Versar INC.

ORIGINAL
(Red)

441323

VOLATILE ANALYSIS
ANALYTICAL DATA PACKAGE

CLIENT : VERSAR DIV 31
SITE : CDM
PROJECT: 420.1
CONTROL: 2548/2565
DATE : 05/18/90

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DELIVERABLES INDEX -- VOA ANALYSES ONLY

I. CASE NARRATIVE

A. The narrative contains: case and contract numbers, summary of QC analyses, discussion of any analytical problems, and documentation of all corrective actions.
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   Note: Samples arranged in alpha-numeric sequence.

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V. RAW QC DATA

A. BFB (For each 12-hour period, for each GC/MS system)
   1. Bar graph spectrum
   2. Mass listing

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V. RAW QC DATA (CONT'D)

B. Reagent Blank Data
   1. Organic Analysis Data Sheet (Form I)
   2. Tentatively Identified Compounds (TIC)
   3. Raw Data
      a. Reconstructed ion chromatogram(s) and quantitation report(s).
      b. HSL spectra with lab generated standard
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   2. Reconstructed ion chromatograms and quantitation reports.

VI. SAMPLE PREPARATION

A. Parameter Request Sheet
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C. VOA Sample Comments
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I. NARRATIVE

II. QC SUMMARY

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May 18, 1990

Narrative
Versar Division 31 - CDM
Volatile Organic Analysis - EPA CLP Protocol
Versar Project 420.1 - Batches 3 and 4
Control 2548/2565

This report contains the analytical data for the volatile organic analysis of fourteen (14) water samples and nine (9) soil samples. The samples listed below arrived at Versar in two batch shipments on April 20 and 23, 1990. Results from the Toxicity Characteristic Leaching Procedure (TCLP) will be reported separately. Results for additional analytical parameters, including semivolatile organic analysis and TCLP, are provided separately.

SAMPLE LIST

DATE RECD:	04/20/90		04/23/90	
	MW-38	GW-1	GW-1	12
	MW-43	TB1	TB-2	13
	MW-53	TB1A	4	14
	MW-79	TB2	8	15
	MW-79A	TB3A	9	
	SW-1	TB4A	10	
	SW-2	TB5B	11	

//

GC/MS instrument calibration using BFB met requirements for volatile organic analysis. SPCC and CCC criteria were met for the volatile initial calibration curves and the continuing calibration standards. All GC/MS analyses occurred during the twelve hour period that followed daily instrument calibration. All sample analyses for volatile organic compounds were completed eleven days after sample receipt.

Volatile surrogate standard recovery values did not meet specified QC limits for all analyses. Internal standard area abundances and associated relative retention times were within specified QC windows for most analyses. Samples with surrogate or internal standard outlier values were reanalyzed (-RE). All outlier values were replicated and both sets of data are included in this report. One set of matrix spike and matrix spike duplicate (MS/MSD) QC analyses was analyzed for the water matrix in these batch shipments of samples. All recovery and relative (RPD) values were within specified limits. The samples were analyzed without dilution. Nontarget compounds were tentatively identified using the EPA/NBS Mass Spectral Database Library.

Detection limits and concentrations of volatile organic compounds in the soil samples are reported on a "dry weight" basis, which accounts for the moisture content of the samples.

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Definitions of data qualifier flags used on the individual data summary pages are provided in the listing which immediately follows this case narrative.

Please contact Janet Beckman, Laboratory Project Manager, should you have any questions or require additional information pertaining to the volatile organic analysis of these samples.

Data Release Approved By:

Linda E Bock

Linda E. Bock
GC/MS Data Quality Manager
Laboratory Operations

Narrative Reviewed By:

Janet Beckman for

Lawrence P. Pollack
GC/MS Quality Assurance Manager

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Data Qualifier Flags

J For Target Compounds: This flag is used when mass spectral data indicates the presence of a compound but the result is less than the specified detection limit but still greater than zero.

For Non Target Compounds: This flag indicates that the concentration is an estimated value, assuming a 1 to 1 response with the internal standard.

B This flag is used when the analyte is found in the blank as well as in the sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

u This flag states that the compound was analyzed for but was not detected. The number is the minimum attainable detection limit for the sample.

X or T This flag states that the mass spectrum does not meet EPA CLP criteria for confirmation, but compound presence is strongly suspected.

E This flag is used to indicate that the quantitation of the analyte is outside the linear calibration of the curve and that dilution was required in order to properly quantitate.

D This flag is used to indicate the value for the target analyte was calculated from a dilution (see "E" flag above).

Y This flag is used when a matrix spike compound is also confirmed present in the unspiked sample.

Flags excerpted from and established by the US EPA Contract Lab Program (CLP) protocol.

2A
WATER VOLATILE SURROGATE RECOVERY

ORIGINAL

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
01	GW1	101	99	107	0	0
02	MW38	104	92	95	0	0
03	MW43	102	94	110	0	0
04	MW53	104	94	102	0	0
05	MW79	104	96	114	0	0
06	MW79A	103	94	112	0	0
07	SW1	95	95	110	0	0
08	SW2	102	97	111	0	0
09	TB1A	104	92	108	0	0
10	TB2	102	96	113	0	0
11	TB3A	104	97	110	0	0
12	TB4A	101	94	109	0	0
13	TB5B	102	92	109	0	0
14	TB_1	104	93	112	0	0
15	SW1MS	102	100	115 *	0	1
16	SW1MSD	102	101	115 *	0	1
17	VBLK17	103	94	105	0	0
18	VBLK37	102	94	105	0	0
19	VBLK50	99	92	103	0	0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(88-110)
S2 (BFB)	= Bromofluorobenzene	(86-115)
S3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
01	10	126 *	70 *	80	0	2
02	10-RE	122 *	58 *	71	0	2
03	11	104	85	86	0	0
04	12	112	76	83	0	0
05	13	100	90	81	0	0
06	14	99	85	83	0	0
07	15	100	88	82	0	0
08	4	104	77	85	0	0
09	4-RE	105	86	78	0	0
10	8	122 *	71 *	85	0	2
11	8-RE	112	69 *	81	0	1
12	9	115	78	83	0	0
13	9-RE	104	74	83	0	0
14	VBLK63	100	99	94	0	0
15	VBLK45	96	95	94	0	0
16	VBLK80	98	100	89	0	0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(81-117)
S2 (BFB)	= Bromofluorobenzene	(74-121)
S3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix Spike - EPA Sample No.: SW1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0	43.2	86	61-145
Trichloroethene	50.0	0	47.9	96	71-120
Benzene	50.0	0	55.6	111	76-127
Toluene	50.0	0	48.4	97	76-125
Chlorobenzene	50.0	0	52.2	104	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.0	46.1	92	-7	14	61-145
Trichloroethene	50.0	51.6	103	-7	14	71-120
Benzene	50.0	59.3	119	-7	11	76-127
Toluene	50.0	52.4	105	-8	13	76-125
Chlorobenzene	50.0	56.9	114	-9	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: CLP,,,VSTD20,L,W,17503,V,CC-020,25ML
INST R: SP1000 60/80 CARBOPACK 2M@45C > 225C@8C/M > 30M@225C

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Lab File ID: Y1217 Lab Sample ID: VBLK17

Date Analyzed: 04/30/90 Time Analyzed: 1142

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: Y

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	TB5B	16710	Y1229	1730

COMMENTS: CLP,,,VBLK17,L,W,VBLK17,V,BLANK,,,5ML
INST Y:RTX-502.2,60METER,0.32MM ID,60C(.5MIN) TO 220 @20C/MIN

FORM IV VOA 1/87 Rev.

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Lab File ID: Y1237 Lab Sample ID: VBLK37

Date Analyzed: 04/30/90 Time Analyzed: 2332

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: _____

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW38	16699	Y1242	0216
02	MW43	16700	Y1243	0245
03	MW53	16701	Y1244	0314
04	MW79	16702	Y1245	0343
05	MW79A	16703	Y1246	0413
06	TB1A	16707	Y1240	0119
07	TB3A	16708	Y1239	0053
08	TB4A	16709	Y1238	0015
09	TB_1	16706	Y1241	0147

COMMENTS: CLP,,,VBLK37,L,W,VBLK37,V,,,5ML
INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Lab File ID: Y1250 Lab Sample ID: VBLK50

Date Analyzed: 05/01/90 Time Analyzed: 0958

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: Y

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	GW1	16958	Y1265	1730
02	SW1	16704A	Y1251	1046
03	SW2	16705A	Y1258	1356
04	TB2	16959A	Y1257	1328
05	SW1MS	16704A	Y1252	1110
06	SW1MSD	16704A	Y1253	1137

COMMENTS: CLP,,,VBLK50,L,W,VBLK50,V,BLANK,,,5ML
INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN

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4A
VOLATILE METHOD BLANK SUMMARY

ORIGINAL

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Lab File ID: U3463 Lab Sample ID: VBLK63

Date Analyzed: 05/02/90 Time Analyzed: 0910

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: U

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	10	16952	U3467	1212
02	11	16953	U3469	1415
03	12	16954	U3470	1456
04	13	16955	U3471	1538
05	14	16956	U3468	1332
06	15	16957	U3472	1619
07	8	16950	U3465	1048
08	9	16951	U3466	1130

COMMENTS: CLP,,,VBLK63,L,S,VBLK63,V,BLANK,,5 ML,,
INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Lab File ID: U3545 Lab Sample ID: VBLK45

Date Analyzed: 05/08/90 Time Analyzed: 1341

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: U

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	10-RE	16952-RE	U3553	1937
02	4	16949	U3550	1730
03	8-RE	16950-RE	U3551	1813
04	9-RE	16951-RE	U3552	1855

COMMENTS: CLP,,,VBLK45,L,S,VBLK45,V,BLANK,,5 ML,,
INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Lab File ID: U3580 Lab Sample ID: VBLK80

Date Analyzed: 05/10/90 Time Analyzed: 1033

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: U

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	4-RE	16949-RE	U3581	1129

COMMENTS: CLP,,,VBLK80,L,S,VBLK80,V,BLANK,,5 ML,,
INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

La Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Lab File ID: Y1137 BFB Injection Date: 04/25/90

Instrument ID: Y BFB Injection Time: 0939

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.1
75	30.0 - 60.0% of mass 95	46.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	94.2
175	5.0 - 9.0% of mass 174	7.2 (7.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	90.9 (96.5)1
177	5.0 - 9.0% of mass 176	6.6 (7.3)2

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

Th. TUNE 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	22536	Y1138	04/25/90	1023
02	VSTD200	22539	Y1139	04/25/90	1136
03	VSTD150	22540	Y1140	04/25/90	1250
04	VSTD100	22541	Y1141	04/25/90	1325
05	VSTD020	22542	Y1142	04/25/90	1402

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

La Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Lab File ID: Y1214 BFB Injection Date: 04/30/90

Instrument ID: Y BFB Injection Time: 0919

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.5
75	30.0 - 60.0% of mass 95	46.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	89.9
175	5.0 - 9.0% of mass 174	6.4 (7.1)1
176	Greater than 95.0%, but less than 101.0% of mass 174	87.6 (97.4)1
177	5.0 - 9.0% of mass 176	6.9 (7.9)2

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

TH. 3 TUNE 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	22564	Y1215	04/30/90	1015
02	VBLK17	VBLK17	Y1217	04/30/90	1142
03	TB5B	16710	Y1229	04/30/90	1730

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5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

La Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Lab File ID: Y1235 BFB Injection Date: 04/30/90

Instrument ID: Y BFB Injection Time: 2139

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.9
75	30.0 - 60.0% of mass 95	45.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	94.8
175	5.0 - 9.0% of mass 174	7.2 (7.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	91.9 (96.9)1
177	5.0 - 9.0% of mass 176	6.6 (7.2)2

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

Th. TUNE 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	22578	Y1236	04/30/90	2249
02	VBLK37	VBLK37	Y1237	04/30/90	2332
03	TB4A	16709	Y1238	05/01/90	0015
04	TB3A	16708	Y1239	05/01/90	0053
05	TB1A	16707	Y1240	05/01/90	0119
06	TB_1	16706	Y1241	05/01/90	0147
07	MW38	16699	Y1242	05/01/90	0216
08	MW43	16700	Y1243	05/01/90	0245
09	MW53	16701	Y1244	05/01/90	0314
10	MW79	16702	Y1245	05/01/90	0343
11	MW79A	16703	Y1246	05/01/90	0413

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Lab File ID: Y1248 BFB Injection Date: 05/01/90

Instrument ID: Y BFB Injection Time: 0815

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.8
75	30.0 - 60.0% of mass 95	47.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	93.3
175	5.0 - 9.0% of mass 174	7.1 (7.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	90.6 (97.1)1
177	5.0 - 9.0% of mass 176	6.6 (7.3)2

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

THIS TUNE 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	22580	Y1249	05/01/90	859
02	VBLK50	VBLK50	Y1250	05/01/90	0958
03	SW1	16704A	Y1251	05/01/90	1046
04	SW1MS	16704A	Y1252	05/01/90	1110
05	SW1MSD	16704A	Y1253	05/01/90	1137
06	TB2	16959A	Y1257	05/01/90	1328
07	SW2	16705A	Y1258	05/01/90	1356
08	GW1	16958	Y1265	05/01/90	1730

FORM V VOA 1/87 Rev.

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Lab File ID: U3426 BFB Injection Date: 04/30/90

Instrument ID: U BFB Injection Time: 1540

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.1
75	30.0 - 60.0% of mass 95	35.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	63.0
175	5.0 - 9.0% of mass 174	4.6 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	61.0 (96.9)1
177	5.0 - 9.0% of mass 176	4.3 (7.0)2

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

TI TUNE 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	22570	U3427	04/30/90	1617
02	VSTD200	22572	U3428	04/30/90	1730
03	VSTD150	22573	U3429	04/30/90	1812
04	VSTD100	22575	U3430	04/30/90	1854
05	VSTD020	22576	U3431	04/30/90	1936

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5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Lab File ID: U3461 BFB Injection Date: 05/02/90

Instrument ID: U BFB Injection Time: 0735

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.5
75	30.0 - 60.0% of mass 95	41.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	56.5
175	5.0 - 9.0% of mass 174	4.0 (7.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	54.4 (96.2)1
177	5.0 - 9.0% of mass 176	3.1 (5.7)2

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

TI. TUNE 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	22583	U3462	05/02/90	808
02	VBLK63	VBLK63	U3463	05/02/90	0910
03	8	16950	U3465	05/02/90	1048
04	9	16951	U3466	05/02/90	1130
05	10	16952	U3467	05/02/90	1212
06	14	16956	U3468	05/02/90	1332
07	11	16953	U3469	05/02/90	1415
08	12	16954	U3470	05/02/90	1456
09	13	16955	U3471	05/02/90	1538
10	15	16957	U3472	05/02/90	1619

FORM V VOA 1/87 Rev. 00020

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Lab File ID: U3539 BFB Injection Date: 05/08/90

Instrument ID: U BFB Injection Time: 0823

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.8
75	30.0 - 60.0% of mass 95	45.7
5	Base peak, 100% relative abundance	100.0
6	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	67.0
175	5.0 - 9.0% of mass 174	5.2 (7.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	65.6 (97.9)1
177	5.0 - 9.0% of mass 176	5.4 (8.3)2

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

THE TUNE 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	22644	U3540	05/08/90	854
02	VSTD200	22645	U3541	05/08/90	959
03	VSTD150	22647	U3542	05/08/90	1041
04	VSTD100	22649	U3543	05/08/90	1123
05	VSTD020	22656	U3544	05/08/90	1205
06	VBLK45	VBLK45	U3545	05/08/90	1341
07	4	16949	U3550	05/08/90	1730
08	8-RE	16950-RE	U3551	05/08/90	1813
09	9-RE	16951-RE	U3552	05/08/90	1855
10	10-RE	16952-RE	U3553	05/08/90	1937

FORM V VOA 1/87 Rev.

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Lab File ID: U3578 BFB Injection Date: 05/10/90

Instrument ID: U BFB Injection Time: 0840

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.9
75	30.0 - 60.0% of mass 95	50.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	77.7
175	5.0 - 9.0% of mass 174	5.9 (7.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	75.3 (96.9)1
177	5.0 - 9.0% of mass 176	6.0 (8.0)2

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

TH. TUNE 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	22674	U3579	05/10/90	931
02	VBLK80	VBLK80	U3580	05/10/90	1033
03	4-RE	16949-RE	U3581	05/10/90	1129

FORM V VOA 1/87 Rev. 100022

Versar INC.

III. SAMPLE DATA PACKAGE

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW38 ORIGINAL

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16699

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1242

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	4	J
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW38

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16699

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1242

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

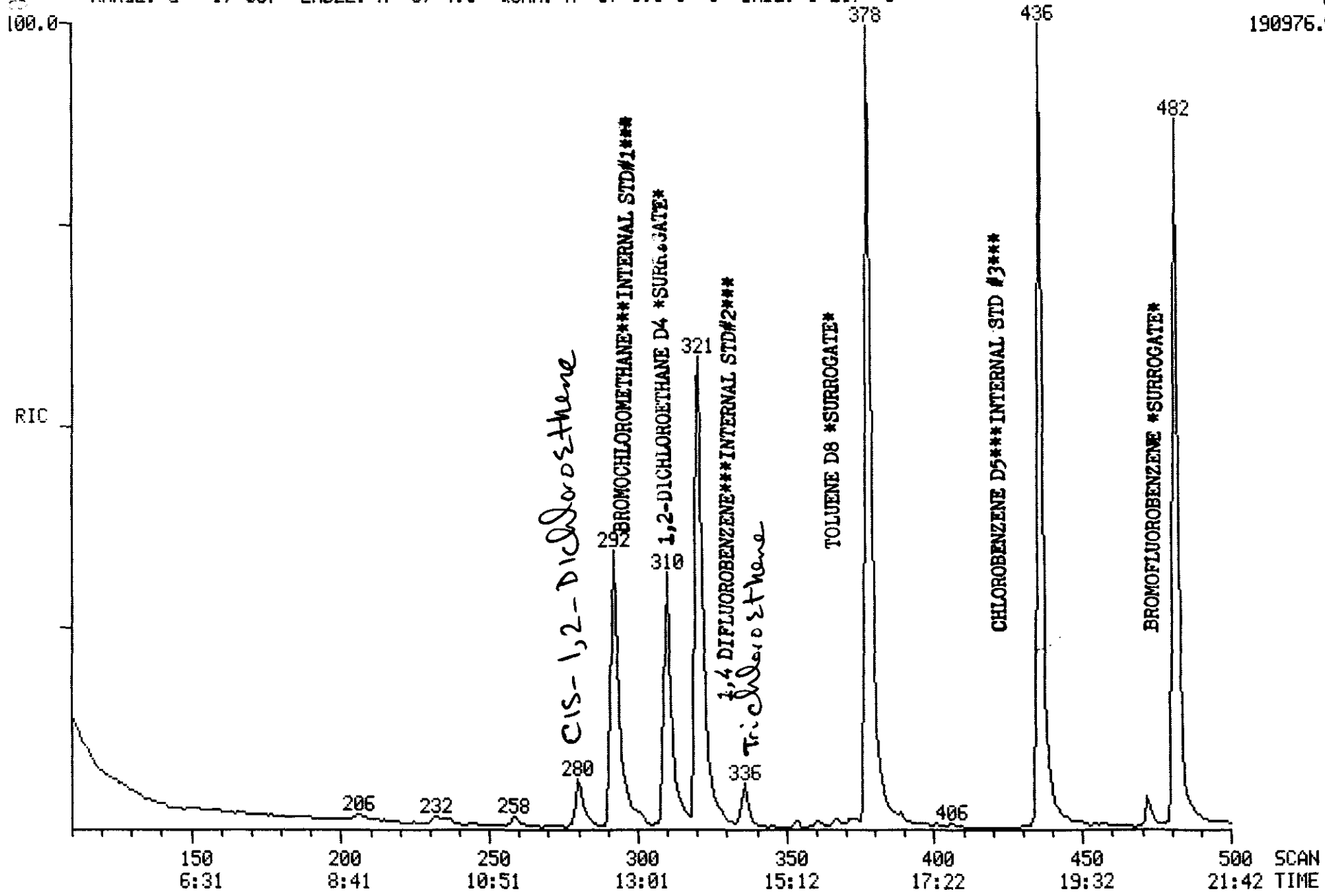
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: Y1242 #1 SCANS 110 TO 500
05/01/90 2:16:00 CALI: Y1242 #3
SAMPLE: CLP,VERSCDM,2548,MW38,L,W,16699,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y1242

Data: Y1242.TI
05/01/90 2:16:00
Sample: CLP,VERSCDM,2548,MW38,L,W,16699,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Formula: RTX-502.2,20C(.5MIN) Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

Y1242

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	292	12:41	1	1.000	A BB	37038. ✓	50.000 UG/L*	15.59
2	114	320	13:54	2	1.000	A BB	159522. ✓	50.000 UG/L*	15.59
3	82	436	18:56	3	1.000	A BB	74664. ✓	50.000 UG/L*	15.59
4	65	310	13:28	2	0.969	A BB	68284.	47.602 UG/L%	14.84 95%
5	98	378	16:25	2	1.181	A VB	189764.	51.888 UG/L%	16.18 104%
6	95	482	20:56	3	1.106	A BB	76533.	46.125 UG/L%	14.38 92%
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	232	10:04	1	0.795	A BB	1663.	~~1.477 UG~~/L	0.46
12	43	207	8:59	1	0.709	A BB	3440.	~~6.597~~ UG/L	2.06
13	NOT FOUND								
14	NOT FOUND								
15	63	259	11:15	1	0.887	A BB	5713.	~~2.755~~ UG/L	0.86
16	NOT FOUND								
17	97	301	13:04	1	1.031	A BB	1481.	~~0.690 UG~~/L	0.22
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	130	336	14:35	2	1.050	A BB	5634.	3.847 UG/L	1.20
25	NOT FOUND								
26	NOT FOUND								
27	78	316	13:43	2	0.988	A BB	501.	~~0.157 UG~~/L	0.05
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	91	381	16:33	3	0.874	A BB	1817.	~~0.502 UG~~/L	0.16
36	NOT FOUND								
37	106	439	19:04	3	1.007	A BB	264.	~~0.207 UG~~/L	0.07
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	106	439	19:04	3	1.007	A BB	264.	~~0.087 UG~~/L	0.03
42	NOT FOUND								
43	96	280	12:09	1	0.959	A BB	10093.	8.792 UG/L	2.74

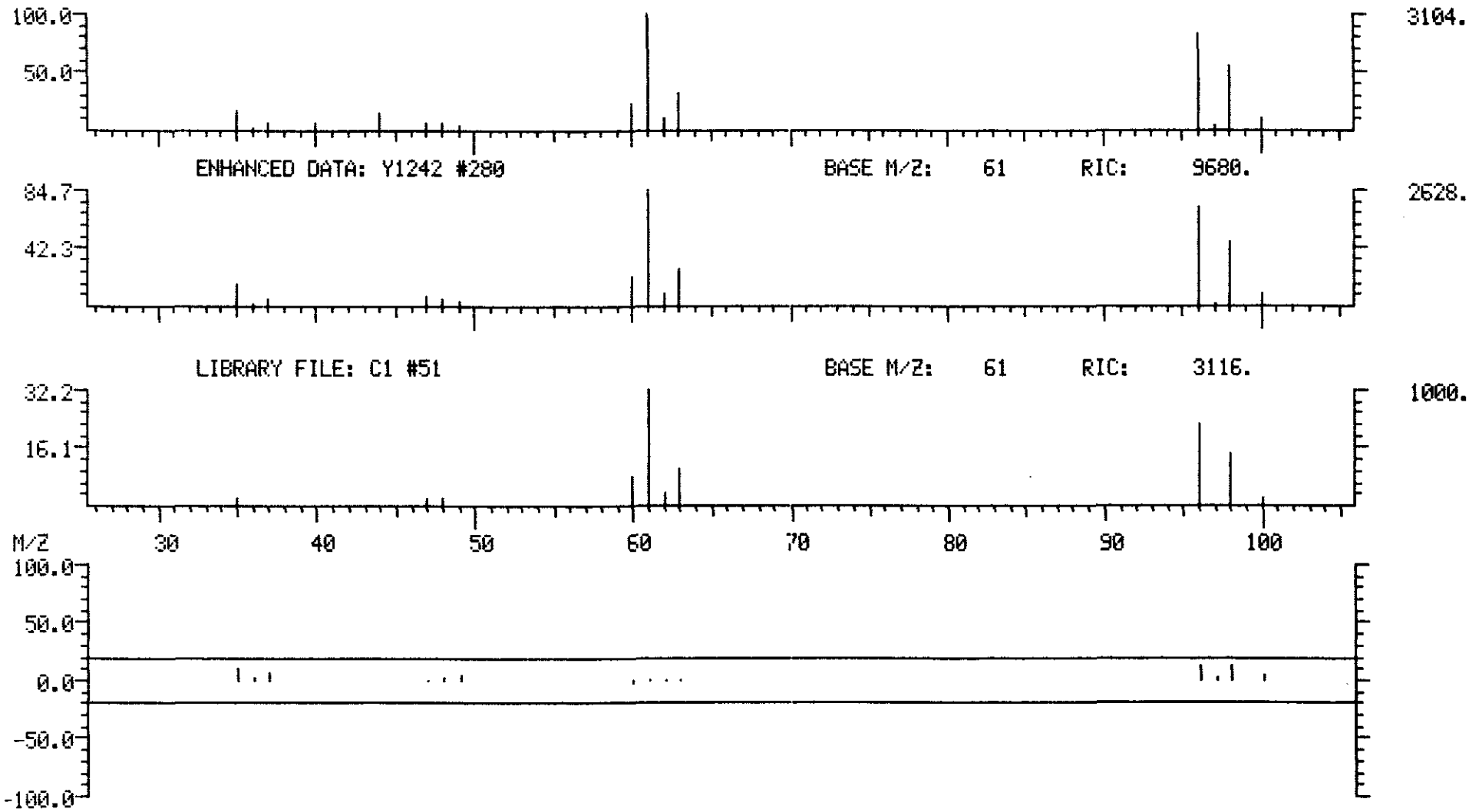
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	47.60	50.00	0.428	0.450	0.95
5	16:27	1.00	1.181	1.00	51.89	50.00	1.190	1.146	1.04
6	20:58	1.00	1.105	1.00	46.13	50.00	1.025	1.111	0.92
7	5:59		0.471						
8	7:25		0.584						
9	6:20		0.498						
10	7:36		0.597						
11	10:04	1.00	0.792	1.00	1.48	50.00	0.045	1.520	0.03

Y1242

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.706	1.00	6.60	50.00	0.093	0.704	0.13
13	10:23		0.816						
14	9:17		0.730						
15	11:15	1.00	0.884	1.00	2.75	50.00	0.154	2.799	0.06
16	12:25		0.976						
17	13:04	1.00	1.027	1.00	0.69	50.00	0.040	2.896	0.01
18	11:46		0.925						
19	13:33		0.972						
20	11:04		0.870						
21	15:14		1.093						
22	14:51		1.065						
23	15:59		1.146						
24	14:35	1.00	1.047	1.00	3.85	50.00	0.035	0.459	0.08
25	18:01		0.950						
26	17:01		0.897						
27	13:46	1.00	0.988	1.00	0.16	50.00	0.003	0.999	0.00
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48		0.886						
32	15:27		1.109						
33	17:40		0.931						
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	0.50	50.00	0.024	2.422	0.01
36	19:04		1.005						
37	19:01	1.00	1.002	1.00	0.21	50.00	0.004	0.844	0.00
38	19:56		1.050						
39	19:53		1.048						
40	13:38		0.978						
41	19:06	1.00	1.007	1.00	0.09	50.00	0.004	2.024	0.00
42	10:36		0.833						
43	12:12	1.00	0.959	1.00	8.79	50.00	0.273	1.550	0.18

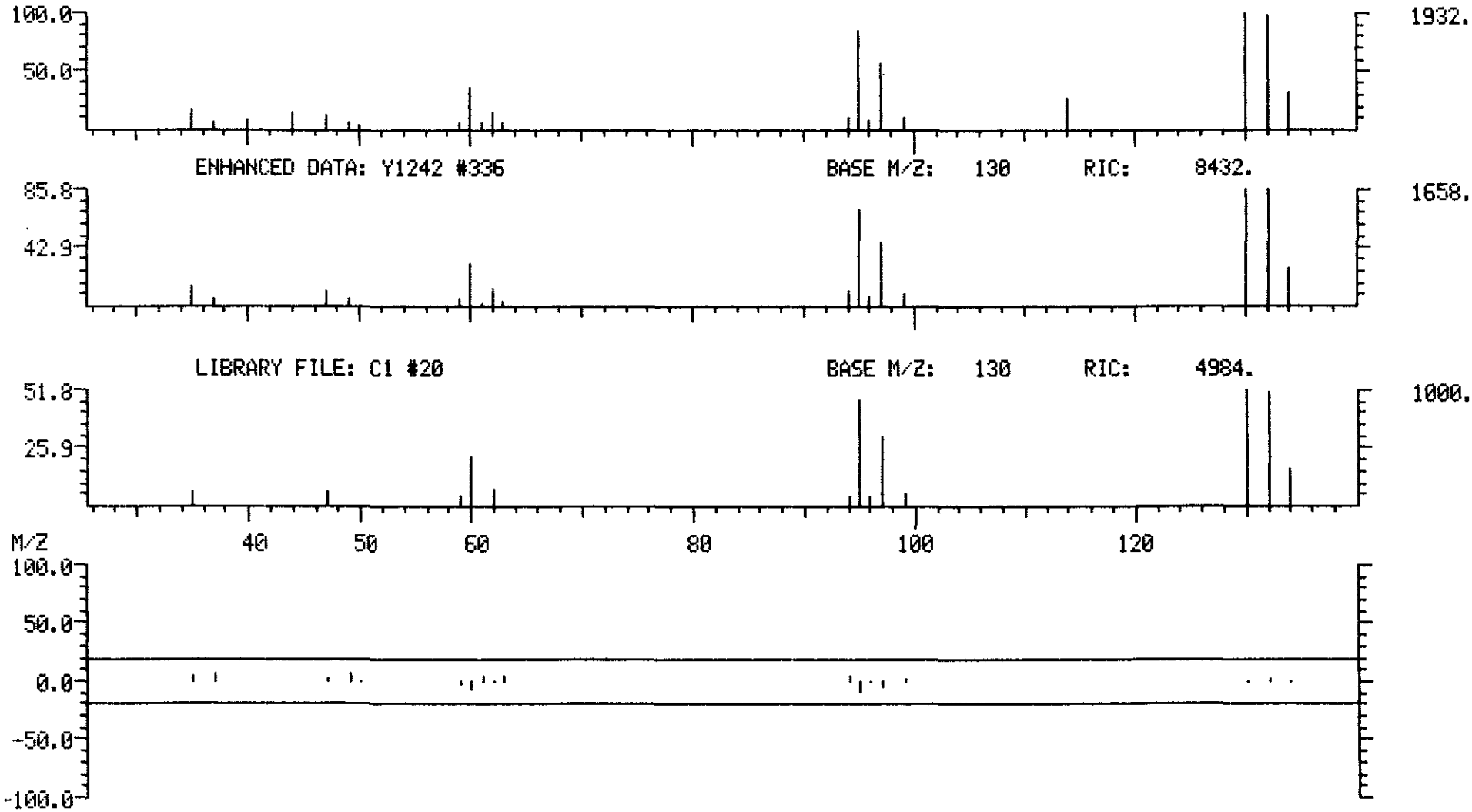
DATA FILE: Y1242 #280 LIBRARY FILE: C1 #51
TARGET COMPOUND COMPARISON CALI: Y1242 #3
COMPOUND: C055 CIS-1,2-DICHLOROETHENE

RAW DATA: Y1242 #280 BASE M/Z: 61 RIC: 11968.
05/01/90 2:16



DATA FILE: Y1242 #336 LIBRARY FILE: C1 #20
TARGET COMPOUND COMPARISON CALI: Y1242 #3
COMPOUND: C150 TRICHLOROETHENE

RAW DATA: Y1242 #336 BASE M/Z: 130 RIC: 11072.
05/01/90 2:16



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW43

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16700

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1243

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	7	J
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	13	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW43

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16700

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1243

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

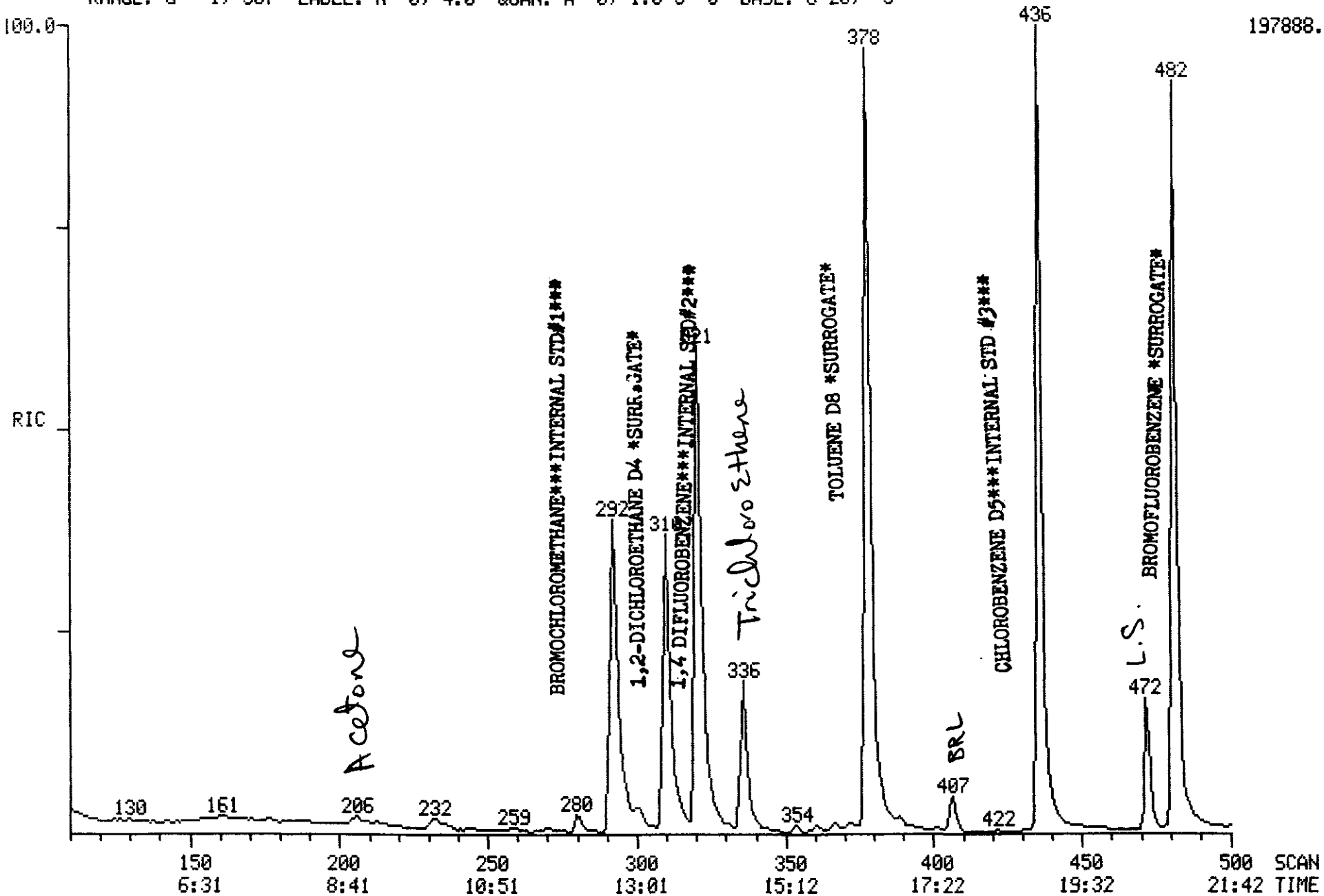
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-56-5	BUTANE, 1,4-DICHLORO-	20.50	7.9	J

RIC DATA: Y1243 #1 SCANS 110 TO 500
05/01/90 2:45:00 CALI: Y1243 #3
SAMPLE: CLP,VERSCOM,2548,MW43,L,W,16700,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y1243

Data: Y1243.TI
05/01/90 2:45:00
Sample: CLP,VERSCDM,2548,MW43,L,W,16700,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Formula: RTX-502.2,20C(.5MIN) Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
T 12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Y1243

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	292	12:41	1	1.000	A BB	43819.	50.000 UG/L*	14.83	
2	114	321	13:56	2	1.000	A BB	163100.	50.000 UG/L*	14.83	
3	82	436	18:56	3	1.000	A BB	78134.	50.000 UG/L*	14.83	
4	65	310	13:28	2	0.966	A BB	80873.	55.141 UG/L%	16.35	110%
5	98	378	16:25	2	1.178	A BB	191106.	51.109 UG/L%	15.16	102%
6	95	482	20:56	3	1.106	A BB	81585.	46.987 UG/L%	13.94	94%
7	NOT FOUND									
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	84	232	10:04	1	0.795	A BB	1722.	~~1.293 UG/L~~	0.38	
12	43	207	8:59	1	0.709	A BB	4542.	(T) 7.362 UG/L	2.18	
13	NOT FOUND									
14	96	214	9:17	1	0.733	A BB	525.	~~0.434 UG/L~~	0.13	
15	63	259	11:15	1	0.887	A BB	2614.	~~1.065 UG/L~~	0.32	
16	NOT FOUND									
17	97	301	13:04	1	1.031	A BB	4238.	~~1.670 UG/L~~	0.50	
18	72	271	11:46	1	0.928	A BB	273.	~~1.944 UG/L~~	0.58	
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	130	336	14:35	2	1.047	A BB	19880.	13.277 UG/L	3.94	
25	NOT FOUND									
26	NOT FOUND									
27	78	316	13:43	2	0.984	A BB	598.	~~0.184 UG/L~~	0.05	
28	NOT FOUND									
29	NOT FOUND									
30	NOT FOUND									
31	NOT FOUND									
32	NOT FOUND									
33	164	406	17:38	3	0.931	A BB	3375.	~~2.244 UG/L~~	0.67	
34	NOT FOUND									
35	91	381	16:33	3	0.874	A BB	1943.	~~0.513 UG/L~~	0.15	
36	NOT FOUND									
37	106	439	19:04	3	1.007	A BB	292.	~~0.221 UG/L~~	0.07	
38	NOT FOUND									
39	NOT FOUND									
40	62	313	13:35	2	0.975	A BB	1334.	~~0.844 UG/L~~	0.25	
41	106	439	19:04	3	1.007	A BB	292.	~~0.092 UG/L~~	0.03	
42	NOT FOUND									
43	96	280	12:09	1	0.959	A BB	3825.	~~2.816 UG/L~~	0.84	

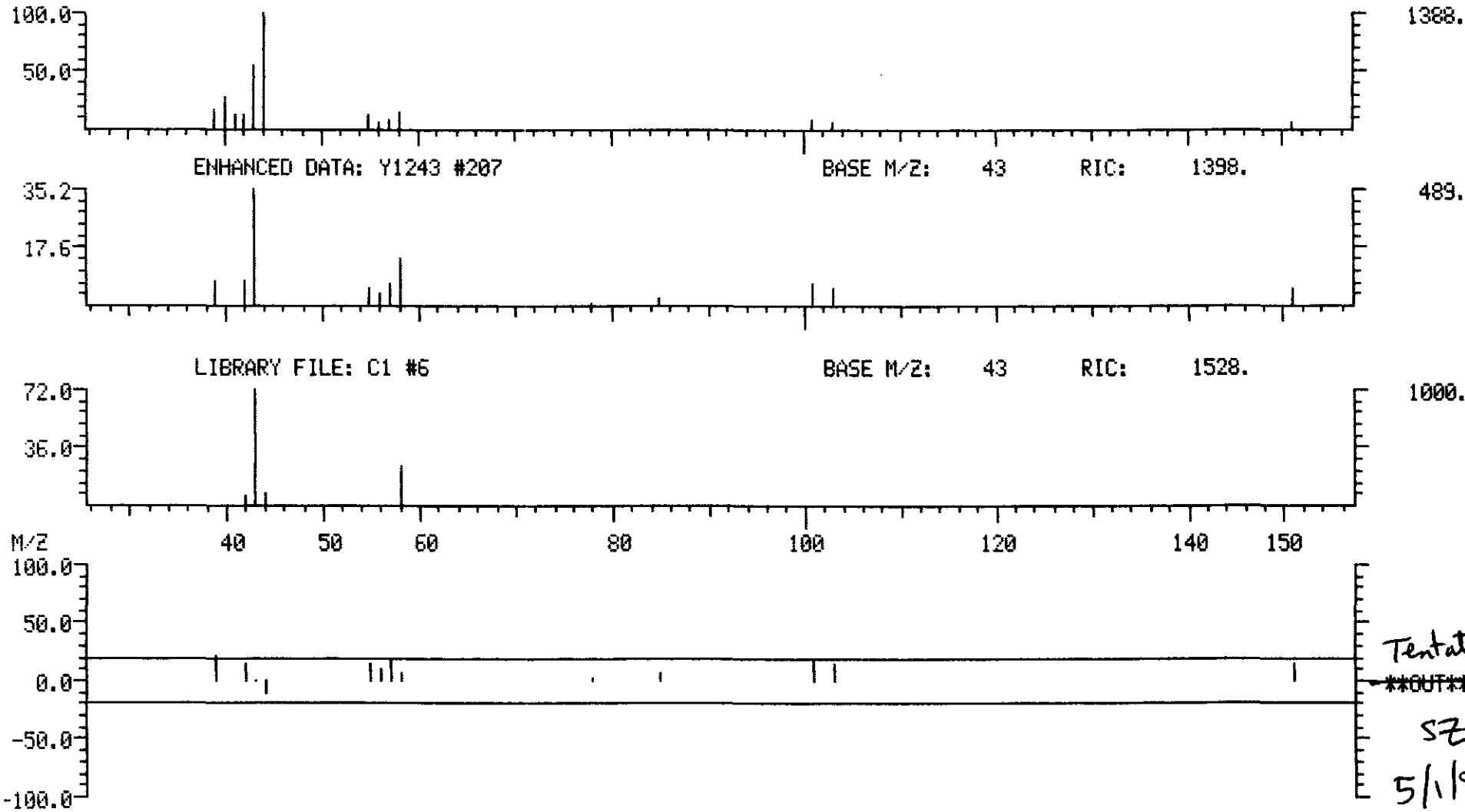
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	55.14	50.00	0.496	0.450	1.10
5	16:27	1.00	1.181	1.00	51.11	50.00	1.172	1.146	1.02
6	20:58	1.00	1.105	1.00	46.99	50.00	1.044	1.111	0.94
7	5:59		0.471						
8	7:25		0.584						
9	6:20		0.498						
10	7:36		0.597						
11	10:04	1.00	0.792	1.00	1.29	50.00	0.039	1.520	0.03

y1243

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.706	1.00	7.36	50.00	0.104	0.704	0.15
13	10:23		0.816						
14	9:17	1.00	0.730	1.00	0.43	50.00	0.012	1.380	0.01
15	11:15	1.00	0.884	1.00	1.07	50.00	0.060	2.799	0.02
16	12:25		0.976						
17	13:04	1.00	1.027	1.00	1.67	50.00	0.097	2.896	0.03
18	11:46	1.00	0.925	1.00	1.94	50.00	0.006	0.160	0.04
19	13:33		0.972						
20	11:04		0.870						
21	15:14		1.093						
22	14:51		1.065						
23	15:59		1.146						
24	14:35	1.00	1.047	1.00	13.28	50.00	0.122	0.459	0.27
25	18:01		0.950						
26	17:01		0.897						
27	13:46	1.00	0.988	1.00	0.18	50.00	0.004	0.999	0.00
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48		0.886						
32	15:27		1.109						
33	17:40	1.00	0.931	1.00	2.24	50.00	0.043	0.963	0.04
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	0.51	50.00	0.025	2.422	0.01
36	19:04		1.005						
37	19:01	1.00	1.002	1.00	0.22	50.00	0.004	0.844	0.00
38	19:56		1.050						
39	19:53		1.048						
40	13:38	1.00	0.978	1.00	0.84	50.00	0.008	0.485	0.02
41	19:06	1.00	1.007	1.00	0.09	50.00	0.004	2.024	0.00
42	10:36		0.833						
43	12:12	1.00	0.959	1.00	2.82	50.00	0.087	1.550	0.06

DATA FILE: Y1243 #207 LIBRARY FILE: C1 #6
TARGET COMPOUND COMPARISON CALI: Y1243 #3
COMPOUND: C035 ACETONE

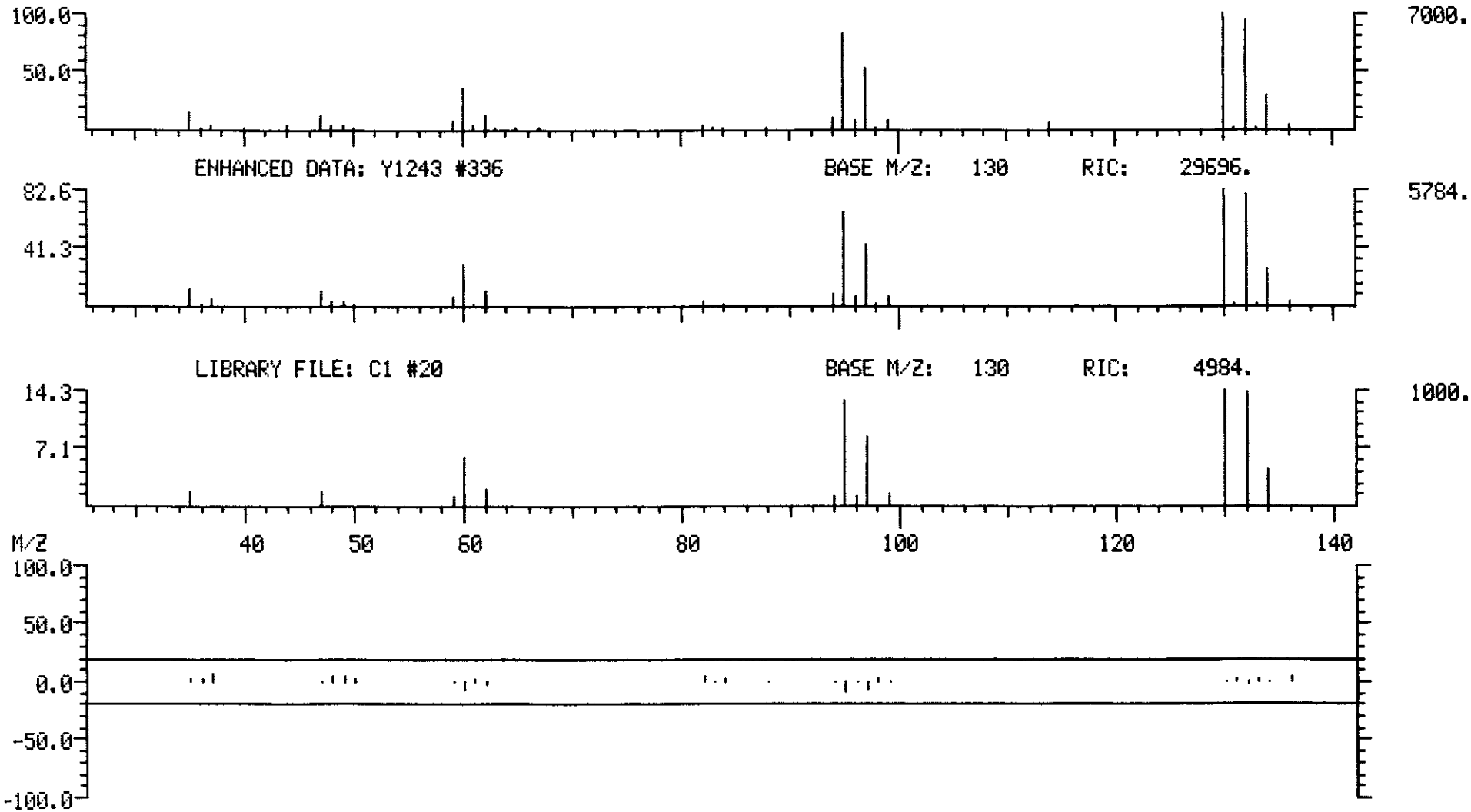
RAW DATA: Y1243 #207 BASE M/Z: 44 RIC: 4024.
05/01/90 2:45



Tentative
~~**OUT**~~
SZ
5/1/90

DATA FILE: Y1243 #336 LIBRARY FILE: C1 #20
TARGET COMPOUND COMPARISON CALI: Y1243 #3
COMPOUND: C150 TRICHLOROETHENE

RAW DATA: Y1243 #336 BASE M/Z: 130 RIC: 37376.
05/01/90 2:45



Library Search Data: Y1243 # 472 Base m/z: 55
05/01/90 2:45:00 + 20:30 Cali: Y1243 # 3 RIC: 23520.
Sample: CLP,VERSCDM,2548,MW43,L,W,16700,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

42222 spectra in LIBRARYNB searched for maximum FIT
168 matched at least 5 of the 16 largest peaks in the unknown

Rank	In.	Name
1	3561	BUTANE, 1,4-DICHLORO-
2	830	CYCLOPROPANE, 1-CHLORO-1-METHYL-
3	3566	BUTANE, 1,3-DICHLORO-
4	826	1-PROPENE, 3-CHLORO-2-METHYL-
5	829	2-BUTENE, 2-CHLORO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C4.H8.CL2	126	55	937	991	937
2	C4.H7.CL	90	55	618	947	618
3	C4.H8.CL2	126	55	852	931	852
4	C4.H7.CL	90	55	798	920	825
5	C4.H7.CL	90	55	776	914	796

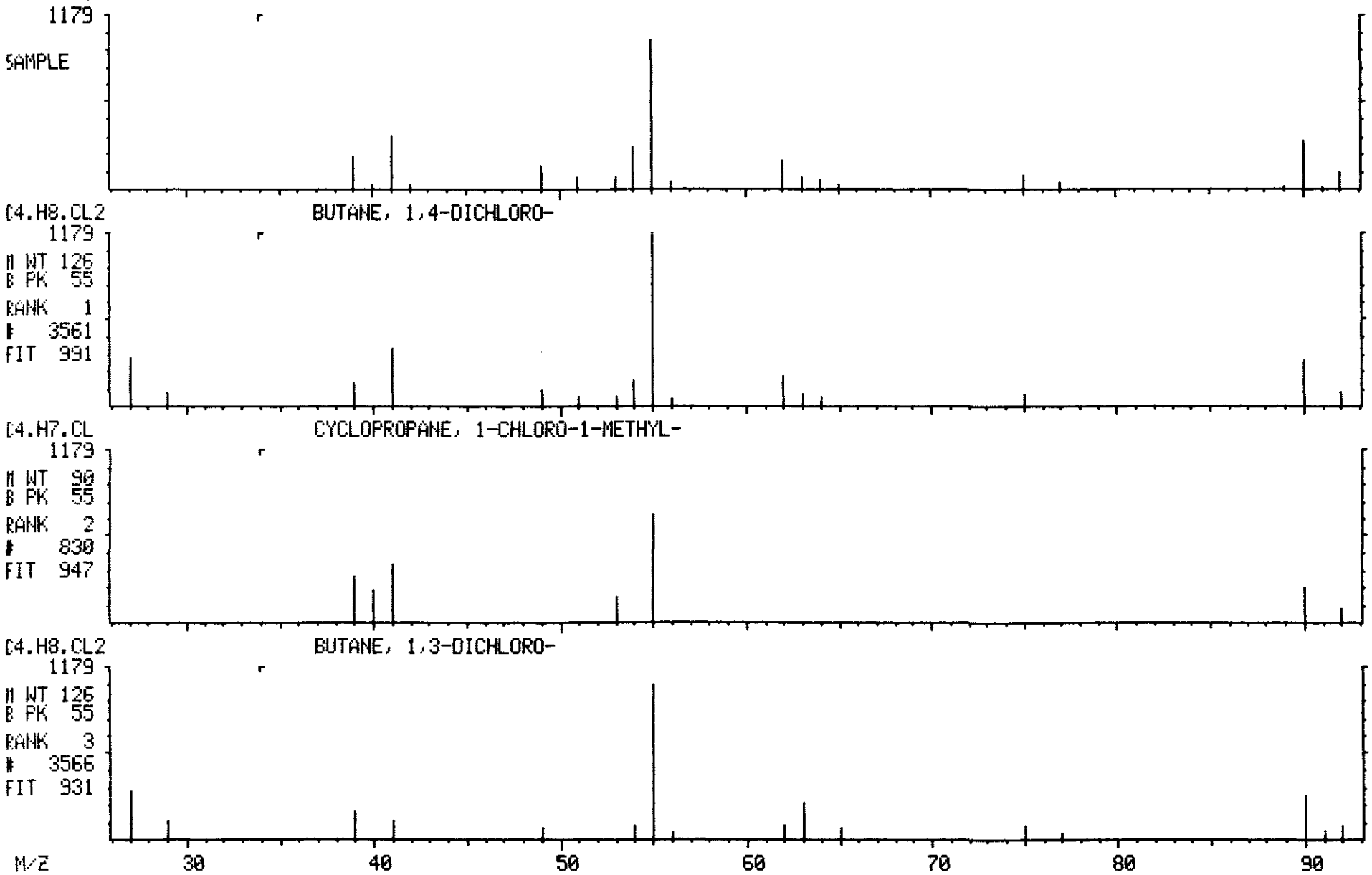
Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	110-56-5
2	—	—	—	—	50915-28-1
3	—	—	—	—	1190-22-3
4	—	—	—	—	563-47-3
5	—	—	—	—	4461-41-0

$\frac{23520}{148736} \times 50 = 7.90$

MID LIBRARY SEARCH (LIBRARYNB)
05/01/90 2:45:00 + 20:30
SAMPLE: CLP,VERSCDM,2548,MW43,L,W,16700,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
ENHANCED (S 15B 2N 0T)

DATA: Y1243 # 472
CALI: Y1243 # 3

BASE M/Z: 55
RIC: 23520.



1900 41

????INTERNAL STANDARD RIC REPORT<<<<

*****INTERNAL STANDARD#1*****

Mass List Data: Y1243 # 272 Base m/z: 130
05/01/90 2:45:00 + 12:41 Cali: Y1243 # 3 RIC: 64000.
Sample: CLP,VERSCDM,2548,MW43,L,W,16700,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

35	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

*****INTERNAL STANDARD#2*****

Mass List Data: Y1243 # 321 Base m/z: 114
05/01/90 2:45:00 + 13:56 Cali: Y1243 # 3 RIC: 104320.
Sample: CLP,VERSCDM,2548,MW43,L,W,16700,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

36	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

*****INTERNAL STANDARD#3*****

Mass List Data: Y1243 # 430 Base m/z: 117
05/01/90 2:45:00 + 18:56 Cali: Y1243 # 3 RIC: 148736.
Sample: CLP,VERSCDM,2548,MW43,L,W,16700,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

35	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW53

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16701

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1244

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW53

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16701

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1244

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

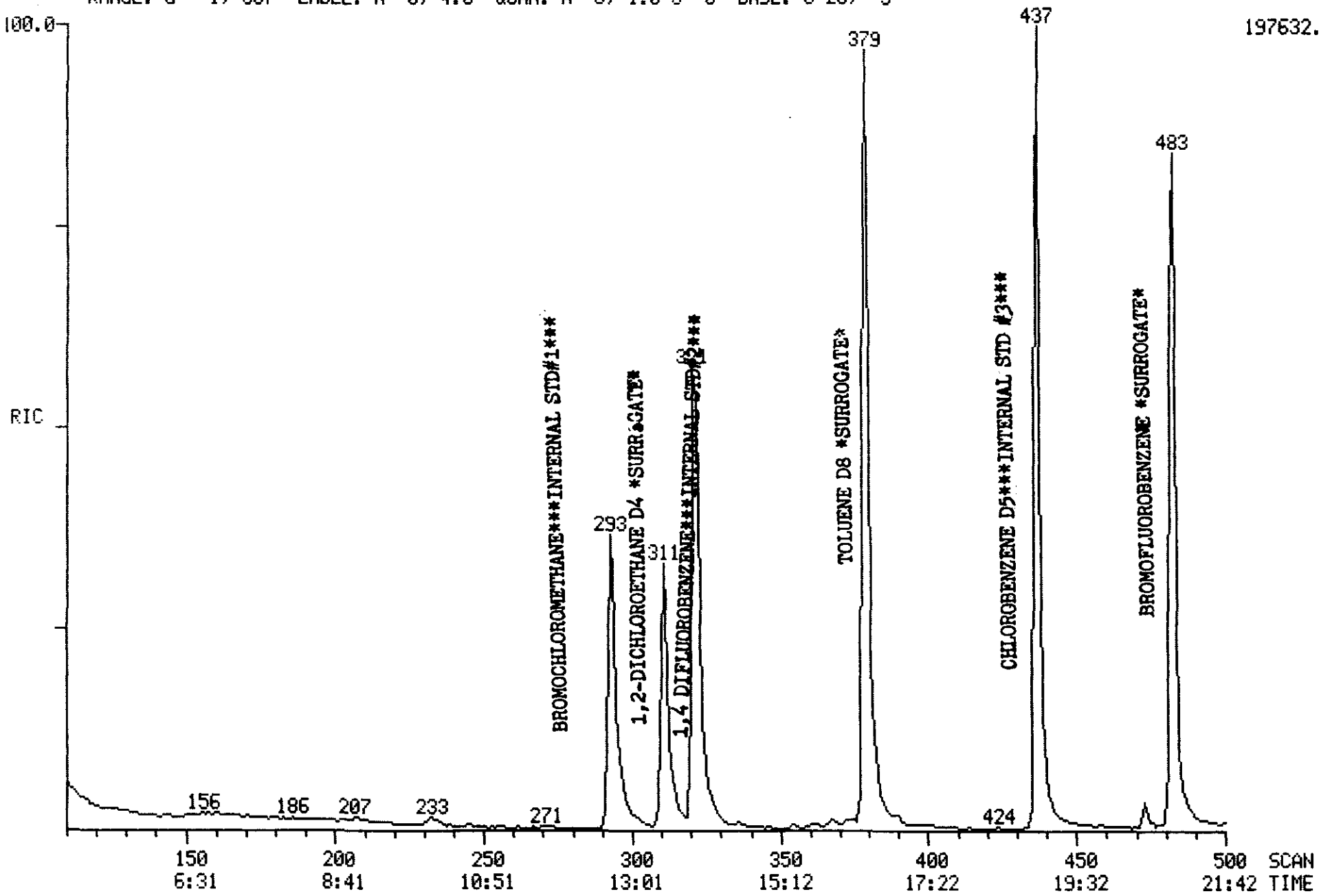
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: Y1244 #1 SCANS 110 TO 500
05/01/90 3:14:00 CALI: Y1244 #3
SAMPLE: CLP,VERSCOM,2548,MW53,L,W,16701,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y1244

Data: Y1244.TI
05/01/90 3:14:00
Sample: CLP,VERSCDM,2548,MW53,L,W,1670 1,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Formula: RTX-502.2,20C(.5MIN) Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

J1244

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot	
1	128	293	12:43	1	1.000	A BB	39832.	50.000	UG/L*	16.24	
2	114	321	13:56	2	1.000	A BB	160795.	50.000	UG/L*	16.24	
3	82	437	18:58	3	1.000	A BB	77485.	50.000	UG/L*	16.24	
4	65	311	13:30	2	0.969	A BB	73532.	50.854	UG/L%	16.52	102%
5	98	379	16:27	2	1.181	A VB	191210.	51.869	UG/L%	16.85	104%
6	95	483	20:58	3	1.105	A BB	80978.	47.028	UG/L%	15.28	94%
7	NOT FOUND										
8	NOT FOUND										
9	NOT FOUND										
10	NOT FOUND										
11	84	232	10:04	1	0.792	A BB	1767.	~~1.460 UG/L~~		0.47	
12	43	208	9:02	1	0.710	A BB	2847.	~~5.076 UG~~/L		1.65	
13	NOT FOUND										
14	NOT FOUND										
15	NOT FOUND										
16	NOT FOUND										
17	97	301	13:04	1	1.027	A BB	582.	~~0.252 UG/L~~		0.08	
18	NOT FOUND										
19	NOT FOUND										
20	NOT FOUND										
21	NOT FOUND										
22	NOT FOUND										
23	NOT FOUND										
24	130	337	14:38	2	1.050	A BB	599.	~~0.406 UG/L~~		0.13	
25	NOT FOUND										
26	NOT FOUND										
27	78	317	13:46	2	0.988	A BB	220.	~~0.068 UG/L~~		0.02	
28	NOT FOUND										
29	NOT FOUND										
30	NOT FOUND										
31	NOT FOUND										
32	NOT FOUND										
33	164	407	17:40	3	0.931	A BB	202.	~~0.135 UG/L~~		0.04	
34	NOT FOUND										
35	91	382	16:35	3	0.874	A BB	1773.	~~0.472 UG/L~~		0.15	
36	NOT FOUND										
37	106	440	19:06	3	1.007	A BB	237.	~~0.181 UG/L~~		0.06	
38	NOT FOUND										
39	NOT FOUND										
40	NOT FOUND										
41	106	440	19:06	3	1.007	A BB	237.	~~0.076 UG/L~~		0.02	
42	NOT FOUND										
43	NOT FOUND										

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	50.85	50.00	0.457	0.450	1.02
5	16:27	1.00	1.181	1.00	51.87	50.00	1.189	1.146	1.04
6	20:58	1.00	1.105	1.00	47.03	50.00	1.045	1.111	0.94
7	5:59		0.471						
8	7:25		0.584						
9	6:20		0.498						
10	7:36		0.597						
11	10:04	1.00	0.792	1.00	1.46	50.00	0.044	1.520	0.03

91L44

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.706	1.00	5.08	50.00	0.071	0.704	0.10
13	10:23		0.816						
14	9:17		0.730						
15	11:15		0.884						
16	12:25		0.976						
17	13:04	1.00	1.027	1.00	0.25	50.00	0.015	2.896	0.01
18	11:46		0.925						
19	13:33		0.972						
20	11:04		0.870						
21	15:14		1.093						
22	14:51		1.065						
23	15:59		1.146						
24	14:35	1.00	1.047	1.00	0.41	50.00	0.004	0.459	0.01
25	18:01		0.950						
26	17:01		0.897						
27	13:46	1.00	0.988	1.00	0.07	50.00	0.001	0.999	0.00
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48		0.886						
32	15:27		1.109						
33	17:40	1.00	0.931	1.00	0.14	50.00	0.003	0.963	0.00
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	0.47	50.00	0.023	2.422	0.01
36	19:04		1.005						
37	19:01	1.00	1.002	1.00	0.18	50.00	0.003	0.844	0.00
38	19:56		1.050						
39	19:53		1.048						
40	13:38		0.978						
41	19:06	1.00	1.007	1.00	0.08	50.00	0.003	2.024	0.00
42	10:36		0.833						
43	12:12		0.959						

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW79

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16702

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1245

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	23	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

100049

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW79

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16702

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1245

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

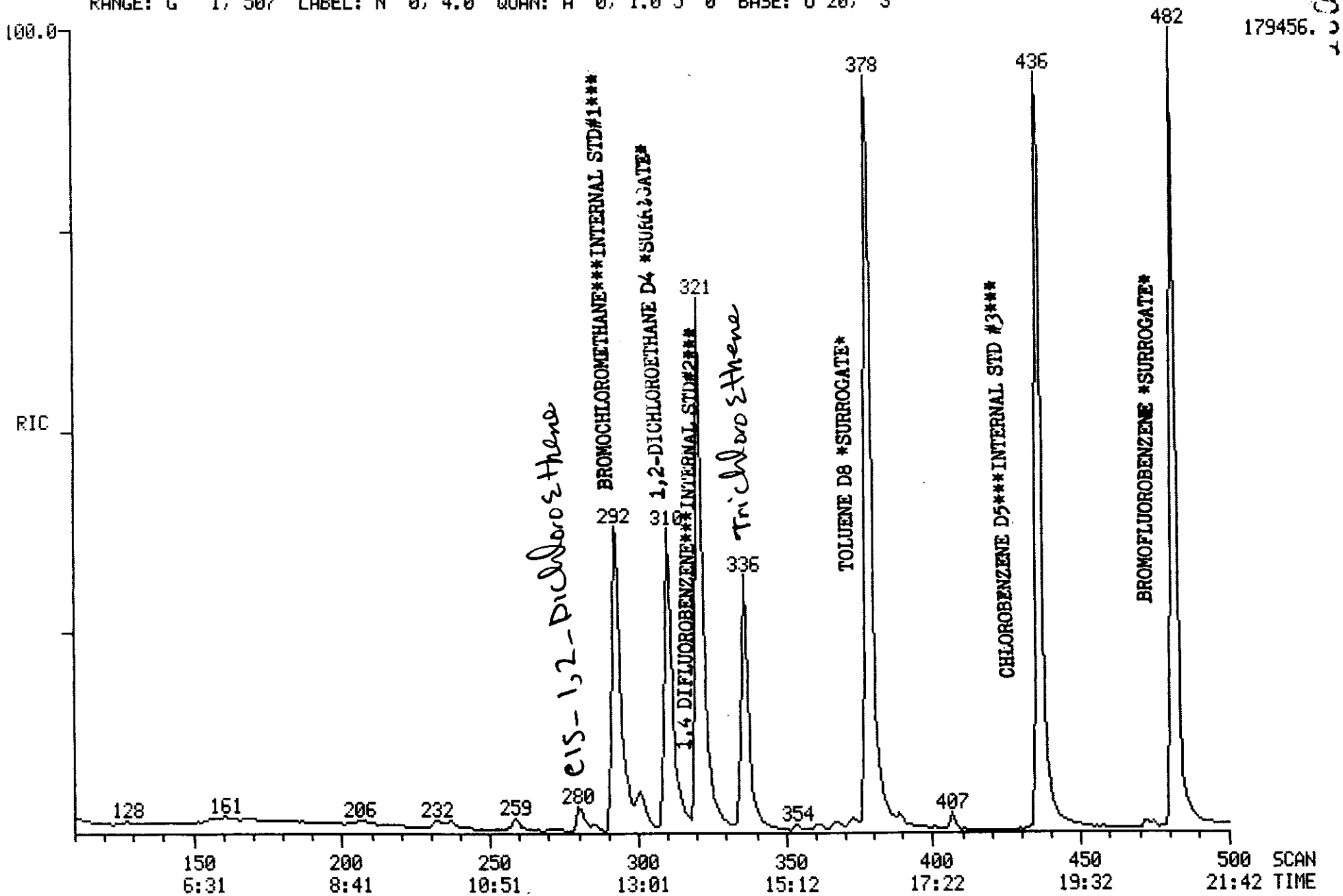
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: Y1245 #1 SCANS 110 TO 500
05/01/90 3:43:00 CALI: Y1245 #3
SAMPLE: CLP,VERSCDM,2548,MW79,L,W,16702,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y1245

Data: Y1245.TI
05/01/90 3:43:00
Sample: CLP,VERSCDM,2548,MW79,L,W,16702,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Formula: RTX-502.2,20C(.5MIN) Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

Y1245

ORIGINAL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	292	12:41	1	1.000	A BB	42768.	50.000 UG/L*	14.50
2	114	321	13:56	2	1.000	A BB	154881.	50.000 UG/L*	14.50
3	82	436	18:56	3	1.000	A BB	76163.	50.000 UG/L*	14.50
4	65	310	13:28	2	0.966	A BB	79247.	56.900 UG/L%	16.50 114%
5	98	378	16:25	2	1.178	A BB	184865.	52.063 UG/L%	15.10 104%
6	95	482	20:56	3	1.106	A BB	81084.	47.907 UG/L%	13.89 96%
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	232	10:04	1	0.795	A BB	800.	~~0.615 UG/L~~	0.18
12	43	207	8:59	1	0.709	A BB	2374.	~~3.942 UG/L~~	1.14
13	NOT FOUND								
14	NOT FOUND								
15	63	259	11:15	1	0.887	A BB	5496.	~~2.295 UG/L~~	0.67
16	83	286	12:25	1	0.979	A BB	1249.	~~0.494 UG/L~~	0.14
17	97	301	13:04	1	1.031	A BB	7190.	~~2.902 UG/L~~	0.84
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	130	336	14:35	2	1.047	A BB	32697.	22.996 UG/L	6.67
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	164	407	17:40	3	0.933	A BB	1162.	~~0.792 UG/L~~	0.23
34	NOT FOUND								
35	91	382	16:35	3	0.876	A BB	1127.	~~0.305 UG/L~~	0.09
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	96	280	12:09	1	0.959	A BB	4774.	3.601 UG/L	1.04

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	56.90	50.00	0.512	0.450	1.14
5	16:27	1.00	1.181	1.00	52.06	50.00	1.194	1.146	1.04
6	20:58	1.00	1.105	1.00	47.91	50.00	1.065	1.111	0.96
7	5:59		0.471						
8	7:25		0.584						
9	6:20		0.498						
10	7:36		0.597						
11	10:04	1.00	0.792	1.00	0.62	50.00	0.019	1.520	0.01

Y1245

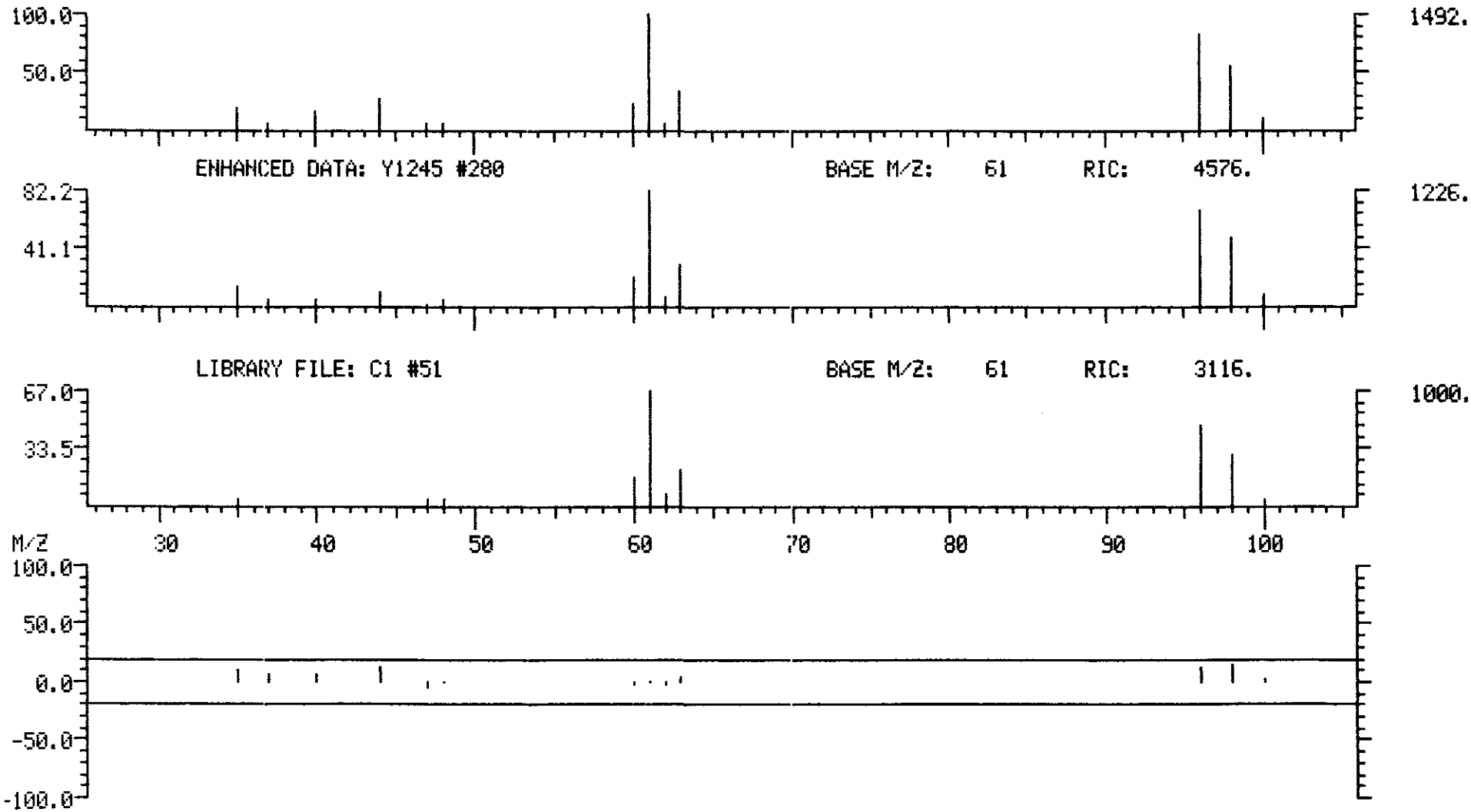
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.706	1.00	3.94	50.00	0.056	0.704	0.08
13	10:23		0.816						
14	9:17		0.730						
15	11:15	1.00	0.884	1.00	2.30	50.00	0.129	2.799	0.05
16	12:25	1.00	0.976	1.00	0.49	50.00	0.029	2.954	0.01
17	13:04	1.00	1.027	1.00	2.90	50.00	0.168	2.896	0.06
18	11:46		0.925						
19	13:33		0.972						
20	11:04		0.870						
21	15:14		1.093						
22	14:51		1.065						
23	15:59		1.146						
24	14:35	1.00	1.047	1.00	23.00	50.00	0.211	0.459	0.46
25	18:01		0.950						
26	17:01		0.897						
27	13:46		0.988						
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48		0.886						
32	15:27		1.109						
33	17:40	1.00	0.931	1.00	0.79	50.00	0.015	0.963	0.02
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	0.31	50.00	0.015	2.422	0.01
36	19:04		1.005						
37	19:01		1.002						
38	19:56		1.050						
39	19:53		1.048						
40	13:38		0.978						
41	19:06		1.007						
42	10:36		0.833						
43	12:12	1.00	0.959	1.00	3.60	50.00	0.112	1.550	0.07

ORIGINAL (Red)

DATA FILE: Y1245 #280 LIBRARY FILE: C1 #51
TARGET COMPOUND COMPARISON CALI: Y1245 #3
COMPOUND: C055 CIS-1,2-DICHLOROETHENE

ORIGINAL (Red)

RAW DATA: Y1245 #280 BASE M/Z: 61 RIC: 5904.
05/01/90 3:43

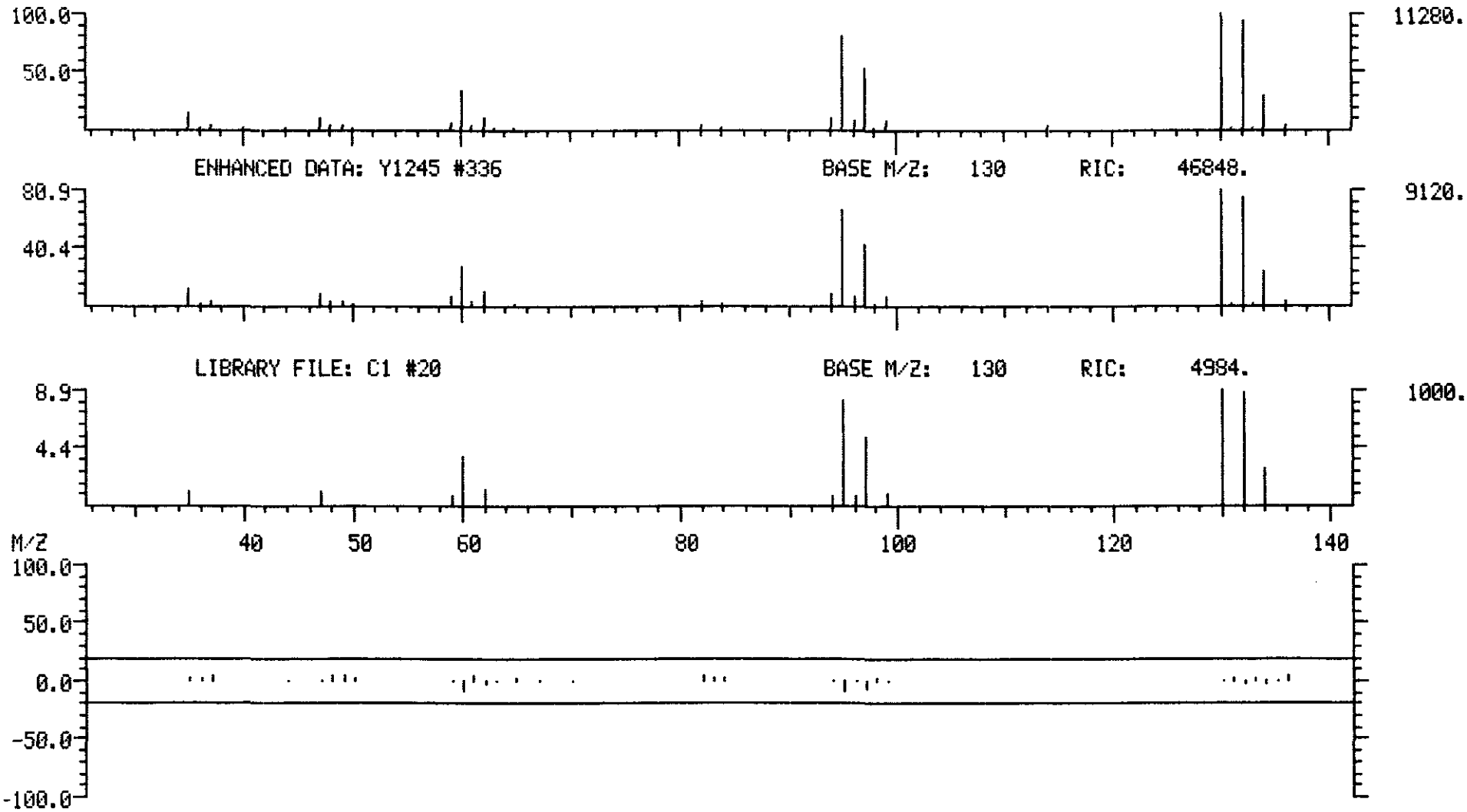


C055

DATA FILE: Y1245 #336 LIBRARY FILE: C1 #20
TARGET COMPOUND COMPARISON CALI: Y1245 #3
COMPOUND: C150 TRICHLOROETHENE

ORIGINAL (Red)

RAW DATA: Y1245 #336 BASE M/Z: 130 RIC: 57856.
05/01/90 3:43



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW79A ORIGINAL (Red)

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16703

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1246

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	22	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW79A ORIGINAL (Red)

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16703

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1246

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column (pack/cap) CAP Dilution Factor: 1.0

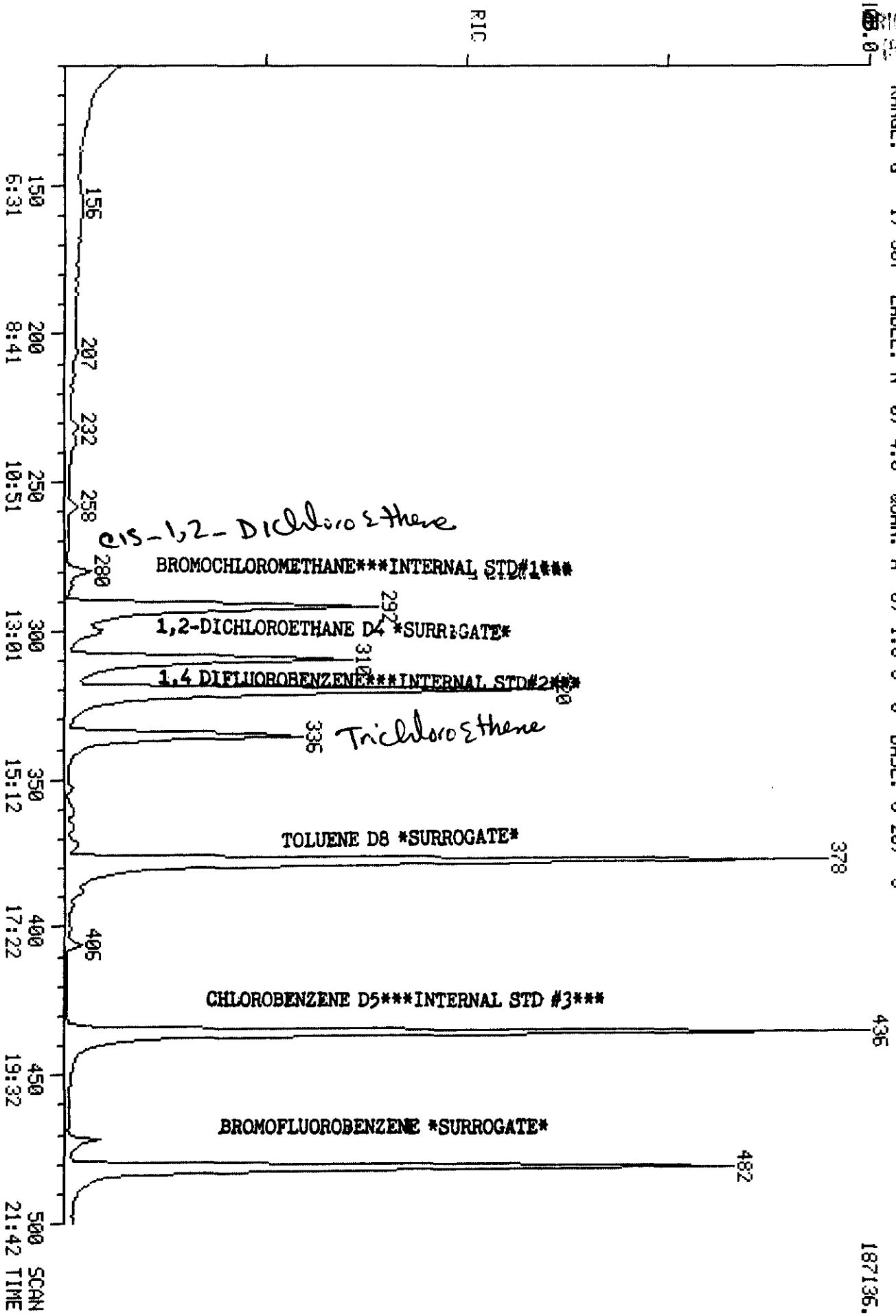
Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC
05/01/90 4:13:00
SAMPLE: CLP,VERSCOM,2548,MW79A,L,W,16703,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: Y1246 #1
CALI: Y1246 #3
SCANS 110 TO 500



187136.

Quantitation Report File: Y1246

ORIGINAL (Red)

Data: Y1246.TI
05/01/90 4:13:00
Sample: CLP,VERSCDM,2548,MW79A,L,W,16703,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Formula: RTX-502.2,20C(.5MIN) Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

Y1246

ORIGINAL (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	292	12:41	1	1.000	A BB	41602.	50.000 UG/L*	14.58	
2	114	320	13:54	2	1.000	A BB	152746.	50.000 UG/L*	14.58	
3	82	436	18:56	3	1.000	A BB	75057.	50.000 UG/L*	14.58	
4	65	310	13:28	2	0.969	A BB	77117.	56.145 UG/L%	16.37	112%
5	98	378	16:25	2	1.181	A VB	180303.	51.488 UG/L%	15.01	103%
6	95	482	20:56	3	1.106	A BB	78573.	47.107 UG/L%	13.74	94%
7	NOT FOUND									
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	84	232	10:04	1	0.795	A BB	492.	~~0.389 UG/L~~	0.11	
12	43	207	8:59	1	0.709	A BB	2716.	~~4.638 UG/L~~	1.35	
13	NOT FOUND									
14	NOT FOUND									
15	63	258	11:12	1	0.884	A BB	5364.	~~2.303 UG/L~~	0.67	
16	83	285	12:22	1	0.976	A BB	1197.	~~0.487 UG/L~~	0.14	
17	97	300	13:01	1	1.027	A BB	7006.	~~2.907 UG/L~~	0.85	
18	NOT FOUND									
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	130	336	14:35	2	1.050	A BB	31421.	22.408 UG/L	6.53	
25	NOT FOUND									
26	NOT FOUND									
27	78	316	13:43	2	0.988	A BB	200.	~~0.066 UG/L~~	0.02	
28	NOT FOUND									
29	NOT FOUND									
30	NOT FOUND									
31	NOT FOUND									
32	NOT FOUND									
33	164	406	17:38	3	0.931	A BB	1185.	~~0.820 UG/L~~	0.24	
34	NOT FOUND									
35	91	381	16:33	3	0.874	A BB	1241.	~~0.341 UG/L~~	0.10	
36	NOT FOUND									
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	62	313	13:35	2	0.978	A BB	245.	~~0.166 UG/L~~	0.05	
41	NOT FOUND									
42	NOT FOUND									
43	96	280	12:09	1	0.959	A BB	4820.	3.738 UG/L	1.09	

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	56.14	50.00	0.505	0.450	1.12
5	16:27	1.00	1.181	1.00	51.49	50.00	1.180	1.146	1.03
6	20:58	1.00	1.105	1.00	47.11	50.00	1.047	1.111	0.94
7	5:59		0.471						
8	7:25		0.584						
9	6:20		0.498						
10	7:36		0.597						
11	10:04	1.00	0.792	1.00	0.39	50.00	0.012	1.520	0.01

J1246

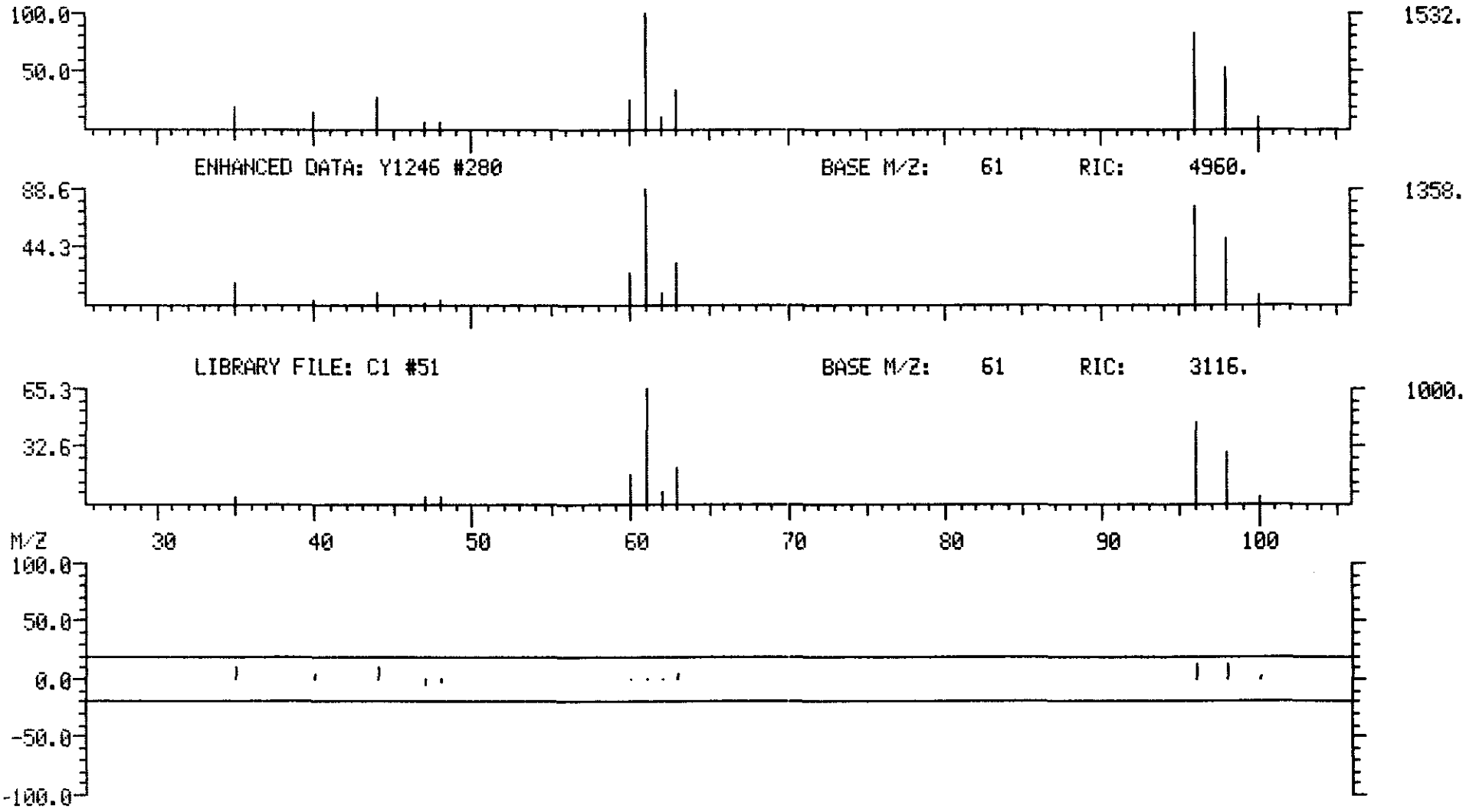
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.706	1.00	4.64	50.00	0.065	0.704	0.09
13	10:23		0.816						
14	9:17		0.730						
15	11:15	1.00	0.884	1.00	2.30	50.00	0.129	2.799	0.05
16	12:25	1.00	0.976	1.00	0.49	50.00	0.029	2.954	0.01
17	13:04	1.00	1.027	1.00	2.91	50.00	0.168	2.896	0.06
18	11:46		0.925						
19	13:33		0.972						
20	11:04		0.870						
21	15:14		1.093						
22	14:51		1.065						
23	15:59		1.146						
24	14:35	1.00	1.047	1.00	22.41	50.00	0.206	0.459	0.45
25	18:01		0.950						
26	17:01		0.897						
27	13:46	1.00	0.988	1.00	0.07	50.00	0.001	0.999	0.00
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48		0.886						
32	15:27		1.109						
33	17:40	1.00	0.931	1.00	0.82	50.00	0.016	0.963	0.02
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	0.34	50.00	0.017	2.422	0.01
36	19:04		1.005						
37	19:01		1.002						
38	19:56		1.050						
39	19:53		1.048						
40	13:38	1.00	0.978	1.00	0.17	50.00	0.002	0.485	0.00
41	19:06		1.007						
42	10:36		0.833						
43	12:12	1.00	0.959	1.00	3.74	50.00	0.116	1.550	0.07

ORIGINAL (Red)

DATA FILE: Y1246 #280 LIBRARY FILE: C1 #51
TARGET COMPOUND COMPARISON CALI: Y1246 #3
COMPOUND: C055 CIS-1,2-DICHLOROETHENE

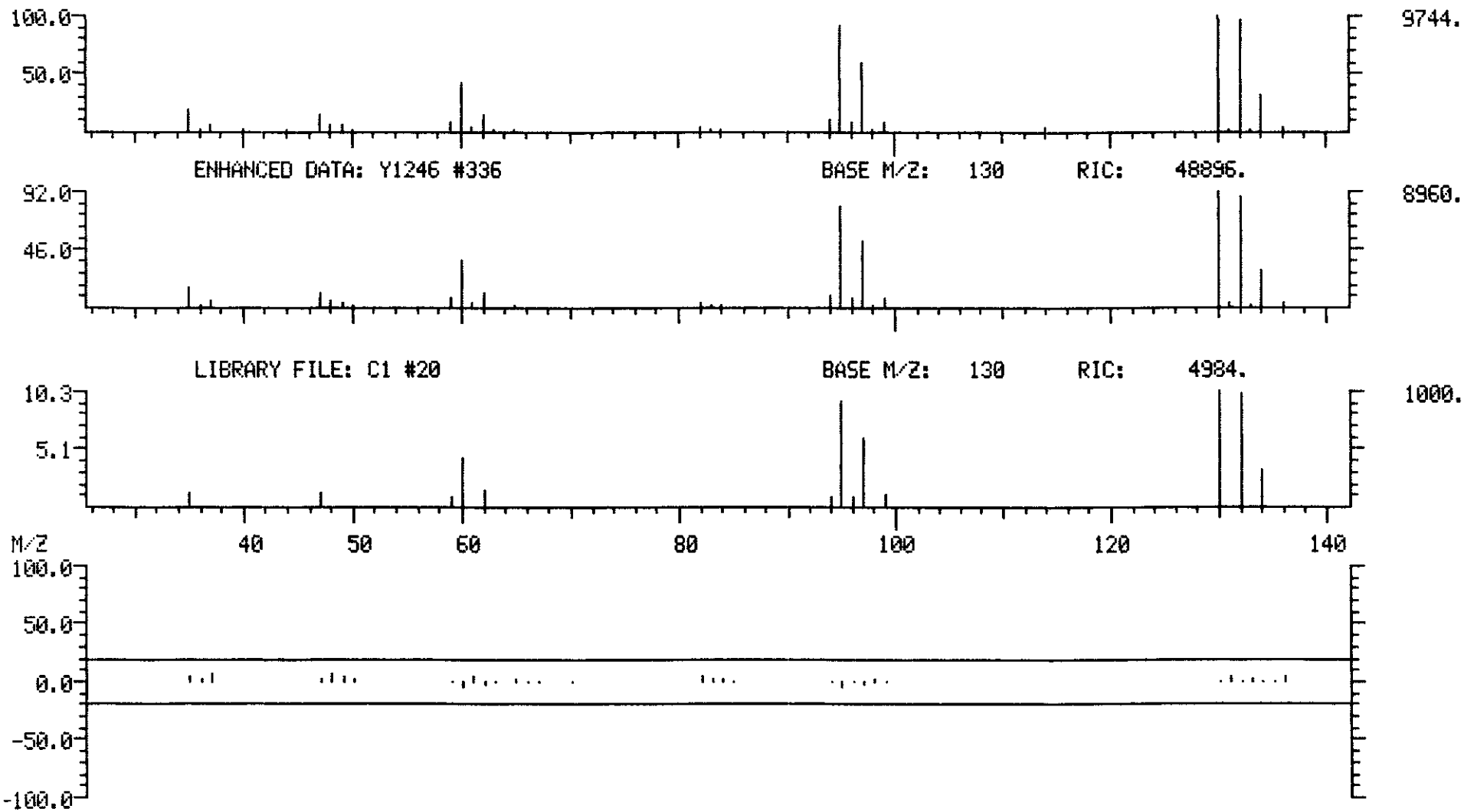
ORIGINAL (Red)

RAW DATA: Y1246 #280 BASE M/Z: 61 RIC: 6040.
05/01/90 4:13



DATA FILE: Y1246 #336 LIBRARY FILE: C1 #20
TARGET COMPOUND COMPARISON CALI: Y1246 #3
COMPOUND: C150 TRICHLOROETHENE

RAW DATA: Y1246 #336 BASE M/Z: 130 RIC: 55808.
05/01/90 4:13



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW1 ORIGINAL (Red)

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16704A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1251

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SW1 ORIGINAL (Red)

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16704A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1251

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

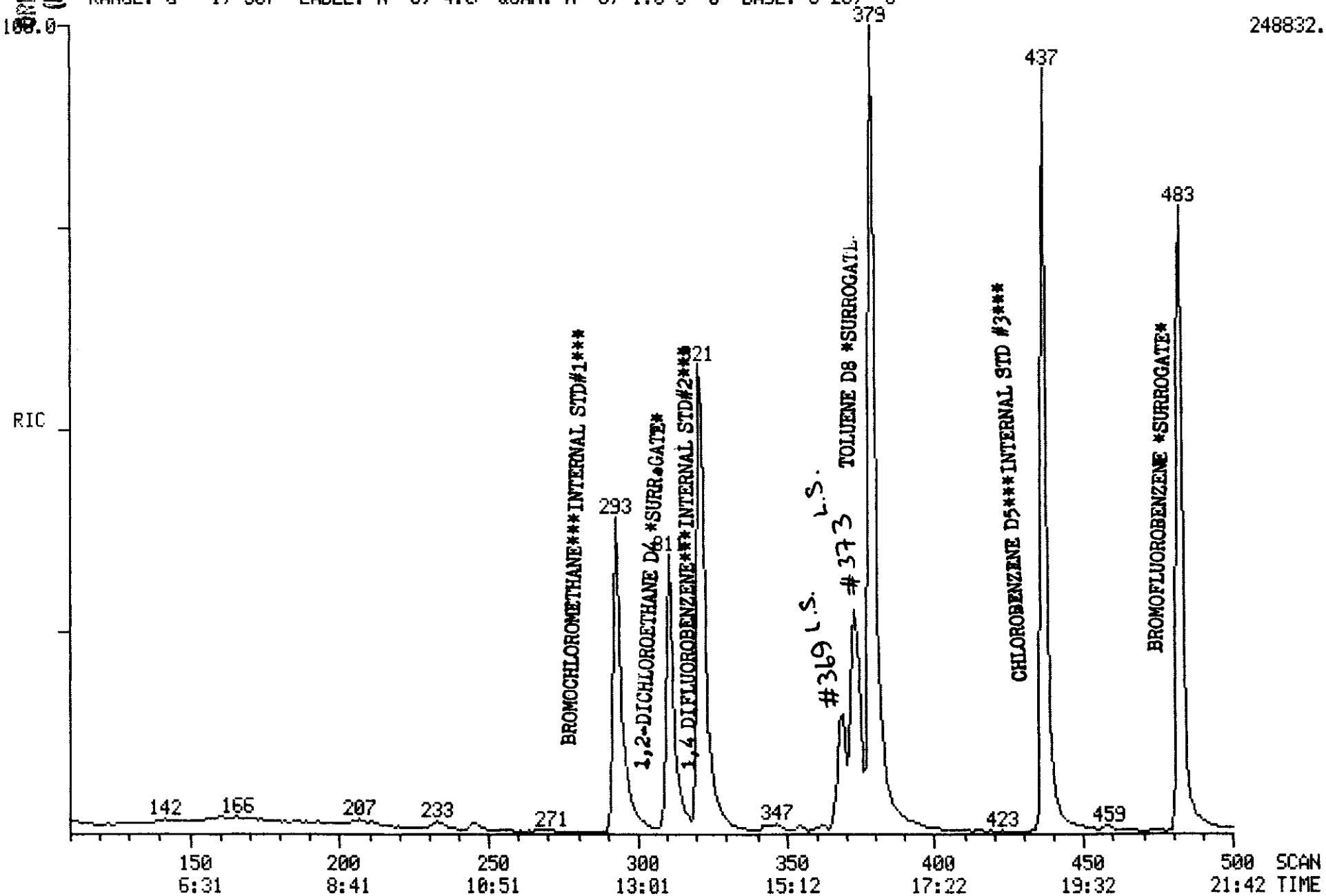
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	16.02	7.8	J
2.	UNKNOWN	16.20	21	J

RIC DATA: Y1251 #1 SCANS 110 TO 500
05/01/90 10:46:00 CALI: Y1251 #3
SAMPLE: CLP,VERSCDM,2548,SW1,L,W,1E704A,V,,420.1,3,5ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y1251

ORIGINAL (Red)

Data: Y1251.TI
05/01/90 10:46:00
Sample: CLP,VERSCDM,2548,SW1,L,W,16704A,V,,420.1,3,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

Y1251

ORIGINAL (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tgt	
1	128	293	12:43	1	1.000	A BB	55502.	50.000 UG/L*	16.12	
2	114	321	13:56	2	1.000	A BB	199875.	50.000 UG/L*	16.12	
3	82	437	18:58	3	1.000	A BB	94384.	50.000 UG/L*	16.12	
4	65	311	13:30	2	0.969	A BB	98332.	55.239 UG/L%	17.81	110%
5	98	379	16:27	2	1.181	A BB	211371.	47.400 UG/L%	15.28	95%
6	95	483	20:58	3	1.105	A BB	93654.	47.704 UG/L%	15.38	95%
7	NOT FOUND									
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	84	232	10:04	1	0.792	A BB	1214.	~~0.782 UG/L~~	0.25	
12	43	208	9:02	1	0.710	A BB	3808.	~~6.319 UG/L~~	2.04	
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	43	256	11:07	1	0.874	A BB	405.	~~0.142 UG/L~~	0.05	
21	NOT FOUND									
22	63	341	14:48	2	1.062	A BB	186.	~~0.166 UG/L~~	0.05	
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	78	317	13:46	2	0.988	A BB	443.	~~0.120 UG/L~~	0.04	
28	NOT FOUND									
29	NOT FOUND									
30	NOT FOUND									
31	43	388	16:51	3	0.888	A BB	264.	~~0.365 UG/L~~	0.12	
32	NOT FOUND									
33	NOT FOUND									
34	NOT FOUND									
35	91	382	16:35	3	0.874	A BB	1691.	~~0.392 UG/L~~	0.13	
36	112	439	19:04	3	1.005	A BB	242.	~~0.084 UG/L~~	0.03	
37	106	440	19:06	3	1.007	A BB	936.	~~0.589 UG/L~~	0.19	
38	104	459	19:56	3	1.050	A BB	615.	~~0.205 UG/L~~	0.07	
39	106	458	19:53	3	1.048	A BB	443.	~~0.246 UG/L~~	0.08	
40	NOT FOUND									
41	106	440	19:06	3	1.007	A BB	936.	~~0.397 UG/L~~	0.13	
42	NOT FOUND									
43	NOT FOUND									

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:41	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	55.24	50.00	0.492	0.445	1.10
5	16:27	1.00	1.181	1.00	47.40	50.00	1.058	1.116	0.95
6	20:58	1.00	1.105	1.00	47.70	50.00	0.992	1.040	0.95
7	5:59		0.473						
8	7:25		0.586						
9	6:20		0.500						
10	7:33		0.596						
11	10:04	1.00	0.795	1.00	0.78	50.00	0.022	1.398	0.02

Y1251

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.709	1.00	6.32	50.00	0.069	0.543	0.13
13	10:23		0.818						
14	9:17		0.733						
15	11:15		0.887						
16	12:25		0.979						
17	13:04		1.031						
18	11:46		0.928						
19	13:30		0.969						
20	11:04	1.00	0.873	1.00	0.14	50.00	0.007	2.566	0.00
21	15:14		1.093						
22	14:51	1.00	1.065	1.00	0.17	50.00	0.001	0.280	0.00
23	15:59		1.146						
24	14:35		1.047						
25	18:01		0.950						
26	17:01		0.897						
27	13:46	1.00	0.988	1.00	0.12	50.00	0.002	0.925	0.00
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48	1.00	0.886	1.00	0.36	50.00	0.003	0.384	0.01
32	15:27		1.109						
33	17:40		0.931						
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	0.39	50.00	0.018	2.286	0.01
36	19:01	1.00	1.002	1.00	0.08	50.00	0.003	1.521	0.00
37	19:01	1.00	1.002	1.00	0.59	50.00	0.010	0.841	0.01
38	19:56	1.00	1.050	1.00	0.21	50.00	0.007	1.588	0.00
39	19:53	1.00	1.048	1.00	0.25	50.00	0.005	0.952	0.00
40	13:38		0.978						
41	19:06	1.00	1.007	1.00	0.40	50.00	0.010	1.250	0.01
42	10:36		0.836						
43	12:09		0.959						

ORIGINAL

Library Search Data: Y1251 # 369 Base m/z: 55
05/01/90 10:46:00 + 16:01 Cali: Y1251 # 3 RIC: 18368.
Sample: CLP,VERSCDM,2548,SW1,L,W,16704A,V,,420.1,3,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Enhanced (S 15B 2N 0T)

ORIGINAL (Red)

42222 spectra in LIBRARYNB searched for maximum FIT
85 matched at least 7 of the 16 largest peaks in the unknown

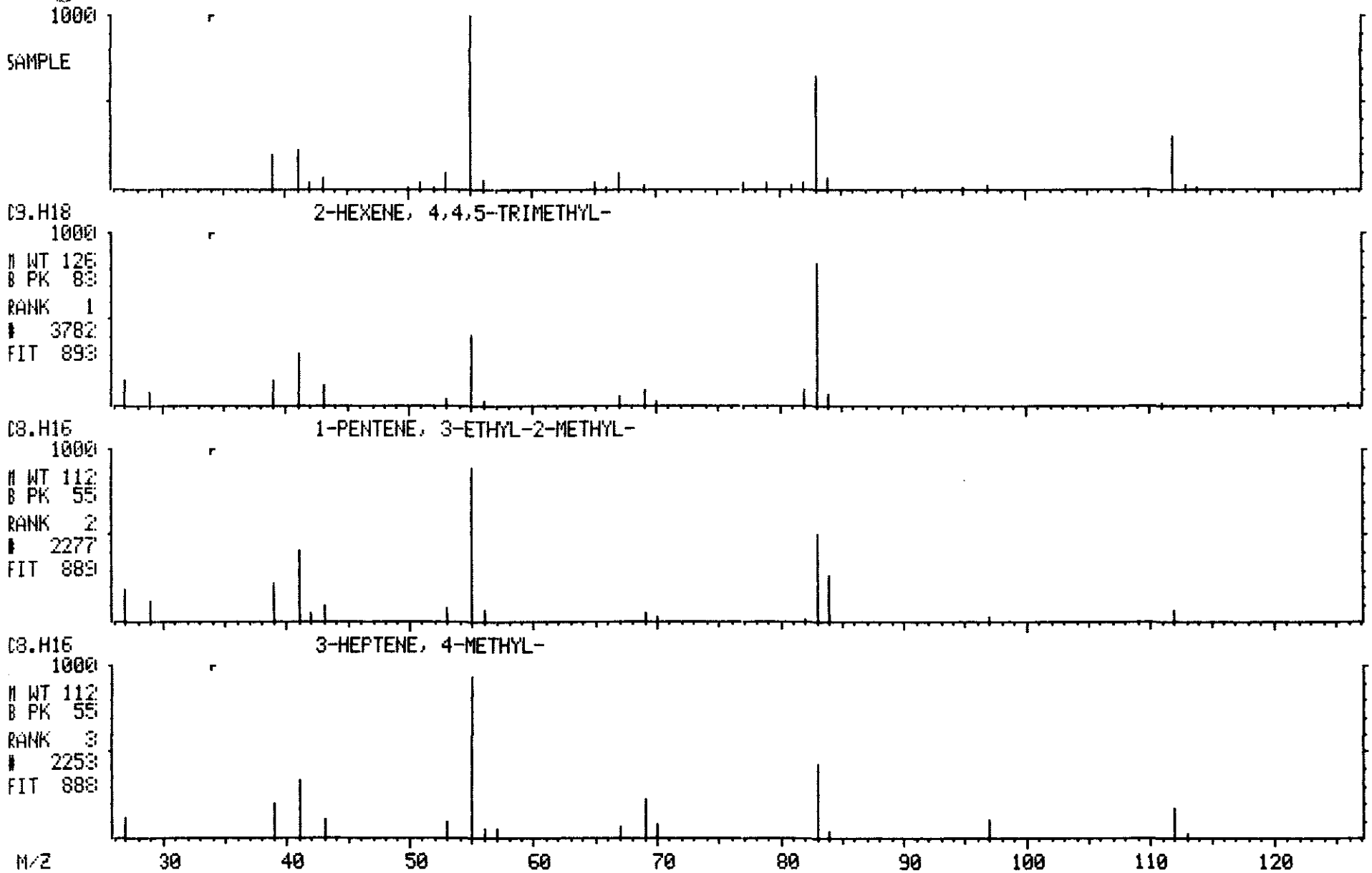
Rank	In.	Name
1	3782	2-HEXENE, 4,4,5-TRIMETHYL-
2	2277	1-PENTENE, 3-ETHYL-2-METHYL-
3	2253	3-HEPTENE, 4-METHYL-
4	2238	CYCLOHEXANE, ETHYL-
5	8353	2-HEPTENE, 5-ETHYL-2,4-DIMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C9.H18	126	83	643	893	663
2	C8.H16	112	55	774	889	781
3	C8.H16	112	55	796	888	834
4	C8.H16	112	83	751	868	772
5	C11.H22	154	83	606	842	632

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	55702-61-9
2	—	—	—	—	19780-66-6
3	—	—	—	—	4485-16-9
4	—	—	—	—	1678-91-7
5	—	—	—	—	74421-06-0

$\frac{18368}{118016} \times 50 = 7.78$

MID LIBRARY SEARCH (LIBRARYNB) DATA: Y1251 # 369 BASE M/Z: 55
05/01/90 10:46:00 + 16:01 CALI: Y1251 # 3 RIC: 183E8.
SAMPLE: CLP,VERSCOM,2548,SW1,L,W,16704A,V,,420.1,3,5ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
ENHANCED (S 15B 2N 0T)



ORIGINAL

220072

Library Search Data: Y1251 # 373 Base m/z: 55
05/01/90 10:46:00 + 16:12 Cali: Y1251 # 3 RIC: 48640.
Sample: CLP,VERSCDM,2548,SW1,L,W,16704A,V,,420.1,3,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Enhanced (S 15B 2N 0T)

ORIGINAL (R-5)

42222 spectra in LIBRARYNB searched for maximum FIT
52 matched at least 8 of the 16 largest peaks in the unknown

Rank	In.	Name
1	2267	4-OCTENE, (E)-
2	2268	3-OCTENE, (E)-
3	36430	DIPHOSPHORIC ACID, DIISOOCTYL ESTER
4	4172	CYCLOHEXANE, NITRO-
5	2263	4-OCTENE, (Z)-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C8.H16	112	41	813	928	813
2	C8.H16	112	41	792	896	792
3	C16.H36.07.P2	402	41	825	891	839
4	C6.H11.02.N	129	55	586	886	626
5	C8.H16	112	41	770	874	770

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	14850-23-8
2	—	—	—	—	14919-01-8
3	—	—	—	—	72101-07-6
4	—	—	—	—	1122-60-7
5	—	—	—	—	7642-15-1

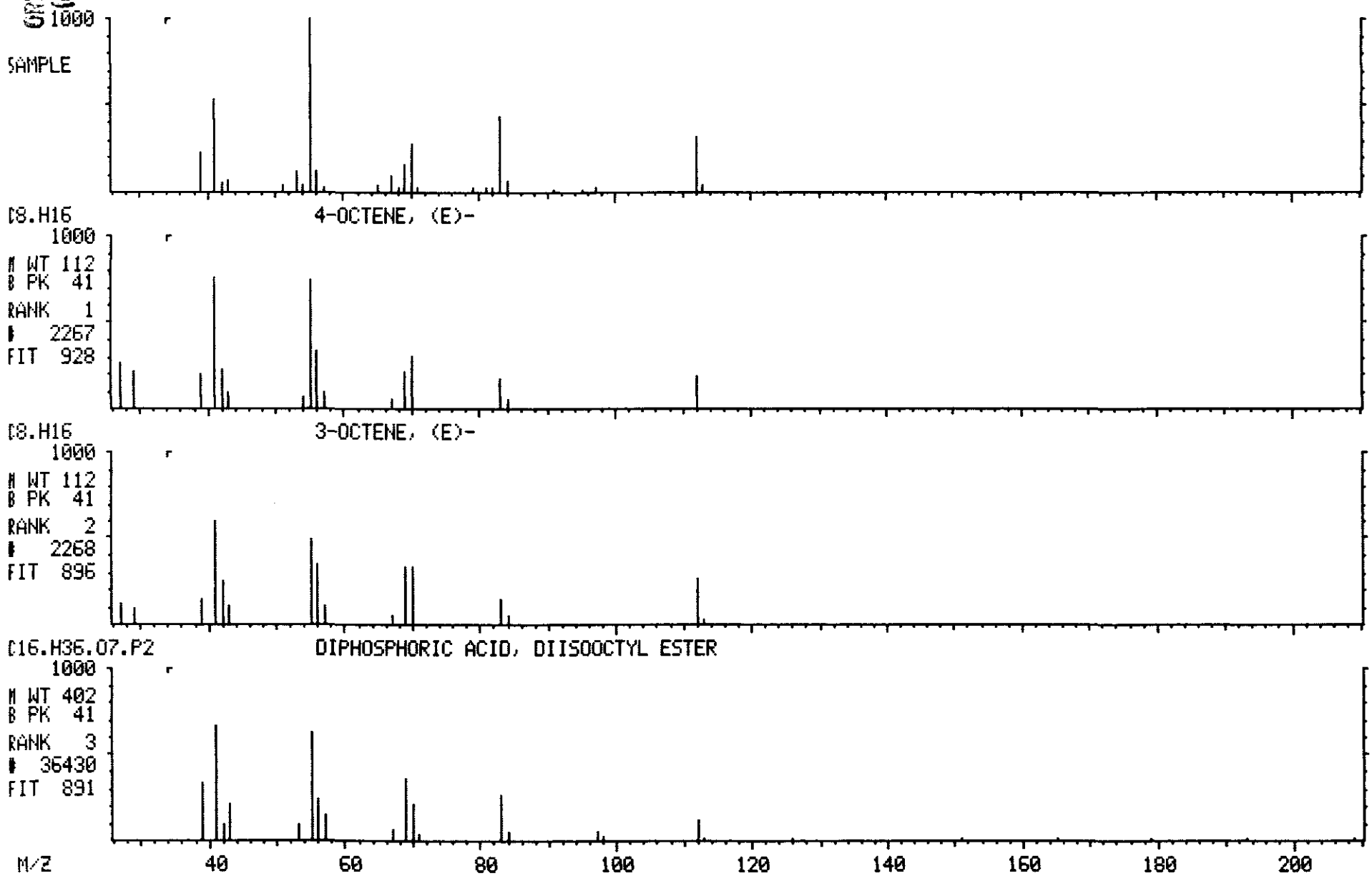
$\frac{48640}{118016} \times 50 = 20.60$

MID LIBRARY SEARCH (LIBRARYNB)
05/01/90 10:46:00 + 16:12
SAMPLE: CLP,VERSCDM,2548,SW1,L,W,16704A,V,,420.1,3,5ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
ENHANCED (S 15B 2N 0T)

DATA: Y1251 # 373
CALI: Y1251 # 3

BASE M/Z: 55
RIC: 48640.

ORIGINAL (Red)



0074

????INTERNAL STANDARD RIC REPORT<<<<

ORIGINAL (Red)

*****INTERNAL STANDARD#1*****

Mass List Data: Y1251 # 273 Base m/z: 47
05/01/90 10:46:00 + 12:43 Cali: Y1251 # 3 RIC: 84736.
Sample: CLP,VERSCDM,2548,SW1,L,W,16704A,V,,420.1,3,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Enhanced (S 15B 2N 0T)

35	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

*****INTERNAL STANDARD#2*****

Mass List Data: Y1251 # 321 Base m/z: 114
05/01/90 10:46:00 + 13:56 Cali: Y1251 # 3 RIC: 118016.
Sample: CLP,VERSCDM,2548,SW1,L,W,16704A,V,,420.1,3,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Enhanced (S 15B 2N 0T)

36	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

*****INTERNAL STANDARD#3*****

Mass List Data: Y1251 # 437 Base m/z: 117
05/01/90 10:46:00 + 18:58 Cali: Y1251 # 3 RIC: 188928.
Sample: CLP,VERSCDM,2548,SW1,L,W,16704A,V,,420.1,3,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Enhanced (S 15B 2N 0T)

35	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW2 ORIGINAL (R&S)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16705A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1258

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SW2 ORIGINAL (Red)

La Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16705A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1258

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

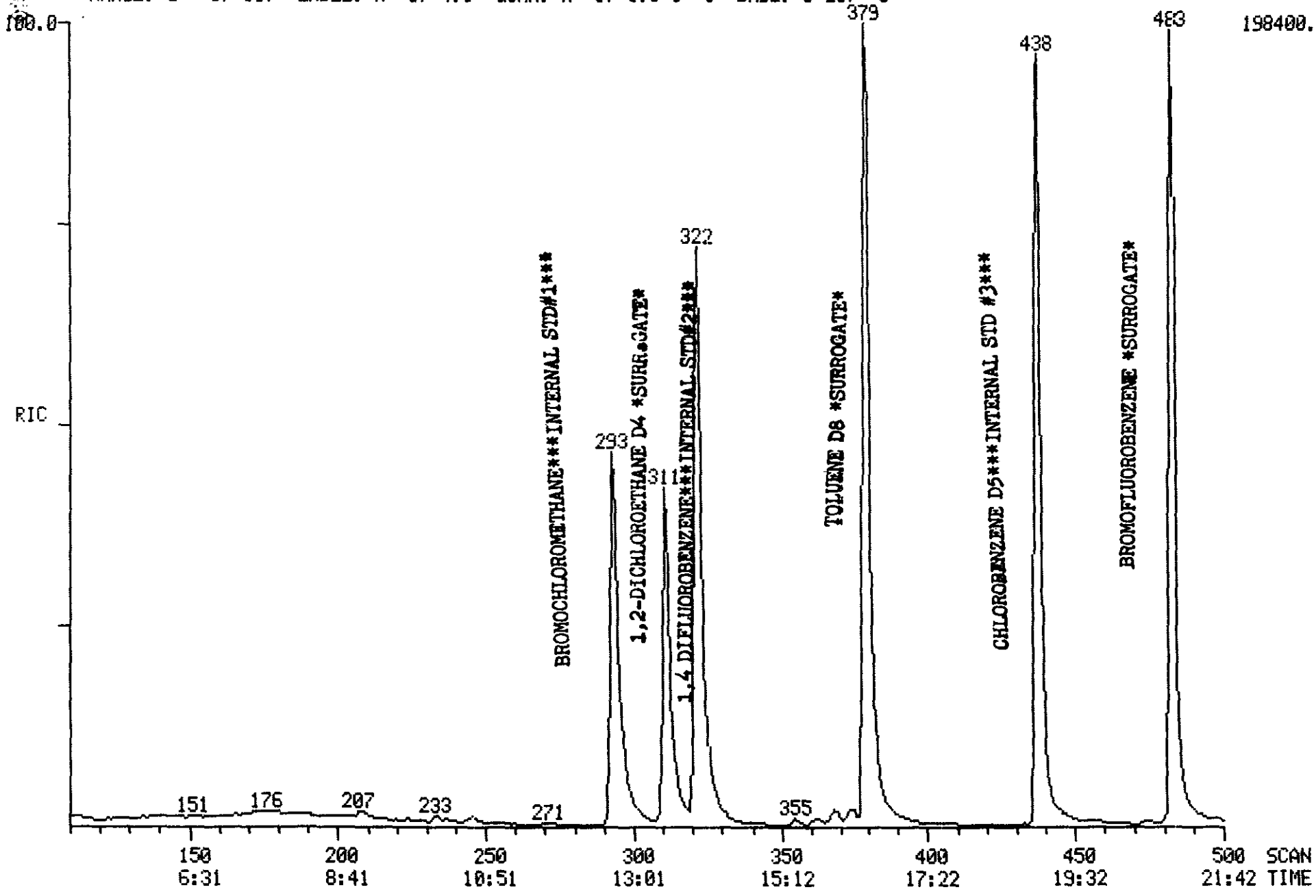
Column (pack/cap) CAP Dilution Factor: 1.0

N ber TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: Y1258 #1 SCANS 110 TO 500
05/01/90 13:56:00 CALI: Y1258 #3
SAMPLE: CLP,VERSCDM,2548,SW2,L,W,1E705A,V,,420.1,3,5ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y1258

Data: Y1258.TI
05/01/90 13:56:00
Sample: CLP,VERSCDM,2548,SW2,L,W,16705A,V,,420.1,3,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

Y1258

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	293	12:43	1	1.000	A BB	55298.	50.000 UG/L*	16.01
2	114	322	13:59	2	1.000	A BB	192654.	50.000 UG/L*	16.01
3	82	438	19:01	3	1.000	A BB	89686.	50.000 UG/L*	16.01
4	65	311	13:30	2	0.966	A BB	95247.	55.511 UG/L%	17.77 101%
5	98	379	16:27	2	1.177	A BB	219645.	51.101 UG/L%	16.36 102%
6	95	483	20:58	3	1.103	A BB	90884.	48.718 UG/L%	15.60 97%
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	233	10:07	1	0.795	A BB	885.	~~0.572 UG/L~~	0.18
12	43	208	9:02	1	0.710	A BB	3707.	~~6.174 UG/L~~	1.98
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	78	318	13:48	2	0.988	A BB	201.	~~0.056 UG/L~~	0.02
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	91	383	16:38	3	0.874	A BB	1038.	~~0.253 UG/L~~	0.08
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:41	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	55.51	50.00	0.494	0.445	1.11
5	16:27	1.00	1.181	1.00	51.10	50.00	1.140	1.116	1.02
6	20:58	1.00	1.105	1.00	48.72	50.00	1.013	1.040	0.97
7	5:59		0.473						
8	7:25		0.586						
9	6:20		0.500						
10	7:33		0.596						
11	10:04	1.00	0.795	1.00	0.57	50.00	0.016	1.398	0.01

Y1258

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.709	1.00	6.17	50.00	0.067	0.543	0.12
13	10:23		0.818						
14	9:17		0.733						
15	11:15		0.887						
16	12:25		0.979						
17	13:04		1.031						
18	11:46		0.928						
19	13:30		0.969						
20	11:04		0.873						
21	15:14		1.093						
22	14:51		1.065						
23	15:59		1.146						
24	14:35		1.047						
25	18:01		0.950						
26	17:01		0.897						
27	13:46	1.00	0.988	1.00	0.06	50.00	0.001	0.925	0.00
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48		0.886						
32	15:27		1.109						
33	17:40		0.931						
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	0.25	50.00	0.012	2.286	0.01
36	19:01		1.002						
37	19:01		1.002						
38	19:56		1.050						
39	19:53		1.048						
40	13:38		0.978						
41	19:06		1.007						
42	10:36		0.836						
43	12:09		0.959						

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB_1

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16706

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1241

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB_1

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16706

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1241

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

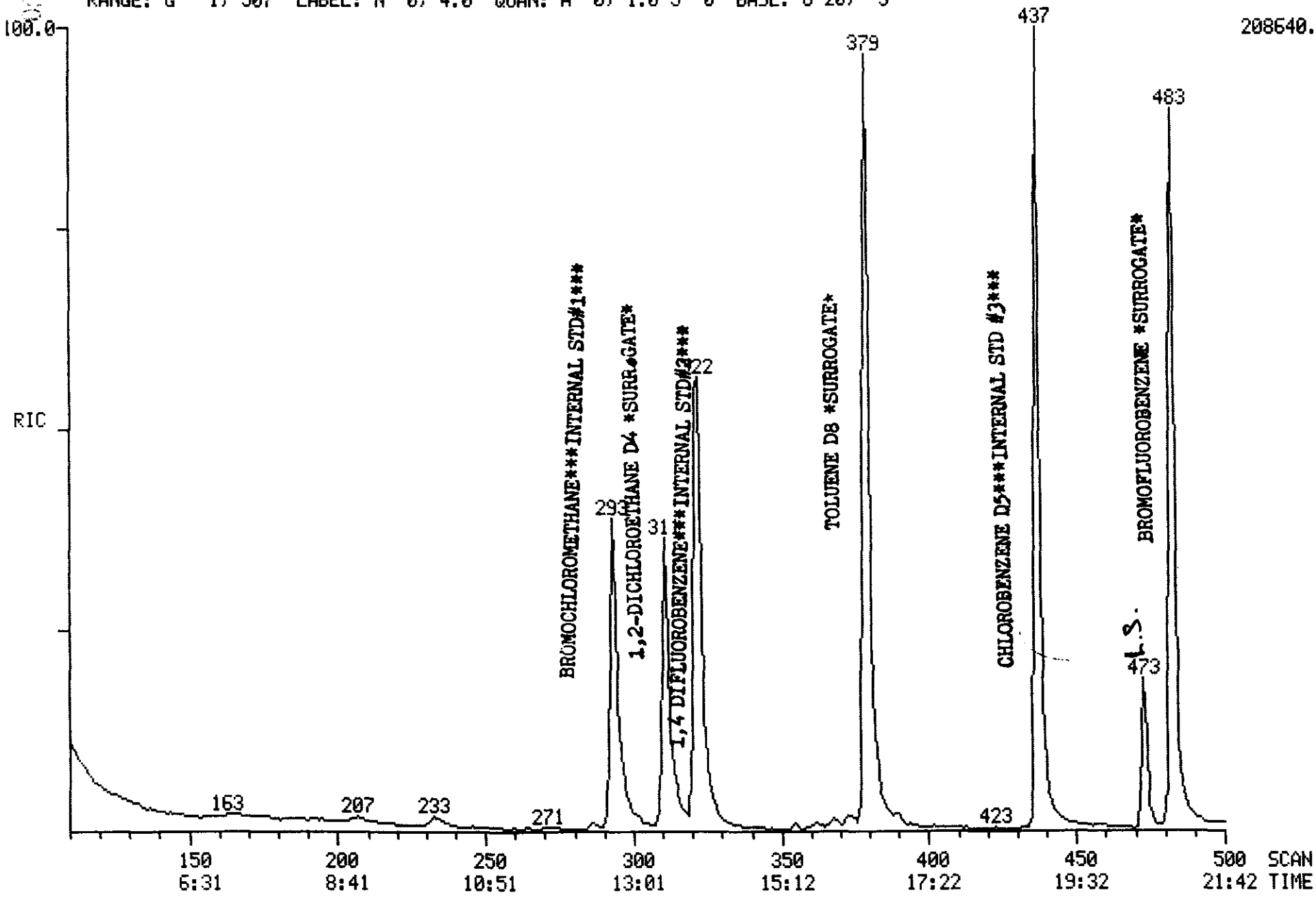
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-56-5	BUTANE, 1,4-DICHLORO-	20.54	9.0	J

RIC DATA: Y1241 #1 SCANS 110 TO 500
05/01/90 1:47:00 CALI: Y1241 #3
SAMPLE: CLP,VERSCOM,2548,,TB1,L,W,16706,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y1Z41

Data: Y1241.TI
05/01/90 1:47:00
Sample: CLP,VERSCDM,2548,,TB1,L,W,16706,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Formula: RTX-502.2,20C(.5MIN) Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

Y1241

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	293	12:43	1	1.000	A BB	43706.	50.000 UG/L*	15.85
2	114	321	13:56	2	1.000	A BB	169357.	50.000 UG/L*	15.85
3	82	437	18:58	3	1.000	A BB	81854.	50.000 UG/L*	15.85
4	65	311	13:30	2	0.969	A BB	85123.	55.894 UG/L%	17.72 112%
5	98	379	16:27	2	1.181	A BB	202113.	52.055 UG/L%	16.50 104%
6	95	483	20:58	3	1.105	A BB	84557.	46.485 UG/L%	14.74 93%
7	50	139	6:02	1	0.474	A BB	1327.	~~0.888 UG/L~~	0.28
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	233	10:07	1	0.795	A BB	2211.	~~1.685 UG/L~~	0.53
12	43	208	9:02	1	0.710	A BB	2909.	~~4.727 UG/L~~	1.50
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	83	286	12:25	1	0.976	A BB	2720.	~~1.053 UG/L~~	0.33
17	97	302	13:07	1	1.031	A BB	1028.	~~0.406 UG/L~~	0.13
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	78	317	13:46	2	0.988	A BB	259.	~~0.077 UG/L~~	0.02
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	91	382	16:35	3	0.874	A BB	2051.	~~0.517 UG/L~~	0.16
36	112	439	19:04	3	1.005	A BB	194.	~~0.076 UG/L~~	0.02
37	106	440	19:06	3	1.007	A BB	388.	~~0.281 UG/L~~	0.09
38	NOT FOUND								
39	NOT FOUND								
40	62	314	13:38	2	0.978	A BV	2056.	~~1.253 UG/L~~	0.40
41	106	440	19:06	3	1.007	A BB	388.	~~0.117 UG/L~~	0.04
42	NOT FOUND								
43	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	55.89	50.00	0.503	0.450	1.12
5	16:27	1.00	1.181	1.00	52.06	50.00	1.193	1.146	1.04
6	20:58	1.00	1.105	1.00	46.48	50.00	1.033	1.111	0.93
7	5:59	1.01	0.471	1.01	0.89	50.00	0.030	1.710	0.02
8	7:25		0.584						
9	6:20		0.498						
10	7:36		0.597						
11	10:04	1.00	0.792	1.00	1.66	50.00	0.051	1.520	0.03

Y1241

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.706	1.00	4.73	50.00	0.067	0.704	0.09
13	10:23		0.816						
14	9:17		0.730						
15	11:15		0.884						
16	12:25	1.00	0.976	1.00	1.05	50.00	0.062	2.954	0.02
17	13:04	1.00	1.027	1.00	0.41	50.00	0.024	2.896	0.01
18	11:46		0.925						
19	13:33		0.972						
20	11:04		0.870						
21	15:14		1.093						
22	14:51		1.065						
23	15:59		1.146						
24	14:35		1.047						
25	18:01		0.950						
26	17:01		0.897						
27	13:46	1.00	0.988	1.00	0.08	50.00	0.002	0.999	0.00
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48		0.886						
32	15:27		1.109						
33	17:40		0.931						
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	0.52	50.00	0.025	2.422	0.01
36	19:04	1.00	1.005	1.00	0.08	50.00	0.002	1.552	0.00
37	19:01	1.00	1.002	1.00	0.28	50.00	0.005	0.844	0.01
38	19:56		1.050						
39	19:53		1.048						
40	13:38	1.00	0.978	1.00	1.25	50.00	0.012	0.485	0.03
41	19:06	1.00	1.007	1.00	0.12	50.00	0.005	2.024	0.00
42	10:36		0.833						
43	12:12		0.959						

Library Search Data: Y1241 # 473 Base m/z: 55
05/01/90 1:47:00 + 20:32 Cali: Y1241 # 3 RIC: 28352.
Sample: CLP,VERSCDM,2548,,TB1,L,W,16706,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

42222 spectra in LIBRARYNB searched for maximum FIT
168 matched at least 5 of the 16 largest peaks in the unknown

Rank	In.	Name
1	3561	BUTANE, 1,4-DICHLORO-
2	830	CYCLOPROPANE, 1-CHLORO-1-METHYL-
3	826	1-PROPENE, 3-CHLORO-2-METHYL-
4	3566	BUTANE, 1,3-DICHLORO-
5	829	2-BUTENE, 2-CHLORO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C4.H8.CL2	126	55	917	990	917
2	C4.H7.CL	90	55	602	943	602
3	C4.H7.CL	90	55	798	934	811
4	C4.H8.CL2	126	55	831	930	831
5	C4.H7.CL	90	55	760	915	780

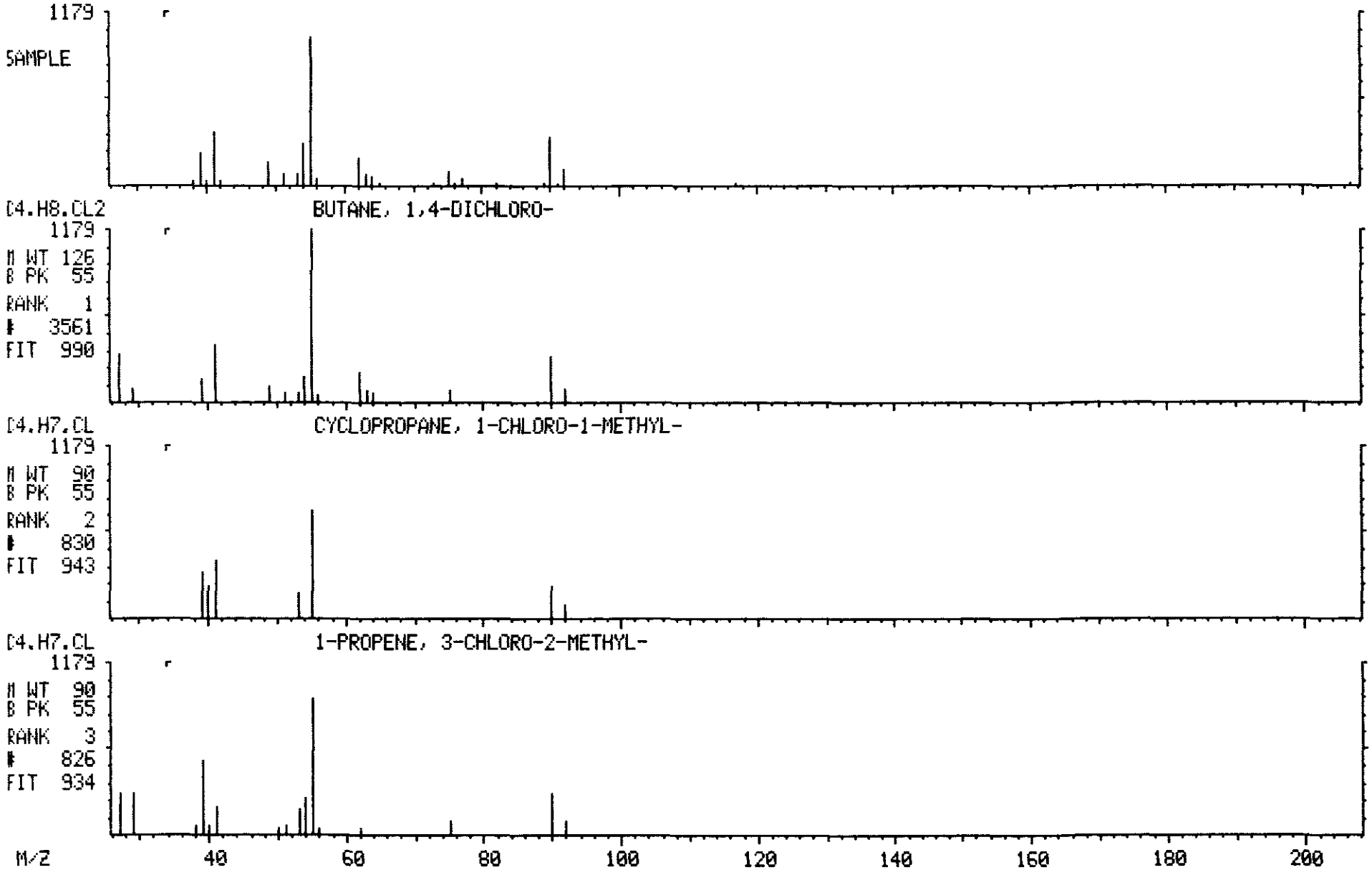
Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	110-56-5
2	—	—	—	—	50915-28-1
3	—	—	—	—	563-47-3
4	—	—	—	—	1190-22-3
5	—	—	—	—	4461-41-0

$\frac{28352}{156672} \times 50 = 9.04$

MID LIBRARY SEARCH (LIBRARYNB)
05/01/90 1:47:00 + 20:32
SAMPLE: CLP,VERSCDM,2548,,TB1,L,W,16706,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
ENHANCED (S 15B 2N 0T)

DATA: Y1241 # 473
CALI: Y1241 # 3

BASE M/Z: 55
RIC: 28352.



>>>>INTERNAL STANDARD RIC REPORT<<<<

*****INTERNAL STANDARD#1*****

Mass List Data: Y1Z41 # 273 Base m/z: 130
05/01/90 1:47:00 + 12:43 Cali: Y1241 # 3 RIC: 67968.
Sample: CLP,VERSCDM,2548,,TB1,L,W,16706,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

35 0.00 0. Minima Min Inten: 0.
30 Maxima # 0

*****INTERNAL STANDARD#2*****

Mass List Data: Y1Z41 # 321 Base m/z: 114
05/01/90 1:47:00 + 13:56 Cali: Y1241 # 3 RIC: 94848.
Sample: CLP,VERSCDM,2548,,TB1,L,W,16706,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

35 0.00 0. Minima Min Inten: 0.
30 Maxima # 0

*****INTERNAL STANDARD#3*****

Mass List Data: Y1Z41 # 437 Base m/z: 117
05/01/90 1:47:00 + 18:58 Cali: Y1241 # 3 RIC: 156672.
Sample: CLP,VERSCDM,2548,,TB1,L,W,16706,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

35 0.00 0. Minima Min Inten: 0.
30 Maxima # 0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB1A

La Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16707

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1240

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB1A

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16707

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1240

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

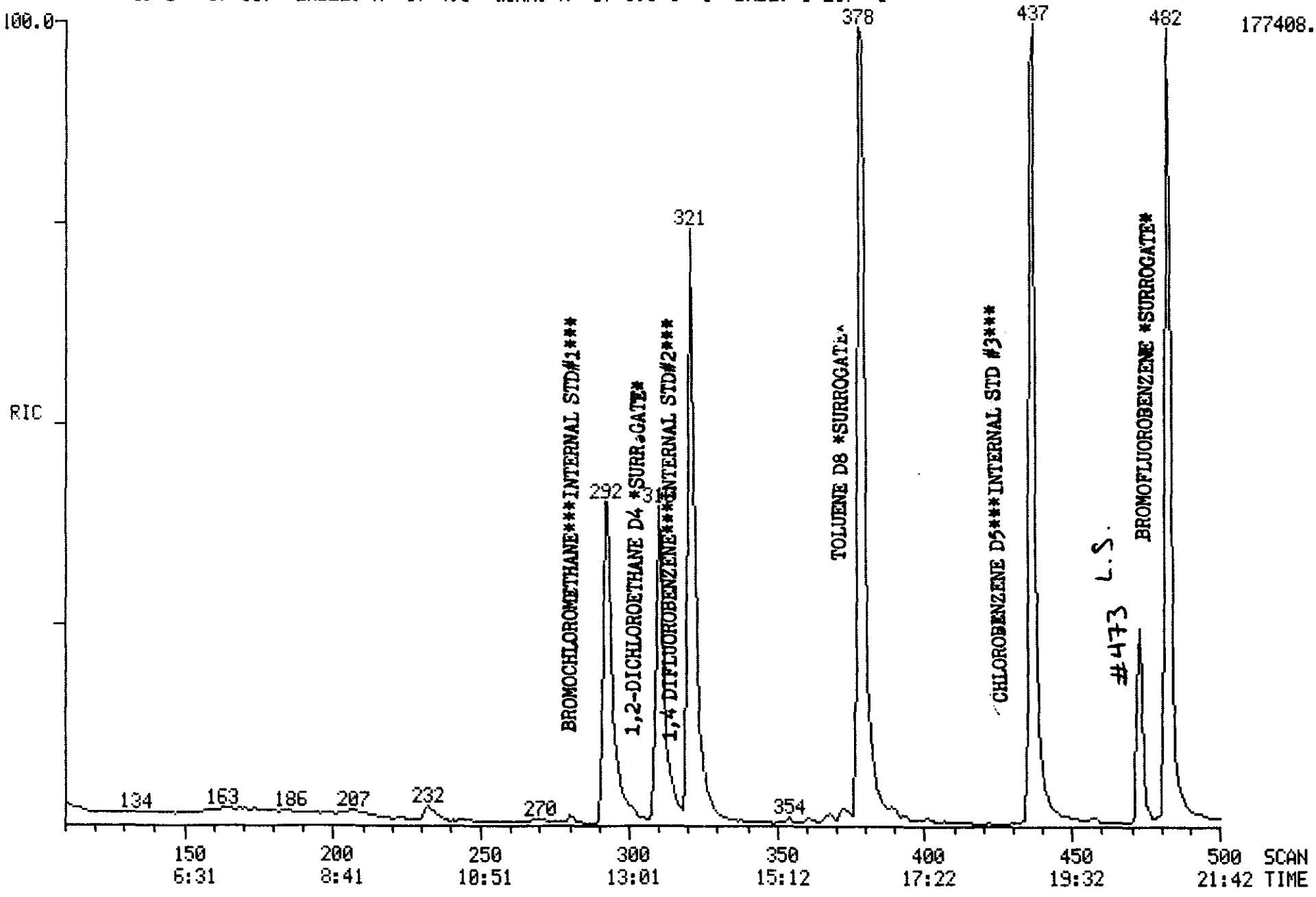
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-56-5	BUTANE, 1,4-DICHLORO-	20.54	11	J

RIC DATA: Y1240 #1 SCANS 110 TO 500
05/01/90 1:19:00 CALI: Y1240 #3
SAMPLE: CLP,VERSCDM,2548,TB1A,L,W,16707,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y1240

Data: Y1240.TI
05/01/90 1:19:00
Sample: CLP,VERSCDM,2548,TB1A,L,W,16707,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Formula: RTX-502.2,20C(.5MIN) Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

Y1240

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	292	12:41	1	1.000	A BB	45492.	50.000 UG/L*	15.90
2	114	321	13:56	2	1.000	A BB	170863.	50.000 UG/L*	15.90
3	82	437	18:58	3	1.000	A BB	82532.	50.000 UG/L*	15.90
4	65	310	13:28	2	0.966	A BB	83105.	54.089 UG/L%	17.20 108%
5	98	378	16:25	2	1.178	A BB	203770.	52.020 UG/L%	16.54 104%
6	95	482	20:56	3	1.103	A BB	84242.	45.932 UG/L%	14.61 92%
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	232	10:04	1	0.795	A BB	2078.	~~1.503 UG/L~~	0.48
12	43	207	8:59	1	0.709	A BB	3859.	~~6.025 UG/L~~	1.92
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	97	301	13:04	1	1.031	A BB	566.	~~0.215 UG/L~~	0.07
18	72	271	11:46	1	0.928	A BB	236.	~~1.619 UG/L~~	0.51
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	164	406	17:38	3	0.929	A BB	166.	~~0.104 UG/L~~	0.03
34	NOT FOUND								
35	91	382	16:35	3	0.874	A BB	2108.	~~0.527 UG/L~~	0.17
36	NOT FOUND								
37	NOT FOUND								
38	104	458	19:53	3	1.048	A BB	199.	~~0.075 UG/L~~	0.02
39	NOT FOUND								
40	62	314	13:38	2	0.978	A BB	1825.	~~1.102 UG/L~~	0.35
41	106	440	19:06	3	1.007	A BB	572.	~~0.171 UG/L~~	0.05
42	NOT FOUND								
43	96	280	12:09	1	0.959	A BB	1565.	~~1.110 UG/L~~	0.35

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	54.09	50.00	0.486	0.450	1.08
5	16:27	1.00	1.181	1.00	52.02	50.00	1.193	1.146	1.04
6	20:58	1.00	1.105	1.00	45.93	50.00	1.021	1.111	0.92
7	5:59		0.471						
8	7:25		0.584						
9	6:20		0.498						
10	7:36		0.597						
11	10:04	1.00	0.792	1.00	1.50	50.00	0.046	1.520	0.03

y1240

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.706	1.00	6.02	50.00	0.085	0.704	0.12
13	10:23		0.816						
14	9:17		0.730						
15	11:15		0.884						
16	12:25		0.976						
17	13:04	1.00	1.027	1.00	0.21	50.00	0.012	2.896	0.00
18	11:46	1.00	0.925	1.00	1.62	50.00	0.005	0.160	0.03
19	13:33		0.972						
20	11:04		0.870						
21	15:14		1.093						
22	14:51		1.065						
23	15:59		1.146						
24	14:35		1.047						
25	18:01		0.950						
26	17:01		0.897						
27	13:46		0.988						
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48		0.886						
32	15:27		1.109						
33	17:40	1.00	0.931	1.00	0.10	50.00	0.002	0.963	0.00
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	0.53	50.00	0.026	2.422	0.01
36	19:04		1.005						
37	19:01		1.002						
38	19:56	1.00	1.050	1.00	0.07	50.00	0.002	1.617	0.00
39	19:53		1.048						
40	13:38	1.00	0.978	1.00	1.10	50.00	0.011	0.485	0.02
41	19:06	1.00	1.007	1.00	0.17	50.00	0.007	2.024	0.00
42	10:36		0.833						
43	12:12	1.00	0.959	1.00	1.11	50.00	0.034	1.550	0.02

Library Search Data: Y1240 # 473 Base m/z: 55
05/01/90 1:19:00 + 20:32 Cali: Y1240 # 3 RIC: 33152.
Sample: CLP,VERSCDM,2548,TB1A,L,W,16707,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

42222 spectra in LIBRARYNB searched for maximum FIT
168 matched at least 5 of the 16 largest peaks in the unknown

Rank	In.	Name
1	3561	BUTANE, 1,4-DICHLORO-
2	830	CYCLOPROPANE, 1-CHLORO-1-METHYL-
3	826	1-PROPENE, 3-CHLORO-2-METHYL-
4	3566	BUTANE, 1,3-DICHLORO-
5	829	2-BUTENE, 2-CHLORO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C4.H8.CL2	126	55	935	991	935
2	C4.H7.CL	90	55	611	941	611
3	C4.H7.CL	90	55	811	934	825
4	C4.H8.CL2	126	55	845	929	845
5	C4.H7.CL	90	55	767	913	786

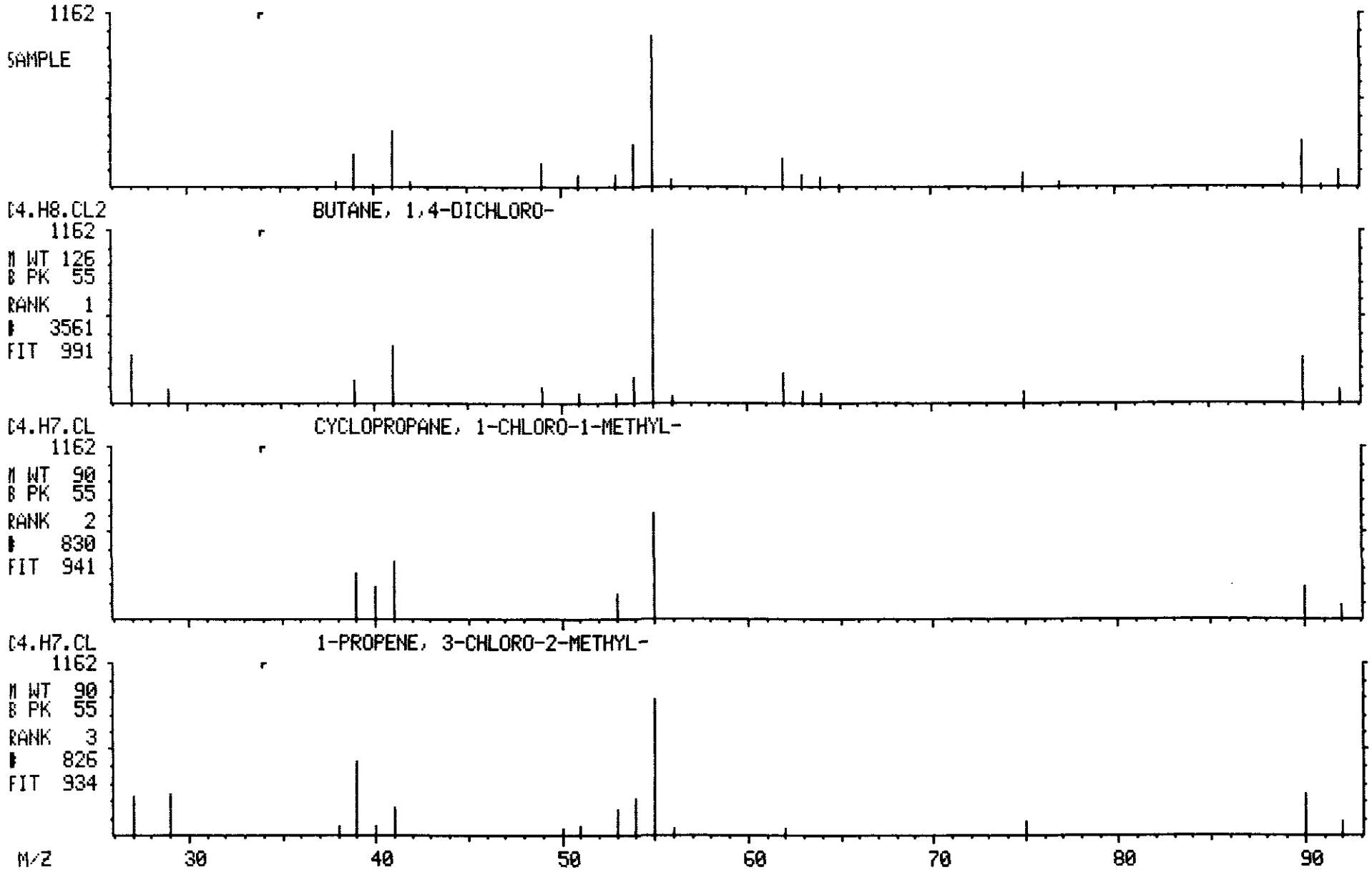
Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	110-56-5
2	—	—	—	—	50915-28-1
3	—	—	—	—	563-47-3
4	—	—	—	—	1190-22-3
5	—	—	—	—	4461-41-0

$$\frac{33152}{145920} \times 50 = 11.35$$

MID LIBRARY SEARCH (LIBRARYNB)
05/01/90 1:19:00 + 20:32
SAMPLE: CLP,VERSCOM,2548,TB1A,L,W,16707,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
ENHANCED (S 15B 2N 0T)

DATA: Y1240 # 473
CALI: Y1240 # 3

BASE M/Z: 55
RIC: 33152.



860098

????INTERNAL STANDARD RIC REPORT<<<<

*****INTERNAL STANDARD#1*****

Mass List Data: Y1240 # 272 Base m/z: 130
05/01/90 1:19:00 + 12:41 Cali: Y1240 # 3 RIC: 59456.
Sample: CLP,VERSCDM,2548,TB1A,L,W,16707,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

35	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

*****INTERNAL STANDARD#2*****

Mass List Data: Y1240 # 321 Base m/z: 114
05/01/90 1:19:00 + 13:56 Cali: Y1240 # 3 RIC: 108672.
Sample: CLP,VERSCDM,2548,TB1A,L,W,16707,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

36	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

*****INTERNAL STANDARD#3*****

Mass List Data: Y1240 # 437 Base m/z: 117
05/01/90 1:19:00 + 18:58 Cali: Y1240 # 3 RIC: 145920.
Sample: CLP,VERSCDM,2548,TB1A,L,W,16707,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

35	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB3A

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16708

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1239

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB3A

Lab Name: VERSAR INC. Contract: _____

L. Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16708

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1239

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

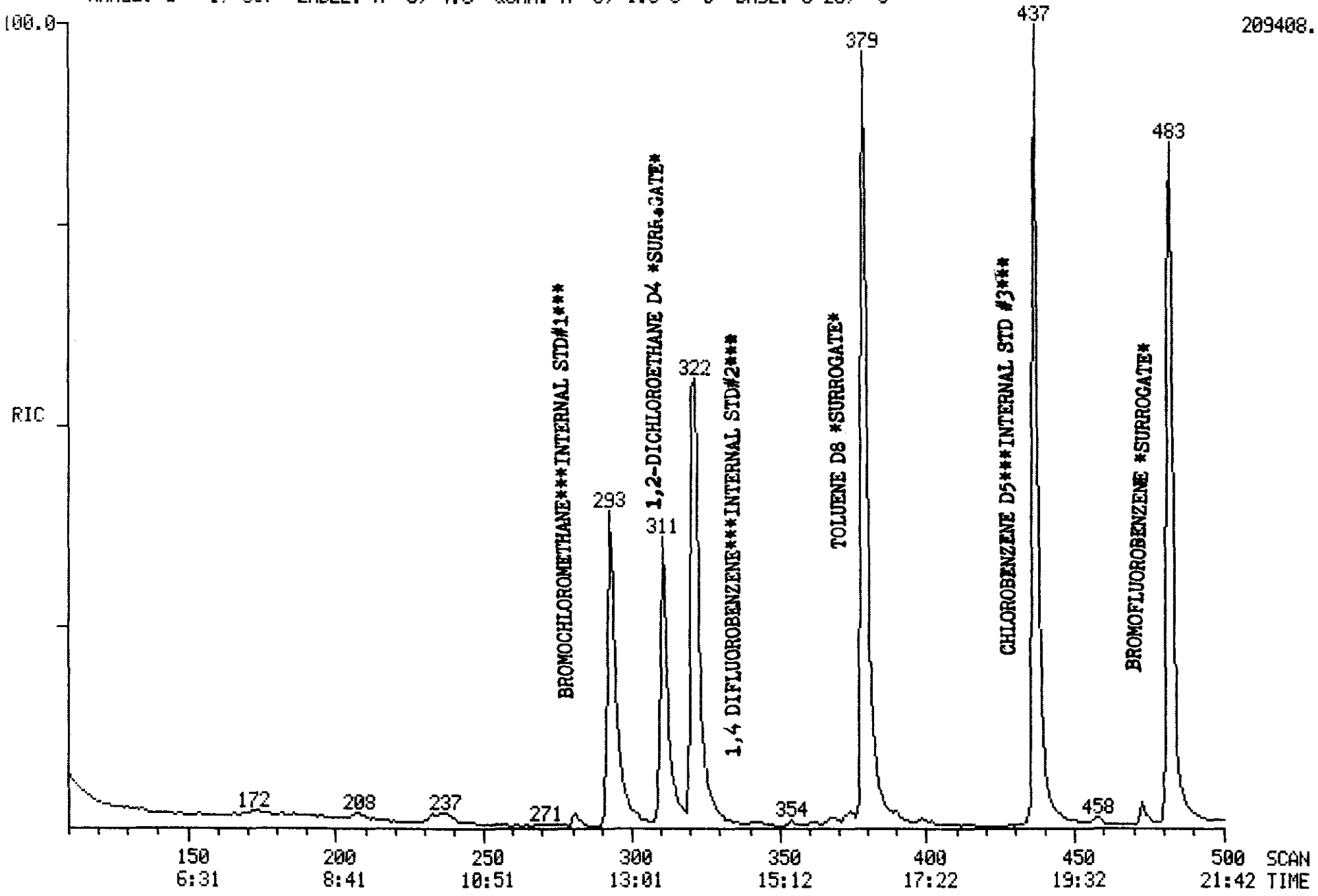
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: Y1239 #1 SCANS 110 TO 500
05/01/90 0:53:00 CALI: Y1239 #3
SAMPLE: CLP,VERSCDM,2548,TB3A,L,W,16708,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y1237

Data: Y1239.TI
05/01/90 0:53:00
Sample: CLP,VERSCDM,2548,TB3A,L,W,16708,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Formula: RTX-502.2,20C(.5MIN) Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for form
SZ 5/1/90

Y1239

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	293	12:43	1	1.000	A BB	45271.	50.000 UG/L*	15.86
2	114	321	13:56	2	1.000	A BB	170794.	50.000 UG/L*	15.86
3	82	437	18:58	3	1.000	A BB	82330.	50.000 UG/L*	15.86
4	65	311	13:30	2	0.969	A BB	84632.	55.104 UG/L%	17.48 110°
5	98	379	16:27	2	1.181	A BB	203567.	51.989 UG/L%	16.49 104
6	95	483	20:58	3	1.105	A BB	88407.	48.320 UG/L%	15.33 97°
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	233	10:07	1	0.795	A BB	2124.	~~1.544 UG/L~~	0.49
12	43	208	9:02	1	0.710	A BB	2146.	~~3.367 UG/L~~	1.07
13	76	238	10:20	1	0.812	A BB	338.	~~0.078 UG/L~~	0.02
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	97	302	13:07	1	1.031	A BB	401.	~~0.153 UG/L~~	0.05
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	78	317	13:46	2	0.988	A BB	765.	~~0.224 UG/L~~	0.07
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	83	477	20:43	3	1.092	A BB	180.	~~0.134 UG/L~~	0.04
35	91	382	16:35	3	0.874	A BB	2207.	~~0.553 UG/L~~	0.18
36	112	438	19:01	3	1.002	A BB	373.	~~0.146 UG/L~~	0.05
37	106	440	19:06	3	1.007	A BB	1078.	~~0.776 UG/L~~	0.25
38	104	459	19:56	3	1.050	A BB	805.	~~0.302 UG/L~~	0.10
39	106	458	19:53	3	1.048	A BB	588.	~~0.372 UG~~/L	0.12
40	NOT FOUND								
41	106	440	19:06	3	1.007	A BB	1078.	~~0.324 UG/L~~	0.10
42	NOT FOUND								
43	96	281	12:12	1	0.959	A BB	2600.	~~1.853 UG/L~~	0.59

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	55.10	50.00	0.496	0.450	1.10
5	16:27	1.00	1.181	1.00	51.99	50.00	1.192	1.146	1.04
6	20:58	1.00	1.105	1.00	48.32	50.00	1.074	1.111	0.97
7	5:59		0.471						
8	7:25		0.584						
9	6:20		0.498						
10	7:36		0.597						
11	10:04	1.00	0.792	1.00	1.54	50.00	0.047	1.520	0.03

Y1239

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.706	1.00	3.37	50.00	0.047	0.704	0.07
13	10:23	1.00	0.816	1.00	0.08	50.00	0.007	4.795	0.00
14	9:17		0.730						
15	11:15		0.884						
16	12:25		0.976						
17	13:04	1.00	1.027	1.00	0.15	50.00	0.009	2.896	0.00
18	11:46		0.925						
19	13:33		0.972						
20	11:04		0.870						
21	15:14		1.093						
22	14:51		1.065						
23	15:59		1.146						
24	14:35		1.047						
25	18:01		0.950						
26	17:01		0.897						
27	13:46	1.00	0.988	1.00	0.22	50.00	0.004	0.999	0.00
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48		0.886						
32	15:27		1.109						
33	17:40		0.931						
34	20:43	1.00	1.092	1.00	0.13	50.00	0.002	0.818	0.00
35	16:35	1.00	0.874	1.00	0.55	50.00	0.027	2.422	0.01
36	19:04	1.00	1.005	1.00	0.15	50.00	0.005	1.552	0.00
37	19:01	1.00	1.002	1.00	0.78	50.00	0.013	0.844	0.02
38	19:56	1.00	1.050	1.00	0.30	50.00	0.010	1.617	0.01
39	19:53	1.00	1.048	1.00	0.37	50.00	0.007	0.960	0.01
40	13:38		0.978						
41	19:06	1.00	1.007	1.00	0.32	50.00	0.013	2.024	0.01
42	10:36		0.833						
43	12:12	1.00	0.959	1.00	1.85	50.00	0.057	1.550	0.04

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB4A

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16709

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1238

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	19	
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	13	
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB4A

Lab Name: VERSAR INC. Contract: _____

L... Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16709

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1238

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column (pack/cap) CAP Dilution Factor: 1.0

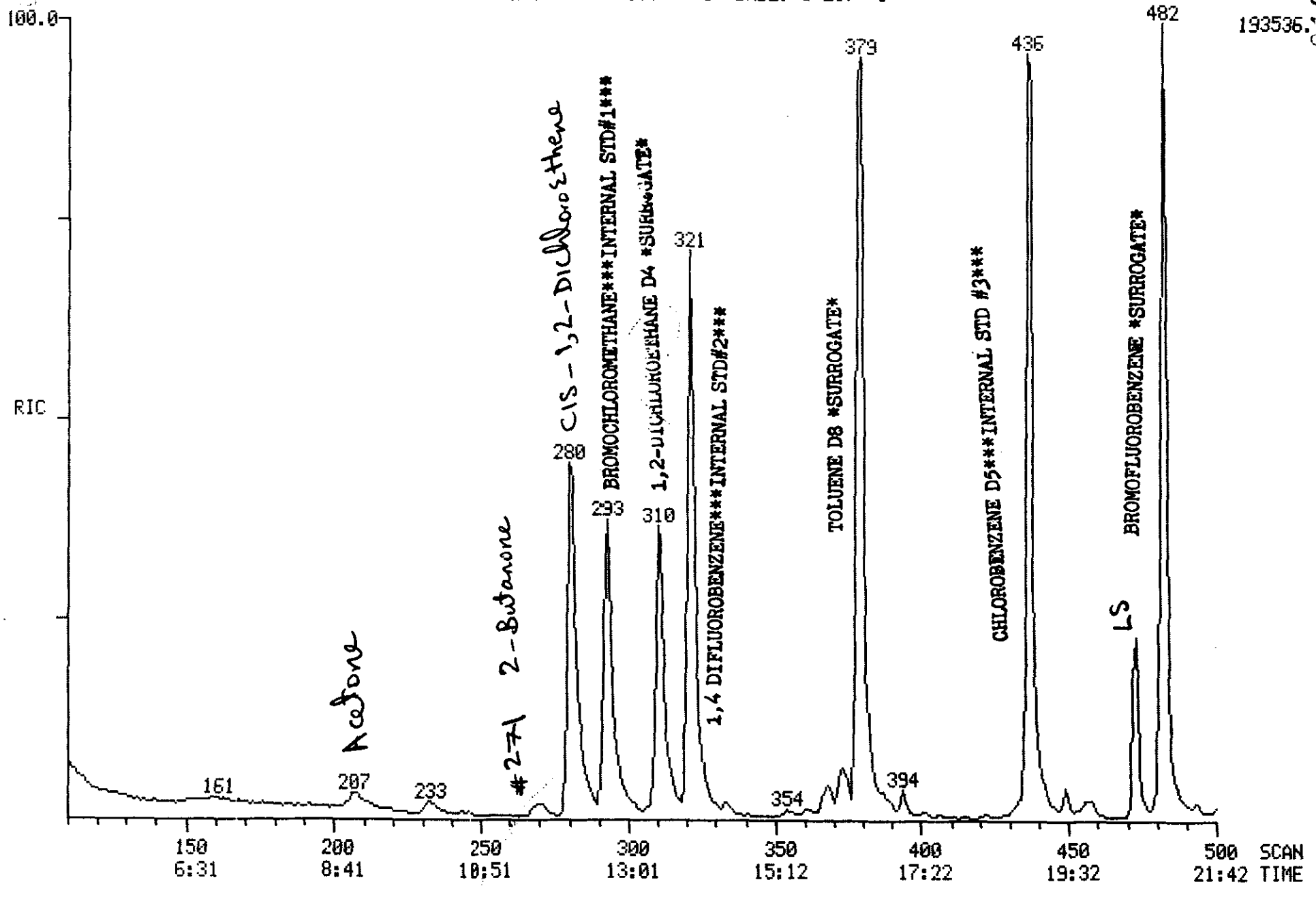
Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
110-56-5	1,4-DICHLOROBUTANE	20.53	13	J

FB

RIC
05/01/90 0:15:00
DATA: Y1238 #1
CALI: Y1238 #3
SCANS 110 TO 500
SAMPLE: CLP,VERSCOM,2548,TB4A,L,W,16709,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y1238

Data: Y1238.TI
05/01/90 0:15:00
Sample: CLP,VERSCDM,2548,TB4A,L,W,16709,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Formula: RTX-502.2,20C(.5MIN) Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

Y1238

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	292	12:41	1	1.000	A BB	43208.	50.000 UG/L*	12.40
2	114	321	13:56	2	1.000	A BB	174956.	50.000 UG/L*	12.40
3	82	436	18:56	3	1.000	A VB	86741.	50.000 UG/L*	12.40
4	65	310	13:28	2	0.966	A BB	85929.	54.618 UG/L%	13.55 109%
5	98	378	16:25	2	1.178	A VB	203378.	50.705 UG/L%	12.57 101%
6	95	482	20:56	3	1.106	A BB	90507.	46.953 UG/L%	11.64 94%
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	232	10:04	1	0.795	A BB	2025.	~~1.542 UG/L~~	0.38
12	43	207	8:59	1	0.709	A BB	11680.	19.198 UG/L	4.76
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	97	301	13:04	1	1.031	A BB	601.	~~0.240 UG/L~~	0.06
18	72	271	11:46	1	0.928	A BB	1861.	13.441 UG/L	3.33
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	63	341	14:48	2	1.062	A BB	320.	~~0.315 UG/L~~	0.08
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	97	391	16:59	3	0.897	A BB	188.	~~0.162 UG/L~~	0.04
27	78	317	13:46	2	0.988	A BB	1217.	~~0.348 UG/L~~	0.09
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	43	387	16:48	3	0.888	A VB	1605.	~~2.103 UG/L~~	0.52
32	43	356	15:27	2	1.109	A BB	210.	~~0.159 UG/L~~	0.04
33	164	407	17:40	3	0.933	A BB	221.	~~0.132 UG/L~~	0.03
34	83	477	20:43	3	1.094	A BB	648.	~~0.457 UG/L~~	0.11
35	91	382	16:35	3	0.876	A VB	3255.	~~0.775 UG/L~~	0.19
36	NOT FOUND								
37	106	436	18:56	3	1.000	A BB	3681.	~~2.514 UG/L~~	0.62
38	104	458	19:53	3	1.050	A BB	2806.	~~1.000 UG/L~~	0.25
39	106	456	19:48	3	1.046	A BB	2125.	~~1.277 UG/L~~	0.32
40	62	314	13:38	2	0.978	A BV	1686.	~~0.994 UG/L~~	0.25
41	NOT FOUND								
42	NOT FOUND								
43	96	280	12:09	1	0.959	A BB	75410.	56.309 UG/L	13.96

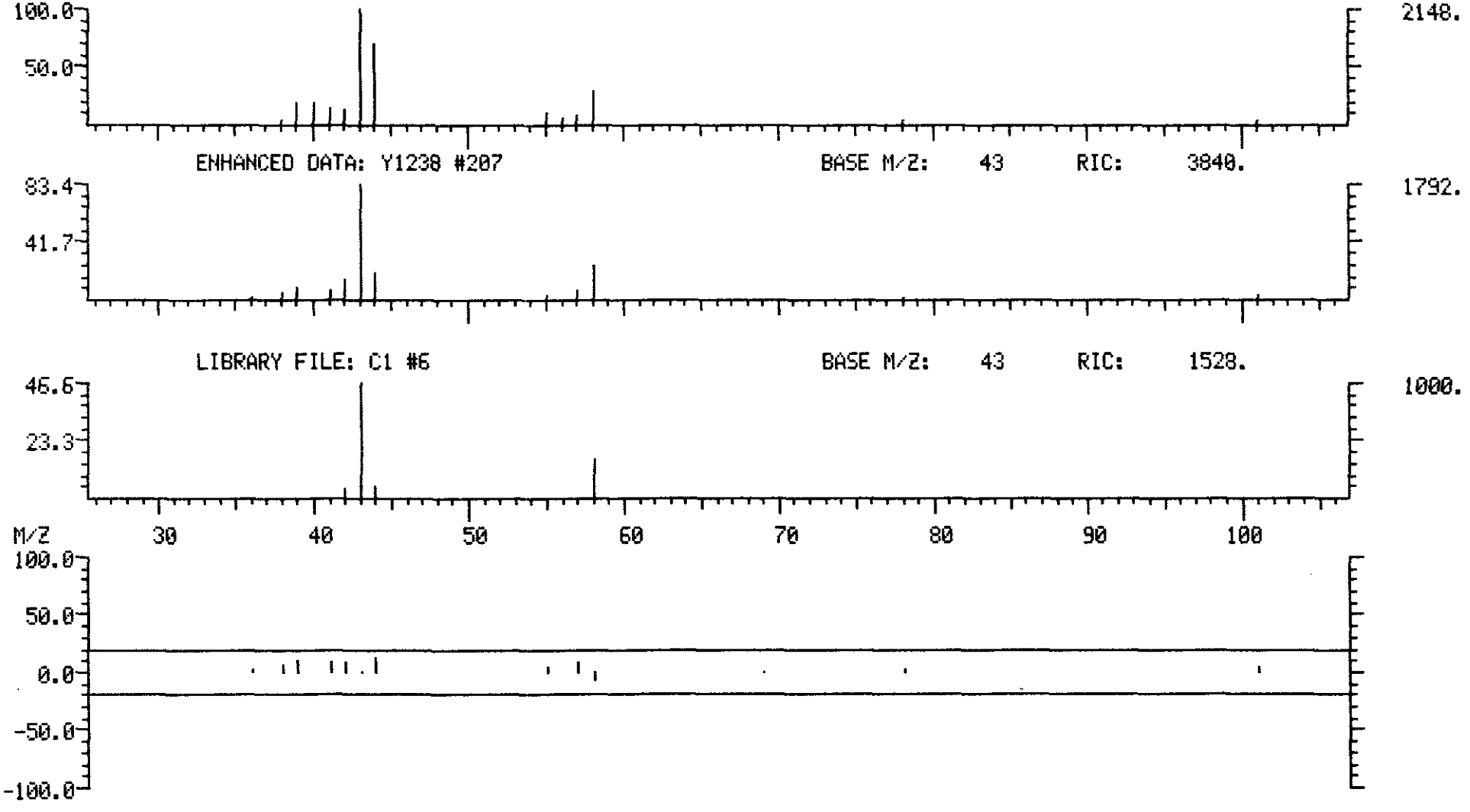
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	54.62	50.00	0.491	0.450	1.09
5	16:27	1.00	1.181	1.00	50.70	50.00	1.162	1.146	1.01
6	20:58	1.00	1.105	1.00	46.95	50.00	1.043	1.111	0.94
7	5:59		0.471						
8	7:25		0.584						
9	6:20		0.498						
10	7:36		0.597						
11	10:04	1.00	0.792	1.00	1.54	50.00	0.047	1.520	0.03

Y1238

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.706	1.00	19.20	50.00	0.270	0.704	0.38
13	10:23		0.816						
14	9:17		0.730						
15	11:15		0.884						
16	12:25		0.976						
17	13:04	1.00	1.027	1.00	0.24	50.00	0.014	2.896	0.00
18	11:46	1.00	0.925	1.00	13.44	50.00	0.043	0.160	0.27
19	13:33		0.972						
20	11:04		0.870						
21	15:14		1.093						
22	14:51	1.00	1.065	1.00	0.31	50.00	0.002	0.291	0.01
23	15:59		1.146						
24	14:35		1.047						
25	18:01		0.950						
26	17:01	1.00	0.897	1.00	0.16	50.00	0.002	0.669	0.00
27	13:46	1.00	0.988	1.00	0.35	50.00	0.007	0.999	0.01
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48	1.00	0.886	1.00	2.10	50.00	0.019	0.440	0.04
32	15:27	1.00	1.109	1.00	0.16	50.00	0.001	0.377	0.00
33	17:40	1.00	0.931	1.00	0.13	50.00	0.003	0.963	0.00
34	20:43	1.00	1.092	1.00	0.46	50.00	0.007	0.818	0.01
35	16:35	1.00	0.874	1.00	0.77	50.00	0.038	2.422	0.02
36	19:04		1.005						
37	19:01	1.00	1.002	1.00	2.51	50.00	0.042	0.844	0.05
38	19:56	1.00	1.050	1.00	1.00	50.00	0.032	1.617	0.02
39	19:53	1.00	1.048	1.00	1.28	50.00	0.024	0.960	0.03
40	13:38	1.00	0.978	1.00	0.99	50.00	0.010	0.485	0.02
41	19:06		1.007						
42	10:36		0.833						
43	12:12	1.00	0.959	1.00	56.31	50.00	1.745	1.550	1.13

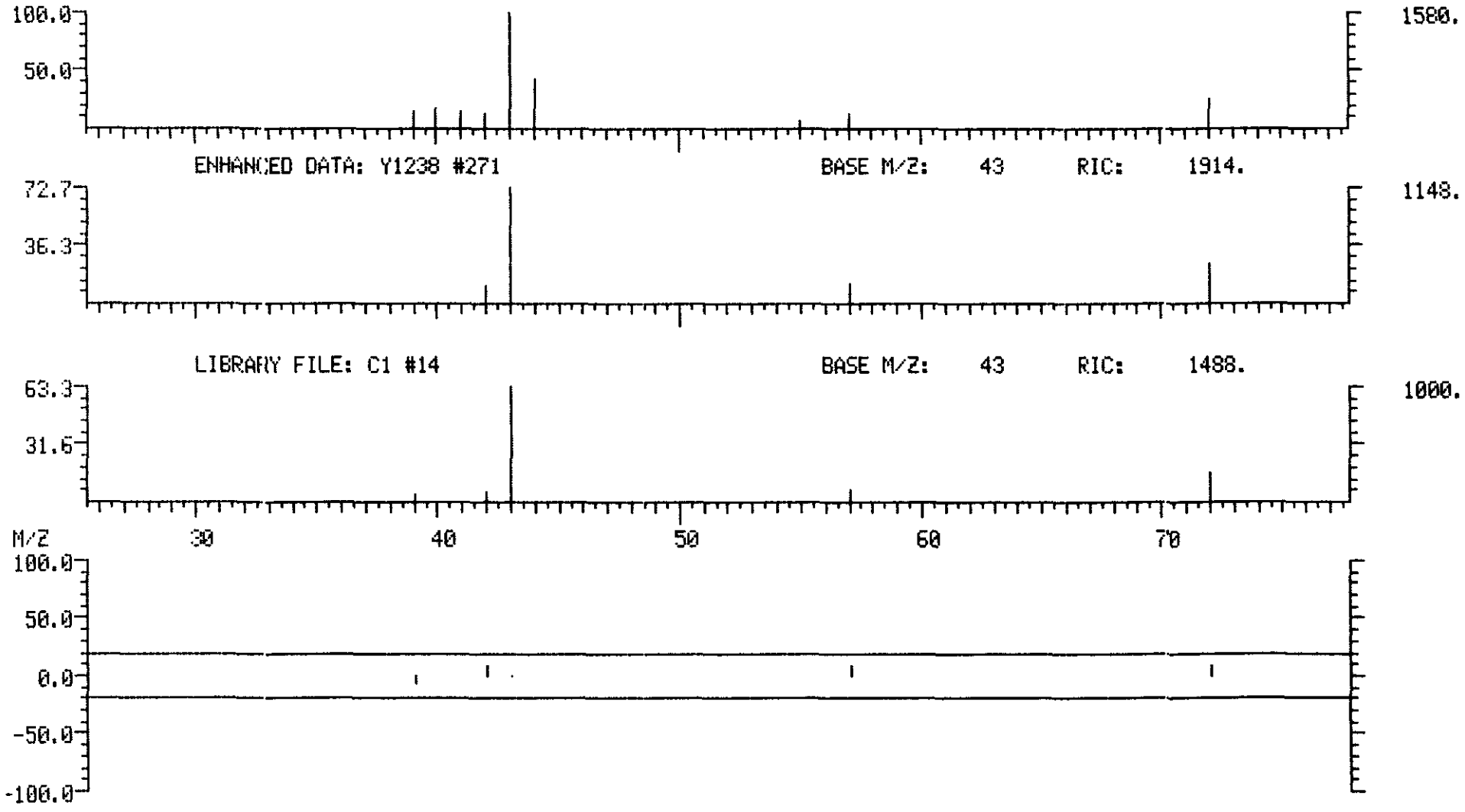
DATA FILE: Y1238 #207 LIBRARY FILE: C1 #6
TARGET COMPOUND COMPARISON CALI: Y1238 #3
COMPOUND: C035 ACETONE

RAW DATA: Y1238 #207 BASE M/Z: 43 RIC: 6520.
05/01/90 0:15



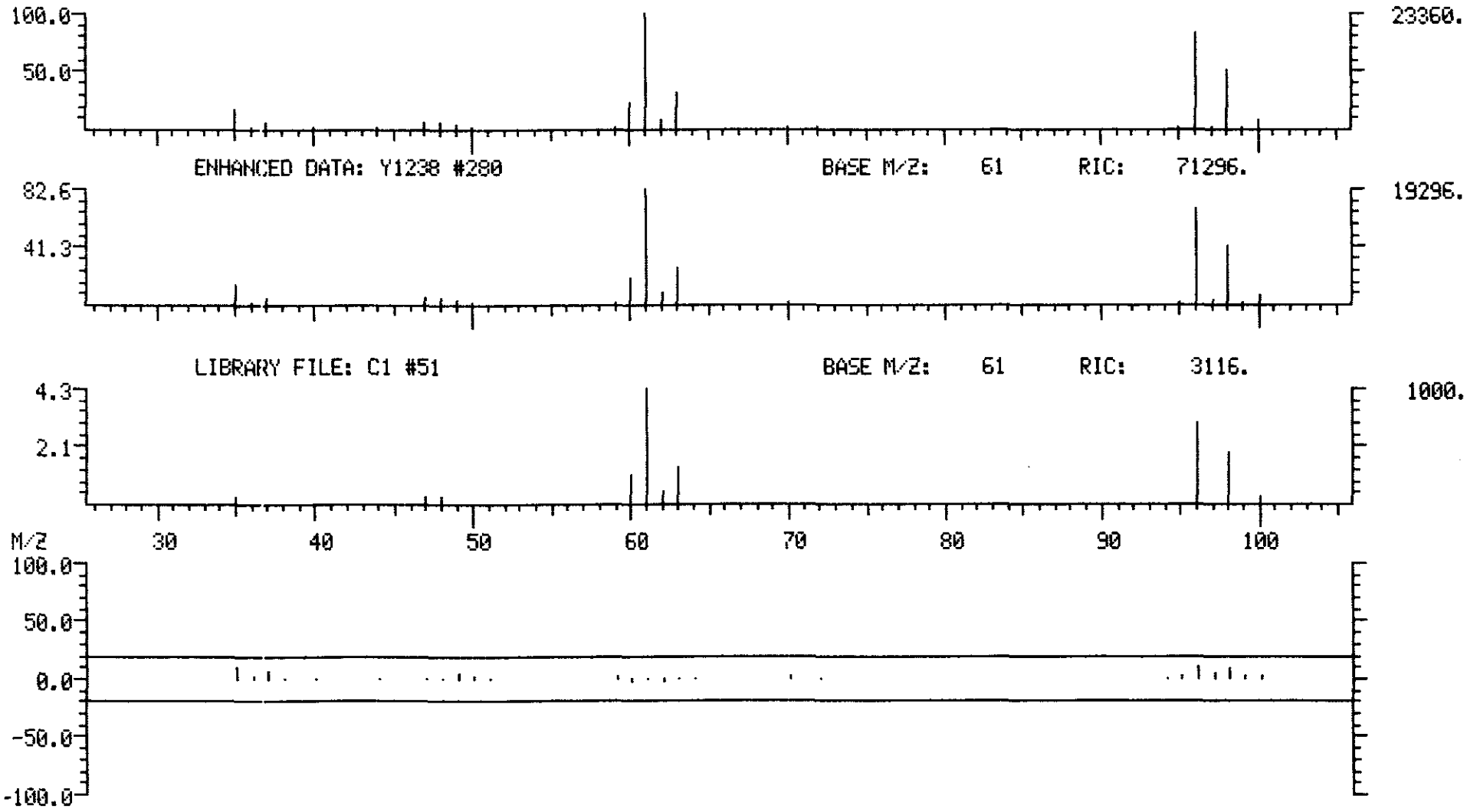
DATA FILE: Y1238 #271 LIBRARY FILE: C1 #14
TARGET COMPOUND COMPARISON CALI: Y1238 #3
COMPOUND: C110 2-BUTANONE

RAW DATA: Y1238 #271 BASE M/Z: 43 RIC: 3884.
05/01/90 0:15



DATA FILE: Y1238 #280 LIBRARY FILE: C1 #51
TARGET COMPOUND COMPARISON CALI: Y1238 #3
COMPOUND: C055 CIS-1,2-DICHLOROETHENE

RAW DATA: Y1238 #280 BASE M/Z: 61 RIC: 86912.
05/01/90 0:15



114

Library Search Data: Y1238 # 473 Base m/z: 55
05/01/90 0:15:00 + 20:32 Cali: Y1238 # 3 RIC: 34048.
Sample: CLP,VERSCDM,2548,TB4A,L,W,16709,V,,420.1,3,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Enhanced (S 15B 2N 0T)

42222 spectra in LIBRARYNB searched for maximum PURITY
168 matched at least 5 of the 16 largest peaks in the unknown

Rank	In.	Name
1	3561	BUTANE, 1,4-DICHLORO-
2	3566	BUTANE, 1,3-DICHLORO-
3	826	1-PROPENE, 3-CHLORO-2-METHYL-
4	829	2-BUTENE, 2-CHLORO-
5	825	1-PROPENE, 1-CHLORO-2-METHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C4.H8.CL2	126	55	941	991	941
2	C4.H8.CL2	126	55	852	929	852
3	C4.H7.CL	90	55	800	921	827
4	C4.H7.CL	90	55	773	913	792
5	C4.H7.CL	90	55	707	772	825

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	110-56-5
2	—	—	—	—	1190-22-3
3	—	—	—	—	563-47-3
4	—	—	—	—	4461-41-0
5	—	—	—	—	513-37-1

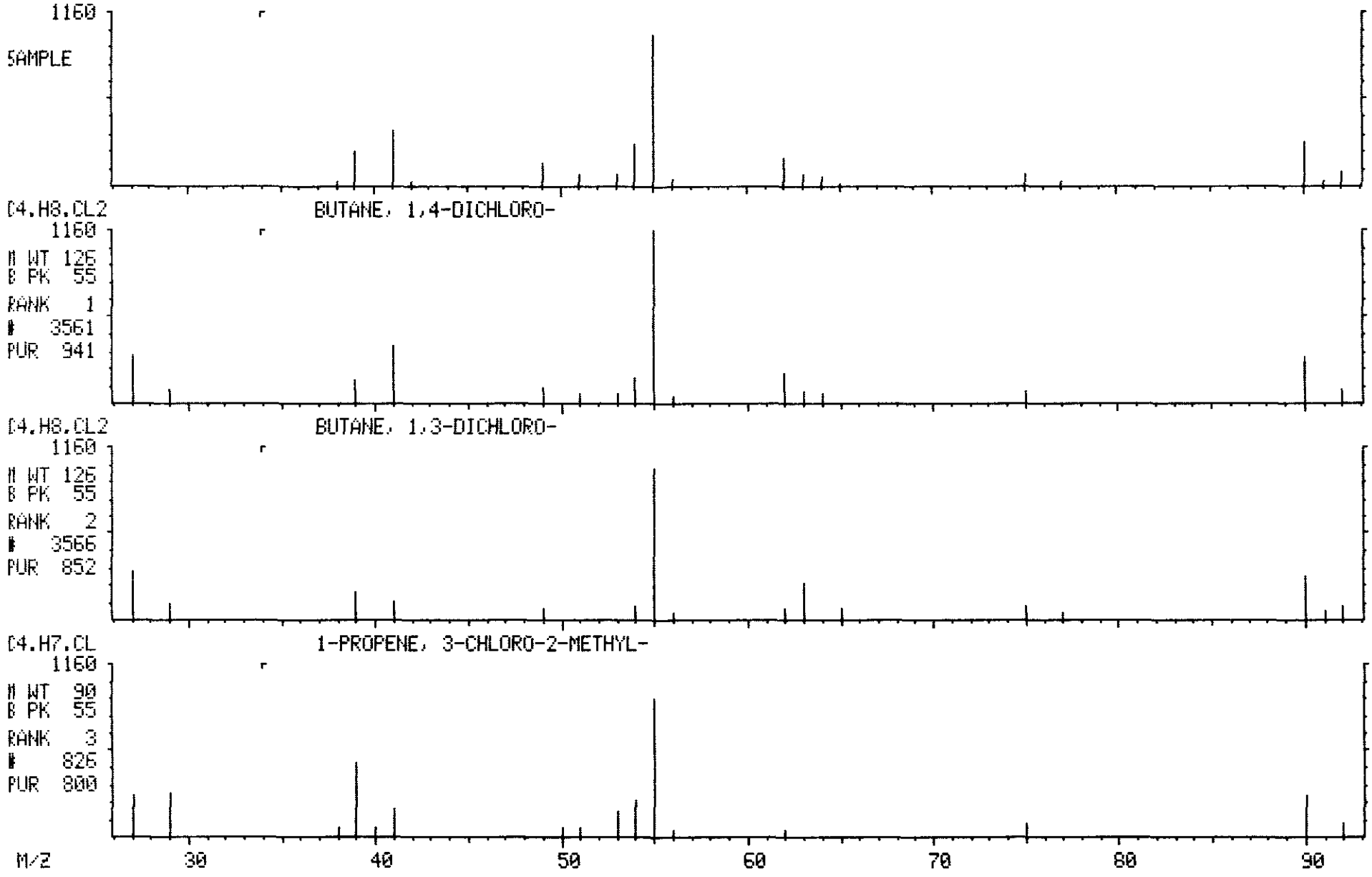
$\frac{38}{149} \times 50 = 13$

~~34048~~

concentration estimated from peak hgt.

JB.

MID LIBRARY SEARCH (LIBRARYNB) DATA: Y1238 # 473 BASE M/Z: 55
05/01/90 0:15:00 + 20:32 CALI: Y1238 # 3 RIC: 34048.
SAMPLE: CLP,VERSCOM,2548,TB4A,L,W,16709,V,,420.1,3,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
ENHANCED (S 15B 2N 0T)



-0116

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB5B

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16710

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1229

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 04/30/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB5B

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16710

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1229

Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 04/30/90

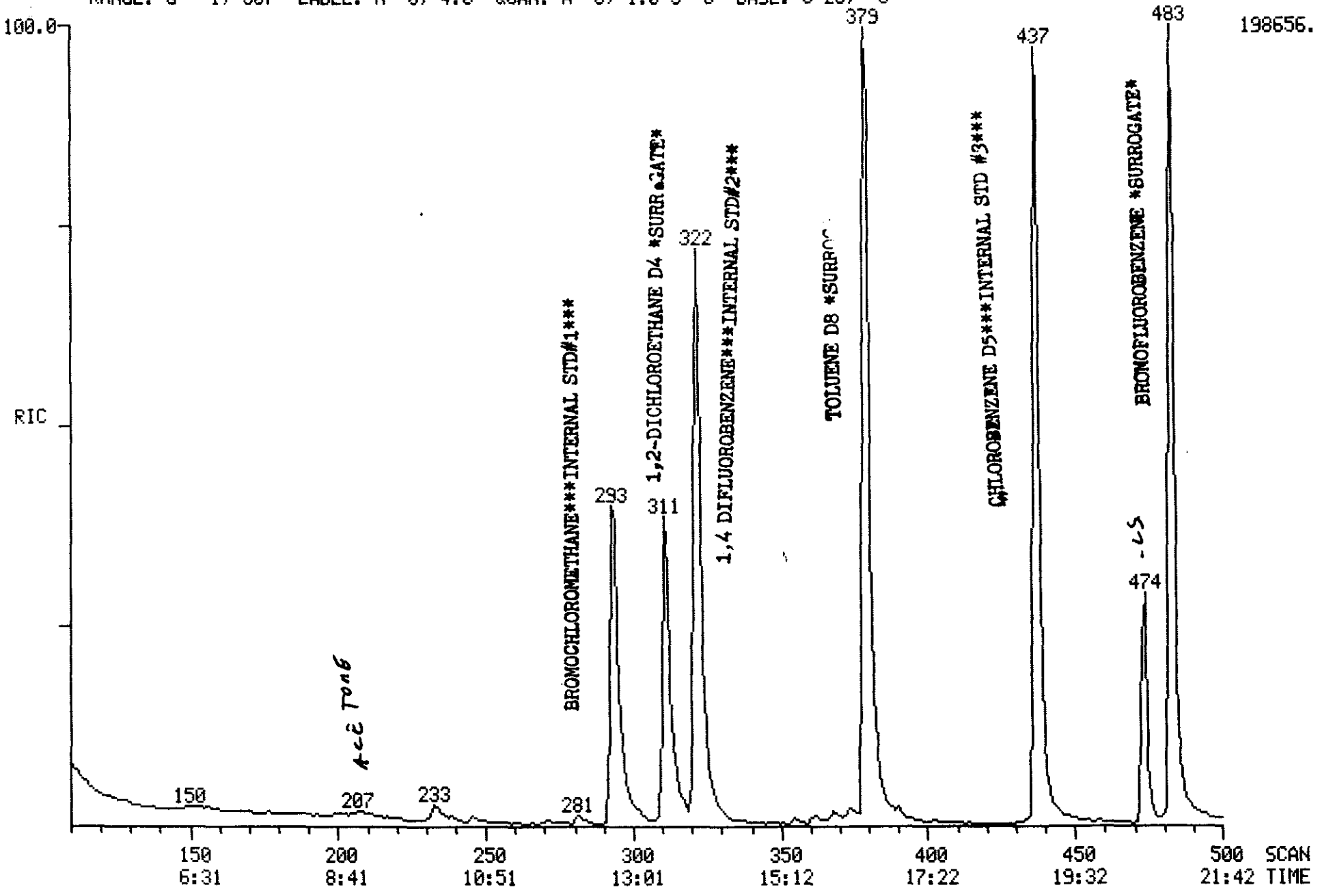
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-56-5	BUTANE, 1,4-DICHLORO-	20.59	14	J

RIC DATA: Y1229 #1 SCANS 110 TO 500
04/30/90 17:30:00 CALI: Y1229 #3
SAMPLE: CLP,VERSCDM,2548,TB5B,L,W,16710,V,,420.1,3,,5ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y1229

Data: Y1229.TI
04/30/90 17:30:00
Sample: CLP,VERSCDM,2548,TB5B,L,W,16710,V,,420.1,3,,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

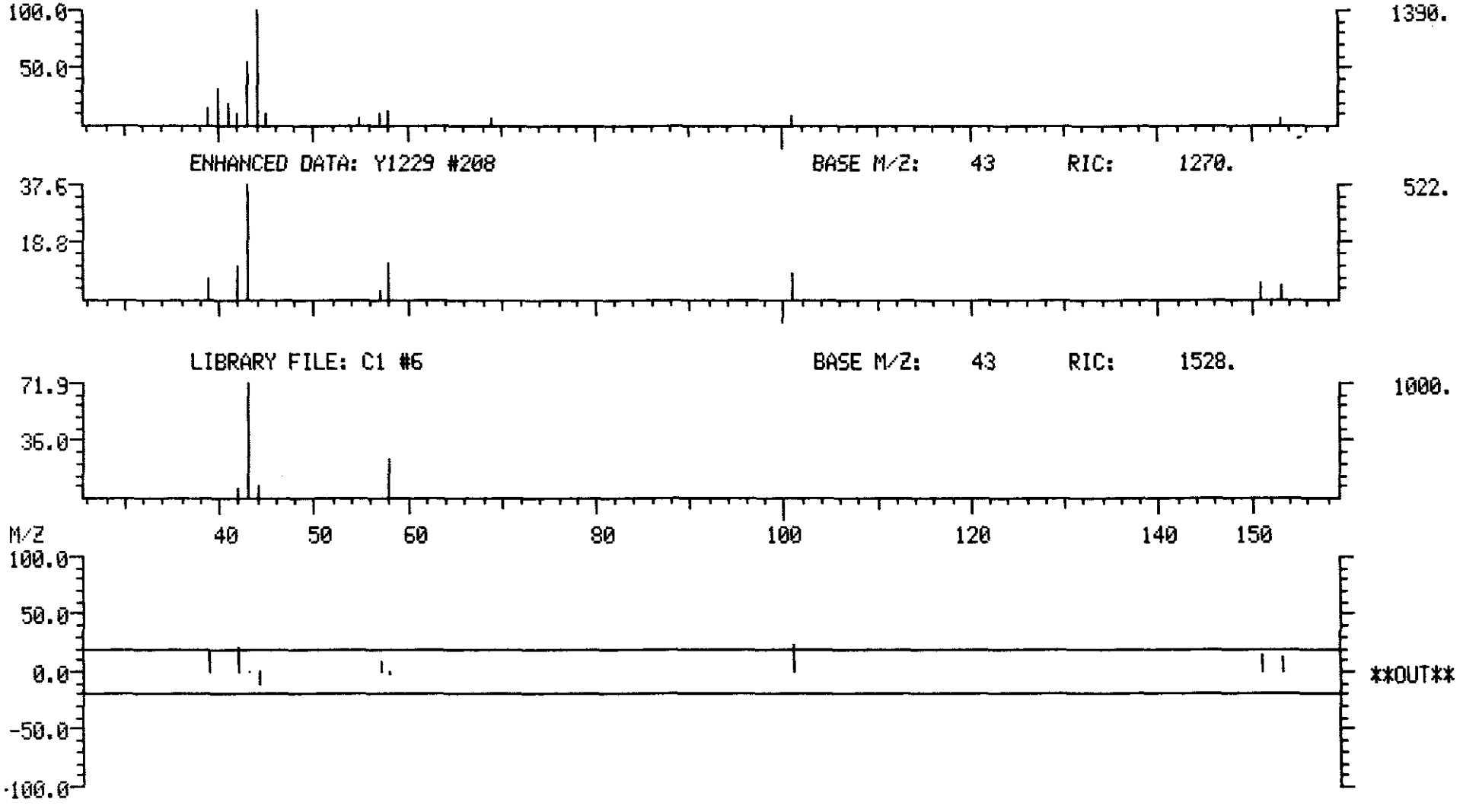
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	293	12:43	1	1.000	A BB	48235.	50.000 UG/L*	15.46
2	114	322	13:59	2	1.000	A BB	184566.	50.000 UG/L*	15.46
3	82	437	18:58	3	1.000	A VB	87676.	50.000 UG/L*	15.46
4	65	311	13:30	2	0.966	A BB	88866.	54.376 UG/L%	16.81 104
5	98	379	16:27	2	1.177	A BB	214975.	50.895 UG/L%	15.74 102
6	95	483	20:58	3	1.105	A BB	88512.	45.759 UG/L%	14.15 92
7	50	141	6:07	1	0.481	A BV	389.	~~0.230 UG/L~~	0.07
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	233	10:07	1	0.795	A BB	3370.	~~2.213 UG/L~~	0.68
12	43	208	9:02	1	0.710	A BB	3588.	10.500 UG/L	3.25
13	76	239	10:23	1	0.816	A BB	491.	~~0.502 UG/L~~	0.16
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	97	302	13:07	1	1.031	A BB	916.	0.347 UG/L	0.11
18	72	272	11:49	1	0.928	A BB	209.	1.869 UG/L	0.58
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	130	337	14:38	2	1.047	A BB	204.	~~0.122 UG/L~~	0.04
25	NOT FOUND								
26	NOT FOUND								
27	78	317	13:46	2	0.984	A BB	1637.	~~0.442 UG~~/L	0.14
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	91	383	16:38	3	0.876	A BB	5552.	~~1.321 UG/L~~	0.41
36	112	439	19:04	3	1.005	A BB	4184.	~~1.553 UG~~/L	0.48
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	62	315	13:41	2	0.978	A BB	2862.	~~1.809 UG/L~~	0.56
41	NOT FOUND								
42	NOT FOUND								
43	96	281	12:12	1	0.959	A BB	2160.	~~1.517 UG/L~~	0.47

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:41	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	54.38	50.00	0.481	0.443	1.09
5	16:25	1.00	1.178	1.00	50.90	50.00	1.165	1.144	1.02
6	20:56	1.00	1.106	1.00	45.76	50.00	1.010	1.103	0.92
7	5:59	1.02	0.473	1.02	0.23	50.00	0.008	1.757	0.00
8	7:25		0.586						
9	6:18		0.497						
10	7:33		0.596						
11	10:04	1.00	0.795	1.00	2.21	50.00	0.070	1.578	0.04

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:57	1.01	0.705	1.01	10.50	50.00	0.074	0.354	0.21
13	10:20	1.00	0.815	1.00	0.50	50.00	0.010	1.013	0.01
14	9:17		0.733						
15	11:12		0.884						
16	12:22		0.976						
17	13:04	1.00	1.031	1.00	0.35	50.00	0.019	2.739	0.01
18	11:43	1.01	0.925	1.00	1.87	50.00	0.004	0.116	0.04
19	13:30		0.969						
20	11:02		0.870						
21	15:12		1.090						
22	14:51		1.065						
23	15:56		1.143						
24	14:35	1.00	1.047	1.00	0.12	50.00	0.001	0.453	0.00
25	17:58		0.950						
26	16:59		0.897						
27	13:43	1.00	0.984	1.00	0.44	50.00	0.009	1.004	0.01
28	16:40		0.881						
29	15:22		1.103						
30	20:40		1.092						
31	16:46		0.885						
32	15:27		1.109						
33	17:38		0.931						
34	20:40		1.092						
35	16:33	1.01	0.874	1.00	1.32	50.00	0.063	2.397	0.03
36	19:01	1.00	1.005	1.00	1.55	50.00	0.048	1.536	0.03
37	18:58		1.002						
38	19:53		1.050						
39	19:50		1.048						
40	13:35	1.01	0.975	1.00	1.81	50.00	0.016	0.429	0.04
41	19:06		1.009						
42	10:36		0.836						
43	12:09	1.00	0.959	1.00	1.52	50.00	0.045	1.476	0.03

DATA FILE: Y1229 #208 LIBRARY FILE: C1 #6
TARGET COMPOUND COMPARISON CALI: Y1229 #3
COMPOUND: C035 ACETONE

RAW DATA: Y1229 #208 BASE M/Z: 44 RIC: 4044.
04/30/90 17:30



100123

Library Search Data: Y1227 # 474 Base m/z: 55
04/30/90 17:30:00 + 20:35 Cali: Y1229 # 3 RIC: 44928.
Sample: CLP,VERSCDM,2548,TB5B,L,W,16710,V,,420.1,3,,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Enhanced (S 15B 2N 0T)

42222 spectra in LIBRARYNB searched for maximum PURITY
168 matched at least 5 of the 16 largest peaks in the unknown

Rank	In.	Name
1	3561	BUTANE, 1,4-DICHLORO-
2	3566	BUTANE, 1,3-DICHLORO-
3	826	1-PROPENE, 3-CHLORO-2-METHYL-
4	829	2-BUTENE, 2-CHLORO-
5	828	2-BUTENE, 1-CHLORO-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C4.H8.CL2	126	55	936	991	936
2	C4.H8.CL2	126	55	843	927	843
3	C4.H7.CL	90	55	814	936	828
4	C4.H7.CL	90	55	768	913	787
5	C4.H7.CL	90	55	702	906	747

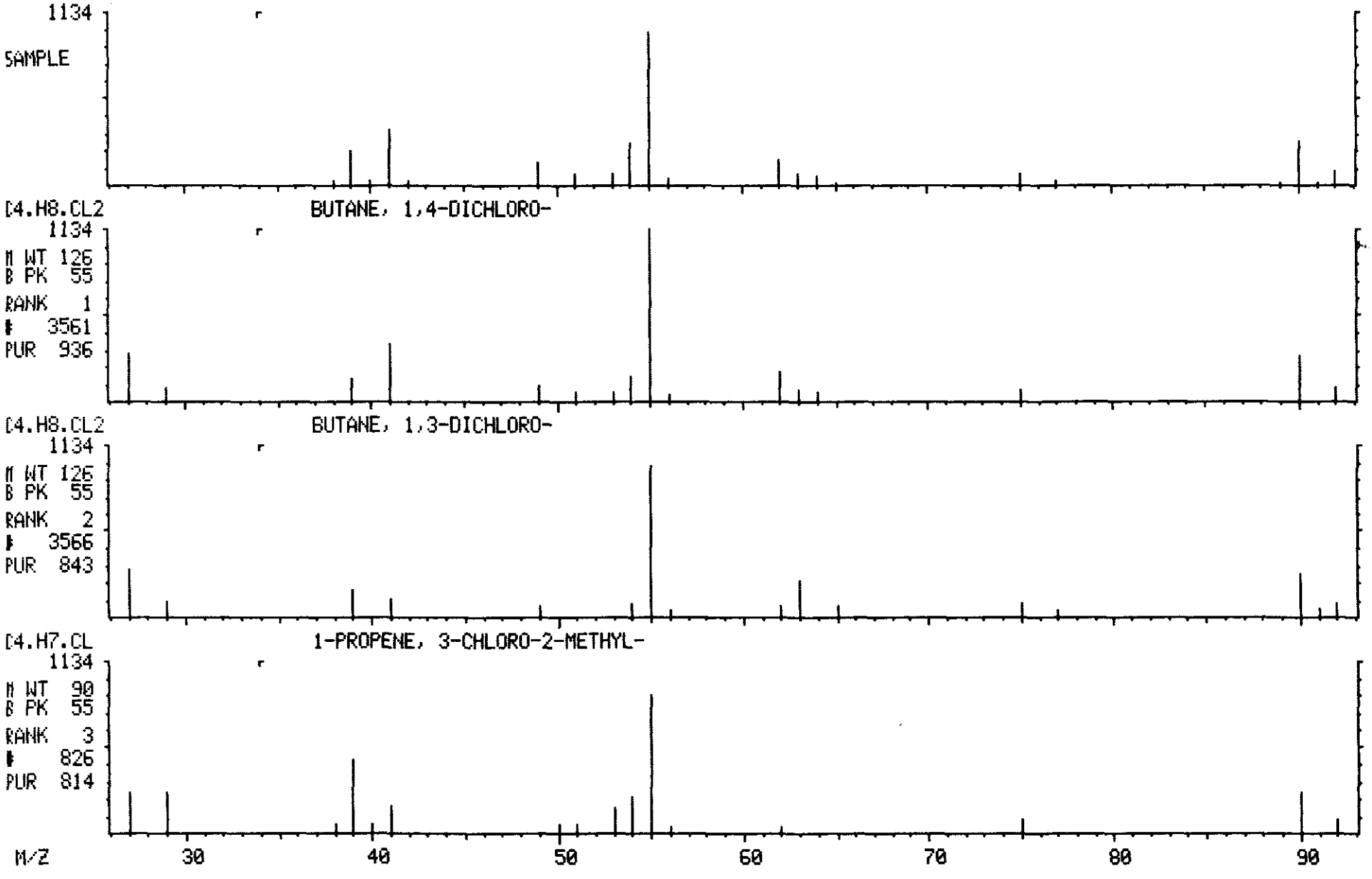
Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	110-56-5
2	—	—	—	—	1190-22-3
3	—	—	—	—	563-47-3
4	—	—	—	—	4461-41-0
5	—	—	—	—	591-97-9

$\frac{44928}{156672} \times 50 = 14.33$

100124

MID LIBRARY SEARCH (LIBRARYNB) DATA: Y1229 # 474 BASE M/Z: 55
04/30/90 17:30:00 + 20:35 CALI: Y1229 # 3 RIC: 44928.
SAMPLE: CLP,VERSCDM,2548,TB5B,L,W,16710,V,,420.1,3,,5ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
ENHANCED (S 15B 2N 0T)

100125



))))INTERNAL STANDARD RIC REPORT((((

*****INTERNAL STANDARD#1*****

Mass List Data: Y1227 # 437 Base m/z: 117
04/30/90 17:30:00 + 18:58 Cali: Y1229 # 3 RIC: 156672.
Sample: CLP,VERSCDM,2548,TB5B,L,W,16710,V,,420.1,3,,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Enhanced (S 15B 2N 0T)

35	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW1

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16958

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1265

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

GW1

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16958

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1265

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

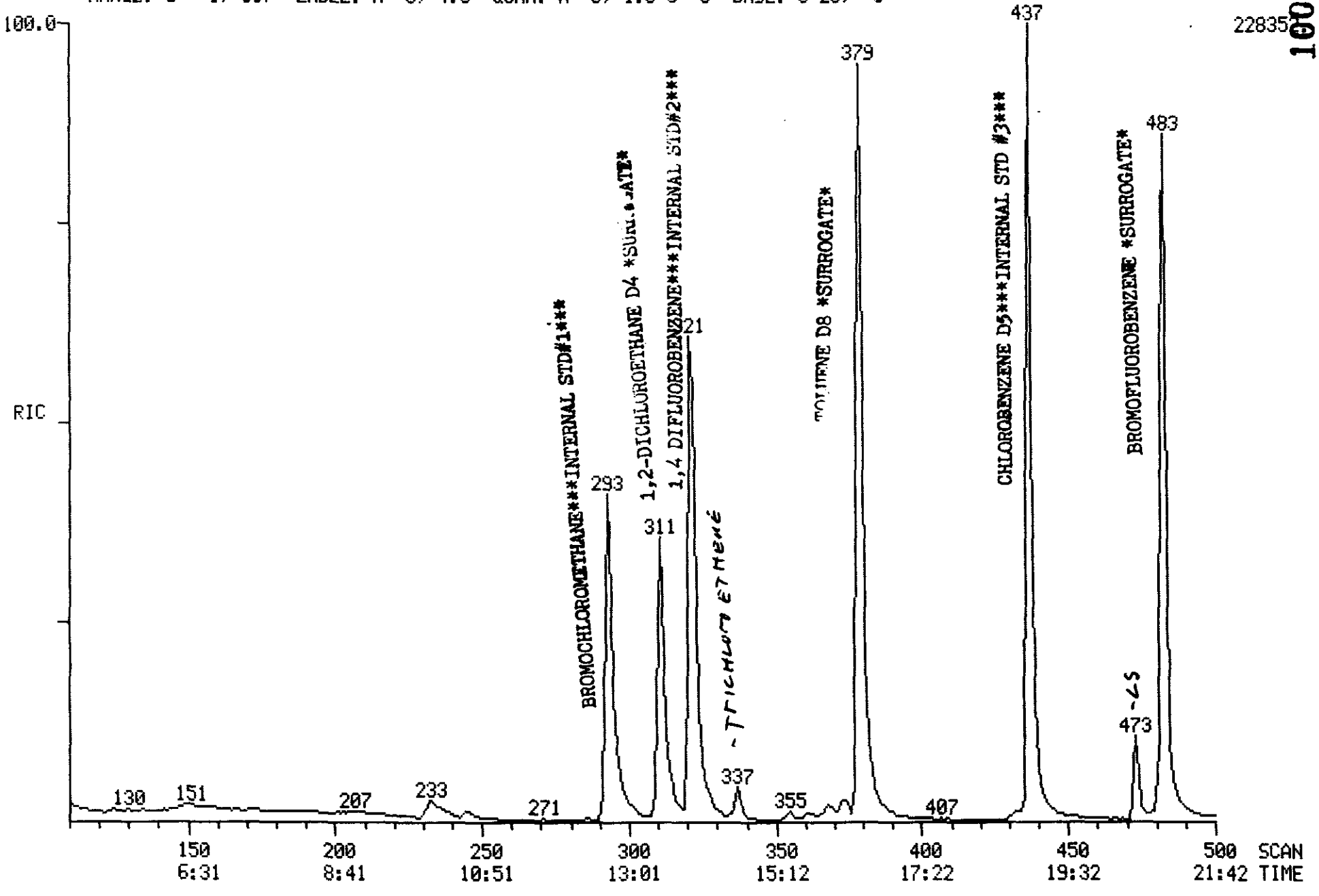
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-56-5	BUTANE, 1,4-DICHLORO-	20.54	5.0	J

RIC DATA: Y1265 #1 SCANS 110 TO 500
05/01/90 17:30:00 CALI: Y1265 #3
SAMPLE: CLP,VERSCDM,2565,GW1,L,W,16958,V,,420.1,4,,5ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



1001128

Quantitation Report File: Y1265

Data: Y1265.TI
05/01/90 17:30:00
Sample: CLP,VERSCDM,2565,GW1,L,W,16958,V,,420.1,4,,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	293	12:43	1	1.000	A BB	53632.	50.000 UG/L*	15.82	
2	114	321	13:56	2	1.000	A BB	192697.	50.000 UG/L*	15.82	
3	82	437	18:58	3	1.000	A BB	90716.	50.000 UG/L*	15.82	
4	65	311	13:30	2	0.969	A BB	91516.	53.325 UG/L%	16.87	107
5	98	379	16:27	2	1.181	A VB	216452.	50.347 UG/L%	15.93	101
6	95	483	20:58	3	1.105	A BB	93591.	49.599 UG/L%	15.69	99
7	NOT FOUND									
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	84	233	10:07	1	0.795	A BB	4998.	~~3.333 UG/L~~ nc	1.05	
12	43	208	9:02	1	0.710	A BB	2486.	~~4.268 UG/L~~	1.35	
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	83	286	12:25	1	0.976	A BB	1129.	0.389 UG/L	0.12	
17	97	301	13:04	1	1.027	A BB	1021.	0.371 UG/L	0.12	
18	NOT FOUND									
19	NOT FOUND									
20	43	256	11:07	1	0.874	A BB	274.	~~0.100 UG~~/L	0.03	
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	130	337	14:38	2	1.050	A BB	5173.	3.007 UG/L	0.95	
25	NOT FOUND									
26	NOT FOUND									
27	78	317	13:46	2	0.988	A BB	224.	~~0.063 UG~~/L	0.02	
28	NOT FOUND									
29	NOT FOUND									
30	NOT FOUND									
31	NOT FOUND									
32	NOT FOUND									
33	NOT FOUND									
34	NOT FOUND									
35	91	382	16:35	3	0.874	A BB	1304.	~~0.314~~ UG/L	0.10	
36	112	436	18:56	3	0.998	A BB	421.	~~0.153~~ UG/L	0.05	
37	106	441	19:09	3	1.009	A BB	221.	~~0.145~~ UG/L	0.05	
38	NOT FOUND									
39	NOT FOUND									
40	62	314	13:38	2	0.978	A BB	982.	~~0.628~~ UG/L	0.20	
41	106	441	19:09	3	1.009	A BB	221.	~~0.097~~ UG/L	0.03	
42	NOT FOUND									
43	NOT FOUND									

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:41	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	53.33	50.00	0.475	0.445	1.07
5	16:27	1.00	1.181	1.00	50.35	50.00	1.123	1.116	1.01
6	20:58	1.00	1.105	1.00	49.60	50.00	1.032	1.040	0.99
7	5:59		0.473						
8	7:25		0.586						
9	6:20		0.500						
10	7:33		0.596						
11	10:04	1.00	0.795	1.00	3.33	50.00	0.093	1.398	0.07

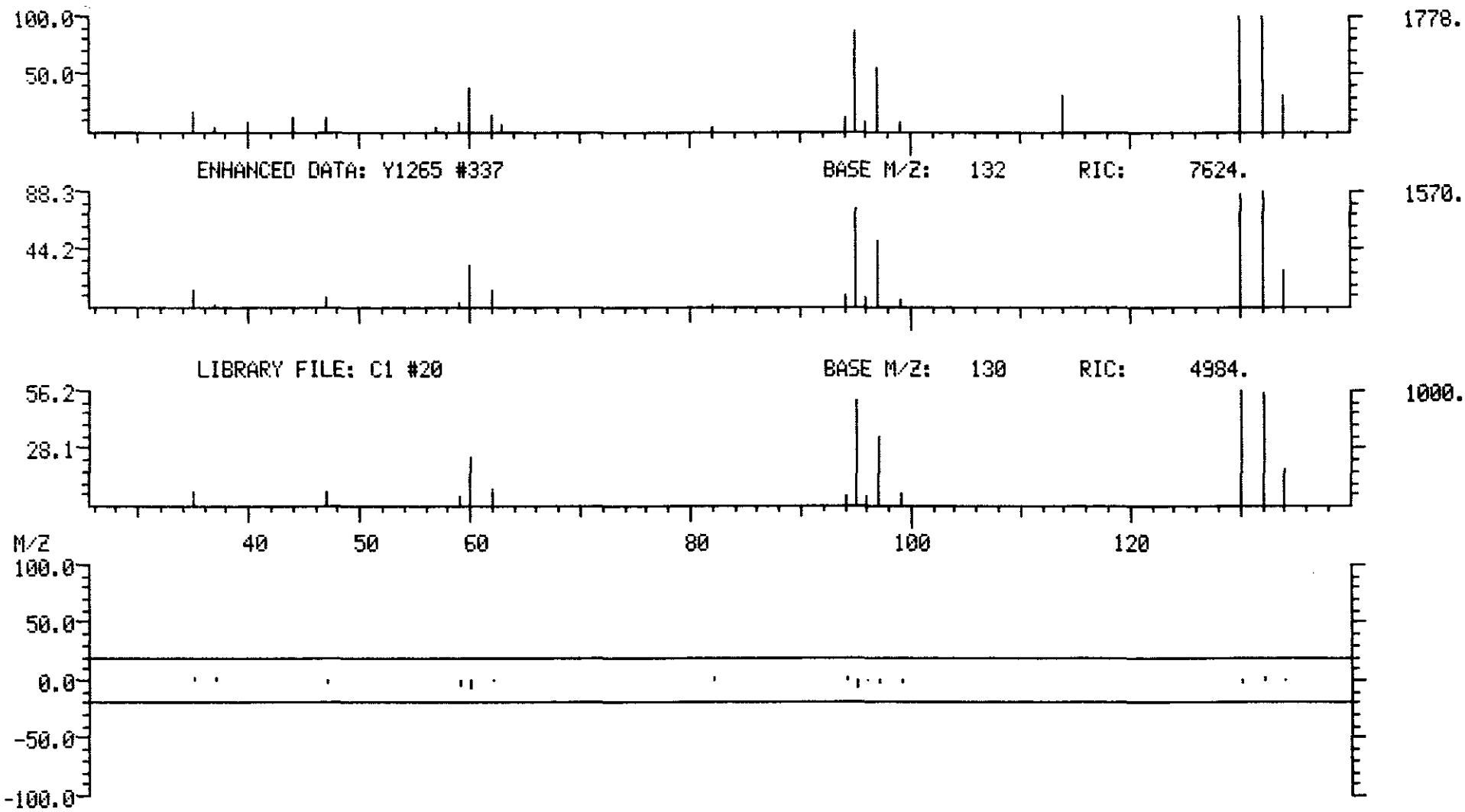
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.709	1.00	4.27	50.00	0.046	0.543	0.09
13	10:23		0.818						
14	9:17		0.733						
15	11:15		0.887						
16	12:25	1.00	0.979	1.00	0.39	50.00	0.021	2.706	0.01
17	13:04	1.00	1.031	1.00	0.37	50.00	0.019	2.563	0.01
18	11:46		0.928						
19	13:30		0.969						
20	11:04	1.00	0.873	1.00	0.10	50.00	0.005	2.566	0.00
21	15:14		1.093						
22	14:51		1.065						
23	15:59		1.146						
24	14:35	1.00	1.047	1.00	3.01	50.00	0.027	0.446	0.06
25	18:01		0.950						
26	17:01		0.897						
27	13:46	1.00	0.988	1.00	0.06	50.00	0.001	0.925	0.00
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48		0.886						
32	15:27		1.109						
33	17:40		0.931						
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	0.31	50.00	0.014	2.286	0.01
36	19:01	1.00	1.002	1.00	0.15	50.00	0.005	1.521	0.00
37	19:01	1.01	1.002	1.01	0.14	50.00	0.002	0.841	0.00
38	19:56		1.050						
39	19:53		1.048						
40	13:38	1.00	0.978	1.00	0.63	50.00	0.005	0.406	0.01
41	19:06	1.00	1.007	1.00	0.10	50.00	0.002	1.250	0.00
42	10:36		0.836						
43	12:09		0.959						

100131

V1265

DATA FILE: Y1265 #337 LIBRARY FILE: C1 #20
TARGET COMPOUND COMPARISON CALI: Y1265 #3
COMPOUND: C150 TRICHLOROETHENE

RAW DATA: Y1265 #337 BASE M/Z: 132 RIC: 10160.
05/01/90 17:30



100132

Library Search Data: Y1265 # 473 Base m/z: 55
05/01/90 17:30:00 + 20:32 Cali: Y1265 # 3 RIC: 16576.
Sample: CLP,VERSCDM,2565,GW1,L,W,16958,V,,420.1,4,,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Enhanced (S 15B 2N 0T)

42222 spectra in LIBRARYNB searched for maximum PURITY
105 matched at least 5 of the 16 largest peaks in the unknown

Rank	In.	Name
1	3561	BUTANE, 1,4-DICHLORO-
2	3566	BUTANE, 1,3-DICHLORO-
3	826	1-PROPENE, 3-CHLORO-2-METHYL-
4	829	2-BUTENE, 2-CHLORO-
5	828	2-BUTENE, 1-CHLORO-

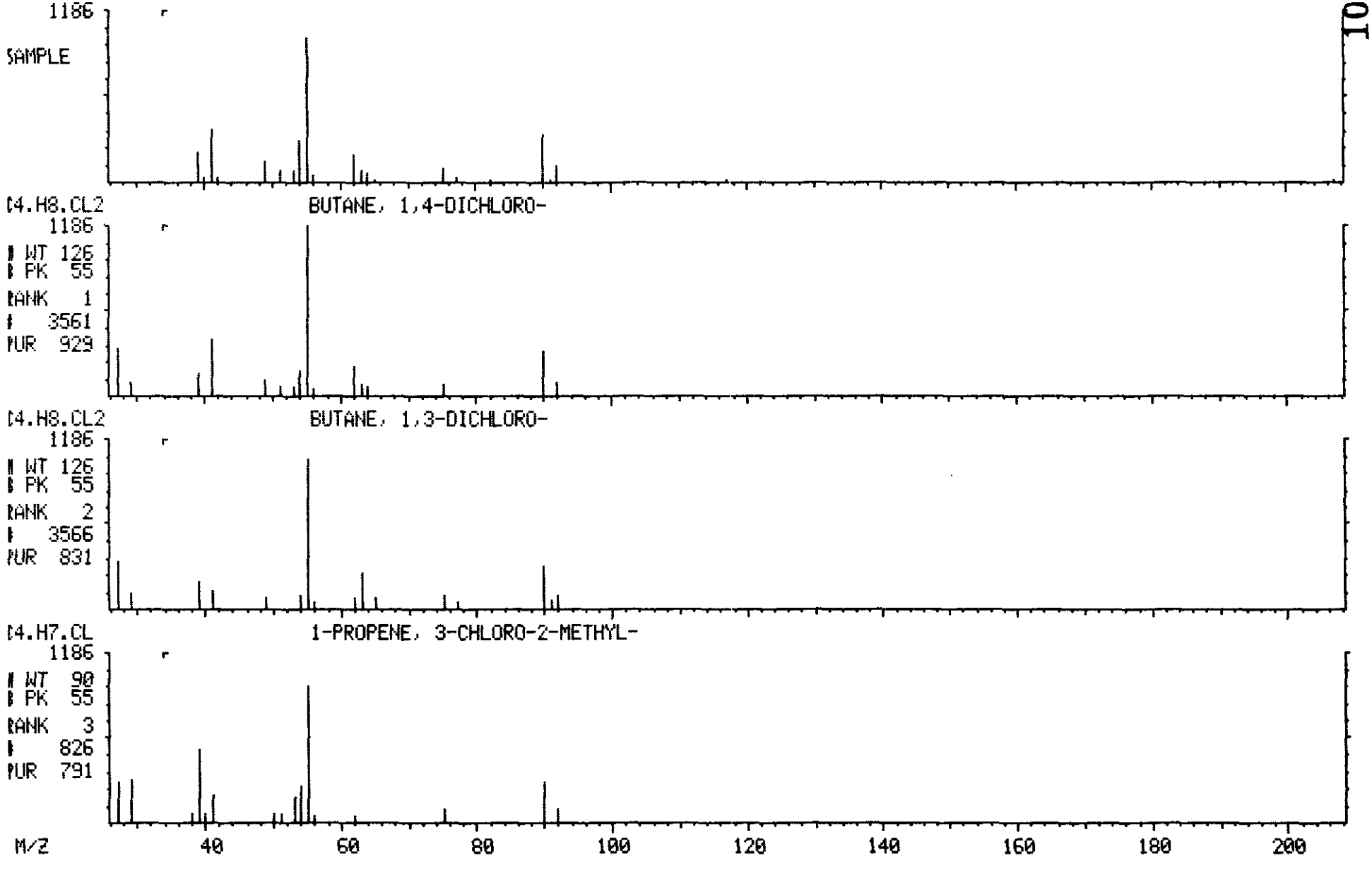
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C4.H8.CL2	126	55	929	991	929
2	C4.H8.CL2	126	55	831	923	831
3	C4.H7.CL	90	55	791	918	818
4	C4.H7.CL	90	55	763	913	782
5	C4.H7.CL	90	55	697	903	741

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	110-56-5
2	—	—	—	—	1190-22-3
3	—	—	—	—	563-47-3
4	—	—	—	—	4461-41-0
5	—	—	—	—	591-97-9

$\frac{16576}{165888} \times 50 = 4.99$

MID LIBRARY SEARCH (LIBRARYNB) DATA: Y1265 # 473 BASE M/Z: 55
05/01/90 17:30:00 + 20:32 CALI: Y1265 # 3 RIC: 16576.
SAMPLE: CLP,VERSCDM,2565,GW1,L,W,16958,V,,420.1,4,,5ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
ENHANCED (S 15B 2N 0T)

I00134



>>>>INTERNAL STANDARD RIC REPORT<<<<

*****INTERNAL STANDARD#1*****

Mass List Data: Y1265 # 437 Base m/z: 117
Ø5/Ø1/9Ø 17:3Ø:ØØ + 18:58 Cali: Y1265 # 3 RIC: 165888.
Sample: CLP,VERSCDM,2565,GW1,L,W,16958,V,,42Ø.1,4,,5ML
Conds.: INST Y:RTX-5Ø2.2,2ØC(Ø.5MIN) TO 22ØC @ 1ØC/MIN
Enhanced (S 15B 2N ØT)

35	Ø.ØØ	Ø.	Minima	Min Inten:	Ø.
3Ø			Maxima	# Ø	

100135

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB2

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16959A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1257

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB2

La Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16959A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1257

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

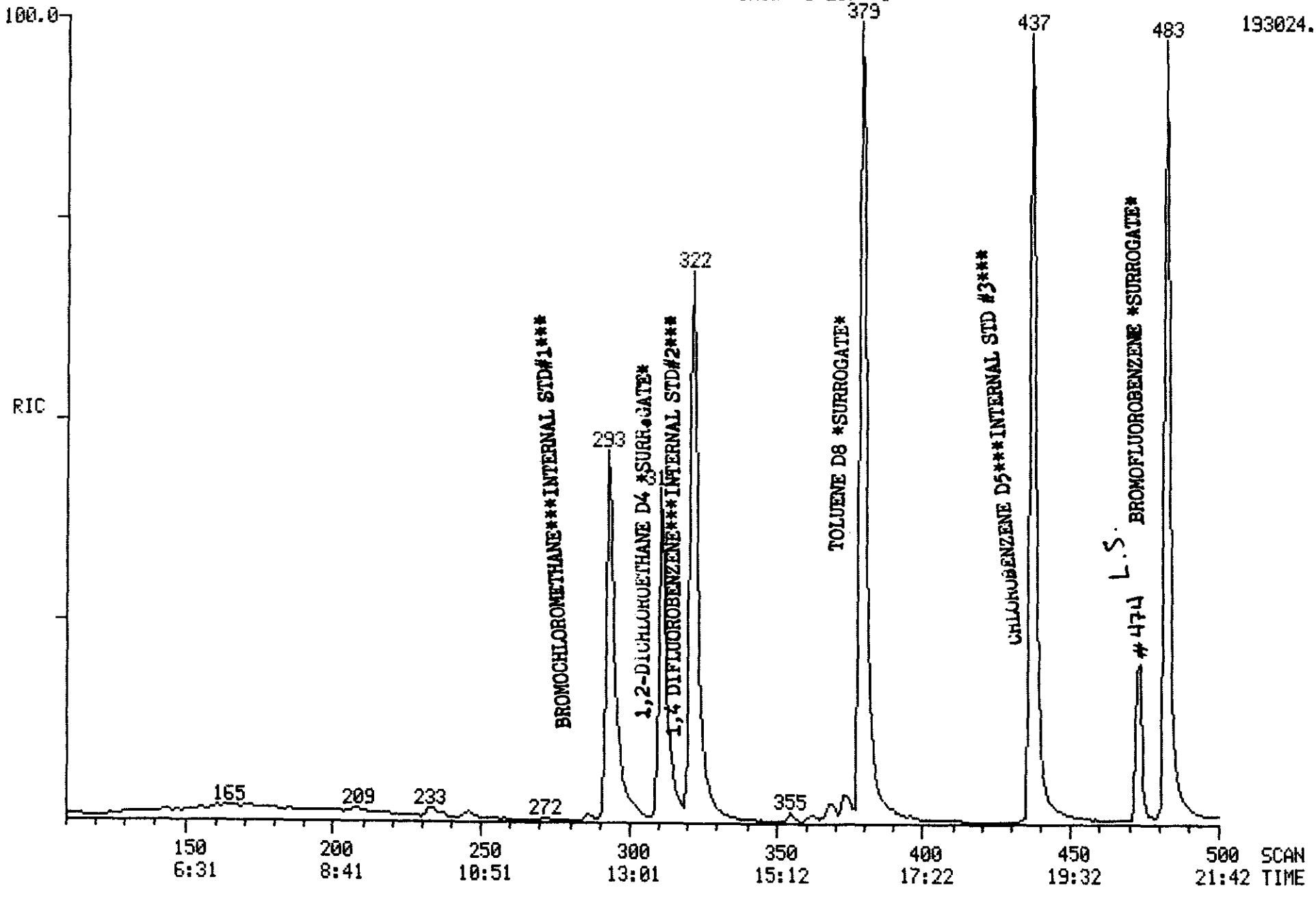
Column (pack/cap) CAP Dilution Factor: 1.0

N er TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-56-5	BUTANE, 1,4-DICHLORO-	20.59	11	J

RIC
05/01/90 13:28:00
DATA: Y1257 #1
CALI: Y1257 #3
SCANS 110 TO 500
SAMPLE: CLP,VERSCOM,2565,TB2,L,W,16959A,V,,420.1,4,5ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100138

Quantitation Report File: Y1257

Data: Y1257.TI
05/01/90 13:28:00
Sample: CLP,VERSCDM,2565,TB2,L,W,16959A,V,,420.1,4,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

Y1257

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	293	12:43	1	1.000	A BB	52937.	50.000 UG/L*	15.89	
2	114	322	13:59	2	1.000	A BB	181931.	50.000 UG/L*	15.89	
3	82	437	18:58	3	1.000	A BB	84391.	50.000 UG/L*	15.89	
4	65	311	13:30	2	0.966	A BB	91783.	56.645 UG/L%	18.00	113%
5	98	379	16:27	2	1.177	A VB	206273.	50.819 UG/L%	16.15	102%
6	95	483	20:58	3	1.105	A BB	83932.	47.814 UG/L%	15.20	96%
7	50	143	6:13	1	0.488	A BB	223.	~~0.145 UG/L~~	0.05	
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	84	233	10:07	1	0.795	A BB	1506.	~~1.017 UG/L~~	0.32	
12	43	208	9:02	1	0.710	A BB	2925.	~~5.088 UG/L~~	1.62	
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	83	287	12:28	1	0.980	A BB	2656.	~~0.927 UG/L~~	0.29	
17	97	302	13:07	1	1.031	A BB	618.	~~0.228 UG/L~~	0.07	
18	NOT FOUND									
19	NOT FOUND									
20	43	258	11:12	1	0.881	A BB	199.	~~0.073 UG/L~~	0.02	
21	NOT FOUND									
22	63	341	14:48	2	1.059	A BB	206.	~~0.203 UG/L~~	0.06	
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	78	317	13:46	2	0.984	A BB	197.	~~0.059 UG~~/L	0.02	
28	NOT FOUND									
29	NOT FOUND									
30	NOT FOUND									
31	NOT FOUND									
32	NOT FOUND									
33	NOT FOUND									
34	NOT FOUND									
35	91	383	16:38	3	0.876	A BB	920.	~~0.238 UG/L~~	0.08	
36	112	439	19:04	3	1.005	A BB	182.	~~0.071 UG/L~~	0.02	
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	62	315	13:41	2	0.978	A BB	1982.	~~1.342 UG/L~~	0.43	
41	NOT FOUND									
42	NOT FOUND									
43	NOT FOUND									

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:41	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	56.65	50.00	0.504	0.445	1.13
5	16:27	1.00	1.181	1.00	50.82	50.00	1.134	1.116	1.02
6	20:58	1.00	1.105	1.00	47.81	50.00	0.995	1.040	0.96
7	5:59	1.04	0.473	1.03	0.15	50.00	0.004	1.449	0.00
8	7:25		0.586						
9	6:20		0.500						
10	7:33		0.596						
11	10:04	1.00	0.795	1.00	1.02	50.00	0.028	1.398	0.02

y1257

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.709	1.00	5.09	50.00	0.055	0.543	0.10
13	10:23		0.818						
14	9:17		0.733						
15	11:15		0.887						
16	12:25	1.00	0.979	1.00	0.93	50.00	0.050	2.706	0.02
17	13:04	1.00	1.031	1.00	0.23	50.00	0.012	2.563	0.00
18	11:46		0.928						
19	13:30		0.969						
20	11:04	1.01	0.873	1.01	0.07	50.00	0.004	2.566	0.00
21	15:14		1.093						
22	14:51	1.00	1.065	0.99	0.20	50.00	0.001	0.280	0.00
23	15:59		1.146						
24	14:35		1.047						
25	18:01		0.950						
26	17:01		0.897						
27	13:46	1.00	0.988	1.00	0.06	50.00	0.001	0.925	0.00
28	16:40		0.879						
29	15:25		1.106						
30	20:43		1.092						
31	16:48		0.886						
32	15:27		1.109						
33	17:40		0.931						
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	0.24	50.00	0.011	2.286	0.00
36	19:01	1.00	1.002	1.00	0.07	50.00	0.002	1.521	0.00
37	19:01		1.002						
38	19:56		1.050						
39	19:53		1.048						
40	13:38	1.00	0.978	1.00	1.34	50.00	0.011	0.406	0.03
41	19:06		1.007						
42	10:36		0.836						
43	12:09		0.959						

Library Search Data: Y1257 # 474 Base m/z: 55
05/01/90 13:28:00 + 20:35 Cali: Y1257 # 3 RIC: 32288.
Sample: CLP,VERSCDM,2565,TB2,L,W,16959A,V,,420.1,4,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Enhanced (S 15B 2N 0T)

42222 spectra in LIBRARYNB searched for maximum FIT
126 matched at least 5 of the 16 largest peaks in the unknown

Rank	In.	Name
1	3561	BUTANE, 1,4-DICHLORO-
2	826	1-PROPENE, 3-CHLORO-2-METHYL-
3	830	CYCLOPROPANE, 1-CHLORO-1-METHYL-
4	829	2-BUTENE, 2-CHLORO-
5	3566	BUTANE, 1,3-DICHLORO-

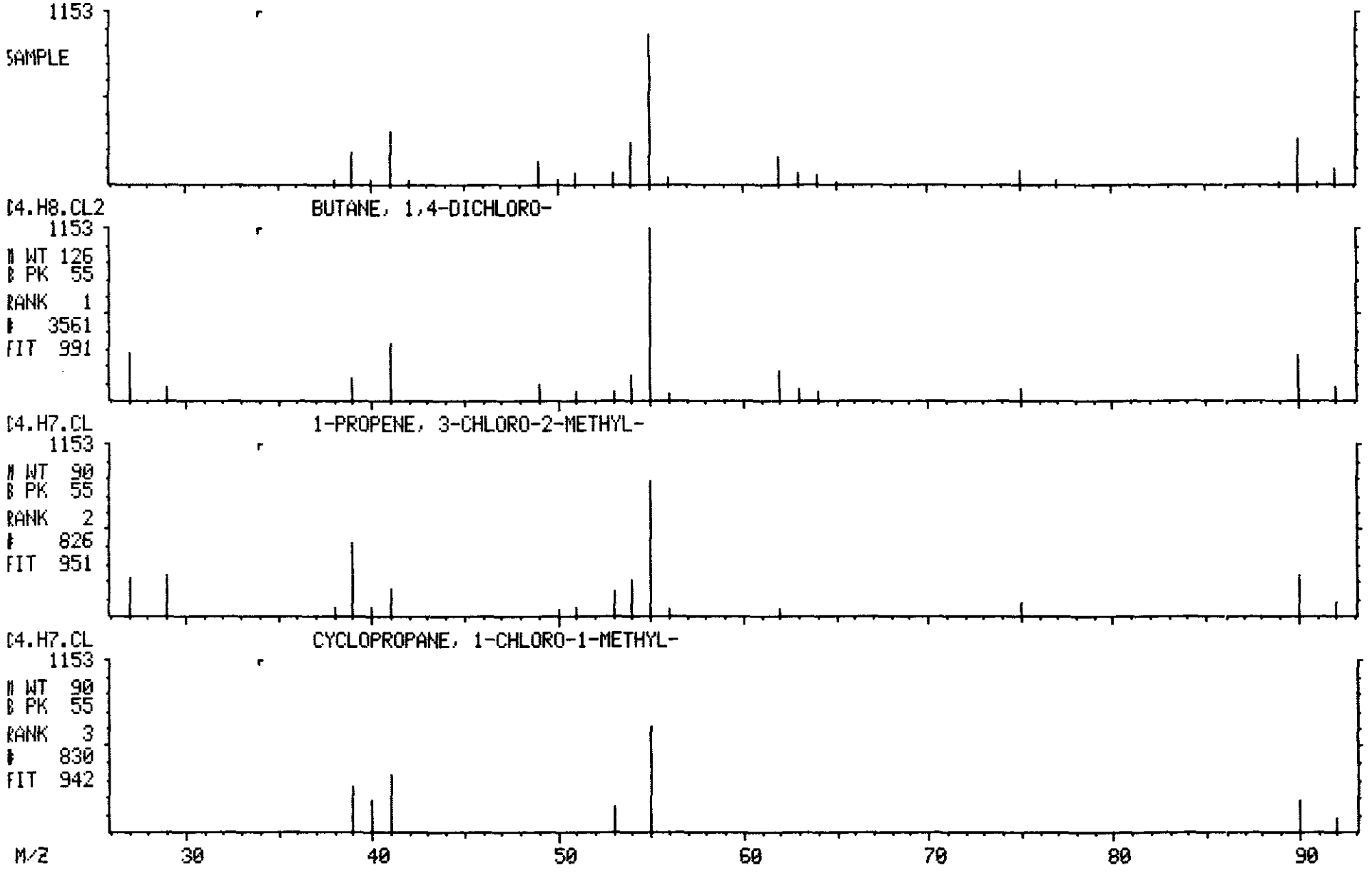
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C4.H8.CL2	126	55	927	991	927
2	C4.H7.CL	90	55	829	951	829
3	C4.H7.CL	90	55	606	942	606
4	C4.H7.CL	90	55	790	934	790
5	C4.H8.CL2	126	55	837	929	837

Rank	Ret.Time	B.P.Int.	US.Par.1	US.Par.2	C.A.S. #
1	—	—	—	—	110-56-5
2	—	—	—	—	563-47-3
3	—	—	—	—	50915-28-1
4	—	—	—	—	4461-41-0
5	—	—	—	—	1190-22-3

$\frac{32288}{151808} \times 50 = 10.63$

100142

MID LIBRARY SEARCH (LIBRARYNB) DATA: Y1257 # 474 BASE M/Z: 55
05/01/90 13:28:00 + 20:35 CALI: Y1257 # 3 RIC: 32288.
SAMPLE: CLP,VERSCOM,2565,TB2,L,W,16959A,V,,420.1,4,5ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
ENHANCED (S 15B 2N 0T)



100143

????INTERNAL STANDARD RIC REPORT<<<<

*****INTERNAL STANDARD#1*****

Mass List Data: Y1257 # 273 Base m/z: 130
05/01/90 13:28:00 + 12:43 Cali: Y1257 # 3 RIC: 73984.
Sample: CLP,VERSCDM,2565,TB2,L,W,16959A,V,,420.1,4,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Enhanced (S 15B 2N 0T)

35	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

*****INTERNAL STANDARD#2*****

Mass List Data: Y1257 # 322 Base m/z: 114
05/01/90 13:28:00 + 13:59 Cali: Y1257 # 3 RIC: 114048.
Sample: CLP,VERSCDM,2565,TB2,L,W,16959A,V,,420.1,4,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Enhanced (S 15B 2N 0T)

36	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

*****INTERNAL STANDARD#3*****

Mass List Data: Y1257 # 437 Base m/z: 117
05/01/90 13:28:00 + 18:58 Cali: Y1257 # 3 RIC: 151808.
Sample: CLP,VERSCDM,2565,TB2,L,W,16959A,V,,420.1,4,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Enhanced (S 15B 2N 0T)

35	0.00	0.	Minima	Min Inten:	0.
30			Maxima	# 0	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16949

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3550

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 17 Date Analyzed: 05/08/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	5	JX
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

4

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16949

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3550

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 17 Date Analyzed: 05/08/90

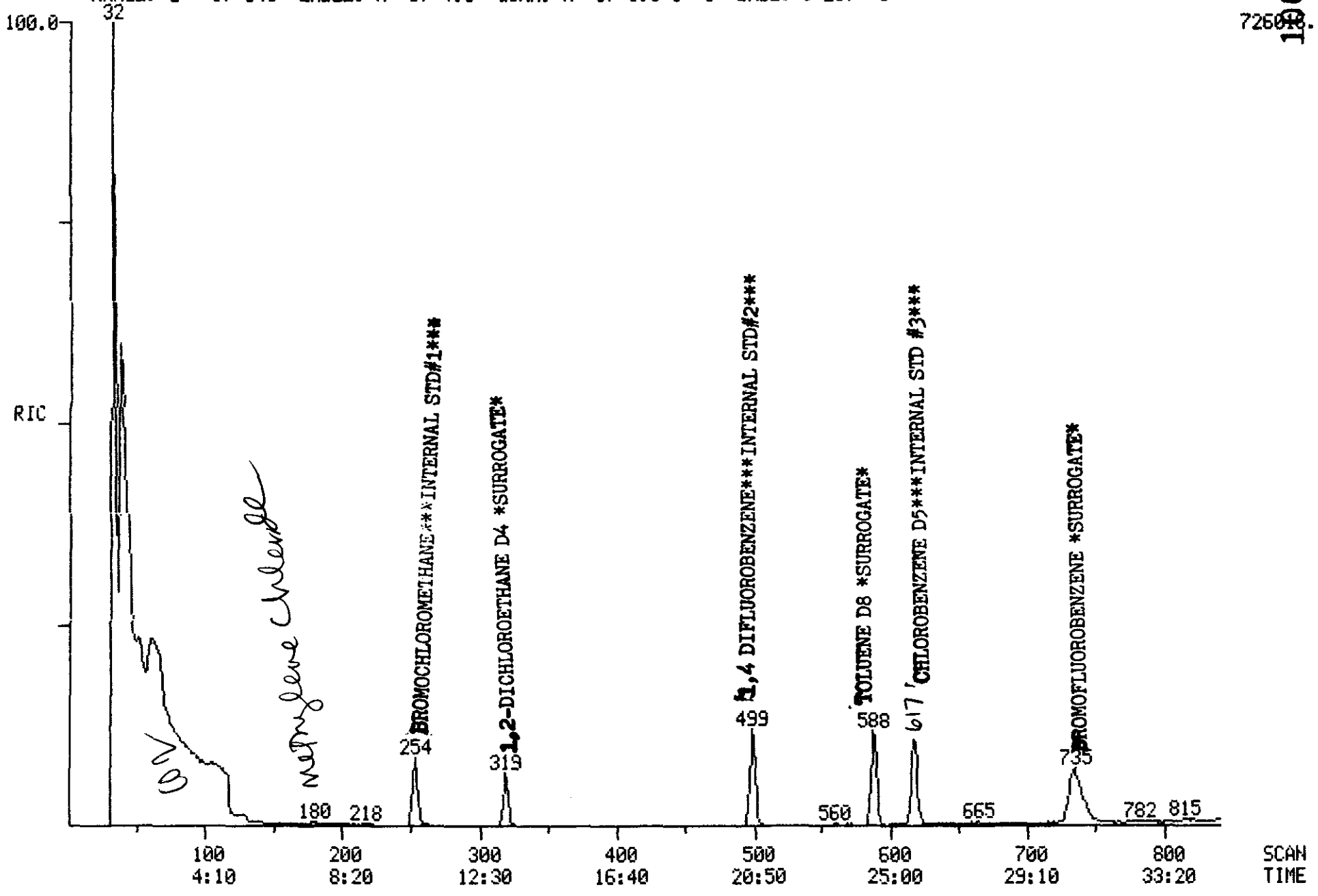
Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: U3550 #1 SCANS 1 TO 840
05/08/90 17:30:00 CALI: U3550 #2
SAMPLE: CLP,VERSCDM,2565,4,L,S,16949,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100147

ORIGINAL (Red)

Quantitation Report File: U3550

Data: U3550.TI
05/08/90 17:30:00
Sample: CLP,VERSCDM,2565,4,L,S,16949,V,,420.1.0,4,5G/5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.000
Submitted by: VERSAR Analyst: DD Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

17.9 %

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

IS area # 3 non-compliant.

ORIGINAL (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	253	10:32	1	1.000	A BB	44111.	50.000 UG/L*	17.35	
2	NOT FOUND									
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	84	180	7:30	1	0.711	A BB	4040.	4.027 UG/L	1.40	
7	NOT FOUND									
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	65	319	13:17	1	1.261	A BB	73752.	42.596 UG/L%	14.78	85
15	NOT FOUND									
16	114	499	20:47	16	1.000	A BB	169307.	50.000 UG/L*	17.35	
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	NOT FOUND									
29	NOT FOUND									
30	98	588	24:30	31	0.953	A BB	152265.	52.075 UG/L%	18.07	104
31	117	617	25:42	31	1.000	A BB	121596. low	50.000 UG/L*	17.35	
32	NOT FOUND									
33	43	555	23:07	31	0.900	A BB	165.	~~0.149 UG/L~~ BRL	0.05	
34	164	560	23:20	31	0.908	A BB	587.	~~0.648 UG/L~~ BRL	0.22	
35	NOT FOUND									
36	NOT FOUND									
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									
42	95	734	30:35	31	1.190	A BB	86551.	38.735 UG/L%	13.44	77

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.324						
4	4:17		0.407						
5	5:17		0.502						
6	7:27	1.01	0.708	1.01	4.03	50.00	0.092	1.137	0.08
7	8:05		0.767						
8	9:02		0.858						
9	10:07		0.960						
10	11:25		1.083						
11	12:07		1.150						
12	12:37		1.198						

43550 ORIGINAL (Red)

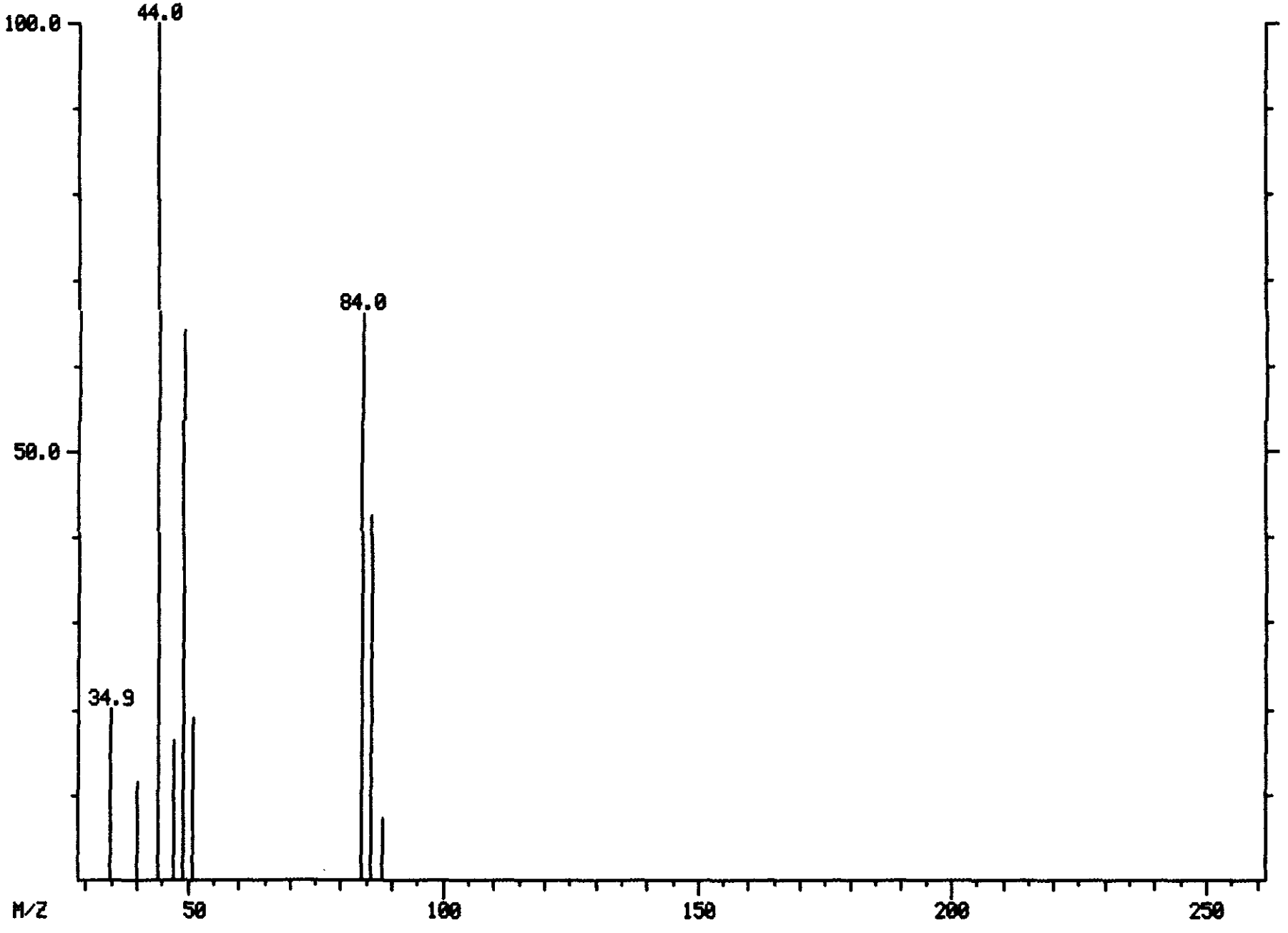
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.269						
14	13:17	1.00	1.261	1.00	42.60	50.00	1.672	1.963	0.85
15	9:30		0.901						
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:17		1.261						
18	15:12		0.733						
19	15:05		0.727						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:42		0.709						
30	24:27	1.00	0.953	1.00	52.08	50.00	1.252	1.202	1.04
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32		0.839						
33	23:02	1.00	0.898	1.00	0.15	50.00	0.001	0.456	0.00
34	23:20	1.00	0.909	1.00	0.65	50.00	0.005	0.373	0.01
35	23:17		0.907						
36	24:40		0.961						
37	25:47		1.005						
38	27:55		1.088						
39	32:05		1.250						
40	33:25		1.302						
41	32:22		1.261						
42	30:30	1.00	1.188	1.00	38.74	50.00	0.712	0.919	0.77

MASS SPECTRUM
05/08/90 17:30:00 + 7:30
SAMPLE: CLP,VERSCOM,2565,4,L,S,16949,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE

DATA: U3550 #180
CALI: U3550 #2

BASE M/Z: 44
RIC: 4736.

ORIGINAL (Red)



1362.

100151

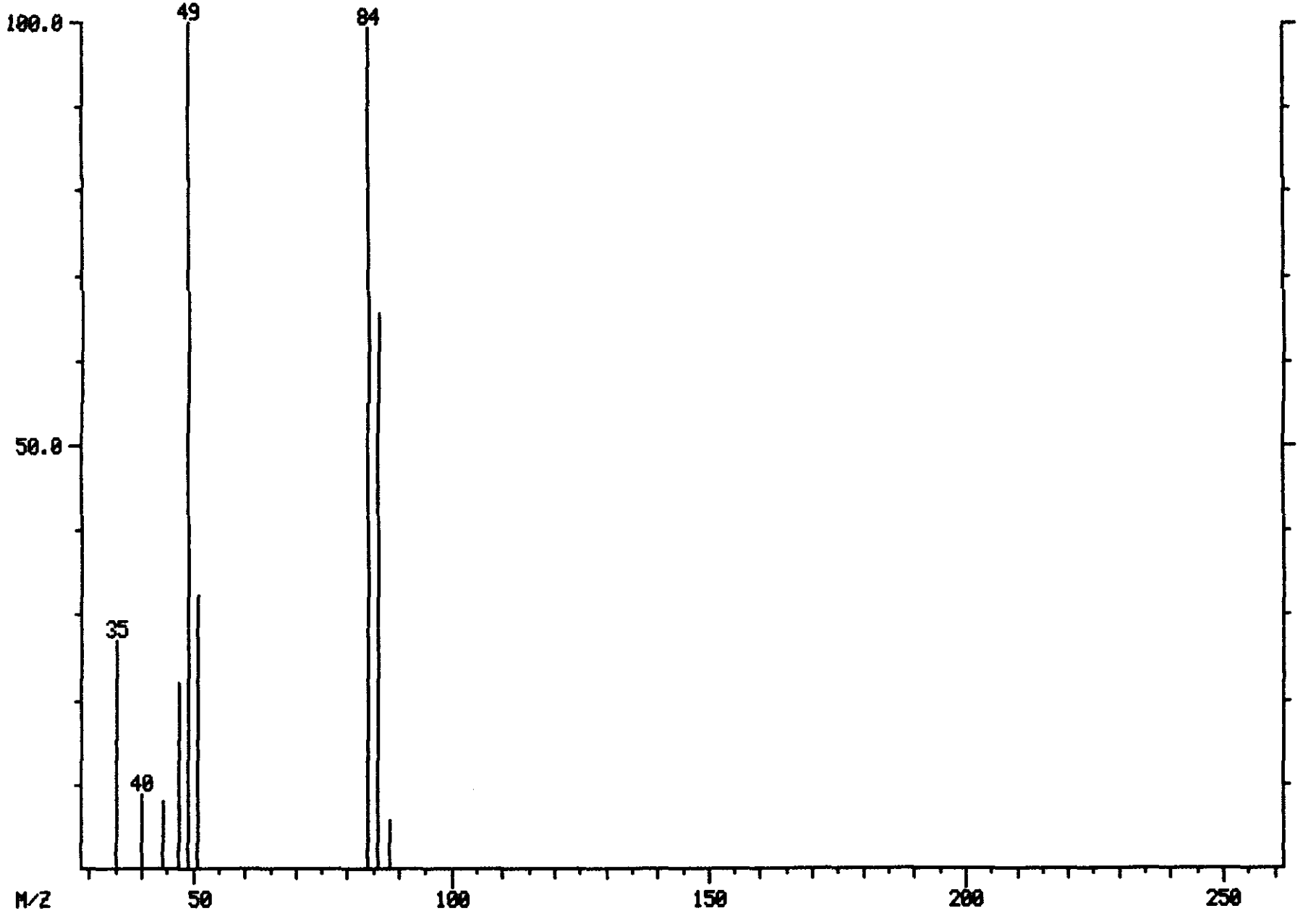
MASS SPECTRUM
05/08/90 17:30:00 + 7:30
SAMPLE: CLP,VERSCOM,2565,4,L,S,16949,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3550 #180
CALI: U3550 #2

BASE M/Z: 49
RIC: 3236.

100152

875.



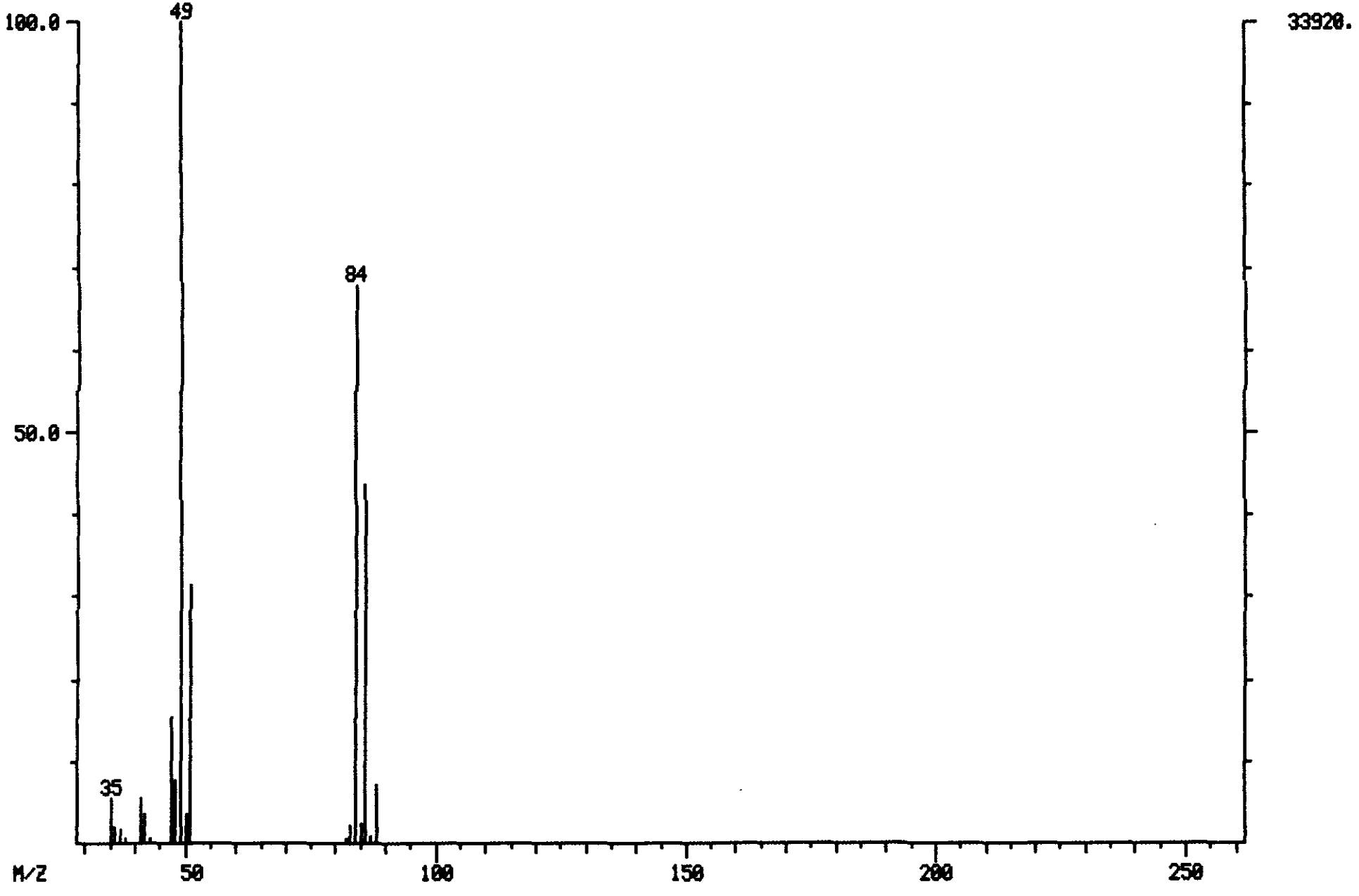
ORIGINAL (Red)

MASS SPECTRUM
05/02/90 8:08:00 + 7:30
SAMPLE: CLP,,,VSTD 50,L,S,22583,V,CC-050,,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3462 #180
CALI: U3462 #2

BASE M/Z: 49
RIC: 102656.

100153



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4-RE (Red)

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16949-RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3581

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 17 Date Analyzed: 05/10/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	4	J
67-64-1	Acetone	12	U
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

4-RE ORIGINAL (Rev.)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16949-RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3581

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 17 Date Analyzed: 05/10/90

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

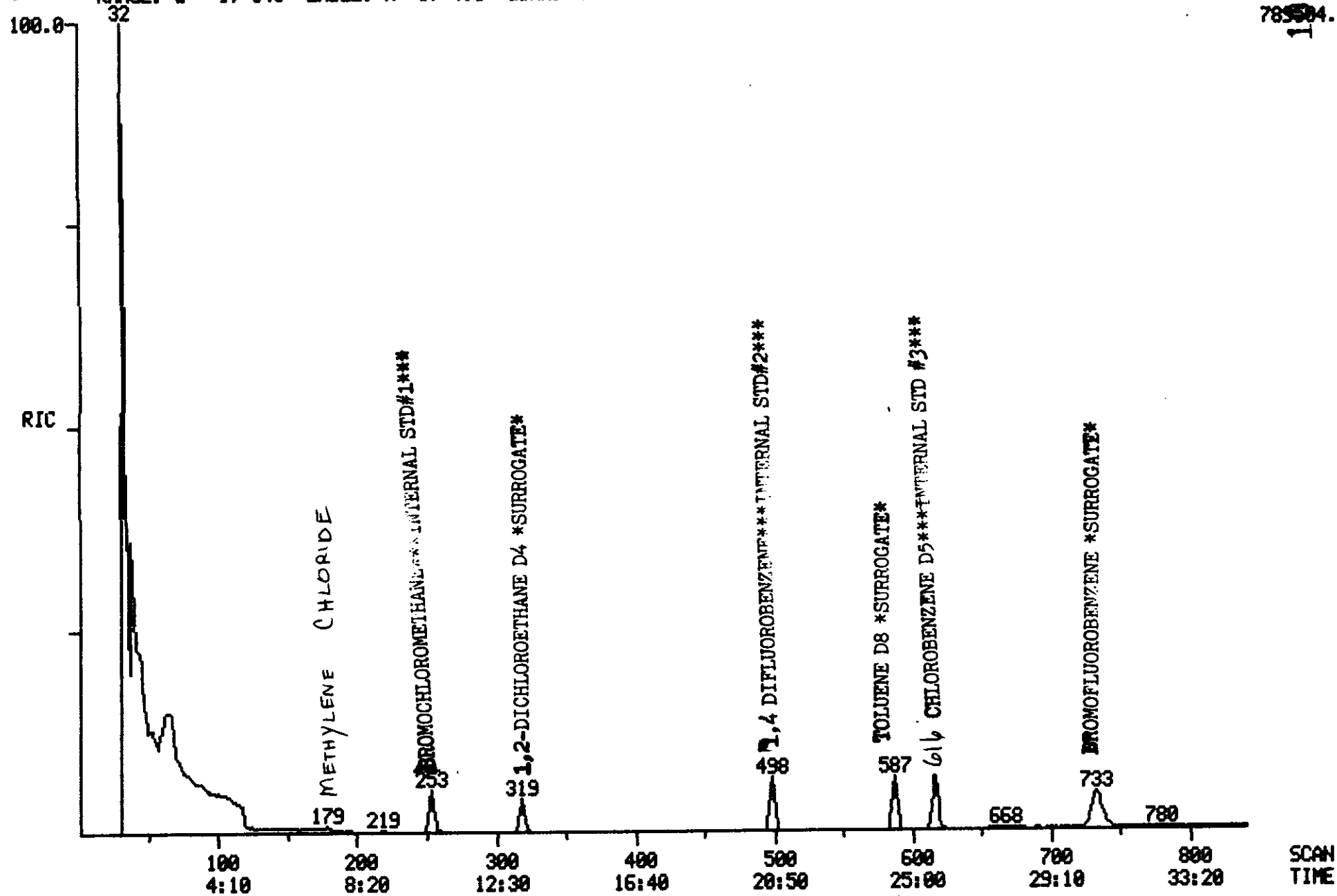
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ORIGINAL (Red)

RIC
05/10/90 11:29:00 -RE
DATA: U3581 #1 SCANS 1 TO 840
CALI: U3581 #2
SAMPLE: CLP,VERSCOM,2565,4,L,S,16949,V,420.1.0,B4.5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

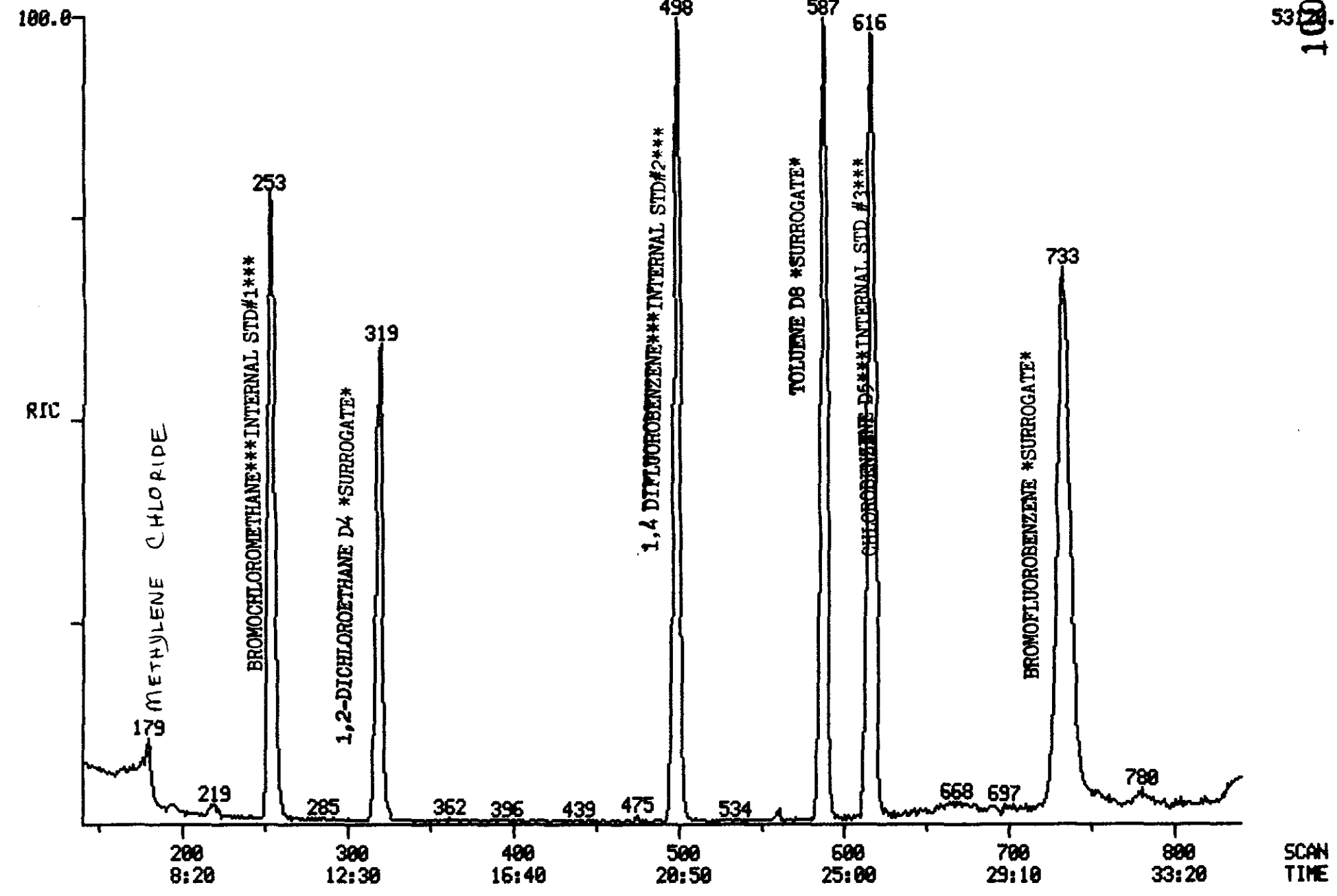
100156



RIC
05/10/90 11:29:00
SAMPLE: CLP,VERSCDM,2565,4,L,5,16949,V,420.1.0,B4,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: U3581 #1
CALI: U3581 #2

SCANS 140 TO 840



100157

ORIGINAL (Red)

Quantitation Report File: U3581

Data: U3581.TI
05/10/90 11:29:00
Sample: CLP,VERSCDM,2565,4,L,S,16949,V,420.1.0,B4,5 ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.001
Submitted by: VERSAR Analyst: MAT Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

17.9 %

3RD INT STD LOW SURROG. COMPLIANT
1 HSL QUANT.
READY FOR FORMS
M.A. Templeton 5/10/90

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

U3581

ORIGINAL (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	253	10:32	1	1.000	A BB	27820.	50.000 UG/L*	17.08	
2	NOT FOUND									
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	84	180	7:30	1	0.711	A BB	2200.	~~3.493 UG/L~~	1.19	
7	43	194	8:05	1	0.767	A BB	844.	~~3.061 UG/L~~ BRL	1.05	
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	65	319	13:17	1	1.261	A BB	48440.	39.183 UG/L%	13.39	78%
15	NOT FOUND									
16	114	498	20:45	16	1.000	A BB	101966.	50.000 UG/L*	17.08	
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	NOT FOUND									
29	NOT FOUND									
30	98	587	24:27	31	0.953	A BB	92860.	52.696 UG/L%	18.00	105%
31	117	616	25:40	31	1.000	A BB	77737 low	50.000 UG/L*	17.08	
32	NOT FOUND									
33	NOT FOUND									
34	164	559	23:17	31	0.907	A BB	602.	~~1.085 UG/L~~	0.37	BRL
35	NOT FOUND									
36	NOT FOUND									
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									
42	95	733	30:32	31	1.190	A BB	60383.	43.246 UG/L%	14.77	86%

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.324						
4	4:17		0.407						
5	5:17		0.502						
6	7:30	1.00	0.711	1.00	3.49	50.00	0.079	1.132	0.07
7	8:05	1.00	0.767	1.00	3.06	50.00	0.030	0.496	0.06
8	9:02		0.858						
9	10:10		0.964						
10	11:25		1.083						
11	12:07		1.150						
12	12:40		1.202						

43581

ORIGINAL (Red)

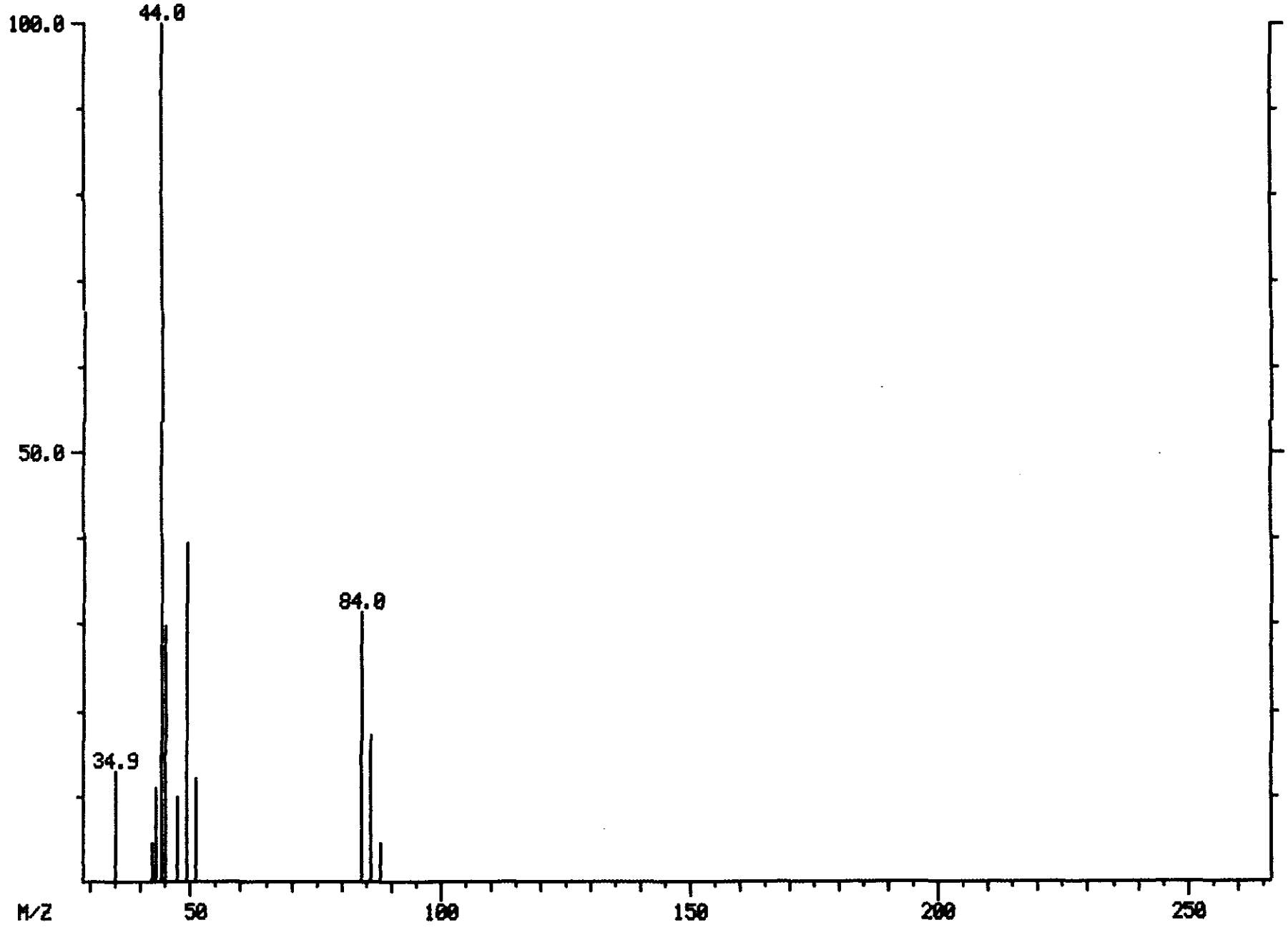
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
13	13:22		1.269						
14	13:17	1.00	1.261	1.00	39.18	50.00	1.741	2.222	0.78
15	9:30		0.901						
16	20:47	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20		1.265						
18	15:12		0.731						
19	15:07		0.727						
20	15:32		0.747						
21	16:57		0.816						
22	17:10		0.826						
23	17:42		0.852						
24	18:15		0.878						
25	18:17		0.880						
26	18:25		0.886						
27	18:27		0.888						
28	20:57		1.008						
29	14:45		0.709						
30	24:30	1.00	0.953	1.00	52.70	50.00	1.195	1.133	1.05
31	25:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32		0.838						
33	23:05		0.898						
34	23:20	1.00	0.908	1.00	1.09	50.00	0.008	0.357	0.02
35	23:17		0.906						
36	24:40		0.959						
37	25:50		1.005						
38	27:55		1.086						
39	32:07		1.250						
40	33:25		1.300						
41	32:25		1.261						
42	30:32	1.00	1.188	1.00	43.25	50.00	0.777	0.898	0.86

MASS SPECTRUM
05/10/90 11:29:00 + 7:30
SAMPLE: CLP,VERSCDM,2565,4,L,S,16949,V,420.1.0,B4,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE

DATA: U3581 #180
CALI: U3581 #2

BASE M/Z: 44
RIC: 4536.

100161

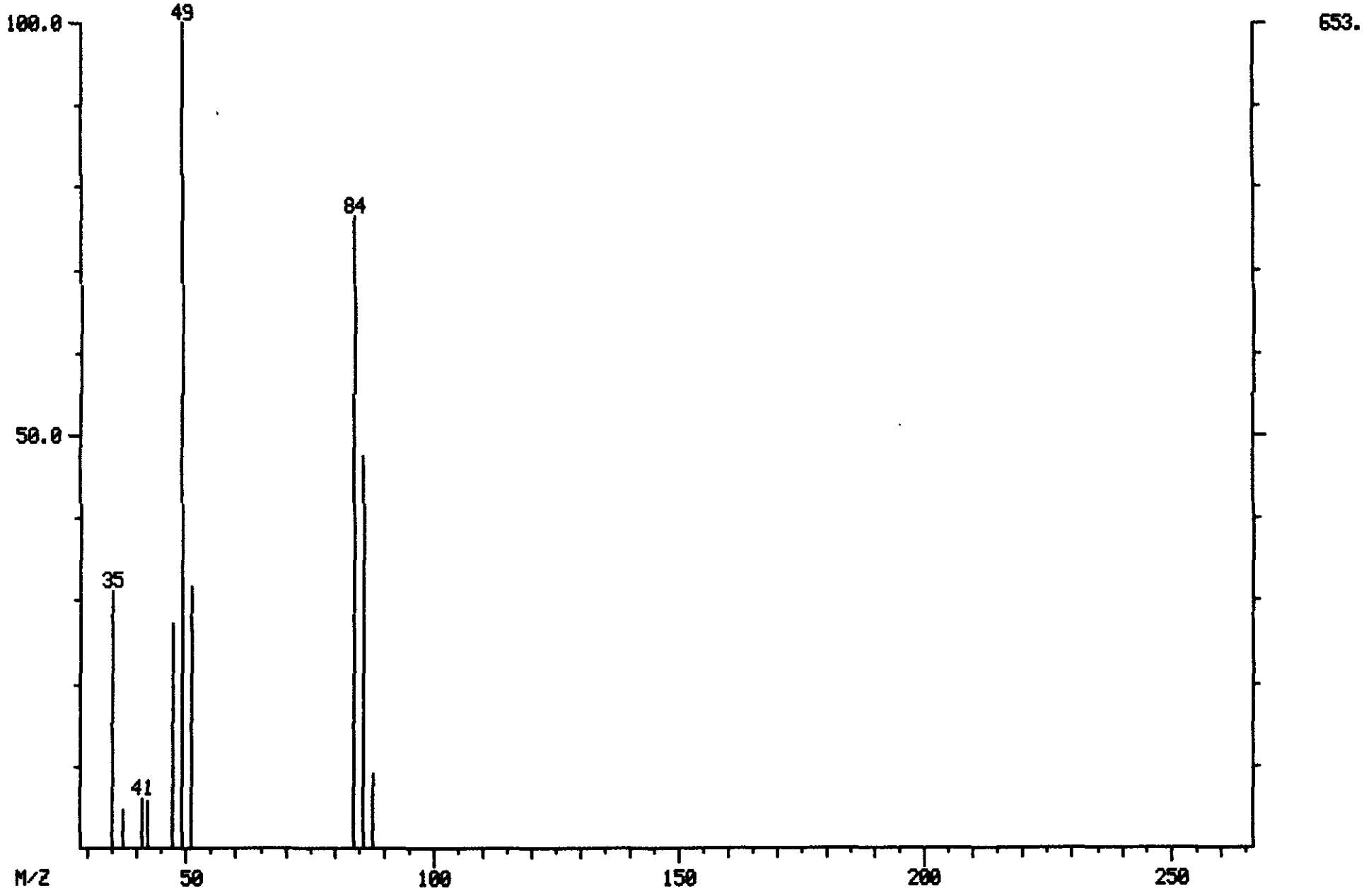


MASS SPECTRUM
05/10/90 11:29:00 + 7:30
SAMPLE: CLP,VERSCOM,2565,4,L,S,16949,V,420.1.0,B4,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3581 #180
CALI: U3581 #2

BASE M/Z: 49
RIC: 2224.

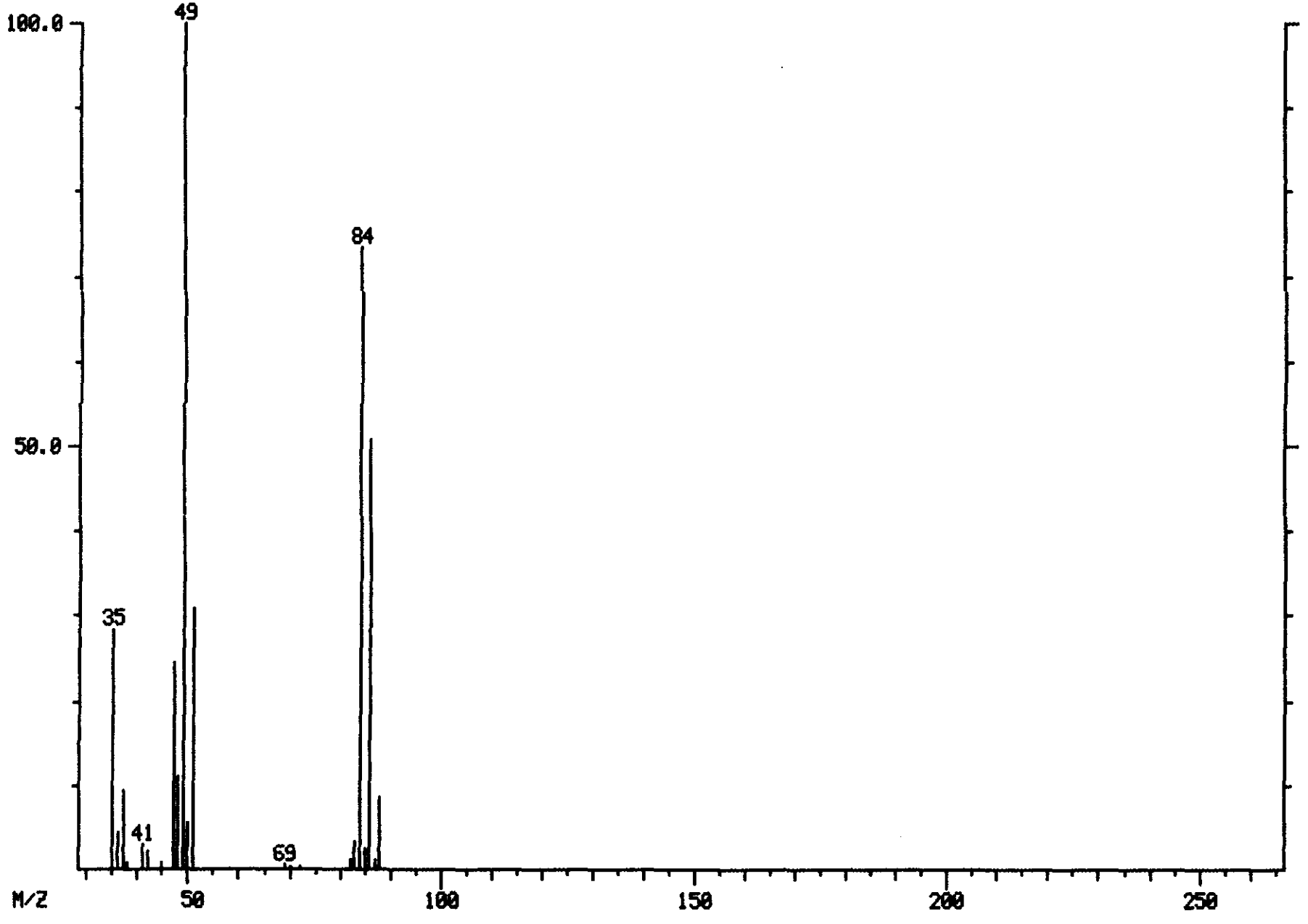
100162



MASS SPECTRUM
05/10/90 9:31:00 + 7:30
SAMPLE: CLP,,,VSTD50,L,S,22674,V,CC-050,,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3579 #180
CALI: U3579 #2

BASE M/Z: 49
RIC: 46208.



100163

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

8

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16950

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3465

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 38 Date Analyzed: 05/02/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene chloride	13	
67-64-1	Acetone	16	U
75-15-0	Carbon disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (total)	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	16	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon tetrachloride	8	U
108-05-4	Vinyl acetate	16	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-02-6	Trans-1,3-dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-pentanone	16	U
591-78-6	2-Hexanone	16	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Total xylenes	8	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

8

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16950

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3465

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 38 Date Analyzed: 05/02/90

Column (pack/cap) PACK Dilution Factor: 1.0

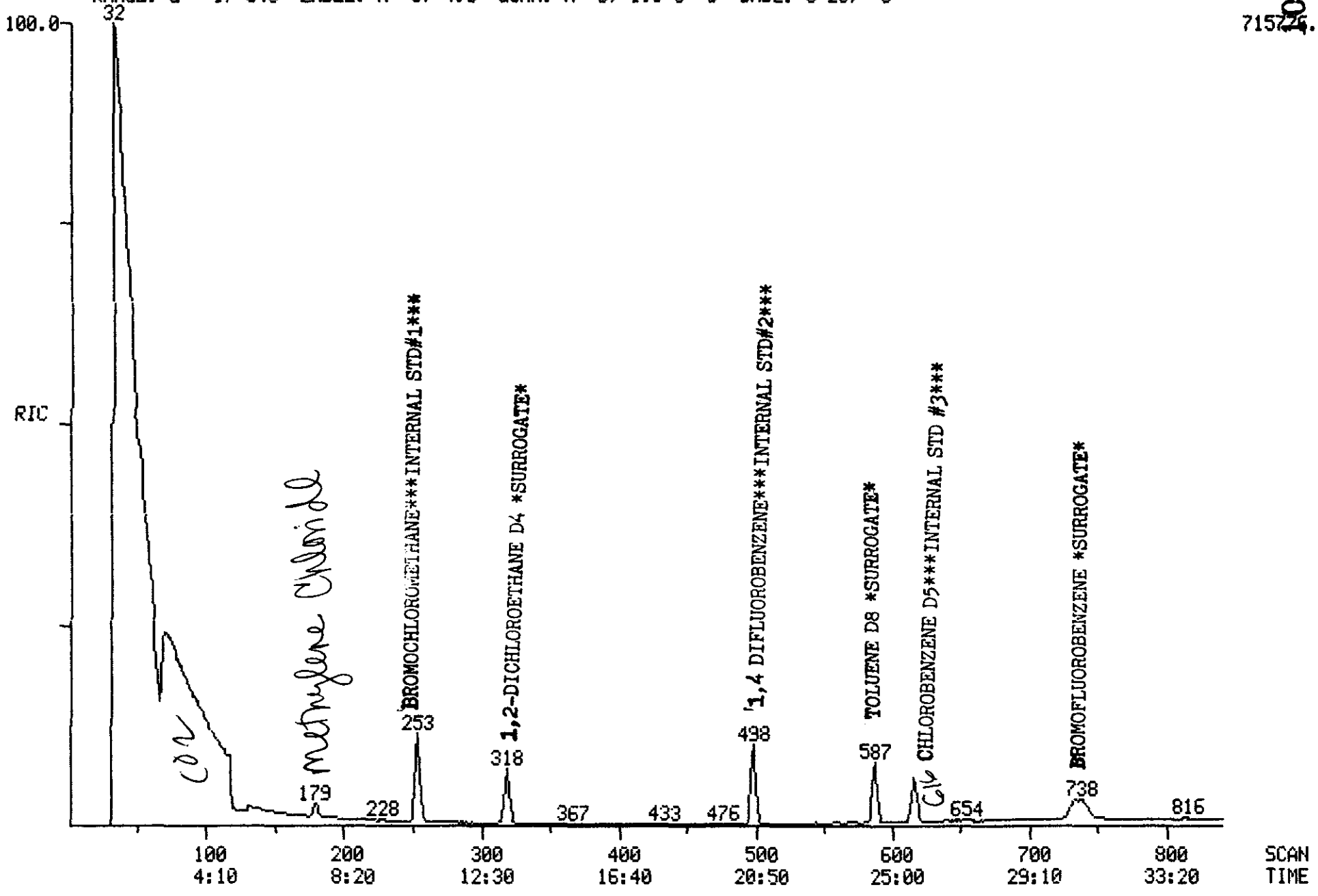
Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
541-05-9	HEXAMETHYLCYCLOTRISILOXANE	30.75	26	J

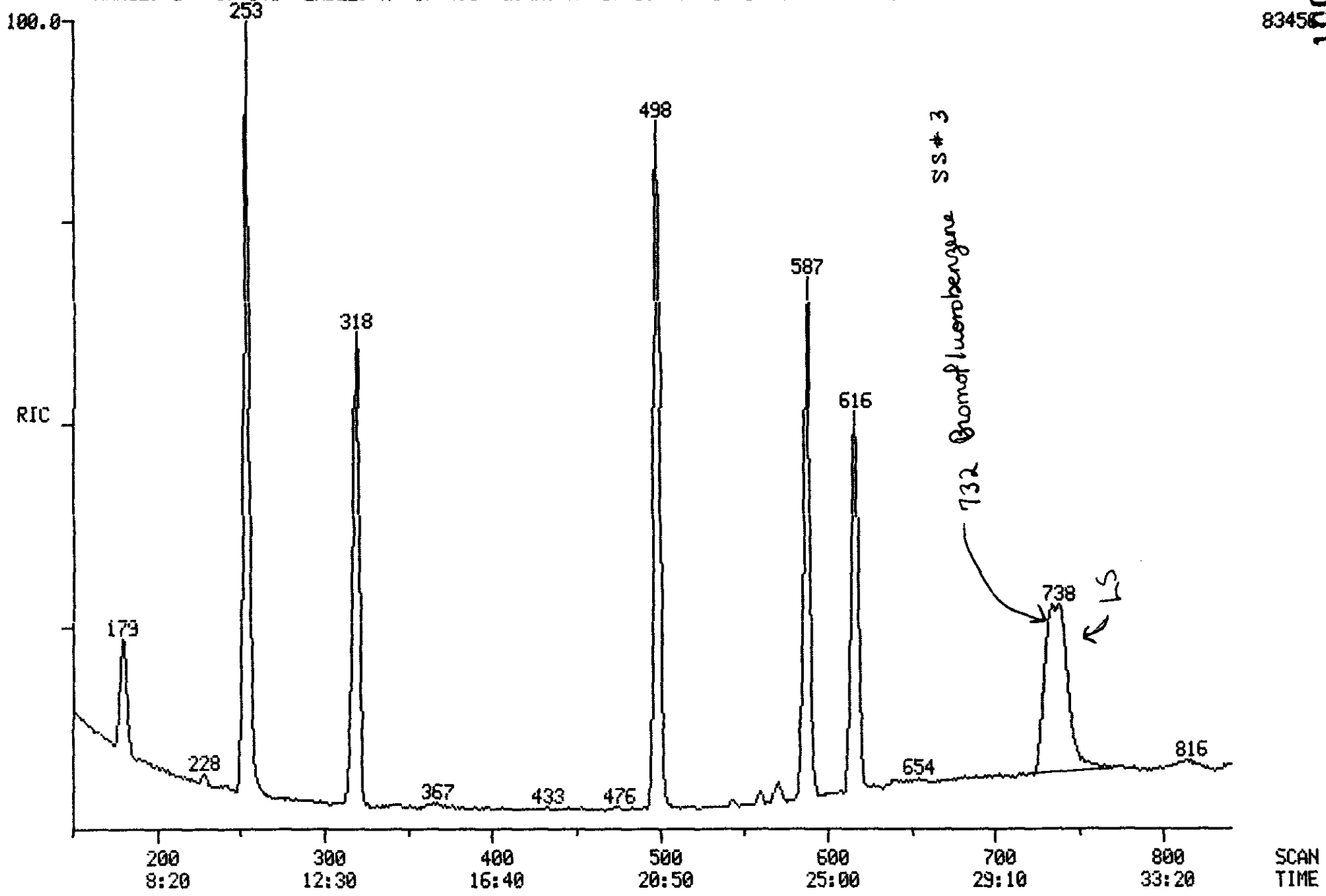
JB

RIC DATA: U3465 #1 SCANS 1 TO 840
05/02/90 10:48:00 CALI: U3465 #2
SAMPLE: CLP,VERSCDM,2565,8,L,S,16950,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



000166

RIC DATA: U3465 #1 SCANS 150 TO 840
05/02/90 10:48:00 CALI: U3465 #2
SAMPLE: CLP,VERSCDM,2565,8,L,S,16950,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



83456

100167

Quantitation Report File: U3465

Data: U3465.TI
05/02/90 10:48:00
Sample: CLP,VERSCDM,2565,8,L,S,16950,V,,420.1.0,B4,5G/5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.011
Submitted by: VERSAR Analyst: MAT Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

38.3 %

IS#2+3 non-compliant
SS#2+3 non-compliant.
Ready for TOMS

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

43465

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	253	10:32	1	1.000	A BB	48510.	50.000 UG/L*	16.70
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	84	179	7:27	1	0.708	A BB	12512.	8.073 UG/L	2.70
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	63	254	10:35	1	1.004	A BB	460.	~~0.173 UG/L~~	0.06
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	65	318	13:15	1	1.257	A BB	58965.	42.372 UG/L%	14.16 85
15	NOT FOUND								
16	114	498	20:45	16	1.000	A BB	139111. low	50.000 UG/L*	16.70
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	98	587	24:27	31	0.953	A BB	94708. low	60.826 UG/L%	20.32 high 122
31	117	616	25:40	31	1.000	A BB	61958.	50.000 UG/L*	16.70
32	43	518	21:35	31	0.841	A BB	275.	~~0.254 UG/L~~ BDL	0.08
33	NOT FOUND								
34	164	559	23:17	31	0.907	A BB	888.	~~2.160 UG/L~~ BDL	0.72 ~~71~~ low
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	95	732	30:30	31	1.188	A BB	36294.	35.502 UG/L%	11.86 71 low

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.323						
4	4:17		0.406						
5	5:17		0.500						
6	7:30	0.99	0.709	1.00	8.07	50.00	0.258	1.597	0.16
7	8:05		0.764						
8	9:02		0.854						
9	10:10		0.961						
10	11:25	0.93	1.079	0.93	0.17	50.00	0.009	2.737	0.00
11	12:07		1.146						
12	12:40		1.197						

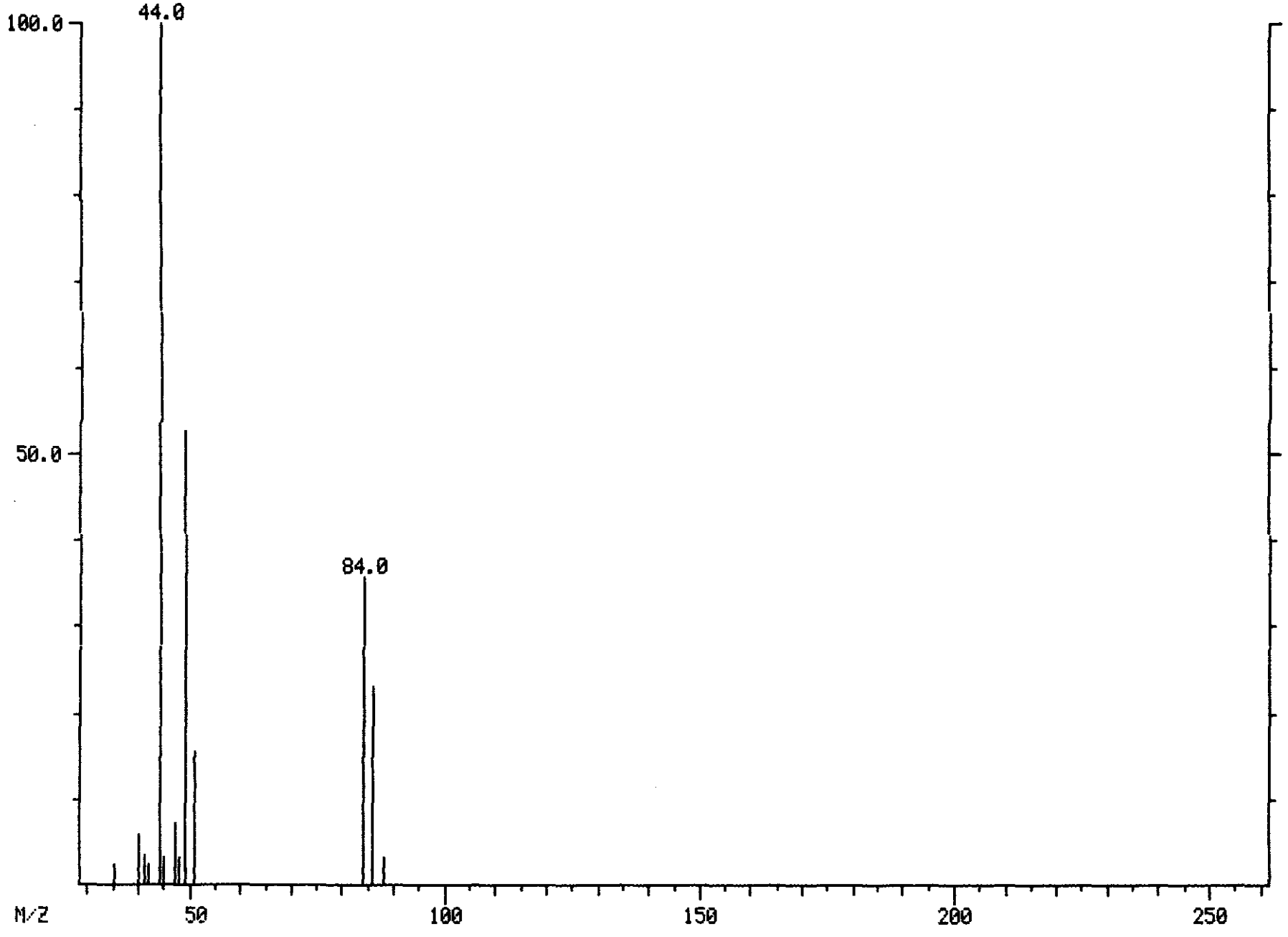
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.264						
14	13:17	1.00	1.256	1.00	42.37	50.00	1.216	1.434	0.85
15	9:30		0.898						
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20		1.260						
18	15:12		0.733						
19	15:07		0.729						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:45		0.711						
30	24:27	1.00	0.953	1.00	60.83	50.00	1.529	1.257	1.22
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	0.25	50.00	0.004	0.873	0.01
33	23:02		0.898						
34	23:20	1.00	0.909	1.00	2.16	50.00	0.014	0.332	0.04
35	23:17		0.907						
36	24:40		0.961						
37	25:47		1.005						
38	27:52		1.086						
39	32:02		1.248						
40	33:20		1.299						
41	32:20		1.260						
42	30:30	1.00	1.188	1.00	35.50	50.00	0.586	0.825	0.71

MASS SPECTRUM
05/02/90 10:48:00 + 7:27
SAMPLE: CLP,VERSCDM,2565,8,L,S,16950,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE

DATA: U3465 #179
CALI: U3465 #2

BASE M/Z: 44
RIC: 19808.

1C0171

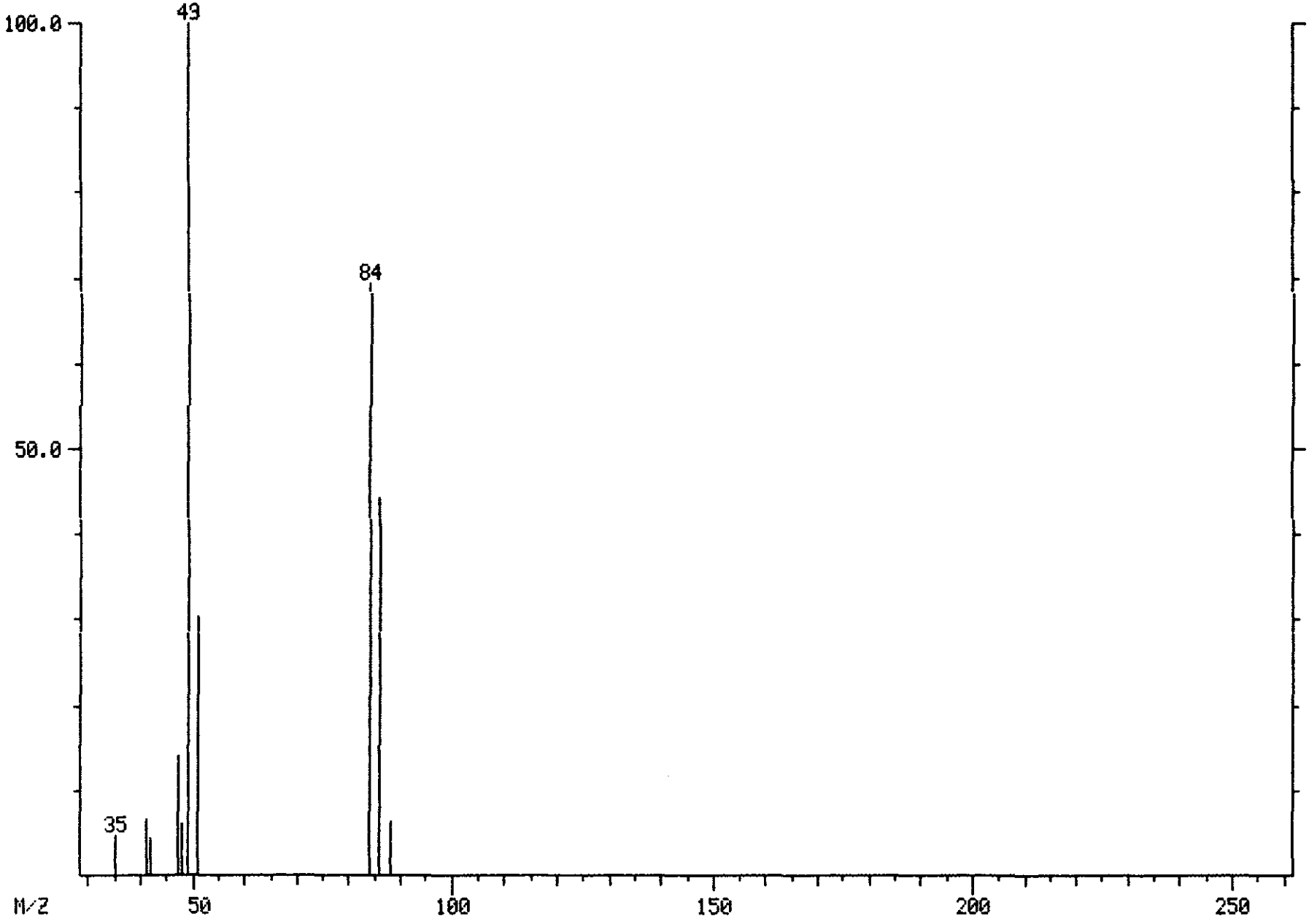


MASS SPECTRUM
05/02/90 10:48:00 + 7:27
SAMPLE: CLP,VERSCOM,2565,8,L,S,16950,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3465 #179
CALI: U3465 #2

BASE M/Z: 49
RIC: 11200.

100172

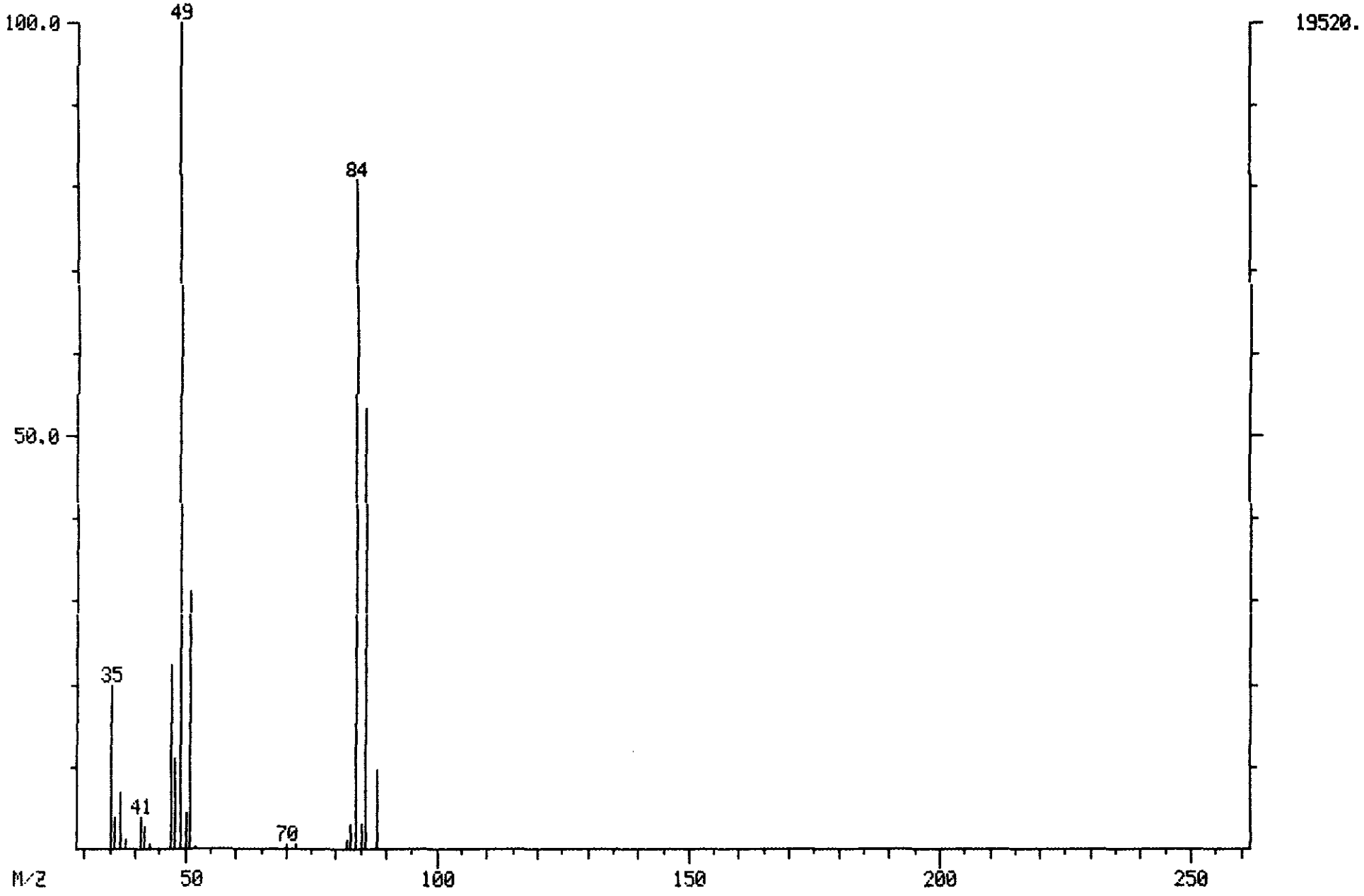


MASS SPECTRUM
05/08/90 8:54:00 + 7:27
SAMPLE: CLP,,,VSTD 50,L,S,22644,V,CC-050,,5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3540 #179
CALI: U3540 #2

BASE M/Z: 49
RIC: 70528.

100173



Library Search Data: U3465 # 738 Base m/z: 207
05/02/90 10:48:00 + 30:45 Cali: U3465 # 2 RIC: 10527.
Sample: CLP,VERSCDM,2565,8,L,S,16950,V,,420.1.0,B4,5G/5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Enhanced (S 15B 2N OT)

42222 spectra in LIBRARYNB searched for maximum PURITY
202 matched at least 4 of the 16 largest peaks in the unknown

Rank	In.	Name
1	19998	CYCLOTRISILOXANE, HEXAMETHYL-
2	32875	ARSENOUS ACID, TRIS(TRIMETHYLSILYL) ESTER
3	20022	DISILOXANE, 1,3-DIETHOXY-1,1,3,3-TETRAMETHYL-
4	30068	TETRASILOXANE, DECAMETHYL-
5	22028	1,2,4-BENZENETRICARBOXYLIC ACID, 1,2-DIMETHYL ESTER

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C6.H18.O3.SI3	222	207	901	927	947
2	C9.H27.O3.AS.SI3	342	207	732	883	823
3	C8.H22.O3.SI2	222	207	652	810	776
4	C10.H30.O3.SI4	310	73	640	723	876
5	C11.H10.O6	238	207	618	831	724

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	—	—	—	—	541-05-9
2	—	—	—	—	55429-29-3
3	—	—	—	—	18420-09-2
4	—	—	—	—	141-62-8
5	—	—	—	—	54699-35-3

$$\frac{33}{101} \times 50 = 16.34$$
$$= 26$$

concentration calculated from peak hgt.

JB

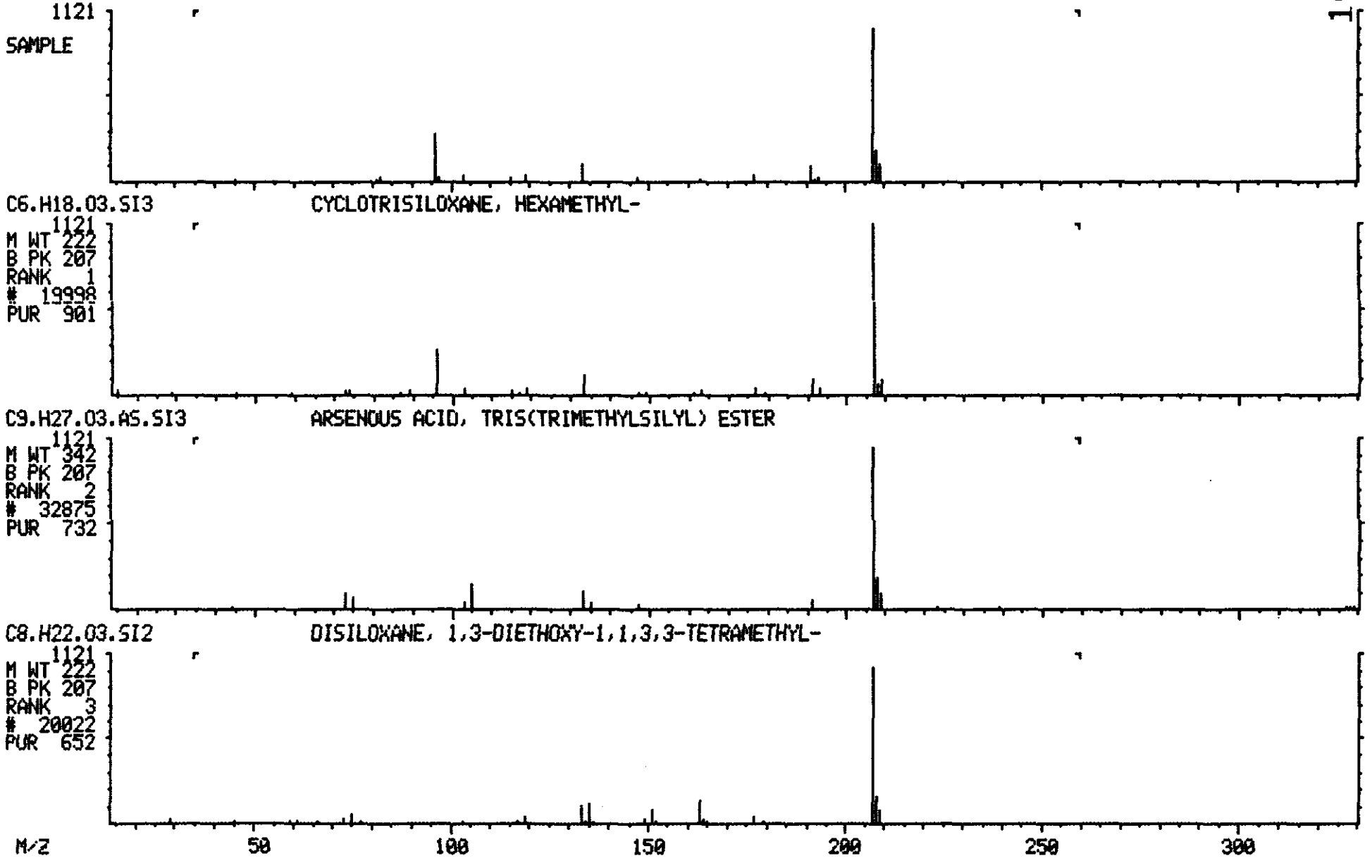
100174

LIBRARY SEARCH
05/02/90 10:48:00 + 30:45
SAMPLE: CLP,VERSCDM,2565,8,L,S,16950,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: U3465 # 738
CALI: U3465 # 2

BASE M/Z: 207
RIC: 10527.

100175



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

8-RE

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16950-RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3551

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 38 Date Analyzed: 05/08/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene chloride	10	
67-64-1	Acetone	16	U
75-15-0	Carbon disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (total)	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	16	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon tetrachloride	8	U
108-05-4	Vinyl acetate	16	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-02-6	Trans-1,3-dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-pentanone	16	U
591-78-6	2-Hexanone	16	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Total xylenes	8	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

8-RE

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16950-RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3551

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 38 Date Analyzed: 05/08/90

Column (pack/cap) PACK Dilution Factor: 1.0

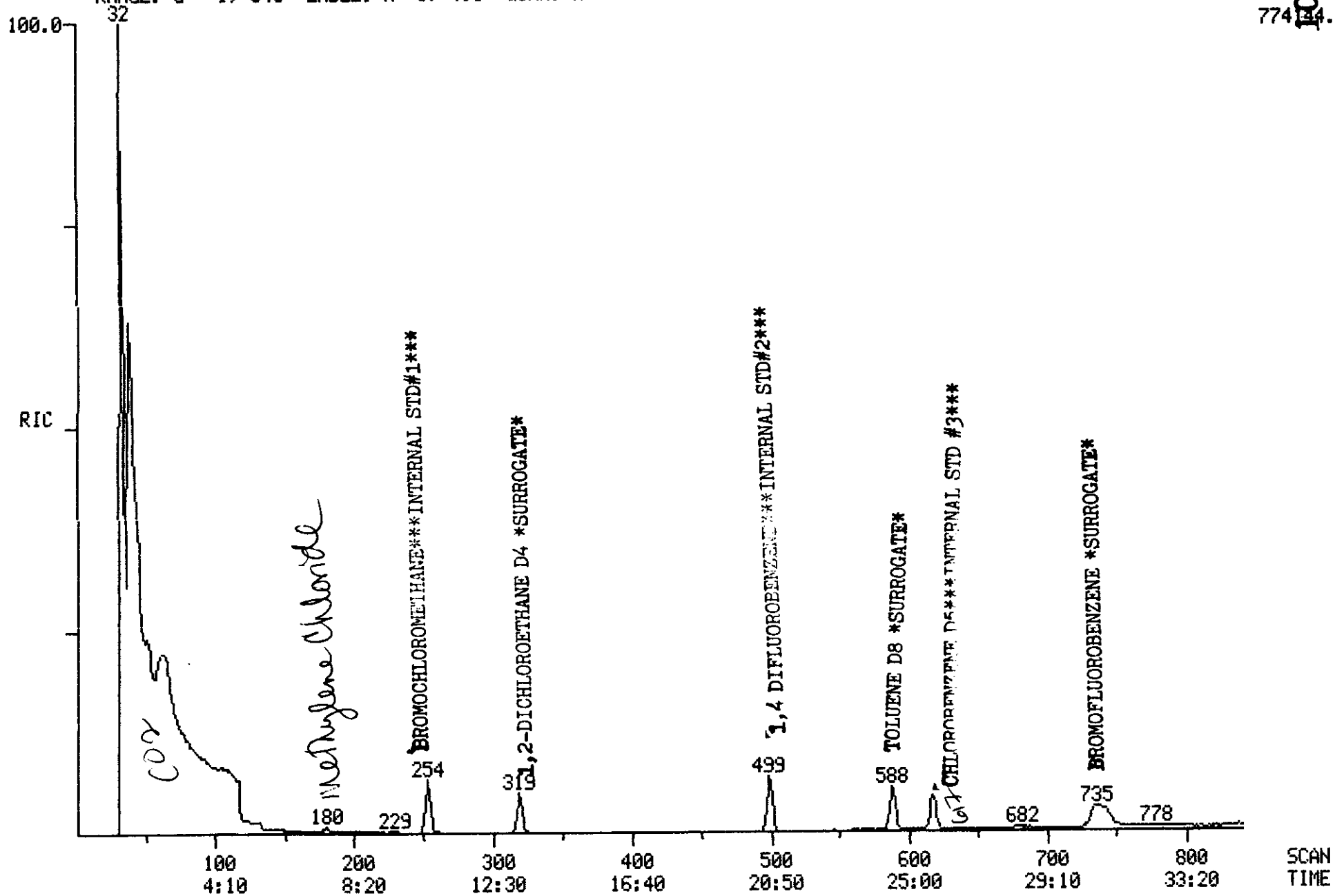
Number TICs found: 0

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

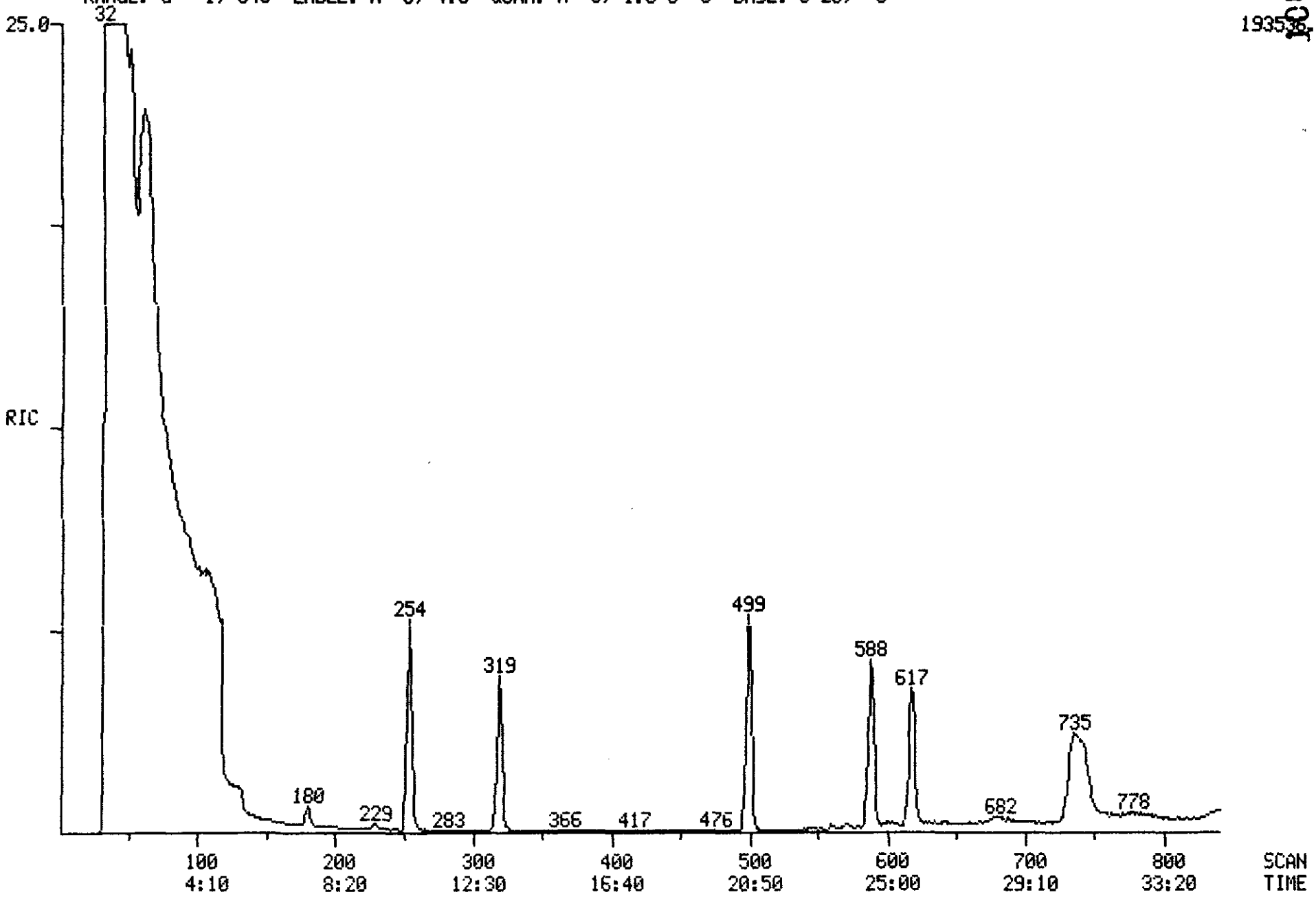
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC
05/08/90 18:13:00
DATA: U3551 #1
CALI: U3551 #2
SCANS 1 TO 840
SAMPLE: CLP,VERSCDM,2565,8,L,S,16950,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

IC0178



RIC DATA: U3551 #1 SCANS 1 TO 840
05/08/90 18:13:00 CALI: U3551 #2
SAMPLE: CLP,VERSCDM,2565,8,L,S,16950,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100179

Quantitation Report File: U3551

Data: U3551.TI
05/08/90 18:13:00
Sample: CLP,VERSCDM,2565,8,L,S,16950,V,,420.1.0,4,5G/5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.000
Submitted by: VERSAR Analyst: DD Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

38.3 %

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

IS #2+3 non-compliant
SS #3 non-compliant.
Ready for Forms

43551

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	253	10:32	1	1.000	A BB	36449	50.000 UG/L*	17.24
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	84	180	7:30	1	0.711	A BB	4880.	5.886 UG/L	2.03
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	65	319	13:17	1	1.261	A BB	57761.	40.373 UG/L%	13.92 81
15	101	229	9:32	1	0.905	A BB	3198.	BRL ~~1.717 UG/L~~	0.59
16	114	499	20:47	16	1.000	A BB	102895 low	50.000 UG/L*	17.24
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	98	588	24:30	31	0.953	A BV	71983.	56.243 UG/L%	19.39 112
31	117	617	25:42	31	1.000	A BB	53224. low	50.000 UG/L*	17.24
32	NOT FOUND								
33	NOT FOUND								
34	164	560	23:20	31	0.908	A BB	471.	BRL ~~1.188 UG/L~~	0.41
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	95	735	30:37	31	1.191	A BB	33874.	34.635 UG/L%	11.94 69 low

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.324						
4	4:17		0.407						
5	5:17		0.502						
6	7:27	1.01	0.708	1:01	5.89	50.00	0.134	1.137	0.12
7	8:05		0.767						
8	9:02		0.858						
9	10:07		0.960						
10	11:25		1.083						
11	12:07		1.150						
12	12:37		1.198						

4355 1

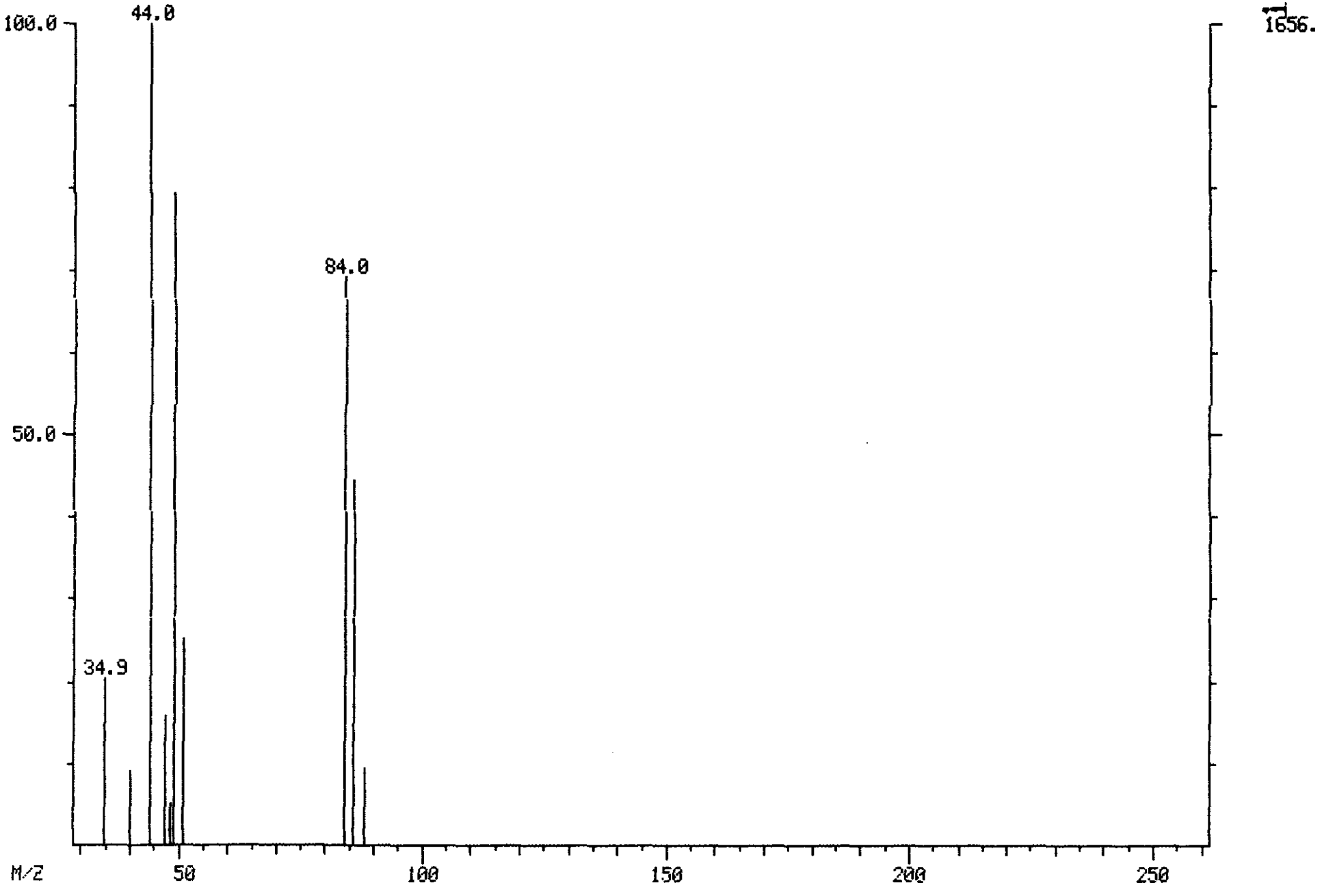
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.269						
14	13:17	1.00	1.261	1.00	40.37	50.00	1.585	1.963	0.81
15	9:30	1.00	0.901	1.00	1.72	50.00	0.088	2.555	0.03
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:17		1.261						
18	15:12		0.733						
19	15:05		0.727						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:42		0.709						
30	24:27	1.00	0.953	1.00	56.24	50.00	1.352	1.202	1.12
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32		0.839						
33	23:02		0.898						
34	23:20	1.00	0.909	1.00	1.19	50.00	0.009	0.373	0.02
35	23:17		0.907						
36	24:40		0.961						
37	25:47		1.005						
38	27:55		1.088						
39	32:05		1.250						
40	33:25		1.302						
41	32:22		1.261						
42	30:30	1.00	1.188	1.00	34.64	50.00	0.636	0.919	0.69

MASS SPECTRUM
05/08/90 18:13:00 + 7:30
SAMPLE: CLP,VERSCDM,2565,8,L,S,16950,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE

DATA: U3551 #180
CALI: U3551 #2

BASE M/Z: 44
RIC: 6256.

1C0183



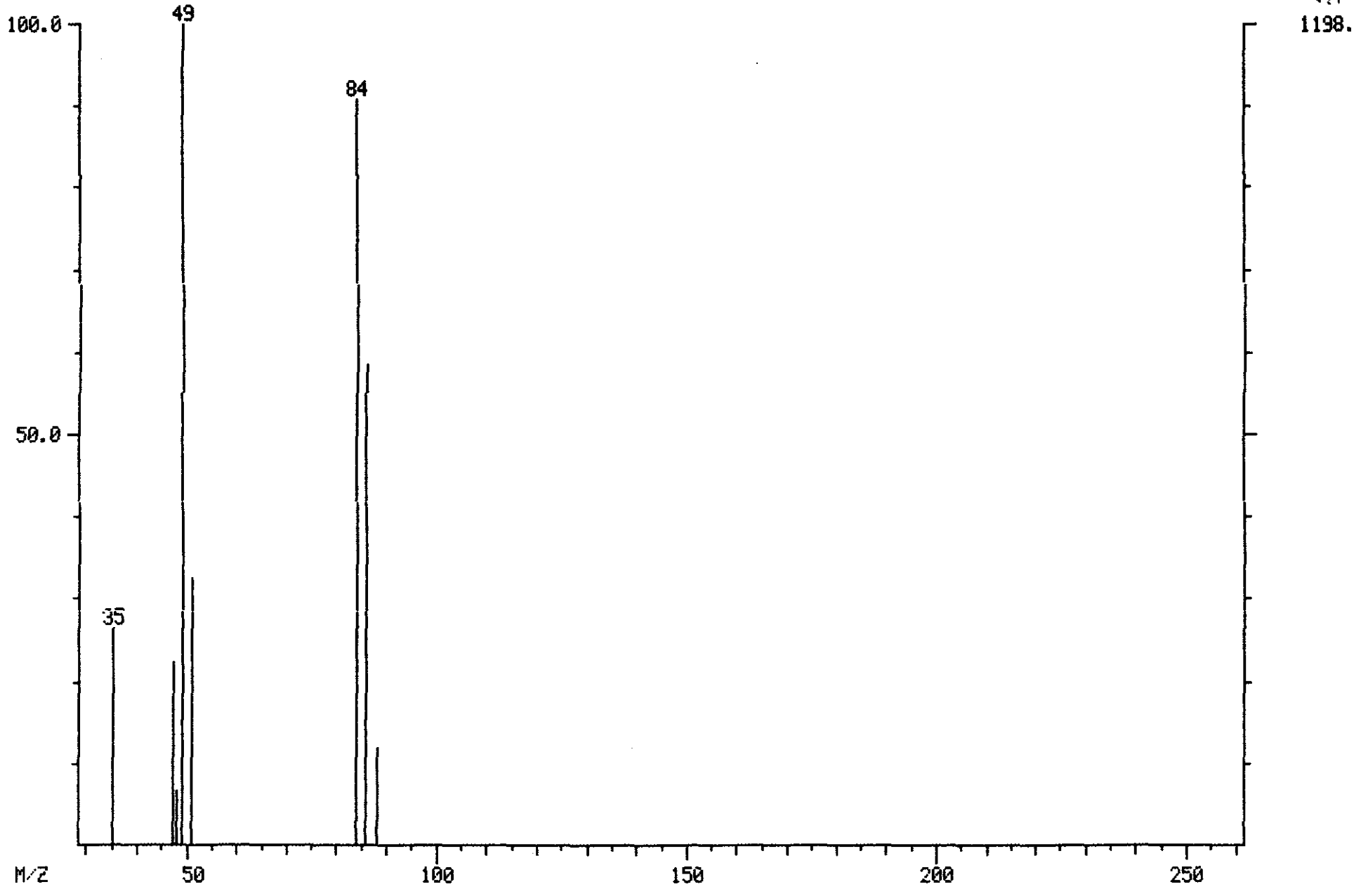
ORIGINAL (Red)

MASS SPECTRUM
05/08/90 18:13:00 + 7:30
SAMPLE: CLP,VERSCDM,2565,8,L,S,16950,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3551 #180
CALI: U3551 #2

BASE M/Z: 49
RIC: 4192.

100184



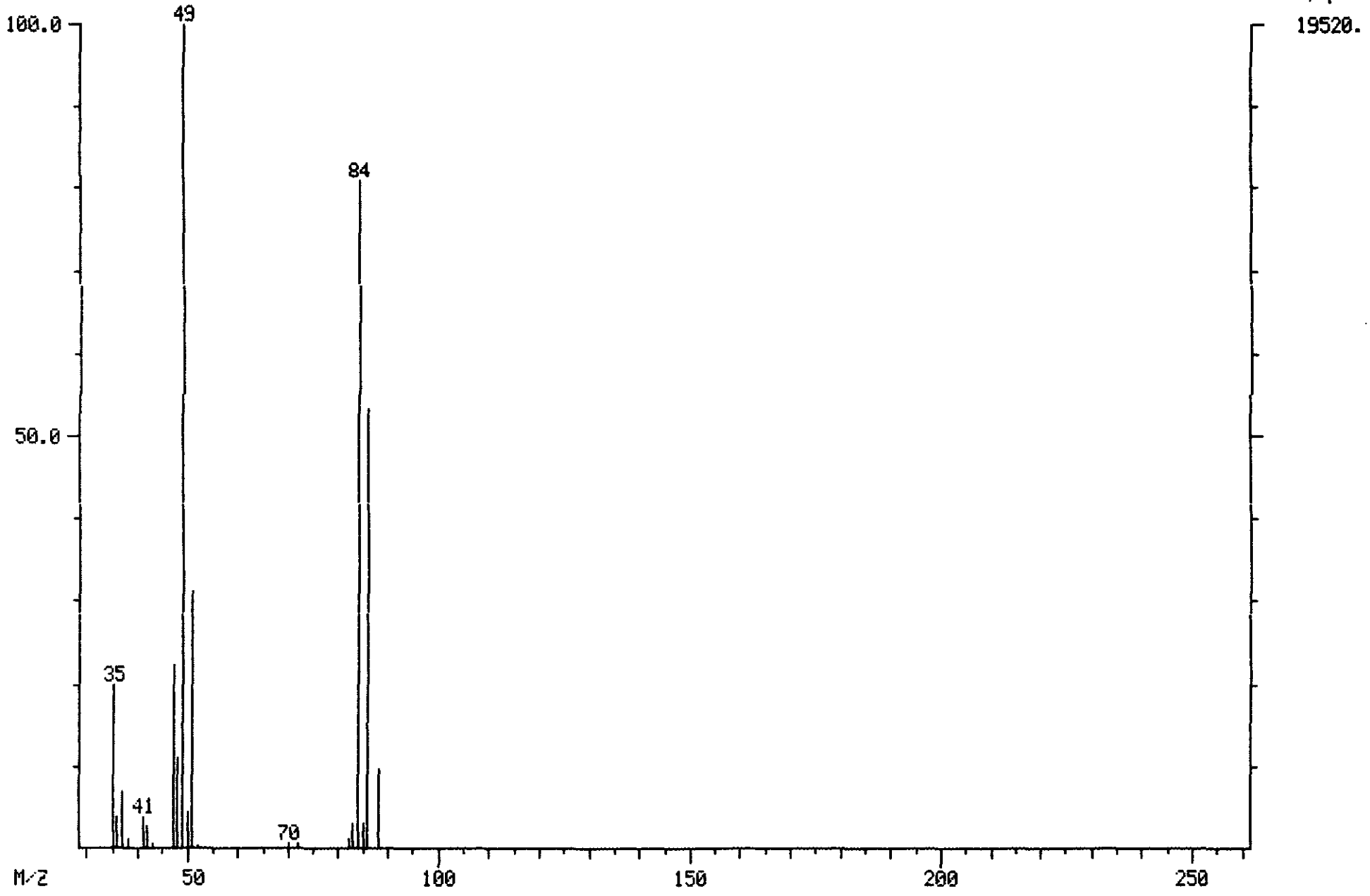
MASS SPECTRUM
05/08/90 8:54:00 + 7:27
SAMPLE: CLP,,,VSTD 50,L,S,22644,V,CC-050,,5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3540 #179
CALI: U3540 #2

BASE M/Z: 49
RIC: 70528.

ORIGINAL (Red)

100185



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9 ORIGINAL (Red)

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16951

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3466

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 19 Date Analyzed: 05/02/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	6	J
67-64-1	Acetone	68	
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9 ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16951

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3466

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 19 Date Analyzed: 05/02/90

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

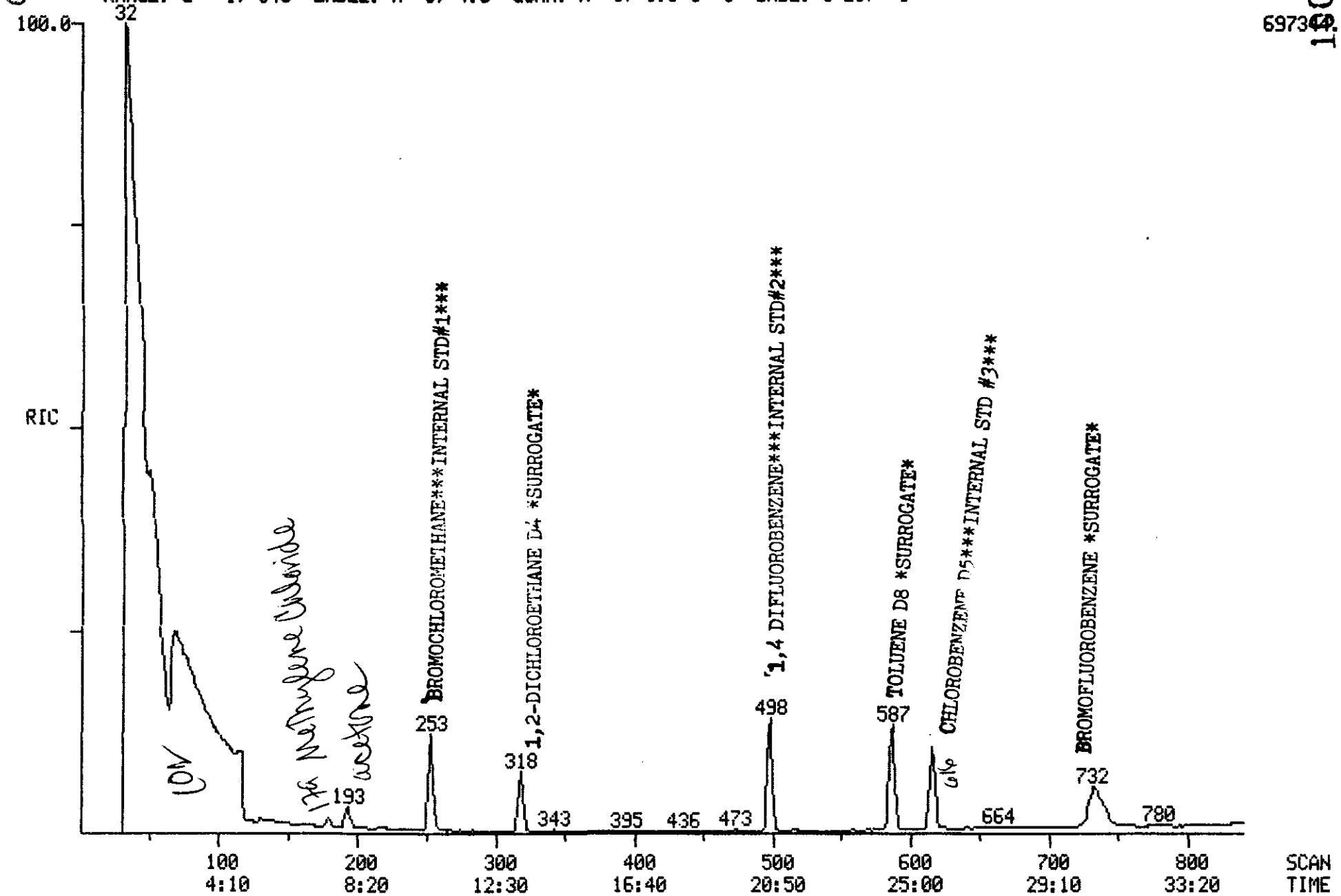
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: U3466 #1 SCANS 1 TO 840
05/02/90 11:30:00 CALI: U3466 #2
SAMPLE: CLP,VERSCOM,2565,9,L,S,16951,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

ORIGINAL (Red)

69734

150188



Quantitation Report File: U3466

ORIGINAL (Red)

Data: U3466.TI
05/02/90 11:30:00
Sample: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,B4,5G/5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.012
Submitted by: VERSAR Analyst: MAT Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT) 19.7 %
Resp. fac. from Library Entry

3rd IntStd low

Ready For Forms

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

U346 (ORIGINAL) (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	253	10:32	1	1.000	A BB	50588.	50.000 UG/L*	14.08
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	84	179	7:27	1	0.708	A BB	7251.	4.486 UG/L	1.26
7	43	193	8:02	1	0.763	A BB	46675.	55.033 UG/L	15.50
8	NOT FOUND								
9	NOT FOUND								
10	63	253	10:32	1	1.000	A BB	565.	BRL ~~0.204 UG/L~~	0.06
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	65	318	13:15	1	1.257	A BB	60536.	41.714 UG/L%	11.75 83%
15	NOT FOUND								
16	114	498	20:45	16	1.000	A BB	189753.	50.000 UG/L*	14.08
17	72	319	13:17	1	1.261	A BB	1075.	~~3.082 UG/L~~ BRL	0.87
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	98	587	24:27	31	0.953	A BB	159765.	57.496 UG/L%	16.19 115%
31	117	616	25:40	31	1.000	A BB	110572 low	50.000 UG/L*	14.08
32	43	516	21:30	31	0.838	A BB	5123.	~~2.652 UG/L~~	0.75
33	43	553	23:02	31	0.898	A BV	828.	~~0.487 UG/L~~	0.14
34	164	559	23:17	31	0.907	A BB	412.	~~0.562 UG/L~~ BRL	0.16
35	NOT FOUND								
36	92	592	24:40	31	0.961	A BB	373.	~~0.237~~ UG/L	0.07
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	95	732	30:30	31	1.188	A BB	71532.	39.207 UG/L%	11.04 78%

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.323						
4	4:17		0.406						
5	5:17		0.500						
6	7:30	0.99	0.709	1.00	4.49	50.00	0.143	1.597	0.09
7	8:05	0.99	0.764	1.00	55.03	50.00	0.923	0.838	1.10
8	9:02		0.854						
9	10:10		0.961						
10	11:25	0.92	1.079	0.93	0.20	50.00	0.011	2.737	0.00
11	12:07		1.146						
12	12:40		1.197						

43466

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.264						
14	13:17	1.00	1.256	1.00	41.71	50.00	1.197	1.434	0.83
15	9:30		0.898						
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20	1.00	1.260	1.00	3.08	50.00	0.021	0.345	0.06
18	15:12		0.733						
19	15:07		0.729						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:45		0.711						
30	24:27	1.00	0.953	1.00	57.50	50.00	1.445	1.257	1.15
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	2.65	50.00	0.046	0.873	0.05
33	23:02	1.00	0.898	1.00	0.49	50.00	0.007	0.768	0.01
34	23:20	1.00	0.909	1.00	0.56	50.00	0.004	0.332	0.01
35	23:17		0.907						
36	24:40	1.00	0.961	1.00	0.24	50.00	0.003	0.712	0.00
37	25:47		1.005						
38	27:52		1.086						
39	32:02		1.248						
40	33:20		1.299						
41	32:20		1.260						
42	30:30	1.00	1.188	1.00	39.21	50.00	0.647	0.825	0.78

ORIGINAL (Red)

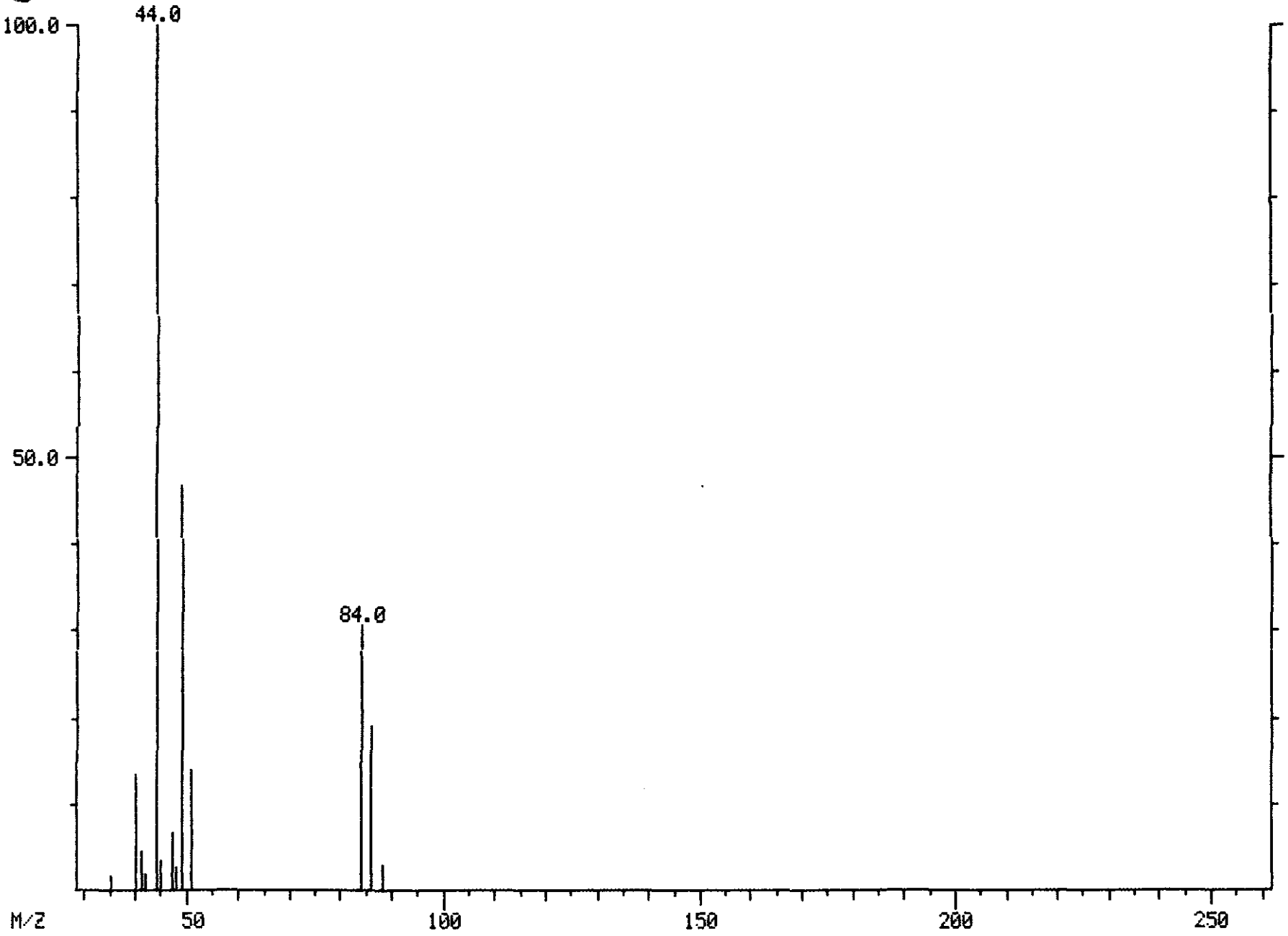
MASS SPECTRUM
05/02/90 11:30:00 + 7:27
SAMPLE: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE

DATA: U3466 #179
CALI: U3466 #2

BASE M/Z: 44
RIC: 13072.

ORIGINAL (Red)

100192

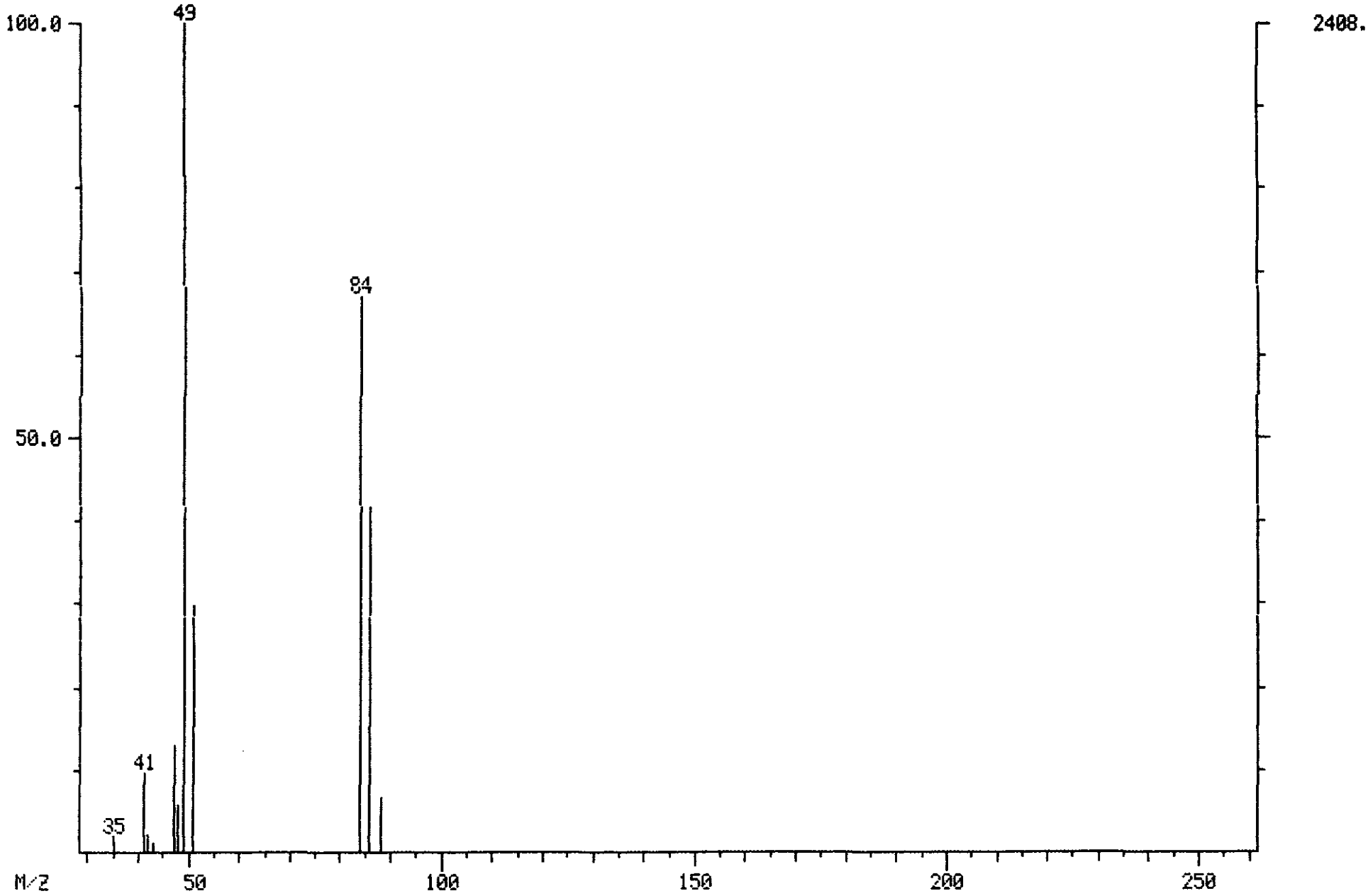


MASS SPECTRUM
05/02/90 11:30:00 + 7:27
SAMPLE: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3466 #179
CALI: U3466 #2

BASE M/Z: 49
RIC: 6712.

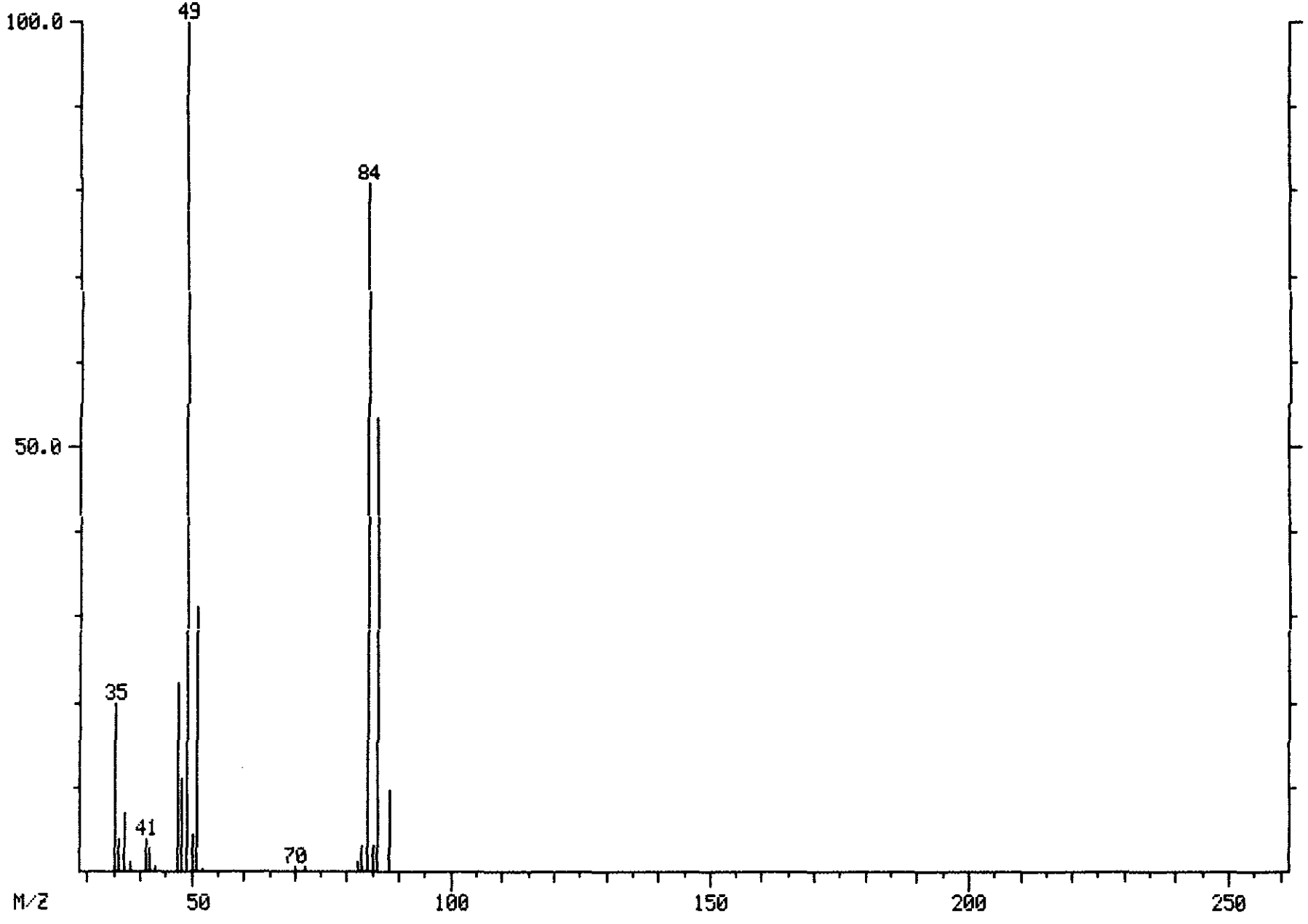
100193



MASS SPECTRUM
05/08/90 8:54:00 + 7:27
SAMPLE: CLP,,,VSTD 50,L,S,22644,V,CC-050,,5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3540 #179
CALI: U3540 #2

BASE M/Z: 49
RIC: 70528.

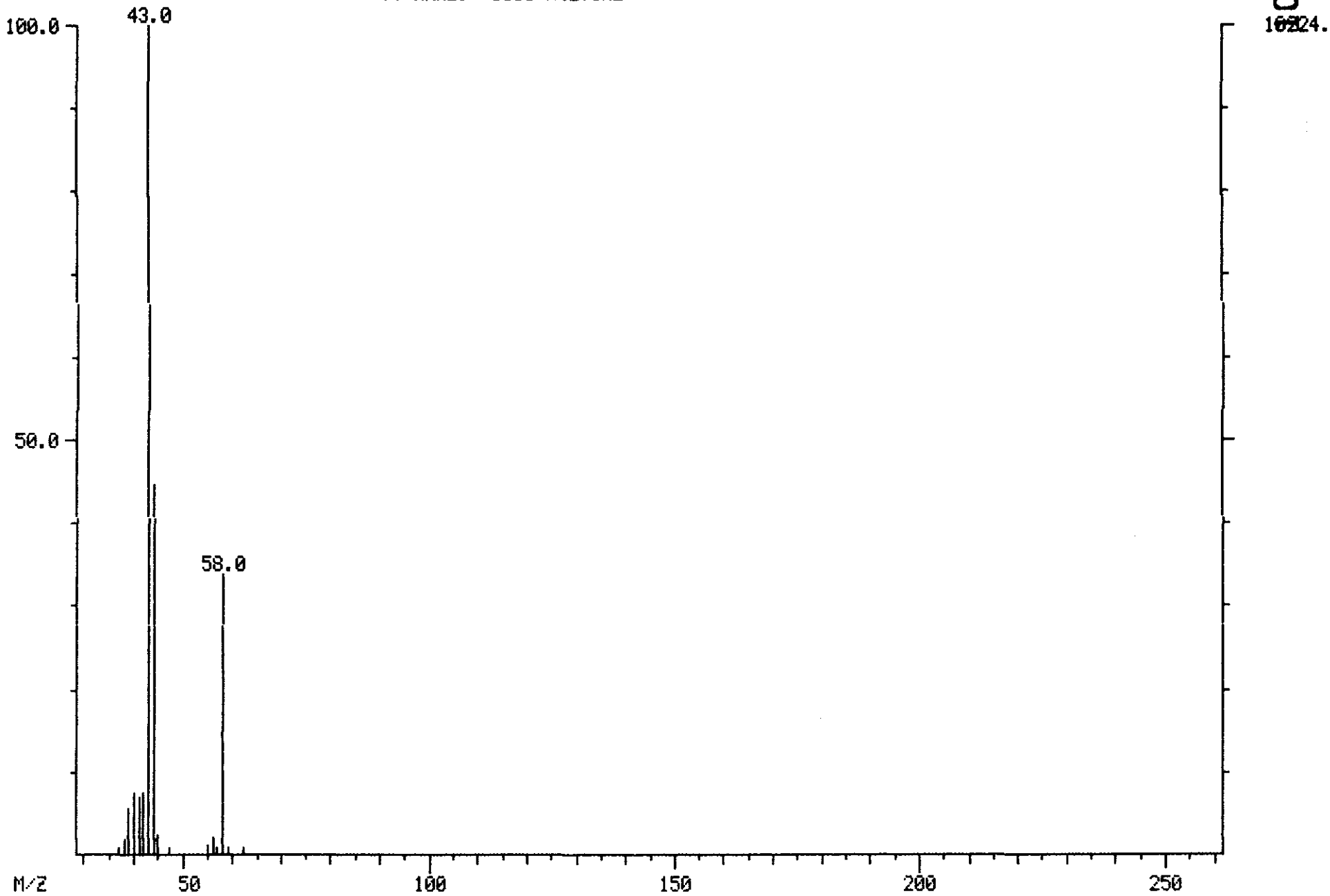


i00194

MASS SPECTRUM
05/02/90 11:30:00 + 8:02
SAMPLE: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C035 ACETONE

DATA: U3466 #193
CALI: U3466 #2

BASE M/Z: 43
RIC: 22304.



000195

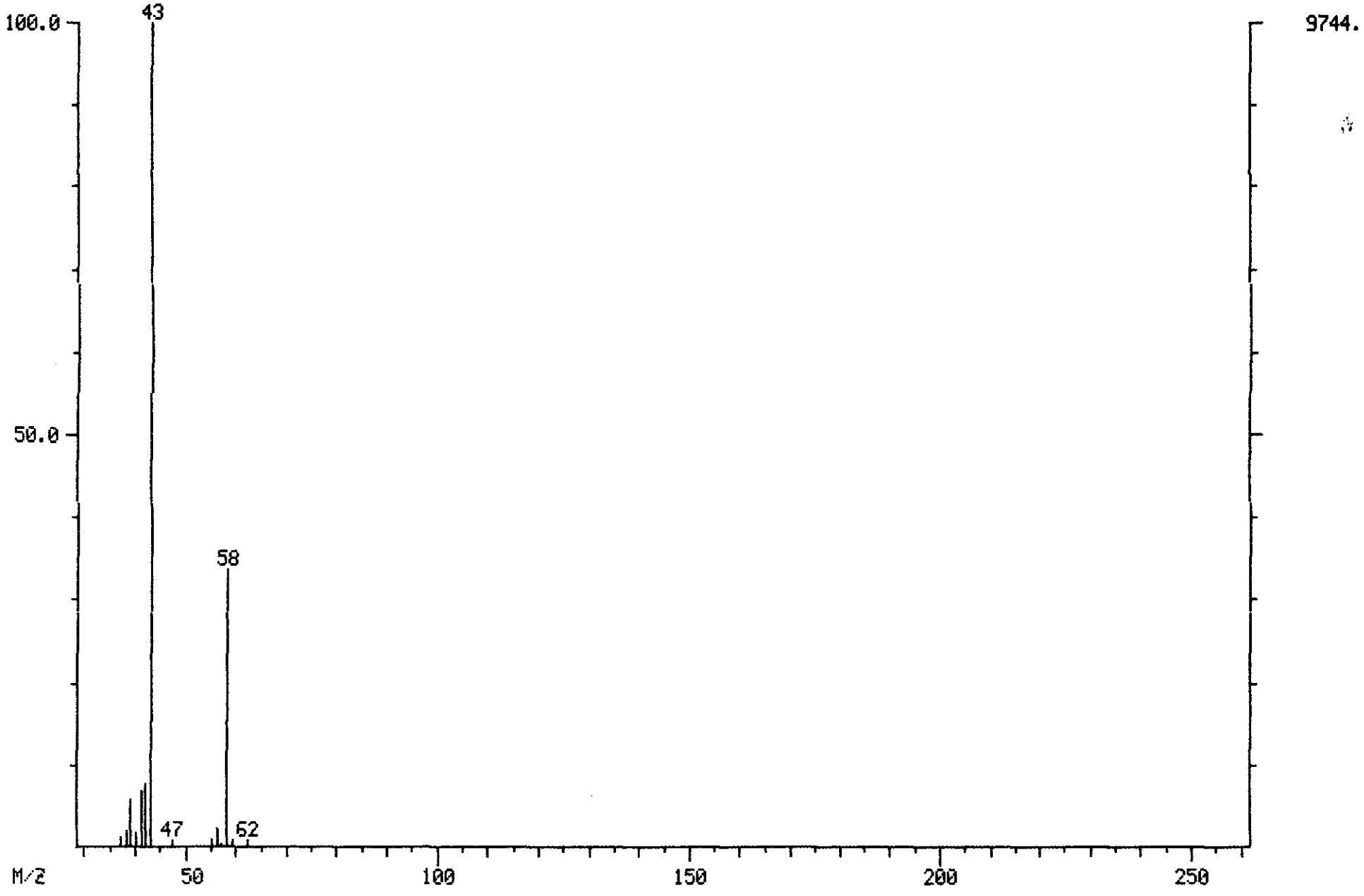
ORIGINAL (Red)

MASS SPECTRUM
05/02/90 11:30:00 + 8:02
SAMPLE: CLP,VERSCOM,2565,9,L,S,16951,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C035 ACETONE
ENHANCED (S 15B 2N 0T)

DATA: U3466 #193
CALI: U3466 #2

BASE M/Z: 43
RIC: 16080.

100196

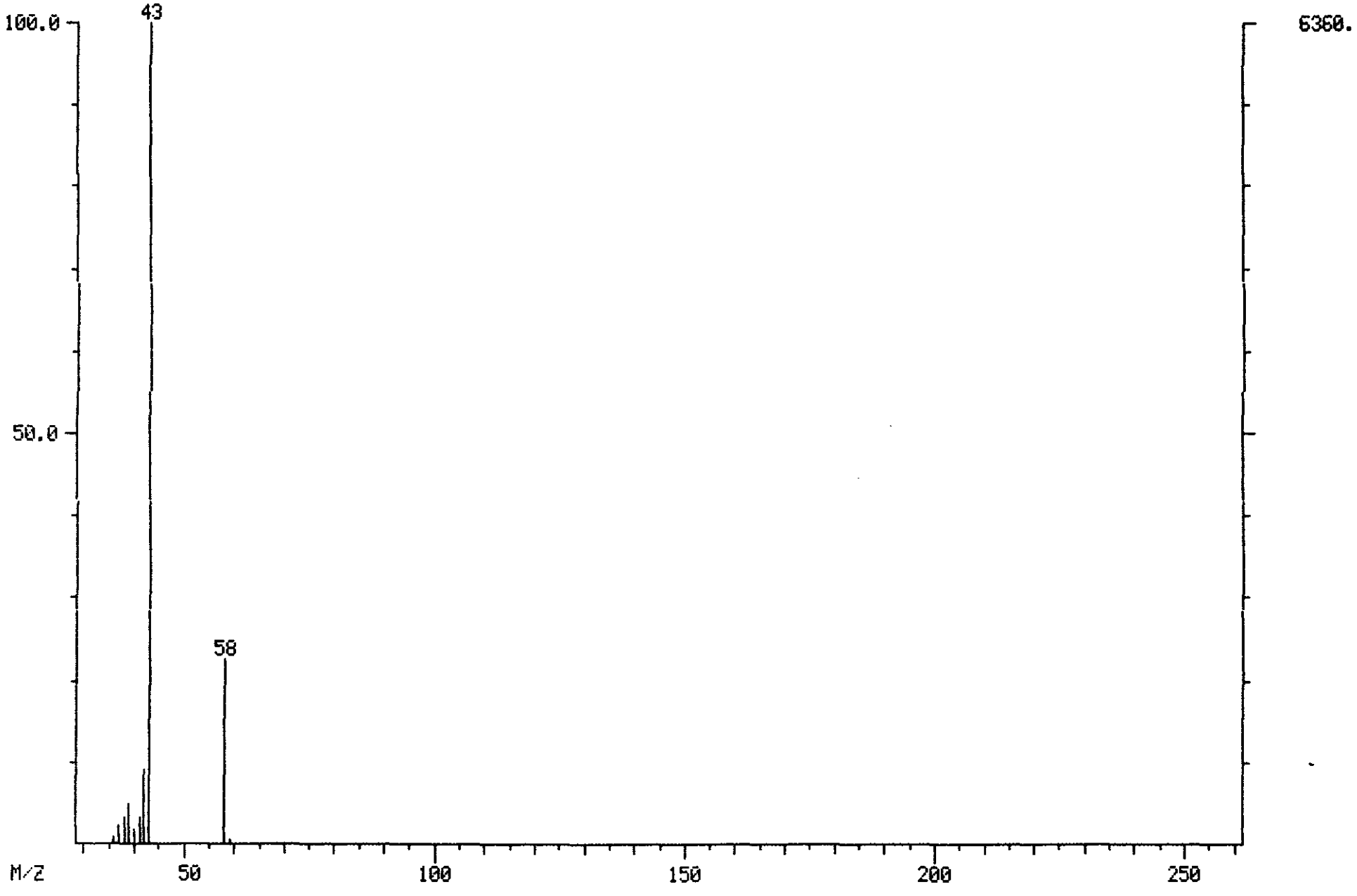


MASS SPECTRUM
05/08/90 8:54:00 + 8:05
SAMPLE: CLP,,,VSTD 50,L,S,22644,V,CC-050,,5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C035 ACETONE
ENHANCED (S 15B 2N 0T)

DATA: U3540 #194
CALI: U3540 #2

BASE M/Z: 43
RIC: 9456.

100197



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9-RE

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16951-RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3552

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 19 Date Analyzed: 05/08/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene chloride	6	U
67-64-1	Acetone	27	
75-15-0	Carbon disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon tetrachloride	6	U
108-05-4	Vinyl acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9-RE

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16951-RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3552

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 19 Date Analyzed: 05/08/90

Column (pack/cap) PACK Dilution Factor: 1.0

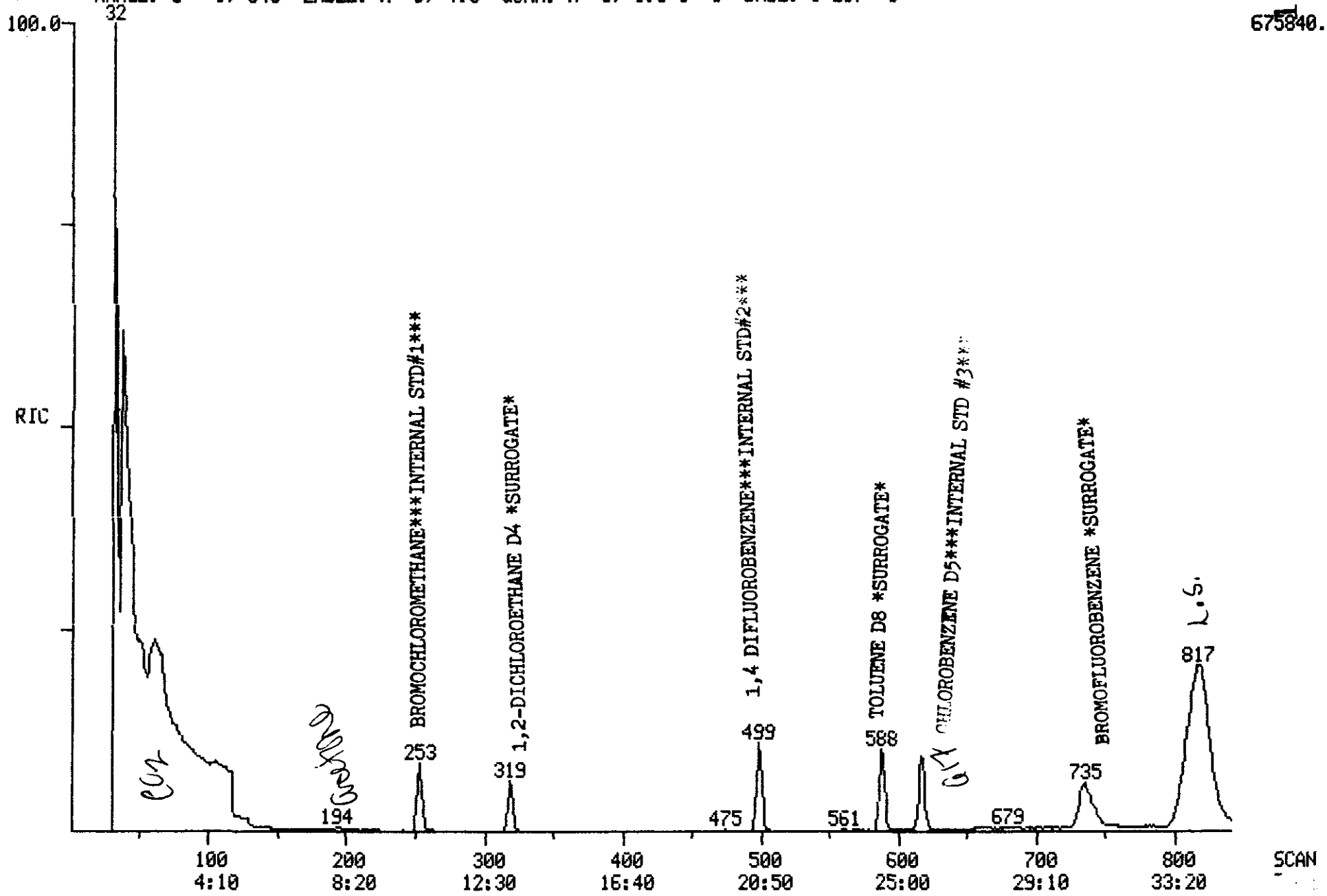
Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	34.04	41	J

RIC DATA: U3552 #1 SCANS 1 TO 840
05/08/90 18:55:00 CALI: U3552 #2
SAMPLE: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

100200



Quantitation Report File: U3552

Data: U3552.TI
05/08/90 18:55:00
Sample: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,4,5G/5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: ~ Instrument: U Weight: 0.000
Submitted by: VERSAR Analyst: DD Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry 19.7 %

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

2nd & 3rd IS areas non-compliant.

Ready for Form 8D

U3552

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	253	10:32	1	1.000	A BB	40412.	50.000 UG/L*	16.38	
2	NOT FOUND									
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	84	180	7:30	1	0.711	A BB	1163.	BRL ~~1.265 UG/L~~	0.41	
7	43	194	8:05	1	0.767	A BV	8274.	21.455 UG/L	7.03	
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	65	319	13:17	1	1.261	A BB	65697.	41.417 UG/L%	13.57	83
15	NOT FOUND									
16	114	499	20:47	16	1.000	A BB	146086. low	50.000 UG/L*	16.38	
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	NOT FOUND									
29	NOT FOUND									
30	98	588	24:30	31	0.953	A BB	121356.	51.897 UG/L%	17.00	104
31	117	617	25:42	31	1.000	A BB	97245. low	50.000 UG/L*	16.38	
32	43	517	21:32	31	0.838	A BB	819.	~~0.792 UG/L~~	0.26	
33	43	553	23:02	31	0.896	A BB	917.	~~1.035 UG/L~~	0.34	
34	164	561	23:22	31	0.909	A BB	443.	~~0.611 UG/L~~	0.20	
35	NOT FOUND									
36	NOT FOUND									
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									
42	95	734	30:35	31	1.190	A BB	65878.	36.866 UG/L%	12.08	74

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.324						
4	4:17		0.407						
5	5:17		0.502						
6	7:27	1.01	0.708	1.01	1.27	50.00	0.029	1.137	0.03
7	8:05	1.00	0.767	1.00	21.45	50.00	0.205	0.477	0.43
8	9:02		0.858						
9	10:07		0.960						
10	11:25		1.083						
11	12:07		1.150						
12	12:37		1.198						

U3552

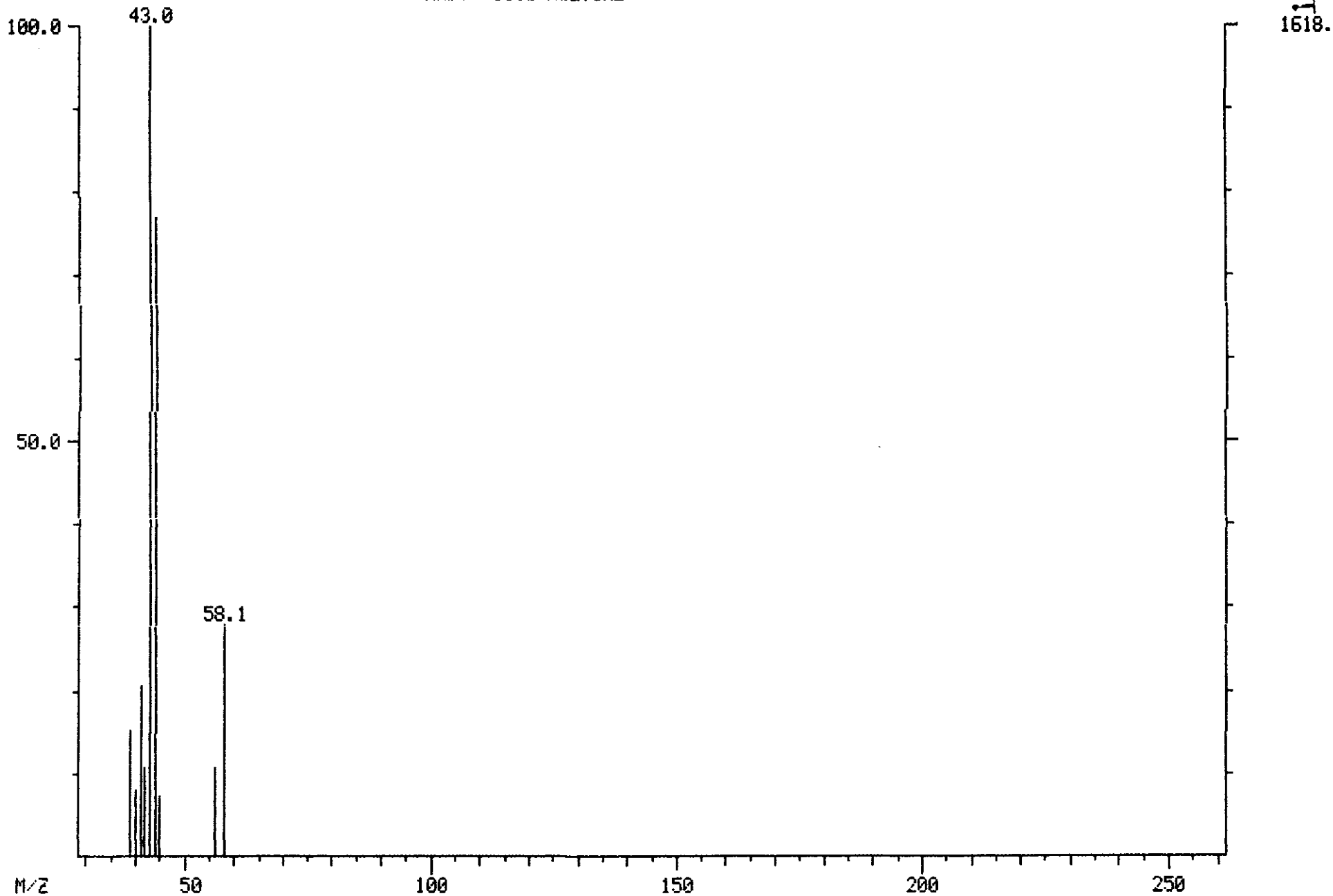
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.269						
14	13:17	1.00	1.261	1.00	41.42	50.00	1.626	1.963	0.83
15	9:30		0.901						
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:17		1.261						
18	15:12		0.733						
19	15:05		0.727						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:42		0.709						
30	24:27	1.00	0.953	1.00	51.90	50.00	1.248	1.202	1.04
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	0.79	50.00	0.008	0.532	0.02
33	23:02	1.00	0.898	1.00	1.03	50.00	0.009	0.456	0.02
34	23:20	1.00	0.909	1.00	0.61	50.00	0.005	0.373	0.01
35	23:17		0.907						
36	24:40		0.961						
37	25:47		1.005						
38	27:55		1.088						
39	32:05		1.250						
40	33:25		1.302						
41	32:22		1.261						
42	30:30	1.00	1.188	1.00	36.87	50.00	0.677	0.919	0.74

MASS SPECTRUM
05/08/90 18:55:00 + 8:05
SAMPLE: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C035 ACETONE

DATA: U3552 #194
CALI: U3552 #2

BASE M/Z: 43
RIC: 4496.

1100204

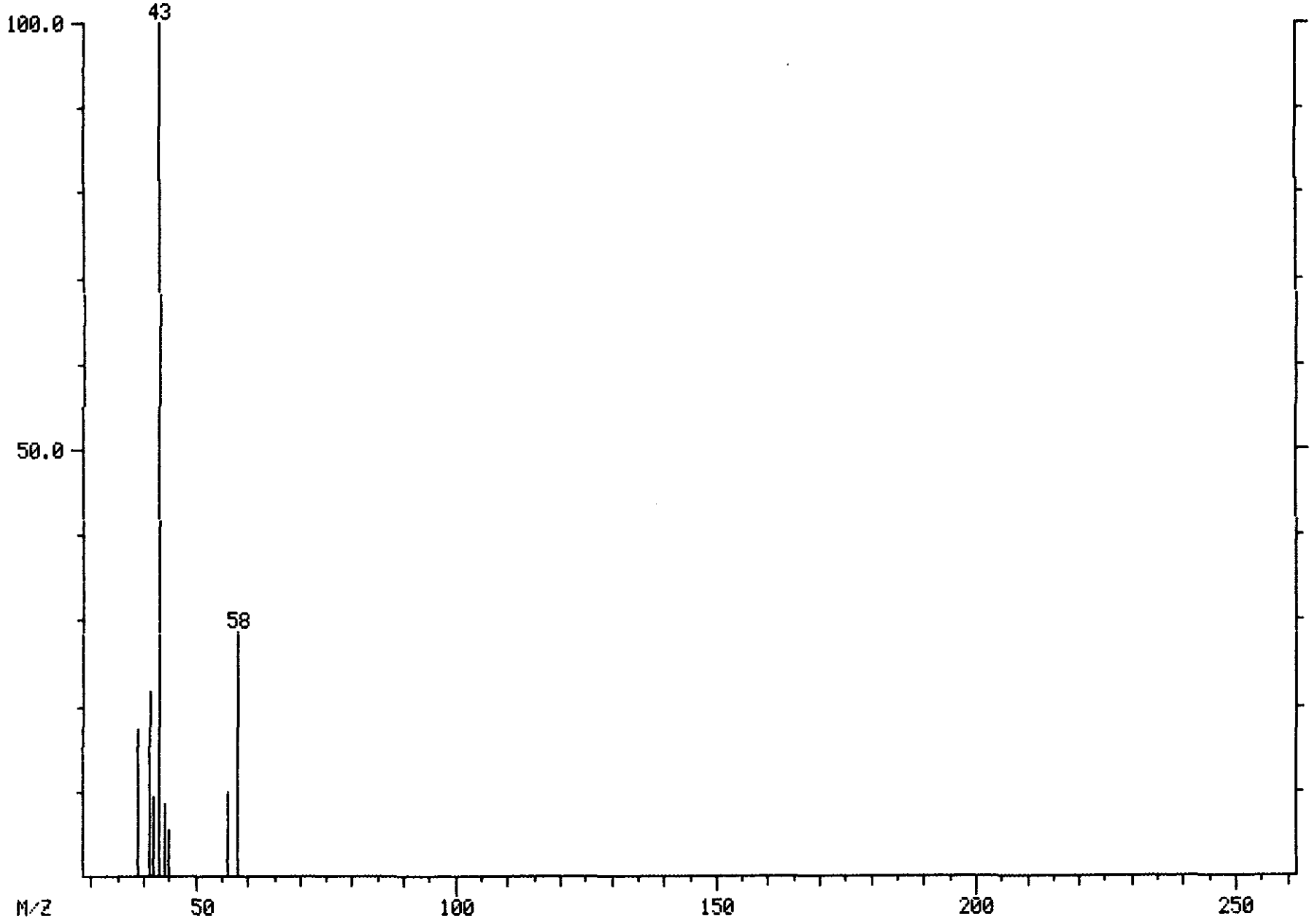


MASS SPECTRUM
05/08/90 18:55:00 + 8:05
SAMPLE: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C035 ACETONE
ENHANCED (S 15B 2N 0T)

DATA: U3552 #194
CALI: U3552 #2

BASE M/Z: 43
RIC: 3176.

100205

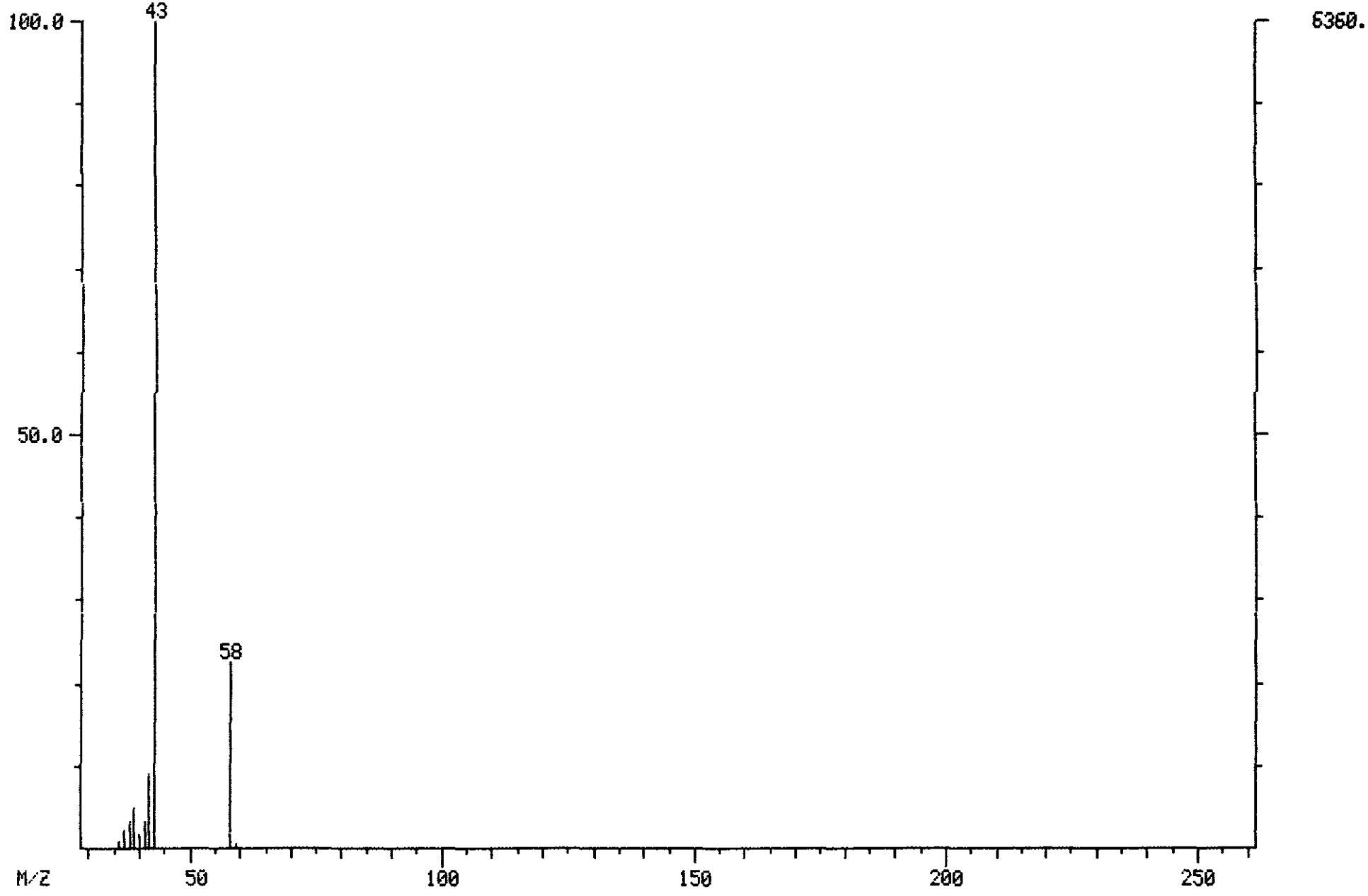


MASS SPECTRUM
05/08/90 8:54:00 + 8:05
SAMPLE: CLP,,,VSTD 50,L,S,22644,V,CC-050,,5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C035 ACETONE
ENHANCED (S 15B 2N 0T)

DATA: U3540 #194
CALI: U3540 #2

BASE M/Z: 43
RIC: 9456.

100206



Library Search Data: U3552 # 817 Base m/z: 73
05/08/90 18:55:00 + 34:02 Cali: U3552 # 2 RIC: 39359.
Sample: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,4,5G/5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Enhanced (S 15B 2N OT)

42222 spectra in LIBRARYNB searched for maximum PURITY
173 matched at least 4 of the 16 largest peaks in the unknown

siloxane

~~column bleed~~

Rank	In.	Name
1	17914	TRISILOXANE, 1,1,3,3,5,5-HEXAMETHYL-
2	29743	CYCLOTRISILOXANE, HEXAETHYL-
3	28634	1,3,5-TRIOXA-2,4,6,8-TETRASILACYCLOOCTANE, 2,2,4,4,6,6,8,8-OCTAMETH*
4	33412	D-RIBOSE, 2,3-DI-O-METHYL-4,5-BIS-O-(TRIMETHYLSILYL)-, O-METHYLOXIME
5	25285	SILICIC ACID (H4SIO4), TETRAPROPYL ESTER

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C6.H20.O2.SI3	208	73	475	847	497
2	C12.H30.O3.SI3	306	249	405	750	435
3	C9.H26.O3.SI4	294	279	373	583	517
4	C14.H33.O5.N.SI2	351	73	319	679	389
5	C12.H28.O4.SI	264	249	314	739	384

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	—	—	—	—	1189-93-1
2	—	—	—	—	2031-79-0
3	—	—	—	—	19939-05-0
4	—	—	—	—	56196-37-3
5	—	—	—	—	682-01-9

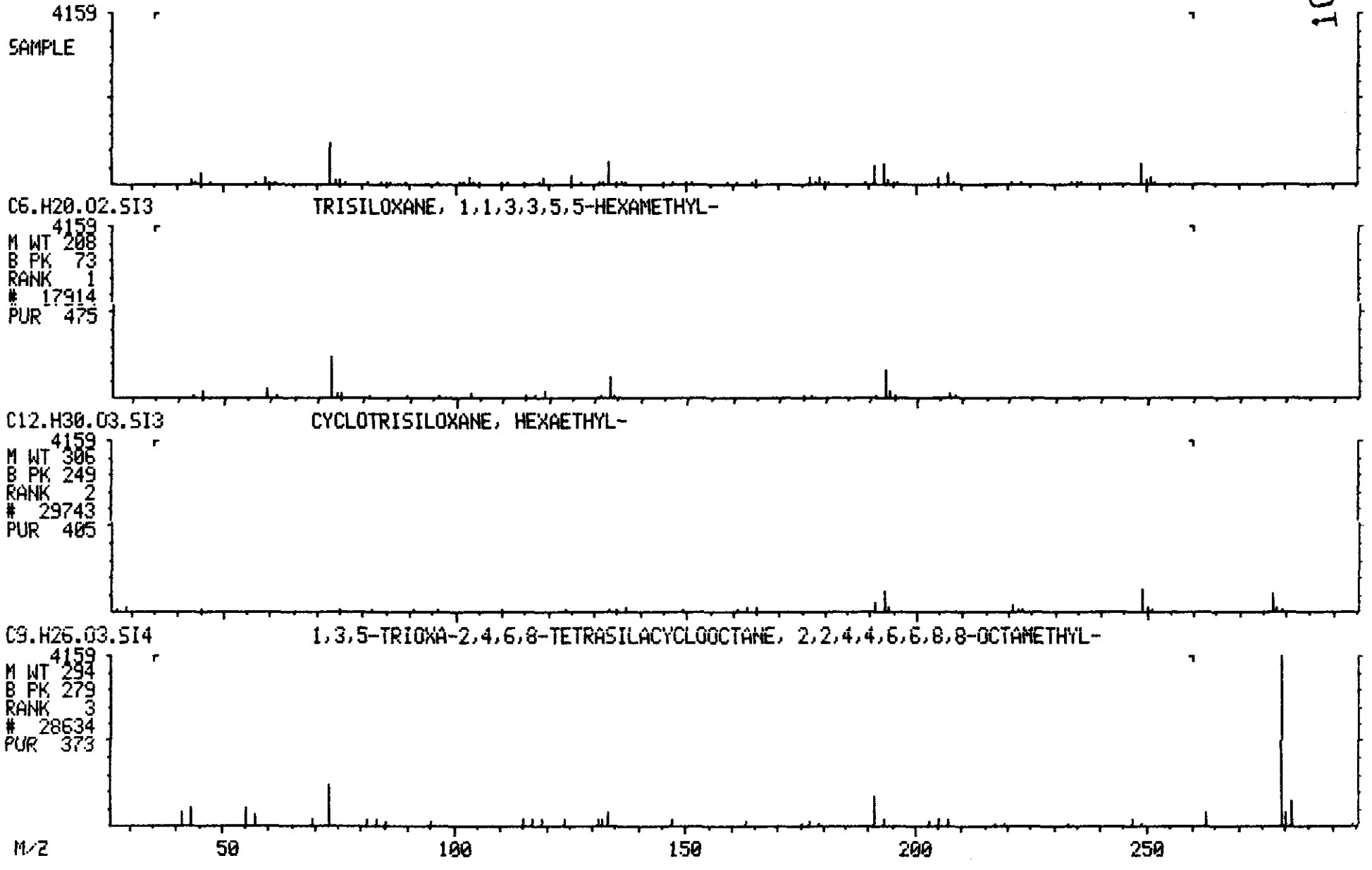
$\frac{39359}{59520} \times 50 \sim 33.06$

LIBRARY SEARCH
05/08/90 18:55:00 + 34:02
SAMPLE: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: U3552 # 817
CALI: U3552 # 2

BASE M/Z: 73
RIC: 39359.

100208



```
                    >>>>INTERNAL STANDARD RIC REPORT<<<<
*****************************INTERNAL STANDARD#1*****************RIC
Mass List                        Data: U3552 # 253          Base m/z:   130
05/08/90 18:55:00 + 10:32        Cali: U3552 #   2          RIC:      54080.
Sample: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,4,5G/5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Enhanced (S 15B 2N OT)

     35       0.00    0.00        0. Minima     Min inten:       0.
     30                       #   0  Maxima
*****************************INTERNAL STANDARD#2*****************RIC
Mass List                        Data: U3552 # 499          Base m/z:   114
05/08/90 18:55:00 + 20:47        Cali: U3552 #   2          RIC:      72192.
Sample: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,4,5G/5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Enhanced (S 15B 2N OT)

     36       0.00    0.00        0. Minima     Min inten:       0.
     30                       #   0  Maxima
*****************************INTERNAL STANDARD#3*****************RIC
Mass List                        Data: U3552 # 617          Base m/z:   117
05/08/90 18:55:00 + 25:42        Cali: U3552 #   2          RIC:      59520.
Sample: CLP,VERSCDM,2565,9,L,S,16951,V,,420.1.0,4,5G/5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Enhanced (S 15B 2N OT)

     35       0.00    0.00        0. Minima     Min inten:       0.
     30                       #   0  Maxima

    ANALYST: CHECK BASE M/Z AND RIC AMOUNT TO INSURE NO CONTAMINATION
```

100209

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

10

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16952

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3467

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 77 Date Analyzed: 05/02/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	43	U
74-83-9	Bromomethane	43	U
75-01-4	Vinyl chloride	43	U
75-00-3	Chloroethane	43	U
75-09-2	Methylene chloride	30	
67-64-1	Acetone	43	U
75-15-0	Carbon disulfide	22	U
75-35-4	1,1-Dichloroethene	22	U
75-34-3	1,1-Dichloroethane	22	U
540-59-0	1,2-Dichloroethene (total)	22	U
67-66-3	Chloroform	22	U
107-06-2	1,2-Dichloroethane	22	U
78-93-3	2-Butanone	43	U
71-55-6	1,1,1-Trichloroethane	22	U
56-23-5	Carbon tetrachloride	22	U
108-05-4	Vinyl acetate	43	U
75-27-4	Bromodichloromethane	22	U
78-87-5	1,2-Dichloropropane	22	U
10061-01-5	cis-1,3-Dichloropropene	22	U
79-01-6	Trichloroethene	22	U
124-48-1	Dibromochloromethane	22	U
79-00-5	1,1,2-Trichloroethane	22	U
71-43-2	Benzene	22	U
10061-02-6	Trans-1,3-dichloropropene	22	U
75-25-2	Bromoform	22	U
108-10-1	4-Methyl-2-pentanone	43	U
591-78-6	2-Hexanone	43	U
127-18-4	Tetrachloroethene	22	X
79-34-5	1,1,2,2-Tetrachloroethane	22	U
108-88-3	Toluene	32	
108-90-7	Chlorobenzene	22	U
100-41-4	Ethylbenzene	22	U
100-42-5	Styrene	22	U
1330-20-7	Total xylenes	22	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

10

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16952

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3467

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 77 Date Analyzed: 05/02/90

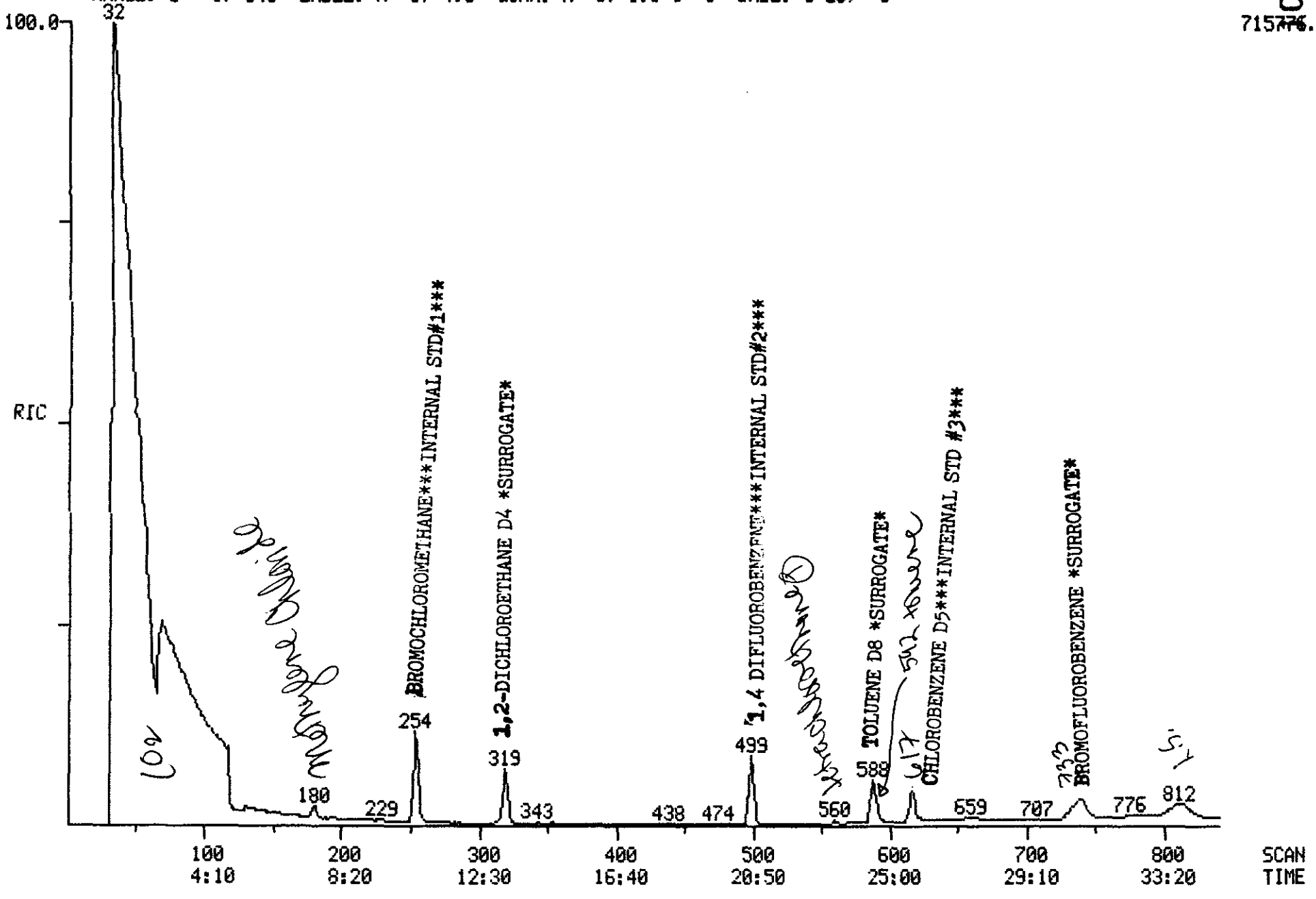
Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	33.84	35	J

RIC DATA: U3467 #1 SCANS 1 TO 840
05/02/90 12:12:00 CALI: U3467 #2
SAMPLE: CLP,VERSCOM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: U3467

Data: U3467.TI
05/02/90 12:12:00
Sample: CLP,VERSCDM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.012
Submitted by: VERSAR Analyst: MAT Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

77.7 %

2nd & 3rd IS Low
2nd Surrog. High
3rd Surrog. Low
MAT

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

Ready for Forms

43467

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	254	10:35	1	1.000	A BB	49210.	50.000 UG/L*	15.91
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	84	180	7:30	1	0.709	A BB	10929.	6.952 UG/L	2.21
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	63	255	10:37	1	1.004	A BB	535.	BDL ~~0.197 UG/L~~	0.06
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	65	319	13:17	1	1.256	A BB	56673.	40.145 UG/L%	12.77 80%
15	NOT FOUND								
16	114	499	20:47	16	1.000	A BB	117034. low	50.000 UG/L*	15.91
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	78	438	18:15	16	0.878	A BB	356.	BDL ~~0.156 UG/L~~	0.05
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	97	354	14:45	16	0.709	A BB	1273.	BDL ~~1.630 UG/L~~	0.52 HIGH
30	98	588	24:30	31	0.953	A BB	65413.	63.045 UG/L%	20.06 126%
31	117	617	25:42	31	1.000	A BB	41287. low	50.000 UG/L*	15.91
32	43	517	21:32	31	0.838	A BB	2723.	BDL ~~3.775 UG/L~~	1.20
33	43	553	23:02	31	0.896	A VV	620.	BDL ~~0.978 UG/L~~	0.31
34	164	560	23:20	31	0.908	A BB	1367.	~~4.991 UG/L~~	1.59
35	NOT FOUND								
36	92	592	24:40	31	0.959	A BB	4365.	7.428 UG/L	2.36
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	95	733	30:32	31	1.188	A BB	23867.	35.034 UG/L%	11.15 70% low

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.323						
4	4:17		0.406						
5	5:17		0.500						
6	7:30	1.00	0.709	1.00	6.95	50.00	0.222	1.597	0.14
7	8:05		0.764						
8	9:02		0.854						
9	10:10		0.961						
10	11:25	0.93	1.079	0.93	0.20	50.00	0.011	2.737	0.00
11	12:07		1.146						
12	12:40		1.197						

ORIGINAL
U 3486 4

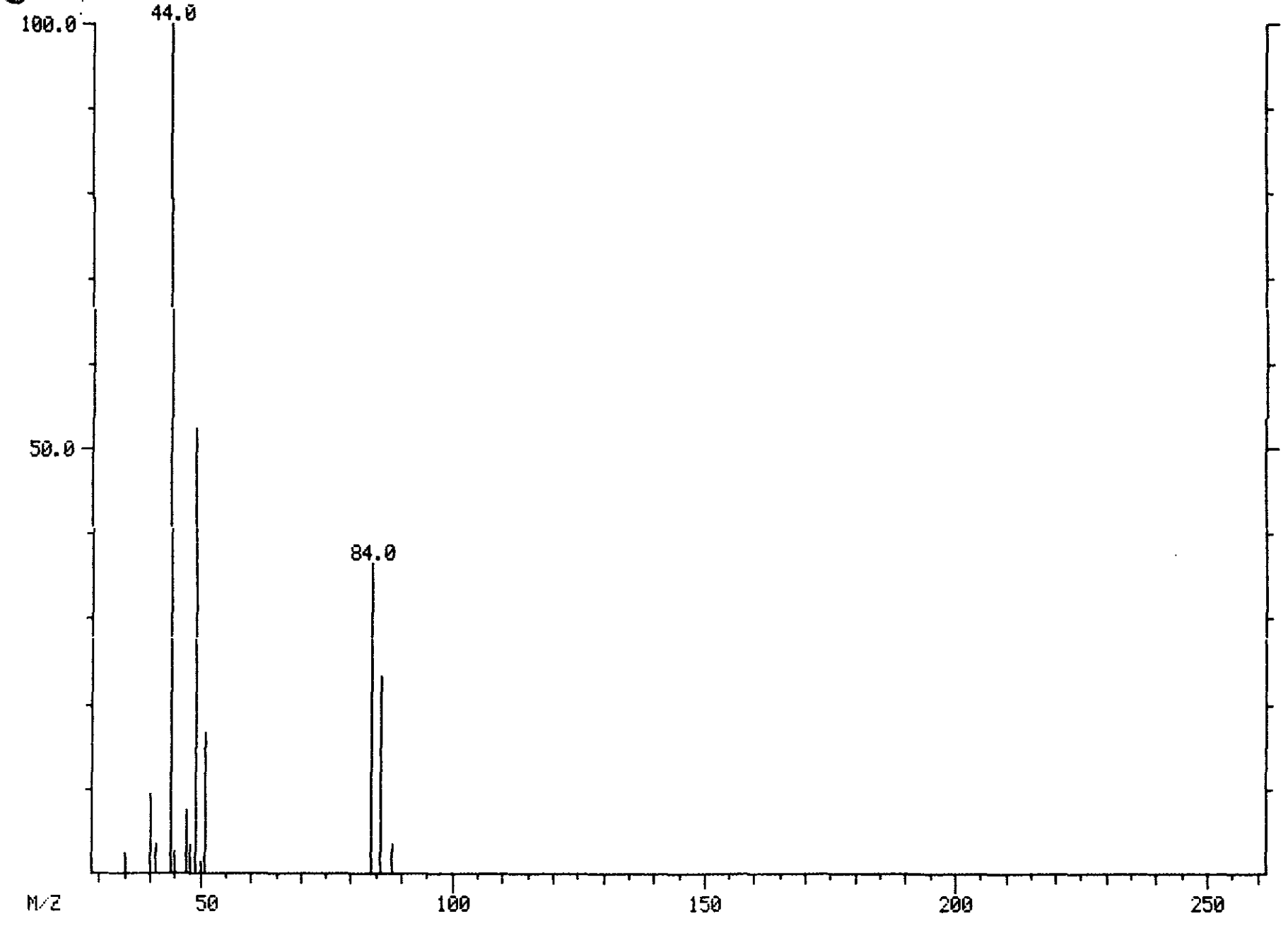
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
13	13:22		1.264						
14	13:17	1.00	1.256	1.00	40.15	50.00	1.152	1.434	0.80
15	9:30		0.898						
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20		1.260						
18	15:12		0.733						
19	15:07		0.729						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15	1.00	0.880	1.00	0.16	50.00	0.003	0.975	0.00
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:45	1.00	0.711	1.00	1.63	50.00	0.011	0.334	0.03
30	24:27	1.00	0.953	1.00	63.05	50.00	1.584	1.257	1.26
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	3.78	50.00	0.066	0.873	0.08
33	23:02	1.00	0.898	1.00	0.98	50.00	0.015	0.768	0.02
34	23:20	1.00	0.909	1.00	4.99	50.00	0.033	0.332	0.10
35	23:17		0.907						
36	24:40	1.00	0.961	1.00	7.43	50.00	0.106	0.712	0.15
37	25:47		1.005						
38	27:52		1.086						
39	32:02		1.248						
40	33:20		1.299						
41	32:20		1.260						
42	30:30	1.00	1.188	1.00	35.03	50.00	0.578	0.825	0.70

MASS SPECTRUM
05/02/90 12:12:00 + 7:30
SAMPLE: CLP,VERSCOM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE

DATA: U3467 #180
CALI: U3467 #2

BASE M/Z: 44
RIC: 18048.

ORIGINAL (Red)



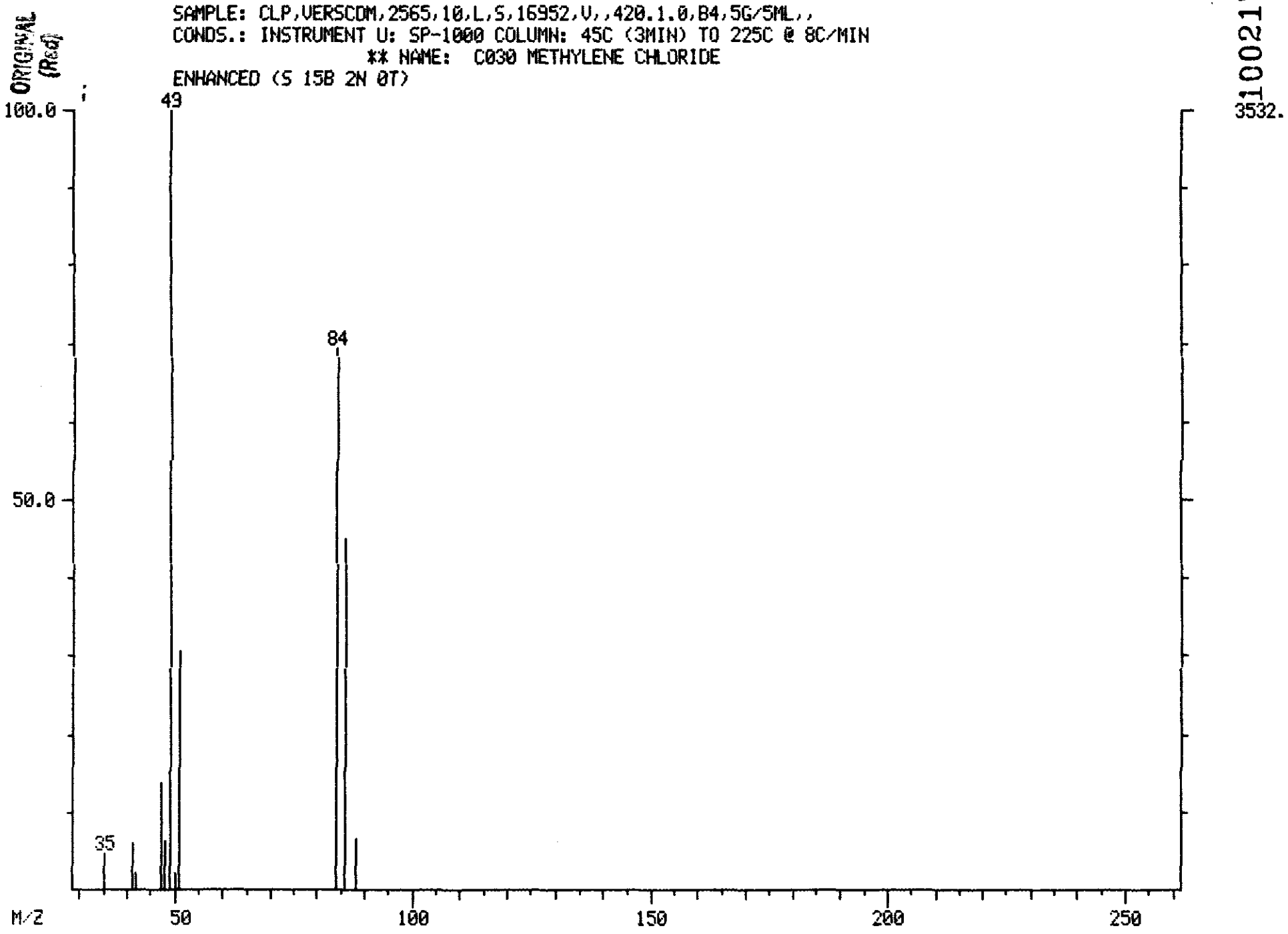
T0216

MASS SPECTRUM
05/02/90 12:12:00 + 7:30
SAMPLE: CLP,VERSCDM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3467 #180
CALI: U3467 #2

BASE M/Z: 49
RIC: 10144.

100217

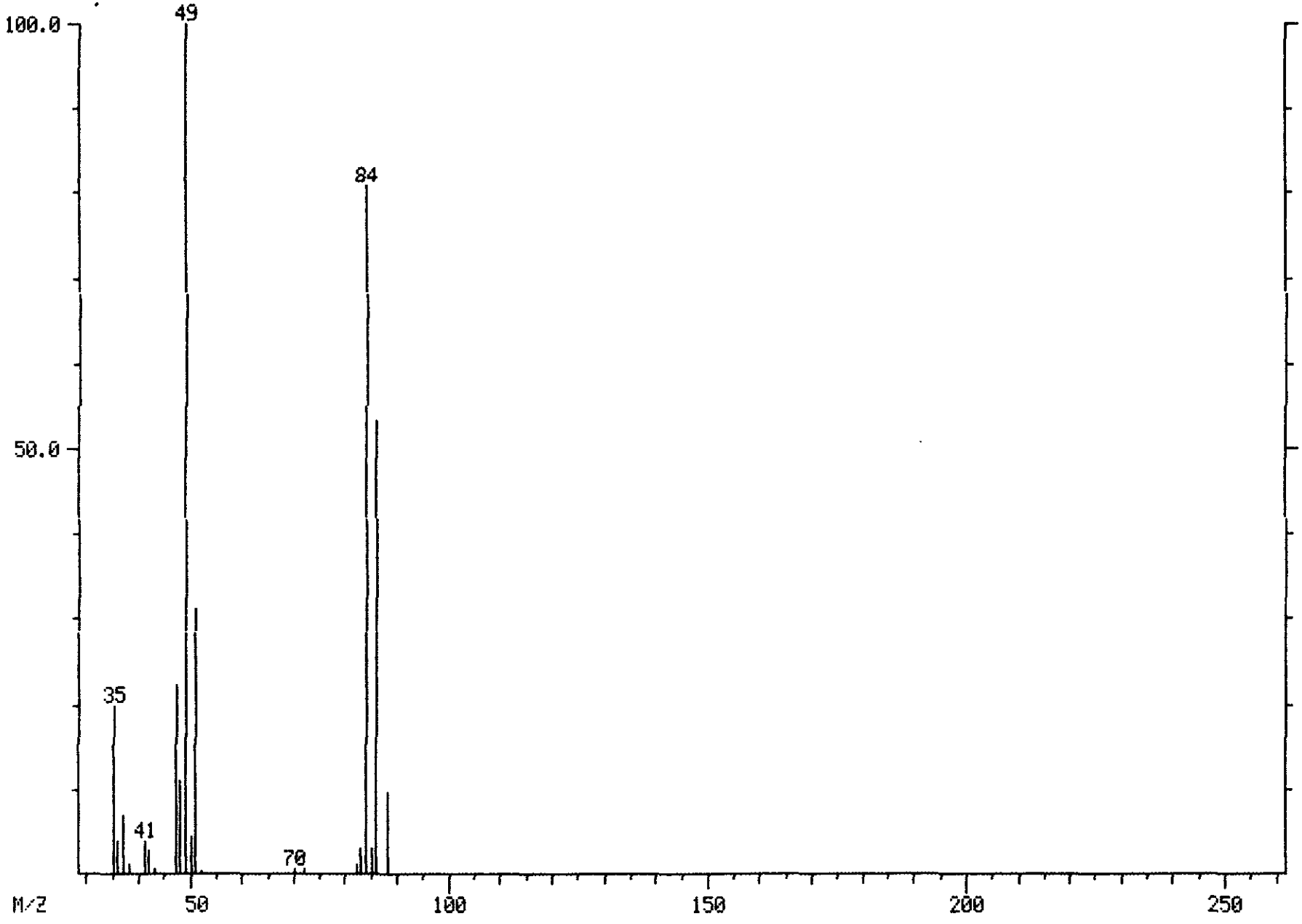


MASS SPECTRUM
05/08/90 8:54:00 + 7:27
SAMPLE: CLP,,,VSTD 50,L,S,22644,V,CC-050,,5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3540 #179
CALI: U3540 #2

BASE M/Z: 49
RIC: 70528.

ORIGINAL (Red)



00218

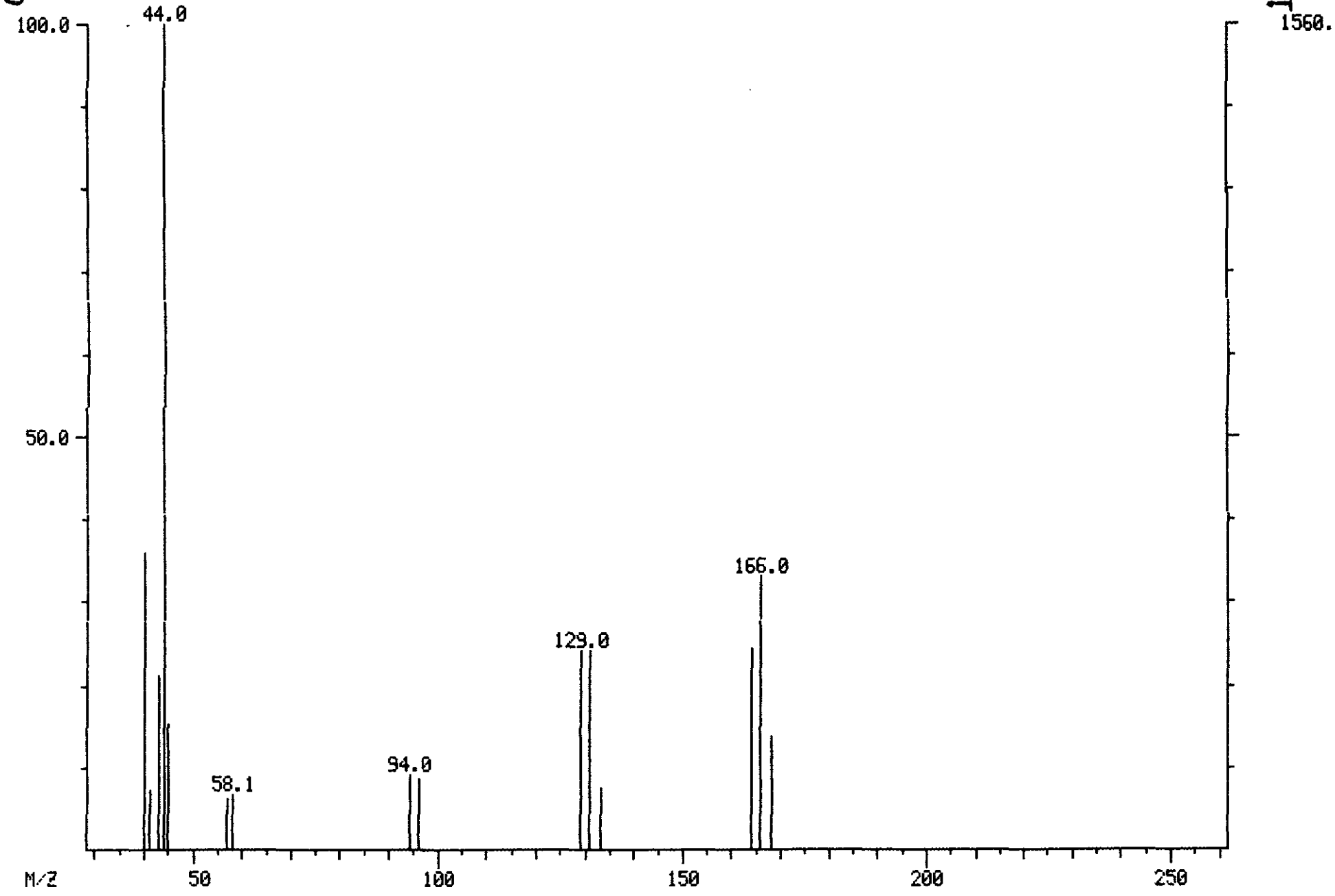
ORIGINAL (Red)

100219

MASS SPECTRUM
05/02/90 12:12:00 + 23:20
SAMPLE: CLP,VERSCDM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C220 TETRACHLOROETHENE

DATA: U3467 #560
CALI: U3467 #2

BASE M/Z: 44
RIC: 5272.



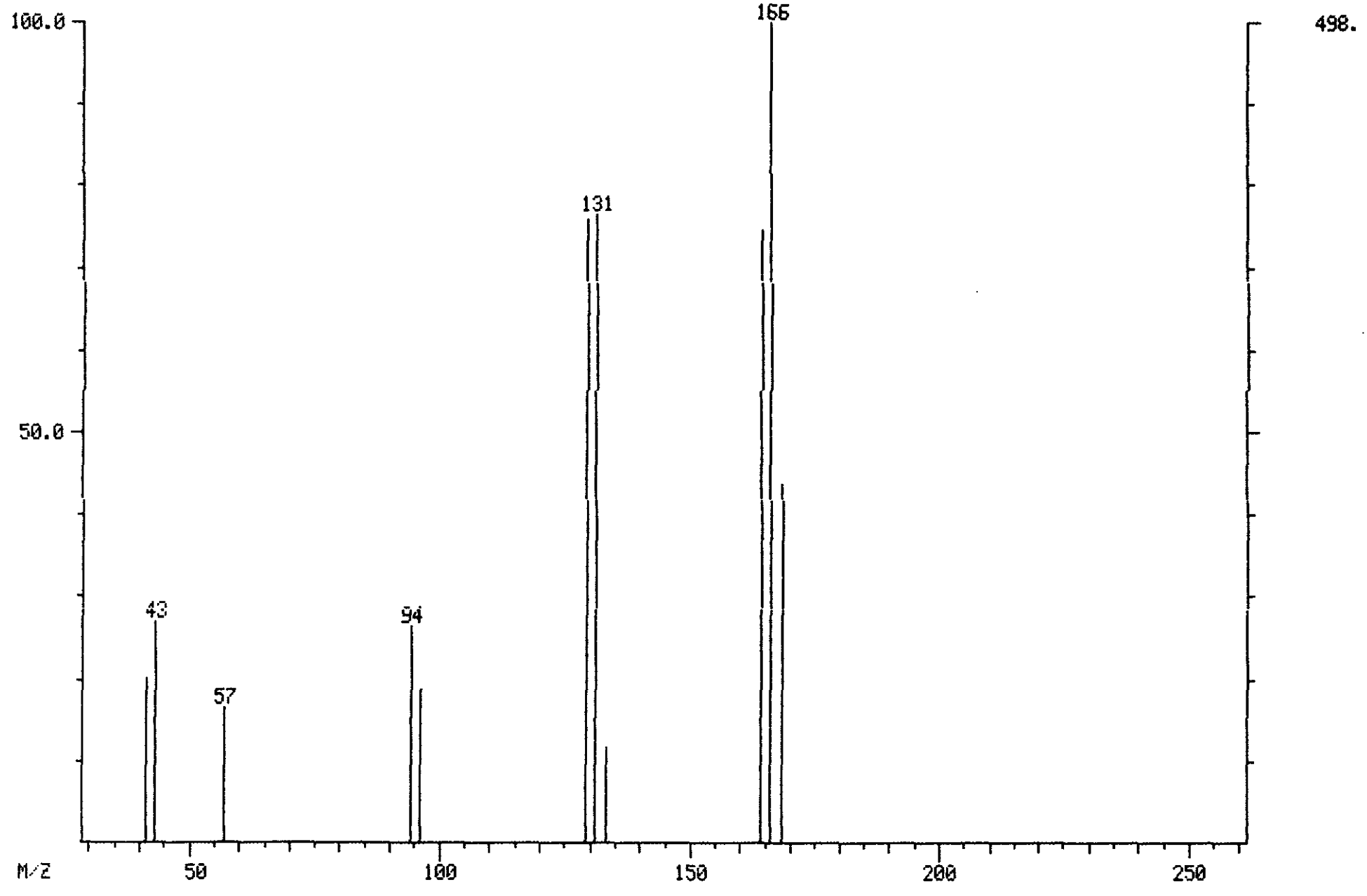
ORIGINAL (Red)

MASS SPECTRUM
05/02/90 12:12:00 + 23:20
SAMPLE: CLP,VERSCOM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C220 TETRACHLOROETHENE
ENHANCED (S 15B 2N 0T)

DATA: U3467 #560
CALI: U3467 #2

BASE M/Z: 166
RIC: 2448.

100220



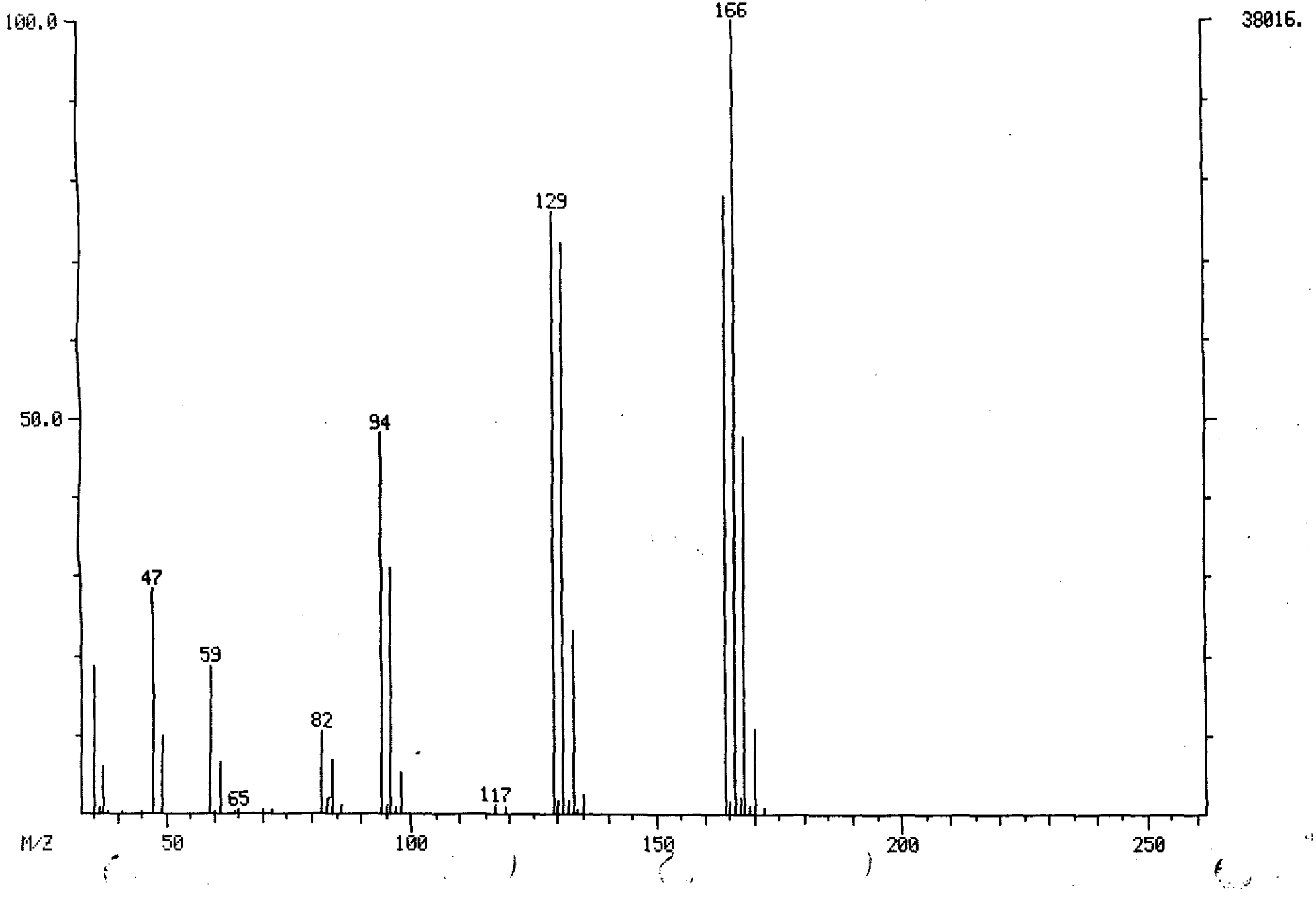
MASS SPECTRUM
03/31/89 17:24:00 + 23:40
SAMPLE: CLP,,,PURGEA+C ACROLEIN+ACRYLONITRILE,,,STD18039,V,,,5ML
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C220 TETRACHLOROETHENE
ENHANCED (S 15B 2N 0T)

DATA: U6566 #568
CALI: U6566 #2

BASE M/Z: 166
RIC: 236800.

ORIGINAL (Red)

100221

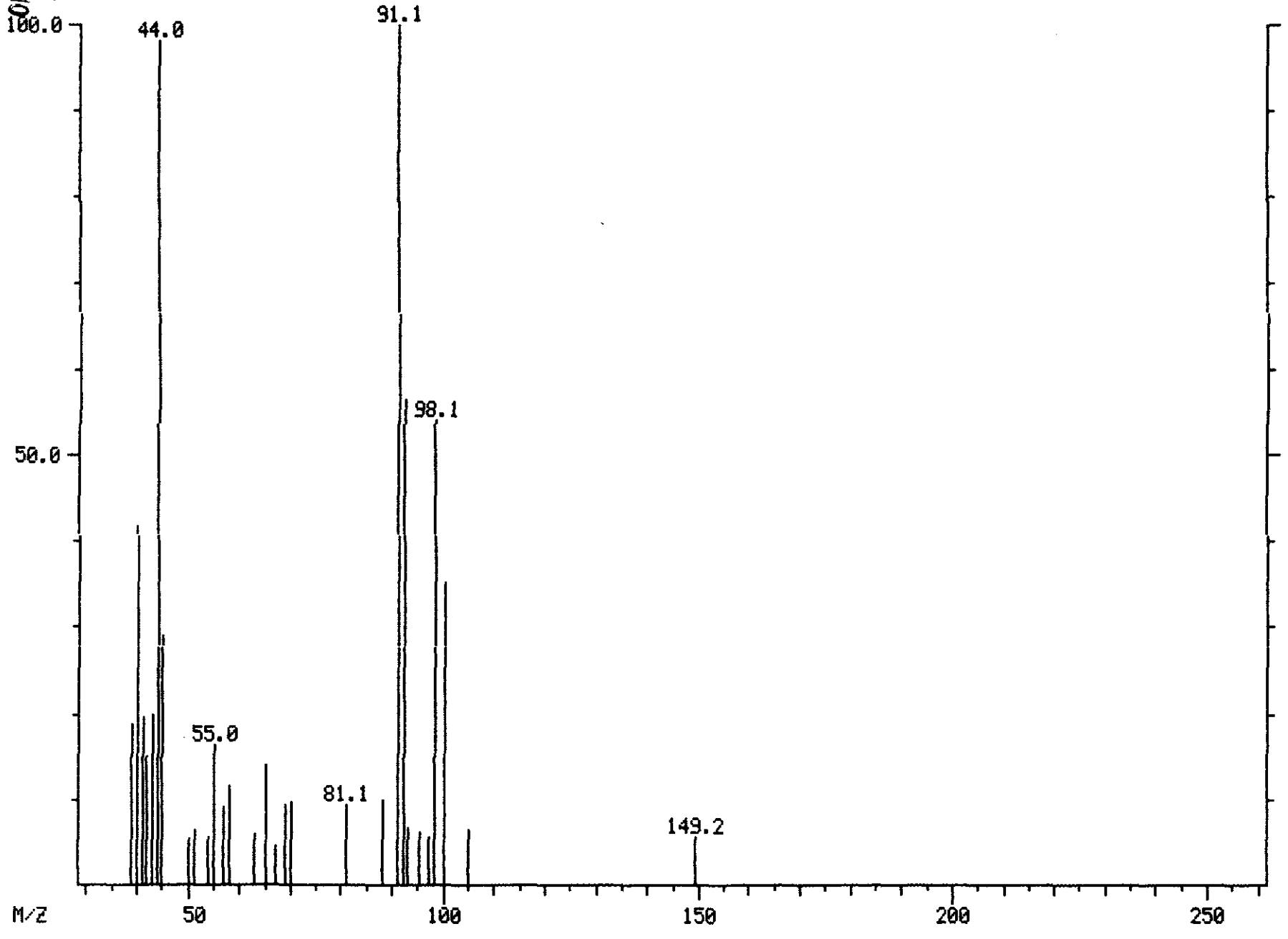


MASS SPECTRUM
05/02/90 12:12:00 + 24:40
SAMPLE: CLP,VERSCOM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C230 TOLUENE

DATA: U3467 #592
CALI: U3467 #2

BASE M/Z: 91
RIC: 11136.

ORIGINAL (Red)



00222

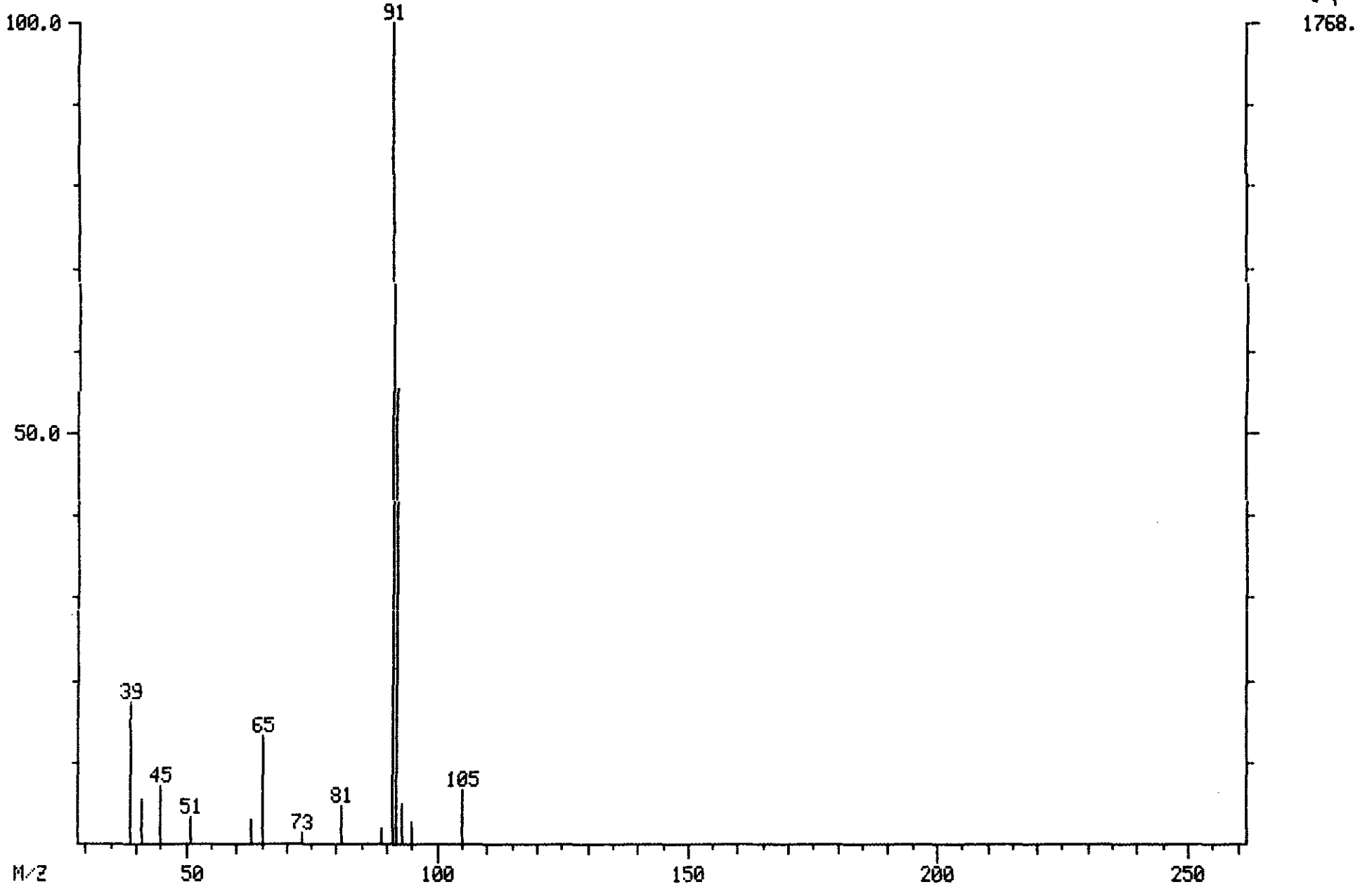
MASS SPECTRUM
05/02/90 12:12:00 + 24:40
SAMPLE: CLP,VERSCDM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C230 TOLUENE
ENHANCED (S 15B 2N 0T)

DATA: U3467 #592
CALI: U3467 #2

BASE M/Z: 91
RIC: 4024.

ORIGINAL (Red)

100223

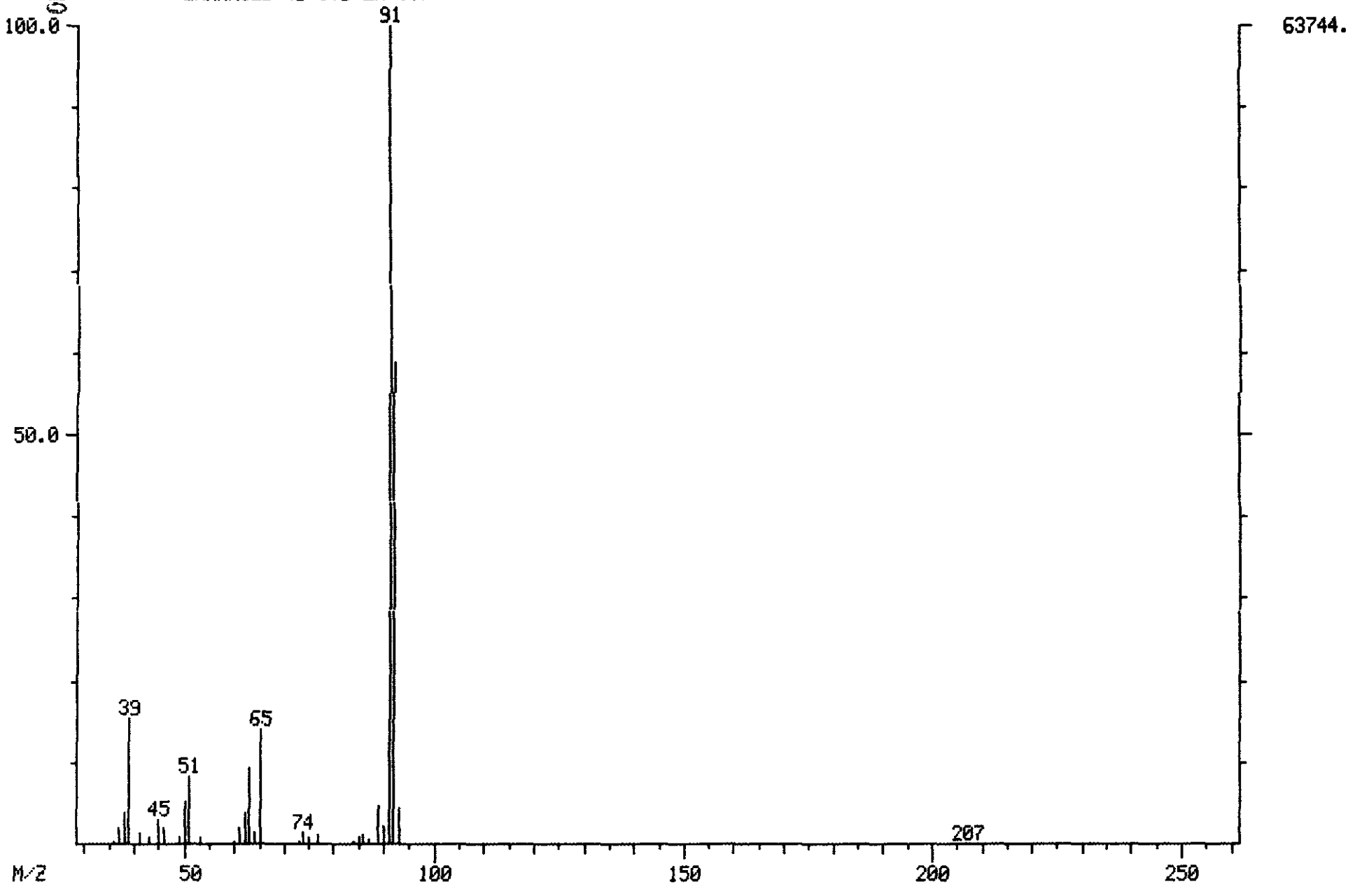


MASS SPECTRUM
05/08/90 8:54:00 + 24:40
SAMPLE: CLP,,,VSTD 50,L,S,22644,V,CC-050,,5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C230 TOLUENE
ENHANCED (S 15B 2N 0T)

DATA: U3540 #592
CALI: U3540 #2

BASE M/Z: 91
RIC: 160256.

100224



Library Search Data: U3467 # 812 Base m/z: 133
05/02/90 12:12:00 + 33:50 Cali: U3467 # 2 RIC: 4055.
Sample: CLP,VERSCDM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Enhanced (S 15B 2N OT)

ORIGINAL (Red)

42222 spectra in LIBRARYNB searched for maximum PURITY
237 matched at least 4 of the 16 largest peaks in the unknown

siloxane

Rank	In.	Name
1	17914	TRISILOXANE, 1,1,3,3,5,5-HEXAMETHYL-
2	28634	1,3,5-TRIOXA-2,4,6,8-TETRASILACYCLOOCTANE, 2,2,4,4,6,6,8,8-OCTAMETH*
3	30108	BENZENEPROPANOIC ACID, 3-[(TRIMETHYLSILYL)OXY]-, TRIMETHYLSILYL EST*
4	30068	TETRASILOXANE, DECAMETHYL-
5	19998	CYCLOTRISILOXANE, HEXAMETHYL-

Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C6.H20.O2.SI3	208	133	371	625	508
2	C9.H26.O3.SI4	294	279	314	445	671
3	C15.H26.O3.SI2	310	73	312	526	391
4	C10.H30.O3.SI4	310	73	291	487	353
5	C6.H18.O3.SI3	222	207	286	466	383

Rank	Ret. Time	B.P. Int.	US. Par. 1	US. Par. 2	C.A.S. #
1	—	—	—	—	1189-93-1
2	—	—	—	—	19939-05-0
3	—	—	—	—	55887-87-1
4	—	—	—	—	141-62-8
5	—	—	—	—	541-05-9

$\frac{4055}{25248} \times 50 = 8.03$

column bleed

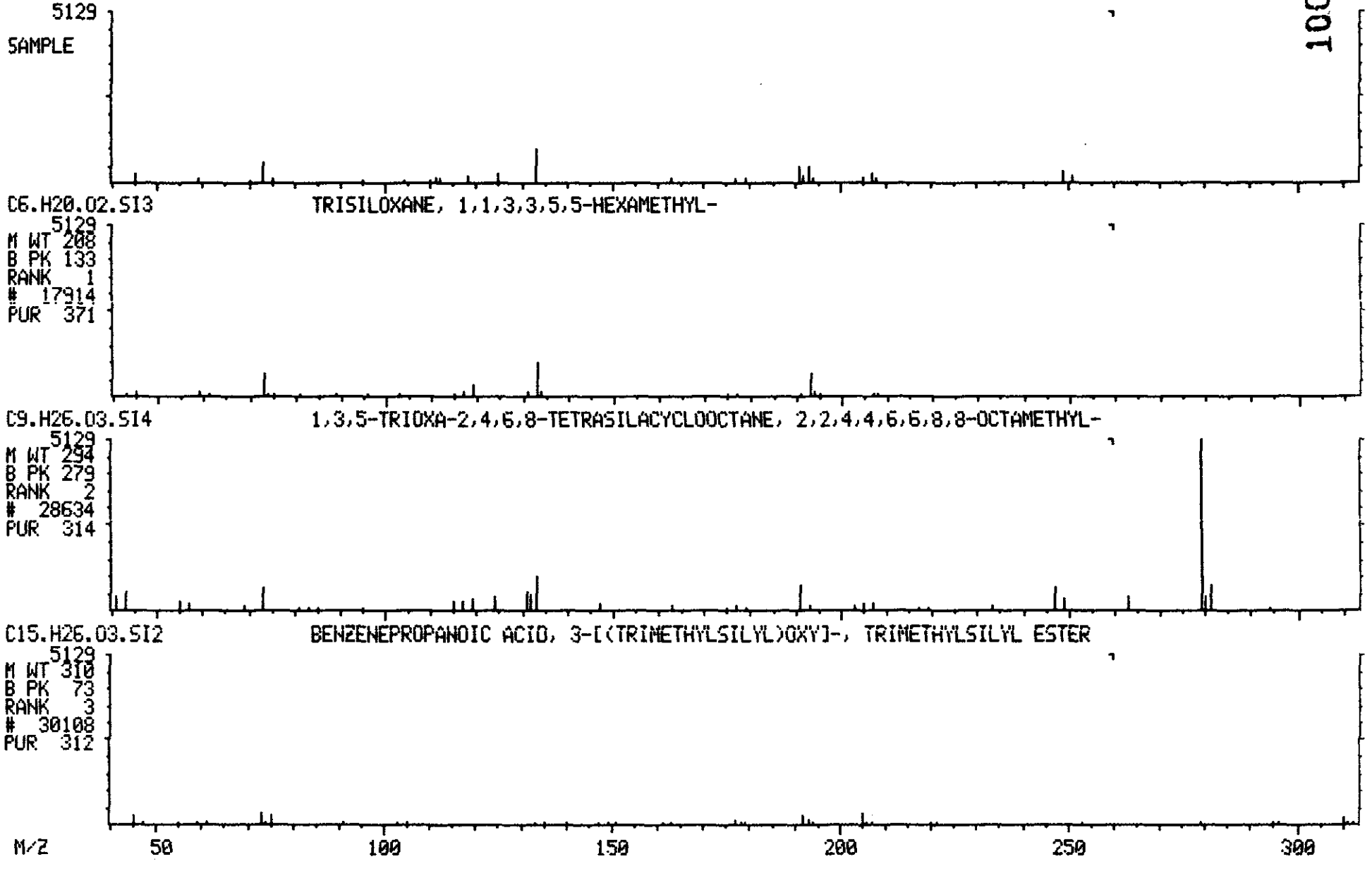
LIBRARY SEARCH
05/02/90 12:12:00 + 33:50
SAMPLE: CLP,VERSCDM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
ENHANCED (S 15B 2N 0T)

DATA: U3467 # 812
CALI: U3467 # 2

BASE M/Z: 133
RIC: 4055.

ORIGINAL (Red)

100226



ORIGINAL (Red)

```
                    >>>>INTERNAL STANDARD RIC REPORT<<<<
*****************************INTERNAL STANDARD#1*****************RIC
Mass List                        Data: U3467 # 254          Base m/z:    49
05/02/90 12:12:00 + 10:35        Cali: U3467 #   2          RIC:      78080.
Sample: CLP,VERSCDM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Enhanced (S 15B 2N OT)

     35       0.00    0.00        0. Minima     Min inten:       0.
     30                       #   0  Maxima
*****************************INTERNAL STANDARD#2*****************RIC
Mass List                        Data: U3467 # 499          Base m/z:   114
05/02/90 12:12:00 + 20:47        Cali: U3467 #   2          RIC:      58560.
Sample: CLP,VERSCDM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Enhanced (S 15B 2N OT)

     36       0.00    0.00        0. Minima     Min inten:       0.
     30                       #   0  Maxima
*****************************INTERNAL STANDARD#3*****************RIC
Mass List                        Data: U3467 # 617          Base m/z:   117
05/02/90 12:12:00 + 25:42        Cali: U3467 #   2          RIC:      25248.
Sample: CLP,VERSCDM,2565,10,L,S,16952,V,,420.1.0,B4,5G/5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Enhanced (S 15B 2N OT)

     38       0.00    0.00        0. Minima     Min inten:       0.
     30                       #   0  Maxima

    ANALYST: CHECK BASE M/Z AND RIC AMOUNT TO INSURE NO CONTAMINATION
```

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

10-RE ORIGINAL (RED)

La Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16952-RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3553

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 77 Date Analyzed: 05/08/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	43	U
74-83-9	Bromomethane	43	U
75-01-4	Vinyl chloride	43	U
75-00-3	Chloroethane	43	U
75-09-2	Methylene chloride	22	U
67-64-1	Acetone	43	U
75-15-0	Carbon disulfide	22	U
75-35-4	1,1-Dichloroethene	22	U
75-34-3	1,1-Dichloroethane	22	U
540-59-0	1,2-Dichloroethene (total)	22	U
67-66-3	Chloroform	22	U
107-06-2	1,2-Dichloroethane	22	U
78-93-3	2-Butanone	43	U
71-55-6	1,1,1-Trichloroethane	22	U
56-23-5	Carbon tetrachloride	22	U
108-05-4	Vinyl acetate	43	U
75-27-4	Bromodichloromethane	22	U
78-87-5	1,2-Dichloropropane	22	U
10061-01-5	cis-1,3-Dichloropropene	22	U
79-01-6	Trichloroethene	22	U
124-48-1	Dibromochloromethane	22	U
79-00-5	1,1,2-Trichloroethane	22	U
71-43-2	Benzene	22	U
10061-02-6	Trans-1,3-dichloropropene	22	U
75-25-2	Bromoform	22	U
108-10-1	4-Methyl-2-pentanone	43	U
591-78-6	2-Hexanone	43	U
127-18-4	Tetrachloroethene	34	
79-34-5	1,1,2,2-Tetrachloroethane	22	U
108-88-3	Toluene	36	
108-90-7	Chlorobenzene	22	U
100-41-4	Ethylbenzene	22	U
100-42-5	Styrene	22	U
1330-20-7	Total xylenes	22	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

10-RE

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16952-RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3553

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 77 Date Analyzed: 05/08/90

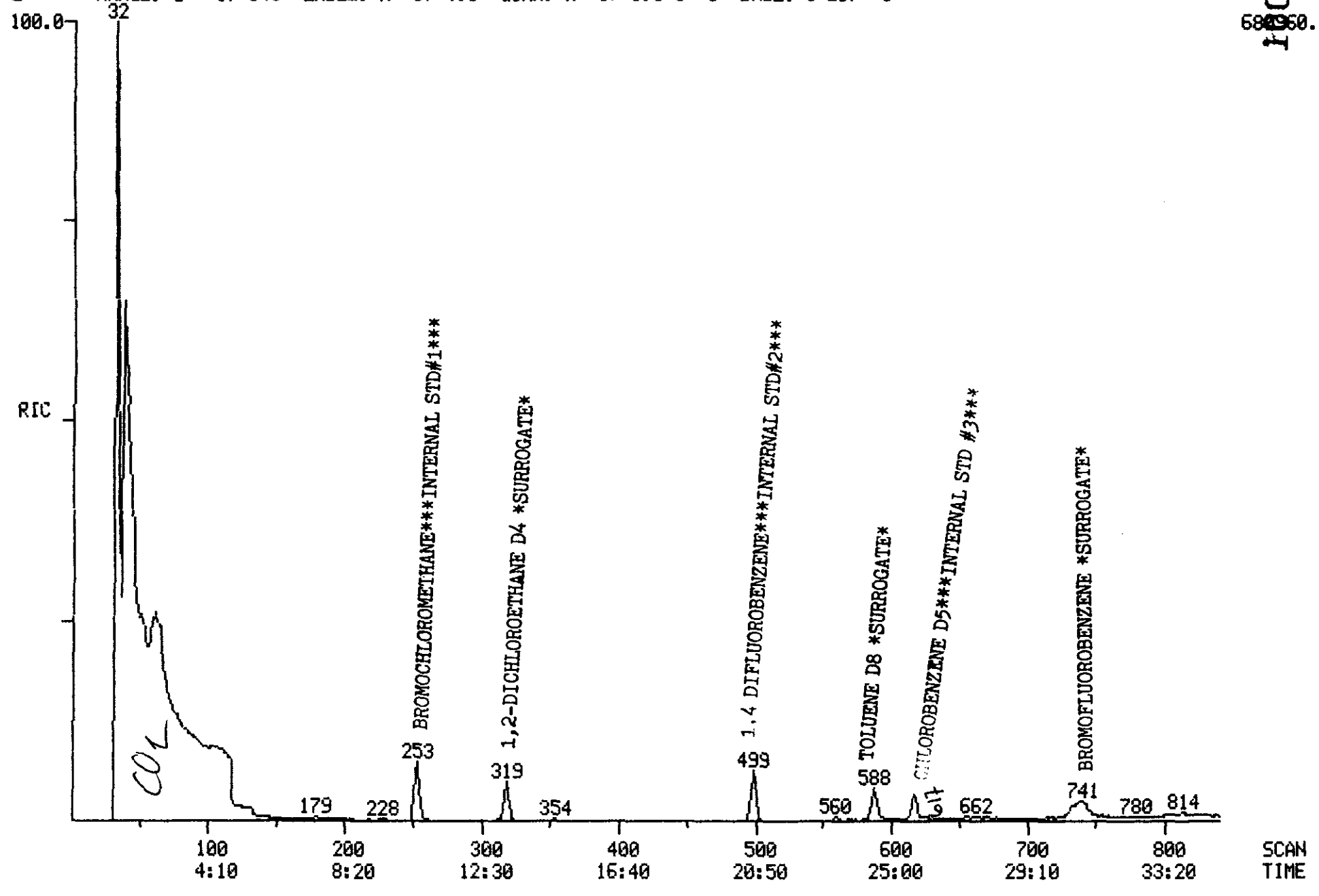
Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: U3553 #1 SCANS 1 TO 840
05/08/90 19:37:00 CALI: U3553 #2
SAMPLE: CLP,VERSCM,2565,10,L,S,16952,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

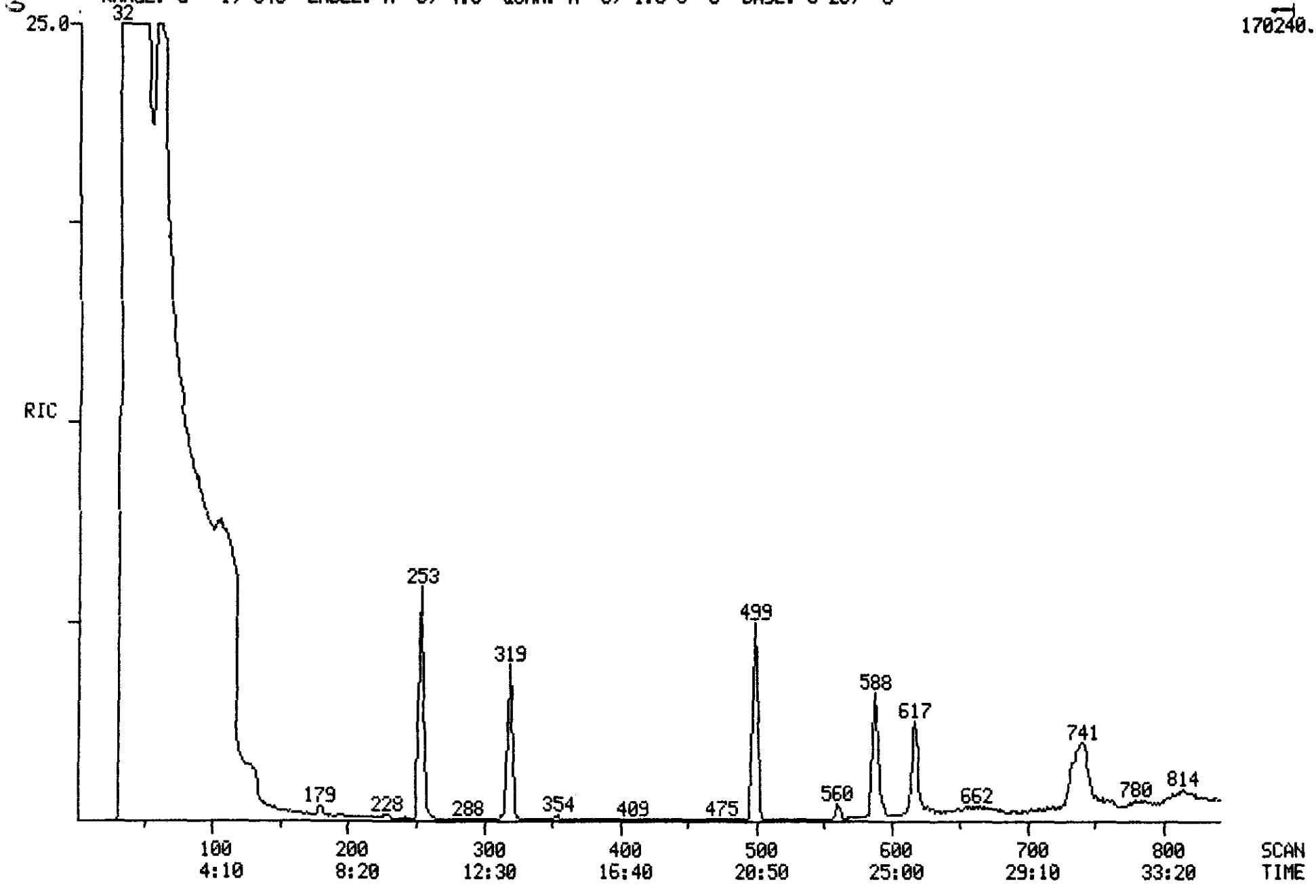


H00230

RIC DATA: U3553 #1 SCANS 1 TO 840
05/08/90 19:37:00 CALI: U3553 #2
SAMPLE: CLP,VERSCM,2565,10,L,S,16952,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

100231

170240.



Quantitation Report File: U3553

ORIGINAL (Red)

Data: U3553.TI
05/08/90 19:37:00
Sample: CLP,VERSCM,2565,10,L,S,16952,V,,420.1.0,4,5G/5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.000
Submitted by: VERSAR Analyst: DD Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT) 77.7 %
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

IS # 2+3 and SS # 2+3 noncompliant.

Ready for Forms

100232

U3553 ORIGINAL (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	253	10:32	1	1.000	A BB	37467.	50.000 UG/L*	16.55	
2	NOT FOUND									
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	84	179	7:27	1	0.708	A BB	2870.	NC ~~3.368 UG/L~~	1.11	
7	43	194	8:05	1	0.767	A BB	1147.	~~3.208 UG/L~~ BKL	1.06	
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	65	319	13:17	1	1.261	A BB	51953.	35.327 UG/L%	11.70	71
15	101	228	9:30	1	0.901	A BB	2521.	BKL ~~1.317 UG/L~~	0.44	
16	114	499	20:47	16	1.000	A BB	88815 low	50.000 UG/L*	16.55	
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	NOT FOUND									
29	97	354	14:45	16	0.709	A BB	1764.	BKL ~~1.759 UG/L~~	0.58	High
30	98	588	24:30	31	0.953	A BB	48927.	60.926 UG/L%	20.17	122
31	117	617	25:42	31	1.000	A BB	33396 low	50.000 UG/L*	16.55	
32	NOT FOUND									
33	43	555	23:07	31	0.900	A VB	383.	BKL ~~1.258 UG/L~~	0.42	
34	164	560	23:20	31	0.908	A BB	1944.	7.812 UG/L	2.59	
35	NOT FOUND									
36	92	592	24:40	31	0.959	A BB	3510.	8.175 UG/L	2.71	
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									
42	95	734	30:35	31	1.190	A BB	17758.	28.937 UG/L%	9.58	58% low

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.324						
4	4:17		0.407						
5	5:17		0.502						
6	7:27	1.00	0.708	1.00	3.37	50.00	0.077	1.137	0.07
7	8:05	1.00	0.767	1.00	3.21	50.00	0.031	0.477	0.06
8	9:02		0.858						
9	10:07		0.960						
10	11:25		1.083						
11	12:07		1.150						
12	12:37		1.198						

U3553 ORIGINAL (Red)

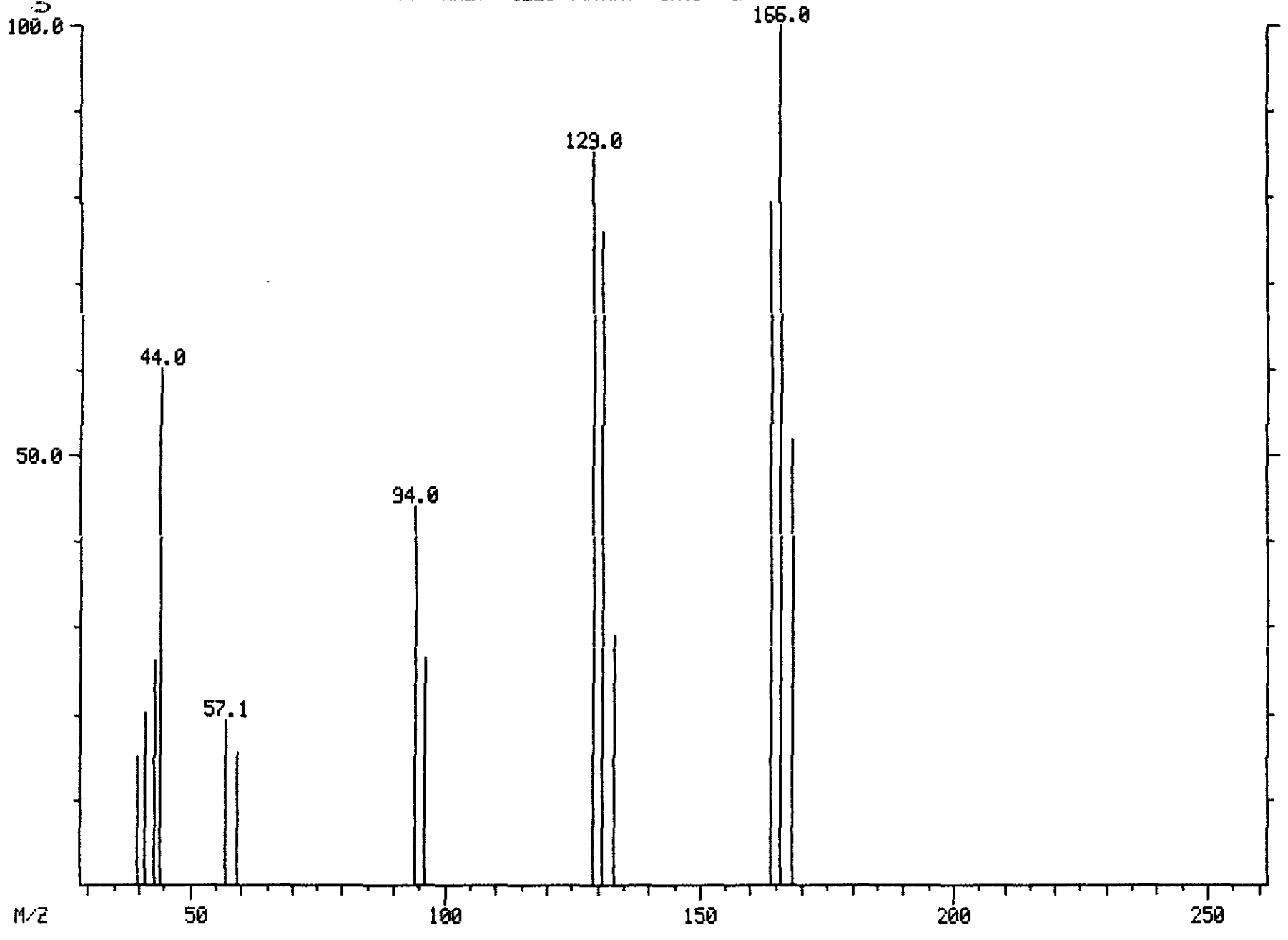
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.269						
14	13:17	1.00	1.261	1.00	35.33	50.00	1.387	1.963	0.71
15	9:30	1.00	0.901	1.00	1.32	50.00	0.067	2.555	0.03
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:17		1.261						
18	15:12		0.733						
19	15:05		0.727						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:42	1.00	0.709	1.00	1.76	50.00	0.020	0.565	0.04
30	24:27	1.00	0.953	1.00	60.93	50.00	1.465	1.202	1.22
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32		0.839						
33	23:02	1.00	0.898	1.00	1.26	50.00	0.011	0.456	0.03
34	23:20	1.00	0.909	1.00	7.81	50.00	0.058	0.373	0.16
35	23:17		0.907						
36	24:40	1.00	0.961	1.00	8.18	50.00	0.105	0.643	0.16
37	25:47		1.005						
38	27:55		1.088						
39	32:05		1.250						
40	33:25		1.302						
41	32:22		1.261						
42	30:30	1.00	1.188	1.00	28.94	50.00	0.532	0.919	0.58

MASS SPECTRUM
05/08/90 19:37:00 + 23:20
SAMPLE: CLP,VERSCM,2565,10,L,S,16952,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C220 TETRACHLOROETHENE

DATA: U3553 #560
CALI: U3553 #2

BASE M/Z: 166
RIC: 3904.

100235

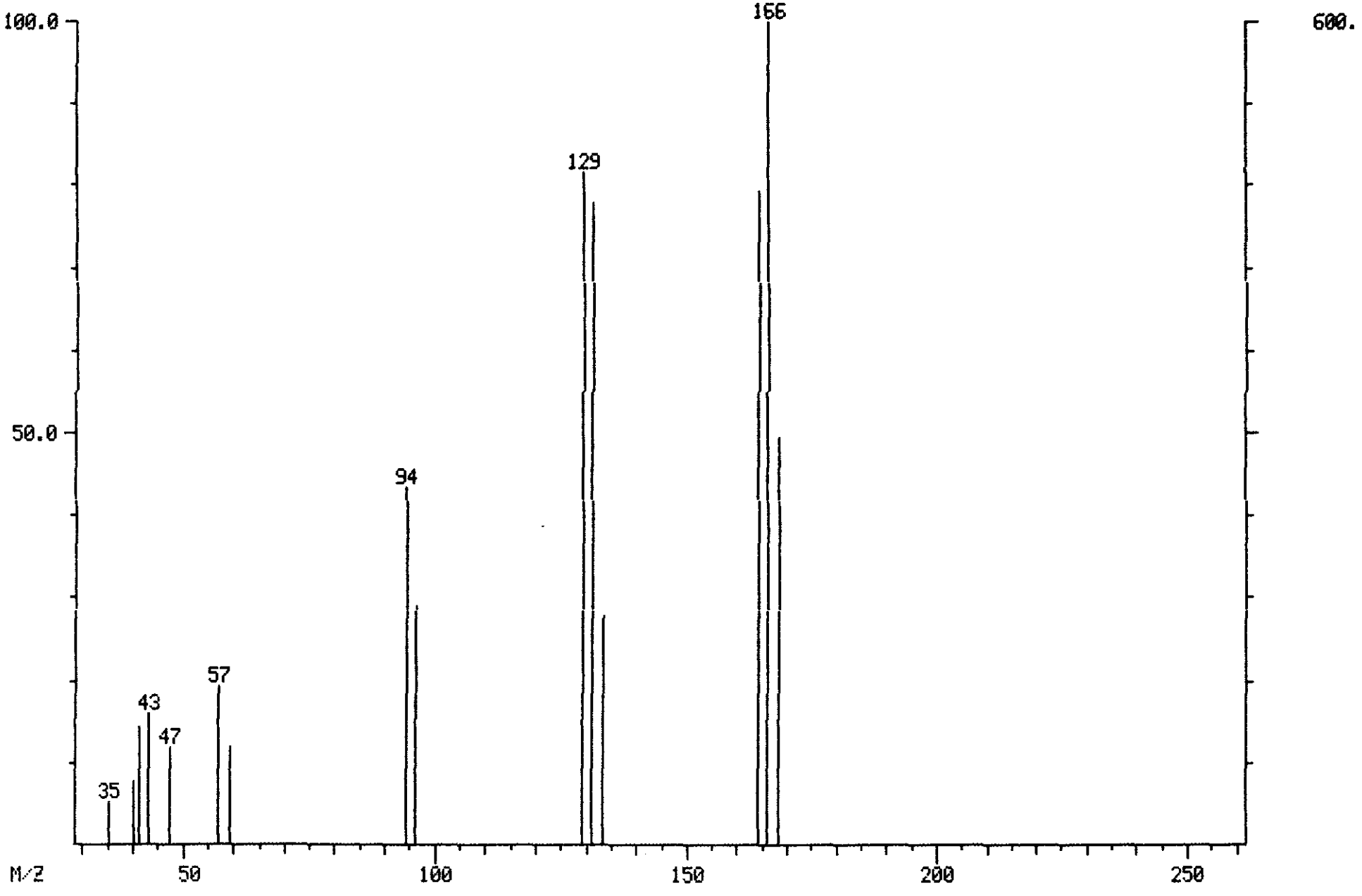


MASS SPECTRUM
05/08/90 19:37:00 + 23:20
SAMPLE: CLP,VERSCM,2565,10,L,S,16952,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C220 TETRACHLOROETHENE
ENHANCED (S 15B 2N 0T)

DATA: U3553 #560
CALI: U3553 #2

BASE M/Z: 166
RIC: 3452.

100002 36

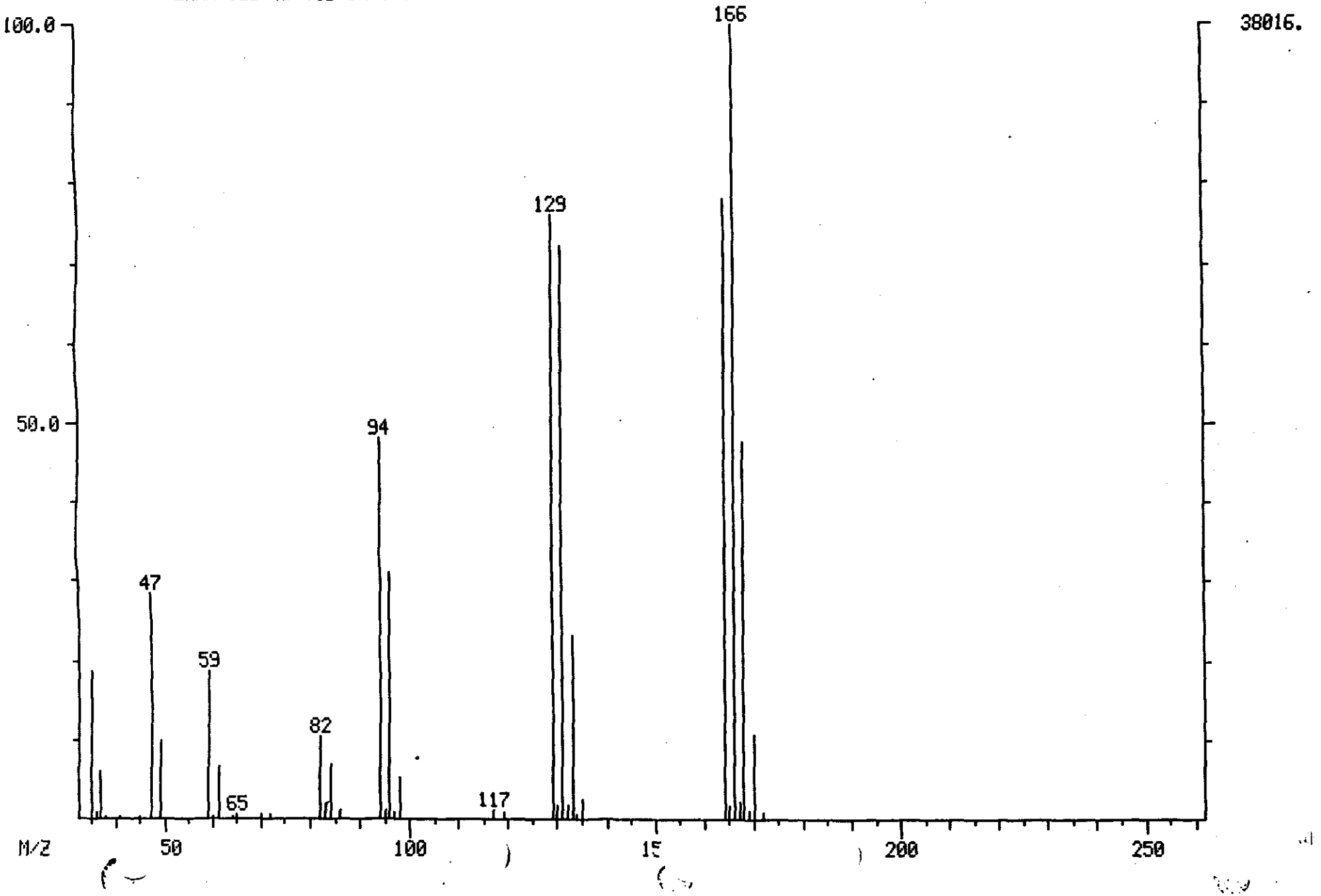


MASS SPECTRUM
03/31/89 17:24:00 + 23:40
SAMPLE: CLP,,,PURGEA+C ACROLEIN+ACRYLONITRILE,,,STD18039,V,,,5ML
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C220 TETRACHLOROETHENE
ENHANCED (S 15B 2N 0T)

DATA: U6566 #568
CALI: U6566 #2

BASE M/Z: 166
RIC: 236800.

100237

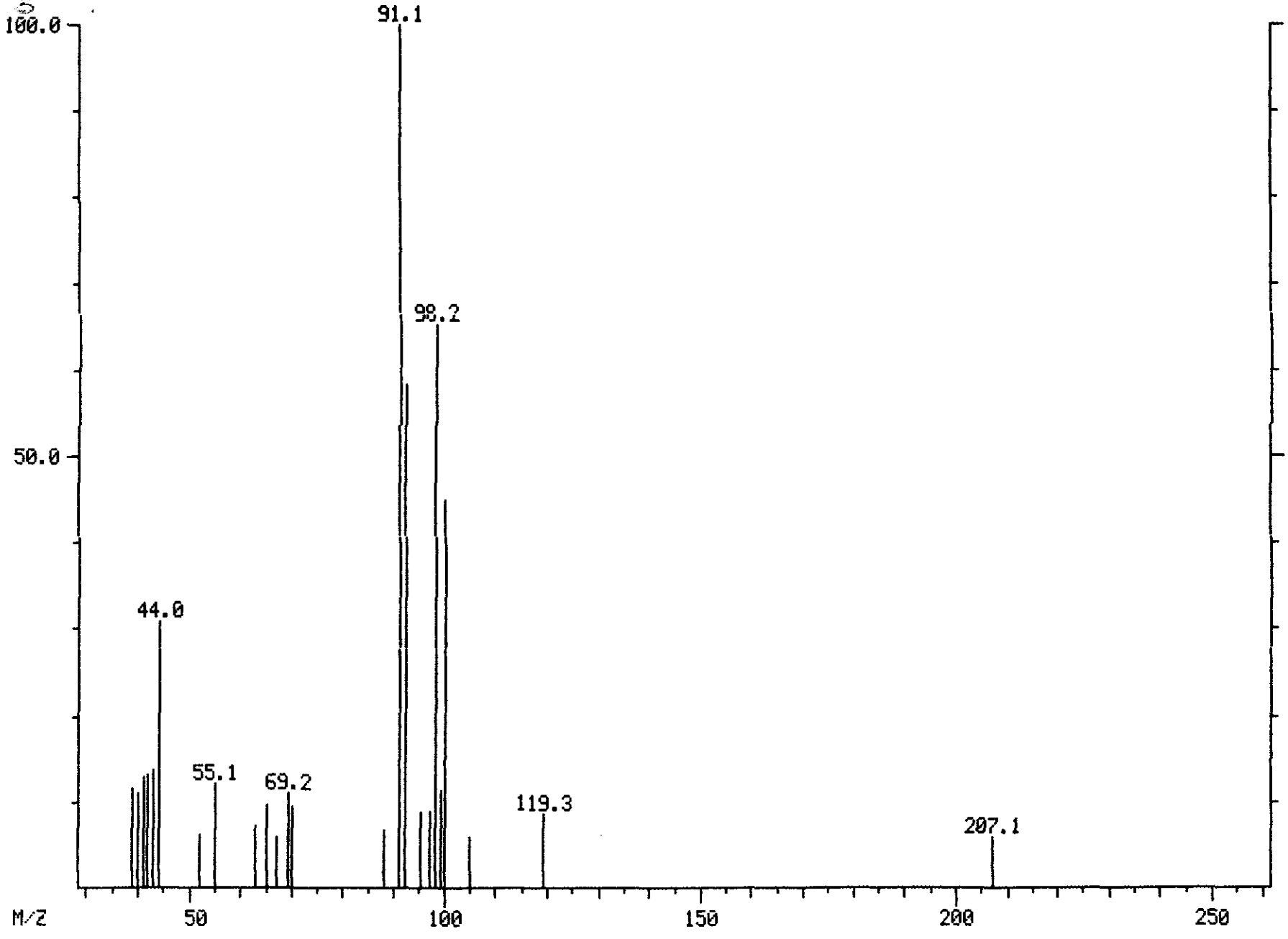


MASS SPECTRUM
05/08/90 19:37:00 + 24:40
SAMPLE: CLP,VERSCM,2565,10,L,S,16952,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C230 TOLUENE

DATA: U3553 #592
CALI: U3553 #2

BASE M/Z: 91
RIC: 6400.

100238



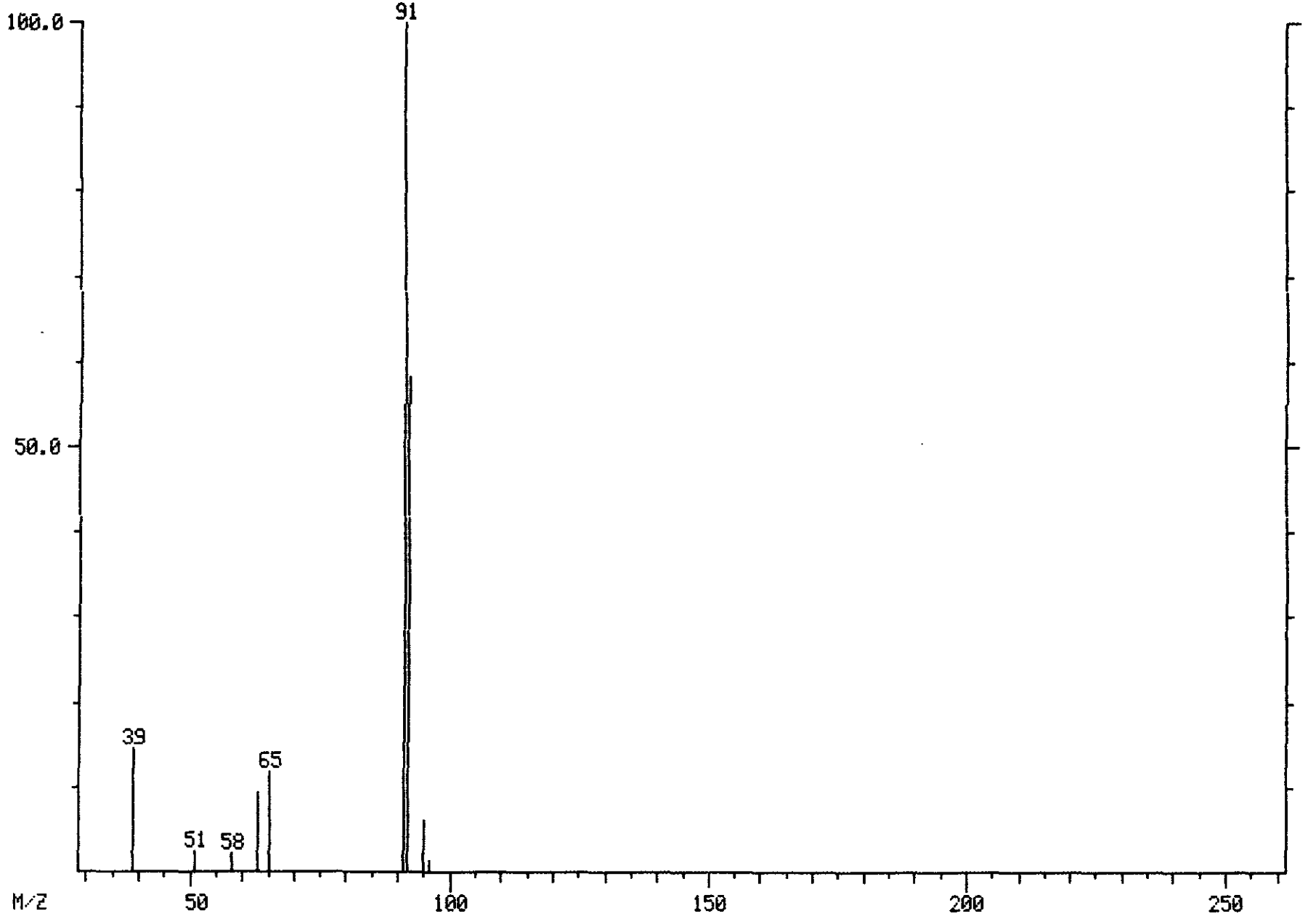
1332.

MASS SPECTRUM
05/08/90 19:37:00 + 24:40
SAMPLE: CLP,VERSCM,2565,10,L,S,16952,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C230 TOLUENE
ENHANCED (S 15B 2N 0T)

DATA: U3553 #592
CALI: U3553 #2

BASE M/Z: 91
RIC: 2616.

100239

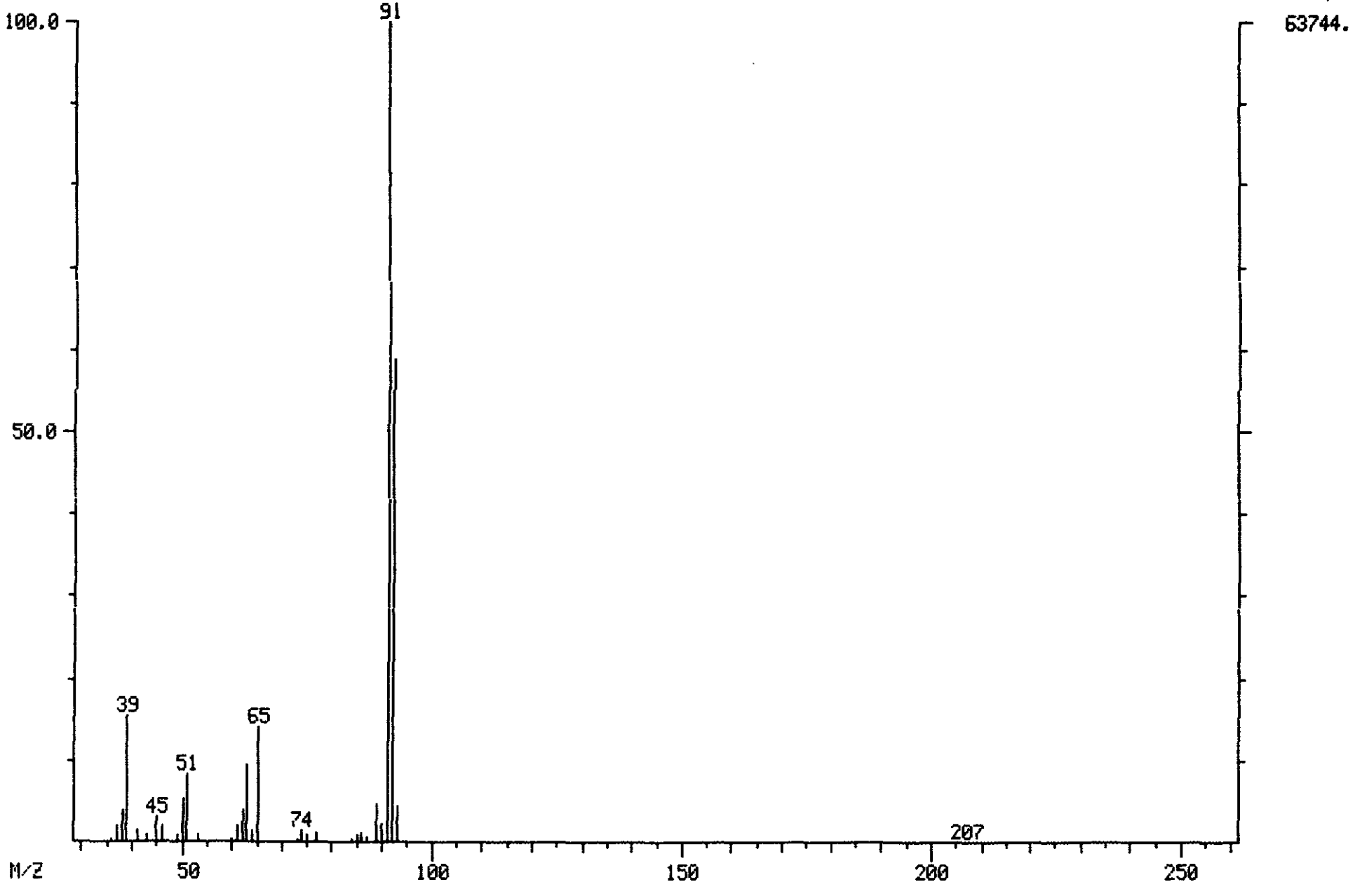


MASS SPECTRUM
05/08/90 8:54:00 + 24:40
SAMPLE: CLP,,,VSTD 50,L,S,22644,V,CC-050,,5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C230 TOLUENE
ENHANCED (S 15B 2N 0T)

DATA: U3540 #592
CALI: U3540 #2

BASE M/Z: 91
RIC: 160256.

100240



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

11 ORIGINAL (RE3)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16953

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3469

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 5 Date Analyzed: 05/02/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	3	J
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	J
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

11 ORIGINAL (RED)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16953

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3469

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 5 Date Analyzed: 05/02/90

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

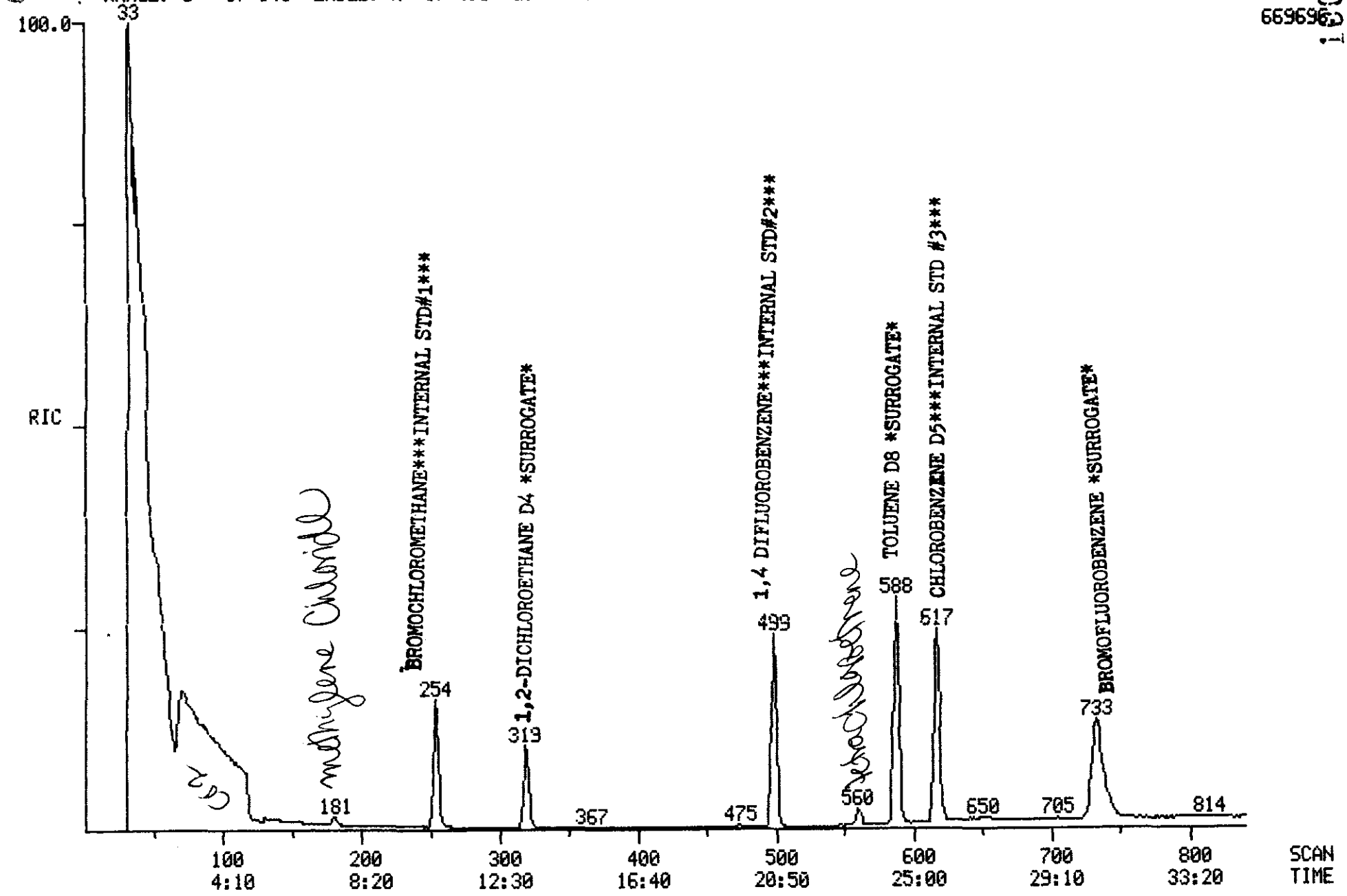
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: U3469 #1 SCANS 1 TO 840
05/02/90 14:15:00 CALI: U3469 #2
SAMPLE: CLP,VERSCDM,2565,11,L,S,16953,V,,420.1.0,4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

ORIGINAL (R-C)

100243



Quantitation Report File: U3469

ORIGINAL (Red)

Data: U3469.TI
05/02/90 14:15:00
Sample: CLP,VERSCDM,2565,11,L,S,16953,V,,420.1.0,4,5G/5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.012
Submitted by: VERSAR Analyst: MAT Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT) 5.8 %
Resp. fac. from Library Entry

INT STD & SURROG. COMPLIANT
MA Templeton
5/2/90

Ready for Forms DD

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

43469

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	254	10:35	1	1.000	A BB	64611.	50.000 UG/L*	16.88
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	84	180	7:30	1	0.709	A BB	6356.	3.079 UG/L	1.04
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	63	254	10:35	1	1.000	A BB	811.	~~0.229 UG/L~~ BRL	0.08
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	65	319	13:17	1	1.256	A BB	79845.	43.078 UG/L%	14.54 86%
15	NOT FOUND								
16	114	499	20:47	16	1.000	A BB	309737.	50.000 UG/L*	16.88
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	98	588	24:30	31	0.953	A BB	324146.	52.003 UG/L%	17.55 104
31	117	617	25:42	31	1.000	A BB	248038.	50.000 UG/L*	16.88
32	NOT FOUND								
33	NOT FOUND								
34	164	560	23:20	31	0.908	A BB	8514.	5.174 UG/L	1.75
35	83	560	23:20	31	0.908	A VB	1320.	~~0.301 UG/L~~ BRL	0.10
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	95	733	30:32	31	1.188	A BB	173611.	42.420 UG/L%	14.32 85

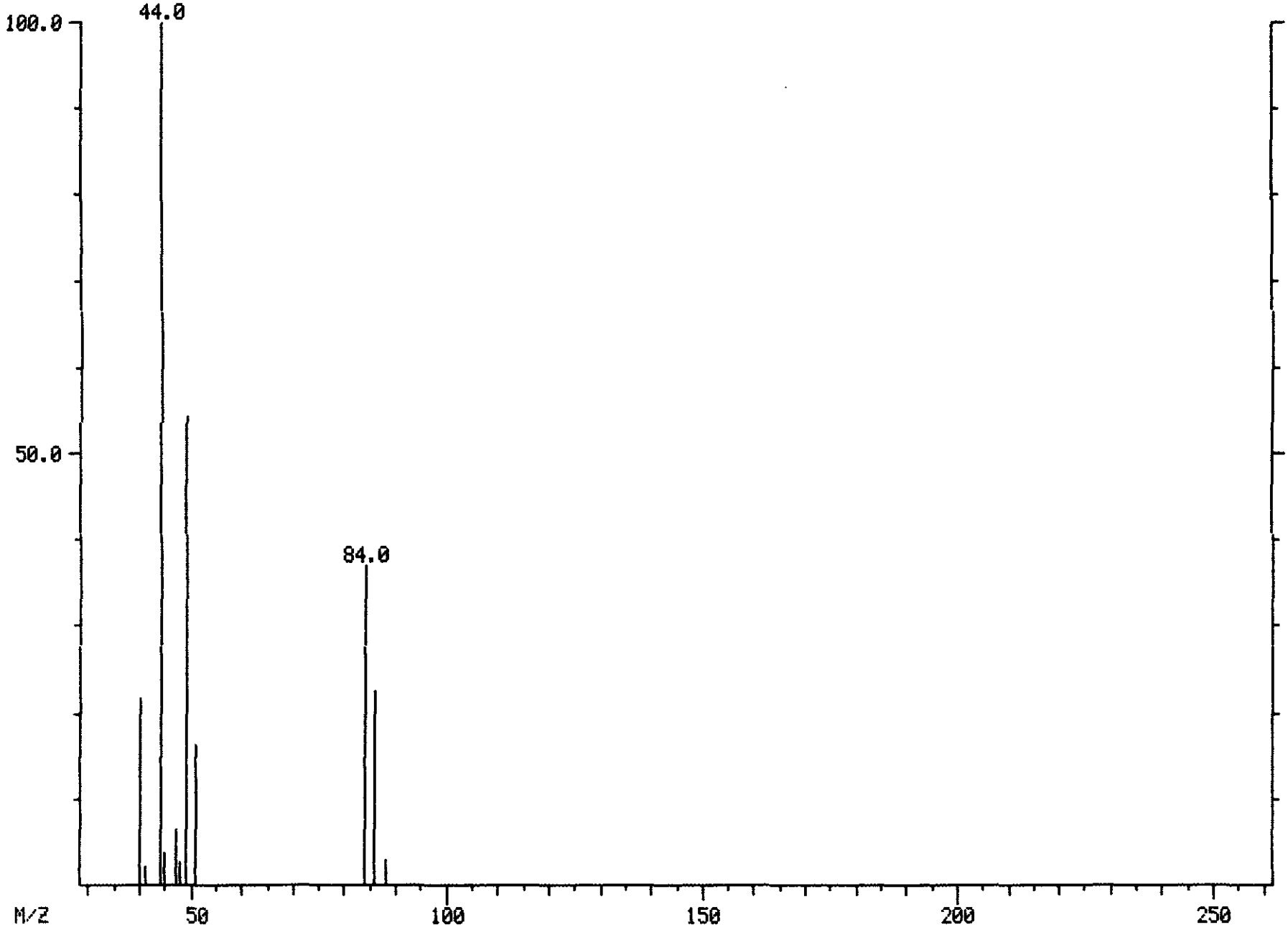
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.323						
4	4:17		0.406						
5	5:17		0.500						
6	7:30	1.00	0.709	1.00	3.08	50.00	0.098	1.597	0.06
7	8:05		0.764						
8	9:02		0.854						
9	10:10		0.961						
10	11:25	0.93	1.079	0.93	0.23	50.00	0.013	2.737	0.00
11	12:07		1.146						
12	12:40		1.197						

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.264						
14	13:17	1.00	1.256	1.00	43.08	50.00	1.236	1.434	0.86
15	9:30		0.898						
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20		1.260						
18	15:12		0.733						
19	15:07		0.729						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:45		0.711						
30	24:27	1.00	0.953	1.00	52.00	50.00	1.307	1.257	1.04
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32		0.839						
33	23:02		0.898						
34	23:20	1.00	0.909	1.00	5.17	50.00	0.034	0.332	0.10
35	23:17	1.00	0.907	1.00	0.30	50.00	0.005	0.885	0.01
36	24:40		0.961						
37	25:47		1.005						
38	27:52		1.086						
39	32:02		1.248						
40	33:20		1.299						
41	32:20		1.260						
42	30:30	1.00	1.188	1.00	42.42	50.00	0.700	0.825	0.85

MASS SPECTRUM
05/02/90 14:15:00 + 7:30
SAMPLE: CLP,VERSCDM,2565,11,L,S,16953,V,,420.1.0,4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE

DATA: U3469 #180
CALI: U3469 #2

BASE M/Z: 44
RIC: 10464.



3872.

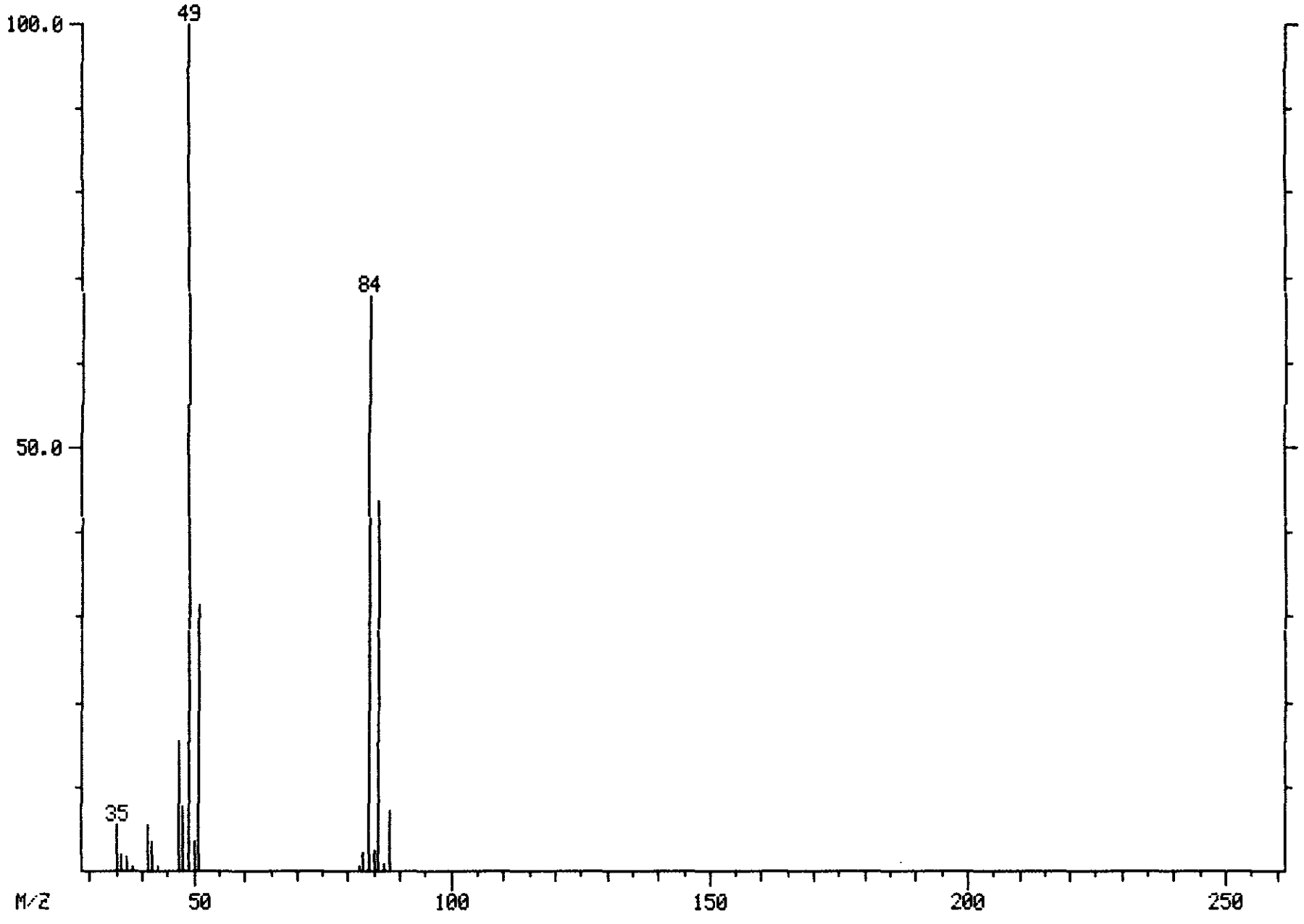
100247

MASS SPECTRUM
05/02/90 8:08:00 + 7:30
SAMPLE: CLP,,,VSTD 50,L,S,22583,V,CC-050,,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3462 #180
CALI: U3462 #2

BASE M/Z: 49
RIC: 102656.

C0248

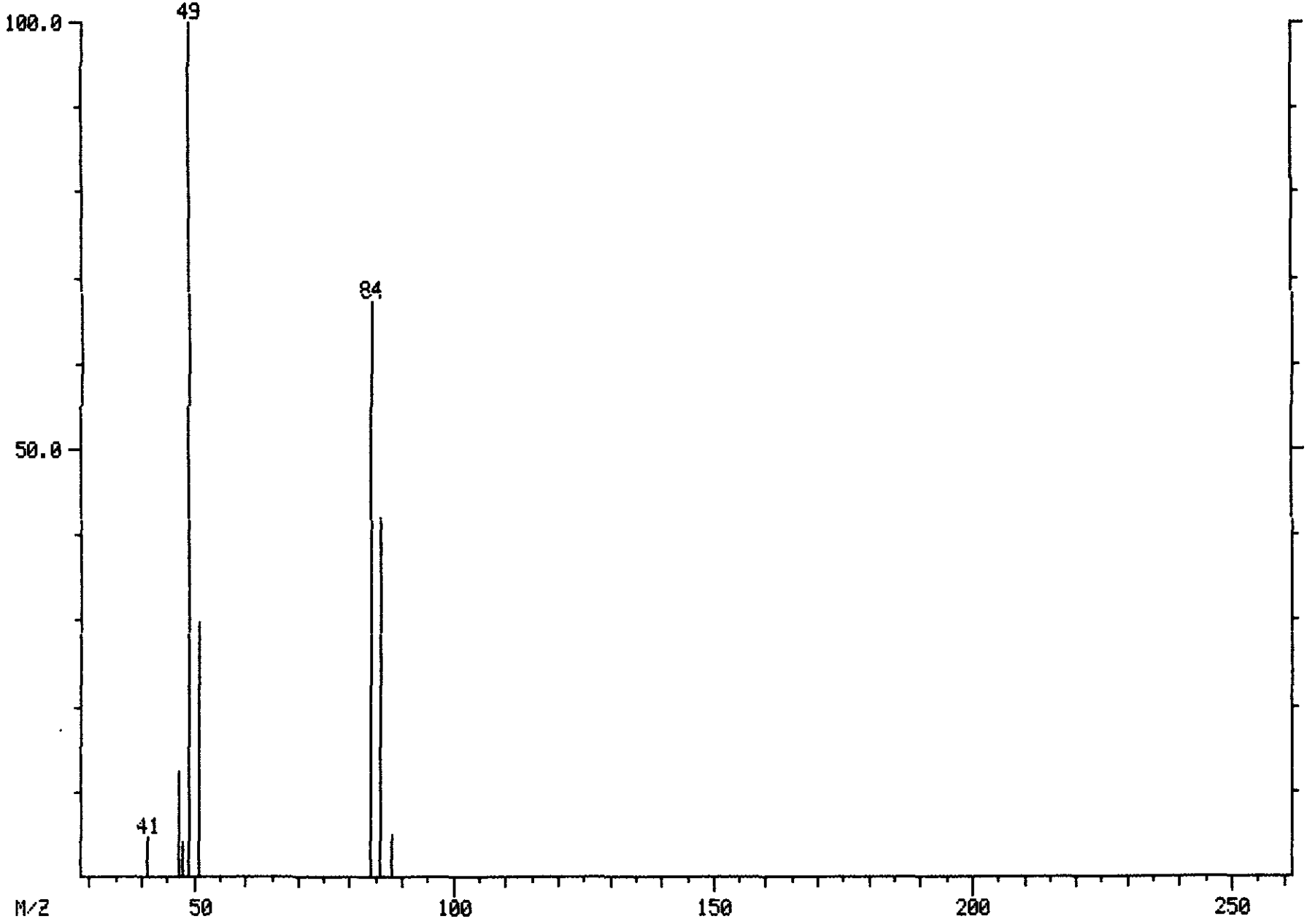


MASS SPECTRUM
05/02/90 14:15:00 + 7:30
SAMPLE: CLP,VERSCDM,2565,11,L,S,16953,V,,420.1.0,4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C030 METHYLENE CHLORIDE
ENHANCED (S 15B 2N 0T)

DATA: U3469 #180
CALI: U3469 #2

BASE M/Z: 49
RIC: 5464.

100249

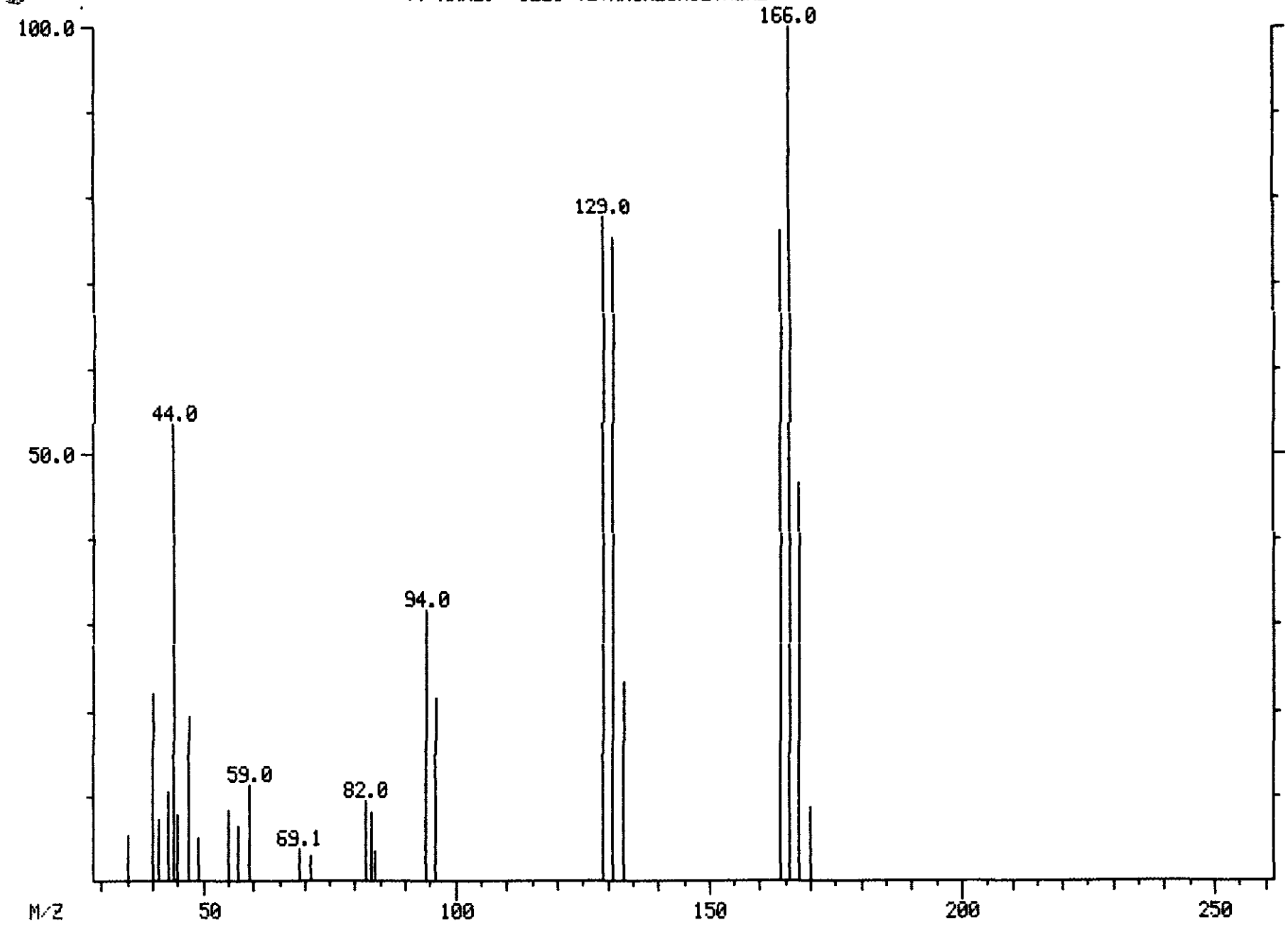


2056.

MASS SPECTRUM
05/02/90 14:15:00 + 23:20
SAMPLE: CLP,VERSCDM,2565,11,L,S,16953,V,,420.1.0,4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C220 TETRACHLOROETHENE

DATA: U3469 #560
CALI: U3469 #2

BASE M/Z: 166
RIC: 17280.



2678.

100250

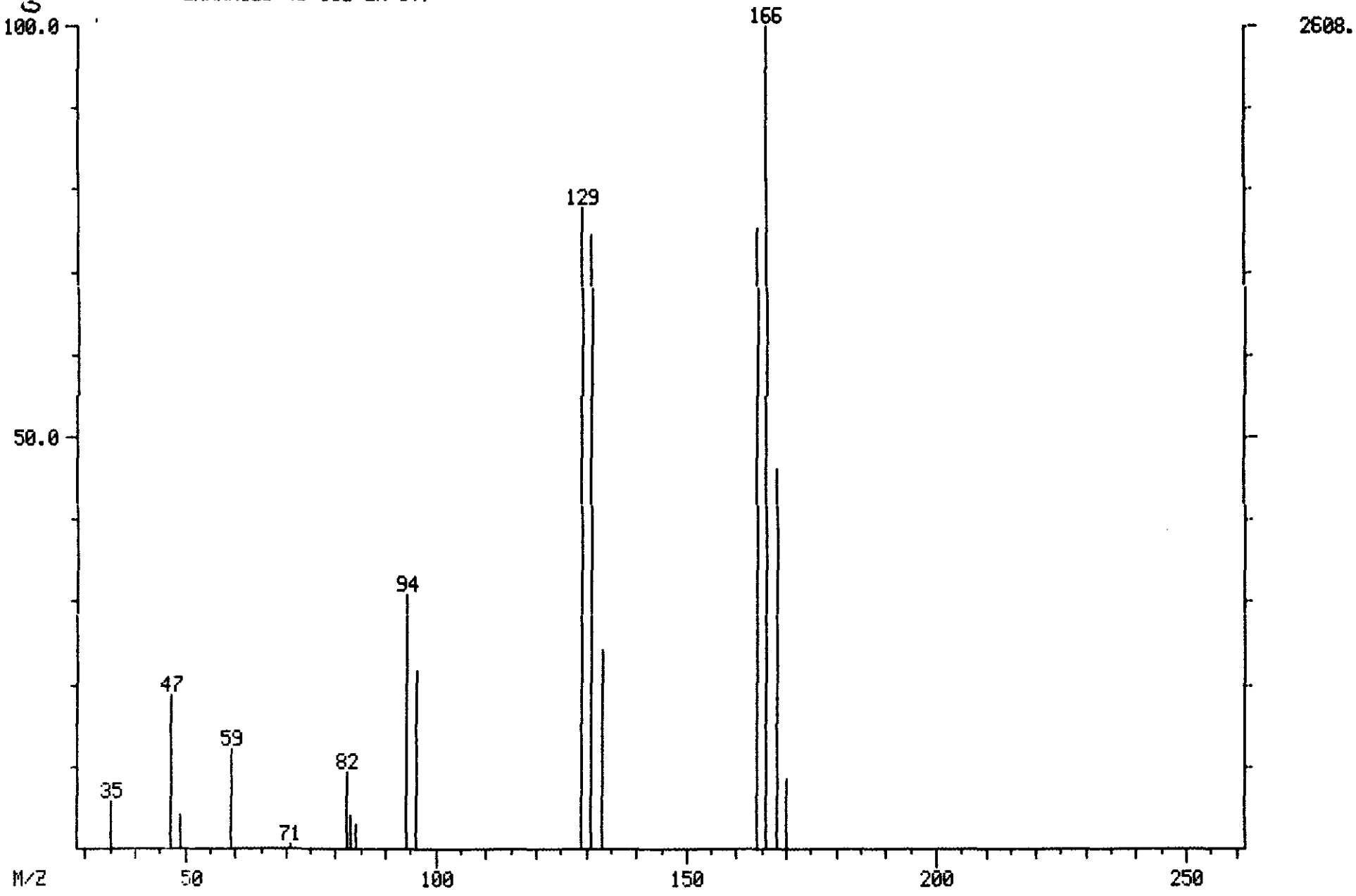
MASS SPECTRUM
05/02/90 14:15:00 + 23:20
SAMPLE: CLP,VERSCDM,2565,11,L,S,16953,V,,420.1.0,4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C220 TETRACHLOROETHENE
ENHANCED (S 15B 2N 0T)

DATA: U3469 #560
CALI: U3469 #2

BASE M/Z: 166
RIC: 13488.

100251

ORIGINAL (Red)

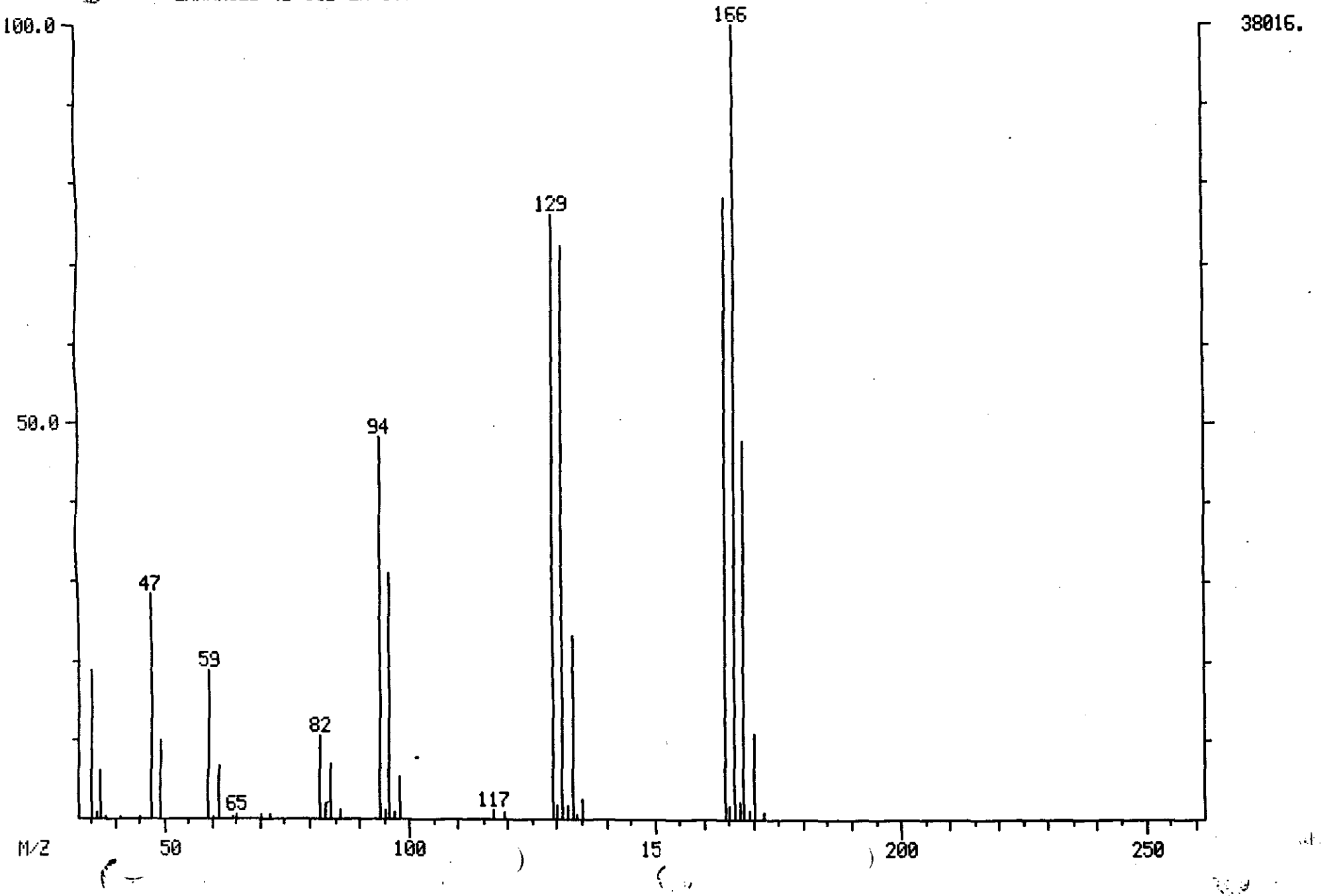


MASS SPECTRUM
03/31/89 17:24:00 + 23:40
SAMPLE: CLP,,,PURGEA+C ACROLEIN+ACRYLONITRILE,,,STD18039,V,,,5ML
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
** NAME: C220 TETRACHLOROETHENE
ENHANCED (5 15B 2N 0T)

DATA: U6566 #568
CALI: U6566 #2

BASE M/Z: 166
RIC: 236800.

100252



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

12 ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16954

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3470

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 6 Date Analyzed: 05/02/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

12

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16954

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3470

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 6 Date Analyzed: 05/02/90

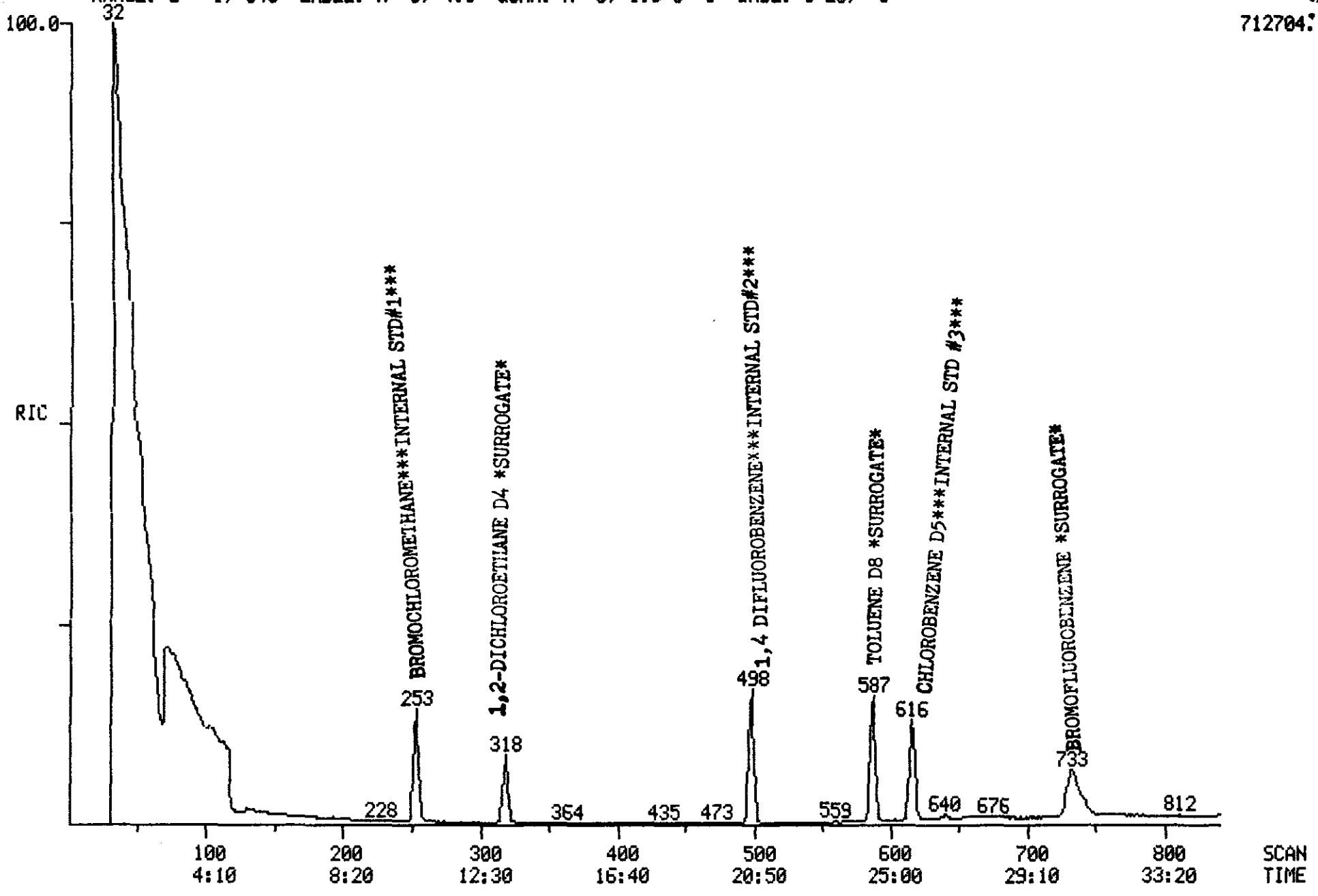
Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: U3470 #1 SCANS 1 TO 840
05/02/90 14:56:00 CALI: U3470 #2
SAMPLE: CLP,VERSCDM,2565,12,L,S,16954,V,,420.1.0,B4,5G/5ML
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100255

Quantitation Report File: U3470

ORIGINAL (Red)

Data: U3470.TI
05/02/90 14:56:00
Sample: CLP,VERSCDM,2565,12,L,S,16954,V,,420.1.0,B4,5G/5ML
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.012
Submitted by: VERSAR Analyst: MAT Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT) 6.7 %
Resp. fac. from Library Entry

INT STD & SURROG. COMPLIANT

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

Ready for Tamar

43470

ORIGINAL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	253	10:32	1	1.000	A BB	60428.	50.000 UG/L*	17.43
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	63	253	10:32	1	1.000	A BB	665.	BRL ~~0.201 UG/L~~	0.07
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	65	318	13:15	1	1.257	A BB	71739.	41.384 UG/L%	14.43 83%
15	NOT FOUND								
16	114	498	20:45	16	1.000	A BB	228895.	50.000 UG/L*	17.43
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	97	353	14:42	16	0.709	A BB	380.	BRL ~~0.249 UG/L~~	0.09
30	98	587	24:27	31	0.953	A BB	193305.	56.134 UG/L%	19.57 112%
31	117	616	25:40	31	1.000	A BB	137032.	50.000 UG/L*	17.43
32	NOT FOUND								
33	NOT FOUND								
34	164	559	23:17	31	0.907	A BB	761.	BRL ~~0.837 UG/L~~	0.29
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	95	732	30:30	31	1.188	A BB	86123.	38.090 UG/L%	13.28 76%

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.323						
4	4:17		0.406						
5	5:17		0.500						
6	7:30		0.709						
7	8:05		0.764						
8	9:02		0.854						
9	10:10		0.961						
10	11:25	0.92	1.079	0.93	0.20	50.00	0.011	2.737	0.00
11	12:07		1.146						
12	12:40		1.197						

43470

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.264						
14	13:17	1.00	1.256	1.00	41.38	50.00	1.187	1.434	0.83
15	9:30		0.898						
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20		1.260						
18	15:12		0.733						
19	15:07		0.729						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:45	1.00	0.711	1.00	0.25	50.00	0.002	0.334	0.00
30	24:27	1.00	0.953	1.00	56.13	50.00	1.411	1.257	1.12
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32		0.839						
33	23:02		0.898						
34	23:20	1.00	0.909	1.00	0.84	50.00	0.006	0.332	0.02
35	23:17		0.907						
36	24:40		0.961						
37	25:47		1.005						
38	27:52		1.086						
39	32:02		1.248						
40	33:20		1.299						
41	32:20		1.260						
42	30:30	1.00	1.188	1.00	38.09	50.00	0.628	0.825	0.76

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16955

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3471

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 60 Date Analyzed: 05/02/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	25	U
74-83-9	Bromomethane	25	U
75-01-4	Vinyl chloride	25	U
75-00-3	Chloroethane	25	U
75-09-2	Methylene chloride	12	U
67-64-1	Acetone	25	U
75-15-0	Carbon disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	25	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon tetrachloride	12	U
108-05-4	Vinyl acetate	25	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	Trans-1,3-dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-pentanone	25	U
591-78-6	2-Hexanone	25	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Total xylenes	12	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

13

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16955

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3471

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 60 Date Analyzed: 05/02/90

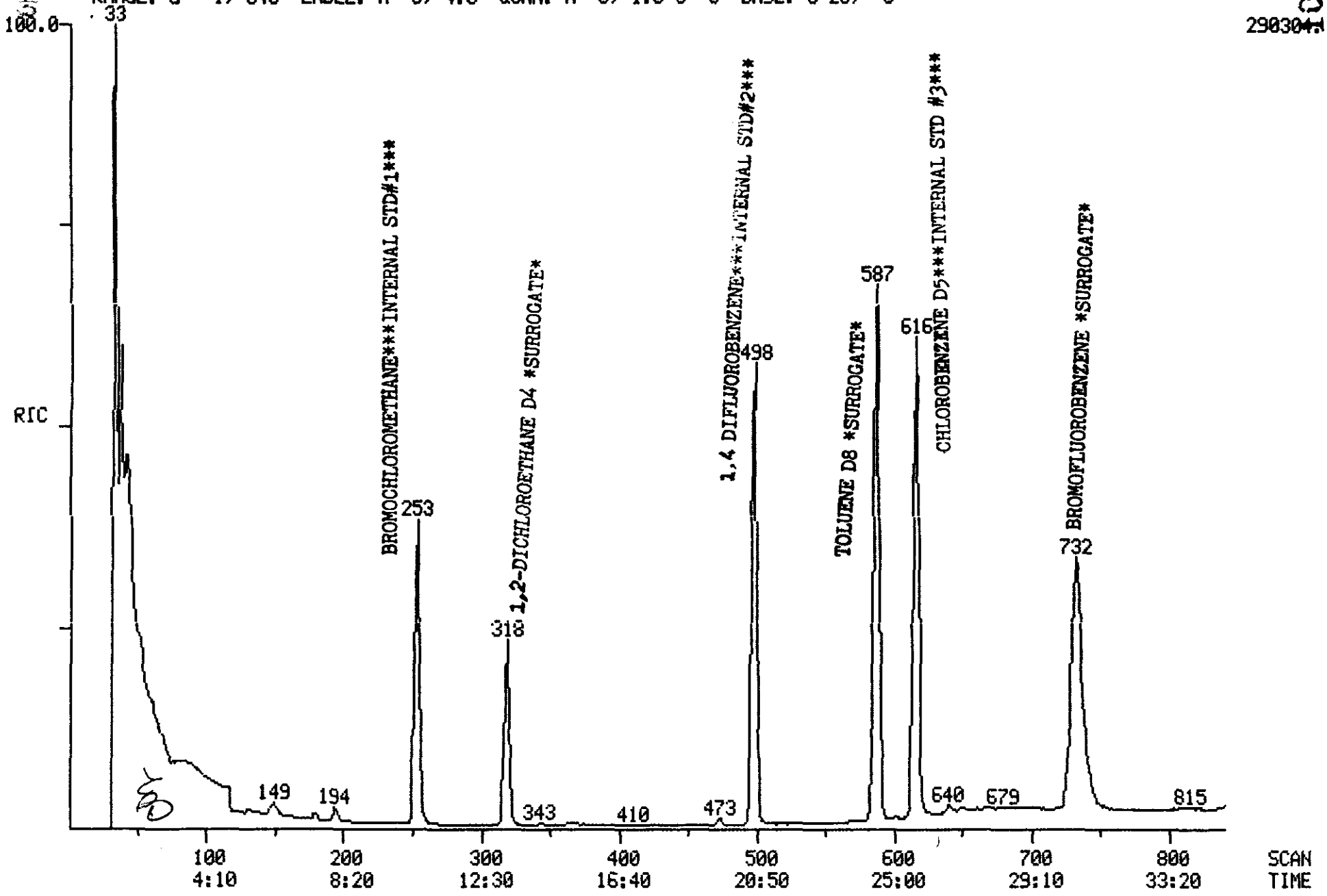
Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: U3471 #1 SCANS 1 TO 840
05/02/90 15:38:00 CALI: U3471 #2
SAMPLE: CLP,VERSCOM,2565,13,L,S,16955,V,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



29030 100261

Quantitation Report File: U3471

ORIGINAL (Red)

Data: U3471.TI
05/02/90 15:38:00
Sample: CLP,VERSCDM,2565,13,L,S,16955,V,,420.1.0,B4,5G/5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.011
Submitted by: VERSAR Analyst: MAT Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

60.2 %

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

Ready for Tom SW

43471

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	253	10:32	1	1.000	A BB	67066.	50.000 UG/L*	17.44
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	84	179	7:27	1	0.708	A BB	2496.	~~1.165 UG/L~~	0.41
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	63	253	10:32	1	1.000	A BB	879.	~~0.239 UG/L~~	0.08
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	65	318	13:15	1	1.257	A BB	78127.	40.608 UG/L%	14.16
15	NOT FOUND								
16	114	498	20:45	16	1.000	A BB	321428.	50.000 UG/L*	17.44
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	98	587	24:27	31	0.953	A BB	330779.	49.756 UG/L%	17.35
31	117	616	25:40	31	1.000	A BB	264540.	50.000 UG/L*	17.44
32	43	516	21:30	31	0.838	A BB	169.	~~0.036 UG/L~~	0.01
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	92	591	24:37	31	0.959	A BB	313.	~~0.083 UG/L~~	0.03
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	95	732	30:30	31	1.188	A BB	195937.	44.889 UG/L%	15.65

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.323						
4	4:17		0.406						
5	5:17		0.500						
6	7:30	0.99	0.709	1.00	1.16	50.00	0.037	1.597	0.02
7	8:05		0.764						
8	9:02		0.854						
9	10:10		0.961						
10	11:25	0.92	1.079	0.93	0.24	50.00	0.013	2.737	0.00
11	12:07		1.146						
12	12:40		1.197						

U3471

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.264						
14	13:17	1.00	1.256	1.00	40.61	50.00	1.165	1.434	0.81
15	9:30		0.898						
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20		1.260						
18	15:12		0.733						
19	15:07		0.729						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:45		0.711						
30	24:27	1.00	0.953	1.00	49.76	50.00	1.250	1.257	1.00
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	0.04	50.00	0.001	0.873	0.00
33	23:02		0.898						
34	23:20		0.909						
35	23:17		0.907						
36	24:40	1.00	0.961	1.00	0.08	50.00	0.001	0.712	0.00
37	25:47		1.005						
38	27:52		1.086						
39	32:02		1.248						
40	33:20		1.299						
41	32:20		1.260						
42	30:30	1.00	1.188	1.00	44.89	50.00	0.741	0.825	0.90

ORIGINAL (Red)

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

14 ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16956

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3468

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 55 Date Analyzed: 05/02/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	22	U
74-83-9	Bromomethane	22	U
75-01-4	Vinyl chloride	22	U
75-00-3	Chloroethane	22	U
75-09-2	Methylene chloride	11	U
67-64-1	Acetone	22	U
75-15-0	Carbon disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	22	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon tetrachloride	11	U
108-05-4	Vinyl acetate	22	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	Trans-1,3-dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-pentanone	22	U
591-78-6	2-Hexanone	22	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Total xylenes	11	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

14 ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16956

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3468

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 55 Date Analyzed: 05/02/90

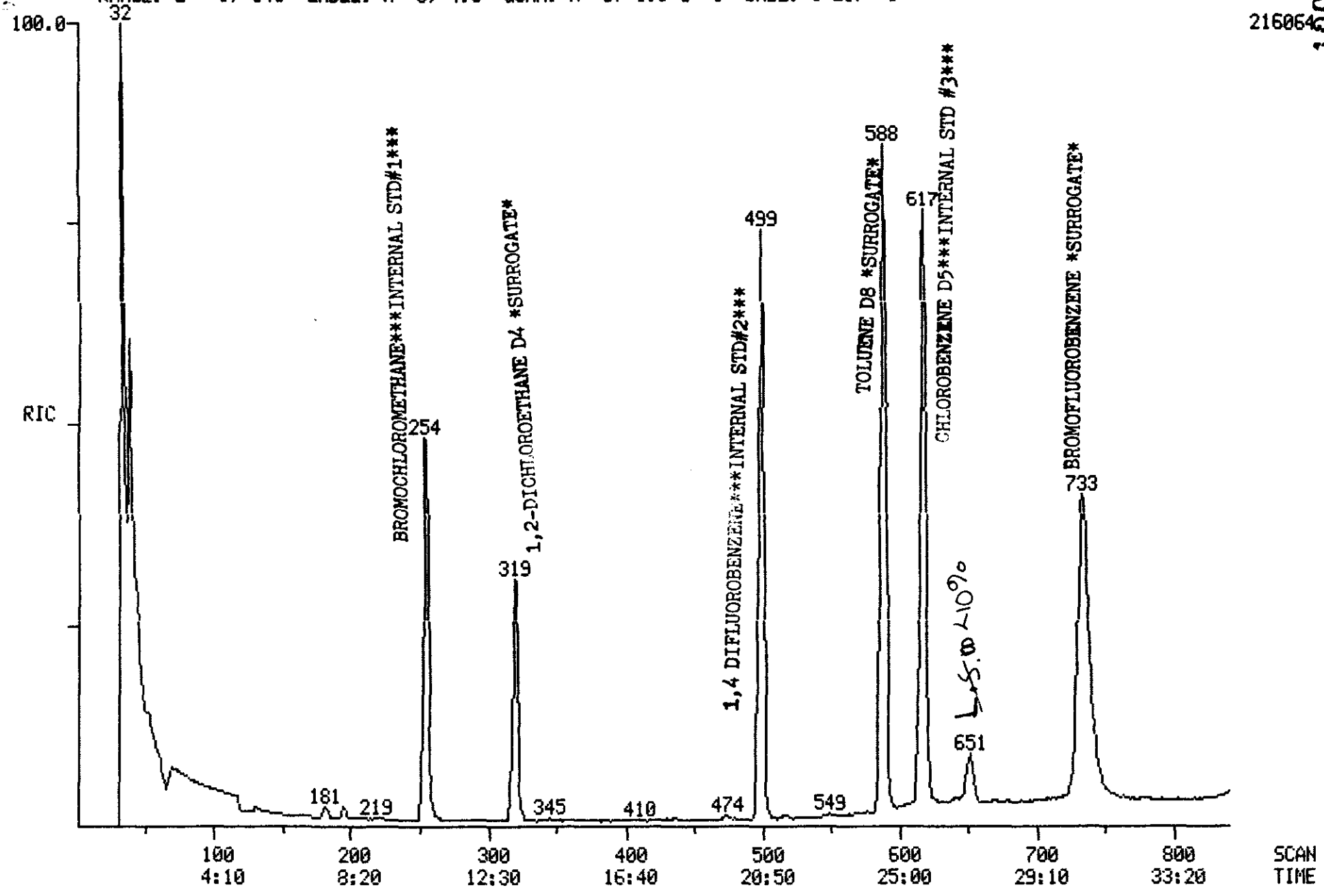
Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: U3468 #1 SCANS 1 TO 840
05/02/90 13:32:00 CALI: U3468 #2
SAMPLE: CLP,VERSCDM,2565,14,L,S,16956,V,,,420.1.0,B4,5G/5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100267

Quantitation Report File: U3468

ORIGINAL (Red)

Data: U3468.TI
05/02/90 13:32:00
Sample: CLP,VERSCDM,2565,14,L,S,16956,V,,,420.1.0,B4,5G/5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.012
Submitted by: VERSAR Analyst: MAT Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT) 55.6 %
Resp. fac. from Library Entry

INT STD & SURROG COMP.
M A Templeton 5/2/90

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

Ready for Forms 90

U 346 ORIGINAL (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	254	10:35	1	1.000	A BB	65042.	50.000 UG/L*	17.06
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	84	181	7:32	1	0.713	A BB	3321.	BRL ~~1.598 UG/L~~	0.55
7	43	195	8:07	1	0.768	A BV	7162.	BRL ~~6.568 UG/L~~	2.24
8	NOT FOUND								
9	NOT FOUND								
10	63	254	10:35	1	1.000	A BB	910.	BRL ~~0.256 UG/L~~	0.09
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	65	319	13:17	1	1.256	A BB	77789.	41.691 UG/L%	14.23 83%
15	NOT FOUND								
16	114	499	20:47	16	1.000	A BB	304243.	50.000 UG/L*	17.06
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	98	588	24:30	31	0.953	A BB	309601.	49.533 UG/L%	16.90 99%
31	117	617	25:42	31	1.000	A BB	248719.	50.000 UG/L*	17.06
32	43	517	21:32	31	0.838	A BB	2365.	~~0.544 UG/L~~ BRL	0.19
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	92	593	24:42	31	0.961	A BB	580.	BRL ~~0.164 UG/L~~	0.06
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	95	733	30:32	31	1.188	A BB	175140.	42.676 UG/L%	14.56 85%

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.323						
4	4:17		0.406						
5	5:17		0.500						
6	7:30	1.01	0.709	1.01	1.60	50.00	0.051	1.597	0.03
7	8:05	1.01	0.764	1.01	6.57	50.00	0.110	0.838	0.13
8	9:02		0.854						
9	10:10		0.961						
10	11:25	0.93	1.079	0.93	0.26	50.00	0.014	2.737	0.01
11	12:07		1.146						
12	12:40		1.197						

43468

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.264						
14	13:17	1.00	1.256	1.00	41.69	50.00	1.196	1.434	0.83
15	9:30		0.898						
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20		1.260						
18	15:12		0.733						
19	15:07		0.729						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:45		0.711						
30	24:27	1.00	0.953	1.00	49.53	50.00	1.245	1.257	0.99
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	0.54	50.00	0.010	0.873	0.01
33	23:02		0.898						
34	23:20		0.909						
35	23:17		0.907						
36	24:40	1.00	0.961	1.00	0.16	50.00	0.002	0.712	0.00
37	25:47		1.005						
38	27:52		1.086						
39	32:02		1.248						
40	33:20		1.299						
41	32:20		1.260						
42	30:30	1.00	1.188	1.00	42.68	50.00	0.704	0.825	0.85

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

15 ORIGINAL (Red)

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16957

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3472

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 7 Date Analyzed: 05/02/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	11	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

15

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: 16957

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3472

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. 7 Date Analyzed: 05/02/90

Column (pack/cap) PACK Dilution Factor: 1.0

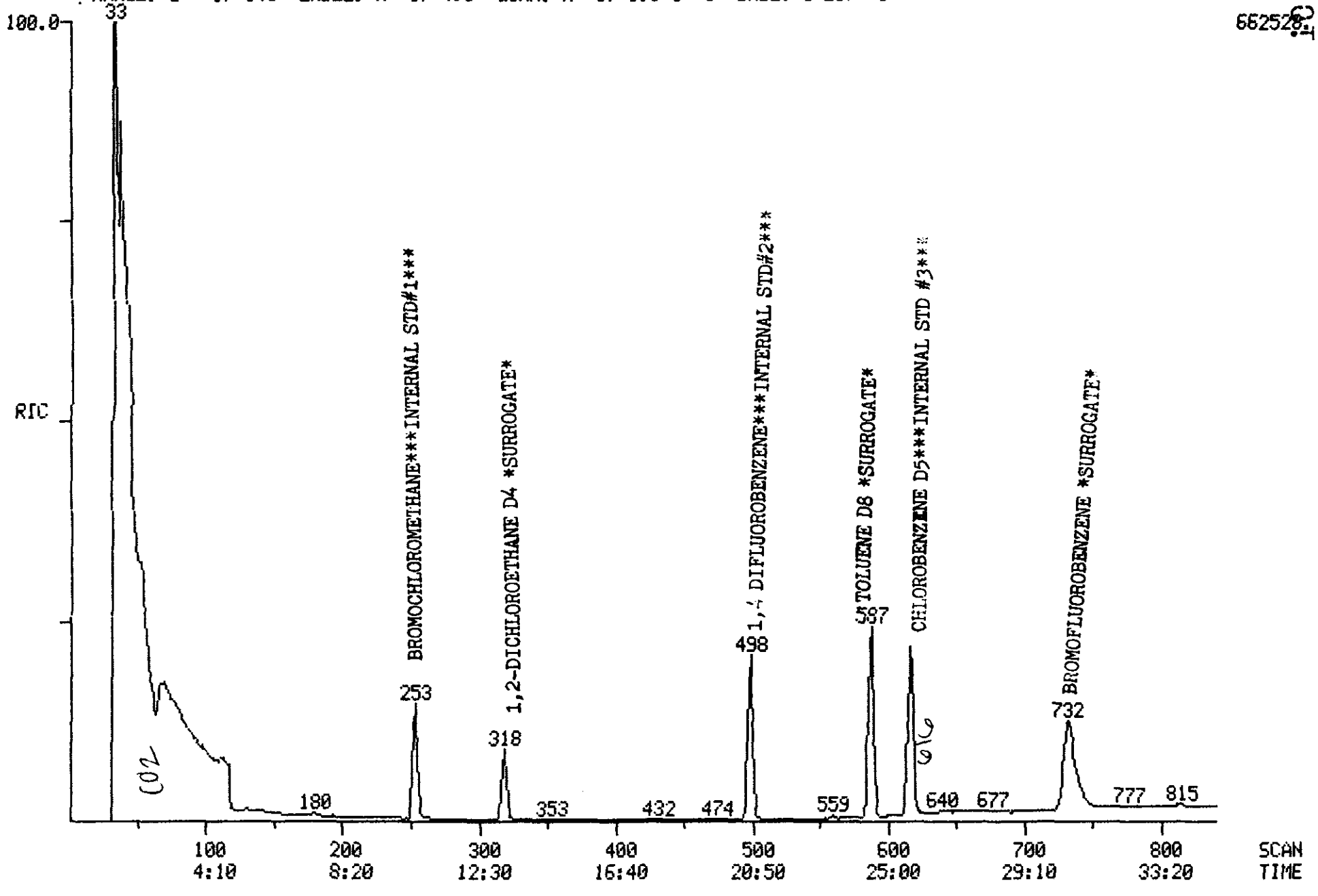
Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: U3472 #1 SCANS 1 TO 840
05/02/90 16:19:00 CALI: U3472 #2
SAMPLE: CLP,VERSCDM,2565,15,L,S,16957,V,,420.1.0,4,5G/5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

ORIGINAL (Rev)



1:0273

Quantitation Report File: U3472

Data: U3472.TI
05/02/90 16:19:00
Sample: CLP,VERSCDM,2565,15,L,S,16957,V,,420.1.0,4,5G/5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.012
Submitted by: VERSAR Analyst: DD Acct. No.: 420.1.0

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

7.2 %

Ready for Forms DD

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

U3472

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot	
1	128	253	10:32	1	1.000	A BB	58548.	50.000 UG/L*	17.44	
2	NOT FOUND									
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	NOT FOUND									
7	NOT FOUND									
8	NOT FOUND									
9	NOT FOUND									
10	63	253	10:32	1	1.000	A BB	673.	BRL ~~0.210 UG/L~~	0.07	
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	65	318	13:15	1	1.257	A BB	68875.	41.007 UG/L%	14.30	82
15	NOT FOUND									
16	114	498	20:45	16	1.000	A BB	263086.	50.000 UG/L*	17.44	
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	NOT FOUND									
29	97	353	14:42	16	0.709	A BB	780.	BRL ~~0.444 UG/L~~	0.15	
30	98	587	24:27	31	0.953	A BB	271974.	49.910 UG/L%	17.41	100
31	117	616	25:40	31	1.000	A BB	216843	50.000 UG/L*	17.44	
32	NOT FOUND									
33	NOT FOUND									
34	164	559	23:17	31	0.907	A BB	1609.	BRL ~~4.118 UG/L~~	0.39	
35	NOT FOUND									
36	NOT FOUND									
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									
42	95	732	30:30	31	1.188	A BB	157668.	44.067 UG/L%	15.37	88

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.323						
4	4:17		0.406						
5	5:17		0.500						
6	7:30		0.709						
7	8:05		0.764						
8	9:02		0.854						
9	10:10		0.961						
10	11:25	0.92	1.079	0.93	0.21	50.00	0.011	2.737	0.00
11	12:07		1.146						
12	12:40		1.197						

U3472

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.264						
14	13:17	1.00	1.256	1.00	41.01	50.00	1.176	1.434	0.82
15	9:30		0.898						
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20		1.260						
18	15:12		0.733						
19	15:07		0.729						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:45	1.00	0.711	1.00	0.44	50.00	0.003	0.334	0.01
30	24:27	1.00	0.953	1.00	49.91	50.00	1.254	1.257	1.00
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32		0.839						
33	23:02		0.898						
34	23:20	1.00	0.909	1.00	1.12	50.00	0.007	0.332	0.02
35	23:17		0.907						
36	24:40		0.961						
37	25:47		1.005						
38	27:52		1.086						
39	32:02		1.248						
40	33:20		1.299						
41	32:20		1.260						
42	30:30	1.00	1.188	1.00	44.07	50.00	0.727	0.825	0.88

Versar INC.

IV. STANDARDS DATA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Instrument ID: Y Calibration Date(s): 04/25/90 04/25/90

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = Y1142 RRF50 = Y1138
RRF100= Y1141 RRF150= Y1140 RRF200= Y1139

COMPOUND		RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane	#	2.588	2.563	2.207	1.770	1.741	2.174	18.9#
Bromomethane		1.417	1.426	1.299	1.095	1.193	1.286	11.1
Vinyl chloride	*	2.137	1.791	1.517	1.140	1.301	1.577	25.2*
Chloroethane		1.386	1.445	1.311	1.141	1.221	1.301	9.4
Methylene chloride		1.939	1.753	1.547	1.391	1.519	1.630	13.3
Acetone		0.648	0.889	0.923	0.784	0.813	0.811	13.2
Carbon disulfide		2.184	2.159	2.033	1.721	2.025	2.024	9.1
1,1-Dichloroethene	*	1.409	1.374	1.344	1.144	1.347	1.324	7.8*
1,1-Dichloroethane	#	3.696	3.471	3.108	2.862	3.064	3.240	10.4#
1,2-Dichloroethene (total)							0.000	0.0
Chloroform	*	3.368	3.208	2.854	2.638	2.834	2.980	10.0*
1,2-Dichloroethane		0.598	0.612	0.506	0.465	0.472	0.531	13.2
2-Butanone		0.191	0.204	0.171	0.170	0.157	0.179	10.4
1,1,1-Trichloroethane		3.125	2.927	2.693	2.405	2.686	2.767	9.8
Carbon tetrachloride		0.589	0.518	0.507	0.435	0.492	0.508	10.9
Vinyl acetate		3.933	3.930	3.430	3.470	3.481	3.649	7.1
Bromodichloromethane		0.624	0.577	0.497	0.456	0.475	0.526	13.6
1,2-Dichloropropane	*	0.382	0.350	0.301	0.271	0.272	0.315	15.6*
cis-1,3-Dichloropropene		0.766	0.732	0.624	0.588	0.616	0.665	11.8
Trichloroethene		0.475	0.433	0.395	0.347	0.378	0.406	12.2
Dibromochloromethane		1.054	0.972	0.870	0.774	0.770	0.888	14.0
1,1,2-Trichloroethane		0.728	0.671	0.628	0.556	0.553	0.627	12.0
Benzene		1.251	1.111	0.975	0.861	0.900	1.020	15.8
Trans-1,3-dichloropropene		0.804	0.814	0.783	0.743	0.773	0.783	3.6
Bromoform	#	0.775	0.726	0.719	0.675	0.664	0.712	6.2#
4-Methyl-2-pentanone		0.727	0.694	0.618	0.585	0.558	0.636	11.3
2-Hexanone		0.709	0.706	0.700	0.705	0.628	0.690	5.0
Tetrachloroethene		0.850	0.772	0.763	0.654	0.712	0.750	9.7
1,1,2,2-Tetrachloroethane	#	1.084	0.949	0.897	0.834	0.820	0.917	11.6#
Toluene	*	2.894	2.535	2.360	2.118	2.230	2.427	12.5*
Chlorobenzene	#	1.698	1.498	1.497	1.373	1.509	1.515	7.7#
Ethylbenzene	*	0.743	0.652	0.695	0.677	0.791	0.712	7.8*
Styrene		1.742	1.451	1.459	1.282	1.366	1.460	11.9
o & p xylenes		0.977	0.816	0.772	0.701	0.762	0.806	12.9
m-Xylene		1.292	1.249	1.206	1.051	1.111	1.182	8.4
Toluene-d8		1.237	1.181	0.918	0.801	0.821	0.992	20.6
Bromofluorobenzene		1.135	1.097	0.970	0.870	0.841	0.983	13.4
1,2-Dichloroethane-d4		0.526	0.501	0.403	0.364	0.354	0.430	18.4

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Instrument ID: U Calibration Date(s): 04/30/90 04/30/90

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) PACK

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = U3431 RRF50 = U3427
RRF100= U3430 RRF150= U3429 RRF200= U3428

COMPOUND		RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane	#	0.468	1.888	2.874	4.261	6.661	3.230	73.2#
Bromomethane		0.492	1.417	1.323	3.137	1.821	1.638	59.0
Vinyl chloride	*	0.436	1.480	2.275	3.324	4.561	2.415	66.3*
Chloroethane		0.284	1.046	1.526	2.258	3.568	1.736	72.0
Methylene chloride		0.548	1.597	2.862	4.312	5.973	3.058	70.4
Acetone		0.153	0.447	0.707	0.991	1.400	0.740	65.2
Carbon disulfide		0.182	0.825	1.077	1.692	2.447	1.245	69.3
1,1-Dichloroethene	*	0.481	1.370	2.693	4.110	5.543	2.839	71.9*
1,1-Dichloroethane	#	0.903	2.546	4.757	7.240	9.737	5.037	70.4#
1,2-Dichloroethene (total)		0.579	1.401	2.978	4.300	5.725	2.997	69.9
Chloroform	*	0.832	2.263	4.343	6.620	8.750	4.562	70.2*
1,2-Dichloroethane		0.464	1.239	2.292	3.361	4.421	2.355	67.5
2-Butanone		0.076	0.243	0.428	0.638	0.897	0.456	70.9
1,1,1-Trichloroethane		0.142	0.344	0.712	1.004	1.349	0.710	68.7
Carbon tetrachloride		0.111	0.306	0.626	0.930	1.219	0.638	70.6
Vinyl acetate		0.202	0.625	1.019	1.521	2.074	1.088	67.6
Bromodichloromethane		0.184	0.459	0.914	1.319	1.763	0.928	68.7
1,2-Dichloropropane	*	0.157	0.437	0.803	1.243	1.716	0.871	71.6*
cis-1,3-Dichloropropene		0.265	0.654	1.300	1.868	2.560	1.329	69.3
Trichloroethene		0.161	0.450	0.842	1.294	1.697	0.889	69.8
Dibromochloromethane		0.162	0.454	0.850	1.256	1.664	0.877	68.7
1,1,2-Trichloroethane		0.140	0.398	0.720	1.079	1.416	0.751	68.2
Benzene		0.393	0.974	1.935	2.792	3.631	1.945	67.6
Trans-1,3-dichloropropene		0.122	0.313	0.609	0.903	1.182	0.626	68.6
Bromoform	#	0.134	0.352	0.726	1.050	1.324	0.717	68.1#
4-Methyl-2-pentanone		0.286	0.831	1.448	2.111	2.987	1.533	69.2
2-Hexanone		0.240	0.693	1.228	1.748	2.458	1.273	68.4
Tetrachloroethene		0.141	0.378	0.728	1.044	1.369	0.732	67.5
1,1,2,2-Tetrachloroethane	#	0.336	0.837	1.673	2.333	2.978	1.631	65.9#
Toluene	*	0.287	0.682	1.455	2.090	2.818	1.466	70.1*
Chlorobenzene	#	0.356	0.942	1.811	2.744	3.652	1.901	70.0#
Ethylbenzene	*	0.191	0.433	0.962	1.374	1.798	0.952	69.3*
Styrene		0.352	0.889	1.927	2.779	3.814	1.952	71.7
o & p xylenes		0.192	0.466	1.029	1.482	2.055	1.045	72.2
m-Xylene		0.217	0.531	1.179	1.684	2.305	1.183	71.6
Toluene-d8		0.425	1.195	2.230	3.198	4.341	2.278	68.4
Bromofluorobenzene		0.287	0.802	1.491	2.195	3.048	1.565	70.1
1,2-Dichloroethane-d4		0.397	1.155	2.087	3.099	4.261	2.200	69.7

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Instrument ID: U Calibration Date(s): 05/08/90 05/08/90

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) PACK

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = U3544 RRF50 = U3540
RRF100= U3543 RRF150= U3542 RRF200= U3541

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane #	0.873	0.974	0.916	0.867	0.968	0.920	5.5#
Bromomethane	1.115	1.129	1.071	1.042	1.163	1.104	4.3
Vinyl chloride *	1.029	1.040	1.065	1.035	1.180	1.070	5.9*
Chloroethane	0.678	0.685	0.674	0.653	0.752	0.688	5.5
Methylene chloride	1.175	1.137	1.141	1.093	1.151	1.139	2.6
Acetone	0.441	0.477	0.416	0.423	0.422	0.436	5.7
Carbon disulfide	2.138	2.255	2.544	2.330	2.599	2.373	8.2
1,1-Dichloroethene *	1.052	1.049	1.125	1.014	1.131	1.074	4.8*
1,1-Dichloroethane #	1.956	1.922	2.083	1.995	2.186	2.028	5.3#
1,2-Dichloroethene (total)	1.186	1.164	1.211	1.129	1.213	1.181	3.0
Chloroform *	2.721	2.669	2.783	2.653	2.814	2.728	2.6*
1,2-Dichloroethane	1.998	2.006	2.110	2.138	2.222	2.095	4.5
2-Butanone	0.184	0.185	0.185	0.173	0.166	0.179	4.8
1,1,1-Trichloroethane	0.562	0.565	0.602	0.573	0.624	0.585	4.6
Carbon tetrachloride	0.513	0.499	0.547	0.510	0.555	0.525	4.7
Vinyl acetate	0.513	0.549	0.604	0.660	0.681	0.601	11.9
Bromodichloromethane	0.600	0.606	0.638	0.634	0.652	0.626	3.5
1,2-Dichloropropane *	0.291	0.303	0.311	0.317	0.342	0.313	6.1*
Trans-1,3-Dichloropropene	0.594	0.606	0.632	0.632	0.658	0.624	4.0
Trichloroethene	0.428	0.411	0.406	0.370	0.389	0.401	5.5
Dibromochloromethane	0.561	0.545	0.534	0.517	0.511	0.534	3.8
1,1,2-Trichloroethane	0.365	0.355	0.334	0.330	0.326	0.342	5.0
Benzene	0.748	0.760	0.760	0.748	0.798	0.763	2.7
Trans-1,3-dichloropropene	0.340	0.345	0.363	0.376	0.390	0.363	5.8
Bromoform #	0.464	0.468	0.468	0.456	0.437	0.459	2.8#
4-Methyl-2-pentanone	0.481	0.532	0.538	0.585	0.597	0.547	8.5
2-Hexanone	0.417	0.456	0.482	0.508	0.526	0.478	9.0
Tetrachloroethene	0.407	0.373	0.356	0.309	0.318	0.353	11.4
1,1,2,2-Tetrachloroethane #	0.733	0.735	0.732	0.771	0.754	0.745	2.3#
Toluene *	0.634	0.643	0.663	0.646	0.684	0.654	3.0*
Chlorobenzene #	0.926	0.916	0.895	0.862	0.902	0.900	2.7#
Ethylbenzene *	0.453	0.451	0.461	0.439	0.467	0.454	2.3*
Styrene	0.832	0.886	0.899	0.864	0.930	0.882	4.2
o & p xylenes	0.484	0.518	0.517	0.505	0.552	0.515	4.8
m-Xylene	0.537	0.556	0.573	0.543	0.592	0.560	4.0
Toluene-d8	1.058	1.202	1.097	1.050	1.063	1.094	5.8
Bromofluorobenzene	0.818	0.919	0.845	0.841	0.849	0.854	4.5
1,2-Dichloroethane-d4	1.798	1.963	1.900	1.919	1.924	1.901	3.3

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Instrument ID: Y Calibration date: 04/30/90 Time: 1015

Lab File ID: Y1215 Init. Calib. Date(s): 04/25/90 04/25/90

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Chloromethane	#	2.174	1.757	19.2	#
Bromomethane		1.286	1.214	5.6	
Vinyl chloride	*	1.577	1.393	11.7	*
Chloroethane		1.301	0.906	30.4	
Methylene chloride		1.630	1.578	3.2	
Acetone		0.811	0.354	56.4	
Carbon disulfide		2.024	1.013	50.0	
1,1-Dichloroethene	*	1.324	1.323	0.1	*
1,1-Dichloroethane	#	3.240	2.860	11.7	#
1,2-Dichloroethene (total)					
Chloroform	*	2.980	2.909	2.4	*
1,2-Dichloroethane		0.531	0.429	19.2	
2-Butanone		0.179	0.116	35.2	
1,1,1-Trichloroethane		2.767	2.739	1.0	
Carbon tetrachloride		0.508	0.546	-7.5	
Vinyl acetate		3.649	2.066	43.4	
Bromodichloromethane		0.526	0.521	1.0	
1,2-Dichloropropane	*	0.315	0.309	1.9	*
cis-1,3-Dichloropropene		0.665	0.641	3.6	
Trichloroethene		0.406	0.453	-11.6	
Dibromochloromethane		0.888	1.083	-22.0	
1,1,2-Trichloroethane		0.627	0.667	-6.4	
Benzene		1.020	1.004	1.6	
Trans-1,3-dichloropropene		0.783	0.726	7.3	
Bromoform	#	0.712	0.831	-16.7	#
4-Methyl-2-pentanone		0.636	0.366	42.4	
2-Hexanone		0.690	0.368	46.7	
Tetrachloroethene		0.750	0.929	-23.9	
1,1,2,2-Tetrachloroethane	#	0.917	0.814	11.2	#
Toluene	*	2.427	2.397	1.2	*
Chlorobenzene	#	1.515	1.536	-1.4	#
Ethylbenzene	*	0.712	0.724	-1.7	*
Styrene		1.460	1.530	-4.8	
o & p xylenes		0.806	0.876	-8.7	
m-Xylene		1.182	1.185	-0.3	
Toluene-d8		0.992	1.144	-15.3	
Bromofluorobenzene		0.983	1.103	-12.2	
1,2-Dichloroethane-d4		0.430	0.443	-3.0	

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Instrument ID: Y Calibration date: 04/30/90 Time: 2249

Lab File ID: Y1236 Init. Calib. Date(s): 04/25/90 04/25/90

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Chloromethane	#	2.174	1.710	21.3	#
Bromomethane		1.286	1.308	-1.7	
Vinyl chloride	*	1.577	1.456	7.7	*
Chloroethane		1.301	1.002	23.0	
Methylene chloride		1.630	1.520	6.7	
Acetone		0.811	0.704	13.2	
Carbon disulfide		2.024	4.795	-99.9	
1,1-Dichloroethene	*	1.324	1.380	-4.2	*
1,1-Dichloroethane	#	3.240	2.799	13.6	#
1,2-Dichloroethene (total)					
Chloroform	*	2.980	2.954	0.9	*
1,2-Dichloroethane		0.531	0.485	8.7	
2-Butanone		0.179	0.160	10.6	
1,1,1-Trichloroethane		2.767	2.896	-4.7	
Carbon tetrachloride		0.508	0.596	-17.3	
Vinyl acetate		3.649	2.876	21.2	
Bromodichloromethane		0.526	0.536	-1.9	
1,2-Dichloropropane	*	0.315	0.291	7.6	*
cis-1,3-Dichloropropene		0.665	0.644	3.2	
Trichloroethene		0.406	0.459	-13.0	
Dibromochloromethane		0.888	1.100	-23.9	
1,1,2-Trichloroethane		0.627	0.669	-6.7	
Benzene		1.020	0.999	2.1	
Trans-1,3-dichloropropene		0.783	0.757	3.3	
Bromoform	#	0.712	0.877	-23.2	#
4-Methyl-2-pentanone		0.636	0.377	40.7	
2-Hexanone		0.690	0.440	36.2	
Tetrachloroethene		0.750	0.963	-28.4	
1,1,2,2-Tetrachloroethane	#	0.917	0.818	10.8	#
Toluene	*	2.427	2.422	0.2	*
Chlorobenzene	#	1.515	1.552	-2.4	#
Ethylbenzene	*	0.712	0.844	-18.5	*
Styrene		1.460	1.617	-10.8	
o & p xylenes		0.806	0.960	-19.1	
m-Xylene		1.182	2.024	-71.2	
Toluene-d8		0.992	1.146	-15.5	
Bromofluorobenzene		0.983	1.111	-13.0	
1,2-Dichloroethane-d4		0.430	0.450	-4.7	

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Instrument ID: _____ Calibration date: 05/01/90 Time: 859

Lab File ID: Y1249 Init. Calib. Date(s): 04/25/90 04/25/90

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Chloromethane	#	2.174	1.449	33.4	#
Bromomethane		1.286	1.146	10.9	
Vinyl chloride	*	1.577	1.242	21.2	*
Chloroethane		1.301	0.879	32.4	
Methylene chloride		1.630	1.398	14.2	
Acetone		0.811	0.543	33.0	
Carbon disulfide		2.024	4.293	-99.9	
1,1-Dichloroethene	*	1.324	1.231	7.0	*
1,1-Dichloroethane	#	3.240	2.562	20.9	#
1,2-Dichloroethene (total)					
Chloroform	*	2.980	2.706	9.2	*
1,2-Dichloroethane		0.531	0.406	23.5	
2-Butanone		0.179	0.123	31.3	
1,1,1-Trichloroethane		2.767	2.563	7.4	
Carbon tetrachloride		0.508	0.582	-14.6	
Vinyl acetate		3.649	2.566	29.7	
Bromodichloromethane		0.526	0.497	5.5	
1,2-Dichloropropane	*	0.315	0.280	11.1	*
cis-1,3-Dichloropropene		0.665	0.608	8.6	
Trichloroethene		0.406	0.446	-9.9	
Dibromochloromethane		0.888	1.099	-23.8	
1,1,2-Trichloroethane		0.627	0.654	-4.3	
Benzene		1.020	0.925	9.3	
Trans-1,3-dichloropropene		0.783	0.689	12.0	
Bromoform	#	0.712	0.867	-21.8	#
4-Methyl-2-pentanone		0.636	0.359	43.6	
2-Hexanone		0.690	0.384	44.4	
Tetrachloroethene		0.750	0.953	-27.1	
1,1,2,2-Tetrachloroethane	#	0.917	0.789	14.0	#
Toluene	*	2.427	2.286	5.8	*
Chlorobenzene	#	1.515	1.521	-0.4	#
Ethylbenzene	*	0.712	0.841	-18.1	*
Styrene		1.460	1.588	-8.8	
o & p xylenes		0.806	0.952	-18.1	
m-Xylene		1.182	1.250	-5.8	
Toluene-d8		0.992	1.116	-12.5	
Bromofluorobenzene		0.983	1.040	-5.8	
1,2-Dichloroethane-d4		0.430	0.445	-3.5	

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Instrument ID: U Calibration date: 05/02/90 Time: 808

Lab File ID: U3462 Init. Calib. Date(s): 04/30/90 04/30/90

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) PACK

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Chloromethane	#	3.230	1.440	55.4	#
Bromomethane		1.638	1.059	35.4	
Vinyl chloride	*	2.415	1.035	57.1	*
Chloroethane		1.736	0.750	56.8	
Methylene chloride		3.058	1.597	47.8	
Acetone		0.740	0.838	-13.2	
Carbon disulfide		1.245	3.745	-99.9	
1,1-Dichloroethene	*	2.839	1.312	53.8	*
1,1-Dichloroethane	#	5.037	2.737	45.7	#
1,2-Dichloroethene (total)		2.997	1.402	53.2	
Chloroform	*	4.562	2.434	46.6	*
1,2-Dichloroethane		2.355	1.435	39.1	
2-Butanone		0.456	0.345	24.3	
1,1,1-Trichloroethane		0.710	0.334	53.0	
Carbon tetrachloride		0.638	0.274	57.0	
Vinyl acetate		1.088	0.879	19.2	
Bromodichloromethane		0.928	0.470	49.4	
1,2-Dichloropropane	*	0.871	0.453	48.0	*
cis-1,3-Dichloropropene		1.329	0.672	49.4	
Trichloroethene		0.889	0.390	56.1	
Dibromochloromethane		0.877	0.374	57.4	
1,1,2-Trichloroethane		0.751	0.366	51.3	
Benzene		1.945	0.975	49.9	
Trans-1,3-dichloropropene		0.626	0.313	50.0	
Bromoform	#	0.717	0.294	59.0	#
4-Methyl-2-pentanone		1.533	0.873	43.0	
2-Hexanone		1.273	0.768	39.7	
Tetrachloroethene		0.732	0.332	54.6	
1,1,2,2-Tetrachloroethane	#	1.631	0.885	45.7	#
Toluene	*	1.466	0.712	51.4	*
Chlorobenzene	#	1.901	0.903	52.5	#
Ethylbenzene	*	0.952	0.443	53.5	*
Styrene		1.952	0.878	55.0	
o & p xylenes		1.045	0.492	52.9	
m-Xylene		1.183	0.605	48.9	
Toluene-d8		2.278	1.257	44.8	
Bromofluorobenzene		1.565	0.825	47.3	
1,2-Dichloroethane-d4		2.200	1.434	34.8	

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Instrument ID: U Calibration date: 05/10/90 Time: 931

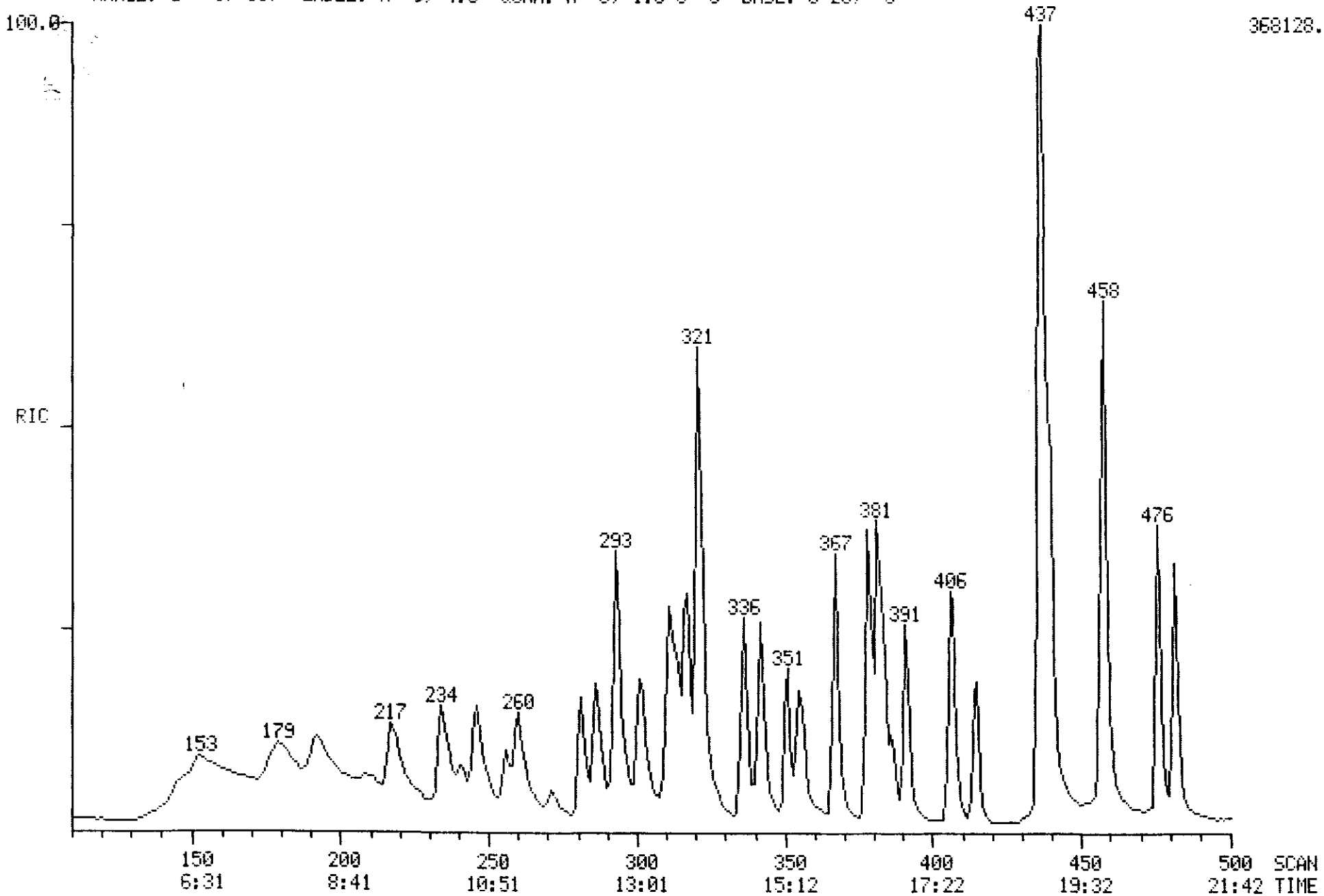
Lab File ID: U3579 Init. Calib. Date(s): 05/08/90 05/08/90

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) PACK

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Chloromethane	#	0.920	0.844	8.3	#
Bromomethane		1.104	1.293	-17.1	
Vinyl chloride	*	1.070	1.068	0.2	*
Chloroethane		0.688	0.787	-14.4	
Methylene chloride		1.139	1.132	0.6	
Acetone		0.436	0.496	-13.8	
Carbon disulfide		2.373	1.921	19.0	
1,1-Dichloroethene	*	1.074	0.893	16.8	*
1,1-Dichloroethane	#	2.028	1.823	10.1	#
1,2-Dichloroethene (total)		1.181	1.063	10.0	
Chloroform	*	2.728	2.605	4.5	*
1,2-Dichloroethane		2.095	2.225	-6.2	
2-Butanone		0.179	0.214	-19.6	
1,1,1-Trichloroethane		0.585	0.563	3.8	
Carbon tetrachloride		0.525	0.537	-2.3	
Vinyl acetate		0.601	0.511	15.0	
Bromodichloromethane		0.626	0.617	1.4	
1,2-Dichloropropane	*	0.313	0.279	10.9	*
cis-1,3-Dichloropropene		0.624	0.577	7.5	
Trichloroethene		0.401	0.381	5.0	
Dibromochloromethane		0.534	0.601	-12.6	
1,1,2-Trichloroethane		0.342	0.367	-7.3	
Benzene		0.763	0.728	4.6	
Trans-1,3-dichloropropene		0.363	0.351	3.3	
Bromoform	#	0.459	0.507	-10.5	#
4-Methyl-2-pentanone		0.547	0.473	13.5	
2-Hexanone		0.478	0.431	9.8	
Tetrachloroethene		0.353	0.357	-1.1	
1,1,2,2-Tetrachloroethane	#	0.745	0.748	-0.4	#
Toluene	*	0.654	0.573	12.4	*
Chlorobenzene	#	0.900	0.836	7.1	#
Ethylbenzene	*	0.454	0.399	12.1	*
Styrene		0.882	0.776	12.0	
o & p xylenes		0.515	0.470	8.7	
m-Xylene		0.560	0.497	11.2	
Toluene-d8		1.094	1.133	-3.6	
Bromofluorobenzene		0.854	0.898	-5.2	
1,2-Dichloroethane-d4		1.901	2.222	-16.9	

04/25/90 14:02:00 CALI: CALTAB #3
SAMPLE: CLP,,,VSTD020,L,W,22542,V,IC-020,,,5ML
CONDS.: INST Y:RTX-502.2 20C(.5) TO 220C @10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100286

Quantitation Report File: Y1142

Data: Y1142.TI
04/25/90 14:02:00
Sample: CLP,,,VSTD020,L,W,22542,V,IC-020,,,5ML
Conds.: INST Y:RTX-502.2 20C(.5) TO 220C 010C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C245 STYRENE
38	C250 O&P XYLENES
39	C065 1,2-DICHLOROETHANE
40	C054 TRANS-1,2-DICHLOROETHENE
41	C055 CIS-1,2-DICHLOROETHENE
42	C240 ETHYLBENZENE
43	C251 M-XYLENE

Y1142

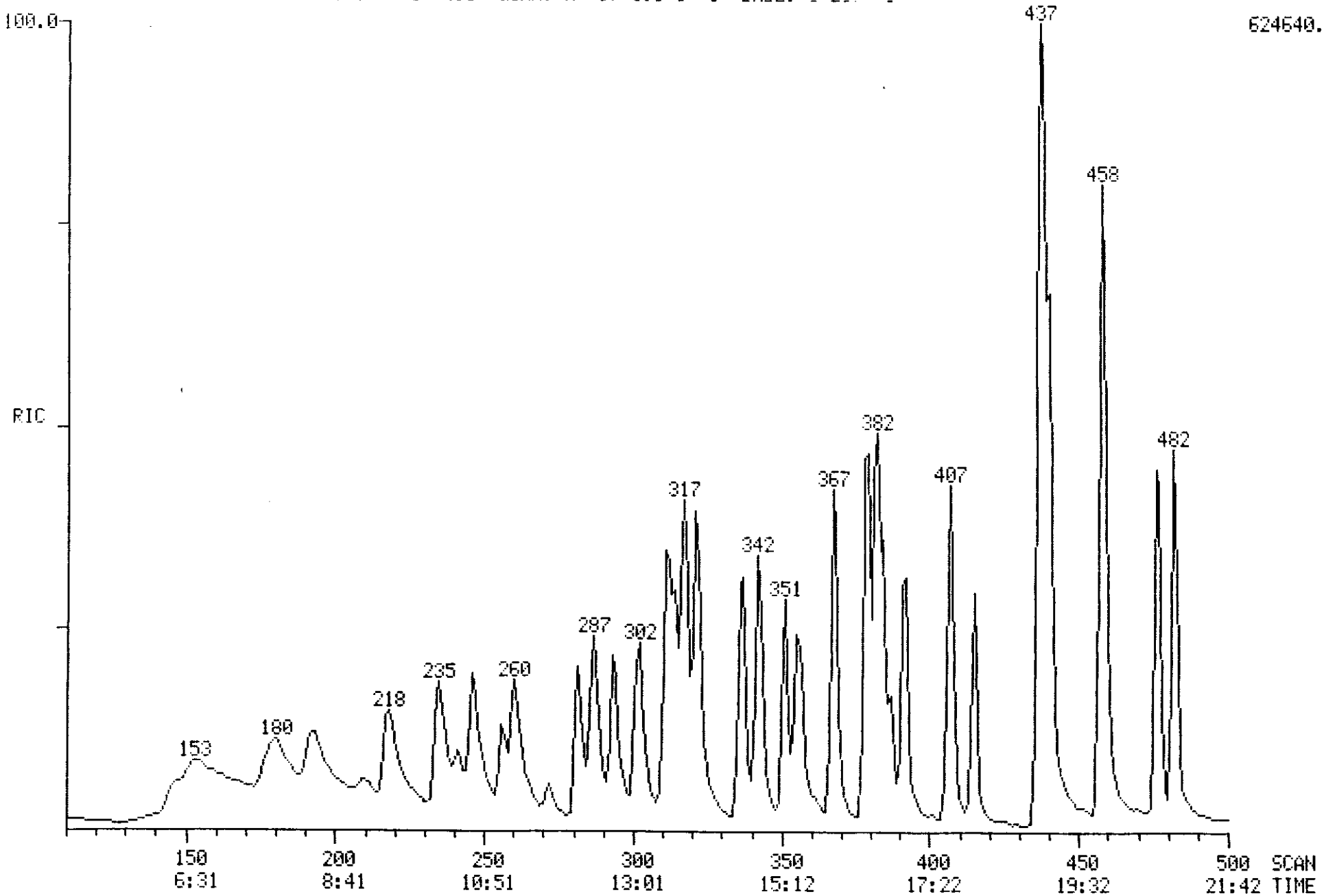
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	293	12:43	1	1.000	A BB	58044.	50.000 UG/L*	5.26
2	114	321	13:56	2	1.000	A BB	247508.	50.000 UG/L*	5.26
3	82	436	18:56	3	1.000	A BB	120993.	50.000 UG/L*	5.26
4	65	311	13:30	2	0.969	A BB	52088.	20.000 UG/L%	2.11
5	98	378	16:25	2	1.178	A BV	122502.	20.000 UG/L%	2.11
6	95	482	20:56	3	1.106	A VB	54924.	20.000 UG/L%	2.11
7	50	147	6:23	1	0.502	A BB	60076.	20.000 UG/L	2.11
8	94	178	7:44	1	0.608	A BV	32903.	20.000 UG/L	2.11
9	62	154	6:41	1	0.526	A BB	49621.	20.000 UG/L	2.11
10	64	180	7:49	1	0.614	A BB	32186.	20.000 UG/L	2.11
11	84	234	10:10	1	0.799	A BB	45013.	20.000 UG/L	2.11
12	43	210	9:07	1	0.717	A BB	15056.	20.000 UG/L	2.11
13	76	241	10:28	1	0.823	A BB	50709.	20.000 UG/L	2.11
14	96	217	9:25	1	0.741	A BB	32713.	20.000 UG/L	2.11
15	63	260	11:17	1	0.887	A VB	85819.	20.000 UG/L	2.11
16	83	286	12:25	1	0.976	A BB	78185.	20.000 UG/L	2.11
17	97	301	13:04	1	1.027	A BB	72561.	20.000 UG/L	2.11
18	72	271	11:46	1	0.925	A BB	4430.	20.000 UG/L	2.11
19	117	311	13:30	2	0.969	A VV	58345.	20.000 UG/L	2.11
20	43	256	11:07	1	0.874	A BB	91312.	20.000 UG/L	2.11
21	83	351	15:14	2	1.093	A BB	61783.	20.000 UG/L	2.11
22	63	342	14:51	2	1.065	A BB	37825.	20.000 UG/L	2.11
23	75	367	15:56	2	1.143	A BB	75838.	20.000 UG/L	2.11
24	130	336	14:35	2	1.047	A BV	46995.	20.000 UG/L	2.11
25	129	415	18:01	3	0.952	A VB	50987.	20.000 UG/L	2.11
26	97	391	16:59	3	0.897	A BB	35255.	20.000 UG/L	2.11
27	78	317	13:46	2	0.988	A VB	123886.	20.000 UG/L	2.11
28	75	384	16:40	3	0.881	A VB	38906.	20.000 UG/L	2.11
29	63	354	15:22	2	1.103	A VV	21757.	20.000 UG/L	2.11
30	173	476	20:40	3	1.092	A BB	37491.	20.000 UG/L	2.11
31	43	386	16:46	3	0.885	A BB	34307.	20.000 UG/L	2.11
32	43	356	15:27	2	1.109	A BV	72004.	20.000 UG/L	2.11
33	164	406	17:38	3	0.931	A BB	41149.	20.000 UG/L	2.11
34	83	476	20:40	3	1.092	A BB	52487.	20.000 UG/L	2.11
35	91	381	16:33	3	0.874	A BB	140047.	20.000 UG/L	2.11
36	112	438	19:01	3	1.005	A BB	82161.	20.000 UG/L	2.11
37	104	458	19:53	3	1.050	A BB	84325.	20.000 UG/L	2.11
38	106	457	19:50	3	1.048	A BB	47291.	20.000 UG/L	2.11
39	62	314	13:38	2	0.978	A BV	59180.	20.000 UG/L	2.11
40	96	246	10:41	1	0.840	A BB	39049.	20.000 UG/L	2.11
41	96	281	12:12	1	0.959	A BV	43531.	20.000 UG/L	2.11
42	106	437	18:58	3	1.002	M XX	35977.	20.000 UG/L	2.11
43	106	440	19:06	3	1.009	M XX	62515.	20.000 UG/L	2.11

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	20.00	20.00	0.526	0.526	1.00
5	16:25	1.00	1.178	1.00	20.00	20.00	1.237	1.237	1.00
6	20:56	1.00	1.106	1.00	20.00	20.00	1.135	1.135	1.00
7	6:23	1.00	0.502	1.00	20.00	20.00	2.588	2.588	1.00
8	7:44	1.00	0.608	1.00	20.00	20.00	1.417	1.417	1.00
9	6:41	1.00	0.526	1.00	20.00	20.00	2.137	2.137	1.00
10	7:49	1.00	0.614	1.00	20.00	20.00	1.386	1.386	1.00
11	10:10	1.00	0.799	1.00	20.00	20.00	1.939	1.939	1.00

y114 L

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	9:07	1.00	0.717	1.00	20.00	20.00	0.648	0.648	1.00
13	10:28	1.00	0.823	1.00	20.00	20.00	2.184	2.184	1.00
14	9:25	1.00	0.741	1.00	20.00	20.00	1.409	1.409	1.00
15	11:17	1.00	0.887	1.00	20.00	20.00	3.696	3.696	1.00
16	12:25	1.00	0.976	1.00	20.00	20.00	3.368	3.368	1.00
17	13:04	1.00	1.027	1.00	20.00	20.00	3.125	3.125	1.00
18	11:46	1.00	0.925	1.00	20.00	20.00	0.191	0.191	1.00
19	13:30	1.00	0.969	1.00	20.00	20.00	0.589	0.589	1.00
20	11:07	1.00	0.874	1.00	20.00	20.00	3.933	3.933	1.00
21	15:14	1.00	1.093	1.00	20.00	20.00	0.624	0.624	1.00
22	14:51	1.00	1.065	1.00	20.00	20.00	0.382	0.382	1.00
23	15:56	1.00	1.143	1.00	20.00	20.00	0.766	0.766	1.00
24	14:35	1.00	1.047	1.00	20.00	20.00	0.475	0.475	1.00
25	18:01	1.00	0.952	1.00	20.00	20.00	1.054	1.054	1.00
26	16:59	1.00	0.897	1.00	20.00	20.00	0.728	0.728	1.00
27	13:46	1.00	0.988	1.00	20.00	20.00	1.251	1.251	1.00
28	16:40	1.00	0.881	1.00	20.00	20.00	0.804	0.804	1.00
29	15:22	1.00	1.103	1.00	20.00	20.00	0.220	0.220	1.00
30	20:40	1.00	1.092	1.00	20.00	20.00	0.775	0.775	1.00
31	16:46	1.00	0.885	1.00	20.00	20.00	0.709	0.709	1.00
32	15:27	1.00	1.109	1.00	20.00	20.00	0.727	0.727	1.00
33	17:38	1.00	0.931	1.00	20.00	20.00	0.850	0.850	1.00
34	20:40	1.00	1.092	1.00	20.00	20.00	1.084	1.084	1.00
35	16:33	1.00	0.874	1.00	20.00	20.00	2.894	2.894	1.00
36	19:01	1.00	1.005	1.00	20.00	20.00	1.698	1.698	1.00
37	19:53	1.00	1.050	1.00	20.00	20.00	1.742	1.742	1.00
38	19:50	1.00	1.048	1.00	20.00	20.00	0.977	0.977	1.00
39	13:38	1.00	0.978	1.00	20.00	20.00	0.598	0.598	1.00
40	10:41	1.00	0.840	1.00	20.00	20.00	1.682	1.682	1.00
41	12:12	1.00	0.959	1.00	20.00	20.00	1.875	1.875	1.00
42	18:58	1.00	1.002	1.00	20.00	20.00	0.743	0.743	1.00
43	19:06	1.00	1.009	1.00	20.00	20.00	1.292	1.292	1.00

04/25/90 10:23:00 CALI: Y1138 #3
SAMPLE: CLP,,,VSTD050,L,W,22536,V,CC-050,,,5ML
CONDS.: INST Y:RTX-502.2 20C(.5) TO 220C @10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100290

Quantitation Report File: Y1138

Data: Y1138.TI
04/25/90 10:23:00
Sample: CLP,,,VSTD050,L,W,22536,V,CC-050,,,5ML
Conds.: INST Y:RTX-502.2 20C(.5) TO 220C @10C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C245 STYRENE
38	C250 O&P XYLENES
39	C065 1,2-DICHLOROETHANE
40	C054 TRANS-1,2-DICHLOROETHENE
41	C055 CIS-1,2-DICHLOROETHENE
42	C240 ETHYLBENZENE
43	C251 M-XYLENE

y1138

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	293	12:43	1	1.000	A BB	57413.	50.000 UG/L*	2.33
2	114	321	13:56	2	1.000	A BB	251966.	50.000 UG/L*	2.33
3	82	436	18:56	3	1.000	A BB	123104.	50.000 UG/L*	2.33
4	65	311	13:30	2	0.969	A BV	126228.	50.000 UG/L%	2.33
5	98	378	16:25	2	1.178	A BV	297548.	50.000 UG/L%	2.33
6	95	482	20:56	3	1.106	A VB	135105.	50.000 UG/L%	2.33
7	50	148	6:26	1	0.505	A BB	147155.	50.000 UG/L	2.33
8	94	178	7:44	1	0.608	A BB	81897.	50.000 UG/L	2.33
9	62	154	6:41	1	0.526	A BB	102855.	50.000 UG/L	2.33
10	64	180	7:49	1	0.614	A BB	82956.	50.000 UG/L	2.33
11	84	235	10:12	1	0.802	A BB	100623.	50.000 UG/L	2.33
12	43	210	9:07	1	0.717	A BB	51036.	50.000 UG/L	2.33
13	76	241	10:28	1	0.823	A BB	123945.	50.000 UG/L	2.33
14	96	218	9:28	1	0.744	A BB	78894.	50.000 UG/L	2.33
15	63	261	11:20	1	0.891	A BB	199282.	50.000 UG/L	2.33
16	83	287	12:28	1	0.980	A BB	184196.	50.000 UG/L	2.33
17	97	302	13:07	1	1.031	A BB	168064.	50.000 UG/L	2.33
18	72	272	11:49	1	0.928	A BV	11719.	50.000 UG/L	2.33
19	117	312	13:33	2	0.972	A VB	130458.	50.000 UG/L	2.33
20	43	256	11:07	1	0.874	A BB	225644.	50.000 UG/L	2.33
21	83	351	15:14	2	1.093	A BB	145285.	50.000 UG/L	2.33
22	63	342	14:51	2	1.065	A BB	88310.	50.000 UG/L	2.33
23	75	367	15:56	2	1.143	A BB	184355.	50.000 UG/L	2.33
24	130	336	14:35	2	1.047	A BB	109120.	50.000 UG/L	2.33
25	129	415	18:01	3	0.952	A VB	119650.	50.000 UG/L	2.33
26	97	391	16:59	3	0.897	A BV	82544.	50.000 UG/L	2.33
27	78	317	13:46	2	0.988	A BB	279933.	50.000 UG/L	2.33
28	75	384	16:40	3	0.881	A BB	100189.	50.000 UG/L	2.33
29	63	355	15:25	2	1.106	A VV	52993.	50.000 UG/L	2.33
30	173	476	20:40	3	1.092	A BV	89339.	50.000 UG/L	2.33
31	43	387	16:48	3	0.888	A BV	86895.	50.000 UG/L	2.33
32	43	356	15:27	2	1.109	A BV	174843.	50.000 UG/L	2.33
33	164	407	17:40	3	0.933	A BB	95048.	50.000 UG/L	2.33
34	83	476	20:40	3	1.092	A BB	116815.	50.000 UG/L	2.33
35	91	382	16:35	3	0.876	A BB	312037.	50.000 UG/L	2.33
36	112	438	19:01	3	1.005	A BB	184445.	50.000 UG/L	2.33
37	104	459	19:56	3	1.053	A BB	178602.	50.000 UG/L	2.33
38	106	458	19:53	3	1.050	A BB	100405.	50.000 UG/L	2.33
39	62	314	13:38	2	0.978	A BB	154286.	50.000 UG/L	2.33
40	96	246	10:41	1	0.840	A BB	86086.	50.000 UG/L	2.33
41	96	281	12:12	1	0.959	A BV	93285.	50.000 UG/L	2.33
42	106	437	18:58	3	1.002	M XX	80322.	50.000 UG/L	2.33
43	106	440	19:06	3	1.009	M XX	153731.	50.000 UG/L	2.33

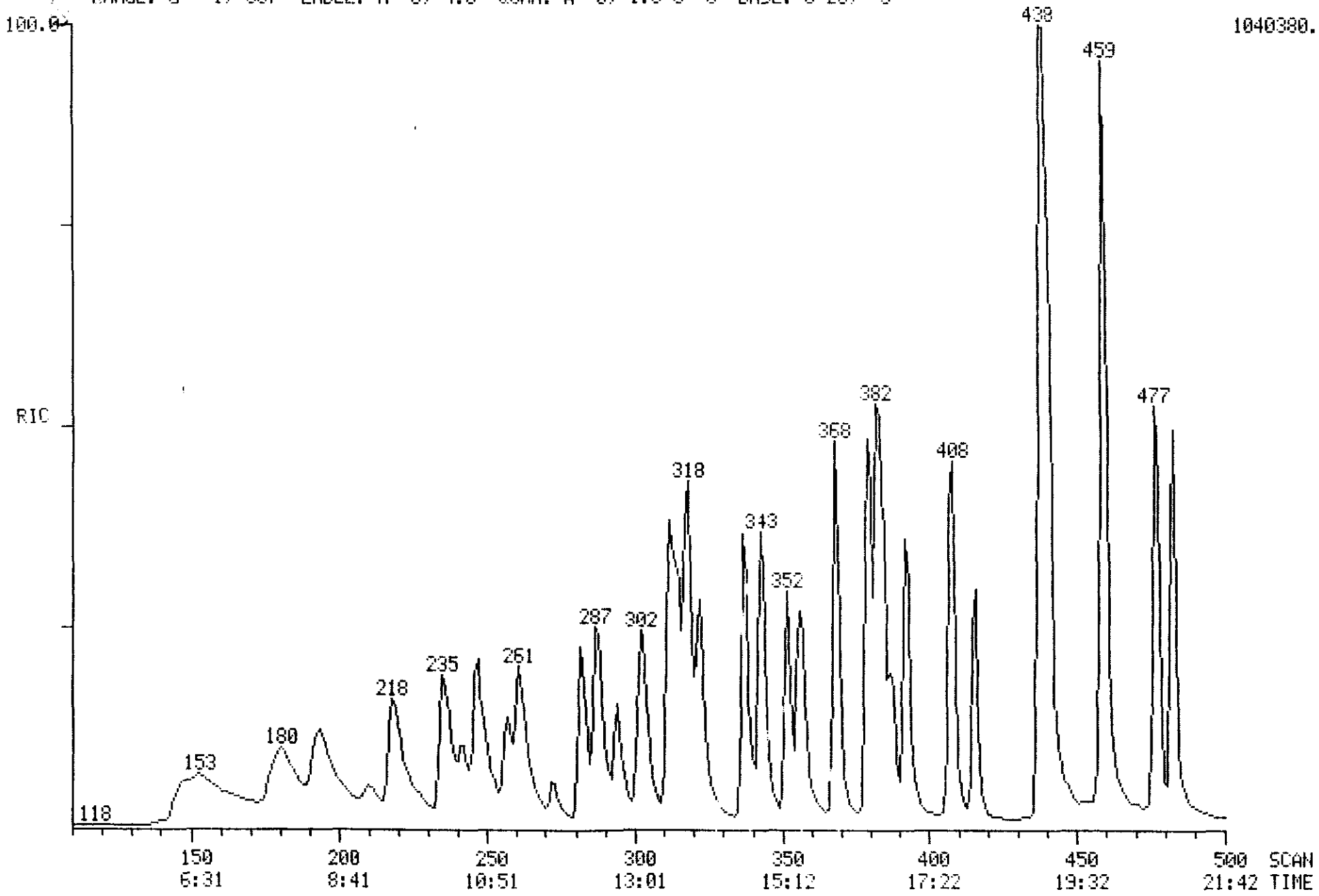
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	50.00	50.00	0.501	0.501	1.00
5	16:25	1.00	1.178	1.00	50.00	50.00	1.181	1.181	1.00
6	20:56	1.00	1.106	1.00	50.00	50.00	1.097	1.097	1.00
7	6:26	1.00	0.505	1.00	50.00	50.00	2.563	2.563	1.00
8	7:44	1.00	0.608	1.00	50.00	50.00	1.426	1.426	1.00
9	6:41	1.00	0.526	1.00	50.00	50.00	1.791	1.791	1.00
10	7:49	1.00	0.614	1.00	50.00	50.00	1.445	1.445	1.00
11	10:12	1.00	0.802	1.00	50.00	50.00	1.753	1.753	1.00

100292

Y1138

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	9:07	1.00	0.717	1.00	50.00	50.00	0.889	0.889	1.00
13	10:28	1.00	0.823	1.00	50.00	50.00	2.159	2.159	1.00
14	9:28	1.00	0.744	1.00	50.00	50.00	1.374	1.374	1.00
15	11:20	1.00	0.891	1.00	50.00	50.00	3.471	3.471	1.00
16	12:28	1.00	0.980	1.00	50.00	50.00	3.208	3.208	1.00
17	13:07	1.00	1.031	1.00	50.00	50.00	2.927	2.927	1.00
18	11:49	1.00	0.928	1.00	50.00	50.00	0.204	0.204	1.00
19	13:33	1.00	0.972	1.00	50.00	50.00	0.518	0.518	1.00
20	11:07	1.00	0.874	1.00	50.00	50.00	3.930	3.930	1.00
21	15:14	1.00	1.093	1.00	50.00	50.00	0.577	0.577	1.00
22	14:51	1.00	1.065	1.00	50.00	50.00	0.350	0.350	1.00
23	15:56	1.00	1.143	1.00	50.00	50.00	0.732	0.732	1.00
24	14:35	1.00	1.047	1.00	50.00	50.00	0.433	0.433	1.00
25	18:01	1.00	0.952	1.00	50.00	50.00	0.972	0.972	1.00
26	16:59	1.00	0.897	1.00	50.00	50.00	0.671	0.671	1.00
27	13:46	1.00	0.988	1.00	50.00	50.00	1.111	1.111	1.00
28	16:40	1.00	0.881	1.00	50.00	50.00	0.814	0.814	1.00
29	15:25	1.00	1.106	1.00	50.00	50.00	0.210	0.210	1.00
30	20:40	1.00	1.092	1.00	50.00	50.00	0.726	0.726	1.00
31	16:48	1.00	0.888	1.00	50.00	50.00	0.706	0.706	1.00
32	15:27	1.00	1.109	1.00	50.00	50.00	0.694	0.694	1.00
33	17:40	1.00	0.933	1.00	50.00	50.00	0.772	0.772	1.00
34	20:40	1.00	1.092	1.00	50.00	50.00	0.949	0.949	1.00
35	16:35	1.00	0.876	1.00	50.00	50.00	2.535	2.535	1.00
36	19:01	1.00	1.005	1.00	50.00	50.00	1.498	1.498	1.00
37	19:56	1.00	1.053	1.00	50.00	50.00	1.451	1.451	1.00
38	19:53	1.00	1.050	1.00	50.00	50.00	0.816	0.816	1.00
39	13:38	1.00	0.978	1.00	50.00	50.00	0.612	0.612	1.00
40	10:41	1.00	0.840	1.00	50.00	50.00	1.499	1.499	1.00
41	12:12	1.00	0.959	1.00	50.00	50.00	1.625	1.625	1.00
42	18:58	1.00	1.002	1.00	50.00	50.00	0.652	0.652	1.00
43	19:06	1.00	1.009	1.00	50.00	50.00	1.249	1.249	1.00

04/25/90 13:25:00 CALI: Y1141 #3
SAMPLE: CLP,,,VSTD100,L,W,22541,V,IC-100,,,5ML
CONDS.: INST Y:RTX-502.2 20C(.5) TO 220C @10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100294

Quantitation Report File: Y1141

Data: Y1141.TI
04/25/90 13:25:00
Sample: CLP,,,VSTD100,L,W,22541,V,IC-100,,,5ML
Conds.: INST Y:RTX-502.2 20C(.5) TO 220C 010C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C245 STYRENE
38	C250 O&P XYLENES
39	C065 1,2-DICHLOROETHANE
40	C054 TRANS-1,2-DICHLOROETHENE
41	C055 CIS-1,2-DICHLOROETHENE
42	C240 ETHYLBENZENE
43	C251 M-XYLENE

y1141

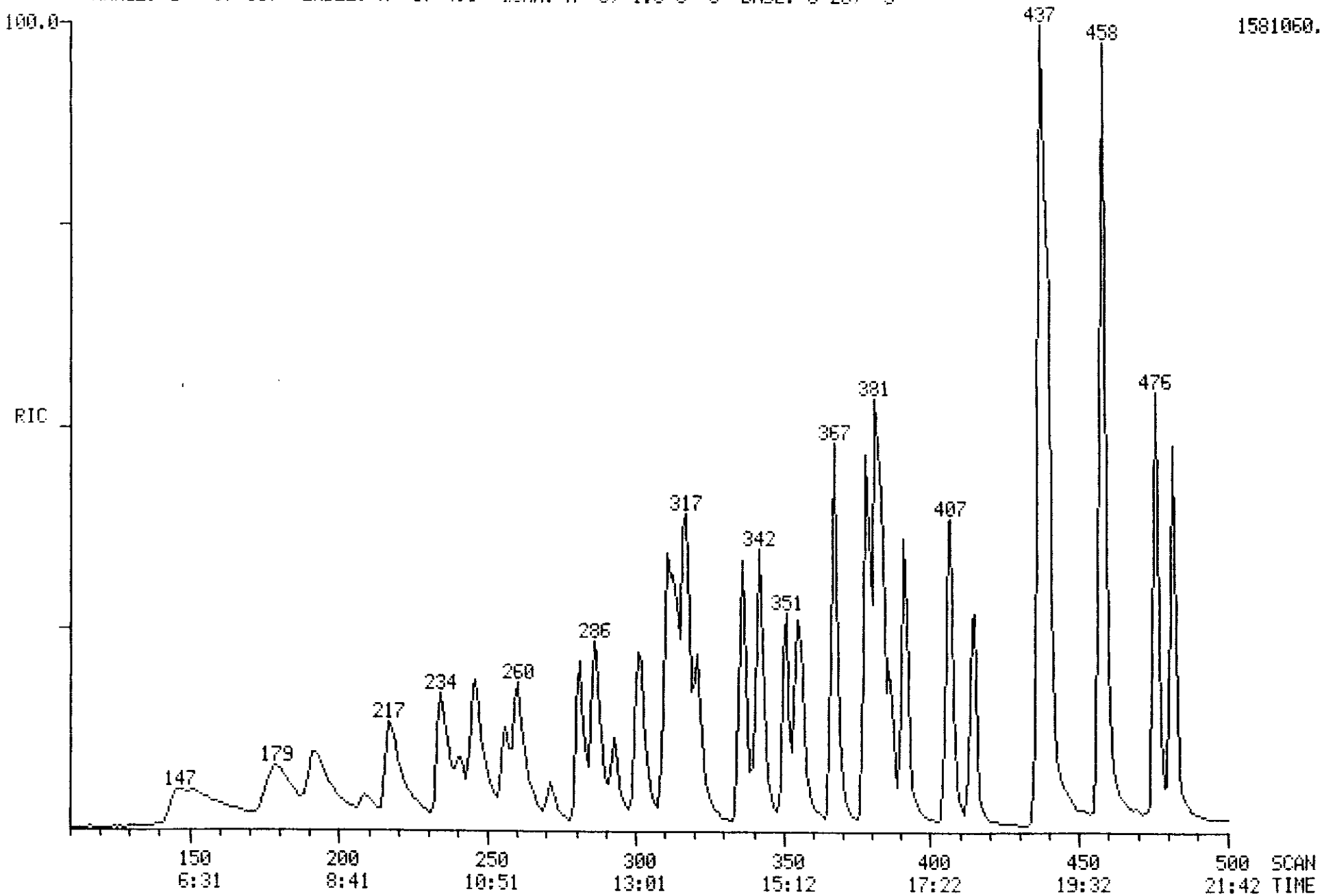
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	294	12:46	1	1.000	A BB	59933.	50.000	UG/L*	1.20
2	114	322	13:59	2	1.000	A BB	259859.	50.000	UG/L*	1.20
3	82	437	18:58	3	1.000	A BV	118153.	50.000	UG/L*	1.20
4	65	312	13:33	2	0.969	A BB	209386.	100.000	UG/L%	2.41
5	98	379	16:27	2	1.177	A BV	476892.	100.000	UG/L%	2.41
6	95	483	20:58	3	1.105	A VB	229294.	100.000	UG/L%	2.41
7	50	148	6:26	1	0.503	A BB	264487.	100.000	UG/L	2.41
8	94	178	7:44	1	0.605	A BB	155752.	100.000	UG/L	2.41
9	62	154	6:41	1	0.524	A BB	181852.	100.000	UG/L	2.41
10	64	181	7:52	1	0.616	A BB	157129.	100.000	UG/L	2.41
11	84	235	10:12	1	0.799	A BB	185418.	100.000	UG/L	2.41
12	43	210	9:07	1	0.714	A BB	110588.	100.000	UG/L	2.41
13	76	242	10:30	1	0.823	A BB	243679.	100.000	UG/L	2.41
14	96	218	9:28	1	0.741	A BB	161129.	100.000	UG/L	2.41
15	63	261	11:20	1	0.888	A BB	372589.	100.000	UG/L	2.41
16	83	287	12:28	1	0.976	A BB	342066.	100.000	UG/L	2.41
17	97	302	13:07	1	1.027	A BB	322775.	100.000	UG/L	2.41
18	72	272	11:49	1	0.925	A BV	20501.	100.000	UG/L	2.41
19	117	313	13:35	2	0.972	A VB	263647.	100.000	UG/L	2.41
20	43	257	11:09	1	0.874	A BB	411181.	100.000	UG/L	2.41
21	83	352	15:17	2	1.093	A BV	258440.	100.000	UG/L	2.41
22	63	343	14:54	2	1.065	A BB	156262.	100.000	UG/L	2.41
23	75	368	15:59	2	1.143	A BB	324313.	100.000	UG/L	2.41
24	130	337	14:38	2	1.047	A BB	205327.	100.000	UG/L	2.41
25	129	416	18:04	3	0.952	A VB	205558.	100.000	UG/L	2.41
26	97	392	17:01	3	0.897	A BV	148329.	100.000	UG/L	2.41
27	78	318	13:48	2	0.988	A BB	506486.	100.000	UG/L	2.41
28	75	385	16:43	3	0.881	A VB	185040.	100.000	UG/L	2.41
29	63	356	15:27	2	1.106	A VV	94874.	100.000	UG/L	2.41
30	173	477	20:43	3	1.092	A BB	169989.	100.000	UG/L	2.41
31	43	388	16:51	3	0.888	A VB	165307.	100.000	UG/L	2.41
32	43	357	15:30	2	1.109	A BB	321370.	100.000	UG/L	2.41
33	164	407	17:40	3	0.931	A BB	180270.	100.000	UG/L	2.41
34	83	477	20:43	3	1.092	A BV	211994.	100.000	UG/L	2.41
35	91	382	16:35	3	0.874	A BB	557577.	100.000	UG/L	2.41
36	112	439	19:04	3	1.005	A BB	353745.	100.000	UG/L	2.41
37	104	459	19:56	3	1.050	A BB	344748.	100.000	UG/L	2.41
38	106	459	19:56	3	1.050	A BB	182533.	100.000	UG/L	2.41
39	62	315	13:41	2	0.978	A BB	263010.	100.000	UG/L	2.41
40	96	247	10:43	1	0.840	A BB	174210.	100.000	UG/L	2.41
41	96	282	12:15	1	0.959	A BV	179779.	100.000	UG/L	2.41
42	106	438	19:01	3	1.002	M XX	164198.	100.000	UG/L	2.41
43	106	441	19:09	3	1.009	M XX	285058.	100.000	UG/L	2.41

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:46	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:59	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:33	1.00	0.969	1.00	100.00	100.00	0.403	0.403	1.00
5	16:27	1.00	1.177	1.00	100.00	100.00	0.918	0.918	1.00
6	20:58	1.00	1.105	1.00	100.00	100.00	0.970	0.970	1.00
7	6:26	1.00	0.503	1.00	100.00	100.00	2.207	2.207	1.00
8	7:44	1.00	0.605	1.00	100.00	100.00	1.299	1.299	1.00
9	6:41	1.00	0.524	1.00	100.00	100.00	1.517	1.517	1.00
10	7:52	1.00	0.616	1.00	100.00	100.00	1.311	1.311	1.00
11	10:12	1.00	0.799	1.00	100.00	100.00	1.547	1.547	1.00

y1141

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	9:07	1.00	0.714	1.00	100.00	100.00	0.923	0.923	1.00
13	10:30	1.00	0.823	1.00	100.00	100.00	2.033	2.033	1.00
14	9:28	1.00	0.741	1.00	100.00	100.00	1.344	1.344	1.00
15	11:20	1.00	0.888	1.00	100.00	100.00	3.108	3.108	1.00
16	12:28	1.00	0.976	1.00	100.00	100.00	2.854	2.854	1.00
17	13:07	1.00	1.027	1.00	100.00	100.00	2.693	2.693	1.00
18	11:49	1.00	0.925	1.00	100.00	100.00	0.171	0.171	1.00
19	13:35	1.00	0.972	1.00	100.00	100.00	0.507	0.507	1.00
20	11:09	1.00	0.874	1.00	100.00	100.00	3.430	3.430	1.00
21	15:17	1.00	1.093	1.00	100.00	100.00	0.497	0.497	1.00
22	14:54	1.00	1.065	1.00	100.00	100.00	0.301	0.301	1.00
23	15:59	1.00	1.143	1.00	100.00	100.00	0.624	0.624	1.00
24	14:38	1.00	1.047	1.00	100.00	100.00	0.395	0.395	1.00
25	18:04	1.00	0.952	1.00	100.00	100.00	0.870	0.870	1.00
26	17:01	1.00	0.897	1.00	100.00	100.00	0.628	0.628	1.00
27	13:48	1.00	0.988	1.00	100.00	100.00	0.975	0.975	1.00
28	16:43	1.00	0.881	1.00	100.00	100.00	0.783	0.783	1.00
29	15:27	1.00	1.106	1.00	100.00	100.00	0.183	0.183	1.00
30	20:43	1.00	1.092	1.00	100.00	100.00	0.719	0.719	1.00
31	16:51	1.00	0.888	1.00	100.00	100.00	0.700	0.700	1.00
32	15:30	1.00	1.109	1.00	100.00	100.00	0.618	0.618	1.00
33	17:40	1.00	0.931	1.00	100.00	100.00	0.763	0.763	1.00
34	20:43	1.00	1.092	1.00	100.00	100.00	0.897	0.897	1.00
35	16:35	1.00	0.874	1.00	100.00	100.00	2.360	2.360	1.00
36	19:04	1.00	1.005	1.00	100.00	100.00	1.497	1.497	1.00
37	19:56	1.00	1.050	1.00	100.00	100.00	1.459	1.459	1.00
38	19:56	1.00	1.050	1.00	100.00	100.00	0.772	0.772	1.00
39	13:41	1.00	0.978	1.00	100.00	100.00	0.506	0.506	1.00
40	10:43	1.00	0.840	1.00	100.00	100.00	1.453	1.453	1.00
41	12:15	1.00	0.959	1.00	100.00	100.00	1.500	1.500	1.00
42	19:01	1.00	1.002	1.00	100.00	100.00	0.695	0.695	1.00
43	19:09	1.00	1.009	1.00	100.00	100.00	1.206	1.206	1.00

04/25/90 12:50:00 CALI: Y1140 #3
SAMPLE: CLP,,,VSTD150,L,W,22540,V,IC-150,,,5ML
CONDS.: INST Y:RTX-502.2 20C(.5) TO 220C @10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



1C0298

Quantitation Report File: Y1140

Data: Y1140.TI
04/25/90 12:50:00
Sample: CLP,,,VSTD150,L,W,22540,V,IC-150,,,5ML
Conds.: INST Y:RTX-502.2 20C(.5) TO 220C @10C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C245 STYRENE
38	C250 O&P XYLENES
39	C065 1,2-DICHLOROETHANE
40	C054 TRANS-1,2-DICHLOROETHENE
41	C055 CIS-1,2-DICHLOROETHENE
42	C240 ETHYLBENZENE
43	C251 M-XYLENE

y1140

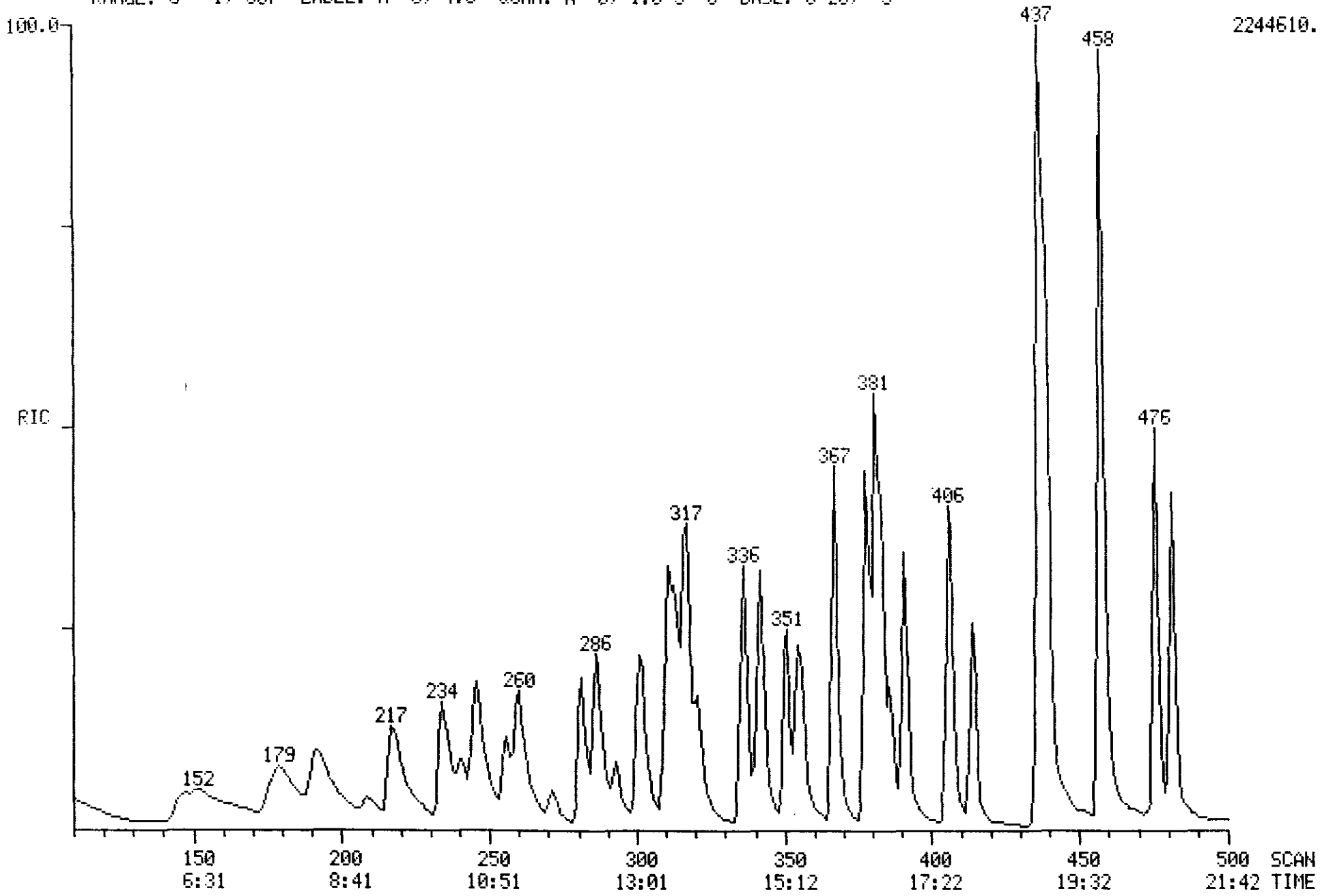
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	293	12:43	1	1.000	A BB	61642.	50.000 UG/L*	0.81
2	114	321	13:56	2	1.000	A BB	275422.	50.000 UG/L*	0.81
3	82	436	18:56	3	1.000	A BB	127232.	50.000 UG/L*	0.81
4	65	310	13:28	2	0.966	A BV	300563.	150.000 UG/L%	2.44
5	98	378	16:25	2	1.178	A BV	661967.	150.000 UG/L%	2.44
6	95	482	20:56	3	1.106	A VB	332172.	150.000 UG/L%	2.44
7	50	148	6:26	1	0.505	A BV	327236.	150.000 UG/L	2.44
8	94	177	7:41	1	0.604	A BB	202508.	150.000 UG/L	2.44
9	62	153	6:39	1	0.522	A BB	210899.	150.000 UG/L	2.44
10	64	180	7:49	1	0.614	A BB	211092.	150.000 UG/L	2.44
11	84	234	10:10	1	0.799	A BB	257230.	150.000 UG/L	2.44
12	43	210	9:07	1	0.717	A BB	144951.	150.000 UG/L	2.44
13	76	241	10:28	1	0.823	A BB	318316.	150.000 UG/L	2.44
14	96	217	9:25	1	0.741	A BB	211630.	150.000 UG/L	2.44
15	63	260	11:17	1	0.887	A VB	529196.	150.000 UG/L	2.44
16	83	286	12:25	1	0.976	A BB	487775.	150.000 UG/L	2.44
17	97	301	13:04	1	1.027	A BB	444686.	150.000 UG/L	2.44
18	72	271	11:46	1	0.925	A BV	31493.	150.000 UG/L	2.44
19	117	312	13:33	2	0.972	A VB	359257.	150.000 UG/L	2.44
20	43	256	11:07	1	0.874	A BB	641783.	150.000 UG/L	2.44
21	83	351	15:14	2	1.093	A BV	376479.	150.000 UG/L	2.44
22	63	342	14:51	2	1.065	A BV	223559.	150.000 UG/L	2.44
23	75	367	15:56	2	1.143	A BB	485584.	150.000 UG/L	2.44
24	130	336	14:35	2	1.047	A BB	287048.	150.000 UG/L	2.44
25	129	414	17:58	3	0.950	A VB	295567.	150.000 UG/L	2.44
26	97	391	16:59	3	0.897	A VB	212335.	150.000 UG/L	2.44
27	78	317	13:46	2	0.988	A BB	711559.	150.000 UG/L	2.44
28	75	384	16:40	3	0.881	A VB	283680.	150.000 UG/L	2.44
29	63	354	15:22	2	1.103	A VV	140151.	150.000 UG/L	2.44
30	173	476	20:40	3	1.092	A BB	257730.	150.000 UG/L	2.44
31	43	386	16:46	3	0.885	A BB	268965.	150.000 UG/L	2.44
32	43	356	15:27	2	1.109	A BB	483624.	150.000 UG/L	2.44
33	164	406	17:38	3	0.931	A BB	249496.	150.000 UG/L	2.44
34	83	476	20:40	3	1.092	A BB	318444.	150.000 UG/L	2.44
35	91	381	16:33	3	0.874	A BB	808449.	150.000 UG/L	2.44
36	112	438	19:01	3	1.005	A BB	524088.	150.000 UG/L	2.44
37	104	458	19:53	3	1.050	A BB	489460.	150.000 UG/L	2.44
38	106	458	19:53	3	1.050	A BB	267562.	150.000 UG/L	2.44
39	62	314	13:38	2	0.978	A BB	384398.	150.000 UG/L	2.44
40	96	246	10:41	1	0.840	A BB	240491.	150.000 UG/L	2.44
41	96	281	12:12	1	0.959	A BV	260000.	150.000 UG/L	2.44
42	106	437	18:58	3	1.002	M XX	258431.	150.000 UG/L	2.44
43	106	440	19:06	3	1.009	M XX	401065.	150.000 UG/L	2.44

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	150.00	150.00	0.364	0.364	1.00
5	16:25	1.00	1.178	1.00	150.00	150.00	0.801	0.801	1.00
6	20:56	1.00	1.106	1.00	150.00	150.00	0.870	0.870	1.00
7	6:26	1.00	0.505	1.00	150.00	150.00	1.770	1.770	1.00
8	7:41	1.00	0.604	1.00	150.00	150.00	1.095	1.095	1.00
9	6:39	1.00	0.522	1.00	150.00	150.00	1.140	1.140	1.00
10	7:49	1.00	0.614	1.00	150.00	150.00	1.141	1.141	1.00
11	10:10	1.00	0.799	1.00	150.00	150.00	1.391	1.391	1.00

Y1140

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	9:07	1.00	0.717	1.00	150.00	150.00	0.784	0.784	1.00
13	10:28	1.00	0.823	1.00	150.00	150.00	1.721	1.721	1.00
14	9:25	1.00	0.741	1.00	150.00	150.00	1.144	1.144	1.00
15	11:17	1.00	0.887	1.00	150.00	150.00	2.862	2.862	1.00
16	12:25	1.00	0.976	1.00	150.00	150.00	2.638	2.638	1.00
17	13:04	1.00	1.027	1.00	150.00	150.00	2.405	2.405	1.00
18	11:46	1.00	0.925	1.00	150.00	150.00	0.170	0.170	1.00
19	13:33	1.00	0.972	1.00	150.00	150.00	0.435	0.435	1.00
20	11:07	1.00	0.874	1.00	150.00	150.00	3.470	3.470	1.00
21	15:14	1.00	1.093	1.00	150.00	150.00	0.456	0.456	1.00
22	14:51	1.00	1.065	1.00	150.00	150.00	0.271	0.271	1.00
23	15:56	1.00	1.143	1.00	150.00	150.00	0.588	0.588	1.00
24	14:35	1.00	1.047	1.00	150.00	150.00	0.347	0.347	1.00
25	17:58	1.00	0.950	1.00	150.00	150.00	0.774	0.774	1.00
26	16:59	1.00	0.897	1.00	150.00	150.00	0.556	0.556	1.00
27	13:46	1.00	0.988	1.00	150.00	150.00	0.861	0.861	1.00
28	16:40	1.00	0.881	1.00	150.00	150.00	0.743	0.743	1.00
29	15:22	1.00	1.103	1.00	150.00	150.00	0.170	0.170	1.00
30	20:40	1.00	1.092	1.00	150.00	150.00	0.675	0.675	1.00
31	16:46	1.00	0.885	1.00	150.00	150.00	0.705	0.705	1.00
32	15:27	1.00	1.109	1.00	150.00	150.00	0.585	0.585	1.00
33	17:38	1.00	0.931	1.00	150.00	150.00	0.654	0.654	1.00
34	20:40	1.00	1.092	1.00	150.00	150.00	0.834	0.834	1.00
35	16:33	1.00	0.874	1.00	150.00	150.00	2.118	2.118	1.00
36	19:01	1.00	1.005	1.00	150.00	150.00	1.373	1.373	1.00
37	19:53	1.00	1.050	1.00	150.00	150.00	1.282	1.282	1.00
38	19:53	1.00	1.050	1.00	150.00	150.00	0.701	0.701	1.00
39	13:38	1.00	0.978	1.00	150.00	150.00	0.465	0.465	1.00
40	10:41	1.00	0.840	1.00	150.00	150.00	1.300	1.300	1.00
41	12:12	1.00	0.959	1.00	150.00	150.00	1.406	1.406	1.00
42	18:58	1.00	1.002	1.00	150.00	150.00	0.677	0.677	1.00
43	19:06	1.00	1.009	1.00	150.00	150.00	1.051	1.051	1.00

04/25/90 11:36:00 CALI: CALTAB #3
SAMPLE: CLP,,,VSTD200,L,W,22539,V,IC-200,,,5ML
CONDS.: INST Y:RTX-502.2 20C(.5) TO 220C @10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



200301

Quantitation Report File: Y1139

Data: Y1139.TI
04/25/90 11:36:00
Sample: CLP,,,VSTD200,L,W,22539,V,IC-200,,,5ML
Conds.: INST Y:RTX-502.2 20C(.5) TO 220C @10C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C245 STYRENE
38	C250 O&P XYLENES
39	C065 1,2-DICHLOROETHANE
40	C054 TRANS-1,2-DICHLOROETHENE
41	C055 CIS-1,2-DICHLOROETHENE
42	C240 ETHYLBENZENE
43	C251 M-XYLENE

Y1139

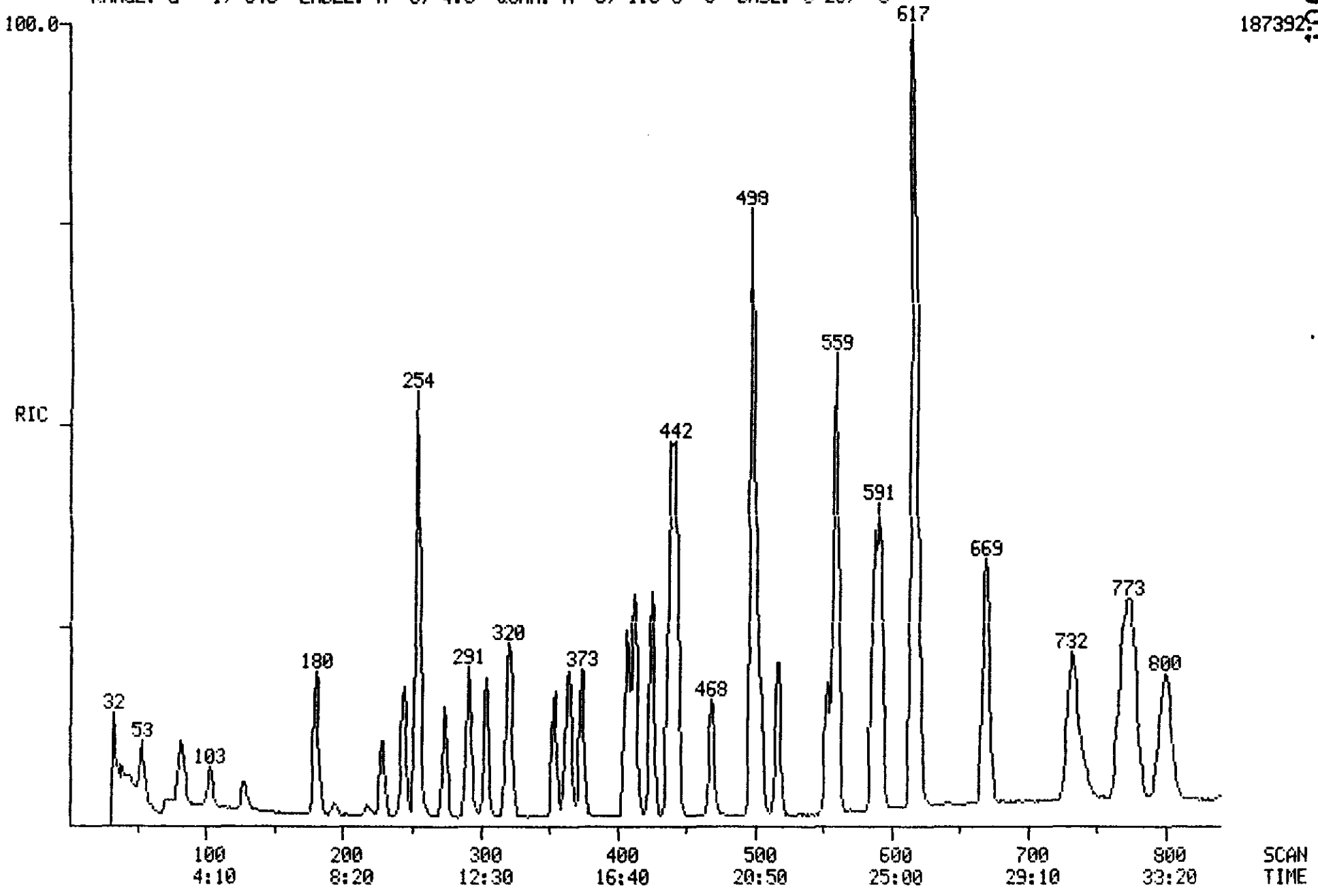
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	293	12:43	1	1.000	A BB	56756.	50.000	UG/L*	0.61
2	114	321	13:56	2	1.000	A BB	260960.	50.000	UG/L*	0.61
3	82	436	18:56	3	1.000	A BV	122833.	50.000	UG/L*	0.61
4	65	310	13:28	2	0.966	A BB	369466.	200.000	UG/L%	2.45
5	98	378	16:25	2	1.178	A BV	857053.	200.000	UG/L%	2.45
6	95	482	20:56	3	1.106	A VB	413025.	200.000	UG/L%	2.45
7	50	147	6:23	1	0.502	A BB	395238.	200.000	UG/L	2.45
8	94	177	7:41	1	0.604	A BB	270844.	200.000	UG/L	2.45
9	62	154	6:41	1	0.526	A BB	295340.	200.000	UG/L	2.45
10	64	180	7:49	1	0.614	A BB	277176.	200.000	UG/L	2.45
11	84	234	10:10	1	0.799	A BB	344744.	200.000	UG/L	2.45
12	43	210	9:07	1	0.717	A BB	184554.	200.000	UG/L	2.45
13	76	241	10:28	1	0.823	A BB	459633.	200.000	UG/L	2.45
14	96	217	9:25	1	0.741	A BB	305740.	200.000	UG/L	2.45
15	63	260	11:17	1	0.887	A VB	695539.	200.000	UG/L	2.45
16	83	286	12:25	1	0.976	A BB	643458.	200.000	UG/L	2.45
17	97	301	13:04	1	1.027	A BB	609874.	200.000	UG/L	2.45
18	72	271	11:46	1	0.925	A BV	35627.	200.000	UG/L	2.45
19	117	311	13:30	2	0.969	A VB	513435.	200.000	UG/L	2.45
20	43	256	11:07	1	0.874	A BB	790172.	200.000	UG/L	2.45
21	83	351	15:14	2	1.093	A BV	496254.	200.000	UG/L	2.45
22	63	342	14:51	2	1.065	A BB	283656.	200.000	UG/L	2.45
23	75	367	15:56	2	1.143	A BB	642935.	200.000	UG/L	2.45
24	130	336	14:35	2	1.047	A BB	394409.	200.000	UG/L	2.45
25	129	414	17:58	3	0.950	A VB	378222.	200.000	UG/L	2.45
26	97	391	16:59	3	0.897	A BB	271655.	200.000	UG/L	2.45
27	78	317	13:46	2	0.988	A BB	939252.	200.000	UG/L	2.45
28	75	383	16:38	3	0.878	A VB	380011.	200.000	UG/L	2.45
29	63	354	15:22	2	1.103	A VB	171999.	200.000	UG/L	2.45
30	173	476	20:40	3	1.092	A BB	326453.	200.000	UG/L	2.45
31	43	386	16:46	3	0.885	A VB	308477.	200.000	UG/L	2.45
32	43	356	15:27	2	1.109	A BV	582465.	200.000	UG/L	2.45
33	164	406	17:38	3	0.931	A BB	349891.	200.000	UG/L	2.45
34	83	476	20:40	3	1.092	A BV	403099.	200.000	UG/L	2.45
35	91	381	16:33	3	0.874	A BB	1095630.	200.000	UG/L	2.45
36	112	438	19:01	3	1.005	A BB	741190.	200.000	UG/L	2.45
37	104	458	19:53	3	1.050	A BB	671093.	200.000	UG/L	2.45
38	106	458	19:53	3	1.050	A BB	374585.	200.000	UG/L	2.45
39	62	314	13:38	2	0.978	A BB	492512.	200.000	UG/L	2.45
40	96	246	10:41	1	0.840	A BB	339020.	200.000	UG/L	2.45
41	96	281	12:12	1	0.959	A BB	323431.	200.000	UG/L	2.45
42	106	437	18:58	3	1.002	M XX	388801.	200.000	UG/L	2.45
43	106	439	19:04	3	1.007	M XX	545692.	200.000	UG/L	2.45

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	200.00	200.00	0.354	0.354	1.00
5	16:25	1.00	1.178	1.00	200.00	200.00	0.821	0.821	1.00
6	20:56	1.00	1.106	1.00	200.00	200.00	0.841	0.841	1.00
7	6:23	1.00	0.502	1.00	200.00	200.00	1.741	1.741	1.00
8	7:41	1.00	0.604	1.00	200.00	200.00	1.193	1.193	1.00
9	6:41	1.00	0.526	1.00	200.00	200.00	1.301	1.301	1.00
10	7:49	1.00	0.614	1.00	200.00	200.00	1.221	1.221	1.00
11	10:10	1.00	0.799	1.00	200.00	200.00	1.519	1.519	1.00

Y1139

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	9:07	1.00	0.717	1.00	200.00	200.00	0.813	0.813	1.00
13	10:28	1.00	0.823	1.00	200.00	200.00	2.025	2.025	1.00
14	9:25	1.00	0.741	1.00	200.00	200.00	1.347	1.347	1.00
15	11:17	1.00	0.887	1.00	200.00	200.00	3.064	3.064	1.00
16	12:25	1.00	0.976	1.00	200.00	200.00	2.834	2.834	1.00
17	13:04	1.00	1.027	1.00	200.00	200.00	2.686	2.686	1.00
18	11:46	1.00	0.925	1.00	200.00	200.00	0.157	0.157	1.00
19	13:30	1.00	0.969	1.00	200.00	200.00	0.492	0.492	1.00
20	11:07	1.00	0.874	1.00	200.00	200.00	3.481	3.481	1.00
21	15:14	1.00	1.093	1.00	200.00	200.00	0.475	0.475	1.00
22	14:51	1.00	1.065	1.00	200.00	200.00	0.272	0.272	1.00
23	15:56	1.00	1.143	1.00	200.00	200.00	0.616	0.616	1.00
24	14:35	1.00	1.047	1.00	200.00	200.00	0.378	0.378	1.00
25	17:58	1.00	0.950	1.00	200.00	200.00	0.770	0.770	1.00
26	16:59	1.00	0.897	1.00	200.00	200.00	0.553	0.553	1.00
27	13:46	1.00	0.988	1.00	200.00	200.00	0.900	0.900	1.00
28	16:38	1.00	0.878	1.00	200.00	200.00	0.773	0.773	1.00
29	15:22	1.00	1.103	1.00	200.00	200.00	0.165	0.165	1.00
30	20:40	1.00	1.092	1.00	200.00	200.00	0.664	0.664	1.00
31	16:46	1.00	0.885	1.00	200.00	200.00	0.628	0.628	1.00
32	15:27	1.00	1.109	1.00	200.00	200.00	0.558	0.558	1.00
33	17:38	1.00	0.931	1.00	200.00	200.00	0.712	0.712	1.00
34	20:40	1.00	1.092	1.00	200.00	200.00	0.820	0.820	1.00
35	16:33	1.00	0.874	1.00	200.00	200.00	2.230	2.230	1.00
36	19:01	1.00	1.005	1.00	200.00	200.00	1.509	1.509	1.00
37	19:53	1.00	1.050	1.00	200.00	200.00	1.366	1.366	1.00
38	19:53	1.00	1.050	1.00	200.00	200.00	0.762	0.762	1.00
39	13:38	1.00	0.978	1.00	200.00	200.00	0.472	0.472	1.00
40	10:41	1.00	0.840	1.00	200.00	200.00	1.493	1.493	1.00
41	12:12	1.00	0.959	1.00	200.00	200.00	1.425	1.425	1.00
42	18:58	1.00	1.002	1.00	200.00	200.00	0.791	0.791	1.00
43	19:04	1.00	1.007	1.00	200.00	200.00	1.111	1.111	1.00

RIC DATA: U3431 #1 SCANS 1 TO 840
04/30/90 19:36:00 CALI: U3431 #2
SAMPLE: CLP,,,VSTD20,L,S,22576,V,IC-020,,,5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



IC0306

Quantitation Report File: U3431

Data: U3431.TI
04/30/90 19:36:00
Sample: CLP,,,VSTD20,L,S,22576,V,IC-020,,,5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.011
Submitted by: VERSAR Analyst: DD Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

43431

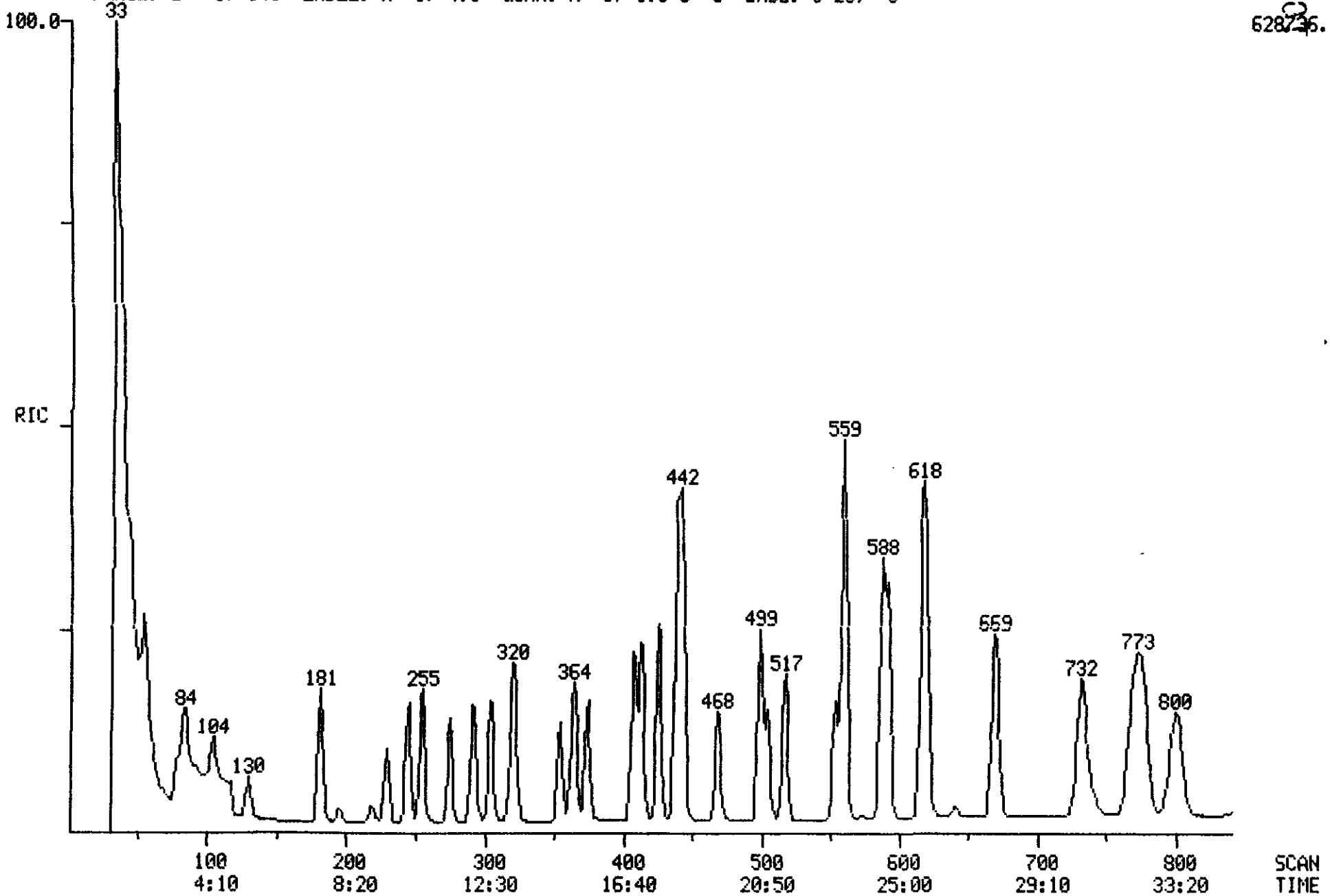
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	254	10:35	1	1.000	A BB	63114.	50.000 UG/L*	5.38
2	50	53	2:12	1	0.209	A BB	29537.	20.000 UG/L	2.15
3	94	82	3:25	1	0.323	A BB	31067.	20.000 UG/L	2.15
4	62	103	4:17	1	0.406	A BB	27495.	20.000 UG/L	2.15
5	64	128	5:20	1	0.504	A BB	17925.	20.000 UG/L	2.15
6	84	180	7:30	1	0.709	A BB	34585.	20.000 UG/L	2.15
7	43	194	8:05	1	0.764	A BB	9644.	20.000 UG/L	2.15
8	76	218	9:05	1	0.858	A BB	11468.	20.000 UG/L	2.15
9	96	244	10:10	1	0.961	A BB	30369.	20.000 UG/L	2.15
10	63	274	11:25	1	1.079	A BB	56963.	20.000 UG/L	2.15
11	96	291	12:07	1	1.146	A BB	36573.	20.000 UG/L	2.15
12	83	304	12:40	1	1.197	A BB	52537.	20.000 UG/L	2.15
13	62	322	13:25	1	1.268	A BB	29261.	20.000 UG/L	2.15
14	65	319	13:17	1	1.256	A BB	25035.	20.000 UG/L%	2.15
15	101	229	9:32	1	0.902	A BB	36815.	20.000 UG/L	2.15
16	114	498	20:45	16	1.000	A BB	288759.	50.000 UG/L*	5.38
17	72	320	13:20	1	1.260	A BB	4771.	20.000 UG/L	2.15
18	43	365	15:12	16	0.733	A BB	58349.	20.000 UG/L	2.15
19	117	363	15:07	16	0.729	A VB	32174.	20.000 UG/L	2.15
20	83	373	15:32	16	0.749	A BB	53020.	20.000 UG/L	2.15
21	63	407	16:57	16	0.817	A BB	45355.	20.000 UG/L	2.15
22	75	412	17:10	16	0.827	A BB	76397.	20.000 UG/L	2.15
23	130	425	17:42	16	0.853	A BB	46620.	20.000 UG/L	2.15
24	78	438	18:15	16	0.880	A BB	113428.	20.000 UG/L	2.15
25	129	440	18:20	16	0.884	A BB	46688.	20.000 UG/L	2.15
26	97	443	18:27	16	0.890	A BB	40472.	20.000 UG/L	2.15
27	75	443	18:27	16	0.890	A BB	35203.	20.000 UG/L	2.15
28	173	504	21:00	16	1.012	A BB	38795.	20.000 UG/L	2.15
29	97	354	14:45	16	0.711	A BB	40875.	20.000 UG/L	2.15
30	98	587	24:27	31	0.953	A BB	111196.	20.000 UG/L%	2.15
31	117	616	25:40	31	1.000	A BB	261857.	50.000 UG/L*	5.38
32	43	517	21:32	31	0.839	A BB	74815.	20.000 UG/L	2.15
33	43	553	23:02	31	0.898	A BB	62974.	20.000 UG/L	2.15
34	164	560	23:20	31	0.909	A BB	36832.	20.000 UG/L	2.15
35	83	559	23:17	31	0.907	A BB	88066.	20.000 UG/L	2.15
36	92	592	24:40	31	0.961	A BB	75245.	20.000 UG/L	2.15
37	112	619	25:47	31	1.005	A BB	93231.	20.000 UG/L	2.15
38	106	669	27:52	31	1.086	A BB	49898.	20.000 UG/L	2.15
39	104	769	32:02	31	1.248	A BB	92114.	20.000 UG/L	2.15
40	106	800	33:20	31	1.299	A BB	50177.	20.000 UG/L	2.15
41	106	776	32:20	31	1.260	A BB	56770.	20.000 UG/L	2.15
42	95	732	30:30	31	1.188	A BB	75112.	20.000 UG/L%	2.15

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12	1.00	0.209	1.00	20.00	20.00	1.170	1.170	1.00
3	3:25	1.00	0.323	1.00	20.00	20.00	1.231	1.231	1.00
4	4:17	1.00	0.406	1.00	20.00	20.00	1.089	1.089	1.00
5	5:20	1.00	0.504	1.00	20.00	20.00	0.710	0.710	1.00
6	7:30	1.00	0.709	1.00	20.00	20.00	1.370	1.370	1.00
7	8:05	1.00	0.764	1.00	20.00	20.00	0.382	0.382	1.00
8	9:05	1.00	0.858	1.00	20.00	20.00	0.454	0.454	1.00
9	10:10	1.00	0.961	1.00	20.00	20.00	1.203	1.203	1.00
10	11:25	1.00	1.079	1.00	20.00	20.00	2.256	2.256	1.00
11	12:07	1.00	1.146	1.00	20.00	20.00	1.449	1.449	1.00
12	12:40	1.00	1.197	1.00	20.00	20.00	2.081	2.081	1.00

U3431

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:25	1.00	1.268	1.00	20.00	20.00	1.159	1.159	1.00
14	13:17	1.00	1.256	1.00	20.00	20.00	0.992	0.992	1.00
15	9:32	1.00	0.902	1.00	20.00	20.00	1.458	1.458	1.00
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20	1.00	1.260	1.00	20.00	20.00	0.189	0.189	1.00
18	15:12	1.00	0.733	1.00	20.00	20.00	0.505	0.505	1.00
19	15:07	1.00	0.729	1.00	20.00	20.00	0.279	0.279	1.00
20	15:32	1.00	0.749	1.00	20.00	20.00	0.459	0.459	1.00
21	16:57	1.00	0.817	1.00	20.00	20.00	0.393	0.393	1.00
22	17:10	1.00	0.827	1.00	20.00	20.00	0.661	0.661	1.00
23	17:42	1.00	0.853	1.00	20.00	20.00	0.404	0.404	1.00
24	18:15	1.00	0.880	1.00	20.00	20.00	0.982	0.982	1.00
25	18:20	1.00	0.884	1.00	20.00	20.00	0.404	0.404	1.00
26	18:27	1.00	0.890	1.00	20.00	20.00	0.350	0.350	1.00
27	18:27	1.00	0.890	1.00	20.00	20.00	0.305	0.305	1.00
28	21:00	1.00	1.012	1.00	20.00	20.00	0.336	0.336	1.00
29	14:45	1.00	0.711	1.00	20.00	20.00	0.354	0.354	1.00
30	24:27	1.00	0.953	1.00	20.00	20.00	1.062	1.062	1.00
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	20.00	20.00	0.714	0.714	1.00
33	23:02	1.00	0.898	1.00	20.00	20.00	0.601	0.601	1.00
34	23:20	1.00	0.909	1.00	20.00	20.00	0.352	0.352	1.00
35	23:17	1.00	0.907	1.00	20.00	20.00	0.841	0.841	1.00
36	24:40	1.00	0.961	1.00	20.00	20.00	0.718	0.718	1.00
37	25:47	1.00	1.005	1.00	20.00	20.00	0.890	0.890	1.00
38	27:52	1.00	1.086	1.00	20.00	20.00	0.476	0.476	1.00
39	32:02	1.00	1.248	1.00	20.00	20.00	0.879	0.879	1.00
40	33:20	1.00	1.299	1.00	20.00	20.00	0.479	0.479	1.00
41	32:20	1.00	1.260	1.00	20.00	20.00	0.542	0.542	1.00
42	30:30	1.00	1.188	1.00	20.00	20.00	0.717	0.717	1.00

RIC
04/30/90 16:17:00
DATA: U3427 #1
CALI: U3427 #2
SCANS 1 TO 840
SAMPLE: CLP,,,VSTD50,L,S,22570,V,CC-050,,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



00310

Quantitation Report File: U3427

Data: U3427.TI
04/30/90 16:17:00
Sample: CLP,,,VSTD50,L,S,22570,V,CC-050,,5 ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.011
Submitted by: VERSAR Analyst: DD Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C015 BROMOMETHANE
3	C020 VINYL CHLORIDE
4	C025 CHLOROETHANE
5	C030 METHYLENE CHLORIDE
6	C035 ACETONE
7	C040 CARBON DISULFIDE
8	C045 1,1-DICHLOROETHENE
9	C050 1,1-DICHLOROETHANE
10	C053 1,2-DICHLOROETHENE (TOTAL)
11	C060 CHLOROFORM
12	C065 1,2-DICHLOROETHANE
13	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
14	C043 TRICHLOROFLUOROMETHANE
15	CI10 1,4-DIFLUOROBENZENE **IS#2**
16	C110 2-BUTANONE
17	C125 VINYL ACETATE
18	C120 CARBON TETRACHLORIDE
19	C130 BROMODICHLOROMETHANE
20	C140 1,2-DICHLOROPROPANE
21	C145 CIS-1,3-DICHLOROPROPENE
22	C150 TRICHLOROETHENE
23	C165 BENZENE
24	C155 DIBROMOCHLOROMETHANE
25	C160 1,1,2-TRICHLOROETHANE
26	C170 TRANS-1,3-DICHLOROPROPENE
27	C180 BROMOFORM
28	C115 1,1,1-TRICHLOROETHANE
29	CS05 TOLUENE-D8 **SS#2**
30	CI20 CHLOROBENZENE-D5 **IS#3**
31	C205 4-METHYL-2-PENTANONE
32	C210 2-HEXANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 ORTHO & PARA XYLENE
40	C251 META-XYLENE
41	CS10 BROMOFLUOROBENZENE **SS#3**
42	C010 CHLOROMETHANE

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No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	254	10:35	1	1.000	A BB	65925.	50.000 UG/L*	2.38
2	94	83	3:27	1	0.327	A BB	93389.	50.000 UG/L	2.38
3	62	104	4:20	1	0.409	A BB	97552.	50.000 UG/L	2.38
4	64	130	5:25	1	0.512	A BB	68967.	50.000 UG/L	2.38
5	84	181	7:32	1	0.713	A BB	105289.	50.000 UG/L	2.38
6	43	195	8:07	1	0.768	A BB	29483.	50.000 UG/L	2.38
7	76	218	9:05	1	0.858	A BB	54390.	50.000 UG/L	2.38
8	96	245	10:12	1	0.965	A BB	90296.	50.000 UG/L	2.38
9	63	275	11:27	1	1.083	A BB	167874.	50.000 UG/L	2.38
10	96	291	12:07	1	1.146	A BB	92335.	50.000 UG/L	2.38
11	83	304	12:40	1	1.197	A BB	149178.	50.000 UG/L	2.38
12	62	322	13:25	1	1.268	A BB	81652.	50.000 UG/L	2.38
13	65	319	13:17	1	1.256	A BB	76171.	50.000 UG/L%	2.38
14	101	229	9:32	1	0.902	A BB	108258.	50.000 UG/L	2.38
15	114	498	20:45	15	1.000	A BB	295356.	50.000 UG/L*	2.38
16	72	320	13:20	1	1.260	A BB	16033.	50.000 UG/L	2.38
17	43	365	15:12	15	0.733	A BB	184606.	50.000 UG/L	2.38
18	117	363	15:07	15	0.729	A VB	90236.	50.000 UG/L	2.38
19	83	374	15:35	15	0.751	A VB	135508.	50.000 UG/L	2.38
20	63	407	16:57	15	0.817	A BB	129058.	50.000 UG/L	2.38
21	75	412	17:10	15	0.827	A BB	193296.	50.000 UG/L	2.38
22	130	425	17:42	15	0.853	A BB	133009.	50.000 UG/L	2.38
23	78	438	18:15	15	0.880	A BB	287679.	50.000 UG/L	2.38
24	129	440	18:20	15	0.884	A BB	134176.	50.000 UG/L	2.38
25	97	443	18:27	15	0.890	A BB	117589.	50.000 UG/L	2.38
26	75	443	18:27	15	0.890	A BB	92344.	50.000 UG/L	2.38
27	173	504	21:00	15	1.012	A BB	104090.	50.000 UG/L	2.38
28	97	354	14:45	15	0.711	A BB	101544.	50.000 UG/L	2.38
29	98	587	24:27	30	0.953	A BB	331747.	50.000 UG/L%	2.38
30	117	616	25:40	30	1.000	A BB	277658.	50.000 UG/L*	2.38
31	43	517	21:32	30	0.839	A BB	230753.	50.000 UG/L	2.38
32	43	553	23:02	30	0.898	A BB	192453.	50.000 UG/L	2.38
33	164	560	23:20	30	0.909	A BB	105085.	50.000 UG/L	2.38
34	83	559	23:17	30	0.907	A BB	232272.	50.000 UG/L	2.38
35	92	592	24:40	30	0.961	A BB	189496.	50.000 UG/L	2.38
36	112	619	25:47	30	1.005	A BB	261557.	50.000 UG/L	2.38
37	106	669	27:52	30	1.086	A BB	120096.	50.000 UG/L	2.38
38	104	769	32:02	30	1.248	A BB	246703.	50.000 UG/L	2.38
39	106	800	33:20	30	1.299	A BB	129369.	50.000 UG/L	2.38
40	106	776	32:20	30	1.260	A BB	147454.	50.000 UG/L	2.38
41	95	732	30:30	30	1.188	A BB	222767.	50.000 UG/L%	2.38
42	50	54	2:15	1	0.213	A BB	124434.	50.000 UG/L	2.38

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	3:27	1.00	0.327	1.00	50.00	50.00	1.417	1.417	1.00
3	4:20	1.00	0.409	1.00	50.00	50.00	1.480	1.480	1.00
4	5:25	1.00	0.512	1.00	50.00	50.00	1.046	1.046	1.00
5	7:32	1.00	0.713	1.00	50.00	50.00	1.597	1.597	1.00
6	8:07	1.00	0.768	1.00	50.00	50.00	0.447	0.447	1.00
7	9:05	1.00	0.858	1.00	50.00	50.00	0.825	0.825	1.00
8	10:12	1.00	0.965	1.00	50.00	50.00	1.370	1.370	1.00
9	11:27	1.00	1.083	1.00	50.00	50.00	2.546	2.546	1.00
10	12:07	1.00	1.146	1.00	50.00	50.00	1.401	1.401	1.00
11	12:40	1.00	1.197	1.00	50.00	50.00	2.263	2.263	1.00
12	13:25	1.00	1.268	1.00	50.00	50.00	1.239	1.239	1.00

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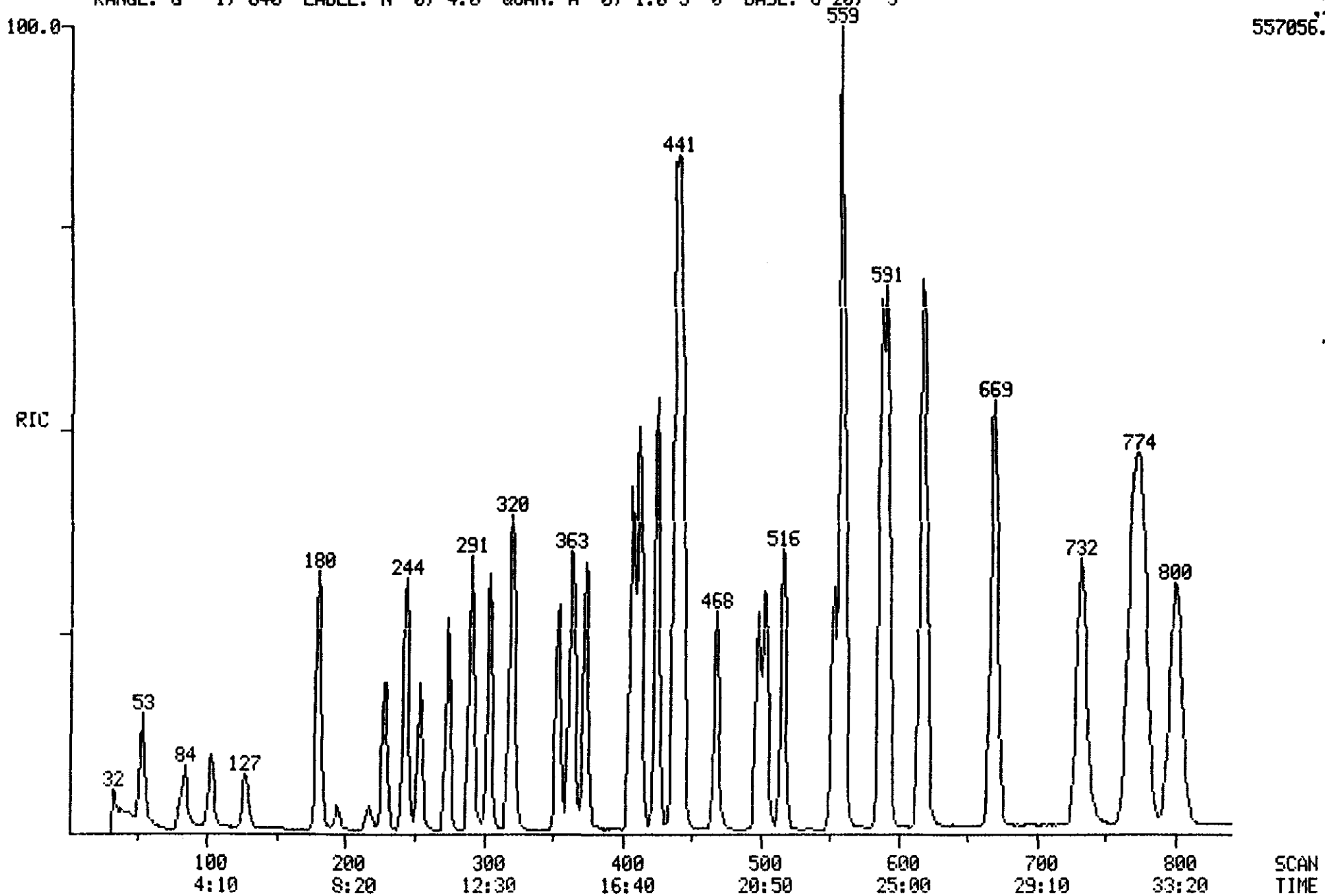
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:17	1.00	1.256	1.00	50.00	50.00	1.155	1.155	1.00
14	9:32	1.00	0.902	1.00	50.00	50.00	1.642	1.642	1.00
15	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
16	13:20	1.00	1.260	1.00	50.00	50.00	0.243	0.243	1.00
17	15:12	1.00	0.733	1.00	50.00	50.00	0.625	0.625	1.00
18	15:07	1.00	0.729	1.00	50.00	50.00	0.306	0.306	1.00
19	15:35	1.00	0.751	1.00	50.00	50.00	0.459	0.459	1.00
20	16:57	1.00	0.817	1.00	50.00	50.00	0.437	0.437	1.00
21	17:10	1.00	0.827	1.00	50.00	50.00	0.654	0.654	1.00
22	17:42	1.00	0.853	1.00	50.00	50.00	0.450	0.450	1.00
23	18:15	1.00	0.880	1.00	50.00	50.00	0.974	0.974	1.00
24	18:20	1.00	0.884	1.00	50.00	50.00	0.454	0.454	1.00
25	18:27	1.00	0.890	1.00	50.00	50.00	0.398	0.398	1.00
26	18:27	1.00	0.890	1.00	50.00	50.00	0.313	0.313	1.00
27	21:00	1.00	1.012	1.00	50.00	50.00	0.352	0.352	1.00
28	14:45	1.00	0.711	1.00	50.00	50.00	0.344	0.344	1.00
29	24:27	1.00	0.953	1.00	50.00	50.00	1.195	1.195	1.00
30	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
31	21:32	1.00	0.839	1.00	50.00	50.00	0.831	0.831	1.00
32	23:02	1.00	0.898	1.00	50.00	50.00	0.693	0.693	1.00
33	23:20	1.00	0.909	1.00	50.00	50.00	0.378	0.378	1.00
34	23:17	1.00	0.907	1.00	50.00	50.00	0.837	0.837	1.00
35	24:40	1.00	0.961	1.00	50.00	50.00	0.682	0.682	1.00
36	25:47	1.00	1.005	1.00	50.00	50.00	0.942	0.942	1.00
37	27:52	1.00	1.086	1.00	50.00	50.00	0.433	0.433	1.00
38	32:02	1.00	1.248	1.00	50.00	50.00	0.889	0.889	1.00
39	33:20	1.00	1.299	1.00	50.00	50.00	0.466	0.466	1.00
40	32:20	1.00	1.260	1.00	50.00	50.00	0.531	0.531	1.00
41	30:30	1.00	1.188	1.00	50.00	50.00	0.802	0.802	1.00
42	2:15	1.00	0.213	1.00	50.00	50.00	1.888	1.888	1.00

RIC DATA: U3430 #1 SCANS 1 TO 840
04/30/90 18:54:00 CALI: U3430 #2
SAMPLE: CLP,,,VSTD100,L,S,22575,V,IC-100,,,5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100314

Quantitation Report File: U3430

Data: U3430.TI
04/30/90 18:54:00
Sample: CLP,,,VSTD100,L,S,22575,V,IC-100,,,5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.011
Submitted by: VERSAR Analyst: DD Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

43430

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	254	10:35	1	1.000	A BB	64264.	50.000 UG/L*	1.23
2	50	53	2:12	1	0.209	A BB	184717.	100.000 UG/L	2.47
3	94	84	3:30	1	0.331	A BB	85049.	100.000 UG/L	2.47
4	62	103	4:17	1	0.406	A BB	146216.	100.000 UG/L	2.47
5	64	127	5:17	1	0.500	A BB	98081.	100.000 UG/L	2.47
6	84	180	7:30	1	0.709	A BB	183898.	100.000 UG/L	2.47
7	43	194	8:05	1	0.764	A BB	45421.	100.000 UG/L	2.47
8	76	217	9:02	1	0.854	A BB	69190.	100.000 UG/L	2.47
9	96	244	10:10	1	0.961	A BB	173069.	100.000 UG/L	2.47
10	63	274	11:25	1	1.079	A BB	305705.	100.000 UG/L	2.47
11	96	291	12:07	1	1.146	A BB	191350.	100.000 UG/L	2.47
12	83	304	12:40	1	1.197	A BV	279069.	100.000 UG/L	2.47
13	62	321	13:22	1	1.264	A BB	147303.	100.000 UG/L	2.47
14	65	319	13:17	1	1.256	A BB	134151.	100.000 UG/L%	2.47
15	101	229	9:32	1	0.902	A BB	207069.	100.000 UG/L	2.47
16	114	498	20:45	16	1.000	A BB	299273.	50.000 UG/L*	1.23
17	72	320	13:20	1	1.260	A BB	27512.	100.000 UG/L	2.47
18	43	365	15:12	16	0.733	A BB	304823.	100.000 UG/L	2.47
19	117	363	15:07	16	0.729	A VB	187228.	100.000 UG/L	2.47
20	83	373	15:32	16	0.749	A BB	273496.	100.000 UG/L	2.47
21	63	407	16:57	16	0.817	A BB	240357.	100.000 UG/L	2.47
22	75	412	17:10	16	0.827	A BB	388937.	100.000 UG/L	2.47
23	130	425	17:42	16	0.853	A BV	251979.	100.000 UG/L	2.47
24	78	438	18:15	16	0.880	A BB	579054.	100.000 UG/L	2.47
25	129	439	18:17	16	0.882	A BB	254524.	100.000 UG/L	2.47
26	97	442	18:25	16	0.888	A BB	215442.	100.000 UG/L	2.47
27	75	442	18:25	16	0.888	A BB	182126.	100.000 UG/L	2.47
28	173	503	20:57	16	1.010	A BB	217236.	100.000 UG/L	2.47
29	97	354	14:45	16	0.711	A BB	213139.	100.000 UG/L	2.47
30	98	587	24:27	31	0.953	A BB	604586.	100.000 UG/L%	2.47
31	117	616	25:40	31	1.000	A BB	271056.	50.000 UG/L*	1.23
32	43	516	21:30	31	0.838	A BB	392492.	100.000 UG/L	2.47
33	43	553	23:02	31	0.898	A BV	332964.	100.000 UG/L	2.47
34	164	560	23:20	31	0.909	A BB	197303.	100.000 UG/L	2.47
35	83	559	23:17	31	0.907	A BB	453420.	100.000 UG/L	2.47
36	92	591	24:37	31	0.959	A BB	394362.	100.000 UG/L	2.47
37	112	619	25:47	31	1.005	A BB	490973.	100.000 UG/L	2.47
38	106	669	27:52	31	1.086	A BB	260623.	100.000 UG/L	2.47
39	104	769	32:02	31	1.248	A BB	522434.	100.000 UG/L	2.47
40	106	800	33:20	31	1.299	A BB	278809.	100.000 UG/L	2.47
41	106	776	32:20	31	1.260	A BB	319577.	100.000 UG/L	2.47
42	95	732	30:30	31	1.188	A BB	404074.	100.000 UG/L%	2.47

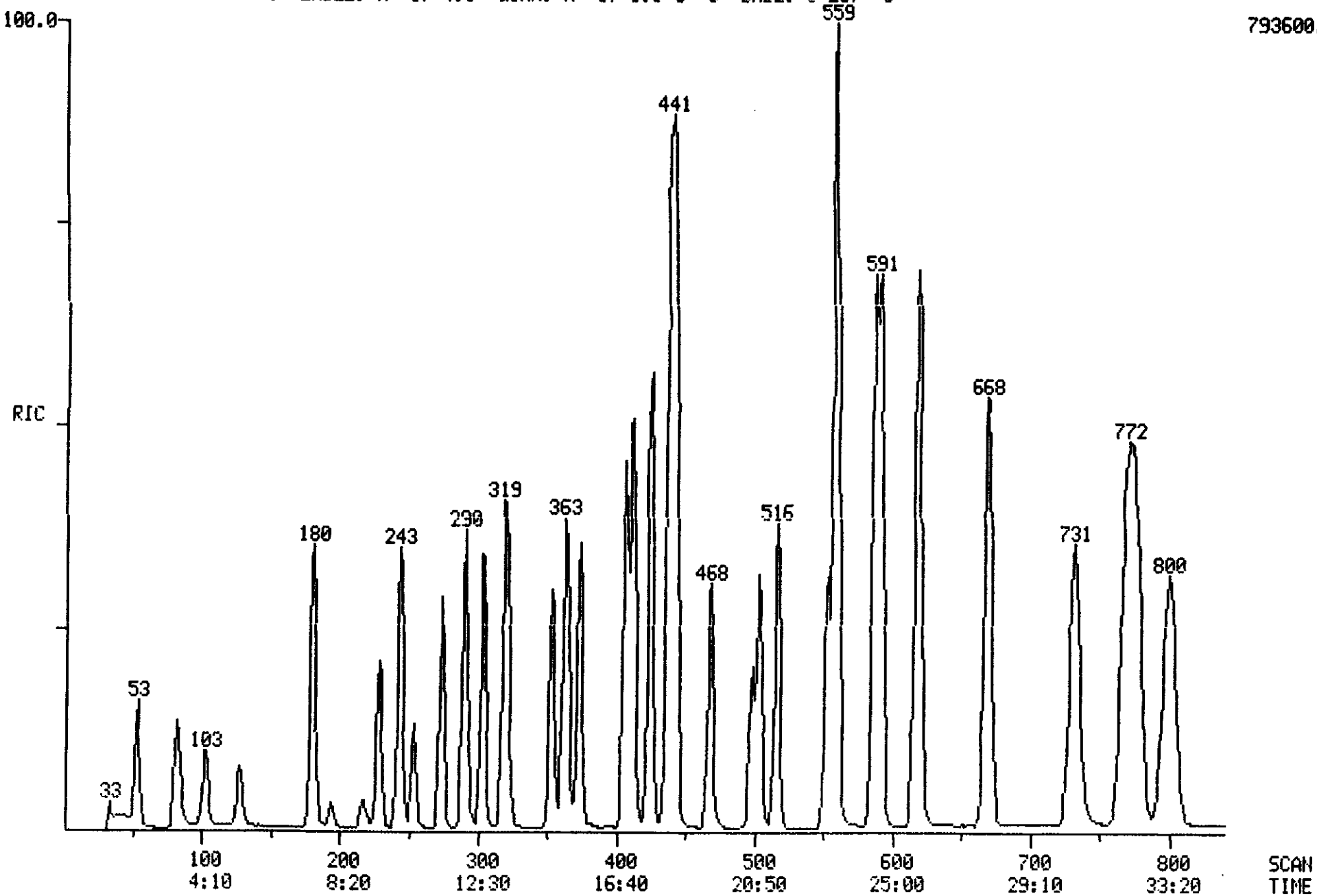
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12	1.00	0.209	1.00	100.00	100.00	1.437	1.437	1.00
3	3:30	1.00	0.331	1.00	100.00	100.00	0.662	0.662	1.00
4	4:17	1.00	0.406	1.00	100.00	100.00	1.138	1.138	1.00
5	5:17	1.00	0.500	1.00	100.00	100.00	0.763	0.763	1.00
6	7:30	1.00	0.709	1.00	100.00	100.00	1.431	1.431	1.00
7	8:05	1.00	0.764	1.00	100.00	100.00	0.353	0.353	1.00
8	9:02	1.00	0.854	1.00	100.00	100.00	0.538	0.538	1.00
9	10:10	1.00	0.961	1.00	100.00	100.00	1.347	1.347	1.00
10	11:25	1.00	1.079	1.00	100.00	100.00	2.379	2.379	1.00
11	12:07	1.00	1.146	1.00	100.00	100.00	1.489	1.489	1.00
12	12:40	1.00	1.197	1.00	100.00	100.00	2.171	2.171	1.00

U3430

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
13	13:22	1.00	1.264	1.00	100.00	100.00	1.146	1.146	1.00
14	13:17	1.00	1.256	1.00	100.00	100.00	1.044	1.044	1.00
15	9:32	1.00	0.902	1.00	100.00	100.00	1.611	1.611	1.00
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20	1.00	1.260	1.00	100.00	100.00	0.214	0.214	1.00
18	15:12	1.00	0.733	1.00	100.00	100.00	0.509	0.509	1.00
19	15:07	1.00	0.729	1.00	100.00	100.00	0.313	0.313	1.00
20	15:32	1.00	0.749	1.00	100.00	100.00	0.457	0.457	1.00
21	16:57	1.00	0.817	1.00	100.00	100.00	0.402	0.402	1.00
22	17:10	1.00	0.827	1.00	100.00	100.00	0.650	0.650	1.00
23	17:42	1.00	0.853	1.00	100.00	100.00	0.421	0.421	1.00
24	18:15	1.00	0.880	1.00	100.00	100.00	0.967	0.967	1.00
25	18:17	1.00	0.882	1.00	100.00	100.00	0.425	0.425	1.00
26	18:25	1.00	0.888	1.00	100.00	100.00	0.360	0.360	1.00
27	18:25	1.00	0.888	1.00	100.00	100.00	0.304	0.304	1.00
28	20:57	1.00	1.010	1.00	100.00	100.00	0.363	0.363	1.00
29	14:45	1.00	0.711	1.00	100.00	100.00	0.356	0.356	1.00
30	24:27	1.00	0.953	1.00	100.00	100.00	1.115	1.115	1.00
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:30	1.00	0.838	1.00	100.00	100.00	0.724	0.724	1.00
33	23:02	1.00	0.898	1.00	100.00	100.00	0.614	0.614	1.00
34	23:20	1.00	0.909	1.00	100.00	100.00	0.364	0.364	1.00
35	23:17	1.00	0.907	1.00	100.00	100.00	0.836	0.836	1.00
36	24:37	1.00	0.959	1.00	100.00	100.00	0.727	0.727	1.00
37	25:47	1.00	1.005	1.00	100.00	100.00	0.906	0.906	1.00
38	27:52	1.00	1.086	1.00	100.00	100.00	0.481	0.481	1.00
39	32:02	1.00	1.248	1.00	100.00	100.00	0.964	0.964	1.00
40	33:20	1.00	1.299	1.00	100.00	100.00	0.514	0.514	1.00
41	32:20	1.00	1.260	1.00	100.00	100.00	0.590	0.590	1.00
42	30:30	1.00	1.188	1.00	100.00	100.00	0.745	0.745	1.00

RIC
04/30/90 18:12:00
DATA: U3429 #1
CALI: U3429 #2
SCANS 1 TO 840
SAMPLE: CLP,,,VSTD150,L,S,22573,V,IC-150,,5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

100318



Quantitation Report File: U3429

Data: U3429.TI
04/30/90 18:12:00
Sample: CLP,,,VSTD150,L,S,22573,V,IC-150,,5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.011
Submitted by: VERSAR Analyst: DD Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

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No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	253	10:32	1	1.000	A BB	65649.	50.000 UG/L*	0.83
2	50	53	2:12	1	0.209	A BB	279715.	150.000 UG/L	2.50
3	94	82	3:25	1	0.324	A BB	205954.	150.000 UG/L	2.50
4	62	103	4:17	1	0.407	A BB	218236.	150.000 UG/L	2.50
5	64	127	5:17	1	0.502	A BB	148210.	150.000 UG/L	2.50
6	84	180	7:30	1	0.711	A BB	283097.	150.000 UG/L	2.50
7	43	194	8:05	1	0.767	A BB	65029.	150.000 UG/L	2.50
8	76	217	9:02	1	0.858	A BB	111089.	150.000 UG/L	2.50
9	96	243	10:07	1	0.960	A BB	269823.	150.000 UG/L	2.50
10	63	274	11:25	1	1.083	A BB	475309.	150.000 UG/L	2.50
11	96	290	12:05	1	1.146	A BB	282298.	150.000 UG/L	2.50
12	83	303	12:37	1	1.198	A BV	434610.	150.000 UG/L	2.50
13	62	321	13:22	1	1.269	A BB	220659.	150.000 UG/L	2.50
14	65	318	13:15	1	1.257	A BB	203463.	150.000 UG/L%	2.50
15	101	228	9:30	1	0.901	A BV	319793.	150.000 UG/L	2.50
16	114	498	20:45	16	1.000	A BB	306970.	50.000 UG/L*	0.83
17	72	319	13:17	1	1.261	A BB	41905.	150.000 UG/L	2.50
18	43	364	15:10	16	0.731	A BB	466827.	150.000 UG/L	2.50
19	117	362	15:05	16	0.727	A VB	285491.	150.000 UG/L	2.50
20	83	373	15:32	16	0.749	A BB	405045.	150.000 UG/L	2.50
21	63	406	16:55	16	0.815	A BB	381473.	150.000 UG/L	2.50
22	75	412	17:10	16	0.827	A BB	573560.	150.000 UG/L	2.50
23	130	424	17:40	16	0.851	A BV	397099.	150.000 UG/L	2.50
24	78	437	18:12	16	0.878	A BB	857127.	150.000 UG/L	2.50
25	129	439	18:17	16	0.882	A BB	385500.	150.000 UG/L	2.50
26	97	442	18:25	16	0.888	A BB	331137.	150.000 UG/L	2.50
27	75	442	18:25	16	0.888	A BB	277111.	150.000 UG/L	2.50
28	173	503	20:57	16	1.010	A BB	322309.	150.000 UG/L	2.50
29	97	353	14:42	16	0.709	A BB	308186.	150.000 UG/L	2.50
30	98	586	24:25	31	0.951	A BB	886923.	150.000 UG/L%	2.50
31	117	616	25:40	31	1.000	A BB	277295.	50.000 UG/L*	0.83
32	43	516	21:30	31	0.838	A BB	585486.	150.000 UG/L	2.50
33	43	553	23:02	31	0.898	A BB	484744.	150.000 UG/L	2.50
34	164	559	23:17	31	0.907	A BB	289380.	150.000 UG/L	2.50
35	83	558	23:15	31	0.906	A BB	646994.	150.000 UG/L	2.50
36	92	591	24:37	31	0.959	A BB	579676.	150.000 UG/L	2.50
37	112	618	25:45	31	1.003	A BB	760992.	150.000 UG/L	2.50
38	106	668	27:50	31	1.084	A BB	381085.	150.000 UG/L	2.50
39	104	768	32:00	31	1.247	A BB	770639.	150.000 UG/L	2.50
40	106	800	33:20	31	1.299	A BB	410911.	150.000 UG/L	2.50
41	106	775	32:17	31	1.258	A BB	467006.	150.000 UG/L	2.50
42	95	731	30:27	31	1.187	A BB	608615.	150.000 UG/L%	2.50

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12	1.00	0.209	1.00	150.00	150.00	1.420	1.420	1.00
3	3:25	1.00	0.324	1.00	150.00	150.00	1.046	1.046	1.00
4	4:17	1.00	0.407	1.00	150.00	150.00	1.108	1.108	1.00
5	5:17	1.00	0.502	1.00	150.00	150.00	0.753	0.753	1.00
6	7:30	1.00	0.711	1.00	150.00	150.00	1.437	1.437	1.00
7	8:05	1.00	0.767	1.00	150.00	150.00	0.330	0.330	1.00
8	9:02	1.00	0.858	1.00	150.00	150.00	0.564	0.564	1.00
9	10:07	1.00	0.960	1.00	150.00	150.00	1.370	1.370	1.00
10	11:25	1.00	1.083	1.00	150.00	150.00	2.413	2.413	1.00
11	12:05	1.00	1.146	1.00	150.00	150.00	1.433	1.433	1.00
12	12:37	1.00	1.198	1.00	150.00	150.00	2.207	2.207	1.00

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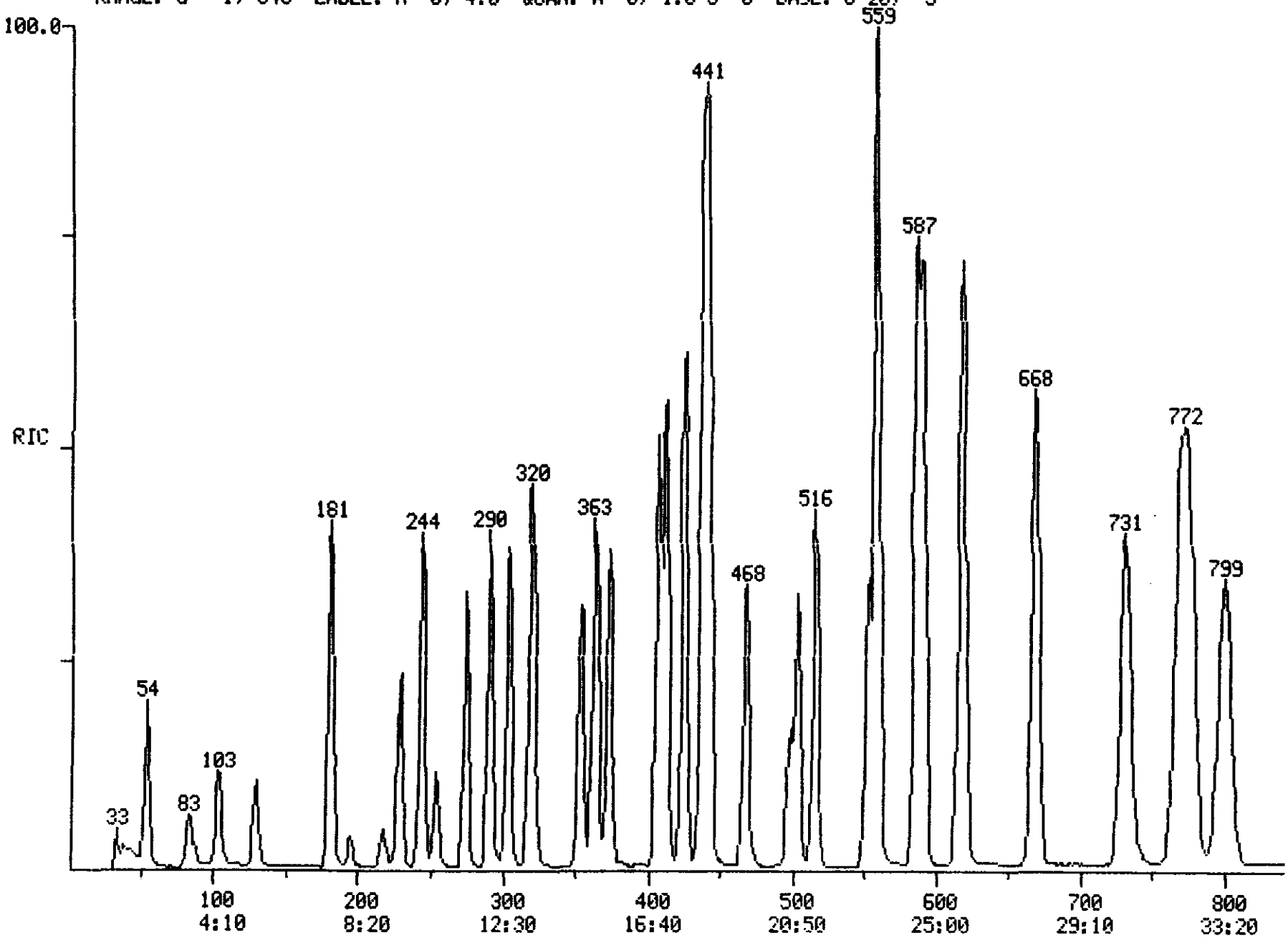
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
13	13:22	1.00	1.269	1.00	150.00	150.00	1.120	1.120	1.00
14	13:15	1.00	1.257	1.00	150.00	150.00	1.033	1.033	1.00
15	9:30	1.00	0.901	1.00	150.00	150.00	1.624	1.624	1.00
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:17	1.00	1.261	1.00	150.00	150.00	0.213	0.213	1.00
18	15:10	1.00	0.731	1.00	150.00	150.00	0.507	0.507	1.00
19	15:05	1.00	0.727	1.00	150.00	150.00	0.310	0.310	1.00
20	15:32	1.00	0.749	1.00	150.00	150.00	0.440	0.440	1.00
21	16:55	1.00	0.815	1.00	150.00	150.00	0.414	0.414	1.00
22	17:10	1.00	0.827	1.00	150.00	150.00	0.623	0.623	1.00
23	17:40	1.00	0.851	1.00	150.00	150.00	0.431	0.431	1.00
24	18:12	1.00	0.878	1.00	150.00	150.00	0.931	0.931	1.00
25	18:17	1.00	0.882	1.00	150.00	150.00	0.419	0.419	1.00
26	18:25	1.00	0.888	1.00	150.00	150.00	0.360	0.360	1.00
27	18:25	1.00	0.888	1.00	150.00	150.00	0.301	0.301	1.00
28	20:57	1.00	1.010	1.00	150.00	150.00	0.350	0.350	1.00
29	14:42	1.00	0.709	1.00	150.00	150.00	0.335	0.335	1.00
30	24:25	1.00	0.951	1.00	150.00	150.00	1.066	1.066	1.00
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:30	1.00	0.838	1.00	150.00	150.00	0.704	0.704	1.00
33	23:02	1.00	0.898	1.00	150.00	150.00	0.583	0.583	1.00
34	23:17	1.00	0.907	1.00	150.00	150.00	0.348	0.348	1.00
35	23:15	1.00	0.906	1.00	150.00	150.00	0.778	0.778	1.00
36	24:37	1.00	0.959	1.00	150.00	150.00	0.697	0.697	1.00
37	25:45	1.00	1.003	1.00	150.00	150.00	0.915	0.915	1.00
38	27:50	1.00	1.084	1.00	150.00	150.00	0.458	0.458	1.00
39	32:00	1.00	1.247	1.00	150.00	150.00	0.926	0.926	1.00
40	33:20	1.00	1.299	1.00	150.00	150.00	0.494	0.494	1.00
41	32:17	1.00	1.258	1.00	150.00	150.00	0.561	0.561	1.00
42	30:27	1.00	1.187	1.00	150.00	150.00	0.732	0.732	1.00

RIC DATA: U3428 #1 SCANS 1 TO 840
04/30/90 17:30:00 CALI: U3428 #2
SAMPLE: CLP,,,VSTD200,L,S,22572,V,IC-200,,5ML,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



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Quantitation Report File: U3428

Data: U3428.TI
04/30/90 17:30:00
Sample: CLP,,,VSTD200,L,S,22572,V,IC-200,,5ML,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.011
Submitted by: VERSAR Analyst: DD Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

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No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	254	10:35	1	1.000	A BB	68149.	50.000	UG/L*	0.63
2	50	54	2:15	1	0.213	A BB	453930.	200.000	UG/L	2.52
3	94	83	3:27	1	0.327	A BB	124084.	200.000	UG/L	2.52
4	62	103	4:17	1	0.406	A BB	310847.	200.000	UG/L	2.52
5	64	129	5:22	1	0.508	A BB	243149.	200.000	UG/L	2.52
6	84	181	7:32	1	0.713	A BB	407035.	200.000	UG/L	2.52
7	43	195	8:07	1	0.768	A BB	95377.	200.000	UG/L	2.52
8	76	217	9:02	1	0.854	A BB	166749.	200.000	UG/L	2.52
9	96	244	10:10	1	0.961	A BB	377742.	200.000	UG/L	2.52
10	63	274	11:25	1	1.079	A BB	663552.	200.000	UG/L	2.52
11	96	290	12:05	1	1.142	A BB	390155.	200.000	UG/L	2.52
12	83	304	12:40	1	1.197	A BV	596280.	200.000	UG/L	2.52
13	62	321	13:22	1	1.264	A BB	301285.	200.000	UG/L	2.52
14	65	319	13:17	1	1.256	A BB	290383.	200.000	UG/L%	2.52
15	101	229	9:32	1	0.902	A BV	436968.	200.000	UG/L	2.52
16	114	498	20:45	16	1.000	A BB	308084.	50.000	UG/L*	0.63
17	72	319	13:17	1	1.256	A BB	61129.	200.000	UG/L	2.52
18	43	364	15:10	16	0.731	A BB	639081.	200.000	UG/L	2.52
19	117	362	15:05	16	0.727	A VB	375566.	200.000	UG/L	2.52
20	83	373	15:32	16	0.749	A BB	543188.	200.000	UG/L	2.52
21	63	406	16:55	16	0.815	A BB	528795.	200.000	UG/L	2.52
22	75	412	17:10	16	0.827	A BB	788678.	200.000	UG/L	2.52
23	130	425	17:42	16	0.853	A BV	522927.	200.000	UG/L	2.52
24	78	437	18:12	16	0.878	A BB	1118790.	200.000	UG/L	2.52
25	129	439	18:17	16	0.882	A BB	512795.	200.000	UG/L	2.52
26	97	442	18:25	16	0.888	A BB	436198.	200.000	UG/L	2.52
27	75	442	18:25	16	0.888	A BB	364074.	200.000	UG/L	2.52
28	173	503	20:57	16	1.010	A BB	407770.	200.000	UG/L	2.52
29	97	353	14:42	16	0.709	A BB	415592.	200.000	UG/L	2.52
30	98	586	24:25	31	0.953	A BB	1203030.	200.000	UG/L%	2.52
31	117	615	25:37	31	1.000	A BB	277144.	30.000	UG/L*	0.38
32	43	516	21:30	31	0.839	A BB	827750.	200.000	UG/L	2.52
33	43	553	23:02	31	0.899	A BV	681199.	200.000	UG/L	2.52
34	164	559	23:17	31	0.909	A BB	379425.	200.000	UG/L	2.52
35	83	558	23:15	31	0.907	A BB	825434.	200.000	UG/L	2.52
36	92	591	24:37	31	0.961	A BB	781128.	200.000	UG/L	2.52
37	112	618	25:45	31	1.005	A BB	1011990.	200.000	UG/L	2.52
38	106	668	27:50	31	1.086	A BB	498429.	200.000	UG/L	2.52
39	104	768	32:00	31	1.249	A BB	1056940.	200.000	UG/L	2.52
40	106	799	33:17	31	1.299	A BB	569598.	200.000	UG/L	2.52
41	106	775	32:17	31	1.260	A BB	638852.	200.000	UG/L	2.52
42	95	731	30:27	31	1.189	A BB	844692.	200.000	UG/L%	2.52

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:15	1.00	0.213	1.00	200.00	200.00	1.665	1.665	1.00
3	3:27	1.00	0.327	1.00	200.00	200.00	0.455	0.455	1.00
4	4:17	1.00	0.406	1.00	200.00	200.00	1.140	1.140	1.00
5	5:22	1.00	0.508	1.00	200.00	200.00	0.892	0.892	1.00
6	7:32	1.00	0.713	1.00	200.00	200.00	1.493	1.493	1.00
7	8:07	1.00	0.768	1.00	200.00	200.00	0.350	0.350	1.00
8	9:02	1.00	0.854	1.00	200.00	200.00	0.612	0.612	1.00
9	10:10	1.00	0.961	1.00	200.00	200.00	1.386	1.386	1.00
10	11:25	1.00	1.079	1.00	200.00	200.00	2.434	2.434	1.00
11	12:05	1.00	1.142	1.00	200.00	200.00	1.431	1.431	1.00
12	12:40	1.00	1.197	1.00	200.00	200.00	2.187	2.187	1.00

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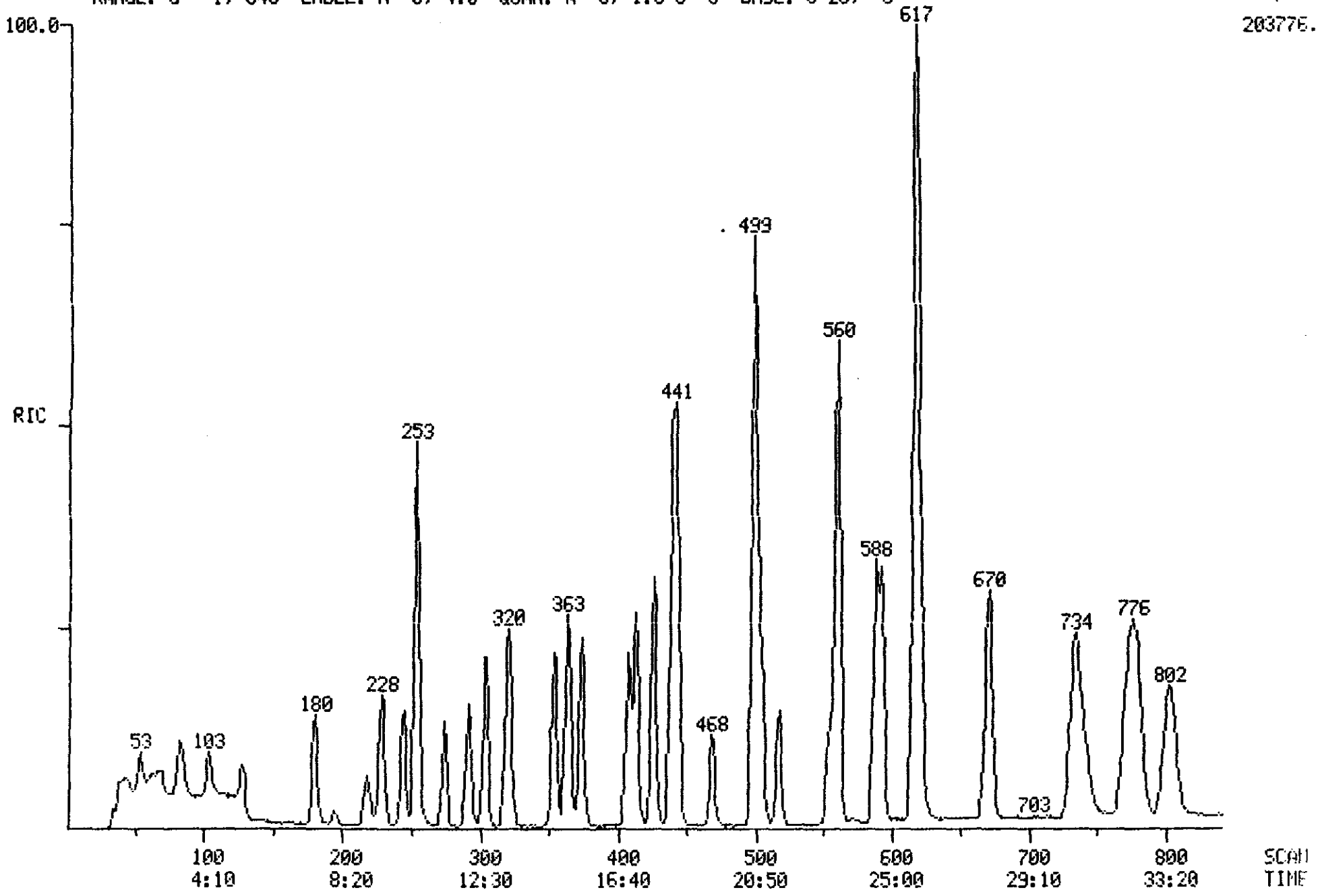
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22	1.00	1.264	1.00	200.00	200.00	1.105	1.105	1.00
14	13:17	1.00	1.256	1.00	200.00	200.00	1.065	1.065	1.00
15	9:32	1.00	0.902	1.00	200.00	200.00	1.603	1.603	1.00
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:17	1.00	1.256	1.00	200.00	200.00	0.224	0.224	1.00
18	15:10	1.00	0.731	1.00	200.00	200.00	0.519	0.519	1.00
19	15:05	1.00	0.727	1.00	200.00	200.00	0.305	0.305	1.00
20	15:32	1.00	0.749	1.00	200.00	200.00	0.441	0.441	1.00
21	16:55	1.00	0.815	1.00	200.00	200.00	0.429	0.429	1.00
22	17:10	1.00	0.827	1.00	200.00	200.00	0.640	0.640	1.00
23	17:42	1.00	0.853	1.00	200.00	200.00	0.424	0.424	1.00
24	18:12	1.00	0.878	1.00	200.00	200.00	0.908	0.908	1.00
25	18:17	1.00	0.882	1.00	200.00	200.00	0.416	0.416	1.00
26	18:25	1.00	0.888	1.00	200.00	200.00	0.354	0.354	1.00
27	18:25	1.00	0.888	1.00	200.00	200.00	0.295	0.295	1.00
28	20:57	1.00	1.010	1.00	200.00	200.00	0.331	0.331	1.00
29	14:42	1.00	0.709	1.00	200.00	200.00	0.337	0.337	1.00
30	24:25	1.00	0.953	1.00	200.00	200.00	0.651	0.651	1.00
31	25:37	1.00	1.000	1.00	30.00	30.00	1.000	1.000	1.00
32	21:30	1.00	0.839	1.00	200.00	200.00	0.448	0.448	1.00
33	23:02	1.00	0.899	1.00	200.00	200.00	0.369	0.369	1.00
34	23:17	1.00	0.909	1.00	200.00	200.00	0.205	0.205	1.00
35	23:15	1.00	0.907	1.00	200.00	200.00	0.447	0.447	1.00
36	24:37	1.00	0.961	1.00	200.00	200.00	0.423	0.423	1.00
37	25:45	1.00	1.005	1.00	200.00	200.00	0.548	0.548	1.00
38	27:50	1.00	1.086	1.00	200.00	200.00	0.270	0.270	1.00
39	32:00	1.00	1.249	1.00	200.00	200.00	0.572	0.572	1.00
40	33:17	1.00	1.299	1.00	200.00	200.00	0.308	0.308	1.00
41	32:17	1.00	1.260	1.00	200.00	200.00	0.346	0.346	1.00
42	30:27	1.00	1.189	1.00	200.00	200.00	0.457	0.457	1.00

RIC DATA: U3544 #1 SCANS 1 TO 840
05/08/90 12:05:00 CALI: U3544 #2
SAMPLE: CLP,,VSTD 020,L,S,22656,V,IC-020,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

100326

203776.



Quantitation Report File: U3544

Data: U3544.TI
05/08/90 12:05:00
Sample: CLP,,VSTD 020,L,S,22656,V,IC-020,5 ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.001
Submitted by: VERSAR Analyst: MAT Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

U 3544

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	253	10:32	1	1.000	A BV	62478.	50.000 UG/L*	5.38
2	50	53	2:12	1	0.209	A BB	21823.	20.000 UG/L	2.15
3	94	82	3:25	1	0.324	A BB	27866.	20.000 UG/L	2.15
4	62	103	4:17	1	0.407	A BB	25727.	20.000 UG/L	2.15
5	64	127	5:17	1	0.502	A BB	16941.	20.000 UG/L	2.15
6	84	180	7:30	1	0.711	A BB	29356.	20.000 UG/L	2.15
7	43	194	8:05	1	0.767	A BB	11032.	20.000 UG/L	2.15
8	76	217	9:02	1	0.858	A BB	53440.	20.000 UG/L	2.15
9	96	244	10:10	1	0.964	A BB	26291.	20.000 UG/L	2.15
10	63	274	11:25	1	1.083	A BB	48890.	20.000 UG/L	2.15
11	96	291	12:07	1	1.150	A BB	29635.	20.000 UG/L	2.15
12	83	303	12:37	1	1.198	A BB	68003.	20.000 UG/L	2.15
13	62	321	13:22	1	1.269	A BB	49920.	20.000 UG/L	2.15
14	65	319	13:17	1	1.261	A BB	44941.	20.000 UG/L%	2.15
15	101	228	9:30	1	0.901	A BB	64472.	20.000 UG/L	2.15
16	114	498	20:45	16	1.000	A BB	279917.	50.000 UG/L*	5.38
17	72	320	13:20	1	1.265	A BB	4603.	20.000 UG/L	2.15
18	43	365	15:12	16	0.733	A BB	57461.	20.000 UG/L	2.15
19	117	362	15:05	16	0.727	A VB	57437.	20.000 UG/L	2.15
20	83	373	15:32	16	0.749	A BB	67181.	20.000 UG/L	2.15
21	63	407	16:57	16	0.817	A BB	32631.	20.000 UG/L	2.15
22	75	412	17:10	16	0.827	A BB	66547.	20.000 UG/L	2.15
23	130	425	17:42	16	0.853	A BB	47917.	20.000 UG/L	2.15
24	78	438	18:15	16	0.880	A BB	83755.	20.000 UG/L	2.15
25	129	439	18:17	16	0.882	A BB	62836.	20.000 UG/L	2.15
26	97	442	18:25	16	0.888	A BB	40864.	20.000 UG/L	2.15
27	75	443	18:27	16	0.890	A BB	38055.	20.000 UG/L	2.15
28	173	504	21:00	16	1.012	A BB	51924.	20.000 UG/L	2.15
29	97	353	14:42	16	0.709	A BB	62934.	20.000 UG/L	2.15
30	98	588	24:30	31	0.955	A BB	108367.	20.000 UG/L%	2.15
31	117	616	25:40	31	1.000	A BB	256058.	50.000 UG/L*	5.38
32	43	517	21:32	31	0.839	A BB	49224.	20.000 UG/L	2.15
33	43	554	23:05	31	0.899	A BB	42726.	20.000 UG/L	2.15
34	164	560	23:20	31	0.909	A BB	41657.	20.000 UG/L	2.15
35	83	559	23:17	31	0.907	A BB	75044.	20.000 UG/L	2.15
36	92	592	24:40	31	0.961	A BB	64895.	20.000 UG/L	2.15
37	112	620	25:50	31	1.006	A BB	94863.	20.000 UG/L	2.15
38	106	670	27:55	31	1.088	A BB	46440.	20.000 UG/L	2.15
39	104	772	32:10	31	1.253	A BB	85227.	20.000 UG/L	2.15
40	106	802	33:25	31	1.302	A BB	49533.	20.000 UG/L	2.15
41	106	778	32:25	31	1.263	A BB	55020.	20.000 UG/L	2.15
42	95	734	30:35	31	1.192	A BB	83755.	20.000 UG/L%	2.15

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12	1.00	0.209	1.00	20.00	20.00	0.873	0.873	1.00
3	3:25	1.00	0.324	1.00	20.00	20.00	1.115	1.115	1.00
4	4:17	1.00	0.407	1.00	20.00	20.00	1.029	1.029	1.00
5	5:17	1.00	0.502	1.00	20.00	20.00	0.678	0.678	1.00
6	7:30	1.00	0.711	1.00	20.00	20.00	1.175	1.175	1.00
7	8:05	1.00	0.767	1.00	20.00	20.00	0.441	0.441	1.00
8	9:02	1.00	0.858	1.00	20.00	20.00	2.138	2.138	1.00
9	10:10	1.00	0.964	1.00	20.00	20.00	1.052	1.052	1.00
10	11:25	1.00	1.083	1.00	20.00	20.00	1.956	1.956	1.00
11	12:07	1.00	1.150	1.00	20.00	20.00	1.186	1.186	1.00
12	12:37	1.00	1.198	1.00	20.00	20.00	2.721	2.721	1.00

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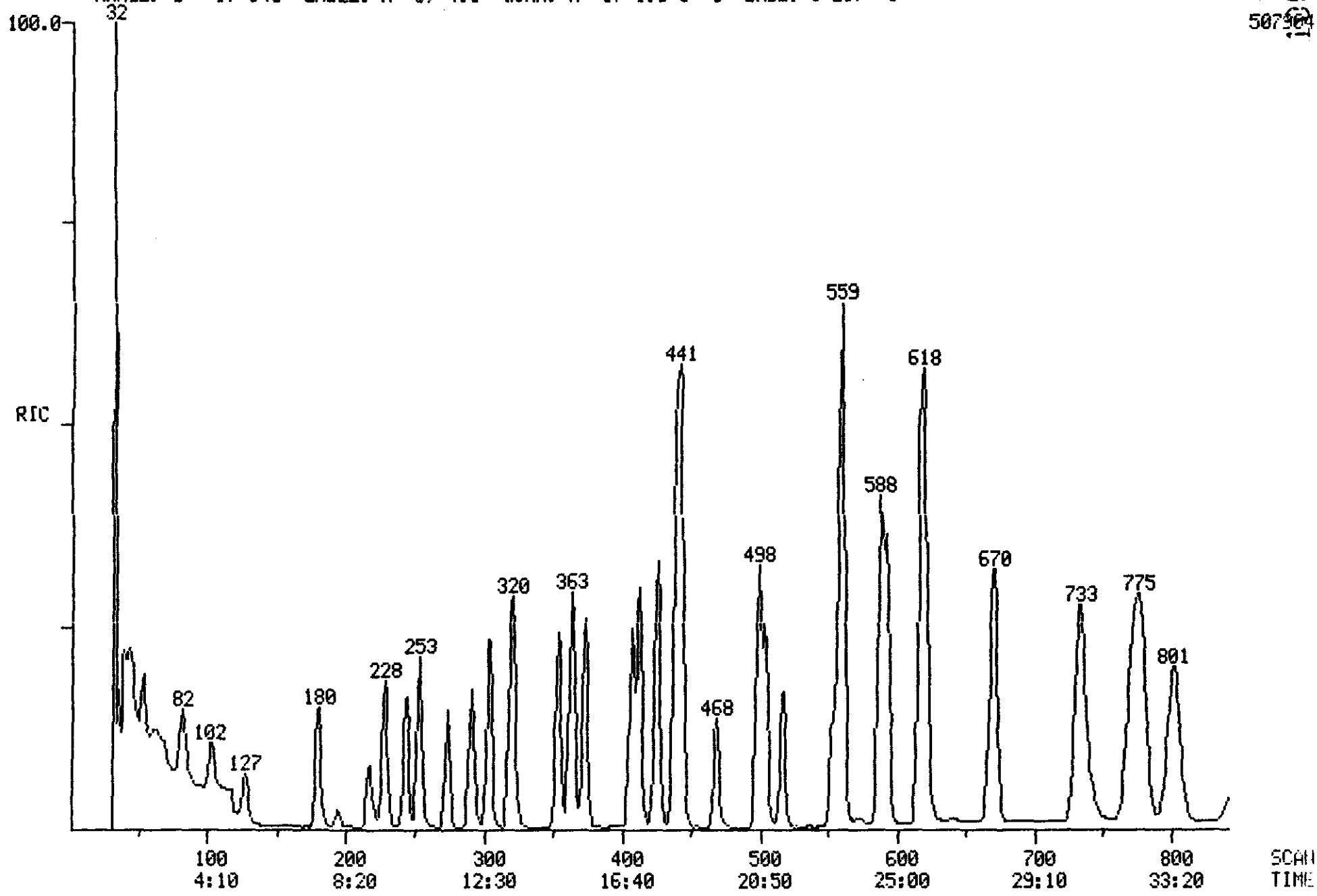
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22	1.00	1.269	1.00	20.00	20.00	1.998	1.998	1.00
14	13:17	1.00	1.261	1.00	20.00	20.00	1.798	1.798	1.00
15	9:30	1.00	0.901	1.00	20.00	20.00	2.580	2.580	1.00
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20	1.00	1.265	1.00	20.00	20.00	0.184	0.184	1.00
18	15:12	1.00	0.733	1.00	20.00	20.00	0.513	0.513	1.00
19	15:05	1.00	0.727	1.00	20.00	20.00	0.513	0.513	1.00
20	15:32	1.00	0.749	1.00	20.00	20.00	0.600	0.600	1.00
21	16:57	1.00	0.817	1.00	20.00	20.00	0.291	0.291	1.00
22	17:10	1.00	0.827	1.00	20.00	20.00	0.594	0.594	1.00
23	17:42	1.00	0.853	1.00	20.00	20.00	0.428	0.428	1.00
24	18:15	1.00	0.880	1.00	20.00	20.00	0.748	0.748	1.00
25	18:17	1.00	0.882	1.00	20.00	20.00	0.561	0.561	1.00
26	18:25	1.00	0.888	1.00	20.00	20.00	0.365	0.365	1.00
27	18:27	1.00	0.890	1.00	20.00	20.00	0.340	0.340	1.00
28	21:00	1.00	1.012	1.00	20.00	20.00	0.464	0.464	1.00
29	14:42	1.00	0.709	1.00	20.00	20.00	0.562	0.562	1.00
30	24:30	1.00	0.955	1.00	20.00	20.00	1.058	1.058	1.00
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	20.00	20.00	0.481	0.481	1.00
33	23:05	1.00	0.899	1.00	20.00	20.00	0.417	0.417	1.00
34	23:20	1.00	0.909	1.00	20.00	20.00	0.407	0.407	1.00
35	23:17	1.00	0.907	1.00	20.00	20.00	0.733	0.733	1.00
36	24:40	1.00	0.961	1.00	20.00	20.00	0.634	0.634	1.00
37	25:50	1.00	1.006	1.00	20.00	20.00	0.926	0.926	1.00
38	27:55	1.00	1.088	1.00	20.00	20.00	0.453	0.453	1.00
39	32:10	1.00	1.253	1.00	20.00	20.00	0.832	0.832	1.00
40	33:25	1.00	1.302	1.00	20.00	20.00	0.484	0.484	1.00
41	32:25	1.00	1.263	1.00	20.00	20.00	0.537	0.537	1.00
42	30:35	1.00	1.192	1.00	20.00	20.00	0.818	0.818	1.00

RIC DATA: U3540 #1 SCANS 1 TO 840
05/08/90 8:54:00 CALI: U3540 #2
SAMPLE: CLP,,,VSTD 50,L,S,22644,V,CC-050,,5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100330

Quantitation Report File: U3540

Data: U3540.TI
05/08/90 8:54:00
Sample: CLP,,,VSTD 50,L,S,22644,V,CC-050,,5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.000
Submitted by: VERSAR Analyst: MAT Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

43540

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	253	10:32	1	1.000	A BB	68862.	50.000 UG/L*	2.38
2	50	53	2:12	1	0.209	A BB	67070.	50.000 UG/L	2.38
3	94	82	3:25	1	0.324	A BB	77719.	50.000 UG/L	2.38
4	62	103	4:17	1	0.407	A BB	71599.	50.000 UG/L	2.38
5	64	127	5:17	1	0.502	A BB	47185.	50.000 UG/L	2.38
5 6	84	179 5	7:27	1	0.708	A BB	78316.	50.000 UG/L	2.38
6 7	43	194 2	8:05	1	0.767	A BB	32857.	50.000 UG/L	2.38
8	76	217	9:02	1	0.858	A BB	155279.	50.000 UG/L	2.38
9	96	243	10:07	1	0.960	A BB	72248.	50.000 UG/L	2.38
10	63	274	11:25	1	1.083	A BB	132368.	50.000 UG/L	2.38
11	96	291	12:07	1	1.150	A BB	80174.	50.000 UG/L	2.38
12	83	303	12:37	1	1.198	A BB	183780.	50.000 UG/L	2.38
13	62	321	13:22	1	1.269	A BB	138154.	50.000 UG/L	2.38
14	65	319	13:17	1	1.261	A BB	135146.	50.000 UG/L%	2.38
15	101	228	9:30	1	0.901	A BB	175942.	50.000 UG/L	2.38
16	114	498	20:45	16	1.000	A BB	302018.	50.000 UG/L*	2.38
17	72	319	13:17	1	1.261	A BB	12727.	50.000 UG/L	2.38
18	43	365	15:12	16	0.733	A BB	165871.	50.000 UG/L	2.38
19	117	362	15:05	16	0.727	A VB	150597.	50.000 UG/L	2.38
20	83	373	15:32	16	0.749	A BB	183078.	50.000 UG/L	2.38
21	63	407	16:57	16	0.817	A BB	91541.	50.000 UG/L	2.38
22	75	412	17:10	16	0.827	A BB	183144.	50.000 UG/L	2.38
23	130	425	17:42	16	0.853	A BV	124041.	50.000 UG/L	2.38
24	78	438	18:15	16	0.880	A BB	229595.	50.000 UG/L	2.38
25	129	439	18:17	16	0.882	A BB	164586.	50.000 UG/L	2.38
26	97	442	18:25	16	0.888	A BB	107160.	50.000 UG/L	2.38
27	75	442	18:25	16	0.888	A BB	104242.	50.000 UG/L	2.38
28	173	503	20:57	16	1.010	A BB	141471.	50.000 UG/L	2.38
29	97	353	14:42	16	0.709	A BB	170546.	50.000 UG/L	2.38
30	98	587	24:27	31	0.953	A BB	335283.	50.000 UG/L%	2.38
31	117	616	25:40	31	1.000	A BB	278862.	50.000 UG/L*	2.38
32	43	517	21:32	31	0.839	A BV	148352.	50.000 UG/L	2.38
33	43	553	23:02	31	0.898	A BB	127086.	50.000 UG/L	2.38
34	164	560 2	23:20	31	0.909	A BB	103897.	50.000 UG/L	2.38
35	83	559	23:17	31	0.907	A BB	204848.	50.000 UG/L	2.38
36	92	592 2	24:40	31	0.961	A BB	179251.	50.000 UG/L	2.38
37	112	619	25:47	31	1.005	A BB	255520.	50.000 UG/L	2.38
38	106	670	27:55	31	1.088	A BB	125883.	50.000 UG/L	2.38
39	104	770	32:05	31	1.250	A BB	247100.	50.000 UG/L	2.38
40	106	802	33:25	31	1.302	A BB	144499.	50.000 UG/L	2.38
41	106	777	32:22	31	1.261	A BB	155149.	50.000 UG/L	2.38
42	95	732	30:30	31	1.188	A BB	256214.	50.000 UG/L%	2.38

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12	1.00	0.209	1.00	50.00	50.00	0.974	0.974	1.00
3	3:25	1.00	0.324	1.00	50.00	50.00	1.129	1.129	1.00
4	4:17	1.00	0.407	1.00	50.00	50.00	1.040	1.040	1.00
5	5:17	1.00	0.502	1.00	50.00	50.00	0.685	0.685	1.00
6	7:27	1.00	0.708	1.00	50.00	50.00	1.137	1.137	1.00
7	8:05	1.00	0.767	1.00	50.00	50.00	0.477	0.477	1.00
8	9:02	1.00	0.858	1.00	50.00	50.00	2.255	2.255	1.00
9	10:07	1.00	0.960	1.00	50.00	50.00	1.049	1.049	1.00
10	11:25	1.00	1.083	1.00	50.00	50.00	1.922	1.922	1.00
11	12:07	1.00	1.150	1.00	50.00	50.00	1.164	1.164	1.00
12	12:37	1.00	1.198	1.00	50.00	50.00	2.669	2.669	1.00

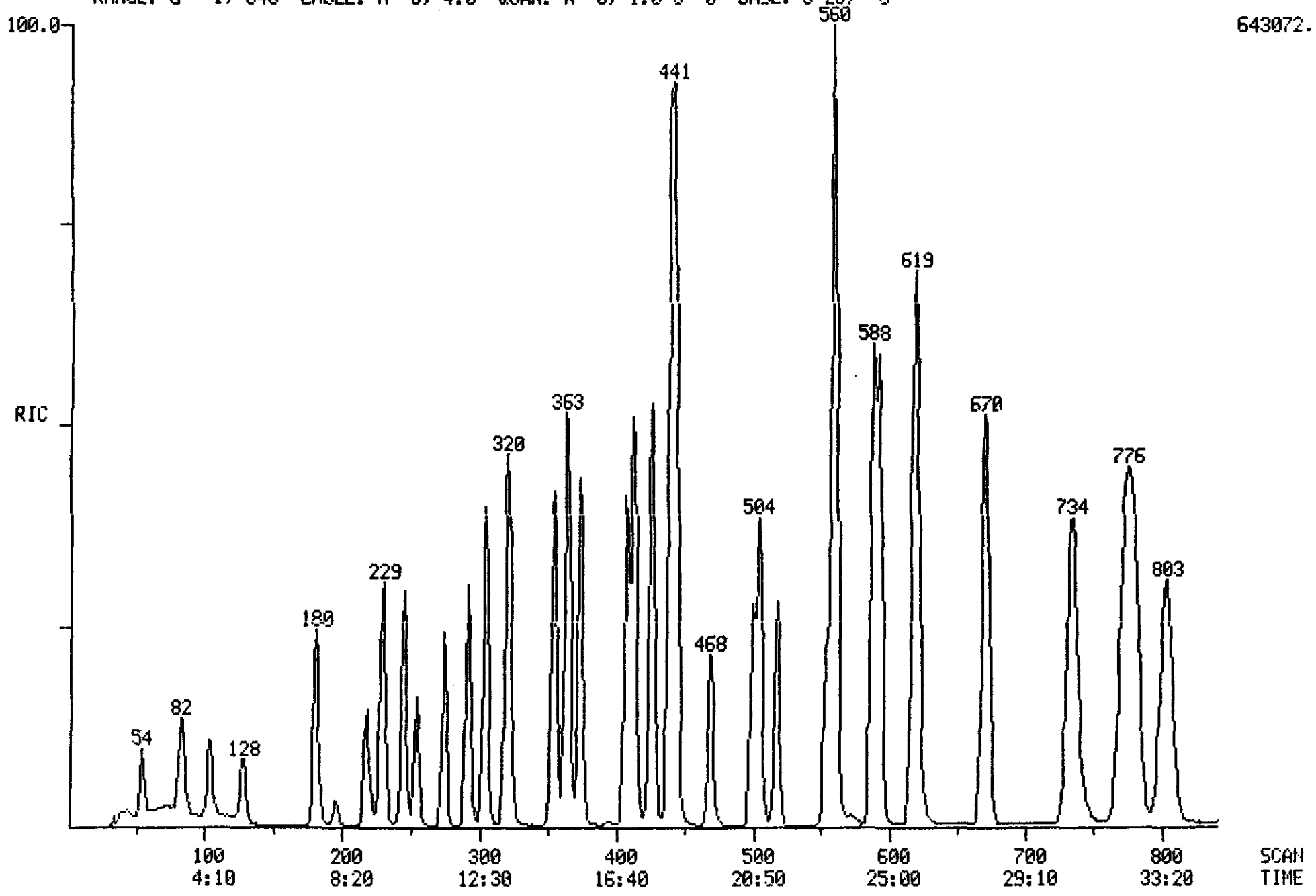
40540
ORIGINAL
(Red)

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22	1.00	1.269	1.00	50.00	50.00	2.006	2.006	1.00
14	13:17	1.00	1.261	1.00	50.00	50.00	1.963	1.963	1.00
15	9:30	1.00	0.901	1.00	50.00	50.00	2.555	2.555	1.00
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:17	1.00	1.261	1.00	50.00	50.00	0.185	0.185	1.00
18	15:12	1.00	0.733	1.00	50.00	50.00	0.549	0.549	1.00
19	15:05	1.00	0.727	1.00	50.00	50.00	0.499	0.499	1.00
20	15:32	1.00	0.749	1.00	50.00	50.00	0.606	0.606	1.00
21	16:57	1.00	0.817	1.00	50.00	50.00	0.303	0.303	1.00
22	17:10	1.00	0.827	1.00	50.00	50.00	0.606	0.606	1.00
23	17:42	1.00	0.853	1.00	50.00	50.00	0.411	0.411	1.00
24	18:15	1.00	0.880	1.00	50.00	50.00	0.760	0.760	1.00
25	18:17	1.00	0.882	1.00	50.00	50.00	0.545	0.545	1.00
26	18:25	1.00	0.888	1.00	50.00	50.00	0.355	0.355	1.00
27	18:25	1.00	0.888	1.00	50.00	50.00	0.345	0.345	1.00
28	20:57	1.00	1.010	1.00	50.00	50.00	0.468	0.468	1.00
29	14:42	1.00	0.709	1.00	50.00	50.00	0.565	0.565	1.00
30	24:27	1.00	0.953	1.00	50.00	50.00	1.202	1.202	1.00
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	50.00	50.00	0.532	0.532	1.00
33	23:02	1.00	0.898	1.00	50.00	50.00	0.456	0.456	1.00
34	23:20	1.00	0.909	1.00	50.00	50.00	0.373	0.373	1.00
35	23:17	1.00	0.907	1.00	50.00	50.00	0.735	0.735	1.00
36	24:40	1.00	0.961	1.00	50.00	50.00	0.643	0.643	1.00
37	25:47	1.00	1.005	1.00	50.00	50.00	0.916	0.916	1.00
38	27:55	1.00	1.088	1.00	50.00	50.00	0.451	0.451	1.00
39	32:05	1.00	1.250	1.00	50.00	50.00	0.886	0.886	1.00
40	33:25	1.00	1.302	1.00	50.00	50.00	0.518	0.518	1.00
41	32:22	1.00	1.261	1.00	50.00	50.00	0.556	0.556	1.00
42	30:30	1.00	1.188	1.00	50.00	50.00	0.919	0.919	1.00

ORIGINAL (Red)

RIC DATA: U3543 #1 SCANS 1 TO 840
05/08/90 11:23:00 CALI: U3543 #2
SAMPLE: CLP,,VSTD 100,L,S,22649,V,IC-100,,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

100334



Quantitation Report File: U3543

ORIGINAL (Red)

Data: U3543.TI
05/08/90 11:23:00
Sample: CLP,,VSTD 100,L,S,22649,V,IC-100,,5 ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.000
Submitted by: VERSAR Analyst: MAT Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

43543

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	253	10:32	1	1.000	A BB	68227.	50.000	UG/L*	1.23
2	50	54	2:15	1	0.213	A BB	124960.	100.000	UG/L	2.47
3	94	82	3:25	1	0.324	A BB	146192.	100.000	UG/L	2.47
4	62	103	4:17	1	0.407	A BB	145316.	100.000	UG/L	2.47
5	64	127	5:17	1	0.502	A BB	91913.	100.000	UG/L	2.47
6	84	180	7:30	1	0.711	A BB	155688.	100.000	UG/L	2.47
7	43	194	8:05	1	0.767	A BB	56814.	100.000	UG/L	2.47
8	76	217	9:02	1	0.858	A BB	347092.	100.000	UG/L	2.47
9	96	244	10:10	1	0.964	A BB	153500.	100.000	UG/L	2.47
10	63	274	11:25	1	1.083	A BB	284209.	100.000	UG/L	2.47
11	96	291	12:07	1	1.150	A BB	165249.	100.000	UG/L	2.47
12	83	304	12:40	1	1.202	A BB	379706.	100.000	UG/L	2.47
13	62	321	13:22	1	1.269	A BB	287884.	100.000	UG/L	2.47
14	65	319	13:17	1	1.261	A BB	259316.	100.000	UG/L%	2.47
15	101	229	9:32	1	0.905	A BV	368872.	100.000	UG/L	2.47
16	114	499	20:47	16	1.000	A BB	305373.	50.000	UG/L*	1.23
17	72	320	13:20	1	1.265	A BB	25273.	100.000	UG/L	2.47
18	43	365	15:12	16	0.731	A BB	368982.	100.000	UG/L	2.47
19	117	363	15:07	16	0.727	A VB	334341.	100.000	UG/L	2.47
20	83	373	15:32	16	0.747	A VB	389590.	100.000	UG/L	2.47
21	63	407	16:57	16	0.816	A BB	189826.	100.000	UG/L	2.47
22	75	412	17:10	16	0.826	A BB	386036.	100.000	UG/L	2.47
23	130	425	17:42	16	0.852	A BV	247892.	100.000	UG/L	2.47
24	78	438	18:15	16	0.878	A BB	464411.	100.000	UG/L	2.47
25	129	439	18:17	16	0.880	A BB	326353.	100.000	UG/L	2.47
26	97	443	18:27	16	0.888	A BB	203827.	100.000	UG/L	2.47
27	75	443	18:27	16	0.888	A BB	221808.	100.000	UG/L	2.47
28	173	504	21:00	16	1.010	A BB	286000.	100.000	UG/L	2.47
29	97	354	14:45	16	0.709	A BB	367848.	100.000	UG/L	2.47
30	98	588	24:30	31	0.953	A BB	607063.	100.000	UG/L%	2.47
31	117	617	25:42	31	1.000	A BB	276703.	50.000	UG/L*	1.23
32	43	517	21:32	31	0.838	A BV	297637.	100.000	UG/L	2.47
33	43	554	23:05	31	0.898	A BB	266817.	100.000	UG/L	2.47
34	164	560	23:20	31	0.908	A BB	196857.	100.000	UG/L	2.47
35	83	559	23:17	31	0.906	A BB	405319.	100.000	UG/L	2.47
36	92	592	24:40	31	0.959	A BB	367023.	100.000	UG/L	2.47
37	112	620	25:50	31	1.005	A BB	495219.	100.000	UG/L	2.47
38	106	670	27:55	31	1.086	A BB	255365.	100.000	UG/L	2.47
39	104	771	32:07	31	1.250	A BB	497290.	100.000	UG/L	2.47
40	106	802	33:25	31	1.300	A BB	285979.	100.000	UG/L	2.47
41	106	778	32:25	31	1.261	A BB	316895.	100.000	UG/L	2.47
42	95	734	30:35	31	1.190	A BB	467595.	100.000	UG/L%	2.47

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:15	1.00	0.213	1.00	100.00	100.00	0.916	0.916	1.00
3	3:25	1.00	0.324	1.00	100.00	100.00	1.071	1.071	1.00
4	4:17	1.00	0.407	1.00	100.00	100.00	1.065	1.065	1.00
5	5:17	1.00	0.502	1.00	100.00	100.00	0.674	0.674	1.00
6	7:30	1.00	0.711	1.00	100.00	100.00	1.141	1.141	1.00
7	8:05	1.00	0.767	1.00	100.00	100.00	0.416	0.416	1.00
8	9:02	1.00	0.858	1.00	100.00	100.00	2.544	2.544	1.00
9	10:10	1.00	0.964	1.00	100.00	100.00	1.125	1.125	1.00
10	11:25	1.00	1.083	1.00	100.00	100.00	2.083	2.083	1.00
11	12:07	1.00	1.150	1.00	100.00	100.00	1.211	1.211	1.00
12	12:40	1.00	1.202	1.00	100.00	100.00	2.783	2.783	1.00

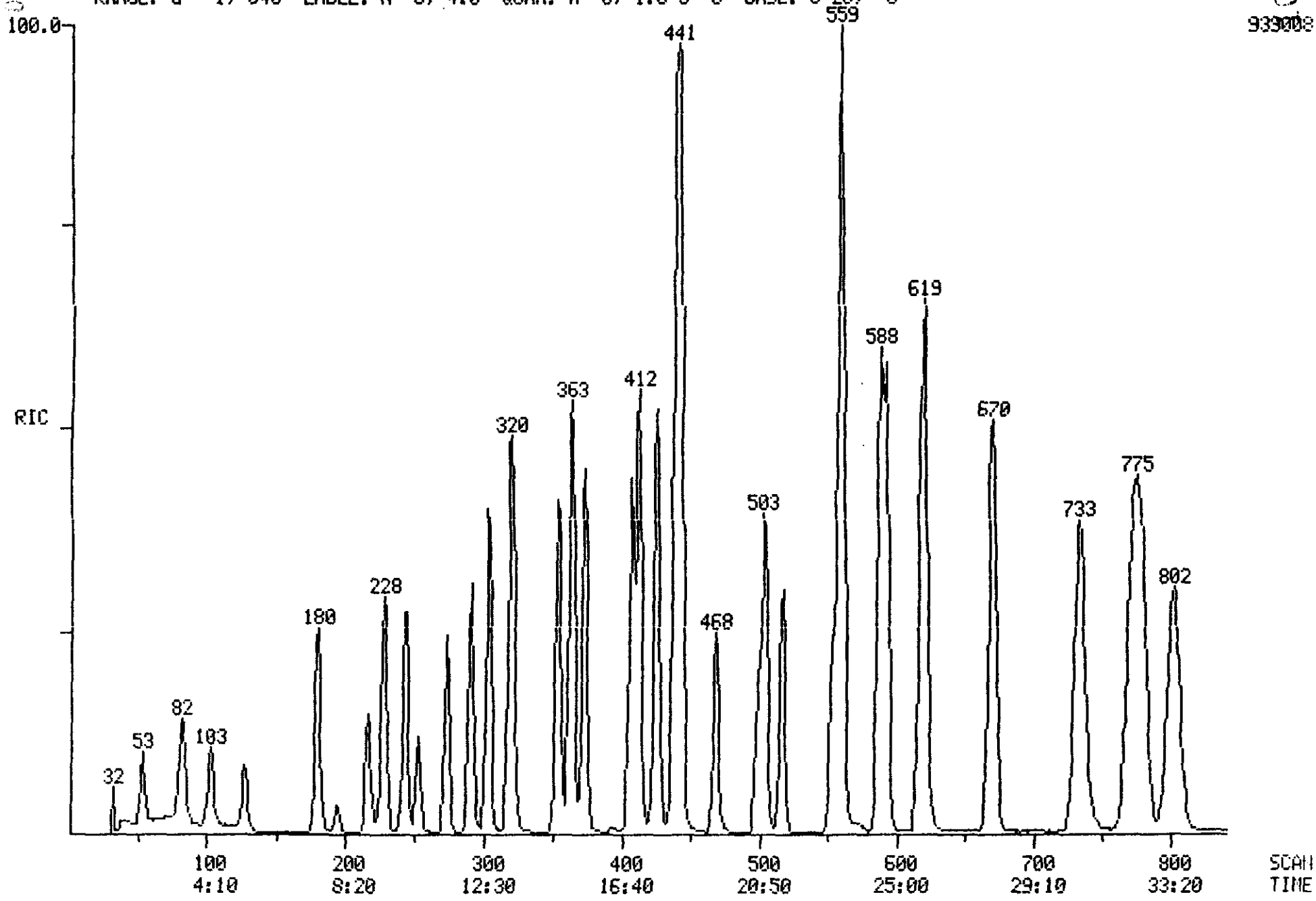
4324 5

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22	1.00	1.269	1.00	100.00	100.00	2.110	2.110	1.00
14	13:17	1.00	1.261	1.00	100.00	100.00	1.900	1.900	1.00
15	9:32	1.00	0.905	1.00	100.00	100.00	2.703	2.703	1.00
16	20:47	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20	1.00	1.265	1.00	100.00	100.00	0.185	0.185	1.00
18	15:12	1.00	0.731	1.00	100.00	100.00	0.604	0.604	1.00
19	15:07	1.00	0.727	1.00	100.00	100.00	0.547	0.547	1.00
20	15:32	1.00	0.747	1.00	100.00	100.00	0.638	0.638	1.00
21	16:57	1.00	0.816	1.00	100.00	100.00	0.311	0.311	1.00
22	17:10	1.00	0.826	1.00	100.00	100.00	0.632	0.632	1.00
23	17:42	1.00	0.852	1.00	100.00	100.00	0.406	0.406	1.00
24	18:15	1.00	0.878	1.00	100.00	100.00	0.760	0.760	1.00
25	18:17	1.00	0.880	1.00	100.00	100.00	0.534	0.534	1.00
26	18:27	1.00	0.888	1.00	100.00	100.00	0.334	0.334	1.00
27	18:27	1.00	0.888	1.00	100.00	100.00	0.363	0.363	1.00
28	21:00	1.00	1.010	1.00	100.00	100.00	0.468	0.468	1.00
29	14:45	1.00	0.709	1.00	100.00	100.00	0.602	0.602	1.00
30	24:30	1.00	0.953	1.00	100.00	100.00	1.097	1.097	1.00
31	25:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.838	1.00	100.00	100.00	0.538	0.538	1.00
33	23:05	1.00	0.898	1.00	100.00	100.00	0.482	0.482	1.00
34	23:20	1.00	0.908	1.00	100.00	100.00	0.356	0.356	1.00
35	23:17	1.00	0.906	1.00	100.00	100.00	0.732	0.732	1.00
36	24:40	1.00	0.959	1.00	100.00	100.00	0.663	0.663	1.00
37	25:50	1.00	1.005	1.00	100.00	100.00	0.895	0.895	1.00
38	27:55	1.00	1.086	1.00	100.00	100.00	0.461	0.461	1.00
39	32:07	1.00	1.250	1.00	100.00	100.00	0.899	0.899	1.00
40	33:25	1.00	1.300	1.00	100.00	100.00	0.517	0.517	1.00
41	32:25	1.00	1.261	1.00	100.00	100.00	0.573	0.573	1.00
42	30:35	1.00	1.190	1.00	100.00	100.00	0.845	0.845	1.00

RIC DATA: U3542 #1 SCANS 1 TO 840
05/08/90 10:41:00 CALI: U3542 #2
SAMPLE: CLP,,VSTD 150,L,S,22647,V,IC-150,,5ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

C0338

933008.



Quantitation Report File: U3542

Data: U3542.TI
05/08/90 10:41:00
Sample: CLP,,VSTD 150,L,S,22647,V,IC-150,,5ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.000
Submitted by: VERSAR Analyst: MAT Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

U3542

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	253	10:32	1	1.000	A BB	70167.	50.000	UG/L*	0.83
2	50	53	2:12	1	0.209	A BB	182571.	150.000	UG/L	2.50
3	94	82	3:25	1	0.324	A BB	219402.	150.000	UG/L	2.50
4	62	103	4:17	1	0.407	A BB	217938.	150.000	UG/L	2.50
5	64	127	5:17	1	0.502	A BB	137397.	150.000	UG/L	2.50
6	84	180	7:30	1	0.711	A BB	229989.	150.000	UG/L	2.50
7	43	194	8:05	1	0.767	A BV	89129.	150.000	UG/L	2.50
8	76	216	9:00	1	0.854	A BB	490365.	150.000	UG/L	2.50
9	96	243	10:07	1	0.960	A BB	213384.	150.000	UG/L	2.50
10	63	274	11:25	1	1.083	A BB	420048.	150.000	UG/L	2.50
11	96	290	12:05	1	1.146	A BB	237713.	150.000	UG/L	2.50
12	83	303	12:37	1	1.198	A BB	558482.	150.000	UG/L	2.50
13	62	321	13:22	1	1.269	A BB	450096.	150.000	UG/L	2.50
14	65	319	13:17	1	1.261	A BB	403903.	150.000	UG/L%	2.50
15	101	228	9:30	1	0.901	A BV	520204.	150.000	UG/L	2.50
16	114	498	20:45	16	1.000	A BB	307719.	50.000	UG/L*	0.83
17	72	320	13:20	1	1.265	A BB	36354.	150.000	UG/L	2.50
18	43	364	15:10	16	0.731	A BB	609541.	150.000	UG/L	2.50
19	117	362	15:05	16	0.727	A VB	471213.	150.000	UG/L	2.50
20	83	373	15:32	16	0.749	A VB	585519.	150.000	UG/L	2.50
21	63	407	16:57	16	0.817	A BB	292325.	150.000	UG/L	2.50
22	75	412	17:10	16	0.827	A BB	583436.	150.000	UG/L	2.50
23	130	425	17:42	16	0.853	A BV	341868.	150.000	UG/L	2.50
24	78	438	18:15	16	0.880	A BB	690558.	150.000	UG/L	2.50
25	129	439	18:17	16	0.882	A BB	477389.	150.000	UG/L	2.50
26	97	442	18:25	16	0.888	A BB	304531.	150.000	UG/L	2.50
27	75	442	18:25	16	0.888	A BB	346719.	150.000	UG/L	2.50
28	173	503	20:57	16	1.010	A BB	420577.	150.000	UG/L	2.50
29	97	353	14:42	16	0.709	A BB	528963.	150.000	UG/L	2.50
30	98	587	24:27	31	0.953	A BB	868243.	150.000	UG/L%	2.50
31	117	616	25:40	31	1.000	A BB	275669.	50.000	UG/L*	0.83
32	43	517	21:32	31	0.839	A BB	483947.	150.000	UG/L	2.50
33	43	553	23:02	31	0.898	A BB	420474.	150.000	UG/L	2.50
34	164	560	23:20	31	0.909	A BB	255442.	150.000	UG/L	2.50
35	83	559	23:17	31	0.907	A BB	637653.	150.000	UG/L	2.50
36	92	592	24:40	31	0.961	A BB	534597.	150.000	UG/L	2.50
37	112	619	25:47	31	1.005	A BB	712757.	150.000	UG/L	2.50
38	106	670	27:55	31	1.088	A BB	363070.	150.000	UG/L	2.50
39	104	770	32:05	31	1.250	A BB	714899.	150.000	UG/L	2.50
40	106	802	33:25	31	1.302	A BB	417771.	150.000	UG/L	2.50
41	106	778	32:25	31	1.263	A BB	449436.	150.000	UG/L	2.50
42	95	733	30:32	31	1.190	A BB	695705.	150.000	UG/L%	2.50

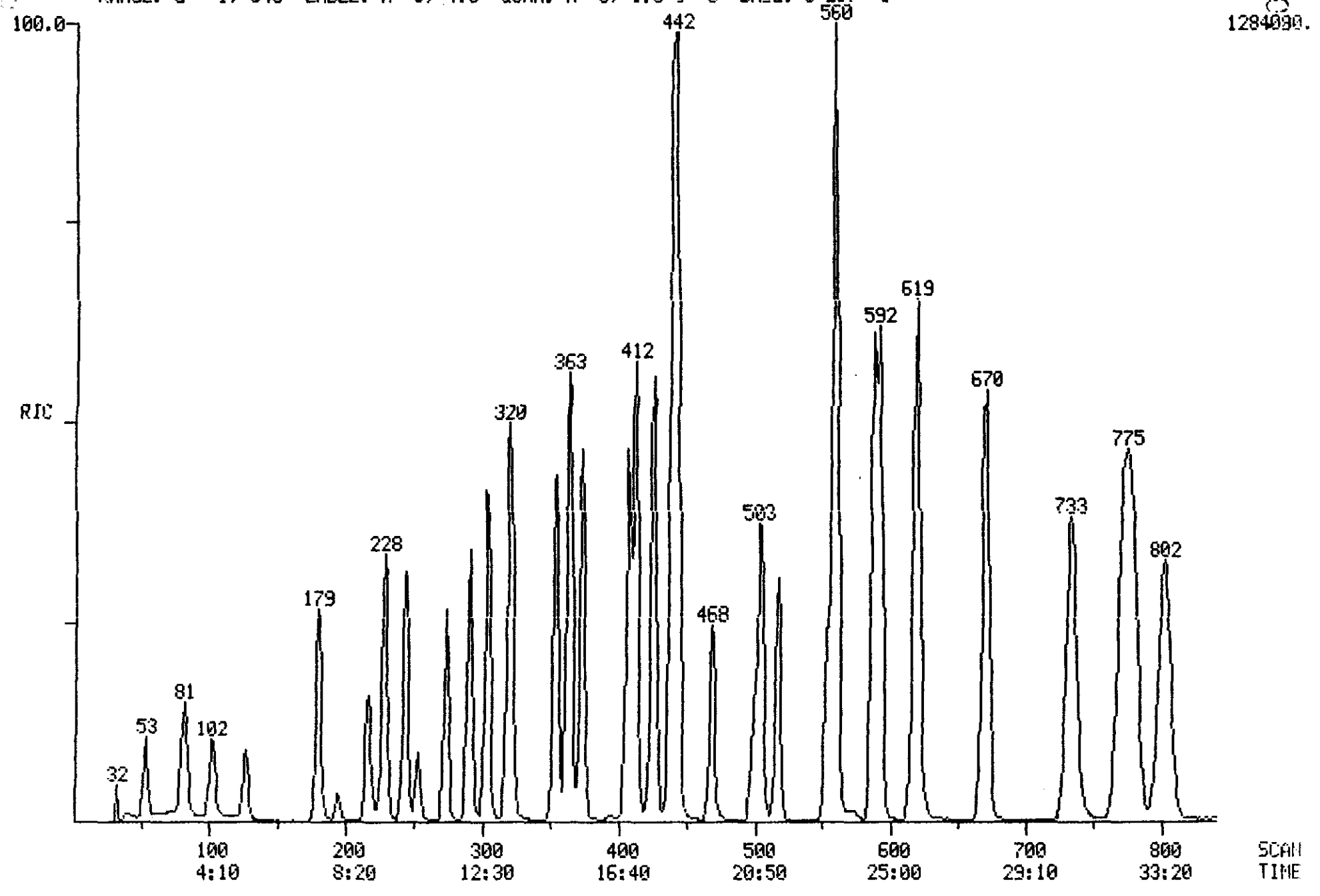
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12	1.00	0.209	1.00	150.00	150.00	0.867	0.867	1.00
3	3:25	1.00	0.324	1.00	150.00	150.00	1.042	1.042	1.00
4	4:17	1.00	0.407	1.00	150.00	150.00	1.035	1.035	1.00
5	5:17	1.00	0.502	1.00	150.00	150.00	0.653	0.653	1.00
6	7:30	1.00	0.711	1.00	150.00	150.00	1.093	1.093	1.00
7	8:05	1.00	0.767	1.00	150.00	150.00	0.423	0.423	1.00
8	9:00	1.00	0.854	1.00	150.00	150.00	2.330	2.330	1.00
9	10:07	1.00	0.960	1.00	150.00	150.00	1.014	1.014	1.00
10	11:25	1.00	1.083	1.00	150.00	150.00	1.995	1.995	1.00
11	12:05	1.00	1.146	1.00	150.00	150.00	1.129	1.129	1.00
12	12:37	1.00	1.198	1.00	150.00	150.00	2.653	2.653	1.00

100340

4 3542

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
13	13:22	1.00	1.269	1.00	150.00	150.00	2.138	2.138	1.00
14	13:17	1.00	1.261	1.00	150.00	150.00	1.919	1.919	1.00
15	9:30	1.00	0.901	1.00	150.00	150.00	2.471	2.471	1.00
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20	1.00	1.265	1.00	150.00	150.00	0.173	0.173	1.00
18	15:10	1.00	0.731	1.00	150.00	150.00	0.660	0.660	1.00
19	15:05	1.00	0.727	1.00	150.00	150.00	0.510	0.510	1.00
20	15:32	1.00	0.749	1.00	150.00	150.00	0.634	0.634	1.00
21	16:57	1.00	0.817	1.00	150.00	150.00	0.317	0.317	1.00
22	17:10	1.00	0.827	1.00	150.00	150.00	0.632	0.632	1.00
23	17:42	1.00	0.853	1.00	150.00	150.00	0.370	0.370	1.00
24	18:15	1.00	0.880	1.00	150.00	150.00	0.748	0.748	1.00
25	18:17	1.00	0.882	1.00	150.00	150.00	0.517	0.517	1.00
26	18:25	1.00	0.888	1.00	150.00	150.00	0.330	0.330	1.00
27	18:25	1.00	0.888	1.00	150.00	150.00	0.376	0.376	1.00
28	20:57	1.00	1.010	1.00	150.00	150.00	0.456	0.456	1.00
29	14:42	1.00	0.709	1.00	150.00	150.00	0.573	0.573	1.00
30	24:27	1.00	0.953	1.00	150.00	150.00	1.050	1.050	1.00
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	150.00	150.00	0.585	0.585	1.00
33	23:02	1.00	0.898	1.00	150.00	150.00	0.508	0.508	1.00
34	23:20	1.00	0.909	1.00	150.00	150.00	0.309	0.309	1.00
35	23:17	1.00	0.907	1.00	150.00	150.00	0.771	0.771	1.00
36	24:40	1.00	0.961	1.00	150.00	150.00	0.646	0.646	1.00
37	25:47	1.00	1.005	1.00	150.00	150.00	0.862	0.862	1.00
38	27:55	1.00	1.088	1.00	150.00	150.00	0.439	0.439	1.00
39	32:05	1.00	1.250	1.00	150.00	150.00	0.864	0.864	1.00
40	33:25	1.00	1.302	1.00	150.00	150.00	0.505	0.505	1.00
41	32:25	1.00	1.263	1.00	150.00	150.00	0.543	0.543	1.00
42	30:32	1.00	1.190	1.00	150.00	150.00	0.841	0.841	1.00

RIC DATA: U3541 #1 SCANS 1 TO 840
05/08/90 9:59:00 CALI: U3541 #2
SAMPLE: CLP,,,VSTD 200,L,S,22645,V,IC-200,,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



00342

Quantitation Report File: U3541

Data: U3541.TI
05/08/90 9:59:00
Sample: CLP,,,VSTD 200,L,S,22645,V,IC-200,,5 ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.000
Submitted by: VERSAR Analyst: MAT Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

43541

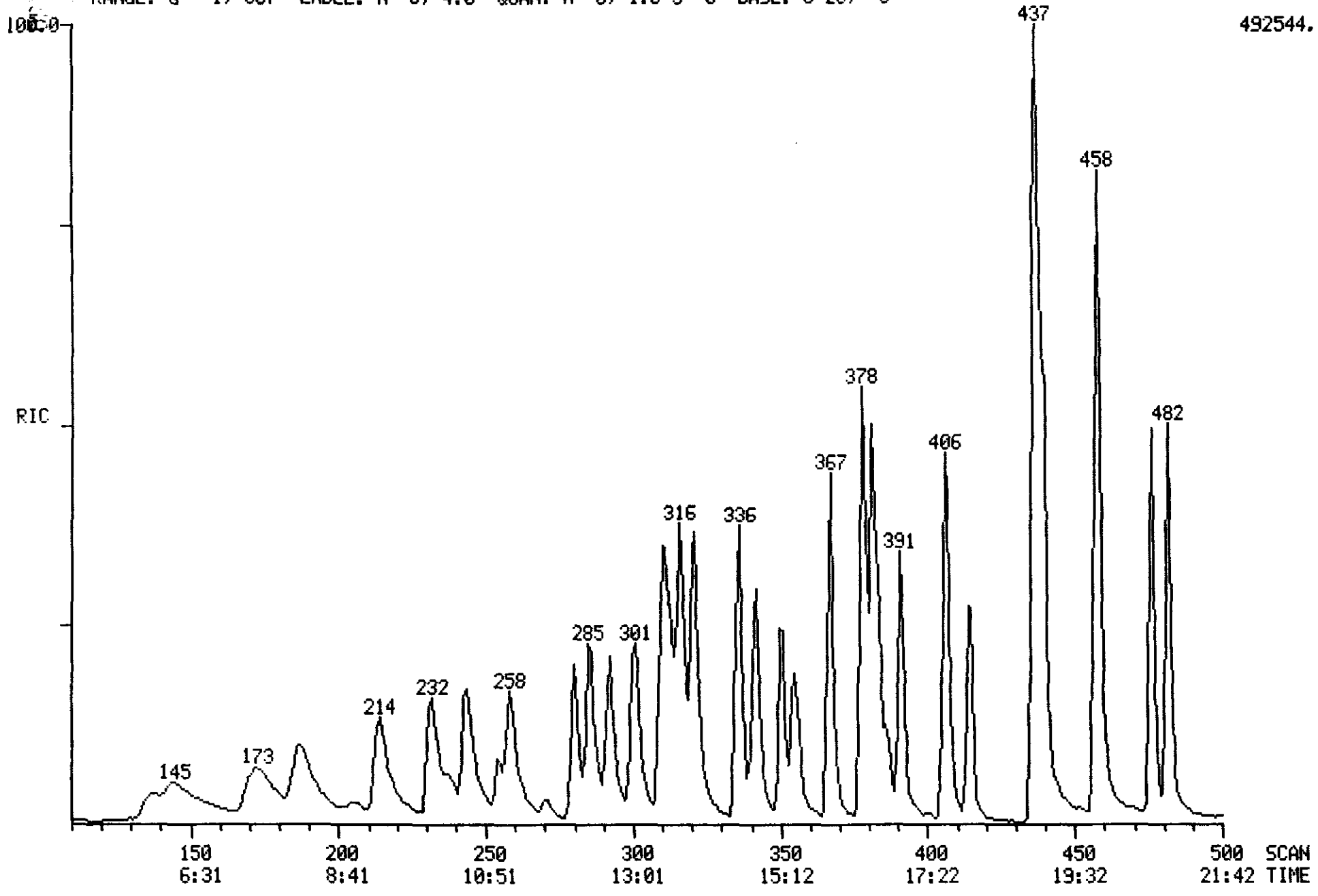
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	253	10:32	1	1.000	A BB	71229.	50.000	UG/L*	0.63
2	50	53	2:12	1	0.209	A BB	275905.	200.000	UG/L	2.52
3	94	81	3:22	1	0.320	A BB	331301.	200.000	UG/L	2.52
4	62	102	4:15	1	0.403	A BB	336254.	200.000	UG/L	2.52
5	64	127	5:17	1	0.502	A BB	214169.	200.000	UG/L	2.52
6	84	179	7:27	1	0.708	A BB	328075.	200.000	UG/L	2.52
7	43	194	8:05	1	0.767	A BB	120347.	200.000	UG/L	2.52
8	76	216	9:00	1	0.854	A BB	740365.	200.000	UG/L	2.52
9	96	243	10:07	1	0.960	A BB	322190.	200.000	UG/L	2.52
10	63	274	11:25	1	1.083	A BB	622701.	200.000	UG/L	2.52
11	96	290	12:05	1	1.146	A BB	345716.	200.000	UG/L	2.52
12	83	303	12:37	1	1.198	A BV	801659.	200.000	UG/L	2.52
13	62	321	13:22	1	1.269	A BB	633173.	200.000	UG/L	2.52
14	65	319	13:17	1	1.261	A BB	548077.	200.000	UG/L%	2.52
15	101	228	9:30	1	0.901	A BB	800983.	200.000	UG/L	2.52
16	114	499	20:47	16	1.000	A BB	310365.	50.000	UG/L*	0.63
17	72	320	13:20	1	1.265	A BB	47282.	200.000	UG/L	2.52
18	43	365	15:12	16	0.731	A BB	846043.	200.000	UG/L	2.52
19	117	362	15:05	16	0.725	A VB	688818.	200.000	UG/L	2.52
20	83	373	15:32	16	0.747	A VB	809200.	200.000	UG/L	2.52
21	63	407	16:57	16	0.816	A BB	424119.	200.000	UG/L	2.52
22	75	412	17:10	16	0.826	A BB	816387.	200.000	UG/L	2.52
23	130	425	17:42	16	0.852	A BV	483477.	200.000	UG/L	2.52
24	78	438	18:15	16	0.878	A BB	991072.	200.000	UG/L	2.52
25	129	439	18:17	16	0.880	A BB	634020.	200.000	UG/L	2.52
26	97	442	18:25	16	0.886	A BB	404445.	200.000	UG/L	2.52
27	75	442	18:25	16	0.886	A BB	484460.	200.000	UG/L	2.52
28	173	503	20:57	16	1.008	A BB	542932.	200.000	UG/L	2.52
29	97	353	14:42	16	0.707	A BB	775167.	200.000	UG/L	2.52
30	98	587	24:27	31	0.953	A BB	1167740.	200.000	UG/L%	2.52
31	117	616	25:40	31	1.000	A BB	274667.	50.000	UG/L*	0.63
32	43	517	21:32	31	0.839	A BB	655733.	200.000	UG/L	2.52
33	43	554	23:05	31	0.899	A BB	577626.	200.000	UG/L	2.52
34	164	560	23:20	31	0.909	A BB	349134.	200.000	UG/L	2.52
35	83	559	23:17	31	0.907	A BB	828575.	200.000	UG/L	2.52
36	92	592	24:40	31	0.961	A BB	751594.	200.000	UG/L	2.52
37	112	619	25:47	31	1.005	A BB	991385.	200.000	UG/L	2.52
38	106	670	27:55	31	1.088	A BB	512859.	200.000	UG/L	2.52
39	104	771	32:07	31	1.252	A BB	1021770.	200.000	UG/L	2.52
40	106	802	33:25	31	1.302	A BB	606880.	200.000	UG/L	2.52
41	106	778	32:25	31	1.263	A BB	650652.	200.000	UG/L	2.52
42	95	733	30:32	31	1.190	A BB	932942.	200.000	UG/L%	2.52

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12	1.00	0.209	1.00	200.00	200.00	0.968	0.968	1.00
3	3:22	1.00	0.320	1.00	200.00	200.00	1.163	1.163	1.00
4	4:15	1.00	0.403	1.00	200.00	200.00	1.180	1.180	1.00
5	5:17	1.00	0.502	1.00	200.00	200.00	0.752	0.752	1.00
6	7:27	1.00	0.708	1.00	200.00	200.00	1.151	1.151	1.00
7	8:05	1.00	0.767	1.00	200.00	200.00	0.422	0.422	1.00
8	9:00	1.00	0.854	1.00	200.00	200.00	2.599	2.599	1.00
9	10:07	1.00	0.960	1.00	200.00	200.00	1.131	1.131	1.00
10	11:25	1.00	1.083	1.00	200.00	200.00	2.186	2.186	1.00
11	12:05	1.00	1.146	1.00	200.00	200.00	1.213	1.213	1.00
12	12:37	1.00	1.198	1.00	200.00	200.00	2.814	2.814	1.00

43541

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R. Fac	R. Fac(L)	Ratio
13	13:22	1.00	1.269	1.00	200.00	200.00	2.222	2.222	1.00
14	13:17	1.00	1.261	1.00	200.00	200.00	1.924	1.924	1.00
15	9:30	1.00	0.901	1.00	200.00	200.00	2.811	2.811	1.00
16	20:47	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20	1.00	1.265	1.00	200.00	200.00	0.166	0.166	1.00
18	15:12	1.00	0.731	1.00	200.00	200.00	0.681	0.681	1.00
19	15:05	1.00	0.725	1.00	200.00	200.00	0.555	0.555	1.00
20	15:32	1.00	0.747	1.00	200.00	200.00	0.652	0.652	1.00
21	16:57	1.00	0.816	1.00	200.00	200.00	0.342	0.342	1.00
22	17:10	1.00	0.826	1.00	200.00	200.00	0.658	0.658	1.00
23	17:42	1.00	0.852	1.00	200.00	200.00	0.389	0.389	1.00
24	18:15	1.00	0.878	1.00	200.00	200.00	0.798	0.798	1.00
25	18:17	1.00	0.880	1.00	200.00	200.00	0.511	0.511	1.00
26	18:25	1.00	0.886	1.00	200.00	200.00	0.326	0.326	1.00
27	18:25	1.00	0.886	1.00	200.00	200.00	0.390	0.390	1.00
28	20:57	1.00	1.008	1.00	200.00	200.00	0.437	0.437	1.00
29	14:42	1.00	0.707	1.00	200.00	200.00	0.624	0.624	1.00
30	24:27	1.00	0.953	1.00	200.00	200.00	1.063	1.063	1.00
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	200.00	200.00	0.597	0.597	1.00
33	23:05	1.00	0.899	1.00	200.00	200.00	0.526	0.526	1.00
34	23:20	1.00	0.909	1.00	200.00	200.00	0.318	0.318	1.00
35	23:17	1.00	0.907	1.00	200.00	200.00	0.754	0.754	1.00
36	24:40	1.00	0.961	1.00	200.00	200.00	0.684	0.684	1.00
37	25:47	1.00	1.005	1.00	200.00	200.00	0.902	0.902	1.00
38	27:55	1.00	1.088	1.00	200.00	200.00	0.467	0.467	1.00
39	32:07	1.00	1.252	1.00	200.00	200.00	0.930	0.930	1.00
40	33:25	1.00	1.302	1.00	200.00	200.00	0.552	0.552	1.00
41	32:25	1.00	1.263	1.00	200.00	200.00	0.592	0.592	1.00
42	30:32	1.00	1.190	1.00	200.00	200.00	0.849	0.849	1.00

04/30/90 10:15:00 CALI: Y1215 #3
SAMPLE: CLP,,,VSTD050,L,W,22564,V,CC-050,,,5ML
CONDS.: INST Y:RTX-502.2,60METER,0.32MM ID,~~60C(.5MIN) TO 220 @20C/MIN~~ 20°C (0.5 min) To 220°C at 10°C/min
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: Y1215

Data: Y1215.TI
04/30/90 10:15:00
Sample: CLP,,,VSTD050,L,W,22564,V,CC-050,,,5ML
Conds.: INST Y:RTX-502.2,60METER,0.32MM ID,60C(.5MIN) TO 220 @20C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C245 STYRENE
38	C250 O&P XYLENES
39	C065 1,2-DICHLOROETHANE
40	C054 TRANS-1,2-DICHLOROETHENE
41	C055 CIS-1,2-DICHLOROETHENE
42	C240 ETHYLBENZENE
43	C251 M-XYLENE

Y1215

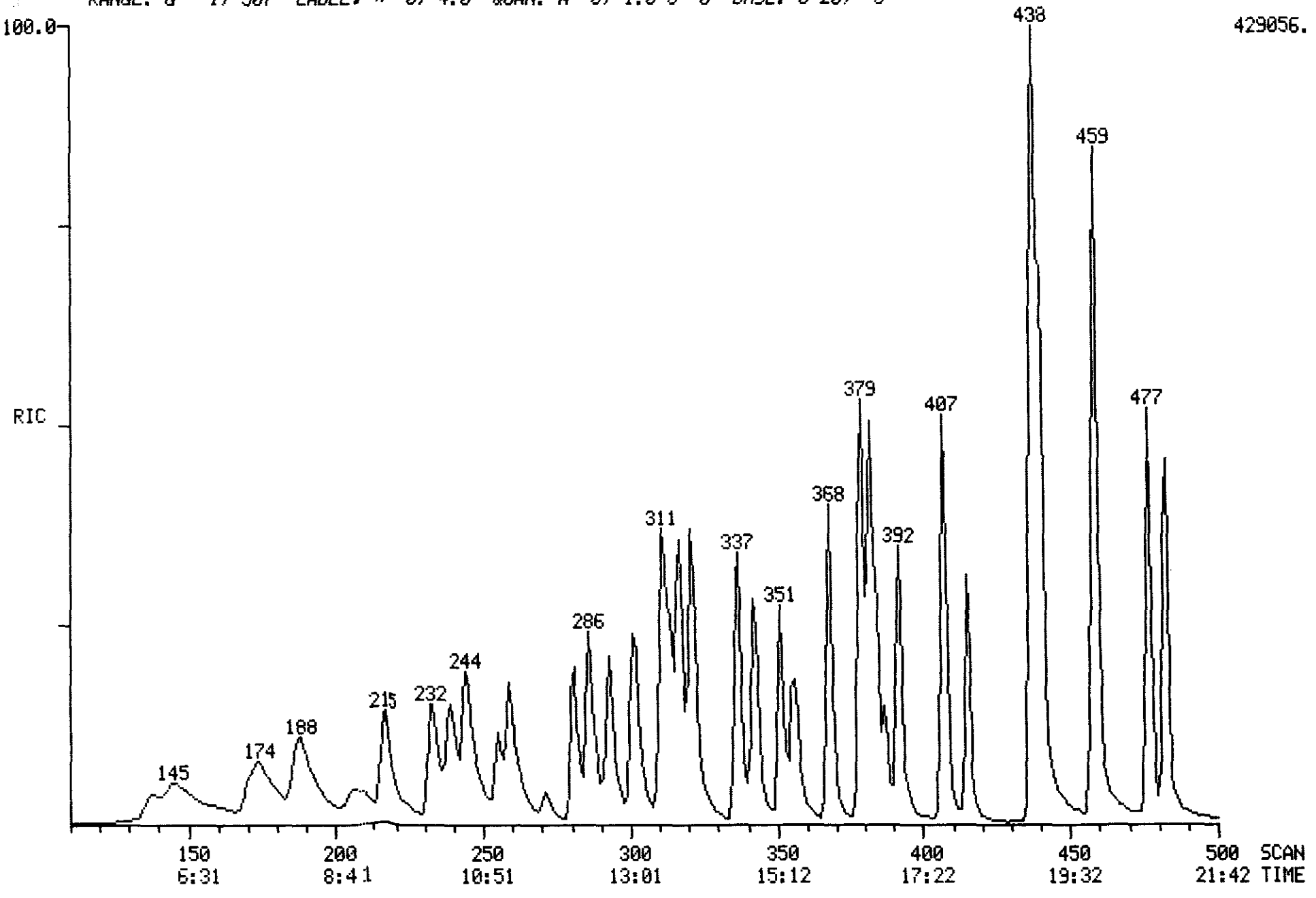
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	292	12:41	1	1.000	A BB	50611.	50.000 UG/L*	2.33
2	114	321	13:56	2	1.000	A BB	220965.	50.000 UG/L*	2.33
3	82	436	18:56	3	1.000	A BB	97255.	50.000 UG/L*	2.33
4	65	310	13:28	2	0.966	A BB	97830.	50.000 UG/L%	2.33
5	98	378	16:25	2	1.178	A BV	252844.	50.000 UG/L%	2.33
6	95	482	20:56	3	1.106	A VB	107281.	50.000 UG/L%	2.33
7	50	138	5:59	1	0.473	A BB	88923.	50.000 UG/L	2.33
8	94	171	7:25	1	0.586	A BB	61460.	50.000 UG/L	2.33
9	62	145	6:18	1	0.497	A BB	70482.	50.000 UG/L	2.33
10	64	174	7:33	1	0.596	A BB	45832.	50.000 UG/L	2.33
11	84	232	10:04	1	0.795	A BB	79886.	50.000 UG/L	2.33
12	43	206	8:57	1	0.705	A BB	17928.	50.000 UG/L	2.33
13	76	238	10:20	1	0.815	A BB	51283.	50.000 UG/L	2.33
14	96	214	9:17	1	0.733	A BB	66963.	50.000 UG/L	2.33
15	63	258	11:12	1	0.884	A VB	144750.	50.000 UG/L	2.33
16	83	285	12:22	1	0.976	A BB	147246.	50.000 UG/L	2.33
17	97	301	13:04	1	1.031	A BB	138617.	50.000 UG/L	2.33
18	72	270	11:43	1	0.925	A BV	5868.	50.000 UG/L	2.33
19	117	311	13:30	2	0.969	A VB	120727.	50.000 UG/L	2.33
20	43	254	11:02	1	0.870	A BB	104547.	50.000 UG/L	2.33
21	83	350	15:12	2	1.090	A BV	115221.	50.000 UG/L	2.33
22	63	342	14:51	2	1.065	A BB	68210.	50.000 UG/L	2.33
23	75	367	15:56	2	1.143	A BB	141719.	50.000 UG/L	2.33
24	130	336	14:35	2	1.047	A BB	100100.	50.000 UG/L	2.33
25	129	414	17:58	3	0.950	A VB	105323.	50.000 UG/L	2.33
26	97	391	16:59	3	0.897	A BV	64871.	50.000 UG/L	2.33
27	78	316	13:43	2	0.984	A BB	221775.	50.000 UG/L	2.33
28	75	384	16:40	3	0.881	A VB	70594.	50.000 UG/L	2.33
29	63	354	15:22	2	1.103	A VV	34662.	50.000 UG/L	2.33
30	173	476	20:40	3	1.092	A BB	80847.	50.000 UG/L	2.33
31	43	386	16:46	3	0.885	A VB	35807.	50.000 UG/L	2.33
32	43	356	15:27	2	1.109	A BB	80932.	50.000 UG/L	2.33
33	164	406	17:38	3	0.931	A BB	90385.	50.000 UG/L	2.33
34	83	476	20:40	3	1.092	A BB	79164.	50.000 UG/L	2.33
35	91	381	16:33	3	0.874	A BB	233149.	50.000 UG/L	2.33
36	112	438	19:01	3	1.005	A BB	149376.	50.000 UG/L	2.33
37	104	458	19:53	3	1.050	A BB	148759.	50.000 UG/L	2.33
38	106	457	19:50	3	1.048	A BB	85217.	50.000 UG/L	2.33
39	62	313	13:35	2	0.975	A BV	94711.	50.000 UG/L	2.33
40	96	244	10:36	1	0.836	A BB	73871.	50.000 UG/L	2.33
41	96	280	12:09	1	0.959	A BB	74691.	50.000 UG/L	2.33
42	106	437	18:58	3	1.002	M XX	70423.	50.000 UG/L	2.33
43	106	440	19:06	3	1.009	M XX	115287.	50.000 UG/L	2.33

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:41	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	50.00	50.00	0.443	0.443	1.00
5	16:25	1.00	1.178	1.00	50.00	50.00	1.144	1.144	1.00
6	20:56	1.00	1.106	1.00	50.00	50.00	1.103	1.103	1.00
7	5:59	1.00	0.473	1.00	50.00	50.00	1.757	1.757	1.00
8	7:25	1.00	0.586	1.00	50.00	50.00	1.214	1.214	1.00
9	6:18	1.00	0.497	1.00	50.00	50.00	1.393	1.393	1.00
10	7:33	1.00	0.596	1.00	50.00	50.00	0.906	0.906	1.00
11	10:04	1.00	0.795	1.00	50.00	50.00	1.578	1.578	1.00

M1215

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:57	1.00	0.705	1.00	50.00	50.00	0.354	0.354	1.00
13	10:20	1.00	0.815	1.00	50.00	50.00	1.013	1.013	1.00
14	9:17	1.00	0.733	1.00	50.00	50.00	1.323	1.323	1.00
15	11:12	1.00	0.884	1.00	50.00	50.00	2.860	2.860	1.00
16	12:22	1.00	0.976	1.00	50.00	50.00	2.909	2.909	1.00
17	13:04	1.00	1.031	1.00	50.00	50.00	2.739	2.739	1.00
18	11:43	1.00	0.925	1.00	50.00	50.00	0.116	0.116	1.00
19	13:30	1.00	0.969	1.00	50.00	50.00	0.546	0.546	1.00
20	11:02	1.00	0.870	1.00	50.00	50.00	2.066	2.066	1.00
21	15:12	1.00	1.090	1.00	50.00	50.00	0.521	0.521	1.00
22	14:51	1.00	1.065	1.00	50.00	50.00	0.309	0.309	1.00
23	15:56	1.00	1.143	1.00	50.00	50.00	0.641	0.641	1.00
24	14:35	1.00	1.047	1.00	50.00	50.00	0.453	0.453	1.00
25	17:58	1.00	0.950	1.00	50.00	50.00	1.083	1.083	1.00
26	16:59	1.00	0.897	1.00	50.00	50.00	0.667	0.667	1.00
27	13:43	1.00	0.984	1.00	50.00	50.00	1.004	1.004	1.00
28	16:40	1.00	0.881	1.00	50.00	50.00	0.726	0.726	1.00
29	15:22	1.00	1.103	1.00	50.00	50.00	0.157	0.157	1.00
30	20:40	1.00	1.092	1.00	50.00	50.00	0.831	0.831	1.00
31	16:46	1.00	0.885	1.00	50.00	50.00	0.368	0.368	1.00
32	15:27	1.00	1.109	1.00	50.00	50.00	0.366	0.366	1.00
33	17:38	1.00	0.931	1.00	50.00	50.00	0.929	0.929	1.00
34	20:40	1.00	1.092	1.00	50.00	50.00	0.814	0.814	1.00
35	16:33	1.00	0.874	1.00	50.00	50.00	2.397	2.397	1.00
36	19:01	1.00	1.005	1.00	50.00	50.00	1.536	1.536	1.00
37	19:53	1.00	1.050	1.00	50.00	50.00	1.530	1.530	1.00
38	19:50	1.00	1.048	1.00	50.00	50.00	0.876	0.876	1.00
39	13:35	1.00	0.975	1.00	50.00	50.00	0.429	0.429	1.00
40	10:36	1.00	0.836	1.00	50.00	50.00	1.460	1.460	1.00
41	12:09	1.00	0.959	1.00	50.00	50.00	1.476	1.476	1.00
42	18:58	1.00	1.002	1.00	50.00	50.00	0.724	0.724	1.00
43	19:06	1.00	1.009	1.00	50.00	50.00	1.185	1.185	1.00

RIC DATA: Y1236 #1 SCANS 110 TO 500
04/30/90 22:49:00 CALI: CALTAB #3
SAMPLE: CLP,,,VSTD50,L,W,22578,V,CC-0505,,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



003501

Quantitation Report File: Y1236

Data: Y1236.TI
04/30/90 22:49:00
Sample: CLP,,,VSTD50,L,W,22578,V,CC-0505,,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Formula: RTX-502.2,20C(.5MIN) Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

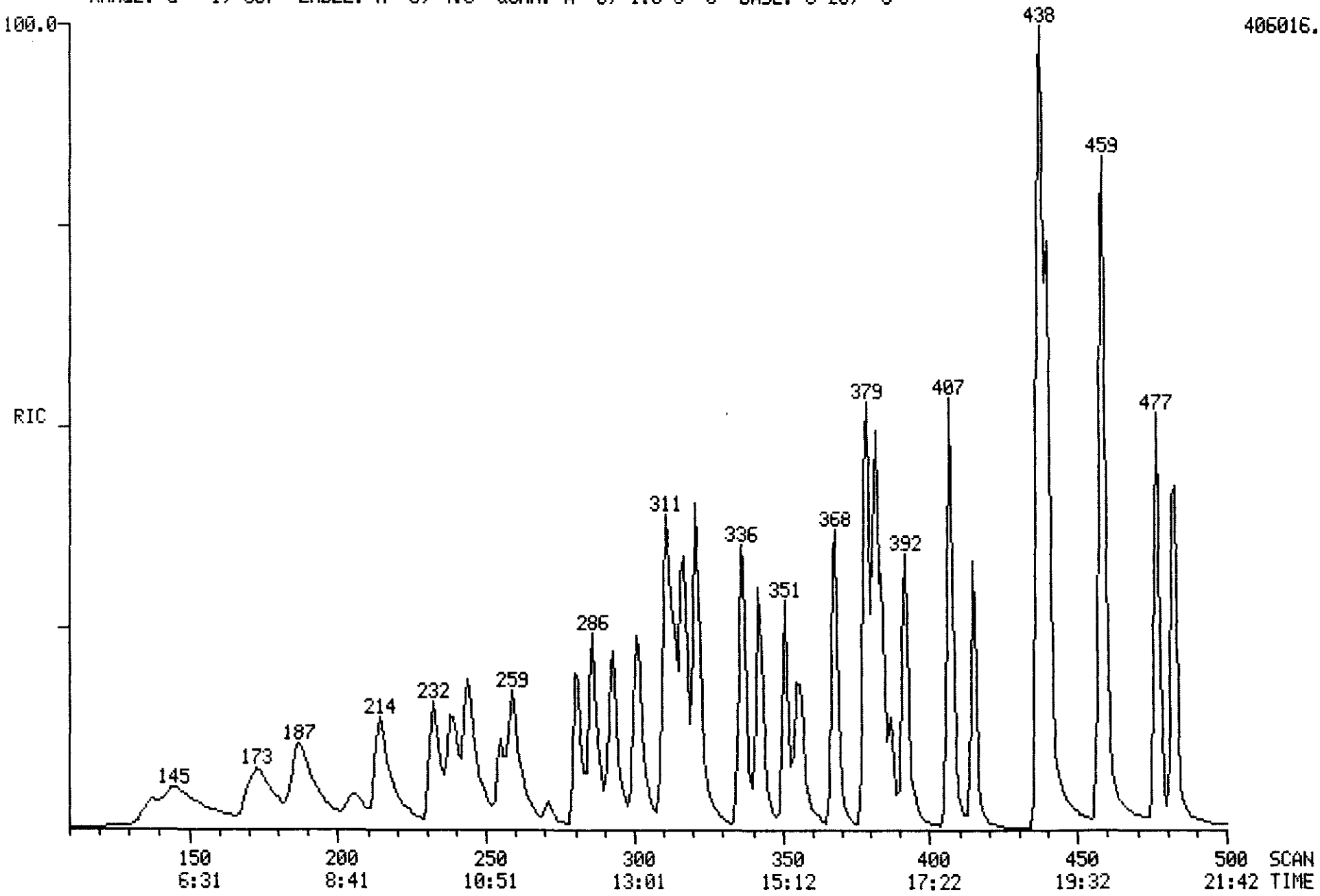
No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C245 STYRENE
38	C250 O&P XYLENES
39	C065 1,2-DICHLOROETHANE
40	C251 M-XYLENE
41	C054 TRANS-1,2-DICHLOROETHENE
42	C055 CIS-1,2-DICHLOROETHENE
43	C240 ETHYLBENZENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	293	12:43	1	1.000	A BB	43273.	50.000	UG/L*	2.33
2	114	321	13:56	2	1.000	A BB	185041.	50.000	UG/L*	2.33
3	82	437	18:58	3	1.000	A BB	83578.	50.000	UG/L*	2.33
4	65	311	13:30	2	0.969	A BB	83198.	50.000	UG/L%	2.33
5	98	379	16:27	2	1.181	A BV	212112.	50.000	UG/L%	2.33
6	95	483	20:58	3	1.105	A VB	92866.	50.000	UG/L%	2.33
7	50	138	5:59	1	0.471	A BB	73984.	50.000	UG/L	2.33
8	94	171	7:25	1	0.584	A BB	56585.	50.000	UG/L	2.33
9	62	146	6:20	1	0.498	A BB	62987.	50.000	UG/L	2.33
10	64	175	7:36	1	0.597	A BB	43362.	50.000	UG/L	2.33
11	84	232	10:04	1	0.792	A BB	65757.	50.000	UG/L	2.33
12	43	207	8:59	1	0.706	A BB	30465.	50.000	UG/L	2.33
13	76	239	10:23	1	0.816	A BB	207487.	50.000	UG/L	2.33
14	96	214	9:17	1	0.730	A BB	59705.	50.000	UG/L	2.33
15	63	259	11:15	1	0.884	A VB	121143.	50.000	UG/L	2.33
16	83	286	12:25	1	0.976	A BB	127825.	50.000	UG/L	2.33
17	97	301	13:04	1	1.027	A BB	125325.	50.000	UG/L	2.33
18	72	271	11:46	1	0.925	A BV	6933.	50.000	UG/L	2.33
19	117	312	13:33	2	0.972	A VB	110261.	50.000	UG/L	2.33
20	43	255	11:04	1	0.870	A BB	124461.	50.000	UG/L	2.33
21	83	351	15:14	2	1.093	A BV	99214.	50.000	UG/L	2.33
22	63	342	14:51	2	1.065	A BB	53788.	50.000	UG/L	2.33
23	75	368	15:59	2	1.146	A BB	119235.	50.000	UG/L	2.33
24	130	336	14:35	2	1.047	A BB	84936.	50.000	UG/L	2.33
25	129	415	18:01	3	0.950	A VB	91959.	50.000	UG/L	2.33
26	97	392	17:01	3	0.897	A BV	55919.	50.000	UG/L	2.33
27	78	317	13:46	2	0.988	A BB	184840.	50.000	UG/L	2.33
28	75	384	16:40	3	0.879	A VB	63300.	50.000	UG/L	2.33
29	63	355	15:25	2	1.106	A VB	29336.	50.000	UG/L	2.33
30	173	477	20:43	3	1.092	A BB	73269.	50.000	UG/L	2.33
31	43	387	16:48	3	0.886	A VV	36761.	50.000	UG/L	2.33
32	43	356	15:27	2	1.109	A BB	69851.	50.000	UG/L	2.33
33	164	407	17:40	3	0.931	A BB	80453.	50.000	UG/L	2.33
34	83	477	20:43	3	1.092	A BB	68365.	50.000	UG/L	2.33
35	91	382	16:35	3	0.874	A VB	202418.	50.000	UG/L	2.33
36	112	439	19:04	3	1.005	A VB	129680.	50.000	UG/L	2.33
37	104	459	19:56	3	1.050	A BB	135188.	50.000	UG/L	2.33
38	106	458	19:53	3	1.048	A BB	80199.	50.000	UG/L	2.33
39	62	314	13:38	2	0.978	A BB	89666.	50.000	UG/L	2.33
40	106	440	19:06	3	1.007	A BB	169138.	50.000	UG/L	2.33
41	96	244	10:36	1	0.833	A BB	60751.	50.000	UG/L	2.33
42	96	281	12:12	1	0.959	A BB	67061.	50.000	UG/L	2.33
43	106	438	19:01	3	1.002	M XX	70538.	50.000	UG/L	2.33

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	50.00	50.00	0.450	0.450	1.00
5	16:27	1.00	1.181	1.00	50.00	50.00	1.146	1.146	1.00
6	20:58	1.00	1.105	1.00	50.00	50.00	1.111	1.111	1.00
7	5:59	1.00	0.471	1.00	50.00	50.00	1.710	1.710	1.00
8	7:25	1.00	0.584	1.00	50.00	50.00	1.308	1.308	1.00
9	6:20	1.00	0.498	1.00	50.00	50.00	1.456	1.456	1.00
10	7:36	1.00	0.597	1.00	50.00	50.00	1.002	1.002	1.00
11	10:04	1.00	0.792	1.00	50.00	50.00	1.520	1.520	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.706	1.00	50.00	50.00	0.704	0.704	1.00
13	10:23	1.00	0.816	1.00	50.00	50.00	4.795	4.795	1.00
14	9:17	1.00	0.730	1.00	50.00	50.00	1.380	1.380	1.00
15	11:15	1.00	0.884	1.00	50.00	50.00	2.799	2.799	1.00
16	12:25	1.00	0.976	1.00	50.00	50.00	2.954	2.954	1.00
17	13:04	1.00	1.027	1.00	50.00	50.00	2.896	2.896	1.00
18	11:46	1.00	0.925	1.00	50.00	50.00	0.160	0.160	1.00
19	13:33	1.00	0.972	1.00	50.00	50.00	0.596	0.596	1.00
20	11:04	1.00	0.870	1.00	50.00	50.00	2.876	2.876	1.00
21	15:14	1.00	1.093	1.00	50.00	50.00	0.536	0.536	1.00
22	14:51	1.00	1.065	1.00	50.00	50.00	0.291	0.291	1.00
23	15:59	1.00	1.146	1.00	50.00	50.00	0.644	0.644	1.00
24	14:35	1.00	1.047	1.00	50.00	50.00	0.459	0.459	1.00
25	18:01	1.00	0.950	1.00	50.00	50.00	1.100	1.100	1.00
26	17:01	1.00	0.897	1.00	50.00	50.00	0.669	0.669	1.00
27	13:46	1.00	0.988	1.00	50.00	50.00	0.999	0.999	1.00
28	16:40	1.00	0.879	1.00	50.00	50.00	0.757	0.757	1.00
29	15:25	1.00	1.106	1.00	50.00	50.00	0.159	0.159	1.00
30	20:43	1.00	1.092	1.00	50.00	50.00	0.877	0.877	1.00
31	16:48	1.00	0.886	1.00	50.00	50.00	0.440	0.440	1.00
32	15:27	1.00	1.109	1.00	50.00	50.00	0.377	0.377	1.00
33	17:40	1.00	0.931	1.00	50.00	50.00	0.963	0.963	1.00
34	20:43	1.00	1.092	1.00	50.00	50.00	0.818	0.818	1.00
35	16:35	1.00	0.874	1.00	50.00	50.00	2.422	2.422	1.00
36	19:04	1.00	1.005	1.00	50.00	50.00	1.552	1.552	1.00
37	19:56	1.00	1.050	1.00	50.00	50.00	1.617	1.617	1.00
38	19:53	1.00	1.048	1.00	50.00	50.00	0.960	0.960	1.00
39	13:38	1.00	0.978	1.00	50.00	50.00	0.485	0.485	1.00
40	19:06	1.00	1.007	1.00	50.00	50.00	2.024	2.024	1.00
41	10:36	1.00	0.833	1.00	50.00	50.00	1.404	1.404	1.00
42	12:12	1.00	0.959	1.00	50.00	50.00	1.550	1.550	1.00
43	19:01	1.00	1.002	1.00	50.00	50.00	0.844	0.844	1.00

RIC DATA: Y1249 #1 SCANS 110 TO 500
05/01/90 8:59:00 CALI: Y1249 #3
SAMPLE: CLP,,,VSTD050,L,W,22580,V,CC-050,,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



C0354

Quantitation Report File: Y1247

Data: Y1249.TI
05/01/90 8:59:00
Sample: CLP,,,VSTD050,L,W,22580,V,CC-050,,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Formula: RTX-502.2,20C(.5MIN) Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C245 STYRENE
38	C250 O&P XYLENES
39	C065 1,2-DICHLOROETHANE
40	C054 TRANS-1,2-DICHLOROETHENE
41	C055 CIS-1,2-DICHLOROETHENE
42	C240 ETHYLBENZENE
43	C251 M-XYLENE

Y1249

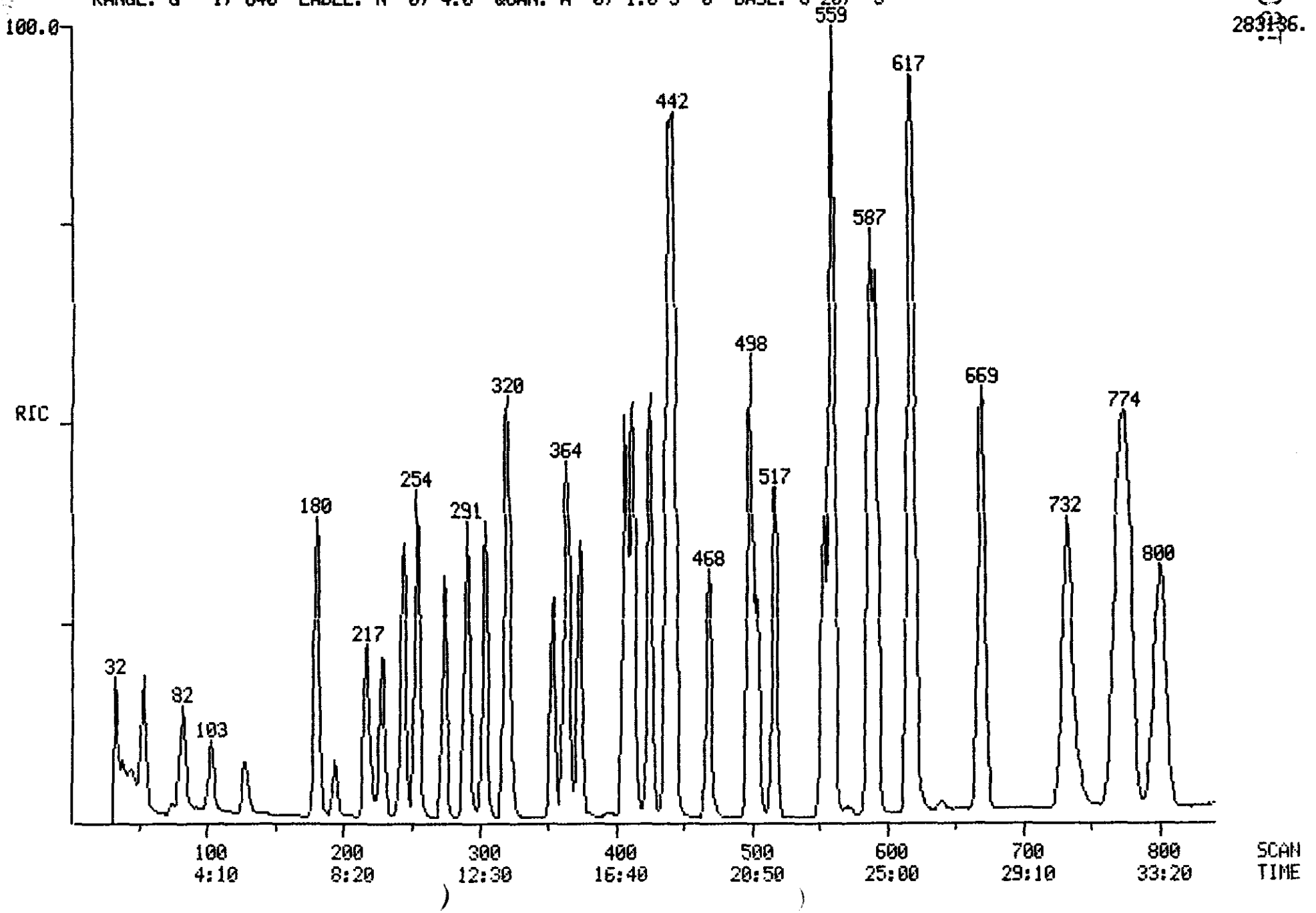
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	292	12:41	1	1.000	A BB	45306.	50.000	UG/L*	2.33
2	114	321	13:56	2	1.000	A BB	187193.	50.000	UG/L*	2.33
3	82	437	18:58	3	1.000	A BB	83325.	50.000	UG/L*	2.33
4	65	310	13:28	2	0.966	A BB	83359.	50.000	UG/L%	2.33
5	98	379	16:27	2	1.181	A BV	208819.	50.000	UG/L%	2.33
6	95	483	20:58	3	1.105	A VB	86660.	50.000	UG/L%	2.33
7	50	138	5:59	1	0.473	A BB	65671.	50.000	UG/L	2.33
8	94	171	7:25	1	0.586	A BB	51906.	50.000	UG/L	2.33
9	62	146	6:20	1	0.500	A BB	56290.	50.000	UG/L	2.33
10	64	174	7:33	1	0.596	A BB	39829.	50.000	UG/L	2.33
11	84	232	10:04	1	0.795	A BB	63346.	50.000	UG/L	2.33
12	43	207	8:59	1	0.709	A BB	24600.	50.000	UG/L	2.33
13	76	239	10:23	1	0.818	A BB	194507.	50.000	UG/L	2.33
14	96	214	9:17	1	0.733	A BB	55750.	50.000	UG/L	2.33
15	63	259	11:15	1	0.887	A VB	116091.	50.000	UG/L	2.33
16	83	286	12:25	1	0.979	A BB	122591.	50.000	UG/L	2.33
17	97	301	13:04	1	1.031	A BB	116125.	50.000	UG/L	2.33
18	72	271	11:46	1	0.928	A BV	5569.	50.000	UG/L	2.33
19	117	311	13:30	2	0.969	A VB	108950.	50.000	UG/L	2.33
20	43	255	11:04	1	0.873	A BB	116245.	50.000	UG/L	2.33
21	83	351	15:14	2	1.093	A BB	92969.	50.000	UG/L	2.33
22	63	342	14:51	2	1.065	A BB	52334.	50.000	UG/L	2.33
23	75	368	15:59	2	1.146	A BB	113870.	50.000	UG/L	2.33
24	130	336	14:35	2	1.047	A BB	83564.	50.000	UG/L	2.33
25	129	415	18:01	3	0.950	A VB	91585.	50.000	UG/L	2.33
26	97	392	17:01	3	0.897	A BV	54498.	50.000	UG/L	2.33
27	78	317	13:46	2	0.988	A BB	173126.	50.000	UG/L	2.33
28	75	384	16:40	3	0.879	A VB	57399.	50.000	UG/L	2.33
29	63	355	15:25	2	1.106	A VV	27947.	50.000	UG/L	2.33
30	173	477	20:43	3	1.092	A BB	72262.	50.000	UG/L	2.33
31	43	387	16:48	3	0.886	A BV	31961.	50.000	UG/L	2.33
32	43	356	15:27	2	1.109	A BB	67266.	50.000	UG/L	2.33
33	164	407	17:40	3	0.931	A BB	79434.	50.000	UG/L	2.33
34	83	477	20:43	3	1.092	A BB	65735.	50.000	UG/L	2.33
35	91	382	16:35	3	0.874	A BB	190471.	50.000	UG/L	2.33
36	112	438	19:01	3	1.002	A BB	126711.	50.000	UG/L	2.33
37	104	459	19:56	3	1.050	A BB	132353.	50.000	UG/L	2.33
38	106	458	19:53	3	1.048	A BB	79353.	50.000	UG/L	2.33
39	62	314	13:38	2	0.978	A BV	75969.	50.000	UG/L	2.33
40	96	244	10:36	1	0.836	A BB	54809.	50.000	UG/L	2.33
41	96	280	12:09	1	0.959	A BB	65789.	50.000	UG/L	2.33
42	106	438	19:01	3	1.002	M XX	70113.	50.000	UG/L	2.33
43	106	440	19:06	3	1.007	M XX	104188.	50.000	UG/L	2.33

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:41	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	50.00	50.00	0.445	0.445	1.00
5	16:27	1.00	1.181	1.00	50.00	50.00	1.116	1.116	1.00
6	20:58	1.00	1.105	1.00	50.00	50.00	1.040	1.040	1.00
7	5:59	1.00	0.473	1.00	50.00	50.00	1.449	1.449	1.00
8	7:25	1.00	0.586	1.00	50.00	50.00	1.146	1.146	1.00
9	6:20	1.00	0.500	1.00	50.00	50.00	1.242	1.242	1.00
10	7:33	1.00	0.596	1.00	50.00	50.00	0.879	0.879	1.00
11	10:04	1.00	0.795	1.00	50.00	50.00	1.398	1.398	1.00

Y1249

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.709	1.00	50.00	50.00	0.543	0.543	1.00
13	10:23	1.00	0.818	1.00	50.00	50.00	4.293	4.293	1.00
14	9:17	1.00	0.733	1.00	50.00	50.00	1.231	1.231	1.00
15	11:15	1.00	0.887	1.00	50.00	50.00	2.562	2.562	1.00
16	12:25	1.00	0.979	1.00	50.00	50.00	2.706	2.706	1.00
17	13:04	1.00	1.031	1.00	50.00	50.00	2.563	2.563	1.00
18	11:46	1.00	0.928	1.00	50.00	50.00	0.123	0.123	1.00
19	13:30	1.00	0.969	1.00	50.00	50.00	0.582	0.582	1.00
20	11:04	1.00	0.873	1.00	50.00	50.00	2.566	2.566	1.00
21	15:14	1.00	1.093	1.00	50.00	50.00	0.497	0.497	1.00
22	14:51	1.00	1.065	1.00	50.00	50.00	0.280	0.280	1.00
23	15:59	1.00	1.146	1.00	50.00	50.00	0.608	0.608	1.00
24	14:35	1.00	1.047	1.00	50.00	50.00	0.446	0.446	1.00
25	18:01	1.00	0.950	1.00	50.00	50.00	1.099	1.099	1.00
26	17:01	1.00	0.897	1.00	50.00	50.00	0.654	0.654	1.00
27	13:46	1.00	0.988	1.00	50.00	50.00	0.925	0.925	1.00
28	16:40	1.00	0.879	1.00	50.00	50.00	0.689	0.689	1.00
29	15:25	1.00	1.106	1.00	50.00	50.00	0.149	0.149	1.00
30	20:43	1.00	1.092	1.00	50.00	50.00	0.867	0.867	1.00
31	16:48	1.00	0.886	1.00	50.00	50.00	0.384	0.384	1.00
32	15:27	1.00	1.109	1.00	50.00	50.00	0.359	0.359	1.00
33	17:40	1.00	0.931	1.00	50.00	50.00	0.953	0.953	1.00
34	20:43	1.00	1.092	1.00	50.00	50.00	0.789	0.789	1.00
35	16:35	1.00	0.874	1.00	50.00	50.00	2.286	2.286	1.00
36	19:01	1.00	1.002	1.00	50.00	50.00	1.521	1.521	1.00
37	19:56	1.00	1.050	1.00	50.00	50.00	1.588	1.588	1.00
38	19:53	1.00	1.048	1.00	50.00	50.00	0.952	0.952	1.00
39	13:38	1.00	0.978	1.00	50.00	50.00	0.406	0.406	1.00
40	10:36	1.00	0.836	1.00	50.00	50.00	1.210	1.210	1.00
41	12:09	1.00	0.959	1.00	50.00	50.00	1.452	1.452	1.00
42	19:01	1.00	1.002	1.00	50.00	50.00	0.841	0.841	1.00
43	19:06	1.00	1.007	1.00	50.00	50.00	1.250	1.250	1.00

RIC DATA: U3462 #1 SCANS 1 TO 840
05/02/90 8:08:00 CALI: U3462 #2
SAMPLE: CLP,,,VSTD 50,L,S,22583,V,CC-050,,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



0358
283136.

Quantitation Report File: U3462

Data: U3462.TI
05/02/90 8:08:00
Sample: CLP,,,VSTD 50,L,S,22583,V,CC-050,,5 ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.011
Submitted by: VERSAR Analyst: MAT Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

U3462

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	254	10:35	1	1.000	A BB	67537.	50.000 UG/L*	2.38
2	50	53	2:12	1	0.209	A BB	97227.	50.000 UG/L	2.38
3	94	82	3:25	1	0.323	A BB	71521.	50.000 UG/L	2.38
4	62	103	4:17	1	0.406	A BB	69874.	50.000 UG/L	2.38
5	64	127	5:17	1	0.500	A BB	50644.	50.000 UG/L	2.38
6	84	180	7:30	1	0.709	A BB	107884.	50.000 UG/L	2.38
7	43	194	8:05	1	0.764	A BB	56614.	50.000 UG/L	2.38
8	76	217	9:02	1	0.854	A BB	252942.	50.000 UG/L	2.38
9	96	244	10:10	1	0.961	A BB	88586.	50.000 UG/L	2.38
10	63	274	11:25	1	1.079	A BB	184868.	50.000 UG/L	2.38
11	96	291	12:07	1	1.146	A BB	94665.	50.000 UG/L	2.38
12	83	304	12:40	1	1.197	A BB	164389.	50.000 UG/L	2.38
13	62	321	13:22	1	1.264	A BB	96934.	50.000 UG/L	2.38
14	65	319	13:17	1	1.256	A BB	96872.	50.000 UG/L%	2.38
15	101	228	9:30	1	0.898	A BB	107933.	50.000 UG/L	2.38
16	114	498	20:45	16	1.000	A BB	309655.	50.000 UG/L*	2.38
17	72	320	13:20	1	1.260	A BB	23281.	50.000 UG/L	2.38
18	43	365	15:12	16	0.733	A BB	272149.	50.000 UG/L	2.38
19	117	363	15:07	16	0.729	A VB	84898.	50.000 UG/L	2.38
20	83	373	15:32	16	0.749	A BB	145462.	50.000 UG/L	2.38
21	63	407	16:57	16	0.817	A BB	140133.	50.000 UG/L	2.38
22	75	412	17:10	16	0.827	A BB	208056.	50.000 UG/L	2.38
23	130	425	17:42	16	0.853	A BB	120899.	50.000 UG/L	2.38
24	78	438	18:15	16	0.880	A BB	301792.	50.000 UG/L	2.38
25	129	439	18:17	16	0.882	A BB	115787.	50.000 UG/L	2.38
26	97	442	18:25	16	0.888	A BB	113280.	50.000 UG/L	2.38
27	75	442	18:25	16	0.888	A BB	96895.	50.000 UG/L	2.38
28	173	503	20:57	16	1.010	A BB	91175.	50.000 UG/L	2.38
29	97	354	14:45	16	0.711	A BB	103343.	50.000 UG/L	2.38
30	98	587	24:27	31	0.953	A BB	339234.	50.000 UG/L%	2.38
31	117	616	25:40	31	1.000	A BB	269980.	50.000 UG/L*	2.38
32	43	517	21:32	31	0.839	A BB	235825.	50.000 UG/L	2.38
33	43	553	23:02	31	0.898	A BB	207448.	50.000 UG/L	2.38
34	164	560	23:20	31	0.909	A BB	89558.	50.000 UG/L	2.38
35	83	559	23:17	31	0.907	A BB	238872.	50.000 UG/L	2.38
36	92	592	24:40	31	0.961	A BB	192128.	50.000 UG/L	2.38
37	112	619	25:47	31	1.005	A BB	243925.	50.000 UG/L	2.38
38	106	669	27:52	31	1.086	A BB	119635.	50.000 UG/L	2.38
39	104	769	32:02	31	1.248	A BB	237133.	50.000 UG/L	2.38
40	106	800	33:20	31	1.299	A BB	132709.	50.000 UG/L	2.38
41	106	776	32:20	31	1.260	A BB	163465.	50.000 UG/L	2.38
42	95	732	30:30	31	1.188	A BB	222736.	50.000 UG/L%	2.38

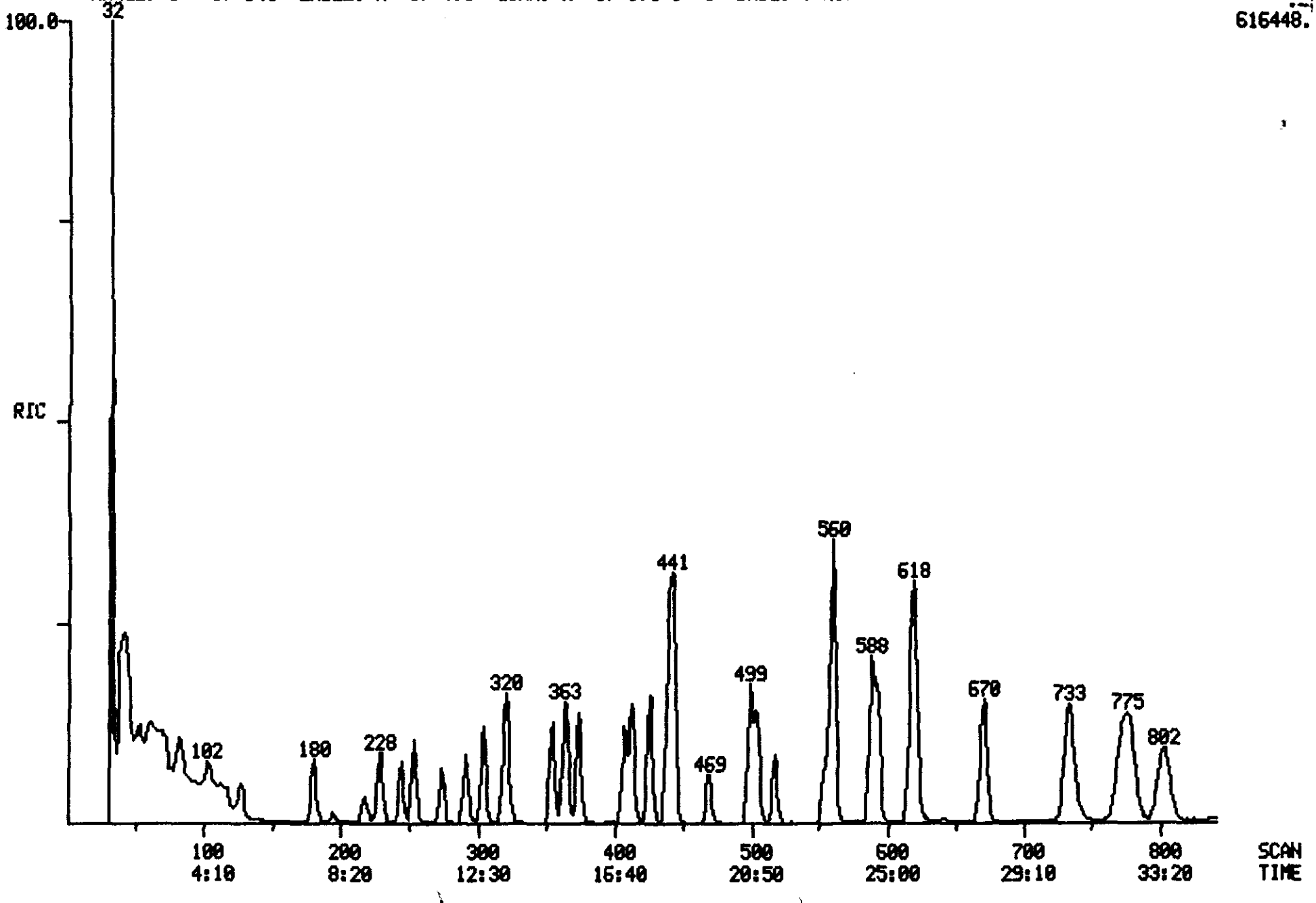
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12	1.00	0.209	1.00	50.00	50.00	1.440	1.440	1.00
3	3:25	1.00	0.323	1.00	50.00	50.00	1.059	1.059	1.00
4	4:17	1.00	0.406	1.00	50.00	50.00	1.035	1.035	1.00
5	5:17	1.00	0.500	1.00	50.00	50.00	0.750	0.750	1.00
6	7:30	1.00	0.709	1.00	50.00	50.00	1.597	1.597	1.00
7	8:05	1.00	0.764	1.00	50.00	50.00	0.838	0.838	1.00
8	9:02	1.00	0.854	1.00	50.00	50.00	3.745	3.745	1.00
9	10:10	1.00	0.961	1.00	50.00	50.00	1.312	1.312	1.00
10	11:25	1.00	1.079	1.00	50.00	50.00	2.737	2.737	1.00
11	12:07	1.00	1.146	1.00	50.00	50.00	1.402	1.402	1.00
12	12:40	1.00	1.197	1.00	50.00	50.00	2.434	2.434	1.00

100360

43462

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22	1.00	1.264	1.00	50.00	50.00	1.435	1.435	1.00
14	13:17	1.00	1.256	1.00	50.00	50.00	1.434	1.434	1.00
15	9:30	1.00	0.898	1.00	50.00	50.00	1.598	1.598	1.00
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20	1.00	1.260	1.00	50.00	50.00	0.345	0.345	1.00
18	15:12	1.00	0.733	1.00	50.00	50.00	0.879	0.879	1.00
19	15:07	1.00	0.729	1.00	50.00	50.00	0.274	0.274	1.00
20	15:32	1.00	0.749	1.00	50.00	50.00	0.470	0.470	1.00
21	16:57	1.00	0.817	1.00	50.00	50.00	0.453	0.453	1.00
22	17:10	1.00	0.827	1.00	50.00	50.00	0.672	0.672	1.00
23	17:42	1.00	0.853	1.00	50.00	50.00	0.390	0.390	1.00
24	18:15	1.00	0.880	1.00	50.00	50.00	0.975	0.975	1.00
25	18:17	1.00	0.882	1.00	50.00	50.00	0.374	0.374	1.00
26	18:25	1.00	0.888	1.00	50.00	50.00	0.366	0.366	1.00
27	18:25	1.00	0.888	1.00	50.00	50.00	0.313	0.313	1.00
28	20:57	1.00	1.010	1.00	50.00	50.00	0.294	0.294	1.00
29	14:45	1.00	0.711	1.00	50.00	50.00	0.334	0.334	1.00
30	24:27	1.00	0.953	1.00	50.00	50.00	1.257	1.257	1.00
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	50.00	50.00	0.873	0.873	1.00
33	23:02	1.00	0.898	1.00	50.00	50.00	0.768	0.768	1.00
34	23:20	1.00	0.909	1.00	50.00	50.00	0.332	0.332	1.00
35	23:17	1.00	0.907	1.00	50.00	50.00	0.885	0.885	1.00
36	24:40	1.00	0.961	1.00	50.00	50.00	0.712	0.712	1.00
37	25:47	1.00	1.005	1.00	50.00	50.00	0.903	0.903	1.00
38	27:52	1.00	1.086	1.00	50.00	50.00	0.443	0.443	1.00
39	32:02	1.00	1.248	1.00	50.00	50.00	0.878	0.878	1.00
40	33:20	1.00	1.299	1.00	50.00	50.00	0.492	0.492	1.00
41	32:20	1.00	1.260	1.00	50.00	50.00	0.605	0.605	1.00
42	30:30	1.00	1.188	1.00	50.00	50.00	0.825	0.825	1.00

RIC DATA: U3579 #1 SCANS 1 TO 840
05/10/90 9:31:00 CALI: U3579 #2
SAMPLE: CLP,,,VSTD50,L,S,22674,V,CC-050,,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100362

Quantitation Report File: U3579

Data: U3579.TI
05/10/90 9:31:00
Sample: CLP,,,VSTD50,L,S,22674,V,CC-050,,5 ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.001
Submitted by: VERSAR Analyst: MAT Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

U3579

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	253	10:32	1	1.000	A BB	39783.	50.000	UG/L*	2.38
2	50	53	2:12	1	0.209	A BV	33564.	50.000	UG/L	2.38
3	94	82	3:25	1	0.324	A BB	51423.	50.000	UG/L	2.38
4	62	103	4:17	1	0.407	A BB	42487.	50.000	UG/L	2.38
5	64	127	5:17	1	0.502	A BB	31318.	50.000	UG/L	2.38
6	84	180	7:30	1	0.711	A BB	45031.	50.000	UG/L	2.38
7	43	194	8:05	1	0.767	A BB	19714.	50.000	UG/L	2.38
8	76	217	9:02	1	0.858	A BB	76421.	50.000	UG/L	2.38
9	96	244	10:10	1	0.964	A BB	35531.	50.000	UG/L	2.38
10	63	274	11:25	1	1.083	A BB	72526.	50.000	UG/L	2.38
11	96	291	12:07	1	1.150	A BB	42304.	50.000	UG/L	2.38
12	83	304	12:40	1	1.202	A BB	103616.	50.000	UG/L	2.38
13	62	321	13:22	1	1.269	A BB	88499.	50.000	UG/L	2.38
14	65	319	13:17	1	1.261	A BB	88392.	50.000	UG/L%	2.38
15	101	228	9:30	1	0.901	A BB	101129.	50.000	UG/L	2.38
16	114	499	20:47	16	1.000	A BB	178754.	50.000	UG/L*	2.38
17	72	320	13:20	1	1.265	A BB	8504.	50.000	UG/L	2.38
18	43	365	15:12	16	0.731	A BB	91403.	50.000	UG/L	2.38
19	117	363	15:07	16	0.727	A VB	95979.	50.000	UG/L	2.38
20	83	373	15:32	16	0.747	A BB	110316.	50.000	UG/L	2.38
21	63	407	16:57	16	0.816	A BB	49956.	50.000	UG/L	2.38
22	75	412	17:10	16	0.826	A BB	103201.	50.000	UG/L	2.38
23	130	425	17:42	16	0.852	A BB	68090.	50.000	UG/L	2.38
24	78	438	18:15	16	0.878	A BB	130125.	50.000	UG/L	2.38
25	129	439	18:17	16	0.880	A BB	107417.	50.000	UG/L	2.38
26	97	442	18:25	16	0.886	A BB	65648.	50.000	UG/L	2.38
27	75	443	18:27	16	0.888	A BB	62793.	50.000	UG/L	2.38
28	173	503	20:57	16	1.008	A BB	90669.	50.000	UG/L	2.38
29	97	354	14:45	16	0.709	A BB	100623.	50.000	UG/L	2.38
30	98	588	24:30	31	0.953	A BB	196397.	50.000	UG/L%	2.38
31	117	617	25:42	31	1.000	A BB	173276.	50.000	UG/L*	2.38
32	43	517	21:32	31	0.838	A BB	81942.	50.000	UG/L	2.38
33	43	554	23:05	31	0.898	A BB	74727.	50.000	UG/L	2.38
34	164	560	23:20	31	0.908	A BB	61811.	50.000	UG/L	2.38
35	83	559	23:17	31	0.906	A BB	129533.	50.000	UG/L	2.38
36	92	592	24:40	31	0.959	A BB	99292.	50.000	UG/L	2.38
37	112	620	25:50	31	1.005	A BB	144773.	50.000	UG/L	2.38
38	106	670	27:55	31	1.086	A BB	69092.	50.000	UG/L	2.38
39	104	771	32:07	31	1.250	A BB	134422.	50.000	UG/L	2.38
40	106	802	33:25	31	1.300	A BB	81472.	50.000	UG/L	2.38
41	106	778	32:25	31	1.261	A BB	86038.	50.000	UG/L	2.38
42	95	733	30:32	31	1.188	A BB	155616.	50.000	UG/L%	2.38

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12	1.00	0.209	1.00	50.00	50.00	0.844	0.844	1.00
3	3:25	1.00	0.324	1.00	50.00	50.00	1.293	1.293	1.00
4	4:17	1.00	0.407	1.00	50.00	50.00	1.068	1.068	1.00
5	5:17	1.00	0.502	1.00	50.00	50.00	0.787	0.787	1.00
6	7:30	1.00	0.711	1.00	50.00	50.00	1.132	1.132	1.00
7	8:05	1.00	0.767	1.00	50.00	50.00	0.496	0.496	1.00
8	9:02	1.00	0.858	1.00	50.00	50.00	1.921	1.921	1.00
9	10:10	1.00	0.964	1.00	50.00	50.00	0.893	0.893	1.00
10	11:25	1.00	1.083	1.00	50.00	50.00	1.823	1.823	1.00
11	12:07	1.00	1.150	1.00	50.00	50.00	1.063	1.063	1.00
12	12:40	1.00	1.202	1.00	50.00	50.00	2.605	2.605	1.00

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22	1.00	1.269	1.00	50.00	50.00	2.225	2.225	1.00
14	13:17	1.00	1.261	1.00	50.00	50.00	2.222	2.222	1.00
15	9:30	1.00	0.901	1.00	50.00	50.00	2.542	2.542	1.00
16	20:47	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20	1.00	1.265	1.00	50.00	50.00	0.214	0.214	1.00
18	15:12	1.00	0.731	1.00	50.00	50.00	0.511	0.511	1.00
19	15:07	1.00	0.727	1.00	50.00	50.00	0.537	0.537	1.00
20	15:32	1.00	0.747	1.00	50.00	50.00	0.617	0.617	1.00
21	16:57	1.00	0.816	1.00	50.00	50.00	0.279	0.279	1.00
22	17:10	1.00	0.826	1.00	50.00	50.00	0.577	0.577	1.00
23	17:42	1.00	0.852	1.00	50.00	50.00	0.381	0.381	1.00
24	18:15	1.00	0.878	1.00	50.00	50.00	0.728	0.728	1.00
25	18:17	1.00	0.880	1.00	50.00	50.00	0.601	0.601	1.00
26	18:25	1.00	0.886	1.00	50.00	50.00	0.367	0.367	1.00
27	18:27	1.00	0.888	1.00	50.00	50.00	0.351	0.351	1.00
28	20:57	1.00	1.008	1.00	50.00	50.00	0.507	0.507	1.00
29	14:45	1.00	0.709	1.00	50.00	50.00	0.563	0.563	1.00
30	24:30	1.00	0.953	1.00	50.00	50.00	1.133	1.133	1.00
31	25:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.838	1.00	50.00	50.00	0.473	0.473	1.00
33	23:05	1.00	0.898	1.00	50.00	50.00	0.431	0.431	1.00
34	23:20	1.00	0.908	1.00	50.00	50.00	0.357	0.357	1.00
35	23:17	1.00	0.906	1.00	50.00	50.00	0.748	0.748	1.00
36	24:40	1.00	0.959	1.00	50.00	50.00	0.573	0.573	1.00
37	25:50	1.00	1.005	1.00	50.00	50.00	0.836	0.836	1.00
38	27:55	1.00	1.086	1.00	50.00	50.00	0.399	0.399	1.00
39	32:07	1.00	1.250	1.00	50.00	50.00	0.776	0.776	1.00
40	33:25	1.00	1.300	1.00	50.00	50.00	0.470	0.470	1.00
41	32:25	1.00	1.261	1.00	50.00	50.00	0.497	0.497	1.00
42	30:32	1.00	1.188	1.00	50.00	50.00	0.898	0.898	1.00

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Lab File ID (Standard): Y1215 Date Analyzed: 04/30/90

Instrument ID: Y Time Analyzed: 1015

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	50600	12.69	221000	13.94	97300	18.94
	UPPER LIMIT	101200		442000		194600	
	LOWER LIMIT	25300		110500		48650	
	EPA SAMPLE NO.						
01	TB5B	48200	12.72	185000	13.99	87700	18.97
02	VBLK17	52700	12.69	211000	13.94	99100	18.97

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII VOA 1/87 Rev.

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Lab File ID (Standard): Y1236 Date Analyzed: 04/30/90

Instrument ID: Y Time Analyzed: 2249

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	43300	12.72	185000	13.94	83600	18.97
	UPPER LIMIT	86600		370000		167200	
	LOWER LIMIT	21650		92500		41800	
	EPA SAMPLE NO.						
01	MW38	37000	12.69	160000	13.90	74700	18.94
02	MW43	43800	12.69	163000	13.94	78100	18.94
03	MW53	39800	12.72	161000	13.94	77500	18.97
04	MW79	42800	12.69	155000	13.94	76200	18.94
05	MW79A	41600	12.69	153000	13.90	75100	18.94
06	TB1A	45500	12.69	171000	13.94	82500	18.97
07	TB3A	45300	12.72	171000	13.94	82300	18.97
08	TB4A	43200	12.69	175000	13.94	86700	18.94
09	TB_1	43700	12.72	169000	13.94	81900	18.97
10	VBLK37	46900	12.72	189000	13.94	87700	18.97

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII VOA 1/87 Rev.

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Lab File ID (Standard): Y1249 Date Analyzed: 05/01/90

Instrument ID: _____ Time Analyzed: 859

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	45300	12.69	187000	13.94	83300	18.97
	UPPER LIMIT	90600		374000		166600	
	LOWER LIMIT	22650		93500		41650	
	EPA SAMPLE NO.						
01	GW1	53600	12.72	193000	13.94	90700	18.97
02	SW1	55500	12.72	200000	13.94	94400	18.97
03	SW2	55300	12.72	193000	13.99	89700	19.02
04	TB2	52900	12.72	182000	13.99	84400	18.97
05	SW1MS	55900	12.69	195000	13.94	92600	18.94
06	SW1MSD	55400	12.72	186000	13.94	87000	18.97
07	VBLK50	58400	12.72	228000	13.94	101000	18.97

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII VOA 1/87 Rev.

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Lab File ID (Standard): U3462 Date Analyzed: 05/02/90

Instrument ID: U Time Analyzed: 808

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) PACK

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	67500	10.59	310000	20.75	270000	25.67
	UPPER LIMIT	135000		620000		540000	
	LOWER LIMIT	33750		155000		135000	
	EPA SAMPLE NO.						
01	10	49200	10.59	117000 *	20.79	41300 *	25.71
02	11	64600	10.59	310000	20.79	248000	25.71
03	12	60400	10.54	229000	20.75	137000	25.67
04	13	67100	10.54	321000	20.75	265000	25.67
05	14	65000	10.59	304000	20.79	249000	25.71
06	15	58500	10.54	263000	20.75	217000	25.67
07	8	48500	10.54	139000 *	20.75	62000 *	25.67
08	9	50600	10.54	190000	20.75	111000 *	25.67
09	VBLK63	69600	10.54	325000	20.75	283000	25.67

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII VOA 1/87 Rev.

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Lab File ID (Standard): U3540 Date Analyzed: 05/08/90

Instrument ID: U Time Analyzed: 854

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) PACK

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	68900	10.54	302000	20.75	279000	25.67
	UPPER LIMIT	137800		604000		558000	
	LOWER LIMIT	34450		151000		139500	
	EPA SAMPLE NO.						
01	10-RE	37500	10.54	88800 *	20.79	33400 *	25.71
02	4	44100	10.54	169000	20.79	122000 *	25.71
03	8-RE	36400	10.54	103000 *	20.79	53200 *	25.71
04	9-RE	40400	10.54	146000 *	20.79	97200 *	25.71
5	VBLK45	65000	10.59	275000	20.79	252000	25.71

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII VOA 1/87 Rev.

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

ORIGINAL (Red)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Lab File ID (Standard): U3579 Date Analyzed: 05/10/90

Instrument ID: U Time Analyzed: 931

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) PACK

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	39800	10.54	179000	20.79	173000	25.71
	UPPER LIMIT	79600		358000		346000	
	LOWER LIMIT	19900		89500		86500	
	EPA SAMPLE NO.						
01	4-RE	27800	10.54	102000	20.75	77700 *	25.67
02	VBLK80	37800	10.59	160000	20.79	154000	25.71

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII VOA 1/87 Rev.

Versar INC.

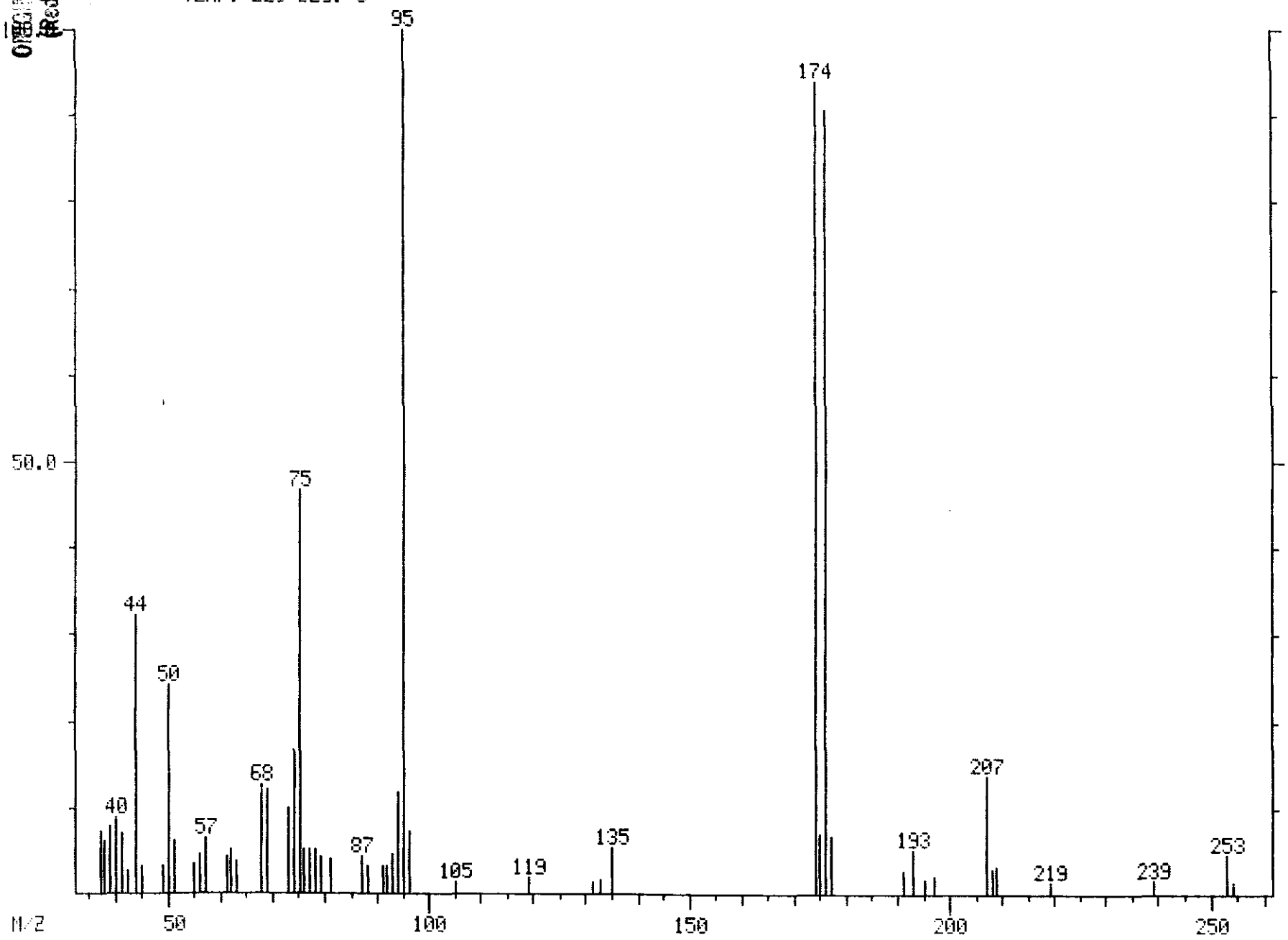
ORIGINAL
(Red)

V. RAW QC DATA

04/25/90 9:39:00 + 12:50
SAMPLE: 50NG BFB
CONDS.: INST Y:RTX-502.2,60METER,0.32MM ID,60C(.5MIN) TO 220 @20C/MIN
TEMP: 220 DEG. C

CALI: Y1137 #3

BASE M/Z: 95
RIC: 42048.



100373

Mass List Data: Y1137 # 295 Base m/z: 95
04/25/90 9:39:00 + 12:50 Cali: Y1137 # 3 RIC: 42048.
Sample: 50NG BFB
Conds.: INST Y:RTX-502.2,60METER,0.32MM ID,60C(.5MIN) TO 220 @20C/MIN

ORIGINAL (Red)

37	0.00	0.	Minima	Min Inten:	0.
254			Maxima	# 0	
Mass	% RA	Inten.	Mass	% RA	Inten.
37?F	7.13	462.	219	1.42	92.
38?F	6.17	400.	239	1.64	106.
39?F	7.89	511.	253	4.52	293.
40?F	8.86	574.	254	1.28	83.
41?F	7.07	458.			
42?F	2.73	177.			
44?F	32.35	2096.			
45?F	3.16	205.			
49?F	3.35	217.			
50?F	24.10	1562.			
51?F	6.23	404.			
55?F	3.61	234.			
56?F	4.58	297.			
57?	6.33	410.			
61?	4.34	281.			
62?F	5.11	331.			
63?F	3.78	245.			
68?F	12.69	822.			
69 F	12.15	787.			
73 F	10.00	648.			
74 F	16.76	1086.			
75 F	46.79	3032.			
76 F	5.17	335.			
77 F	5.09	330.			
78 F	5.03	326.			
79 F	4.29	278.			
81	4.00	259.			
87	4.29	278.			
88	3.18	206.			
91	3.33	216.			
92 F	3.12	202.			
93 F	4.52	293.			
94 F	11.88	770.			
95 F	100.00	6480.			
96 F	7.39	479.			
105	1.31	85.			
119	1.96	127.			
131	1.34	87.			
133	1.73	112.			
135	5.42	351.			
174 F	94.20	6104.			
175 F	7.11	461.			
176 F	90.86	5888.			
177 F	6.59	427.			
191	2.65	172.			
193	5.03	326.			
195	1.53	99.			
197	2.18	141.			
207	13.64	884.			
208	3.09	200.			
209	3.35	217.			

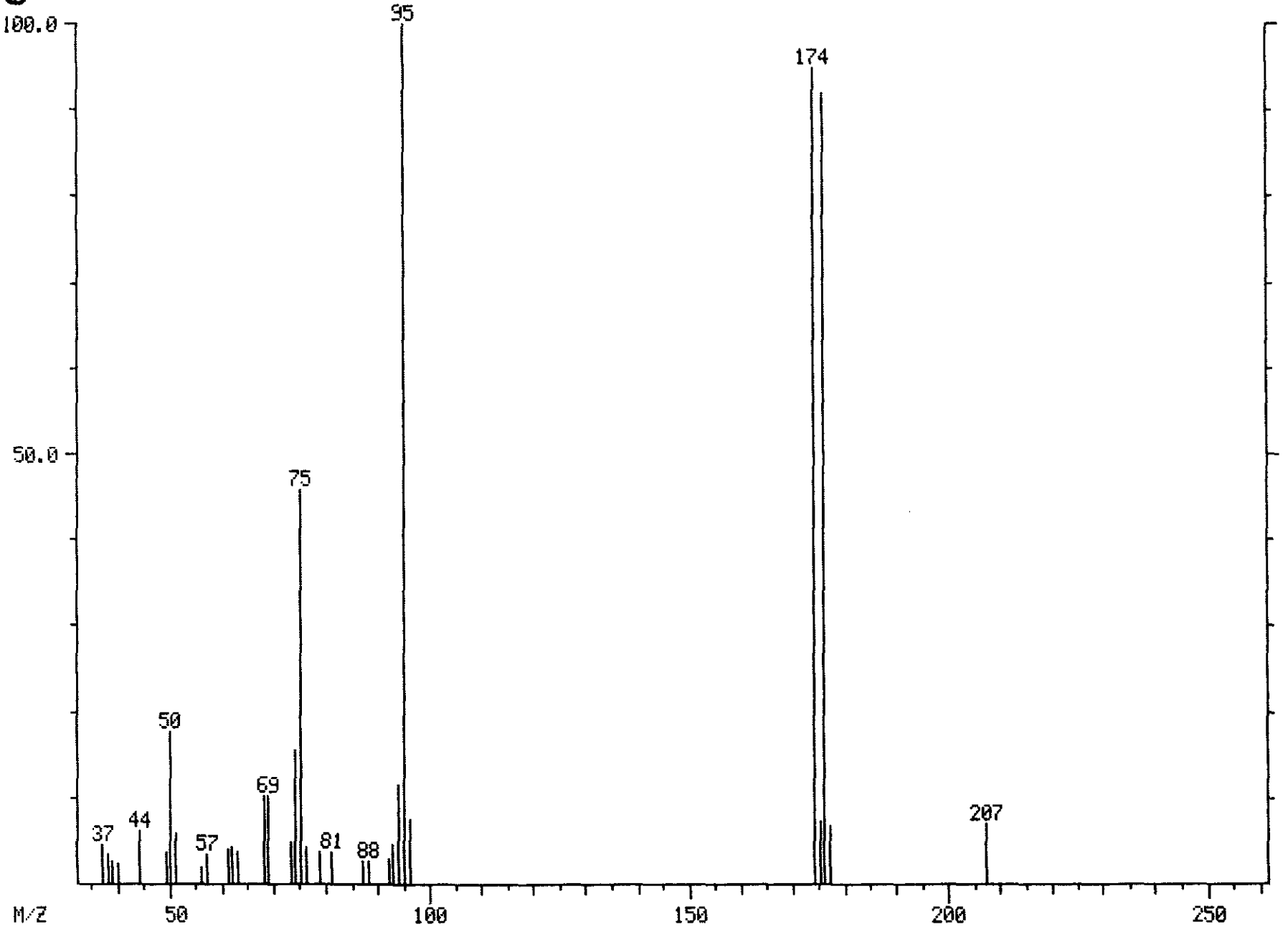
MASS SPECTRUM
04/30/90 21:39:00 + 12:55
SAMPLE: 50NG BFB
CONDS.: INST Y:RTX-502.2,60METER,0.32MM ID,60C(.5MIN) TO 220 @20C/MIN
TEMP: 220 DEG. C

DATA: Y1235 #297
CALI: Y1235 #3

BASE M/Z: 95
RIC: 25664.

ORIGINAL (Red)

100375



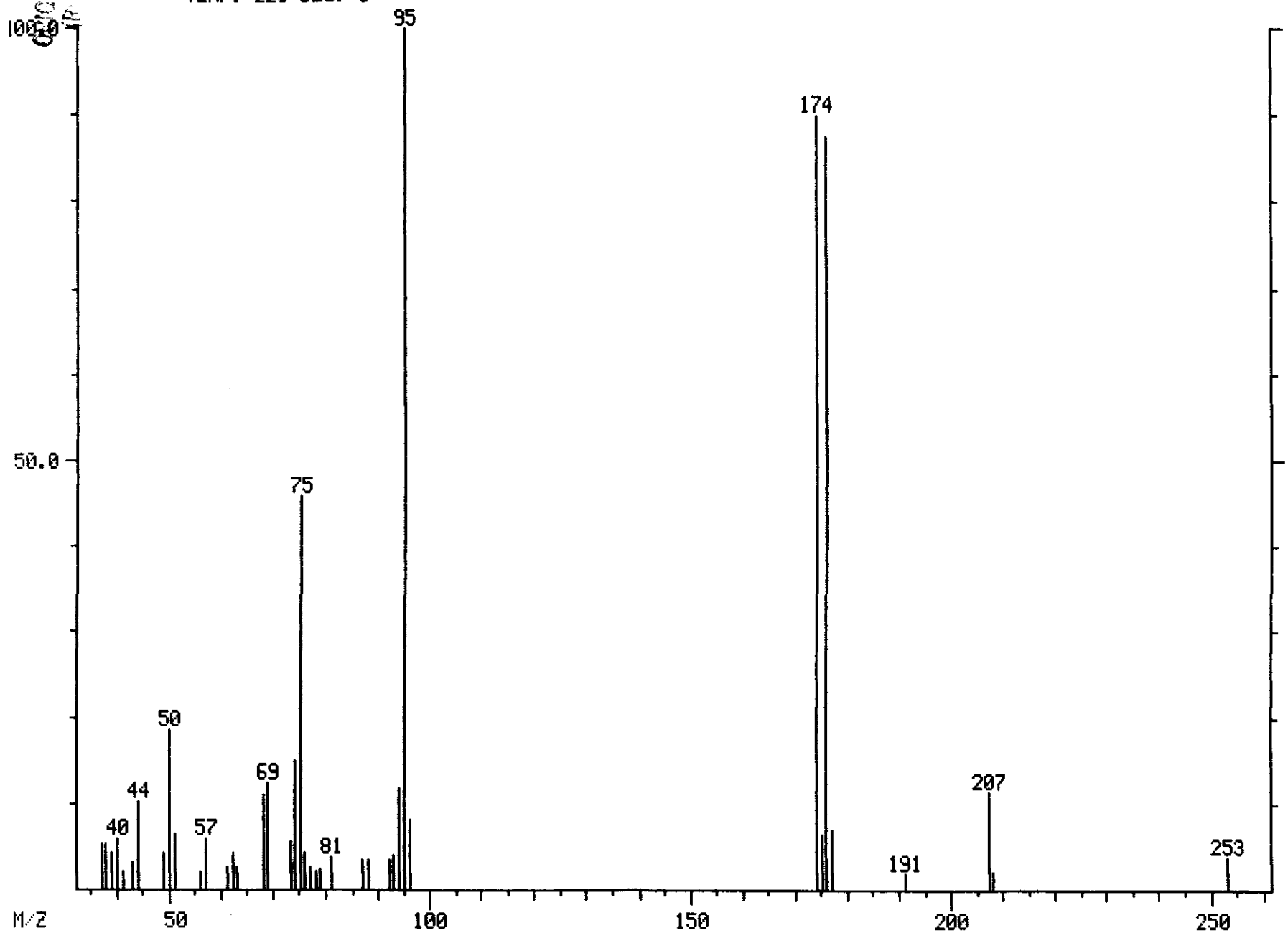
Mass List Data: Y1235 # 297 Base m/z: 95
04/30/90 21:39:00 + 12:55 Cali: Y1235 # 3 RIC: 25664.
Sample: 50NG BFB
Conds.: INST Y:RTX-502.2,60METER,0.32MM ID,60C(.5MIN) TO 220 @20C/MIN

ORIGINAL (Red)

37 0.00 0. Minima Min Inten: 0.
207 Maxima # 0

Mass	% RA	Inten.
37?	4.67	238.
38?	3.41	174.
39?	2.57	131.
40?	2.53	129.
44?	6.20	316.
49?	3.71	189.
50?	17.88	911.
51?	5.85	298.
56?	1.96	100.
57?	3.51	179.
61?	3.92	200.
62?	4.42	225.
63?	3.69	188.
68?	10.15	517.
69	10.34	527.
73	4.83	246.
74	15.58	794.
75	45.84	2336.
76	4.34	221.
79	3.71	189.
81	3.83	195.
87	2.61	133.
88	2.71	138.
92	3.06	156.
93	4.59	234.
94	11.60	591.
95	100.00	5096.
96	7.46	380.
174	94.82	4832.
175	7.22	368.
176	91.84	4680.
177	6.61	337.
207	7.03	358.

04/30/90 9:19:00 + 12:52 CALI: Y1214 #3 RIC: 21888.
SAMPLE: 50NG BFB
CONDS.: INST Y:RTX-502.2,60METER,0.32MM ID,60C(.5MIN) TO 220 @20C/MIN
TEMP: 220 DEG. C



100377

Mass List Data: Y1214 # 276 Base m/z: 75
04/30/90 9:19:00 + 12:52 Cali: Y1214 # 3 RIC: 21888.
Sample: 50NG BFB
Conds.: INST Y:RTX-502.2,60METER,0.32MM ID,60C(.5MIN) TO 220 @20C/MIN

ORIGINAL (Red)

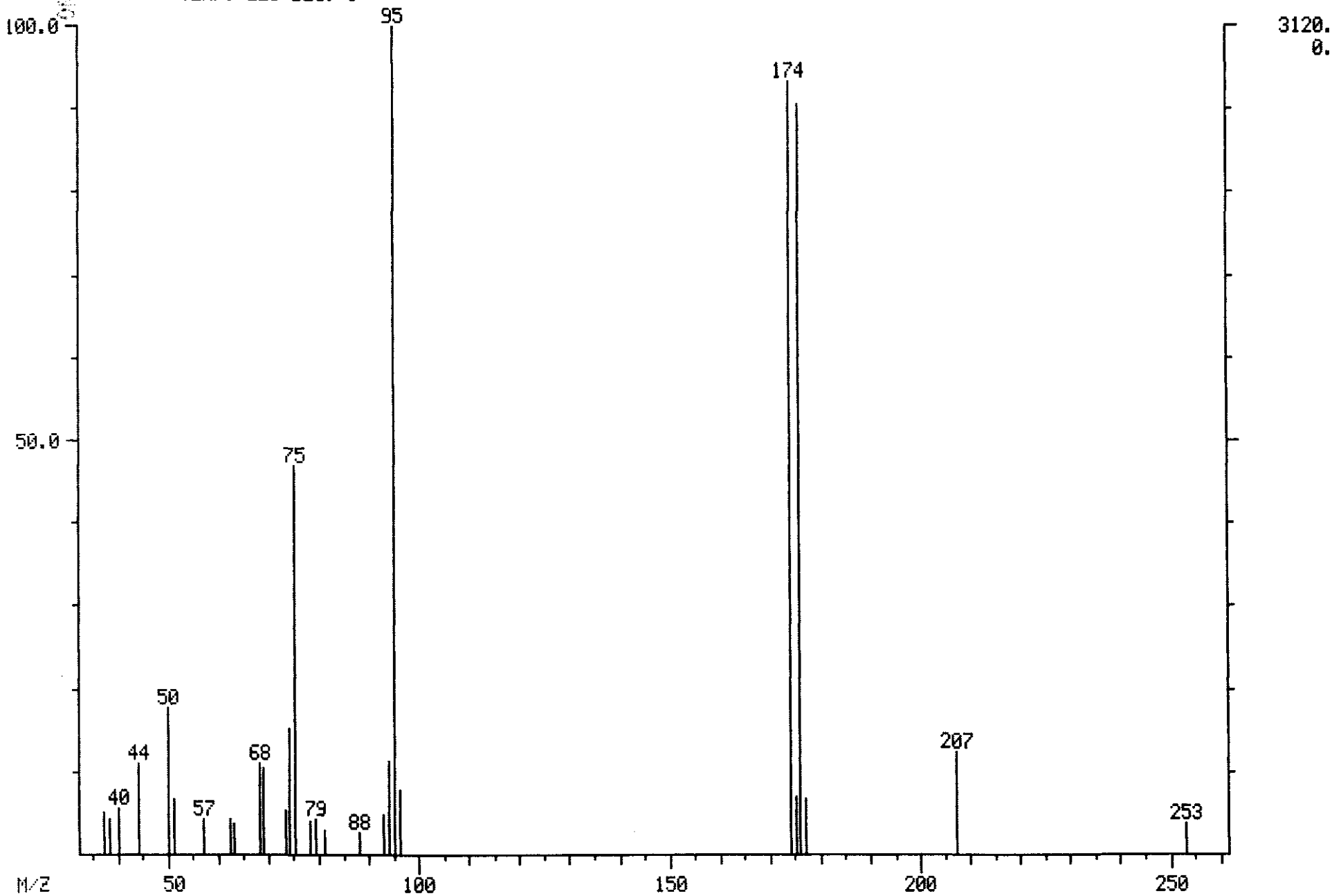
37 0.00 0. Minima Min Inten: 0.
253 Maxima # 0

Mass	% RA	Inten.
37?	5.25	215.
38?	5.25	215.
39?	4.27	175.
40?	5.79	237.
41?	2.20	90.
43?	3.20	131.
44?	10.28	421.
49?	4.22	173.
50?	18.48	757.
51?	6.57	269.
56?	2.12	87.
57?	5.96	244.
61?	2.73	112.
62?	4.20	172.
63?	2.81	115.
68?	10.99	450.
69	12.28	503.
73	5.69	233.
74	14.99	614.
75	46.09	1888.
76	4.39	180.
77	2.81	115.
78	2.08	85.
79	2.34	96.
81	3.88	159.
87	3.52	144.
88	3.44	141.
92	3.54	145.
93	4.15	170.
94	11.72	480.
95	100.00	4096.
96	7.96	326.
174	89.94	3684.
175	6.40	262.
176	87.60	3588.
177	6.91	283.
191	1.95	80.
207	11.38	466.
208	2.15	88.
253	3.66	150.

MASS SPECTRUM
05/01/90 8:15:00 + 12:55
SAMPLE: 50NG BFB
CONDS.: INST Y:RTX-502.2,60METER,0.32MM ID,60C(.5MIN) TO 220 @20C/MIN
TEMP: 220 DEG. C

DATA: Y1248 #297
CALI: Y1248 #3

BASE M/Z: 95
RIC: 15728.



C0379

Mass List Data: Y1248 # 297 Base m/z: 95
05/01/90 8:15:00 + 12:55 Cali: Y1248 # 3 RIC: 15728.
Sample: 50NG BFB
Conds.: INST Y:RTX-502.2,60METER,0.32MM ID,60C(.5MIN) TO 220 @20C/MIN

37	0.00	0.	Minima	Min Inten:	0.	
253			Maxima	# 0		

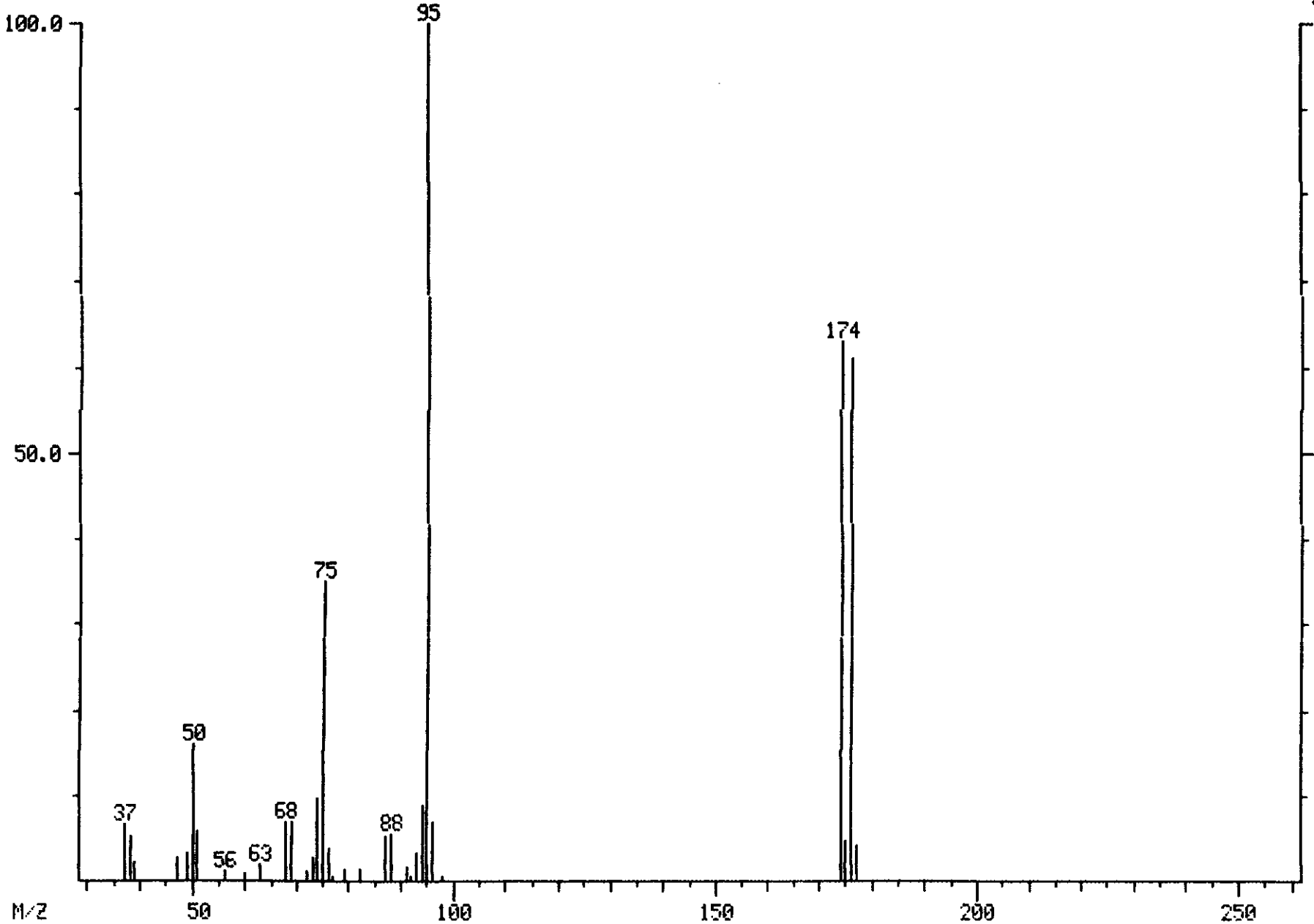
Mass	% RA	Inten.
37?	5.10	159.
38?	4.36	136.
40?	5.51	172.
44?	10.96	342.
50?	17.79	555.
51?	6.79	212.
57?	4.20	131.
62?	4.23	132.
63?	3.81	119.
68?	10.90	340.
69	10.61	331.
73	5.35	167.
74	15.38	480.
75	47.05	1468.
78	4.07	127.
79	4.29	134.
81	2.92	91.
88	2.66	83.
93	4.90	153.
94	11.25	351.
95	100.00	3120.
96	7.88	246.
174	93.33	2912.
175	7.05	220.
176	90.64	2828.
177	6.60	206.
207	12.47	389.
253	3.81	119.

MASS SPECTRUM
04/30/90 15:40:00 + 11:47
SAMPLE: VOA BFB 50NG 2UL
CONDS.: INSTRUMENT U,COLUMN:SP-1000 ISOTHERMO @225C

DATA: U3426 #283
CALI: U3426 #2

BASE M/Z: 95
RIC: 20160.

ENHANCED (S 15B 2N 0T)



100381

ORIGINAL
(Red)

Mass List Data: U3426 # 283 Base m/z: 95
04/30/90 15:40:00 + 11:47 Cali: U3426 # 2 RIC: 20160.
Sample: VOA BFB 50NG 2UL
Conds.: INSTRUMENT U, COLUMN: SP-1000 ISOTHERMO @225C
Enhanced (S 15B 2N OT)

37	0.00	0.00	0.	Minima	Min inten: 0.
177			# 0	Maxima	
Mass	% RA	% RIC	Inten.		
37.00?	6.72	1.76	355.		
38.00?	5.21	1.36	275.		
39.00?	2.14	0.56	113.		
47.00?	2.88	0.75	152.		
49.00?	3.20	0.84	169.		
50.00?	16.08	4.21	849.		
51.00?	5.93	1.55	313.		
56.00?	1.12	0.29	59.		
60.00?	0.70	0.18	37.		
63.00?	1.95	0.51	103.		
68.00?	7.03	1.84	371.		
69.00	6.95	1.82	367.		
72.00	1.17	0.31	62.		
73.00	2.77	0.72	146.		
74.00	9.68	2.53	511.		
75.00	35.04	9.18	1850.		
76.00	3.96	1.04	209.		
77.00	0.61	0.16	32.		
79.00	1.40	0.37	74.		
82.00	1.25	0.33	66.		
87.00	5.21	1.36	275.		
88.00	5.62	1.47	297.		
91.00	1.55	0.41	82.		
92.00	0.47	0.12	25.		
93.00	3.31	0.87	175.		
94.00	8.84	2.32	467.		
95.00	100.00	26.19	5280.		
96.00	6.87	1.80	363.		
98.00	0.49	0.13	26.		
174.00	63.03	16.51	3328.		
175.00	4.62	1.21	244.		
176.00	61.06	15.99	3224.		
177.00	4.28	1.12	226.		

MASS SPECTRUM
05/08/90 8:23:00 + 8:40
SAMPLE: VOA BFB 50NG 2UL
CONDS.: INSTRUMENT U,COLUMN:SP-1000 ISOTHERMAL @225C
** NAME: BROMOFLUOROBENZENE

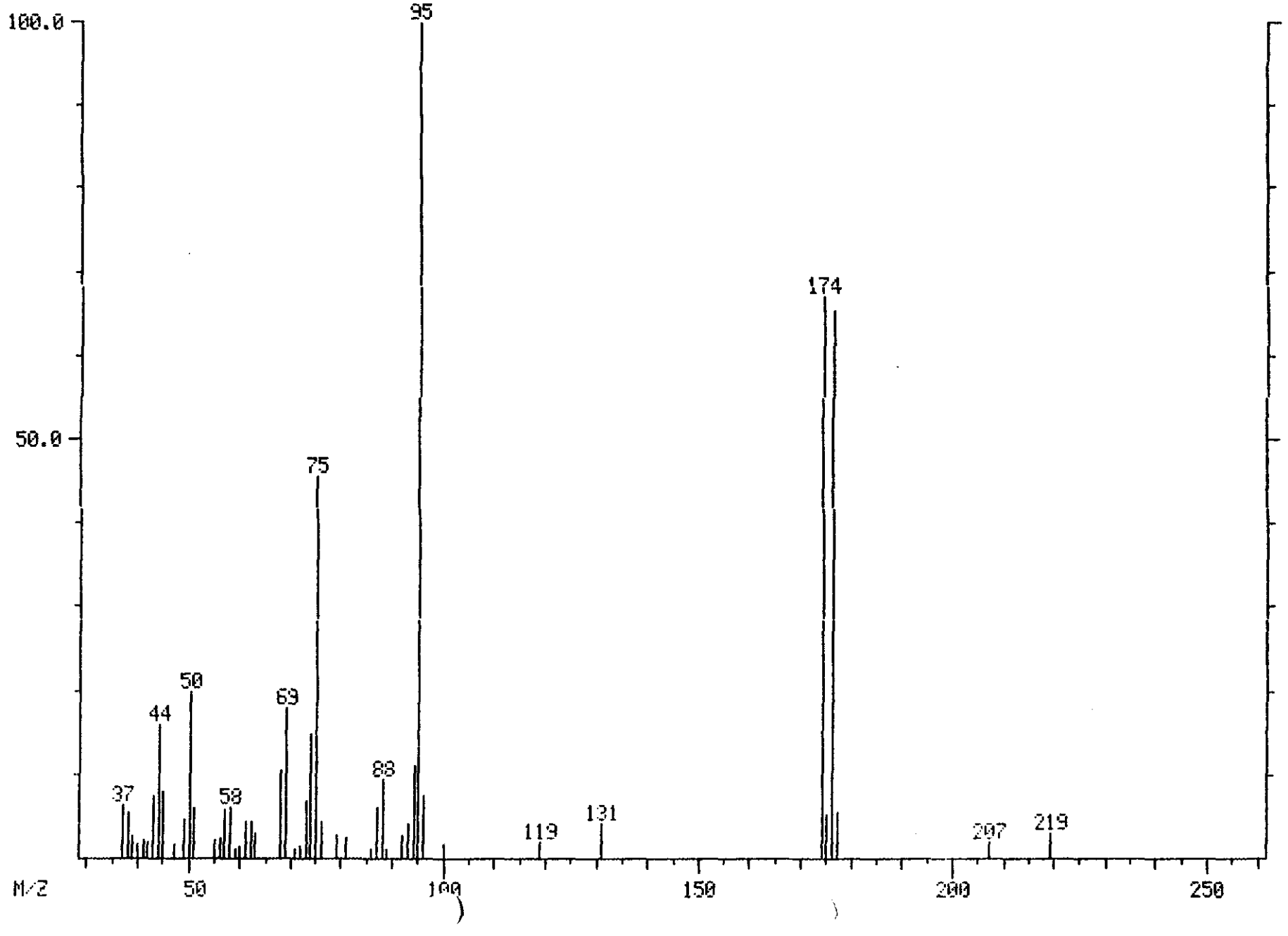
DATA: U3539 #208
CALI: U3539 #2

BASE M/Z: 95
RIC: 38400.

ORIGINAL (Rev.)

100383

#208



ORIGINAL
(Red)

Mass List Data: U3539 # 208 Base m/z: 95
05/08/90 8:23:00 + 8:40 Cali: U3539 # 2 RIC: 38400.
Sample: VOA BFB 50NG 2UL
Conds.: INSTRUMENT U, COLUMN: SP-1000 ISOTHERMAL @225C
#208

37 0.00 0.00 0. Minima Min inten: 0.
219 # 0 Maxima

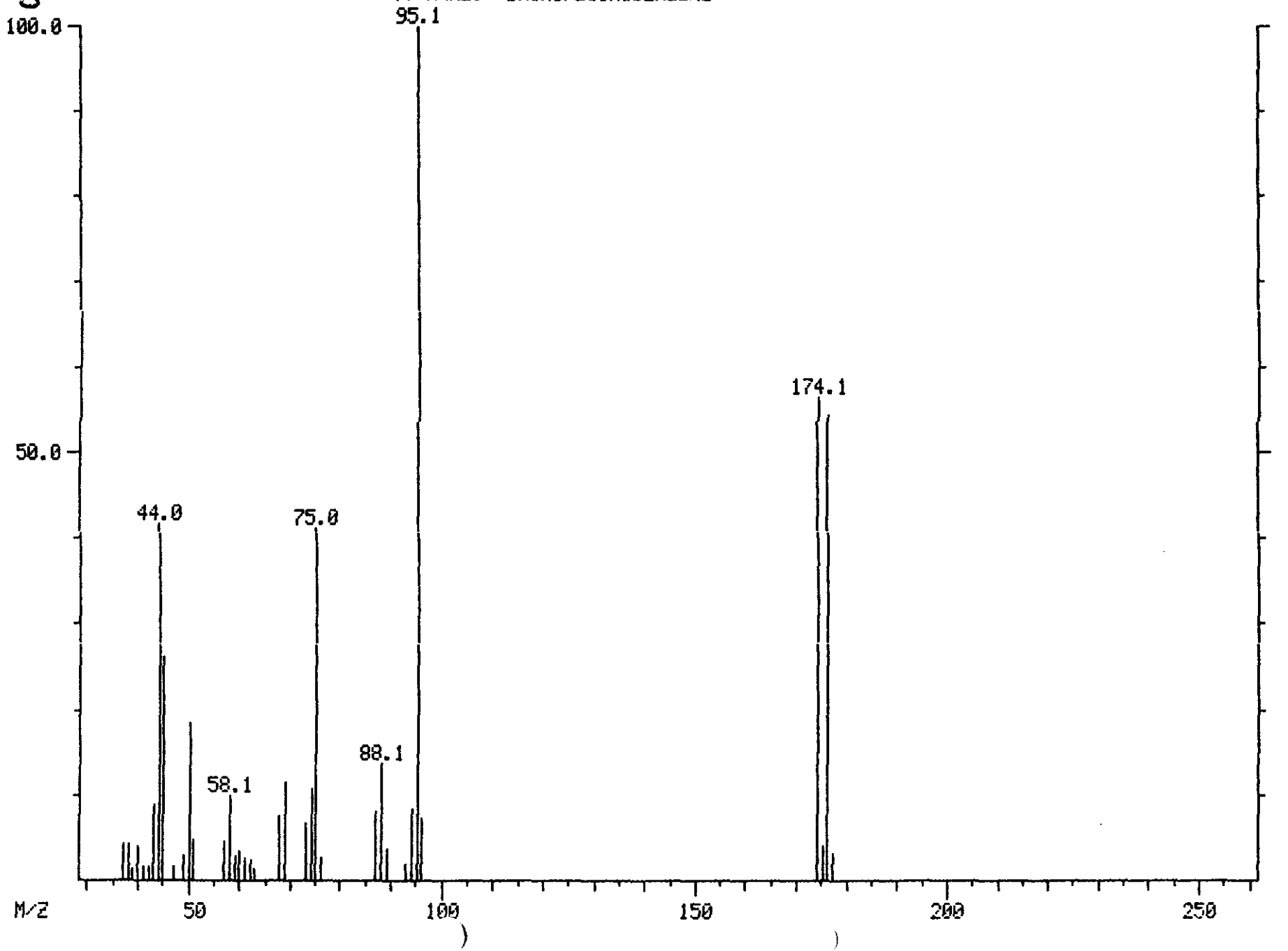
Mass	% RA	% RIC	Inten.
37.00?	6.35	1.21	466.
38.00?	5.60	1.07	411.
39.00?	2.79	0.53	205.
40.00?	1.73	0.33	127.
41.00?	2.18	0.42	160.
42.00?	2.07	0.40	152.
43.00?	7.46	1.43	548.
44.00?	15.93	3.05	1170.
45.00?	8.14	1.56	598.
47.00?	1.54	0.29	113.
49.00?	4.70	0.90	345.
50.00?	19.83	3.79	1456.
51.00?	6.13	1.17	450.
55.00?	2.22	0.42	163.
56.00?	2.36	0.45	173.
57.00?	5.88	1.12	432.
58.00?	6.18	1.18	454.
59.00?	1.08	0.21	79.
60.00?	1.50	0.29	110.
61.00?	4.38	0.84	322.
62.00?	4.40	0.84	323.
63.00?	3.15	0.60	231.
68.00?	10.58	2.02	777.
69.00	17.92	3.43	1316.
71.00	1.24	0.24	91.
72.00	1.39	0.27	102.
73.00	6.85	1.31	503.
74.00	14.95	2.86	1098.
75.00	45.70	8.74	3356.
76.00	4.30	0.82	316.
79.00	2.74	0.52	201.
81.00	2.57	0.49	189.
86.00	1.05	0.20	77.
87.00	6.05	1.16	444.
88.00	9.52	1.82	699.
89.00	1.14	0.22	84.
92.00	2.71	0.52	199.
93.00	4.11	0.79	302.
94.00	11.11	2.12	816.
95.00	100.00	19.12	7344.
96.00	7.33	1.40	538.
100.00	1.65	0.32	121.
119.00	1.85	0.35	136.
131.00	4.28	0.82	314.
174.00	66.99	12.81	4920.
175.00	5.20	0.99	382.
176.00	65.58	12.54	4816.
177.00	5.43	1.04	399.
207.00	2.04	0.39	150.
219.00	3.10	0.59	228.

MASS SPECTRUM
05/02/90 7:35:00 + 3:12
SAMPLE: VOA BFB 50NG 2UL
CONDS.: INSTRUMENT U.COLUMN:SP-1000 ISOTHERMO @225C

DATA: U3461 #221
CALI: U3461 #2

BASE M/Z: 95
RIC: 30976.

ORIGINAL (Rev)



6304

170385

ORIGINAL (Red)

Mass List Data: U3461 # 221 Base m/z: 96
05/02/90 7:35:00 + 9:12 Cali: U3461 # 2 RIC: 30976.
Sample: VOA BFB 50NG 2UL
Conds.: INSTRUMENT U, COLUMN: SP-1000 ISOTHERMO @225C
#221

37 0.00 0.00 0. Minima Min inten: 0.
177 # 0 Maxima

Mass	% RA	% RIC	Inten.
37.00?	4.20	0.86	265.
38.00?	4.39	0.89	277.
39.00?	1.46	0.30	92.
40.00?	4.09	0.83	258.
41.00?	1.52	0.31	96.
42.00?	1.60	0.33	101.
43.00?	8.93	1.82	563.
44.00?	41.69	8.48	2628.
45.00?	26.33	5.36	1660.
47.00?	1.54	0.31	97.
49.00?	2.89	0.59	182.
50.00?	18.50	3.76	1166.
51.00?	4.73	0.96	298.
57.00?	4.54	0.92	286.
58.00?	9.90	2.01	624.
59.00?	2.87	0.58	181.
60.00?	3.41	0.69	215.
61.00?	2.66	0.54	168.
62.00?	2.55	0.52	161.
63.00?	1.33	0.27	84.
68.00?	7.50	1.53	473.
69.00	11.52	2.34	726.
73.00	6.66	1.36	420.
74.00	10.80	2.20	681.
75.00	41.24	8.39	2600.
76.00	2.66	0.54	168.
87.00	8.01	1.63	505.
88.00	13.83	2.82	872.
89.00	3.73	0.76	235.
93.00	2.00	0.41	126.
94.00	8.28	1.69	522.
95.00	100.00	20.35	6304.
96.00	7.39	1.50	466.
174.00	56.47	11.49	3560.
175.00	3.95	0.80	249.
176.00	54.31	11.05	3424.
177.00	3.09	0.63	195.

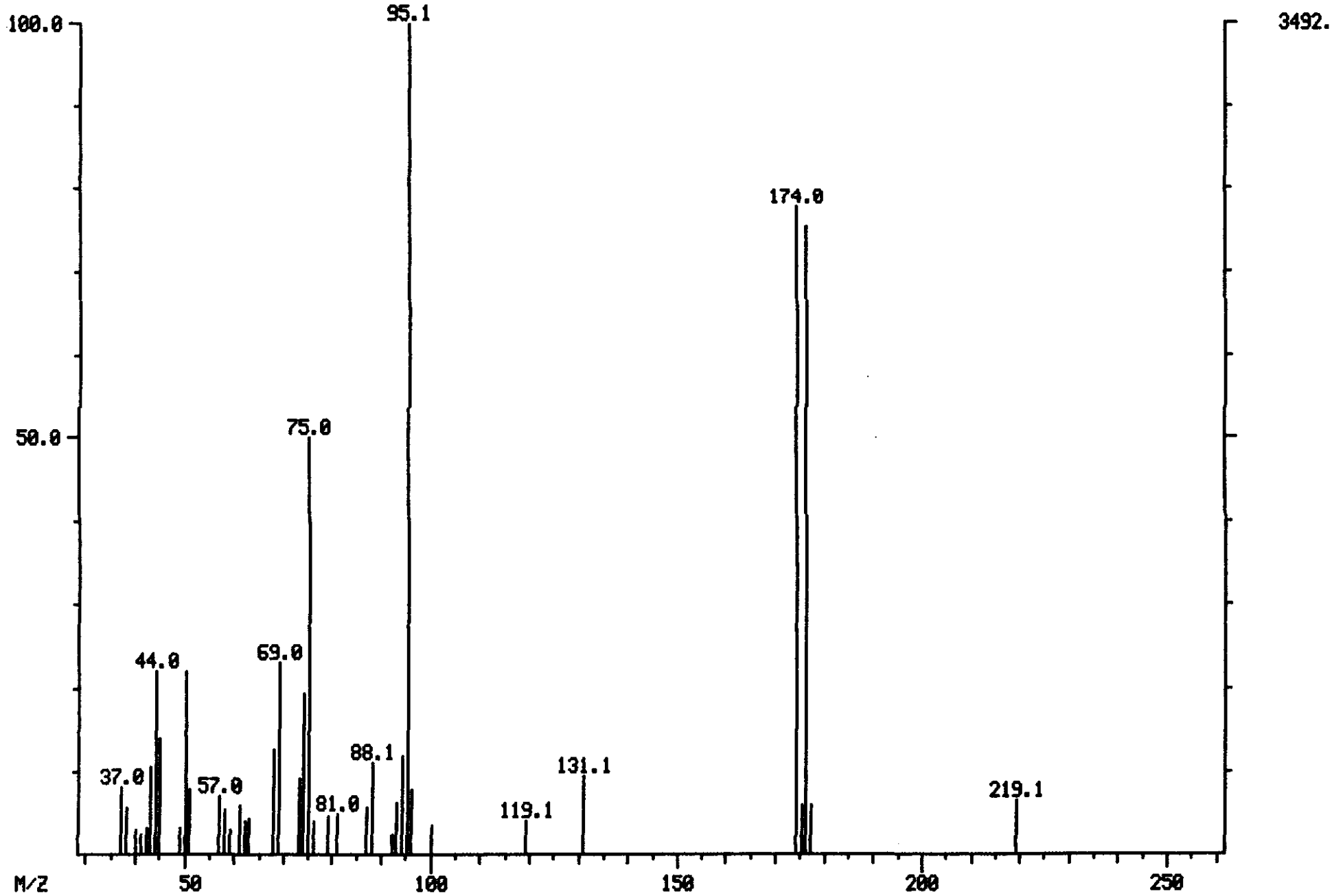
ORIGINAL (Red)

MASS SPECTRUM
05/10/90 8:40:00 + 9:10
SAMPLE: VOA BFB 50NG 2UL
CONDS.: INSTRUMENT U,COLUMN:SP-1000 ISOTHERMAL @225C

DATA: U3578 #220
CALI: U3578 #2

BASE M/Z: 95
RIC: 20672.

100387



ORIGINAL (Red)

Mass List Data: U3578 # 220 Base m/z: 95
05/10/90 8:40:00 + 9:10 Cali: U3578 # 2 RIC: 20672.
Sample: VOA BFB 50NG 2UL
Conds.: INSTRUMENT U, COLUMN: SP-1000 ISOTHERMAL @225C
#220

37 0.00 0.00 0. Minima Min inten: 0.
219 # 0 Maxima

Mass	% RA	% RIC	Inten.
37.00?	8.02	1.35	280.
38.00?	5.76	0.97	201.
40.00?	2.98	0.50	104.
41.00?	2.35	0.40	82.
42.00?	3.15	0.53	110.
43.00?	10.40	1.76	363.
44.00?	22.05	3.72	770.
45.00?	14.06	2.38	491.
49.00?	3.26	0.55	114.
50.00?	21.94	3.71	766.
51.00?	7.85	1.33	274.
57.00?	6.99	1.18	244.
58.00?	5.27	0.89	184.
59.00?	2.86	0.48	100.
61.00?	5.90	1.00	206.
62.00?	4.07	0.69	142.
63.00?	4.18	0.71	146.
68.00?	12.63	2.13	441.
69.00	23.14	3.91	808.
73.00	9.08	1.53	317.
74.00	19.36	3.27	676.
75.00	50.06	8.46	1748.
76.00	4.04	0.68	141.
79.00	4.58	0.77	160.
81.00	4.78	0.81	167.
87.00	5.70	0.96	199.
88.00	11.00	1.86	384.
92.00	2.35	0.40	82.
93.00	6.24	1.05	218.
94.00	11.80	1.99	412.
95.00	100.00	16.89	3492.
96.00	7.85	1.33	274.
100.00	3.41	0.58	119.
119.00	4.07	0.69	142.
131.00	9.45	1.60	330.
174.00	77.66	13.12	2712.
175.00	5.87	0.99	205.
176.00	75.26	12.71	2628.
177.00	5.99	1.01	209.
219.00	6.59	1.11	230.

Versar INC.

ORIGINAL
(Red)

REAGENT BLANK DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK17 ORIGINAL (Red)

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: VBLK17

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1217

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 04/30/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	1	JX
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK17 (Red)

ORIGINAL

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: VBLK17

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1217

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 04/30/90

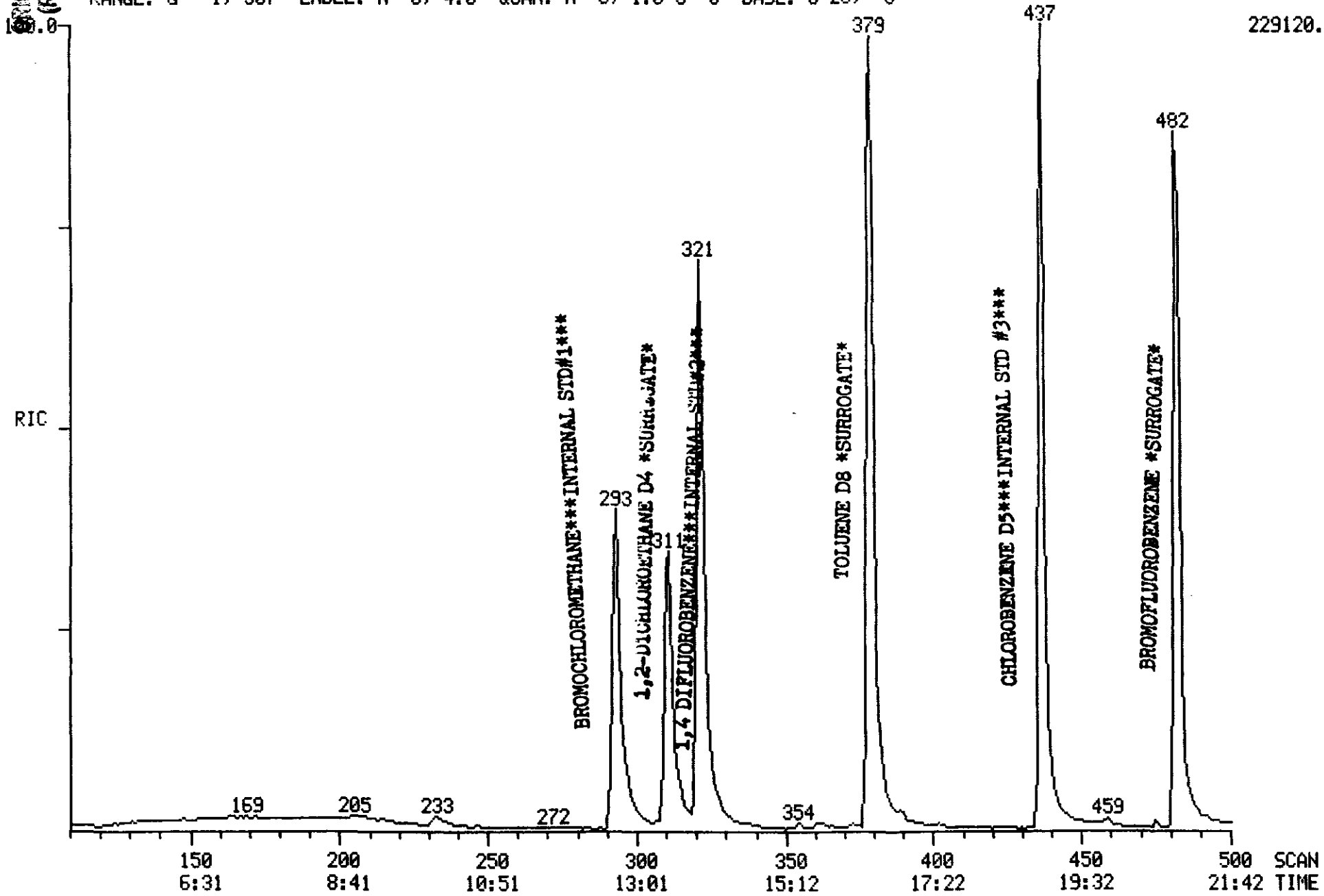
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

04/30/90 11:42:00 CALI: CALTAB #3
SAMPLE: CLP,,,VBLK17,L,W,VBLK17,V,BLANK,,,5ML
CONDS.: INST Y:RTX-502.2,60METER,0.32MM ID,60C(.5MIN) TO 220 @20C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100392

Quantitation Report File: Y1Z17

Data: Y1217.TI
04/30/90 11:42:00
Sample: CLP,,,VBLK17,L,W,VBLK17,V,BLANK,,,5ML
Conds.: INST Y:RTX-502.2,60METER,0.32MM ID,60C(.5MIN) TO 220 @20C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

ORIGINAL (Red)

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

T

Ready for form
SZ 4/30/90

YIZI+

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	292	12:41	1	1.000	A BB	52713.	50.000 UG/L*	16.07
2	114	321	13:56	2	1.000	A BB	211174.	50.000 UG/L*	16.07
3	82	437	18:58	3	1.000	A BB	99063.	50.000 UG/L*	16.07
4	65	311	13:30	2	0.969	A BB	98582.	52.720 UG/L%	16.95 10
5	98	379	16:27	2	1.181	A BB	248904.	51.503 UG/L%	16.56 10
6	95	483	20:58	3	1.105	A BB	102242.	46.782 UG/L%	15.04 9
7	NOT FOUND							ORIGINAL (Red)	
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	232	10:04	1	0.795	A BB	2031. T	1.220 UG/L	0.39
12	43	207	8:59	1	0.709	A BB	2266. NC	~~6.068 UG/L~~	1.95
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	43	254	11:02	1	0.870	A BB	566.	~~0.260 UG/L~~	0.08
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	43	386	16:46	3	0.883	A BB	264.	~~0.362 UG/L~~	0.12
32	NOT FOUND								
33	NOT FOUND								
34	83	477	20:43	3	1.092	A BB	214.	~~0.133 UG/L~~	0.04
35	91	382	16:35	3	0.874	A BB	1253.	~~0.264 UG/L~~	0.08
36	112	438	19:01	3	1.002	A BB	279.	~~0.092 UG/L~~	0.03
37	106	440	19:06	3	1.007	A BB	918.	~~0.640 UG/L~~	0.21
38	104	459	19:56	3	1.050	A BB	1036.	~~0.342 UG/L~~	0.11
39	106	458	19:53	3	1.048	A BB	527.	~~0.304 UG/L~~	0.10
40	NOT FOUND								
41	106	440	19:06	3	1.007	A BB	918.	~~0.391 UG/L~~	0.13
42	NOT FOUND								
43	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:41	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	52.72	50.00	0.467	0.443	1.05
5	16:25	1.00	1.178	1.00	51.50	50.00	1.179	1.144	1.03
6	20:56	1.00	1.106	1.00	46.78	50.00	1.032	1.103	0.94
7	5:59		0.473						
8	7:25		0.586						
9	6:18		0.497						
10	7:33		0.596						
11	10:04	1.00	0.795	1.00	1.22	50.00	0.039	1.578	0.02

91214

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:57	1.00	0.705	1.00	6.07	50.00	0.043	0.354	0.12
13	10:20		0.815						
14	9:17		0.733						
15	11:12		0.884						
16	12:22		0.976						
17	13:04		1.031						
18	11:43		0.925						
19	13:30		0.969						
20	11:02	1.00	0.870	1.00	0.26	50.00	0.011	2.066	0.01
21	15:12		1.090						
22	14:51		1.065						
23	15:56		1.143						
24	14:35		1.047						
25	17:58		0.950						
26	16:59		0.897						
27	13:43		0.984						
28	16:40		0.881						
29	15:22		1.103						
30	20:40		1.092						
31	16:46	1.00	0.885	1.00	0.36	50.00	0.003	0.368	0.01
32	15:27		1.109						
33	17:38		0.931						
34	20:40	1.00	1.092	1.00	0.13	50.00	0.002	0.814	0.00
35	16:33	1.00	0.874	1.00	0.26	50.00	0.013	2.397	0.01
36	19:01	1.00	1.005	1.00	0.09	50.00	0.003	1.536	0.00
37	18:58	1.01	1.002	1.00	0.64	50.00	0.009	0.724	0.01
38	19:53	1.00	1.050	1.00	0.34	50.00	0.010	1.530	0.01
39	19:50	1.00	1.048	1.00	0.30	50.00	0.005	0.876	0.01
40	13:35		0.975						
41	19:06	1.00	1.009	1.00	0.39	50.00	0.009	1.185	0.01
42	10:36		0.836						
43	12:09		0.959						

ORIGINAL (Red)

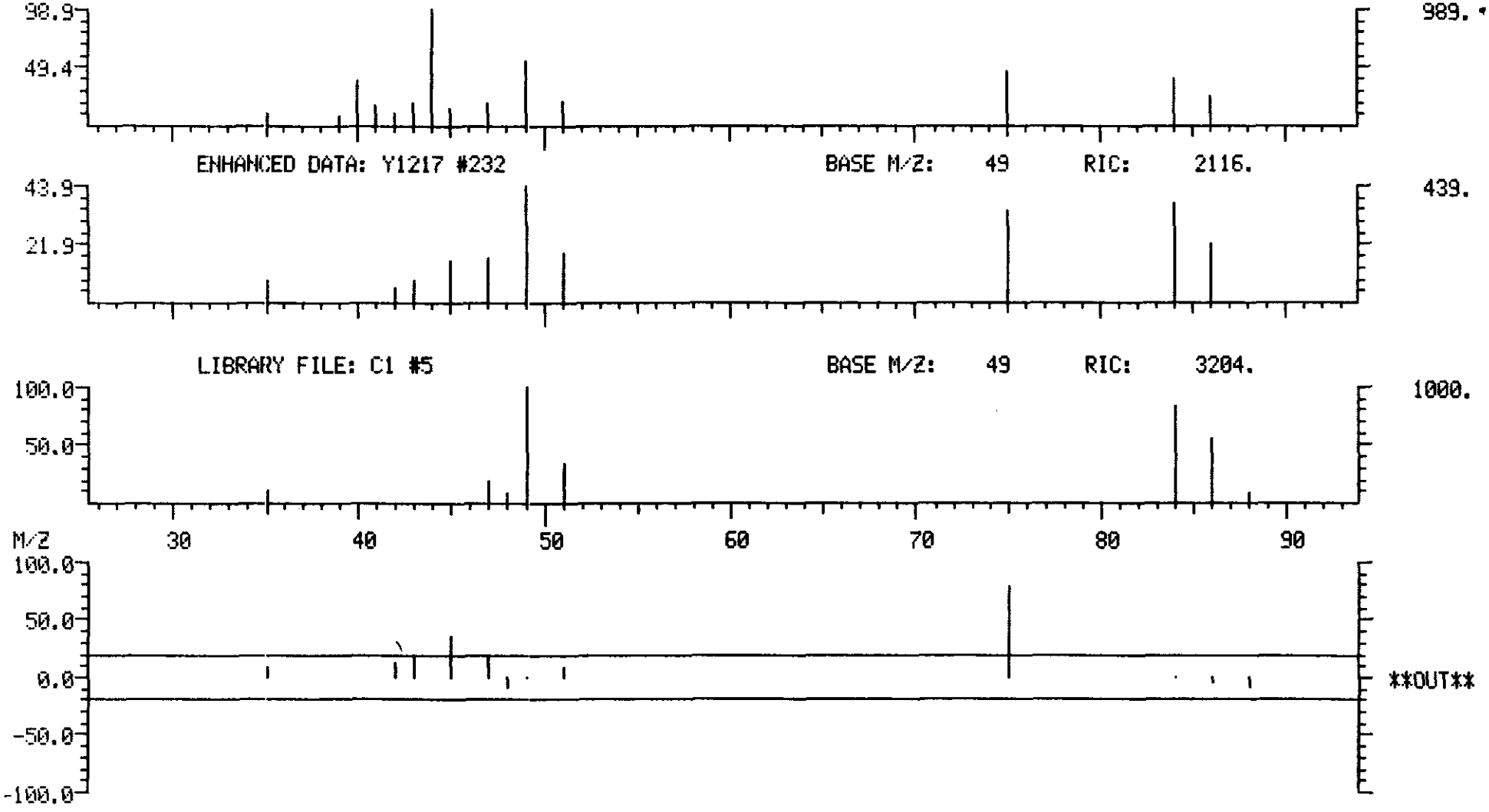
TARGET COMPOUND COMPARISON
COMPOUND: C030 METHYLENE CHLORIDE

CALI: CALTAB #3

ORIGINAL (Red)

RAW DATA: Y1217 #232
04/30/90 11:42

BASE M/Z: 44 RIC: 4304.



100396

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK37 ORIGINAL (Red)

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: VBLK37

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1237

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 04/30/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ORIGINAL

VBLK37 (Red)

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: VBLK37

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1237

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 04/30/90

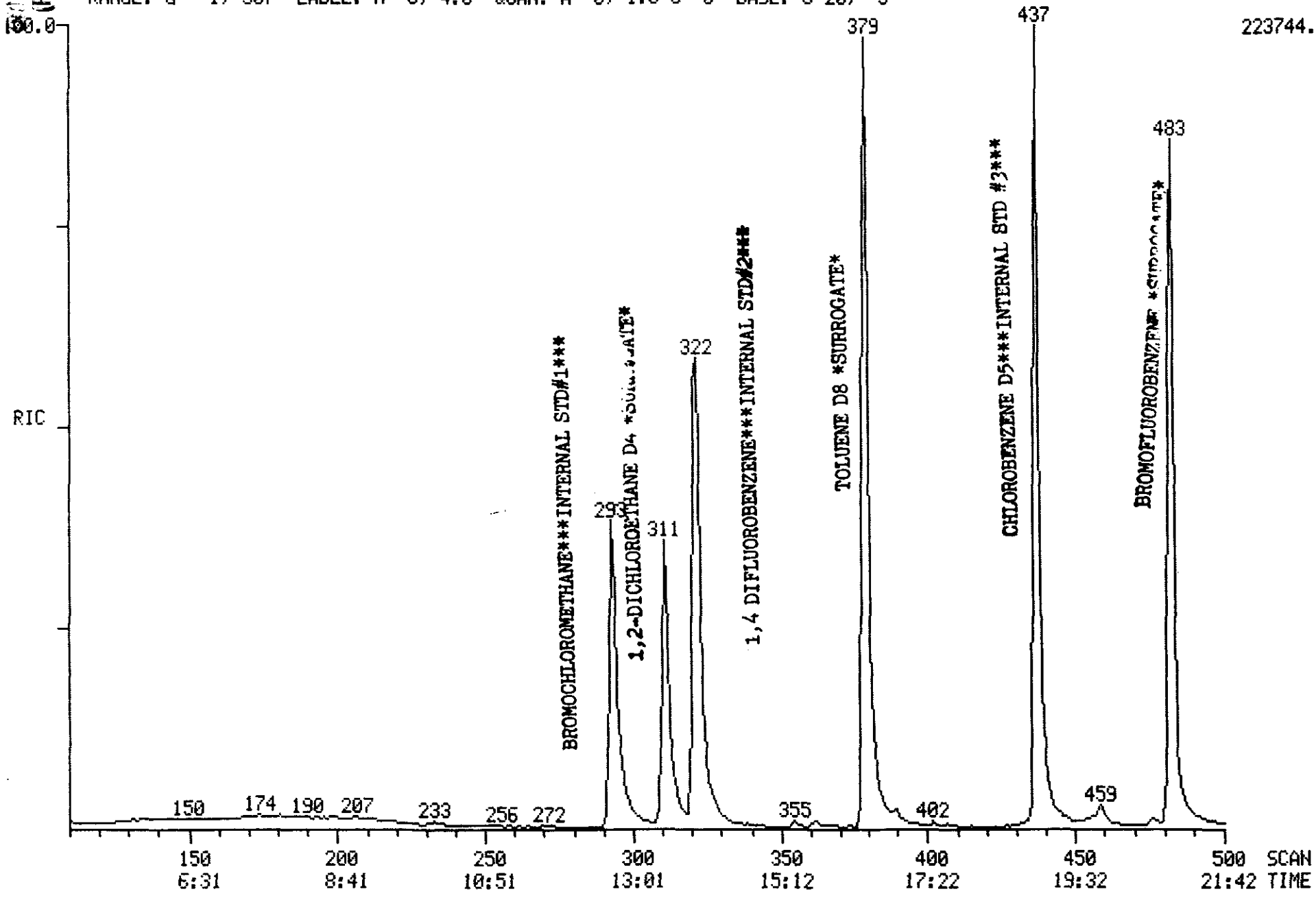
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: Y1237 #1 SCANS 110 TO 500
04/30/90 23:32:00 CALI: Y1237 #3
SAMPLE: CLP,,,VBLK37,L,W,VBLK37,V,,,5ML
CONDS.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100399

Quantitation Report File: Y1237

Data: Y1237.TI
04/30/90 23:32:00
Sample: CLP,,,VBLK37,L,W,VBLK37,V,,,5ML
Conds.: INSTY RX502.2,20C(0.5MIN) TO 220C 10C/MIN
Formula: RTX-502.2,20C(.5MIN) Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

none JT.

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	293	12:43	1	1.000	A BB	46886.	50.000 UG/L*	15.80
2	114	321	13:56	2	1.000	A BB	188736.	50.000 UG/L*	15.80
3	82	437	18:58	3	1.000	A VB	87689.	50.000 UG/L*	15.80
4	65	311	13:30	2	0.969	A BB	89468.	52.715 UG/L%	16.66 105
5	98	379	16:27	2	1.181	A BB	219775.	50.792 UG/L%	16.05 102
6	95	483	20:58	3	1.105	A BB	91340.	46.873 UG/L%	14.81 94
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	233	10:07	1	0.795	A BB	263.	~~0.185 UG/L~~	0.06
12	43	208	9:02	1	0.710	A BB	2225.	~~3.370 UG/L~~	1.07
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	43	256	11:07	1	0.874	A BB	204.	~~0.076 UG/L~~	0.02
21	NOT FOUND								
22	63	343	14:54	2	1.069	A*BB	621.	~~0.566 UG/L~~	0.18
23	75	368	15:59	2	1.146	A BB	223.	~~0.092 UG/L~~	0.03
24	NOT FOUND								
25	129	415	18:01	3	0.950	A BB	286.	~~0.148 UG/L~~	0.05
26	NOT FOUND								
27	78	319	13:51	2	0.994	A BB	376.	~~0.100 UG~~/L	0.03
28	NOT FOUND								
29	NOT FOUND								
30	173	477	20:43	3	1.092	A BB	675.	~~0.439 UG~~/L	0.14
31	43	387	16:48	3	0.886	A BB	235.	~~0.305~~ UG/L	0.10
32	43	357	15:30	2	1.112	A BB	280.	~~0.197 UG~~/L	0.06
33	164	407	17:40	3	0.931	A BB	311.	~~0.184 UG~~/L	0.06
34	83	477	20:43	3	1.092	A BB	1139.	~~0.794 UG~~/L	0.25
35	91	382	16:35	3	0.874	A VB	3287.	~~0.774 UG~~/L	0.24
36	112	439	19:04	3	1.005	A BB	2677.	~~0.984 UG~~/L	0.31
37	106	440	19:06	3	1.007	A BB	4548.	3.073 UG/L	0.97
38	104	459	19:56	3	1.050	A BB	3996.	~~1.409 UG~~/L	0.45
39	106	458	19:53	3	1.048	A BB	3487.	~~2.072 UG~~/L	0.65
40	NOT FOUND								
41	106	440	19:06	3	1.007	A BB	4548.	~~1.281 UG/L~~	0.41
42	NOT FOUND								
43	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:30	1.00	0.969	1.00	52.72	50.00	0.474	0.450	1.05
5	16:27	1.00	1.181	1.00	50.79	50.00	1.164	1.146	1.02
6	20:58	1.00	1.105	1.00	46.87	50.00	1.042	1.111	0.94
7	5:59		0.471						
8	7:25		0.584						
9	6:20		0.498						
10	7:36		0.597						
11	10:04	1.00	0.792	1.00	0.18	50.00	0.006	1.520	0.00

100401

V1237

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.706	1.00	3.37	50.00	0.047	0.704	0.07
13	10:23		0.816						
14	9:17		0.730						
15	11:15		0.884						
16	12:25		0.976						
17	13:04		1.027						
18	11:46		0.925						
19	13:33		0.972						
20	11:04	1.00	0.870	1.00	0.08	50.00	0.004	2.876	0.00
21	15:14		1.093						
22	14:51	1.00	1.065	1.00	0.57	50.00	0.003	0.291	0.01
23	15:59	1.00	1.146	1.00	0.09	50.00	0.001	0.644	0.00
24	14:35		1.047						
25	18:01	1.00	0.950	1.00	0.15	50.00	0.003	1.100	0.00
26	17:01		0.897						
27	13:46	1.01	0.988	1.01	0.10	50.00	0.002	0.999	0.00
28	16:40		0.879						
29	15:25		1.106						
30	20:43	1.00	1.092	1.00	0.44	50.00	0.008	0.877	0.01
31	16:48	1.00	0.886	1.00	0.30	50.00	0.003	0.440	0.01
32	15:27	1.00	1.109	1.00	0.20	50.00	0.001	0.377	0.00
33	17:40	1.00	0.931	1.00	0.18	50.00	0.004	0.963	0.00
34	20:43	1.00	1.092	1.00	0.79	50.00	0.013	0.818	0.02
35	16:35	1.00	0.874	1.00	0.77	50.00	0.037	2.422	0.02
36	19:04	1.00	1.005	1.00	0.98	50.00	0.031	1.552	0.02
37	19:01	1.00	1.002	1.00	3.07	50.00	0.052	0.844	0.06
38	19:56	1.00	1.050	1.00	1.41	50.00	0.046	1.617	0.03
39	19:53	1.00	1.048	1.00	2.07	50.00	0.040	0.960	0.04
40	13:38		0.978						
41	19:06	1.00	1.007	1.00	1.28	50.00	0.052	2.024	0.03
42	10:36		0.833						
43	12:12		0.959						

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK50 ORIGINAL (Red)

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: VBLK50

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1250

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ORIGINAL
VBLK50(Rec)

I Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: VBLK50

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1250

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column (pack/cap) CAP Dilution Factor: 1.0

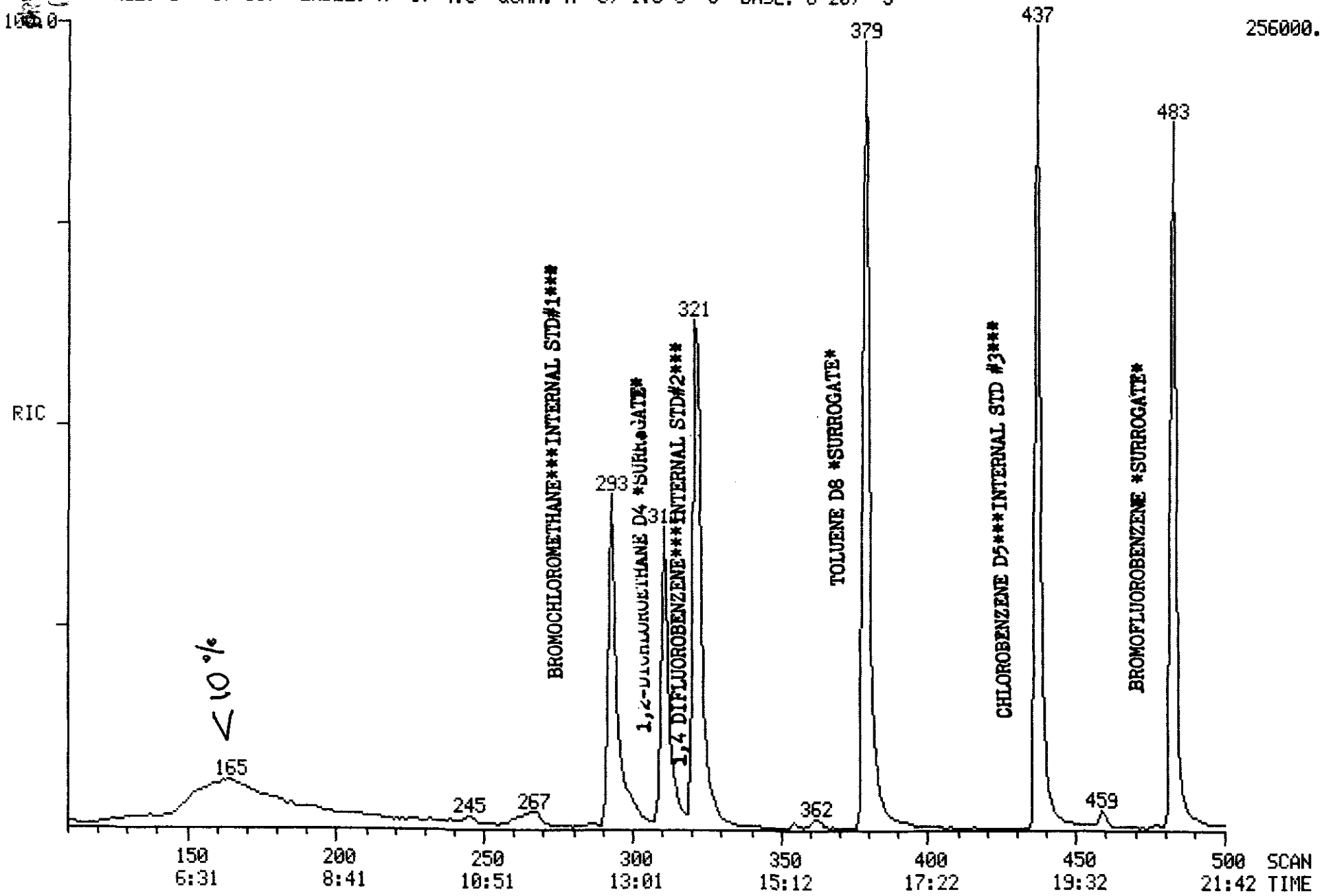
Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC
05/01/90 9:58:00
DATA: Y1250 #1
CALI: Y1250 #3
SCANS 110 TO 500
SAMPLE: CLP,,,VBLK50,L,W,VBLK50,V,BLANK,,,5ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

100405



Quantitation Report File: Y1250

ORIGINAL (Red)

Data: Y1250.TI
05/01/90 9:58:00
Sample: CLP,,,VBLK50,L,W,VBLK50,V,BLANK,,,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

M1250

ORIGINAL (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	293	12:43	1	1.000	A BB	58448.	50.000 UG/L*	16.17
2	114	321	13:56	2	1.000	A BB	227544.	50.000 UG/L*	16.17
3	82	437	18:58	3	1.000	A BB	101082.	50.000 UG/L*	16.17
4	65	311	13:30	2	0.969	A BB	110480.	54.516 UG/L%	17.63 109%
5	98	379	16:27	2	1.181	A BB	250048.	49.255 UG/L%	15.93 99%
6	95	483	20:58	3	1.105	A BB	96810.	46.044 UG/L%	14.89 92%
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	233	10:07	1	0.795	A BB	543.	~~0.332 UG/L~~	0.11
12	43	207	8:59	1	0.706	A BB	1419.	~~2.236 UG/L~~	0.72
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	63	343	14:54	2	1.069	A BB	246.	~~0.193 UG/L~~	0.06
23	75	368	15:59	2	1.146	A BB	191.	~~0.069 UG/L~~	0.02
24	NOT FOUND								
25	129	416	18:04	3	0.952	A BB	199.	~~0.090 UG/L~~	0.03
26	97	392	17:01	3	0.897	A BB	193.	~~0.146 UG/L~~	0.05
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	173	477	20:43	3	1.092	A BB	416.	~~0.237 UG/L~~	0.08
31	43	387	16:48	3	0.886	A BB	235.	~~0.303 UG/L~~	0.10
32	43	357	15:30	2	1.112	A BB	468.	~~0.286 UG/L~~	0.09
33	NOT FOUND								
34	83	477	20:43	3	1.092	A BB	974.	~~0.611 UG/L~~	0.20
35	91	383	16:38	3	0.876	A BB	1201.	~~0.260 UG/L~~	0.08
36	112	439	19:04	3	1.005	A BB	1218.	~~0.396 UG/L~~	0.13
37	106	441	19:09	3	1.009	A BB	2560.	~~1.505 UG/L~~	0.49
38	104	459	19:56	3	1.050	A BB	2533.	~~0.789 UG/L~~	0.26
39	106	459	19:56	3	1.050	A BB	1789.	~~0.929 UG/L~~	0.30
40	NOT FOUND								
41	106	441	19:09	3	1.009	A BB	2560.	~~1.013 UG/L~~	0.33
42	NOT FOUND								
43	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:41	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	54.52	50.00	0.486	0.445	1.09
5	16:27	1.00	1.181	1.00	49.25	50.00	1.099	1.116	0.99
6	20:58	1.00	1.105	1.00	46.04	50.00	0.958	1.040	0.92
7	5:59		0.473						
8	7:25		0.586						
9	6:20		0.500						
10	7:33		0.596						
11	10:04	1.00	0.795	1.00	0.33	50.00	0.009	1.398	0.01

Y1250

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.709	1.00	2.24	50.00	0.024	0.543	0.04
13	10:23		0.818						
14	9:17		0.733						
15	11:15		0.887						
16	12:25		0.979						
17	13:04		1.031						
18	11:46		0.928						
19	13:30		0.969						
20	11:04		0.873						
21	15:14		1.093						
22	14:51	1.00	1.065	1.00	0.19	50.00	0.001	0.280	0.00
23	15:59	1.00	1.146	1.00	0.07	50.00	0.001	0.608	0.00
24	14:35		1.047						
25	18:01	1.00	0.950	1.00	0.09	50.00	0.002	1.099	0.00
26	17:01	1.00	0.897	1.00	0.15	50.00	0.002	0.654	0.00
27	13:46		0.988						
28	16:40		0.879						
29	15:25		1.106						
30	20:43	1.00	1.092	1.00	0.24	50.00	0.004	0.867	0.00
31	16:48	1.00	0.886	1.00	0.30	50.00	0.002	0.384	0.01
32	15:27	1.00	1.109	1.00	0.29	50.00	0.002	0.359	0.01
33	17:40		0.931						
34	20:43	1.00	1.092	1.00	0.61	50.00	0.010	0.789	0.01
35	16:35	1.00	0.874	1.00	0.26	50.00	0.012	2.286	0.01
36	19:01	1.00	1.002	1.00	0.40	50.00	0.012	1.521	0.01
37	19:01	1.01	1.002	1.01	1.50	50.00	0.025	0.841	0.03
38	19:56	1.00	1.050	1.00	0.79	50.00	0.025	1.588	0.02
39	19:53	1.00	1.048	1.00	0.93	50.00	0.018	0.952	0.02
40	13:38		0.978						
41	19:06	1.00	1.007	1.00	1.01	50.00	0.025	1.250	0.02
42	10:36		0.836						
43	12:09		0.959						

ORIGINAL (Red)

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK63

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: VBLK63

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3463

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 05/02/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK63 ORIGINAL (Red)

L. Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: VBLK63

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3463

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/02/90

Column (pack/cap) PACK Dilution Factor: 1.0

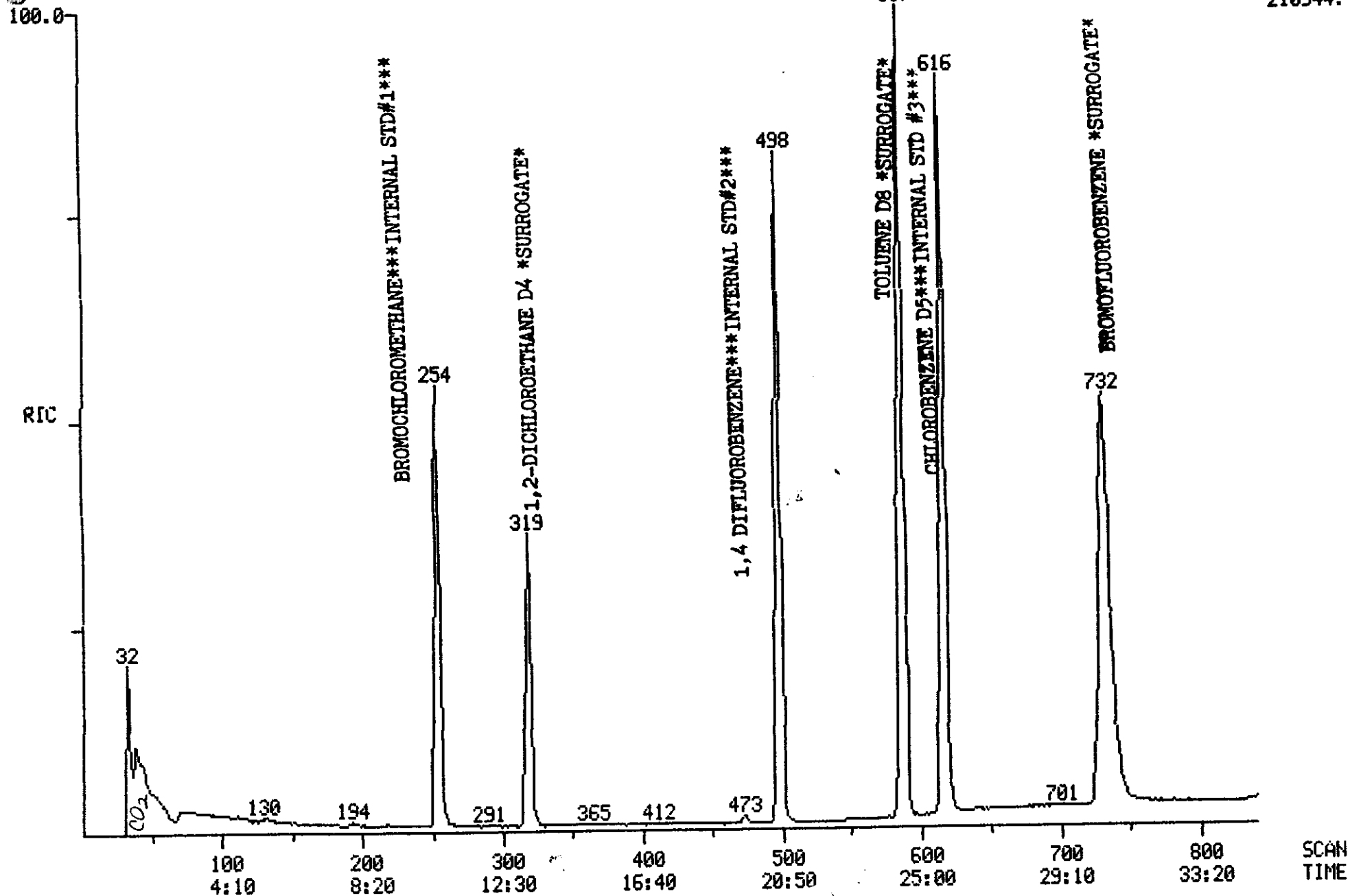
Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC
05/02/90 9:10:00
DATA: U3463 #1
CALI: U3463 #2
SCANS 1 TO 840
SAMPLE: CLP,,,VBLK63,L,S,VBLK63,V,BLANK,,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

210944.



Quantitation Report File: U3463

Data: U3463.TI
05/02/90 9:10:00
Sample: CLP,,,VBLK63,L,S,VBLK63,V,BLANK,,5 ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.011
Submitted by: VERSAR Analyst: MAT Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

Int Std & Surrog. Compliant
Ready For Forms
M.A. Templeton 5/2/90

43463 ORIGINAL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		Ret
1	128	253	10:32	1	1.000	A BB	69628.	50.000	UG/L*	16.70
2	NOT FOUND									
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	NOT FOUND									
7	43	194	8:05	1	0.767	A BV	2849.	~~2.441~~	~~UG/L~~ BRL	0.82
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	65	319	13:17	1	1.261	A BB	94092.	47.107	UG/L%	15.73 94%
15	NOT FOUND									
16	114	498	20:45	16	1.000	A BB	325038.	50.000	UG/L*	16.70
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	NOT FOUND									
29	NOT FOUND									
30	98	587	24:27	31	0.953	A BB	355798.	49.998	UG/L%	16.70 100%
31	117	616	25:40	31	1.000	A BB	283173.	50.000	UG/L*	16.70
32	43	515	21:27	31	0.836	A BB	758.	~~0.153~~	~~UG/L~~ BRL	0.05
33	43	553	23:02	31	0.898	A VB	928.	~~0.213~~	~~UG/L~~ BRL	0.07
34	NOT FOUND									
35	NOT FOUND									
36	NOT FOUND									
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									
42	95	732	30:30	31	1.188	A BB	231482.	49.542	UG/L%	16.55 99%

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:35	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.323						
4	4:17		0.406						
5	5:17		0.500						
6	7:30		0.709						
7	8:05	1.00	0.764	1.00	2.44	50.00	0.041	0.838	0.05
8	9:02		0.854						
9	10:10		0.961						
10	11:25		1.079						
11	12:07		1.146						
12	12:40		1.197						

100413

(Red)

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.264						
14	13:17	1.00	1.256	1.00	47.11	50.00	1.351	1.434	0.94
15	9:30		0.898						
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20		1.260						
18	15:12		0.733						
19	15:07		0.729						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:45		0.711						
30	24:27	1.00	0.953	1.00	50.00	50.00	1.256	1.257	1.00
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	0.15	50.00	0.003	0.873	0.00
33	23:02	1.00	0.898	1.00	0.21	50.00	0.003	0.768	0.00
34	23:20		0.909						
35	23:17		0.907						
36	24:40		0.961						
37	25:47		1.005						
38	27:52		1.086						
39	32:02		1.248						
40	33:20		1.299						
41	32:20		1.260						
42	30:30	1.00	1.188	1.00	49.54	50.00	0.817	0.825	0.99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK45

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: VBLK45

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3545

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 05/08/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ORIGINAL
VBLK45(Rev)

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: VBLK45

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3545

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 05/08/90

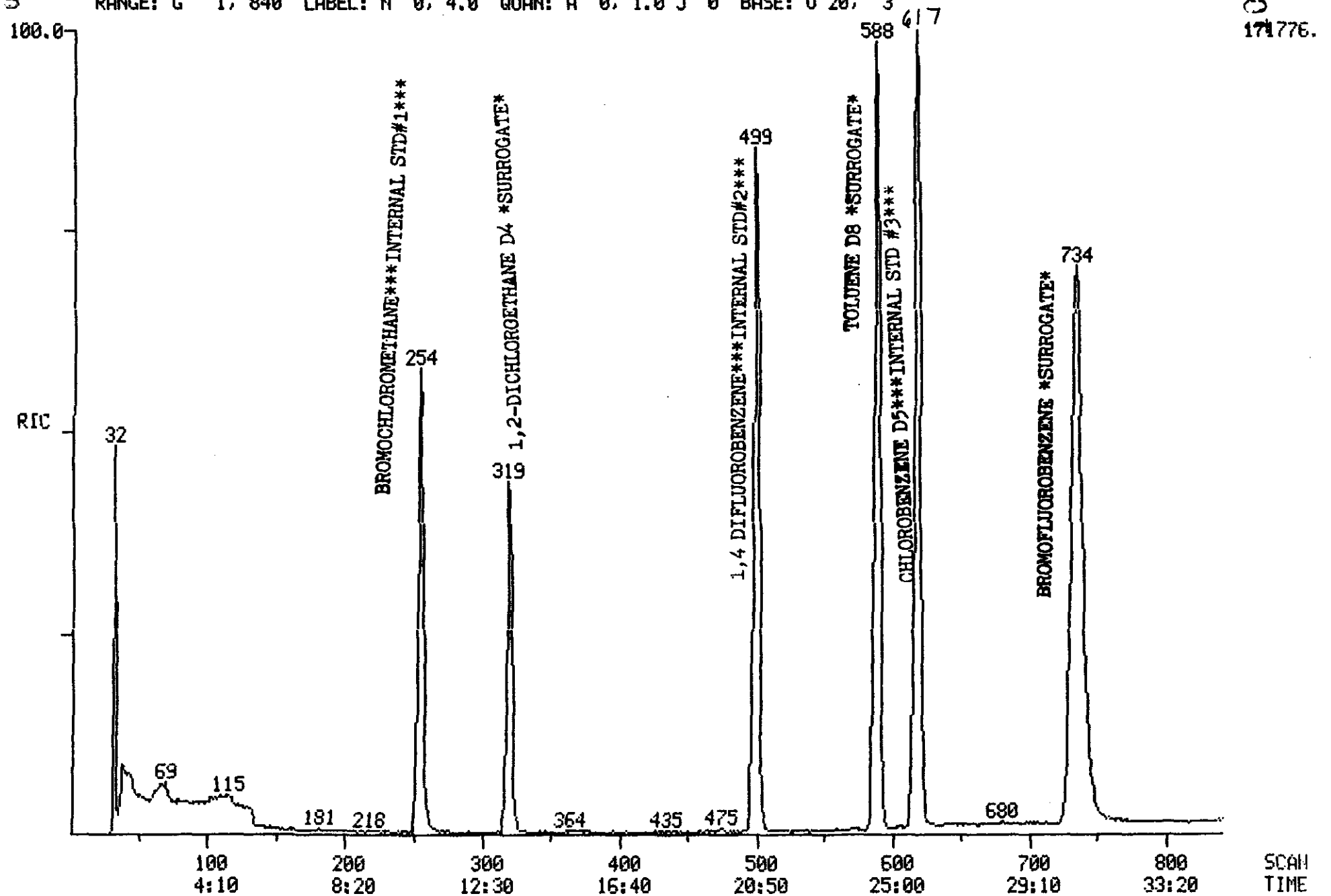
Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: U3545 #1 SCANS 1 TO 840
05/08/90 13:41:00 CALI: U3545 #2
SAMPLE: CLP,,,VBLK45,L,5,VBLK45,V,BLANK,,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



171776.

Quantitation Report File: U3545

ORIGINAL (Red)

Data: U3545.TI
05/08/90 13:41:00
Sample: CLP,,,VBLK45,L,S,VBLK45,V,BLANK,,5 ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.001
Submitted by: VERSAR Analyst: MAT Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

INT STD & SURROG. COMPLIANT
NO HSL'S
NO L.S.
READY FOR FORMS
M.A. Templeton 5/8/90

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

U 3545

ORIGINAL (Red)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	254	10:35	1	1.000	A BB	64963.	50.000 UG/L*	17.02
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	43	177	7:22	1	0.697	A BB	262.	~~0.425 UG/L~~ BRL	0.14
8	NOT FOUND								
9	NOT FOUND								
10	63	254	10:35	1	1.000	A BB	371.	~~0.149 UG/L~~ BRL	0.05
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	65	319	13:17	1	1.256	A BB	119340.	46.802 UG/L%	15.93 94%
15	NOT FOUND								
16	114	499	20:47	16	1.000	A BB	274510.	50.000 UG/L*	17.02
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	98	588	24:30	31	0.953	A BB	289615.	47.794 UG/L%	16.27 96%
31	117	617	25:42	31	1.000	A BB	252000	50.000 UG/L*	17.02
32	43	516	21:30	31	0.836	A BV	1313.	~~0.490 UG/L~~ BRL	0.17
33	43	554	23:05	31	0.898	A VV	1094.	~~0.476 UG/L~~ BRL	0.16
34	NOT FOUND								
35	83	560	23:20	31	0.908	A BB	424.	~~0.115 UG/L~~ BRL	0.04
36	NOT FOUND								
37	112	620	25:50	31	1.005	A BB	385.	~~0.083 UG/L~~ BRL	0.03
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	95	734	30:35	31	1.190	A BB	220000.	47.509 UG/L%	16.17 95%

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.324						
4	4:17		0.407						
5	5:17		0.502						
6	7:27		0.708						
7	8:05	0.91	0.767	0.91	0.42	50.00	0.004	0.477	0.01
8	9:02		0.858						
9	10:07		0.960						
10	11:25	0.93	1.083	0.92	0.15	50.00	0.006	1.922	0.00
11	12:07		1.150						
12	12:37		1.198						

U 3545

ORIGINAL (Red)

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.269						
14	13:17	1.00	1.261	1.00	46.80	50.00	1.837	1.963	0.94
15	9:30		0.901						
16	20:45	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:17		1.261						
18	15:12		0.733						
19	15:05		0.727						
20	15:32		0.749						
21	16:57		0.817						
22	17:10		0.827						
23	17:42		0.853						
24	18:15		0.880						
25	18:17		0.882						
26	18:25		0.888						
27	18:25		0.888						
28	20:57		1.010						
29	14:42		0.709						
30	24:27	1.00	0.953	1.00	47.79	50.00	1.149	1.202	0.96
31	25:40	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32	1.00	0.839	1.00	0.49	50.00	0.005	0.532	0.01
33	23:02	1.00	0.898	1.00	0.48	50.00	0.004	0.456	0.01
34	23:20		0.909						
35	23:17	1.00	0.907	1.00	0.11	50.00	0.002	0.735	0.00
36	24:40		0.961						
37	25:47	1.00	1.005	1.00	0.08	50.00	0.002	0.916	0.00
38	27:55		1.088						
39	32:05		1.250						
40	33:25		1.302						
41	32:22		1.261						
42	30:30	1.00	1.188	1.00	47.51	50.00	0.873	0.919	0.95

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK80 ORIGINAL (Red)

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: VBLK80

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3580

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/10/90

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK80

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) SOIL Lab Sample ID: VBLK80

Sample wt/vol: 5.0 (g/mL) G Lab File ID: U3580

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 05/10/90

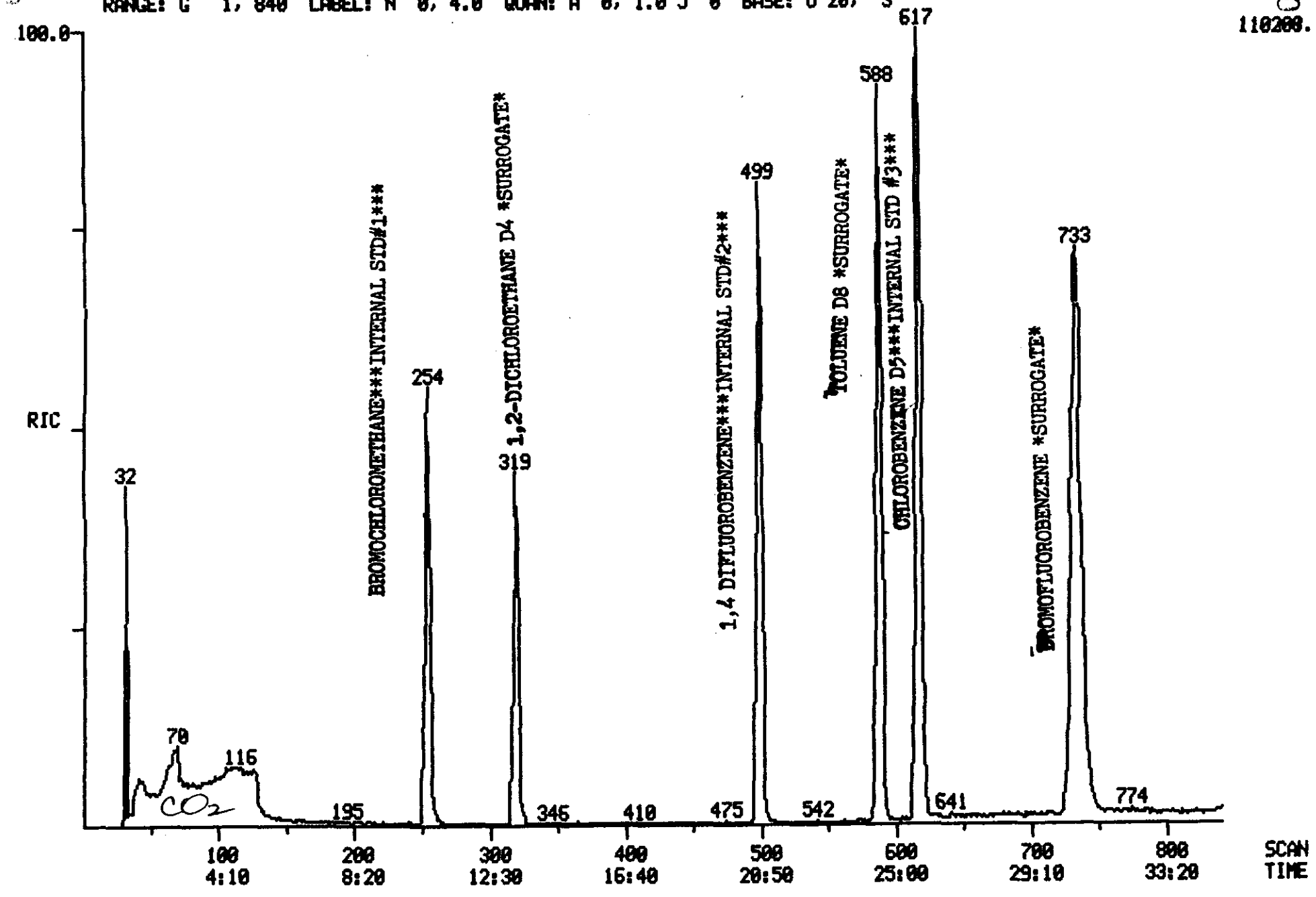
Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RIC DATA: U3580 #1 SCANS 1 TO 840
05/10/90 10:33:00 CALI: U3580 #2
SAMPLE: CLP,,,VBLK80,L,S,VBLK80,V,BLANK,,5 ML,,
CONDS.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
RANGE: G 1, 840 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



00423

Quantitation Report File: U3580

Data: U3580.TI
05/10/90 10:33:00
Sample: CLP,,,VBLK80,L,S,VBLK80,V,BLANK,,5 ML,,
Conds.: INSTRUMENT U: SP-1000 COLUMN: 45C (3MIN) TO 225C @ 8C/MIN
Formula: - Instrument: U Weight: 0.001
Submitted by: VERSAR Analyst: MAT Acct. No.: -

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **IS#1**
2	C010 CHLOROMETHANE
3	C015 BROMOMETHANE
4	C020 VINYL CHLORIDE
5	C025 CHLOROETHANE
6	C030 METHYLENE CHLORIDE
7	C035 ACETONE
8	C040 CARBON DISULFIDE
9	C045 1,1-DICHLOROETHENE
10	C050 1,1-DICHLOROETHANE
11	C053 1,2-DICHLOROETHENE (TOTAL)
12	C060 CHLOROFORM
13	C065 1,2-DICHLOROETHANE
14	CS15 1,2-DICHLOROETHANE-D4 **SS#1**
15	C043 TRICHLOROFLUOROMETHANE
16	CI10 1,4-DIFLUOROBENZENE **IS#2**
17	C110 2-BUTANONE
18	C125 VINYL ACETATE
19	C120 CARBON TETRACHLORIDE
20	C130 BROMODICHLOROMETHANE
21	C140 1,2-DICHLOROPROPANE
22	C145 CIS-1,3-DICHLOROPROPENE
23	C150 TRICHLOROETHENE
24	C165 BENZENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C170 TRANS-1,3-DICHLOROPROPENE
28	C180 BROMOFORM
29	C115 1,1,1-TRICHLOROETHANE
30	CS05 TOLUENE-D8 **SS#2**
31	CI20 CHLOROBENZENE-D5 **IS#3**
32	C205 4-METHYL-2-PENTANONE
33	C210 2-HEXANONE
34	C220 TETRACHLOROETHENE
35	C225 1,1,2,2-TETRACHLOROETHANE
36	C230 TOLUENE
37	C235 CHLOROBENZENE
38	C240 ETHYLBENZENE
39	C245 STYRENE
40	C250 ORTHO & PARA XYLENE
41	C251 META-XYLENE
42	CS10 BROMOFLUOROBENZENE **SS#3**

INT STD and SURROG. COMPLIANT
No HSL's
No L.S.
READY FOR FORMS
M.A. Templeton 5/10/90

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	254	10:35	1	1.000	A BB	37831.	50.000 UG/L*	17.06
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	65	319	13:17	1	1.256	A BB	74504.	44.319 UG/L%	15.12 89%
15	NOT FOUND								
16	114	499	20:47	16	1.00	BB	159975.	50.000 UG/L*	17.06
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	98	588	24:30	31	0.953	A BB	169835.	48.774 UG/L%	16.65 98%
31	117	617	25:42	31	1.000	A BB	153608.	50.000 UG/L*	17.06
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	95	733	30:32	31	1.188	A BB	137846.	49.961 UG/L%	17.05 100%

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:32	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	2:12		0.209						
3	3:25		0.324						
4	4:17		0.407						
5	5:17		0.502						
6	7:30		0.711						
7	8:05		0.767						
8	9:02		0.858						
9	10:10		0.964						
10	11:25		1.083						
11	12:07		1.150						
12	12:40		1.202						

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
13	13:22		1.269						
14	13:17	1.00	1.261	1.00	44.32	50.00	1.969	2.222	0.89
15	9:30		0.901						
16	20:47	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
17	13:20		1.265						
18	15:12		0.731						
19	15:07		0.727						
20	15:32		0.747						
21	16:57		0.816						
22	17:10		0.826						
23	17:42		0.852						
24	18:15		0.878						
25	18:17		0.880						
26	18:25		0.886						
27	18:27		0.888						
28	20:57		1.008						
29	14:45		0.709						
30	24:30	1.00	0.953	1.00	48.77	50.00	1.106	1.133	0.98
31	25:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	21:32		0.838						
33	23:05		0.898						
34	23:20		0.908						
35	23:17		0.906						
36	24:40		0.959						
37	25:50		1.005						
38	27:55		1.086						
39	32:07		1.250						
40	33:25		1.300						
41	32:25		1.261						
42	30:32	1.00	1.188	1.00	49.96	50.00	0.897	0.898	1.00

Versar INC.

ORIGINAL
(Red)

MATRIX SPIKE DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW1MS ORIGINAL (Red)

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16704A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1252

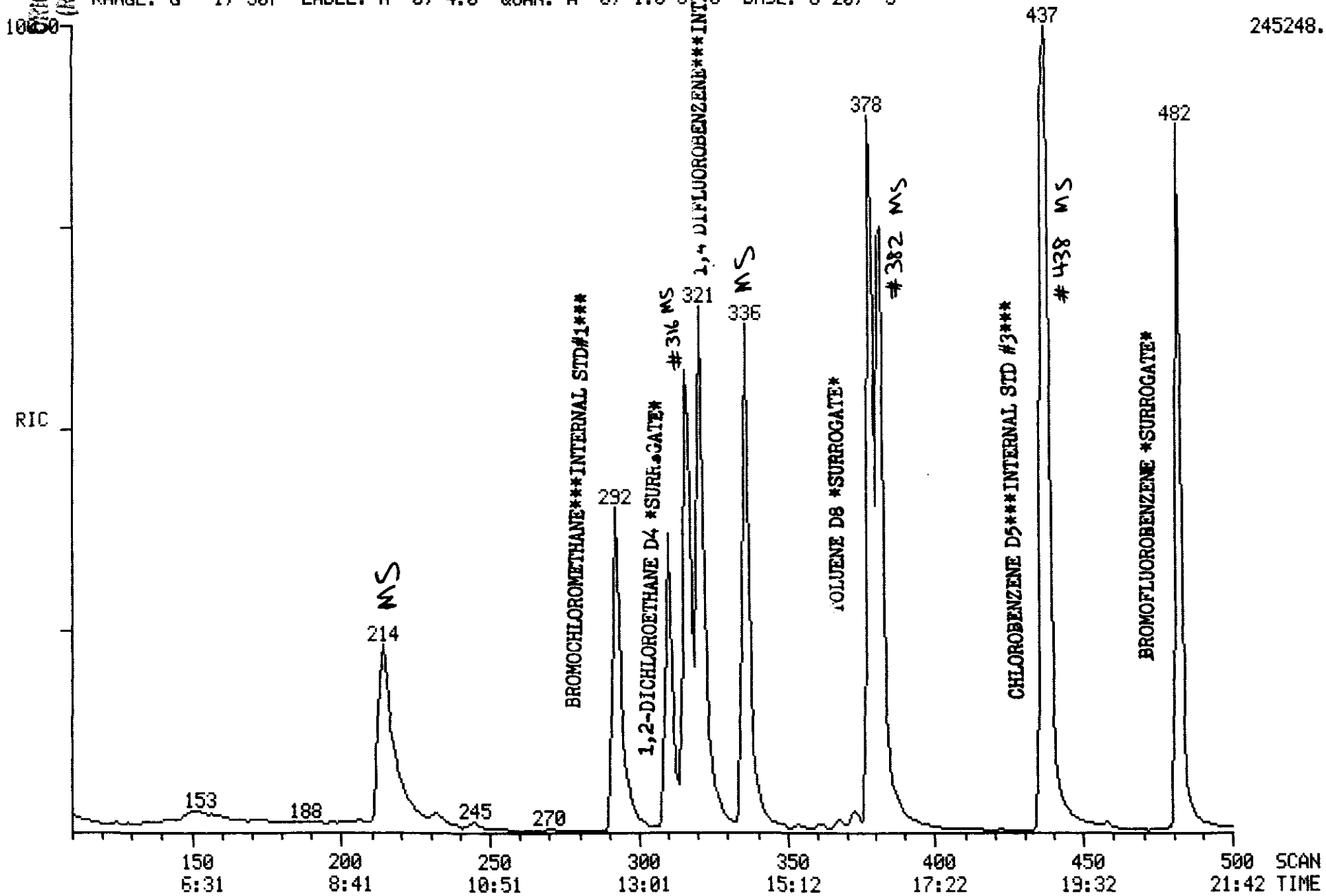
Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

RIC DATA: Y1252 #1 SCANS 110 TO 500
05/01/90 11:10:00 CALI: Y1252 #3
SAMPLE: CLP,VERSCOM,2548,SW1MS,L,W,16704A,V,MS,,420.1,25ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



100423

Quantitation Report File: Y1252

Data: Y1252.TI
05/01/90 11:10:00
Sample: CLP,VERSCDM,2548,SW1MS,L,W,16704A,V,MS,,420.1,3,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

Y1252

ORIGINAL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	292	12:41	1	1.000	A BB	55911.	50.000 UG/L*	8.84
2	114	321	13:56	2	1.000	A BB	195139.	50.000 UG/L*	8.84
3	82	436	18:56	3	1.000	A BB	92643.	50.000 UG/L*	8.84
4	65	310	13:28	2	0.966	A BB	99604.	57.311 UG/L%	10.13 115%
5	98	378	16:25	2	1.178	A BB	222166.	51.030 UG/L%	9.02 102%
6	95	482	20:56	3	1.106	A BB	96295.	49.971 UG/L%	8.83 100%
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	232	10:04	1	0.795	A BB	1101.	~~0.704 UG/L~~	0.12
12	43	206	8:57	1	0.705	A BB	3472.	~~5.718 UG/L~~	1.01
13	NOT FOUND								
14	96	214	9:17	1	0.733	A BB	59446.	43.202 UG/L MS	7.64
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	130	336	14:35	2	1.047	A BB	83451.	47.899 UG/L MS	8.47
25	NOT FOUND								
26	NOT FOUND								
27	78	316	13:43	2	0.984	A BB	200679.	55.597 UG/L MS	9.83
28	75	382	16:35	3	0.876	A BB	1449.	~~1.135 UG/L~~	0.20
29	NOT FOUND								
30	NOT FOUND								
31	43	386	16:46	3	0.885	A BB	186.	~~0.262 UG/L~~	0.05
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	91	382	16:35	3	0.876	A BB	205069.	48.418 UG/L MS	8.56
36	112	438	19:01	3	1.005	A BB	146965.	52.160 UG/L MS	9.22
37	106	440	19:06	3	1.009	A BB	655.	~~0.420 UG/L~~	0.07
38	104	458	19:53	3	1.050	A BB	296.	~~0.101 UG/L~~	0.02
39	NOT FOUND								
40	62	316	13:43	2	0.984	A BV	1926.	~~1.216 UG/L~~	0.21
41	106	440	19:06	3	1.009	A BB	655.	~~0.283 UG/L~~	0.05
42	96	246	10:41	1	0.842	A BB	345.	~~0.255 UG/L~~	0.05
43	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:41	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	57.31	50.00	0.510	0.445	1.15
5	16:27	1.00	1.181	1.00	51.03	50.00	1.139	1.116	1.02
6	20:58	1.00	1.105	1.00	49.97	50.00	1.039	1.040	1.00
7	5:59		0.473						
8	7:25		0.586						
9	6:20		0.500						
10	7:33		0.596						
11	10:04	1.00	0.795	1.00	0.70	50.00	0.020	1.398	0.01

Y1252

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.709	1.00	5.72	50.00	0.062	0.543	0.11
13	10:23		0.818						
14	9:17	1.00	0.733	1.00	43.20	50.00	1.063	1.231	0.86
15	11:15		0.887						
16	12:25		0.979						
17	13:04		1.031						
18	11:46		0.928						
19	13:30		0.969						
20	11:04		0.873						
21	15:14		1.093						
22	14:51		1.065						
23	15:59		1.146						
24	14:35	1.00	1.047	1.00	47.90	50.00	0.428	0.446	0.96
25	18:01		0.950						
26	17:01		0.897						
27	13:46	1.00	0.988	1.00	55.60	50.00	1.028	0.925	1.11
28	16:40	0.99	0.879	1.00	1.14	50.00	0.016	0.689	0.02
29	15:25		1.106						
30	20:43		1.092						
31	16:48	1.00	0.886	1.00	0.26	50.00	0.002	0.384	0.01
32	15:27		1.109						
33	17:40		0.931						
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	48.42	50.00	2.214	2.286	0.97
36	19:01	1.00	1.002	1.00	52.16	50.00	1.586	1.521	1.04
37	19:01	1.00	1.002	1.01	0.42	50.00	0.007	0.841	0.01
38	19:56	1.00	1.050	1.00	0.10	50.00	0.003	1.588	0.00
39	19:53		1.048						
40	13:38	1.01	0.978	1.01	1.22	50.00	0.010	0.406	0.02
41	19:06	1.00	1.007	1.00	0.28	50.00	0.007	1.250	0.01
42	10:36	1.01	0.836	1.01	0.26	50.00	0.006	1.210	0.01
43	12:09		0.959						

Versar INC.

ORIGINAL (Red)

MATRIX SPIKE DUPLICATE DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW1MSD ORIGINAL (Red)

L Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: MW-38

Matrix: (soil/water) WATER Lab Sample ID: 16704A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: Y1253

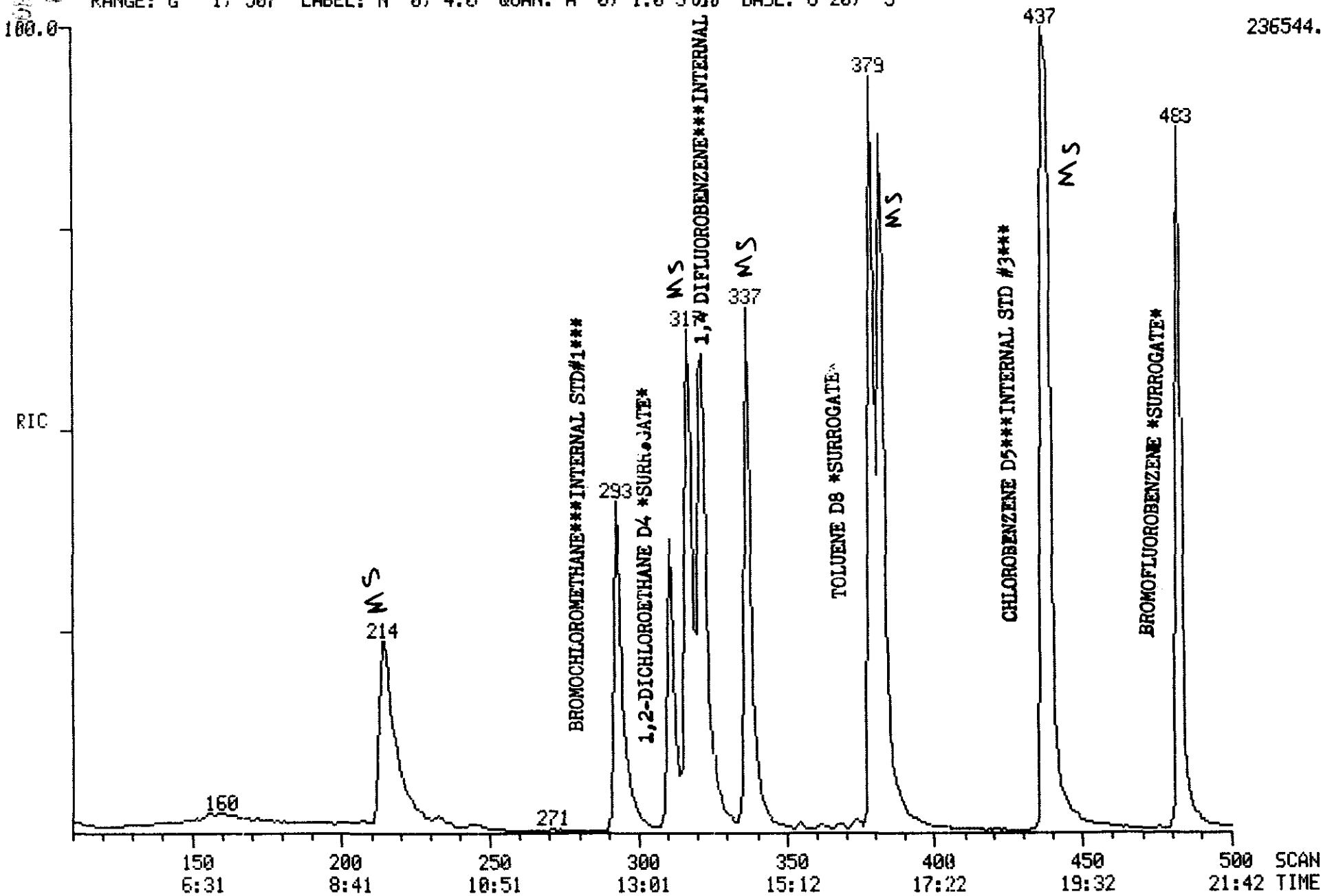
Level: (low/med) LOW Date Received: 04/20/90

% Moisture: not dec. ____ Date Analyzed: 05/01/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
108-05-4	Vinyl acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total xylenes	5	U

RIC DATA: Y1253 #1 SCANS 110 TO 500
05/01/90 11:37:00 CALI: Y1253 #3
SAMPLE: CLP,VERSCDM,2548,SW1MSD,L,W,16704A,V,MSD,,420.[illegible]3,5ML
CONDS.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
RANGE: G 1, 507 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 50 BASE: U 20, 3



100435

Quantitation Report File: Y1253

Data: Y1253.TI
05/01/90 11:37:00
Sample: CLP,VERSCDM,2548,SW1MSD,L,W,16704A,V,MSD,,420.1,3,5ML
Conds.: INST Y:RTX-502.2,20C(0.5MIN) TO 220C @ 10C/MIN
Formula: Instrument: Y Weight: 5.000
Submitted by: VERSAR Analyst: SZ Acct. No.: ____

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE****INTERNAL STANDARD#1 ****
2	CI10 1,4-DIFLUOROBENZENE****INTERNAL STANDARD#2 ****
3	CI20 CHLOROBENZENE-D5****INTERNAL STANDARD#3 ****
4	CS15 1,2-DICHLOROETHANE-D4***SURROGATE#1***
5	CS05 TOLUENE-D8***SURROGATE#2***
6	CS10 4-BROMOFLUOROBENZENE***SURROGATE#3***
7	C010 CHLOROMETHANE
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C035 ACETONE
13	C040 CARBON DISULFIDE
14	C045 1,1-DICHLOROETHENE
15	C050 1,1-DICHLOROETHANE
16	C060 CHLOROFORM
17	C115 1,1,1-TRICHLOROETHANE
18	C110 2-BUTANONE
19	C120 CARBON TETRACHLORIDE
20	C125 VINYL ACETATE
21	C130 BROMODICHLOROMETHANE
22	C140 1,2-DICHLOROPROPANE
23	C145 CIS-1,3,DICHLOROPROPENE
24	C150 TRICHLOROETHENE
25	C155 DIBROMOCHLOROMETHANE
26	C160 1,1,2-TRICHLOROETHANE
27	C165 BENZENE
28	C170 TRANS-1,3-DICHLOROPROPENE
29	C175 2-CHLOROETHYLVINYLETHER
30	C180 BROMOFORM
31	C210 2-HEXANONE
32	C205 4-METHYL-2-PENTANONE
33	C220 TETRACHLOROETHENE
34	C225 1,1,2,2-TETRACHLOROETHANE
35	C230 TOLUENE
36	C235 CHLOROBENZENE
37	C240 ETHYLBENZENE
38	C245 STYRENE
39	C250 O&P XYLENES
40	C065 1,2-DICHLOROETHANE
41	C251 M-XYLENE
42	C054 TRANS-1,2-DICHLOROETHENE
43	C055 CIS-1,2-DICHLOROETHENE

Ready for forms
SZ 5/1/90

N1253

ORIGINAL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	293	12:43	1	1.000	A BB	55366.	50.000 UG/L*	8.56
2	114	321	13:56	2	1.000	A BB	186256.	50.000 UG/L*	8.56
3	82	437	18:58	3	1.000	A BB	87039.	50.000 UG/L*	8.56
4	65	311	13:30	2	0.969	A BB	95630.	57.649 UG/L%	9.86 115%
5	98	379	16:27	2	1.181	A BB	210906.	50.754 UG/L%	8.68 102%
6	95	483	20:58	3	1.105	A BB	91487.	50.532 UG/L%	8.65 101%
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	84	233	10:07	1	0.795	A BB	1047.	~~0.676 UG/L~~	0.12
12	43	208	9:02	1	0.710	A BB	3192.	~~5.310 UG/L~~	0.91
13	NOT FOUND								
14	96	214	9:17	1	0.730	A BB	62831.	46.112 UG/L MS	7.89
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	63	341	14:48	2	1.062	A VB	176.	~~0.169 UG/L~~	0.03
23	NOT FOUND								
24	130	337	14:38	2	1.050	A BB	85873.	51.639 UG/L MS	8.84
25	NOT FOUND								
26	NOT FOUND								
27	78	317	13:46	2	0.988	A BB	204443.	59.341 UG/L MS	10.15
28	75	382	16:35	3	0.874	A BB	1596.	~~1.331 UG/L~~	0.23
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	91	382	16:35	3	0.874	A BB	208602.	52.423 UG/L MS	8.97
36	112	439	19:04	3	1.005	A BB	150646.	56.908 UG/L MS	9.74
37	106	440	19:06	3	1.007	A BB	313.	~~0.214 UG/L~~	0.04
38	NOT FOUND								
39	106	458	19:53	3	1.048	A BB	186.	~~0.112 UG/L~~	0.02
40	62	317	13:46	2	0.988	A BV	1686.	~~1.115 UG/L~~	0.19
41	106	440	19:06	3	1.007	A BB	313.	~~0.144 UG/L~~	0.02
42	NOT FOUND								
43	NOT FOUND								

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	12:41	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	13:56	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	18:58	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:28	1.00	0.966	1.00	57.65	50.00	0.513	0.445	1.15
5	16:27	1.00	1.181	1.00	50.75	50.00	1.132	1.116	1.02
6	20:58	1.00	1.105	1.00	50.53	50.00	1.051	1.040	1.01
7	5:59		0.473						
8	7:25		0.586						
9	6:20		0.500						
10	7:33		0.596						
11	10:04	1.00	0.795	1.00	0.68	50.00	0.019	1.398	0.01

Y1253

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
12	8:59	1.00	0.709	1.00	5.31	50.00	0.058	0.543	0.11
13	10:23		0.818						
14	9:17	1.00	0.733	1.00	46.11	50.00	1.135	1.230	0.92
15	11:15		0.887						
16	12:25		0.979						
17	13:04		1.031						
18	11:46		0.928						
19	13:30		0.969						
20	11:04		0.873						
21	15:14		1.093						
22	14:51	1.00	1.065	1.00	0.17	50.00	0.001	0.280	0.00
23	15:59		1.146						
24	14:35	1.00	1.047	1.00	51.64	50.00	0.461	0.446	1.03
25	18:01		0.950						
26	17:01		0.897						
27	13:46	1.00	0.988	1.00	59.34	50.00	1.098	0.925	1.19
28	16:40	0.99	0.879	0.99	1.33	50.00	0.018	0.689	0.03
29	15:25		1.106						
30	20:43		1.092						
31	16:48		0.886						
32	15:27		1.109						
33	17:40		0.931						
34	20:43		1.092						
35	16:35	1.00	0.874	1.00	52.42	50.00	2.397	2.286	1.05
36	19:01	1.00	1.002	1.00	56.91	50.00	1.731	1.521	1.14
37	19:01	1.00	1.002	1.00	0.21	50.00	0.004	0.841	0.00
38	19:56		1.050						
39	19:53	1.00	1.048	1.00	0.11	50.00	0.002	0.952	0.00
40	13:38	1.01	0.978	1.01	1.12	50.00	0.009	0.406	0.02
41	19:06	1.00	1.007	1.00	0.14	50.00	0.004	1.250	0.00
42	10:36		0.836						
43	12:09		0.959						

ORIGINAL (Red)

Versar INC.

ORIGINAL
(Red)

VI. SAMPLE PREPARATION PACKAGE

1. Parameter Request Sheet
2. Screening Data Summary (soils only)
3. Comments
   a. Extraction
   b. Volatiles
   c. Semivolatiles
   d. Pesticides
4. Extraction Worksheets
   a. Chronicle
   b. Dry Weight Factor (soils only)
   c. Dilution Factor (B) Worksheets
5. Injection Sequence Logs
6. Chain of Custody

VERSAR LABORATORY OPERATIONS
PARAMETER REQUEST SHEET

ORIGINAL (Red)

Deliver To: 48

Control: 2548
Code: VERSCDM
Batch: 3
Job Number: 420.1.0

Case: R3-7
SDG: MW-38
Quote: 9000194 - 90
Charge:

Manager: BECKMAN
Company: VERSAR DIV 31

Site: CDM

Received: 20-APR-90
Due: 18-MAY-90

Sampled: 19-APR-90
Report: 18-MAY-90
Disposal: 20-AUG-90

QC Level:
Deliver:

Rep Type:
Required: 1 Full

Comments: Protocols-See VERSCDM-2(2536); Do 1 set of sample QC on this batch.

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests		
BNAL - 48									
	16688	A		MW-38	HOH	C-48	XACD XPES	XBN	PEST
	16689	A		MW-43	HOH	C-48	XACD XPES	XBN	PEST
	16690	A		MW-53	HOH	C-48	XACD XPES	XBN	PEST
	16691	A		MW-79	HOH	C-48	XACD XPES	XBN	PEST
	16692	A		MW-79A	HOH	C-48	XACD XPES	XBN	PEST
	16693	A		SW-1	HOH	C-48	XACD XPES	XBN	PEST
	16694	A		SW-2	HOH	C-48	XACD XPES	XBN	PEST
	16695	A		TB-1A	HOH	C-48	XACD XPES	XBN	PEST
	16696	A		TB-3A	HOH	C-48	XACD XPES	XBN	PEST
	16697	A		TB-4A	HOH	C-48	XACD XPES	XBN	PEST
	16698	A		TB-5B	HOH	C-48	XACD XPES	XBN	PEST
CLPM - 43									
	16657	A		MW-38	HOH	D-22			
	16658	A		MW-43	HOH	D-22			
	16659	A		MW-53	HOH	D-22			
	16660	A		MW-79	HOH	D-22			
	16661	A		MW-79A	HOH	D-22			
	16662	A		SW-1	HOH	D-22			
	16663	A		SW-2	HOH	D-22			
	16664	A		TB-1A	HOH	D-22			
	16665	A		TB-3A	HOH	D-22			
	16666	A		TB-4A	HOH	D-22			

Continued ->

ORIGINAL
(Red)

Control #: 2548

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests
	16667	A		TB-5B	HOH	D-22	
	16668	A		MW-38	DHOH	D-22	
	16669	A		MW-43	DHOH	D-22	
	16670	A		MW-53	DHOH	D-22	
	16671	A		MW-79	DHOH	D-22	
	16672	A		MW-79A	DHOH	D-22	
	16673	A		TB-1A	DHOH	D-22	
	16674	A		TB-3A	DHOH	D-22	
	16675	A		TB-4A	DHOH	D-22	
	16676	A		TB-5B	DHOH	D-22	
CNM - 44							
	16677	A		MW-38	HOH	A-71	
	16678	A		MW-43	HOH	A-71	
	16679	A		MW-53	HOH	A-71	
	16680	A		MW-79	HOH	A-71	
	16681	A		MW-79A	HOH	A-71	
	16682	A		SW-1	HOH	A-71	
	16683	A		SW-2	HOH	A-71	
	16684	A		TB-1A	HOH	A-71	
	16685	A		TB-3A	HOH	A-71	
	16686	A		TB-4A	HOH	A-71	
	16687	A		TB-5B	HOH	A-71	
PEST - 47							
	16688	A		MW-38	HOH	C-48	BNAL XACD XBN XPES
	16689	A		MW-43	HOH	C-48	BNAL XACD XBN XPES
	16690	A		MW-53	HOH	C-48	BNAL XACD XBN XPES
	16691	A		MW-79	HOH	C-48	BNAL XACD XBN XPES
	16692	A		MW-79A	HOH	C-48	BNAL XACD XBN XPES
	16693	A		SW-1	HOH	C-48	BNAL XACD XBN XPES
	16694	A		SW-2	HOH	C-48	BNAL XACD XBN XPES
	16695	A		TB-1A	HOH	C-48	BNAL XACD XBN XPES
	16696	A		TB-3A	HOH	C-48	BNAL XACD XBN XPES
	16697	A		TB-4A	HOH	C-48	BNAL XACD XBN XPES
	16698	A		TB-5B	HOH	C-48	BNAL XACD XBN XPES
VOAL - 48							
	16699	B		MW-38	HOH	GCMS	
	16700	B		MW-43	HOH	GCMS	
	16701	B		MW-53	HOH	GCMS	
	16702	B		MW-79	HOH	GCMS	
	16703	B		MW-79A	HOH	GCMS	
	16704	B		SW-1	HOH	GCMS	
	16705	B		SW-2	HOH	GCMS	
	16706	B		TB-1	HOH	GCMS	
	16707	B		TB-1A	HOH	GCMS	
	16708	B		TB-3A	HOH	GCMS	

Continued ->

ORIGINAL
(Red)

Control #: 2548

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests		
	16709	B		TB-4A	HOH	GCMS			
	16710	B		TB-5B	HOH	GCMS			
XACD - 46									
	16688	A		MW-38	HOH	C-48	BNAL XPES	XBN	PEST
	16689	A		MW-43	HOH	C-48	BNAL XPES	XBN	PEST
	16690	A		MW-53	HOH	C-48	BNAL XPES	XBN	PEST
	16691	A		MW-79	HOH	C-48	BNAL XPES	XBN	PEST
	16692	A		MW-79A	HOH	C-48	BNAL XPES	XBN	PEST
	16693	A		SW-1	HOH	C-48	BNAL XPES	XBN	PEST
	16694	A		SW-2	HOH	C-48	BNAL XPES	XBN	PEST
	16695	A		TB-1A	HOH	C-48	BNAL XPES	XBN	PEST
	16696	A		TB-3A	HOH	C-48	BNAL XPES	XBN	PEST
	16697	A		TB-4A	HOH	C-48	BNAL XPES	XBN	PEST
	16698	A		TB-5B	HOH	C-48	BNAL XPES	XBN	PEST
XBN - 46									
	16688	A		MW-38	HOH	C-48	BNAL XPES	XACD	PEST
	16689	A		MW-43	HOH	C-48	BNAL XPES	XACD	PEST
	16690	A		MW-53	HOH	C-48	BNAL XPES	XACD	PEST
	16691	A		MW-79	HOH	C-48	BNAL XPES	XACD	PEST
	16692	A		MW-79A	HOH	C-48	BNAL XPES	XACD	PEST
	16693	A		SW-1	HOH	C-48	BNAL XPES	XACD	PEST
	16694	A		SW-2	HOH	C-48	BNAL XPES	XACD	PEST
	16695	A		TB-1A	HOH	C-48	BNAL XPES	XACD	PEST
	16696	A		TB-3A	HOH	C-48	BNAL XPES	XACD	PEST
	16697	A		TB-4A	HOH	C-48	BNAL XPES	XACD	PEST
	16698	A		TB-5B	HOH	C-48	BNAL XPES	XACD	PEST
XPES - 46									
	16688	A		MW-38	HOH	C-48	BNAL PEST	XACD	XBN
	16689	A		MW-43	HOH	C-48	BNAL PEST	XACD	XBN
	16690	A		MW-53	HOH	C-48	BNAL PEST	XACD	XBN

Continued ->

100442

ORIGINAL (Red)

Control #: 2548

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests		
	16691	A		MW-79	HOH	C-48	BNAL PEST	XACD	XBN
	16692	A		MW-79A	HOH	C-48	BNAL PEST	XACD	XBN
	16693	A		SW-1	HOH	C-48	BNAL PEST	XACD	XBN
	16694	A		SW-2	HOH	C-48	BNAL PEST	XACD	XBN
	16695	A		TB-1A	HOH	C-48	BNAL PEST	XACD	XBN
	16696	A		TB-3A	HOH	C-48	BNAL PEST	XACD	XBN
	16697	A		TB-4A	HOH	C-48	BNAL PEST	XACD	XBN
	16698	A		TB-5B	HOH	C-48	BNAL PEST	XACD	XBN

VERSAR LIMS

Rev 1 Sel

04/26/90

ORIGINAL (Red)

VERSAR LABORATORY OPERATIONS
PARAMETER REQUEST SHEET

Deliver To: 48

Control: 2565
Code: VERSCDM
Batch: 4
Job Number: 420.1.0

Case: R3-7
SDG: 4
Quote: 9000194 - 90
Charge:

Manager: BECKMAN
Company: VERSAR DIV 31

Site: CDM

Received: 23-APR-90
Due: [redacted]-MAY-90

Sampled: [redacted]9-APR-90
Report: [redacted]1-MAY-90
Disposal: 30-AUG-90

QC Level:
Deliver:

Rep Type:
Required: 1 Full, 1 Summary

Comments: Protocols - See VERSCDM-2(2536); Do 1 set of water QC for METALS ONLY. No sample QC for soils.

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests		
BNAL - 48									
	16909	A		4	SOIL	A-34	XBNA		
	16910	A		8	SOIL	A-34	XBNA		
	16911	A		9	SOIL	A-34	XBNA		
	16912	A		10	SOIL	A-34	XBNA		
	16913	A		11	SOIL	A-34	XBNA		
	16914	A		12	SOIL	A-34	XBNA		
	16915	A		13	SOIL	A-34	XBNA		
	16916	A		14	SOIL	A-34	XBNA		
	16917	A		15	SOIL	A-34	XBNA		
	16918	A		GW-1	HOH	A-34	XACD XPES	XBN	PEST
CLPM - 43									
	16928	A		4	SOIL	A-34			
	16929	A		8	SOIL	A-34			
	16930	A		9	SOIL	A-34			
	16931	A		10	SOIL	A-34			
	16932	A		11	SOIL	A-34			
	16933	A		12	SOIL	A-34			
	16934	A		13	SOIL	A-34			
	16935	A		14	SOIL	A-34			
	16936	A		15	SOIL	A-34			
	16937	A		GW-1	HOH	A-34			
	16948	A		GW-1	DHOH	A-34			
CNM - 44									
	16938	A		4	SOIL	A-34	TS		
	16939	A		8	SOIL	A-34	TS		
	16940	A		9	SOIL	A-34	TS		
	16941	A		10	SOIL	A-34	TS		
	16942	A		11	SOIL	A-34	TS		
	16943	A		12	SOIL	A-34	TS		
	16944	A		13	SOIL	A-34	TS		
	16945	A		14	SOIL	A-34	TS		
	16946	A		15	SOIL	A-34	TS		

Continued ->

100444

Control #: 2565

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests		
	16947	A		GW-1	HOH	A-34			
PEST - 47									
	16918	A		GW-1	HOH	A-34	XACD	XBN	XPES
							BNAL		
	16919	A		4	SOIL	A-34	XPES		
	16920	A		8	SOIL	A-34	XPES		
	16921	A		9	SOIL	A-34	XPES		
	16922	A		10	SOIL	A-34	XPES		
	16923	A		11	SOIL	A-34	XPES		
	16924	A		12	SOIL	A-34	XPES		
	16925	A		13	SOIL	A-34	XPES		
	16926	A		14	SOIL	A-34	XPES		
	16927	A		15	SOIL	A-34	XPES		
TCBN - 48									
	16960	B		11	SOIL	A-34	TCLX	TCLM	XTCB
							TCPS	XTCP	TCHB
							XTCH		
TCHB - 47									
	16960	B		11	SOIL	A-34	TCLX	TCLM	TCBN
							XTCB	TCPS	XTCP
							XTCH		
TCLM - 43									
	16960	B		11	SOIL	A-34	TCLX	TCBN	XTCB
							TCPS	XTCP	TCHB
							XTCH		
TCLV - 48									
	16961	B		11	SOIL	GC/MS	ZHE		
TCLX - 43									
	16960	B		11	SOIL	A-34	TCLM	TCBN	XTCB
							TCPS	XTCP	TCHB
							XTCH		
TCPS - 47									
	16960	B		11	SOIL	A-34	TCLX	TCLM	TCBN
							XTCB	XTCP	TCHB
							XTCH		
TS - 44									
	16938	A		4	SOIL	A-34	CNM		
	16939	A		8	SOIL	A-34	CNM		
	16940	A		9	SOIL	A-34	CNM		
	16941	A		10	SOIL	A-34	CNM		
	16942	A		11	SOIL	A-34	CNM		
	16943	A		12	SOIL	A-34	CNM		
	16944	A		13	SOIL	A-34	CNM		
	16945	A		14	SOIL	A-34	CNM		
	16946	A		15	SOIL	A-34	CNM		
	16949	B		4	SOIL	GC/MS	VOAL		
	16950	B		8	SOIL	GC/MS	VOAL		
	16951	B		9	SOIL	GC/MS	VOAL		
	16952	B		10	SOIL	GC/MS	VOAL		
	16953	B		11	SOIL	GC/MS	VOAL		
	16954	B		12	SOIL	GC/MS	VOAL		
	16955	B		13	SOIL	GC/MS	VOAL		
	16956	B		14	SOIL	GC/MS	VOAL		
	16957	B		15	SOIL	GC/MS	VOAL		
VOAL - 48									
	16949	B		4	SOIL	GC/MS	TS		

Continued ->

ORIGINAL
(Red)

Control #: 2565

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests		
	16950	B		8	SOIL	GC/MS	TS		
	16951	B		9	SOIL	GC/MS	TS		
	16952	B		10	SOIL	GC/MS	TS		
	16953	B		11	SOIL	GC/MS	TS		
	16954	B		12	SOIL	GC/MS	TS		
	16955	B		13	SOIL	GC/MS	TS		
	16956	B		14	SOIL	GC/MS	TS		
	16957	B		15	SOIL	GC/MS	TS		
	16958	B		GW-1	HOH	GC/MS			
	16959	B		TB-2	HOH	GC/MS			
XACD - 46									
	16918	A		GW-1	HOH	A-34	XBN	PEST	XPES
							BNAL		
XBN - 46									
	16918	A		GW-1	HOH	A-34	XACD	PEST	XPES
							BNAL		
XBNA - 46									
	16909	A		4	SOIL	A-34	BNAL		
	16910	A		8	SOIL	A-34	BNAL		
	16911	A		9	SOIL	A-34	BNAL		
	16912	A		10	SOIL	A-34	BNAL		
	16913	A		11	SOIL	A-34	BNAL		
	16914	A		12	SOIL	A-34	BNAL		
	16915	A		13	SOIL	A-34	BNAL		
	16916	A		14	SOIL	A-34	BNAL		
	16917	A		15	SOIL	A-34	BNAL		
XPES - 46									
	16918	A		GW-1	HOH	A-34	XACD	XBN	PEST
							BNAL		
	16919	A		4	SOIL	A-34	PEST		
	16920	A		8	SOIL	A-34	PEST		
	16921	A		9	SOIL	A-34	PEST		
	16922	A		10	SOIL	A-34	PEST		
	16923	A		11	SOIL	A-34	PEST		
	16924	A		12	SOIL	A-34	PEST		
	16925	A		13	SOIL	A-34	PEST		
	16926	A		14	SOIL	A-34	PEST		
	16927	A		15	SOIL	A-34	PEST		
XTCB - 46									
	16960	B		11	SOIL	A-34	TCLX	TCLM	TCBN
							TCPS	XTCP	TCHB
							XTCH		
XTCH - 46									
	16960	B		11	SOIL	A-34	TCLX	TCLM	TCBN
							XTCB	TCPS	XTCP
							TCHB		
XTCP - 46									
	16960	B		11	SOIL	A-34	TCLX	TCLM	TCBN
							XTCB	TCPS	TCHB
							XTCH		
ZHE - 43									
	16961	B		11	SOIL	GC/MS	TCLV		

100446

ENVIRONMENT PROTECTION AGENCY
Office of Enforcement

REGI 3
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

CHAIN OF CUSTODY RECORD

PROJ. NO.: R3-7
PROJECT NAME: R3-7

SAMPLERS: (Signature) Sharon E. Stoffer, Lawrence Blythe, Andrew P. Hyatt, Clarence R. Trout

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BNA/Pest./PCB	VOA	TAL Metals	Cyanide	TAL Metals (Filter)		REMARKS (Tag #'s)
TB3A	4/19/90	1025		X	Location TB3A	6	1	2	1	1	1		3-1068400, 195, 96, 97, 98, 99
TB4A	4/19/90	1125		X	Location TB4A	6	1	2	1	1	1		3-1068200, 201, 202, 203, 204, 205
TB1A	4/19/90	1415		X	Location TB1A	6	1	2	1	1	1		3-1068206, 07, 08, 09, 10, 11
TB5B	4/19/90	1500		X	Location TB5B	6	1	2	1	1	1		3-1068212, 13, 14, 15, 16, 17
43	4/19/90	1100		X	Location 43	6	1	2	1	1	1		3-1068218, 19, 20, 21, 22, 23
79	4/19/90	1135		X	Location 79	6	1	2	1	1	1		3-1068224, 25, 26, 27, 28, 29
79A	4/19/90	1000		X	Location 79A	6	1	2	1	1	1		3-1068230, 31, 32, 33, 34, 35
38	4/19/90	1245		X	Location 38	6	1	2	1	1	1		3-1068236, 37, 38, 39, 40, 41
53	4/19/90	1325		X	Location 53	6	1	2	1	1	1		3-1068242, 43, 44, 45, 46, 47
SW-1	4/19/90	1345		X	Location SW-1	5	1	2	1	1			3-1068248, 49, 50, 401, 402.
SW-2	4/19/90	1350		X	Location SW-2	5	1	2	1	1			3-1068403, 4, 5, 6, 7
TB-1	4/19/90	1830		X	Location TB-1	2		2					3-1068408, 9

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Sharon E. Stoffer	~~4/18/90 0000~~ 4/19/90 0000 SES 4/19/90				ORIGINAL (Red)
Relinquished by: (Signature)	Date / Time	Received by: (Signature) J. L. Morrison	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) J. L. Morrison	4/20/90 0900	Remarks: Shipped via Federal Express 4026936082 Airbill # ~~4026936093~~ SES 4/18/90	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

C0447

ORIGINAL

Versar INC.

page: ___

Date: 4/30/90

TOTAL SOLIDS

Project No.: 420.1-4/#25565

Metler Balance Calibration

Zero	0.0000	0.0000
50 mg wt.	0.0500	0.0500
1 gram wt.	1.0000	1.0000
50 gram wt.	49.9987	49.9989

NBS Stand. Ref. Material 16326 T.V. = 98.97%

Sample #	Cruicible Wt. (g)	Crucible + Sample (g)	@105°C Dried Cruc. + Sample (g)	% Solids	~~% H2O~~	Comments
Blank	12.6473	—	12.6472	<10mg/l		(-1mg/l)
Check	13.3092	14.3513	14.3378	98.67		(100% Rec)
43550 16938	12.7655	20.5281	19.1382	82.01	17.9	
43465 16939	13.0152	20.2479	17.4786	61.7	38.3	
43466 16940	12.8396	23.0493	21.0200	80.3	19.7	
43467 16941	12.3051	23.5038	14.8037	22.3	77.7	
43469 16942	12.3745	23.1522	22.5271	94.2	5.8	
43470 16943	12.8758	24.0445	23.3027	93.3	6.7	
43471 16944	13.4624	25.0118	18.0543	39.78	60.2	
43468 16945	14.6172	27.8189	20.4820	44.4	55.6	
43472 16946	12.3449	20.7141	20.1150	92.8	7.2	
	no QC requested!					

Analyst M Anderson

Date 5-7-90

5/8/90

100448

VERSAR, INC.
GCMS INSTRUMENT ID Y
DATE 04/25/90

INJECTION LOG

Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.	
Y1137	T	91				BFB50 ng			21793D			Tunned at		0939				2ul			
Y1138	STD Y1138A	91	CLP			VSTD050	L	W	22536	V	CC 050							5ml		22388 D	
Y1139		91	CLP			VSTD200	L	W	22539	V	IC 200							5ml		22407 A	
Y1140		91	CLP			VSTD150	L	W	22540	V	IC 150							5ml		22407 A	
Y1141		91	CLP			VSTD100	L	W	22541	V	IC 100							5ml		22407 A	
Y1142		91	CLP			VSTD020	L	W	22542	V	IC 020							5ml		22407 A	
Y1143		91	CLP			VBLK43	L	W	VBLK	V	Blank							5ml		22388 D	
Y1144		91	CLP			VBLK44	L	W	VBLK	V	Blank							5ml		22388 D	
Y1145		91	CLP	GC MMT	24 71	26MW20 XXXX	L	W	14891	L		430 .31	64					5ml			1
Y1146		91	CLP	d	d	26MW313 VVV MS	L	W	14893	L					500ul 5ml			5ml	1/10		2
Y1147		91	CLP			26MW313 XXXX	L	W	14893	L									1/10		3
Y1148		91	CLP	GM MAG	24 58	GM99	L	W	14694	L		420	13					5ml			4
Y1149		91	CLP	d	d	GM99	L	W	14698	L								5ml			5
Y1150		d	d	d	d	GM106	L	W	14696	V								5ml			6
Y1151		91	CLP	ARC WAV	24 62	3566	L	W	14765	L		420 .7	61					5ml			2

Y042590A. MSQ = 5PT
Y042590B. MSQ = SAMPLES

Analyst Signature [signature] Date 4-25-90

ORIGINAL (Red)

VERSAR, INC.
GCMS INSTRUMENT ID y
DATE 4/30/90

INJECTION LOG

Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.
y1213		91				50 ng BFB			21793D									2ul		
y1214	T	91				50 ng BFB			21793 D			Tunned at 0919						2ul		
y1215	STD A	91	CLP			VSTD050	L	W	22564	V	CC 150							5ml		22388E
y1216		91	CLP			VBLK16	L	W	VBLK	V	Blank							5ml		22388E
y1217	BLANK	91	CLP			VBLK17	L	W	VBLK	V	Blank							5ml		22388E
y1218		91	CLP	ARC GAIN	2556	3585	L	W	16859A	V		420.7	63					5ml		22388E (1)
y1219		91	CLP			3586	L	W	16860A	V								5ml		22388E (2)
y1220		91	CLP			3587	L	W	16861A	V								5ml		22388E (3)
y1221		91	CLP			3588	L	W	16862A	V								5ml		22388E (4)
y1222		91	CLP			3589	L	W	16863A	V								5ml		22388E (5)
y1223		91	CLP			3586 MS	L	W	16860A	V	MS							5ml		22388E (6) SSH OU
y1224		91	CLP			3586 MSD	L	W	16860A	V	MSD							5ml		22388E (7) SSH OU
y1225		91	CLP	PNSY	2554	5SS52	L	W	16816A	V		420.60	1					5ml		22388E (8)
y1226		91	CLP			5SS54	L	W	16817A	V								5ml		22388E (9)
y1227						5SS54 MS	L	W	[illegible]	V								5ml		(10) SS OU
y1228						5SS54MSD	L	W	16817	V								5ml		(11) SS OU

Analyst Signature [signature] Date 4-30-90

Y043090A.msq

100450

ORIGINAL (Red)

000004

VERSAR, INC.
GCMS INSTRUMENT ID X
DATE 4-30-96

INJECTION LOG

Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.	
Y1229	A	91	CLP	LBFS CDA	25 48	TB-5B	L	W	16710	V		420.1	3					5ml		223 88	12
Y1230		91	CLP	ICP [illegible]	250 21	TMP BLM10	L	W	15712	V		420.58	8					5ml			13
Y1231		91	↓	↓	↓	MW1-GW1	L	W	15711	V		↓	↓		1ml / 5ml			↓	1/5		14
Y1232				ICI	23 16	MW8 GW1			16101	V		420.58	9		50ml / 5ml				1/100		15
~~Y1233~~						~~MW7GW1~~			~~16100~~	~~V~~			~~9~~		~~500ml / 5ml~~				~~1/10~~		
Y1233		91	↓		↓	MW7GW1	L	W	16100	V		↓	↓		1ml / 5ml			5ml	1/5		*
Y1234		91	CLP	↓	↓	MW7GW1	L	W	16100	V		↓	9					5ml		↓	16

(-)04/20/90

Analyst Signature [signature] Date 4-30-90

DILUTED BECAUSE OF FOAMING

000005

VERSAR, INC.
GCMS INSTRUMENT ID Y
DATE 4-30-90

INJECTION LOG

Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.
Y1235	T	91				50 MS BPB			21739			21,39.						2 ml		
Y1236	STD B	91	44			VSTD 50	L	W	22[illegible]	V	LC 50							5 ml		223 28
Y1237	BLANK					VBLK37	L	W	VBLK37	V								5 ml		
Y1238				VETS LDM	2548	TB 4A			16709			420 .1	3							
Y1239						TB 3A			16708											
Y1240						TB 1A			16707 ~~16706~~											
Y1241						TB 1			16706 ~~16707~~											
Y1242						MW 38			16644											
Y1243						MW43			16700											
Y1244						MW53			16701											
Y1245						MW79			16702											
Y1246						MW79A			16703											
Y1247						SW 1			16704											
~~Y1248~~																				

1 2 3 4 5 6 7 8 9 SS# 6 W

ORIGINAL (Red)

Y043090 B.91 & MSQ
(-) 04/20/90

Analyst Signature [signature] Date 4-30-91

00452

000006

VERSAR, INC.
GCMS INSTRUMENT ID Y
DATE 5/1/90

INJECTION LOG

Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.
Y1248	T	91				50 ng BFB			21739D									2ul		
Y1249	STD	91	CLP			VSTD050	L	W	22580	V	CC 050							5ml		22565A
Y1250	BLANK	91	CLP			VBLK50	L	W	VBLK	V	Blank							5ml		22565A
Y1251	**	91	CLP	VERS CDM	2548	SW1	L	W	16704A	V		420.1	3					5ml		22565A (1)
Y1252	MS	91	CLP			SW1MS	L	W	16704A	V	MS							5ml		22565A (2) SS#1 is out
Y1253	MSD	91	CLP			SW1 MSD	L	W	~~16704A~~ 16704A	V	MSD							5ml		22565A (3) SS#1 is out
Y1254		91	CLP			SW2	L	W	16705A	V								5ml		22565A (4) SS#1 is out
Y1255		91	CLP	ES ENV TEX	2605	EWWP 371	L	W	17757A	V		420.51	96					5ml		22565A (4)
Y1256	*	91	CLP	VERS CDM	2565	GW1	L	W	16958A	V		420.1	4					5ml		22565A SS#1 is out
Y1257		91	CLP			TB2	L	W	16959A	V								5ml		22565A (5)
Y1258		91	CLP	VERS CDM	2548	SW2	L	W	16705A	V		420.1	3					5ml		22565A (6)
Y1259		91	CLP	ES ENV TEX	2605	EWWP371MS	L	W	17757A	V	MS	420.51	96					5ml		22565A (7)
Y1260	*	91	CLP			EWWP371MSD	L	W	17757A	V	MSD							5ml		22565A SS#1 out
Y1261		91	CLP	GEM MMAG	2564	RINSE Blank#4	L	W	16906A	V		420.1	20					5ml		22565A (8)
Y1262		91	CLP			TRIP Blank#11	L	W	16907A	V								5ml		22565A (9)
Y1263		91	CLP			GM5B	L	W	16904A	V								5ml		22565A (10)

(+) 04/23/90

Analyst Signature [signature] Date 5-1-90

ORIGINAL (RED)

100453

000007

VERSAR, INC.
GCMS INSTRUMENT ID Y
DATE 5/1/90

INJECTION LOG

8:15

Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.	
Y1264	A	91	CLP	GCM MMAG	2564	GM80B	L	W	16905A	V		420.1	20			100ml / 5ml		5ml	1/50	22565	N1
(+) Y1265	↓	↓	↓	VETS CDM	25 65	GW1	↓	↓	16958			↓	4					↓		↓	12
Y1266	↓	↓	↓	EEAD TEX	2605	EW WB371 MSD	↓	↓	17757			420 51	96					↓		↓	13
Y1267	↓	91	CLP	GMM MAG	2570	TRIP BLK 12	L	W	17198	V		420	21					↓			14
Y1268	↓	91	↓	↓	↓	RINSE BLK 5	L	W	17197	V		↓	↓					↓			15
Y1269	↓	91	↓	↓	↓	GM11B	L	W	17196	V		↓	↓			1ml / 5ml		5ml	1/5		16

Analyst Signature Joe Rehtto Date 5-1-90

Y050190A. MSQ.

100454

VERSAR, INC.
GCMS INSTRUMENT ID 4
DATE 4/30/90

INJECTION LOG

Sectors 28674 Changed septum

	Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.
2	U3425		131				BFB 50ng												2ul		
4	U3426	T	131				BFB 50ng												2ul		
	U3427	A ✓	131	CLP			VSTD 50	L	S	22570	✓	CC-050							5ml		22388
	U3428	✓	131	CLP			VSTD 200	L	S	22573	✓	IC 200							5ml		
	U3429	✓	131	CLP			VSTD 150	L	S	22574	✓	IC 150							5ml		
	U3430	✓	131	CLP			VSTD 100	L	S	22575	✓	IC 100							5ml		
	U3431	✓	131	CLP			VSTD 20	L	S	22576	✓	IC 20							5ml		
	U3432	B	131	CLP			VBLK32	L	S	VBLK32	✓	BLR							5ml		22388
E	U3433		131	CLP	OHM AVTEX	2631	~~V8240~~ CS2-014	L	W ~~S~~	18240	✓	-	420.44.0	4			(25ul/5ml)		5ml	1/200	22388
	U3434	✓	131	CLP			CS2-019	L	W	18241	✓	-					(25ul/5ml)		5ml	1/200	22388
	U3435	✓	131	CLP			CS2-020	L	W	18242	✓	-					(25ul/5ml)		5ml	1/200	22388
	U3436	✓	131	CLP			CS2-021	L	W	18243	✓	-					(25ul/5ml)		5ml	1/200	22388
	U3437	✓	131	CLP			CS2-022	L	W	18244	✓	-					(25ul/5ml)		5ml	1/200	22388
	U3438	✓	131	CLP			CS2-023	L	W	18245	✓	-					(25ul/5ml)		5ml	1/200	22388
	U3439	✓	131	CLP			CS2-014	L	W	18240	✓	-					(200ul/10ml x 50ul/5ml)		5ml	1/5000	22388
B	U3440	✓	131	CLP			CS2-019MS	L	W	18241MS	✓	-					(25ul/5ml spike soln) *		5ml	1/200	22388

*(spike soln) 50ppb CS_2 = 5ul x 200ppm HSL stock # 22571A / 20ml final vol.

Analyst Signature DDrew Date 4-30-90

000004

100455

4050290-.91

VERSAR, INC.
GCMS INSTRUMENT ID U
DATE 05-02-90

INJECTION LOG

Sectors Left 23636

	Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.
1	U3461	T MSG	131				BFB 50ng		tuned		@	7:35							2ul		
	U3462	STD A ✓	MT1 130	CLP			VSTD 50	L	S	22583	V	cc-050							5ml		22388
	U3463	BLANK ✓	131	CLP			VBLK63	L	S	VBLK63	V	BLK							5ml		22388
	U3464	✓	131	CLP	PNSY	2554	5-BH-4-SS-0-2 MSD	L	S	16836MSD	V	MSD	420. 60.0	~~B~~ 1					5g/5ml		22388
NB	U3465	✓	131	CLP	VER SCDM	2565	8	L	S	16950A	V	-	420. 1.0	4					5g/5ml		22388
NB	U3466	✓	131	CLP	VER SCDM	2565	9	L	S	16951A	V	-	420. 1.0	4					5g/5ml		22388
NB	U3467	✓	131	CLP	VER SCDM	2565	10	L	S	16952A	V	-	420. 1.0	4					5g/5ml		22388
	U3468	✓	131	CLP	VER SCDM	2565	14	L	S	16956A	V	-	420. 1.0	4					5g/5ml		22388
	U3469	✓	131	CLP	VER SCDM	2565	11	L	S	16953A	V	-	420. 1.0	4					5g/5ml		22388
	U3470	✓	131	CLP	VER SCDM	2565	12	L	S	16954A	V	-	420. 1.0	4					5g/5ml		22388
	U3471	✓	131	CLP	VER SCDM	2565	13	L	S	16955	V	-	420. 1.0	4					5g/5ml		22388
	U3472	✓	131	CLP	VER SCDM	2565	15	L	S	16957	V	-	420. 1.0	4					5g/5ml		22565
NB ORIG.	U3473	✓	131	CLP	VERS CDM	2565	4	L	S	16949	V	-	420. 1.0	4					1g/5ml	1/5	22565
	U3474	✓	131	CLP	PNSY	2587	13BH3SS02	L	S	17580 DD	V	-	420. 60.0	2					5g/5ml		22565
	U3475		131	CLP	VERS CDM	2565	4	L	S	16949	V	-	420. 1.0	4					5g/5ml		22565
	U3475	✓	131	CLP	PNSY	2587	13BH3SS02 DD	L	S	17580	V	-	420. 60.0	2					5g/5ml		22565

Analyst Signature [signature] Date 5-2-90

ORIGINAL (Red)

100456

VERSAR, INC.
GCMS INSTRUMENT ID U
DATE 5-2-90 cont'd.

INJECTION LOG

U050290B.92/.MSQ

Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.
U3476	A✓	131	CLP	ANSY	2587	13BH35557	L	S	17582A	V	-	420.60 0	2					19/5mL	1/5	22565
U3477		131				BFB 50ng					tuned @ 7:53am							2uL		
U3478	B✓	131	CLP			VSTD50	L	S	22604	V	CC 050							5mL		22565
U3479	✓	131	CLP			VBLK79	L	S	VBLK79	V	BLK							5mL		22565
U3480	✓	131	CLP	ANSY	2587	12BH65502	L	S	17583A	V	-	420.60:0	2					5g/5mL		22565
U3481	✓	131	CLP			12BH65557	L	S	17584A	V	-							5g/5mL		22565
U3482	✓	131	CLP			12BH75502	L	S	17585A	V	-							5g/5mL		22565

Analyst Signature DDrew Date 5-2-90

000009

100457

Sectors Left 12362

VERSAR, INC.
GCMS INSTRUMENT ID 4
DATE 5-8-90

INJECTION LOG

U050890—.91

Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.
U3538		131				BFB 50ng														
U3539	T	131				BFB 50ng			21739	K1		tuned @	8:23					2ul		
U3540	A MSD	131	CLP			VSTD 50	L	S	22644	V	CC-050							5ml		22565
U3541	✓	131	CLP			VSTD200	L	S	22645	V	IC-200							5ml		22407A
U3542	✓	131	CLP			VSTD150	L	S	22647	V	IC-150							5ml		22407A
U3543	✓	131	CLP			VSTD100	L	S	22649	V	IC-100							5ml		22407A
U3544	✓	131	CLP			VSTD20	L	S	22656	V	IC-20							5ml		22407A
U3545	BLANK	131	CLP			VBLK45	L	S	VBLK45	V	BLK							5ml		22565
U3546		131	CLP	PNSY	2587	12-BH6-SS-0-2	L	S	17583	V	-	420.60.0	2				5g	5ml		22565
U3547		131	CLP	PNSY	2587	12-BH6-SS-5-7 MS	L	S	17584MS	V	MS	420.60.0	2				5g	5ml		22565
U3548		131	CLP	PNSY	2587	12-BH6-SS-5-7 MSD	L	S	17584MSD	V	MSD	420.60.0	2				5g	5ml		22565
U3549		131	CLP	PNSY	2587	12-MW4-SS-0-2	L	S	17587	V	-	420.60.	2				5g	5ml		22565
U3550		131	CLP	VBLS CDM	2566	4	L	S	16949	V	-	420.0	4					5g/5ml		22565
U3551		131	CLP			8	L	S	16950	V	-							5g/5ml		22565
U3552		131	CLP			9	L	S	16951	V	-							5g/5ml		22565
U3553		131	CLP			10	L	S	16952	V	-							5g/5ml		22565

C0458

22364

Analyst Signature D Drew Date 5-8-90

VERSAR, INC
GCMS INSTRUMENT ID 4
DATE 5-9-90

INJECTION LOG

Lot 5-9-90 - 11

Lotus Lot 9331

Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.
43558		131				BFB 50ng			21739E	K1		tuned		@	7:48			2ul		
43559	A' MSN ✓	131	CLP			VSTD50	L	S	22664	V	CC-050							5ml		22565
43560		131	CLP			VBLK60	L	S	VBLK60	V	BLK	(ACQ		STOPPED SCAN		AT 7:3		5ml		22565
43561	✓	131	CLP	VERS CDM	2565	4	L	S	16949	V	-	420. 1.0	4					5G/5ML		22565
43562	✓	131	CLP	CHAR AFB	2669	47950	L	S	19042	V	-	420. 1.0	2					5G/5ML		22565
43563	✓	131	CLP	CHAR AFB	2669	47953	L	S	19043	V	-	420. 1.0	2					5G/5ML		22565
43564	✓	131	CLP	CHAR AFB	2669	47956	L	S	19044	V	-	420. 1.0	2					5G/5ML		22565
43565	✓	131	CLP	ENGI ITH	2687	ITHACA GW-2	L	S	19838	V	-	420. 52.0	1					5G/5ML		22565
43566	✓	131	CLP	ENGI ITH	2687	ITHACA GW-3	L	S	19839	V	-	420. 52.0	1					5G/5ML		22565
43567		131	CLP	ENGI TUL	2679	TUL-GW-3	L	S	19857 4 MATRIX	V	-	420. 52.0	1					1G/5ML	1/5	22565
43567	✓	131	CLP	VERS CDM	2565	4	L	S	16949	V	-	420. 1.0	4					5G/5ML		22565
43568		131	~~CLP~~			BFB 50ng			21739E									2ul		
43569		131				BFB 50ng			21739E	K3								2ul		
43570	BMS9	131	CLP	←	—	VSTD50	L	S	22673	CC-050								5ml		22565
43571	✓	↓	↓			VBLK71	L	S	VBLK71									5ml		
43572	✓	↓	↓	ENGI TUL	2679	TUL GW1	L	S	19456	V								5G		

Analyst Signature Joe Petitto Date 5-9-90

000459

000018

VERSAR, INC.
GCMS INSTRUMENT ID 4
DATE 5-10-90

INJECTION LOG

Sectors Lft 6538

Filename	ASCII Filename	Stream ID	Method	Case	SDG	Field Sample ID	Level	Matrix	Versar Sample No.	Frac.	Type	Project	Batch	Dil. F/T	Dil. F/T	Dil. F/T	Ext. Purged	Vol. Purged	Final Dil.	IS No.
MAT 5/10/90 ~~U3578~~				Septum Changed																
U3578	T					BFB 50ng			21793E		tuned	@	8:40					2µl		
U3579	STD	131	CLP			VSTD50	L	S	22674	V	CC-050							5ml		22565
U3580	BLANK	131	CLP			VBLK80	L	S	VBLK80	V	BLK							5ml		22565
U3581		131	CLP	VERS COM	2565	4	L	S	16949	V	-	420. L.D	4					5ml		22565

Analyst Signature DRW Date 5-10-90

1C0460

ORIGINAL

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

2548

REGION 3
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

CHAIN OF CUSTODY RECORD

PROJ. NO.: R3-7
PROJECT NAME: R3-7
SAMPLERS: (Signature) Sharon E. Schaffer, Andrew P. Hyatt, Clam R. Frank

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BNA/Pest./PCB	VOA	TAL Metals	Cyanide	TAL Metals (Filter)		REMARKS (Tag # 's)
TB3A	4/18/90	1025		X	Location TB3A	6	1	2	1	1	1		3-1068400, 195, 96, 97, 98, 99
TB4A	4/18/90	1125		X	Location TB4A	6	1	2	1	1	1		3-1068200, 201, 202, 203, 204, 205
TB1A	4/18/90	1415		X	Location TB1A	6	1	2	1	1	1		3-1068206, 07, 08, 09, 10, 11
TB5B	4/18/90	1500		X	Location TB5B	6	1	2	1	1	1		3-1068212, 13, 14, 15, 16, 17
MW-43	4/19/90	1100		X	Location 43	6	1	2	1	1	1		3-1068218, 19, 20, 21, 22, 23
MW-79	4/19/90	1135		X	Location 79	6	1	2	1	1	1		3-1068224, 25, 26, 27, 28, 29
MW-79A	4/19/90	1200		X	Location 79A	6	1	2	1	1	1		3-1068230, 31, 32, 33, 34, 35
MW-38	4/19/90	1245		X	Location 38	6	1	2	1	1	1		3-1068236, 37, 38, 39, 40, 41
MW-53	4/19/90	1325		X	Location 53	6	1	2	1	1	1		3-1068242, 43, 44, 45, 46, 47
SW-1	4/19/90	1345		X	Location SW-1	5	1	2	1	1			3-1068248, 49, 50, 401, 402.
SW-2	4/19/90	1350		X	Location SW-2	5	1	2	1	1			3-1068403, 4, 5, 6, 7
TB-1	4/19/90	1830		X	Location TB-1	2		2					3-1068408, 9

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Sharon E. Schaffer	~~4/18/90 0000~~ 4/19/90 0000 SES 4/19/90				
Relinquished by: (Signature)	Date / Time	Received by: (Signature) J. L. Morrison	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) J. L. Morrison	Date / Time 4/20/90 0900	Remarks Shipped via Federal Express 4026936082 Airbill # ~~4026936093~~ SES 4/18/90	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 3
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

CHAIN OF CUSTODY RECORD

PROJ. NO.: R3-7
PROJECT NAME: R3-7
SAMPLERS: (Signature) Sharon E. Schaeffer

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNA	PCB/Pest.	TAL Metals	Cyanide		REMARKS Tag #S
4 ~~11~~	4/19/90	1030		X	Location 4	6	2	1	1	1	1		3-1068410, 11, 12, 13, 14, 15
9	4/19/90	1045		X	Location 9	6	2	1	1	1	1		3-1068416, 17, 18, 19, 20, 21
8	4/19/90	1110		X	Location 8	6	2	1	1	1	1		3-1068422, 23, 24, 25, 26, 27
10	4/19/90	1135		X	Location 10	6	2	1	1	1	1		3-1068428, 29, 30, 31, 32, 33
12	4/19/90	1220		X	Location 12	6	2	1	1	1	1		3-1068434, 35, 36, 37, 38, 39
13	4/19/90	1300		X	Location 13	6	2	1	1	1	1		3-1068440, 41, 42, 43, 44, 45
14	4/19/90	1400		X	Location 14	6	2	1	1	1	1		3-1068446, 47, 48, 49, 50, 51
15	4/19/90	1445		X	Location 15	6	2	1	1	1	1		3-1068452, 53, 54, 55, 56, 57
11	4/19/90	0940		X	Location 11	6	2	1	1	1	1		3-1068460, 61, 62, 63, 64 65

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Sharon E. Schaeffer	4/20/90 1200				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		Donald A Sauer	4/23/90 13:30	Shipped via Federal Express Airbill No. 4026936000	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

4 5

REGION 3
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

CHAIN OF CUSTODY RECORD

PROJ. NO.: R3-7
PROJECT NAME: R3-7
SAMPLERS: (Signature) Aaron R. Frantz

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNA/PCB/Pest.	TAL Metals	Cyanide	TAL Metals (Filtered)		REMARKS Tag #'s
GW-1	4/20/90	1115		X	Location GW-1	6	2	1	1	1	1		~~3-1068456, 59~~ 3-1068470, 71, 72, 73, 74, 75
TB-2	4/20/90	1000		X	Location TB-2	2	2						3-1068458, 59

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Sharon E. Schaffer	4/20/90 1200				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Donald A. Sulz	Date / Time 4/23/90 13:30	Remarks Shipped via Federal Express Airbill No. 4026936060	

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