	33820226	466.678 µg/ml
--------------------	-------	----------	---------------

7/23 4/12/99

Quantitation Report

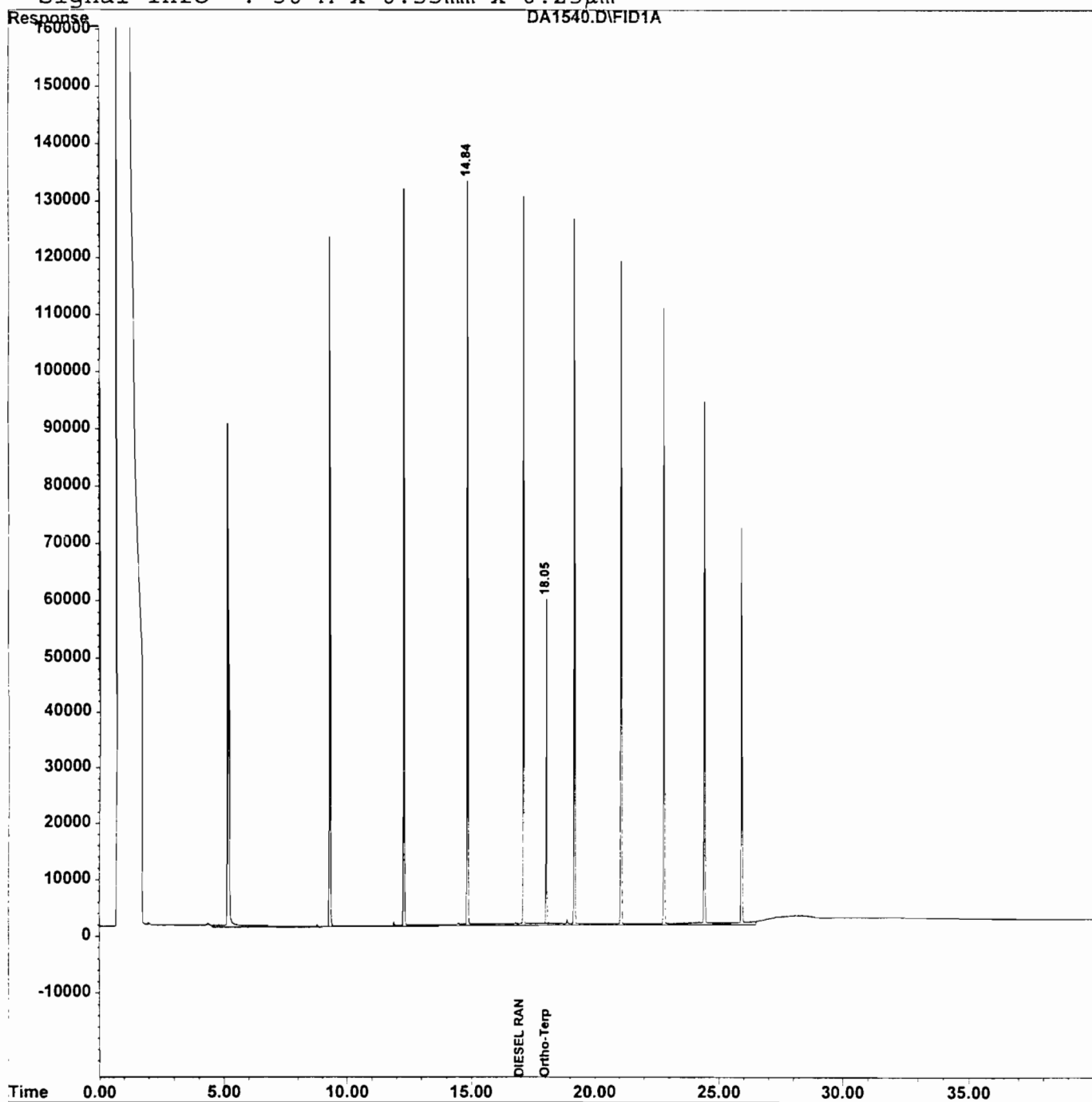
Data File : E:\1\DATA\DA1540.D
Acq On : 8 Apr 99 20:59
Sample : DRO MIX 500 PPM
Misc :
IntFile : EVENTS1.E
Quant Time: Apr 12 9:22 1999

Vial: 3
Operator:
Inst : GC 5890_4
Multiplr: 1.00

Quant Results File: DROSOIL.RES

Quant Method : C:\HPCHEM\1\METHODS\DROSOIL.M (Chemstation Integrator)
Title : GC TPH DRO METHOD - Total Area Quantitation
Last Update : Mon Apr 12 09:21:56 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
Signal Phase : Restek RTX-5
Signal Info : 30 M x 0.53mm x 0.25µm



Data File : E:\1\DATA\DA1541.D Vial: 4
 Acq On : 8 Apr 99 21:49 Operator:
 Sample : DRO MIX 1000 PPM Inst : GC 5890_4
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Apr 12 9:23 1999 Quant Results File: DROSOIL.RES

Quant Method : C:\HPCHEM\1\METHODS\DROSOIL.M (Chemstation Integrator)
 Title : GC TPH DRO METHOD - Total Area Quantitation
 Last Update : Mon Apr 12 09:21:56 1999
 Response via : Initial Calibration
 DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
 Signal Phase : Restek RTx-5
 Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Ortho-Terphenyl	18.05	2809581	37.287 µg/ml
Spiked Amount 20.000		Recovery =	186.44%
Target Compounds			
2) HM DIESEL RANGE	17.00	62106366	856.993 µg/ml

Mo 4/12/99

Quantitation Report

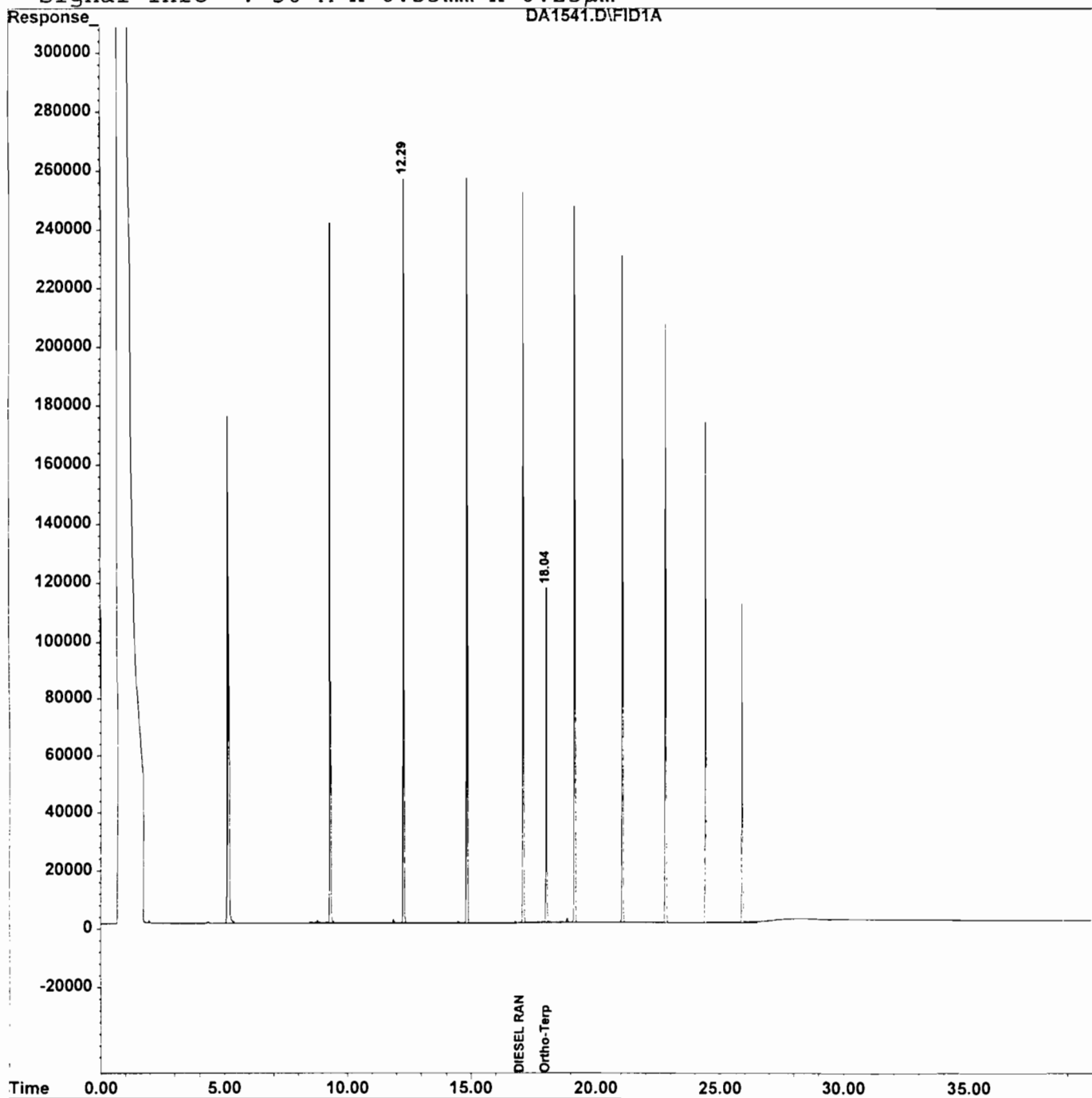
Data File : E:\1\DATA\DA1541.D
Acq On : 8 Apr 99 21:49
Sample : DRO MIX 1000 PPM
Misc :
IntFile : EVENTS1.E
Quant Time: Apr 12 9:23 1999

Vial: 4
Operator:
Inst : GC 5890_4
Multiplr: 1.00

Quant Results File: DROSOIL.RES

Quant Method : C:\HPCHEM\1\METHODS\DROSOIL.M (Chemstation Integrator)
Title : GC TPH DRO METHOD - Total Area Quantitation
Last Update : Mon Apr 12 09:21:56 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
Signal Phase : Restek RTX-5
Signal Info : 30 M x 0.53mm x 0.25µm



Data File : E:\1\DATA\DA1542.D Vial: 5
 Acq On : 8 Apr 99 22:39 Operator:
 Sample : DRO MIX 2000 PPM Inst : GC 5890_4
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Apr 12 9:24 1999 Quant Results File: DROSOIL.RES

Quant Method : C:\HPCHEM\1\METHODS\DROSOIL.M (Chemstation Integrator)
 Title : GC TPH DRO METHOD - Total Area Quantitation
 Last Update : Mon Apr 12 09:21:56 1999
 Response via : Initial Calibration
 DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
 Signal Phase : Restek RTx-5
 Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Ortho-Terphenyl	18.05	5506187	73.074 µg/ml
Spiked Amount 20.000		Recovery =	365.37%
Target Compounds			
2) HM DIESEL RANGE	17.00	116850336	1612.393 µg/ml

WZ 4/12/99

Quantitation Report

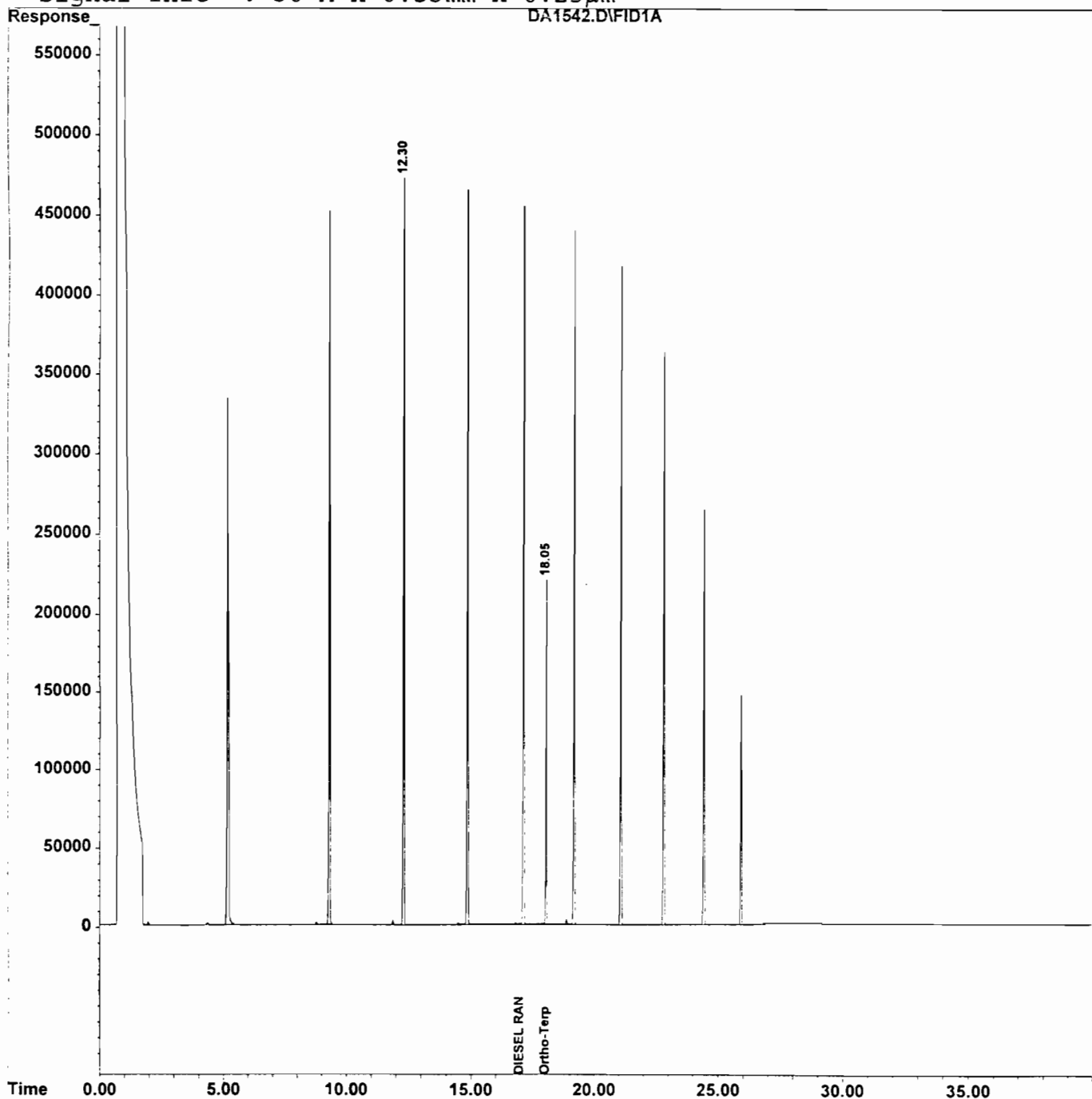
Data File : E:\1\DATA\DA1542.D
Acq On : 8 Apr 99 22:39
Sample : DRO MIX 2000 PPM
Misc :
IntFile : EVENTS1.E
Quant Time: Apr 12 9:24 1999

Vial: 5
Operator:
Inst : GC 5890_4
Multiplr: 1.00

Quant Results File: DROSOIL.RES

Quant Method : C:\HPCHEM\1\METHODS\DROSOIL.M (Chemstation Integrator)
Title : GC TPH DRO METHOD - Total Area Quantitation
Last Update : Mon Apr 12 09:21:56 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROSOIL.M

Volume Inj. : 1 μ l injection
Signal Phase : Restek RTX-5
Signal Info : 30 M x 0.53mm x 0.25 μ m



ICM LABORATORIES QUALITY CONTROL REPORT

GC SEMIVOLATILE CONTINUING CALIBRATION SUMMARY DIESEL RANGE ORGANICS

INSTRUMENT ID: 5890-4

GC COLUMN USED: RTx-5

ANALYTE NAME	STANDARD CONC. $\mu\text{g/ml}$	INITIAL CALIB. FACTOR	CONT. CALIB FACTOR	%D	RT WINDOWS	ANALYSIS DATE	ANALYSIS TIME
DRO	500	69496	68630	1.2	6.00 - 28.00	8-Apr-99	23:29
O-TERPHENYL	20	7	7	1.9	17.97 - 18.11	8-Apr-99	23:29

Calibration Factor = Integrated Area / True Concentration

DRO - Diesel Range Organics

O-TERPHENYL - ortho-Terphenyl

Associated Field, QC, and Method Blank Samples:

306391, 306392, 306397, 306398, 306398 S, 306398 SD, BLANK SPIKE, QDR8195 BLANK

Data File : E:\1\DATA\DA1543.D Vial: 6
 Acq On : 8 Apr 99 23:29 Operator:
 Sample : DRO MIX 500 PPM Inst : GC 5890_4
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Apr 12 11:14 1999 Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
 Title : GC TPH DRO METHOD - Total Area Quantitation
 Last Update : Mon Apr 12 09:21:56 1999
 Response via : Initial Calibration
 DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
 Signal Phase : Restek RTx-5
 Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Ortho-Terphenyl	18.04	1431923	20.373 µg/ml
Spiked Amount 20.000		Recovery =	101.87%
Target Compounds			
2) HM DIESEL RANGE	17.00	34314877	493.771 µg/ml

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Quantitation Report

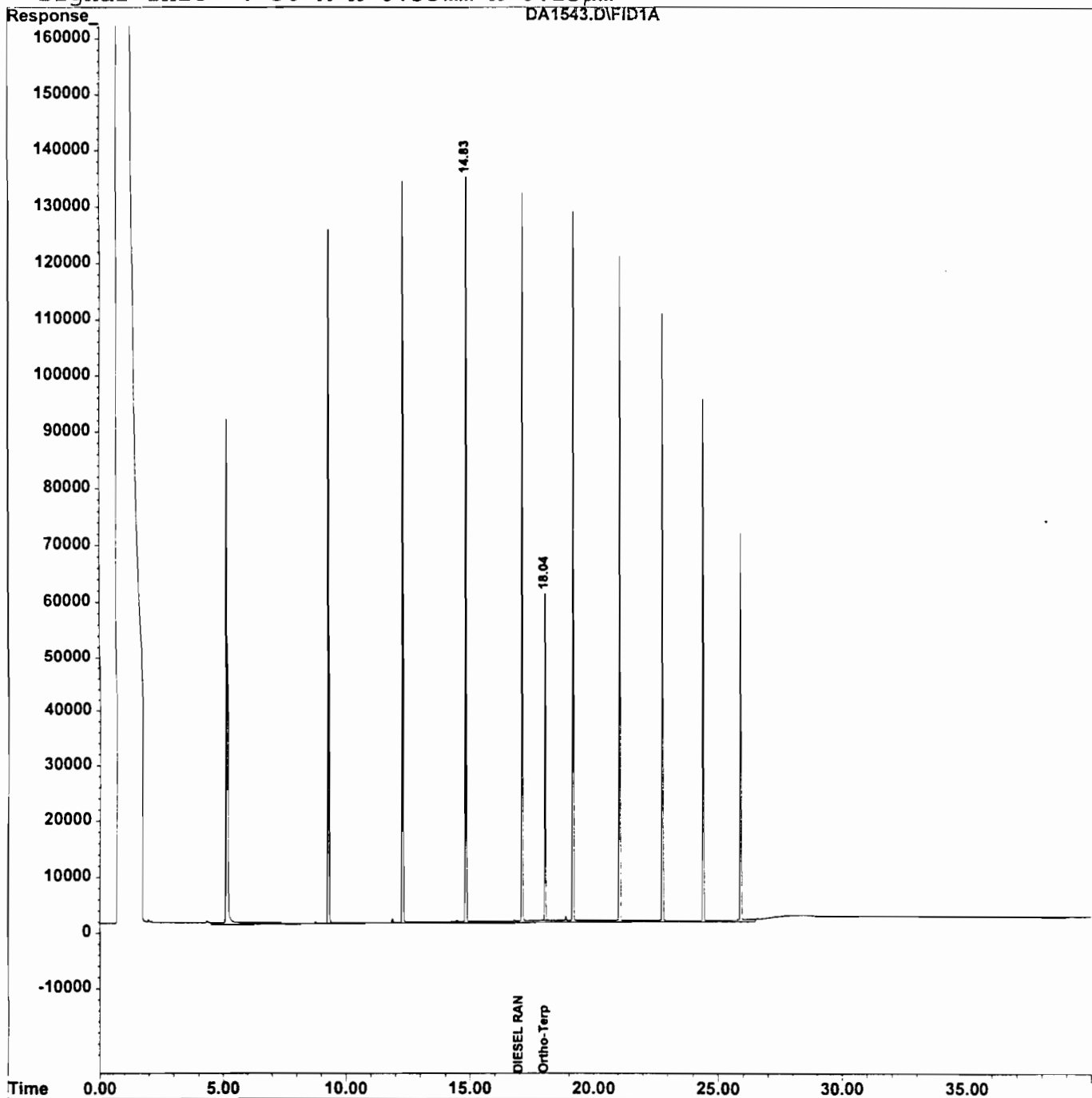
Data File : E:\1\DATA\DA1543.D
Acq On : 8 Apr 99 23:29
Sample : DRO MIX 500 PPM
Misc :
IntFile : EVENTS1.E
Quant Time: Apr 12 11:14 1999

Vial: 6
Operator:
Inst : GC 5890_4
Multiplr: 1.00

Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
Title : GC TPH DRO METHOD - Total Area Quantitation
Last Update : Mon Apr 12 09:21:56 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
Signal Phase : Restek RTx-5
Signal Info : 30 M x 0.53mm x 0.25µm



ICM LABORATORIES QUALITY CONTROL REPORT

GC SEMIVOLATILE CONTINUING CALIBRATION SUMMARY DIESEL RANGE ORGANICS

INSTRUMENT ID: 5890-4
GC COLUMN USED: RTx-5

ANALYTE NAME	STANDARD CONC. $\mu\text{g/ml}$	INITIAL CALIB. FACTOR	CONT. CALIB FACTOR	%D	RT WINDOWS	ANALYSIS DATE	ANALYSIS TIME
DRO	500	69496	67064	3.5	6.00 - 28.00	9-Apr-99	11:37
O-TERPHENYL	20	70284	72822	3.6	17.96 - 18.10	9-Apr-99	11:37

Calibration Factor = Integrated Area / True Concentration

DRO - Diesel Range Organics

O-TERPHENYL - ortho-Terphenyl

Associated Field, QC, and Method Blank Samples:

306394, QDR8159

Data File : E:\1\DATA\DA1554.D

Vial: 17

Acq On : 9 Apr 99 11:37

Operator:

Sample : DRO MIX 500 PPM

Inst : GC 5890_4

Misc :

Multiplr: 1.00

IntFile : EVENTS1.E

Quant Time: Apr 12 11:15 1999 Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)

Title : GC TPH DRO METHOD - Total Area Quantitation

Last Update : Mon Apr 12 09:21:56 1999

Response via : Initial Calibration

DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection

Signal Phase : Restek RTx-5

Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Ortho-Terphenyl	18.03	1456430	20.722 µg/ml
Spiked Amount 20.000		Recovery =	103.61%
Target Compounds			
2) HM DIESEL RANGE	17.00	33532008	482.506 µg/ml

Jan 9/12/00

Data File : E:\1\DATA\DA1559.D Vial: 22
 Acq On : 9 Apr 99 19:45 Operator:
 Sample : DRO MIX 500 PPM Inst : GC 5890_4
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Apr 12 11:16 1999 Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
 Title : GC TPH DRO METHOD - Total Area Quantitation
 Last Update : Mon Apr 12 09:21:56 1999
 Response via : Initial Calibration
 DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
 Signal Phase : Restek RTx-5
 Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Ortho-Terphenyl	18.04	1493183	21.245 µg/ml
Spiked Amount 20.000		Recovery =	106.23%
Target Compounds			
2) HM DIESEL RANGE	17.00	34459893	495.858 µg/ml

7073 4/12/99

Quantitation Report

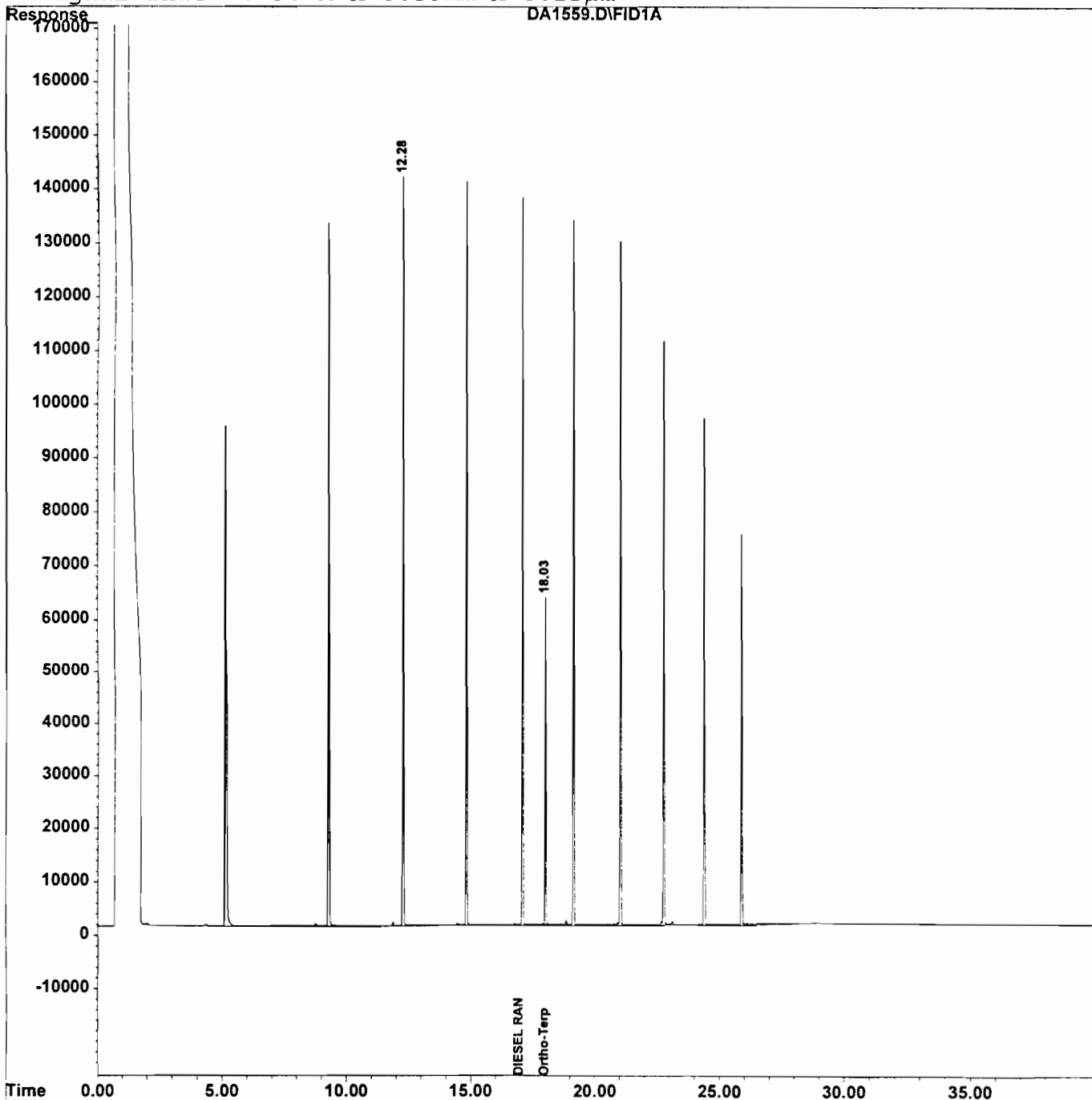
Data File : E:\1\DATA\DA1559.D
Acq On : 9 Apr 99 19:45
Sample : DRO MIX 500 PPM
Misc :
IntFile : EVENTS1.E
Quant Time: Apr 12 11:16 1999

Vial: 22
Operator:
Inst : GC 5890_4
Multiplr: 1.00

Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
Title : GC TPH DRO METHOD - Total Area Quantitation
Last Update : Mon Apr 12 09:21:56 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
Signal Phase : Restek RTx-5
Signal Info : 30 M x 0.53mm x 0.25µm



ICM LABORATORIES QUALITY CONTROL REPORT

GC SEMIVOLATILE CONTINUING CALIBRATION SUMMARY DIESEL RANGE ORGANICS

INSTRUMENT ID: 5890-4
GC COLUMN USED: RTx-5

ANALYTE NAME	STANDARD CONC. $\mu\text{g/ml}$	INITIAL CALIB. FACTOR	CONT. CALIB FACTOR	%D	RT WINDOWS	ANALYSIS DATE	ANALYSIS TIME
DRO	500	69495	76968	10.8	6.00 - 28.00	12-Apr-99	10:52
O-TERPHENYL	20	70285	76958	9.5	17.97 - 18.11	12-Apr-99	10:52

Calibration Factor = Integrated Area / True Concentration

DRO - Diesel Range Organics

O-TERPHENYL - ortho-Terphenyl

Associated Field, QC, and Method Blank Samples:

306390, 306393, 306395, 306396, QA/QC, QDR8159

Data File : E:\1\DATA\DA1560.D Vial: 23
 Acq On : 12 Apr 99 10:52 Operator:
 Sample : DRO MIX 500 PPM Inst : GC 5890_4
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Apr 12 11:39 1999 Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
 Title : GC TPH DRO METHOD - Total Area Quantitation
 Last Update : Mon Apr 12 09:21:56 1999
 Response via : Initial Calibration
 DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
 Signal Phase : Restek RTx-5
 Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Ortho-Terphenyl	18.04	1539166	21.899 µg/ml
Spiked Amount 20.000		Recovery =	109.50%
Target Compounds			
2) HM DIESEL RANGE	17.00	38484017	553.763 µg/ml

712 4/12/99

Quantitation Report

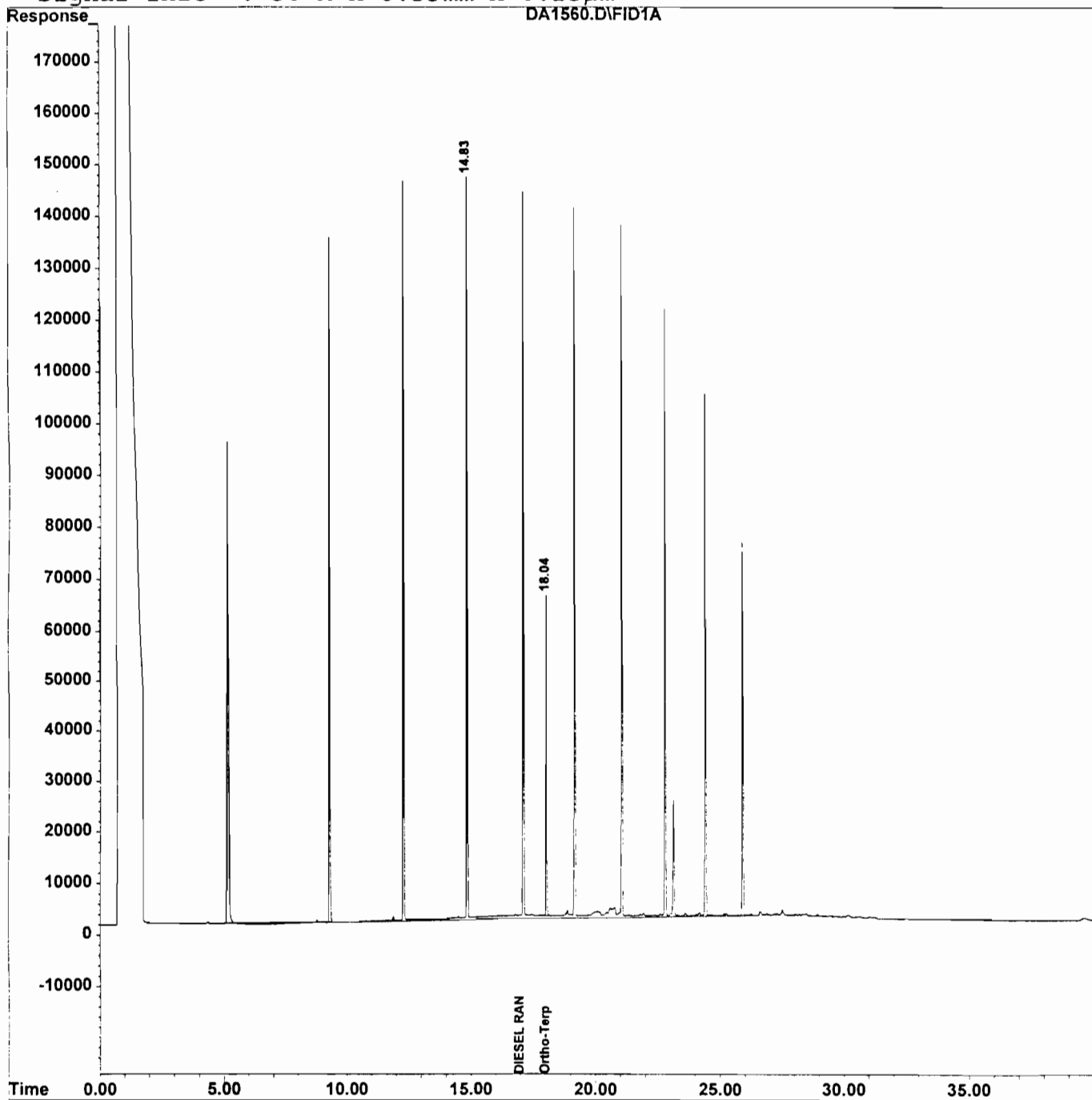
Data File : E:\1\DATA\DA1560.D
Acq On : 12 Apr 99 10:52
Sample : DRO MIX 500 PPM
Misc :
IntFile : EVENTS1.E
Quant Time: Apr 12 11:39 1999

Vial: 23
Operator:
Inst : GC 5890_4
Multiplr: 1.00

Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
Title : GC TPH DRO METHOD - Total Area Quantitation
Last Update : Mon Apr 12 09:21:56 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
Signal Phase : Restek RTx-5
Signal Info : 30 M x 0.53mm x 0.25µm



ICM LABORATORIES QUALITY CONTROL REPORT

GC SEMIVOLATILE CONTINUING CALIBRATION SUMMARY DIESEL RANGE ORGANICS

INSTRUMENT ID: 5890-4
GC COLUMN USED: RTx-5

ANALYTE NAME	STANDARD CONC. $\mu\text{g/ml}$	INITIAL CALIB. FACTOR	CONT. CALIB FACTOR	%D	RT WINDOWS	ANALYSIS DATE	ANALYSIS TIME
DRO	500	69495	73340	5.5	6.00 - 28.00	12-Apr-99	18:34
O-TERPHENYL	20	70285	75809	7.9	17.96 - 18.10	12-Apr-99	18:34

Calibration Factor = Integrated Area / True Concentration

DRO - Diesel Range Organics

O-TERPHENYL - ortho-Terphenyl

Associated Field, QC, and Method Blank Samples:

QDR8195

Data File : E:\1\DATA\DA1566.D Vial: 29
 Acq On : 12 Apr 99 18:34 Operator:
 Sample : DRO MIX 500 PPM Inst : GC 5890_4
 Misc : Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Apr 12 19:27 1999 Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
 Title : GC TPH DRO METHOD - Total Area Quantitation
 Last Update : Mon Apr 12 09:21:56 1999
 Response via : Initial Calibration
 DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
 Signal Phase : Restek RTx-5
 Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Ortho-Terphenyl	18.03	1516187	21.572 µg/ml
Spiked Amount 20.000		Recovery =	107.86%
Target Compounds			
2) HM DIESEL RANGE	17.00	36669921	527.659 µg/ml

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Quantitation Report

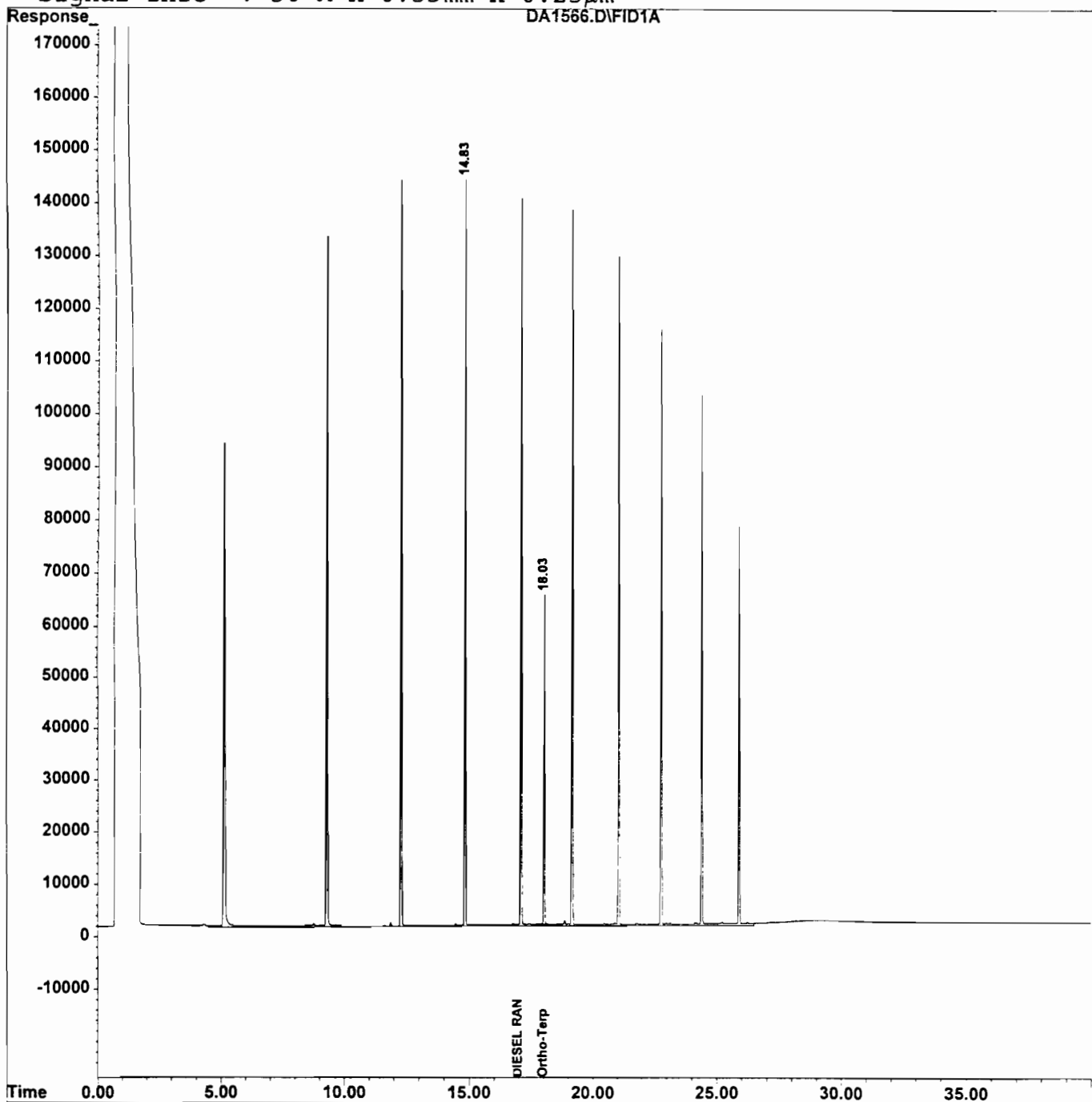
Data File : E:\1\DATA\DA1566.D
Acq On : 12 Apr 99 18:34
Sample : DRO MIX 500 PPM
Misc :
IntFile : EVENTS1.E
Quant Time: Apr 12 19:27 1999

Vial: 29
Operator:
Inst : GC 5890_4
Multiplr: 1.00

Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
Title : GC TPH DRO METHOD - Total Area Quantitation
Last Update : Mon Apr 12 09:21:56 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
Signal Phase : Restek RTX-5
Signal Info : 30 M x 0.53mm x 0.25µm



ANALab INC. RANDOLPH FACILITY QUALITY CONTROL REPORT

GC SEMIVOLATILE SURROGATE SUMMARY DIESEL RANGE ORGANICS

BATCH NUMBER: QDR8195
 INSTRUMENT ID: 5890-4
 GC COLUMNS USED: RTx-5
 METHOD: DRO
 MATRIX: SOIL

SAMPLE NUMBER	%REC. o-Terphenyl	# OUTSIDE QC LIMITS
BLANK	99	0
BLANK SPIKE	112	0
306397	93	0
306398	91	0
306398 S	114	0
306398 SD	105	0
306391 1:5	148	0
306392 1:5	114	0
306394 1:5	135	0
306390	98	0
306393	110	0
306395	102	0
306396	97	0
QAQC	139	0

Compound	Percent Recovery
Ortho-Terphenyl	limits 50 - 150

S= Spike Sample Concentration Surrogate Added
 SD= Spike duplicate sample
 DL= Dilution 2 ppm
 ** Surrogates are diluted out
 * Values outside QC Limits due to matrix interference

ANALab INC. RANDOLPH FACILITY QUALITY CONTROL REPORT

GC SEMIVOLATILE MATRIX SPIKE SUMMARY DIESEL RANGE ORGANICS

BATCH NUMBER: QDR8195
 INSTRUMENT ID: 5890-4 SPIKE SAMPLE: 306398
 GC COLUMNS USED: RTx-5

METHOD: DRO	INITIAL WT/VOL:	SAMPLE	MS	MSD
MATRIX: SOIL	FINAL VOL:	25	25	25
	UNITS:	1	1	1
		mg/kg		

COMPOUND	CONC. ADDED	SAMPLE CONC	MATRIX SPIKE		SPIKE DUPLICATE		RPD
			CONC	%R	CONC	%R	
FUEL OIL #2	32	U	31	97	26	81	18

QC LIMITS:

RECOVERY LIMITS: 30 - 150
 RPD: 25

* Values outside QC Limits

ASSOCIATED SAMPLES:

306390, 306391, 306392, 306393, 306394, 306395, 306396, 309397, 306398

Data File : E:\1\DATA\DA1549.D
 Acq On : 9 Apr 99 4:30
 Sample : 306398 S
 Misc : QDR8195
 IntFile : EVENTS1.E
 Quant Time: Apr 12 11:15 1999

Vial: 12
 Operator:
 Inst : GC 5890_4
 Multiplr: 1.00

Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
 Title : GC TPH DRO METHOD - Total Area Quantitation
 Last Update : Mon Apr 12 09:21:56 1999
 Response via : Initial Calibration
 DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
 Signal Phase : Restek RTX-5
 Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Ortho-Terphenyl	18.04	1597375	22.727 µg/ml
Spiked Amount 20.000		Recovery =	113.64%
Target Compounds			
2) HM DIESEL RANGE	17.00	53432896	768.869 µg/ml

Handwritten signature and date: 4/12/99

Quantitation Report

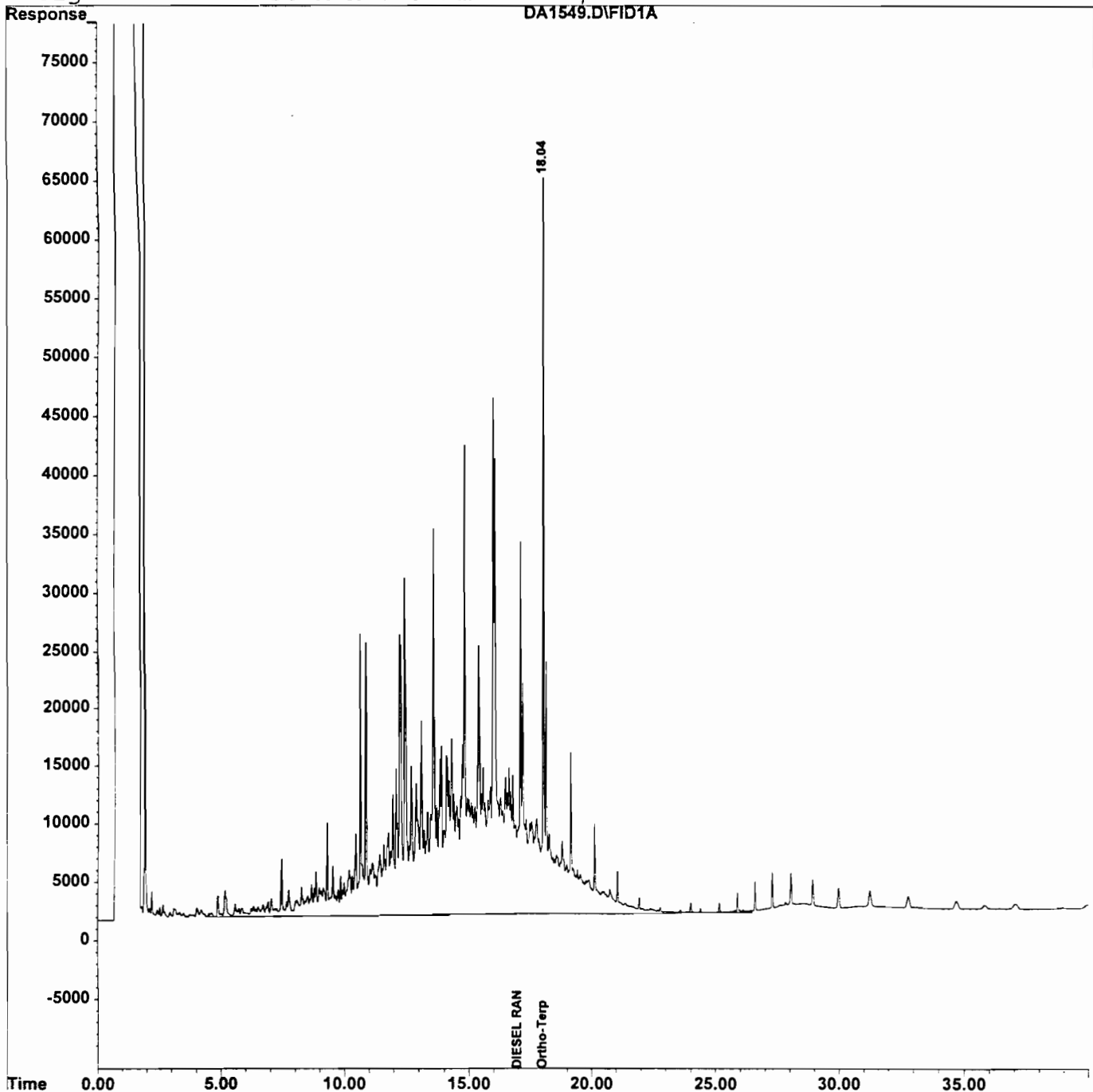
Data File : E:\1\DATA\DA1549.D
Acq On : 9 Apr 99 4:30
Sample : 306398 S
Misc : QDR8195
IntFile : EVENTS1.E
Quant Time: Apr 12 11:15 1999

Vial: 12
Operator:
Inst : GC 5890_4
Multiplr: 1.00

Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
Title : GC TPH DRO METHOD - Total Area Quantitation
Last Update : Mon Apr 12 09:21:56 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
Signal Phase : Restek RTx-5
Signal Info : 30 M x 0.53mm x 0.25µm



Data File : E:\1\DATA\DA1550.D Vial: 13
 Acq On : 9 Apr 99 5:19 Operator:
 Sample : 306398 SD Inst : GC 5890_4
 Misc : QDR8195 Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Apr 12 11:15 1999 Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
 Title : GC TPH DRO METHOD - Total Area Quantitation
 Last Update : Mon Apr 12 09:21:56 1999
 Response via : Initial Calibration
 DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
 Signal Phase : Restek RTx-5
 Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Ortho-Terphenyl	18.04	1479567	21.051 µg/ml
Spiked Amount 20.000		Recovery =	105.26%
Target Compounds			
2) HM DIESEL RANGE	17.00	45144572	649.604 µg/ml

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Quantitation Report

Data File : E:\1\DATA\DA1550.D

Vial: 13

Acq On : 9 Apr 99 5:19

Operator:

Sample : 306398 SD

Inst : GC 5890_4

Misc : QDR8195

Multiplr: 1.00

IntFile : EVENTS1.E

Quant Time: Apr 12 11:15 1999 Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)

Title : GC TPH DRO METHOD - Total Area Quantitation

Last Update : Mon Apr 12 09:21:56 1999

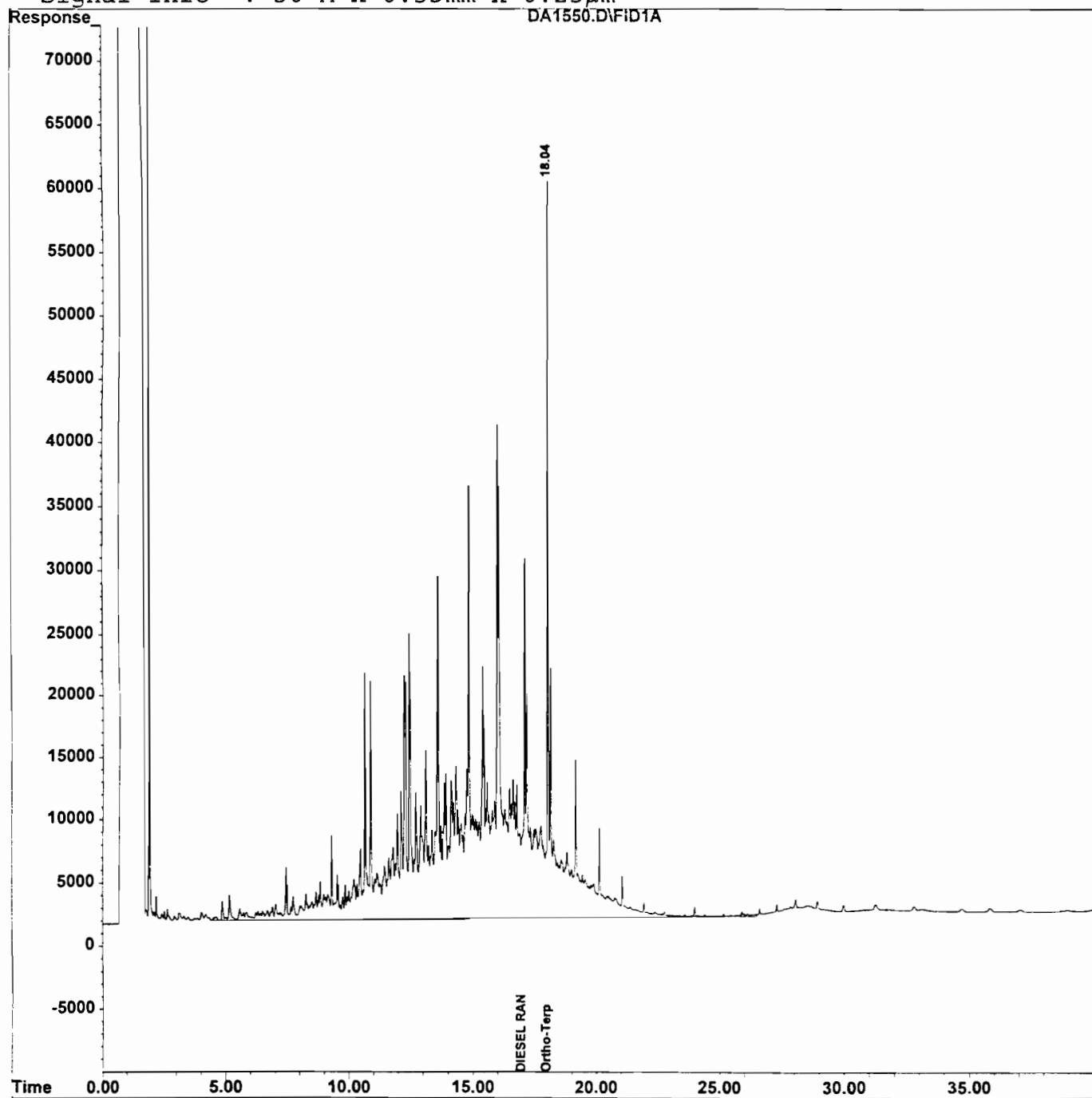
Response via : Multiple Level Calibration

DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection

Signal Phase : Restek RTX-5

Signal Info : 30 M x 0.53mm x 0.25µm



ANALab INC. RANDOLPH FACILITY QUALITY CONTROL REPORT

GC SEMIVOLATILE BLANK SPIKE SUMMARY DIESEL RANGE ORGANICS

BATCH NUMBER: QDR8195

SPIKED SAMPLE: BLANK

METHOD: DRO

BS

MATRIX: SOIL

INITIAL WT/VOL: 25

MOISTURE: NA

FINAL VOL: 1

UNITS: mg/Kg

COMPOUND NAME	CONC. ADDED	BLANK CONC	BLANK SPIKE	
			CONC	%REC
FUEL OIL #2	32	U	30	94

QC Limits:	Compound	Percent Recovery
		Limits
	FUEL OIL #2	40 - 130

* Values outside QC Limits

ASSOCIATED SAMPLES:

306390, 306391, 306392, 306393, 306394, 306395, 306396, 309397, 306398

Data File : E:\1\DATA\DA1545.D Vial: 8
 Acq On : 9 Apr 99 1:09 Operator:
 Sample : BLANK SPIKE Inst : GC 5890_4
 Misc : QDR8195 Multiplr: 1.00
 IntFile : EVENTS1.E
 Quant Time: Apr 12 11:14 1999 Quant Results File: DROSOIL.RES

Quant Method : E:\1\METHODS\DROSOIL.M (Chemstation Integrator)
 Title : GC TPH DRO METHOD - Total Area Quantitation
 Last Update : Mon Apr 12 09:21:56 1999
 Response via : Initial Calibration
 DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
 Signal Phase : Restek RTx-5
 Signal Info : 30 M x 0.53mm x 0.25µm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Ortho-Terphenyl	18.04	1577322	22.442 µg/ml
Spiked Amount 20.000		Recovery =	112.21%
Target Compounds			
2) HM DIESEL RANGE	17.00	52910111	761.346 µg/ml

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ANALab INC. RANDOLPH FACILITY QUALITY CONTROL REPORT

GC SEMIVOLATILE QAQC SPIKE SUMMARY DIESEL RANGE ORGANICS

BATCH NUMBER: QDR8195

SPIKED SAMPLE: BLANK

METHOD: DRO

BS

MATRIX: SOIL

INITIAL WT/VOL: 25

MOISTURE: NA

FINAL VOL: 1

UNITS: mg/Kg

COMPOUND NAME	CONC. ADDED	BLANK CONC	BLANK SPIKE	
			CONC	%REC
FUEL OIL #1	40	U	41	103

QC Limits:	Compound	Percent Recovery
		Limits
	FUEL OIL #1	40 - 130

* Values outside QC Limits

ASSOCIATED SAMPLES:

306390, 306391, 306392, 306393, 306394, 306395, 306396, 309397, 306398

Data File : E:\1\DATA\DA1565.D

Vial: 28

Acq On : 12 Apr 99 17:44

Operator:

Sample : QAQC

Inst : GC 5890_4

Misc : QDR8195

Multiplr: 1.00

IntFile : EVENTS1.E

Quant Time: Apr 12 18:30 1999 Quant Results File: DROSOIL.RES

Quant Method : C:\HPCHEM\1\METHODS\DROSOIL.M (Chemstation Integrator)

Title : GC TPH DRO METHOD - Total Area Quantitation

Last Update : Mon Apr 12 09:21:56 1999

Response via : Initial Calibration

DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection

Signal Phase : Restek RTx-5

Signal Info : 30 M x 0.53mm x 0.25µm

Compound

R.T.

Response

Conc Units

System Monitoring Compounds

Compound	R.T.	Response	Conc Units
1) S Ortho-Terphenyl	18.04	1950055	27.745 µg/mlm
Spiked Amount 20.000		Recovery =	138.73%

Target Compounds

2) HM DIESEL RANGE	17.00	70594434	1015.813 µg/ml
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Handwritten signature

Quantitation Report

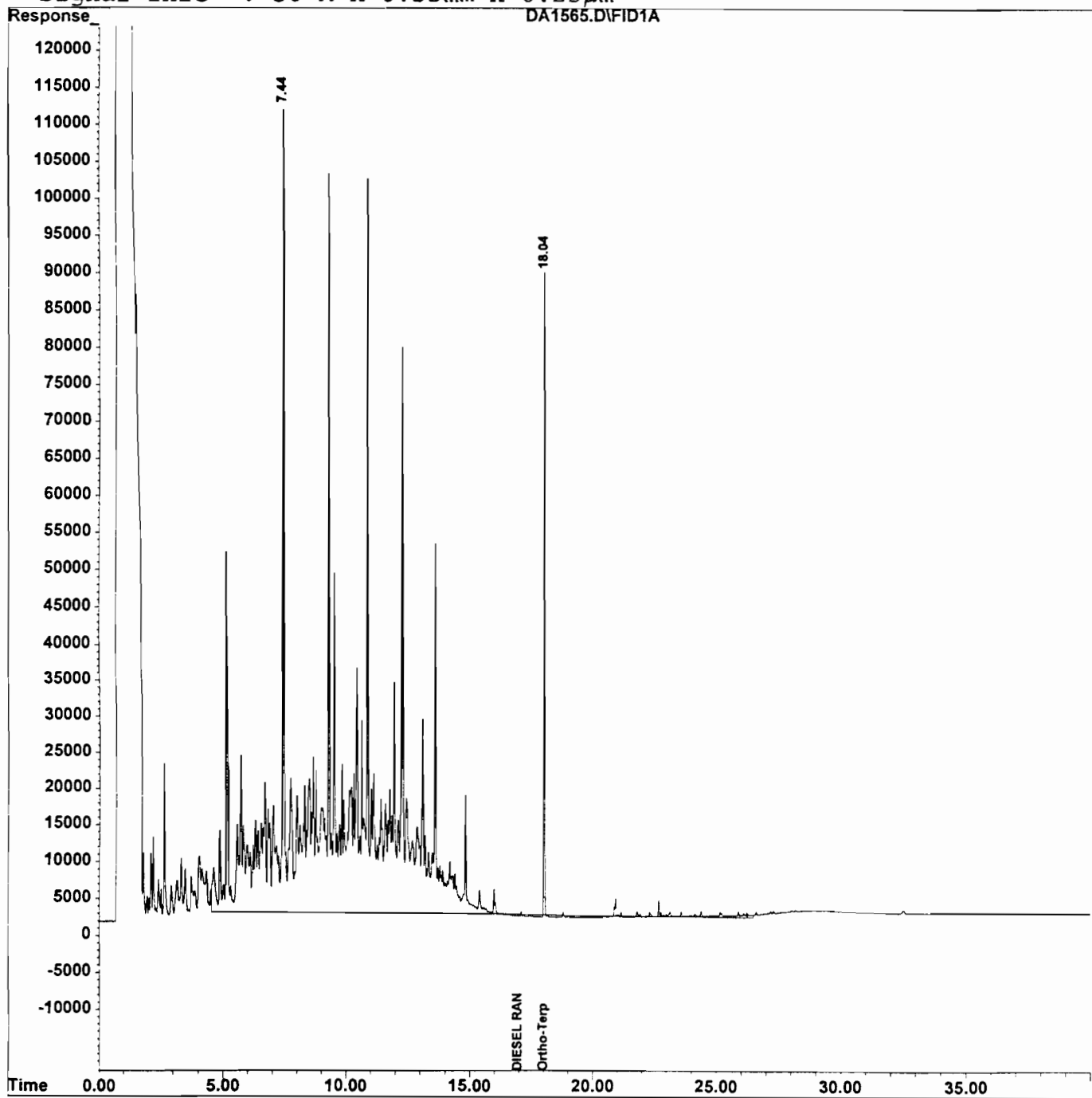
Data File : E:\1\DATA\DA1565.D
Acq On : 12 Apr 99 17:44
Sample : QAQC
Misc : QDR8195
IntFile : EVENTS1.E

Vial: 28
Operator:
Inst : GC 5890_4
Multiplr: 1.00

Quant Time: Apr 12 18:30 1999 Quant Results File: DROSOIL.RES

Quant Method : C:\HPCHEM\1\METHODS\DROSOIL.M (Chemstation Integrator)
Title : GC TPH DRO METHOD - Total Area Quantitation
Last Update : Mon Apr 12 09:21:56 1999
Response via : Multiple Level Calibration
DataAcq Meth : DROSOIL.M

Volume Inj. : 1 µl injection
Signal Phase : Restek RTx-5
Signal Info : 30 M x 0.53mm x 0.25µm



ANALab INC. RANDOLPH FACILITY QUALITY CONTROL REPORT

DIESEL RANGE ORGANICS RETENTION TIME EVALUATION SUMMARY

Evaluation of Retention Time Shift for Ortho-Terphenyl

BATCH NUMBER: QDR8195
 INSTRUMENT ID: 5890-4
 GC COLUMNS USED: RTx-5

METHOD: DRO
 MATRIX: SOIL

SAMPLE NUMBER	DATE ANALYZED	TIME ANALYZED	PRIMARY MINUTES DIFF.	# OUTSIDE QC LIMITS
DRO MIX 500 PPM	4/8/99	23:29	0.00	0
BLANK	4/9/99	00:19	0.00	0
BLANK SPIKE	4/9/99	1:09	0.00	0
306397	4/9/99	2:50	0.00	0
306398	4/9/99	3:40	0.00	0
306398 S	4/9/99	4:30	0.00	0
306398 SD	4/9/99	5:19	0.00	0
306391 1:5	4/9/99	6:59	0.01	0
306392 1:5	4/9/99	7:49	0.02	0
DRO MIX 500 PPM	4/9/99	11:37	0.01	0
306394 1:5	4/9/99	13:16	0.01	0
DRO MIX 500 PPM	4/9/99	19:45	0.00	0
DRO MIX 500 PPM	4/12/99	10:52	0.00	0
306390	4/12/99	11:42	0.00	0
306393	4/12/99	12:32	0.00	0
306395	4/12/99	13:22	0.00	0
306396	4/12/99	14:12	0.00	0
QAQC	4/12/99	17:44	0.00	0
DRO MIX 500 PPM	4/12/99	18:34	0.01	0

* = No Recovery; Surrogates diluted out of sample.

QC Limits = +/- 0.10 minutes

S= Spike Sample

SD= Spike duplicate sample

DL= Dilution

Sample ID	Sample Wt. or Volume	Final Volume	Date Ext	Ext Int.	Date Conc	Conc. Int.	clean up			Comments
							acid	Hg	Int.	
B	25.01 g	1ml	4/8	JK	4/8	JK				
BS	25.03									
306398	25.02									
306398	25.09									
-82MS										
-82MSD										
1 QA/QC	25.02 g	1ml	4/8	JK	4/8	JK				
2 306390	25.07									
3 306391	25.01									
4 306392	25.02									
5 306393	25.07									
6 306394	25.05									
7 306395	25.06									
8 306396	25.03									
9 306397	25.03									
10 306398	25.04									
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

	ml's added	conc.	Standard ref #
SURROGATE DRO	1	20 ppm	3-1-98 2-E-2-3
8081A SPIKE	1	0.5-1.0ppm	
8082 SPIKE	1	10 ppm	
608 SPIKE	1	1 ppm	
DRO SPIKE	1	800ppm	2-E-5-4
QA/QC DRO SPIKE	1	100ppm	11-17-4

Relinquished By	Received By	Supervisor	Date	Reason
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	4/8	GC Acquisition

(Circle One)

Matrix: Soil Water Sludge Liquid non-aqueous Other _____

Extraction Method: Separatory Funnel Liquid/Liquid Sonication ASE Soxhlet Waste Dilution

Industrial Corrosion Management

GC Instrument Log

Evaluation of Retention Time Shift for: ORTHO-TERPHENYL OTHER

(Circle One)

Batch #: _____

Instrument ID: 58904

Column ID: RTX-5

Matrix: Soil Water Other

(Circle one)

Column: Primary Secondary
(Circle one)

µl Injected: 2

Sequence Name: 5890-4.5

Method Name: DRO Soil.M

Analyst: [Signature] Supervisor: [Signature] GC Temp. Program: _____

Surrogate for DRO Analysis: Ortho-Terphenyl

Surrogate for Other Analysis: _____

Sample Name	Datafile Name	Date of Analysis	Time of Analysis	Dilution Factor	ALS #	Surr. RT	Comments
DRO Soil 100ppm	DA1538	4/8/99	19:20		1		ICL
DRO Mix 250ppm	1539		20:10		2		
DRO Mix 500ppm	1540		20:59		3		
DRO Mix 1000ppm	1541		21:49		4		
DRO Mix 2000ppm	1542		22:39		5		
DRO Mix 500ppm	1543		23:29		6		ok
Q022195 Blank	1544	4/9/99	00:19		7		
Blank Spike	1545		01:09		8		
QA/QC	1546		01:59		9		Re Ins
306397	1547		02:50		10		
306398	1548		03:40		11		
306398.5	1549		04:30		12		
306398.11	1550		05:19		13		
306398.15	1551		06:09	5	14		Re Run ST.
306398.15	1552		06:59	5	15		
306392.15	1553		07:49	5	16		
DRO Mix 500ppm	1554		11:37		17		ok
Q022195 306393.15	1555		12:27	5	18		Re Run ST.
306394.15	1556		13:16	5	19		
306395.15	1557		14:06	5	20		Re Run ST.
306396.15	1558		14:56	5	21		Re Run ST.
DRO Mix 500ppm	1559		19:45		22		ok
DRO Mix 500ppm	1560	4/12/99	10:52		23		
Q022195 306390	1561		11:42		24		
306393	1562		12:32		25		
306395	1563		13:22		26		
306396	1564		14:12		27		
QA/QC	1565		17:44		28		
DRO Mix 500ppm	1567		18:39		29		

ANALab, Inc. - Randolph Facility
 1152 Route 10
 Randolph, NJ 07869
 973-584-0330, FAX: 973-584-0515
 MARCH 25, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
 NJ #14116 NY #11376
 US EPA CLP Lab

ICP Metals Quality Assurance Data

Run Number: 03234956
 Analysis Date: 03/23/99

Associated Samples: 306390-306398 306398D/S/SD

Matrix: Soil Units: mg/L

BLANKS

Parameter	Initial	Continuing Calibration															Method	Method
	Calib.	Blank																
	Blank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		Limit
Arsenic	U	U	U	U	U												U	0.004
Barium	U	U	U	U	U												U	0.005
Cadmium	U	U	U	U	U												U	0.005
Chromium	U	U	U	U	U												U	0.005
Lead	U	U	U	U	U												U	0.004
Selenium	U	U	U	U	U												U	0.004
Silver	U	U	U	U	U												U	0.005

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973-584-0330, FAX: 973-584-0515
MARCH 25, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
NJ #14116 NY #11376
US EPA CLP Lab

ICP Metals Quality Assurance Data

Run Number: 03234956
Analysis Date: 03/23/99

Associated Samples: 306390-306398 306398D/S/SD
Units: mg/L

CALIBRATION STANDARDS

Parameter	Calibration Standard Concentration	Instrument Detection Limit	Method Detection Limit
Arsenic	2.00	0.0038	0.004
Barium	10.0	0.0004	0.005
Cadmium	1.00	0.0008	0.005
Chromium	1.00	0.0010	0.005
Lead	2.00	0.0023	0.004
Selenium	2.00	0.0034	0.004
Silver	1.25	0.0010	0.005

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ICP Metals Quality Assurance Data

Run Number: 03234956
Analysis Date: 03/23/99

Associated Samples: 306390-306398 306398D/S/SD
Units: mg/L

Calibration Data Page 1 of 2

Parameter	INITIAL CALIBRATION			CONTINUING CALIBRATION		
	True Value	Found Value	% Recovery	True Value	Found Value	% Recovery
Arsenic	2.00	2.03	102	1.00	1.01	101
Barium	1.00	1.01	101	5.00	4.88	98
Cadmium	1.00	1.04	104	0.500	0.506	101
Chromium	1.00	1.02	102	0.500	0.500	100
Lead	2.00	2.06	103	1.00	1.01	101
Selenium	1.00	1.03	103	1.00	1.04	104
Silver	0.250	0.252	101	0.625	0.625	100

QC Limits = 90 - 110 %

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ICP Metals Quality Assurance Data

Run Number: 03234956
Analysis Date: 03/23/99

Associated Samples: 306390-306398 306398D/S/SD
Units: mg/L

Calibration Data Page 2 of 2

CONTINUING CALIBRATION

Parameter	True Value	Found Value	% Recovery	Found Value	% Recovery	Found Value	% Recovery
Arsenic	1.00	1.02	102	1.02	102	1.02	102
Barium	5.00	4.90	98	4.89	98	4.87	97
Cadmium	0.500	0.509	102	0.512	102	0.509	102
Chromium	0.500	0.501	100	0.504	101	0.500	100
Lead	1.00	1.02	102	1.02	102	1.01	101
Selenium	1.00	1.04	104	1.04	104	1.03	103
Silver	0.625	0.629	101	0.628	100	0.622	100

QC Limits = 90 - 110 %

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US EPA CLP Lab

ICP Metals Quality Assurance Data

Run Number: 03234956
Analysis Date: 03/23/99
Units: mg/L

Interference Check Sample

Parameter	True Value	Initial Observed	% Recovery	Final Observed	% Recovery
Arsenic	0.098	0.106	108	0.108	110
Barium	0.515	0.525	102	0.529	103
Cadmium	0.929	0.967	104	0.981	106
Chromium	0.481	0.493	102	0.497	103
Lead	0.048	0.053	110	0.051	106
Selenium	0.047	0.053	113	0.050	106
Silver	0.217	0.178	82	0.180	83

QC Control Limits = 80 - 120 % or +/- MDL if True Value equals zero

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NJ #14116 NY #11376
US EPA CLP Lab

Metals Quality Assurance Data - Spike Recoveries

Batch Number: 4956

Lab Number: 306398

Matrix: Soil Unit: mg/Kg

Percent Moisture: 7.73%

Parameter	Original Sample Result	Spike Added	Spike Sample Result	% Spike Recovery	Spike Control Limits	Minimum Detection Limits	Method Blank
Arsenic	2.60	434	371	85	75-125	0.434	U
Barium	5.64	1080	912	84	75-125	0.542	U
Cadmium	U	27.1	24.0	88	75-125	0.542	U
Chromium	1.62	108	95.9	87	75-125	0.542	U
Lead	2.93	108	96.8	87	75-125	0.434	U
Mercury	U	0.867	0.932	108	75-125	0.043	U
Selenium	U	434	365	84	75-125	0.434	U
Silver	U	27.1	23.5	87	75-125	0.542	U

U = Not Detected

NC = Non-calculable RPD due to value(s) less than detection limit

RPD = Relative percent difference

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NJ #14116 NY #11376
US EPA CLP Lab

Metals Quality Assurance Data - Duplicates

Batch Number: 4956

Lab Number: 306398

Matrix: Soil Unit: mg/Kg

Percent Moisture: 7.73%

Parameter	Original Sample	Duplicate Sample	RPD	Control Limits	Minimum Detection	Method Blank
Arsenic	2.60	2.71	4	+-20	0.434	U
Barium	5.64	5.85	4	+-20	0.542	U
Cadmium	U	U	NC	NC	0.542	U
Chromium	1.62	1.62	<1	+-33	0.542	U
Lead	2.93	3.14	7	+-20	0.434	U
Mercury	U	U	NC	NC	0.043	U
Selenium	U	U	NC	NC	0.434	U
Silver	U	U	NC	NC	0.542	U

U = Not Detected

NC = Non-calculable RPD due to value(s) less than detection limit

RPD = Relative percent difference

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NJ #14116 NY #11376
US EPA CLP Lab

Metals Quality Assurance Data - Spike Duplicate

Batch Number: 4956

Lab Number: 306398

Matrix: Soil Unit: mg/Kg

Percent Moisture: 7.73%

Parameter	Spike Sample	Spike Duplicate	RPD	Control Limits	Minimum Detection	Method Blank
Arsenic	371	374	<1	+ -20	0.434	U
Barium	912	923	1	+ -20	0.542	U
Cadmium	24.0	24.0	<1	+ -20	0.542	U
Chromium	95.9	96.8	<1	+ -20	0.542	U
Lead	96.8	98.2	1	+ -20	0.434	U
Mercury	0.932	0.932	<1	+ -20	0.043	U
Selenium	365	370	1	+ -20	0.434	U
Silver	23.5	23.3	<1	+ -20	0.542	U

U = Not Detected

NC = Non-calculable RPD due to value(s) less than detection limit

RPD = Relative percent difference

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NJ #14116 NY #11376
US EPA CLP Lab

ICP Metals Quality Assurance Data

Run Number: 03234956
Analysis Date: 03/23/99
Batch Number: 4956

Matrix: Soil Units: mg/kg

Laboratory Control Sample

Parameter	True Value	Found Value	% Recovery
Arsenic	10.0	9.75	98
Barium	25.0	24.6	99
Cadmium	10.0	10.0	100
Chromium	25.0	24.6	98
Lead	25.0	24.6	98
Selenium	10.0	9.60	96
Silver	2.50	2.45	98

QC Limits = 75 - 125 %

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US EPA CLP Lab

ICP Metals Quality Assurance Data

Run Number: 03234956
Analysis Date: 03/23/99
Serial diluted sample: 306398

Matrix: Soil Units: mg/L

Serial Dilution Sample

Parameter	Initial Sample Result	Serial Dilution Result	% Difference
Arsenic	0.024	0.029	21*
Barium	0.052	0.058	12+
Cadmium	U	U	NC
Chromium	0.015	0.017	13*
Lead	0.027	0.021	22*
Selenium	U	U	NC
Silver	U	U	NC

NC = Non Calculable

+ RPD greater than 10% - matrix interference suspected.

* RPD greater than 10% but initial sample result is less than 50 times the IDL.
RPD criteria do not apply.

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MARCH 25, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
NJ #14116 NY #11376
US EPA CLP Lab

AA Metals Quality Assurance Data

Run Number: 03224956
Analysis Date: 03/22/99

Associated Samples: 306390-306398 306398D/S/SD

Matrix: Soil Units: mg/L

BLANKS

Parameter	Initial	Continuing Calibration														Method	Method	
	Calib.	Blank														Blank	Detection	
	Blank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		Limit
mercury	U	U	U	U													U	0.0002

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NJ #14116 NY #11376
US EPA CLP Lab

AA Metals Quality Assurance Data

Run Number: 03224956
Analysis Date: 03/22/99

Associated Samples: 306390-306398 306398D/S/SD
Units: mg/L

CALIBRATION STANDARDS

Parameter	Calibration Standard Concentration					Instrument	Method
	1	2	3	4	5	Detection Limit	Detection Limit
Mercury	0.0002	0.0005	0.0010	0.0050	0.0100	0.0001	0.0002

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NJ #14116 NY #11376
US EPA CLP Lab

AA Metals Quality Assurance Data

Run Number: 03224956
Analysis Date: 03/22/99

Associated Samples: 306390-306398 306398D/S/SD
Units: mg/L

Calibration Data Page 1 of 2

Parameter	INITIAL CALIBRATION			CONTINUING CALIBRATION		
	True Value	Found Value	% Recovery	True Value	Found Value	% Recovery
Mercury	0.0041	0.0042	102	0.0050	0.0055	110

QC Limits = 80 - 120 % Mercury

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MARCH 25, 1999

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NJ #14116 NY #11376
US EPA CLP Lab

AA Metals Quality Assurance Data

Run Number: 03224956
Analysis Date: 03/22/99

Associated Samples: 306390-306398 306398D/S/SD
Units: mg/L

Calibration Data Page 2 of 2

Parameter	CONTINUING CALIBRATION							
	True Value	Found Value	% Recovery	Found Value	% Recovery	Found Value	% Recovery	
Mercury	0.0050	0.0056	112	0.0057	114			

QC Limits = 80 - 120 % Mercury

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MARCH 25, 1999

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NJ #14116 NY #11376
US EPA CLP Lab

AA Metals Quality Assurance Data

Run Number: 03224956
Analysis Date: 03/22/99
Batch Number: 4956

Matrix: Soil Units: mg/kg

Laboratory Control Sample

Parameter	True Value	Found Value	% Recovery
Mercury	0.800	0.820	102

QC Limits = 75 - 125 %

Mercury QC Limits = 80 - 120 %

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NYSDEC ASP

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: ANALAB_RANDOLPH_____

ICP ID Number: TJA TRACE___

Date: 01/15/99

Analyte	Wave-length (nm)	Interelement Correction Factors for :				
		Al	Ca	Fe	Mg	AS
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000080	0.0000000	0.0000220	0.0000000	0.0000000
Arsenic	189.00	0.0000000	-0.0079146	-0.0000207	0.0000000	0.0000000
Barium	493.40	0.0000070	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	-0.0000029	0.0001609	0.0014578	0.0000000	-0.0003100
Calcium	317.90	0.0001800	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	-0.0000090	0.0000000	0.0000000
Cobalt	229.60	0.0000000	0.0000000	0.0000120	0.0000000	0.0000000
Copper	324.70	0.0000000	-0.0000110	-0.0000191	0.0000000	0.0000000
Iron	271.40	0.0003120	-0.0000020	-0.0001100	0.0000000	0.0654250
Lead	220.30	0.0003130	0.0000000	0.0000583	0.0000122	0.0000000
Magnesium	279.00	0.0000330	0.0000000	-0.0003136	0.0000000	0.0000000
Manganese	257.60	-0.0000041	0.0000000	-0.0000190	0.0000000	0.0000000
Mercury						
Nickel	231.60	0.0000000	0.0000000	-0.0000837	0.0000000	-0.0006300
Potassium	766.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000000	0.0003180	-0.0000840	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.20	0.0000000	-0.0007100	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	-0.0646300	0.0000177	0.0000000	0.0059839
Vanadium	292.40	0.0000000	0.0001278	0.0000480	0.0000000	0.0000000
Zinc	213.80	0.0000000	0.0001300	-0.0000532	0.0000000	0.0000000

Comments:

NYSDEC ASP

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: ANALAB_RANDOLPH_____

ICP ID Number: TJA TRACE____

Date: 01/15/99

Analyte	Wave-length (nm)	Interelement Correction Factors for :				
		BA	CO	CR	CU	MN
Aluminum	308.20					
Antimony	206.80		0.0166710	0.0058075		
Arsenic	189.00			0.0002950		
Barium	493.40		0.2444500			
Beryllium	313.00					
Cadmium	226.50		-0.0001795			
Calcium	317.90					
Chromium	267.70					0.0001616
Cobalt	229.60	-0.0007900		-0.0000880		0.0024271
Copper	324.70					
Iron	271.40		0.7055960	0.0023000	0.0000101	-0.0014600
Lead	220.30	0.0003283	-0.0024290	-0.0000300	0.0001957	
Magnesium	279.00					
Manganese	257.60					
Mercury						
Nickel	231.60	0.0024620	-0.0004715			0.0000080
Potassium	766.40					
Selenium	196.00		0.0001400			0.0005356
Silver	328.00					
Sodium	330.20		0.0325930			
Thallium	190.80	-0.0007458		0.2786000		-0.0004280
Vanadium	292.40			-0.0009560		0.0005100
Zinc	213.80		0.0012500		0.0032400	

Comments:

NYSDEC ASP

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: ANALAB_RANDOLPH_____

ICP ID Number: TJA TRACE___

Date: 01/15/99

Analyte	Wave-length (nm)	Interelement Correction Factors for :				
		MO	NI	SB	TI	V_
Aluminum	308.20	0.0012670	-0.0043000			
Antimony	206.80				0.0009280	-0.0013787
Arsenic	189.00	0.0002960				
Barium	493.40					
Beryllium	313.00					
Cadmium	226.50					
Calcium	317.90					
Chromium	267.70					
Cobalt	229.60				0.0024400	
Copper	324.70					
Iron	271.40	0.0021160			0.0000691	
Lead	220.30	-0.0008030	0.0002319	-0.0002800	-0.0008050	
Magnesium	279.00					
Manganese	257.60					
Mercury						
Nickel	231.60					
Potassium	766.40					
Selenium	196.00					
Silver	328.00					
Sodium	330.20					
Thallium	190.80		0.0490000		-0.0000677	
Vanadium	292.40					
Zinc	213.80		0.0020043			

Comments:

NYSDEC ASP

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: ANALAB_RANDOLPH_____

ICP ID Number: TJA TRACE____

Date: 01/15/99

Analyte	Wave-length (nm)	Interelement Correction Factors for :			
		ZN	—	—	—
Aluminum	308.20				
Antimony	206.80				
Arsenic	189.00				
Barium	493.40				
Beryllium	313.00				
Cadmium	226.50				
Calcium	317.90				
Chromium	267.70				
Cobalt	229.60				
Copper	324.70				
Iron	271.40	-0.0001942			
Lead	220.30				
Magnesium	279.00				
Manganese	257.60				
Mercury					
Nickel	231.60				
Potassium	766.40				
Selenium	196.00				
Silver	328.00				
Sodium	330.20				
Thallium	190.80				
Vanadium	292.40				
Zinc	213.80				

Comments:

NYSDEC ASP

ICP LINEAR RANGES (SEMIANNUALLY)

Lab Name: ANALAB_RANDOLPH_____

ICP ID Number: TJA TRACE___

Date: 01/15/99

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	5.00	500000.0	P
Antimony	5.00	10000.0	P
Arsenic	5.00	10000.0	P
Barium	5.00	25000.0	P
Beryllium	5.00	5000.0	P
Cadmium	5.00	10000.0	P
Calcium	5.00	500000.0	P
Chromium	5.00	50000.0	P
Cobalt	5.00	25000.0	P
Copper	5.00	50000.0	P
Iron	5.00	850000.0	P
Lead	5.00	150000.0	P
Magnesium	5.00	850000.0	P
Manganese	5.00	35000.0	P
Mercury			NR
Nickel	5.00	50000.0	P
Potassium	5.00	40000.0	P
Selenium	5.00	10000.0	P
Silver	5.00	5000.0	P
Sodium	5.00	100000.0	P
Thallium	5.00	10000.0	P
Vanadium	5.00	10000.0	P
Zinc	5.00	10000.0	P

Comments:

SPIKE STANDARD PREPARATION LOG

LOT NUMBER SS- 8 -1
 STANDARD NAME TRACE 2
 DATE PREPARED 1/12/99
 ANALYST SIGN. Mark Sagan
 FINAL VOL. (ML) 500 ML
 PRESERVATIVE(S) _____
10 ML HNO3

STOCK ADDED	ML	CONC.	LOT #
Selenium	10	10,000 ppm	B-R-34-1
Thallium	10	10,000 ppm	B-R-34-5
Arsenic	10	10,000 ppm	B-R-34-3
Lead	25	1,000 ppm	B-R-34-36

LOT NUMBER SS- 8 -2
 STANDARD NAME TRACE 3
 DATE PREPARED 2/9/99
 ANALYST SIGN. Mark Sagan
 FINAL VOL. (ML) 100
 PRESERVATIVE(S) _____
0 ML HNO3

STOCK ADDED	ML	CONC.	LOT #
ICM-CLPT-2	10	Multi	2/9/99
Arsenic	0.80	1000 ppm	B-R-34-2
Lead	0.40		B-R-34-6
Thallium	1.00		B-R-33-8
Selenium	0.20		B-R-34-14

LOT NUMBER SS- 8 -3
 STANDARD NAME TCLP SPIKE #2
 DATE PREPARED 2/16/99
 ANALYST SIGN. Mark Sagan
 FINAL VOL. (ML) 100
 PRESERVATIVE(S) _____
2 ML HNO3

STOCK ADDED	ML	CONC.	LOT #
Silver	10	1000 ppm	B-R-36-6

LOT NUMBER SS- 8 -4
 STANDARD NAME Silver @ 100 ppm
 DATE PREPARED 02/17/99
 ANALYST SIGN. John F. Maedell
 FINAL VOL. (ML) 100
 PRESERVATIVE(S) _____
5 ML HNO3

STOCK ADDED	ML	CONC.	LOT #
Silver	10.0	1000 ppm	B-R-36-6

LOT NUMBER SS- 8 -5
 STANDARD NAME Trace 3
 DATE PREPARED 03/18/99
 ANALYST SIGN. John F. Maedell
 FINAL VOL. (ML) 100
 PRESERVATIVE(S) _____
2 ML HNO3

STOCK ADDED	ML	CONC.	LOT #
Arsenic	0.800	1000 ng/L	B-R-34-2
Lead	0.400		B-R-34-6
Selenium	0.200		B-R-33-8
Thallium	1.00		B-R-33-8

LOT NUMBER SS- -6
 STANDARD NAME _____
 DATE PREPARED _____
 ANALYST SIGN. _____
 FINAL VOL. (ML) _____
 PRESERVATIVE(S) _____
 _____ ML HNO3

STOCK ADDED	ML	CONC.	LOT #

ICM STANDARD RECEIPT

ICM Lot # - B-R-38-1
Standard - LCSS 239
Conc. - Multi
Manufacturer - ERA
Mfr. Lot # - 239
Date Rec. - 01/25/99
Exp. Date - 01/31/00

ICM Lot # - B-R-38-2
Standard - $PiNO_3 \cdot 6H_2O$ Modifier
Conc. - Solid
Manufacturer - ALDRICH
Mfr. Lot # - 16721TS
Date Rec. - 2/12/99
Exp. Date - 2/29/00

ICM Lot # - B-R-38-3
Standard - Sodium @ 10,000 ug/ml
Conc. - 10,000 ug/ml
Manufacturer - Inorganic Ventures
Mfr. Lot # - N-NA02099
Date Rec. - 02/12/99
Exp. Date - 01/01/2000

ICM Lot # - B-R-38-4
Standard - Mercury
Conc. - 1000 +/- 13 ug/ml
Manufacturer - CPI
Mfr. Lot # - 9BR058
Date Rec. - 03/23/99
Exp. Date - 09/19/2000

ICM Lot # - B-R-38-5
Standard - Sodium
Conc. - 10039 ug/ml
Manufacturer - Inorganic Ventures
Mfr. Lot # - N-NA02102
Date Rec. - 03/23/99
Exp. Date - 01/03/00

ICM Lot # - B-R-38-6
Standard - Zinc
Conc. - 1001 ug/ml
Manufacturer - Inorganic Ventures
Mfr. Lot # - N-ZND1127
Date Rec. - 03/23/99
Exp. Date - 01/03/00

ICM Lot # - B-R-38-7
Standard - CLPP-CAL-3
Conc. - Multi
Manufacturer - Inorganic Ventures
Mfr. Lot # - N-MEB58121
Date Rec. - 03/23/99
Exp. Date - 01/04/00

ICM Lot # - B-R-38-8
Standard - Antimony
Conc. - 1002 ug/ml
Manufacturer - Inorganic Ventures
Mfr. Lot # - N-SB02052
Date Rec. - 03/29/99
Exp. Date - 01/04/00

ICM Lot # - B-R-38-9
Standard - Antimony
Conc. - 1002 ug/ml
Manufacturer - Inorganic Ventures
Mfr. Lot # - N-SB02053
Date Rec. - 03/29/99
Exp. Date - 01/04/00

ICM Lot # - B-R-38-10
Standard - CLPP-CAL-3
Conc. - ~~1002 ug/ml~~
Manufacturer - ~~Inorganic Ventures~~
Mfr. Lot # - ~~N-SB02053~~
Date Rec. - ~~03/29/99~~
Exp. Date - ~~01/04/00~~

ICM Lot # - _____
Standard - _____
Conc. - _____
Manufacturer - _____
Mfr. Lot # - _____
Date Rec. - _____
Exp. Date - _____

ICM Lot # - _____
Standard - _____
Conc. - _____
Manufacturer - _____
Mfr. Lot # - _____
Date Rec. - _____
Exp. Date - _____

ICM Lot # - _____
Standard - _____
Conc. - _____
Manufacturer - _____
Mfr. Lot # - _____
Date Rec. - _____
Exp. Date - _____

ICM Lot # - _____
Standard - _____
Conc. - _____
Manufacturer - _____
Mfr. Lot # - _____
Date Rec. - _____
Exp. Date - _____

Lot Number ICP A - TB - 1
 Standard Name ICV
 Final Volume 100 mL
 Preservatives 4 mL HCl
2 mL HNO₃

Stock Added	mL	Conc.	Lot Number
ICV-1 (0195)	10.0	Multi	B-R-37-2 (2)
ICV-2 (0692)	5.0	Multi	B-R-37-3 (2)
ICV-3 (10694)	10.0	56 @ 9700 ug/L	B-R-37-4 (2)

Signature/Initials

Lynette Marcelle

Date

02/15/99

Lot Number ICP A - TB - 2
 Standard Name ICV
 Final Volume 100 mL
 Preservatives 4 mL HCl
2 mL HNO₃

Stock Added	mL	Conc.	Lot Number
ICV-4 (0692)	10.0	Multi	B-R-37-5 (2)

Signature/Initials

J

Date

02/15/99

Lot Number ICP A - TB - 3
 Standard Name CR1
 Final Volume 100 mL
 Preservatives 4 mL HCl
2 mL HNO₃

Stock Added	mL	Conc.	Lot Number
CRDL-1 100	0.10	Multi	B-R-32-9
CRDL-1 100	1.10	Ag @ 20ug/mL	B-R-32-10

Signature/Initials

J

Date

02/15/99

Lot Number ICP A - TB - 4
 Standard Name ICSA
 Final Volume 100 mL
 Preservatives 4 mL HCl
2 mL HNO₃

Stock Added	mL	Conc.	Lot Number
ICS (1197) Part A	10.0	Multi	B-R-37-6 (2)

Signature/Initials

J

Date

02/15/99

Lot Number ICP A - TB - 5
 Standard Name IC9AB
 Final Volume 100 mL
 Preservatives _____ mL HCl
 _____ mL HNO₃

Stock Added	mL	Conc.	Lot Number
ICS (1197) Part A	10.0	Multi	B-R-37-6 (2)
ICS (0546) Part B	10.0	Multi	B-R-37-7 (2)

ICP Standard Preparation Log

Units: mg/L

Date 03/30/99

Analyst Ljune K. Maedel

Lot Number ICP A - 55 -1
 Standard Name SO/ICB/CCB
 Final Volume 500 mL
 Preservatives 10.0 mL HCl
 10.0 mL HNO

Lot Number ICP A - 55 -2
 Standard Name S/CLP CCV*
 Final Volume 500 mL
 Preservatives 10.0 mL HCl
 10.0 mL HNO

* For CLP analysis, prepare CCV in this fashion bringing final volume to 1000 mL.

Stock Added	mL	Conc.	Lot Number
CLPP-CAL-1	2.5	Multi	B-R- 36 - 11
Antimony	1.0	1000	B-R- 35 - 8 - 38 - 9
CLPP-CAL-3	1.0	Multi	B-R- 38 - 7
ICM-CLP-4	2.5	Multi	B-R- 36 - 4

03/30/99
51

Lot Number ICP A - 55 -3
 Standard Name IPC
 Final Volume 500 mL
 Preservatives 10.0 mL HCl
 10.0 mL HNO

Stock Added	mL	Conc.	Lot Number
WW-IPC-1	5.0	Multi	B-R- 37 - 12
WW-IPC-2	5.0	Multi	B-R- 37 - 13
Sodium	0.40	10,000	B-R- 38 - 3

Lot Number ICP A - 55 -4
 Standard Name QCS/ICV
 Final Volume 500 mL
 Preservatives 10.0 mL HCl
 10.0 mL HNO

Stock Added	mL	Conc.	Lot Number
QCP-QCS-1	5.0	Multi	B-R- 37 - 10
QCP-QCS-2	5.0	Multi	B-R- 37 - 11
Sodium	0.20	10,000	B-R- 38 - 3

~~Lot Number ICP A - -5
 Standard Name IGSAB4.0
 Final Volume 500mL
 Preservatives 10.0mL HCl
 10.0mL HNO~~

Stock Added	mL	Conc.	Lot Number
CLPP-ICS-A	50	Multi	B-R- -
CLPP-ICS-B4	5.0	Multi	B-R- -

~~Lot Number ICP A - -6
 Standard Name IGSAB3.0
 Final Volume 500mL
 Preservatives 10.0 mL HCl
 10.0 mL HNO~~

Stock Added	mL	Conc.	Lot Number
CLPP-ICS-A	50	Multi	B-R- -
CLPP-ICS-B	5.0	Multi	B-R- -

ICP Standard Preparation Log

Units: mg/L

Date 03/23/99

Analyst Lynnet Maedel

Lot Number ICP A - 54 -1
 Standard Name SO/ICB/CCB
 Final Volume 500 mL
 Preservatives 10.0 mL HCl
 10.0 mL HNO

Lot Number ICP A - 54 -2
 Standard Name S/CLP CCV*
 Final Volume 500 mL
 Preservatives 10.0 mL HCl
 10.0 mL HNO

* For CLP analysis,
 prepare CCV in this
 fashion bringing final
 volume to 1000 mL.

Stock Added	mL	Conc.	Lot Number
CLPP-CAL-1	2.5	Multi	B-R-36 - 11
Antimony	1.0	1000	B-R-35 - 8
CLPP-CAL-3	1.0	Multi	B-R-38 - 7
ICM-CLP-4	2.5	Multi	B-R-36 - 4

Lot Number ICP A - 54 -3
 Standard Name IPC
 Final Volume 500 mL
 Preservatives 10.0 mL HCl
 10.0 mL HNO

Stock Added	mL	Conc.	Lot Number
WW-IPC-1	5.0	Multi	B-R-37 - 12
WW-IPC-2	5.0	Multi	B-R-37 - 13
Sodium	0.40	10,000	B-R-38 - 3

Lot Number ICP A - 54 -4
 Standard Name QCS/ICV
 Final Volume 500 mL
 Preservatives 10.0 mL HCl
 10.0 mL HNO

Stock Added	mL	Conc.	Lot Number
QCP-QCS-1	5.0	Multi	B-R-37 - 10
QCP-QCS-2	5.0	Multi	B-R-37 - 11
Sodium	0.20	10,000	B-R-38 - 3

Lot Number ICP A - 54 -5
 Standard Name ICSAB4.0
 Final Volume 500mL
 Preservatives 10.0mL HCl
 10.0mL HNO

Stock Added	mL	Conc.	Lot Number
CLPP-ICS-A	50	Multi	B-R-36 - 8
CLPP-ICS-B4	5.0	Multi	B-R-33 - 7

Lot Number ICP A - 54 -6
 Standard Name ICSAB3.0
 Final Volume 500mL
 Preservatives 10.0 mL HCl
 10.0 mL HNO

Stck Added	mL	Conc.	Lot Number
CLPP-ICS-A	50	Multi	B-R- -
CLPP-ICS-B	5.0	Multi	B-R- -

03/23/99

Lot Number ICP A - 9B - 1
 Standard Name ICV
 Final Volume 100 mL
 Preservatives 1 mL HCl
2 mL HNO₃

Stock Added	mL	Conc.	Lot Number
ICV-1 (0195)	10.0	Multi	B-R-37-2 (2)
ICV-2 (10692)	5.0	Multi	B-R-37-3 (2)
ICV-3 (10694)	10.0	50 @ 9900 ug/L	B-R-37-4 (2)

Signature/Initials *Janet K. Maddil* Date 03/25/99

Lot Number ICP A - 9B - 2
 Standard Name CR1
 Final Volume 100 mL
 Preservatives 4 mL HCl
2 mL HNO₃

Stock Added	mL	Conc.	Lot Number
CRDL 1-100	0.10	Multi	B-R-32-9
CRDL 1-100	0.10	As @ 20 ug/L	B-R-32-10

Signature/Initials *J* Date 03/25/99

Lot Number ICP A - 9B - 3
 Standard Name ICSA
 Final Volume 100 mL
 Preservatives 4 mL HCl
2 mL HNO₃

Stock Added	mL	Conc.	Lot Number
ICS (1197) Part A	10.0	Multi	B-R-37-6 (2)

Signature/Initials *J* Date 03/25/99

Lot Number ICP A - 9B - 4
 Standard Name ICSAB
 Final Volume 100 mL
 Preservatives 4 mL HCl
2 mL HNO₃

Stock Added	mL	Conc.	Lot Number
ICS (1197) Part A	10.0	Multi	B-R-37-6 (2)
ICS (0546) Part B	10.0	Multi	B-R-37-7 (2)

Signature/Initials *J* Date 03/25/99

Lot Number ICP A - 9B - 5
 Standard Name _____
 Final Volume _____ mL
 Preservatives _____ mL HCl
 _____ mL HNO₃

Stock Added	mL	Conc.	Lot Number

Signature/Initials _____ Date 03 6 99



LABORATORIES

Metals Sample Preparation/Digestion Log

1152 ROUTE 10 RANDOLPH, NJ 07869

201-584-0330 FAX 201-584-0515

Batch

4956

SW846

EPA Water

ILM04.0

Other MYB

Review

[Signature]

Sample ID	ICP		Furnace		Mercury		Comments
	Initial	Final	Initial	Final	Initial	Final	
PBS	1.00 g	1.00 mL			0.50 g	100 mL	
PBS DUP	1.00 g				0.50 g		
LCSJ	1.00				0.50		
LCSJ DUP	1.00				0.50		
306390	1.00				0.50		
391	1.00				0.51		
392	1.00				0.52		
393	1.00				0.50		
394	1.01				0.51		
395	1.02				0.51		
396	1.01				0.51		
397	1.00				0.50		
398	1.00				0.50		
398D	1.01				0.50		
398J	1.01				0.50		
✓ 398SD	1.01 ✓	✓			0.50 ✓	✓	
Analyst		Mark Logan			Mark Logan		
Date		3/18/99			3/18/99		
Spike Added		Spike Added		Spike Added			
Spike ID	Lot #	mL	Lot #	mL	Lot #	mL	
306396	SS-7-4	2.50			Hg-Int-a-B	40	Mercury Digest. Hot Water Bath In 17:15 Out 17:45 Temp 95°C Date 3/18/99
	SS-8-1	2.00					
	SS-8-3	0.25					
	B-1-35-8	0.50					
Spike ID	Lot #	mL	Lot #	mL	Lot #	mL	
LCSJ + DUP	B-R-36-13	1.00			Hg-Int-a-B	40	
	B-R-36-14	1.00					

MOISTURE LOG

TECH SIGN:

[Signature]

moist.

Init.	Date	Sample #	Rin #	Wt1	Wt2	Wt3	moist.
GD	3-16-99	306390	1	1.291	10.192	7.768	31.10
		306390D	2	1.299	13.927	10.112	29.65
		306391	3	1.296	10.671	8.931	18.56
		306392	4	1.301	14.703	9.664	37.60
		306393	5	1.300	15.259	11.490	27.00
		306394	6	1.292	14.668	11.411	24.35
		306395	7	1.304	12.621	9.421	28.28
		306396	8	1.299	10.216	9.535	7.63
		306397	9	1.299	10.547	9.936	6.61
		306298	10	1.293	11.409	16.627	7.73
		306299	11	1.285	11.099	9.939	11.89
		306297	12	1.295	10.480	7.640	30.92
		306294	13	1.302	12.199	10.560	15.04
		3063105	14	1.297	10.243	9.302	10.52
		306417	15	1.302	14.289	12.086	16.96
		418	16	1.299	18.346	16.267	12.20
		419	17	1.315	12.783	10.628	18.19
		420	18	1.305	17.220	14.725	15.68
		421	19	1.304	16.443	14.096	15.78
		422	20	1.299	17.246	16.755	3.08

MOISTURE LOG

TECH SIGN:

% moist.

Init.	Date	Sample #	Tin #	Wt1	Wt2	Wt3	% moist.
SD	3-16-99	3016390	1	1.291	10.192	7.7168	3.16
		3016390D	2	1.299	13.927	10.112	29.65
		3016391	3	1.296	10.671	8.931	8.56
		3016392	4	1.301	14.703	9.664	37.60
		3016393	5	1.300	15.259	11.490	27.00
		3016394	6	1.292	14.668	11.411	24.35
		3016395	7	1.304	12.621	9.421	28.28
		3016396	8	1.299	10.216	9.536	7.63
		3016397	9	1.299	10.547	9.936	6.61
		3016398	10	1.293	11.409	16.627	7.73
		3016399	11	1.285	11.099	9.939	11.89
		3016397	12	1.295	10.480	7.640	30.92
		3016394	13	1.302	12.199	10.510	15.04
		3016395	14	1.297	10.243	9.302	10.52
		306417	15	1.300	14.289	12.086	16.96
		418	16	1.299	18.0346	16.267	12.20
		419	17	1.215	12.783	10.628	18.79
		420	18	1.305	17.0220	14.725	15.68
		421	19	1.304	16.443	14.096	15.78
		422	20	1.299	17.046	16.755	3.08



LABORATORIES

1152 ROUTE 10 RANDOLPH, NJ 07869

ICP Laboratory Chronicle

Date 03/23/99

Standard(s) ICPA-54

Instrument IJA Trace ✓
ICAP 61E

ICPA-7B

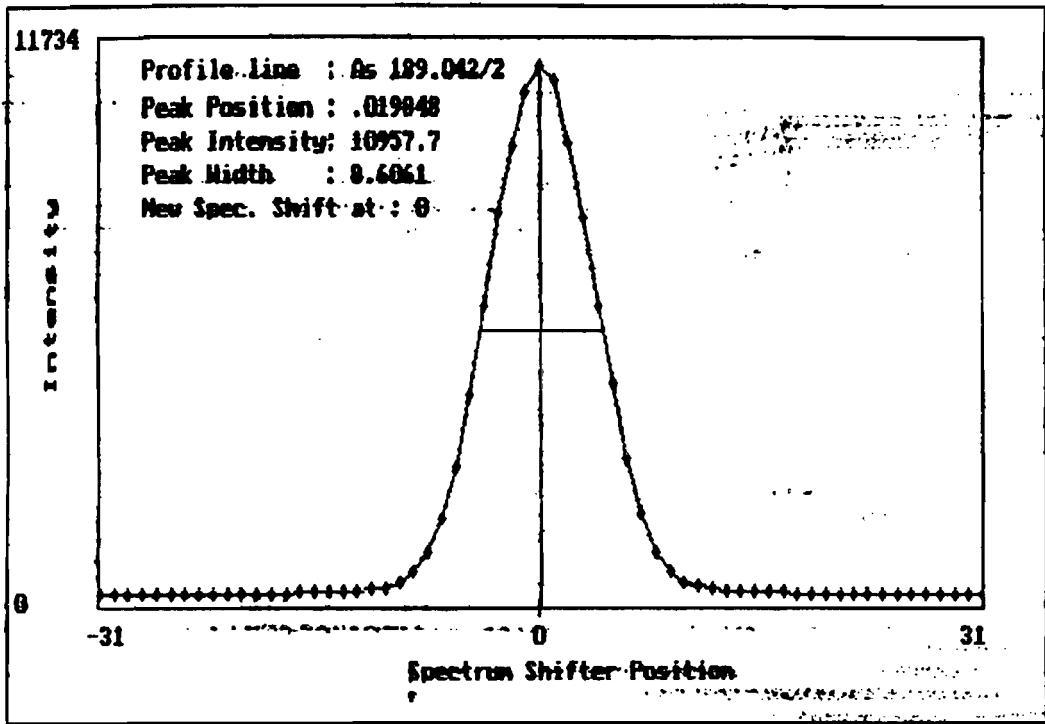
Batch(es) 1956, 4964

Data File CLPSTUF

Analyst Lynne K. MacNeil

Sample ID	Cup #	Comments
ICV / ICB	1	
CCV / CCB	2	
CRI	3	
ICSA / ICASB	4	
CCV + / CCB	5	
PBS 4956	6	CCI
PBSD	7	
LCSS	8	
LCSSD	9	
306390	10	
306391	11	
306392	12	
306393	13	
306394	14	
306395	15	
CCV • / CCB	16	
306396	17	
306397	18	
306398	19	
306398D	20	
306398S	21	
306398SD	22	
306398L	23	
CRI	24	
ICSA / ICASB	25	
CCV / CCB	26	
PBS 4964	27	Volumetric Techniques
LCSS 4964 B-R-38-1	28	
306534	29	
306535	30	
306536	31	
306537	32	
306538	33	
306539	34	
306540	35	
306541	36	
CCV • / CCB	37	
306542	38	
306543	39	
306544	40	
306545	41	
306546	42	
306547	43	
306548	44	

Sample ID	Cup #	Comments
306549	45	
306550	46	
306551	47	
CCV / CCB	48	
306552	49	
306553	50	
306553D	51	
306553S	52	
306553L	53	
CRI	54	
ICSA / ICSAB	55	
CCV + / CCB	56	
	57	
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3/23/99
T. P. A. C. W.

Method: EPA

Standard: S0

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Avge	.05340	.00194	.00027	-.03295	-.00133	.04832	.00214
SDev	.00080	.00010	.00019	.00018	.00586	.00003	.00018
%RSD	1.4899	5.1272	70.899	.53780	440.58	.05533	8.5889
#1	.05396	.00201	.00040	-.03307	.00281	.04834	.00201
#2	.05284	.00187	.00013	-.03282	-.00547	.04830	.00227
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Avge	-.00020	.00782	-.00120	-.00020	.00047	.00027	-.17611
SDev	.00010	.00083	.00075	.00028	.00010	.00057	.00451
%RSD	47.363	10.629	62.652	141.42	20.449	211.82	2.5587
#1	-.00027	.00723	-.00067	.00000	.00054	.00067	-.17930
#2	-.00013	.00841	-.00173	-.00040	.00040	-.00013	-.17292
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Avge	.00080	-.02814	-.00134	.00047	.00134	-.00628	-.00027
SDev	.00038	.00073	.00037	.00010	.00000	.00150	.00076
%RSD	46.917	2.6023	28.043	20.449	.25094	23.828	282.09
#1	.00054	-.02866	-.00107	.00054	.00134	-.00522	-.00080
#2	.00107	-.02762	-.00160	.00040	.00133	-.00734	.00027
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Ma2020	Si2881
Avge	-.01897	.00855	-.00896	.01303	.00094	.00134	.11014
SDev	.00525	.00073	.00569	.00101	.00019	.00019	.00028
%RSD	27.645	8.5889	63.523	7.7274	20.449	13.894	.25094
#1	-.01527	.00803	-.01299	.01232	.00107	.00121	.11034
#2	-.02268	.00907	-.00494	.01374	.00080	.00147	.10995
Elem	Sn1899	Ti3349					
Avge	.00722	.00890					
SDev	.00021	.00560					
%RSD	2.8698	62.937					
#1	.00736	.01285					
#2	.00707	.00494					

Method: EPA

Standard: S

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Avg	3.6355	4.3543	28.666	2.1724	13.901	7.3114	3.3156
SDev	.0057	.0089	.027	.0019	.017	.0042	.0012
%RSD	.15576	.20367	.09465	.08544	.12319	.05761	.03539
#1	3.6395	4.3480	28.685	2.1711	13.913	7.3084	3.3148
#2	3.6315	4.3605	28.647	2.1737	13.889	7.3143	3.3165
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Avg	4.1365	2.9042	.47397	5.6682	6.9636	14.269	22.910
SDev	.0033	.0037	.00104	.0007	.0012	.044	.018
%RSD	.08000	.12662	.21905	.01266	.01774	.30565	.08013
#1	4.1389	2.9068	.47471	5.6677	6.9627	14.239	22.923
#2	4.1342	2.9016	.47324	5.6687	6.9644	14.300	22.897
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Avg	3.5887	.78288	3.0058	1.6767	3.7226	4.5584	3.1595
SDev	.0009	.00260	.0009	.0019	.0040	.0212	.0116
%RSD	.02404	.33199	.03088	.11258	.10832	.46445	.36655
#1	3.5894	.78104	3.0064	1.6753	3.7254	4.5434	3.1513
#2	3.5881	.78471	3.0051	1.6780	3.7197	4.5733	3.1677
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Avg	9.8740	8.6428	2.7574	3.2682	6.2242	12.207	6.3474
SDev	.0400	.0297	.0152	.0168	.0055	.019	.0011
%RSD	.40524	.34331	.55276	.51429	.08813	.15556	.01656
#1	9.8457	8.6218	2.7467	3.2563	6.2281	12.193	6.3466
#2	9.9023	8.6638	2.7682	3.2800	6.2203	12.220	6.3481
Elem	Sn1899	Ti3349					
Avg	11.839	25.929					
SDev	.018	.032					
%RSD	.15020	.12406					
#1	11.826	25.906					
#2	11.851	25.952					

Method: EPA

Sample Name: ICV

Operator: LKM

Run Time: 03/23/99 14:44:43

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.034119	2.025847	1.007590	.9851525	1.039611	1.015084	1.016930
SDev	.000230	.004859	.001428	.0012866	.000675	.001390	.001265
%RSD	.0222122	.2398349	.1416928	.1306008	.0648899	.1368932	.1243770

#1	1.034282	2.022412	1.008600	.9860623	1.040088	1.014102	1.017824
#2	1.033957	2.029283	1.006581	.9842427	1.039134	1.016067	1.016036

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.023048	1.014189	1.011888	1.000186	1.022666	1.019332	5.241177
SDev	.000941	.001025	.000761	.000621	.001059	.000225	.000721
%RSD	.0920266	.1010173	.0752229	.0621003	.1035098	.0220879	.0137477

#1	1.022382	1.014913	1.011350	1.000625	1.023415	1.019172	5.241686
#2	1.023713	1.013464	1.012426	.9997467	1.021918	1.019491	5.240667

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2524373	4.824360	5.151798	1.009836	1.045653	2.030826	2.010721
SDev	.0001135	.012597	.003069	.000631	.000935	.005831	.000127
%RSD	.0449622	.2611093	.0595642	.0624793	.0894165	.2871129	.0063386

#1	.2523570	4.833267	5.153968	1.010282	1.044992	2.026703	2.010631
#2	.2525175	4.815453	5.149628	1.009389	1.046314	2.034949	2.010811

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.045719	2.062241	1.021276	1.034940	1.024542	1.044476	2.372671
SDev	.005437	.001565	.001848	.000835	.000116	.000446	.000197
%RSD	.2657636	.0758800	.1809308	.0806823	.0113210	.0426684	.0083204

#1	2.049563	2.061135	1.019969	1.034350	1.024460	1.044792	2.372811
#2	2.041874	2.063348	1.022582	1.035531	1.024625	1.044161	2.372532

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	5.216658	1.014912	2.057877	1.031462	2.018487
SDev	.002704	.001815	.000672	.001172	.002027
%RSD	.0518367	.1788178	.0326627	.1136352	.1004014

#1	5.218570	1.016195	2.058352	1.030633	2.017054
#2	5.214746	1.013629	2.057402	1.032290	2.019920

Analysis Report

Tue 03-23-99 02:53:19 PM

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Method: EPA Sample Name: ICB
 Run Time: 03/23/99 14:49:03
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0006919	.0008860	.0006739	.0002023	.0004551	.0006677	.0000182
SDev	.0020196	.0000887	.0000994	.0000615	.0000206	.0004750	.0001415
%RSD	291.8832	10.01011	14.75268	30.41561	4.533357	71.14387	775.3332

#1	.0021200	.0009488	.0007442	.0002458	.0004697	.0003318	-.000082
#2	-.000736	.0008233	.0006036	.0001588	.0004405	.0010036	.0001183

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0003251	-.000038	.0007365	.0017638	.0001909	-.000932	.0139773
SDev	.0008557	.000004	.0030307	.0012459	.0000334	.001056	.0011026
%RSD	263.1671	9.406134	411.4923	70.63755	17.48203	113.2220	7.888293

#1	.0009302	-.000035	.0028796	.0008828	.0001673	-.001679	.0131977
#2	-.000280	-.000041	-.001407	.0026448	.0002145	-.000186	.0147570

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.0000223	.0912976	.0038172	-.000101	.0004050	.0054715	.0029598
SDev	.0004922	.0283902	.0022604	.000280	.0001860	.0059945	.0007669
%RSD	2205.096	31.09627	59.21751	275.8966	45.94037	109.5590	25.91116

#1	-.000326	.1113725	.0054155	-.000299	.0002734	.0097102	.0035021
#2	.0003703	.0712228	.0022188	.0000964	.0005365	.0012327	.0024175

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	-.002744	-.000511	.0004563	-.003906	.0024141	.0007628	-.001216
SDev	.001355	.002413	.0022544	.002319	.0003265	.0002303	.000665
%RSD	49.37543	472.4734	494.0630	59.37515	13.52493	30.18929	54.65416

#1	-.003701	.0011957	-.001138	-.002266	.0026450	.0006000	-.001687
#2	-.001786	-.002217	.0020504	-.005547	.0021832	.0009256	-.000746

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.0049272	-.000289	.0000785	-.001387	.0048624
SDev	.0030782	.000347	.0011600	.000797	.0025088
%RSD	62.47374	120.1441	1476.955	57.47975	51.59568

#1	.0071039	-.000043	.0008988	-.000824	.0066364
#2	.0027506	-.000534	-.000742	-.001951	.0030884

Method: EPA

Sample Name: CCV

Operator: LKM

Run Time: 03/23/99 14:53:22

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.056313	1.013145	4.881953	.1245697	.5059657	12.55965	.4997600
SDev	.024047	.001166	.011351	.0000758	.0010242	.01344	.0005049
%RSD	.4755763	.1150740	.2325092	.0608334	.2024269	.1070399	.1010197

#1	5.073317	1.013969	4.889980	.1246233	.5066900	12.56916	.5001170
#2	5.039310	1.012320	4.873927	.1245161	.5052415	12.55015	.4994030

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.256641	.6248859	2.501492	12.56296	1.256358	1.261030	12.52057
SDev	.005518	.0029141	.008977	.02333	.000600	.003326	.04050
%RSD	.4391367	.4663439	.3588770	.1856655	.0477573	.2637441	.3235008

#1	1.260543	.6269465	2.495144	12.57945	1.256782	1.263382	12.54921
#2	1.252739	.6228253	2.507840	12.54646	1.255933	1.258678	12.49193

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6251923	12.63593	1.005967	1.251187	1.282083	1.003706	1.010588
SDev	.0011471	.01142	.002005	.001327	.001369	.009619	.001512
%RSD	.1834880	.0903728	.1993117	.1060621	.1067410	.9583152	.1496051

#1	.6260035	12.64400	1.004549	1.252126	1.283051	.9969048	1.011658
#2	.6243812	12.62785	1.007385	1.250249	1.281116	1.010508	1.009519

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.010398	1.004412	1.040026	1.030950	2.556721	2.536155	2.523588
SDev	.006528	.010698	.010708	.000010	.001525	.012384	.010649
%RSD	.6460697	1.065064	1.029606	.0009975	.0596549	.4882952	.4219715

#1	1.015014	.9968479	1.047598	1.030943	2.557800	2.544912	2.531118
#2	1.005782	1.011977	1.032454	1.030957	2.555643	2.527398	2.516058

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	2.541375	2.529812	1.007748	1.035047	1.009372
SDev	.005739	.001351	.004961	.003560	.002194
%RSD	.2258379	.0534055	.4922544	.3439269	.2173458

#1	2.545434	2.530768	1.004240	1.037565	1.007821
#2	2.537317	2.528857	1.011256	1.032530	1.010923

Method: EPA Sample Name: 306391
 Run Time: 03/23/99 15:45:06
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.87149	.0142401	.2115954	.0014503	.0050344	173.8552	.0907590
SDev	.00398	.0007510	.0005703	.0000047	.0000156	.5092	.0000820
%RSD	.0210972	5.273845	.2695136	.3207470	.3101339	.2928587	.0903572

#1	18.87431	.0137090	.2119987	.0014470	.0050455	173.4952	.0907010
#2	18.86867	.0147711	.2111922	.0014536	.0050234	174.2152	.0908169

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1103390	1.278059	100.0996	90.80899	.8785418	.2356212	2.240131
SDev	.0009016	.002773	.2296	.16801	.0017451	.0005014	.008930
%RSD	.8170991	.2169639	.2293740	.1850149	.1986397	.2127902	.3986181

#1	.1097015	1.280019	99.93729	90.69019	.8773078	.2359758	2.233817
#2	.1109765	1.276098	100.2620	90.92780	.8797758	.2352667	2.246445

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000304	1.699287	-.001821	.0992387	2.696778	.0151730	.0279634
SDev	.000172	.098638	.001254	.0001130	.001461	.0012768	.0001168
%RSD	56.50703	5.804666	68.85113	.1138413	.0541750	8.414841	.4176780

#1	-.000425	1.629540	-.002708	.0993186	2.695745	.0160758	.0278808
#2	-.000182	1.769035	-.000935	.0991588	2.697811	.0142702	.0280460

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1880315	.1837867	.0079452	.0039825	.0170525	.1602892	5.504081
SDev	.0034075	.0027636	.0034943	.0005923	.0009698	.0017003	.003651
%RSD	1.812173	1.503729	43.97934	14.87241	5.687322	1.060796	.0663252

#1	.1904410	.1818325	.0104160	.0044013	.0177383	.1614915	5.501499
#2	.1856221	.1857409	.0054744	.0035637	.0163667	.1590869	5.506662

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.2787703	1.276493	.1864537	.0063465	.0248184
SDev	.0005045	.000105	.0007061	.0014623	.0003495
%RSD	.1809650	.0082610	.3786982	23.04090	1.408396

#1	.2784136	1.276568	.1859544	.0073805	.0250655
#2	.2791270	1.276419	.1869530	.0053125	.0245712

Method: EPA Sample Name: 306392
 Run Time: 03/23/99 15:49:25
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cc2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	73.07352	.0527932	.9171581	.0037381	.0257087	66.02818	.4262243
SDev	.38382	.0006383	.0030360	.0000471	.0003061	.36201	.0025970
%RSD	.5252494	1.209089	.3310232	1.260416	1.190651	.5482613	.6093096

#1	72.80212	.0523418	.9150114	.0037714	.0254922	65.77221	.4243879
#2	73.34493	.0532446	.9193049	.0037048	.0259251	66.28416	.4280606

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.6532843	10.70401	102.2449	42.51941	.7461029	1.040279	5.002834
SDev	.0044253	.04398	.4940	.22399	.0040606	.003637	.018268
%RSD	.6773851	.4109031	.4831446	.5267993	.5442407	.3495792	.3651488

#1	.6501552	10.67291	101.8956	42.36103	.7432317	1.037707	4.989917
#2	.6564134	10.73511	102.5942	42.67780	.7489742	1.042850	5.015752

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.0052747	1.926639	-.001696	.3450002	H12.46668	.1769463	.2146890
SDev	.0001651	.045139	.001071	.0019243	.04361	.0047181	.0007969
%RSD	3.129768	2.342911	63.13394	.5577796	.3497760	2.666401	.3711841

#1	.0051580	1.958558	-.000939	.3436395	H12.43585	.1736101	.2152525
#2	.0053915	1.894721	-.002453	.3463609	H12.49752	.1802825	.2141255

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	2.476382	2.472132	.0246448	.0185090	-.064726	2.958406	9.927117
SDev	.006533	.014612	.0036313	.0024261	.000160	.009847	.073101
%RSD	.2638027	.5910541	14.73445	13.10792	.2473834	.3328375	.7363753

#1	2.471763	2.461800	.0272125	.0202245	-.064839	2.951443	9.875427
#2	2.481001	2.482464	.0220771	.0167934	-.064613	2.965368	9.978807

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	2.912781	2.402571	2.474847	.0216469	.2032154
SDev	.017324	.011671	.012017	.0028281	.0010389
%RSD	.5947710	.4857770	.4855753	13.06483	.5112406

#1	2.900531	2.394318	2.466350	.0236467	.2024808
#2	2.925032	2.410824	2.483345	.0196471	.2039501

Analysis Report

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Method: EPA Sample Name: 306393
 Run Time: 03/23/99 15:53:44
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.277554	.0186225	.1331972	.0010910	.0013849	2.945415	.0236967
SDev	.008209	.0024670	.0000117	.0000910	.0002232	.000280	.0001330
%RSD	.0884808	13.24729	.0088045	8.344203	16.11746	.0095071	.5613972

#1	9.283358	.0203669	.1332055	.0011554	.0015427	2.945613	.0236026
#2	9.271748	.0168781	.1331889	.0010266	.0012270	2.945217	.0237908

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0887159	.3762077	25.98082	1.702256	.6773683	.0878907	1.281575
SDev	.0000236	.0003699	.04886	.004817	.0005160	.0002680	.008262
%RSD	.0265983	.0983350	.1880488	.2829851	.0761715	.3049195	.6446926

#1	.0887326	.3759461	25.94627	1.705663	.6770034	.0877012	1.287417
#2	.0886992	.3764693	26.01536	1.698850	.6777331	.0880802	1.275732

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.000326	.5928272	.0006161	.0631067	.6956969	-.000382	.0079092
SDev	.000000	.0213698	.0004663	.0001549	.0005152	.000888	.0009225
%RSD	.0408777	3.604720	75.67838	.2454828	.0740617	232.1722	11.66378

#1	-.000326	.5777165	.0002864	.0632162	.6953326	-.001010	.0085616
#2	-.000326	.6079379	.0009458	.0629971	.6960613	.0002454	.0072569

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0850643	.0797902	.0048552	.0008636	.0132775	.0878095	6.192226
SDev	.0035083	.0005628	.0004379	.0019527	.0004067	.0010718	.010307
%RSD	4.124308	.7053529	9.019939	226.0947	3.062851	1.220615	.1664576

#1	.0875451	.0801882	.0045455	-.000517	.0135651	.0885674	6.199515
#2	.0825836	.0793923	.0051649	.0022444	.0129900	.0870516	6.184938

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	.0725443	.4472565	.0827616	.0032730	.0062282
SDev	.0028417	.0002919	.0015471	.0014452	.0003227
%RSD	3.917201	.0652525	1.869351	44.15563	5.180564

#1	.0745536	.4470501	.0838556	.0022511	.0064564
#2	.0705349	.4474628	.0816676	.0042949	.0060000

Analysis Report

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Method: EPA Sample Name: 306394
 Run Time: 03/23/99 15:58:03
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	61.99980	.0422071	.5722386	.0034034	.0432135	30.72942	.2273240
SDev	.05140	.0006119	.0003113	.0002426	.0001017	.05746	.0004605
%RSD	.0829105	1.449807	.0543998	7.129361	.2353076	.1870001	.2025681

#1	61.96346	.0426398	.5724587	.0035750	.0431416	30.68878	.2269984
#2	62.03615	.0417744	.5720185	.0032318	.0432854	30.77005	.2276496

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1157543	1.452210	90.34674	22.33819	.6447668	.3037985	4.585053
SDev	.0013390	.002353	.06579	.02468	.0005358	.0002596	.015397
%RSD	1.156761	.1619981	.0728189	.1104646	.0831018	.0854595	.3358104

#1	.1148075	1.453873	90.30022	22.32074	.6443880	.3039821	4.595941
#2	.1167011	1.450546	90.39326	22.35563	.6451457	.3036149	4.574166

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060297	.8317404	-.003031	.3119194	3.677880	.0098871	.0281370
SDev	.0006332	.0274281	.001991	.0009102	.001026	.0016817	.0038535
%RSD	10.50141	3.297672	65.69926	.2918140	.0278925	17.00892	13.69560

#1	.0055820	.8511350	-.001623	.3112758	3.677155	.0110762	.0254122
#2	.0064775	.8123459	-.004439	.3125630	3.678606	.0086980	.0308619

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.451662	2.432408	.0159544	.0068176	.0137323	.5017937	6.753521
SDev	.003073	.017655	.0048037	.0045172	.0000200	.0009283	.030704
%RSD	.1253234	.7258230	30.10917	66.25714	.1459780	.1850016	.4546341

#1	2.449489	2.444892	.0125576	.0100117	.0137181	.5024501	6.731810
#2	2.453834	2.419924	.0193511	.0036235	.0137464	.5011373	6.775232

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.2793700	2.049535	2.440104	.0109416	.0231412
SDev	.0004312	.001425	.010855	.0014189	.0020047
%RSD	.1543488	.0695149	.4448652	12.96822	8.662815

#1	.2796749	2.048528	2.447780	.0119449	.0217237
#2	.2790651	2.050543	2.432428	.0099383	.0245588

Analysis Report

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Method: EPA Sample Name: 306395
 Run Time: 03/23/99 16:02:22
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.89375	.0069154	.1521791	.0008186	.0029821	2.992865	.0298198
SDev	.00785	.0031837	.0001415	.0000791	.0000202	.009195	.0003372
%RSD	.0720173	46.03827	.0929601	9.665741	.6778135	.3072282	1.130927

#1	10.89929	.0046641	.1522792	.0008745	.0029964	2.986363	.0295814
#2	10.88820	.0091666	.1520791	.0007626	.0029679	2.999367	.0300583

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0335976	.3769828	16.19982	2.315078	.0997256	.0729807	1.254054
SDev	.0008339	.0002323	.02349	.005222	.0000078	.0016413	.003925
%RSD	2.482043	.0616300	.1450118	.2255572	.0077922	2.248985	.3130024

#1	.0330079	.3768185	16.18321	2.311386	.0997311	.0718201	1.256830
#2	.0341873	.3771471	16.21643	2.318770	.0997201	.0741413	1.251279

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.000610	.7718334	-.000114	.0578485	.4918375	.0046569	.0080967
SDev	.000000	.0295923	.000127	.0001821	.0019108	.0004633	.0006561
%RSD	.0330609	3.834023	111.4927	.3148301	.3885132	9.948023	8.102784

#1	-.000610	.7509085	-.000204	.0577197	.4904863	.0049844	.0085606
#2	-.000610	.7927583	-.000024	.0579773	.4931887	.0043293	.0076328

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avge	.0613100	.0647039	.0050741	.0022588	.0222120	.0398779	5.282422
SDev	.0026115	.0007224	.0010397	.0016969	.0005743	.0000246	.015347
%RSD	4.259577	1.116523	20.48997	75.12447	2.585705	.0617889	.2905268

#1	.0631567	.0641931	.0058093	.0034588	.0218059	.0398604	5.293273
#2	.0594634	.0652148	.0043389	.0010589	.0226182	.0398953	5.271570

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	.0742851	.6058332	.0646597	.0042822	.0079693
SDev	.0013334	.0002053	.0003871	.0014774	.0004953
%RSD	1.794977	.0338868	.5987022	34.50100	6.214544

#1	.0752279	.6056880	.0649334	.0053269	.0083195
#2	.0733422	.6059783	.0643859	.0032375	.0076191

Method: EPA Sample Name: CCB
 Run Time: 03/23/99 14:57:42
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0005511	-.001138	.0008171	.0000728	.0001633	.0001923	-.000545
SDev	.0005086	.000174	.0001005	.0000480	.0003414	.0000524	.000257
%RSD	92.27402	15.31982	12.30274	66.03246	209.0331	27.22401	47.15454

#1	.0009107	-.001262	.0008881	.0001067	-.000078	.0001553	-.000726
#2	.0001915	-.001015	.0007460	.0000388	.0004047	.0002294	-.000363

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	-.000324	-.000169	-.006597	-.000004	.0001201	-.000491	-.004558
SDev	.000055	.000035	.011376	.001253	.0000672	.000001	.005315
%RSD	16.85050	20.79314	172.4331	30959.84	55.95118	.1037943	116.6215

#1	-.000286	-.000194	.0014467	-.000890	.0000726	-.000492	-.000799
#2	-.000363	-.000144	-.014641	.0008818	.0001676	-.000491	-.008316

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	-.000629	-.009281	.0042727	-.000201	.0001391	.0003600	.0022673
SDev	.000165	.004374	.0013778	.000144	.0000638	.0045737	.0011703
%RSD	26.29509	47.12854	32.24601	71.47060	45.89816	1270.413	51.61626

#1	-.000746	-.012375	.0032985	-.000099	.0000940	.0035941	.0014398
#2	-.000512	-.006188	.0052469	-.000303	.0001843	-.002874	.0030949

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	-.004217	-.002107	.0004765	-.002087	.0023478	.0013994	-.002527
SDev	.003640	.002029	.0047969	.000102	.0009971	.0008948	.000997
%RSD	86.31171	96.28954	1006.781	4.900319	42.46938	63.93995	39.45256

#1	-.006791	-.000672	-.002915	-.002159	.0030529	.0020321	-.003232
#2	-.001643	-.003542	.0038684	-.002015	.0016428	.0007667	-.001822

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.0018724	.0003760	-.001538	-.000163	.0027028
SDev	.0012082	.0008068	.000238	.001664	.0007442
%RSD	64.52744	214.5873	15.47137	1021.664	27.53529

#1	.0027268	.0009465	-.001370	-.001339	.0032290
#2	.0010181	-.000195	-.001707	.0010137	.0021765

Method: EPA Sample Name: CRI Operator: LKM
 Run Time: 03/23/99 15:02:00
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010239	.0196795	.0004465	.0098884	.0105714	.0003732	.0194711
SDev	.0001697	.0024676	.0001012	.0000940	.0001596	.0004939	.0000309
%RSD	16.56906	12.53883	22.65575	.9504781	1.509704	132.3359	.1588669

#1	.0011439	.0214244	.0005180	.0099548	.0106842	.0007225	.0194930
#2	.0009039	.0179347	.0003749	.0098219	.0104585	.0000240	.0194492

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1005401	.0500007	-.007406	.0008822	.0302886	.0794880	.0124198
SDev	.0001636	.0002929	.011443	.0000007	.0001247	.0007684	.0112147
%RSD	.1627300	.5858538	154.5137	.0797916	.4116605	.9667140	90.29724

#1	.1004244	.0497936	.0006856	.0008827	.0303768	.0800313	.0203498
#2	.1006558	.0502079	-.015498	.0008817	.0302004	.0789446	.0044898

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0200379	.1153562	.0202920	.0990399	.0418212	.1186793	.1241561
SDev	.0002922	.0272439	.0015227	.0007230	.0002619	.0016204	.0003655
%RSD	1.458135	23.61721	7.504115	.7300063	.6263576	1.365328	.2943514

#1	.0202445	.1346206	.0192153	.0995511	.0416360	.1198251	.1244145
#2	.0198313	.0960919	.0213688	.0985287	.0420065	.1175335	.1238977

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0052982	.0049347	.0126748	.0087906	.0011292	-.000052	.0009998
SDev	.0013225	.0004584	.0031433	.0021556	.0003348	.000310	.0014846
%RSD	24.96193	9.288706	24.79942	24.52172	29.64792	597.1477	148.4894

#1	.0043631	.0052588	.0104522	.0103148	.0013659	-.000271	.0020496
#2	.0062334	.0046106	.0148974	.0072663	.0008925	.0001674	-.000050

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	.0011881	-.000903	.0062665	.0111602	.1234085
SDev	.0005356	.000131	.0001311	.0003943	.0007865
%RSD	45.08047	14.48343	2.091849	3.532751	.6373330

#1	.0015669	-.000810	.0061738	.0114390	.1239647
#2	.0008094	-.000995	.0063592	.0108814	.1228524

Method: EPA Sample Name: ICSA
 Run Time: 03/23/99 15:06:19
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	449.2394	.0027740	-.001889	.0008288	.0035573	428.4153	.0023616
SDev	.6996	.0014389	.000049	.0000473	.0006337	2.8242	.0002745
%RSD	.1557389	51.87125	2.570801	5.704548	17.81510	.6592095	11.62499
#1	448.7447	.0037915	-.001855	.0007953	.0031092	426.4183	.0021675
#2	449.7341	.0017565	-.001924	.0008622	.0040054	430.4123	.0025557
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006729	.0018400	183.5041	490.8407	-.002835	.0007128	.0116717
SDev	.0005628	.0001330	1.0440	2.0574	.000092	.0002731	.0045722
%RSD	83.63942	7.227034	.5689015	.4191546	3.247683	38.31928	39.17355
#1	.0002749	.0017459	182.7660	489.3859	-.002770	.0005196	.0084387
#2	.0010709	.0019340	184.2423	492.2955	-.002900	.0009059	.0149047
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0000269	.1467051	-.003960	-.001459	-.003803	-.010241	.0056268
SDev	.0002155	.1476238	.002874	.000692	.000363	.008189	.0105904
%RSD	799.9799	100.6262	72.55591	47.46312	9.543793	79.97000	188.2135
#1	-.000125	.0423193	-.001929	-.001948	-.004060	-.016031	.0131153
#2	.0001793	.2510908	-.005992	-.000969	-.003547	-.004450	-.001862
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.0012015	.0021900	.0024103	.0028403	.0023925	.0002068	.0012574
SDev	.0060714	.0035176	.0141662	.0000426	.0000433	.0014904	.0009587
%RSD	505.3020	160.6187	587.7452	1.499674	1.809780	720.5925	76.24889
#1	.0054946	-.000297	.0124273	.0028101	.0023619	.0012607	.0019353
#2	-.003092	.0046773	-.007607	.0028704	.0024231	-.000847	.0005795
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0045751	.0095330	.0033278	.0038706	.0015165		
SDev	.0029286	.0000273	.0003183	.0046939	.0043416		
%RSD	64.01323	.2861163	9.564476	121.2686	286.2916		
#1	.0066459	.0095523	.0031027	.0071897	.0045865		
#2	.0025042	.0095138	.0035529	.0005516	-.001553		

Method: EPA Sample Name: ICSAB
 Run Time: 03/23/99 15:10:37
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	459.0290	.1063097	.5245926	.4954619	.9672464	434.8720	.4932109
SDev	.0073	.0019736	.0002626	.0017971	.0040650	1.7255	.0022638
%RSD	.0015937	1.856512	.0500611	.3627119	.4202674	.3967869	.4589863

#1	459.0239	.1077053	.5244069	.4967326	.9701208	436.0921	.4948116
#2	459.0342	.1049142	.5247783	.4941912	.9643720	433.6519	.4916102

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4790230	.5509216	186.2370	498.2823	.4987723	.9457167	.0285414
SDev	.0027774	.0012801	.6073	1.2757	.0014940	.0020513	.0156615
%RSD	.5798125	.2323532	.3261148	.2560146	.2995271	.2169029	54.87303

#1	.4809869	.5500165	186.6664	499.1843	.4998287	.9471672	.0396157
#2	.4770590	.5518268	185.8075	497.3802	.4977159	.9442662	.0174670

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1785866	.2296905	.0908952	.5009967	1.032539	.6250343	.6209431
SDev	.0002094	.1037645	.0011239	.0016200	.000938	.0036669	.0063262
%RSD	.1172518	45.17577	1.236424	.3233467	.0908296	.5866789	1.018798

#1	.1784385	.3030631	.0916899	.5021422	1.033202	.6276272	.6164698
#2	.1787347	.1563180	.0901006	.4998512	1.031876	.6224414	.6254163

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0480524	.0525783	.0540829	.0502971	.0035198	-.001123	.0232133
SDev	.0011492	.0040018	.0094381	.0067131	.0010359	.002015	.0046804
%RSD	2.391593	7.611063	17.45121	13.34680	29.43005	179.3567	20.16246

#1	.0472398	.0554079	.0474091	.0455503	.0042523	-.002548	.0265229
#2	.0488650	.0497486	.0607567	.0550439	.0027873	.0003013	.0199038

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.001406	.0092978	.0525509	.0527416	.6234891
SDev	.001903	.0002195	.0022863	.0076207	.0029986
%RSD	135.3691	2.360411	4.350568	14.44909	.4809421

#1	-.000060	.0094530	.0541676	.0473529	.6213688
#2	-.002752	.0091427	.0509343	.0581302	.6256095

Method: EPA Sample Name: CCV.
 Run Time: 03/23/99 15:14:57
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.147506	1.016450	4.900998	.1249785	.5087140	12.63504	.5006108
SDev	.010260	.003677	.002295	.0001956	.0010976	.01628	.0001402
%RSD	.1993177	.3617636	.0468302	.1565266	.2157491	.1288438	.0280103

#1	5.154761	1.019050	4.902621	.1248401	.5079379	12.62353	.5007100
#2	5.140251	1.013849	4.899375	.1251168	.5094901	12.64655	.5005117

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.259701	.6277548	2.527211	12.57872	1.259619	1.268880	12.54988
SDev	.000337	.0011147	.019201	.01547	.000910	.002680	.01000
%RSD	.0267796	.1775693	.7597874	.1229875	.0722803	.2112458	.0796761

#1	1.259939	.6285430	2.540788	12.56778	1.258975	1.266985	12.55696
#2	1.259462	.6269666	2.513634	12.58966	1.260263	1.270775	12.54281

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.6285658	12.83416	1.013878	1.255522	1.285265	1.013456	1.021804
SDev	.0003497	.04478	.003939	.001316	.000531	.006778	.000519
%RSD	.0556267	.3489141	.3885543	.1047829	.0412921	.6688476	.0507756

#1	.6288130	12.86582	1.016664	1.254592	1.284889	1.018249	1.021437
#2	.6283186	12.80249	1.011092	1.256452	1.285640	1.008663	1.022171

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	1.012663	1.015135	1.036120	1.037314	2.568638	2.546284	2.536077
SDev	.006476	.000077	.001404	.004965	.007497	.006741	.000981
%RSD	.6394965	.0075564	.1355377	.4786791	.2918568	.2647374	.0386822

#1	1.017243	1.015081	1.035127	1.033803	2.573939	2.541517	2.536770
#2	1.008084	1.015189	1.037113	1.040825	2.563337	2.551051	2.535383

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.545421	2.540024	1.015586	1.037923	1.020031
SDev	.006819	.001262	.002203	.003683	.001818
%RSD	.2679003	.0496930	.2168709	.3548313	.1782344

#1	2.540599	2.539132	1.017143	1.035319	1.021317
#2	2.550243	2.540917	1.014028	1.040527	1.018746

Analysis Report

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Method: EPA
 Run Time: 03/23/99 15:19:16
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Sample Name: ^{CCB} ~~CEV~~ _{03/23/99} ⁴¹

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0401020	-.002436	.0006323	.0000764	.0003935	.0358432	-.000159
SDev	.0078376	.000440	.0001006	.0000263	.0002309	.0072383	.000056
%RSD	19.54416	18.06563	15.91547	34.45077	58.67483	20.19444	35.42872

#1	.0456440	-.002747	.0007035	.0000950	.0002302	.0409614	-.000199
#2	.0345599	-.002125	.0005612	.0000578	.0005567	.0307249	-.000119

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000163	-.000246	.0102457	.0367062	.0000726	.0000244	.0068910
SDev	.000060	.000404	.0062456	.0038341	.0000002	.0004654	.0061332
%RSD	36.62981	164.4736	60.95792	10.44545	.3091778	1909.978	89.00281

#1	-.000206	-.000531	.0058294	.0394174	.0000728	.0003535	.0112279
#2	-.000121	.0000400	.0146620	.0339951	.0000724	-.000305	.0025542

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000012	.0502567	.0027236	-.000196	.0003192	-.003425	.0023961
SDev	.0001979	.0456423	.0004456	.000425	.0000656	.000809	.0009949
%RSD	16637.94	90.81821	16.36015	217.0197	20.55498	23.62983	41.52172

#1	-.000139	.0179828	.0030386	-.000496	.0003656	-.002853	.0016926
#2	.0001411	.0825307	.0024085	.0001046	.0002728	-.003997	.0030996

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000941	.0005904	-.002161	-.003588	.0030358	.0012134	-.001932
SDev	.000812	.0003639	.004684	.001334	.0001164	.0011699	.000219
%RSD	86.32541	61.64444	216.7645	37.18686	3.835885	96.41167	11.35571

#1	-.000367	.0003330	-.005473	-.004531	.0029535	.0020406	-.002087
#2	-.001516	.0008477	.0011512	-.002644	.0031182	.0003862	-.001777

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0004677	.0002659	.0012886	-.002039	.0014647
SDev	.0005680	.0007180	.0000300	.002448	.0002973
%RSD	121.4417	269.9673	2.330733	120.0653	20.29901

#1	.0008694	.0007736	.0013098	-.003769	.0012545
#2	.0000661	-.000242	.0012674	-.000308	.0016749

Method: EPA Sample Name: PBS 4956 Operator: LKM
 Run Time: 03/23/99 15:23:34
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0210054	-.002775	.0002808	.0000511	.0005247	.0150303	-.000422
SDev	.0033755	.001272	.0000677	.0000172	.0001040	.0014045	.000201
%RSD	16.06979	45.84644	24.09938	33.63136	19.81552	9.344712	47.62849

#1	.0233923	-.003674	.0003286	.0000632	.0005982	.0160235	-.000280
#2	.0186186	-.001875	.0002329	.0000389	.0004512	.0140372	-.000565

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002057	-.000164	.0021504	.0150762	.0000483	-.000152	-.002597
SDev	.0001151	.000355	.0009861	.0017312	.0000331	.000149	.002547
%RSD	55.96873	216.6152	45.85802	11.48286	68.61861	98.56490	98.08181

#1	.0002871	-.000415	.0028477	.0163004	.0000249	-.000046	-.004398
#2	.0001243	.0000871	.0014531	.0138521	.0000717	-.000257	-.000796

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.000255	-.046187	.0013330	-.000498	.0001842	.0007029	.0005885
SDev	.000363	.009692	.0010077	.000001	.0002595	.0014184	.0007083
%RSD	142.4282	20.98426	75.59668	.2846176	140.8757	201.8047	120.3421

#1	.0000018	-.053041	.0006205	-.000497	.0003678	.0017059	.0010893
#2	-.000512	-.039334	.0020456	-.000499	.0000007	-.000300	.0000877

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.000895	-.003157	.0006141	-.003796	.0006255	-.000191	-.002103
SDev	.002025	.000280	.0010522	.002345	.0005724	.000348	.000098
%RSD	226.1507	8.855476	171.3321	61.77969	91.52186	182.0019	4.683112

#1	.0005364	-.002960	-.000130	-.002138	.0010303	-.000437	-.002173
#2	-.002327	-.003355	.0013582	-.005454	.0002207	.0000549	-.002034

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.002259	-.001056	-.001197	-.001255	.0016991
SDev	.000398	.000021	.000866	.001218	.0009492
%RSD	17.60630	1.987081	72.29727	97.07913	55.86409

#1	-.002541	-.001042	-.000585	-.000393	.0023703
#2	-.001978	-.001071	-.001810	-.002116	.0010279

Method: EPA Sample Name: PBSD 4956
 Run Time: 03/23/99 15:27:52
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0110674	-.001726	.0001642	.0000292	.0000185	.0086147	.0001650
SDev	.0008047	.001006	.0000327	.0000046	.0001907	.0006208	.0001132
%RSD	7.271335	58.26265	19.91494	15.73697	1028.657	7.205891	68.62900

#1	.0116364	-.002437	.0001411	.0000324	.0001534	.0090536	.0000849
#2	.0104983	-.001015	.0001873	.0000259	-.000116	.0081757	.0002451

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000846	-.000129	-.000071	.0094690	.0000487	-.000082	-.003482
SDev	.0004026	.000158	.004115	.0004041	.0001018	.000316	.002691
%RSD	476.0658	122.5554	5825.551	4.267533	209.1338	385.5784	77.28403

#1	.0003692	-.000241	.0028388	.0091833	-.000023	-.000305	-.005385
#2	-.000200	-.000017	-.002980	.0097548	.0001207	.0001413	-.001579

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000093	.0292766	-.000007	-.000097	.0002762	-.001788	.0019209
SDev	.000595	.0514212	.001392	.000002	.0001305	.005925	.0021296
%RSD	642.4960	175.6395	21210.07	1.709315	47.26260	331.4016	110.8671

#1	-.000513	-.007084	-.000991	-.000096	.0003685	.0024016	.0004150
#2	.0003282	.0656368	.0009776	-.000098	.0001839	-.005977	.0034267

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000513	-.002512	.0033743	-.004123	.0007531	-.000575	-.001160
SDev	.003377	.000809	.0010937	.001756	.0000781	.000039	.000995
%RSD	657.8072	32.20214	32.41302	42.59860	10.37401	6.757036	85.82101

#1	-.002901	-.001940	.0041477	-.002881	.0006978	-.000547	-.001863
#2	.0018746	-.003084	.0026009	-.005365	.0008083	-.000602	-.000456

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.002059	-.001328	-.000638	-.000485	.0016258
SDev	.000520	.000073	.000583	.001633	.0005540
%RSD	25.28187	5.460993	91.43292	336.4979	34.07533

#1	-.002427	-.001379	-.001050	.0006693	.0020176
#2	-.001691	-.001276	-.000225	-.001640	.0012341

Method: EPA Sample Name: LCSS 4956 Operator: LKM
 Run Time: 03/23/99 15:32:10
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.000097	.1948338	.4928732	.1974833	.2000280	9.819994	.4914983
SDev	.000807	.0031110	.0011796	.0001885	.0014657	.008061	.0002036
%RSD	.0403368	1.596766	.2393282	.0954733	.7327364	.0820894	.0414267

#1	1.999526	.1926339	.4920392	.1976166	.2010644	9.825694	.4916423
#2	2.000667	.1970336	.4937074	.1973500	.1989916	9.814294	.4913544

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4932675	.5020758	1.993087	9.696212	.4957463	.4859449	9.506211
SDev	.0003197	.0010375	.001047	.005291	.0000656	.0015683	.031680
%RSD	.0648052	.2066395	.0525110	.0545672	.0132244	.3227245	.3332515

#1	.4930415	.5013422	1.992347	9.699953	.4957927	.4848359	9.483810
#2	.4934936	.5028095	1.993827	9.692471	.4957000	.4870538	9.528612

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0492431	9.618580	.1889365	.4922029	.5166559	.1863988	.1972508
SDev	.0009949	.068057	.0005911	.0001831	.0005119	.0015931	.0009440
%RSD	2.020379	.7075617	.3128448	.0372058	.0990744	.8546832	.4785650

#1	.0499466	9.570456	.1893545	.4920734	.5162939	.1852723	.1965834
#2	.0485396	9.666703	.1885186	.4923323	.5170178	.1875253	.1979183

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4908712	.4914269	.1904241	.1904900	1.992617	.4914799	2.053777
SDev	.0015247	.0039471	.0003304	.0024535	.000403	.0008308	.012765
%RSD	.3106119	.8031992	.1734907	1.287975	.0202420	.1690402	.6215181

#1	.4919494	.4886358	.1901905	.1922249	1.992902	.4920674	2.044751
#2	.4897931	.4942179	.1906577	.1887552	1.992331	.4908925	2.062803

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	1.960879	.4926202	.4924686	.1915589	.1947279
SDev	.001268	.0004021	.0021212	.0015299	.0011567
%RSD	.0646621	.0816166	.4307212	.7986409	.5940133

#1	1.959982	.4923359	.4909687	.1926406	.1939100
#2	1.961776	.4929044	.4939685	.1904771	.1955458

Method: EPA Sample Name: LCSSD 4956 Operator: LKM
 Run Time: 03/23/99 15:36:29
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.010640	.1947606	.4924197	.1980695	.2001109	9.865765	.4932007
SDev	.003355	.0005384	.0003269	.0005576	.0009755	.028569	.0007767
%RSD	.1668736	.2764283	.0663803	.2815029	.4874741	.2895753	.1574907

#1	2.008267	.1951413	.4921886	.1976752	.1994211	9.845563	.4926514
#2	2.013012	.1943799	.4926509	.1984637	.2008007	9.885965	.4937499

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4958541	.5021174	2.007090	9.754283	.4974714	.4909216	9.511033
SDev	.0008023	.0006771	.002463	.022611	.0010243	.0009215	.000668
%RSD	.1618031	.1348552	.1227265	.2318053	.2059003	.1877165	.0070193

#1	.4952868	.5016386	2.005348	9.738295	.4967471	.4915732	9.511505
#2	.4964215	.5025962	2.008832	9.770271	.4981957	.4902699	9.510561

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0496727	9.697383	.1928426	.4928255	.5178361	.1905304	.2001163
SDev	.0003388	.009547	.0015175	.0007530	.0018532	.0018397	.0013512
%RSD	.6820066	.0984538	.7869316	.1528001	.3578651	.9655840	.6752107

#1	.0499122	9.704134	.1917695	.4922930	.5165258	.1892295	.1991609
#2	.0494332	9.690632	.1939157	.4933580	.5191465	.1918313	.2010718

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.4943390	.4924708	.1880662	.1880418	1.997258	.4929170	2.091413
SDev	.0003795	.0044119	.0029964	.0009634	.003139	.0004290	.008887
%RSD	.0767672	.8958598	1.593296	.5123178	.1571745	.0870440	.4249481

#1	.4940706	.4893512	.1859474	.1887230	1.995039	.4932204	2.085129
#2	.4946073	.4955905	.1901851	.1873606	1.999478	.4926136	2.097698

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.977632	.4949754	.4943174	.1891387	.1979451
SDev	.012266	.0010070	.0030649	.0003515	.0014142
%RSD	.6202621	.2034474	.6200220	.1858505	.7144167

#1	1.968958	.4942634	.4921502	.1888902	.1969452
#2	1.986306	.4956875	.4964846	.1893873	.1989451

Method: EPA Sample Name: 306390
 Run Time: 03/23/99 15:40:47
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	44.76325	.0230614	.3817553	.0021242	.0056170	61.91466	.1208124
SDev	.17299	.0010732	.0009386	.0000797	.0005832	.03202	.0007430
%RSD	.3864484	4.653646	.2458560	3.752481	10.38353	.0517089	.6150262

#1	44.88557	.0223026	.3824189	.0021805	.0060294	61.93730	.1213378
#2	44.64093	.0238203	.3810916	.0020678	.0052046	61.89202	.1202870

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1027533	1.249599	63.45757	15.00392	.9277884	.2622353	5.121491
SDev	.0007305	.003699	.05266	.02727	.0006969	.0001838	.012629
%RSD	.7109722	.2959860	.0829866	.1817212	.0751185	.0700746	.2465795

#1	.1032698	1.252215	63.49480	15.02320	.9282812	.2623652	5.130421
#2	.1022367	1.246984	63.42033	14.98464	.9272956	.2621054	5.112561

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.000585	1.465975	.0032975	.1298295	1.928492	.0074671	.0186731
SDev	.000433	.062672	.0016187	.0004749	.005693	.0001408	.0006319
%RSD	73.92915	4.275092	49.08804	.3657713	.2952017	1.886008	3.384259

#1	-.000279	1.510291	.0044421	.1301653	1.932518	.0075666	.0191199
#2	-.000891	1.421659	.0021530	.1294937	1.924467	.0073675	.0182262

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2596327	.2584517	.0035415	-.000988	.0178791	.0578753	10.41612
SDev	.0004758	.0020651	.0035452	.000769	.0003452	.0000665	.06594
%RSD	.1832492	.7990482	100.1038	77.83566	1.930702	.1149519	.6330304

#1	.2599691	.2569914	.0060483	-.001532	.0181232	.0579224	10.36950
#2	.2592962	.2599120	.0010347	-.000444	.0176351	.0578283	10.46275

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	.2168927	2.498256	.2601326	.0016049	.0160260
SDev	.0027318	.002195	.0013082	.0006732	.0004740
%RSD	1.259517	.0878481	.5029039	41.94888	2.957770

#1	.2188244	2.499808	.2592076	.0020809	.0163612
#2	.2149610	2.496704	.2610576	.0011288	.0156908

Method: EPA Sample Name: CCV+
 Run Time: 03/23/99 16:06:40
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.082387	1.019339	4.894787	.1256010	.5123947	12.66495	.5040981
SDev	.026756	.001846	.010750	.0000325	.0013204	.00381	.0000395
%RSD	.5264422	.1811256	.2196175	.0258466	.2576874	.0300623	.0078425
#1	5.063467	1.020645	4.887186	.1255780	.5114611	12.66226	.5041261
#2	5.101306	1.018034	4.902388	.1256240	.5133284	12.66765	.5040702
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.268575	.6259997	2.527458	12.59924	1.263723	1.272809	12.53762
SDev	.001223	.0010444	.015417	.02365	.000530	.000843	.05561
%RSD	.0964220	.1668302	.6099931	.1877427	.0419426	.0662133	.4435471
#1	1.269440	.6252612	2.516556	12.58252	1.263349	1.273405	12.49830
#2	1.267710	.6267382	2.538359	12.61597	1.264098	1.272213	12.57694
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.6281586	12.70474	1.016428	1.259288	1.294148	1.009324	1.013820
SDev	.0021216	.05410	.001443	.001021	.000174	.003962	.004263
%RSD	.3377539	.4258017	.1419617	.0810949	.0134307	.3925288	.4205124
#1	.6266584	12.66649	1.017449	1.258566	1.294271	1.006523	1.016834
#2	.6296588	12.74299	1.015408	1.260010	1.294025	1.012126	1.010805
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	1.011728	1.019561	1.035559	1.040378	2.577493	2.556197	2.559678
SDev	.001325	.003967	.001235	.000848	.016355	.004322	.008157
%RSD	.1309986	.3891004	.1192255	.0815083	.6345443	.1690823	.3186637
#1	1.012665	1.022366	1.036432	1.040978	2.565929	2.553140	2.553910
#2	1.010791	1.016755	1.034686	1.039779	2.589058	2.559253	2.565445
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	2.564696	2.543851	1.018221	1.039843	1.013392		
SDev	.008680	.004753	.002994	.000978	.001525		
%RSD	.3384374	.1868421	.2940366	.0940179	.1505054		
#1	2.558559	2.540490	1.020338	1.040534	1.014471		
#2	2.570834	2.547212	1.016104	1.039152	1.012314		

Method: EPA Sample Name: CCB
 Run Time: 03/23/99 16:10:59
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0038128	.0003687	.0005604	-.000005	.0002162	.0027832	-.000282
SDev	.0011284	.0008224	.0000025	.000047	.0000205	.0006479	.000059
%RSD	29.59468	223.0173	.4506564	921.6747	9.492912	23.27799	20.79051

#1	.0046107	-.000213	.0005622	-.000039	.0002307	.0023251	-.000240
#2	.0030149	.0009502	.0005586	.0000283	.0002017	.0032414	-.000323

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0001616	-.000253	-.001499	.0029514	.0001443	.0001396	-.007545
SDev	.0002845	.000502	.004074	.0012607	.0000327	.0004960	.007841
%RSD	176.0262	198.1762	271.8745	42.71514	22.66688	355.2311	103.9347

#1	.0003628	.0001017	.0013824	.0038428	.0001211	-.000211	-.013089
#2	-.000040	-.000609	-.004380	.0020599	.0001674	.0004904	-.002000

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	-.000046	.0088586	.0043194	-.000499	.0004980	-.000849	-.001617
SDev	.000067	.1030489	.0001750	.000002	.0001981	.000489	.001709
%RSD	145.5918	1163.256	4.050575	.3481855	39.77222	57.62554	105.7306

#1	.0000013	-.064008	.0041957	-.000497	.0006381	-.001195	-.000408
#2	-.000093	.0817252	.0044431	-.000500	.0003580	-.000503	-.002825

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	-.000794	-.001334	.0021233	-.002245	.0025824	.0010986	.0058210
SDev	.001774	.001378	.0005638	.000953	.0002416	.0004717	.0003648
%RSD	223.4374	103.2842	26.55114	42.46382	9.354628	42.93636	6.267209

#1	-.002048	-.000360	.0017247	-.001571	.0024116	.0014322	.0060790
#2	.0004603	-.002309	.0025219	-.002920	.0027532	.0007651	.0055630

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.0035203	.0005450	.0001171	.0002803	-.000290
SDev	.0025074	.0009766	.0002390	.0004524	.000981
%RSD	71.22719	179.1944	204.0279	161.3853	338.3949

#1	.0052933	.0012356	.0002861	.0006002	.0004039
#2	.0017473	-.000146	-.000052	-.000040	-.000984

Method: EPA Sample Name: 306396
 Run Time: 03/23/99 16:19:37
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.72828	.0087174	.1663350	.0007713	.0022624	5.006720	.0396715
SDev	.02737	.0013106	.0000679	.0001040	.0000402	.006172	.0006138
%RSD	.2333719	15.03412	.0407950	13.47722	1.778237	.1232808	1.547248
#1	11.70892	.0077906	.1662870	.0008448	.0022340	5.011084	.0401055
#2	11.74763	.0096441	.1663830	.0006978	.0022909	5.002355	.0392375
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0676041	.4716732	34.89417	4.247808	.4358912	.2045389	1.537809
SDev	.0005619	.0004459	.04671	.004746	.0007595	.0012526	.007800
%RSD	.8311031	.0945297	.1338720	.1117220	.1742472	.6123884	.5071897
#1	.0680014	.4713579	34.92720	4.251164	.4364283	.2036532	1.543325
#2	.0672068	.4719885	34.86114	4.244453	.4353541	.2054246	1.532294
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	206B-1	206B-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0002921	.9817229	.0000925	.0883265	.4745555	.0030631	.0065075
SDev	.0005394	.1408252	.0008443	.0003360	.0002852	.0012921	.0001891
%RSD	184.6541	14.34470	912.6733	.3804485	.0600911	42.18183	2.905634
#1	.0006735	1.081301	-.000505	.0885641	.4747571	.0021495	.0066412
#2	-.000089	.8821445	.0006896	.0880889	.4743538	.0039768	.0063738
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.0757948	.0728393	.0056610	.0013090	.0205747	.0462056	6.076334
SDev	.0025194	.0017784	.0039151	.0000496	.0002596	.0002916	.002951
%RSD	3.324025	2.441601	69.15919	3.788340	1.261866	.6311857	.0485592
#1	.0740133	.0740968	.0028926	.0012740	.0203911	.0459994	6.074248
#2	.0775763	.0715817	.0084294	.0013441	.0207582	.0464118	6.078421
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0956279	.7176592	.0751886	.0038504	.0064527		
SDev	.0000570	.0004626	.0003503	.0013344	.0003017		
%RSD	.0596594	.0644542	.4658715	34.65579	4.675847		
#1	.0956682	.7179863	.0754363	.0029068	.0062394		
#2	.0955875	.7173321	.0749410	.0047939	.0066660		

Method: EPA Sample Name: 306397
 Run Time: 03/23/99 16:23:55
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.978859	.0115210	.0450200	.0006089	.0002882	.6934906	.0100452
SDev	.003693	.0014780	.0000526	.0000288	.0001800	.0016598	.0002142
%RSD	.0462858	12.82890	.1169524	4.732895	62.47173	.2393439	2.132515
#1	7.976247	.0104759	.0450572	.0006293	.0001609	.6946642	.0101967
#2	7.981470	.0125661	.0449828	.0005886	.0004155	.6923169	.0098937
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045152	.0198152	11.27166	.1984494	.9166797	.0030235	1.088265
SDev	.0004682	.0007692	.02983	.0019161	.0005885	.0008153	.011799
%RSD	10.36861	3.882007	.2646805	.9655309	.0641987	26.96463	1.084204
#1	.0048462	.0203592	11.29276	.1998043	.9170959	.0024470	1.096608
#2	.0041842	.0192713	11.25057	.1970946	.9162636	.0036000	1.079922
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000303	.4202214	-.000890	.0272254	.0353378	-.002996	.0005006
SDev	.000366	.0024508	.001461	.0003209	.0003438	.002171	.0001793
%RSD	120.9346	.5832107	164.2133	1.178637	.9729245	72.45490	35.82276
#1	-.000044	.4219543	.0001434	.0274523	.0350947	-.001461	.0003738
#2	-.000561	.4184884	-.001923	.0269985	.0355809	-.004531	.0006274
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0320537	.0276674	-.000986	-.000722	.0053384	.0019695	4.823394
SDev	.0012139	.0015758	.002548	.000132	.0001536	.0000420	.005645
%RSD	3.787187	5.695627	258.5057	18.29756	2.878161	2.134947	.1170404
#1	.0311954	.0265532	.0008161	-.000628	.0052297	.0019992	4.827385
#2	.0329121	.0287817	-.002788	-.000815	.0054470	.0019397	4.819402
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0054466	.6937407	.0303434	.0002707	.0003488		
SDev	.0003131	.0006811	.0014539	.0009379	.0005090		
%RSD	5.749158	.0981830	4.791504	346.4910	145.9211		
#1	.0052252	.6942223	.0293153	.0009338	.0007088		
#2	.0056681	.6932591	.0313715	-.000392	-.000011		

Analysis Report

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Method: EPA Sample Name: ~~306098D~~ ^{03/23/99} 306398D
 Run Time: 03/23/99 16:32:32
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.77147	.0250335	.0540407	.0008338	.0004635	.7727605	.0149691
SDev	.00269	.0011302	.0000198	.0001652	.0001634	.0032038	.0002271
%RSD	.0195428	4.514664	.0365778	19.81244	35.24509	.4145906	1.517083

#1	13.77337	.0258326	.0540546	.0009506	.0005790	.7750260	.0151297
#2	13.76957	.0242343	.0540267	.0007170	.0003480	.7704951	.0148085

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045396	.0150947	16.14566	.3066326	.7824227	.0052099	1.347841
SDev	.0001469	.0003438	.06009	.0034352	.0018272	.0010313	.031636
%RSD	3.236286	2.277618	.3721490	1.120285	.2335301	19.79517	2.347161

#1	.0046435	.0153378	16.18814	.3090616	.7837146	.0059392	1.370212
#2	.0044357	.0148516	16.10317	.3042035	.7811306	.0044807	1.325471

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000679	.4954193	.0006119	.0392154	.0286181	-.000242	-.002226
SDev	.000032	.2232912	.0032682	.0002729	.0000544	.001721	.002559
%RSD	4.667043	45.07115	534.0910	.6958149	.1901670	709.7233	114.9368

#1	-.000701	.6533101	.0029229	.0390225	.0286565	.0009743	-.004035
#2	-.000657	.3375286	-.001699	.0394083	.0285796	-.001459	-.000417

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0265574	.0279401	-.002038	.0003383	.0159011	.0011130	6.332685
SDev	.0004575	.0020487	.001673	.0005971	.0006021	.0005541	.012322
%RSD	1.722783	7.332631	82.08165	176.4763	3.786601	49.78378	.1945840

#1	.0262339	.0293888	-.003222	.0007605	.0154753	.0007212	6.341398
#2	.0268809	.0264914	-.000855	-.000084	.0163268	.0015049	6.323971

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0056923	1.071611	.0286950	.0006271	-.000485
SDev	.0012507	.000486	.0012094	.0001632	.001138
%RSD	21.97119	.0453872	4.214594	26.02237	234.4482

#1	.0048079	1.071267	.0295502	.0005117	-.001290
#2	.0065766	1.071955	.0278398	.0007425	.0003192

Method: EPA Sample Name: 3063985

Operator: LKM

Run Time: 03/23/99 16:36:51

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	60.92931	3.415571	8.418036	.2193157	.2210210	22.45018	.8854896
SDev	.13507	.002357	.006430	.0001540	.0002959	.00225	.0004975
%RSD	.2216779	.0689982	.0763827	.0702253	.1338798	.0100085	.0561790

#1	61.02482	3.417238	8.422582	.2192068	.2212303	22.44859	.8858413
#2	60.83381	3.413905	8.413488	.2194246	.2208118	22.45177	.8851378

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.173938	1.108945	19.93304	21.81364	2.944341	2.166751	21.01753
SDev	.000198	.003083	.00803	.00091	.001361	.007518	.02473
%RSD	.0091275	.2780538	.0402992	.0041858	.0462130	.3469550	.1176625

#1	2.174078	1.111125	19.92735	21.81300	2.943379	2.172067	21.03502
#2	2.173798	1.106765	19.93871	21.81429	2.945303	2.161435	21.00005

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2173030	21.62217	3.471010	2.211084	2.205183	4.264540	4.283668
SDev	.0002760	.18199	.000122	.000332	.001520	.014203	.018673
%RSD	.1270207	.8416861	.0035116	.0149977	.0689507	.3330445	.4359054

#1	.2174981	21.75085	3.471096	2.210850	2.206258	4.254497	4.296872
#2	.2171078	21.49348	3.470923	2.211319	2.204108	4.274582	4.270464

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8926618	.8908639	3.356670	3.379175	4.225096	4.254070	16.93129
SDev	.0023555	.0050459	.016294	.011000	.008297	.002693	.00716
%RSD	.2638741	.5664011	.4854358	.3255329	.1963789	.0632965	.0423139

#1	.8909962	.8872959	3.368192	3.371397	4.230963	4.252166	16.93635
#2	.8943274	.8944318	3.345148	3.386954	4.219229	4.255974	16.92622

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	4.318373	4.821472	.8928299	3.372775	4.278392
SDev	.000467	.000687	.0041430	.001905	.007730
%RSD	.0108062	.0142451	.4640246	.0564928	.1806849

#1	4.318043	4.820987	.8899004	3.371427	4.283858
#2	4.318703	4.821958	.8957595	3.374122	4.272926

Method: EPA Sample Name: 306398SD Operator: LKM
 Run Time: 03/23/99 16:41:10
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	59.02071	3.454253	8.521030	.2212556	.2222120	22.60504	.8926839
SDev	.14771	.005525	.011670	.0001901	.0001385	.00080	.0003686
%RSD	.2502673	.1599560	.1369587	.0859345	.0623064	.0035261	.0412930

#1	58.91626	3.450346	8.512778	.2213900	.2223099	22.60447	.8929446
#2	59.12516	3.458160	8.529283	.2211211	.2221141	22.60560	.8924233

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.197927	1.126475	20.69933	22.00999	3.044041	2.183767	21.12908
SDev	.000550	.002068	.00379	.00698	.000547	.002327	.06766
%RSD	.0250205	.1835570	.0183025	.0317229	.0179662	.1065441	.3202103

#1	2.198316	1.125013	20.70201	22.00505	3.044428	2.182122	21.08124
#2	2.197538	1.127938	20.69665	22.01493	3.043654	2.185412	21.17692

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.2150830	21.94838	3.513172	2.231521	2.228535	4.338143	4.318977
SDev	.0004515	.09586	.020555	.000768	.001660	.001075	.001992
%RSD	.2099279	.4367405	.5850699	.0344047	.0744920	.0247860	.0461227

#1	.2147638	22.01616	3.498638	2.232064	2.229709	4.338903	4.317568
#2	.2154023	21.88059	3.527706	2.230978	2.227361	4.337383	4.320386

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.8969427	.9084542	3.375975	3.430726	4.293805	4.315186	17.53674
SDev	.0013637	.0019961	.000911	.016409	.004051	.002571	.05321
%RSD	.1520344	.2197268	.0269812	.4782889	.0943488	.0595871	.3034137

#1	.8959785	.9070427	3.375331	3.442328	4.290940	4.317004	17.49912
#2	.8979070	.9098656	3.376619	3.419123	4.296670	4.313367	17.57437

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.366672	4.795887	.9059923	3.413591	4.326456
SDev	.005500	.003799	.0017808	.010645	.000967
%RSD	.1259462	.0792126	.1965614	.3118450	.0223513

#1	4.370560	4.793201	.9047331	3.421118	4.325772
#2	4.362782	4.798573	.9072515	3.406064	4.327140

Analysis Report

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Method: EPA Sample Name: 306398L Operator: LKM
 Run Time: 03/23/99 16:45:28
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	2.813648	.0058958	.0115005	.0002112	.0002036	.1556440	.0033673
SDev	.006015	.0023088	.0000347	.0000114	.0000617	.0009330	.0003997
%RSD	.2137685	39.16069	.3013423	5.388277	30.32176	.5994480	11.87145

#1	2.817901	.0042632	.0115250	.0002032	.0002473	.1549843	.0030847
#2	2.809395	.0075284	.0114760	.0002193	.0001600	.1563037	.0036500

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0009119	.0026948	3.141473	.0671724	.1424945	.0017252	.2913380
SDev	.0001734	.0000007	.003700	.0016625	.0004221	.0005802	.0050417
%RSD	19.01265	.0254642	.1177734	2.474965	.2962150	33.63063	1.730544

#1	.0007893	.0026953	3.138856	.0659968	.1421961	.0013150	.2949030
#2	.0010345	.0026943	3.144089	.0683479	.1427930	.0021355	.2877730

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	-.000023	.1927016	.0088595	.0081498	.0059765	-.002108	.0019986
SDev	.000561	.0732729	.0012601	.0000004	.0000676	.002910	.0002303
%RSD	2489.666	38.02403	14.22288	.0045412	1.130461	138.0395	11.52179

#1	-.000419	.2445133	.0079685	.0081496	.0060242	-.000050	.0018358
#2	.0003742	.1408898	.0097505	.0081501	.0059287	-.004166	.0021614

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	.0039773	.0023646	.0025520	-.001955	.0053588	.0016481	1.464297
SDev	.0013007	.0013788	.0066456	.003955	.0005333	.0005437	.003790
%RSD	32.70263	58.31080	260.4080	202.2577	9.952345	32.98793	.2588570

#1	.0030576	.0033396	-.002147	-.004752	.0057359	.0020326	1.466977
#2	.0048970	.0013896	.0072511	.0008412	.0049817	.0012637	1.461617

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.0040593	.1951034	.0041076	.0006175	.0016360
SDev	.0014033	.0006492	.0004867	.0048508	.0007209
%RSD	34.57030	.3327513	11.84951	785.6091	44.06344

#1	.0050516	.1955624	.0044517	-.002813	.0021457
#2	.0030670	.1946443	.0037634	.0040475	.0011263

Analysis Report

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Method: EPA Sample Name: CRI
 Run Time: 03/23/99 16:49:47
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0110385	.0192618	.0006866	.0100479	.0108744	.0001588	.0199619
SDev	.0010959	.0004582	.0001027	.0000645	.0002699	.0001491	.0001210
%RSD	9.928263	2.378786	14.95254	.6415492	2.481593	93.85813	.6060592

#1	.0102635	.0195858	.0007591	.0100935	.0106836	.0000534	.0200475
#2	.0118134	.0189378	.0006140	.0100023	.0110652	.0002642	.0198764

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.1017861	.0502647	-.007620	.0017778	.0307484	.0810256	.0051309
SDev	.0007907	.0003709	.005230	.0004204	.0000085	.0000878	.0077304
%RSD	.7768418	.7379523	68.62984	23.64558	.0277996	.1083248	150.6642

#1	.1012270	.0505269	-.011318	.0014805	.0307423	.0809635	.0105971
#2	.1023452	.0500024	-.003922	.0020750	.0307544	.0810877	-.000335

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.0202293	.0533538	.0216073	.1001518	.0426245	.1199407	.1248262
SDev	.0000295	.0657608	.0025519	.0006908	.0001876	.0001356	.0000826
%RSD	.1458031	123.2542	11.81048	.6897765	.4401742	.1130972	.0661360

#1	.0202501	.0998537	.0234118	.0996633	.0424918	.1198448	.1248846
#2	.0202084	.0068539	.0198028	.1006403	.0427572	.1200366	.1247679

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	.0078675	.0035474	.0096438	.0077845	.0018677	.0002017	.0094509
SDev	.0032954	.0013080	.0038185	.0001049	.0004090	.0000369	.0012363
%RSD	41.88651	36.87305	39.59476	1.348017	21.90021	18.31599	13.08127

#1	.0101977	.0026225	.0123439	.0078587	.0021569	.0001756	.0085767
#2	.0055373	.0044723	.0069438	.0077103	.0015785	.0002279	.0103251

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.0013043	-.000584	.0062732	.0094875	.1242153
SDev	.0007427	.000170	.0003247	.0013449	.0000828
%RSD	56.94779	29.09303	5.175571	14.17510	.0666522

#1	.0018295	-.000464	.0065028	.0104385	.1241568
#2	.0007791	-.000704	.0060436	.0085365	.1242739

Method: EPA

Sample Name: ICSAB

Operator: LKM

Run Time: 03/23/99 16:58:26

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	461.3747	.1081833	.5294467	.5014656	.9807838	438.6247	.4967471
SDev	.7339	.0027216	.0004122	.0004111	.0031645	.5777	.0015170
%RSD	.1590746	2.515687	.0778621	.0819882	.3226556	.1316965	.3053936

#1	460.8557	.1101077	.5291552	.5011748	.9785461	438.2163	.4956744
#2	461.8936	.1062589	.5297382	.5017563	.9830215	439.0332	.4978198

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4839972	.5549306	187.7616	501.8850	.5032060	.9543121	.0141122
SDev	.0009506	.0000212	.2658	.8925	.0004869	.0012800	.0004484
%RSD	.1964020	.0038127	.1415576	.1778369	.0967641	.1341236	3.177305

#1	.4833250	.5549455	187.5737	501.2538	.5028617	.9534070	.0137952
#2	.4846694	.5549156	187.9495	502.5161	.5035504	.9552171	.0144293

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.1796519	-.048782	.0956862	.5043098	1.047882	.6188064	.6341523
SDev	.0003831	.057834	.0038296	.0003338	.001705	.0032328	.0088715
%RSD	.2132658	118.5560	4.002222	.0661817	.1627261	.5224303	1.398953

#1	.1799228	-.089676	.0929783	.5045458	1.046676	.6210923	.6278792
#2	.1793809	-.007887	.0983941	.5040738	1.049087	.6165204	.6404254

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avge	.0549019	.0473954	.0480831	.0493660	.0040140	-.001405	.0264873
SDev	.0048812	.0016854	.0033014	.0027223	.0003507	.000258	.0018180
%RSD	8.890756	3.556114	6.866112	5.514488	8.736702	18.34985	6.863511

#1	.0514504	.0462036	.0457487	.0474410	.0037660	-.001223	.0277728
#2	.0583534	.0485872	.0504176	.0512909	.0042619	-.001588	.0252019

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	.0026331	.0095787	.0513912	.0501357	.6302389
SDev	.0009990	.0001924	.0027458	.0029121	.0048377
%RSD	37.93865	2.008432	5.342982	5.808441	.7676044

#1	.0033395	.0097147	.0494496	.0480765	.6268181
#2	.0019268	.0094427	.0533328	.0521949	.6336597

Method: EPA

Sample Name: CCV

Operator: LKM

Run Time: 03/23/99 17:02:46

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.103501	1.017551	4.866953	.1249104	.5092468	12.60029	.5000346
SDev	.000142	.005271	.009173	.0001962	.0003349	.00645	.0006070
%RSD	.0027814	.5179725	.1884719	.1571011	.0657718	.0511905	.1213871

#1	5.103602	1.013824	4.860467	.1247717	.5094836	12.59573	.5004638
#2	5.103401	1.021278	4.873439	.1250492	.5090100	12.60485	.4996055

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.258436	.6238187	2.525856	12.47727	1.254406	1.266684	12.47491
SDev	.000511	.0003063	.014263	.01750	.000342	.000475	.04128
%RSD	.0405782	.0491045	.5646665	.1402284	.0272623	.0374658	.3309336

#1	1.258797	.6236021	2.535941	12.46490	1.254164	1.266349	12.44572
#2	1.258075	.6240353	2.515771	12.48964	1.254648	1.267020	12.50410

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6223690	12.59218	1.004652	1.247423	1.286338	1.006265	1.013957
SDev	.0001604	.12646	.001537	.001208	.000930	.002281	.004653
%RSD	.0257675	1.004259	.1529391	.0968543	.0722861	.2267037	.4589131

#1	.6224824	12.68160	1.003565	1.246568	1.285680	1.004652	1.017247
#2	.6222556	12.50276	1.005738	1.248277	1.286995	1.007878	1.010666

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9990562	1.014098	1.022589	1.039512	2.570409	2.543930	2.524851
SDev	.0015011	.002637	.004143	.001552	.005484	.001297	.003195
%RSD	.1502563	.2600801	.4051267	.1493266	.2133635	.0510017	.1265315

#1	1.000118	1.012233	1.019660	1.040610	2.566531	2.544847	2.527110
#2	.9979947	1.015963	1.025518	1.038415	2.574287	2.543013	2.522592

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	2.540823	2.520701	1.010309	1.034963	1.012414
SDev	.000413	.003884	.001066	.000344	.002441
%RSD	.0162428	.1540942	.1055601	.0331893	.2410797

#1	2.540531	2.517954	1.009555	1.034720	1.014139
#2	2.541115	2.523447	1.011063	1.035206	1.010688

Method: EPA Sample Name: CCB

Operator: LKM

Run Time: 03/23/99 17:07:05

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0450878	.0000417	.0007335	.0001583	.0001826	.0335121	.0001726
SDev	.0033270	.0006155	.0000350	.0000147	.0003171	.0026901	.0001172
%RSD	7.378895	1476.939	4.768586	9.287176	173.6977	8.027370	67.92919

#1	.0474404	-.000394	.0007582	.0001687	.0004068	.0354143	.0002554
#2	.0427353	.0004769	.0007087	.0001479	-.000042	.0316099	.0000897

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0000805	-.000187	.0094610	.0385287	.0001478	-.000380	.0076854
SDev	.0004038	.000378	.0010093	.0009170	.0000350	.000570	.0072237
%RSD	501.7156	202.5419	10.66841	2.379983	23.69458	150.2227	93.99246

#1	.0003660	.0000807	.0101747	.0391771	.0001725	-.000783	.0127933
#2	-.000205	-.000454	.0087473	.0378803	.0001230	.0000236	.0025775

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.0002405	.0909552	.0042729	.0001128	.0004690	-.003347	.0002197
SDev	.0005350	.0014922	.0004527	.0002874	.0000045	.002473	.0009054
%RSD	222.4701	1.640591	10.59384	254.7723	.9557437	73.89026	412.0595

#1	.0006188	.0899001	.0045930	.0003161	.0004722	-.001598	.0008599
#2	-.000138	.0920104	.0039528	-.000090	.0004659	-.005095	-.000420

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	.0033175	-.001928	.0028576	-.003337	.0035689	.0015074	.0013113
SDev	.0010823	.001018	.0005473	.001303	.0000425	.0013383	.0001713
%RSD	32.62381	52.80581	19.15157	39.05240	1.190027	88.78179	13.05965

#1	.0040828	-.001208	.0032446	-.002415	.0035389	.0024537	.0014324
#2	.0025522	-.002648	.0024706	-.004258	.0035990	.0005611	.0011902

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.0031950	.0004279	.0011056	-.000190	.0000482
SDev	.0012268	.0009652	.0009462	.001053	.0013335
%RSD	38.39892	225.5470	85.57851	554.1658	2766.163

#1	.0040625	.0011104	.0017746	.0005548	.0009911
#2	.0023275	-.000255	.0004366	-.000935	-.000895

Method: EPA Sample Name: PBS 4964

Operator: LKM

Run Time: 03/23/99 17:11:24

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0252578	.0003304	.0003557	.0000504	.0002457	.0159938	-.000134
SDev	.0030207	.0041014	.0001686	.0000580	.0000490	.0032784	.000320
%RSD	11.95963	1241.336	47.40933	115.0366	19.95060	20.49807	239.0964

#1	.0273938	.0032305	.0004749	.0000094	.0002111	.0183120	.0000924
#2	.0231218	-.002570	.0002365	.0000915	.0002804	.0136756	-.000360

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000203	-.000158	.0065388	.0185152	.0000509	.0005236	.0016175
SDev	.000578	.000094	.0135831	.0047098	.0001042	.0004714	.0041915
%RSD	284.6872	59.63959	207.7291	25.43727	204.8610	90.02947	259.1375

#1	.0002058	-.000092	.0161435	.0218455	.0001246	.0008570	-.001346
#2	-.000612	-.000225	-.003066	.0151849	-.000023	.0001903	.0045813

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000136	-.022092	.0005759	-.000190	.0001920	-.002325	.0022378
SDev	.000735	.050267	.0005736	.000719	.0000001	.000925	.0014843
%RSD	538.7216	227.5316	99.60831	377.7711	.0559524	39.78154	66.32783

#1	.0003831	.0134517	.0009814	.0003180	.0001921	-.002979	.0011883
#2	-.000656	-.057636	.0001703	-.000698	.0001919	-.001671	.0032873

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004440	-.003841	.0007533	-.001802	.0018716	.0000920	-.000219
SDev	.0015513	.000492	.0008822	.000032	.0003803	.0007478	.003995
%RSD	349.4195	12.79687	117.1137	1.770428	20.32093	812.7739	1826.196

#1	.0015409	-.004189	.0013771	-.001824	.0021405	.0006208	.0026063
#2	-.000653	-.003494	.0001295	-.001779	.0016026	-.000437	-.003044

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.001419	-.000932	-.001060	.0001327	.0018021
SDev	.000208	.000187	.000193	.0002763	.0012942
%RSD	14.66812	20.08076	18.25710	208.1956	71.81575

#1	-.001272	-.000800	-.000923	.0003281	.0008870
#2	-.001566	-.001064	-.001197	-.000063	.0027172

Method: EPA Sample Name: LCSS 4964 E-R-38-1 Operator: LKM
 Run Time: 03/23/99 17:15:44
 Comment: Batches 4956, 4964
 Mode: CDNC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.07419	.8356261	.9139920	.3805098	.5741062	5.537002	.8547088
SDev	.18568	.0137611	.0078043	.0031798	.0054308	.050738	.0076535
%RSD	.9249596	1.646803	.8538639	.8356767	.9459557	.9163394	.8954499

#1	20.20548	.8453566	.9195104	.3827584	.5779463	5.572878	.8601206
#2	19.94289	.8258955	.9084735	.3782614	.5702660	5.501124	.8492969

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3506710	.4529637	36.20727	5.100668	1.267273	.3162370	6.373279
SDev	.0029663	.0040295	.37590	.046289	.011549	.0042524	.040271
%RSD	.8458971	.8895837	1.038178	.9075029	.9113263	1.344683	.6318801

#1	.3527685	.4558130	36.47306	5.133399	1.275440	.3192439	6.401755
#2	.3485735	.4501145	35.94147	5.067936	1.259107	.3132301	6.344803

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.2799853	6.143887	.4265173	.4511402	.9666086	.1779164	.1820189
SDev	.0021963	.138435	.0036434	.0044845	.0086589	.0023372	.0038954
%RSD	.7844468	2.253207	.8542172	.9940435	.8958065	1.313634	2.140109

#1	.2815383	6.241776	.4290936	.4543112	.9727315	.1795690	.1792644
#2	.2784322	6.045999	.4239410	.4479692	.9604859	.1762637	.1847733

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.3341973	.3260223	.5960528	.5912043	.5053177	.5825883	2.088818
SDev	.0049042	.0005026	.0080500	.0048602	.0037423	.0075342	.019153
%RSD	1.467452	.1541745	1.350545	.8220928	.7405842	1.293224	.9169163

#1	.3376651	.3263777	.6017450	.5946410	.5079639	.5879158	2.102361
#2	.3307295	.3256669	.5903606	.5877676	.5026715	.5772609	2.075274

Elem	Sr1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.8693742	.9816996	.3299659	.5940402	.1817982
SDev	.0107727	.0094591	.0019809	.0059350	.0017002
%RSD	1.239132	.9635391	.6003417	.9990895	.9352383

#1	.8769916	.9883882	.3313666	.5982368	.1805959
#2	.8617567	.9750110	.3285652	.5898435	.1830004

Method: EPA Sample Name: 306534

Operator: LKM

Run Time: 03/23/99 17:20:02

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.605107	.0005470	.0208435	.0002206	.0005126	.2952194	.3967074
SDev	.003879	.0025492	.0000243	.0000231	.0002731	.0001307	.0000266
%RSD	.1488944	466.0341	.1168436	10.47550	53.28067	.0442641	.0067145

#1	2.607850	-.001256	.0208263	.0002043	.0003195	.2951269	.3967262
#2	2.602364	.0023496	.0208607	.0002369	.0007057	.2953117	.3966885

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027841	.0216468	7.431825	1.129024	.1751675	.0065045	.6139725
SDev	.0000576	.0001752	.011476	.003731	.0003710	.0011075	.0076332
%RSD	2.067671	.8092076	.1544226	.3304407	.2118020	17.02707	1.243250

#1	.0027434	.0217707	7.423709	1.126386	.1749051	.0072877	.6193700
#2	.0028248	.0215229	7.439940	1.131662	.1754298	.0057214	.6085751

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000115	.1902429	.0024312	.0070459	.0216365	.0018379	.0061120
SDev	.000499	.0085817	.0005741	.0002847	.0001369	.0003205	.0011988
%RSD	435.9062	4.510904	23.61275	4.041254	.6328787	17.43566	19.61365

#1	-.000468	.1963111	.0020253	.0068446	.0217333	.0016113	.0069597
#2	.0002385	.1841748	.0028371	.0072473	.0215396	.0020645	.0052643

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mn2020	Si2881
Units					ppm	ppm	ppm
Avg	.0076197	.0063081	.0020728	-.002224	.0036842	.0026361	1.606284
SDev	.0009083	.0025280	.0045559	.003106	.0003870	.0003537	.000190
%RSD	11.92084	40.07544	219.7922	139.6637	10.50469	13.41797	.0118599

#1	.0082620	.0045205	.0052944	-.000028	.0039579	.0028862	1.606149
#2	.0069774	.0080956	-.001149	-.004420	.0034106	.0023860	1.606419

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0786405	.1868566	.0080966	.0004232	.0056348
SDev	.0012074	.0003025	.0013831	.0035894	.0006933
%RSD	1.535391	.1618598	17.08267	848.0621	12.30376

#1	.0794943	.1870705	.0071186	.0029613	.0061250
#2	.0777867	.1866427	.0090746	-.002115	.0051445

Analysis Report

Tue 03-23-99 05:28:36 PM

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Method: EPA Sample Name: 306535
 Run Time: 03/23/99 17:24:21
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	1.860749	.0040254	.0384451	.0002997	.0004436	1.383946	1.326327
SDev	.002088	.0023364	.0000707	.0000080	.0000812	.001116	.002250
%RSD	.1122331	58.04201	.1839909	2.660781	18.30126	.0806181	.1696262
#1	1.862226	.0023733	.0383951	.0003053	.0005010	1.383157	1.324736
#2	1.859273	.0056775	.0384952	.0002941	.0003862	1.384735	1.327918
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0016768	.2147761	10.56251	.3561779	.1216778	.0203229	.5748278
SDev	.0003470	.0006250	.02504	.0014189	.0001468	.0002000	.0092432
%RSD	20.69355	.2910183	.2371090	.3983609	.1206314	.9842018	1.607992
#1	.0014314	.2152180	10.58022	.3551746	.1215740	.0204643	.5813637
#2	.0019221	.2143341	10.54480	.3571812	.1217816	.0201815	.5682919
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	-.000232	.2668962	.0028264	.0101020	.0171543	-.014956	.0094010
SDev	.000335	.0084626	.0008896	.0002919	.0000541	.000012	.0017158
%RSD	144.2099	3.170739	31.47597	2.889168	.3151163	.0810544	18.25119
#1	-.000469	.2728802	.0021973	.0103084	.0171161	-.014965	.0081877
#2	.0000046	.2609123	.0034554	.0098956	.0171925	-.014947	.0106142
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	.0698655	.0711331	.0059894	-.003015	.0079855	.0212399	1.730607
SDev	.0009411	.0009410	.0008310	.002486	.0001063	.0004947	.000904
%RSD	1.347072	1.322846	13.87464	82.47297	1.331560	2.329205	.0522145
#1	.0692001	.0717984	.0054018	-.001257	.0080607	.0208900	1.729968
#2	.0705310	.0704677	.0065770	-.004773	.0079103	.0215897	1.731246
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	7.613692	.1624798	.0720015	.0010026	.0023769		
SDev	.015691	.0003725	.0002192	.0014785	.0011476		
%RSD	.2060862	.2292619	.3044021	147.4613	48.28216		
#1	7.602597	.1622164	.0721565	.0020481	.0015654		
#2	7.624787	.1627432	.0718465	-.000043	.0031884		

Method: EPA Sample Name: 306536
 Run Time: 03/23/99 17:28:40
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.8121117	.0011343	.0147704	.0002449	.0000394	.1747324	.2850307
SDev	.0020063	.0018082	.0000484	.0000156	.0002870	.0002353	.0007154
%RSD	.2470441	159.4063	.3279036	6.372253	728.2122	.1346664	.2510055

#1	.8135304	-.000144	.0147361	.0002339	-.000164	.1745661	.2845248
#2	.8106931	.0024129	.0148046	.0002560	.0002423	.1748988	.2855366

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0013738	.0118175	7.342269	.1243463	.0876587	.0021604	.2435559
SDev	.0003508	.0001422	.017197	.0036578	.0000289	.0005411	.0064828
%RSD	25.53745	1.203249	.2342136	2.941657	.0329292	25.04697	2.661745

#1	.0016219	.0119180	7.330109	.1217598	.0876383	.0025431	.2389718
#2	.0011257	.0117169	7.354428	.1269328	.0876791	.0017778	.2481400

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	-.000090	.1113429	-.001368	.0061315	.0243800	-.000136	.0052525
SDev	.000000	.0752825	.002100	.0001440	.0000311	.001919	.0014538
%RSD	.2621080	67.61324	153.5342	2.348139	.1273869	1411.031	27.67858

#1	-.000090	.0581101	.0001172	.0062333	.0243581	-.001493	.0062805
#2	-.000090	.1645756	-.002853	.0060297	.0244020	.0012207	.0042245

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0021096	.0033194	.0010198	-.002844	.0022097	.0106862	.8370352
SDev	.0002732	.0012088	.0063043	.004946	.0001459	.0004859	.0011547
%RSD	12.94981	36.41568	618.1666	173.9050	6.601569	4.546899	.1379559

#1	.0023028	.0024646	.0054776	.0006533	.0023128	.0110298	.8378517
#2	.0019165	.0041741	-.003438	-.006341	.0021065	.0103426	.8362187

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.0776197	.0743865	.0041383	-.000471	.0045442
SDev	.0092797	.0002382	.0007137	.005400	.0003322
%RSD	11.95531	.3201746	17.24749	1145.451	7.309491

#1	.0841814	.0742181	.0036336	.0033468	.0047790
#2	.0710580	.0745549	.0046430	L-.004290	.0043093

Analysis Report

Tue 03-23-99 05:37:14 PM

page 1

Method: EPA Sample Name: 306357
 Run Time: 03/23/99 17:32:59 306537
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.471807	.0048004	.0205020	.0003199	.0003773	.2396179	.3138380
SDev	.007118	.0008462	.0000031	.0000158	.0000928	.0003912	.0012728
%RSD	.2879783	17.62755	.0149555	4.925695	24.58583	.1632716	.4055505

#1	2.476840	.0053987	.0204998	.0003087	.0003117	.2393413	.3129380
#2	2.466773	.0042020	.0205041	.0003310	.0004429	.2398946	.3147380

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023690	.0238003	10.17877	1.117827	.1508166	.0045497	.7193226
SDev	.0002860	.0004943	.01652	.006392	.0005355	.0002591	.0015084
%RSD	12.07277	2.076866	.1623007	.5718002	.3550718	5.695426	.2096964

#1	.0021668	.0241499	10.16709	1.113307	.1504380	.0047329	.7203891
#2	.0025713	.0234508	10.19045	1.122347	.1511953	.0043664	.7182559

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000515	.2569262	-.000202	.0097076	.0230102	-.001549	.0012509
SDev	.0002001	.1477061	.000376	.0002804	.0001548	.001857	.0001343
%RSD	388.3584	57.48969	186.0624	2.888346	.6729683	119.8717	10.73392

#1	-.000090	.3613701	.0000639	.0095093	.0229007	-.002863	.0013458
#2	.0001930	.1524822	-.000468	.0099059	.0231197	-.000236	.0011560

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044123	.0035758	.0021025	-.003749	.0028105	.0082353	1.990806
SDev	.0006998	.0009628	.0027633	.002596	.0000704	.0004060	.003534
%RSD	15.85995	26.92421	131.4324	69.26166	2.503000	4.930288	.1774913

#1	.0049071	.0028950	.0040565	-.005584	.0028602	.0085224	1.993304
#2	.0039175	.0042566	.0001485	-.001913	.0027607	.0079482	1.988307

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.1075051	.1569750	.0050756	-.000715	.0014039
SDev	.0001607	.0003390	.0004073	.000810	.0005273
%RSD	.1495065	.2159832	8.025224	113.3357	37.56162

#1	.1073914	.1567353	.0047875	-.001287	.0010310
#2	.1076187	.1572148	.0053636	-.000142	.0017768

Method: EPA Sample Name: 306538
 Run Time: 03/23/99 17:37:18
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.055956	-.000389	.0065214	.0003398	.0002345	.2485208	.2194775
SDev	.004214	.000089	.0000005	.0000547	.0000895	.0006293	.0001569
%RSD	.2049577	22.75699	.0073161	16.08738	38.15316	.2532203	.0714986

#1	2.058936	-.000452	.0065218	.0003784	.0001712	.2480758	.2193665
#2	2.052977	-.000327	.0065211	.0003011	.0002977	.2489658	.2195884

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021621	.0380208	5.464146	.4289841	.1229597	.0042418	.3322921
SDev	.0002322	.0000798	.002726	.0021496	.0001472	.0004368	.0110088
%RSD	10.74050	.2098636	.0498837	.5010847	.1197423	10.29649	3.312995

#1	.0019979	.0379644	5.462219	.4305041	.1230638	.0039330	.3245076
#2	.0023263	.0380773	5.466074	.4274641	.1228556	.0045506	.3400765

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	206E-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000232	.1389760	-.002026	.0048058	.0176584	-.001293	.0040989
SDev	.000067	.0535907	.001087	.0001424	.0001329	.000010	.0004857
%RSD	28.83752	38.56111	53.62643	2.964099	.7528394	.7633316	11.85008

#1	-.000279	.1010817	-.002794	.0049065	.0177524	-.001286	.0044424
#2	-.000185	.1768703	-.001258	.0047051	.0175643	-.001300	.0037555

Elem	2203-1	2203-2	1960-1	1960-2	E_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.0016388	.0025938	.0035068	-.001331	.0011611	.0084902	1.104863
SDev	.0010443	.0031884	.0022203	.000295	.0006688	.0007479	.003786
%RSD	63.72524	122.9236	63.31376	22.19486	57.59824	8.808984	.3426412

#1	.0023772	.0048484	.0050768	-.001540	.0006882	.0090191	1.107539
#2	.0009003	.0003393	.0019368	-.001122	.0016340	.0079614	1.102186

Elem	Sn1899	Ti3349	Pb2203	Se1960	Se2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0036271	.0829355	.0035656	.0012984	.0033218
SDev	.0013815	.0000123	.0023786	.0006384	.0002313
%RSD	38.08863	.0148582	66.70995	49.17094	7.964478

#1	.0046040	.0829268	.0052476	.0017498	.0034853
#2	.0026503	.0829442	.0018837	.0008469	.0031582

Method: EPA Sample Name: 306539
 Run Time: 03/23/99 17:41:36
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	2.713337	.0006121	.0167609	.0003950	.0003345	.2026586	.1705223
SDev	.002169	.0016739	.0000015	.0000225	.0000111	.0003636	.0001891
%RSD	.0799277	273.4856	.0092647	5.695486	3.331195	.1793947	.1109145

#1	2.714871	.0017957	.0167598	.0004109	.0003266	.2024015	.1703886
#2	2.711804	-.000572	.0167620	.0003791	.0003423	.2029157	.1706561

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0021902	.0228121	10.02088	.7251279	.1034392	.0044611	.5213777
SDev	.0004647	.0000380	.02609	.0009127	.0001821	.0004705	.0000736
%RSD	21.21536	.1667660	.2603957	.1258719	.1760206	10.54706	.0141223

#1	.0018617	.0228390	10.00243	.7244825	.1033105	.0041284	.5214298
#2	.0025188	.0227852	10.03934	.7257733	.1035680	.0047938	.5213256

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	-.000397	.1232761	.0006143	.0094928	.0245530	-.001614	-.000234
SDev	.000367	.0000520	.0007618	.0001493	.0003263	.001455	.001917
%RSD	92.42805	.0421678	124.0117	1.572299	1.328887	90.17213	820.6058

#1	-.000138	.1233129	.0011530	.0093873	.0247837	-.000585	-.001589
#2	-.000657	.1232393	.0000756	.0095983	.0243223	-.002643	.0011217

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	.0003567	.0027037	.0006212	-.005665	.0010110	.0019227	1.457083
SDev	.0001919	.0000011	.0016591	.002872	.0003773	.0005890	.000167
%RSD	53.79364	.0412426	267.0688	50.70235	37.32143	30.63332	.0114314

#1	.0002210	.0027045	.0017944	-.003634	.0007442	.0015062	1.457201
#2	.0004924	.0027029	-.000552	-.007696	.0012778	.0023391	1.456965

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.0029936	.1720618	.0032772	-.002487	.0009503
SDev	.0011343	.0001690	.0000633	.002468	.0001889
%RSD	37.89122	.0982502	1.933193	99.22124	19.88201

#1	.0037957	.1721813	.0032324	-.000742	.0010838
#2	.0021915	.1719422	.0033220	L-.004233	.0008167

Method: EPA Sample Name: 306540
 Run Time: 03/23/99 17:45:55
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.259932	.0068182	.0116623	.0003394	.0004808	.1579884	.4057825
SDev	.001688	.0007098	.0000039	.0000449	.0002259	.0012163	.0009680
%RSD	.1339874	10.41093	.0335814	13.23841	46.98476	.7698566	.2385586

#1	1.261125	.0063163	.0116595	.0003711	.0006405	.1588485	.4064670
#2	1.258738	.0073201	.0116651	.0003076	.0003210	.1571284	.4050980

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013428	.0286347	11.42662	.2330664	.0869624	.0032414	.3077152
SDev	.0001155	.0004881	.01624	.0050135	.0002132	.0010622	.0004818
%RSD	8.601125	1.704542	.1421098	2.151101	.2451753	32.77033	.1565876

#1	.0014245	.0289799	11.43810	.2366115	.0871132	.0024903	.3080559
#2	.0012611	.0282896	11.41513	.2295213	.0868117	.0039925	.3073745

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0002419	.2366679	-.001124	.0067164	.0190750	.0028920	.0008864
SDev	.0000668	.0627519	.004932	.0002903	.0002535	.0027772	.0002915
%RSD	27.62621	26.51476	438.6214	4.322687	1.328781	96.02921	32.88601

#1	.0002892	.2810402	.0023629	.0069217	.0192542	.0009283	.0010926
#2	.0001946	.1922956	-.004612	.0065111	.0188957	.0048557	.0006803

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.0063073	.0042145	.0038691	-.002107	.0038988	.0022102	.9602336
SDev	.0006166	.0004678	.0051487	.001304	.0006505	.0002767	.0021189
%RSD	9.775372	11.09965	133.0739	61.86972	16.68516	12.51756	.2206641

#1	.0067433	.0038837	.0075097	-.001185	.0043588	.0020146	.9617319
#2	.0058714	.0045453	.0002284	-.003029	.0034388	.0024058	.9587353

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0388418	.0912507	.0062714	.0009707	.0025742
SDev	.0013690	.0003397	.0001070	.0025838	.0008269
%RSD	3.524487	.3723212	1.705829	266.1669	32.12045

#1	.0398098	.0914910	.0061958	.0027978	.0019896
#2	.0378738	.0910105	.0063471	-.000856	.0031589

Method: EPA Sample Name: 306541
 Run Time: 03/23/99 17:50:14
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	1.017818	-.001645	.0062171	.0001595	.0002536	.2109500	.1865443
SDev	.002989	.002257	.0000555	.0000270	.0000538	.0019524	.0008445
%RSD	.2936894	137.2072	.8926229	16.92150	21.22235	.9255375	.4527281

#1	1.019932	-.000049	.0061779	.0001786	.0002156	.2095694	.1859471
#2	1.015704	-.003241	.0062563	.0001404	.0002917	.2123306	.1871415

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0008532	.0120008	3.154918	.4076591	.0640355	.0017432	.1918153
SDev	.0004061	.0000967	.006812	.0007532	.0001925	.0004017	.0021878
%RSD	47.59795	.8056757	.2159150	.1847586	.3006150	23.04273	1.140566

#1	.0005660	.0119324	3.150101	.4081917	.0638994	.0014592	.1902683
#2	.0011403	.0120692	3.159735	.4071265	.0641717	.0020272	.1933623

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0000289	.1200486	.0002434	.0030551	.0147736	.0023719	.0013818
SDev	.0002343	.0403666	.0000617	.0004283	.0000324	.0005422	.0004753
%RSD	809.9328	33.62523	25.33997	14.01958	.2194694	22.85796	34.39621

#1	-.000137	.1485920	.0002870	.0027522	.0147965	.0019886	.0010457
#2	.0001946	.0915051	.0001997	.0033579	.0147506	.0027553	.0017178

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Ma2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0025947	.0029772	.0012144	-.002269	.0020000	.0030224	.6379939
SDev	.0006434	.0009451	.0006382	.001176	.0006967	.0005456	.0017414
%RSD	24.79600	31.74410	52.55593	51.82665	34.83331	18.05348	.2729530

#1	.0021398	.0023089	.0007631	-.003101	.0015074	.0026365	.6367626
#2	.0030497	.0036454	.0016657	-.001438	.0024926	.0034082	.6392253

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.1163113	.0633818	.0042117	-.000020	.0028009
SDev	.0010821	.0001946	.0008421	.000995	.0004955
%RSD	.9303471	.3070820	19.99401	5020.825	17.69169

#1	.1155462	.0632442	.0036163	-.000723	.0024505
#2	.1170765	.0635195	.0048071	.0006837	.0031513

Method: EPA Sample Name: CCV.

Operator: LKM

Run Time: 03/23/99 17:54:34

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.056730	1.021248	4.895194	.1252455	.5090626	12.55087	.4988473
SDev	.005439	.002439	.010481	.0002883	.0001134	.02473	.0010199
%RSD	.1075523	.2388374	.2141095	.2302260	.0222713	.1970361	.2044579

#1	5.052885	1.022973	4.887783	.1250416	.5091428	12.53339	.4981261
#2	5.060576	1.019524	4.902605	.1254494	.5089825	12.56836	.4995685

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.259769	.6281205	2.494017	12.50328	1.252390	1.265127	12.54759
SDev	.001153	.0004049	.001521	.02322	.002115	.001025	.01187
%RSD	.0915557	.0644562	.0609925	.1857048	.1688445	.0810004	.0945883

#1	1.258953	.6278342	2.495093	12.48687	1.250895	1.264403	12.53920
#2	1.260584	.6284068	2.492942	12.51970	1.253885	1.265852	12.55599

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6208583	12.45987	1.008632	1.244896	1.289490	1.012810	1.014057
SDev	.0009227	.07139	.003566	.002676	.004043	.002133	.003765
%RSD	.1486202	.5729921	.3535441	.2149567	.3135005	.2106322	.3712788

#1	.6202059	12.51035	1.006111	1.243004	1.286631	1.014319	1.011394
#2	.6215108	12.40939	1.011154	1.246789	1.292348	1.011302	1.016719

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.000393	1.018873	1.037486	1.053600	2.579566	2.554781	2.527647
SDev	.002769	.004755	.002996	.006466	.004047	.009653	.002238
%RSD	.2767497	.4666597	.2887881	.6137052	.1568715	.3778398	.0885274

#1	.9984352	1.015511	1.039604	1.049028	2.576705	2.547955	2.529229
#2	1.002351	1.022235	1.035367	1.058173	2.582428	2.561606	2.526065

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	2.549155	2.518893	1.014020	1.049262	1.014738
SDev	.005031	.006002	.004192	.003219	.001802
%RSD	.1973457	.2382745	.4133718	.3068118	.1775857

#1	2.545598	2.514649	1.011056	1.046986	1.013464
#2	2.552712	2.523137	1.016984	1.051539	1.016012

Method: EPA Sample Name: CCB
 Run Time: 03/23/99 17:58:53
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0098813	-.001359	.0005242	.0002266	.0001501	-.002291	-.000172
SDev	.0019317	.000927	.0000705	.0000356	.0001041	.000443	.000380
%RSD	19.54915	68.19442	13.44435	15.70099	69.33993	19.33411	221.3537
#1	.0112472	-.000704	.0005741	.0002517	.0002237	-.002604	.0000971
#2	.0085154	-.002015	.0004744	.0002014	.0000765	-.001978	-.000441
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000332	-.000112	-.003967	.0029874	.0000761	-.000047	-.002732
SDev	.000053	.000558	.000953	.0012852	.0000678	.000068	.002504
%RSD	16.10338	499.9205	24.02727	43.02088	89.14072	144.7138	91.65884
#1	-.000294	.0002828	-.003293	.0038962	.0000281	-.000095	-.000961
#2	-.000370	-.000506	-.004641	.0020786	.0001241	.0000011	-.004502
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	206B-1	206B-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000160	.0344765	.0013922	.0000128	.0001558	-.000937	.0012845
SDev	.000235	.0342557	.0016050	.0004350	.0002006	.000638	.0004717
%RSD	147.1312	99.35971	115.2831	3391.487	128.6922	68.08460	36.72047
#1	.0000065	.0586989	.0025271	.0003204	.0002977	-.001388	.0009510
#2	-.000327	.0102540	.0002573	-.000295	.0000140	-.000486	.0016180
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Ma2020	Si2881
Units					ppm	ppm	ppm
Avg	-.000114	-.001606	.0035351	-.000187	.0028428	.0018531	-.001459
SDev	.001008	.000248	.0033254	.000371	.0011938	.0008017	.002397
%RSD	887.3264	15.43524	94.07001	198.5634	41.99431	43.26397	164.3361
#1	.0005990	-.001431	.0058865	-.000449	.0036870	.0024200	.0002363
#2	-.000826	-.001782	.0011836	.0000755	.0019987	.0012862	-.003153
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0038613	.0003093	.0001846	.0021418	.0016340		
SDev	.0010137	.0010136	.0006042	.0008656	.0005212		
%RSD	26.25200	327.6819	327.3358	40.41656	31.89431		
#1	.0045781	.0010261	.0006118	.0027538	.0012655		
#2	.0031445	-.000407	-.000243	.0015297	.0020026		

Method: EPA Sample Name: 306542
 Run Time: 03/23/99 18:03:12
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	33.40214	.0228330	.2475774	.0017516	.0170340	23.78111	1.314165
SDev	.08427	.0003032	.0004393	.0000034	.0001256	.04362	.002014
%RSD	.2523036	1.327675	.1774508	.1929706	.7374255	.1834157	.1532811

#1	33.34256	.0230473	.2472668	.0017492	.0171229	23.81195	1.315589
#2	33.46174	.0226186	.2478881	.0017540	.0169452	23.75027	1.312741

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0275027	7.106113	50.26477	16.68020	.3057111	.8137717	1.989316
SDev	.0002791	.012059	.04719	.01757	.0004198	.0018191	.002048
%RSD	1.014863	.1697045	.0938795	.1053557	.1373204	.2235342	.1029627

#1	.0277001	7.097586	50.29813	16.69263	.3060080	.8150580	1.990764
#2	.0273053	7.114640	50.23140	16.66778	.3054143	.8124855	1.987868

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0086928	.3998501	.0021731	.2164438	2.675914	.0063288	.0115072
SDev	.0000203	.0562135	.0030270	.0006052	.002812	.0037311	.0020291
%RSD	.2336197	14.05863	139.2913	.2796239	.1050744	58.95328	17.63355

#1	.0086785	.4395991	.0000327	.2168718	2.677903	.0036906	.0100724
#2	.0087072	.3601012	.0043135	.2160159	2.673926	.0089671	.0129420

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	1.960785	1.981773	.0188570	.0106516	.0168371	.0116259	3.515709
SDev	.001147	.000601	.0013410	.0002550	.0000812	.0006909	.006565
%RSD	.0585048	.0303441	7.111378	2.393762	.4820495	5.942607	.1867226

#1	1.959974	1.982199	.0198053	.0108319	.0168944	.0121144	3.511067
#2	1.961596	1.981348	.0179088	.0104713	.0167797	.0111374	3.520351

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.1902402	1.064972	1.976150	.0145454	.0108074
SDev	.0012301	.000537	.000021	.0007150	.0026910
%RSD	.6466247	.0504034	.0010664	4.915330	24.89916

#1	.1911100	1.064592	1.976165	.0150509	.0089046
#2	.1893703	1.065351	1.976136	.0140398	.0127102

Analysis Report

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Method: EPA Sample Name: 306543
 Run Time: 03/23/99 18:07:31
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	1.219521	.0029271	.0255059	.0003238	.0003026	.5186156	.3486026
SDev	.004343	.0001040	.0000781	.0001276	.0001851	.0003154	.0000118
%RSD	.3561355	3.554054	.3061960	39.42395	61.16403	.0608210	.0033853

#1	1.222592	.0030007	.0255611	.0004140	.0004334	.5183926	.3485942
#2	1.216450	.0028536	.0254507	.0002335	.0001717	.5188386	.3486109

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0020840	.0119504	13.11688	.1983668	.2401444	.0020456	.3629242
SDev	.0003574	.0000590	.01396	.0008578	.0000556	.0006140	.0053178
%RSD	17.15128	.4935542	.1064616	.4324068	.0231405	30.01400	1.465257

#1	.0023367	.0119087	13.12675	.1989733	.2401051	.0024798	.3666845
#2	.0018312	.0119921	13.10700	.1977603	.2401837	.0016115	.3591640

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	-.000468	.2408253	.0012783	.0093718	.0197123	.0044344	.0063970
SDev	.000200	.0388260	.0010774	.0003175	.0000296	.0021693	.0014110
%RSD	42.66526	16.12208	84.28697	3.388255	.1503083	48.91840	22.05754

#1	-.000327	.2682794	.0020402	.0095964	.0197333	.0029005	.0073948
#2	-.000609	.2133711	.0005164	.0091473	.0196914	.0059683	.0053993

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	.0070960	.0109875	.0000556	-.002039	.0038351	.0049223	.9191210
SDev	.0023022	.0006049	.0034307	.002107	.0010118	.0001725	.0016226
%RSD	32.44377	5.505688	6169.848	103.3719	26.38273	3.504731	.1765395

#1	.0087239	.0105597	-.002370	-.003529	.0031197	.0048003	.9202684
#2	.0054681	.0114153	.0024815	-.000549	.0045506	.0050443	.9179737

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.1284353	.1249614	.0109799	-.000257	.0068280
SDev	.0004111	.0001641	.0004646	.002543	.0002235
%RSD	.3200673	.1312943	4.231511	990.4616	3.273586

#1	.1287260	.1250774	.0113084	-.002055	.0069861
#2	.1281446	.1248454	.0106514	.0015417	.0066700

Method: EPA Sample Name: 306545
 Run Time: 03/23/99 18:16:10
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.09960	.0077826	.1218685	.0010889	.0074302	139.2549	1.510548
SDev	.00475	.0010319	.0000208	.0000424	.0003366	.0667	.001526
%RSD	.0428379	13.25888	.0170326	3.894931	4.529868	.0479064	.1010432

#1	11.09624	.0070529	.1218538	.0011189	.0076682	139.2078	1.509469
#2	11.10296	.0085122	.1218832	.0010589	.0071922	139.3021	1.511627

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0084704	2.954689	24.13214	85.02928	.2876591	.8148506	1.242597
SDev	.0000488	.000702	.01581	.03339	.0000775	.0012538	.001536
%RSD	.5763904	.0237531	.0655176	.0392733	.0269371	.1538720	.1235849

#1	.0084359	2.954192	24.12096	85.00567	.2876042	.8139639	1.243683
#2	.0085049	2.955185	24.14332	85.05290	.2877138	.8157371	1.241512

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0042504	.6922408	.0008155	.1227029	.8911029	.0021876	.0100500
SDev	.0001756	.0457676	.0003856	.0002504	.0009928	.0020616	.0000980
%RSD	4.131307	6.611514	47.28195	.2040870	.1114090	94.24032	.9749030

#1	.0043746	.6598782	.0010882	.1228800	.8904009	.0036454	.0099807
#2	.0041262	.7246034	.0005429	.1225259	.8918049	.0007298	.0101193

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.4341879	.4365809	.0059673	-.001758	.0185512	.0070285	4.559073
SDev	.0005008	.0011261	.0012729	.001698	.0006867	.0003150	.001989
%RSD	.1153344	.2579411	21.33181	96.57626	3.701586	4.481859	.0436272

#1	.4345420	.4357846	.0068674	-.002959	.0190368	.0068058	4.560480
#2	.4338338	.4373771	.0050672	-.000558	.0180657	.0072512	4.557667

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.1723977	.5431442	.4370355	.0019269	.0085442
SDev	.0011670	.0005608	.0005832	.0007076	.0006222
%RSD	.6769438	.1032440	.1334365	36.72140	7.282495

#1	.1732229	.5427477	.4366231	.0014265	.0089842
#2	.1715725	.5435407	.4374479	.0024272	.0081043

Method: EPA Sample Name: 306546
 Run Time: 03/23/99 18:20:29
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8160728	.0007873	.0087459	.0003289	.0000945	.2583841	.3281590
SDev	.0046817	.0003053	.0000176	.0000376	.0004375	.0008865	.0008550
%RSD	.5736883	38.76979	.2009769	11.41979	462.9728	.3431004	.2605610

#1	.8193833	.0005715	.0087335	.0003555	-.000215	.2577572	.3275544
#2	.8127623	.0010032	.0087583	.0003024	.0004039	.2590109	.3287636

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006226	.0108016	6.555694	.1157772	.0635103	.0019317	.1885792
SDev	.0000589	.0001482	.011375	.0014831	.0001614	.0003216	.0096342
%RSD	9.456274	1.372064	.1735071	1.280968	.2540843	16.64655	5.108835

#1	.0006642	.0109064	6.547650	.1147285	.0633962	.0021591	.1817668
#2	.0005810	.0106968	6.563736	.1168259	.0636244	.0017043	.1953916

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	206B-1	206B-2
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.000327	.1083702	.0001814	.0056281	.0157363	.0016786	.0020861
SDev	.000333	.0606045	.0032511	.0001462	.0000323	.0001269	.0013603
%RSD	102.0133	55.92359	1792.254	2.597657	.2054613	7.562365	65.20972

#1	-.000562	.0655164	-.002117	.0057314	.0157134	.0017684	.0011242
#2	-.000091	.1512241	.0024803	.0055247	.0157591	.0015889	.0030480

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avge	.0014989	.0038356	.0022869	-.004217	.0028547	.0022779	.6046007
SDev	.0003111	.0007813	.0011865	.000823	.0000035	.0000834	.0000892
%RSD	20.75348	20.36912	51.88100	19.52163	.1220393	3.661120	.0147507

#1	.0012789	.0032831	.0014479	-.004799	.0028572	.0023369	.6046638
#2	.0017189	.0043880	.0031258	-.003635	.0028522	.0022190	.6045377

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	.2453675	.0608151	.0044098	-.000969	.0030323
SDev	.0005266	.0000169	.0006223	.000942	.0008631
%RSD	.2146313	.0278382	14.11126	97.19851	28.46488

#1	.2449951	.0608032	.0039698	-.001636	.0024219
#2	.2457399	.0608271	.0048498	-.000303	.0036426

Method: EPA Sample Name: 306544
 Run Time: 03/23/99 18:11:50
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	1.489104	.0030607	.0228613	.0003103	.0002423	1.665938	.4292963
SDev	.013092	.0007261	.0002643	.0000017	.0000270	.014033	.0037288
%RSD	.8792083	23.72415	1.155986	.5336410	11.15630	.8423458	.8685830

#1	1.498362	.0025473	.0230482	.0003091	.0002614	1.675861	.4319330
#2	1.479847	.0035742	.0226745	.0003114	.0002232	1.656016	.4266597

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0019891	.0493026	10.22822	.2457756	.1657820	.0059857	.3838130
SDev	.0007471	.0002088	.08649	.0008098	.0015969	.0003636	.0019693
%RSD	37.55946	.4235513	.8456354	.3294871	.9632286	6.074822	.5130749

#1	.0014608	.0494503	10.28938	.2452030	.1669112	.0062428	.3824206
#2	.0025174	.0491549	10.16706	.2463482	.1646529	.0057285	.3852055

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.0002654	.2473399	.0021637	.0084531	.0173423	-.000817	.0036307
SDev	.0005675	.0074336	.0012063	.0006494	.0001916	.003245	.0002778
%RSD	213.8552	3.005431	55.75169	7.681912	1.105033	397.2536	7.649829

#1	-.000136	.2420836	.0013107	.0079939	.0174778	.0014777	.0034343
#2	.0006667	.2525963	.0030166	.0089123	.0172068	-.003111	.0038271

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	.0109863	.0046319	.0028998	-.005239	.0040713	.0116387	1.401653
SDev	.0004398	.0024878	.0033015	.000568	.0009044	.0004819	.014468
%RSD	4.002867	53.71137	113.8518	10.84025	22.21428	4.140687	1.032222

#1	.0106754	.0028727	.0005653	-.005640	.0047108	.0119795	1.411884
#2	.0112973	.0063911	.0052343	-.004837	.0034318	.0112979	1.391423

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.3448334	.1530317	.0079080	-.001506	.0032412
SDev	.0012910	.0015100	.0017011	.001567	.0009031
%RSD	.3743898	.9867206	21.51119	104.1009	27.86281

#1	.3457463	.1540994	.0067051	-.002614	.0038798
#2	.3439206	.1519640	.0091109	-.000397	.0026026

Analysis Report

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Method: EPA Sample Name: 306547
 Run Time: 03/23/99 18:24:48
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.11568	.0115966	.0695387	.0007952	.0069849	15.84021	1.943158
SDev	.00898	.0021032	.0000683	.0000031	.0000504	.03966	.004474
%RSD	.0887762	18.13608	.0982475	.3948442	.7219184	.2503447	.2302380

#1	10.10933	.0101095	.0694904	.0007974	.0070205	15.81217	1.939994
#2	10.12203	.0130838	.0695870	.0007930	.0069492	15.86825	1.946321

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0170212	4.650773	42.80934	8.605497	.2152518	2.526556	.7093496
SDev	.0004508	.003317	.11726	.014412	.0005254	.003577	.0002994
%RSD	2.648257	.0713314	.2739215	.1674767	.2441070	.1415662	.0422152

#1	.0173399	4.648428	42.72642	8.595306	.2148803	2.524027	.7091379
#2	.0167024	4.653119	42.89226	8.615688	.2156233	2.529086	.7095613

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0107921	.4024816	.0006147	.0914547	.8470061	.0031489	.0101067
SDev	.0002466	.0055250	.0003729	.0002550	.0008816	.0008452	.0043534
%RSD	2.284623	1.372741	60.65770	.2788138	.1040825	26.84203	43.07453

#1	.0106178	.3985748	.0008784	.0912744	.8463827	.0025513	.0131850
#2	.0109665	.4063884	.0003511	.0916350	.8476295	.0037466	.0070283

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.4018804	.4020169	.0057274	-.001901	.0226057	.0115184	4.211317
SDev	.0018055	.0025302	.0048101	.000263	.0002097	.0006612	.004683
%RSD	.4492649	.6293717	83.98271	13.85920	.9277494	5.740630	.1111929

#1	.4031571	.4002278	.0091287	-.001715	.0224574	.0119860	4.208005
#2	.4006037	.4038060	.0023262	-.002087	.0227540	.0110509	4.214628

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.2423088	.5495498	.4033383	.0017327	.0088832
SDev	.0015581	.0001859	.0010877	.0017764	.0026212
%RSD	.6430336	.0338371	.2696808	102.5213	29.50721

#1	.2434106	.5494183	.4025691	.0029888	.0107366
#2	.2412070	.5496813	.4041074	.0004766	.0070297

Method: EPA Sample Name: 306548
 Run Time: 03/23/99 18:29:07
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.65039	.0089727	.1280285	.0012756	.0055799	171.4084	.6649284
SDev	.04008	.0032106	.0001079	.0000152	.0002393	.4057	.0006839
%RSD	.1694713	35.78148	.0842996	1.191790	4.288288	.2366734	.1028557

#1	23.62205	.0112429	.1281048	.0012649	.0057491	171.1215	.6644449
#2	23.67873	.0067025	.1279522	.0012864	.0054107	171.6952	.6654121

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0105938	3.179225	31.77798	24.08790	.6645607	1.488133	1.237803
SDev	.0003192	.001148	.07571	.04258	.0012708	.002315	.002709
%RSD	3.012926	.0361066	.2382401	.1767627	.1912258	.1555329	.2188444

#1	.0108195	3.180037	31.72444	24.05779	.6636621	1.486497	1.239718
#2	.0103681	3.178413	31.83151	24.11801	.6654593	1.489770	1.235887

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0010240	.6482562	.0022372	.0518869	1.055686	-.002076	.0069511
SDev	.0002748	.0301903	.0004792	.0004819	.001688	.001459	.0006880
%RSD	26.83531	4.657154	21.41811	.9287945	.1599262	70.27208	9.898252

#1	.0012183	.6696040	.0018984	.0522277	1.054492	-.003108	.0074376
#2	.0008297	.6269085	.0025760	.0515461	1.056880	-.001045	.0064646

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.2154624	.2212745	.0031016	-.002032	.9096799	.0041056	6.246741
SDev	.0025102	.0021914	.0086873	.001408	.0003669	.0004751	.013613
%RSD	1.165045	.9903557	280.0925	69.30870	.0403362	11.57318	.2179178

#1	.2172374	.2197249	.0092444	-.001036	.9094204	.0037696	6.237115
#2	.2136874	.2228240	-.003041	-.003028	.9099394	.0044415	6.256367

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.1592306	1.110313	.2207243	.0007857	.0049840
SDev	.0015523	.001515	.0006239	.0038337	.0000724
%RSD	.9748823	.1364717	.2826411	487.9308	1.453500

#1	.1603282	1.109242	.2202832	.0034966	.0050352
#2	.1581329	1.111385	.2211655	-.001925	.0049328

Method: EPA Sample Name: 306549
 Run Time: 03/23/99 18:33:26
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.019382	.0057063	.0311704	.0005625	.0004114	.9664421	.5641556
SDev	.004737	.0000967	.0000312	.0000254	.0002354	.0010162	.0003301
%RSD	.1568798	1.694987	.1000967	4.521679	57.22713	.1051445	.0585112

#1	3.022732	.0057747	.0311483	.0005445	.0002449	.9657236	.5643890
#2	3.016033	.0056379	.0311924	.0005805	.0005778	.9671606	.5639222

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044355	.0658805	39.43636	.5791519	.4125315	.0264908	1.042253
SDev	.0000051	.0003770	.04956	.0040035	.0005439	.0012331	.011109
%RSD	.1147164	.5722378	.1256759	.6912672	.1318559	4.654910	1.065895

#1	.0044391	.0656139	39.47141	.5763210	.4129161	.0256189	1.034397
#2	.0044319	.0661471	39.40132	.5819827	.4121469	.0273628	1.050108

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	206B-1	206B-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000090	.3854796	.0010591	.0258500	.0263341	.0046266	.0070392
SDev	.000469	.0482520	.0003189	.0002559	.0000298	.0023277	.0005409
%RSD	522.1153	12.51739	30.11490	.9900029	.1129930	50.31158	7.683965

#1	-.000422	.3513603	.0008336	.0256690	.0263130	.0062725	.0066568
#2	.0002419	.4195989	.0012846	.0260310	.0263551	.0029806	.0074217

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mn2020	Si2881
Units					ppm	ppm	ppm
Avg	.0096210	.0108389	.0049005	.0013704	.0045406	.0704789	2.722805
SDev	.0024406	.0009676	.0029929	.0012527	.0008198	.0014164	.006087
%RSD	25.36788	8.927484	61.07221	91.40841	18.05429	2.009622	.2235631

#1	.0078952	.0115231	.0027842	.0022562	.0039609	.0694774	2.727109
#2	.0113468	.0101546	.0070168	.0004846	.0051203	.0714805	2.718500

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0868230	.2523922	.0117261	.0035667	.0073246
SDev	.0004290	.0003292	.0002621	.0000637	.0004156
%RSD	.4941596	.1304188	2.234912	1.785266	5.674021

#1	.0871264	.2526250	.0115408	.0035217	.0076184
#2	.0865197	.2521595	.0119115	.0036117	.0070307

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Method: EPA Sample Name: ~~305550~~ ³⁰⁶⁵⁵⁰
 Run Time: 03/23/99 18:37:46
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.73397	.0103485	.1089269	.0010184	.0011169	5.962347	.3687620
SDev	.08393	.0000837	.0000619	.0000449	.0002399	.000058	.0004565
%RSD	.4480216	.8084742	.0567962	4.410693	21.47934	.0009727	.1237849
#1	18.79332	.0104076	.1089707	.0010501	.0012865	5.962389	.3684392
#2	18.67462	.0102893	.1088832	.0009866	.0009473	5.962307	.3690848
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0087989	.6275845	52.34001	5.697333	.3956045	.2900255	1.142220
SDev	.0001305	.0020741	.01597	.010214	.0005127	.0008060	.006660
%RSD	1.483012	.3304876	.0305094	.1792716	.1296033	.2779049	.5830865
#1	.0087066	.6290510	52.35130	5.704555	.3952420	.2894556	1.137510
#2	.0088912	.6261178	52.32872	5.690111	.3959671	.2905955	1.146929
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000208	.2426484	.0007100	.0414659	.3949280	-.000143	.0025120
SDev	.000167	.1067900	.0016286	.0003070	.0001091	.001063	.0017033
%RSD	80.32275	44.01017	229.3774	.7403675	.0276246	744.0246	67.80843
#1	-.000327	.1671364	.0018616	.0412488	.3950051	-.000894	.0037165
#2	-.000090	.3181603	-.000442	.0416830	.3948508	.0006087	.0013075
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.4127122	.4168839	.0022913	-.000864	.0056745	.0019345	6.691926
SDev	.0050378	.0009531	.0007884	.000491	.0000563	.0000493	.021194
%RSD	1.220650	.2286168	34.40873	56.80284	.9926590	2.546269	.3167070
#1	.4162744	.4162100	.0028488	-.000517	.0056347	.0019693	6.706912
#2	.4091499	.4175578	.0017338	-.001211	.0057143	.0018996	6.676939
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0386281	.9063658	.4167200	.0012757	.0026492		
SDev	.0009029	.0005293	.0010468	.0005943	.0008825		
%RSD	2.337393	.0583959	.2511900	46.58394	33.31211		
#1	.0392665	.9059915	.4174602	.0016960	.0032732		
#2	.0379897	.9067401	.4159799	.0008555	.0020252		

Method: EPA Sample Name: 306551

Operator: LKM

Run Time: 03/23/99 18:42:05

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.99857	.0188731	.1693668	.0011216	.0059494	37.95507	.4130676
SDev	.01561	.0025508	.0001953	.0000580	.0000962	.17087	.0023215
%RSD	.0821633	13.51571	.1153293	5.167190	1.617221	.4502028	.5620021

#1	19.00961	.0170694	.1695049	.0011626	.0058813	37.83424	.4114260
#2	18.98753	.0206768	.1692287	.0010806	.0060174	38.07589	.4147091

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0179352	1.002245	31.37217	22.66050	.2506561	.4881000	1.581687
SDev	.0001438	.001397	.10170	.04886	.0008427	.0025049	.008172
%RSD	.8017234	.1393786	.3241727	.2156383	.3362165	.5131925	.5166487

#1	.0180369	1.003233	31.30025	22.62595	.2500602	.4863288	1.587466
#2	.0178335	1.001257	31.44408	22.69505	.2512521	.4898712	1.575909

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0017961	1.019962	-.001396	.2262033	1.042738	.0010160	.0074876
SDev	.0002276	.012904	.000012	.0008480	.001571	.0009307	.0003556
%RSD	12.67235	1.265122	.8633759	.3748910	.1506916	91.60227	4.748984

#1	.0016352	1.029087	-.001387	.2256036	1.041627	.0016742	.0077391
#2	.0019571	1.010838	-.001404	.2268029	1.043850	.0003579	.0072362

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.3038771	.3065811	.0116489	-.000624	.0142299	.0078410	7.329861
SDev	.0018867	.0012750	.0018054	.001909	.0005512	.0000843	.000668
%RSD	.6208633	.4158719	15.49799	305.9172	3.873893	1.075078	.0091080

#1	.3052112	.3056795	.0129255	.0007256	.0146197	.0077814	7.330333
#2	.3025430	.3074826	.0103723	-.001973	.0138401	.0079006	7.329389

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0522173	.8279966	.3069134	.0045588	.0063601
SDev	.0016099	.0011016	.0002171	.0018787	.0006482
%RSD	3.083075	.1330431	.0707223	41.21041	10.19191

#1	.0510789	.8272177	.3067599	.0058872	.0068185
#2	.0533557	.8287756	.3070669	.0032303	.0059017

Method: EPA

Sample Name: CCV

Operator: LKM

Run Time: 03/23/99 18:46:24

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.067225	1.024251	4.900187	.1252348	.5130061	12.57108	.5013051
SDev	.021492	.000692	.005925	.0001745	.0008332	.02995	.0010605
%RSD	.4241414	.0675336	.1209173	.1393034	.1624154	.2382283	.2115392

#1	5.082422	1.024740	4.904376	.1251114	.5124170	12.54990	.5005553
#2	5.052027	1.023762	4.895997	.1253581	.5135953	12.59225	.5020550

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.266511	.6282703	2.512548	12.58241	1.256398	1.269781	12.62200
SDev	.001264	.0003726	.013386	.00610	.002625	.003635	.04879
%RSD	.0997938	.0593089	.5327797	.0485138	.2089096	.2862430	.3865835

#1	1.265618	.6285337	2.503082	12.57810	1.254542	1.267211	12.65651
#2	1.267405	.6280068	2.522013	12.58673	1.258254	1.272352	12.58750

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.6227336	12.51425	1.018288	1.250800	1.293580	1.012416	1.017160
SDev	.0005954	.05582	.004863	.001742	.000028	.005440	.001795
%RSD	.0956121	.4460566	.4775651	.1392719	.0021439	.5373596	.1765165

#1	.6231546	12.55372	1.014849	1.249568	1.293600	1.008569	1.015891
#2	.6223126	12.47478	1.021727	1.252032	1.293561	1.016263	1.018430

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	1.008675	1.019078	1.039081	1.052606	2.565200	2.566973	2.540950
SDev	.005702	.003346	.006523	.003699	.001308	.004291	.005268
%RSD	.5653343	.3282903	.6278136	.3514114	.0509797	.1671705	.2073181

#1	1.012707	1.016712	1.034468	1.055221	2.564275	2.563939	2.544675
#2	1.004643	1.021443	1.043693	1.049990	2.566124	2.570008	2.537225

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.553707	2.521751	1.016974	1.049260	1.016671
SDev	.005445	.000944	.000330	.000201	.003007
%RSD	.2132011	.0374512	.0324833	.0191120	.2958035

#1	2.549857	2.521083	1.016741	1.049401	1.014544
#2	2.557557	2.522419	1.017208	1.049118	1.018797

Method: EPA Sample Name: CCB Operator: LKM
 Run Time: 03/23/99 18:50:44
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0130783	-.001580	.0005475	.0001965	.0004420	.0016379	.0001352
SDev	.0000794	.000795	.0000322	.0000033	.0000916	.0000308	.0000598
%RSD	.6068649	50.30127	5.879753	1.688242	20.73369	1.882479	44.18873

#1	.0131345	-.001018	.0005248	.0001989	.0005068	.0016597	.0001775
#2	.0130222	-.002142	.0005703	.0001942	.0003772	.0016161	.0000930

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0002031	-.000054	.0116631	.0026840	.0001255	-.000152	.0034415
SDev	.0001190	.000381	.0084422	.0000034	.0000004	.000792	.0015502
%RSD	58.61000	699.4615	72.38397	.1250921	.3356542	519.6433	45.04537

#1	.0001189	.0002147	.0056935	.0026863	.0001258	.0004076	.0023453
#2	.0002873	-.000324	.0176326	.0026816	.0001252	-.000712	.0045377

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	-.000161	.0853224	.0043343	-.000086	.0003365	-.000797	.0023899
SDev	.000302	.0668799	.0005192	.000000	.0000637	.000820	.0012158
%RSD	187.2629	78.38484	11.98004	.3941737	18.94521	102.9142	50.87065

#1	-.000374	.1326136	.0047015	-.000086	.0002914	-.001377	.0032496
#2	.0000522	.0380312	.0039671	-.000086	.0003815	-.000217	.0015302

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	-.000062	-.003364	.0012134	-.001022	.0026664	.0019354	.0017251
SDev	.000453	.000023	.0032831	.003828	.0013967	.0014642	.0001941
%RSD	726.2763	.6828783	270.5675	374.4555	52.38207	75.65292	11.24976

#1	-.000383	-.003380	-.001108	-.003729	.0036541	.0029707	.0018624
#2	.0002579	-.003348	.0035350	.0016845	.0016788	.0009001	.0015879

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.0030815	.0004642	-.000903	.0008111	.0024176
SDev	.0026589	.0010074	.000163	.0036442	.0005401
%RSD	86.28664	217.0027	18.06380	449.2691	22.34177

#1	.0049617	.0011765	-.001019	-.001766	.0027995
#2	.0012014	-.000248	-.000788	.0033879	.0020356

Method: EPA Sample Name: 306552
 Run Time: 03/23/99 18:55:03
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.122075	.0015977	.0108298	.0003701	.0004628	.2685646	.2878101
SDev	.001880	.0002226	.0000069	.0000354	.0002851	.0006055	.0009354
%RSD	.1675770	13.93031	.0637761	9.562140	61.59310	.2254431	.3249938

#1	1.120745	.0014403	.0108249	.0003951	.0006643	.2681365	.2871487
#2	1.123405	.0017551	.0108347	.0003450	.0002612	.2689928	.2884715

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015415	.0308926	10.67561	.2402308	.1473023	.0035722	.3779395
SDev	.0000590	.0003123	.02883	.0001529	.0003006	.0004512	.0001931
%RSD	3.825676	1.010830	.2700971	.0636332	.2040643	12.63103	.0510917

#1	.0014998	.0306718	10.65522	.2401227	.1470897	.0038912	.3780760
#2	.0015833	.0311134	10.69600	.2403389	.1475149	.0032531	.3778029

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000043	.1983699	.0000043	.0076385	.0175797	.0030791	.0081986
SDev	.000067	.0895680	.0015929	.0001542	.0000099	.0016137	.0002982
%RSD	156.0932	45.15204	37361.51	2.019017	.0564678	52.40786	3.637189

#1	-.000090	.2617040	.0011306	.0075294	.0175727	.0019380	.0084094
#2	.0000044	.1350357	-.001122	.0077475	.0175868	.0042201	.0079877

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Ma2020	Si2881
Units					ppm	ppm	ppm
Avg	.0059634	.0063582	.0013487	-.004066	.0022509	.0050653	.9959769
SDev	.0007367	.0008228	.0009018	.003404	.0010411	.0000821	.0052233
%RSD	12.35382	12.93986	66.86183	83.72710	46.25166	1.621698	.5244442

#1	.0064843	.0057765	.0007111	-.001659	.0029871	.0050072	.9922834
#2	.0054424	.0069400	.0019864	-.006473	.0015147	.0051234	.9996703

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0732265	.1216631	.0075833	-.001313	.0075790
SDev	.0010628	.0001516	.0003043	.001970	.0003391
%RSD	1.451431	.1245735	4.012876	149.9899	4.474820

#1	.0724750	.1215559	.0073681	.0000796	.0073392
#2	.0739781	.1217703	.0077985	-.002706	.0078188

Method: EPA Sample Name: 306553

Operator: LKM

Run Time: 03/23/99 18:59:23

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.263785	.0069503	.0215496	.0006833	.0002242	.3105725	.0794157
SDev	.000927	.0007438	.0001226	.0000039	.0000728	.0008135	.0001681
%RSD	.0217388	10.70191	.5690230	.5661599	32.45613	.2619212	.2117274

#1	4.264441	.0064243	.0216363	.0006805	.0002757	.3111477	.0795346
#2	4.263130	.0074763	.0214629	.0006860	.0001728	.3099973	.0792968

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050328	.0155898	20.87097	1.154633	.3381113	.0070016	.6329019
SDev	.0004712	.0001034	.05376	.000319	.0003427	.0000746	.0039905
%RSD	9.362621	.6632822	.2575721	.0276396	.1013498	1.065675	.6305094

#1	.0053660	.0156630	20.90898	1.154859	.3383536	.0070544	.6357236
#2	.0046996	.0155167	20.83296	1.154407	.3378690	.0069489	.6300802

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000113	.1198697	.0011035	.0165905	.0250712	-.004115	.0029773
SDev	.000033	.0246231	.0030058	.0005980	.0002806	.000982	.0005344
%RSD	29.44941	20.54155	272.3915	3.604351	1.119382	23.85557	17.94818

#1	-.000137	.1024585	-.001022	.0170134	.0252697	-.003421	.0025994
#2	-.000090	.1372808	.0032289	.0161677	.0248728	-.004810	.0033551

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mn2020	Si2881
Units					ppm	ppm	ppm
Avg	.0066485	.0081599	.0042065	-.002822	.0005426	.0264120	2.619115
SDev	.0008332	.0007183	.0011858	.000726	.0008618	.0006186	.002510
%RSD	12.53239	8.802716	28.18844	25.73474	158.8322	2.342309	.0958505

#1	.0060594	.0086678	.0050450	-.002308	.0011519	.0268495	2.617340
#2	.0072377	.0076520	.0033681	-.003335	-.000067	.0259746	2.620890

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0023539	.2257113	.0090177	.0006076	.0016363
SDev	.0010126	.0002489	.0002030	.0008803	.0000678
%RSD	43.01824	.1102542	2.251264	144.8899	4.141605

#1	.0016378	.2258872	.0091613	.0012300	.0016843
#2	.0030699	.2255353	.0088742	-.000015	.0015884

Method: EPA Sample Name: 306553D Operator: LKM
 Run Time: 03/23/99 19:03:43
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.399288	.0112950	.0231040	.0007643	.0003838	.3481409	.0801403
SDev	.010716	.0023101	.0000427	.0000319	.0001263	.0015265	.0008166
%RSD	.2435792	20.45234	.1846740	4.167533	32.90219	.4384646	1.018938

#1	4.391711	.0129284	.0231342	.0007868	.0004731	.3492203	.0807177
#2	4.406865	.0096615	.0230738	.0007418	.0002945	.3470615	.0795629

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066571	.0158791	28.93758	1.112729	.4921542	.0069662	.5986031
SDev	.0002932	.0002009	.00050	.002554	.0000874	.0005935	.0166504
%RSD	4.404673	1.265275	.0017198	.2295271	.0177612	8.518935	2.781537

#1	.0068644	.0157370	28.93723	1.114535	.4920924	.0073859	.6103767
#2	.0064497	.0160212	28.93793	1.110923	.4922161	.0065466	.5868295

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000540	.0931446	.0016431	.0167743	.0302720	-.001517	-.000009
SDev	.000302	.1071926	.0005157	.0001494	.0000767	.000172	.001215
%RSD	55.91175	115.0820	31.38581	.8906180	.2534371	11.35865	14187.32

#1	-.000327	.1689412	.0012784	.0168799	.0303262	-.001395	-.000867
#2	-.000754	.0173479	.0020077	.0166686	.0302177	-.001639	.0008504

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.0076929	.0040201	.0044782	-.001265	-.000417	.0188585	2.412464
SDev	.0007075	.0004219	.0017449	.000945	.000922	.0009797	.000040
%RSD	9.196863	10.49599	38.96537	74.68873	220.8604	5.195152	.0016702

#1	.0081932	.0043185	.0032443	-.000597	.0002345	.0181657	2.412435
#2	.0071926	.0037218	.0057120	-.001934	-.001069	.0195513	2.412492

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0015008	.2236248	.0066064	.0017377	.0005797
SDev	.0015918	.0005332	.0005176	.0000498	.0007524
%RSD	106.0678	.2384114	7.834335	2.864949	129.7837

#1	.0026264	.2240018	.0069724	.0017729	.0000477
#2	.0003752	.2232478	.0062404	.0017025	.0011118

Method: EPA Sample Name: 306553S
 Run Time: 03/23/99 19:08:02
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.829788	.0426753	1.751435	.0437637	.0450375	4.777202	.1968892
SDev	.009284	.0005882	.002706	.0000842	.0000326	.000933	.0000415
%RSD	.1592472	1.378344	.1544921	.1923701	.0724322	.0195365	.0210799

#1	5.823223	.0430912	1.749521	.0437042	.0450606	4.776542	.1968599
#2	5.836352	.0422593	1.753348	.0438233	.0450144	4.777862	.1969186

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4442823	.2300248	13.67080	5.150705	.6320080	.4434336	5.114183
SDev	.0003204	.0001320	.02250	.003491	.0003504	.0013284	.009578
%RSD	.0721164	.0573731	.1645918	.0677792	.0554504	.2995678	.1872855

#1	.4445089	.2299315	13.65489	5.148237	.6317601	.4424943	5.107410
#2	.4440557	.2301181	13.68671	5.153174	.6322557	.4443729	5.120956

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0432059	4.368574	.0457238	.4454669	.4760556	.4303566	.4413306
SDev	.0003011	.002125	.0009262	.0001497	.0004492	.0040833	.0015536
%RSD	.6969496	.0486477	2.025673	.0336017	.0943678	.9488060	.3520207

#1	.0434188	4.370077	.0463787	.4455727	.4757380	.4332439	.4402320
#2	.0429930	4.367071	.0450688	.4453610	.4763733	.4274693	.4424291

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.0204337	.0215350	.0112941	.0070956	.8665827	.8802640	4.438782
SDev	.0036045	.0015319	.0009084	.0010797	.0014688	.0042560	.006302
%RSD	17.63997	7.113601	8.043425	15.21674	.1694905	.4834948	.1419789

#1	.0229824	.0204518	.0119365	.0078591	.8655441	.8772546	4.434325
#2	.0178849	.0226182	.0106518	.0063322	.8676213	.8832735	4.443238

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.9520103	1.062861	.0225309	.0095838	.4387664
SDev	.0006195	.000327	.0001816	.0010252	.0003260
%RSD	.0650746	.0307558	.8061454	10.69702	.0742909

#1	.9515722	1.062630	.0226593	.0103088	.4389968
#2	.9524484	1.063092	.0224025	.0088589	.4385359

Method: EPA Sample Name: 306553L
 Run Time: 03/23/99 19:12:22
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8601215	-.000636	.0044717	.0002867	.0001453	.0619650	.0156377
SDev	.0033637	.002605	.0000414	.0000383	.0001129	.0005983	.0000279
%RSD	.3910724	409.3875	.9247658	13.34554	77.74343	.9654651	.1787255

#1	.8625000	.0012056	.0045009	.0003137	.0000654	.0615420	.0156575
#2	.8577430	-.002478	.0044424	.0002596	.0002251	.0623881	.0156180

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004286	.0026955	4.157080	.2299058	.0671286	.0011239	.1180580
SDev	.0001165	.0000919	.031831	.0029959	.0000918	.0001489	.0063645
%RSD	27.18126	3.410332	.7657136	1.303082	.1367698	13.24803	5.390974

#1	.0005110	.0027605	4.134572	.2277874	.0670637	.0010187	.1135576
#2	.0003463	.0026305	4.179588	.2320242	.0671935	.0012292	.1225583

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000445	-.022570	.0001910	.0029325	.0050066	-.001015	.0002791
SDev	.000301	.016399	.0003113	.0001449	.0003071	.000288	.0003667
%RSD	67.66145	72.65771	162.9559	4.942796	6.134286	28.38029	131.3611

#1	-.000232	-.034165	.0004111	.0028299	.0047894	-.001219	.0005384
#2	-.000657	-.010974	-.000029	.0030349	.0052238	-.000811	.0000199

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.0011640	-.001280	.0038946	-.003041	.0008390	.0050722	.5221043
SDev	.0022864	.002306	.0001282	.002175	.0002842	.0010325	.0029507
%RSD	196.4348	180.2146	3.291118	71.54041	33.87489	20.35525	.5651636

#1	.0027807	.0003510	.0039853	-.001502	.0010399	.0058022	.5200177
#2	-.000453	-.002911	.0038040	-.004579	.0006380	.0043421	.5241907

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0019223	.0445541	.0008920	.0003553	.0009346
SDev	.0011054	.0002283	.0023020	.0014954	.0001505
%RSD	57.50156	.5124500	258.0614	420.8686	16.10641

#1	.0027039	.0447155	.0025198	.0014127	.0010410
#2	.0011407	.0443926	-.000736	-.000702	.0008281

Method: EPA Sample Name: CRI

Operator: LKM

Run Time: 03/23/99 19:16:42

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0082449	.0188677	-.000022	.0101355	.0107258	-.002238	.0193847
SDev	.0003033	.0011331	.000033	.0000118	.0001465	.000119	.0001255
%RSD	3.677993	6.005678	148.5945	.1160694	1.365406	5.312889	.6472957

#1	.0084594	.0180665	-.000046	.0101438	.0108293	-.002322	.0192960
#2	.0080305	.0196690	.0000011	.0101272	.0106222	-.002154	.0194734

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.1014827	.0503254	-.004653	-.000320	.0304288	.0811139	-.007108
SDev	.0001590	.0001289	.001099	.000855	.0000787	.0003133	.006886
%RSD	.1566396	.2561926	23.62808	267.2797	.2587406	.3862322	96.87739

#1	.1013703	.0502342	-.005431	-.000924	.0303731	.0813355	-.011977
#2	.1015951	.0504165	-.003876	.0002846	.0304844	.0808924	-.002239

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.0197857	.0077746	.0186488	.0998361	.0422906	.1185778	.1229678
SDev	.0007307	.0731278	.0016964	.0005350	.0003604	.0012041	.0018669
%RSD	3.693201	940.6003	9.096725	.5358533	.8522494	1.015442	1.518185

#1	.0192690	-.043935	.0174492	.1002144	.0425455	.1177264	.1216477
#2	.0203024	.0594837	.0198483	.0994579	.0420357	.1194292	.1242879

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mn2020	Si2881
Units					ppm	ppm	ppm
Avgc	.0047811	.0045148	.0101903	.0065093	.0010639	-.000799	.0016564
SDev	.0018257	.0020740	.0005365	.0005726	.0003036	.000198	.0004793
%RSD	38.18662	45.93862	5.264900	8.796406	28.53899	24.83014	28.93255

#1	.0060721	.0059813	.0098110	.0061045	.0008492	-.000939	.0019953
#2	.0034901	.0030482	.0105697	.0069142	.0012786	-.000658	.0013176

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.0013502	-.001248	.0058275	.0088232	.1225940
SDev	.0002268	.000077	.0019979	.0005548	.0016404
%RSD	16.79895	6.147375	34.28320	6.287724	1.338052

#1	.0015106	-.001194	.0072403	.0084309	.1214341
#2	.0011898	-.001302	.0044148	.0092155	.1237539

Method: EPA Sample Name: ICSEA
 Run Time: 03/23/99 19:21:01
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	455.0987	.0012252	-.002164	.0010141	.0032079	432.5107	.0011060
SDev	.0017	.0029592	.000038	.0000827	.0003474	.5415	.0000955
%RSD	.0003651	241.5310	1.735176	8.155786	10.82818	.1251911	8.630161
#1	455.0976	.0033176	-.002137	.0010726	.0029623	432.1278	.0011735
#2	455.0999	-.000867	-.002191	.0009556	.0034535	432.8936	.0010385
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000717	.0009154	185.4056	497.1356	-.003650	-.000569	-.012866
SDev	.000001	.0005366	.2605	.6009	.000194	.000222	.001506
%RSD	.1266600	58.62413	.1405224	.1208799	5.327021	39.04644	11.70762
#1	-.000717	.0012949	185.2213	496.7106	-.003512	-.000412	-.011801
#2	-.000716	.0005359	185.5898	497.5605	-.003787	-.000727	-.013931
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.001112	.0131297	-.004392	-.001683	-.004071	-.002987	.0065041
SDev	.000000	.0486994	.000076	.000714	.000092	.012024	.0018385
%RSD	.0352145	370.9090	1.730031	42.43938	2.250096	402.5216	28.26712
#1	-.001113	.0475654	-.004339	-.001178	-.004136	-.011490	.0052041
#2	-.001112	-.021306	-.004446	-.002188	-.004007	.0055153	.0078041
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.0004307	.0016685	.0104307	.0005119	-.000411	.0001261	-.005695
SDev	.0010599	.0001999	.0054016	.0040140	.000672	.0008661	.001479
%RSD	246.0849	11.98133	51.78500	784.1287	163.4541	686.6806	25.96890
#1	-.000319	.0015271	.0066113	-.002326	.0000641	.0007385	-.004649
#2	.0011801	.0018099	.0142502	.0033503	-.000887	-.000486	-.006740
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0035735	.0091245	.0027507	.0050104	.0044642		
SDev	.0025902	.0002088	.0004856	.0044755	.0053356		
%RSD	72.48338	2.288380	17.65291	89.32503	119.5181		
#1	.0017419	.0092721	.0024073	.0018457	.0006914		
#2	.0054050	.0089768	.0030940	.0081750	.0082370		

Method: EPA

Sample Name: ICSAB

Operator: LKM

Run Time: 03/23/99 19:25:21

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Ce2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	460.9058	.1069076	.5298657	.5002739	.9835483	438.7788	.4983563
SDev	.6366	.0054349	.0010883	.0009634	.0048710	1.2884	.0007355
%RSD	.1381210	5.083773	.2053867	.1925814	.4952515	.2936396	.1475946
#1	460.4557	.1107507	.5290963	.5009552	.9869926	439.6898	.4988764
#2	461.3560	.1030645	.5306353	.4995927	.9801039	437.8677	.4978362
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.4853168	.5557278	187.9766	503.0196	.5018901	.9611942	.0347053
SDev	.0027528	.0003523	.4294	.4711	.0009358	.0019005	.0067875
%RSD	.5672216	.0633953	.2284349	.0936577	.1864525	.1977257	19.55757
#1	.4872633	.5554787	188.2802	503.3527	.5025518	.9625381	.0395048
#2	.4833702	.5559769	187.6730	502.6864	.5012284	.9598503	.0299058
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.1798981	.2002580	.0972609	.5058081	1.047537	.6195200	.6281967
SDev	.0000647	.2486756	.0004374	.0013890	.002574	.0044525	.0047161
%RSD	.0359798	124.1776	.4497723	.2746084	.2457185	.7186979	.7507371
#1	.1799439	.3760983	.0969516	.5067903	1.049357	.6163716	.6315315
#2	.1798523	.0244178	.0975702	.5048259	1.045717	.6226684	.6248620
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	.0566482	.0435363	.0546350	.0538217	.0020837	-.001618	.0247971
SDev	.0050841	.0012233	.0022015	.0024991	.0006043	.000303	.0007333
%RSD	8.974904	2.809914	4.029502	4.643379	29.00316	18.73173	2.957317
#1	.0602432	.0426713	.0561917	.0520545	.0025110	-.001404	.0253156
#2	.0530532	.0444013	.0530783	.0555889	.0016564	-.001833	.0242785
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.0026539	.0095593	.0493962	.0552874	.6265023		
SDev	.0005791	.0003229	.0008767	.0009341	.0016626		
%RSD	21.82017	3.378017	1.774772	1.689583	.2653863		
#1	.0030634	.0097876	.0500161	.0546269	.6276779		
#2	.0022444	.0093309	.0487763	.0559480	.6253266		

Method: EPA Sample Name: CCV+

Operator: LKM

Run Time: 03/23/99 19:29:40

Comment: Batches 4956, 4964

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.089694	1.021325	4.881774	.1241358	.5082023	12.52351	.4979904
SDev	.095607	.011279	.097098	.0020316	.0058670	.18794	.0081834
%RSD	1.878442	1.104383	1.988981	1.636616	1.154455	1.500702	1.643289

#1	5.157298	1.029301	4.950432	.1255724	.5123509	12.65640	.5037769
#2	5.022089	1.013349	4.813115	.1226992	.5040538	12.39062	.4922038

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.258324	.6266118	2.515969	12.47080	1.248562	1.261620	12.59372
SDev	.021033	.0117192	.053660	.20591	.021473	.022073	.20129
%RSD	1.671513	1.870246	2.132770	1.651126	1.719796	1.749574	1.598331

#1	1.273196	.6348985	2.553912	12.61640	1.263745	1.277228	12.73605
#2	1.243451	.6183251	2.478026	12.32520	1.233378	1.246012	12.45139

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.6192814	12.43735	1.006426	1.243220	1.284668	1.011349	1.012069
SDev	.0100725	.04225	.011846	.020356	.021592	.010725	.013079
%RSD	1.626476	.3397407	1.177000	1.637368	1.680746	1.060492	1.292295

#1	.6264038	12.40747	1.014802	1.257614	1.299935	1.018933	1.021318
#2	.6121591	12.46723	.9980495	1.228826	1.269400	1.003765	1.002821

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.9997047	1.013158	1.030998	1.040312	2.541963	2.558325	2.512844
SDev	.0132307	.003442	.016043	.004025	.041500	.040851	.045693
%RSD	1.323456	.3397763	1.556077	.3869299	1.632596	1.596771	1.818388

#1	1.009060	1.015592	1.042342	1.043158	2.571308	2.587211	2.545154
#2	.9903492	1.010724	1.019653	1.037465	2.512618	2.529439	2.480534

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.535907	2.505050	1.009959	1.038291	1.012910
SDev	.040845	.045084	.006621	.008039	.012307
%RSD	1.610680	1.799737	.6555561	.7742864	1.215044

#1	2.564789	2.536929	1.014641	1.043975	1.021613
#2	2.507025	2.473170	1.005278	1.032606	1.004207

Method: EPA Sample Name: CCB
 Run Time: 03/23/99 19:34:00
 Comment: Batches 4956, 4964
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0463478	-.001050	.0005468	.0000287	.0000997	.0323279	-.000112
SDev	.0068506	.000488	.0001035	.0002714	.0002558	.0038981	.000177
%RSD	14.78084	46.46885	18.93238	946.3894	256.5426	12.05802	158.2707

#1	.0511919	-.001395	.0006200	-.000163	.0002805	.0350843	.0000133
#2	.0415037	-.000705	.0004736	.0002206	-.000081	.0295715	-.000236

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000002	-.000323	.0124416	.0359693	.0000757	.0001177	-.000762
SDev	.000172	.000097	.0010332	.0048262	.0000011	.0010426	.005988
%RSD	9949.768	30.11653	8.304277	13.41742	1.413052	886.2219	785.8507

#1	.0001197	-.000254	.0131722	.0393819	.0000765	-.000620	-.004996
#2	-.000123	-.000391	.0117110	.0325567	.0000750	.0008549	.0034722

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000302	-.050812	.0011606	-.000188	.0002425	-.003003	.0018751
SDev	.000301	.063834	.0011499	.000146	.0000737	.001217	.0009796
%RSD	99.69710	125.6265	99.07938	77.68456	30.38583	40.54247	52.24555

#1	-.000089	-.095949	.0003475	-.000085	.0002945	-.003864	.0025678
#2	-.000515	-.005675	.0019737	-.000291	.0001903	-.002142	.0011824

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	-.003278	-.002353	.0040827	-.001443	.0020104	.0011277	-.001814
SDev	.001033	.000109	.0038115	.000208	.0003797	.0018980	.001094
%RSD	31.51067	4.633251	93.35917	14.39994	18.88883	168.3105	60.33071

#1	-.002548	-.002430	.0067778	-.001296	.0017419	.0024698	-.001040
#2	-.004009	-.002276	.0013875	-.001590	.0022789	-.000214	-.002588

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0012648	.0002142	-.001369	.0014846	.0012706
SDev	.0022151	.0010659	.000373	.0014129	.0003489
%RSD	175.1270	497.6595	27.26814	95.16775	27.45763

#1	.0028311	.0009679	-.001105	.0024837	.0015172
#2	-.000301	-.000540	-.001633	.0004856	.0010239

Submittal # 3/11/99
 Working 3/22/99

0322942

MERCURY Chronicle: Leeman PS200

N4B

Date 3/22/99 Batch(es) 4952 Mtl. Soil

Analyst J. Yurkula Raw Data With Batch _____

* Both IPC and QCS are ^{separate} second sources

ICH Sample ID	EPA/Client Sample ID	Dilution	Conc. ug/L	Comments
IPC*			5.50	
KB			-0.027	
QCS*			4.51	TV-431
CCB			-0.51	
10.1			10.1	
ORA	ORA		1.55	
0.033			-0.033	
0.010			-0.010	
4.12			4.12	
4.12			4.12	
17.27			17.27	
0.250			0.250	
IPC			5.65	
CCB			0.23	
0.000			-0.000	
0.007			0.007	
4.31			4.31	
4.38			4.38	
0.000			0.000	
1.21			1.21	
0.000			0.000	
0.42			0.42	
0.017			-0.017	
1.45			1.45	
IPC			5.70	
CCB			0.022	

*** Standard: 1 Rep: 1

Seat: 1

10:27:39 22 Mar 1999 HB

-g .000 opp 1026
Ave. Int. =

1026 S. D. = 0

*** Standard: 1 Rep: 1

Seat: 1

10:30:05 22 Mar 1999 HB

-g .000 opp 273
Ave. Int. =

273 S. D. = 0

10:32:37 22 Mar 1999

Folder: 030299A
Protocol: HGB WATERS

Line	Wave.	Conc.	Units	SD/RSD	1	2	3	4	5
------	-------	-------	-------	--------	---	---	---	---	---

*** Standard: 2 Rep: 1 Seq: 2 10:32:37 22 Mar 1999 HGB

Hg		.200	ppb	5662					
			Ave. Int. =	5662	S. D. =				0

*** Standard: 3 Rep: 1 Seq: 3 10:35:06 22 Mar 1999 HGB

Hg		.500	ppb	11911					
			Ave. Int. =	11911	S. D. =				0

*** Standard: 4 Rep: 1 Seq: 4 10:37:35 22 Mar 1999 HGB

Hg		1.00	ppb	28003					
			Ave. Int. =	28003	S. D. =				0

*** Standard: 5 Rep: 1 Seq: 5 10:40:04 22 Mar 1999 HGB

Hg		5.00	ppb	141513					
			Ave. Int. =	141513	S. D. =				0

*** Standard: 6 Rep: 1 Seq: 6 10:42:33 22 Mar 1999 HGB

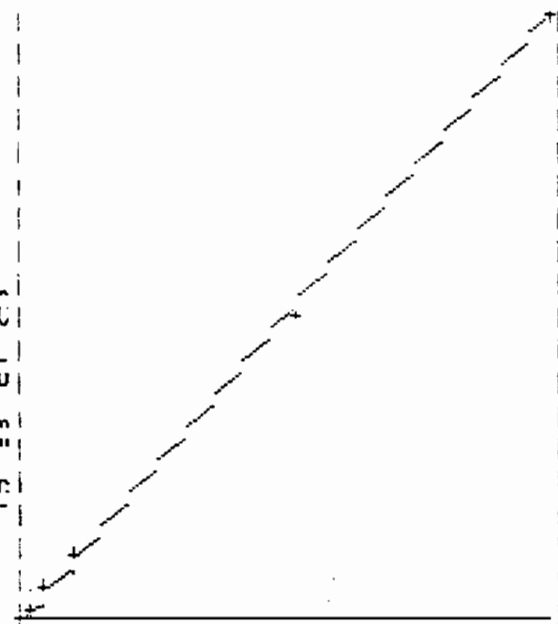
Hg		10.0	ppb	269652					
			Ave. Int. =	269652	S. D. =				0

X
d

Protocol: HCS
 1100001: INV
 Reu: 3.001 Time: 18:42:39 22 Mar 1999
 Folder: 032299A Seq: 7 Print: On
 User: n.i.l. 13: 0430...4 C...: 4 47 C...: 0.00 INM
 10: 0100001 Cup: 1 11 Gds: 0.00 LFT
 State: Idle Macro: 001705 51: F2 Print Ymit: Off Outbeamlen: On
 0000: 1010 0100 000000 01: 10 11110 0010: 111 1000000000: 011

CALIBRATION: Line Calibration

Line	Hq	Not Accepted
IS1	0.00	-0.10
IS2	2.00	0.19
IS3	5.00	0.18
IS4	1.00	1.01
IS5	5.00	5.10
IS6	10.00	9.90



R .999677
 S 1.000000
 P 1.000000

Line	Mean	YRCH	Value
IS1	273	0	273
IS2	5662	0	5662
IS3	11711	0	11711
IS4	20000	0	20000
IS5	141513	0	141513
IS6	269652	0	269652

Line	Wave.	Conc.	Units	SD/PSD	1	2	3	4	5
*** Sample ID: IPC									
					Sec: 7	10:49:21	22 Mar 1999	H6	
Hg		5.50	ppb	.000	%	5.50			
*** Sample ID: ICB									
					Sec: 8	10:51:46	22 Mar 1999	H6	
Hg		-0.027	ppb	.000	%	-0.027			
*** Sample ID: QCS									
					Sec: 9	10:54:09	22 Mar 1999	H6	
Hg		4.51	ppb	.000	%	4.51			
*** Sample ID: CCB									
					Sec: 10	10:56:32	22 Mar 1999	H6	
Hg		-0.051	ppb	.000	%	-0.051			
*** Sample ID: HIGH STD									
					Sec: 11	10:58:55	22 Mar 1999	H6	
Hg		10.1	ppb	.000	%	10.1			
*** Sample ID: HIGHSTD\50									
					Sec: 12	11:01:20	22 Mar 1999	H6	
Hg		.185	ppb	.000	%	.185			
*** Sample ID: PBS 4956									
					Sec: 13	11:03:44	22 Mar 1999	H6	
Hg		-0.033	ppb	.000	%	-0.033			
*** Sample ID: FBSD									
					Sec: 14	11:05:08	22 Mar 1999	H6	
Hg		-0.040	ppb	.000	%	-0.040			
*** Sample ID: LOSS									
					Sec: 15	11:08:32	22 Mar 1999	H6	
Hg		4.12	ppb	.000	%	4.12			
*** Sample ID: LOSSD									
					Sec: 16	11:10:56	22 Mar 1999	H6	
Hg		4.12	ppb	.000	%	4.12			
*** Sample ID: 306390									
					Sec: 17	11:13:20	22 Mar 1999	H6	
Hg		.227	ppb	.000	%	.227			
*** Sample ID: 306391									
					Sec: 18	11:15:43	22 Mar 1999	H6	
Hg		.350	ppb	.000	%	.350			

11:18:07 22 Mar 1999

Protocol: HGS WATER5

Line	Wave.	Conc.	Units	SD/RSD	1	2	3	4	5
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*** Check Standard: 2 Ck2 Seq: 19 11:18:07 22 Mar 1999 HG
 Line Wave. Flag %Rcv. Found True Units SD/RSD
 Hg 113. 5.65 5.00 ppb .000 %

*** Check Standard: 1 Ck1 Seq: 20 11:20:34 22 Mar 1999 HG
 Line Wave. Flag Found Range(+/-) Units SD/RSD
 Hg .023 .500 ppb .000 %

*** Sample ID: 30639E Seq: 21 11:22:58 22 Mar 1999 HG
 Hg -.000 ppb .000 % -.000

*** Sample ID: 306398D Seq: 22 11:25:21 22 Mar 1999 HG
 Hg .007 ppb .000 % .007

*** Sample ID: 306398S Seq: 23 11:27:44 22 Mar 1999 HG
 Hg 4.31 ppb .000 % 4.31

*** Sample ID: 306398SD Seq: 24 11:30:07 22 Mar 1999 HG
 Hg 4.33 ppb .000 % 4.33

*** Sample ID: 306393 Seq: 25 11:32:30 22 Mar 1999 HG
 Hg .039 ppb .000 % .039

*** Sample ID: 306394 Seq: 26 11:34:53 22 Mar 1999 HG
 Hg 1.21 ppb .000 % 1.21

*** Sample ID: 306395 Seq: 27 11:37:16 22 Mar 1999 HG
 Hg .000 ppb .000 % .000
 Dil. Weight 1.0000 Volume .00000

*** Sample ID: 306396 Seq: 28 11:39:39 22 Mar 1999 HG
 Hg .042 ppb .000 % .042

*** Sample ID: 306397 Seq: 29 11:42:03 22 Mar 1999 HG
 Hg -.017 ppb .000 % -.017

*** Sample ID: 306392 Seq: 30 11:44:26 22 Mar 1999 HG
 Hg 1.45 ppb .000 % 1.45

Folder: 002899A

Page 1c

11:46:51 22 Mar 1999

Protocol: HGS WATERS

Line	Wave.	Conc.	Units	SD/RSD	1	2	3	4	5
------	-------	-------	-------	--------	---	---	---	---	---

*** Check Standard: 2 CK2 Sec: 31 11:46:51 22 Mar 1999 H6

Line	Wave.	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg			114.	5.70	5.00	ppb	.000 %

*** Check Standard: 1 CK1 Sec: 32 11:49:17 22 Mar 1999 H6

Line	Wave.	Flag	Found	Range(+/-)	Units	SD/RSD
Hg			.022	.500	ppt	.000 %

ANALab, Inc. - Randolph Facility
 1152 Route 10
 Randolph, NJ 07869
 973-584-0330, FAX: 973-584-0515
 APRIL 6, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
 NJ #14116 NY #11376
 US EPA CLP Lab

ICP Metals Quality Assurance Data

Run Number: 03304956
 Analysis Date: 03/30/99

Associated Samples: 306389
 306389D/S/SD

Matrix: Aqueous Units: mg/L

BLANKS

Parameter	Initial	Continuing Calibration														Method	Method	
	Calib.	Blank																Blank	Detection
	Blank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		Limit
Arsenic	U	U	U	U													U	0.004
Barium	U	U	U	U													U	0.005
Cadmium	U	U	U	U													U	0.005
Chromium	U	U	U	U													U	0.005
Lead	U	U	U	U													U	0.004
Selenium	U	U	U	U													U	0.004
Silver	U	U	U	U													U	0.005

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 ROB

ANALab, Inc. - Randolph Facility
1152 Route 10
Randolph, NJ 07869
973-584-0330, FAX: 973-584-0515
APRIL 6, 1999

Certified for: NJ, PA, DE, CT, NY (DOH)
NJ #14116 NY #11376
US EPA CLP Lab

ICP Metals Quality Assurance Data

Run Number: 03304956
Analysis Date: 03/30/99

Associated Samples: 306389
306389D/S/SD

Units: mg/L

CALIBRATION STANDARDS

Parameter	Calibration Standard Concentration	Instrument Detection Limit	Method Detection Limit
Arsenic	2.00	0.0038	0.004
Barium	10.0	0.0004	0.005
Cadmium	1.00	0.0008	0.005
Chromium	1.00	0.0010	0.005
Lead	2.00	0.0023	0.004
Selenium	2.00	0.0034	0.004
Silver	1.25	0.0010	0.005

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ROB

ANALab, Inc. - Randolph Facility
1152 Route 10
Randolph, NJ 07869
973-584-0330, FAX: 973-584-0515
APRIL 6, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
NJ #14116 NY #11376
US EPA CLP Lab

ICP Metals Quality Assurance Data

Run Number: 03304956
Analysis Date: 03/30/99

Associated Samples: 306389
306389D/S/SD

Units: mg/L

Calibration Data Page 1 of 2

Parameter	INITIAL CALIBRATION			CONTINUING CALIBRATION		
	True Value	Found Value	% Recovery	True Value	Found Value	% Recovery
Arsenic	2.00	2.02	101	1.00	1.01	101
Barium	1.00	0.994	99	5.00	4.85	97
Cadmium	1.00	1.03	103	0.500	0.505	101
Chromium	1.00	1.01	101	0.500	0.499	100
Lead	2.00	2.04	102	1.00	1.01	101
Selenium	1.00	1.01	101	1.00	1.01	101
Silver	0.250	0.252	101	0.625	0.625	100

QC Limits = 90 - 110 %

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ROB

ANALab, Inc. - Randolph Facility
1152 Route 10
Randolph, NJ 07869
973-584-0330, FAX: 973-584-0515
APRIL 6, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
NJ #14116 NY #11376
US EPA CLP Lab

ICP Metals Quality Assurance Data

Run Number: 03304956
Analysis Date: 03/30/99

Associated Samples: 306389
306389D/S/SD

Units: mg/L

Calibration Data Page 2 of 2

CONTINUING CALIBRATION

Parameter	True Value	Found Value	% Recovery	Found Value	% Recovery	Found Value	% Recovery
Arsenic	1.00	1.01	101	1.00	100		
Barium	5.00	4.87	97	4.84	97		
Cadmium	0.500	0.507	101	0.505	101		
Chromium	0.500	0.499	100	0.499	100		
Lead	1.00	1.02	102	1.01	101		
Selenium	1.00	1.01	101	1.01	101		
Silver	0.625	0.627	100	0.626	100		

QC Limits = 90 - 110 %

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ANALab, Inc. - Randolph Facility
1152 Route 10
Randolph, NJ 07869
973-584-0330, FAX: 973-584-0515
APRIL 6, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
NJ #14116 NY #11376
US EPA CLP Lab

ICP Metals Quality Assurance Data

Run Number: 03304956
Analysis Date: 03/30/99
Units: mg/L

Interference Check Sample

Parameter	True Value	Initial Observed	% Recovery	Final Observed	% Recovery
Arsenic	0.098	0.096	98	0.101	103
Barium	0.515	0.527	102	0.535	104
Cadmium	0.929	0.981	106	0.990	106
Chromium	0.481	0.500	104	0.506	105
Lead	0.048	0.051	106	0.052	108
Selenium	0.047	0.054	115	0.046	98
Silver	0.217	0.178	82	0.180	83

QC Control Limits = 80 - 120 % or +/- MDL if True Value equals zero

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APRIL 6, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
NJ #14116 NY #11376
US EPA CLP Lab

Metals Quality Assurance Data - Spike Recoveries

Batch Number: 4956

Lab Number: 306389

Matrix: Aqueous Unit: mg/L

Parameter	Original Sample Result	Spike Added	Spike Sample Result	% Spike Recovery	Spike Control Limits	Minimum Detection Limits	Method Blank
Arsenic	U	0.200	0.195	98	75-125	0.004	U
Barium	0.078	0.500	0.556	96	75-125	0.005	U
Cadmium	U	0.200	0.198	99	75-125	0.005	U
Chromium	U	0.500	0.485	97	75-125	0.005	U
Lead	U	0.500	0.498	100	75-125	0.004	U
Mercury	U	0.0040	0.0041	102	75-125	0.0002	U
Selenium	U	0.200	0.195	98	75-125	0.004	U
Silver	U	0.050	0.049	98	75-125	0.005	U

U = Not Detected

NC = Non-calculable RPD due to value(s) less than detection limit

RPD = Relative percent difference

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APRIL 6, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
NJ #14116 NY #11376
US EPA CLP Lab

Metals Quality Assurance Data - Duplicates

Batch Number: 4956

Lab Number: 306389

Matrix: Aqueous Unit: mg/L

Parameter	Original Sample	Duplicate Sample	RPD	Control Limits	Minimum Detection	Method Blank
Arsenic	U	U	NC	NC	0.004	U
Barium	0.078	0.077	1	+20	0.005	U
Cadmium	U	U	NC	NC	0.005	U
Chromium	U	U	NC	NC	0.005	U
Lead	U	U	NC	NC	0.004	U
Mercury	U	U	NC	NC	0.0002	U
Selenium	U	U	NC	NC	0.004	U
Silver	U	U	NC	NC	0.005	U

U = Not Detected

NC = Non-calculable RPD due to value(s) less than detection limit

RPD = Relative percent difference

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APRIL 6, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
NJ #14116 NY #11376
US EPA CLP Lab

Metals Quality Assurance Data - Spike Duplicate

Batch Number: 4956

Lab Number: 306389

Matrix: Aqueous Unit: mg/L

Parameter	Spike Sample	Spike Duplicate	RPD	Control Limits	Minimum Detection	Method Blank
Arsenic	0.195	0.197	1	+ -20	0.004	U
Barium	0.556	0.559	<1	+ -20	0.005	U
Cadmium	0.198	0.198	<1	+ -20	0.005	U
Chromium	0.485	0.487	<1	+ -20	0.005	U
Lead	0.498	0.497	<1	+ -20	0.004	U
Mercury	0.0041	0.0041	<1	+ -20	0.0002	U
Selenium	0.195	0.198	2	+ -20	0.004	U
Silver	0.049	0.050	2	+ -20	0.005	U

U = Not Detected

NC = Non-calculable RPD due to value(s) less than detection limit

RPD = Relative percent difference

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APRIL 6, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
NJ #14116 NY #11376
US EPA CLP Lab

ICP Metals Quality Assurance Data

Run Number: 03304956
Analysis Date: 03/30/99
Batch Number: 4956

Matrix: Aqueous Units: mg/L

Laboratory Control Sample

Parameter	True Value	Found Value	% Recovery
Arsenic	0.200	0.195	98
Barium	0.500	0.491	98
Cadmium	0.200	0.199	100
Chromium	0.500	0.493	99
Lead	0.500	0.495	99
Selenium	0.200	0.189	94
Silver	0.050	0.050	100

QC Limits = 75 - 125 %

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APRIL 6, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
NJ #14116 NY #11376
US EPA CLP Lab

ICP Metals Quality Assurance Data

Run Number: 03304956
Analysis Date: 03/30/99
Serial diluted sample: 306389

Matrix: Aqueous Units: mg/L

Serial Dilution Sample

Parameter	Initial Sample Result	Serial Dilution Result	% Difference
Arsenic	U	U	NC
Barium	0.078	0.075	4
Cadmium	U	U	NC
Chromium	U	U	NC
Lead	U	U	NC
Selenium	U	U	NC
Silver	U	U	NC

NC = Non Calculable

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AnaLab - Randolph Facility
1152 Route 10
Randolph, NJ 07869
973-584-0330

ICSA

ANALYTE ppm	TRUE	INITIAL FOUND	% F	FINAL FOUND	% R				
Aluminum	500	453	91	451	90				
Iron	200	184	92	182	91				
Calcium	500	429	86	477	95				
Magnesium	500	490	98	485	97				



LABORATORIES

Metals Sample Preparation/Digestion Log

1152 ROUTE 10 RANDOLPH, NJ 07869

201-564-0330 FAX 201-584-0515

Batch

4966

SW846

EPA Water

ILM04.0

Other NYBCLP

Review

Sample ID	ICP		Furnace		Mercury		Comments
	Initial	Final	Initial	Final	Initial	Final	
PBJ	100 g	200mL			0.20 g	100mL	
LCS5	1.00				0.20 g		
306574	1.01				0.21		
5740	1.02				0.21		
5745	1.00				0.22		
575	1.00				0.22		
576	1.01				0.22		
577	1.02				0.22		
578	1.02				0.21		
306389							
306389							
306389							
PDW	100mL	100mL			100mL	100mL	
LCSW							
306389					100mL	100mL	
306389D							
306389S							
306389SD							
Analyst	Mark Sogor				Mark Sogor		
Date	3/24/99				3/24/99		
	Spike Added		Spike Added		Spike Added		
Spike ID	Lot #	mL	Lot #	mL	Lot #	mL	
306574	SS-7-4	1.00			Hg-Std-0-B	1.0	Soil Mercury Digest.
	SS-7-5	1.00					
	SS-7-7	0.10					Hot Water Bath
	B-R-35-8	0.10					In 11:15
Spike ID	Lot #	mL	Lot #	mL	Lot #	mL	
LCSW 306389	B-R-36-13	1.00					Out 11:45
	B-R-36-14	1.00					Temp 95°C
LCS5	Lot #	mL	Lot #	mL	Lot #	mL	Date 3/24/99
	B-R-38-1	1.00g			B-R-38-1	0.20g	Water:
							In: 07:10
							Out: 09:15



LABORATORIES

1152 ROUTE 10 RANDOLPH, NJ 07869

ICP Laboratory Chronicle

Date 03/30/99

Standard(s) ICPA-55

Instrument IJA Trace
ICAP 61E

ICPA-9B
ICPA-54 (ICSAB)

Batch(es) 4956, 4966

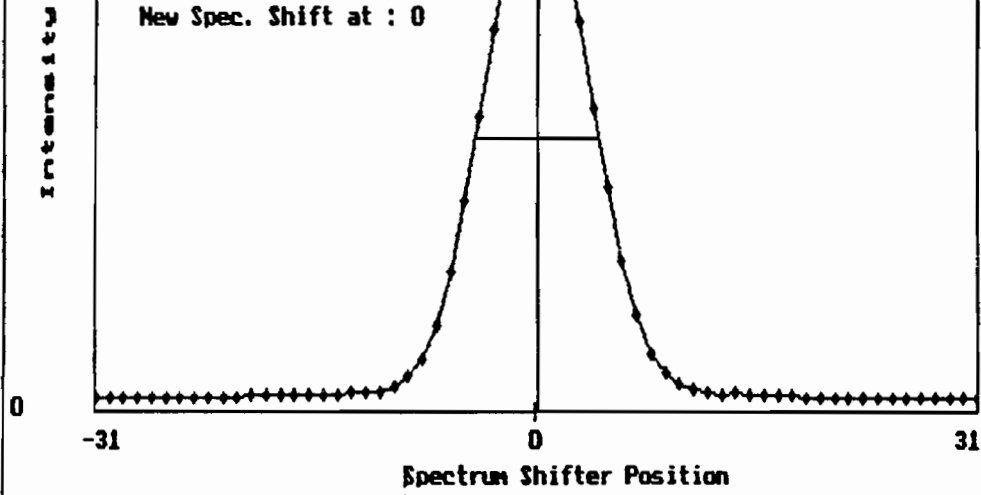
Data File CP0330

Analyst Lynne K. Mardell

Sample ID	Cup #	Comments
ICV/ICB	1	
CCV/CCB	2	
CRI	3	
ICSA/ICSAB	4	
CCV/CCB	5	
PEW 4956	6	ECI
LC5W	7	
306389	8	
306389D	9	
306389S	10	
306389SD	11	
306389L	12	
CRI	13	
ICSA/ICSAB	14	
CCV/CCB	15	
ICSA/ICSAB	16	ICSA/ICSAB Techniques
LC5S 4966 B R 38-1	17	
306574	18	
306574D	19	
306574S	20	
306574L	21	
306575	22	
306576	23	
306577	24	
306578	25	
CCV/CCB	26	
CRI	27	
ICSA/ICSAB	28	
	29	
	30	
	31	
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	43	
	44	

11587

Profile line : As 189.042/2
Peak Position : .057695
Peak Intensity: 10801.5
Peak Width : 8.62875
New Spec. Shift at : 0



3/30/99
TRACE

Method: EPA

Standard: S0

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Avg	.05650	-.00187	.00222	-.03279	.00241	.04783	.00271
SDev	.00132	.00011	.00018	.00015	.00361	.00002	.00110
%RSD	2.3331	6.0081	8.0701	.47252	149.59	.04833	40.597
#1	.05743	-.00195	.00209	-.03290	-.00014	.04781	.00348
#2	.05557	-.00179	.00234	-.03268	.00496	.04785	.00193
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Avg	-.00014	.00659	-.00166	.00049	.00076	-.00299	-.17252
SDev	.00019	.00005	.00001	.00030	.00009	.00228	.00386
%RSD	141.42	.71718	.77150	61.237	12.091	76.193	2.2401
#1	.00000	.00655	-.00167	.00070	.00070	-.00460	-.16979
#2	-.00028	.00662	-.00165	.00028	.00083	-.00138	-.17525
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Avg	.00139	-.02814	-.00153	.00062	.00194	-.00646	.00041
SDev	.00018	.00174	.00040	.00010	.00002	.00348	.00098
%RSD	13.378	6.1967	26.458	16.475	.77151	53.884	237.09
#1	.00125	-.02690	-.00181	.00070	.00195	-.00892	-.00028
#2	.00152	-.02937	-.00124	.00055	.00193	-.00400	.00110
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Avg	-.02127	.01018	-.00575	.00938	.00715	.01446	.11230
SDev	.00327	.00159	.00201	.00527	.00388	.00992	.00145
%RSD	15.361	15.593	35.058	56.172	54.207	68.583	1.2953
#1	-.01896	.00906	-.00432	.01310	.00990	.02147	.11333
#2	-.02358	.01131	-.00717	.00565	.00441	.00745	.11127
Elem	Sn1899	Ti3349					
Avg	.01223	.01409					
SDev	.00794	.00589					
%RSD	64.893	41.808					
#1	.01784	.01826					
#2	.00662	.00993					

Method: EPA

Standard: S

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Avge	3.7011	4.5402	28.975	2.1796	14.289	7.4370	3.3834
SDev	.0132	.0124	.013	.0016	.011	.0144	.0026
%RSD	.35642	.27305	.04450	.07429	.07621	.19342	.07582

#1	3.7104	4.5490	28.984	2.1808	14.297	7.4472	3.3852
#2	3.6918	4.5315	28.966	2.1785	14.281	7.4269	3.3816

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Avge	4.2489	2.9409	.48408	5.8692	7.0082	14.707	23.058
SDev	.0068	.0056	.00155	.0130	.0056	.041	.034
%RSD	.16051	.19144	.32113	.22122	.07933	.28010	.14604

#1	4.2537	2.9448	.48518	5.8783	7.0122	14.736	23.081
#2	4.2441	2.9369	.48298	5.8600	7.0043	14.678	23.034

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Avge	3.6346	.79641	3.1752	1.7046	3.8651	4.6818	3.2508
SDev	.0032	.00732	.0074	.0021	.0075	.0002	.0053
%RSD	.08895	.91906	.23342	.12190	.19319	.00503	.16189

#1	3.6369	.80159	3.1804	1.7061	3.8704	4.6816	3.2545
#2	3.6323	.79123	3.1699	1.7032	3.8598	4.6820	3.2471

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Avge	10.083	8.9074	2.8061	3.3590	6.4706	12.746	6.6633
SDev	.020	.0055	.0141	.0115	.0088	.019	.0158
%RSD	.19578	.06173	.50405	.34374	.13622	.15120	.23640

#1	10.069	8.9113	2.8161	3.3671	6.4768	12.760	6.6745
#2	10.097	8.9035	2.7961	3.3508	6.4644	12.733	6.6522

Elem	Sn1899	Ti3349
Avge	12.546	26.511
SDev	.005	.016
%RSD	.04362	.05997

#1	12.542	26.522
#2	12.549	26.500

Method: EPA

Sample Name: ICV

Operator: LKM

Run Time: 03/30/99 09:55:38

Comment:

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.022179	2.017339	.9944270	.9836314	1.034768	1.005745	1.011091
SDev	.004365	.003899	.0020868	.0016452	.002400	.001777	.002000
%RSD	.4270021	.1932537	.2098470	.1672623	.2319615	.1766678	.1978014

#1	1.019093	2.020096	.9929514	.9847947	1.036465	1.007001	1.012505
#2	1.025266	2.014583	.9959025	.9824680	1.033070	1.004488	1.009677

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.015729	1.009470	.9980234	.9933696	1.016308	1.010714	5.146294
SDev	.000391	.001714	.0123647	.0001305	.001381	.002569	.024947
%RSD	.0385315	.1698116	1.238919	.0131400	.1359156	.2541287	.4847544

#1	1.016006	1.008258	1.006767	.9934619	1.017285	1.012530	5.128654
#2	1.015452	1.010682	.9892802	.9932773	1.015331	1.008897	5.163934

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.2524116	4.950075	5.094874	1.003831	1.035666	2.002230	2.003682
SDev	.0000526	.001457	.004082	.001959	.001232	.005948	.004044
%RSD	.0208220	.0294325	.0801232	.1951845	.1189364	.2970443	.2018238

#1	.2524488	4.951106	5.097761	1.005216	1.036537	2.006435	2.000822
#2	.2523744	4.949045	5.091988	1.002446	1.034795	1.998024	2.006541

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	2.049022	2.038070	1.009580	1.011273	1.000339	1.026030	2.310328
SDev	.015835	.011491	.006548	.006740	.005004	.001478	.007249
%RSD	.7728279	.5638301	.6486304	.6665072	.5002443	.1440345	.3137470

#1	2.060219	2.046196	1.014210	1.016039	.9968004	1.027075	2.305202
#2	2.037825	2.029945	1.004949	1.006507	1.003877	1.024985	2.315453

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.113891	.9968876	2.043100	1.011816	2.004305
SDev	.014867	.0005126	.012940	.006678	.000715
%RSD	.2907123	.0514233	.6333725	.6600264	.0356638

#1	5.124403	.9972501	2.052250	1.016538	2.003799
#2	5.103379	.9965251	2.033949	1.007094	2.004810

Method: EPA Sample Name: ICB
 Run Time: 03/30/99 09:59:41
 Comment:
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.001747	-.002120	.0002940	.0001469	.0000269	-.000982	-.000418
SDev	.000257	.001615	.0001000	.0000667	.0001422	.000342	.000086
%RSD	14.68854	76.17142	34.00713	45.42887	528.1793	34.79980	20.50319

#1	-.001929	-.000978	.0003647	.0000997	.0001275	-.000741	-.000357
#2	-.001566	-.003261	.0002233	.0001941	-.000074	-.001224	-.000478

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.000317	-.000132	-.001142	-.001200	.0001418	.0006238	-.010687
SDev	.000115	.000000	.004137	.000411	.0000345	.0000983	.007351
%RSD	36.09039	.0866949	362.3350	34.22012	24.32683	15.76000	68.78546

#1	-.000399	-.000132	-.004067	-.000910	.0001174	.0005543	-.005489
#2	-.000236	-.000132	.0017834	-.001491	.0001661	.0006933	-.015885

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.000641	-.057100	.0017352	-.000616	.0001106	.0005569	-.000473
SDev	.000232	.035352	.0008504	.000141	.0000616	.0005868	.000169
%RSD	36.24266	61.91178	49.00748	22.83784	55.64469	105.3729	35.76972

#1	-.000805	-.082098	.0023365	-.000517	.0000671	.0009718	-.000593
#2	-.000477	-.032103	.0011339	-.000715	.0001541	.0001420	-.000353

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mn2020	Si2881
Units					ppm	ppm	ppm
Avge	.0009113	-.003441	-.006053	.0002639	-.001642	-.002758	-.002682
SDev	.0000390	.000174	.003772	.0011497	.000968	.001023	.000066
%RSD	4.284195	5.045790	62.32272	435.6601	58.96886	37.09877	2.446511

#1	.0009389	-.003318	-.003386	.0010769	-.000957	-.002034	-.002728
#2	.0008837	-.003564	-.008721	-.000549	-.002327	-.003481	-.002635

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	.0025537	-.001334	-.000696	-.000748	.0009612
SDev	.0031208	.000382	.000225	.002023	.0000826
%RSD	122.2090	28.67010	32.39905	270.3342	8.597714

#1	.0047604	-.001063	-.000536	.0006822	.0010196
#2	.0003469	-.001604	-.000855	-.002179	.0009027

Method: EPA

Sample Name: CCV

Operator: LKM

Run Time: 03/30/99 10:03:44

Comment:

Mode: CDNC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.017290	1.009000	4.845471	.1239956	.5054525	12.48043	.4990785
SDev	.010247	.001150	.003038	.0000045	.0002994	.01639	.0000636
%RSD	.2042421	.1139928	.0627035	.0036582	.0592363	.1313261	.0127476

#1	5.010044	1.009813	4.843323	.1239924	.5056642	12.46884	.4990335
#2	5.024536	1.008187	4.847620	.1239988	.5052407	12.49202	.4991235

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.249797	.6225047	2.501666	12.42609	1.252736	1.255775	12.51783
SDev	.000349	.0015349	.006248	.02833	.001717	.001653	.02310
%RSD	.0279496	.2465691	.2497678	.2280159	.1370717	.1316318	.1845625

#1	1.250044	.6214194	2.506084	12.40606	1.251522	1.254606	12.50149
#2	1.249550	.6235901	2.497248	12.44613	1.253950	1.256944	12.53416

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6245037	12.28942	1.007193	1.246156	1.267667	1.004597	1.004043
SDev	.0013836	.01411	.001709	.000718	.003664	.000090	.001465
%RSD	.2215446	.1147820	.1697184	.0576115	.2890344	.0089530	.1459210

#1	.6235254	12.27945	1.005984	1.245648	1.265076	1.004534	1.005079
#2	.6254821	12.29940	1.008402	1.246664	1.270258	1.004661	1.003007

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.014091	1.011199	1.004709	1.007567	2.487574	2.500328	2.487433
SDev	.003401	.000441	.005507	.009215	.011800	.001499	.009371
%RSD	.3353326	.0435724	.5481434	.9145784	.4743553	.0599553	.3767512

#1	1.016495	1.010887	1.008603	1.014083	2.479230	2.499268	2.480807
#2	1.011686	1.011511	1.000815	1.001051	2.495918	2.501388	2.494060

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.508687	2.513756	1.013475	1.007721	1.005334
SDev	.011065	.003536	.000938	.007982	.000949
%RSD	.4410499	.1406708	.0925965	.7920945	.0944027

#1	2.500863	2.511255	1.014138	1.013366	1.006005
#2	2.516510	2.516256	1.012811	1.002077	1.004663

Method: EPA

Sample Name: CCB

Operator: LKM

Run Time: 03/30/99 10:07:47

Comment:

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011799	-.001078	.0002051	.0001029	.0000992	.0003718	-.000273
SDev	.0006001	.000042	.0000331	.0000128	.0000551	.0003958	.000115
%RSD	50.86150	3.919814	16.12362	12.43642	55.56001	106.4610	42.04620

#1	.0007556	-.001108	.0002285	.0001120	.0000603	.0000919	-.000355
#2	.0016043	-.001049	.0001817	.0000939	.0001382	.0006516	-.000192

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000828	.0004673	.0068106	-.000318	.0001443	.0009620	-.007346
SDev	.0004594	.0005795	.0052375	.002479	.0000346	.0009056	.001437
%RSD	554.6534	124.0293	76.90177	779.4952	23.98979	94.14629	19.56723

#1	-.000242	.0000575	.0105141	-.002071	.0001198	.0016023	-.006330
#2	.0004076	.0008770	.0031072	.0014351	.0001687	.0003216	-.008363

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000453	-.009918	.0016108	-.000210	-.000151	-.001528	-.000633
SDev	.000234	.056513	.0005478	.000142	.000067	.000538	.000071
%RSD	51.55673	569.7974	34.00863	67.29145	44.53627	35.22270	11.24673

#1	-.000618	.0300425	.0012234	-.000310	-.000199	-.001147	-.000583
#2	-.000288	-.049879	.0019982	-.000110	-.000104	-.001908	-.000683

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	-.001003	-.001420	.0006732	-.001582	-.000622	-.001503	.0001859
SDev	.000994	.002212	.0015158	.002083	.000244	.001712	.0015904
%RSD	99.13366	155.8021	225.1643	131.6422	39.30601	113.9307	855.2818

#1	-.001706	-.002984	-.000399	-.003055	-.000449	-.000292	-.000939
#2	-.000300	.0001444	.0017451	-.000109	-.000794	-.002714	.0013105

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.001570	-.000628	-.000047	.0002663	.0001663
SDev	.001121	.000713	.001807	.0018943	.0002262
%RSD	71.41399	113.5733	3879.645	711.2945	136.0311

#1	-.000777	-.000124	-.001324	-.001073	.0003263
#2	-.002363	-.001132	.0012313	.0016058	.0000063

Method: EPA

Sample Name: CRI

Operator: LKM

Run Time: 03/30/99 10:11:49

Comment:

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023707	.0201799	-.000071	.0100501	.0105851	.0011376	.0198714
SDev	.0000714	.0018733	.000104	.0000766	.0000014	.0000444	.0002408
%RSD	3.012488	9.282991	147.8893	.7619930	.0135129	3.899731	1.211673

#1	.0024212	.0188553	.0000032	.0099959	.0105861	.0011062	.0197012
#2	.0023202	.0215045	-.000144	.0101042	.0105841	.0011689	.0200417

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1009187	.0511152	.0127072	.0003020	.0305346	.0810914	-.002791
SDev	.0006740	.0002881	.0147771	.0041893	.0000234	.0014775	.004203
%RSD	.6678612	.5636857	116.2885	1387.318	.0765118	1.821971	150.5752

#1	.1013953	.0513189	.0022583	.0032642	.0305180	.0800467	-.005763
#2	.1004421	.0509115	.0231562	-.002660	.0305511	.0821362	.0001807

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0204410	.0601998	.0179392	.0999128	.0415082	.1209229	.1227776
SDev	.0003497	.0268696	.0020408	.0000517	.0002350	.0010308	.0005415
%RSD	1.710802	44.63399	11.37605	.0517488	.5661730	.8524757	.4410222

#1	.0206883	.0791995	.0164961	.0998762	.0416744	.1201940	.1223947
#2	.0201937	.0412001	.0193822	.0999494	.0413420	.1216518	.1231605

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0074484	.0032161	.0079201	.0097502	-.002496	-.004859	.0021648
SDev	.0009845	.0022839	.0022472	.0024058	.000388	.000157	.0009393
%RSD	13.21766	71.01395	28.37330	24.67441	15.56101	3.236940	43.38893

#1	.0081446	.0016012	.0095091	.0080490	-.002771	-.004748	.0015006
#2	.0067523	.0048311	.0063311	.0114513	-.002221	-.004971	.0028290

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.000919	-.001250	.0058747	.0102512	.1232703
SDev	.000525	.000291	.0011908	.0008521	.0007001
%RSD	57.15982	23.26367	20.26913	8.312424	.5678972

#1	-.000547	-.001456	.0050328	.0096487	.1227753
#2	-.001290	-.001045	.0067167	.0108538	.1237653

Method: EPA Sample Name: IC5A
 Run Time: 03/30/99 10:15:51
 Comment:
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2285	Ce3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	453.0763	L-.004696	-.002650	.0009123	.0031842	428.7566	.0011689
SDev	.7044	.002690	.000038	.0002387	.0003747	.5436	.0006645
%RSD	.1554726	57.29287	1.419196	26.15953	11.94322	.0801500	56.84306

#1	453.5744	-.002793	-.002676	.0010811	.0028992	428.5136	.0006991
#2	452.5782	L-.006598	-.002623	.0007436	.0034291	428.9996	.0016388

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.000121	.0010474	183.6197	490.2413	-.003337	-.000232	-.022956
SDev	.000382	.0002270	.1714	.5396	.000040	.000823	.004219
%RSD	314.0482	21.67329	.0933646	.1100657	1.205504	354.0344	18.37869

#1	-.000391	.0012079	183.7409	490.6229	-.003365	-.000814	-.019973
#2	.0001483	.0008869	183.4984	489.8598	-.003308	.0003495	-.025939

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.000714	-.008457	.0030728	-.002066	-.004652	-.000869	.0016978
SDev	.000631	.026845	.0000042	.000721	.000016	.001956	.0025683
%RSD	88.42135	317.4248	.1362176	34.87682	.3466776	225.2203	151.2683

#1	-.001160	.0105252	.0030758	-.002576	-.004664	-.002252	.0035139
#2	-.000267	-.027439	.0030698	-.001557	-.004641	.0005146	-.000118

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0066921	-.000042	-.003384	-.003422	-.003208	-.005556	-.004696
SDev	.0053054	.000424	.000069	.003780	.000308	.001185	.000171
%RSD	79.27790	1019.497	2.042716	110.4730	9.610550	21.33585	3.639868

#1	.0029406	-.000341	-.003433	-.000749	-.002990	-.004718	-.004575
#2	.0104436	.0002580	-.003335	-.006094	-.003426	-.006394	-.004817

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	.0000901	.0084281	.0037248	-.002114	.0020625
SDev	.0041164	.0000262	.0020444	.002394	.0010655
%RSD	4570.094	.3113219	54.88710	113.2734	51.66071

#1	-.002821	.0084095	.0022792	-.000421	.0028159
#2	.0030008	.0084466	.0051704	-.003807	.0013090

Method: EPA

Sample Name: ICSAB

Operator: LKM

Run Time: 03/30/99 10:19:54

Comment:

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	465.9533	.0957684	.5274040	.5032370	.9805108	440.0832	.5003264
SDev	1.0386	.0013127	.0002196	.0001337	.0008165	.5720	.0005086
%RSD	.2229085	1.370687	.0416351	.0265744	.0832740	.1299704	.1016593
#1	466.6877	.0948402	.5275593	.5033315	.9799334	440.4876	.5006860
#2	465.2189	.0966966	.5272487	.5031424	.9810882	439.6787	.4999667
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4848552	.5557720	188.1677	501.2544	.5066255	.9557743	-.008774
SDev	.0009422	.0000934	.0697	.5560	.0004672	.0040001	.000531
%RSD	.1943333	.0168050	.0370590	.1109193	.0922093	.4185209	6.052878
#1	.4855215	.5557059	188.2170	501.6475	.5069559	.9586028	-.009150
#2	.4841890	.5558380	188.1184	500.8612	.5062952	.9529458	-.008399
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.1784148	-.034911	.0960434	.5063587	1.045112	.6293933	.6283161
SDev	.0005626	.020618	.0071353	.0014487	.000406	.0067274	.0047179
%RSD	.3153429	59.05988	7.429190	.2860959	.0388758	1.068877	.7508829
#1	.1788126	-.020331	.0909980	.5073831	1.045400	.6246363	.6316522
#2	.1780170	-.049490	.1010888	.5053344	1.044825	.6341503	.6249800
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mn2020	Si2881
Units					ppm	ppm	ppm
Avge	.0427017	.0528680	.0447907	.0569745	-.003610	-.006395	.0137617
SDev	.0080009	.0005792	.0031972	.0003928	.000740	.000847	.0002207
%RSD	18.73661	1.095549	7.138037	.6894514	20.49174	13.23800	1.604060
#1	.0370442	.0524585	.0470514	.0572522	-.004133	-.006994	.0136056
#2	.0483592	.0532776	.0425299	.0566967	-.003087	-.005797	.0139178
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.002766	.0086139	.0510034	.0542098	.6298913		
SDev	.001896	.0000919	.0030465	.0012227	.0009099		
%RSD	68.51694	1.066669	5.973034	2.255420	.1444615		
#1	-.001426	.0086788	.0488493	.0550744	.6305348		
#2	-.004107	.0085489	.0531576	.0533453	.6292479		

Method: EPA

Sample Name: CCV

Operator: LKM

Run Time: 03/30/99 10:23:57

Comment:

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.206380	1.010440	4.866347	.1241954	.5072003	12.61655	.4992327
SDev	.023603	.002586	.001005	.0001078	.0005836	.01960	.0002216
%RSD	.4533394	.2558827	.0206545	.0867784	.1150562	.1553405	.0443940

#1	5.189690	1.008611	4.865637	.1242716	.5076129	12.60270	.4990760
#2	5.223069	1.012268	4.867058	.1241192	.5067877	12.63041	.4993894

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.250293	.6264734	2.538034	12.42775	1.254218	1.254147	12.58714
SDev	.002810	.0009698	.024274	.02007	.000941	.001847	.02965
%RSD	.2247620	.1547961	.9564253	.1615259	.0749908	.1472951	.2355348

#1	1.252280	.6257877	2.555198	12.41356	1.253553	1.252840	12.56618
#2	1.248306	.6271592	2.520869	12.44194	1.254883	1.255453	12.60811

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.6273205	12.47114	1.013131	1.247415	1.273069	1.007357	1.013871
SDev	.0011240	.07920	.002215	.000601	.003507	.005854	.000675
%RSD	.1791770	.6350419	.2186028	.0481605	.2754394	.5811694	.0666204

#1	.6265258	12.41514	1.011565	1.247840	1.270590	1.011497	1.013393
#2	.6281154	12.52714	1.014697	1.246990	1.275548	1.003217	1.014349

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	1.014962	1.014225	1.010723	1.005504	2.497231	2.506868	2.496274
SDev	.004621	.002443	.000884	.002672	.004483	.001788	.007236
%RSD	.4552779	.2408487	.0874860	.2656980	.1795219	.0713121	.2898629

#1	1.011694	1.012497	1.011348	1.003615	2.494060	2.505604	2.491157
#2	1.018229	1.015952	1.010098	1.007393	2.500401	2.508132	2.501390

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.512080	2.519423	1.015862	1.008357	1.012816
SDev	.007048	.001301	.003170	.001489	.001498
%RSD	.2805696	.0516585	.3120121	.1476457	.1478778

#1	2.507096	2.518502	1.013621	1.007304	1.013875
#2	2.517064	2.520343	1.018103	1.009409	1.011757

Method: EPA Sample Name: CCB

Operator: LKM

Run Time: 03/30/99 10:27:59

Comment:

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0539610	.0005839	.0001080	.0000174	.0001152	.0692238	-.000416
SDev	.0036252	.0011947	.0000996	.0000310	.0001489	.0040864	.000315
%RSD	6.718211	204.6092	92.22651	178.3292	129.2472	5.903116	75.55861

#1	.0565244	-.000261	.0000376	.0000393	.0000099	.0721132	-.000639
#2	.0513976	.0014287	.0001785	-.000005	.0002206	.0663343	-.000194

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.0000026	.0002273	.0288710	.0559352	.0001184	.0003574	-.009850
SDev	.0001159	.0000021	.0010540	.0004518	.0000003	.0001480	.005803
%RSD	4550.360	.9170512	3.650877	.8076376	.2404229	41.42272	58.90924

#1	-.000079	.0002288	.0296163	.0562546	.0001186	.0004621	-.005747
#2	.0000845	.0002258	.0281257	.0556157	.0001182	.0002527	-.013954

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	-.000288	.0024886	.0036391	-.000308	-.000066	.0027882	.0005705
SDev	.000066	.0053168	.0004847	.000284	.000063	.0028859	.0002222
%RSD	23.04263	213.6423	13.32060	92.06866	94.46404	103.5023	38.94656

#1	-.000335	.0062482	.0032963	-.000509	-.000111	.0048288	.0004134
#2	-.000241	-.001271	.0039819	-.000107	-.000022	.0007476	.0007277

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	-.003624	-.001901	-.005549	-.001339	-.000566	-.001807	.0004076
SDev	.000942	.001388	.005376	.001497	.001422	.001523	.0011968
%RSD	25.99873	73.00182	96.87581	111.8280	251.2427	84.26350	293.6445

#1	-.004290	-.000920	-.009351	-.002398	.0004395	-.000730	-.000439
#2	-.002958	-.002883	-.001748	-.000280	-.001571	-.002884	.0012539

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	-.001823	-.000826	-.001175	-.001646	.0024039
SDev	.000311	.000659	.000516	.002788	.0008135
%RSD	17.03403	79.77741	43.93603	169.3689	33.84271

#1	-.001603	-.000360	-.000810	-.003618	.0029791
#2	-.002043	-.001292	-.001540	.0003253	.0018286

Analysis Report

Tue 03-30-99 10:36:00 AM

page 1

Method: EPA

Sample Name: PBW

Operator: LKM

Run Time: 03/30/99 10:32:01

Comment:

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0263067	-.001356	-.000362	.0000235	-.000083	.0226563	-.000374
SDev	.0027886	.000087	.000101	.0000241	.000177	.0037175	.000087
%RSD	10.60024	6.411377	27.86049	102.4834	213.9587	16.40833	23.14785
#1	.0282785	-.001417	-.000291	.0000065	.0000424	.0252850	-.000313
#2	.0243349	-.001294	-.000433	.0000405	-.000208	.0200276	-.000435
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000198	.0002705	.0046048	.0216545	-.000076	.0004265	-.010875
SDev	.000057	.0001259	.0000094	.0053977	.000069	.0010403	.002406
%RSD	28.68195	46.54515	.2042230	24.92621	91.40557	243.9284	22.12738
#1	-.000158	.0003595	.0045981	.0254712	-.000027	.0011620	-.009174
#2	-.000238	.0001815	.0046114	.0178378	-.000125	-.000309	-.012577
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000429	-.033054	.0010922	-.000814	-.000236	.0000913	-.000323
SDev	.000335	.103217	.0004289	.000142	.000060	.0010654	.000532
%RSD	77.93072	312.2642	39.27546	17.48295	25.46963	1166.647	164.6111
#1	-.000193	.0399310	.0013955	-.000914	-.000193	-.000662	-.000700
#2	-.000666	-.106040	.0007889	-.000713	-.000278	.0008446	.0000530
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.0005044	-.002154	-.002907	-.002721	-.004119	-.005002	.0004594
SDev	.0000228	.001436	.000342	.000230	.000317	.000114	.0016789
%RSD	4.518634	66.69179	11.77025	8.468799	7.706152	2.283026	365.4125
#1	.0004883	-.001138	-.002665	-.002884	-.003895	-.005083	.0016466
#2	.0005205	-.003169	-.003149	-.002558	-.004344	-.004922	-.000728
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.003921	-.002063	-.000031	-.001683	.0009149		
SDev	.000427	.000110	.000951	.000039	.0007092		
%RSD	10.88455	5.344581	3078.113	2.329799	77.52483		
#1	-.004223	-.001985	.0006416	-.001711	.0004133		
#2	-.003620	-.002141	-.000703	-.001655	.0014164		

Method: EPA Sample Name: LCSW

Operator: LKM

Run Time: 03/30/99 10:36:03

Comment:

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.040256	.1946167	.4913761	.1980398	.1992405	9.873545	.4931594
SDev	.035172	.0023480	.0045739	.0005390	.0009199	.032538	.0020995
%RSD	1.723904	1.206448	.9308268	.2721863	.4617125	.3295477	.4257336

#1	2.065126	.1962769	.4946103	.1984209	.1998910	9.896553	.4946440
#2	2.015385	.1929564	.4881419	.1976586	.1985900	9.850537	.4916748

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4935957	.5025368	2.009957	9.705013	.4975964	.4858745	9.613389
SDev	.0012295	.0061651	.010300	.082919	.0019579	.0005703	.108201
%RSD	.2490964	1.226799	.5124410	.8543904	.3934737	.1173781	1.125521

#1	.4944651	.5068962	2.017241	9.763645	.4989808	.4862778	9.689898
#2	.4927262	.4981774	2.002674	9.646380	.4962120	.4854713	9.536879

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.0497625	9.624668	.1942552	.4926472	.5162680	.1888155	.1965889
SDev	.0003923	.025663	.0010373	.0026680	.0020767	.0066868	.0039498
%RSD	.7882656	.2666383	.5339976	.5415727	.4022608	3.541468	2.009157

#1	.0500399	9.606522	.1935217	.4945338	.5177364	.1840872	.1993819
#2	.0494851	9.642815	.1949887	.4907607	.5147995	.1935438	.1937960

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avge	.4984636	.4913994	.1870815	.1881868	1.957074	.4860999	2.139440
SDev	.0098683	.0023686	.0035020	.0002431	.019250	.0050015	.025949
%RSD	1.979736	.4820134	1.871902	.1291929	.9836320	1.028909	1.212878

#1	.5054416	.4897245	.1895578	.1883587	1.970686	.4896365	2.157789
#2	.4914857	.4930742	.1846052	.1880149	1.943462	.4825633	2.121092

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avge	1.955866	.4937657	.4949482	.1889448	.1951264
SDev	.006124	.0032195	.0018176	.0013394	.0004189
%RSD	.3130932	.6520369	.3672268	.7088931	.2146693

#1	1.960196	.4960423	.4962335	.1898919	.1954226
#2	1.951536	.4914892	.4936630	.1879976	.1948302

Method: EPA Sample Name: 306389S
 Run Time: 03/30/99 10:48:08
 Comment:
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.282534	.1949557	.5563124	.1925225	.1975516	22.07599	.4852939
SDev	.000122	.0004223	.0005562	.0001518	.0001078	.03663	.0008298
%RSD	.0053253	.2166192	.0999819	.0788382	.0545526	.1659482	.1709952

#1	2.282448	.1946571	.5567058	.1924152	.1974754	22.05008	.4847071
#2	2.282620	.1952543	.5559192	.1926298	.1976279	22.10189	.4858807

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4893324	.4869404	2.055248	15.15090	.5313322	.4832786	15.78631
SDev	.0003056	.0010713	.044898	.01644	.0007006	.0001746	.01851
%RSD	.0624624	.2200041	2.184063	.1084770	.1318506	.0361225	.1172506

#1	.4891162	.4861828	2.023507	15.13928	.5308369	.4831551	15.77323
#2	.4895485	.4876979	2.086988	15.16253	.5318276	.4834020	15.79940

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0490796	43.07706	.1912648	.4842523	.5257251	.2029551	.2041746
SDev	.0001880	.02864	.0032898	.0013503	.0009017	.0019563	.0005564
%RSD	.3831239	.0664752	1.720025	.2788381	.1715215	.9639020	.2725126

#1	.0489466	43.05681	.1889386	.4832975	.5250875	.2015718	.2045680
#2	.0492125	43.09730	.1935911	.4852070	.5263627	.2043384	.2037812

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.4933996	.4985635	.1942095	.1938205	2.071191	.5029100	3.623811
SDev	.0044047	.0005889	.0050939	.0025322	.006214	.0031232	.006252
%RSD	.8927255	.1181187	2.622890	1.306485	.3000351	.6210272	.1725273

#1	.4902850	.4989800	.1906075	.1956110	2.066797	.5007016	3.619391
#2	.4965142	.4981471	.1978114	.1920299	2.075585	.5051184	3.628232

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.996498	.5082899	.4982279	.1950575	.2048760
SDev	.005679	.0014951	.0010745	.0000077	.0002808
%RSD	.2844329	.2941466	.2156669	.0039488	.1370345

#1	1.992483	.5072327	.4974681	.1950520	.2046775
#2	2.000514	.5093471	.4989877	.1950629	.2050745

Analysis Report

Tue 03-30-99 11:00:12 AM

page 1

Method: EPA Sample Name: 306389L
 Run Time: 03/30/99 10:56:13
 Comment:
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0573829	-.001409	.0151824	.0000100	-.000197	2.616457	.0003958
SDev	.0064385	.001022	.0000884	.0000167	.000034	.002147	.0002024
%RSD	11.22026	72.53516	.5825521	166.9518	17.35586	.0820754	51.13045
#1	.0619357	-.000686	.0152449	-.000002	-.000173	2.614938	.0005389
#2	.0528302	-.002131	.0151198	.0000218	-.000222	2.617975	.0002527
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002155	.0009634	.0414461	1.140672	.0089304	.0008335	1.262239
SDev	.0004000	.0001189	.0020833	.000306	.0000470	.0002632	.010220
%RSD	185.6201	12.33644	5.026594	.0268398	.5263776	31.57713	.8097009
#1	.0004984	.0008793	.0399730	1.140889	.0089636	.0006473	1.269466
#2	-.000067	.0010474	.0429192	1.140456	.0088971	.0010195	1.255012
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000217	6.630396	-.000150	-.000001	.0041187	-.002766	.0008448
SDev	.000100	.037338	.000369	.000427	.0001975	.002549	.0016985
%RSD	46.23013	.5631347	245.6856	45162.64	4.794792	92.14871	201.0565
#1	-.000146	6.656798	-.000411	.0003013	.0042583	-.004568	-.000356
#2	-.000288	6.603994	.0001108	-.000303	.0039790	-.000964	.0020458
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.0014068	-.001948	.0030679	-.003372	.0213703	-.003684	.3376953
SDev	.0004164	.000366	.0021363	.001275	.0017086	.001069	.0057524
%RSD	29.59964	18.78432	69.63361	37.80090	7.995105	29.00903	1.703439
#1	.0017013	-.002206	.0045785	-.002471	.0225785	-.002929	.3417629
#2	.0011124	-.001689	.0015573	-.004273	.0201622	-.004440	.3336277
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.0033595	-.000362	.0004720	-.000130	.0006708		
SDev	.0034572	.000149	.0000066	.001563	.0018833		
%RSD	102.9107	41.13738	1.408166	1197.841	280.7394		
#1	.0058041	-.000257	.0004673	.0009747	-.000661		
#2	.0009148	-.000467	.0004767	-.001236	.0020025		

Method: EPA Sample Name: CRI
 Run Time: 03/30/99 11:00:16
 Comment:
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	-.001550	.0195694	-.000693	.0099196	.0107076	.0044874	.0197855
SDev	.001044	.0012629	.000033	.0001206	.0004203	.0001098	.0000498
%RSD	67.37892	6.453645	4.825777	1.215571	3.925391	2.447287	.2515688

#1	-.000812	.0186764	-.000717	.0100048	.0110048	.0045651	.0198207
#2	-.002288	.0204625	-.000670	.0098343	.0104104	.0044098	.0197503

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.1001152	.0506781	-.031328	-.001484	.0302165	.0805643	-.007301
SDev	.0003188	.0005225	.037173	.000836	.0000268	.0000323	.002630
%RSD	.3184372	1.030933	118.6587	56.33447	.0886020	.0400599	36.01931

#1	.0998898	.0510475	L-.057614	-.002075	.0302355	.0805871	-.005442
#2	.1003406	.0503087	-.005042	-.000893	.0301976	.0805414	-.009161

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.0201175	.0101299	.0191444	.0993707	.0412323	.1199193	.1208002
SDev	.0004379	.0333112	.0015558	.0000838	.0000989	.0057884	.0002048
%RSD	2.176717	328.8399	8.126475	.0843609	.2398292	4.826927	.1695291

#1	.0198078	.0336844	.0180443	.0994300	.0413022	.1240123	.1206554
#2	.0204271	-.013425	.0202445	.0993115	.0411624	.1158263	.1209450

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avgc	.0053090	.0033694	.0063905	.0080399	-.002631	-.005540	.0087502
SDev	.0023207	.0001801	.0017600	.0047688	.000006	.000348	.0016799
%RSD	43.71360	5.345963	27.54079	59.31482	.2314047	6.290100	19.19877

#1	.0069500	.0032420	.0076350	.0114120	-.002627	-.005293	.0099381
#2	.0036680	.0034968	.0051460	.0046678	-.002636	-.005786	.0075623

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.0017339	-.002363	.0052668	.0086031	.1216193
SDev	.0020863	.000054	.0006610	.0037743	.0017983
%RSD	120.3243	2.277547	12.55035	43.87147	1.478674

#1	.0032091	-.002401	.0057342	.0112719	.1228909
#2	.0002587	-.002325	.0047994	.0059343	.1203477

Method: EPA Sample Name: ICSA
 Run Time: 03/30/99 11:04:18
 Comment:
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	451.4370	L-.009785	-.002895	.0006990	.0021945	427.5334	.0008347
SDev	4.3770	.000164	.000026	.0002623	.0002517	4.1552	.0002947
%RSD	.9695784	1.672472	.8838930	37.51707	11.47023	.9718910	35.30815
#1	448.3420	L-.009669	-.002877	.0008844	.0023724	424.5953	.0006263
#2	454.5321	L-.009900	-.002913	.0005136	.0020165	430.4716	.0010431
Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000514	.0007269	182.4029	484.7719	-.003741	-.000860	-.019909
SDev	.000435	.0003661	1.8882	4.2286	.000202	.001600	.004014
%RSD	84.69666	50.36049	1.035169	.8722805	5.411799	185.9485	20.16141
#1	-.000822	.0004680	181.0678	481.7819	-.003884	.0002709	-.022747
#2	-.000206	.0009857	183.7381	487.7620	-.003598	-.001991	-.017071
Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000658	.1006229	-.000873	-.003471	-.004891	.0196457	-.006313
SDev	.000184	.0659954	.002668	.000772	.000139	.0034495	.001515
%RSD	27.90754	65.58689	305.7016	22.23936	2.837891	17.55863	24.00493
#1	-.000528	.1472887	-.002759	-.004017	-.004989	.0220848	-.007384
#2	-.000788	.0539571	.0010138	-.002925	-.004793	.0172065	-.005241
Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	-.009228	.0075740	-.027918	.0080948	-.004424	-.007825	-.008463
SDev	.006509	.0013351	.013937	.0016379	.000124	.001196	.001073
%RSD	70.53359	17.62708	49.92070	20.23429	2.814379	15.27880	12.68046
#1	-.013831	.0085181	-.037773	.0069366	-.004336	-.008670	-.007704
#2	-.004626	.0066300	-.018063	.0092529	-.004512	-.006979	-.009222
Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.009049	.0080169	.0034796	-.002697	.0035320		
SDev	.003662	.0002160	.0012860	.005741	.0001307		
%RSD	40.47311	2.693978	36.95919	212.8572	3.700743		
#1	-.011638	.0081696	.0025702	L-.006756	.0036244		
#2	-.006459	.0078642	.0043889	.0013623	.0034395		

Method: EPA

Sample Name: ICSAB

Operator: LKM

Run Time: 03/30/99 11:08:21

Comment:

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	471.5092	.1007444	.5346737	.5078080	.9897106	444.7042	.5061868
SDev	9.3899	.0116673	.0106301	.0080173	.0167454	6.8759	.0081733
%RSD	1.991461	11.58108	1.988141	1.578805	1.691954	1.546180	1.614678

#1	478.1489	.1089944	.5421902	.5134771	1.001551	449.5662	.5119662
#2	464.8695	.0924944	.5271571	.5021389	.9778697	439.8422	.5004074

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4897819	.5611850	189.6882	504.3309	.5119314	.9659564	-.019446
SDev	.0085427	.0121836	2.9337	8.7273	.0089449	.0170557	.004878
%RSD	1.744189	2.171049	1.546586	1.730465	1.747287	1.765683	25.08495

#1	.4958225	.5698001	191.7626	510.5020	.5182564	.9780167	-.015997
#2	.4837413	.5525699	187.6138	498.1598	.5056064	.9538962	-.022895

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.1799717	-.032205	.0942968	.5133933	1.053965	.6065041	.6487819
SDev	.0034554	.012341	.0001295	.0102846	.016495	.0375635	.0259783
%RSD	1.919985	38.31952	.1372836	2.003266	1.565020	6.193440	4.004160

#1	.1824150	-.040931	.0942053	.5206656	1.065628	.5799427	.6671513
#2	.1775283	-.023479	.0943883	.5061209	1.042301	.6330655	.6304125

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mo2020	Si2881
Units					ppm	ppm	ppm
Avg	.0577985	.0462660	.0528350	.0414053	-.003992	-.004142	.0124298
SDev	.0163841	.0064883	.0311724	.0143766	.000457	.003600	.0062015
%RSD	28.34700	14.02389	58.99963	34.72166	11.43790	86.92892	49.89266

#1	.0693838	.0416781	.0748772	.0312395	-.004314	-.001596	.0168149
#2	.0462131	.0508539	.0307927	.0515711	-.003669	-.006687	.0080446

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	.0031904	.0086088	.0516383	.0464370	.6359289
SDev	.0080163	.0000969	.0011553	.0008129	.0048406
%RSD	251.2661	1.125681	2.237375	1.750588	.7611803

#1	.0088588	.0086774	.0524553	.0470118	.6393517
#2	-.002478	.0085403	.0508214	.0458622	.6325061

Method: EPA

Sample Name: CCV

Operator: LKM

Run Time: 03/30/99 11:12:24

Comment:

Mode: CONC Corr. Factor: 1

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.268321	1.000216	4.839627	.1240045	.5054151	12.70154	.4988737
SDev	.018313	.000936	.005644	.0000766	.0002519	.00001	.0005679
%RSD	.3476119	.0935753	.1166199	.0617735	.0498425	.0000850	.1138422

#1	5.281271	1.000878	4.843618	.1240586	.5055932	12.70154	.4992752
#2	5.255372	.9995539	4.835637	.1239503	.5052370	12.70153	.4984721

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.246780	.6220350	2.566676	12.46484	1.251020	1.255104	12.53470
SDev	.000024	.0015243	.004680	.00620	.001118	.003233	.01860
%RSD	.0019201	.2450478	.1823364	.0497180	.0893661	.2575883	.1483551

#1	1.246763	.6231128	2.569986	12.46922	1.251810	1.257390	12.54785
#2	1.246797	.6209571	2.563367	12.46046	1.250229	1.252817	12.52155

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.6259208	12.34994	1.007238	1.244873	1.271695	1.003996	1.003617
SDev	.0007225	.11877	.007624	.000267	.000717	.001891	.001605
%RSD	.1154337	.9617361	.7569658	.0214852	.0563949	.1883854	.1599420

#1	.6264317	12.26596	1.012630	1.245062	1.272202	1.002658	1.004752
#2	.6254099	12.43393	1.001847	1.244684	1.271188	1.005333	1.002482

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mn2020	Si2881
Units					ppm	ppm	ppm
Avg	1.006870	1.007650	1.005395	1.008626	2.491801	2.492431	2.484399
SDev	.002145	.001252	.006308	.007334	.007089	.002225	.001721
%RSD	.2130553	.1242593	.6274435	.7270917	.2845106	.0892777	.0692631

#1	1.005353	1.006765	1.000935	1.003440	2.496814	2.494004	2.485616
#2	1.008387	1.008535	1.009856	1.013812	2.486788	2.490858	2.483183

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.512965	2.517319	1.008777	1.008661	1.004853
SDev	.002274	.000931	.001548	.006991	.000442
%RSD	.0904870	.0369881	.1534167	.6930706	.0440237

#1	2.514573	2.517978	1.007682	1.003717	1.005166
#2	2.511357	2.516661	1.009871	1.013604	1.004541

Method: EPA Sample Name: CCB
 Run Time: 03/30/99 11:16:27
 Comment:
 Mode: CONC Corr. Factor: 1

Operator: LKM

Elem	Al3082	As1890	Ba4934	Be3130	Cd2265	Ca3179	Cr2677
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0427997	.0003493	-.000067	.0000570	.0000491	.0444322	-.000459
SDev	.0110779	.0018750	.000021	.0000586	.0000804	.0063039	.000208
%RSD	25.88304	536.7855	31.52864	102.8861	163.7897	14.18760	45.31078

#1	.0506330	.0016752	-.000052	.0000155	-.000008	.0488897	-.000312
#2	.0349665	-.000977	-.000082	.0000984	.0001059	.0399747	-.000606

Elem	Co2296	Cu3247	Fe2714	Mg2790	Mn2576	Ni2316	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000888	-.000039	.0237040	.0422926	-.000031	.0003691	-.008661
SDev	.0003353	.000572	.0042390	.0094775	.000007	.0001335	.010372
%RSD	377.4410	1464.043	17.88302	22.40937	23.15158	36.17406	119.7558

#1	.0003259	.0003653	.0267014	.0489942	-.000026	.0002747	-.001327
#2	-.000148	-.000443	.0207065	.0355910	-.000037	.0004635	-.015995

Elem	Ag3280	Na3302	Tl1908	V_2924	Zn2138	2068-1	2068-2
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.000446	-.013439	.0004092	-.000414	.0000503	.0013290	.0012946
SDev	.000493	.138929	.0025058	.000156	.0001639	.0009695	.0000637
%RSD	110.5109	1033.740	612.3174	37.67233	325.7384	72.94443	4.920037

#1	-.000097	.0847979	.0021811	-.000304	.0001662	.0020146	.0013396
#2	-.000795	-.111677	-.001363	-.000525	-.000066	.0006435	.0012495

Elem	2203-1	2203-2	1960-1	1960-2	B_2496	Mn2020	Si2881
Units					ppm	ppm	ppm
Avg	-.003467	-.002383	-.001197	-.000277	-.001300	-.001932	-.000309
SDev	.003849	.000598	.002348	.002723	.002638	.002585	.003556
%RSD	111.0218	25.10949	196.2148	984.0467	202.9350	133.8245	1150.918

#1	-.006189	-.001960	.0004636	.0016485	.0005654	-.000104	.0022057
#2	-.000745	-.002806	-.002857	-.002202	-.003165	-.003760	-.002824

Elem	Sn1899	Ti3349	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.001943	-.001057	-.001530	.0005649	.0023161
SDev	.002145	.000858	.000846	.0027282	.0003009
%RSD	110.3666	81.22414	55.25947	482.9709	12.98990

#1	-.000427	-.000450	-.002128	.0024940	.0025289
#2	-.003460	-.001663	-.000932	-.001364	.0021034

*** Standard: 1 Rep: 1 Seq: 0 11:26:11 24 Mar 1999 HG

Hg .000 ppb 1876
Ave. Int. = 1876 S. D. = 0

*** Standard: 1 Rep: 1 Seq: 1 11:28:40 24 Mar 1999 HG

Hg .000 ppb 945
Ave. Int. = 945 S. D. = 0

*** Standard: 2 Rep: 1 Seq: 2 11:31:09 24 Mar 1999 HG

Hg .200 ppb 7983
Ave. Int. = 7983 S. D. = 0

*** Standard: 3 Rep: 1 Seq: 3 11:33:38 24 Mar 1999 HG

Hg .500 ppb 14385
Ave. Int. = 14385 S. D. = 0

*** Standard: 4 Rep: 1 Seq: 4 11:36:07 24 Mar 1999 HG

Hg 1.00 ppb 32509
Ave. Int. = 32509 S. D. = 0

*** Standard: 5 Rep: 1 Seq: 5 11:38:36 24 Mar 1999 HG

Hg 5.00 ppb 153372
Ave. Int. = 153372 S. D. = 0

*** Standard: 6 Rep: 1 Seq: 6 11:41:06 24 Mar 1999 HG

Hg 10.0 ppb 295333
Ave. Int. = 295333 S. D. = 0

X
d

Protocol: HCC M07FDC
 1100001: INU W111110

 Rev: 3.001 Time: 11:41:12 24 Mar 1999

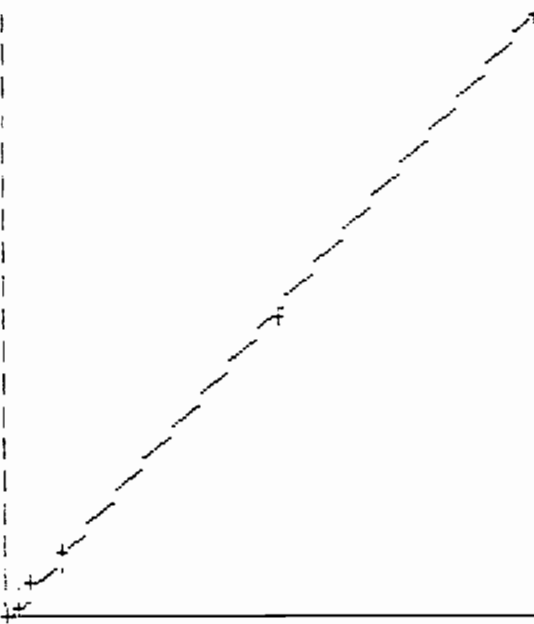
 Folder: 032499B Seq: 7 Print: On

 User: n.111 13: 0130...4 0...: 4 32 0...: 0 30 INU
 date: 10: 0100ep1 Cap: 1 32 0dS: 0.30 LFN

 State: Idle Macro: 00124C 51: F2 Print Ymit: Off Autoexplan: On
 0000: 1010 0010: 000000 02: 10 1110V 0010: 011 0000mp101: 00

CALIBRATION: Line Calibration

Line: Hg	Conc.	Calc.	Dev.	Linear	Not Accepted
R1	0.00	0.00	0.00	Quadratic	
R2	0.00	0.00	0.00	Quadratic	
R3	0.00	0.00	0.00	Quadratic	
R4	0.00	0.00	0.00	Quadratic	
R5	0.00	0.00	0.00	Quadratic	
R6	0.00	0.00	0.00	Quadratic	
R7	0.00	0.00	0.00	Quadratic	
R8	0.00	0.00	0.00	Quadratic	
R9	0.00	0.00	0.00	Quadratic	
R10	0.00	0.00	0.00	Quadratic	
R11	0.00	0.00	0.00	Quadratic	
R12	0.00	0.00	0.00	Quadratic	
R13	0.00	0.00	0.00	Quadratic	
R14	0.00	0.00	0.00	Quadratic	
R15	0.00	0.00	0.00	Quadratic	
R16	0.00	0.00	0.00	Quadratic	
R17	0.00	0.00	0.00	Quadratic	
R18	0.00	0.00	0.00	Quadratic	
R19	0.00	0.00	0.00	Quadratic	
R20	0.00	0.00	0.00	Quadratic	
R21	0.00	0.00	0.00	Quadratic	
R22	0.00	0.00	0.00	Quadratic	
R23	0.00	0.00	0.00	Quadratic	
R24	0.00	0.00	0.00	Quadratic	
R25	0.00	0.00	0.00	Quadratic	
R26	0.00	0.00	0.00	Quadratic	
R27	0.00	0.00	0.00	Quadratic	
R28	0.00	0.00	0.00	Quadratic	
R29	0.00	0.00	0.00	Quadratic	
R30	0.00	0.00	0.00	Quadratic	



Line	Mean	SD	Mean	SD
R1	945	0	945	0
R2	7983	0	7983	0
R3	44705	0	44705	0
R4	17305	0	17305	0
R5	37500	0	37500	0
R6	153372	0	153372	0
R7	295333	0	295333	0

Relative Abundance

11:44:02 24 Mar 1999

Folder: 032499B
Protocol: HGS

WATERS

Page 5

Line	Wave.	Conc.	Units	SD/RSD	1	2	3	4	5
***		Sample ID: ICV			Seq: 7	11:44:02 24 Mar 1999 HG			
Hg		4.09	ppb	.000 %	4.09				
***		Sample ID: ICB			Seq: 8	11:46:25 24 Mar 1999 HG			
Hg		-0.056	ppb	.000 %	-0.056				
***		Sample ID: CCV			Seq: 9	11:48:48 24 Mar 1999 HG			
Hg		5.18	ppb	.000 %	5.18				
***		Sample ID: CCB			Seq: 10	11:51:13 24 Mar 1999 HG			
Hg		-0.044	ppb	.000 %	-0.044				
***		Sample ID: CRA			Seq: 11	11:53:36 24 Mar 1999 HG			
Hg		.169	ppb	.000 %	.169				
***		Sample ID: PBW			Seq: 12	11:55:59 24 Mar 1999 HG			
Hg		-0.031	ppb	.000 %	-0.031				
***		Sample ID: PBWD			Seq: 13	11:58:23 24 Mar 1999 HG			
Hg		-0.034	ppb	.000 %	-0.034				
***		Sample ID: LCSS			Seq: 14	12:00:47 24 Mar 1999 HG			
Hg		4.03	ppb	.000 %	4.03				
***		Sample ID: LCSSD			Seq: 15	12:03:11 24 Mar 1999 HG			
Hg		4.06	ppb	.000 %	4.06				
***		Sample ID: 306389			Seq: 16	12:05:35 24 Mar 1999 HG			
Hg		-0.023	ppb	.000 %	-0.023				
***		Sample ID: 306389D			Seq: 17	12:07:59 24 Mar 1999 HG			
Hg		-0.002	ppb	.000 %	-0.002				
***		Sample ID: 306389S			Seq: 18	12:10:22 24 Mar 1999 HG			
Hg		4.07	ppb	.000 %	4.07				

Line	Wave.	Conc.	Units	SD/RSD	1	2	3	4	5
------	-------	-------	-------	--------	---	---	---	---	---

*** Check Standard: 2 Ck2 Seq: 19 12:13:48 24 Mar 1999 HG
Line Wave. Flag %Rcv. Found True Units SD/RSD
Hg 105. 5.23 5.00 ppb .000 %

*** Check Standard: 1 Ck1 Seq: 20 12:15:15 24 Mar 1999 HG
Line Wave. Flag Found Range(+/-) Units SD/RSD
Hg -.065 .500 ppb .000 %

*** Sample ID: 306389SD Seq: 21 12:17:39 24 Mar 1999 HG
Hg 4.08 ppb .000 % 4.08

*** Check Standard: 2 Ck2 Seq: 22 12:20:03 24 Mar 1999 HG
Line Wave. Flag %Rcv. Found True Units SD/RSD
Hg 103. 5.17 5.00 ppb .000 %

*** Check Standard: 1 Ck1 Seq: 23 12:22:30 24 Mar 1999 HG
Line Wave. Flag Found Range(+/-) Units SD/RSD
Hg -.066 .500 ppb .000 %

ANALab, Inc. - Randolph Facility
 1152 Route 10
 Randolph, NJ 07869
 973-584-0330, FAX: 973-584-0515
 MARCH 19, 1999

Certified for: NJ, PA, DE, CT, NY(DOH)
 NJ #14116 NY #11376
 US EPA CLP Lab

Quality Assurance Data - Blanks, Spikes and Duplicates

Batch Number: QA9459

Associated Samples: 306389
 306389S/SD

Matrix: Aqueous Units: mg/L

BLANK

Parameter	Method Blank	Method Detection Limit	Analysis Date
Petroleum Hydrocarbons	U	0.5	03/17/99

DUPLICATE RECOVERY

Parameter	Lab Number	Result mg/l	Duplicate Result mg/l	RPD	QC Limits RPD	Minimum Detection Limit mg/l	Method Blank Analysis mg/l
Petroleum Hydrocarbons	306389S	10	10	0	+/-20%	0.5	U

SPIKE RECOVERY

Parameter	Lab Number	Result mg/l	Amount Added mg/l	Conc. Matrix Spike mg/l	% Spike Rec.	QC Limit % Spike Recovery	Minimum Detection Limit mg/l	Method Blank Analysis mg/l
Petroleum Hydrocarbons	306389	U	10	10	100	75-125	0.5	U

N=Negative
 P=Positive
 * = Values are outside QC Limits
 U = Not detected
 < = Less than
 > = Greater than
 NC= Non calculable RPD due to value(s) less than the detection limit
 NA= Not Applicable
 ++= No Flash-sample boiled at 100C

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 SWE

* Test Method for *
 * of Polycyclic Hydrocarbons *
 * in Water and Soil *
 * Perkin-Elmer Model 1600 FI IR *
 * Calibration Report *

99700.1 mg/l

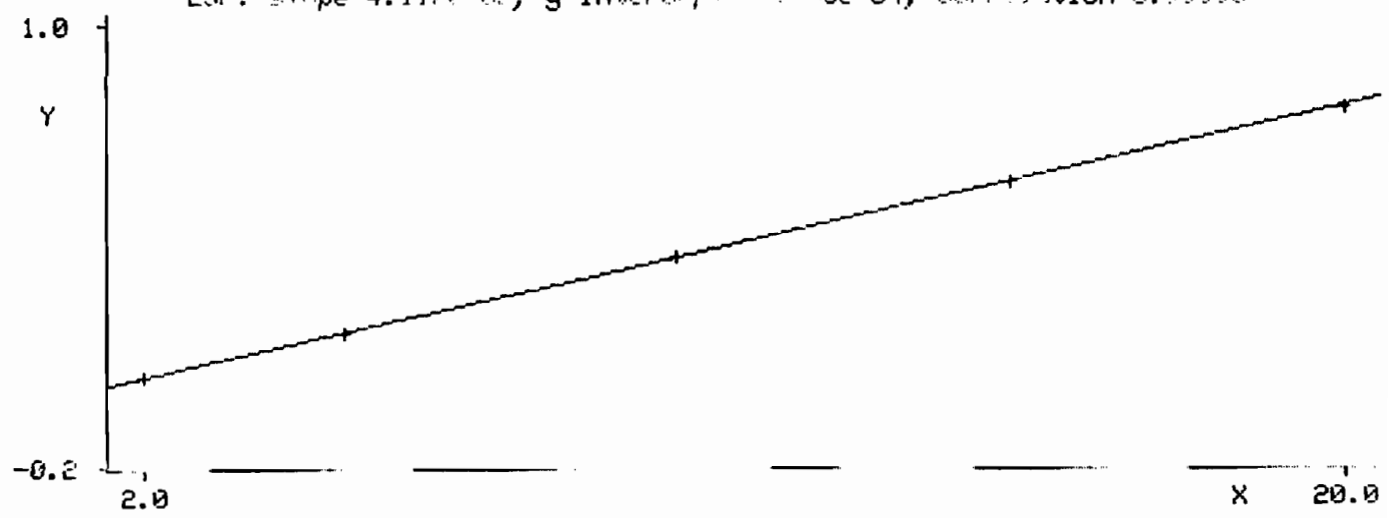
* Concentration of standard, mg/100 ml

20.000
 15.000
 10.000
 5.000
 2.000

* Net absorbance of standards

0.821
 0.617
 0.416
 0.209
 0.081

LSF: slope 4.117e-03; y-intercept: 5.140e-04; correlation 0.99996



```

*                               *****
*                               Test Method 1
*                               Petroleum Hydrocarbons
*                               in Water (ref. 9)
*                               Perkin-Elmer Model 1600 FT-IR
*                               Analysis Report
*                               *****

```

99/03/17 10:46

* Sample identification
ICV

* Initial volume of sample, g or ml
100.000

* Percent Moisture
100.000

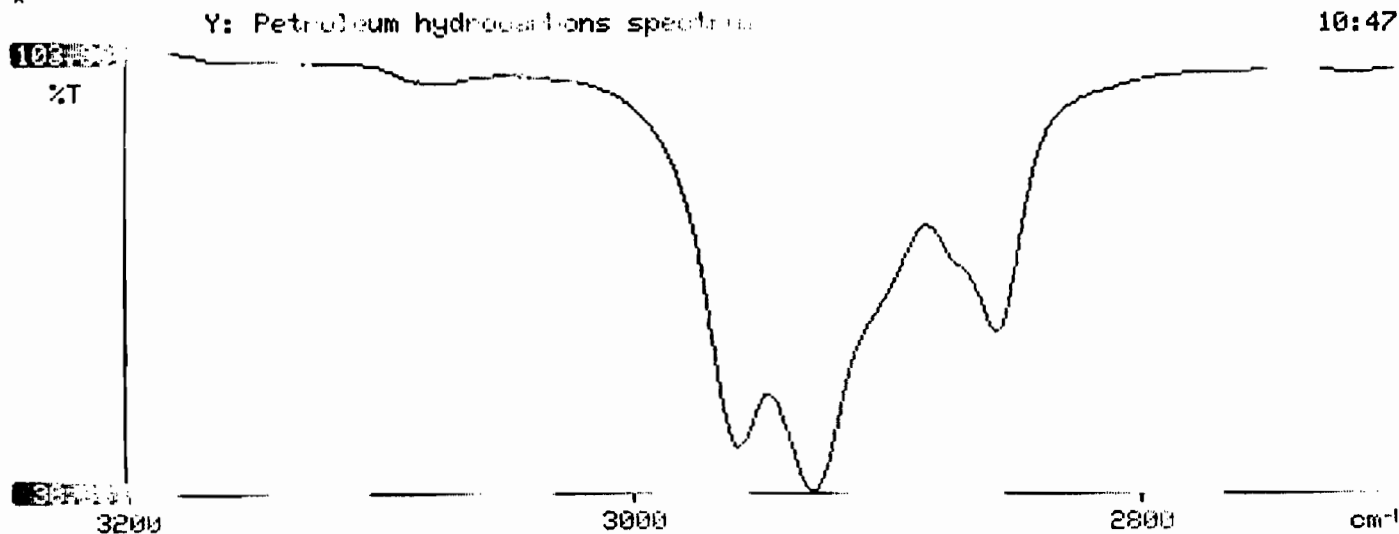
* Dilution factor
1.000

* Volume of sample after extraction, ml
100.000

* Petroleum hydrocarbons, ppm
102.229

* Net absorbance of hydrocarbons (2930 cm⁻¹)
0.420

*
*
*



 * Test Method for *
 * of Petroleum Hydrocarbons *
 * in Water and Soil *
 * Perkin Elmer Model 1600 FT-IR *
 * Analysis Report *

99/03/17 10:48

* Sample identification
 ICB

* Initial volume of sample, g or ml
 100.000

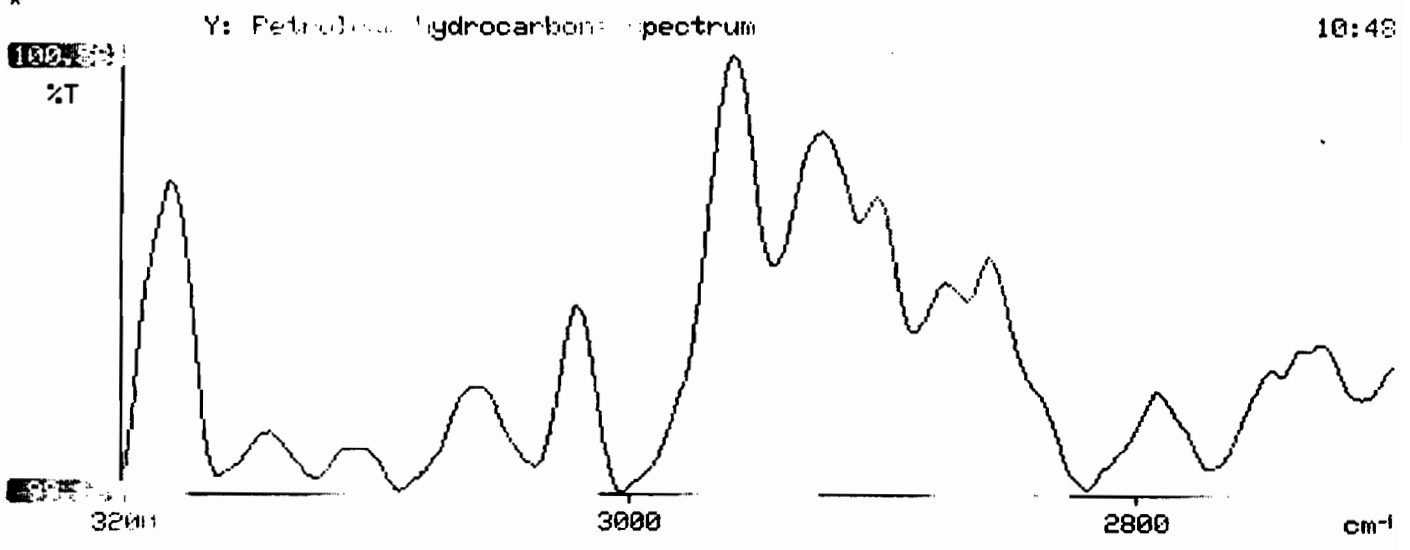
* Percent Moisture
 100.000

* Dilution factor
 1.000

* Volume of sample after extraction, ml
 100.000

* Petroleum hydrocarbons, ppm
 -0.507

* Net absorbance of hydrocarbons (2930 cm⁻¹)
 -0.003



```

*                               *****
*                               Test Method for                               *
*                               Petroleum Hydrocarbons                       *
*                               in Water and Soil                             *
*                               Perkin-Elmer Model 1600 FT IR                 *
*                               Analytical Report                             *
*                               *****

```

99/03/17 10:49

* Sample identification
CCV

* Initial volume of sample, g or ml
100.000

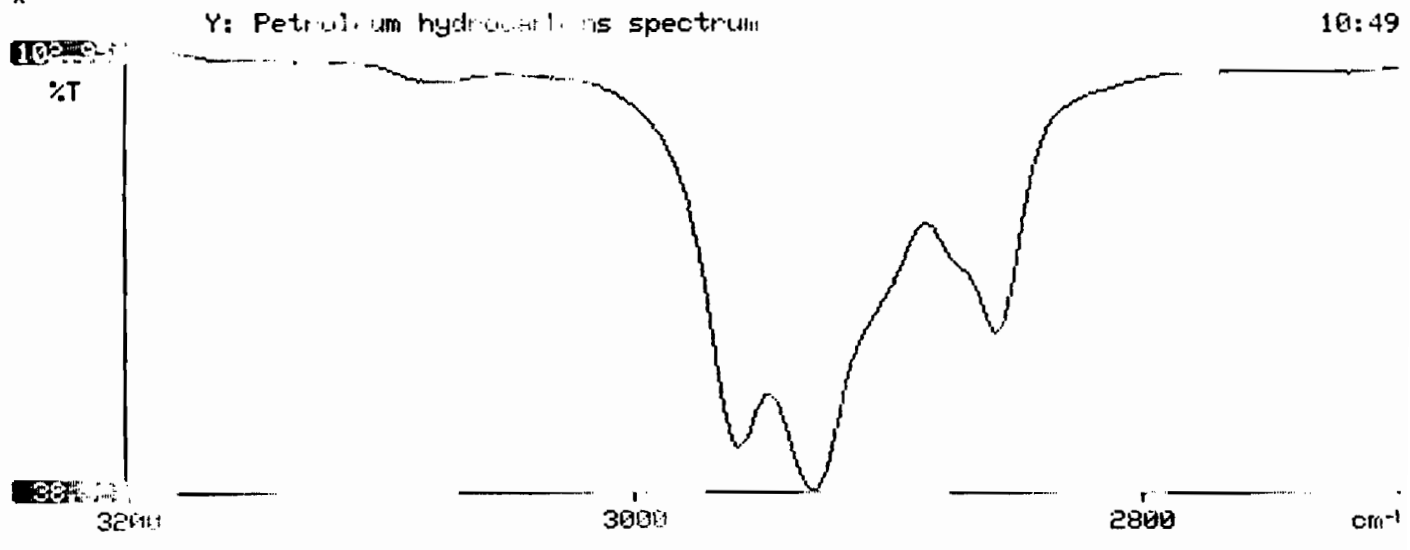
* Percent Moisture
100.000

* Dilution factor
1.000

* Volume of sample after extraction, ml
100.000

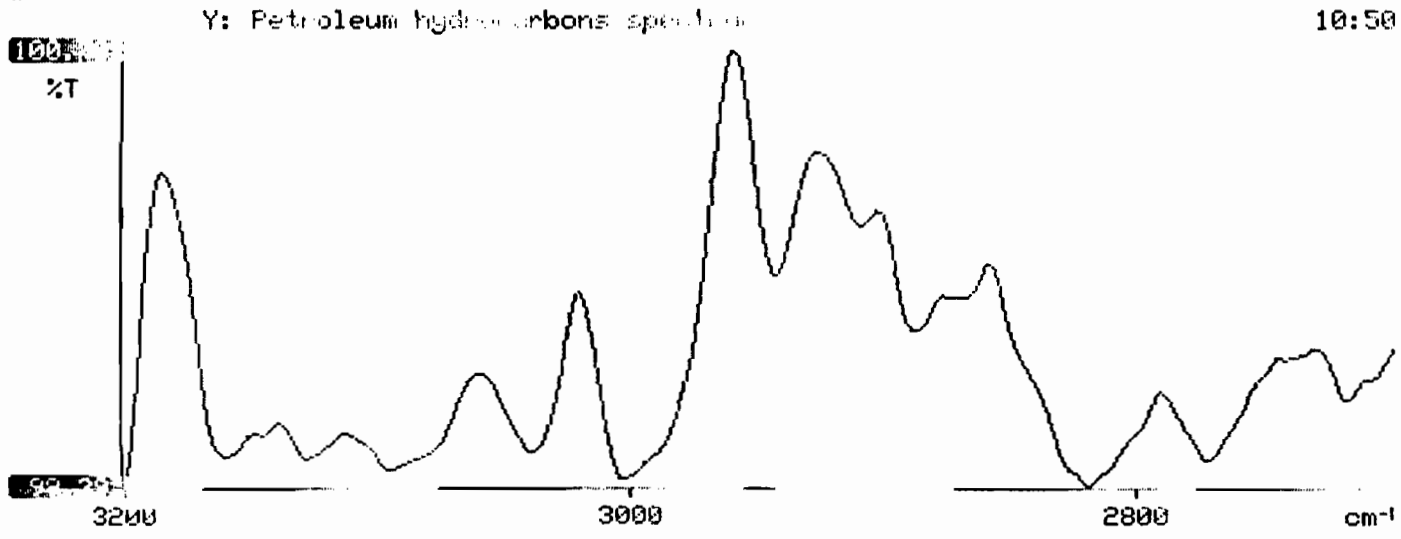
* Petroleum hydrocarbons, ppm
102.074

* Net absorbance of hydrocarbons (2900 cm⁻¹)
0.420



 * Test Method for *
 * Petroleum Hydrocarbons *
 * in Water and Soil *
 * Perkin-Elmer Model 1600 FT IR *
 * Analysis Report *

* 99703.1 10:50
 * Sample identification
 CCB
 * Initial volume of sample, g or ml
 100.000
 * Percent Moisture
 100.000
 * Dilution factor
 1.000
 * Volume of sample after extraction, ml
 100.000
 * Petroleum hydrocarbons, ppm
 -0.458
 * Net absorbance of hydrocarbons (2930 cm-1)
 -0.002
 *
 *
 *



```

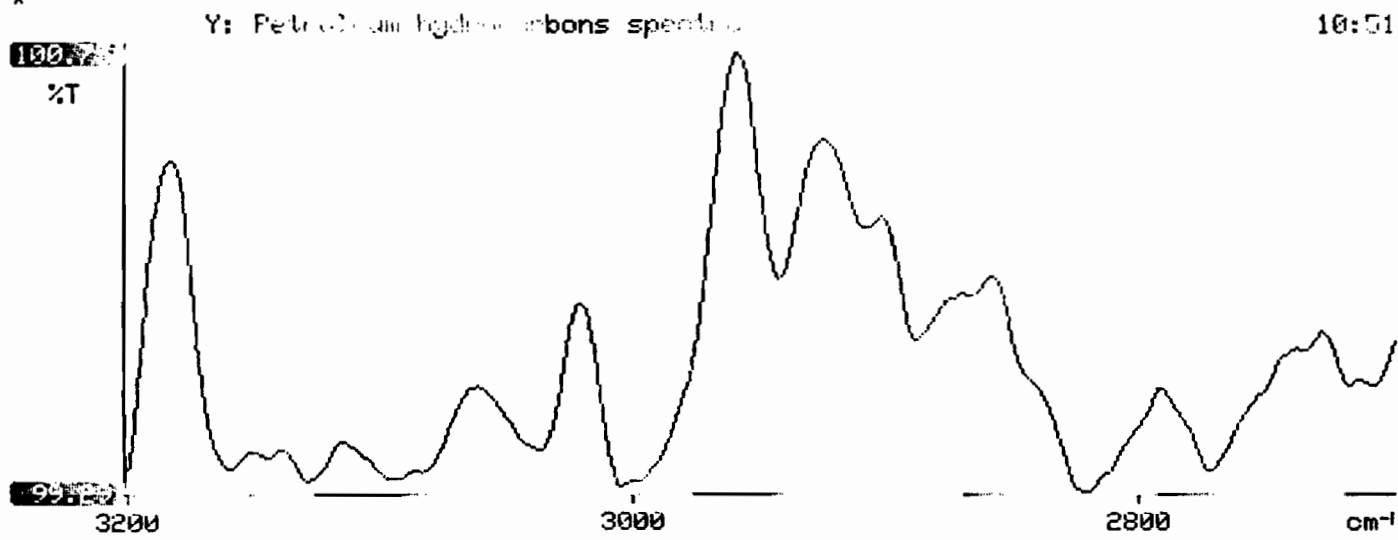
*                               Test Method for          ****
*                               Petroleum Hydrocarbons    *
*                               in Water (ASTM D153)     *
*                               Perkin-Elmer Model 1600 FT/IR *
*                               Analytical Report        *
*XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

```

```

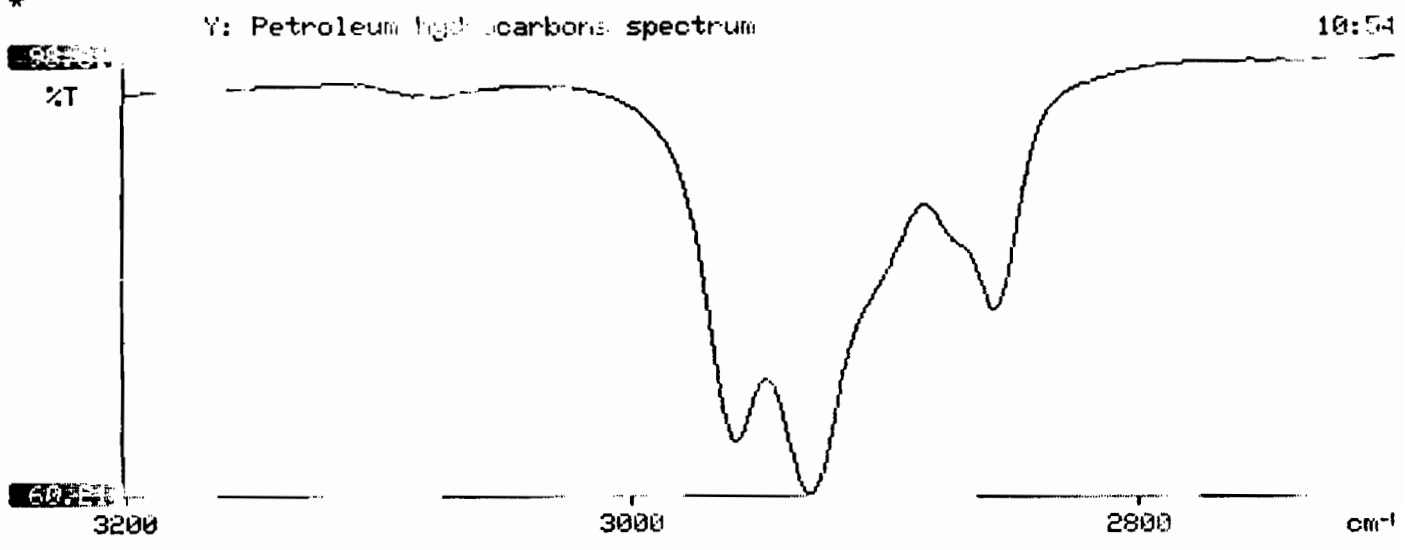
* 99/03/17 10:51
* Sample identification:
  PBW
* Initial volume of sample, g or ml
  1000.000
* Percent Moisture
  100.000
* Dilution factor
  1.000
* Volume of sample after extraction, ml
  100.000
* Petroleum hydrocarbon, ppm
  -0.046
* Net absorbance of hydrocarbon (2930 cm-1)
  -0.002
*
*
*

```



 * Test Method for Petroleum Hydrocarbons *
 * in Water and Soil *
 * Perkin-Elmer Model 1600 FT-IR *
 * Analysis Report *

* 99/03/17 10:54
 * Sample identification
 806309S
 * Initial volume of sample, g or ml
 100.000
 * Percent Moisture
 100.000
 * Dilution factor
 1.000
 * Volume of sample after extraction, ml
 100.000
 * Petroleum hydrocarbon, ppm
 10.135
 * Net absorbance of petroleum hydrocarbons (2930 cm⁻¹)
 0.208
 *
 *
 *



```

*                               *****
*                               Test Method for                               *
*                               of Petroleum Hydrocarbons                   *
*                               in Water and Soil                             *
*                               Perkin-Elmer Model 1600 FT-IR                 *
*                               Analysis Report                               *
*                               *****

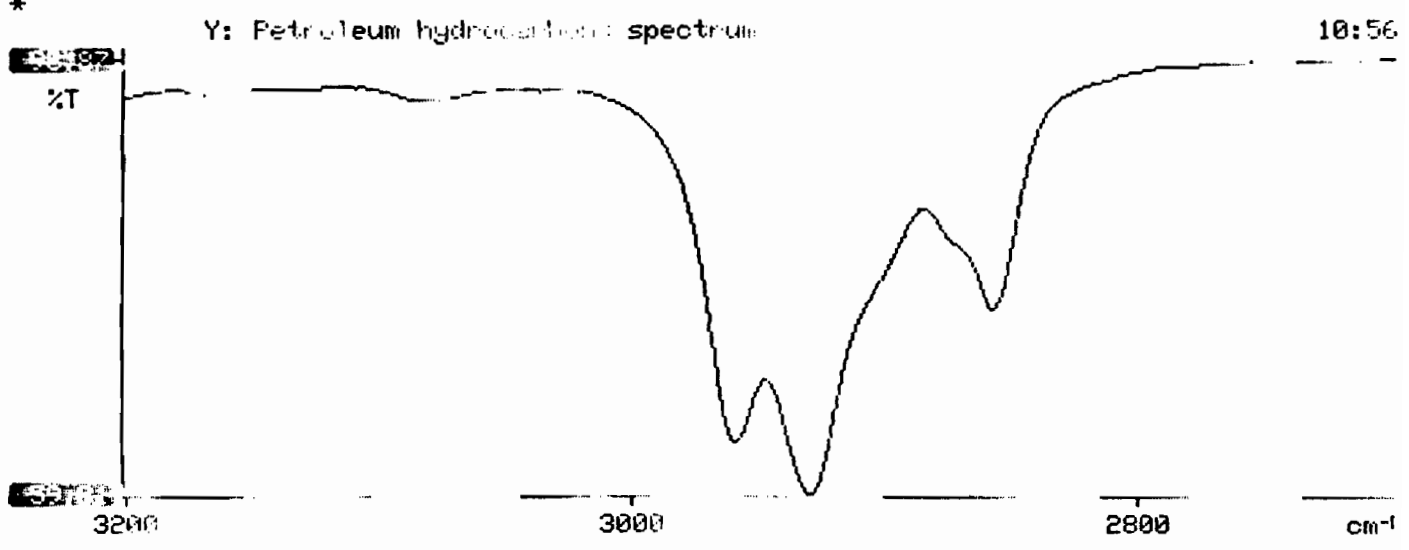
```

* 99/03/17 10:56

```

* Sample identification
006389SD
* Initial volume of sample, g or ml
500.000
* Percent Moisture
100.000
* Dilution factor
1.000
* Volume of sample after extraction, ml
100.000
* Petroleum hydrocarbon, ppm
10.298
* Net absorbance of hydrocarbons (2930 cm-1)
0.211
*
*
*

```



* Test Method for Hydrocarbons *
 * in Water and Soil *
 * PerkinElmer Model 1600 FTIR *
 * Analysis Report *

99/03/17 10:58

* Sample identification
CCV

* Initial volume of sample, g or ml
100.000

* Percent Moisture
100.000

* Dilution factor
1.000

* Volume of sample after extraction, ml
100.000

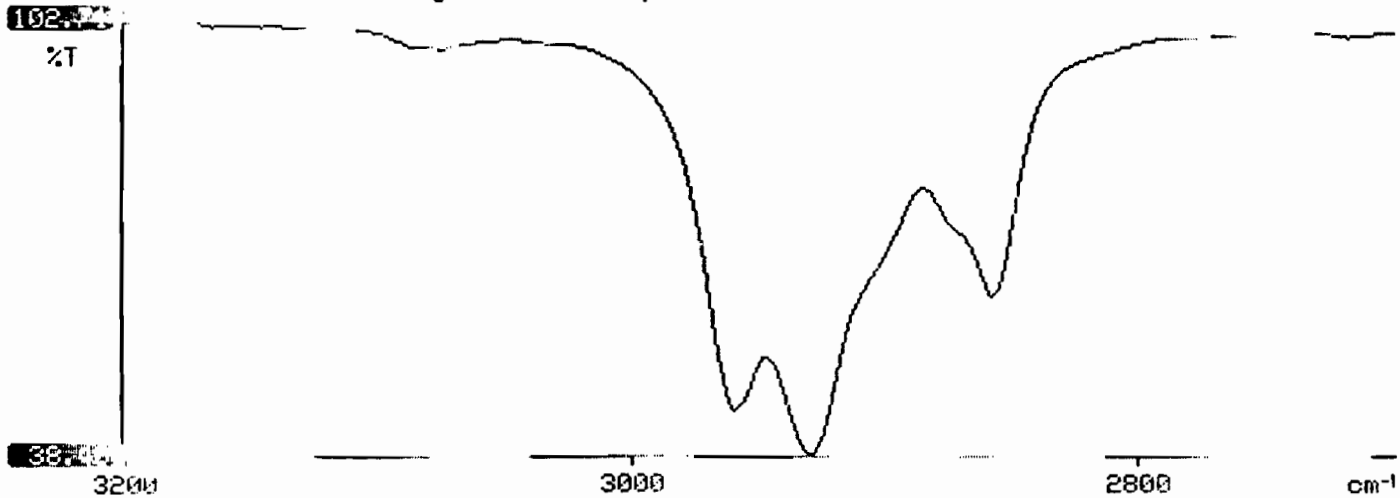
* Petroleum hydrocarbon, ppm
102.150

* Net absorbance of hydrocarbons (2930 cm⁻¹)
0.420

*
*
*

Y: Petroleum hydrocarbons spectrum

10:58



```

*                               Test Method for          ***
*                               in Water and Soil        *
*                               Perkin-Elmer Model 1600 FT-IR *
*                               Analysis Report          *
*****

```

99/03/17 11:49

* Sample identification
CCV

* Initial volume of sample, g or ml
100.000

* Percent Moisture
100.000

* Dilution factor
1.000

* Volume of sample after extraction, ml
100.000

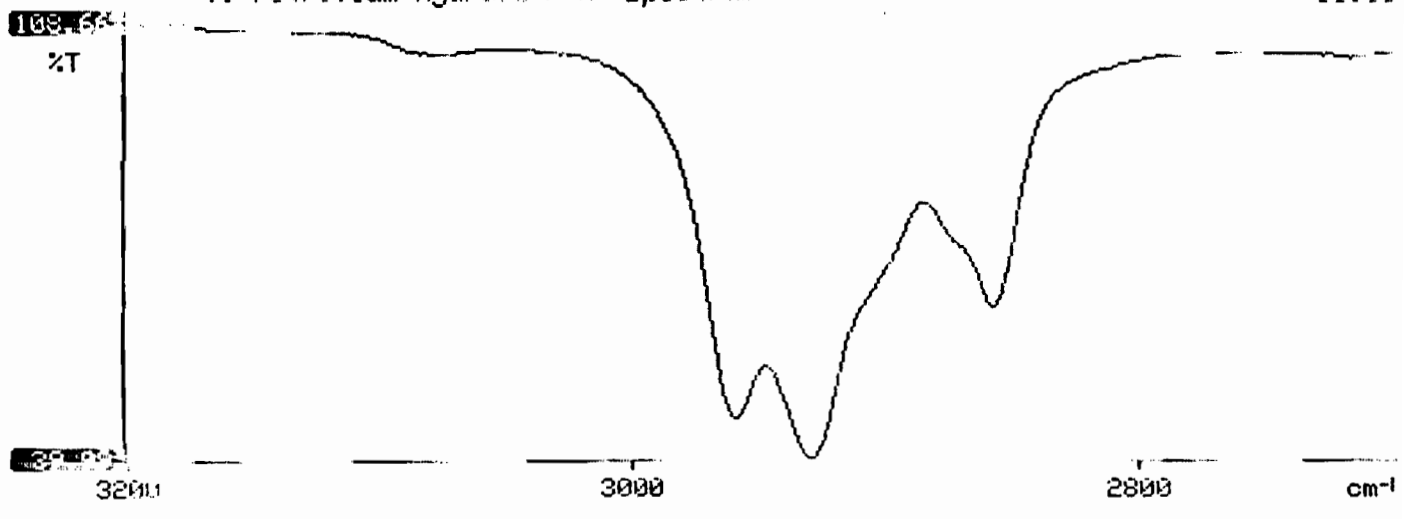
* Petroleum hydrocarbons, ppm
102.616

* Net absorbance of hydrocarbons (2930 cm⁻¹)
0.422

*
*
*

Y: Petroleum hydrocarbons spectrum

11:50



* Test Method for *
 * Petroleum Hydrocarbons *
 * in Water and Soil *
 * *
 * Perkin-Elmer Model 1600 FT-IR *
 * Analysis Report *

99/03/17 11:51

* Sample identification
CEB

* Initial volume of sample, g or ml
100.000

* Percent Moisture
100.000

* Dilution factor
1.000

* Volume of sample after extraction, ml
100.000

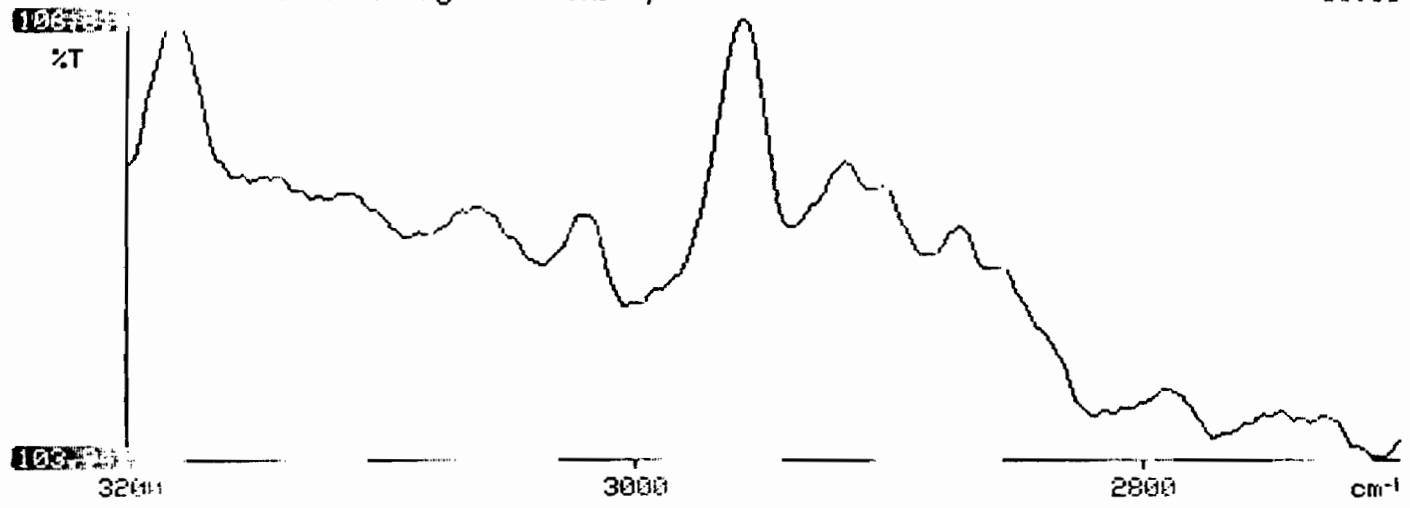
* Petroleum hydrocarbons, ppm
-0.408

* Net absorbance of hydrocarbons (2930 cm⁻¹)
-0.002

*
*
*

Y: Petroleum hydrocarbons spectrum

11:51



```

*                                     *****
*                                     Test Method for
*                                     Petroleum Hydrocarbons
*                                     in Water and Soil
*                                     *****
*                                     Perkin-Elmer Model 1600 FT IR
*                                     Analytical Report
*                                     *****

```

99/03/17 11:38

* Sample identification
CCV

* Initial volume of sample, g or ml
100.000

* Percent Moisture
100.000

* Dilution factor
1.000

* Volume of sample after extraction, ml
100.000

* Petroleum hydrocarbons, ppm
102.569

* Net absorbance of hydrocarbons (2930 cm⁻¹)
0.422

*
*
*

Y: Petroleum hydrocarbons spectrum

11:38

