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JAN 13 1993

REPORT OF LABORATORY ANALYSIS

0041461
4/6

January 12, 1993

Ms. Billie Mauss
Washington State Dept. of Ecology
7601 W. Clearwater #102
Kennewick, WA 99336

RE: PACE Project No. D21102.502
Client Reference: CLP State of Washington Billie Mauss

Dear Ms. Mauss:

Enclosed is the report of laboratory analyses for samples received November 02, 1992.

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Alexandra Trovas

Alexandra Trovas
Project Manager

Enclosures

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REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

Parameter	Units	MDL		
PACE Sample Number:			65 0189066	65 0189074
Date Collected:			10/29/92	10/29/92
Date Received:			11/02/92	11/02/92
Client Sample ID:			H 92077	H 92078
ORGANIC ANALYSIS				
ACID BASE NEUTRAL ANALYSIS				
Date Analyzed			112092	120992
PESTICIDE ANALYSIS				
Date Extracted			111292	111292
Date Analyzed			010793	010793
EXTRACTABLE HYDROCARBONS AS DIESEL				
Dated Extracted			112192	112192
Heavy Hydrocarbons	mg/kg	5.0	ND	ND
Surrogate Recovery	% Recovery		114	96
TOTAL VOLATILE HYDROCARBONS AS GASOLINE				
Light Hydrocarbons as Gasoline	ug/kg	3500	ND	ND
Surrogate Recovery	% Recovery		106	94

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REPORT OF LABORATORY ANALYSIS

Washington State Dept. of Ecology
7601 W. Clearwater #102
Kennewick, WA 99336

January 12, 1993
PACE Project Number: D21102502

Attn: Ms. Billie Mauss

Client Reference: CLP State of Washington Billie Mauss

Parameter	Units	MDL		
PACE Sample Number:			65 0189066	65 0189074
Date Collected:			10/29/92	10/29/92
Date Received:			11/02/92	11/02/92
Client Sample ID:			H 92077	H 92078
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Chloride	mg/kg	0.2	0.2	0.6
Fluoride	mg/kg	0.2	0.2	ND
Nitrogen, Nitrate	mg/kg	1	ND	ND
Nitrogen, Nitrite	mg/kg	0.5	ND	ND
Phosphate	mg/kg	0.2	ND	ND
Solids, Percent Total	%	1	95	93
Sulfate	mg/kg	1	ND	ND
ORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Volatile Analysis			110692	110692
CHLORINATED HERBICIDES				
Date Analyzed			120392	120392
Date Extracted			110992	110992
Dalapon	ug/kg	1200	ND	ND
Dichloroprop	ug/kg	200	ND	ND
4-Chloro-2-methyl phenoxy propanoic acid	ug/kg	40000	ND	ND
2,4-D	ug/kg	200	ND	ND
MCPA	ug/kg	20000	ND	ND
Silvex	ug/kg	20	ND	ND
2,4,5-T	ug/kg	20	ND	ND
2,4-DB	ug/kg	200	ND	ND
Dicamba	ug/kg	20	ND	ND
Dinoseb	ug/kg	100	ND	ND
2,4-Dichlorophenylacetic acid	% Recovery		97	91
ACID BASE NEUTRAL ANALYSIS				
Date Extracted			111292	111292

REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

PACE Sample Number:			65 0189082
Date Collected:			10/29/92
Date Received:			11/02/92
Client Sample ID:			H 92089
Parameter	Units	MDL	
ORGANIC ANALYSIS			
INDIVIDUAL PARAMETERS			
Volatile Analysis			110692

These data have been reviewed and are approved for release.

Mark A. Valentini, Ph.D.
Regional Director

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Client Reference: CLP State of Washington Billie Mauss

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

Chloride
Batch: 65 10542
Samples: 65 0189066, 65 0189074

SAMPLE DUPLICATE:

Parameter	Units	MDL	650188256	Duplicate of 65 0188256	RPD
Chloride	mg/kg	0.2	0.8	0.8	0%

SPIKE:

Parameter	Units	MDL	650188264	Spike	Spike Recv
Chloride	mg/kg	0.2	0.2	1.0	80%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Chloride	mg/kg	0.2	1.0	118%	119%	0%

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REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

Fluoride
Batch: 65 10541
Samples: 65 0189066, 65 0189074

SAMPLE DUPLICATE:

Parameter	Units	MDL	650188256	Duplicate of 65 0188256	RPD
Fluoride	mg/kg	0.2	ND	ND	NC

SPIKE:

Parameter	Units	MDL	650188264	Spike	Spike Recv
Fluoride	mg/kg	0.2	ND	1.0	105%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Fluoride	mg/kg	0.2	1.0	87%	114%	26%

REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

Nitrogen, Nitrate
Batch: 65 10533
Samples: 65 0189066, 65 0189074

SAMPLE DUPLICATE:

Parameter	Units	MDL	650188256	Duplicate of 65 0188256	RPD
Nitrogen, Nitrate	mg/kg	1	ND	ND	NC

SPIKE:

Parameter	Units	MDL	650188264	Spike	Spike Recv
Nitrogen, Nitrate	mg/kg	1	ND	1.0	89%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Nitrogen, Nitrate	mg/kg	1	1.0	112%	119%	6%

REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

Nitrogen, Nitrite
Batch: 65 10539
Samples: 65 0189066, 65 0189074

SAMPLE DUPLICATE:

Parameter	Units	MDL	65 0188256	Duplicate of 65 0188256	RPD
Nitrogen, Nitrite	mg/kg	0.5	ND	ND	NC

LABORATORY CONTROL SAMPLE:

Parameter	Units	MDL	Reference Value	Recv
Nitrogen, Nitrite	mg/kg	0.5	1.0	87%

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REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

Phosphate
Batch: 65 10528
Samples: 65 0189066, 65 0189074

SAMPLE DUPLICATE:

Parameter	Units	MDL	650188256	Duplicate of 65 0188256	RPD
Phosphate	mg/kg	0.2	ND	ND	NC

SPIKE:

Parameter	Units	MDL	650188264	Spike	Spike Recv
Phosphate	mg/kg	0.2	ND	1.0	97%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Phosphate	mg/kg	0.2	1.0	105%	114%	8%

REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

Solids, Percent Total
Batch: 65 10301
Samples: 65 0189066, 65 0189074

SAMPLE DUPLICATE:

Parameter	Units	MDL	650169499	Duplicate of 65 0169499	RPD
Solids, Percent Total	%	1	95	95	0%

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REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

Sulfate
Batch: 65 10536
Samples: 65 0189066, 65 0189074

SAMPLE DUPLICATE:

Parameter	Units	MDL	650188256	Duplicate of 65 0188256	RPD
Sulfate	mg/kg	1	2.8	2.8	0%

SPIKE:

Parameter	Units	MDL	650188264	Spike	Spike Recv
Sulfate	mg/kg	1	ND	1.0	140%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Sulfate	mg/kg	1	1.0	106%	110%	3%

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

Volatile Analysis
Batch: 65 09900
Samples: 65 0189066, 65 0189074

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Volatile Analysis			110692

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

ACID BASE NEUTRAL ANALYSIS
Batch: 65 10110
Samples: 65 0189066, 65 0189074

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Date Analyzed			112092

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	650169480	Spike	Spike Recv	Spike Dupl Recv	RPD
Date Analyzed			112092				

REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

CHLORINATED HERBICIDES
Batch: 65 10431
Samples: 65 0189066, 65 0189074

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Date Analyzed			120392
Dalapon	ug/kg	1200	ND
Dichloroprop	ug/kg	200	ND
4-Chloro-2-methyl phenoxy propanoic aci	ug/kg	40000	ND
2,4-D	ug/kg	200	ND
MCPA	ug/kg	20000	ND
Silvex	ug/kg	20	ND
2,4,5-T	ug/kg	20	ND
2,4-DB	ug/kg	200	ND
Dicamba	ug/kg	20	ND
Dinoseb	ug/kg	100	ND
2,4-Dichlorophenylacetic acid	% Recovery		97

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	65018825 6	Spike	Spike Recv	Spike Dupl Recv	RPD
CHLORINATED HERBICIDES			Z1				
Dalapon	ug/kg	1200	ND DS	1000	0%	0%	0%
Dichloroprop	ug/kg	200	ND DS	400	105%	105%	0%
4-Chloro-2-methyl phenoxy propanoic aci	ug/kg	40000	ND DS	40000	0%	0%	0%
2,4-D	ug/kg	200	ND DS	400	100%	85%	16%
MCPA	ug/kg	20000	ND I9 DS	40000	0% I9	0% I9	0%
Silvex	ug/kg	20	ND DS	40	85%	83%	2%
2,4,5-T	ug/kg	20	ND DS	40	90%	88%	2%
2,4-DB	ug/kg	200	ND DS	400	3%	3%	0%
Dicamba	ug/kg	20	ND DS	40	93%	93%	0%
Dinoseb	ug/kg	100	ND DS	200	89%	85%	4%

REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

CHLORINATED HERBICIDES
Batch: 65 10431
Samples: 65 0189066, 65 0189074

LABORATORY CONTROL SAMPLE:

Parameter	Units	MDL	Reference Value	Recv
Dalapon	ug/kg	1200	1000	0%
Dichloroprop	ug/kg	200	400	89%
4-Chloro-2-methyl phenoxy propanoic aci	ug/kg	40000	40000	0%
2,4-D	ug/kg	200	400	85%
MCPA	ug/kg	20000	40000	0%
				I9
Silvex	ug/kg	20	40	80%
2,4,5-T	ug/kg	20	40	53%
2,4-DB	ug/kg	200	400	1%
Dicamba	ug/kg	20	40	78%
Dinoseb	ug/kg	100	200	60%

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

EXTRACTABLE HYDROCARBONS AS DIESEL
Batch: 65 10216
Samples: 65 0189066, 65 0189074

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Heavy Hydrocarbons	mg/kg	5.0	ND
Surrogate Recovery	% Recovery		108

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	650169480	Spike	Spike Recv	Spike Dupl Recv	RPD
Heavy Hydrocarbons	mg/kg	5.0	ND	200	118%	112%	5%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Heavy Hydrocarbons	mg/kg	5.0	200	111%	113%	1%

REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

PESTICIDE ANALYSIS
Batch: 65 10146
Samples: 65 0189066, 65 0189074

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Date Analyzed			010793

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	650169480	Spike	Spike Recv	Spike Dupl Recv	RPD
Date Analyzed			010793				

REPORT OF LABORATORY ANALYSIS

Ms. Billie Mauss
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QUALITY CONTROL DATA

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

TOTAL VOLATILE HYDROCARBONS AS GASOLINE
Batch: 65 10063
Samples: 65 0189066, 65 0189074

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Light Hydrocarbons as Gasoline	ug/kg	3500	ND
Surrogate Recovery	% Recovery		97

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	650169480	Spike	Spike Recv	Spike Dupl Recv	RPD
Light Hydrocarbons as Gasoline	ug/kg	3500	ND	1000.0	61%	56%	8%

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Ms. Billie Mauss
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FOOTNOTES
for pages 5 through 18

January 12, 1993
PACE Project Number: D21102502

Client Reference: CLP State of Washington Billie Mauss

DS	Concentration found on diluted sample.
I9	An interfering peak coeluted with MCPA preventing quantitation of MCPA in all samples and laboratory QC.
MDL	Method Detection Limit
NC	No calculation due to value below detection limit.
ND	Not detected at or above the MDL.
RPD	Relative Percent Difference
Z1	Elevated surrogate recovery due to matrix enhancement was observed.

nalytical Narrative for Project D21102.502
Organic Analyses

JAN 2 5 1993
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Th b ns nd samples displayed small amounts of methylene chloride wh h ar b a utable to laboratory contamination. All reported ce tions flagged with a 'B' qualifier.

Internal standard areas for VBLK01 failed to meet advisory criteria; this was an oversight on the part of the laboratory. Further investigation indicated the presence of a small leak in the transfer line at the associated position on the Purge-and-Trap autosampler. The leak has been repaired and the problem in unlikely to reoccur. Sample data associated with these blanks was accepted since no target analytes were found.

Pesticide/PCB Analyses

All standard, sample, and QC analyses were performed using a DB-5 and DB-608 column combination. The DB-5 column is designated for analyte quantitation. The column identity is indicated on each chromatogram and data from both columns is included in this package.

Sample H92078 required multiple dilutions to bring several analytes into the linear calibration range. All dilutions are uniquely identified and reported with a dedicated Form I.

Calibration criteria for the three BHC pesticides failed to meet SOW criteria throughout the latter part of the analytical sequence. Data was accepted since no BHC pesticides were detected in the samples.

No GPC calibration data appears on Form IX; the required pesticide spike mixture was not analyzed prior to GPC cleanup of the samples. The was an oversight on the part of the laboratory and corrective actions have been taken to assure the error is not repeated.

No DCB surrogate results are reported on Form IX, the Florisil Cartridge Check. The GC program used to run the check sample terminated prior to elution of the DCB peak. This was an oversight on the part of the laboratory. The temperature program was modified to chromatograph the DCB peak prior to analysis of the CLP analytical sequence.

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Analytical Narrative for Project D21102.502
Organic Analyses

Herbicides

Chromatographic patterns were observed in all QCs, blanks, and client samples that interfere with the detection and quantitation of specific target analytes. The laboratory attributes these interferences to the diazomethane derivatization process. The affected analytes were Dalapon, MCPP, and MCPA.

Dalapon and MCPP

Nearby interfering peaks required reporting limits for these two compounds to be elevated to a level at which they could be observed as a distinct shoulder and thereby quantitated. Spiking levels for Dalapon and MCPP fell below elevated reporting levels and are therefore reported as 'ND'.

MCPA

An interfering peak exactly coeluted with MCPA preventing quantitation of MCPA in all samples and laboratory QC. The 'ND' result is footnoted in the enclosed report to reflect the inability to detect MCPA due to this interfering peak.

General Comment

Most CLP deliverables software requires a specific format for sample description, project (SDG) designation, and laboratory identification which is rarely observed by commercial laboratories or their clients outside of dealings with the Sample Management Office (SMO). As a result, sample descriptions often require modification to accommodate the required format in the reporting software. The client's sample descriptions in this project were slightly altered on the attached forms for this purpose. The laboratory apologizes for any inconvenience resulting from this practice.

CLP compliant data packages are provided for the Volatile, Semivolatile, and Pesticides analyses. Requested analyses that are not addressed by the 3/90 SOW were performed in accord with the methods cited on the laboratory's LDMS report included in this package. Hardcopy data for these analyses are provided in sufficient detail to allow for independent data review and validation.

No matrix spike/matrix spike duplicate data is provided with this data package since neither sample was designated for spiking at the time of sample receipt.

WPPALL295

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SAMPLE DATA SUMMARY PACKAGE

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H92077

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18906

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01006.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 5 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	11	U
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	11	U
75-00-3	Chloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-09-2	Methylene Chloride	20	B
540-59-0	1,2-Dichloroethene (total)	11	U
75-34-3	1,1-Dichloroethane	11	U
108-05-4	Vinyl Acetate	11	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
71-43-2	Benzene	11	U
107-06-2	1,2-Dichloroethane	11	U
79-01-6	Trichloroethene	11	U
78-87-5	1,2-Dichloropropane	11	U
75-57-4	Bromodichloromethane	11	U
10061-01-5	cis-1,2-Dichloropropene	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
108-88-3	Toluene	11	U
10061-02-6	trans-1,2-Dichloropropane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
127-18-4	Tetrachloroethene	11	U
591-78-6	2-Hexanone	11	U
124-48-1	Dibromochloromethane	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
1330-20-7	Xylenes (total)	11	U
100-42-5	Styrene	11	U
75-25-2	Bromoform	11	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

H92077

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18906

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01006.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 5 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
79-34-5	1,1,2,2-Tetrachloroethane	11	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H92077

Lab Name: PACE, INC. Contract: D2502

Lab Code: D211(Case No.: N/A SAS No.: N/A SDG No. N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18906

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01006.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 5 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H92077

Lab Name: PACE, INC. Contract:

Lab Code: D21102.502 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: D18906

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00652.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 5 decanted: (Y/N): N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	690	U
111-44-4	bis(2-Chloroethyl)ether	690	U
95-57-8	2-Chlorophenol	690	U
541-73-1	1,3-Dichlorobenzene	690	U
106-46-7	1,4-Dichlorobenzene	690	U
95-50-1	1,2-Dichlorobenzene	690	U
39638-32-9	2,2'-oxybis(1-Chloropropane)	690	U
95-48-7	2-Methylphenol	690	U
67-72-1	Hexachloroethane	690	U
621-64-7	N-Nitroso-di-n-propylamine	690	U
106-44-5	4-Methylphenol	690	U
98-95-3	Nitrobenzene	690	U
78-59-1	Isophorone	690	U
88-75-5	2-Nitrophenol	690	U
105-67-9	2,4-Dimethylphenol	690	U
111-91-1	bis(2-Chloroethoxy)methane	690	U
120-83-2	2,4-Dichlorophenol	690	U
120-82-1	1,2,4-Trichlorobenzene	690	U
91-29-3	Naphthalene	690	U
106-47-8	4-Chloroaniline	690	U
87-68-3	Hexachlorobutadiene	690	U
59-50-7	4-Chloro-3-methylphenol	690	U
91-57-6	2-Methylnaphthalene	690	U
77-47-4	Hexachlorocyclopentadiene	690	U
88-06-2	2,4,6-Trichlorophenol	690	U
95-95-4	2,4,5-Trichlorophenol	3600	U
91-58-7	2-Chloronaphthalene	690	U
88-74-4	2-Nitroaniline	3600	U
208-96-8	Acenaphthylene	690	U
131-11-3	Dimethylphthalate	690	U
606-20-2	2,6-Dinitrotoluene	690	U
83-32-9	Acenaphthene	690	U
99-09-2	3-Nitroaniline	3600	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H92077

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18906

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00652.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 5 decanted: (Y/N): N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	3600	U
132-64-9	Dibenzofuran	690	U
121-14-2	2,4-Dinitrotoluene	690	U
100-02-7	4-Nitrophenol	3600	U
86-73-7	Fluorene	690	U
84-66-2	Diethylphthalate	690	U
7005-72-3	4-Chlorophenyl-phenylether	690	U
534-52-1	4,6-Dinitro-2-methylphenol	3600	U
100-01-6	4-Nitroaniline	3600	U
86-30-6	N-Nitrosodiphenylamine	690	U
101-55-3	4-Bromophenyl-phenylether	690	U
118-74-1	Hexachlorobenzene	690	U
87-86-5	Pentachlorophenol	3600	U
85-01-8	Phenanthrene	690	U
120-12-7	Anthracene	690	U
86-74-8	Carbazol	690	U
84-74-2	Di-n-butylphthalate	690	U
206-44-0	Fluoranthene	690	U
129-00-0	Pyrene	690	U
85-68-7	Butylbenzylphthalate	690	U
56-55-3	Benzo(a)anthracene	690	U
218-01-9	Chrysene	690	U
91-94-1	3,3'-Dichlorobenzidine	690	U
117-81-7	Bis(2-ethylhexyl)phthalate	690	U
117-84-0	Di-n-octylphthalate	690	U
205-99-2	Benzo(b)fluoranthene	690	U
207-08-9	Benzo(k)fluoranthene	690	U
50-32-8	Benzo(a)pyrene	690	U
193-39-5	Indendo(1,2,3-cd)pyrene	690	U
53-70-3	Dibenz(a,h)anthracene	690	U
191-24-2	Benzo(g,h,i)perylene	690	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H92077

Lab Name: PACE, INC. Contract:

Lab Code: D211I Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: D18906

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00652.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

Number TICs found: 5 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Aldol Condensate	4.55	7300	J
2.	Aldol Condensate	5.01	50100	J
3.	Aldol Condensate	5.21	16500	J
4.	Aldol Condensate	6.69	3700	J
5.	Aliphatic Hydrocarbon	38.64	10400	J
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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA Sample No.
H92077

Lab Name: PACE, Inc. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 02502

Matrix: (soil/water) Soil Lab Sample ID: 18906.6

Sample wt/vol: 30.0(g/mL) g Lab File ID:

% Moisture: 5 decanted: (Y/N) N Date Received: 11/02/92

Extraction: (SepF/cont/Sonc) Sonc Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 2 (uL) Sulfur Cleanup: (Y/N) Y

GPC Cleanup: (Y/N) Y pH: 6.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	1.9	U
319-85-7	beta-BHC	1.9	U
319-86-8	delta-BHC	1.9	U
58-89-9	gamma-BHC(Lindane)	1.9	U
76-44-8	Heptachlor	1.9	U
309-00-2	Aldrin	2.6	P
1024-57-3	Heptachlor epoxide	1.9	U
959-98-8	Endosulfan	1.9	U
60-57-1	Dieldrin	3.6	U
72-55-9	4,4'-DDE	3.6	U
72-20-8	Endrin	3.6	U
33213-65-9	Endosulfan II	3.6	U
72-54-8	4,4'-DDD	3.6	U
1031-07-8	Endosulfan sulfate	3.6	U
50-29-3	4,4'-DDT	3.6	U
72-43-5	Methoxychlor	19.0	U
53494-70-5	Endrin ketone	3.6	U
7421-36-3	Endrin aldehyde	3.6	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	190.0	U
12674-11-2	Aroclor-1016	36.0	U
11104-28-2	Aroclor-1221	74.0	U
11141-16-5	Aroclor-1232	36.0	U
53469-21-9	Aroclor-1242	36.0	U
12672-29-6	Aroclor-1248	36.0	U
11097-69-1	Aroclor-1254	36.0	U
11096-82-5	Aroclor-1260	36.0	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H92078

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18907

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01007.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 7 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	11	U
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	11	U
75-00-3	Chloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-09-2	Methylene Chloride	20	B
540-59-0	1,2-Dichloroethene (total)	11	U
75-34-3	1,1-Dichloroethane	11	U
108-05-4	Vinyl Acetate	11	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
71-43-2	Benzene	11	U
107-06-2	1,2-Dichloroethane	11	U
79-01-6	Trichloroethene	11	U
78-87-5	1,2-Dichloropropane	11	U
75-57-4	Bromodichloromethane	11	U
10061-01-5	cis-1,2-Dichloropropene	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
108-88-3	Toluene	6	J
10061-02-6	trans-1,2-Dichloropropane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
127-18-4	Tetrachloroethene	11	U
591-78-6	2-Hexanone	11	U
124-48-1	Dibromochloromethane	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
1330-20-7	Xylenes (total)	11	U
100-42-5	Styrene	11	U
75-25-2	Bromoform	11	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HI2078

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18907

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01007.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 7 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
79-34-5	1,1,2,2-Tetrachloroethane	11	U

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H92073

Lab Name: PACE, INC. Contract: D2502

Lab Code: D211(Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18907

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01007.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 7 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H92078

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18907

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00653.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 7 decanted: (Y/N): N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	710	U
111-44-4	bis(2-Chloroethyl)ether	710	U
95-57-8	2-Chlorophenol	710	U
541-73-1	1,3-Dichlorobenzene	710	U
106-46-7	1,4-Dichlorobenzene	710	U
95-50-1	1,2-Dichlorobenzene	710	U
39638-32-9	2,2'-oxybis(1-Chloropropane)	710	U
95-48-7	2-Methylphenol	710	U
67-72-1	Hexachloroethane	710	U
621-64-7	N-Nitroso-di-n-propylamine	710	U
106-44-5	4-Methylphenol	710	U
98-95-3	Nitrobenzene	710	U
78-59-1	Isophorone	710	U
88-75-5	2-Nitrophenol	710	U
105-67-9	2,4-Dimethylphenol	710	U
111-91-1	bis(2-Chloroethoxy)methane	710	U
120-83-2	2,4-Dichlorophenol	710	U
120-82-1	1,2,4-Trichlorobenzene	710	U
91-29-3	Naphthalene	710	U
106-47-8	4-Chloroaniline	710	U
87-68-3	Hexachlorobutadiene	710	U
59-50-7	4-Chloro-3-methylphenol	710	U
91-57-6	2-Methylnaphthalene	710	U
77-47-4	Hexachlorocyclopentadiene	710	U
88-06-2	2,4,6-Trichlorophenol	710	U
95-95-4	2,4,5-Trichlorophenol	3700	U
91-58-7	2-Chloronaphthalene	710	U
88-74-4	2-Nitroaniline	3700	U
208-96-8	Acenaphthylene	710	U
131-11-3	Dimethylphthalate	710	U
606-20-2	2,6-Dinitrotoluene	710	U
83-32-9	Acenaphthene	710	U
99-09-2	3-Nitroaniline	3700	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H92078

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18907

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00653.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 7 decanted: (Y/N): N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	3700	U
132-64-9	Dibenzofuran	710	U
121-14-2	2,4-Dinitrotoluene	710	U
100-02-7	4-Nitrophenol	3700	U
86-73-7	Fluorene	710	U
84-66-2	Diethylphthalate	710	U
7005-72-3	4-Chlorophenyl-phenylether	710	U
534-52-1	4,6-Dinitro-2-methylphenol	3700	U
100-01-6	4-Nitroaniline	3700	U
86-30-6	N-Nitrosodiphenylamine	710	U
101-55-3	4-Bromophenyl-phenylether	710	U
118-74-1	Hexachlorobenzene	710	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	710	U
120-12-7	Anthracene	710	U
86-74-8	Carbazol	710	U
84-74-2	Di-n-butylphthalate	710	U
206-44-0	Fluoranthene	710	U
129-00-0	Pyrene	710	U
85-68-7	Butylbenzylphthalate	710	U
56-55-3	Benzo(a)anthracene	710	U
218-01-9	Chrysene	710	U
91-94-1	3,3'-Dichlorobenzidine	710	U
117-81-7	Bis(2-ethylhexyl)phthalate	710	U
117-84-0	Di-n-octylphthalate	710	U
205-99-2	Benzo(b)fluoranthene	710	U
207-08-9	Benzo(k)fluoranthene	710	U
50-32-8	Benzo(a)pyrene	710	U
193-39-5	Indendo(1,2,3-cd)pyrene	710	U
53-70-3	Dibenz(a,h)anthracene	710	U
191-24-2	Benzo(g,h,i)perylene	710	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H92078

Lab Name: PACE, INC. Contract:

Lab Code: D211I Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: D18907

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00653.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 7 decanted: (Y/N) N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.8

Number TICs found: 7 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Aldol Condensate	4.55	8000	J
2.	Aldol Condensate	5.01	58900	J
3.	Aldol Condensate	5.20	15200	J
4.	Aldol Condensate	6.67	3800	J
5. 309-00-2	Aldrin-R	30.21	23400	J
6. 60-57-1	Dieldrin	33.03	33100	J
7.	Unknown Chlorinated HC	42.80	15800	J
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HC - Hydrocarbon

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H92078RE

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18907RE

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00725.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 7 decanted: (Y/N): N Date Extracted: 12/8/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/9/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	710	U
111-44-4	bis(2-Chloroethyl)ether	710	U
95-57-8	2-Chlorophenol	710	U
541-73-1	1,3-Dichlorobenzene	710	U
106-46-7	1,4-Dichlorobenzene	710	U
95-50-1	1,2-Dichlorobenzene	710	U
39638-32-9	2,2'-oxybis(1-Chloropropane)	710	U
95-48-7	2-Methylphenol	710	U
67-72-1	Hexachloroethane	710	U
621-64-7	N-Nitroso-di-n-propylamine	710	U
106-44-5	4-Methylphenol	710	U
98-95-3	Nitrobenzene	710	U
78-59-1	Isophorone	710	U
88-75-5	2-Nitrophenol	710	U
105-67-9	2,4-Dimethylphenol	710	U
111-91-1	bis(2-Chloroethoxy)methane	710	U
120-83-2	2,4-Dichlorophenol	710	U
120-82-1	1,2,4-Trichlorobenzene	710	U
91-29-3	Naphthalene	710	U
106-47-8	4-Chloroaniline	710	U
87-68-3	Hexachlorobutadiene	710	U
59-50-7	4-Chloro-3-methylphenol	710	U
91-57-6	2-Methylnaphthalene	710	U
77-47-4	Hexachlorocyclopentadiene	710	U
88-06-2	2,4,6-Trichlorophenol	710	U
95-95-4	2,4,5-Trichlorophenol	3700	U
91-58-7	2-Chloronaphthalene	710	U
88-74-4	2-Nitroaniline	3700	U
208-96-8	Acenaphthylene	710	U
131-11-3	Dimethylphthalate	710	U
606-20-2	2,6-Dinitrotoluene	710	U
83-32-9	Acenaphthene	710	U
99-09-2	3-Nitroaniline	3700	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H92078RE

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18907RE

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00725.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 7 decanted: (Y/N): N Date Extracted: 12/8/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/9/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	3700	U
132-64-9	Dibenzofuran	710	U
121-14-2	2,4-Dinitrotoluene	710	U
100-02-7	4-Nitrophenol	3700	U
86-73-7	Fluorene	710	U
84-66-2	Diethylphthalate	710	U
7005-72-3	4-Chlorophenyl-phenylether	710	U
534-52-1	4,6-Dinitro-2-methylphenol	3700	U
100-01-6	4-Nitroaniline	3700	U
86-30-6	N-Nitrosodiphenylamine	710	U
101-55-3	4-Bromophenyl-phenylether	710	U
118-74-1	Hexachlorobenzene	710	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	710	U
120-12-7	Anthracene	710	U
86-74-8	Carbazol	710	U
84-74-2	Di-n-butylphthalate	710	U
206-44-0	Fluoranthene	710	U
129-00-0	Pyrene	710	U
85-68-7	Butylbenzylphthalate	710	U
56-55-3	Benzo(a)anthracene	710	U
218-01-9	Chrysene	710	U
91-94-1	3,3'-Dichlorobenzidine	710	U
117-81-7	Bis(2-ethylhexyl)phthalate	710	U
117-84-0	Di-n-octylphthalate	710	U
205-99-2	Benzo(b)fluoranthene	710	U
207-08-9	Benzo(k)fluoranthene	710	U
50-32-8	Benzo(a)pyrene	710	U
193-39-5	Indendo(1,2,3-cd)pyrene	710	U
53-70-3	Dibenz(a,h)anthracene	710	U
191-24-2	Benzo(g,h,i)perylene	710	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H92078RE

Lab Name: PACE, INC. Contract: _____

Lab Code: D211I Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18907RE

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00725.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 7 decanted: (Y/N) N Date Extracted: 12/8/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/9/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.8

Number TICs found: 5 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Aldol Condensate	4.95	61700	J
2. 309-00-2	Aldrin-R	30.15	42000	J
3. 60-57-1	Dieldrin	32.99	57500	J
4.	Unknown Chlorinated HC	35.48	4300	J
5.	Unknown Chlorinated HC	42.64	3900	J
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HC - Hydrocarbon

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA Sample No.
H92078

Lab Name: PACE, Inc. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 02502

Matrix: (soil/water) Soil Lab Sample ID: 18907.4

Sample wt/vol: 30.0(g/mL) g Lab File ID: N/A

% Moisture: 7 decanted: (Y/N) N Date Received: 11/02/92

Extraction: (SepF/cont/Sonc) Sonc Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 2 (uL) Sulfur Cleanup: (Y/N) Y

GPC Cleanup: (Y/N) Y pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	1.9	U
319-85-7	beta-BHC	1.9	U
319-86-8	delta-BHC	1.9	U
58-89-9	gamma-BHC(Lindane)	1.9	U
76-44-8	Heptachlor	1.9	U
309-00-2	Aldrin	480.0	E
1024-57-3	Heptachlor epoxide	1.9	U
959-98-8	Endosulfan	1.9	U
60-57-1	Dieldrin	490.0	E
72-55-9	4,4'-DDE	3.6	U
72-20-8	Endrin	3.6	U
33213-65-9	Endosulfan II	3.6	U
72-54-8	4,4'-DDD	3.6	U
1031-07-8	Endosulfan sulfate	3.6	U
50-29-3	4,4'-DDT	3.6	U
72-43-5	Methoxychlor	19.0	U
53494-70-5	Endrin ketone	520.0	E
7421-36-3	Endrin aldehyde	3.6	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	190.0	U
12674-11-2	Aroclor-1016	36.0	U
11104-28-2	Aroclor-1221	74.0	U
11141-16-5	Aroclor-1232	36.0	U
53469-21-9	Aroclor-1242	36.0	U
12672-29-6	Aroclor-1248	36.0	U
11097-69-1	Aroclor-1254	36.0	U
11096-82-5	Aroclor-1260	36.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA Sample No.
H92078 DL #1

Lab Name: PACE, Inc. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 02502

Matrix: (soil/water) Soil Lab Sample ID: 18907.4

Sample wt/vol: 30.0(g/mL) g Lab File ID:

% Moisture: 7 decanted: (Y/N) N Date Received: 11/02/92

Extraction: (SepF/cont/Sonc) Sonc Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 41

Injection Volume: 2 (uL) Sulfur Cleanup: (Y/N) Y

GPC Cleanup: (Y/N) Y pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	73.0	UD
319-85-7	beta-BHC	73.0	UD
319-86-8	delta-BHC	73.0	UD
58-89-9	gamma-BHC(Lindane)	73.0	UD
76-44-8	Heptachlor	73.0	UD
309-00-2	Aldrin	14000.0	DE
1024-57-3	Heptachlor epoxide	73.0	UD
959-98-8	Endosulfan	73.0	UD
60-57-1	Dieldrin	16000.0	DE
72-55-9	4,4'-DDE	150.0	UD
72-20-8	Endrin	150.0	UD
33213-65-9	Endosulfan II	150.0	UD
72-54-8	4,4'-DDD	150.0	UD
1031-07-8	Endosulfan sulfate	150.0	UD
50-29-3	4,4'-DDT	150.0	UD
72-43-5	Methoxychlor	730.0	UD
53494-70-5	Endrin ketone	3500.0	DE
7421-36-3	Endrin aldehyde	150.0	UD
5103-71-9	alpha-Chlordane	73.0	UD
5103-74-2	gamma-Chlordane	73.0	UD
8001-35-2	Toxaphene	7300.0	UD
12674-11-2	Aroclor-1016	1500.0	UD
11104-28-2	Aroclor-1221	2900.0	UD
11141-16-5	Aroclor-1232	1500.0	UD
53469-21-9	Aroclor-1242	1500.0	UD
12672-29-6	Aroclor-1248	1500.0	UD
11097-69-1	Aroclor-1254	1500.0	UD
11096-82-5	Aroclor-1260	1500.0	UD

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA Sample No.
H92078D. #2

Lab Name: PACE, Inc. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 02502

Matrix: (soil/water) Soil Lab Sample ID: 18907.4

Sample wt/vol: 30.0(g/mL) g Lab File ID: N/A

% Moisture: 7 decanted: (Y/N) N Date Received: 11/02/92

Extraction: (SepF/cont/Sonc) Sonc Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 123

Injection Volume: 2 (uL) Sulfur Cleanup: (Y/N) Y

GPC Cleanup: (Y/N) Y pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	220.0	UD
319-85-7	beta-BHC	220.0	UD
319-86-8	delta-BHC	220.0	UD
58-89-9	gamma-BHC(Lindane)	220.0	UD
76-44-8	Heptachlor	220.0	UD
309-00-2	Aldrin	29000.0	DE
1024-57-3	Heptachlor epoxide	220.0	UD
959-98-8	Endosulfan	220.0	UD
60-57-1	Dieldrin	32000.0	DE
72-55-9	4,4'-DDE	440.0	UD
72-20-8	Endrin	440.0	UD
33213-65-9	Endosulfan II	440.0	UD
72-54-8	4,4'-DDD	440.0	UD
1031-07-8	Endosulfan sulfate	440.0	UD
50-29-3	4,4'-DDT	440.0	UD
72-43-5	Methoxychlor	2200.0	UD
53494-70-5	Endrin ketone	3500.0	D
7421-36-3	Endrin aldehyde	440.0	UD
5103-71-9	alpha-Chlordane	220.0	UD
5103-74-2	gamma-Chlordane	220.0	UD
8001-35-2	Toxaphene	22000.0	UD
12674-11-2	Aroclor-1016	4400.0	UD
11104-28-2	Aroclor-1221	8800.0	UD
11141-16-5	Aroclor-1232	4400.0	UD
53469-21-9	Aroclor-1242	4400.0	UD
12672-29-6	Aroclor-1248	4400.0	UD
11097-69-1	Aroclor-1254	4400.0	UD
11096-82-5	Aroclor-1260	4400.0	UD

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA Sample No.
H92078 DL#3

Lab Name: PACE, Inc. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 02502

Matrix: (soil/water) Soil Lab Sample ID: 18907.4

Sample wt/vol: 30.0(g/mL) g Lab File ID:

% Moisture: 7 decanted: (Y/N) N Date Received: 11/02/92

Extraction: (SepF/cont/Sonc) Sonc Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 861

Injection Volume: 2 (uL) Sulfur Cleanup: (Y/N) Y

GPC Cleanup: (Y/N) Y pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	1500.0	UD
319-85-7	beta-BHC	1500.0	UD
319-86-8	delta-BHC	1500.0	UD
58-89-9	gamma-BHC(Lindane)	1500.0	UD
76-44-8	Heptachlor	1500.0	UD
309-00-2	Aldrin	27000.0	D
1024-57-3	Heptachlor epoxide	1500.0	UD
959-98-8	Endosulfan	1500.0	UD
60-57-1	Dieldrin	38000.0	D
72-55-9	4,4'-DDE	3100.0	UD
72-20-8	Endrin	3100.0	UD
33213-65-9	Endosulfan II	3100.0	UD
72-54-8	4,4'-DDD	3100.0	UD
1031-07-8	Endosulfan sulfate	3100.0	UD
50-29-3	4,4'-DDT	3100.0	UD
72-43-5	Methoxychlor	15000.0	UD
53494-70-5	Endrin ketone	3100.0	UD
7421-36-3	Endrin aldehyde	3100.0	UD
5103-71-9	alpha-Chlordane	1500.0	UD
5103-74-2	gamma-Chlordane	1500.0	UD
8001-35-2	Toxaphene	150000.0	UD
12674-11-2	Aroclor-1016	31000.0	UD
11104-28-2	Aroclor-1221	62000.0	UD
11141-16-5	Aroclor-1232	31000.0	UD
53469-21-9	Aroclor-1242	31000.0	UD
12672-29-6	Aroclor-1248	31000.0	UD
11097-69-1	Aroclor-1254	31000.0	UD
11096-82-5	Aroclor-1260	31000.0	UD

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H32089

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18908

Sample wt/vol: 5 (g/mL) ML Lab File ID: MOR01008.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 0 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	15	B
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-57-4	Bromodichloromethane	10	U
10061-01-5	cis-1,2-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,2-Dichloropropane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylenes (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HH2089

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18908

Sample wt/vol: 5 (g/mL) ML Lab File ID: MOR01008.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 0 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H02089

Lab Name: PACE, INC. Contract: D2502

Lab Code: D211(Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18908

Sample wt/vol: 5 (g/mL) ML Lab File ID: MOR01008.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 0 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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2A

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER #	TOT OUT
01	VBLK01	111	112	119		1
02	H92077	101	105	89		
03	H92078	95	96	89		
04	H92089	105	102	105		
05						
06						
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		QC LIMITS
SMC1	= 1,2-Dichloroethane-d4	(70-121)
SMC2	= Toluene-d8	(84-138)
SMC3	= Bromofluorobenzene	(59-113)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 2FP #	S2 PHL #	S3 2CP #	S4 DCB #	S5 NBZ #	S6 FBP #	S7 TBP #	S8 TPH #	TOT OUT
01	SBLK01	107	98	103	102	99	101	102	128	0
02	H92077	93	86	92	102	97	104	61	121	0
03	H92078	25	21 *	21	24	22 *	21 *	20	35	3
04	SBLK02	96	83	83	79	79	72	72	98	0
05	H92078RE	99	87	85	80	78	74	77	135	0
06										
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	QC LIMITS
S1 2FP = 2-Fluorophenol	(25-121)
S2 PHL = Phenol-d5	(24-113)
S3 2CP = 2-Chlorophenol-d4	(20-130)
S4 DCB = 1,2-Dichlorobenzene-d4	(20-130)
S5 NBZ = Nitrobenzene-d5	(23-120)
S6 FBP = 2-Fluorobiphenyl	(30-115)
S7 TBP = 2,4,6-Tribromophenol	(19-122)
S8 TPH = Terphenyl-d14	(18-137)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: PACE, Inc. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 02598

GC Column(1): DB-5 ID: 0.53 (mm) GC Column(2): DB-608 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK02	95	108	120	130			0
02	H92077	94	100	87	102			0
03	H92078	76	98	106	152*			1
04	H92078DL#1	D	D	D	D			
05	H92078DL#2	D	D	D	D			
06	H92078DL#3	D	D	D	D			
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	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out.

FORM II PEST-2

CLP52/9

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: MOR01001.D Lab Sample ID: BLANK1

Date Analyzed: 11/6/92 Time Analyzed: 1105

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: O-R

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	H92077	D18906	MOR01006.D	1405
02	H92078	D18907	MOR01007.D	1438
03	H92089	D18908	MOR01008.D	1511
04				
05				
06				
07				
08				
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: PACE, INC. Contract: D4501

Lab Code: D21104.501 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: BLANK1

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01001.D

Level: (low/med) LOW Date Received: 11/4/92

% Moisture: not dec. 0 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	9	J
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-57-4	Bromodichloromethane	10	U
10061-01-5	cis-1,2-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,2-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylenes (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO
VBLK01

Lab Name: PACE, INC. Contract: D4501

Lab Code: D21104.501 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: BLANK1

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01001.D

Level: (low/med) LOW Date Received: 11/4/92

% Moisture: not dec. 0 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VBLK0

Lab Name: PACE, INC. Contract: D8500

Lab Code: D210% Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: BLANK1

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR1001.D

Level: (low/med) LOW Date Received: 10/28/92

% Moisture: not dec. 0 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 1 (uL)

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	13.95	5	J
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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID: BOS00649.D Lab Sample ID: SBLK01

Instrument ID: O-S Date Extracted: 11/12/92

Matrix: (soil/water) SOIL Date Analyzed: 11/20/92

Level: (low/med) LOW Time Analyzed: 1436

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	H92077	D18906	SOS00652.D	11/20/92
02	H92078	D18907	SOS00653.D	11/20/92
03				
04				
05				
06				
07				
08				
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COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: PACE, INC. Contract:

Lab Code: D21102.502 Case No.: SAS No.: SDG No.

Matrix: (soil/water) SOIL Lab Sample ID: SBLK01

Sample wt/vol: 30 (g/mL) G Lab File ID: BOS00649.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
95-50-1	1,2-Dichlorobenzene	660	U
39638-32-9	2,2'-oxybis(1-Chloropropane)	660	U
95-48-7	2-Methylphenol	660	U
67-72-1	Hexachloroethane	660	U
621-64-7	N-Nitroso-di-n-propylamine	660	U
106-44-5	4-Methylphenol	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
111-91-1	bis(2-Chloroethoxy)methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-29-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3400	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3400	U
208-96-8	Acenaphthylene	660	U
131-11-3	Dimethylphthalate	660	U
606-20-2	2,6-Dinitrotoluene	660	U
83-32-9	Acenaphthene	660	U
99-09-2	3-Nitroaniline	3400	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SBLK01

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: SBLK01

Sample wt/vol: 30 (g/mL) G Lab File ID: BOS00649.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	3400	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
100-02-7	4-Nitrophenol	3400	U
86-73-7	Fluorene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
534-52-1	4,6-Dinitro-2-methylphenol	3400	U
100-01-6	4-Nitroaniline	3400	U
86-30-6	N-Nitrosodiphenylamine	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3400	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
86-74-8	Carbazol	660	U
84-74-2	Di-n-butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
56-55-3	Benzo(a)anthracene	660	U
218-01-9	Chrysene	660	U
91-94-1	3,3'-Dichlorobenzidine	660	U
117-81-7	Bis(2-ethylhexyl)phthalate	660	U
117-84-0	Di-n-octylphthalate	660	U
205-99-2	Benzo(b)fluoranthene	660	U
207-08-9	Benzo(k)fluoranthene	660	U
50-32-8	Benzo(a)pyrene	660	U
193-39-5	Indendo(1,2,3-cd)pyrene	660	U
53-70-3	Dibenz(a,h)anthracene	660	U
191-24-2	Benzo(g,h,i)perylene	660	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK01

Lab Name: PACE, INC. Contract: _____

Lab Code: D211I Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: SBLK01

Sample wt/vol: 30 (g/mL) G Lab File ID: BOS00649.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

Number TICs found: 4 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Aldol Condensate	4.57	6600	J
2.	Aldol Condensate	5.03	48500	J
3.	Aldol Condensate	5.21	10400	J
4.	Aldol Condensate	6.71	3100	J
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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK02

Lab Name: PACE, INC. Contract:

Lab Code: D21102.502 Case No.: SAS No.: SDG No.:

Lab File ID: BOS00723.D Lab Sample ID: SBLK02

Instrument ID: O-S Date Extracted: 12/8/92

Matrix: (soil/water) SOIL Date Analyzed: 12/9/92

Level: (low/med) LOW Time Analyzed: 2100

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	H92078RE	D18907RE	SOS00725.D	12/09/92
02				
03				
04				
05				
06				
07				
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: PACE, INC. Contract:

Lab Code: D21102.502 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: SBLK02

Sample wt/vol: 30 (g/mL) G Lab File ID: BOS00723.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/8/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/9/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
95-50-1	1,2-Dichlorobenzene	660	U
39638-32-9	2,2'-oxybis(1-Chloropropane)	660	U
95-48-7	2-Methylphenol	660	U
67-72-1	Hexachloroethane	660	U
621-64-7	N-Nitroso-di-n-propylamine	660	U
106-44-5	4-Methylphenol	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
111-91-1	bis(2-Chloroethoxy)methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-29-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3400	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3400	U
208-96-8	Acenaphthylene	660	U
131-11-3	Dimethylphthalate	660	U
606-20-2	2,6-Dinitrotoluene	660	U
83-32-9	Acenaphthene	660	U
99-09-2	3-Nitroaniline	3400	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: SBLK02

Sample wt/vol: 30 (g/mL) G Lab File ID: BOS00723.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/8/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/9/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	3400	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
100-02-7	4-Nitrophenol	3400	U
86-73-7	Fluorene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
534-52-1	4,6-Dinitro-2-methylphenol	3400	U
100-01-6	4-Nitroaniline	3400	U
86-30-6	N-Nitrosodiphenylamine	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3400	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
86-74-8	Carbazol	660	U
84-74-2	Di-n-butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
56-55-3	Benzo(a)anthracene	660	U
218-01-9	Chrysene	660	U
91-94-1	3,3'-Dichlorobenzidine	660	U
117-81-7	Bis(2-ethylhexyl)phthalate	660	U
117-84-0	Di-n-octylphthalate	660	U
205-99-2	Benzo(b)fluoranthene	660	U
207-08-9	Benzo(k)fluoranthene	660	U
50-32-8	Benzo(a)pyrene	660	U
193-39-5	Indendo(1,2,3-cd)pyrene	660	U
53-70-3	Dibenz(a,h)anthracene	660	U
191-24-2	Benzo(g,h,i)perylene	660	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK02

Lab Name: PACE, INC. Contract: _____

Lab Code: D211I Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: SBLK02

Sample wt/vol: 30 (g/mL) G Lab File ID: BOS00723.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 12/8/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/9/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Aldol Condensate	4.95	48900	J
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PESTICIDE METHOD BLANK SUMMARY

0000016

EPA Sample NO.

PBLK01

Lab Name: PACE, Inc. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 02502

Lab Sample ID: PBLK02 Lab File ID: N/A

Matrix: (soil/water) Soil Extraction: (SepF/Cont/Sonc) Sonc

Sulfur Cleanup: (Y/N) Y Date Extracted: 11/12/92

Date Analyzed (1): 1/8/93 Date Analyzed (2): 1/8/93

Time Analyzed (1): 08:12 Time Analyzed (2): 08:12

Instrument ID (1): 5890 M Instrument ID (2): 5890 M

GC Column (1): DB-5 ID: 0.53 (mm) GC Column (2): DB-608 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	H92077	18906.0	1/8/93	1/8/93
02	H92078	18907.4	1/8/93	1/8/93
03	H92078DL#1	18907.4(41x)	1/9/93	1/9/93
04	H92078DL#2	18907.4(123x)	1/11/93	1/11/93
05	H92078DL#3	18907.4(861x)	1/11/93	1/11/93
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COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA Sample No.
PBLK01

Lab Name: PACE, Inc. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 02502

Matrix: (soil/water) Soil Lab Sample ID: D21028.500 MB

Sample wt/vol: 30.0(g/mL) g Lab File ID:

% Moisture: 0 decanted: (Y/N) N Date Received: N/A

Extraction: (SepF/cont/Sonc) Sonc Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 2 (uL) Sulfur Cleanup: (Y/N) Y

GPC Cleanup: (Y/N) Y pH: 6.8

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC(Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17.0	U
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170.0	U
12674-11-2	Aroclor-1016	33.0	U
11104-28-2	Aroclor-1221	67.0	U
11141-16-5	Aroclor-1232	33.0	U
53469-21-9	Aroclor-1242	33.0	U
12672-29-6	Aroclor-1248	33.0	U
11097-69-1	Aroclor-1254	33.0	U
11096-82-5	Aroclor-1260	33.0	U

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY 0000018

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID (Standard): MOR01000.D Date Analyzed: 11/6/92

Instrument ID: O-R Time Analyzed: 1033

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	57821	7.48	243607	9.54	200534	15.81
	UPPER LIMIT	115642	7.98	487214	10.04	401068	16.31
	LOWER LIMIT	28911	6.98	121804	9.04	100267	15.31
	EPA SAMPLE NO.						
01	VBLK01	21868 *	7.49	82643 *	9.54	68726 *	15.79
02	H92077	48472	7.49	178930	9.54	125934	15.78
03	H92078	51694	7.49	200516	9.53	158493	15.78
04	H92089	39747	7.49	160019	9.54	131831	15.78
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18							
19							
20							
21							
22							

IS1 = Bromochloromethane
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

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 values outside QC limits with an asterisk
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID (Standard): DOS00648.D Date Analyzed: 11/20/92

Instrument ID: O-S Time Analyzed: 1337

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	618556	9.11	2360773	13.68	881754	20.76
	UPPER LIMIT	1237112	9.61	4721546	14.18	1763508	21.26
	LOWER LIMIT	309278	8.61	1180387	13.18	440877	20.26
	EPA SAMPLE NO.						
01	SBLK01	696748	9.10	2652188	13.64	1033569	20.74
02	H92077	659424	9.08	2611943	13.63	1004303	20.72
03	H92078	624021	9.07	2528960	13.61	1017928	20.71
04							
05							
06							
07							
08							
09							
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21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID (Standard): DOS00648.D Date Analyzed: 11/20/92

Instrument ID: O-S Time Analyzed: 1337

		IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	1267409	26.75	1090490	35.73	723943	39.15
	UPPER LIMIT	2534818	27.25	2180980	36.23	1447886	39.65
	LOWER LIMIT	633705	26.25	545245	35.23	361972	38.65
	EPA SAMPLE NO.						
01	SBLK01	1480187	26.72	1009530	35.70	714655	39.12
02	H92077	1428756	26.70	960372	35.68	658724	39.10
03	H92078	1493114	26.69	1051281	35.68	791034	39.10
04							
05							
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22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID (Standard): DOS00716.D Date Analyzed: 12/9/92

Instrument ID: O-S Time Analyzed: 1406

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	445225	9.06	1733257	13.62	684195	20.70
	UPPER LIMIT	890450	9.56	3466514	14.12	1368390	21.20
	LOWER LIMIT	222613	8.56	866629	13.12	342098	20.20
	EPA SAMPLE NO.						
01	SBLK02	488965	9.01	1811420	13.55	708113	20.63
02	H92078RE	416451	9.01	1610037	13.54	639053	20.63
03							
04							
05							
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22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID (Standard): DOS00716.D Date Analyzed: 12/9/92

Instrument ID: O-S Time Analyzed: 1406

		IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	1006300	26.70	975095	35.69	821337	39.11
	UPPER LIMIT	2012600	27.20	1950190	36.19	1642674	39.61
	LOWER LIMIT	503150	26.20	487548	35.19	410669	38.61
	EPA SAMPLE NO.						
01	SBLK02	1002184	26.62	711236	35.61	643156	39.03
02	H92078RE	907236	26.60	672604	35.61	611283	39.02
03							
04							
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21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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.

VOLATILE QC SUMMARY

2A

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER #	TOT OUT
01	VBLK01	111	112	119		1
02	H92077	101	105	89		
03	H92078	95	96	89		
04	H92089	105	102	105		
05						
06						
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30						

		QC LIMITS
SMC1	= 1,2-Dichloroethane-d4	(70-121)
SMC2	= Toluene-d8	(84-138)
SMC3	= Bromofluorobenzene	(59-113)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: MOR01001.D Lab Sample ID: BLANK1

Date Analyzed: 11/6/92 Time Analyzed: 1105

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: O-R

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	H92077	D18906	MOR01006.D	1405
02	H92078	D18907	MOR01007.D	1438
03	H92089	D18908	MOR01008.D	1511
04				
05				
06				
07				
08				
09				
10				
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COMMENTS:

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: MOR00999.D BFB Injection Date: 11/6/92

Instrument ID: O-R BFB Injection Time: 0959

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	10.8
75	30.0 - 66.0% of mass 95	39.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	81.0
175	4.0 - 9.0% of mass 174	7.0 (8.6)1
176	93.0 - 101.0% of mass 174	80.3 (100.0)1
177	5.0 - 9.0% of mass 176	5.8 (7.2)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VCC	MOR01000.D	11/6/92	1033
02	VBLK01	BLANK1	MOR01001.D	11/6/92	1105
03	H92077	D18906	MOR01006.D	11/6/92	1405
04	H92078	D18907	MOR01007.D	11/6/92	1438
05	H92089	D18908	MOR01008.D	11/6/92	1511
06					
07					
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21					
22					

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID (Standard): MOR01000.D Date Analyzed: 11/6/92

Instrument ID: O-R Time Analyzed: 1033

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	57821	7.48	243607	9.54	200534	15.81
	UPPER LIMIT	115642	7.98	487214	10.04	401068	16.31
	LOWER LIMIT	28911	6.98	121804	9.04	100267	15.31
	EPA SAMPLE NO.						
01	VBLK01	21868 *	7.49	82643 *	9.54	68726 *	15.79
02	H92077	48472	7.49	178930	9.54	125934	15.78
03	H92078	51694	7.49	200516	9.53	158493	15.78
04	H92089	39747	7.49	160019	9.54	131831	15.78
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17							
18							
19							
20							
21							
22							

IS1 = Bromochloromethane
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

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 values outside QC limits with an asterisk
* Values outside of QC limits.

VOLATILE SAMPLE DATA PACKAGE

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

-52077

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18906

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01006.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 5 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	11	U
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	11	U
75-00-3	Chloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-09-2	Methylene Chloride	20	B
540-59-0	1,2-Dichloroethene (total)	11	U
75-34-3	1,1-Dichloroethane	11	U
108-05-4	Vinyl Acetate	11	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
71-43-2	Benzene	11	U
107-06-2	1,2-Dichloroethane	11	U
79-01-6	Trichloroethene	11	U
78-87-5	1,2-Dichloropropane	11	U
75-57-4	Bromodichloromethane	11	U
10061-01-5	cis-1,2-Dichloropropene	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
108-88-3	Toluene	11	U
10061-02-6	trans-1,2-Dichloropropane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
127-18-4	Tetrachloroethene	11	U
591-78-6	2-Hexanone	11	U
124-48-1	Dibromochloromethane	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
1330-20-7	Xylenes (total)	11	U
100-42-5	Styrene	11	U
75-25-2	Bromoform	11	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H92077

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18906

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01006.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 5 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
79-34-5	1,1,2,2-Tetrachloroethane	11	U

FORM I VOA

3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
H92077

Lab Name: PACE, INC. Contract: D2502

Lab Code: D211(Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18906

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01006.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 5 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Number TICs found: 0

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
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QUANT REPORT

Operator ID: ALL Date Acquired: 6 Nov 92 2:05 pm
Data File: C:\CHEMPC\DATA\110692\MOR01006.D
Name:
Misc: 65-18906.6 H92077 D21102.502 5.00g
Method: MORCLPS.M
Title: TCL/624 Volatile Organics by GC/MS
Last Calibration: Thu Dec 24 09:11:27 1992
Quantitated using Single Level Calibration

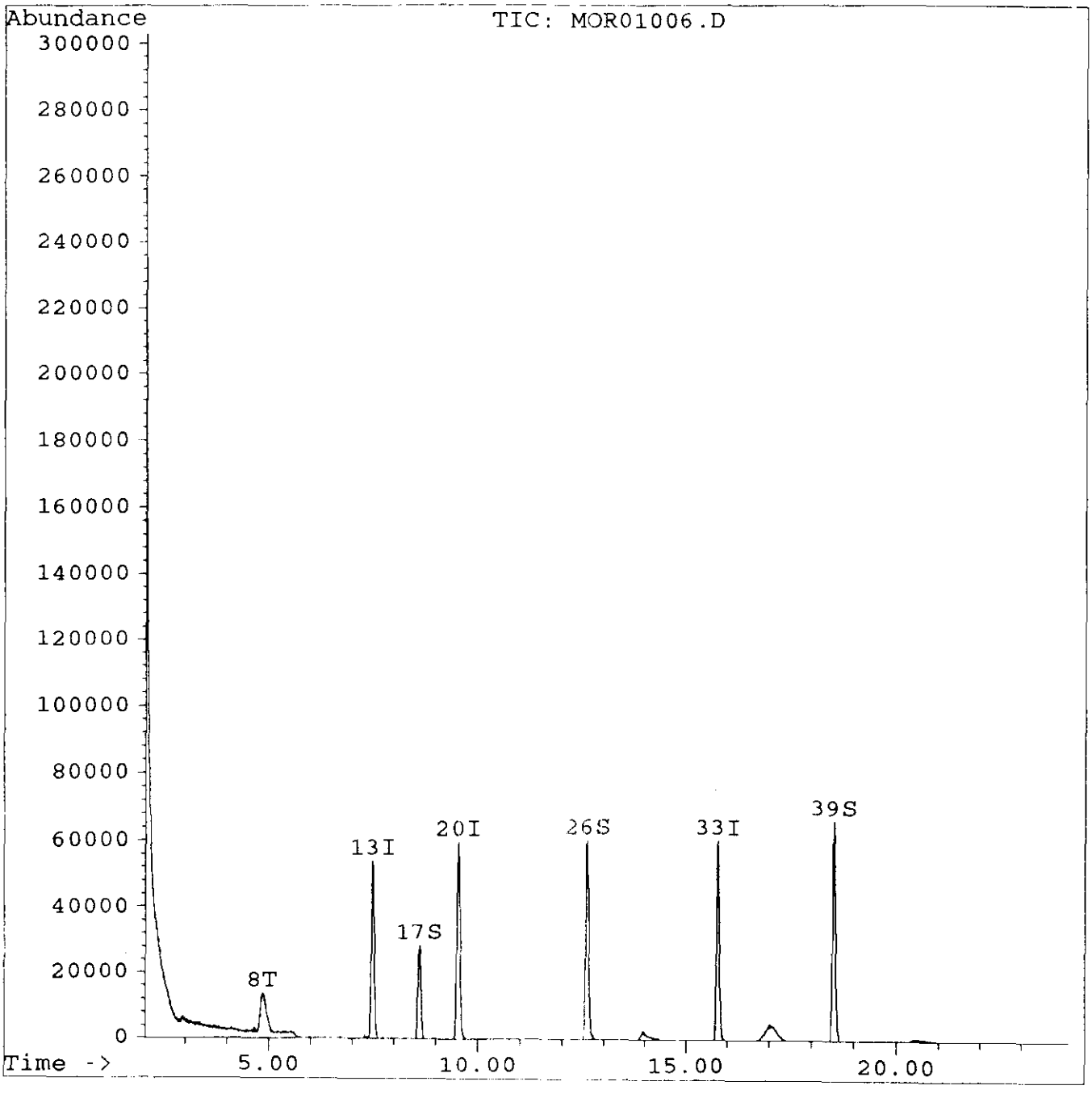
Internal Standards Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
13) Bromochloromethane	7.49	49	48472	50.00	ug/kg	0.01
20) 1,4-Difluorobenzene	9.54	114	178930	50.00	ug/kg	-0.01
33) Chlorobenzene-d5	15.78	117	125934	50.00	ug/kg	-0.02
System Monitoring Compounds						**%Recovery**
17) 1,2-Dichloroethane-d4	8.60	65	51583	50.32	ug/kg	100.64%
26) Toluene-d8	12.59	98	136587	52.26	ug/kg	104.53%
39) Bromofluorobenzene	18.53	95	83456	44.58	ug/kg	89.16%
Target Compounds						**ISTD#**
8) Methylene Chloride	4.86	49	35478	18.82	ug/kg	001m

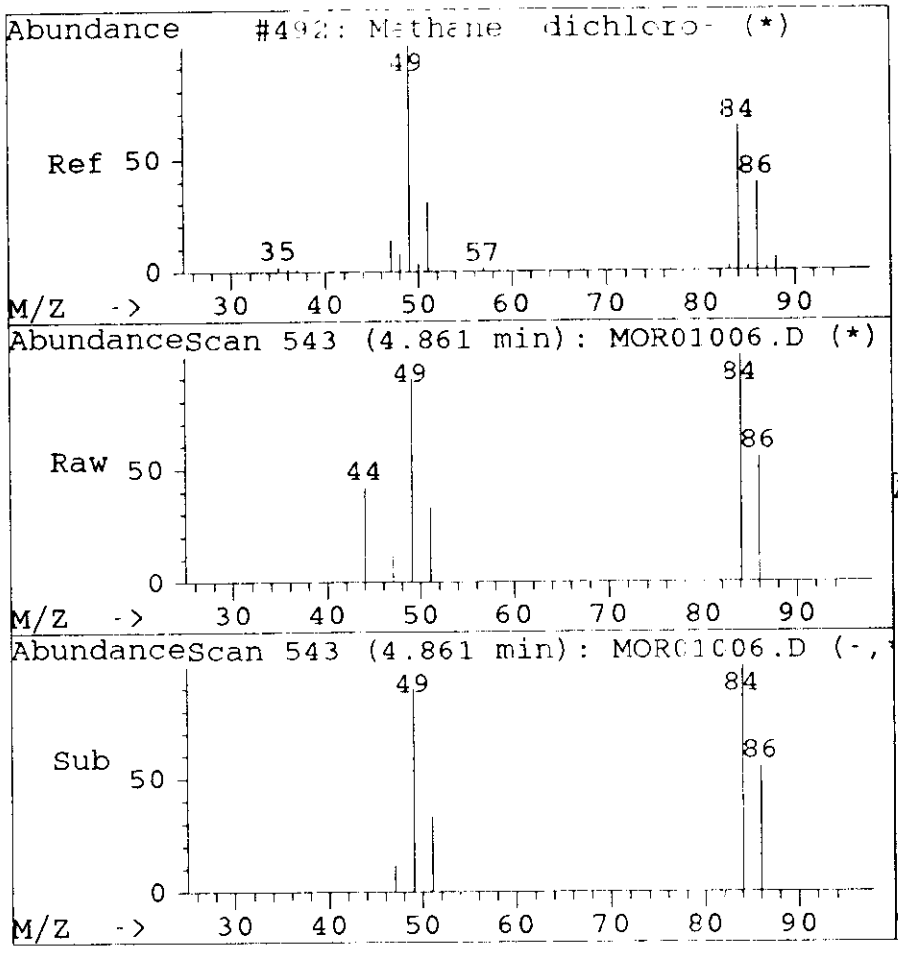
edited 12/18/92 GM

(#) = qualifier out of range

QUANT REPORT

Operator ID: ALL Date Acquired: 6 Nov 92 2:05 pm
Data File: C:\CHEMPC\DATA\110692\MOR01006.D
Name:
Misc: 65-18906.6 H92077 D21102.502 5.00g
Method: MORCLPS.M
Title: TCL/624 Volatile Organics by GC/MS
Last Calibration: Thu Dec 24 09:11:27 1992
Quantitated using Single Level Calibration

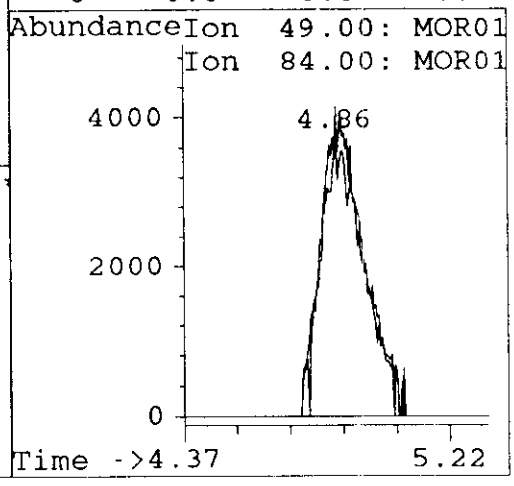




#8
Methylene Chloride
Concen: 18.82 ug/kg m
RT: 4.86 min Scan# 543
Delta R.T. -0.01 min
Lab File: MOR01006.D
Acq: 6 Nov 92 2:05 pm

Tgt Ion:49 Area: 35478

Ion	Ratio	Lower	Upper
49	100		
84	59.8	77.9	116.9#
0	0.0	0.0	0.0
0	0.0	0.0	0.0



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
H92078

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18907

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01007.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 7 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	11	U
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	11	U
75-00-3	Chloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-09-2	Methylene Chloride	20	B
540-59-0	1,2-Dichloroethene (total)	11	U
75-34-3	1,1-Dichloroethane	11	U
108-05-4	Vinyl Acetate	11	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
71-43-2	Benzene	11	U
107-06-2	1,2-Dichloroethane	11	U
79-01-6	Trichloroethene	11	U
78-87-5	1,2-Dichloropropane	11	U
75-57-4	Bromodichloromethane	11	U
10061-01-5	cis-1,2-Dichloropropene	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
108-88-3	Toluene	6	J
10061-02-6	trans-1,2-Dichloropropane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
127-18-4	Tetrachloroethene	11	U
591-78-6	2-Hexanone	11	U
124-48-1	Dibromochloromethane	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
1330-20-7	Xylenes (total)	11	U
100-42-5	Styrene	11	U
75-25-2	Bromoform	11	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

492078

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18907

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01007.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 7 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
79-34-5	1,1,2,2-Tetrachloroethane	11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
F92078

Lab Name: PACE, INC. Contract: D2502

Lab Code: D2110 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18907

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01007 D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 7 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
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21.				
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24.				
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26.				
27.				
28.				
29.				
30.				

QUANT REPORT

Operator ID: ALL Date Acquired: 6 Nov 92 2:38 pm
Data File: C:\CHEMPC\DATA\110692\MOR01007.D
Name:
Misc: 65-18907.4 H92078 D21102.502 5.02g
Method: MORCLPS.M
Title: TCL/624 Volatile Organics by GC/MS
Last Calibration: Thu Dec 24 09:11:27 1992
Quantitated using Single Level Calibration

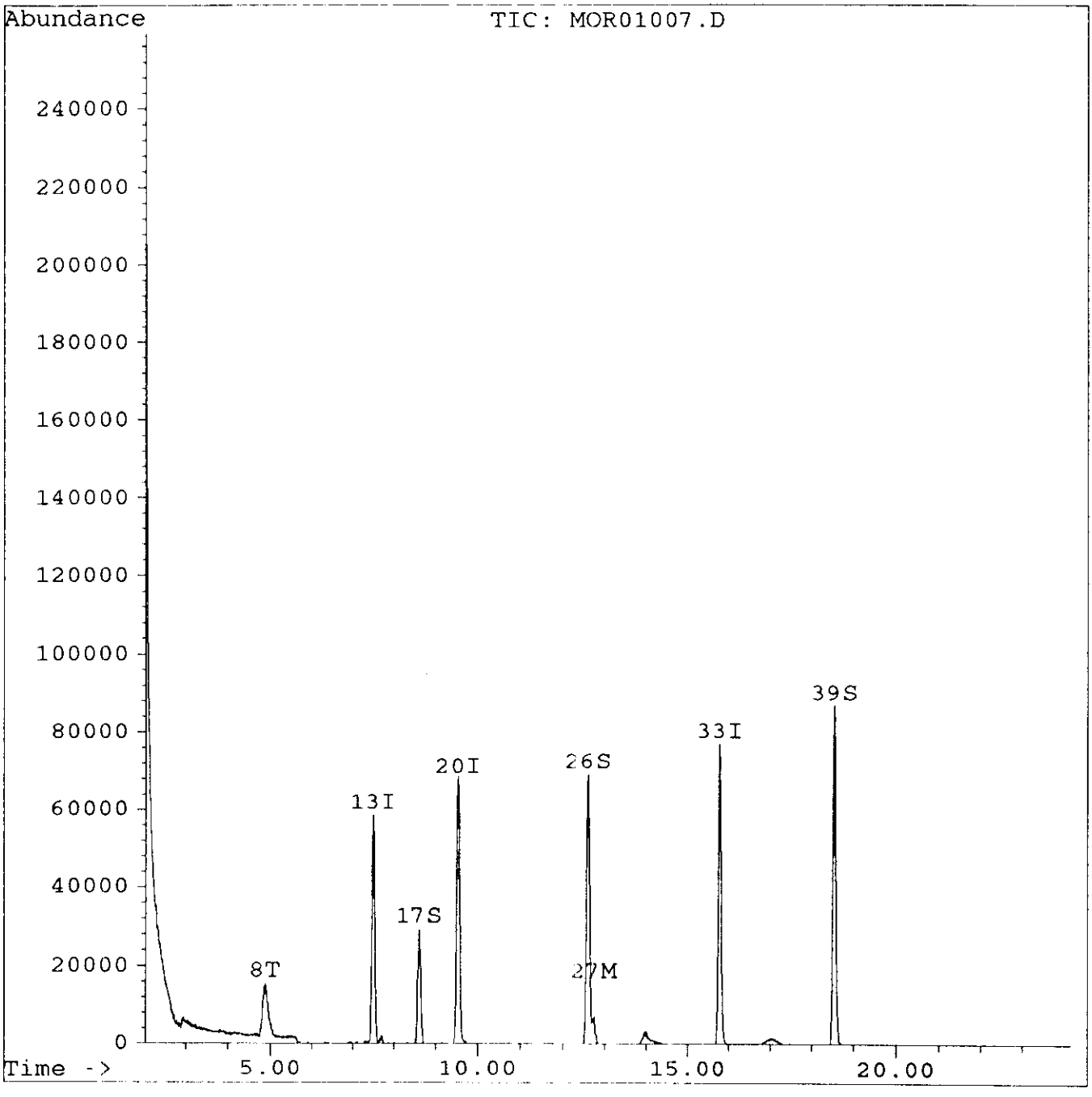
Internal Standards Compound	R T.	Qion	Area	Conc Unit	Dev(Min)
13) Bromochloromethane	7.49	49	51694	50.00 ug/kg	0.01
20) 1,4-Difluorobenzene	9.53	114	200516	50.00 ug/kg	-0.01
33) Chlorobenzene-d5	15.78	117	158493	50.00 ug/kg	-0.03
System Monitoring Compounds					**%Recovery**
17) 1,2-Dichloroethane-d4	8.60	65	51890	47.46 ug/kg	94.93%
26) Toluene-d8	12.60	98	157472	47.88 ug/kg	95.75%
39) Bromofluorobenzene	18.54	95	105249	44.67 ug/kg	89.34%
Target Compounds					**ISTD#**
8) Methylene Chloride	4.87	49	37015	18.41 ug/kg	001#
27) Toluene	12.74	91	18167	5.35 ug/kg	003

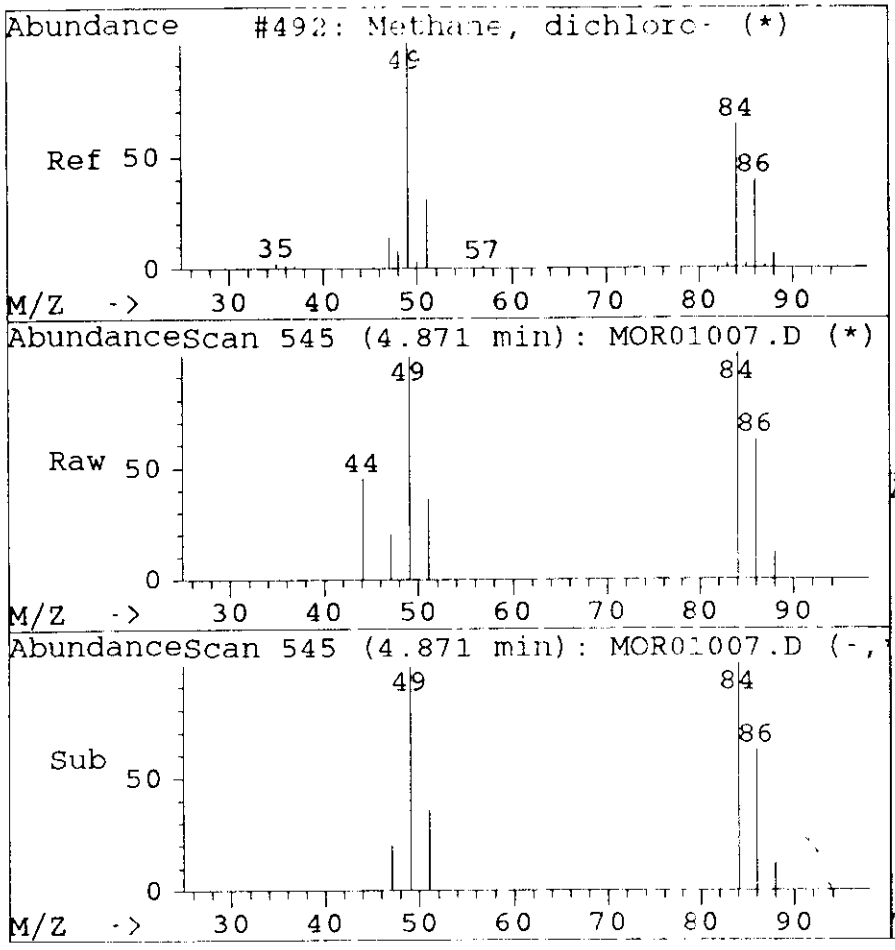
updated 12/18/92 JM

(#) = qualifier out of range

QUANT REPORT

Operator ID: ALL Date Acquired: 6 Nov 92 2:38 pm
Data File: C:\CHEMPC\DATA\110692\MOR01007.D
Name:
Misc: 65 18907.4 H92078 D21102.502 5.02g
Method: MORCLPS.M
Title: TCL/624 Volatile Organics by GC/MS
Last Calibration: Thu Dec 24 09:11:27 1992
Quantitated using Single Level Calibration

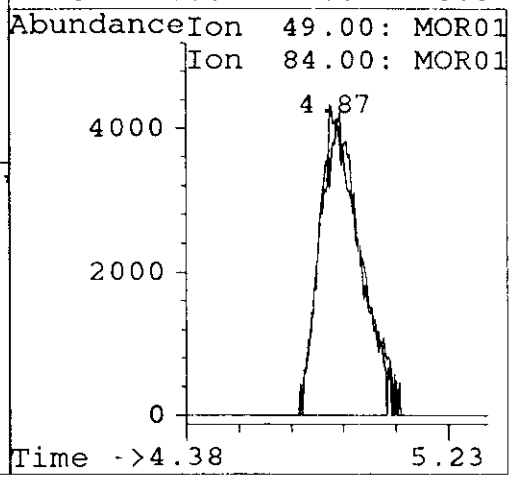


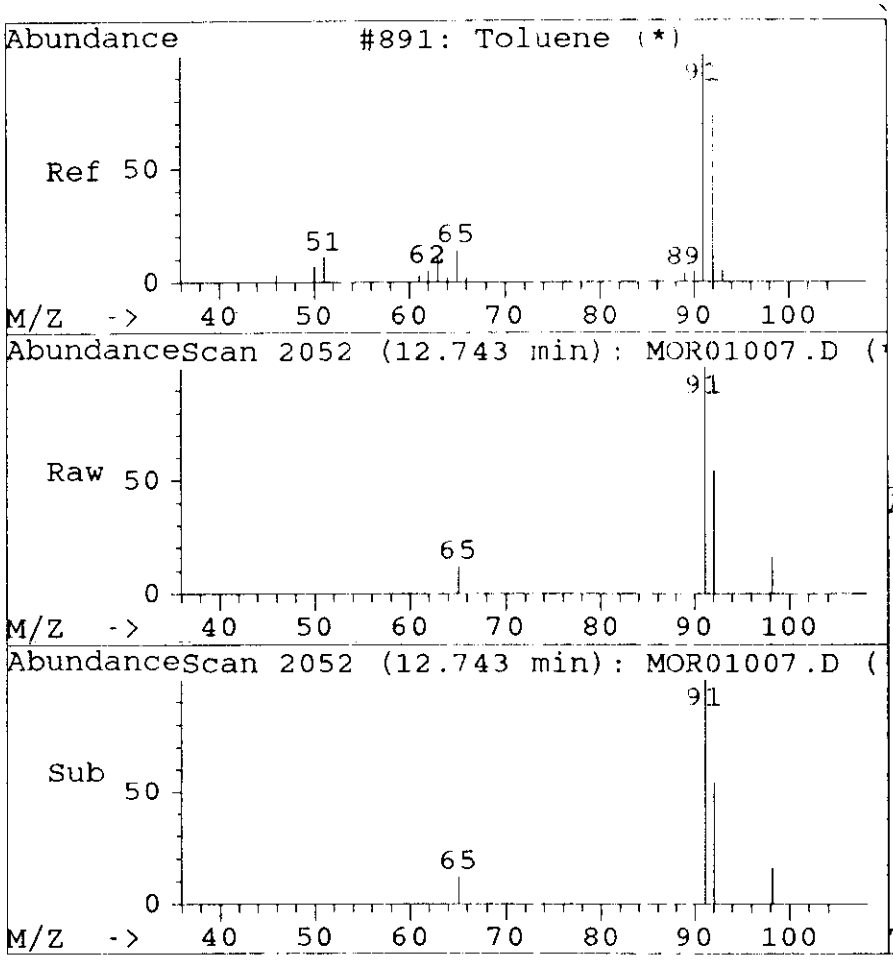


#8
Methylene Chloride
Concen: 18.41 ug/kg
RT: 4.87 min Scan# 545
Delta R.T. -0.00 min
Lab File: MOR01007.D
Acq: 6 Nov 92 2:38 pm

Tgt Ion:49 Area: 37015

Ion	Ratio	Lower	Upper
49	100		
84	2.3	77.9	116.9#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

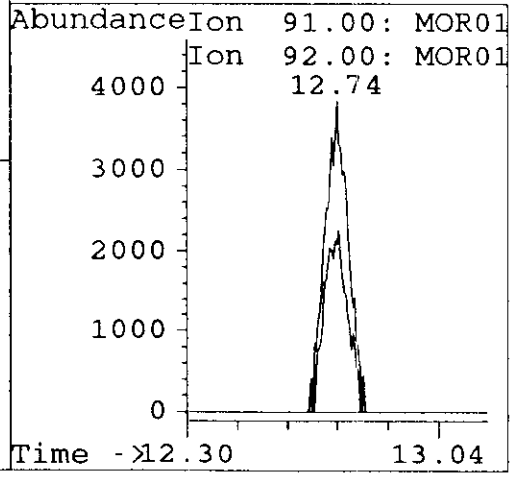




#27
Toluene
Concen: 5.35 ug/kg
RT: 12.74 min Scan# 2052
Delta R.T. 0.01 min
Lab File: MOR01007.D
Acq: 6 Nov 92 2:38 pm

Tgt Ion:91 Area: 18167

Ion	Ratio	Lower	Upper
91	100		
92	58.6	49.0	73.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

52039

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No. N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18908

Sample wt/vol: 5 (g/mL) ML Lab File ID: MOR01008.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 0 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	15	B
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-57-4	Bromodichloromethane	10	U
10061-01-5	cis-1,2-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,2-Dichloropropane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylenes (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
F92089

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No. N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18908

Sample wt/vol: 5 (g/mL) ML Lab File ID: MOR01008.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 0 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H92089

Lab Name: PACE, INC. Contract: D2502

Lab Code: D211[illegible] Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: D18908

Sample wt/vol: 5 (g/mL) ML Lab File ID: MOR01008.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: not dec. 0 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
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QUANT REPORT

Operator ID: ALL Date Acquired: 6 Nov 92 3:11 pm
Data File: C:\CHEMPC\DATA\110692\MOR01008.D
Name:
Misc: 65-18908.2 H92089 D21102.502 5.0ml
Method: MORCLPS.M
Title: TCL/624 Volatile Organics by GC/MS
Last Calibration: Thu Dec 24 09:11:27 1992
Quantitated using Single Level Calibration

Internal Standards

Compound	R.T.	Qion	Area	Conc Unit	Dev(Min)
13) Bromochloromethane	7.49	49	39747	50.00 ug/kg	0.01
20) 1,4-Difluorobenzene	9.54	114	160019	50.00 ug/kg	0.00
33) Chlorobenzene-d5	15.78	117	131831	50.00 ug/kg	-0.02

System Monitoring Compounds

					%Recovery
17) 1,2-Dichloroethane-d4	8.61	65	43921	52.25 ug/kg	104.50%
26) Toluene-d8	12.60	98	140067	51.20 ug/kg	102.40%
39) Bromofluorobenzene	18.54	95	102618	52.36 ug/kg	104.72%

Target Compounds

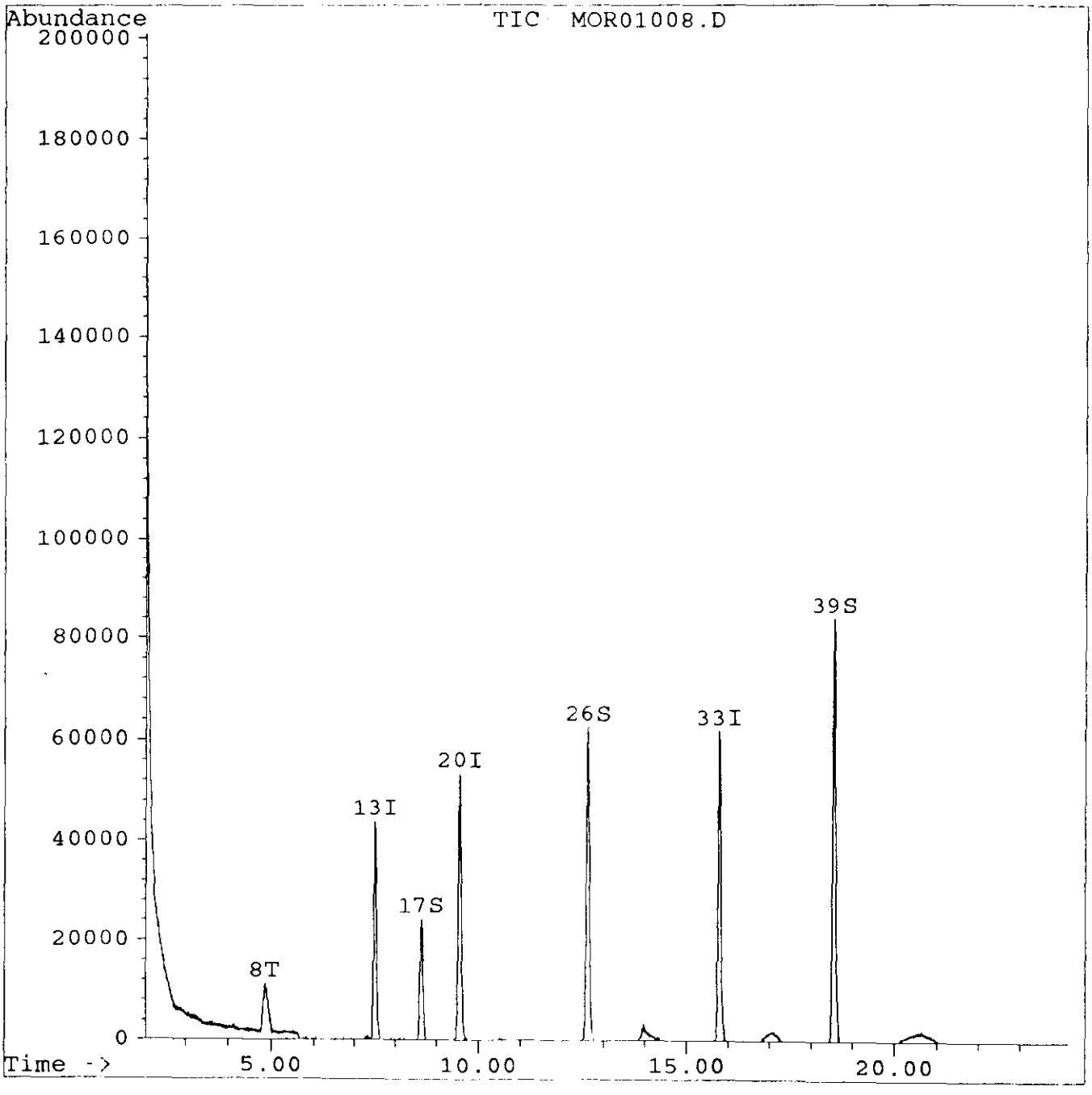
					ISTD#
8) Methylene Chloride	4.85	49	23105	14.95 ug/kg	001m

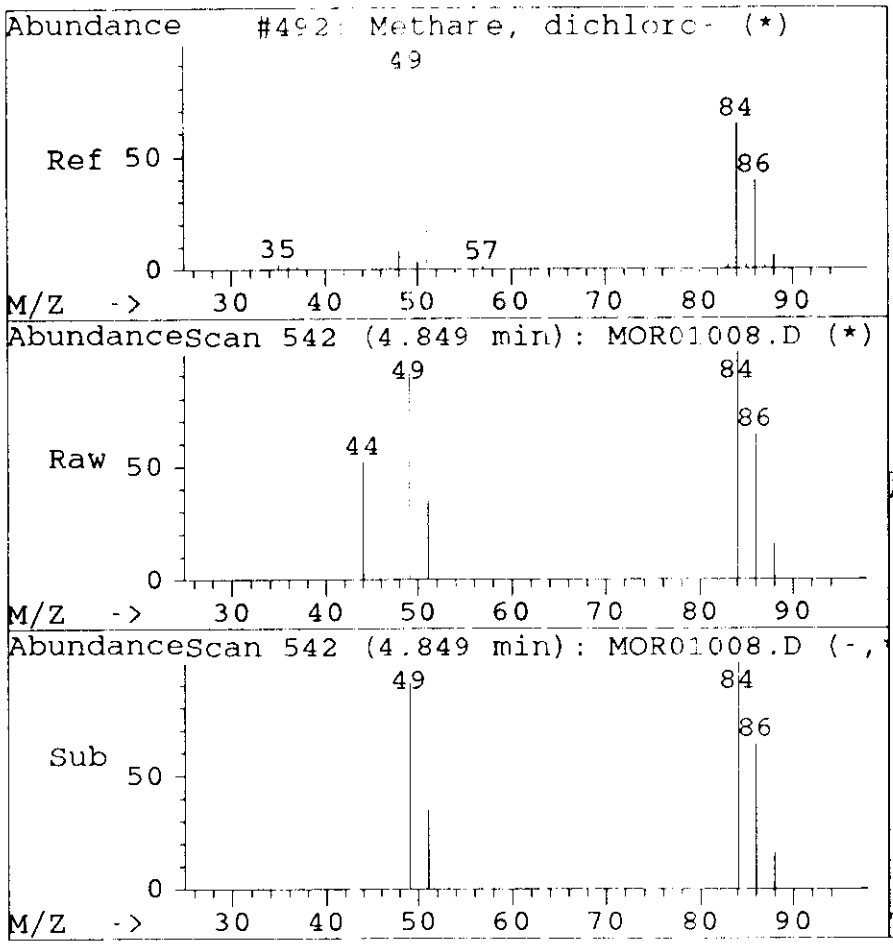
Audited 12/18/92 PM

(#) = qualifier out of range

QUANT REPORT

Operator ID: ALL Date Acquired: 6 Nov 92 3:11 pm
Data File: C:\CHEMPC\DATA\110692\MOR01008.D
Name:
Misc: 65 18908.2 H92089 D21102.502 5.0ml
Method: MORCLPS.M
Title: TCL/624 Volatile Organics by GC/MS
Last Calibration: Thu Dec 24 09:11:27 1992
Quantitated using Single Level Calibration

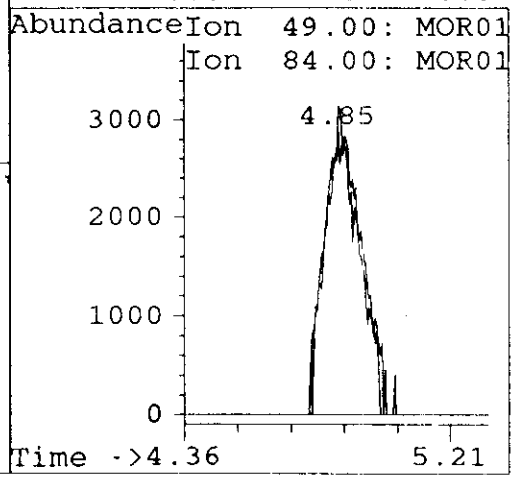




#8
Methylene Chloride
Concen: 14.95 ug/kg m
RT: 4.85 min Scan# 542
Delta R.T. -0.02 min
Lab File: MOR01008.D
Acq: 6 Nov 92 3:11 pm

Tgt Ion:49 Area: 23105

Ion	Ratio	Lower	Upper
49	100		
84	0.0	77.9	116.9#
0	0.0	0.0	0.0
0	0.0	0.0	0.0



VOLATILE STANDARDS DATA PACKAGE

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: O-R Calibration Date(s): 10/12/92 10/12/92

Heated Purge: (Y/N) Y Calibration Times: 1352 1712

GC Column: DB-624 ID: 0.53 (mm)

Lab File ID: RRF10 = MOR00695.D RRF20 = MOR00694.D
RRF50 = MOR00698.D RRF100 = MOR00697.D RRF200 = MOR00696.D

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
Chloromethane	*	0.401	0.588	0.651	0.675	0.724	0.608	20.7	*
Vinyl Chloride	*	0.784	0.971	1.033	1.068	1.110	0.993	12.8	*
Bromomethane	*	1.129	1.174	1.152	1.129	1.177	1.152	2.0	*
Chloroethane	*	0.289	0.503	0.361	0.362	0.364	0.376	20.8	*
1,1-Dichloroethene	*	1.309	1.518	1.620	1.644	1.162	1.451	14.4	*
Acetone	*	0.211	0.207	0.223	0.195	0.151	0.197	14.2	*
Carbon Disulfide	*	2.903	3.006	3.193	3.262	3.014	3.076	4.8	*
Methylene Chloride	*	1.489	1.370	1.227	1.168	1.216	1.294	10.2	*
1,2-Dichloroethene (total)	*	1.276	1.420	1.577	1.591	1.725	1.518	11.4	*
1,1-Dichloroethane	*	1.483	1.632	1.687	1.885	2.066	1.751	13.0	*
Vinyl Acetate		1.384	1.493	1.734	1.698	1.964	1.655	13.6	
2-Butanone	*	0.662	0.671	0.769	0.713	0.897	0.742	13.0	*
Chloroform	*	1.708	1.965	2.090	2.080	2.240	2.017	9.8	*
1,1,1-Trichloroethane	*	0.314	0.346	0.357	0.431	0.429	0.375	13.9	*
Carbon Tetrachloride	*	0.407	0.537	0.582	0.588	0.604	0.544	14.8	*
Benzene	*	0.575	0.660	0.693	0.680	0.695	0.661	7.6	*
1,2-Dichloroethane	*	0.945	1.132	1.212	1.186	1.288	1.153	11.2	*
Trichloroethene	*	0.388	0.439	0.475	0.465	0.470	0.447	8.1	*
1,2-Dichloropropane	*	0.262	0.291	0.319	0.310	0.325	0.301	8.4	*
Bromodichloromethane	*	0.401	0.459	0.508	0.495	0.522	0.477	10.2	*
cis-1,2-Dichloropropene	*	0.394	0.452	0.510	0.514	0.515	0.477	11.1	*
4-Methyl-2-Pentanone	*	0.356	0.372	0.437	0.404	0.432	0.400	8.9	*
Toluene	*	0.785	0.866	0.957	0.917	0.923	0.890	7.5	*
trans-1,2-Dichloropropane	*	0.297	0.329	0.382	0.385	0.402	0.359	12.2	*
1,1,2-Trichloroethane	*	0.269	0.309	0.350	0.346	0.359	0.327	11.4	*
Tetrachloroethene	*	0.397	0.423	0.463	0.447	0.450	0.436	6.1	*
2-Hexanone	*	0.291	0.307	0.375	0.341	0.395	0.342	12.8	*
Dibromochloromethane	*	0.472	0.534	0.617	0.600	0.659	0.576	12.8	*
Chlorobenzene	*	0.767	0.867	0.930	0.903	0.915	0.876	7.5	*
Ethylbenzene	*	0.994	1.105	1.210	1.162	1.189	1.132	7.6	*
Xylenes (total)	*	0.503	0.570	0.608	0.912	0.939	0.706	28.8	*
Styrene	*	0.661	0.782	0.862	0.838	0.853	0.799	10.4	*
Bromoform	*	0.478	0.567	0.667	0.639	0.722	0.615	15.4	*
1,1,2,2-Tetrachloroethane	*	0.029	0.065	0.078	0.075	0.080	0.065	32.2	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: O-R Calibration Date(s): 10/12/92 10/12/92

Heated Purge: (Y/N) Y Calibration Times: 1352 1712

GC Column: DB-624 ID: 0.53 (mm)

Lab File ID: RRF10 = MOR00695.D RRF20 = MOR00694.D
RRF50 = MOR00698.D RRF100 = MOR00697.D RRF200 = MOR00696.D

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD	
1,2-Dichloroethane-d4 *	0.835	1.051	1.157	1.124	1.204	1.074	13.5	*
Toluene-d8 *	0.766	0.892	0.970	0.972	0.945	0.909	9.5	*
Bromofluorobenzene *	0.551	0.649	0.722	0.720	0.714	0.671	11.0	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

Soil

Calibration Table Status Report

Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Tue Oct 13 08:02:38 1992

Calibration Files
10 =MOR00696.D 20 =MOR00697.D 50 =MOR00698.D
100 =MOR00694.D 200 =MOR00695.D

	Compound	10	20	50	100	200	Avg	%RSD
13)	Bromochloromethane	ISTD						
1)	Chloromethane	0.401	0.588	0.651	0.675	0.724	0.608	20.68
2)	Vinyl Chloride	0.784	0.971	1.033	1.068	1.110	0.993	12.83
3)	Bromomethane	1.129	1.174	1.152	1.129	1.177	1.152	2.02
4)	Chloroethane	0.289	0.503	0.361	0.362	0.364	0.376	20.75
5)	1,1-Dichloroethene	1.309	1.518	1.620	1.644	1.162	1.451	14.39
6)	Acetone	0.211	0.207	0.223	0.195	0.151	0.197	14.16
7)	Carbon Disulfide	2.903	3.006	3.193	3.262	3.014	3.075	4.80
8)	Methylene Chloride	1.489	1.370	1.227	1.168	1.216	1.294	10.23
9)	1,2-Dichloroethene (total)	1.276	1.420	1.577	1.591	1.725	1.518	11.40
10)	1,1-Dichloroethane	1.483	1.632	1.687	1.885	2.066	1.751	13.01
11)	Vinyl Acetate	1.384	1.493	1.734	1.698	1.964	1.655	13.63
12)	2-Butanone	0.662	0.671	0.769	0.713	0.897	0.742	12.95
14)	Chloroform	1.708	1.965	2.090	2.080	2.240	2.017	9.84
17)	1,2-Dichloroethane-d4	0.835	1.051	1.157	1.124	1.204	1.074	13.49
19)	1,2-Dichloroethane	0.945	1.132	1.212	1.186	1.288	1.153	11.16
20)	1,4-Difluorobenzene	ISTD						
15)	1,1,1-Trichloroethane	0.314	0.346	0.357	0.431	0.429	0.375	13.89
16)	Carbon Tetrachloride	0.407	0.537	0.582	0.588	0.604	0.544	14.77
18)	Benzene	0.575	0.660	0.693	0.680	0.695	0.661	7.58
21)	Trichloroethene	0.388	0.439	0.475	0.465	0.470	0.447	8.09
22)	1,2-Dichloropropane	0.262	0.291	0.319	0.310	0.325	0.301	8.38
23)	Bromodichloromethane	0.401	0.459	0.508	0.495	0.522	0.477	10.18
24)	cis-1,2-Dichloropropene	0.394	0.452	0.510	0.514	0.515	0.477	11.14
28)	trans-1,2-Dichloropropane	0.297	0.329	0.382	0.385	0.402	0.359	12.20
29)	1,1,2-Trichloroethane	0.269	0.309	0.350	0.346	0.359	0.327	11.44
32)	Dibromochloromethane	0.472	0.534	0.617	0.600	0.659	0.577	12.81
38)	Bromoform	0.478	0.567	0.667	0.639	0.722	0.614	15.40
33)	Chlorobenzene-d5	ISTD						
25)	4-Methyl-2-Pentanone	0.356	0.372	0.437	0.404	0.432	0.400	8.94
26)	Toluene-d8	0.766	0.892	0.970	0.972	0.945	0.909	9.48
27)	Toluene	0.785	0.866	0.957	0.917	0.923	0.890	7.50
30)	Tetrachloroethene	0.397	0.423	0.463	0.447	0.450	0.436	6.05
31)	2-Hexanone	0.291	0.307	0.375	0.341	0.395	0.342	12.83
34)	Chlorobenzene	0.767	0.867	0.930	0.903	0.915	0.877	7.45
35)	Ethylbenzene	0.994	1.105	1.210	1.162	1.189	1.132	7.64
36)	Xylenes (total)	1.509	1.711	1.824	2.737	2.816	2.119	28.83
37)	Styrene	0.661	0.782	0.862	0.838	0.853	0.799	10.42
39)	Bromofluorobenzene	0.551	0.649	0.722	0.720	0.714	0.671	11.04
40)	1,1,2,2-Tetrachloroethane	0.029	0.065	0.078	0.075	0.080	0.065	32.19

QUANT REPORT

Operator ID: PBM Date Acquired: 12 Oct 92 4:06 pm
Data File: C:\CHEMPC\DATA\101292\MOR00696.D
Name:
Misc: 50ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Tue Oct 13 08:03:34 1992
Quantitated using Multiple Level Calibration

Internal Standards

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
13) Bromochloromethane	7.59	49	68312	50.00	ug/l	-0.10
20) 1,4-Difluorobenzene	9.66	114	270622	50.00	ug/l	0.11
33) Chlorobenzene-d5	15.92	117	233544	50.00	ug/l	0.11

System Monitoring Compounds

						%Recovery
17) 1,2-Dichloroethane-d4	8.72	65	11408	8.34	ug/l	16.69%
26) Toluene-d8	12.72	98	35780	8.41	ug/l	16.82%
39) Bromofluorobenzene	18.68	95	25717	8.09	ug/l	16.17%

Target Compounds

						ISTD#
1) Chloromethane	2.41	50	5473	6.89	ug/l	001m
2) Vinyl Chloride	2.55	62	10717	7.92	ug/l	001m
3) Bromomethane	2.88	94	15426	8.85	ug/l	001m
4) Chloroethane	3.05	64	3949	5.64	ug/l	001m
5) 1,1-Dichloroethene	4.14	61	17882	7.98	ug/l	001m
6) Acetone	4.19	43	2881	52.30	ug/l	001m
7) Carbon Disulfide	4.55	76	39657	8.61	ug/l	001m
8) Methylene Chloride	4.96	49	20347	13.47	ug/l	001m
9) 1,2-Dichloroethene (total)	5.37	61	17433	8.15	ug/l	001m
10) 1,1-Dichloroethane	6.08	63	20256	8.11	ug/l	001
11) Vinyl Acetate	6.26	43	18905	12.06	ug/l	001#
12) 2-Butanone	7.26	43	9042	40.80	ug/l	001m
14) Chloroform	7.81	83	23332	8.04	ug/l	001m
15) 1,1,1-Trichloroethane	8.08	97	17013	8.24	ug/l	002m
16) Carbon Tetrachloride	8.41	117	22030	7.43	ug/l	002
18) Benzene	8.82	78	31112	8.75	ug/l	002#
19) 1,2-Dichloroethane	8.87	62	12918	8.69	ug/l	001m
21) Trichloroethene	10.15	130	20986	8.32	ug/l	002
22) 1,2-Dichloropropane	10.59	63	14189	8.88	ug/l	002m
23) Bromodichloromethane	11.21	83	21696	8.40	ug/l	002
24) cis-1,2-Dichloropropene	12.18	75	21337	8.84	ug/l	002
25) 4-Methyl-2-Pentanone	12.59	43	16642	23.50	ug/l	003
27) Toluene	12.87	91	36682	8.79	ug/l	003
28) trans-1,2-Dichloropropane	13.41	75	16100	8.32	ug/l	002#
29) 1,1,2-Trichloroethane	13.80	97	14566	9.57	ug/l	002#
30) Tetrachloroethene	14.05	164	18523	8.81	ug/l	003
31) 2-Hexanone	14.44	43	13588	29.71	ug/l	003m
32) Dibromochloromethane	14.64	127	25542	8.75	ug/l	002
34) Chlorobenzene	15.97	112	35841	8.72	ug/l	003
35) Ethylbenzene	16.27	91	46432	8.68	ug/l	003
36) Xylenes (total)	16.56	91	70504	16.92	ug/l	003
37) Styrene	17.50	104	30856	8.28	ug/l	003

(#) = qualifier out of range

QUANT REPORT

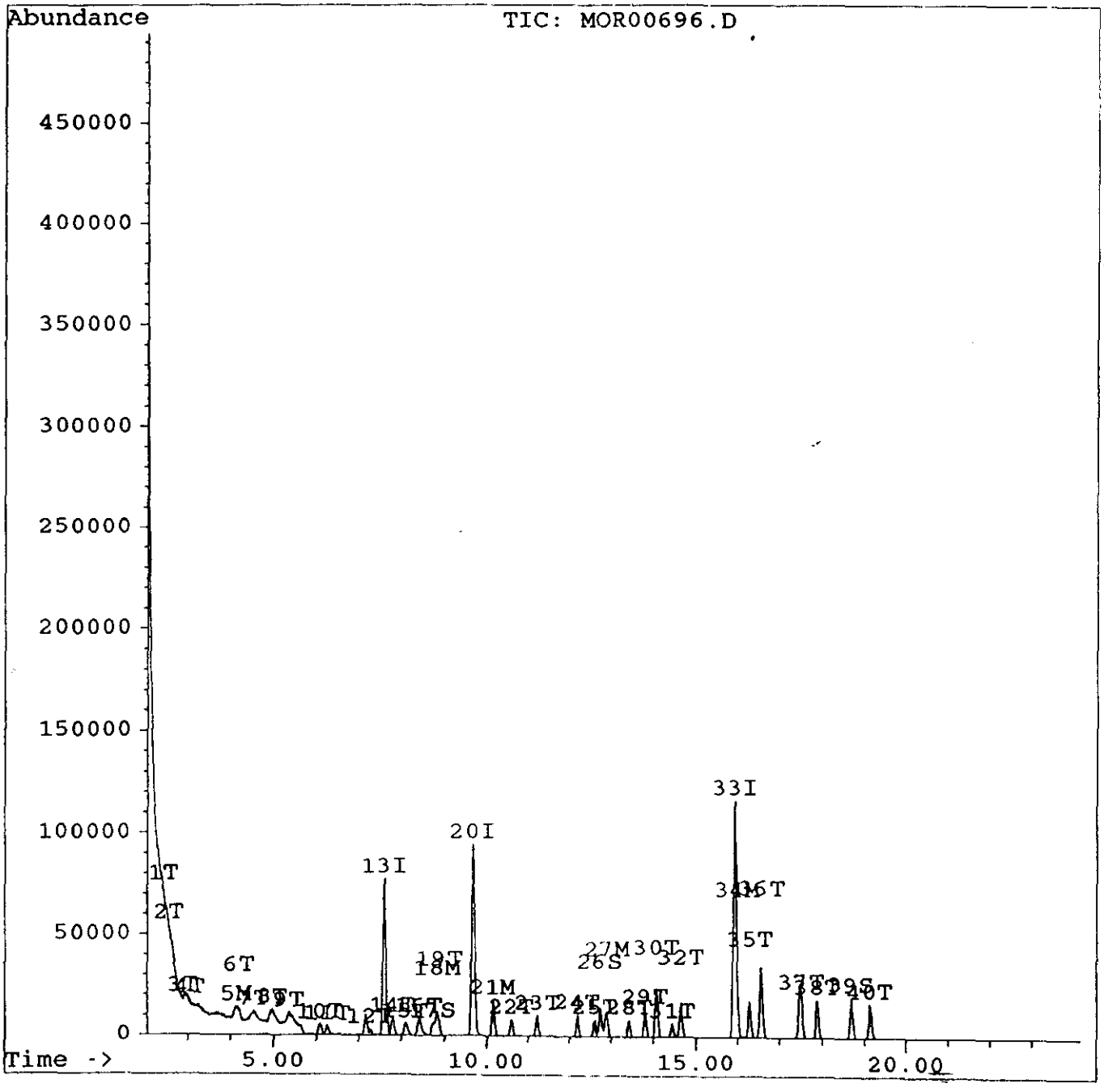
Operator ID: PBM Date Acquired: 12 Oct 92 4:06 pm
Data File: C:\CHEMPC\DATA\101292\MOR00696.D
Name:
Misc: 50ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Tue Oct 13 08:03:34 1992
Quantitated using Multiple Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
38) Bromoform	17.86	173	25856	9.62	ug/l	002#
40) 1,1,2,2-Tetrachloroethane	19.13	168	1362	7.12	ug/l	003

(#) = qualifier out of range

QUANT REPORT

Operator ID: PBM Date Acquired: 12 Oct 92 4:06 pm
Data File: C:\CHEMPC\DATA\101292\MOR00696.D
Name:
Misc: 50ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Tue Oct 13 08:03:34 1992
Quantitated using Multiple Level Calibration



QUANT REPORT

Operator ID: PBM Date Acquired: 12 Oct 92 4:39 pm
Data File: C:\CHEMPC\DATA\101292\MOR00697.D
Name:
Misc: 100ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Tue Oct 13 08:03:34 1992
Quantitated using Single Level Calibration

Internal Standards Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
13) Bromochloromethane	7.60	49	67097	50.00	ug/l	-0.09
20) 1,4-Difluorobenzene	9.67	114	268201	50.00	ug/l	0.13
33) Chlorobenzene-d5	15.91	117	227255	50.00	ug/l	0.10
System Monitoring Compounds						**%Recovery**
17) 1,2-Dichloroethane-d4	8.73	65	28195	25.16	ug/l	50.33%
26) Toluene-d8	12.73	98	81078	23.29	ug/l	46.57%
39) Bromofluorobenzene	18.67	95	58953	23.56	ug/l	47.11%
Target Compounds						**ISTD#**
1) Chloromethane	2.43	50	15787	29.37	ug/l	001m
2) Vinyl Chloride	2.54	62	26059	24.76	ug/l	001m
3) Bromomethane	2.85	94	31508	20.80	ug/l	001m
4) Chloroethane	2.99	64	13512	34.84	ug/l	001m
5) 1,1-Dichloroethene	4.11	61	40740	23.20	ug/l	001m
6) Acetone	4.21	43	5556	19.63	ug/l	001m
7) Carbon Disulfide	4.55	76	80677	20.71	ug/l	001m
8) Methylene Chloride	4.96	49	36757	18.39	ug/l	001m
9) 1,2-Dichloroethene (total)	5.39	61	38125	22.27	ug/l	001m
10) 1,1-Dichloroethane	6.08	63	43800	22.02	ug/l	001
11) Vinyl Acetate	6.26	43	40071	21.58	ug/l	001
12) 2-Butanone	7.28	43	18007	20.28	ug/l	001m
14) Chloroform	7.81	83	52733	23.01	ug/l	001
15) 1,1,1-Trichloroethane	8.11	97	37119	22.02	ug/l	002#
16) Carbon Tetrachloride	8.41	117	57645	26.40	ug/l	002m
18) Benzene	8.83	78	70856	22.98	ug/l	002
19) 1,2-Dichloroethane	8.88	62	30383	23.95	ug/l	001#
21) Trichloroethene	10.15	130	47073	22.63	ug/l	002
22) 1,2-Dichloropropane	10.61	63	31254	22.23	ug/l	002#
23) Bromodichloromethane	11.21	83	49251	22.90	ug/l	002
24) cis-1,2-Dichloropropene	12.17	75	48504	22.94	ug/l	002
25) 4-Methyl-2-Pentanone	12.57	43	33836	20.89	ug/l	003#
27) Toluene	12.87	91	78707	22.05	ug/l	003
28) trans-1,2-Dichloropropane	13.41	75	35342	22.15	ug/l	002
29) 1,1,2-Trichloroethane	13.79	97	33178	22.98	ug/l	002
30) Tetrachloroethene	14.06	164	38435	21.32	ug/l	003
31) 2-Hexanone	14.43	43	27935	21.13	ug/l	003
32) Dibromochloromethane	14.63	127	57266	22.62	ug/l	002
34) Chlorobenzene	15.97	112	78817	22.60	ug/l	003
35) Ethylbenzene	16.26	91	100457	22.23	ug/l	003#
36) Xylenes (total)	16.55	91	155495	22.67	ug/l	003
37) Styrene	17.48	104	71102	23.68	ug/l	003

(#) = qualifier out of range

QUANT REPORT

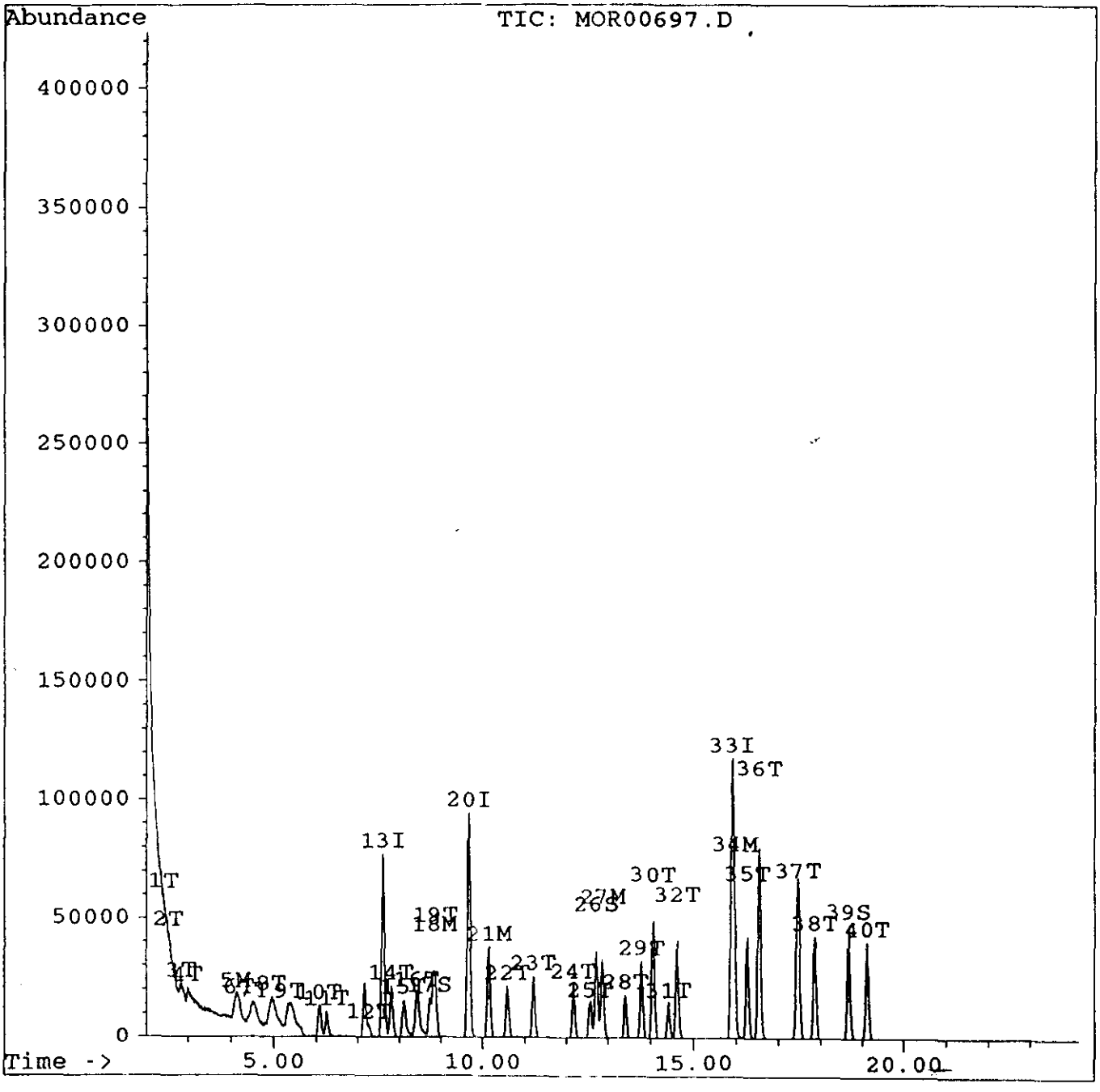
Operator ID: PBM Date Acquired: 12 Oct 92 4:39 pm
Data File: C:\CHEMPC\DATA\101292\MOR00697.D
Name:
Misc: 100ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Tue Oct 13 08:03:34 1992
Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc Unit	Dev(Min)
38) Bromoform	17.86	173	60820	23.74 ug/l	002
40) 1,1,2,2-Tetrachloroethane	19.12	168	5890	44.41 ug/l	003#

(#) = qualifier out of range

QUANT REPORT

Operator ID: PBM Date Acquired: 12 Oct 92 4:39 pm
Data File: C:\CHEMPC\DATA\101292\MOR00697.D
Name:
Misc: 100ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Tue Oct 13 08:03:34 1992
Quantitated using Single Level Calibration



QUANT REPORT

Operator ID: PBM Date Acquired: 12 Oct 92 5:12 pm
Data File: C:\CHEMPC\DATA\101292\MOR00698.D
Name:
Misc: 250ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Tue Oct 13 08:03:34 1992
Quantitated using Multiple Level Calibration

Internal Standards Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
13) Bromochloromethane	7.59	49	64991	50.00	ug/l	-0.11
20) 1,4-Difluorobenzene	9.66	114	261265	50.00	ug/l	0.11
33) Chlorobenzene-d5	15.91	117	226289	50.00	ug/l	0.11
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	8.73	65	75219	57.05	ug/l	114.10%
26) Toluene-d8	12.72	98	219397	55.35	ug/l	110.70%
39) Bromofluorobenzene	18.67	95	163492	56.40	ug/l	112.79%
Target Compounds						ISTD#
1) Chloromethane	2.41	50	42291	59.53	ug/l	001m
2) Vinyl Chloride	2.53	62	67137	55.57	ug/l	001m
3) Bromomethane	2.84	94	74841	50.00	ug/l	001#
4) Chloroethane	2.98	64	23489	46.98	ug/l	001m
5) 1,1-Dichloroethene	4.09	61	105285	54.65	ug/l	001
6) Acetone	4.25	43	14506	54.16	ug/l	001m
7) Carbon Disulfide	4.50	76	207550	52.64	ug/l	001m
8) Methylene Chloride	4.96	49	79760	45.05	ug/l	001m
9) 1,2-Dichloroethene (total)	5.41	61	102461	55.34	ug/l	001m
10) 1,1-Dichloroethane	6.07	63	109647	52.70	ug/l	001
11) Vinyl Acetate	6.25	43	112710	56.42	ug/l	001
12) 2-Butanone	7.29	43	49997	54.90	ug/l	001#
14) Chloroform	7.80	83	135847	54.41	ug/l	001
15) 1,1,1-Trichloroethane	8.09	97	93276	52.64	ug/l	002
16) Carbon Tetrachloride	8.40	117	151985	57.17	ug/l	002m
18) Benzene	8.81	78	181112	53.92	ug/l	002
19) 1,2-Dichloroethane	8.87	62	78768	55.26	ug/l	001
21) Trichloroethene	10.14	130	124133	54.75	ug/l	002
22) 1,2-Dichloropropane	10.59	63	83218	54.79	ug/l	002
23) Bromodichloromethane	11.22	83	132715	55.70	ug/l	002
24) cis-1,2-Dichloropropene	12.17	75	133122	56.37	ug/l	002
25) 4-Methyl-2-Pentanone	12.59	43	98997	56.28	ug/l	003
27) Toluene	12.86	91	216488	55.03	ug/l	003
28) trans-1,2-Dichloropropane	13.41	75	99735	56.77	ug/l	002
29) 1,1,2-Trichloroethane	13.80	97	91506	56.57	ug/l	002
30) Tetrachloroethene	14.05	164	104830	54.17	ug/l	003
31) 2-Hexanone	14.43	43	84942	57.83	ug/l	003
32) Dibromochloromethane	14.63	127	161312	57.06	ug/l	002
34) Chlorobenzene	15.97	112	210427	54.40	ug/l	003
35) Ethylbenzene	16.27	91	273800	54.85	ug/l	003
36) Xylenes (total)	16.55	91	412663	54.24	ug/l	003
37) Styrene	17.49	104	194958	56.08	ug/l	003

(#) = qualifier out of range

QUANT REPORT

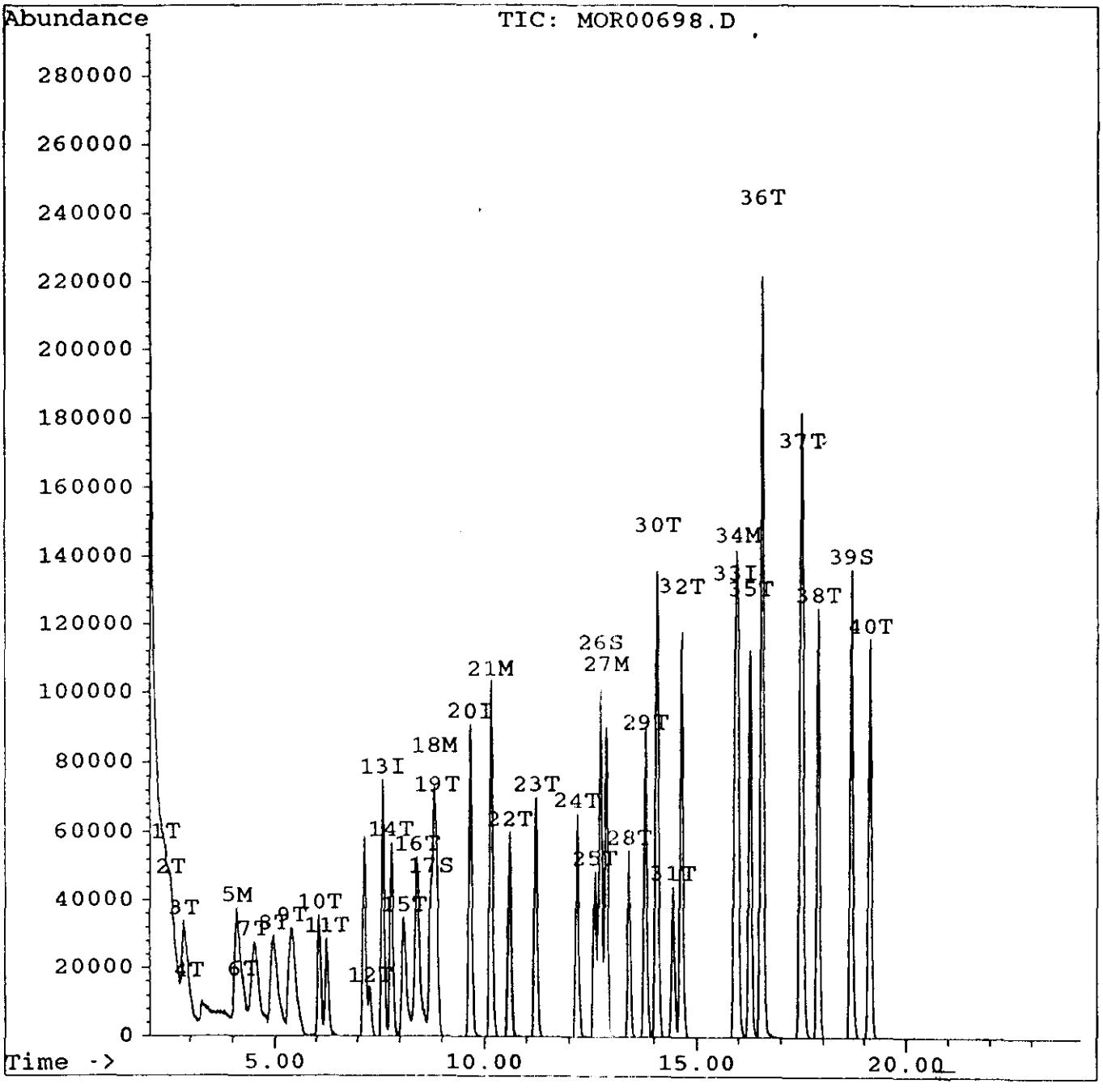
Operator ID: PBM Date Acquired: 12 Oct 92 5:12 pm
Data File: C:\CHEMPC\DATA\101292\MOR00698.D
Name:
Misc: 250ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Tue Oct 13 08:03:34 1992
Quantitated using Multiple Level Calibration

Compound	R.T.	Qion	Area	Conc Unit	Dev(Min)
38) Bromoform	17.86	173	174184	58.44 ug/l	002
40) 1,1,2,2-Tetrachloroethane	19.13	168	17561	67.84 ug/l	003#

(#) = qualifier out of range

QUANT REPORT

Operator ID: PBM Date Acquired: 12 Oct 92 5:12 pm
Data File: C:\CHEMPC\DATA\101292\MOR00698.D
Name:
Misc: 250ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Tue Oct 13 08:03:34 1992
Quantitated using Multiple Level Calibration



QUANT REPORT

Operator ID: PBM Date Acquired: 12 Oct 92 1:52 pm
Data File: C:\CHEMPC\DATA\101292\MOR00694.D
Name:
Misc: 500ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Fri Oct 09 16:29:39 1992
Quantitated using Multiple Level Calibration

Internal Standards Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
13) Bromochloromethane	7.57	49	67247	50.00	ug/l	-0.12
20) 1,4-Difluorobenzene	9.64	114	269483	50.00	ug/l	0.09
33) Chlorobenzene-d5	15.90	117	243479	50.00	ug/l	0.09
System Monitoring Compounds						**%Recovery**
17) 1,2-Dichloroethane-d4	8.72	65	151131	112.28	ug/l	224.56%
26) Toluene-d8	12.71	98	473332	106.75	ug/l	213.49%
39) Bromofluorobenzene	18.66	95	350802	105.79	ug/l	211.59%
Target Compounds						**ISTD#**
1) Chloromethane	2.38	50	90807	116.20	ug/l	001m
2) Vinyl Chloride	2.51	62	143628	107.80	ug/l	001#
3) Bromomethane	2.84	94	151894	88.56	ug/l	001
4) Chloroethane	2.95	64	48746	70.76	ug/l	001m
5) 1,1-Dichloroethene	4.07	61	221146	100.26	ug/l	001m
6) Acetone	4.26	43	26209	483.31	ug/l	001#
7) Carbon Disulfide	4.48	76	438683	96.70	ug/l	001#
8) Methylene Chloride	4.94	49	157138	105.69	ug/l	001m
9) 1,2-Dichloroethene (total)	5.36	61	213999	101.60	ug/l	001#
10) 1,1-Dichloroethane	6.05	63	253589	103.17	ug/l	001m
11) Vinyl Acetate	6.24	43	228359	148.01	ug/l	001#
12) 2-Butanone	7.29	43	95883	439.55	ug/l	001#
14) Chloroform	7.77	83	279739	97.88	ug/l	001
15) 1,1,1-Trichloroethane	8.07	97	232105	112.93	ug/l	002m
16) Carbon Tetrachloride	8.38	117	316961	107.35	ug/l	002m
18) Benzene	8.79	78	366733	103.58	ug/l	002
19) 1,2-Dichloroethane	8.85	62	159467	108.97	ug/l	001
21) Trichloroethene	10.13	130	250851	99.85	ug/l	002
22) 1,2-Dichloropropane	10.58	63	167253	105.06	ug/l	002
23) Bromodichloromethane	11.20	83	266571	103.68	ug/l	002
24) cis-1,2-Dichloropropene	12.16	75	276947	115.21	ug/l	002
25) 4-Methyl-2-Pentanone	12.58	43	196709	266.47	ug/l	003
27) Toluene	12.86	91	446652	102.66	ug/l	003
28) trans-1,2-Dichloropropane	13.40	75	207321	107.59	ug/l	002
29) 1,1,2-Trichloroethane	13.78	97	186509	123.07	ug/l	002
30) Tetrachloroethene	14.05	164	217582	99.29	ug/l	003
31) 2-Hexanone	14.43	43	165868	347.90	ug/l	003
32) Dibromochloromethane	14.62	127	323582	111.36	ug/l	002
34) Chlorobenzene	15.95	112	439679	102.65	ug/l	003
35) Ethylbenzene	16.25	91	565915	101.48	ug/l	003
36) Xylenes (total)	16.54	91	1332722	306.79	ug/l	003m
37) Styrene	17.48	104	407890	104.94	ug/l	003

(#) = qualifier out of range

QUANT REPORT

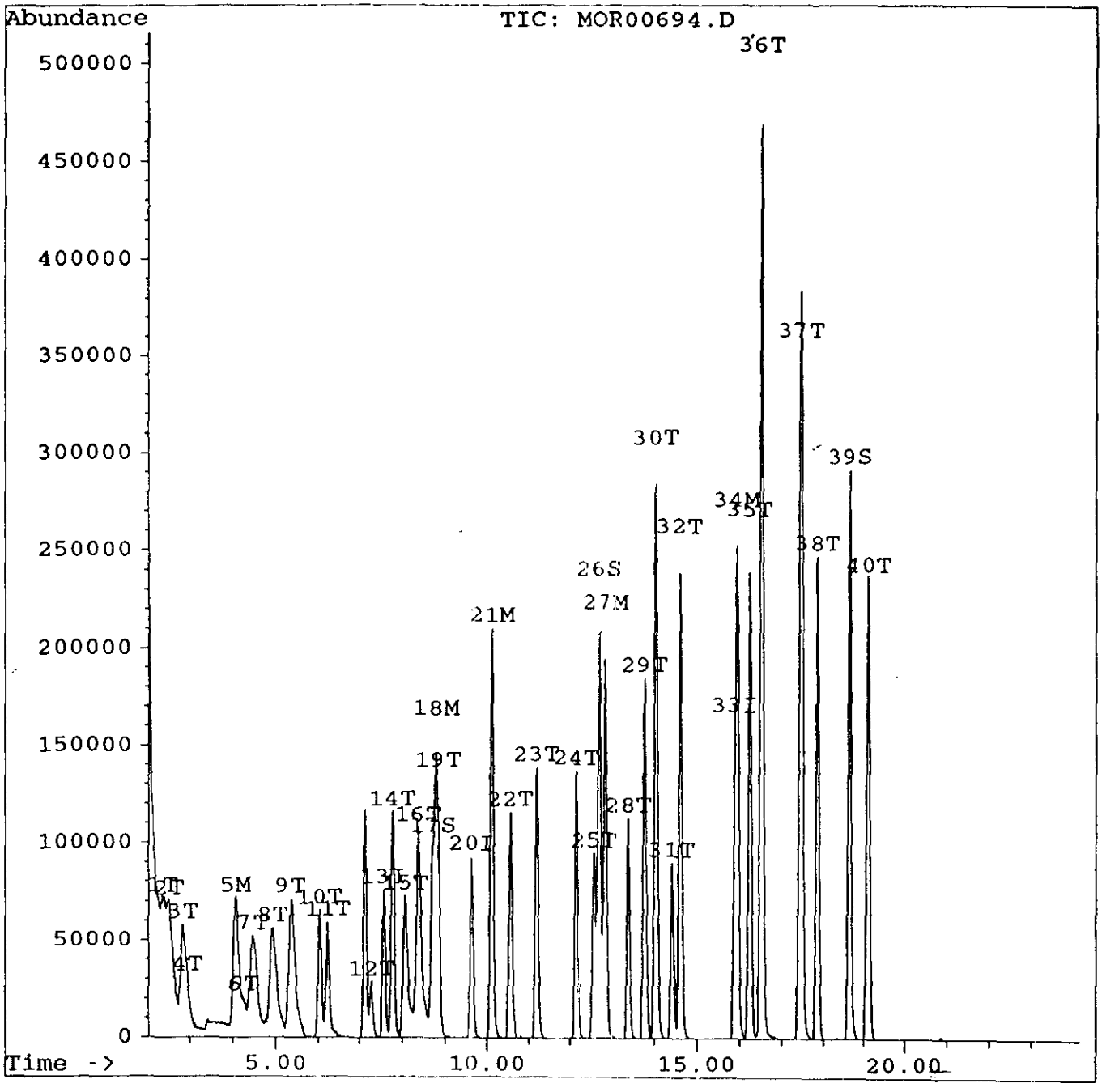
Operator ID: PBM Date Acquired: 12 Oct 92 1:52 pm
Data File: C:\CHEMPC\DATA\101292\MOR00694.D
Name:
Misc: 500ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Fri Oct 09 16:29:39 1992
Quantitated using Multiple Level Calibration

Compound	R.T.	Qion	Area	Conc Unit	Dev(Min)
38) Bromoform	17.85	173	344370	128.60 ug/l	002
40) 1,1,2,2-Tetrachloroethane	19.12	168	36658	183.79 ug/l	003#

(#) = qualifier out of range

QUANT REPORT

Operator ID: PBM Date Acquired: 12 Oct 92 1:52 pm
Data File: C:\CHEMPC\DATA\101292\MOR00694.D
Name:
Misc: 500ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Fri Oct 09 16:29:39 1992
Quantitated using Multiple Level Calibration



QUANT REPORT

Operator ID: PBM Date Acquired: 12 Oct 92 2:24 pm
Data File: C:\CHEMPC\DATA\101292\MOR00695.D
Name:
Misc: 1000ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Fri Oct 09 16:29:39 1992
Quantitated using Multiple Level Calibration

Internal Standards Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
13) Bromochloromethane	7.59	49	63351	50.00	ug/l	-0.11
20) 1,4-Difluorobenzene	9.65	114	266213	50.00	ug/l	0.10
33) Chlorobenzene-d5	15.92	117	242351	50.00	ug/l	0.12
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	8.73	65	305099	240.60	ug/l	481.21%
26) Toluene-d8	12.73	98	916465	207.64	ug/l	415.29%
39) Bromofluorobenzene	18.69	95	692631	209.86	ug/l	419.71%
Target Compounds						ISTD#
1) Chloromethane	2.38	50	183444	249.17	ug/l	001#
2) Vinyl Chloride	2.51	62	281378	224.17	ug/l	001#
3) Bromomethane	2.83	94	298365	184.66	ug/l	001
4) Chloroethane	2.94	64	92150	141.99	ug/l	001#
5) 1,1-Dichloroethene	4.01	61	294437	141.69	ug/l	001m
6) Acetone	4.35	43	38196	747.68	ug/l	001#
7) Carbon Disulfide	4.42	76	763724	178.69	ug/l	001#
8) Methylene Chloride	4.92	49	308195	220.04	ug/l	001
9) 1,2-Dichloroethene (total)	5.36	61	437204	220.34	ug/l	001
10) 1,1-Dichloroethane	6.04	63	523516	226.10	ug/l	001m
11) Vinyl Acetate	6.28	43	497679	342.40	ug/l	001#
12) 2-Butanone	7.38	43	227207	1105.63	ug/l	001#
14) Chloroform	7.80	83	567687	210.84	ug/l	001
15) 1,1,1-Trichloroethane	8.07	97	457003	225.09	ug/l	002m
16) Carbon Tetrachloride	8.39	117	643243	220.53	ug/l	002m
18) Benzene	8.80	78	740538	211.73	ug/l	002
19) 1,2-Dichloroethane	8.87	62	326290	236.67	ug/l	001
21) Trichloroethene	10.14	130	500630	201.73	ug/l	002
22) 1,2-Dichloropropane	10.60	63	345607	219.76	ug/l	002
23) Bromodichloromethane	11.23	83	556080	218.94	ug/l	002
24) cis-1,2-Dichloropropene	12.17	75	547986	230.76	ug/l	002
25) 4-Methyl-2-Pentanone	12.63	43	418833	570.02	ug/l	003
27) Toluene	12.86	91	894855	206.63	ug/l	003
28) trans-1,2-Dichloropropane	13.42	75	427901	224.78	ug/l	002
29) 1,1,2-Trichloroethane	13.81	97	382251	255.34	ug/l	002
30) Tetrachloroethene	14.06	164	436164	199.96	ug/l	003
31) 2-Hexanone	14.47	43	382525	806.06	ug/l	003
32) Dibromochloromethane	14.65	127	701847	244.51	ug/l	002
34) Chlorobenzene	15.98	112	887319	208.13	ug/l	003
35) Ethylbenzene	16.28	91	1152270	207.59	ug/l	003
36) Xylenes (total)	16.57	91	2729910	631.35	ug/l	003m
37) Styrene	17.51	104	826654	213.66	ug/l	003

(#) = qualifier out of range

QUANT REPORT

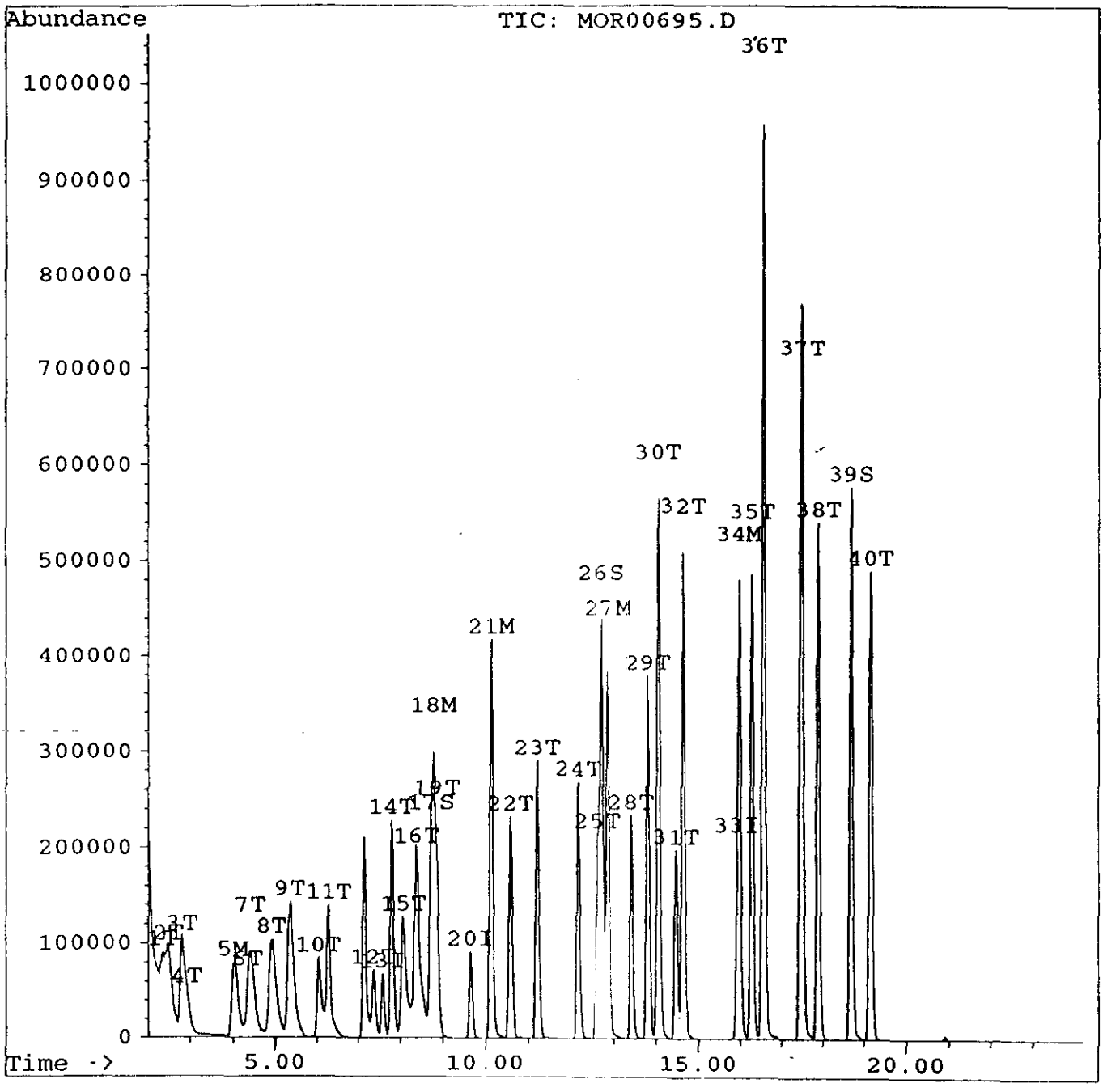
Operator ID: PBM Date Acquired: 12 Oct 92 2:24 pm
Data File: C:\CHEMPC\DATA\101292\MOR00695.D
Name:
Misc: 1000ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Fri Oct 09 16:29:39 1992
Quantitated using Multiple Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
38) Bromoform	17.88	173	768718	290.60	ug/l	002
40) 1,1,2,2-Tetrachloroethane	19.16	168	77538	390.56	ug/l	003#

(#) = qualifier out of range

QUANT REPORT

Operator ID: PBM Date Acquired: 12 Oct 92 2:24 pm
Data File: C:\CHEMPC\DATA\101292\MOR00695.D
Name:
Misc: 1000ng 8240 STD
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Fri Oct 09 16:29:39 1992
Quantitated using Multiple Level Calibration



7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: O-R Calibration Date: 11/6/92 Time: 1033

Lab File ID: MOR01000.D Init. Calib. Date(s): 10/12/92 10/12/92

Heated Purge: (Y/N) Y Init. Calib. Times: 1352 1712

GC Column: DB-624 ID: 0.53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.608	0.708	0.010	-16.4	
Vinyl Chloride	0.993	1.141	0.100	-14.9	25.0
Bromomethane	1.152	1.444	0.100	-25.3	25.0
Chloroethane	0.376	0.678	0.010	-80.3	
1,1-Dichloroethene	1.451	1.801	0.100	-24.1	25.0
Acetone	0.197	0.058	0.010	70.6	
Carbon Disulfide	3.075	3.730	0.010	-21.3	
Methylene Chloride	1.294	1.944	0.010	-50.2	
1,2-Dichloroethene (total)	1.518	1.805	0.010	-18.9	
1,1-Dichloroethane	1.751	2.088	0.200	-19.2	25.0
Vinyl Acetate	1.655	1.274		23.0	
2-Butanone	0.742	0.189	0.010	74.5	
Chloroform	2.017	2.352	0.200	-16.6	25.0
1,1,1-Trichloroethane	0.375	0.432	0.100	-15.2	25.0
Carbon Tetrachloride	0.544	0.583	0.100	-7.2	25.0
Benzene	0.661	0.763	0.500	-15.4	25.0
1,2-Dichloroethane	1.153	1.194	0.100	-3.6	25.0
Trichloroethene	0.447	0.523	0.300	-17.0	25.0
1,2-Dichloropropane	0.301	0.340	0.010	-13.0	
Bromodichloromethane	0.477	0.523	0.200	-9.6	25.0
cis-1,2-Dichloropropene	0.477	0.499	0.200	-4.6	25.0
4-Methyl-2-Pentanone	0.400	0.168	0.010	58.0	
Toluene	0.890	1.070	0.400	-20.2	25.0
trans-1,2-Dichloropropane	0.359	0.381	0.100	-6.1	25.0
1,1,2-Trichloroethane	0.327	0.301	0.100	8.0	25.0
Tetrachloroethene	0.436	0.515	0.200	-18.1	25.0
2-Hexanone	0.342	0.106	0.010	69.0	
Dibromochloromethane	0.577	0.569	0.100	1.4	25.0
Chlorobenzene	0.877	1.014	0.500	-15.6	25.0
Ethylbenzene	1.132	1.316	0.100	-16.3	25.0
Xylenes (total)	2.119	1.012	0.300	52.2	25.0
Styrene	0.799	0.910	0.300	-13.9	25.0
Bromoform	0.614	0.494	0.100	19.5	25.0
1,1,2,2-Tetrachloroethane	0.065	0.049	0.500	24.6	25.0

All other compounds must meet a minimum RRF of 0.010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE, INC. Contract: D2502

Lab Code: D21102.502 Case No.: N/A SAS No.: N/A SDG No.: N/A

Instrument ID: O-R Calibration Date: 11/6/92 Time: 1033

Lab File ID: MOR01000.D Init. Calib. Date(s): 10/12/92 10/12/92

Heated Purge: (Y/N) Y Init. Calib. Times: 1352 1712

GC Column: DB-624 ID: 0.53 (mm)

COMPOUND	$\overline{\text{RRF}}$	RRF50	MIN RRF	%D	MAX %D
1,2-Dichloroethane-d4	1.074	1.057	0.010	1.6	
Toluene-d8	0.909	1.038	0.010	-14.2	
Bromofluorobenzene	0.671	0.743	0.200	-10.7	25.0

All other compounds must meet a minimum RRF of 0.010.

QUANT REPORT

Operator ID: ALL Date Acquired: 6 Nov 92 10:33 am
Data File: C:\CHEMPC\DATA\110692\MOR01000.D
Name:
Misc: VOA CON CAL 250ng
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Fri Nov 06 11:01:37 1992
Quantitated using Single Level Calibration

Internal Standards Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
13) Bromochloromethane	7.48	49	57821	50.00	ug/kg	0.00
20) 1,4-Difluorobenzene	9.54	114	243607	50.00	ug/kg	0.02
33) Chlorobenzene-d5	15.81	117	200534	50.00	ug/kg	0.02
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	8.61	65	61142	53.61	ug/kg	107.21%
26) Toluene-d8	12.61	98	208077	48.83	ug/kg	97.66%
39) Bromofluorobenzene	18.56	95	149056	51.70	ug/kg	103.40%
Target Compounds						ISTD#
1) Chloromethane	2.38	50	40949	57.09	ug/kg	001m
2) Vinyl Chloride	2.51	62	65959	56.83	ug/kg	001m
3) Bromomethane	2.84	94	83466	57.67	ug/kg	001m
4) Chloroethane	2.93	64	39201	55.88	ug/kg	001m
5) 1,1-Dichloroethene	4.04	61	104138	51.88	ug/kg	001#
6) Acetone	4.11	43	3379	44.68	ug/kg	001m
7) Carbon Disulfide	4.44	76	215660	50.79	ug/kg	001m
8) Methylene Chloride	4.87	49	112422	56.52	ug/kg	001m
9) 1,2-Dichloroethene (total)	5.26	61	104373	52.63	ug/kg	001
10) 1,1-Dichloroethane	5.98	63	120725	51.86	ug/kg	001
11) Vinyl Acetate	6.15	43	73677	52.17	ug/kg	001#
12) 2-Butanone	7.15	43	10946	45.62	ug/kg	001#
14) Chloroform	7.68	83	136005	50.95	ug/kg	001
15) 1,1,1-Trichloroethane	7.97	97	105322	49.66	ug/kg	002m
16) Carbon Tetrachloride	8.30	117	142006	53.40	ug/kg	002
18) Benzene	8.69	78	185817	50.37	ug/kg	002
19) 1,2-Dichloroethane	8.76	62	69038	54.10	ug/kg	001
21) Trichloroethene	10.03	130	127392	50.25	ug/kg	002
22) 1,2-Dichloropropane	10.47	63	82756	50.68	ug/kg	002
23) Bromodichloromethane	11.08	83	127515	51.07	ug/kg	002
24) cis-1,2-Dichloropropene	12.05	75	128790	53.41	ug/kg	002
25) 4-Methyl-2-Pentanone	12.46	43	33595	47.77	ug/kg	003#
27) Toluene	12.74	91	214646	49.47	ug/kg	003
28) trans-1,2-Dichloropropane	13.29	75	85410	47.85	ug/kg	002
29) 1,1,2-Trichloroethane	13.67	97	73263	52.41	ug/kg	002
30) Tetrachloroethene	13.94	164	103368	49.15	ug/kg	003
31) 2-Hexanone	14.33	43	21226	49.68	ug/kg	003m
32) Dibromochloromethane	14.52	127	138676	52.99	ug/kg	002
34) Chlorobenzene	15.86	112	203412	50.94	ug/kg	003
35) Ethylbenzene	16.16	91	263910	51.01	ug/kg	003
36) Xylenes (total)	16.45	91	608553	149.92	ug/kg	003m
37) Styrene	17.38	104	182581	52.04	ug/kg	003

(#) = qualifier out of range

QUANT REPORT

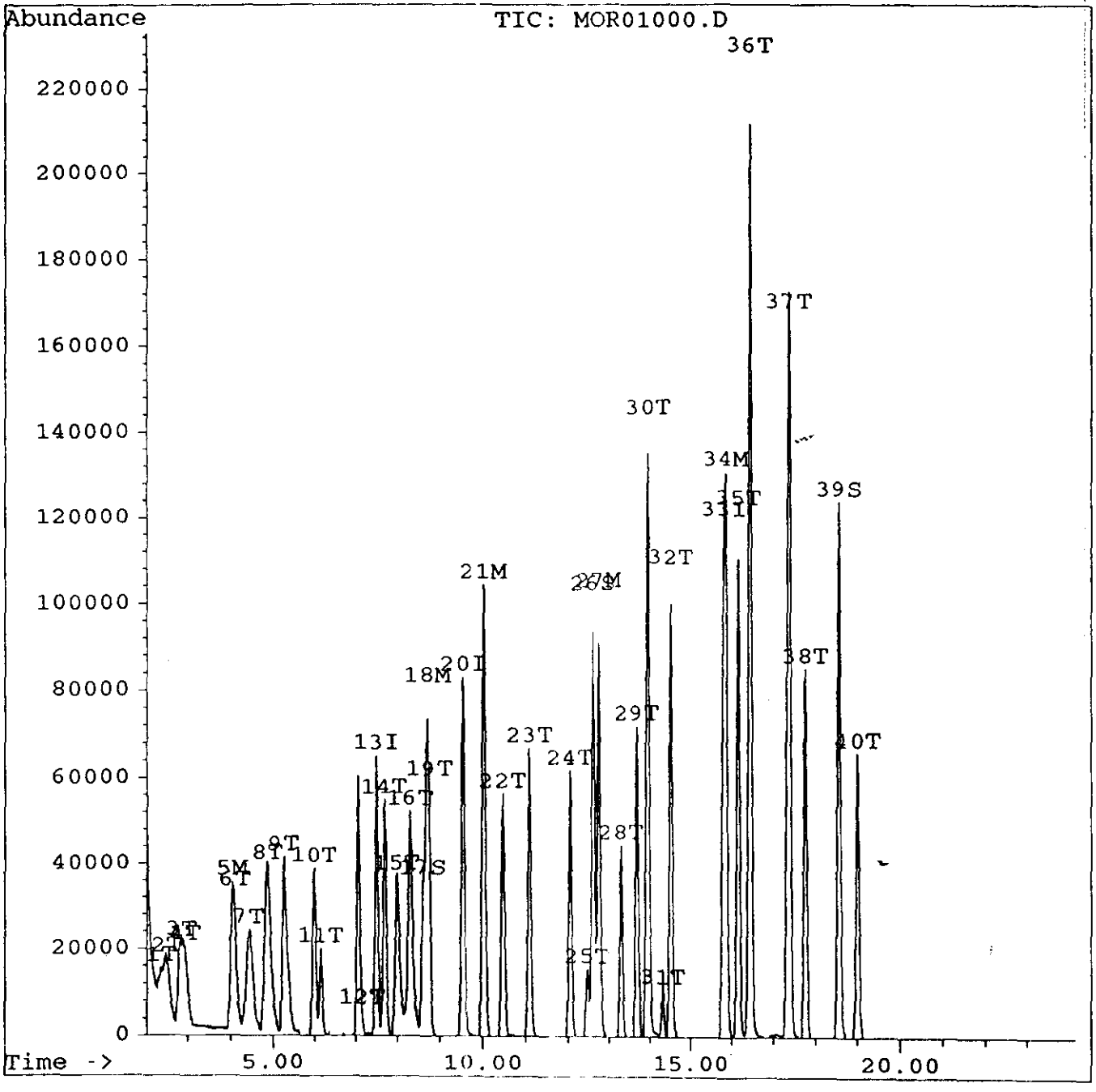
Operator ID: ALL Date Acquired: 6 Nov 92 10:33 am
Data File: C:\CHEMPC\DATA\110692\MOR01000.D
Name:
Misc: VOA CON CAL 250ng
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Fri Nov 06 11:01:37 1992
Quantitated using Single Level Calibration

Compound	R.T.	Qion	Area	Conc Unit	Dev(Min)
38) Bromoform	17.74	173	120348	55.24 ug/kg	002
40) 1,1,2,2-Tetrachloroethane	19.00	168	9850	48.45 ug/kg	003#

(#) = qualifier out of range

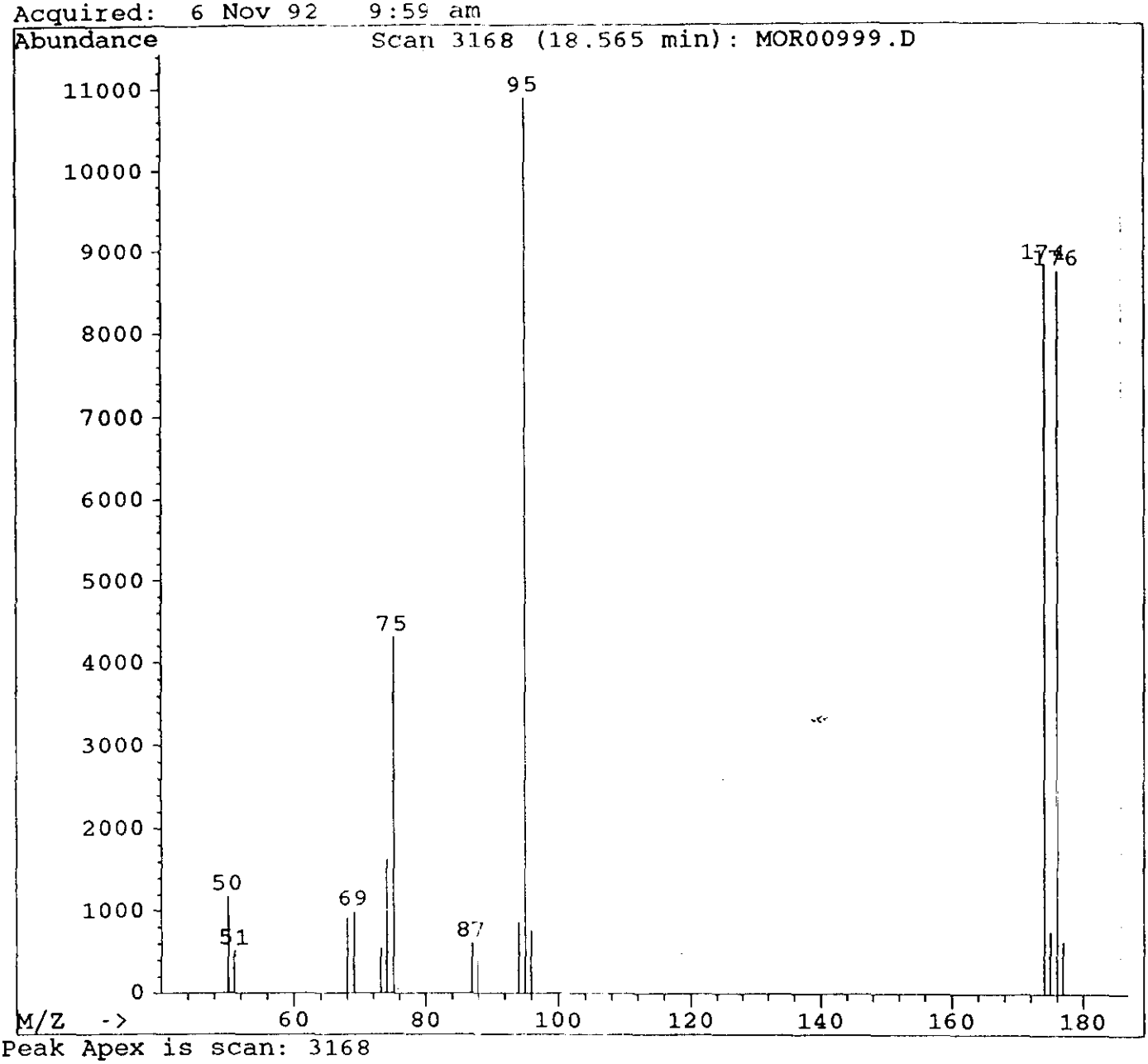
QUANT REPORT

Operator ID: ALL Date Acquired: 6 Nov 92 10:33 am
Data File: C:\CHEMPC\DATA\110692\MOR01000.D
Name:
Misc: VOA CON CAL 250ng
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Fri Nov 06 11:01:37 1992
Quantitated using Single Level Calibration



VOLATILES RAW QC DATA

File : C:\CHEMPC\DATA\110692\MOR00999.D
Acquired: 6 Nov 92 9:59 am



Peak Apex is scan: 3168

Target Mass	Comparison Mass	Lower Limit,%	Upper Limit,%	Relative Abundance,%	Result Pass/Fail
50	95	8	40	10.8	PASS
75	95	30	66	39.5	PASS
95	95	100	100	100.0	PASS
96	95	5	9	7.0	PASS
173	174	0	2	0.0	PASS
174	95	50	120	81.0	PASS
175	174	4	9	8.6	PASS
176	174	93	101	99.2	PASS
177	176	5	9	7.2	PASS

C:\CHEMPC\DATA\110692\MOR00999.D Fri Nov 06 10:19:30 1992

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: PACE, INC. Contract: D4501

Lab Code: D21104.501 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: BLANK

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01001.D

Level: (low/med) LOW Date Received: 11/4/92

% Moisture: not dec. 0 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	9	J
540-59-0	1,2-Dichloroethene (total)	10	U
75-34-3	1,1-Dichloroethane	10	U
108-05-4	Vinyl Acetate	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-57-4	Bromodichloromethane	10	U
10061-01-5	cis-1,2-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,2-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylenes (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
VBLK01

Lab Name: PACE, INC. Contract: D4501

Lab Code: D21104.501 Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: BLANK1

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR01001.D

Level: (low/med) LOW Date Received: 11/4/92

% Moisture: not dec. 0 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VBLK01

Lab Name: PACE, INC. Contract: D8500

Lab Code: D210% Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: BLANK1

Sample wt/vol: 5 (g/mL) G Lab File ID: MOR1001.D

Level: (low/med) LOW Date Received: 10/28/92

% Moisture: not dec. 0 Date Analyzed: 11/6/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 1 (uL)

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	13.95	5	J
2.				
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30.				

QUANT REPORT

Operator ID: ALL Date Acquired: 6 Nov 92 11:05 am
Data File: C:\CHEMPC\DATA\110692\MOR01001.D
Name:
Misc: SYSTEM BLANK 250ng IS,SURR
Method: MORCLPS.M
Title: TCL/624 Volatile Organics by GC/MS
Last Calibration: Thu Dec 24 09:11:27 1992
Quantitated using Single Level Calibration

Internal Standards

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
13) Bromochloromethane	7.49	49	21868	50.00	ug/kg	0.00
20) 1,4-Difluorobenzene	9.54	114	82643	50.00	ug/kg	0.00
33) Chlorobenzene-d5	15.79	117	68726	50.00	ug/kg	-0.01

System Monitoring Compounds

						%Recovery
17) 1,2-Dichloroethane-d4	8.62	65	25583	55.32	ug/kg	110.63%
26) Toluene-d8	12.60	98	80006	56.10	ug/kg	112.19%
39) Bromofluorobenzene	18.55	95	60856	59.56	ug/kg	119.13%

Target Compounds

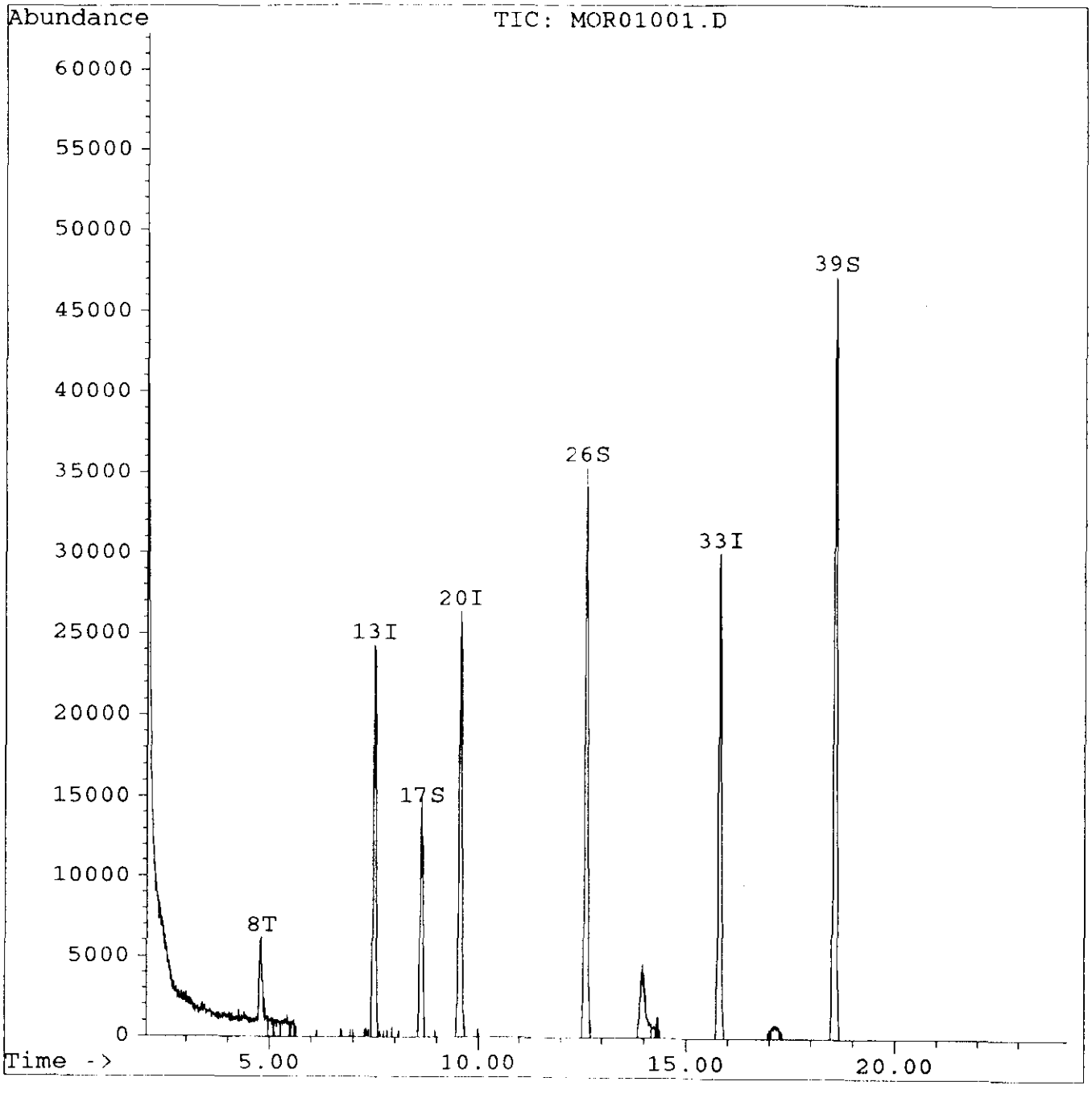
						ISTD#
8) Methylene Chloride	4.80	49	7999	~~9.41~~ 9	ug/kg	001m

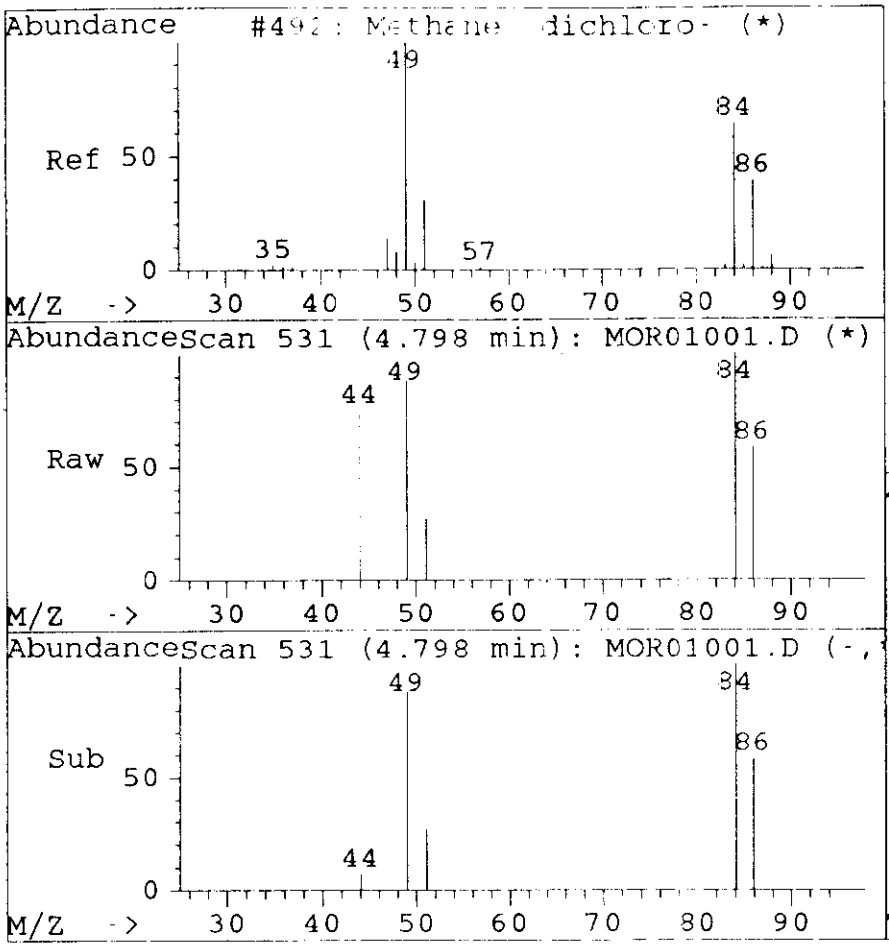
edited 12/18/92

(#) = qualifier out of range

QUANT REPORT

Operator ID: ALL Date Acquired: 6 Nov 92 11:05 am
Data File: C:\CHEMPC\DATA\110692\MOR01001.D
Name:
Misc: SYSTEM BLANK 250ng IS,SURR
Method: MORCLPS.M
Title: TCL/624 Volatile Organics by GC/MS
Last Calibration: Thu Dec 24 09:11:27 1992
Quantitated using Single Level Calibration

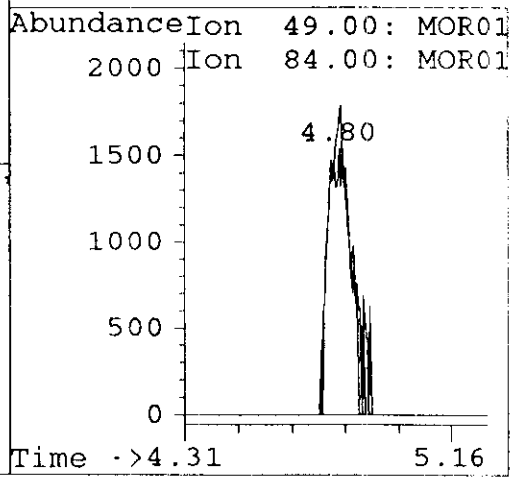




#8
Methylene Chloride
Concen: 9.41 ug/kg n
RT: 4.80 min Scan# 531
Delta R.T. -0.08 min
Lab File: MOR01001.D
Acq: 6 Nov 92 11:05 am

Tgt Ion:49 Area: 7999

Ion	Ratio	Lower	Upper
49	100		
84	0.0	77.9	116.9#
0	0.0	0.0	0.0
0	0.0	0.0	0.0



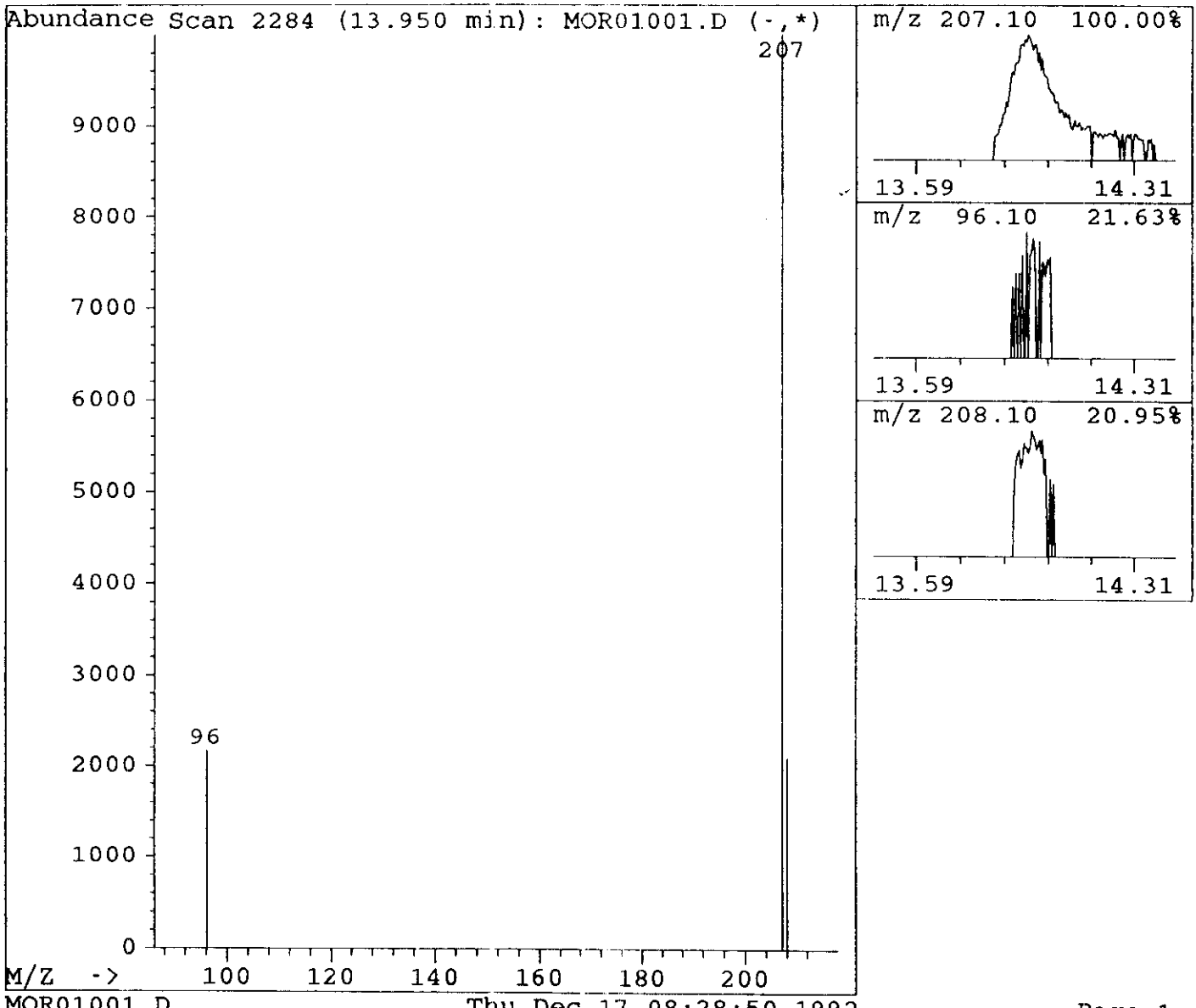
Tentatively Identified Compound (LSC)

Operator ID: ALL Date Acquired: 6 Nov 92 11:05 am
Data File: C:\CHEMPC\DATA\110692\MOR01001.D
Name:
Misc: SYSTEM BLANK 250ng IS,SURR
Method: MORCLPS.M
Title: CLP 90 Volatile Organics by GC/MS
Last Calibration: Fri Nov 06 11:01:37 1992

Library Searched: NBS54K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
13.95	5.39 ug/kg	15632	Chlorobenzene-d5	15.79

Hit# of 0	Tentative ID	Ref#	CAS#	Qual
1	No Hits From NBS54K.L	0	000000-00-0	0



SEMIVOLATILE QC SUMMARY

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 2FP #	S2 PHL #	S3 2CP #	S4 DCB #	S5 NBZ #	S6 FBP #	S7 TBP #	S8 TPH #	TOT OUT
01	SBLK01	107	98	103	102	99	101	102	128	0
02	H92077	93	86	92	102	97	104	61	121	0
03	H92078	25	21 *	21	24	22 *	21 *	20	35	3
04	SBLK02	96	83	83	79	79	72	72	98	0
05	H92078RE	99	87	85	80	78	74	77	135	0
06										
07										
08										
09										
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30										

	QC LIMITS
S1 2FP = 2-Fluorophenol	(25-121)
S2 PHL = Phenol-d5	(24-113)
S3 2CP = 2-Chlorophenol-d4	(20-130)
S4 DCB = 1,2-Dichlorobenzene-d4	(20-130)
S5 NBZ = Nitrobenzene-d5	(23-120)
S6 FBP = 2-Fluorobiphenyl	(30-115)
S7 TBP = 2,4,6-Tribromophenol	(19-122)
S8 TPH = Terphenyl-d14	(18-137)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SB_K01

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID: BOS00649.D Lab Sample ID: SBLK01

Instrument ID: O-S Date Extracted: 11/12/92

Matrix: (soil/water) SOIL Date Analyzed: 11/20/92

Level: (low/med) LOW Time Analyzed: 1436

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	H92077	D18906	SOS00652.D	11/20/92
02	H92078	D18907	SOS00653.D	11/20/92
03				
04				
05				
06				
07				
08				
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10				
11				
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30				

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK02

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No. _____

Lab File ID: BOS00723.D Lab Sample ID: SBLK02

Instrument ID: O-S Date Extracted: 12/8/92

Matrix: (soil/water) SOIL Date Analyzed: 12/9/92

Level: (low/med) LOW Time Analyzed: 2100

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	H92078RE	D18907RE	SOS00725.D	12/09/92
02				
03				
04				
05				
06				
07				
08				
09				
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COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID: TOS00647.D DFTPP Injection Date: 11/20/92

Instrument ID: O-S DFTPP Injection Time: 1315

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	46.4
68	Less than 2.0% of mass 69	0.9 (1.3)1
69	Mass 69 relative abundance	69.6
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	25.0 - 75.0% of mass 198	50.4
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	16.8
365	Greater than 0.75% of mass 198	1.8
441	Present, but less than mass 443	7.4
442	40.0 - 110.0% of mass 198	46.7
443	15.0 - 24.0% of mass 442	9.2 (19.6)2

1-Value is % mass 69 2-Value is % mass 442

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	S1CC050	DOS00648.D	11/20/92	1337
02	SBLK01	SBLK01	BOS00649.D	11/20/92	1436
03	H92077	D18906	SOS00652.D	11/20/92	1734
04	H92078	D18907	SOS00653.D	11/20/92	1833
05					
06					
07					
08					
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21					
22					

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID: TOS00715.D DFTPP Injection Date: 12/9/92

Instrument ID: O-S DFTPP Injection Time: 1344

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	45.8
68	Less than 2.0% of mass 69	0.6 (0.9)1
69	Mass 69 relative abundance	69.2
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	51.4
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	17.7
365	Greater than 0.75% of mass 198	1.9
441	Present, but less than mass 443	8.8
442	40.0 - 110.0% of mass 198	51.5
443	15.0 - 24.0% of mass 442	10.1 (19.7)2

1-Value is % mass 69 2-Value is % mass 442

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	S2CC050	DOS00716.D	12/9/92	1406
02	SBLK02	SBLK02	BOS00723.D	12/9/92	2100
03	H92078RE	D18907RE	SOS00725.D	12/9/92	2258
04					
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22					

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID (Standard): DOS00648 D Date Analyzed: 11/20/92

Instrument ID: O-S Time Analyzed: 1337

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	618556	9.11	2360773	13.68	881754	20.76
	UPPER LIMIT	1237112	9.61	4721546	14.18	1763508	21.26
	LOWER LIMIT	309278	8.61	1180387	13.18	440877	20.26
	EPA SAMPLE NO.						
01	SBLK01	696748	9.10	2652188	13.64	1033569	20.74
02	H92077	659424	9.08	2611943	13.63	1004303	20.72
03	H92078	624021	9.07	2528960	13.61	1017928	20.71
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: PACE, INC Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID (Standard): DOS00648.D Date Analyzed: 11/20/92

Instrument ID: O-S Time Analyzed: 1337

		IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	1267409	26.75	1090490	35.73	723943	39.15
	UPPER LIMIT	2534818	27.25	2180980	36.23	1447886	39.65
	LOWER LIMIT	633705	26.25	545245	35.23	361972	38.65
	EPA SAMPLE NO.						
01	SBLK01	1480187	26.72	1009530	35.70	714655	39.12
02	H92077	1428756	26.70	960372	35.68	658724	39.10
03	H92078	1493114	26.69	1051281	35.68	791034	39.10
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID (Standard): DOS00716.D Date Analyzed: 12/9/92

Instrument ID: O-S Time Analyzed: 1406

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	445225	9.06	1733257	13.62	684195	20.70
	UPPER LIMIT	890450	9.56	3466514	14.12	1368390	21.20
	LOWER LIMIT	222613	8.56	866629	13.12	342098	20.20
	EPA SAMPLE NO.						
01	SBLK02	488965	9.01	1811420	13.55	708113	20.63
02	H92078RE	416451	9.01	1610037	13.54	639053	20.63
03							
04							
05							
06							
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21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.5C2 Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID (Standard): DOS00716.D Date Analyzed: 12/9/92

Instrument ID: O-S Time Analyzed: 1406

		IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	1006300	26.70	975095	35.69	821337	39.11
	UPPER LIMIT	2012600	27.20	1950190	36.19	1642674	39.61
	LOWER LIMIT	503150	26.20	487548	35.19	410669	38.61
	EPA SAMPLE NO.						
01	SBLK02	1002184	26.62	711236	35.61	643156	39.03
02	H92078RE	907236	26.60	672604	35.61	611283	39.02
03							
04							
05							
06							
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22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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.

SEMIVOLATILE SAMPLE DATA PACKAGE

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

-192077

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18906

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00652.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 5 decanted: (Y/N): N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	690	U
111-44-4	bis(2-Chloroethyl)ether	690	U
95-57-8	2-Chlorophenol	690	U
541-73-1	1,3-Dichlorobenzene	690	U
106-46-7	1,4-Dichlorobenzene	690	U
95-50-1	1,2-Dichlorobenzene	690	U
39638-32-9	2,2'-oxybis(1-Chloropropane)	690	U
95-48-7	2-Methylphenol	690	U
67-72-1	Hexachloroethane	690	U
621-64-7	N-Nitroso-di-n-propylamine	690	U
106-44-5	4-Methylphenol	690	U
98-95-3	Nitrobenzene	690	U
78-59-1	Isophorone	690	U
88-75-5	2-Nitrophenol	690	U
105-67-9	2,4-Dimethylphenol	690	U
111-91-1	bis(2-Chloroethoxy)methane	690	U
120-83-2	2,4-Dichlorophenol	690	U
120-82-1	1,2,4-Trichlorobenzene	690	U
91-29-3	Naphthalene	690	U
106-47-8	4-Chloroaniline	690	U
87-68-3	Hexachlorobutadiene	690	U
59-50-7	4-Chloro-3-methylphenol	690	U
91-57-6	2-Methylnaphthalene	690	U
77-47-4	Hexachlorocyclopentadiene	690	U
88-06-2	2,4,6-Trichlorophenol	690	U
95-95-4	2,4,5-Trichlorophenol	3600	U
91-58-7	2-Chloronaphthalene	690	U
88-74-4	2-Nitroaniline	3600	U
208-96-8	Acenaphthylene	690	U
131-11-3	Dimethylphthalate	690	U
606-20-2	2,6-Dinitrotoluene	690	U
83-32-9	Acenaphthene	690	U
99-09-2	3-Nitroaniline	3600	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1-82077

Lab Name: PACE, INC Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18906

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00652.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 5 decanted: (Y/N): N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	3600	U
132-64-9	Dibenzofuran	690	U
121-14-2	2,4-Dinitrotoluene	690	U
100-02-7	4-Nitrophenol	3600	U
86-73-7	Fluorene	690	U
84-66-2	Diethylphthalate	690	U
7005-72-3	4-Chlorophenyl-phenylether	690	U
534-52-1	4,6-Dinitro-2-methylphenol	3600	U
100-01-6	4-Nitroaniline	3600	U
86-30-6	N-Nitrosodiphenylamine	690	U
101-55-3	4-Bromophenyl-phenylether	690	U
118-74-1	Hexachlorobenzene	690	U
87-86-5	Pentachlorophenol	3600	U
85-01-8	Phenanthrene	690	U
120-12-7	Anthracene	690	U
86-74-8	Carbazol	690	U
84-74-2	Di-n-butylphthalate	690	U
206-44-0	Fluoranthene	690	U
129-00-0	Pyrene	690	U
85-68-7	Butylbenzylphthalate	690	U
56-55-3	Benzo(a)anthracene	690	U
218-01-9	Chrysene	690	U
91-94-1	3,3'-Dichlorobenzidine	690	U
117-81-7	Bis(2-ethylhexyl)phthalate	690	U
117-84-0	Di-n-octylphthalate	690	U
205-99-2	Benzo(b)fluoranthene	690	U
207-08-9	Benzo(k)fluoranthene	690	U
50-32-8	Benzo(a)pyrene	690	U
193-39-5	Indendo(1,2,3-cd)pyrene	690	U
53-70-3	Dibenz(a,h)anthracene	690	U
191-24-2	Benzo(g,h,i)perylene	690	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H92077

Lab Name: PACE, INC. Contract: _____

Lab Code: D211I Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18906

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00652.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 5 decanted: (Y/N) N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

Number TICs found: 5 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Aldol Condensate	4.55	36000	J
2.	Aldol Condensate	5.01	250000	J
3.	Aldol Condensate	5.21	82000	J
4.	Aldol Condensate	6.69	18000	J
5.	Aliphatic Hydrocarbon	38.64	52000	J
6.				
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QUANT REPORT

Operator ID: MDB Date Acquired: 20 Nov 92 5:34 pm
Data File: C:\CHEMPC\DATA\112092\SOS00652.D
Name:
Misc: H92077(65-18906.6)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Single Level Calibration

Internal Standards

	Compound	R.T	Qion	Area	Conc	Unit	Dev(Min)
8)	1,4-Dichlorobenzene-d4	9.08	152	659424	40.00	ug/kg	-0.03
25)	Naphthalene-d8	13.63	136	2611943	40.00	ug/kg	-0.05
40)	Acenaphthene-d10	20.72	164	1004303	40.00	ug/kg	-0.04
57)	Phenanthrene-d10	26.70	188	1428756	40.00	ug/kg	-0.05
67)	Chrysene-d12	35.68	240	960372	40.00	ug/kg	-0.05
75)	Perylene-d12	39.10	264	658724	40.00	ug/kg	-0.05

System Monitoring Compounds

							%Recovery
1)	2-Fluorophenol	5.88	112	2508757	92.66	ug/kg	46.33%
3)	Phenol-d5	8.60	99	3377017	85.79	ug/kg	42.90%
4)	2-Chlorophenol-d4	8.62	132	2810715	91.74	ug/kg	45.87%
10)	1,2-Dichlorobenzene-d4	9.69	152	876503	51.04	ug/kg	51.04%
16)	Nitrobenzene-d5	11.09	82	1423967	48.63	ug/kg	48.63%
33)	2-Fluorobiphenyl	18.17	172	2222562	51.95	ug/kg	51.95%
53)	2,4,6-Tribromophenol	24.06	330	349072	61.26	ug/kg	30.63%
64)	Terphenyl-d14	32.95	244	1831498	60.58	ug/kg	60.58%

Target Compounds ISTD#

Ø

PQL's at 6.9X

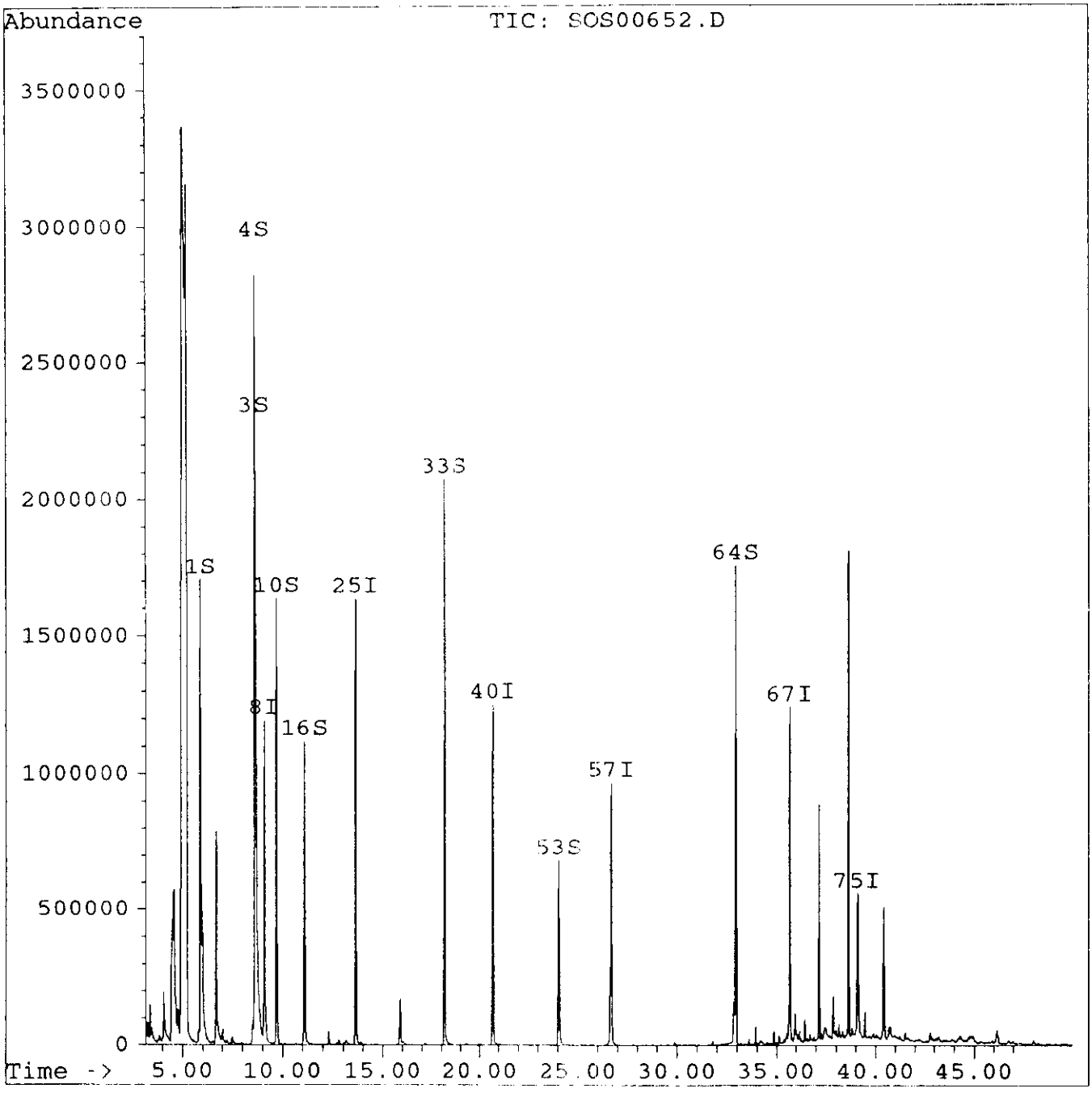
330 µg/kg × 2/0.95 = 690 µg/kg

12/23/92
MB

(#) = qualifier out of range

QUANT REPORT

Operator ID: MDB Date Acquired: 20 Nov 92 5:34 pm
Data File: C:\CHEMPC\DATA\112092\SOS00652.D
Name:
Misc: H92077(65-18906.6)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Single Level Calibration



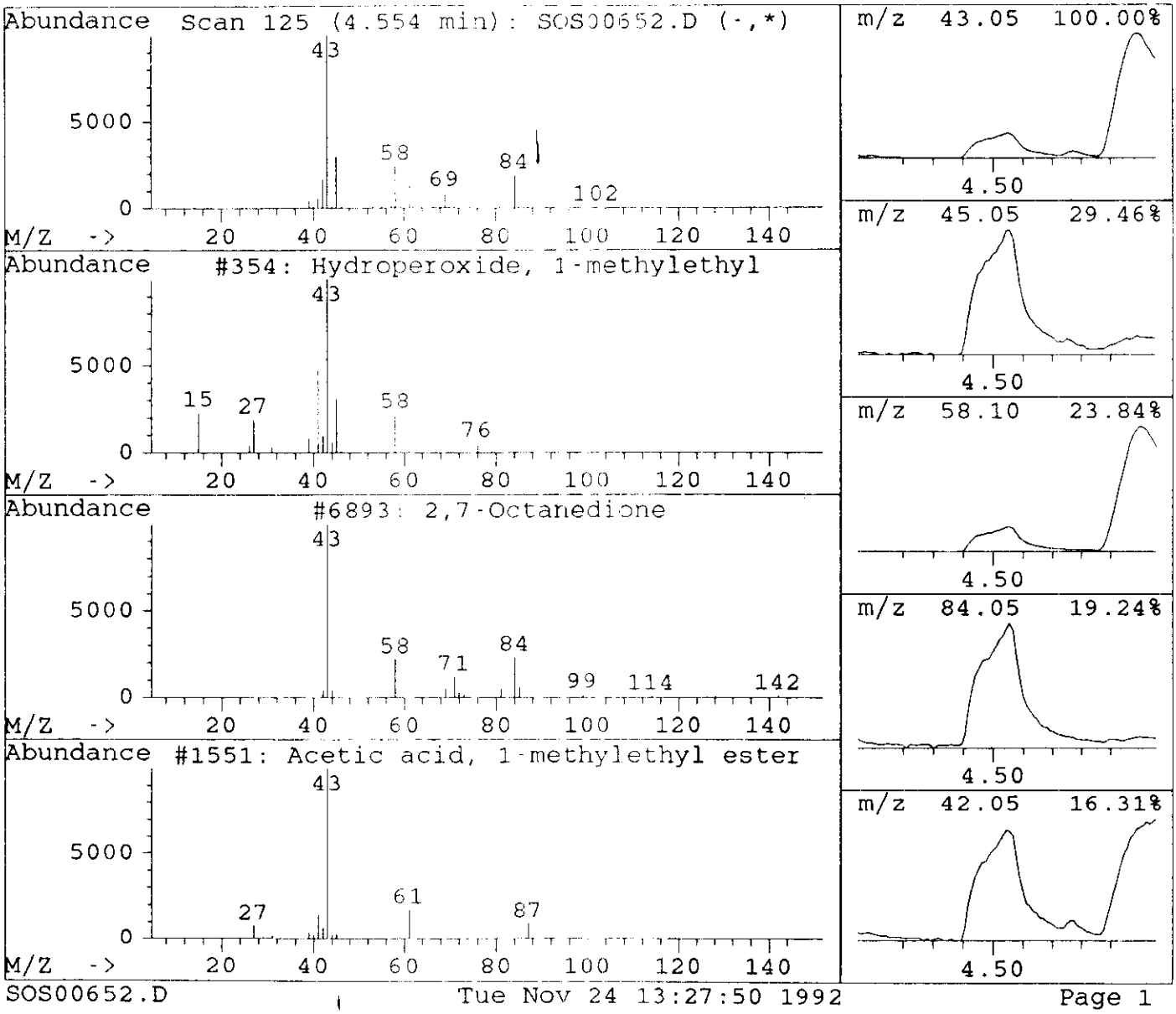
Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 20 Nov 92 5:34 pm
Data File: C:\CHEMPC\DATA\112092\SOS00652.D
Name:
Misc: H92077(65-18906.6)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSIDBNA.D
Last Calibration: Tue Nov 24 10:48:40 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
4.55	51.68 ug/kg	5626444	1,4-Dichlorobenzene-d4	9.08

Hit# of 3	Tentative ID	Ref#	CAS#	Qual
1	Hydroperoxide, 1-methylethyl	354	003031-75-2	33
2	2,7-Octanedione	6893	001626-09-1	28
3	Acetic acid, 1-methylethyl ester	1551	000108-21-4	10



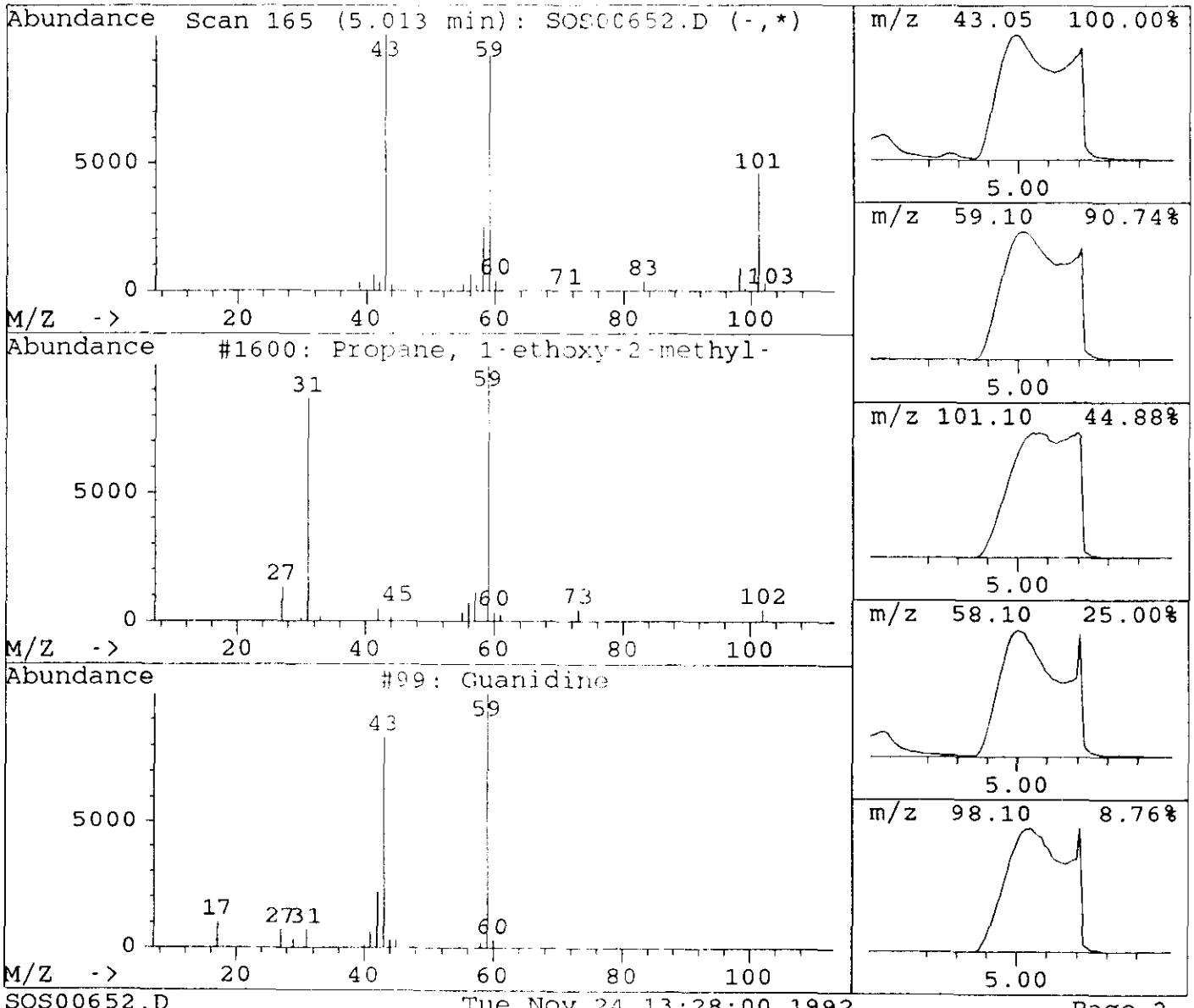
Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 20 Nov 92 5:34 pm
Data File: C:\CHEMPC\DATA\112092\SOS00652.D
Name:
Misc: F92077(65-18906.6)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSIDBNA.D
Last Calibration: Tue Nov 24 10:48:40 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
5.01	356.89 ug/kg	38855214	1,4-Dichlorobenzene-d4	9.08

Hit# of 2	Tentative ID	Ref#	CAS#	Qual
1	Propane, 1-ethoxy-2-methyl-	1600	000627-02-1	38
2	Guanidine	99	000113-00-8	37



Tentatively Identified Compound (LSC)

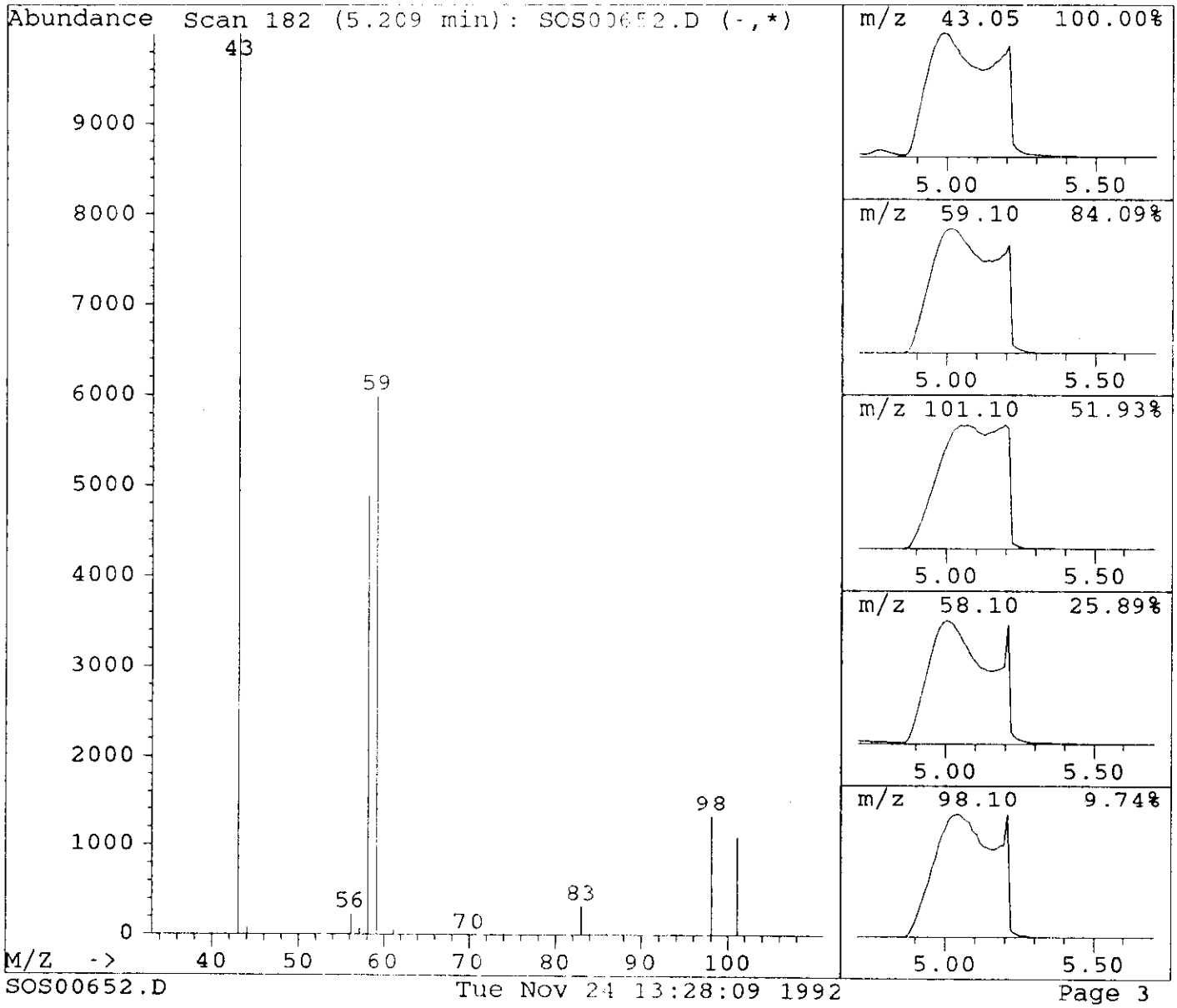
Operator ID: MDB Date Acquired: 20 Nov 92 5:34 pm
Data File: C:\CHEMPC\DATA\112092\SOS00652.D
Name:
Misc: H92077(65-18906.6)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSIDBNA.D
Last Calibration: Tue Nov 24 10:48:40 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
5.21	117.43 ug/kg	12784622	1,4-Dichlorobenzene-d4	9.08

Hit# of 0	Tentative ID	Ref#	CAS#	Qual
1	No Hits From nbs54k.l	0	000000-00-0	0

AC



Tentatively Identified Compound (LSC)

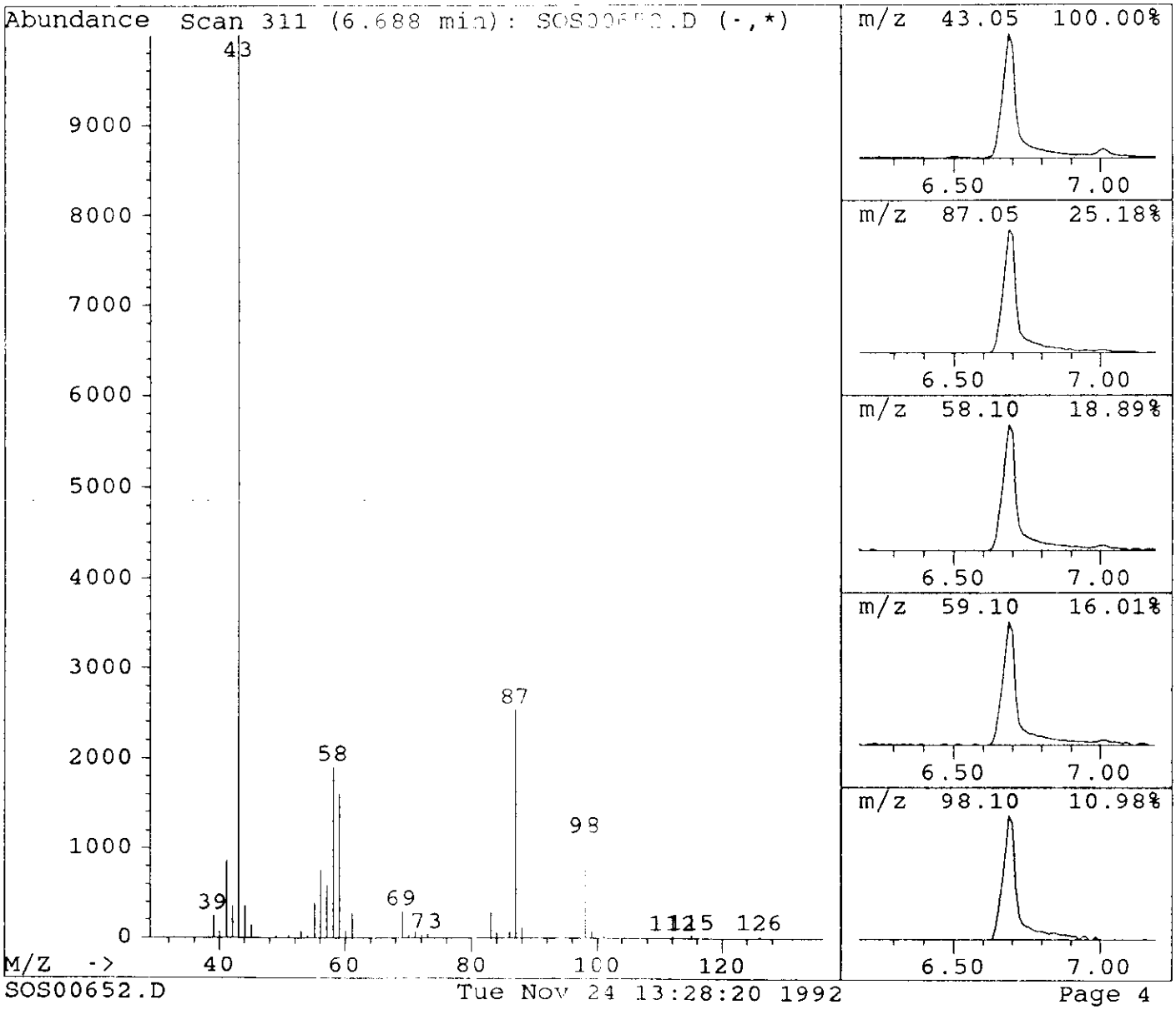
Operator ID: MDB Date Acquired: 20 Nov 92 5:34 pm
Data File: C:\CHEMPC\DATA\112092\SOS00652.D
Name:
Misc: H92077(65-18906.6)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSIDBNA.D
Last Calibration: Tue Nov 24 10:48:40 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
6.69	26.11 ug/kg	2843009	1,4-Dichlorobenzene-d4	9.08

Hit# of 0	Tentative ID	Ref#	CAS#	Qual
1	No Hits From nbs54k.l	0	000000-00-0	0

PC



Tentatively Identified Compound (LSC)

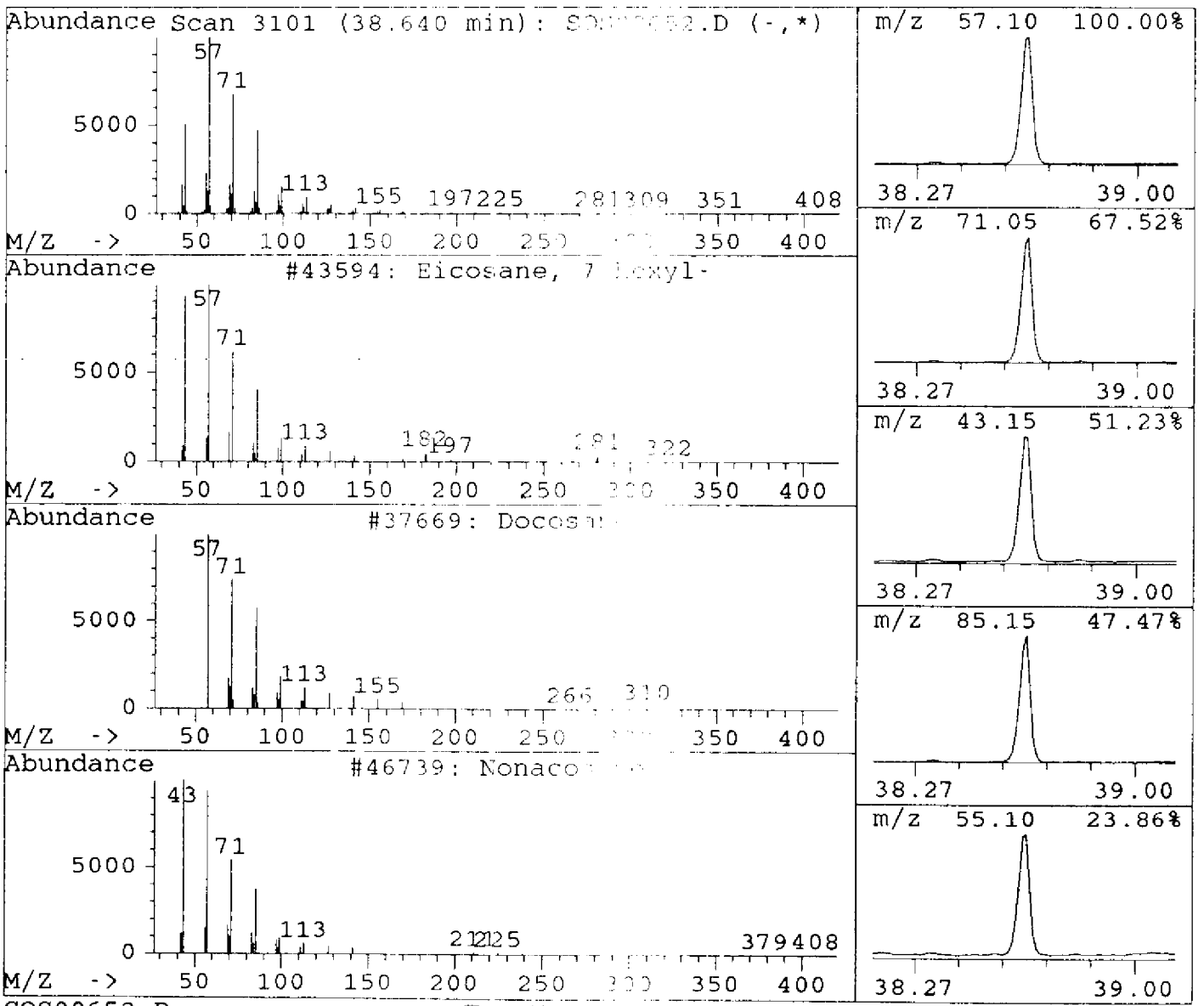
Operator ID: MDB Date Acquired: 20 Nov 92 5:34 pm
Data File: C:\CHEMPC\DATA\112092\SOS00652.D
Name:
Misc: H92077(65-18906.6)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSIDBNA.D
Last Calibration: Tue Nov 24 10:48:40 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
38.64	73.93 ug/kg	4622692	Perylene-d12	39.10

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Eicosane, 7-hexyl-	43594	055333-99-8	91
2	Docosane	37669	000629-97-0	91
3	Nonacosane	46739	000630-03-5	91
4	Tetratriacontane	50193	014167-59-0	90
5	Tetracosane	40896	000646-31-1	90

QHC



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

F02073

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No. _____

Matrix: (soil/water) SOIL Lab Sample ID: D18907

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00653.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 7 decanted: (Y/N): N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	710	U
111-44-4	bis(2-Chloroethyl)ether	710	U
95-57-8	2-Chlorophenol	710	U
541-73-1	1,3-Dichlorobenzene	710	U
106-46-7	1,4-Dichlorobenzene	710	U
95-50-1	1,2-Dichlorobenzene	710	U
39638-32-9	2,2'-oxybis(1-Chloropropane)	710	U
95-48-7	2-Methylphenol	710	U
67-72-1	Hexachloroethane	710	U
621-64-7	N-Nitroso-di-n-propylamine	710	U
106-44-5	4-Methylphenol	710	U
98-95-3	Nitrobenzene	710	U
78-59-1	Isophorone	710	U
88-75-5	2-Nitrophenol	710	U
105-67-9	2,4-Dimethylphenol	710	U
111-91-1	bis(2-Chloroethoxy)methane	710	U
120-83-2	2,4-Dichlorophenol	710	U
120-82-1	1,2,4-Trichlorobenzene	710	U
91-29-3	Naphthalene	710	U
106-47-8	4-Chloroaniline	710	U
87-68-3	Hexachlorobutadiene	710	U
59-50-7	4-Chloro-3-methylphenol	710	U
91-57-6	2-Methylnaphthalene	710	U
77-47-4	Hexachlorocyclopentadiene	710	U
88-06-2	2,4,6-Trichlorophenol	710	U
95-95-4	2,4,5-Trichlorophenol	3700	U
91-58-7	2-Chloronaphthalene	710	U
88-74-4	2-Nitroaniline	3700	U
208-96-8	Acenaphthylene	710	U
131-11-3	Dimethylphthalate	710	U
606-20-2	2,6-Dinitrotoluene	710	U
83-32-9	Acenaphthene	710	U
99-09-2	3-Nitroaniline	3700	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H92078

Lab Name: PACE, INC Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18907

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00653.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 7 decanted: (Y/N): N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	3700	U
132-64-9	Dibenzofuran	710	U
121-14-2	2,4-Dinitrotoluene	710	U
100-02-7	4-Nitrophenol	3700	U
86-73-7	Fluorene	710	U
84-66-2	Diethylphthalate	710	U
7005-72-3	4-Chlorophenyl-phenylether	710	U
534-52-1	4,6-Dinitro-2-methylphenol	3700	U
100-01-6	4-Nitroaniline	3700	U
86-30-6	N-Nitrosodiphenylamine	710	U
101-55-3	4-Bromophenyl-phenylether	710	U
118-74-1	Hexachlorobenzene	710	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	710	U
120-12-7	Anthracene	710	U
86-74-8	Carbazol	710	U
84-74-2	Di-n-butylphthalate	710	U
206-44-0	Fluoranthene	710	U
129-00-0	Pyrene	710	U
85-68-7	Butylbenzylphthalate	710	U
56-55-3	Benzo(a)anthracene	710	U
218-01-9	Chrysene	710	U
91-94-1	3,3'-Dichlorobenzidine	710	U
117-81-7	Bis(2-ethylhexyl)phthalate	710	U
117-84-0	Di-n-octylphthalate	710	U
205-99-2	Benzo(b)fluoranthene	710	U
207-08-9	Benzo(k)fluoranthene	710	U
50-32-8	Benzo(a)pyrene	710	U
193-39-5	Indendo(1,2,3-cd)pyrene	710	U
53-70-3	Dibenz(a,h)anthracene	710	U
191-24-2	Benzo(g,h,i)perylene	710	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H92073

Lab Name: PACE, INC. Contract: _____

Lab Code: D211I Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18907

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00653.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 7 decanted: (Y/N) N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.8

Number TICs found: 7 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Aldol Condensate	4.55	40000	J
2.	Aldol Condensate	5.01	290000	J
3.	Aldol Condensate	5.20	76000	J
4.	Aldol Condensate	6.67	19000	J
5. 309-00-2	Aldrin-R	30.21	120000	J
6. 60-57-1	Dieldrin	33.03	170000	J
7.	Unknown Chlorinated HC	42.80	79000	J
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

HC - Hydrocarbon

QUANT REPORT

Operator ID: MDB Date Acquired: 20 Nov 92 6:33 pm
Data File: C:\CHEMPC\DATA\112092\SOS00653.D
Name:
Misc: H92078(65-18907.4)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSBNA Semi-volatile calibration
Last Calibration: Tue Dec 22 14:52:22 1992
Quantitated using Single Level Calibration

Internal Standards

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
8) 1,4-Dichlorobenzene-d4	9.07	152	624021	40.00	ug/kg	-0.04
25) Naphthalene-d8	13.61	136	2528960	40.00	ug/kg	-0.07
40) Acenaphthene-d10	20.71	164	1017928	40.00	ug/kg	-0.05
57) Phenanthrene-d10	26.69	188	1493114	40.00	ug/kg	-0.05
67) Chrysene-d12	35.68	240	1051281	40.00	ug/kg	-0.05
75) Perylene-d12	39.10	264	791034	40.00	ug/kg	-0.04

System Monitoring Compounds

						%Recovery
1) 2-Fluorophenol	5.91	112	629636	24.57	ug/kg	12.29%
3) Phenol-d5	8.66	99	773307	20.76	ug/kg	10.38%
4) 2-Chlorophenol-d4	8.62	132	613836	21.17	ug/kg	10.59%
10) 1,2-Dichlorobenzene-d4	9.67	152	195580	12.04	ug/kg	12.04%
16) Nitrobenzene-d5	11.05	82	315498	11.13	ug/kg	11.13%
33) 2-Fluorobiphenyl	18.15	172	461256	10.64	ug/kg	10.64%
53) 2,4,6-Tribromophenol	24.05	330	113497	19.65	ug/kg	9.83%
64) Terphenyl-d14	32.96	244	577973	17.46	ug/kg	17.46%

Target Compounds ISTD#

Poor ~~LS~~ Surr. Recovery. Re-ext. MB

PQL's at 71X

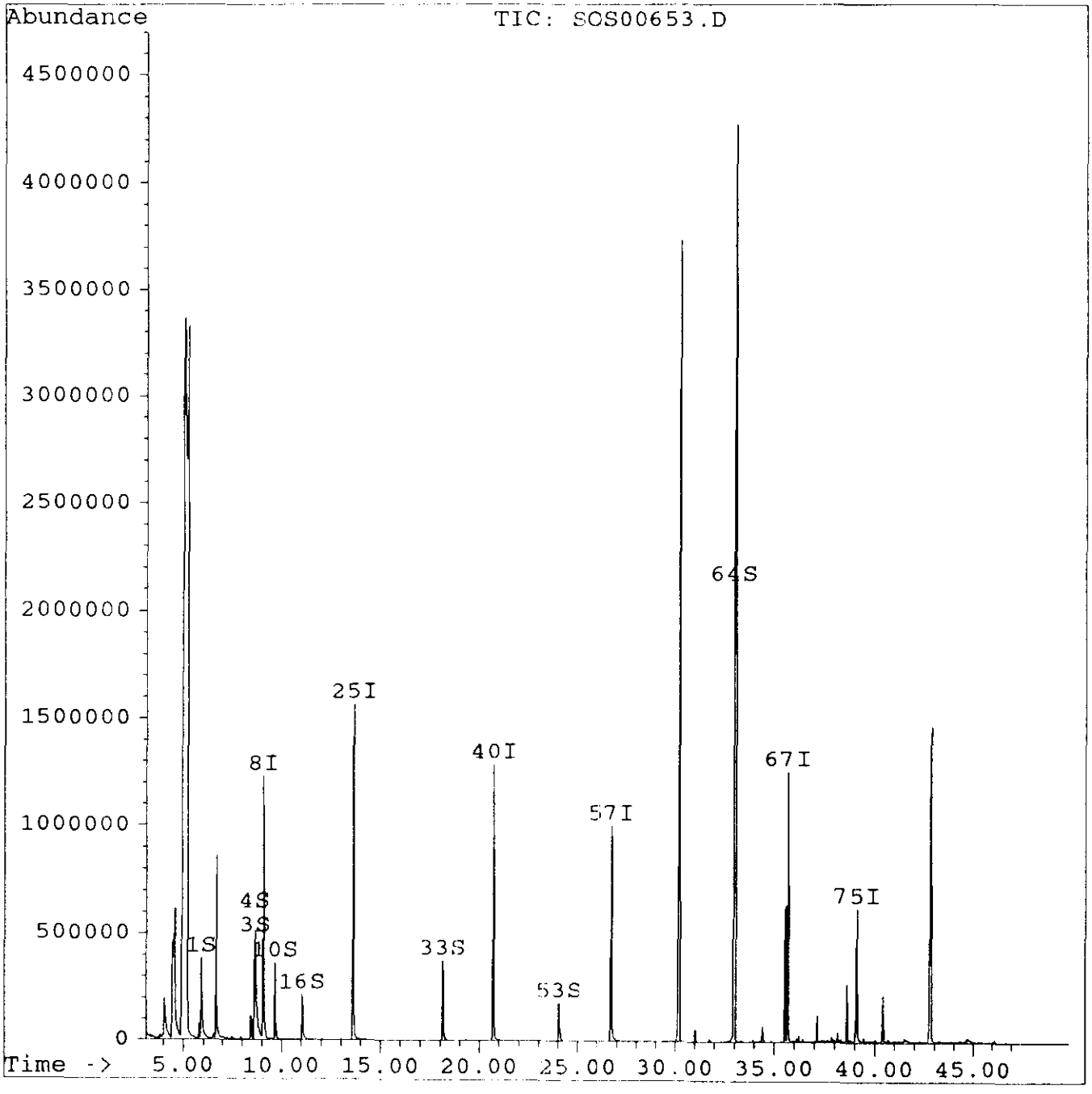
330 µg/kg x 2/0.93 = 710 µg/kg

12/23/92 MP

(#) = qualifier out of range

QUANT REPORT

Operator ID: MDB Date Acquired: 20 Nov 92 6:33 pm
Data File: C:\CHEMPC\DATA\112092\SOS00653.D
Name:
Misc: H92078(65-18907.4)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSBNA Semi-volatile calibration
Last Calibration: Tue Dec 22 14:52:22 1992
Quantitated using Single Level Calibration



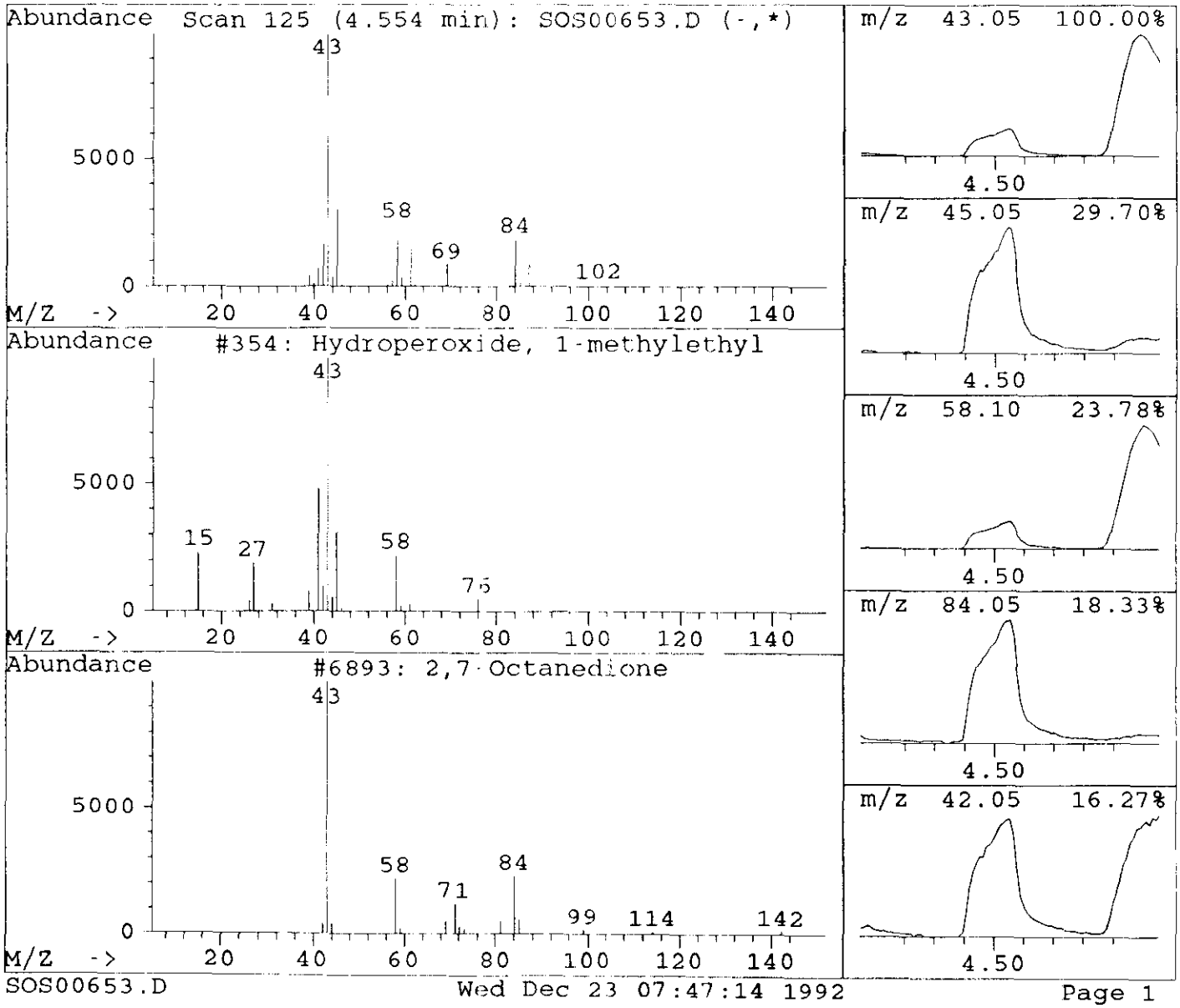
Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 20 Nov 92 6:33 pm
Data File: C:\CHEMPC\DATA\112092\SOS00653.D
Name:
Misc: H92078(65-18907.4)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSBNA Semi-volatile calibration
Last Calibration: Tue Dec 22 14:52:22 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
4.55	56.11 ug/kg	5535007	1,4-Dichlorobenzene-d4	9.07

Hit# of 2	Tentative ID	Ref#	CAS#	Qual
1	Hydroperoxide, 1-methylethyl	354	003031-75-2	36
2	2,7-Octanedione	6893	001626-09-1	28



Tentatively Identified Compound (LSC)

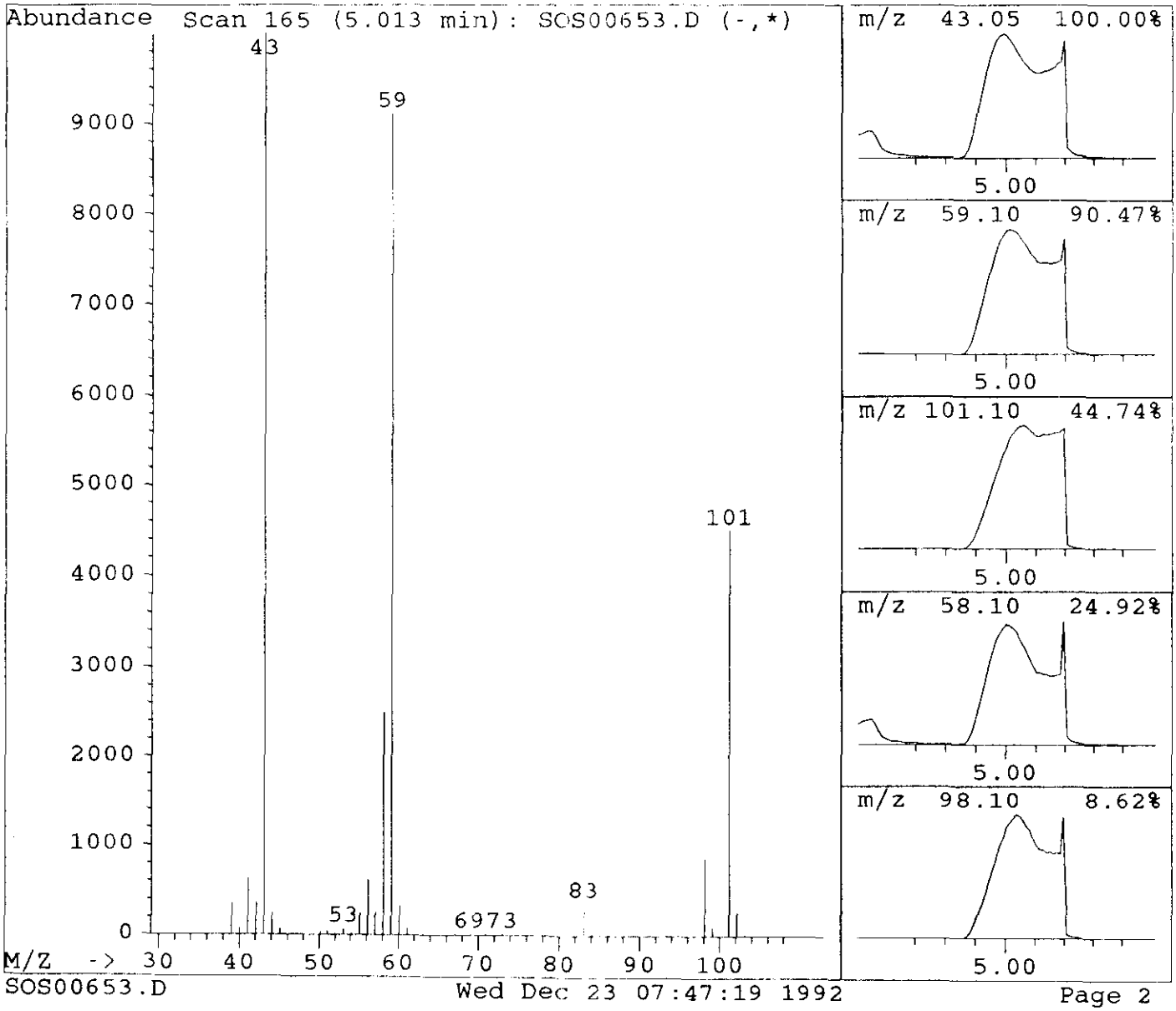
0000107

Operator ID: MDB Date Acquired: 20 Nov 92 6:33 pm
Data File: C:\CHEMPC\DATA\112092\SOS00653.D
Name:
Misc: H92078(65-18907.4)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSBNA Semi-volatile calibration
Last Calibration: Tue Dec 22 14:52:22 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
5.01	410.86 ug/kg	40531943	1,4-Dichlorobenzene-d4	9.07

Hit# of 0	Tentative ID	Ref#	CAS#	Qual
1	No Hits From nbs54k.l	0	000000-00-0	0



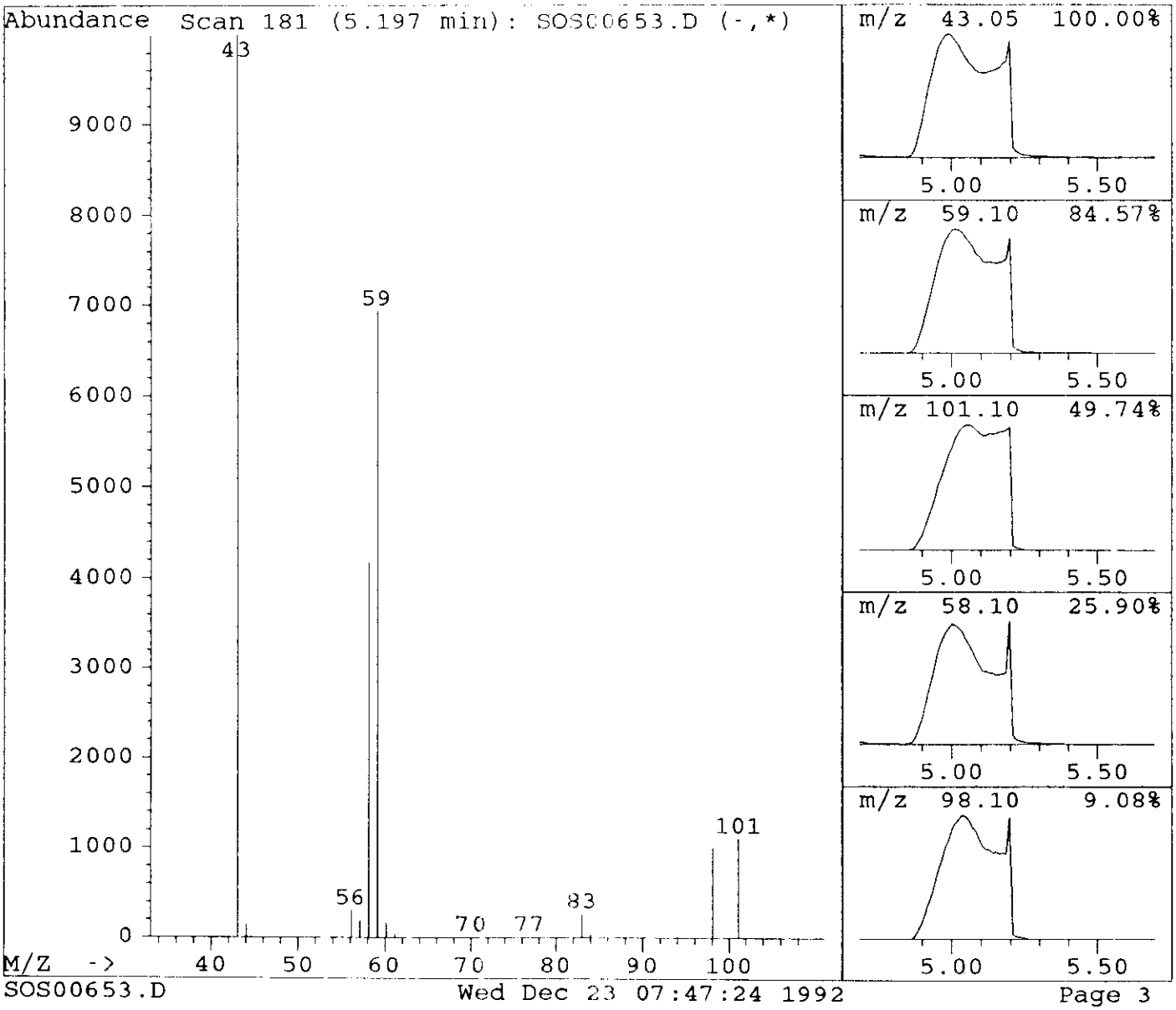
Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 20 Nov 92 6:33 pm
Data File: C:\CHEMPC\DATA\112092\SOS00653.D
Name:
Misc: H92078(65-18907 4)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSBNA Semi-volatile calibration
Last Calibration: Tue Dec 22 14:52:22 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
5.20	105.93 ug/kg	10450314	1,4-Dichlorobenzene-d4	9.07

Hit# of 0	Tentative ID	Ref#	CAS#	Qual
1	No Hits From nbs54k.l	0	000000-00-0	0



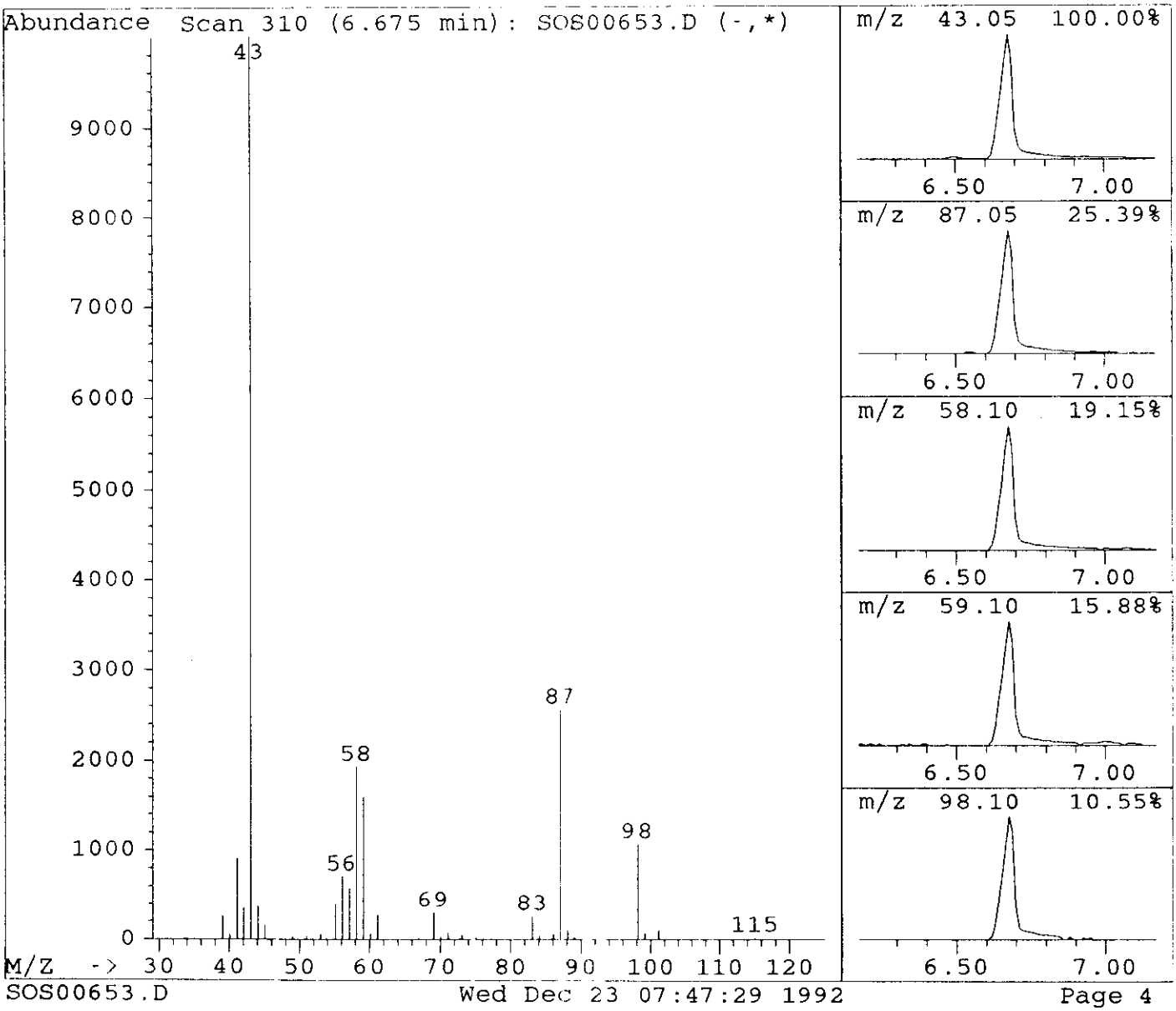
Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 20 Nov 92 6:33 pm
Data File: C:\CHEMPC\DATA\112092\SOS00653.D
Name:
Misc: H92078(65-18907.4)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSBNA Semi-volatile calibration
Last Calibration: Tue Dec 22 14:52:22 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
6.67	26.69 ug/kg	2633346	1,4-Dichlorobenzene-d4	9.07

Hit# of 0	Tentative ID	Ref#	CAS#	Qual
1	No Hits From nbs54k.l	0	000000-00-0	0



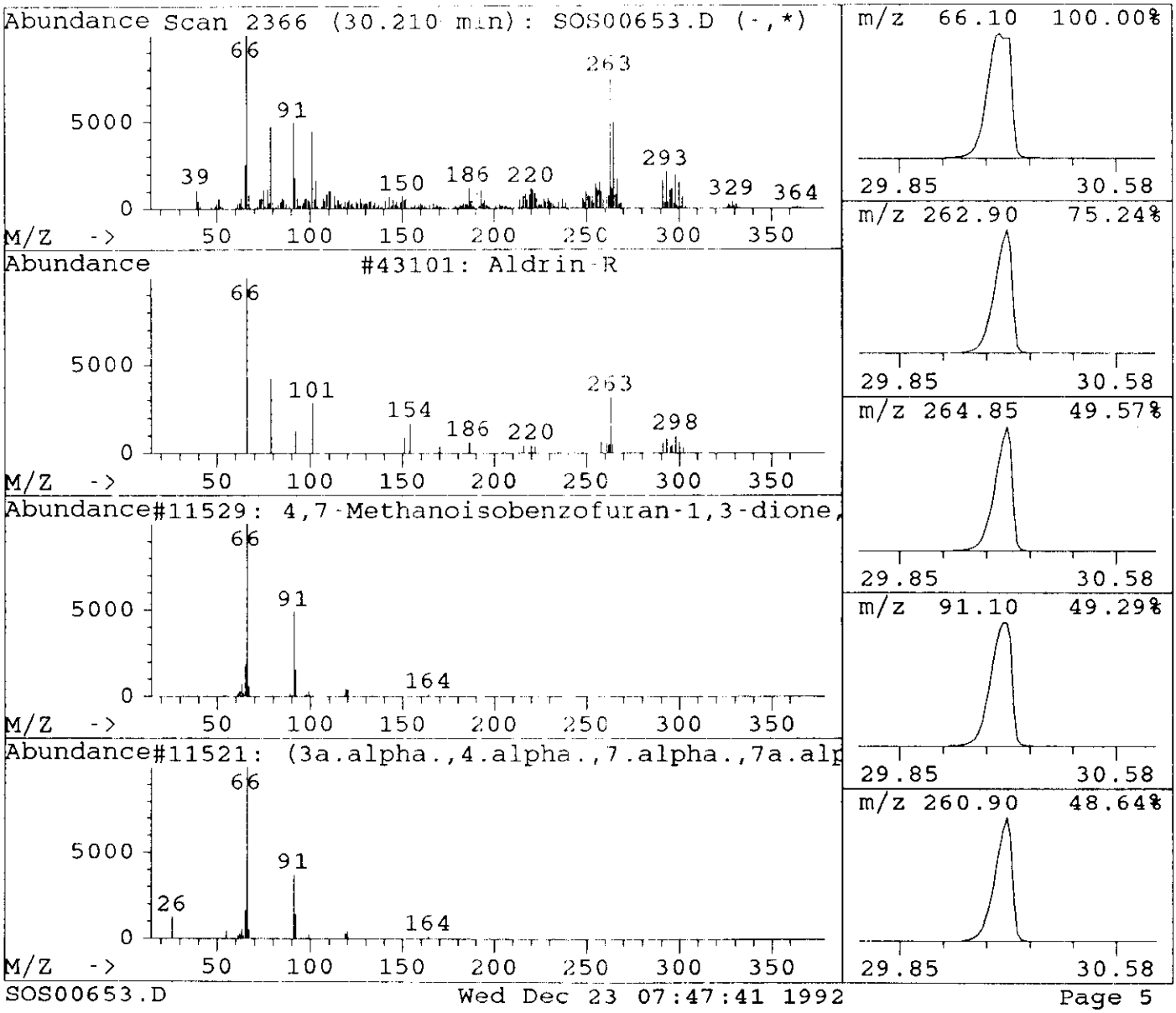
Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 20 Nov 92 6:33 pm
Data File: C:\CHEMPC\DATA\112092\SOS00653.D
Name:
Misc: H92078(65-18907.4)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSBNA Semi-volatile calibration
Last Calibration: Tue Dec 22 14:52:22 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
30.21	163.17 ug/kg	16660481	Phenanthrene-d10	26.69

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Aldrin-R	43101	000309-00-2	83
2	4,7-Methanoisobenzofuran-1,3-dione,	11529	000826-62-0	43
3	(3a.alpha.,4.alpha.,7.alpha.,7a.alp	11521	000129-64-6	43
4	Bicyclo[2.2.1]hept-2-ene, 5-ethenyl	3345	003048-64-4	43
5	Chlordene	40574	003734-48-3	37



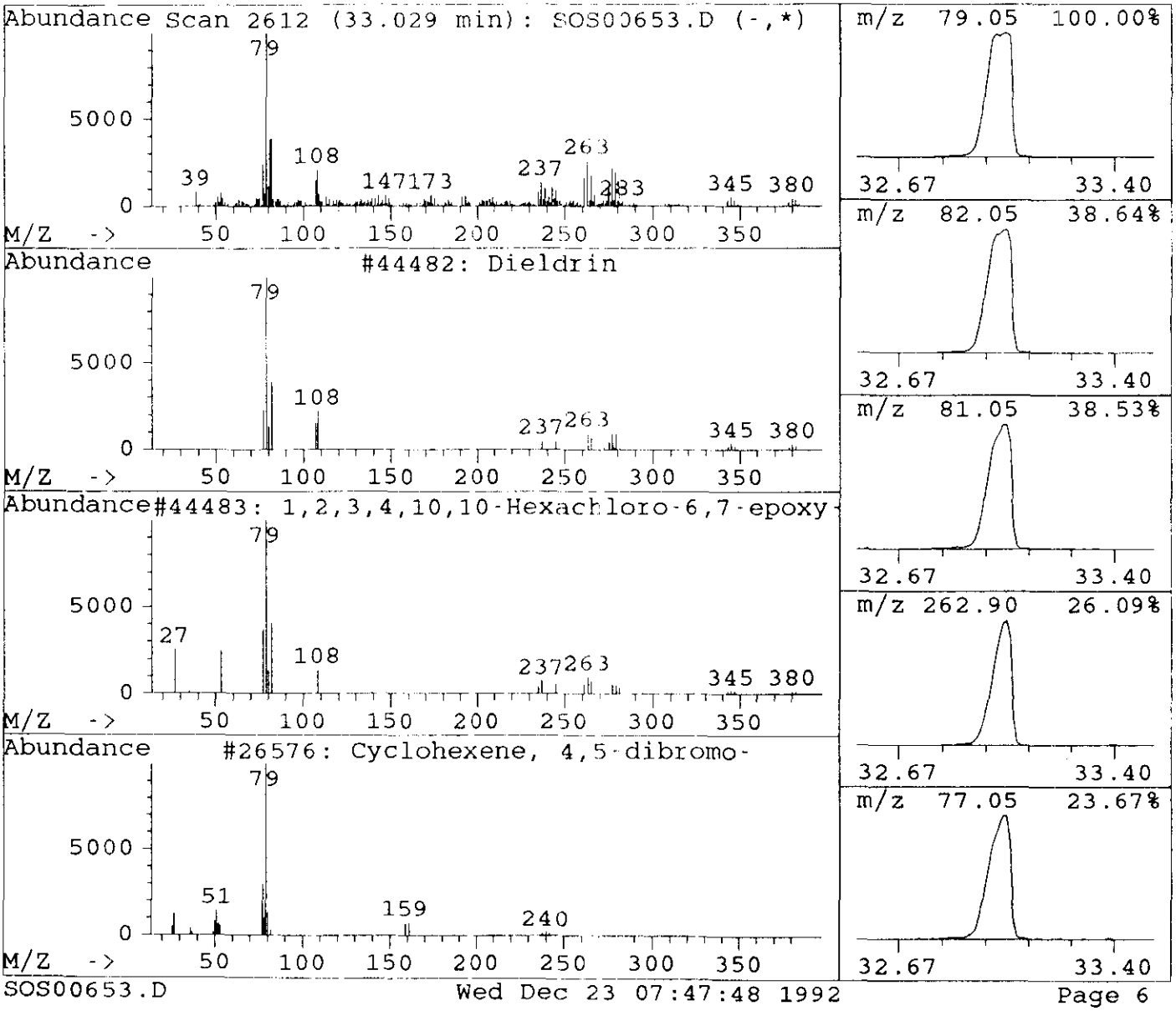
Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 20 Nov 92 6:33 pm
Data File: C:\CHEMPC\DATA\112092\SOS00653.D
Name:
Misc: H92078(65-18907.4)(D21102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSBNA Semi-volatile calibration
Last Calibration: Tue Dec 22 14:52:22 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
33.03	230.54 ug/kg	21762797	Chrysene-d12	35.68

Hit# of 8	Tentative ID	Ref#	CAS#	Qual
1	Dieldrin	44482	000060-57-1	96
2	1,2,3,4,10,10-Hexachloro-6,7-epoxy-	44483	056816-04-7	95
3	Cyclohexene, 4,5-dibromo-	26576	062199-53-5	27
4	2-Pyridinecarboxylic acid, ethyl es	8623	002524-52-9	27
5	1,4-Pentadiene, 3-ethenyl-	939	026456-63-3	27



Tentatively Identified Compound (LSC)

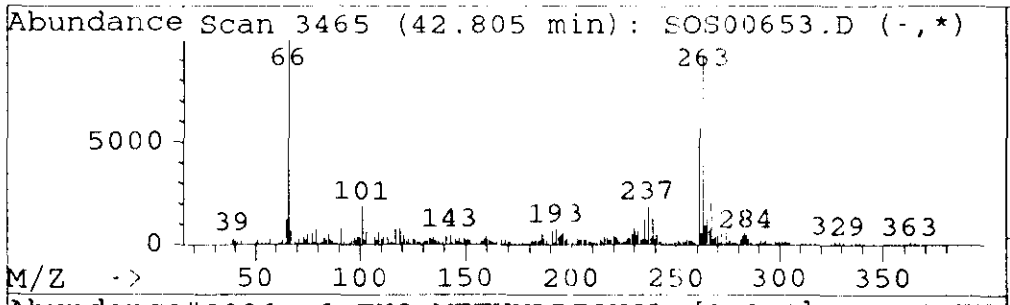
Operator ID: MDB Date Acquired: 20 Nov 92 6:33 pm
Data File: C:\CHEMPC\DATA\112092\SOS00653.D
Name:
Misc: H92078(65-18907.4)(D21102.502)30.0g/1.0ml 2X
Method: MOSCLPS.M
Title: MOSBNA Semi-volatile calibration
Last Calibration: Tue Dec 22 14:52:22 1992

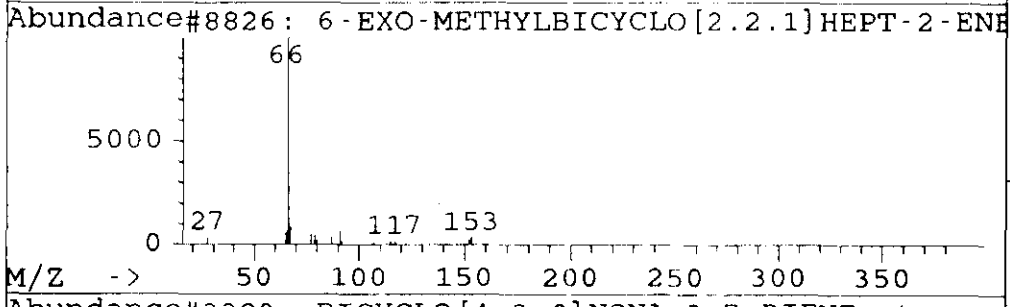
Dark chlorinated HC

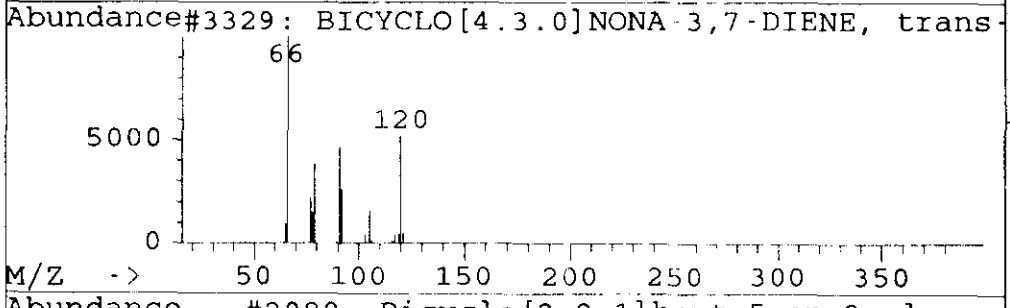
Library Searched: nbs54k.l

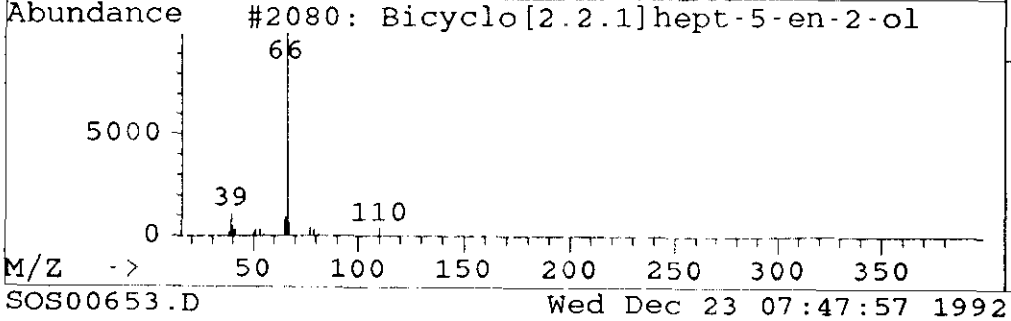
R.T.	Conc	Area	Relative to ISTD	R.T.
42.80	110.47 ug/kg	7407391	Perylene-d12	39.10

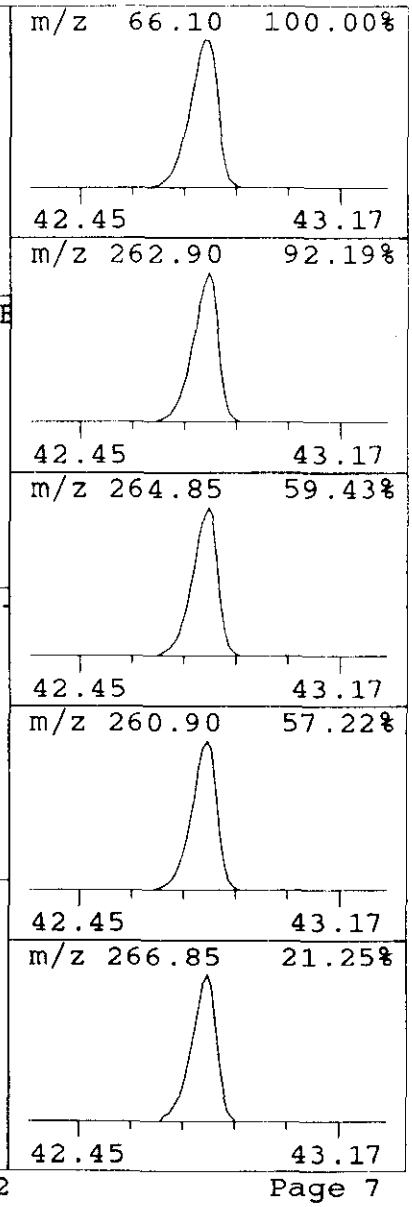
Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	6-EXO-METHYLBICYCLO[2.2.1]HEPT-2-EN	8826	000000-00-0	49
2	BICYCLO[4.3.0]NONA-3,7-DIENE, trans	3329	000000-00-0	47
3	Bicyclo[2.2.1]hept-5-en-2-ol	2080	013080-90-5	47
4	5-ENDO-(HYDROXYMETHYL)-6-EXO-METHYL	6029	000000-00-0	47
5	Bicyclo[2.2.1]hept-2-ene, 5-ethenyl	3345	003048-64-4	47











1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H92078RE

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18907RE

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00725.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 7 decanted: (Y/N): N Date Extracted: 12/8/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/9/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	710	U
111-44-4	bis(2-Chloroethyl)ether	710	U
95-57-8	2-Chlorophenol	710	U
541-73-1	1,3-Dichlorobenzene	710	U
106-46-7	1,4-Dichlorobenzene	710	U
95-50-1	1,2-Dichlorobenzene	710	U
39638-32-9	2,2'-oxybis(1-Chloropropane)	710	U
95-48-7	2-Methylphenol	710	U
67-72-1	Hexachloroethane	710	U
621-64-7	N-Nitroso-di-n-propylamine	710	U
106-44-5	4-Methylphenol	710	U
98-95-3	Nitrobenzene	710	U
78-59-1	Isophorone	710	U
88-75-5	2-Nitrophenol	710	U
105-67-9	2,4-Dimethylphenol	710	U
111-91-1	bis(2-Chloroethoxy)methane	710	U
120-83-2	2,4-Dichlorophenol	710	U
120-82-1	1,2,4-Trichlorobenzene	710	U
91-29-3	Naphthalene	710	U
106-47-8	4-Chloroaniline	710	U
87-68-3	Hexachlorobutadiene	710	U
59-50-7	4-Chloro-3-methylphenol	710	U
91-57-6	2-Methylnaphthalene	710	U
77-47-4	Hexachlorocyclopentadiene	710	U
88-06-2	2,4,6-Trichlorophenol	710	U
95-95-4	2,4,5-Trichlorophenol	3700	U
91-58-7	2-Chloronaphthalene	710	U
88-74-4	2-Nitroaniline	3700	U
208-96-8	Acenaphthylene	710	U
131-11-3	Dimethylphthalate	710	U
606-20-2	2,6-Dinitrotoluene	710	U
83-32-9	Acenaphthene	710	U
99-09-2	3-Nitroaniline	3700	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H92070HE

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18907HE

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00725.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 7 decanted: (Y/N): N Date Extracted: 12/8/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/9/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	3700	U
132-64-9	Dibenzofuran	710	U
121-14-2	2,4-Dinitrotoluene	710	U
100-02-7	4-Nitrophenol	3700	U
86-73-7	Fluorene	710	U
84-66-2	Diethylphthalate	710	U
7005-72-3	4-Chlorophenyl-phenylether	710	U
534-52-1	4,6-Dinitro-2-methylphenol	3700	U
100-01-6	4-Nitroaniline	3700	U
86-30-6	N-Nitrosodiphenylamine	710	U
101-55-3	4-Bromophenyl-phenylether	710	U
118-74-1	Hexachlorobenzene	710	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	710	U
120-12-7	Anthracene	710	U
86-74-8	Carbazol	710	U
84-74-2	Di-n-butylphthalate	710	U
206-44-0	Fluoranthene	710	U
129-00-0	Pyrene	710	U
85-68-7	Butylbenzylphthalate	710	U
56-55-3	Benzo(a)anthracene	710	U
218-01-9	Chrysene	710	U
91-94-1	3,3'-Dichlorobenzidine	710	U
117-81-7	Bis(2-ethylhexyl)phthalate	710	U
117-84-0	Di-n-octylphthalate	710	U
205-99-2	Benzo(b)fluoranthene	710	U
207-08-9	Benzo(k)fluoranthene	710	U
50-32-8	Benzo(a)pyrene	710	U
193-39-5	Indendo(1,2,3-cd)pyrene	710	U
53-70-3	Dibenz(a,h)anthracene	710	U
191-24-2	Benzo(g,h,i)perylene	710	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H92078RE

Lab Name: PACE, INC. Contract: _____

Lab Code: D211I Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: D18907RE

Sample wt/vol: 30 (g/mL) G Lab File ID: SOS00725.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 7 decanted: (Y/N) N Date Extracted: 12/8/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/9/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 7.8

Number TICs found: 5 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Aldol Condensate	4.95	310000	J
2. 309-00-2	Aldrin-R	30.15	210000	J
3. 60-57-1	Dieldrin	32.99	290000	J
4.	Unknown Chlorinated HC	35.48	22000	J
5.	Unknown Chlorinated HC	42.64	19000	J
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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21.				
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24.				
25.				
26.				
27.				
28.				
29.				
30.				

HC - Hydrocarbon

QUANT REPORT

Operator ID: MDB Date Acquired: 9 Dec 92 10:58 pm
Data File: C:\CHEMPC\DATA\120992\SOS00725.D
Name:
Misc: H92078(65-18907.4RE)D21102.502;30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Single Level Calibration

Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
8)	1,4-Dichlorobenzene-d4	9.01	152	416451	40.00	ug/kg	-0.04
25)	Naphthalene-d8	13.54	136	1610037	40.00	ug/kg	-0.08
40)	Acenaphthene-d10	20.63	164	639053	40.00	ug/kg	-0.07
57)	Phenanthrene-d10	26.60	188	907236	40.00	ug/kg	-0.10
67)	Chrysene-d12	35.61	240	672604	40.00	ug/kg	-0.08
75)	Perylene-d12	39.02	264	611283	40.00	ug/kg	-0.08

System Monitoring Compounds

							%Recovery
1)	2-Fluorophenol	5.78	112	1624234	99.11	ug/kg	49.55%
3)	Phenol-d5	8.46	99	2112037	86.80	ug/kg	43.40%
5)	2-Chlorophenol-d4	8.51	132	1631172	85.21	ug/kg	42.61%
10)	1,2-Dichlorobenzene-d4	9.61	152	436852	39.87	ug/kg	39.87%
17)	Nitrobenzene-d5	11.00	82	690848	39.06	ug/kg	39.06%
33)	2-Fluorobiphenyl	18.08	172	1037497	37.12	ug/kg	37.12%
53)	2,4,6-Tribromophenol	23.95	330	294971	77.03	ug/kg	38.51%
64)	Terphenyl-d14	32.92	244	1310097	67.47	ug/kg	67.47%

Target Compounds ISTD#

Ø

PQL's at 71X

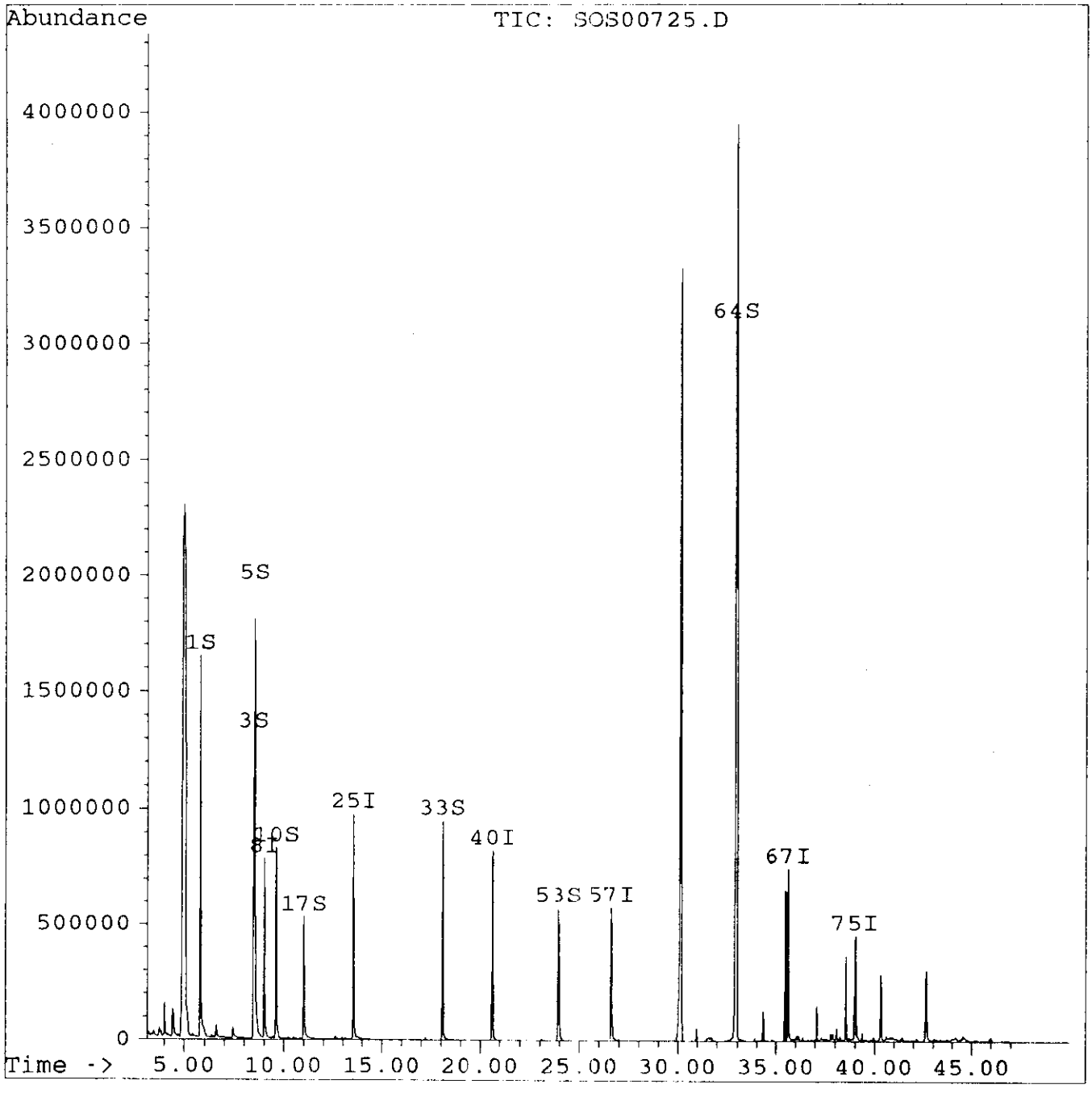
330 µg/kg × 2/0.93 = 710 µg/kg

12/23/92
MB

(#) = qualifier out of range

QUANT REPORT

Operator ID: MDB Date Acquired: 9 Dec 92 10:58 pm
Data File: C:\CHEMPC\DATA\120992\SOS00725.D
Name:
Misc: H92078(65-18907.4RE)D21102.502;30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Single Level Calibration



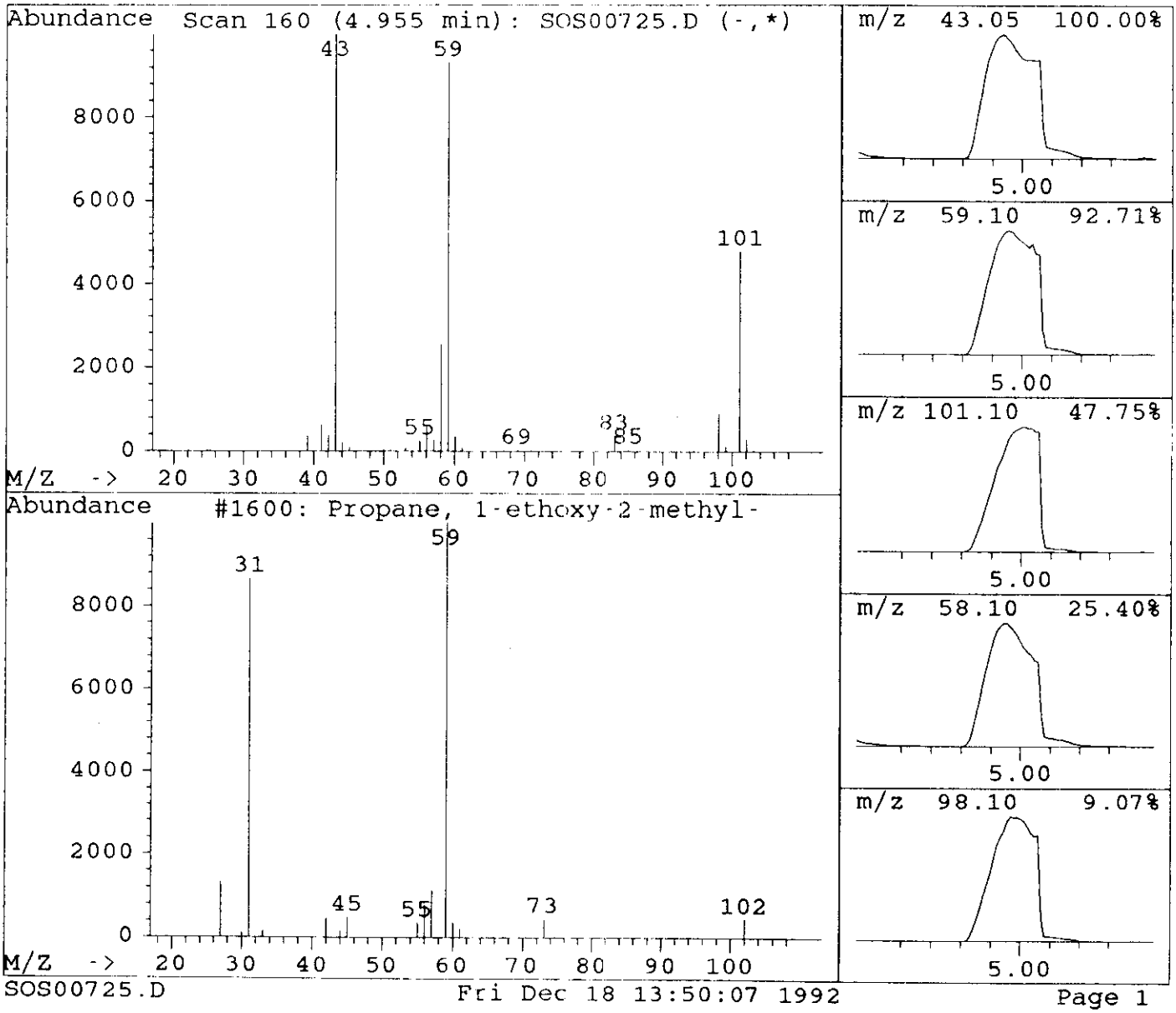
Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 9 Dec 92 10:58 pm
Data File: C:\CHEMPC\DATA\120992\SOS00725.D
Name:
Misc: H92078(65-18907.4RE)D21102.502;30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Nov 23 09:24:38 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
4.95	430.05 ug/kg	26450045	1,4-Dichlorobenzene-d4	9.01

Hit# of 1	Tentative ID	Ref#	CAS#	Qual
1	Propane, 1-ethoxy-2-methyl-	1600	000627-02-1	38



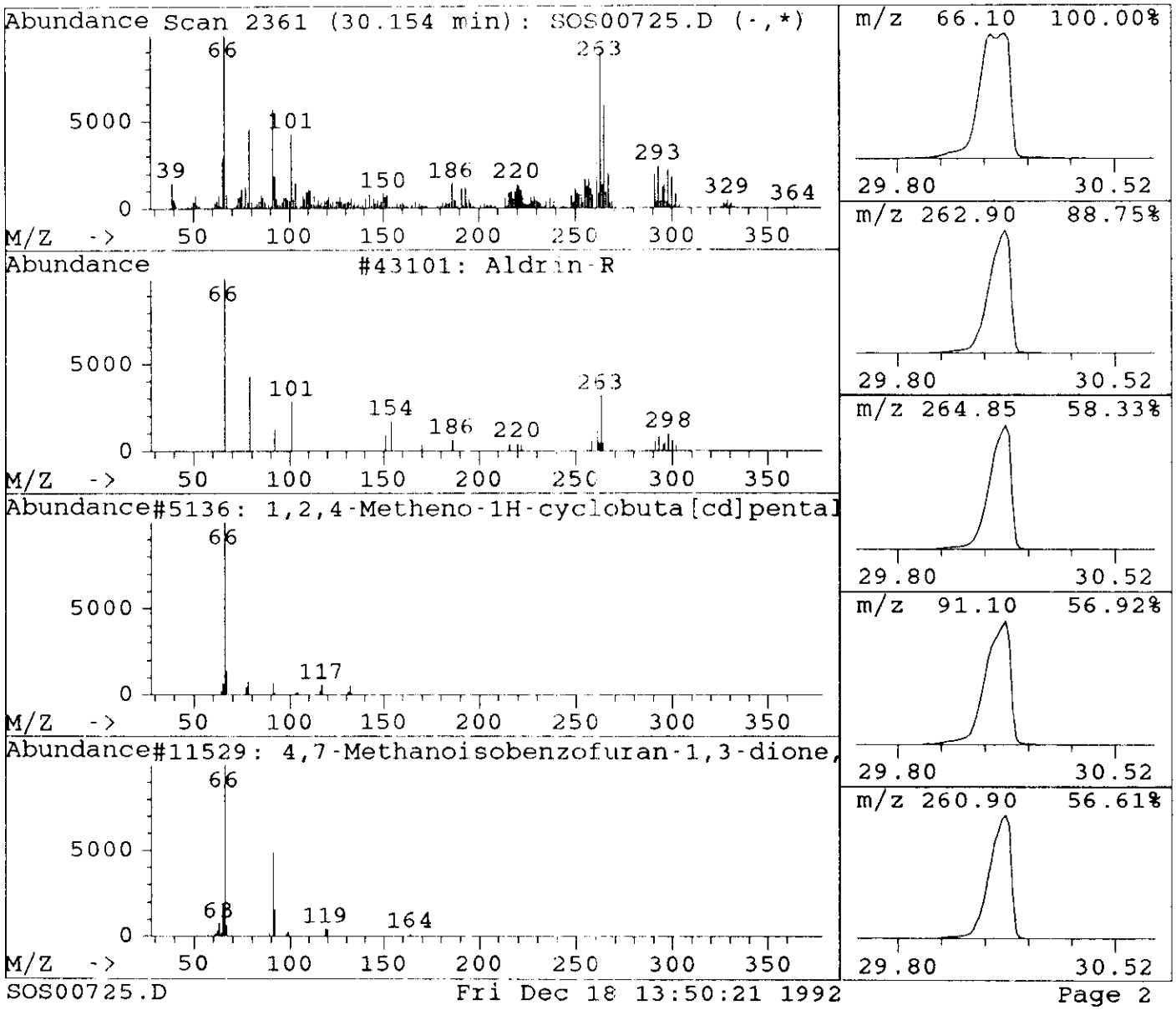
Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 9 Dec 92 10:58 pm
Data File: C:\CHEMPC\DATA\120992\SOS00725.D
Name:
Misc: H92078(65-18907.4RE)D21102.502;30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Nov 23 09:24:38 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
30.15	293.25 ug/kg	17810202	Phenanthrene-d10	26.60

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Aldrin-R	43101	000309-00-2	72
2	1,2,4-Metheno-1H-cyclobuta[cd]penta	5136	006707-86-4	38
3	4,7-Methanoisobenzofuran-1,3-dione,	11529	000826-62-0	38
4	(3a.alpha.,4.alpha.,7.alpha.,7a.alp	11521	000129-64-6	38
5	Bicyclo[2.2.1]hept-2-ene, 5-ethenyl	3345	003048-64-4	38



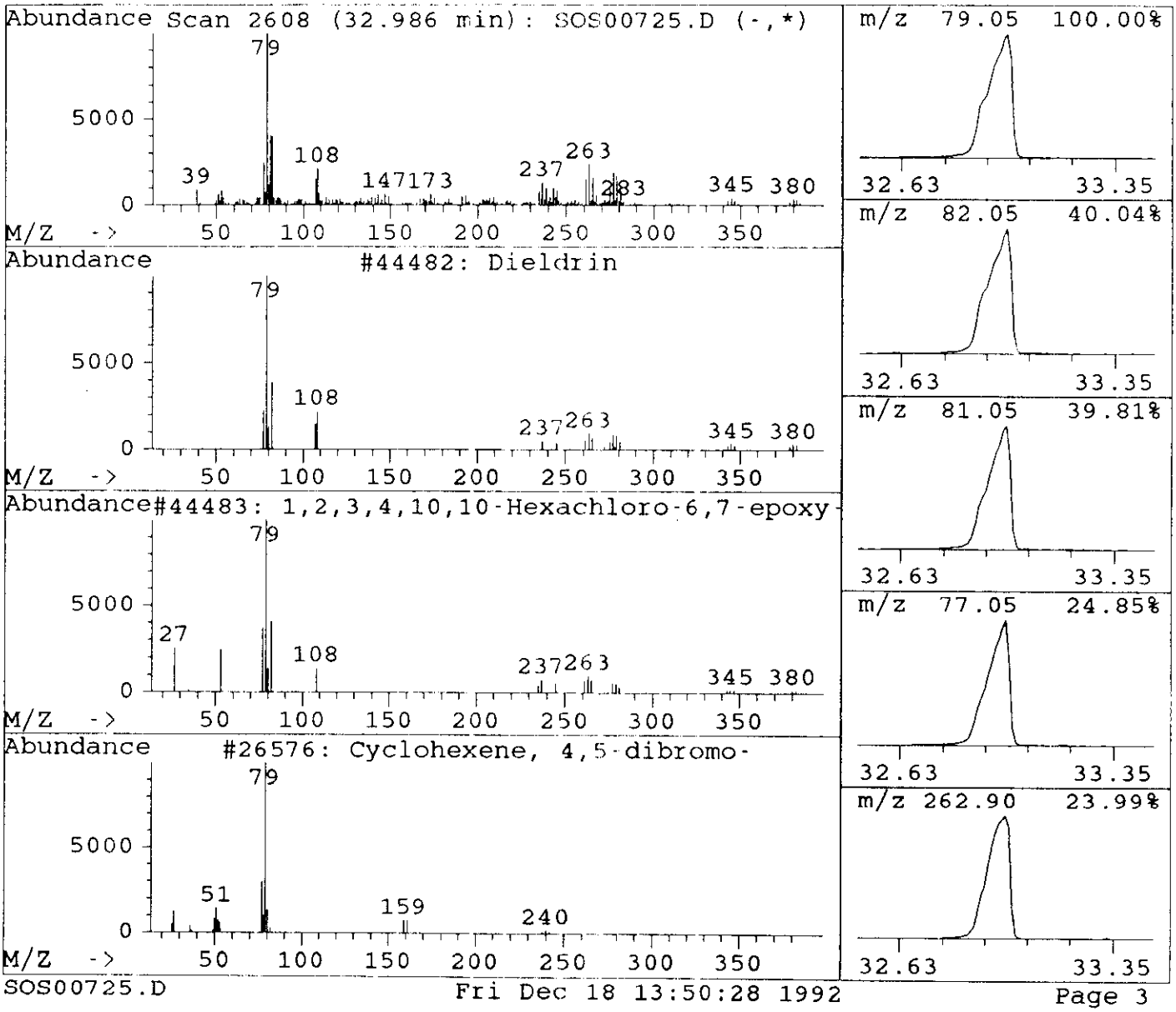
Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 9 Dec 92 10:58 pm
Data File: C:\CHEMPC\DATA\120992\SOS00725.D
Name:
Misc: H92078(65-18907.4RE)D21102.502;30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Nov 23 09:24:38 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
32.99	400.73 ug/kg	23424586	Chrysene-d12	35.61

Hit# of 9	Tentative ID	Ref#	CAS#	Qual
1	Dieldrin	44482	000060-57-1	98
2	1,2,3,4,10,10-Hexachloro-6,7-epoxy-	44483	056816-04-7	96
3	Cyclohexene, 4,5-dibromo-	26576	062199-53-5	27
4	1,4-Pentadiene, 3-ethenyl-	939	026456-63-3	27
5	2-Pyridinecarboxylic acid, ethyl es	8623	002524-52-9	25



Tentatively Identified Compound (LSC)

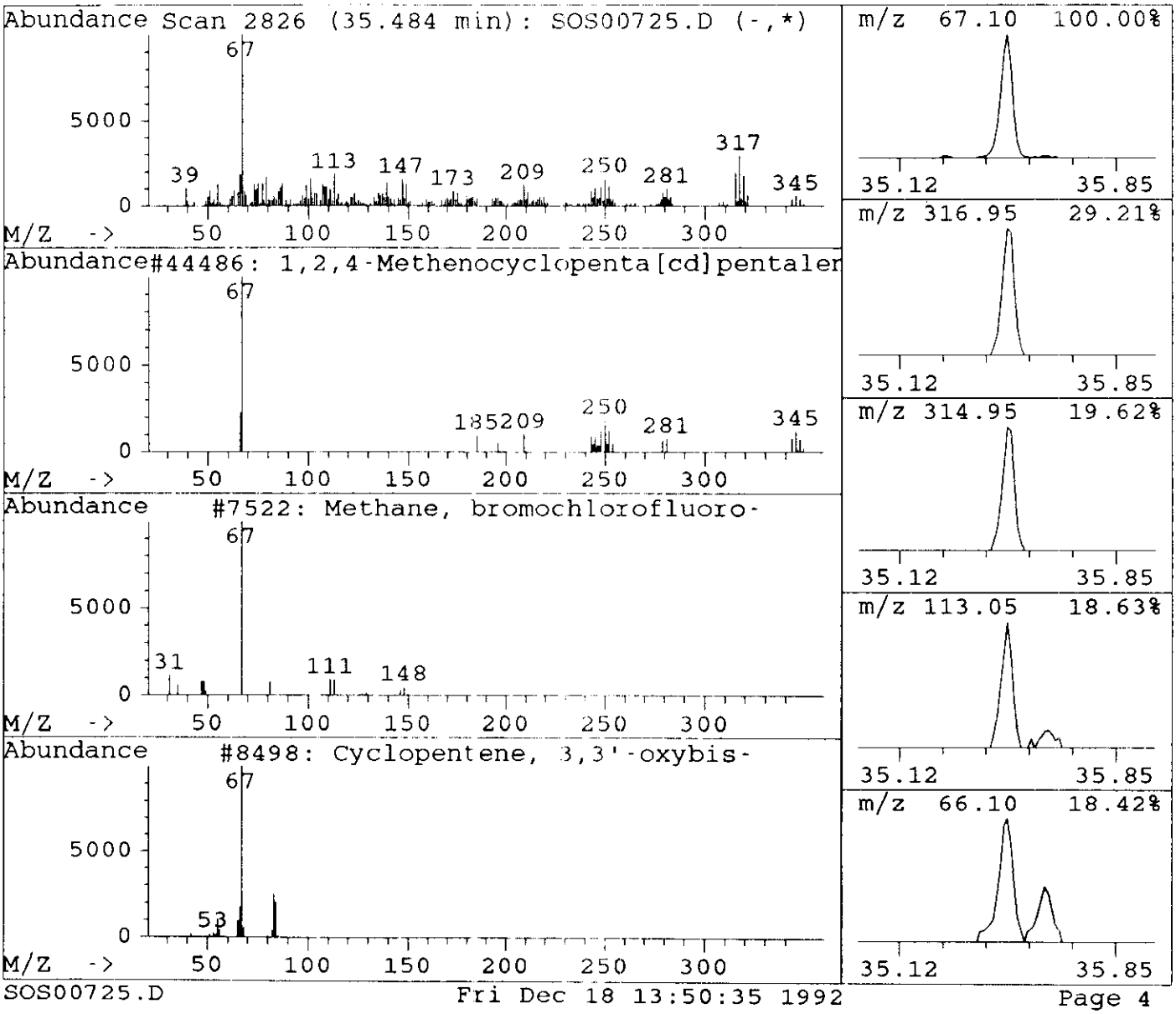
Operator ID: MDB Date Acquired: 9 Dec 92 10:58 pm
Data File: C:\CHEMEC\DATA\120992\SOS00725.D
Name:
Misc: H92078(65-18907.4RE)D21102.502;30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Nov 23 09:24:38 1992

Library Searched: nbs54k.l

Unknown chlorinated ~~Tentatively~~ HC

R.T.	Conc	Area	Relative to ISTD	R.T.
35.48	30.12 ug/kg	1760570	Chrysene-d12	35.61

Hit# of 12	Tentative ID	Ref#	CAS#	Qual
1	1,2,4-Methenocyclopenta[cd]pentalen	44486	007421-93-4	70
2	Methane, bromochlorofluoro-	7522	000593-98-6	27
3	Cyclopentene, 3,3'-oxybis-	8498	015131-55-2	27
4	Cyclopentane, 1-chloro-2-nitroso-,	31295	006866-01-9	16
5	Cyclopentane, 1,3-dichloro-, trans-	5939	026688-50-6	16



Tentatively Identified Compound (LSC)

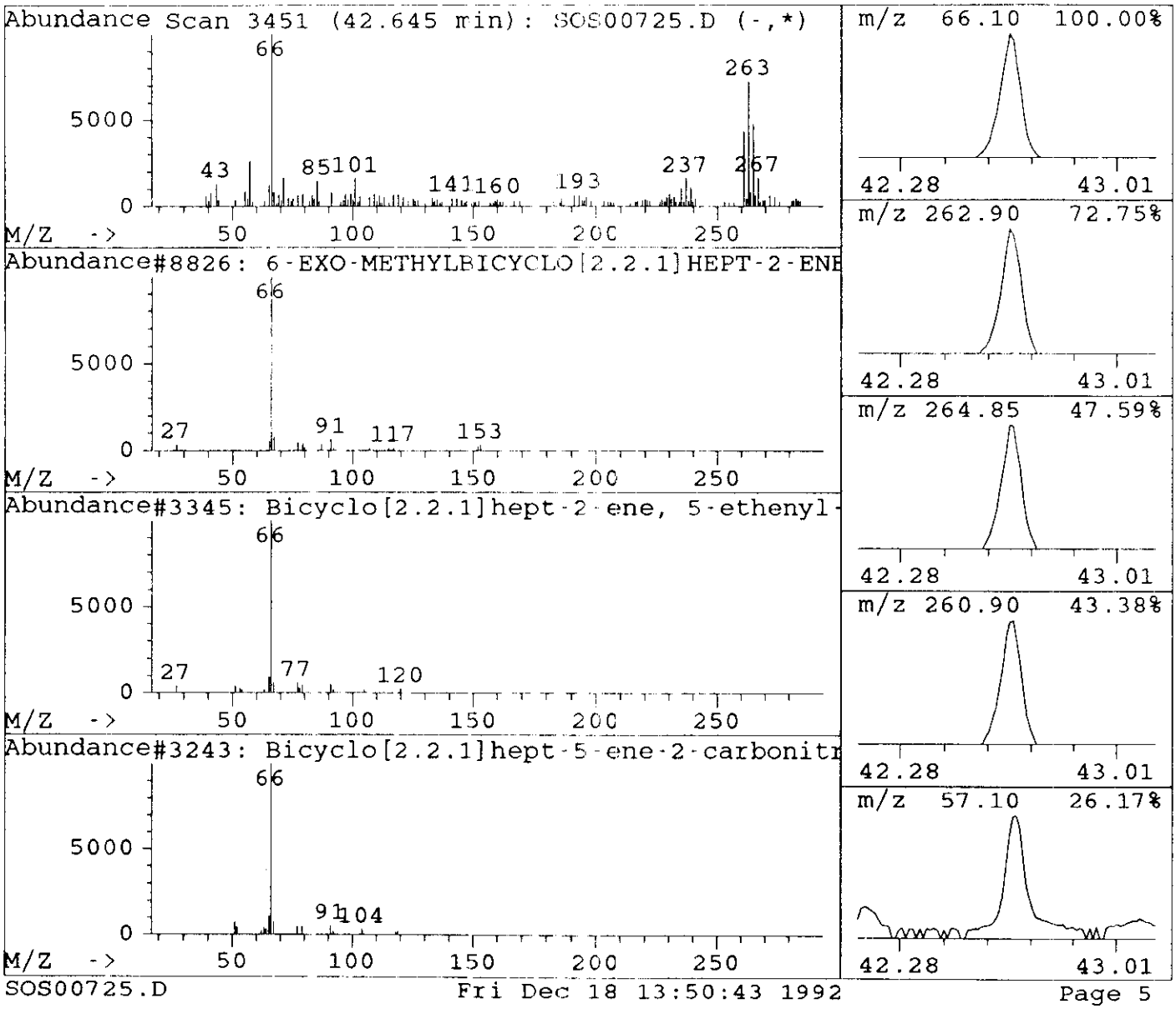
Operator ID: MDB Date Acquired: 9 Dec 92 10:58 pm
Data File: C:\CHEMPC\DATA\120992\SOS00725.D
Name:
Misc: H92078(65-18907.4RE)D21102.502;30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Nov 23 09:24:38 1992

Library Searched: nbs54k.l

Unknown chlorinated Pesticide HC

R.T.	Conc	Area	Relative to ISTD	R.T.
42.64	27.20 ug/kg	1358627	Perylene-d12	39.02

Hit# of 18	Tentative ID	Ref#	CAS#	Qual
1	6-EXO-METHYLBICYCLO[2.2.1]HEPT-2-EN	8826	000000-00-0	52
2	Bicyclo[2.2.1]hept-2-ene, 5-ethenyl	3345	003048-64-4	50
3	Bicyclo[2.2.1]hept-5-ene-2-carbonit	3243	000095-11-4	50
4	ENDO-4-OXATRICYCLO[5.2.1.0(2,6)]DEC	8373	000000-00-0	50
5	ENDO-4-OXATRICYCLO[5.2.1.0(2,6)]DEC	5667	000000-00-0	40



SEMIVOLATILE STANDARDS DATA PACKAGE

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: O-S Calibration Date(s): 10/15/92 10/15/92

Calibration Times: 0853 1251

Lab File ID: RRF20 = COS00457.D RRF50 = COS00456.D
RRF80 = COS00455.D RRF120 = COS00454.D RRF160 = COS00453.D

COMPOUND		RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD	
Phenol	*	2.265	2.659	2.540	2.248	2.014	2.345	10.9	*
bis(2-Chloroethyl)ether	*	2.090	2.431	2.208	1.984	1.773	2.097	11.7	*
2-Chlorophenol	*	1.696	2.035	2.038	2.011	1.899	1.936	7.5	*
1,3-Dichlorobenzene	*	1.537	1.732	1.750	1.797	1.840	1.731	6.7	*
1,4-Dichlorobenzene	*	1.693	1.941	1.962	1.958	1.925	1.896	6.0	*
1,2-Dichlorobenzene	*	1.639	1.949	1.886	1.730	1.586	1.758	8.9	*
2,2'-oxybis(1-Chloropropane)	*	2.062	2.162	1.908	1.758	1.594	1.897	12.0	*
2-Methylphenol	*	1.532	1.777	1.758	1.741	1.718	1.705	5.8	*
Hexachloroethane	*	0.816	0.922	0.926	0.936	0.910	0.902	5.4	*
N-Nitroso-di-n-propylamine	*	1.217	1.288	1.270	1.292	1.288	1.271	2.5	*
4-Methylphenol	*	1.580	1.867	1.906	1.880	1.837	1.814	7.3	*
Nitrobenzene	*	0.414	0.467	0.461	0.462	0.432	0.447	5.2	*
Isophorone	*	0.820	0.914	0.881	0.897	0.876	0.878	4.0	*
2-Nitrophenol	*	0.206	0.248	0.258	0.282	0.303	0.259	14.2	*
2,4-Dimethylphenol	*	0.359	0.422	0.418	0.426	0.421	0.409	6.9	*
bis(2-Chloroethoxy)methane	*	0.524	0.600	0.595	0.601	0.611	0.586	6.0	*
2,4-Dichlorophenol	*	0.241	0.289	0.294	0.299	0.305	0.286	9.0	*
1,2,4-Trichlorobenzene	*	0.242	0.284	0.293	0.307	0.312	0.288	9.7	*
Naphthalene	*	1.095	1.342	1.360	1.356	1.293	1.289	8.7	*
4-Chloroaniline	*	0.382	0.510	0.512	0.524	0.518	0.489	12.3	*
Hexachlorobutadiene	*	0.133	0.165	0.170	0.172	0.166	0.161	9.9	*
4-Chloro-3-methylphenol	*	0.306	0.376	0.373	0.376	0.375	0.361	8.5	*
2-Methylnaphthalene	*	0.637	0.753	0.746	0.728	0.626	0.698	8.8	*
Hexachlorocyclopentadiene	*	0.321	0.406	0.435	0.453	0.478	0.419	14.5	*
2,4,6-Trichlorophenol	*	0.382	0.472	0.499	0.601	0.677	0.526	21.8	*
2,4,5-Trichlorophenol	*	0.412	0.509	0.510	0.439	0.385	0.451	12.6	*
2-Chloronaphthalene	*	1.281	1.542	1.602	1.650	1.689	1.553	10.4	*
2-Nitroaniline	*	0.519	0.627	0.626	0.631	0.632	0.607	8.1	*
Acenaphthylene	*	2.212	2.585	2.628	2.720	2.727	2.574	8.2	*
Dimethylphthalate	*	1.426	1.668	1.674	1.732	1.761	1.652	8.0	*
2,6-Dinitrotoluene	*	0.369	0.462	0.468	0.481	0.493	0.455	10.9	*
Acenaphthene	*	1.273	1.556	1.582	1.637	1.652	1.540	10.0	*
3-Nitroaniline	*	0.323	0.491	0.567	0.602	0.623	0.521	23.3	*
2,4-Dinitrophenol	*	0.152	0.247	0.209	0.238	0.266	0.222	20.0	*
Dibenzofuran	*	1.602	1.947	1.977	2.027	2.130	1.937	10.3	*
2,4-Dinitrotoluene	*	0.471	0.579	0.573	0.560	0.582	0.553	8.4	*
4-Nitrophenol	*	0.149	0.202	0.182	0.182	0.182	0.179	10.6	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No. _____ SAS No.: _____ SDG No.: _____

Instrument ID: O-S Calibration Date(s): 10/15/92 10/15/92

Calibration Times: 0853 1251

Lab File ID: RRF20 = COS00457.D RRF50 = COS00456.D
RRF80 = COS00455.D RRF120 = COS00454.D RRF160 = COS00453.D

COMPOUND		RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD	
Fluorene	*	1.285	1.542	1.574	1.655	1.715	1.554	10.6	*
Diethylphthalate		1.638	1.976	1.926	2.008	2.098	1.929	9.0	
4-Chlorophenyl-phenylether	*	0.584	0.720	0.716	0.740	0.774	0.707	10.2	*
4,6-Dinitro-2-methylphenol	*	0.168	0.216	0.176	0.212	0.232	0.201	13.7	*
4-Nitroaniline	*	0.306	0.377	0.309	0.274	0.305	0.314	12.1	*
N-Nitrosodiphenylamine	*	0.563	0.661	0.673	0.689	0.720	0.661	9.0	*
4-Bromophenyl-phenylether	*	0.221	0.266	0.263	0.269	0.281	0.260	8.8	*
Hexachlorobenzene	*	0.267	0.327	0.323	0.327	0.347	0.318	9.5	*
Pentachlorophenol	*	0.123	0.192	0.164	0.140	0.139	0.152	17.8	*
Phenanthrene	*	1.178	1.426	1.595	1.796	1.874	1.574	17.9	*
Anthracene	*	1.209	1.411	1.235	1.105	1.141	1.220	9.7	*
Carbazol	*	0.800	0.761	0.710	0.647	0.777	0.739	8.3	*
Di-n-butylphthalate	*	1.928	2.364	1.977	1.650	2.095	2.003	13.0	*
Fluoranthene	*	1.123	1.374	1.240	1.116	1.250	1.221	8.7	*
Pyrene	*	1.288	1.330	1.247	1.251	1.466	1.316	6.8	*
Butylbenzylphthalate	*	0.940	1.018	1.007	1.032	1.116	1.023	6.2	*
Benzo(a)anthracene	*	1.153	1.260	1.257	1.329	1.440	1.288	8.2	*
Chrysene	*	1.141	1.245	1.251	1.242	1.253	1.226	3.9	*
3,3'-Dichlorobenzidine	*	0.206	0.267	0.327	0.367	0.441	0.322	28.1	*
Bis(2-ethylhexyl)phthalate	*	1.369	1.575	1.535	1.497	1.483	1.492	5.2	*
Di-n-octylphthalate	*	2.443	3.295	3.403	3.405	3.452	3.200	13.3	*
Benzo(b)fluoranthene	*	1.176	1.409	1.606	1.705	1.904	1.560	17.9	*
Benzo(k)fluoranthene	*	1.071	1.173	1.155	1.273	1.408	1.216	10.6	*
Benzo(a)pyrene	*	1.024	1.227	1.289	1.388	1.471	1.280	13.3	*
Indendo(1,2,3-cd)pyrene	*	0.986	1.120	1.122	1.145	1.250	1.125	8.4	*
Dibenz(a,h)anthracene	*	0.842	1.005	1.017	1.032	1.115	1.002	9.9	*
Benzo(g,h,i)perylene	*	0.844	0.917	0.872	0.856	0.925	0.883	4.1	*
2-Fluorophenol	*	1.563	1.857	1.856	1.917	1.964	1.831	8.6	*
Phenol-d5	*	1.973	2.363	2.392	2.268	2.005	2.200	9.0	*
2-Chlorophenol-d4	*	1.520	1.845	1.842	1.815	1.703	1.745	7.9	*
1,2-Dichlorobenzene-d4	*	1.009	1.019	1.108	0.982	0.882	1.000	8.1	*
Nitrobenzene-d5	*	0.449	0.448	0.482	0.447	0.412	0.448	5.5	*
2-Fluorobiphenyl	*	1.538	1.632	1.797	1.653	1.616	1.647	5.7	*
2,4,6-Tribromophenol	*	0.172	0.245	0.245	0.261	0.248	0.234	15.1	*
Terphenyl-d14	*	1.083	1.037	1.049	0.952	0.988	1.022	5.1	*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

QUANT REPORT

Operator ID: MDB Date Acquired: 15 Oct 92 8:53 am
Data File: C:\CHEMPC\DATA\101592\COS00453.D
Name:
Misc: SSTD020 (M-920922-10L) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration

Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
8)	1,4-Dichlorobenzene-d4	9.21	152	593852	40.00	ug/ml	-0.00
25)	Naphthalene-d8	13.79	136	2365878	40.00	ug/ml	-0.00
40)	Acenaphthene-d10	20.89	164	881327	40.00	ug/ml	-0.00
57)	Phenanthrene-d10	26.87	188	1216779	40.00	ug/ml	-0.00
67)	Chrysene-d12	35.81	240	1098469	40.00	ug/ml	-0.00
75)	Perylene-d12	39.26	264	1064055	40.00	ug/ml	-0.00

System Monitoring Compounds

							%Recovery
1)	2-Fluorophenol	5.78	112	464007	18.53	ug/ml	9.27%
2)	Phenol-d5	8.49	99	585840	22.11	ug/ml	11.06%
5)	2-Chlorophenol-d4	8.62	132	451268	19.79	ug/L	9.89%
10)	1,2-Dichlorobenzene-d4	9.81	152	299624	21.09	ug/L	21.09%
17)	Nitrobenzene-d5	11.21	82	531180	22.36	ug/ml	22.36%
34)	2-Fluorobiphenyl	18.32	172	677767	18.93	ug/ml	18.93%
53)	2,4,6-Tribromophenol	24.16	330	75795	14.13	ug/ml	7.06%
64)	Terphenyl-d14	33.06	244	594654	19.61	ug/ml	19.61%

Target Compounds

							ISTD#
3)	Phenol	8.52	94	672569	24.33	ug/ml	001
4)	bis(2-Chloroethyl)ether	8.62	93	620553	25.99	ug/ml	001
6)	2-Chlorophenol	8.67	128	503502	19.62	ug/ml	001#
7)	1,3-Dichlorobenzene	9.08	146	456352	18.05	ug/ml	001
9)	1,4-Dichlorobenzene	9.26	146	502580	18.76	ug/ml	001m
11)	1,2-Dichlorobenzene	9.86	146	486623	20.34	ug/ml	001
12)	2,2'-oxybis(1-Chloropropan	10.45	45	612273	31.38	ug/ml	001m
13)	2-Methylphenol	10.46	108	454776	21.22	ug/ml	001
14)	Hexachloroethane	10.91	117	242159	20.83	ug/ml	001
15)	N-Nitroso-di-n-propylamine	10.94	70	361486	23.03	ug/ml	001#
16)	4-Methylphenol	11.01	108	469175	21.03	ug/ml	001
18)	Nitrobenzene	11.27	77	489722	20.88	ug/ml	002
19)	Isophorone	12.20	82	970068	20.24	ug/ml	002
20)	2-Nitrophenol	12.46	139	243777	15.34	ug/ml	002
21)	2,4-Dimethylphenol	12.94	107	425134	19.09	ug/ml	002
22)	bis(2-Chloroethoxy)methane	13.25	93	619887	19.79	ug/ml	002
23)	2,4-Dichlorophenol	13.44	162	284675	16.10	ug/ml	002
24)	1,2,4-Trichlorobenzene	13.68	180	286674	16.33	ug/ml	002
26)	Naphthalene	13.86	128	1295066	18.46	ug/ml	002
27)	4-Chloroaniline	14.28	127	452254	15.41	ug/ml	002
28)	Hexachlorobutadiene	14.74	225	157413	16.69	ug/ml	002
29)	4-Chloro-3-methylphenol	16.49	107	362245	18.35	ug/ml	002
30)	2-Methylnaphthalene	16.62	142	753273	19.04	ug/ml	002
31)	Hexachlorocyclopentadiene	17.62	237	141459	15.34	ug/ml	003

(#) = qualifier out of range

QUANT REPORT

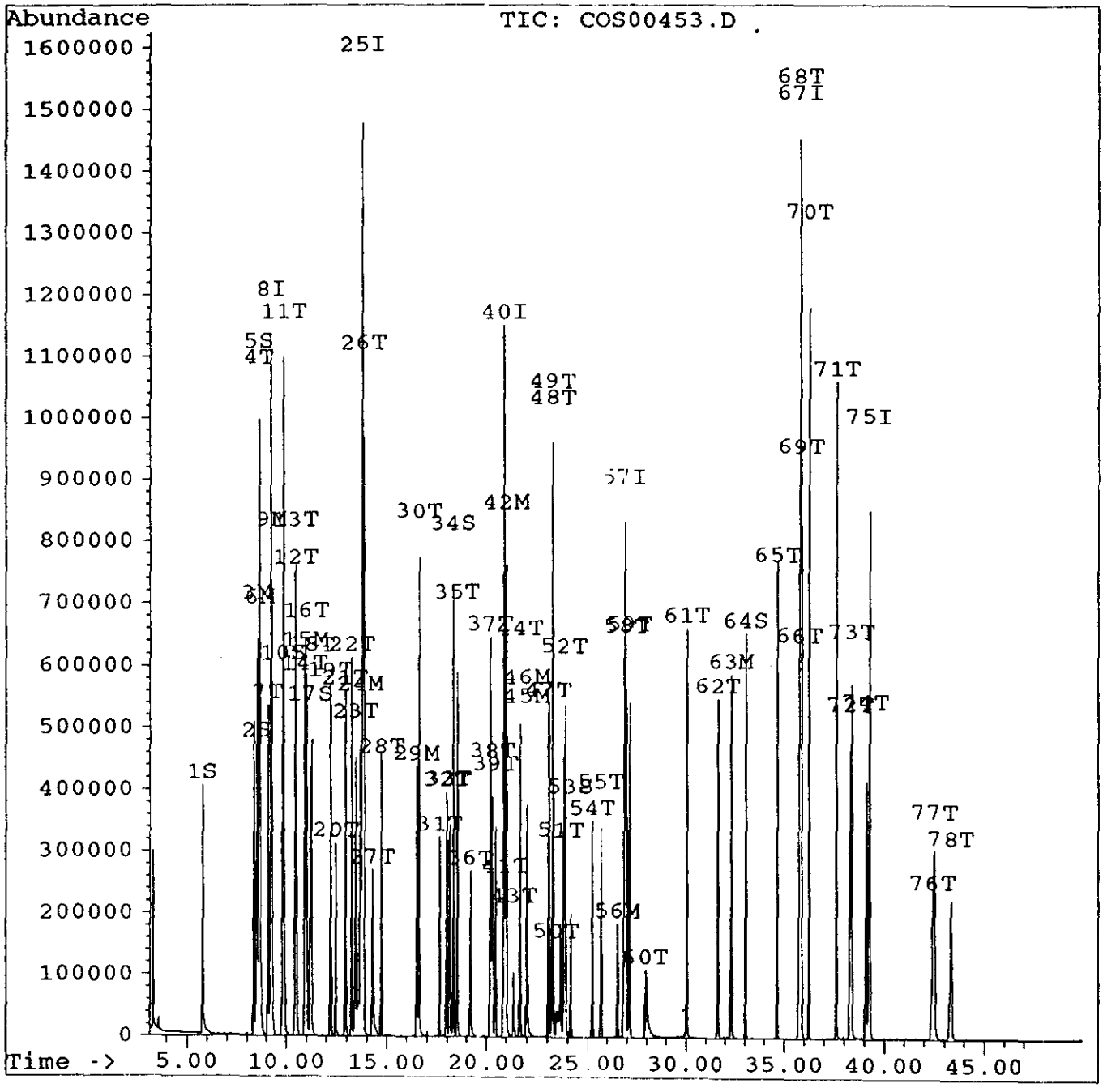
Operator ID: MDB Date Acquired: 15 Oct 92 8:53 am
Data File: C:\CHEMPC\DATA\101592\COS00453.D
Name:
Misc: SSTD020 (M-920922-10L) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
32) 2,4,6-Trichlorophenol	17.98	196	168432	14.14	ug/ml	003
33) 2,4,5-Trichlorophenol	18.13	196	181671	17.92	ug/ml	003
35) 2-Chloronaphthalene	18.53	162	564447	16.98	ug/ml	003
36) 2-Nitroaniline	19.21	65	228794	19.37	ug/ml	003
37) Acenaphthylene	20.20	152	974551	17.74	ug/ml	003
38) Dimethylphthalate	20.30	163	628240	17.16	ug/ml	003
39) 2,6-Dinitrotoluene	20.47	165	162789	16.17	ug/ml	003
41) 3-Nitroaniline	20.95	138	142461	14.35	ug/ml	003#
42) Acenaphthene	21.00	153	561068	17.28	ug/ml	003
43) 2,4-Dinitrophenol	21.35	184	66837	14.18	ug/ml	003#
44) Dibenzofuran	21.67	168	706092	16.52	ug/ml	003
45) 4-Nitrophenol	21.99	109	65570	19.77	ug/ml	003
46) 2,4-Dinitrotoluene	22.00	165	207689	16.50	ug/ml	003#
47) Fluorene	23.08	166	566281	16.83	ug/ml	003
48) Diethylphthalate	23.27	149	721920	17.57	ug/ml	003
49) 4-Chlorophenyl-phenylether	23.27	204	257549	17.03	ug/ml	003
50) 4-Nitroaniline	23.47	138	134745	16.63	ug/ml	003m
51) 4,6-Dinitro-2-methylphenol	23.66	198	101972	16.48	ug/ml	004#
52) N-Nitrosodiphenylamine	23.83	169	342254	18.44	ug/ml	004
54) 4-Bromophenyl-phenylether	25.23	248	134540	15.54	ug/ml	004
55) Hexachlorobenzene	25.68	284	162577	15.07	ug/ml	004
56) Pentachlorophenol	26.51	266	75015	16.69	ug/ml	004
58) Phenanthrene	26.96	178	716467	15.90	ug/ml	004
59) Anthracene	27.13	178	735371	18.76	ug/ml	004
60) Carbazol	27.95	167	486758	18.22	ug/ml	004m
61) Di-n-butylphthalate	30.04	149	1173042	17.77	ug/ml	004
62) Fluoranthene	31.62	202	683414	17.06	ug/ml	004#
63) Pyrene	32.31	202	707403	17.86	ug/ml	005#
65) Butylbenzylphthalate	34.66	149	516394	17.95	ug/ml	005
66) Benzo(a)anthracene	35.75	228	633357	17.23	ug/ml	005
68) 3,3'-Dichlorobenzidine	35.81	252	113163	12.12	ug/ml	005#
69) Chrysene	35.86	228	626440	18.35	ug/ml	005
70) Bis(2-ethylhexyl)phthalate	36.25	149	751966	18.57	ug/ml	005
71) Di-n-octylphthalate	37.61	149	1299944	17.34	ug/ml	006
72) Benzo(b)fluoranthene	38.31	252	625847	17.20	ug/ml	006
73) Benzo(k)fluoranthene	38.36	252	569820	16.00	ug/ml	006
74) Benzo(a)pyrene	39.09	252	544908	16.47	ug/ml	006
76) Indendo(1,2,3-cd)pyrene	42.43	276	524381	17.12	ug/ml	006
77) Dibenz(a,h)anthracene	42.51	278	448123	16.86	ug/ml	006
78) Benzo(g,h,i)perylene	43.35	276	449113	18.55	ug/ml	006

(#) = qualifier out of range

QUANT REPORT

Operator ID: MDB Date Acquired: 15 Oct 92 8:53 am
Data File: C:\CHEMPC\DATA\101592\COS00453.D
Name:
Misc: SSTD020 (M-920922-10L) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration



QUANT REPORT

Operator ID: MDB Date Acquired: 15 Oct 92 9:53 am
Data File: C:\CHEMPC\DATA\101592\COS00454.D
Name:
Misc: SSTD050 (M-920922-10F) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration

Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
8)	1,4-Dichlorobenzene-d4	9.22	152	608307	40.00	ug/ml	0.01
25)	Naphthalene-d8	13.81	136	2389825	40.00	ug/ml	0.03
40)	Acenaphthene-d10	20.90	164	890457	40.00	ug/ml	0.01
57)	Phenanthrene-d10	26.89	188	1253163	40.00	ug/ml	0.02
67)	Chrysene-d12	35.83	240	1323838	40.00	ug/ml	0.02
75)	Perylene-d12	39.29	264	1110263	40.00	ug/ml	0.03

System Monitoring Compounds

							%Recovery
1)	2-Fluorophenol	5.80	112	1412113	55.06	ug/ml	27.53%
2)	Phenol-d5	8.55	99	1797013	66.22	ug/ml	33.11%
5)	2-Chlorophenol-d4	8.65	132	1402908	60.06	ug/L	30.03%
10)	1,2-Dichlorobenzene-d4	9.83	152	774503	53.22	ug/L	53.22%
17)	Nitrobenzene-d5	11.24	82	1338723	55.78	ug/ml	55.78%
34)	2-Fluorobiphenyl	18.35	172	1816078	50.19	ug/ml	50.19%
53)	2,4,6-Tribromophenol	24.20	330	272953	50.35	ug/ml	25.18%
64)	Terphenyl-d14	33.09	244	1715583	46.93	ug/ml	46.93%

Target Compounds

							ISTD#
3)	Phenol	8.58	94	2022169	71.41	ug/ml	001
4)	bis(2-Chloroethyl)ether	8.66	93	1848704	75.60	ug/ml	001#
6)	2-Chlorophenol	8.70	128	1547335	58.86	ug/ml	001#
7)	1,3-Dichlorobenzene	9.10	146	1316811	50.84	ug/ml	001
9)	1,4-Dichlorobenzene	9.28	146	1475686	53.77	ug/ml	001
11)	1,2-Dichlorobenzene	9.88	146	1481997	60.48	ug/ml	001
12)	2,2'-oxybis(1-Chloropropan	10.46	45	1643869	82.24	ug/ml	001m
13)	2-Methylphenol	10.50	108	1351026	61.55	ug/ml	001
14)	Hexachloroethane	10.92	117	701055	58.88	ug/ml	001
15)	N-Nitroso-di-n-propylamine	11.01	70	979551	60.92	ug/ml	001
16)	4-Methylphenol	11.07	108	1419483	62.13	ug/ml	001
18)	Nitrobenzene	11.32	77	1393857	58.84	ug/ml	002
19)	Isophorone	12.27	82	2728948	56.37	ug/ml	002
20)	2-Nitrophenol	12.49	139	740961	46.15	ug/ml	002
21)	2,4-Dimethylphenol	12.99	107	1259556	56.00	ug/ml	002
22)	bis(2-Chloroethoxy)methane	13.30	93	1792897	56.66	ug/ml	002
23)	2,4-Dichlorophenol	13.49	162	863397	48.36	ug/ml	002
24)	1,2,4-Trichlorobenzene	13.71	180	849588	47.92	ug/ml	002
26)	Naphthalene	13.89	128	4010059	56.58	ug/ml	002
27)	4-Chloroaniline	14.32	127	1523313	51.39	ug/ml	002
28)	Hexachlorobutadiene	14.74	225	492558	51.69	ug/ml	002
29)	4-Chloro-3-methylphenol	16.52	107	1123413	56.35	ug/ml	002
30)	2-Methylnaphthalene	16.64	142	2248287	56.26	ug/ml	002
31)	Hexachlorocyclopentadiene	17.64	237	451401	48.44	ug/ml	003

(#) = qualifier out of range

QUANT REPORT

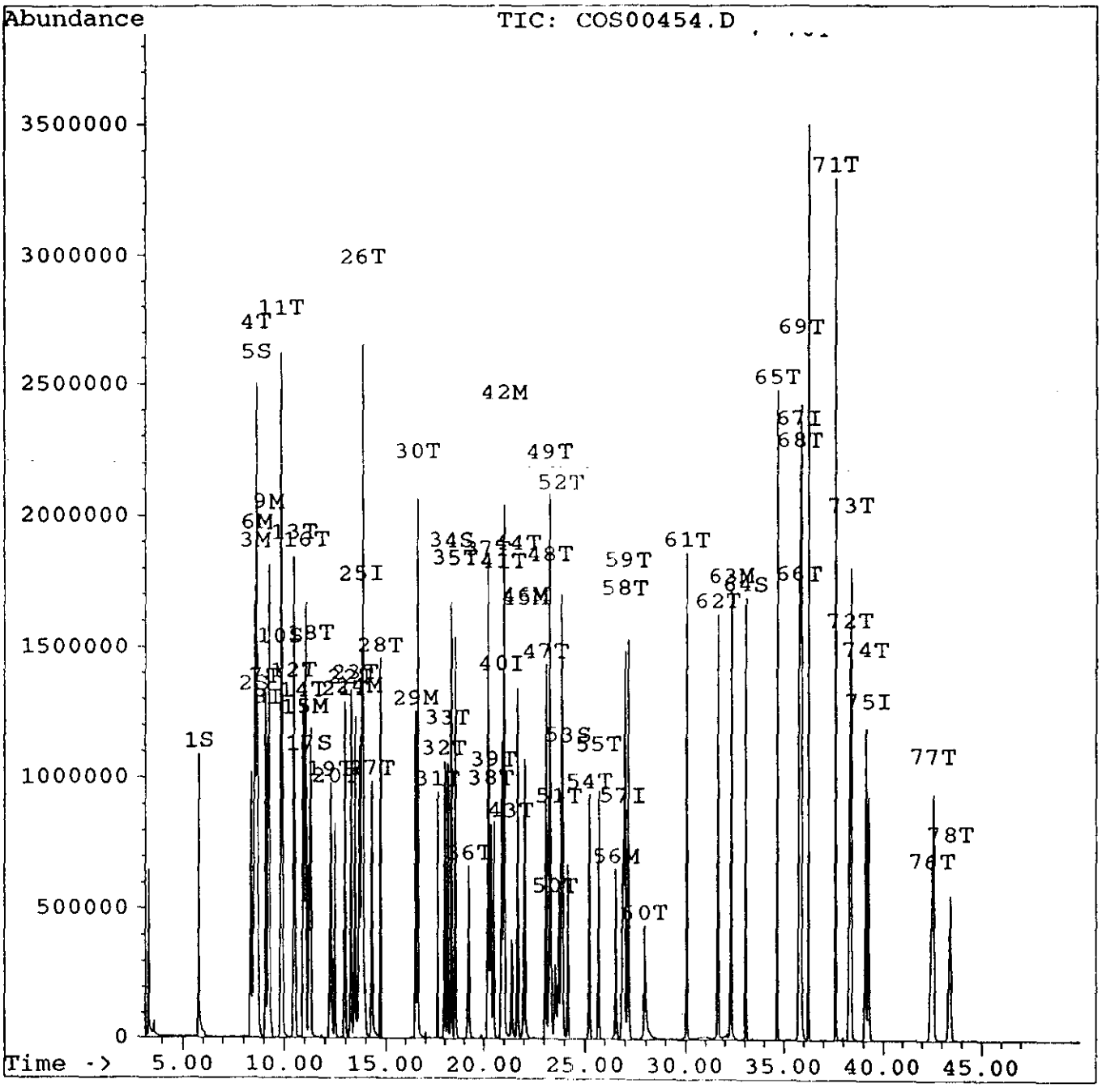
Operator ID: MDB Date Acquired: 15 Oct 92 9:53 am
Data File: C:\CHEMPC\DATA\101592\COS00454.D
Name:
Misc: SSTD050 (M-920922-10F) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
32) 2,4,6-Trichlorophenol	18.01	196	525284	43.65	ug/ml	003
33) 2,4,5-Trichlorophenol	18.16	196	566152	55.27	ug/ml	003
35) 2-Chloronaphthalene	18.56	162	1716769	51.10	ug/ml	003
36) 2-Nitroaniline	19.25	65	697934	58.47	ug/ml	003
37) Acenaphthylene	20.23	152	2877536	51.85	ug/ml	003
38) Dimethylphthalate	20.36	163	1856668	50.20	ug/ml	003
39) 2,6-Dinitrotoluene	20.52	165	514383	50.58	ug/ml	003
41) 3-Nitroaniline	21.00	138	546424	54.48	ug/ml	003
42) Acenaphthene	21.04	153	1731680	52.78	ug/ml	003
43) 2,4-Dinitrophenol	21.39	184	274962	57.72	ug/ml	003#
44) Dibenzofuran	21.70	168	2167610	50.18	ug/ml	003
45) 4-Nitrophenol	22.05	109	224667	67.05	ug/ml	003
46) 2,4-Dinitrotoluene	22.06	165	644610	50.69	ug/ml	003#
47) Fluorene	23.11	166	1716045	50.49	ug/ml	003
48) Diethylphthalate	23.32	149	2199110	52.96	ug/ml	003
49) 4-Chlorophenyl-phenylether	23.30	204	801729	52.47	ug/ml	003
50) 4-Nitroaniline	23.55	138	419447	51.24	ug/ml	003m
51) 4,6-Dinitro-2-methylphenol	23.75	198	338467	53.11	ug/ml	004#
52) N-Nitrosodiphenylamine	23.88	169	1035506	54.16	ug/ml	004
54) 4-Bromophenyl-phenylether	25.25	248	416846	46.76	ug/ml	004
55) Hexachlorobenzene	25.71	284	511983	46.08	ug/ml	004
56) Pentachlorophenol	26.54	266	300831	64.97	ug/ml	004
58) Phenanthrene	26.99	178	2234164	48.13	ug/ml	004
59) Anthracene	27.18	178	2211034	54.77	ug/ml	004
60) Carbazol	27.96	167	1191409	43.30	ug/ml	004
61) Di-n-butylphthalate	30.08	149	3702613	54.45	ug/ml	004
62) Fluoranthene	31.66	202	2152601	52.18	ug/ml	004
63) Pyrene	32.34	202	2200461	46.10	ug/ml	005
65) Butylbenzylphthalate	34.68	149	1683764	48.57	ug/ml	005
66) Benzo(a)anthracene	35.78	228	2084814	47.06	ug/ml	005
68) 3,3'-Dichlorobenzidine	35.84	252	441946	39.28	ug/ml	005
69) Chrysene	35.90	228	2060518	50.09	ug/ml	005
70) Bis(2-ethylhexyl)phthalate	36.25	149	2605791	53.40	ug/ml	005
71) Di-n-octylphthalate	37.63	149	4572451	58.46	ug/ml	006
72) Benzo(b)fluoranthene	38.37	252	1955437	51.51	ug/ml	006m
73) Benzo(k)fluoranthene	38.41	252	1627709	43.81	ug/ml	006m
74) Benzo(a)pyrene	39.14	252	1703337	49.34	ug/ml	006
76) Indendo(1,2,3-cd)pyrene	42.52	276	1553746	48.62	ug/ml	006
77) Dibenz(a,h)anthracene	42.60	278	1395217	50.30	ug/ml	006
78) Benzo(g,h,i)perylene	43.45	276	1272091	50.34	ug/ml	006

(#) = qualifier out of range

QUANT REPORT

Operator ID: MDB Date Acquired: 15 Oct 92 9:53 am
Data File: C:\CHEMPC\DATA\101592\COS00454.D
Name:
Misc: SSTD050 (M-920922-10F) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration



QUANT REPORT

Operator ID: MDB Date Acquired: 15 Oct 92 10:52 am
Data File: C:\CHEMPC\DATA\101592\COS00455.D
Name:
Misc: SSTD080 (M-920922-10D) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration

Internal Standards Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
8) 1,4-Dichlorobenzene-d4	9.23	152	674190	40.00	ug/ml	0.02
25) Naphthalene-d8	13.84	136	2608947	40.00	ug/ml	0.05
40) Acenaphthene-d10	20.92	164	952886	40.00	ug/ml	0.03
57) Phenanthrene-d10	26.90	188	1339629	40.00	ug/ml	0.03
67) Chrysene-d12	35.85	240	1422314	40.00	ug/ml	0.04
75) Perylene-d12	39.30	264	1160977	40.00	ug/ml	0.04

System Monitoring Compounds						%Recovery
1) 2-Fluorophenol	5.80	112	2502425	86.83	ug/ml	43.41%
2) Phenol-d5	8.58	99	3224836	88.25	ug/ml	44.12%
5) 2-Chlorophenol-d4	8.67	132	2484013	87.60	ug/L	43.80%
10) 1,2-Dichlorobenzene-d4	9.85	152	1493642	87.41	ug/L	87.41%
17) Nitrobenzene-d5	11.28	82	2516085	85.99	ug/ml	85.99%
34) 2-Fluorobiphenyl	18.38	172	3424539	90.71	ug/ml	90.71%
53) 2,4,6-Tribromophenol	24.21	330	467802	94.13	ug/ml	47.07%
64) Terphenyl-d14	33.10	244	2983986	79.19	ug/ml	79.19%

Target Compounds						ISTD#
3) Phenol	8.63	94	3425326	82.54	ug/ml	001#
4) bis(2-Chloroethyl)ether	8.69	93	2977193	78.14	ug/ml	001
6) 2-Chlorophenol	8.72	128	2747471	87.39	ug/ml	001
7) 1,3-Dichlorobenzene	9.11	146	2360099	85.68	ug/ml	001
9) 1,4-Dichlorobenzene	9.29	146	2645673	86.41	ug/ml	001
11) 1,2-Dichlorobenzene	9.90	146	2542546	84.09	ug/ml	001
12) 2,2'-oxybis(1-Chloropropan	10.47	45	2573224	72.29	ug/ml	001m
13) 2-Methylphenol	10.52	108	2371098	85.04	ug/ml	001
14) Hexachloroethane	10.93	117	1248236	85.25	ug/ml	001
15) N-Nitroso-di-n-propylamine	11.06	70	1712793	81.11	ug/ml	001m
16) 4-Methylphenol	11.12	108	2569629	88.46	ug/ml	001
18) Nitrobenzene	11.36	77	2405781	83.77	ug/ml	002
19) Isophorone	12.36	82	4594459	81.27	ug/ml	002m
20) 2-Nitrophenol	12.52	139	1343955	90.75	ug/ml	002
21) 2,4-Dimethylphenol	13.02	107	2182592	85.69	ug/ml	002
22) bis(2-Chloroethoxy)methane	13.32	93	3104396	84.68	ug/ml	002
23) 2,4-Dichlorophenol	13.51	162	1535481	88.89	ug/ml	002
24) 1,2,4-Trichlorobenzene	13.72	180	1531220	89.14	ug/ml	002
26) Naphthalene	13.91	128	7095780	89.28	ug/ml	002
27) 4-Chloroaniline	14.33	127	2671752	91.82	ug/ml	002
28) Hexachlorobutadiene	14.76	225	885957	91.18	ug/ml	002
29) 4-Chloro-3-methylphenol	16.53	107	1947769	87.54	ug/ml	002
30) 2-Methylnaphthalene	16.66	142	3891371	85.88	ug/ml	002
31) Hexachlorocyclopentadiene	17.64	237	829922	95.90	ug/ml	003

(#) = qualifier out of range

QUANT REPORT

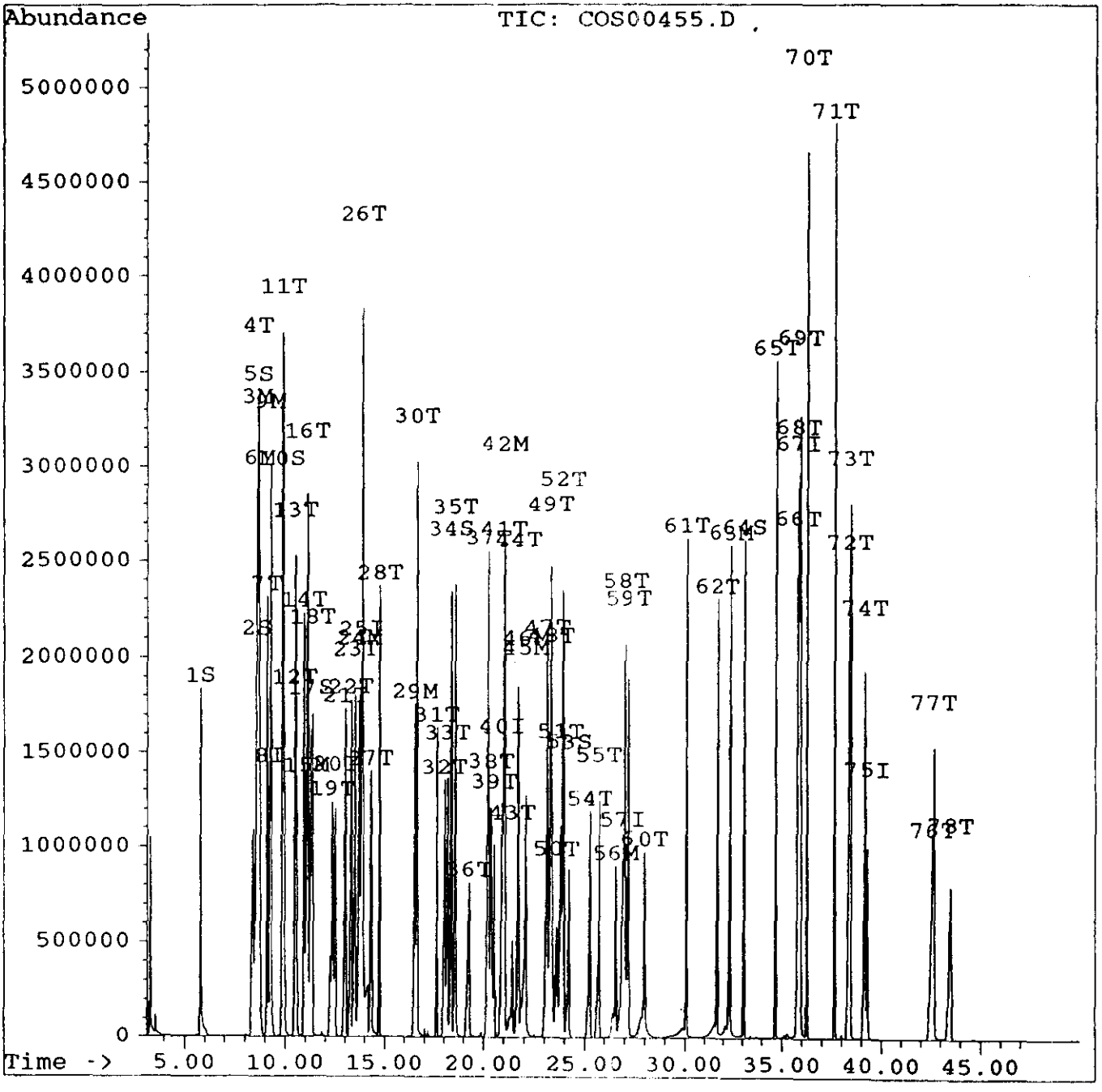
Operator ID: MDB Date Acquired: 15 Oct 92 10:52 am
Data File: C:\CHEMPC\DATA\101592\COS00455.D
Name:
Misc: SSTD080 (M-920922-10D) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
32) 2,4,6-Trichlorophenol	18.03	196	951514	93.53	ug/ml	003
33) 2,4,5-Trichlorophenol	18.18	196	971416	88.56	ug/ml	003
35) 2-Chloronaphthalene	18.59	162	3052410	90.77	ug/ml	003
36) 2-Nitroaniline	19.28	65	1193894	87.45	ug/ml	003
37) Acenaphthylene	20.25	152	5009153	87.67	ug/ml	003
38) Dimethylphthalate	20.40	163	3190684	86.59	ug/ml	003m
39) 2,6-Dinitrotoluene	20.55	165	891871	90.05	ug/ml	003m
41) 3-Nitroaniline	21.02	138	1081498	111.52	ug/ml	003#
42) Acenaphthene	21.07	153	3015102	89.48	ug/ml	003
43) 2,4-Dinitrophenol	21.42	184	398899	84.00	ug/ml	003
44) Dibenzofuran	21.72	168	3768095	89.12	ug/ml	003
45) 4-Nitrophenol	22.07	109	347396	83.18	ug/ml	003
46) 2,4-Dinitrotoluene	22.09	165	1092082	87.28	ug/ml	003#
47) Fluorene	23.14	166	3000206	89.11	ug/ml	003
48) Diethylphthalate	23.34	149	3669665	85.25	ug/ml	003m
49) 4-Chlorophenyl-phenylether	23.32	204	1364711	87.81	ug/ml	003
50) 4-Nitroaniline	23.61	138	589373	72.49	ug/ml	003
51) 4,6-Dinitro-2-methylphenol	23.79	198	472305	73.51	ug/ml	004#
52) N-Nitrosodiphenylamine	23.90	169	1802519	87.97	ug/ml	004m
54) 4-Bromophenyl-phenylether	25.26	248	703932	86.28	ug/ml	004
55) Hexachlorobenzene	25.72	284	866176	87.07	ug/ml	004
56) Pentachlorophenol	26.56	266	438175	82.98	ug/ml	004
58) Phenanthrene	27.01	178	4272167	97.98	ug/ml	004m
59) Anthracene	27.20	178	3310181	75.44	ug/ml	004m
60) Carbazol	27.99	167	1901521	72.76	ug/ml	004
61) Di-n-butylphthalate	30.08	149	5296434	73.70	ug/ml	004
62) Fluoranthene	31.68	202	3321720	79.43	ug/ml	004
63) Pyrene	32.36	202	3546965	76.21	ug/ml	005
65) Butylbenzylphthalate	34.69	149	2864159	82.29	ug/ml	005
66) Benzo(a)anthracene	35.79	228	3574608	83.32	ug/ml	005
68) 3,3'-Dichlorobenzidine	35.85	252	929017	110.45	ug/ml	005
69) Chrysene	35.92	228	3557561	83.87	ug/ml	005
70) Bis(2-ethylhexyl)phthalate	36.26	149	4365530	83.41	ug/ml	005
71) Di-n-octylphthalate	37.65	149	7900708	94.88	ug/ml	006
72) Benzo(b)fluoranthene	38.41	252	3728229	99.37	ug/ml	006m
73) Benzo(k)fluoranthene	38.44	252	2682328	82.37	ug/ml	006m
74) Benzo(a)pyrene	39.17	252	2992139	91.57	ug/ml	006
76) Indendo(1,2,3-cd)pyrene	42.57	276	2605245	85.28	ug/ml	006
77) Dibenz(a,h)anthracene	42.65	278	2361193	88.06	ug/ml	006
78) Benzo(g,h,i)perylene	43.50	276	2025067	79.25	ug/ml	006

(#) = qualifier out of range

QUANT REPORT

Operator ID: MDB Date Acquired: 15 Oct 92 10:52 am
Data File: C:\CHEMPC\DATA\101592\COS00455.D
Name:
Misc: SSTD080 (M-920922-10D) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration



QUANT REPORT

Operator ID: MDB Date Acquired: 15 Oct 92 11:52 am
Data File: C:\CHEMPC\DATA\101592\COS00456.D
Name:
Misc: SSTD120 (M-920922-10C) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration

Internal Standards

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
8) 1,4-Dichlorobenzene-d4	9.25	152	649076	40.00	ug/ml	0.04
25) Naphthalene-d8	13.85	136	2514042	40.00	ug/ml	0.06
40) Acenaphthene-d10	20.94	164	926243	40.00	ug/ml	0.05
57) Phenanthrene-d10	26.91	188	1298503	40.00	ug/ml	0.04
67) Chrysene-d12	35.86	240	1276849	40.00	ug/ml	0.05
75) Perylene-d12	39.33	264	1005450	40.00	ug/ml	0.07

System Monitoring Compounds

						%Recovery
1) 2-Fluorophenol	5.80	112	3733387	130.83	ug/ml	65.42%
2) Phenol-d5	8.61	99	4416819	121.37	ug/ml	60.69%
5) 2-Chlorophenol-d4	8.70	132	3534881	125.51	ug/L	62.75%
10) 1,2-Dichlorobenzene-d4	9.86	152	1912443	112.77	ug/L	112.77%
17) Nitrobenzene-d5	11.32	82	3373292	116.73	ug/ml	116.73%
34) 2-Fluorobiphenyl	18.40	172	4592201	119.79	ug/ml	119.79%
53) 2,4,6-Tribromophenol	24.23	330	724203	141.58	ug/ml	70.79%
64) Terphenyl-d14	33.11	244	3647770	108.20	ug/ml	108.20%

Target Compounds

						ISTD#
3) Phenol	8.65	94	4377460	108.41	ug/ml	001#
4) bis(2-Chloroethyl)ether	8.72	93	3863058	106.13	ug/ml	001
6) 2-Chlorophenol	8.77	128	3915888	125.51	ug/ml	001
7) 1,3-Dichlorobenzene	9.13	146	3499287	128.90	ug/ml	001
9) 1,4-Dichlorobenzene	9.31	146	3813130	125.99	ug/ml	001
11) 1,2-Dichlorobenzene	9.92	146	3369584	113.81	ug/ml	001
12) 2,2'-oxybis(1-Chloropropan	10.49	45	3423451	103.21	ug/ml	001m
13) 2-Methylphenol	10.54	108	3389773	123.69	ug/ml	001
14) Hexachloroethane	10.94	117	1822142	126.49	ug/ml	001
15) N-Nitroso-di-n-propylamine	11.22	70	2516793	123.23	ug/ml	001m
16) 4-Methylphenol	11.17	108	3661562	126.47	ug/ml	001
18) Nitrobenzene	11.39	77	3487750	124.08	ug/ml	002
19) Isophorone	12.43	82	6768514	123.59	ug/ml	002m
20) 2-Nitrophenol	12.54	139	2128780	142.78	ug/ml	002
21) 2,4-Dimethylphenol	13.07	107	3213653	127.90	ug/ml	002
22) bis(2-Chloroethoxy)methane	13.35	93	4533451	125.87	ug/ml	002
23) 2,4-Dichlorophenol	13.55	162	2257537	130.78	ug/ml	002
24) 1,2,4-Trichlorobenzene	13.74	180	2319081	134.96	ug/ml	002
26) Naphthalene	13.94	128	10229767	128.60	ug/ml	002
27) 4-Chloroaniline	14.34	127	3955557	134.45	ug/ml	002
28) Hexachlorobutadiene	14.77	225	1298511	132.51	ug/ml	002
29) 4-Chloro-3-methylphenol	16.56	107	2837726	128.32	ug/ml	002
30) 2-Methylnaphthalene	16.68	142	5493458	122.81	ug/ml	002
31) Hexachlorocyclopentadiene	17.66	237	1260132	140.49	ug/ml	003

(#) = qualifier out of range

QUANT REPORT

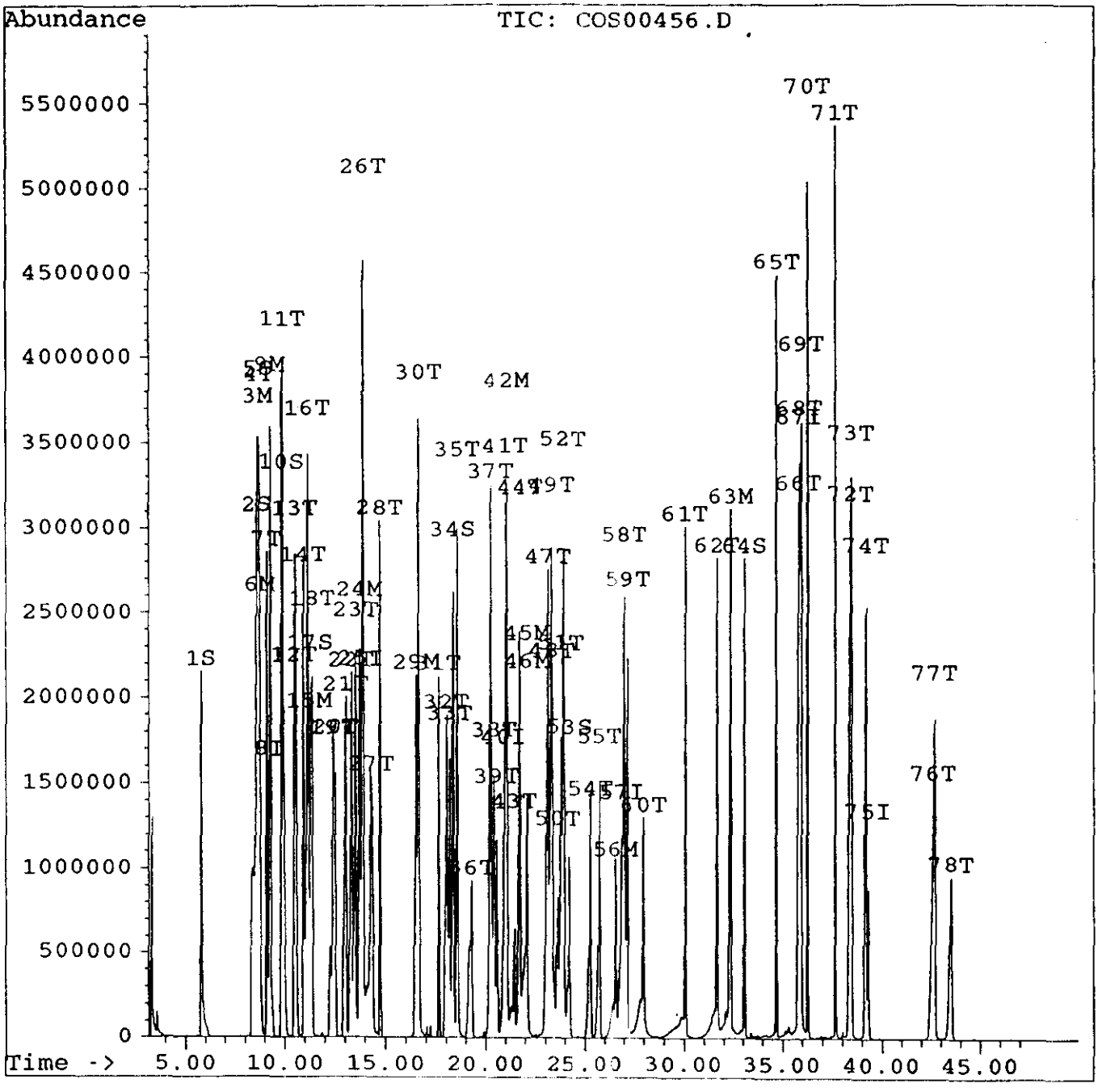
Operator ID: MDB Date Acquired: 15 Oct 92 11:52 am
Data File: C:\CHEMPC\DATA\101592\COS00456.D
Name:
Misc: SSTD120 (M-920922-10C) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
32) 2,4,6-Trichlorophenol	18.06	196	1670925	159.95	ug/ml	003m
33) 2,4,5-Trichlorophenol	18.21	196	1220442	110.52	ug/ml	003m
35) 2-Chloronaphthalene	18.62	162	4583849	134.21	ug/ml	003
36) 2-Nitroaniline	19.32	65	1752152	128.05	ug/ml	003
37) Acenaphthylene	20.29	152	7559072	131.89	ug/ml	003
38) Dimethylphthalate	20.44	163	4812866	130.78	ug/ml	003m
39) 2,6-Dinitrotoluene	20.59	165	1335228	133.11	ug/ml	003m
41) 3-Nitroaniline	21.05	138	1673414	156.91	ug/ml	003#
42) Acenaphthene	21.09	153	4547666	133.57	ug/ml	003
43) 2,4-Dinitrophenol	21.47	184	661337	140.92	ug/ml	003m
44) Dibenzofuran	21.75	168	5633747	132.06	ug/ml	003
45) 4-Nitrophenol	22.11	109	506957	123.24	ug/ml	003m
46) 2,4-Dinitrotoluene	22.14	165	1555056	124.10	ug/ml	003m
47) Fluorene	23.17	166	4597516	135.34	ug/ml	003
48) Diethylphthalate	23.38	149	5580979	130.53	ug/ml	003m
49) 4-Chlorophenyl-phenylether	23.34	204	2056155	131.82	ug/ml	003
50) 4-Nitroaniline	23.64	138	760511	99.34	ug/ml	003m
51) 4,6-Dinitro-2-methylphenol	23.82	198	827728	136.60	ug/ml	004m
52) N-Nitrosodiphenylamine	23.92	169	2685683	130.88	ug/ml	004m
54) 4-Bromophenyl-phenylether	25.29	248	1049231	129.29	ug/ml	004
55) Hexachlorobenzene	25.75	284	1275170	128.46	ug/ml	004
56) Pentachlorophenol	26.59	266	546681	105.50	ug/ml	004
58) Phenanthrene	27.03	178	6995252	153.98	ug/ml	004m
59) Anthracene	27.21	178	4303239	103.14	ug/ml	004m
60) Carbazol	28.01	167	2521842	102.65	ug/ml	004
61) Di-n-butylphthalate	30.09	149	6427569	94.76	ug/ml	004
62) Fluoranthene	31.70	202	4345982	107.47	ug/ml	004
63) Pyrene	32.39	202	4791122	116.51	ug/ml	005
65) Butylbenzylphthalate	34.71	149	3954349	125.36	ug/ml	005
66) Benzo(a)anthracene	35.81	228	5092395	130.42	ug/ml	005
68) 3,3'-Dichlorobenzidine	35.87	252	1405681	165.20	ug/ml	005
69) Chrysene	35.95	228	4758567	122.98	ug/ml	005
70) Bis(2-ethylhexyl)phthalate	36.29	149	5734394	120.34	ug/ml	005
71) Di-n-octylphthalate	37.67	149	10270119	134.10	ug/ml	006
72) Benzo(b)fluoranthene	38.43	252	5142107	146.44	ug/ml	006m
73) Benzo(k)fluoranthene	38.48	252	3840975	134.87	ug/ml	006m
74) Benzo(a)pyrene	39.21	252	4187274	141.17	ug/ml	006
76) Indendo(1,2,3-cd)pyrene	42.64	276	3454493	127.76	ug/ml	006
77) Dibenz(a,h)anthracene	42.69	278	3113812	129.74	ug/ml	006
78) Benzo(g,h,i)perylene	43.56	276	2580918	116.99	ug/ml	006

(#) = qualifier out of range

QUANT REPORT

Operator ID: MDB Date Acquired: 15 Oct 92 11:52 am
Data File: C:\CHEMPC\DATA\101592\COS00456.D
Name:
Misc: SSTD120 (M-920922-10C) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration



QUANT REPORT

Operator ID: MDB Date Acquired: 15 Oct 92 12:51 pm
Data File: C:\CHEMPC\DATA\101592\COS00457.D
Name:
Misc: SSTD160 (M-920922-10B) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration

Internal Standards

	Compound	R.T	Qion	Area	Conc	Unit	Dev(Min)
8)	1,4-Dichlorobenzene-d4	9.25	152	682325	40.00	ug/ml	0.04
25)	Naphthalene-d8	13.88	136	2706599	40.00	ug/ml	0.09
40)	Acenaphthene-d10	20.96	164	978485	40.00	ug/ml	0.07
57)	Phenanthrene-d10	26.93	188	1381471	40.00	ug/ml	0.06
67)	Chrysene-d12	35.87	240	1267193	40.00	ug/ml	0.06
75)	Perylene-d12	39.33	264	991247	40.00	ug/ml	0.07

System Monitoring Compounds

							%Recovery
1)	2-Fluorophenol	5.81	112	5360492	174.75	ug/ml	87.38%
2)	Phenol-d5	8.62	99	5471068	142.61	ug/ml	71.30%
5)	2-Chlorophenol-d4	8.72	132	4647831	155.20	ug/L	77.60%
10)	1,2-Dichlorobenzene-d4	9.86	152	2406434	137.05	ug/L	137.05%
17)	Nitrobenzene-d5	11.35	82	4460240	144.34	ug/ml	144.34%
34)	2-Fluorobiphenyl	18.42	172	6325951	156.27	ug/ml	156.27%
53)	2,4,6-Tribromophenol	24.26	330	970628	171.90	ug/ml	85.95%
64)	Terphenyl-d14	33.13	244	5007429	153.43	ug/ml	153.43%

Target Compounds

							ISTD#
3)	Phenol	8.69	94	5497273	132.72	ug/ml	001#
4)	bis(2-Chloroethyl)ether	8.76	93	4837875	130.20	ug/ml	001m
6)	2-Chlorophenol	8.79	128	5182125	156.21	ug/ml	001
7)	1,3-Dichlorobenzene	9.13	146	5021767	172.76	ug/ml	001
9)	1,4-Dichlorobenzene	9.32	146	5254871	163.13	ug/ml	001
11)	1,2-Dichlorobenzene	9.93	146	4329875	140.94	ug/ml	001
12)	2,2'-oxybis(1-Chloropropan	10.52	45	4351593	129.32	ug/ml	001#
13)	2-Methylphenol	10.60	108	4689099	161.52	ug/ml	001
14)	Hexachloroethane	10.96	117	2483955	161.84	ug/ml	001
15)	N-Nitroso-di-n-propylamine	11.27	70	3514723	162.61	ug/ml	001m
16)	4-Methylphenol	11.22	108	5013985	162.55	ug/ml	001m
18)	Nitrobenzene	11.42	77	4676082	153.22	ug/ml	002
19)	Isophorone	12.51	82	9489146	159.75	ug/ml	002m
20)	2-Nitrophenol	12.55	139	3279493	195.05	ug/ml	002
21)	2,4-Dimethylphenol	13.12	107	4559480	165.82	ug/ml	002
22)	bis(2-Chloroethoxy)methane	13.38	93	6612281	168.47	ug/ml	002
23)	2,4-Dichlorophenol	13.59	162	3303831	173.87	ug/ml	002#
24)	1,2,4-Trichlorobenzene	13.76	180	3380618	177.22	ug/ml	002
26)	Naphthalene	13.96	128	13993182	160.52	ug/ml	002
27)	4-Chloroaniline	14.36	127	5606030	171.82	ug/ml	002
28)	Hexachlorobutadiene	14.78	225	1796205	165.93	ug/ml	002
29)	4-Chloro-3-methylphenol	16.59	107	4058010	167.54	ug/ml	002#
30)	2-Methylnaphthalene	16.70	142	6775217	139.87	ug/ml	002#
31)	Hexachlorocyclopentadiene	17.67	237	1871818	189.46	ug/ml	003

(#) = qualifier out of range

QUANT REPORT

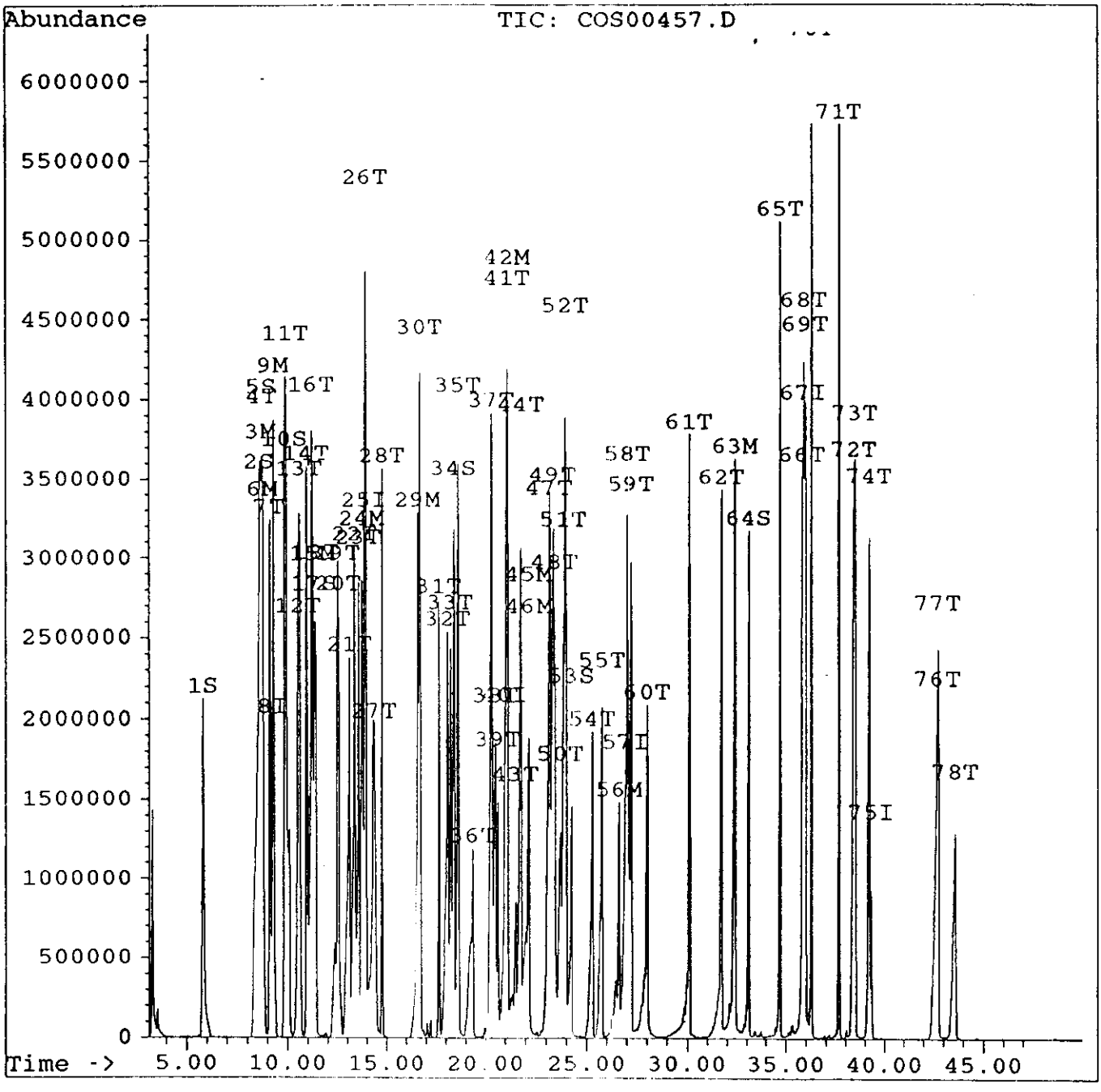
Operator ID: MDB Date Acquired: 15 Oct 92 12:51 pm
Data File: C:\CHEMPC\DATA\101592\COS00457.D
Name:
Misc: SSTD160 (M-920922-10B) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
32) 2,4,6-Trichlorophenol	18.09	196	2651451	221.80	ug/ml	003m
33) 2,4,5-Trichlorophenol	18.24	196	1508444	131.91	ug/ml	003m
35) 2-Chloronaphthalene	18.64	162	6609743	177.92	ug/ml	003
36) 2-Nitroaniline	19.36	65	2472286	168.21	ug/ml	003m
37) Acenaphthylene	20.31	152	10674908	172.05	ug/ml	003
38) Dimethylphthalate	20.50	163	6892655	173.40	ug/ml	003m
39) 2,6-Dinitrotoluene	20.63	165	1931168	177.40	ug/ml	003m
41) 3-Nitroaniline	21.11	138	2439346	201.06	ug/ml	003#
42) Acenaphthene	21.12	153	6464442	174.79	ug/ml	003
43) 2,4-Dinitrophenol	21.52	184	1042094	201.42	ug/ml	003m
44) Dibenzofuran	21.79	168	8335109	180.42	ug/ml	003
45) 4-Nitrophenol	22.17	109	712034	162.76	ug/ml	003m
46) 2,4-Dinitrotoluene	22.19	165	2278838	170.69	ug/ml	003m
47) Fluorene	23.19	166	6713989	181.30	ug/ml	003
48) Diethylphthalate	23.43	149	8211012	177.88	ug/ml	003m
49) 4-Chlorophenyl-phenylether	23.36	204	3030880	179.51	ug/ml	003
50) 4-Nitroaniline	23.72	138	1194719	154.36	ug/ml	003m
51) 4,6-Dinitro-2-methylphenol	23.88	198	1281882	192.20	ug/ml	004m
52) N-Nitrosodiphenylamine	23.96	169	3979359	178.24	ug/ml	004m
54) 4-Bromophenyl-phenylether	25.29	248	1550095	176.13	ug/ml	004
55) Hexachlorobenzene	25.77	284	1915721	178.26	ug/ml	004
56) Pentachlorophenol	26.62	266	767482	143.55	ug/ml	004
58) Phenanthrene	27.05	178	10354687	200.07	ug/ml	004m
59) Anthracene	27.24	178	6306644	147.25	ug/ml	004m
60) Carbazol	28.03	167	4295028	170.49	ug/ml	004#
61) Di-n-butylphthalate	30.10	149	11578394	169.35	ug/ml	004m
62) Fluoranthene	31.72	202	6904884	164.79	ug/ml	004
63) Pyrene	32.41	202	7431782	183.44	ug/ml	005
65) Butylbenzylphthalate	34.72	149	5659188	178.78	ug/ml	005
66) Benzo(a)anthracene	35.82	228	7298397	184.34	ug/ml	005
68) 3,3'-Dichlorobenzidine	35.89	252	2232973	241.67	ug/ml	005#
69) Chrysene	35.98	228	6350187	164.35	ug/ml	005
70) Bis(2-ethylhexyl)phthalate	36.29	149	7517251	158.84	ug/ml	005
71) Di-n-octylphthalate	37.68	149	13686701	176.10	ug/ml	006
72) Benzo(b)fluoranthene	38.45	252	7548461	206.66	ug/ml	006m
73) Benzo(k)fluoranthene	38.50	252	5583538	192.89	ug/ml	006m
74) Benzo(a)pyrene	39.24	252	5833063	191.04	ug/ml	006
76) Indendo(1,2,3-cd)pyrene	42.71	276	4956259	182.97	ug/ml	006
77) Dibenz(a,h)anthracene	42.74	278	4421897	183.16	ug/ml	006
78) Benzo(g,h,i)perylene	43.59	276	3667971	169.72	ug/ml	006

(#) = qualifier out of range

QUANT REPORT

Operator ID: MDB Date Acquired: 15 Oct 92 12:51 pm
Data File: C:\CHEMPC\DATA\101592\COS00457.D
Name:
Misc: SSTD160 (M-920922-10B) w/40ppm IS
Method: MOSCLP.M
Title: MOSCLP
Last Calibration: Thu Oct 15 13:45:03 1992
Quantitated using Multiple Level Calibration



7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: O-S Calibration Date: 11/20/92 Time: 1337

Lab File ID: DOS00648.D Init. Calib. Date(s): 10/15/92 10/15/92

Init. Calib. Times: 0853 1251

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	2.345	2.339	0.800	0.3	25.0
bis(2-Chloroethyl)ether	2.097	2.188	0.700	-4.3	25.0
2-Chlorophenol	1.936	2.001	0.800	-3.4	25.0
1,3-Dichlorobenzene	1.731	1.714	0.600	1.0	25.0
1,4-Dichlorobenzene	1.896	1.942	0.500	-2.4	25.0
1,2-Dichlorobenzene	1.758	1.892	0.400	-7.6	25.0
2,2'-oxybis(1-Chloropropane)	1.897	2.181	0.010	-15.0	
2-Methylphenol	1.705	1.581	0.700	7.3	25.0
Hexachloroethane	0.902	0.883	0.300	2.1	25.0
N-Nitroso-di-n-propylamine	1.271	1.209	0.500	4.9	25.0
4-Methylphenol	1.814	1.686	0.600	7.1	25.0
Nitrobenzene	0.447	0.581	0.200	-30.0	25.0
Isophorone	0.878	0.912	0.400	-3.9	25.0
2-Nitrophenol	0.259	0.248	0.100	4.2	25.0
2,4-Dimethylphenol	0.409	0.406	0.200	0.7	25.0
bis(2-Chloroethoxy)methane	0.586	0.607	0.300	-3.6	25.0
2,4-Dichlorophenol	0.286	0.302	0.200	-5.6	25.0
1,2,4-Trichlorobenzene	0.288	0.319	0.200	-10.8	25.0
Naphthalene	1.289	1.335	0.700	-3.6	25.0
4-Chloroaniline	0.489	0.424	0.010	13.3	
Hexachlorobutadiene	0.161	0.180	0.010	-11.8	
4-Chloro-3-methylphenol	0.361	0.322	0.200	10.8	25.0
2-Methylnaphthalene	0.698	0.735	0.400	-5.3	25.0
Hexachlorocyclopentadiene	0.419	0.343	0.010	18.1	
2,4,6-Trichlorophenol	0.526	0.491	0.200	6.7	25.0
2,4,5-Trichlorophenol	0.451	0.491	0.200	-8.9	25.0
2-Chloronaphthalene	1.553	1.685	0.800	-8.5	25.0
2-Nitroaniline	0.607	0.579	0.010	4.6	
Acenaphthylene	2.575	2.643	1.300	-2.6	25.0
Dimethylphthalate	1.652	1.697	0.010	-2.7	
2,6-Dinitrotoluene	0.455	0.455	0.200	0.0	25.0
Acenaphthene	1.540	1.584	0.800	-2.9	25.0
3-Nitroaniline	0.521	0.453	0.010	13.1	
2,4-Dinitrophenol	0.222	0.201	0.010	9.5	
Dibenzofuran	1.937	2.000	0.800	-3.3	25.0
2,4-Dinitrotoluene	0.553	0.553	0.200	0.0	25.0
4-Nitrophenol	0.179	0.141	0.010	21.2	

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: O-S Calibration Date: 11/20/92 Time: 1337

Lab File ID: DOS00648.D Init. Calib. Date(s): 10/15/92 10/15/92

Init. Calib. Times: 0853 1251

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Fluorene	1.554	1.591	0.900	-2.4	25.0
Diethylphthalate	1.929	2.114		-9.6	
4-Chlorophenyl-phenylether	0.707	0.811	0.400	-14.7	25.0
4,6-Dinitro-2-methylphenol	0.201	0.200	0.010	0.5	
4-Nitroaniline	0.314	0.356	0.010	-13.4	
N-Nitrosodiphenylamine	0.661	0.703	0.010	-6.4	
4-Bromophenyl-phenylether	0.260	0.276	0.100	-6.2	25.0
Hexachlorobenzene	0.318	0.328	0.100	-3.1	25.0
Pentachlorophenol	0.152	0.149	0.050	2.0	25.0
Phenanthrene	1.574	1.418	0.700	9.9	25.0
Anthracene	1.220	1.460	0.700	-19.7	25.0
Carbazol	0.739	0.898	0.010	-21.5	
Di-n-butylphthalate	2.003	2.239	0.010	-11.8	
Fluoranthene	1.220	1.393	0.600	-14.2	25.0
Pyrene	1.316	1.638	0.600	-24.5	25.0
Butylbenzylphthalate	1.023	1.115	0.010	-9.0	
Benzo(a)anthracene	1.288	1.387	0.800	-7.7	25.0
Chrysene	1.226	1.389	0.700	-13.3	25.0
3,3'-Dichlorobenzidine	0.321	0.239	0.010	25.5	
Bis(2-ethylhexyl)phthalate	1.492	1.785	0.010	-19.6	
Di-n-octylphthalate	3.199	4.520	0.010	-41.3	
Benzo(b)fluoranthene	1.560	1.558	0.700	0.1	25.0
Benzo(k)fluoranthene	1.216	1.348	0.700	-10.9	25.0
Benzo(a)pyrene	1.280	1.323	0.700	-3.4	25.0
Indendo(1,2,3-cd)pyrene	1.124	1.005	0.500	10.6	25.0
Dibenz(a,h)anthracene	1.002	0.875	0.400	12.7	25.0
Benzo(g,h,i)perylene	0.883	0.813	0.500	7.9	25.0
2-Fluorophenol	1.831	1.642	0.600	10.3	25.0
Phenol-d5	2.200	2.388	0.800	-8.5	25.0
2-Chlorophenol-d4	1.745	1.858	0.800	-6.5	25.0
1,2-Dichlorobenzene-d4	1.000	1.042	0.400	-4.2	25.0
Nitrobenzene-d5	0.448	0.448	0.200	0.0	25.0
2-Fluorobiphenyl	1.647	1.704	0.700	-3.5	25.0
2,4,6-Tribromophenol	0.234	0.227	0.010	3.0	
Terphenyl-d14	1.022	1.259	0.500	-23.2	25.0

All other compounds must meet a minimum RRF of 0.010.

QUANT REPORT

Operator ID: MDB Date Acquired: 20 Nov 92 1:37 pm
Data File: C:\CHEMPC\DATA\112092\DOS00648.D
Name:
Misc: SSTD050 (M-920922-10J) w/40ppm IS
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Multiple Level Calibration

Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
8)	1,4-Dichlorobenzene-d4	9.11	152	618556	40.00	ug/kg	-0.00
25)	Naphthalene-d8	13.68	136	2360773	40.00	ug/kg	-0.00
40)	Acenaphthene-d10	20.76	164	881754	40.00	ug/kg	-0.00
57)	Phenanthrene-d10	26.75	188	1267409	40.00	ug/kg	-0.00
67)	Chrysene-d12	35.73	240	1090490	40.00	ug/kg	-0.00
75)	Perylene-d12	39.15	264	723943	40.00	ug/kg	-0.00

System Monitoring Compounds

							%Recovery
1)	2-Fluorophenol	5.86	112	1269870	44.84	ug/kg	22.42%
3)	Phenol-d5	8.61	99	1846154	54.26	ug/kg	27.13%
4)	2-Chlorophenol-d4	8.63	132	1436970	53.25	ug/kg	26.62%
10)	1,2-Dichlorobenzene-d4	9.72	152	805383	52.09	ug/kg	52.09%
16)	Nitrobenzene-d5	11.13	82	1323379	50.08	ug/kg	50.08%
33)	2-Fluorobiphenyl	18.22	172	1878229	51.73	ug/kg	51.73%
53)	2,4,6-Tribromophenol	24.11	330	250125	48.44	ug/kg	24.22%
64)	Terphenyl-d14	32.98	244	1716449	61.62	ug/kg	61.62%

Target Compounds

							ISTD#
2)	bis(2-Chloroethyl)ether	8.53	93	1691583	52.16	ug/kg	001#
5)	Phenol	8.64	94	1808841	49.87	ug/kg	001#
6)	2-Chlorophenol	8.68	128	1546799	51.68	ug/kg	001#
7)	1,3-Dichlorobenzene	8.97	146	1325560	49.51	ug/kg	001
9)	1,4-Dichlorobenzene	9.16	146	1501882	51.23	ug/kg	001
11)	1,2-Dichlorobenzene	9.77	146	1462734	53.80	ug/kg	001
12)	2,2'-oxybis(1-Chloropropan	10.35	45	1686709	57.50	ug/kg	001m
13)	2-Methylphenol	10.58	108	1222288	46.35	ug/kg	001
14)	Hexachloroethane	10.80	117	682394	48.93	ug/kg	001
15)	N-Nitroso-di-n-propylamine	10.91	70	934644	47.54	ug/kg	001#
17)	4-Methylphenol	11.19	108	1303441	46.47	ug/kg	001
18)	Nitrobenzene	11.20	77	1714434	64.96	ug/kg	002#
19)	Isophorone	12.17	82	2691329	51.96	ug/kg	002
20)	2-Nitrophenol	12.38	139	731831	47.81	ug/kg	002
21)	2,4-Dimethylphenol	12.98	107	1197703	49.58	ug/kg	002
22)	bis(2-Chloroethoxy)methane	13.16	93	1789987	51.74	ug/kg	002
23)	2,4-Dichlorophenol	13.54	162	892077	52.91	ug/kg	002
24)	1,2,4-Trichlorobenzene	13.58	180	941309	55.38	ug/kg	002
26)	Naphthalene	13.76	128	3938143	51.76	ug/kg	002
27)	4-Chloroaniline	14.22	127	1252368	43.37	ug/kg	002
28)	Hexachlorobutadiene	14.61	225	530587	55.78	ug/kg	002
29)	2-Methylnaphthalene	16.50	142	2168016	52.64	ug/kg	002
30)	4-Chloro-3-methylphenol	16.65	107	948989	44.50	ug/kg	002
31)	Hexachlorocyclopentadiene	17.50	237	378324	40.98	ug/kg	003

(#) = qualifier out of range

QUANT REPORT

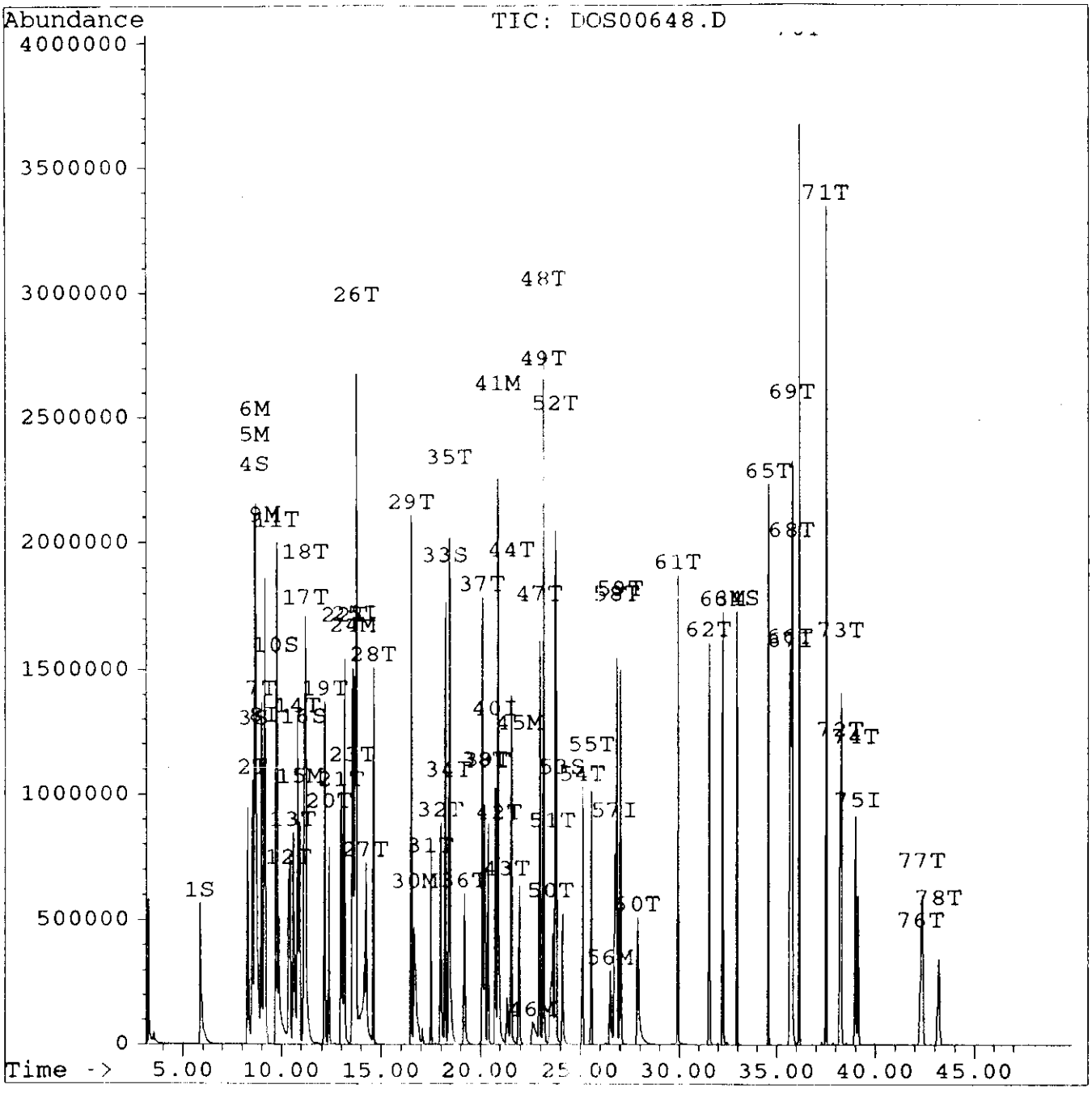
Operator ID: MDB Date Acquired: 20 Nov 92 1:37 pm
Data File: C:\CHEMPC\DATA\112092\DOS00648.D
Name:
Misc: SSTD050 (M-920922-10J) w/40ppm IS
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Multiple Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
32) 2,4,6-Trichlorophenol	17.98	196	541446	46.66	ug/kg	003
34) 2,4,5-Trichlorophenol	18.38	196	541446	54.46	ug/kg	003
35) 2-Chloronaphthalene	18.43	162	1857602	54.27	ug/kg	003
36) 2-Nitroaniline	19.19	65	638594	47.73	ug/kg	003
37) Acenaphthylene	20.10	152	2913325	51.33	ug/kg	003
38) Dimethylphthalate	20.22	163	1870037	51.34	ug/kg	003
39) 2,6-Dinitrotoluene	20.40	165	501564	50.04	ug/kg	003
41) Acenaphthene	20.90	153	1745898	51.43	ug/kg	003
42) 3-Nitroaniline	20.94	138	499036	43.42	ug/kg	003
43) 2,4-Dinitrophenol	21.35	184	221978	45.27	ug/kg	003
44) Dibenzofuran	21.58	168	2204561	51.64	ug/kg	003
45) 2,4-Dinitrotoluene	21.97	165	610045	50.04	ug/kg	003
46) 4-Nitrophenol	22.60	109	155290	39.25	ug/kg	003m
47) Fluorene	22.97	166	1753722	51.19	ug/kg	003
48) 4-Chlorophenyl-phenylether	23.17	204	894374	57.38	ug/kg	003
49) Diethylphthalate	23.18	149	2329970	54.79	ug/kg	003
50) 4-Nitroaniline	23.51	138	392674	56.70	ug/kg	003
51) 4,6-Dinitro-2-methylphenol	23.62	198	317260	49.84	ug/kg	004#
52) N-Nitrosodiphenylamine	23.76	169	1114173	53.18	ug/kg	004
54) 4-Bromophenyl-phenylether	25.12	248	437133	53.07	ug/kg	004
55) Hexachlorobenzene	25.58	284	519929	51.56	ug/kg	004
56) Pentachlorophenol	26.52	266	235532	49.03	ug/kg	004
58) Phenanthrene	26.85	178	2246292	45.05	ug/kg	004
59) Anthracene	27.05	178	2313677	59.84	ug/kg	004
60) Carbazol	27.90	167	1423091	60.78	ug/kg	004
61) Di-n-butylphthalate	29.93	149	3547651	55.90	ug/kg	004
62) Fluoranthene	31.54	202	2206148	57.05	ug/kg	004
63) Pyrene	32.24	202	2232811	62.22	ug/kg	005
65) Butylbenzylphthalate	34.57	149	1519757	54.51	ug/kg	005
66) Benzo(a)anthracene	35.68	228	1890829	53.86	ug/kg	005
68) 3,3'-Dichlorobenzidine	35.78	252	325399	37.13	ug/kg	005
69) Chrysene	35.80	228	1892713	56.61	ug/kg	005
70) Bis(2-ethylhexyl)phthalate	36.16	149	2432486	59.81	ug/kg	005
71) Di-n-octylphthalate	37.52	149	4090161	70.63	ug/kg	006
72) Benzo(b)fluoranthene	38.25	252	1409731	49.93	ug/kg	006m
73) Benzo(k)fluoranthene	38.29	252	1219575	55.41	ug/kg	006m
74) Benzo(a)pyrene	39.01	252	1197601	51.70	ug/kg	006
76) Indendo(1,2,3-cd)pyrene	42.32	276	909558	44.69	ug/kg	006
77) Dibenz(a,h)anthracene	42.39	278	791661	43.64	ug/kg	006
78) Benzo(g,h,i)perylene	43.21	276	735615	46.04	ug/kg	006

(#) = qualifier out of range

QUANT REPORT

Operator ID: MDB Date Acquired: 20 Nov 92 1:37 pm
Data File: C:\CHEMPC\DATA\112092\DOS00648.D
Name:
Misc: SSID050 (M-920922-10J) w/40ppm IS
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Multiple Level Calibration



7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

0000146

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: O-S Calibration Date: 12/9/92 Time: 1406

Lab File ID: DOS00716.D Init. Calib. Date(s): 10/15/92 10/15/92

Init. Calib. Times: 0853 1251

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	2.345	2.410	0.800	-2.8	25.0
bis(2-Chloroethyl)ether	2.097	2.164	0.700	-3.2	25.0
2-Chlorophenol	1.936	1.949	0.800	-0.7	25.0
1,3-Dichlorobenzene	1.731	1.681	0.600	2.9	25.0
1,4-Dichlorobenzene	1.896	1.953	0.500	-3.0	25.0
1,2-Dichlorobenzene	1.758	1.884	0.400	-7.2	25.0
2,2'-oxybis(1-Chloropropane)	1.897	2.227	0.010	-17.4	
2-Methylphenol	1.705	1.584	0.700	7.1	25.0
Hexachloroethane	0.902	0.883	0.300	2.1	25.0
N-Nitroso-di-n-propylamine	1.271	1.225	0.500	3.6	25.0
4-Methylphenol	1.814	1.718	0.600	5.3	25.0
Nitrobenzene	0.447	0.476	0.200	-6.5	25.0
Isophorone	0.878	0.898	0.400	-2.3	25.0
2-Nitrophenol	0.259	0.239	0.100	7.7	25.0
2,4-Dimethylphenol	0.409	0.400	0.200	2.2	25.0
bis(2-Chloroethoxy)methane	0.586	0.598	0.300	-2.0	25.0
2,4-Dichlorophenol	0.286	0.291	0.200	-1.7	25.0
1,2,4-Trichlorobenzene	0.288	0.313	0.200	-8.7	25.0
Naphthalene	1.289	1.349	0.700	-4.7	25.0
4-Chloroaniline	0.489	0.293	0.010	40.1	
Hexachlorobutadiene	0.161	0.177	0.010	-9.9	
4-Chloro-3-methylphenol	0.361	0.324	0.200	10.2	25.0
2-Methylnaphthalene	0.698	0.815	0.400	-16.8	25.0
Hexachlorocyclopentadiene	0.419	0.441	0.010	-5.3	
2,4,6-Trichlorophenol	0.526	0.456	0.200	13.3	25.0
2,4,5-Trichlorophenol	0.451	0.511	0.200	-13.3	25.0
2-Chloronaphthalene	1.553	1.553	0.800	0.0	25.0
2-Nitroaniline	0.607	0.519	0.010	14.5	
Acenaphthylene	2.575	2.696	1.300	-4.7	25.0
Dimethylphthalate	1.652	1.690	0.010	-2.3	
2,6-Dinitrotoluene	0.455	0.445	0.200	2.2	25.0
Acenaphthene	1.540	1.617	0.800	-5.0	25.0
3-Nitroaniline	0.521	0.384	0.010	26.3	
2,4-Dinitrophenol	0.222	0.230	0.010	-3.6	
Dibenzofuran	1.937	2.046	0.800	-5.6	25.0
2,4-Dinitrotoluene	0.553	0.548	0.200	0.9	25.0
4-Nitrophenol	0.179	0.133	0.010	25.7	

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: O-S Calibration Date: 12/9/92 Time: 1406

Lab File ID: DOS00716.D Init. Calib. Date(s): 10/15/92 10/15/92

Init. Calib. Times: 0853 1251

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Fluorene	1.554	1.622	0.900	-4.4	25.0
Diethylphthalate	1.929	2.023		-4.9	
4-Chlorophenyl-phenylether	0.707	0.794	0.400	-12.3	25.0
4,6-Dinitro-2-methylphenol	0.201	0.216	0.010	-7.5	
4-Nitroaniline	0.314	0.277	0.010	11.8	
N-Nitrosodiphenylamine	0.661	0.681	0.010	-3.0	
4-Bromophenyl-phenylether	0.260	0.276	0.100	-6.2	25.0
Hexachlorobenzene	0.318	0.351	0.100	-10.4	25.0
Pentachlorophenol	0.152	0.173	0.050	-13.8	25.0
Phenanthrene	1.574	1.432	0.700	9.0	25.0
Anthracene	1.220	1.464	0.700	-20.0	25.0
Carbazol	0.739	0.853	0.010	-15.4	
Di-n-butylphthalate	2.003	2.202	0.010	-9.9	
Fluoranthene	1.220	1.418	0.600	-16.2	25.0
Pyrene	1.316	1.471	0.600	-11.8	25.0
Butylbenzylphthalate	1.023	1.030	0.010	-0.7	
Benzo(a)anthracene	1.288	1.345	0.800	-4.4	25.0
Chrysene	1.226	1.431	0.700	-16.7	25.0
3,3'-Dichlorobenzidine	0.321	0.228	0.010	29.0	
Bis(2-ethylhexyl)phthalate	1.492	1.681	0.010	-12.7	
Di-n-octylphthalate	3.199	3.517	0.010	-9.9	
Benzo(b)fluoranthene	1.560	1.478	0.700	5.3	25.0
Benzo(k)fluoranthene	1.216	1.316	0.700	-8.2	25.0
Benzo(a)pyrene	1.280	1.301	0.700	-1.6	25.0
Indendo(1,2,3-cd)pyrene	1.124	1.091	0.500	2.9	25.0
Dibenz(a,h)anthracene	1.002	0.945	0.400	5.7	25.0
Benzo(g,h,i)perylene	0.883	0.898	0.500	-1.7	25.0
2-Fluorophenol	1.831	1.574	0.600	14.0	25.0
Phenol-d5	2.200	2.337	0.800	-6.2	25.0
2-Chlorophenol-d4	1.745	1.839	0.800	-5.4	25.0
1,2-Dichlorobenzene-d4	1.000	1.052	0.400	-5.2	25.0
Nitrobenzene-d5	0.448	0.439	0.200	2.0	25.0
2-Fluorobiphenyl	1.647	1.750	0.700	-6.3	25.0
2,4,6-Tribromophenol	0.234	0.240	0.010	-2.6	
Terphenyl-d14	1.022	1.155	0.500	-13.0	25.0

All other compounds must meet a minimum RRF of 0.010.

QUANT REPORT

Operator ID: MDB Date Acquired: 9 Dec 92 2:06 pm
Data File: C:\CHEMPC\DATA\120992\DOS00716.D
Name:
Misc: SSTD050 (M-920922-10J) w/40ppm IS
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Multiple Level Calibration

Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
8)	1,4-Dichlorobenzene-d4	9.06	152	445225	40.00	ug/kg	-0.06
25)	Naphthalene-d8	13.62	136	1733257	40.00	ug/kg	-0.06
40)	Acenaphthene-d10	20.70	164	684195	40.00	ug/kg	-0.06
57)	Phenanthrene-d10	26.70	188	1006300	40.00	ug/kg	-0.05
67)	Chrysene-d12	35.69	240	975095	40.00	ug/kg	-0.04
75)	Perylene-d12	39.11	264	821337	40.00	ug/kg	-0.04

System Monitoring Compounds

							%Recovery
1)	2-Fluorophenol	5.77	112	876034	42.98	ug/kg	21.49%
3)	Phenol-d5	8.50	99	1300619	53.11	ug/kg	26.56%
4)	2-Chlorophenol-d4	8.56	132	1023255	52.68	ug/kg	26.34%
10)	1,2-Dichlorobenzene-d4	9.66	152	585683	52.63	ug/kg	52.63%
16)	Nitrobenzene-d5	11.09	82	951952	49.07	ug/kg	49.07%
33)	2-Fluorobiphenyl	18.17	172	1496324	53.11	ug/kg	53.11%
53)	2,4,6-Tribromophenol	24.03	330	204994	51.16	ug/kg	25.58%
64)	Terphenyl-d14	32.93	244	1407535	56.51	ug/kg	56.51%

Target Compounds

							ISTD#
2)	bis(2-Chloroethyl)ether	8.48	93	1204157	51.59	ug/kg	001m
5)	Phenol	8.54	94	1341040	51.37	ug/kg	001#
6)	2-Chlorophenol	8.61	128	1084924	50.36	ug/kg	001
7)	1,3-Dichlorobenzene	8.92	146	935784	48.56	ug/kg	001
9)	1,4-Dichlorobenzene	9.11	146	1087086	51.52	ug/kg	001
11)	1,2-Dichlorobenzene	9.71	146	1048297	53.57	ug/kg	001
12)	2,2'-oxybis(1-Chloropropan	10.30	45	1239254	58.69	ug/kg	001m
13)	2-Methylphenol	10.46	108	881283	46.43	ug/kg	001m
14)	Hexachloroethane	10.74	117	491256	48.94	ug/kg	001
15)	N-Nitroso-di-n-propylamine	10.86	70	681816	48.19	ug/kg	001#
17)	4-Methylphenol	11.02	108	956080	47.35	ug/kg	001m
18)	Nitrobenzene	11.16	77	1031971	53.26	ug/kg	002
19)	Isophorone	12.10	82	1945850	51.17	ug/kg	002
20)	2-Nitrophenol	12.33	139	517763	46.07	ug/kg	002
21)	2,4-Dimethylphenol	12.90	107	866590	48.86	ug/kg	002
22)	bis(2-Chloroethoxy)methane	13.11	93	1295858	51.02	ug/kg	002
23)	2,4-Dichlorophenol	13.41	162	631339	51.00	ug/kg	002
24)	1,2,4-Trichlorobenzene	13.52	180	677447	54.29	ug/kg	002
26)	Naphthalene	13.71	128	2922985	52.32	ug/kg	002
27)	4-Chloroaniline	14.18	127	634832	29.94	ug/kg	002m
28)	Hexachlorobutadiene	14.56	225	383566	54.92	ug/kg	002
29)	2-Methylnaphthalene	16.46	142	1766289	58.41	ug/kg	002m
30)	4-Chloro-3-methylphenol	16.50	107	701778	44.82	ug/kg	002m
31)	Hexachlorocyclopentadiene	17.44	237	376914	52.62	ug/kg	003

(#) = qualifier out of range

QUANT REPORT

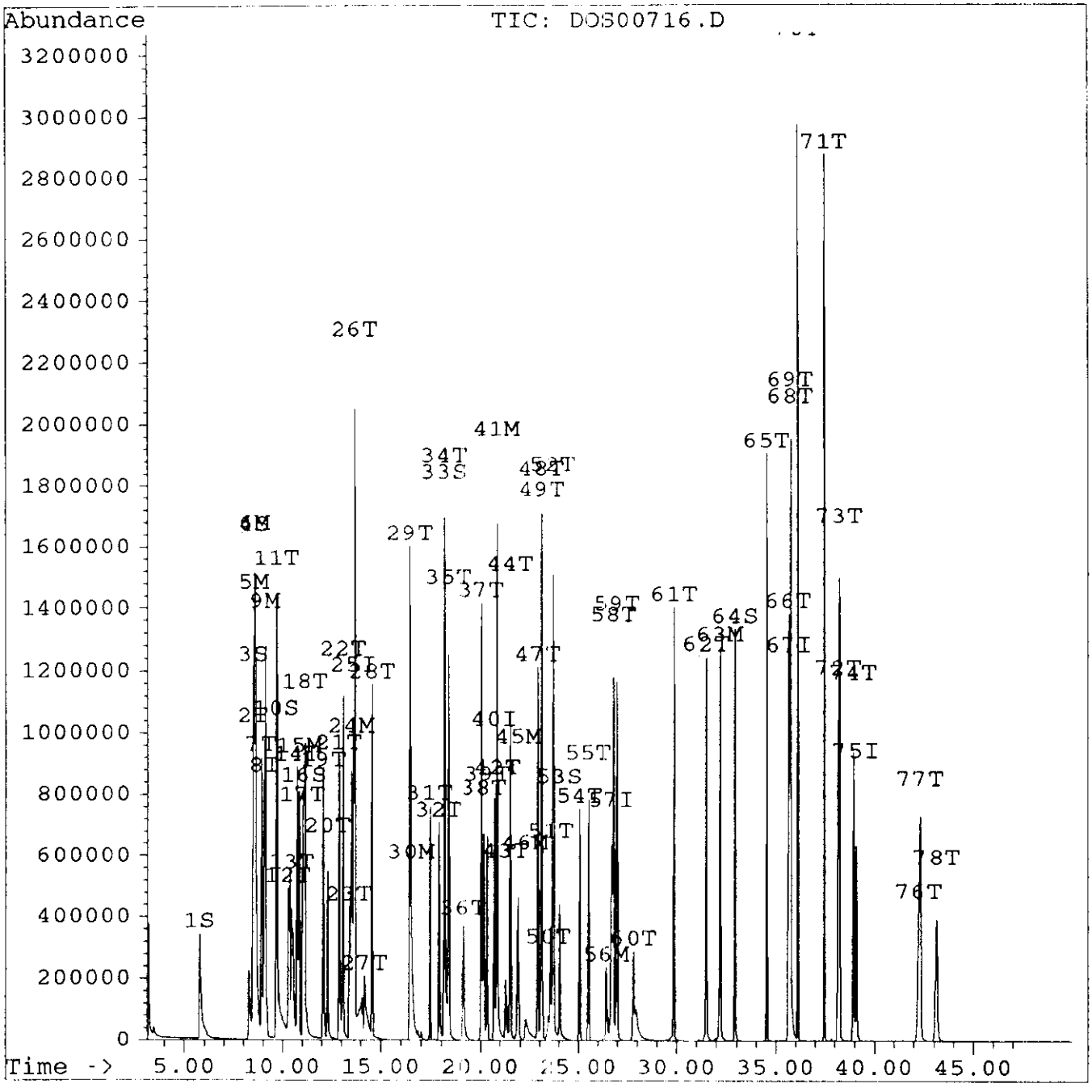
Operator ID: MDB Date Acquired: 9 Dec 92 2:06 pm
Data File: C:\CHEMPC\DATA\120992\DOS00716.D
Name:
Misc: SSTD050 (M-920922-10J) w/40ppm IS
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Multiple Level Calibration

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
32) 2,4,6-Trichlorophenol	17.89	196	389590	43.27	ug/kg	003
34) 2,4,5-Trichlorophenol	18.17	196	436982	56.64	ug/kg	003
35) 2-Chloronaphthalene	18.38	162	1328240	50.01	ug/kg	003
36) 2-Nitroaniline	19.12	65	444148	42.78	ug/kg	003
37) Acenaphthylene	20.05	152	2305651	52.36	ug/kg	003
38) Dimethylphthalate	20.16	163	1445290	51.14	ug/kg	003
39) 2,6-Dinitrotoluene	20.34	165	380648	48.94	ug/kg	003
41) Acenaphthene	20.84	153	1383302	52.52	ug/kg	003
42) 3-Nitroaniline	20.87	138	328073	36.78	ug/kg	003m
43) 2,4-Dinitrophenol	21.27	184	196779	51.72	ug/kg	003
44) Dibenzofuran	21.52	168	1749877	52.82	ug/kg	003
45) 2,4-Dinitrotoluene	21.91	165	468856	49.56	ug/kg	003
46) 4-Nitrophenol	22.28	109	113629	37.02	ug/kg	003m
47) Fluorene	22.91	166	1387510	52.19	ug/kg	003
48) 4-Chlorophenyl-phenylether	23.11	204	678889	56.14	ug/kg	003
49) Diethylphthalate	23.12	149	1730462	52.44	ug/kg	003
50) 4-Nitroaniline	23.44	138	236674	44.04	ug/kg	003m
51) 4,6-Dinitro-2-methylphenol	23.57	198	271419	53.71	ug/kg	004#
52) N-Nitrosodiphenylamine	23.70	169	856772	51.51	ug/kg	004
54) 4-Bromophenyl-phenylether	25.06	248	347689	53.16	ug/kg	004
55) Hexachlorobenzene	25.52	284	441890	55.19	ug/kg	004
56) Pentachlorophenol	26.41	266	217061	56.90	ug/kg	004
58) Phenanthrene	26.80	178	1801687	45.51	ug/kg	004
59) Anthracene	26.99	178	1841275	59.98	ug/kg	004
60) Carbazol	27.81	167	1072577	57.69	ug/kg	004m
61) Di-n-butylphthalate	29.89	149	2769297	54.96	ug/kg	004
62) Fluoranthene	31.49	202	1783200	58.08	ug/kg	004
63) Pyrene	32.19	202	1793241	55.88	ug/kg	005
65) Butylbenzylphthalate	34.53	149	1255979	50.38	ug/kg	005
66) Benzo(a)anthracene	35.65	228	1639804	52.23	ug/kg	005
68) 3,3'-Dichlorobenzidine	35.76	252	277321	35.39	ug/kg	005
69) Chrysene	35.76	228	1744398	58.35	ug/kg	005
70) Bis(2-ethylhexyl)phthalate	36.12	149	2049493	56.36	ug/kg	005
71) Di-n-octylphthalate	37.48	149	3611268	54.97	ug/kg	006
72) Benzo(b)fluoranthene	38.21	252	1517911	47.39	ug/kg	006m
73) Benzo(k)fluoranthene	38.25	252	1351244	54.11	ug/kg	006m
74) Benzo(a)pyrene	38.97	252	1335314	50.81	ug/kg	006
76) Indendo(1,2,3-cd)pyrene	42.25	276	1120429	48.53	ug/kg	006
77) Dibenz(a,h)anthracene	42.33	278	970363	47.14	ug/kg	006
78) Benzo(g,h,i)perylene	43.16	276	921522	50.84	ug/kg	006

(#) = qualifier out of range

QUANT REPORT

Operator ID: MDB Date Acquired: 9 Dec 92 2:06 pm
Data File: C:\CHEMPC\DATA\120992\DOS00716.D
Name:
Misc: SSTD050 (M-920922-10J) w/40ppm IS
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Multiple Level Calibration



page 1 of 3

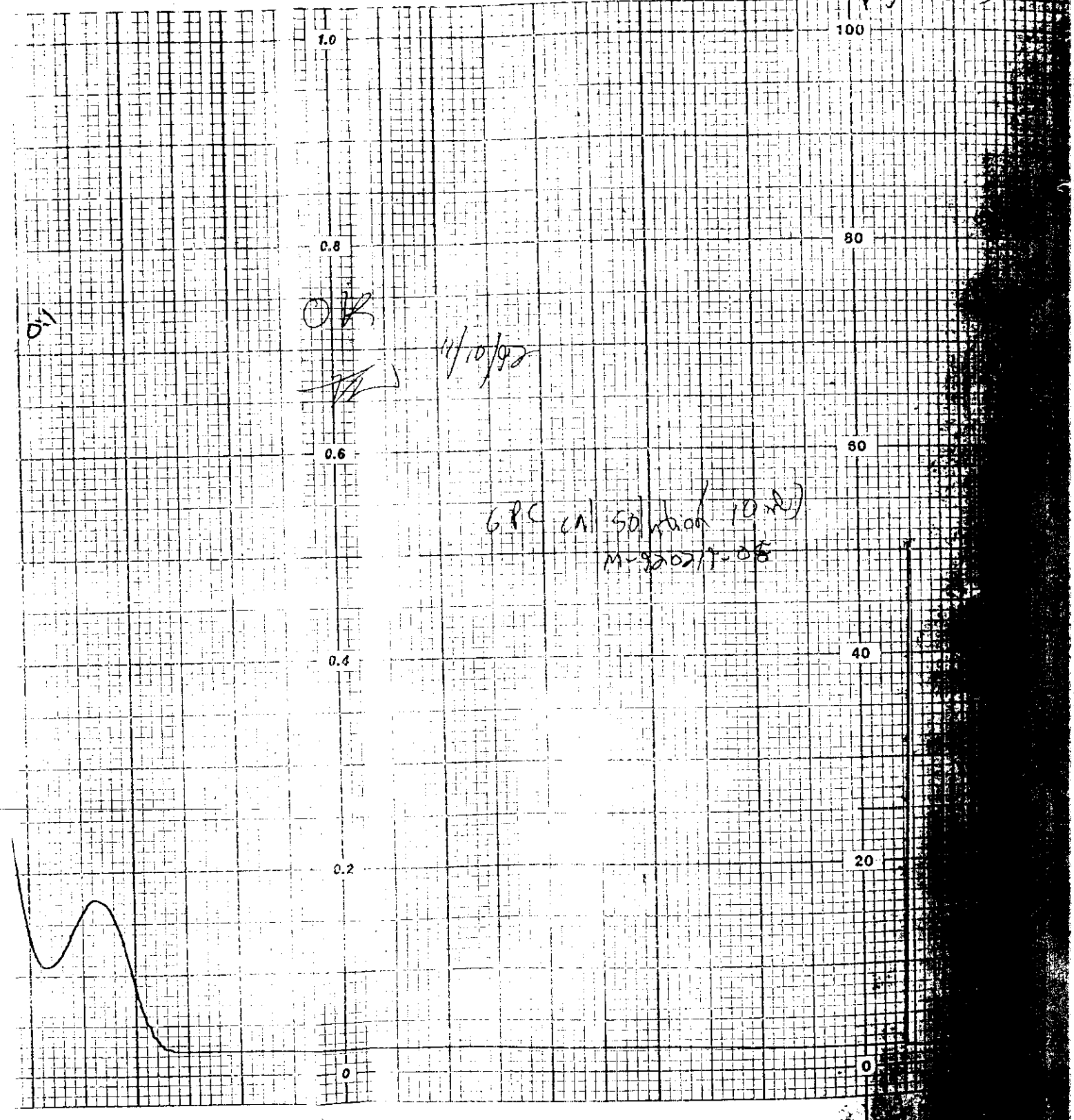

1.0
0.8
0.6
0.4
0.2
0
100
80
60
40
20
0
OK
11/10/92
GPC (in solution 10 mg)
M-92021-06

Chart No. CP33402-0

PERKIN-ELMER

000152

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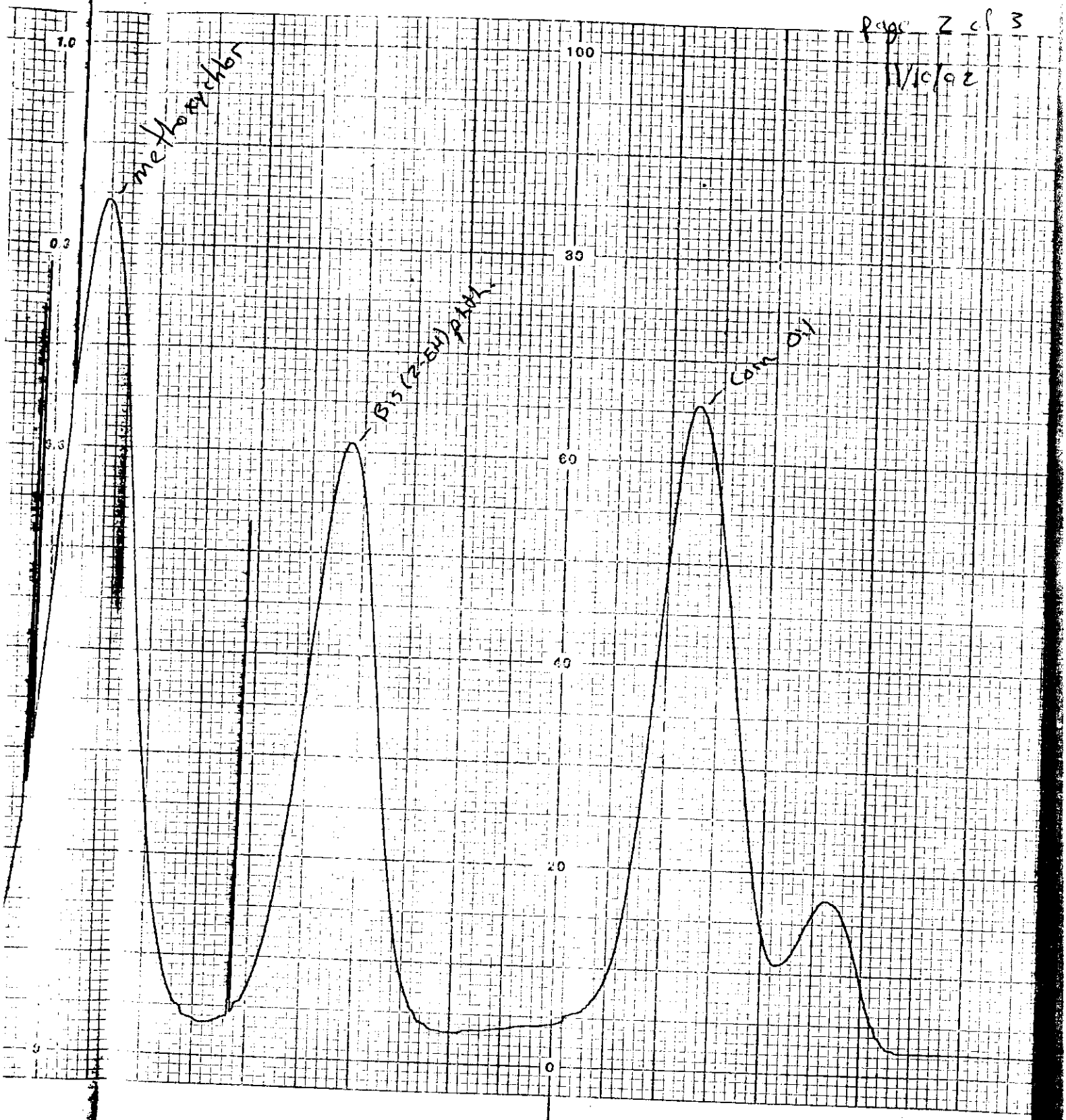
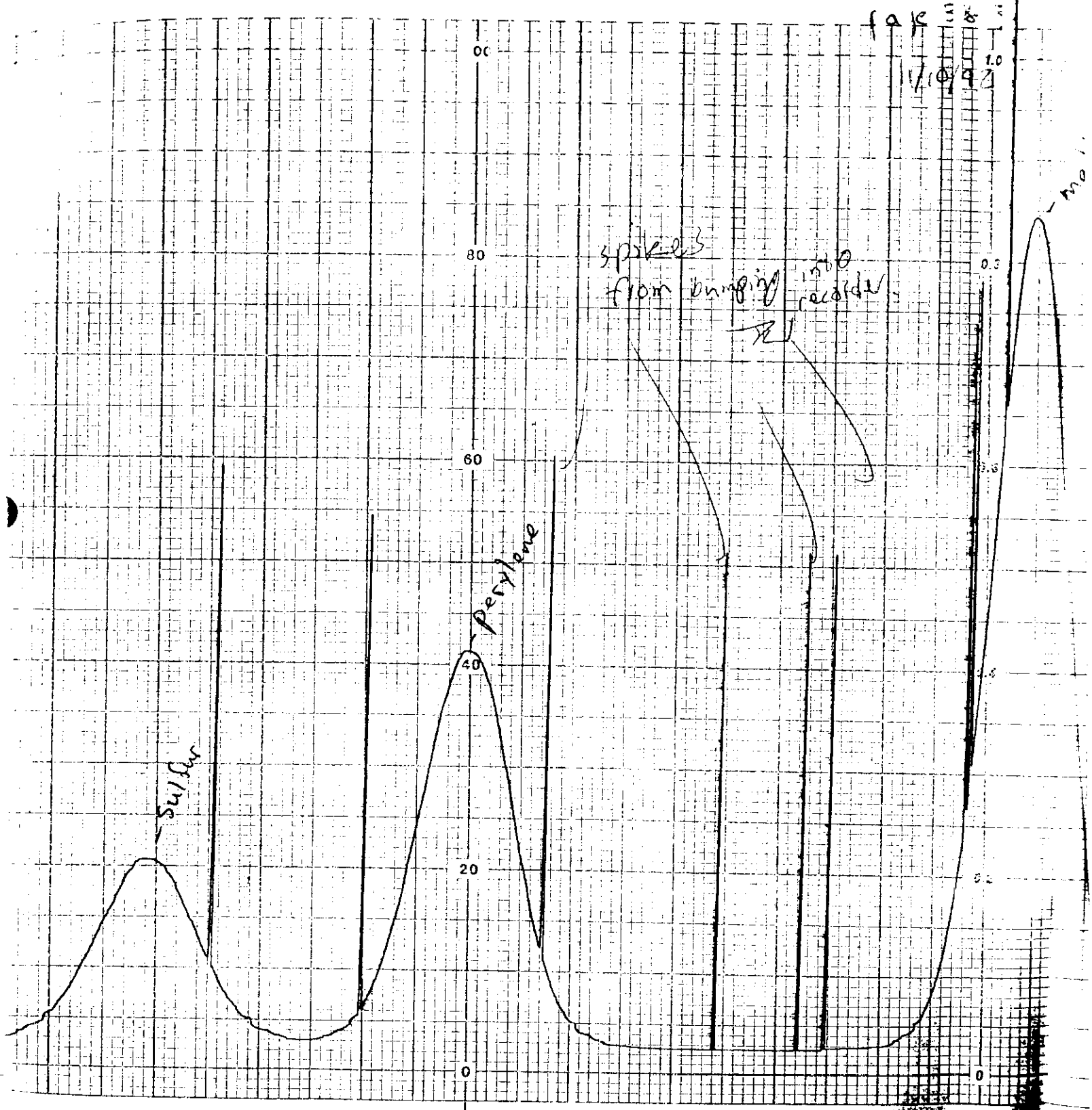
11/10/92



PERKIN-ELMER

CORP.



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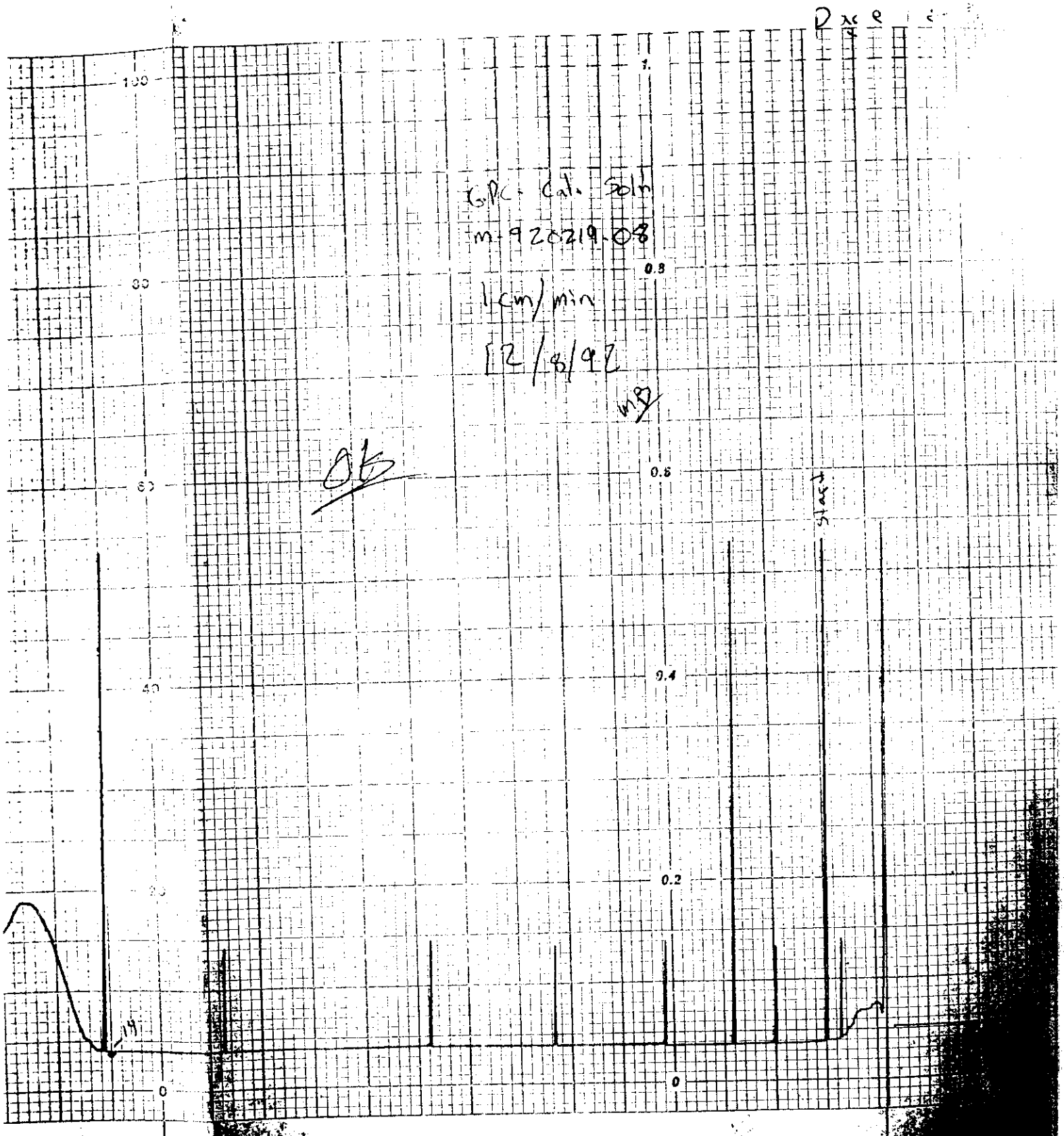

Chart No. CP33402-0

000055

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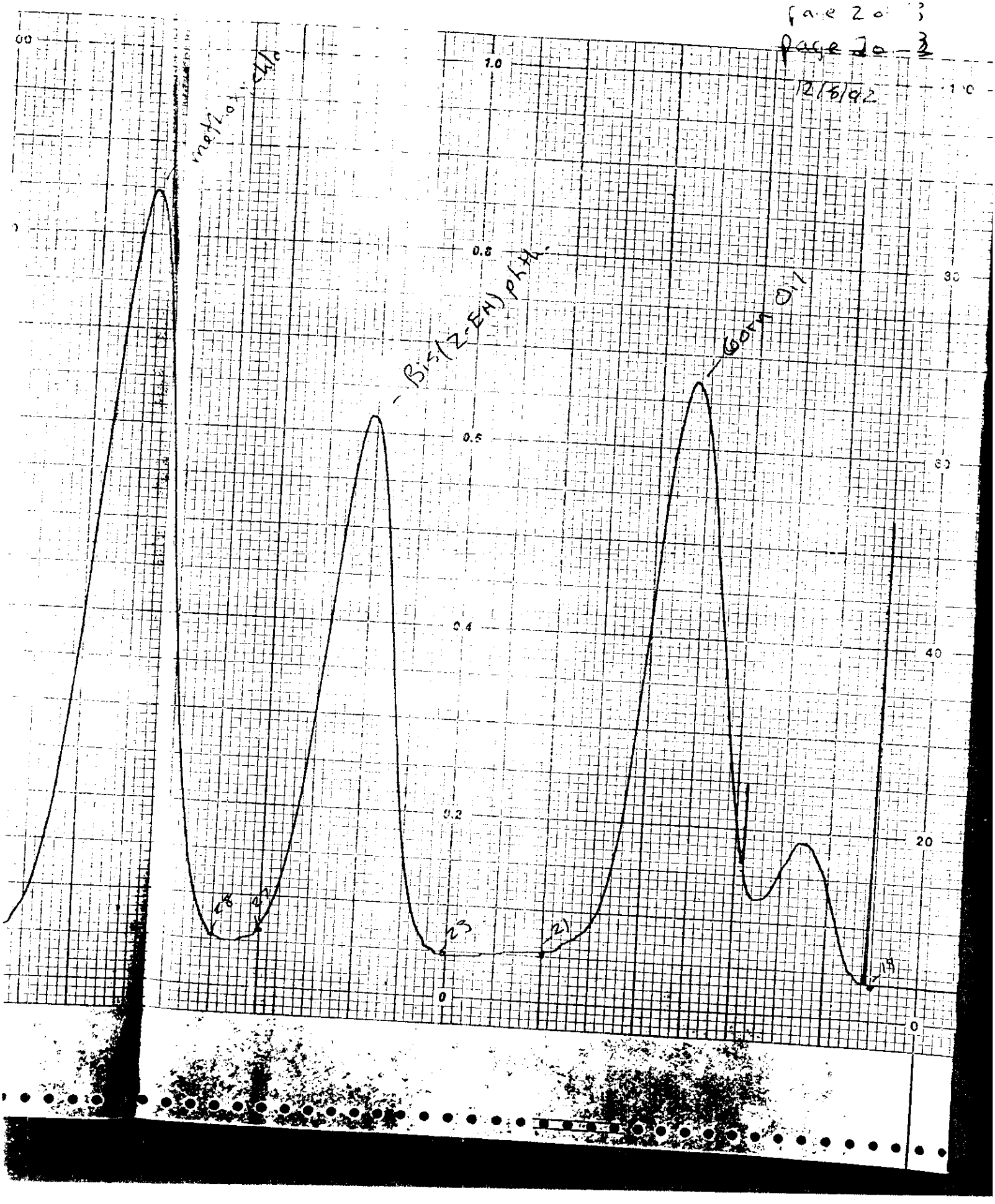
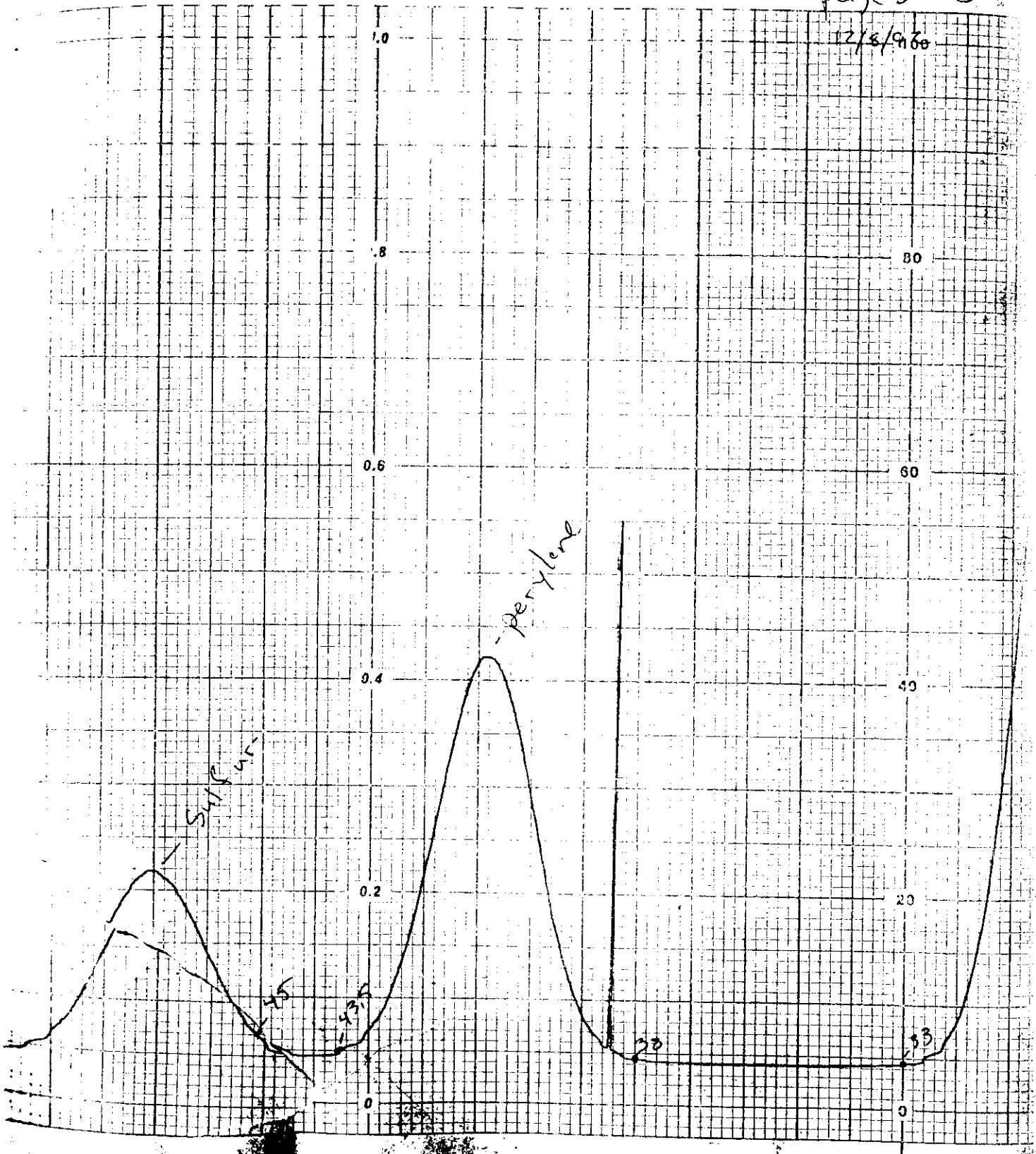
12/5/02

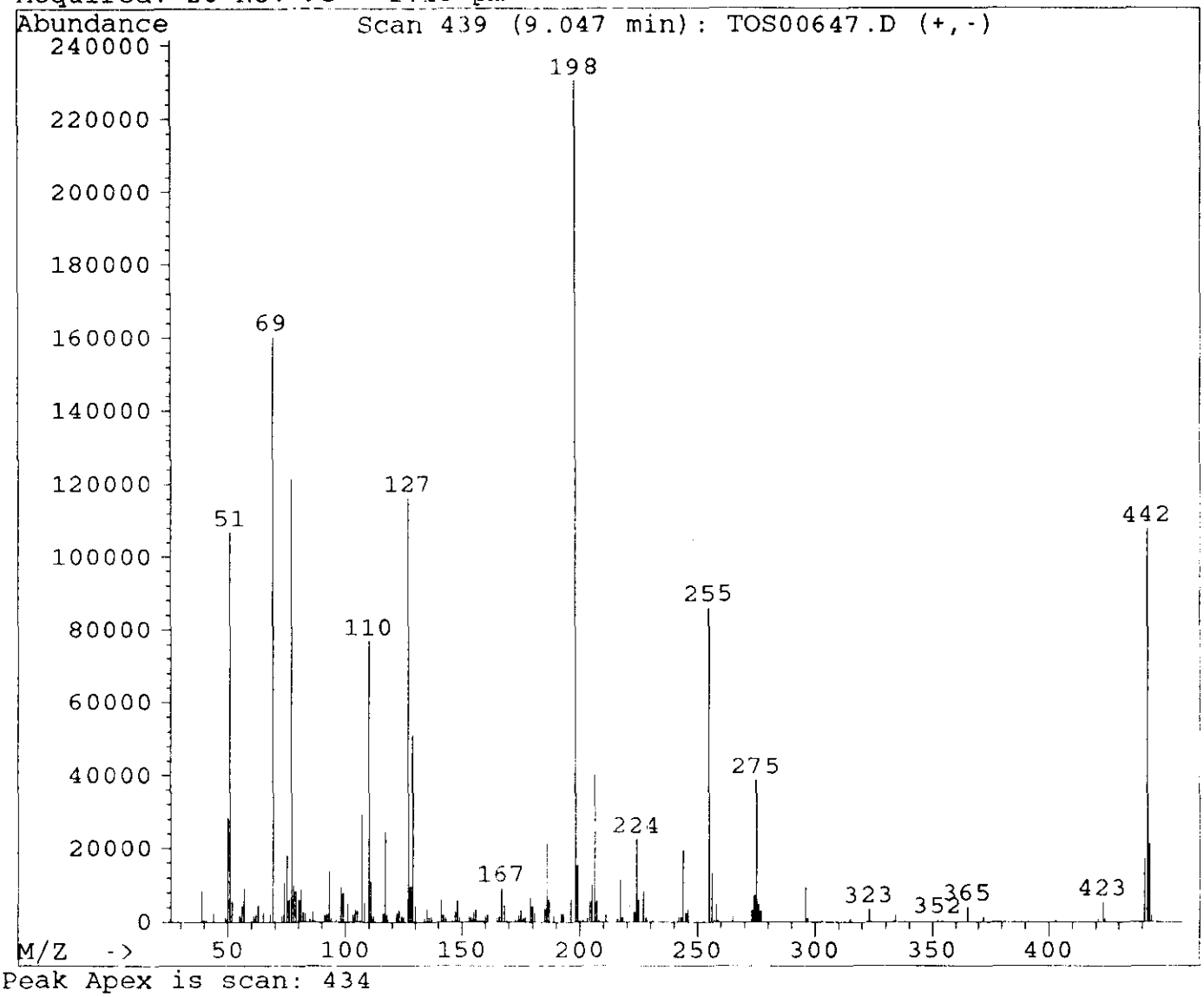


Page 3 of 3.



SEMIVOLATILES RAW QC DATA

File : C:\CHEMPC\DATA\112092\TOS00647.D
Acquired: 20 Nov 92 1:15 pm



Peak Apex is scan: 434

Target Mass	Comparison Mass	Lower Limit,%	Upper Limit,%	Relative Abundance,%	Result Pass/Fail
51	198	30	80	46.4	PASS
68	69	0	2	1.3	PASS
69	198	0	100	69.6	PASS
70	69	0	2	0.3	PASS
127	198	25	75	50.4	PASS
197	198	0	1	0.0	PASS
198	198	100	100	100.0	PASS
199	198	5	9	6.7	PASS
275	198	10	30	16.8	PASS
365	198	1	100	1.8	PASS
441	443	0	100	80.7	PASS
442	198	40	110	46.7	PASS
443	442	15	24	19.6	PASS

C:\CHEMPC\DATA\112092\TOS00647.D Mon Dec 21 14:49:36 1992

Scan 439 (9.047 min): TOS00647.D

Modified:added subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
39.05	8616	57.00	9172	74.95	18221	87.05	530
40.05	466	60.10	339	76.00	6125	90.95	1879
41.05	434	61.05	1680	77.05	121648	92.00	2181
43.10	71	62.00	1958	78.05	9862	93.00	13709
44.00	2253	63.00	4659	78.95	8546	93.95	1104
49.05	1274	65.10	2642	79.95	6047	96.05	843
50.00	28435	68.05	2023	80.95	8741	97.95	9575
51.00	106824	68.95	160224	82.05	2635	99.00	7994
52.00	5720	70.05	541	83.00	2352	101.00	4867
55.05	1505	73.10	1612	85.05	784	103.05	1959
56.00	4440	74.00	10827	86.00	2855	104.05	3234

Scan 439 (9.047 min): TOS00647.D

Modified:added subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
104.95	3289	123.00	3355	141.00	5901	156.85	339
106.10	408	124.00	1623	142.00	1899	157.15	492
107.00	29925	125.10	1395	142.95	1072	157.95	534
108.00	5149	127.05	116160	145.90	451	158.95	416
109.95	76752	128.00	9762	146.95	2765	159.95	1405
110.95	10948	129.00	50980	147.95	5825	160.95	1935
111.95	1561	129.95	4327	148.95	1182	165.00	1882
116.00	2334	134.00	1040	153.00	1429	166.05	1378
117.00	24462	135.00	3741	154.00	1066	167.00	9056
118.00	2104	135.95	1209	155.00	2412	167.95	4590
122.00	2536	137.05	1701	156.00	3560	169.00	475

Scan 439 (9.047 min): TOS00647.D

Modified:added subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
172.95	875	188.95	1588	206.00	40613	226.95	8412
174.00	1737	191.95	2276	207.00	5769	227.95	1223
175.00	3390	193.05	2308	208.00	650	228.95	1572
176.05	1029	196.05	6395	210.95	1999	230.95	452
176.95	1340	197.95	230264	216.00	1130	242.05	1300
178.95	6553	198.95	15316	217.00	11445	243.05	1284
180.00	4266	200.05	520	217.95	1348	244.05	19571
181.00	2506	201.50	1067	221.05	12221	245.00	2460
185.05	3457	203.00	1075	223.00	2853	246.00	3370
186.05	21877	204.05	5673	224.10	22459	252.90	365
187.00	5976	205.05	10013	225.05	5991	255.00	85765

Scan 439 (9.047 min): TOS00647.D

Modified:added subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
256.00	13293	297.00	1134	423.05	5432		
257.00	496	303.10	460	424.05	1041		
258.00	4824	314.95	967	441.10	17023		
258.90	413	323.00	3410	442.05	107566		
264.95	1545	334.00	1760	443.05	21097		
273.00	3030	352.15	575	444.00	1914		
274.05	7134	354.05	464				
275.05	38613	364.95	4138				
276.00	4948	372.00	1464				

277.00	3006	403.00	458
296.00	9422	42[illegible].00	854

Scan 439 (9.047 min): TOS00647.D

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
39.05	4	57.00	4	74.95	8	87.05	0
40.05	0	60.10	0	76.00	3	90.95	1
41.05	0	61.05	1	77.05	53	92.00	1
43.10	0	62.00	1	78.05	4	93.00	6
44.00	1	63.00	2	78.95	4	93.95	0
49.05	1	65.10	1	79.95	3	96.05	0
50.00	12	68.05	1	80.95	4	97.95	4
51.00	46	68.95	70	82.05	1	99.00	3
52.00	2	70.05	0	83.00	1	101.00	2
55.05	1	73.10	1	85.05	0	103.05	1
56.00	2	74.00	5	86.00	1	104.05	1

Scan 439 (9.047 min): TOS00647.D

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
104.95	1	123.00	1	141.00	3	156.85	0
106.10	0	124.00	1	142.00	1	157.15	0
107.00	13	125.10	1	142.95	0	157.95	0
108.00	2	127.05	50	145.90	0	158.95	0
109.95	33	128.00	4	146.95	1	159.95	1
110.95	5	129.00	22	147.95	3	160.95	1
111.95	1	129.95	2	148.95	1	165.00	1
116.00	1	134.00	0	153.00	1	166.05	1
117.00	11	135.00	2	154.00	0	167.00	4
118.00	1	135.95	1	155.00	1	167.95	2
122.00	1	137.05	1	156.00	2	169.00	0

Scan 439 (9.047 min): TOS00647.D

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
172.95	0	188.95	1	206.00	18	226.95	4
174.00	1	191.95	1	207.00	3	227.95	1
175.00	1	193.05	1	208.00	0	228.95	1
176.05	0	196.05	3	210.95	1	230.95	0
176.95	1	197.95	100	216.00	0	242.05	1
178.95	3	198.95	7	217.00	5	243.05	1
180.00	2	200.05	0	217.95	1	244.05	8
181.00	1	201.50	0	221.05	5	245.00	1
185.05	2	203.00	0	223.00	1	246.00	1
186.05	10	204.05	2	224.10	10	252.90	0
187.00	3	205.05	4	225.05	3	255.00	37

Scan 439 (9.047 min): TOS00647.D

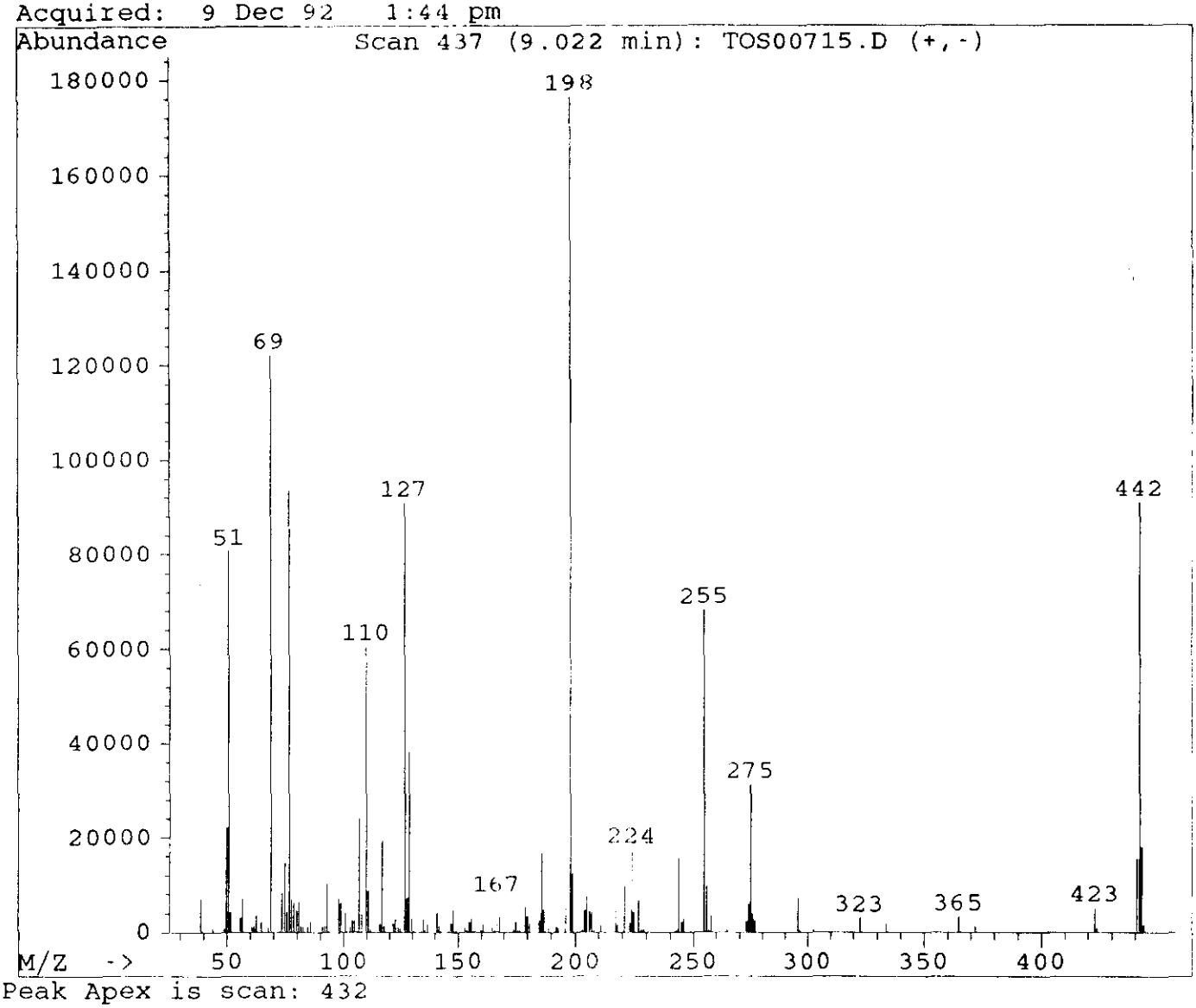
Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
256.00	6	297.00	0	423.05	2		
257.00	0	303.10	0	424.05	0		
258.00	2	314.95	0	441.10	7		
258.90	0	323.00	1	442.05	47		
264.95	1	334.00	1	443.05	9		
273.00	1	352.15	0	444.00	1		
274.05	3	354.05	0				
275.05	17	364.95	2				
276.00	2	372.00	1				

277.00	1	403.00	0
296.00	4	423.00	0

DFTPP Results

File : C:\CHEMPC\DATA\120992\TOS00715.D
Acquired: 9 Dec 92 1:44 pm



Peak Apex is scan: 432

Target Mass	Comparison Mass	Lower Limit,%	Upper Limit,%	Relative Abundance,%	Result Pass/Fail
51	198	30	80	45.8	PASS
68	69	0	2	0.9	PASS
69	198	0	100	69.2	PASS
70	69	0	2	0.0	PASS
127	198	25	75	51.4	PASS
197	198	0	1	0.0	PASS
198	198	100	100	100.0	PASS
199	198	5	9	7.1	PASS
275	198	10	30	17.7	PASS
365	198	1	100	1.9	PASS
441	443	0	100	86.6	PASS
442	198	40	110	51.5	PASS
443	442	15	24	19.7	PASS

C:\CHEMPC\DATA\120992\TOS00715.D Mon Dec 21 15:18:11 1992

Scan 437 (9.022 min): TOS00715.D

Modified:added subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
39.05	6898	65.00	2152	80.95	6448	100.95	4041
43.95	876	68.00	1123	81.95	1302	103.05	1060
49.10	804	68.95	122128	82.95	1398	104.00	2510
50.00	22108	73.05	389	85.00	1153	105.00	2334
51.00	80738	74.00	8252	86.00	2289	106.10	446
52.00	4233	74.95	14631	91.00	1357	107.00	24023
55.95	3055	76.05	4399	91.95	1394	107.95	3847
57.00	6849	77.05	93512	92.95	10231	109.95	60476
61.05	1037	78.05	6840	93.90	430	110.95	8686
62.00	1297	78.95	6374	97.95	7192	111.95	584
63.00	3531	79.95	4685	99.00	6217	116.00	1926

Scan 437 (9.022 min): TOS00715.D

Modified:added subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
116.95	19356	134.00	584	152.95	1072	174.00	660
117.95	1286	135.00	2874	153.95	478	175.00	2300
122.00	1871	135.90	593	155.00	2160	176.00	534
123.00	2791	136.95	1797	156.00	2864	177.00	691
124.05	1104	141.00	4287	157.05	365	178.95	5253
124.95	1006	142.00	1434	159.95	488	180.00	3410
127.05	90696	142.90	383	161.00	1518	180.95	1844
128.00	7212	145.90	427	164.95	1062	185.05	2679
128.95	38254	147.00	1960	166.05	373	186.00	16603
129.95	3049	147.95	4745	166.95	7051	187.00	4805
130.90	413	149.05	433	167.95	3325	188.95	927

Scan 437 (9.022 min): TOS00715.D

Modified:added subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
191.95	1310	210.95	1527	242.05	427	272.95	2362
193.00	1175	216.95	8895	243.05	679	274.00	5928
195.95	5210	217.95	1540	244.05	15647	275.00	31252
197.95	176408	221.00	9654	245.00	2101	276.00	3968
198.95	12466	223.05	2040	245.95	2763	276.95	2468
203.05	502	224.00	17347	248.90	343	296.00	7310
204.05	4732	225.00	4382	255.00	68056	296.90	524
205.05	7622	226.90	6691	256.00	9861	303.00	519
206.00	31964	227.95	551	257.00	449	323.00	3035
206.95	4333	228.95	763	257.95	3477	334.00	1750
208.00	548	230.95	452	264.95	606	364.95	3275

Scan 437 (9.022 min): TOS00715.D

Modified:added subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
372.05	1320						
403.00	391						
423.05	5059						
424.00	963						
441.10	15507						
442.00	90803						
443.00	17903						
444.00	1675						

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
39.05	4	65.00	1	80.95	4	100.95	2
43.95	0	68.00	1	81.95	1	103.05	1
49.10	0	68.95	69	82.95	1	104.00	1
50.00	13	73.05	0	85.00	1	105.00	1
51.00	46	74.00	5	86.00	1	106.10	0
52.00	2	74.95	8	91.00	1	107.00	14
55.95	2	76.05	2	91.95	1	107.95	2
57.00	4	77.05	53	92.95	6	109.95	34
61.05	1	78.05	4	93.90	0	110.95	5
62.00	1	78.95	4	97.95	4	111.95	0
63.00	2	79.95	3	99.00	4	116.00	1

Scan 437 (9.022 min): TOS00715.D

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
116.95	11	134.00	0	152.95	1	174.00	0
117.95	1	135.00	2	153.95	0	175.00	1
122.00	1	135.90	0	155.00	1	176.00	0
123.00	2	136.95	1	156.00	2	177.00	0
124.05	1	141.00	2	157.05	0	178.95	3
124.95	1	142.00	1	159.95	0	180.00	2
127.05	51	142.90	0	161.00	1	180.95	1
128.00	4	145.90	0	164.95	1	185.05	2
128.95	22	147.00	1	166.05	0	186.00	9
129.95	2	147.95	3	166.95	4	187.00	3
130.90	0	149.05	0	167.95	2	188.95	1

Scan 437 (9.022 min): TOS00715.D

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
191.95	1	210.95	1	242.05	0	272.95	1
193.00	1	216.95	5	243.05	0	274.00	3
195.95	3	217.95	1	244.05	9	275.00	18
197.95	100	221.00	5	245.00	1	276.00	2
198.95	7	223.05	1	245.95	2	276.95	1
203.05	0	224.00	10	248.90	0	296.00	4
204.05	3	225.00	2	255.00	39	296.90	0
205.05	4	226.90	4	256.00	6	303.00	0
206.00	18	227.95	0	257.00	0	323.00	2
206.95	2	228.95	0	257.95	2	334.00	1
208.00	0	230.95	0	264.95	0	364.95	2

Scan 437 (9.022 min): TOS00715.D

Modified:added subtracted scaled

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
372.05	1						
403.00	0						
423.05	3						
424.00	1						
441.10	9						
442.00	51						
443.00	10						
444.00	1						

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: SBLK01

Sample wt/vol: 30 (g/mL) G Lab File ID: BOS00649.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
95-50-1	1,2-Dichlorobenzene	660	U
39638-32-9	2,2'-oxybis(1-Chloropropane)	660	U
95-48-7	2-Methylphenol	660	U
67-72-1	Hexachloroethane	660	U
621-64-7	N-Nitroso-di-n-propylamine	660	U
106-44-5	4-Methylphenol	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
111-91-1	bis(2-Chloroethoxy)methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-29-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3400	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3400	U
208-96-8	Acenaphthylene	660	U
131-11-3	Dimethylphthalate	660	U
606-20-2	2,6-Dinitrotoluene	660	U
83-32-9	Acenaphthene	660	U
99-09-2	3-Nitroaniline	3400	U

1C
SEMI VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SBLK01

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: SBLK01

Sample wt/vol: 30 (g/mL) G Lab File ID: BOS00649.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 0 decanted: (Y/N): N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	3400	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
100-02-7	4-Nitrophenol	3400	U
86-73-7	Fluorene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
534-52-1	4,6-Dinitro-2-methylphenol	3400	U
100-01-6	4-Nitroaniline	3400	U
86-30-6	N-Nitrosodiphenylamine	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3400	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
86-74-8	Carbazol	660	U
84-74-2	Di-n-butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
56-55-3	Benzo(a)anthracene	660	U
218-01-9	Chrysene	660	U
91-94-1	3,3'-Dichlorobenzidine	660	U
117-81-7	Bis(2-ethylhexyl)phthalate	660	U
117-84-0	Di-n-octylphthalate	660	U
205-99-2	Benzo(b)fluoranthene	660	U
207-08-9	Benzo(k)fluoranthene	660	U
50-32-8	Benzo(a)pyrene	660	U
193-39-5	Indendo(1,2,3-cd)pyrene	660	U
53-70-3	Dibenz(a,h)anthracene	660	U
191-24-2	Benzo(g,h,i)perylene	660	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK01

Lab Name: PACE, INC. Contract: _____

Lab Code: D211(Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: SBLK01

Sample wt/vol: 30 (g/mL) G Lab File ID: BOS00649.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 11/12/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/20/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

Number TICs found: 4 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Aldol Condensate	4.57	33000	J
2.	Aldol Condensate	5.03	240000	J
3.	Aldol Condensate	5.21	52000	J
4.	Aldol Condensate	6.71	16000	J
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QUANT REPORT

Operator ID: MDB Date Acquired: 20 Nov 92 2:36 pm
Data File: C:\CHEMPC\DATA\112092\BOS00649.D
Name:
Misc: SBLK01(METHOD BLK)(D21028.500)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Single Level Calibration

Internal Standards

	Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
8)	1,4-Dichlorobenzene-d4	9.10	152	696748	40.00	ug/kg	-0.02
25)	Naphthalene-d8	13.64	136	2652188	40.00	ug/kg	-0.04
40)	Acenaphthene-d10	20.74	164	1033569	40.00	ug/kg	-0.02
57)	Phenanthrene-d10	26.72	188	1480187	40.00	ug/kg	-0.02
67)	Chrysene-d12	35.70	240	1009530	40.00	ug/kg	-0.03
75)	Perylene-d12	39.12	264	714655	40.00	ug/kg	-0.03

System Monitoring Compounds

							%Recovery
1)	2-Fluorophenol	5.90	112	3056965	106.86	ug/kg	53.43%
3)	Phenol-d5	8.61	99	4073595	97.95	ug/kg	48.97%
4)	2-Chlorophenol-d4	8.64	132	3329958	102.86	ug/kg	51.43%
10)	1,2-Dichlorobenzene-d4	9.72	152	924864	50.97	ug/kg	50.97%
16)	Nitrobenzene-d5	11.11	82	1465808	49.30	ug/kg	49.30%
33)	2-Fluorobiphenyl	18.20	172	2233119	50.72	ug/kg	50.72%
53)	2,4,6-Tribromophenol	24.09	330	599338	102.21	ug/kg	51.10%
64)	Terphenyl-d14	32.97	244	2035287	64.04	ug/kg	64.04%

Target Compounds ISTD#

Ø

12/23/92
MB

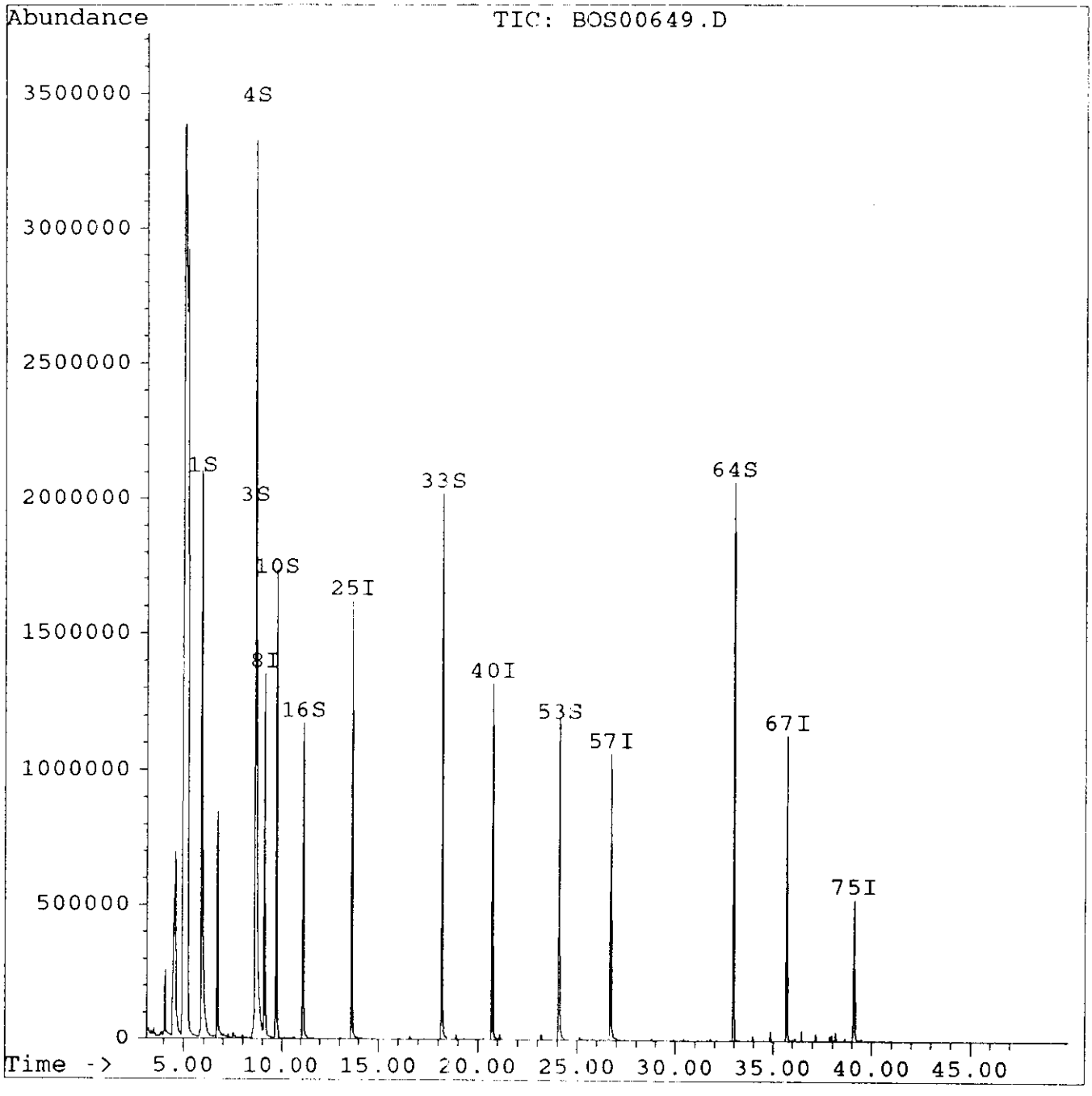
PQL's at 66X

330 µg/kg × 2 = 660 µg/kg

(#) = qualifier out of range

QUANT REPORT

Operator ID: MDB Date Acquired: 20 Nov 92 2:36 pm
Data File: C:\CHEMPC\DATA\112092\BOS00649.D
Name:
Misc: SBLK01(METHOD BLK)(D21028.500)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Single Level Calibration



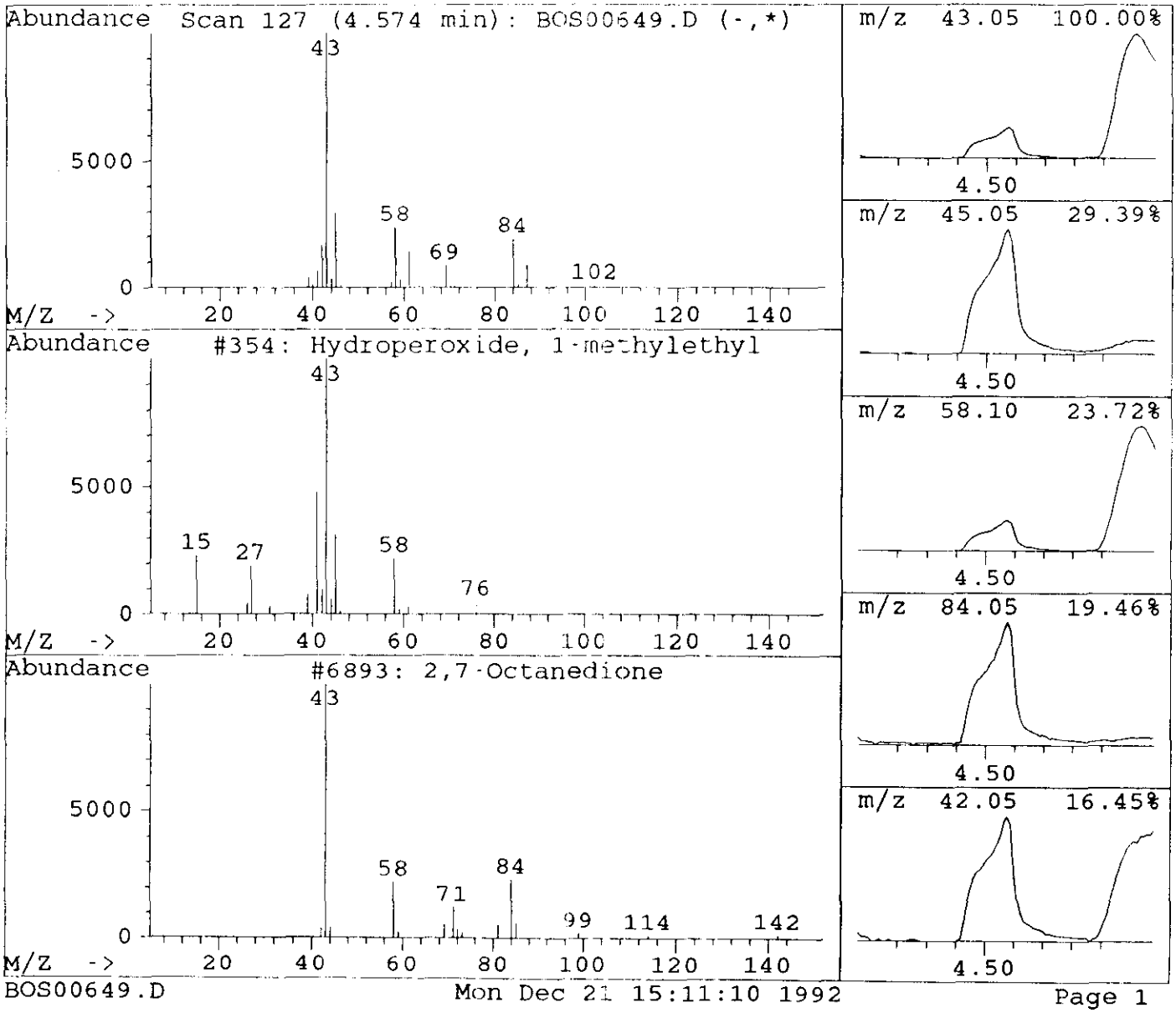
Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 20 Nov 92 2:36 pm
Data File: C:\CHEMPC\DATA\112092\BOS00649.D
Name:
Misc: SBLK01(METHOD BLK)(D21028.500)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
4.57	49.40 ug/kg	5495673	1,4-Dichlorobenzene-d4	9.10

Hit# of 2	Tentative ID	Ref#	CAS#	Qual
1	Hydroperoxide, 1-methylethyl	354	003031-75-2	33
2	2,7-Octanedione	6893	001626-09-1	28



Tentatively Identified Compound (LSC)

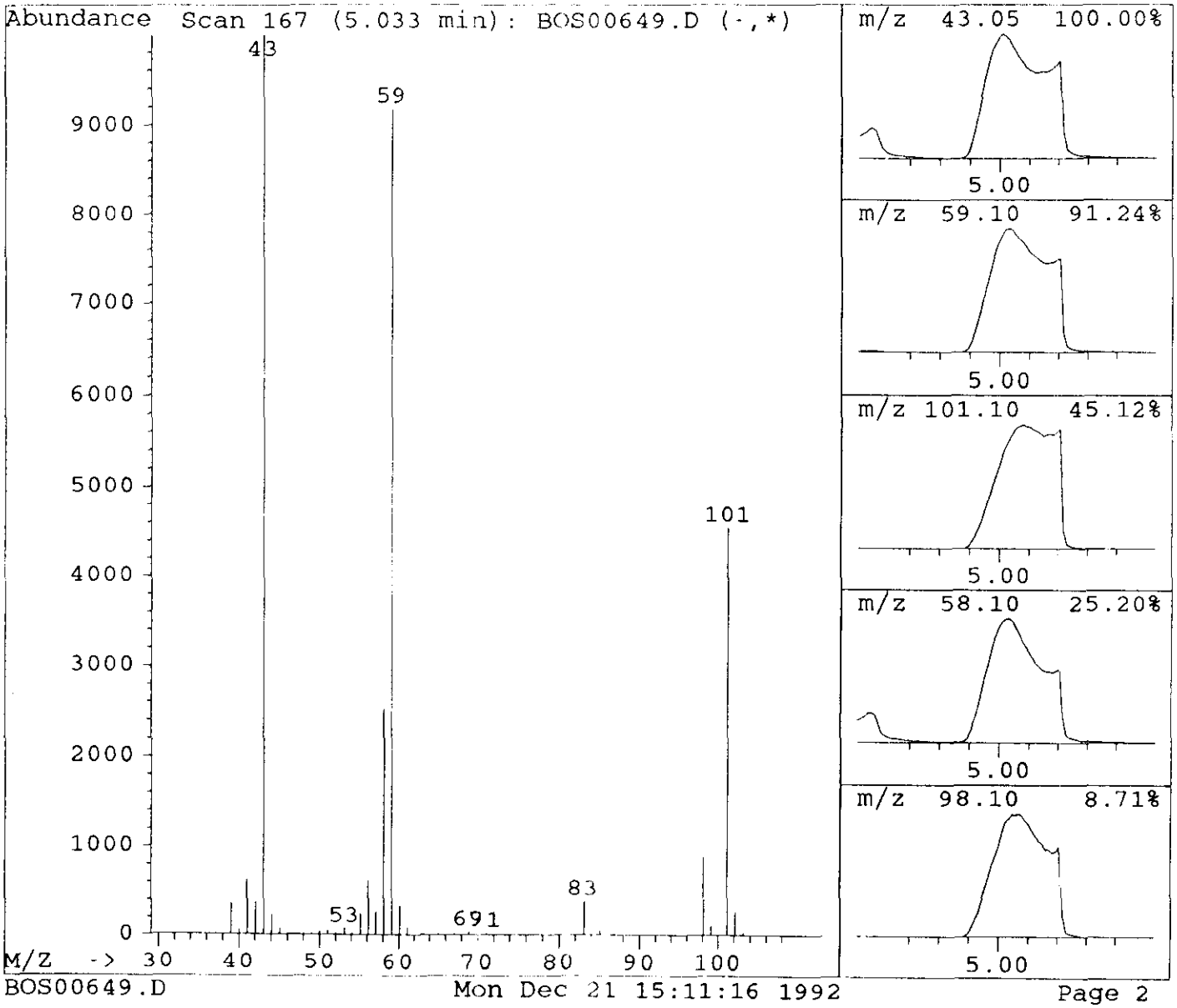
Operator ID: MDB Date Acquired: 20 Nov 92 2:36 pm
Data File: C:\CHEMPC\DATA\112092\BOS00649.D
Name:
Misc: SBLK01(METHOD BLK)(D21028.500)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
5.03	363.66 ug/kg	40454414	1,4-Dichlorobenzene-d4	9.10

Hit# of 0	Tentative ID	Ref#	CAS#	Qual
1	No Hits From nbs54k.l	0	000000-00-0	0

NC



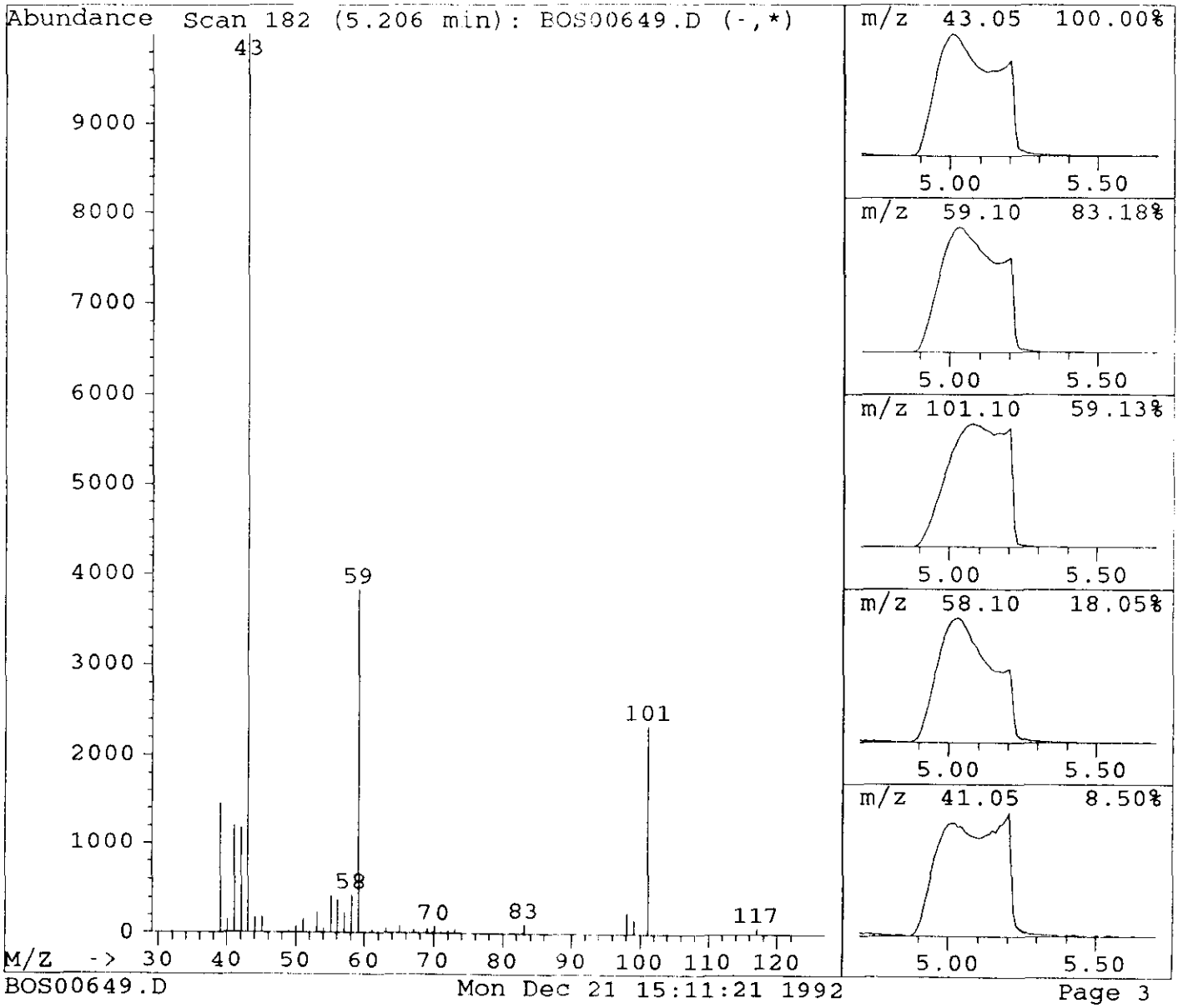
Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 20 Nov 92 2:36 pm
Data File: C:\CHEMPC\DATA\112092\BOS00649.D
Name:
Misc: SBLK01(METHOD BLK)(D21028.500)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
5.21	77.71 ug/kg	8644994	1,4-Dichlorobenzene-d4	9.10

Hit# of 0	Tentative ID	Ref#	CAS#	Qual
1	No Hits From nbs54k.l	0	000000-00-0	0



Tentatively Identified Compound (LSC)

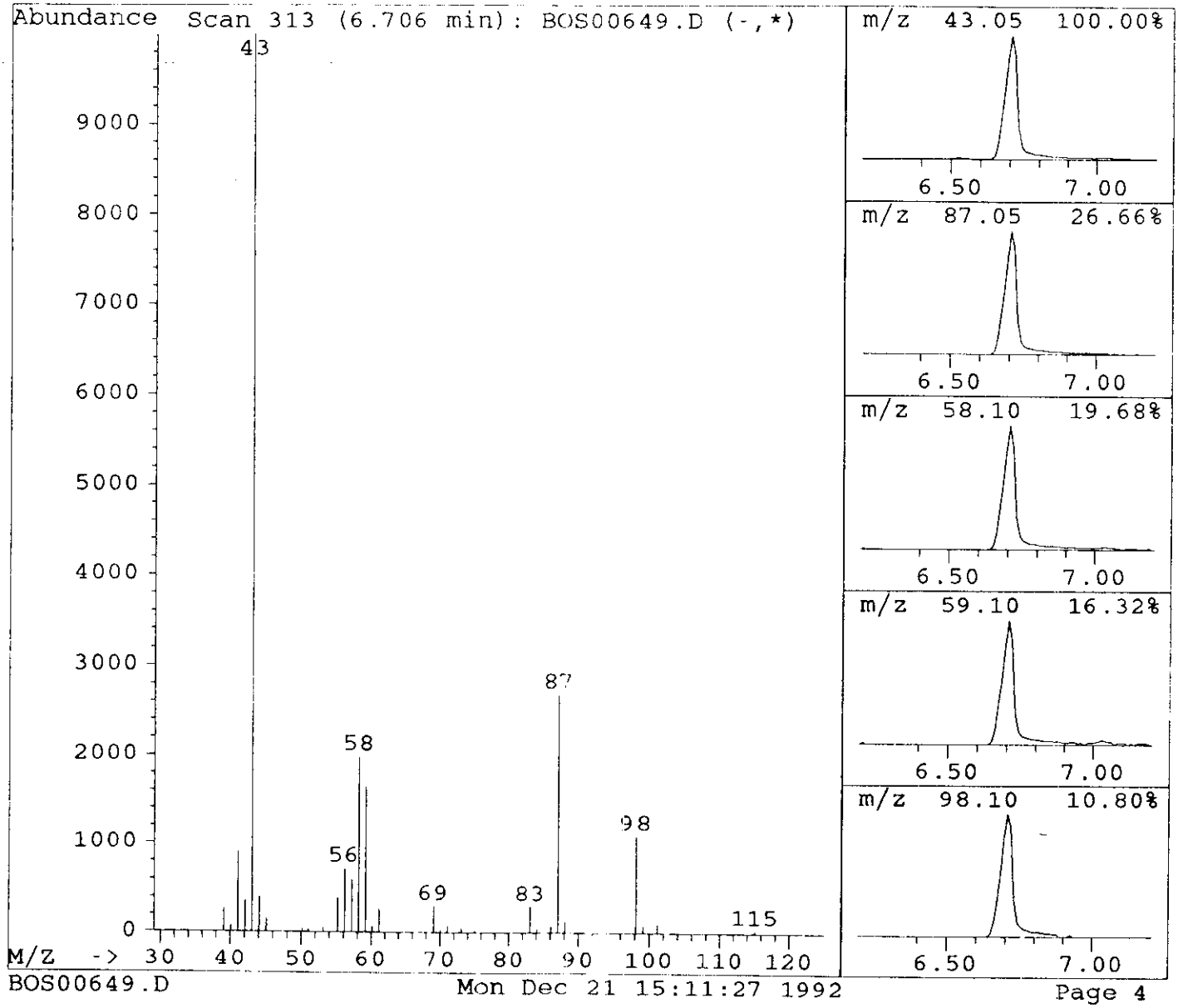
Operator ID: MDB Date Acquired: 20 Nov 92 2:36 pm
Data File: C:\CHEMPC\DATA\112092\BOS00649.D
Name:
Misc: SBLK01(METHOD BLK)(D21028.500)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
6.71	23.37 ug/kg	2599277	1,4-Dichlorobenzene-d4	9.10

Hit# of 0	Tentative ID	Ref#	CAS#	Qual
1	No Hits From nbs54k.l	0	000000-00-0	0

AC



1B

SEMI VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: PACE, INC. Contract:

Lab Code: D21102.502 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: SBLK02

Sample wt/vol: 30 (g/mL) G Lab File ID: BOS00723.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/8/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/9/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
95-50-1	1,2-Dichlorobenzene	660	U
39638-32-9	2,2'-oxybis(1-Chloropropane)	660	U
95-48-7	2-Methylphenol	660	U
67-72-1	Hexachloroethane	660	U
621-64-7	N-Nitroso-di-n-propylamine	660	U
106-44-5	4-Methylphenol	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
111-91-1	bis(2-Chloroethoxy)methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-29-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3400	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3400	U
208-96-8	Acenaphthylene	660	U
131-11-3	Dimethylphthalate	660	U
606-20-2	2,6-Dinitrotoluene	660	U
83-32-9	Acenaphthene	660	U
99-09-2	3-Nitroaniline	3400	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: PACE, INC. Contract: _____

Lab Code: D21102.502 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: SBLK02

Sample wt/vol: 30 (g/mL) G Lab File ID: BOS00723.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/8/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/9/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	3400	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
100-02-7	4-Nitrophenol	3400	U
86-73-7	Fluorene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
534-52-1	4,6-Dinitro-2-methylphenol	3400	U
100-01-6	4-Nitroaniline	3400	U
86-30-6	N-Nitrosodiphenylamine	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3400	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
86-74-8	Carbazol	660	U
84-74-2	Di-n-butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
56-55-3	Benzo(a)anthracene	660	U
218-01-9	Chrysene	660	U
91-94-1	3,3'-Dichlorobenzidine	660	U
117-81-7	Bis(2-ethylhexyl)phthalate	660	U
117-84-0	Di-n-octylphthalate	660	U
205-99-2	Benzo(b)fluoranthene	660	U
207-08-9	Benzo(k)fluoranthene	660	U
50-32-8	Benzo(a)pyrene	660	U
193-39-5	Indendo(1,2,3-cd)pyrene	660	U
53-70-3	Dibenz(a,h)anthracene	660	U
191-24-2	Benzo(g,h,i)perylene	660	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SBLK02

Lab Name: PACE, INC. Contract:

Lab Code: D211(Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: SBLK02

Sample wt/vol: 30 (g/mL) G Lab File ID: BOS00723.D

Level: (low/med) LOW Date Received: 11/2/92

% Moisture: 0 decanted: (Y/N) N Date Extracted: 12/8/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/9/92

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y pH: 6.8

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Aldol Condensate	4.95	240000	J
2.				
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QUANT REPORT

Operator ID: MDB Date Acquired: 9 Dec 92 9:00 pm
Data File: C:\CHEMPC\DATA\120992\BOS00723.D
Name:
Misc: METHOD BLK(D21015.500,1102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M (Blk x 2)
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Single Level Calibration

Internal Standards

Compound	R.T.	Qion	Area	Conc	Unit	Dev(Min)
8) 1,4-Dichlorobenzene-d4	9.01	152	488965	40.00	ug/kg	-0.04
25) Naphthalene-d8	13.55	136	1811420	40.00	ug/kg	-0.08
40) Acenaphthene-d10	20.63	164	708113	40.00	ug/kg	-0.07
57) Phenanthrene-d10	26.62	188	1002184	40.00	ug/kg	-0.08
67) Chrysene-d12	35.61	240	711236	40.00	ug/kg	-0.08
75) Perylene-d12	39.03	264	643156	40.00	ug/kg	-0.08

System Monitoring Compounds

						%Recovery
1) 2-Fluorophenol	5.78	112	1853571	96.33	ug/kg	48.16%
3) Phenol-d5	8.46	99	2382973	83.41	ug/kg	41.71%
5) 2-Chlorophenol-d4	8.51	132	1870920	83.24	ug/kg	41.62%
10) 1,2-Dichlorobenzene-d4	9.62	152	506384	39.36	ug/kg	39.36%
17) Nitrobenzene-d5	11.00	82	787409	39.57	ug/kg	39.57%
33) 2-Fluorobiphenyl	18.09	172	1119229	36.14	ug/kg	36.14%
53) 2,4,6-Tribromophenol	23.95	330	306416	72.21	ug/kg	36.11%
64) Terphenyl-d14	32.89	244	1006227	49.01	ug/kg	49.01%

Target Compounds ISTD#

Ø

PQLs at 66X

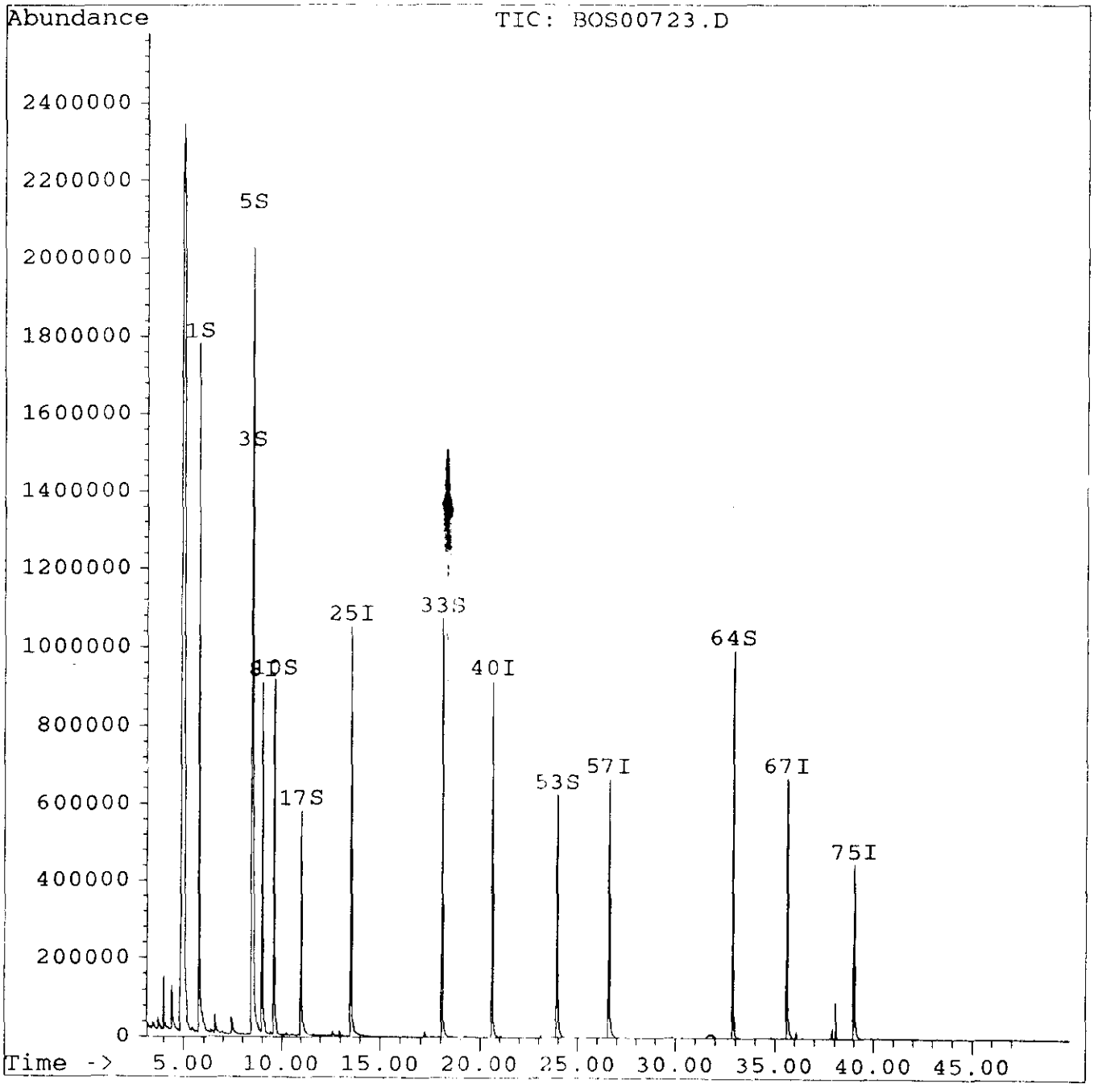
330 µg/kg x 2 = 660 µg/kg

12/23/92
MB

(#) = qualifier out of range

QUANT REPORT

Operator ID: MDB Date Acquired: 9 Dec 92 9:00 pm
Data File: C:\CHEMPC\DATA\..20992\BOS00723.D
Name:
Misc: METHOD BLK(D21015.500,1102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992
Quantitated using Single Level Calibration

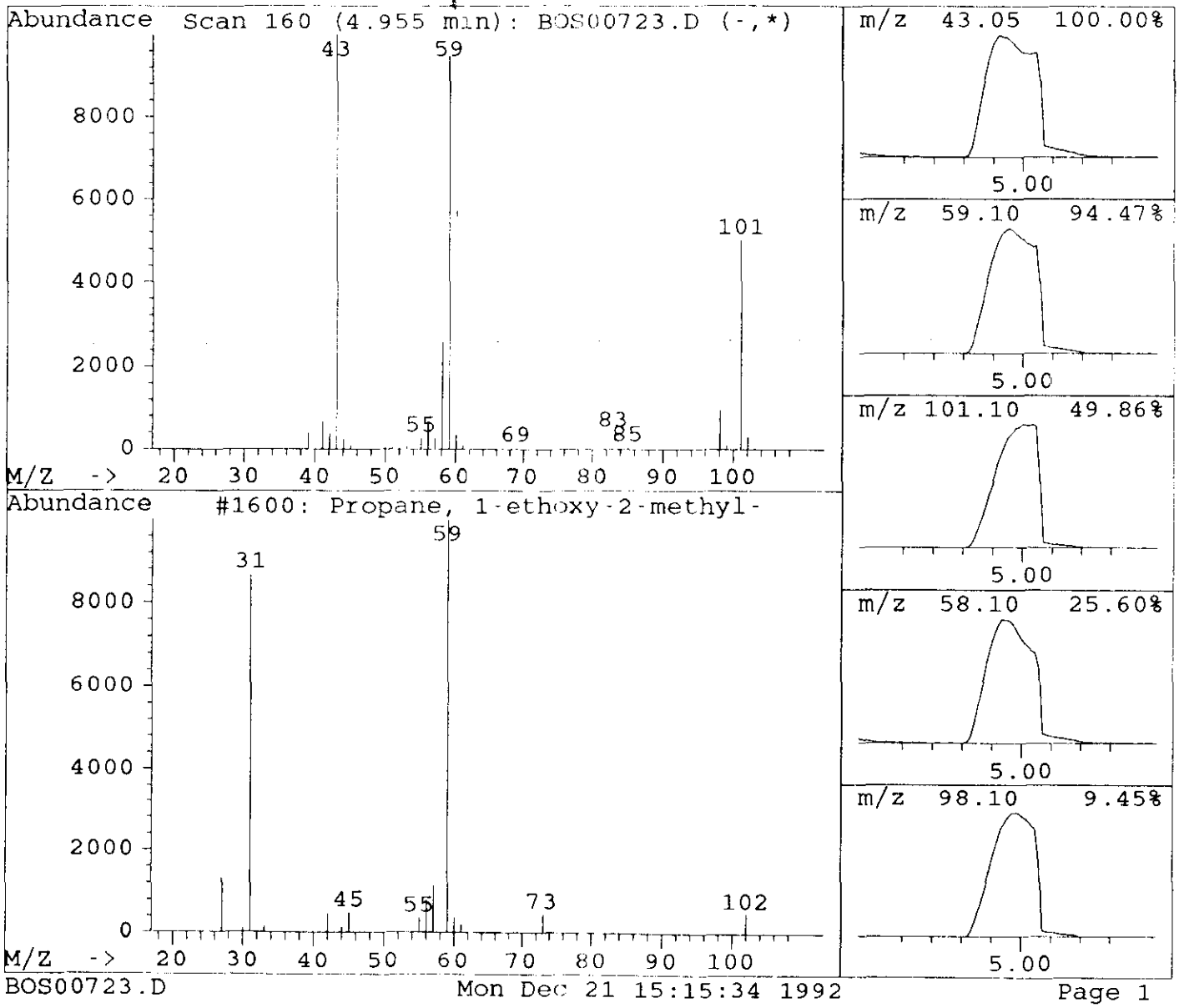


Tentatively Identified Compound (LSC)

Operator ID: MDB Date Acquired: 9 Dec 92 9:00 pm
Data File: C:\CHEMPC\DATA\120992\BOS00723.D
Name:
Misc: METHOD BLK(D21015.500,1102.502)30.0g/1.0ml;2X
Method: MOSCLPS.M (:BLK02)
Title: MOSCLP
Last Calibration: Mon Dec 21 14:26:04 1992

Library Searched: nbs54k.l

R.T.	Conc	Area	Relative to ISTD	R.T.
4.95	366.38 ug/kg	26508452	1,4-Dichlorobenzene-d4	9.01

Hit# of 1	Tentative ID	Ref#	CAS#	Qual
1	Propane, 1-ethoxy-2-methyl-	1600	000627-02-1	35

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